

03/2023

# FIRE SERIES

Reliability for a high run  
and fast work sequence!



A member of **SFS**



**GESIPA®**



## ***Fire series***



# **BLIND RIVET NUTS TECHNOLOGY**

Safe threads for thin workpieces



## **Simple but clever**

Seen from the way it functions the blind rivet nut is a threaded rivet body. It can be set "blindly" which means having only access to one side of the workpiece. This exactly is what makes the blind rivet nut so smart.

GESIPA® provides a whole range of blind rivet nuts with different heads in different materials as, for example, aluminium, steel or stainless steel. Here, the PolyGrip® blind rivet nut shows the highest flexibility. It can cover an extremely large grip range and thus enormously reduce the number of parts used in production.

## **Threads? – Surely but safely!**

A blind rivet nut can produce safe and reliable threads even in very thin sheets and soft materials. Further parts can be screwed on without any problem. In principle, it is possible to rivet material first and then screw it together. The blind rivet nut is ideally suited for producing threads in hollow profiles.

## **Suitable tools**

For setting blind rivet nuts GESIPA® offers a wide selection of different setting tools, from hand tools to the battery powered setting tools of the FireBird® series and pneumatic setting tools as the innovative FireFox® series.

Once the blind rivet nut has been drilled on the tool, it can be set into the prepared, drill hole on the workpiece. When using FireBird® and FireFox® tools, drilling-on and drilling-off as well as the setting itself are fully automated processes. Now, GESIPA® also offers the FireFox® series as WinTech version, with setting process monitoring option.

## **Special safety for special products**

In the automotive industry, processes in the production and installation of airbags, belt restraint systems and child seats have been monitored successfully and efficiently for years. Now, however, setting process monitoring plays a major role in many other industrial production processes. Technology has been further enhanced and developed and guarantees that the right fasteners are set in the right place and in the right quantity in all applications where quality is of utmost importance. In addition, it can be checked that the correct workpieces are used.

This method is now also available for monitoring processes when setting blind rivet nuts in industrial applications. The WinTech technology allows to define up to three windows for analysis and to store the data. The process is immediately stopped once the slightest irregularity is detected.

Only after the customer has acknowledged the malfunction, can the process be continued. This means that human error is more or less impossible.

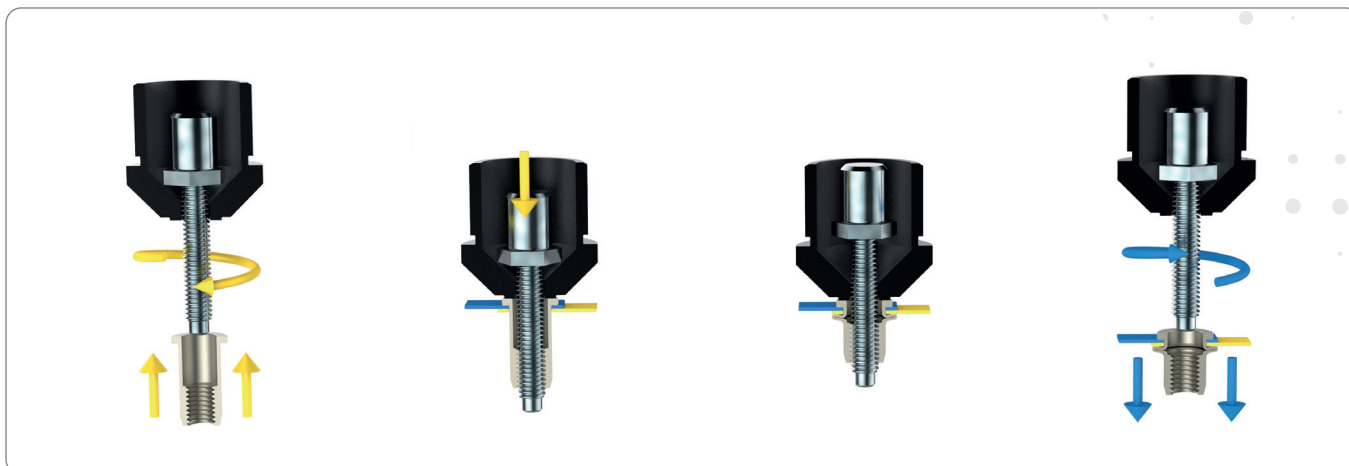
### Examples applications:



### Satisfied customers — reduced costs

Considerably lower sorting, liability insurance and return costs clearly prove the cost-efficiency of this method. Expensive errors in terms of quality are completely prevented, and satisfied customers are the result.

### Processing





## THE BIRD GENERATION OF GESIPA® WITH BRUSHLESS MOTOR

Reliability for a high run and fast work sequence!



### GESIPA® RELIES ON CAS

#### Riveting with the CAS system

The first setting tools which can rivet with the CAS battery technology will be available in spring 2021. The complete Bird Pro series will be converted step by step, up to summer 2021. The new blind rivet nut setting tools **FireBird® Pro**, **FireBird® Pro Gold Edition** and the **FireBird® Pro S Gold Edition** are then also equipped with the new CAS batteries.

### 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 efficiency, long service life, particularly smooth running with a precision ball bearing and a reduction in electrical noise radiation.

