

# TAURUS® SERIES

Powerful, reliable and multifunctional!





**TAURUS**  **series**

## TAURUS® SERIES

Powerful, reliable and multifunctional!



VIDEO



Standard tools

The pneumatic-hydraulic blind rivet setting tools made by GESIPA® are ideal in dealing with almost any type of application. The cost-efficient construction, perfect handling properties and practical accessories are what make the TAURUS® series so unique and flexible.



TAURUS® 1

TAURUS® 2

TAURUS® 3

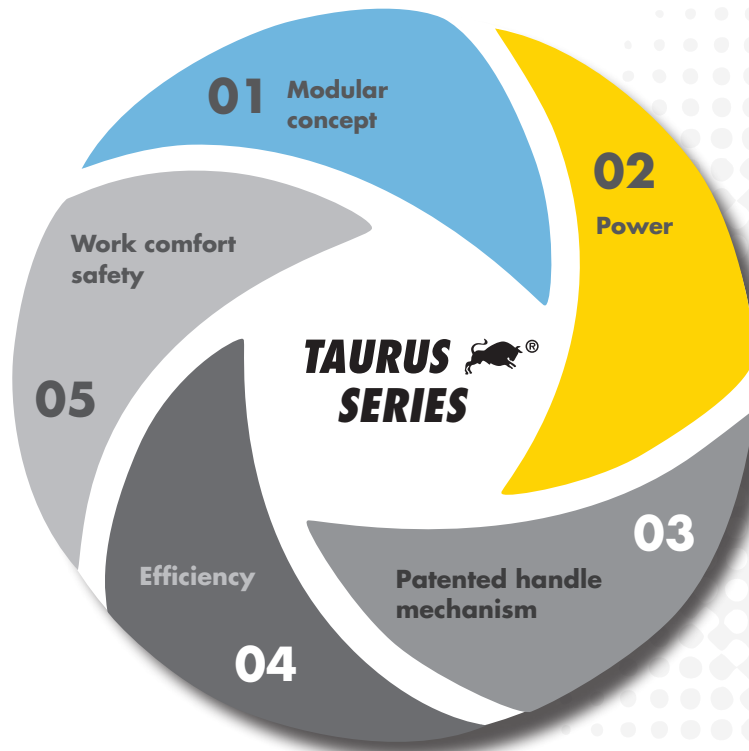
TAURUS® 4

TAURUS® 5

TAURUS® 6

## ADVANTAGES WHICH SIMPLY CANNOT FAIL TO CONVINCE YOU!

Since the market introduction of the **TAURUS® 2** in the year 2002, the **TAURUS® series** has managed to convince thousand times over in trade and industry. The **TAURUS® 2** especially is a true all-rounder.



### 01 Modular concept

- > Widest possible parts commonality – low spare part stocks required and simple maintenance

### 02 Power

- > High setting forces combined with low weight
- > Fast work cycle

### 03 Patented handle mechanism

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

### 04 Efficiency

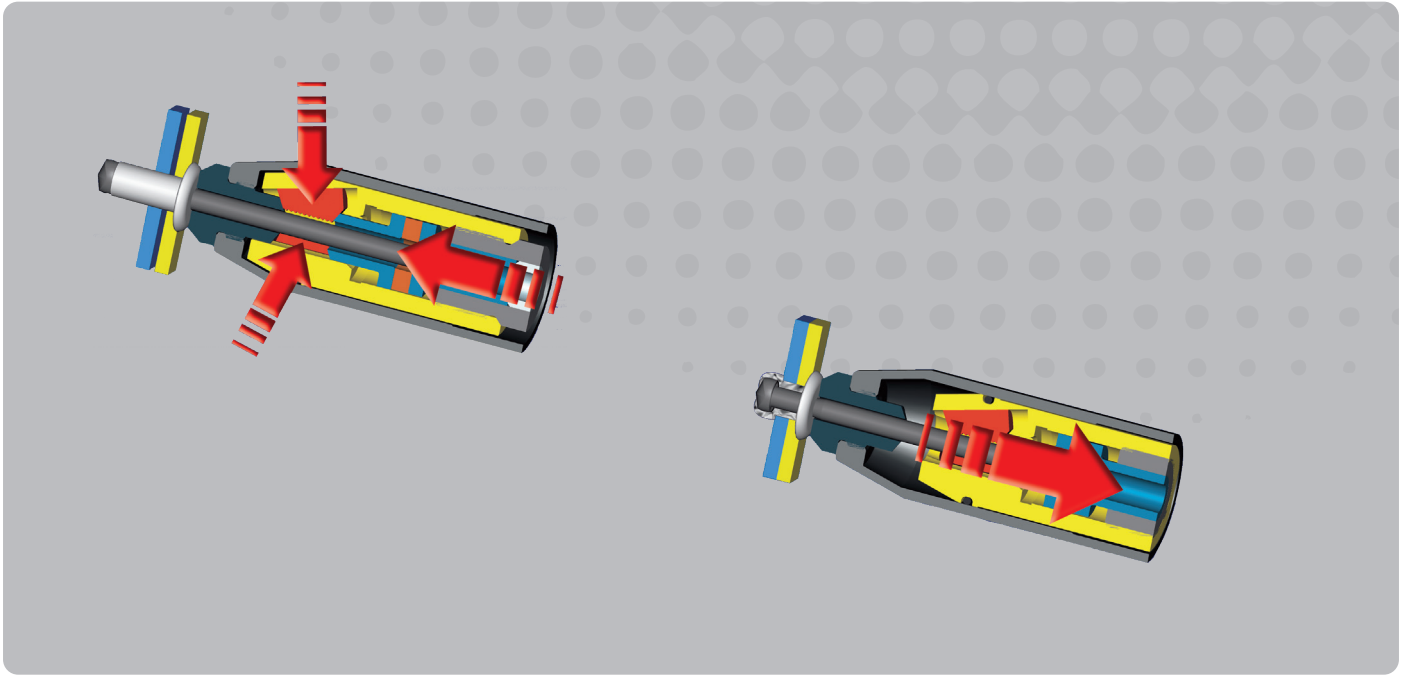
- > Little compressed air consumption thanks to dual function: setting the rivets and extracting the spent mandrels use the same air
- > Air suction needed only for vertical downwards riveting. Can be permanently switched-off if not needed.

