MATRIX BLUE CLAMP

Fast and easy clamping!

“Self-molding” in jig-and-fixture design with repeatable accuracy.
The new clamping and mold clamping systems of MATRIX GmbH will revolutionize your workflows in all areas of clamping technology and assembly and replace conventional clamping technology in the long term.

The new clamping systems are perfectly designed for use not only in labs and in metrology, but also in all areas where optimum hold and adaptable mold clamping are required.

As a user, you are responsible for the optimum design of workflows in measurement engineering and production technology.

You know how difficult it can be to clamp work pieces that have complicated geometries. The unique and revolutionary technology of our clamping and holding systems will help you optimize your processes.

The MATRIX clamping systems with their individually movable pins replace high-cost dedicated fixtures and a wide range of molding elements. The MATRIX clamping modules conform quickly to various work piece contours to form a flexible, nested fixture.

MATRIX® is the recipient of the Baden-Württemberg Innovation Award – Dr.-Rudolf-Eberle-Preis –
The **MATRIX** system  
“Self-molding” in jig-and-fixture design with repeatable accuracy

**MATRIX** – Your partner for high-performance holding and clamping systems. To be successful in today’s world, you first need to be flexible. With **MATRIX** you opt for maximum flexibility. The **MATRIX** system has already convinced and won over many well-known companies; ranging from watchmakers to Formula One suppliers.

The idea: the work piece itself forms the support. Like a pin cushion, the pins of the **MATRIX** module adjust to every shape. Simply, quickly, precisely – work pieces can be perfectly held or clamped in position. **MATRIX** has perfected a simple idea and offers an innovative approach to fixturing. With the practical modular system, all **MATRIX** modules can be combined with each other.

In conjunction with adapters, angle connectors, cone and prism supports, the pin modules can be optimally adapted to every shape.

How you benefit: flexible, cost-effective, universal in use, expandable.

Based on years of experience with our customers, our complete set for various applications are very popular in the market. Users in the area of jig-and-fixture design have a complete range of products to choose from. All accessories can, of course, be ordered separately and used with all versions. This allows you to customize the system to the task at hand. Today and tomorrow.

The basic principle: Pin cushion
MATRIX Stößel halten eine Turbinenschaufel
Turbine blades and other complex parts need to be held securely in position during machining or measuring, which is often impossible with conventional systems. With its ingenious system, MATRIX offers a universal solution that is modular, adaptable and easy to use.

If measuring the turbine blades is a requirement, which it is, the next question is how to hold these geometrically complex parts, which vary from part to part, in place in order to work unobstructed? The answer is provided by the clever supporting, holding and clamping system that has been developed by MATRIX. As a system, it has been designed to replace conventional, expensive and inflexible clamping systems.

Matrix rigging together from miscellaneous parts are now a thing of the past. The system’s structural design is ingenious. Individually manufactured pins of stainless steel generate a light resistance. The molded jaws are formed within seconds by the work piece itself and locked in position with a single movement of a lever.

The user then has a part-specific support almost instantly. If a new mold is required, the initial position can be restored by releasing the locating screw. Because the clamping system consists of various modules and since these can be combined in any way with one another, the system is extremely versatile. Pre-assembled sets are available for fast deployment and already cover a comprehensive array of applications.

Matrix X-Support XL is a simple and quick-action form clamping system, which is perfectly suited for use on parts with varying geometries.
Holding, clamping, supporting of parts with complex shapes – such as cast housings – without using force

Due to the wide range of available components, the clamping system is a fit for every task. Sets can, for example, comprise of the X-Support-XL module in a 90-degree housing with 67 pins, each of which is 6 mm in diameter and has a 21 mm pin stroke. A T-slot profile plate is used as a base. Added to this are connectors, base plates, adapters, horizontal clamps, pressure pads and numerous other components.

Handling and maintenance of the MATRIX clamping system is very simple and fast, which is important in measuring labs and on the shop floor. Consequently, the components are also provided in a clearly structured, well assorted case. Since the clamping components only consist of the holder with the clamping pins and a the clamping force is achieved by turning a hand lever or Allen wrench, the system remains virtually free of wear. Pressure spots on the work pieces are non-existent because of the form fit. The pins, which cradle the work piece, are made of stainless steel and the modules are made of aluminum alloy. The result: a high degree of stability combined with low intrinsic weight and maintenance free.

