The 3Ruler ruler system

The 3Ruler ruler system has been developed for clamping medium-sized and large workpieces in machines with a parallel or U-shaped machine table, as well as for machines with a frame table. The rulers, which have built-in height adjustment, are used singly or in pairs.

With the aid of 3Ruler, rectangular or round workpieces, lightweight or heavy, large or small, are located on the machine zero line, without risk of collision. A comprehensive range of accessories gives an unsurpassed range of applications.

+ Machine-adapted ruler lengths
+ Repeatable accuracy with the aid of reference elements
+ Stable mounting of large workpieces
+ A broad range of accessories gives great flexibility

3Ruler, 3R-239-XXX
The rulers are available in various lengths (-XXX), to match different machines. The cross-section is matched to the length to ensure optimal stability.

<table>
<thead>
<tr>
<th>XXX = length (mm)</th>
<th>&lt;370</th>
<th>371-544</th>
<th>545-645</th>
<th>646-950</th>
<th>951-1600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (mm)</td>
<td>45</td>
<td>60</td>
<td>60 or 86*</td>
<td>86</td>
<td>86</td>
</tr>
<tr>
<td>Height (mm)</td>
<td>30</td>
<td>30</td>
<td>36</td>
<td>36</td>
<td>50</td>
</tr>
<tr>
<td>Eccentric stops supplied</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Quick fasteners supplied</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Zero line tabs supplied</td>
<td>2 or 3*</td>
<td>3</td>
<td>3</td>
<td>5*</td>
<td></td>
</tr>
<tr>
<td>5 mm tabs supplied</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3*</td>
</tr>
<tr>
<td>Clamps supplied</td>
<td>2</td>
<td>2 or 3*</td>
<td>3</td>
<td>5*</td>
<td></td>
</tr>
</tbody>
</table>

Note: Upon request – Ruler length up to 1600 mm can be produced

3Ruler, double-sided, 3R-239-XXX-D
Double-sided rulers are available in various lengths (-XXX), to match different machines. The cross-section is matched to the length to ensure optimal stability. With these rulers, accessories can be clamped on both sides of the ruler.

<table>
<thead>
<tr>
<th>XXX = length (mm)</th>
<th>&lt;370</th>
<th>371-595</th>
<th>596-950</th>
<th>&gt;951</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (mm)</td>
<td>45</td>
<td>60</td>
<td>86</td>
<td>86</td>
</tr>
<tr>
<td>Height (mm)</td>
<td>30</td>
<td>30</td>
<td>36</td>
<td>56</td>
</tr>
<tr>
<td>Eccentric stops supplied</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Quick fasteners supplied</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Zero line tabs supplied</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5 mm tabs supplied</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Clamps supplied</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>

*Always ask. See also the 3Ruler guides for your machine on – www.system3R.com
System 3R Basic equipment: for rigid, stable & accurate clamping of work pieces

**Reference element WEDM**
By fitting the machine table with a reference element, you can obtain fixed references in all three directions – One Minute set-up.

- Exceptional flexibility
- Accurately ground-in references
- Repeatable accuracy
- Double-sided parallel references
- Fits all machine tables with 25 or 50 mm pitch.

**3Ruler**
Permits everything from small to large, heavy workpieces to be located on the machine zero line without any risk of collision.

Built-in height adjustment on Rulers from length 385 mm

5-mm (0.96-in) tabs for positioning workpieces 5 mm above machine zero line.

Eccentric stop, movable along the ruler in steps of 20 mm (0.78 in)

Zero line tabs for optimum positioning along the ruler in steps of 40 mm (1.57 in)

Quick-fasteners permits simple fitting/removal of ruler.

Clearance for wire between workpiece and ruler.
The 3Ruler ruler system

Ruler vice, 3R-239.1
Movable jaws of SuperVice design provide a wide clamping range for rectangular workpieces. Detachable Z-support tabs ensure simple setting-up.
- Recommended maximum workpiece weight with one vice: 15 kg
- Recommended maximum workpiece weight with two vices: 200 kg
- Tightening torque 8 Nm
- Weight 0.7 kg.

