



# **SEALCON**

杭州西肯流体机械有限公司  
Hangzhou Sealcon Fluid Machinery Co.,Ltd





## 简介 introduction

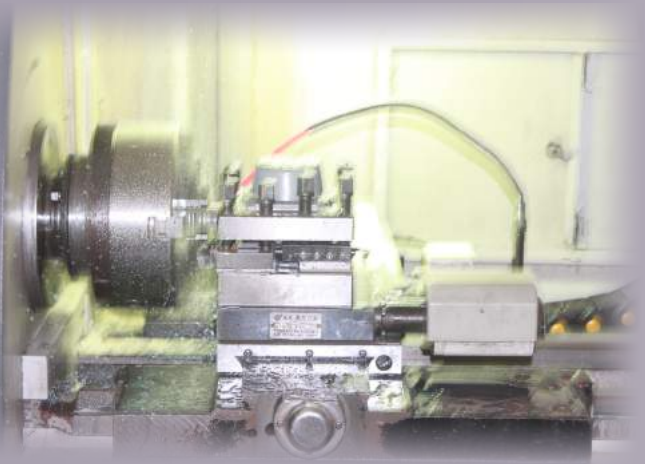
杭州西肯流体机械有限公司位于浙江省杭州建德市，是集生产与贸易一体的自营进出口企业，公司致力于为客户提供最优的流体设备密封解决方案。我们的员工在机械密封和水泵行业有着多年的工作经验，我们能够根据客户的实际工况来选择和设计机械密封，我们配备先进的CNC加工设备，以及多种测量设备来控制产品的质量。我们将为我们的客户提供我们最好的产品质量，最优的客户服务，最合适的产品价格，最及时的交货时间。

目前公司产品包括：

- 机械密封件
- 密封环
- 精密铸造类产品
- 泵类产品
- 阀门类产品
- 联轴器类产品
- 陶瓷类产品

我们的产品已经在多个行业成功应用，包括水处理，石油，化工，冶炼，医药，造纸，航海，食品等行业。产品标准符合DIN24960，EN12756，ISO3069，API610，API682 和GB6556-94标准。一直以来我们注重以优质的产品，良好的服务和具有竞争力的价格不断开拓市场，公司经过几年的发展，目前客户遍布世界各地。

杭州西肯流体机械有限公司全体员工热忱欢迎国内外新老客户莅临公司洽谈业务，共展宏图。



Hangzhou Sealcon Fluid Machinery Co.,Ltd is located in Hangzhou, Zhejiang province, it is a manufacturing & trading company with self-import & export license. The company is dedicated in providing best fluid machinery sealing solution to our customers. Our staffs have many years of experience in mechanical seals and pumps, we can design mechanical seals in accordance with your application, we have advanced CNC equipment and test equipment to control the quality. We will satisfy our customers with our experience, quality, service and shortest delivery.

Our products including:

- Mechanical seals
- Seal rings
- Investment castings
- Pumps
- Valves
- Couplings
- Ceramic products

Our products are successfully used in different fields, such as water treatment, petroleum, chemistry, refinery, pulp & paper, food, marine etc. The products are in according with DIN24960, ISO3069, EN12756, API682 standards. We are always focus on the quality, price and service, with the delopment of these yeas, our customers are from all over the world, mainly in Europe, USA and Southeast Asia.

All Sealcon staffs warmly welcome all customers to visit us and establish long-term cooperation with each other.



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# O型圈 o-ring

材料 materials



- excellent 极佳
- good 尚可
- △ normal 一般
- × bad 极差

	丁腈橡胶 NBR	氢化丁腈橡胶 HNBR	三元乙丙橡胶 EPDM	氯丁橡胶 CR	氟橡胶 VITON	四丙氟橡胶 AFLAS	全氟橡胶 FFKM	聚四氟乙烯 PTFE	硅橡胶 VMQ
抗臭氧性 ozone resistant	△	●	●	● ○	●	●	●	●	●
耐热性 heat resistant	120	150	150	120	200	230	320	280	220
耐化学性 chemical resistant	○ △	○	●	○ △	●	●	●	●	● ○
耐油性 oil resistant	●	●	×	○ △	●	● ○	●	●	○ △
耐寒性 cold resistant	-40 ℃	-40 ℃	-50 ℃	-40 ℃	-20 ℃	-2 ℃	-20 ℃	-100 ℃	-70 ℃
耐磨损性 wear resistant	○	● ○	○	○	● ○	● ○	●	●	×
抗变形性 distortion resistant	● ○	○	● ○	△	○	○	●	×	●
耐酸性 acid resistant	△	○	● ○	○ △	●	●	●	●	△
耐碱性 alkali resistant	○	● ○	●	● ○	● ○	●	●	●	△
张力强度 tensile strength	● ○	●	● ○	● ○	● ○	● ○	○ △	△ ×	×
耐水蒸气 vapor resistant	×	○ △	● ○	△	○ △	●	●	○	○ △
抗燃性 burn resistant	×	×	×	○	●	○	●	●	△ ×
储存稳定性 (Y=年) stable stock year	5-10	5-10	5-10	5-10	15-20	15-20	15-20	15-20	15-20

常用材料颜色: 红色 橙色 黄色 绿色 蓝色 灰色 紫色 棕色  
common color: red orange yellow green blue gray purple brown



## 不锈钢 stainless steel

Lots of stainless steel materials are being used in our products, including

目前我们的产品中使用的不锈钢种类包括：

- 2Cr13
- AISI 304
- AISI 316
- AISI 316L
- AM350 alloy
- Hastelloy C alloy
- Titanium alloy
- Copper
- Bronze

- 2铬13
- 304不锈钢
- 316不锈钢
- 316L不锈钢
- AM350合金
- 哈氏合金
- 钛合金
- 铜
- 青铜



## 聚四氟乙烯 PTFE



性能指数 properties	单位 unit	纯聚四氟乙烯 pure PTFE	玻璃纤维填充聚四氟乙烯 glass fibre filled PTFE	石墨填充聚四氟乙烯 carbon filled PTFE
密度 density	g/cm <sup>3</sup>	2.2	2.3	2.08
抗张强度 tensile strength	MPa	30	15	13
最高工作温度 max. working temperature	°C	260	260	260

# 石墨 carbon



介质 medium	浓度 % concentration	纯碳石墨 pure graphite	呋喃树脂石墨 furan resin	浸锑石墨 antimony	浸铜合金石墨 copper alloy	浸巴氏合金石墨 Babbitt alloy
盐酸 hydrochloric acid	36	+	0	-	-	-
硫酸 sulfuric acid	50	+	0	-	-	-
硫酸 sulfuric acid	98	+	+	-	-	-
硝酸 nitric acid	50	+	0	-	-	-
硝酸 nitric acid	强(srtong)		-	-	-	-
氢氟酸 hydrofluoric acid	40	+	0	-	-	-
磷酸 phosphoric acid	85	+	+	-	-	-
铬酸 chromic acid	10	+	0	-	-	-
醋酸 acetic acid	36	+	0	-	-	-
氢氧化钠 sodium hydroxide	50	+	+	-	-	+
氢氧化钾 potassium hydroxide	50	+	0	-	-	+
海水 sea water		+	+	+	+	+
苯 benzene	100	+	0	+	+	-
氨水 ammonia	10	+	+	+	+	-
丙酮 acetone	100	+	+	+	0	+
尿素 carbamide		+	+	+	0	-
四氯化碳 carbon tetrachloride		+	+	+	+	+
机油 oil		+	+	+	+	+
汽油 gasoline		+	+	+	+	+

+ stable (稳定) - unstable (不稳定)  
0 middle (between stable and unstable) (两者之间)

型号 model	M190T	M106K	M180K	M106D	M160C	M160B
材料 material	纯碳石墨 pure graphite	呋喃树脂石墨 furan resin	呋喃树脂石墨 furan resin	浸锑石墨 antimony carbon	浸铜合金 copper alloy	浸巴氏合金 Babbitt alloy
体积密 density (g/cm3)	1.8	1.65	1.8	2.3	2.4	2.4
抗折强度 Fractural strength (MPa)	100	65	80	65	80	65
抗压强度 compressive strength (MPa)	250	230	240	200	250	160
肖氏硬度 (HS) Shaw hardness	92	90	90	80	75	60
气孔 porosity (%)	1.2	1.5	1.2	2	2.5	8
热膨胀系数 Coefficient of heat expansion (1/°C)	5.5	5.5	5.5	5.5	6	5.5
使用温度 temperature (°C)	600	210	210	350	350	200

# 碳化硅 SIC



性能指数 properties	反应烧结 碳化硅 R-SiC	无压烧结 碳化硅 S-SiC
气孔率 Porosity (%)	≤0.3	≤0.2
密度 Density (g/cm <sup>3</sup> )	3.05	3.1~3.15
硬度 Hardness	110~125 (HS)	2800 (kg/mm <sup>2</sup> )
弹性模量 Elastic Modulus (Gpa)	≥400	≥410
碳化硅含量 SiC Content (%)	≥85%	≥99%
硅含量 Si Content (%)	≤15%	0.1%
抗弯强度 Bend Strength (Mpa)	≥350	450
抗压强度 Compressive Strength (kg/mm <sup>2</sup> )	≥2200	3900
热膨胀系数 Coefficient of heat expansion (1/°C)	4.5×10 <sup>-6</sup>	4.3×10 <sup>-6</sup>
最高使用温度 Heat resistance (in the atmosphere) (°C)	1300	1600

测试环境 Test Environment	腐蚀速度 Corrosive Weight Loss (mg/cm <sup>2</sup> yr)		
	温度 Temperature (°C)	反应烧结 碳化硅 R-SiC	无压烧结 碳化硅 S-SiC
试剂及其浓度 Concentration Reagent (wt%)			
98% H <sub>2</sub> SO <sub>4</sub>	100	50	1.5
50% NaOH	100	1000	2.5
53% HF	100	7	0.2
85% H <sub>3</sub> PO <sub>4</sub>	100	8	0.2
70% HNO <sub>3</sub>	100	0.5	0.2
45% KOH	100	1000	0.2
25% HCL	100	0.9	0.2
10% HF plus 57% HNO <sub>3</sub>	25	1000	0.2

测试环境：在测试溶液中浸没125-300小时，并连续搅动溶液  
Test Environment: 125-300 hours of immersed testing, continuously stirred

# 陶瓷 Al<sub>2</sub>O<sub>3</sub> (ceramic)



氧化铝 (Al<sub>2</sub>O<sub>3</sub>) 物理性能参数  
ceramic physical property

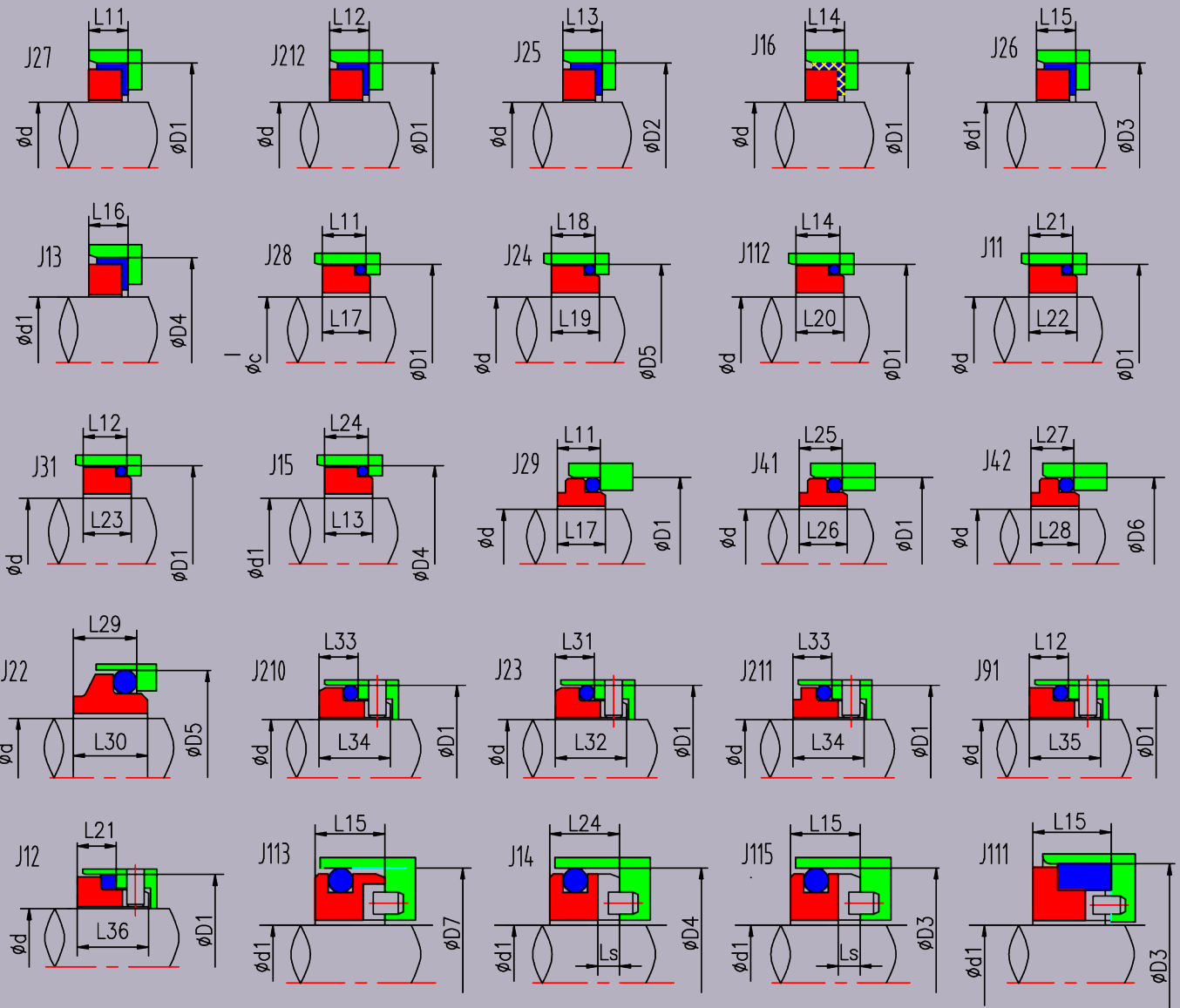
技术参数 Technical parameter	单位 unit	95%陶瓷 95%Al <sub>2</sub> O <sub>3</sub>	99%陶瓷 99%Al <sub>2</sub> O <sub>3</sub>	99.5%陶瓷 99.5%Al <sub>2</sub> O <sub>3</sub>
氧化铝含量 content of Al <sub>2</sub> O <sub>3</sub>	%	95	99	99.5
体积密度 density	g/cm <sup>3</sup>	3.7	3.88	3.9
硬度 hardness	HRA	85	88	90
显气孔率 porosity rate	%	0.4	0.2	0.15
抗折强度 fractural strength	MPa	250	310	350
热膨胀系数 coefficient of heat expansion	10(-6)/K	5.5	5.3	5.2
导热系数 thermal conductivity	W/M.K	27.8	26.7	26



# 硬质合金 tungsten carbide

牌号 model	镍含量 (wt%) nickel content	密度(g/cm <sup>3</sup> ) density	硬度(HRA) hardness	抗弯强度(≥N/mm <sup>2</sup> ) bending strength
YN6	5.7-6.2	14.5-14.9	88.5-91.0	1800
YN8	7.7-8.2	14.4-14.8	87.5-90.0	2000

牌号 model	钴含量 (wt%) cobalt content	密度(g/cm <sup>3</sup> ) density	硬度(HRA) hardness	抗弯强度(≥N/mm <sup>2</sup> ) bending strength
YG6	5.8-6.2	14.6-15.0	89.5-91.0	1800
YG8	7.8-8.2	14.5-14.9	88.0-90.5	1980
YG12	11.7-12.2	13.9-14.5	87.5-89.5	2400
YG15	14.6-15.2	13.9-14.2	87.5-89.0	2480
YG20	19.6-20.2	13.4-13.7	85.5-88.0	2650
YG25	24.5-25.2	12.9-13.2	84.5-87.5	2850



size (inch)	d1	D3	D4	D7	L15	L16	L24	Ls
0.375	9.5	22.23	24.60	0	7.95	8.7	8.7	-
0.500	12.7	25.40	27.80	25.60	7.95	8.7	8.7	-
0.625	15.8	31.75	30.95	31.95	10.31	10.3	10.3	2.0
0.750	19.0	34.93	34.15	35.12	10.31	10.3	10.3	2.0
0.875	22.2	38.10	37.30	38.30	10.31	10.3	10.3	2.0
1.000	25.4	41.28	40.50	41.48	11.10	10.3	10.3	2.0
1.125	28.5	44.45	47.65	44.65	11.10	11.9	11.9	2.5
1.250	31.7	47.63	50.80	47.83	11.10	11.9	11.9	2.5
1.375	34.9	50.80	54.00	51.00	11.10	11.9	11.9	2.5
1.500	38.1	53.98	57.15	54.18	11.10	11.9	11.9	2.5
1.625	41.2	60.33	60.35	60.53	12.70	11.9	11.9	2.5
1.750	44.4	63.50	63.50	63.70	12.70	11.9	11.9	2.5
1.875	47.6	66.68	66.70	66.88	12.70	11.9	11.9	2.5
2.000	50.8	69.85	69.85	70.05	12.70	13.5	13.5	3.0
2.125	53.9	76.20	73.05	76.40	14.27	13.5	13.5	3.0
2.250	57.1	79.38	76.20	79.58	14.27	13.5	13.5	3.0
2.375	60.3	82.55	79.40	82.75	14.27	13.5	13.5	3.0
2.500	63.5	85.73	82.55	85.93	14.27	13.5	13.5	3.0
2.625	66.6	85.73	92.05	85.93	15.88	15.9	15.9	3.0
2.750	69.8	88.90	95.25	89.10	15.88	15.9	15.9	3.0
2.875	73.0	95.25	98.45	95.45	15.88	15.9	15.9	3.0
3.000	76.2	98.43	101.65	98.63	15.88	15.9	15.9	3.0
3.125	79.3	101.60	111.15	101.80	19.84	20.0	19.9	4.0
3.250	82.5	104.78	114.30	104.98	19.84	20.0	19.9	4.0
3.375	85.7	107.95	117.50	108.15	19.84	20.0	19.9	4.0
3.500	88.9	111.13	120.65	111.33	19.84	20.0	19.9	4.0
3.625	92.0	114.30	123.85	114.50	19.84	20.0	19.9	4.0
3.750	95.2	117.48	127.00	117.68	19.84	20.0	19.9	4.0
3.875	98.4	120.65	130.20	120.85	19.84	20.0	19.9	4.0
4.000	101.6	123.83	133.35	124.03	19.84	20.0	19.9	4.0

