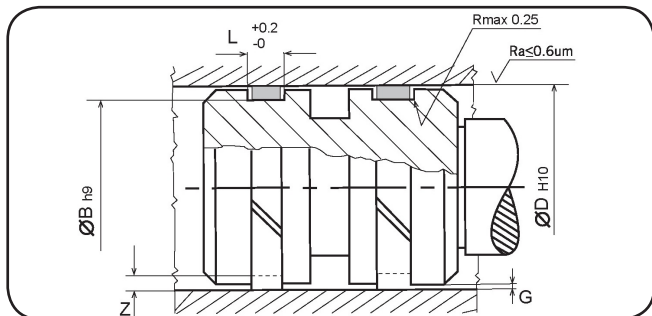


ROD AND PISTON GUIDE TAPE



MAIN FEATURES

PTFE rod or piston guide with loads, the use of ISB ensures a precise and smooth running of the sliding parts. It prevents metal-to-metal contact and ensures that the surfaces are perfectly preserved for the seals to function properly. ISB guide protects the seals against the diesel effect, preventing potential seal contamination. Due to its exceptionally low friction, it operates without stick-slip and offers good resistance to high temperatures and chemical products.

- ° Precise guiding
- ° Wear resistance
- ° High load capacity
- ° No Stick-Slip
- ° Decrease in mechanical vibrations
- ° Prevents dirt migration
- ° Easy to install
- ° Prevents chafing on surfaces

ISB

DESCRIPTION

Guide tape.

DYNAMIC SURFACE MATERIAL

PTFE + load.

OPERATING CONDITIONS

Load capacity: Depends on operating temperature.

Temperature: -50 a + 200°C

For temperatures exceeding this range, please contact our Technical Department.

Speed: Reciprocating up to 15 m/seg.

Frequency up to 10 Hz.

Rotary up to 1 m/seg.

GUIDE DIMENSIONS

Use the following formula to calculate the force that the guide can withstand:

$$F = d \times T \times Ps$$

Where:

F = Force supported by the guide.

d = Internal diameter of the guide.

T = Guide width.

Ps = Specific load capacity of GUIDESTRIP material at actual working temperature.

Example: Working temperature 80°C

d = 80 mm.

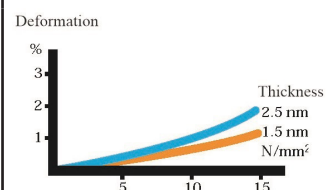
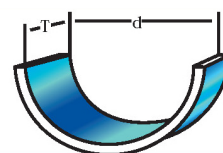
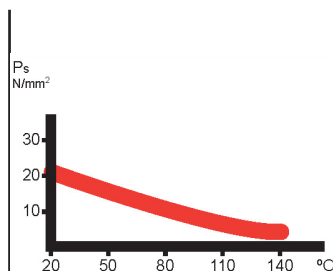
T = 14.8 mm.

Ps = 10 N/mm²

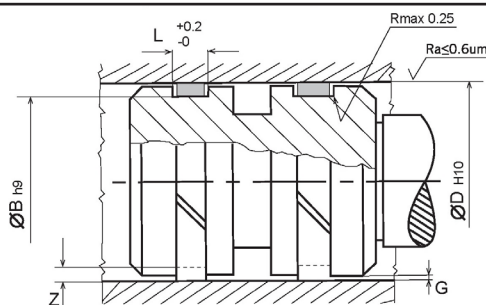
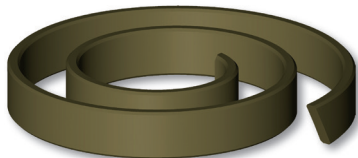
F = 80 mm x 14.8 mm x 10 N/mm² = 11.840 N

Deformation

The deformation under load is indicated in the Load and Deformation diagram.



ISB



Calculation of length

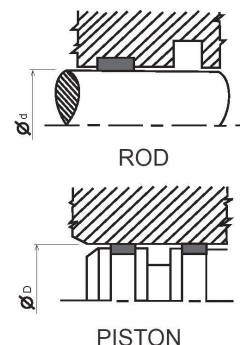
To allow for thermal expansion, the guides are made slightly shorter than the circumference of the guiding part.