# ADVANTAGES AT A GLANCE

## Threaded mandrel

- › Mandrel quick-change system
- › Nosepiece and mandrel module taken from FireFox®

## Technical Data

- › Almost doubled draw distance from 5.5 mm to 10 mm
- › Setting speed twice as fast as before
- › Increased setting force to 20 kN due to new BLDC motor (only with FireBird® Pro Gold Edition)
- › Fully automatic drilling process after completion of the setting process

## 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

## Trigger

- › Automatic screw-on after pressing the switch

## Threaded mandrel magazine

- › Storage of mandrels in the practical, screw-on mandrel magazine
- › Three mandrels are matching nosepieces included in scope of delivery

## Rechargeable battery

- › Li-Ion slide-on 2.1 Ah battery pack (standard)
- › When the battery is discharged, the tool switches off automatically at the end of the setting procedure
- › Acoustic charge indicator
  - 3x beeps = 20% residual charge
  - 6x beeps = 10% residual charge
  - 9x beeps = battery discharged





# EINSTELLUNG FIREBIRD® PRO GERÄTE

## 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.**

## 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)

**FireBird® Pro / FireBird® Pro Gold Edition**  
Satzkraftvoreinstellung / Setting force pre-adjustment

	M3	M4	M5	M6	M8	M10	M12
Alu	1	15	25	55	70	75	90
Stahl	10	35	60	80	85	90	99
Edelstahl	15	55	65	85	95	99	-

Werte dienen nur als Einstellhilfe!  
Data are just an adjustment aid!

**GESIPA**



Setting force guide –  
Example: Steel M5  
for FireBird® Pro

(3)



\* The values given are only guide values. because different settings may be required depending on the type of blind rivet nut.

## WHEN IS SETTING FORCE ADJUSTMENT USED?

A blind rivet nut size of the same or varying length (e.g. M6 x 15.5 or M6 x 18) should be set in **changing material** thicknesses using a constant setting force.



## 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.

**FireFox® 2**  
Satzkraftvoreinstellung über Farbcodierung  
Setting force pre-adjustment by color code

	Alu	Stahl	Edelstahl
M3	1	10	15
M4	15	35	55
M5	25	60	80
M6	55	80	85
M8	70	85	90
M10	75	90	95
M12	90	99	-

Diese Farbcodierung dient nur als Einstellhilfe!  
Color coding is just an adjustment aid!

**GESIPA**



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.

## OVERVIEW FIREBIRD® PRO TOOLS



### **FireBird® Pro**



**The new battery powered blind rivet nut setting tool with foolproof operation and LED input field**

Sets blind rivet nut studs up to Aluminium and steel and M10 stainless steel.

### **FireBird® Pro Gold Edition**



**The new FireBird® Pro Gold Edition convinced with setting force increased to 20 kN**

Sets blind rivet nut studs up to M12 steel and M10 stainless steel.

### **FireBird® Pro S Gold Edition**



**The new FireBird® Pro S Gold Edition with mechanical stroke setting**







Sets blind rivet nut studs up to Aluminium and steel and M10 stainless steel.



# TECHNICAL DATA FIREBIRD® PRO TOOLS

A wide variety of applications and requirements is covered easily with the FireBird® Pro tools.



Tool	Material / Ø	Traction power	Drive	Stroke	Power battery
 <p><b>FireBird® Pro</b></p>	 <p>M3 up to M10</p> <p>M3 up to M8</p> <p>M3 up to M6</p>	15,000 N	DC motor	10 mm	18.0 Volt 2.0 Ah
 <p><b>FireBird® Pro Gold Edition</b></p>	 <p>M3 up to M12</p> <p>M3 up to M10</p>	20,000 N	DC motor	10 mm	18.0 Volt 2.0 Ah
 <p><b>FireBird® Pro S Gold Edition</b></p>	 <p>M3 up to M12</p> <p>M3 up to M10</p>	20,000 N	DC motor	10 mm	18.0 Volt 2.0 Ah



Alu

























Steel



Stainless steel A2/A4



Blind rivet nuts

Weight	Accessoires	Part no.
2.4 kg with battery	Threaded mandrel and nosepiece M6 (in working position), Threaded mandrel and nosepiece M4 and M5 (in magazine) 1x Hexagonal wrench 1x Double open ended wrench SW 24/27 Card Quick adjustment Card Setting force pre-adjustment Operating manual	<b>No. 167 9668</b>  <b>No. 167 9669</b>  <b>No. 167 9670</b>    <b>No. 167 9671</b>    
2.4 kg with battery	Threaded mandrel and nosepiece M6 (in working position), Threaded mandrel and nosepiece M8 and M10 (in magazine) 1x Hexagonal wrench 1x Double open ended wrench SW 24/27 Card Quick adjustment Card Setting force pre-adjustment Operating manual	<b>No. 167 9672</b>  <b>No. 167 9673</b>  <b>No. 167 9674</b>    <b>No. 167 9676</b>    
2.4 kg with battery	Threaded mandrel and nosepiece M6 (in working position), Threaded mandrel and nosepiece M8 and M10 (in magazine) 1x Hexagonal wrench 1x 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	<b>No. 167 9677</b>  <b>No. 167 9678</b>   





**THE TRIED AND TESTED, CORDLESS BLIND  
RIVET NUT SETTING TOOLS FROM GESIPA®**

Easy to operate, tried and tested, and simply good!



## OVERVIEW FIREBIRD® TOOLS



### **FireBird®**

#### **The well-proven blind rivet nut setting tool with Li-Ion energy**

Sets small blind rivet nuts up to M10 aluminium, up to M8 steel and up to M6 stainless steel.

### **FireBird®**

#### **with blind rivet nut studs conversion kit**





#### **Used to be set blind rivet nut studs**

The blind rivet nut studs conversion kits enable the FireBird® to be used to set M4 and M8 blind rivet studs.



## TECHNICAL DATA FIREBIRD® TOOLS

A wide variety of applications and requirements is covered easily with the FireBird® tools.