静组 Seal



# 静组 seat

d	D1	D2	D5	D6	L11	L12	L13	L14	L17	L18	L19	L20	L21	L22	L23	L25	L26	L27	L28	L29	L30	L31	L32	L33	L34	L35	L36
10	21	24.60	19.2	18.1	6.6	8.6	9.0	5	7.5	6.6	7.5	0	0	0	10.0	7	8.5	5.5	7.0	7.1	9.0	0	0	10.0	17.5	15.0	0
12	23	27.80	21.6	20.6	6.6	8.6	9.0	6	7.5	5.6	6.5	6.8	0	0	10.0	7	8.5	5.5	7.0	7.6	10.0	0	0	10.0	17.5	15.0	0
14	25	30.95	24.6	23.1	6.6	8.6	10.5	6	7.5	5.6	6.5	6.8	12.0	12.8	10.0	7	8.5	6.0	7.5	7.6	10.0	0	0	10.0	17.5	15.0	18.5
16	27	30.95	28.0	26.9	6.6	8.6	10.5	6	7.5	7.5	8.5	6.8	12.0	12.8	10.0	7	8.5	7.0	9.0	9.0	11.5	0	0	10.0	17.5	15.0	18.5
18	33	34.15	30.0	30.9	7.5	10.0	10.5	6	8.5	8.0	9.0	7.0	13.5	14.5	11.5	10	12.0	8.0	9.5	10.0	12.5	7.0	15.0	11.5	19.5	17.0	20.5
20	35	35.70	35.0	30.9	7.5	10.0	10.5	6	8.5	7.5	8.5	7.0	13.5	14.5	11.5	10	12.0	8.0	9.5	9.5	12.5	7.0	15.0	11.5	19.5	17.0	20.5
22	37	37.30	35.0	35.4	7.5	10.0	10.5	6	8.5	7.5	8.5	7.0	13.5	14.5	11.5	10	12.0	8.0	9.5	9.5	12.5	7.0	15.0	11.5	19.5	17.0	20.5
24	39	40.50	38.0	35.4	7.5	10.0	10.5	6	8.5	7.5	8.5	7.0	13.3	14.3	11.5	10	12.0	8.0	9.5	9.5	12.5	7.0	15.0	11.5	19.5	17.0	20.3
25	40	40.50	38.0	38.2	7.5	10.0	10.5	6	8.5	7.5	8.5	7.0	13.0	14.0	11.5	10	12.0	8.5	9.5	9.5	12.5	7.0	15.0	11.5	19.5	17.0	20.0
28	43	47.65	42.0	43.3	7.5	10.0	12.0	6	8.5	9.0	10.0	7.0	12.5	13.5	11.5	10	12.0	9.0	11.0	11.0	14.0	7.0	15.0	11.5	19.5	17.0	19.5
30	45	50.80	45.0	43.3	7.5	10.0	12.0	7	8.5	10.5	11.5	8.0	12.0	13.0	11.5	10	12.0	9.0	11.0	11.0	14.0	7.0	15.0	11.5	19.5	17.0	19.0
32	48	50.80	48.0	43.3	7.5	10.0	12.0	7	8.5	10.5	11.5	8.0	12.0	13.0	11.5	10	11.5	9.0	11.0	11.0	14.0	7.0	15.0	11.5	19.5	17.0	19.0
33	48	54.00	50.0	53.5	7.5	10.0	12.0	7	8.5	10.5	12.0	8.0	12.0	13.0	11.5	10	11.5	11.5	13.0	11.5	14.5	7.0	15.0	11.5	19.5	17.0	19.0
35	50	54.00	52.0	53.5	7.5	10.0	12.0	8	8.5	11.0	12.0	9.0	12.0	13.0	11.5	10	11.5	11.5	13.0	11.5	14.5	7.0	15.0	11.5	19.5	17.0	19.0
38	56	57.15	55.0	60.5	9.0	11.0	12.0	8	10.0	10.3	11.3	9.0	13.0	14.0	12.5	13	15.0	11.5	13.0	11.5	14.5	7.0	16.0	14.0	22.0	18.0	20.0
40	58	60.35	58.0	60.5	9.0	11.0	12.0	8	10.0	10.8	11.8	9.0	13.0	14.0	12.5	13	15.0	11.5	13.0	11.5	14.5	8.0	16.0	14.0	22.0	18.0	20.0
43	61	63.50	62.0	60.5	9.0	11.0	12.0	8	10.0	12.0	13.2	9.0	13.0	14.0	12.5	13	14.5	11.5	13.0	14.3	17.0	8.0	16.0	14.0	22.0	18.0	20.0
45	63	63.50	64.0	65.5	9.0	11.0	12.0	8	10.0	11.6	12.8	9.0	13.0	14.0	12.5	13	14.5	11.5	13.0	14.3	17.0	8.0	16.0	14.0	22.0	18.0	20.0
48	66	66.70	68.4	65.5	9.0	11.0	12.0	10	10.0	11.6	12.8	11.0	13.0	14.0	12.5	13	15.0	11.5	13.0	14.3	17.0	8.0	16.0	14.0	22.0	18.0	20.0
50	70	69.85	69.3	72.5	9.5	13.0	13.5	10	10.5	11.6	12.8	11.0	13.5	14.5	14.5	14	16.0	11.5	13.5	14.3	17.0	9.5	17.0	15.0	23.0	20.0	20.5
53	73	73.05	72.3	0	11.0	13.0	13.5	10	12.0	12.3	13.5	11.0	13.5	14.5	14.5	14	16.0	0	0	14.3	17.0	9.5	17.0	15.0	23.0	20.0	20.5
55	75	76.20	75.4	72.5	11.0	13.0	13.5	10	12.0	13.3	14.5	11.0	13.5	14.5	14.5	14	16.0	11.5	13.5	15.3	18.0	9.5	17.0	15.0	23.0	20.0	20.5
58	78	79.40	78.4	0	11.0	13.0	13.5	10	12.0	13.3	14.5	10.7	13.5	14.2	14.5	14	16.0	0	0	15.3	18.0	10.5	18.0	15.0	23.0	20.0	20.5
60	80	79.40	80.4	79.3	11.0	13.0	13.5	12	12.0	13.3	14.5	12.7	13.5	14.2	14.5	14	16.0	11.5	13.5	15.3	18.0	10.5	18.0	15.0	23.0	20.0	20.5
63	83	0	83.4	0	11.0	13.0	0	12	12.0	13.3	14.2	12.7	13.5	14.2	14.5	14	16.0	0	0	15.3	18.0	10.5	18.0	15.0	23.0	20.0	20.5
65	85	92.10	85.4	84.5	11.0	13.0	16.0	12	12.0	13.0	14.2	12.7	13.5	14.2	14.5	14	16.0	11.5	13.5	15.3	18.0	10.5	18.0	15.0	23.0	20.0	20.5
68	90	95.25	91.5	0	11.3	15.3	16.0	12	12.5	13.7	14.9	12.7	13.5	14.2	16.5	16	18.0	0	0	16.0	18.0	11.0	18.5	18.0	26.0	22.0	20.5
70	92	95.25	92.0	89.5	11.3	15.3	16.0	12	12.5	13.0	14.2	12.7	14.5	15.2	16.5	16	18.0	11.5	13.5	15.3	18.0	11.5	19.0	18.0	26.0	22.0	21.5
75	97	101.60	99.0	94.5	11.3	15.3	16.0	12	12.5	14.8	15.2	12.7	14.5	15.2	16.5	16	18.0	11.5	13.5	15.3	18.0	11.5	19.0	18.0	26.0	22.0	21.5
80	105	114.30	104.0	99.5	12.0	15.7	20.0	12.5	13.0	14.8	16.2	13.2	15.0	15.7	17.5	18	20.0	11.5	13.5	16.3	19.0	11.5	19.0	18.2	26.2	22.5	22.0
85	110	117.50	109.0	105.5	14.0	15.7	20.0	12.5	15.0	14.8	16.0	13.2	15.0	15.7	17.5	18	20.0	13.5	15.5	16.3	19.0	11.5	19.0	18.2	26.2	22.5	22.0
90	115	123.85	114.0	111.5	14.0	15.7	20.0	12.5	15.0	14.8	16.0	13.2	15.0	15.7	17.5	18	20.0	13.5	15.5	16.3	19.0	13.0	20.5	18.2	26.2	22.5	22.0
95	120	127.00	120.3	116.5	14.0	15.7	20.0	12.5	15.0	15.8	17.0	13.2	15.0	15.7	17.5	18	20.0	13.5	15.5	17.3	20.0	13.0	20.5	17.2	25.2	22.5	22.0
100	125	133.35	123.3	119.5	14.0	15.7	20.0	12.5	15.0	15.8	17.0	13.2	15.0	15.7	17.5	18	20.0	13.5	15.5	17.3	20.0	13.0	20.5	17.2	25.2	22.5	22.0

E91



E92



E93



E94



E95



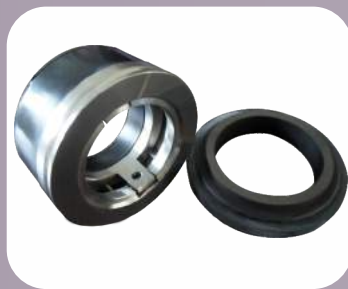
E96



E97



E98



E99



E912



E913



OEM 密封(F系列)  
OEM seals (F series)

FAL-20



FAU-20



FBL-28



FBU-28



FEL-22



FEU-22



FGL-20



FGU-20



FJL-25



FJU-25



FKL-35



FKU-35



FML-35



FMU-35



FOL-45



FOU-45



FPL-60



FPU-60



FQL-60



FSU-90



plug in metal



plug in plastic



G91M



G91W



G92



G93



G94





# M14 M15 M16

## 技术参数

- 温度：  
-75℃到200℃
- 压力：  
最大压力达到20 bar
- 转速：  
最高23 m/s
- 轴向跳动：  
± 0.1mm

## 产品尺寸

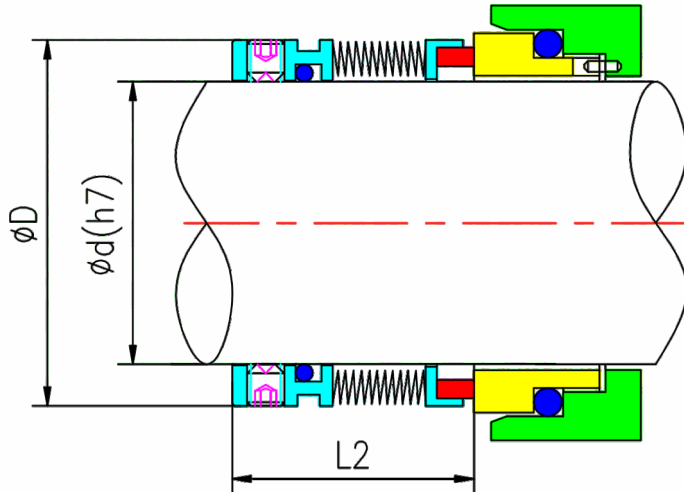
18mm to 150mm  
0.75" to 7"

## Performance Capabilities

- Temperature:  
-75℃ to 200℃
- Pressure:  
Up to 20 bar
- Speed:  
Up to 23 m/s
- End play/axial float allowance  
±0.1mm

## Sizes

18mm to 150mm  
0.75" to 7"



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz, Grofoil etc.
- Spring: SS316, hastelloy C, AM350
- Metal parts: SS316, hastelloy C

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz, 柔性石墨etc.
- 弹簧：SS316, 哈氏合金, Am350
- 其他金属件：SS316, 哈氏合金

型号/规格	d	D	L2
M14/M15/M16-18	18	32	27.7
M14/M15/M16-20	20	33.3	27.7
M14/M15/M16-22	22	36	27.7
M14/M15/M16-24	24	38.1	30.2
M14/M15/M16-25	25	39	30.2
M14/M15/M16-28	28	42	32.7
M14/M15/M16-30	30	44	32.7
M14/M15/M16-32	32	46	32.7
M14/M15/M16-33	33	47	32.7
M14/M15/M16-35	35	49.2	32.7
M14/M15/M16-38	38	52.4	34.2
M14/M15/M16-40	40	55.6	34.2
M14/M15/M16-43	43	58.7	34.2
M14/M15/M16-45	45	58.7	34.2
M14/M15/M16-48	48	61.9	34.2
M14/M15/M16-50	50	65.1	34.2
M14/M15/M16-53	53	68.3	34.2
M14/M15/M16-55	55	71	34.2
M14/M15/M16-60	60	74.6	39.7
M14/M15/M16-65	65	84.1	39.7
M14/M15/M16-70	70	87.3	45.2
M14/M15/M16-75	75	95.3	45.2
M14/M15/M16-80	80	98.4	44.7
M14/M15/M16-85	85	104.8	44.7
M14/M15/M16-90	90	108	49.7
M14/M15/M16-95	95	114.3	49.7
M14/M15-100	100	120.7	49.7
M14/M15-105	105	131.7	48.5
M14/M15-110	110	138.1	48.5
M14/M15-115	115	144.5	48.5
M14/M15-120	120	144.5	48.5
M14/M15-125	125	150.8	48.5
M14/M15-130	130	157.8	48.5
M14/M15-140	140	170.5	48.5
M14/M15-150	145	176.9	48.5

型号/规格	d	D	L2
M14/M15/M16-0.75"	19.05	33.32	31.75
M14/M15/M16-0.875"	22.23	36.50	31.75
M14/M15/M16-0.937"	23.80	38.10	31.75
M14/M15/M16-1"	25.40	39.67	31.75
M14/M15/M16-1.125"	28.58	42.85	31.75
M14/M15/M16-1.25"	31.75	46.02	33.32
M14/M15/M16-1.375"	34.93	49.20	36.50
M14/M15/M16-1.5"	38.10	52.37	36.50
M14/M15/M16-1.625"	41.28	55.55	36.50
M14/M15/M16-1.75"	44.45	58.72	36.50
M14/M15/M16-1.875"	47.63	61.90	38.10
M14/M15/M16-2"	50.80	65.07	38.10
M14/M15/M16-2.125"	53.98	68.25	38.10
M14/M15/M16-2.25"	57.15	71.42	39.67
M14/M15/M16-2.375"	60.33	74.60	39.67
M14/M15/M16-2.5"	63.50	80.95	39.67
M14/M15/M16-2.625"	66.68	84.12	41.28
M14/M15/M16-2.75"	69.85	87.30	41.28
M14/M15/M16-2.875"	73.03	92.08	42.85
M14/M15/M16-3"	76.20	95.25	42.85
M14/M15/M16-3.125"	79.38	98.43	44.45
M14/M15/M16-3.25"	82.55	101.60	44.45
M14/M15/M16-3.375"	85.73	140.78	44.45
M14/M15/M16-3.5"	88.90	107.95	47.63
M14/M15/M16-3.625"	92.08	111.13	47.63
M14/M15/M16-3.75"	95.25	114.30	47.63
M14/M15/M16-3.875"	98.43	117.48	47.63
M14/M15/M16-4"	101.60	120.65	47.63
M14/M15-4.25"	107.95	131.75	48.34
M14/M15-4.5"	114.30	138.13	48.34
M14/M15-4.75"	120.65	144.48	48.34
M14/M15-5"	127.00	150.83	48.34
M14/M15-5.25"	133.35	157.81	48.34
M14/M15-5.5"	139.70	164.16	48.34
M14/M15-5.75"	146.05	170.54	48.34
M14/M15-6"	152.40	176.89	48.34
M14/M15-6.5"	165.10	189.74	48.34
M14/M15-7"	177.80	202.46	48.34

金属波纹管密封  
metal bellows seals

# M17



## 技术参数

- 温度: -40°C到220°C
- 压力:  
最大压力达到25 bar 产品尺寸  
18mm to 100mm  
0.75" to 4"
- 转速: 最高20 m/s
- 轴向跳动: ±0.1mm

产品尺寸  
18mm to 100mm  
0.75" to 4"

## Performance Capabilities

- Temperature:  
-40°C to 220°C
- Pressure:  
Up to 25 bar
- Speed:  
Up to 20 m/s
- End play/axial float allowance  
±0.1mm