### 05 Work comfort / safety

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

## UNIQUE IN THE MARKET

The TAURUS® tool series are equipped with a patented and strong **gripping mechanism** and **jaw system** which is unique in the market.



### Patented grip mechanism and jaw system

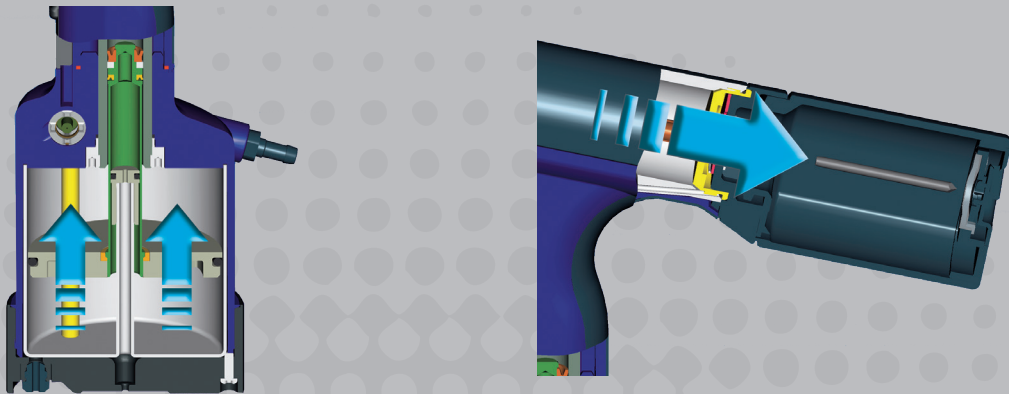
- > The three jaws move in separate channels while being under forced control.
- > The jaws are pressed onto the mandrel by using compressed air instead of spring force – the force being ten times higher than usual.
- > Due to the high pressure the jaws immediately cling to the mandrels upon triggering 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.**

## MAXIMUM EFFICIENCY

The GESIPA® System – Optimal 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 m³** 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**.

## THE MODULAR CONCEPT

The diverse range of accessories in the **TAURUS® series** effortlessly turn the standard tool into an individually conceived tool for dealing with demanding tasks in industry and trade. The modular system of the **TAURUS® series 1-4** allows the tool to be adapted to almost any requirement and, if it can't, then we can come up with a solution!

### Extension units

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



Single-piece  
(different sizes)



Multi-piece  
(different sizes)

### Nosepieces different sizes



### Hanger

### Spring-loaded trigger system for riveting without gaps



### External trigger system for an external Release



### Air suction function

### Nosepiece allocation



GESIPA®-Interface

### Setting process monitoring for safe setting processes



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® series 1-4** can be fitted with many different spare parts or refitted according to the application.

**The TAURUS® tool series – a unique modular system.**  
No need to keep lots of spares. And maintenance is kept to a minimum.

#### Tool mount

for integration into automated applications



#### Rivet mandrel evacuation hose



#### Blind rivet counters



GRiv-Count



GRiv-Amp

#### Spent mandrel container

adoptable for TAURUS® tools 1-4



TAURUS® 1-2



TAURUS® 3-4



PH-2000



TAURUS® 1-2



TAURUS® 3-4

#### Swivel air connector



#### Counter eco















#### Flexible base

Optimized stability



## TECHNICAL DATA TAURUS® 1-6

TAURUS® tools deal easily with a wide range of applications and requirements.

Tool	Material / Ø	H (mm)	W (mm)	Kg	Operating air pressure	Air hose connection
<b>TAURUS® 1</b> 	 <p>Ø 2.4 up to 3.2 mm</p> <p>up to Ø 4 mm (max. mandrel-Ø 2.5 mm)</p>	260	278	1.3	5-7 bar	6 mm Ø (1/4")
<b>TAURUS® 2</b> 	 <p>Ø up to 5 mm</p> <p>up to Ø 6 mm (max. mandrel-Ø 3.2 mm)</p>	292	278	1.6	5-7 bar	6 mm Ø (1/4")
<b>TAURUS® 3</b> 	 <p>up to Ø 6.4 mm (max. mandrel-Ø 4.5 mm)</p>	317	312	1.9	5-7 bar	6 mm Ø (1/4")
<b>TAURUS® 4</b> 	 <p>up to Ø 6.4 mm</p> <p>up to Ø 7.7 mm (max. mandrel-Ø 4.3 mm)</p>	332	312	2.0	5-7 bar	6 mm Ø (1/4")
<b>TAURUS® 5</b> 	 <p>above Ø 6.4 mm</p>	430	–	3.4	5-7 bar	6 mm Ø (1/4")
<b>TAURUS® 6</b> 	 <p>above Ø 6.4 mm</p>	430	–	3.4	5-7 bar	6 mm Ø (1/4")