Tool	Material / Ø	Traction power	Drive	Stroke	Power battery
<b>FireBird®</b> 	 <div> M3 up to M10  M3 up to M8  M3 up to M6 </div>	13,000 N	DC motor	5.5 mm	14.4 Volt 1.3 Ah
<b>FireBird®</b> with conversion kit for blind rivet nut studs 	 <div> M4 up to M8 </div>	13,000 N	DC motor	5.5 mm	14.4 Volt 1.3 Ah

 Alu
 Steel
 Stainless steel A2/A4

 Blind rivet nuts

Weight	Accessoires	Part no.
2.1 kg with battery	Threaded mandrel and nosepiece M6 1 hexagonal wrench Threaded mandrel and nosepiece M4 & M5 1 double open ended wrench SW 24/27 Battery 14.4 Volt and 1.3 Ah Charger Operating manual with spare part list	<b>145 7414</b>
2.1 kg with battery	1 hexagonal wrench 1 double open ended wrench SW 24/27 Battery 14.4 Volt and 1.3 Ah Charger Operating manual with spare part list	<b>146 4336</b>

## **THE HYDRO-PNEUMATIC BLIND RIVET NUT SETTING TOOLS FROM GESIPA®**

Technological leadership, experience and in-house production





# THE NEW GENERATION OF BLIND RIVET NUT SETTING TOOLS

The FireFox® series: **Simple, fast and safe**

## Characteristics

### 01 Innovation – Setting blind rivet nuts with traction force adjustment

- › Conserves material thickness and thread
- › Secure anchoring of the blind rivet nut
- › High degree of process reliability

### 02 Uncomplicated – Easy operation through automatic drill-on function

- › The screw-on process begins automatically as soon as the blind rivet nut is fitted onto the threaded mandrel with light pressure.
- › In the event of faults, the NOK blind rivet nut can be removed with the screw-off head easily and without the need for tools.

### 03 Versatile

- › Wide range of applications from M3 to M12, even for varying material thicknesses.
- › Certain and accurate processing
- › Sets multi-range blind rivet nuts with a large grip range, e.g. PolyGrip® blind rivet nuts from GESIPA®.

### 04 Quickness

- › Shorten setting cycle: fast drill-on, lickety-split setting process, subsequent automatic drill-off
- › Pulling sequence and subsequent automatic drill-off take place at breath-taking speed and require only a single action on the trigger.

### 05 Workplace convenience

- › Rubberised, moulded grip
- › Ergonomic handling for fatigue-free work
- › Balanced center of gravity
- › Stability optimised using a new rubber base



**FireFox® 1**

**FireFox® 1 F**

**FireFox® 2 F**

**FireFox® 2 F L**

**FireFox® 2**

## SETTING FORCE ADJUSTMENT

The setting force adjustment is the **most flexible and simplest type** of setting blind rivet nuts certainly and in different strong material thickness.

Most blind rivet nut setting devices are stroke-controlled, while only a few are setting force-controlled. The **FireFox® 2 F** from GESIPA® represents a new generation of blind rivet nut setting device: simply, quickly and safely.

### Setting blind rivet nuts with traction force adjustment

This means that the tool will stop pulling the blind rivet nut when a pre-adjusted traction force threshold is reached. No re-adjustment is needed when setting blind rivet nuts into different material thicknesses or when using blind rivet nuts with different shaft lengths. Traction force control prevents damage of the material which cannot be overstressed by a too high setting pressure and preserves the integrity of the blind rivet nut thread. As a bonus, it also extends the life duration of the threaded mandrels.

**Fast and precise setting force adjustment** with colour-coded setting ring (1). The required setting force is selected with a hexagon screwdriver directly on the tool.



### When is setting force adjustment used?

A blind rivet nut size of the **same or varying length** (e.g. M6 x 15.5 or M6 x 18) should be set in **changing material thicknesses** using a constant setting force.



## OVERVIEW FIREFOX® TOOLS



### **FireFox® 1**

#### **Either stroke or setting force controlled**

Sets small blind rivet nuts from M3 up to M6 all materials, except M6 stainless steel.

### **FireFox® 1 F**

#### **Handy, reliable, safe**

Perfectly sets small blind rivet nuts from M3 to M6 with up to 10.5 kN, and preserves the material.

### **FireFox® 2 F**

#### **The superlative blind rivet nut setting tool**

Sets blind rivet nuts from M3 up to M12 with up to approx. 18.5 kN with pure setting force adjustment.

### **FireFox® 2 F L**

#### **For specific applications**

As a version of the FireFox® 2 F specially designed for setting blind rivet nuts with left-hand thread.

### **FireFox® 2**


#### **The variable tool, either stroke or setting force controlled**

Sets blind rivet nuts from M3 up to M10 with up to 18.5 kN.




## TECHNICAL DATA FIREFOX® TOOLS

Tool	Material / Ø	Traction force	Stroke	Operating air pressure
<b>FireFox® 1</b> 	<div>M3 up to M6</div> <div>M3 up to M5</div>	approx. 12,000 N at 6 bar	approx. 7.5 mm	5-7 bar (adjustable)
<b>FireFox® 1 F</b> 	<div>M3 up to M6</div> <div>M3 up to M5</div>	approx. 12,000 N at 6 bar	approx. 7.5 mm	5-7 bar (adjustable)
<b>FireFox® 2 F</b> 	<div>M3 up to M10</div> <div>M3 up to M12</div> <div>M3 up to M12</div>	22,000N at 6 bar	10 mm	5-7 bar (adjustable)
<b>FireFox® 2 F L</b> 	<div>M3 up to M10*</div> <div>M3 up to M12*</div> <div>M3 up to M12*</div> <div>*with left-hand thread</div>	22,000N at 6 bar	10 mm	5-7 bar (adjustable)
<b>FireFox® 2</b> 	<div>M3 up to M10</div> <div>M3 up to M12</div> <div>M3 up to M12</div>	22,000N at 6 bar	max. 10 mm (adjustable)	5-7 bar (adjustable)

