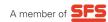
# **CATALOGUE** 2023 24

Birdie®

Blind rivets, blind rivet nuts and riveting tools

Effective 1st October 2022





0



Customer ID		
Your in-house representative	Telephone number	Or extension
Your field sales representative	Telephone number	

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# **Overview**

Please find the detailed table of contents on page 8.

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3 T	<b>Pneumatic blind rivet tools</b> Hydro-pneumatic blind rivet tools
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7 71	<b>Cordless blind rivet nut tools</b> Manual blind rivet nut tools Battery-powered blind rivet nut tools
7 TT 8 T	Manual blind rivet nut tools
_	Manual blind rivet nut tools Battery-powered blind rivet nut tools <b>Pneumatic blind rivet nut tools</b>

# **GESIPA®S NEW PRODUCTS**

### **OUR NEWS AT A GLANCE!**





# **Calibration Device**

For all GESIPA® WinTech tools.



The MultiSwitch switching cabinet system closes the gap between counting devices and process control

131

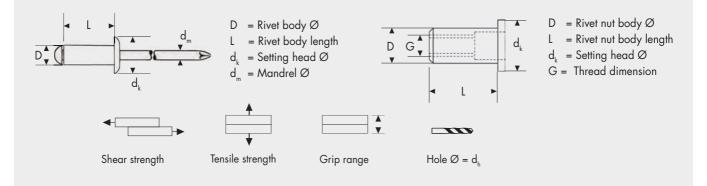




# **CATALOGUE GUIDE**

#### **BLIND RIVET/BLIND RIVET NUT DIMENSIONS** acronyms





#### SYMBOLS FOR BATTERY AND CHARGER

### **Bird tools**



Battery 14.4 V / 2.0 Ah







14 V 14 V **III**>

2 batteries in scope of delivery



**Bird Pro tools** 



CAS battery 18 V Li-Ion / 2.0 Ah





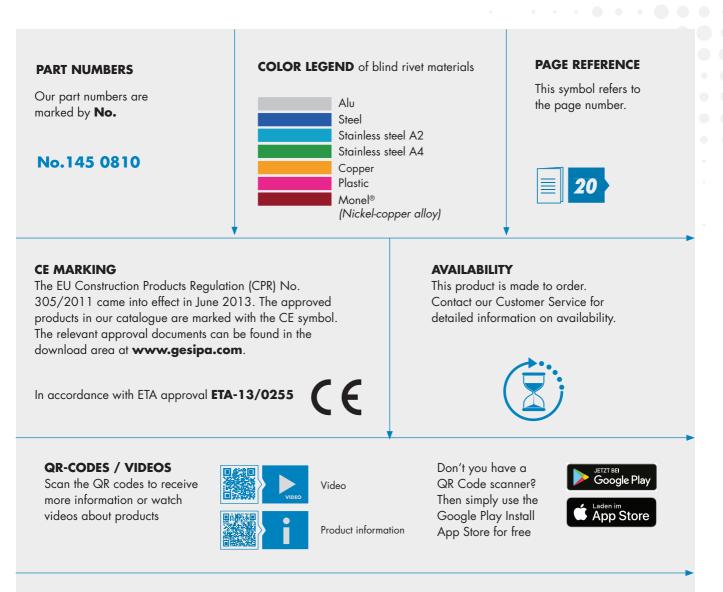


Tool is delivered in a carton



2 batteries in scope of delivery

6



# More dimensions and Types available on request.

We reserve the right to make changes for the entire catalogue.We do not accept liability for errors or misprints. The applicable terms and conditions of guarantee shall apply and can be viewed under following link: https://en.gesipa.de/ service/manufacturers-warranty/



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## PROGRAM BLIND RIVET NUT TECHNOLOGY

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# **GESIPA® – AT A GLANCE**



1955

year of foundation. High standards, the reliability of GESIPA® fasteners, innovative, high-quality setting tools and process-oriented consulting services have made GESIPA® a valuable and valued partner for trade and industry. Family-owned until the end of 2008, GESIPA® is now a member of the international SFS Group.



### PRODUCTION **SITES AROUND THE WORLD**

### **ALWAYS AT YOUR SIDE WITH BRANCHES AND AGENCIES ON ALL CONTINENTS**

# **GESIPA BLINDNIETTECHNIK GMBH**



Application-optimised and cost-effective joining solutions Distribution and Retail (R-DR)

Equipment Manufacturer (R-EM)

Industrial Applications (R-IA)

Automotive Riveting (R-AR)

> Solid Riveting (R-SR)

GESIPA® riveting technology focuses on **five** customer segments. The top priority is the direct relationship with the customer and his specific requirements with the aim of designing application-optimised and cost-effective joining solutions.

All German GESIPA® production locations operate a quality management system certified to IATF 16949



**CUSTOMER PROXIMITY** and **FLEXIBILITY** are certainly given top priority at GESIPA®. The creativity and openness to innovation of all our employees contribute to lasting customer satisfaction and partnership-based cooperation.





### **GESIPA®-SERVICE**

Take advantage of GESIPA® Services – a multitude of services from a single source for a simple and straightforward process.



#### SUSTAINABILITY IS IMPORTANT TO US!

Ergonomics and economical energy consumption are priorities for us in our setting tools.

### MADE IN GERMANY

Tools and fasteners that are Made in Germany. At our three German locations, we manufacture top-quality blind rivets and setting tools for international demand.



### IN THE BEST HANDS AT GESIPA®!

Highly skilled staff, top-level production machines and manufacturing quality controls guarantee fulfilment of our customers' most stringent demands.

# **GESIPA®-SERVICE\***

### GESIPA<sup>®</sup> – Comprehensive range of services from under one roof

#### WORLDWIDE SERVICE

The people at GESIPA® are committed and passionate about providing high-quality, innovative products every day, worldwide. GESIPA® isat your side on every continent through our own sites or our trade partners.

#### **INITIAL SAMPLE INSPECTION (PPAP, VDA 2)**

Initial sample inspection verifies that, prior to the start of series production, the customer requirements agreed upon in the specification as well as other requirements (e.g. legislation, standards) in terms of the product and process are met. The same also applies to the annual re-qualification

#### NEW GESIPA®-REPAIR SERVICE

Further Information to our optimized Repairservice here:



#### **REPAIR SERVICE**

GESIPA® processing tools are manufactured to the highest quality standards. However, should repairs ever become necessary our technicians will provide fast and reliable assistance.



Firmware updates are available on request to keep your processing systems up-to-date, making sure they operate reliably safely and efficiently at all times.

#### FACTORY CALIBRATION

Process-monitored riveting tools are calibrated based on applicable test standards as part of the GESIPA calibration service. The calibration standard used is verified by routine test equipment monitoring. We can also carry out the calibration procedure directly on your premises. \*These services vary specific to country and are based on the service programmes available at the Walldorf/Germany site.

#### **MAINTENANCE & SERVICING AGREEMENTS**

Regular servicing and maintenance are required to ensure processes and production runs smoothly. Servicing and maintenance are the foundation for guaranteeing high availability of your production facilities where downtimes are minimised, thus keeping costs down. These procedures also increase operational safety thereby protecting your personnel.

#### **TECHNICAL TALKS**

Whether in our Demonstration Center, on your premises or at conferences: when it comes to selecting the venue and time we are really flexible. Talks aimed at specific target groups

#### TRAINING

We hold training courses for our customers' staff at our training centres or, if required, on site. The innovative training programme includes training courses on equipment, GAV systems as well as foundation andadvanced courses.

#### **ONLINE-SERVICE** More Infos here:



#### **ONLINE-SERVICE**

GESIPA® uses the Oxomi platform to maintain close ties with our customers. At the POS and across our network, we provide our customers with the latest marketing materials such as brochures, operating instructions, product videos, etc. online and offline via our homepage or mobile app. In addition, most of our products can now also be ordered directly from our authorised trade partners via the **BUY NOW button** on our homepage. Delivery times and prices of the trading partner are displayed with one click.

#### COMMISSIONING

Following the installation of a machine, comprehensive customer service is provided by our resourceful service team. The service team carries out both the commissioning as well as the maintenance of the machine.

# **BLIND RIVET TECHNOLOGY**



# **GESIPA®-BLIND RIVETS**

GESIPA® BLIND RIVETS PROVIDE A LASTING AND SAFE JOINT FOR DIVERSE AND SENSITIVE MATERIALS.

#### **GESIPA® BLIND RIVETS – EFFICIENT TECHNOLOGY**

Life without blind rivet technology from GESIPA® can no longer be imagined in modern industry production where fastening technology is required due to its efficiency and versatility. It combines the advantages of overcoming restricted component accessibility, permanently safe connection of different, and specialised materials, and even documentation of the setting process if required.

Technically speaking, the blind rivet consists of two parts: the rivet body and the mandrel. During screw-connecting, clinching and punch riveting etc. the application must always be accessible on both sides but the special thing about blind riveting is that the application only needs to be accessed from one side.

### GESIPA® BLIND RIVETS – CONNECTIONS THAT LAST

During the setting process, the mandrel is pulled by the jaws of the setting tool and forms the rivet body to the predefined fixed position in the application. The mandrel then breaks off at the intended point (the target breakage point) and can be recycled. The filling cut (this is the remaining rest of mandrel in the rivet body) can provide an additional securing function depending on the application.

#### **GESIPA® BLIND RIVETS - FOR EVERY APPLICATION**

Blind rivets are available in a variety of designs, materials, forms, lengths and even colours. Depending on the task which the blind rivet should fulfil, GESIPA® can choose between a standard model available from stock or a blind rivet specially designed for the application.

### **GESIPA® BLIND RIVETS – A RULE OF THUMB**

Material thickness + rivet diameter = rivet body length

#### Example

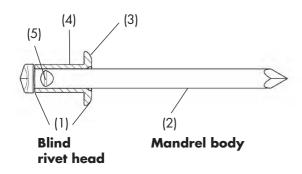
Material: metal sheet 3 mm + metal sheet 3 mm + hole 4 mm = 10 mm rivet body length > blind rivet **4 x 10** 

Representation in the table

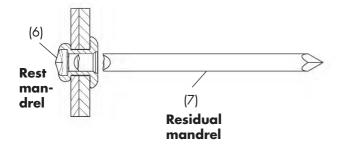
D	D x L	mm	No.
4	4 x 10	5.0 - 6.5	143 3487



### **BLIND RIVET BEFORE SETTING PROCESS**



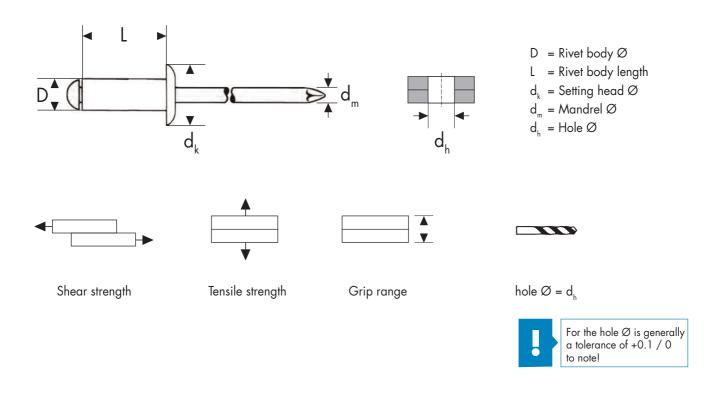
#### **BLIND RIVET AFTER SETTING PROCESS**



### **GESIPA®-BLIND RIVETS – DEFINITIONS**

- The blind rivet consists of two parts: the **blind** rivet head (1) and the mandrel body (2).
- The rivet body consists of the **setting head** (3) and the **shaft** (4).
- The setting head is found on the processing side and is variable in diameter and shape. There are **dome**, **countersunk** and **large flange** versions. The rivet body is available in different lengths depending on the material thickness to be riveted.
- The rivet mandrel is used to deform the rivet body. It contains the **predetermined breaking point** (5) This is where the rivet mandrel breaks after the rivet has deformed.
- The **rest mandrel** (6) is the remaining part of the rivet mandrel in the rivet body. The **residual mandrel** (7) is the part of the rivet mandrel that is disposed of from the set rivet via the blind rivet setting tool.

### **BLIND RIVET- DIMENSIONS /SYMBOLS**



Special challenges in industry demand special solutions with regard to efficiency, function and innovation. GESIPA® has decades of experience in consultancy and development of blind rivets for specific applications. Requirements such as surface treatments, appropriate shear strength and/or tensile strength and setting process reliability are defined by Technical Sales according to the project, and guarantee millions of consistent quality fastenings.

### QUALITY

From the traceability and documentation of the raw materials to the checking of dimensions and tolerances during production, GESIPA® attaches the greatest value to quality. But GESIPA® also goes one decisive step further. For blind rivets for specific applications, thorough functional tests are carried out and documented step-by-step.

### FUNCTIONAL TEST /SETTING CURVE

For every production batch of blind rivets for specific applications, the setting curve is measured on a sophisticated test bench. The measured results of shaft deformation, insertion characteristics, mandrel shear load and tensile force are compared with the target values in order to ensure that the blind rivet forms as intended in the application and produces a secure fastening.

### FUNCTION TESTS/MANDREL PUSH-OUT FORCE (1)

The remaining part of the mandrel enclosed in the set rivet is pushed out. The measured force can be used to determine whether the remaining part of the mandrel is properly locked and will not cause any rattling noises or even fall out. The batch is only released if both these values are within tolerance.

### **MONITORED PROCESS – RELIABLE CONNECTION (2)**

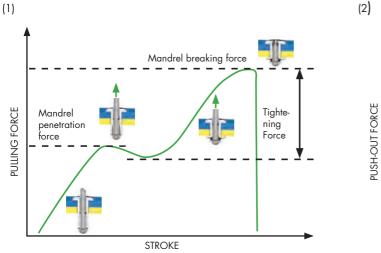
Safety relevant processes in the industrial use of blind rivets make 100% reliability of riveting operations essential. The process-controlled GESIPA® tools enable economic application solutions, from the basic system to systems with barcode scanners and process computers.

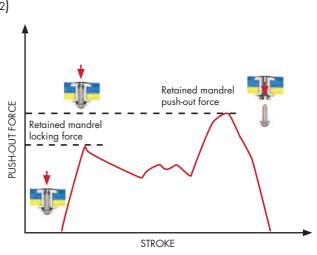
### **ONE FASTENER FOR SEVERAL APPLICATIONS**

The versatility of GESIPA® fasteners often means that several application cases which previously required different fasteners can be served by a single specially designed blind rivet. This saves costs and simplifies handling.

### **COST ADVANTAGES AT A GLANCE**

- Reduction of downstream quality costs due to GESIPA® setting process monitoring
- Reduction of wearing parts costs due to identical parts strategy and modular design of the tools
- Reduction of logistics costs due to multi-functionality of the fasteners and corresponding reduction of parts diversity.





# **CORROSION PROTECTION AND WATERTIGHTNESS**

Our fasteners provide corrosion protection and watertightness to various extents depending on the material chosen. The features of the individual fasteners are shown in the following tables:

Category	Water tightness	Corrosion resistance
STANDARD BLIND RIVE	rs	
Alu/Steel		••
Alu/Stainless steel		•••
Alu/Alu		•••
Steel/Steel		•
Copper/Steel		••
Copper/Bronze		•••
Stainless steel/Stainless steel		••••
Stinox		••
POLYGRIP® BLIND RIVE	rs	
Alu/Steel	**	••
Alu/Stainless steel	**	•••
Steel/Steel		•
Stainless steel/Stainless steel		••••
SolarGrip® with (SolarSeal-coating)	**	••••
CAP® BLIND RIVETS		
Alu/Steel	*	••
Alu/Stainless steel	*	•••
Stainless steel/Stainless steel	*	••••
Copper/Steel	*	••
Copper/Stainless steel	*	•••
SPECIAL BLIND RIVETS		
Painted blind rivets alu/stainless steel		•••
Grooved blind rivets alu/steel		••
Blind rivets thread Steel/Steel		•
Plastic blind rivets (Polyamide)		••••
Peel blind rivets alu/steel		••
Profile clinching rivets alu/steel		••

Category	Water tightness	Corrosion resistance		
HIGH STRENGTH STRU	CTURE BLIND R	RIVETS		
G-Bulb steel/steel		•		
G-Bulb Stainless steel/ stainless steel		•••		
MEGA GRIP® alu/ alu	**	••		
MEGA GRIP® steel/steel	**	•		
Folding Type blind rive	ets			
BULB-TITE® blind rivets alu/alu	*	••		
TRI-FOLD® blind rivets alu/alu		••		
STANDARD AND POLY	GRIP® BLIND R	IVET NUTS		
Alu		•••		
Steel		•		
Stainless steel		••••		
Monel®		• • • •		
BLIND RIVET NUT STUDS				
Steel		•		

\* Fastener is watertight

Joint is wateright when a washer is used

- \*\* Splash-proof
- low
- •• middle
- ••• high
- •••• very high

Further sizes, special surface treatments or materials are available upon request.

# THE APPLICATION-SPECIFIC GESIPA® FASTENING

The basic features of the standard blind rivet are defined by various DIN EN ISO standards. These features primarily involve the geometric dimensions and mechanical properties. Other fastener properties, such as the choice of material and surface coating, are defined very generally by the standards and are left up to the manufacturer. These specifications about the blind rivet features seriously limit the tolerances of the connection parameters and the feasible requirements. Blind rivets that comply with DIN EN ISO standards are always designed for fixed parts.

CUSTOMER REQUIREMENT	GESIPA® SOLUTION
Adaption to rubber, wood, plastic and other materials	Definition of max. / min. tightening value or clamping force
Watertightness	Material + stamping + coating
Accessibility problem	Extended nosepiece in combination with a rivet mandrel extension
Corrosion resistance	Through organic and inorganic surfaces e.g. Zn, ZnNi, Delta Seal, stainless steel A2 and A4 or Monel® Organic Topcoat
No noise	Monitored rest mandrel locking
Tolerance compensation	Borehole diameter larger than DIN
High device and system availability	Device and fastener matched to each other, GESIPA®-general system

# **GESIPA®-FEM SIMULATION**

# EFFICIENT AND CUSTOMER-ORIENTED DEVELOPMENT USING FEM SIMULATION

The Finite Element Method (FEM) works by breaking down a component into a finite number of defined geometric elements. Boundary conditions, such as the application of force and displacement, can be defined for these elements, and the structure's reaction can be calculated by applying physical laws.

The result is the virtual simulation of deformation processes in the production process or the process of setting a joining element.

### BENEFITS

- Simulation integrated into the concept phase
- Efficient, fast and customeroriented development
- Shorter development times
- Reduction of development costs
- Targeted tool design and optimisation
- Avoidance of errors during the production process
- Savings in quality costs



# **BLIND RIVET RANGE**

- » multifunctional
- » resistant
- » application-specific

# **OVERVIEW** of the GESIPA® blind rivet product range



Alυ





34

Stinox



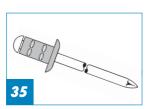
A4 Stainless steel







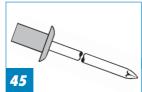
A2 Stainless steel



41

Coloured PolyGrip®





SolarGrip®

NEW



Grooved

PolyGrip®



Profile clinching



BULB-TITE®





G-Bulb



TRI-FOLD®



THE

PolyBulb®

54

61

e-Fast



Peel



MEGA GRIP®





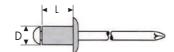
# BLIND RIVETS **ALU/STEEL**

### Standard Dome head

Iluminium alloy

Steel, zinc-plated

_				
D	D x L	mm	No.	
2.4	<b>2.4 x 4</b>	0.5 - 2.0	145 4019	A 1,000
	2.4 x 6	1.5 - 3.5	143 3464	A 1,000
2.5 mm	2.4 x 8	4.0 - 6.0	145 4020	A 1,000
3	3 x 4	0.5 - 1.5	143 3466	A 500
	3 x 5	1.5 - 2.5	143 3467	A 500
3.1 mm	3 x 6	2.5 - 3.5	143 3468	A 500
	3 x 7	3.5 - 4.5	143 3469	A 500
	3 x 8	4.5 - 5.0	143 3470	A 500
	3 x 10	5.0 - 7.0	143 3471	A 500
	3 x 12	7.0 - 9.0	143 3472	A 500
	3 x 14	9.0 - 11.0	145 4022	A 500
	3 x 16	11.0 - 13.0	145 4023	A 500
	3 x 18	13.0 - 15.0	145 4024	A 250
	3 x 20	15.0 - 17.0	145 4025	A 250
	3 x 25	17.0 - 22.0	143 3473	A 250
	3 x 30	22.0 - 26.0	145 4026	A 250
3.2	3.2 x 4	0.5 - 1.5	143 3475	A 500
	3.2 x 6	1,5 - 3,5	143 3476	A 500
3.3 mm	3.2 x 8	3.5 - 5.0	143 3477	A 500
	3.2 x 10	5.0 - 7.0	143 3478	A 500
	3.2 x 12	7.0 - 9.0	143 3479	A 500
	3.2 x 14	9.0 - 11.0	143 3465	A 500
	3.2 x 16	11.0 - 13.0	143 3480	B 500
	3.2 x 18	13.0 - 15.0	143 3483	B 500
	3.2 x 20	15.0 - 17.0	143 3481	B 500
	3.2 x 25	17.0 - 22.0	143 3482	B 500
4	4 x 5	0.5 - 1.5	143 3484	A 500
	4 x 6	1.5 - 3.0	143 3485	A 500
4.1 mm	4 x 7	3.0 - 4.0	145 4028	A 500
	4 x 8	4.0 - 5.0	143 3486	A 500
	4 x 10	5.0 - 6.5	143 3487	A 500
	4 x 12	6.5 - 8.5	143 3488	B 500
	4 x 14	8.5 - 10.5	145 4029	B 500
	4 x 16	10.5 - 12.5	145 4030	B 500
	4 x 18	12.5 - 14.5	145 4031	B 500
	4 x 20	14.5 - 16.5	145 4032	B 500
	4 x 25	16.5 - 21.5	145 4033	B 500
	4 x 30	21.5 - 26.0	145 4034	B 250
	4 x 35	26.0 - 30.0	145 4035	B 250
	4 x 40	30.0 - 35.0	145 4036	B 250



D	D x L	mm	No.	
4.8	4.8 x 6	2.0 - 2.5	143 3493	B 500
	4.8 x 8	2.5 - 4.5	143 3494	B 500
4.9 mm	4.8 x 10	4.5 - 6.0	143 3495	B 500
	4.8 x 12	6.0 - 8.0	143 3496	B 500
	4.8 x 14	8.0 - 10.0	145 4043	B 500
	4.8 x 16	10.0 - 12.0	143 3497	B 500
	4.8 x 18	12.0 - 14.0	145 4044	B 500
	4.8 x 20	14.0 - 15.0	145 4045	B 250
	4.8 x 25	15.0 - 20.0	143 3498	B 250
	4.8 x 30	20.0 - 25.0	143 3499	A 100
5 ( E	5 x 6	2.0 - 2.5	143 3500	B 500
	5 x 8	2.5 - 4.5	143 3501	B 500
5.1 mm	5 x 10	4.5 - 6.0	143 3502	B 500
	5 x 12	6.0 - 8.0	143 3503	B 500
	5 x 14	8.0 - 10.0	145 4048	B 500
	5 x 16	10.0 - 12.0	143 3504	B 500
	5 x 18	12.0 - 14.0	145 4049	B 500
	5 x 20	14.0 - 15.0	145 4050	B 250
	5 x 25	15.0 - 20.0	143 3505	B 250
	5 x 30	20.0 - 25.0	145 4051	A 100
	5 x 35	25.0 - 30.0	145 4052	A 100
	5 x 40	30.0 - 35.0	145 4053	A 100
	5 x 45	35.0 - 40.0	145 4054	B 100
	5 x 50	40.0 - 45.0	145 4055	B 100
	5 x 55	45.0 - 48.0	145 4056	B 100
	5 x 60	48.0 - 52.0	145 4057	B 100
	5 x 65	52.0 - 57.0	145 4058	B 100
	5 x 70	57.0 - 62.0	145 4059	B 100
	5 x 80	62.0 - 72.0	143 3506	B 100
6	6 x 8	2.0 - 3.0	145 4060	B 250
	6 x 10	3.0 - 5.0	145 4061	B 250
6.1 mm	6 x 12	5.0 - 7.0	145 4062	B 250
	6 x 16	7.0 - 11.0	143 3507	B 250
	6 x 18	11.0 - 13.0	145 4064	B 250
	6 x 20	13.0 - 15.0	145 4065	B 250
	6 x 25	15.0 - 20.0	145 4066	B 200
	6 x 30	20.0 - 24.0	145 4067	B 200
	6 x 35	24.0 - 29.0	145 4068	B 100
	6 x 40	29.0 - 34.0	145 4069	B 100
	6 x 50	34.0 - 44.0	143 3508	В 100

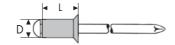
# BLIND RIVETS **ALU/STEEL**

D	D x L	mm	No.	
6.4	6.4 x 12	2.0 - 6.0	145 4070	B 250
	6.4 x 16	6.0 - 10.0	145 4072	"
6.5 mm	6.4 x 20	10.0 - 14.0	145 4073	B 200
	6.4 x 25	14.0 - 18.0	145 4074	"
	6.4 x 30	18.0 - 23.0	145 4075	B 100

### Countersunk (120°)

Aluminium alloy

Steel, zinc-plated



D	D x L	mm	No.	
3	3 x 6	1.5 - 3.5	145 4078	A 500
	3 x 8	3.5 - 5.0	143 3509	п
3.1 mm	3 x 10	5.0 - 7.0	143 3510	п
	3 x 12	7.0 - 9.0	145 4079	п
	3 x 16	9.0 - 13.0	145 4080	н
4	4 x 6	1.5 - 3.0	145 4081	A 500
	4 x 8	3.0 - 5.0	143 3512	п
4.1 mm	4 x 10	5.0 - 6.5	145 4082	п
	4 x 12	6.5 - 8.5	143 3513	B 500
	4 x 16	10.5 - 12.5	143 3514	п
	4 x 20	14.5 - 16.5	145 4083	н

D	D x L	mm	No.	
5	5 x 8	2.0 - 4.5	143 3515	B 500
	5 x 10	4.5 - 6.0	143 3516	п
5.1 mm	5 x 12	6.0 - 8.0	145 4085	H
	5x 16	8.0 - 12.0	145 4086	п
	5 x 18	12.0 - 14.0	145 4084	п
	5 x 20	14.0 - 15.0	145 4087	B 250
	5 x 25	15.0 - 20.0	143 3517	н
	5 x 30	20.0 - 25.0	145 4088	A 100
	5 x 35	25.0 - 30.0	145 4089	II



The information on shear and tensile strength, rivet pin diameters and the maximum setting head diameters can be found on **page 24.** 

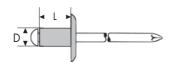
**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs

# BLIND RIVETS **ALU/STEEL**

### Large flange

Aluminium	alloy
 ,	

Steel, zinc-plated



D	D x L	mm	No.	
3.2 -	3.2 x 8	3.5 - 5.0	145 4091	п
K 9.5	3.2 x 10	5.0 - 7.0	145 4092	п
	3.2 x 12	7.0 - 9.0	145 4093	п
3,3 mm	3.2 x 16	9.0 - 13.0	145 4094	B 500
4 -	4 x 6	1.5 - 3.0	145 4095	B 500
K 12	4 x 8	3.0 - 5.0	143 3518	п
	4 x 10	5.0 - 6.5	145 4096	п
4.1 mm	4 x 12	6.5 - 8.5	145 4097	п
	4 x 16	8.5 - 12.5	145 4098	п
	4 x 20	12.5 - 16.5	145 4099	B 250
4.8 -	4.8 x 8	2.5 - 4.5	145 4106	B 250
K 16	4.8 x 10	4.5 - 6.0	145 4107	п
	4.8 x 12	6.0 - 8.0	143 3519	п
4.9 mm	4.8 x 16	8.0 - 12.0	145 4109	II
	4.8 x 20	12.0 - 15.0	145 4111	п
	4.8 x 25	15.0 - 20.0	143 3520	п

D	D x L	mm	No.	
5 -	5 x 8	2.5 - 4.5	143 3521	B 500
К 11	5 x 10	4.5 - 6.0	145 4116	"
	5 x 12	6.0 - 8.0	143 3522	"
5.1 mm	5 x 14	8.0 - 10.0	145 4115	п
CE	5 x 16	10.0 - 12.0	145 4117	"
	5 x 18	12.0 - 14.0	145 4113	B 250
	5 x 20	14.0 - 15.0	145 4118	II
	5 x 25	15.0 - 20.0	145 4119	II
	5 x 30	20.0 - 25.0	145 4120	B 100
5 -	5 x 8	2.5 - 4.5	143 3523	B 250
K 14	5 x 10	4.5 - 6.0	145 4121	II
	5 x 12	6.0 - 8.0	143 3524	"
5.1 mm	5 x 14	8.0 - 10.0	145 4122	"
CE	5 x 16	10.0 - 12.0	145 4123	II
	5 x 18	12.0 - 14.0	145 4124	II
	5 x 20	14.0 - 15.0	145 4125	II
	5 x 25	15.0 - 20.0	145 4126	II
	5 x 30	20.0 - 25.0	145 4127	B 100

### SHEAR AND TENSILE STRENGTH ALU/STEEL standard, counter sunk and large flange

#### **STANDARD**

D mm	N ←		d <sub>m</sub> mm	max. d <sub>k</sub>
2.4	350	450	1.45	5.0
3	700	900	1.8	6.5
3.2	720	950	1.95	6.5
4 x 5-25	1,400	2,000	2.1	8.0
4 x 30-40 ■	850	1,000	2.1	8.0
4.8	1,800	2,700	2.7	9.5
5 x 6 - 35	2,000	2,800	2.7	9.5
5 x 40 - 80	1,400	2,000	2.7	9.5
6	3,100	3,800	3.2	12.0
6.4	3,400	4,600	3.65	13.0
COUNTER SUNK AND	LARGE FLANGE		· · · · ·	
3	700	900	1.8	6.0
4	1,400	2,000	2.1	7.5
5	2,000	2,800	2.7	9.0
3.2 K 9.5 nur Alu/Stahl	720	950	1.95	9.5
4 K 12 nur Alu/Stahl	1,400	2,000	2.1	12.0
4.8 K 16 nur Alu/Stahl	1,800	2,700	2.7	16.0
5 K 11	2,000	2,800	2.7	11.0
5 K 14	2,000	2,800	2.7	14.0

#### Rivet body: AlMgSi

Test procedure according to DIN EN ISO 14589

# BLIND RIVETS **ALU/STAINLESS**

Stainless steel A2

### Standard Dome head

C Aluminium alloy

	I		1	
D	D x L	mm	No.	
3	3 x 4	0.5 - 1.5	145 5036	A 500
	3 x 6	1.5 - 3.5	143 3581	"
3.1 mm	3 x 8	3.5 - 5.0	143 3582	II
	3 x 10	5.0 - 7.0	145 5037	п
	3 x 12	7.0 - 9.0	145 5038	II
	3 x 16	9.0 - 13.0	145 5039	"
3.2	3.2 x 6	1.5 - 3.5	145 5049	п
	3.2 x 8	3.5 - 5.0	145 5044	"
3.3 mm	3.2 x 10	5.0 - 7.0	145 5045	п
	3.2 x 12	7.0 - 9.0	145 5046	"
	3.2 x 14	9.0 - 11.0	144 6433	п
	3.2 x 16	11.0 - 13.0	145 5050	B 500
4	4 x 6	1.5 - 3.0	143 3589	A 500
	4 x 8	3.0 - 5.0	143 3590	"
4.1 mm	4 x 10	5.0 - 6.5	143 3591	п
	4 x 12	6.5 - 8.5	143 3592	B 500
CE	4 x 14	8.5 - 10.5	143 3588	II
	4 x 16	10.5 - 12.5	143 3594	"
	4 x 18	12.5 - 14.5	143 3593	II
	4 x 20	14.5 - 16.5	143 3595	"
	4 x 25	16.5 - 21.5	143 3596	п

	D	
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10.0	ν	

D	D x L	mm	No.	
4.8	4.8 x 8	2.5 - 4.5	145 5040	п
	4.8 x 10	4.5 - 6.0	145 5041	п
4.9 mm	4.8 x 12	6.0 - 8.0	145 5042	п
cc	4.8 x 14	8.0 - 10.0	145 5043	II
CE	4.8 x 16	10.0 - 12.0	143 3584	п
5	5 x 8	2.5 - 4.5	143 3597	B 500
	5 x 10	4.5 - 6.0	143 3598	п
5.1 mm	5 x 12	6.0 - 8.0	143 3599	п
	5 x 14	8.0 - 10.0	143 3600	п
CE	5 x 16	10.0 - 12.0	145 5053	II
	5 x 18	12.0 - 14.0	145 5054	п
	5 x 20	14.0 - 15.0	143 3601	B 250
	5 x 25	15.0 - 20.0	145 5055	п
	5 x 30	20.0 - 25.0	145 5056	A 100
	5 x 35	25.0 - 30.0	145 5057	п
	5 x 40	30.0 - 35.0	143 3602	II

Material surcharge will be added at a daily rate.

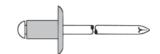
**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs



The information on shear and tensile strength, rivet pin diameters and the maximum setting head diameters can be found on page **26**.

# BLIND RIVETS **ALU/STAINLESS**

Aluminium alloy Stainless steel A2				
D	D x L	mm	No.	
5 -	5 x 8	2.5 - 4.5	143 3605	B 500
K 11	5 x 10	4.5 - 6.0	143 3606	11
	5 x 12	6.0 - 8.0	143 3607	II
5.1 mm	5 x 14	8.0 - 10.0	143 3603	11
CE	5 x 16	10.0 - 12.0	143 3608	"



D	D x L	mm	No.	
5 -	5 x 8	2.5 - 4.5	143 3612	B 250
K 14	5 x 10	4.5 - 6.0	143 3613	II
	5 x 12	6.0 - 8.0	143 3614	II
5.1 mm	5 x 14	8.0 - 10.0	143 3619	"
CE	5 x 16	10.0 - 12.0	143 3615	II
	5 x 18	12.0 - 14.0	143 3620	"
	5 x 20	14.0 - 15.0	143 3616	II
	5 x 25	15.0 - 20.0	143 3617	II
	5 x 30	20.0 - 25.0	143 3618	B 100

Material surcharge will be added at a daily rate.

Large flange

**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs

#### SHEAR AND TENSILE STRENGTH ALU/STAINLESS Standard and large flange

<b>D</b> mm	N •		d_ mm	max. d <sub>k</sub>
3	700	900	1.8	6.5
3.2	720	950	1.95	6.5
4	1,400	2,000	2.1	8.0
4.8	1,800	2,700	2.7	9.5
5	2,000	2,800	2.7	9.5
5 K 11	2,000	2,800	2.7	11.0
5 K 14	2,000	2,800	2.7	14.0

Test procedure according to DIN EN ISO 14589

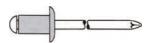
# BLIND RIVETS **ALU/ALU**

### Standard Dome head

	Aluminium	alloy
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Aluminium alloy

D	D x L	mm	No.	
3.2	3.2 x 6.0	1.0 - 3.0	143 3751	A 500
	3.2 x 8.0	3.0 - 5.0	143 3752	п
3.3 mm	3.2 x 10.0	5.0 - 7.0	145 5510	п
4	4 x 6.0	1.0 - 2.5	145 5513	B 500
4.1 mm	4 x 10.0	5.0 - 6.5	143 3753	п

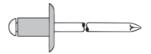


D	D x L mm	mm	No.	
4.8	4.8 x 7.2	1.5 - 3.2	143 3755*	B 500
4.9 mm	4.8 x 10	4.5 - 6.0	143 3756	п
4.9 mm	4.8 x 14	7.5 - 10.0	145 5515	"

### Large flange

Aluminium alloy

Aluminium alloy



D	D x L	mm	No.	
<b>3.2</b> - <b>K 9.5</b>	3.2 x 9.2	3.2 - 6.4	145 5520*	B 500

D	D x L	mm	No.	
4.8 -	4.8 x 10.3	1.5 - 6.4	145 5522	B 250
K 16	4.8 x 13.5	6.4 - 9.5	145 5523	н
4.9 mm	4.8 x 19.9	12.7 - 15.9	145 5525*	п

9.5

16.0

\*Clearance – only while stocks last!

#### **d** mm D max. d<sub>k</sub> Ν Ν mm mm 3.2 850 2.05 500 6.5 4 800 1,020 2.40 8.0 4.8 1,150 1,420 3.0 9.5

660

1,420

1.95

2.9

### SHEAR AND TENSILE STRENGTH ALU/ALU Standard and large flange

530

1,150

Test procedure according to DIN EN ISO 14589

3.2 К 9.5

4.8 K 16

# BLIND RIVETS **STEEL/STEEL**

Standard Dome head

Steel, zinc-plated				
D	D x L	mm	No.	
3	3 x 5	0.5 - 2.0	145 4595	A 500
	3 x 6	2.0 - 3.0	143 3551	II
3.1 mm	3 x 8	3.0 - 5.0	143 3552	п
	3 x 10	5.0 - 6.5	145 4596	"
	3 x 12	6.5 - 8.5	145 4597	н
	3 x 16	8.5 - 12.5	145 4598	в 500
3.2	3.2 x 6	0.5 - 3.0	145 4602	A 500
	3.2 x 8	3.0 - 5.0	143 3553	"
3.3 mm	3.2 x 10	5.0 - 6.5	143 3554	н
	3.2 x 12	6.5 - 8.5	145 4603	"
	3.2 x 16	8.5 - 12.5	145 4604	B 500
	3.2 x 18	12.5 - 14.5	145 4601	"
	3.2 x 20	14.5 - 16.5	145 4605	н
4	4 x 6	0.5 - 2.5	145 4606	A 500
	4 x 8	2.5 - 4.5	143 3555	п
4.1 mm	4 x 10	4.5 - 6.5	143 3556	в 500
	4 x 12	6.5 - 8.5	143 3557	н
	4 x 16	8.5 - 12.0	145 4607	"
	4 x 18	12.0 - 14.0	145 4609	н
	4 x 20	14.0 - 16.0	145 4608	"
	4 x 25	16.0 - 21.0	145 4610	н
4.8	4.8 x 8	2.0 - 4.0	143 3558	в 500
	4.8 x 10	4.0 - 6.0	143 3559	н
4.9 mm	4.8 x 12	6.0 - 8.0	143 3560	"
	4.8 x 16	8.0 - 11.0	143 3561	н
	4.8 x 20	11.0 - 15.0	143 3562	B 250
	4.8 x 25	15.0 - 20.0	145 4612	н



D	D x L	mm	No.	
5	5 x 8	2.0 - 4.0	145 4613	B 500
	5 x 10	4.0 - 6.0	145 4614	II
5.1 mm	5 x 12	6.0 - 8.0	145 4615	п
	5 x 16	8.0 - 11.0	145 4617	II
	5 x 20	11.0 - 15.0	145 4619	B 250
	5 x 25	15.0 - 20.0	145 4620	II
	5 x 30	20.0 - 25.0	145 4621	A 100
	5 x 35	25.0 - 30.0	145 4622	"
	5 x 40	30.0 - 34.0	145 4623	B 100
	5 x 45	34.0 - 39.0	145 4624	B 100
	5 x 50	39.0 - 44.0	145 4625	B 100
6	6 x 10	2.5 - 4.5	145 4626	B 250
	6 x 12	4.5 - 6.5	145 4627	II
6.1 mm	6 x 14	6.5 - 8.5	145 4628	II
	6 x 16	8.5 - 10.5	145 4629	II
	6 x 20	10.5 - 14.5	145 4630	II
	6 x 25	14.5 - 19.5	145 4631	п
6.4	6.4 x 8	1.0 - 3.0	143 3563	B 250
	6.4 x 12	3.0 - 6.0	143 3564	"
6.5 mm	6.4 x 16	6.0 - 9.0	143 3565	II
	6.4 x 20	9.0 - 13.0	143 3566	п
	6.4 x 25	13.0 - 17.0	143 3567	II

# BLIND RIVETS **STEEL/STEEL**

Countersunk (120°)

Steel, Steel, zinc-plated

zinc-	plated		·	
D	D x L	mm	No.	
3	3 x 6	1.0 - 3.0	145 4633	A 500
	3 x 8	3.0 - 5.0	145 4634	II
3.1 mm	3 x 10	5.0 - 6.5	145 4635	п
	3 x 12	6.5 - 8.5	145 4636	п
4	4 x 6	1.5 - 2.5	145 4637	A 500
	4 x 8	2.5 - 4.5	145 4638	II
4.1 mm	4 x 10	4.5 - 6.5	145 4639	B 500
	4 x 12	6.5 - 8.5	145 4640	п
	4 x 16	8.5 - 12.0	145 4641	п



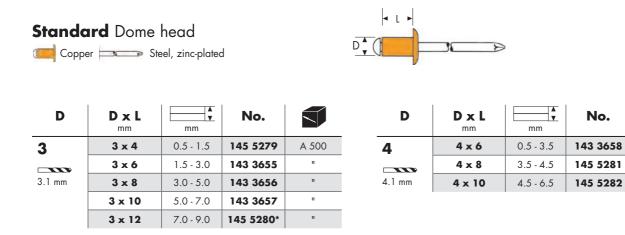
D	D x L	mm	No.	
5	5 x 8	2.0 - 4.0	145 4644	B 500
	5 x 10	4.0 - 6.0	145 4645	"
5.1 mm	5 x 12	6.0 - 8.0	145 4646	п
	5 x 16	9.5 - 11.0	145 4647	II
	5 x 20	11.0 - 15.0	145 4648	B 250
	5 x 25	15.0 - 20.0	145 4649	"

#### SHEAR AND TENSILE STRENGTH STEEL/STEEL Standard and countersunk

<b>D</b> mm	N <b>↓</b>		<b>d</b> _ mm	max. d <sub>k</sub> mm
STANDARD				
3	1,000	1,300	1.95	6.5
3.2	1,200	1,500	2.0	6.5
4	2,000	2,500	2.5	8.0
4.8	2,900	4,000	3.0	9.5
5	3,100	4,400	3.0	9.5
6	4,400	6,000	3.65	12.0
6.4	4,900	6,800	3.85	13.0
COUNTERSUNK				
3	1,000	1,300	1.95	6.0
4	2,000	2,500	2.5	7.5
5	3,100	4,400	3.0	9.0

Test procedure according to DIN EN ISO

# BLIND RIVETS COPPER/STEEL



\*Clearance – only while stocks last!

# BLIND RIVETS COPPER/STEEL

### Standard Dome head

Copper 🖂 Bronze

D	D x L	mm	No.	
3	3 x 4	0.5 - 1.5	145 5289	A 500
	3 x 6	1.5 - 3.0	145 5290	II
3.1 mm	3 x 8	3.0 - 5.0	143 3661	н
	3 x 10	5.0 - 7.0	145 5291	"



D	D x L	mm	No.	
4	4 x 6	0.5 - 3.5	145 5293	A 500
	4 x 8	3.5 - 4.5	145 5294	п
4.1 mm	4 x 10	4.5 - 6.5	145 5295	II

A 500

п

"

#### SHEAR AND TENSILE STRENGTH COPPER/STEEL and COPPER/BRONZE

<b>D</b> mm	N ←+	N +	d <sub>m</sub> mm	max. d <sub>k</sub>
3	800	1,000	1.8	6.5
4	1,500	2,200	2.1	8.0

Test procedure according to DIN EN ISO 14589

# BLIND RIVETS **A2 STAINLESS STEEL**

Stainless steel A2

< L ►	
	 Ð

– Nr. 1.4567				
D	DxL		No.	
U	mm	mm	INO.	
3	3 x 6	1.0 - 3.0	143 3621	A 500
	3 x 8	3.0 - 5.0	143 3622	п
3.1 mm	3 x 10	5.0 - 6.5	145 5157	п
	3 x 12	6.5 - 8.5	145 5158	"
	3 x 14	8.5 - 10.5	145 5159	II
	3 x 16	10.5 - 12.5	145 5160	II
3.2	3.2 x 6	1.0 - 3.0	143 3623	A 500
	3.2 x 8	3.0 - 5.0	143 3624	п
3.3 mm	3.2 x 10	5.0 - 6.5	143 3625	Ш
	3.2 x 12	6.5 - 8.5	143 3626	п
	3.2 x 16	8.5 - 12.5	145 5161	п
4	4 x 6	1.0 - 2.5	143 3627	A 500
	4 x 8	2.5 - 4.5	143 3628	Ш
4.1 mm	4 x 10	4.5 - 6.5	143 3629	B 500
CE	4 x 12	6.5 - 8.5	143 3630	п
	4 x 14	8.5 - 10.5	143 3633	п
	4 x 16	10.5 - 12.0	143 3631	п
	4 x 20	12.0 - 16.0	143 3632	п
	4 x 25	16.0 - 21.0	145 5163	II

D	D x L	mm	No.	
4.8	4.8 x 6	1.5 - 3.0	145 5164	B 500
	4.8 x 8	2.0 - 4.0	143 3634	II
4.9 mm	4.8 x 10	4.0 - 6.0	143 3635	п
CE	4.8 x 12	6.0 - 8.0	143 3636	II
	4.8 x 14	8.0 - 9.5	145 5165	II
	4.8 x 16	9.5 - 11.0	143 3637	II
	4.8 x 20	11.0 - 15.0	143 3638	B 250
	4.8 x 25	15.0 - 20.0	145 5166	B 250
	4.8 x 30	20.0 - 25.0	143 3639	A 100
5	5 x 8	2.0 - 4.0	145 5168	B 500
	5 x 10	4.0 - 6.0	145 5169	п
5.1 mm	5 x 12	6.0 - 8.0	145 5170	II
	5 x 14	8.0 - 9.5	145 5171	п
	5 x 16	9.5 - 11.0	145 5172	11
	5 x 20	11.0 - 15.0	143 3646	B 250
	5 x 25	15.0 - 20.0	143 3647	II
	5 x 30	20.0 - 25.0	143 3648	A 100
	5 x 35	25.0 - 30.0	145 5173	п
	5 x 40	30.0 - 34.0	143 3649	II

Material surcharge will be added at a daily rate.

CE: ETA certification 13/0255 Corresponding approval documents on www.gesipa.com

All sizes on request – also available in bulk packs

### Countersunk (120°)

Standard Dome head

Stainless steel A2

	less steel A2 Ir. 1.4567	<u> </u>	⇒ Stainless	steel A2
D	D x L	mm	No.	
3	3 x 6	1.5 - 3.0	145 5174	A 500

3	0.00	1.5 - 5.0	145 5174	A 300
	3 x 8	3.0 - 5.0	143 3650	"
3.1 mm	3 x 10	5.0 - 6.5	145 5175	п
3.2	3.2 x 6	1.5 - 3.0	145 5177	A 500
	3.2 x 8	3.0 - 5.0	145 5178	п
3.3 mm	3.2 x 10	5.0 - 6.5	145 5179	"



D	D x L	mm	No.	
4	4 x 8	1.5 - 4.5	145 5181	A 500
	4 x 10	4.5 - 6.5	143 3651	B 500
4.1 mm	4 x 12	6.5 - 8.5	143 3652	н
4.8	4.8 x 10	4.0 - 6.0	145 5183	n
4.9 mm	4.8 x 12	6.0 - 8.0	145 5184	п
5	5 x 8	2.0 - 4.0	145 5185	B 500
	5 x 10	4.0 - 6.0	145 5186	н
5.1 mm	5 x 12	6.5 - 8.5	143 3653	II

Material surcharge will be added at a daily rate.

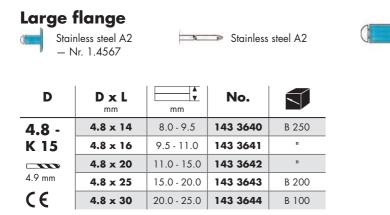


The information on shear and tensile strength, rivet pin diameters and the maximum setting head diameters can be found on **page 32.** 

# BLIND RIVETS **A2 STAINLESS STEEL**



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Material surcharge will be added at a daily rate.

**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs

<b>D</b> mm	N ←→		d <sub>m</sub> mm	max. d <sub>k</sub>
STANDARD / COUNTER	RSUNK			
3	1,600	2,000	2.0	6.5
3.2	1,900	2,500	2.0	6.5
4	2,700	3,600	2.6	8.0
4 x 20 - 25 ■	3,800	4,500	2.6	8.0
4.8	4,000	5,000	3.2	9.5
5	4,700	5,900	3.2	9.5
5 x 40 ■	5,900	7,200	3.2	9.5
LARGE FLANGE				
4.8	4,000	5,000	3.2	15.0

#### SHEAR AND TENSILE STRENGTH A2 STAINLESS STEEL Standard, countersunk and large flange

Hollow rivet stainless steel A2 tube, material no. 1.4301 Test procedure according to DIN EN ISO 14589

# BLIND RIVETS A4 STAINLESS STEEL

Stainless steel A4



P

< L ►

D	D x L	mm	No.	
3	3 x 6	1.0 - 3.0	145 5530	A 500
	3 x 8	3.0 - 5.0	145 5531	II
3.1 mm	3 x 10	5.0 - 6.5	145 5532	п
	3 x 12	6.5 - 8.5	145 5533	II
3.2	3.2 x 6	1.0 - 3.0	143 3761	A 500
	3.2 x 8	3.0 - 5.0	143 3762	п
3.3 mm	3.2 x 10	5.0 - 6.5	143 3763	п
4	4 x 6	1.0 - 2.5	145 5534	A 500
	4 x 8	2.5 - 4.5	143 3764	п
4.1 mm	4 x 10	4.5 - 6.5	143 3765	B 500
CE	4 x 12	6.5 - 8.5	143 3766	п
	4 x 14	8.5 - 10.5	145 5536	"
	4 x 16	10.5 - 12.0	143 3767	"

D	D x L	mm	No.	
4.8	4.8 x 8	3.0 - 4.5	143 3769	II
	4.8 x 10	4.5 - 6.0	143 3770	п
4.9 mm	4.8 x 12	6.0 - 7.5	143 3777	п
CE	4.8 x 16	9.5 - 11.0	143 3772	"
	4.8 x 20	11.0 - 15.0	143 3773	B 250
5	5 x 8	2.0 - 4.0	145 5537	B 500
	5 x 10	4.0 - 6.0	143 3778	п
5.1 mm	5 x 12	6.0 - 8.0	143 3779	"
	5 x 16	8.0 - 11.0	143 3781	п
	5 x 20	11.0 - 15.0	145 5538	B 250
	5 x 25	15.0 - 20.0	143 3782	п
	5 x 30	20.0 - 25.0	143 3783	A 100
	5 x 35	25.0 - 30.0	143 3784	II

Material surcharge will be added at a daily rate.

### Large flange

Stainless steel A4 – Nr. 1.4578

Standard Dome head 📑 Stainless steel A4 – Nr. 1.4578

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Stainless steel A4

D	D x L	mm	No.	
4.8 -	4.8 x 14	8.0 - 9.5	143 3785	B 250
K 15	4.8 x 16	9.5 - 11.0	143 3786	II
	4.8 x 20	11.0 - 15.0	143 3787	н
4.9 mm	4.8 x 25	15.0 - 20.0	143 3788	B 200
CE	4.8 x 30	20.0 - 25.0	143 3789	B 100
	4.8 x 35	25.0 - 30.0	143 3790	II



Material surcharge will be added at a daily rate.

**CE:** ETA certification 13/0255 Corresponding approval documents on www.gesipa.com All sizes on request - also available in bulk packs

#### SHEAR AND TENSILE STRENGTH A4 STAINLESS STEEL Standard and large flange

<b>D</b> mm	Art	N ←	N +	d <sub>m</sub> mm	max. d <sub>k</sub>
3	Standard	1,600	2,000	2.0	6.5
3.2	Standard	1,900	2,500	2.0	6.5
4	Standard	2,700	3,600	2.6	8.0
4.8	Standard	4,000	5,000	3.2	9.5
4.8	Large flange	4,000	5,000	3.2	15.0
5	Standard	4,700	5,900	3.2	9.5

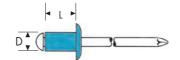
# BLIND RIVETS **STINOX**

Standard Dome head

Stainless steel A2

– Nr. 1.4567					
D	D x L	mm	No.		
3	3 x 6	1.0 - 3.0	145 5297	A 500	
3.1 mm	3 x 8	3.0 - 5.0	145 5298	п	
4	4 x 8	2.5 - 4.5	145 5304	п	
	4 x 10	4.5 - 6.5	145 5305	B 500	
4.1 mm	4 x 12	6.5 - 8.5	145 5306	п	
	4 x 16	8.5 - 12.0	145 5307	п	
5	5 x 8	2.0 - 4.0	145 5311	B 500	
5.1 mm	5 x 10	4.0 - 6.0	145 5312	II	

Steel, zinc-plated



Material surcharge will be added at a daily rate.

#### SHEAR AND TENSILE STRENGTH Standard

<b>D</b> mm	N .		d <sub>m</sub> mm	max. d <sub>k</sub>
3	1,600	2,000	2.0	6.5
4	2,700	3,600	2.6	8.0
5	4,700	5,900	3.2	9.5

Test procedure according to DIN EN ISO 14589

# **POLYGRIP® – A MOST VERSATILE SMALL FELLOW**



The GESIPA® PolyGrip® range of blind rivets, originally meant to be only a multigrip rivet has meanwhile shown other multiple talents. This makes it a favourite choice for difficult and demanding applications in industrial environment. Whether in aluminium, steel or stainless steel, outdoor or indoor, with hard or soft application materials, critical hole diameters and tolerances, when nothing seems to work properly, GESIPA® PolyGrip® will usually save the day.

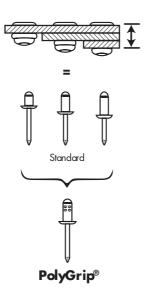
#### **MAIN FEATURES**

• Large grip range:

One single PolyGrip® blind rivet can replace up to five different sizes of standard DIN blind rivets

### Your benefits:

- > Type simplification
- > Limited type variety for reduced stocks
- Lower risk of confusion therefore fewer mistakes in production



• **Outstanding hole filling capability**: The rivet body expands radially during the setting process and compensates hole tolerances, centering deviations and differences in diameter, thus always building up a playfree and tight joint.

• **Safe rest mandrel locking:** PolyGrip<sup>®</sup> blind rivets neither generate rattling noises due to free moving rest mandrels nor do they allow the risk of loss of the rest mandrel.

• **Splash waterproof** are the PolyGrip<sup>®</sup> blind rivets under certain conditions too. Hole filling and rest mandrel locking make of them a real alternative to closed end rivets when it is essential to prevent water flowing through the whole joint and not only through the rivet body.