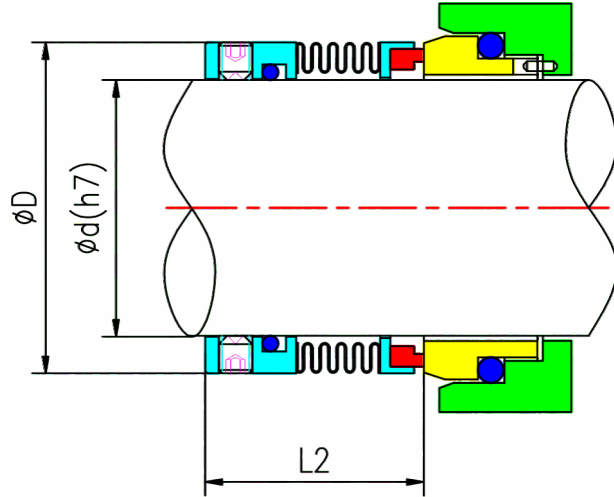
Sizes  
18mm to 100mm  
0.75" to 4"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz, Grofoil etc.
- Spring: SS316, hastelloy C, Am350
- Metal parts: SS316, hastelloy C

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 陶瓷, 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz, 柔性石墨etc.
- 弹簧: SS316, 哈氏合金, Am350
- 其他金属件: SS316, 哈氏合金



型号/规格	d	D	L2
M17-18	18	31	31.5
M17-20	20	31	31.5
M17-22	22	31	31.5
M17-24	24	36	36.7
M17-25	25	36	37
M17-28	28	39	37.5
M17-30	30	42	38
M17-32	32	46	43
M17-33	33	46	43
M17-35	35	48.5	43
M17-38	38	51.5	42
M17-40	40	54	42
M17-43	43	58.4	47
M17-45	45	58.4	47
M17-48	48	63.7	47
M17-50	50	63.7	46.5
M17-53	53	69	56.5
M17-55	55	71	56.5
M17-58	58	73.3	56.5
M17-60	60	76.7	56.5
M17-63	63	79.4	56.5
M17-65	65	83	66.5
M17-68	68	87.8	66.5
M17-70	70	87.8	65.5
M17-75	75	94	65.5
M17-80	80	100.6	75
M17-85	85	106	75
M17-90	90	110.3	75
M17-95	95	114.9	75
M17-100	100	121.3	75

型号/规格	d	D	L2
M17-0.75"	19.05	31.0	31.5
M17-0.875"	22.23	36.0	37.0
M17-1"	25.40	39.0	37.5
M17-1.125"	28.58	42.0	38.0
M17-1.25"	31.75	46.0	43.0
M17-1.375"	34.93	48.5	43.0
M17-1.5"	38.10	51.5	42.0
M17-1.625"	41.28	58.4	47.0
M17-1.75"	41.28	58.4	47.0
M17-1.875"	47.63	63.7	46.5
M17-2"	50.80	63.7	46.5
M17-2.125"	53.98	69.0	56.5
M17-2.25"	57.15	73.3	56.5
M17-2.375"	60.33	76.7	56.5
M17-2.5"	63.50	79.4	56.5
M17-2.625"	66.68	83.0	66.5
M17-2.75"	69.85	87.8	65.5
M17-2.875"	73.02	94.0	65.5
M17-3"	76.20	94.0	65.5
M17-3.125"	79.37	100.6	75.0
M17-3.25"	82.55	100.6	75.0
M17-3.375"	85.72	106.0	75.0
M17-3.5"	88.90	110.3	75.0
M17-3.625"	92.07	114.9	75.0
M17-3.75"	95.25	114.9	75.0
M17-3.875"	98.42	121.3	75.0
M17-4"	101.60	121.3	75.0

## 技术参数

- 温度：  
-40℃到220℃
- 压力：  
最大压力达到25 bar
- 转速：  
最高20 m/s
- 轴向跳动：  
± 0.1mm

## 产品尺寸

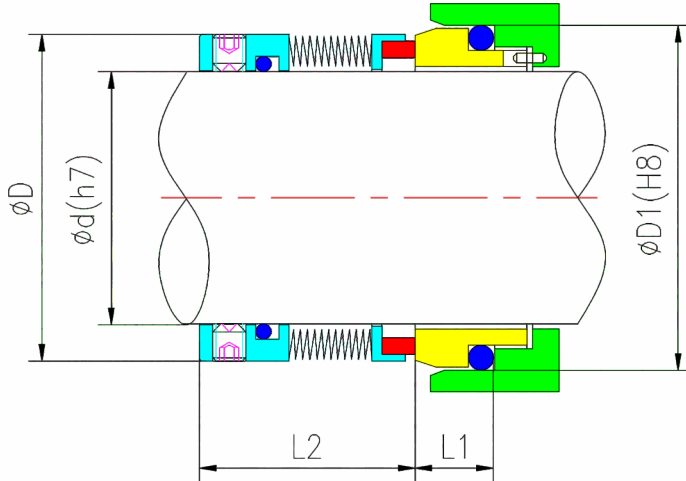
16mm to 100mm

## Performance Capabilities

- Temperature:  
-40℃ to 220℃
- Pressure:  
Up to 25 bar
- Speed:  
Up to 20 m/s
- End play/axial float allowance  
± 0.1mm

## Sizes

16mm to 100mm



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz, Grofoil etc.
- Spring: SS316, hastelloy C, Am350
- Metal parts: SS316, hastelloy C

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz, 柔性石墨etc.
- 弹簧：SS316, 哈氏合金, Am350
- 其他金属件：SS316, 哈氏合金

型号/规格	d	D	D1	L1	L2
M21-16	16	30	27	10	32.7
M21-18	18	32	33	11.5	30.7
M21-20	20	33.5	35	11.5	30.7
M21-22	22	36.5	37	11.5	30.7
M21-24	24	39	39	11.5	28.7
M21-25	25	39.6	40	11.5	28.7
M21-28	28	42.8	43	11.5	31.2
M21-30	30	45	45	11.5	31.2
M21-32	32	46	48	11.5	31.2
M21-33	33	48	48	11.5	31.2
M21-35	35	49.2	50	11.5	31.2
M21-38	38	52.3	56	14	31.2
M21-40	40	55.5	58	14	31.2
M21-43	43	57.5	61	14	31.2
M21-45	45	58.7	63	14	31.2
M21-48	48	61.9	66	14	31.2
M21-50	50	65	70	15	32.7
M21-53	53	68.2	73	15	32.7
M21-55	55	70	75	15	32.7
M21-58	58	71.7	78	15	37.7
M21-60	60	74.6	80	15	37.7
M21-63	63	79	83	15	37.7
M21-65	65	84.1	85	15	37.7
M21-68	68	87.3	90	18	34.7
M21-70	70	87.3	92	18	42.2
M21-75	75	95	97	18	42.2
M21-80	80	98.4	105	18.2	42
M21-85	85	104.7	110	18.2	42
M21-90	90	111	115	18.2	47
M21-95	95	114	120	17.2	48
M21-100	100	117.4	125	17.2	48

# M22



## 技术参数

- 温度：  
-75°C到400°C
- 压力：  
最大压力达到20 bar (单层)  
最大压力达到60 bar (双层)
- 转速：  
最高23 m/s
- 轴向跳动：  
± 0.1mm

## 产品尺寸

16mm to 100mm

## Performance Capabilities

- Temperature:  
-75°C to 400°C
- Pressure:  
Up to 20 bar (single plate)  
Up to 60 bar (double plate)
- Speed:  
Up to 23 m/s
- End play/axial float allowance  
± 0.1mm

## Sizes

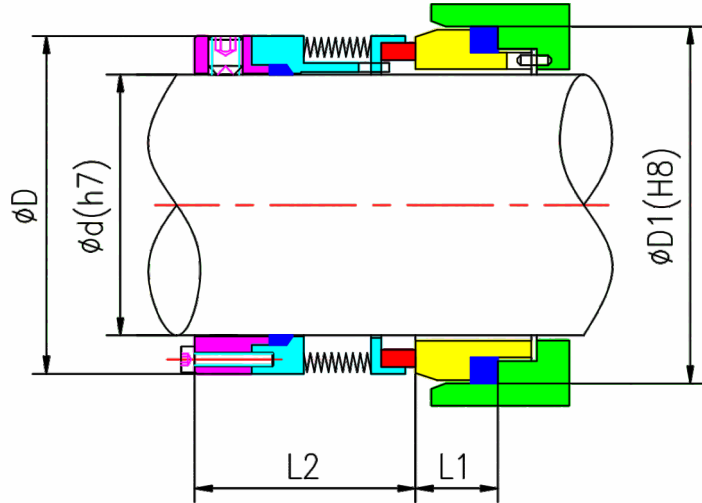
16mm to 100mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz, Grofoil etc.
- Spring: SS316, hastelloy C, AM350
- Metal parts: SS316, hastelloy C

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz, 柔性石墨 etc.
- 弹簧：SS316, 哈氏合金SS316, AM350
- 其他金属件：SS316, 哈氏合金SS316



型号/规格	d	D	D1	L1	L2
M22-16	16	38	35	11.5	46.7
M22-18	18	40	37	11.5	46.7
M22-20	20	42	40	11.5	46.7
M22-22	22	44	43	11.5	46.7
M22-24	24	46	43	11.5	46.7
M22-25	25	47	45	11.5	46.7
M22-28	28	50	48	11.5	46.7
M22-30	30	52	50	11.5	46.7
M22-32	32	54	56	14	46.7
M22-33	33	55	56	14	46.7
M22-35	35	57	58	14	46.7
M22-38	38	60	61	14	46.7
M22-40	40	66	63	14	46.7
M22-43	43	69	66	14	46.7
M22-45	45	71	70	15	46.7
M22-48	48	74	73	15	46.7
M22-50	50	76	75	15	46.7
M22-53	53	79	78	15	46.7
M22-55	55	81	80	15	46.7
M22-58	58	85	83	15	53.2
M22-60	60	87	85	15	53.2
M22-63	63	90	90	18	53.2
M22-65	65	92	92	18	53.2
M22-68	68	95	97	18	53.2
M22-70	70	97	97	18	53.2
M22-75	75	102	105	18.2	53
M22-80	80	107	110	18.2	53
M22-85	85	112	115	18.2	53
M22-90	90	117	120	17.2	54
M22-95	95	122	125	17.2	54
M22-100	100	127	134.3	20	54.2



### 技术参数

- 温度：  
-100°C到400°C
- 压力：  
最大压力达到10 bar (非平衡型)
- 转速：  
最高20 m/s
- 轴向跳动：  
± 0.1mm

### 产品尺寸

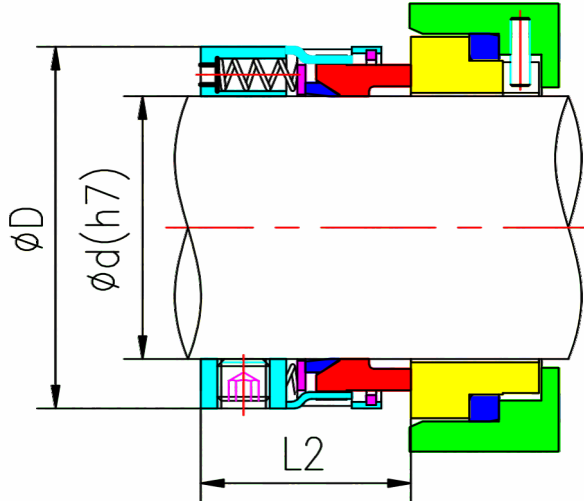
10mm to 125mm  
0.5" to 4"

### Performance Capabilities

- Temperature:  
-100°C to 400°C
- Pressure:  
Up to 10 bar (unbalance type)
- Speed:  
Up to 20 m/s
- End play/axial float allowance  
± 0.1mm

### Sizes

10mm to 125mm  
0.5" to 4"



### Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: PTFE
- Spring: SS304, SS316, hastelloy C
- Metal parts: SS304, SS316

### 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：PTFE
- 弹簧：SS304, SS316, 哈氏合金
- 其他金属件：SS304, SS316

型号/规格	d	D	L2
N11-10	10	29.0	21
N11-14	14	29.0	21
N11-15	15	29.0	21
N11-16	16	33.8	19
N11-18	18	33.8	22
N11-20	20	39.8	24
N11-22	22	39.8	24
N11-24	24	39.8	25
N11-25	25	39.8	25
N11-28	28	43.4	27
N11-30	30	46.4	27
N11-32	32	49.7	29
N11-35	35	51.3	29
N11-38	38	54.5	29
N11-40	40	59.6	35
N11-44	44	64.0	35
N11-45	45	64.7	35
N11-48	48	67.2	35
N11-50	50	69.6	35
N11-55	55	82.7	43
N11-60	60	82.7	43
N11-65	65	92.6	43
N11-70	70	92.6	43
N11-75	75	101.1	43
N11-80	80	101.1	43
N11-85	85	117.7	43
N11-90	90	117.7	43
N11-95	95	117.7	43
N11-100	100	137.5	43
N11-105	105	137.5	51
N11-110	110	142.5	51
N11-115	115	152.4	51
N11-120	120	152.4	51
N11-125	125	157.4	51

型号/规格	d	D	L2
N11-1/2"	12.7	26.7	20.8
N11-5/8"	15.88	30.7	19.2
N11-3/4"	19.05	34	22.4
N11-7/8"	22.23	37.2	24
N11-1"	25.4	40.3	25.6
N11-1 1/8"	28.58	43.5	27.2
N11-1 1/4"	31.75	48.3	27.2
N11-1 3/8"	34.93	51.5	28.8
N11-1 1/2"	38.1	54.6	28.8
N11-1 5/8"	41.28	61	35.2
N11-1 3/4"	44.45	64.2	35.2
N11-1 7/8"	47.63	67.3	35.2
N11-2"	50.8	70.5	35.2
N11-2 1/8"	53.98	76.9	43.2
N11-2 1/4"	57.15	80	43.2
N11-2 3/8"	60.33	83.2	43.2
N11-2 1/2"	63.5	86.4	43.2
N11-2 5/8"	66.68	89.6	43.2
N11-2 3/4"	69.85	92.7	43.2
N11-2 7/8"	73.03	95.9	43.2
N11-3"	76.2	97.5	43.2
N11-3 1/8"	79.38	100.7	43.2
N11-3 1/4"	82.55	105.4	43.2
N11-3 3/8"	85.73	108.6	43.2
N11-3 1/2"	88.9	111.8	43.2
N11-3 5/8"	92.08	115	43.2
N11-3 3/4"	95.25	118.1	43.2
N11-3 7/8"	98.43	121.3	43.2
N11-4"	101.6	124.5	43.2

# N12



## 技术参数

- 温度：  
-50°C到400°C
- 压力：  
最大压力达到25 bar (平衡型)
- 转速：  
最高20 m/s
- 轴向跳动：  
± 0.1mm

产品尺寸  
5/8" to 4"

## Performance Capabilities

- Temperature:  
-50°C to 400°C
- Pressure:  
Up to 25 bar (balance type)
- Speed:  
Up to 20 m/s
- End play/axial float allowance  
± 0.1mm

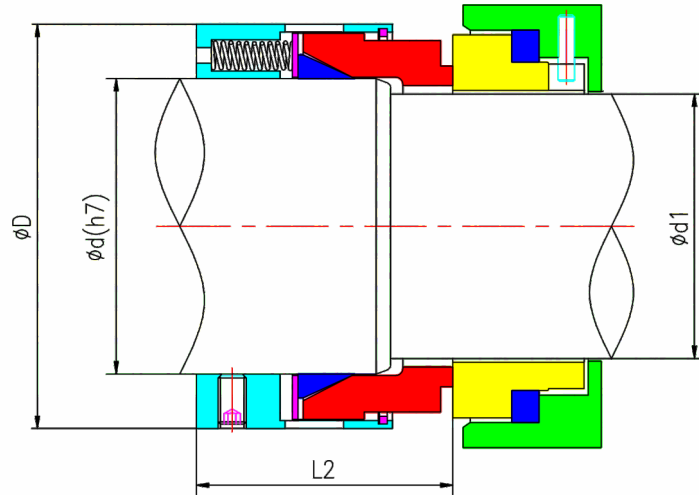
Sizes  
5/8" to 4"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: PTFE
- Spring: SS304, SS316, hastelloy C
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：PTFE
- 弹簧：SS304, SS316, 哈氏合金
- 其他金属件：SS304, SS316



型号/规格	d	d1	D	L2
N12-5/8"	15.88	12.7	30.7	27.2
N12-3/4"	19.05	15.9	34	30.2
N12-7/8"	22.23	19.1	37.2	32.2
N12-1"	25.4	22.2	40.3	33.2
N12-1 1-8"	28.58	25.4	43.5	35.2
N12-1 1-4"	31.75	28.6	48.3	35.2
N12-1 3-8"	34.93	28.6	51.5	37.2
N12-1 1-2"	38.1	31.8	54.6	37.2
N12-1 5-8"	41.28	34.9	61	45.2
N12-1 3-4"	44.45	38.1	64.2	45.2
N12-1 7-8"	47.63	41.3	67.3	45.2
N12-2"	50.8	44.5	70.5	45.2
N12-2 1-8"	53.98	47.6	76.9	52.2
N12-2 1-4"	57.15	50.8	80	52.2
N12-2 3-8"	60.33	54	83.2	52.2
N12-2 1-2"	63.5	57.2	86.4	52.2
N12-2 5-8"	66.68	60.3	89.6	52.2
N12-2 3-4"	69.85	63.5	92.7	52.2
N12-2 7-8"	73.03	66.7	95.9	52.2
N12-3"	76.2	69.9	97.5	52.2
N12-3 1-8"	79.38	73	100.7	52.2
N12-3 1-4"	82.55	76.2	105.4	52.2
N12-3 3-8"	85.73	79.4	108.6	52.2
N12-3 1-2"	88.9	82.6	111.8	52.2
N12-3 5-8"	92.08	85.7	115	52.2
N12-3 3-4"	95.25	88.9	118.1	52.2
N12-3 7-8"	98.43	92.1	121.3	52.2
N12-4"	101.6	95.3	124.5	52.2

## 技术参数

- 温度：  
-40℃到200℃，取决于橡胶材料
- 压力：  
最大压力达到10 bar (非平衡型)
- 转速：  
最高20 m/s
- 轴向跳动：  
± 0.1mm

