

Features:

Excellent wiping and scraping performance

Abrasion resistant

Easy snap-in installation



MATERIAL

The 309 Series Single-Lip Wiper features high-grade polyurethane. Standard materials are MP03 machined H-PU, available up to 2100 millimeters in diameter, and MP50 injection-molded TPU. To suit a variety of applications the series is also available in NBR, H-NBR, EPDM and high temperature-resistant FPM.

Material	Code
Polyurethane H-PU (shown in photo)	MP03
Nitrile NBR	MN01
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	2 m/s (6.5 ft/sec)	
pressure	-	

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

DESCRIPTION

The 309 Series Snap-In Wiper is one of the most popular wipers available. It is manufactured from high-quality polyurethane, which ensures aggressive wiping performance and maximum abrasion resistance. The wiper is designed to exclude and protect the hydraulic cylinder in the harshest conditions. For a beveled lip option see 302 series.

PRODUCT BENEFITS

- Prevents pressure build up between wiper and seal
- Designed to fit securely in the groove
- Long service life

APPLICATIONS

The 309 Series Wiper is used in a range of standard applications where heavy contamination is present.

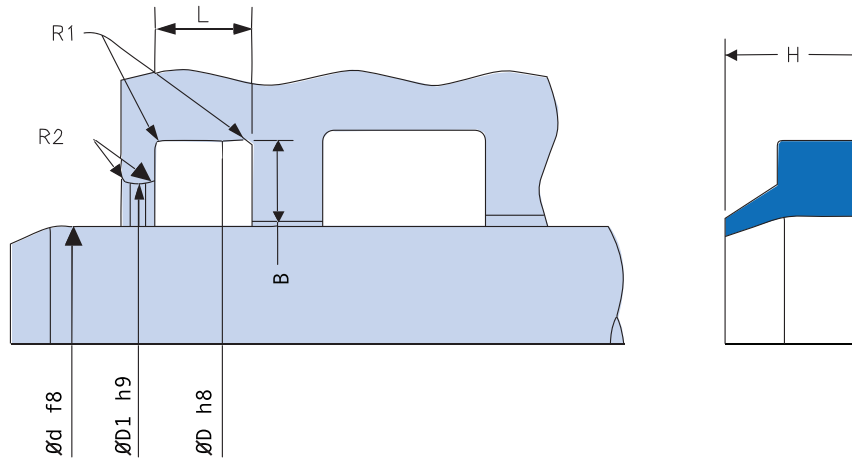
Typical applications include:

- Mining
- Mobile Hydraulics
- Agricultural
- Standard Hydraulic Cylinders



Above: Installation Drawing

DESIGN GUIDELINES



METRIC SERIES

	Rod Diameter Ød	B	ØD	ØD1	L ^{+0.20}	H	R1	R2
Series 1	up to 40.00 mm	4.30	d+8.60	d+3.00	5.30	7.00	0.30	0.50
Series 2	up to 70.00 mm	5.30	d+10.60	d+3.00	5.30	7.00	0.30	0.50
Series 3	up to 175.00 mm	7.50	d+15.00	d+7.60	10.20	16.00	0.30	0.50
Series 4	up to 250.00 mm	10.00	d+20.00	d+10.00	10.20	18.00	0.30	0.50
Series 5	up to 350.00 mm	12.50	d+25.00	d+12.60	12.70	20.00	0.30	0.50
Series 6	up to 1,000.00 mm	15.00	d+30.00	d+15.00	15.20	25.00	0.30	0.50

INCH SERIES

	Rod Diameter Ød	B	ØD	ØD1	L ^{+0.008}	H	R1	R2
Series 1	up to 1.625 in	0.169	d+0.339	d+0.118	0.209	0.276	0.012	0.020
Series 2	up to 2.750 in	0.209	d+0.417	d+0.118	0.209	0.276	0.012	0.020
Series 3	up to 6.750 in	0.295	d+0.591	d+0.299	0.402	0.630	0.012	0.020
Series 4	up to 10.000 in	0.394	d+0.787	d+0.394	0.402	0.709	0.012	0.020
Series 5	up to 13.750 in	0.492	d+0.984	d+0.496	0.500	0.787	0.012	0.020
Series 6	up to 40.000 in	0.591	d+1.181	d+0.591	0.598	0.984	0.012	0.020

Note: For a complete list of available sizes please refer to the System Seals online product catalogue at www.systemseals.com.

SURFACE FINISH

Surface roughness	Ra	Rt	RMS
Sliding surface	≤0.3 µm	≤3 µm	6-12 RMS
Surface of groove I.D.	≤1.8 µm	≤10 µm	64 RMS
Sides of groove	≤3 µm	≤16 µm	125 RMS