The advantages of the MATRIX “BLUE CLAMP” clamping systems at a glance:

- Optimum holding of complex work pieces.
- Very fast, true-to-contour holding of the work piece.
- No need to stock separate work piece supports.
- Up to 80% cost reduction in jig-and-fixture construction.
- Individual, multi-purpose and modular system.
- Easy handling and storing in the MATRIX® case.
MATRIX X-SUPPORT XL from Andreas STIHL AG + Co. KG
**MATRIX BLUE CLAMP**

Overview of the modular systems

**MATRIX replaces cost-intensive special-purpose jigs**

Special emphasis is put on the development of the pin and function modules which are combined into effective modular sets. All components of these modular systems are multifunctional and compatible. The number of individual modules is purposely kept small. The present range with only a few modules achieves the objective quickly and cost-effectively.

The following systems are available:

**X-SUPPORT**

<table>
<thead>
<tr>
<th>Module</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-SUPPORT XL</td>
<td>12</td>
</tr>
<tr>
<td>X-SUPPORT XL LIGHT</td>
<td>16</td>
</tr>
<tr>
<td>X-SUPPORT SXS</td>
<td>20</td>
</tr>
<tr>
<td>X-SUPPORT XS</td>
<td>25</td>
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</tbody>
</table>

**X-GRIP**

<table>
<thead>
<tr>
<th>Module</th>
<th>Page</th>
</tr>
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<tbody>
<tr>
<td>X-GRIP XL</td>
<td>27</td>
</tr>
<tr>
<td>X-GRIP XS</td>
<td>28</td>
</tr>
<tr>
<td>X-GRIP XS LIGHT</td>
<td>33</td>
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</table>

**ACCESSORY**

<table>
<thead>
<tr>
<th>Module</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>X-SUPPORT PROFIL</td>
<td>36</td>
</tr>
<tr>
<td>X-SHIFT</td>
<td>39</td>
</tr>
<tr>
<td>X-TABLE</td>
<td>41</td>
</tr>
<tr>
<td>X-GRID / X-SUPPORT OPTIONAL</td>
<td>42</td>
</tr>
</tbody>
</table>

**ADDITIONAL INFORMATION**

- Pin Versions
- More MATRIX
- MATRIX interfaces
**X-SUPPORT XL** – As specialist for complicated plastic, cast and car body parts, X-SUPPORT XL is especially suited for use with measuring equipment and in assembly facilities. – The perfect solution!

The modular system consists of the following individual components:

<table>
<thead>
<tr>
<th>Modules</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Size and information:</th>
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</thead>
<tbody>
<tr>
<td>X-SUPPORT XL Modul</td>
<td>0050.6724</td>
<td>2 x</td>
<td>X-SUPPORT XL Modul</td>
<td>Dimension: 50 x 100 x 75 mm, Pin field: approx. 79 x 30 mm,</td>
</tr>
<tr>
<td></td>
<td>0050.6726</td>
<td>2 x</td>
<td>Connector housing</td>
<td>Number of pins: 67 pieces, Pin diameter: 6 mm,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pin stroke: 21 mm</td>
</tr>
<tr>
<td>X-SUPPORT XL Modul</td>
<td>0050.3124</td>
<td>2 x</td>
<td>X-SUPPORT XL Modul</td>
<td>Dimension: 50 x 50 x 75 mm, Pin field: approx. 37 x 30 mm,</td>
</tr>
<tr>
<td></td>
<td>0050.3126</td>
<td>2 x</td>
<td>Connector housing</td>
<td>Number of pins: 31 pieces, Pin diameter: 6 mm,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pin stroke: 21 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>0050.3127</td>
<td>2 x</td>
<td>Connector</td>
<td>0050.6727 2 x Connector</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25 x 50 x 50 mm</td>
<td>25 x 50 x 100 mm</td>
</tr>
<tr>
<td>Base plate</td>
<td>0050.3128</td>
<td>2 x</td>
<td>Base plate</td>
<td>0050.6728 2 x Base plate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 x 50 x 100 mm</td>
<td>10 x 100 x 100 mm</td>
</tr>
</tbody>
</table>
### Components

