

# ZHONO

浮动密封 我们更专业  
MECHANICAL FACE SEAL SOLUTIONS



北京众诺密封技术有限公司  
BEIJING ZHONGNUO SEALING TECHNOLOGY CO., LTD.



實力鑄就品牌

ZHONO

## COMPANY PROFILE

Beijing Zhongnuo Sealing Technology Co.,Ltd. (ZHONO Company) is a high and new technology enterprise, who professionally engaged in R&D, manufacture and sale of floating seal products, is one of the earliest manufacturers who brought in the oversea advanced production technology and equipment. ZHONO company is located in Beijing city-the capital of China, 30km away from the Beijing international airport and 150km away from Tianjin Xingang port, the traffic is very convenient.

ZHONO company owns a complete advanced manufacturing and inspection equipment for floating seal production, from product design to molding casting, from copying turning, heat treatment to the grinding, lapping, from incoming material inspection to process inspection, every process has strict technical guidance, and passed through ISO9001:2008 and ISO/TS16949 quality management system certification. All performance indexes are completely performed in accordance with floating seals national standard JB/T8293-2014, MT/T784-2011, to ensure the reliability and stability of product quality.

Since established ZHONO company always adhere to the business philosophy - "technology innovation, customer service", to build up "ZHONO" brand, and provide the reasonable sealing solutions for many domestic and abroad customers. Our products are exported to more than 20 countries, such as the United States, Canada, Japan, South Korea, United Kingdom, France, Australia, New Zealand, India, Thailand, Singapore, Russia and so on. We are keeping good relations of cooperation with many world famous companies. The products are mainly served for industries such as construction machinery, mining machinery, coal machinery, agricultural machinery, building machinery, petroleum machinery, ship machinery, Planetary reducer machinery and shield cutter,etc.

Up to today, Beijing Zhongnuo Sealing Technology Co.,Ltd. has become one of the strong competitiveness floating seal manufacturers all over the world. We look forward to cooperating with you sincerely !

成为拥有核心技术、具有国际竞争力的浮动密封制造商

TO BE WITH CORE TECHNOLOGY AND INTERNATIONAL COMPETITIVENESS OF FLOATING SEAL MANUFACTURER





## COMPANY CULTURE



众诺价值观：自强不息 产业报国

众诺愿景：成为拥有核心技术、具有国际竞争力的浮动密封制造商

众诺使命：成就客户 贡献社会

众诺精神：学习 改善 创新 超越

服务理念：细心服务 专业周全

管理理念：规范 人性 担当

研发理念：专注 创新 客户至上

生产理念：有序 精益 高效

质量理念：持续改进 追求卓越

营销理念：技术创新 服务客户

**ZHONO Values:**Self-improvement, industry serve the country

**ZHONO Vision:**To be with core technology and international competitiveness of floating seal manufacturer

**ZHONO Mission:**Customer success,contribution to Society

**ZHONO Spirit:**Learning, improving, innovating and exceeding

**Service Concept:**Scrupulous services,professional and comprehensive

**Management Concept:**Standardization,humanized,accountability

**Research Concept:**Focus, innovation, customer-oriented

**Manufacturing Concept:**Orderly,lean operation,efficient

**Quality Concept:**Continuous improvement,striving for excellence

**Marketing Concept:**Technology innovation, customer service



## FLOATING SEAL INTRODUCTION:

Floating seal consist of two same metal steel rings and two same rubber rings. Its working principle is a pair of metal rings supported by a pair of rubber rings to form a closed space with the cavity (but not in contact with the shaft). When running, the after-grinding seal surface of the two metal rings act in close coordination and sliding relatively. On the one hand, to ensure good operation, on the other hand, to cut off the outside dust, water, rocks, gravel etc. effectively, and protect the inside grease or oil from leaking. The product types include DO style, DF style and XY style.

## FLOATING SEAL ADVANTAGE:

- Reliable design, simple installation
- Low cost, high efficiency
- Longer working lifetime
- Automatically compensate eccentricity of the shaft
- Self-repair lapping sealing surface
- Cut off the outside dust, water, rocks, gravel etc. effectively, and protect the inside grease or oil from leaking

## MATERIAL:

The material of metal ring is usually alloy cast iron and forged steel, hardness is 58-72 HRC. The material of rubber ring is commonly NBR, we also provide other rubber materials such as HNBR, VMQ, FKM.

## 浮封环材料成份说明/FLOATING METAL SEAL MATERIAL

材料的化学成份% Material Chemical Composition %	合金钢#1 Alloy Casting Iron #1			合金钢#2 Alloy Casting Iron #2	轴承钢 Forged Steel
	15Cr3MoNi	15Cr3Mo	15Cr1Mo	Ni4Cr2	GCr15/100Cr6
碳 C	3.2-3.6	3.2-3.6	3.2-3.6	2.9-3.8	0.9-1.05
硅 Si	1.1-1.6	1.1-1.6	1.1-1.6	2.0-2.5	0.15-0.35
锰 Mn	0.5-1.0	0.5-1.0	0.5-1.0	≤ 0.8	0.25-0.45
磷 P	≤ 0.04	≤ 0.04	≤ 0.04	0.1-0.5	≤ 0.03
硫 S	≤ 0.04	≤ 0.04	≤ 0.04	≤ 0.2	≤ 0.03
铬 Cr	14.0-16.0	14.0-16.0	14.0-16.0	1.2-2.2	1.4-1.65
钼 Mo	2.0-4.0	2.0-4.0	0.5-1.0	—	—
镍 Ni	1.0-2.0	—	—	4.0-5.0	≤ 0.3
铁 Fe	其余Balance	其余Balance	其余Balance	其余Balance	其余Balance

## 橡胶圈材料说明/ELASTOMERS MATERIAL

材料名称 Compound	硬度 Hardness, Shore A	扯断强度 Tensile Strength, MPa	扯断伸长率 Elongation at break, %	温度范围 Temperature Range
丁腈 NBR	60±5	≥ 12	≥ 300	-35 °C ~ 100 °C
氯化丁腈 HNBR	60±5	≥ 13	≥ 350	-30 °C ~ 150 °C
硅胶 VMQ	60±5	≥ 6	≥ 300	-50 °C ~ 200 °C
氟胶 FPM	60±5	≥ 7	≥ 200	-10 °C ~ 180 °C



适用于各种工程机械、农业机械、建筑机械及矿山机械：

- 1、国产山推、宣工、彭浦、中联、龙工、移山、厦工、柳工牌全系列履带推土机；
- 2、国产1.3~180t全系列履带式和轮胎式液态挖掘机；
- 3、日本小松D50、D60、D80、D85、D155、D355，美国卡特D58、D60、D7G、D8K、D9L、D10H履带推土机；
- 4、德国R902-R992及美国卡特、日本小松系列液压挖掘机；
- 5、国内外各种型号的装载机、平地机、起重机、搅拌机、采煤机、掘进机、刮板输送机等。

**Applied in all kinds of Construction machinery, Agricultural machinery, Building machinery and Mining machinery:**

1. All series domestic brand crawler bulldozers as:  
SHANTUI,XUANGONG,PENGPU,ZOOLION, LONKING, YISHAN, XGMA, LIUGONG,etc.
2. All series domestic 1.3~180 ton crawler bulldozers and rubber-tyred hydraulic excavators.
- 3.Komatsu D50、D60、D80、D85、D155、D355,CAT D58、D60、D7G、D8K、D9L、D10H Crawler Bulldozer.
- 4.German R902-R992 and CAT, Komatsu series hydraulic excavator.
- 5.Various models of loader, pavers, cranes, concrete mixer, shearer, tunneling machine, scraper conveyor,etc.





## ▶ 适用行业:

浮动密封用途广泛，通常被推荐适用于运转速度较慢、对润滑可靠性和寿命要求高的场合，例如矿山机械、农业机械、工程机械、重型卡车、采煤机、掘进机、刮板输送机、耕地机等。

## ▶ APPLICABLE INDUSTRIES:

Floating seal is widely used in the slow speed operation and the place required high lubrication reliability and long working lifetime, such as mining machinery, agricultural machinery, construction machinery, heavy truck, coal cutter, tunneling machine, scraper conveyor and cultivated land machine,etc.





## ► INSTALLATION SUGGESTION:

Unless open the package of floating seal products before using and installation, to prevent the product surface from rusting, polluting or bruising on sealing surface, it is strictly prohibited to put seal face downwards.

