

TAURUS

Pneumatic-hydraulic Blind Rivet setting Tools



A complete programme!



TAURUS 1

TAURUS 2

TAURUS 3

TAURUS 4

GESIPA®
The Experts
in Blind Riveting

TAURUS 1

Part-No. 756 0001

Working Range:

Blind Rivets up to 4 mm Ø Alu/Steel
(max. mandrel diameter 2,5 mm)

Technical Data:

Traction Power:	4.200 N at 5 bar
Operating air pressure:	5-7 bar
Stroke:	15 mm
Air consumption:	per cycle ca. 1,0 ltr.
Air hose connector:	6 mm Ø (1/4")
Noise emission:	77 dB
Vibrations:	< 2,5m/s ²

Nosepieces and Accessories:

Nosepieces:
17/18 (in working position)
17/24, 17/27 (in tool bottom)

Maintenance wrench:
SW12/14, SW14/17

1 oil bottle 100 ml
1 oil refill can

Operating instructions with spare parts list

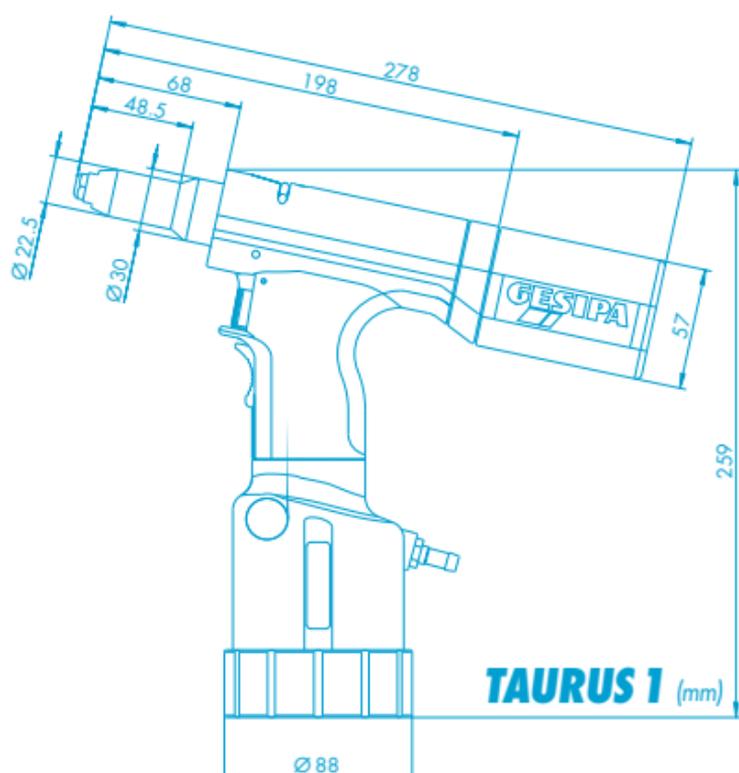
Comparing performances:

Weight

TAURUS 1:	1,30 kg
Competitor G1:	1,37 kg

Weight/Performance ratio

TAURUS 1:	3.230 N/kg
Competitor G1:	3.066 N/kg



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TAURUS 2

Part-No. 757 0007

Working Range:

Blind Rivets up to 5 mm Ø all materials
and up to 6 mm Ø Alu/Steel
(max. mandrel diameter 3,2 mm)

Technical Data:

Traction Power: 9.000 N at 5 bar
Operating air pressure: 5-7 bar
Stroke: 18 mm
Air consumption: per cycle ca. 2,3 ltr.
Air hose connector: 6 mm Ø (1/4")
Noise emission: 78 dB
Vibrations: < 2,5m/s²

Nosepieces and Accessories:

Nosepieces:
17/27 (in working position)
17/29, 17/32, 17/36 (in tool bottom)