## 产品尺寸

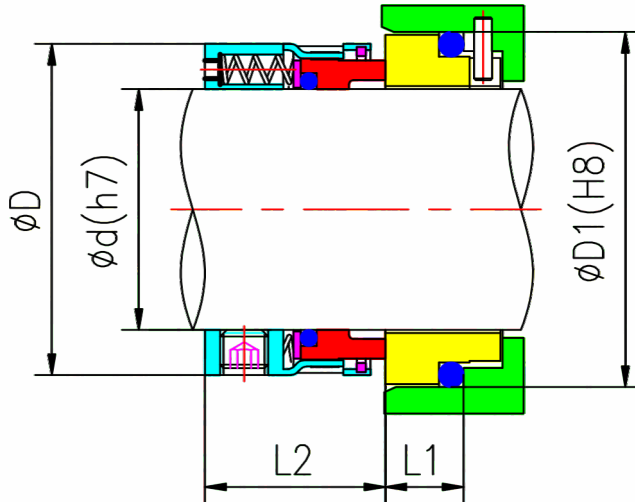
14mm to 100mm

## Performance Capabilities

- Temperature:  
-40℃ to 200℃, depend on o-ring material
- Pressure:  
Up to 10 bar (unbalance type)
- Speed:  
Up to 20 m/s
- End play/axial float allowance  
± 0.1mm

## Sizes

14mm to 100mm



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316, hastelloy C
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316, 哈氏合金
- 其他金属件：SS304, Ss316

型号/规格	d	D	D1	L1	L2
N13-14	14	24	25	12	23.2
N13-16	16	26	27	12	23.2
N13-18	18	32	33	13.5	24.2
N13-20	20	34	35	13.5	24.2
N13-22	22	36	37	13.5	24.2
N13-24	24	38	39	13.5	26.9
N13-25	25	39	40	13	27.2
N13-28	28	42	43	12.5	30.2
N13-30	30	44	45	12	30.7
N13-32	32	46	48	12	30.7
N13-33	33	47	48	12	30.7
N13-35	35	49	50	12	30.7
N13-38	38	54	56	13	32.2
N13-40	40	56	58	13	32.2
N13-43	43	59	61	13	32.2
N13-45	45	61	63	13	32.2
N13-48	48	64	66	13	32.2
N13-50	50	66	70	13.5	34.2
N13-53	53	69	73	13.5	34.2
N13-55	55	71	75	13.5	34.2
N13-58	58	78	78	13.5	39.2
N13-60	60	80	80	13.5	39.2
N13-63	63	83	83	13.5	39.2
N13-65	65	85	85	13.5	39.2
N13-68	68	88	90	13.5	39.2
N13-70	70	90	92	14.5	45.7
N13-75	75	95	97	14.5	45.7
N13-80	80	104	105	15	45.2
N13-85	85	109	110	15	45.2
N13-90	90	114	115	15	50.2
N13-95	95	119	120	15	50.2
N13-100	100	124	125	15	50.2

# N14



## 技术参数

- 温度：  
-40℃到200℃，取决于橡胶材料
- 压力：  
最大压力达到25 bar (平衡型)
- 转速：  
最高20 m/s
- 轴向跳动：  
± 0.1mm

**产品尺寸**  
14mm to 100mm

## Performance Capabilities

- Temperature:  
-40℃ to 200℃, depend on o-ring material
- Pressure:  
Up to 25 bar (balance type)
- Speed:  
Up to 20 m/s
- End play/axial float allowance  
± 0.1mm

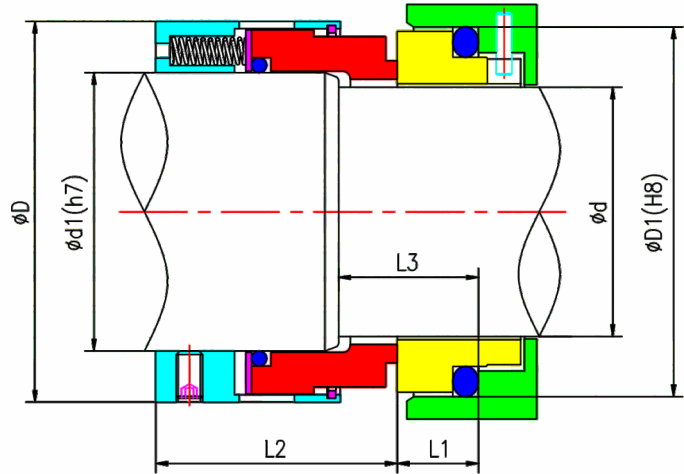
**Sizes**  
14mm to 100mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316, hastelloy C
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316, 哈氏合金
- 其他金属件：SS304, SS316



型号/规格	d	d1	D	D1	L1	L2	L3
N14-14	14	18	32	25	12	30.7	18
N14-16	16	20	34	27	12	30.7	18
N14-18	18	22	36	33	13.5	31.7	20
N14-20	20	24	38	35	13.5	31.7	20
N14-22	22	26	40	37	13.5	31.7	20
N14-24	24	28	42	39	13.5	34.4	20
N14-25	25	30	44	40	13	34.7	20
N14-28	28	33	47	43	12.5	37.7	20
N14-30	30	35	49	45	12	38.2	20
N14-32	32	38	54	48	12	38.2	20
N14-33	33	38	54	48	12	38.2	20
N14-35	35	40	56	50	12	38.2	20
N14-38	38	43	59	56	13	39.7	23
N14-40	40	45	61	58	13	39.7	23
N14-43	43	48	64	61	13	39.7	23
N14-45	45	50	66	63	13	39.7	23
N14-48	48	53	69	66	13	39.7	23
N14-50	50	55	71	70	13.5	44.2	25
N14-53	53	58	78	73	13.5	44.2	25
N14-55	55	60	80	75	13.5	44.2	25
N14-58	58	63	83	78	13.5	49.2	25
N14-60	60	65	85	80	13.5	49.2	25
N14-63	63	68	88	83	13.5	49.2	25
N14-65	65	70	90	85	13.5	49.2	25
N14-70	70	75	95	92	14.5	55.7	28
N14-75	75	80	104	97	14.5	55.7	28
N14-80	80	85	109	105	15	55.2	28
N14-85	85	90	114	110	15	60.2	28
N14-90	90	95	119	115	15	60.2	28
N14-95	95	100	124	120	15	60.2	28
N14-100	100	105	129	125	15	60.2	28



## 技术参数

- 温度：  
-50°C到500°C
- 压力：  
最大压力达到10 bar (非平衡型)
- 转速：  
最高20 m/s
- 轴向跳动：  
± 0.1mm

## 产品尺寸

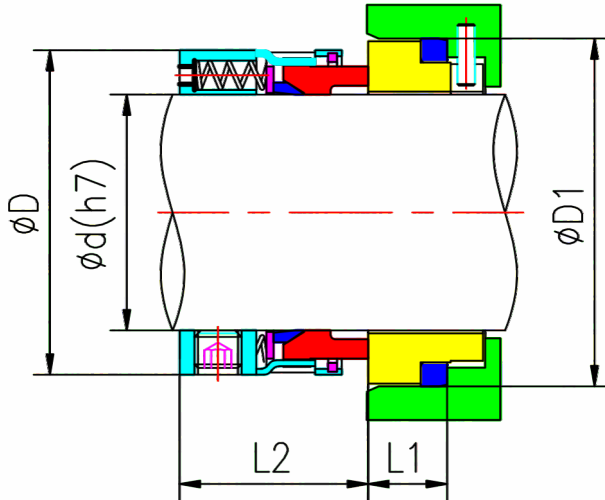
14mm to 100mm

## Performance Capabilities

- Temperature:  
-50°C to 500°C
- Pressure:  
Up to 10 bar (unbalance type)
- Speed:  
Up to 20 m/s
- End play/axial float allowance  
± 0.1mm

## Sizes

14mm to 100mm



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: PTFE
- Spring: SS304, SS316, hastelloy C
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：PTFE
- 弹簧：SS304, SS316, 哈氏合金
- 其他金属件：SS304, SS316

型号/规格	d	D	D1	L1	L2
N15-14	14	24	25	12	23.2
N15-16	16	26	27	12	23.2
N15-18	18	32	33	13.5	24.2
N15-20	20	34	35	13.5	24.2
N15-22	22	36	37	13.5	24.2
N15-24	24	38	39	13.5	26.9
N15-25	25	39	40	13	27.2
N15-28	28	42	43	12.5	30.2
N15-30	30	44	45	12	30.7
N15-32	32	46	48	12	30.7
N15-33	33	47	48	12	30.7
N15-35	35	49	50	12	30.7
N15-38	38	54	56	13	32.2
N15-40	40	56	58	13	32.2
N15-43	43	59	61	13	32.2
N15-45	45	61	63	13	32.2
N15-48	48	64	66	13	32.2
N15-50	50	66	70	13.5	34.2
N15-53	53	69	73	13.5	34.2
N15-55	55	71	75	13.5	34.2
N15-58	58	78	78	13.5	39.2
N15-60	60	80	80	13.5	39.2
N15-63	63	83	83	13.5	39.2
N15-65	65	85	85	13.5	39.2
N15-68	68	88	90	13.5	39.2
N15-70	70	90	92	14.5	45.7
N15-75	75	95	97	14.5	45.7
N15-80	80	104	105	15	45.2
N15-85	85	109	110	15	45.2
N15-90	90	114	115	15	50.2
N15-95	95	119	120	15	50.2
N15-100	100	124	125	15	50.2

# N16



## 技术参数

- 温度：  
-50°C到500°C
- 压力：  
最大压力达到25 bar (平衡型)
- 转速：  
最高20 m/s
- 轴向跳动：  
± 0.1mm

## 产品尺寸

14mm to 100mm

## Performance Capabilities

- Temperature:  
-50°C to 500°C
- Pressure:  
Up to 25 bar (balance type)
- Speed:  
Up to 20 m/s
- End play/axial float allowance  
± 0.1mm

## Sizes

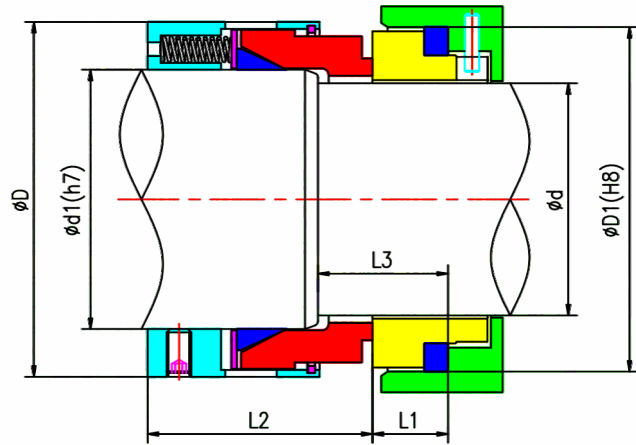
14mm to 100mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: PTFE
- Spring: SS304, SS316, hastelloy C
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：PTFE
- 弹簧：SS304, SS316, 哈氏合金
- 其他金属件：SS304, SS316



型号/规格	d	d1	D	D1	L1	L2	L3
N16-14	14	18	32	25	12	30.7	18
N16-16	16	20	34	27	12	30.7	18
N16-18	18	22	36	33	13.5	31.7	20
N16-20	20	24	38	35	13.5	31.7	20
N16-22	22	26	40	37	13.5	31.7	20
N16-24	24	28	42	39	13.5	34.4	20
N16-25	25	30	44	40	13	34.7	20
N16-28	28	33	47	43	12.5	37.7	20
N16-30	30	35	49	45	12	38.2	20
N16-32	32	38	54	48	12	38.2	20
N16-33	33	38	54	48	12	38.2	20
N16-35	35	40	56	50	12	38.2	20
N16-38	38	43	59	56	13	39.7	23
N16-40	40	45	61	58	13	39.7	23
N16-43	43	48	64	61	13	39.7	23
N16-45	45	50	66	63	13	39.7	23
N16-48	48	53	69	66	13	39.7	23
N16-50	50	55	71	70	13.5	44.2	25
N16-53	53	58	78	73	13.5	44.2	25
N16-55	55	60	80	75	13.5	44.2	25
N16-58	58	63	83	78	13.5	49.2	25
N16-60	60	65	85	80	13.5	49.2	25
N16-63	63	68	88	83	13.5	49.2	25
N16-65	65	70	90	85	13.5	49.2	25
N16-70	70	75	95	92	14.5	55.7	28
N16-75	75	80	104	97	14.5	55.7	28
N16-80	80	85	109	105	15	55.2	28
N16-85	85	90	114	110	15	60.2	28
N16-90	90	95	119	115	15	60.2	28
N16-95	95	100	124	120	15	60.2	28
N16-100	100	105	129	125	15	60.2	28

## 技术参数

- 温度：  
-20℃到180℃，取决于橡胶材料
- 压力：  
最大压力达到25 bar
- 转速：  
最高35 m/s
- 轴向跳动：  
±0.1mm

## 产品尺寸

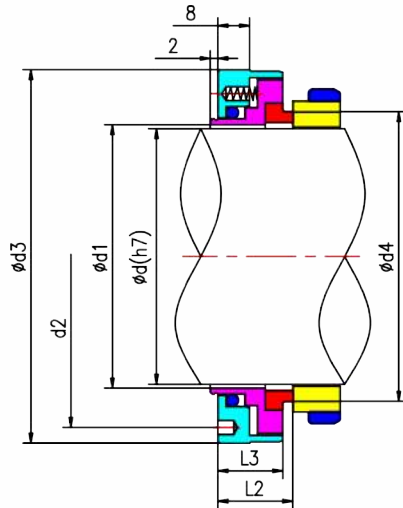
15mm to 100mm

## Performance Capabilities

- Temperature:  
-20°C to 180°C, depend on o-ring material
- Pressure:  
Up to 25 bar
- Speed:  
Up to 35 m/s
- End play/axial float allowance  
± 0.1mm

## Sizes

15mm to 100mm



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316, hastelloy C
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316, 哈氏合金
- 其他金属件：SS304, SS316

型号/规格	d	d1	d2	d3	d4	L2	L3
N21-15	15	16	34	42	22.6	17	15
N21-18	18	19	37	45	25.6	17	15
N21-20	20	21	40	48	27.6	17	15
N21-22	22	23	42	50	29.6	17	15
N21-25	25	26	44	52	32.8	17	15
N21-28	28	29	47	55	35.8	17	15
N21-30	30	31	50	58	37.8	17	15
N21-32	32	33	52	60	39.8	17	15
N21-35	35	36	54	62	42.8	17	15
N21-38	38	39	57	65	45.9	17	15
N21-40	40	41	60	68	47.9	17	15
N21-42	42	43	64	72	49.9	17	15
N21-45	45	46	67	75	52.9	17	15
N21-48	48	49	72	80	55.9	17	15
N21-50	50	51	72	80	58.2	17	15
N21-52	52	53	74	82	60.2	17	15
N21-55	55	56	77	85	63.2	17	15
N21-58	58	59	82	90	66.7	17	15
N21-60	60	61	82	90	68.7	17	15
N21-65	65	66	87	95	73.7	19	16.5
N21-68	68	69	92	100	76.7	19	16.5
N21-70	70	71	92	100	78.7	19	16.5
N21-75	75	76	100	108	83.7	19	16.5
N21-80	80	81	104	112	88.7	19	16.5
N21-85	85	86	110	118	93.7	19	16.5
N21-90	90	91	114	122	99.5	19	16.5
N21-95	95	96	120	128	104.5	19	16.5
N21-100	100	101	124	132	109.5	19	16.5

# N24



## 技术参数

- 温度：  
-20℃到180℃，取决于橡胶材料
- 压力：  
最大压力达到10 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
± 0.1mm

产品尺寸  
10mm to 80mm

## Performance Capabilities

- Temperature:  
-20℃ to 180℃, depend on o-ring material
- Pressure:  
Up to 10 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance  
± 1mm

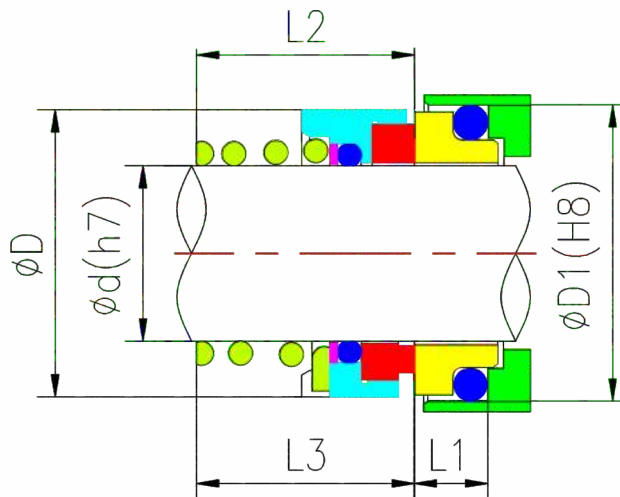
Sizes  
10mm to 80mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, SS316