Before the installation thoroughly clean the installation groove and sealing, remove all the residue, it is suggested to use volatile solution, such as alcohol. Check and ensure that there is no burr in the installation groove.

Check the position of the rubber ring, must no twist, with the joint line position of rubber ring as a reference.

Using a special installation tool to put half of floating seal into the entrance of the installation groove, and then uniform and steady pressure into the cavity groove. It is forbidden to use any oil or grease to increase lubrication for making the installation easier. It can be sprayed with a small amount of alcohol to assist installation if necessary.

After installing half of floating seal into groove, check the position of the rubber ring, and make sure the rubber ring is no twist or asymmetry. Sealing face must be parallel to the plane of the cavity, and the maximum deviation is 1 mm.

Check to confirm all the above is no problem, then wipe the working sealing face of floating seal (sealing surface oil belongs to rust-proof oil rather than lubricating oil), and remove all the residue, it is suggested to use volatile solution to wipe, such as alcohol and acetone, and blow using the cold wind gun. After dry and clean, daub a thin layer lubricating oil on the metal seal working surface.

Install the other half set of floating seal into the corresponding cavity groove, and match the another half set after wiping clean the sealing surface, and adjust the installation gap to make the working pressure meet the requirements of the operating.

## ► WORKING PRESSURE:

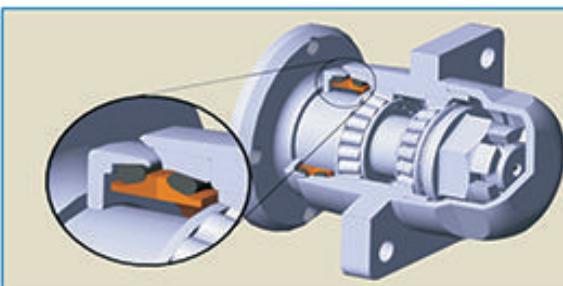
Alloy cast iron material floating seal can withstand maximum pressure 0.3 MPa, for forged steel material can withstand the maximum pressure 0.15 MPa. Too large internal pressure will lead to floating seal ring or rubber ring misalignment.

## ► LINEAR VELOCITY:

Alloy cast iron material: 3.5m/s      Forged steel materials: 2.5m/s

## ► LUBRICATING OIL:

Our suggestion is to use the SAE 20W20 or SAE 10W40 type lubricating oil, oil level should be between the center of the axle and 2/3 diameter of the floating seal ring.



# 证书 ISO

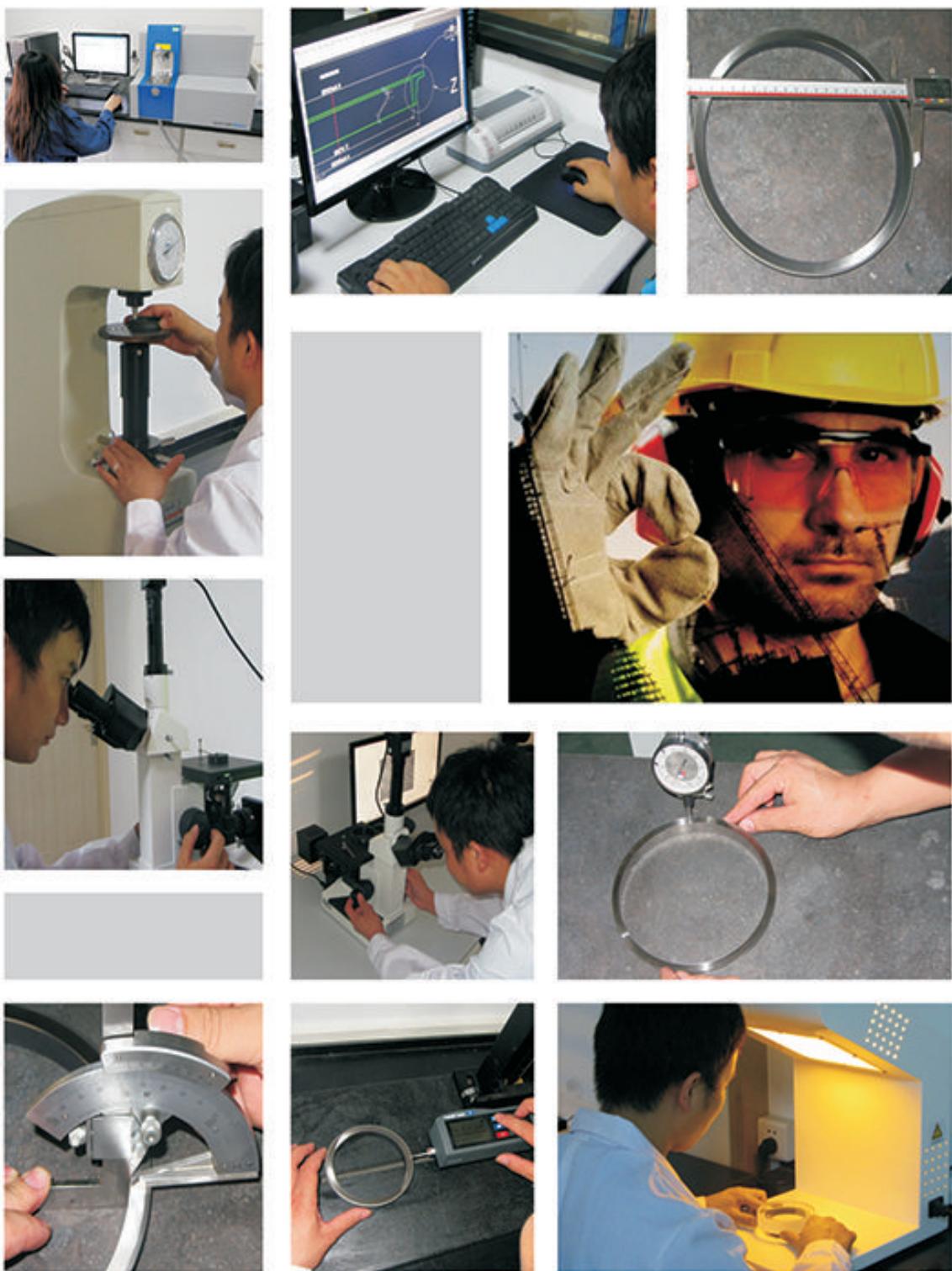


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质量控制 QUALITY CONTROL

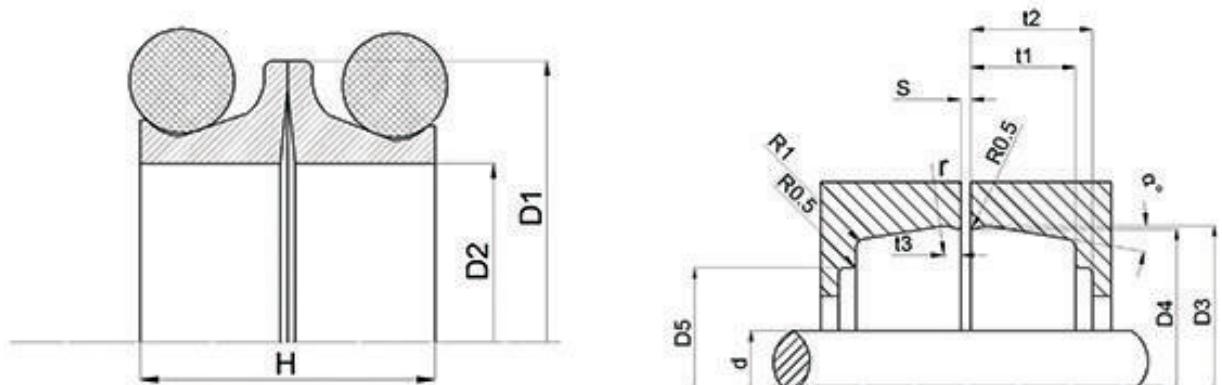




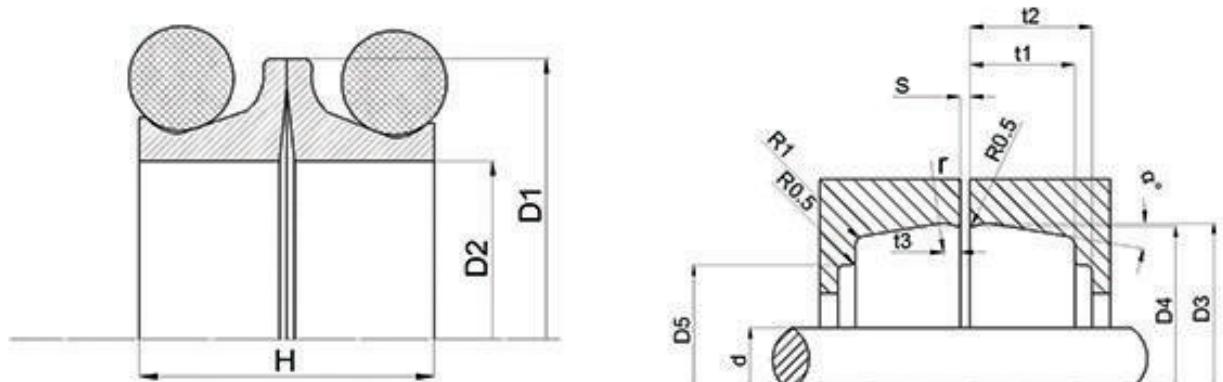
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## ▶ DO型浮动密封(DO TYPE FLOATING SEAL)