• A large closing head: for a high tensile and unbuttoning resistance.



# **POLYGRIP®**

▲ L ► D  $\triangleright$ 

	D	D x L	mm	No.	
Alu/steel	3.2	3.2 x 8	0.5 - 5.0	143 3822	B 1,000
Standard		3.2 x 9.5	1.5 - 6.5	143 3823	"
	3.3 mm	3.2 x 11	3.0 - 8.0	143 3824	n
(Dome head)	4.0	4 x 10	0.5 - 6.5	143 3826	B 500
		4 x 13	3.5 - 9.5	143 3827	п
	4.1 mm	4 x 17	7.0 - 13.0	143 3828	"
Aluminium alloy	4.8	4.8 x 10	0.5 - 6.5	143 3831	B 500
Steel, zinc-plated		4.8 x 15	4.5 - 11.0	143 3832	II
	4.9 mm	4.8 x 17	6.5 - 13.0	143 3833	п
	CE	4.8 x 25	11.0 - 19.5	143 3838	B 250
		4.8 x 30	16.0 - 24.0	143 3839	н
	6.4	6.4 x 15	1.5 - 9.0	143 3841	B 250
		6.4 x 20	6.0 - 14.0	143 3842	п
	6.5 mm	6.4 x 25	10.0 - 18.0	143 3843	II

	D	D x L	mm	No.	
Alu/steel	3.2	3.2 x 6	1.0 - 3.0	145 0404	B 1,000
Countersunk (120°)	3.3 mm	3.2 x 10	4.0 - 7.0	145 0405	n
Aluminium alloy Steel, zinc-plated	4.0	4 x 6	1.5 - 3.5	145 0406	в 500
	4.1 mm	4 x 12	3.5 - 8.5	144 6470	n
	4.8	4.8 x 10	2.0 - 5.0	145 0407	B 500

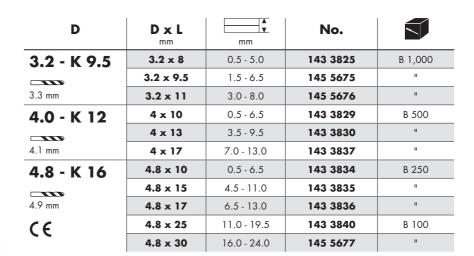
4.9 mm

4.8 x 15

Alu/	<b>'steel</b>
Large	flange



Aluminium alloy Steel, zinc-plated



5.0 - 11.0

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144 6471

L

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# **POLYGRIP®**

# Alu/stainless

Standard

(Dome head)

(188)

Stainless steel A2

Alu/stainless

Aluminium alloy

Stainless steel A2

Large flange

-5

Aluminium alloy

D	D x L	mm	No.	
3.2	3.2 x 8	0.5 - 5.0	143 3883	B 1,000
	3.2 x 9.5	1.5 - 6.5	143 3884	n
3.3 mm	3.2 x 11	3.0 - 8.0	143 3885	п
<b>4.0</b> (€	4 x 10	0.5 - 6.5	143 3887	В 500
	4 x 13	3.5 - 9.5	143 3888	п
4.1 mm	4 x 17	7.0 - 13.0	143 3889	п
<b>4.8</b> (€	4.8 x 10	0.5 - 6.5	143 3892	B 500
	4.8 x 15	4.5 - 11.0	143 3893	п
4.9 mm	4.8 x 17	6.5 - 13.0	143 3894	п
	4.8 x 25	11.0 - 19.5	143 3895	B 250
	4.8 x 30	16.0 - 24.0	143 3896	п
6.4	6.4 x 15	1.5 - 9.0	143 3902	B 250
	6.4 x 20	6.0 - 14.0	143 3903	п
6.5 mm	6.4 x 25	10.0 - 18.0	143 3904	п

Material surcharge will be added at a daily rate.

D	D x L	mm	No.	
3.2 - К 9.5	3.2 x 8	0.5 - 5.0	145 6032	B 1,000
3.3 mm	3.2 x 9.5	1.5 - 6.5	143 3886	"
<b>4.0</b> - C€	4 x 10	0.5 - 6.5	143 3890	B 500
K 12	4 x 13	3.5 - 9.5	143 3891	II
4.1 mm	4 x 17	7.0 - 13.0	145 6034	п
4.8 CE	4.8 x 10	0.5 - 6.5	143 3897	B 250
- K 16	4.8 x 15	4.5 - 11.0	143 3898	п
	4.8 x 17	6.5 - 13.0	143 3899	n
4.9 mm	4.8 x 25	11.0 - 19.5	143 3900	B 100
	4.8 x 30	16.0 - 24.0	143 3901	II

Material surcharge will be added at a daily rate.

**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs

Under certain conditions all GESIPA® PolyGrip® blind rivets are splash waterproof.



The information on shear and tensile strength, rivet pin diameters and the maximum setting head diameters can be found on **page 40**.

# **POLYGRIP®**

# Steel/steel

Steel, zinc-plated

SSteel, zinc-plated

Standard

(Dome head)



D	D x L mm	mm	No.	
3.2	3.2 × 8	1.0 - 5.0	143 3866	B 1,000
	3.2 x 9.5	2.0 - 6.5	143 3867	п
3.3 mm	3.2 x 11	3.0 - 8.0	143 3868	п
4.0	4 x 10	1.5 - 6.5	143 3869	B 500
	4 x 13	4.5 - 9.0	143 3870	п
4.1 mm	4 x 17	8.5 - 13.0	143 3871	п
4.8	4.8 x 10	1.5 - 6.5	143 3873	B 500
	4.8 x 15	6.0 - 11.0	143 3874	B 250
4.9 mm	4.8 x 17	8.5 - 13.0	143 3875	п
6.4	6.4 x 15	2.0 - 8.0	143 3877	B 250
	6.4 x 20	5.0 - 13.0	143 3878	п
6.5 mm	6.4 x 25	10.0 - 18.0	143 3879	B 200

# Steel/steel

Countersunk (120°)



⊳

Steel, zinc-plated Steel, zinc-plated

D	D x L	mm	No.	
3.2	3.2 x 6	1.0 - 3.0	145 0435	B 1,000
3.3 mm	3.2 x 10	3.0 - 7.0	145 0436	п
4.0	4 x 6	1.5 - 3.5	145 0437	B 500
4.1 mm	4 x 12	3.5 - 8.5	144 6482	п
4.8	4.8 x 10	2.0 - 6.0	144 6483	B 500
4.9 mm	4.8 x 15	5.5 - 11.0	144 6484	п

# Steel/steel Large flange



Steel, zinc-plated Steel, zinc-plated

D	D x L	mm	No.	
3.2 - K 9.5	3.2 x 8	1.0 - 5.0	145 5972	B 1,000
	3.2 x 9.5	2.0 - 6.5	145 5973	II
3.3 mm	3.2 x 11	3.0 - 8.0	145 5974	п
4.0 - K 12	4 x 10	1.5 - 6.5	143 3872	B 500
	4 x 13	4.5 - 9.0	145 5975	II
4.1 mm	4 x 17	8.5 - 13.0	145 5976	II
4.8 - K 16	4.8 x 10	1.5 - 6.5	143 3876	B 250
	4.8 x 15	6.0 - 11.0	145 5977	"
4.9 mm	4.8 x 17	8.5 - 13.0	145 5978	п

# **A2 Stainless steel**

Standard

Dome head



D	D x L mm	mm	No.	
3.2	3.2 x 8	1.0 - 5.0	143 3909	B 1,000
	3.2 x 9.5	2.0 - 6.0	145 6288	п
3.3 mm	3.2 x 11	3.0 - 8.0	143 3910	п
4.0	4 x 10	1.0 - 6.5	143 3911	B 500
	4 x 13	3.0 - 8.0	143 3912	п
4.1 mm	4 x 17	7.0 - 11.0	143 3913	"
4.8 (€	4.8 x 10	1.0 - 6.5	143 3914	B 500
	4.8 x 15	5.0 - 10.0	143 3915	II
4.9 mm	4.8 x 17	8.0 - 12.0	143 3916	п
6.4	6.4 x 13	2.0 - 6.5	143 3918	B 250
	6.4 x 15	3.5 - 8.5	143 3917	II
6.5 mm	6.4 x 20	7.0 - 12.5	143 3919	B 200

Material surcharge will be added at a daily rate.

**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs

A4 Stainless steel Standard	D	D x L	mm	No.	
Dome head	<b>3.2</b>	3.2 x 11	3.0 - 8.0	143 3921	в 1,000
Stainless steel A4 - no. 1.4578	<b>4.0</b>	4 x 10	1.0 - 6.5	143 3922	в 500
	4.8	4.8 x 10	1.0 - 6.5	143 3923	II
EDELSTAHL 8	4.9 mm	4.8 x 15	5.0 - 10.0	143 3924	II

Material surcharge will be added at a daily rate.



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> The information on shear and tensile strength, rivet pin diameters and the maximum setting head diameters can be found on **page 40**.

#### SHEAR AND TENSILE STRENGTH POLYGRIP®

D mm	N *		d <sub>m</sub> mm	<b>max. d<sub>k</sub></b> Standard mm	<b>max. d<sub>k</sub></b> large flange mm
ALU/STEEL AND ALU/ST	AINLESS STEEL				
3.2	720	1,050	1.8	6.5	9,5
4.0	1,060	1,680	2.3	8.0	12.0
4.8	1,500	2,300	2.7	9.5	16.0
6.4	2,800	4,000	3.65	13.0	-
STEEL/STEEL					
3.2	1,200	1,600	2.1	6.5	9.5
4.0	1,650	2,400	2.6	8.0	12.0
4.8	2,400	3,200	3.2	9.5	16.0
6.4	4,000	6,100	4.25	13.0	-

<b>D</b> mm	N ←→		d <sub>m</sub>	<b>max. d<sub>k</sub></b> Standard mm
STAINLESS STEEL A2	·	•	·	·
3.2	1,450	2,300	2.2	6.5
4.0	2,650	3,600	2.7	8.0
4.8	4,000	5,000	3.2	9.5
6.4	7,800	8,800	4.25	13.0
STAINLESS STEEL A4			·	
3.2	1,450	2,300	2.2	6.5
4.0	2,650	3,600	2.7	8.0
4.8	4,000	5,000	3.2	9.5

Test procedure according to DIN EN ISO 14589

# **COLOURED BLIND RIVETS**

**Coloured blind rivets, visually** 



GESIPA® blind rivets are also available in colour to match the application. To guarantee the best possible durability the hollow rivets are painted using a twocomponent epoxy resin paint in a stow enamelling process.

In addition to the visual benefits, the painted blind rivet also has added protection against corrosion. Aluminium blind rivets are best suited for this procedure. In the longterm they achieve the desired visual effect when joining coloured parts.

GESIPA® blind rivets are available in the standard RAL colours. On request, steel blind rivets are also available in RAL colours or even special colours. Another method for colouring blind rivets and for protecting them against corrosion is to anodize them. GESIPA® blind rivets are anodized in a direct current sulphuric acid process. The term Eloxal is used to describe the electrolytic oxidation of aluminium. Eloxal itself is actually colourless. Applying a second coat using metal salts creates the desired light-fast colour. The Eloxal method is more complex but is the most durable process for coloured blind rivets.

The range of coloured blind rivets includes 15 RAL colours in ten different dimensions each. The blind rivets are produced in a wet varnish drum process. The colours are similar to the RAL colours.



The information on shear and tensile strength, rivet pin diameters and the maximum setting head diameters can be found on page 40.

# **COLOURED BLIND RIVETS** Polygrip® in Alu/Stainless

Aluminium alloy

stainless steal A2

x = No longer in stock

D	DxL	<b>X</b>	RAL 1015 Light ivory	RAL 3000 Flame red	RAL 5010 Gentian blue	RAL 7011 Iron grey	RAL 7016 Anthracit grey	
mm	mm	mm	No.	No.	No.	No.	No.	
3.2	3.2 x 8	0.5 - 5.0	x	×	x	×	145 0448	B 1000
	3.2 x 9.5	1.5 - 6.5	x	x	x	×	145 0449	B 1000
3.3 mm	3.2 x 11	3.0 - 8.0	×	×	×	×	144 6510	B 1000
<b>4</b> (€	4 x 10	0.5 - 6.5	145 6036	145 6049	145 6057	145 6066	145 6159	B 500
	4 x 13	3.5 - 9.5	145 6037	145 6050	144 6496	145 6067	144 6511	B 500
4.1 mm	4 x 17	7.0 - 13.0	×	×	x	×	145 6160	B 500
4.8 (€	4.8 x 10	0.5 - 6.5	145 6039	145 6051	145 6059	145 6068	145 0450	B 500
	4.8 x 15	4.5 - 11.0	145 6040	145 6052	145 6060	145 6069	145 6161	B 500
4.9 mm	4.8 x 17	6.5 - 13.0	144 6487	145 6053	145 6061	145 0447	145 6162	B 500
	4.8 x 25	11.0 - 19.5	145 6041	145 6054	145 6062	145 6070	144 6512	B 250

D	DxL		RAL 7022 Umbra grey	RAL 7024 Graphite grey	RAL 8014 Sepia brown	RAL 9002 Grey white	RAL 9003 Signal white	
mm	mm	mm	No.	No.	No.	No.	No.	
3.2	3.2 x 8	0.5 - 5.0	x	х	145 6088	145 6096	145 6106	B 1000
	3.2 x 9.5	1.5 - 6.5	x	x	145 6089	x	144 6503	B 1000
3.3 mm	3.2 x 11	3.0 - 8.0	×	x	144 6501	x	145 6107	B 1000
<b>4</b> (€	4 x 10	0.5 - 6.5	145 6074	145 6082	145 6090	145 6099	145 6108	B 500
	4 x 13	3.5 - 9.5	145 6075	145 6083	145 6091	145 6100	145 6109	B 500
4.1 mm	4 x 17	7.0 - 13.0	x	x	145 6092	145 6101	145 6110	B 500
<b>4.8 (€</b> 4.9 mm	4.8 x 10	0.5 - 6.5	x	145 6085	145 6093	145 6102	145 6111	в 500

D	DxL	×	RAL 9005 Jet black	RAL 9006 White aluminium	RAL 9007 Grey aluminium	RAL 9010 Pure white	RAL 9011 Graphite black	
mm	mm	mm	No.	No.	No.	No.	No.	
3.2	3.2 x 8	0.5 - 5.0	145 6114	x	145 6131	145 6140	145 6150	B 1000
	3.2 x 9.5	1.5 - 6.5	145 6115	x	145 6132	145 6141	145 6151	B 1000
3.3 mm	3.2 x 11	3.0 - 8.0	145 6116	144 6505	145 6133	145 6142	145 6152	B 1000
<b>4</b> (€	4 x 10	0.5 - 6.5	145 6117	145 6126	145 6134	145 6143	145 6153	B 500
	4 x 13	3.5 - 9.5	145 6118	144 6506	145 6135	145 6144	145 6154	B 500
4.1 mm	4 x 17	7.0 - 13.0	145 6119	145 6127	144 6508	145 6145	145 6155	B 500
4.8 (€	4.8 x 10	0.5 - 6.5	145 6120	145 6128	145 6136	145 6146	145 6156	B 500
	4.8 x 15	4.5 - 11.0	145 6121	145 6129	145 6137	145 6147	145 6157	B 500
4.9 mm	4.8 x 17	6.5 - 13.0	145 6122	145 6130	145 6138	145 6148	144 6509	B 500
	4.8 x 25	11.0 - 19.5	145 6123	x	145 6139	145 6149	x	B 250

The material surcharge will be added at a daily rate. **CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs



# **SOLARGRIP® – THE SPECIAL RIVET**



IBC SOLAR AG, one of the world's leading global photovoltaic systems integrators, is investing in its cooperation with GESIPA®. GESIPA® has developed a blind rivet for the efficient IBC TopFix 200 assembly system that adequately meets the technical requirements, and has produced it in Germany.

**THE ADVANTAGES ARE CLEAR:** Fast and precise work, as well as tightness against splashing water at the riveting points, result in a durable and safe connection. We recommend using PowerBird® Solar or AccuBird® for quick and easy assembly. IBC Solar and GESIPA®, good connections are unbeatable.

# WHAT OUR CLIENT IBC SOLAR SAYS ABOUT SOLARGRIP®:

"By offering our IBC TopFix 200 assembly system, we provide our customers with an assembly system for pitched roofs that is approved by the building inspectorate and ensures the highest level of flexibility and quality. IBC TopFix 200 is universally usable on any pitched roof and provides solutions for many different Types of roofs. Specially-designed prefabricated module clamps are used for assembly on trapezoidal sheet metal roofs, which helps to save up to 20% of installation time compared to conventional assembly systems. GESIPA® SolarGrip® rivets ensure quick, easy and safe assembly on the metal sheet. The rivet customised to our system and quality requirements guarantees water tightness, a long service life and the highest economic efficiency, and has proved itself in practice millions of times.

Many of our trade partners use **SolarGrip**<sup>®</sup> for convenient assembly of the substructure. The same also goes for the Haude family in Upper Franconia, Germany (see image). In 2015, the Haude family built their house in accordance with the latest energy efficiency principles, with the aim of avoiding primary energy from fossil fuels altogether. At the heart of the energy concept is a 9.7 kWp PV roof system. "To fix the assembly system to the trapezoidal sheet roof, we used pre-assembled clamps with SolarGrip<sup>®</sup> rivets – an impressive solution from our partner GESIPA<sup>®</sup>."



# SOLARGRIP® – THE SPECIAL RIVET

Millions of connections exposed to storms, rain, snow and sunlight on a daily basis are testament to the reliability of GESIPA® SolarGrip® blind rivets

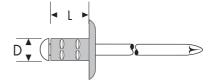
### Speak to us, we will be happy to advise you!



- Matching grip range for many solar applications
- Ideal for working on trapezoid panel roofs
- SolarSeal coating for 4.8 mm rivets
- Riveting of sponge rubber or EPDM washers possible
- Function documentation available on request at extra cost

### SolarGrip® - The basic characteristics

- Large grip range coverage with a single blind rivet
- Wide closing head
- Outstanding hole filling capability
- Compact closing head
- For use with all GESIPA<sup>®</sup> setting tools



# SOLARGRIP® PROGRAM

D		D x L	MATERIAL	mm	N ¥	N N	No.	
4.8 - K 11.4	C€	4.8 x 12.0	Rivet body: Alu AlMg 2.5 (Colour: black) Mandrel: Stainless steel A2 – Nr. 1.4541	3.0 - 5.0	2,300	1,500	143 3905	P 500
5.1-5.2 mm		4.8 x 15.0	Rivet body: Alu AIMg 2.5 (blank) Mandrel: Stainless steel, zinc-plated	5.0 - 8.0	2,300	1,500	143 3906	n
<b>6.4</b> - <b>K 11.4</b>	CE	6.4 x 14.0	Rivet body: Alu AIMg 2.5 (blank) Mandrel: Steel, zinc-plated	3.0 - 8.0	4,000	2,800	145 5678	P 250

Material surcharge will be added at a daily rate

**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs

# **CAP® – CLOSED END BLIND RIVETS**



#### THE STRUCTURE

For technical reasons, the rivet mandrel of the GESIPA® CAP ® blind rivet must be fixed in the rivet body. However this means that the rivet body can only deform slightly during the setting process. As a result, the cap blind rivet only has marginal hole filling capability. However this is necessary to be able to compensate large borehole tolerances.

#### TIGHT CONNECTIONS WITH CARE

The above-mentioned technical situations make careful preparation of the application imperative. The hole diameter should be as tight as possible to ensure a flawless function in the application for a long period.

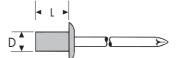
If the GESIPA® CAP® blind rivet is processed carefully, it forms the basis for a reliably "tight" connection.

# Alu/steel Standard



Aluminium alloy Steel, phosphate coated

D	D x L	mm	No.	
3.2	3.2 x 6.5	0.5 - 2.0	143 3423	A 500
	3.2 x 8.0	2.0 - 3.5	143 3424	п
3.3 mm	3.2 x 9.5	3.5 - 5.0	143 3425	н
	3.2 x 10.5	5.0 - 6.5	145 3876	н
	3.2 x 12.5	6.5 - 8.0	145 3877	Ш
4	4 x 8.0	0.5 - 3.5	143 3431	B 500
	4 x 9.5	3.5 - 5.0	143 3432	н
4.1 mm	4 x 11.0	5.0 - 6.5	143 3433	н
	4 x 12.5	6.5 - 8.0	143 3434	II
	4 x 15.0	8.0 - 11.0	145 3878	п



D	D x L	mm	No.	
4.8	4.8 x 8.0	1.0 - 3.5	143 3426	B 500
	4.8 x 9.5	3.5 - 5.0	143 3427	II
4.9 mm	4.8 x 11.0	5.0 - 6.5	143 3428	н
	4.8 x 12.5	6.5 - 8.0	143 3429	II
	4.8 x 14.0	8.0 - 9.5	143 3430	п
	4.8 x 16.0	9.5 - 11.0	145 3879	II
	4.8 x 18.0	11.0 - 13.0	143 3435	п
	4.8 x 21.0	13.0 - 16.0	143 3436	B 250

# Alu/stainless steel Standard

Aluminium alloy
Stainless steel

1

D	D x L	mm	No.	
3.2	3.2 x 6.5	0.5 - 2.0	143 3437	A 500
	3.2 x 8.0	2.0 - 3.5	143 3438	11
3.3 mm	3.2 x 9.5	3.5 - 5.0	143 3439	п
	3.2 x 10.5	5.0 - 6.5	143 3440	II
	3.2 x 12.5	6.5 - 8.0	145 3890	"
4	4 x 8.0	0.5 - 3.5	143 3441	B 500
	4 x 9.5	3.5 - 5.0	145 3891	п
4.1 mm	4 x 11.0	5.0 - 6.5	145 3892	11
	4 x 12.5	6.5 - 8.0	143 3442	п

- I

<b> </b> ◀ L	

D	D x L	mm	No.	
4.8	4.8 x 8.0	1.0 - 3.5	143 3443	B 500
	4.8 x 9.5	3.5 - 5.0	143 3444	н
4.9 mm	4.8 x 11.0	5.0 - 6.5	143 3445	п
	4.8 x 12.5	6.5 - 8.0	143 3446	II
	4.8 x 14.0	8.0 - 9.5	143 3447	п
	4.8 x 16.0	9.5 - 11.0	143 3448	II
	4.8 x 18.0	11.0 - 13.0	143 3449	п
	4.8 x 21.0	13.0 - 16.0	143 3450	B 250

Material surcharge will be added at a daily rate

# A2 stainless steel Standard

	Stainless Steel A2 — no. 1.4301
Ð	Stainless Steel A1

D	D x L	mm	No.	
3.2	3.2 x 6.0	0.8 - 2.0	145 3899	A 500
	3.2 x 8.0	2.0 - 4.0	143 3452	"
3.3 mm	3.2 x 10.0	4.0 - 6.0	145 3900	п
	3.2 x 12.0	6.0 - 8.0	143 3453	"
4	4 x 6.0	0.8 - 1.5	145 3901	A 500
	4 x 8.0	1.5 - 3.5	143 3454	"
4.1 mm	4 x 10.0	3.5 - 5.5	145 3902	B 500
	4 x 12.0	5.5 - 7.5	143 3455	п
	4 x 16.0	7.5 - 11.5	145 3903	"

Material surcharge will be added at a daily rate You have to expect limited jaw life.



EDELSTANL
Rost
fnot
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D	D x L	mm	No.	
4.8	4.8 x 8.0	0.8 - 3.0	143 3456	B 500
	4.8 x 10.0	3.0 - 5.0	143 3457	II
4.9 mm	4.8 x 12.0	5.0 - 7.0	143 3458	п
	4.8 x 16.0	7.0 - 11.0	143 3459	"
	4.8 x 20.0	11.0 - 15.0	143 3460	B 250

47

The information on shear and tensile strength, rivet pin diameters and the maximum setting head diameters can be found on page 47

46 **GESIPA**®

Copper/steel Standard					
	pper alloy el, lightly oiled				
D	D x L	mm	No.		
3.2	3.2 x 6.0	0.5 - 1.5	145 3904	A 500	
	3.2 x 7.5	1.5 - 3.0	145 3905	II	
3.3 mm	3.2 x 9.0	3.0 - 4.5	145 3906	II	
<b>4</b> 4.1 mm	4 x 9.5	1.0 - 4.5	145 3908	A 500	

# Copper/stainless Standard

 $\otimes$

Copper alloy Stainless steel

D	D x L	mm	No.	
3.2	3.2 x 6.0	0.5 - 1.5	145 3913	A 500
	3.2 x 7.5	1.5 - 3.0	145 3914	н
3.3 mm	3.2 x 9.0	3.0 - 4.5	145 3915	II
4	4 x 9.5	1.5 - 4.5	145 0152	B 500
	4 x 11	4.5 - 6.0	145 0153	н
4.1 mm	4 x 12.5	6.0 - 7.5	145 0154	II
	4 x 15	7.5 - 10.5	145 0155	н

Material surcharge will be added at a daily rate

# SHEAR AND TENSILE STRENGTH CAP®-BLIND RIVETS

D mm	N <b>↓</b>		d <sub>m</sub> mm	<b>max. d<sub>k</sub></b> standard mm	
CAP® AL	U/STEEL AND ALU/STA	INLESS STEEL			
3.2	1,100	1,250	1.7	6.5	
4.0	1,600	2,200	2.18	8.5	
4.8	2,230	3,100	2.63	10.0	
CAP®-A2	STAINLESS STEEL				
3.2	2,000	2,200	1.9	6.5	
4.0	3,120	3,560	2.3	8.5	
4.8	4,000	4,400	2.9	10.0	
CAP®-COPPER/STEEL AND COPPER/STAINLESS STEEL					
3.2	980	1,340	1.7	6.0	
4.0	1,350	2,000	2.18	8.5	

Test procedure according to DIN EN ISO 14589

# **SPECIAL BLIND RIVETS**



There are numerous applications that require the use of special blind rivets. For this reason GESIPA® has come up with some variations to meet these requirements.

Grooved blind rivets are suitable for riveting

**pocket** holes in soft materials. They are used in the furniture industry, for interior construction, in the wood and plastics processing industry, in car body construction and lots more. Important: Before processing grooved blind rivets, the borehole diameter must be determined in trials and the minimim borehole depth must be observed.

**Peel blind rivets** are required if soft or porous parts such as wood, hard-fibre, fibreglass or plasterboards need to be joined together. In the setting process, the rivet mandrel falls out of the rivet body, and on the closing head side the rivet mandrel splits the rivet shaft into four parts. These then grip into the material. Typical application fields are the assembly of plastic and wooden elements, caravan constructions and the attachment of interior panels. The blind rivet connection itself is a permanent connection. However to attach further detachable parts, GESIPA® has the **threaded blind rivet** in its range. The threaded blind rivet has a stud bolt with an M5 or M6 outer thread to which other parts can be attached using an additional nut. The GESIPA® blind rivet stud range is listed on page 204 for parts that need greater clamping forces.

The **GESIPA®-clamp profile blind rivet** are excellently suited to comply with defined clearances when mounting parts or to set stoppers in rails. Accordingly, this special rivet is also used in the white goods and furniture industry.

**Plastic rivets** are free from corrosion, do not conduct electricity and do not damage varnished surfaces. They can be processed quickly and easily using GESIPA® manual blind rivet tools and automated riveting tools. The plastic blind rivets can be found in many trade sectors and their versatility makes them an interesting choice for a wide range of application possibilities.

# **SPECIAL BLIND RIVETS**

Steel, zinc-plated					
D	D x L	max. thickness of material to be fixed mm	No.		
3.2	3.2 × 10	6	145 4100	A 500	
3.4 mm	3.2 x 16	12	145 4101	п	
4	4 x 8	4	145 4103	A 500	
	4 x 12	8	145 4104	B 500	
4.3 mm	4 x 16	12	145 4105	п	

Grooved alu/steel Standard (Dome head)

# Threaded steel/steel

Aluminium alloy

Steel, zinc-plated

Steel, zinc-plated 

Thread □────────────────────────────────────	D x L	mm	No.	
M 5 x 10	3 x 6	0.5 - 3.0	145 5326	A 250
M 5 x 15	3 x 9	3.0 - 6.0	145 5327	II

# Plastic Standard (Dome head)

Polyamid, PA 6.6 011 mid DA 4 4 D.L

1

Ð	Polyamid,	PΑ	6.6	

D	D x L mm	mm	No.	
4	4 x 8	0.5 - 5.0	145 5337	B 500
4.1 mm	4 x 12	5.0 - 9.0	145 5338	11
5	5 x 8	0.5 - 5.0	145 5339	B 500
5.1 mm	5 x 12	5.0 - 9.0	145 5340	н

D mm N

Threaded steel/steel

1,100

2,000

3

4

**d**<sub>m</sub> mm

1.95

2.5

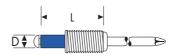
**CHART SHEAR AND TENSILE STRENGTH** 

D mm	N ←→		<b>d</b> _ mm
Groove	d alu/steel		
3.2	720	950	1.95
4	1,400	2,000	2.1
4.8	1,800	2,700	2.7

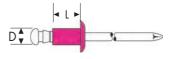
Test procedure according to DIN EN ISO 14589

<ul> <li>L</li> </ul>	

D	D x L	max. thickness of material to be fixed mm	No.	
4.8	4.8 x 10	6	145 4108	B 500
	4.8 x 14	10	145 4110	B 250
5.1 mm	4.8 x 18	13	145 4102	п



Thread	DxL	<b>A</b>	No.	
Gxlmm	mm	mm		
M 6 x 10	4 x 5	1.0 - 2.0	145 5328	A 250
M 6 x 15	4 x 8	2.0 - 5.0	145 5329	п



D	D x L	mm	No.	
6	6 x 8	0.5 - 5.0	145 5341	B 250
6.1 mm	6 x 12	5.0 - 9.0	145 5342	II

D mm	N ← →	<b>d_</b> mm
Plastic	c	
4	180	2.5
5	300	3.0
6	440	3.5

# Peel alu/steel Standard

Rivet body: Aluminium alloy Mandrel: Steel, zinc-plated

\_

D	D x L	mm	No.	
3.2	3.2 x 10	2.5 - 5.0	145 5496	A 500
	3.2 x 12	4.5 - 7.0	143 3748	II
3.6 mm	3.2 x 16	6.5 - 11.0	145 5497	н
4	4 x 8	1.0 - 3.0	145 5490	A 500
	4 x 10	2.5 - 5.0	145 5494	B 500
4.4 mm	4 x 12	4.5 - 6.5	145 5491	н
	4 x 14	6.0 - 8.0	145 5492	п
	4 x 16	7.5 - 10.0	143 3740	п
	4 x 18	9.0 - 12.0	143 3741	н
	4 x 20	11.5 - 14.0	145 5493	n



D	D x L	mm	No.	
4.8	4.8 x 10	2.5 - 5.0	143 3747	B 500
	4.8 x 12	4.5 - 7.0	143 3742	п
5.2 mm	4.8 x 14	6.5 - 9.0	143 3743	B 250
	4.8 x 16	8.5 - 10.0	143 3744	п
	4.8 x 18	9.5 - 12.0	143 3746	п
	4.8 x 20	11.5 - 14.0	143 3745	"
	4.8 x 25	13.5 - 19.0	143 3749	н

### SHEAR STRENGTH

<b>D</b> mm	N ← →	<b>d</b> _m mm	max. d <sub>k</sub>
3.2	700	1.95	6.5
4	1,200	2.5	8.0
4.8	1,700	2.7	9.5

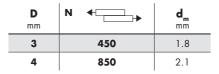
Test procedure according to DIN EN ISO 14589

# Profile clinching rivets alu/steel

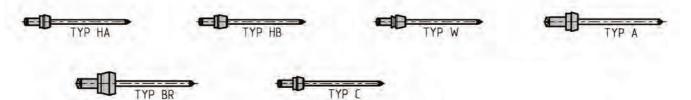
Rivet body: Aluminium alloy Mandrel: Steel, zinc-plated

Profile Typ 3.1 mm	D x L	mm	No.	
HA	3 x 5	1.0 - 2.5	145 3916	A 500
HB	3 x 5	1.0 - 2.5	145 3918	A 500
HB	3 x 7	2.5 - 4.5	145 3919	н
W	3 x 5	1.0 - 2.5	145 3920	A 500
Α	4 x 7	1.0 - 4.0	145 3921	B 500
BR	4 x 7	1.0 - 4.0	145 3922	н
с	4 x 7	1.0 - 4.0	145 3923	н

#### SHEAR STRENGTH



Test procedure according to DIN EN ISO 14589



# **G-BULB BLIND RIVETS**

**G-Bulb – high strength** 



#### **G-BULB BLIND RIVET**

GESIPA® has developed a new range of high strength structural blind rivets called G-Bulb with diameters of 4.8 and 6.4 mm in steel and A2 stainless steel, to fit grip ranges from 1.5 up to 15.5 mm.

The G-Bulb rivet features a wide grip range, together with high shear and tensile strengths generated by the rivet function, the formation of a large closing head and the mechanical lock of the rest mandrel in the rivet body. In combination with the patented function crimping on the rivet body, the G-Bulb provides tight and sealed joints in a large variation of hole sizes.

The G-Bulb rivet generates a large closing head which transfers high strain and clamping load to the application. With a mandrel breakload of max.16 kN, the G-Bulb rivets can be installed with standard tooling.



# **G-BULB – HIGH STRENGTH BLIND RIVETS**

# THE SETTING PROCESS



d

### **MAIN FEATURES**

- Excellent hole filling capability
- High clamping force
- Excellent tensile strength through large closing head
- Excellent shear strength through mandrel locking
- Processing with standard setting tools
- Process control compatible with the TAURUS® C
- RoHS compliant

### MATERIALS

Rivet body: Steel, zinc plated CrVI-free, or stainless steel A2 no. 1.4567, Mandrel: Steel, zinc plated CrVI-free, or stainless steel A2 no. 1.4541

Other surface treatments on request



# Steel/steel Dome head



Steel, zinc-plated Steel, zinc-plated

D	D x L	mm	No.	
<b>4.8</b> (€	4.8 x 10	1.5 - 3.5*	143 3925	B 500
	4.8 x 13	3.5 - 6.0*	143 3926	n
5.0 - 5.2 mm	4.8 x 15	6.0 - 8.0*	143 3927	"
<b>6.4</b> (€	6.4 x 13	2.0 - 4.5*	143 3928	B 250
	6.4 x 17	4.5 - 7.0*	143 3929	II
6.7 - 6.9 mm	6.4 x 20	7.0 - 10.5*	143 3930	B 200
	6.4 x 23	10.5 - 13.0*	143 3931	B 150
	6.4 x 25	13.0 - 15.5*	143 3932	11

Further dimensions and surface treatments on request

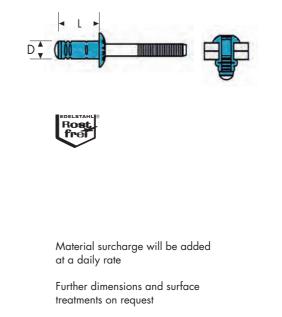
**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs

\*Recommended value, which changes depending on the hole- $\! \varnothing \!$  and the material to be riveted.

# **G-BULB** high strength blind rivets

Stainless steel A2 – no. 1.4567 Stainless steel A2						
D	D x L	mm	No.			
<b>4.8</b> (€	4.8 x 10	1.5 - 3.5*	145 6426	B 500		
	4.8 x 13	3.5 - 5.5*	145 6427	п		
5.0 - 5.2 mm	4.8 x 15	5.5 - 7.5*	143 3936	п		
<b>6.4</b> (€	6.4 x 13	2.0 - 4.0*	143 3937	B 250		
	6.4 x 15	4.0 - 6.0*	143 3938	п		
6.7 - 6.9 mm	6.4 x 17	6.0 - 8.0*	143 3939	п		
	6.4 x 20	8.0 - 10.5*	143 3940	B 200		
	6.4 x 23	10.5 - 12.5*	143 3941	B 150		
	6.4 x 25	12.5 - 14.5*	143 3942	B 150		





\*Recommended value, which changes depending on the hole-Ø and the material to be riveted.

max. d<sub>k</sub>

mm

9.5

9.5

# D N ▲ dmm STEEL/STEEL 4.8 x 10 3,600 3,500 3.2 4.8 x 13 4,000 3,500 3.2

SHEAR AND TENSILE STRENGTH G-BULB

4.8 x 15	5,600	3,500	3.2	9.5
6.4 x 13	8,500	8,000	4.25	13.0
6.4 x 17	10,000	8,000	4.25	13.0
6.4 x 20	11,000	8,000	4.25	13.0
6.4 x 23	11,000	8,000	4.25	13.0
6.4 x 25	11,000	8,000	4.25	13.0

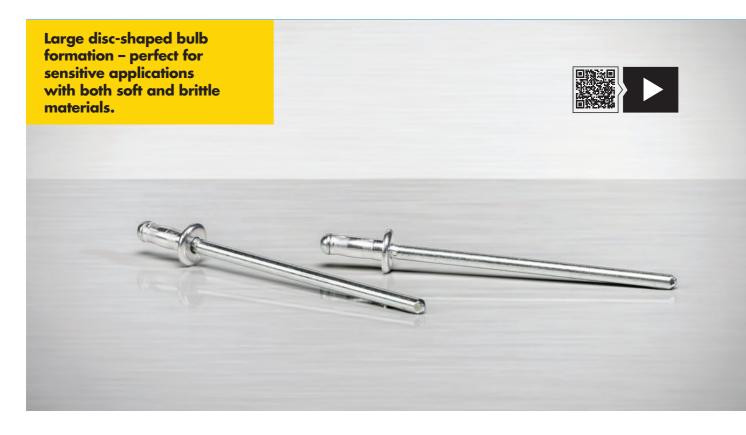
A2 STAINLESS STEEL

4,400	5,400	3.2	9.5
4,550	5,400	3.2	9.5
4,700	5,400	3.2	9.5
8,000	8,800	4.25	13.0
10,000	8,800	4.25	13.0
10,000	8,800	4.25	13.0
11,000	8,800	4.25	13.0
11,000	8,800	4.25	13.0
11,000	8,800	4.25	13.0
	4,550 4,700 8,000 10,000 10,000 11,000 11,000	4,550         5,400           4,700         5,400           8,000         8,800           10,000         8,800           10,000         8,800           11,000         8,800           11,000         8,800	4,550         5,400         3.2           4,700         5,400         3.2           4,700         5,400         3.2           8,000         8,800         4.25           10,000         8,800         4.25           10,000         8,800         4.25           11,000         8,800         4.25           11,000         8,800         4.25

Test procedure according to DIN EN ISO 14589

The specified shear strength is achieved with the rest mandrel in the shear zone. Depending on the application, different forces can be achieved.

# **POLYBULB® BLIND RIVETS**



#### **DISC-SHAPED CLOSING HEAD**

This practical closing head shape evenly distributes the contact pressure over the component, making it the perfect joining element for riveting both soft and brittle components such as plastics and composite materials. The PolyBulb® blind rivet leaves an aesthetic setting appearance.



### LARGE GRIP RANGE

A PolyBulb<sup>®</sup> blind rivet replaces up to 3 conventional blind rivets, thus reducing parts diversity. Combining several dimensions saves handling and storage costs while additionally reducing the risk of mix-up at the workplace and subsequent quality problems.

### **CONTROLLED HOLE FILLING**

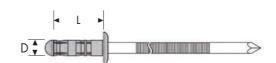
With hole filling capabilities adapted to requirements, the PolyBulb® blind rivet provided an optimum joint.

#### **ADVANTAGES**

- Large grip range
- Disc-shaped closing head with large closing head Ø
- Aesthetic setting appearance, only one distinct closing head
- High tensile strength and detachment force (especially with plastic joining material)
- Controlled hole filling
- Excellent grip properties
- Locked mandrel
- Non-rattling
- Process control capabilities



# **POLYBULB® BLIND RIVETS**



# Alu/steel Dome head

Aluminium alloy		
Steel, zinc-plated		

D	D x L	mm	No.	
4.8	4.8 x 11	1.5 - 6.0 *	145 0473	B 250
4.9 mm - 5.1 mm	4.8 x 16	6.0 - 10.0 *	145 0474	B 250

\*Recommended value, which changes depending on the hole- $\ensuremath{\mathcal{Q}}$  and the material to be riveted.

	D	D x L	mm	No.	
Alu/stainless steel	4.8	4.8 x 11	1.5 - 4.5*	161 9573	B 250
Dome head		4.8 x 16	<b>4.8 x 16</b> 6.0 - 9.0 *	161 9574	B 250
Aluminium alloy	4.9 mm - 5.1 mm	4.0 X 10	0.0 - 7.0	101 7574	0 200
A2 stainless steel					

\*Recommended value, which changes depending on the hole-Ø and the material to be riveted.

# Steel/steel Dome head

		1	
-	-	ν	

	Steel, zinc-plated
Ð	Steel, zinc-plated

D	D x L	mm	No.	
4.8	4.8 x 11	1.5 - 6.0 *	146 4926	B 250
4.9 mm - 5.2 mm	4.8 x 16	6.0 - 10.0 *	146 4925	B 250

\*Recommended value, which changes depending on the hole- $\ensuremath{\mathcal{Q}}$  and the material to be riveted.

### SHEAR AND TENSILE STRENGTH

D mm	N ← →	N +	d <sub>m</sub>	max. d <sub>k</sub>	Test presedure seconding
ALU/STEEL					Test procedure according to DIN EN ISO 14589
4.8 x 11	1 200	1.000	3.0	10.0	
4.8 x 16	1,200	1,900	3.0	10.0	
ALU/STAINLE	SS STEEL				
4.8 x 11	1 000	1.000	3.0	10.0	
4.8 x 16	1,200	1,900	3.0	10.0	
STEEL/STEEL	·				
4.8 x 11	0.700	3,200	2.0	10.0	
4.8 x 16	2,700	3,200	3.0	10.0	

# **MEGA GRIP® BLIND RIVETS**



### MEGA GRIP<sup>®</sup> BLIND RIVETS – PERFECT EFFICIENCY

The GESIPA® MEGA GRIP® is a high strength structure blind rivet with a very large grip range. The variable grip range allows efficient use and, owing to the merging of up to five blind rivet lengths into one MEGA GRIP® dimension, reduces the handling costs.

### THE SETTING PROCESS

During the setting process, the hollow mandrel head presses the rivet body with great force against the rivet hole. The radial deformation here ensures that an aboveaverage, large clamping area is covered. The stable position of the rivet mandrel throughout the entire setting process guarantees compliance with the high shear force through double locking. The excellent hole filling capability also protect ideally against splash-water.

# **STANDARD OR SPECIAL PRODUCTION?**

The GESIPA® MEGA GRIP® is available in a flat Round head or recessed head form and comes in the material combinations alu/alu or steel/steel as standard. Supplied in large or small packages, the MEGA GRIP® is always available in the quantity required. We can supply special dimensions on request.

### THE ADVANTAGES

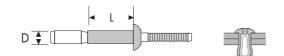
- Perfectly splash proof
- Efficient use with large grip range coverage
- High shear strength due to double rest mandrel locking
- Outstanding hole filling capability
- Flush removal on the setting head without sharp edges.

Please note that to achieve the best possible values from the GESIPA®-MEGA GRIP®, use of special tools/nosepieces is required.

MEGA GRIP® blind rivets are available in small packs, too! Marked with the abbreviation KV.



# **MEGA GRIP® BLIND RIVETS**



		D	D x L	mm	ТҮР	No. GV		No. KV	
Alu/alu	J	4.8	4.8 x 10.0	1.6 - 6.4	RV6900-6-4	143 3805	3,000	143 3808	B 500
Dome hec	bc	4.9 - 5.2 mm	4.8 x 14.0	1.6 - 11.1	RV6900-6-7	145 5654	3,000	143 3809	B 250
	Aluminium alloy Aluminium alloy	6.4	6.4 x 14.1	2.0 - 9.5	RV6900-8-6	143 3806	2,000	143 3810	B 200
		6.6 - 6.9 mm	6.4 x 19.1	2.0 - 15.9	RV6900-8-10XG	143 3807	1,500	143 3811	B 100

		D	D x L	mm	ТҮР	No. GV		No. KV	
Steel/s	steel	4.8	4.8 x 10.0	1.6 - 6.4	RV6977-6-4	143 3812	3,000	143 3816	B 500
Dome head		4.9 - 5.2 mm	4.8 x 14.0	1.6 - 11.1	RV6977-6-7	145 5657	3,000	143 3817	B 250
	Steel, zinc-plated	6.4	6.4 x 14.1	2.0 - 9.5	RV6977-8-6	143 3813	1,500	145 5663	B 200
	Steel, zinc-plated	6.6 - 6.9 mm	6.4 x 19.1	2.0 - 15.9	RV6977-8-10XG	143 3814	1,500	143 3818	B 100

		D	D x L	mm	ТҮР	No. GV		No. KV	
Steel/s		<b>4.8</b> 4.9- 5.2 mm	4.8 x 10.0	2.6 - 6.4	RV6177-6-5	145 5658	2,500	145 5660	B 250
	Steel, zinc-plated Steel, zinc-plated	<b>6.4</b>	6.4 x 15.8	3.0 - 11.1	RV6177-8-7	143 3815*	2,000	145 5662	B 200

\*Clearance – only while stocks last!

#### SHEAR AND TENSILE STRENGTH MEGA GRIP®

<b>D</b> mm	N •	N +	d <sub>m</sub>	max. d <sub>k</sub>
ALU/AI	LU			
4.8	3,280	2,350	2.95	9.5
6.4	5,730	3,840	3.9	12.7
STEEL/S	STEEL			
4.8	6,850	4,500	2.95	9.5
6.4	12,455	8,200	3.9	12.7

Test procedure according to DIN EN ISO 14589

# BULB-TITE® BLIND RIVETS

Strong in demanding applications requiring perfect clamp force and weatherproofness



Originally designed for the construction industry, the GESIPA®-BULB-TITE® rivets have proven their worth in many other application fields thanks to their multi-functional properties. The majority of the BULB-TITE® program has been approved by the "Deutsches Institut für Bautechnik" in Berlin thereby guaranteeing extra security when used in steel constructions or on facades.

#### **POWERFUL WHEREVER USED**

Thanks to the shear zone overlap of the BULB-TITE®rivet mandrel in the application, permanent and very high shear forces can be achieved.

### WEATHER RESISTANCE

The use of a special nosepiece when processing the BULB-TITE<sup>®</sup>-rivet locks the mandrel into the sealing part on the setting head side to prevent dirt and/or damp penetrating the application. The sealing washer, which is available as an optional accessory, offers added protection against wet and damp below the closing head.

### **EXCELLENT CLAMPING FORCE**

The three large pressure plates distribute the clamping forces evenly across a large area of the surface so that even soft, thin, supple or brittle materials can be riveted safely without destroying or damaging the surface.

#### **COMPLEX APPLICATIONS**

BULB-TITE<sup>®</sup>- rivets also guarantee a safe function where other rivets have already given up. The three plates of the closing head adapt and form to fit even curved application surfaces so that safe riveting is possible even on pipes, beads and other unusually formed applications.

### **APPLICATION AREAS**

Fassades, shipbuilding, containers, truck and passenger busses production, trailers, trapezoidal sheet metal roof

#### THE ADVANTAGES

- Large grip range
- Vibration-proof
- Use on straight and curved application parts
- Waterproof with neoprene sealing washer
- Large distirbution of the grip force over a large surface

Please note that to achieve the best possible values from the GESIPA®-BULB-TITE®, use of special tools/ nosepieces is required.

BULB-TITE® blind rivets are available in small packs, too! Marked with the abbreviation KV.

58 **GESIPA**®

**BULB-TITE<sup>®</sup> BLIND RIVETS** 



	D	D x L	mm	ТҮР	No. KV	
<b>Alu/alu</b> Dome head	5.2	5.2 x 19.1	1.6 - 6.4	RV 6604-6-4	145 5606	n
	5.3-5.5 mm CE	5.2 x 17.5	0.5 - 4.8	RV 6604-6-3 W	145 5620	B 250
Aluminium alloy		5.2 x 19.1	1.6 - 6.4	RV 6604-6-4 W	145 5621	п
,	with EPDM washer	5.2 x 22.2	4.7 - 9.5	RV 6604-6-6 W	145 5622	Ш
Aluminium alloy		5.2 x 25.4	7.9 - 12.7	RV 6604-6-8 W	145 5623	н
	<b>7.7</b> (€	7.7 x 27.7	1.0 - 9.5	RV 6603-9-6 W	145 5632	11

\*Clearance – only while stocks last!

	D	D x L	mm	ТҮР	No. KV	
<b>Alu/alu</b> Large flange	<b>7.7 - CE</b> <b>K19</b> 7.8 - 8.2 mm with EPDM washer	7.7 x 27.7	1.1 - 9.5	RV 6605-9-6 W	145 5633	B 100
Aluminium allov		1				

Aluminium alloy Aluminium alloy

**CE:** ETA certification 13/0255 Corresponding approval documents on **www.gesipa.com** All sizes on request – also available in bulk packs

#### SHEAR AND TENSILE STRENGTH BULB-TITE®

D mm	N •	N +	d <sub>m</sub> mm	max. d <sub>k</sub>
ALU/ALU				
4	2,000	1,050	2.4	9.0
5.2	2,700	1,950	2.9	11.7
7.7	6,650	4,850	4.5	15.9
7.7 K19	6,650	4,850	4.5	19.3

Test procedure according to DIN EN ISO 14589

GESIPA° 59

# **TRI-FOLD® FOLDING TYPE BLIND RIVETS**



#### THE FUNCTION

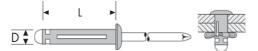
The GESIPA® TRI-FOLD® blind rivet forms three press lashes on the closing head side during setting.

# THE ADVANTAGES

The large moulded lashes distribute the exerted clamping force evenly and gently onto the riveted material. Also, the large surface of the lashes offer excellent protection against the rivet being pulled through very soft, porous or brittle application parts. Thanks to its special design, the TRI-FOLD<sup>®</sup> is also able to compensate over-dimensional or irregular drill hole diameters.

# **APPLICATION AREAS**

TRI-FOLD® blind rivets are excellently suited for the automotive field, e.g. for plastic panelling, car body parts and for the interior work inside vehicles, but also for all other applications that are particularly soft, brittle, easily deformed or porous.



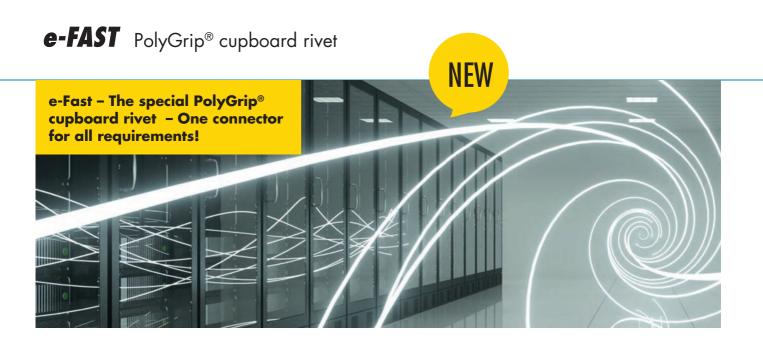
<b>Alu/alu</b> Dome head		D	D x L	mm	ТҮР	No.	
		4.8	4.8 x 16.0	1.0 - 3.0	GAMD64ATF	143 3821	B 250
	ium alloy		4.8 x 20.0	3.0 - 8.50	GAMD66ATF	145 5668	B 250
U	ium alloy	5.1 mm	4.8 x 25.4	7.9 - 12.7	GAMD68ATF	145 5669	B 250

### SHEAR AND TENSILE STRENGTH

<b>D</b> mm	N ←→		d <sub>m</sub> mm	max. d <sub>k</sub>
TRI-FOLD <sup>®</sup> A	lu/Alu			
4.8	1,100	1,400	2.9	10.1

Test procedure according to DIN EN ISO 14589





### The insulating black-coated PolyGrip® was

specially developed for the requirements of technology. Due to the residual mandrel locking, there is no mandrel protrusion when setting and prevents injuries when pulling in cables.

Process engineering systems, machine tools machines or production facilities require a control cabinet and a control panel if the associated electrical and electronic components cannot be accommodated in the machine itself. If the associated electrical and electronic components cannot be accommodated in the machine itself, a control cabinet and a control panel are required. Control cabinets differ in size, weight and design; there are standard models and special designs.



For the assembly of all control cabinets, cable ducts and profile rails must be installed in compliance with the EN 60204-1, Safety of machinery.

# IN PRACTICE, THIS RESULTS IN THE FOLLOWING REQUIREMENTS

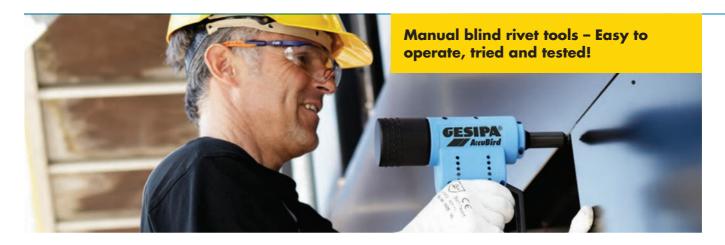
- Cables must not be damaged
- Large head of the connector to cover of long holes
- High load capacity
- No loose residues, chips, residual mandrels
- Large borehole tolerance
- Connector must isolate

### THE ADVANTAGES OF E-FAST

- No rivet mandrel protrusion after setting and therefore no cable damage when pulling in
- Hole cover through large head K11.4
- Residual mandrel locking
- Suitable for large boreholes, up to 5.2 mm
- Large grip range: 3.3 mm 9 mm
- Insulating coated
- Black surface makes it suitable for visual inspection

<b>Alu/steel</b> Standard (Dome head)		D	D x L	mm	No.	
Standara (Dome head)	ara (Dome head)	4.8	4.8 x 15	3.3 - 9.0	171 2694	250
	Aluminium alloy	<b>4.9</b> mm	4.8 x 15	3.3 - 9.0	168 6643	2.500
	Steel, zinc-plated					

# **CORDLESS BLIND RIVET TOOLS**



## **BLIND RIVET HAND TOOLS**





NTS



NTX & NTX-F



Flipper®









SN2

# **BATTERY POWERED BLIND RIVET TOOLS**





Birdie®



AccuBird® Pro

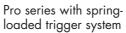


PowerBird® Pro Gold Edition



iBird® Pro



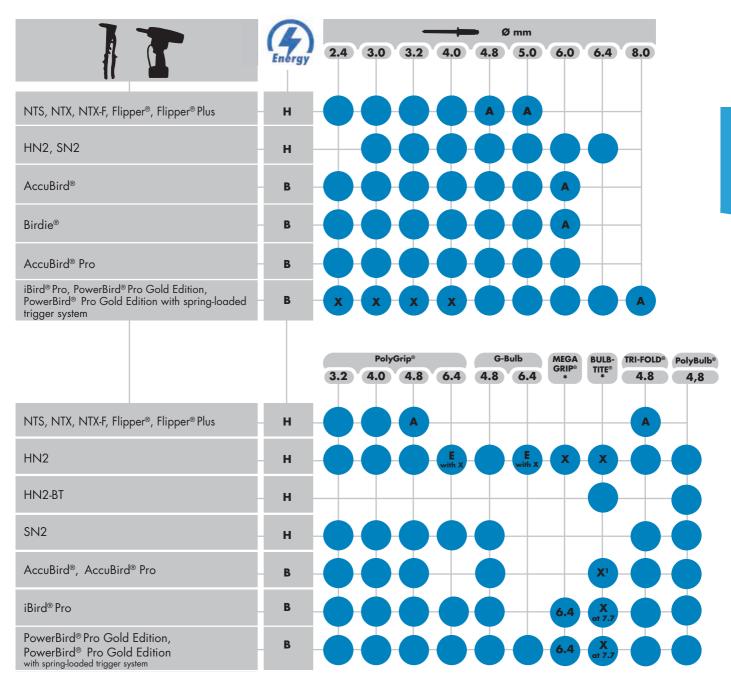




AccuBird<sup>®</sup>



# WHAT RIVETS WHAT?



**H:** Handtool

B: Battery-powered tool
X: Special accessories required
X1: At 6.3 AS
Y: Accessories included in the scope of delivery effectively expand the working range.