型号/规格	d	D	D1	L1	L2	L3
N24-10	10	20	21	6.6	-	16.9
N24-12	12	22	23	6.6	-	17.4
N24-14	14	24	25	6.6	16.5	17.4
N24-16	16	26	27	6.6	16.5	19.5
N24-18	18	31	33	7.5	18	20.5
N24-20	20	34	35	7.5	19	22.0
N24-22	22	36	37	7.5	20.5	23.5
N24-24	24	38	39	7.5	22	25.0
N24-25	25	39	40	7.5	23.5	26.5
N24-28	28	42	43	7.5	24.5	26.5
N24-30	30	44	45	7.5	24.5	25.0
N24-32	32	46	48	7.5	28	28.5
N24-33	33	47	48	7.5	-	-
N24-35	35	49	50	7.5	28	28.5
N24-38	38	54	56	9	31	32.2
N24-40	40	56	58	9	34	34.7
N24-43	43	59	61	9	-	-
N24-45	45	61	63	9	36.5	39.2
N24-48	48	64	66	9	42	44.7
N24-50	50	66	70	9.5	43	45.7
N24-53	53	69	73	11	-	-
N24-55	55	71	75	11	47	49.0
N24-58	58	78	78	11	50	52.0
N24-60	60	79	80	11	51	55.0
N24-63	63	83	83	11	-	-
N24-65	65	85	85	11	52	54.3
N24-68	68	88	90	11.3	52.7	55.3
N24-70	70	90	92	11.3	54	56.3
N24-75	75	98	97	11.3	54	56.3
N24-80	80	103	105	12	58	59.3



# N25

### 技术参数

- 温度：  
-30℃到200℃，取决于橡胶材料
- 压力：  
最大压力达到12 bar (非平衡型)
- 转速：  
最高18 m/s
- 轴向跳动：  
±0.1mm

### 产品尺寸

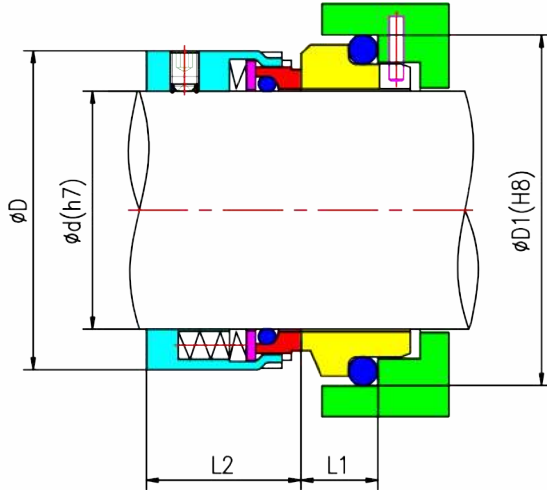
14mm to 100mm

### Performance Capabilities

- Temperature:  
-30℃ to 200℃, depend on o-ring material
- Pressure:  
Up to 12 bar (unbalance type)
- Speed:  
Up to 18 m/s
- End play/axial float allowance  
± 1mm

### Sizes

14mm to 100mm



### Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316, Hastelloy
- Metal parts: SS304, SS316

### 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316, Hastelloy
- 其他金属件：SS304, SS316

型号/规格	d	D	D1	L1	L2
N25-14	14	25	25	10	25.2
N25-16	16	27	27	10	25.2
N25-18	18	33	33	11.5	26.2
N25-20	20	35	35	11.5	26.2
N25-22	22	37	37	11.5	26.2
N25-24	24	39	39	11.5	28.7
N25-25	25	40	40	11.5	28.7
N25-28	28	43	43	11.5	31.2
N25-30	30	45	45	11.5	31.2
N25-32	32	47	48	11.5	31.2
N25-33	33	48	48	11.5	31.2
N25-35	35	50	50	11.5	31.2
N25-38	38	55	56	14	31.2
N25-40	40	57	58	14	31.2
N25-43	43	60	61	14	31.2
N25-45	45	62	63	14	31.2
N25-48	48	65	66	14	31.2
N25-50	50	67	70	15	32.7
N25-53	53	70	73	15	32.7
N25-55	55	72	75	15	32.7
N25-58	58	79	78	15	37.7
N25-60	60	81	80	15	37.7
N25-63	63	84	83	15	37.7
N25-65	65	86	85	15	37.7
N25-68	68	89	90	18	34.7
N25-70	70	91	92	18	42.2
N25-75	75	99	97	18	42.2
N25-80	80	104	105	18.2	42
N25-85	85	109	110	18.2	42
N25-90	90	114	115	18.2	47
N25-95	95	119	120	17.2	48
N25-100	100	124	125	17.2	48

O型圈机械密封  
o-ring mechanical seals

# N29 N210



**N29**

**N210**

## 技术参数

- 温度: -30°C到200°C, 取决于橡胶材料
- 压力: 最大压力达到25 bar (平衡型)
- 转速: 最高18 m/s
- 轴向跳动: ± 0.1mm

## 产品尺寸

14mm to 95mm

## Performance Capabilities

- Temperature: -30°C to 200°C, depend on o-ring material
- Pressure: Up to 25 bar (balance type)
- Speed: Up to 18 m/s
- End play/axial float allowance ± 1mm

## Sizes

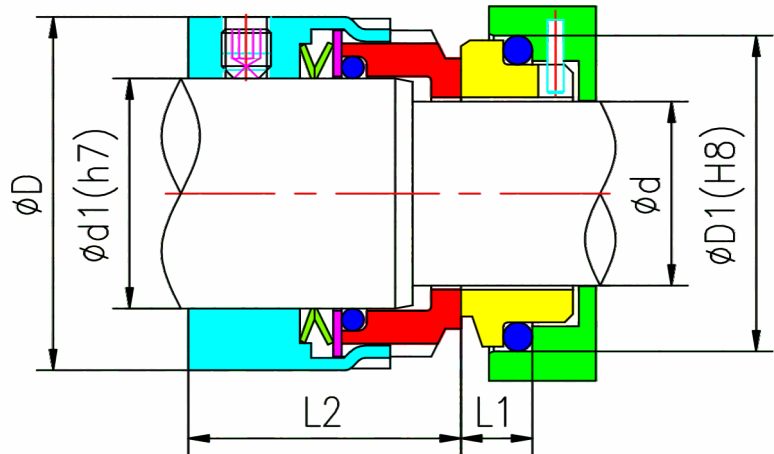
14mm to 95mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316, Hastelloy
- Metal parts: SS304, SS316

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 陶瓷, 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧: SS304, SS316, Hastelloy
- 其他金属件: SS304, SS316



型号/规格	d	d1	D	D1	L1	L2
N29,N210-14	14	18	33	25	10	32.7
N29,N210-16	16	20	35	27	10	32.7
N29,N210-18	18	22	37	33	11.5	33.7
N29,N210-20	20	24	39	35	11.5	33.7
N29,N210-22	22	26	41	37	11.5	33.7
N29,N210-24	24	28	43	39	11.5	36.2
N29,N210-25	25	30	45	40	11.5	36.2
N29,N210-28	28	33	48	43	11.5	38.7
N29,N210-30	30	35	50	45	11.5	38.7
N29,N210-32	32	38	55	48	11.5	38.7
N29,N210-33	33	38	55	48	11.5	38.7
N29,N210-35	35	40	57	50	11.5	38.7
N29,N210-38	38	43	60	56	14	38.7
N29,N210-40	40	45	62	58	14	38.7
N29,N210-43	43	48	65	61	14	38.7
N29,N210-45	45	50	67	63	14	38.7
N29,N210-48	48	53	70	66	14	38.7
N29,N210-50	50	55	72	70	15	42.7
N29,N210-53	53	58	79	73	15	42.7
N29,N210-55	55	60	81	75	15	42.7
N29,N210-58	58	63	84	78	15	47.7
N29,N210-60	60	65	86	80	15	47.7
N29,N210-63	63	68	89	83	15	47.7
N29,N210-65	65	70	91	85	15	47.7
N29,N210-70	70	75	99	92	18	52.2
N29,N210-75	75	80	104	97	18	52.2
N29,N210-80	80	85	109	105	18.2	52
N29,N210-85	85	90	114	110	18.2	57
N29,N210-90	90	95	119	115	18.2	57
N29,N210-95	95	100	124	120	17.2	58

O型圈机械密封  
o-ring mechanical seals

## 技术参数

- 温度：  
-30℃到200℃，取决于橡胶材料
- 压力：  
最大压力达到25 bar
- 转速：  
最高15 m/s
- 轴向跳动：  
± 1mm

## 产品尺寸

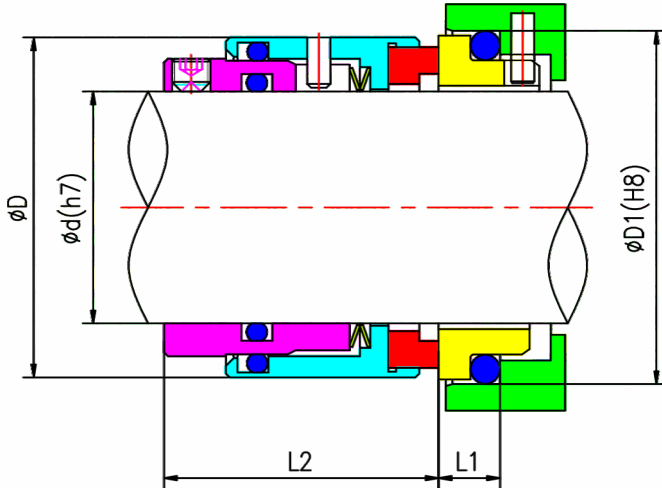
18mm to 100mm

## Performance Capabilities

- Temperature:  
-20℃ to 200℃, depend on o-ring material
- Pressure:  
Up to 25 bar
- Speed:  
Up to 15 m/s
- End play/axial float allowance  
± 1mm

## Sizes

18mm to 100mm



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, SS316

型号/规格	d	D	D1	L1	L2
N213-18	18	32	33	7	30.7
N213-20	20	34	35	7	30.7
N213-22	22	36	37	7	30.7
N213-24	24	38	39	7	33.2
N213-25	25	39	40	7	33.2
N213-28	28	42	43	7	35.7
N213-30	30	44	45	7	35.7
N213-32	32	47	48	7	35.7
N213-33	33	47	48	7	35.7
N213-35	35	49	50	7	35.7
N213-38	38	54	56	8	37.2
N213-40	40	56	58	8	37.2
N213-43	43	59	61	8	37.2
N213-45	45	61	63	8	37.2
N213-48	48	64	66	8	37.2
N213-50	50	66	70	9.5	38.2
N213-53	53	69	73	9.5	38.2
N213-55	55	71	75	9.5	38.2
N213-58	58	78	78	10.5	42.2
N213-60	60	80	80	10.5	42.2
N213-63	63	83	83	10.5	42.2
N213-65	65	85	85	10.5	42.2
N213-68	68	88	90	11	41.7
N213-70	70	90	92	11.5	48.7
N213-75	75	99	97	11.5	48.7
N213-80	80	104	105	11.5	48.7
N213-85	85	109	110	11.5	48.7
N213-90	90	114	115	13	52.2
N213-95	95	119	120	13	52.2
N213-100	100	124	125	13	52.2

# N41



## 技术参数

- 温度：  
-30°C到200°C, 取决于橡胶材料
- 压力：  
最大压力达到10 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
± 1mm

## 产品尺寸

8mm to 100mm

## Performance Capabilities

- Temperature:  
-30°C to 200°C, depend on o-ring material
- Pressure:  
Up to 10 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance  
± 1mm

## Sizes

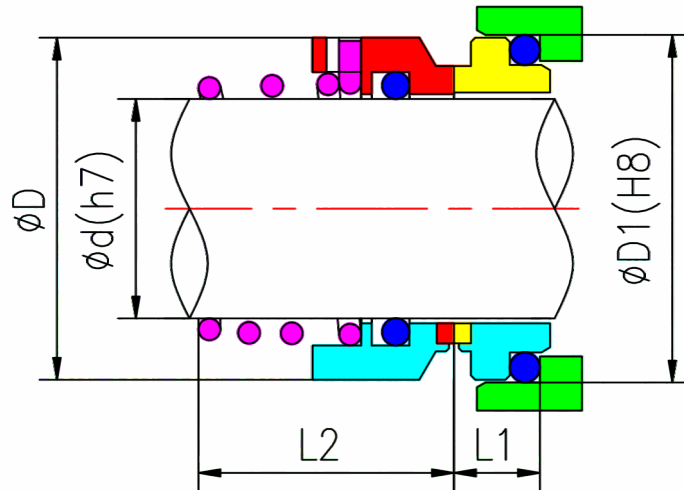
8mm to 100mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316, Hastelloy
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316, Hastelloy
- 其他金属件：SS304, SS316



型号/规格	d	D	D1	L1	L2
N41-8	8	16	17.1	5.5	15.2
N41-10	10	17.5	18.1	5.5	15.2
N41-12	12	20	20.6	5.5	18.2
N41-14	14	23	23.1	6	22.2
N41-15	15	24	26.9	7	22.2
N41-16	16	26	26.9	7	23.2
N41-17	17	27	26.9	7	23.2
N41-18	18	29	30.9	8	24.2
N41-19	19	30	30.9	8	25.2
N41-20	20	30	30.9	8	25.2
N41-22	22	34	35.4	8	25.2
N41-24	24	35	35.4	8	27.2
N41-25	25	37	38.2	8.5	27.2
N41-26	26	38	38.2	8.5	27.2
N41-28	28	42	43.3	9	29.2
N41-30	30	43	43.3	9	30.2
N41-32	32	45	43.3	9	30.2
N41-33	33	48	53.5	11.5	39.2
N41-35	35	50	53.5	11.5	39.2
N41-38	38	54	60.5	11.5	39.2
N41-40	40	56	60.5	11.5	39.2
N41-42	42	59	60.5	11.5	39.2
N41-43	43	60	60.5	11.5	39.2
N41-45	45	64	65.5	11.5	41.2
N41-48	48	68	65.5	11.5	41.2
N41-50	50	69	72.5	11.5	45.2
N41-55	55	74	72.5	11.5	47.2
N41-60	60	80	79.3	11.5	49.2
N41-65	65	87	84.5	11.5	51.2
N41-70	70	92	89.5	11.5	51.2
N41-75	75	97	94.5	11.5	57.2
N41-80	80	102	99.5	11.5	59.2
N41-85	85	110	105.5	13.5	59.2
N41-90	90	117	111.5	13.5	62.2
N41-95	95	122	116.5	13.5	62.2
N41-100	100	127	119.5	13.5	75.2

O型圈机械密封  
o-ring mechanical seals



## 技术参数

- 温度：  
-30℃到200℃，取决于橡胶材料
- 压力：  
最大压力达到10 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
± 1mm

## 产品尺寸

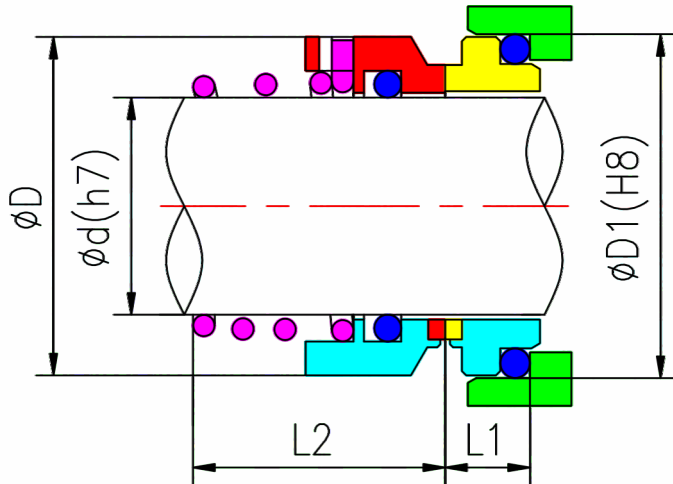
10mm to 100mm

## Performance Capabilities

- Temperature:  
-30℃ to 200℃, depend on o-ring material
- Pressure:  
Up to 10 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance  
± 1mm

## Sizes

10mm to 100mm



## Materials Combination

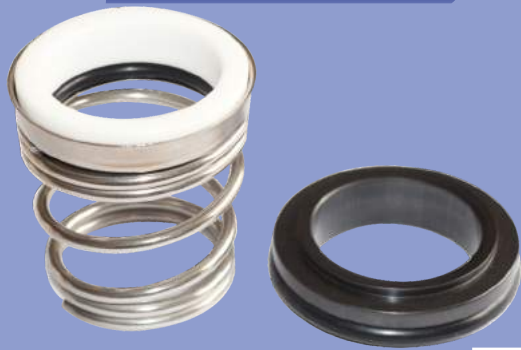
- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316, Hastelloy
- Metal parts: SS304, SS316

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 陶瓷, 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧: SS304, SS316, Hastelloy
- 其他金属件: SS304, SS316

型号/规格	d	D	D1	L1	L2
N42-10	10	17.5	21	7	15.2
N42-12	12	20	23	7	18.2
N42-14	14	23	25	7	22.2
N42-16	16	26	27	7	23.2
N42-18	18	29	33	10	24.2
N42-20	20	29	35	10	25.2
N42-22	22	34	37	10	25.2
N42-24	24	34	39	10	27.2
N42-25	25	37	40	10	27.2
N42-28	28	42	43	10	29.2
N42-30	30	43	45	10	30.2
N42-32	32	45	48	10	30.2
N42-33	33	48	48	10	39.2
N42-35	35	49	50	10	39.2
N42-38	38	54	56	13	42.2
N42-40	40	56	58	13	42.2
N42-43	43	60	61	13	47.2
N42-45	45	64	63	13	47.2
N42-48	48	68	66	13	47.2
N42-50	50	69	70	14	46.2
N42-53	53	71	73	14	56.2
N42-55	55	74	75	14	56.2
N42-58	58	76	78	14	56.2
N42-60	60	79	80	14	56.2
N42-63	63	83	83	14	56.2
N42-65	65	87	85	14	66.2
N42-68	68	88	90	16	64.2
N42-70	70	92	92	16	64.2
N42-75	75	97	97	16	64.2
N42-80	80	102	105	18	72.2
N42-85	85	110	110	18	72.2
N42-90	90	117	115	18	72.2
N42-95	95	122	120	18	72.2
N42-100	100	127	125	18	72.2

