systemseals

MILL-DUTY, DOUBLE-ACTING WIPER

317 *inch series*

Features:

Aggressive wiping and high scraping performance

Abrasion resistant

Unique umbrella design ensures maximum exclusion

Double acting inner lip, which removes oil film from the rod as it cycles

Water resistant

MATERIAL

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

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

OPERATING PARAMETERS

	MP03	
Temperature	**°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 a new design that is water resistant and eliminates internal corrosion associated with other designs. The aggressive profile includes a unique umbrella feature that wraps around the face of the cylinder to create an impenetrable barrier. It works particularly well in vertically mounted cylinders, where contamination collects or fluid splashes on top of the cylinder. The wiper is designed to exclude and protect the hydraulic cylinder in the harshest conditions.

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 2100 mm

APPLICATIONS

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

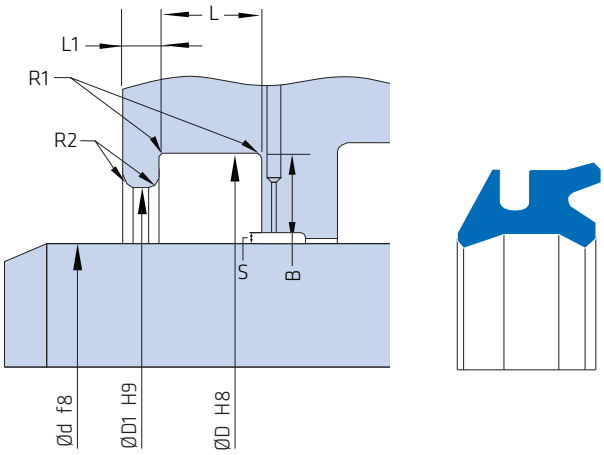
Typical applications include:

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

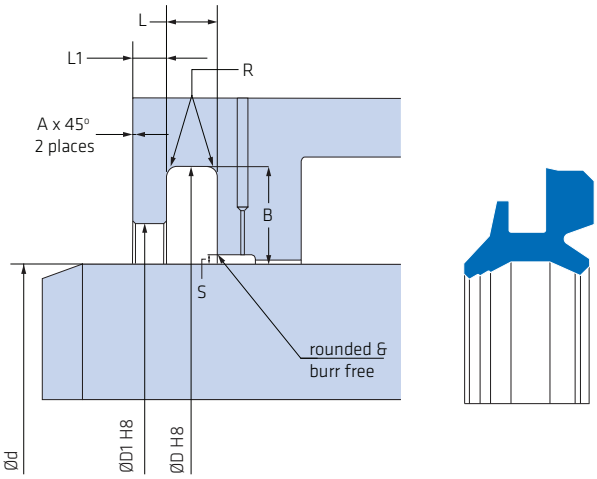
Above: *Installation Drawing*

DESIGN GUIDELINES

Type A



Type B



INCH SERIES TYPE A

	Rod Diameter Ød	B	ØD	ØD1	L +0.008	L1 -0.004	R1	R2	S
Series 1	up to 1.625 in	0.125	d+0.250	d+0.148	0.125	0.040	0.012	0.020	0.100
Series 2	up to 1.875 in	0.128	d+0.376	d+0.222	0.188	0.060	0.012	0.020	0.100
Series 3	up to 3.500 in	0.250	d+0.500	d+0.296	0.250	0.080	0.012	0.020	0.100
Series 4	up to 4.375 in	0.313	d+0.626	d+0.358	0.313	0.118	0.012	0.020	0.100
Series 5	up to 6.750 in	0.375	d+0.750	d+0.442	0.375	0.158	0.012	0.020	0.100
Series 6	19.685 and up	0.590	d+1.18	d+0.512	0.670	0.240	0.020	0.020	0.100

INCH SERIES TYPE B*

	Rod Diameter Ød	B	ØD	ØD1	L +0.008	L1 -0.004	R	A	S
Series 7	4.000 to 8.625 in	0.437	d+0.874	d+0.421	0.248	0.165	0.050	0.020	0.100
Series 8	up to 11.625 in	0.476	d+0.952	d+0.421	0.248	0.165	0.050	0.020	0.100
Series 9	up to 23.625 in	0.650	d+1.300	d+0.595	0.319	0.248	0.050	0.020	0.100
Series 10	up to 40.000 in	0.719	d+1.438	d+0.595	0.374	0.248	0.080	0.020	0.100

**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