# ASSEMBLY TOOLS for connecting products



### **PRECISE SOLUTIONS**

### Fast and Easy Assembly



Mubea is an innovative lightweight specialist for high-capacity springs and associated products. As a family-owned company managed by its owner, Mubea has been the market leader in many segments of the automotive industry and a supplier to automotive companies worldwide since 1916.

With more than 15,000 employees at 50 production, development and sales locations worldwide, we are generating a turnover of 2.4 billion euros per year. Our company's growth is based on our global presence and technological innovation.

Supported by optimized design technologies, new materials and state-of-the-art production methods, we create innovative solutions to reduce the weight of vehicles, thus supporting the automotive industry in reducing fuel consumption and emissions sustainably. Mubea sells more than one million connecting products annually worldwide.

#### **Business Unit Spring Band Clamps**

In every vehicle, a number of technical systems are connected by means of hose and spigot. A minor defect in one of those connections may result in the failure of the entire system. High-quality connecting parts help to prevent this.

The Mubea spring band clamp is a self-tensioned connecting part. Due to the use of tempered steel, it is highly flexible and can continually adapt to the changing characteristics of hose and spigot. Having a nearly constant tension force, it guarantees a sealing process without any leakage and damage to the hose and/or spigot. Due to the broad range of different types of spring band clamps and assembly variations, Mubea spring band clamps offer a great variety of applications.

We manufacture our Mubea spring band clamps entirely "in-house" at our production sites in Europe, Asia as well as North and South America (Nafta, Mercosur) where we only use state-of-the-art production facilities comprising high-precision stamping and forming operations as well as hardening and coating processes. Our product range also includes pre-opened spring band clamps.

The quality of our spring band clamps is monitored by CAQ-systems during the entire production process. Mubea is certified according to IATF 16949 and ISO 14001 and is audited at regular intervals.

### Assembly Tools for Spring Band Clamps

At Mubea, customer service starts with understanding the individual needs and requirements of our customers. A special service offered is the sale of tools especially developed for the assembly of spring band clamps and ear clamp.

Mubea assembly tools are designed in accordance with ergonomic aspects, ensuring a fast and safe assembly. Deformations and surface damage to the connecting producs and ear clamp itself during the assembly process are thus avoided. Due to the adaptation to the different dimensions and variations of our connecting products, the use of Mubea assembly tools can save time and offer a maximum of safety. In order to comply with the requirements of the automotive industry, we recommend our customers to use Mubea assembly tools.

### **PRODUCT PORTFOLIO**

Hand Pliers

Mubea hand pliers are all-purpose tools. They can be used for serial production at the assembly line and for fitting and demounting individual spring band clamps.

2 Pneumatic Tools

Mubea pneumatic tools are used for demounting spring band clamps without effort and can be utilized on semi- and fully automated assembly lines.

3. Release Tools

Mubea release tools are used for the easy release of clipless spring band clamps pre-positioned on hose assem-

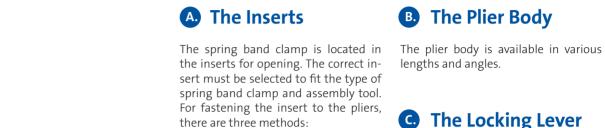




### **THE HAND PLIERS**

B.

Mubea hand pliers are available in different lengths and types. Each kind of spring band clamp has its belonging plier body, locking lever (with bolt), inserts and handles.



• Thread: The inserts can be turned and set as required • O-ring: The inserts can be turned

with slight resistance • Octagon: The inserts can be set in 45° stages

**B** The Plier Body

### **C** The Locking Lever

The locking lever holds the assembly tool without effort in the position of the maximum opening diameter of the spring band clamp.

### **D** The Handles

All hand pliers are fitted with standard plastic-lined handles.