Maintenance wrench:
SW12/14, SW14/17

1 oil bottle 100 ml
1 oil refill can

Operating instructions with spare parts list

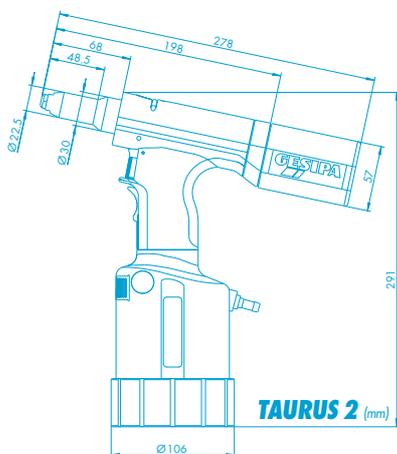
Comparing performances:

Weight

TAURUS 2: 1,60 kg
Competitor G2: 1,83 kg

Weight/Performance ratio

TAURUS 2: 5.625 N/kg
Competitor G2: 3.935 N/kg



TAURUS 3

Part-No. 758 0002

Working Range:

Blind Rivets up to 6,4 mm Ø all materials
(max. mandrel diameter 4,5 mm)

Technical Data:

Traction Power: 14.000 N at 5 bar
Operating air pressure: 5-7 bar
Stroke: 25 mm
Air consumption: per cycle ca. 4,8 ltr.
Air hose connector: 6 mm Ø (1/4")
Noise emission: 79 dB
Vibrations: < 2,5m/s²

Nosepieces and Accessories:

Nosepieces:
17/36 (in working position)
17/40, 17/45 (in tool bottom)

Maintenance wrench:
SW12/14, SW14/17

1 oil bottle 100 ml
1 oil refill can

Operating instructions with spare parts list

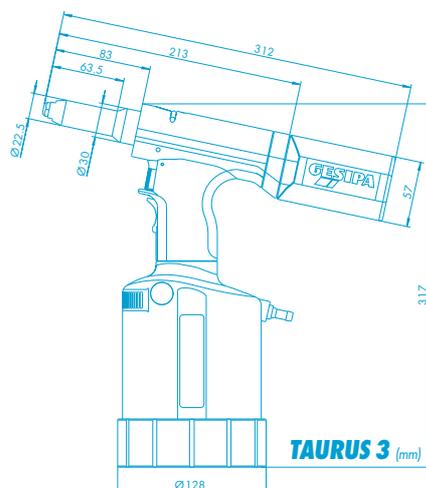
Comparing performances:

Weight

TAURUS 3: 1,90 kg
Competitor G3: 2,12 kg

Weight/Performance ratio

TAURUS 3: 7.370 N/kg
Competitor G3: 5.283 N/kg



TAURUS 4

Part-No. 759 0001

Working Range:

Blind Rivets up to 6,4 mm Ø all materials
and up to 8 mm Ø Alu
(max. mandrel diameter 4,5 mm)

Technical Data:

Traction Power: 20.000 N at 5 bar
Operating air pressure: 5-7 bar
Stroke: 19 mm
Air consumption: per cycle ca. 4,8 ltr.
Air hose connector: 6 mm Ø (1/4")
Noise emission: 79 dB
Vibrations: < 2,5m/s²

Nosepieces and Accessories:

Nosepieces:
17/36 (in working position)
17/40, 17/45 (in tool bottom)

Maintenance wrench:
SW12/14, SW14/17

1 oil bottle 100 ml
1 oil refill can

Operating instructions with spare parts list

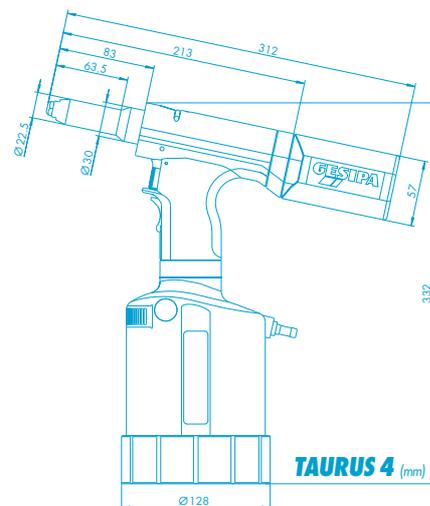
Comparing performances:

Weight

TAURUS 4: 2,00 kg
Competitor G4: 2,27 kg

Weight/Performance ratio

TAURUS 4: 10.000 N/kg
Competitor G4: 8.230 N/kg



A wide range of variants for maximum versatility...

