# System 3R

# Instruction for Macro Reference Element



3R-651.7-P, 3R-651.7E-P (Rust Resistant) 3R-651.7-S, 3R-651.7E-S 3R-651.7-XS, 3R-651.7E-XS

## **General Description**

Casts and hardened reference element 54x54x12.5 mm with clearance holes for four fixing screws.

**Note:** Must be mounted on the workpiece/fixture before it is locked in a chuck.

- Adapted for automatic changing.
- Fixed index positions 4x90°
- Parallel-ground top and bottom faces
- Permissible press load: 16 ton (valid for 3R-651.7-P, 3R-651.7E-P only)
- All product number including E, supplied in sets of eight (e.g., 3R-651.7E-P)
- Weight 0.2 kg/pc

**Note:** Add anticorrosive additive when water based cutting liquid is being used. Protect the product with anticorrosive oil when not in use.

### Mounting

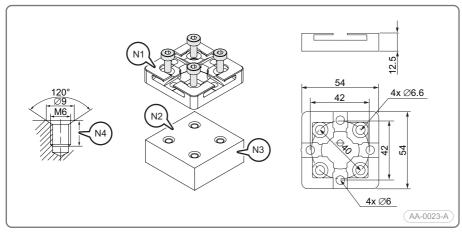


Fig. 1

#### Note

- N1. To achieve top accuracy in repetition and in combination with air sensoring, flatness deviation should be within 0.002 mm indicated on Macro reference element after assembly.
- N2. If  $\longrightarrow$  0.003, use Araldit 2803 on the contact surface.
- N3. Workpiece minimum size: Height 17.5 mm and Width 54 x 54 mm.
- N4. Workpiece holes, minimum threaded depth: 12 mm.
- Use screws/bolts M6x12 (min. length 12 mm), torque 10-12 Nm with workpieces in **steel** or **copper**.
- For workpieces in **graphite** we recommend the use of adapter plate to achieve total thickness of minimum 30 mm support, as quality varies in graphite. The required torque may vary by factor 1:3 due to quality reasons.
- In EDM applications, apply antirust oil on the contact surfaces.

#### Parts included

Description	Article no.	Qty.
Reference element	3R-651.7E-xx	8
Quality cert. (3R-651.7-P, 3R-651.7E-P)	C-00493	1
Quality certificate (3R-651.7-S)	C-01171	1
Quality certificate (3R-651.7E-S)	C-00357	1
Quality certificate (3R-651.7-XS)	C-01170	1
Quality certificate (3R-651.7E-XS)	C-01169	1
Instruction (this document)	I-819	1