



SEALING, ENGINEERING, AUGMENTING, LEADING

Royal Seals Private Limited

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About Us

Royal Seals Private Limited started operations in 2000 and had been serving our clientele for more than 2 decades. Having an employee strength of over 60 people, our Manufacturing and Design facilities are at Seal Valley, Naranganam, Pathanamthitta, India. We develop cutting-edge products for our customers around the globe.

With a constant focus on world leading technologies and excellence for our customers, we procure the world's best materials for our products..

Be it Space technology, Energy, Defence or Mobility, Hydraulic, Instrumentation or any other Engineering industry, we strive for our solutions to be responsible and improvised.

Our Materials

At **Royal Seals**, we use only polymers that are superior and sustainable. Products we manufacture are made to last. Therefore we procure polymers of best brands and thus our products stand out from the rest.

Polymers We Have

- Nitrile Butadiene Rubber (NBR)
- Viton Rubber (FKM)
- Ethylene Propylene Diene Monomer (EPDM)
- Chloroprene Rubber (CR)
- Silicone Rubber (VMQ)
- Polyurethane Rubber (PU)
- Teflon (PTFE)
- Delrin (POM)

Materials

Polymer	ASTM D1418 Designation	Trade Name	Temperature	Colour	Hardness	Strength	Weakness
Acrylonitrile Butadiene Rubber	NBR	Perbunan (Arlanxeo), Nipol (Zeon), Krynac (Arlanxeo)	-35 °C to 125 °C	Black, Blue, Brown, Red, Green	50 - 90 (Shore A)	Excellent resistance to petroleum based chemicals, fats, oils, strong oxidising chemicals	Ozone, ketones, esters, aldehydes, chlorinated hydrocarbons
Chloroprene Rubber	CR	Neoprene (Dow), Bayprene (Lanxess)	-35 °C to 120 °C	Black	50 - 90 (Shore A)	Weathering, flame, many petroleum fluids, water, most chemicals, acids, ozone, oils, greases and solvents	Strong esters, ketones, aromatic hydrocarbons and acids
Ethylene Propylene Diene Monomer	EPDM	Nordel (Dow), Keltan (Arlanxeo)	-35 °C to 150 °C	Black	50 - 90 (Shore A)	Excellent ozone resistance, animal and vegetable oils, strong oxidizing chemicals	Mineral oils and solvents and aromatic hydrocarbons
Fluorocarbon Rubber	FKM	Viton (Chemours), Dyneon (3M)	-30 °C to 210 °C	Black, Green, Brown	55 - 90 (Shore A)	High temperature resistance, high wear resistance, resistant to mineral oils, acids, esters and over 200 chemicals	Poor low temperature capabilities, not resistant to ketones, steam

Materials

Polymer	ASTM D1418 Designation	Trade Name	Temperature	Colour	Hardness	Strength	Weakness
Polyurethane	AU, EU	Millathane (TSE)	-40 °C to 100 °C	Black	50 - 90 (Shore A)	Great abrasion resistance, solvent resistance, ozone, moderate resistance to chemicals, oils	Poor at concentrated acids, ketones, esters
Natural Rubber	NR	-	-50 °C to 90 °C	Black	50 - 80 (Shore A)	Excellent Tear and Abrasion Resistance	Poor chemical compatibilities, poor oil, solvent resistance
Silicone Rubber	VMQ, PVMQ	Elastosil (Wacker)	-50 °C to 250 °C	Red	60 - 80 (Shore A)	Excellent temperature range, resistant to oxidising chemicals, ozone, ketones	Poor resistance to strong acids, oils and solvents
Polyoxymethylene	POM	Delrin (Dupont)	-40 °C to 100 °C	White, Black	80 (Shore D)	High Creep resistance, endurance, Stable with alkaines, Resistant to fuels, water, lyes, lubricants, alcohols and solvents	Not resistant to strong mineral acids, oxidising chemicals, ethers
Polytetrafluoroethylene	PTFE	Teflon (Dupont)	-200 °C to 300 °C	White (Virgin PTFE), Brown (Bronze Filled), Off White (Glass Filled), Black (Carbon Filled)	50 - 60 (Shore D)	Outstanding chemical resistance, Suitable for food contact, High resistance to weathering	Reactive to alkali metals

Products

Industries demands a large variety of sealing components for various applications in different profiles and materials to meet their standards. We at Royal Seals, makes seals and other products in polymers understanding the customer requirements by Designing, Machining, Manufacturing and Testing.

Royal Seals has numerous different products for various applications which are

1. O-Rings & Backup Rings
2. Hydraulic Seals
3. Pneumatic Seals
4. Rotary Shaft Seals
5. Custom Engineered Seals

O-Ring



O-Ring being the oldest sealing has a torus shape. Known as “Universal Gasket”, O-Rings have a radially symmetrical cross section and they can service for both static and dynamic systems on a variety of applications.

O-Ring

- Temp - upto 225° C
- Static Pressure - upto 300 bar
- Dynamic Pressure - upto 100 bar

Materials

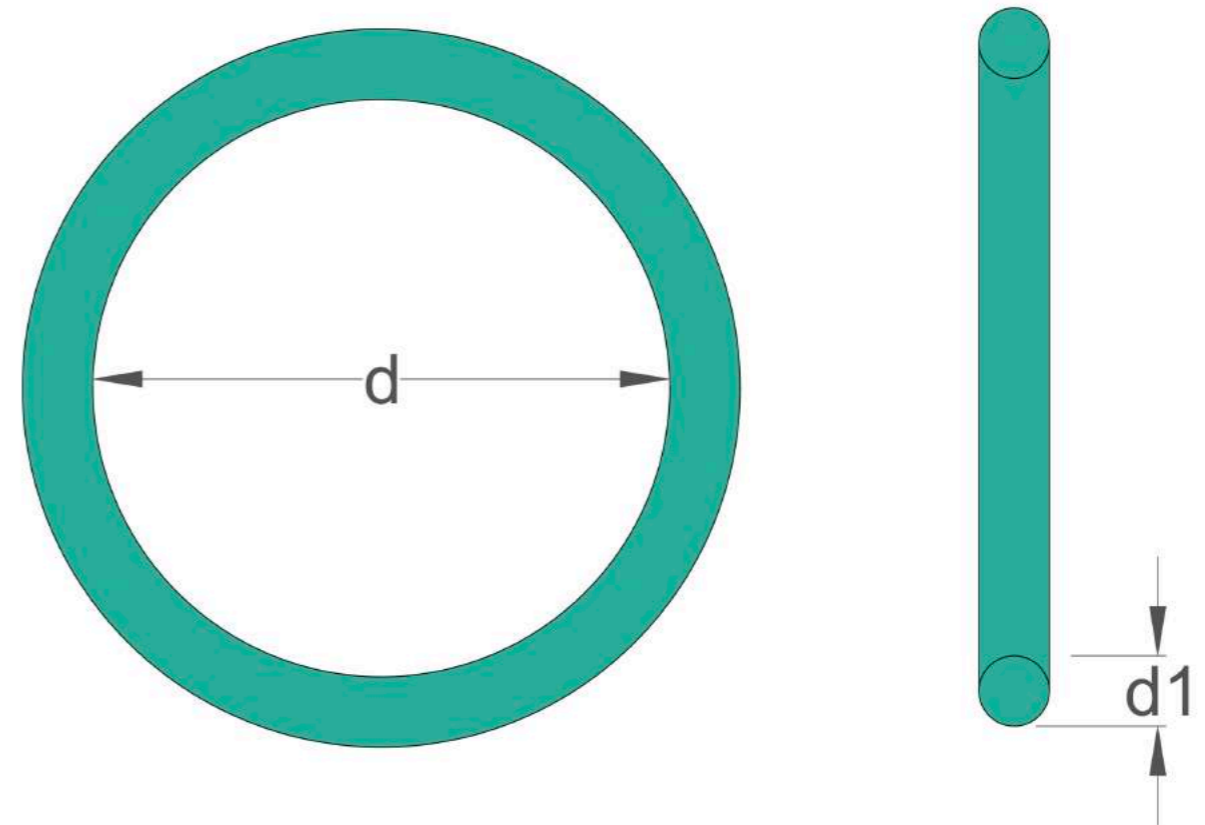
- NBR
- FKM
- CR
- EPDM
- VMQ



Our Range
upto 800 mm ID

O-Ring

ISO 3601-1 CODE	Inner Dia	Tol.	Cross Section	Part No.
	d		d1	
-4	1.78	0.13	1.78	OR0001780178
-5	2.57	0.13	1.78	OR0002570178
-6	2.9	0.13	1.78	OR0002900178
-7	3.68	0.13	1.78	OR0003680178
-8	4.47	0.13	1.78	OR0004470178
-9	5.28	0.13	1.78	OR0005280178
-10	6.07	0.13	1.78	OR0006070178
-11	7.65	0.13	1.78	OR0007650178
-12	9.25	0.13	1.78	OR0009250178
-13	10.82	0.13	1.78	OR0010820178
-14	12.42	0.13	1.78	OR0012420178
-15	14	0.18	1.78	OR0014000178
-16	15.6	0.23	1.78	OR0015600178
-17	17.17	0.23	1.78	OR0017170178
-18	18.77	0.23	1.78	OR0018770178
-19	20.35	0.23	1.78	OR0020350178
-20	21.95	0.23	1.78	OR0021950178
-21	23.52	0.23	1.78	OR0023520178
-22	25.12	0.25	1.78	OR0025120178
-23	26.6	0.25	1.78	OR0026600178
-24	28.3	0.25	1.78	OR0028300178
-25	29.87	0.28	1.78	OR0029870178
-26	31.47	0.28	1.78	OR0031470178
-27	33.05	0.28	1.78	OR0033050178



O-Ring

ISO CODE	d	Tol.	d1	Part No.
-28	34.65	0.33	1.78	OR0034650178
-29	37.82	0.33	1.78	OR0037820178
-30	41	0.33	1.78	OR0041000178
-31	44.17	0.38	1.78	OR0044170178
-32	47.35	0.38	1.78	OR0047350178
-33	50.52	0.46	1.78	OR0050520178
-34	53.7	0.46	1.78	OR0053700178
-35	56.87	0.46	1.78	OR0056870178
-36	60.05	0.46	1.78	OR0060050178
-37	63.22	0.46	1.78	OR0063220178
-38	66.4	0.51	1.78	OR0066400178
-39	69.57	0.51	1.78	OR0069570178
-40	72.75	0.51	1.78	OR0072750178
-41	75.92	0.61	1.78	OR0075920178
-42	82.27	0.61	1.78	OR0082270178
-43	88.62	0.61	1.78	OR0088620178
-44	94.97	0.69	1.78	OR0094970178
-45	101.32	0.69	1.78	OR0101320178
-46	107.67	0.76	1.78	OR0107670178
-47	114.02	0.76	1.78	OR0114020178
-48	120.37	0.76	1.78	OR0120370178
-49	126.72	0.94	1.78	OR0126720178
-50	133.07	0.94	1.78	OR0133070178
A0018	1.8	0.13	1.8	OR0001800180
A0020	2	0.13	1.8	OR0002000180

ISO CODE	d	Tol.	d1	Part No.
-28	34.65	0.33	1.78	OR0034650178
-29	37.82	0.33	1.78	OR0037820178
-30	41	0.33	1.78	OR0041000178
-31	44.17	0.38	1.78	OR0044170178
-32	47.35	0.38	1.78	OR0047350178
-33	50.52	0.46	1.78	OR0050520178
-34	53.7	0.46	1.78	OR0053700178
-35	56.87	0.46	1.78	OR0056870178
-36	60.05	0.46	1.78	OR0060050178
-37	63.22	0.46	1.78	OR0063220178
-38	66.4	0.51	1.78	OR0066400178
-39	69.57	0.51	1.78	OR0069570178
-40	72.75	0.51	1.78	OR0072750178
-41	75.92	0.61	1.78	OR0075920178
-42	82.27	0.61	1.78	OR0082270178
-43	88.62	0.61	1.78	OR0088620178
-44	94.97	0.69	1.78	OR0094970178
-45	101.32	0.69	1.78	OR0101320178
-46	107.67	0.76	1.78	OR0107670178
-47	114.02	0.76	1.78	OR0114020178
-48	120.37	0.76	1.78	OR0120370178
-49	126.72	0.94	1.78	OR0126720178
-50	133.07	0.94	1.78	OR0133070178
A0018	1.8	0.13	1.8	OR0001800180
A0020	2	0.13	1.8	OR0002000180

O-Ring

ISO CODE	d	Tol.	d1	Part No.
A0024	2.24	0.13	1.8	OR0002240180
A0025	2.5	0.13	1.8	OR0002500180
A0028	2.8	0.13	1.8	OR0002800180
A0032	3.15	0.13	1.8	OR0003150180
A0036	3.55	0.13	1.8	OR0003550180
A0038	3.75	0.13	1.8	OR0003750180
A0040	4	0.13	1.8	OR0004000180
A0045	4.5	0.13	1.8	OR0004500180
A0049	4.87	0.13	1.8	OR0004870180
A0050	5	0.13	1.8	OR0005000180
A0052	5.15	0.13	1.8	OR0005150180
A0053	5.3	0.13	1.8	OR0005300180
A0056	5.6	0.13	1.8	OR0005600180
A0060	6	0.13	1.8	OR0006000180
A0063	6.3	0.13	1.8	OR0006300180
A0067	6.7	0.13	1.8	OR0006700180
A0069	6.9	0.14	1.8	OR0006900180
A0071	7.1	0.14	1.8	OR0007100180
A0075	7.5	0.14	1.8	OR0007500180
A0080	8	0.14	1.8	OR0008000180
A0085	8.5	0.15	1.8	OR0008500180
A0088	8.75	0.15	1.8	OR0008750180
A0090	9	0.15	1.8	OR0009000180
A0095	9.5	0.15	1.8	OR0009500180
A0100	10	0.15	1.8	OR0010000180

ISO CODE	d	Tol.	d1	Part No.
A0106	10.6	0.16	1.8	OR0010600180
A0112	11.2	0.16	1.8	OR0011200180
A0118	11.8	0.17	1.8	OR0011800180
A0125	12.5	0.17	1.8	OR0012500180
A0132	13.2	0.17	1.8	OR0013200180
A0140	14	0.18	1.8	OR0014000180
A0150	15	0.18	1.8	OR0015000180
A0160	16	0.19	1.8	OR0016000180
A0170	17	0.2	1.8	OR0017000180
A0180	18	0.2	1.8	OR0018000180
A0190	19	0.21	1.8	OR0019000180
A0200	20	0.21	1.8	OR0020000180
A0212	21.2	0.22	1.8	OR0021200180
A0224	22.4	0.23	1.8	OR0022400180
A0236	23.6	0.24	1.8	OR0023600180
A0250	25	0.24	1.8	OR0025000180
A0258	25.8	0.25	1.8	OR0025800180
A0265	26.5	0.25	1.8	OR0026500180
A0280	28	0.26	1.8	OR0028000180
A0300	30	0.26	1.8	OR0030000180
AO315	31.5	0.28	1.8	OR0031500180
A0325	32.5	0.29	1.8	OR0032500180
A0335	33.5	0.29	1.8	OR0033500180
AO345	34.5	0.3	1.8	OR0034500180
AO355	35.5	0.31	1.8	OR0035500180

O-Ring

ISO CODE	d	Tol.	d1	Part No.
A0365	36.5	0.31	1.8	OR0036500180
A0375	37.5	0.32	1.8	OR0037500180
A0380	38.7	0.32	1.8	OR0038700180
A0400	40	0.33	1.8	OR0040000180
A0412	41.2	0.34	1.8	OR0041200180
A0425	42.5	0.35	1.8	OR0042500180
A0437	43.7	0.35	1.8	OR0043700180
A0450	45	0.36	1.8	OR0045000180
A0475	47.5	0.38	1.8	OR0047500180
A0500	50	0.39	1.8	OR0050000180
A0530	53	0.41	1.8	OR0053000180
A0560	56	0.42	1.8	OR0056000180
A0600	60	0.45	1.8	OR0060000180
A0630	63	0.46	1.8	OR0063000180
A0670	67	0.49	1.8	OR0067000180
A0710	71	0.51	1.8	OR0071000180
A0750	75	0.53	1.8	OR0075000180
A0800	80	0.56	1.8	OR0080000180
A0850	85	0.59	1.8	OR0085000180
A0900	90	0.62	1.8	OR0090000180
A0950	95	0.64	1.8	OR0095000180
A1000	100	0.67	1.8	OR0100000180
A1060	106	0.71	1.8	OR0106000180
A1120	112	0.74	1.8	OR0112000180
A1180	118	0.77	1.8	OR0118000180

ISO CODE	d	Tol.	d1	Part No.
A1250	125	0.81	1.8	OR0125000180
-102	1.24	0.13	2.62	OR0001240262
-103	2.06	0.13	2.62	OR0002060262
-104	2.84	0.13	2.62	OR0002840262
-105	3.63	0.13	2.62	OR0003630262
-106	4.42	0.13	2.62	OR0004420262
-107	5.23	0.13	2.62	OR0005230262
-108	6.02	0.13	2.62	OR0006020262
-109	7.59	0.13	2.62	OR0007590262
-110	9.19	0.13	2.62	OR0009190262
-111	10.77	0.13	2.62	OR0010770262
-112	12.37	0.13	2.62	OR0012370262
-113	15.54	0.23	2.62	OR0015540262
-114	17.12	0.23	2.62	OR0017120262
-115	18.72	0.23	2.62	OR0018720262
-116	20.29	0.25	2.62	OR0020290262
-118	21.89	0.25	2.62	OR0021890262
-119	23.47	0.25	2.62	OR0023470262
-120	25.07	0.25	2.62	OR0025070262
-121	26.64	0.25	2.62	OR0026640262
-122	28.24	0.25	2.62	OR0028240262
-123	29.82	0.3	2.62	OR0029820262
-124	31.42	0.3	2.62	OR0031420262
-125	32.99	0.3	2.62	OR0032990262
-126	34.59	0.3	2.62	OR0034590262

O-Ring

ISO CODE	d	Tol.	d1	Part No.
-127	36.17	0.3	2.62	OR0036170262
-128	37.77	0.3	2.62	OR0037770262
-129	39.34	0.38	2.62	OR0039340262
-130	40.94	0.38	2.62	OR0040940262
-131	42.52	0.38	2.62	OR0042520262
-132	44.12	0.38	2.62	OR0044120262
-133	45.69	0.38	2.62	OR0045690262
-134	47.29	0.38	2.62	OR0047290262
-135	48.9	0.43	2.62	OR0048900262
-136	50.47	0.43	2.62	OR0050470262
-137	52.07	0.43	2.62	OR0052070262
-138	53.64	0.43	2.62	OR0053640262
-139	55.25	0.43	2.62	OR0055250262
-140	56.82	0.43	2.62	OR0056820262
-141	58.42	0.51	2.62	OR0058420262
-142	59.99	0.51	2.62	OR0059990262
-143	61.6	0.51	2.62	OR0061600262
-144	63.17	0.51	2.62	OR0063170262
-145	64.77	0.51	2.62	OR0064770262
-146	66.34	0.51	2.62	OR0066340262
-147	67.95	0.56	2.62	OR0067950262
-148	69.52	0.56	2.62	OR0069520262
-149	71.12	0.56	2.62	OR0071120262
-150	72.69	0.56	2.62	OR0072690262
-151	75.87	0.61	2.62	OR0075870262

ISO CODE	d	Tol.	d1	Part No.
-152	82.22	0.61	2.62	OR0082220262
-153	88.57	0.61	2.62	OR0088570262
-154	94.92	0.71	2.62	OR0094920262
-155	101.27	0.71	2.62	OR0101270262
-156	107.62	0.76	2.62	OR0107620262
-157	113.97	0.76	2.62	OR0113970262
-158	120.32	0.76	2.62	OR0120320262
-159	126.67	0.89	2.62	OR0126670262
-160	133.02	0.89	2.62	OR0133020262
-161	139.37	0.89	2.62	OR0139370262
-162	145.72	0.89	2.62	OR0145720262
-163	152.07	0.89	2.62	OR0152070262
-164	158.42	1.02	2.62	OR0158420262
-167	177.47	1.02	2.62	OR0177470262
-168	183.82	1.14	2.62	OR0183820262
-168	183.82	1.14	2.62	OR0183820262
-169	190.17	1.14	2.62	OR0190170262
-169	190.17	1.14	2.62	OR0190170262
-170	196.52	1.14	2.62	OR0196520262
-170	196.52	1.14	2.62	OR0196520262
-171	202.87	1.14	2.62	OR0202870262
-171	202.87	1.14	2.62	OR0202870262
-172	209.22	1.27	2.62	OR0209220262
-172	209.22	1.27	2.62	OR0209220262
-173	215.57	1.27	2.62	OR0215570262

O-Ring

ISO CODE	d	Tol.	d1	Part No.
-173	215.57	1.27	2.62	OR0215570262
-174	221.92	1.27	2.62	OR0221920262
-174	221.92	1.27	2.62	OR0221920262
-175	228.27	1.27	2.62	OR0228270262
-175	228.27	1.27	2.62	OR0228270262
-176	234.62	1.4	2.62	OR0234620262
-176	234.62	1.4	2.62	OR0234620262
-177	240.97	1.4	2.62	OR0240970262
-177	240.97	1.4	2.62	OR0240970262
-178	247.32	1.4	2.62	OR0247320262
-178	247.32	1.4	2.62	OR0247320262
B0045	4.5	0.13	2.65	OR0004500265
B0053	5.3	0.13	2.65	OR0005300265
B0060	6	0.13	2.65	OR0006000265
B0069	6.9	0.14	2.65	OR0006900265
B0080	8	0.14	2.65	OR0008000265
B0090	9	0.15	2.65	OR0009000265
B0095	9.5	0.15	2.65	OR0009500265
B0100	10	0.15	2.65	OR0010000265
B0106	10.6	0.16	2.65	OR0010600265
B0112	11.2	0.16	2.65	OR0011200265
B0118	11.8	0.17	2.65	OR0011800265
B0125	12.5	0.17	2.65	OR0012500265
B0132	13.2	0.17	2.65	OR0013200265
B0140	14	0.18	2.65	OR0014000265

ISO CODE	d	Tol.	d1	Part No.
B0150	15	0.18	2.65	OR0015000265
B0160	16	0.19	2.65	OR0016000265
B0170	17	0.2	2.65	OR0017000265
B0180	18	0.2	2.65	OR0018000265
B0190	19	0.21	2.65	OR0019000265
B0200	20	0.21	2.65	OR0020000265
B0212	21.2	0.22	2.65	OR0021200265
B0224	22.4	0.23	2.65	OR0022400265
B0236	23.6	0.24	2.65	OR0023600265
B0250	25	0.24	2.65	OR0025000265
B0258	25.8	0.25	2.65	OR0025800265
B0265	26.5	0.25	2.65	OR0026500265
B0280	28	0.26	2.65	OR0028000265
B0300	30	0.27	2.65	OR0030000265
B0315	31.5	0.28	2.65	OR0031500265
B0325	32.5	0.29	2.65	OR0032500265
B0335	33.5	0.29	2.65	OR0033500265
B0345	34.5	0.3	2.65	OR0034500265
B0355	35.5	0.31	2.65	OR0035500265
B0365	36.5	0.31	2.65	OR0036500265
B0375	37.5	0.32	2.65	OR0037500265
B0387	38.7	0.32	2.65	OR0038700265
B0400	40	0.33	2.65	OR0040000265
B0412	41.2	0.34	2.65	OR0041200265
B0425	42.5	0.35	2.65	OR0042500265

O-Ring

ISO CODE	d	Tol.	d1	Part No.
B0437	43.7	0.35	2.65	OR0043700265
B0450	45	0.36	2.65	OR0045000265
B0462	46.2	0.37	2.65	OR0046200265
B0475	47.5	0.38	2.65	OR0047500265
B0487	48.7	0.38	2.65	OR0048700265
B0500	50	0.39	2.65	OR0050000265
B0515	51.5	0.4	2.65	OR0051500265
B0530	53	0.41	2.65	OR0053000265
B0545	54.5	0.42	2.65	OR0054500265
B0560	56	0.42	2.65	OR0056000265
B0580	58	0.44	2.65	OR0058000265
B0600	60	0.45	2.65	OR0060000265
B0615	61.5	0.45	2.65	OR0061500265
B0630	63	0.46	2.65	OR0063000265
B0650	65	0.48	2.65	OR0065000265
B0670	67	0.49	2.65	OR0067000265
B0690	69	0.5	2.65	OR0069000265
B0710	71	0.51	2.65	OR0071000265
B0730	73	0.52	2.65	OR0073000265
B0750	75	0.53	2.65	OR0075000265
B0800	80	0.56	2.65	OR0080000265
B0850	85	0.59	2.65	OR0085000265
B0900	90	0.62	2.65	OR0090000265
B0950	95	0.64	2.65	OR0095000265
B1000	100	0.67	2.65	OR0100000265

ISO CODE	d	Tol.	d1	Part No.
B1060	106	0.71	2.65	OR0106000265
B1120	112	0.74	2.65	OR0112000265
B1180	118	0.77	2.65	OR0118000265
B1250	125	0.81	2.65	OR0125000265
B1320	132	0.85	2.65	OR0132000265
B1400	140	0.89	2.65	OR0140000265
B1500	150	0.95	2.65	OR0150000265
B1600	160	1	2.65	OR0160000265
B1700	170	1.06	2.65	OR0170000265
B1800	180	1.11	2.65	OR0180000265
B1900	190	1.17	2.65	OR0190000265
B2000	200	1.22	2.65	OR0200000265
B2120	212	1.29	2.65	OR0212000265
B2240	224	1.35	2.65	OR0224000265
B2300	230	1.39	2.65	OR0230000265
B2360	236	1.42	2.65	OR0236000265
B2430	243	1.46	2.65	OR0243000265
B2500	250	1.49	2.65	OR0250000265
-201	4.34	0.13	3.53	OR0004340353
-202	5.94	0.13	3.53	OR0005940353
-203	7.52	0.13	3.53	OR0007520353
-204	9.12	0.13	3.53	OR0009120353
-205	10.69	0.13	3.53	OR0010690353
-206	12.29	0.13	3.53	OR0012290353
-207	13.87	0.18	3.53	OR0013870353

O-Ring

ISO CODE	d	Tol.	d1	Part No.
-208	15.47	0.23	3.53	OR0015470353
-209	17.04	0.23	3.53	OR0017040353
-210	18.64	0.25	3.53	OR0018640353
-211	20.22	0.25	3.53	OR0020220353
-212	21.82	0.25	3.53	OR0021820353
-213	23.39	0.25	3.53	OR0023390353
-214	24.99	0.25	3.53	OR0024990353
-215	26.57	0.25	3.53	OR0026570353
-216	28.17	0.3	3.53	OR0028170353
-217	29.74	0.3	3.53	OR0029740353
-218	31.34	0.3	3.53	OR0031340353
-219	32.92	0.3	3.53	OR0032920353
-220	34.52	0.3	3.53	OR0034520353
-221	36.09	0.3	3.53	OR0036090353
-222	37.69	0.38	3.53	OR0037690353
-223	40.87	0.38	3.53	OR0040870353
-224	44.04	0.38	3.53	OR0044040353
-225	47.22	0.46	3.53	OR0047220353
-226	50.39	0.46	3.53	OR0050390353
-227	53.57	0.46	3.53	OR0053570353
-228	56.74	0.51	3.53	OR0056740353
-229	59.92	0.51	3.53	OR0059920353
-230	63.09	0.51	3.53	OR0063090353
-231	66.27	0.51	3.53	OR0066270353
-232	69.44	0.61	3.53	OR0069440353

ISO CODE	d	Tol.	d1	Part No.
-233	72.62	0.61	3.53	OR0072620353
-234	75.79	0.61	3.53	OR0075790353
-235	78.97	0.61	3.53	OR0078970353
-236	82.14	0.61	3.53	OR0082140353
-237	85.32	0.61	3.53	OR0085320353
-238	88.49	0.61	3.53	OR0088490353
-239	91.67	0.71	3.53	OR0091670353
-240	94.84	0.71	3.53	OR0094840353
-241	98.02	0.71	3.53	OR0098020353
-242	101.19	0.71	3.53	OR0101190353
-243	104.37	0.71	3.53	OR0104370353
-244	107.54	0.76	3.53	OR0107540353
-245	110.72	0.76	3.53	OR0110720353
-246	113.89	0.76	3.53	OR0113890353
-247	117.07	0.76	3.53	OR0117070353
-248	120.24	0.76	3.53	OR0120240353
-249	123.42	0.89	3.53	OR0123420353
-250	126.59	0.89	3.53	OR0126590353
-251	129.77	0.89	3.53	OR0129770353
-252	132.94	0.89	3.53	OR0132940353
-253	136.12	0.89	3.53	OR0136120353
-254	139.29	0.89	3.53	OR0139290353
-255	142.27	0.89	3.53	OR0142270353
-256	145.64	0.89	3.53	OR0145640353
-257	148.82	0.89	3.53	OR0148820353

O-Ring

ISO CODE	d	Tol.	d1	Part No.
-258	151.99	0.89	3.53	OR0151990353
-259	158.34	1.02	3.53	OR0158340353
-260	164.69	1.02	3.53	OR0164690353
-261	171.04	1.02	3.53	OR0171040353
-262	177.39	1.02	3.53	OR0177390353
-263	183.74	1.14	3.53	OR0183740353
-264	190.09	1.14	3.53	OR0190090353
-265	196.44	1.14	3.53	OR0196440353
-266	202.79	1.14	3.53	OR0202790353
-267	209.14	1.27	3.53	OR0209140353
-268	215.49	1.27	3.53	OR0215490353
-269	221.84	1.27	3.53	OR0221840353
-270	228.19	1.27	3.53	OR0228190353
-271	234.54	1.4	3.53	OR0234540353
-272	240.89	1.4	3.53	OR0240890353
-273	247.24	1.4	3.53	OR0247240353
-274	253.59	1.4	3.53	OR0253590353
-275	266.29	1.4	3.53	OR0266290353
-276	278.99	1.65	3.53	OR0278990353
-277	291.69	1.65	3.53	OR0291690353
-278	304.39	1.65	3.53	OR0304390353
-279	329.79	1.65	3.53	OR0329790353
-280	355.19	1.65	3.53	OR0355190353
-281	380.59	1.65	3.53	OR0380590353
-282	405.26	1.91	3.53	OR0405260353

ISO CODE	d	Tol.	d1	Part No.
-283	430.66	2.03	3.53	OR0430660353
-284	456.06	2.16	3.53	OR0456060353
C0140	14	0.18	3.55	OR0014000355
C0150	15	0.18	3.55	OR0015000355
C0160	16	0.19	3.55	OR0016000355
C0170	17	0.2	3.55	OR0017000355
C0180	18	0.2	3.55	OR0018000355
C0190	19	0.21	3.55	OR0019000355
C0200	20	0.21	3.55	OR0020000355
C0212	21.2	0.22	3.55	OR0021200355
C0224	22.4	0.23	3.55	OR0022400355
C0236	23.6	0.24	3.55	OR0023600355
C0250	25	0.24	3.55	OR0025000355
C0258	25.8	0.25	3.55	OR0025800355
C0265	26.5	0.25	3.55	OR0026500355
C0280	28	0.26	3.55	OR0028000355
C0300	30	0.27	3.55	OR0030000355
C0315	31.5	0.28	3.55	OR0031500355
C0325	32.5	0.29	3.55	OR0032500355
C0335	33.5	0.29	3.55	OR0033500355
C0345	34.5	0.3	3.55	OR0034500355
C0355	35.5	0.31	3.55	OR0035500355
C0365	36.5	0.31	3.55	OR0036500355
C0375	37.5	0.32	3.55	OR0037500355
C0387	38.7	0.32	3.55	OR0038700355

O-Ring

ISO CODE	d	Tol.	d1	Part No.
C0400	40	0.33	3.55	OR0040000355
C0412	41.2	0.34	3.55	OR0041200355
C0425	42.5	0.35	3.55	OR0042500355
C0437	43.7	0.35	3.55	OR0043700355
C0450	45	0.36	3.55	OR0045000355
C0462	46.2	0.37	3.55	OR0046200355
CO475	47.5	0.38	3.55	OR0047500355
C0487	48.7	0.38	3.55	OR0048700355
C0500	50	0.39	3.55	OR0050000355
C0515	51.5	0.4	3.55	OR0051500355
C0530	53	0.41	3.55	OR0053000355
C0545	54.5	0.42	3.55	OR0054500355
C0560	56	0.42	3.55	OR0056000355
C0580	58	0.44	3.55	OR0058000355
C0600	60	0.45	3.55	OR0060000355
C0615	61.5	0.45	3.55	OR0061500355
C0630	63	0.46	3.55	OR0063000355
C0650	65	0.48	3.55	OR0065000355
C0670	67	0.49	3.55	OR0067000355
C0690	69	0.5	3.55	OR0069000355
C0710	71	0.51	3.55	OR0071000355
C0730	73	0.52	3.55	OR0073000355
C0750	75	0.53	3.55	OR0075000355
C0775	77.5	0.55	3.55	OR0077500355
C0800	80	0.56	3.55	OR0080000355

ISO CODE	d	Tol.	d1	Part No.
C0825	82.5	0.57	3.55	OR0082500355
C0850	85	0.59	3.55	OR0085000355
C0875	87.5	0.6	3.55	OR0087500355
C0900	90	0.62	3.55	OR0090000355
C0925	92.5	0.63	3.55	OR0092500355
C0950	95	0.64	3.55	OR0095000355
C0975	97.5	0.66	3.55	OR0097500355
C1000	100	0.67	3.55	OR0100000355
C1030	103	0.69	3.55	OR0103000355
C1060	106	0.71	3.55	OR0106000355
C1090	109	0.72	3.55	OR0109000355
C1120	112	0.74	3.55	OR0112000355
C1150	115	0.76	3.55	OR0115000355
C1180	118	0.77	3.55	OR0118000355
C1220	122	0.8	3.55	OR0122000355
C1250	125	0.81	3.55	OR0125000355
C1280	128	0.83	3.55	OR0128000355
C1320	132	0.85	3.55	OR0132000355
C1360	136	0.87	3.55	OR0136000355
C1400	140	0.89	3.55	OR0140000355
C1450	145	0.92	3.55	OR0145000355
C1500	150	0.95	3.55	OR0150000355
C1550	155	0.98	3.55	OR0155000355
C1600	160	1	3.55	OR0160000355
C1650	165	1.03	3.55	OR0165000355

O-Ring

ISO CODE	d	Tol.	d1	Part No.
C1700	170	1.06	3.55	OR0170000355
C1750	175	1.09	3.55	OR0175000355
C1800	180	1.11	3.55	OR0180000355
C1850	185	1.14	3.55	OR0185000355
C1900	190	1.17	3.55	OR0190000355
C1950	195	1.2	3.55	OR0195000355
C2000	200	1.22	3.55	OR0200000355
C2120	212	1.29	3.55	OR0212000355
C2180	218	1.32	3.55	OR0218000355
C2240	224	1.35	3.55	OR0224000355
C2300	230	1.39	3.55	OR0230000355
C2360	236	1.42	3.55	OR0236000355
C2500	250	1.49	3.55	OR0250000355
C2580	258	1.54	3.55	OR0258000355
C2650	265	1.57	3.55	OR0265000355
C2800	280	1.65	3.55	OR0280000355
C2900	290	1.71	3.55	OR0290000355
C3000	300	1.76	3.55	OR0300000355
C3070	307	1.8	3.55	OR0307000355
C3150	315	1.84	3.55	OR0315000355
C3350	335	1.95	3.55	OR0335000355
C3550	355	2.06	3.55	OR0355000355
D0375	37.5	0.32	5.3	OR0037500530
D0387	38.7	0.32	5.3	OR0038700530
D0400	40	0.33	5.3	OR0040000530

ISO CODE	d	Tol.	d1	Part No.
D0412	41.2	0.34	5.3	OR0041200530
D0425	42.5	0.35	5.3	OR0042500530
D0437	43.7	0.35	5.3	OR0043700530
D0450	45	0.36	5.3	OR0045000530
D0462	46.2	0.37	5.3	OR0046200530
D0475	47.5	0.38	5.3	OR0047500530
D0487	48.7	0.38	5.3	OR0048700530
D0500	50	0.39	5.3	OR0050000530
D0515	51.5	0.4	5.3	OR0051500530
D0530	53	0.41	5.3	OR0053000530
D0545	54.5	0.42	5.3	OR0054500530
D0560	56	0.42	5.3	OR0056000530
D0580	58	0.44	5.3	OR0058000530
D0600	60	0.45	5.3	OR0060000530
D0615	61.5	0.45	5.3	OR0061500530
D0630	63	0.46	5.3	OR0063000530
D0650	65	0.48	5.3	OR0065000530
D0670	67	0.49	5.3	OR0067000530
D0670	67	0.49	5.3	OR0067000530
D0690	69	0.5	5.3	OR0069000530
D0710	71	0.51	5.3	OR0071000530
D0730	73	0.52	5.3	OR0073000530
D0750	75	0.53	5.3	OR0075000530
D0775	77.5	0.55	5.3	OR0077500530
D0800	80	0.56	5.3	OR0080000530

O-Ring

ISO CODE	d	Tol.	d1	Part No.
D0825	82.5	0.57	5.3	OR0082500530
D0850	85	0.59	5.3	OR0085000530
D0875	87.5	0.6	5.3	OR0087500530
D0900	90	0.62	5.3	OR0090000530
D0925	92.5	0.63	5.3	OR0092500530
D0950	95	0.64	5.3	OR0095000530
D0975	97.5	0.66	5.3	OR0097500530
D1000	100	0.67	5.3	OR0100000530
D1030	103	0.69	5.3	OR0103000530
D1060	106	0.71	5.3	OR0106000530
D1090	109	0.72	5.3	OR0109000530
D1120	112	0.74	5.3	OR0112000530
D1150	115	0.76	5.3	OR0115000530
D1180	118	0.77	5.3	OR0118000530
D1220	122	0.8	5.3	OR0122000530
D1250	125	0.81	5.3	OR0125000530
D1280	128	0.83	5.3	OR0128000530
D1320	132	0.85	5.3	OR0132000530
D1360	136	0.87	5.3	OR0136000530
D1400	140	0.89	5.3	OR0140000530
D1450	145	0.92	5.3	OR0145000530
D1500	150	0.95	5.3	OR0150000530
D1550	155	0.98	5.3	OR0155000530
D1600	160	1	5.3	OR0160000530
D1650	165	1.03	5.3	OR0165000530

ISO CODE	d	Tol.	d1	Part No.
D1700	170	1.06	5.3	OR0170000530
D1750	175	1.09	5.3	OR0175000530
D1800	180	1.11	5.3	OR0180000530
D1850	185	1.14	5.3	OR0185000530
D1900	190	1.17	5.3	OR0190000530
D1950	195	1.2	5.3	OR0195000530
D2000	200	1.22	5.3	OR0200000530
-309	10.46	0.13	5.33	OR0010460533
-310	12.07	0.13	5.33	OR0012070533
-311	13.64	0.18	5.33	OR0013640533
-312	15.24	0.23	5.33	OR0015240533
-313	16.81	0.23	5.33	OR0016810533
-314	18.42	0.25	5.33	OR0018420533
-315	19.99	0.25	5.33	OR0019990533
-316	21.59	0.25	5.33	OR0021590533
-317	23.16	0.25	5.33	OR0023160533
-318	24.77	0.25	5.33	OR0024770533
-319	26.34	0.25	5.33	OR0026340533
-320	27.94	0.3	5.33	OR0027940533
-321	29.51	0.3	5.33	OR0029510533
-322	31.12	0.3	5.33	OR0031120533
-323	32.69	0.3	5.33	OR0032690533
-324	34.29	0.3	5.33	OR0034290533
-325	37.47	0.38	5.33	OR0037470533
-326	40.64	0.38	5.33	OR0040640533

O-Ring

ISO CODE	d	Tol.	d1	Part No.
-327	43.82	0.38	5.33	OR0043820533
-328	46.99	0.38	5.33	OR0046990533
-329	50.17	0.46	5.33	OR0050170533
-330	53.34	0.46	5.33	OR0053340533
-331	56.52	0.46	5.33	OR0056520533
-332	59.69	0.46	5.33	OR0059690533
-333	62.87	0.51	5.33	OR0062870533
-334	66.04	0.51	5.33	OR0066040533
-335	69.22	0.51	5.33	OR0069220533
-336	72.39	0.51	5.33	OR0072390533
-337	75.57	0.61	5.33	OR0075570533
-338	78.74	0.61	5.33	OR0078740533
-339	81.92	0.61	5.33	OR0081920533
-340	85.09	0.61	5.33	OR0085090533
-341	88.27	0.61	5.33	OR0088270533
-342	91.44	0.71	5.33	OR0091440533
-343	94.62	0.71	5.33	OR0094620533
-344	97.79	0.71	5.33	OR0097790533
-345	100.97	0.71	5.33	OR0100970533
-346	104.14	0.71	5.33	OR0104140533
-347	107.32	0.76	5.33	OR0107320533
-348	110.49	0.76	5.33	OR0110490533
-349	113.67	0.76	5.33	OR0113670533
-350	116.84	0.76	5.33	OR0116840533
-351	120.02	0.76	5.33	OR0120020533

ISO CODE	d	Tol.	d1	Part No.
-352	123.19	0.76	5.33	OR0123190533
-353	126.37	0.94	5.33	OR0126370533
-354	129.54	0.94	5.33	OR0129540533
-355	132.72	0.94	5.33	OR0132720533
-356	135.89	0.94	5.33	OR0135890533
-357	139.07	0.94	5.33	OR0139070533
-358	142.24	0.94	5.33	OR0142240533
-359	145.42	0.94	5.33	OR0145420533
-360	148.59	0.94	5.33	OR0148590533
-361	151.77	0.94	5.33	OR0151770533
-362	158.12	1.02	5.33	OR0158120533
-363	164.47	1.02	5.33	OR0164470533
-364	170.82	1.02	5.33	OR0170820533
-365	177.17	1.02	5.33	OR0177170533
-366	183.52	1.14	5.33	OR0183520533
-367	189.87	1.14	5.33	OR0189870533
-368	196.22	1.14	5.33	OR0196220533
-369	202.57	1.14	5.33	OR0202570533
-370	208.92	1.27	5.33	OR0208920533
-371	215.27	1.27	5.33	OR0215270533
-372	221.62	1.27	5.33	OR0221620533
-373	227.97	1.27	5.33	OR0227970533
-374	234.32	1.4	5.33	OR0234320533
-375	240.67	1.4	5.33	OR0240670533
-376	247.02	1.4	5.33	OR0247020533

O-Ring

ISO CODE	d	Tol.	d1	Part No.
-377	253.37	1.4	5.33	OR0253370533
-378	266.07	1.52	5.33	OR0266070533
-379	278.77	1.52	5.33	OR0278770533
-380	291.47	1.65	5.33	OR0291470533
-381	304.17	1.65	5.33	OR0304170533
-382	329.57	1.65	5.33	OR0329570533
-383	354.97	1.78	5.33	OR0354970533
-384	380.37	1.78	5.33	OR0380370533
-385	405.26	1.91	5.33	OR0405260533
-386	430.66	2.03	5.33	OR0430660533
-387	456.06	2.16	5.33	OR0456060533
-388	481.46	2.29	5.33	OR0481460533
-389	506.86	2.41	5.33	OR0506860533
-390	532.26	2.41	5.33	OR0532260533
-391	557.66	2.54	5.33	OR0557660533
-392	582.68	2.67	5.33	OR0582680533
-393	608.08	2.79	5.33	OR0608080533
-394	633.48	2.92	5.33	OR0633480533
-395	658.88	3.05	5.33	OR0658880533
-425	113.67	0.84	6.99	OR0113670699
-426	116.84	0.84	6.99	OR0116840699
-427	120.02	0.84	6.99	OR0120020699
-428	123.19	0.84	6.99	OR0123190699
-429	126.37	0.94	6.99	OR0126370699
-430	129.54	0.94	6.99	OR0129540699

ISO CODE	d	Tol.	d1	Part No.
-431	132.72	0.94	6.99	OR0132720699
-432	135.89	0.94	6.99	OR0135890699
-433	139.07	0.94	6.99	OR0139070699
-434	142.24	0.94	6.99	OR0142240699
-435	145.42	0.94	6.99	OR0145420699
-436	148.59	0.94	6.99	OR0148590699
-437	151.77	0.94	6.99	OR0151770699
-438	158.12	1.02	6.99	OR0158120699
-439	164.47	1.02	6.99	OR0164470699
-440	170.82	1.02	6.99	OR0170820699
-441	177.17	1.02	6.99	OR0177170699
-442	183.52	1.14	6.99	OR0183520699
-443	189.87	1.14	6.99	OR0189870699
-444	196.22	1.14	6.99	OR0196220699
-445	202.57	1.14	6.99	OR0202570699
-446	215.27	1.4	6.99	OR0215270699
-447	227.97	1.4	6.99	OR0227970699
-448	240.67	1.4	6.99	OR0240670699
-449	253.37	1.4	6.99	OR0253370699
-450	266.07	1.52	6.99	OR0266070699
-451	278.77	1.52	6.99	OR0278770699
-452	291.47	1.52	6.99	OR0291470699
-453	304.17	1.52	6.99	OR0304170699
-454	316.87	1.52	6.99	OR0316870699
-455	329.57	1.52	6.99	OR0329570699

O-Ring

ISO CODE	d	Tol.	d1	Part No.
-456	342.27	1.78	6.99	OR0342270699
-457	354.97	1.78	6.99	OR0354970699
-458	367.67	1.78	6.99	OR0367670699
-459	380.37	1.78	6.99	OR0380370699
-460	393.07	1.78	6.99	OR0393070699
-461	405.26	1.91	6.99	OR0405260699
-462	417.96	1.91	6.99	OR0417960699
-463	430.66	2.03	6.99	OR0430660699
-464	443.36	2.16	6.99	OR0443360699
-465	456.06	2.16	6.99	OR0456060699
-466	468.76	2.16	6.99	OR0468760699
-467	481.46	2.29	6.99	OR0481460699
-468	494.16	2.29	6.99	OR0494160699
-469	506.86	2.41	6.99	OR0506860699
-470	532.26	2.41	6.99	OR0532260699
-471	557.66	2.54	6.99	OR0557660699
-472	582.68	2.67	6.99	OR0582680699
-473	608.08	2.79	6.99	OR0608080699
-474	633.48	2.92	6.99	OR0633480699
-475	658.88	3.05	6.99	OR0658880699
E1090	109	0.72	7	OR0109000700
E1120	112	0.74	7	OR0112000700
E1150	115	0.76	7	OR0115000700
E1180	118	0.77	7	OR0118000700
E1220	122	0.8	7	OR0122000700

ISO CODE	d	Tol.	d1	Part No.
E1250	125	0.81	7	OR0125000700
E1280	128	0.83	7	OR0128000700
E1320	132	0.85	7	OR0132000700
E1360	136	0.87	7	OR0136000700
E1400	140	0.89	7	OR0140000700
E1450	145	0.92	7	OR0145000700
E1500	150	0.95	7	OR0150000700
E1550	155	0.98	7	OR0155000700
E1600	160	1	7	OR0160000700
E1650	165	1.03	7	OR0165000700
E1700	170	1.06	7	OR0170000700
E1750	175	1.09	7	OR0175000700
E1800	180	1.11	7	OR0180000700
E1850	185	1.14	7	OR0185000700
E1900	190	1.17	7	OR0190000700
E1950	195	1.2	7	OR0195000700
E2000	200	1.22	7	OR0200000700
E2060	206	1.26	7	OR0206000700
E2120	212	1.29	7	OR0212000700
E2180	218	1.32	7	OR0218000700
E2240	224	1.35	7	OR0224000700
E2300	230	1.39	7	OR0230000700
E2360	236	1.42	7	OR0236000700
E2430	243	1.46	7	OR0243000700
E2500	250	1.49	7	OR0250000700

O-Ring

ISO CODE	d	Tol.	d1	Part No.
E2580	258	1.54	7	OR0258000700
E2650	265	1.57	7	OR0265000700
E2720	272	1.61	7	OR0272000700
E2800	280	1.65	7	OR0280000700
E2900	290	1.71	7	OR0290000700
E3000	300	1.76	7	OR0300000700
E3070	307	1.8	7	OR0307000700
E3250	325	1.9	7	OR0325000700
E3350	335	1.95	7	OR0335000700
E3450	345	2	7	OR0345000700
E3550	355	2.06	7	OR0355000700
E3650	365	2.11	7	OR0365000700
E3750	375	2.16	7	OR0375000700
E3870	387	2.23	7	OR0387000700
E4000	400	2.29	7	OR0400000700

Backup Ring

Being subjected to tiny clearances between metal surfaces, rubber components such as O-Rings and other seals tend to extrude between the gaps under extreme pressure resulting in gradual failure of the seals.

Backup Rings supports the softer material by placing them in between.



Our Range
upto 500 mm ID

Backup Ring

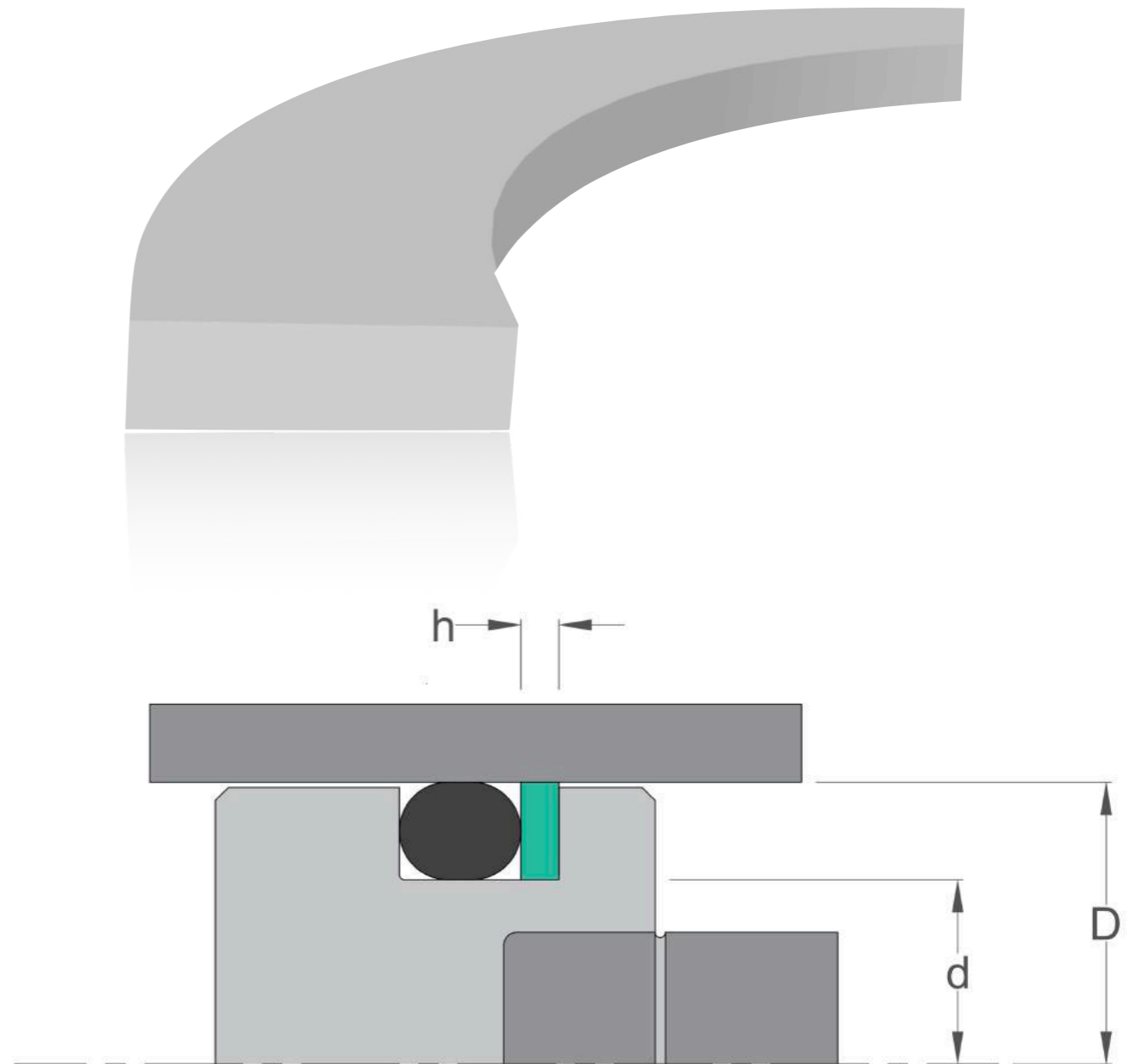
Static Pressure - upto 300 bar

Dynamic Pressure - upto 100 bar

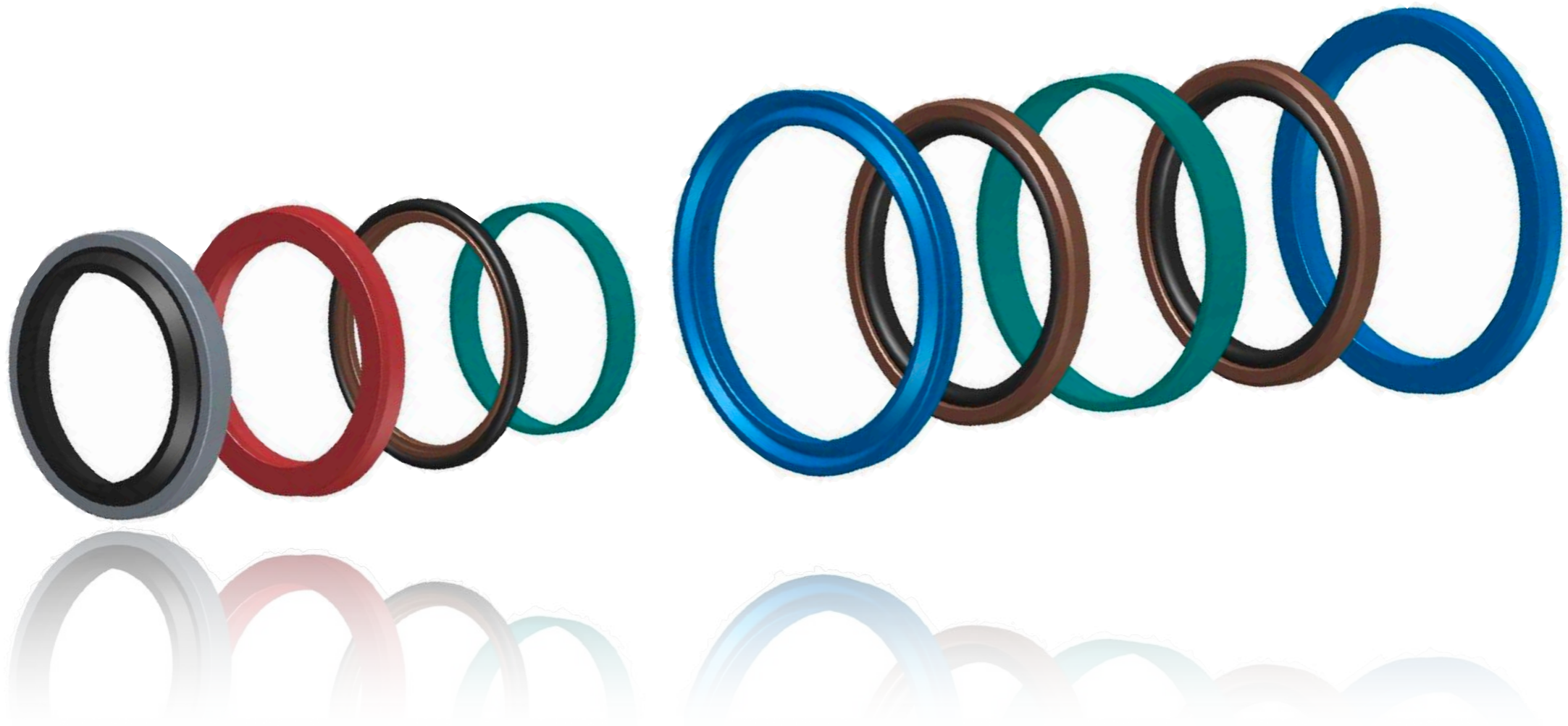
Temperature - upto 270° C

Materials

- PTFE
- BFT
- CFT
- GFT
- POM



Hydraulic Seals



Hydraulic Seals

Hydraulic Cylinders, the innovation in the Engineering Industry has brought in the possibilities on how Engineering developed over time. The laws in fluid mechanics brought in engineering which shaped the industries. These cylinders with its unique and isolated fluid spaces within them brought out the possibilities on how an excavator moves earth.

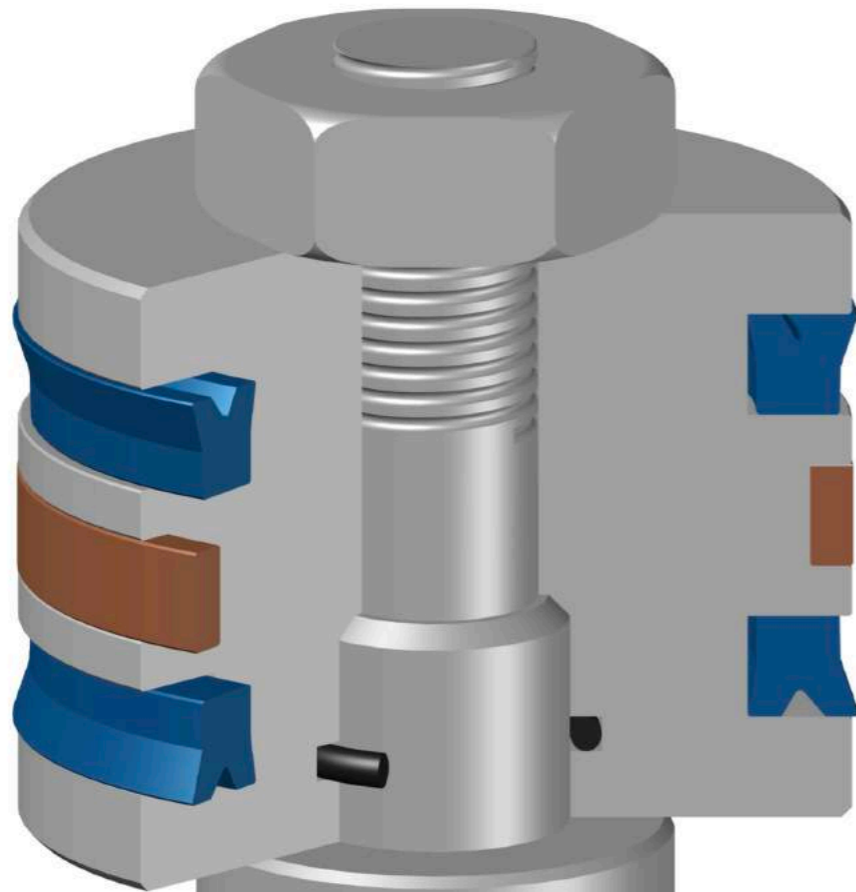
Hydraulic Seals had their introduction to the Hydraulic Cylinders for letting the fluids be sealed and separated from each other within the cylinder. The modern world applications of the Hydraulic Cylinders are diverse from Excavators to Aircrafts.