# N43 N44



## 技术参数

- 温度：  
-30°C到200°C，取决于橡胶材料
- 压力：  
最大压力达到8 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
± 1mm

产品尺寸  
10mm to 40mm

## Performance Capabilities

- Temperature:  
-30°C to 200°C, depend on o-ring material
- Pressure:  
Up to 8 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance  
± 1mm

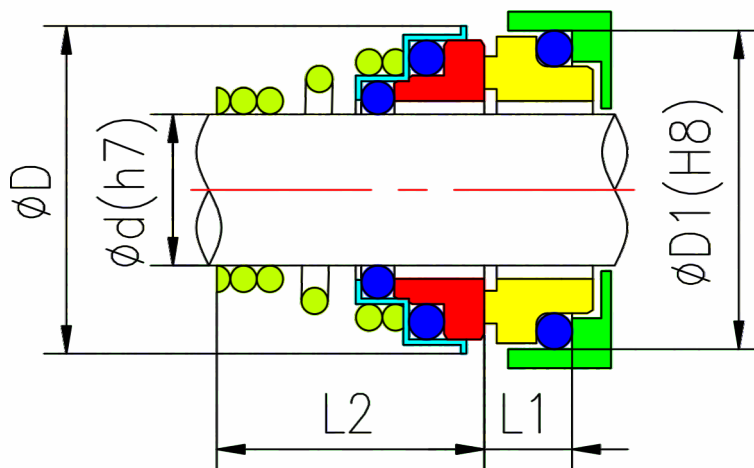
Sizes  
10mm to 40mm

## Materials Combination

- Face: Ceramic, SiC, TC
- Seat: Carbon, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：陶瓷，碳化硅，硬质合金
- 静环：石墨，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316



型号/规格	d	D	D1	L1	L2
N43-10	10	20	18.1	5.5	15.2
N43-11	11	22	20.6	5.5	18.2
N43-12	12	22	20.6	5.5	18.2
N43-13	13	25	23.1	6	22.2
N43-14	14	25	23.1	6	22.2
N43-15	15	29	26.9	7	22.2
N43-16	16	29	26.9	7	23.2
N43-17	17	29	26.9	7	23.2
N43-18	18	33	30.9	8	24.2
N43-19	19	33	30.9	8	25.2
N43-20	20	33	30.9	8	25.2
N43-21	21	38	35.4	8	25.2
N43-22	22	38	35.4	8	25.2
N43-23	23	38	35.4	8	27.2
N43-24	24	38	35.4	8	27.2
N43-25	25	40	38.2	8.5	27.2
N43-28	28	46	43.3	9	29.2
N43-29	29	46	43.3	9	30.2
N43-30	30	46	43.3	9	30.2
N43-32	32	46	43.3	9	30.2
N43-33	33	48	53.5	11.5	39.2
N43-35	35	50	53.5	11.5	39.2
N43-38	38	56	60.5	11.5	39.2
N43-40	40	58	60.5	11.5	39.2

型号/规格	d	D	D1	L1	L2
N44-10	10	20	21	7	15.2
N44-12	12	22	23	7	18.2
N44-14	14	25	25	7	22.2
N44-16	16	29	27	7	23.2
N44-18	18	33	33	10	24.2
N44-20	20	33	35	10	25.2
N44-22	22	38	37	10	25.2
N44-24	24	38	39	10	27.2
N44-25	25	40	40	10	27.2
N44-28	28	46	43	10	29.2
N44-30	30	46	45	10	30.2
N44-32	32	46	48	10	30.2
N44-33	33	48	48	10	39.2
N44-35	35	50	50	10	39.2
N44-38	38	56	56	13	42.2
N44-40	40	58	58	13	42.2

### 技术参数

- 温度：  
-20℃到200℃，取决于橡胶材料
- 压力：  
最大压力达到8 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
± 1mm

### 产品尺寸

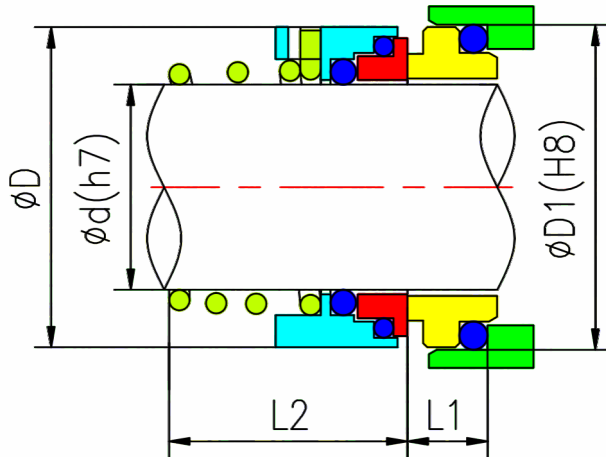
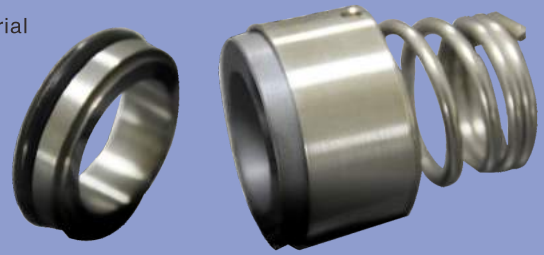
10mm to 100mm

### Performance Capabilities

- Temperature:  
-20℃ to 200℃, depend on o-ring material
- Pressure:  
Up to 8 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance  
± 1mm

### Sizes

10mm to 100mm



### Materials Combination

- Face: Ceramic, SiC, TC
- Seat: Carbon, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

### 材料组合

- 动环：陶瓷，碳化硅，硬质合金
- 静环：石墨，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

型号/规格	d	D	D1	L1	L2
N47-10	10	19.0	18.1	5.5	20.2
N47-11	11	22.0	20.6	5.5	22.2
N47-12	12	22.0	20.6	5.5	22.2
N47-13	13	24.0	23.1	6.0	27.2
N47-14	14	24.0	23.1	6.0	27.2
N47-15	15	28.5	26.9	7.0	27.2
N47-16	16	28.5	26.9	7.0	28.2
N47-17	17	28.5	26.9	7.0	28.2
N47-18	18	32.5	30.9	8.0	30.2
N47-19	19	32.5	30.9	8.0	30.2
N47-20	20	32.5	30.9	8.0	30.2
N47-21	21	37.0	35.4	8.0	30.2
N47-22	22	37.0	35.4	8.0	30.2
N47-23	23	37.0	35.4	8.0	32.2
N47-24	24	37.0	35.4	8.0	32.2
N47-25	25	40.5	38.2	8.5	33.2
N47-26	26	40.5	38.2	8.5	33.2
N47-27	27	40.5	38.2	8.5	33.2
N47-28	28	46.5	43.3	9.0	36.2
N47-29	29	46.5	43.3	9.0	37.2
N47-30	30	46.5	43.3	9.0	37.2
N47-31	31	46.5	43.3	9.0	37.2
N47-32	32	46.5	43.3	9.0	37.2

型号/规格	d	D	D1	L1	L2
N47-33	33	56.5	53.5	11.5	48.2
N47-34	34	56.5	53.5	11.5	48.2
N47-35	35	56.5	53.5	11.5	48.2
N47-37	37	56.5	53.5	11.5	48.2
N47-38	38	63.0	60.5	11.5	48.2
N47-39	39	63.0	60.5	11.5	48.2
N47-40	40	63.5	60.5	11.5	48.2
N47-42	42	63.5	60.5	11.5	48.2
N47-43	43	63.5	60.5	11.5	48.2
N47-44	44	68.5	65.5	11.5	51.2
N47-45	45	68.5	65.5	11.5	51.2
N47-48	48	68.5	65.5	11.5	51.2
N47-49	49	68.5	65.5	11.5	51.2
N47-50	50	75.0	72.5	11.5	55.2
N47-55	55	75.0	72.5	11.5	57.2
N47-60	60	83.0	79.3	11.5	61.2
N47-65	65	88.0	84.5	11.5	63.2
N47-70	70	93.0	89.5	11.5	63.2
N47-75	75	98.0	94.5	11.5	68.2
N47-80	80	103.0	99.5	11.5	70.2
N47-85	85	117.0	105.5	13.5	72.2
N47-90	90	122.0	115.5	13.5	75.2
N47-95	95	129.0	116.5	13.5	75.2
N47-100	100	135.0	119.5	13.5	85.2

# N71



## 技术参数

- 温度：  
-20°C到180°C，取决于橡胶材料
- 压力：  
最大压力达到16 bar
- 转速：  
最高15 m/s
- 轴向跳动：  
±1mm

## 产品尺寸

16mm to 200mm  
0.75" to 8"

## Performance Capabilities

- Temperature:  
-20°C to 180°C, depend on o-ring material
- Pressure:  
Up to 16 bar
- Speed:  
Up to 15 m/s
- End play/axial float allowance  
±1mm

## Sizes

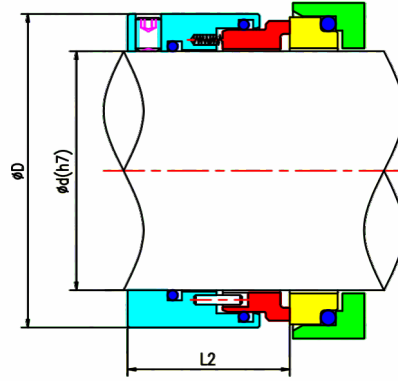
16mm to 200mm  
0.75" to 8"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316, Hastelloy C
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316, 哈氏合金
- 其他金属件：SS304, SS316



型号/规格	d	D	L2
N71-1"	25.4	39.95	35.2
N71-1 1/8"	28.58	43.13	35.2
N71-1 1/4"	31.75	46.3	44.65
N71-1 3/8"	34.93	49.48	44.65
N71-1 1/2"	38.1	54.43	44.65
N71-1 5/8"	41.28	57.61	44.65
N71-1 3/4"	44.45	60.78	44.65
N71-1 7/8"	47.63	63.96	44.65
N71-2"	50.8	67.13	44.65
N71-2 1/8"	53.98	70.31	44.65
N71-2 1/4"	57.15	73.48	44.65
N71-2 3/8"	60.33	76.66	44.65
N71-2 1/2"	63.5	79.83	44.65
N71-2 5/8"	66.68	83.01	44.65
N71-2 3/4"	66.85	92.08	51
N71-2 7/8"	73.03	95.25	51
N71-3"	76.2	98.43	51
N71-3 1/8"	79.38	101.6	51
N71-3 1/4"	82.55	104.78	51
N71-3 3/8"	85.73	107.95	51
N71-3 1/2"	88.9	111.13	51
N71-3 5/8"	92.08	114.3	51
N71-3 3/4"	95.25	117.48	51
N71-3 7/8"	98.43	120.65	51
N71-4"	101.6	123.83	51
N71-4 1/8"	104.78	127	51
N71-4 1/4"	107.95	130.18	51
N71-4 3/8"	111.13	133.35	51
N71-4 1/2"	114.3	136.53	51
N71-4 3/4"	120.65	152.4	92.1
N71-5"	127	158.75	92.1
N71-5 1/4"	133.35	165.1	92.1
N71-5 1/2"	139.7	171.45	92.1
N71-5 3/4"	146.05	177.8	92.1
N71-6"	152.4	184.15	92.1
N71-6 1/4"	158.75	190.5	92.1
N71-6 1/2"	165.1	196.85	92.1
N71-6 3/4"	171.45	203.2	92.1
N71-7"	177.8	209.55	92.1
N71-7 1/4"	184.15	215.9	92.1
N71-7 1/2"	190.5	222.25	92.1
N71-7 3/4"	196.85	228.6	92.1
N71-8"	203.2	234.95	92.1

型号/规格	d	D	L2
N71-16	16	30.45	35
N71-18	18	32.28	35.2
N71-20	20	34.29	35.2
N71-22	22	36.3	35.2
N71-24	24	38.3	35.2
N71-25	25	39.29	35.2
N71-28	28	42.29	35.2
N71-30	30	44.3	35.2
N71-32	32	46.3	44.65
N71-33	33	47.9	44.65
N71-35	35	49.48	44.65
N71-38	38	54.28	44.65
N71-40	40	56.08	44.65
N71-43	43	59.08	44.65
N71-45	45	61.09	44.65
N71-48	48	64.11	44.65
N71-50	50	66.09	44.65
N71-55	55	71.07	44.65
N71-60	60	77.14	44.65
N71-65	65	83.01	44.65
N71-70	70	86.08	44.65
N71-75	75	98.43	51
N71-80	80	104.76	51
N71-85	85	107.95	51
N71-90	90	114.3	51
N71-95	95	117.48	51
N71-100	100	123.83	51
N71-110	110	133.35	51
N71-120	120	152.4	92.1
N71-125	125	158.75	92.1
N71-130	130	165.1	92.1
N71-135	135	171.45	92.1
N71-140	140	171.45	92.1
N71-145	145	177.8	92.1
N71-150	150	184.15	92.1
N71-155	155	190.5	92.1
N71-160	160	196.85	92.1
N71-165	165	196.85	92.1
N71-170	170	203.2	92.1
N71-175	175	209.55	92.1
N71-180	180	215.9	92.1
N71-185	185	215.9	92.1
N71-190	190	222.25	92.1
N71-195	195	228.6	92.1
N71-200	200	234.95	92.1

## 技术参数

- 温度：  
-20℃到180℃，取决于橡胶材料
- 压力：  
最大压力达到10 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
± 1mm

## 产品尺寸

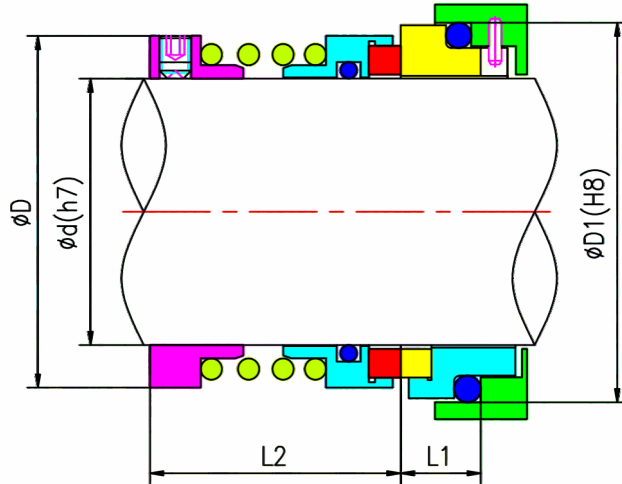
18mm to 100mm

## Performance Capabilities

- Temperature:  
-20℃ to 180℃, depend on o-ring material
- Pressure:  
Up to 10 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance  
± 1mm

## Sizes

18mm to 100mm



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS304, SS316
- Metal parts: SS304, SS316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, SS316

型号/规格	d	D	D1	L1	L2
N91-18	18	32	33.0	10.0	35.0
N91-20	20	34	35.0	10.0	35.0
N91-22	22	36	37.0	10.0	35.0
N91-24	24	38	39.0	10.0	40.0
N91-25	25	39	40.0	10.0	40.0
N91-28	28	42	43.0	10.0	40.0
N91-30	30	44	45.0	10.0	40.0
N91-32	32	46	48.0	10.0	45.0
N91-33	33	47	48.0	10.0	45.0
N91-35	35	49	50.0	10.0	45.0
N91-38	38	54	56.0	11.0	44.0
N91-40	40	56	58.0	11.0	44.0
N91-43	43	59	61.0	11.0	49.0
N91-45	45	61	63.0	11.0	49.0
N91-48	48	64	66.0	11.0	49.0
N91-50	50	66	70.0	13.0	47.0
N91-53	53	69	73.0	13.0	57.0
N91-55	55	71	75.0	13.0	57.0
N91-58	58	78	78.0	13.0	57.0
N91-60	60	80	80.0	13.0	57.0
N91-63	63	83	83.0	13.0	57.0
N91-65	65	85	85.0	13.0	67.0
N91-68	68	88	90.0	15.3	64.7
N91-70	70	90	92.0	15.3	64.7
N91-75	75	99	97.0	15.3	64.7
N91-80	80	104	105.0	15.7	74.3
N91-85	85	109	110.0	15.7	74.3
N91-90	90	114	115.0	15.7	74.3
N91-95	95	119	120.0	15.7	74.3
N91-100	100	124	125.0	15.7	74.3



# R11



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellow: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

## 技术参数

- 温度：-20°C到150°C,取决于橡胶材料
- 压力：最大压力达到10 bar
- 转速：最高12 m/s
- 轴向跳动：±0.1mm

## 产品尺寸

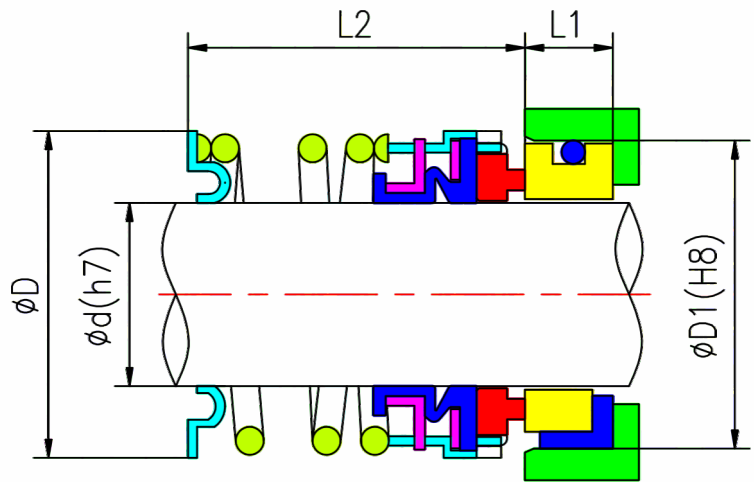
5/8" to 4"