<table>
<thead>
<tr>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
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<td>6 x</td>
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<tr>
<td>Horizontal clamp</td>
<td>0050.3129</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Angle 30°</td>
<td>0050.3130</td>
<td>2 x</td>
<td>50 x 50 mm</td>
</tr>
<tr>
<td>Adapter</td>
<td>0050.3140</td>
<td>2 x</td>
<td>40 x 50 x 50 mm</td>
</tr>
<tr>
<td>Adapter</td>
<td>0050.3141</td>
<td>1 x</td>
<td>for pressure pad</td>
</tr>
<tr>
<td>Joint</td>
<td>0050.3150</td>
<td>2 x</td>
<td>50 x 50 x 50 mm</td>
</tr>
<tr>
<td>Component</td>
<td>0050.3115</td>
<td>2 x</td>
<td>50 x 50 x 50 mm</td>
</tr>
<tr>
<td>Adapter</td>
<td>0050.6725</td>
<td>4 x</td>
<td>25 x 50 x 100 mm</td>
</tr>
<tr>
<td>Angle 30°</td>
<td>0050.6730</td>
<td>2 x</td>
<td>50 x 100 mm</td>
</tr>
<tr>
<td>Double angle 30°</td>
<td>0050.6732</td>
<td>1 x</td>
<td>50 x 100 mm</td>
</tr>
<tr>
<td>Bow-type handles</td>
<td>0900.3620</td>
<td>2 x</td>
<td></td>
</tr>
<tr>
<td>Horizontal clamp</td>
<td>0050.6740</td>
<td>2 x</td>
<td>40 x 50 x 100 mm</td>
</tr>
<tr>
<td>Adapter</td>
<td>0050.6750</td>
<td>2 x</td>
<td>50 x 100 x 100 mm</td>
</tr>
<tr>
<td>Pressure pad</td>
<td>0050.3115</td>
<td>2 x</td>
<td>120 mm</td>
</tr>
<tr>
<td>Pressure pad</td>
<td>0050.3116</td>
<td>2 x</td>
<td>200 mm</td>
</tr>
<tr>
<td>Stop and adjusting ring</td>
<td>0050.3117</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Extension set</td>
<td>0050.3118</td>
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<td></td>
</tr>
<tr>
<td>Cone support</td>
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<tr>
<td>Prism support</td>
<td>0900.4002</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Set of fastening parts</td>
<td>0900.2501</td>
<td>1 Set = 8 Pieces</td>
<td></td>
</tr>
<tr>
<td>Connector</td>
<td>0900.2500</td>
<td>1 Set = 2 Pieces</td>
<td></td>
</tr>
<tr>
<td>Gripper pads</td>
<td>0900.0501</td>
<td>3 x</td>
<td></td>
</tr>
<tr>
<td>T-slot profile plate</td>
<td>0900.0500</td>
<td>2 x</td>
<td>Dimension: 375 x 500 x 20 mm Slot width: 8 mm</td>
</tr>
<tr>
<td>Screwdriver</td>
<td>0900.0000</td>
<td>1 x</td>
<td></td>
</tr>
</tbody>
</table>

Delivery in MATRIX case (order number 0900.9000)
**X-SUPPORT XL LIGHT** – Smaller version of the X-SUPPORT XL also for heavy loads and medium-sized work pieces.

The modular system consists of the following individual components:

<table>
<thead>
<tr>
<th>Modules</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Size and information:</th>
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<tbody>
<tr>
<td></td>
<td>0050.6724</td>
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<td>X-SUPPORT XL Modul</td>
<td>Dimension: 50 x 100 x 75 mm, Pin field: approx. 79 x 30 mm, Number of pins: 67 pieces, Pin diameter: 6 mm, Pin stroke: 21 mm</td>
</tr>
<tr>
<td></td>
<td>0050.6726</td>
<td>1 x</td>
<td>Connector housing</td>
<td>50 x 100 x 25 mm</td>
</tr>
<tr>
<td></td>
<td>0050.3124</td>
<td>2 x</td>
<td>X-SUPPORT XL Modul</td>
<td>Dimension: 50 x 50 x 75 mm, Pin field: approx. 37 x 30 mm, Number of pins: 31 pieces, Pin diameter: 6 mm, Pin stroke: 21 mm</td>
</tr>
<tr>
<td></td>
<td>0050.3126</td>
<td>2 x</td>
<td>Connector housing</td>
<td>50 x 50 x 25 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>0050.3127</td>
<td>2 x</td>
<td>Connector 25 x 50 x 50 mm</td>
<td></td>
<td>0050.6727</td>
<td>1 x</td>
<td>Connector 25 x 50 x 100 mm</td>
</tr>
<tr>
<td></td>
<td>0050.3128</td>
<td>2 x</td>
<td>Base plate 10 x 50 x 100 mm</td>
<td></td>
<td>0050.6728</td>
<td>1 x</td>
<td>Base plate 10 x 100 x 100 mm</td>
</tr>
<tr>
<td>Components</td>
<td>Article no.</td>
<td>Quantity</td>
<td>Description</td>
<td>Components</td>
<td>Article no.</td>
<td>Quantity</td>
<td>Description</td>
</tr>
<tr>
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<td>------------------------------------</td>
</tr>
<tr>
<td></td>
<td>0050.3125</td>
<td>2 x</td>
<td>Adapter</td>
<td></td>
<td>0050.3115</td>
<td>1 x</td>
<td>Pressure pad</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>25 x 50 x 50 mm</td>
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<td>120 mm</td>
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<td></td>
<td>0050.3130</td>
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<td></td>
<td></td>
<td>200 mm</td>
</tr>
<tr>
<td></td>
<td>0050.3140</td>
<td>2 x</td>
<td>Adapter</td>
<td></td>
<td>0050.3141</td>
<td>1 x</td>
<td>Adapter for pressure pad</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>40 x 50 x 50 mm</td>
<td></td>
<td></td>
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<td>40 x 50 x 50 mm</td>
</tr>
<tr>
<td></td>
<td>0050.6725</td>
<td>2 x</td>
<td>Adapter</td>
<td></td>
<td>0050.3150</td>
<td>1 x</td>
<td>Joint</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>50 x 50 x 50 mm</td>
</tr>
<tr>
<td></td>
<td>0900.0501</td>
<td>3 x</td>
<td>Gripper pads</td>
<td></td>
<td>0900.2501</td>
<td>1 Set = 8 Pieces</td>
<td>Set of fastening parts</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0900.3620</td>
<td>2 x</td>
<td>Bow-type handles</td>
<td></td>
<td>0900.0500</td>
<td>1 x</td>
<td>T-slot profile plate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td>Slot width:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8 mm</td>
</tr>
<tr>
<td></td>
<td>0900.0000</td>
<td>1 x</td>
<td>Screwdriver</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
X-SUPPORT SXS – If the interfering contour needs to be kept particularly small, the X-Support SXS is the ideal choice. Despite its small footprint, complex work pieces can be held securely. – Impressive diversity!

The modular system consists of the following individual components:

### Modules

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Size and information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.1237</td>
<td>4 x</td>
<td>X-SUPPORT SXS Modul</td>
<td>Dimension: ø 26 mm, Number of pins: 37 Pieces, Pin diameter: 2,5 mm, Pin stroke: 12 mm</td>
</tr>
</tbody>
</table>