Air consumption	Traction power	Stroke	Equipment	Part no.
approx. 1.0 ltr. per rivet	5,500 N at 6 bar	15 mm	Nosepieces: 17/18, 17/20, 17/22, Maintenance wrench: SW12/14, SW14/17	<b>145 7665</b>
approx. 2.3 ltr. per rivet	11,000 N at 6 bar	18 mm	Nosepieces: 17/24, 17/27, 17/29 and 17/32, Maintenance wrench: SW12/14, SW14/17	<b>145 7771</b>
approx. 4.8 ltr. per rivet	18,000 N at 6 bar	25 mm	Nosepieces: 17/36, 17/40 and 17/45, Maintenance wrench: SW12/14, SW14/17	<b>145 7871</b>
approx. 4.8 ltr. per rivet	23,000 N at 6 bar	19 mm	Nosepieces: 17/36, 17/40 and 17/45, Maintenance wrench: SW12/14, SW14/17	<b>145 7964</b>
approx. 6.9 ltr. per rivet	42,000 N at 7 bar	17 mm	Setting head on demand	<b>145 8002</b>
approx. 6.9 ltr. per rivet	50,000 N at 7 bar	15 mm	matched to the application	<b>145 8022</b>



blind rivet



All materials



alu



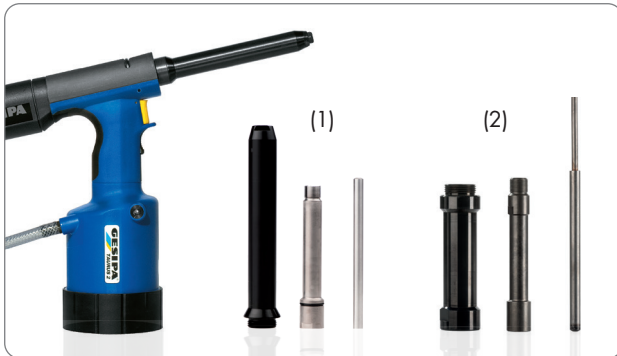
alu/steel

## ACCESSORIES TAURUS® 1-4

The wide range of accessories allows the tool to be adapted to deal with almost any challenge. Whether in trade, in the construction industry or in industrial applications.

### 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® 1-4**. The extension units consist of three parts.

#### (1) One-piece

The total length of the steel head sleeve for  
 > TAURUS® 1 with 35 mm, 85 and 135 mm is 106 mm, 156 mm and 206 mm respectively  
 > TAURUS® 2 with 35 mm, 85 mm, 135 mm and 185 mm is 106 mm, 156 mm, 206 mm and 256 mm respectively  
 > TAURUS® 3 and 4 with 35mm, 85 mm and 135 mm is 106 mm, 156 mm and 206 mm respectively

#### (2) Multi-piece

Total length of the steel head sleeve including the extension unit. On TAURUS® 1-4 the steel head sleeve can be extended variably in steps of 100 mm.

### RIVET MANDREL EVACUATION

For direct evacuation



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® tools with a 1.5 m long evacuation hose requires permanent employment of the suction unit.

## FIXED MOUNTED SPENT MANDREL CONTAINER

Instant emptying of a rivet mandrel container



This rivet mandrel container is fixed undetachably to the TAURUS® tool. It is especially useful for collecting long mandrels. It can be opened simply by turning the body of the container and the contents can be quickly emptied.

(Description and full offer on page 20.)

## ANGLE HEAD 90° / 90° COMPACT

For easy access to riveting sites which are difficult to reach



The **angle head 90°** and the **angle head 90° compact** are designated for use in very small, confined sites where space is at a premium. The robust design allows blind rivets with a large setting force also to be used in difficult-to-access working sites. Depending on the tool type, the **angle head 90° for the TAURUS® 1-4**, can set all materials with a force of up to 20 kN, standard blind rivets up to Ø 6.4 mm. The smallest clearance is 15 mm, head length 110 mm. Depending on the tool type, the **angle head 90° compact for the TAURUS® 1-2**, sets standard blind rivets up to Ø 5 all materials and aluminium up to Ø 6 mm. The smallest clearance is 12 mm, head length 90 mm. The setting force is 10 kN.

Both angle heads can be freely placed in any position (360°) on the TAURUS® traction axis.

## TOOL MOUNT

For integration into automated processes



Can only be mounted by GESIPA®!

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.

## ACCESSORIES TAURUS® 1-4

A complete programme through a wide range of accessories.

### NOSEPIECES

For long mandrels, special-purpose blind rivet and other challenges



The use of the correct tip is essential for safe riveting and an optically pleasing rivet point. A large range of standard and special-purpose tips allows it to be adapted to a variety of blind rivet types. Special-purpose designs are also usually available upon request. All information concerning the classification of the tip are in line with DIN and GESIPA® blind rivets.

Nosepiece allocations on page 32.

### TRANSPARENT SPENT MANDREL CONTAINER FOR TAURUS® 1-4



The classic residual spent mandrel container in the TAURUS® series is now also available in a transparent version.