## Performance Capabilities

- Temperature: -20°C to 150°C, dependent on the elastomer
- Pressure: Up to 10 bar
- Speed: Up to 12 m/s
- End play/axial float allowance: ±0.1mm

## Sizes

5/8" to 4"



型号/规格	d	D	D1	L1	L2
R11-5/8"	15.87	27.8	31.75	10.31	33.5
R11-3/4"	19.05	30.6	34.93	10.31	33.5
R11-7/8"	22.22	34.9	38.1	10.31	35.1
R11-1"	25.4	38.1	41.28	11.1	39.9
R11-1 1/8"	28.57	41.3	44.45	11.1	41.3
R11-1 1/4"	31.75	46	47.63	11.1	41.3
R11-1 3/8"	34.92	47.6	50.8	11.1	42.8
R11-1 1/2"	38.1	50.8	53.98	11.1	42.8
R11-1 5/8"	41.27	57.2	60.33	12.7	50.8
R11-1 3/4"	44.45	60.3	63.5	12.7	50.8
R11-1 7/8"	47.62	63.5	66.68	12.7	54
R11-2"	50.8	66.7	69.85	12.7	54
R11-2 1/8"	53.97	71.4	76.2	14.27	60.3
R11-2 1/4"	57.15	74.6	79.38	14.27	60.3
R11-2 3/8"	60.32	77.8	82.55	14.27	63.5
R11-2 1/2"	63.5	80.9	85.73	14.27	63.5
R11-2 5/8"	66.67	85.7	85.73	15.88	69.9
R11-2 3/4"	69.85	88.9	88.9	15.88	69.9
R11-2 7/8"	73.02	92.1	95.25	15.88	73
R11-3"	76.2	95.3	98.43	15.88	73
R11-3 1/8"	79.37	101.6	101.6	19.84	79.4
R11-3 1/4"	82.55	104.8	104.78	19.84	79.4
R11-3 3/8"	85.72	108	107.95	19.84	79.4
R11-3 1/2"	88.9	111.1	111.13	19.84	79.4
R11-3 5/8"	92.07	114.3	114.3	19.84	82.6
R11-3 3/4"	95.25	117.5	117.48	19.84	82.6
R11-3 7/8"	98.42	120.7	120.65	19.84	85.7
R11-4"	101.6	123.8	123.83	19.84	85.7

### 技术参数

- 温度：  
-20℃到200℃
- 压力：  
最大压力达到5 bar
- 转速：  
最高12 m/s
- 轴向跳动：  
±0.1mm

### Sizes

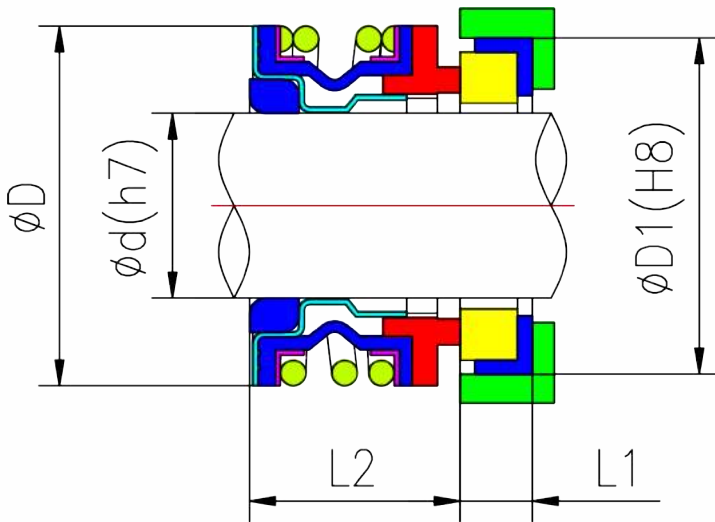
3/8", 1/2", 5/8",  
3/4", 7/8", 1"

### Performance Capabilities

- Temperature:  
-20℃ to 200℃, dependent on the elastomer
- Pressure:  
Up to 5 bar
- Speed:  
Up to 12 m/s
- End play/axial float allowance:  
±0.1mm

### 产品尺寸

3/8", 1/2", 5/8",  
3/4", 7/8", 1"



### Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellows: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

### 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

型号/规格	d	D	D1	L1	L2
R12-3/8"A	9.53	23.8	22.23	6.35	16.08
R12-3/8"	9.53	26.97	25.4	7.93	16.86
R12-1/2"A	12.7	26.97	25.4	6.35	16.86
R12-1/2"	12.7	26.97	25.4	7.93	16.86
R12-5/8"	15.88	30.94	31.75	10.31	18.44
R12-3/4"	19.05	34.11	34.93	10.31	18.44
R12-7/8"	22.23	42.85	41.28	11.1	20.82
R12-1"	25.4	42.85	41.28	11.1	20.82

# R13



## 技术参数

- 温度：  
-20°C到200°C
- 压力：  
最大压力达到6 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
±0.1mm

## 产品尺寸

3/8", 1/2", 5/8",  
3/4", 7/8", 1"

## Performance Capabilities

- Temperature:  
-20°C to 200°C, dependent on the elastomer
- Pressure:  
Up to 6 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance:  
±0.1mm

## Sizes

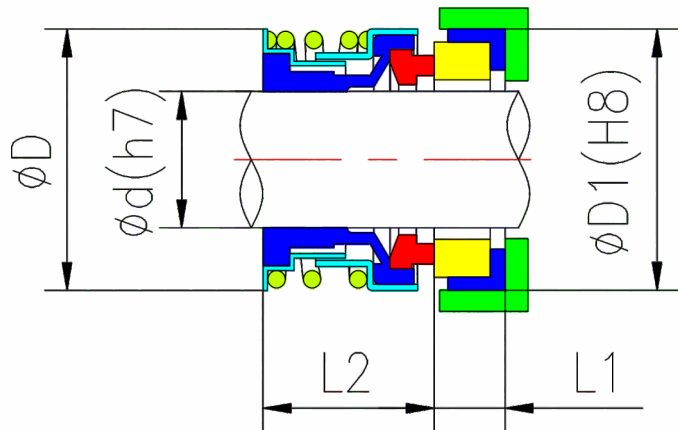
3/8", 1/2", 5/8",  
3/4", 7/8", 1"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellows: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, SS316



型号/规格	d	D	D1	L1	L2
R13-3/8"A	9.53	23.29	22.23	6.35	16.08
R13-3/8"	9.53	23.29	22.23	7.14	16.86
R13-1/2"A	12.7	23.29	25.4	6.35	16.86
R13-1/2"	12.7	23.29	25.4	7.93	16.86
R13-5/8"	15.88	30.1	31.75	10.3	18.44
R13-3/4"	19.05	33.07	34.93	10.3	18.44
R13-7/8"	22.23	36.3	38.1	10.3	20.82
R13-1"	25.4	39.42	41.28	11.1	20.82

### 技术参数

- 温度：  
-30℃到200℃
- 压力：  
最大压力达到12 bar
- 转速：  
最高12 m/s
- 轴向跳动：  
±0.1mm

### 产品尺寸

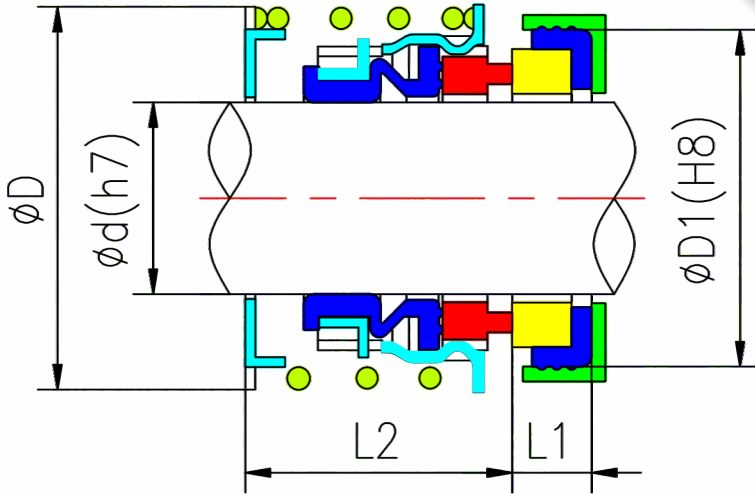
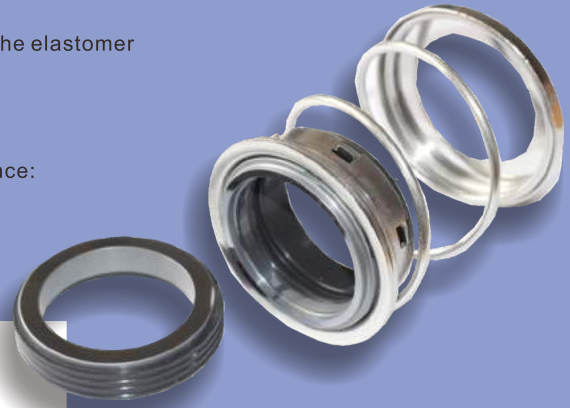
16mm to 120mm  
5/8" to 2.5"

### Performance Capabilities

- Temperature:  
-30℃ to 200℃, dependent on the elastomer
- Pressure:  
Up to 12 bar
- Speed:  
Up to 12 m/s
- End play/axial float allowance:  
±0.1mm

### Sizes

16mm to 120mm  
5/8" to 2.5"



### Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellow: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

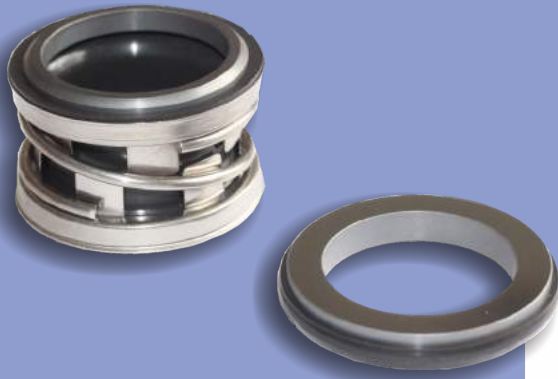
### 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

型号/规格	d	D	D1	L1	L2
R14-16	16	34	30	8	25.2
R14-18	18	36.8	32	8	25.2
R14-20	20	38.8	34	8	25.2
R14-22	22	41.5	36	8	25.2
R14-25	25	44.8	39	8	26.2
R14-28	28	48.5	43	8	26.2
R14-30	30	52	48	8	26.2
R14-35	35	57	53	10	30.2
R14-40	40	67	58	10	34.2
R14-45	45	73	63	10	36.2
R14-50	50	79	68	10	41.2
R14-55	55	84	73	12	41.2
R14-60	60	90	79	12	41.2
R14-65	65	98.5	86	12	49.2
R14-70	70	103.5	91	12	52.2
R14-75	75	110.5	96	12	52.2
R14-80	80	120	105	14	56.2
R14-85	85	125	110	14	56.2
R14-90	90	132	115	14	56.2
R14-95	95	137	120	14	56.2
R14-100	100	144	125	14	62.2
R14-110	110	157	135	16	62.2
R14-120	120	169.5	145	16	72.2

型号/规格	d	D	D1	L1	L2
R14-5/8"	15.87	34	30.95	10.3	25.2
R14-3/4"	19.05	38.8	34.15	10.3	25.2
R14-7/8"	22.22	41.5	37.3	10.3	25.2
R14-1"	25.4	44.8	40.5	10.3	25.2
R14-1 1/8"	28.57	48.5	47.65	11.9	33.2
R14-1 1/4"	31.75	57	50.8	11.9	33.2
R14-1 3/8"	34.92	57	54	11.9	33.2
R14-1 1/2"	38.1	67	57.15	11.9	33.2
R14-1 5/8"	41.27	67	60.35	11.9	33.2
R14-1 3/4"	44.45	73	63.5	11.9	41.2
R14-1 7/8"	47.62	73	66.7	11.9	41.2
R14-2"	50.8	79	69.85	13.5	41.2
R14-2 1/8"	53.97	84	73.05	13.5	41.2
R14-2 1/4"	57.15	84	76.2	13.5	41.2
R14-2 3/8"	60.32	90	79.4	13.5	41.2
R14-2 1/2"	63.5	94	82.55	13.5	41.2

# R15 R16 R17



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellows: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

## 技术参数

- 温度：  
-40℃到150℃
- 压力：  
最大压力达到12 bar
- 转速：  
最高13 m/s
- 轴向跳动：  
±0.1mm

## 产品尺寸

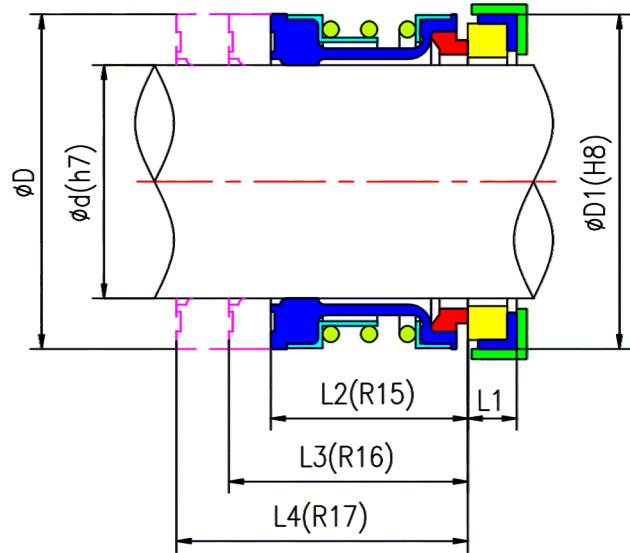
10mm to 100mm  
3/8" to 4"

## Performance Capabilities

- Temperature:  
-40℃ to 150℃, dependent on the elastomer
- Pressure:  
Up to 12 bar
- Speed:  
Up to 13 m/s
- End play/axial float allowance:  
±0.1mm

## Sizes

10mm to 100mm  
3/8" to 4"



型号/规格	d	D	D1	L1	L2	L3	L4
R15-10	10	20	21	5	15.2	27.7	35.2
R15-12	12	22	23	6	15.2	26.7	34.2
R15-14	14	24	25	6	15.2	29.2	34.2
R15-15	15	25	26	6	15.2	29.2	34.2
R15-16	16	26	27	6	15.2	29.2	34.2
R15-18	18	32	33	6	20.2	31.7	39.2
R15-20	20	34	35	6	20.2	31.7	39.2
R15-22	22	36	37	6	20.2	31.7	39.2
R15-24	24	38	39	6	20.2	34.2	44.2
R15-25	25	39	40	6	20.2	34.2	44.2
R15-28	28	42	43	6	26.2	36.7	44.2
R15-30	30	44	45	7	26.2	35.7	43.2
R15-32	32	46	48	7	26.2	35.7	48.2
R15-33	33	47	48	7	26.2	35.7	48.2
R15-35	35	49	50	8	26.2	34.7	47.2
R15-38	38	54	56	8	30.2	37.2	47.2
R15-40	40	56	58	8	30.2	37.2	47.2
R15-43	43	59	61	8	30.2	37.2	52.2
R15-45	45	61	63	8	30.2	37.2	52.2
R15-48	48	64	66	10	30.2	35.2	50.2
R15-50	50	66	70	10	30.2	37.7	50.2
R15-53	53	69	73	10	30.2	37.7	60.2
R15-55	55	71	75	10	30.2	37.7	60.2
R15-58	58	78	78	10	33.2	42.7	60.2
R15-60	60	80	80	12	33.2	40.7	58.2
R15-63	63	83	83	12	33.2	40.7	58.2
R15-65	65	85	85	12	33.2	40.7	68.2
R15-68	68	88	90	12	33.2	40.7	68.2
R15-70	70	90	92	12	33.2	48.2	68.2
R15-75	75	99	97	12	40.2	48.2	68.2
R15-80	80	104	105	14	40.2	47.7	77.7
R15-85	85	109	110	14	40.2	47.7	77.7
R15-90	90	114	115	14	40.2	52.7	77.7
R15-95	95	119	120	14	40.2	52.7	77.7
R15-100	100	124	125	14	40.2	52.7	77.7

型号/规格	d	D	D1	L1	L2
R15-3/8"	9.525	20	22.225	7.9	15.2
R15-1/2"	12.7	24	25.4	7.9	15.2
R15-5/8"	15.875	26	31.75	10.3	15.2
R15-3/4"	19.05	32	34.93	10.3	20.2
R15-7/8"	22.225	36	38.1	10.3	20.2
R15-1"	25.4	39	41.28	11.1	20.2
R15-1 1/8"	28.575	42	44.45	11.1	26.2
R15-1 1/4"	31.75	46	47.63	11.1	26.2
R15-1 3/8"	34.925	49	50.8	11.1	26.2
R15-1 1/2"	38.1	54	53.98	11.1	30.2
R15-1 5/8"	41.275	56	60.33	12.7	30.2
R15-1 3/4"	44.45	61	63.5	12.7	30.2
R15-1 7/8"	47.625	64	66.68	12.7	30.2
R15-2"	50.8	66	69.85	12.7	30.2
R15-2 1/8"	53.975	69	76.2	14.3	30.2
R15-2 1/4"	57.15	77	79.38	14.3	33.2
R15-2 3/8"	60.325	80	82.55	14.3	33.2
R15-2 1/2"	63.5	83	85.73	14.3	33.2
R15-2 5/8"	66.675	88	85.73	15.9	33.2
R15-2 3/4"	69.85	89	88.9	15.9	33.2
R15-2 7/8"	73.025	96	95.25	15.9	33.2
R15-3"	76.2	99	98.425	15.9	40.2
R15-3 1/8"	79.375	103	101.6	19.8	40.2
R15-3 1/4"	82.55	104	104.78	19.8	40.2
R15-3 3/8"	85.725	108	107.95	19.8	40.2
R15-3 1/2"	88.9	112	111.12	19.8	40.2
R15-3 5/8"	92.075	114	114.3	19.8	40.2
R15-3 3/4"	95.25	118	117.48	19.8	40.2
R15-3 7/8"	98.425	122	120.65	19.8	40.2
R15-4"	101.6	124	123.83	19.8	40.2



