

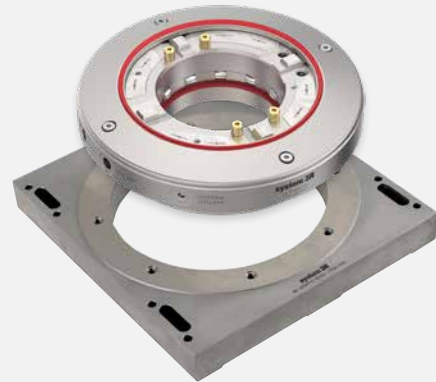
# Matrix for wire EDM

Providing extreme accuracy, Matrix features include: low construction height; ultra-precise indexing; and, a drawbar with a large through hole. The through hole allows high/long workpieces to be sunk into the chuck for stable/rigid fixation.

Four sizes available in rust-resistant material:

- Matrix 110
- Matrix 142
- Matrix 185
- Matrix 220

For further details, contact your local System 3R dealer.



Configuration example.



Example of produced detail.



Example of produced detail.



# Matrix in detail



Rough guidance pins.  
Can also be used to block index function.

Extra air lines for  
automatic chuck adapter.

Lip seals to maximize protection  
from debris and fluids.

Z-reference with cleaning &  
pallet detection function.



Air inlets to operate chuck  
from side and bottom.

Matrix comes in various sizes. Version is  
determined by outside diameter of pallets.

Large through hole to accommodate work-  
piece or enable machining access.

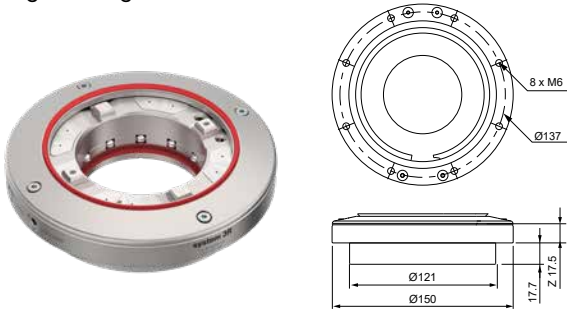
Spring-loaded when idling; spe-  
cial Turbo function via added air  
pressure.

## Matrix for wire EDM

### Pneumatic in-built chuck, Matrix 110, 3R-SP28395-RS

Chuck for Matrix holders. For permanent mounting on the machine spindle or fixture.

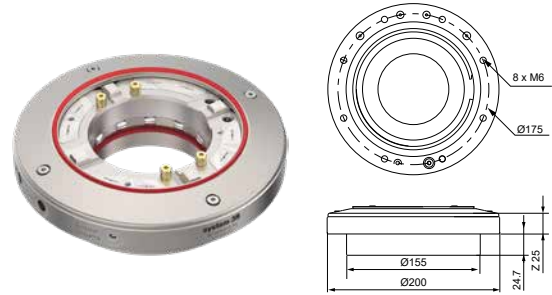
- Clamping force 9 kN
- Fixed index positions 4x90°
- Required drawbar 3R-695.2-110RS
- Weight 2.7 kg



### Pneumatic in-built chuck, Matrix 142, 3R-SP28219-RS

Chuck for Matrix holders. For permanent mounting on the machine spindle or fixture.

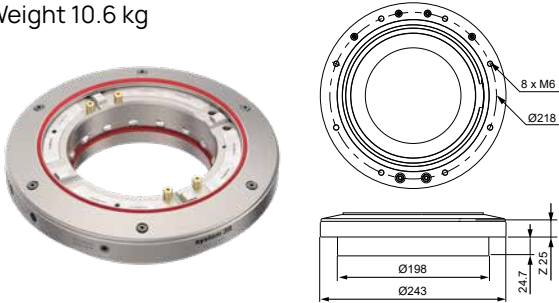
- Clamping force 15 kN
- Fixed index positions 4x90°
- Required drawbar 3R-695.2-142RS
- Weight 7 kg



### Pneumatic in-built chuck, Matrix 185, 3R-SP28268-RS

Chuck for Matrix holders. For permanent mounting on the machine spindle or fixture.

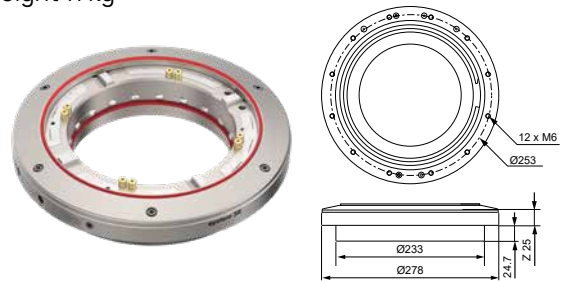
- Clamping force 20 kN
- Fixed index positions 4x90°
- Required drawbar 3R-695.2-185RS
- Weight 10.6 kg



### Pneumatic in-built chuck, Matrix 220, 3R-SP28340-RS

Chuck for Matrix holders. For permanent mounting on the machine spindle or fixture.

