

# 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: 2,5 m m  
 Air consumption: per cycle ca. 4,8 ltr.  
 Air hose connector: 6 mm Ø (1/4")  
 Noise emission: 79 dB  
 Vibrations: < 2,5m/s<sup>2</sup>

## Nosepieces & Accessories:

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

Maintenance wrench:  
 SW12/14, SW14/17

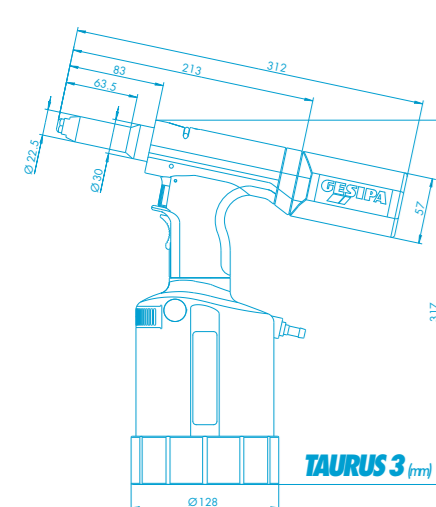
1 oil bottle 100 ml  
 1 oil refill can

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: 1,9 m m  
 Air consumption: per cycle ca. 4,8 ltr.  
 Air hose connector: 6 mm Ø (1/4")  
 Noise emission: 79 dB  
 Vibrations: < 2,5m/s<sup>2</sup>

## Nosepieces & Accessories:

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

Maintenance wrench:  
 SW12/14, SW14/17

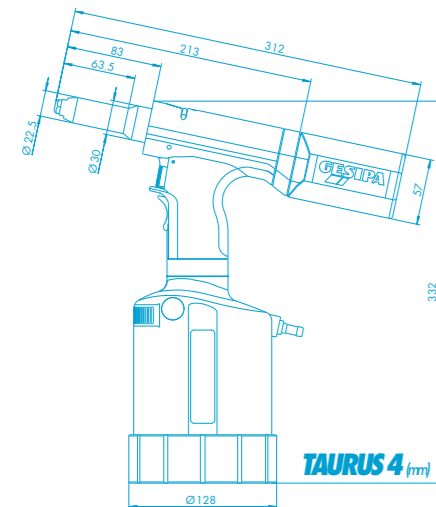
1 oil bottle 100 ml  
 1 oil refill can

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



# TAURUS 5 & 6

Part-No. 760 0001 & 761 0002

## Working Range:

Blind Rivets over 6,4 mm Ø all materials and lockbolts (pin & collar) up to 10 mm

## Technical Data:

Traction Power: 42.000 N at 7 bar  
**TAURUS 5** 50.000 N at 7 bar  
**TAURUS 6**  
 Stroke: 17 mm  
**TAURUS 5** 15 mm  
**TAURUS 6**  
 Operating air pressure: 5-7 bar  
 Air consumption: per cycle approx. 6,9 ltr.  
 Air hose connector: 6 mm Ø (1/4")  
 Noise emission: 79 dB  
 Vibrations: < 2,5m/s<sup>2</sup>

## Pulling head modules:

Taurus 5 & 6 must be equipped with pulling head modules tailored to the fastener used in the customer's application. Such pulling head modules are designed and manufactured on request.

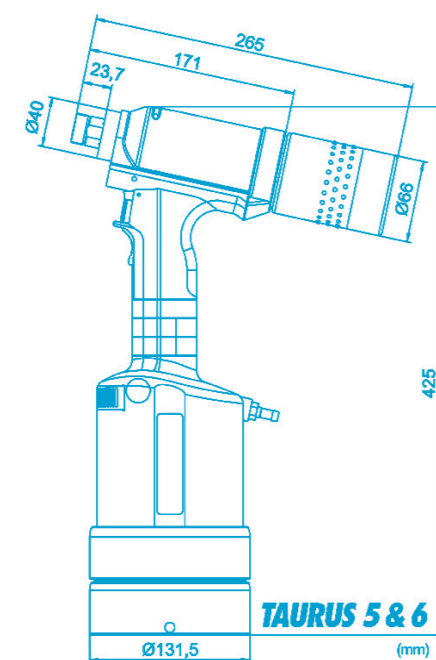
1 oil bottle 100 ml  
 1 oil refill can

Operating instructions with spare parts list

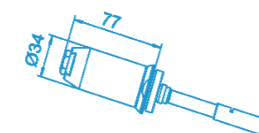
## Comparing performances:

Weight  
**TAURUS 6:** 3,40 kg  
**Competitor :** 4,00 kg

Weight/Performance ratio  
**TAURUS 6:** 14.700 N/kg  
**Competitor:** 9.730 N/kg