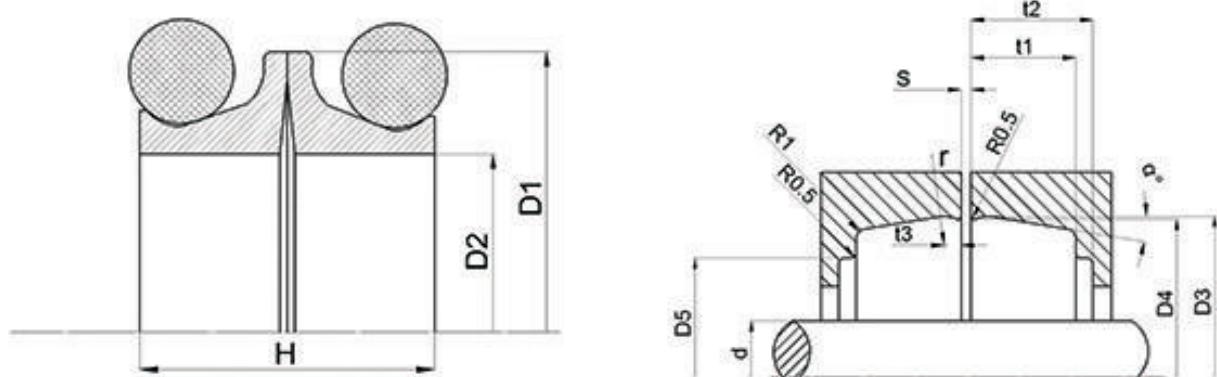
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DO0340	45	34	14	30	47	46.5	42	6.5	8	1	1	10	0.1	3	0.5
DO0390	50	39	14	35	52	51.5	46	6.5	8	1	1	10	0.1	3	0.5
DO0380	51	38	20.4	35	53.7	53	46	9	11	1.8	2	10	0.1	3	0.5
DO0430	58	43	24	39	61.6	60.8	53.4	10	12	1.8	2.5	10	0.1	3	0.5
DO0450	58	45	21.6	41	61.6	61	54	10.5	12.5	1.8	2.5	10	0.1	3	0.5
DO0480	58	48	14.4	44	59.9	59.4	55	6.3	8	1.5	1.7	10	0.1	3	0.5
DO0460	59	46	20	42	61.6	61.2	53	9	11	2	2.5	12	0.1	3	0.5
DO0460B	60	46	24	42	64	63	54	11	13.5	2.8	5	10	0.1	3	0.5
DO0480B	62	48	25	45	68	67.2	58	12	14	2	3	10	0.1	3	0.5
DO0510	65	51	23	48	68.4	*	*	13	*	*	*	*	*	3	0.5
DO0510B	65.6	51	26.8	48	68.4	67.6	62.6	13.5	15.5	2.7	2.8	10	0.1	3	0.5
DO0540	68	54	24	51	72	71	60	11	13.5	2.8	5	10	0.1	3	0.5
DO0555	70	55.5	22	52	73.8	73.1	65.5	10	11.5	2.4	5	10	0.1	3	0.5
DO0560	70	56	26.3	53	76	75.2	66	12	14	2	2.5	10	0.1	3	0.5
DO0610	73	61	17.6	58	75.8	75.5	66.8	6.5	7.5	1	1.4	10	0.1	3	0.5
DO0575	74	57.5	25	54.5	*	*	*	*	*	*	*	*	*	3	0.5
DO0600	74	60	20.6	57	78.4	77.4	70	9	11	1.9	2.5	12	0.1	3	0.5
DO0580	75	58	27	53	79.2	78.6	66	12	14	2	2.5	12.3	0.1	3	0.5
DO0640	78	64	25	61	84.6	83.8	74	12.5	14.5	2	3	12	0.1	3	0.5
DO0670	80	67	20	64	83.4	82.7	76.8	8.5	10.5	1.8	2	10	0.1	3	0.5
DO0630	80.5	63	26	60	84	83.2	72	11.5	13	2.5	5	10	0.1	3	0.5
DO0635	82.5	63.5	31.8	60.5	86.5	85.7	73.5	15.2	16.8	3.5	4.8	10	0.1	3	0.5
DO0690	84	69	24	66	89.6	88.6	78.5	11	13	1.9	3	12	0.1	3	0.5



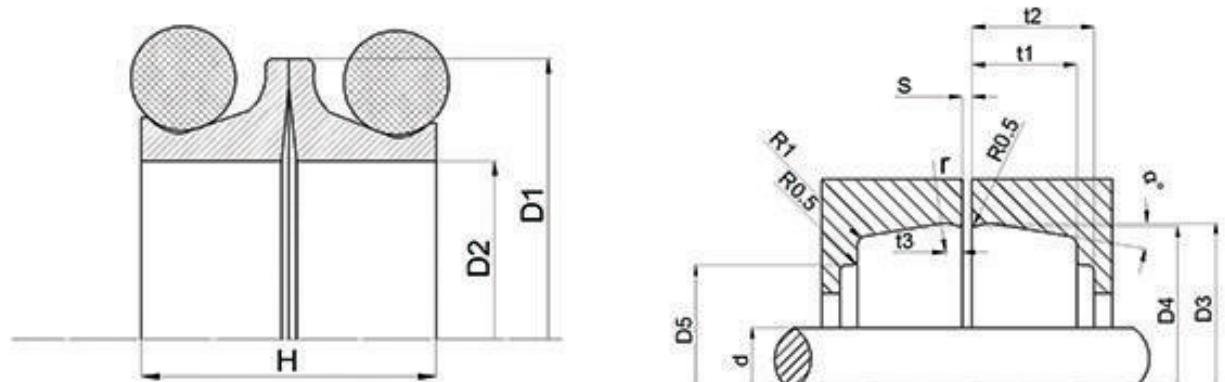
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D00675	86.5	67.5	32	64	91	90	78	14.5	17	2.8	5	10	0.1	3	0.5
D00740	86.5	74	22.5	70	91.4	90.7	80	9.5	11.5	2	3	10	0.1	3	0.5
D00700	87	70	21	66	91.4	90.7	80	9.5	11.5	2	3	10	0.1	3	0.5
D00740B	87	74	21	70	91.4	90.7	80	9.5	11.5	2	3	10	0.1	3	0.5
D00775	87.6	77.5	13.6	75.9	90.7	90.2	89.5	7.5	8	1.4	1.5	15	0.1	3	0.5
D00690B	89	69	24	66	92.5	91.5	83	11	13.5	2.8	5	10	0.1	3	0.5
D00720	89	72	24	69	92.5	91.5	83	11	13.5	2.8	5	10	0.1	3	0.5
D00700	90	70	29	65	95.5	94.7	84	13.5	15.5	2	3	12	0.1	3	0.5
D00725	92	72.5	35.6	69.5	96	95.2	83	15.2	20.9	3.5	4.8	10	0.1	3	0.5
D00730	92	73	32	70	96	95.2	83	15.2	16.8	3.5	4.8	10	0.1	3	0.5
D00795	92.5	79.5	20	76	96	95.3	88	8.5	10.5	1.8	2	10	0.1	3	0.5
D00740C	93	74	29	71	101.4	100.6	89	14.5	16.5	2	3	10	0.1	3	0.5
D00746	93.3	74.6	29	72	101.4	100.6	89	14.5	16.5	2	3	10	0.1	3	0.5
D00750	94.5	75	32	71	*	*	*	*	*	*	*	*	*	*	0.5
D00750B	97	75	26	71	*	*	*	*	*	*	*	*	*	*	0.5
D00810	98	81	28	78	102.3	101.3	91	12.5	14.5	2.8	5	10	0.1	3	0.5
D00800	100	80	29	76	104.1	103.3	93	15	18	2.3	2.5	10	0.1	3	0.5
D00800B	100	80	30	76	104.1	103.3	93	15	18	2.3	2.5	10	0.1	3	0.5
D00820	102	82	32	79	*	*	*	*	*	*	*	*	*	*	0.5
D00830	102	83	28	80	105.5	104.5	94	12.5	15	2.8	5	10	0.1	3	0.5
D00850	105	85	32	82	*	*	*	*	*	*	*	*	*	*	0.5
D00900	105	90	26	87.4	107.3	106.7	100.4	11.8	14.2	2.9	2.8	10	0.1	3	0.5
D00965	106.6	96.5	13.6	94.9	109.7	109.2	108.5	7.5	8	1.4	1.5	15	0.1	3	0.5
D00880	108	88	24	85	111.5	110.5	102	11	13.5	2.8	5	10	0.1	3	0.5
D00888	108	88.75	29.4	85.75	*	*	*	*	*	*	*	*	*	*	0.5