### Components

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.1227</td>
<td>4 x</td>
<td>Connector 25 x ø 26 mm</td>
</tr>
<tr>
<td>0050.1228</td>
<td>4 x</td>
<td>Base plate 65 x 28 x 10 mm</td>
</tr>
<tr>
<td>0050.1225</td>
<td>4 x</td>
<td>Adapter 25 x ø 26 mm</td>
</tr>
<tr>
<td>0900.0501</td>
<td>3 x</td>
<td>Gripper pads</td>
</tr>
<tr>
<td>0900.2500</td>
<td>1 Set = 2 Pieces</td>
<td>Connector</td>
</tr>
<tr>
<td>0050.1216</td>
<td>1 x</td>
<td>Pressure pad ø 26 mm</td>
</tr>
<tr>
<td>Article no.</td>
<td>Quantity</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>0050.1229</td>
<td>1 x</td>
<td>Horizontal clamp</td>
</tr>
<tr>
<td>0050.1230</td>
<td>4 x</td>
<td>Angle, infinitely variable ø 26 mm</td>
</tr>
<tr>
<td>0050.1232</td>
<td>1 x</td>
<td>Double angle 30°</td>
</tr>
<tr>
<td>0050.1233</td>
<td>1 x</td>
<td>Triple angle 30°</td>
</tr>
<tr>
<td>0050.1240</td>
<td>4 x</td>
<td>Adapter 40 x ø 26 mm</td>
</tr>
<tr>
<td>0050.1243</td>
<td>1 x</td>
<td>Stepless height-adjustable module (15 mm) ø 26 mm</td>
</tr>
<tr>
<td>0050.1250</td>
<td>4 x</td>
<td>Adapter 50 X ø 26 mm</td>
</tr>
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<td>0050.1251</td>
<td>1 x</td>
<td>Components for use 50 x ø 26 mm</td>
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<td>0050.1252</td>
<td>4 x</td>
<td>Joint 90°</td>
</tr>
<tr>
<td>0900.0500</td>
<td>2 x</td>
<td>T-slot profile plate Dimension: 375 x 500 x 20 mm Slot width: 8 mm</td>
</tr>
<tr>
<td>0900.0000</td>
<td>1 x</td>
<td>Screwdriver</td>
</tr>
<tr>
<td>0900.0501</td>
<td>1 x</td>
<td>Set = 8 Pieces Set of fastening parts</td>
</tr>
<tr>
<td>0900.3620</td>
<td>2 x</td>
<td>Bow-type handles</td>
</tr>
<tr>
<td>0900.3115</td>
<td>1 x</td>
<td>Pressure pad 120 mm</td>
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<tr>
<td>0900.3116</td>
<td>2 x</td>
<td>Pressure pad 200 mm</td>
</tr>
<tr>
<td>0900.3117</td>
<td>1 x</td>
<td>Stop</td>
</tr>
<tr>
<td>0900.4001</td>
<td>1 x</td>
<td>Cone insert 90°</td>
</tr>
<tr>
<td>0900.4002</td>
<td>1 x</td>
<td>Prism insert 90°</td>
</tr>
<tr>
<td>0900.4003</td>
<td>1 x</td>
<td>Single pin insert Pin diameter: 5 mm, Hub: 19 mm</td>
</tr>
<tr>
<td>0900.0500</td>
<td>2 x</td>
<td>T-slot profile plate Dimension: 375 x 500 x 20 mm Slot width: 8 mm</td>
</tr>
<tr>
<td>0900.3116</td>
<td>2 x</td>
<td>Pressure pad 200 mm</td>
</tr>
<tr>
<td>0900.3117</td>
<td>1 x</td>
<td>Stop</td>
</tr>
<tr>
<td>0900.4001</td>
<td>1 x</td>
<td>Cone insert 90°</td>
</tr>
<tr>
<td>0900.4002</td>
<td>1 x</td>
<td>Prism insert 90°</td>
</tr>
<tr>
<td>0900.4003</td>
<td>1 x</td>
<td>Single pin insert Pin diameter: 5 mm, Hub: 19 mm</td>
</tr>
<tr>
<td>0900.0500</td>
<td>2 x</td>
<td>T-slot profile plate Dimension: 375 x 500 x 20 mm Slot width: 8 mm</td>
</tr>
<tr>
<td>0900.0000</td>
<td>1 x</td>
<td>Screwdriver</td>
</tr>
</tbody>
</table>
X-SUPPORT XS – As support specialist for consistently changing parts, X-SUPPORT XS has a proven track record in the advertising/promotional materials industry as well as in metrology.

The modular system consists of the following individual components:

<table>
<thead>
<tr>
<th>Modules</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Size and information:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0050.1423</td>
<td>2 x</td>
<td>X-SUPPORT XS Modul</td>
<td>Dimension: 50 x 50 x 58 mm, Pin field: approx. 39 x 29 mm, Number of pins: 142 pieces, Pin diameter: 2,5 mm, Pin stroke: 12 mm</td>
</tr>
<tr>
<td></td>
<td>0050.3126</td>
<td>2 x</td>
<td>Connector</td>
<td>25 x 50 x 50 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0050.3127</td>
<td>2 x</td>
<td>Connector</td>
<td>25 x 50 x 50 mm</td>
<td>0050.1425</td>
<td>2 x</td>
<td>Pressure pad</td>
</tr>
<tr>
<td></td>
<td>0050.3128</td>
<td>2 x</td>
<td>Base plate</td>
<td>10 x 50 x 100 mm</td>
<td>0900.2501</td>
<td>1 Set = 8 Pieces</td>
<td>Set of fastening parts</td>
</tr>
<tr>
<td></td>
<td>0900.0200</td>
<td>1 x</td>
<td>T-slot profile plate</td>
<td>Dimension: 250 x 200 x 20 mm Slot width: 8 mm</td>
<td>0900.0000</td>
<td>1 x</td>
<td>Screwdriver</td>
</tr>
</tbody>
</table>

Delivery in MATRIX case (order number 0900.9000)
X-GRIP XL – The variable clamping width is a special feature of the X-GRIP XL. This is limited only by the length of the T-slot profile plate on which the two jaws can be moved in a stepless fashion.