For free access to recessed riveting locations:



The head extensions

Head extensions are a great help when riveting locations are not easily accessible or recessed in the depth of an application. Two different lengths are available: 50 and 100 mm extensions for all tools of the **TAURUS series**.

Each extension includes three different parts:

- the tool head, extended by 50 mm or 100 mm
- The jaw pusher, extended by 50 mm or 100 mm
- the centre section, extended by 50 mm or 100 mm

Installing the extension increases the total length of the tool head to 106 mm with the 50 mm extension or 156 mm with the 100 mm extension. The diameter of 22,5 mm remains constant over the whole head length.

The installation doesn't require any special tool except for the wrenches supplied with the tool.

For direct disposal of the broken mandrels:

The evacuation tube

Removing the mandrel container and installing a special nipple instead allows to connect an evacuation tube for the broken mandrels. The mandrels can then be collected in an adequate container, so that the workstation remains clean and the riveting task can be performed without interruption.

Use of the 5 feet evacuation tube is only possible with the tool's air suction open!



For quick disposal of broken mandrels:



The built-in spent mandrel container

This version of the spent mandrel container cannot be separated from the tool. It is particularly suitable for the collection of extended mandrels.

A simple rotation of the body will open the mandrel container for fast emptying.

All **TAURUS tools** can be purchased with this mandrel container or be transformed by the user with a retrofit kit.

To make sure that the elements of the riveting application will be in contact:

The pressure trigger

The pressure trigger mechanism is installed instead of the standard tool head. It prevents the riveting as long as a pre-determined pressure is not applied on the application by the operator. By doing so, it makes sure that the different parts of the application will be properly pressed against each other before the rivet is set, thus avoiding an uncontrolled bulging of the rivet body inside the application which could not be detected by a visual inspection.

The valve controlled by the yellow tool trigger is connected in series with a second valve controlled by the tool head. Therefore riveting is possible only when both valves are simultaneously open and sufficient pressure is applied on the tool by the operator. Presetting the pressure threshold is done by adding or removing springs in the tool head in steps of 40 N, 55 N, 70 N and 85 N. No other adjustment is necessary and a drifting of the preset value is impossible.

The pressure trigger mechanism cannot be retrofitted on existing tools, but must be ordered from the factory as an original configuration.



...and high-tech components for advanced quality monitoring!

For integration in automatic production lines:



The remote controlled TAURUS tools

The **TAURUS tools** can be installed into automatic production lines and controlled by remote compressed air valves: a sensor installed in the nosepiece confirms the presence of the rivet, the riveting action is then remotely triggered and the broken mandrel is propelled into the evacuation tube.

With such installations, simultaneous settings of several rivets on the same workpiece is possible, which greatly improves productivity.

For a thorough check of the number of riveting operations:

The TAURUS with rivet counter

When several riveting operations are necessary to obtain a reliable part fixing, quality and safety depend of the presence of each individual rivet in the application. A special sensor installed in the tool, connected to an external processing unit allows a reliable count of the rivetings and a reliable appreciation of the quality of the fastening.



The sensor is installed just in front of the broken mandrel container and records every mandrel ejection. Signal processing can be performed either locally with the counting unit **GRivCount** or remote controlled by a centralized system interfacing with the signal amplifier **GRivAmp**.



And for a failsafe quality monitoring of every riveting:



The TAURUS with process control

Failsafe process control is achieved by a real time analysis of traction and stroke during the riveting operation. All system components involved are part of the tool itself. Each analysis takes less than a micro-second. The result is displayed by a green or red LED installed on the tool, as well as by an optional signal tone.