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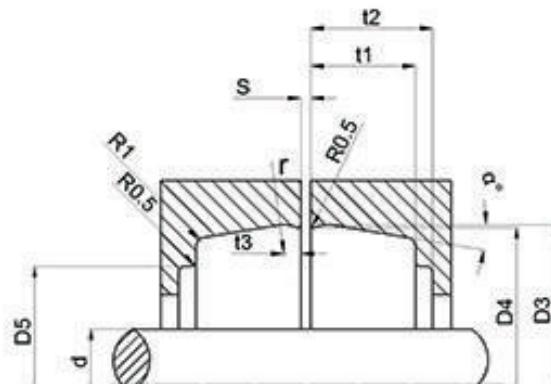
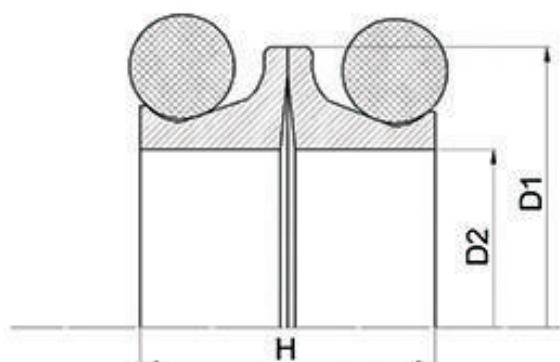
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DO0920	109	92	22	88	113.8	113	105	9.5	11.5	2	3	10	0.1	3	0.5	
DO0905	109.5	90.5	31.8	87.5	113.4	112.7	100.4	15.2	16.8	3.5	4.8	10	0.1	3	0.5	
DO0910	110	91	32	88	113.4	112.7	100.4	15.2	16.8	3.5	4.8	10	0.1	3	0.5	
DO0950	114	95	32	91	120	119.2	107	15	17	2.5	3	12	0.1	3	0.5	
DO0970	116	97	32	94	120.5	119.5	108	14.5	17.5	2.8	5	10	0.15	3	0.5	
DO1040	117	104	21	100	121	120.2	107.2	9.5	11.5	2	3	10	0.1	3	0.5	
DO1020	118	102	27	98	*	*	*	*	*	*	*	*	*	*	3	0.5
DO0985	119	98.5	29	95	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1000	119	100	31.8	97	123	122.2	110	15.2	16.8	3.5	4.8	10	0.1	3	0.5	
DO0960	120	96	32	93	125	123	110.8	15	16.5	3	2	10	0.1	3	0.5	
DO0990	120	99	28	95	123.5	122.5	112	12.5	14.5	2.8	5	10	0.1	3	0.5	
DO0900B	120	99	29	96	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1000B	120	100	32	97	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1007	120.2	100.7	29.4	97.7	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1040	121	104	22	100	125.5	125.1	117.5	9.5	11.5	2	3	10	0.1	3	0.5	
DO1040B	122.5	104	22.5	100	125.5	125.1	117.5	9.5	11.5	2	3	10	0.1	3	0.5	
DO1020B	122	102	32	99	127.2	126.2	115	15.5	17.5	2.5	3	12	0.1	3	0.5	
DO1020C	122	102	33.4	99	127.2	126.2	115	15.5	17.5	2.5	3	12	0.1	3	0.5	
DO1040	125	104	28	100	128.5	127.5	117	12.5	14	2.8	5	10	0.1	3	0.5	
DO1070	125	107	24	103	130.4	129.4	119.5	11	13.5	2.8	5	10	0.1	3	0.5	
DO1100	127	110	32	105	133	132	121	15	17	2.5	3	12	0.1	3	0.5	
DO1100B	128	110	32	106	133	132	121	15	17	2.5	3	12	0.1	3	0.5	
DO1110	128	111	22	107	132.5	132	123	10.6	12.3	2.8	3	10	0.1	3	0.5	
DO1145	129	114.5	21	110.5	134.1	133.1	126	9.2	10	2.3	3	10	0.1	3	0.5	



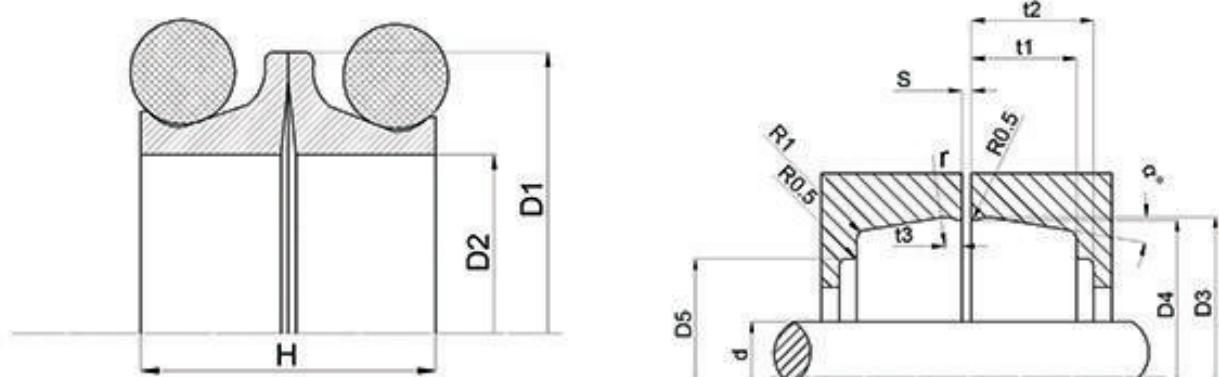
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DO1080	132	108	32	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1090	132	109	31	104	136.5	135.5	124	15.5	17.5	2.5	3	10	0.1	3	0.5
DO1190	132	119	14	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1135	132.5	113.5	35.6	112.4	137.4	136.7	124.4	15.2	16.8	3.5	4.8	10	0.1	3	0.5
DO1150	137	115	31	110	141.8	140.8	130	14.5	16.5	2.5	3	10	0.1	3	0.5
DO1170	138	117	32	114	142.5	141.5	132	14.5	17	2.8	5	10	0.1	3	0.5
DO1200	139	120	32	115	143	142	129.3	14.3	17.4	3	5.4	10	0.1	3	0.5
DO1185	139.5	118.5	28	115.5	143	142	131.5	12.5	15	2.8	5	10	0.1	3	0.5
DO1170B	140	117	29	114	142.5	141.5	132	13	14	2.8	5	10	0.1	3	0.5
DO1205	140	120.5	30	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1240	141	124	22	120	146.4	145.3	136	10.6	12.3	2.8	3	9.5	0.1	3	0.5
DO1270	141	127	25.4	124	143.8	143.1	136.9	11.8	14.2	2.9	2.8	10	0.1	3	0.5
DO1270B	141	127	29	124	144	143	136	12	14.5	2.3	3	10	0.1	3	0.5
DO1270C	141	127	29	124	148	147	138	13	15.5	2.8	5	10	0.1	3	0.5
DO1200B	142	120	38	117	149	148	133	17	19	2.5	3	10	0.1	4	0.5
DO1250	144	125	32	120	148.5	147.5	136	14.3	17.4	3	5	10	0.1	3	0.5
DO1270D	146	127	31.8	124	150	149.2	137	15.2	16.8	3.5	4.8	10	0.1	3	0.5
DO1300	150	130	32	125	155.6	154.8	144	14.5	16.5	2.5	5	10	0.1	3	0.5
DO1300B	151	130	33	125	155.6	154.8	144	14.5	16.5	2.5	5	10	0.1	3	0.5
DO1300C	152	130	32	125	155.6	154.8	144	14.5	16.5	2.5	5	10	0.1	3	0.5
DO1300D	152	130	38	125	159	158	144	18.5	20.5	2.5	3	10	0.1	3	0.5
DO1320	152	132	29.4	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1370	153	137	30	134	161.7	160.7	143	14.5	17	2.8	5	10	0.1	3	0.5
DO1355	154.4	135.5	28	132.5	158.3	157.3	146.5	12.5	14	2.8	5	10	0.1	3	0.5