 All materials

 Alu

 Steel

 Stainless steel A2/A4

Air consumption	Weight	Scope of delivery	Part no.
approx. 1-2 ltr. per rivet nut (depending on nut size)	2.2 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver SW 4 1 oil refill can with hydraulic oil Operating instructions with spare parts list Quick setting guide	<b>160 5610</b>
approx. 1-2 ltr. per rivet nut (depending on nut size)	2.0 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver SW 4 1 oil refill can with hydraulic oil Operating instructions with spare parts list Quick setting guide	<b>145 8198</b>
approx. 2-4 ltr. per rivet nut (depending on nut size)	2.4 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver SW 4 1 oil refill can with hydraulic oil Operating instructions with spare parts list Quick setting guide	<b>145 1045</b>
approx. 2-4 ltr. per rivet nut (depending on nut size)	2.4 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver SW 4 1 oil refill can with hydraulic oil Operating instructions with spare parts list	FireFox® 2 F L – M6 <b>145 1037</b> FireFox® 2 F L – M3 <b>145 1034</b> FireFox® 2 F L – M4 <b>145 1035</b> FireFox® 2 F L – M5 <b>145 1036</b> FireFox® 2 F L – M8 <b>145 8098</b> FireFox® 2 F L – M10 <b>145 8099</b> FireFox® 2 F L – M12 <b>145 8100</b>
approx. 2-4 ltr. per rivet nut (depending on nut size)	2.4 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver SW 4 1 oil refill can with hydraulic oil Operating instructions with spare parts list Quick setting guide	<b>145 8086</b>

# ***FIREFOX®-VERSIONS FOR EVERY APPLICATION***

A broad range of versions for the greatest possible flexibility



FireFox® 1 F with conversion kit for blind rivet nut studs



FireFox® 2 with conversion kit for blind rivet nut studs



FireFox® 2 C WinTech  
incl. setting process control



FireFox® 1 F Axial eco



FireFox® 2 F Axial eco



FireFox® 2 F Axial eco with contact pressure monitoring and counting sensor



# VERSION – CONVERSION KIT FOR BLIND RIVET NUT STUDS

Our FireFox®-versions offer the perfect solution for every application.

## Blind rivet nut studs – The efficient alternative

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 it provides an additional fastening point or a positioning aid. Different dimensions, materials and head shapes cover a wide range of applications and repair scenarios.

## Convert existing GESIPA® blind rivet nut setting tools or upgrade a new basic model with a conversion kit.

All FireFox® tools can set blind rivet studs in dimensions from M4 to M6 or M8 without any issues by using the corresponding conversion kits.

As an alternative to converting an existing tool, GESIPA® also offers an inexpensive version with the FireFox® 1 F or FireFox® 2 basic model, without the threaded mandrel and nose piece, in combination with the required conversion kit.

For conversion kits, see the table on page 37.

## Applications

- Accessible from one side
- Thin carrier materials such as sheet metal, plastics, etc.
- Pre-centring required
- No thermal effects on the material.
- Surface coatings must not be damaged
- Making electrically conductive joints
- Fast repairs of welding studs

## 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



FireFox® 2 with conversion kit for blind rivet nut studs

# AXIAL VERSIONS – FOR WORKING VERTICALLY

Facilitates **flexible and ergonomically** efficient manual working

## Advantages

- Ideally suited for installation 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**

The **FireFox® 1 F Axial eco**, the **FireFox® 2 F Axial eco** and the **FireFox® 2 F Axial eco with contact pressure monitoring and counting** are ideally suited for integration in production systems and facilitates flexible and ergonomically efficient manual working procedures in applications with restricted access and therefore require riveting from above.

The **FireFox® 2 F Axial eco with contact pressure monitoring and counting sensor** is available in versions with contact pressure monitoring, a counting function, or with contact pressure monitoring and a counting function.

The **counting function** is realised by an analogue oil pressure sensor and the contact pressure monitoring via an adjustable spring mechanism.

## Accessoires

- › Adapter for using **hexagon socket head cap screw** as threaded mandrel and for setting **blind rivet nut studs**
- › **Nosepieces** and **threaded mandrels** in imperial or US sizes



FireFox® 2 F Axial eco with contact pressure monitoring and counting sensor

# **FIREFOX® 2 C WINTECH – WITH SETTING PROCESS MONITORING**

**High process safety** during handling of blind rivet nuts and blind rivet nut studs

## **Function**

The setting process of the blind rivet nut 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.

## **LED-light**

visualizes the result of the setting process monitoring

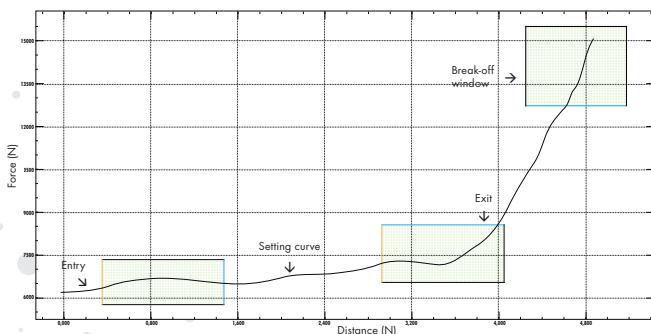


## **FireFox® 2 C WinTech – Advantages**

- › Avoidance of additional costs due to NOK parts
- › High process safety
- › Documentation of each individual setting process
- › Less scrap since errors can be immediately identified
- › The evaluation for a setting process takes less than 1 µs
- › Autonomous operation or integration in existing systems
- › Can be connected via the GESIPA® interface (see accessories on page 23)
- › Storage of up to 250,000 pieces of setting-process data using the GESIPA® interface