Having our expertise over two decades we at **Royal Seals Pvt Ltd** make the various profiles in Hydraulic Seals looking into to the need of our customers.

Categories of Hydraulic Seals

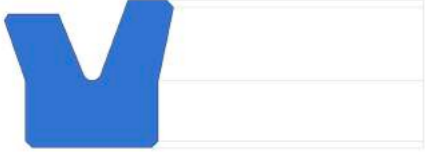
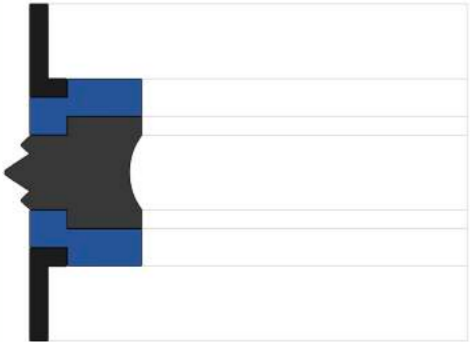


1. Piston Seals
2. Rod Seals
3. Wiper Seals
4. Wear Rings

Piston Seals



Piston Seals like the name suggests, they are Hydraulic Seals used over the Piston of the Cylinder. Chosen from a number of profiles depending on the dimension, Pressure and other factors, Piston Seals are always dynamic in action.

Piston Seals

Profile	Profile Name	OD (mm)	Pressure (bar)	Speed (m/s)	Material
	UP	Upto 800	Upto 400	1	NBR/PU/FKM
	DAS	Upto 250	Upto 400	0.5	POM + PU + NBR/FKM
	GRP	Upto 700	Upto 500	4	BFT + NBR/FKM
	SSP	Upto 700	Upto 500	15	BFT + NBR/FKM

Piston Seals

UP

UP Type or U Seals are the most common type of sealing profile used in Hydraulic Cylinders. This lip seals have a “U” Profile and forms a base profile to many other profiles used in sealing industry.

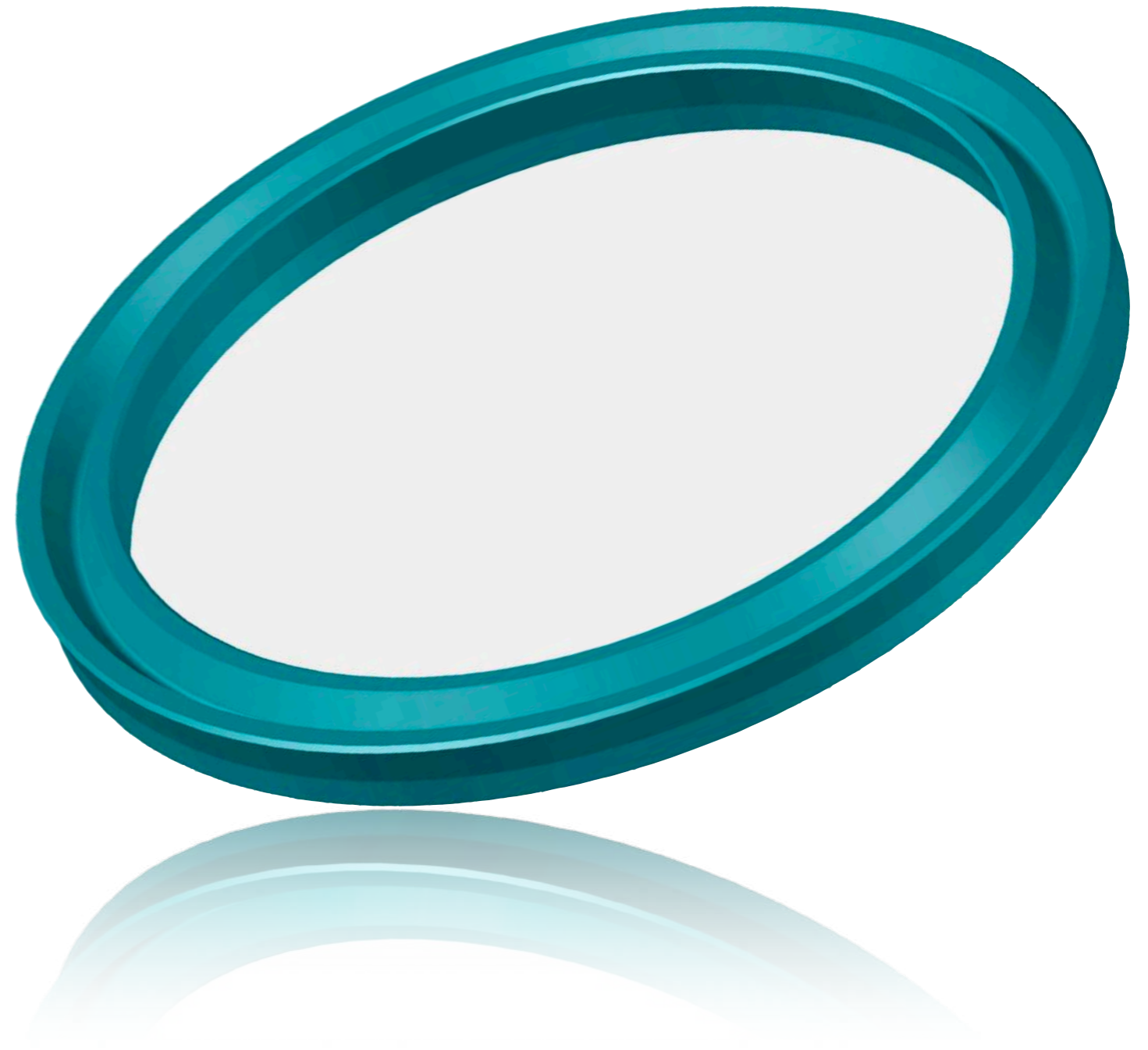


Piston Seals

- U Profile
- Single Acting
- Lip Seal
- Unidirectional
- Dynamic Application
- Temp - upto 230° C

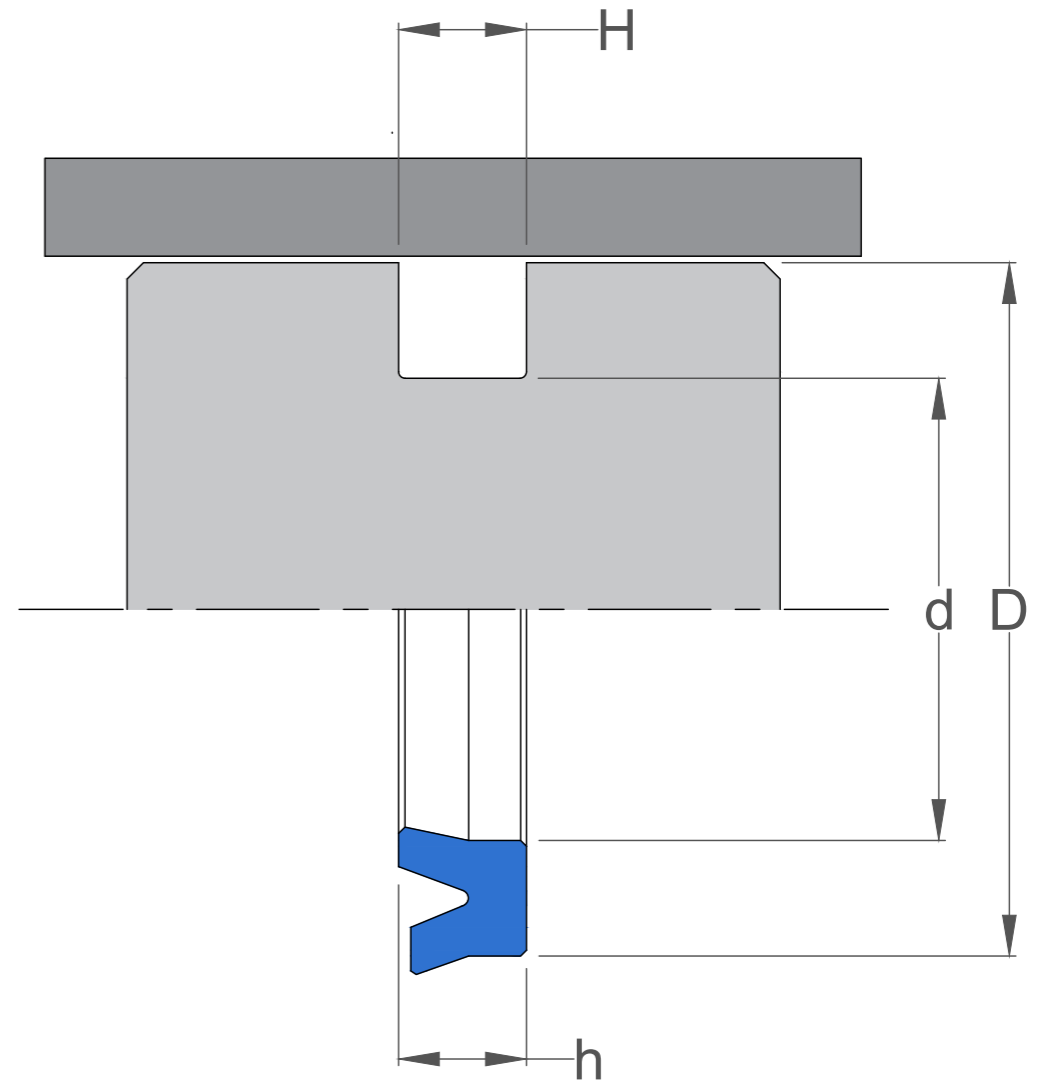
Materials

- NBR
- Fabric Reinforced NBR
- FKM
- Fabric Reinforced FKM
- EPDM
- VMQ



Piston Seals

Bore Dia	Groove Dia	Seal Height	Groove Height	Part No.
d	D	h	H	
10	16	5.7	6.3	UP010016A
15	25	8.2	9	UP015025A
17	25	5.7	6.3	UP017025A
20	30	8	9	UP020030A
21	37	11.8	13	UP021037A
24	32	5.7	6.3	UP024032A
25	35	7.3	8	UP025035A
28	40	9	10	UP028040A
30	40	7.3	8	UP030040A
30	40	10	11	UP030040B
31	38	5.2	6	UP031038A
35	45	7.3	8	UP035045A
35	50	9	10	UP035050A
39	50	3.8	4.2	UP039050A
40	50	7.8	8	UP040050A
45	55	7.3	8	UP045055A
45	56	7	8	UP045056A
44.9	60	5.7	6.3	UP044960A
45	60	10	11	UP045060A
48	63	9	10	UP048063A
48	63	11.4	12.5	UP048063B
50	60	9	10	UP050060A
53	63	7.3	8	UP053063A
53	63	11.8	13	UP053063B
55	65	7.3	8	UP055065A



Piston Seals

d	D	h	H	Part No.
55	70	10	11	UP055070A
60	70	8	9	UP060070A
61	71	6	7	UP061071A
65	80	11.4	12.5	UP065080A
66.2	76.2	7.3	8	UP066276A
67	75	5.7	6.3	UP067075A
67	75	8.8	9.7	UP067075B
70	80	6	7	UP070080A
70	80	6.8	7.5	UP070080B
70	80	8	9	UP070080C
70	80	11.6	12.8	UP070080D
70.7	85.7	10.3	11.4	UP070786A
75	85	8.1	9	UP075085A
80	90	11	12	UP080090A
80	100	10.5	11.6	UP080100A
85	100	9	10	UP085100A
85	100	11.4	12.5	UP085100B
85	100	11.8	13	UP085100C
90	100	6.8	7.5	UP090100A
100	110	8	9	UP100110A
100	120	11.8	13	UP100120A
105	125	14.5	16	UP105125A
130	150	14.5	16	UP130150A
140	150	13.6	15	UP140150A
140	160	14.5	16	UP140160A

d	D	h	H	PART No.
140	160	18.2	20	UP140160B
150	170	15	16.5	UP150170A
160	180	15	16.5	UP160180A
170	190	15	16.5	UP170190A
170	200	12	13.5	UP170200A
180	200	14.5	16	UP180200A
230	250	14.5	16	UP230250A
260	280	15.5	17	UP260280A
270	300	18	20	UP270300A
275	300	18	19.5	UP275300A
275	305	23.8	25	UP275305A
290	320	18	20	UP290320A
320	350	22	24	UP320350A
375	400	15	16.5	UP375400A
469	500	19	21	UP469500A
470	490	14.5	16	UP470490A
530	555	14	14.5	UP530555A

Piston Seals



DAS

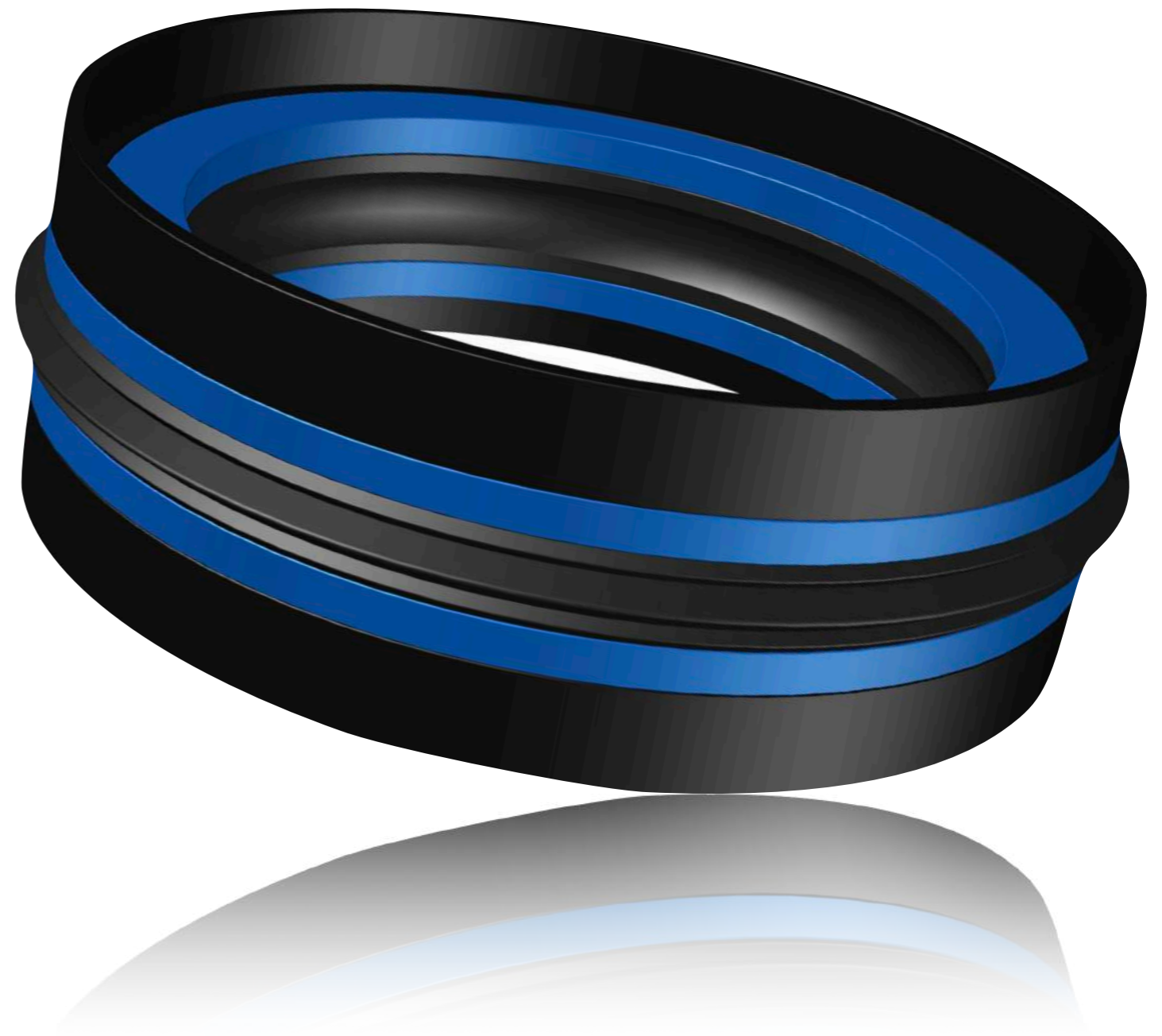
DAS Type Seals have a compact design of five components where the seals and the wear rings are integrated to form the whole seal. The sealing surface of the DAS seals has one primary sealing lip and two secondary sealing lip to give the desired sealing. The Piston exclusive design has multiple parts combined together they give a high performance and space saving capabilities.

Piston Seals

- **Compact Design**
- **Double Acting**
- **Dynamic Application**
- **Multiple Sealing Surface**
- **Temp - upto 100° C**

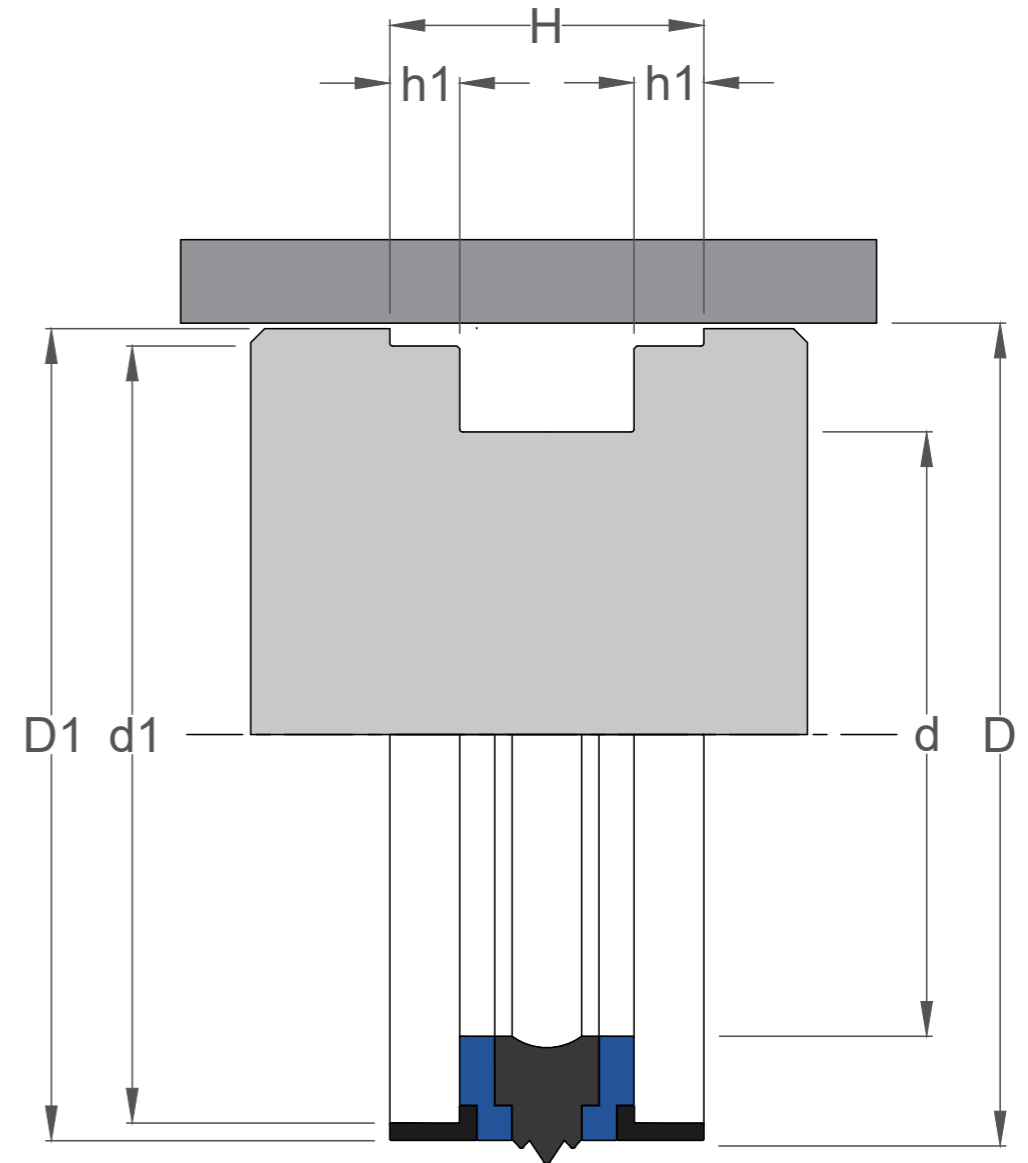
Material

NBR + PU + POM



Piston Seals

Bore Dia	Groove Dimension					Part No.
	D	d	d1	D1	H	
30	21	27	29	17.7	2.1	DAS021A
32	22	28	31	20.7	2.6	DAS022A
40	24	35.4	38.5	31.1	6.35	DAS024A
40	26	36	39	20.7	2.6	DAS026A
40	30	35.4	38.5	29.1	6.35	DAS030A
50	34	45.4	48.5	31.1	6.35	DAS034A
50	34	46	49	26.7	3.1	DAS034B
50	38	46	48.5	28.9	4.2	DAS038A
55	39	50.36	53.5	31.1	6.35	DAS039A
60	44	55.4	58.5	31.1	6.35	DAS044A
60	44	56	59	26.7	3.1	DAS044B
60	48	56	58.5	28.9	4.2	DAS048A
63	47	58.4	61.5	31.1	6.35	DAS047A
63	47	58.4	61.5	32.1	6.35	DAS047B
63	47	59	62	26.7	3.1	DAS047C
63	51	59	61.5	28.9	4.2	DAS051A
65	49	61	64	26.7	3.1	DAS049A
65	50	60.4	63.5	31.1	6.35	DAS050A
70	50	64.2	68.3	35.1	6.35	DAS050B
70	54	66	69	26.7	3.1	DAS054A
70	58	66	68.5	28.9	4.2	DAS058A
75	55	69.2	73.3	35.1	6.35	DAS055A
80	60	74.15	78.3	35.1	6.35	DAS060A
80	62	76	79	29.7	3.6	DAS062A
80	66	76	78.5	32.9	5.2	DAS066A



Piston Seals

D	d	d1	D1	H	h1	Part No.
85	65	79.3	83.3	31.5	6.35	DAS065A
90	70	84.15	88.3	35.1	6.35	DAS070A
90	72	86	89	29.7	3.6	DAS072A
100	75	93.15	98	35.1	6.35	DAS075A
100	82	96	99	29.7	3.6	DAS082A
100	86	96	98.5	32.9	5.2	DAS086A
105	80	98.1	103	35.4	6.5	DAS080A
110	85	103.1	108	35.1	6.35	DAS085A
110	96	106	109.4	32.9	5.2	DAS096A
115	90	108.1	113	35.1	6.35	DAS090A
115	97	111	114	29.7	3.6	DAS097A
120	95	113.1	118	35.1	6.35	DAS095A
125	100	118.1	123	38.1	6.35	DAS0100A
125	108	121	124.4	40.9	7.2	DAS0108A
140	115	133	138	38.1	6.35	DAS0115A
140	115	132.6	137.5	44.4	9.5	DAS0115B
140	118	136	139	36.7	5.1	DAS0118A
150	125	143	148	38.1	6.35	DAS0125A
150	125	142.6	147.5	44.4	9.5	DAS0125B
160	130	152.7	158	38.1	6.35	DAS0130A
160	135	152.6	157.5	44.4	9.5	DAS0135A
170	145	161.7	167.1	50.8	12.7	DAS0145A
180	150	172.95	177.87	48.1	6.35	DAS0150A
180	155	171.7	177.1	50.8	12.7	DAS0155A
200	175	191.6	197	50.8	12.7	DAS0175A

D	d	d1	D1	H	h1	Part No.
220	190	212.7	217.9	48.1	6.35	DAS0190A
250	220	242.9	247.85	48.1	6.35	DAS0220A

Piston Seals

GRP Type or Glyd Rings are double acting seals which are combination of D-Ring and O-Ring. The pressurised O-Ring in the inner side of the D-Ring gives tension to the D-ring that exerts the sealing pressure to the walls of the hydraulic cylinder bringing up the right sealing performance.

GRP



Piston Seals

- **Double Acting**
- **Squeezing Seals**
- **Dynamic Application**
- **Temp - upto 230° C**

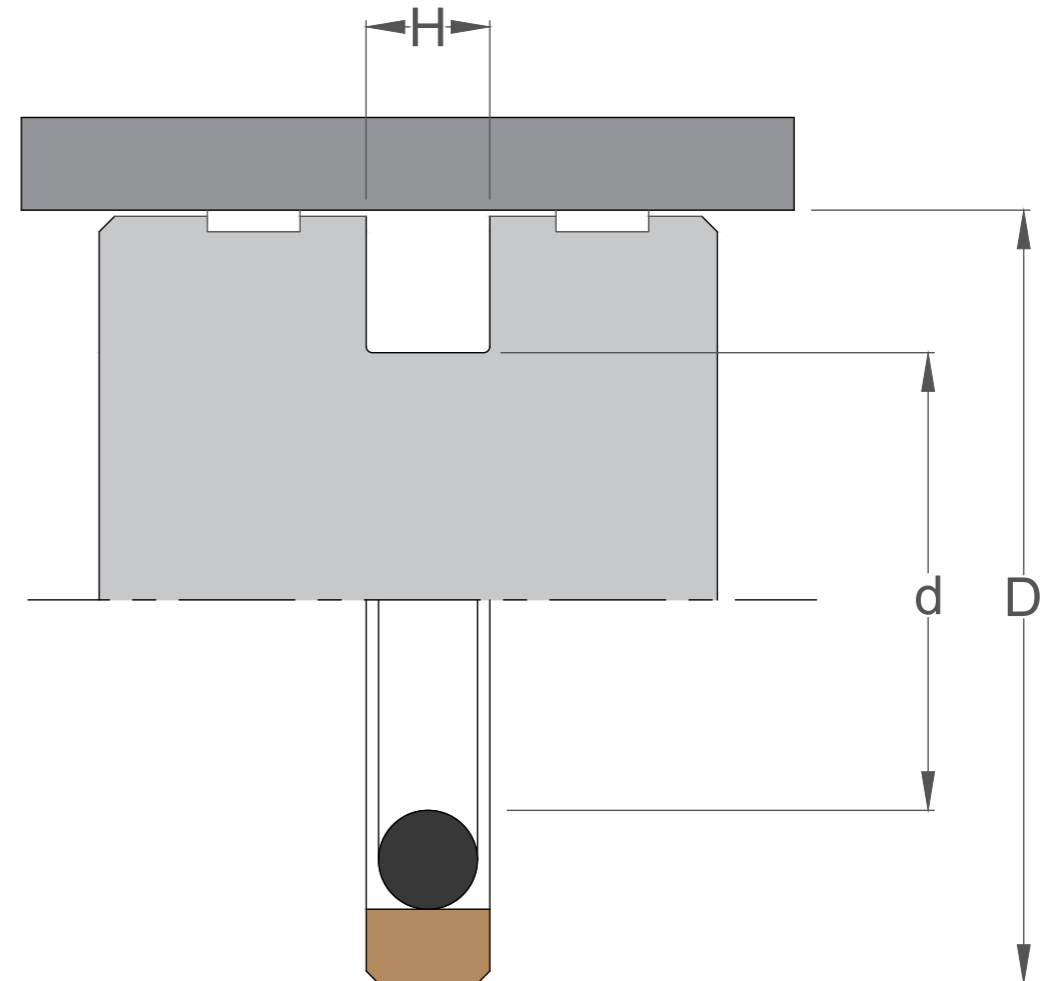
Materials

NBR/FKM + PTFE/BFT



Piston Seals

Groove Dia	Bore Dia	Groove Height	O-Ring Size	Part No.
d	D	H		
8.00	3.10	2.2	2.57 x 1.78	GRP008A
10.00	5.10	2.2	4.80 x 1.80	GRP010A
12.00	7.10	2.2	6.70 x 1.80	GRP012A
14.00	9.10	2.2	8.75 x 1.80	GRP014A
15.00	7.50	3.2	7.00 x 2.62	GRP015A
16.00	11.10	2.2	10.60 x 1.80	GRP016A
16.00	8.50	3.2	7.59 x 2.62	GRP016B
18.00	13.10	2.2	12.42 x 1.78	GRP018A
18.00	10.50	3.2	9.19 x 2.62	GRP018B
19.05	11.50	3.2	10.77 x 2.62	GRP019A
20.00	15.10	2.2	14.00 x 1.78	GRP020A
20.00	12.50	3.2	12.37 x 2.62	GRP020B
21.00	13.50	3.2	12.37 x 2.62	GRP021A
22.00	17.10	2.2	17.17 x 1.78	GRP022A
22.00	14.50	3.2	13.94 x 2.62	GRP022B
24.00	16.50	3.2	15.54 x 2.62	GRP024A
25.00	20.10	2.2	19.00 x 1.80	GRP025A
25.00	17.50	3.2	17.12 x 2.62	GRP025B
25.00	14.00	4.2	13.87 x 3.53	GRP025C
25.40	20.50	2.2	20.35 x 1.78	GRP026B
28.00	20.50	3.2	20.29 x 2.62	GRP028A
30.00	25.10	2.2	25.12 x 1.78	GRP030A
30.00	22.50	3.2	21.89 x 2.62	GRP030B
32.00	27.10	2.2	26.70 x 1.78	GRP032A
32.00	24.50	3.2	23.47 x 2.62	GRP032B



Piston Seals

d	D	H	O-Ring Size	Part No.
32.00	21.00	4.2	20.22 x 3.53	GRP032C
34.00	29.10	2.2	28.30 x 1.78	GRP034A
35.00	27.50	3.2	26.64 x 2.62	GRP035A
35.00	24.00	4.2	23.40 x 3.53	GRP035B
36.00	28.50	3.2	28.24 x 2.62	GRP036A
38.00	33.10	2.2	33.05 x 1.78	GRP038A
38.00	30.50	3.2	29.82 x 2.62	GRP038B
40.00	32.50	3.2	31.42 x 2.62	GRP040A
40.00	29.00	4.2	28.17 x 3.53	GRP040B
42.00	31.00	4.2	29.75 x 3.53	GRP042A
44.45	36.90	3.2	36.17 x 2.62	GRP044A
45.00	34.00	4.2	32.92 x 3.53	GRP045A
48.00	37.00	4.2	36.09 x 3.53	GRP048A
50.00	42.50	3.2	40.94 x 2.62	GRP050A
50.00	39.00	4.2	37.69 x 3.53	GRP050B
50.00	34.50	6.3	32.69 x 5.33	GRP050C
50.80	43.30	3.2	42.52 x 2.62	GRP051A
50.80	39.80	4.2	37.69 x 3.53	GRP051B
52.00	41.00	4.2	40.87 x 3.53	GRP052A
53.00	42.00	4.2	40.87 x 3.53	GRP053A
55.00	44.00	4.2	44.04 x 3.53	GRP055A
57.00	46.00	4.2	44.04 x 3.53	GRP057A
58.00	47.00	4.2	47.22 x 3.53	GRP058A
60.00	49.00	4.2	47.22 x 3.53	GRP060A
62.00	51.00	4.2	50.39 x 3.53	GRP062A

d	D	H	O-Ring Size	Part No.
63.00	52.00	4.2	50.39 x 3.53	GRP063A
63.00	47.50	6.3	46.99 x 5.33	GRP063B
65.00	54.00	4.2	53.57 x 3.53	GRP065A
68.00	57.00	4.2	56.74 x 3.53	GRP068A
70.00	62.50	3.2	61.60 x 2.62	GRP070A
70.00	59.00	4.2	56.74 x 3.53	GRP070B
70.00	54.50	6.3	53.34 x 5.33	GRP070C
75.00	64.00	4.2	63.09 x 3.53	GRP075A
75.00	59.50	6.3	56.52 x 5.33	GRP075B
80.00	69.00	4.2	66.27 x 3.53	GRP080A
80.00	64.50	6.3	62.87 x 5.33	GRP080B
80.00	59.00	8.1	58.00 x 7.00	GRP080C
82.50	67.00	6.3	66.04 x 5.33	GRP083A
85.00	69.50	6.3	69.22 x 5.33	GRP085A
85.00	64.00	8.1	63.00 x 7.00	GRP085B
90.00	79.00	4.2	78.97 x 3.53	GRP090A
90.00	74.50	6.3	72.39 x 5.33	GRP090B
90.00	69.00	8.1	68.00 x 7.00	GRP090C
95.00	84.00	4.2	82.14 x 3.53	GRP095A
95.00	79.50	6.3	78.74 x 5.33	GRP095B
95.00	74.00	8.1	73.00 x 7.00	GRP095C
100.00	89.00	4.2	88.49 x 3.53	GRP100A
100.00	84.50	6.3	81.92 x 5.33	GRP100B
100.00	79.00	8.1	78.00 x 7.00	GRP100C
101.60	86.10	6.3	85.09 x 5.33	GRP102A

Piston Seals

d	D	H	O-Ring Size	Part No.
105.00	94.00	4.2	91.67 x 3.53	GRP105A
105.00	89.50	6.3	88.27 x 5.33	GRP105B
108.00	92.50	6.3	91.44 x 5.33	GRP108A
110.00	99.00	4.2	98.02 x 3.53	GRP110A
110.00	94.50	6.3	91.44 x 5.33	GRP110B
110.00	89.00	8.1	88.00 x 7.00	GRP110C
115.00	99.50	6.3	97.79 x 5.33	GRP115A
120.00	109.00	4.2	107.54 x 3.53	GRP120A
120.00	104.50	6.3	100.97 x 5.33	GRP120B
120.00	99.00	8.1	98.00 x 7.00	GRP120C
125.00	114.00	4.2	113.89 x 3.53	GRP125A
125.00	109.50	6.3	107.32 x 5.33	GRP125B
125.00	104.00	8.1	103.00 x 7.00	GRP125C
127.00	111.50	6.3	110.49 x 5.33	GRP127A
130.00	114.50	6.3	113.67 x 5.33	GRP130A
130.00	105.50	8.1	104.00 x 7.00	GRP130B
132.00	121.00	4.2	120.24 x 3.53	GRP132A
135.00	114.00	8.1	113.67 x 7.00	GRP135A
140.00	124.50	6.3	123.19 x 5.33	GRP140A
140.00	119.00	8.1	116.84 x 7.00	GRP140B
145.00	129.50	6.3	126.37 x 5.33	GRP145A
145.00	124.00	8.1	123.19 x 7.00	GRP145B
150.00	134.50	6.3	132.72 x 5.33	GRP150A
150.00	129.00	8.1	126.37 x 7.00	GRP150B
155.00	134.00	8.1	132.72 x 7.00	GRP155A

d	D	H	O-Ring Size	Part No.
160.00	144.50	6.3	142.24 x 5.33	GRP160A
160.00	139.00	8.1	135.89 x 7.00	GRP160B
165.00	144.00	8.1	142.24 x 7.00	GRP165A
170.00	149.00	8.1	145.42 x 7.00	GRP170A
175.00	154.00	8.1	151.77 x 7.00	GRP175A
180.00	164.50	6.3	164.47 x 5.33	GRP180A
180.00	159.00	8.1	158.12 x 7.00	GRP180B
190.00	169.00	8.1	164.47 x 7.00	GRP190A
194.00	178.50	6.3	177.17 x 5.33	GRP194A
200.00	184.50	6.3	183.52 x 5.33	GRP200A
200.00	179.00	8.1	177.17 x 7.00	GRP200B
205.00	184.00	8.1	183.52 x 7.00	GRP205A
210.00	189.00	8.1	183.52 x 7.00	GRP210A
215.00	194.00	8.1	189.87 x 7.00	GRP215A
220.00	199.00	8.1	196.22 x 7.00	GRP220A
230.00	214.50	6.3	208.92 x 5.33	GRP230A
230.00	209.00	8.1	202.57 x 7.00	GRP230B
240.00	219.00	8.1	215.27 x 7.00	GRP240A
250.00	234.50	6.3	234.32 x 5.33	GRP250A
250.00	229.00	8.1	227.97 x 7.00	GRP250B
250.00	225.50	8.1	227.97 x 7.00	GRP250C
254.00	233.00	8.1	227.97 x 7.00	GRP254A
260.00	239.00	8.1	240.67 x 7.00	GRP260A
265.00	244.00	8.1	240.67 x 7.00	GRP265A
268.00	247.00	8.1	240.67 x 7.00	GRP268A

Piston Seals

d	D	H	O-Ring Size	Part No.
270.00	249.00	8.1	240.67 x 7.00	GRP270A
280.00	259.00	8.1	253.37 x 7.00	GRP280A
290.00	269.00	8.1	266.07 x 7.00	GRP290A
300.00	279.00	8.1	278.77 x 7.00	GRP300A
300.00	275.50	8.1	266.07 x 7.00	GRP300B
304.80	283.80	8.1	278.77 x 7.00	GRP305A
310.00	289.00	8.1	278.77 x 7.00	GRP310A
320.00	299.00	8.1	291.47 x 7.00	GRP320A
320.00	295.50	8.1	291.47 x 7.00	GRP320B
330.00	305.50	8.1	304.17 x 7.00	GRP330A
340.00	315.50	8.1	316.87 x 7.00	GRP340A
350.00	325.50	8.1	316.87 x 7.00	GRP350A
360.00	335.50	8.1	329.57 x 7.00	GRP360A
370.00	345.50	8.1	342.27 x 7.00	GRP370A
380.00	355.50	8.1	354.97 x 7.00	GRP380A
400.00	375.50	8.1	367.67 x 7.00	GRP400A
420.00	395.50	8.1	393.07 x 7.00	GRP420A
430.00	405.50	8.1	405.26 x 7.00	GRP430A
440.00	415.50	8.1	405.26 x 7.00	GRP440A
450.00	425.50	8.1	417.96 x 7.00	GRP450A
460.00	435.50	8.1	430.66 x 7.00	GRP460A
480.00	455.50	8.1	456.06 x 7.00	GRP480A
500.00	475.50	8.1	468.76 x 7.00	GRP500A

Piston Seals

SSP

SSP Type or Step Seals are single acting seals which are combination of Scraper and O-Ring. The pressurised O-Ring in the inner side of the Scraper gives tension to the Scraper that exerts the sealing pressure to the walls of the hydraulic cylinder bringing up the right sealing performance. The higher hardness of the scraper in the sealing surface gives the design a better extrusion resistance.

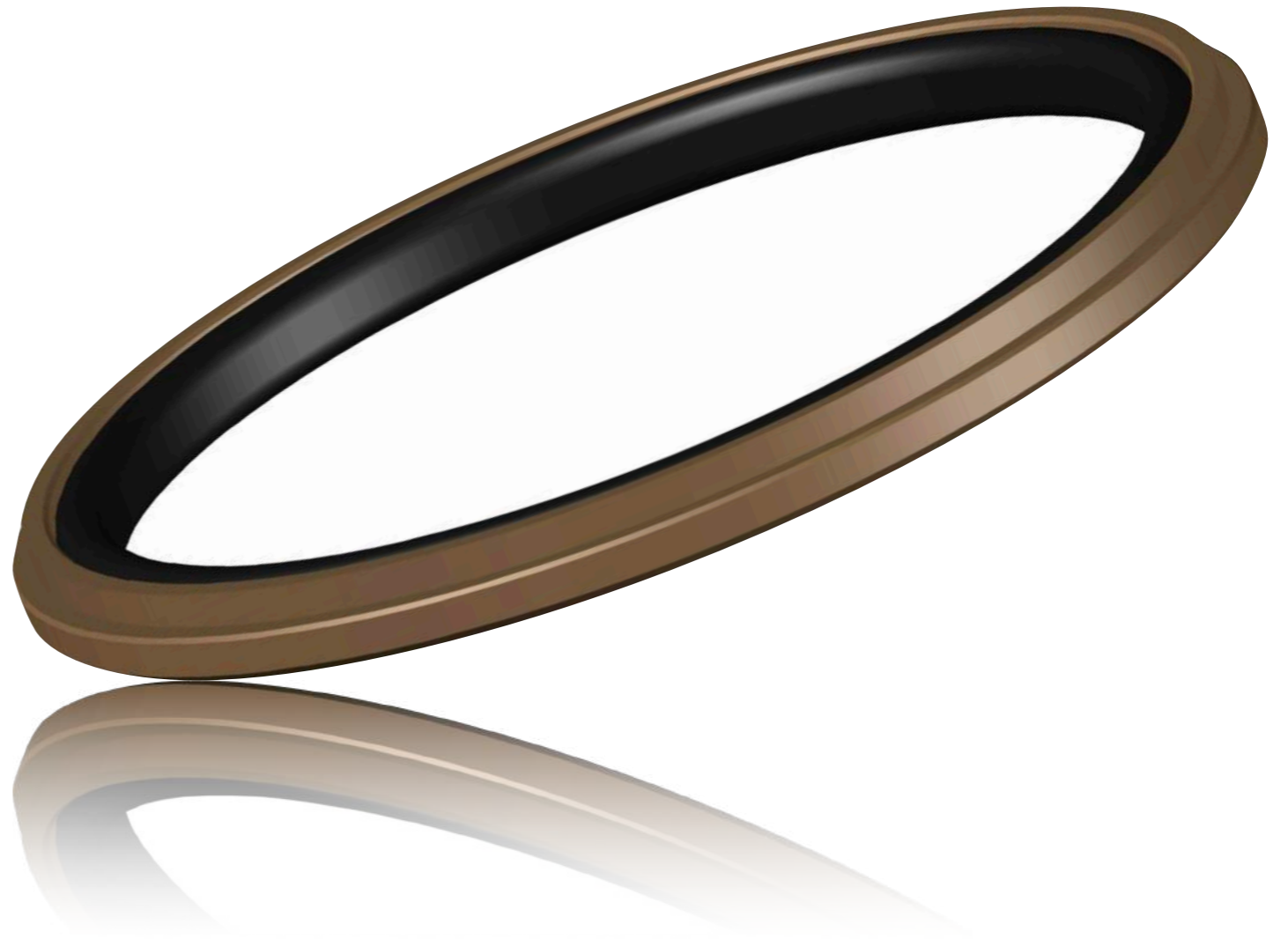


Piston Seals

- **Single Acting**
- **Squeezing Seals**
- **Dynamic Application**
- **High Extrusion Resistance**
- **Temp - upto 230° C**

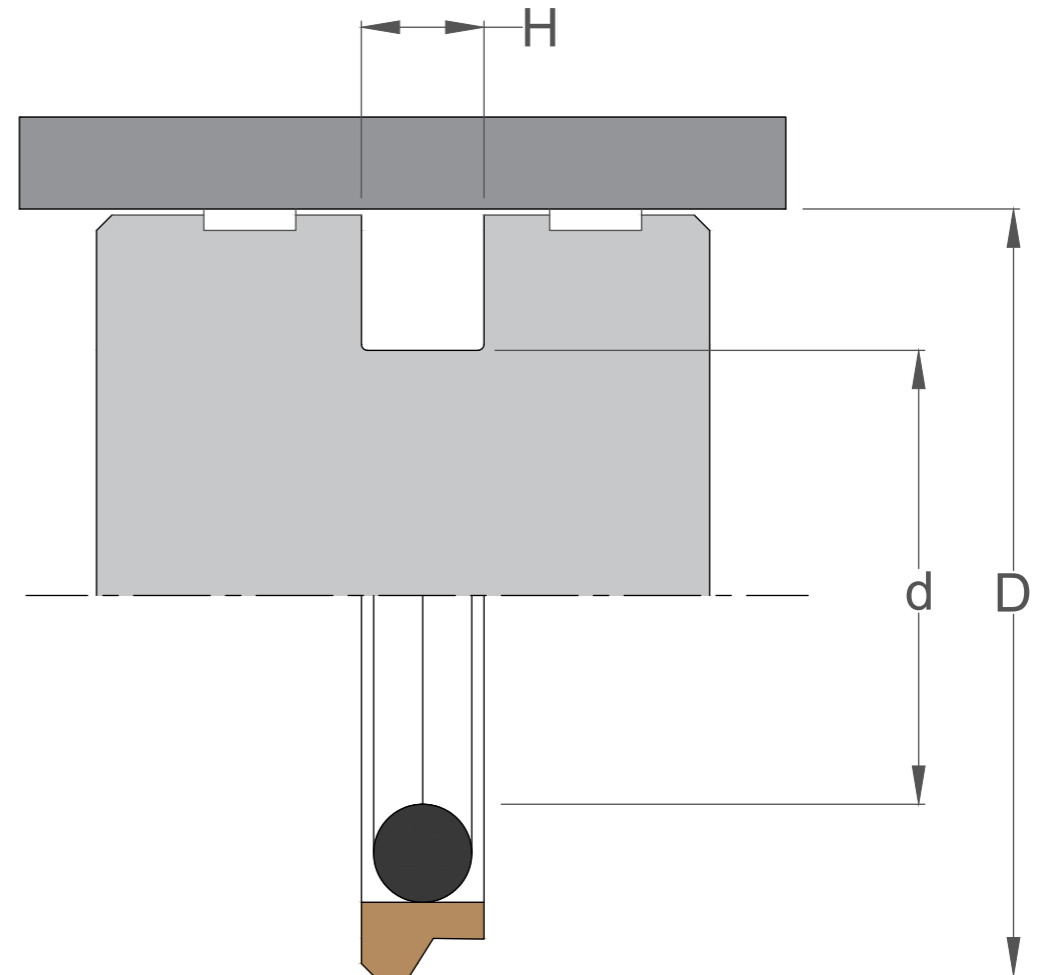
Materials

NBR/FKM + PTFE/BFT



Piston Seals

Groove Dia	Bore Dia	Groove Height	O-Ring	Part No.
d	D	H		
4.1	9	2.2	3.68 x 1.78	SSP004A
5.1	10	2.2	4.47 x 1.78	SSP005A
7.1	12	2.2	6.70 x 1.80	SSP007A
7.7	15	3.2	7.03 x 2.62	SSP008A
9.1	14	2.2	8.75 x 1.80	SSP009A
9.6	14.5	2.2	9.25 x 1.78	SSP010A
10.1	15	2.2	9.50 x 1.80	SSP010B
10.7	18	3.2	9.19 x 2.62	SSP011B
11.1	16	2.2	10.60 x 1.80	SSP011A
12.7	20	3.2	12.37 x 2.62	SSP013A
14.3	25	4.2	13.87 x 3.53	SSP014A
14.7	22	3.2	13.94 x 2.62	SSP015B
15.1	20	2.2	14.00 x 1.78	SSP015A
17.3	28	4.2	15.47 x 3.53	SSP017A
17.7	25	3.2	17.12 x 2.62	SSP018A
19.3	30	4.2	18.66 x 3.53	SSP019A
21.3	32	4.2	20.22 x 3.53	SSP021A
22.7	30	3.2	21.89 x 2.62	SSP023A
24.3	35	4.2	23.40 x 3.53	SSP024A
24.7	32	3.2	23.47 x 2.62	SSP025A
29.3	40	4.2	28.17 x 3.53	SSP029A
31.3	42	4.2	29.75 x 3.53	SSP031A
32.7	40	3.2	31.42 x 2.62	SSP033A
34.3	45	4.2	32.92 x 3.53	SSP034A
34.9	50	6.3	32.69 x 5.33	SSP035A



Piston Seals

d	D	H	O-Ring	Part No.
37.3	48	4.2	36.09 x 3.53	SSP037A
39.3	50	4.2	37.69 x 3.53	SSP039A
41.3	52	4.2	40.87 x 3.53	SSP041A
44.3	55	4.2	44.04 x 3.53	SSP044A
44.9	60	6.3	43.82 x 5.33	SSP045A
47.9	63	6.3	46.99 x 5.33	SSP048A
49.9	65	6.3	46.99 x 5.33	SSP050A
52.3	63	4.2	50.39 x 3.53	SSP052A
54.9	70	6.3	53.34 x 5.33	SSP055A
59.3	70	4.2	56.74 x 3.53	SSP059A
59.5	80	8.1	58.00 x 7.00	SSP060A
59.9	75	6.3	56.52 x 5.33	SSP060B
64.5	85	8.1	63.00 x 7.00	SSP065A
64.9	80	6.3	62.87 x 5.33	SSP065B
69.5	90	8.1	68.00 x 7.00	SSP070A
69.9	85	6.3	69.22 x 5.33	SSP070B
74.5	95	8.1	73.00 x 7.00	SSP075A
74.9	90	6.3	72.39 x 5.33	SSP075B
79.5	100	8.1	78.00 x 7.00	SSP080A
79.9	95	6.3	78.74 x 5.33	SSP080B
84.5	105	8.1	83.00 x 7.00	SSP085A
84.9	100	6.3	81.92 x 5.33	SSP085B
89.5	110	8.1	88.00 x 7.00	SSP090A
89.9	105	6.3	88.27 x 5.33	SSP090B
90.9	106	6.3	88.27 x 5.33	SSP091A

d	D	H	O-Ring	Part No.
94.5	115	8.1	93.00 x 7.00	SSP095A
94.9	110	6.3	91.44 x 5.33	SSP095B
99.5	120	8.1	98.00 x 7.00	SSP100A
99.9	115	6.3	97.79 x 5.33	SSP100B
104.5	125	8.1	103.00 x 7.00	SSP105A
104.9	120	6.3	104.14 x 5.33	SSP105B
109.5	130	8.1	108.00 x 7.00	SSP110A
109.9	125	6.3	107.32 x 5.33	SSP110B
114.5	135	8.1	113.67 x 7.00	SSP115A
114.9	130	6.3	113.67 x 5.33	SSP115B
119.5	140	8.1	116.84 x 7.00	SSP120A
124.5	145	8.1	123.19 x 7.00	SSP125A
129.5	150	8.1	126.37 x 7.00	SSP130A
139.5	160	8.1	135.89 x 7.00	SSP140A
139.9	155	6.3	135.89 x 5.33	SSP140B
144.5	165	8.1	142.24 x 7.00	SSP145A
144.9	160	6.3	142.24 x 5.33	SSP145B
149.5	170	8.1	145.42 x 7.00	SSP150A
149.9	165	6.3	148.49 x 5.33	SSP150B
159.5	180	8.1	158.12 x 7.00	SSP160A
159.9	175	6.3	158.12 x 5.33	SSP160B
164.9	180	6.3	164.47 x 5.33	SSP165A
169.5	190	8.1	164.47 x 7.00	SSP170A
174.9	190	6.3	170.82 x 5.33	SSP175A
179.5	200	8.1	177.17 x 7.00	SSP180A

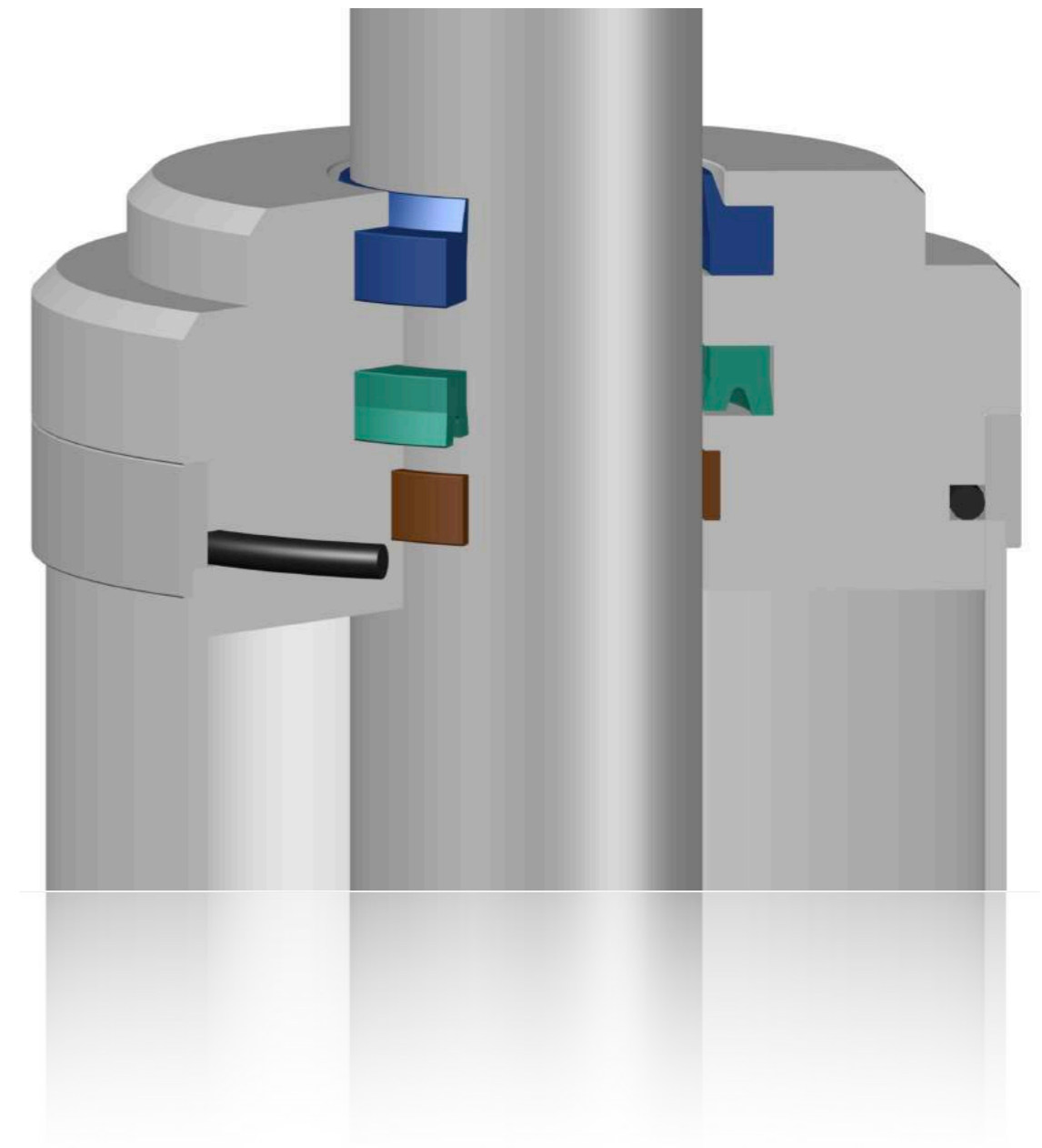
Piston Seals

d	D	H	O-Ring	Part No.
184.5	205	8.1	183.52 x 7.00	SSP185A
184.9	200	6.3	183.52 x 5.33	SSP185B
189.5	210	8.1	183.52 x 7.00	SSP190A
199.5	220	8.1	196.22 x 7.00	SSP200A
204.9	220	6.3	202.57 x 5.33	SSP205A
209.5	230	8.1	208.90 x 7.00	SSP210A
219.5	240	8.1	215.27 x 7.00	SSP220A
226	250	8.1	227.97 x 7.00	SSP226A
229.5	250	8.1	227.97 x 7.00	SSP230A
236	260	8.1	227.97 x 7.00	SSP236A
246	270	8.1	240.67 x 7.00	SSP246A
256	280	8.1	253.37 x 7.00	SSP256A
276	300	8.1	266.07 x 7.00	SSP276A
285.5	306	8.1	278.77 x 7.00	SSP286A
286	310	8.1	278.77 x 7.00	SSP286B
296	320	8.1	291.47 x 7.00	SSP296A
299.5	320	8.1	291.47 x 7.00	SSP300A
306	330	8.1	304.17 x 7.00	SSP306A
316	340	8.1	316.87 x 7.00	SSP316A
324.5	345	8.1	316.87 x 7.00	SSP325A
326	350	8.1	316.87 x 7.00	SSP326A
336	360	8.1	329.57 x 7.00	SSP336A
346	370	8.1	342.27 x 7.00	SSP346A
356	380	8.1	354.97 x 7.00	SSP356A
376	400	8.1	367.67 x 7.00	SSP376A

d	D	H	O-Ring	Part No.
396	420	8.1	393.07 x 7.00	SSP396A
406	430	8.1	405.26 x 7.00	SSP406A
416	440	8.1	405.26 x 7.00	SSP416A
426	450	8.1	417.96 x 7.00	SSP426A
456	480	8.1	456.06 x 7.00	SSP456A
476	500	8.1	468.76 x 7.00	SSP476A

Rod Seals

Rod Seals are Hydraulic Seals used in the cylinder head which seal against the rod/shaft of the Hydraulic Cylinder. Chosen from a number of profiles depending on the dimension, Pressure and other factors, Piston Seals are always Static Seals. Unlike Piston Seals, Rod Seals have it sealing surface on the inner side of the seal.