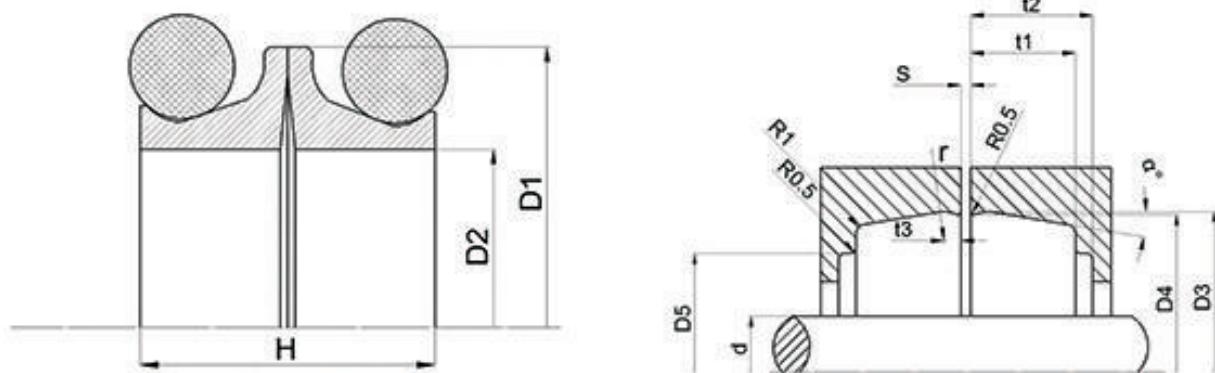
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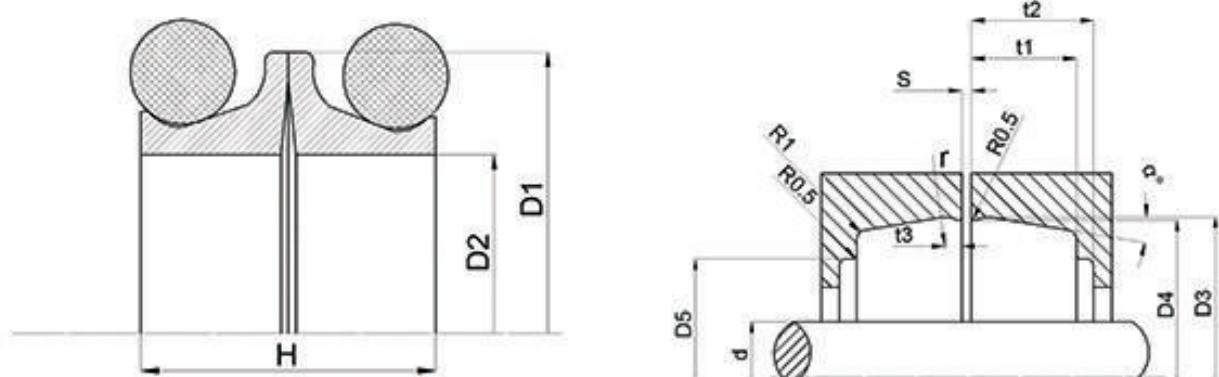
Part No.	D1	D2	H	d Max	D3	D4	D5	t1	t2 min	t3	r	a	Tol±	S	Tol±
DO1400	155	140	25	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1430	157	143	25.4	140	159.7	158.9	152.1	11.8	14.2	2.9	2.8	10	0.1	3	0.5
DO1430B	157	143	27	140	160	159	152	12	14.5	2.3	3	10	0.1	3	0.5
DO1430C	160	143	27	140	164	163	154	12	14.5	2.8	5	10	0.1	3	0.5
DO1430D	160	143	33	140	166	165	152	16.5	18.5	3.1	3	10	0.1	3	0.5
DO1460	168	146	34	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1540	168	154	25.4	151	171	170.2	164	11.8	14.2	2.9	2.8	10	0.1	3	0.5
DO1540B	168	154	27	151	171	170	163	12	14.5	2.3	3	10	0.1	3	0.5
DO1540C	169	154	22	151	174.5	173.5	166	9.5	11	2.3	3	10	0.1	3	0.5
DO1480	170	148	31	145	175.6	174.6	164	15	17	2.5	3	10	0.1	3	0.5
DO1540D	170	154	21	150	175.1	174.1	167	9.2	10	2.3	3	10	0.1	3	0.5
DO1500	171	150	32	146	175.4	174.7	162.5	15.2	16.8	3.5	4.8	10	0.1	3	0.5
DO1530	171.5	153	28	150	176.3	175.3	164.5	12.5	14.5	2.8	5	10	0.1	3	0.5
DO1460B	172	146	38	143	176.8	175.9	158.9	18.4	20.3	3.7	6.3	10	0.1	3	0.5
DO1500B	172	150	40	147	179	178	165	18	20	2.5	2	10	0.15	4	0.5
DO1540E	173.5	154	32	150	178	177	166	14.5	17	2.8	5	10	0.15	3	0.5
DO1550	177	155	39	152	181	179	168	18	20.5	3.1	6.5	10	0.1	3	0.5
DO1540F	178	154	34	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1600	180	160	32	156	186.3	185.5	174	14.5	17	2.8	5	10	0.1	3	0.5
DO1650	181	165	27	162	185	184	176.5	12	14.5	2.3	3	10	0.15	3	0.5
DO1690	189	169	32	165	*	*	*	*	*	*	*	*	*	3	0.5
DO1640	189	164	30	160	193.5	192.5	179	14.5	17	2.8	5	0	0.15	3	0.5
DO1670	189	167	32	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1650B	190	165	33	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1725	190	172.5	25.4	168.5	192.7	191.8	188	12.7	14.3	2.3	2.8	10	0.15	3	0.5