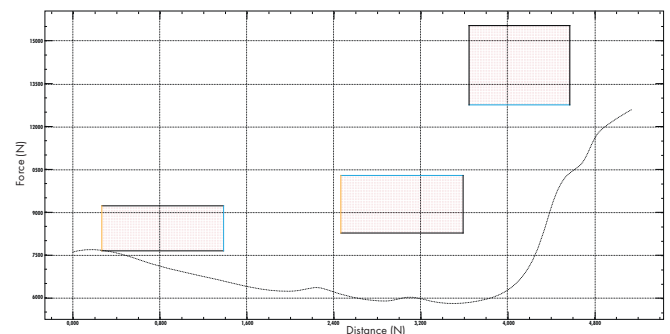


WinTech-video: Setting process monitoring for blind rivets and blind rivet nut studs



### **Example OK process**

Window entry and exit at customer-defined positions











### **Example NOK process**

Material to be joined too thin due to missing component



## TECHNICAL DATA FIREFOX® VERSIONS

Tool	Material / Ø	Traction force	Stroke	Operating air pressure
<b>FireFox® 1 F</b> <b>with conversion kit</b> <b>for blind rivet nut</b> <b>studs</b> 	 M4 up to M6	approx. 12,000 N at 6 bar	approx. 7.5 mm	5-7 bar (adjustable)
<b>FireFox® 2</b> <b>with conversion kit</b> <b>for blind rivet nut</b> <b>studs</b> 	 M4 up to M8	22,000N at 6 bar	10 mm	5-7 bar (adjustable)
<b>FireFox® 1 F</b> <b>Axial eco</b> 	 M3 up to M5 M3 up to M6 M3 up to M6	12,000N at 6 bar	approx. 7.5 mm	5-7 bar (adjustable)
<b>FireFox® 2 F</b> <b>Axial eco*</b> 	 M3 up to M10 M3 up to M12 M3 up to M12	22,000N at 6 bar	approx. 10 mm (adjustable)	5-7 bar (adjustable)

\*Performance data corresponds to FireFox® 2 F Axial eco with contact pressure monitoring and counting sensor. Advice and delivery time available on request.



All materials



Alu



Steel



Blind rivet nut studs



Blind rivet nuts

Air consumption	Weight	Scope of delivery	Part no.
approx. 1-2 ltr. per setting process	1.96 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver 1 oil refill bottle with hydraulic oil 1 oil refill can Operating instructions with spare part list Quick setting guide	FireFox® 1 F <b>145 1106</b> Basic tool (The tool is delivered without threaded mandrels and nosepieces. Please order the corresponding conversion kit, view page 36)
approx. 2-4 ltr. per setting process	2.4 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver 1 oil refill bottle with hydraulic oil 1 oil refill can Operating instructions with spare part list Quick setting guide	FireFox® 2 <b>145 8096</b> Basic tool (The tool is delivered without threaded mandrels and nosepieces. Please order the corresponding conversion kit, view page 36)
approx. 1-2 ltr. per setting process (depending on nut size)	2.8 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver 1 oil refill bottle with hydraulic oil 1 oil refill can Operating instructions with spare part list Quick setting guide	FireFox® 1 F Axial eco M3 <b>145 1103</b> M4 <b>145 1104</b> M5 <b>145 8199</b> M6 <b>145 1105</b>
approx. 2-4 ltr. per setting process (depending on nut size)	3.3 kg	2 double open ended wrenches SW 24/27 1 hexagon screw driver 1 oil refill bottle with hydraulic oil 1 oil refill can Operating instructions with spare part list Quick setting guide	FireFox® 1 F Axial eco M3 <b>145 1039</b> M4 <b>145 1040</b> M5 <b>145 1041</b> M6 <b>145 8103</b> M8 <b>145 1042</b> M10 <b>145 1043</b> M12 <b>145 1044</b>

# FIREREX® AND FIREREX® 2 C WINTech

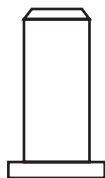
The hydropneumatic blind rivet nut setting tool with external pressure booster for greater flexibility

Now also available with setting process monitoring!  
In the producing 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. Thanks to the external pressure booster, the FireRex® is particularly useful in areas with limited space. The special riveting gun of the FireRex® can be integrated in manufacturing plants, linear guides and in industrial robots. It enables you to work both flexibly and ergonomically in applications with limited accessibility.



## Working range



M3 up to M10 All materials

M3 up to M12 Alu

M3 up to M12 Steel

## Technical Data

Weight:	4.4 kg
Max. setting stroke, adjustable:	10mm
Max. setting force, adjustable:	22 kN at 6 bar
Operating pressure:	5-7 bar
Hose connection:	6 mm Ø (1/4")
Compressed air consumption:	approx. 2 to 4 ltr. per setting (depending on nut size)

## Equipment

M3 to M12 threaded mandrel and nosepiece

**Threaded mandrels and nosepieces same as for FireFox® 2, see page 35.**

## 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® 2 **accessories**: e.g. extension units, spent mandrel container, blind rivet nut counter, setting process monitoring, spring-loaded trigger system and remote control