The transparent container allows the amount of residual mandrels to be monitored constantly.

The transparent spent mandrel container will be available in a small version for the TAURUS® devices 1-2 and a large version for the TAURUS® devices 3-4.

### FLEXIBLE BASE FOR TAURUS® 1-2



With the new flexible base made from NBR and the larger surface area, the TAURUS® tools stand even more stably.

### **SMALL JAW ASSEMBLY FOR TAURUS® 1-2**

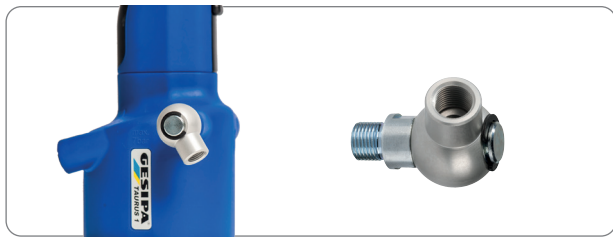
For riveting sites difficult of access



The small jaw assembly is particularly suitable for use where rivet sites are difficult to access. For the TAURUS® 1 it can handle alu/steel blind rivets up to Ø 4 mm and steel/steel blind rivets up to 3.2 mm. For TAURUS® 2 it can handle alu/steel blind rivets up to Ø 5 mm steel/steel blind rivets up to 4 mm.

The jaw is 100 mm long and the diameter of the steel sleeve is 18 mm.

### **SWIVEL AIR CONNECTOR**



The swivel connection for the compressed air hose provides more freedom of movement at the workplace and protects the compressed air hose.

For the complete TAURUS® series in 1/8"

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



Patented jaw system for the complete TAURUS® series.

### **PROTECTIVE SLEEVE**



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

## 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.



**Standard tools  
in different  
versions**

## TAURUS® 2 AS / TAURUS® 2/24 / TAURUS® 2 K

The TAURUS® 2 for a variety of applications



The **TAURUS® 2/AS** is a special version of the TAURUS® 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.

What is special about the **TAURUS® 2/24** is the stroke which has been increased by 6 mm. The advantage is that the **TAURUS® 2/24** can safely set critical types of rivets which require a larger setting stroke with just one setting stroke and without the need for follow-up. This includes e.g. our BULB-TITE® blind rivet. Otherwise, the tool provides the same high-level of equipment and functions as the standard tool.

The **TAURUS® 2/K** is designed for dealing with plastic rivets. The **TAURUS® 2/K** function is the same as the standard tool but with a 24 mm and not an 18 mm stroke. Plastic rivets require only a low setting force but as a rule need a larger setting stroke as the plastic material is viscous.

The **TAURUS® 2/K** will safely handle plastic rivets with just one setting stroke.

## TAURUS® 1-4 WITH COUNTER DEVICE

The correct number of blind rivets in every component



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 **GRiv-Amp** or the counter and display unit **GRiv-Count** 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® VERSIONS

The **TAURUS® series** – for flexible use in industrial production

### TAURUS® 1-4 WITH COUNTER ECO

The cost-effective variant for monitoring the number of setting strokes



In contrast to the TAURUS® 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.



### TAUREX 1-6

The whole TAURUS® series with remote pressure transducer



The **TAUREX setting tools** are ideally suited for setting blind rivets and/or lockbolts in difficult-to-access places. Furthermore, they are tailor-made for tight insertion in production lines or in semi-automatic setting facilities where several rivet heads are operated centrally.

The low-weight setting gun in combination with the 3m long hose package has made work easier and offers sufficient reach. On the pressure intensifier side the hydraulic hose can be subsequently and optionally retrofitted with a quick coupling connection to make maintenance and replacements easier and to avoid oil spills and unwanted ventilation.

The **TAUREX setting tools** can be fitted with practically all accessories and options from the TAURUS® series i.e. extensions, containers for mandrel rests, rivet counters, setting process monitoring, pressure transducers and remote control systems.

The setting performance compares with the standard TAURUS® series.

## TAURUS® AXIAL & TAURUS® AXIAL ECO

The TAURUS® series 1-4 – the axial version for flexible and ergonomic work



The special pistols of **TAURUS® Axial eco** and **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 eco** and **TAURUS® Axial** can be additionally supplied with a spring-loaded trigger system.

**When using the TAURUS® Axial an external suction system is recommended.**

## TAUREX AXIAL COMPACT & TAUREX AXIAL

The TAURUS® 1-4 with pressure transducer, axial version



The **TAUREX Axial compact** and the **TAUREX Axial** with the pressure transducer are especially advantageous in use in confined spaces. The special-purpose guns can be integrated into manufacturing lines and allow flexible and simultaneously ergonomic manual operations. In particular, in applications where access is restricted and require therefore riveting to be done from above.

The external pressure transducer is already directly fitted to the **TAUREX Axial compact**. In order to ensure that the components which are to be riveted lie gap-free one on top of the other, and the setting head is in place, the **TAUREX Axial** and the **TAUREX Axial compact** can be supplied with an additional pressure transducer.