Pulling head module



# The system components and accessories

## System components with part numbers:

|  | TAURUS 1   | TAURUS 2 | TAURUS 3 | TAURUS 4   | TAURUS 5   | TAURUS 6 |
|--|------------|----------|----------|------------|------------|----------|
| Standard Tool                              | 756 0001   | 757 0007 | 758 0002 | 759 0001   | 760 0001   | 761 0002 |
| 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 | -          | on request |          |
| Remote controlled version                  | 756 0020   | 757 0008 | 758 0020 | on request | -          | -        |
| with rivet counter                         | 756 0020   | 757 0008 | 758 0020 | on request | -          | -        |
| 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   | on request |          |
| with process control and pressure trigger  | 756 0010   | 757 0026 | 758 0007 | 759 0004   | -          | -        |
| TAUREX with external pressure transducer   | 764 0001   | 765 0001 | 766 0001 | 767 0001   | 768 0001   | 769 0001 |
| TAURUS with C-Frame                        | on request |          |          |            |            |          |
| 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   |          |          | on request |            |          |
| 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.N°  |
|--------------|--|-----------|----------|
| 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 Steel | 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, PG Stainless Steel              | 17/29     | 725 2059 |
| 4,8 and 5    | Alu, CAP-Alu, CAP-Cu, PG-Alu                                       | 17/29     | 725 2059 |
| 4,8 and 5    | Steel, Alu/Alu   | 17/32     | 725 2067 |
| 4,8 and 5    | Stainless Steel, Stinox, PG and G-Bulb Steel and Stainless Steel   | 17/36     | 725 2083 |
| 6            | Alu  | 17/36     | 725 2083 |
| 6            | Steel  | 17/40     | 725 2560 |
| 6,4          | Alu  | 17/40     | 725 2060 |
| 6,4          | Steel, Alu/Alu, PG and G-Bulb Steel and Stainless Steel            | 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 | 17/31 MG * | 725 2250 |
| 6,4         | Alu/Alu, Steel/Steel | 17/41 MG * | 724 3146 |

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# TAURUS

## Pneumatic-hydraulic Blind Rivet setting Tools



## A complete programme!



TAURUS 1 TAURUS 2 TAURUS 3 TAURUS 4 TAURUS 5 & 6

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# 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

# 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: 1,5 m m  
 Air consumption: per cycle ca. 1,0 ltr.  
 Air hose connector: 6 mm Ø (1/4")  
 Noise emission: 77 dB  
 Vibrations: < 2,5m/s<sup>2</sup>

## Nosepieces & Accessories:

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

Maintenance wrench:  
 SW12/14, SW14/17

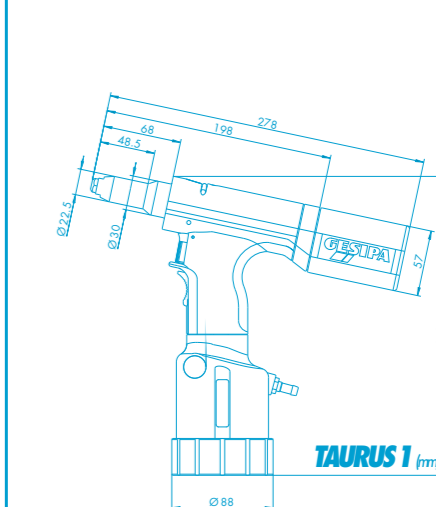
1 oil bottle 100 ml  
 1 oil refill can

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



# 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: 1,8 m m  
 Air consumption: per cycle ca. 2,3 ltr.  
 Air hose connector: 6 mm Ø (1/4")  
 Noise emission: 78 dB  
 Vibrations: < 2,5m/s<sup>2</sup>

## Nosepieces & Accessories:

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

Maintenance wrench:  
 SW12/14, SW14/17

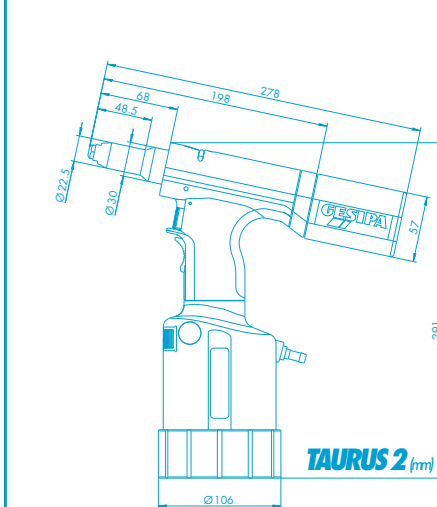
1 oil bottle 100 ml  
 1 oil refill can

Operating instructions with spare parts list

## Comparing performances:

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

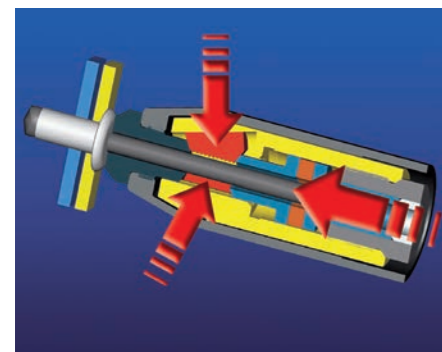
Weight/Performance ratio  
**TAURUS 2:** 5.625 N/kg  
**Competitor G2:** 3.935 N/kg





