

## MA 22

piston and piston rod seal with symmetrical sealing lips which are cut straight.

### Standard material

NBR 90

### Area of application

Hydraulics and pneumatics reciprocating movements

### Function

The MA 22 is a single function piston seal in the form of a U-ring which can be used as a piston and piston rod seal due to its symmetrical sealing lips. Its sealing function is very effective due to the sealing lips being provided with radial self energising which is activated by the system pressure. For new design we recommend MA 23 or MA 24.

### Media

Hydraulic oils acc. DIN 51524/51525, lubricating oils, mineral oil based lubricating fats, non-flammable hydraulic fluids HFA, HFB, HFC acc. VDMA 24317.

### Operational application limits

Pressure (MPa/bar): 10/100  
Temperature (°C): -30 to + 100  
Running speed (m/s): = 0.5

### Installation

The MA 22, with an inner diameter of 25 mm and a thinner profile can always be installed in cut housing. With an inner diameter of less than 25 mm, we recommend axially accessible housing. To push the piston body and seal into the cylinder pipe or over the piston rod without damaging it, a lead-in chamfer C acc. to the following table is required:

Profile width (mm)	Lead-in chamfer C (mm)
4	2
5	2.5
7.5	4
10	5
12.5	6.5
15	7.5
20	10
25	10

If the housing is provided with a metallic fitting on the side opposite the pressure, the service life of the seal is lengthened. Within the operating parameters given above, depending on the pressure, a metallic wedge can be fitted between the cylinder pipe and piston acc. to the following table:

Pressure (MPa)	Radial wedge G (mm)
5	0.2
10	0.15

The piston diameter  $d_1$  should generally be by factor 0.65 of the profile smaller than the  $D_N$  diameter provided.

Please also follow the general installation instructions on page 12 of this catalogue.

### Remarks

The nominal widths marked in red on the following pages represent standard dimensions. They are generally in stock or can be delivered at short notice. All the other dimensions listed are not standard and although also available at short notice may be subject to a minimum purchasing quantity.

In addition, we are able to produce any other dimensions required. For operating conditions other than the standard applications, further elastomers are available.