**It is essential to use an external suction system with the TAUREX Axial!**

## TAURUS® VERSIONS

The **TAURUS® series** – for flexible use in industrial production

### TAURUS® C LIGHT

TAURUS® 2 C or 4 C with setting process monitoring as complete set

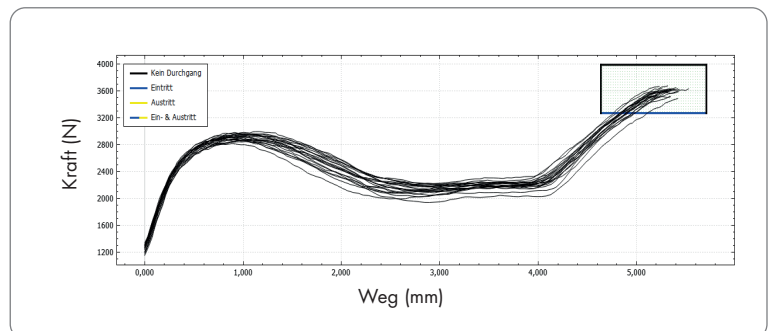


The **GESIPA® interface** is based on an embedded PC system and provides 24 digital in and out control system ports, Ethernet connection via a RJ45 connector as well as status LEDs. Connection ports for a protocol converter supporting all common bus systems and for external storage media as well as a USB port for fast data transfer complete the features of the new interface. In addition, the GESIPA® interface has a process database for storing 250,000 of the most current process data (date, time, rivet position, process curve, analysis, etc.). Delivery includes a special installation software to determine the assessment window. All system components necessary for this operation are integrated in the tools. Analysing a setting process takes less than 1  $\mu$ s. The results are directly shown by a green or red LED installed in the tool base. In addition to this individual analysis the system also provides collective analysis for the complete workpiece. Setting process monitoring is achieved by direct online analysis of traction force and traction course recorded during the setting of the rivet. The system identifies failure patterns and memorizes them for failure analysis and troubleshooting. The tools can be operated as stand-alone device or as integrated part of a customer's production system via the GESIPA® interface.

The TAURUS® C Light will be delivered without any special equipment. If you need special equipment such as a spring-loaded trigger system, Wintech, etc., the standard TAURUS® C series is available. A special GESIPA® USB connection cable (Part no. 143 5512) is necessarily needed to install the TAURUS® C! It is **not included** in scope of delivery!

### High-grade GESIPA® blind rivet with minimal scatter:

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



## TAURUS® 1-4 C AV

with integrated setting process monitoring

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  $\mu$ s. 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 customer's production system via the GESIPA® interface.

The new interface developed by GESIPA® is based on an embedded PC system and provides 24 digital in and out control system ports, Ethernet connection via a RJ45 connector as well as status LEDs.



Connection ports for a protocol converter supporting all common bus systems and for external storage media as well as a USB port for fast data transfer complete the features of the new interface.

In addition, the GESIPA® interface has a process database for storing 250,000 of the most current process data (date, time, rivet position, process curve, analysis, etc.).

## TAURUS® WINTECH

The multi-window technology with up to three assessment windows

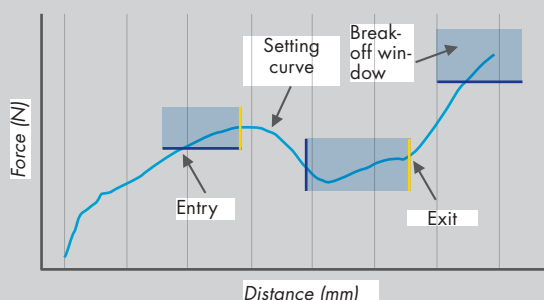
Ideal for demanding joining technology used for safety components such as in the aviation industry.

The basis for monitoring the WinTech setting process is tried and tested TAURUS® C. The setting process is evaluated with the aid of position and force sensors as well as inte-

grated electronic circuitry. Up to three evaluation windows can be configured with special setup of setting process monitoring. With a data line, the values can also be recorded and further processed.

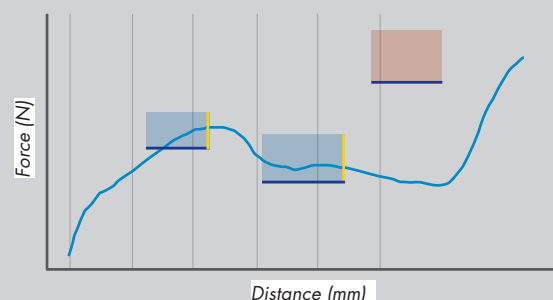
### EXAMPLE OF OK PROCESS

Window entry and exit at customer-defined positions



### EXAMPLE OF NOT OK PROCESS

Material to be joined too thin due to missing component

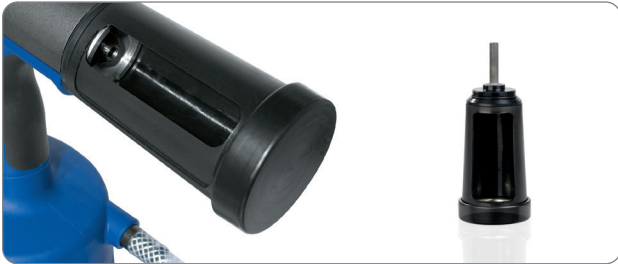


## TAURUS® VERSIONS

The **TAURUS® series** – for flexible use in industrial production

### FIXED MOUNTED SPENT MANDREL CONTAINER

Instant emptying of a rivet 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® versions 1 to 4.

All of the TAURUS® tools in this design can be ordered ex works or can be subsequently upgraded using an appropriate kit.