FireRex® video



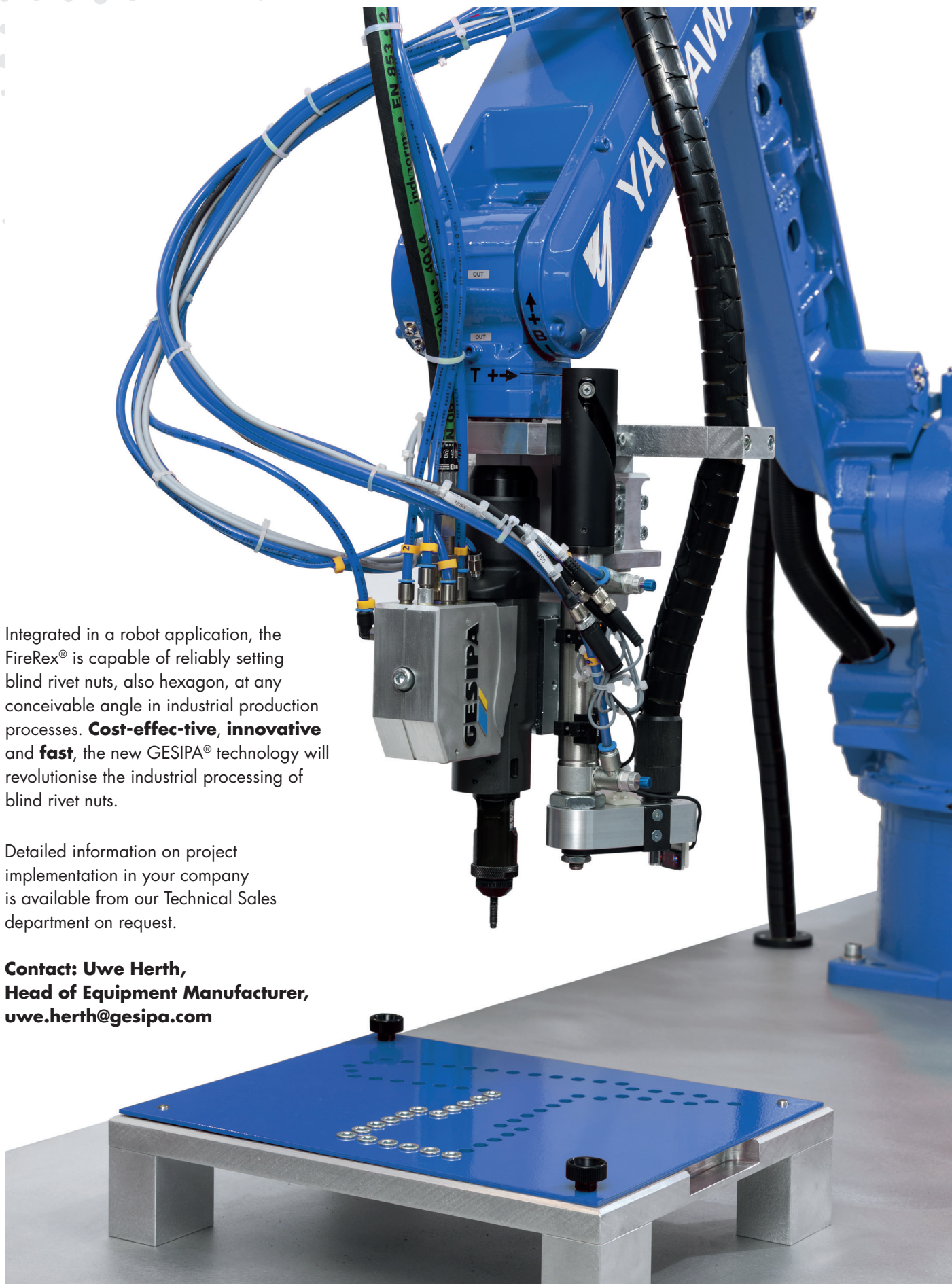
All product informations

## FIREREX® AS ROBOT APPLICATION

Integrated in a robot application, the FireRex® 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® technology will revolutionise the industrial processing of blind rivet nuts.

Detailed information on project implementation in your company is available from our Technical Sales department on request.

**Contact: Uwe Herth,**  
**Head of Equipment Manufacturer,**  
[uwe.herth@gesipa.com](mailto:uwe.herth@gesipa.com)





# **FIREFOX® ACCESSORIES**

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.

## **Flexible base for FireFox® 1 F and 2, all versions**

Optimized stability



The flexible base made from NBR, with its large surface area, ensures the unit's stability. The nitrile butadiene rubber (NBR) of the rubber base is highly resistant to oils, greases and hydrocarbons, is durable and shows only minimal signs of wear.

## **Protective cover**

Only for FireFox® 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® 1 F and 2**

All versions except FireFox® 2 C



The swivel connector can be rotated and swivelled by 360° in any direction, so the air hose cannot twist. That makes it easier to work in confined spaces and reduces hose wear.

### **Plastic carrying case with complete metric threaded mandrel and nosepiece**

For FireFox® 2, all versions



Handy and clean reposited.  
Threaded mandrel and nosepiece set M3 to M12,  
complete in metric and UNC/UNF dimensions.

### **Tool mount for FireFox® 1 F & 2**

all versions except FireFox® 2 C



For integration into automated systems or  
connection to handling modules

### **GESIPA®-Interface**

For a monitored setting process, combinable with FireFox® 2 C



**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.

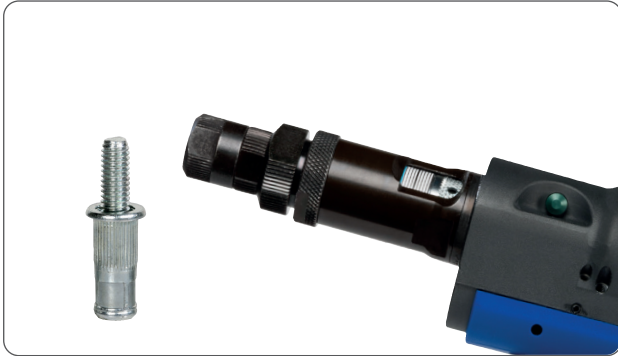
In addition, the **GESIPA®-Interface** has a process database for storing 250,000 of the most current process data (date, time, rivet position, process curve, analysis, etc.).

# **FIREFOX® ACCESSORIES**

A complete programme through a wide range of accessories

## ***Conversion kit for blind rivet nut studs***

for FireFox® 1 F and 2, all versions



All FireFox® tools can set blind rivet studs in dimensions from M4 to M6 or M8 without any issues by using the corresponding conversion kits.

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.

## ***Conversion kit for hexagon socket screws***

for FireFox® 1 F and 2, all versions



### **DIN EN ISO 4762 hexagon socket head cap screws as threaded mandrel.**

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.