Internal applications (Rod) $L = 3.115 (\varnothing d + W) - 1.0$

Where: $\varnothing d$ = Rod Diameter W = Guide Thickness

External applications (Piston) $L = 3.115 (\varnothing D - W) - 1.0$

Where: $\varnothing D$ = Piston Diameter W = Guide Thickness



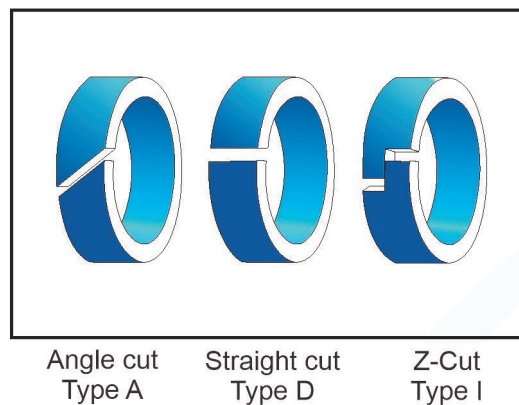
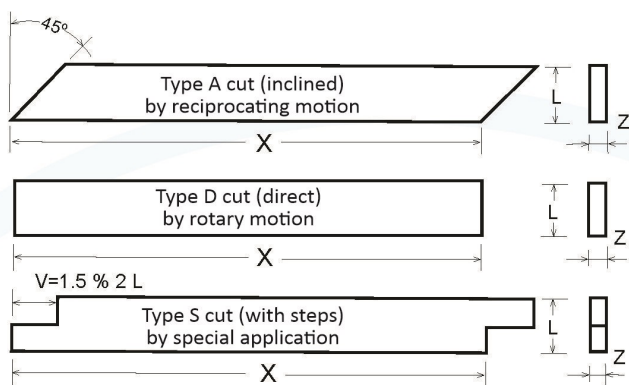
Cut types

The ISB can be supplied with three different types of cut:

A: 45° angle cut

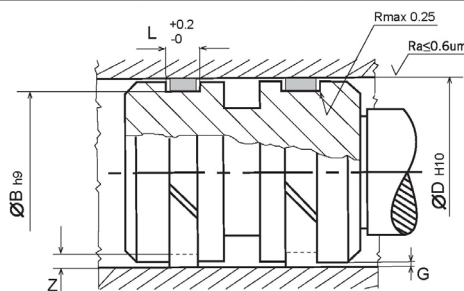
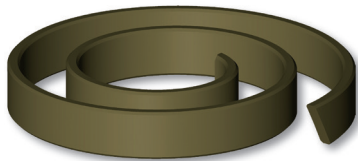
D: But 90° cut

S: Z-cut



FLUID	CONTACT SURFACE	MATERIAL GUIDE TAPE
Hydraulic oil	Steel	PTFE Bronze 55 13
Engine oil	Chrome steel	
Grease	Cast Iron	
	Aluminium	
Other mineral oils	Stainless steel	PTFE Carbon 44 22
	Bronze	
	Soft metals	
Steam; Water	Steel; Chrome steel	PTFE Carbon 44 22
Non-lubricating fluids	Cast Iron; Aluminium	
Air, dry or lubricated	Stainless steel; Bronze	

ISB

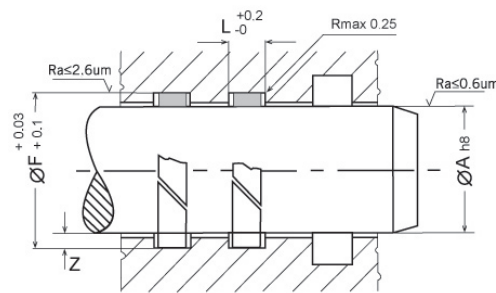


TAPE BY METRES

The following tape dimensions are available from stock, and are supplied by the metre. The length required for each application should be estimated according to the calculation formula. Once the tape is assembled, the ends of the tape should be spaced apart to allow for any expansion. It is recommended that tapes are made with a straight cut, and if bevelled, care should be taken not to damage the ends.

In radial clearance G, match the clearance of the seal used.

Guide Thickness W	Guide width	Housing width L + 0.2	Housing depth Z	Internal housing Ø B h 9	Maximum radius R
1.50	3.00	3.20	1.50	D-3.0	0.30
2.00	4.00	4.20	2.00	D-4.0	0.30
2.00	5.40	5.60	2.00	D-4.0	0.30
2.00	6.10	6.30	2.00	D-4.0	0.30
2.00	7.90	8.10	2.00	D-4.0	0.30
2.00	9.50	9.70	2.00	D-4.0	0.30
2.00	14.80	15.00	2.00	D-4.0	0.30
2.00	19.50	20.00	2.00	D-4.0	0.30
2.00	24.50	25.00	2.00	D-4.0	0.30
2.00	29.50	30.00	2.00	D-4.0	0.30
2.00	49.50	50.00	2.00	D-4.0	0.30
2.50	4.00	4.20	2.50	D-5.0	0.30
2.50	5.40	5.60	2.50	D-5.0	0.30
2.50	6.10	6.30	2.50	D-5.0	0.30
2.50	7.90	8.10	2.50	D-5.0	0.30
2.50	9.50	9.70	2.50	D-5.0	0.30
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2.00	6.10	6.30	2.00	A+4.0	0.30
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2.00	29.50	30.00	2.00	A+4.0	0.30
2.00	49.50	50.00	2.00	A+4.0	0.30
2.50	4.00	4.20	2.50	A+5.0	0.30
2.50	5.40	5.60	2.50	A+5.0	0.30
2.50	6.10	6.30	2.50	A+5.0	0.30
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2.50	49.50	50.00	2.50	A+5.0	0.30