The modular system consists of the following individual components:

### Modules

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Size and information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.6224</td>
<td>1 x</td>
<td>X-GRIP XL Modul fixed jaws</td>
<td>Dimension: 100 x 100 mm, Pin field: approx. 79 x 30 mm, Number of pins: 67 pieces, Pin diameter: 6 mm, Pin stroke: 21 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X-GRIP Modul movable jaws</td>
<td>Dimension: 150 x 100 mm, Pin field: approx. 79 x 30 mm, Number of pins: 67 pieces, Pin diameter: 6 mm, Pin stroke: 21 mm</td>
</tr>
</tbody>
</table>

### Components

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.6727</td>
<td>2 x</td>
<td>Connector 25 x 50 x 100 mm</td>
<td></td>
<td>0900.0501</td>
<td>3 x</td>
<td>Gripper pads</td>
</tr>
<tr>
<td>0050.7150</td>
<td>2 x</td>
<td>Base plate 10 x 50 x 150 mm</td>
<td></td>
<td>0900.2501</td>
<td>1 Set = 8 Pieces</td>
<td>Set of fastening parts</td>
</tr>
<tr>
<td>0900.0500</td>
<td>1 x</td>
<td>T-slot profile plate 375 x 500 x 20 mm Slot width: 8 mm</td>
<td></td>
<td>0900.0000</td>
<td>1 x</td>
<td>Screwdriver</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0900.3620</td>
<td>2 x</td>
<td>Bow-type handles</td>
</tr>
</tbody>
</table>

Delivery in MATRIX case (order number 0900.9000)
**X-GRIP XS** – Position your work piece exactly as you want it... With its stepless angle joint, the X-GRIP XS can be tilted up to 360° and brought into the optimum working position.

The modular system consists of the following individual components:

### Modules

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Size and information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.5812</td>
<td>1 x</td>
<td>X-GRIP XS modul set</td>
<td>Dimension: 38 x 250 mm, Number of pins per jaw: 58 pieces, Pin diameter: 2,5 mm, Pin stroke: 12 mm, Pin field: approx. 20 x 23 mm</td>
</tr>
<tr>
<td>0050.5816</td>
<td>1 x</td>
<td>Additional top jaws</td>
<td>Dimension: 38 x 250 mm, Number of pins per jaw: 58 pieces, Pin diameter: 2,5 mm, Pin stroke: 12 mm, Pin field: approx. 20 x 23 mm</td>
</tr>
</tbody>
</table>

### Components

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.3128</td>
<td>2 x</td>
<td>Base plate 10 x 50 x 100 mm</td>
<td>0050.6727</td>
<td>1 x</td>
<td>Connector 25 x 50 x 100 mm</td>
<td></td>
</tr>
<tr>
<td>0050.3127</td>
<td>2 x</td>
<td>Connector 25 x 50 x 50 mm</td>
<td>0050.6728</td>
<td>1 x</td>
<td>Base plate 10 x 100 x 100 mm</td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Article no.</td>
<td>Quantity</td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>----------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T-slot profile plate</td>
<td>0900.3620</td>
<td>2 x Bow-type handles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900.0500</td>
<td>6 x Gripper pads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900.0501</td>
<td>3 x Gripper pads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900.0502</td>
<td>6 x Gripper pads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0050.5867</td>
<td>1 x Guide rail for movable jaws 100 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0050.5831</td>
<td>2 x Guide rail for fixed jaws 50 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900.5000</td>
<td>1 x Screwdriver</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dimension:** 375 x 500 x 20 mm
**Slot width:** 8 mm

**Set of fastening parts:**

- 0900.2501 | 1 Set = 8 Pieces
- 0050.1230 | 1 x Angle, infinitely variable ø 26 mm
- 0050.6725 | 1 x Adapter 25 x 50 x 100 mm
- 0050.3125 | 2 x Adapter 25 x 50 x 50 mm
- 0050.3150 | 3 x Joint 50 x 50 x 50 mm
- 0050.5826 | 1 Set = 3 Pieces
- 0900.0000 | 1 x Angle, infinitely variable ø 26 mm
X-GRIP XS LIGHT – Perfect stability even for smaller work pieces through optimum form fit. Due to its small footprint, the X-GRIP XS can be mounted even in small CMMs.

The modular system consists of the following individual components:

<table>
<thead>
<tr>
<th>Modules</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Size and information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.5812</td>
<td>1 x</td>
<td>X-GRIP XS modul set</td>
<td></td>
<td>Dimension: 38 x 250 mm, Number of pins per jaw: 58 pieces, Pin diameter: 2,5 mm, Pin stroke: 12 mm, Pin field: approx. 20 x 23 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.5825</td>
<td>1 Set = 2 Pieces</td>
<td>Adapters 25 x 50 x 50 mm + 25 x 50 x 70 mm</td>
<td></td>
<td>0900.0502</td>
<td>2 x</td>
<td>Gripper pads</td>
<td></td>
</tr>
<tr>
<td>0900.2501</td>
<td>1 Set = 8 Pieces</td>
<td>Set of fastening parts</td>
<td></td>
<td>0900.0200</td>
<td>1 x</td>
<td>T-slot profile plate Dimension: 250 x 200 x 20 mm Slot width: 8 mm</td>
<td></td>
</tr>
<tr>
<td>0900.0000</td>
<td>1 x</td>
<td>Screwdriver</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Delivery in MATRIX case (order number 0900.0000)
BLUE CLAMP – Equipment and accessories