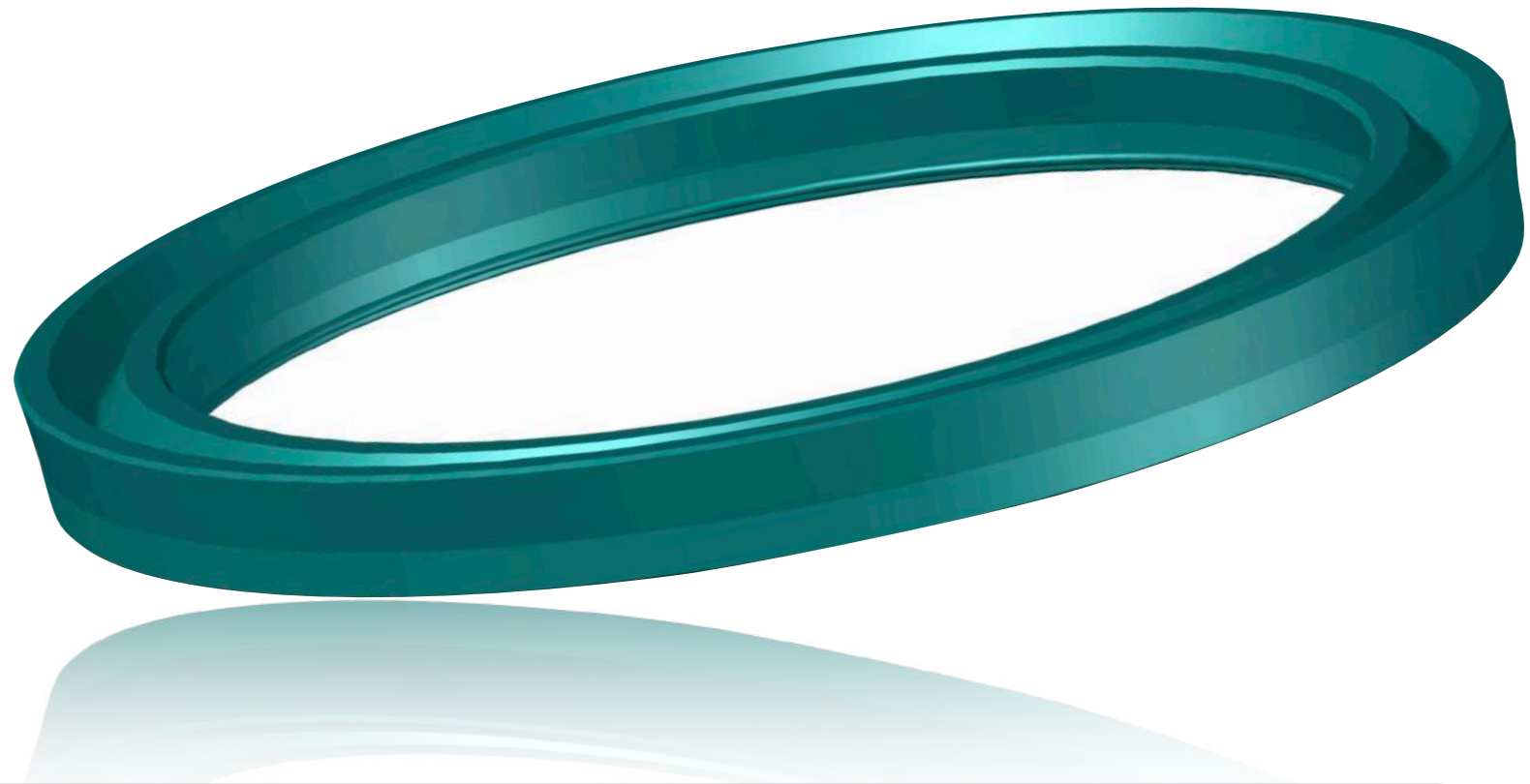


Rod Seals

Profile	Profile Name	ID (mm)	Pressure (bar)	Speed (m/s)	Material
	UR	Upto 750	Upto 400	1	NBR/FKM/PU
	ER	Upto 750	Upto 350	0.5	PU + NBR/FKM
	EBR	Upto 300	Upto 700	1	PU + NBR/FKM + PTFE
	SSR	Upto 650	Upto 500	15	Filled PTFE + NBR/FKM
	GRR	Upto 650	Upto 500	4	Filled PTFE + NBR/FKM

Rod Seals

UR



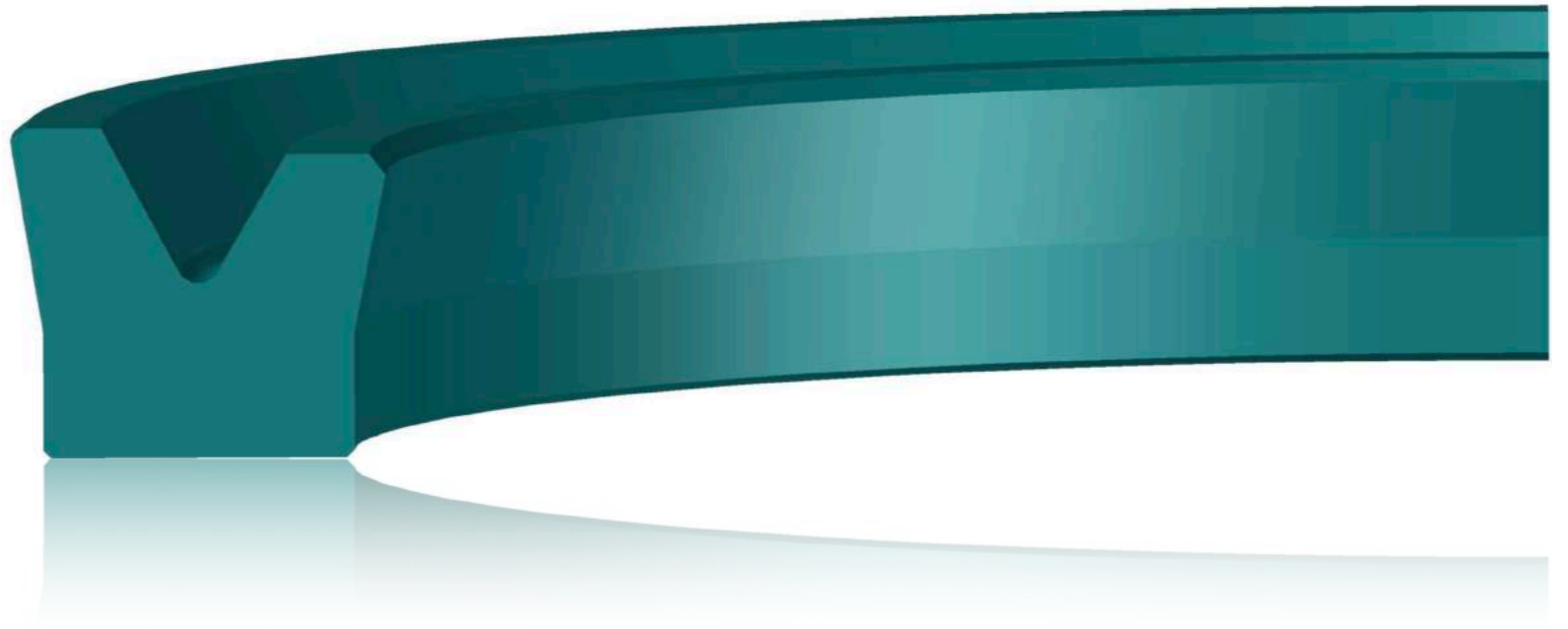
UR Type or U Seals are the most common type of Rod Seals that is used in a Hydraulic Cylinder. They are lip seals which are available in an array of materials. U Seals or similar profiles are used in applications other than Hydraulic Cylinder.

Rod Seals

- **U Profile**
- **Single Acting**
- **Lip Seal**
- **Static Application**
- **Temp - upto 230° C**

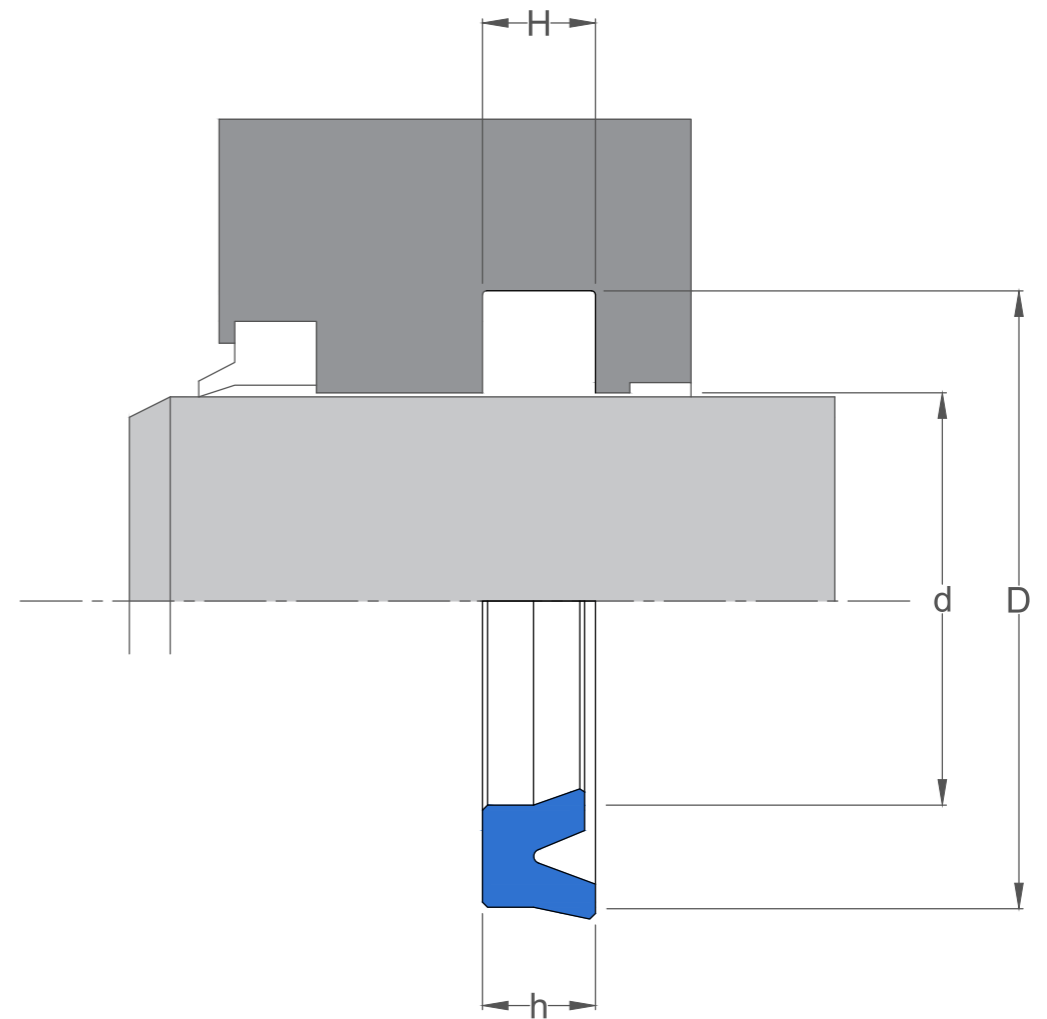
Materials

- **NBR**
- **NBR + Fabric**
- **FKM**
- **FKM + Fabric**
- **VMQ**
- **PU**



Rod Seals

Rod Dia	Groove Dia	Seal Height	Groove Height	Part No.
d	D	h	H	
6	15	7.3	8	UR006015A
6	16	7	8	UR006016A
8	18	7	8	UR008018A
10	15	3.6	4	UR010015A
12	18	4	4.5	UR012018A
12	18	5.7	6.3	UR012018B
12	19	4.5	5	UR012019A
12	19	5.1	5.6	UR012019B
12	20	5.7	6.3	UR012020A
12	22	7.3	8	UR012022A
12	22	7.7	9	UR012022B
12.7	18	5.5	6	UR013018A
13	20	4.5	5	UR013020A
14	21	5.1	5.6	UR014021A
14	22	5.7	6.3	UR014022A
14	24	7.3	8	UR014024A
15	22	5.7	6.3	UR015022A
15.37	25.5	6.35	7.4	UR015026A
16	22	4.5	5	UR016022A
16	22	5	6	UR016022B
16	24	5.8	6.3	UR016024A
16	26	7.7	9	UR016026A
18	24	4.5	5	UR018024A
18	25	5	6	UR018025A
18	26	5	5.7	UR018026A



d	D	h	H	Part No.
18	26	5.7	6.3	UR018026B
18	26	6	7	UR018026C
18	26	8.2	9	UR018026D
18	28	7.7	9	UR018028A
20	25	3.2	3.5	UR020025A
20	26	5	5.5	UR020026A
20	26	6.5	7.6	UR020026B
20	27	6.1	6.7	UR020027A
20	28	5	5.7	UR020028A
20	28	5.7	6.3	UR020028B
20	28	6.3	7	UR020028C
20	30	6	7	UR020030A
20	30	7.3	8	UR020030B
20	30	7.7	9	UR020030C
20	30	10	11	UR020030D
22	27.5	4.5	5	UR022028A
22	30	5	5.7	UR022030A
22	30	5.7	6.3	UR022030B
22	30	6.3	7	UR022030C
22	30	7.3	8	UR022030D
22	32	7.3	8	UR022032A
22	32	8.2	9	UR022032B
22	32	10	11	UR022032C
22.4	30	5	5.7	UR022030E
22.4	32.4	8	9	UR022032D

d	D	h	H	Part No.
24	30	4.5	5	UR024030A
25	33	5	5.7	UR025033A
25	33	5.7	6.3	UR025033B
25	33	6.8	7.5	UR025033C
25	33	8	9	UR025033D
25	33	10	11	UR025033E
25	35	7.3	8	UR025035A
25	35	7.7	9	UR025035B
25	35	10	11	UR025035C
25	37	10	11	UR025037A
25	40	10	11	UR025040A
26	36	7	8	UR026036A
28	35.5	5	5.7	UR028036A
28	36	5.7	6.3	UR028036B
28	36	6.3	7	UR028036C
28	38	7.3	8	UR028038A
28	43	11.4	12.5	UR028043A
30	38	5.7	6.3	UR030038A
30	38	6.3	7	UR030038B
30	40	6	7	UR030040A
30	40	7	7.7	UR030040B
30	40	7.3	8	UR030040C
30	40	8.5	9.5	UR030040D
30	40	10	11	UR030040E
30	42	10.9	12	UR030042A

Rod Seals

d	D	h	H	Part No.
30	43	10	11	UR030043A
30	45	9	10	UR030045A
30	45	10	11	UR030045B
30	50	10	11	UR030050A
32	40	6	7	UR032040A
32	40	6.7	7.7	UR032040B
32	40	7.7	9	UR032040C
32	41.5	7.9	8.9	UR032042A
32	42	5.7	6.3	UR032042B
32	42	6	7	UR032042C
32	42	7.3	8	UR032042D
32	42	10	11	UR032042E
32	45	10	11	UR032045A
32	47	9.1	10	UR032047A
32	47	10	11	UR032047B
32	48	10	11	UR032048A
35	43	5.7	6.3	UR035043A
35	43	6.3	7	UR035043B
35	43	8.2	9	UR035043C
35	45	6	7	UR035045A
35	45	7	8	UR035045B
35	45	7.7	9	UR035045C
35	45	10	11	UR035045D
35	50	9	10	UR035050A
35	50	10	11	UR035050B

d	D	h	H	Part No.
35.5	45	6	7	UR036045A
35.5	50.5	10	11	UR036051A
36	44	6.4	7.5	UR036044A
36	44	8.2	9	UR036044B
36	46	5.7	6.3	UR036046A
36	46	7.3	8	UR036046B
36	46	10	11	UR036046C
36	51	10	11	UR036051B
37	47	10	11	UR037047A
38	48	8	9	UR038048A
38	48	10	11	UR038048B
38	50	10	11	UR038050A
38	53	10	11	UR038053A
40	48	5.7	6.3	UR040048A
40	48	8.2	9	UR040048B
40	49.52	9.5	10.5	UR040049A
40	50	6	7	UR040050A
40	50	7.3	8	UR040050B
40	50	9	10	UR040050C
40	50	10	11	UR040050D
40	52	10.9	12	UR040052A
40	55	7.3	8	UR040055A
40	55	9	10	UR040055B
40	55	10	11	UR040055C
40	55	11.4	12.5	UR040055D

Rod Seals

d	D	h	H	Part No.
42	50	5.7	6.3	UR042050E
42	50	7.5	8	UR042050A
42	52	6	7	UR042052A
42	52	10	11	UR042052B
43	53	6	7	UR043053A
45	53	7.3	8	UR045053A
45	53	8.1	9	UR045053B
45	53	11.8	13	UR045053C
45	55	5.6	6.3	UR045055A
45	55	6	7	UR045055B
45	55	7.3	8	UR045055C
45	55	8.2	9	UR045055D
45	55	10	11	UR045055E
45	57.7	9.5	10.5	UR045058A
45	60	10	11	UR045060A
45	60	11.4	12.5	UR045060B
45	65	10	11	UR045065A
47	56.33	9	10	UR047056A
48	56	11.4	12.5	UR048056A
48	60	10	11	UR048060A
50	57	9	10	UR050057A
50	60	6	7	UR050060A
50	60	7.3	8	UR050060B
50	60	8.2	9	UR050060C
50	60	10	11	UR050060D

d	D	h	H	Part No.
50	60	11.8	13	UR050060E
50	62.7	9.5	10.5	UR050063A
50	63	10	11	UR050063B
50	65	9	10	UR050065A
50	65	9.5	10.5	UR050065B
50	65	10	11	UR050065C
50	65	10.9	12	UR050065D
50	65	11.4	12.5	UR050065E
50	65	14.5	16	UR050065F
50	70	12	13	UR050070A
53	63	6	7	UR053063A
53	65	9	10	UR053065A
55	63	8.2	9	UR055063A
55	65	6	7	UR055065A
55	65	7.3	8	UR055065B
55	65	8.2	9	UR055065C
55	65	10	11	UR055065D
55	65	11.8	13	UR055065E
55	68	10	11	UR055068A
55	70	9	10	UR055070A
55	70	11.8	13	UR055070B
55	71	12	13	UR055071A
55	75	12	13	UR055075A
56	66	10	11	UR056066A
56	71	10	11	UR056071A

Rod Seals

d	D	h	H	Part No.
56	71	11.4	12.5	UR056071B
60	68	11.4	12.5	UR060068A
60	70	6	7	UR060070A
60	70	7.3	8	UR060070B
60	70	10	11	UR060070C
60	70	11.8	13	UR060070D
60	71	7	8	UR060071A
60	72	10	11	UR060072A
60	73	10	11	UR060073A
60	75	9	10	UR060075A
60	75	10	11	UR060075B
60	75	11.4	12.5	UR060075C
60	75	11.8	13	UR060075D
60	75	20.5	22.5	UR060075E
60	76	10	11	UR060076A
60	80	11.4	12.5	UR060080A
60	80	12	13	UR060080B
63	73	6	7	UR063073A
63	73	11.8	13	UR063073B
63	78	10	11	UR063078A
63	78	11.4	12.5	UR063078B
63	83	11.8	13	UR063083A
65	75	6	7	UR065075A
65	75	7.7	9	UR065075B
65	75	11.8	13	UR065075C

d	D	h	H	Part No.
65	77	9	10	UR065077A
65	77.7	9.5	10.5	UR065078A
65	78	10	11	UR065078B
65	80	9	10	UR065080A
65	80	11.8	13	UR065080B
65	85	12	13	UR065085A
67	77	6	7	UR067077A
68.5	76.5	8	9	UR068077A
70	78	11.4	12.5	UR070078A
70	80	6	7	UR070080A
70	80	11.4	12.5	UR070080B
70	80	11.8	13	UR070080C
70	82	8.7	9.6	UR070082A
70	82	10	11	UR070082B
70	83	10	11	UR070083A
70	85	9	10	UR070085A
70	85	10	11	UR070085B
70	85	11.4	12.5	UR070085C
70	85	20.5	22.5	UR070085D
70	90	12	13	UR070090A
75	83	11.4	12.5	UR075083A
75	85	6	7	UR075085A
75	85	11.4	12.5	UR075085B
75	85	11.8	13	UR075085C
75	88	10	11	UR075088A

Rod Seals

d	D	h	H	Part No.
75	90	9	10	UR075090A
75	90	10	11	UR075090B
75	90	11.4	12.5	UR075090C
75	95	12	13	UR075095A
77	87	11.8	13	UR077087A
78	86	9	10	UR078086A
78	86	11.4	12.5	UR078086B
80	88	10.9	12	UR080088A
80	90	6	7	UR080090A
80	90	10	11	UR080090B
80	90	11.8	13	UR080090C
80	92	8.7	9.6	UR080092A
80	93	10	11	UR080093A
80	95	9	10	UR080095A
80	95	10	11	UR080095B
80	95	11.4	12.5	UR080095C
80	95	11.8	13	UR080095D
80	100	12	13	UR080100A
80	100	14.5	16	UR080100B
80	110	16.4	18	UR080110A
85	93	8.2	9	UR085093A
85	93	10	11	UR085093B
85	93	11.4	12.5	UR085093C
85	95	11.8	13	UR085095A
85	100	9	10	UR085100A

d	D	h	H	Part No.
85	100	10	11	UR085100B
85	100	11.8	13	UR085100C
85	105	12	13	UR085105A
90	98	11.4	12.5	UR090098A
90	100	6.8	7.5	UR090100A
90	100	9	10	UR090100B
90	100	11.4	12.5	UR090100C
90	100	11.8	13	UR090100D
90	102	8.7	9.6	UR090102A
90	105	9	10	UR090105A
90	105	10	11	UR090105B
90	105	11.4	12.5	UR090105C
90	110	12	13	UR090110A
95	103	11.4	12.5	UR095103A
95	110	9	10	UR095110A
95	110	10	11	UR095110B
95	110	11.8	13	UR095110C
95	115	12	13	UR095115A
96	104	10.9	12	UR096104A
98	112	8.5	9.5	UR098112A
100	108	10.9	12	UR100108A
100	110	10.9	12	UR100110A
100	115	9	10	UR100115A
100	115	10	11	UR100115B
100	115	11.8	13	UR100115C

Rod Seals

d	D	h	H	Part No.
100	120	11.8	13	UR100120A
100	120	14.5	16	UR100120B
105	113	10	11	UR105113A
105	115	13.2	14.5	UR105115A
105	120	9	10	UR105120A
105	120	10	11	UR105120B
105	120	14.5	16	UR105120C
105	125	14.5	16	UR105125A
108	123	10.9	12	UR108123A
110	125	9	10	UR110125A
110	125	11	12	UR110125B
110	125	14.5	16	UR110125C
110	130	11.8	13	UR110130A
110	130	14.5	16	UR110130B
110	135	14.5	16	UR110135A
112	125	9	10	UR112125A
115	123	11.4	12.5	UR115123A
115	125	11	12	UR115125A
115	130	9	10	UR115130A
115	130	10.9	12	UR115130B
115	130	14.5	16	UR115130C
120	128	11.4	12.5	UR120128A
120	130	10.9	12	UR120130A
120	135	9	10	UR120135A
120	140	12	13	UR120140A

d	D	h	H	Part No.
120	140	14.5	16	UR120140B
124	134	6	7	UR124134A
125	133	10	11	UR125133A
125	133	11.4	12.5	UR125133B
125	140	9	10	UR125140A
125	140	10	11	UR125140B
125	140	10.9	12	UR125140C
125	145	12	13	UR125145A
125	145	14.5	16	UR125145B
125	150	12.5	14	UR125150A
130	140	14.5	16	UR130140A
130	145	9	10	UR130145A
130	145	10	11	UR130145B
130	150	12	13	UR130150A
130	150	14.5	16	UR130150B
132.5	157.5	13.2	14.5	UR132158A
135	143	11.4	12.5	UR135143A
135	145	11	12	UR135145A
135	150	9	10	UR135150A
135	150	11.4	12.5	UR135150B
140	150	6	7	UR140150A
140	150	10.9	12	UR140150B
140	150	11.8	13	UR140150C
140	155	9	10	UR140155A
140	155	11.8	13	UR140155B

Rod Seals

d	D	h	H	Part No.
140	160	11.8	13	UR140160A
140	160	14.5	16	UR140160B
150	160	11	12	UR150160A
150	165	9	10	UR150165A
150	170	12	13	UR150170A
150	170	13.2	14.5	UR150170B
150	170	14.5	16	UR150170C
151	159	9	10	UR151159A
155	163	11.4	12.5	UR155163A
155	165	6	7	UR155165A
155	165	11	12	UR155165B
155	170	9	10	UR155170A
155	170	14.5	16	UR155170B
160	175	9	10	UR160175A
160	175	10.9	12	UR160175B
160	180	12	13	UR160180A
160	180	14.5	16	UR160180B
165	180	9	10	UR165180A
170	180	6	7	UR170180A
170	180	11.8	13	UR170180B
170	185	9	10	UR170185A
170	190	14.5	16	UR170190A
180	190	11	12	UR180190A
180	192	12.5	14	UR180192A
180	200	11.8	13	UR180200A

d	D	h	H	Part No.
180	200	14.5	16	UR180200B
185	200	10.9	12	UR185200A
190	210	14.5	16	UR190210A
190	215	18.5	20	UR190215A
200	220	12	13	UR200220A
200	220	14.5	16	UR200220B
205	220	12.2	13.5	UR205220A
210	222	12.3	13.5	UR210222A
220	240	8	9.5	UR220240A
220	240	14.5	16	UR220240B
225	240	11.3	12.5	UR225240A
240	260	14.5	16	UR240260A
250	280	22.7	24.5	UR250280A
255	275	14.5	16	UR255275A
260	270	12.3	13.5	UR260270A
260	280	14.5	16	UR260280A
265	290	20	21.8	UR265290A
280	310	22.7	24.5	UR280310A
290	310	14.5	16	UR290310A
330	350	18	20	UR330350A
340	370	17	19	UR340370A
406.5	438.75	25.4	27.5	UR406439A

ER

ER profile seals are U seals with an O-Ring acting as an energiser between the lips of the seal. The O-ring reinforces the outer lips to enhance the pressure withstanding capabilities of the seals thereby making it convenient for application in high pressure Hydraulic Cylinders.



Rod Seals

- **U Profile + Energiser O-Ring**
- **Single Acting**
- **Lip Seal**
- **Static Application**
- **Temp - upto 150° C**
- **Secondary Sealing Lip**

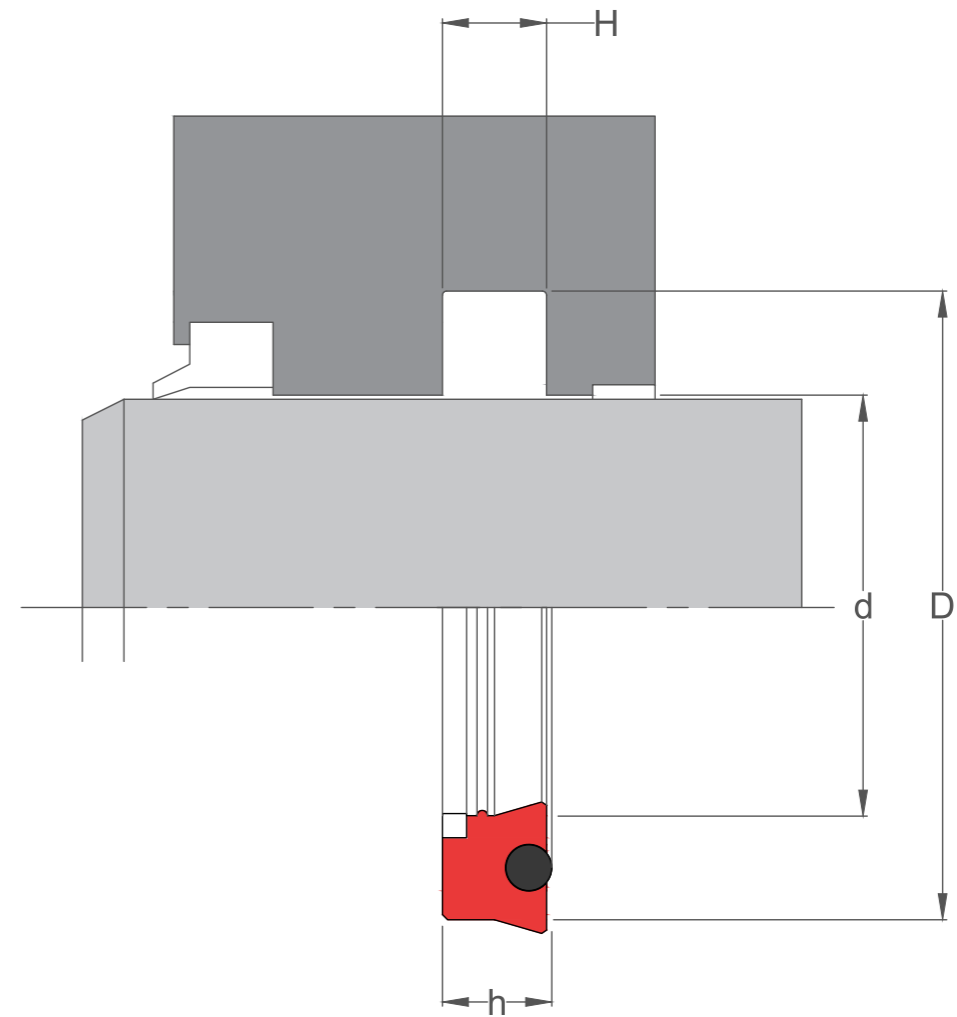
Materials

- **PU + NBR**

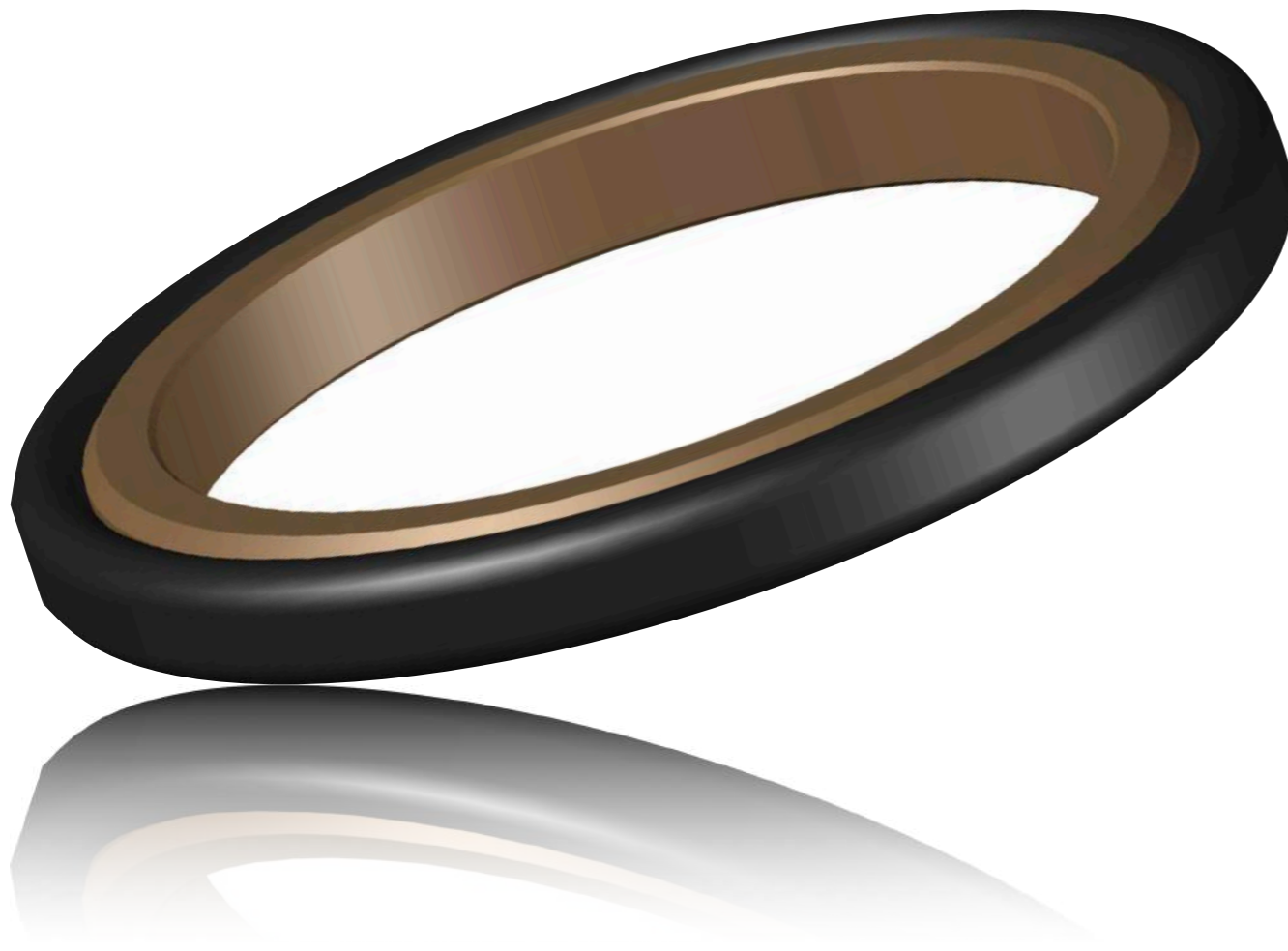


Rod Seals

Rod Dia	Groove Dia	Seal Height	Groove Height	Part No.
d	D	h	H	
15.9	22.3	4.1	4.5	ER159223A
15.9	22.3	4.5	4.8	ER159223B
15.9	22.3	6.4	7	ER159223C
19.1	25.4	4.8	5.3	ER191254A
19.1	25.4	6.4	7	ER191254B
22.3	28.6	4.8	5.3	ER223286A
25.4	31.5	4.8	5.5	ER254315A
25.4	31.8	4.8	5	ER254318A
25.4	31.8	6.4	7	ER254318B
25.4	35	6.4	7	ER254350A
25.4	35	7.9	8.7	ER254350B
28.6	35	6.4	7	ER286350A
28.6	38.1	6.4	7	ER286381A
31.8	38.1	4.8	5.3	ER318381A
31.8	38.1	6.4	7	ER318381B
31.8	41.3	7.9	8.7	ER318413A
35	44.5	7.9	8.7	ER350445A
38.1	47.7	9.5	10.5	ER381477A
44.5	54	9.5	10.5	ER445540A
50.9	63.6	6.4	7	ER509636A



GRR



GRR Type or Glyd Rings are double acting seals which are combination of D-Ring and O-Ring. The pressurised O-Ring in the inner side of the D-Ring gives tension to the D-ring that exerts the sealing pressure to the walls of the hydraulic cylinder bringing up the right sealing performance.

Rod Seals

- **Double Acting**
- **Squeezing Seals**
- **Dynamic Application**
- **Temp - upto 230° C**

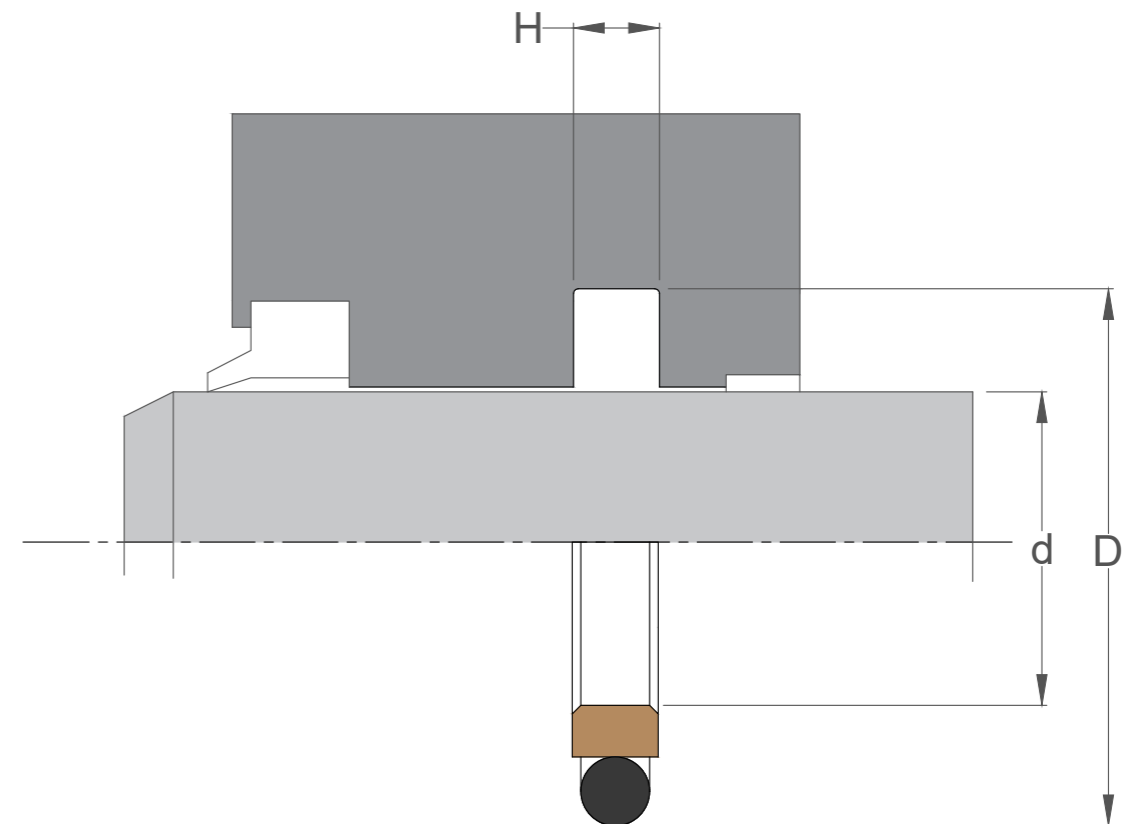
Materials

NBR/FKM + Filled PTFE



Rod Seals

Rod Dia	Groove Dia	Groove Height	O-Ring Size	Part No
d	D	H		
6	10.9	2.2	7.65 x 1.78	GRP006A
7	11.9	2.2	8.75 x 1.80	GRP007A
8	12.9	2.2	9.50 x 1.80	GRP008A
8	15.3	3.2	10.77 x 2.62	GRP008B
10	14.9	2.2	11.80 x 1.80	GRP010A
10	17.3	3.2	12.37 x 2.62	GRP010B
12	16.9	2.2	13.20 x 1.80	GRP012A
12	19.3	3.2	14.50 x 2.65	GRP012B
14	18.9	2.2	15.60 x 1.78	GRP014A
14	21.3	3.2	17.12 x 2.62	GRP014B
15	19.9	2.2	17.17 x 1.78	GRP015A
15	22.3	3.2	18.00 x 2.65	GRP015B
16	20.9	2.2	17.17 x 1.78	GRP016A
16	23.3	3.2	18.72 x 2.62	GRP016B
18	22.9	2.2	19.00 x 1.80	GRP018A
18	25.3	3.2	20.29 x 2.62	GRP018B
19	29.7	4.2	23.40 x 3.53	GRP019A
20	27.3	3.2	21.89 x 2.62	GRP020A
20	30.7	4.2	23.40 x 3.53	GRP020B
22	29.3	3.2	25.07 x 2.62	GRP022A
22	32.7	4.2	26.58 x 3.53	GRP022B
24	31.3	3.2	26.64 x 2.62	GRP024A
25	32.3	3.2	28.24 x 2.62	GRP025A
25	35.7	4.2	29.75 x 3.53	GRP025B
25.4	32.7	3.2	28.24 x 2.62	GRP025C



Rod Seals

d	D	H	O-Ring Size	Part No
25.4	36.1	4.2	29.75 x 3.53	GRP025D
26	33.3	3.2	28.24 x 2.62	GRP026A
26	36.7	4.2	29.75 x 3.53	GRP026B
27	34.3	3.2	29.82 x 2.62	GRP027A
28	35.3	3.2	29.82 x 2.62	GRP028A
28	38.7	4.2	32.92 x 3.53	GRP028B
28.58	35.9	3.2	31.42 x 2.62	GRP028C
29	36.3	3.2	31.42 x 2.62	GRP029A
30	37.3	3.2	32.99 x 2.62	GRP030A
30	40.7	4.2	34.52 x 3.53	GRP030B
32	39.3	3.2	34.59 x 2.62	GRP032A
32	42.7	4.2	36.09 x 3.53	GRP032B
35	42.3	3.2	37.77 x 2.62	GRP035A
35	45.7	4.2	37.69 x 3.53	GRP035B
36	43.3	3.2	39.34 x 2.62	GRP036A
36	46.7	4.2	40.87 x 3.53	GRP036B
38	48.7	4.2	40.87 x 3.53	GRP038A
38	53.1	6.3	43.82 x 5.33	GRP038B
39	49.7	4.2	44.04 x 3.53	GRP039A
40	50.7	4.2	44.04 x 3.53	GRP040A
40	55.1	6.3	43.82 x 5.33	GRP040B
42	52.7	4.2	47.22 x 3.53	GRP042A
42	57.1	6.3	46.99 x 5.33	GRP042B
44	54.7	4.2	47.22 x 3.53	GRP044A
44.45	59.5	6.3	50.17 x 5.33	GRP044B

d	D	H	O-Ring Size	Part No
45	55.7	4.2	50.39 x 3.53	GRP045A
45	60.1	6.3	50.17 x 5.33	GRP045B
48	58.7	4.2	51.50 x 3.55	GRP048A
48	63.1	6.3	53.34 x 5.33	GRP048B
50	60.7	4.2	53.57 x 3.53	GRP050A
50	65.1	6.3	56.52 x 5.33	GRP050B
50.8	61.5	4.2	53.57 x 3.53	GRP051A
50.8	65.9	6.3	56.52 x 5.33	GRP051B
52	62.7	4.2	56.74 x 3.53	GRP052A
52	67.1	6.3	56.52 x 5.33	GRP052B
54	69.1	6.3	59.69 x 5.33	GRP054A
55	65.7	4.2	59.92 x 3.53	GRP055A
55	70.1	6.3	59.69 x 5.33	GRP055B
56	66.7	4.2	59.92 x 3.53	GRP056A
56	71.1	6.3	62.87 x 5.33	GRP056B
58	73.1	6.3	62.87 x 5.33	GRP058A
60	70.7	4.2	63.09 x 3.53	GRP060A
60	75.1	6.3	66.04 x 5.33	GRP060B
63	73.7	4.2	66.27 x 3.53	GRP063A
63	78.1	6.3	69.22 x 5.33	GRP063B
65	80.1	6.3	69.22 x 5.33	GRP065A
67	77.7	4.2	72.62 x 3.53	GRP067A
70	80.7	4.2	75.79 x 3.53	GRP070A
70	85.1	6.3	75.57 x 5.33	GRP070B
72	82.7	4.2	75.79 x 3.53	GRP072A

Rod Seals

d	D	H	O-Ring Size	Part No
75	85.7	4.2	78.97 x 3.53	GRP075A
75	90.1	6.3	81.92 x 5.33	GRP075B
80	90.7	4.2	85.32 x 3.53	GRP080A
80	95.1	6.3	85.09 x 5.33	GRP080B
83	93.7	4.2	88.49 x 3.53	GRP083A
85	100.1	6.3	91.44 x 5.33	GRP085A
86	96.7	4.2	91.67 x 3.53	GRP086A
90	100.7	4.2	94.84 x 3.53	GRP090A
90	105.1	6.3	94.62 x 5.33	GRP090B
92	102.7	4.2	98.02 x 3.53	GRP092A
95	105.7	4.2	101.19 x 3.53	GRP095A
95	110.1	6.3	100.97 x 5.33	GRP095B
100	110.7	4.2	104.37 x 3.53	GRP100A
100	115.1	6.3	107.32 x 5.33	GRP100B
101.6	112.3	4.2	107.54 x 3.53	GRP101A
101.6	116.7	6.3	107.32 x 5.33	GRP101B
104.7	119.8	6.3	110.49 x 5.33	GRP104.7A
105	115.7	4.2	110.72 x 3.53	GRP105A
105	120.1	6.3	110.49 x 5.33	GRP105B
110	120.7	4.2	113.89 x 3.53	GRP110A
110	125.1	6.3	116.84 x 5.33	GRP110B
110	130.5	8.1	116.84 x 7.00	GRP110C
112	127.1	6.3	116.84 x 5.33	GRP112A
115	125.7	4.2	120.24 x 3.53	GRP115A
115	130.1	6.3	120.02 x 5.33	GRP115B

d	D	H	O-Ring Size	Part No
118	133.1	6.3	123.19 x 5.33	GRP118A
120	130.7	4.2	123.42 x 3.53	GRP120A
120	135.1	6.3	126.37 x 5.33	GRP120B
125	135.7	4.2	129.77 x 3.53	GRP125A
125	140.1	6.3	129.54 x 5.33	GRP125B
129	139.7	4.2	132.94 x 3.53	GRP129A
130	140.7	4.2	136.12 x 3.53	GRP130A
130	145.1	6.3	135.89 x 5.33	GRP130B
135	145.7	4.2	139.29 x 3.53	GRP135A
135	150.1	6.3	142.24 x 5.33	GRP135B
140	150.7	4.2	145.64 x 3.53	GRP140A
140	155.1	6.3	145.42 x 5.33	GRP140B
145	155.7	4.2	148.82 x 3.53	GRP145A
145	160.1	6.3	151.77 x 5.33	GRP145B
150	165.1	6.3	158.12 x 5.33	GRP150A
160	175.1	6.3	164.47 x 5.33	GRP160A
160	180.5	8.1	170.82 x 7.00	GRP160B
165	180.1	6.3	170.82 x 5.33	GRP165A
170	180.7	4.2	177.39 x 3.53	GRP170A
170	185.1	6.3	177.17 x 5.33	GRP170B
175	190.1	6.3	183.52 x 5.33	GRP175A
180	190.7	4.2	183.74 x 3.53	GRP180A
180	195.1	6.3	183.52 x 5.33	GRP180B
180	200.5	8.1	189.87 x 7.00	GRP180C
190	200.7	4.2	196.44 x 3.53	GRP190A

Rod Seals

d	D	H	O-Ring Size	Part No
190	205.1	6.3	196.22 x 5.33	GRP190B
200	215.1	6.3	208.92 x 5.33	GRP200A
200	220.5	8.1	208.90 x 7.00	GRP200B
205	220.1	6.3	208.92 x 5.33	GRP205A
210	225.1	6.3	215.27 x 5.33	GRP210A
220	235.1	6.3	227.97 x 5.33	GRP220A
220	240.5	8.1	227.97 x 7.00	GRP220B
230	245.1	6.3	234.32 x 5.33	GRP230A
230	250.5	8.1	240.67 x 7.00	GRP230B
240	255.1	6.3	247.02 x 5.33	GRP240A
240	260.5	8.1	253.37 x 7.00	GRP240B
250	270.5	8.1	266.07 x 7.00	GRP250A
260	284	8.1	266.07 x 7.00	GRP260A
270	294	8.1	278.77 x 7.00	GRP270A
270	290.5	8.1	278.77 x 7.00	GRP270B
275	299	8.1	291.47 x 7.00	GRP275A
280	304	8.1	291.47 x 7.00	GRP280A
280	300.5	8.1	291.47 x 7.00	GRP280B
290	314	8.1	304.17 x 7.00	GRP290A
290	310.5	8.1	304.17 x 7.00	GRP290B
300	324	8.1	316.87 x 7.00	GRP300A
310	334	8.1	316.87 x 7.00	GRP310A
310	330.5	8.1	316.87 x 7.00	GRP310B
320	344	8.1	329.57 x 7.00	GRP320A
330	354	8.1	342.27 x 7.00	GRP330A

d	D	H	O-Ring Size	Part No
340	364	8.1	354.97 x 7.00	GRP340A
350	374	8.1	367.67 x 7.00	GRP350A
350	370.5	8.1	354.97 x 7.00	GRP350B
360	384	8.1	367.67 x 7.00	GRP360A
370	394	8.1	380.37 x 7.00	GRP370A
370	390.5	8.1	380.37 x 7.00	GRP370B
380	404	8.1	393.07 x 7.00	GRP380A
390	414	8.1	405.26 x 7.00	GRP390A
400	424	8.1	417.96 x 7.00	GRP400A
400	420.5	8.1	405.26 x 7.00	GRP400B
410	434	8.1	417.96 x 7.00	GRP410A
420	444	8.1	430.66 x 7.00	GRP420A
430	454	8.1	443.36 x 7.00	GRP430A
440	464	8.1	456.06 x 7.00	GRP440A
450	474	8.1	468.76 x 7.00	GRP450A
460	484	8.1	468.76 x 7.00	GRP460A
470	494	8.1	481.38 x 7.00	GRP470A
480	504	8.1	494.16 x 7.00	GRP480A
490	514	8.1	506.86 x 7.00	GRP490A
500	524	8.1	506.86 x 7.00	GRP500A

EBR

ER profile seals are U seals with an O-Ring acting as an energiser between the lips of the seal. It also had an integrated PTFE Backup ring to prevent the seal from extruding in surfaces. The O-ring reinforces the outer lips to enhance the pressure withstanding capabilities of the seals thereby making it convenient for application in high pressure Hydraulic Cylinders.



Rod Seals

- **U Profile + Energiser O-Ring**
- **Integrated PTFE Back-Up Ring**
- **Single Acting**
- **Lip Seal**
- **Static Application**
- **Temp - upto 170° C**

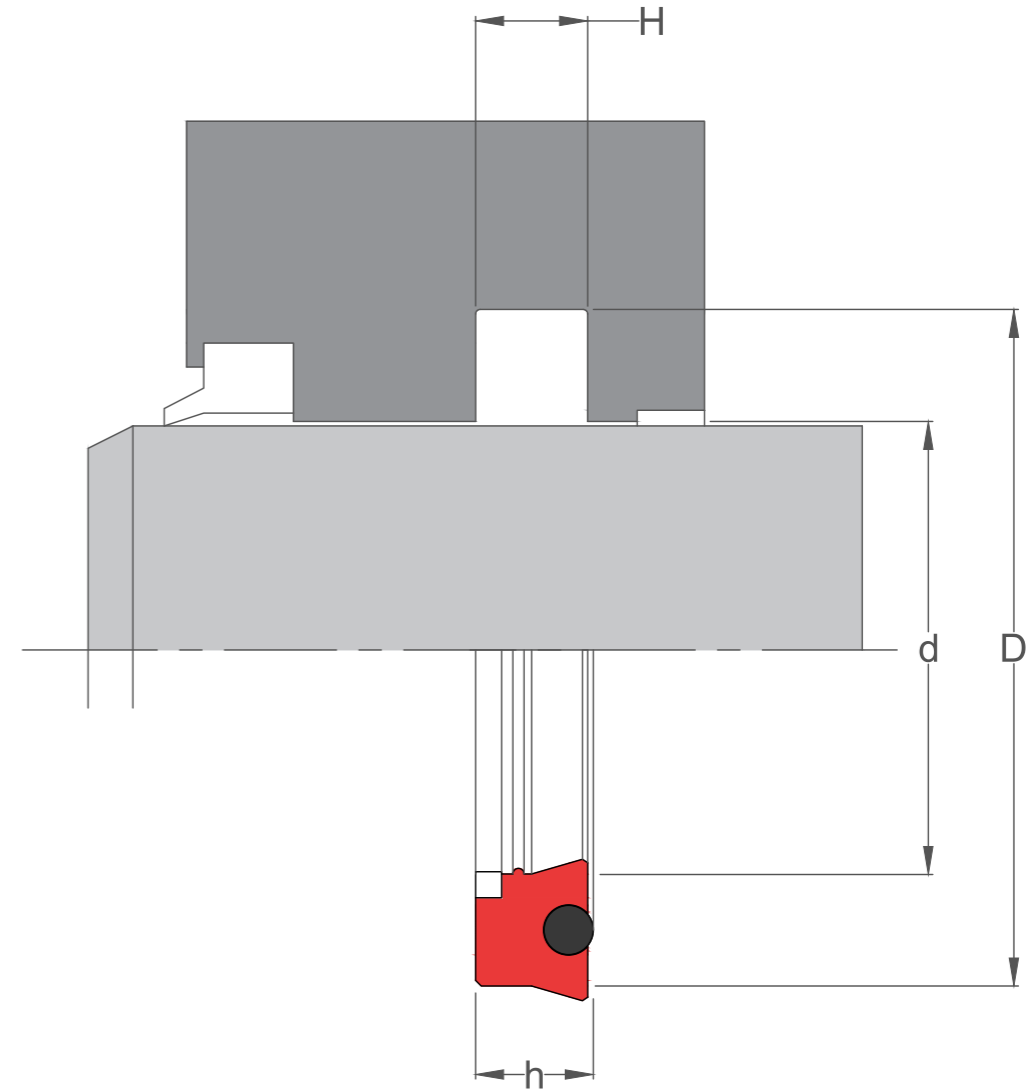
Materials

- **PU + NBR + PTFE**



Rod Seals

Rod Dia	Groove Dia	Groove Height	Seal Height	Part No.
d	D	H	h	
32	44	9.6	8.7	EBR032044
40	52	9.6	8.7	EBR040052
50	62	9.6	8.7	EBR050062
60	69.8	12.5	11.4	EBR060069
60	72	9.6	8.7	EBR060072
60	75	13	11.9	EBR060075
63	75	9.6	8.7	EBR063075
70	82	9.6	8.7	EBR070082
75	95	14	12.5	EBR075095
80	95	13	11.8	EBR080095
80	95	16	14.5	EBR080095
85	97	9.6	8.7	EBR085097
90	105	13	11.8	EBR090105
90	105	16	14.5	EBR090105
100	115	12	11	EBR100115
100	115	16	14.5	EBR100115
105	120	13	11.8	EBR105120
105	120	16	14.5	EBR105120
110	125	16	14.5	EBR110125
115	130	16	14.5	EBR115130
120	135	16	14.5	EBR120135
125	140	16	14.5	EBR125140
128	143	16	14.5	EBR128143
130	145	16	14.5	EBR130145
135	155	15	13.6	EBR135155



Rod Seals

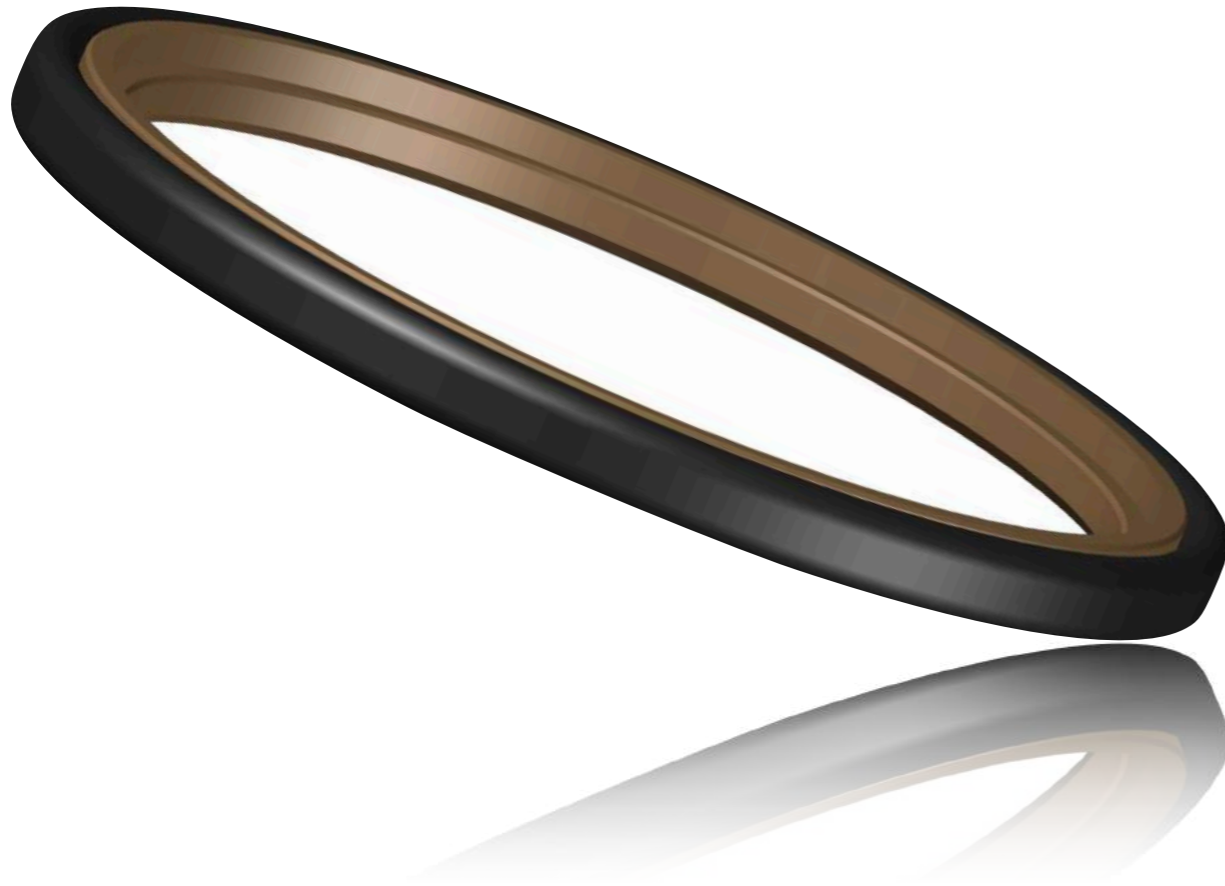
d	D	H	h	Part No.
140	155	16	14.5	EBR140155
150	165	16	14.5	EBR150165
160	175	12.8	11.7	EBR160175
160	175	16	14.5	EBR160175
160	177	16	14.5	EBR160177
160	185	20	18.8	EBR160185
165	182	16	14.5	EBR165182
170	185	16	14.5	EBR170185
177	192	16	14.5	EBR177192
180	195	16	14.5	EBR180195
185	200	16	14.5	EBR185200
185	210	20	18	EBR185210
190	205	16	14.5	EBR190205
195	210	16	14.5	EBR195210
195	215	16	14.5	EBR195215
200	220	16	14.5	EBR200220
205	220	16	14.5	EBR205220
210	230	16	14.5	EBR210230
220	235	16	14.5	EBR220235
220	240	16	14.5	EBR220240
225	240	16	14.5	EBR225240
225	250	20	18	EBR225250
230	247	16	14.5	EBR230247
230	249.3	16	14.5	EBR230249
230	250	16	14.5	EBR230250

d	D	H	h	Part No.
230	255	25	22.8	EBR230255
235	255	16	14.5	EBR235255
240	260	16	14.5	EBR240260
245	270	20	18	EBR245270
250	270	16	14.5	EBR250270
255	275	16	14.5	EBR255275
260	280	18	16.4	EBR260280
265	285	16	14.5	EBR265285
275	295	16	14.5	EBR275295
280	300	16	14.5	EBR280300
285	305	18	16.4	EBR285305
285	310	20	18	EBR285310
290	310	18	16.4	EBR290310
290	315	20	18	EBR290315
295	315	18	16.4	EBR295315
300	320	16	14.5	EBR300320
305	325	18	16.4	EBR305325
305	330	20	18	EBR305330
305	335	18	16.4	EBR305335
320	340	16	14.5	EBR320340
320	340	18	16.4	EBR320340
325	355	20	18	EBR325355
330	350	18	16.4	EBR330350
335	355	18	16.4	EBR335355
335	360	20	18	EBR335360

Rod Seals

d	D	H	h	Part No.
340	360	20.5	18.5	EBR340360
340	365	20	18	EBR340365
350	375	20	18	EBR350375
355	380	20	18	EBR355380
360	385	20	18	EBR360385
370	395	20	18	EBR370395
380	405	20	18	EBR380405
390	415	20	18	EBR390415
395	420	20	18	EBR395420
400	425	20	18	EBR400425
410	435	20	18	EBR410435
415	445	22.5	20.5	EBR415445
430	455	20	18	EBR430455
445	475	22.5	20.5	EBR445475
470	495	20	18	EBR470495
490	515	20	18	EBR490515

SSR



SSR Type or Step Seals are single acting seals which are combination of Scraper and O-Ring. The pressurised O-Ring in the inner side of the Scraper gives tension to the Scraper that exerts the sealing pressure to the walls of the hydraulic cylinder bringing up the right sealing performance. The higher hardness of the scraper in the sealing surface gives the design a better extrusion resistance.

