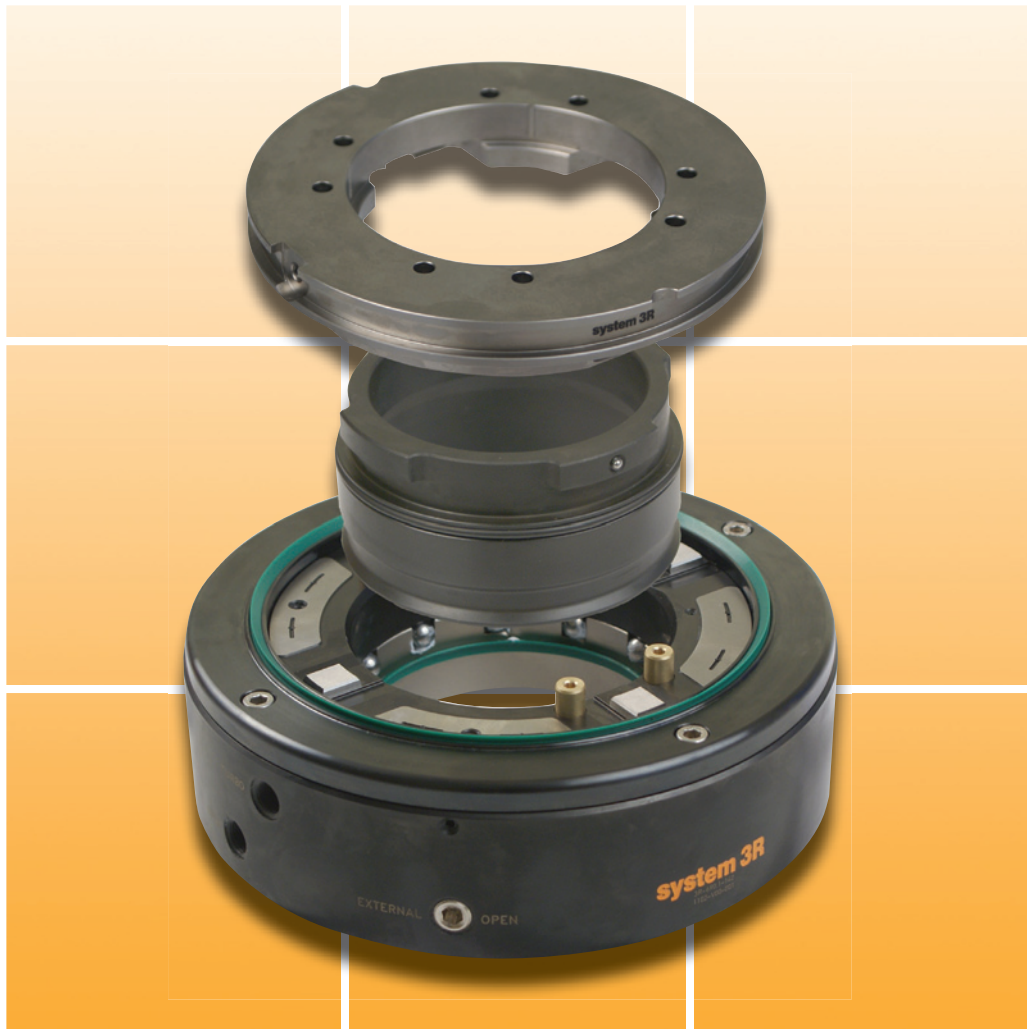


Matrix



The reference system for
production of precision parts

Matrix...

- ... reduces setting-up times
- ... ensures precision and quality
- ... has automatic air-blast cleaning of the references
- ... is sealed against dirt and swarf – withstands severe work environments
- ... has enhanced clamping force – turbo locking
- ... is suitable for automatic changing with System 3R's automation program.

The Matrix system

Measures to reduce the downtime of your machines are significantly more worth while than chasing seconds in the actual machining process. What matters is to keep the machines running. And that's when you need an interface that gives fast setting-up.