Low-profile holder, 3R-239.2
For clamping thin workpieces.
- Clamping range 0-27 mm
- Supplied in sets of 4
- Weight per set 0.6 kg.

Vee holder, 3R-239.3
For clamping round workpieces. To be mounted on ruler or holder 3R-237.2, 3R-292.66HP or 3R-239-XXX.
- Clamping range Ø25-300 mm
- Weight 0.9 kg.
The 3Ruler ruler system

**Double ruler vice, 3R-239.11**
Movable jaws for mounting two rectangular workpieces at the same time. Detachable Z-support tabs ensure simple setting-up.
- Recommended maximum workpiece weight 7 kg
- Tightening torque 8 Nm
- Weight 1 kg.

**Reference stop, 3R-225.2**
For positioning 3Ruler anywhere on the reference elements. The stops have adjusting screws for accurate alignment.
- Tightening torque 7 Nm
- Supplied in sets of 2
- Weight per set 0.6 kg.

**3Ruler kit, 3R-239.20**
Kit for clamping rectangular, round or thin workpieces.

<table>
<thead>
<tr>
<th>3R-239.1</th>
<th>Ruler vice</th>
<th>x1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3R-239.2</td>
<td>Low-profile holder</td>
<td>x1</td>
</tr>
<tr>
<td>3R-239.3</td>
<td>Vee holder</td>
<td>x1</td>
</tr>
<tr>
<td>3R-914-10L</td>
<td>Torque wrench, 8 Nm</td>
<td>x1</td>
</tr>
<tr>
<td>3R-333-03</td>
<td>Allen key, 3 mm</td>
<td>x1</td>
</tr>
<tr>
<td>45600-N039</td>
<td>Allen key, 4 mm</td>
<td>x1</td>
</tr>
</tbody>
</table>

Double ruler vice, 3R-239.11

Reference stop, 3R-225.2

3Ruler kit, 3R-239.20
The 3Ruler ruler system

**Vice, 3R-294.2**
Mounts on 3R-237.2, 3R-292.66HP, 3R-294, a ruler in the 3Ruler system or Macropallet 54x54.
- Clamping range 0-50 mm
- Recommended maximum workpiece weight 5 kg
- Tightening torque 3 Nm
- Weight 1.2 kg.

**Vice, 3R-294.1**
Mounts on 3R-237.2, 3R-292.12, 3R-292.66HP, 3R-294 or a ruler in the 3Ruler system.
- Clamping range 0-17 mm
- Recommended maximum workpiece weight 2.5 kg
- Tightening torque 3 Nm
- Weight 0.5 kg.

**Multiple holder, 3R-294.6**
For mounting of four workpieces Ø5-13 mm at the same time. Mounts on 3R-237.2, 3R-292.66HP, 3R-294 or a ruler in the 3Ruler system.
- Tightening torque 3 Nm
- Weight 0.6 kg.

**Support, 3R-261.1**
For mounting directly on the machine table.
- Adjustable length 35-135 mm
- Includes 5 mm spacer for collision free set-up
- Recommended maximum workpiece weight 20 kg
- Weight 1.5 kg

**Zero-line support tab 5 mm, 3R-239.25**
- Recommended maximum workpiece weight per tap 50 kg
- Supplied in sets of 2.
The 3Ruler ruler system

**Clamps, 3R-A239.1**
Clamps for clamping rulers on reference elements.
- Supplied in sets of 2.

**Zero-line support tab 5 mm, 3R-239.22**
- Recommended maximum workpiece weight per tab 50 kg
- Supplied in sets of 2.

**Miniclamps, 3R-239.24**
For clamping thin workpieces. To be fitted together with zero-line support tab.
- Recommended maximum workpiece weight per stop 1 kg
- Supplied in sets of 2.

**Clamps, 3R-A239**
Clamps of aluminium for mounting a ruler directly on the machine table without reference elements.
- Supplied in sets of 2
- Weight per set 0.3 kg.