A: Alu/Copper

S: Steel

**E:** Stainless Steel / Monel **Blue box:** All materials (ASE) can be riveted. Where there are exceptions, the letters of the rivetable materials are provided directly in the box. \*: A special nosepiece is **always** required when setting MEGA GRIP<sup>®</sup> blind rivets and BULB-TITE<sup>®</sup> blind rivets

# **BLIND RIVET HAND TOOLS**



# TRIED AND TESTED TECHNOLOGY AND QUALITY IN A NEW DESIGN

# NTX & NTX-F



Powder-coated abrasion-resistant housing surface in GESIPA® colour

### HANDLES

- Ergonomically formed handles for working efficiently without fatigue
- Improved haptics by use of softer material
- Non-slip even in oily environments
- Environmentally compatible thanks to PVC-free handles
- Visually upgraded by GESIPA® logo and contrast stripes
- Optimised locking clip

### HOUSING

- Improved performance thanks to newly designed housing
- Powder-coated abrasion-resistant housing surface in GESIPA® colour

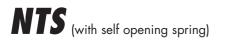
### **Ergonomics**

Ergonomically formed handles for working effi ciently without fatigue

### **ADVANTAGES**

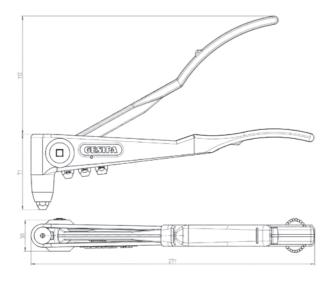
- Simple one-hand operation
- Effortless lever system
- Specially hardened GESIPA® jaw system
- Rugged design and durable
- Equipped with the most commonly used GESIPA<sup>®</sup> nosepieces secured directly on the tool
- Nosepieces quick and easy to change
- Worldwide service and spare parts available for decades to come
- Made in Germany

# **BLIND RIVET HAND TOOLS**





No. 143 4028



Dimensions in mm

# **TECHNICAL DATA**

Weight:	480 g
Total length:	275 mm
Stroke:	8 mm

# WORKING RANGE

Blind rivets up to 5 mm Ø aluminium and 4 mm Ø steel and stainless steel (max. mandrel Ø 3.0 mm)

### **SCOPE OF DELIVERY**

Nosepieces: 10/18, 10/24, 10/27 and 10/32 1 maintenance wrench, operating instructions with spare parts list

### **ADVANTAGES**

- Body casing in high-quality die cast aluminium
- Body head made of forged steel
- Narrow head for difficult to access rivet locations
- Opening spring for automatic ejection of the mandrel
- Ergonomic handles

JAWS (2-PARTS) For NTS, NTX, NTX-F and Flipper®

# No. 143 4071



Nosepiece assignment for NTS, NTX and NTX-F can be found on **page 73**.

# **BLIND RIVET HAND TOOLS**

# NTX



# No. 143 4040

# **TECHNICAL DATA**

Weight:	575 g
Total length:	260 mm
Stroke:	8 mm

### **WORKING RANGE**

Blind rivets up to 5 mm Ø aluminium and 4 mm Ø steel and stainless steel (max. mandrel Ø 3.0 mm)

#### **SCOPE OF DELIVERY NTX**

Nosepieces: 10/18, 10/24 and 10/32 1 maintenance wrench, operating instructions with spare parts list

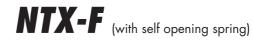
# **SCOPE OF DELIVERY NTX-F**

Nosepieces: 10/24, 10/27 and 10/32 1 maintenance wrench, operating instructions with spare parts list

# **JAWS (2-PARTS)**

For NTS, NTX, NTX-F and Flipper®

# No. 143 4071





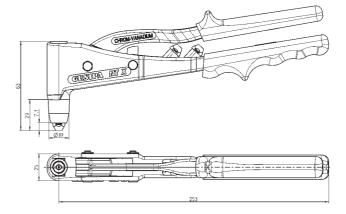
# No. 143 4042

### **ADVANTAGES**

- Body casing in high-quality die cast aluminium
- Body head made of chrome-vanadium steel, forged
- Steel inserts on all bearing points subject to wear
- Intermediate lever system reduces the force
- required and dampens the tear-off effect
- Narrow pliers head for difficult to access rivetlocations
- Ergonomic slip handles
- Simple maintenance fast jaw change

### FURTHER ADVANTAGES NTX-F

• With self opening spring for automatic mandrel ejection



Dimensions in mm

# **FLIPPER**®

The blind rivet hand tool for easy handling with only one hand.

# No. 143 3950

#### **TECHNICAL DATA**

Weight:	750 g
Total length:	221 mm
Total stroke:	16.2 mm
Single action stroke:	1.8 mm

### **WORKING RANGE**

Blind rivets up to 5 mm Ø aluminium and 4 mm Ø steel and stainless steel (max. mandrel Ø 2.8 mm)

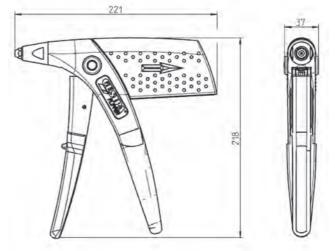
#### **SCOPE OF DELIVERY**

Nosepieces: 10/18, 10/24 and 10/29 1 maintenance wrench (on magazine) Operating instructions with spare parts list

### **ADVANTAGES**

- The force increases when the handle is closed. This is made use of via the special arrangement of the lever when setting blind rivets: ergonomic design
- The required manual force is reduced by around 40 percent if actuated several times.
- Actuation lever with an opening spring for easy single-handed operation
- Jaw mechanism with spring reset for safe and automatic mandrel ejection
- Rivet mandrel collection container can be clipped to the body casing and is easy to empty
- Larger device lift: a benefit when handling extra long blind rivets
- Sturdy body casing in high-quality die cast aluminium
- Sturdy actuation lever made of tempered steel
- Link pin on anti-twist bearings
- Ergonomic lever positions and handle design





Dimensions in mm

# CONVERSION KIT FOR PLASTIC BLIND RIVETS No. 143 3984



Nosepiece assignment for Flipper<sup>®</sup> can be found on **page 73**.

# **SORTIMENT** Blind rivet hand tools

# **RIVETING KIT**

# CONTENTS

Blind rivet hand tool **NTX** and **12 blind rivet sizes**, 1 maintenance wrench. Weight: approx. 3.75 kg Dimensions: 340 x 205 x 40 mm



# No. 143 5457

# Incl.12 blind rivet sizes

Alu/steel	3.0 x 8.0 mm
Alu/steel	3.0 x10.0 mm
Alu/steel	3.0 x12.0 mm
Alu/steel	4.0 x 5.0 mm
Alu/steel	4.0 x 6.0 mm
Alu/steel	4.0 x 8.0 mm
Alu/steel	4.0 x10.0 mm
Alu/steel	4.0 x12.0 mm
Copper/steel	3.0 x 6.0 mm
Copper/steel	4.0 x 6.0 mm
Alu/steel	3.0 x 5.0 mm
Alu/steel	3.0 x 7.0 mm

# JUNIOR RIVETING KIT

#### CONTENTS

Blind rivet hand tool **NTX** and **5 blind rivet sizes**, 1 maintenance wrench. Weight: approx. 2.5 kg Dimensions: 275 x 145 x 40 mm



# !

Now also available as **Junior riveting kit PolyGrip**<sup>®</sup> (Part no. 145 7662) with the sizes  $3.2 \times 8$ ,  $4 \times 10$ ,  $4 \times 17$ ,  $4.8 \times 10$  and  $4.8 \times 17$ .

# JUNIOR RIVETING KIT No. 143 5459

JUNIOR RIVETING KIT POLYGRIP® No. 145 7662

# Incl. 5 blind rivet sizes:

3.0 x 6.0 mm
3.0 x 8.0 mm
4.0 x 6.0 mm
4.0 x10.0 mm
3.0 x 6.0 mm



### CONTENTS

Blind rivet hand tool **Flipper®** and **3 PolyGrip® blind rivet sizes**, in a lightweight plastic carrying case. Weight: approx. 0.9 kg Dimensions: 220 x 200 x 40 mm



# No. 143 3951

# Incl. 3 blind rivet sizes:

PolyGrip<sup>®</sup> Alu/steel 3.2 x 8.0 mm PolyGrip<sup>®</sup> Alu/steel 4.0 x 10.0 mm PolyGrip<sup>®</sup> Alu/steel 4.8 x 10.0 mm

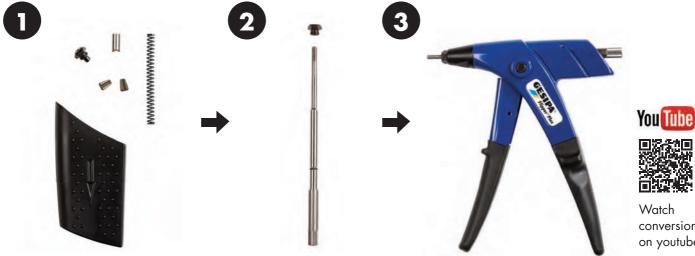


Mini pack refills can be found on page **256**.

# FLIPPER® PLUS Combi setting tool

The combi setting tool for blind rivets and blind rivets nuts!

Converted in under 1 minute in just a few simple steps





1. REMOVAL Remove the parts shown in the image 2. INSTALLATION Install the threaded mandrel and nosepiece

**3. CONVERTED** Converted to a blind rivet nut setting tool



# **ONE SETTING TOOL – TWO FUNCTIONS**

Virtually tool-free conversion from blind rivet to blind rivet nut setting tool

# No. 157 1258

### **TECHNICAL DATA**

Weight:750 gTotal length:217 mmTotal stroke:16.2 mmSingle action stroke:1.8 mm

# **SCOPE OF DELIVERY**

Nosepieces for blind rivets: 12/20, 12/24, 12/29 Nosepieces and threaded mandrels for blind rivet nuts: M4, M5 and M6 1 maintenance wrench, 1 Allen key 1 jaw insertion aid Operating instructions with spare parts list



# WORKING RANGE BLIND RIVETS

Blind rivets up to 5 mm Ø aluminium and 4 mm Ø steel and stainless steel (max. mandrel Ø 2.8 mm)

# **ADVANTAGES WHEN SETTING BLIND RIVETS**

- Jaw mechanism with spring reset for safe and automatic mandrel ejection
- Rivet mandrel collection container can be clipped to the body casing and is easy to empty
- Larger device lift: a benefit when handling extra long blind rivets

# SHARED ADVANTAGES

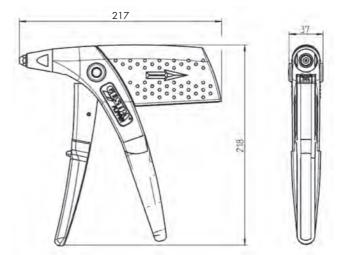
- New ratchet function
- The force increases when the handle is closed. This finding is put to good use in a special lever arrangement for setting blind rivets and blind rivet nuts: ergonomic design
- The required manual force is reduced by around
- 40 percent if actuated several times.
- Actuation lever with an opening spring for easy single-handed operation

# WORKING RANGE BLIND RIVET NUTS

Blind rivet nuts from M4 up to M6 aluminium as well as from M4 up to M5 steel

# ADVANTAGES WHEN SETTING BLIND RIVET NUTS

- The total stroke is 16.2 millimeter long for setting of new generation multigrip blind rivet nuts like the GESIPA® PolyGrip® blind rivet nuts
- Simplified setting procedure for blind rivet nuts



Dimensions in mm

# **LEVER RIVETING TOOLS**





### **TECHNICAL DATA**

Weight: 1.85 kg Total length: 570 mm Stroke: 10 mm

### **WORKING RANGE**

Blind rivets from 3.0 to 6.4 mm Ø all materials, except PolyGrip<sup>®</sup> blind rivets with 6.4 mm Ø made of stainless steel and G-Bulb blind rivets (max. mandrel Ø 4.3 mm)

### **SCOPE OF DELIVERY**

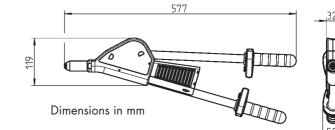
Nosepieces: 16/29, 16/32, 16/36, 16/40 and 16/45 Spent mandrel container Maintenance instructions with spare parts list

# JAWS (3 PARTS)

No. 143 4103

# **ADVANTAGES**

- Pliers casing in high-quality die cast aluminium, its sturdy design protects it against soiling
- Link pin on anti-twist bearings and with inner axial protection, wear-proof and smooth running
- Tooth segment transmission with favourable lever arm arrangement reduces the force required and dampens the tear-off effect
- Fixed casing lever and ergonomic handle design: simple and easy handling



# HN2-BT No. 145 6714

(only for BULB-TITE® see page 56)

### **TECHNICAL DATA**

Weight:1.85 kgTotal length:570 mmStroke:10 mm

#### **WORKING RANGE**

Blind rivets up to 7.7 mm Ø all materials (max. mandrel Ø 4.5 mm)

### **SCOPE OF DELIVERY**

Nosepieces: 16/26 BT, 16/32 BT, 16/42 BT and 16/48 BT Spent mandrel container Maintenance instructions with spare parts list

# JAWS (3 PARTS)

No. 143 4173

- Actuation lever: repeated re-engagement very easy, even on workpiece; highly beneficial for oversized blind rivets
- Gear rack: supported on a brass plate; smooth running
- Rivet mandrel collection tank: swivel-mounted to the casing; can be emptied easily and safely

**73** 

Nosepieces and performance see page 73.

## LAZY TONG RIVETING TOOL





# **SN2** No. 145 6674

## **TECHNICAL DATA**

Weight: Length when closed: Length when opened: Stroke: 1.93 kg 310 mm 810 mm 10.5 mm

## **WORKING RANGE**

Blind rivets from 3.0 up to 6.4 mm Ø all materials G-Bulb blind rivets up to 4.8 mm Ø. (max. mandrel Ø 4.3 mm)

#### **SCOPE OF DELIVERY**

Nosepieces for Ø 3.2 mm, 4.0 mm, 4.8 mm, 6.0 mm and 6.4 mm, 1 maintenance wrench, Operating instructions with spare parts list

#### **ADVANTAGES**

- Pliers casing and handle in high-quality die cast aluminium
- Shear system in high strength steel, galvanised
- Moulded handle double bearing
- Narrow casing for difficult to access rivets
- Enclosed pliers casing prevents soiling
- Favourable lever arm arrangement with 4-joint slide block bearing reduced effort

## JAWS (3 PARTS) No. 143 4958



Retaining nosepiece page 98.

NOSEPIECE ASSIGNMENT for manual, lazy tongue and lever rivet devices

D	<b>Rivet material</b>	NTS, NTX, NTX-F, Flipper®	Flipper <sup>®</sup> Plus	SN2	HN2	HN2- BT
2.4	Alu	10/18	12/20	_	_	-
3.2	CAP®-Alu, CAP®-Cu	10/18	12/20	_	_	_
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu, PG-Alu, PG-Steel	10/24	12/24	17/24	16/24	-
4	Alu, Cu	10/24	12/24	17/24	16/24	_
4	CAP®-Alu, CAP®-Cu, Alu, PG-Alu	10/27	12/24	17/27	16/27	_
4	Steel, Stainless steel, Stinox, PG-Steel	10/29	12/29	17/29	16/29	_
4.8	CAP®-Alu, CAP®-Cu	10/29	12/29	17/29	16/29	-
5 and 4.8	Alu, PG-Alu	10/32	12/32	17/29	16/29	_
5 and 4.8	Steel, Alu	—	12/32	17/32	16/32	—
5 and 4.8	Stainless steel, Stinox, PG-Steel	_	_	17/36	16/36	—
6	Alu	—	—	17/36	16/36	—
6	Steel	_	—	17/40	16/40	_
6.4	Alu, PG-Alu	—	—	17/40	16/40	-
6.4	Steel, Alu	_	_	17/45	16/45	_
4	alle <b>BULB-TITE</b> ®	_	_	_	_	16/26
5.2	alle <b>BULB-TITE</b> ®	_	_	_	_	16/32
6.3	alle BULB-TITE®	_	—	_	_	16/42
7.7	alle <b>BULB-TITE</b> ®	_	_	_	_	16/48







Nosepiece assignment data apply to DIN and  $\mathsf{GESIPA}^{\circledast}$  blind rivets.

# **BIRD PRO SERIES**

The alliance of the best – The manufacturer-independent battery system



#### **GESIPA® RELIES ON CAS**

#### The alliance of the best

More than 180 electrical devices – but just one battery! With the Cordless Alliance System (abbreviated: CAS) tools from all participating manufacturers for a wide range of applications are combined easily thanks to uniform batteries and charging devices. GESIPA® is now one of the participating manufacturers and the CAS system is being extended to include battery-powered riveting tools.

#### The benefits are close at hand

By converting the Bird Pro riveting tools to the CAS battery system, from now on the premium manufacturer of riveting technology and the leading provider of battery technology will be working together. Thanks to the large number of strong CAS partners – including special applications, there will be an important convergence of power and innovation. By using the CAS batteries in multiple different tools, the user gains flexibility and cost advantages. The system also offers the reliability of a futureproof battery technology.

Here you can find the additional CAS partnerss



**NEW** 

## The battery blind rivet tools with 100 % leading battery technology

## **MAXIMUM POWER - FOR EVERY APPLICATION**

The CAS battery packs are particularly long-lasting and powerful. Depending on the design, they are based on Li-lon or LiHD technology. At GESIPA® the blind riveting and blind rivet nut setting tools can be purchased as standard with 2.0 Ah battery packs - the compact 4.0 Ah battery is also available as an accessory. But of course all other available CAS battery packs can also be used with our Bird Pro devices.



- Ultra M technology: Intelligent battery management for long-lasting battery packs
- Patented "AIR COOLED" charging technology
- Permanent Electronic Single Cell Protection (ESCP) when charging, for particularly long life.
- Processor-controlled charge and discharge management
- Capacity display with almost no self-discharge
- Capacity display with almost no self-discharge
- One battery pack for everything. 100% compatibility with all 18 V machines and chargers of the CAS partners



#### THE OPTION: LIHD BATTERY PACK 18V

- More power with the new LiHD cell technology together with a newly developed battery pack
- High-current power rails and enlarged contacts
- 3 times better conductivity with cell connectors made of a special copper alloy
- Optimum protection against dirt with fullysealed and protectively coated electronics, as well as optimum sealing in the lid design
- Cells protected by rubber buffers

LIED

- More usable cell energy means less frequent charging
- External rubber coating of the battery pack ensures safe and non-slip positioning and also acts as shock protection

You will find our new Bird Pro series based on the CAS-System for blind rivets on page 76, for blind rivet nuts on page 220.



# **OVERVIEW** Bird Pro Series

TOOL	SETTING FORCE IN N	WORKING RANGE
BIRDIE® NEW	10,000	Blind rivets up to Ø 5 mm all materials and up to Ø 6 mm Alu (max. mandrel Ø 3.5 mm)
ACCUBIRD <sup>®</sup> PRO	13,000	Blind rivets from Ø 2.4 mm up to Ø 6 mm all materials (max. mandrel Ø 3.7 mm)
POWERBIRD® PRO GOLD EDITION	20,000	Blind rivets up to Ø 6.4 mm all materials and BULB-TITE®-blind rivets up to Ø 7.7 mm all materials (max. mandrel Ø 4.3 mm)
iBIRD® PRO	20,000	Blind rivets up to Ø 6.4 mm all materials and BULB-TITE®-blind rivets up to Ø 7.7 mm all materials (max. mandrel Ø 4.3 mm)

## SYMBOLS FOR BATTERY AND CHARGER

in scope of

delivery



CAS battery 18 V/2.0 Ah (Li-lon) in scope of delivery



1 Charger 18 V Li-Ion in scope of delivery

18 V



Tool is delivered in the L-BOXX



Tool is delivered



DRIVE	STROKE	BATTERY LI-ION	WEIGHT	PAGE
Brushless motor (BLDC)	25 mm	18 Volt 2.0 Ah	1.3 kg with battery	78
Brushless motor (BLDC)	25 mm	18 Volt 2.0 Ah	2.1 kg with battery	80
Brushless motor (BLDC)	25 mm	18 Volt 2.0 Ah	2.1 kg with battery	82
Brushless motor (BLDC)	25 mm	18 Volt 2.0 Ah	2.2 kg with battery	84

# BIRDIE®

Birdie<sup>®</sup> – The latest tool in the Pro series: Small, light, fast! With only 900 g (without battery) the lightest tool in the 18 V class! NEW

CAS CORDLESS





#### **TECHNICAL DATA**

Setting force: Weight without battery: Weight with battery: Drive: Stroke: 10.000 N 900 g 1,3 kg (Akku 2,0 Ah) Bürstenloser Motor (BLDC) 25 mm

## **SCOPE OF DELIVERY**

Nosepieces 17/27 (green), 17/29 (yellow), 17/32 (red), 17/24 (blue, *already mounted*)

#### **WORKING RANGE**

Blind rivets up to Ø 5 mm in all materials, up to Ø 6 mm in Al (max. mandrel Ø 3.5 mm)

It's small, it's fast, it's nimble! And that's not all. The new **Birdie**<sup>®</sup> from GESIPA<sup>®</sup> is the smallest and lightest battery-powered blind riveting tool in its performance class. Plus it has an ergonomic design with a balanced centre of gravity and a non-slip, handy handle. Fatigue-free working comes built in!



Special accessories for Birdie<sup>®</sup> on **page 90.** 

IT'S NOT THE SIZE THAT MATTERS, IT'S THE TECHNIQUE YOU USE

What's more, the riveting tool covers a wide range of applications: with a setting force of 10,000 N and a tool stroke of 25 mm, the **Birdie**<sup>®</sup> makes light work of setting blind rivets with a diameter of up to 5 mm in all materials. And, like the Bird Pro series, the **Birdie**<sup>®</sup> works with the tried-and-tested cross-manufacturer batteries from CAS.

Developed, designed and manufactured in Germany



## Birdie® – The battery-powered blind rivet tool – small and light!

Not only are the **Birdie®'s** size and weight impressively low but it has also been equipped with the latest and most innovative technology. So this blind riveting tool offers you flexibility when working together with some unique benefits.

#### **BENEFITS** Birdie®

- Lightweight: Weighing only 900g without the battery, the **Birdie**® is the smallest and lightest cordless riveting tool in its class. It sits particularly compactly in your hand and lets you work effortlessly.
- Wide working range: 10 kN setting force and 25 mm tool stroke, able to handle extra-long rivets
- Ergonomic design: Small and handy
- Fast, tool-free changes: Extremely fast and easy nosepiece changing and jaw maintenance
- Coloured nosepieces: Colour-coded nosepieces make it easy to match the nosepiece to the blind rivet being used
- Functions with a simple tap Shorter setting cycle saves energy
- Very latest battery technology Cordless Alliance System – 100% compatible
- Practically wear-free, thanks to BLDC motor
- Transparent spent mandrel container Gives you a constant overview of the spentmandrel fill quantity
- » Working light for positioning accuracy Sure setting in any lighting conditions

#### **NOSEPIECE ASSIGNMENT** Power per battery charge

D	Material	approx.pc / battery charge	Nose- piece	No.
3.2	Alu/Steel	3,300	17/24	175 2360
4.0	Steel	2,000	17/27	175 2361
4.8	Alu/Steel	1,800	17/29	175 2362
4.8	Stainless steel	1,300	17/36	176 0255
6.0	Alu/Steel	1,100	17/36	176 0255

The nosepiece allocation data applies to DIN and GESIPA® blind rivets.













maintenance

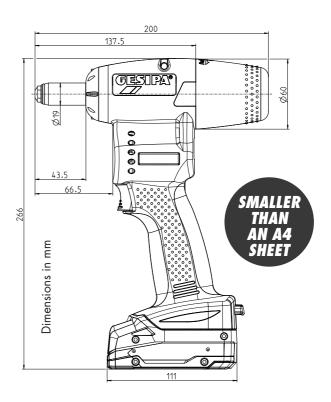
Extremely fast and easy nosepiece

changing and jaw

Transparent spent-mandrel container with new click'n'twist function



Tap function ensures shorter setting cycle



# ACCUBIRD® PRO

Up to 4x faster than other battery-powered tools on the market!





#### **TECHNICAL DATA**

Setting force:	13,000 N
Weight:	2.1 kg with battery (2.0 Ah)
Drive:	brushless motor (BLDC)
Stroke:	25 mm

## **SCOPE OF DELIVERY**

Nosepieces: 17/20, 17/24, 17/27, 17/29, 17/32, 17/36, 17/40, Additional jaw pusher for bigger blind-rivet dimensions (Required nosepieces page 134)

#### WORKING RANGE

Blind rivets from  $\emptyset$  2.4 mm up to  $\emptyset$  6 mm all materials (max. mandrel  $\emptyset$  3.7 mm)

## **ADVANTAGES**

#### **Brushless motor**

The brushless motor and 13,000 N setting force make the AccuBird® Pro extremely fast for setting blind rivets of any material up to Ø 5 mm.

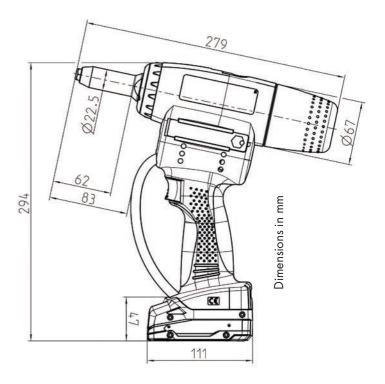
#### Extremely fast, virtually no wear

The BLDC motor of the AccuBird® Pro has an extremely long service life and is virtually non-wearing. Compared to commercially available battery-powered tools, setting can be done up to 4x faster making it comparable with hydropneumatic blind rivet setting tools.

#### Well-proven and ergonomically designed

The AccuBird<sup>®</sup> Pro is equipped with the low-wear jaws system and features the same ergonomic design as the TAURUS<sup>®</sup> series, already proven a thousand times over.





#### approx.pc / battery charge D **Material** Nosepiece No. 2.4 Alu 1,800 17/18\* 143 4976 3.2 CAP®-Alu, CAP®-Cu 1,300 17/18\* 143 4976 3 1.500 17/20\* 143 4994 Alu Steel. 3 1.300 17/22\* 143 5018 Stainless steel 3 and 3.2 1,100 17/24 143 4955 Alu 3 and 3.2 Steel 1,100 17/24 143 4955 3 and 3.2 Stainless steel 1,100 17/24 143 4955 4 Alu 1,100 17/24 143 4955 4 Steel 1,000 17/27 143 4973 4 stainless steel 17/29 143 4974 950 17/29 4.8 and 5 Alu 850 143 4974 4.8 and 5.0 Steel, Alu 1.000 17/32 143 4975 700 4.8 and 5.0 Stainless steel 17/36 143 4977 6.0 Alυ 650 17/36 143 4977 Steel 500 17/40 143 4999 6.0

## NOSEPIECE ASSIGNMENT Power per battery charge

The name of the nosepiece (e.g. 17/32) can be found directly on the nosepiece.



#### **BULB-TITE® BLIND RIVETS**

4	Alu	1,300	17/26 BT*	143 4985
5.2	Alu	1,100	17/32 BT*	143 4986
6.3	Alu	800	17/42 BT*	143 4988
6.3	Steel	550	17/42 BT*	143 4988

\* available as special accessory. Special design nosepieces are available on request. The nosepiece allocation data applies to DIN and GESIPA® blind rivets.



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Spare parts and special accessories AccuBird<sup>®</sup> Pro **page 90.** 

Extended nosepieces, special lengths and special nosepieces on **page 136.** 



Make sure the correct jaw pusher is used as specified in the operating instructions!

# **POWERBIRD® PRO** GOLD EDITION

PowerBird<sup>®</sup> Pro Gold Edition – the strong one for high volumes and fast working sequences

## TECHNICAL DATA

No. 167 9664

No. 167 9665

No. 167 9666

No. 167 9667

Setting force:	20,000 N
Weight:	2.1 kg with battery (2.0 Ah)
Drive:	18 V brushless DC motor (BLDC)
Stroke:	25 mm

18 V

18 V

18 V

18 V

18 V

## **SCOPE OF DELIVERY**

Nosepieces: 17/32, 17/36, 17/40 and 17/45 Additional jaw pusher for smaller blind-rivet dimensions (Required nosepieces page 134)

## WORKING RANGE

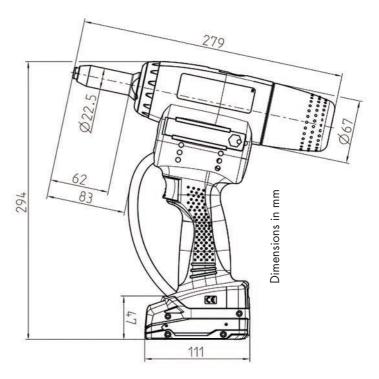
Blind rivets up to  $\emptyset$  6.4 mm all materials (max. mandrel  $\emptyset$  4.3 mm)

#### **ADVANTAGES**

**Even more powerful:** Thanks to the brushless motor and the 20,000 N setting force the PowerBird® Pro Gold Edition is even more powerful and can even set G-Bulb and PolyGrip® blind rivets up to Ø 6.4 mm in any material. The optional Autoreverse function additionally shortens the pulling process, ensuring the Power-Bird® Pro Gold Edition is immediately ready for operation. The stroke has been substantially increased to 25 mm for the purpose of setting particularly long rivets. **Even faster, virtually no wear:** The motor of the PowerBird® Pro Gold Edition has an extremely long service life, is virtually non-wearing and and reliably guarantees the fastest setting frequencies.

**Well-proven and ergonomically designed:** Features the same ergonomic design as the TAURUS<sup>®</sup> series, already proven a thousand times over.

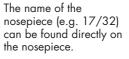






## NOSEPIECE ASSIGNMENT Power per battery charge

D	Material	approx.pc / battery charge	Nosepiece	No.
4.8 and 5.0	Steel, Alu	1,800	17/32	143 4975
4.8 and 5.0	Stainless steel	1,600	17/36	143 4977
6.0	Alu	1,000	17/36	143 4977
6.0	Steel	650	17/40	143 4999
6.0	Stainless steel	600	17/40	143 4999
6.4	Alu, PG-Alu	600	17/45	143 4860
6.4	Steel	550	17/45	143 4860
6.4	Stainless steel	500	17/45	143 4860
8	Alu	550	17/45	143 4860





#### **BULB-TITE® BLIND RIVETS**

4.0	Alu	1,300	17/26 BT*	143 4985
5.2	Alu	1,200	17/32 BT*	143 4986
6.3	Alu	800	17/42 BT*	143 4988
6.3	Steel	550	17/42 BT*	143 4988
6.3	Monel	600	17/42 BT*	143 4988
7.7	Alu	700	17/48 BT*	143 4989

\* available as special accessory. Special design nosepieces are available on request. The nosepiece allocation data applies to DIN and GESIPA® blind rivets.

#### **MEGA GRIP® BLIND RIVETS**

4.8	Alu	1,000	17/31 MG*	143 4993
4.8	Steel	950	17/31 MG*	143 4993
4.8	Stainless steel	900	17/31 MG*	143 4993
6.4	Alu	950	17/41 MG*	143 4865
6.4	Steel	250	17/41 MG*	143 4865
6.4	Stainless steel	250	17/41 MG*	143 4865



Spare parts and special accessories PowerBird<sup>®</sup> Pro Gold Edition **page 90.** 



Extended nosepieces, special lengths and special nosepieces on **page 136.** 



Make sure the correct jaw pusher is used as specified in the operating instructions!

# iBIRD® PRO

The networked battery-powered setting tool can be connected to smartphones and tablets using WiFi or Bluetooth via the GESIPA® app





## **TECHNICAL DATA**

Connection:	WiFi 2.4/5.0 GHz and		
	Bluetooth		
Setting force:	20,000 N		
Weight:	2.2 kg with battery (2.0 Ah)		
Drive:	18 V brushless DC motor (BLDC)		
Stroke:	25 mm		

#### **SCOPE OF DELIVERY**

Nosepieces: 17/32, 17/36, 17/40 and 17/45 Additional jaw pusher for smaller blind-rivet dimensions (Required nosepieces page 134)

#### WORKING RANGE

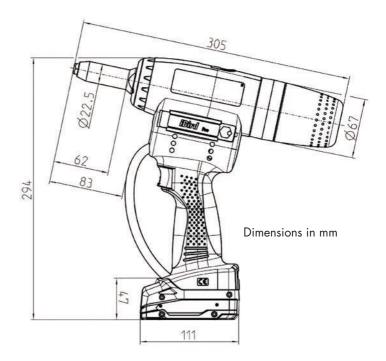
Blind rivets up to Ø 6.4 mm all materials (max. mandrel Ø 4.3 mm)

#### INDUSTRY 4.0 WITH THE iBIRD® PRO

Known as Industry 4.0, M2M or the Internet of Things, these concepts refer to intelligent and digitally networked systems in the production industry. The aim is to ensure that production is as self-organised as possible.

GESIPA® has developed the iBird® Pro with this in mind. The iBird® Pro is a networked battery-powered setting tool that can be connected to smartphones and tablets using WiFi or Bluetooth via a free GESIPA® app. This networking provides a number of additional benefits such as the monitoring of riveting processes, processing safety, status and service indicators, as well as quick and simple access to operating, maintenance and repair instructions – ultimately resulting in optimisation of the value chain.







Make sure the correct jaw pusher is used as specified in the operating instructions!

## NOSEPIECE ASSIGNMENT Power per battery charge

D	Material	approx.pc / battery charge	Nosepiece	No.
4.8 and 5.0	Steel, Alu	1,000	17/32	143 4975
4.8 and 5.0	Stainless steel	700	17/36	143 4977
6.0	Alu	650	17/36	143 4977
6.0	Steel	500	17/40	143 4999
6.0	Stainless steel	450	17/40	143 4999
6.4	Alu, PG-Alu	550	17/45	143 4860
6.4	Steel	450	17/45	143 4860
6.4	Stainless steel	400	17/45	143 4860
8	Alu	500	17/45	143 4860

#### The name of the nosepiece (e.g. 17/32) can be found directly on the nosepiece.



## BULB-TITE® BLIND RIVETS\*

4.0	Alu	1,200	17/26 BT*	143 4985
5.2	Alu	1,000	17/32 BT*	143 4986
6.3	Alu	800	17/42 BT*	143 4988
6.3	Steel	700	17/42 BT*	143 4988
6.3	Monel	650	17/42 BT*	143 4988
7.7	Alu	700	17/48 BT*	143 4989

\* available as special accessory. Special design nosepieces are available on request. The nosepiece allocation data applies to DIN and GESIPA® blind rivets.

#### **MEGA GRIP® BLIND RIVETS\***

4.8	Alu	800	17/31 MG*	143 4993
4.8	Steel	750	17/31 MG*	143 4993
4.8	Stainless steel	750	17/31 MG*	143 4993
6.4	Alu	700	17/41 MG*	143 4865
6.4	Steel	300	17/41 MG*	143 4865
6.4	Stainless steel	250	17/41 MG*	143 4865

≣ 90

136

Spare parts and special accessories iBird® Pro **page 90.** 

Extended nosepieces, special lengths and special nosepieces on **page 136**.

## iBird® Pro - Advantages at a glance!

#### **ADVANTAGES**

- For smartphone, tablet
- Simple connection to the tool with GESIPA® app via QR code
- Data availability at any time
- A signal ring (andon ring) for visualising riveting processes
- Optional connection to three devices at the same time
- Premium software: optional (availability of) setting process

#### **TECHNICAL FACTS**

- WiFi 2.4/5.0 GHz and Bluetooth (LE) wireless connection
- Tilt sensor can be connected via the app; during use, the tool is only enabled for the next riveting process once the tilting motion for ejecting the mandrel body has been performed
- Andon ring: Signal ring for visualising the riveting process, the colours can be set individually via the app

## THE ANDON RING

The iBird<sup>®</sup> Pro incorporates a signal ring for visualising riveting processes. The colours can be set individually via the app.





## **PREMIUM SOFTWARE**

Optional setting process assistant\*

- Setting process evaluation with fault detection, notification in app and via Andon ring (signal ring lights up based on the setting process evaluation and colour setting)
- Teaching mode for teaching in rivet configurations
- Creation of job lists to process various rivet configurations

## No. 157 0451

\*Once paid premium software has been activated





## Die GESIPA® app - simple connection and all information you need at a glance!

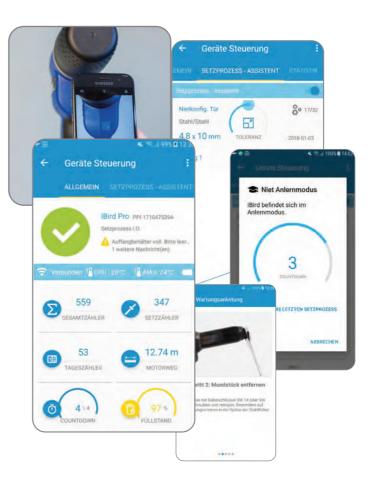
#### THE GESIPA® APP

Using a QR code, the iBird® Pro can be connected to the GESIPA® app with ease. The app is available for smartphones and tablets (Android and iOS).

The iBird® Pro can be connected to three devices at the same time.







Simple connection of the iBird® Pro with the GESIPA® app via QR code



#### WHAT THE IBIRD® PRO APP OFFERS:

- Various counters:
- Total, day, setting counter, countdown, OK\*, NOK\*.
- Fill level indicator, service indicator (spent mandrel container, cleaning or oiling jaws, full service)
- Optional setting process assistant\*
- Monitoring of battery charge level, battery temperature and temperature of the tool control
- Maintenance instructions, maintenance history
- Error message, error history, acknowledgement history
- Tips and tricks
- Operating instructions

\*Once paid premium software has been activated

# **BIRD PRO SERIES** with spring-loaded trigger system

The well-proven spring-loaded trigger system of the TAURUS® series now also for the Bird Pro series



## AccuBird® Pro with spring-loaded trigger system

No. 16	8 0294	
No. 168	8 0293	

PowerBird <sup>®</sup> Pro Go	ld Edition	
with spring-loaded trigger system		
No. 168 0296		

No. 168 0295 (🔳)

The spring-loaded trigger system ensures that the parts to be riveted reliably make contact without any gaps before riveting. Furthermore, the operator will be certain that the blind rivet has reached its end position in the hole before setting and the setting head is in contact with the material. The pressing force can be varied with springs depending on the application.

#### **FUNCTIONAL PRINCIPLE**

The surface contact trigger mechanism is also installed on the trigger button of the device. It only allows the riveting device to trigger when a set compressive force on the part is reached. This ensures that the various components in the application are pressed correctly onto each other before the riveting process. This means that uncontrolled deformation of the rivet body between the materials is prevented, which would otherwise go andetected.

The surface contact force can be varied in five steps. It is set by either adding or removing springs. This rules out the possibility of unintentionally changing the defined surface contact force. A row of pushbuttons is arranged in front of the standard trigger button. On overcoming the spring force and reaching the defined surface contact force, the riveting process can only be triggered by pressing the yellow button.



## **TECHNICAL DATA**

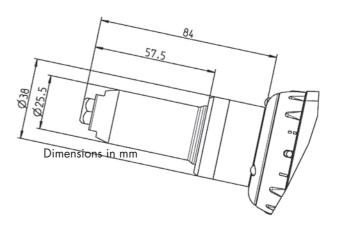
See AccuBird® Pro page 80 See PowerBird® Pro Gold Edition page 82

## SCOPE OF DELIVERY

Nosepiece: 17/32 AV, 17/36 AV, 17/40 AV, 17/45 AV

## DIMENSIONED DRAWING OF

**BIRD PRO SERIES** WITH SPRING-LOADED TRIGGER SYSTEM



# ANGLE HEAD 90°

for the Bird Pro series

360°

The angle head can be positioned freely in every position (360°) on the tensile axis.

## No. 146 4882

TECHNICAL DATA		
Weight:	1.1 kg	
Stroke:	up to 21 mm	
Traction power:	up to 20 kN	

#### **SCOPE OF DELIVERY**

Nosepiece: 17/45 (No. 143 4860)

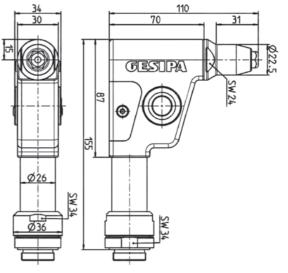
The angle head 90° is designed for use in very narrow and confined spaces. The rugged design makes it possible to set blind rivets with a high setting force even in working areas that are difficult to access.

The angle head 90° can set standard blind rivets with a diameter up to 6.4 mm in all materials and 8 mm in aluminium (max. mandrel  $\emptyset$  4.5 mm) with a setting force up to 20 kN. The smallest edge distance is 15 mm, the head length 110 mm.

The 17/45 nosepiece is included in the scope of delivery as standard. Nosepieces from 17/18 to 17/40 can also be used with the angle head 90°; however, this depends on the working range of the respective tool type (AccuBird<sup>®</sup> Pro or PowerBird<sup>®</sup> Pro Gold Edition).

#### **ADVANTAGES**

- Realisation of small edge clearances
- High setting force in tight installation areas
- Large stroke
- Simple assembly
- Compact and robust design
- Simple jaws maintenance
- Use of standard jaws



Dimensions in mm

GESIPA<sup>®</sup> 89

**SPARE PARTS / SPECIAL ACCESSORIES** for Bird Pro series / Birdie®



## **SPARE PARTS / SPECIAL ACCESSORIES** for Bird Pro series / Birdie®

#### TRANSPARENT SPENT MANDREL CONTAINER

The classic spent mandrel container allows you to keep an eye on the amount of spent mandrels.

Transparent spent-mandrel container with new *click'n'twist* function.



Pro series No. 145 0837 Birdie<sup>®</sup> No. 174 1428

## **EXTENDED SPENT MANDREL CONTAINER**

Option to replace standard spent mandrel container (69 mm).

Pro series Size 1: 99 mm (extended by 30 mm) No. 145 0838 Size 2: 129 mm (extended by 60 mm) No. 145 0839

Birdie<sup>®</sup> (extended by 40 mm) **No. 176 6359** 

#### **RETAINING NOSEPIECE** \*Exept AccuBird® Pro Special accessory (also for SN2) 17/18R No. 165 5422 17/29R No. 165 5429 Inserted rivet stays in No. 165 5430 17/20R No. 165 5424 17/32R any position No. 165 5426 17/36R No. 165 5431 17/22R Set rivets with only No. 165 5427 17/40R\* No. 165 5433 17/24R one hand No. 165 5428 17/45R\* No. 165 5434 Safer working 17/27R

**NOSEPIECES** Birdie<sup>®</sup> (integrated in sleeve)



## **SLEEVE WITHOUT NOSEPIECE**

Compatible with all AccuBird<sup>®</sup>/ AccuBird<sup>®</sup> Pro nosepieces and custom nosepieces (up to 17/36



(included in the scope of delivery)

17/27 17/29 17/32 17/24	No. 175 2361 No. 175 2362 No. 175 2363 No. 175 2360	(yellow) (red)
17/18 17/20 17/22 17/36	No. 176 0252 No. 176 0253 No. 176 0254 No. 176 0255	



## **SPARE PARTS / SPECIAL ACCESSORIES** for Bird Pro series

### **EXTENSION UNITS**

#### **ONE-PIECE**

replace the steel head sleeve, they are slim and are therefore particularly suitable for tight spaces that are difficult to access, Ø 22.5 mm.



TOOL	+35 mm	+85 mm	+135 mm
AccuBird <sup>®</sup> Pro	145 0860	145 0861	145 0862
PowerBird® Pro Gold Edition	145 7650	145 7651	145 0823
l l		1	I
TOOL	+40 mm	+90 mm	

#### **MULTI-PIECE**

are suitable for riveting in low-lying places. They are screwed on between the tool and the existing steel head sleeve

Variable extension of the steel head sleeve is possible in steps of 100 mm

<b>TOOL</b> AccuBird <sup>®</sup> Pro	+100 mm 145 0859	<b>#</b> #
PowerBird® Pro Gold Edition	145 0820	

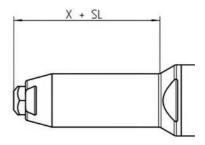
## **EXAMPLE** one-piece

**Bird Pro tools** Example: + SL 35 mm

Steel head sleeve length = 62 mm (X) + SL 35 = 97 mm

**PowerBird Pro GE** with spring-loaded trigger system Example: + SL 40 mm

Steel head sleeve length = 57,5 mm (X) + SL 40 mm = 97,5 mm



The variable X can be found in the dimension drawings of the devices.

**Dimension X** = Standard steel head sleeve length (with standard nosepiece)

#### **EXAMPLE** multi-piece

**Bird Pro tools** Example: + SL 100 mm

Steel head sleeve length = 62 mm (X) + SL 100 mm = 162 mm

## **SPARE PARTS / SPECIAL ACCESSORIES** for Bird Pro series

### CHANGEOVER SET FOR SMALL JAW ASSEMBLY

The small jaw assembly is particularly suitable where rivet sites are difficult to access and sets blind rivets up to  $\emptyset$  5 mm alu/steel and up to  $\emptyset$  4 mm steel/steel. The jaw assembly is 100 mm long and the diameter of the steel, head sleeve is 18 mm. (max. mandrel  $\emptyset$  2.7 mm)



**ANGLE HEAD 90°** For use in very narrow and confined spaces

#### **PROTECTIVE SLEEVE**

The plastic-dipped steel head sleeve protects sensitive workpiece surfaces (e.g. painted surfaces) from being scratched by the nosepiece or the steel head sleeve during riveting.



No. 168 0455

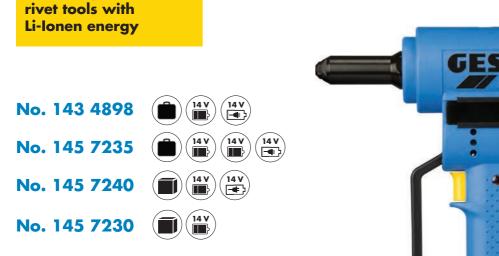
No. 146 4882

Bird Pro series No. 156 7289

**Bird Pro series** 

# **ACCUBIRD**®

The well-proven blind



### **TECHNICAL DATA**

Stroke: Weight: Traction power: Drive: 10,000 N 2.0 kg with battery 20 mm DC motor

## **SCOPE OF DELIVERY**

Nosepieces: 17/24, 17/27, 17/29 and 17/32, 14V Li-lon battery 2,0 Ah

#### WORKING RANGE

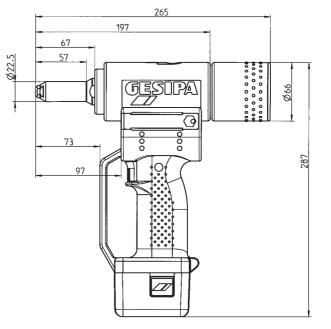
Blind rivets from Ø 2.4 mm aluminium, up to Ø 5 mm all materials and blind rivets up to Ø 6 mm aluminium. (max. mandrel Ø 3.2 mm)

## **ADVANTAGES**

- Developed and produced in Germany since 1992 by the inventor of the battery blind rivet setting tool
- High speed of operation through automatic resetting of the jaw mechanism immediately after each setting process
- High pulling force for safe setting of blind rivets up to 5 mm diameter in all materials
- Large 20 mm stroke
- Electronic control
- No mechanical switching components
- Electronic temperature and overload protection
- High reliability through low loss power transmission via a highly efficient ball screw drive
- Cablefree tool for flexible operation in installation jobs and industry production



Auto-reverse function: Immediately after mandrel break-off, this additional operating mode stops the pulling process and moves the jaw assembly back into the initial position. This reduces wear, saves time and energy while making sure the tool is immediately ready for use.



Dimensions in mm

D	Material	<b>approx.pc /</b> <b>battery charge</b> 2.0 Ah Li-Ion battery	Nosepiece	No.
2.4	Alu	1,500	17/18*	143 4976
3.2	CAP®-Alu, CAP®-Cu	1,000	17/18*	143 4976
3 and 3.2	Alu	800	17/24	143 4955
3 and 3.2	Steel	800	17/24	143 4955
3 and 3.2	Stainless steel	800	17/24	143 4955
4	Alu	800	17/24	143 4955
4	Steel	700	17/27	143 4973
4	Stainless steel	650	17/29	143 4974
4.8 and 5	Alu	550	17/29	143 4974
4.8 and 5	Steel	450	17/32	143 4975
4.8 and 5	Stainless steel	350	17/36*	143 4977
6	Alu	250	17/36*	143 4977
BULB-TITE® B	lind rivets			
4	Alu	1,000	17/26 BT*	143 4985
5.2	Alu	800	17/32 BT*	143 4986
6.3	Alu	600	17/42 BT*	143 4988
6.3	Steel	300	17/42 BT*	143 4988
			and jaws 4**	143 4173
			and jaw pusher 5**	143 4992

#### NOSEPIECE ASSIGNMENT Power per battery charge

 $\ast$  available as special accessory. Special design nosepieces are available on request.

The nosepiece allocation data applies to DIN and GESIPA® blind rivets.

\*\*Available as a complete conversion kit, see spare parts/special accessories on page 98.



Spare parts and special accessories **page 98.** 



Extended nosepieces, special lengths and special nosepieces on **page 136.** 



BULB-TITES<sup>®</sup> can only be set with a conversion kit. Jaws need to be changed! Conversion kit on **page 96.** 

The name of the nosepiece (e.g. 17/32) can be found directly on the nosepiece.



## SPRING-LOADED TRIGGER SYSTEM for AccuBird®

Process-secure blind riveting even of parts with gaps or recoiling

AccuBird® with spring-loaded trigger sytem with Nosepieces 17/24, 17/27, 17/29 and 17/32



### ENSURING CORRECT PROCESSING OF THE BLIND RIVETS BY MEANS OF A DEFINED CONTACT PRESSURE



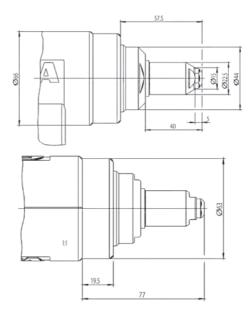
This feature ensures that the materials of the riveting application will be pressed together before the rivet is installed, thus avoiding gaps in between. Moreover the operator will be certain that the rivet has reached its end position in the application and that the setting head is in contact with the upper side of the material. The pressing force can be adjusted variably with springs depending on the application.

#### THE FUNCTION

The surface contact trigger mechanism is also installed on the trigger button of the device. It only allows the rivet device to be triggered if a settable compressive force on the part is reached. This ensures that the various components of the application are pressed correctly onto each other before the riveting process. In turn, this means that the uncontrolled deformation of the rivet body between the materials is prevented, which would otherwise go andetected.

The surface contact force may vary in five steps. It is set by either adding or removing springs. This rules out the possibility of unintentionally adjusting the defined surface contact force. Push buttons are arranged in series in front of the standard trigger button. The rivet process can only be triggered by pressing the yellow trigger button when the spring force has been overcome and the defined surface contact force has been reached.

## ACCUBIRD® DIMENSION DRAWING WITH SPRING-LOADED TRIGGER SYSTEM



Dimensions in mm

≣ 140

Nosepieces and performance see **page 140.** 

## ANGLE HEAD 90° COMPACT for AccuBird®

Can be swivelled 360° on the AccuBird<sup>®</sup> tensile axis

## No. 145 7252

#### **TECHNICAL DATA**

Weight: Stroke: Traction power: 0.7 kg 20 mm up to 10 kN

17/36

#### **SCOPE OF DELIVERY**

Nosepieces:

DESCRIPTION

Using the angle head 90° compact for AccuBird® allows to set all Types of standard blind rivets up to 5 mm in diameter and aluminium up to 6 mm diameter, depending on the tool Type, max. mandrel Ø 3.2 mm. The minimum edge clearance is 12 mm, the head length is 90 mm. The angle head can be freely fixed in any position aroand the AccuBird® tensile axis (360° free rotation).

#### **APPLICATION**

The angle head 90° compact is designed for use in tight spaces. Its sturdy design allows it to apply large setting forces when setting blind rivets even in difficult of access work areas with up to 10 kN.