The Matrix system is just that kind of interface. Setting-up in parallel away from the machine while it is working and then setting up in a matter of seconds in the stationary machine. Important for long runs, but crucial for the profitability of short runs or one-piece production.

The design has been optimised for metal-cutting machining and is ideal for work involving high machining forces. The generous diameter of the drawbar means short distances between the references and the applied locking force, giving maximum stability and accuracy. The inherent properties of the Matrix system truly come into their own in tough machining applications.

As well as extreme accuracy, Matrix features low construction height, ultra-precise indexing, a drawbar with through hole. The through hole allows high/long workpieces to be sunk into the chuck for stable/rigid fixation.



Prepared for automatic chuck adapter.



Inlets on side & underneath.



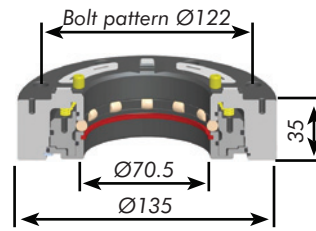
Spherical rolls.



Pre-alignment studs.



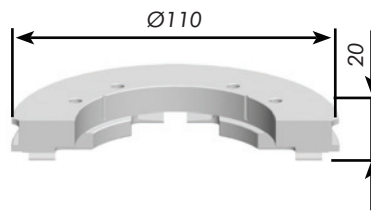
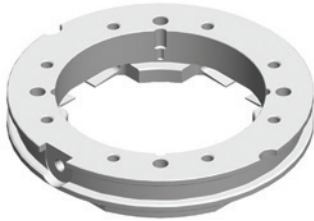
Note: For the entire product range see www.system3r.com



Pneumatic chuck, Matrix 110 3R-690.1-110

Chuck for permanent mounting on the machine table or into a PM press.

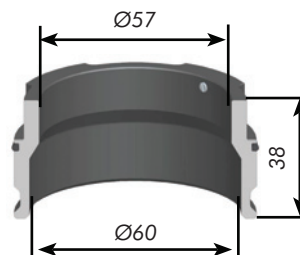
- Fixed index positions 4x90°
- Hardened references
- Clamping force 9000 N
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-110
- Required air pressure, – 6±1 bar
- Weight 2.5 kg.



Pallet, Matrix 110 3R-691.1-110

- Fixed index positions 4x90°
- Permissible press load 35 ton
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-110 or similar
- Weight 0.5 kg.

Note: Not self carrying, requires extra support.



Drawbar, Matrix 110 3R-695.2-110

- Adapted for automatic changing
- Weight 0.3 kg.

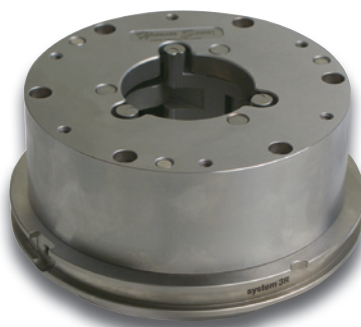
Note: In automation the gripper has to grip on the pallet and not on the drawbar.



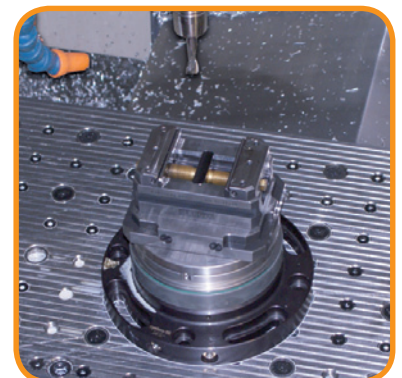
Check ruler, Matrix 110 3R-696.1-110

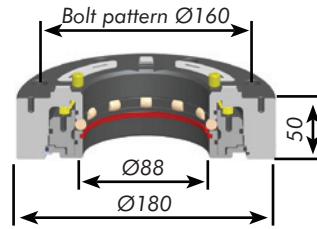
For setting flatness and angular positions.
Ground hole for centering.

- Adapted for automatic changing
- Ready for code carrier
- Measuring length 80 mm.
- Weight 1.6 kg.



