

3Refix

INCREASED PRODUCTIVITY...

...need not mean heavy investment in new machines. 3Refix is a remarkably simple way of laying a solid foundation for a confident future. Tool up without alignment/ gauging and cut your production costs!

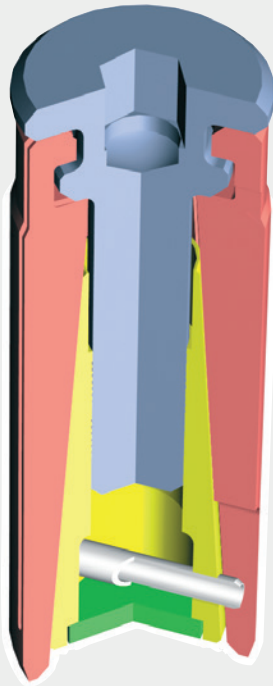
3Refix technology is based on a modular hole pattern with a 100x100 mm pitch and 20 mm diameter reference holes. The reference tables have clearly marked reference holes (A1, A2, B1, B2, etc.) and every accessory has two 20 mm diameter holes. These pick up the references from the table. The R0-hole gives the X/Y position and the R1-hole gives the angle relative to the machine's axes. It is thus possible to set up workpieces without subsequent alignment and gauging. This is how 3Refix accessories provide an unmistakable fixed position with known references.

The reference height of accessories in the 3Refix range is usually 30 mm. Amongst other things, this enables machining straight through the workpiece. The design also allows a flush pot to be pushed in under the workpiece during EDM machining.

In a nutshell, 3Refix technology systemises and standardises all machine tables and accessories. The consistency this brings is a major cost reducer. System 3R can supply reference tables for practically all types and sizes of machines. Our reference tables provide a distinct interface between machine table and auxiliary tool.

With 3Refix, you can very quickly change machine set-ups for different jobs in a few simple operations – One Minute Set-up!

- Repetition accuracy 0.005 mm



ADVANTAGES

- gives a definite position with fixed references.
- is a minor investment for major reductions in production costs.
- delivers fast set-up with just a few simple manual actions.
- minimises wear of the reference holes (thanks to the expanding mandrel).



3Refix's two expanding mandrels determine position. The first mandrel determines the X/Y position and the second determines the angle.

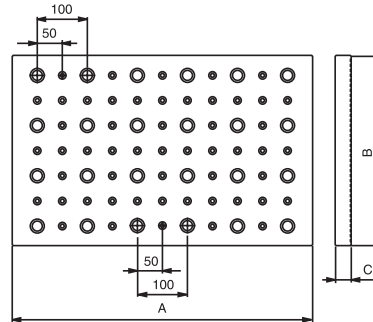
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Reference tables

Structurally-stable, toughened steel reference tables (270-320 HB). Hardened bushes in blind holes for 3Refix Ø 20 mm mandrels (100x100 mm modular spacing) and M12 tapped mounting holes (50x50 mm modular spacing).

NOTE: Customised reference tables can be made to order.

NOTE: Hardened reference tables (650-700 HB) can be made to order. Use the order form at the end of the catalogue.



3R-936-60.38

- A = 600 mm
- B = 380 mm
- C = 32 mm
- Weight 55 kg.

3R-936-85.40

- A = 850 mm
- B = 400 mm
- C = 32 mm
- Weight 83 kg.

3Refix mandrel

NOTE: When positioning with 3Refixmandrels, always tighten the expanding mandrel in the R0-hole first.

3R-901-10E-TX

- 3Refix Ø 10 mm
- Recommended tightening torque 4 Nm
- Supplied in sets of 10
- Weight per set 0.2 kg.

3R-901-10RS

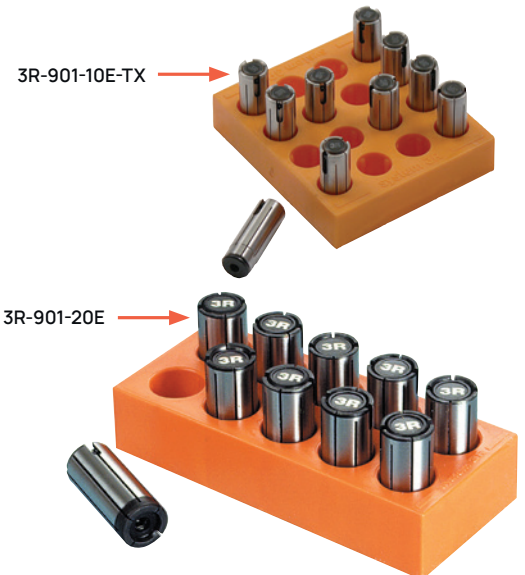
- 3Refix Ø 10 mm
- Rust resistant
- Recommended tightening torque 4 Nm
- Supplied singly
- Weight 0.02 kg.

3R-901-20E

- 3Refix Ø 20 mm
- Recommended tightening torque 10 Nm
- Supplied in sets of 10
- Weight per set 1 kg.

3R-901-20RS

- 3Refix Ø 20 mm
- Rust resistant
- Recommended tightening torque 10 Nm
- Supplied singly
- Weight 0.1 kg.



Slotted bushes, 3R-903-XX.XX

Bushes of hardened spring steel 54 HRC.

- Bore 20 mm, height 20 mm
- Supplied in sets of 2
- Weight per set 0.1 kg.



Art. No.	Outside Ø (mm)	Art. No.	Outside Ø (mm)
3R-903-20.235	23.5	3R-903-20.34	34
3R-903-20.24	24	3R-903.20.36	36
3R-903-20.25	25	3R-903-20.38	38
3R-903-20.254	25.4	3R-903.20.381	38.1
3R-903-20.256	25.6	3R-903-20.40	40
3R-903-20.26	26	3R-903-20.414	41.4
3R-903-20.275	27.5	3R-903-20.42	42
3R-903-20.28	28	3R-903-20.4445	44.45
3R-903-20.295	29.5		
3R-903-20.30	30		
3R-903-20.315	31.5		
3R-903-20.3175	31.75		
3R-903-20.32	32		

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Bushings, 3R-902-10E

Hardened steel, 60 HRC, for mounting in existing fixtures.

- Bore / mm 10h7
- Outside diameter / mm 15h6
- Height / mm 12
- Supplied in sets of 30.



Bushings, 3R-902-20.0E

Hardened steel, 60 HRC, for mounting in existing fixtures.

- Bore / mm 20h6
- Outside diameter / mm 28h6
- Height / mm 20
- Supplied in sets of 10.



Plastic plug, 3R-915-20E

Plug to protect Ø 20 mm hole from dirt.

- Supplied in sets of 50.



Plastic screw, 3R-915-M12E

To protect countersunk M12 holes from dirt.

- Supplied in sets of 50.



Torque wrench, 3R-614-04

For Ø 10 mm 3Refix mandrels (3R-901-10E-TX).

- 4 Nm.



Torque wrench, 3R-914-10

For Ø 20 mm 3Refix mandrels (3R-901-20E).

- 10 Nm.

