



MATERIALS

The 317 Series Double-Acting Wiper features MN76, a high-grade abrasion-resistant elastomer.

Material	Code
H-Polyurethane (shown in photo)	MP03
Nitrile NBR	MN01
Hydrogenated NBR	MN76 and MN03
Fluoroelastomer FPM	MF01

OPERATING PARAMETERS

Temperature	MP03	
	°C	°F
hydraulic oil	-20...+115	-5...+240
water oil emulsions (HFA)	+5...+55	+40...+130
water-glycol fluids (HFC)	-20...+55	-5...+130
polyol esters (HFD)	-	-
water	+5...+55	+40...+130
speed	0.5 m/s (1.6 ft/sec)	
pressure	400 bar (6,000 psi)	

Note: for other materials or fluids please contact our engineering department.

DESCRIPTION

The 317 Series Mill-Duty, Double- Acting Wiper is engineered for the harshest environments. The aggressive profile includes a unique umbrella feature that wraps around the face of the cylinder to create an impenetrable barrier. The 317 works particularly well in vertically mounted cylinders, where contamination collects or fluid splashes on top of the cylinder.

The 317 type B is specifically designed to retrofit a popular PTFE wiper used in the steel industry.

PRODUCT BENEFITS

- Internal notches prevent pressure trapping
- Designed to fit securely in the groove
- Long service life
- Easy snap-in installation
- Available in large diameter up to 5000 mm

APPLICATIONS

The 317 Series Wiper is used in severely contaminated, wet and abrasive conditions.

Typical applications include:

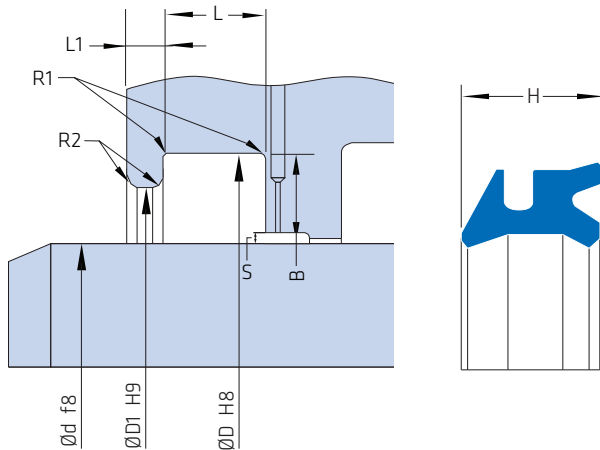
- Steel and Aluminum Processing
- Cold and Hot Strip Mills
- Automatic Gauge Control Cylinders



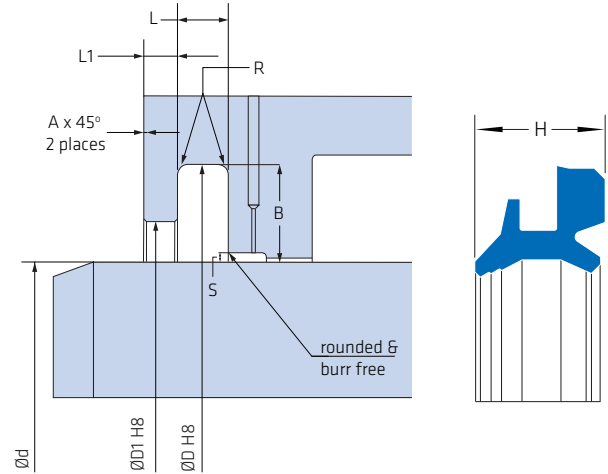
Above: Installation Drawing

DESIGN GUIDELINES

Type A



Type B



METRIC SERIES TYPE A

	Rod Diameter Ød	B	ØD	ØD1	L ^{+0.20}	L1 ^{-0.10}	R1	R2	S	H
Series 1	up to 40.00 mm	3.00	d+6.00	d+3.75	3.00	1.00	0.30	0.50	2.50	6.10
Series 2	up to 50.00 mm	5.00	d+10.00	d+5.75	5.00	1.50	0.30	0.50	2.50	9.86
Series 3	up to 90.00 mm	6.50	d+13.00	d+7.50	6.50	2.00	0.30	0.50	2.50	13.40
Series 4	up to 115.00 mm	8.00	d+16.00	d+9.10	8.00	3.00	0.30	0.50	2.50	16.10
Series 5	Up to 175.00 mm	10.00	d+20.00	d+11.25	10.00	4.00	0.30	0.50	2.50	21.30
Series 6	>175.00 mm	15.00	d+30.00	d+13.00	17.00	6.00	0.50	0.50	2.50	34.30

METRIC SERIES TYPE B*

	Rod Diameter Ød	B	ØD	ØD1	L ^{+0.20}	L1 ^{-0.10}	R1	R2	S	H
Series 7	100.00 mm to 220.00 mm	11.10	d+22.20	d+10.70	6.30	4.20	1.20	0.50	2.50	12.80
Series 8	up to 295.00 mm	12.10	d+24.20	d+10.70	6.30	4.20	1.20	0.50	2.50	12.80
Series 9	up to 600.00 mm	16.50	d+33.00	d+15.10	8.10	6.30	1.20	0.50	2.50	16.20
Series 10	up to 1600.00 mm	18.25	d+36.50	d+15.10	9.50	6.30	2.00	0.50	2.50	19.44

*Note: the following are retrofit 318 PTFE series. Please contact the engineering department for further clarification: 216.220.1800

SURFACE FINISH

Surface roughness	Ra	Rt	RMS
Sliding surface	≤0.3 µm	≤3 µm	8 RMS
Surface of groove I.D.	≤1.8 µm	≤10 µm	64 RMS
Sides of groove	≤3 µm	≤16 µm	125 RMS