Three-jaw chuck mounted on a pallet.

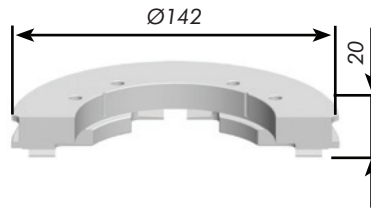
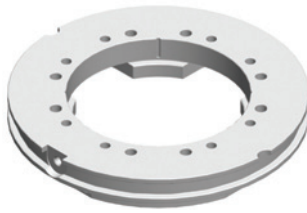




Pneumatic chuck, Matrix 142 3R-690.1-142

Chuck for permanent mounting on the machine table or into a PM press.

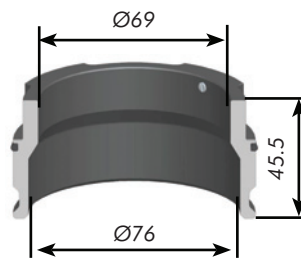
- Fixed index positions 4x90°
- Clamping force 12000 N
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-142
- Required air pressure, – 6±1 bar
- Weight 7 kg.



Pallet, Matrix 142 3R-691.1-142

- Fixed index positions 4x90°
- Permissible press load 80 ton
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-142 or similar
- Weight 1.2 kg.

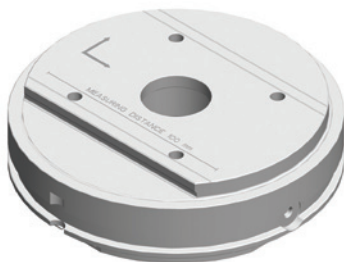
Note: Not self carrying, requires extra support.



Drawbar, Matrix 142 3R-695.2-142

- Adapted for automatic changing
- Weight 0.5 kg.

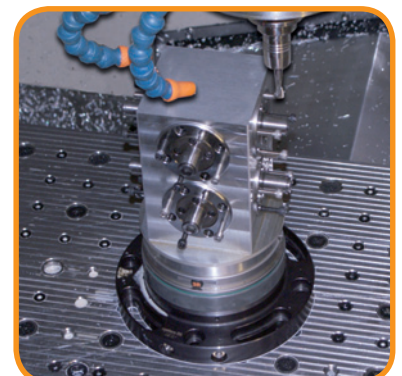
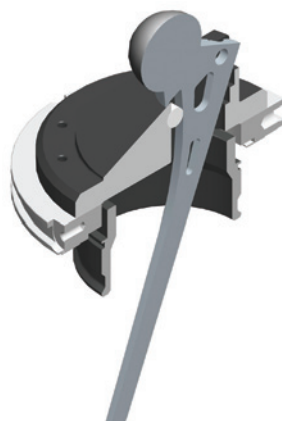
Note: In automation the gripper has to grip on the pallet and not on the drawbar.

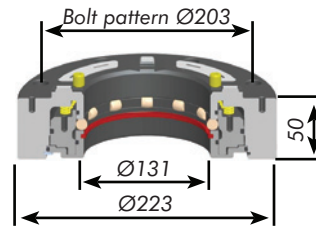


Check ruler, Matrix 142 3R-696.1-142

For setting flatness and angular positions. Ground hole for centering.

- Adapted for automatic changing
- Ready for code carrier
- Measuring length 100 mm.
- Weight 3.4 kg.

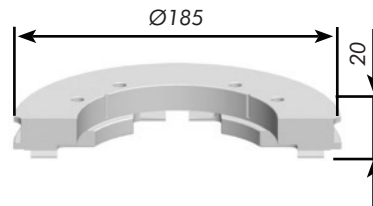




Pneumatic chuck, Matrix 185 3R-690.1-185

Chuck for permanent mounting on the machine table or into a PM press.