#### **ADVANTAGES**

- Realisation of small edge clearances (12 mm)
- High setting force in tight installation areas (up to 10 kN)
- Large stroke (up to20 mm)
- Simple assembly
- Compact and robust design
- Simple jaws maintenance
- Use of standard jaws
- Low vibration, even at high breaking force level

GESTRA



Dimensions in mm

2

## **SPARE PARTS / SPECIAL ACCESSORIES** Bird tools

<b>14,4 V/2,0 Ah Li-</b> Weight: 0.35 kg	ION BATTERY	RECYCLING			No.	166	6440
<b>14,4 V/4,0 Ah LI-IC</b> Weight: 0.50 kg	ON BATTERY	Akku RECYCLING			No.	166	6441
CHARGER 14.4 V Technical data Input voltage: Output voltage: Recharging time: Weight:	LI-ION 230 V / 50 Hz 14.4 V DC 50 to 100 minute 0.6 kg	es (battery deper	nding)	A CONTRACT OF A	No.	145	7282
			*Except AccuBird®	17/18R 17/20R 17/22R 17/24R 17/27R 17/29R 17/32R 17/36R 17/40R* 17/45R*	No. No. No. No. No. No.	165 165 165 165 165 165 165	5422 5424 5426 5427 5428 5429 5430 5431 5433 5434
JAWS (3 PARTS)				AccuBird <sup>®</sup>	No.	143	4958
-	MANDREL CONTAI verBird® and SolarBirc		<b>F</b>		No.	143	5034
CHANGEOVER SET BULB-TITE® BLIND for AccuBird®			663	5	No.	143	5033
surfaces (e.g. painted s	<b>'E</b> head sleeve protects se urfaces) from being scra ead sleeve during rivetin	tched by the		0		ccuBir 156	d® 7288

98 **GESIPA**®

## **SPARE PARTS / SPECIAL ACCESSORIES** Bird tools

## UNIVERSAL NOSEPIECE - 17

To suit AccuBird® and SN2

The universal nosepiece replaces five nosepiece sizes. The integrated rotary star in the steel sleeve can be unlocked easily without tools in order to select the appropriate size of nosepiece

#### Working range

Blind rivets from 2.4 up to 5 mm Ø alu, copper and steel and up to 4 mm Ø stainless steel.

#### Operation

Operate the tool and hold trigger, then push back adjusting ring to end position (1). By turning the rotary star (2).



The universal nosepiece includes: Special steel sleeve, complete adjusting ring, rotary star and sealing ring.

ring

#### **EXTENSION UNIT**

#### **ONE-PIECE EXTENSION UNIT**

Replaces the steel case, is especially slim and therefore particularly well suited to narrow, hard-to-reach places.

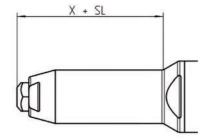


	50 mm	100 mm	150 mm
AccuBird®	145 7273	145 7274	145 0622

**EXAMPLE** one-piece + SL 50 mm

Steel head sleeve length = 57 mm (X) + SL 50 mm = 107 mm

AccuBird® with spring loaded trigger system examplel: + SL 50 mm Steel head sleeve length = 40 mm (X) + SL 50 mm = 88 mm



## **MULTI-PIECE EXTENSION UNITS**

For riveted joints in low-lying places. Screwed in between the device and the existing steel case.

	100 mm
AccuBird®	145 7318

**EXAMPLE** multi-piece + SL 100 mm Steel head sleeve length =

57 mm (X) + SL 100 mm = 157 mm

Variable extension of the steel head sleeve is possible in steps of +100 mm.

**Dimension X** = Standard steel head sleeve length (with standard nosepiece)

The variable X can be found in the dimension drawings of the devices.

## **PNEUMATIC BLIND RIVET TOOLS**

### **HYDRO-PNEUMATIC BLIND RIVET TOOLS**





TAURUS® 1-6



TAURUS® 1-4 with counter device



TAURUS® 1-4 with counter device eco



TAURUS® 1-4 Axial eco TAURUS® 1-4 Axial



TAURUS® 1-4 C AV



TAURUS® WinTech



TAUREX 1-6



TAUREX 1-4 Axial TAUREX 1-4 Axial compact



PH 2





PH Axial



**MultiSwitch** 



GAV 8000 / GAV 8000 eco







## WHAT RIVETS WHAT?

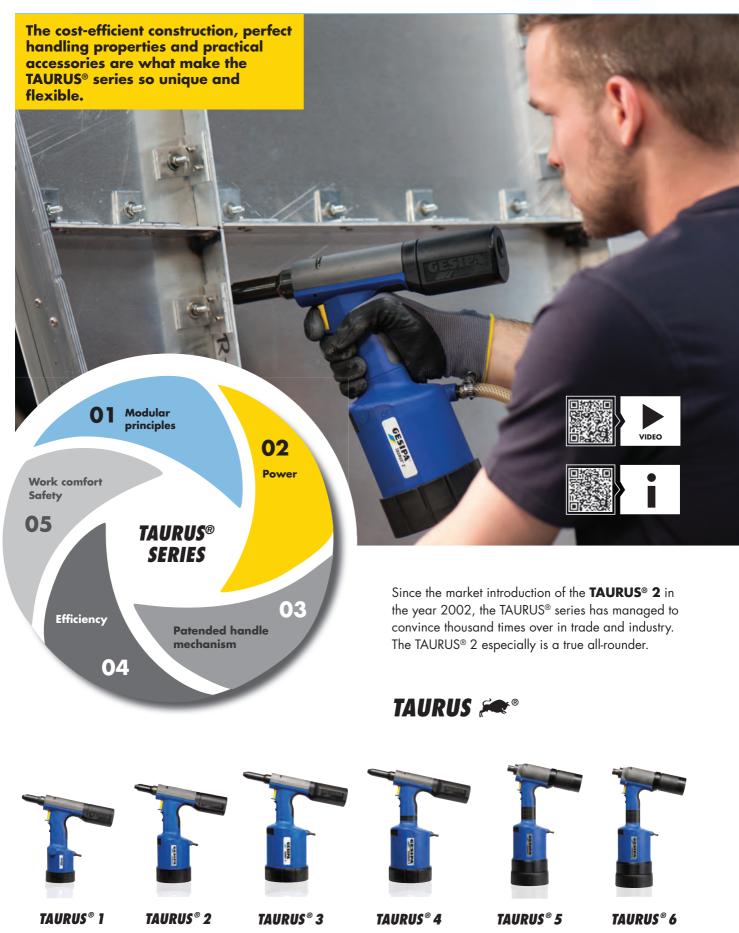
F	Ømm 2.4 3.0 3.2 4.0 4.8 5.0 6.0 6.4 8.0	
PH2	P X X X O O O O O O O O O O O O O O O O	
PH2-VK	P AS	
PH Axial		
TAURUS <sup>®</sup> 1, TAUREX 1	P AS	
TAURUS <sup>®</sup> 2, TAUREX 2	P AS AS	
TAURUS <sup>®</sup> 3, TAUREX 3		
TAURUS® 4, TAUREX 4		
	PolyGrip®         G-Bulb         MEGA GRIP®         BULB- TITE®         TR           3.2         4.0         4.8         6.4         4.8         6.4         4.1	RI-FOLD®
PH2	CDID® TITE®	
PH2 PH2-VK	3.2 4.0 4.8 6.4 4.8 6.4 GRIP® TITE® 4.1	
	3.2 4.0 4.8 6.4 4.8 6.4 GRIP <sup>®</sup> TITE <sup>®</sup> 4.1	
PH2-VK	3.2     4.0     4.8     6.4     4.8     6.4     GRIP*     TITE*     4.1       P     X     Image: Constraint of the second sec	
PH2-VK PH Axial	3.2       4.0       4.8       6.4       4.8       6.4       GRIP*       TITE*       4.1         P       X       Image: Constraint of the second secon	
PH2-VK PH Axial TAURUS® 1, TAUREX 1	3.2       4.0       4.8       6.4       4.8       6.4       IIIE°       4.1         P       X	

P: Hydro-pneumatic tool

X: Special accessoires required

A: Alu/Copper S: Steel E: Stainless Steel / Monel Blue box: All materials(ASE) can be riveted. Where there are exceptions, the letters of the rivetable materials are provided directly in the box. \*: A special nosepiece is **always** required when setting MEGA GRIP<sup>®</sup> blind rivets and BULB-TITE<sup>®</sup> blind rivets.

# THE TAURUS® SERIES



## **ADVANTAGES WHICH SIMPLY CANNOT FAIL TO CONVINCE YOU!**

## **01 MODULAR PRINCIPLES**

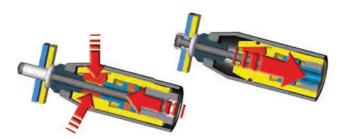
- Widest possible parts commonality low spare part stocks required and simple maintenance
- Flexible adaption to new applications

#### **02 POWER**

- High setting forces combined with low weight
- Fast work cycle
- Optimised stroke for the entire series

## **03 PATENTED HANDLE MECHANISM\***

- With forcibly actuated jaws by pneumatic pressing
- Safe, non-slip gripping of the rivet mandrel
- Just one model of jaws for all tools
- Very long service lives



- \* Patented jaw system
- > The three jaws move in separate channels while being under forced control.
- > The jaws are pressed onto the mandrel by using compressed air instead of spring force – the force being ten times higher than usual.
- > Due to the high pressure the jaws immediately cling to the mandrels upon triggering the riveting process, only then the pulling movement starts.

#### GESIPA®-system – decisive advantages

- > The complete stroke of the tool is used for setting the rivet guaranteeing a reliable setting process.
- > The immediate and non-slip grip of the mandrel reduces abrasion and troublesome soiling.
- > Since the jaws do not slide along the mandrel, the wear and tear of the jaw profiles is reduced.

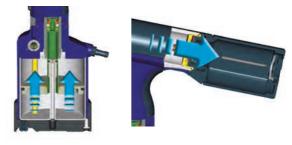
Lower costs due to longer service life and low requirements regarding maintenance and spare parts needed.

#### **04 EFFICIENCY\*\***

- Little compressed air consumption thanks to dual function: setting the rivets and extracting the spent mandrels use the same air
- Air suction needed only for vertical downwards riveting.
- Can be permanently switched-off if not needed.

## \*\* Optimum use of compressed air ensures maximum efficiency and low operating costs

Compressed air is used very often in industrial production because of its flexibility. It does, however, cause relatively high costs and its consumption damages the environment. These disadvantages are more than enough reason for GESIPA® to equip the TAURUS® tool series with a special technique that allows to save compressed air and is unique throughout the world. The GESIPA® System uses the compressed air required for the setting process twice. First, to set the blind rivet and secondly, to extract the spent mandrel. Dual use of the compressed air means no expensive, fresh compressed air is needed which other tools on the market constantly need just to extract the spent mandrel. And, last but not least, noise emission from the TAURUS®-tools is extremely low.



In two-shift operation and with compressed air costs of approximately € 0.03 per m<sup>3</sup> this innovative technique allows savings of up to € 720 per year and tool. A TAURUS® 2 can pay for itself in less than one year.

#### **05 WORK COMFORT / SAFETY**

- Rubberised, moulded grip
- Balanced center of gravity
- Low-vibration and soundproof
- Little activation force required
- Spent mandrel container with swivelling air deflector
- Overpressure valve for prevention of overload
- Integrated protection feature prevents the ejection of spent
- mandrels while the spent mandrel container is removed

**GESIPA**<sup>®</sup> 103

## TAURUS® DEVICE SERIES – THE MODULAR CONCEPT

The TAURUS<sup>®</sup> series – unique modular principle. Minimal spare parts stocks, easy maintenance

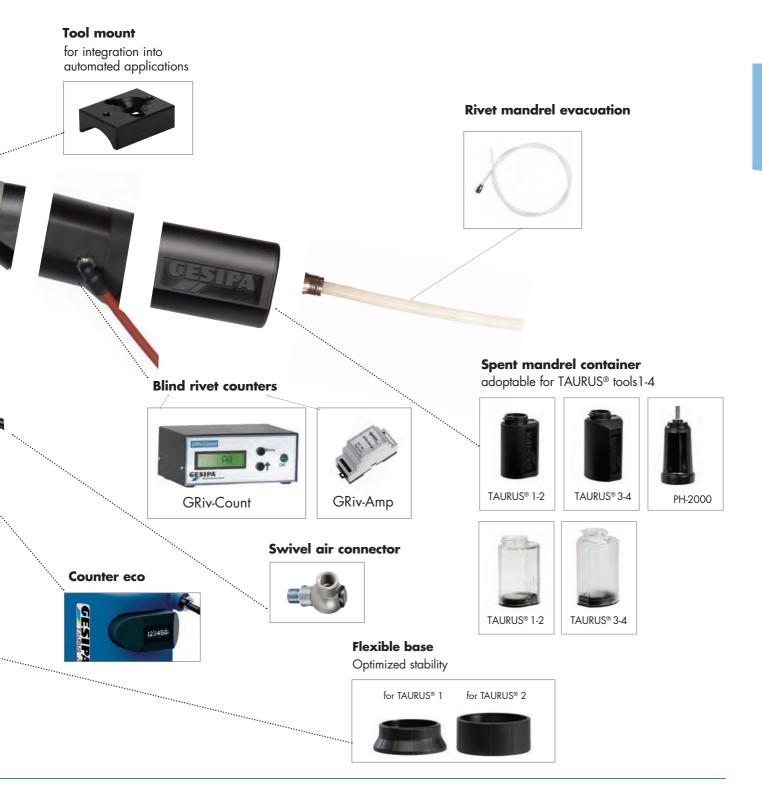


GESIPA® Calibration device

104 **GESIPA**®

The modular concept for the TAURUS® series 1-4 lets the user customise the TAURUS® devices to match his individual requirements.

Many identical parts that can be used across all devices reduce the need to stock spare parts and make maintenance easy. This wide range of options provides the user with a high degree of flexibility. Each device in the TAURUS<sup>®</sup> series 1-4 can be fitted with many different spare parts or refitted according to the application.



# TAURUS® SERIES



## No. 145 7665

#### **TECHNICAL DATA**

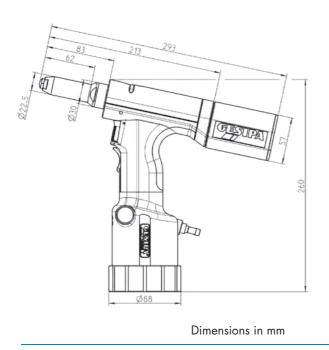
Weight: Operating air pressure: Air hose connection: Air consumption: Traction power: Stroke: 1.3 kg 5-7 bar 6 mm Ø (1/4'') approx. 1.0 ltr. per rivet 5,500 N at 6 bar 15 mm

## WORKING RANGE

Sets blind rivets up to 3.2 mm Ø all materials and up to 4 mm Ø alu/steel (max. mandrel Ø 2.5 mm)

## **SCOPE OF DELIVERY**

Nosepieces: 17/18, 17/20 and 17/22, maintenance wrench SW12/14, SW14/17, 1 hydraulic oil bottle 100 ml, 1 oil refill can, Operating instructions





## No. 145 7771

#### **TECHNICAL DATA**

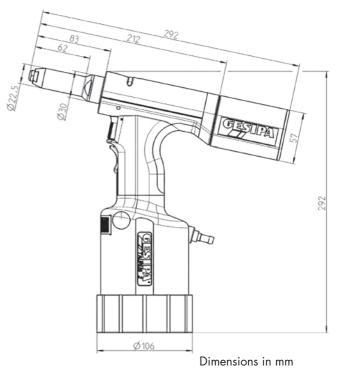
Weight:	1.6 kg
Operating air pressure:	5-7 bar
Air hose connection:	6 mm Ø (1/4'')
Air consumption:	approx. 2.3 ltr. per rivet
Traction power:	11,000 N at 6 bar
Stroke:	18 mm

## WORKING RANGE

Sets blind rivets up to 5 mm Ø all materials and up to 6 mm Ø alu/steel (max. mandrel Ø 3.2 mm)

#### **SCOPE OF DELIVERY**

Nosepieces: 17/24, 17/27, 17/29 and 17/32, maintenance wrench SW12/14, SW14/17, 1 hydraulic oil bottle 100 ml,1 oil refill can, Operating instructions



## Pneumatic-hydraulic blind rivet tools



## No. 145 7871

## **TECHNICAL DATA**

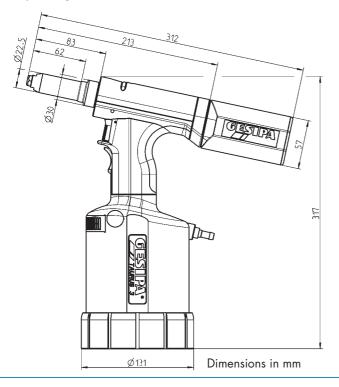
Weight: Operating air pressure: Air hose connection: Air consumption: Traction power: Stroke: 1.9 kg 5-7 bar 6 mm Ø (1/4'') approx. 4.8 ltr. per rivet 18,000 N at 6 bar 25 mm

### **WORKING RANGE**

Sets blind rivets up to 6.4 mm Ø all materials (max. mandrel Ø 4.3 mm)

## **SCOPE OF DELIVERY**

Nosepieces: 17/36, 17/40 and 17/45, maintenance wrench SW12/14, SW14/17, 1 hydraulic oil bottle 100 ml, 1 oil refill can, Operating instructions





## No. 145 7964

#### **TECHNICAL DATA**

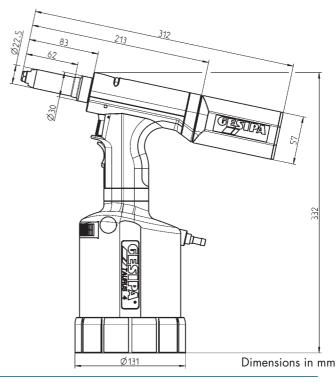
Weight:	2.0 kg
Operating air pressure:	5-7 bar
Air hose connection:	6 mm Ø (1/4'')
Air consumption:	approx. 4.8 ltr.
Traction power:	23,000 N at 6
Stroke:	19 mm

### WORKING RANGE

Sets blind rivets up to 6.4 mm Ø all materials and BULB-TITE<sup>®</sup>-rivets up to 7.7 mm Ø all materials (max. mandrel Ø 4.3 mm)

#### **SCOPE OF DELIVERY**

Nosepieces: 17/36, 17/40 and 17/45, maintenance wrench SW12/14, SW14/17, 1 hydraulic oil bottle 100 ml, 1 oil refill can, Operating instructions



per rivet

bar

3



# TAURUS<sup>®</sup> SERIES



#### **TECHNICAL DATA**

Weight: Operating air pressure: Air hose connection: Air consumption: Traction power: Stroke:

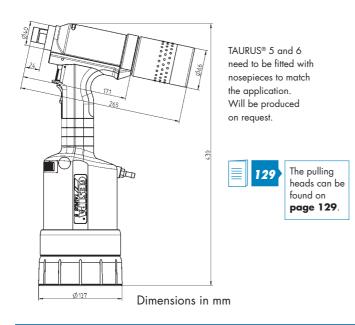
3.4 kg 5-7 bar 6 mm Ø (1/4'') approx. 6.9 ltr. per rivet 42,000 N at 7 bar 17 mm

## WORKING RANGE

Blind rivets above 6.4 mm Ø all materials and lockbolts up to10 mm Ø with corresponding pulling heads (look on page 129).

## **SCOPE OF DELIVERY**

1 hydraulic oil bottle 100 ml 1 oil refill can Operating instructions





## **TECHNICAL DATA**

Weight:	
Operating air pressure:	
Air hose connection:	
Air consumption:	
Traction power:	
Stroke:	

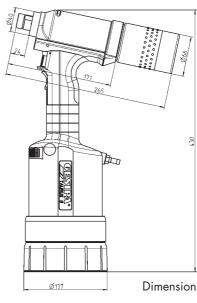
3.4 kg 5-7 bar 6 mm Ø (1/4'') approx. 6.9 ltr. per rivet 50,000 N at 7 bar 15 mm

### WORKING RANGE

Blind rivets above 6.4 mm Ø all materials and lockbolts up to 10 mm Ø with corresponding pulling heads (look on page 129).

#### **SCOPE OF DELIVERY**

1 hydraulic oil bottle 100 ml 1 oil refill can Operating instructions



TAURUS® 5 and 6 need to be fitted with nosepieces to match the application. Will be produced on request.





## **SPARE PARTS / SPECIAL ACCESSORIES** TAURUS® SERIES 1-4

#### NOSEPIECES



For long mandrels, special blind rivets and other challenges

The use of the correct nosepiece is essential for ensuring reliable riveting and a neat riveted joint. A large selection of standard and special nosepieces makes it possible to quickly adapt to various types of blind rivet. Even special versions are generally available on request. All nosepiece allocation data relate to DIN and GESIPA® blind rivets.

The name of the nosepiece (e.g. 17/32) can be found directly on the nosepiece.



134

Extended nosepieces, special lengths and special nosepieces on **page 134.** 

#### **NOSEPIECE ASSIGNMENT**

D	Material	Nosepiece	No.
STANDARD		11	
2.4	Alu	17/18	143 4976
3.2	CAP®-Alu, CAP®-Cu	17/18	143 4976
3	Alu/Cu	17/20	143 4994
3	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu	17/22	143 5018
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, PG-Alu, PG-Steel, PG-Stainless steel	17/24	143 4955
4	Alu, Cu, CAP®-Alu, CAP®-Cu	17/24	143 4955
4	Steel, Alu, PG-Alu	17/27	143 4973
4	Stainless steel, Stinox, PG-Steel, PG-Stainless steel	17/29	143 4974
4.8 and 5	Alu, CAP®-Alu, CAP®-CU, PG-Alu	17/29	143 4974
4.8 and 5	Steel, Alu	17/32	143 4975
4.8 and 5	Stainless steel, Stinox, PG-Steel, PG-Stainless steel, G-Bulb	17/36	143 4977
6	Alu	17/36	143 4977
6	Steel	17/40	143 4999
6.4	Alu	17/40	143 4999
6.4	Steel, Alu, Stainless steel, PG-Stainless steel, G-Bulb	17/45	143 4860
BULB-TITE®			
4	Alu	17/26 BT	143 4985
5.2	Alu	17/32 BT	143 4986
6.3	Alu, Steel, Monel	17/42 BT	143 4988
7.7	Alu	17/48 BT	143 4989
MEGA GRIP®			
4.8	Alu, Steel, Stainless steel	17/31 MG	143 4993
6.4	Alu, Steel, Stainless steel	17/41 MG	143 4865
PLASTIC			
3	Plastic	17/30 K	143 4933
4	Plastic	17/35 K	143 5824
5		17/40 K	143 4998

### **SPARE PARTS / SPECIAL ACCESSORIES** TAURUS® SERIES 1-4

for **TAURUS® 1** 

for TAURUS® 2

#### SWIVEL AIR CONNECTOR

For the complete TAURUS® series in 1/8"

#### SET OF JAWS (3 PCS.)

Patented jaw system for the complete TAURUS® series

#### FLEXIBLE BASE FOR TAURUS® 1 AND 2

With the flexible base made from MBR and the larger surface area, the TAURUS<sup>®</sup> tools are standing even more stably.

#### SMALL JAW ASSEMBLY TAURUS® 1-2

The small jaw assembly is particularly suitable where rivet sites are difficult to access. The TAURUS<sup>®</sup> 1 with the small jaw assembly handles aluminium/steel blind rivets up to Ø 4 mm and steel/steel blind rivets up to Ø 3.2 mm. The small jaw assembly for the TAURUS<sup>®</sup> 2 handles aluminium/steel blind rivets up to Ø 5 mm and steel/steel blind rivets up to Ø 4 mm. The jaw assembly is 100 mm long and the diameter of the steel head sleeve is 18 mm.

### T1 No. 145 7705 T2 No. 145 7846 SET OF JAWS (2 PCS.) No. 143 4071

No. 143 5479

No. 143 5568

T1 No. 143 6394

T2 No. 143 6371



#### Nosepieces to be used

NOSEPIECE	TAURUS® 1	TAURUS® 2
10/18	143 4055	143 4055
10/24	143 4061	143 4061
10/27	-	143 4062
10/29	-	143 4064



For integration into automated systems or connection to handling modules.

\*Device support not available individually. The tool is delivered pre-mounted on a new device or can be retrofitted on an existing device at the GESIPA® Walldorf site.



#### **PROTECTIVE SLEEVE**

The plastic-dipped steel head sleeve protects sensitive workpiece surfaces (e.g. painted surfaces) from being scratched by the nosepiece or the steel head sleeve during riveting.



for TAURUS<sup>®</sup> standard tools No. 156 7289

### TRANSPARENT COLLECTING CONTAINER FOR TAURUS® 1-4

The classic residual mandrel collecting container in the TAURUS® series is also available in a transparent version.The transparent collecting container allows the amount of residual mandrels to be monitored constantly.

The transparent collecting container will be available in a small version for the TAURUS® devices 1-2 and a large version for the TAURUS® devices 3-4. T1-T2 No. 145 7744 T3-T4 No. 145 7951



#### MANDREL EXTRACTION TUBE

For the full TAURUS® series

By attaching a special-purpose hose nipple, the spent mandrel container can be replaced by the spent mandrel evacuation hose\*. In stationary use, this can be of great advantage as frequent disposal is not required. The spent mandrels are collected in a container so that the work place remains clean and tidy, with no interruption to the work.

\*The use of TAURUS<sup>®</sup> tools with a 1.5 m long evacuation hose requires permanent employment of the suction unit.

No. 145 7864



#### TAURUS® CONVERSION KIT

For conversion to the PH 2000 spent mandrel container (description and full offer on page 125).



T1 No. 145 7700 T2-T4 No. 145 7703

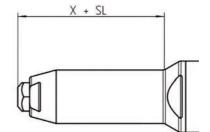
## **SPARE PARTS / SPECIAL ACCESSORIES** TAURUS® SERIES 1-4

#### **EXTENSION UNITS**

### Allows easy access to rivet sites which are difficult to reach.

The extension units are used for riveting sites which are situated low down or are difficult to access. We offer one-piece extension units of 35, 85, 135 and 185 mm length for the TAURUS<sup>®</sup> 1-4.

The extension units consist of three parts.



The variable X can be found in the dimension drawings of the devices.

**Dimension X** = Standard steel head sleeve length (with standard nosepiece)

<b>ONE-PIECE</b> Example: TAURUS <sup>®</sup> 1 + SL 35 mm	
Steel head sleeve length = 62 mm (X) + SL 35 mm = 97 mm	

TOOL	+35 mm	+85 mm	+135 mm	+185 mm
TAURUS® 1	146 4345	146 4346	146 4347	-
TAURUS® 2	145 8042	146 4350	146 4351	146 4352
TAURUS® 3 and 4	145 7932	145 7933	145 7937	-

TOOL	+ 50 mm	+ 100 mm
TAURUS® 1 with spring loaded trigger system	145 0880	145 7727
TAURUS® 2 with spring loaded trigger system	145 7857	145 7858
TAURUS® 3 and 4 with spring loaded trigger system	145 7959	145 7960

#### **MULTI-PIECE**

Example: TAURUS® 1 + SL 100 mm

Steel head sleeve length = 62 mm (X) + SL 100 mm = 162 mmOn TAURUS® 1-4 the steel head sleeve can be extended variably in steps of 100 mm.

TOOL	+100 mm
TAURUS® 1	145 7743
TAURUS® 2	145 7848
TAURUS® 3 and 4	145 7947





#### ANGLE HEAD 90° AND ANGLE HEAD 90° COMPACT

The **angle head 90°** and the **angle head 90° compact** are designed for use in tight spaces. Its sturdy design allows it to apply large setting forces when setting blind rivets even in difficult of access work areas. The angle head 90° for TAURUS<sup>®</sup> 1-4 allows to set all Types of standard blind rivets up to  $\emptyset$  6.4 mm all materials. The minimum edge clearance is 15 mm, the head length is 110 mm.



on the tool Type. The minimum edge clearance is 12 mm, the head length is 90 mm. Both angle heads can be freely fixed in any position aroand the TAURUS<sup>®</sup> tensile axis (360° free rotation).

#### ANGLE HEAD 90° for TAURUS® 1-4

#### **TECHNICAL DATA**

Weight: 1.1 kg Stroke: 19 mm (TAURUS® 1,2 and 4) Stroke: 21 mm (TAURUS® 3) Traction power: up to 20 kN (max. mandrel Ø 4,5 mm)

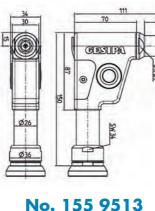


#### **SCOPE OF DELIVERY**

Nosepiece 17/45 WK Jaws up to rivet-Ø 4mm (Nosepiece 17/24)

Dimensions in mm





No. 155 9512

TAURUS<sup>®</sup> 1, 2, 4 TAURUS<sup>®</sup> 3

**JAWS (3 PARTS)** for TAURUS® 1-4 rivet-Ø 4.0 mm up to Ø 6.4 mm of all materials, Ø 8.0 mm Alu

#### No. 143 4173

rivet-Ø 2.4 mm up to 4 mm (Nosepiece 17/24) No. 143 4958

#### ANGLE HEAD 90° COMPACT for TAURUS® 1-2

#### **TECHNICAL DATA**

Weight:0.7 kgStroke:18 mmTraction power:up to 10 kN(max. mandrel Ø 3,2 mm)

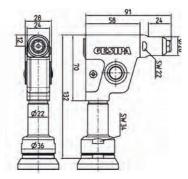
SCOPE OF DELIVERY



Dimensions in mm

Nosepieces:17/36





**TAURUS® 1, 2** 

No. 145 7921

JAWS (3 PARTS) for TAURUS® 1-2

#### No. 143 4958

# TAURUS® VERSIONS

A wide variety of options means higher flexibility. All of the TAURUS® varieties are customized and designed and made to fit the application. Please contact our team from the Technical Sales department should you require individual advice or have any further queries or need information on prices.



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#### No. 145 7804

The TAURUS® 2/K has been designed for setting plastic rivets. In its functionality the TAURUS® 2/K is identical to the standard tool, however has a stroke of 24 mm instead of 18 mm. Plastic rivets only need a low setting force, however, normally require large setting strokes due to the toughness of the plastic material. The TAURUS® 2/K allows to safely set plastic rivets with only one setting stroke! The TAURUS® 2/K comes with 3 nose pieces for plastic rivets 17/30 K, 17/35 K and 17/40 K included.

#### **TECHNICAL DATA**

Strength:24 mmTensile strength:8,400 N

**WORKING RANGE** Blind rivets plastic from 4 up to 6 mm Ø.

SCOPE OF SUPPLY Nosepieces 17/30K; 17/35K; 17/40K



#### No. 145 7794

The TAURUS® 2/AS is a special version of theTAURUS® 2 with a VAS slide switch which does not engage when in its highest position, thus achieving that vacuum absorption is automatically deactivated once the tool is not in use. This way, unintentional activation of the vacuum absorption with unnecessary air consumption can be effectively avoided.

Other TAURUS® sizes upon request.



## TAURUS® 2/24

#### No. 145 7803

As far as technology and functionality are concerned, the TAURUS® 2/24 is identical to the standard tool, however has a stroke of 24 mm instead of 18 mm. This tool provides the advantage of being able to safely set critical rivet Types requiring a large setting stroke with only one setting stroke without re-engagement. This applies, for example, to our BULB-TITE® or similar rivets.

#### **TECHNICAL DATA**

Strength: Tensile strength:

#### 24 mm 8,400 N

#### WORKING RANGE

Blind rivets up to Ø4 mm all materials, Ø5 mm steel; Ø 6 mm alu.

## **TAURUS® 1-4 WITH COUNTER DEVICE**



The TAURUS<sup>®</sup> series 1-4 with counter device – detects and counts the spent mandrels

The tools are equipped with a sensor which detects and counts the spent mandrels after the setting process has been finished. The sensor is positioned on the tool head in front of the spent mandrel container.

For a completely independent workstation, the amplifier GRivAmp or the counter and display unit GRivCount can be used for processing and analysing the signals.

For retrofitting existing tools a conversion kit suitable for all TAURUS® Types (except TAURUS® with PH 2000 spent mandrel container) is available:

TAURUS<sup>®</sup> 1-4 (with counter device)







**GRiv-Amp** 



# Conversion kit TAURUS<sup>®</sup> 1 with sensor No. 145 7698

Conversion kit TAURUS<sup>®</sup> 2-4 with sensor No. 151 6858

GRiv-Count No. 146 3062

GRiv-Amp No. 145 7699

> Power supply (24 V) is to be provided on site.

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## **TAURUS® 1-4 WITH COUNTER ECO**

TAURUS<sup>®</sup> 1-4 with counter – the cost-effective variant for monitoring the number of setting strokes

In contrast to the TAURUS<sup>®</sup> with counter, the eco counter only counts the number of setting strokes and not the spent mandrels. The sensor is fitted on the air cylinder. The counter is not available on its own. It is supplied mounted on a new tool or it can be retrofitted at the Walldorf factory.



#### Retrofit kit for the eco counting device

TOOL	No.
TAURUS® 1	145 0892
TAURUS® 2	145 0933
TAURUS <sup>®</sup> 3	145 0963
TAURUS <sup>®</sup> 4	145 0993

\*eco counting device is not available separately. It can be retrofitted to an existing tool at the Walldorf plant or in a qualified GESIPA® workshop.



**GESIPA**° 117

#### TAURUS® versions - Safe, individual, versatile!

The TAURUS<sup>®</sup> series 1-4 in axial version – for special applications

## TAURUS® 1-4 AXIAL

#### **TECHNICAL DATA**

Operating pressure:5 to 7 barAir hose connection:6 mm (1/4")Noise emission:max. 79 dBVibrations:< 2.9 m/s²</td>Weight:TAUREX 1 Axial compactTAUREX 2 Axial compact3.1 kgTAUREX 3 Axial compact3.7 kgTAUREX 4 Axial compact4.1 kg

#### **APPLICATIONS**

The special pistols of TAURUS® Axial offer the option of installation in production systems and simultaneously allow flexible and handheld ergonomic work in applications with restricted accessibility that require a vertical, downwards oriented riveting action.

In order to ensure that no gap is left between the components to be riveted and the setting head effectively makes contact with the application, the TAURUS® Axial can be additionally supplied with a spring loaded-trigger system. A compressed air supply is additionally required for reliable mandrel evacuation. Depending on the application, this is preferably achieved via the balancer with valve or the time delay valve (see page 129).

#### WORKING RANGE

- Processing blind rivets up to 6.4 mm Ø all materials and up to 8 mm Ø alu (max. mandrel dia. 4.5 mm)
- Same performance and technical data as the respective individual units in the TAURUS® series 1-4



#### **ADVANTAGES**

- Pressure transducer attached in a space-saving manner directly to the device, i.e. also for applications in tight spaces
- Technical design close to the TAUREX Axial
- Also perfectly designed for fixed installation in production lines or semi-automatic workstations
- Very practical for processing blind rivets in positions that require a vertical rivet setting process
- The tool can be equipped with almost all TAURUS<sup>®</sup> series options: e.g. extension units, blind rivet counter, spring loaded trigger system and remote control
- The handle in the rivet axis allows ergonomic work especially in vertical applications
- Can be suspended on a balancer

TOOL	No.
TAURUS® 1 Axial	145 7682
TAURUS <sup>®</sup> 2 Axial	145 7795
TAURUS® 3 Axial	145 7893
TAURUS® 4 Axial	145 0981
TAURUS® 1 Axial with spring-loaded trigger system	145 7683
TAURUS <sup>®</sup> 2 Axial with spring-loaded trigger system	145 7796
TAURUS® 3 Axial with spring-loaded trigger system	145 7894
TAURUS <sup>®</sup> 4 Axial with spring-loaded trigger system	145 0982

The TAURUS<sup>®</sup>-series 1-4 in axial version – the costefficient introductory version for special applications

# TAURUS® 1-4 AXIAL ECO

#### **TECHNICAL DATA**

5 to 7 bar Operating air pressure: Air hose connection : 6 mm (1/4'')max. 79 dB Noise emission: Vibrations:  $< 2.9 \text{ m/s}^2$ Weight: TAURUS® 1 Axial eco 2.0 kg TAURUS<sup>®</sup> 2 Axial eco 2.3 kg TAURUS<sup>®</sup> 3 Axial eco 2.6 kg TAURUS® 4 Axial eco 3.0 kg

#### **APPLICATIONS**

Analog to the TAURUS® 1-4 Axial (page116)

#### WORKING RANGE

Analog to the TAURUS® 1-4 Axia (page116)

#### **ADVANTAGES**

Analog to the TAURUS® 1-4 Axial (page116)

#### **ADDITIONAL ADVANTAGES**

- Cost-efficient basic version
- Integrated mandrel evacuation for disposal of the spent mandrel



TOOL	No.
TAURUS® 1 Axial eco	145 7676
TAURUS® 2 Axial eco	145 7798
TAURUS® 3 Axial eco	145 7898
TAURUS® 4 Axial eco	145 7980
TAURUS <sup>®</sup> 1 Axial eco with spring-loaded trigger system	145 7677
TAURUS <sup>®</sup> 2 Axial eco with spring-loaded trigger system	145 7799
TAURUS <sup>®</sup> 3 Axial eco with spring-loaded trigger system	145 7899
TAURUS <sup>®</sup> 4 Axial eco with spring-loaded trigger system	145 7981

#### TAURUS® versions - Safe, individual, versatile!

TAURUS<sup>®</sup> 1-4 C AV with integrated setting process monitoring

## TAURUS® 1-4 C AV

Setting process monitoring is achieved by direct real-time analysis of traction force and traction course recorded during the setting of the rivet. All system components necessary for this operation are integrated in the tools. Analysing a setting process takes less than 1 µs. The results are directly shown by a green or red LED installed in the tool base and optionally by an acoustic signal. In addition to this individual analysis the system also provides collective analysis for the complete workpiece. The tool stores more than 260,000 setting process data which can be retrieved at any time. The system also identifies failure patterns and memorizes them for failure analysis and troubleshooting. The tools can be operated as stand-alone devices or as integrated part of a customer's production system via the GESIPA® interface.

#### **GESIPA®-INTERFACE 4.0**

The GESIPA-Interface has been developed in-house at GESIPA® based on an embedded PC system. It features 16 digital inputs and outputs for communication with a PLC. Other new features compared to the Interface 2.0 are:

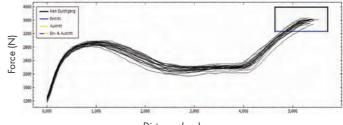
- 2 x Ethernet interfaces, router functions
- 1 x USB and 1 x USB-OTG
- Screen connection, graphic output via DVI
- Wi-Fi, as access point and as client, Wi-Fi router function
- Local OLED display to show status and error messages
- M.2 SSD interface, the module can be retrofitted with an SSD (large databases)
- PCIe connector for Hilscher netJACK modules (i.e. direct connection to industrial buses such as PROFINET, SERCOS and EtherCAT possible)



TAURUS® C 1-4 (with setting process monitoring)

#### HIGH-GRADE GESIPA® BLIND RIVET WITH MINIMAL SCATTER:

- Minimal scatter of the graphs
- All graphs end in the break-off window
- 20x OK riveting









WinTech – multi-window technology with up to three assessment windows

### TAURUS® WINTECH

Ideal for demanding joining technology used for safety components such as in the aviation industry. The basis for monitoring the WinTech setting process is the tried and tested TAURUS® C. The setting process is evaluated with the aid of position and force sensors as well as integrated electronic circuitry. Up to three evaluation windows can be configured with special setup software. A coloured LED on the tool shows the result of setting process monitoring. With a data line, the values can also be recorded and further processed.

Consultation, price and delivery time on request

#### APPLICATION

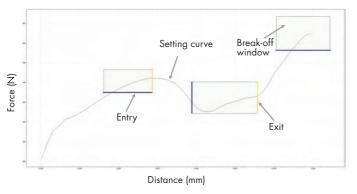
In the production of critical components as well as in automatic setting processes, the TAURUS® C can facilitate monitoring and documentation of the results.

#### **ADVANTAGES**

- High process reliability
- Documentation of each individual setting operation
- Less scrap as faults are detected immediately
- Avoidance of additional costs/quality costs due to NOK parts
- The customer can configure how to enter and exit the assessment window
- Flush-break rivets (MEGA GRIP<sup>®</sup>) can also be monitored

#### EXAMPLE OF OK PROCESS

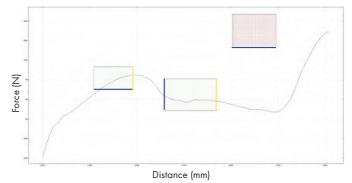
Window entry and exit at customer-defined positions





#### **EXAMPLE OF NOT OK PROCESS**

Material to be joined too thin due to missing compo-



3

The whole TAURUS<sup>®</sup> series with remote pressure transducer - for even more flexibility, versatility and ergonomy

## **TAUREX 1-6**

#### **COMMON TECHNICAL DATA**

Operating air pressure: 5 to 7 bar Air hose connection: Noise emission: Vibrations:

6 mm (1/4") max. 79 dB  $< 2.9 \text{ m/s}^2$ 

#### WORKING RANGE

- All blind rivets and lockbolts up to a mandrel •
- breaking force of 50 kN
- Same performance and technical characteristics • as the respective individual units in the TAURUS® series 1-4, 5-6 with different stroke
- 3 metres hose length between pressure • transducer and setting pistol

#### **ADVANTAGES**

- Low weight of the hand held tool
- Tubing connection with quick-connect feature • (upon request) on the pressure transducer side:
- No oil leak and no air bleeding
- Ideally suited for setting of blind rivets and lockbolts in poorly accessible locations
- Also perfectly designed for fixed installation in production lines or semi-automatic workstations
- Can be combined with almost all supplements • and options of the TAURUS® series: head extensions, mandrel containers, rivet counting units, process control, pressure trigger and remote control



TOOL	No.
TAUREX 1	145 8025
TAUREX 2	145 8031
TAUREX 3	145 8044
TAUREX 4	145 8058
TAUREX 5*	145 8060
TAUREX 6*	145 8062

\*TAUREX 5 and 6 tools must be equipped with heads that are specially designed for their application field. Production on request. The TAURUS<sup>®</sup> series 1-4 with remote mounted pressure transducer in axial version - making it more flexible, versatile and ergonomic

### TAUREX 1-4 AXIAL





Operating air pressure:	5 to 7 bar
Air hose connection:	6 mm (1/4")
Noise emission:	max. 79 dB
Vibrations:	< 2.9 m/s <sup>2</sup>
Weight:	
TAUREX 1 Axial	2.4 kg
TAUREX 2 Axial	2.7 kg
TAUREX 3 Axial	3.0 kg
TAUREX 4 Axial	3.1 kg

#### **APPLICATIONS**

The TAUREX Axial is a particular advantage in restricted spaces due to the separate pressure transducer mounted in the working direction. The special pistols of TAUREX Axial offer the option of installation in production systems and simultaneously allow flexible and handheld ergonomic work in applications with restricted accessibility that require a vertical, downwards oriented riveting action. In order to ensure that no gap is left between the components to be riveted and the setting head effectively makes contact with the application, the TAUREX Axial can be additionally supplied with a spring-loaded trigger system. It is essential to use an external suction system with the TAUREX Axial!

A compressed air supply is additionally required for reliable mandrel evacuation. Depending on the application, this is preferably achieved via the balancer with valve or the time delay valve (see page 130).

#### WORKING RANGE

- Sets blind rivets up to 6.4 mm Ø all materials and up to 8 mm Ø alu (max. mandrel dia 4.5 mm)
- Same performance and technical data as the respective TAURUS® series 1-4
- 3 metre hose length between pressure transducer and setting pistol

#### **ADVANTAGES**

Also perfectly designed for fixed installation in production lines or semi-automatic workstations

GESIPA

- Very practical for processing blind rivets in positions that require a vertical rivet setting process
- Low weight of the hand held tool
- Tubing connection with quick-connect feature (upon request) on the pressure transducer side: No oil leak and no air bleeding
- The tool can be equipped with almost all TAURUS® series options: e.g. extension units, blind rivet counter, spring loaded trigger system and remote control
- The handle in the rivet axle allows ergonomic work especially in vertical applications
- Can be suspended on a balancer

TOOL	No.
TAUREX 1 Axial	145 8026
TAUREX 2 Axial	145 8032
TAUREX 3 Axial	145 8047
TAUREX 4 Axial	145 1019
TAUREX 1 Axial with spring-loaded trigger system	145 1002
TAUREX 2 Axial with spring-loaded trigger system	145 8033
TAUREX 3 Axial with spring-loaded trigger system	145 1016
TAUREX 4 Axial with spring-loaded trigger system	145 1020

#### TAURUS® versions - Safe, individual, versatile!

The TAURUS<sup>®</sup> series 1-4 with an axial pressure transducer mounted directly on the device – for use in tight working spaces

## **TAUREX 1-4 AXIAL COMPACT**

#### **TECHNICAL DATA**

Operating pressure:	5 to 7 bar
Air hose connection:	6 mm (1/4")
Noise emission:	max. 79 dB
Vibrations:	< 2.9 m/s <sup>2</sup>
Weight:	
TAUREX 1 Axial compact	3.1 kg
TAUREX 2 Axial compact	3.4 kg
TAUREX 3 Axial compact	3.7 kg
TAUREX 4 Axial compact	4.1 kg

#### **APPLICATIONS**

The TAUREX Axial compact is a particular advantage in enclosed spaces due to the pressure transducer mounted close and parallel to the tool's axis. The special pistols of TAUREX Axial compact offer the option of installation in production systems and simultaneously allow flexible and handheld ergonomic work in applications with restricted accessibility that require a vertical, downwards oriented riveting action. In order to ensure that no gap is left between the components to be riveted and the setting head effectively makes contact with the application, the TAUREX Axial compact can be additionally supplied with a spring-loaded trigger system (see page 129).

#### **WORKING RANGE**

Processing blind rivets up to 6.4 Ø all materials and up to 8 mm Ø alu (max. mandrel dia. 4.5 mm) Same performance and technical data as the respective individual units in the TAURUS<sup>®</sup> series 1-4



#### **ADVANTAGES**

- Pressure transducer attached in a space-saving manner directly to the device, i.e. also for applications in tight spaces
- Technical design close to the TAUREX Axial
- Also perfectly designed for fixed installation in production lines or semi-automatic workstations
- Very practical for processing blind rivets in positions that require a vertical rivet setting process
- The tool can be equipped with almost all TAURUS<sup>®</sup> series options: e.g. extension units, blind rivet counter, springloaded trigger system and remote control
- The handle in the rivet axis allows ergonomic work especially in vertical applications.
- Can be suspended on a balancer

TOOL	No.
TAUREX 1 Axial compact	145 1003
TAUREX 2 Axial compact	145 8034
TAUREX 3 Axial compact	145 8048
TAUREX 4 Axial compact	145 8059
TAUREX 1 Axial compact with spring-loaded trigger system	145 8027
TAUREX 2 Axial compact with spring-loaded trigger system	145 8035
TAUREX 3 Axial compact with spring-loaded trigger system	145 8049
TAUREX 4 Axial compact with spring-loaded trigger system	145 1022

### TAURUS® 1-4 WITH SPRING-LOADED TRIGGER SYSTEM

The spring-loaded trigger system ensures that the components which are to be riveted are reliably placed one on top of the other gapfree prior to the riveting process. Furthermore, this ensures that the blind rivet reaches its end position in the bore prior to the setting process and that the setting head is in the right position. The pressure force can be variably applied depending on the application. The spring-loaded trigger system cannot be retrofitted but is supplied completely attached.

TAURUS® 1 with spring-loaded trigger system No. 145 7680

TAURUS® 2 with spring-loaded trigger system No. 145 7778

TAURUS® 3 with spring-loaded trigger system No. 143 5869

TAURUS<sup>®</sup> 4 with spring-loaded trigger system No. 145 7965

#### New feature:

Adjustable range from 15 to 75 N / Guaranteed easy-to-apply contact / force by use of springs

### TAURUS® 1-4 WITH PH2000 SPENT MANDREL CONTAINER

The fixed mounted, large PH 2000 mandrel container is very sturdy and particularly suited to long mandrels from 50 to 70 mm in length. The container fits all TAURUS<sup>®</sup> versions 1 to 4.



TAURUS® 1 with PH 2000 spent mandrel container No. 145 7669

**TAURUS® 2** with PH 2000 spent mandrel container **No. 145 7780** 

TAURUS® 3 with PH 2000 spent mandrel container No. 145 7878

TAURUS® 4 with PH 2000 spent mandrel container No. 145 7970



You will find the corresponding conversion kits on **page111** 

### TAURUS® TOOLS FOR STATIONARY USE IN PRODUCTION SYSTEMS

The TAURUS<sup>®</sup> tools can be integrated as stationary units in automatic production systems and operated by remote control, if required. As an option, a low-pressure connection can be used to detect the blind rivet in the nosepiece. If required, the spent mandrel can be disposed of by means of an evacuation tube and also monitored by a sensor. In stationary production systems, several tools can be operated automatically and in parallel in order to achieve the highest possible level of efficiency.

# PH 2

Hydro-pneumatic blind rivet tool

### No. 145 6771



#### **TECHNICAL DATA**

Weight: Operating air pressure: Air hose connection: Air consumption:

Traction power: Stroke: 1.3 kg 5 - 7 bar 6 mm Ø (1/4'') 1.2 - 1.8 ltr. per rivet (0.3 ltr. compr. air) 8,800 N at 6 bar 15 mm

#### **WORKING RANGE**

Blind rivets up to 5 mm Ø all materials and blind rivets with 2.4 mm up to 3.2mm Ø with small jaws (page 130). Not suitable for stainless steel CAP<sup>®</sup> blind rivets.

#### **SCOPE OF DELIVERY**

Nosepieces: 16/24, 16/27, 16/29, 16/32 and 16/36 1 set of jaws, 1 spent mandrel bottle, 1 wrench each of MSU and MSZ, Maintenance instructions

#### **ADVANTAGES**

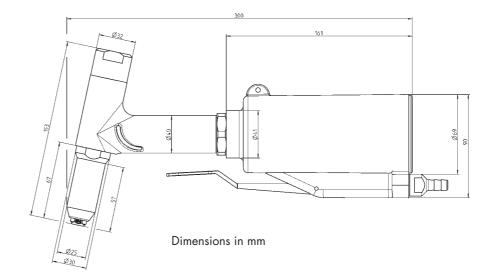
- Hydraulic head made of aluminium with wear-proof cylinder surface
- Pneumatic cylinder made of die cast aluminium
- Pistons: Steel hardened and chrome-plated smooth operation and wear-proof
- Compact seals are wear-proof for a long service life
- Fast venting valve for fast return and high working sequence
- Low-noise pneumatic switching
- Simple, low-interruption valve design
- Hydraulic head can be adjusted by 360°
- Favourable centre of gravity and handle design for fatigue-free handling

#### JAWS (3 PARTS)

for PH 2

#### No. 143 4103





# **PH 2-VK**

Hydro-pneumatic blind rivet tool

#### No. 145 6774



#### **TECHNICAL DATA**

Weight: Operating air pressure: Air hose connection: Air consumption:

Traction power: Stroke: 1.3 kg 5 - 7 bar 6 mm Ø (1/4'') 1.2-1.8 ltr. per rivet (0.3 ltr. compr. air) 6,200 N at 6 bar 14 mm

#### WORKING RANGE

Blind rivets up to 4 mm Ø all materials

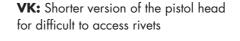
#### **SCOPE OF DELIVERY**

Nosepieces: 10/18, 10/24 and 10/27 1spent mandrel bottle, 1 maintenance wrench of MSU and MSZ, maintenance instructions

**JAWS (2 PARTS)** 

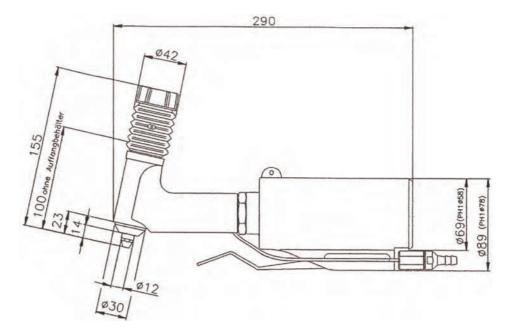
for PH 2-VK

No. 143 4071



#### **ADVANTAGES**

• Due to the shortened gun head, the PH2-VK is ideal for difficult-to-access areas/riveting points





Dimensions in mm

# PH AXIAL

Hydro-pneumatic blind rivet tool

### No. 145 8063

#### **TECHNICAL DATA**

Weight: Operating air pressure: Air hose connection: Air consumption: 1.8 kg 5 - 7 bar 6 mm Ø (1/4'') 1.2-1.8 ltr. per rivet (0.3 ltr. compr. air) 8,800 N at 6 bar 15 mm

Traction power: Stroke:

#### WORKING RANGE

Blind rivets from 4 up to 5 mm Ø steel and 2.4 up to 3.2 mm Ø with small jaw assemly (page 130).

#### **SCOPE OF DELIVERY**

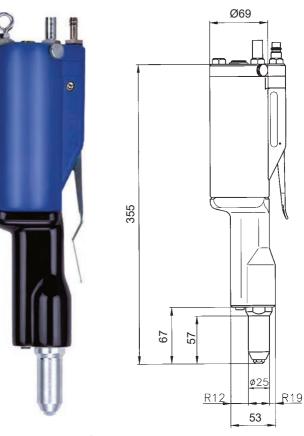
Nosepieces: 16/24, 16/27, 16/29 and 16/32 Jaw pusher with reducing tube no.125 for 4 mm Ø blind rivets in alu and copper Ejection tube with socket for spent mandrels Maintenance instructions and spare parts list

JAWS (3 PARTS) for PH Axial

### No. 143 4103

#### **ADVANTAGES**

- Pneumatic cylinder and hydraulic head with jaw mechanism arranged axially behind each other: simple and easy handling when used vertically (e.g. desktop assembly points)
- Integrated blind rivet suction and rivet mandrel ejection system: does not need to be retrofitted, secure disposal of the spent mandrels in a central container via a hose
- Hydraulic head in aluminium with wear-proof cylinder surface



Dimensions in mm



- Pneumatic cylinder made of die cast aluminium
- Working piston made of hardened and hard chromium plated steel macke the device easy to handle and wear-proof
- Compact seals are wear-proof with large scraper effect, long service life
- Fast venting system: faster return; high work sequence
- Low-noise pneumatic switching
- Simple valve structure: interruption free

128 **GESIPA**®

#### HEAD MODULES FOR TAURUS® 5-6 AND TAUREX 5-6

#### Adaption takes priority

The TAURUS® 5 and 6 riveting tools must be adapted to the different kinds of rivets and lockbolts through specific pulling head modules



The suitability of nosepiece and fastener needs to be tested by the user and is

Head module for 7.8 mm Titgemeyer TIBULB\*

### No. 145 8008

Head module for 9.8 mm Huck Magna-Lok®\*

#### No. 145 8009

\* partly registered trademarks of TITGEMEYER GmbH & Co. KG or Alcoa Fastening Systems

Other head modules on request.

#### BALANCER

for all TAURUS® 1-4-Axial- and TAUREX 1-4-Axial tools

user's own responsibility!

