



Max. Operating Conditions	
Temperature (°C)	- 30 / + 110 / + 200
Speed (m/s)	≤ 1
Media:	Hydraulic fluids upon oil-basis, hardly inflaming hydraulic fluids, HFA-, HFB-Liquids

Recommended Surface Finish		
Surface roughness	$R_a$	$R_t$
Groove bottom	≤ 1,6 μm	≤ 16 μm
Groove flanks	≤ 1,6 μm	≤ 16 μm
Running surface	≤ 0,3 μm	≤ 3 μm

Material	
Polyurethane	PU
NBR	N
FKM (Viton®)	V

**Technical Description**

The double lipped wiper/scraper ring **W9** reliably prevents the penetration of foreign matters and water.

Additional tightness is provided through the geometry and shape of the wiper/scraper ring. The wiper/scraper lip towards the fluid side retains the sweeping oil in the system. It has to be assured that the fluid ist recirculated over the rod seal or through other constructive measures.

The wiper/scraper ring can be installed in the groove without using auxiliary devices.

The polyurethane material stands out for increased abrasion resistance and good resistance to ozone.

The double lipped wiper/scraper ring is available in polyurethane or NBR, alternatively.

The wiper/scraper ring **W9** is also available in FPM (Viton®) and appropriate for temperatures of up to +200 °C.



Type designation	∅ d	∅ D	H	L	∅ D <sub>1</sub>	L <sub>1</sub>
W9 - 105 - PU	105	117	11	8,2	110,0	3
W9 - 110 - PU	110	122	11	8,2	115,0	3
W9 - 115 - PU	115	127	11	8,2	120,0	3
W9 - 120 - PU	120	132	11	8,2	125,0	3
W9 - 125 - PU	125	137	11	8,2	130,0	3
W9 - 130 - PU	130	142	11	8,2	135,0	3
W9 - 135 - PU **	135	147	11	8,2	140,0	3
W9 - 140 - PU	140	152	11	8,2	145,0	3
W9 - 150 - PU	150	162	11	8,2	155,0	3
W9 - 160 - PU	160	172	11	8,2	165,0	3
W9 - 170 - PU	170	182	11	8,2	175,0	3
W9 - 180 - PU	180	192	11	8,2	185,0	3
W9 - 200 - PU	200	212	11	8,2	205,0	3

Further dimension and in-between sizes upon request.

\*\* These sizes are available upon request only.