Rod Seals

- **Single Acting**
- **Squeezing Seals**
- **High Extrusion Resistance**
- **Static Application**
- **Temp - upto 230° C**

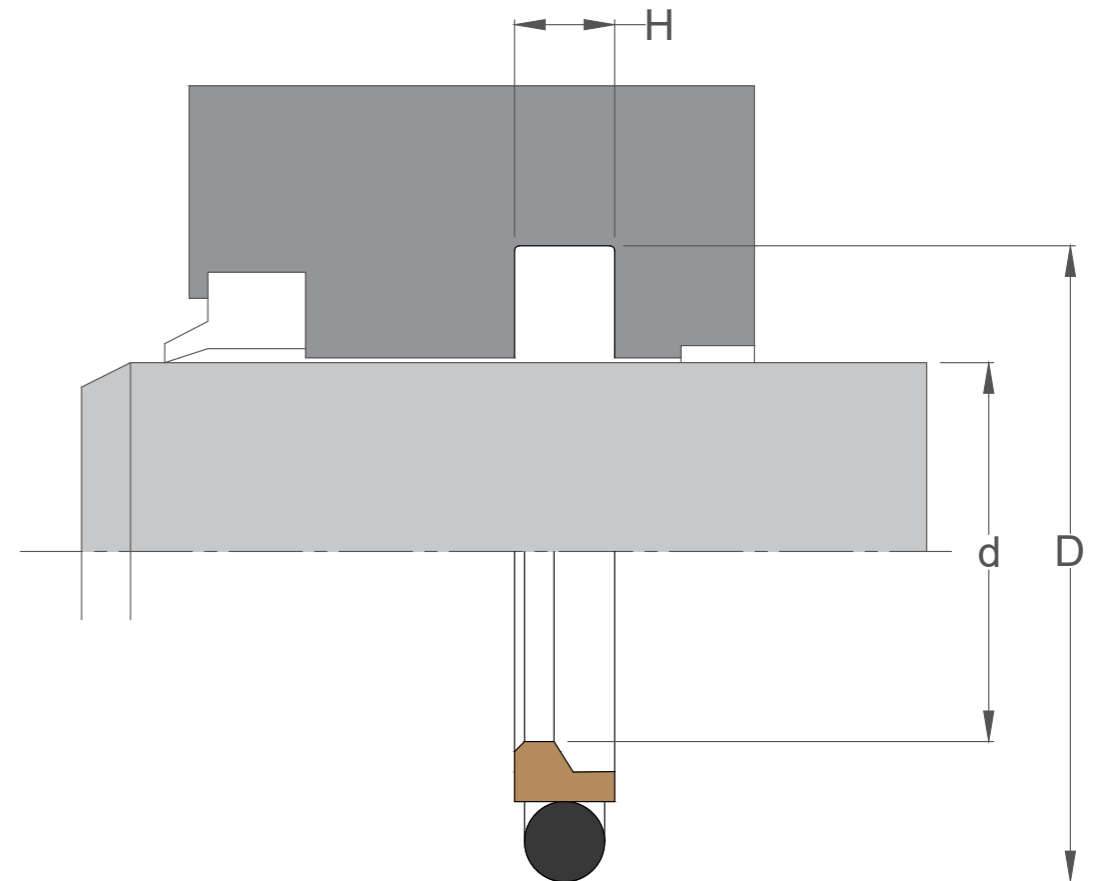


Materials

NBR/FKM + PTFE/BFT

Rod Seals

Rod Dia	Groove Dia	Groove Height	O-Ring Size	Part No.
d	D	H		
6	10.9	2.2	7.65 x 1.78	SSR006A
7	11.9	2.2	8.75 x 1.80	SSR007A
8	12.9	2.2	9.50 x 1.80	SSR008A
8	15.3	3.2	10.77 x 2.62	SSR008B
9	13.9	2.2	10.82 x 1.78	SSR009A
9	16.3	3.2	10.77 x 2.62	SSR009B
10	14.9	2.2	11.80 x 1.80	SSR010A
10	17.3	3.2	12.37 x 2.62	SSR010B
12	16.9	2.2	14.00 x 1.78	SSR012A
12	19.3	3.2	14.50 x 2.65	SSR012B
12.7	17.6	2.2	14.00 x 1.78	SSR013A
12.7	20	3.2	15.54 x 2.62	SSR013B
14	18.9	2.2	15.60 x 1.78	SSR014A
14	21.3	3.2	17.12 x 2.62	SSR014B
15	19.9	2.2	17.17 x 1.78	SSR015A
15	22.3	3.2	18.00 x 2.65	SSR015B
16	20.9	2.2	17.17 x 1.78	SSR016A
16	23.3	3.2	18.72 x 2.62	SSR016B
17	21.9	2.2	18.77 x 1.78	SSR017A
18	22.9	2.2	20.35 x 1.78	SSR018A
18	25.3	3.2	20.29 x 2.62	SSR018B
19	29.7	4.2	23.40 x 3.53	SSR019A
20	27.3	3.2	21.89 x 2.62	SSR020A
20	30.7	4.2	25.00 x 3.53	SSR020B
22	29.3	3.2	25.07 x 2.62	SSR022A



Rod Seals

d	D	H	O-Ring Size	Part No.
22	32.7	4.2	26.58 x 3.53	SSR022B
24	31.3	3.2	26.64 x 2.62	SSR024A
25	32.3	3.2	28.24 x 2.62	SSR025A
25	35.7	4.2	29.75 x 3.53	SSR025B
25.4	32.7	3.2	28.24 x 2.62	SSR025C
25.4	36.1	4.2	29.75 x 3.53	SSR025D
26	33.3	3.2	28.24 x 2.62	SSR026A
26	36.7	4.2	29.75 x 3.53	SSR026B
28	35.3	3.2	29.82 x 2.62	SSR028A
28	38.7	4.2	32.92 x 3.53	SSR028B
28.575	35.875	3.2	31.42 x 2.62	SSR029A
30	37.3	3.2	32.99 x 2.62	SSR030A
30	40.7	4.2	34.52 x 3.53	SSR030B
32	39.3	3.2	34.59 x 2.62	SSR032A
32	42.7	4.2	36.09 x 3.53	SSR032B
34	44.7	4.2	37.69 x 3.53	SSR034A
35	42.3	3.2	37.77 x 2.62	SSR035A
35	45.7	4.2	37.69 x 3.53	SSR035B
36	43.3	3.2	39.34 x 2.62	SSR036A
36	46.7	4.2	40.87 x 3.53	SSR036B
37	44.3	3.2	39.34 x 2.62	SSR037A
37	47.7	4.2	40.87 x 3.53	SSR037B
38	48.7	4.2	40.87 x 3.53	SSR038A
38	53.1	6.3	43.82 x 5.33	SSR038B
40	50.7	4.2	44.04 x 3.53	SSR040A

d	D	H	O-Ring Size	Part No.
40	55.1	6.3	43.82 x 5.33	SSR040B
42	52.7	4.2	47.22 x 3.53	SSR042A
42	57.1	6.3	46.99 x 5.33	SSR042B
43	53.7	4.2	47.22 x 3.53	SSR043A
44.4	59.5	6.3	50.17 x 5.33	SSR044A
45	55.7	4.2	50.39 x 3.53	SSR045A
45	60.1	6.3	50.17 x 5.33	SSR045B
48	58.7	4.2	53.57 x 3.53	SSR048A
48	63.1	6.3	53.34 x 5.33	SSR048B
50	60.7	4.2	53.57 x 3.53	SSR050A
50	65.1	6.3	56.52 x 5.33	SSR050B
50.8	61.5	4.2	53.57 x 3.53	SSR051A
50.8	65.9	6.3	56.52 x 5.33	SSR051B
52	62.7	4.2	56.74 x 3.53	SSR052A
52	67.1	6.3	56.52 x 5.33	SSR052B
54	69.1	6.3	59.69 x 5.33	SSR054A
55	65.7	4.2	59.92 x 3.53	SSR055A
55	70.1	6.3	59.69 x 5.33	SSR055B
56	66.7	4.2	59.92 x 3.53	SSR056A
56	71.1	6.3	62.87 x 5.33	SSR056B
56	76.5	8.1	64 x 7.00	SSR056C
57	72.1	6.3	62.87 x 5.33	SSR057A
59	69.7	4.2	63.09 x 3.53	SSR059A
60	70.7	4.2	63.09 x 3.53	SSR060A
60	75.1	6.3	66.04 x 5.33	SSR060B

Rod Seals

d	D	H	O-Ring Size	Part No.
63	73.7	4.2	66.27 x 3.53	SSR063A
63	78.1	6.3	69.22 x 5.33	SSR063B
63.5	78.6	6.3	69.22 x 5.33	SSR064A
65	75.7	4.2	69.44 x 3.53	SSR065A
65	80.1	6.3	69.22 x 5.33	SSR065B
67	77.7	4.2	72.62 x 3.53	SSR067A
69	84.1	6.3	75.57 x 5.33	SSR069A
70	80.7	4.2	75.79 x 3.53	SSR070A
70	85.1	6.3	75.57 x 5.33	SSR070B
70	90.5	8.1	78 x 7.00	SSR070C
72	82.7	4.2	75.79 x 3.53	SSR072A
73	88.1	6.3	78.74 x 5.33	SSR073A
75	85.7	4.2	78.97 x 3.53	SSR075A
75	90.1	6.3	81.92 x 5.33	SSR075B
76.2	91.3	6.3	81.92 x 5.33	SSR076A
78	93.1	6.3	85.09 x 5.33	SSR078A
80	90.7	4.2	85.32 x 3.53	SSR080A
80	95.1	6.3	85.09 x 5.33	SSR080B
80	100.5	8.1	88 x 7.00	SSR080C
82.5	97.6	6.3	88.27 x 5.33	SSR082A
83	93.7	4.2	88.49 x 3.53	SSR083A
85	95.7	4.2	88.49 x 3.53	SSR085A
85	100.1	6.3	91.44 x 5.33	SSR085B
85	105.5	8.1	93 x 7.00	SSR085C
89	104.1	6.3	94.62 x 5.33	SSR089A

d	D	H	O-Ring Size	Part No.
90	100.7	4.2	94.84 x 3.53	SSR090A
90	105.1	6.3	94.62 x 5.33	SSR090B
90	110.5	8.1	98 x 7.00	SSR090C
92	102.7	4.2	98.02 x 3.53	SSR092A
92	107.1	6.3	97.79 x 5.33	SSR092B
95	105.7	4.2	101.19 x 3.53	SSR095A
95	110.1	6.3	100.97 x 5.33	SSR095B
100	110.7	4.2	104.37 x 3.53	SSR100A
100	115.1	6.3	107.32 x 5.33	SSR100B
100	120.5	8.1	108 x 7.00	SSR100C
101.6	116.7	6.3	107.32 x 5.33	SSR101A
104.7	119.8	6.3	110.49 x 5.33	SSR105A
105	120.1	6.3	110.49 x 5.33	SSR105B
105	125.5	8.1	113.67 x 7.00	SSR105C
110	120.7	4.2	113.89 x 3.53	SSR110A
110	125.1	6.3	116.84 x 5.33	SSR110B
110	130.5	8.1	116.84 x 7.00	SSR110C
115	130.1	6.3	120.02 x 5.33	SSR115A
120	135.1	6.3	126.37 x 5.33	SSR120A
120	140.5	8.1	129.54 x 7.00	SSR120B
125	140.1	6.3	129.54 x 5.33	SSR125A
125	145.5	8.1	132.72 x 7.00	SSR125B
125.4	140.5	6.3	132.72 x 5.33	SSR125C
127	142.1	6.3	132.72 x 5.33	SSR127A
130	145.1	6.3	135.89 x 5.33	SSR130A

Rod Seals

d	D	H	O-Ring Size	Part No.
130	150.5	8.1	139.07 x 7.00	SSR130B
132	147.1	6.3	139.07 x 5.33	SSR132A
135	145.7	4.2	139.29 x 3.53	SSR135A
135	150.1	6.3	142.24 x 5.33	SSR135B
137	152.1	6.3	142.24 x 5.33	SSR137A
138	153.1	6.3	142.24 x 5.33	SSR138A
140	150.7	4.2	145.64 x 3.53	SSR140A
140	155.1	6.3	145.42 x 5.33	SSR140B
140	160.5	8.1	148.59 x 7.00	SSR140C
140.5	155.6	6.3	145.42 x 5.33	SSR141A
145	160.1	6.3	151.77 x 5.33	SSR145A
145	165.5	8.1	151.77 x 7.00	SSR145B
150	165.1	6.3	158.12 x 5.33	SSR150A
150	170.5	8.1	158.12 x 7.00	SSR150B
153	168.1	6.3	158.12 x 5.33	SSR153A
155	170.1	6.3	158.12 x 5.33	SSR155A
160	175.1	6.3	164.47 x 5.33	SSR160A
160	180.5	8.1	170.82 x 7.00	SSR160B
165	180.1	6.3	170.82 x 5.33	SSR165A
170	185.1	6.3	177.17 x 5.33	SSR170A
170	190.5	8.1	177.17 x 7.00	SSR170B
173	188.1	6.3	177.17 x 5.33	SSR173A
175	190.1	6.3	183.52 x 5.33	SSR175A
180	195.1	6.3	183.52 x 5.33	SSR180A
180	200.5	8.1	189.87 x 7.00	SSR180B

d	D	H	O-Ring Size	Part No.
185	200.1	6.3	189.87 x 5.33	SSR185A
185	205.5	8.1	196.22 x 7.00	SSR185B
190	205.1	6.3	196.22 x 5.33	SSR190A
190	210.5	8.1	196.22 x 7.00	SSR190B
195	210.1	6.3	202.57 x 5.33	SSR195A
200	215.1	6.3	208.92 x 5.33	SSR200A
200	220.5	8.1	208.90 x 7.00	SSR200B
205	225.5	8.1	215.27 x 7.00	SSR205A
210	230.5	8.1	215.27 x 7.00	SSR210A
211	231.5	8.1	215.27 x 7.00	SSR211A
212	232.5	8.1	227.97 x 7.00	SSR212A
215	235.5	8.1	227.97 x 7.00	SSR215A
220	240.5	8.1	227.97 x 7.00	SSR220A
225	245.5	8.1	240.67 x 7.00	SSR225A
230	245.1	6.3	234.32 x 5.33	SSR230A
230	250.5	8.1	240.67 x 7.00	SSR230B
235	255.5	8.1	240.67 x 7.00	SSR235A
240	260.5	8.1	253.37 x 7.00	SSR240A
245	265.5	8.1	253.37 x 7.00	SSR245A
250	270.5	8.1	266.07 x 7.00	SSR250A
260	284	8.1	266.07 x 7.00	SSR260A
265	289	8.1	278.77 x 7.00	SSR265A
270	290.5	8.1	278.77 x 7.00	SSR270A
270	294	8.1	278.77 x 7.00	SSR270B
275	299	8.1	291.47 x 7.00	SSR275A

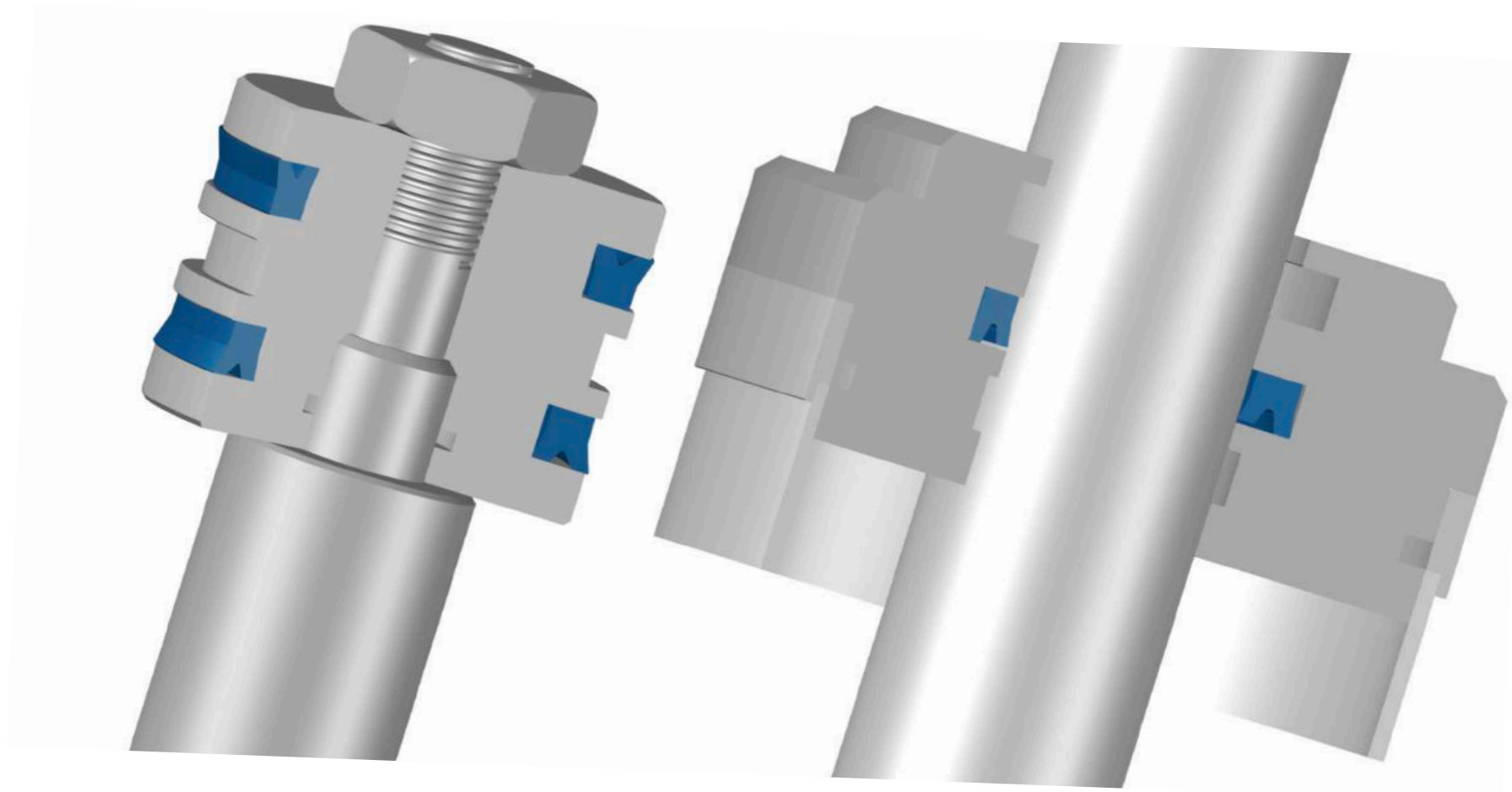
Rod Seals

d	D	H	O-Ring Size	Part No.
280	304	8.1	291.47 x 7.00	SSR280A
285	309	8.1	291.47 x 7.00	SSR285A
290	314	8.1	304.17 x 7.00	SSR290A
295	319	8.1	304.17 x 7.00	SSR295A
300	320.5	8.1	304.17 x 7.00	SSR300A
300	324	8.1	316.87 x 7.00	SSR300B
310	334	8.1	316.87 x 7.00	SSR310A
320	344	8.1	329.57 x 7.00	SSR320A
330	354	8.1	342.27 x 7.00	SSR330A
340	364	8.1	354.97 x 7.00	SSR340A
350	370.5	8.1	354.97 x 7.00	SSR350A
350	374	8.1	367.67 x 7.00	SSR350B
360	384	8.1	367.67 x 7.00	SSR360A
365	389	8.1	380.37 x 7.00	SSR365A
370	394	8.1	380.37 x 7.00	SSR370A
375	399	8.1	393.07 x 7.00	SSR375A
380	404	8.1	393.07 x 7.00	SSR380A
390	414	8.1	405.26 x 7.00	SSR390A
400	424	8.1	417.96 x 7.00	SSR400A
410	434	8.1	417.96 x 7.00	SSR410A
420	444	8.1	430.66 x 7.00	SSR420A
430	454	8.1	443.36 x 7.00	SSR430A
435	459	8.1	443.36 x 7.00	SSR435A
440	464	8.1	456.06 x 7.00	SSR440A
450	474	8.1	468.76 x 7.00	SSR450A

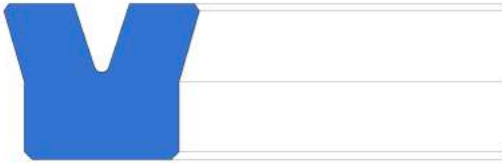

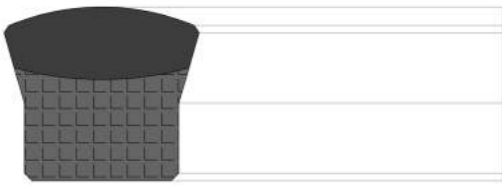
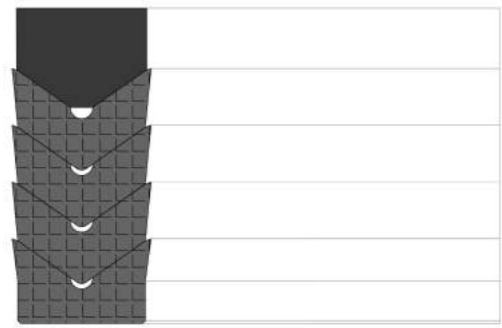
d	D	H	O-Ring Size	Part No.
460	484	8.1	468.76 x 7.00	SSR460A
470	494	8.1	481.38 x 7.00	SSR470A
480	504	8.1	494.16 x 7.00	SSR480A
485	509	8.1	494.16 x 7.00	SSR485A
490	514	8.1	506.86 x 7.00	SSR490A
500	524	8.1	506.86 x 7.00	SSR500A

Symmetrical Seals

Symmetrical Seals are those which are symmetrical in their cross sectional view when defined by its name. They have profiles with applications as both Piston Seals and Rod Seals. As the name suggest they have identical left side and right side design when cut axially.



Symmetrical Seals

Profile	Profile Name	OD (mm)	Pressure (bar)	Speed (m/s)	Material
	US	Upto 800	Upto 400	1	NBR/FKM/PU
	ES	Upto 900	Upto 350	0.5	PU + NBR/FKM
	FS	Upto 800	Upto 500	0.5	NBR + Rubberised Fabric
	VP3	Upto 800	Upto 500	0.5	Rubberised Fabric + POM/ Nylon/ Solid Hard Rubber

Symmetrical Seals

US



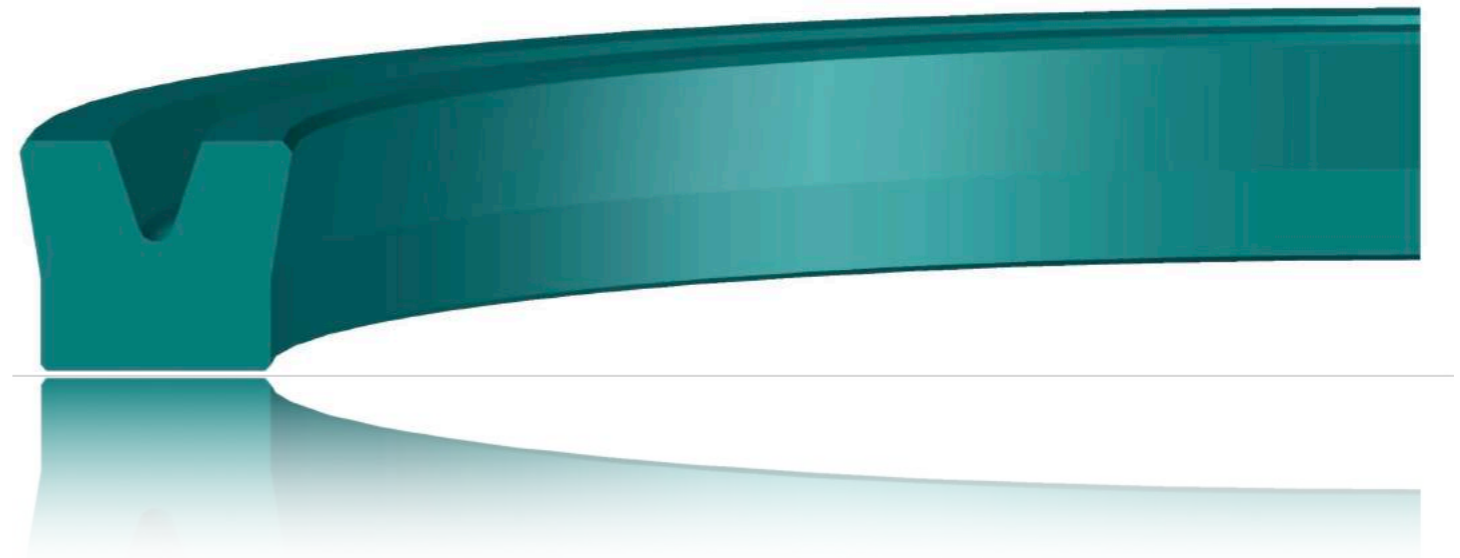
US Type or U Seals are a type of profile which are basically symmetrical seals. They are lip seals available in many material forms depending on the application and other service conditions. The same profile is fine tuned to be in specific application as either Piston Seals or Rod Seals.

Symmetrical Seals

- U Profile
- Single Acting
- Lip Seal
- Unidirectional
- Dynamic/Static Application
- Temp - upto 230°C

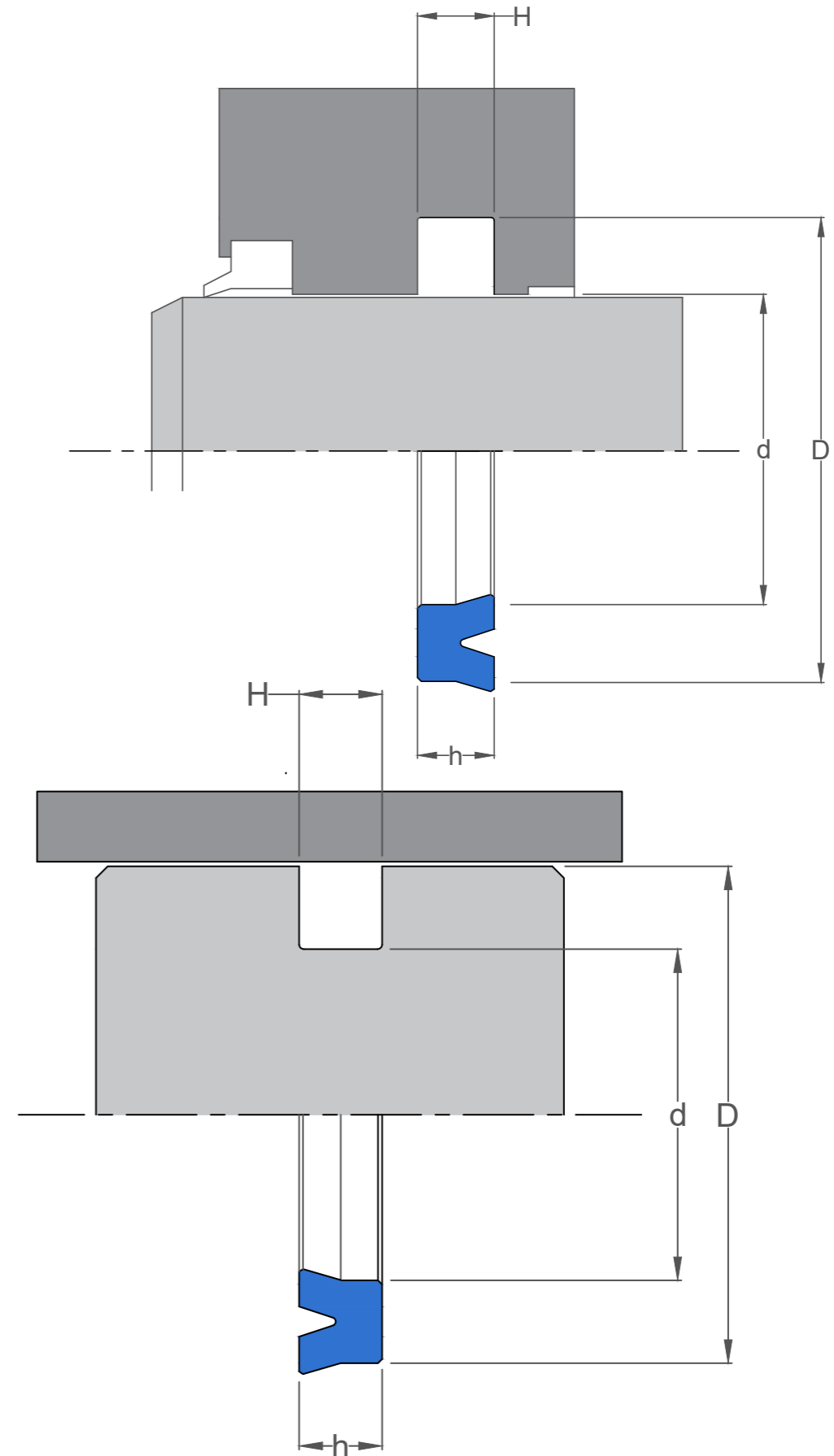
Materials

- NBR
- NBR + Fabric
- FKM
- FKM + Fabric
- VMQ
- PU



Symmetrical Seals

Dynamic Face Dia	Static Face Dia	Seal Height	Groove Height	Part No.
d	D	h	H	
4.50	12.50	4.40	5.00	US004012A
5.00	12.00	5.50	6.50	US005012A
6.00	13.00	8.00	9.00	US006013A
10.00	18.00	6.00	6.60	US010018A
10.00	20.00	8.00	9.00	US010020A
12.00	18.00	6.00	7.00	US012018A
12.00	20.00	4.40	5.00	US012020A
12.00	25.00	8.00	9.00	US012025A
14.00	22.00	4.40	5.00	US014022A
14.00	22.00	5.00	5.70	US014022B
14.00	24.00	8.00	9.00	US014024A
15.00	25.00	8.00	9.00	US015025A
16.00	24.00	4.40	5.00	US016024A
16.00	24.00	5.00	5.70	US016024A
16.00	26.00	8.00	9.00	US016026B
18.00	26.00	4.40	5.00	US018026A
18.00	26.00	5.00	5.70	US018026A
18.00	28.00	7.30	8.00	US018028A
18.00	28.00	8.00	9.00	US018028B
20.00	28.00	4.40	5.00	US020028A
20.00	28.00	5.00	5.70	US020028B
20.00	30.00	8.00	9.00	US020030A
20.00	40.00	12.00	13.00	US020040A
22.00	30.00	4.40	5.00	US022030A
22.00	35.00	10.00	11.00	US022035A



Symmetrical Seals

d	D	h	H	Part No.
22.00	35.00	10.00	11.00	US022035A
22.00	40.00	10.00	11.00	US022040A
22.40	30.00	5.00	5.70	US023030A
22.40	32.40	8.00	9.00	US023032A
23.50	31.50	5.00	5.70	US024032A
25.00	33.00	4.40	5.00	US025033A
25.00	33.00	5.00	5.70	US025033B
25.00	35.00	8.00	9.00	US025035A
25.00	35.00	10.00	11.00	US025035B
25.00	38.00	8.00	9.00	US025038A
25.00	38.00	10.00	11.00	US025038B
25.00	40.00	10.00	11.00	US025040A
26.00	40.00	9.00	10.00	US026040A
28.00	35.50	5.00	5.70	US028035A
28.00	36.00	6.50	7.10	US028036A
28.00	38.00	5.60	6.30	US028038A
28.00	38.00	8.00	9.00	US028038B
28.00	40.00	10.00	11.00	US028040A
28.00	43.00	10.00	11.00	US028043A
30.00	37.00	6.00	7.00	US030037A
30.00	40.00	5.60	6.30	US030040A
30.00	40.00	6.00	7.00	US030040B
30.00	40.00	8.00	9.00	US030040C
30.00	40.00	10.00	11.00	US030040D
30.00	45.00	10.00	11.00	US030045A

d	D	h	H	Part No.
31.50	41.50	6.00	7.00	US032041A
32.00	40.00	8.00	9.00	US032040A
32.00	42.00	5.60	6.30	US032042A
32.00	42.00	6.00	7.00	US032042B
32.00	42.00	10.00	11.00	US032042C
32.00	47.00	10.00	11.00	US032047A
35.00	45.00	6.00	7.00	US035045A
35.00	45.00	7.00	8.00	US035045B
35.00	48.00	10.00	11.00	US035048A
35.00	50.00	10.00	11.00	US035050A
35.50	45.00	6.00	7.00	US036045A
35.50	50.50	10.00	11.00	US036050A
36.00	46.00	5.60	6.30	US036046A
38.00	48.00	6.00	7.00	US038048A
38.00	50.00	9.00	10.00	US038050A
38.00	55.00	9.70	11.00	US038055A
38.00	58.00	9.70	11.00	US038058A
40.00	50.00	5.60	6.30	US040050A
40.00	50.00	6.00	7.00	US040050B
40.00	50.00	10.00	11.00	US040050B
40.00	55.00	9.90	11.00	US040055A
40.00	55.00	10.00	11.00	US040055B
40.00	60.00	12.00	13.00	US040060A
45.00	53.00	10.00	11.00	US045053A
45.00	55.00	5.60	6.30	US045055A

Symmetrical Seals

d	D	h	H	Part No.
45.00	55.00	6.00	7.00	US045055B
45.00	55.00	10.00	11.00	US045055C
45.00	56.00	7.00	8.00	US045056A
45.00	60.00	10.00	11.00	US045060A
45.00	65.00	10.00	11.00	US045065A
46.00	56.00	6.00	7.00	US046056A
48.00	63.00	10.00	11.00	US048063A
50.00	60.00	5.60	6.30	US050060A
50.00	60.00	6.00	7.00	US050060B
50.00	60.00	10.00	11.00	US050060C
50.00	65.00	10.00	11.00	US050065A
50.00	70.00	12.00	13.00	US050070A
52.00	62.00	10.00	11.00	US052062A
53.00	63.00	6.00	7.00	US053063A
55.00	65.00	6.00	7.00	US055065A
55.00	75.00	12.00	13.00	US055075A
56.00	66.00	6.00	7.00	US056066A
56.00	71.00	8.40	9.50	US056071A
56.00	76.00	12.00	13.00	US056076A
60.00	70.00	6.00	7.00	US060070A
60.00	70.00	10.00	11.00	US060070B
60.00	71.00	7.00	8.00	US060071A
60.00	76.00	12.00	13.00	US060076A
60.00	80.00	12.00	13.00	US060080A
63.00	73.00	6.00	7.00	US063073A

d	D	h	H	Part No.
63.00	73.00	11.80	13.00	US063073B
63.00	78.00	8.40	9.50	US063078A
65.00	75.00	6.00	7.00	US065075A
65.00	80.00	8.40	9.50	US065080A
65.00	80.00	12.00	13.00	US065080B
65.00	85.00	12.00	13.00	US065085A
70.00	80.00	6.00	7.00	US070080A
70.00	80.00	11.80	13.00	US070080B
70.00	85.00	8.40	9.50	US070085A
70.00	85.00	12.00	13.00	US070085B
70.00	90.00	12.00	13.00	US070090A
70.00	92.00	12.00	13.00	US070092A
71.00	80.00	6.00	7.00	US071080A
75.00	85.00	6.00	7.00	US075085A
75.00	85.00	11.80	13.00	US075085B
75.00	90.00	12.00	13.00	US075090A
75.00	95.00	12.00	13.00	US075095A
75.00	100.00	22.00	24.00	US075100A
80.00	90.00	6.00	7.00	US080090A
80.00	90.00	8.00	8.80	US080090B
80.00	90.00	11.80	13.00	US080090C
80.00	95.00	8.40	9.50	US080095A
80.00	100.00	12.00	13.00	US080100A
80.00	100.00	13.20	14.50	US080100B
85.00	100.00	8.40	9.50	US085100A

Symmetrical Seals

d	D	h	H	Part No.
85.00	100.00	8.90	10.00	US085100B
85.00	100.00	12.00	13.00	US085100C
85.00	105.00	12.00	13.00	US085105A
90.00	100.00	11.80	13.00	US090100A
90.00	105.00	8.40	9.50	US090105A
90.00	105.00	8.90	10.00	US090105B
90.00	110.00	12.00	13.00	US090110A
95.00	110.00	8.90	10.00	US095110A
95.00	110.00	12.00	13.00	US095110B
95.00	115.00	12.00	13.00	US095115A
100.00	110.00	6.40	7.00	US100110A
100.00	115.00	8.90	10.00	US100115A
100.00	115.00	12.00	13.00	US100115B
100.00	120.00	11.00	12.50	US100120A
100.00	120.00	12.00	13.00	US100120B
105.00	125.00	11.40	12.50	US105125A
105.00	125.00	15.00	17.00	US105125B
110.00	130.00	11.00	12.50	US110130A
110.00	130.00	15.00	17.00	US110130B
112.00	125.00	8.90	10.00	US112125A
115.00	130.00	8.90	10.00	US115130A
115.00	135.00	15.00	17.00	US115135A
118.00	130.00	7.30	8.00	US118130A
120.00	140.00	14.50	16.00	US120140A
120.00	140.00	15.00	17.00	US120140B

d	D	h	H	Part No.
125.00	140.00	8.90	10.00	US125140A
125.00	145.00	11.40	12.50	US125145A
125.00	145.00	15.00	17.00	US125145B
130.00	150.00	15.00	17.00	US130150A
100.00	115.00	12.00	13.00	US100115A
100.00	120.00	11.00	12.50	US100120A
100.00	120.00	12.00	13.00	US100120B
105.00	125.00	11.40	12.50	US105125A
105.00	125.00	15.00	17.00	US105125B
110.00	130.00	11.00	12.50	US110130A
110.00	130.00	15.00	17.00	US110130B
112.00	125.00	8.90	10.00	US112125A
115.00	130.00	8.90	10.00	US115130A
115.00	135.00	15.00	17.00	US115135A
118.00	130.00	7.30	8.00	US118130A
120.00	140.00	14.50	16.00	US120140A
120.00	140.00	15.00	17.00	US120140B
125.00	140.00	8.90	10.00	US125140A
125.00	145.00	11.40	12.50	US125145A
125.00	145.00	15.00	17.00	US125145B
130.00	150.00	15.00	17.00	US130150A
170.00	195.00	15.00	17.00	US170195A
175.00	190.00	8.90	10.00	US175190A
175.00	200.00	15.00	17.00	US175200A
180.00	200.00	12.00	13.00	US180200A

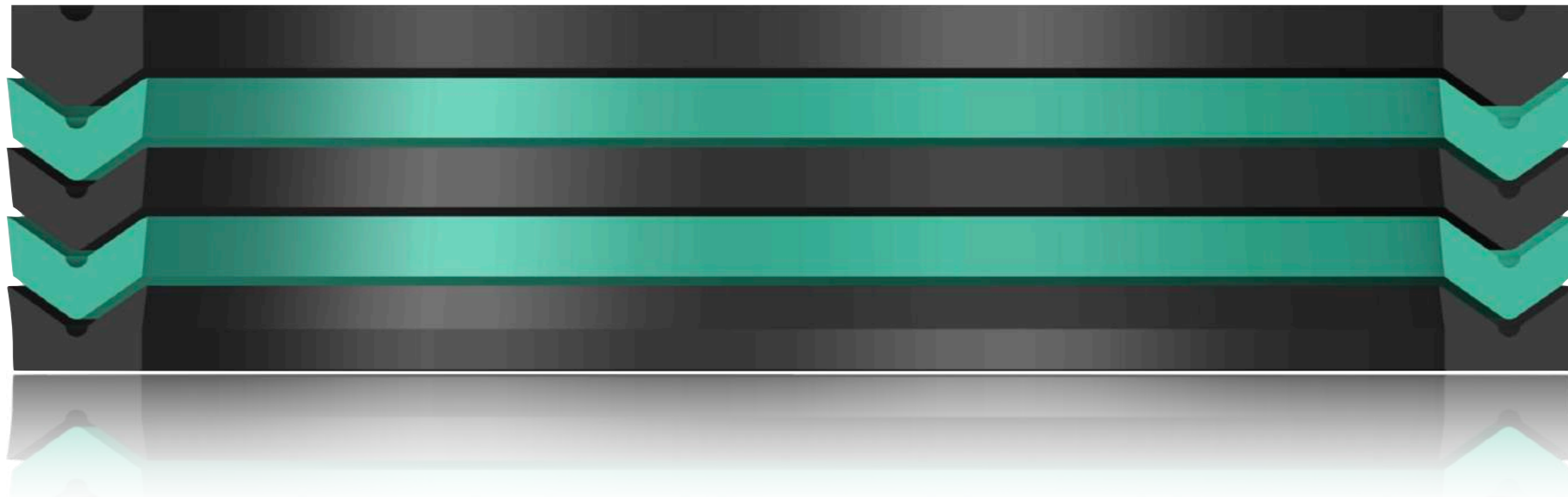
Symmetrical Seals

d	D	h	H	Part No.
180.00	205.00	15.00	17.00	US180205A
188.00	227.00	27.00	30.00	US188227A
190.00	210.00	12.00	13.00	US190210A
190.00	215.00	15.00	17.00	US190215A
200.00	220.00	12.00	13.00	US200220A
200.00	220.00	15.00	16.00	US200220B
200.00	225.00	12.00	14.50	US200225A
200.00	225.00	15.00	17.00	US200225B
210.00	230.00	15.00	16.00	US210230A
210.00	235.00	18.00	20.00	US210235A
220.00	240.00	12.00	13.00	US220240A
220.00	240.00	15.00	16.00	US220240B
220.00	250.00	17.00	19.20	US220250A
230.00	250.00	12.00	13.00	US230250A
230.00	250.00	15.00	16.00	US230250B
240.00	260.00	12.00	13.00	US240260A
240.00	260.00	15.00	16.00	US240260B
240.00	265.00	18.00	20.00	US240265A
241.00	257.00	11.00	13.00	US241257A
250.00	275.00	18.00	20.00	US250275A
260.00	280.00	15.00	16.00	US260280A
260.00	290.00	18.00	20.00	US260290A
265.00	295.00	18.00	20.00	US265295A
270.00	290.00	11.00	12.00	US270290A
270.00	300.00	18.00	20.00	US270300A

d	D	h	H	Part No.
280.00	300.00	11.00	12.00	US280300A
280.00	310.00	18.00	20.00	US280310A
280.00	318.00	22.00	24.00	US280318A
290.00	320.00	18.00	20.00	US290320A
300.00	330.00	18.00	20.00	US300330A
320.00	350.00	22.00	24.00	US320350A
330.00	350.00	11.00	12.00	US330350A
330.00	370.00	20.00	22.00	US330370A
340.00	380.00	21.00	23.00	US340380A
368.00	400.00	24.00	26.00	US368400A
375.00	405.00	22.00	24.00	US375405A
394.00	423.00	17.00	19.00	US394423A
400.00	425.00	25.00	27.00	US400425A
480.00	510.00	15.00	17.00	US480510A
480.00	508.00	20.00	22.00	US480508A
505.00	537.00	25.40	27.50	US505537A
510.00	560.00	23.00	26.00	US510560A
750.00	790.00	20.00	22.00	US750790A

Symmetrical Seals

VP3



VP3 Type or Vee Packing also known by the name “Chevron Packing” are multiple lip squeezing seals. They are called “packing” since there are desired number of lip seals stacked over one another to sealing element. Vee Packing primarily three components, a U Seal, a Header and a stacked up packing of V Seals. Depending on the required height of the slot in the cylinder and the number of lips, the design of the Vee Packing is done.

Symmetrical Seals

- **Single Acting**
- **Squeezing Seal**
- **Multiple Lips**
- **Unidirectional**
- **Dynamic/Static Application**
- **Temp - upto 230° C**

Materials

U/V Seals

- **Fabric Reinforced NBR**
- **Fabric Reinforced FKM**
- **NBR**

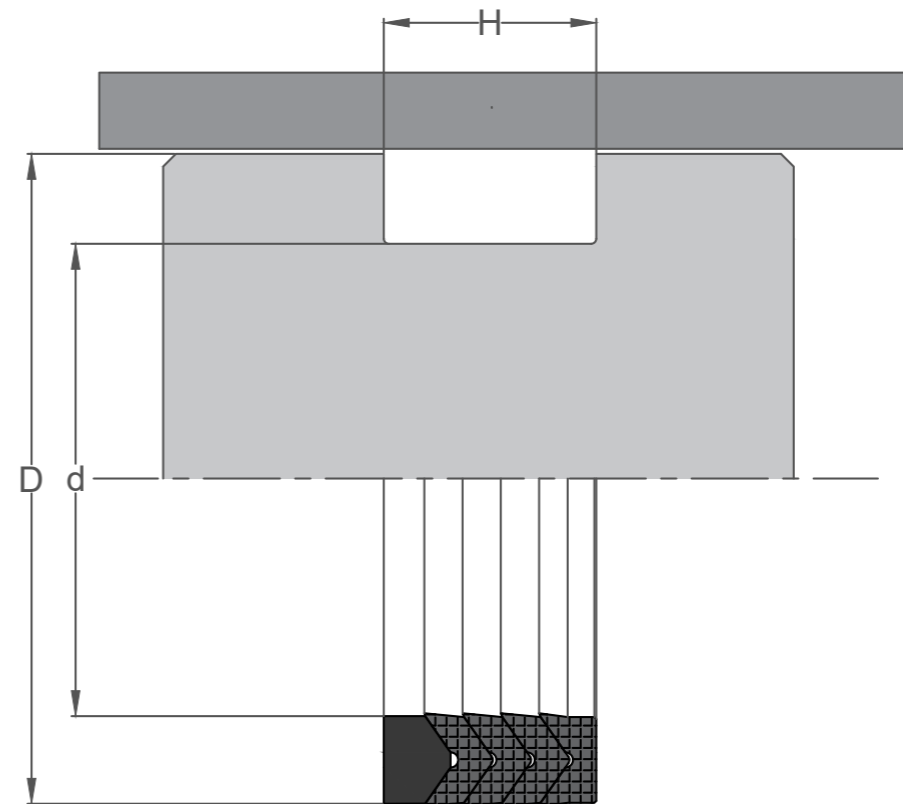
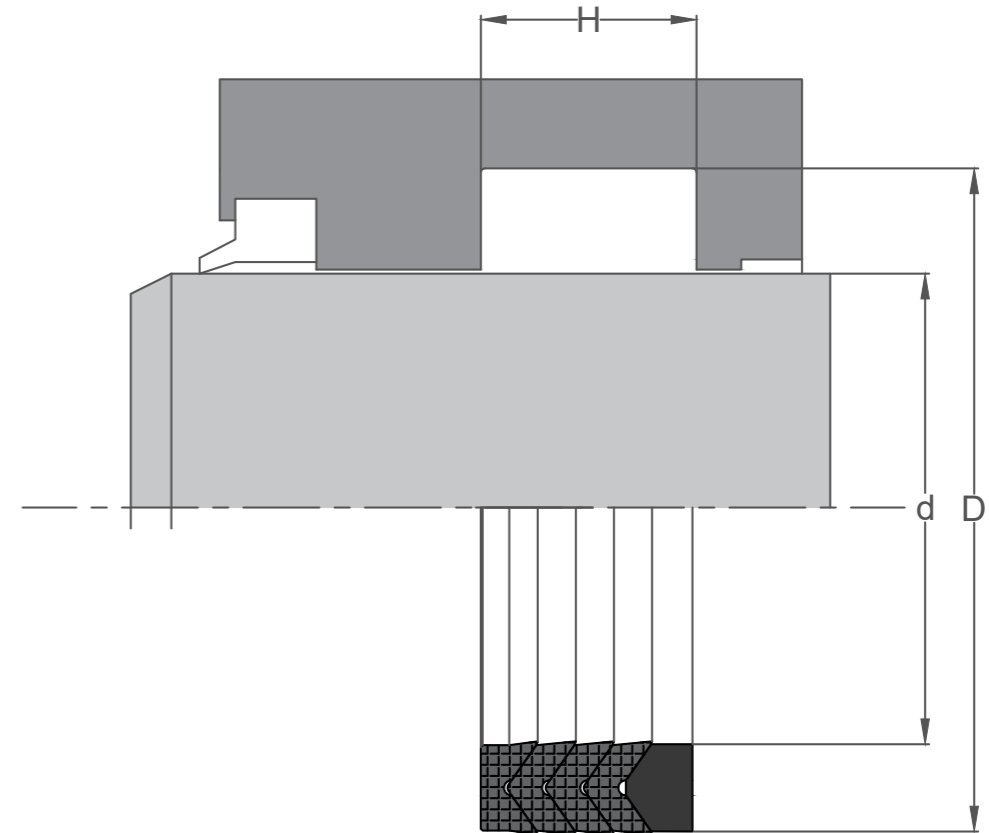
Header

- **Nylon/PTFE/POM/Nylon/Brass**



Symmetrical Seals

Dynamic Face Dia	Static Face Dia	Groove Height	Part No.
d	D	H	
12.5	25.4	20	VP3013025A
15	30	25.2	VP3015030A
16	25	23.5	VP3016025A
16	29	16.5	VP3016029A
18	30	19	VP3018030A
19	32	23.5	VP3019032A
20	30	18.5	VP3020030A
20	30	20	VP3020030B
20	32	20	VP3020032A
20	33	19	VP3020033A
20	35	22.5	VP3020035A
20	36	42.5	VP3020036A
22	32	18	VP3022032A
22	34	29	VP3022034A
22	37	22	VP3022037A
25	37	22.5	VP3025037A
25	38	22.5	VP3025038A
25.4	34.93	21	VP3025035A
28	40	22.5	VP3028040B
28	40	21	VP3028040A
28.57	41.27	23.5	VP3029041A
30	40	20	VP3030040A
30	42	22.5	VP3030042A
30	42	24	VP3030042B
30	44	23.5	VP3030044A



Symmetrical Seals

d	D	H	Part No.
30	44	23.5	VP3030044A
30	45	25	VP3030045A
32	44	22.5	VP3032044A
32	45	19	VP3032045A
32	50	23	VP3032050A
35	47	22.5	VP3035047A
35	50	22	VP3035050A
35	55	35	VP3035055A
36	48	22.5	VP3036048B
36	48	19	VP3036048A
36	50	27	VP3036050A
36	51	24	VP3036051A
36	53	23	VP3036053A
38	50	23	VP3038050A
38	52	23.5	VP3038052A
40	52	22.5	VP3040052A
40	55	29	VP3040055A
40	56	25	VP3040056A
40	60	35	VP3040060A
42	54	22.5	VP3042054A
42	55	22	VP3042055A
44.45	57.15	20	VP3044057A
45	55	20	VP3045055A
45	57	19	VP3045057A
45	60	22.5	VP3045060A

d	D	H	Part No.
45	60	29	VP3045060B
45	63	30.5	VP3045063A
45	65	35	VP3045065A
48	63	21	VP3048063A
50	60	26	VP3050060A
50	65	22.5	VP3050065A
50	65	25	VP3050065B
50	66	29	VP3050066A
50	70	35	VP3050070A
50	75	42.5	VP3050075A
55	70	22.5	VP3055070A
55	70	25.6	VP3055070B
55	75	35	VP3055075A
56	71	22.5	VP3056071A
56	71	24	VP3056071B
56	76	35	VP3056076A
57.15	76.2	26	VP3057076A
60	75	22.5	VP3060075B
60	75	18.5	VP3060075A
60	80	15	VP3060080A
60	80	35	VP3060080B
63	75	27	VP3063075A
63	78	22.5	VP3063078A
63	80	28	VP3063080A
63	83	35	VP3063083A

Symmetrical Seals

d	D	H	Part No.
63	89	31	VP3063089A
63.575	82.6475	25.43	VP3064083A
65	80	22.5	VP3065080A
65	80	26.5	VP3065080B
70	85	22.5	VP3070085B
70	85	19.5	VP3070085A
70	90	35	VP3070090A
75	90	22.5	VP3075090A
75	90	25.5	VP3075090B
75	95	32	VP3075095A
75	100	38	VP3075100A
80	95	22.5	VP3080095A
80	95	25	VP3080095B
80	100	35	VP3080100A
80	105	42.5	VP3080105A
85	100	22.5	VP3085100A
85	105	30	VP3085105A
90	105	22.5	VP3090105B
90	105	15	VP3090105A
90	110	35	VP3090110A
90	115	42.5	VP3090115A
95	110	42.5	VP3095110A
95	115	35	VP3095115A
95	120	42.5	VP3095120A
100	115	30	VP3100115A

d	D	H	Part No.
100	120	35	VP3100120A
100	125	42.5	VP3100125A
100	130	50	VP3100130A
101.72	120.7925	26.9558	VP3102121A
105	125	35	VP3105125A
105	130	42.5	VP3105130A
110	125	30	VP3110125B
110	125	24	VP3110125A
110	130	35	VP3110130A
110	135	42.5	VP3110135A
110	140	45	VP3110140A
115	140	42.5	VP3115140A
120	140	35	VP3120140A
120	145	42.5	VP3120145A
120	150	50	VP3120150A
125	140	34	VP3125140B
125	140	26	VP3125140A
125	145	35	VP3125145A
125	150	42.5	VP3125150A
127.15	152.58	44.5025	VP3127153A
130	150	35	VP3130150A
130	155	42.5	VP3130155A
130	160	50	VP3130160A
135	160	42.5	VP3135160A
135	165	50	VP3135165A

Symmetrical Seals

d	D	H	Part No.
140	155	34	VP3140155B
140	155	22	VP3140155A
140	160	35	VP3140160A
140	165	42.5	VP3140165A
140	170	50	VP3140170A
140	180	55	VP3140180A
145	170	42.5	VP3145170A
145	175	50	VP3145175A
150	170	40	VP3150170B
150	170	35	VP3150170A
150	175	38	VP3150175A
150	178	50.5	VP3150178A
150	180	50.5	VP3150180A
150	185	50	VP3150185A
160	180	40	VP3160180B
160	180	35	VP3160180A
160	185	42.5	VP3160185A
160	190	50.5	VP3160190A
160	200	50	VP3160200A
165	190	42.5	VP3165190A
165	195	50.5	VP3165195A
165	200	50.5	VP3165200A
170	195	42.5	VP3170195A
170	200	50.5	VP3170200A
175	205	50.5	VP3175205A

d	D	H	Part No.
180	200	40	VP3180200B
180	200	35	VP3180200A
180	205	42.5	VP3180205A
180	210	50.5	VP3180210A
185	215	50.5	VP3185215A
190	220	50.5	VP3190220A
195	225	50.5	VP3195225A
200	220	40	VP3200220A
200	225	42.5	VP3200225A
200	230	50.5	VP3200230A
200	236	53	VP3200236A
200	240	60	VP3200240A
203	235	50.5	VP3203235A
203.44	241.585	57.2175	VP3203242A
205	235	50.5	VP3205235A
210	240	50.5	VP3210240A
220	250	50.5	VP3220250A
228.87	267.015	60.5234	VP3229267A
230	260	50.5	VP3230260A
235	265	50.5	VP3235265A
240	270	50.5	VP3240270A
240	280	55	VP3240280A
245	280	50.5	VP3245280A
250	275	42.5	VP3250275A
250	280	40.5	VP3250280A

Symmetrical Seals

d	D	H	Part No.
250	280	50.5	VP3250280B
254.3	292.445	57.9804	VP3254292A
260	290	50.5	VP3260290A
265	295	50.5	VP3265295A
270	300	50.5	VP3270300A
280	310	50.5	VP3280310A
290	320	50.5	VP3290320A
300	330	50.5	VP3300330A
300	340	67	VP3300340A
310	340	50.5	VP3310340A
310	350	69	VP3310350A
315	350	55	VP3315350A
320	350	50.5	VP3320350A
330	361.5	50.5	VP3330362A
340	370	50.5	VP3340370A
350	380	50.5	VP3350380A
360	400	69	VP3360400A
370	400	50.5	VP3370400A
395	440	72	VP3395440A
400	440	69	VP3400440A
420	460	56	VP3420460A
430	470	69	VP3430470A
445	495	69	VP3445495A
460	500	68	VP3460500A
495	540	69	VP3495540A

d	D	H	Part No.
500	540	63	VP3500540A
600	640	69	VP3600640A
650	690	69	VP3650690A
708.23	754	57	VP3708754A

FS

FS Profile seals are lip seals with multiple materials cured to form one single seal with two different material structures to enhance the performance of the seal. The outer curvature of the top of the seal with homogenised rubber energises the lips and the rubberised fabric side of the seal provides great strength to withstand high pressure.