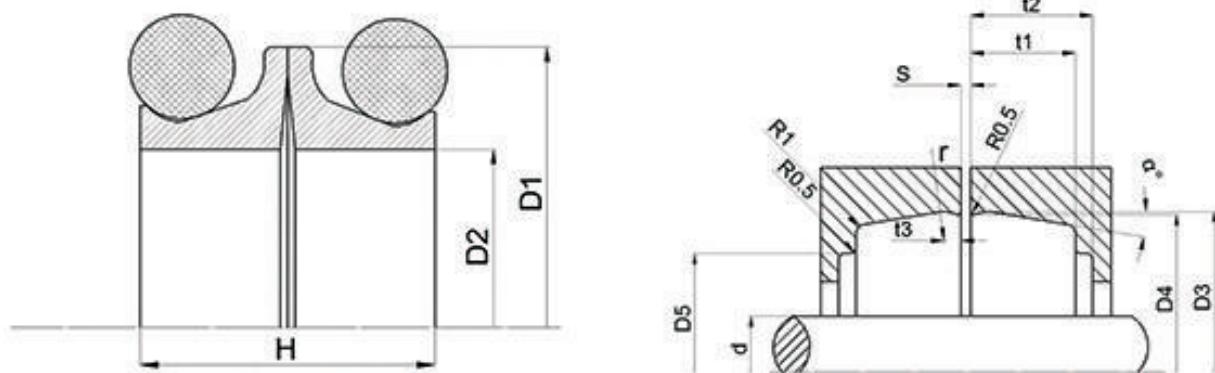
Part No.	D1	D2	H	d Max	D3	D4	D5	t1	t2 min	t3	r	a	Tol±	S	Tol±	
DO1740	190	174	25.4	170	192.7	191.8	188	12.7	14.3	2.3	2.8	10	0.15	3	0.5	
DO1630	191.5	163	38	160	196.8	195.9	178.9	184	20.3	3.7	6.3	10	0.15	3	0.5	
DO1600	194	160	38	157	199	198	187	18	20.5	3.1	6.5	10	0.15	3	0.5	
DO1670B	194	167	38	164	199	198	187	18	20.5	3.1	6.5	10	0.15	3	0.5	
DO1760	195	176	28	174	199.8	198.8	188	12.5	14.5	2.8	5	10	0.1	3	0.5	
DO1780	197.4	178	21.4	174	202.2	201.9	196	9.4	10.6	1.2	3	10	0.15	3	0.5	
DO1800	197.4	180	21.4	176	202.2	201.9	196	9.4	10.6	1.2	3	10	0.15	3	0.5	
DO1780	199	178	32	174	203.8	202.4	190	14.5	16	3	5	10	0.15	3	0.5	
DO1740	200	174	36	*	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1770	200	177	31	173	204.5	203.4	191	14.5	17	3.1	5	10	0.15	3	0.5	
DO1780B	200	178	38	175	210.6	209.6	192	19	21	3	4	10	0.15	3	0.5	
DO1860	203	186	25.4	182	205.7	204.9	190.5	14.5	16	2.3	2.8	10	0.15	3	0.5	
DO1910	205.5	191	30	*	*	*	*	*	*	*	*	*	*	*	3	0.5
DO1910B	210	191	28	187	214	213	203	12.5	14.5	2.8	5	10	0.15	3	0.5	
DO1820	210.5	182	38	179	215.4	214.4	197.5	18.4	20.3	3.7	6.3	10	0.15	3	0.5	
DO1820B	210.5	182	46	179	215.4	214.4	197.5	18.4	24.1	3.7	6.3	10	0.15	3	0.5	
DO1920	215	192	33	189	220.8	219.8	207	16.5	18.5	3	4	10	0.15	3	0.5	
DO1950	216.5	195	31.8	192	221	220	207	14.5	17	2.8	5	10	0.15	3	0.5	
DO1980	220	198	32	*	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2087	222.8	208.7	26	205.7	225.4	224.4	217	11.5	13.5	2.2	2.5	10	0.1	3	0.5	
DO2050	227	205	30	202	231.5	230.5	219	14.5	17	2.8	5	10	0.15	3	0.5	
DO2000	228.5	200	38	196	233.5	232.5	215.5	18	20.5	3.1	6.5	10	0.15	3	0.5	
DO2090	234	209	42	206	242.6	241.6	224	19.5	22.5	3	4	10	0.15	3	0.5	
DO2160	237	216	30	213	241.5	240.5	229	14.5	17	2.8	5	10	0.15	3	0.5	
DO2200	239.5	220	32	217	244	243	232	14.5	16.5	2.8	5	10	0.15	3	0.5	



Part No.	D1	D2	H	d Max	D3	D4	D5	t1	t2 min	t3	r	a	Tol±	S	Tol±
DO2100	240	210	40	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2180	240	218	37	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2200B	241.4	220	25	217	244.7	244	233.5	11	13.5	2.2	4	10	0.1	3	0.5
DO2200C	246	220	41	217	254.6	253.6	236	20.5	22.5	3	4	10	0.15	3	0.5
DO2230	246	223	36	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2260	250	226	41	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2235	251.5	223.5	38	220.5	256.6	255.7	238.7	18.4	20.3	3.7	6.3	10	0.15	3	0.5
DO2235B	251.5	223.5	46	220.5	256.6	255.7	238.7	18.4	24.1	3.7	6.3	10	0.15	3	0.5
DO2250	252	225	38	222	258	257	241	19	21	3	4	10	0.2	3	0.5
DO2255	253	225.5	40.8	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2350	258	235	35	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2316	259.6	231.6	38	228	264.7	263.8	247	18.4	20.5	3.7	6.3	10	0.2	5	0.5
DO2350B	260	235	36	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2380	261	238	31.8	235	265.5	264.5	254	14.5	17	2.8	5	10	0.15	3	0.5
DO2400	262.8	240	38	236	273.5	272.5	255.5	18	20.5	3.1	6.5	10	0.2	3	0.5
DO2390	268	239	40	234	274.2	273.2	257	20.5	22.5	3	4	10	0.2	3	0.5
DO2400B	268.5	240	38	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2500	270	250	30	246	274.7	273.7	262	14	15.5	2.8	5	10	0.2	3	0.5
DO2500B	276	250	44	247	284.6	283.6	266	20.5	24	3	4	10	0.2	3	0.5
DO2520	280	252	38	248	285.5	284.5	265	18	20	3.1	6.5	10	0.2	3	0.5
DO2540	280	254	36	*	*	*	*	*	*	*	*	*	*	3	0.5
DO2600	288	260	40	256	294	293	274	18	20.5	3	6.5	10	0.2	7	0.5
DO2615	288.5	261.5	40	256	294	293	274	18	20.5	3	6.5	10	0.2	3	0.5
DO2650	293	265	38	262	297.8	297	280	18.4	20.3	3.7	6.3	10	0.2	3	0.5
DO2720	300	272	40	269	307.5	306.5	287.5	18.5	21	3	6.3	10	0.2	3	0.5



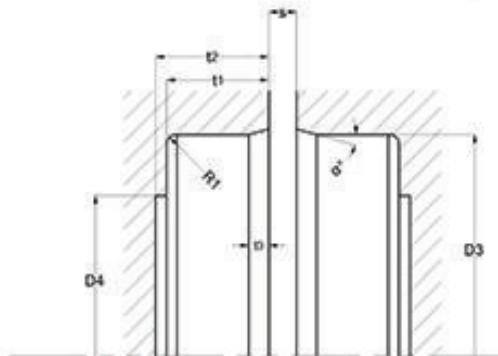
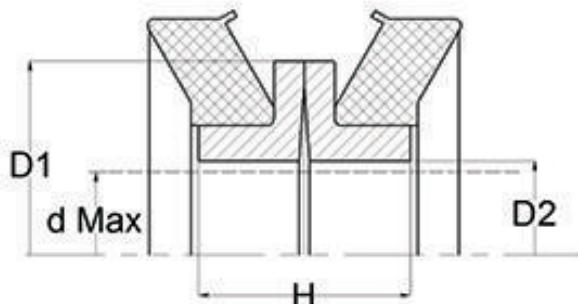
Part No.	D1	D2	H	d Max	D3	D4	D5	t1	t2 min	t3	r	a	Tol±	S	Tol±
DO2750	303	275	38	271	308	307	290	18	20.5	3.1	6.5	10	0.2	3	0.5
DO2928	310.8	282.9	38	280	316.3	315.4	298.4	18.4	20.3	3.7	6.3	10	0.2	3	0.5
DO3000	325	300	38	296	335.5	334.5	318	17.5	20.5	3.1	6.5	10	0.2	3	0.5
DO2950	328	295	40	290	333	332	315	18.5	21	3	4	10	0.2	3	0.5
DO2980	328	298	40.8	293	333	332	315	18.5	21	3	4	10	0.2	3	0.5
DO3000B	328	300	40	295	333	332	315	18.5	21	3	4	10	0.2	3	0.5
DO3035	328	303.5	38	301.8	333	332.1	315.1	18.4	20.3	3.7	6.3	10	0.2	3	0.5
DO3180	341	318	38	314	351.5	350.5	334	17.5	20.5	3.1	6.5	10	0.2	3	0.5
DO3180B	346	318	38	314	351.5	350.5	334	18	20.5	3.1	6.5	10	0.2	3	0.5
DO3180C	346	318	40	314	351.6	350.7	333.7	18.4	24.1	3.7	6.3	10	0.2	3	0.5
DO3185	346.4	318.5	38	315.5	351.6	350.7	333.7	18.4	20.3	3.7	6.3	10	0.2	3	0.5
DO3190	346.5	319	46	315	351.6	350.7	333.7	18.4	24.1	3.7	6.3	10	0.2	3	0.5
DO3160	347	316	39	*	*	*	*	*	*	*	*	*	*	*	0.5
DO3200	348	320	40	*	*	*	*	*	*	*	*	*	*	*	0.5
DO3400	368	340	40	335	374.8	373.8	358	19	21.5	3	4	10	0.2	3	0.5
DO3400B	368	340	40.8	335	374.8	373.8	358	19	21.5	3	4	10	0.2	3	0.5
DO3400C	370	340	40	335	374.8	373.8	358	19	21.5	3	4	10	0.2	3	0.5
DO3500	375	350	38	345	385.5	384.5	368	17.5	20.5	3.1	6.5	10	0.2	3	0.5
DO3660	394	366	38	363	399.5	398.6	381	17.5	20.5	3	6.5	10	0.2	3	0.5
DO3665	394.4	366.5	38	363.5	399.5	398.6	381.7	18.4	20.3	3.7	6.3	10	0.2	3	0.5
DO3805	405	380.5	40	375	412.2	410.5	395	17	22	3	4	10	0.25	6	0.5
DO3850	413	385	46	*	*	*	*	*	*	*	*	*	*	*	0.5
DO3870	415	387	38	382	420.3	419.3	402	17.5	20.5	3	6.5	10	0.25	3	0.5
DO4000	426.5	400	39	*	*	*	*	*	*	*	*	*	*	*	0.5
DO4290	457	429	38	424	462.3	461.3	444	17.5	20.5	3	6.5	10	0.25	3	0.5