### PLANT DESIGN

TAURUS® tools for stationary use in production systems

The **TAURUS® 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.



## **SPRING-LOADED TRIGGER SYSTEM**

For gap-free riveting of components

Can only be mounted by GESIPA®!



The spring-loaded trigger system ensures that the components which are to be riveted are reliably placed one on top of the other gap-free 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® TOOLS**

for stationary use in production systems

The TAURUS® 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.

## SPECIAL ACCESSORIES TAURUS®

Special accessories for TAURUS® and TAUREX versions

### HEAD MODULES



#### Adaption takes priority

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

Other head modules on request.

### BALANCER

Allows flexible ergonomic work



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.

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.

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.

## **INTERFACE 4.0**

For connection to external controllers



The new communication interface between GESIPA® tools and production.

## **SPECIAL STEEL SLEEVE SW20/SW30**

For TAURUS® series



With reduced steel sleeve diameter to overcome installation space limitations.

### **Working capacity**

All materials in all diameters

# TAURUS®-SRB

Innovative, strong and reliable!



Standard tools  
with lockbolts

## TAURUS® LOCKBOLT SETTING TOOLS

High-strength connections with particular demands

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® and Bird series** have been developed using a modular concept and are an ideal composition of experience and consistent further development. 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, trouble-free working processes.



**TAURUS® 3 SRB**



**TAURUS® 4 SRB mit Winkelkopf**



**TAURUS® 4 SRB**

## ADVANTAGES WHICH ENSURE QUALITY

Lockbolt setting tools ensure that connections last long and are free from vibration.

- > Specially adjusted stroke for setting lockbolts
- > Very high tensile strength allows fast setting
- > Extremely light through compact design
- > Ergonomic handling
- > 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

## FASTENING MATERIAL BY MEANS OF LOCKBOLTS







How does a lockbolt work?

With standard lockbolts, the setting process itself is very similar to the blind riveting process.

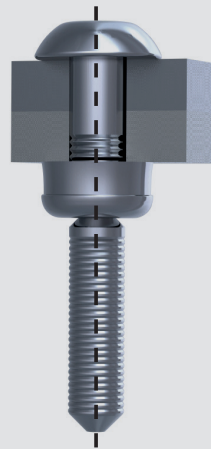
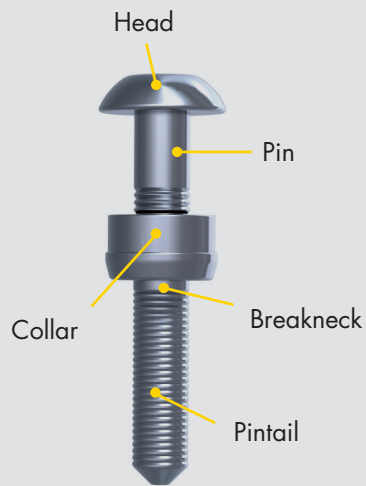
1. The pin is positioned on one side and the collar on the other side of the materials to be joined.
2. The setting tool grasps the pin while pushing itself against the collar.
3. By pulling the pin the application materials are pressed together and the collar is forced into the grooves of the pin.
4. 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.

\*Only for C6L® lockbolts

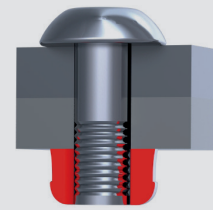
## TECHNICAL DATA LOCKBOLTS SETTING TOOLS

Tool	Material / Ø	H (mm)	W (mm)	Kg	Operating air pressure	Air hose connection
<b>TAURUS® 3 SRB</b> 	 <b>4.8</b> C6L® and MagnaGrip®	322	339	2.0	5-7 bar	6 mm Ø (1/4")
<b>TAURUS® 4 SRB with angle head</b> 	 <b>6.4</b> C6L® and MagnaGrip®	436	297	2.6	5-7 bar	6 mm Ø (1/4")
<b>TAURUS® 4 SRB</b> 	 <b>6.4</b> C6L® and MagnaGrip®	337	339	2.2	5-7 bar	6 mm Ø (1/4")