Symmetrical Seals

- U Profile with energised curvature
- Single Acting
- Lip Seal
- Static Application
- Temp - upto 230° C

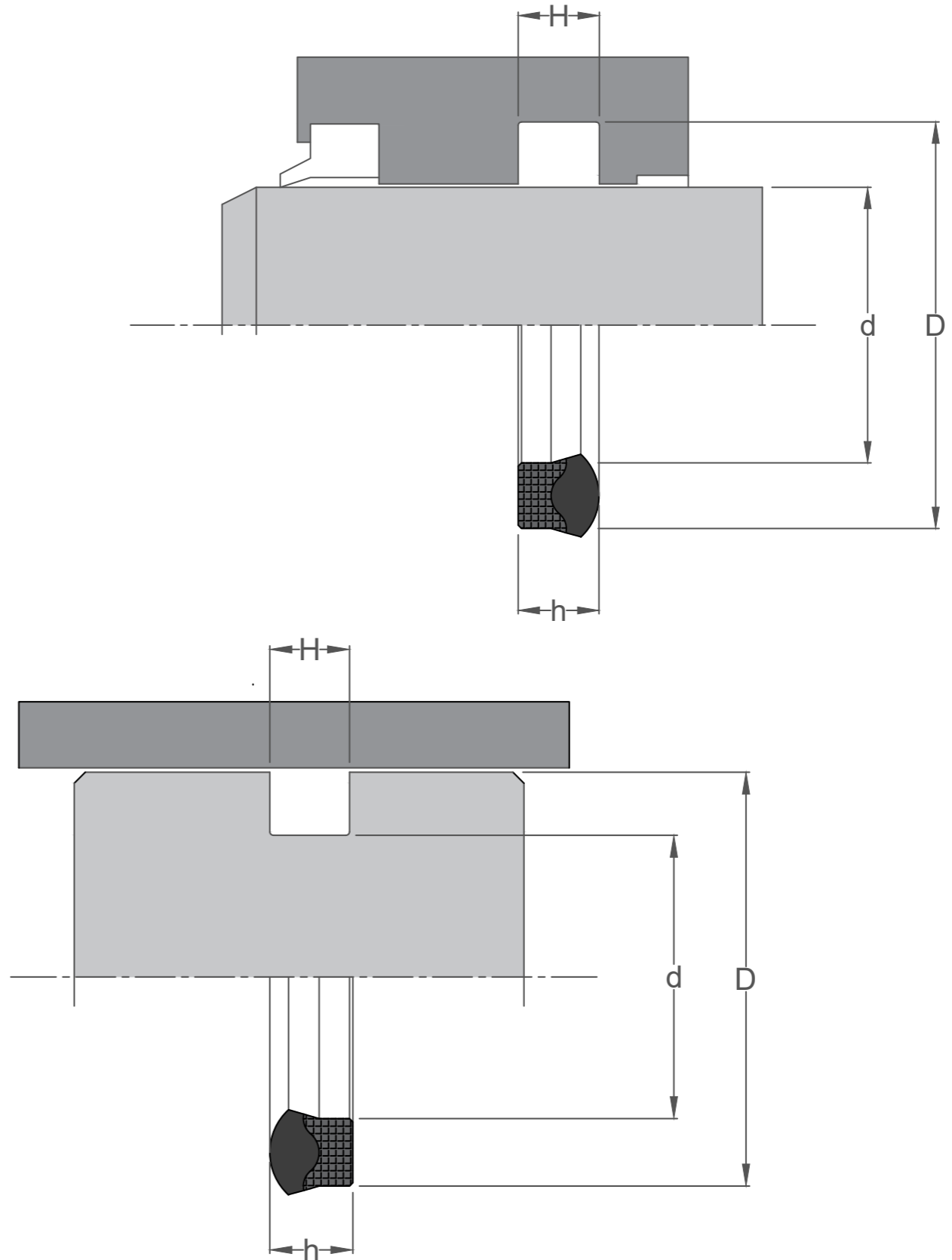
Materials

- Reinforced NBR/FKM + NBR/FKM



Symmetrical Seals

Dynamic Face Dia	Static Face Dia	Seal Height	Part No.
d	D	H	
6	14	6	FS006014A
8	16	6	FS008016A
10	18	6	FS010018A
12	20	6	FS012020A
14	24	7.5	FS014024A
15	25	7.5	FS015025A
16	26	7.5	FS016026A
18	28	7.5	FS018028A
20	30	7.5	FS020030A
22	30	6	FS022030A
22	32	7.5	FS022032A
25	38	8	FS025038A
25	40	11	FS025040A
28	43	11	FS028043A
30	45	11	FS030045A
30	50	14	FS030050A
32	47	11	FS032047A
35	45	7.5	FS035045A
35	48	8	FS035048A
35	50	11	FS035050A
36	44	6	FS036044A
36	51	11	FS036051A
40	50	10.5	FS040050A
40	55	11	FS040055A
45	60	11	FS045060A



Symmetrical Seals

d	D	H	Part No.
45	63	9	FS045063A
45	65	14	FS045065A
50	60	7.5	FS050060A
50	65	10	FS050065A
50	65	11	FS050065B
50	70	14	FS050070A
55	65	8	FS055065A
56	76	14	FS056076A
60	72	9.5	FS060072A
60	80	14	FS060080A
63	83	14	FS063083A
63	84	15	FS063084A
63	86	14	FS063086A
65	80	11	FS065080A
70	90	14	FS070090A
75	90	12	FS075090A
75	95	14	FS075095A
80	95	12	FS080095A
80	100	14	FS080100A
90	110	10	FS090110A
90	110	14	FS090110B
90	110	15	FS090110C
100	115	12	FS100115A
100	120	14	FS100120A
100	125	19	FS100125A
110	125	11	FS110125A
110	135	19	FS110135A
115	135	14	FS115135A

d	D	H	Part No.
120	140	12	FS120140A
120	145	19	FS120145A
125	150	19	FS125150A
130	145	11.3	FS130145A
135	160	19	FS135160A
140	160	14	FS140160A
140	165	19	FS140165A
150	170	14	FS150170A
160	180	15	FS160180A
160	190	24	FS160190A
175	200	19	FS175200A
180	210	24	FS180210A
200	220	15	FS200220A
200	230	24	FS200230A
220	250	22	FS220250A
225	250	15	FS225250A
250	280	16	FS250280A
250	280	24	FS250280B
270	300	24	FS270300A
280	310	24	FS280310A
300	330	24	FS300330A
320	360	30	FS320360A
350	375	24	FS350375A
360	400	30	FS360400A
380	420	30	FS380420A
400	440	30	FS400440A
450	490	20	FS450490A
600	640	32	FS600640A

Symmetrical Seals

ES

ER profile seals are U seals with an O-Ring acting as an energiser between the lips of the seal. The O-ring reinforces the outer lips to enhance the pressure withstanding capabilities of the seals thereby making it convenient for application in high pressure Hydraulic Cylinders.



Symmetrical Seals

- **U Profile + Energiser O-Ring**
- **Single Acting**
- **Lip Seal**
- **Static Application**
- **Temp - upto 150° C**
- **Secondary Sealing Lip**

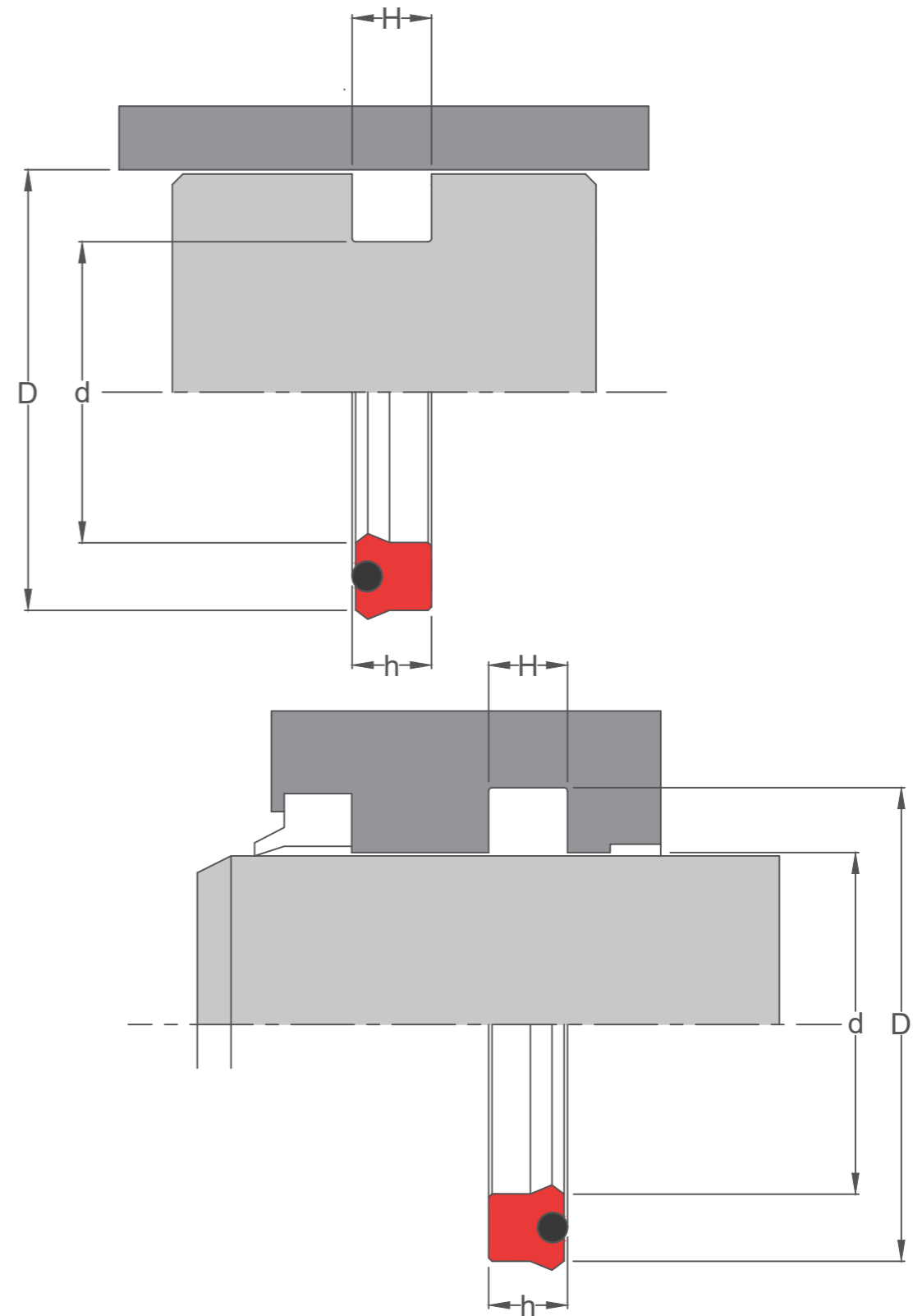
Materials

- **PU + NBR**



Symmetrical Seals

Dynamic Face Dia	Static Face Dia	Seal Height	Groove Height	Part No.
d	D	h	H	
6.36	12.72	6.36	7	ES00640127A
12.72	19.08	6.36	7	ES01270191A
12.72	25.43	9.54	10.51	ES01270254A
15.9	22.26	6.36	7	ES01590223A
17.5	30.22	9.54	10.51	ES01750302A
19.08	25.43	6.36	7	ES01910254A
19.08	28.61	7.96	8.75	ES01910286A
19.08	31.79	9.54	10.51	ES01910318A
22.26	34.97	7.96	8.75	ES02230350A
22.26	31.79	9.54	10.51	ES02230318A
25.43	31.79	6.36	7	ES02540318A
25.43	34.97	7.96	8.75	ES02540350A
25.43	38.15	7.96	8.75	ES02540382A
25.43	38.15	9.54	10.51	ES02540382B
25.43	38.15	11.12	12.21	ES02540382C
25.43	41.33	12.72	13.99	ES02540413A
28.61	34.97	6.36	7	ES02860350A
28.61	38.15	6.36	7	ES02860382A
28.61	38.15	7.96	8.75	ES02860382B
28.61	41.33	9.54	10.51	ES02860413A
30.22	36.57	4.79	5.27	ES03020366A
31.79	38.15	6.36	7	ES03180382A
31.79	41.33	7.96	8.75	ES03180413A
31.79	44.51	9.54	10.51	ES03180445A
34.97	41.33	6.36	7	ES03500413A



Symmetrical Seals

d	D	h	H	Part No.
34.97	44.51	7.96	8.75	ES03500445A
34.97	44.51	9.54	10.51	ES03500445B
34.97	47.69	9.54	10.51	ES03500477A
34.97	50.86	12.72	13.99	ES03500509A
38.15	44.51	6.36	7	ES03820445A
38.15	50.86	7.96	8.75	ES03820509A
38.15	47.69	9.54	10.51	ES03820477A
38.15	50.86	9.54	10.51	ES03820509B
38.15	54.04	12.72	13.99	ES03820540A
38.15	57.22	12.72	13.99	ES03820572A
38.15	57.22	15.9	17.5	ES03820572B
38.15	63.58	19.08	20.98	ES03820636A
41.33	47.69	6.36	7	ES04130477A
41.33	50.86	6.36	7	ES04130509A
41.33	50.86	7.96	8.75	ES04130509B
41.33	50.86	9.54	10.51	ES04130509C
44.51	50.86	6.36	7	ES04450509A
44.51	54.04	9.54	10.51	ES04450540A
44.51	57.22	9.54	10.51	ES04450572A
44.51	60.4	12.72	13.99	ES04450604A
44.51	63.58	12.72	13.99	ES04450636A
47.69	57.22	9.54	10.51	ES04770572A
47.69	63.58	12.72	13.99	ES04770636A
50.86	57.22	6.36	7	ES05090572A
50.86	60.4	9.54	10.51	ES05090604A

d	D	h	H	Part No.
50.86	63.58	9.54	10.51	ES05090636A
50.86	66.76	12.72	13.99	ES05090668A
50.86	69.94	12.72	13.99	ES05090699A
50.86	69.94	15.9	17.5	ES05090699B
50.86	76.29	19.08	20.98	ES05090763A
54.04	63.58	6.36	7	ES05400636A
54.04	63.58	9.54	10.51	ES05400636B
54.04	66.76	9.54	10.51	ES05400668A
55.65	65.18	9.54	10.51	ES05570652A
57.22	66.76	7.96	8.75	ES05720668A
57.22	66.76	9.54	10.51	ES05720668B
57.22	69.94	9.54	10.51	ES05720699A
57.22	76.29	12.72	13.99	ES05720763A
57.22	69.94	14.32	15.75	ES05720699B
57.22	76.29	15.9	17.5	ES05720763B
60.4	69.94	9.54	10.51	ES06040699A
60.4	73.12	9.54	10.51	ES06040731A
60.4	76.29	12.72	13.99	ES06040763A
63.58	76.29	7.96	8.75	ES06360763A
63.58	73.12	9.54	10.51	ES06360731A
63.58	76.29	9.54	10.51	ES06360763B
63.58	79.47	12.72	13.99	ES06360795A
63.58	82.65	12.72	13.99	ES06360827A
63.58	82.65	15.9	17.5	ES06360827B
66.76	76.29	7.96	8.75	ES06680763A

Symmetrical Seals

d	D	h	H	Part No.
66.76	76.29	9.54	10.51	ES06680763B
69.94	79.47	9.54	10.51	ES06990795A
69.94	82.65	9.54	10.51	ES06990827A
69.94	85.83	12.72	13.99	ES06990858A
69.94	89.01	12.72	13.99	ES06990890A
69.94	89.01	15.9	17.5	ES06990890B
73.12	82.65	6.36	7	ES07310827A
73.12	89.01	12.72	13.99	ES07310890A
76.29	85.83	9.54	10.51	ES07630858A
76.29	89.01	9.54	10.51	ES07630890A
76.29	92.19	12.72	13.99	ES07630922A
76.29	95.37	12.72	13.99	ES07630954A
76.29	89.01	14.32	15.75	ES07630890B
76.29	95.37	15.9	17.5	ES07630954B
76.29	101.72	19.08	20.98	ES07631017A
79.47	89.01	6.36	7	ES07950890A
79.47	89.01	9.54	10.51	ES07950890B
79.47	92.19	9.54	10.51	ES07950922A
81.08	90.61	9.54	10.51	ES08110906A
82.65	92.19	7.96	8.75	ES08270922A
82.65	92.19	9.54	10.51	ES08270922B
82.65	95.37	9.54	10.51	ES08270954A
82.65	101.72	12.72	13.99	ES08271017A
82.65	101.72	15.9	17.5	ES08271017B
85.83	95.37	9.54	10.51	ES08580954A

d	D	h	H	Part No.
85.83	101.72	12.72	13.99	ES08581017A
85.83	104.9	15.9	17.5	ES08581049A
89.01	101.72	7.96	8.75	ES08901017A
89.01	98.55	9.54	10.51	ES08900986A
89.01	101.72	9.54	10.51	ES08901017B
89.01	104.9	12.72	13.99	ES08901049A
89.01	108.08	12.72	13.99	ES08901081A
89.01	108.08	15.9	17.5	ES08901081B
89.01	114.44	15.9	17.5	ES08901144A
89.01	114.44	19.08	20.98	ES08901144B
92.19	101.72	7.96	8.75	ES09221017A
92.19	101.72	9.54	10.51	ES09221017B
95.37	104.9	9.54	10.51	ES09541049A
95.37	108.08	9.54	10.51	ES09541081A
95.37	111.26	12.72	13.99	ES09541113A
95.37	114.44	12.72	13.99	ES09541144A
98.55	108.08	6.36	7	ES09861081A
98.55	114.44	12.72	13.99	ES09861144A
101.72	111.26	9.54	10.51	ES10171113A
101.72	114.44	9.54	10.51	ES10171144A
101.72	120.8	12.72	13.99	ES10171208A
101.72	114.44	14.32	15.75	ES10171144B
101.72	120.8	15.9	17.5	ES10171208B
101.72	127.15	19.08	20.98	ES10171272A
104.9	114.44	7.96	8.75	ES10491144A

Symmetrical Seals

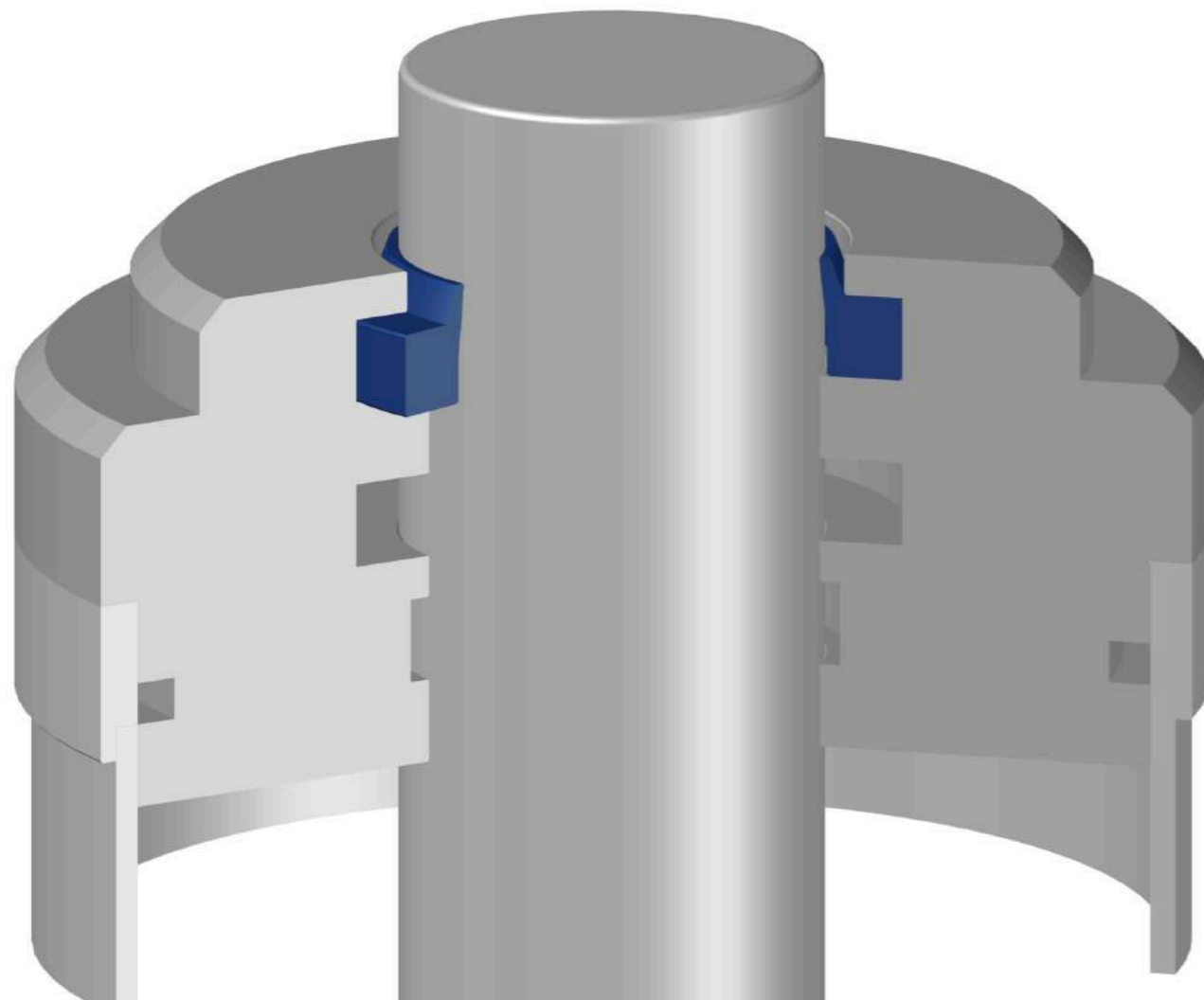
d	D	h	H	Part No.
104.9	114.44	9.54	10.51	ES10491144B
104.9	117.62	9.54	10.51	ES10491176A
106.51	116.04	9.54	10.51	ES10651160A
108.08	117.62	7.96	8.75	ES10811176A
108.08	117.62	9.54	10.51	ES10811176B
108.08	120.8	9.54	10.51	ES10811208A
108.08	127.15	12.72	13.99	ES10811272A
108.08	120.8	14.32	15.75	ES10811208B
108.08	127.15	15.9	17.5	ES10811272B
111.26	120.8	9.54	10.51	ES11131208A
111.26	127.15	12.72	13.99	ES11131272A
111.26	127.15	14.32	15.75	ES11131272B
111.26	127.15	15.9	17.5	ES11131272C
114.44	127.15	7.96	8.75	ES11441272A
114.44	123.98	9.54	10.51	ES11441240A
114.44	127.15	9.54	10.51	ES11441272B
114.44	133.51	12.72	13.99	ES11441335A
114.44	127.15	14.32	15.75	ES11441272C
114.44	130.33	15.9	17.5	ES11441303A
114.44	133.51	15.9	17.5	ES11441335B
117.62	127.15	7.96	8.75	ES11761272A
117.62	127.15	9.54	10.51	ES11761272B
120.8	133.51	14.32	15.75	ES12081335A
120.8	139.87	15.9	17.5	ES12081399A
123.98	133.51	6.36	7	ES12401335A

d	D	h	H	Part No.
127.15	139.87	9.54	10.51	ES12721399A
127.15	146.23	12.72	13.99	ES12721462A
127.15	139.87	14.32	15.75	ES12721399B
127.15	146.23	15.9	17.5	ES12721462B
127.15	152.58	19.08	20.98	ES12721526A
133.51	152.58	12.72	13.99	ES13351526A
133.51	152.58	15.9	17.5	ES13351526B
136.69	152.58	15.9	17.5	ES13671526A
139.87	152.58	9.54	10.51	ES13991526A
139.87	152.58	12.72	13.99	ES13991526B
139.87	152.58	14.32	15.75	ES13991526C
139.87	165.3	19.08	20.98	ES13991653A
146.23	165.3	12.72	13.99	ES14621653A
146.23	158.94	14.32	15.75	ES14621589A
146.23	165.3	15.9	17.5	ES14621653B
152.58	165.3	14.32	15.75	ES15261653A
152.58	171.66	15.9	17.5	ES15261717A
152.58	178.01	19.08	20.98	ES15261780A
158.94	178.01	12.72	13.99	ES15891780A
158.94	178.01	15.9	17.5	ES15891780B
162.12	178.01	15.9	17.5	ES16211780A
165.3	178.01	9.54	10.51	ES16531780A
165.3	178.01	14.32	15.75	ES16531780B
165.3	184.37	15.9	17.5	ES16531844A
171.66	190.73	15.9	17.5	ES17171907A

Symmetrical Seals






d	D	h	H	Part No.
178.01	190.73	9.54	10.51	ES17801907A
178.01	197.09	12.72	13.99	ES17801971A
178.01	190.73	14.32	15.75	ES17801907B
178.01	193.91	15.9	17.5	ES17801939A
178.01	197.09	15.9	17.5	ES17801971B
178.01	203.44	19.08	20.98	ES17802034A
184.37	203.44	15.9	17.5	ES18442034A
187.55	203.44	15.9	17.5	ES18762034A
190.73	203.44	9.54	10.51	ES19072034A
190.73	203.44	14.32	15.75	ES19072034B
190.73	216.16	19.08	20.98	ES19072162A
197.09	216.16	15.9	17.5	ES19712162A
203.44	228.87	19.08	20.98	ES20342289A
209.8	228.87	12.72	13.99	ES20982289A
209.8	228.87	15.9	17.5	ES20982289B
209.8	235.23	19.08	20.98	ES20982352A
216.16	228.87	9.54	10.51	ES21622289A
216.16	228.87	14.32	15.75	ES21622289B
228.87	254.3	19.08	20.98	ES22892543A
254.3	279.73	19.08	20.98	ES25432797A
279.73	305.16	19.08	20.98	ES27973052A

Wiper Seals



Wiper Seals, also known as Scrapers, are Rod Seals used for the particular application in preventing the external air or dirt to enter the cylinder. Certain profiles of Wiper Seals also act as multifunctional Rod Seals to support sealing at internal section of the cylinder.

Wiper Seals

Profile	Profile Name	ID (mm)	Speed (m/s)	Material
	WS	Upto 800	4	NBR/FKM/PU
	WO	Upto 210	4	NBR/FKM/PU + Metal
	WSS	Upto 800	4	NBR/FKM/PU
	RW	Upto 800	4	NBR/FKM/PU
	RWO	Upto 210	1	NBR/FKM/PU + Metal

Wiper Seals

- **Single Acting**
- **Easy Installation**
- **Light Duty**
- **Static/ Dynamic Application**
- **Temp - upto 220° C**

Materials

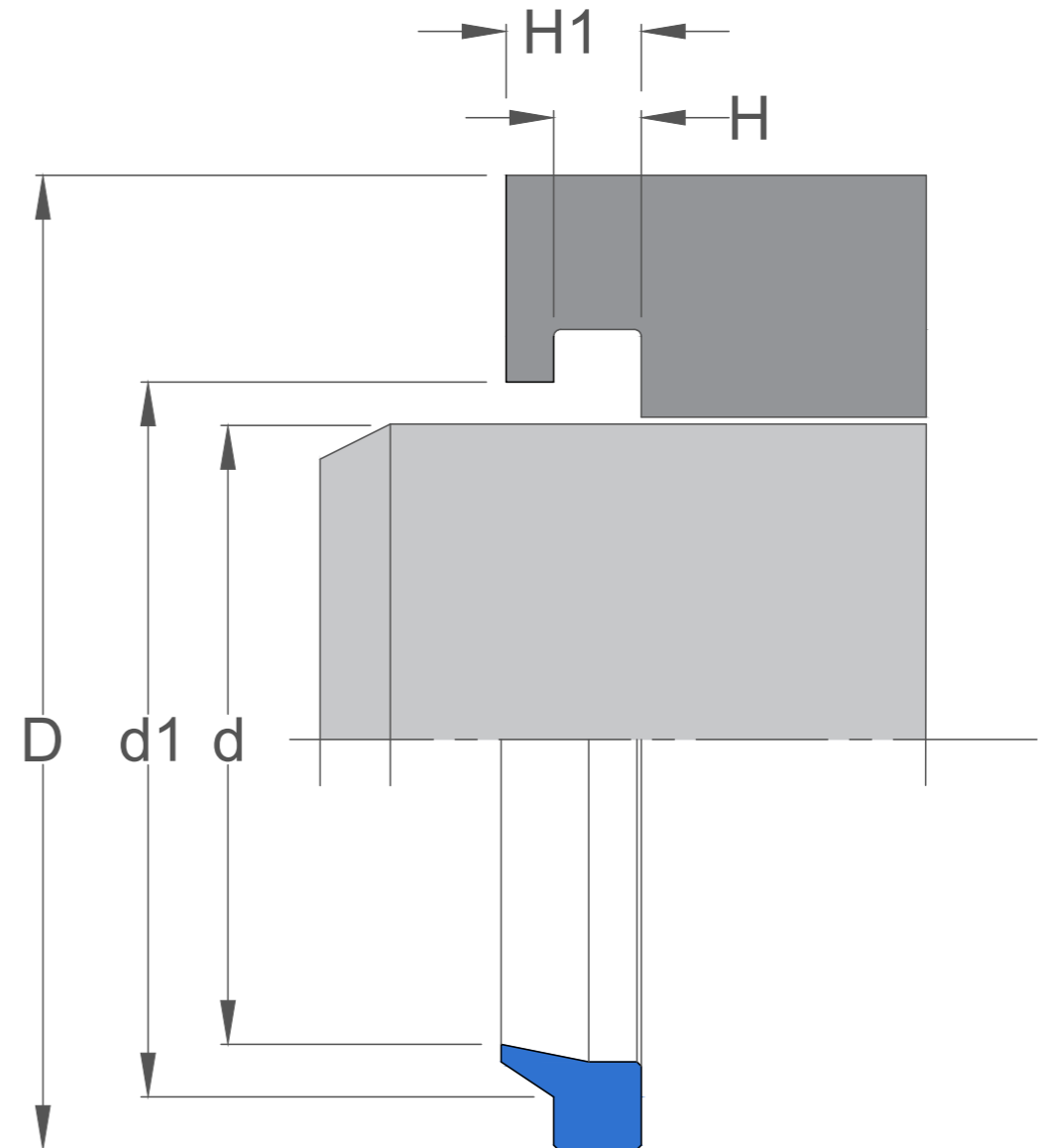
- **NBR**
- **FKM**
- **PU**

WS



Wiper Seals

Rod Dia	Groove Dia	Groove Dimensions		Groove Height	Part No.
d	D	d1	H1	H	
12	20	16	6	4	WS012020
14	22	18	6	4	WS014022
16	24	20	6	4	WS016024
18	26	22	6	4	WS018026
20	28	24	6	4	WS020028
22	30	26	6	4	WS022030
25	33	29	6	4	WS025033
25	33	30.5	6.4	5	WS025033
28	36	32	6	4	WS028036
28	36	33.5	6.4	5	WS028036
30	42	36	9	6	WS030042
32	40	37.5	6.4	5	WS032040
32	44	38	9	6	WS032044
35	47	41	9	6	WS035047
36	44	41.5	6.4	5	WS036044
36	48	42	9	6	WS036048
40	48	45.5	6.4	5	WS040048
40	52	46	9	6	WS040052
42	54	48	9	6	WS042054
45	53	50.5	6.4	5	WS045053
45	57	51	9	6	WS045057
50	58	55.5	6.4	5	WS050058
50	62	55	9	6	WS050062
55	67	61	9	6	WS055067



Wiper Seals

d	D	d1	H	H1	Part No.
56	66	63	6.3	8.1	WS056066
56	68	62	6	9	WS056068
60	72	66	6	9	WS060072
63	73	70	6.3	8.1	WS063073
63	75	69	6	9	WS063075
65	77	71	6	9	WS065077
70	80	77	6.3	8.1	WS070080
70	82	76	6	9	WS070082
80	90	87	6.3	8.1	WS080090
90	100	97	6.3	8.1	WS090100
90	106	98	8	12	WS090106
100	115	110	9.5	12.5	WS100115
100	116	108	8	12	WS100116
105	121	113	8	12	WS105121
110	125	120	9.5	12.5	WS110125
125	140	135	9.5	12.5	WS125140
140	155	150	9.5	12.5	WS140155
140	156	148	8	12	WS140156
150	166	158	8	12	WS150166
150	170	160	8	11	WS150170
160	175	170	9.5	12.5	WS160175
160	176	168	8	12	WS160176
180	200	190	10	15	WS180200
190	210	200	10	15	WS190210
200	220	210	10	15	WS200220

d	D	d1	H	H1	Part No.
210	230	220	10	18	WS210230
220	240	233.5	12.5	16.6	WS220240
240	255	247.5	9	12	WS240255
270	230	250	10	18	WS270230
280	300	290	10	16	WS280300
300	315	307.5	7.5	9.5	WS300315
300	320	310	10	12	WS300320
310	330	320	10	18	WS310330
350	380	365	9	12	WS350380
380	410	395	15	25	WS380410
450	470	460	8	12	WS450470

Wiper Seals

- Single Acting
- Metal Bonded Profile
- Reinforced
- Medium Duty
- Static/ Dynamic Application
- Temp - upto 220° C

Materials

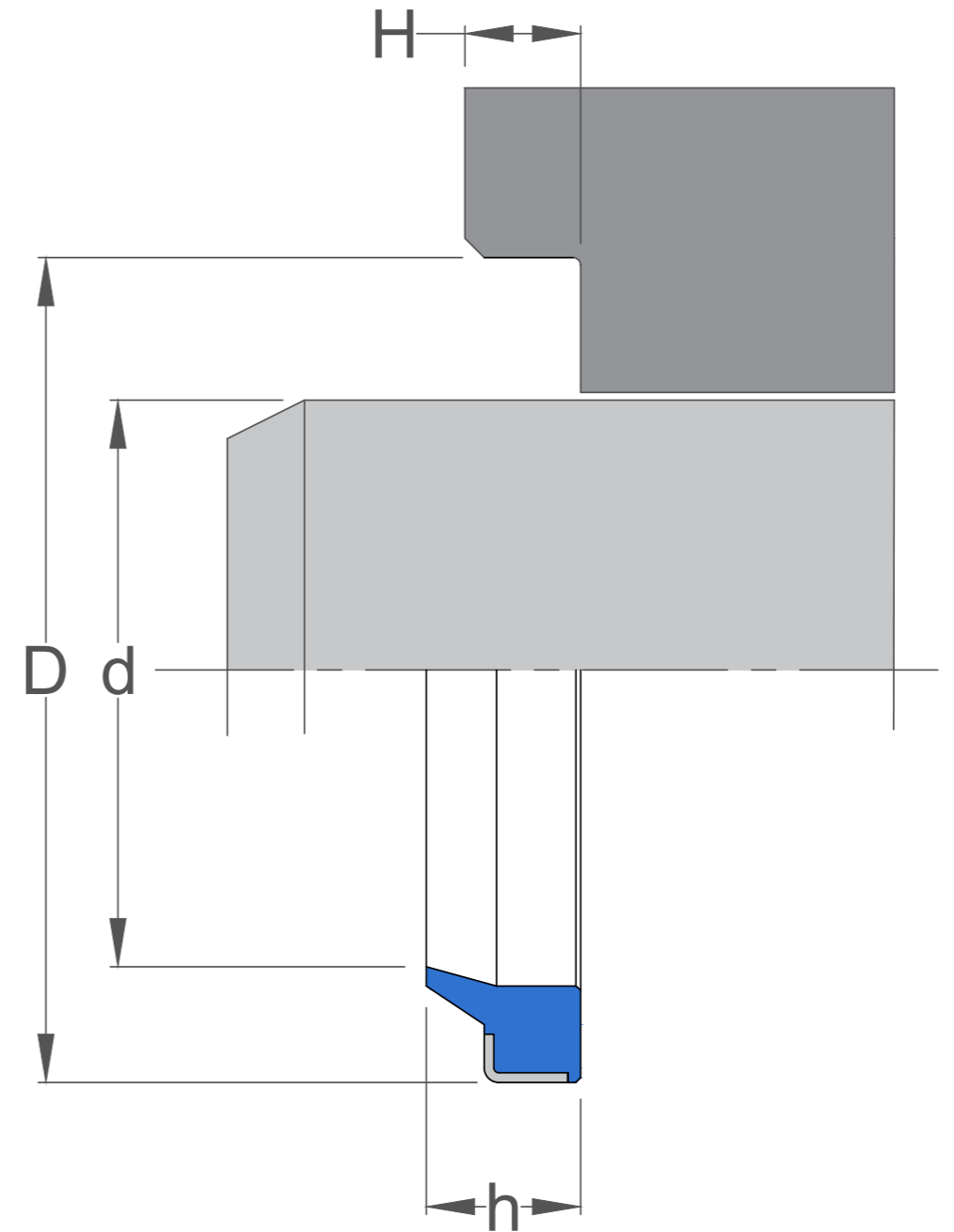
- NBR
- FKM
- PU

WO



Wiper Seals

Rod Dia	Groove Dia	Groove Height	Seal Height	Part No.
d	D	H	h	
8	14	3.5	5	WO008014A
10	16	3	4.5	WO010016A
10	18	5	8	WO010018A
12	20	4	6	WO012020A
12	22	5	8	WO012022A
14	20	4	5	WO014020A
14	22	3	4	WO014022A
15	25	5	8	WO015025A
16	22	3	4	WO016022A
16	22	3.5	5	WO016022A
16	26	5	8	WO016026A
18	26	5	7	WO018026A
18	28	7	10	WO018028A
20	26	4	7	WO020026A
20	28	3.5	5	WO020028A
20	28	5	8	WO020028A
20	30	4	6	WO020030A
20	30	5	8	WO020030A
20	30	7	10	WO020030A
22	28	5	8	WO022028A
22	32	5	8	WO022032A
22	32	7	10	WO022032A
22	35	5	8	WO022035A
25	35	5	8	WO025035A



Wiper Seals

d	D	H	h	Part No.
25	35	7	10	WO025035A
28	38	5	8	WO028038A
28	38	7	10	WO028038A
28	40	7	10	WO028040A
30	40	5	8	WO030040A
30	40	7	10	WO030040A
30	45	5	8	WO030045A
32	40	4	7	WO032040A
32	40	7	10	WO032040A
32	42	5	7	WO032042A
32	42	7	10	WO032042A
32	45	5	8	WO032045A
35	45	5	7	WO035045A
35	45	7	10	WO035045A
35	47	7	10	WO035047A
36	45	7	10	WO036045A
36	46	5	7	WO036046A
36	46	7	10	WO036046A
40	50	5	8	WO040050A
40	50	7	10	WO040050A
40	52	5	8	WO040052A
42	52	7	10	WO042052A
45	55	5	7	WO045055A
45	55	7	10	WO045055A
45	60	7	10	WO045060A

d	D	H	h	Part No.
50	56	5	7	WO050056A
50	60	5	7	WO050060A
50	60	7	10	WO050060A
50	65	7	10	WO050065A
52	62	7	10	WO052062A
55	63	7	10	WO055063A
55	65	5	7	WO055065A
55	65	7	10	WO055065A
56	66	5	8	WO056066A
56	66	7	10	WO056066A
60	70	5	7	WO060070A
60	70	7	10	WO060070A
60	74	5	8	WO060074A
60	75	7	10	WO060075A
60	80	7	10	WO060080A
63	73	7	10	WO063073A
63	75	7	10	WO063075A
65	75	5	7	WO065075A
65	75	7	10	WO065075A
70	80	5	7	WO070080A
70	80	7	10	WO070080A
75	85	7	10	WO075085A
80	90	7	10	WO080090A
85	95	7	10	WO085095A
90	100	5	7	WO090100A

Wiper Seals

d	D	H	h	Part No.
90	100	7	10	WO090100A
95	105	7	10	WO095105A
100	110	5	8	WO100110A
100	110	7	10	WO100110A
100	115	8	10	WO100115A
105	115	7	10	WO105115A
110	120	7	10	WO110120A
115	125	7	10	WO115125A
120	130	7	10	WO120130A
125	140	9	12	WO125140A
130	145	9	12	WO130145A
135	150	9	12	WO135150A
140	155	9	12	WO140155A
145	160	9	12	WO145160A
150	165	9	12	WO150165A
160	175	9	12	WO160175A
170	185	10	14	WO170185A
180	195	10	14	WO180195A
200	220	12	16	WO200220A
220	240	12	16	WO220240A
240	260	12	16	WO240260A
250	270	12	16	WO250270A

Wiper Seals

RW

- Double Acting
- Integrated Rod Seal
- Easy Installation
- Light Duty
- Static/ Dynamic Application
- Temp - upto 220° C

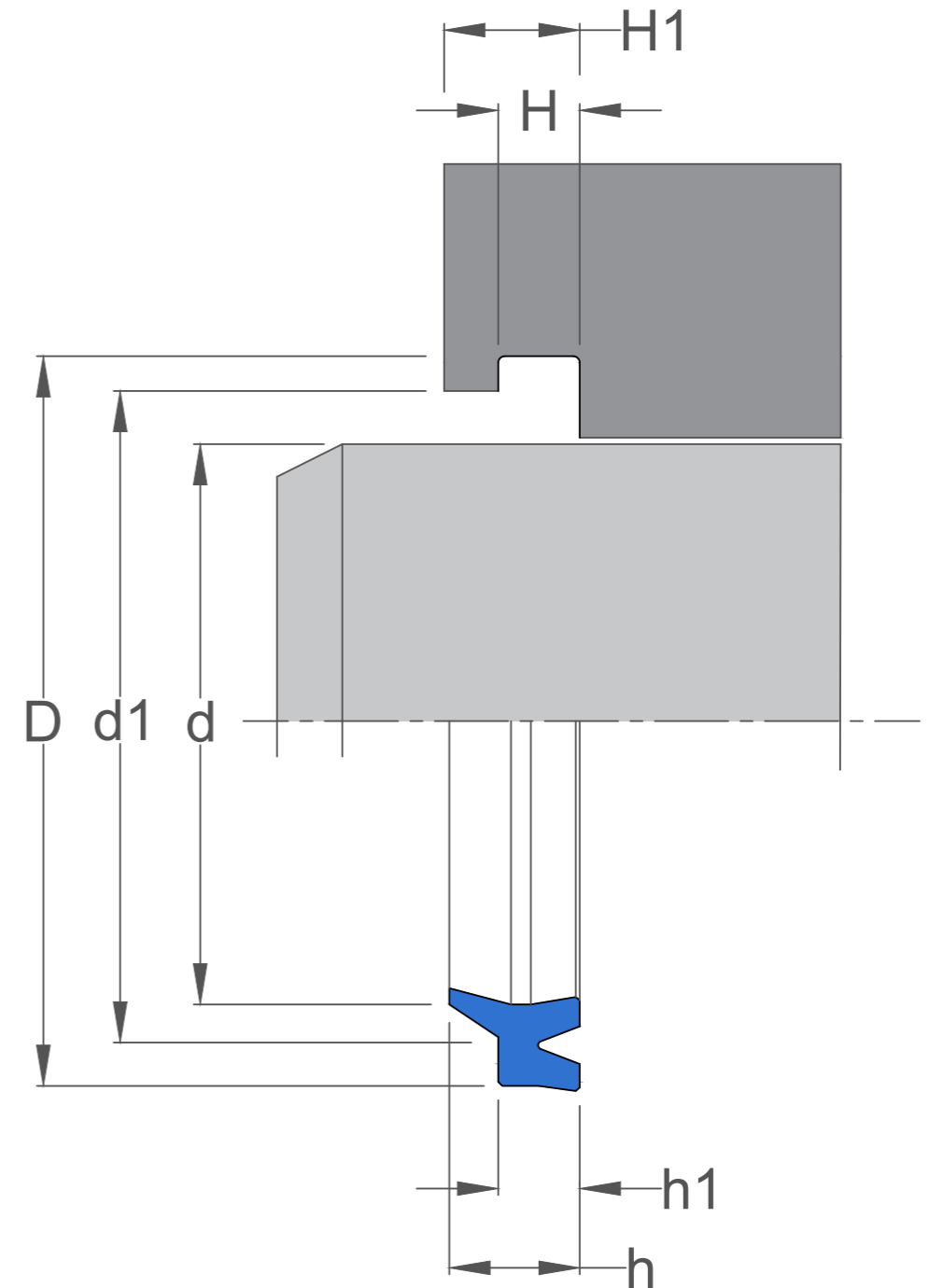
Materials

- NBR
- FKM
- PU



Wiper Seals

Rod Dia	Groove Dia	Groove Dimensions		Seal Dimensions		Groove Height	Part No.
		d1	H1	h	h1		
8	13.0	10.5	4.5	4.1	3.1	3.5	RW008013
10	16	12.5	5.2	4.8	3.6	4	RW010016
12	18	14.5	5.2	4.8	3.6	4	RW012018
14	20	16.5	5.2	4.8	3.6	4	RW014020
15	21	17.5	5.2	4.8	3.6	4	RW015021
16	22	18.5	5.2	4.8	3.6	4	RW016022
18	24	20.5	5.2	4.8	3.6	4	RW018024
20	26	22.5	5.2	4.8	3.6	4	RW020026
22	28	24.5	5.2	4.8	3.6	4	RW022028
25	31	27.5	5.2	4.8	3.6	4	RW025031
28	36	31	6.3	5.8	4.5	5	RW028036
30	38	33	6.3	5.8	4.5	5	RW030038
32	38	33	5.2	4.8	3.6	4	RW032038
32	40	35	6.3	5.8	4.5	5	RW032040
35	43	38	6.3	5.8	4.5	5	RW035043
36	44	39	6.3	5.8	4.5	5	RW036044
37	45	40	6.3	5.8	4.5	5	RW037045
40	48	43	6.3	5.8	4.5	5	RW040048
45	53	48	6.3	5.8	4.5	5	RW045053
50	58	53	6.3	5.8	4.5	5	RW050058
51	59	54	6.3	5.8	4.5	5	RW051059
55	65	58	7.5	6.8	5.3	6	RW055065
56	66	59	7.5	6.8	5.3	6	RW056066
60	70	63	7.5	6.8	5.3	6	RW060070



Wiper Seals

d	D	d1	h	h1	H	H1	Part No.
63	73	66	6.8	5.3	6	7.5	RW063073
65	75	68	6.8	5.3	6	7.5	RW065075
70	80	73	6.8	5.3	6	7.5	RW070080
75	85	78	6.8	5.3	6	7.5	RW075085
80	90	83	6.8	5.3	6	7.5	RW080090
85	95	88	6.8	5.3	6	7.5	RW085095
90	100	93	6.8	5.3	6	7.5	RW090100
100	110	103	6.8	5.3	6	7.5	RW100110
110	125	114	9.5	7.5	8.5	10.5	RW110125
120	135	124	9.5	7.5	8.5	10.5	RW120135
138	158	142	9.5	7.5	8.5	10.5	RW138158
140	155	144	9.5	7.5	8.5	10.5	RW140155
160	175	164	9.5	7.5	8.5	10.5	RW160175
320	378	328	18	11	12.5	19.5	RW320378
400	420	404	14	8	9	15	RW400420
460	475	464	13	9.5	10.5	14	RW460475

Wiper Seals

- **Double Acting**
- **Integrated Rod Seal**
- **Metal Bonded Profile**
- **Reinforced**
- **Medium Duty**
- **Static/ Dynamic Application**
- **Temp - upto 220° C**

Materials

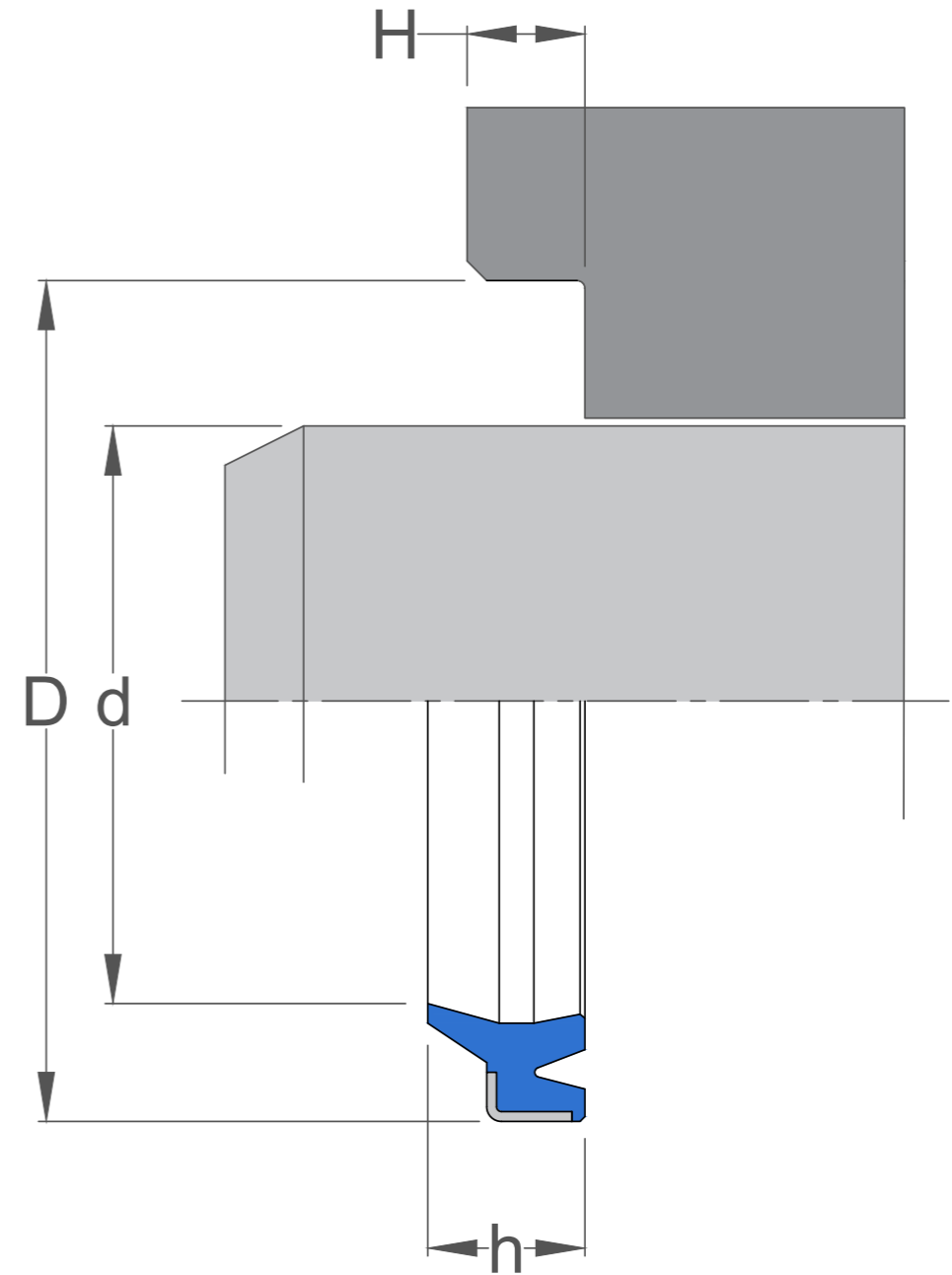
- **NBR**
- **FKM**
- **PU**

RWO



Wiper Seals

Rod Dia	Groove Dia	Groove Height	Seal Height	Part No.
d	D	H	h	
25	35	5	8	RWO025035
30	40	5	8	RWO030040
30	42	6	9	RWO030042
30	47	7	10	RWO030047
32	52	8	11	RWO032052
35	45	7	10	RWO035045
35	47	7	10	RWO035047
36	48	7	10	RWO036048
40	50	5	8	RWO040050
40	52	7	10	RWO040052
45	55	7	10	RWO045055
45	57	7	10	RWO045057
50	62	7	10	RWO050062
50	72	8	11	RWO050072
55	69	8	11	RWO055069
60	74	8	11	RWO060074
60	82	11	14	RWO060082
65	79	8	11	RWO065079
70	80	7	9	RWO070080
70	84	8	11	RWO070084
75	89	8	11	RWO075089
80	94	8	11	RWO080094
85	99	8	11	RWO085099
90	104	8	11	RWO090104



Wiper Seals

d	D	H	h	Part No.
90	105	6	9	RWO090105
95	109	8	11	RWO095109
100	114	8	11	RWO100114
100	115	7.5	10	RWO100115
110	126	9	12	RWO110126
115	131	9	12	RWO115131
120	135	7	10	RWO120135
120	136	9	12	RWO120136
130	145	9	12	RWO130145
130	146	9	12	RWO130146
135	155	10	14	RWO135155
140	155	9	12	RWO140155
140	160	10	14	RWO140160
150	170	10	14	RWO150170
160	180	10	14	RWO160180

Wiper Seals

- Single Acting
- Heavy Duty
- Static/ Dynamic Application
- Temp - upto 220° C

Materials

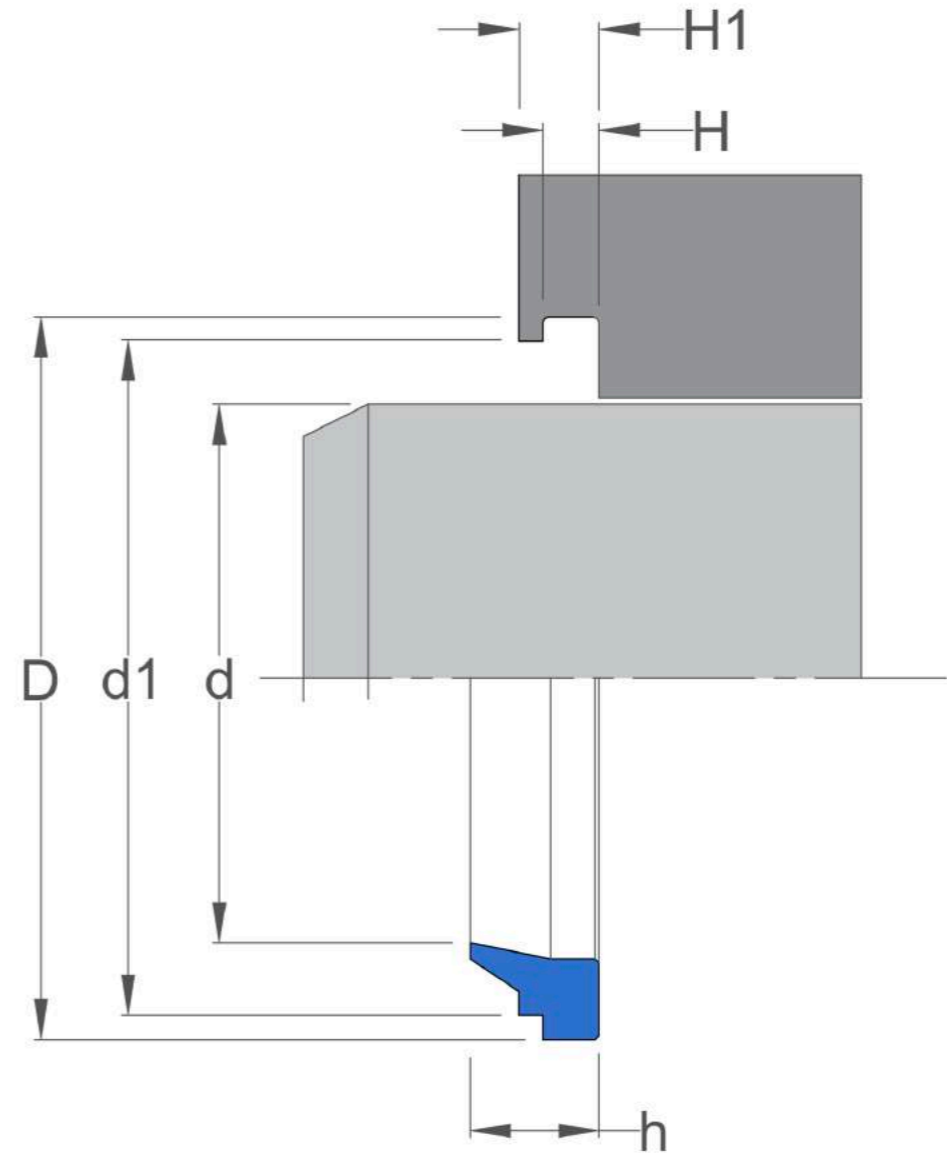
- NBR
- FKM
- PU

WSS



Wiper Seals

Rod Dia	Groove Dia	Groove Dimensions		Seal Height	Groove Height	Part No.
d	D	d1	H1	h	H	
4	12	10	5	7	4	WSS004012
5	8	7	3.2	4	2.2	WSS005008
6	10	9	3.2	4	2.2	WSS006010
8	14	12	3.6	5	2.6	WSS008014
8	16	14	5	7	4	WSS008016
10	16	14	3.6	5	2.6	WSS010016
10	18	16	5	7	4	WSS010018
12	18	16	3.6	5	2.6	WSS012018
12	20	18	5	7	4	WSS012020
14	20	18	4.1	5	3.1	WSS014020
14	22	20	5	7	4	WSS014022
15	23	21	5	7	4	WSS015023
16	22	20	4.1	5	3.1	WSS016022
16	24	22	5	7	4	WSS016024
17	25	23	5	7	4	WSS017025
18	24	22	4.1	5	3.1	WSS018024
18	26	24	5	7	4	WSS018026
20	26	24	4.1	5	3.1	WSS020026
20	28	26	5	7	4	WSS020028
22	30	28	5	7	4	WSS022030
23	31	29	5	7	4	WSS023031
24	32	30	5	7	4	WSS024032
25	33	31	5	7	4	WSS025033
26	34	32	5	7	4	WSS026034



Wiper Seals

d1	D	d2	h	H1	H2	Part No.
28	36	34	7	4	5	WSS028036
30	36	34	7	4	5	WSS030036
30	38	36	7	4	5	WSS030038
32	40	38	7	4	5	WSS032040
33	41	39	7	4	5	WSS033041
34	42	40	7	4	5	WSS034042
35	43	41	7	4	5	WSS035043
36	44	42	7	4	5	WSS036044
38	46	44	7	4	5	WSS038046
40	48	46	7	4	5	WSS040048
42	50	48	7	4	5	WSS042050
44	52	50	7	4	5	WSS044052
45	53	51	7	4	5	WSS045053
46	54	52	7	4	5	WSS046054
47	55	53	7	4	5	WSS047055
48	56	54	7	4	5	WSS048056
50	58	56	7	4	5	WSS050058
52	60	58	7	4	5	WSS052060
54	62	60	7	4	5	WSS054062
55	63	61	7	4	5	WSS055063
56	64	62	7	4	5	WSS056064
57	65	63	7	4	5	WSS057065
58	66	64	7	4	5	WSS058066
60	68	66	7	4	5	WSS060068
60	72	69	10	5.5	7	WSS060072

d1	D	d2	h	H1	H2	Part No.
63	71	69	7	4	5	WSS063071
65	73	71	7	4	5	WSS065073
66	74	72	7	4	5	WSS066074
68	76	74	7	4	5	WSS068076
70	78	76	7	4	5	WSS070078
72	80	78	7	4	5	WSS072080
73	81	79	7	4	5	WSS073081
75	83	81	7	4	5	WSS075083
78	86	84	7	4	5	WSS078086
80	88	86	7	4	5	WSS080088
82	90	88	7	4	5	WSS082090
85	93	91	7	4	5	WSS085093
86	94	92	7	4	5	WSS086094
90	98	96	7	4	5	WSS090098
92	100	98	7	4	5	WSS092100
95	103	101	7	4	5	WSS095103
97	105	103	7	4	5	WSS097105
100	108	106	7	4	5	WSS100108
105	117	114	10	5.5	7	WSS105117
106	118	115	10	5.5	7	WSS106118
110	118	116	7	4	5	WSS110118
110	122	119	10	5.5	7	WSS110122
114	122	120	7	4	5	WSS114122
115	127	124	10	5.5	7	WSS115127
120	132	129	10	5.5	7	WSS120132