To cover various requirements, two balancer models for suspending the TAURUS® Axial tools are available. If the tube for evacuating the spent mandrel can be kept very short, no external mandrel evacuation assistance is necessary which means a balancer without valve is sufficient.

However, if due to the tube length external evacuation assistance of the mandrel becomes necessary it can be switched on and off by means of the valve balancer in order to save cost-intensive compressed air.



Balancer without valve No. 143 4734

#### **BALANCER WITH DISCONNECTING VALVE**

The balancer with disconnecting valve is used when the blind rivet is to be inserted into the tool. In this case the valve interrupts the compressed air necessary to generate negative pressure when in its highest position.



Balancer with disconnecting valveil

No. 145 7733

#### **CALIBRATION DEVICE**

The GESIPA® calibration device for calibrating and adjusting process-controlled blind rivet and blind rivet nut tools. The DAKKS laboratory-certified device is suitable for all GESIPA® WinTech tools.

#### **EXTERNAL CONTROLLERS** The new communication interface between GESIPA®

**INTERFACE 4.0 FOR CONNECTION TO** 

tools and PLC interface. For all GESIPA® blind rivet tools with process control and connection to a PLC interface.

#### TIME DELAY VALVE

The time delay valve on the other hand is used when the blind rivet is to be inserted into the part. During the rivet setting procedure, the valve activates the compressed air required to create a vacuum and shuts it off after a set time.

#### SMALL JAW ASSEMBLY FOR PH 2, PH-AXIAL

With reduced head diameter (18 mm) and 2 part jaws.

#### Working range

2,4 mm Ø up to 3,2 mm Ø all materials Scope of supply Standard: nosepiece 10/24 (optional also with nosepiece 10/18.10/27, 10/29, 10/32)

#### SPECIAL STEEL SLEEVE AF 20/AF 30 FOR TAURUS®SERIES

With reduced steel sleeve diameter to overcome installation space limitations.

### Working capacity

All materials in all diameters



AF 20: TAURUS® 1-4 No. 145 8001

AF 30: TAURUS<sup>®</sup> 5-6 No. 160 8786



No. 145 0893

Time delay valve

No. 166 6178

NEV

130 **GESIPA**®





No. 163 4326





PH 2

PH Axial

No. 145 8075



The device enables monitoring of the minimum setting force and the number of connectors set. This system can be realised with any pneumatic hydraulic GESIPA® setting tool. It is irrelevant whether blind rivets, blind rivet nuts or a combination of various connectors are being processed here.

Up to three tools can be operated with the **MultiSwitch**. These tools can also be used repeatedly during a process cycle. Naturally, customer-specific software adaptations are possible.

The system is made possible thanks to an oil pressure sensor on the relevant tool, on the mounting of which an additional device mounting can be attached. As a result, reliable monitoring of the connector to be processed and the minimum setting force is guaranteed. All pneumatic hydraulic GE-SIPA® tools can be equipped with this oil pressure sensor. GESIPA® tools can be ordered ex works with one of these oil pressure sensors, and we are happy to retrofit existing GESIPA® tools with a sensor of this kind.

If the hydraulic pressure stays within a previously defined window of values, the process is classified accordingly as "OK", otherwise as "not OK". This is shown by green and red indicator lights. In addition, an adjustable acoustic signal can indicate that the set number of connectors has been reached or that the entire component has been completed. It is possible to distinguish between the various tools with colour labelling or numbering. This colour labelling is also reflected in the representation of the display. This means that it is possible to clearly assign the tool currently active to the display.

Do you have any questions or need more information? Our BU-EM is happy to help you. **uwe.herth@gesipa.com** 

#### **UNIVERSAL NOSEPIECE - 16**

for blind rivet tools HN 2, PH 2, PH 2000

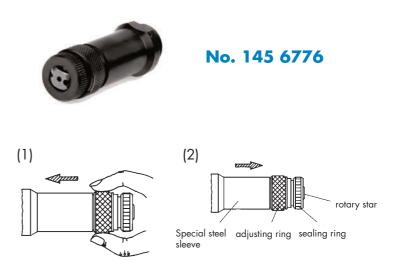
The universal nosepiece replaces five nosepiece sizes. The integrated rotary star in the steel sleeve can be unlocked easily without tools in order to select the appropriate size of nosepiece.

#### WORKING RANGE

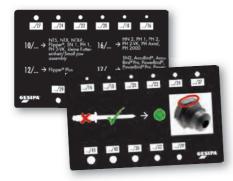
Blind rivets from 2.4 up to 5 mm Ø alu, copper and steel and up to 4 mm Ø stainless steel.

#### **OPERATION**

Operate the tool and hold trigger, then push back adjusting ring to end position (1). By turning the rotary star (2).



The universal nosepiece includes: Special steel sleeve, complete adjusting ring, rotary star and sealing ring.



#### **NOSEPIECE ALLOCATION CARD**

You can also use our nosepiece allocation card. This makes it easier to select the correct nosepiece for the respective tools.

No. 168 9502

#### VAS

Vacuum absorption system for PH2

#### No. 145 7579

This device absorbs the spent mandrel after the riveting operation and transports it automatically into the mandrel container. A further advantage is offered when the rivet, inserted into the nosepiece, is held in the jaw mechanism even if the tool head is in the vertical downwards position. The vacuum absorption device is available as a complete built-in and can also be retrofitted to existing GESIPA® riveting power tools at any time.

#### **TECHNICAL DATA**

Weight of kit: 430 g Operating air pressure: 4-6 bar

#### **SCOPE OF DELIVERY**

1 air deflector 1 wrench MSU Maintenance instructions with spare parts list

#### **ANGLE HEAD FOR PH2**

For setting rivets in places with difficult access and in corners



#### Working range

Blind rivets from Ø 2.4 mm up to Ø 4 mm all materilas, steel up to Ø 5 mm. (max. mandrel Ø 3 mm)

Angle head for PH2 with 3 part jaws No. 145 6612

#### **MULTI-PIECE EXTENSION UNIT**

For riveted joints in low-lying places. Screwed in between the device and the existing steel case

### Total length = steel head sleeve + extension + standard nosepiece

#### PH tools

The total length of the steel head sleeve, including the extension unit, is 157 mm for 100 mm.



TOOL	100 mm
PH 2	145 6779

#### **NOSEPIECES STANDARD + SPECIAL LENGTH**

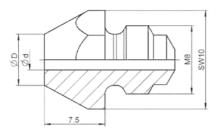
NTS, NTX, NTX-F, Flipper®, PH 2-VK

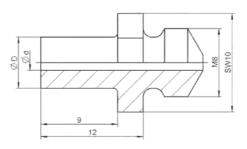
Ø	Material	Ød	ØD	Standard	No.	V (9mm)	No.
2.4	Alu	1.6	6.0	10/16	143 4054		
2.4	Alu	1.8	6.0	10/18	143 4055	V-10/18	143 4096
3.2	CAP®-Alu, CAP®-Copper	1.8	6.0	10/18	143 4055	V-10/18	143 4096
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	6.0	10/24	143 4061	V-10/24	143 4097
4	Alu, Cu	2.4	6.0	10/24	143 4061	V-10/24	143 4097
4	Steel, CAP®-Alu, CAP®-Cu, Alu/Alu, PG-Alu	2.7	6.0	10/27	143 4062	V-10/27	143 4098
4	Stainless steel, Stinox, PG-Steel	2.9	8.0	10/29	143 4064	V-10/29	143 4099
4.8	CAP®-Alu, CAP®-Cu	2.9	8.0	10/29	143 4064	V-10/29	143 4099
4.8 and 5	Alu, PG-Alu	3.2	8.0	10/32	143 4065	V-10/32	143 4100
4	Plastic	3.0	-	10/30 K	143 4092	-	-
5	Plastic	3.5	-	10/35 K	143 4093	-	-
6	Plastic	4.0	-	10/40 K	143 4094	-	-

Extended version (9mm)

V-10/.....Nosepieces

Standard version 10/..... Nosepieces





The name of the nosepiece (e.g. 17/32) can be found directly on the nosepiece.

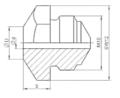


#### **NOSEPIECES STANDARD**

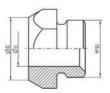
Flipper<sup>®</sup> Plus

Ø	Material	Ød	ØD	Standard	No.			
2.4	Alu	2.0	6.0	12/20	157 2920			
3.2	CAP®-Alu, CAP®-Cu	2.0	6.0	12/20	157 2920			
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu, PG-Alu, PG-Steel	2.4	6.0	12/24	157 2924			
4	Alu, Cu	2.4	6.0	12/24	157 2924			
4	Steel, CAP®-Alu, CAP®-Cu, Alu, PG-Alu	2.4	6.0	12/24	157 2924			
4	Stainless steel, Stinox, PG-Steel	2.9	8.0	12/29	157 2925			
4.8	CAP®-Alu, CAP®-Cu	2.9	8.0	12/29	157 2925			
4.8 and 5	Alu, PG-Alu	3.2	8.0	12/32	161 8800			
4.8 and 5	Steel, Alu	3.2	8.0	12/32	161 8800			
<b>BLIND RIVE</b>	BLIND RIVET NUTS							
M4	Alu, Steel	4.15	11.0	12/M4	157 2926			
M5	Alu, Steel, PG-Alu, PG-Steel	5.15	11.0	12/M5	157 2927			
M6	Alu, PG-Alu	6.15	11.0	12/M6	157 2929			

Standard version 12/..... Nosepieces



Standard version BRN 12/M..... Nosepieces

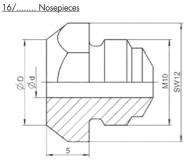




ø	Material	Ød	ØD	Standard	No.	V (10 mm)	No.
2.4	Alu	1.8	6.0	16/18	143 4285	V-16/18	143 4370
3.2	CAP®-Alu, CAP® Copper	1.8	6.0	16/18	143 4285	V-16/18	143 4370
3	Alu/Cu	2.0	6.0	16/20	143 4287	V-16/20	143 4371
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	6.0	16/24	143 4288	V-16/24	143 4372
4	Alu, Cu, CAP®-Alu, CAP®-Cu	2.4	6.0	16/24	143 4288	V-16/24	143 4372
4	Steel, Alu/Alu, PG-Alu	2.7	8.0	16/27	143 4289	V-16/27	143 4373
4	Stainless steel, Stinox, PG-Steel	3.0	8.0	16/29	143 4290	V-16/29	143 4374
4.8 and 5	Alu, CAP®-Alu, CAP®-Cu, PG-Alu	3.0	8.0	16/29	143 4290	V-16/29	143 4374
4.8 and 5	Steel, Alu/Alu	3.35	8.0	16/32	143 4291	V-16/32	143 4375
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	10.0	16/36	143 4292	V-16/36	143 4376
6	Alu	3.6	10.0	16/36	143 4292	V-16/36	143 4376
6	Steel	4.0	10.0	16/40	143 4293	V-16/40	143 4369
6.4	Alu, PG-Alu	4.0	10.0	16/40	143 4293	V-16/40	143 4369
6.4	Steel, Alu/Alu	4.5	10.0	16/45	143 4300	V-16/45	143 4378
4	Plastic	3.0	-	16/30 K	143 4130		
5	Plastic	3.5	-	16/35 K	143 4131		
6	Plastic	4.0	-	16/40 K	143 4132		

#### NOSEPIECES STANDARD + SPECIAL LENGTH HN 2, PH 1, PH 2, PH Axial, PH 2000

Standard version

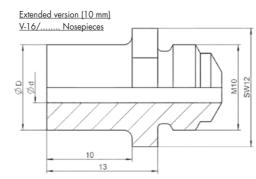


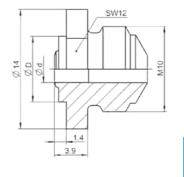
#### MEGA GRIP<sup>®</sup> / Monobolt<sup>®</sup>

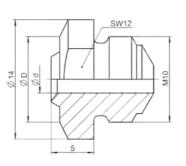
Ø	Material	Ød	ØD	Designation	No.
4.8	all MEGA GRIP®	3.1	8.0	16/31 MG	143 4380
6.4	all MEGA GRIP®	4.2	10.0	16/41 MG	143 4381
4.8	Monobolt®	3.15	7.7	16/31 MB	143 4379
6.4	Monobolt®	4.2	9.5	16/42 MB	143 4163

#### **BULB-TITE®**

ø	Material	Ød	ØD	Designation	No.
4	all BULB-TITE®	2.64	8.0	16/26 BT	143 4301
5.2	all BULB-TITE®	3.23	10.0	16/32 BT	143 4302
6.3	all BULB-TITE®	4.2	11.0	16/42 BT	143 4303
7.7	all BULB-TITE®	4.8	10.0	16/48 BT	143 4304







The suitability of nosepiece and fastener needs to be tested by the user and is user's own responsibility!

#### **NOSEPIECES STANDARD + SPECIAL LENGTH**

SN2, AccuBird®, AccuBird®Pro, PowerBird®, PowerBird®Pro, PowerBird®Pro Gold Edition, TAURUS®

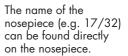
ø	Material	Ød	ØD	Standard	No.	V (8mm)	No.
2.4	Alu	1.6	6.0	17/16	143 4972	-	-
2.4	Alu	1.8	6.0	17/18	143 4976	V-17/18	143 4979
3.2	CAP®-Alu, CAP® Copper	1.8	6.0	17/18	143 4976	V-17/18	143 4979
3	Alu/Cu	2.0	6.0	17/20	143 4994	V-17/20	145 7315
3	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu	2.2	6.0	17/22	143 5018	V-17/22	145 7323
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Stahl	2.4	6.0	17/24	143 4955	V-17/24	143 4980
4	Alu, Cu, CAP®-Alu, CAP®-Cu	2.4	6.0	17/24	143 4955	V-17/24	143 4980
4	Steel, Alu/Alu, PG-Alu	2.7	8.0	17/27	143 4973	V-17/27	143 4981
4	Stainless steel, Stinox, PG-Steel	3.0	8.0	17/29	143 4974	V-17/29	143 4982
4.8 and 5	Alu, CAP®-Alu, CAP®-Cu, PG-Alu	3.0	8.0	17/29	143 4974	V-17/29	143 4982
4.8 and 5	Steel, Alu/Alu	3.35	8.0	17/32	143 4975	V-17/32	143 4983
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	10.0	17/36	143 4977	V-17/36	143 4984
6	Alu	3.6	10.0	17/36	143 4977	V-17/36	143 4984
6	Steel	4.0	10.0	17/40	143 4999	V-17/40	143 5038
6.4	Alu, PG-Alu	4.0	10.0	17/40	143 4999	V-17/40	143 5038
6.4	Steel, Alu/Alu	4.5	10.0	17/45	143 4860	V-17/45	143 4866
4	Plastic	3.0	-	17/30 K	143 4933	-	-
5	Plastic	3.5	-	17/35 K	143 5824	-	-
6	Plastic	4.0	-	17/40 K	143 4998	-	-

#### MEGA GRIP<sup>®</sup> / Monobolt<sup>®</sup>

4.8	all MEGA GRIP®	3.1	8.0	17/31 MG	143 4993
6.4	all MEGA GRIP®	4.2	10.0	17/41 MG	143 4865
4.8	Monobolt®	3.1	8.0	17/31 MB	143 4868
6.4	Monobolt®	4.2	9.5	17/42 MB	143 4869

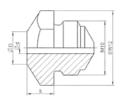
#### **BULB-TITE®**

4	all BULB-TITE®	2.64	8.0	17/26 BT	143 4985
5.2	all BULB-TITE®	3.23	10.0	17/32 BT	143 4986
6.3	all BULB-TITE®	4.2	11.0	17/42 BT	143 4988
7.7	all BULB-TITE®	4.8	10.0	17/48 BT	143 4989

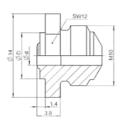




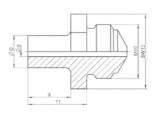
Standard version 17/.....Nosepieces



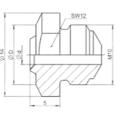
Special version 17/.....MB Nosepieces



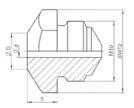
Extended version (8 mm) V-17/.....Nosepieces



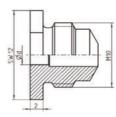
Special version 17/....BT Nosepieces



Special version 17/.....MG Nosepieces



Special version 17/.....Plastic Nosepieces



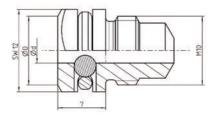


The suitability of nosepiece and fastener needs to be tested by the user and is user's own responsibility!

#### **RETAINING NOSEPIECES**

for SN 2, AccuBird®, AccuBird® Pro, PowerBird®, PowerBird® Pro, PowerBird® Pro Gold Edition

Ø	Material	Ød	Designation	No.
2.4	Alu	1.85	17/18 R	165 5422
3.2	CAP <sup>®</sup> -Alu, CAP <sup>®</sup> Copper	1.85	17/18 R	165 5422
3	Alu/Cu Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu	2.0	17/20 R	165 5424
3	Alu, Cu, Steel, Stainless steel, Stinox	2.2	17/22 R	165 5426
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	17/24 R	165 5427
4	Alu, Cu, CAP®-Alu, CAP®-Cu	2.4	17/24 R	165 5427
4	Steel, Alu/Alu, PG-Alu	2.7	17/27 R	165 5428
4	Stainless steel, Stinox, PG-Steel	2.9	17/29 R	165 5429
4.8 and 5	Alu, CAP®-Alu, CAP®-Cu, PG-Alu	2.9	17/29 R	165 5429
4.8 and 5	Steel, Alu/Alu	3.2	17/32 R	165 5430
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	17/36 R	165 5431
6	Alu	3.6	17/36 R	165 5431
6	Steel	4.0	17/40 R*	165 5433
6.4	Alu, PG-Alu	4.0	17/40 R*	165 5433
6.4	Steel, Alu/Alu	4.5	17/45 R*	165 5434

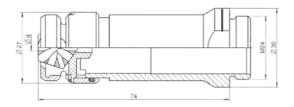


\*Except AccuBird® and AccuBird® Pro

#### **UNIVERSAL NOSEPIECE**

HN2, SN 2, PH 1, PH 2, PH 2000, AccuBird®, PowerBird®

	Ø	Material	Ød	HN 2, SN 2, PH 1, PH 2, PH 2000	<b>Bird® series</b>
1	2.4	Alu	1.8		
(	3.2	CAP <sup>®</sup> -Alu, CAP <sup>®</sup> Copper	1.8		
3 ai	nd 3.2	Alu, Cu, Stahl, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4		
	4	Alu, Cu, CAP®-Alu, CAP®-Cu	2.4	No. 145 6776	No. 143 4960
	4	Steel, Alu/Alu, PG-Alu	2.7		
	4	Stainless steel, Stinox, PG-Steel	2.9		
4.8	and 5	Alu, CAP®-Alu, CAP®-Cu, PG-Alu	2.9		
4.8	and 5	Steel, Alu/Alu			



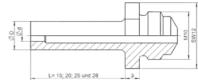
#### **SPECIAL NOSEPIECES**

#### NTS, NTX, NTX-F, Flipper<sup>®</sup>, PH 2-VK

ø	Material	Ød	ØD	Designation	15 mm	20 mm	25 mm	28 mm
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	6.5	10/24 SL	145 6631	145 6630	145 6632	145 6633
4	Alu, Cu	2.4	6.5	10/24 SL	145 6631	145 6630	145 6632	145 6633
4	Steel, CAP®-Alu, CAP®-Cu, Alu/ Alu, PG-Alu	2.7	7.0	10/27 SL	145 6634	145 6635	145 6636	145 6637
4	Stainless steel, Stinox, PG-Steel	2.9	8.0	10/29 SL	145 6638	145 6639	146 4001	145 6640
4.8	CAP®-Alu, CAP®-Cu	2.9	8.0	10/29 SL	145 6638	145 6639	146 4001	145 6640
4.8 and 5	Alu, PG-Alu	3.2	8.0	10/32 SL	145 6641	145 6642	145 6643	145 6644

#### HN 2, PH 1, PH 2, PH Axial, PH 2000

ø	Material	Ød	ØD	Designation	15 mm	20 mm	25 mm	28 mm
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	6.0	16/24 SL	145 6812	145 6813	145 6814	145 6815
4	Alu, Cu	2.4	6.0	16/24 SL	145 6812	145 6813	145 6814	145 6815
4	Steel, PG-Alu	2.7	8.0	16/27 SL	145 6816	145 6817	145 6818	145 6819
4	Stainless steel, Stinox, PG-Steel	3.0	8.0	16/29 SL	145 6820	145 6821	145 6822	145 6823
4.8 and 5	Alu, PG-Alu	3.0	8.0	16/29 SL	145 6820	145 6821	145 6822	145 6823
4.8 and 5	Steel	3.35	8.0	16/32 SL	145 6824	145 6825	145 6826	-
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	10.0	16/36 SL	145 6828	145 6829	-	145 6830
6	Alu	3.6	10.0	16/36 SL	145 6828	145 6829	-	145 6830
6.4	Alu, PG-Alu	4.0	10.0	16/40 SL	145 6807	145 6808	-	-
6.4	Steel, Alu/Alu	4.5	10.0	16/45 SL	145 6805	145 6806	-	-



	1	1			1	1		1
Ø	Material	Ød	ØD	Designation	15 mm	20 mm	25 mm	28 mm
2.4	Alu	1.8	6.0	17/18 SL	145 7367	145 7368	146 4039	146 4040
3.2	CAP®-Alu, CAP® Copper	1.8	6.0	17/18 SL	145 7367	145 7368	146 4039	146 4040
3	Alu/Cu	2.0	6.0	17/20 SL	145 7314	145 7305	146 4041	145 7369
3	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu	2.2	6.0	17/22 SL	145 7351	-	145 7349	145 0668
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	6.0	17/24 SL	145 7370	145 7371	145 7372	145 7373
4	Alu, Cu	2.4	6.0	17/24 SL	145 7370	145 7371	145 7372	145 7373
4	Steel, PG-Alu	2.7	8.0	17/27 SL	145 7374	145 7376	145 7377	143 5035

17/29 SL.

17/29 SL

17/32 SL

17/36 SL

17/36 SL

17/40 SL.

17/45 SL.

30

3.0

3.35

3.6

3.6

4.0

4.5

80

8.0

8.0

10.0

10.0

10.0

10.0

145 7378

145 7378

145 7383

145 7390

145 7390

145 7399

145 7265

145 7379

145 7379

145 7385

145 7392

145 7392

145 7400

145 0673

145 7381

145 7381

145 7386

145 7393

145 7393

145 7401

145 7404

145 7382

145 7382

145 7388

145 7394

145 7394

145 7402

145 7398



### SN2, AccuBird®, AccuBird®Pro, PowerBird®, PowerBird®Pro Gold Edition, TAURUS®



Stainless steel, Stinox, PG-Steel

Alu, PG-Alu

Steel

Stainless steel, Stinox, PG-Steel

Alu/Alu

Steel

Alu, Stainless steel, PG-Alu,

PG-Steel und G-Bulb

4

4.8 and 5

4.8 and 5

4.8 and 5

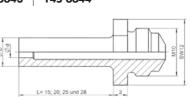
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6

6.4

L= 15; 20; 25 und 28

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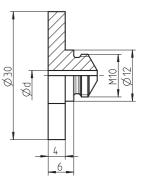


#### PLATE NOSEPIECES P WITHOUT CUT-OUT

for SN2, HN 2, PH 1, PH 2, PH Axial, PH 2000, Bird series, Bird Pro series, TAURUS®

Ø	Material	Ø d	Designa- tion	HN 2, PH 1, PH 2, PH Axial, PH 2000 No.	Designa- tion	TAURUS® Bird series Bird Pro series SN 2 No.
3 and 3.2	Alu, Cu, Stahl, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	P 16/24	145 6649	P 17/24	145 7335
4	Alu, Cu, CAP®-Alu, CAP®-Cu	2.4	P 16/24	145 6649	P 17/24	145 7335
4	Steel, Alu/Alu, PG-Alu	2.7	P 16/27	145 6650	P 17/27	145 7336
4	Stainless steel, Stinox, PG-Steel	3.0	P 16/29	145 6651	P 17/29	145 7337
4.8 and 5	Alu, CAP®-Alu, CAP®-Cu, PG-Alu	3.0	P 16/29	145 6651	P 17/29	145 7337
4.8 and 5	Steel, Alu/Alu	3.35	P 16/32	145 6657	P 17/32	145 7338
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	P 16/36	145 6656	P 17/36	145 7339
6	Alu	3.6	P 16/36	145 6656	P 17/36	145 7339

For countersunk head blind rivets

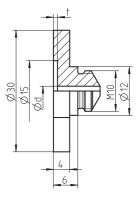


#### PLATE NOSEPIECE PA WITH CUT-OUT

for SN2, HN 2, PH 1, PH 2, PH Axial, PH 2000, Bird series, Bird Pro series, TAURUS®

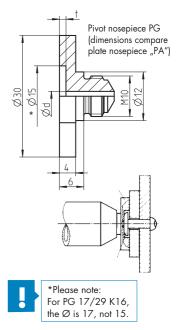
ø	Material	Ød	Designa- tion	t	HN 2, PH 1, PH 2, PH Axial, PH 2000 No.	Designa- tion	t	TAURUS® Bird series Bird Pro series SN 2 No
3 and 3.2	Alu, Cu, Stahl, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	PA 16/24	1.0	145 6659	PA 17/24	1.0	145 7330
4	Alu, Cu, CAP®-Alu, CAP®-Cu	2.4	PA 16/24	1.0	145 6659	PA 17/24	1.0	145 7330
4	Steel, Alu/Alu, PG-Alu	2.7	PA 16/27	1.0	145 6660	PA 17/27	1.0	145 7331
4	Stainless steel, Stinox, PG-Steel	3.0	PA 16/29	1.1	145 6661	PA 17/29	1.1	145 7341
4.8 and 5	Alu, CAP®-Alu, CAP®- Cu, PG-Alu	3.0	PA 16/29	1.1	145 6661	PA 17/29	1.1	145 7341
5	Al-large flange K 11 and K 14	3.0	PA 16/29 K	1.5	145 6652	PA 17/29 K	1.5	145 7332
4.8 and 5	Steel, Alu/Alu	3.35	PA 16/32	1.1	145 6653	PA 17/32	1.1	145 7333
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	PA 16/36	1.1	145 6662	PA 17/36	1.1	145 7342
6	Alu	3.6	PA 16/36	1.3	145 6666	PA 17/36	1.3	145 7334

For standard blind rivets (dome head)



### **PIVOT NOSEPIECES PG** (for the production of articular rivet connections) for SN2, HN 2, PH 1, PH 2, PH Axial, PH 2000, Bird series, Bird Pro series, TAURUS®

ø	Material	Ød	Designa- tion	t	HN 2, PH 1, PH 2, PH Axial, PH 2000	Designation	t	TAURUS® Bird series Bird Pro series SN 2
					No.			No.
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	PG 16/24	1.6	145 6663	PG 17/24	1.6	143 5002
4	Alu, Cu, CAP®-Alu, CAP®-Cu	2.4	PG 16/24	1.6	145 6663	PG 17/24	1.6	143 5002
4	Steel, Alu/Alu, PG-Alu	2.7	PG 16/27	1.6	145 6664	PG 17/27	1.6	143 5003
4	Stainless steel, Stinox, PG-Steel	3.0	PG 16/29	1.6	145 6655	PG 17/29	1.6	143 5007
4.8 and 5	Alu, CAP®-Alu, CAP®-Cu, PG-Alu	3.0	PG 16/29	1.6	145 6655	PG 17/29	1.6	143 5007
5	Al-large flange K 11 and K 14	3.0	PG 16/29 K	2.0	145 6658	PG 17/29 K	2.0	143 5004
5	Al-large flange K 16	3.0	-	-	-	PG 17/29 K16*	2.0	143 5009
4.8 and 5	Steel, Alu/Alu	3.35	PG 16/32	1.6	145 6654	PG 17/32	1.6	143 5005
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	PG 16/36	1.6	145 6665	PG 17/36	1.6	143 5006
6	Alu	3.6	PG 16/36	2.0	146 4002	PG 17/36	2.0	145 7340



### **SPECIAL ACCESSORIES / NOSEPIECES** Blind rivet setting tools with AV\*

\*AV = spring-loaded trigger system

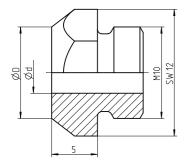
#### NOSEPIECES FOR SETTING TOOLS WITH SPRING-LOADED TRIGGER SYSTEM STANDARD + EXTENDED VERSION Bird Pro series and TAURUS®

ø	Material	Ød	ØD	Standard	No.	V (8mm)	No.
2.4	Alu	1.85	6.0	17/18 AV	143 5591	V-17/18 AV	145 7291
3.2	CAP <sup>®</sup> -Alu, CAP <sup>®</sup> Copper	1.85	6.0	17/18 AV	143 5591	V-17/18 AV	145 7291
3	Alu/Cu	2.0	6.0	17/20 AV	143 4990	V-17/20 AV	145 0666
3	Alu, Cu, Stahl, Stainless steel, Stinox, Alu/Alu	2.2	6.0	17/22 AV	143 4991	V-17/22 AV	145 0667
3 und 3.2	Alu, Cu, Stahl, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	6.0	17/24 AV	143 5592	V-17/24 AV	145 7292
4	Alu, Cu, CAP®-Alu, CAP®-Cu	2.4	6.0	17/24 AV	143 5592	V-17/24 AV	145 7292
4	Steel, Alu/Alu, PG-Alu	2.7	8.0	17/27 AV	143 5593	V-17/27 AV	145 0628
4	Stainless steel, Stinox, PG-Steel	3.0	8.5	17/29 AV	143 5594	V-17/29 AV	145 0629
4.8 and 5	Alu, CAP <sup>®</sup> -Alu, CAP <sup>®</sup> -Cu, PG-Alu	3.0	8.5	17/29 AV	143 5594	V-17/29 AV	145 0629
4.8 and 5	Steel, Alu/Alu	3.35	8.5	17/32 AV	143 5595	V-17/32 AV	145 7725
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	10.0	17/36 AV	143 5596	V-17/36 AV	145 0630
6	Alu	3.6	10.0	17/36 AV	143 5596	V-17/36 AV	145 0630
6	Steel	4.0	10.0	17/40 AV	143 5597	V-17/40 AV	145 7293
6.4	Alu, PG-Alu	4.0	10.0	17/40 AV	143 5597	V-17/40 AV	145 7293
6.4	Steel, Alu/Alu	4.5	10.0	17/45 AV	143 5598	V-17/45 AV	145 0631

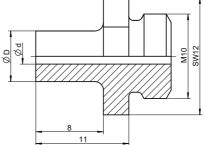
The name of the nosepiece (e.g. 17/32) can be found directly on the nosepiece.



Standard version 17/.....Nosepieces



Extended version (8 mm) V-17/.....Nosepieces



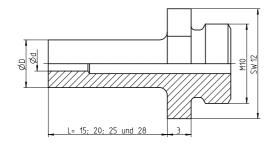
#### **DELIVERY TIMES ON REQUEST!**

				1				
ø	Material	Ød	ØD	Designation	15 mm	20 mm	25 mm	28 mm
2.4	Alu	1.85	6.0	17/18 AV SL	145 0634	145 0635	145 0636	145 0637
3.2	CAP <sup>®</sup> -Alu, CAP <sup>®</sup> Copper	1.85	6.0	17/18 AV SL	145 0634	145 0635	145 0636	145 0637
3	Alu/Cu	2.0	6.0	17/20 AV SL	145 0658	145 0659	145 0660	145 0661
3	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu	2.2	6.0	17/22 AV SL	145 0662	145 0663	145 0664	145 0665
3 and 3.2	Alu, Cu, Steel, Stainless steel, Stinox, Alu/Alu, PG-Alu, PG-Steel	2.4	6.0	17/24 AV SL	145 0638	145 7321	145 0639	145 0640
4	Alu, Cu	2.4	6.0	17/24 AV SL	145 0638	145 7321	145 0639	145 0640
4	Steel, PG-Alu	2.7	8.0	17/27 AV SL	145 0641	145 7322	145 0642	145 7726
4	Stainless steel, Stinox, PG-Steel	3.1	8.0	17/29 AV SL	145 7324	145 0643	145 7325	145 0644
4.8 and 5	Alu, PG-Alu	3.1	8.0	17/29 AV SL	145 7324	145 0643	145 7325	145 0644
4.8 and 5	Steel	3.35	8.0	17/32 AV SL	145 0645	145 7326	145 0646	145 0647
4.8 and 5	Stainless steel, Stinox, PG-Steel	3.6	10.0	17/36 AV SL	145 0648	145 0649	-	145 0651
6	Alu/Alu	3.6	10.0	17/36 AV SL	145 0648	145 0649	145 0650	145 0651
6	Steel	4.0	10.0	17/40 AV SL	145 7327	145 7328	145 0652	145 0653
6.4	Alu, Stainless steel, PG-Alu, PG-Steel and G-Bulb	4.5	10.0	17/45 AV SL	145 0654	145 0655	145 0656	145 0657

### NOSEPIECES EXTENDED VERSION FOR SETTING TOOLS

WITH SPRING-LOADED TRIGGER SYSTEM Bird Pro series and TAURUS®

\*AV= spring-loaded trigger system





#### **DELIVERY TIMES ON REQUEST!**

# **GESIPA® AUTOMATIC RIVETING MACHINES**



### GAV 8000 ECO GAV 8000 ELECTRONIC GAV HF



- All GESIPA<sup>®</sup> blind rivet machines are perfectly suited for use in industrial large-scale production.
- GAVs can either be operated manually or used as component in a robot-controlled system; integration into a production system is also possible.
- The automatic riveting machines support the setting of a wide range of blind rivets from 2.4 – 6.4 mm in diameter.
- Up to 40 riveting processes per minute can be realized depending of the Type of application.

### THE PRACTICAL MODULAR PRINCIPLE

#### THE PRACTICAL MODULAR PRINCIPLE GUARANTEES EFFICIENCY AND QUALITY

### Individual conception for efficiency and flexibility

GESIPA®'s fully-automatic blind rivet processing systems are constructed to meet the customer's special production environment. All factors, such as workplace design, production Type, application, securing of flawless work processes, integration into the sequential organisation and also process documentation for safety-relevant parts, are taken into consideration. GAV are therefore available with various pistol models, hose length packages, special accessories for various rivet dimensions and production requirements. This results in a large variety of models and a high level of efficiency thanks to the solutions that are adapted to meet requirements. The GAV can be integrated into the system or operated independently. If the application changes, the system can be quickly and easily adapted to the new environment.

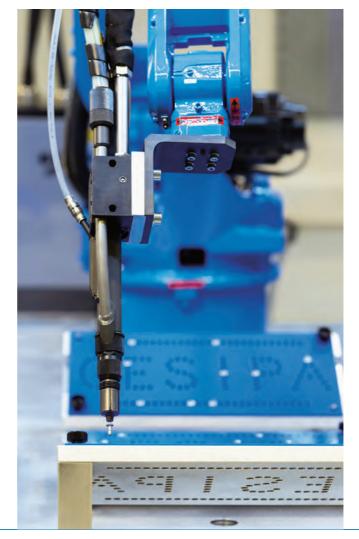
#### **GAV - USE IN ROBOT APPLICATIONS**

### Use by industry in robot-controlled applications

Both versions of the GAV 8000 can be integrated into robot systems. Industrial robots are used almost everywhere in the production environment. They can be programmed to carry out various movements and can therefore be used highly efficiently in combination with the GESIPA® rivet equipment.

With the controlled, fast and secure production processes it is possible to achieve the following benefits by using a fully-automatic GAV combined with a multi-axle robot:

- First rate precission
- High efficiency
- Short cycle times
- High flexibility



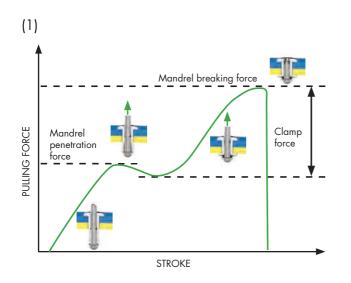
### **BLIND RIVET FUNCTION DOCUMENTATION AND SETTING PROCESS MONITORING**

# THE INTEGRATED GESIPA® QUALITY MANAGEMENT SYSTEM GUARANTEES PRECISION AND ACCURACY RIGHT FROM THE VERY FIRST PRODUCTION STEP THROUGH TO THE PROCESSED BLIND RIVET.

The combination of the use of function-documented blind rivets and the use of the setting process monitoring function of the GAV 8000 electronic guarantees processsecure connections.



- Dimensional review
- Function test
- Setting process monitoring

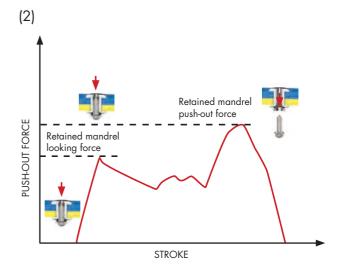


#### Function documentation / Setting curve (1)

In addition to other parameters, the setting curve is measured using calibrated testing equipment for every batch of application-specific blind riveting. The measuring results of the shaft deformation, slip-in behaviour, mandrel break load and torque are compared to target values to ensure that the blind rivet in the application is deformed as required and creates a secure connection.

#### **Monitored process - Reliable connection**

100% inspections of the riveting processes are required for safety-relevant applications for industrial processing of blind rivets. In this case, the fully-automatic rivet device GAV 8000 electronic allows application-compatible efficient solutions ranging from the basic system through to a system with a barcode scanner.



#### Function documentation / Mandrel ejection force (2)

The remaining part of the mandrel enclosed in the set rivet is pressed out with the aid of a needle. The measured force can be used to determine whether the remaining part of the pin is properly locked and will not cause any rattling noises or fall out. The batch is only released if both these values are within tolerances.

144 **GESIPA**®

### THE CONCEPT TO THE INTEGRATED SETTING PROCESS MONITORING



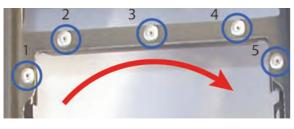
Display of a GAV 8000 electronic indicating the setting curve as part of the setting process monitoring

### THE PROCESS MONITORING SYSTEM IS AN INTEGRAL PART OF THE GAV 8000 ELECTRONIC.

### It offers the following benefits:

- Optimum process security thanks to integrated quality concept
- Blind rivet-specific process monitoring
- System can be operated independently
- No memory-programmable control system (SPS) required to operate the device
- No system calibration required when system is exchanged
- Little installation effort required
- Interfaces to the control integration

### **PROGRAMMING THE SETTING PROCESS MONITORING**



The setting sequence

### STEP 1:

#### Setting up blind rivet position-specific profiles

Recording and archiving of the relevant process parameters to create a blind rivet connection with reference process curves after defining the analysis window

### STEP 2:

#### Generation of part-specific profile lists

Summary of the profile in the setting sequence as a control file for the process sequence and process assessment

### STEP 3:

### **Operating the device**

Online analysis and saving of the setting process data with process interruption if deviations are detected

## **GESIPA® AUTOMATIC RIVETING MACHINES**

### COMPARISON OF GAV 8000 ECO, ELECTRONIC AND GAV HF



PROPERTIES	GAV 8000 eco	GAV 8000 electronic
Range of possible sizes 2.4 mm - 6.4 mm (Alu)	x	х
Up to 40 rivet settings per minute	x	х
Independent system operation possible	x	х
PLC control possible	x	x
Intelligent control – excellent process safety	x	х
Setting of all operating parameters via the display	x	x
Customer-specific software modification	x	Х
Maintenance display	x	x
Power supply unit: Convenient automatic adjustment to all country-specific electricity networks thanks to wide range input	x	x
Simple update to the control possible by USB interface	x	x
Modern 7" display with high resolution (800x480 px), good contrasts and improved viewing angle dependencies	x	x
Process monitoring		x
Process parameter memory for up to 9,999 different parts		x
Online transfer of the process data		Х
The last 1 million rivet processes are saved in the device		Х

### COMPARISON OF GAV 8000 ECO, ELECTRONIC AND GAV HF

On request our technical sales team will send you more information about application possibilities in your company.





	GAV 8000 eco and GAV 8000 electronic	GAV HF
SUPPLY UNIT		
Weight	100 kg	270 kg
Spent mandrel container volume	approx. 1,800 to 5,500 pcs. (3.5 l) depending on size	approx. 1,800 to 5,500 pcs. (3.5 l) depending on size
ELECTRICS		
Nominal voltage	230 Volt ~ 50 Hz	230 Volt ~ 50 Hz
Nominal current	< 2.5 A	< 8 A
Protection class	IP 54	IP 54
PNEUMATICS		
Supply pressure	< 10 bar	< 10 bar
Operating pressure	6 bar	5 bar
Air consumption/riveting	15 NL	30 NL
Air consumption/ spent mandrel extraction	340 NL / min.	340 NL / min.
Connection line	1⁄2" (12.5 mm) max. length 5 m	<sup>3</sup> ⁄ <sub>4</sub> " (18.75 mm) max. length 5 m
Rest mandrel extraction tube	Outer Ø 8 mm/ Inner Ø 5 mm	Outer Ø 10 mm/ Inner Ø 6 mm
Pressure transducer	hydro-pneumatic	hydro-pneumatic
RIVET PISTOL		
Weight	ca. 2.5 kg	ca. 7 kg
Stroke	16 - 20 mm	20 mm
Traction power	12,000 N	25,000 N
Standard tube package length	3.75 m (max. 5.0 m)	6 m (max. 25 m)
Working cycle (theoretical)	1.25 sec.	2 Sek.

## **GAV 8000 ELECTRONIC / GAV 8000 ECO**

Fully automatic blind rivet system for industrial production with and without setting process monitoring

Advice and delivery time on request

integrated setting process monitoring



### WORKING RANGE GAV Electronik

- 2.4 mm up to 6.4 mm Ø alu and copper
- Up to 6 mm Ø steel
- Up to 5 mm Ø stainless steel
- Up to flange diameter 11.4 mm
- Rivet body lengths above 30 mm
- Traction power up to 12,000 N at 6 bar air pressure

### SCOPE OF DELIVERY (both variants)

The scope of delivery always includes one setting pistol. This can be freely modified as required.

### SYSTEM DESCRIPTION (both variants)

- Electronic system controls
- Intuitive menu guidance via navigation and function keys
- Function display
- Maintenance display and simple fault diagnosis
- Customer-specific software modification is possible
- Rivet mandrels are disposed of by vacuum system
- Spring loaded trigger system as an optional extra
- available
- Can be integrated into the system or operated independently
- Interface for external memory programmable control system (SPS) can be realised via the GESIPA<sup>®</sup> interface





WITHOUT setting process monitoring Ideal for applications that do not require any process monitoring

### Subsequent upgrade to GAV 8000 electronic possible in our Walldorf factory at extra price

Advice and delivery time on request

### WORKING RANGE GAV eco

- 2.4 mm up to 6.4 mm Ø alu and copper
- Up to 6 mm Ø steel
- Up to 5 mm Ø stainless steel
- Up to flange diameter 11.4 mm
- Rivet body lengths above 30 mm
- Traction power up to 12,000 N at 6 bar air pressure

### **ADVANTAGES** (both variants)

### Productivity and savings potential

- Cost effective from an annual quantity of aroand 500,000 blind rivets (in relation to the german market)
- Up to 50 % time and costs savings compared to standard blind rivet devices
- Rivet pistol has a large action radius thanks to the hose package that is up to 5.0 m in length (Standard length 3.75 m)
- No trained personnel required for operation
- Can be easily integrated into fully-automatic production systems
- Up to 40 blind rivets can be processed every minute



### **PISTOL VERSION** for GAV 8000 electronic / GAV 8000 eco

### SPECIFIC WORKSTATION CONFIGURATION

For all GAV versions, three different setting pistol variants are available for the ideal configuration of the workstation. For manual workstations, pistols are available as overhead versions with overhead hose assembly or standard pistols with floor-mounted hose assembly. Both versions are equipped with a balancer to ensure fatigue-free working. The robotic pistol has been developed exclusively for use in fully automatic production systems or robot-controlled systems. It is supplied from stock with corresponding drilled holes for easy installation. For further questions, please contact our Technical Sales team.

A setting pistol suitable for your application is supplied at time of delivery.

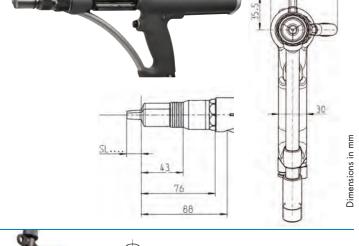
### **STANDARD PISTOL**

Total length: 447 mm (+ SL nose)

The standard pistol is primarily used for **manual operator-controlled** use.

#### **Advantages**

- Can be used for vertical and horizontal riveting
- Inexpensive variant
- On request, it can be fitted with an extra handle to improve ergonomics, in particular for applications involving vertical riveting



Dimensions in mm

### OVERHEAD PISTOL

Total length: 447 mm (+ SL nose)

The overhead pistol can be used everywhere where the hose package is cumbersome or where it could come into contact with sensitive surfaces.

### Advantage

• Available with contact pressure monitoring

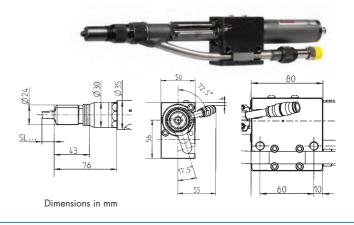
### **ROBOTIC PISTOL**

Total length: 441 mm (+ SL nose)

The robotic pistol has been developed primarily for use in fully automatic production applications/system (linear units/robots).

### **Advantages**

- Ideal for integration in a production system
- On request, it can also be fitted with an extra handle (with trigger button) for vertical riveting so that it can be used manually



### ®

150 **GESIPA** 

## **GAV HF**

Fully-automatic blind rivet system for very strong blind rivets

### WORKING RANGE

- Blind rivet sizes from 4.8 mm to 6.4 mm Ø all materials
- Rivet body lengths up to 35 mm
- Setting head diameter up to 19 mm
- Mandrel up to 5.5 mm Ø
- Traction power up to 25,000 N at 6 bar air pressure



Size comparison between a possible blind rivet of the GAV HF, a GESIPA®-PolyGrip® and an 1 Euro coin.





### **ADVANTAGES**

- Conveyor pot filling level display
- Operating pressure: 5 bar
- Vibration-dampened pressure intensifier attachment
- Multiple monitoring of the blind rivet pistol by means of sensors
- Industrial control with an 8" colour display
- Conveyor distances of up to 25 m are possible when used in fully-automatic production systems
- Electronic system controls
- Intuitive menu guidance via navigation and function keys
- Function display
- Maintenance display and simple fault diagnosis
- Customer-specific software modification is possible
- Ideal for applications that do not require any process monitoring
- Rivet mandrels are disposed of via a vacuum system
- Surface contact trigger available as an optional extra
- Can be integrated into the system or operated independently
- Interface for external memory-programmable control system (SPS) can be realised via the GESIPA®-Interface

Advice, price and delivery time on request

### **SPECIAL ACCESSORIES** for GAV automatic riveting machines

### **INTERFACE 4.0 – FOR CONNECTION TO EXTERNAL CONTROL**

The new features are:

- 2 x Ethernet interfaces, router functions •
- 1 x USB and 1 x USB-OTG
- Screen connection, graphic output via DVI
- Wi-Fi, as access point and as client, Wi-Fi router function
- Local OLED display to show status and error messages
- M.2 SSD interface, the module can be retrofitted with an SSD (large databases)
- PCIe connector for Hilscher netIACK modules • (i.e. direct connection to industrial buses such as PROFINET, SERCOS and EtherCAT possible)



### No. 163 4326

### **ELECTRICAL FOOT PEDAL**

The electrial foot pedal is a good solution wherever applications require both hands to affix the parts that need to be riveted.

### MAINTENANCE AGREEMENT AND TRAINING

Ask us about our servicing and maintenance agreements. We can also provide training for your operating, servicing and maintenance personnel when you purchase a GESIPA® blind rivet processing system or at a later date.

### **ONLY FOR GAV 8000** (both variants)

### **SPECIAL LENGTH TUBE PACKAGES**

A larger working radius can be achieved, e.g. for use on fully automatic production lines, by using packages of special hose lengths. These are available in various dimensions between 3.75 m and 5.0 m to meet the requirements of the various applications.

### **GAV** carriage

The trolley that has been specially designed for the GAV enables it to be mobile thereby allowing the workplace to be changed quickly and easily.











For ergonomic and fatigue-free working, it is essential that the pistol and the hose package can be suspended. The Balancer from GESIPA® is the perfect solution.

### **ONLY FOR GAV HF**

### SURFACE CONTACT MONITORING WITH DUAL-HAND OPERATION

This special Type of surface contact monitoring guarantees the manipulation-proof processsecure joining of parts. In applications that are relevant for safety, it is often necessary to completely rule out manipulations in the riveting process.

### **GSM RADIO MODUL**

In the event of any deviations to the target status e.g. nearly empty feed unit, the GSM radio module (GSM = Global System for Mobile Communications) reports this to a mobile telephone or a process control centre via a call or an SMS. This allows short response times.

### **ELECTRONIC KEY SYSTEM AND SAFETY SWITCH**

An electronic key system and a safety switch guarantee safe access control for at least two user groups and lock the covering hood to prevent unauthorised access to the components in the supply unit.

### **SPECIAL LENGTH TUBE PACKAGES**

A larger working radius can be achieved, e.g. for use on fully automatic production lines, by using packages of special hose lengths. These are available in various dimensions up to aroand 25 m to meet the requirements of the various applications.

### **OPERATINGSTATUS DISPLAY**

The signal lamps attached to the device in the colours red, green and white indicate the operating status of the system. An empty rivet tank, any deviations from the target operating status etc. are indicated immediately.



















## **GESIPA® ASSEMBLY CELL**

# THE NEW GESIPA® ASSEMBLY CELL GUARANTEES OPTIMUM, PRECISE HANDLING WITH A WIDE RANGE OF GESIPA® PROCESSING DEVICES AND A WORKSPACE TAILORED PERFECTLY TO THE CUSTOMER'S REQUIREMENTS.

The desk is adapted individually to customer requirements and designed ergonomically (e.g. adjustable height). Everything – be it the desk, work piece socket, compressed air supply, electrical supply or processing tools – comes from one source, with process monitoring on request.

The optimised work piece socket allows the desk to be converted for different products and processing tools easily, saving costs.

The GESIPA® assembly cell is produced from high quality materials and components. Needless to say, you also have the option of transferring system components already used at your company.

### **ADVANTAGES**

- Ergonomic working
- Individually adjustable
- Existing work tools can be integrated
- Easy and time-saving conversion for other products from your portfolio
- Setting process monitoring possible

More information on the individually adjusted assembly cell on request. Contact person: Uwe Herth, Head of BU Equipment Manufacturer, **uwe.herth@gesipa.com** 



Example: Can be individually adjusted for each customer



1.5

GESIP

GESIPA

### **Specifics**



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### **Operating status display** The signal light installed on the desk uses different colours to show the process status.

**Counting device** The counting device registers and counts the torn off residual rivet mandrels.

**GESIPA®** setting tool The setting tool is completely integrated in the assembly cell.

### Individual work piece carrier

The optimised work piece carrier allows the desk to be converted for different products and processing tools easily, saving costs.

### Foot pedal

The foot pedal allows you to use both hands to join individual parts and fasten the components to be riveted in place.

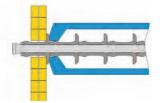
### **GESIPA® SPEED RIVET TECHNOLOGY**

Up to 60 rivets per minute! – Endorsed by major customers! GESIPA® speed rivets are a cost-effective alternative to automation Speed rivet technology is a joining method that requires access from only one side and which enables fast cycle times thanks to the preloaded rivets and automatic feed. After the setting operation the tool automatically makes the next rivet available. This technology is predominantly used in the industry, electronics, lighting, lightweight construction and aviation. Simple one-hand operation ensures rapid hole location and subsequent implementation of the joining process.

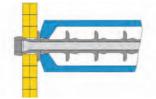
A particular feature of the GESIPA® Speed Rivet Technology is that the speed rivet is immediately ready for use. The disposable mandrel with captive speed rivets ensures the speed rivets are immediately ready for use, thus guaranteeing fast loading and fast magazine change (the joining elements do not need to be inserted individually by hand in the processing tool). The relevant application of the rivet magazine is indicated by a distinct colour marking. With GESIPA® Speed Rivet Technology no spent mandrel remains in the joint after riveting.

Speed riveting technology completes GESIPA Blindniettechnik GmbH's product portfolio. The new speed rivet setting tools by GESIPA® are the product of decades of expertise and the unbeatable advantages of the wellknown, tried-and-tested TAURUS® series. Our engineers' main objectives in its development were for the Speed Rivet tools to be safe, quick and reliable. The very light and ergonomically shaped device will set new standards.

### THE SETTING PROCESS



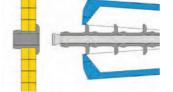
The speed rivet is introduced into the joint.



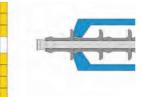
**2** The mandrel is pulled through the rivet thus joining the materials.

### **ADVANTAGES OF THE GESIPA® SPEED RIVET**

- Ready to use rivet magazine
- Extremely fast processing and cycle times
- Quick magazine change
- One-hand operation
- Vibration-proof
- Stable in use
- Reduced parts handling
- Versatile application



**3** The next speed rivet is ready automatically.



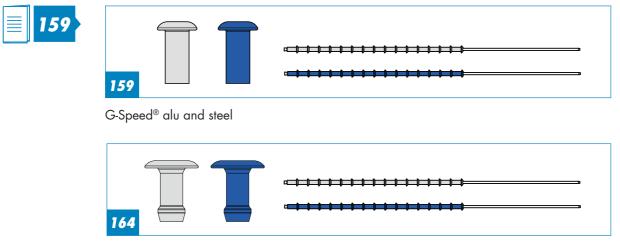
4

4 The setting process can now be repeated.

- Easy to operate
- Ideal for medium- and high-volume production
- No spent mandrel, therefore:
  - No corrosion
  - No lost mandrels
  - No noise
  - No short-circuits caused by loose parts
- Joining elements cannot drop off during processing
- Low-price alternative to fully automatic systems
- Made in Germany

### **OVERVIEW GESIPA® SPEED RIVET TECHNOLOGY**

#### **SPEED RIVETS**



Speed Bulb® alu and steel

### SPEED RIVET TOOLS



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TAURUS® 1 Speed Rivet

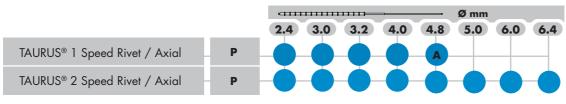


TAURUS® 2 Speed Rivet



TAURUS® 1 and 2 Speed Rivet Axial eco

### WHAT RIVETS WHAT?



P: Hydro-pneumatic tool

A: Alu/Copper S: Steel E: Stainless Steel/Monel **Blue box:** All materials (ASE) can be riveted. Where there are exceptions, the letters of the rivetable materials are provided directly in the box..