## STANDARD SPRING BAND CLAMPS

8,4 mm wide





can be used for spring band clamp diameters	dn ≤ 13,5 mm
plier length [mm]	190
	order number
hand pliers with threaded insert insert can be turned and set as required	GO 191/0-E131

 $\textbf{note:} \ \text{these pliers are also suitable for low profile spring band clamps} < \text{dn } 18 \ \text{mm}$ 

## STANDARD SPRING BAND CLAMPS

12 mm wide





can be used for spring band clamp diameters	dn 13 - 30 mm	dn 13 - 50 mm	dn 13 - 90 mm
plier length [mm]	190	280	320
		order number	
hand pliers with threaded insert insert can be turned and set as required	GO 191/0-E11	GO 281/0-E11	GO 321/0-E11
hand pliers with O-ring insert insert can be turned with slight resistance	GO 192/0-E12	GO 282/0-E12	GO 322/0-E12
hand pliers with octagonal insert insert can be set in 45° stages	GO 193/0-E13	GO 283/0-E13	GO 323/0-E13

### **STANDARD SPRING BAND CLAMPS**

15 mm wide







can be used for spring band clamp diameters	dn 13 - 30 mm	dn 13 - 50 mm	dn 13 - 90 mm
plier length [mm]	190	280	320
		order number	
hand pliers with threaded insert insert can be turned and set as required	GO 191/0-E21	GO 281/0-E21	GO 321/0-E21
hand pliers with O-ring insert insert can be turned with slight resistance	GO 192/0-E22	GO 282/0-E22	GO 322/0-E22
hand pliers with octagonal insert insert can be set in 45° stages	GO 193/0-E23	GO 283/0-E23	GO 323/0-E23

### **LOW PROFILE SPRING BAND CLAMPS**

12 mm wide





can be used for spring band clamp diameters	dn 13 - 18 mm	dn 13 - 50 mm	dn 13 - 90 mm
plier length [mm]	190	280	320
		order number	
hand pliers with threaded insert insert can be turned and set as required	GO 191/0-E31	GO 291/0-E31	GO 321/0-E31
hand pliers with O-ring insert insert can be turned with slight resistance	GO 192/0-E32-2	GO 292/0-E32-2	GO 322/0-E32-2
hand pliers with octagonal insert insert can be set in 45° stages	GO 193/0-E33	GO 293/0-E33	GO 323/0-E33

### **MAO SPRING BAND CLAMPS**

12 mm wide



### **CLIPLESS PRE-OPENED SPRING BAND CLAMPS**

release tools











insert E61

insert E71

can be used for spring band clamp diameters	dn 13 - 19 mm	dn 13 - 19 mm	dn > 19 mm
plier length [mm]	190	280	280
		order number	
hand pliers with threaded insert insert can be turned and set as required	GO 191/0-E61	GO 281/0-E61	GO 281/0-E71



can be used for spring band clamp diameters	dn 13 - 90 mm
type of tool	release tool
	order number
universal release tool for clipless pre-opened spring band clamps 12 and 15 mm wide	RT210/2/85 006
screwdriver release tool for clipless pre-opened spring band clamps 12 and 15 mm wide	RT189/2/85 001

### **PNEUMATIC TOOLS**

standard spring band clamps



### **PNEUMATIC TOOLS**

low profile spring band clamps





can be used for spring band clamp diameters	dn 25 - 50 mm	dn 25 - 70 mm	dn 20 - 40 mm
width	12 mm	12 mm	15 mm
		order number	
gripping tool	GR 704-E10	1)	GR 704-E10
inliner	1)	ILT 705-E10	ILT 705-E10

<sup>&</sup>lt;sup>1)</sup> This table is for guidence only. We would be pleased to define the appropriate choice with you. Further applications available upon request.



can be used for spring band clamp diameters	dn 13 - 18 mm	dn 19 - 50 mm	dn 19 - 70 mm	dn 20 - 40 mm
width	12 mm	12 mm	12 mm	15 mm
		order r	number	
gripping tool	GR 704-E30	GR 704-E40	1)	1)
inliner	1)	1)	ILT 705-E40	ILT 705-E40

### **SPRING BAND RINGS**

12 mm wide





can be used for spring band clamp diameters	dn 23 - 47 mm
plier length [mm]	280
	order number
hand pliers with threaded insert	GO 281/0-E91

Assembly tools, inserts and connecting products are not necessarily as the pictorial representation.

