

3Refix

- ... gives a definite position with fixed references
- ... minimal investment, cutting production costs
- ... fast setup with just a few simple manual actions
- ... the expanding mandrel minimises wear in the reference holes.

Increased productivity

need not mean heavy investments in new machines.

3Refix is remarkably simple way to lay a solid foundation from which to view the future with confidence – tool up without indication and cut your production costs!

3Refix technology is based on a modular hole pattern with 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, which 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 axes of the machine. This makes it possible to set up the workpiece without the need for alignment and gauging afterwards. So 3Refix accessories provide an unmistakable and fixed position with known references.

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

The full effect of 3Refix technology is attained by consistent application with general systemization and standardization of all machine tables and accessories. System 3R can supply reference tables for practically all types and sizes of machines – reference tables that give a distinct interface between machine table and auxiliary tool.

With the aid of 3Refix you can very quickly change the set-up of the machine from one machining operation to another in a few simple operations – **One Minute Set-up!**

+ Repetition accuracy 0.005 mm.



3Refix expanding mandrels (2 pcs) determines the position. First 3Refix mandrel is to determine X/Y-position and the second to determine the angle.

3Refix

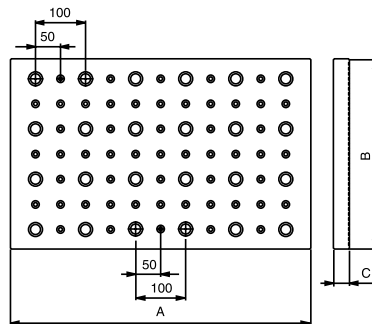
Reference tables

Reference tables of structurally-stable toughened steel (270-320 HB). Hardened bushes in dead-end holes for 3Refix mandrels $\varnothing 20$ mm at 100x100 mm modular spacing, as well as M12 tapped mounting holes with 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 3Refix mandrels –always tighten the expanding mandrel in the R⁰ hole first.

3R-901-10E-TX

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



3R-901-10RS

- 3Refix $\varnothing 10$ mm
- Rust-resistant
- Recommended tightening torque 4 Nm
- Supplied singly
- Weight per set 0.5 kg.

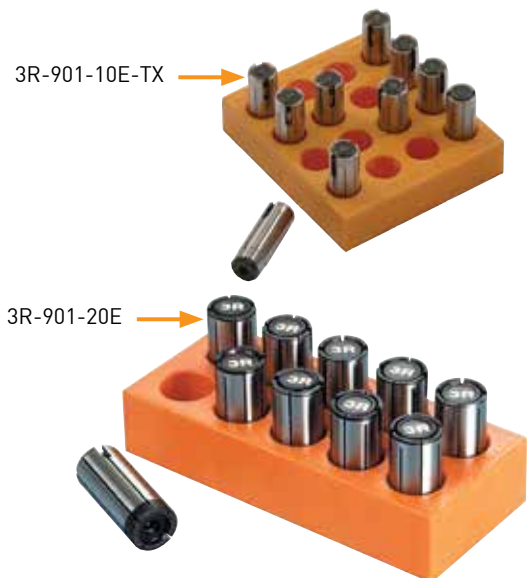
3R-901-20E

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



3R-901-20RS

- 3Refix $\varnothing 20$ mm
- Rust-resistant
- Recommended tightening torque 10 Nm
- Supplied singly
- Weight per set 0.1 kg.



Slotted bushes, 3R-903-XX.XX

Bushes of hardened spring steel 54 HRC.

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



Art. No.	Outside diameter (mm)
3R-903-20.235	23.5
3R-903-20.24	24
3R-903-20.25	25
3R-903-20.254	25.4
3R-903-20-256	25.6
3R-903-20.26	26
3R-903-20.275	27.5
3R-903-20.28	28
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
3R-903-20.34	34
3R-903.20.36	36
3R-903-20.38	38
3R-903.20.381	38.1
3R-903-20.40	40
3R-903-20.414	41.4
3R-903-20.42	42
3R-903-20.4445	44.45

3Refix

Bushings

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



	3R-902-10E	3R-902-19.7E
Bore / mm.	10H7	19.7
Outside diameter / mm	15h6	28h6
Height / mm	12	20
Supplied in sets of	30	10

	3R-902-20.0E	3R-902-20.3E
Bore / mm.	20H6	20H6
Outside diameter / mm	28h6	28.3
Height / mm	20	20
Supplied in sets of	10	10



Plastic plug, 3R-915-20E

Plug to protect Ø20 mm hole from dirt

- Supplied in sets of 50 pcs.



Torque wrench, 3R-614-04

For Ø10 mm 3Refix mandrels (3R-901-10E).

- 4 Nm.



Plastic screw, 3R-915-M12E

To protect M12 holes with protective countersinking from dirt.

- Supplied in sets of 50 pcs.



Torque wrench, 3R-914-10

For Ø20 mm 3Refix mandrels (3R-901-20E).

- 10 Nm.