Wiper Seals

d1	D	d2	h	H1	H2	Part No.
125	137	134	10	5.5	7	WSS125137
130	142	139	10	5.5	7	WSS130142
135	147	144	10	5.5	7	WSS135147
140	152	149	10	5.5	7	WSS140152
145	157	154	10	5.5	7	WSS145157
150	162	159	10	5.5	7	WSS150162
152	164	161	10	5.5	7	WSS152164
155	167	164	10	5.5	7	WSS155167
160	172	169	10	5.5	7	WSS160172
165	177	174	10	5.5	7	WSS165177
166	178	175	10	5.5	7	WSS166178
170	182	179	10	5.5	7	WSS170182
175	187	184	10	5.5	7	WSS175187
180	192	189	10	5.5	7	WSS180192
185	197	194	10	5.5	7	WSS185197
190	202	199	10	5.5	7	WSS190202
195	207	204	10	5.5	7	WSS195207
200	212	209	10	5.5	7	WSS200212
210	218	216	7	4	5	WSS210218
210	225	221	13	6.5	8.5	WSS210225
220	235	231	13	6.5	8.5	WSS220235
230	245	241	13	6.5	8.5	WSS230245
235	250	246	13	6.5	8.5	WSS235250
240	255	251	13	6.5	8.5	WSS240255
250	265	261	13	6.5	8.5	WSS250265

d1	D	d2	h	H1	H2	Part No.
125	137	134	10	5.5	7	WSS125137
130	142	139	10	5.5	7	WSS130142
135	147	144	10	5.5	7	WSS135147
140	152	149	10	5.5	7	WSS140152
145	157	154	10	5.5	7	WSS145157
150	162	159	10	5.5	7	WSS150162
152	164	161	10	5.5	7	WSS152164
155	167	164	10	5.5	7	WSS155167
160	172	169	10	5.5	7	WSS160172
165	177	174	10	5.5	7	WSS165177
166	178	175	10	5.5	7	WSS166178
170	182	179	10	5.5	7	WSS170182
175	187	184	10	5.5	7	WSS175187
180	192	189	10	5.5	7	WSS180192
185	197	194	10	5.5	7	WSS185197
190	202	199	10	5.5	7	WSS190202
195	207	204	10	5.5	7	WSS195207
200	212	209	10	5.5	7	WSS200212
210	218	216	7	4	5	WSS210218
210	225	221	13	6.5	8.5	WSS210225
220	235	231	13	6.5	8.5	WSS220235
230	245	241	13	6.5	8.5	WSS230245
235	250	246	13	6.5	8.5	WSS235250
240	255	251	13	6.5	8.5	WSS240255
250	265	261	13	6.5	8.5	WSS250265

Guide Ring

Guide Rings, also known as Wear Rings are critical components mostly made of hard plastics. They prevent any metal to metal contact and normalise the travel of piston and shaft inside a hydraulic cylinder



Guide Rings




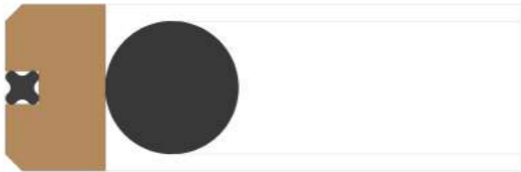




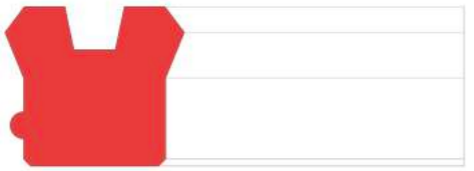

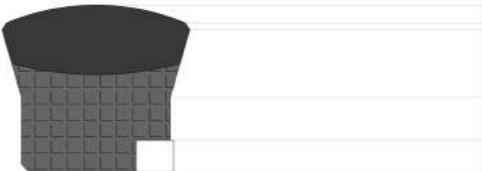
- **Double Acting**
- **Light to Heavy Duty**
- **Static/ Dynamic Application**
- **Temp - upto 270° C**

Materials

- **PTFE**
- **Filled PTFE**
- **Fabric Reinforced Plastics**
- **POM**





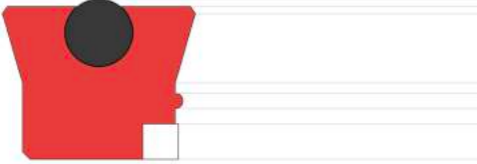


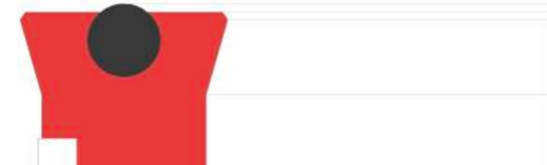
Hydraulic Seals

Some Other Piston Seals Profiles

	UBP		GXP
	UP1		GSP
	BP1		RSP
	UP2		FBP
	FR		






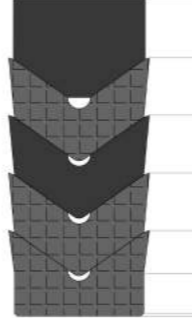
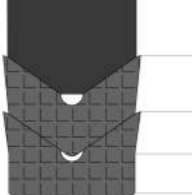
Hydraulic Seals

Some Other Rod Seals Profiles

	URP		GXR
	UR1		GSR
	BR1		RSR
	UR2		FBP
	EP		EBP

Hydraulic Seals

Some Other Symmetrical Seals Profiles

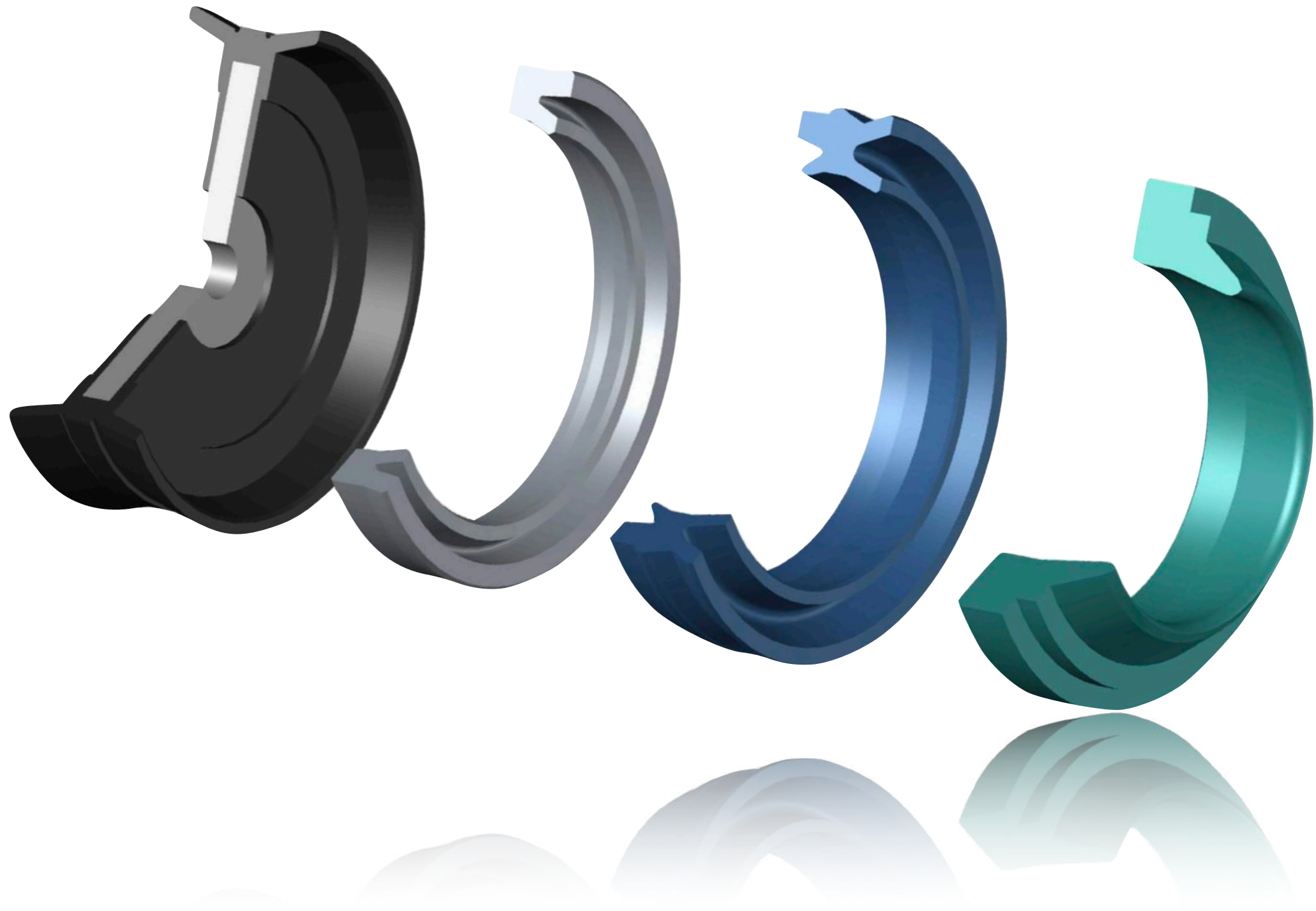
	ES1		FS1
	EX		WS
	US1		VPxy
	VP1		

Hydraulic Seals

Some Other Wiper Seal Profiles

	WS1		WS2
	WOU		SSW
	SRW		WU

Pneumatic Seals

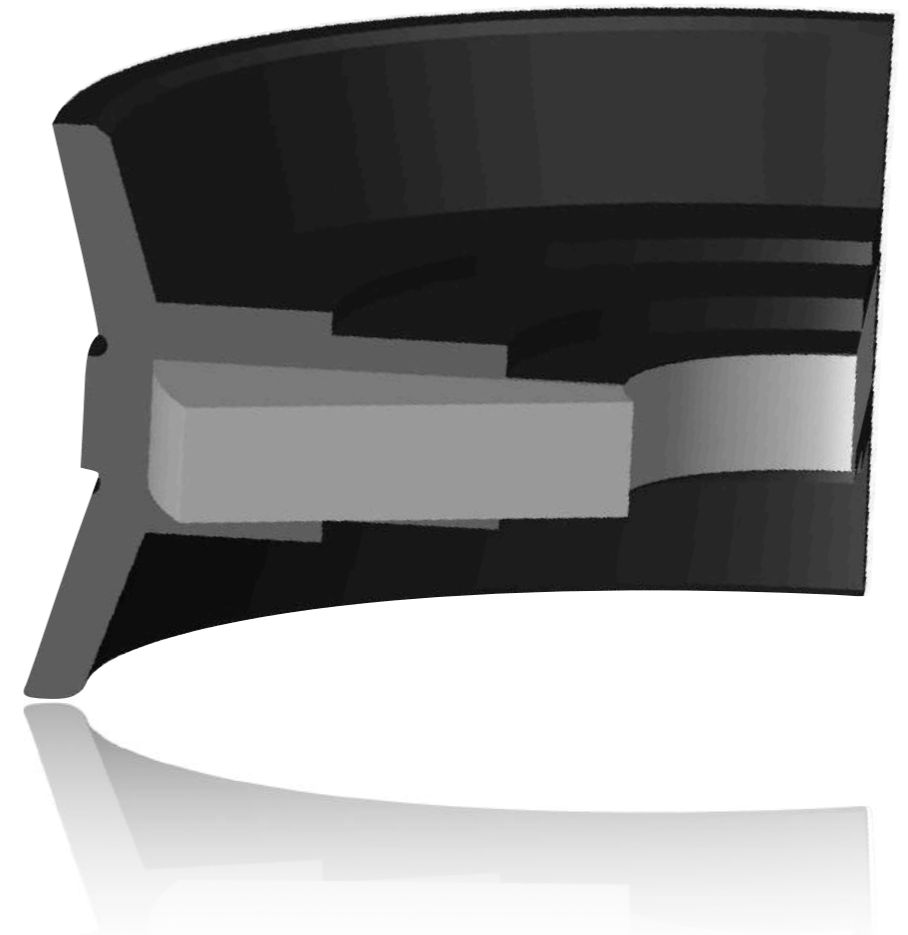


Pneumatic Seals

Pneumatic cylinders are mechanical actuators that use air as the medium on the piston to push the load. They handle lower pressure compared to Hydraulic cylinders which is less than 16 bar.

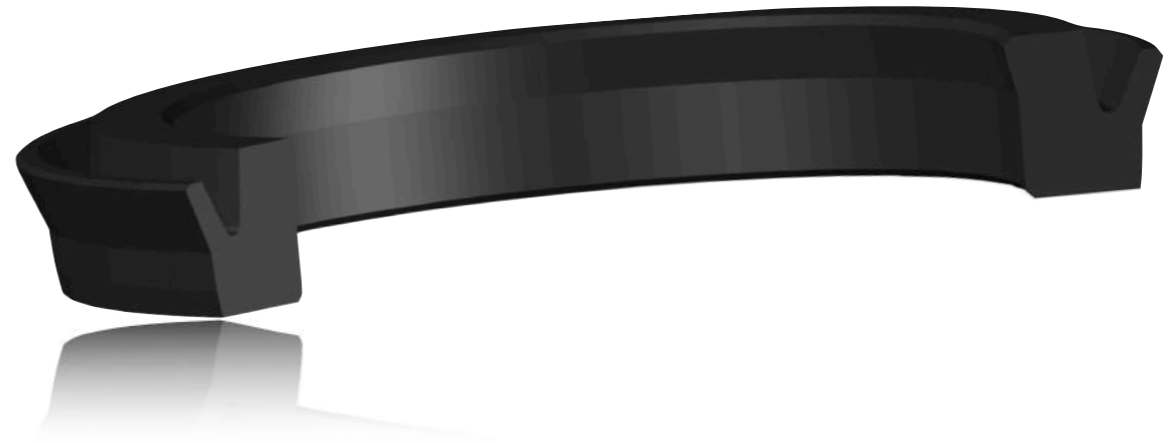
Unlike hydraulic cylinders, pneumatic cylinders do not have fluid leakage to cause fluid dripping.

Royal Seals offers pneumatic seals for longer life, low friction, wide temperature capability and high wear resistance.



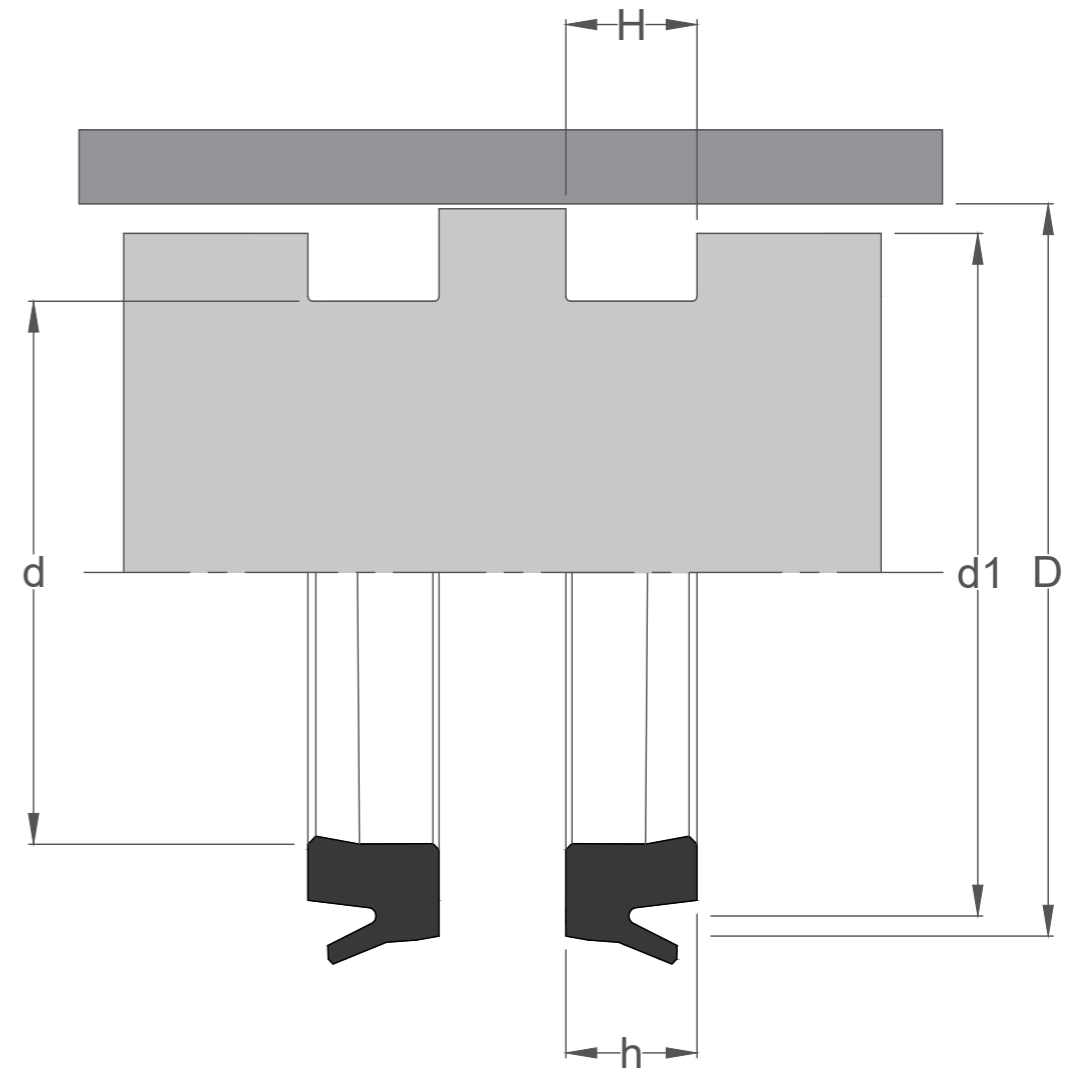
NP3

- **Wear Resistant**
- **Pressure - Upto 16 bar**
- **Temp - upto 220° C**
- **Speed - upto 1 m/s**
- **Materials - NBR, FKM**
- **Hardness - Upto 85 Shore A**



Pneumatic Seals - Piston Seals

d	D	h	H	d1	Part No.
14	20.5	4	4.5	19.5	NP3014021
17	25	5.5	6	24	NP3017025
24	32	5.5	6	31	NP3024032
30	40	7	7.5	38.5	NP3030040
33	45	9	10	43	NP3033045
40	50	7	7.5	48.5	NP3040050
53	63	7	7.5	61.5	NP3053063
68	80	8.5	9.5	78	NP3068080
88	100	8.5	9.5	98	NP3088100
110	125	10	11	122.5	NP3110125
140	160	14	15	155	NP3140160
145	160	10	11	157.5	NP3145160
180	200	14	15	195	NP3180200



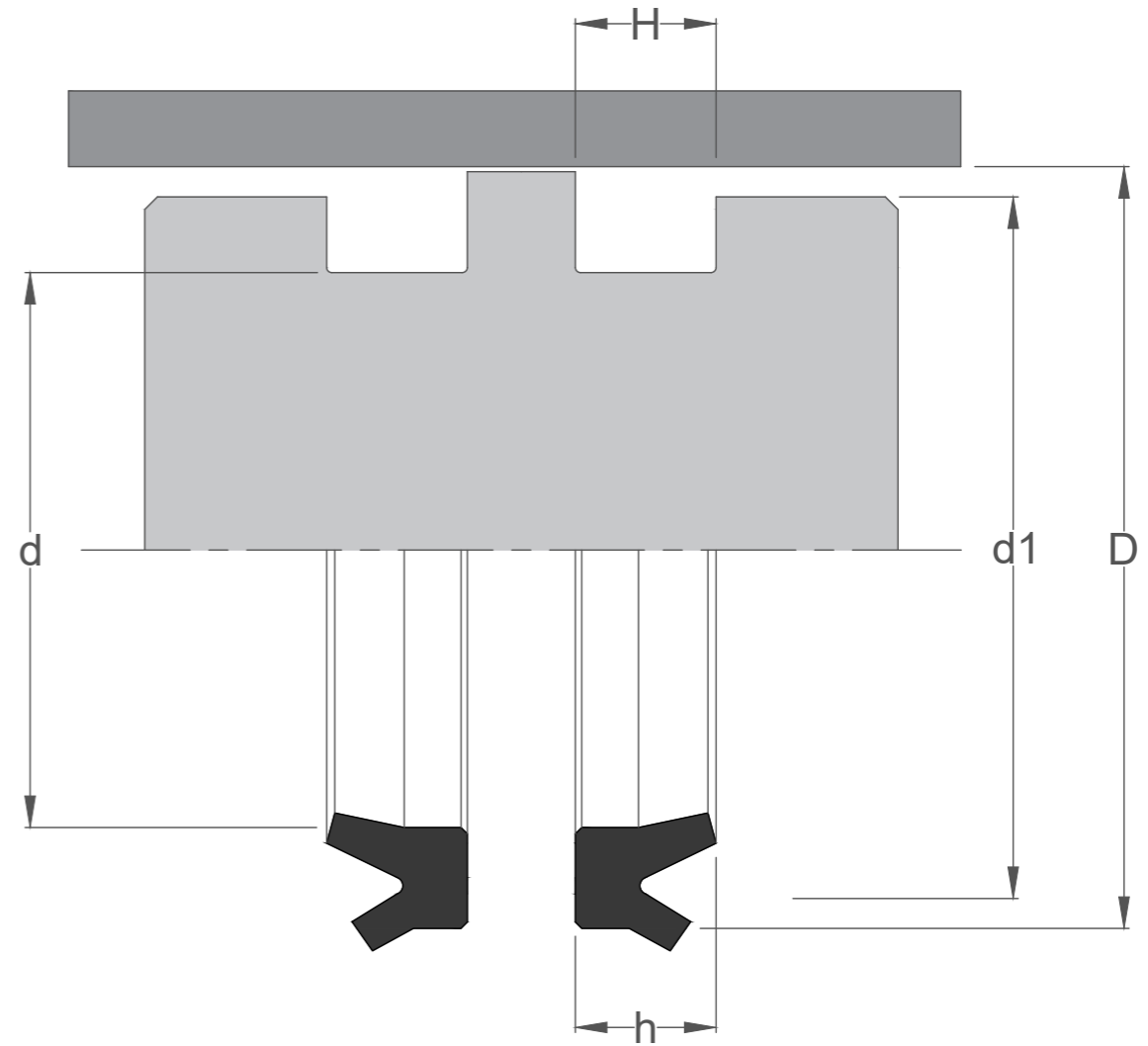
NP2

- **U Profile**
- **Easy Installation**
- **Pressure - Upto 16 bar**
- **Temp - upto 220° C**
- **Speed - upto 0.5 m/s**
- **Materials - NBR, FKM**
- **Hardness - Upto 85 Shore A**



Pneumatic Seals - Piston Seals

d	D	H	L	d1	Part No.
1.5	4	1.7	2	3	NP2002004A
2	5	2.2	2.5	4	NP2002005A
2.5	6	2	2.3	4.5	NP2003006A
3	6	3	3.5	5	NP2003006B
4	7.5	2	2.3	6	NP2004008A
3	8	3.5	4	5.5	NP2003008A
5	8	4	4.5	7	NP2005008A
4.5	9.5	3.5	4	7	NP2005010A
3	10	4	4.5	6.5	NP2003010A
5	10	3.5	4	7.5	NP2005010B
6	10	4.2	4.7	8	NP2006010A
6	11	4	4.5	8.5	NP2006011A
6	12	4	4.5	9	NP2006012A
8	12	3	3.5	10	NP2008012A
7	13	4	4.5	10	NP2007013A
8	13.5	4	4.5	11	NP2008014A
6	14	5.5	6	10	NP2006014A
8	14	4	4.5	11	NP2008014B
7	15	5.5	6	11	NP2007015A
8	16	5.5	6	12	NP2008016A
10	16	4	4.5	13	NP2010016A
10	16	6	6.5	13	NP2010016B
11.7	17.5	3	3.5	14.8	NP2012018A
10	18	5	5.5	14	NP2010018A



Pneumatic Seals - Piston Seals

d	D	H	L	d1	Part No.
10	18	5.5	6	14	NP2010018B
10.5	19.05	5.5	6	15	NP2011019A
10	20	7	7.5	15	NP2010020A
12	20	5.5	6	16	NP2012020A
14	20	4.2	4.7	17	NP2014020A
14	22	5.5	6	18	NP2014022A
16	24	5.5	6	20	NP2016024A
17	25	5.5	6	21	NP2017025A
18	26	5.5	6	22	NP2018026A
18	28	8	8.5	23	NP2018028A
20	28	5.5	6	24	NP2020028A
18	30	8	8.5	24	NP2018030A
20	30	7	7.5	25	NP2020030A
22	30	5.5	6	26	NP2022030A
22	32	5	5.5	27	NP2022032A
22	32	7	7.5	27	NP2022032B
24	32	5.5	6	28	NP2024032A
25	35	7	7.5	30	NP2025035A
26	36	7	7.5	31	NP2026036A
29	37	5.5	6	33	NP2029037A
28	38	7	7.5	33	NP2028038A
27	39.7	6.35	6.85	33.5	NP2027040A
30	40	7	7.5	35	NP2030040A
32	40	5.5	6	36	NP2032040A
35	45	7	7.5	40	NP2035045A

d	D	H	L	d1	Part No.
37	45	6	6.5	41	NP2037045A
36	46	7	7.5	41	NP2036046A
40	48	5.5	6	44	NP2040048A
36	50	10	11	43	NP2036050A
40	50	7	7.5	45	NP2040050A
42	50	8	8.5	46	NP2042050A
41.28	50.8	7.93	8.43	51	NP2041051A
36	52	12	13	44	NP2036052A
42	52	7	7.5	48	NP2042052A
45	55	7	7.5	50	NP2045055A
40	60	12	13	50	NP2040060A
50	60	7	7.5	55	NP2050060A
50	60	10	11	55	NP2050060B
46	62	12	13	52	NP2046062A
47	62	10	11	51.5	NP2047062A
52	62	7	7.5	57	NP2052062A
53	63	7	7.5	58	NP2053063A
49	65	12	13	57	NP2049065A
53	65	10	11	59	NP2053065A
55	65	7	7.5	60	NP2055065A
57	67	7	7.5	62	NP2057067A
58	68	7	7.5	63	NP2058068A
50	70	14	15	60	NP2050070A
54	70	12	13	62	NP2054070A
58	70	8.5	9.5	64	NP2058070A

Pneumatic Seals - Piston Seals

d	D	H	L	d1	Part No.
62	74	8.5	9.5	68	NP2062074A
55	75	12	13	65	NP2055075A
59	75	12	13	67	NP2059075A
63	75	8.5	9.5	69	NP2063075A
60	80	14	15	70	NP2060080A
63	80	16	17	71.5	NP2063080A
64	80	8	8.5	72	NP2064080A
68	80	8.5	9.5	74	NP2068080A
73	85	8.5	9.5	79	NP2073085A
70	90	12	13	80	NP2070090A
78	90	8.5	9.5	84	NP2078090A
85.73	98.43	9.52	10.32	92	NP2086098A
80	100	15	16	90	NP2080100A
85	100	9.5	10.5	92.5	NP2085100A
85	100	12	13	92.5	NP2085100B
88	100	8.5	9.5	94	NP2088100A
90	100	7	7.5	95	NP2090100A
85	105	15	16	95	NP2085105A
95	110	10	11	102.5	NP2095110A
95	115	14	15	105	NP2095115A
100	120	15	16	110	NP2100120A
105	120	10	11	112.5	NP2105120A
105	125	16	17	115	NP2105125A
110	125	10	11	117.5	NP2110125A
115	130	10	11	122.5	NP2115130A

d	D	H	L	d1	Part No.
115	135	14	15	125	NP2115135A
116	136	14	15	126	NP2116136A
115	140	18	19	127.5	NP2115140A
120	140	14	15	130	NP2120140A
125	140	10	11	132.5	NP2125140A
130	145	10	11	137.5	NP2130145A
135	150	10	11	142.5	NP2135150A
130	155	18	19	142.5	NP2130155A
135	155	15	16	145	NP2135155A
140	160	14	15	150	NP2140160A
145	160	10	11	152.5	NP2145160A
155	175	14	15	165	NP2155175A
160	180	14	15	170	NP2160180A
170	190	14	15	180	NP2170190A
180	200	14	15	190	NP2180200A
200	220	14	15	210	NP2200220A
200	225	17.5	18.5	212.5	NP2200225A
220	240	14	15	230	NP2220240A
230	250	14	15	240	NP2230250A
240	260	14	15	250	NP2240260A
260	280	14	15	270	NP2260280A
280	300	15	16	290	NP2280300A
290	315	17	18	302.5	NP2290315A
320	350	21	22	335	NP2320350A
340	360	14	15	350	NP2340360A

Pneumatic Seals - Piston Seals

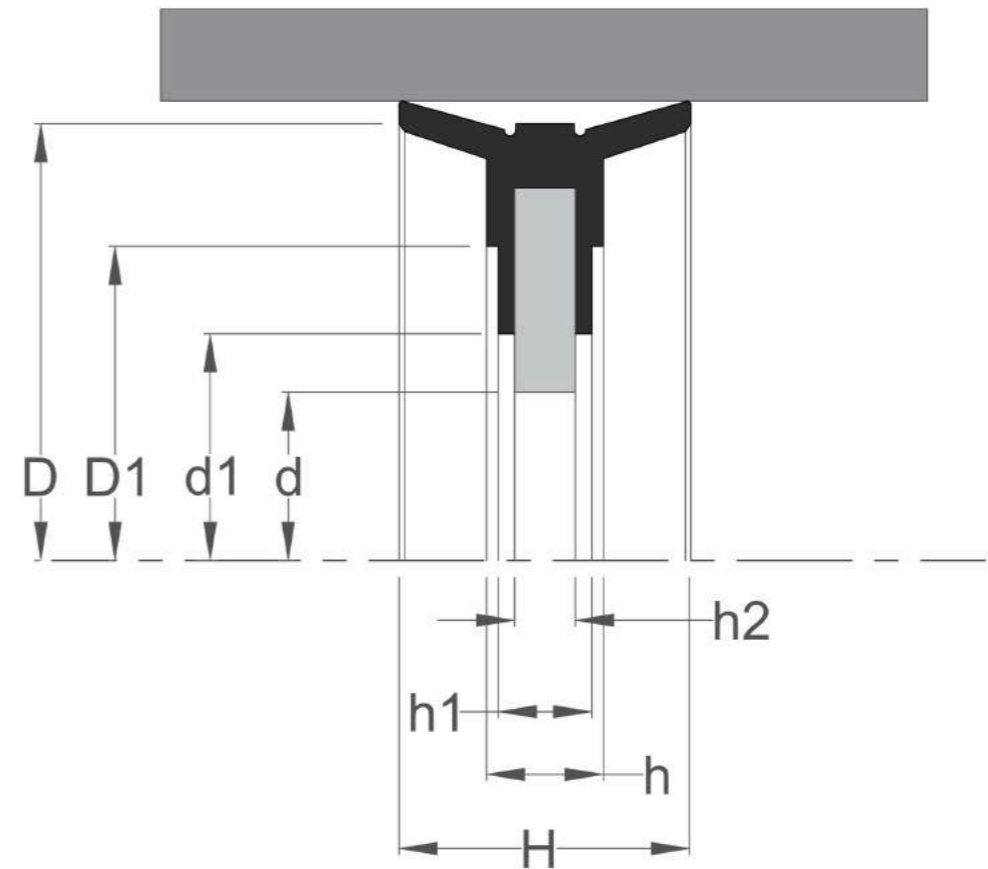
TD

- **Integrated Piston Seal Arrangement**
- **Pressure - Upto 16 bar**
- **Temp - upto 220° C**
- **Speed - upto 1 m/s**
- **Materials - NBR, FKM**
- **Hardness - Upto 80 Shore A**



Pneumatic Seals - Piston Seals

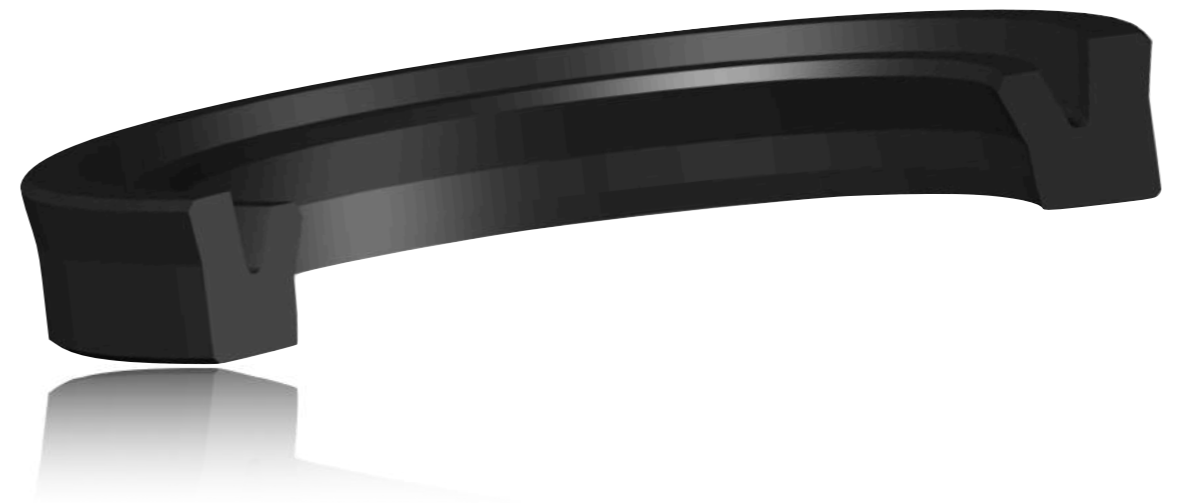
d	D	d1	D1	H	h	h1	h2	Part No.
5	16	9	12	12	6	3	3.6	TD01605
6	20	10	16	12	6	3	3.6	TD02006
6	25	13.5	21	12	6	3	3.6	TD02506
8	25	16	21	12	4	3	3.6	TD02508
8	25	16	21	12	6	3	3.6	TD02508
5	32	16	26.5	18	6	3	3.6	TD03205
6	32	16	26.5	15	6	3	3.6	TD03206
8	32	16	26.5	15	6	3	3.6	TD03208
8	32	16	26.5	15	6.5	3	4	TD03208
8	35	16	29.5	15	6	3	3.6	TD03508
8	40	22	34	18	7	4	4.6	TD04008
8	40	22	34	20	6.5	4	4.6	TD04008
10	40	22	34	18	7	4	4.6	TD04010
8	50	25	43	20	6.5	4	4.6	TD05008
10	50	25	43	18	7.8	4	4.6	TD05010
16	50	25	43	20.5	7	4	4.6	TD05016
12	60	37	52	21	6.5	4	4.6	TD06012
18	60	37	52	21	6.5	4	4.6	TD06018
12	63	40	55	22	8	5	5.6	TD06312
16	63	40	55	21.5	7	4	4.6	TD06316
12	70	44	62	22	8	5	5.6	TD07012
33	70	44	62	22	8	5	5.6	TD07033
12	80	55	70	22.5	8	5	5.6	TD08012
16	80	55	70	22.5	8	5	5.6	TD08016



d	D	d1	D1	H	h	h1	h2	Part No.
20	80	55	70	22.5	8	5	5.6	TD08020
12	100	72	90	25	10	6	6.6	TD10012
16	100	72	90	25	10	6	6.6	TD10016
20	100	72	90	26	10	6	6.6	TD10020
20	125	90	114	26	9.5	5	5.6	TD12520
20	125	90	114	28	12	7	8.2	TD12520
20	130	98	123	29	13	8	8.6	TD13020
22	140	108	125	29	10.5	6	6.6	TD14022
20	150	100	143	29	13	10	10.6	TD15020

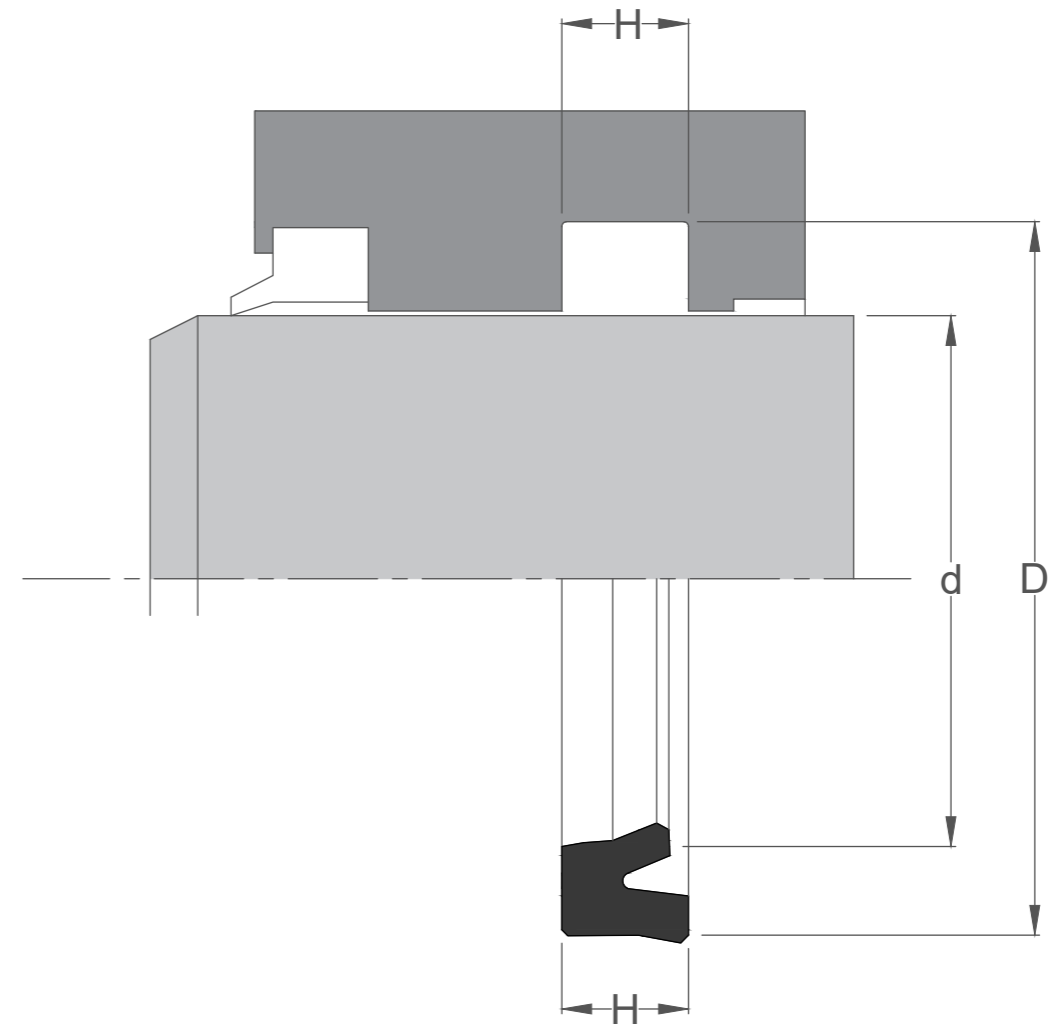
NR5

- **U Profile**
- **Good Wear Resistance**
- **Easy Installation**
- **Pressure - Upto 16 bar**
- **Temp - upto 220° C**
- **Speed - upto 1 m/s**
- **Materials - NBR, FKM**
- **Hardness - Upto 85 Shore A**



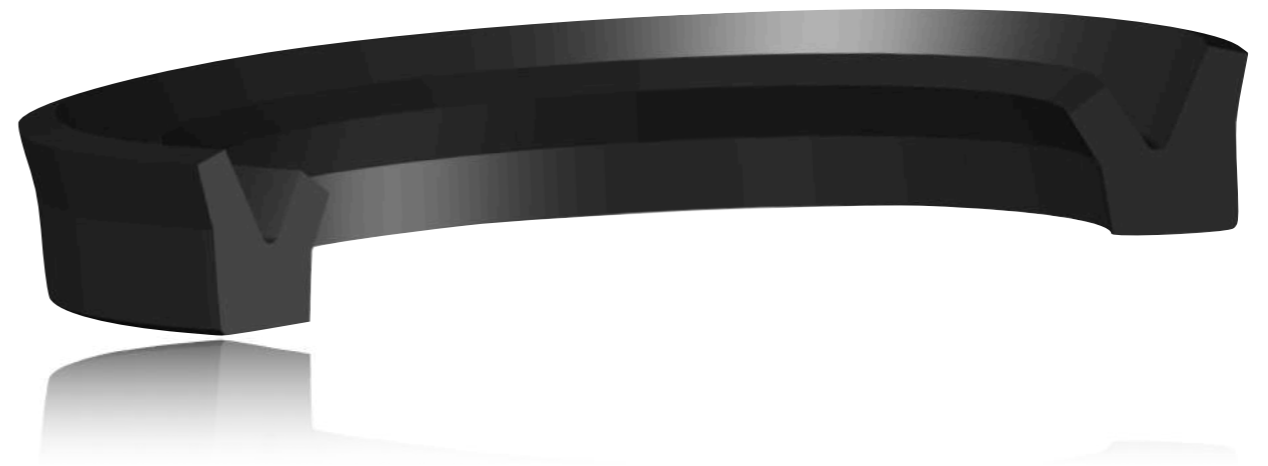
Pneumatic Seals - Rod Seals

d	D	h	H	Part No.
2	4.4	2.2	2.6	NR50205
3	6	2.2	2.6	NR50306
3	6.5	2.2	2.6	NR50307
10	16	2.55	3	NR51016
12	18	2.55	3	NR51218
16	22	2.55	3	NR51622
17	24	2.55	3	NR51724



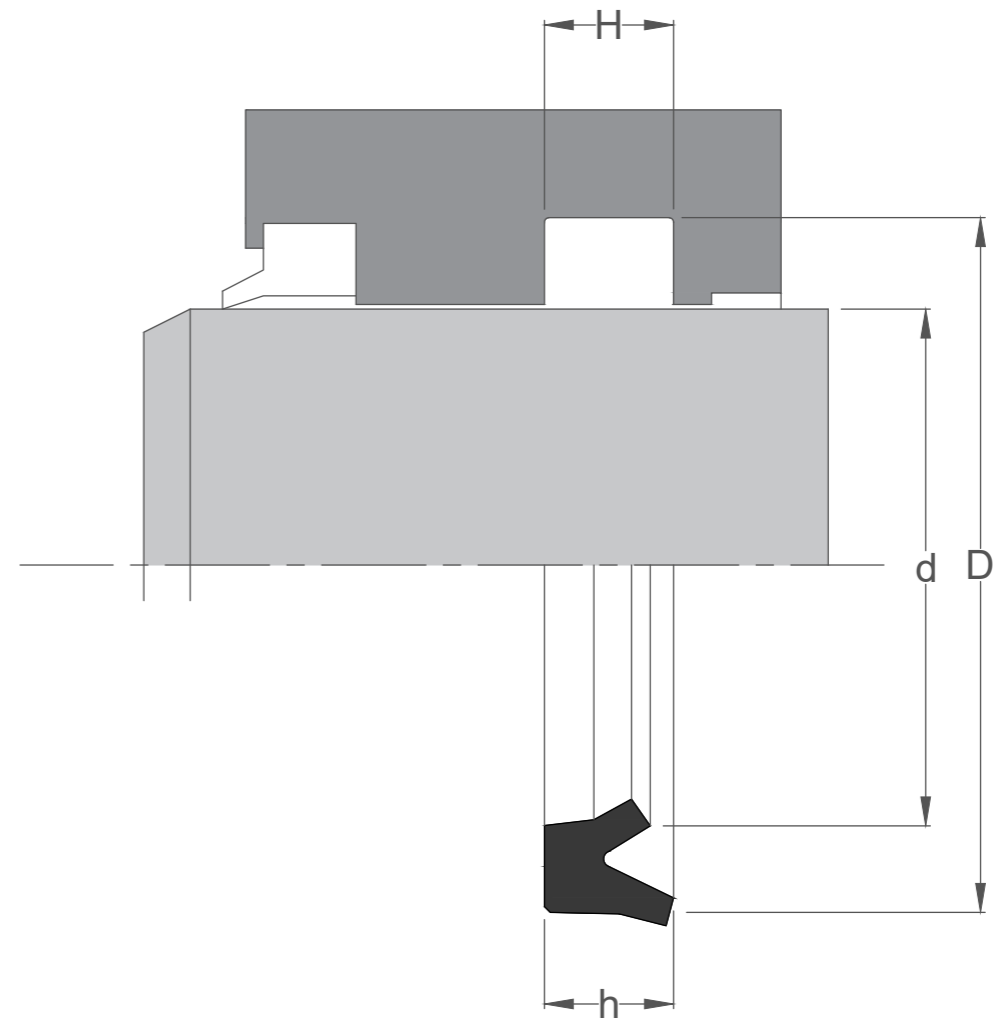
NR4

- **U Profile**
- **Easy Installation**
- **Pressure - Upto 16 bar**
- **Temp - upto 220° C**
- **Speed - upto 1 m/s**
- **Materials - NBR, FKM**
- **Hardness - Upto 90 Shore A**



Pneumatic Seals - Rod Seals

d	D	h	H	Part No.
3	6.5	3	3.5	NR40307
4	8	3	3.5	NR40408
5	9	2.6	3	NR40509
6	10	3	3.5	NR40610
8	14	4	4.5	NR40814
8	16	4.5	5	NR40816
10	16	4	4.5	NR41016
12	20	5.5	6	NR41220
14	22	5.5	6	NR41422
16	22	5	5.5	NR41622
20	28	5.5	6	NR42028



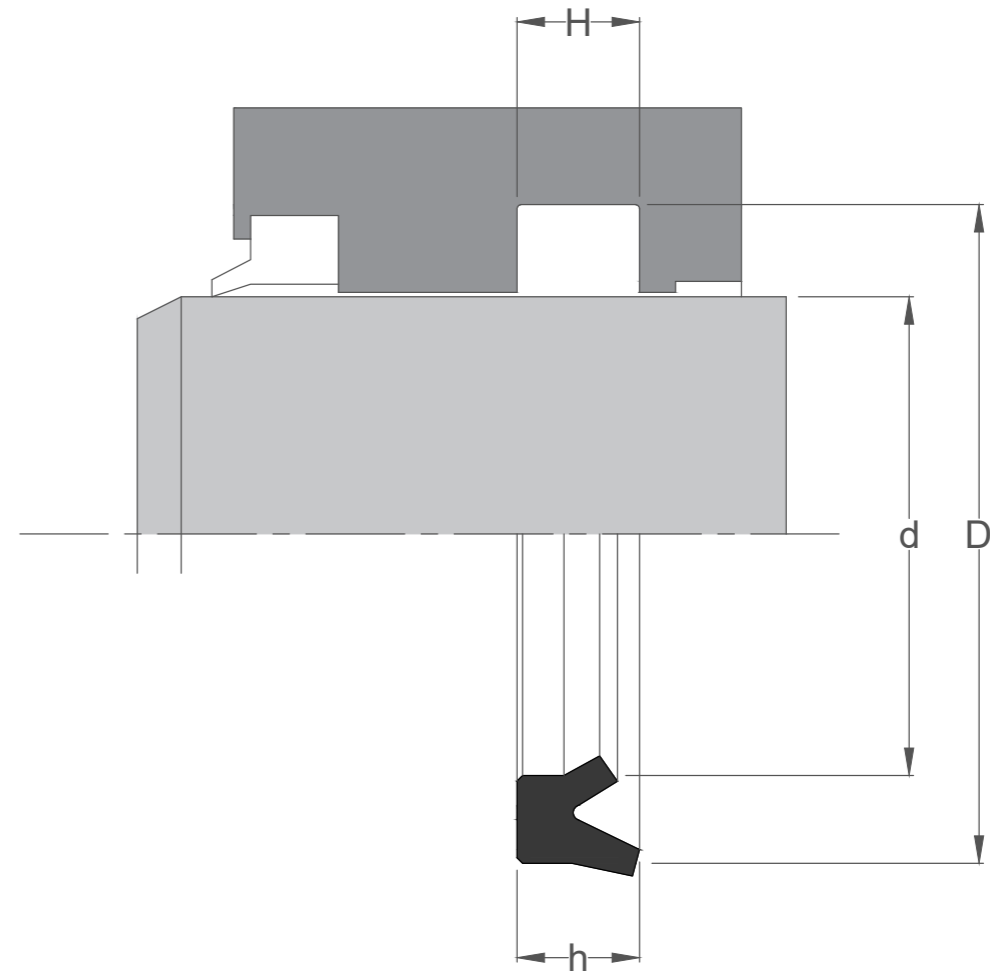
NR2

- **U Profile**
- **Easy Installation**
- **Pressure - Upto 16 bar**
- **Temp - upto 220° C**
- **Speed - upto 1 m/s**
- **Materials - NBR, FKM, PU**
- **Hardness - Upto 90 Shore A**



Pneumatic Seals - Rod Seals

d	D	h	H	Part No.
2.0	7.0	3.5	4	NR202007035
3.0	7.0	3	3.5	NR203007030
3.0	9.0	4.5	5	NR203009045
3.0	10.0	5	5.5	NR203010050
4.0	8.0	3	3.5	NR204008030
4.0	9.0	3.5	4	NR204009035
4.0	10.0	4.2	4.7	NR204010042
4.0	12.0	4.5	5	NR204012045
4.0	12.0	5.5	6	NR204012055
4.5	8.0	3	3.5	NR204508030
5.0	9.0	2.5	3	NR205009025
5.0	10.0	4	4.5	NR205010040
5.0	12.0	4.5	5	NR205012045
6.0	10.0	3	3.5	NR206010030
6.0	12.0	4.2	4.7	NR206012042
6.0	13.0	5	5.5	NR206013050
6.0	15.0	7	7.5	NR206015070
6.0	16.0	5	5.5	NR206016050
7.0	13.0	4	4.5	NR207013040
8.0	14.0	4	4.5	NR208014040
8.0	14.5	4.5	5	NR208014545
8.0	16.0	5.5	6	NR208016055
8.0	18.0	8	8.5	NR208018080
9.0	14.0	3.5	4	NR209014035



Pneumatic Seals - Rod Seals

d	D	h	H	Part No.
9.3	14.0	3	3.5	NR209314030
9.5	18.5	7	7.5	NR209518570
10.0	13.6	2.3	2.7	NR210013623
10.0	15.0	3.5	4	NR210015035
10.0	16.0	4.5	5	NR210016045
10.0	16.0	6	6.5	NR210016060
10.0	18.0	5.5	6	NR210018055
10.0	20.0	7	7.5	NR210020070
11.0	17.0	4	4.5	NR211017040
12.0	18.5	4.5	5	NR212018545
12.0	19.0	4.5	5	NR212019045
12.0	20.0	5.5	6	NR212020055
12.8	19.2	3.8	4.3	NR212819238
13.0	17.5	2.8	3.3	NR213017528
13.8	22.0	5.5	6	NR213822055
14.0	19.0	3.5	4	NR214019035
14.0	20.0	4.8	5.3	NR214020048
14.0	22.0	5.5	6	NR214022055
14.0	25.0	8	8.5	NR214025080
15.0	22.0	5	5.5	NR215022050
16.0	22.5	4.5	5	NR216022545
16.0	23.0	5.5	6	NR216023055
16.0	24.0	5.5	6	NR216024055
16.0	26.0	7	7.5	NR216026070

d	D	h	H	Part No.
17.0	25.0	5.5	6	NR217025055
18.0	25.0	4.5	5	NR218025045
18.0	25.0	5.5	6	NR218025055
18.0	26.0	5.5	6	NR218026055
18.5	25.5	5.5	6	NR218525555
20.0	26.0	4	4.5	NR220026040
20.0	26.0	4.8	5.3	NR220026048
20.0	28.0	5.5	6	NR220028055
20.0	28.0	8	8.5	NR220028080
20.0	30.0	7	7.5	NR220030070
20.0	32.0	7	7.5	NR220032070
22.0	29.0	5.5	6	NR222029055
22.0	30.0	5.5	6	NR222030055
23.0	31.0	5.5	6	NR223031055
24.0	32.0	5.5	6	NR224032055
25.0	32.0	5.5	6	NR225032055
25.0	33.0	5.5	6	NR225033055
25.0	33.0	8	8.5	NR225033080

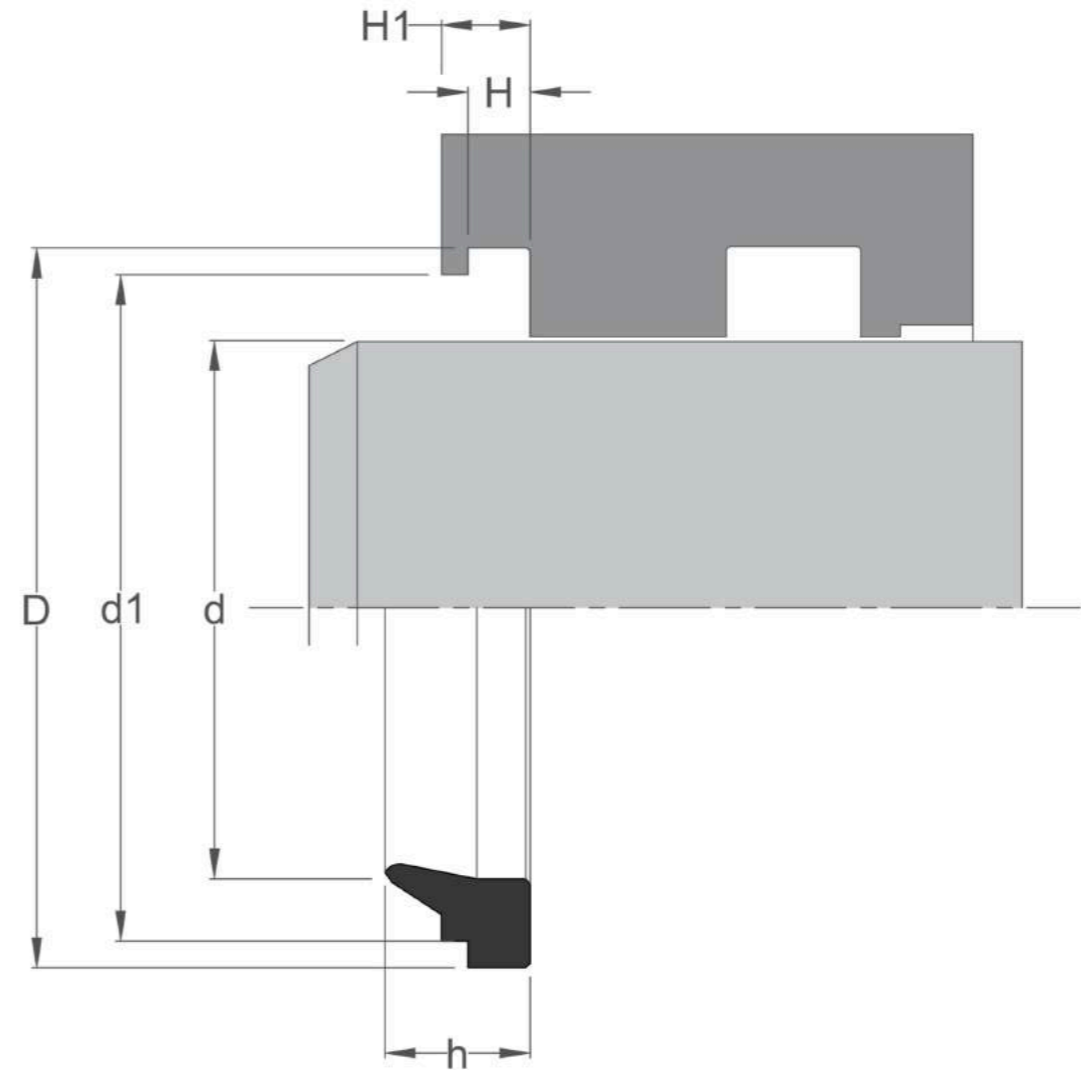
NW1

- **Good Wear Resistance**
- **Temp - upto 220° C**
- **Speed - upto 2 m/s**
- **Materials - NBR, FKM, PU**
- **Hardness - Upto 90 Shore A**



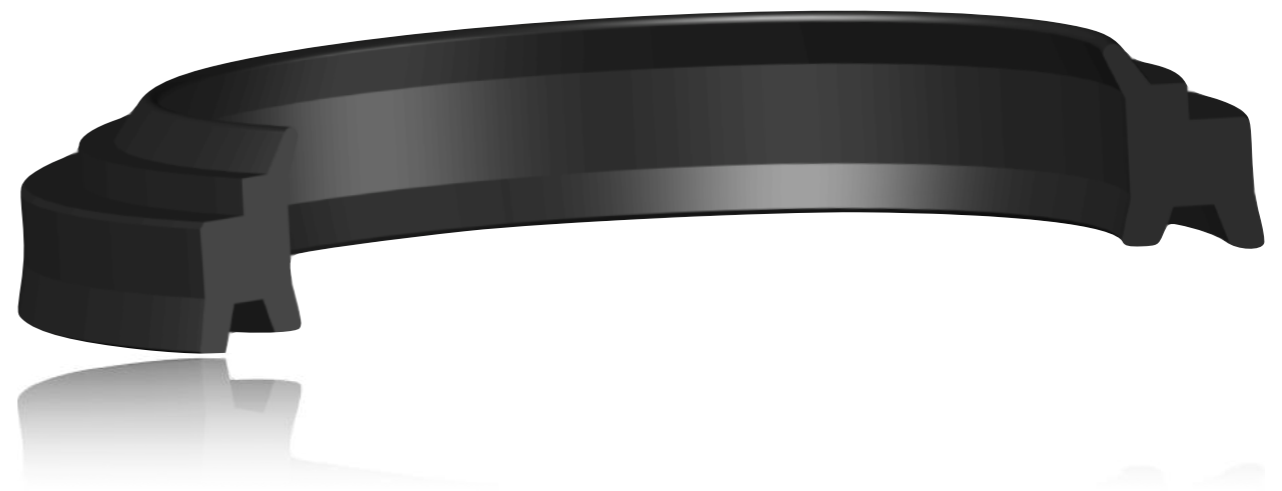
Pneumatic Seals - Wiper Seals

d	D	d1	h	H	H1	Part No.
10	16	14	5	2.6	3.6	NW11016
12	20	18	7	4	5	NW11220
14	22	20	7	4	5	NW11422
16	24	22	7	4	5	NW11624
18	26	24	7	4	5	NW11826
20	28	26	7	4	5	NW12028
22	30	28	7	4	5	NW12230
25	33	31	7	4	5	NW12533
28	36	34	7	4	5	NW12836
30	38	36	7	4	5	NW13038
36	44	42	7	4	5	NW13644
40	48	46	7	4	5	NW14048
45	53	51	7	4	5	NW14553
50	58	56	7	4	5	NW15058
56	64	62	7	4	5	NW15664
60	68	66	7	4	5	NW16068
70	78	76	7	4	5	NW17078
80	88	86	7	4	5	NW18088
90	98	96	7	4	5	NW19098