\* Registered trademark of Alcoa Fastening Systems



Pintail-less lockbolt  
after installation

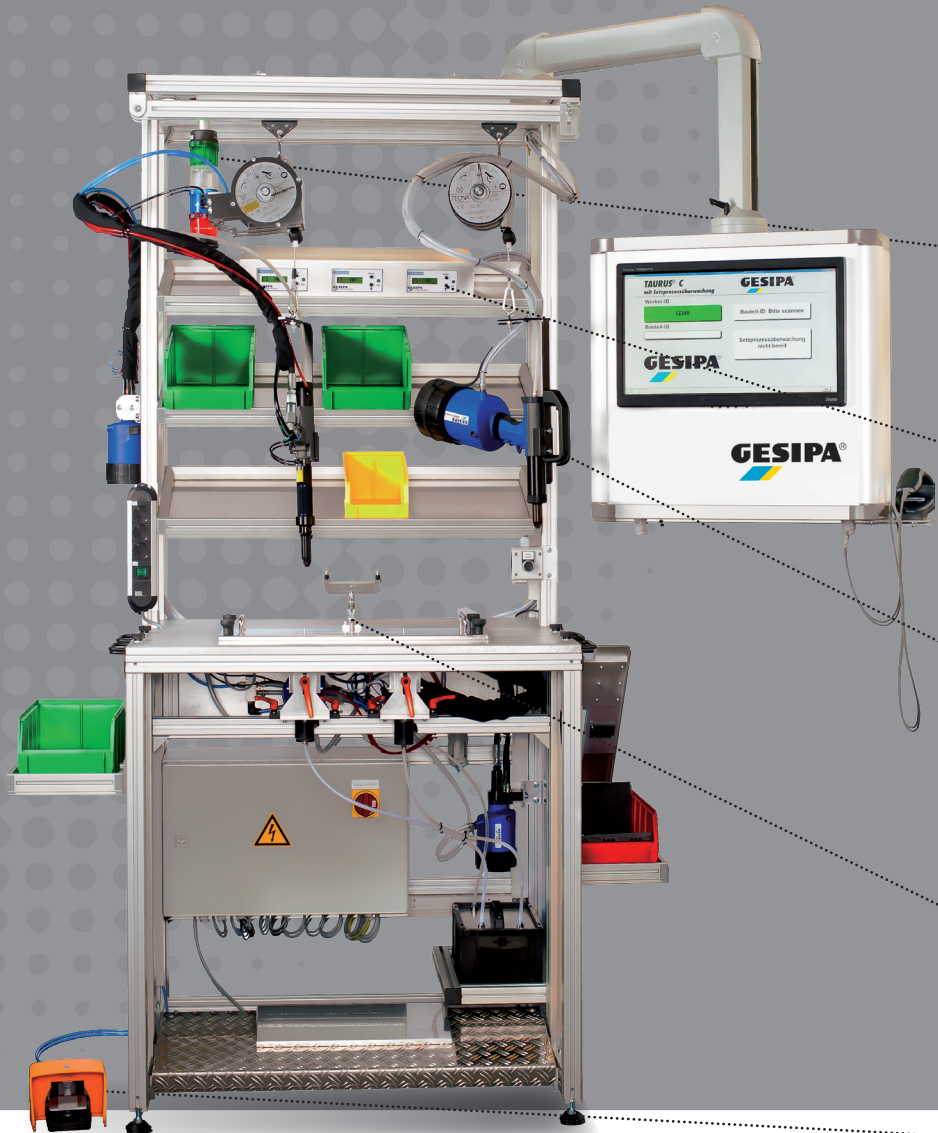


Lockbolt after installation

Air consumption	Traction power	Stroke	Equipment	Part no.
4.8 NL per rivet	18,000 N at 6 bar	25 mm	Maintenance wrench SW12/14, SW14/17	<b>145 0953</b> for SRB 4.8 mm MagnaGrip®
				<b>145 0952</b> for SRB 4.8 mm C6L®*
4.8 NL per rivet	23,000 N at 6 bar	19 mm	Angle head with nosepiece in working position Tag on device head	<b>145 7990</b> for SRB 6.4 mm MagnaGrip®*
				<b>145 7989</b> for SRB 6.4 mm C6L®*
4.8 NL per rivet	23,000 N at 6 bar	19 mm	Maintenance wrench SW12/14, SW14/17	<b>145 0985</b> for SRB 6.4 mm C6L®*
				<b>145 0986</b> for SRB 6.4 mm MagnaGrip®*

# **GESIPA® ASSEMBLY CELL**

Ergonomic and flexible!



**Special design**

The new **GESIPA® assembly cell** is optimised to accommodate all **TAURUS®** tools and ensures precise handling. The work station is perfectly tailored to meet operator and customer requirements.

The **GESIPA® assembly cell** 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.

# THE INDIVIDUAL WORK STATION

## Specifics



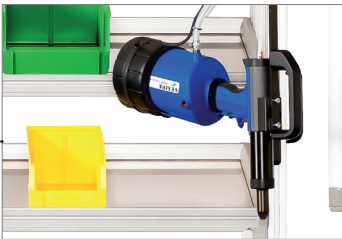
### Operating status display

The signal light installed on the desk uses different colours to show the process status.



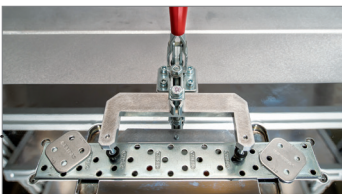
### Counting device

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.

## ADVANTAGES

- > Ergonomic working
- > Individually adjustable
- > Existing work tools can be integrated
- > Easy and time-saving conversion for other products from your portfolio
- > Setting process control possible

## ACCESSORIES TAURUS® 1-6

Accessories	Picture	TAURUS® 1	TAURUS® 2	TAURUS® 3	TAURUS® 4	TAURUS® 5	TAURUS® 6
<b>Jaws</b> (Spare part)		143 5568	143 5568	143 5568	143 5568	143 5568	143 5568
<b>Swivel air connector</b>		143 5479	143 5479	143 5479	143 5479	143 5479	143 5479
<b>PH 2000 spent mandrel container</b>		145 7700	145 7703	145 7703	145 7703	–	–
<b>Rivet mandrel evacuation hose</b>		145 7864	145 7864	145 7864	145 7864	145 7864	145 7864
<b>Extension unit +35 mm</b> (Single-piece)		146 4345	145 8042	145 7932	145 7932	–	–
<b>Extension unit +85 mm</b> (Single-piece)		146 4346	146 4350	145 7933	145 7933	–	–
<b>Extension unit +135 mm</b> (Single-piece)		146 4347	146 4351	145 7937	145 7937	–	–
<b>Extension unit +185 mm</b> (Single-piece)		–	146 4352	–	–	–	–
<b>Extension unit 50 mm spring loaded trigger system</b> (Single-piece)		145 0880	145 7857	145 7959	145 7959	–	–
<b>Extension unit 100 mm spring loaded trigger system</b> (Single-piece)		145 7727	145 7858	145 7960	145 7960	–	–
<b>Extension unit</b> (Multi-piece, per 100 mm)		145 7743	145 7848	145 7947	145 7947	–	–
<b>Angle head 90°</b>		155 9513	155 9513	155 9512	155 9513	–	–
<b>Angle head 90° compact</b>		145 7921	145 7921	–	–	–	–
<b>Protective sleeve</b>		156 7289	156 7289	156 7289	156 7289	156 7289	156 7289

