

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 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 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	Air consumption	Weight	Scope of delivery	Part no.
<div>Firefox® 1 F</div> 	<div>M3 up to M6</div> <div>M3 up to M5</div>	approx. 12,500 N at 6 bar	approx. 7.5 mm	5-7 bar (adjustable)	approx. 1-2 ltr. per rivet nut (depending on nut size)	1.96 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	<div>Firefox® 1 F – M3145 8195</div> <div>Firefox® 1 F – M4145 8196</div> <div>Firefox® 1 F – M5145 8197</div> <div>Firefox® 1 F – M6145 8198</div>
<div>Firefox® 2 F</div> 	<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)	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	<div>Firefox® 2 F – M6145 1045</div> <div>Firefox® 2 F – M3145 1046</div> <div>Firefox® 2 F – M4145 1047</div> <div>Firefox® 2 F – M5145 1048</div> <div>Firefox® 2 F – M8145 1049</div> <div>Firefox® 2 F – M10145 1050</div> <div>Firefox® 2 F – M12145 1051</div>
<div>Firefox® 2 F L</div> 	<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)	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	<div>Firefox® 2 F L – M6145 1037</div> <div>Firefox® 2 F L – M3145 1034</div> <div>Firefox® 2 F L – M4145 1035</div> <div>Firefox® 2 F L – M5145 1036</div> <div>Firefox® 2 F L – M8145 8098</div> <div>Firefox® 2 F L – M10145 8099</div> <div>Firefox® 2 F L – M12145 8100</div>
<div>Firefox® 2</div> 	<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)	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	<div>Firefox® 2 – M6145 8086</div> <div>Firefox® 2 – M3145 8087</div> <div>Firefox® 2 – M4145 8088</div> <div>Firefox® 2 – M5145 8089</div> <div>Firefox® 2 – M8145 8090</div> <div>Firefox® 2 – M10145 8091</div> <div>Firefox® 2 – M12145 8092</div>

All materials

Alu

Steel

Stainless steel A2/A4

FIREFOX®-VERSIONS FOR EVERY APPLICATION

A broad range of versions for the greatest possible flexibility



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.

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

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 nosepiece, in combination with the required conversion kit.

For conversion kits, see the table on page 37.

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® 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



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**



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

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 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

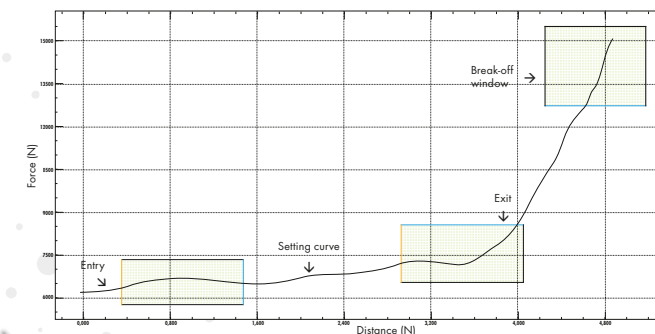


FireFox® 2 C WinTech – Advantages

- › 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

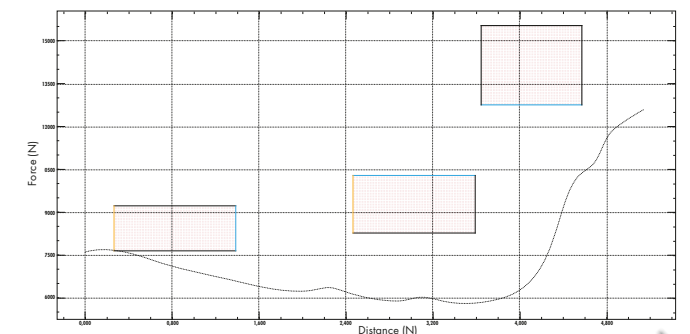


WinTech-video: Setting process monitoring for blind rivets and blind rivet nut studs



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	Air consumption	Weight	Scope of delivery	Part no.
FireFox® 1 F with conversion kit for blind rivet nut studs 	 M4 up to M6	approx. 12,000 N at 6 bar	approx. 7.5 mm	5-7 bar (adjustable)	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 145 1106 Basic tool (The tool is delivered without threaded mandrels and nosepieces. Please order the corresponding conversion kit, view page 36)
FireFox® 2 with conversion kit for blind rivet nut studs 	 M4 up to M8	22,000 N at 6 bar	10 mm	5-7 bar (adjustable)	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® 2 145 8096 Basic tool (The tool is delivered without threaded mandrels and nosepieces. Please order the corresponding conversion kit, view page 36)
FireFox® 1 F Axial eco 	 M3 up to M5 M3 up to M6 M3 up to M6	12,000 N at 6 bar	approx. 7.5 mm	5-7 bar (adjustable)	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 145 1103 M4 145 1104 M5 145 8199 M6 145 1105
FireFox® 2 F Axial eco* 	 M3 up to M10 M3 up to M12 M3 up to M12	22,000 N at 6 bar	approx. 10 mm (adjustable)	5-7 bar (adjustable)	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 145 1039 M4 145 1040 M5 145 1041 M6 145 8103 M8 145 1042 M10 145 1043 M12 145 1044


*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

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 Fire-Fox® 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

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 repositied.
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



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.



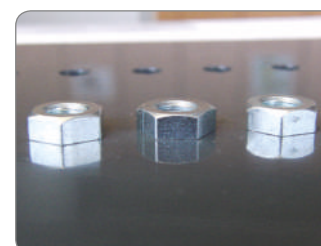
The conversion kit is delivered as a pre-assembled accessory.



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



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



Inserted nut after process has been finished.

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
NOSEPIECES METRICAL DIMENSION								
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
NOSEPIECES UNC/UNF DIMENSION								
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		
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