G-Speed<sup>®</sup> the multi-range speed rivet from GESIPA<sup>®</sup> for a wide range of applications.

#### **ADVANTAGES**

- Large grip range
- Reduced variation
- Optimum hole filling capabilities and bearing stress
- Ideally suited for transferring shear strengths with moderate clamping force
- Ideal for:
  - LED light strips
  - Electronic/pcb assembly
  - Lightweight sheet metal structures
  - PC housings
  - Rating plates
  - Blind holes

Two mandrel lengths are available for the speed rivet:

# S ≈ 485 mm for the standard nosepiece L ≈ 510 mm for the long or curved nosepieces (Available on request)

To achieve an optimum riveted joint for different bore diameters, a number of mandrel size groups are available. The application range of each speed rivet is denoted by a clear colour code, ensuring the unequivocal classification of the mandrel size groups.

Grip range	$\mathbf{O}\mathbf{O}\mathbf{O}$	
Shear strength	00	T
Tensile strength	•	
Pulling strength	00	

### CLASSIFICATION OF THE MANDREL SIZE GROUPS

mandrel		Hollow-rivet diameter (mm)									
size grou	106	3.0	3.2	4.0	4.8						
grou	,p3	Bore diameter (mm)									
	Standard	3.05 - 3.15	3.25 - 3.35	4.05 - 4.15	4.85 - 4.95						
	l st oversize	3.15 - 3.25	3.35 - 3.45	4.15 - 4.25	4.95 - 5.05						
	2nd oversize (on request)	3.25 - 3.35	3.45 - 3.55	4.25 - 4.35	5.05 - 5.15						
	3rd oversize (on request)	3.35 - 3.45	3.55 - 3.65	4.35 - 4.45	5.15 - 5.25						

## **G-SPEED**<sup>®</sup>

### Alu

Dome head



						*	*
D	D x L mm	mm	Number of rivets on mandrel ± 1		Mandrel length for nosepiece	No.	No.
3.2	3.2 x 4.0	1.0 - 3.0	57	20,000	L4 (485 mm)	146 3628	146 3636
	3.2 x 5.5	1.0 - 4.5	45	15,000	L4 (485 mm)	146 3629	146 3637
	3.2 x 7.0	1.0 - 6.0	37	12,500	L4 (485 mm)	146 3630	146 3638
	3.2 x 8.5	1.0 - 7.5	31	10,000	L4 (485 mm)	146 3631	146 3639
4.0	4.0 x 4.0	1.0 - 3.0	57	20,000	L4 (485 mm)	151 9021	151 9125
	4.0 x 5.5	1.0 - 4.5	45	15,000	L4 (485 mm)	151 9023	151 9126
	4.0 x 7.0	1.0 - 6.0	37	12,500	L4 (485 mm)	151 9025	151 9127
	4.0 x 8.5	1.0 - 7.5	31	10,000	L4 (485 mm)	151 9026	151 9128
4.8	4.8 x 4.0	1.0 - 3.0	54	15,000	L4 (485 mm)	151 9041	151 9133
	4.8 x 5.5	1.0 - 4.5	43	12,500	L4 (485 mm)	151 9042	151 9134
	4.8 x 7.0	1.0 - 6.0	35	10,000	L4 (485 mm)	151 9043	151 9135
	4.8 x 8.5	1.0 - 7.5	30	10,000	L4 (485 mm)	151 9044	151 9136

Alu



#### 

Countersunk

						*	•
D	D x L mm	mm	Number of rivets on mandrel ± 1		Mandrel length for nosepiece	No.	No.
3.2	3.2 x 4.0	1.0 - 3.0	75	25,000	L4 (485 mm)	146 3660	146 3668
	3.2 x 5.5	1.0 - 4.5	55	20,000	L4 (485 mm)	146 3661	146 3669
	3.2 x 7.0	1.0 - 6.0	43	15,000	L4 (485 mm)	146 3662	146 3670
	3.2 x 8.5	1.0 - 7.5	35	12,500	L4 (485 mm)	146 3663	146 3671



						*	•
D	D x L mm	mm	Number of rivets on mandrel ± 1		Mandrel length for nosepiece	No.	No.
4.0	4.0 x 4.0	1.0 - 3.0	75	25,000	L4 (485 mm)	151 9027	151 9129
	4.0 x 5.5	1.0 - 4.5	55	17,500	L4 (485 mm)	151 9028	151 9130
	4.0 x 7.0	1.0 - 6.0	43	15,000	L4 (485 mm)	151 9029	151 9131
	4.0 x 8.5	1.0 - 7.5	35	12,500	L4 (485 mm)	151 9030	151 9132
4.8	4.8 x 4.0	1.0 - 3.0	75	20,000	L4 (485 mm)	151 9046	151 9137
	4.8 x 5.5	1.0 - 4.5	55	15,000	L4 (485 mm)	151 9047	151 9138
	4.8 x 7.0	1.0 - 6.0	43	12,500	L4 (485 mm)	151 9048	151 9139
	4.8 x 8.5	1.0 - 7.5	35	10,000	L4 (485 mm)	151 9050	151 9140

### **Steel**

Dome head

						*	•
D	D x L mm	mm	Number of rivets on mandrel ± 1		Mandrel length for nosepiece	No.	No.
3.2	3.2 x 4.0	1.0 - 3.0	57	20,000	L4 (485 mm)	146 4076	146 4084
	3.2 x 5.5	1.0 - 4.5	45	15,000	L4 (485 mm)	146 4077	146 4085
	3.2 x 7.0	1.0 - 6.0	37	12,500	L4 (485 mm)	146 4078	146 4086
	3.2 x 8.5	1.0 - 7.5	31	10,000	L4 (485 mm)	146 4079	146 4087
4.0	4.0 x 4.0	1.0 - 3.0	57	20,000	L4 (485 mm)	151 9059	151 9152
	4.0 x 5.5	1.0 - 4.5	45	15,000	L4 (485 mm)	151 9060	151 9154
	4.0 x 7.0	1.0 - 6.0	37	12,500	L4 (485 mm)	146 4507	146 4505
	4.0 x 8.5	1.0 - 7.5	31	10,000	L4 (485 mm)	146 4506	146 4504



### **G-SPEED**<sup>®</sup>

						*	•
D	D x L mm	mm	Number of rivets on mandrel ± 1		Mandrel length for nosepiece	No.	No.
4.8	4.8 x 4.0	1.0 - 3.0	54	15,000	L4 (485 mm)	151 9073	151 9157
	4.8 x 5.5	1.0 - 4.5	43	12,500	L4 (485 mm)	151 9078	151 9159
	4.8 x 7.0	1.0 - 6.0	35	10,000	L4 (485 mm)	151 9082	151 9160
	4.8 x 8.5	1.0 - 7.5	30	10,000	L4 (485 mm)	151 9109	151 9161

### **Steel**

Countersunk head



						*	•
D	D x L mm	mm	Number of rivets on mandrel ± 1		Mandrel length for nosepiece	No.	No.
3.2	3.2 x 4.0	1.0 - 3.0	75	25,000	L4 (485 mm)	146 4136	146 4144
	3.2 x 5.5	1.0 - 4.5	55	20,000	L4 (485 mm)	146 4137	146 4145
	3.2 x 7.0	1.0 - 6.0	43	15,000	L4 (485 mm)	146 4138	146 4146
	3.2 x 8.5	1.0 - 7.5	35	12,500	L4 (485 mm)	146 4139	146 4147
4.0	4.0 x 4.0	1.0 - 3.0	75	25,000	L4 (485 mm)	151 9071	151 9155
	4.0 x 5.5	1.0 - 4.5	55	17,500	L4 (485 mm)	151 9072	151 9156
	4.0 x 7.0	1.0 - 6.0	43	15,000	L4 (485 mm)	146 4499	146 4498
	4.0 x 8.5	1.0 - 7.5	35	12,500	L4 (485 mm)	146 4912	146 4911
4.8	4.8 x 4.0	1.0 - 3.0	75	20,000	L4 (485 mm)	151 9121	151 9190
	4.8 x 5.5	1.0 - 4.5	55	15,000	L4 (485 mm)	151 9122	151 9191
	4.8 x 7.0	1.0 - 6.0	43	12,500	L4 (485 mm)	151 9123	151 9194
	4.8 x 8.5	1.0 - 7.5	35	10,000	L4 (485 mm)	151 9124	151 9196

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Other oversizes available on request. For details see table on **page 157** and **page161** 

## **G-SPEED**<sup>®</sup>

### G-Speed® is available in a large number of versions

The individual properties are shown in the following table of possible combinations

Head shape	Material	D mm	D x L	mm	Number of rivets on mandrel ± 1 Dome head	Number of rivets on mandrel ± 1 Countersunk head		
			3.0 x 2.5	1.0 - 1.5	81	115	30,000	
			3.0 x 4.0	1.0 - 3.0	57	75	20,000	
			3.0 x 5.5	1.0 - 4.5	45	55	15,000	
		3.0	3.0 x 7.0	1.0 - 6.0	37	43	12,500	
			3.0 x 8.5	1.0 - 7.5	31	35	10,000	
			3.0 x 10.0	1.0 - 9.0	27	26	10,000	
			3.0 x 11.5	1.0 - 10.5	23	23	10,000	
			3.2 x 2.5	1.0 - 1.5	81	115	30,000	
		3.2 eel	3.2 x 10.0	1.0 - 9.0	27	30	10,000	
			3.2 x 11.5	1.0 - 10.5	23	26	10,000	
Dome head / Countersunk	Alu/Steel		3.2 x 13.0	1.0 - 12.0	21	23	10,000	
			4.0 x 2.5	1.0 - 1.5	85	115	30,000	
		4.0	4.0 x 10.0	1.0 - 9.0	27	30	10,000	
		4.0	4.0 x 11.5	1.0 - 10.5	23	26	10,000	
			4.0 x 13.0	1.0 - 12.0	21	23	7,500 / 10,000	
			4.8 x 2.5	1.0 - 1.5	75	115	20,000 / 30,000	
			4.8 x 10.0	1.0 - 9.0	26	30	7,500 / 10,000	
		4.8	4.8 x 11.5	1.0 - 10.5	23	26	7,500	
		4.0	4.8 x 13.0	1.0 - 12.0	20	23	5,000 / 7,500	
			4.8 x 14.5	1.0 - 13.5	18	20	5,000	
				4.8 x 16.0	1.0 - 15.0	17	18	5,000

**Example:** Countersunk head– Steel 3.0 x 10.0 mm

### SHEAR STRENGTH G-SPEED® \*

D	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	↓ •□→	max. k	max. d <sub>k</sub>
mm	N Alu	N Steel	mm	mm
DOME HEAD ALU AN	ID STEEL		1	
3.0	630	1,060	1.2	5.5
3.2	900	1,400	1.2	5.5
4.0	1,600	2,400	1.5	6.5
4.8	2,000	3,200	1.5	8.9
COUNTERSUNK HEA	D ALU AND STEEL			
3.0	630	1,060	1.0	5.5
3.2	900	1,400	1.0	5.7
4.0	1,600	2,400	1.0	6.7
4.8	2,000	3,200	1.4	9.1

- Rivet body Ø Height of head
- Setting head Ø

ical data, sured at the longest body length

## **SPEED BULB®**

The GESIPA® Speed Bulb® is designed for high and dynamic loads



#### **ADVANTAGES**

- Optimally adapted to specific grip range
- Distinct bulb formation
  - High grip force
  - High pulling force
- For higher loads
- Ideally suited for transmitting shear and tensile forces
- Ideal for:
  - Higher dynamic loads
  - Sheet metal structures
  - Electrical devices
  - White goods

Two mandrel lengths are available for the speed rivet:

L4 ≈ 485 mm for the standard nose L5 ≈ 510 mm for the long or curved nosepieces (Available on request)

To achieve an optimum riveted joint for different bore diameters, a number of mandrel size groups are available. The application range of each speed rivet is denoted by a clear colour code, ensuring the unequivocal classification of the mandrel size groups.

Grip range	00	
Shear strength	00	
Tensile strength	00	0
Pulling strength	000	

### CLASSIFICATION OF THE MANDREL SIZE GROUPS

mandrel size		Hollow-rivet diameter (mm)					
		3.2	4.0	4.8			
gro	ups:	Bore diameter (mm)					
	Standard	3.25 - 3.35	4.05 - 4.15	4.85 - 4.95			
	l st oversize	3.35 - 3.45	4.15 - 4.25	4.95 - 5.05			
	2nd oversize (on request)	3.45 - 3.55	4.25 - 4.35	5.05 - 5.15			
	3nd oversize (on request)	3.55 - 3.65	4.35 - 4.45	5.15 - 5.25			

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## **SPEED BULB®**

Alu





						*	•
D	D x L mm	mm	Number of rivets on mandrel ± 1		Mandrel length for nosepiece	No.	No.
3.2	3.2 x 4.2	1.0 - 2.3	59	17,500	L4 (485 mm)	151 9636	151 9645
	3.2 x 4.7	1.5 - 2.8	54	17,500	L4 (485 mm)	151 9731	151 9742
	3.2 x 5.2	2.0 - 3.3	49	15,000	L4 (485 mm)	151 9732	151 9743
	3.2 x 6.2	3.0 - 4.3	42	12,500	L4 (485 mm)	151 9733	151 9744
	3.2 x 7.2	4.0 - 5.3	37	12,500	L4 (485 mm)	151 9734	151 9745
	3.2 x 8.2	5.0 - 6.3	33	10,000	L4 (485 mm)	151 9735	151 9750

**Steel** Dome head



						*	•
D	D x L mm	mm	Number of rivets on mandrel ± 1		Mandrel length for nosepiece	No.	No.
3.2	3.2 x 4.2	1.0 - 2.3	59	17,500	L4 (485 mm)	151 9644	151 9727
	3.2 x 4.7	1.5 - 2.8	54	17,500	L4 (485 mm)	151 9736	151 9760
	3.2 x 5.2	2.0 - 3.3	49	15,000	L4 (485 mm)	151 9737	151 9771
	3.2 x 6.2	3.0 - 4.3	42	12,500	L4 (485 mm)	151 9738	151 9772
	3.2 x 7.2	4.0 - 5.3	37	12,500	L4 (485 mm)	151 9740	151 9773
	3.2 x 8.2	5.0 - 6.3	33	10,000	L4 (485 mm)	151 9741	151 9774

162

Other oversizes available on request. For details see table on **page 162** and **page164** 

## **SPEED BULB®**

Head shape	Material	D	D x L	mm	Number of rivets on mandrel ± 1	
			3.2 x 3.7	0.5 - 1.8	65	20,000
		3.2	3.2 x 9.2	6.0 - 7.3	29	10,000
		3.2	3.2 x 10.2	7.0 - 8.3	27	10,000
			3.2 x 11.2	8.0 - 9.3	25	10,000
			4.0 x 4.3	1.0 - 2.3	57	17,500
			4.0 x 4.8	1.5 - 2.8	52	17,500
			4.0 x 5.3	2.0 - 3.3	48	15,000
			4.0 x 6.3	3.0 - 4.3	41	15,000
		4.0	4.0 x 7.3	4.0 - 5.3	36	12,500
			4.0 x 8.3	5.0 - 6.3	32	12,500
Dome head	Alu/Steel		4.0 x 9.3	6.0 - 7.3	29	12,500
			4.0 x 10.3	7.0 - 8.3	26	10,000
			4.0 x 11.3	8.0 - 9.3	24	10,000
			4.8 x 5.2	1.5 - 2.8	47	12,500
			4.8 x 5.7	2.0 - 3.3	43	10,000
			4.8 x 6.7	3.0 - 4.3	38	10,000
			4.8 x 7.2	3.5 - 4.8	35	10,000
		4.8	4.8 x 7.7	4.0 - 5.3	34	10,000
			4.8 x 8.7	5.0 - 6.3	30	7,500
			4.8 x 9.7	6.0 - 7.3	27	7,500
			4.8 x 10.7	7.0 - 8.3	25	7,500
			4.8 x 11.7	8.0 - 9.3	23	7,500

Speed Bulb® is available in a large number of versions.

The individual properties are shown in the following table of possible combinations.

### SHEAR AND TENSILE STRENGTH SPEED BULB® \*

D	▲ ▶		max. k	max. d <sub>k</sub>	
mm	N	* N	mm	mm	
DOME HEAD	ALU	1	-1	1	D = Rivet b k = Height
3.2	700	1,300	1.0	6.6	d <sub>k</sub> = Setting
4.0	1,100	1,700	1.0	8.3	-
4.8	1,500	2,700	1.2	9.8	-
DOME HEAD	STEEL	1	1	1	
3.2	1,100	1,800	1.0	6.6	-
4.0	1,600	2,800	1.0	8.3	*Typical data, measured at th
4.8	2,200	3,700	1.2	9.8	<ul> <li>rivet body leng</li> </ul>

- body Ø
- nt of head
- g head Ø

he longest ngth

## TAURUS® 1 SPEED RIVET

The hydro-pneumaticmagazine tool with quick setting process and fast rates!



#### **TECHNICAL DATA**

Traction power: Stroke: Operating pressure: Air hose connection: Weight: 3,500 N at 6 bar 26 mm 5-7 bar 6 mm Ø (1/4'') 1.8 kg

Ľ

### **WORKING RANGE**

The rivet setting tool is designed for setting standard speed rivets from 2.4 - 4.8 mm Ø of all materials, as well as up to 4 mm Ø in stainless steel. (max. mandrel Ø 2.7 mm)

### **SCOPE OF DELIVERY**

Tag on device head 1 hydraulic oil bottle 100 ml 1 oil refill can 1 oil press Operating instructions Slide lock (max. mandrel Ø 2.7 mm)



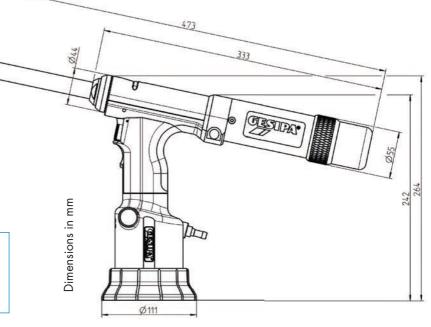


The spreader nosepiece and mandrel spring are not included in the scope of delivery. They can be ordered as special accessories on **page 168**.



#### **ADVANTAGES**

- Quick setting process, fast rates
- Safe working through disposable mandrel and optional automatic switchoff
- Ergonomic handling for fatigue-free work
- Light and compact design
- Modular construction based on the TAURUS<sup>®</sup> design
- Softgrip
- Tool-free conversion (spreader nosepiece and spring)



## TAURUS® 2 SPEED RIVET

The hydro-pneumaticmagazine tool with quick setting process and fast rates!



GESIPA

#### **TECHNICAL DATA**

Traction power: Stroke: Operating pressure: Air hose connection: Weight: 6,500 N at 6 bar 30 mm 5-7 bar 6 mm Ø (1/4'') 2.0 kg

### WORKING RANGE

The rivet setting tool is designed for setting standard speed rivets from 2.4 - 6.4 mm Ø of all materials. (max. mandrel Ø 2.7 mm)

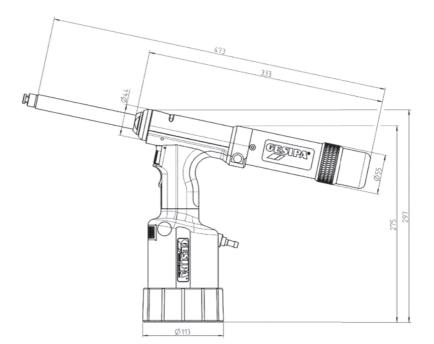
### **SCOPE OF DELIVERY**

Tag on device head 1 hydraulic oil bottle 100 ml 1 oil refill can 1 oil press Operating instructions Slide lock (max. mandrel Ø 2.7 mm)

### **ADVANTAGES**

- Quick setting process, fast rates
- Safe working through disposable mandrel and optional automatic switchoff
- Ergonomic handling for fatigue-free work
- Light and compact design
- Modular construction based on the TAURUS<sup>®</sup> design
- Softgrip
- Tool-free conversion (spreader nosepiece and spring)

The spreader nosepiece and mandrel spring are not included in the scope of delivery. They can be ordered as special accessories on **page 168**.



Dimensions in mm

## TAURUS® SPEED RIVET AXIAL ECO 1/2

Axial version of the speed riveting tool for special applications





### TAURUS<sup>®</sup> 1 Speed Rivet Axial Eco No. 145 7692

Technical data and working range analog to TAURUS<sup>®</sup> 1 and 2 Speed Rivet.

### **SCOPE OF DELIVERY**

hydraulic oil bottle 100 ml
 oil refill can
 oil press
 Operating instructions
 Slide lock (max. mandrel Ø 2.7 mm)

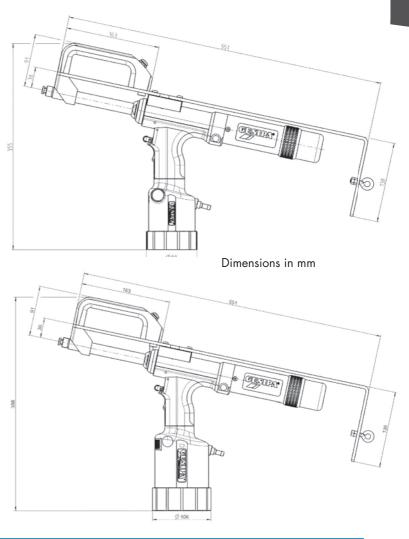
### **ADVANTAGES**

- Also perfectly designed for fixed installation in production lines or semi-automatic workstations
- Very practical for processing blind rivets in positions that require a vertical rivet setting process
- Can be suspended on a balancer
- Quick setting process, fast rates
- Safe working through disposable mandrel and optional automatic switchoff
- Ergonomic handling for fatigue-free work
- Light and compact design
- Modular construction based on the TAURUS® design
- Softgrip
- Tool-free conversion (spreader nosepiece and spring)



The spreader nosepiece and mandrel spring are not included in the scope of delivery. They can be ordered as special accessories on **page 168**.

TAURUS® 2 Speed Rivet Axial Eco No. 145 0931



### **SPECIAL ACCESSORIES** Speed rivet technology

### **SPREADER NOSEPIECES**

- Standard: For easy to access riveting points
- Standard pointed: For countersunk head rivets
- **Extended and extended bent:** For difficult to access riveting points
- With opening mechanism: Makes it easier to open the nosepiece so that speed rivets can be changed more conveniently and quickly.

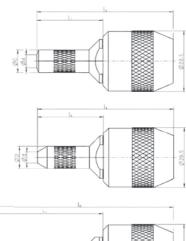


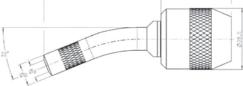
		Rivet Ø (mm)	mandrel Ø (mm)	No.	
MANDREL SPRING		2.4	2.1	155 3517	
	Standard	3.2	2.1	145 7759	
<ul> <li>Standard: For standard spreader nosepiece with or</li> </ul>		4.0	2.3	145 7761	
without opening mechanism.		4.8	2.7	145 7763	
<ul> <li>Extended: For extended</li> </ul>		3.2	2.1	145 7760	
spreader nosepiece with or	Extended	4.0	2.3	145 7762	
without opening mechanism.		4.8	2.7	145 7764	
					U.

	mandrel- Ø (mm)	No.	6
SLIDE LOCK	2.7	145 0918	
	3.0	170 4199	0

### SPREADER NOSEPIECE WITHOUT OPENING MECHANISM

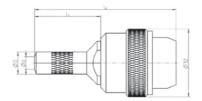
	Rivet Ø (mm)	No.	Ø d (mm)	Ø D (mm)	L1 (mm)	L2 (mm)
	2.4	155 6918	5	9.5		
Standard	3.2	145 7753	6	10.5	31	64
	4.0	145 7754	7.5	12	51	04
	4.8	145 7755	9	14		
	3.2	145 7756	6	10.5		
Extended	4.0	145 7757	7.5	12	57	90
	4.8	145 7758	9	14		
Standard	3.2	145 0900	6	10.5		
pointed	4.0	145 0901	7.5	12	31	64
	4.8	145 0902	9	14		
Extended	3.2	145 0903	6	10.5	55	88
bent	4.0	145 0904	7.5	12	55.5	88.5
	4.8	145 0905	9	14	56	89

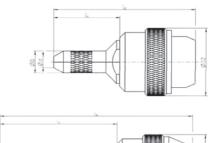


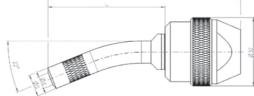


	Rivet Ø (mm)	No.	Ød (mm)	Ø D (mm)	L1 (mm)	L2 (mm)
	2.4	155 6919	5	9.5		
Standard	3.2	145 0906	6	10.5	31	47
	4.0	145 0907	7.5	12	51	67
	4.8	145 0908	9	14		
	3.2	145 0909	6	10.5		
Extended	4.0	145 0910	7.5	12	57	92
	4.8	145 0911	9	14		
Standard	3.2	145 0912	6	10.5		
pointed	4.0	145 0913	7.5	12	31	67
	4.8	145 0914	9	14		
Extended bent	3.2	145 0915	6	10.5	E E	
	4.0	145 0916	7.5	12	55	91
	4.8	145 0917	9	14	56	

### SPREADER NOSEPIECE WITH OPENING MECHANISM



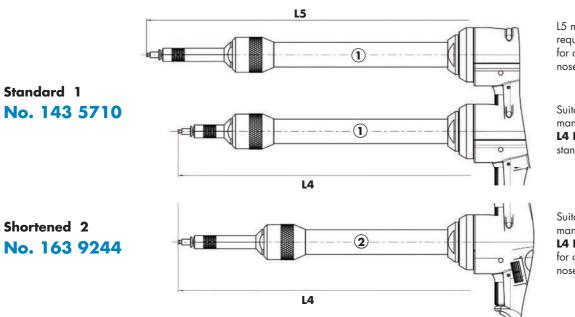




Other spreader nosepieces and mandrel springs on request.

### GUIDE TUBE for GESIPA® Speed Rivet setting tools

The short guide tube means that TAURUS® Speed Rivet setting tools can work with the standard L4 mandrel length even with long and curved nosepieces.



L5 mandrel length required **L5 ≈ 510 mm** for a long or curved nosepiece

Suitable for standard mandrel length L4 L4 ≈ 485 mm for standard nosepiece

Suitable for standard mandrel length L4 L4 ≈ 485 mm for a long or curved nosepiece

## LOCK BOLT SETTING TOOLS

Innovative, strong and reliable – connections are last long and free from vibration.



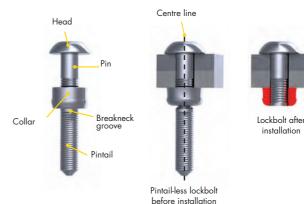
Lockbolts are used where there are particularly high requirements regarding the durability and vibration safety of the connection. The connection requires the components of the lockbolt to be accessible from two sides. Because the locking ring moulds into the retaining grooves during the setting process, the connection is extremely durable and secure against coming loose on its own.

The GESIPA® lock bolt setting devices in the TAURUS® series have been developed using a modular concept and are an ideal composition of experience and consistent further development by our experienced engineers. The lockbolt setting devices guarantee high-quality setting processes and therefore long-lasting and permanently tight connections. In the truck & trailer field in particular, GESIPA® devices ensure fast, troublefree working processes.

### Fastening material by means of lockbolts

With standard lockbolts, the setting process itself is very similar to the blind riveting process.

- **1.** The pin is positioned on one side and the collar on the other side of the materials to be joined.
- **2.** The setting tool grasps the pin while pushing itself against the collar.
- **3.** By pulling the pin the application materials are pressed together and the collar is forced into the grooves of the pin.
- **4.** The joining process is finished once the setting tool hits the joint's surface and the pin breaks off at the predetermined fracture point because of the increasing tensile strength.







TAURUS® 3 SRB



TAURUS® 4 SRB



TAURUS® 4 SRB with angle head 90° compact





**TAURUS® 3** For lockbolts 4.8 mm Magna-Grip®

### No. 145 0953

**TAURUS® 3** for lockbolts 4.8mm C6L

No. 145 0952

\*Registered trademark of Alcoa Fastening Systems

### **TECHNICAL DATA**

Weight: Operating air pressure: Air hose connection Ø: Air consumption: Traction power: Stroke: 2.0 kg 5 - 7 bar 6 mm 4.8 NL / stroke 18,000 N at 6 bar 25 mm

### WORKING RANGE

4.8 lockbolts MagnaGrip®\* and C6L

### **SCOPE OF DELIVERY**

hydraulic oil bottle 100 ml
 oil refill can
 Hanger on tool head
 Operating instructions with spare parts list

### **ADVANTAGES**

- Specially adjusted stroke for setting lockbolts
- Very high tensile strength allows fast setting
- Extremely handy and leightweight due to its compact design
- Economic consumption of compressed air
- Minimum wear and tear due to use of pulling head modules with jaws respectively adjusted in their numbers of parts
- Efficient operation through extraction of spent mandrels
- Large spent mandrel container
- Attractive price-performance ratio
- Modular structure

### JAW MECHANISM ASSIGNMENT

For lockbolts 4.8 mm Magna-Grip®

Designation	No.
Nosepiece	143 4810
Jaw	144 6118
Jaw housing	143 5945

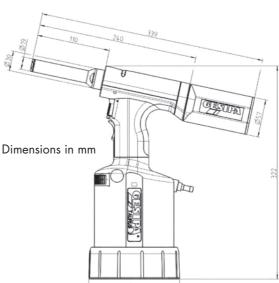
For lockbolts 4.8 mm C6L

Designation	No.
Nosepiece	143 4809
Supporting ring	143 5943
Jaw	144 6117
Jaw housing	143 5944





The suitability of nosepiece and fastener needs to be tested by the user and is user's own responsibility!



## TAURUS® 4 SRB

**TAURUS® 4** for lockbolts 6.4 mm (1/4") Magna-Grip®\*

### No. 145 0986

**TAURUS® 4** for lockbolts 6.4 mm (1/4") C6L

### No. 145 0985

### **TECHNICAL DATA** Weight: Operating air pressure: Schlauchanschluss: Air hose connection: Setting force: Stroke:

2.2 kg 5-7 bar 6 mm Ø (1/4'') ca. 4.8 ltr. pro Niet 23,000 N at 6 bar 19 mm

\*Registered trademark of Alcoa Fastening Systems

### WORKING RANGE

6.4 lockbolts MagnaGrip®\* and C6L

### **SCOPE OF DELIVERY**

hydraulic oil bottle 100 ml
 oil refill can
 Operating instructions with spare parts list
 Hanger on tool head

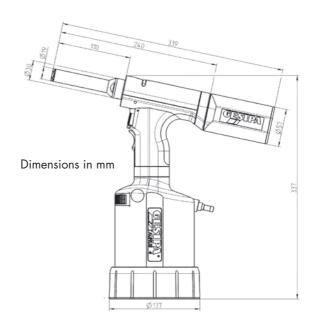
### **ADVANTAGES**

- Specially adjusted stroke for setting lockbolts
- Very high tensile strength allows fast setting
- Extremely handy and leightweight due to its compact design
- Economic consumption of compressed air
- Minimum wear and tear due to use of pulling head modules with jaws respectively adjusted in their numbers of parts
- Efficient operation through extraction of spent mandrels
- Large spent mandrel container
- Attractive price-performance ratio
- Modular structure





The suitability of nosepiece and fastener needs to be tested by the user and is user's own responsibility!



No.

143 5993

143 5943

144 6116 143 5997

### JAW MECHANISM ASSIGNMENT

For lockbolts 6.4 mm (1/4") Magna-Grip®\*

For lockbolts 6.4 mm (1/4") C6L

Designation	No.	_	Designation
Nosepiece	143 5942		Nosepiece
Supporting ring	143 5995		Supporting ring
Jaw	144 6105		Jaw
Jaw housing	143 5997	-	Jaw housing



## TAURUS® 4 SRB with angle head 90° compact

**TAURUS® 4** for SRB 6.4 mm MagnaGrip®\*

### No. 145 7990

TAURUS<sup>®</sup> 4 for SRB 6.4 mm C6L

No. 145 7989

\*Registered trademark of Alcoa Fastening Systems

### TECHNICAL DATA

Weight: Operating air pressure: Air hose connection: Air consumption: 2.6 kg 5-7 bar 6 mm Ø (1/4") approx. 4.8 NL per rivet 23,000 N at 6 bar 19 mm

WORKING RANGE

Setting force: Stroke:

6.4 lockbolts MagnaGrip®\* and C6L

### SCOPE OF DELIVERY

Angle head with nosepiece in working position Swivelling hanger 1 hydraulic oil bottle 100 ml 1 oil refill can Operating instructions with spare parts list

### **ADVANTAGES**

- Hydro-pneumatic lock bolt setting device
- Accessibility in tight working spaces
- Light and compact design
- Modular structure
- Ergonomic handling

### JAW MECHANISM ASSIGNMENT

For lockbolts 6.4 mm (1/4") Magna-Grip®\*

Designation	No.
Nosepiece	143 5942
Supporting ring	143 5995
Jaw	144 6105
Jaw housing	143 5997

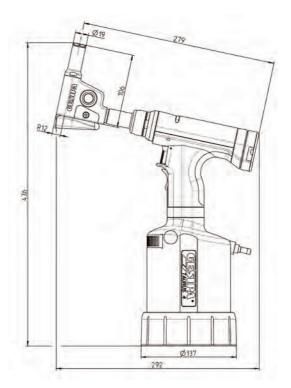
### For lockbolts 6.4 mm (1/4") C6L

Designation	No.
Nosepiece	143 5993
Supporting ring	143 5943
Jaw	144 6116
Jaw housing	143 5997





The suitability of nosepiece and fastener needs to be tested by the user and is user's own responsibility!

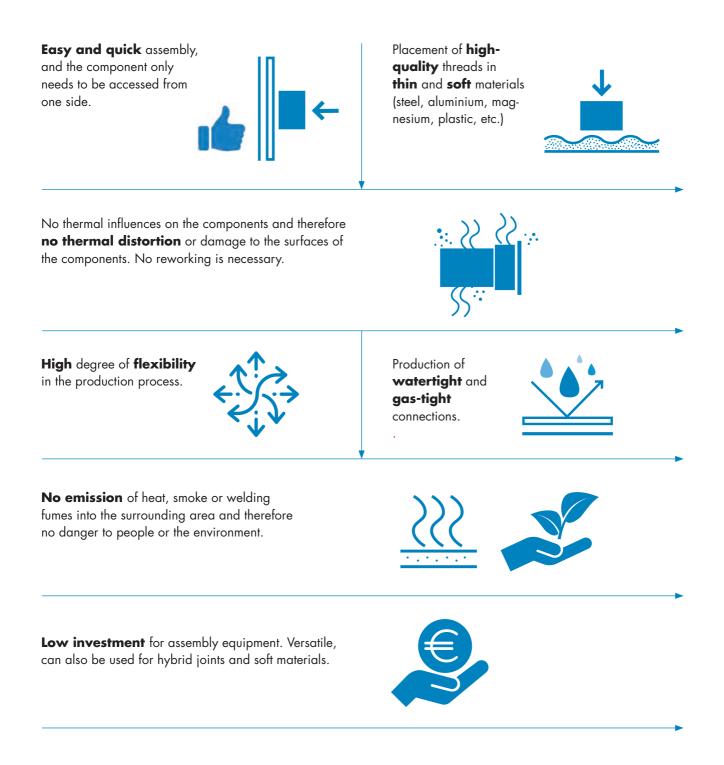


### **BLIND RIVET NUTS TECHNOLOGY**



### **BLIND RIVETS**

## GESIPA® BLIND RIVET NUT TECHNOLOGY GIVES YOU A MULTITUDE OF BENEFITS!



6

### **GESIPA® BLIND RIVET NUTS**

### JOINING ELEMENT WITH THREAD

GESIPA® blind rivet nuts and blind rivet studs are joining elements used to produce load-bearing, high stress threads for non-permanent connections. Blind rivet nuts have an inside thread whereas blind rivet studs have an outside thread (threaded pin). As with blind rivets, two or more components can be joined with both joining elements.

### **APPLICATION-OPTIMISED JOINING ELEMENTS**

By manufacturing the joining elements ourselves at the GESIPA® production sites we are able to implement specific customer requirements economically and efficiently. We are the specialists for application-optimised blind rivet nuts and blind rivet studs.

### **APPLICATIONS**

Blind rivet nuts and blind rivet studs are used in the most diverse areas of trade and industry – wherever a strong, non-permanent connection needs to be made. For example:

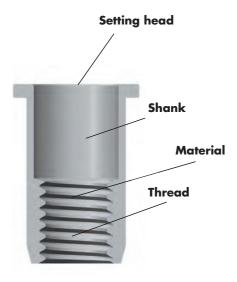
- Automotive
- White goods
- Heating and air conditioning
- Electronics
- Solar
- Construction
- Food

### PROCESSING





You Tube Watch processing on youtube!



### **GESIPA® BLIND RIVET NUT – TERMINOLOGY**

The setting head is the part of the blind rivet nut that rests on the visible surface of the component. The user can choose between the following variants:

- **Dome head** for a large contact surface on the
- component
- **Small head** for minimum overlap of the blind rivet nut thus allowing the component to rest almost flat
- Countersunk head for flat surfaces in countersunk holes

The **shank** is the part of the blind rivet nut that deforms during the setting procedure and fixes the blind rivet nut in the component. The so-called bulb is formed in this process. The user can choose from the following variants: Round, Knurled and Polygon (hexagon or square)

### The material

Specific to the application, the customer can use blind rivet nuts made from steel, aluminium or stainless steel.

### The thread

The GESIPA® blind rivet nuts have a metric thread as standard. The steel blind rivet nuts meet the requirements of strength class 8.8. Other dimensions, such as imperial or coarse thread, are available on request.

178 **GESIPA** 

### **TECHNICAL DATA**

» high quality

» tested



#### **YOUR BENEFIT**

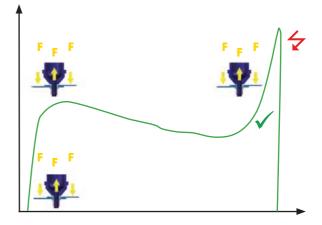
The specified forces and torques correspond to calculated values or values determined in tests. They aim to help the user select the suitable fastener. GESIPA® recommends testing the blind rivet nuts in the application. The actual values may differ from the information in the catalogue due to different circumstances. Please contact our technical team for further help and advice.

### THE SETTING PROCESS

The picture shows a diagram of the force-stroke curve for setting a blind rivet nut in the lower clamping range. Initially the force rises steeply because the deformation zone of the blind rivet nut is first compressed. Once a certain force is reached, the deformation zone starts to fold outwards. Due to the fact that the resistance of the material is lower during the deformation and creation of the closing head, the force drops slightly.

### FORCE DIAGRAM FOR A SETTING PROCESS

When the closing head meets the backside of the application, the pulling force starts increasing again. To ensure that the blind rivet nut sits tightly on the application material and does not slip when subjected to torque, the closing head must lie completely flat on the joining material (see cross-sections of the blind rivet nuts on the following page). If the setting process is not interrupted, the force will continue to rise until the thread is destroyed.



### TECHNICAL DATA

### SCHEMATIC LAYOUT FOR THE TORQUE TEST

The tightening torque [(Nm) or (lb-ft)] specifies the maximum torque with which the screw can be tightened.

For testing, GESIPA<sup>®</sup> uses screws of the strength class 10.9 or higher that are free of all lubricants. A hardened washer is used as the clamping part. The test is carried out in the lower and the upper clamping range, where the blind rivet nuts are loaded with the specified torque. Then the screw is screwed out again.

### The maximum bearable axial load on the thread is d. the thread breaking force [(N) and (kp)]. GESIPA®

uses screws of the strength class 10.9 or higher that are free of all lubricants for the test. The test takes place in the lower and upper clamping range.

SCHEMATIC LAYOUT FOR THE

**THREAD TEAR-OUT TEST** 



The thread must still turn smoothly in order to pass the test. Then the blind rivet nut is loaded again up to the overtorque.

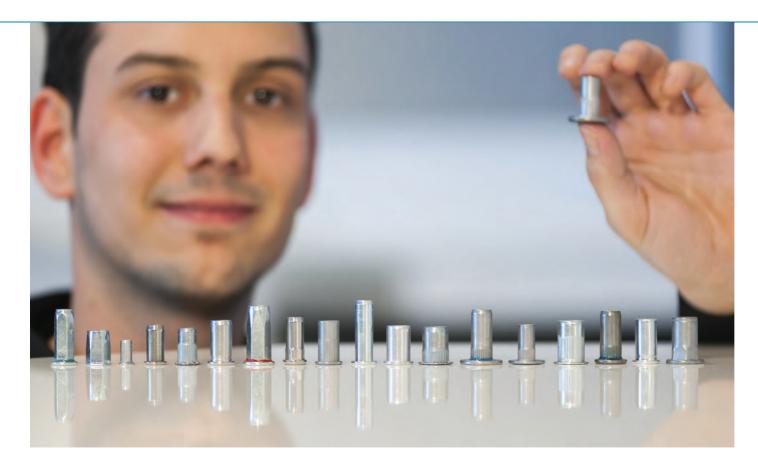
### THE TIGHTENING TORQUE (NM) AND (LB-FT)

	Alu		Steel		Stainless steel A2 /A4 / Monel®	
	Nm	(lb-ft)	Nm	(Ib-ft)	Nm	(lb-ft)
M4	2.5	1.8	3.0	2.2	5.5	4.1
M5	5.0	3.7	8.0	5.9	14.0	10.3
M6	9.5	7.0	12.0	8.9	27.0	19.9
<b>M8</b>	17.5	12.9	30.0	22.1	40.0	29.5
M10	28.0	20.7	38.0	28.0		-

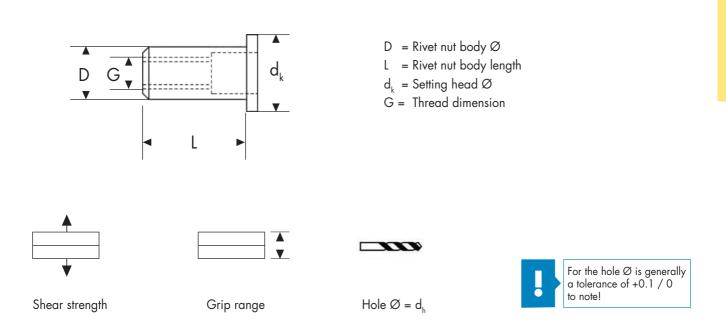
#### THREAD BREAKING FORCE (N) AND (KP)

	Alu	Steel		Stainless steel A2 /A4	/ Monel®
	N (kp)	Ν	(kp)	N	(kp)
M4	<b>4,800</b> 489	8,000	815	10,000	1,019
M5	<b>5,700</b> 581	11,500	1,172	15,000	1,529
M6	<b>9,500</b> 968	18,000	1,836	> 25,000	2,548
<b>M8</b>	<b>13,000</b> 1,325	28,000	2,853	> 30,000	3,057
M10	<b>14,000</b> 1,427	30,000	3,057	-	

## **TECHNICAL DATA**



#### **GESIPA® BLIND RIVET NUTS - DIMENSIONS**

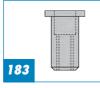


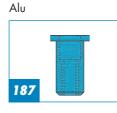
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## **BLIND RIVET NUTS RANGE**

#### **STANDARD**







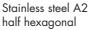
Stainless steel A2





Steel splined







Alu closed end (CAP®)



Steel square bodied



Stainless steel A4



Steel closed end (CAP®)



Steel half hexagonal



Stainless steel A4 half hexagonal





Light Weight



PolyGrip<sup>®</sup> alu



PolyGrip® splined steel



PolyGrip<sup>®</sup> blind rivet nut stud steel splined



High Strenght



SoftGrip<sup>®</sup> steel and stainless steel A2



e-Fast - Earthing / protective conductor connection



Torque resistant



PolyGrip® stainless steel A2



Blind rivet nut stud steel







PolyGrip® stainless steel A4



Blind rivet nut stud steel half hexagonal



All steel blind rivet nuts are splined!



PolyGrip<sup>®</sup> steel



# BLIND RIVET NUTS ALU Material: AlMg 3

	G	D x L	mm	No.	
Standard	M 4	6 x 11.0	0.25 - 3.0	143 3676	A 500
Dome head	<b>6.1</b> mm	6 x 13.0	2.5 - 4.5	143 3677	"
	M 5	7 x 11.5	0.25 - 3.0	143 3678	A 500
◀ L ►	<b>7.1</b> mm	7 x 13.5	2.5 - 5.0	143 3679	n
	<b>M 6</b>	9 x 15.5	0.25 - 3.5	143 3680	A 250
v (		9 x 18.0	3.0 - 5.5	143 3681	11
	M 8	11 x 17.0	0.25 - 3.5	143 3682	A 100
	□ 11.1 mm	11 x 20.0	3.0 - 6.0	143 3683	n
	M 10	12 x 17.5	0.25 - 3.5	143 3684	A 100
	□ 12.1 mm	12 x 20.5	3.0 - 6.0	145 5345	11

	G	D x L	mm	No.	
Small head	<b>M 4</b> 6.1 mm	6 x 12.0	0.5 - 3.0	143 3685	A 500
[[	<b>M 5</b>	7 x 12.5	0.5 - 3.0	143 3686	A 500
and sum	<b>M 6</b>	9 x 15.5	0.5 - 3.5	143 3687	A 250
	<b>M 8</b> 11,1mm	11 x 17,0	0,5 - 3,5	143 3688	A 100

	G	D x L	mm	No.	
Countersunk	M 4	6 x 12.0	1.5 - 3.5	145 5346	A 500
(90°)	<b>6.1</b> mm	6 x 13.5	3.0 - 5.0	145 5347	"
	M 5	7 x 13.5	1.5 - 4.0	145 5348	A 500
f=======f=====f=	<b>7.1 mm</b>	7 x 15.5	3.5 - 6.0	145 5349	11
	M 6	9 x 17.0	1.5 - 4.5	145 5350	A 250
N	9.1 mm	9 x 19.0	4.0 - 6.5	145 5351	п
	M 8	11 x 18.5	1.5 - 4.5	145 5352	A 100
	<b></b> 11.1 mm	11 x 20.5	4.0 - 6.5	145 5353	п
	M 10	12 x 19.0	1.5 - 4.5	145 5354	A 100
	<b>12.1 mm</b>	12 x 21.0	4.0 - 6.5	145 5355	п



The maximum tightening torque and the threaded breaking force and shear strengths for all blind rivet nuts can be found on page 180. For head diameters, please report to page 191.

## BLIND RIVET NUTS STEEL SPLINED Material: Steel, zinc-plated

### **Standard**



G	D x L	mm	No.	
M 4	6 x 11.0	0.25 - 3.0	143 3703	A 500
<b>6.1</b> mm	6 x 13.0	2.5 - 4.5	145 5362	п
M 5	7 x 11.5	0.25 - 3.0	143 3704	A 500
<b>7.1</b> mm	7 x 13.5	2.5 - 5.0	143 3705	11
	9 x 15.5	0.25 - 3.5	143 3706	A 250
M 6	9 x 18.0	3.0 - 5.5	145 5363	11
9.1 mm	9 x 21.0	5.5 - 8.0	145 0364**	A 200
	9 x 24.5	8.0 - 11.0	145 0365**	11
	11 x 17.0	0.25 - 3.5	143 3707	A 100
M 8	11 x 20.0	3.0 - 6.0	143 3708*	11
<b></b> 11.1 mm	11 x 21.5	6.0- 9.0	145 0366*	II
	11 x 25.5	9.0 - 12.0	145 0367*	II
M 10	12 x 17.5	0.25 - 3.5	143 3709	A 100
<b>12.1 mm</b>	12 x 20.5	3.0 - 6.0	143 3710	п

\*Cannot be used with the standard mandrel + nosepiece. A longer mandrel + nosepiece, or a conversion kit for DIN screws, is needed for this, page 229, 244, 251, 253 and page 216 (\*\*does not apply to GMB 40-R /GBM 50)

G	D x L mm	mm	No.	
<b>M 4</b> 6.1 mm	6 x 12.0	0.25 - 3.0	143 3711	A 500
<b>M 5</b>	7 x 12.5	0.25 - 3.0	143 3712	A 500
<b>M 6</b>	9 x 15.5	0.25 - 3.5	143 3713	A 250
	9 x 19.0	3.5 - 5.5	145 0368	n
	9 x 22.0	5.5 - 8.0	145 0369**	п
<b>M 8</b>	11 x 17.0	0.25 - 3.5	143 3714	A 100
	11 x 21.0	3.5 - 5.5	145 0370*	n
	11 x 23.0	5.5 - 9.0	145 0371*	п
M 10	12 x 18.0	1.5 - 4.5	146 4890	A 100
	12 x 20.0	4.0 - 6.5	146 4889	"

\*Cannot be used with the standard mandrel + nosepiece. A longer mandrel + nosepiece, or a conversion kit for DIN screws, is needed for this, page 229, 244, 251, 253 and page 216 (\*\*does not apply to GMB 40-R /GBM 50)

### Small head



## BLIND RIVET NUTS STEEL SPLINED Material: Steel, zinc-plated

**Countersunk** (90°)





G	D x L	mm	No.	
M 4	6 x 12.0	1.5 - 3.5	145 5365	A 500
<b>────</b> 6.1 mm	6 x 13.5	3.0 - 5.0	145 5366	II
M 5	7 x 13.5	1.5 - 4.0	145 5367	A 500
<b>7.1</b> mm	7 x 15.5	3.5 - 6.0	145 5368	II
M 6	9 x 17.0	1.5 - 4.5	145 5369	A 250
<b>9.1</b> mm	9 x 19.0	4.0 - 6.5	145 5370	II
	9 x 23.0	6.5 - 9.0	145 0372**	A 200
M 8	11 x 18.5	1.5 - 4.5	143 3715	A 100
□ <b>□ ■ 1</b> 1.1 mm	11 x 20.5	4.0 - 6.5	145 5371*	II
	11 x 23.0	6.5 - 9.0	145 0373*	11
M 10	12 x 19.0	1.5 - 4.5	145 5372	A 100
<b>12.1</b> mm	12 x 21.0	4.0 - 6.5	145 5373	II

\*Cannot be used with the standard mandrel + nosepiece. A longer mandrel + nosepiece, or a conversion kit for DIN screws, is needed for this, page 229, 244, 251, 253 and page 216 (\*\*does not apply to GMB 40-R /GBM 50)



The maximum tightening torque and the threaded breaking force and shear strengths for all blind rivet nuts can be found on **page 180.** For head diameters, please report to **page 191**.

# BLIND RIVET NUTS STEEL Material: Steel, zinc-plated

Square bodied Standard

Dome head



G	D x L	mm	No.	
<b>M 5</b> SW7.1 + 0.1	7 x 12	0.5 - 3.0	146 4921	A 500
<b>M 6</b> SW9.1 + 0.1	9 x 15.5	0.5 - 3.0	146 4922	A 250
<b>M 8</b> SW11.1 + 0.1	11 x 17	0.5 - 3.0	146 4923	A 100

	G	D x L	mm	No.	
Half hexagonal Standard	<b>M 4</b> SW6 + 0.1	6 x 11.0	0.5 - 2.0	145 5377	A 500
Dome head	<b>M 5</b> SW7 + 0.1	7 x 12.0	0.5 - 3.0	145 5378	A 500
	<b>M 6</b> SW9 + 0.1	9 x 15.5	0.5 - 3.0	145 5379	A 250
	<b>M 8</b>	11 x 17.0	0.5 - 3.0	143 3716	A 100

Half hexagonal
Small head



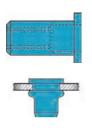
G	D x L	mm	No.	
<b>M 4</b> SW6 + 0.1	6 x 11.0	0.5 - 2.0	145 5380	A 500
<b>M 5</b> SW7 + 0.1	7 x 12.5	0.5 - 3.0	145 5381	A 500
<b>M 6</b> SW9 + 0.1	9 x 15.5	0.5 - 3.0	145 5382	A 250
<b>M 8</b> SW11 + 0.1	11 x 17.0	0.5 - 3.0	145 5383	A 100



The maximum tightening torque and the threaded breaking force and shear strengths for all blind rivet nuts can be found on page 180. For head diameters, please report to page 191.



### **Standard** Dome head



G	D x L	mm	No.	
M 4	6 x 11.0	0.25 - 3.0	145 5444	A 500
<b>6.1</b> mm	6 x 13.0	2.5 - 4.0	145 5445	11
M 5	7 x 11.5	0.25 - 3.0	143 3725	A 500
<b>7.1 mm</b>	7 x 13.5	2.5 - 4.5	143 3726	"
M 6	9 x 15.5	0.25 - 3.5	145 5446	A 250
9.1 mm	9 x 18.0	3.0 - 5.5	145 5447	II
M 8	11 x 17.0	0.25 - 3.5	145 5448	A 100
<b></b> 11.1 mm	11 x 20.0	3.0 - 6.0	145 5449	"

Material surcharge will be added at a daily rate

	G	D x L	mm	No.	
Small head	<b>M 4</b> 6.1 mm	6 x 12.0	0.25 - 3.0	143 3727	A 500
	<b>M 5</b>	7 x 12.5	0.25 - 3.0	143 3728	A 500
	<b>M 6</b>	9 x 15.5	0.25 - 3.5	143 3729	A 250
	<b>M 8</b>	11 x 17.0	0.25 - 3.5	143 3730	A 100

Material surcharge will be added at a daily rate

### Countersunk





G	D x L mm	mm	No.	
M 4	6 x 12.0	1.5 - 3.0	143 3731	A 500
<b>6.1</b> mm	6 x 13.0	2.5 - 4.0	145 5450	II
M 5	7 x 13.5	1.5 - 4.0	143 3732	A 500
<b>7</b> .1 mm	7 x 15.5	3.5 - 6.0	145 5451	п
M 6	9 x 17.0	1.5 - 4.5	143 3733	A 250
9.1 mm	9 x 18.5	4.0 - 6.0	145 5452	п
M 8	11 x 18.5	1.5 - 4.5	143 3734	A 100
□ <b>- • • • • • • • • • • • • • • • • • • </b>	11 x 20.0	4.0 - 6.0	145 5453	п

Material surcharge will be added at a daily rate

### **BLIND RIVET NUTS STAINLESS STEEL A2 HALF HEXAGONAL**



Material: Stainless steel A2 1.4567

Stan	dard
Dome	head





G	D x L	mm	No.	
<b>M 4</b> SW6 + 0.1	6 x 11.0	0.5 - 2.0	145 5454	A 500
<b>M 5</b> SW7 + 0.1	7 x 12.0	0.5 - 3.0	145 5455	II
<b>M 6</b> SW9 + 0.1	9 x 15.5	0.5 - 3.0	145 5456	A 250
<b>M 8</b> SW11 + 0.1	11 x 17.0	0.5 - 3.0	145 5457	A 100

Material surcharge will be added at a daily rate





G	D x L	mm	No.	
<b>M 4</b> SW6 + 0.1	6 x 11.0	0.5 - 2.0	145 5458	A 500
<b>M 5</b> SW7 + 0.1	7 x 12.0	0.5 - 3.0	145 5459	11
<b>M 6</b> SW9 + 0.1	9 x 15.5	0.5 - 3.0	145 5460	A 250
<b>M 8</b> SW11 + 0.1	11 x 17.0	0.5 - 3.0	145 5461	A 100

Material surcharge will be added at a daily rate



The maximum tightening torque and the threaded breaking force and shear strengths for all blind rivet nuts can be found on **page 180.** For head diameters, please report to **page 191**.