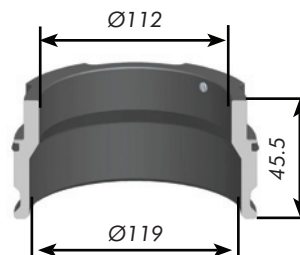
- Fixed index positions 4x90°
- Hardened references
- Clamping force 16 000 N
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-185
- Required air pressure, -6 ± 1 bar
- Weight 9 kg.



Pallet, Matrix 185 3R-691.1-185

- Fixed index positions 4x90°
- Permissible press load 130 ton
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-185 or similar
- Weight 1.7 kg.

Note: Not self carrying, requires extra support.



Drawbar, Matrix 185 3R-695.2-185

- Adapted for automatic changing
- Weight 0.8 kg.

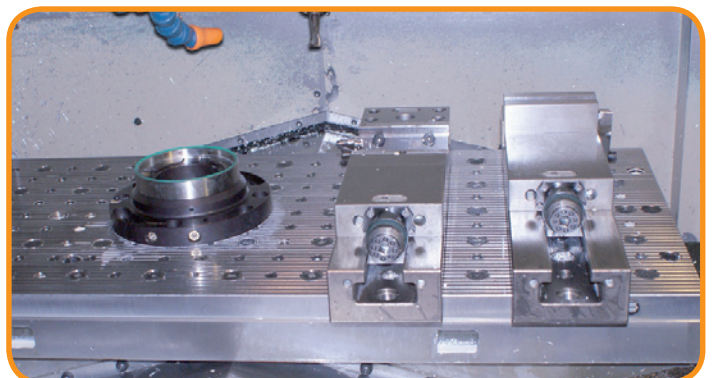
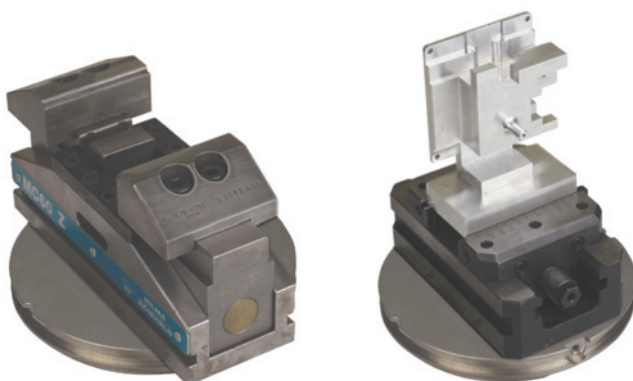
Note: In automation the gripper has to grip on the pallet and not on the drawbar.

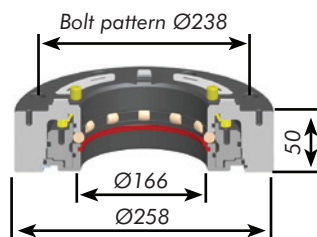


Check ruler, Matrix 185 3R-696.1-185

For setting flatness and angular positions. Ground hole for centering.

- Adapted for automatic changing
- Ready for code carrier
- Measuring length 125 mm.
- Weight 5.7 kg.

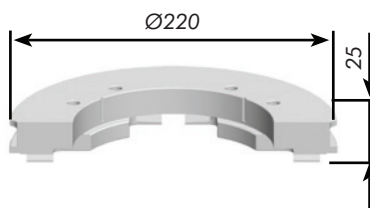




Pneumatic chuck, Matrix 220 3R-690.1-220

Chuck for permanent mounting on the machine table or into a PM press.

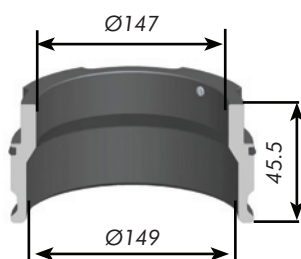
- Fixed index positions 4x90°
- Clamping force 18500 N
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-220
- Required air pressure, – 6±1 bar
- Weight 11 kg.



Pallet, Matrix 220 3R-691.1-220

- Fixed index positions 4x90°
- Permissible press load 160 ton
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-220 or similar
- Weight 2.6 kg.

Note: Not self carrying, requires extra support.