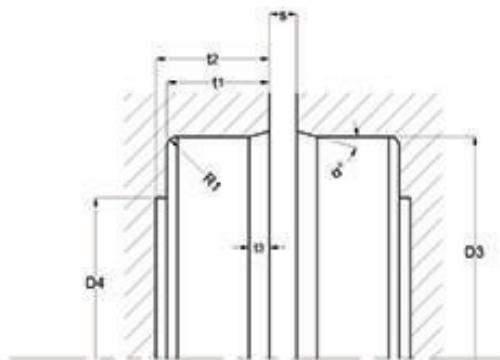
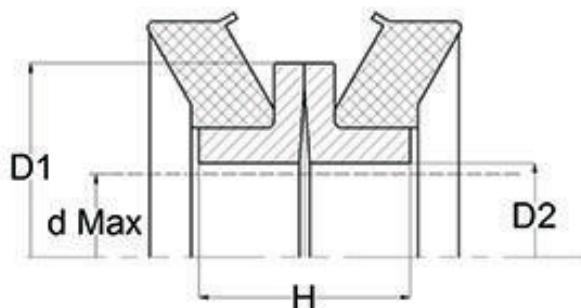
Part No.	D1	D2	H	d Max	D3	D4	D5	t1	t2 min	t3	r	a	Tol±	S	Tol±
DO4300	457	430	38	425	462.3	461.3	444	17.5	20.5	3	6.5	10	0.25	3	0.5
DO4400	468	440	46	*	*	*	*	*	*	*	*	*	*	3	0.5
DO4480	480	448	38	*	*	*	*	*	*	*	*	*	*	3	0.5
DO4500	480	450	50	445	492.2	490.2	470	23.5	25.5	4	6	10	0.4	3	0.5
DO4700	500	470	50	465	512.2	510.2	490	23.5	25.5	4	6	10	0.4	3	0.5
DO5054	533.4	505.4	44	500	538.4	537.4	521	19.7	21.7	4	6.5	10	0.25	6	0.5
DO5070	547	507	60	502	*	*	*	*	*	*	*	*	*	15	0.5
DO5300	560	530	50	524	572.2	570.2	545	23.5	25.5	4	6	10	0.4	3	0.5
DO5390	568	539	39	*	*	*	*	*	*	*	*	*	*	3	0.5
DO5550	590	555	42	*	*	*	*	*	*	*	*	*	*	3	0.5
DO5590	590	559	50	554	602.2	600.2	575	23.5	25.5	4	6	10	0.4	3	0.5
DO5800	608	580	43.6	575	613	612	596	19.7	21.7	4	6.5	10	0.25	6	0.5
DO5910	623	591	50	586	635.2	633.2	613	23.5	25.5	4	6	10	0.4	5.5	0.5
DO5960	628	596	50	591	640.2	638.2	618	23.5	25.5	4	6	10	0.4	5.5	0.5
DO6600	695	660	53	655	705.3	703.3	680	20	22.5	4	6	10	0.4	13	0.5
DO6670	700	667	44	660	705.6	704.3	687	21.3	24	3.7	6.3	10	0.2	9	0.5
DO7180	750	718	50	711	762.2	760.2	740	23.5	25.5	4	6	10	0.4	3	0.5
DO7300	768	730	50	*	*	*	*	*	*	*	*	*	*	5	0.5
DO8340	886	834	80	827	891.9	890.9	860	34.5	39.5	4.5	10	10	0.4	17	0.5
DO9020	941	902	60	892	946.3	945.2	922.4	23.8	25.2	4.65	8	10	0.4	16	0.5
DO9200	976	920	80	910	981.9	980.9	950	34.5	39.5	4.4	10	10	0.4	17	0.5
DO10300	1085	1030	80	1020	1091	1090	1058	34.5	39.5	4.4	10	10	0.4	17	0.5
DO10440	1105	1044	80	1034	1111	1110	1078	34.5	39.5	4.4	10	10	0.4	17	0.5
DO11750	1236	1175	80	1165	1242	1240	1209	32.5	37.5	4.4	10	10	0.4	26	0.5
DO13720	1425	1372	80	1362	1431	1430	1398	32.5	37.5	4.4	10	10	0.4	26	0.5



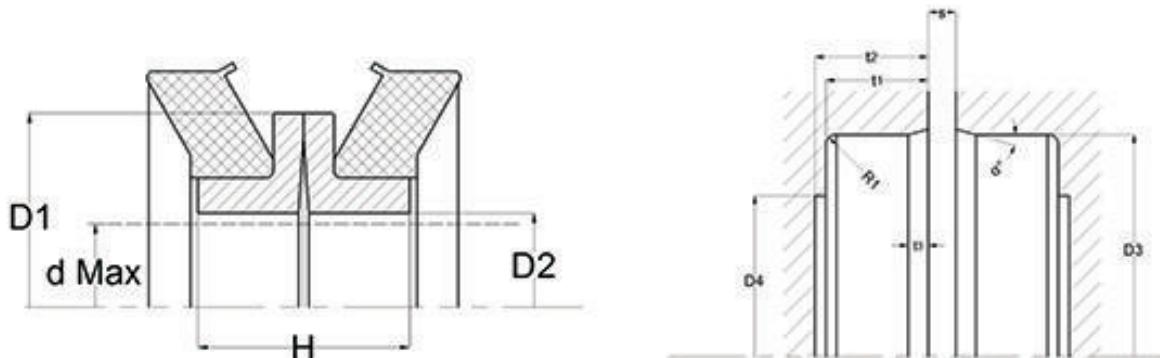
## ► DF型浮动密封(DF TYPE FLOATING SEAL )



Part No.	D1	D2	H	d Max	D3	D4	t1	t2	t3	a	Tol±	S	Tol±
DF0460*	59	46	18	44	66	56	9	10.5	2	30	0.1	2	0.3
DF0450	65	45	22	43	70.1	58	11.5	12.1	1.5	30	0.1	1.7	0.3
DF0505	65	50.5	19	46	76.2	63	10	11	2	15	0.1	2.5	0.3
DF0530*	67	53	17	50.5	76	66	6	8.3	2	30	0.1	3	0.3
DF0585	73	58.5	19	54	82.5	65	10	11	2	15	0.1	3	0.3
DF0600*	76	60	20	57	86	73	8.5	10	2	30	0.1	3	0.3
DF0580	78	58	20	54	82.5	70	10.6	11.6	1.5	30	0.1	1.6	0.3
DF0586	80	58.6	19.6	57	84	71	9	9.5	1.5	15	0.1	3	0.3
DF0600B	80	60	24	57	85	70	10.5	10.5	1	30	0.1	7	0.3
DF0635	81	63.5	19	59.5	87.8	71	9	9.5	1	15	0.1	3	0.3
DF0670	86.2	67	20	64	95.6	82	10	11	2	15	0.1	3	0.3
DF0760	90	76	17	73	95	83	8	9.5	1	30	0.1	2	0.3
DF0730*	90	73	21.5	70	101	87	9.5	11	2	30	0.1	3	0.3
DF0735	93	73.5	20	70.5	102.4	88.4	10.8	11.2	1	30	0.1	3	0.3
DF0825	100	82.5	22	78	114.3	97	11	12	2	15	0.1	3.5	0.3
DF0840*	101	84	23	81.8	114.3	97.36	12.06	12.44	2	30	0.1	1.69	0.3
DF0817	101.5	81.7	20	70	110.2	96	10	11	2	15	0.1	3	0.3
DF0880	104	88	18	85	113	98	8	9.5	1	20	0.1	3	0.3
DF0875	109	87.5	18	83	113	100	8.5	9.5	1.5	15	0.1	3	0.3
DF0875B	111.5	87.5	19	85	115.8	102	10	11	1.5	15	0.1	3	0.3
DF0945	112	94.5	22.4	90	125.8	109	12.5	13	2.5	15	0.1	3	0.3
DF0930	120	93	24	90	125.8	109.1	13	13.6	1.5	30	0.1	1.8	0.3
DF0940	120	94	25	90	125.8	109.1	13	13.6	1.5	30	0.1	1.8	0.3
DF0990	123	99	19	95	127.3	113	10	11	3	15	0.1	3	0.3
DF1047	123.6	104.7	26.6	98.42	134.93	130.18	13.3	13.3	1.57	15	0.1	1.4	0.3
DF1050	124	105	24.4	101	134.9	125	13.3	14.5	1.3	15	0.1	3	0.3
DF1040	130	104	25.5	100	135	120	13.3	14.3	1.5	15	0.1	1.4	0.3
DF1040B	132	104	27	100	141.2	121	15.1	16.1	1.5	15	0.1	2	0.3
DF1140	133	114	26	110	147.9	130	12	13	2.5	15	0.1	4	0.3