### **BLIND RIVET NUTS STAINLESS STEEL A4**

Material: Stainless steel A4 1.4578

**Standard** Dome head

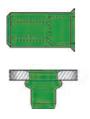


G	D x L mm	mm	No.	
M 4	6 x 11.0	0.25 - 3.0	145 5468	A 500
<b>6.1</b> mm	6 x 13.0	2.5 - 4.0	145 5473	II
M 5	7 x 11.5	0.25 - 3.0	145 5475	п
<b>7.1 mm</b>	7 x 13.5	2.5 - 4.5	145 5478	II
M 6	9 x 15.5	0.25 - 3.5	145 5462	A 250
9.1 mm	9 x 18.0	3.0 - 5.5	145 0381	II
M 8	11 x 17.0	0.25 - 3.5	145 5480	A 100
□ <b>□ ■ 11.1</b> mm	11 x 20.0	3.0 - 6.0	145 5485	п

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Material surcharge will be added at a daily rate

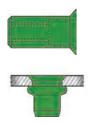
### Small head



G	D x L	mm	No.		
<b>M 4</b> 6.1 mm	6 x 12.0	0.25 - 3.0	145 5472	A 500	
<b>M 5</b>	7 x 12.5	0.25 - 3.0	145 5476	11	
<b>M 6</b>	9 x 15.5	0.25 - 3.5	145 5465	A 250	
<b>M 8</b>	11 x 17.0	0.25 - 3.5	145 5481	A 100	

Material surcharge will be added at a daily rate

### Countersunk



G	D x L	mm	No.	
M 4	6 x 12.0	1.5 - 3.0	145 5471	A 500
<b>□────</b> 6.1 mm	6 x 13.0	2.5 - 4.0	145 5474	II
M 5	7 x 13.5	1.5 - 4.0	145 5479	П
<b>7.1</b> mm	7 x 15.5	3.5 - 6.0	145 0382	п
M 6	9 x 17.0	1.5 - 4.5	145 5464	A 250
<b></b> 9.1 mm	9 x 18.5	4.0 - 6.0	145 5463	Ш
M 8	11 x 18.5	1.5 - 4.5	145 5484	A 100
□ 11.1 mm	11 x 20.0	4.0 - 6.0	145 5486	п

Material surcharge will be added at a daily rate

### **BLIND RIVET NUTS STAINLESS STEEL A4 HALF HEXAGONAL**



Material: Stainless steel A4 1.4578

	G	D x L	mm	No.	
<b>Standard</b> Dome head	<b>M 4</b> SW6 + 0.1	6 x 11.0	0.5 - 2.0	145 5469	A 500
	<b>M 5</b> SW7 + 0.1	7 x 12.0	0.5 - 3.0	144 6456	II
	<b>M 6</b> SW9 + 0.1	9 x 15.5	0.5 - 3.0	145 5466	A 250
	<b>M 8</b>	11 x 17.0	0.5 - 3.0	145 5482	A 100

G	D x L	mm	No.	
<b>M 4</b> SW6 + 0.1	6 x 11.0	0.5 - 2.0	145 5470	A 500
<b>M 5</b> SW7 + 0.1	7 x 12.0	0.5 - 3.0	145 5477	п
<b>M 6</b> SW9 + 0.1	9 x 15.5	0.5 - 3.0	145 5467	A 250
<b>M 8</b>	11 x 17.0	0.5 - 3.0	145 5483	A 100

Material surcharge will be added at a daily rate



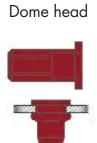
The maximum tightening torque and the threaded breaking force and shear strengths for all blind rivet nuts can be found on **page 180.** For head diameters, please report to **page 191**.

Small head

### **BLIND RIVET NUTS MONEL®**



Material: Monel 400 NiCu30Fe 2.4360



**Standard** 

G	D x L	mm	No.	
<b>M 5</b>	7 x 11.5	0.25 - 3.0	146 4292	A 500
<b>M 6</b>	9 x 15.5	0.25 - 3.5	145 5489	A 250
<b>M 8</b>	11 x 17.0	0.25 - 3.5	146 4291	A 100

Material surcharge will be added at a daily rate

#### SHAFT GEOMETRY ROUND AND SPLINED; ALL MATERIALS

	Dome head		Countersunk		Small head	
Size mm	Head diameter	Height of head	Head diameter mm	Height of head mm	Head diameter mm	Height of head mm
M 4	9	0.80	9	1.5 - 1.6	7.1	0.70
M 5	10	1.00	10	1.5 - 1.6	8.1	0.70
M 6	12	1.50	12	1.5 - 1.6	10.1	0.70
M 8	14	1.50	14	1.5 - 1.6	12.1	0.70
M 10	15	1.50	15	1.5 - 1.6	13.1	0.70

#### SHAFT GEOMETRY HALF HEXAGONAL; ALL MATERIALS

Dome head			Small head	
Size mm	Head diameter	Height of head	Head diameter mm	Height of head mm
M 4	9	0.80	7.4	0.60
M 5	10	1.00	8.4	0.70
M 6	13	1.50	10.4	0.70
M 8	16	1.50	12.4	0.70

## BLIND RIVET NUTS ALU CLOSED END (CAP®)

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Material: AlMg 3

### Standard

Dome head



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G	D x L	mm	No.	
M 4	6 x 15.0	0.25 - 3.0	146 4107	A 500
<b>□ ■ ™</b> 6.1 mm	6 x 17.0	2.5 - 4.5	146 4108	II
M 5	7 x 17.0	0.25 - 3.0	146 4109	A 500
<b>7.1 mm</b>	7 x 19.0	2.5 - 5.0	146 4110	A 250
M 6	9 x 21.5	0.25 - 3.5	146 4111	A 100
9.1 mm	9 x 24.5	3.0 - 5.5	146 4112	II
M 8	11 x 24.0	0.25 - 3.5	146 4113	A 100
<b></b> 11.1 mm	11 x 27.0	3.0 - 6.0	146 4114	п

### **Small head**

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and the	-	5	100
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G	D x L	mm	No.	
<b>M 4</b> 6.1 mm	6 x 16.0	0.25 - 3.0	146 4115	A 500
<b>M 5</b>	7 x 18.0	0.25 - 3.0	146 4116	A 500
<b>M 6</b> 9.1 mm	9 x 21.5	0.25 - 3.5	146 4117	A 250

Countersunk
(90°)

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4	L	1



G	D x L	mm	No.	
<b>M 4</b> 6.1 mm	6 x 16.0	1.5 - 3.0	146 4099	A 500
M 5	7 x 19.0	1.5 - 4.0	146 4101	A 250
<b>7.1 mm</b>	7 x 21.0	3.5 - 6.0	146 4102	II
M 6	9 x 23.0	1.5 - 4.5	146 4103	A 100
9.1 mm	9 x 25.0	4.0 - 6.5	146 4104	II
M 8	11 x 25.5	1.5 - 4.5	146 4105	A 100
<b></b> 11.1 mm	11 x 27.5	4.0 - 6.5	146 4106	п



The maximum tightening torque and the threaded breaking force and shear strengths for all blind rivet nuts can be found on **page 180.** For head diameters, please report to **page 191.** 

## BLIND RIVET NUTS STEEL CLOSED END (CAP®)

Material: Steel, zinc-plated

**Standard** Dome head

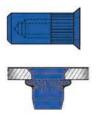
G	D x L	mm	No.	
M 4	6 x 15.0	0.25 - 3.0	143 2370	A 500
<b>────</b> 6.1 mm	6 x 17.0	2.5 - 4.5	143 2369	II
M 5	7 x 17.0	0.25 - 3.0	143 2373	A 500
<b>7.1</b> mm	7 x 19.0	2.5 - 5.0	143 2374	A 250
M 6	9 x 21.5	0.25 - 3.5	143 2375	A 100
9.1 mm	9 x 24.5	3.0 - 5.5	143 2376	II
M 8	11 x 24.0	0.25 - 3.0	143 2377	A 100
<b></b> 11.1 mm	11 x 27.0	3.0 - 6.0	143 2378	п

Small	head



G	D x L	mm	No.	
<b>M 4</b> 6.1 mm	6 x 16.0	0.25 - 3.0	146 4295	A 500
<b>M 5</b>	7 x 18.0	0.25 - 3.0	146 4294	A 250
<b>M 6</b> 9.1 mm	9 x 21.5	0.25 - 3.5	146 4293	A 100

Countersunk	
( <b>90</b> °)	



G	D x L	mm	No.	
M 4	6 x 16.0	1.5 - 3.0	143 2379	A 500
<b>6.1</b> mm	6 x 17.5	3.0 - 5.0	143 2380	11
M 5	7 x 19.0	1.5 - 4.0	143 2381	A 250
<b>7.1</b> mm	7 x 21.0	3.5 - 6.0	143 2382	п
M 6	9 x 23.0	1.5 - 4.5	143 2383	A 100
9.1 mm	9 x 25.0	4.0 - 6.5	143 2385	п
M 8	11 x 25.5	1.5 - 4.5	146 4297	A 100
□ <b>→ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ </b>	11 x 27.5	4.0 - 6.5	146 4296	"

The maximum tightening torque and the threaded breaking force and shear strengths for all blind rivet nuts can be found on page 180. For head diameters, please report to page 191.

### **BLIND RIVET NUT LIGHT WEIGHT\***



#### LIGHT WEIGHT BLIND RIVET NUT

The new blind rivet nut light weight is the next evolutionary step at the blind rivet technology. This blind rivet nut focus and supports the trends at all industry sectors, which are weight reduction and save of resources.

The blind rivet nut light weight can save up to 50% weight by optimising of material and design and has the equal mechanical characteristics at the same time.

#### **ADVANTAGES**

- Weight savings up to 50%
- Less space required (on the blind side)
- Mechanical characteristics equal or better compared to standard blind rivet nuts
- Fast process
- Process control available
- No refinishing operations required
- No third material (glue)
- No aging issues
- Oneside access

\*GESIPA® Light Weight® is protected by the U.S. Pat. 10,648,500







194 **GESIPA**®

Steel splined	G	D x L	mm	No.	
Standard Dome head	<b>M 5</b>	7 x 9.5	0.5 - 3.0	165 8768	A 500
	<b>M 6</b> 9.1 mm + 0.1mm	9 x 10.5	0.5-3.5	165 8766	A 250
Steel splined Small head	G	D x L	mm	No.	
	<b>M 5</b> 7.1 mm + 0.1mm	7 x 9.5	0.5 - 3.0	165 8769	A 500

9 x 10.5

0.5 - 3.5

M 6

9.1 mm + 0.1mm

		Steel	
	Nm	(Ib-ft)	
M5	8.0	5.9	
M6	12.0	8.9	

### THE TIGHTENING TORQUE (NM) AND (LB-FT) THREAD BREAKING FORCE (N) AND (KP)

165 8767

A 250

		Steel	
	N		(kp)
M5	11,500		1,172
M6	18,000		1,836

#### SHAFT GEOMETRY ROUND AND SPLINED; ALL MATERIALS

	Dome head		Counters	unk	Small hea	ıd
Size mm	Head diameter mm	Height of head mm	Head diameter mm	Height of head mm	Head diameter mm	Height of head mm
M 5	8.2	0.5	10	1.5 - 1.6	7.5	0.50
M 6	10.5	0.8	12	1.5 - 1.6	10.0	0.60

### **BLIND RIVET NUT HIGH STRENGTH**



#### **HIGH-STRENGTH BLIND RIVET NUT**

The new high-strength blind rivet nut is the ideal choice for all applications where a particularly strong thread is required. The thread-breaking strength far exceeds that of a standard blind rivet nut and the half-hexagonal shank provides the appropriate anti-twist protection.

#### **AREAS OF APPLICATION**

- Perfectly suited for high-load applications in shell construction
- Structural components (e.g. safety components, etc.)

#### STRENGTH

- 10.9 or 12.9 for steel blind rivet nut
- 10.9 for steel blind rivet stud
- 8.8 for aluminium blind rivet nut

#### **ADVANTAGES**

- Quick assembly with access from only one side
- A solution for high-load applications
- Process monitoring possible
- Mechanical properties are significantly higher than those of standard steel blind rivet nuts
- Optimises the connections for different applications (e.g. weight reduction)
- Can be combined with customer-specific requirements and other GESIPA® innovations

Further information on the new products can be obtained from product management. Please contact us!

196 **GESIPA**®

### **BLIND RIVET NUT TORQUE RESISTANT**



#### **BLIND RIVET NUT TORQUE RESISTANT**

The new torque-resistant blind rivet nut is the perfect solution when it comes to inserting threaded elements into aluminium profiles, with access only required from one side. According to the current state of the art, the rivet nut achieves mechanical properties that would otherwise only be possible when using hexagonal blind rivet nuts.

#### **APPLICATIONS**

Aluminium extruded profiles with one-side access to the riveting position:

- Girder/side rail
- Safety systems
- Profile Structures

#### **PRODUCT PORTFOLIO**

- Blind Rivet Nut Steel M6 with wedges under the head
- Blind Rivet Nut Steel M8 with wedges under the head
- Blind Rivet Nut Steel M10 with wedges under the head

#### **ADVANTAGES**

- PROCESS RELIABILITY
   Increased Torque Resistance during
   the assembly process
- FAST Reduction of the costs and the process time per assembly
- CUSTOMIZED
   Different plating is possible depending
  - on corrosion requirements
- COMPATIBLE WITH COMPLETE GESIPA® SYSTEMS

Joint integrity control possible with process control

### ECONOMIC

Increasing of the economy in comparison to a hexagonal blind rivet nut



## BLIND RIVET NUT G-SEALED® SPLINED, CLOSED END

Material: Steel, zinc-plated



#### **BLIND RIVET NUT G-SEALED®**

G-Sealed<sup>®</sup> is a nonreactive coating that can be applied to create an under head seal to blind rivet nuts, blind rivet nut studs & blind rivets. The combination of a BRN CAP steel splined with the G-Sealed<sup>®</sup> under head sealing creates an instand sealing and high-stress thread.

#### **APPLICATIONS**

G-Sealed<sup>®</sup> can be used in many areas of application but is especially suited to the automotive industry due to its excellent thermal & chemical resistance.

#### **ADVANTAGES**

- Non-reactive and non-hardening coating
- Instant sealing as soon as the fastener is installed
- A dry, elastic, non-slip coating
- Good thermal and chemical resistance
- Applicable for metallic and non-metallic materials
- No markings and therefore not dangerous or harmful to the environment

	G	D x L	mm	No.	
Standard with G-Sealed®	<b>M 4</b> 6.1 mm	6 x 15.0	0.25 - 3.0	175 8507	A 500
splined	<b>M 5</b>	7 x 17.0	0.25 - 3.0	175 8508	A 500
Dome head	<b>M 6</b>	9 x 21.5	0.25 - 3.5	175 8509	A 100
	<b>M 8</b>	11 x 24.0	0.25 - 3.0	175 8510	A 100

Other dimensions on request.

## **POLYGRIP® BLIND RIVET NUTS**



#### THE POLYGRIP® BLIND RIVET NUTS

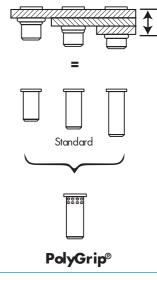
Die PolyGrip® blind rivet nuts are the logical further development of many years of experience with our PolyGrip® multi-range blind rivets. Thanks to the benefits of its large drilling hole tolerance and the option of covering various grip ranges with just one fastener, the PolyGrip® blind rivet nut has become a first-choice connector in many industrial applications and in trade.

Bringing together multiple dimensions saves handling and storage costs while also permanently reducing the risk of confusion in the workplace and the quality problems this can result in.

LARGE GRIP RANGE: Ideally, the one PolyGrip® blind rivet nut can replace up to five different dimensions of DIN standard blind rivet nuts thanks to the large grip range.

#### Your benefits:

- Type simplification
- Limited type variety . for reduced stocks
- Lower risk of confusion . therefore fewer mistakes in production







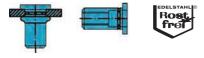
## **POLYGRIP® BLIND RIVET NUTS**

Aluminium	G	D x L	mm	No.	
<b>Standard</b> Dome head	<b>M 5</b>	7 x 13.5	0.25 - 5.0	143 3791	A 500
	<b>M 6</b>	9 x 18.0	0.25 - 6.0	143 3792	A 250
	<b>M 8</b>	11 x 20.0	0.5 - 6.5	145 5561	A 100
Material: AlMg 2.5					

Steel Standard	G	D x L	mm	No.	
Dome head	<b>M 5</b>	7 x 13.5	0.25 - 5.0	143 3793	A 500
	<b>M 6</b>	9 x 18.0	0.25 - 6.0	143 3794	A 250
Material: Steel Surface: Zinc-plated	<b>M 8</b>	11 x 20.0	0.5 - 6.5	143 3795	A 100

### Stainless Steel A2 Standard

Dome head



G D x L No. mm mm M 5 A 500 143 3796 7 x 13.5 0.25 - 5.0 **7.1** mm **M 6** 0.5 - 6.0 143 3797 A 250 9 x 18.0 9.1 mm **M 8** 11 x 20.0 0.5 - 6.5 143 3798 A 100 **\_\_\_\_\_**11.1 mm

Material: Stainless Steel A2 1.4567, polished

Material surcharge will be added at a daily rate.

### Stainless Steel A4 Standard

Dome head



Material: Stainless Steel A4 1.4578, polished

G	D x L	mm	No.	
<b>M 5</b>	7 x 13.5	0.25 - 5.0	145 0393	A 500
<b>M 6</b> 9.1 mm	9 x 18.0	0.5 - 6.0	145 5567	A 250
<b>M 8</b>	11 x 20.0	0.5 - 6.5	145 5568	A 100

Material surcharge will be added at a daily rate.



The maximum tightening torque and the threaded breaking force and shear strengths for all blind rivet nuts can be found on **page 180.** For head diameters, please report to **page 191** 

## POLYGRIP® BLIND RIVET NUTS SPLINED



The new GESIPA® splined PolyGrip® blind rivet nuts made from M6 and M8 steel are a further development of the well-proven PolyGrip® multi-range blind rivet nuts. They combine the advantages of covering large grip ranges with the knurling for increased anti-twist protection. The long longitudinal knurling ensures uniform setting characteristics over the entire grip range and a large closing head.

In the ideal case, the splined PolyGrip® blind rivet nut can replace up to 5 different standard DIN dimensions. This saves handling and storage costs while also reducing the risk of confusion in the workplace.

Steel Standard	G	D x L	mm	No.	
Dome head	<b>M 6</b>	9 x 18.0	0.5 - 6.5	145 5562	A 250
Material: Steel Surface: galvanised	<b>M 8</b>	11 x 20.0	0.5 - 8.0	145 5563	A 100
	Site			BR	



## SOFTGRIP® BLIND RIVET NUTS

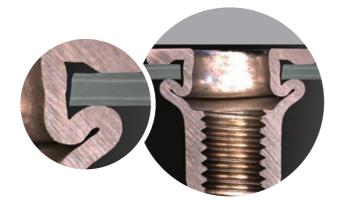


Carbon fibre-reinforced plastics (CFRP) offer indisputable and fascinated advantages when it comes to saving weight. They are, however, particularly demanding when selecting the partner material. Standard joining elements simply will not do for this high-grade material. GESIPA® has now developed a blind rivet nut for composite materials that meets the demanding requirements.

The SoftGrip® blind rivet nut from GESIPA® is a further development of the tried and tested PolyGrip® multi-range blind rivet nut. With the aid of a precisely controlled setting procedure, the component is barely subjected to bearing stress and contact pressure. The bulb that forms flat on the component with a large (larger than average) diameter ensures outstanding mechanical properties. Component damage such as crushing, cracking, delamination etc. are therefore effectively avoided. Thanks to the controlled formation of the bulb and the thus reduced bearing stress, minimal edge spacing of the blind rivet nut can be realised in connection with large hole tolerances. The use of high-grade stainless steel A2 materials (A4 on request) additionally makes the load bearing thread highly resistant to corrosion.

#### **ADVANTAGES**

- Fast processes
- Tight fit with the components
- Process monitoring and process control are possible
- High strength
- Not dependent on surface properties
- No other materials required (adhesive)
- No ageing
- Accessible from one side
- No delamination of the CFRP
- Smaller edge spacing of the holes
- Large grip range
- Stainless steel for high corrosion resistance
- Higher hole drilling tolerances



#### Perfect for plastics and soft materials

As a cost-effective alternative to the stainless steel SoftGrip®, the SoftGrip® steel blind rivet nut is the ideal functional component for plastics and soft materials where there is no need to prevent contact corrosion.



	G	D x L	mm	No.	
Steel Standard	M 6 - K 13	9 x 20.0	0.5 - 4.5	156 8810	A 100
	9.1 mm	9 x 20.0	4.5 - 6.5	156 8811	A 100
Dome head	M 6 - K 16	9 x 20.0	0.5 - 4.5	156 8874	A 100
	M 6 - K 18	9 x 20.0	4.5 - 6.5	156 8875	A 100
		9 x 20.0	0.5 - 4.5	156 8878	A 100
	9.1 mm	9 x 20.0	4.5 - 6.5	156 8879	A 100

The standard SoftGrip<sup>®</sup> can be adapted in accordance with special requirements and specific customer requests in many areas. Other dimensions available on request.

#### **Ideal for CFRP applications**

The high-quality materials stainless A2 and A4 also ensure that the load-bearing thread is highly resistant to corrosion, making the GESIPA® SoftGrip® stainless steel blind rivet nut ideal for use with CFRP materials.



	G	D x L	mm	No.	
Stainless Steel A2 Standard	M 6 - K 16	9 x 20.0	0.5 - 4.5	152 3786	A 100
	9.1 mm	9 x 20.0	4.5 - 6.5	152 3787	A 100
Dome head	M 6 - K 18	9 x 20.0	0.5 - 4.5	156 7589	A 100
	9.1 mm	9 x 20.0	4.5 - 6.5	156 8804	A 100
	G	D x L		No.	
Staiplace Steel A/			mm		
Stainless Steel A4	M 6 - K 16	9 x 20.0	0.5 - 4.5	156 8805	A 100
Standard	<b>M 6 - K 16</b>	9 x 20.0 9 x 20.0		156 8805 156 8806	
	and the second se		0.5 - 4.5		A 100

Material surcharge will be added at a daily rate.

## **BLIND RIVET NUT STUDS**



As a combination of blind rivet nut and screw, blind rivet nut studs offer a technical as well as cost-effective alternative to welding studs or other multi-piece T-slot systems. The blind rivet nut stud has two functions. On the one hand, it joins thin materials even if they are different. On the other hand, with the reliably and permanently fixed screw if provides an additional fastening point or a positioning aid. Different dimensions, materials and head shapes cover a wide range of applications. In addition to the standard range, application-specific applications are possible.

#### **ADVANTAGES**

- Dual function: Joining materials and providing additional fastening point (threaded stud)
- Access only required from one side
- High load bearing capacity of thread
- Simple, neat and fast processing
- Space-saving

- No damage to painted surfaces
- No heat transfer, i.e. no change in material structure
- Suitable for repairing welding studs

#### **APPLICATIONS**

The following applications are particularly suitable for the use of GESIPA® blind rivet nut studs:

- Accessible from one side
- Thin carrier materials such as sheet metal, plastics, etc.
- Pre-centring required
- Heat transfer, e.g. welding joined materials not possible or permitted
- Surface coatings must not be damaged
- Making electrically conductive joints
- Fast repairs of welding studs

GESIPA® blind rivet nut studs can be set without any problems with the GESIPA® blind rivet nut setting tools FireBird®, GBM 95 and FireFox® using corresponding adapters for blind rivet nut studs (see tool description).

	G	D x L	mm	<b>Thread protrusion min.</b>	No.	
Steel Standard	<b>M 4</b> 6.1 mm + 0.1 mm	6 x 11.0	0.25 - 3.0	10.0	143 3665	A 200
Dome head	<b>M 5</b> 7.1 mm + 0.1 mm	7 x 11.5	0.25 - 3.0	11.5	145 5330	A 150
	<b>M 6</b> 9.1 mm + 0.1 mm	9 x 15.5	0.25 - 3.0	13	145 5331	A 100
Material: Steel, zinc-plated	<b>M 8</b>	11 x 17.0	0.25 - 3.0	15.5	145 5332	A 100

## **BLIND RIVET NUT STUDS STEEL**

Steel NEW	G	D x L mm	mm	<b>Thread protrusion min.</b>	No.	
Standard	<b>M 4</b> 6.1 + 0.1 mm	6 x 12.0	0.5 - 2.0	10.0	170 3097	A 200
Small head	<b>M 5</b>	7 x 11.5	0.5 - 3.0	11.5	174 7257	A 150
	<b>M 6</b>	9 x 15.5	0.5 - 3.0	13	174 7258	A 100
Material: Steel, zinc-plated	<b>M 8</b>	11 x 17.0	0.5 - 3.0	15.5	174 7259	A 100

	G	D x L	mm	Thread protrusion min. mm	No.	
Steel half hexagonal	<b>M 4</b> SW6 + 0.1 mm	6 x 11.0	0.5 - 2.0	10.0	145 0359	A 200
Standard	<b>M 5</b> SW7 + 0.1 mm	7 x 12	0.5 - 3.0	11.5	145 0360	A 150
	<b>M 6</b> SW9 + 0.1 mm	9 x 15.5	0.5 - 3.0	13	145 0361	A 100
Material: Steel, zinc-plated	<b>M 8</b>	11 x 17.0	0.5 - 3.0	15.5	145 0362	A 50

Size mm	N ←	+ (kp)	N E	<b>▲</b> (kp)	Max. torque Nm
M 4	5,160	(525)	6,030	(614)	3.0
M 5	7,200	(733)	10,800	(1,100)	6.0
M 6	10,800	(1,100)	17,800	(1,812)	13.0
M 8	18,400	(1,873)	27,800	(2,830)	26.0

The values were determined using a screw of the strength class 8.8.

Further dimensions, special surface treatments or materials are available on request.

SHAFT GEOMETRY HALF HEXAGONAL; ALL MATERIALS

#### SHAFT GEOMETRY ROUND AND SPLINED; ALL MATERIALS

	Dome head			Dome head		
	Size mm	Head diameter mm	Height of head mm	Size mm	Head diameter	Height of head mm
	M 4	9	0.80	M 4	9	0.80
	M 5	10	1.00	M 5	10	1.00
	M 6	12	1.50	M 6	13	1.50
-	M 8	14	1.50	M 8	16	1.50

### **POLYGRIP® BLIND RIVET NUT STUDS SPLINED**



The new GESIPA® splined PolyGrip® blind rivet nut studs made from M6 and M8 steel are a further development of the well-proven PolyGrip® multi-range blind rivet nuts. They combine the advantages of covering large grip ranges with the knurling for increased anti-twist protection. The long longitudinal knurling ensures uniform setting characteristics over the entire grip range and a large closing head.

In the ideal case, the splined PolyGrip® blind rivet nut studs can replace up to 5 different standard DIN dimensions. This saves handling and storage costs while also reducing the risk of confusion in the workplace.

Steel Standard	G	D x L	mm	Thread protru- sion min. mm	No.	
Dome head	<b>M 6</b>	9 x 18.0	0.5 - 6.0	13	146 4481	A 100
	<b>M 8</b>	11 x 20.0	0.5 - 8.0	15.5	146 4480	A 50

Material: Steel Surface: galvanised



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### e-FAST BLIND RIVET NUT STUD Earthing / protective conductor connection



The GESIPA® blind rivet nut stud for earthing and protective conductor connections offers a high degree of flexibility and quick installation of a protective conductor connection when mounted in a control cabinet.

#### THE ADVANTAGES OF THE BLIND RIVET NUT STUD

- Quick assembly
- High flexibility
- No damage to surrounding surfaces
- Fulfilment of the requirements according to DIN EN 62208



#### APPLICATION AREAS SWITCH CABINETS FOR

- Packaging machines
- Testing facilities
- Switch cabinets for building automation
- Standard control cabinetsuantities

Underhead serration with the blind rivet nut stud produces the contacting even with coated components and lacquered sheets.



Blind rivet nut	G	D x L	mm	Thread protru- sion min. mm	No.	
<b>stud Steel</b> Dome head	<b>M 6</b>	9.9 x 12.0	0.75 - 2.5	approx 25	171 1505	A 100
	<b>M 6</b>	9.9 x 12.0	0.75 - 2.5	approx 25	170 5987	A 1000

Material: Steel, zinc-plated

## **CORDLESS BLIND RIVET NUT TOOLS**



#### **BLIND RIVET NUT HAND TOOLS**





GBM 10



FireFly



GBM 40-R



Flipper<sup>®</sup> Plus



GBM 50

#### **BATTERY-POWERED BLIND RIVET NUT TOOLS**





FireBird® Pro



FireBird® Pro Gold Edition



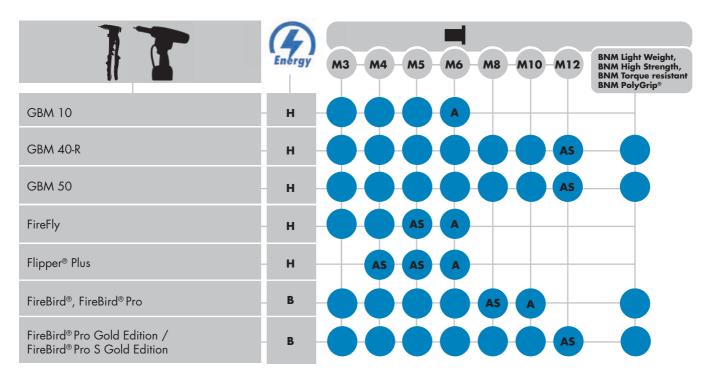
FireBird® Pro S Gold Edition



FireBird®



FireBird<sup>®</sup> with conversion kit for blind rivet nut studs



#### WHAT RIVETS WHAT?

H: Hand tool

- B: Battery-powered tool
- A: Alu/Copper
- S: Steel
- E: Stainless Steel

**Blue box:** All materials (ASE) can be riveted. Where there are exceptions, the letters of the rivetable materials are provided directly in the box. 7

## **BLIND RIVET NUT HAND TOOLS**



# **GBM 10**

**Manual blind rivet** nut setting tool with simple stroke setting

**GBM 10** – M4 No. 145 7087

**GBM 10** – M5

No. 143 4761

**GBM 10** – M6

No. 145 7088

#### **TECHNICAL DATA**

Weight: 600 g Total length: 260 mm Stroke: 7 mm

#### WORKING RANGE

Blind rivet nuts from M3 up to M6 alu and up to M5 steel, brass and stainless steel The blind rivet nuts Light Weight, High Strength and Torque Resistant can not be processed!

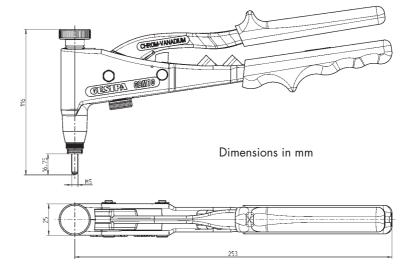
#### **SCOPE OF DELIVERY**

Standard: Threaded mandrel and nosepiece (optional M4 - M6) Maintenance instructions with spare parts list Stroke table

#### **ADVANTAGES**

- Simple lift setting via a knurled nut for safe and complete setting of the blind rivet nuts
- Threaded mandrel protection via spring ring . for fast tool-free replacement of the threaded mandrel
- With opening spring for simple handling
- Body in high-quality die cast aluminium
- Body head made of forged chrome-vanadium steel
- **Ergonomic handles**







colour

Ergonomically formed handles for working efficiently without fatigue

#### THREADED MANDRELS AND NOSEPIECES for GBM 10

#### **THREADED MANDRELS**

Threaded mandrels	No.
Threaded mandrels M3*	145 7096
Threaded mandrels M4	143 4776
Threaded mandrels M5	143 4779
Threaded mandrels M6	143 4781
Threaded mandrels 8-32 UNC	143 4784*
Threaded mandrels 10-24	145 7098*
Threaded mandrels 10-32 UNF	143 4783*
Threaded mandrels 1/4"-20	143 4785*

#### NOSEPIECES

nosepieces	No.
nosepieces M3*	145 7095
nosepieces M4/8-32 UNC	143 4777
nosepieces M5/10-24 UNC**	143 4780
nosepieces M6/ 1/4"-20 UNC	143 4782

\*Available as special accessoires \*\*The 10-24 UNC nosepiece can be used for the 10-24 UNC and 10-32 UNF threaded mandrels.

#### **BLIND RIVET NUT BOX**

GBM 10 with threaded mandrel and nosepiece M5 including threaded mandrels and nosepieces M4 and M 6, different blind rivet nut dimensions M4 to M 6 made of alu for joint thicknesses of 0.25 to 3 mm.

#### Incl. 4 blind rivet nut sizes:

Alu M4 x 6 x 11.0 mm Alu M5 x 7 x 11.5 mm Alu M5 x 7 x 13.5 mm Alu M6 x 9 x 15.5 mm



#### No. 143 5455

# **GBM 40-R**

The new ratchet tool for setting blind rivet nuts

### No. 161 9731

#### **TECHNICAL DATA**

Weight: 1.25 kg Total length: 212 mm

#### **WORKING RANGE**

Blind rivet nuts range M3 up to M10 of all materials and M12 aluminium and steel

#### **SCOPE OF DELIVERY**

Threaded mandrel and nosepiece: M5, M6, M8 and M10 1 construction wrench Maintenance instructions with spare parts list Plastic carrying case

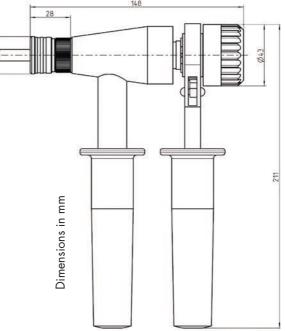
#### **ADVANTAGES**

- The ratchet mechanism enables you to work with extremely low manual force
- Tool-free replacement of threaded mandrel and nosepiece
- Nosepieces and threaded mandrels compatible with GBM 50
- Can be converted for setting blind rivet studs



Nosepieces, threaded mandrels and conversion kit on **page 216.** 

**SL 30 special length:** Extended nosepiece and threaded mandrel for difficult-to-access and/ or deep-seated applications. 213/M-4/0-K



Also suitable for blind rivet studs. Conversion possible!

# **GBM 50**

Blind rivet nut hand setting tools with quick drill system

### No. 161 9730

#### **TECHNICAL DATA**

Weight: 2.4 kg Total length: 485 mm

#### **WORKING RANGE**

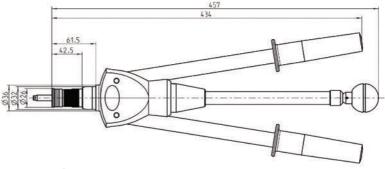
Blind rivet nuts range M3 up to M10 of all materials and M12 aluminium and steel

#### **SCOPE OF DELIVERY**

Threaded mandrel and nosepiece:: M5, M6, M8 and M10 1 construction wrench Maintenance instructions with spare parts list Plastic carrying case

#### **ADVANTAGES**

- Quick drill system for drilling the threaded mandrel in and out quickly and easily
- Favourable transmission ratio for low effort even when setting large blind rivet nuts
- Easy stroke setting using adjusting ring with stroke scale for safe and complete installation of the blind rivet nut
- Tool-free replacement of threaded mandrel and nosepiece
- Nosepieces and threaded mandrels compatible with GBM 40-R
- Can be converted for setting blind rivet studs



Also suitable for

blind rivet nut studs.

Conversion possible!

**GBM 50** 

Dimensions in mm



Nosepieces, threaded mandrels and conversion kit on **page 216.** 



**SL 30 special length:** Extended nosepiece and threaded mandrel for difficult-to-access and/ or deep-seated applications.

# FIREFLY-BOX

Force and intelligence for setting blind rivet nuts

### No. 143 5453

#### **TECHNICAL DATA**

Total stroke: 9 mm Single action stroke: 1.8 mm Weight: 750 g

#### WORKING RANGE

Blind rivet nuts from M3 up to M6 aluminium as well as from M3 up to M5 steel The blind rivet nuts Light Weight, High Strength and Torque Resistant can not be processed!

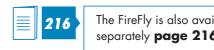
#### **SCOPE OF DELIVERY**

Threaded mandrel and nosepiece M4 + M5, Blind rivet nuts M4 und M5 Maintenance instructions Plastic carrying case

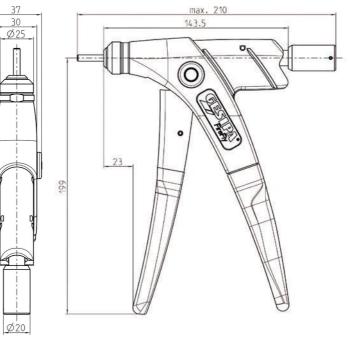
#### **ADVANTAGES**

- The well-proven principle of operation of the GESIPA® hand riveting tool Flipper® spares up to 40% of the hand force for setting blind rivet nuts
- A special lever design as well as the ratchet mechanism provide a reduction of hand force
- Exchange of nosepiece and threaded mandrel
- The total stroke is 9 millimeter long for setting of new generation multigrip blind rivet nuts like new the GESIPA® PolyGrip® blind rivet nuts
- Tool-free setting of stroke and . threaded mandrel lengths allows simple setting of blind rivets of different lengths





The FireFly is also available separately page 216.



Dimensions in mm

## SPECIAL ACCESSORIES FireFly

#### FIREFLY IN CARDBOARD BOX

Equipped with

- Nosepiece
- Threaded mandrel
- **Operating instructions** and stroke table



TOOL	No.
FireFly M5 in card-board box	143 5454
FireFly M3 in card-board box	145 7653
FireFly M4 in card-board box	145 7654
FireFly M6 in card-board box	145 7655
FireFly 6 - 32 UNC in card-board box	145 7656
FireFly 8 - 32 UNC in card-board box	145 7657
FireFly 10 - 32 UNF in card-board box	145 7659
FireFly 1/4" - 20 UNC in card-board box	145 7660

#### THREADED MANDRELS AND NOSEPIECES

Article	No.
Threaded mandrels M3	143 4002
Threaded mandrels M4	143 4001
Threaded mandrels M5	143 4000
Threaded mandrels M6	143 4008
Nosepiece insert M3	143 3995
Nosepiece insert M4	143 3994
Nosepiece insert M5	143 3993
Nosepiece insert M6	143 3997

#### **RETROFIT SET FOR** blind rivet nut studs

	No.	<b>BRN</b> thread protrusion		
		min.	max.*	
M4	143 4009	8	22	
M5	143 4010	9	22	
M6	143 4011	10	22	

\* A corresponding extended nosepiece must be used for thread protrusions > 22 mm.

Article

Threaded mandrels 6 - 32 UNC

Threaded mandrels 8 - 32 UNC

Threaded mandrels 10 - 24 UNC

Threaded mandrels 10 - 32 UNF Threaded mandrels 1/4" - 20 UNC

> Nosepiece 6 - 32 UNC Nosepiece 8 - 32 UNC

Nosepiece 10 - 24 UNC

\*The nosepiece insert 10 - 24 UNC can be used for threaded mandrels 10- 24 UNC and 10-32 UNF

162 2558

162 2560

**REFILL MINI PACKS** for blind rivet nuts M4 x 6 x 13.0 No. 143 3700 M5 x 7 x 13.5 No. 143 3701

M6

M8

No.

143 4019

143 4020

143 4021

143 4022

143 4023 143 4024

143 4025 143 4026\*

#### NOSEPIECES AND THREADED MANDRELS

Article	No.	Article	No.	Article No.		
nosepiece M3*	162 6929	threaded mandrel M3*	162 6916	threaded mandrel 1/4"-20 UNC <b>176 0260</b>		
nosepiece M4*	162 6941	threaded mandrel M4*	162 6917	threaded mandrel 3/8"-16 UNC <b>176 0261</b>		
nosepiece M5 10-32 UNF	162 2548	threaded mandrel M5	162 2543	threaded mandrel 5/16"-18 UNC <b>176 0262</b>		
nosepiece M6	162 2549	threaded mandrel M6	162 2544	threaded mandrel 10-32 UNF <b>176 0263</b>		
nosepiece M8 5/16"-18 UNC	162 2552	threaded mandrel M6 SL 10*2	167 8754			
nosepiece M8 SL 30*	166 4686	threaded mandrel M8	162 2545	$\label{eq:conversion kit for blind rivet studs} CONVERSION KIT for blind rivet studs$		
nosepiece M10 3/8"-16 UNC	162 2553	threaded mandrel M8 SL 10*2	167 8755	Description No.		
nosepiece M12*	162 2554	threaded mandrel M8 SL 30*	166 4684	M4 <b>162 2556</b>		
nosepiece insert 1/4"-20 UNC	176 0264	threaded mandrel M10	162 2546	M5 <b>162 2557</b>		

threaded mandrel M12\*

162 2547

\* Available as special accessories. Other dimensions on request. \*² from a blind rivet nut length of 21 mm for M6 and M8, the threaded mandrels SL 10 must be used.



# FLIPPER® PLUS combi setting tool

Virtually tool-free conversion from blind rivet to blind rivet nut setting tool



### **CONVERTED IN UNDER 1 MINUTE IN JUST** A FEW SIMPLE STEPS (page 70)

### No. 157 1258

### **TECHNICAL DATA**

Weight: 750 g Total length: 217 mm Total stroke: 16.2 mm Single action stroke: 1.8 mm

### WORKING RANGE BLIND RIVET NUTS

Blind rivet nuts from M4 up to M6 aluminium as well as from M4 up to M5 steel The blind rivet nuts Light Weight, High Strength and Torque Resistant can not be processed!

### **SCOPE OF DELIVERY**

Nosepieces for blind rivets: 12/20, 12/24, 12/29 Nosepieces and threaded mandrels for blind rivet nuts: M4, M5 and M6 1 maintenance wrench, 1 Allen key

1 jaw insertion aid

Operating instructions with spare parts list

### **ADVANTAGES**

- New ratchet function
- The force increases when the handle is closed. This finding is put to good use in a special lever arrangement for setting blind rivets and blind rivet nuts: ergonomic design
- The required manual force is reduced by around 40 percent if actuated several times.
- Actuation lever with an opening spring for easy single-handed operation

### **ADVANTAGES WHEN SETTING BLIND RIVET NUTS**

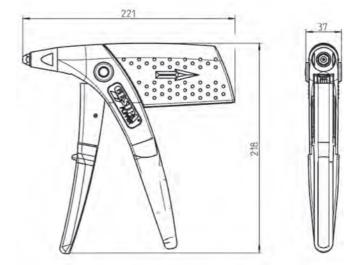
- The total stroke is 16.2 millimeter long for setting of new generation multigrip blind rivet nuts like the GESIPA® PolyGrip® blind rivet nuts
- Simplified setting procedure for blind rivet nuts



page 134.



conversion on youtube!



Dimensions in mm

# BLIND RIVET NUT SETTING TOOLS Battery-powered and hydro-pneumatic tools

# STROKE- OR SETTING-FORCE ADJUSTMENT ?

GESIPA® blind rivet nut setting tools can be controlled through either stroke or setting force. The FireFox® 2 can do both. When which setting should best be used depends on the application, of course. However, what is guaranteed is that the setting options are **SIMPLE, FAST AND SAFE.** 

### WHEN IS SETTING FORCE ADJUSTMENT USED?

A blind rivet nut size of the same or varying length (e.g.  $M6 \times 15.5$  or  $M6 \times 18$ ) should be set in **changing material** thicknesses using a constant setting force.



### **ADVANTAGES OF SETTING FORCE ADJUSTMENT**

- Controlling the tool through setting force adjustment protects material and thread and anchors blind rivet nuts securely in the material
- Quick and easy setting force adjustment via the display or the colour-coded setting ring
- Does not need to be adjusted in case of changing material thicknesses or different lengths of blind rivet nuts

### ADJUSTING SETTING FORCE ON BIRD PRO TOOLS

- 1. Read the value\* on the setting force guide
- 2. Enter value\* in the display
- 3. Set blind rivet nut

### (1)



Setting force guide – Example: Steel M5 for FireBird® Pro

\* The values given are only guide values. because different settings may be required depending on the type of blind rivet nut.





### ADJUSTING THE SETTING FORCE ON FIREFOX® TOOLS

When using the setting force adjustment, the maximum tool stroke must be set prior to using the setting force.

# Presetting the setting force with colour-coded setting ring

Screwing in the set screw increases the tool's setting force, screwing it out reduces the setting force.





Setting force guide FireFox® 2

\* The values given are only guide values. because different settings may be required depending on the type of blind rivet nut.

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### **ADVANTAGES OF STROKE SETTING**

- Controlling the tool through stroke setting guarantees the height of the blind rivet nuts is constant after setting, regardless of any small variations in the nut or the material
- Infinitely variable adjustment of the set stroke
- Stroke setting is preferred above all by experienced users and for large series production

### ADJUSTING THE SET STROKE ON FIREFOX® TOOLS

When using stroke setting, the setting force must first be set to maximum.

### Setting is done in four steps

- The rivet set screw with colour scale (9) must be screwed in up to the stop with the enclosed hexagon screwdriver SW 3.
- **2.** Then press in the green release button (6) fully.
- Adjust the set stroke according to the scale (5) by turning the stroke adjuster (4). One line on the scale equals 1 mm of set stroke.
- **4.** Release the green release button. If the release button does (6) not latch automatically, turn the stroke until the release button (6) engages.

In contrast to the force adjustment method, blind rivet nuts of different lengths or changing material thicknesses require different set stroke settings.

### **EXAMPLES**

### BRN M6 9x15

Rivetable material thickness 0.25 - 3.5 mm for material thickness 1 mm, the set stroke is approx. 3.0 mm for material thickness 1.5 mm, the set stroke is approx. 2.5 mm

### BRN PolyGrip® M6 9x18

Rivetable material thickness 0.25–6.0 mm for material thickness 1 mm, the set stroke is approx. 6.0 mm

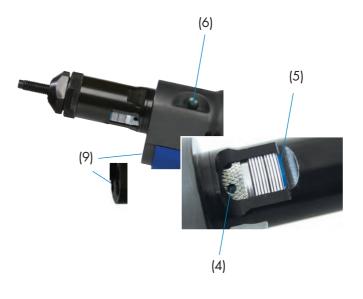
The values given are only guide values. because different settings may be required depending on the type of blind rivet nut.

### WHEN IS STROKE SETTING USED?

A constant set stroke should be used when a blind rivet nut size of the same length is set in **unchanging material** thicknesses. The set stroke corresponds to the distance the threaded mandrel is drawn into the nosepiece during the setting process and thus how far the blind

rivet nut is compressed. With stroke setting, this distance can be adjusted mechanically on the riveting tool.







# THE BIRD PRO SERIES Battery-powered blind rivet nut tools



### **GESIPA® RELIES ON CAS**

### **Riveting with the CAS system**

Our blind rivet nut setting tools **FireBird® Pro**, **FireBird® Pro Gold Edition** and the **FireBird® Pro S Gold Edition** are equipped with the new CAS batteries since 2021.

### **BLDC TECHNOLOGY**

A BLDC motor is a brushless DC motor that, instead of brushes that are susceptible to wear, uses electrical sensors to detect the rotor's position and commutate the stator coil via circuit breakers. A special software in the electronics controls the motor.

The advantages of a BLDC motor include high efficiecy, long service life, particularly smooth running with a precision ball bearing and a reduction in electrical noise radiation.



FireBird® Pro



FireBird® Pro Gold Edition



FireBird® Pro S Gold Edition

### Advantages at a glance - Battery-powered blind rivet nut tools with BLDC

### **Threaded mandrel**

- Mandrel quick-change system
- Nosepiece and mandrel module taken from FireFox<sup>®</sup>

### Lighting

The light-emitting diodes precisely aligned to the work piece are integrated into the adjusting ring. There are three possible switch positions: **Process-controlled:** The diodes remain illuminated after the setting process, which allows a continuous workflow even in bad lighting conditions. **Torch function:** Steady glow of diode (max, 10 minutes). **Lighting off:** saves electricity.

### LED input field

### Split LED input field

- Switches to energy-saving mode after 15 seconds
- Plastic cover to avoid damage and inadvertently changing the setting
- Presetting in steps of 10 and fine adjustment with 99 individual settings
- 10 freely selectable program memories

### lrigger

 Automatic screw-on after pressing the switch

### Li-Ion battery 18V

- Ultra M technology: Intelligent battery
   management for long-lasting battery packs
- Patented "AIR COOLED" charging technology
- Permanent Electronic Single Cell Protection (ESCP) when charging, for particularly long life.

GESIPA CAS

- Processor-controlled charge and discharge management
- Capacity display with almost no self-discharge
- Capacity display with almost no self-discharge
- One battery pack for everything. 100% compatibility with all 18 V machines and chargers of the CAS partners



# Threaded mandrel magazine

- Storage of mandrels in the practical,screw-on mandrel magazine
- Three mandrels and matching nosepieces included in scope of delivery

### **Autoreverse function**

Immediately after mandrel break-off, this optional operating mode stops the pulling process and moves the jaw assembly back into the initial position. This saves time and energy while making sure the tool is immediately ready for use.

# FIREBIRD® PRO

FireBird<sup>®</sup> Pro – The new battery powered blind rivet nut tool – for blind rivet nuts up to M8 steel!



Child's play! Read off number Enter number

3 Set blind rivet nut

➡ Done!



### ADVANTAGES OF SETTING FORCE ADJUSTMENT

- Controlling the tool through setting force adjustment protects material and thread and anchors blind rivet nuts securely in the material
- Quick and easy setting force adjustment via the display
- Does not need to be adjusted in case of changing material thicknesses or different lengths of blind rivet nuts

### **TECHNICAL DATA**

Weight:2.4 kg with battery (2.0 Ah)Traction power:15,000 NDrive:brushless motorStroke:10.0 mm

### WORKING RANGE

Blind rivet nuts up to M10 Aluminium, M8 steel and M6 stainless steel

### SCOPE OF DELIVERY

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Threaded mandrel and nosepiece M6 (in working position), Threaded mandrel and nosepiece M4 and M5 (in magazine) 1x Hexagonal wrench 2x Double open ended wrench SW 24/27 Card Quick adjustment Card Setting force pre-adjustment Operating manual

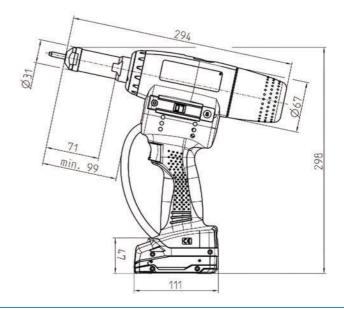
### **ADVANTAGES**

- Foolproof operation
- Virtually no wear by brushless motor
- Modern Li-Ion battery technology
- Controlled solely by the setting force adjustment

GESIPA' CAS

**GESIPA** 

- Intelligent error message
- Almost double the pulling displacement from 5.5 to 10 mm
- Fully automatic screw-off procedure



Dimensions in mm

# FIREBIRD® PRO GOLD EDITION

FireBird<sup>®</sup> Pro Gold Edition – The new battery powered blind rivet nut tool – for blind rivet nuts up to M12 steel!









Setting force guide – Example: Steel M5

The values given are only guide values. The values should always be set slightly lower when setting for the first time!

### **TECHNICAL DATA**

Weight:2.4 kg with battery (2.0 Ah)Traction power:20,000 NDrive:brushless motorStroke:10.0 mm

### **WORKING RANGE**

Blind rivet nuts up to M12 alu and steel and M10 stainless steel.

### **SCOPE OF DELIVERY**

Threaded mandrel and nosepiece M6 (in working position), Threaded mandrel and nosepiece M8 and M10 (in magazine) 1x Hexagonal wrench 2x Double open ended wrench SW 24/27 Card Quick adjustment Card Setting force pre-adjustment Operating manual

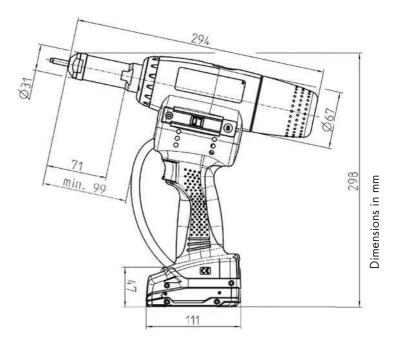


Spare parts, special accessories for FireBird® Pro/FireBird® Pro Gold Edition **page 228.** 





Power per battery charge, threaded mandrels and nosepieces **page 225.** 



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# FIREBIRD® PRO S GOLD EDITION

Der FireBird<sup>®</sup> Pro with mechanical stroke setting



with mechanical stroke setting



### WHEN IS STROKE SETTING USED?

A constant set stroke should be used when a blind rivet nut size of the same length is set in unchanging material thicknesses. The set stroke corresponds to the distance the threaded mandrel is drawn into the nosepiece during the setting process and thus how far the blind rivet nut is compressed. With stroke setting, this distance can be adjusted mechanically on the riveting tool.