The conversion kits are available in versions suitable for DIN screws and extended DIN screws (SL30).

## Conversion kit for crimp nuts

for FireFox® 2, all versions



The conversion kit is delivered as a pre-assembled accessory.



The spring-loaded centering bush allows the setting nut to be inserted in an optimum way.

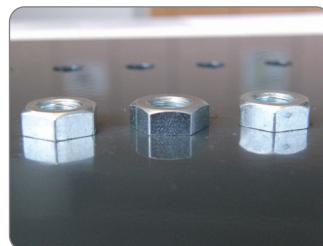
With the conversion kits, the FireFox® can be used for processing screw nuts in sizes M6 to M12. This is done as fast as usual by drilling the nut on and off automatically and by fast insertion.

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.

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.



The nut automatically drills on after having been slightly pressed onto the threaded mandrel.



Inserted nut after process has been finished.



## ACCESSORIES FIREBIRD® TOOLS

Accessories	Picture	FireBird® Pro	FireBird® Pro Gold Edition	FireBird®	FireBird® with conversion kit for blind rivet nut studs
<b>Charger</b> for 1.4 V Li-Ion battery		-	-	145 7282	145 7282
<b>Battery</b> 1.4 V/2.0 Ah (Li-Ion)		-	-	166 6440	166 6440
<b>Power battery</b> 1.4 V/4.0 Ah (Li-Ion)		-	-	166 6441	166 6441
<b>Slide-on battery</b> 18.0 V/2.0 Ah (Li-Ion) 		167 9689	167 9689	-	-
<b>Slide-on battery</b> 18.0 V/4.0 Ah (Li-Ion) 		167 9690	167 9690	-	-
<b>Charger</b> 18.0 V Li-Ion Akku 		167 9694	167 9694	-	-

### Conversion kit for blind rivet nut studs

Conversion kit for blind rivet nut studs	min. max.*		FireBird® Pro	FireBird® Pro Gold Edition	FireBird®	FireBird® with conversion kit for blind rivet nut studs
	BRN thread protrusion (mm)					
M4	8	22	143 6285	143 6285	143 5117	143 5117
M5	9	22	143 6286	143 6286	143 5118	143 5118
M6	10	22	143 4287	143 6287	143 5119	143 5119
M8	12	22	143 6288	143 4288	143 5121	143 5121

\*A correspondingly extended nosepiece must be used for thread protrusion >22 mm.

# ASSIGNMENT NOSEPIECES AND THREADED MANDRELS

## Threaded mandrels

Description	Material	FireBird® Pro	FireBird® Pro Gold Edition	FireBird®	FireBird® with conversion kit for blind rivet nut studs
Threaded mandrel M3	Alu	143 6211*	143 6211*	143 5052*	143 5052*
	Steel / Stainless steel				
Threaded mandrel M4	Alu	143 6212	143 6212*	143 5055	143 5055
	Steel / Stainless steel				
Threaded mandrel M5	Alu	143 6213	143 6213*	143 5056	143 5056
	Steel / Stainless steel				
Threaded mandrel M6	Alu	143 6214	143 6214	143 5059	143 5059
	Steel / Stainless steel				
Threaded mandrel M8	Alu	143 6215*	143 6215	143 5063*	143 5063*
	Steel / Stainless steel				
Threaded mandrel M10	Alu	143 6216*	143 6216	143 5064*	143 5064*
	Steel / Stainless steel				
Threaded mandrel M12	Steel	-	143 6217*	-	-

\* Available as special accessory

## Nosepieces

Description	Material	FireBird® Pro	FireBird® Pro Gold Edition	FireBird®	FireBird® with conversion kit for blind rivet nut studs
Nosepiece M3	Alu	143 6218*	143 6218*	143 5065*	143 5065*
	Steel / Stainless steel				
Nosepiece M4	Alu	143 6219	143 6219*	143 5066	143 5066
	Steel / Stainless steel				
Nosepiece M5	Alu	143 6220	143 6220*	143 5067	143 5067
	Steel / Stainless steel				
Nosepiece M6	Alu	143 6221	143 6221	143 5068	143 5068
	Steel / Stainless steel				
Nosepiece M8	Alu	143 6222*	143 6222	143 5069*	143 5069*
	Steel / Stainless steel				
Nosepiece M10	Alu	143 6223*	143 6223	143 5070*	143 5070*
	Steel / Stainless steel				
Nosepiece M12	Steel	-	143 6224*		

\* Available as special accessory

## ACCESSORIES-PROGRAMME FIREFOX® TOOLS

Accessories	Picture	Part no.	Firefox® 1 F	Firefox® 1 F Axial eco	Firefox® 2	Firefox® 2 F	Firefox® 2 F L	Firefox® 2 F Axial eco	Firefox® 2 C
Flexible base		143 6394	x	x					
Flexible base		143 6371			x	x	x	x	x
Protective cover		143 6313			x				
Swivel air connector		143 5479	x	x	x	x	x	x	
Case with threaded mandrel and nose-piece set		metric: 145 8111 UNC/UNF: 145 8112			x	x	x	x	x
Tool mount		145 8175	x	x	x	x	x	x	
GESIPA® Interface		143 5826							x