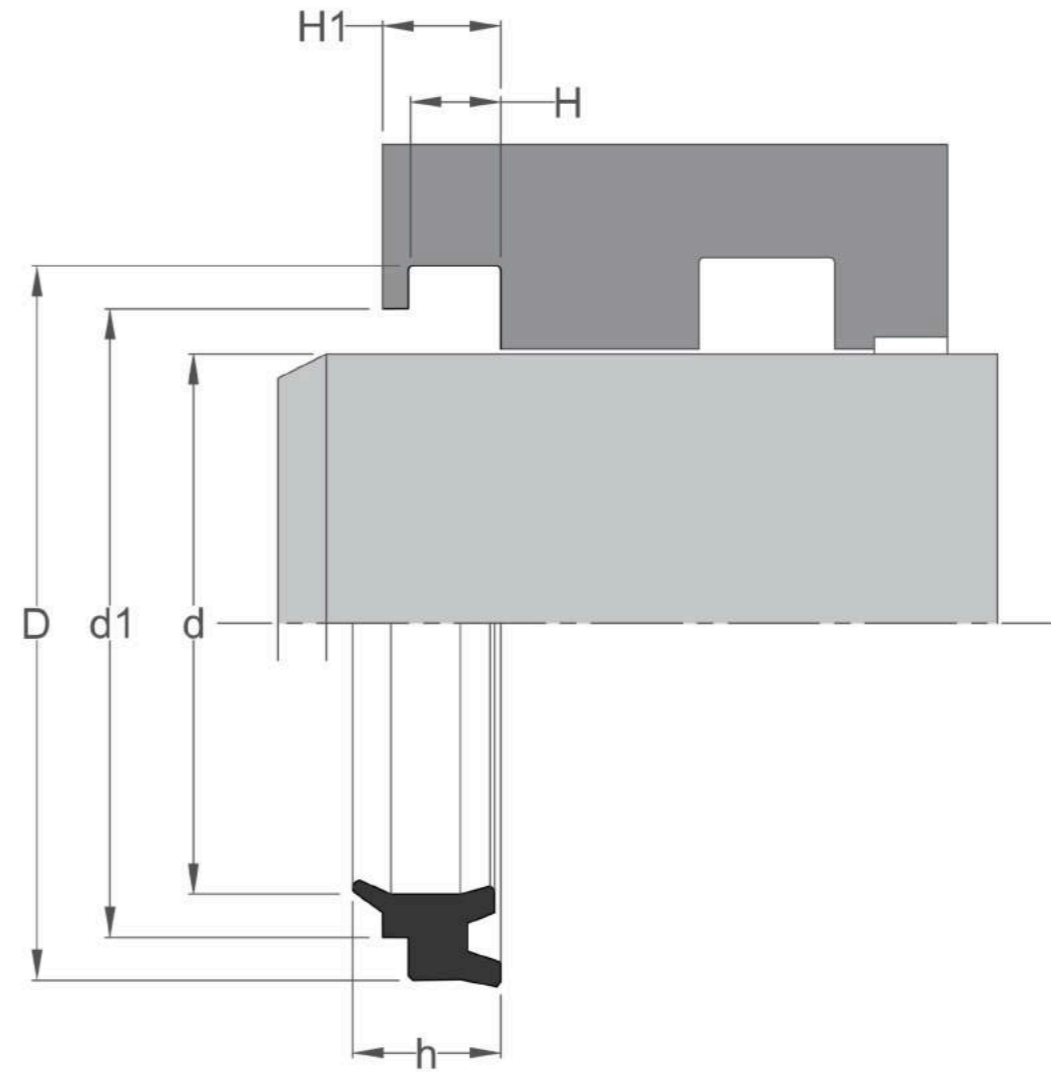
RN2

- High Wear Resistance
- Rod And Wiper Seal
- Temp - upto 220° C
- Pressure - Upto 16 bar
- Speed - upto 1 m/s
- Materials - NBR, FKM, PU
- Hardness - Upto 90 Shore A



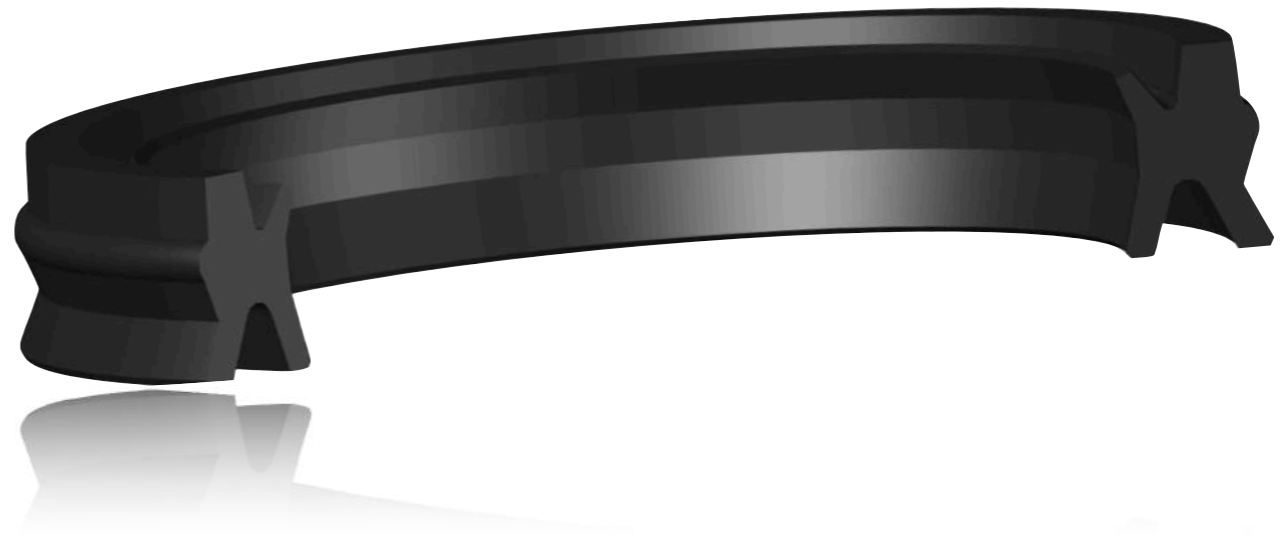
Pneumatic Seals - Wiper Seals

d	D	d1	h	H	H1	Part No.
4	8.2	6.7	4	3.8	3	RN20482
6	11.2	9.1	5	4.6	3.6	RN206112
8	14.2	12.1	5	4.6	3.6	RN208142
10	16.2	14.1	6	5.4	4.2	RN210162
12	18.2	15.5	6	5.4	4.2	RN212182
16	23	18.8	6	5.4	4.2	RN216230



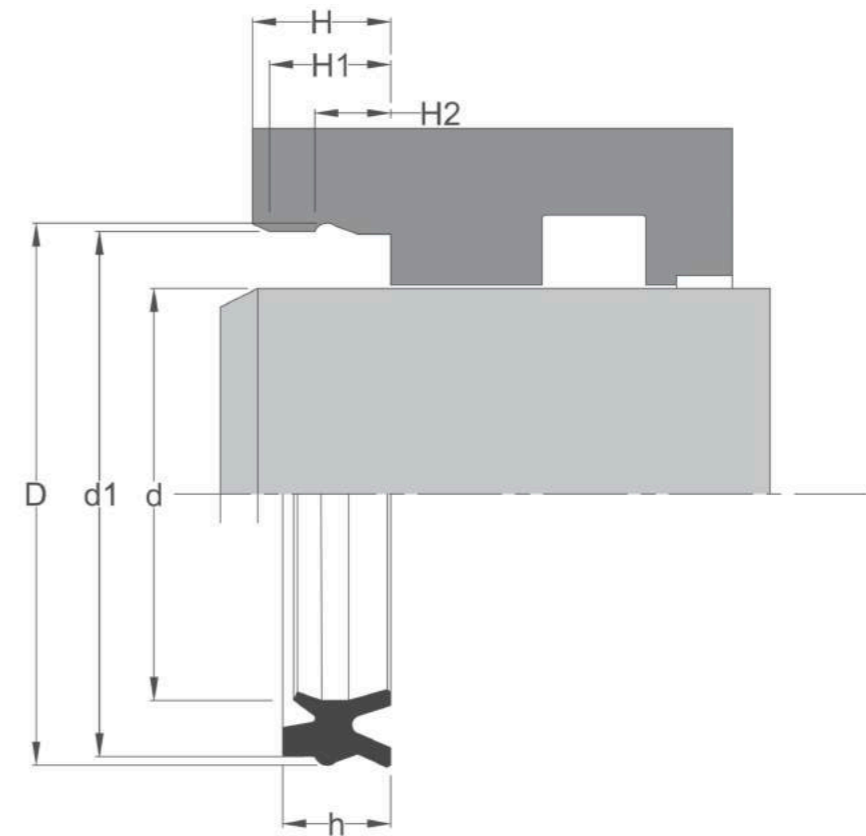
RN3

- High Wear Resistance
- Rod and Wiper Seal
- Low Compression Set
- Temp - upto 80° C
- Pressure - Upto 16 bar
- Speed - upto 1 m/s
- Materials - NBR, PU
- Hardness - Upto 90 Shore A



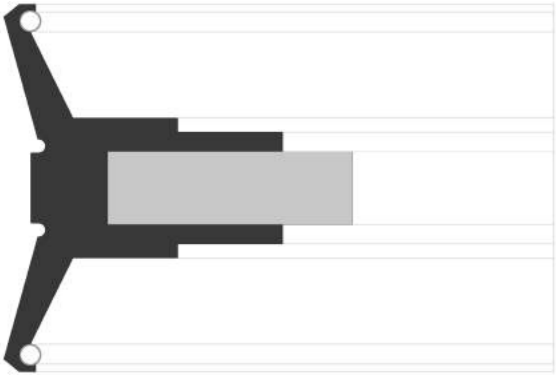
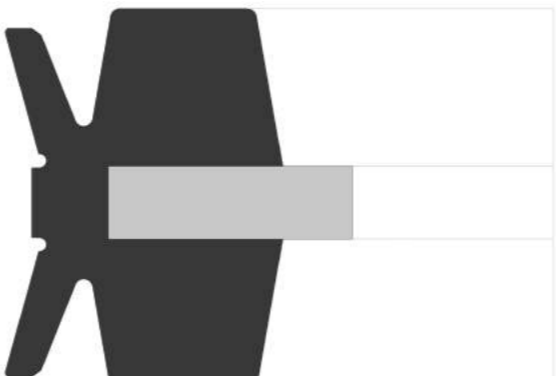
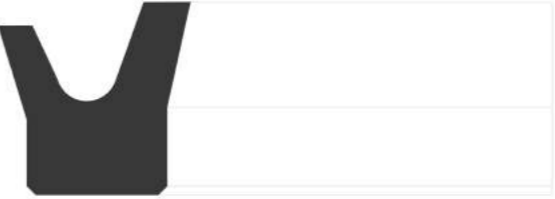
Pneumatic Seals - Wiper Seals

d	d1	h	D	H	H1	H2	Part No.
10	18	10.7	20	13	11.5	8.8	RN31018
12	19	10	21	12	10.5	7.7	RN31219
12	20	10.7	22	13	11.5	8.8	RN31220
12	22	10.7	24	13	11.5	8.8	RN31222
14	24	10.7	26	13	11.5	8.8	RN31424
16	26	10.7	28	13	11.5	8.8	RN31626
18	26	10.7	28	13	11.5	8.8	RN31826
18	28	10.7	30	13	11.5	8.8	RN31828
20	30	10.7	32	13	11.5	8.8	RN32030
22	32	11.2	34.5	14	12	9.4	RN32232
25	35	11.2	37.5	14	12	9.4	RN32535
30	40	11.2	42.5	14	12	9.4	RN33040
32	42	11.2	44.5	14	12	9.4	RN33242
40	50	11.2	52.5	14	12	9.4	RN34050
45	55	12.2	58.2	15	13	10.4	RN34555
50	60	12.2	63.2	15	13	10.4	RN35060
63	75	13	78.2	16	14	11.4	RN36375




Pneumatic Seals

Pneumatic Piston Seals Profiles



	TDS		TD1		NP1
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Pneumatic Rod Seals Profiles

	NR1		NR3
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Pneumatic Seals

Pneumatic Wiper Seals Profiles

	NSW		RN1
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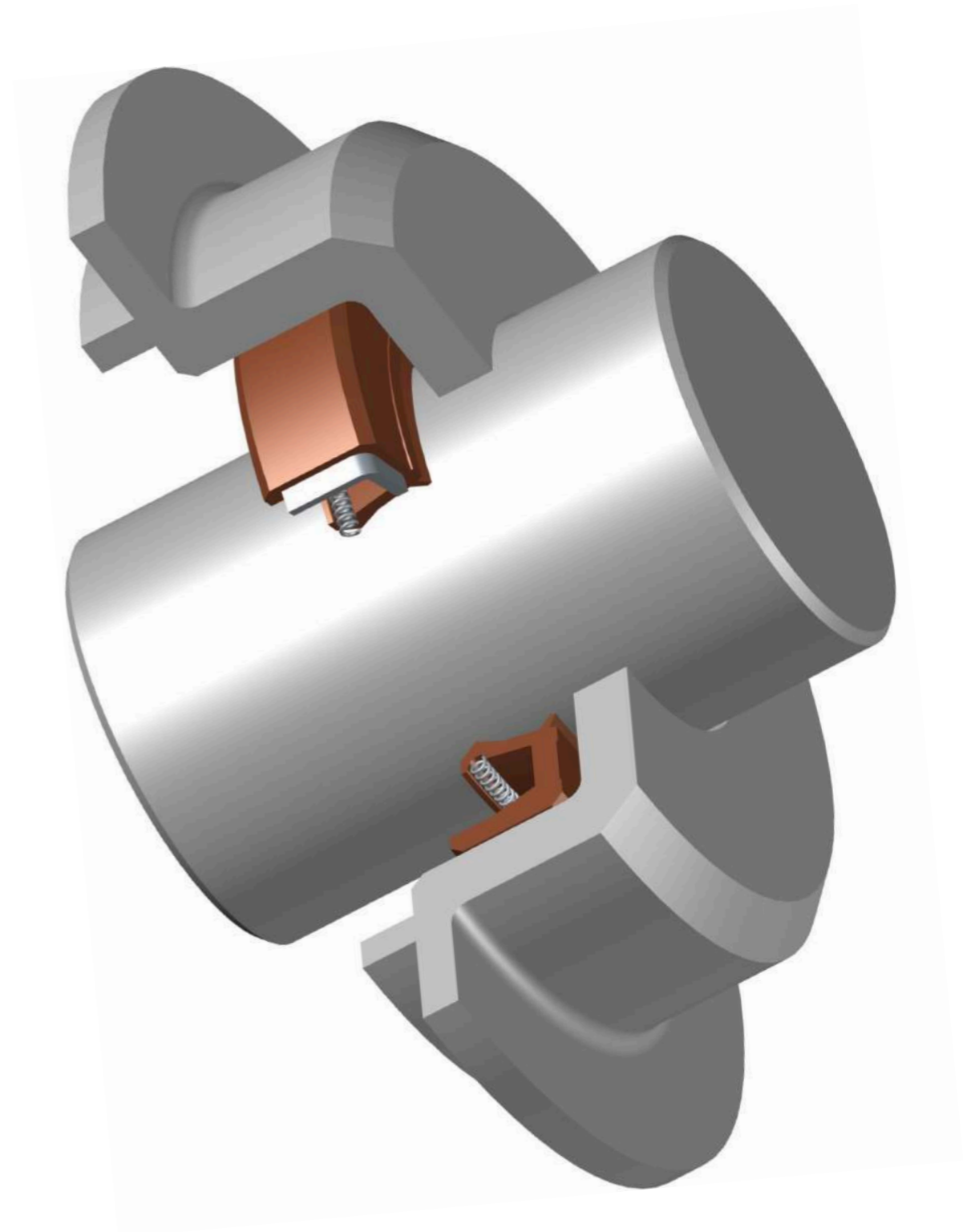
Royal Seals makes numerous custom profiles for the customers understanding the application and design of the cylinders in materials such as FKM, NBR and PU.







Rotary Shaft Seals

One of the most critical components of a shaft or a transmission system is an Oil Seal or another type of Rotary Shaft Seal.


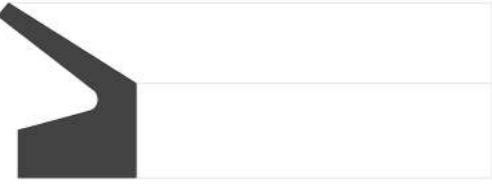
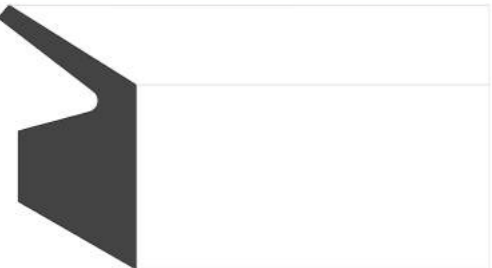
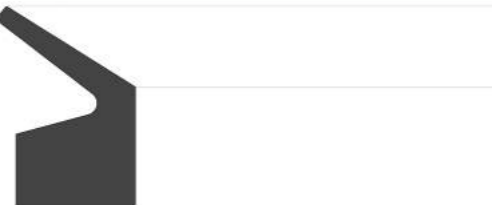
We make Rotary Shaft seals to comply with the demand of our customers. The following are the types we have

1. Radial Oil Seal
2. Walker Seal
3. V-Ring



Profile	Profile Name	ID (mm)	Pressure (bar)	Speed (m/s)	Material
	SMI	Upto 500	Upto 0.5	10	FKM/NBR/VMQ + Metal
	DMI	Upto 500	Upto 0.5	10	FKM/NBR/VMQ + Metal
	SMO	Upto 500	Upto 0.5	10	FKM/NBR/VMQ + Metal
	DMO	Upto 500	Upto 0.5	10	FKM/NBR/VMQ + Metal
	SC	Upto 500	Upto 0.5	10	FKM/NBR/VMQ + Metal
	DC	Upto 500	Upto 0.5	10	FKM/NBR/VMQ + Metal

Rotary Shaft Seals

Profile	Profile Name	ID (mm)	Pressure (bar)	Speed (m/s)	Material
	FSS	Upto 750	Upto 0.5	25	Rubberised Rubber + FKM/NBR
	VL	Upto 785	-	10	NBR
	VS	Upto 180	-	10	NBR
	VA	Upto 785	-	10	NBR

Radial Oil Seals



Sealing the tight spaces between the stationary and rotating components, Oil Seals are very critical for its application. Oil Seals prevent any fluid leakage and possible dust or contaminant to enter shaft system. Based on various service conditions, different materials and profiles are there to choose from.

SI



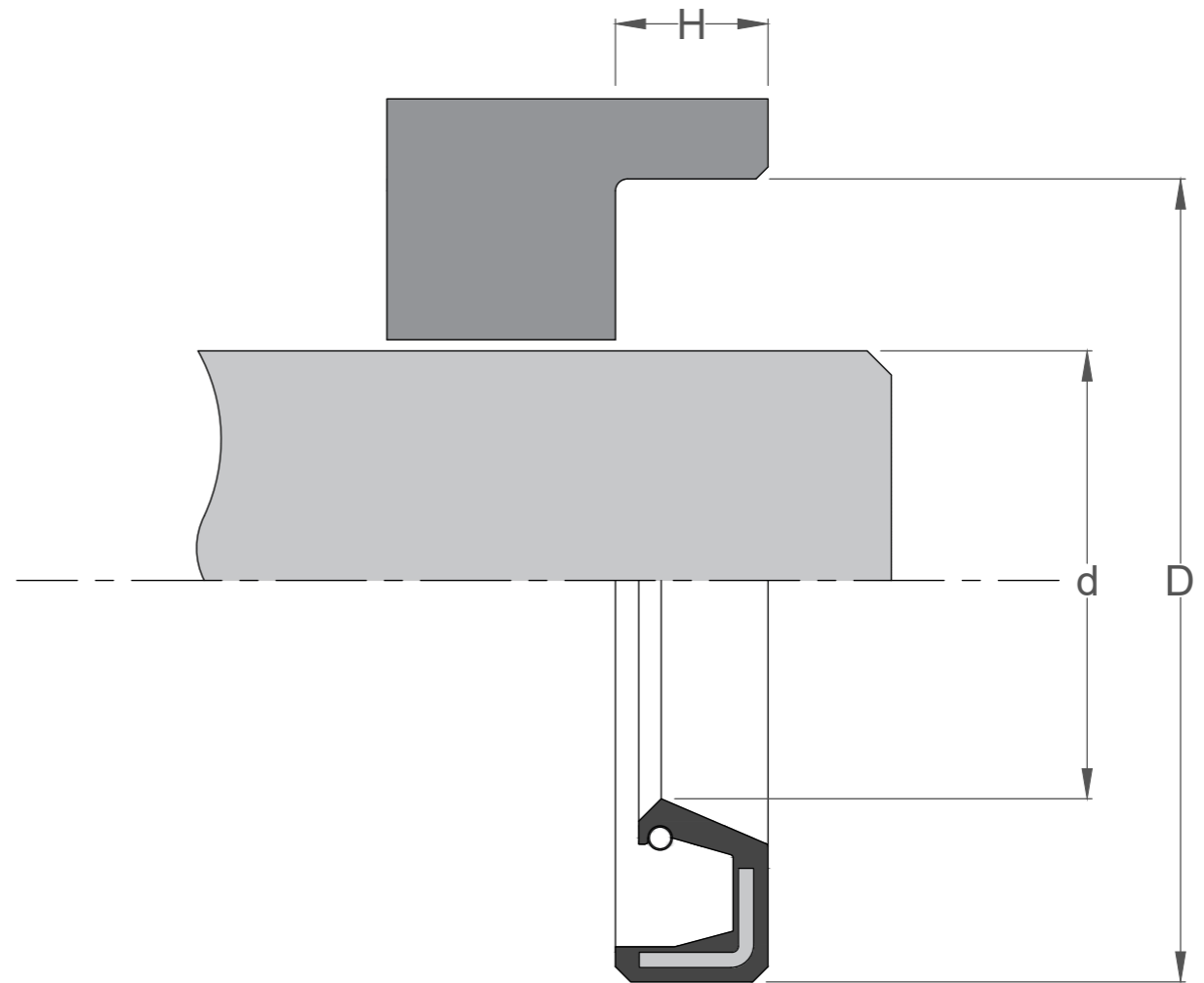
- **Single Lip Profile**
- **Metal Reinforced Inside Rubber**
- **Temp - upto 220° C**

Materials

- **NBR**
- **FKM**
- **VMQ**

Oil Seals

Rod Dia	Groove Dia	Groove Height	Part No.
d	D	H	
6	15	4	SI00601504
8	14	4	SI00801404
8	22	4	SI00802204
10	18	4	SI01001804
12	22	4	SI01202204
14	22	4	SI01402204
14	24	4	SI01402404
16	24	4	SI01602404
17	25	4	SI01702504
18	24	4	SI01802404
20	40	4	SI02004004
26	34	4	SI02603404
30	47	4	SI03004704
5	19	5	SI00501905
6	16	5	SI00601605
8	16	5	SI00801605
8	18	5	SI00801805
10	20	5	SI01002005
12	19	5	SI01201905
12	20	5	SI01202005
12	25	5	SI01202505
13	25	5	SI01302505
14	25	5	SI01402505
15	24	5	SI01502405



Oil Seals

d	D	H	Part No.
15	25	5	SI01502505
16	24	5	SI01602405
17	28	5	SI01702805
20	30	5	SI02003005
22	35	5	SI02203505
25	40	5	SI02504005
30	42	5	SI03004205
6	12	5.5	SI00601206
30	42	5.7	SI03004206
4	12	6	SI00401206
10	22	6	SI01002206
15	26	6	SI01502606
17	26	6	SI01702606
19	27	6	SI01902706
19.3	35	6	SI01903506
20	28	6	SI02002806
20	35	6	SI02003506
25	32	6	SI02503206
25	33	6	SI02503306
32	52	6	SI03205206
47	62	6	SI04706206
50	72	6	SI05007206
70	100	6	SI07010006
100	120	6	SI01001206
21	30	6.5	SI02103007

d	D	H	Part No.
38	54	6.5	SI03805407
5	16	7	SI00501607
5.5	22	7	SI00602207
6	16	7	SI00601607
7	17	7	SI00701707
7	22	7	SI00702207
8	16	7	SI00801607
8	22	7	SI00802207
9	22	7	SI00902207
10	19	7	SI01001907
10	22	7	SI01002207
10	24	7	SI01002407
10	26	7	SI01002607
11	19	7	SI01101907
11	26	7	SI01102607
12	22	7	SI01202207
12	24	7	SI01202407
12	26	7	SI01202607
12	28	7	SI01202807
12	30	7	SI01203007
12	32	7	SI01203207
13	26	7	SI01302607
14	22	7	SI01402207
14	24	7	SI01402407
14	28	7	SI01402807

d	D	H	Part No.
14	30	7	SI01403007
15	24	7	SI01502407
15	28	7	SI01502807
15	30	7	SI01503007
15	32	7	SI01503207
15	35	7	SI01503507
15	37	7	SI01503707
15	40	7	SI01504007
15	42	7	SI01504207
16	24	7	SI01602407
16	26	7	SI01602607
16	28	7	SI01602807
16	30	7	SI01603007
16	32	7	SI01603207
17	28	7	SI01702807
17	30	7	SI01703007
17	32	7	SI01703207
17	35	7	SI01703507
17	37	7	SI01703707
17	40	7	SI01704007
17	47	7	SI01704707
18	30	7	SI01803007
18	35	7	SI01803507
19	32	7	SI01903207
19	35	7	SI01903507

Oil Seals

d	D	H	Part No.
20	30	7	SI02003007
20	32	7	SI02003207
20	35	7	SI02003507
20	37	7	SI02003707
20	40	7	SI02004007
20	42	7	SI02004207
20	47	7	SI02004707
20	52	7	SI02005207
22	32	7	SI02203207
22	35	7	SI02203507
22	37	7	SI02203707
22	40	7	SI02204007
22	52	7	SI02205207
24	35	7	SI02403507
24	37	7	SI02403707
24	40	7	SI02404007
24	47	7	SI02404707
25	35	7	SI02503507
25	37	7	SI02503707
25	38	7	SI02503807
25	40	7	SI02504007
25	42	7	SI02504207
25	45	7	SI02504507
25	47	7	SI02504707
25	52	7	SI02505207

d	D	H	Part No.
26	37	7	SI02603707
26	47	7	SI02604707
27	37	7	SI02703707
27	42	7	SI02704207
28	38	7	SI02803807
28	40	7	SI02804007
28	47	7	SI02804707
28	52	7	SI02805207
28	80	7	SI02808007
30	40	7	SI03004007
30	42	7	SI03004207
30	45	7	SI03004507
30	47	7	SI03004707
30	52	7	SI03005207
30	55	7	SI03005507
30	62	7	SI03006207
31	47	7	SI03104707
32	45	7	SI03204507
32	47	7	SI03204707
32	52	7	SI03205207
35	45	7	SI03504507
35	47	7	SI03504707
35	50	7	SI03505007
35	52	7	SI03505207
35	62	7	SI03506207

d	D	H	Part No.
35	72	7	SI03507207
36	47	7	SI03604707
36	50	7	SI03605007
36	52	7	SI03605207
38	50	7	SI03805007
38	52	7	SI03805207
38	55	7	SI03805507
38	62	7	SI03806207
40	52	7	SI04005207
40	55	7	SI04005507
40	62	7	SI04006207
40	68	7	SI04006807
40	72	7	SI04007207
40	80	7	SI04008007
42	55	7	SI04205507
42	56	7	SI04205607
42	62	7	SI04206207
42	72	7	SI04207207
45	55	7	SI04505507
45	60	7	SI04506007
45	62	7	SI04506207
50	62	7	SI05006207
50	65	7	SI05006507
50	72	7	SI05007207
55	80	7	SI05508007

Oil Seals

d	D	H	Part No.
60	70	7	SI06007007
60	80	7	SI06008007
65	90	7	SI06509007
70	85	7	SI07008507
70	90	7	SI07009007
75	95	7	SI07509507
80	100	7	SI08010007
90	110	7.5	SI09011008
100	120	7.5	SI10012008
120	140	7.5	SI12014008
8	20	8	SI00802008
9.5	25.4	8	SI01002508
13	30	8	SI01303008
20	30	8	SI02003008
20	37	8	SI02003708
25	47	8	SI02504708
27	50	8	SI02705008
30	45	8	SI03004508
30	47	8	SI03004708
30	48	8	SI03004808
30	72	8	SI03007208
32	50	8	SI03205008
32	54	8	SI03205408
34	52	8	SI03405208
35	55	8	SI03505508

d	D	H	Part No.
38	65	8	SI03806508
40	50	8	SI04005008
40	90	8	SI04009008
42	55	8	SI04205508
42	62	8	SI04206208
42	72	8	SI04207208
45	60	8	SI04506008
45	62	8	SI04506208
45	65	8	SI04506508
45	72	8	SI04507208
45	75	8	SI04507508
45	80	8	SI04508008
48	62	8	SI04806208
48	72	8	SI04807208
50	65	8	SI05006508
50	68	8	SI05006808
50	70	8	SI05007008
50	72	8	SI05007208
50	80	8	SI05008008
52	68	8	SI05206808
52	72	8	SI05207208
55	68	8	SI05506808
55	70	8	SI05507008
55	72	8	SI05507208
55	80	8	SI05508008

d	D	H	Part No.
55	85	8	SI05508508
55	90	8	SI05509008
56	72	8	SI05607208
58	72	8	SI05807208
58	80	8	SI05808008
60	72	8	SI06007208
60	75	8	SI06007508
60	80	8	SI06008008
60	85	8	SI06008508
60	90	8	SI06009008
65	80	8	SI06508008
65	85	8	SI06508508
70	85	8	SI07008508
70	110	8	SI07011008
75	90	8	SI07509008
80	95	8	SI08009508
90	110	8	SI09011008
15	32	9	SI01503209
62	80	9	SI06208009
85	100	9	SI08510009
100	115	9	SI10011509
77	95.5	9.5	SI07709610
12	37	10	SI01203710
18	35	10	SI01803510
20	52	10	SI02005210

Oil Seals

d	D	H	Part No.
22.5	53	10	SI02305310
23	40	10	SI02304010
25	40	10	SI02504010
25	43	10	SI02504310
25	47	10	SI02504710
25	52	10	SI02505210
25	62	10	SI02506210
28	47	10	SI02804710
30	47	10	SI03004710
30	48	10	SI03004810
30	55	10	SI03005510
30	62	10	SI03006210
30	72	10	SI03007210
32	47	10	SI03204710
34	62	10	SI03406210
35	52	10	SI03505210
35	55	10	SI03505510
35	56	10	SI03505610
35	60	10	SI03506010
35	62	10	SI03506210
35	68	10	SI03506810
35	72	10	SI03507210
35	80	10	SI03508010
37	62	10	SI03706210
40	55	10	SI04005510

d	D	H	Part No.
40	58	10	SI04005810
40	60	10	SI04006010
40	62	10	SI04006210
40	65	10	SI04006510
40	68	10	SI04006810
40	72	10	SI04007210
40	80	10	SI04008010
40	85	10	SI04008510
42	60	10	SI04206010
42	62	10	SI04206210
42	72	10	SI04207210
44	62	10	SI04406210
45	62	10	SI04506210
45	65	10	SI04506510
45	72	10	SI04507210
45	75	10	SI04507510
45	80	10	SI04508010
45	85	10	SI04508510
48	80	10	SI04808010
50	65	10	SI05006510
50	68	10	SI05006810
50	70	10	SI05007010
50	75	10	SI05007510
50	80	10	SI05008010
50	90	10	SI05009010

d	D	H	Part No.
52	85	10	SI05208510
54	80	10	SI05408010
55	70	10	SI05507010
55	72	10	SI05507210
55	75	10	SI05507510
55	80	10	SI05508010
55	85	10	SI05508510
55	90	10	SI05509010
58	80	10	SI05808010
60	78	10	SI06007810
60	80	10	SI06008010
60	90	10	SI06009010
60	95	10	SI06009510
60	100	10	SI06010010
60	110	10	SI06011010
62	75	10	SI06207510
62	80	10	SI06208010
62	85	10	SI06208510
62	90	10	SI06209010
62	95	10	SI06209510
63	85	10	SI06308510
65	85	10	SI06508510
65	90	10	SI06509010
65	95	10	SI06509510
65	100	10	SI06510010

Oil Seals

d	D	H	Part No.
65	110	10	SI06511010
68	85	10	SI06808510
68	90	10	SI06809010
70	85	10	SI07008510
70	90	10	SI07009010
70	95	10	SI07009510
70	100	10	SI07010010
72	95	10	SI07209510
72	100	10	SI07210010
75	90	10	SI07509010
75	95	10	SI07509510
75	100	10	SI07510010
75	110	10	SI07511010
75	115	10	SI07511510
78	100	10	SI07810010
80	100	10	SI08010010
80	110	10	SI08011010
80	115	10	SI08011510
85	110	10	SI08511010
90	110	10	SI09011010
96	117	10	SI09611710
100	120	10	SI10012010
115	135	10	SI11513510
130	150	10	SI13015010
140	160	10	SI14016010

d	D	H	Part No.
150	170	10	SI15017010
160	185	10	SI16018510
170	190	10	SI17019010
175	200	10	SI17520010
185	210	10	SI18521010
215	235	10	SI21523510
260	280	10	SI26028010
127	146	11.2	SI12714611
178	203	11.2	SI17820311
35	72	12	SI03507212
40	90	12	SI04009012
45	72	12	SI04507212
52	75	12	SI05207512
55	100	12	SI05510012
58.5	100	12	SI05910012
60	110	12	SI06011012
70	110	12	SI07011012
80	110	12	SI08011012
80	120	12	SI08012012
85	105	12	SI08510512
85	110	12	SI08511012
85	120	12	SI08512012
88	110	12	SI08811012
90	110	12	SI09011012
90	115	12	SI09011512

d	D	H	Part No.
90	120	12	SI09012012
95	110	12	SI09511012
95	120	12	SI09512012
95	125	12	SI09512512
95	140	12	SI09514012
100	120	12	SI10012012
100	125	12	SI10012512
100	130	12	SI10013012
105	130	12	SI10513012
105	140	12	SI10514012
110	128	12	SI11012812
110	130	12	SI11013012
110	140	12	SI11014012
115	140	12	SI11514012
118	150	12	SI11815012
120	150	12	SI12015012
120	160	12	SI12016012
125	150	12	SI12515012
125	160	12	SI12516012
130	150	12	SI13015012
130	160	12	SI13016012
130	170	12	SI13017012
135	170	12	SI13517012
140	160	12	SI14016012
140	165	12	SI14016512

Oil Seals

d	D	H	Part No.
140	170	12	SI14017012
140	180	12	SI14018012
150	180	12	SI15018012
160	200	12	SI16020012
170	200	12	SI17020012
190	220	12	SI19022012
275	305	12	SI27530512
330	360	12	SI33036012
191	216	12.7	SI19121613
35	80	13	SI03508013
60	110	13	SI06011013
80	100	13	SI08010013
80	105	13	SI08010513
80	120	13	SI08012013
90	130	13	SI09013013
90	140	13	SI09014013
95	115	13	SI09511513
95	145	13	SI09514513
105	140	13	SI10514013
110	130	13	SI11013013
110	150	13	SI11015013
115	140	13	SI11514013
120	140	13	SI12014013
130	160	13	SI13016013
140	160	13	SI14016013

d	D	H	Part No.
140	170	13	SI14017013
165	190	13	SI16519013
185	210	13	SI18521013
160	185	14	SI16018514
120	145	15	SI12014515
130	160	15	SI13016015
130	180	15	SI13018015
140	170	15	SI14017015
145	175	15	SI14517515
150	170	15	SI15017015
150	180	15	SI15018015
155	180	15	SI15518015
160	180	15	SI16018015
160	190	15	SI16019015
170	200	15	SI17020015
175	205	15	SI17520515
180	200	15	SI18020015
180	210	15	SI18021015
180	215	15	SI18021515
190	220	15	SI19022015
190	230	15	SI19023015
190	240	15	SI19024015
200	230	15	SI20023015
210	240	15	SI21024015
220	250	15	SI22025015

d	D	H	Part No.
220	270	15	SI22027015
230	260	15	SI23026015
240	270	15	SI24027015
240	280	15	SI24028015
250	280	15	SI25028015
260	290	15	SI26029015
280	310	15	SI28031015
370	410	15	SI37041015
385	425	15	SI38542515
420	450	15	SI42045015
180	215	16	SI18021516
184	216	16	SI18421616
190	225	16	SI19022516
195	230	16	SI19523016
210	250	16	SI21025016
222	254	16	SI22225416
250	290	16	SI25029016
260	290	16	SI26029016
265	290	16	SI26529016
285.7	323.8	16	SI28632416
394	420	16	SI39442016
300	340	18	SI30034018
340	380	18	SI34038018
350	390	18	SI35039018
248	286	19	SI24828619

Oil Seals

d	D	H	Part No.
260	300	20	SI26030020
280	320	20	SI28032020
290	330	20	SI29033020
300	340	20	SI30034020
320	360	20	SI32036020
340	380	20	SI34038020
360	400	20	SI36040020
380	420	20	SI38042020
400	440	20	SI40044020
420	460	20	SI42046020
440	480	20	SI44048020
480	520	20	SI48052020
500	540	20	SI50054020
560	610	20	SI56061020
670	710	20	SI67071020
800	840	20	SI80084020

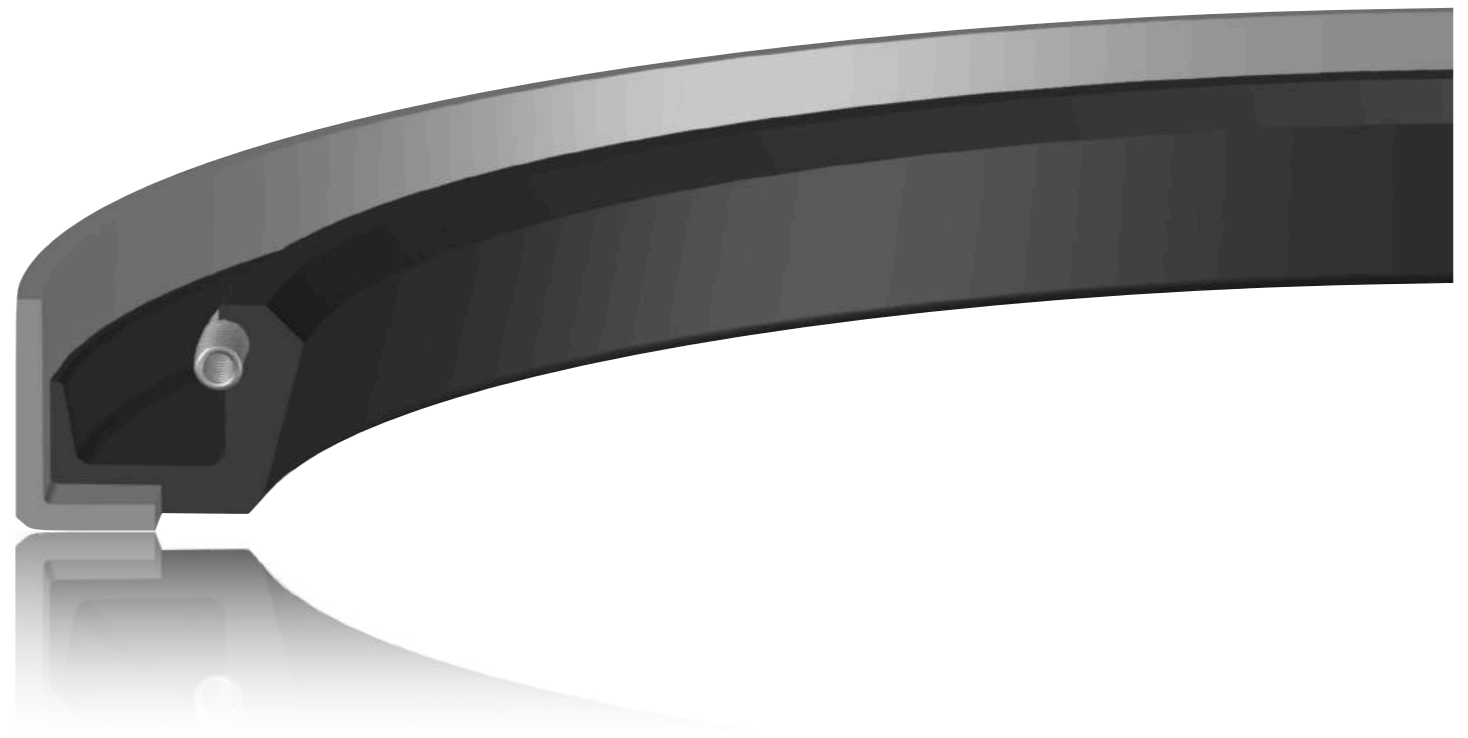
Oil Seals

SO

- Single Lip Profile
- Metal Outside Seal
- Temp - upto 220° C

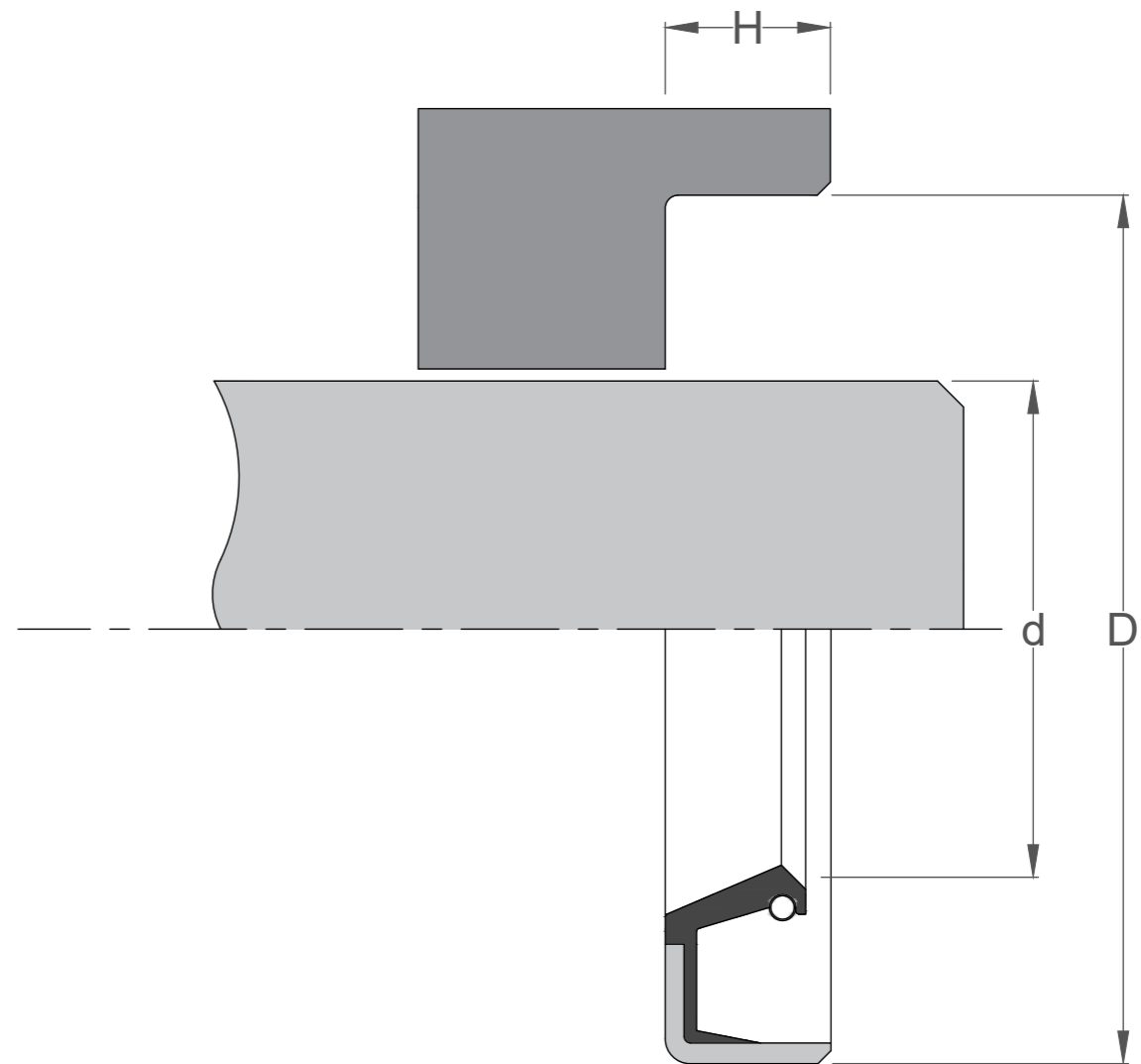
Materials

- NBR
- FKM
- VMQ



Oil Seals

Rod Dia	Groove Dia	Groove Height	Part No.
d	D	H	
8	16	7	SO00801607
10	22	7	SO01002207
11	17	4	SO01101704
12	22	7	SO01202207
12	24	7	SO01202407
12	28	7	SO01202807
20	30	5	SO02003005
20	30	7	SO02003007
20	32	7	SO02003207
20	35	7	SO02003507
20	40	7	SO02004007
20	42	7	SO02004207
20	47	7	SO02004707
24	35	7	SO02403507
25	47	7	SO02504707
30	40	7	SO03004007
30	42	7	SO03004207
30	62	7	SO03006207
35	45	7	SO03504507
35	47	7	SO03504707
35	56	12	SO03505612
35	62	12	SO03506212
38	52	7	SO03805207
38	52	9	SO03805209



Oil Seals

d	D	H	Part No.
40	52	7	SO04005207
42	55	7	SO04205507
45	55	7	SO04505507
45	60	10	SO04506010
45	62	7	SO04506207
45	62	8	SO04506208
49	65	10	SO04906510
49	68	12	SO04906812
50	62	7	SO05006207
50	65	8	SO05006508
50	68	8	SO05006808
50	80	8	SO05008008
55	70	8	SO05507008
60	70	7	SO06007007
60	72	8	SO06007208
60	75	8	SO06007508
65	80	8	SO06508008
68	90	10	SO06809010
70	90	10	SO07009010
70	100	10	SO07010010
75	95	5	SO07509505
75	100	10	SO07510010
76	110	13	SO07611013
80	100	10	SO08010010
80	110	10	SO08011010
80	115	13	SO08011513

d	D	H	Part No.
85	100	9	SO08510009
85	105	10	SO08510510
90	110	8	SO09011008
95	110	10	SO09511010
100	115	9	SO10011509
100	120	12	SO10012012
105	125	12	SO10512512
110	126	9	SO11012609
110	130	8	SO11013008
120	140	13	SO12014013
130	160	13	SO13016013
140	160	13	SO14016013
170	200	15	SO17020015
180	200	12	SO18020012
180	215	16	SO18021516
190	215	15	SO19021515
250	280	15	SO25028015
270	310	16	SO27031016
350	380	16	SO35038016
370	410	15	SO37041015
370	410	15	SO37041015
400	440	20	SO40044020
440	480	20	SO44048020
460	500	20	SO46050020
460	500	20	SO46050020

DI



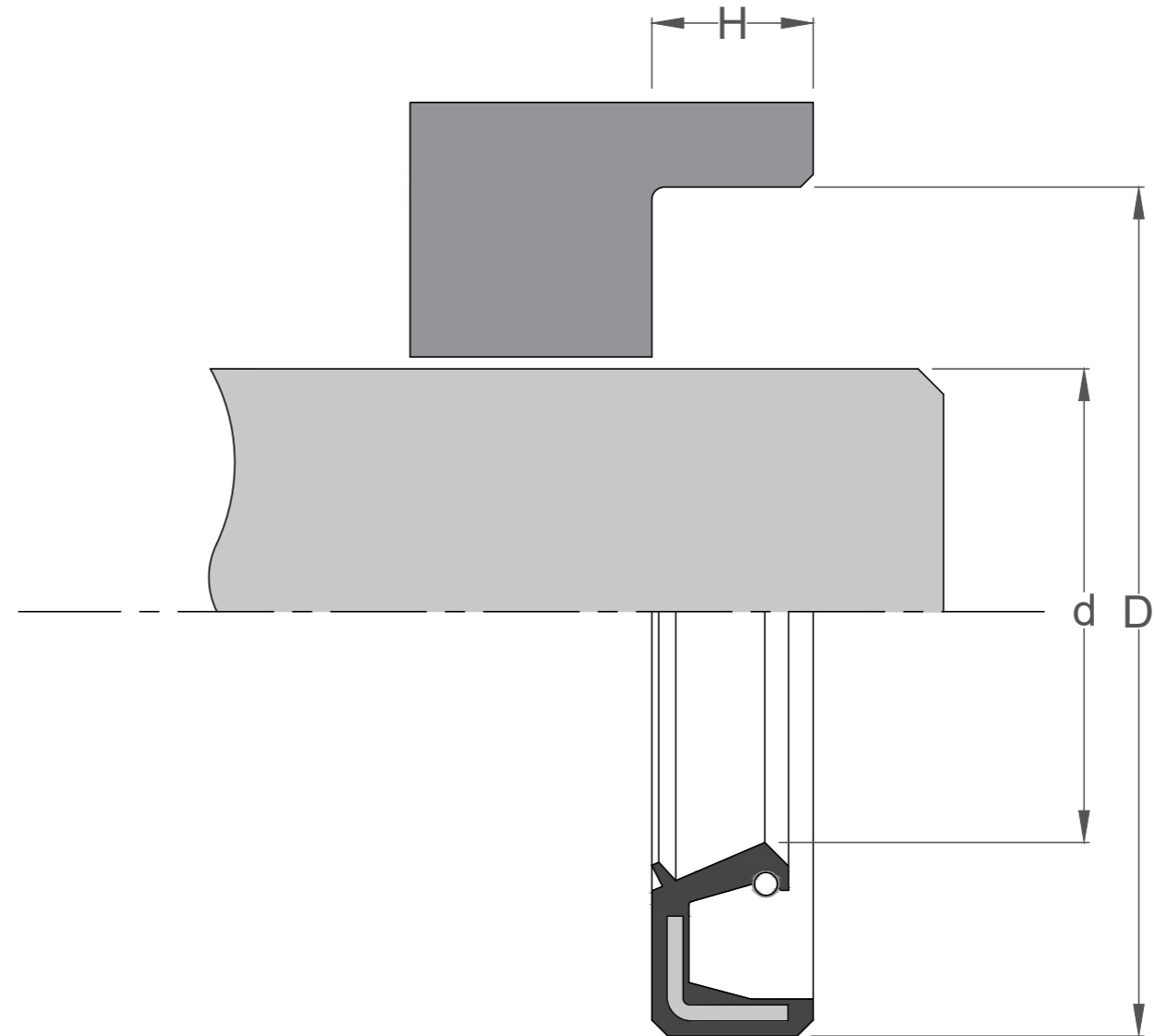
- Double Lip Profile
- Integrated Dirt Lip
- Temp - upto 220° C

Materials

- NBR
- FKM
- VMQ

Oil Seals

Rod Dia	Groove Dia	Groove Height	Part No.
d	D	H	
6	16	5	DI00601605
6	16	7	DI00601607
8	16	5	DI00801605
8	18	5	DI00801805
8	16	7	DI00801607
8	22	7	DI00802207
10	20	5	DI01002005
10	18	6	DI01001806
10	19	7	DI01001907
10	22	7	DI01002207
10	26	7	DI01002607
11	17	4	DI01101704
12	19	5	DI01201905
12	20	5	DI01202005
12	22	7	DI01202207
12	25	7	DI01202507
12	28	7	DI01202807
12	32	7	DI01203207
12	37	10	DI01203710
14	21	4	DI01402104
14	22	4	DI01402204
14	23	5	DI01402305
14	24	7	DI01402407
14	35	7	DI01403507



Oil Seals

d	D	H	Part No.
15	24	5	DI01502405
15	25	5	DI01502505
15	24	7	DI01502407
15	26	7	DI01502607
15	28	7	DI01502807
15	30	7	DI01503007
15	32	7	DI01503207
15	35	7	DI01503507
15	42	7	DI01504207
15	30	10	DI01503010
16	29	4	DI01602904
16	22	7	DI01602207
16	28	7	DI01602807
16	30	7	DI01603007
16	32	7	DI01603207
17	28	6	DI01702806
17	28	7	DI01702807
17	30	7	DI01703007
17	35	7	DI01703507
17	40	7	DI01704007
17	42	7	DI01704207
18	30	6	DI01803006
18	47	6	DI01804706
18	28	7	DI01802807
18	30	7	DI01803007

d	D	H	Part No.
18	32	7	DI01803207
18	47	10	DI01804710
20	30	5	DI02003005
20	30	7	DI02003007
20	32	7	DI02003207
20	34	7	DI02003407
20	35	7	DI02003507
20	36	7	DI02003607
20	40	7	DI02004007
20	42	7	DI02004207
20	47	7	DI02004707
20	52	7	DI02005207
20	55	7	DI02005507
20	62	7	DI02006207
20	52	8	DI02005208
21.4	29.5	4	DI02102904
22	28	4	DI02202804
22	62	6	DI02206206
22	32	7	DI02203207
22	35	7	DI02203507
22	37	7	DI02203707
22	40	7	DI02204007
22	52	7	DI02205207
22	52	10	DI02205210
22	62	10	DI02206210

d	D	H	Part No.
23	32	5	DI02303205
23	34	5	DI02303405
24	32	7	DI02403207
24	35	7	DI02403507
24	40	7	DI02404007
24	47	7	DI02404707
25	40	5	DI02504005
25	32	6	DI02503206
25	35	6	DI02503506
25	35	7	DI02503507
25	40	7	DI02504007
25	42	7	DI02504207
25	44	7	DI02504407
25	47	7	DI02504707
25	52	7	DI02505207
25	62	7	DI02506207
25	38	8	DI02503808
25	40	8	DI02504008
25	47	10	DI02504710
25	52	10	DI02505210
26	37	7	DI02603707
26	52	8	DI02605208
27	37	7	DI02703707
28	38	7	DI02803807
28	40	7	DI02804007

Oil Seals

d	D	H	Part No.
28	45	7	DI02804507
28	47	7	DI02804707
28	47	10	DI02804710
29	52	7	DI02905207
30	42	6	DI03004206
30	40	7	DI03004007
30	42	7	DI03004207
30	47	7	DI03004707
30	50	7	DI03005007
30	52	7	DI03005207
30	55	7	DI03005507
30	62	7	DI03006207
30	42	8	DI03004208
30	43	8	DI03004308
30	45	8	DI03004508
30	47	8	DI03004708
30	50	8	DI03005008
30	50	10	DI03005010
30	52	10	DI03005210
30	55	10	DI03005510
30	62	10	DI03006210
30	72	10	DI03007210
30	80	10	DI03008010
32	42	5	DI03204205
32	42	7	DI03204207

d	D	H	Part No.
32	45	7	DI03204507
32	47	7	DI03204707
32	52	7	DI03205207
32	80	7	DI03208007
32	50	10	DI03205010
34	65	8	DI03406508
35	42	4	DI03504204
35	52	6	DI03505206
35	45	7	DI03504507
35	47	7	DI03504707
35	50	7	DI03505007
35	52	7	DI03505207
35	62	7	DI03506207
35	72	7	DI03507207
35	47	8	DI03504708
35	50	8	DI03505008
35	55	8	DI03505508
35	62	8	DI03506208
35	72	8	DI03507208
35	50	10	DI03505010
35	52	10	DI03505210
35	56	10	DI03505610
35	58	10	DI03505810
35	62	10	DI03506210
35	65	10	DI03506510

d	D	H	Part No.
35	72	10	DI03507210
35	62	12	DI03506212
35	65	12	DI03506512
35	72	12	DI03507212
35	80	12	DI03508012
36	52	6.3	DI03605206
36	54	7	DI03605407
37	62	7	DI03706207
37.5	75	8	DI03807508
38	52	7	DI03805207
38	62	7	DI03806207
38	55	8	DI03805508
38	80	8	DI03808008
38	69	9.5	DI03806910
38	62	10	DI03806210
38	72	10	DI03807210
40	52	5	DI04005205
40	55	6	DI04005506
40	62	6	DI04006206
40	52	7	DI04005207
40	55	7	DI04005507
40	62	7	DI04006207
40	68	7	DI04006807
40	72	7	DI04007207
40	80	7	DI04008007

Oil Seals

d	D	H	Part No.
40	55	8	DI04005508
40	56	8	DI04005608
40	65	8	DI04006508
40	68	8	DI04006808
40	60	10	DI04006010
40	62	10	DI04006210
40	68	10	DI04006810
40	72	10	DI04007210
40	80	10	DI04008010
40	62	12	DI04006212
40	90	12	DI04009012
40	90	13.5	DI04009014
42	62	7	DI04206207
42	72	8	DI04207208
42	62	10	DI04206210
42	72	10	DI04207210
44	65	10	DI04406510
45	52	4	DI04505204
45	55	7	DI04505507
45	60	7	DI04506007
45	62	7	DI04506207
45	65	7	DI04506507
45	75	7	DI04507507
45	60	8	DI04506008
45	62	8	DI04506208

d	D	H	Part No.
45	65	8	DI04506508
45	72	8	DI04507208
45	75	8	DI04507508
45	85	8	DI04508508
45	100	8	DI04510008
45	65	10	DI04506510
45	68	10	DI04506810
45	70	10	DI04507010
45	75	10	DI04507510
45	80	10	DI04508010
45	85	10	DI04508510
45	90	10	DI04509010
47	90	10	DI04709010
48	72	7	DI04807207
48	62	8	DI04806208
48	72	8	DI04807208
48	65	10	DI04806510
48	68	10	DI04806810
48	70	10	DI04807010
48	72	10	DI04807210
48	72	12	DI04807212
48	90	13	DI04809013
50	62	7	DI05006207
50	68	7	DI05006807
50	72	7	DI05007207

d	D	H	Part No.
50	65	8	DI05006508
50	68	8	DI05006808
50	72	8	DI05007208
50	80	8	DI05008008
50	90	8	DI05009008
50	68	9	DI05006809
50	70	10	DI05007010
50	72	10	DI05007210
50	75	10	DI05007510
50	80	10	DI05008010
50	90	10	DI05009010
50	100	10	DI05010010
50	110	10	DI05011010
52	62	8	DI05206208
52	68	8	DI05206808
52	72	8	DI05207208
52	85	10	DI05208510
52	100	10	DI05210010
55	90	5	DI05509005
55	72	7	DI05507207
55	68	8	DI05506808
55	70	8	DI05507008
55	72	8	DI05507208
55	75	8	DI05507508
55	80	8	DI05508008