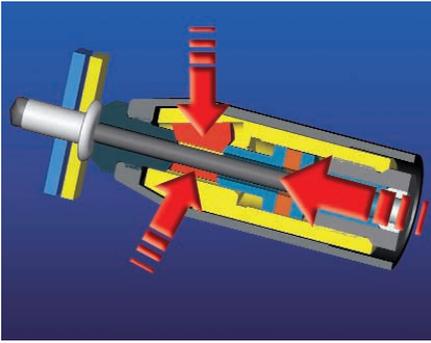
The system allows not only individual analysis of every single riveting, but also a global analysis of the whole riveting application. The tool memorizes up to 260.000 riveting operations which can be reviewed at any time.



Moreover, all measurement parameters and riveting sequences can be adjusted with a special software. Detailed analysis of the measurement either for data storage or for error detection, as well as sensor re-calibration can be performed at user's level.

Jaws which will never bite the dust...

A worldwide unique jaw mechanism (patent pending):



Not just jaws, but a lot more

All tools of the **TAURUS series** are equipped with a unique and completely new jaw mechanism. Compared with conventional systems, following features are decisive:

- The three jaws are not anymore finding their place freely in the jaw housing. Each jaw slides back and forth in an individual channel, under perfect control.
- The jaws are not anymore applied on the mandrel surface by just the pressure of a spring, but propelled by the full energy of the compressed air, they firmly clutch themselves into it. The pressure applied on the mandrel is 10 times higher.
- The setting operation includes two distinct steps, even if they are not perceived as such by the operator: When triggered, the tool first pushes the jaws with all its energy onto the mandrel. Once this is completed the pulling movement then starts to set the rivet.

These features generate following advantages for the tool user:

- Since the jaws are not sliding anymore on the mandrel, the full nominal tool course can be used to set the rivet.
- No material is shaved off from the mandrel surface, thus eliminating jaw and jaw housing jamming with dirt.
- Wear of the jaws is greatly reduced.

All this means a much higher tool's readiness, greatly reduced maintenance and spare parts consumption. All in all: **less costs!**

...and a smart power management not just generating air flow, but cash flow!

Cumulated cost savings through double use of compressed air:

Compressed air with double action

Compressed air is an expensive source of energy, even if widely used in industry because of its versatility.

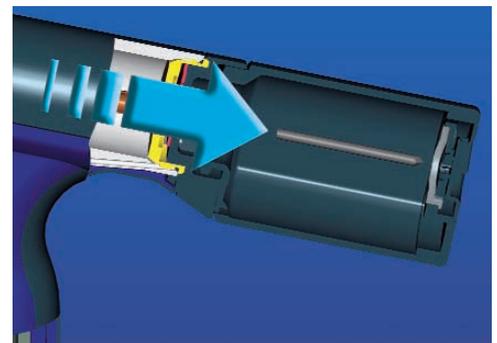
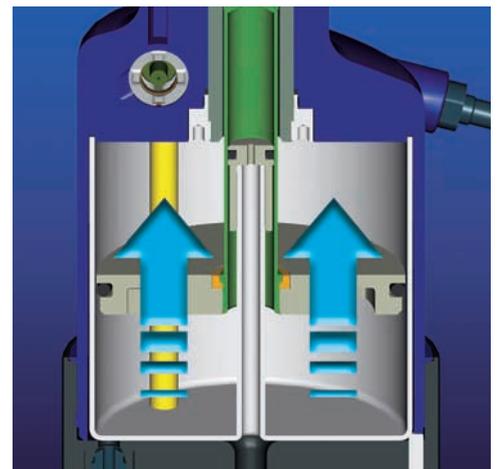
A very good reason to use it as parsimoniously as possible.

The **TAURUS range** of tools is of great help in this purpose thanks to a unique technical peculiarity.

The air consumed for setting the rivet is re-used a second time to eject the broken mandrel: **First cost saving**. This double use allows to switch-off the air suction which, on competition tools, is necessary for the mandrel ejection: **Second, even more substantial cost saving**, since the air suction otherwise needs approx. 100 litres of compressed air per minute.