# ASSIGNMENT NOSEPIECES AND THREADED MANDRELS

## Nosepieces

Description	Part no.	FireFox® 1 F	FireFox® 1 F Axial eco	FireFox® 2	FireFox® 2 F	FireFox® 2 F L	FireFox® 2 F Axial eco	FireFox® 2 C
<b>NOSEPIECES METRICAL DIMENSION</b>								
Nosepiece M3	143 6218	x	x	x	x	x	x	x
Nosepiece M4	143 6219	x	x	x	x	x	x	x
Nosepiece M5	143 6220	x	x	x	x	x	x	x
Nosepiece M6	143 6221	x	x	x	x	x	x	x
Nosepiece M8	143 6222			x	x	x	x	x
Nosepiece M10	143 6223			x	x	x	x	x
Nosepiece M12	143 6224			x	x	x	x	x
<b>NOSEPIECES UNC/UNF DIMENSION</b>								
Nosepiece 6-32 UNC	143 6256	x	x	x	x		x	x
Nosepiece 8-32 UNC	143 6257	x	x	x	x		x	x
Nosepiece 10-32 UNC	143 6258	x	x	x	x		x	x
Nosepiece 1/4"-20 UNF	143 6259			x	x		x	x
Nosepiece 5/16"-18 UNF	143 6260			x	x		x	x
Nosepiece 3/8"-16 UNF	143 6261			x	x		x	x



# ASSIGNMENT NOSEPIECES AND THREADED MANDRELS

## Threaded mandrels

Description	Part no.	FireFox® 1 F	FireFox® 1 F Axial eco	FireFox® 2	FireFox® 2 F	FireFox® 2 F L	FireFox® 2 F Axial eco	FireFox® 2 C
		THREADED MANDREL METRICAL DIMENSION						
Threaded mandrel M3	143 6211	x	x	x	x		x	x
Threaded mandrel M4	143 6212	x	x	x	x		x	x
Threaded mandrel M5	143 6213	x	x	x	x		x	x
Threaded mandrel M6	143 6214	x	x	x	x		x	x
Threaded mandrel M8	143 6215			x	x		x	x
Threaded mandrel M10	143 6216			x	x		x	x
Threaded mandrel M12	143 6217			x	x		x	x
Threaded mandrel M3	143 6363					x		
Threaded mandrel M4	143 6364					x		
Threaded mandrel M5	143 6365					x		
Threaded mandrel M6	143 6366					x		
Threaded mandrel M8	143 6367					x		
Threaded mandrel M10	143 6368					x		
Threaded mandrel M12	143 6369					x		
THREADED MANDREL UNC/UNF DIMENSION								
Threaded mandrel 6-32 UNC	143 6249	x	x	x	x		x	x
Threaded mandrel 8-32 UNC	143 6250	x	x	x	x		x	x
Threaded mandrel 10-24 UNC	143 6251	x	x	x	x		x	x
Threaded mandrel 10-32 UNF	143 6252	x	x	x	x		x	x
Threaded mandrel 1/4"-20 UNF	143 6253			x	x		x	x
Threaded mandrel 5/16"-18 UNF	143 6254			x	x		x	x
Threaded mandrel 3/8"-16 UNF	143 6255			x	x		x	x

# ACCESSORIES-PROGRAMME FIREFOX® TOOLS

Conversion kit for blind rivet nut studs

Conversion kit for blind rivet nut studs	Part no.	BRN thread protrusion		Firefox® 1 F	Firefox® 1 F Axial eco	Firefox® 2	Firefox® 2 F	Firefox® 2 F L	Firefox® 2 F Axial eco	Firefox® 2 C
		min.	max.*							
M4	143 6285	8	22	x	x	x	x	x	x	x
M5	143 6286	9	22	x	x	x	x	x	x	x
M6	143 6287	10	22	x	x	x	x	x	x	x
M8	143 6288	12	22			x	x	x	x	x
SCREW NOSEPIECE FOR CONVERSION KIT										
Screw nosepiece M4	143 5100			x	x	x	x	x	x	x
Screw nosepiece M5	143 5102			x	x	x	x	x	x	
Screw nosepiece M6	143 5103			x	x	x	x	x	x	x
Screw nosepiece M8	143 5105					x	x	x	x	x
SCREW INSERT FOR CONVERSION KIT										
Screw insert M4	143 6278			x	x	x	x	x	x	x
Screw insert M5	143 6280			x	x	x	x	x	x	x
Screw insert M6	143 6281			x	x	x	x	x	x	x
Screw insert M8	143 6282					x	x	x	x	x

\*A correspondingly extended nosepiece must be used for thread protrusion >22 mm.

## ACCESSORIES-PROGRAMME FIREFOX® TOOLS

Conversion kit for hexagon socket screw and conversion kit for crimp nuts

Conversion kit for hexagon socket screw	Part no.	Firefox® 1 F	Firefox® 1 F Axial eco	Firefox® 2	Firefox® 2 F	Firefox® 2 F L	Firefox® 2 F Axial eco	Firefox® 2 C
FOR DIN SCREWS								
M4 x min. 20	143 6264	x	x	x	x	x	x	x
M5 x min. 25	143 6279	x	x	x	x	x	x	x
M6 x min. 30	143 6283	x	x	x	x	x	x	x
M8 x min. 30	143 6284			x	x	x	x	x
FOR EXTENDED DIN SCREWS (SL30)								
M4 x min. 50	145 8182	x	x	x	x	x	x	x
M5 x min. 50	145 8183	x	x	x	x	x	x	
M6 x min. 60	145 8184	x	x	x	x	x	x	x
M8 x min. 60	145 8178			x	x	x	x	x

Conversion kit for crimp nuts	Part no.	Firefox® 1 F	Firefox® 1 F Axial eco	Firefox® 2	Firefox® 2 F	Firefox® 2 F L	Firefox® 2 F Axial eco	Firefox® 2 C
CONVERSION KIT								
M6	143 6354			x	x	x	x	x
M8	143 6355			x	x	x	x	x
M10	143 6356			x	x	x	x	x
M12	143 6357			x	x	x	x	x
THREADED MANDREL FOR CONVERSION KIT								
Threaded mandrel M6	143 6214			x	x	x	x	x
Threaded mandrel M8	143 6215			x	x	x	x	
Threaded mandrel M10	143 6216			x	x	x	x	x
Threaded mandrel M12	143 6217			x	x	x	x	x

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