Overview of the MATRIX profile systems:

Ideal for car bodywork – the MATRIX systems in combination with aluminium profiles allow larger and more complex jigs and fixtures. Convenient: after use these jigs can be dismantled and stored more compact. This saves storage costs.

Your benefits:
- Very short assembly times
- Easy access during measuring
- Stepless adjustment with all MATRIX modules
- You can react to measurement orders quickly and flexibly with the MATRIX profile system, especially in car body and door production.

Proven profile systems from MATRIX:

- X-SUPPORT PROFIL Page 36
- X-SHIFT Page 39
- X-TABLE Page 41

Both systems are fully compatible with the MATRIX BLUE CLAMP modular systems and their modules:

Proven MATRIX connections between the module and the profile systems allow very short set-up times.
**X-SUPPORT PROFIL** – Especially in car body and door assembly, your metrology lab can react quickly to job orders when using the MATRIX profile system.

The modular system consists of the following individual components:

<table>
<thead>
<tr>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0800.0250</td>
<td>10 x</td>
<td>Profile 50 x 50 x 250 mm</td>
<td></td>
<td>0800.0400</td>
<td>10 x</td>
<td>Profile 50 x 50 x 400 mm</td>
</tr>
<tr>
<td></td>
<td>Fig. 1</td>
<td></td>
<td></td>
<td></td>
<td>Fig. 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0800.0500</td>
<td>10 x</td>
<td>Profile 50 x 50 x 500 mm</td>
<td></td>
<td>0800.6702</td>
<td>4 x</td>
<td>Swivel pad including angle</td>
</tr>
<tr>
<td></td>
<td>Fig. 10</td>
<td></td>
<td></td>
<td></td>
<td>0800.3526</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fig. 6</td>
<td></td>
<td></td>
<td></td>
<td>0800.3517</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fig. 7</td>
<td></td>
<td></td>
<td></td>
<td>0800.3517</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0050.6727</td>
<td>4 x</td>
<td>Plate with connector</td>
<td></td>
<td>0800.3127</td>
<td>4 x</td>
<td>Plate with connector</td>
</tr>
<tr>
<td></td>
<td>Fig. 2</td>
<td></td>
<td></td>
<td></td>
<td>0050.3126</td>
<td></td>
<td>connector, quick connectors</td>
</tr>
<tr>
<td></td>
<td>0050.7150</td>
<td></td>
<td></td>
<td></td>
<td>0050.3127</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fig. 3</td>
<td></td>
<td></td>
<td></td>
<td>0050.3128</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0800.3128</td>
<td></td>
<td></td>
<td></td>
<td>0800.3517</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fig. 5</td>
<td></td>
<td></td>
<td></td>
<td>0800.3517</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0800.3517</td>
<td></td>
<td></td>
<td></td>
<td>0800.3517</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Components

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800.3566</td>
<td>20 x</td>
<td>Cover cap 50 x 50 mm</td>
<td>0800.3701</td>
<td>4 x</td>
<td>Joint stepless ±90°</td>
</tr>
<tr>
<td>0800.3714</td>
<td>4 x</td>
<td>Base plate joint</td>
<td>0800.3510</td>
<td>10 x</td>
<td>Extension + connector</td>
</tr>
<tr>
<td>0800.3646</td>
<td>4 x</td>
<td>Base plate profile</td>
<td>0800.3517</td>
<td>20 x</td>
<td>Round-head connector</td>
</tr>
<tr>
<td>0800.3597</td>
<td>6 x</td>
<td>Angle large 100 x 100 x 30 mm</td>
<td>0800.3501</td>
<td>10 x</td>
<td>Threaded connector</td>
</tr>
<tr>
<td>0800.3594</td>
<td>10 x</td>
<td>Angle small 48 x 48 x 30 mm</td>
<td>0900.2554</td>
<td>54 x</td>
<td>Fastening kit 24 x pre-assembled</td>
</tr>
<tr>
<td>0800.3701</td>
<td>4 x</td>
<td>Joint stepless ±90°</td>
<td>0800.3501</td>
<td>10 x</td>
<td>Threaded connector</td>
</tr>
</tbody>
</table>