Oil Seals

d	D	H	Part No.
55	90	8	DI05509008
55	100	8	DI05510008
55	72	10	DI05507210
55	80	10	DI05508010
55	85	10	DI05508510
55	90	10	DI05509010
55	100	10	DI05510010
55	75	12	DI05507512
57	80	12	DI05708012
58	80	10	DI05808010
60	75	6	DI06007506
60	80	6	DI06008006
60	72	8	DI06007208
60	75	8	DI06007508
60	80	8	DI06008008
60	85	8	DI06008508
60	90	8	DI06009008
60	90	8	DI06009008
60	95	8	DI06009508
60	110	8	DI06011008
60	82	9	DI06008209
60	80	10	DI06008010
60	85	10	DI06008510
60	90	10	DI06009010
60	95	10	DI06009510

d	D	H	Part No.
60	100	10	DI06010010
60	110	10	DI06011010
60	110	13	DI06011013
62	110	10	DI06211010
62	120	12	DI06212012
64	85	10	DI06408510
65	80	8	DI06508008
65	85	10	DI06508510
65	90	10	DI06509010
65	100	10	DI06510010
65	110	10	DI06511010
65	85	12	DI06508512
65	85	13	DI06508513
65	120	13	DI06512013
68	90	10	DI06809010
68	92	10	DI06809210
68	110	13	DI06811013
70	90	7	DI07009007
70	85	8	DI07008508
70	110	8	DI07011008
70	90	10	DI07009010
70	100	10	DI07010010
70	125	12	DI07012512
70	160	12	DI07016012
70	110	13	DI07011013

d	D	H	Part No.
72	86	7	DI07208607
72	95	10	DI07209510
72	100	10	DI07210010
72	95	12	DI07209512
72	140	12	DI07214012
72	110	13	DI07211013
75	90	8	DI07509008
75	95	9	DI07509509
75	90	10	DI07509010
75	95	10	DI07509510
75	100	10	DI07510010
75	110	10	DI07511010
75	115	10	DI07511510
75	120	12	DI07512012
78	100	10	DI07810010
79	120	13	DI07912013
80	100	7	DI08010007
80	95	8	DI08009508
80	100	10	DI08010010
80	110	10	DI08011010
80	115	10	DI08011510
80	100	13	DI08010013
80	105	13	DI08010513
80	120	13	DI08012013
80	140	13	DI08014013

Oil Seals

d	D	H	Part No.
80	140	15	DI08014015
85	130	10	DI08513010
85	105	12	DI08510512
85	110	12	DI08511012
85	120	12	DI08512012
85	130	12	DI08513012
85	132	12	DI08513212
85	140	12	DI08514012
85	150	12	DI08515012
85	110	13	DI08511013
90	110	7.5	DI09011007
90	110	8	DI09011008
90	110	12	DI09011012
90	120	12	DI09012012
90	140	12	DI09014012
90	120	13	DI09012013
90	125	13	DI09012513
95	110	12	DI09511012
95	115	12	DI09511512
95	120	12	DI09512012
95	125	12	DI09512512
95	140	12	DI09514012
95	120	13	DI09512013
95	130	13	DI09513013
97	112	8	DI09711208

d	D	H	Part No.
100	120	10	DI10012010
100	120	12	DI10012012
100	125	12	DI10012512
100	130	12	DI10013012
100	140	12	DI10014012
100	150	12	DI10015012
100	180	12	DI10018012
100	125	13	DI10012513
100	130	13	DI10013013
100	160	14	DI10016014
105	120	7	DI10512007
105	130	12	DI10513012
105	140	12	DI10514012
105	125	13	DI10512513
110	130	12	DI11013012
110	140	12	DI11014012
110	165	12	DI11016512
110	140	13	DI11014013
110	150	13	DI11015013
110	170	14	DI11017014
110	215	15	DI11021515
115	130	12	DI11513012
115	140	12	DI11514012
115	150	12	DI11515012
115	160	12	DI11516012

d	D	H	Part No.
117	200	15	DI11720015
118	150	12	DI11815012
120	140	7.5	DI12014007
120	142	12	DI12014212
120	150	12	DI12015012
120	160	12	DI12016012
120	140	13	DI12014013
120	150	15	DI12015015
120	160	15	DI12016015
120	180	15	DI12018015
125	150	12	DI12515012
125	155	14	DI12515514
127	158.75	17.46	DI12715918
130	160	7.5	DI13016007
130	150	10	DI13015010
130	150	12	DI13015012
130	160	12	DI13016012
130	170	12	DI13017012
130	160	15	DI13016015
132	152	6	DI13215206
135	170	10	DI13517010
135	170	12	DI13517012
135	160	15	DI13516015
140	160	10	DI14016010
140	160	12	DI14016012

Oil Seals

d	D	H	Part No.
140	170	12	DI14017012
140	180	12	DI14018012
140	160	13	DI14016013
140	170	13	DI14017013
140	170	15	DI14017015
140	210	15	DI14021015
144	160	12	DI14416012
145	175	15	DI14517515
150	170	10	DI15017010
150	170	12	DI15017012
150	180	15	DI15018015
155	174	12	DI15517412
155	190	13	DI15519013
155	180	15	DI15518015
160	240	14	DI16024014
160	185	15	DI16018515
160	190	15	DI16019015
160	200	15	DI16020015
160	210	15	DI16021015
165	190	8	DI16519008
165	190	13	DI16519013
166	179	8	DI16617908
170	195	7.5	DI17019507
170	185	9.5	DI17018510
170	200	15	DI17020015

d	D	H	Part No.
174	190	5	DI17419005
175	205	15	DI17520515
178	205	15	DI17820515
180	200	13	DI18020013
180	210	15	DI18021015
180	215	15	DI18021515
180	215	16	DI18021516
180	220	16	DI18022016
185	210	13	DI18521013
190	220	12	DI19022012
190	215	15	DI19021515
190	220	15	DI19022015
195	215	15	DI19521515
200	225	8.5	DI20022509
200	230	15	DI20023015
210	240	15	DI21024015
220	250	15	DI22025015
230	260	15	DI23026015
240	270	15	DI24027015
240	320	20	DI24032020
250	280	11	DI25028011
250	280	15	DI25028015
260	280	16	DI26028016
260	290	16	DI26029016
260	300	20	DI26030020

d	D	H	Part No.
265	290	15	DI26529015
280	320	20	DI28032020
300	340	16	DI30034016
300	340	20	DI30034020
320	360	20	DI32036020
350	380	16	DI35038016
360	400	20	DI36040020
380	420	20	DI38042020
394	420	16	DI39442016
420	450	12	DI42045012
420	460	20	DI42046020
440	480	20	DI44048020

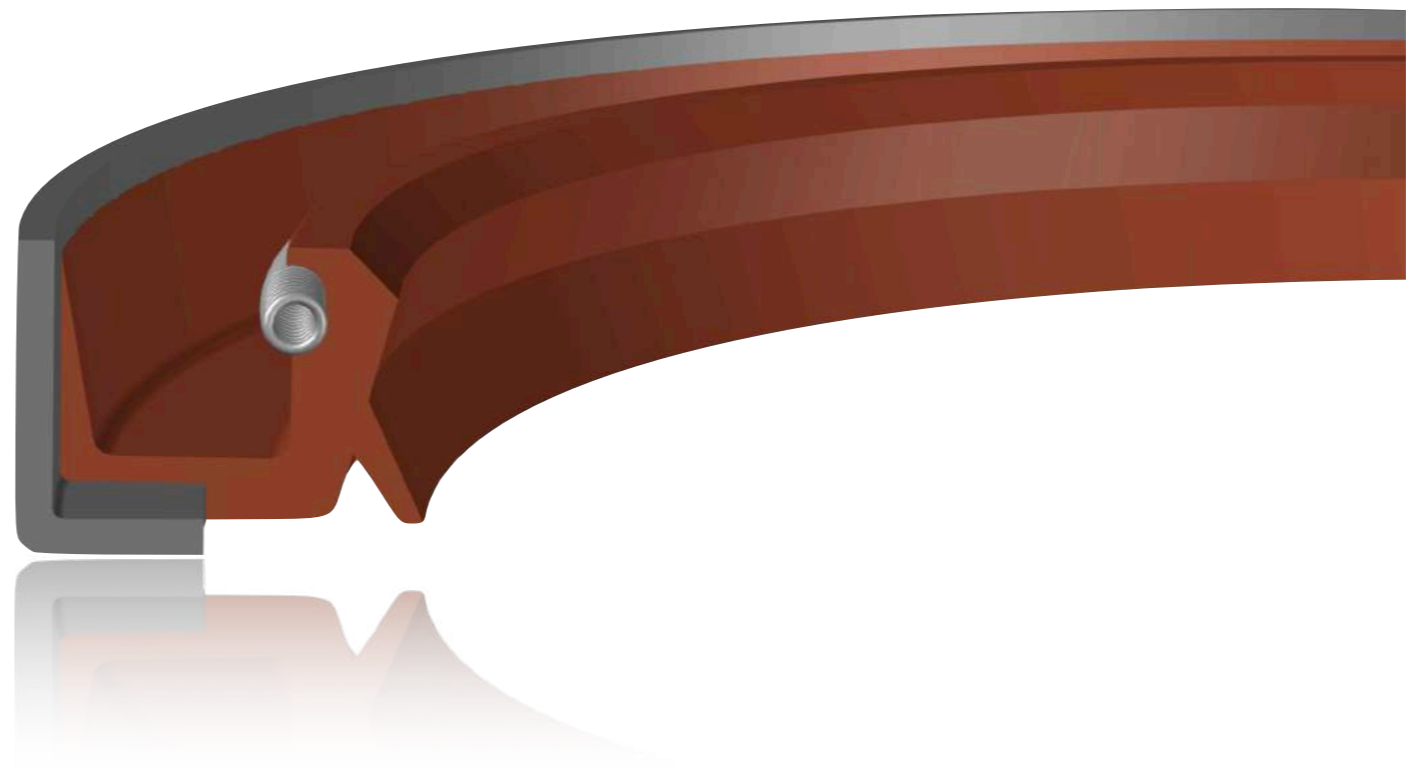
Oil Seals

- Double Lip
- Integrated Dirt Lip
- Metal Outside Seals
- Temp - upto 220° C

Materials

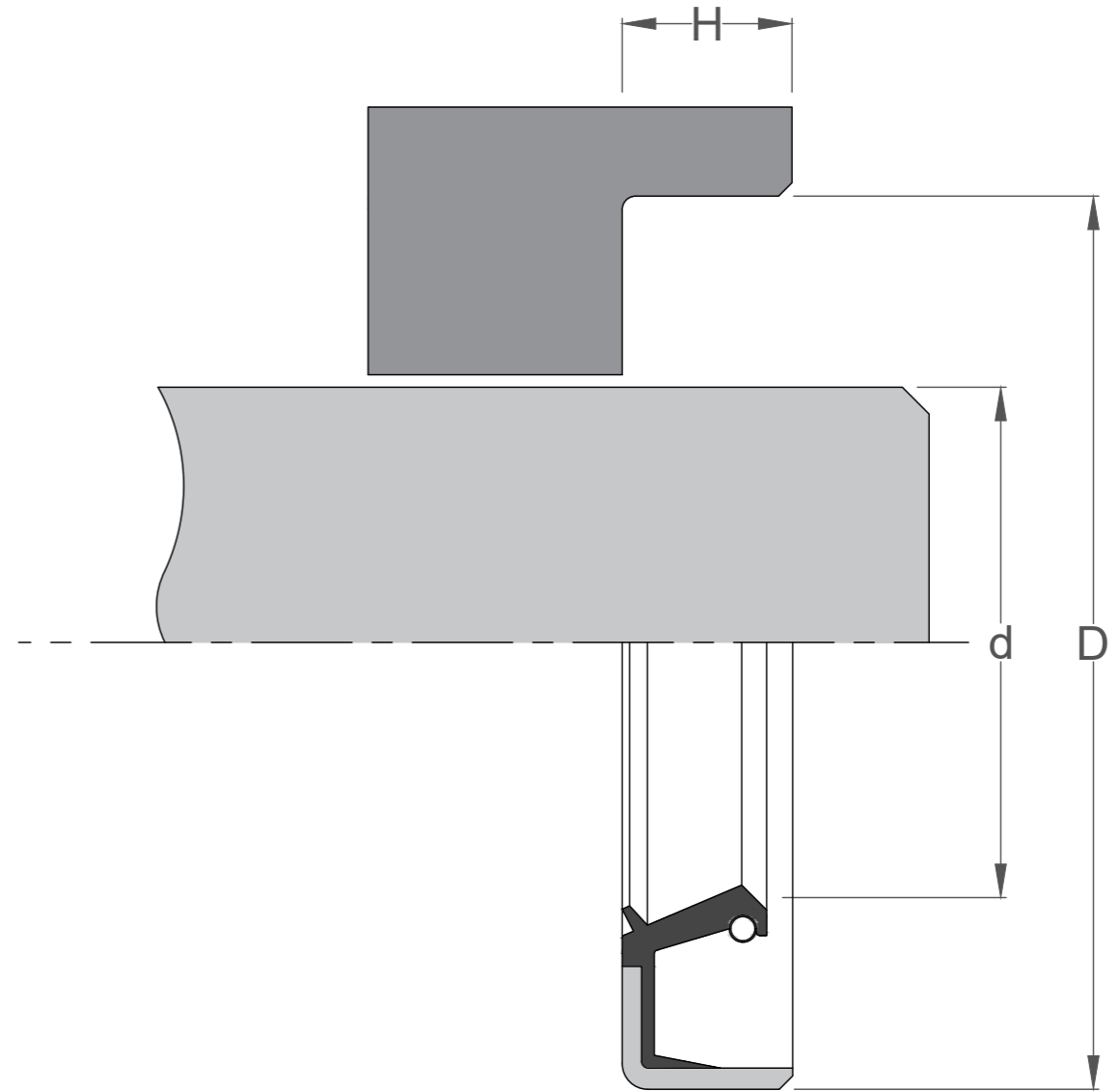
- NBR
- FKM
- VMQ

DO



Oil Seals

Rod Dia	Groove Dia	Groove Height	Part No.
d	D	H	
15	21	4	DO01502104
25	52	7	DO02505207
35	62	12	DO03506212
38	50	7	DO03805007
40	54	7	DO04005407
40	55	6.5	DO04005506
40	55	7	DO04005507
40	90	10	DO04009010
41.27	57.15	7.93	DO04105708
42	55	7	DO04205507
42	62	7	DO04206207
45	72	8	DO04507208
48	68	10	DO04806810
50	65	8	DO05006508
50	90	10	DO05009010
55	90	10	DO05509010
59	72	12	DO05907212
65	85	12	DO06508512
74	90	10	DO07409010
79	120	13	DO07912013
80	100	13	DO08010013
100	120	12.5	DO10012013
120	140	13	DO12014013



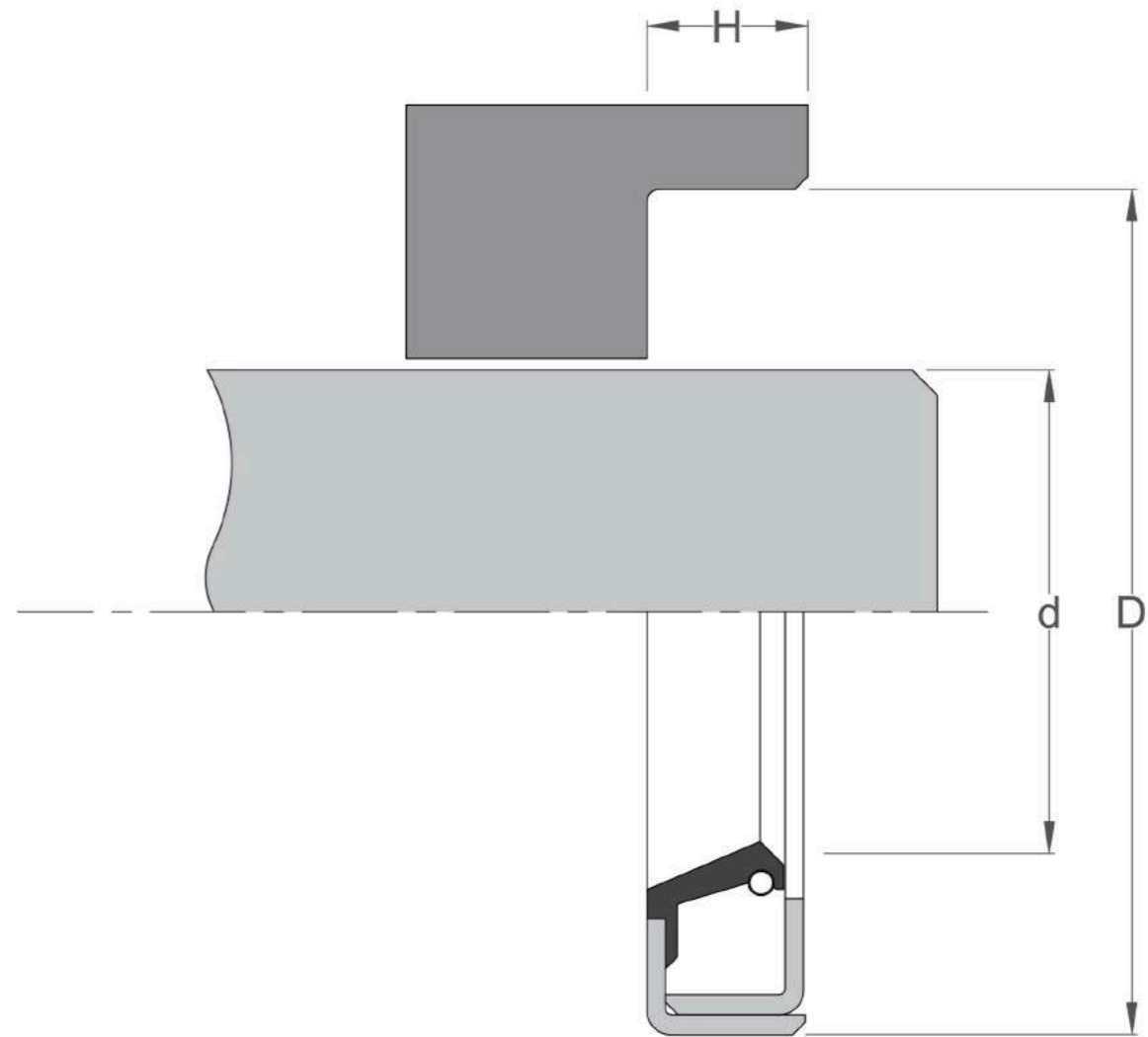
Oil Seals

- Metal Cased Design
- Pressure - Upto 0.5 bar
- Speed - Upto 10 m/s
- Low Radial Force in Lip
- Temp - upto 220° C

Materials

- NBR
- FKM
- VMQ

SC



Oil Seals

d	D	H	Part No.
30	47	9	SC030047
30	47	10	SC030047
30	50	10	SC030050
30	62	10	SC030062
35	56	10	SC035056
40	60	10	SC040060
45	60	10	SC045060
45	65	10	SC045065
45	72	10	SC045072
45	72	12	SC045072
50	72	12	SC050072
50	90	10	SC050090
50.8	73.1	12.7	SC051073
60	80	10	SC060080
65	90	10	SC065090
65.1	92.2	12.7	SC065092
66.7	88.5	12.7	SC067088
66.7	92.2	12.7	SC067092
69.85	90.12	12.7	SC070090
70	105	13	SC070105
73.02	95.4	12.7	SC073095
75	100	10	SC075100
75	100	12	SC075100
75	105	13	SC075105

d	D	H	Part No.
76.2	95.4	12.7	SC076095
76.2	98.6	11.9	SC076099
76.2	101.8	11.9	SC076102
80	100	10	SC080100
80	100	12	SC080100
80	110	12	SC080110
80	120	13	SC080120
85	130	13	SC085130
85.72	108.05	12.7	SC086108
90	130	13	SC090130
95	120	12	SC095120
98.42	120.81	12.7	SC098121
98.42	127.1	11.91	SC098127
100	120	12	SC100120
100	120	13	SC100120
101.6	127.1	12.7	SC102127
114.3	139.85	12.7	SC114140
125	150	15	SC125150
127	158.9	12.7	SC127159
130	160	15	SC130160
130	180	15	SC130180
140	160	13	SC140160
140	190	15	SC140190
145	165	13	SC145165

Oil Seals

d	D	H	Part No.
145	170	13	SC145170
145	180	15	SC145180
148	170	15	SC148170
150	180	15	SC150180
160	180	15	SC160180
160	190	13	SC160190
165.1	193.88	15.75	SC165194
174.6	200.23	15.9	SC175200
180	210	15	SC180210
180	220	16	SC180220
190	220	15	SC190220
210	240	15	SC210240
220	250	15	SC220250
230	260	15	SC230260
240	270	15	SC240270
250	280	15	SC250280
260	290	16	SC260290
270	310	16	SC270310
280	310	16	SC280310
280	320	20	SC280320
290	330	18	SC290330
300	332	16	SC300332
300	340	20	SC300340
310	350	18	SC310350
320	360	18	SC320360

d	D	H	Part No.
325	365	16	SC325365
330	370	18	SC330370
340	372	16	SC340372
340	380	20	SC340380
360	400	18	SC360400
360	400	20	SC360400
374.65	419	22.2	SC375419
380	420	20	SC380420
390	430	18	SC390430
400	440	20	SC400440
440	470	20	SC440470
460	500	20	SC460500
467	510	20	SC467510
490	530	20	SC490530
500	540	20	SC500540

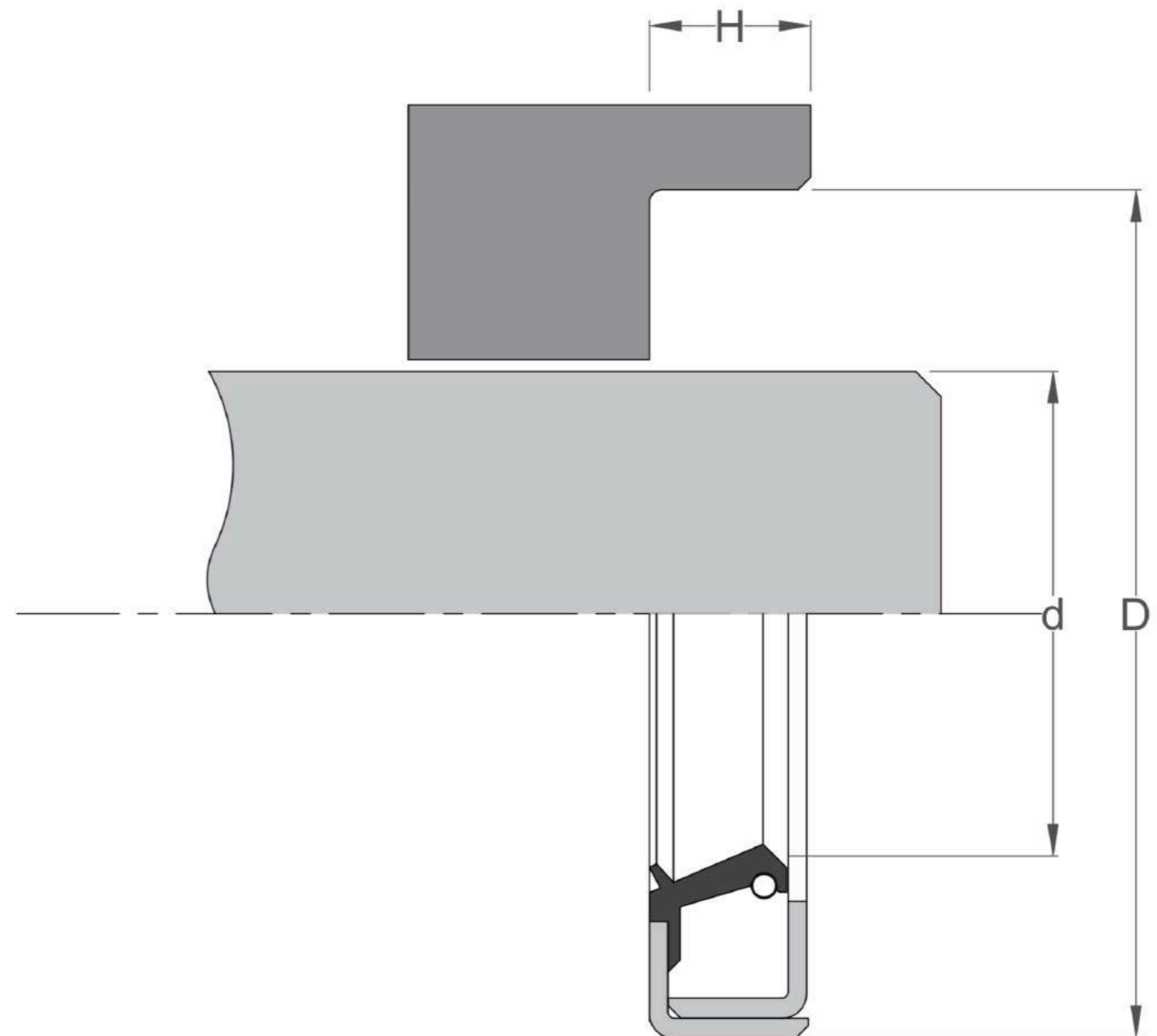
Oil Seals

- Metal Cased Design
- Dirt Lip
- Pressure - Upto 0.5 bar
- Speed - Upto 10 m/s
- Low Radial Force in Lip
- Temp - upto 220° C

Materials

- NBR
- FKM
- VMQ

DC



Oil Seals

d	D	H	Part No.
35	52	9	DC035052A
40	55	9	DC040055A
41	53	7	DC041053A
50	65	10	DC050065A
50	80	10	DC050080A
60	80	8	DC060080A
90	130	13	DC090130A
100	130	13	DC100130A
105	140	13	DC105140A
110	140	13	DC110140A
115	140	11	DC115140A
120	140	13	DC120140A
125	150	12	DC125150A
130	155	10	DC130155A
130	170	15	DC130170A
132	160	13	DC132160A
140	170	15	DC140170A
148	170	14.5	DC148170A
148	170	15	DC148170B
150	180	15	DC150180A
170	200	15	DC170200A
200	225	15	DC200225A
240	270	15	DC240270A

Rotary Shaft Seals

FSS



FSS type or Fabric Shaft Seals are Rotary Shaft Seals with similar design to that of Oil Seals but replacing the metal insert with Cotton Fabric Reinforced Rubber. Fabric Shaft Seals have its application in large diameter shafts such as wind turbines, due to the convenient design and installation process.

Fabric Shaft Seals

- Double/Single Lip
- With Garter Spring
- Easy Installation
- Temp - upto 220° C

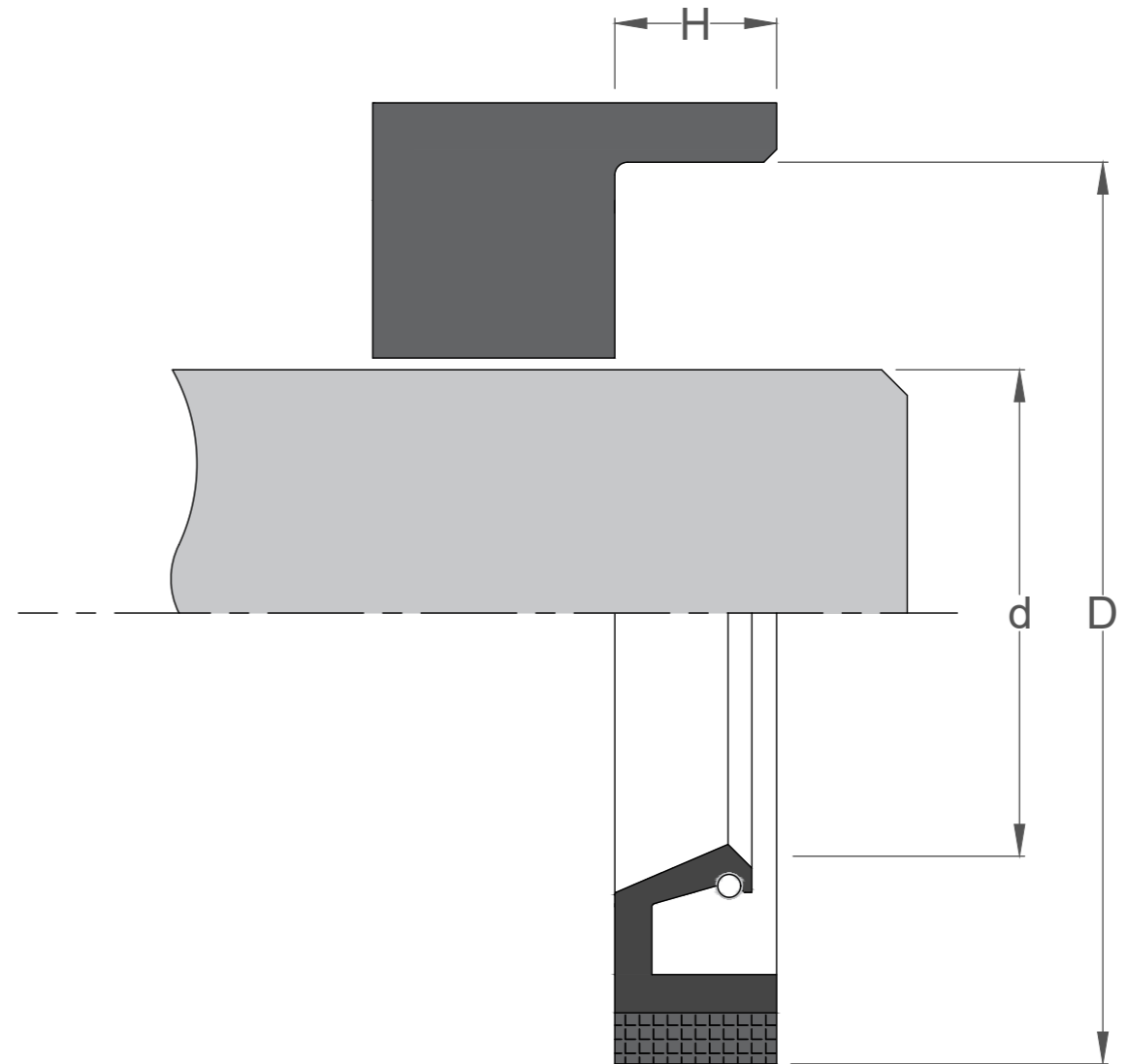
Materials

- NBR
- FKM



Fabric Shaft Seals

Rod Dia	Groove Dia	Groove Height	Part No.
d	D	H	
100	125	12.5	FSS100125
115	140	15	FSS115140
120	150	13	FSS120150
125	160	12	FSS125160
130	170	16	FSS130170
133	165	12.5	FSS133165
145	175	15	FSS145175
150	180	13	FSS150180
170	200	15	FSS170200
175	215	16	FSS175215
180	218.1	15.9	FSS180218
190	220	16	FSS190220
200	230	14	FSS200230
200	240	16	FSS200240
220	260	16	FSS220260
220	270	16	FSS220270
230	260	15.7	FSS230260
240	270	15	FSS240270
240	280	16	FSS240280
250	280	16	FSS250280
250	290	16	FSS250290
260	290	16	FSS260290
260	300	14	FSS260300
260	304	20	FSS260304



Fabric Shaft Seals

d	D	H	Part No.
270	310	18	FSS270310
270	310	20	FSS270311
280	320	16	FSS280320
280	324	20	FSS280324
290	334	20	FSS290334
300	340	18	FSS300340
310	340	14.5	FSS310340
310	350	20	FSS310350
315	355	16	FSS315355
320	360	18	FSS320360
320	364	20	FSS320364
330	370	20	FSS330370
350	394	20	FSS350394
370	410	18	FSS370410
380	420	18	FSS380420
380	420	20	FSS380421
390	434	20	FSS390434
400	440	18	FSS400440
400	444	20	FSS400444
405	445	20	FSS405445
430	474	20	FSS430474
440	490	22	FSS440490
445	495	22	FSS445495
450	500	22	FSS450500
460	504	20	FSS460504

d	D	H	Part No.
470	520	25	FSS470520
480	530	22	FSS480530
480	530	22	FSS480531
490	534	20	FSS490534
500	544	22	FSS500544
530	580	22	FSS530580
540	590	22	FSS540590
540	590	22	FSS540591
560	610	22	FSS560610
570	620	22	FSS570620
596	660	32	FSS596660
600	650	22	FSS600650
625	670	20	FSS625670
630	680	22	FSS630680
640	690	22	FSS640690
650	700	22	FSS650700
650	714	25	FSS650714
660	704	20	FSS660704
680	730	20	FSS680730
696	760	32	FSS696760
700	750	25	FSS700750
710	760	24.5	FSS710760
710	760	25.5	FSS710761
730	794	25	FSS730794
735	799	25	FSS735799

d	D	H	Part No.
750	810	25	FSS750810
750	814	25	FSS750814
762	810	20	FSS762810
766	830	32	FSS766830
775	839	25	FSS775839
790	854	25	FSS790854
820	870	22	FSS820870

V-Ring Seals

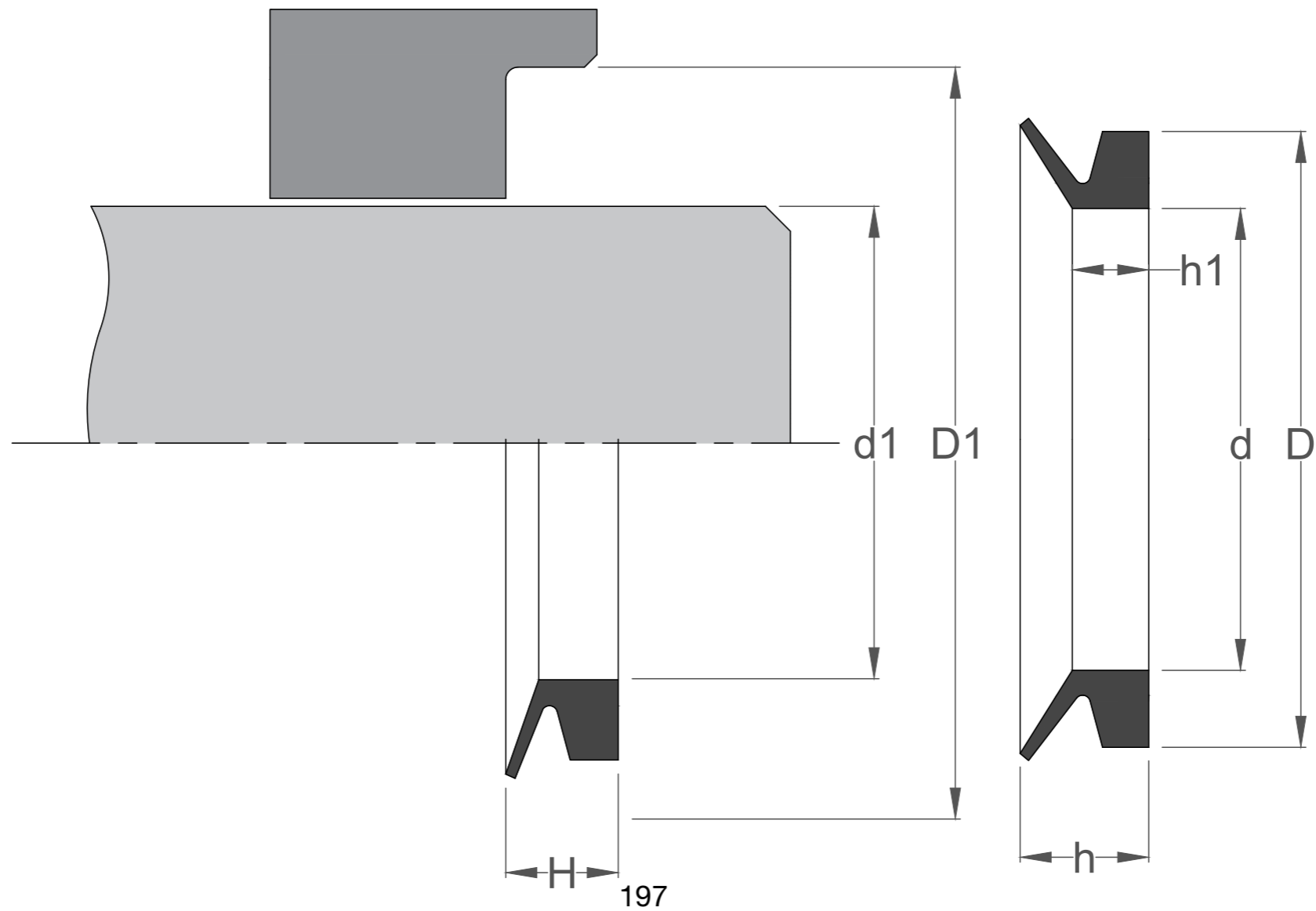
V-Ring Seals are low friction lip seals that resist the contaminants that reach the gap between the shaft and stationary components.

They support as secondary seals in harsh working conditions.



V Ring Seals

VA



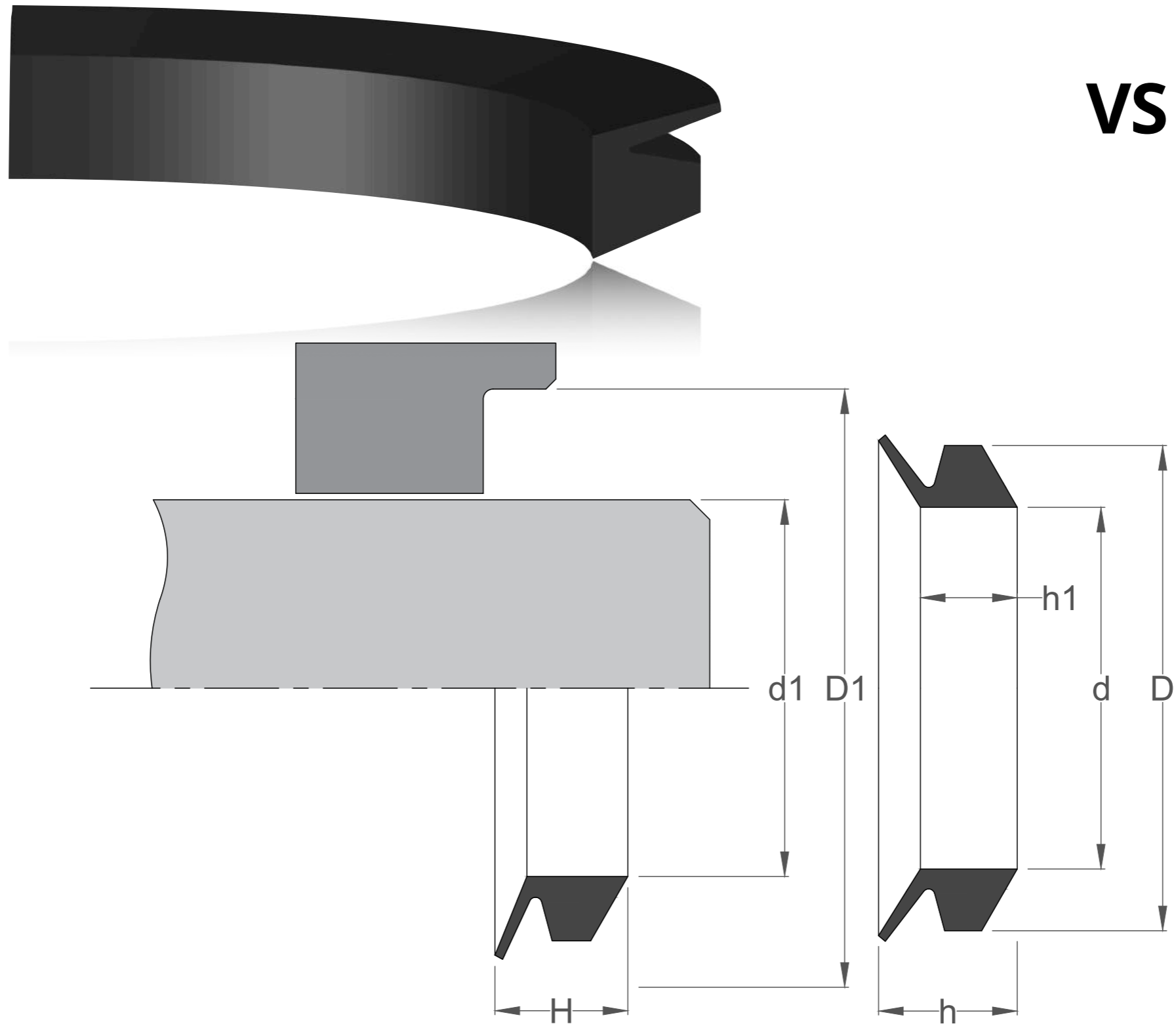
V Ring Seals

Shaft Dia	Seal Inner Dia	Seal Outer Dia	Groove Dia	Seal height		Fitted Width	Part No.
				h1	h		
d1	d	D	D1			H	
2.7 - 3.5	2.5	4	d1 + 4	2.1	3	2.5 ±0.3	VA002
3.5 - 4.5	3.2	5.2	d1 + 6	2.4	3.7	3.0 ±0.4	VA003
4.5 - 5.5	4	6	d1 + 6	2.4	3.7	3.0 ±0.4	VA004
5.5 - 6.5	5	7	d1 + 6	2.4	3.7	3.0 ±0.4	VA005
6.5 - 8.0	6	8	d1 + 6	2.4	3.7	3.0 ±0.4	VA006
8.0 - 9.5	7	9	d1 + 6	2.4	3.7	3.0 ±0.4	VA007
9.5 - 11.5	9	12	d1 + 9	3.4	5.5	4.5 ±0.6	VA009
11.5 - 12.5	10.5	13.5	d1 + 9	3.4	5.5	4.5 ±0.6	VA010
12.5 - 13.5	11.7	14.7	d1 + 9	3.4	5.5	4.5 ±0.6	VA011
13.5 - 15.5	12.5	15.5	d1 + 9	3.4	5.5	4.5 ±0.6	VA012
15.5 - 17	14	17	d1 + 9	3.4	5.5	4.5 ±0.6	VA014
17.5 - 19	16	19	d1 + 9	3.4	5.5	4.5 ±0.6	VA016
19 - 21	18	22	d1 + 12	4.7	7.5	6.0 ±0.8	VA018
21 - 24	20	24	d1 + 12	4.7	7.5	6.0 ±0.8	VA020
24 - 27	22	26	d1 + 12	4.7	7.5	6.0 ±0.8	VA022
27 - 29	25	29	d1 + 12	4.7	7.5	6.0 ±0.8	VA025
29 - 31	27	31	d1 + 12	4.7	7.5	6.0 ±0.8	VA027
31 - 33	29	33	d1 + 12	4.7	7.5	6.0 ±0.8	VA029
33 - 36	31	35	d1 + 12	4.7	7.5	6.0 ±0.8	VA031
36 - 38	34	38	d1 + 12	4.7	7.5	6.0 ±0.8	VA034
38 - 43	36	41	d1 + 15	5.5	9	7.0 ±1.0	VA036
43 - 48	40	45	d1 + 15	5.5	9	7.0 ±1.0	VA040
48 - 53	45	50	d1 + 15	5.5	9	7.0 ±1.0	VA045
53 - 58	49	54	d1 + 15	5.5	9	7.0 ±1.0	VA049

V Ring Seals

d1	d	D	D1	h1	h	H	Part No.
58 - 63	54	59	d1 + 15	5.5	9	7.0 ±1.0	VA054
63 - 68	58	63	d1 + 15	5.5	9	7.0 ±1.0	VA058
68 - 73	63	69	d1 + 18	6.8	11	9.0 ±1.2	VA063
73 - 78	67	73	d1 + 18	6.8	11	9.0 ±1.2	VA067
78 - 83	72	78	d1 + 18	6.8	11	9.0 ±1.2	VA072
83 - 88	76	82	d1 + 18	6.8	11	9.0 ±1.2	VA076
88 - 93	81	87	d1 + 18	6.8	11	9.0 ±1.2	VA081
93 - 98	85	91	d1 + 18	6.8	11	9.0 ±1.2	VA085
98 - 105	90	96	d1 + 18	6.8	11	9.0 ±1.2	VA090
105 - 115	99	106	d1 + 21	7.9	12.8	10.5 ±1.5	VA099
115 - 125	108	115	d1 + 21	7.9	12.8	10.5 ±1.5	VA108
125 - 135	117	124	d1 + 21	7.9	12.8	10.5 ±1.5	VA117
135 - 145	126	133	d1 + 21	7.9	12.8	10.5 ±1.5	VA126
145 - 155	135	142	d1 + 21	7.9	12.8	10.5 ±1.5	VA135
155 - 165	144	152	d1 + 24	9	14.5	12.0 ±1.8	VA144
165 - 175	153	161	d1 + 24	9	14.5	12.0 ±1.8	VA153
175 - 185	162	170	d1 + 24	9	14.5	12.0 ±1.8	VA162
185 - 195	171	179	d1 + 24	9	14.5	12.0 ±1.8	VA171
195 - 210	180	188	d1 + 24	9	14.5	12.0 ±1.8	VA180
190 - 210	180	195	d1 + 45	14.3	25	20.0 ±4.0	VA180
210 - 235	198	213	d1 + 45	14.3	25	20.0 ±4.0	VA198
235 - 265	225	240	d1 + 45	14.3	25	20.0 ±4.0	VA225
265 - 290	247	262	d1 + 45	14.3	25	20.0 ±4.0	VA247
290 - 310	270	285	d1 + 45	14.3	25	20.0 ±4.0	VA270
310 - 335	292	307	d1 + 45	14.3	25	20.0 ±4.0	VA292
335 - 365	315	330	d1 + 45	14.3	25	20.0 ±4.0	VA315
365 - 390	337	352	d1 + 45	14.3	25	20.0 ±4.0	VA337
390 - 430	360	375	d1 + 45	14.3	25	20.0 ±4.0	VA360
430 - 480	405	420	d1 + 45	14.3	25	20.0 ±4.0	VA405

V Ring Seals



V Ring Seals

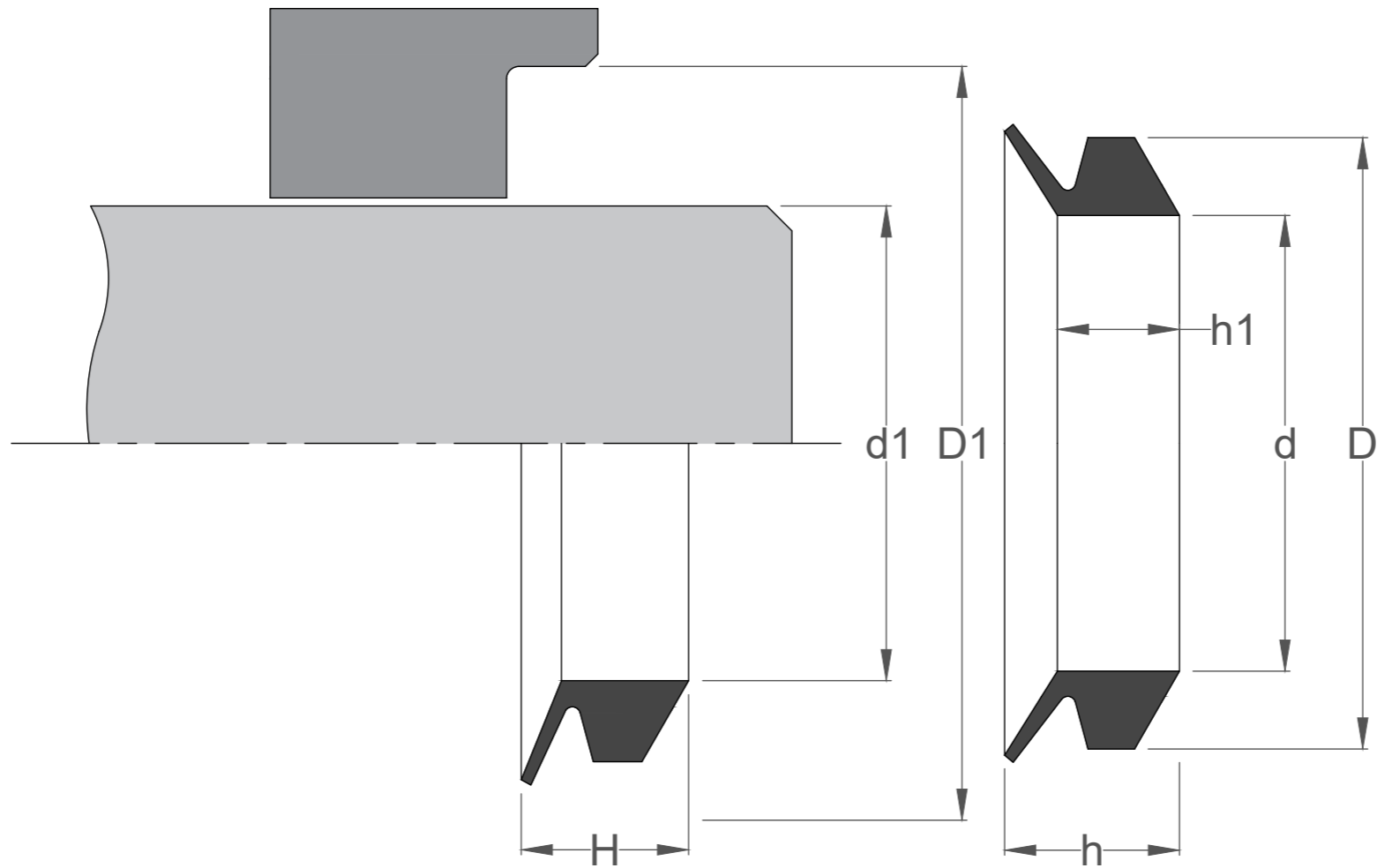
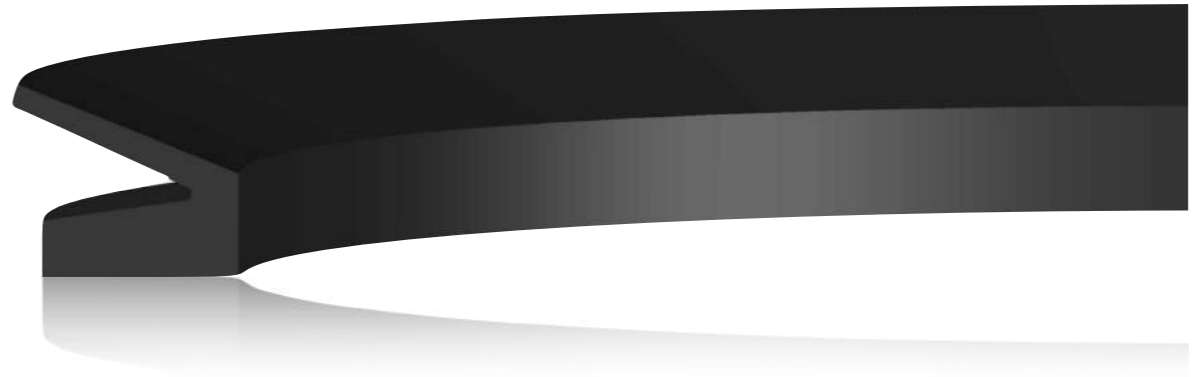
Shaft Dia	Seal Inner Dia	Seal Outer Dia	Groove Dia	Seal height		Fitted Width	Part No.
d1	d	D	D1	h1	h	H	
4.5 - 5.5	4	6	d1 + 6	3.9	5.2	4.5 ±0.4	VS004
5.5 - 6.5	5	7	d1 + 6	3.9	5.2	4.5 ±0.4	VS005
6.5 - 8.0	6	8	d1 + 6	3.9	5.2	4.5 ±0.4	VS006
8.0 - 9.5	7	9	d1 + 6	3.9	5.2	4.5 ±0.4	VS007
9.5 - 11.5	9	12	d1 + 9	5.6	7.7	6.7 ±0.6	VS009
11.5 - 13.5	10.5	13.5	d1 + 9	5.6	7.7	6.7 ±0.6	VS010
13.5 - 15.5	12.5	15.5	d1 + 9	5.6	7.7	6.7 ±0.6	VS012
15.5 - 17.5	14	17	d1 + 9	5.6	7.7	6.7 ±0.6	VS014
17.5 - 19	16	19	d1 + 9	5.6	7.7	6.7 ±0.6	VS016
19 - 21	18	22	d1 + 12	7.9	10.5	9.0 ±0.8	VS018
21 - 24	20	24	d1 + 12	7.9	10.5	9.0 ±0.8	VS020
24 - 27	22	26	d1 + 12	7.9	10.5	9.0 ±0.8	VS022
27 - 29	25	29	d1 + 12	7.9	10.5	9.0 ±0.8	VS025
29 - 31	27	31	d1 + 12	7.9	10.5	9.0 ±0.8	VS027
31 - 33	29	33	d1 + 12	7.9	10.5	9.0 ±0.8	VS029
33 - 36	31	35	d1 + 12	7.9	10.5	9.0 ±0.8	VS031
36 - 38	34	38	d1 + 12	7.9	10.5	9.0 ±0.8	VS034
38 - 43	36	41	d1 + 15	9.5	13	11.0 ±1.0	VS036
43 - 48	40	45	d1 + 15	9.5	13	11.0 ±1.0	VS040
48 - 53	45	50	d1 + 15	9.5	13	11.0 ±1.0	VS045
53 - 58	49	54	d1 + 15	9.5	13	11.0 ±1.0	VS049
58 - 63	54	59	d1 + 15	9.5	13	11.0 ±1.0	VS054
63 - 68	58	63	d1 + 15	9.5	13	11.0 ±1.0	VS058

V Ring Seals

d1	d	D	D1	h1	h	H	Part No.
68 - 73	63	69	d1 + 18	11.3	15.5	13.5 ±1.2	VS063
73 - 78	67	73	d1 + 18	11.3	15.5	13.5 ±1.2	VS067
78 - 83	72	78	d1 + 18	11.3	15.5	13.5 ±1.2	VS072
83 - 88	76	82	d1 + 18	11.3	15.5	13.5 ±1.2	VS076
88 - 93	81	87	d1 + 18	11.3	15.5	13.5 ±1.2	VS081
93 - 98	85	91	d1 + 18	11.3	15.5	13.5 ±1.2	VS085
98 - 105	90	96	d1 + 18	11.3	15.5	13.5 ±1.2	VS090
105 - 115	99	106	d1 + 21	13.1	18	15.5 ±1.5	VS099
115 - 125	108	115	d1 + 21	13.1	18	15.5 ±1.5	VS108
125 - 135	117	124	d1 + 21	13.1	18	15.5 ±1.5	VS117
135 - 145	126	133	d1 + 21	13.1	18	15.5 ±1.5	VS126
145 - 155	135	142	d1 + 21	13.1	18	15.5 ±1.5	VS135
155 - 165	144	152	d1 + 24	15	20.5	18.0 ±1.8	VS144
165 - 175	153	161	d1 + 24	15	20.5	18.0 ±1.8	VS153
175 - 185	162	170	d1 + 24	15	20.5	18.0 ±1.8	VS162
185 - 195	171	179	d1 + 24	15	20.5	18.0 ±1.8	VS171
195 - 210	180	188	d1 + 24	15	20.5	18.0 ±1.8	VS180

V Ring Seals

VL



V Ring Seals

Shaft Dia	Seal Inner Dia	Seal Outer Dia	Groove Dia	Seal height		Fitted Width	Part No.
				h1	h		
d1	d	D	D1			H	
105 - 115	99	106	d1+20	10.5	8 ± 1.5	6	VL099
115 - 125	108	115	d1+21	10.5	8 ± 1.5	6	VL108
125 - 135	117	124	d1+22	10.5	8 ± 1.5	6	VL117
135 - 145	126	133	d1+23	10.5	8 ± 1.5	6	VL126
145 - 155	135	142	d1+24	10.5	8 ± 1.5	6	VL135
155 - 165	144	151	d1+25	10.5	8 ± 1.5	6	VL144
165 - 175	153	160	d1+26	10.5	8 ± 1.5	6	VL153
175 - 185	162	169	d1+27	10.5	8 ± 1.5	6	VL162
185 - 195	171	178	d1+28	10.5	8 ± 1.5	6	VL171
195 - 210	182	189	d1+29	10.5	8 ± 1.5	6	VL182
210 - 233	198	205	d1+30	10.5	8 ± 1.5	6	VL198
233 - 260	225	232	d1+31	10.5	8 ± 1.5	6	VL225
260 - 285	247	254	d1+32	10.5	8 ± 1.5	6	VL247
285 - 310	270	277	d1+33	10.5	8 ± 1.5	6	VL270
310 - 335	292	299	d1+34	10.5	8 ± 1.5	6	VL292
335 - 365	315	322	d1+35	10.5	8 ± 1.5	6	VL315
365 - 385	337	344	d1+36	10.5	8 ± 1.5	6	VL337
385 - 410	360	367	d1+37	10.5	8 ± 1.5	6	VL360
410 - 440	382	389	d1+38	10.5	8 ± 1.5	6	VL382
440 - 475	405	412	d1+39	10.5	8 ± 1.5	6	VL405
475 - 510	450	457	d1+40	10.5	8 ± 1.5	6	VL450
510 - 540	472	479	d1+41	10.5	8 ± 1.5	6	VL472
540 - 575	495	502	d1+42	10.5	8 ± 1.5	6	VL495

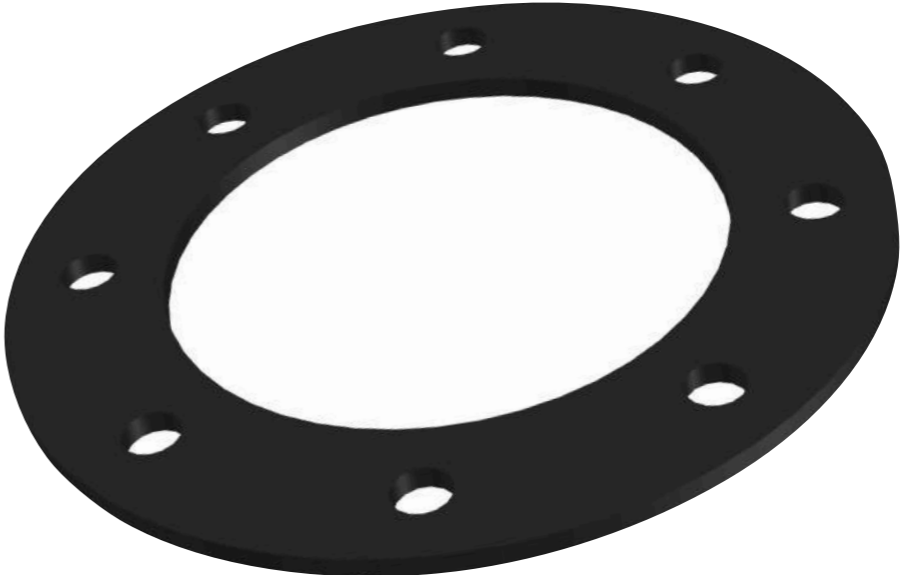
V Ring Seals

d1	d	D	D1	h	H	h1	Part No.
575 - 625	540	547	d1+43	10.5	8 ± 1.5	6	VL540
625 - 675	600	607	d1+44	10.5	8 ± 1.5	6	VL600
675 - 710	630	637	d1+45	10.5	8 ± 1.5	6	VL630
710 - 740	670	677	d1+46	10.5	8 ± 1.5	6	VL670
740 - 775	705	712	d1+47	10.5	8 ± 1.5	6	VL705
775 - 825	745	752	d1+48	10.5	8 ± 1.5	6	VL745
825 - 875	785	792	d1+49	10.5	8 ± 1.5	6	VL785

Some Other Products We Make



Diaphragm Seals



Valve Seats