## Jaws which will never bite the dust...

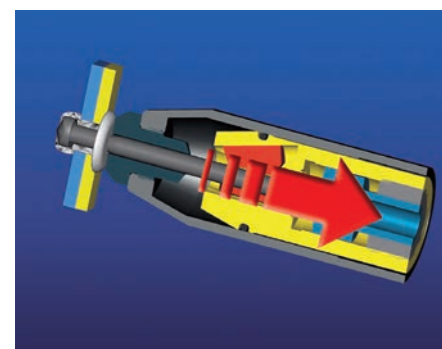
A worldwide unique jaw mechanism (patent pending):



### 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.

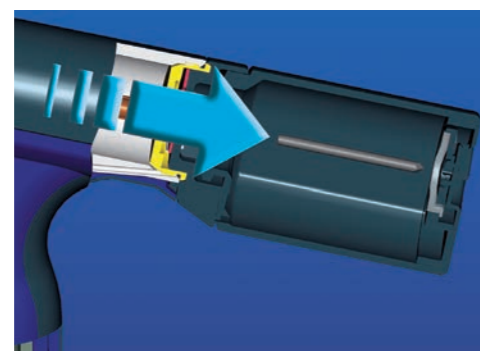
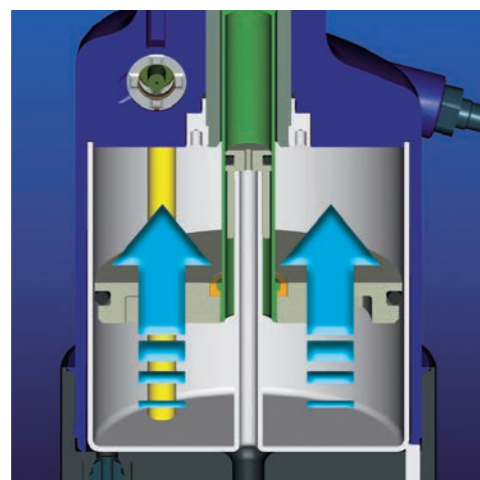
A very good reason to use it as parsimoniously as possible.

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 **TAURUS2** at 20 riveting operations per minute **means a 68% saving of compressed air!**

**By the way, this system is unique, worldwide!**



## A wide range of variants for the best match to the job at hands...

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.



## ... maximum versatility through cleverly designed extensions ...

For more flexibility and better ergonomics in critical applications:

### TAUREX 1 to 6: The complete TAURUS series with remote mounted pressure transducer



Ideally suited for setting blind rivets and lockbolts in poorly accessible locations, the **TAUREX** setting tools are also perfectly designed for fixed installation in production lines or semi-automatic workstations featuring centrally controlled multiple riveting heads.

The low weight handheld tool combined with the 3 meter length tubing provide reduced operator workload and adequate action radius.

For maintenance and exchange purposes the tubing is equipped with a quick connection joint on the pressure transducer side, which avoids any oil leak or air bleeding.

The **TAUREX** tools can be combined with almost all additions and options of the Taurus series: head extensions, mandrel containers, rivet counting units, process control, pressure trigger and remote control.

The performances are the same as those of the self-contained **TAURUS** tools.

For an unexpected and unique extension of functionality:

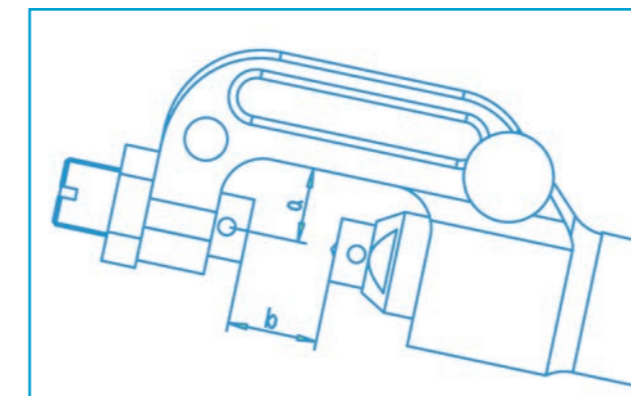
### C-Frame adapter for TAURUS 1 to 6

After exchange of the blind rivet setting head against the C-frame adapter, every tool of the **TAURUS** series can be used to set tubular, semi tubular and solid rivets.

Other possible applications are clinching, hole punching and caulking of mechanical elements, as well as repair of self-piercing semi-tubular and solid rivet joints.

The installation of the C-frame adapter on a Taurus tool is fast, easy and fully reversible, thus allowing to use the tool also to set blind rivets. It features a simple and safe pneumatic force control, free rotation on its length axis to provide free access to the application.

The C-frame adapter greatly improves the versatility of the **TAURUS** series and confers to it a multi-purpose character.



The C-frame adapter must be tailored for every particular application. Especially the snap gauge (a) must be large enough to provide access to the rivet location. The aperture (b) depends of the application thickness and of the length of the fastener in use.

Moreover the matrices in charge of the closing head build-up must be matched to the type and dimension of the selected fastener.

## ...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 memo-rizes 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.

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