Accessories	Picture	TAURUS® 1	TAURUS® 2	TAURUS® 3	TAURUS® 4	TAURUS® 5	TAURUS® 6
Head modules		See head modules chart on page 32					
Nosepieces		See nosepieces chart on page 32					
Flexible base		143 6394	143 6371	Standard	Standard	Standard	Standard
Small jaw assembly		145 7705	145 7846	–	–	–	–
Tool mount		143 5538	143 5538	143 5538	143 5538	–	–
GESIPA®-Interface		163 4326	163 4326	163 4326	163 4326	163 4326	163 4326
GRiv-Amp		145 7699	145 7699	145 7699	145 7699	–	–
GRiv-Count		146 3062	146 3062	146 3062	146 3062	–	–
Spring-loaded trigger system		145 7680	145 7778	143 5869	143 7965	–	–
Transparent spent mandrel container		145 7744	145 7744	145 7951	145 7951	–	–
Balancer without valve		143 4734	143 4734	143 4734	143 4734	–	–
Balancer with disconnecting valve		145 7733	145 7733	145 7733	145 7733	–	–
Balancer Time delay valve		145 0893	145 0893	145 0893	145 0893	–	–
Special steel sleeve SW 20		145 8001	145 8001	145 8001	145 8001	–	–
Special steel sleeve SW 30		–	–	–	–	160 8786	160 8786

# ACCESSORIES TAURUS® 1-6

Overview of accessories

## Nosepieces

Rivet	Rivet-Ø mm	Rivet material	Nosepiece	Part no.
Standard	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-Stahl, 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
	8	Alu	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	4	Plastic	17/30 K	143 4933
	5	Plastic	17/35 K	143 5824
	6	Plastic	17/40 K	143 4998

## Head modules

Head modules for	External product name	TAURUS® 5	TAURUS® 6
Blind rivets	7.8 mm TITGEMEYER TIBULB*	145 8008	145 8008
Blind rivets	9.8 mm Huck MagnaLok®*	145 8009	145 8009

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

# A WIDE VARIETY OF OPTIONS

Overview of varieties

Versions	TAURUS® 1	TAURUS® 2	TAURUS® 3	TAURUS® 4	TAURUS® 5	TAURUS® 6
Standard tool	145 7665	145 7771	145 7871	145 7964	145 8002	145 8022
With PH 2000 mandrel container	145 7669	145 7780	145 7878	145 7970	–	–
With Parallel head	145 0885	145 0885	145 0885	145 0885	–	–
With spring-loaded trigger system	145 7680	145 7778	143 5869	143 7965	–	–
With Tool mount	143 5538	143 5538	143 5538	143 5538	–	–
For external foot pedal trigger	145 7679	145 7786	145 7882	145 7972	auf Anfrage	
Remote controlled version	–	145 7772	145 7886	145 7971	–	–
With blind rivet counter	145 7698	145 7698	145 7698	145 7698	–	–
With blind rivet counter and spring-loaded trigger system	145 7668	145 7775	145 7876	145 7966	–	–
With counter eco	145 0892	145 0933	145 0963	145 0993	–	–
With process control	145 7666	145 7779	145 7873	145 7966	–	–
With process control and spring-loaded trigger system	145 7672	145 7787	145 7874	145 7967	–	–
TAUREX with external pressure transducer	145 8025	145 8031	145 8044	145 8088	145 8060	145 8062
TAURUS® Axial	145 7682	145 7795	145 7893	145 0981	–	–
TAURUS® Axial with spring-loaded trigger system	145 7683	145 7796	145 7894	145 0982	–	–
TAURUS® Axial eco	145 7676	145 7798	145 7898	145 7980	–	–
TAURUS® Axial eco with spring-loaded trigger system	145 7677	145 7799	145 7899	145 7981	–	–
TAUREX Axial	145 8026	145 8032	145 8047	145 1019	–	–
TAUREX Axial with spring-loaded trigger system	145 1002	145 8033	145 1016	145 1020	–	–
TAUREX Axial compact	145 1003	145 8034	145 8048	145 8059	–	–
TAUREX Axial compact with spring-loaded trigger system	145 8027	145 8035	145 8049	145 1022	–	–
TAUREX multiple riveting head	on request					
TAURUS® 2 K	–	145 7804	–	–	–	–
TAURUS® 2 AS	–	145 7794	–	–	–	–
TAURUS® 2 / 24	–	145 7803	–	–	–	–
TAURUS® WinTech	on request					
TAURUS® C Light	–	157 9949	–	157 9948	–	–

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