- Clamping force 23 kN
- Fixed index positions 4x90°
- Required drawbar 3R-695.2-220RS
- Weight 11 kg



### Drawbar, Matrix 110, 3R-695.2-110RS

- Weight 0.3 kg

**NOTE:** In automatic applications, the gripper has to grip the pallet and not the drawbar.



### Drawbar, Matrix 142, 3R-695.2-142RS

- Weight 0.5 kg

**NOTE:** In automatic applications, the gripper has to grip the pallet and not the drawbar.



## Matrix for wire EDM

### Drawbar, Matrix 185, 3R-695.2-185RS

- Weight 0.8 kg

**NOTE:** In automatic applications, the gripper has to grip the pallet and not the drawbar..



### Drawbar, Matrix 220, 3R-695.2-220RS

- Weight 1.3 kg

**NOTE:** In automatic applications, the gripper has to grip the pallet and not the drawbar.



### Adapter plate, Matrix 110, 3R-A34312-M110

Suitable chuck, 3R-SP28395-RS. Requires support (either 3Ruler or EconoRuler)

- Weight 2.7 kg



### Adapter plate, Matrix 142, 3R-A34312-M142

Suitable chuck, 3R-SP28219-RS. Requires support (either 3Ruler or EconoRuler)

- Weight 5.7 kg



### Adapter plate, Matrix 185, 3R-A34312-M185

Suitable chuck, 3R-SP28268-RS. Requires support (either 3Ruler or EconoRuler)

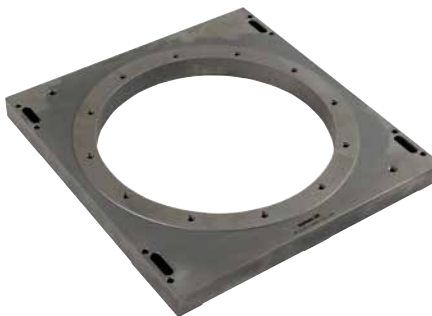
- Weight 8.1 kg



### Adapter plate, Matrix 220, 3R-A34312-M220

Suitable chuck, 3R-SP28340-RS. Requires support (either 3Ruler or EconoRuler)

- Weight 9.2 kg



## Matrix for wire EDM

### Pallet, Matrix 110, 3R-691.1-110

- Fixed index positions 4x90°
- Permissible press load 25 tonnes
- Permissible torque 100 Nm
- Required drawbar 3R-695.2-110 or similar
- Adapted for automatic changing
- Weight 0.5 kg

**NOTE:** Not self carrying, requires extra support.



### Pallet, Matrix 142, 3R-691.1-142

- Fixed index positions 4x90°
- Permissible press load 75 tonnes
- Permissible torque 300 Nm
- Required drawbar 3R-695.2-142 or similar
- Adapted for automatic changing
- Weight 1.2 kg

**NOTE:** Not self carrying, requires extra support.



### Pallet, Matrix 185 3R-691.1-185

- Fixed index positions 4x90°
- Permissible press load 100 tonnes
- Permissible torque 600 Nm
- Required drawbar 3R-695.2-185 or similar
- Adapted for automatic changing
- Weight 1.7 kg

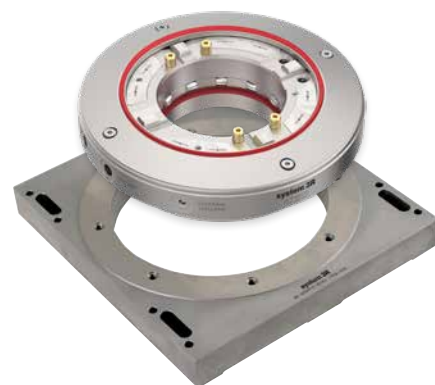
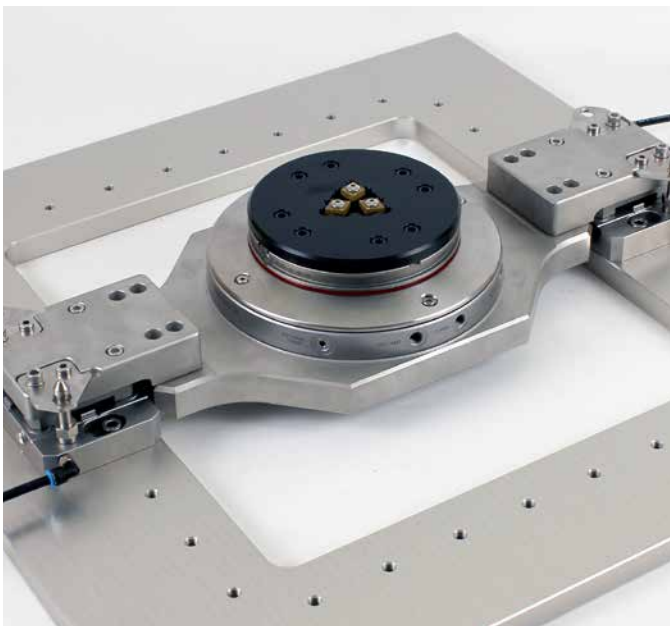
**NOTE:** Not self carrying, requires extra support.



### Pallet, Matrix 220, 3R-691.1-220

- Fixed index positions 4x90°
- Permissible press load 150 tonnes
- Permissible torque 600 Nm
- Required drawbar 3R-695.2-220 or similar
- Adapted for automatic changing
- Weight 2.6 kg

**NOTE:** Not self carrying, requires extra support.



Configuration example.

## Matrix for wire EDM

### Check ruler, Matrix 110, 3R-696.1-110

For setting flatness and angular positions.

- Ground hole for centring
- Ready for code carrier
- Measuring length 80 mm
- Adapted for automatic changing
- Weight 1.6 kg



### Check ruler, Matrix 142, 3R-696.1-142

For setting flatness and angular positions.

- Ground hole for centring
- Ready for code carrier
- Measuring length 100 mm
- Adapted for automatic changing
- Weight 3.4 kg



### Check ruler, Matrix 185, 3R-696.1-185

For setting flatness and angular positions.

- Ground hole for centring
- Ready for code carrier
- Measuring length 125 mm
- Adapted for automatic changing
- Weight 5.7 kg



### Check ruler, Matrix 220, 3R-696.1-220

For setting flatness and angular positions.

- Ground hole for centring
- Ready for code carrier
- Measuring length 150 mm
- Adapted for automatic changing
- Weight 7.5 kg