Being in a position to switch off the air suction on a **TAURUS 2** at 20 riveting operations per minute **means a 68% saving of compressed air!**

By the way, this system is unique, worldwide!



TAURUS series in detail

Main features at a glance:

Modular design

for the complete tool series:

- high level of common parts – low spare parts inventory and easy maintenance

Jaw assembly

(patent pending):

- with jaws guided in independent channels and pneumatic contact pressure
- long life duration
- safe and secure gripping of the mandrels
- one single jaw assembly for all rivet dimensions

Performance

- high setting force and low tool weight
- faster working cycles
- stroke optimized for every tool type

Economy

- low compressed air consumption through same air for rivet setting and broken mandrel ejection
- switchable suction system through easy to activate slide switch

Ergonomics/Safety

- rubber padded, hand friendly tool grip
- outstanding weight distribution
- low vibration and noise damping
- low triggering force
- mandrel container equipped with safety device and adjustable airflow deviation
- safety air pressure valve to avoid tool overstress through excessive air pressure
- Extremely low recoil

The system components and accessories

System components with part numbers:

	TAURUS 1	TAURUS 2	TAURUS 3	TAURUS 4
Standard tool	756 0001	757 0007	758 0002	759 0001
with PH 2000 mandrel container	756 0005	757 0018	758 0011	759 0007
with pressure trigger	756 0021	757 0016	758 0005	759 0002
for external foot pedal trigger		757 0025	758 0015	
Remote controlled version	756 0020	757 0008	758 0020	
with rivet counter	756 0003	757 0010	758 0008	759 0005
with rivet counter and pressure trigger	756 0004	757 0011	758 0009	759 0006
with process control	756 0002	757 0017	758 0006	759 0003
with process control and pressure trigger	756 0010	757 0026	758 0007	759 0004
Process control interface	756 1065			
Rivet counter control unit GRivCount	756 1071			
Rivet counter amplifier GRivAmp	756 1100			
Nose extension 50 mm	756 2013	757 1016	758 1021	
Nose extension 100 mm	756 2015	757 1019	758 1023	
Mandrel evacuation tube kit	757 1356			
Swivel air connector	756 1023			
Retrofit kit for PH 2000 mandrel container	756 1104	756 1107		

Nosepiece allocation with part numbers:

Rivet Ø (mm)	Rivet material	Nosepiece	Part-No.
2,4	Alu	17/18	725 2075
3,2	CAP-Alu, CAP-CU	17/18	725 2075
3 and 3,2	Alu, CU, Steel, Stainless Steel, Stinox, Alu/Alu, PG-Alu, PG-Stahl	17/24	725 1583
4	Alu, CU, CAP-Alu, CAP-CU	17/24	725 1583
4	Steel, Alu/Alu, PG-Alu	17/27	725 2040
4	Stainless Steel, Stinox, PG- Steel	17/29	725 2059
5 and 4,8	Alu, CAP-Alu, CAP-CU, PG-Alu	17/29	725 2059
5 and 4,8	Steel, Alu/Alu	17/32	725 2067
5 and 4,8	Stainless Steel, Stinox, PG- Steel	17/36	725 2083
6	Alu	17/36	725 2083
6	Steel	17/40	725 2560
6,4	Alu	17/40	725 2560
6,4	Steel, Alu/Alu	17/45	724 3065
8	Alu	17/45	724 3065

BULB-TITE Ø

4	Alu/Alu	17/26 BT*	725 2202
5,2	Alu/Alu	17/32 BT*	725 2210
6,3	Alu/Alu	17/42 BT*	725 2229
7,7	Alu/Alu	17/48 BT*	725 2237

MEGA-GRIP Ø

4,8	Alu/Alu, Steel/Steel, Stainless Steel	17/31 MG*	725 2250
6,4	Alu/Alu, Steel/Steel, Stainless Steel	17/41 MG*	724 3146

*Nosepieces in special versions and lengths available on request!