Drawbar, Matrix 220 3R-695.2-220

- Adapted for automatic changing
- Weight 1.3 kg.

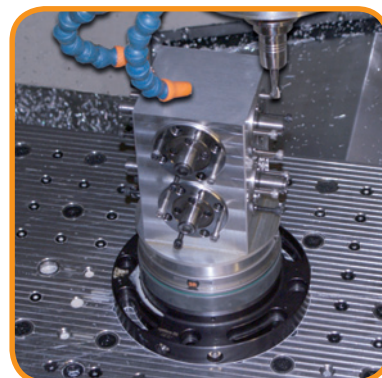
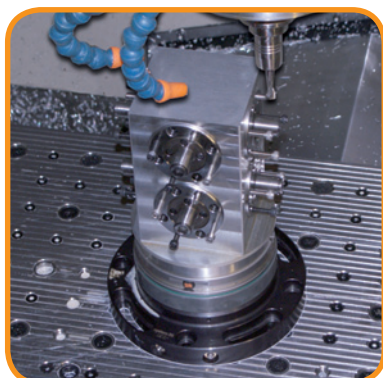
Note: In automation the gripper has to grip on the pallet and not on the drawbar.

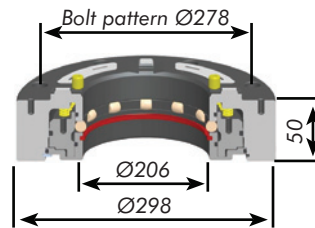


Check ruler, Matrix 220 3R-696.1-220

For setting flatness and angular positions. Ground hole for centering.

- Adapted for automatic changing
- Ready for code carrier
- Measuring length 140 mm.
- Weight 7.5 kg.

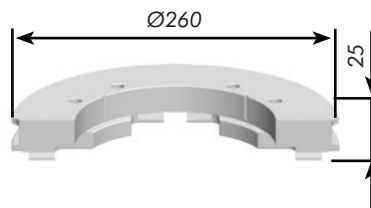
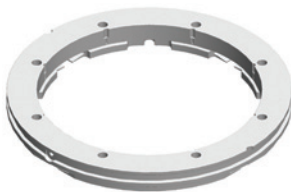




Pneumatic chuck, Matrix 260 3R-690.1-260

Chuck for permanent mounting on the machine table or into a PM press.

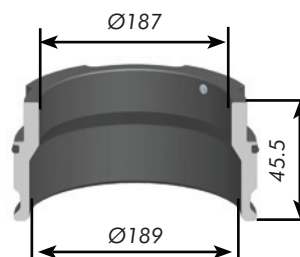
- Fixed index positions 4x90°
- Hardened references
- Clamping force 24000 N
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-260
- Required air pressure, -6 ± 1 bar
- Weight 13 kg.



Pallet, Matrix 260 3R-691.1-260

- Fixed index positions 4x90°
- Permissible press load 210 ton
- Permissible torque 570 Nm
- Required drawbar 3R-695.2-260 or similar
- Weight 3.2 kg.

Note: Not self carrying, requires extra support.



Drawbar, Matrix 260 3R-695.2-260

- Adapted for automatic changing
- Weight 1.5 kg.

Note: In automation the gripper has to grip on the pallet and not on the drawbar.



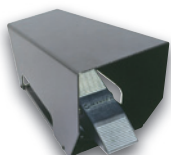
Check ruler, Matrix 260 3R-696.1-260

For setting flatness and angular positions. Ground hole for centering.

- Adapted for automatic changing
- Ready for code carrier
- Measuring length 160 mm.
- Weight 10 kg.

Control unit, 3R-611.2

Foot operation of pneumatic chucks.



Control unit, 3R-611.4

Unit for operation of pneumatic chucks. Two functions, opened/closed.



Braided Hose, 3R-611-C

Steel-reinforced rubber hose, gives protection from hot metallic swarf.



Code carriers, 3R-863.01-10

With pre-programmed unique identity, designed for pallet use.



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www.system3r.com