### **ADVANTAGES OF STROKE SETTING**

- Controlling the tool through stroke setting guarantees the height of the blind rivet nuts is constant after setting, regardless of any small variations in the nut or the material
- Infinitely variable adjustment of the set stroke
- Stroke setting is preferred above all by experienced users and for large series production

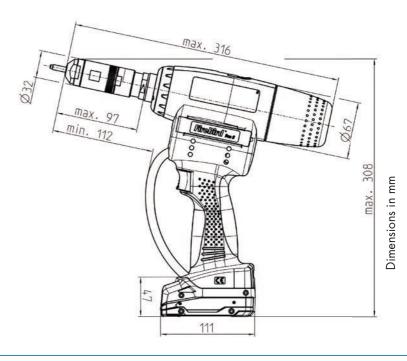
### **SCOPE OF DELIVERY**

Threaded mandrel and nosepiece M6 (in working position), Threaded mandrel and nosepiece M8 and M10 (in magazine) 1x Hexagonal wrench 2x Double open ended wrench SW 24/27 1x Double open ended wrench SW 27/30 Card Quick adjustment Card Setting force pre-adjustment Operating manual Technical data, working range and advantages analog to FireBird® Pro Gold Edition

GESIPA' CAS

SIPA

FireBird® Pro 5



### WORKING RANGE FIREBIRD® PRO GE AND FIREBIRD® PRO S GE:

Sets blind rivet nuts up to M12 alu and steel and M10 stainless steel.

### POWER PER BATTERY CHARGE/THREADED MANDRELS AND NOSEPIECES FOR FIREBIRD® PRO TOOLS

Inner thread	Material	approx. pc per charging process	Threaded Nosepiece mandrel		capprox. pc per charging process FireBird® Pro GE /	Threaded mandrel	Nosepiece
		FireBird <sup>®</sup> Pro	No.	No.	FireBird <sup>®</sup> Pro S GE	No.	No.
M3	Alu	1,200	140 (011*	140 (010*	1,200	140 /0114	140 (010*
M3	Steel/Stainless steel	1,100	143 0211*	143 6211*   143 6218*	1,100	143 6211*	143 6218*
M4	Alu	1,100	140 (010		1,100	140 (010)	140 (010*
M4	Steel/Stainless steel	1,000	143 6212	143 6219	1,000	143 6212*	143 6219*
M5	Alu	950	143 6213		950		
M5	Steel/Stainless steel	900		143 6213 143 6220	900	143 6213*	143 6220*
M6	Alu	900			900	140 (014	
M6	Steel/Stainless steel	800	143 6214	143 6221	800	143 6214	143 6221
M8	Alu	850	142 6015*	142 6000*	850	142 6015	142 6000
M8	Steel/Stainless steel	550	143 6215*	143 6222*	550	143 6215	143 6222
M10	Alu	750		143 6223*	750	143 6216	143 6223
M 10	Steel/Stainless steel	-	143 6216*	145 0225	500	143 0210	143 0223
M12	Alu	-			500	140 (017)	140 (004)
M12	Steel	-	•	-	300	143 6217*	143 6224*

\*Available as special accessory



Spare parts, special accessories for FireBird® Pro S Gold Edition **page 228.** 



All threaded mandrels and nosepiecese **page 250.**  **Example and application:** Extended nosepiece and threaded mandrel for difficult-to-access and/or deep-seated applications



**GESIPA**<sup>®</sup> 225

# **FIREBIRD**®

The reliable blind rivet nut tool with mechanical stroke setting for blind rivet nuts up to M10 Alu.





### **TECHNICAL DATA**

Weight:2.1 kg with batterySetting force:13,000 NDrive:DC motorStroke:5.5 mm

### WORKING RANGE

Blind rivet nuts up to M10 aluminium, up to M8 steel and up to M6 stainless steel

### **SCOPE OF DELIVERY**

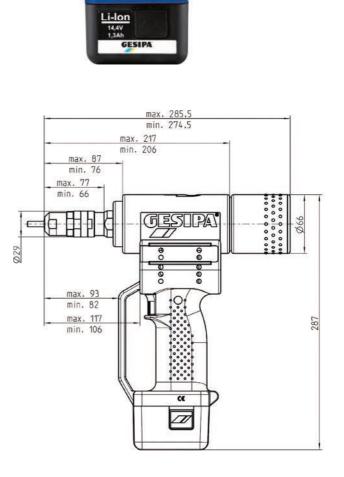
Threaded mandrel and nosepiece M6 (in working position) Threaded mandrel and nosepiece M4 und M5 (in magazine) 1x hexagonal wrench 2x double open ended wrench SW 24/27 Operating manual

### **ADVANTAGES**

- Reduced torque
- Automatic switch-off
- Automatic drill-out function
- High energy density
- Low weight
- Simple and safe drilling of

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Spare parts, special accessories for FireBird® page 228



GESIPA

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Dimensions in mm

Blind rivet	Material	approx. pc	No.		
nuts inner thread		<b>per charging process</b> 2,0 Ah Li-Ion battery	Threaded mandrel	Nosepiece	
M3	Alu	1000	143 5052*	143 5065*	
M3	Steel/Stainless steel	900	143 5052	143 5005	
M4	Alu	900	142 5055	142 5044	
M4	Steel/Stainless steel	800	143 5055	143 5066	
M5	Alu	800	142 5054	142 5047	
M5	Steel/Stainless steel	750	143 5056	143 5067	
M6	Alu	700	142 5050	142 5049	
M6	Steel/Stainless steel	500	143 5059	143 5068	
M8	Alu	600	142 5042*	142 5060*	
M8	Steel	300	143 5063*	143 5069*	
M10	Alu	500	143 5064*	143 5070*	

### POWER PER BATTERY CHARGE/THREADED MANDRELS AND NOSEPIECES

\*Available as special accessory



All threaded mandrels and nosepiecese page 250

# **FIREBIRD®** Basic tool for blind rivet nut studs conversion kit

The blind rivet nut studs conversion kits enable the FireBird® to be used to set M4 and M8 blind rivet nut studs.

### FireBird® Basic tool\*



\* The tool is delivered without threaded mandrels and nosepieces. Please order the corresponding conversion kit. **page 229** 



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# **SPARE PARTS / SPECIAL ACCESSORIES** Battery powered blind rivet nut tools



Equipped with a complete set of nosepieces and threaded mandrels (M3 to M12) in a plastic carrying case. Suitable for:

- FireBird® Pro
- FireBird® Pro Gold Edition / FireBird® Pro S Gold Edition
- FireFox<sup>®</sup> 2 (all versions except FireFox<sup>®</sup> 2 C)



No. 145 8111

**UNC/UNF** dimensions No. 145 8112



### CONVERSION KIT FOR BLIND RIVET NUT STUDS

No.

	FireBird <sup>®</sup> Pro tools	FireBird <sup>®</sup> tools	min.	max.*
M4	143 6285	143 5117	8	30
M5	143 6286	143 5118	9	30
M6	143 6287	143 5119	10	30
M8	143 6288	143 5121	12	30
	M5 M6	M4         143 6285           M5         143 6286           M6         143 6287	M4         143 6285         143 5117           M5         143 6286         143 5118           M6         143 6287         143 5119	M4         143 6285         143 5117         8           M5         143 6286         143 5118         9           M6         143 6287         143 5119         10

No.

**BRN thread protrusion** 

### CONVERSION KIT FOR COARSE THREAD

	No.	No.	<b>BRN</b> thread protrusion		
	FireBird <sup>®</sup> Pro tools	FireBird® tools	min.	max.	
T5	145 8170	145 7434	9	22	
T6	145 8171	145 7476	10	22	

### Other dimensions on request

### **CONVERSION KIT FOR HEXAGON SOCKET SCREWS**

For the FireBird® Pro series

### Can be operated with DIN EN ISO 4762 allen screws instead of threaded mandrels

Special adapters available as accessory for M4 to M8 threads allows the original threaded mandrels to be replaced by allen screws: A substantial cost saving without any quality or performance loss and higher endurance when far away from the spare parts source. Best results are obtained with 12.9 grade screws.

Conversion kit for blind rivet nuts	No.	Conversion kit f DIN screws		Conversion kit DIN screws	
M4 x min. 20	143 6264	M4 x min. 50	145 8182	M4 x min. 70	152 9115
M5 x min. 25	143 6279	M5 x min. 55	145 8183	M5 x min. 75	156 7148
M6 x min. 30	143 6283	M6 x min. 60	145 8184	M6 x min. 80	156 7147
M8 x min. 30	143 6284	M8 x min. 60	145 8178	M7 x min. 80	156 7146



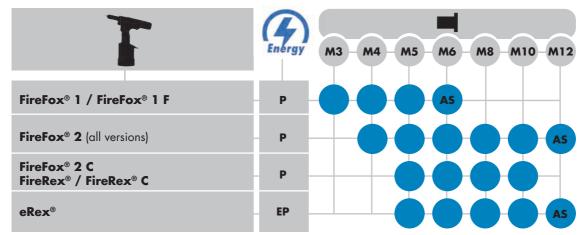


\* A corresponding extended nosepiece must be used for BRN thread protrusions > 30 mm.

# **HYDRO-PNEUMATIC BLIND RIVET NUT TOOLS**



### WHAT RIVETS WHAT?



P: Hydro-pneumatic tool EP: Electric tool A: Alu/Copper S: Steel E: Stainless Steel **Blue box:** All materials (ASE) can be riveted. Where there are exceptions, the letters of the rivetable materials are provided directly in the box.





FireFox® 1



FireFox® 1 F



FireFox® 2



FireFox® 2 F



FireFox<sup>®</sup> 2 F L



FireFox® 1 F / FireFox® 2 with conversion kit for blind rivet nut studs



FireFox® 1 F Axial eco



FireFox® 2 F Axial eco



FireFox® 2 F Axial eco with contact pressure monitoring and counting sensor



FireFox® 2 C WinTech



eRex®



FireRex®



FireRex<sup>®</sup> 2 C WinTech

# FIREFOX<sup>®</sup> 1

The hydropneumatique blind rivet nut tool for M3-M6 - stroke or setting force controlled

### No. 160 5610

### **TECHNICAL DATA**

Weight: Maximum stroke: Adjustable traction force:

Operating air pressure: Air hose connection: Air consumption: approx.

**WORKING RANGE** 

Blind rivet nuts from M3 up to M6 of all materials, except M6 stainless steel.

2.2 kg

at 6 bar

5-7 bar

approx. 7.5 mm

6 mm Ø (1/4'')

up to approx. 12 kN

(depending on nutsize)

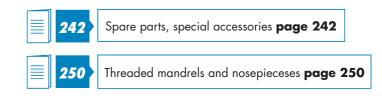
### **SCOPE OF DELIVERY**

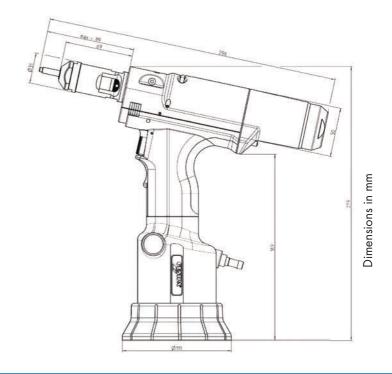
Threaded mandrel and nosepiece M6 (in working position) Threaded mandrel and nosepiece M3, M4 and M5 (in magazine) 2x double open ended wrenches SW 24/27 1x hexagon screw driver SW 3 1x oil refill bottle with hydraulic oil 100 ml 1x oil refill can Rubber foot Quick setting guide Colour code card Operating instructions with spare parts list

### **ADVANTAGES**

- Stroke- or setting-force adjustment possible
- Maximum stroke clearly identified by blue ring on stroke scale (1)
- Fast and precise setting force adjustment • with colour-coded setting ring (2)
- New stroke scale quick and easy to set even • under poor light conditions







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# FIREFOX<sup>®</sup> 1 F

The hydropneumatique blind rivet nut tool with setting force adjustment for M3-M6

### No. 145 8198

### **TECHNICAL DATA**

Weight: Maximum stroke: Adjustable traction force: 2 kg approx. 7.5 mm up to approx. 12 kN at 6 bar 5-7 bar 6 mm Ø (1/4'') 1-2 ltr.per setting process (depending on nutsize)

Operating air pressure: Air hose connection: Air consumption: approx.

### WORKING RANGE

Blind rivet nuts from M3 up to M6 of all materials, except M6 stainless steel.

### **SCOPE OF DELIVERY**

Threaded mandrel and nosepiece M6 (in working position) Threaded mandrel and nosepiece M3, M4 and M5 (in magazine) 2x double open ended wrenches SW 24/27 1x hexagon screw driver SW 3 1x oil refill bottle with hydraulic oil 100 ml 1x oil refill can Rubber foot Quick setting guide Colour code card

Operating instructions with spare parts list

### **ADVANTAGES**

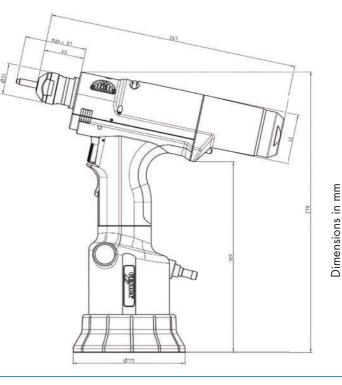
- Easy to use, reliable and safe
- Sets small blind rivet nuts optimally and safely without damaging the material to be joined
- Setting takes place exclusively using setting force adjustment
- Optimum protection of the blind rivet nut thread
- Ergonomic design reduces fatigue when working





Spare parts, special accessories **page 242** 

Threaded mandrels and nosepieceses page 250



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# FIREFOX<sup>®</sup> 2

The hydro-pneumatique blind rivet nut tool - stroke or setting force controlled

### No. 145 8086

### **TECHNICAL DATA**

Weight: Adjustable stroke, max: Adjustable traction force, max: 22 kN at 6 bar Operating air pressure: Air hose connection: Air consumption:

2.4 kg 10mm 5-7 bar 6 mm Ø (1/4'') approx. 2 to 4 ltr. per rivet nut (depending on nut size)

### WORKING RANGE

Sets blind rivet nuts from M4 to M10 in all materials as well as M12 in aluminium and steel.

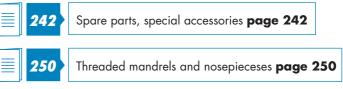
### **SCOPE OF DELIVERY**

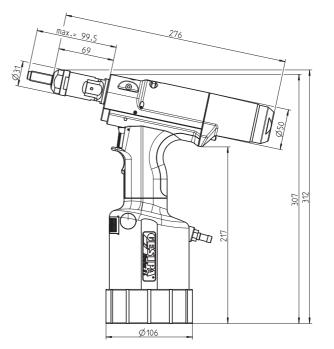
Threaded mandrel and nosepiece M6 (in working position) Threaded mandrel and nosepiece M4, M5 and M8 (in magazine) 2x double open ended wrenches SW 24/27 1x hexagon screw driver SW 3 1x oil refill bottle with hydraulic oil 100 ml 1x oil refill can Quick setting guide Colour code card Operating instructions with spare parts list

### **ADVANTAGES**

- Stroke- or setting-force adjustment possible •
- Maximum stroke clearly identified by blue • ring on stroke scale (1)
- Fast and precise setting force adjustment with colour-coded setting ring (2)
- New stroke scale quick and easy to set even under poor light conditions







Dimensions in mm

# FIREFOX® 2 F

The hydro-pneumatique blind rivet nut tool with pure setting force adjustment

### No. 145 1045

### **TECHNICAL DATA**

Weight:2.4 kgAdjustable stroke,max:10mmAdjustable traction force, max:22 kN at 6 barOperating air pressure:5-7 barAir hose connection:6 mm Ø (1/4")Air consumption:approx. 2 to

2.4 kg 10mm 22 kN at 6 bar 5-7 bar 6 mm Ø (1/4'') approx. 2 to 4 ltr. per rivet nut (depending on nut size)

# For special applications also with left-hand thread available! page 236

### WORKING RANGE

Sets blind rivet nuts from M4 to M10 in all materials as well as M12 in aluminium and steel.

### **SCOPE OF DELIVERY**

Threaded mandrel and nosepiece M6 (in working position) Threaded mandrel and nosepiece M4, M5 and M8 (in magazine) 2x double open ended wrenches SW 24/27 1x hexagon screw driver SW 3 1x oil refill bottle with hydraulic oil 100 ml 1x oil refill can Quick setting guide Colour code card Operating instructions with spare parts list

### **ADVANTAGES**

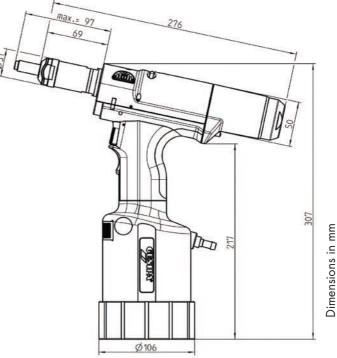
- With pure setting force adjustment
- Fast and precise setting force adjustment with colour-coded setting ring
- Optimum protection of material to be joined and blind rivet nut thread
- Secure anchoring of the blind rivet nut
- High process reliability



250

Spare parts, special accessories **page 242** 

Threaded mandrels and nosepieceses **page 250** 



**GESIPA**<sup>®</sup> 235

# FIREFOX<sup>®</sup> 2 FL

The hydropneumatic blind rivet nut tool for setting blind rivet nuts with left-hand thread.

FireFox <sup>®</sup> 2 F L – M6	No. 145 1037
FireFox® 2 F L – M4	No. 145 1035
FireFox® 2 F L – M5	No. 145 1036
FireFox® 2 F L – M8	No. 145 8098
FireFox <sup>®</sup> 2 F L – M10	No. 145 8099
FireFox <sup>®</sup> 2 F L - M12	No. 145 8100

### **TECHNICAL DATA**

Weight: Adjustable stroke, max: Adjustable traction force, max: Operating air pressure: Air hose connection: Air consumption: 2.4 kg 10 mm 22 kN at 6 bar 5-7 bar 6 mm Ø (1/4'') approx. 2 to 4 ltr. per rivet nut (depending on nut size)

### **WORKING RANGE**

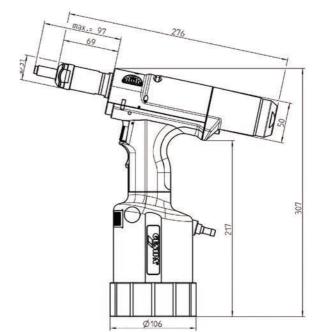
Sets blind rivet nuts from M4 to M10 in all materials as well as M12 in aluminium and steel.

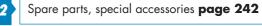
### **SCOPE OF DELIVERY**

Threaded mandrel and nosepiece M6 (in working position) Threaded mandrel and nosepiece M4, M5 and M8 (in magazine) 2x double open ended wrenches SW 24/27 1x hexagon screw driver SW 3 1x oil refill bottle with hydraulic oil 100 ml 1x oil refill can Quick setting guide Colour code card









250

Threaded mandrels and nosepieceses **page 250** 

# FIREFOX® 1F / FIREFOX® 2 with conversion kit for blind rivet nut studs

The blind rivet stud conversion kits enable the FireFox® tools to be used to set blind rivet studs.



FireFox® 1 F Basic tool No. 145 1106

**TECHNICAL DATA** Analog to FireFox® 1F

**WORKING RANGE** Sets blind rivet studs from M4 to M6

### **SCOPE OF DELIVERY**

2x double open ended wrenches SW 24/27 1x hexagon screw driver SW 3 1x oil refill bottle with hydraulic oil 100 ml 1x oil refill can Rubber foot Quick setting guide Colour code card Operating instructions with spare parts list



FireFox® 2 Basic tool No. 145 8096

**TECHNICAL DATA** Analog to FireFox<sup>®</sup> 2

**WORKING RANGE** Sets blind rivet studs from M4 to M8

**SCOPE OF DELIVERY** 2x double open ended wrenches SW 24/27 1x hexagon screw driver SW 3 1x oil refill bottle with hydraulic oil 100 ml 1x oil refill can Quick setting guide Colour code card Operating instructions with spare parts list



The tool is delivered without threaded mandrels and nosepieces. Please order the corresponding conversion kit. **page 244** 

# FIREFOX® 1 F AXIAL ECO

The hydropneumatic blind rivet nut tools for working vertically



FireFox® 1 F Axial eco – M3	No. 145 1103
FireFox® 1 F Axial eco – M4	No. 145 1104
FireFox® 1 F Axial eco – M5	No. 145 8199
FireFox <sup>®</sup> 1 F Axial eco – M6	No. 145 1105



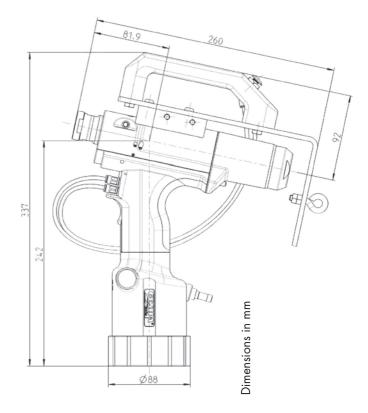
### **TECHNICAL DATA**

Weight: Max. setting stroke: Max. setting force, adjustable: Operating pressure: Hose connection: Compressed air consumption: 2.8 kg approx. 7.5 mm approx. 12 kN at 6 bar 5-7 bar 6 mm Ø (1/4'') max. 2 l per setting (depending on nut size)

Working range and scope of delivery analog to FireFox® 1F

### **ADVANTAGES**

- Costs-effective entry model
- Ideally suited for instillation in assembly cells, fixtures or semi-automatic workstations
- Handy for processing blind rivet nuts in places that require vertical riveting action
- Can be attached to a balancer



# FIREFOX® 2 F AXIAL ECO

SIPA

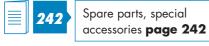
### TECHNICAL DATA

Weight:
Max. setting stroke:
Drive:
Setting force:
Operating pressure:
Hose connection:
Compressed air
consumption:

3.3 kg 10 mm Pneumatic motor 22 kN at 6 bar 5-7 bar 6 mm Ø (1/4'')

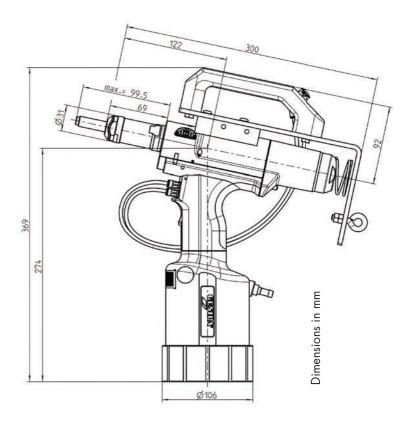
max. 2 | upt to 4 | per setting (depending on nut size))

Working range and scope of delivery analog to FireFox® 2F Advantages analog to FireFox® 1F Axial eco





FireFox <sup>®</sup> 2 F Axial eco – M4	No. 145 1040
FireFox <sup>®</sup> 2 F Axial eco – M5	No. 145 1041
FireFox <sup>®</sup> 2 F Axial eco – M6	No. 145 8103
FireFox <sup>®</sup> 2 F Axial eco – M8	No. 145 1042
FireFox <sup>®</sup> 2 F Axial eco – M10	No. 145 1043
FireFox <sup>®</sup> 2 F Axial eco – M12	No. 145 1044



# FIREFOX® 2 F AXIAL ECO with contact pressure monitoring and counting sensor

With contact pressure monitoring and counting sensor - in three versions

Consultation, price and delivery time on request

### **TECHNICAL DATA**

Weight: Max. setting stroke: Drive: Setting force: Operating pressure: Hose connection: Compressed air consumption:

3.3 kg 10 mm Pneumatic motor 22 kN at 6 bar 5-7 bar  $6 \text{ mm} \emptyset (1/4'')$ 

max. 2 | upt to 4 | per setting (depending on nut size)

### WORKING RANGE

Sets blind rivet nuts from M4 to M12 in all materials except M12 stainless steel.

### **SCOPE OF DELIVERY**

2x double open ended wrenches SW 24/27 1x hexagon screw driver SW 3 1x oil refill bottle with hydraulic oil 100 ml 1x oil refill can Quick setting guide Colour code card Operating instructions with spare parts lis

### **ADVANTAGES**

- Low-price entry-level model for process monitoring
- Ideally suited for instillation in assembly cells, fixtures or semi-automatic workstations
- Handy for processing blind rivet nuts in places that require vertical riveting action
- Can be attached to a balancer



Version with contact pressure monitoring and counting sensor

This tool is based on the tried-and-tested FireFox<sup>®</sup> 2 F Axial eco.

Three versions are available: with contact pressure monitoring, with counting function, or with contact pressure monitoring and counting function.

The counting function is realised by an analogue oil pressure sensor and the contact pressure monitoring via an adjustable spring mechanism.

Using an analogue oil pressure sensor allows the threshold value of the oil pressure, above which the setting process is recognized as valid, to be set on a programmable logic controller (PLC) that is not part of the standard scope of delivery.

# FIREFOX® 2 C WINTECH

# FireFox<sup>®</sup> 2 C – With setting process monitoring

The FireFox® 2 C WinTech is based on the proven TAURUS® C model. Here the setting process is analysed via integrated electronics using stroke and force sensors. The user can define an OK window by means of a special software. A coloured LED on the tool shows the results of the setting process monitoring which can also be recorded and processed via data line.

# Advice and delivery time on request

### **TECHNICAL DATA**

Weight: Max. setting stroke: Setting force: Operating pressure: Hose connection: Compressed air consumption: 3.1 kg 10 mm 22 kN at 6 bar 5-7 bar 6 mm Ø (1/4'')

max. 2 | upt to 4 | per setting (depending on nut size)

### WORKING RANGE

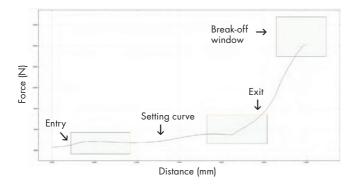
Sets blind rivet nuts from M5 to M10 in all materials

### **APLLICATIONS**

In the serial production of safety component parts as well as in automated setting processes the FireFox® C allows checking and documentation of the setting process.

### **EXAMPLE OF OK PROCESS**

Window entry and exit at customer-defined positions



### **ADVANTAGES**

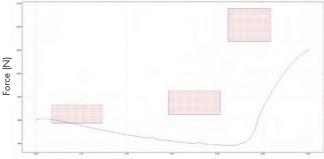
- High process safety
- Documentation of each individual setting process
- Less scrap since errors can be immediately identified
- Avoidance of additional costs/quality costs due to NOK parts

### **NOK WINDOW**

Even incompletely fitted blind rivet nuts are detected!

### **EXAMPLE OF NOT OK PROCESS**

Material to be joined too thin due to missing component



Distance (mm)

# **SPARE PARTS / SPECIAL ACCESSORIES** FireFox® series

### FLEXIBLE BASE - FIREFOX® 1 AND 2

With the new flexible base made from NBR and the larger surface area, the TAURUS® tools stand even more stably.

FireFox® 2

FireFox® 1

Flexible base for FireFox® 1 (for all versions) No. 143 6394

Flexible base for FireFox® 2 (for all versions) No. 143 6371

**PROTECTIVE COVER** for FireFox<sup>®</sup> 2 with stroke setting.

An additional **protective cover** over the head ensures that the stroke length setting is not unintentionally changed.

**SWIVEL AIR CONNECTOR** for FireFox<sup>®</sup> 1 F & 2 (all versions except FireFox<sup>®</sup> 2 C)



No. 143 5479

**Protective cover** 

### THREADED MANDREL AND NOSEPIECE SET FOR BLIND RIVET NUT SETTING TOOLS

Equipped with a complete set of nosepieces and threaded mandrels (M3 to M12) in a plastic carrying case. Suitable for:

- FireFox<sup>®</sup> 2 (all versions except FireFox<sup>®</sup> 2 C)
- FireBird® Pro
- FireBird® Pro Gold Edition / FireBird® Pro S Gold Edition



No. 145 8111 Metric dimensions

No. 145 8112 UNC/UNF dimensions

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# **SPARE PARTS / SPECIAL ACCESSORIES** FireFox® series

### TOOL MOUNT\* for FireFox® 1 F & 2

(all versions except FireFox® 2 C)

For integration into automated systems or connection to handling modules

\*Tool mount is not available separately. It is supplied mounted on a new tool or can be retrofitted to an existing tool at the Walldorf plant or in a qualified GESIPA® workshop.



### **CALIBRATION DEVICE**

The GESIPA® calibration device for calibrating and adjusting process-controlled blind rivet and blind rivet nut tools. The DAKKS laboratory-certified device is suitable for all GESIPA® WinTech tools.

# INTERFACE 4.0 FOR CONNECTION TO EXTERNAL CONTROLLERS

The new communication interface between GESIPA® tools and PLC interface. For all GESIPA® blind rivet tools with process control and connection to a PLC interface.



No. 163 4326

No. 166 6178

NEW

# **SPARE PARTS / SPECIAL ACCESSORIES** FireFox<sup>®</sup> series

### **CONVERSION KIT FOR BLIND RIVET NUT STUDS**

Article	No.	BRN thread	<b>protrusion</b> max.*1
M4	143 6285	8	30
M5	143 6286	9	30
M6	143 6287	10	30
M8*2	143 6288	12	30

\*<sup>1</sup> A correspondingly extended nosepiece must be used for thread protrusion > 30 mm.

\*<sup>2</sup> not FireFox<sup>®</sup> 1 F

### **CONVERSION KIT FOR COARSE THREAD**

	No.	BRN thread	protrusion
	FireFox <sup>®</sup> tools	min.	max.
T5	145 8170	9	22
T6	145 8171	10	22

Further dimensions on request.

### CONVERSION KIT FOR HEXAGON SOCKET SCREWS

# Can be operated with DIN EN ISO 4762 allen screws instead of threaded mandrels.

Special adapters available as accessory for M4 to M8 threads allows the original threaded mandrels to be replaced by allen screws: A substantial cost saving without any quality or performance loss and higher endurance when far away from the spare parts source. Best results are obtained with 12.9 grade screws

|--|--|

### SCREW NOSEPIECE for conversion kit

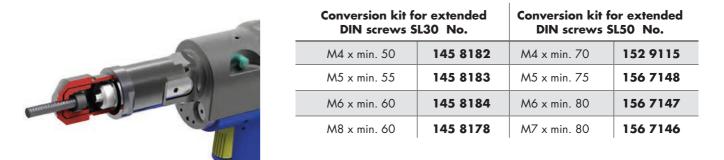
Description	No.
Screw nosepiece M4	143 5100
Screw nosepiece M5	143 5102
Screw nosepiece M6	143 5103
Screw nosepiece M8*2	143 5105

### SCREW INSERT for conversion kit

Description	No.
Screw insert M4	143 6278
Screw insert M5	143 6280
Screw insert M6	143 6281
Screw insert M8* <sup>2</sup>	143 6282

Conversion kit for blind rivet nuts	No.
M4 x min. 20	143 6264
M5 x min. 25	143 6279
M6 x min. 30	143 6283
M8* <sup>2</sup> x min. 30	143 6284

\*<sup>2</sup> not FireFox<sup>®</sup> 1 F



# **SPARE PARTS / SPECIAL ACCESSORIES** FireFox® series

### **CONVERSION KIT FOR CRIMP NUTS**

FireFox® 2 (all variants)

### Use

The conversion kits allow the use of the FireFox<sup>®</sup> 2 for inserting crimp nut sizes M6 to M12. This is done as fast as usual by drilling the nut on and off automatically and by fast insertion.

### **Delivered version**

The conversion kit is delivered as a pre-assembled accessory. For inserting crimp nuts into very thick steel plates special sizes of threaded mandrels have to be used.

### Installation

For installing the conversion kit special tools are not necessary. This can be done by using the wrench that comes with the FireFox® 2 standard version.



Conversion kit for setting nut	No.
M6	143 6354
M8	143 6355
M10	143 6356
M12	143 6357

### Threaded mandrels for conversion kit

Description	No.
Threaded mandrel M6	143 6214
Threaded mandrel M8	143 6215
Threaded mandrel M10	143 6216
Threaded mandrel M12	143 6217



The conversion kit is delivered as a preassembled accessory.



The spring-loaded centering bush allows the setting nut to be inserted in an optimum way.



The nut automatically drills on after having been slightly pressed onto the threaded mandrel.



Inserted nut after process has been finished.

# **FIREREX**®

The hydropneumatic blind rivet nut tool with external pressure booster for greater flexibility

### **TECHNICAL DATA**

Weight: Max. setting stroke, adjustable: Max. setting force, adjustable: Operating pressure: Hose connection: Compressed air consumption: 4.4 kg
10 mm
22 kN bei 6 bar
5-7 bar
6 mm Ø (1/4")
approx. 2 to 4 l
per setting (depending on nut size)



### **WORKING RANGE**

Sets blind rivet nuts from M5 to M12 in all materials

### **SCOPE OF DELIVERY**

M5 to M12 threaded mandrel and nosepiece

### **ADVANTAGES**

- Lightweight riveting gun
- Hose connection with quick-release coupling (on request): Disconnects the gun from the external pressure booster without oil loss and without venting
- Ideally suited for setting blind rivet nuts in difficult to access places
- Also ideal for installation in assembly cells, fixtures or semi-automatic workstations
- Can be equipped with almost all FireFox<sup>®</sup> 2 accessories: e.g. extension units, spent mandrel container, blind rivet nut counter, setting process monitoring, spring-loaded trigger system and remote control

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Threaded mandrels and nosepieceses analog to FireFox® 2 F **page 250.** 

# **FIREREX**<sup>®</sup> as robot application

Integrated in a robot application, the FireRex<sup>®</sup> is capable of reliably setting blind rivet nuts, also hexagon, at any conceivable angle in industrial production processes. **Cost-effective**, innovative and fast, the new GESIPA<sup>®</sup> technology will revolutionise the industrial processing of blind rivet nuts. 0

Detailed information on project implementation in your company is available from our Technical Sales department on request.

8

# FIREREX® C WINTECH

The hydropneumatic blind rivet nut tool with external pressure booster and with setting process monitoring

Technical data, working range and advantages analog to FireRex<sup>®</sup> page 246.

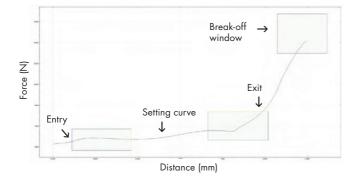
# NOW ALSO AVAILABLE WITH SETTING PROCESS MONITORING!

In the production of critical components as well as in automatic setting processes, the FireRex® 2 C WinTech can facilitate monitoring and documentation of the results. The FireFox® 2 C WinTech is based on the proven TAURUS® C model. Here the setting process is analysed via integrated electronics using stroke and force sensors. The user can define an OK window by means of a special software. A coloured LED on the tool shows the results of the setting process monitoring which can also be recorded and processed via data line.

As a further development of the tried and tested FireFox® 2, the FireRex® is capable of setting blind rivet nuts at any conceivable angle in industrial production processes. The external pressure booster makes the FireRex® particularly suitable for use in tight spaces. The special gun of the FireRex® can be integrated in production systems and facilitates flexible and ergonomically efficient manual working procedures in applications with restricted access and therefore require riveting from above.

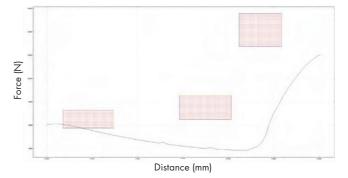
### **EXAMPLE OF OK PROCESS**

Window entry and exit at customer-defined positions



### **EXAMPLE OF NOT OK PROCESS**

Material to be joined too thin due to missing component









Quick. Compact. Eco-friendly! The electrical blind rivet nut tool for blind rivet nuts and studs!





### **TECHNICAL DATA**

Weight: Setting force: Drive: Stroke:

2.4 kg 20,000 N DC motor (BLDC) 10.0 mm

### ARBEITSBEREICH

Working range: Sets blind rivet nuts up to M12 steel and M10 stainless steel

### **SCOPE OF DELIVERY**

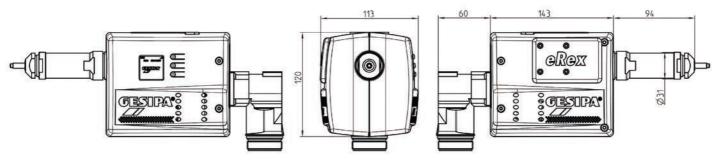
M5 to M12 threaded mandrel and nosepiece

### **ADVANTAGES**

- Fast, light and compact housing
- Brushless (BLDC) motor
- Environmentally friendly, because no compressed air supply is necessary
- Easy to maintain
- Perfect for use in sensitive areas/surfaces, because no oil leakage is possible

ELECTRICAL D

- When changing fastener, the setting force between the setting processes can be readjusted via the PLC
- Versatile mounting
- Special power supply included in scope of delivery



Dimensions in mm

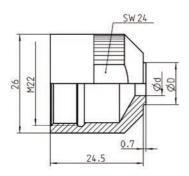
### **NOSEPIECES STANDARD**

For the Fire Bird®-, Fire Bird® Pro- and FireFox® series

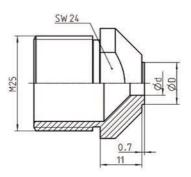
Nosepiece	<b>d Ø</b> mm	<b>D Ø</b> mm	No. FireBird®	No. FireBird® Pro / FireBird® Pro GE / FireBird® Pro S GE	No. FireFox® 2, FireFox® 2 F FireFox® 2 FL	No. FireFox® 1 F
M3	3.2	7.0	143 5065	143 6218	-	143 6218
M4	4.2	8.0	143 5066	143 6219	143 6219	143 6219
M5	5.2	9.0	143 5067	143 6220	143 6220	143 6220
M6	6.2	11.0	143 5068	143 6221	143 6221	143 6221
M8	8.2	13.0	143 5069	143 6222	143 6222	-
M10	10.2	14.0	143 5070	143 6223	143 6223	-
M12	12.2	17.0	-	143 6224*	143 6224	-
6-32 UNC	3.7	7.0	145 7461	143 6256	143 6256**	143 6256
8-32 UNC	4.4	8.0	143 5093	143 6257	143 6257**	143 6257
10-24 UNC/10-32 UNF	5.0	9.0	143 5094	143 6258	143 6258**	143 6258
1/4"-20 UNC	6.5	11.0	143 5095	143 6259	143 6259**	-
5/16"-18 UNC	8.2	13.0	-	143 6222	143 6222**	-
3/8"-16 UNC	9.8	14.0	145 7459	143 6261	143 6261**	-

\*Does not apply to FireBird® Pro / FireBird® Pro S \*\*Does not apply to FireFox® 2 FL

Other dimensions on request.



Standard nosepiece FireBird®



Standard nosepiece FireBird® Pro/FireFox®

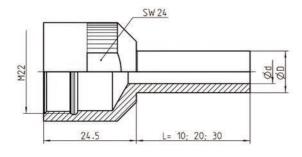
### **SPECIAL NOSEPIECES**

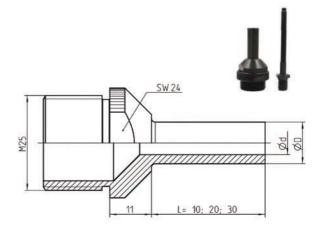
For the Fire Bird®-, Fire Bird® Pro- and FireFox® series

Nosepiece	SL	<b>d Ø</b> mm	<b>D Ø</b> mm	No. FireBird®	No. FireBird® Pro / FireBird® Pro GE / FireBird® Pro S GE	No. FireFox® 2 , FireFox® 2 F	No. FireFox® 1 F
	SL10			-	145 8149	-	145 8149
M3	SL20	3.2	7.0	-	145 8134	-	145 8134
	SL30			145 7470	143 6314	-	143 6314
	SL10			-	145 8150	145 8150	145 8150
M4	SL20	4.2	8.0	-	145 8135	145 8135	145 8135
	SL30	]		145 7469	143 6315	143 6315	143 6315
	SL10			145 7479	145 8151	145 8151	145 8151
M5	SL20	5.2	9.0	145 7478	145 8136	145 8136	145 8136
	SL30	1		145 7472	143 6316	143 6316	143 6316
	SL10			145 7481	145 8131	145 8131	145 8131
M6	SL20	6.2	11.0	145 7480	145 8137	145 8137	145 8137
	SL30			145 7473	143 6317	143 6317	143 6317
	SL10			145 7482	145 8152	145 8152	-
M8	SL20	8.2	13.0	145 7498	145 8138	145 8138	-
	SL30			145 7474	143 6318	143 6318	-
	SL10			-	145 8153	145 8153	-
M10	SL20	10.2	14.0	-	145 8139	145 8139	-
	SL30			-	143 6319	143 6319	-
	SL10			-	145 8154*	145 8154	-
M12	SL20	12.2	17.0	-	145 8140*	145 8140	-
	SL30			-	143 6320*	143 6320	-

\*Does not apply to FireBird® Pro / FireBird® Pro S Other dimensions on request.

SL nosepiece FireBird®





SL nosepiece FireBird® Pro/FireFox®

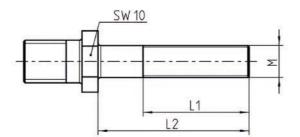
### THREADED MANDRELS STANDARD

For the Fire Bird®-, Fire Bird® Pro- and FireFox® series

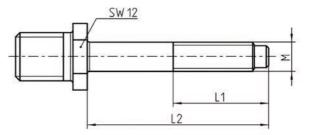
Threaded mandrels	<b>L1</b> mm	<b>L2</b>	No. FireBird®	<b>L1</b> mm	<b>L2</b> mm	No. FireBird® Pro / FireBird® Pro GE / FireBird® Pro S GE	No. FireFox® 1F	No. FireFox® 2 FireFox® 2 F	No. FireFox® 2 FL
M3	13.5	17	143 5052	11	23	143 6211	143 6211	-	-
M4	15.5	19	143 5055	14.5	26.5	143 6212	143 6212	143 6212	143 6364
M5	16	19.5	143 5056	17	29	143 6213	143 6213	143 6213	143 6365
M6	20	23.5	143 5059	20.5	32.5	143 6214	143 6214	143 6214	143 6366
M8	21.5	25	143 5063	22	34	143 6215	-	143 6215	143 6367
M10	22	25.5	143 5064	23	35	143 6216	-	143 6216	143 6368
M12	-	-	-	30	42	143 6217*	-	143 6217	143 6369
6-32 UNC	15.5	19	145 7460	15	27	143 6249	143 6249	143 6249	-
8-32 UNC	15.5	19	143 5090	15	27	143 6250	143 6250	143 6250	-
10-24 UNC	19.5	23	145 7475	17.5	29.5	143 6251	143 6251	143 6251	-
10-32 UNF	19.5	23	143 5091	16	28	143 6252	143 6252	143 6252	-
1/4"-20 UNC	24	27.5	143 5092	24	36	143 6253	-	143 6253	-
5/16"-18 UNC	27.5	31	145 7457	28	40	143 6254	-	143 6254	-
3/8"-16 UNC	30.5	34	145 7458	29	41	143 6255	-	143 6255	-

\*Does not apply to FireBird® Pro

Other dimensions on request.



Standard threaded mandrel FireBird®



Standard threaded mandrel FireBird® Pro/FireFox®

### SPECIAL THREADED MANDRELS

For the Fire Bird®-, Fire Bird® Pro- and FireFox® series

Threaded mandrels	SL	<b>L2</b> mm	No. FireBird®	SL	<b>L2</b> mm	No. FireBird® Pro / FireBird® Pro GE / FireBird® Pro S GE	No. FireFox® 2 / FireFox® 2 F	No. FireFox® 1F
	SL10	-	-	SL10	33	145 8156	-	145 8156
M3	SL20	-	-	SL20	43	145 8141	-	145 8141
	SL30	47	145 7471	SL30	53	143 6325	-	143 6325
	SL10	-	-	SL10	36.5	145 8157	145 8157	145 8157
M4	SL20	-	-	SL20	46.5	145 8142	145 8142	145 8142
	SL30	49	145 7464	SL30	56.5	143 6326	143 6326	143 6326
	SL10	29.5	145 7484	SL10	39	145 8158	145 8158	145 8158
M5	SL20	39.5	145 7483	SL20	49	145 8143	145 8143	145 8143
	SL30	49.5	145 7465	SL30	59	143 6327	143 6327	143 6327
	SL10	33.5	145 7486	SL10	42.5	145 8132	145 8132	145 8132
M6	SL20	43.5	145 7485	SL20	52.5	145 8144	145 8144	145 8144
	SL30	53.5	145 7466	SL30	62.5	143 6328	143 6328	143 6328
	SL10	35	145 7488	SL10	44	145 8159	145 8159	-
M8	SL20	45	145 7487	SL20	54	145 8145	145 8145	-
	SL30	55	145 7467	SL30	64	143 6329	143 6329	-
	SL10	-	-	SL10	45	145 8160	145 8160	-
M10	SL20	-	-	SL20	55	145 8146	145 8146	-
	SL30	-	-	SL30	65	143 6330	143 6330	-
	SL10	-	-	SL10	52	145 8161*	145 8161	-
M12	SL20	-	-	SL20	62	145 8147*	145 8147	-
	SL30	-	-	SL30	72	143 6331*	143 6331	-
	SL10	-	-	SL10	37	145 1069	145 1069	-
6-32 UNC	SL20	-	-	SL20	47	145 1059	145 1059	-
	SL30	-	-	SL30	57	143 6332	143 6332	-
	SL10	-	-	SL10	37	145 8162	145 8162	-
8-32 UNC	SL20	-	-	SL20	47	145 1060	145 1060	-
	SL30	-	-	SL30	57	143 6333	143 6333	-
	SL10	-	-	SL10	39.5	145 1070	145 1070	-
10-24 UNC	SL20	-	-	SL20	49.5	145 1061	145 1061	-
	SL30	-	-	SL30	59.5	143 6334	143 6334	-
	SL10	-	-	SL10	38	145 1071	145 1071	-
10-32 UNF	SL20	-	-	SL20	48	145 1062	145 1062	-
	SL30	-	-	SL30	58	143 6335	143 6335	-
	SL20	-	-	SL20	56	145 1063	145 1063	-
1/4"-20 UNC	SL30	-	-	SL30	66	143 6336	143 6336	-
	SL10	-	-	SL10	50	145 1073	145 1073	-
5/16"-18 UNC	SL20	-	-	SL20	60	145 8148	145 8148	-
	SL30	-	-	SL30	70	143 6337	143 6337	-
	SL10	-	-	SL10	51	145 1074	145 1074	-
3/8"-16 UNC	SL20	-	-	SL20	61	145 1064	145 1064	-
	SL30	-	-	SL30	71	143 6338	143 6338	-

\*Does not apply to FireBird® Pro Other dimensions on request.

# **RETAILER AREA / POINT OF SALE**

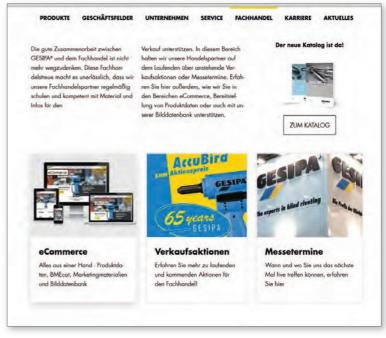
# **RETAILER AREA**

The good cooperation between GESIPA® and our partners in distribution and retail has become indispensable. This loyalty to retailers makes it essential that we train our partners regularly and support them with material and information for sales.

In this area we keep our trading partners up to date about upcoming sales promotions or exhibition appointments. You can also find out how we support you in terms of eCommerce, product data, flyer, brochures or with our image database.

On our service portal you will fin many information:





**Please note:** Parts of these services are only valid for Germany and/or Austria. If you have any questions on this subject, please contact your responsible contact person.

# **RIVET HANDBOOK**

# The ideal companion for the GESIPA® "Do-it-yourself" product range.

With GESIPA® blind rivet technology, both large and small objects in the home can be repaired in next to no time.

The Rivet Handbook explains the advantages of blind rivet technology by means of easily understandable examples. Figures illustrate the range of possible applications for rivets as well as the setting procedure using the corresponding tools.

### No. 143 1960



# **POINT OF SALE**

# SALES WALL

The GESIPA® sales wall guarantees the highest level of attention in specialist stores.

All GESIPA® fast turners are professionally and clearly presented on a sales wall that promotes sales. Using light boxes, attention is skilfully drawn to the GESIPA® logo, which serves as an eye-catcher for the customers. The light boxes are suitable for the TEGOMETALL racking system.

Prices and additional information are available on request. The GESIPA® sales team will be happy to advise you!



## **IN-HOUSE TRADE FAIRS**

GESIPA<sup>®</sup> will gladly take part in your in-house trade show.

In the retail sector information is just as important as the products themselves. Due to the wide range of products available on the market, many products are no longer self-explanatory, and hence experience sharing and a relationship based on trust are becoming increasingly important.

Establishing contacts is very important and, traditionally, this takes place at trade fairs when talking to business partners.

Just contact us and we will be happy to come to your in-house trade fair!



# **DO IT YOURSELF**

# **NTS** Hand riveter

### For easy setting blind rivets.

- Narrow head for difficult to access
- rivet locations
- Opening spring for automatic ejection of the mandrel
- Ergonomic handles



### No. 143 4029

No. 143 5461

# NIETBOY

The handyman's riveting kit including NTS hand riveter and a selection of 100 rivets, washers and a drill.



# **BLIND RIVET ASSORTMENT**

### CONTENTS

100 blind rivets in alu/steel: 4 mm Ø x 6, x 8, x 12



### No. 143 3667

256 **GESIPA**®

# **GBM 5** Blind rivet nut tool

- Easy stroke adjustment
- Quick exchange of mandrel

Sets blind rivet nuts from M4 bis M6 Alu and up to M5 steel and stainless steel.

**Content:** 15 x M5 Alu, threaded mandrel M4 and M5, M6 in working position, 1 maintenance wrench



### No. 143 4803

# **BLIND RIVET NUT ASSORTMENT**

### CONTENTS

Each one threaded mandrel M4 and M5 for NTS and NTX. Each 8 blind rivet nuts M4 short and long.

Each 8 blind rivet nuts M5 short and long.



### No. 143 3675

# SERVICE-PACK

### CONTENTS

50 pcs. of washers 3.1 and 4.1 mm Ø and one of drills 3.1 and 4.1 mm Ø



No. 143 3668

# **MINI-PACKS**

### **MINI-PACK BLIND RIVETS**

18 of the most popular blind rivet sizes in **alu/steel, steel/steel** and **copper/bronze** in single boxes.



### Alu/steel

D x L	mm	No.	
3 x 6	2.5 - 3.5	143 3530	100
3 x 8	4.5 - 5.0	143 3531	100
3 x 12	7.0 - 9.0	143 3532	100
4 x 6	1.5 - 3.0	143 3533	100
4 x 8	4.0 - 5.0	143 3534	100
4 x 12	6.5 - 8.5	143 3535	100
5 x 6	2.0 - 2.5	143 3536	50
5 x 10	4.5 - 6.0	143 3537	50
5 x 12	6.0 - 8.0	143 3538	50
Copper/bronze			
1 ~ 6	0525	1/2 2662	50

4 x 6	0.5 - 3.5	143 3662	50
4 x 10	4.5 - 6.5	143 3663	50
4 x 12	6.5 - 8.5	143 3664	50

### Steel/steel

3 x 6	2.0 - 3.0	143 3568	100
3 x 10	5.0 - 6.5	143 3569	100
3 x 12	6.5 - 8.5	143 3570	100
4 x 6	0.5 - 2.5	143 3571	100
4 x 10	4.5 - 6.5	143 3572	100
4 x 12	6.5 - 8.5	143 3573	100
	1	1	

### **BLIND RIVET NUTS BLISTERED**

GBM mini pack blind rivet nuts in **alu** on blister card.



Description	d <sub>h</sub> mm	mm	No.	
M4	6.1	0.25 - 3.0	143 3669	20
M4	6.1	2.5 - 4.5	143 3670	20
M5	7.1	0.25 - 3.0	143 3671	15
M5	7.1	2.5 - 5.0	143 3672	15
M6	9.1	0.25 -3.5	143 3673	8
M6	9.1	3.0 - 5.5	143 3674	7

F

 $d_h = hole \cdot \emptyset$  in mm

🔄 🛓 = Grip range

### MINI PACK POLYGRIP® BLIND RIVETS

### PolyGrip® alu/steel

D x L mm	mm	No.	
3.2 x 8	0.5 - 5.0	143 3846	100
3.2 x 11	3.0 - 8.0	143 3847	100
4 x 10	0.5 - 6.5	143 3848	100
4 x 17	7.0 - 13.0	143 3849	50
4.8 x 10	0.5 - 6.5	143 3850	50
4.8 x 17	6.5 - 13.0	143 3851	50

### PolyGrip® alu/stainless steel

3.2 x 8	0.5 - 5.0	146 4835	100
3.2 x 11	3.0 - 8.0	146 4834	100
4 x 10	0.5 - 6.5	146 4831	100
4 x 17	7.0 - 13.0	143 2059	50
4.8 x 10	0.5 - 6.5	146 4833	50
4.8 x 17	6.5 - 13.0	146 4832	50

### **PolyGrip®** steel/steel

D x L mm	mm	No.	
3.2 x 8	1.0 - 5.0	146 4887	100
<b>3.2</b> x 11	3.0 - 8.0	146 4886	100
4 x 10	1.5 - 6.5	146 4884	100
4 x 13	4.5 - 9.0	146 4883	50
4.8 x 10	1.5 - 6.5	143 2058	50
4.8 x 15	6.0 - 11.0	146 4885	50

### **PolyGrip®** stainless steel

Material surcharge will be added at a daily rate.

3.2 x 8	1.0 - 5.0	143 2060	100
3.2 x 11	3.0 - 8.0	146 4830	75
4 x 10	1.0 - 6.5	146 4827	75
4 x 17	7.0 - 11.0	146 4826	50
4.8 x 10	1.0 - 6.5	146 4829	50
4.8 x 15	5.0 - 10.0	146 4828	50

Material surcharge will be added at a daily rate.

### PolyGrip® alu/steel large flange K16

4.8 x 10	0.5 - 6.5	143 3852	25
4.8 x 17	6.5 - 13.0	143 3853	25

### MINI PACK POLYGRIP® BLIND RIVET NUTS

### **POLYGRIP®** Alu

Description	d <sub>h</sub> mm	mm	No.	
M 5	7.1	0.25 - 5.0	146 4843	50
M 6	9.1	0.25 - 6.0	146 4842	25
M 8	11.1	0.5 - 6.5	146 4841	25

### **PolyGrip® steel**

M 5	7.1	0.25 - 5.0	146 4840	50
M 6	9.1	0.25 - 6.0	146 4839	25
M 8	11.1	0.5 - 6.5	146 4915	25

### PolyGrip® A2 stainless steel

M 5	7.1	0.25 - 5.0	146 4888	50
M 6	9.1	0.25 - 6.0	146 4838	25
M 8	11.1	0.5 - 6.5	146 4837	25



Material surcharge will be added at a daily rate.

 $d_h = hole \cdot \emptyset$  in mm

Grip range