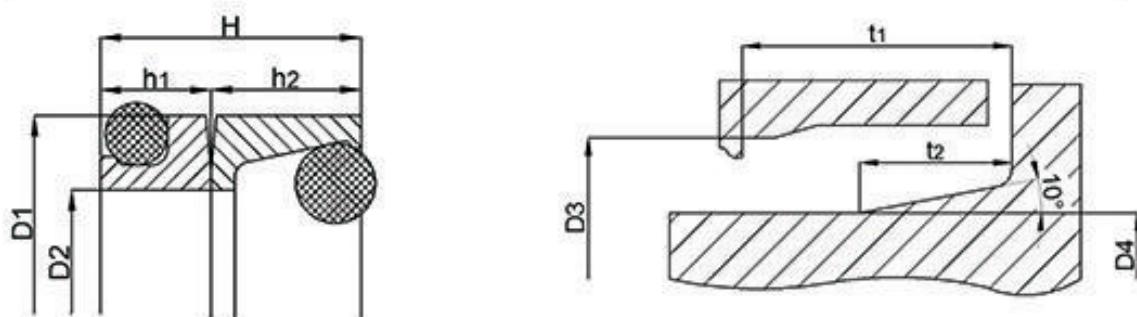
Part No.	D1	D2	H	d Max	D3	D4	t1	t2	t3	a	Tol±	S	Tol±
DF1140B	138	114	26	110	148	126	12	13	2	15	0.1	4	0.3
DF1150	141	115	28	111	152.4	131.4	15.9	15.9	1.5	30	0.1	1.7	0.3
DF1140C	142	114	25	110	148	130	13.15	14.15	1.5	15	0.1	1.7	0.3
DF1140D	142	114	26	109.53	152.4	131.39	15.88	15.88	1.57	15	0.1	1.77	0.3
DF1240	144	124	32	119	162.5	141.5	18.5	20.5	1.5	15	0.1	3	0.3
DF1330	156	133	28	128	171.5	151	13	14	2	15	0.1	6.5	0.3
DF1430	165	143	28	137.16	177.55	168.28	15.88	15.88	1.57	15	0.1	1.5	0.3
DF1430B	168	143	28	137.16	177.55	168.28	15.88	15.88	1.57	15	0.1	1.5	0.3
DF1460	173	146	30	137	177.5	168	15.9	16.9	1.5	15	0.1	1.5	0.3
DF1500	178	150	32	143	184.1	164	16.35	17.35	1.5	15	0.1	2	0.3
DF1550	180	155	34	149	194	174	18.4	20	1.4	15	0.15	4.5	0.3
DF1675#	192.5	167.5	34	162.5	206.3	191.9	15.2	18.1	1.5	30	0.15	1.7	0.3
DF1690	195	169	33	164	206.2	191.5	15.1	18.4	1.1	15	0.15	5	0.5
DF1700	200	170	31	162	206.2	191	15.1	18.4	1.5	15	0.15	2	0.5
DF1930	214.3	193	31	187	238.9	215	19.4	20.4	1.4	15	0.15	3	0.5
DF1940	222	194	32	190	238.76	214.15	20.14	21	1.5	30	0.15	1.9	0.5
DF1930B	223	193	24	189	238.7	214	20.2	21.2	1.5	15	0.15	1.6	0.5
DF2060	234	206	38	198	254	226	21.2	24.4	1.5	15	0.15	2.1	0.5
DF2140	244	214	38	209	255.5	235	18.4	20.2	1.5	15	0.15	2.8	0.5
DF2260	256	226	40	220	277	247	23.7	25.5	1.5	15	0.15	1.5	0.5
DF2330	259	233	35	225	280	250	17	18	2	15	0.15	6	0.5
DF2280	260.5	228	41	221	277.1	247.5	23.5	24.5	1.5	15	0.15	4	0.5
DF2390	264	239	34	234	279.4	261.9	17.5	18.2	1.6	45	0.15	1.5	0.5
DF2480	270	248	41	243	301.1	271	23.5	25.8	1.6	15	0.15	2.5	0.5
DF2415	273	241.5	36	235	279.4	260.6	17.5	20	1	15	0.15	2	0.5
DF2470	277	247	42	243	301.1	271	23.5	25.8	1.6	15	0.15	2.5	0.5
DF2520	280	252	38	236	295.2	273	20.75	23.1	1.5	15	0.15	3	0.5
DF2750	303	275	36	270	309.4	290	17.5	20	1	15	0.15	2	0.5
DF2830	305	283	42	278	329.4	307	18.5	22.1	1.5	15	0.15	3	0.5
DF2850	317	285	38	278	329.4	307	18.5	22.1	1.5	15	0.15	3	0.5
DF2830B	319	283	34	278	329.4	307.3	18.5	18.5	1.5	45	0.15	2.1	0.5



Part No.	D1	D2	H	d Max	D3	D4	t1	t2	t3	a	Tol±	S	Tol±	
DF3200	352	320	40	312	365.1	343	20	21.5	1.5	15	0.15	2	0.5	
DF3195	353	319.5	36	312	365.1	343.7	20	20	1.6	30	0.15	2.1	0.5	
DF3360	368	336	36	330	374.2	355	16.8	19.1	1.5	30	0.15	3	0.5	
DF3580	388	358	42	345	401.7	380	23	24	1.5	15	0.15	1.8	0.5	
DF3550	392	355	39.6	345	401.7	380	23	24	1.5	15	0.15	1.8	0.5	
DF3550B#	392	355	42	345	401.8	380.6	23	23	1.5	30	0.15	1.6	0.5	
DF3785#	414	378.5	42	368.5	424.1	402.9	23	23	1.5	30	0.15	1.6	0.5	
DF4420	470	442	41	435	488.7	467	18.4	22	1.4	15	0.15	2.5	0.5	
DF4415#	478	441.5	42	431.5	488.7	467.4	18.4	21.9	1.5	30	0.15	2.1	0.5	
DF4920	530	492	39	480	546.1	532	19.9	24.4	1.5	15	0.15	2	0.5	
DF4920B	530	492	43	480	546.1	532	19.9	24.4	1.5	15	0.15	2	0.5	
DF5000#	534	500	42	490	546.1	532.1	19.9	22.1	1.5	30	0.15	1.9	0.5	
DF5000B	536	500	40	490	546.1	532.1	19.9	22.1	1.5	30	0.15	1.9	0.5	
DF5120	550	512	41	*	*	*	*	*	*	*	*	0.15	*	0.5
DF5350	580	535	45	*	*	*	*	*	*	*	*	0.15	*	0.5



## XY型浮动密封(XY TYPE FLOATING SEAL )



Part No.	D1	D2	H	h1	h2	D3	D4	t1	t2
XY0540	70.3	54	32.2	10.2	22	70.8	47.5	35.5	18.1
XY0660	82.3	66	32.5	10.5	22	82.7	59.5	39.5	22.5
XY0760	93.3	76	32.3	10.3	22	92.7	69.5	39.2	22.5
XY0820	99	82	30.5	10	20.5	98.7	75.5	39.7	22.5



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