### Application example

Prior to assembly

Assembled

![Application example image](image-url)
In frame-and-body construction the X-SHIFT profile system is used to hold large parts in position to measure back panel flaps, bonnets or side panels. The distance between the two upright elements can be adjusted to the various workpiece sizes by sliding the carriage in the appropriate position. The high-strength aluminum profiles are supplemented with MATRIX X-SUPPORT components from the BLUE CLAMP series. The dimensions of the X-SHIFT: 2700 x 800 x 1850 mm.
X-TABLE Order number: 0400.1200 or 0400.1500

MATRIX X-TABLE Profile System

The X-TABLE is a roller table that is matched to the BLUE CLAMP series and its angle of incline can be variably adjusted. It is available in two sizes:

- 1200 x 750 mm H 910 mm
- 1500 x 750 mm H 910 mm

The table can be set up comfortably in horizontal position and then inclined for an optimum measuring position (vehicle position 1 and 2). Lifting rollers are used to lift the table from the leveling feet and move it easily.
The X-GRID plate is the perfect combination of grid and T-slot support. The parts can be set up in a reproducible manner without sacrificing slot flexibility.

The modular system consists of the following individual components:

<table>
<thead>
<tr>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add-ons (to be ordered separately)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0900.9219</td>
<td>Magnetic base</td>
<td>1 x</td>
<td>Holding force ~ 700N</td>
</tr>
<tr>
<td>0700.5001</td>
<td>Adapter ø 12 mm</td>
<td>1 x</td>
<td>for hole-matrix jigs</td>
</tr>
<tr>
<td>0700.5002</td>
<td>Adapter ø 20 mm</td>
<td>1 x</td>
<td>for hole-matrix jigs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Article no.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0050.1244</td>
<td>Connector 40 x ø 26 mm</td>
<td>4 x</td>
<td></td>
</tr>
<tr>
<td>0050.1245</td>
<td>Connection pin</td>
<td>4 x</td>
<td></td>
</tr>
<tr>
<td>0900.0000</td>
<td>Screwdriver</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>0900.0505</td>
<td>Base plate: 375 x 500 x 20 mm, Slot width: 8 mm, Grid width: 50 x 50 mm, Thread insert: M6, With 63 positions</td>
<td>1 x</td>
<td></td>
</tr>
</tbody>
</table>
For the MATRIX BLUE CLAMP product series, simple operation and handling of the work piece are key aspects, however, the option of use in customized solutions that adapt to the size and surface properties of the work pieces was squarely kept in view. Special pin types have been designed for unusual applications. Every requirement for individual and industry-specific requirements can be met.

For use in CT analyses, the pins of the BLUE CLAMP system are also available in plastic (2+3) of high quality PEEK. As a result, the system is pervious to radiation, non-ageing and compatible. In cases of very sensitive parts (painted surfaces), the variant with plastic pins (1) has proven to be very effective as well. For use of the BLUE CLAMP series in very robust assembly work, specially manufactured variants of high-strength steel (4) are used.
More MATRIX
One system for all applications

1 MATRIX MINI CLAMP systems:
ideal for fine mechanics and micro-
electronics.

The range of applications of the BLUE CLAMP series has been widened by the MINI CLAMP modular system. Filigree small parts used in micromechanics and microelectronics, in particular, can be precisely formed in a blink of an eye. Work that previously required lengthy milled or otherwise contoured supports, can now be completed in a matter of seconds.

For more information refer to our MINI Clamp brochure or go to:
www.matrix-innovations.com/mini-clamp

2 MATRIX SILVER CLAMP systems:
ideal when high levels of stress are involved.

The sturdy MATRIX SILVER CLAMP series is the right option for machining technology. These series allow you to work and machine differently shaped parts and parts with complicated geometries. These systems are used primarily in the rework stage in additive manufacturing and in classic prototype engineering.

For more information refer to our SILVER CLAMP brochure or go to:
www.matrix-innovations.com/silver-clamp

MATRIX interfaces
Versatile – also for third-party systems

MATRIX systems are not only strong as an adaptable fixture, but can also be used as support and connection elements in combination with existing jigs – a simple and economical add-on.

Simple handling. Always compatible. Different assemblies for work pieces of various shapes and sizes can be assembled with all MATRIX systems. Simply and quickly, using only a single tool.
MATRIX® GmbH Stuttgart
Clamping Systems & Production Automation

Felix-Wankel-Straße 6
73760 Ostfildern | Germany

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