## 技术参数

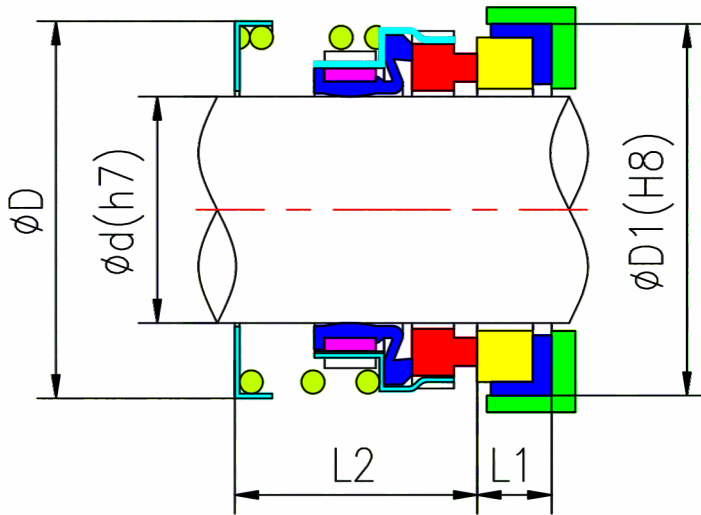
- 温度：  
-20℃到150℃，取决于橡胶材料
- 压力：  
最大压力达到8 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
±0.1mm

产品尺寸  
1/2" to 3"

## Performance Capabilities

- Temperature:  
-20°C to 150°C, dependent on the elastomer
- Pressure:  
Up to 8 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance:  
±0.1mm

Sizes  
1/2" to 3"



## Materials Combination

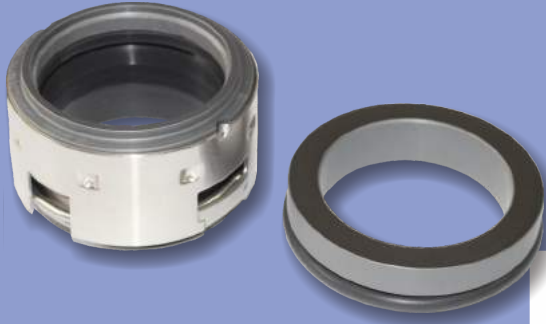
- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellow: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

型号/规格	d	D	D1	L1	L2
R18-1/2"	12.7	23.88	25.4	7.92	20.82
R18-5/8"	15.875	26.7	31.75	10.29	22.43
R18-3/4"	19.05	31.09	34.93	10.29	22.43
R18-7/8"	22.225	33.4	38.1	10.29	24
R18-1"	25.4	43.18	41.28	11.1	25.6
R18-1 1/8"	28.575	46.28	44.45	11.1	27.17
R18-1 1/4"	31.75	49.4	47.63	11.1	27.17
R18-1 3/8"	34.925	52.58	50.8	11.1	28.78
R18-1 1/2"	38.1	55.8	53.98	11.1	28.78
R18-1 5/8"	41.275	62.2	60.33	12.7	35.15
R18-1 3/4"	44.45	66	63.5	12.7	35.15
R18-1 7/8"	47.625	66.6	66.68	12.7	38.3
R18-2"	50.8	73	69.85	12.7	38.3
R18-2 1/8"	53.9	73.3	76.2	14.27	43.05
R18-2 1/4"	57.1	78.41	79.38	14.27	43.05
R18-2 3/8"	60.3	82	82.55	14.27	46.25
R18-2 1/2"	63.5	84.87	85.73	14.27	46.25
R18-2 5/8"	66.6	88.4	85.73	15.9	49.4
R18-2 3/4"	69.8	92.58	88.9	15.9	49.4
R18-2 7/8"	73	94.85	95.25	15.9	52.57
R18-3"	76.2	101.9	98.43	15.9	52.57

# R19



## 技术参数

- 温度: -30°C到200°C
- 压力: 最大压力达到12 bar
- 转速: 最高12 m/s
- 轴向跳动: ±0.1mm

## 产品尺寸

14mm to 100mm

## Performance Capabilities

- Temperature: -30°C to 200°C, dependent on the elastomer
- Pressure: Up to 12 bar
- Speed: Up to 12 m/s
- End play/axial float allowance: ±0.1mm

## Sizes

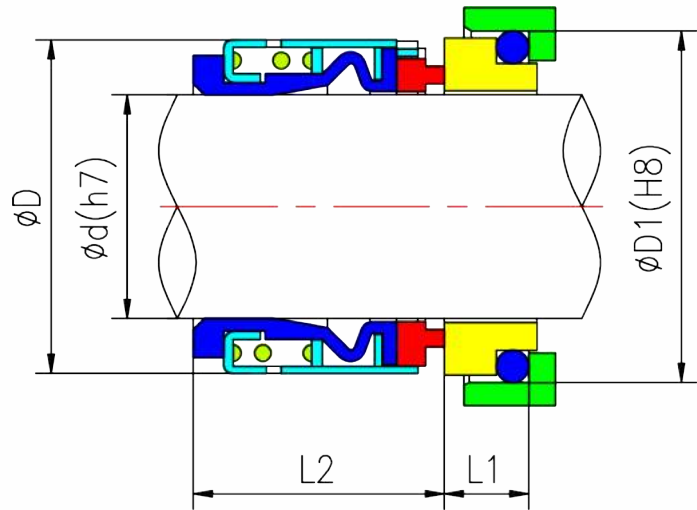
14mm to 100mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellows: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 陶瓷, 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON etc.
- 弹簧: SS304, SS316
- 其他金属件: SS304, Ss316



型号/规格	d	D	D1	L1	L2
R19-14	14	24	25	12	23.2
R19-16	16	26	27	12	23.2
R19-18	18	32	33	13.5	24.2
R19-20	20	34	35	13.5	24.2
R19-22	22	36	37	13.5	24.2
R19-24	24	38	39	13.5	26.9
R19-25	25	39	40	13	27.2
R19-28	28	42	43	12.5	30.2
R19-30	30	44	45	11.9	30.7
R19-32	32	46	48	11.9	30.7
R19-33	33	47	48	11.9	30.7
R19-35	35	49	50	11.9	30.7
R19-38	38	54	56	12.9	32.2
R19-40	40	56	58	12.9	32.2
R19-43	43	59	61	12.9	32.2
R19-45	45	61	63	12.9	32.2
R19-48	48	64	66	12.9	32.2
R19-50	50	66	70	13.4	34.2
R19-53	53	69	73	13.4	34.2
R19-55	55	71	75	13.4	34.2
R19-58	58	78	78	13.4	39.2
R19-60	60	80	80	13.4	39.2
R19-63	63	83	83	13.4	39.2
R19-65	65	85	85	13.4	39.2
R19-68	68	88	90	13.4	39.2
R19-70	70	89	92	14.5	45.7
R19-75	75	96	97	14.5	45.7
R19-80	80	104	105	15	45.2
R19-85	85	108	110	15	45.2
R19-90	90	114	115	15	50.2
R19-95	95	118	120	15	50.2
R19-100	100	124	125	15	50.2

# R20 R21 R22 R23

## 技术参数

- 温度：  
-30°C到200°C
- 压力：  
最大压力达到12 bar
- 转速：  
最高12 m/s
- 轴向跳动：  
±0.1mm

## 产品尺寸

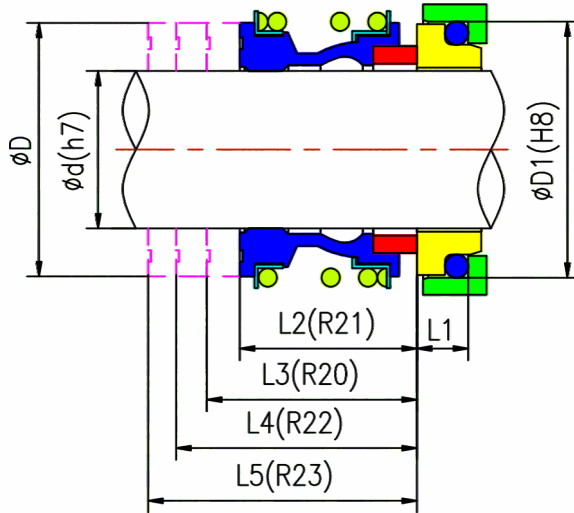
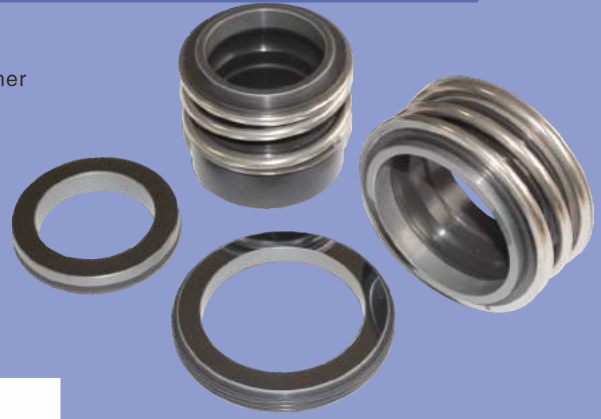
10mm to 100mm

## Performance Capabilities

- Temperature:  
-30°C to 200°C, dependent on the elastomer
- Pressure:  
Up to 12 bar
- Speed:  
Up to 12 m/s
- End play/axial float allowance:  
±0.1mm

## Sizes

10mm to 100mm



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellows: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

型号/规格	d	D	D1	L1	L2	L3	L4	L5
R21-10	10	22	19.2	6.5	14.7	25.5	26	33.5
R21-12	12	24.5	21.6	5.5	15.2	25.5	26	33.5
R21-14	14	28	24.6	5.5	17.2	25.5	28.5	33.5
R21-15	15	28	24.6	6.5	17.2	25.5	28.5	33.5
R21-16	16	28	28	7.5	17.2	25.5	28.5	33.5
R21-18	18	31.5	30	8	19.7	25.5	30.1	37.7
R21-19	19	36.5	35	7.5	21.7	25.5	30.1	37.7
R21-20	20	36.5	35	7.5	21.7	25.5	30.1	37.7
R21-22	22	36.5	35	7.5	21.7	25.5	30.1	37.7
R21-24	24	42	38	7.5	22.7	25.5	32.7	42.7
R21-25	25	42	38	7.5	23.2	25.5	32.7	42.7
R21-28	28	48.5	42	9	26.7	33.5	35.2	42.7
R21-30	30	48.5	45	10.5	26.7	33.5	35.2	42.7
R21-32	32	53	48	10.5	27.7	33.5	35.2	47.7
R21-33	33	53	50	11	27.7	33.5	35.2	47.7
R21-35	35	56.5	52	11	28.7	33.5	35.2	47.7
R21-38	38	58.5	55	10.5	30.2	33.5	36.2	46.2
R21-40	40	61.5	58	10.8	30.2	33.5	36.2	46.2
R21-42	42	65	62	12	30.2	41.5	36.2	51.2
R21-43	43	65	62	12	30.2	41.5	36.2	51.2
R21-45	45	67.5	64	11.5	30.2	41.5	36.2	51.2
R21-48	48	70	68.4	11.5	30.7	41.5	36.2	51.2
R21-50	50	73.5	69.3	11.5	30.7	41.5	38.2	50.7
R21-53	53	78	72.3	12.5	33.2	41.5	36.7	59.2
R21-55	55	80.5	75.4	13.5	35.2	41.5	36.7	59.2
R21-58	58	85	78.4	13.5	37.2	41.5	41.7	59.2
R21-60	60	88	80.4	13.5	38.2	41.5	41.7	59.2
R21-65	65	93	85.4	13	40.2	49.5	41.7	69.2
R21-68	68	96	91.5	13.7	40.2	49.5	41.3	69
R21-70	70	99	92	13	40.2	49.5	49	69
R21-75	75	106.5	99	14	40.2	52.5	49	69
R21-80	80	111.5	104	15	40.2	56.5	48.2	78.2
R21-85	85	119.5	109	15	41.2	56.5	46.2	76.2
R21-90	90	126.5	114	15	45.2	59.5	51.2	76.2
R21-95	95	131.5	120.3	16	46.2	59.5	51.2	76.2
R21-100	100	136.5	123.3	16	47.2	62.5	51.2	76.2

橡胶波纹管密封  
rubber bellows seals

# R24



## 技术参数

- 温度: -20°C到150°C
- 压力: 最大压力达到8 bar
- 转速: 最高10 m/s
- 轴向跳动: ±0.1mm

## 产品尺寸

8mm to 50mm  
3/8" to 2"

## Performance Capabilities

- Temperature: -20°C to 150°C, dependent on the elastomer
- Pressure: Up to 8 bar
- Speed: Up to 10 m/s
- End play/axial float allowance: ±0.1mm

## Sizes

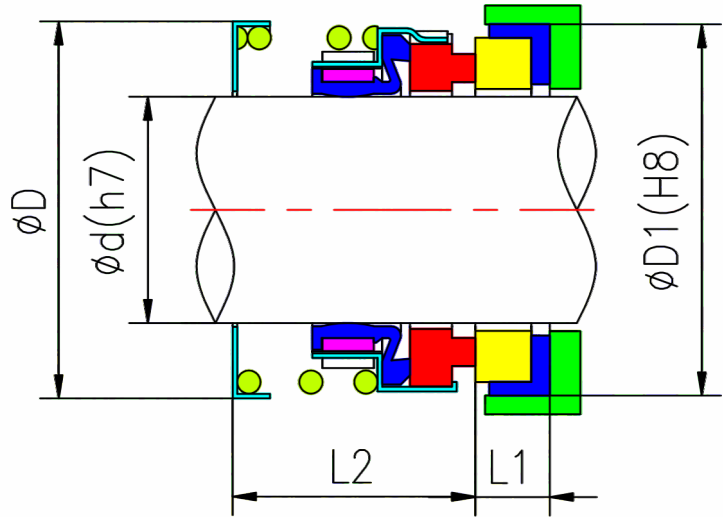
8mm to 50mm  
3/8" to 2"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellows: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 陶瓷, 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON etc.
- 弹簧: SS304, SS316
- 其他金属件: SS304, Ss316



型号/规格	d	D	D1	L1	L2
R24-8	8	18.2	21	7	11.2
R24-9	9	18.2	24	7	16.2
R24-10	10	20.6	24	7	16.2
R24-11	11	20.6	24	7	16.2
R24-12	12	21.8	26	7	17.2
R24-13	13	21.8	26	7	17.2
R24-14	14	26.4	28	7	18.2
R24-15	15	26.4	28	7	18.2
R24-16	16	26.4	32	8	19.2
R24-17	17	29.5	32	8	19.2
R24-18	18	29.5	35	8	19.2
R24-19	19	29.5	35	8	19.2
R24-20	20	31.6	38	8	20.2
R24-22	22	33.6	40	8	20.2
R24-25	25	39.6	44	9	20.2
R24-28	28	45	46	9	21.2
R24-30	30	46.6	50	9	22.2
R24-32	32	46.6	54	9	24.2
R24-35	35	50.8	58	10	26.2
R24-38	38	54.3	60	10	27.2
R24-40	40	57.3	64	10	28.2
R24-45	45	61.3	66	10	30.2
R24-50	50	67.8	72	10	32.2

型号/规格	d	D	D1	L1	L2
R24-3/8"	9.525	23.5	22.225	6.4	22.2
R24-1/2"	12.7	26	25.4	6.4	22.2
R24-5/8"	15.875	30	31.75	8.7	23.8
R24-3/4"	19.05	32.5	34.925	8.7	23.8
R24-7/8"	22.225	37.5	38.1	8.7	25.4
R24-1"	25.4	44	41.275	9.5	27
R24-1 1/8"	28.575	48	44.45	9.5	28.6
R24-1 1/4"	31.75	50	47.625	9.5	28.6
R24-1 3/8"	34.925	54.5	50.8	9.5	30.2
R24-1 1/2"	38.1	58.5	53.975	9.5	30.2
R24-1 5/8"	41.275	64	60.325	11.1	36.5
R24-1 3/4"	44.45	67	63.5	11.1	36.5
R24-1 7/8"	47.625	71	66.675	11.1	39.7
R24-2"	50.8	73.5	69.85	11.1	39.7

# R26

## 技术参数

- 温度：  
-20°C到100°C
- 压力：  
最大压力达到5 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
±0.1mm

## 产品尺寸

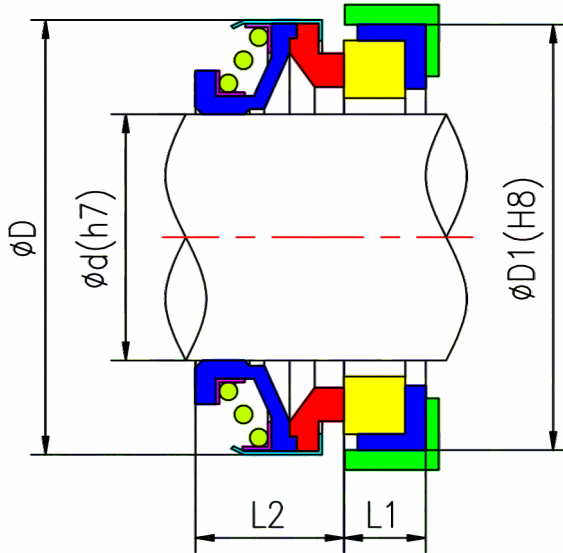
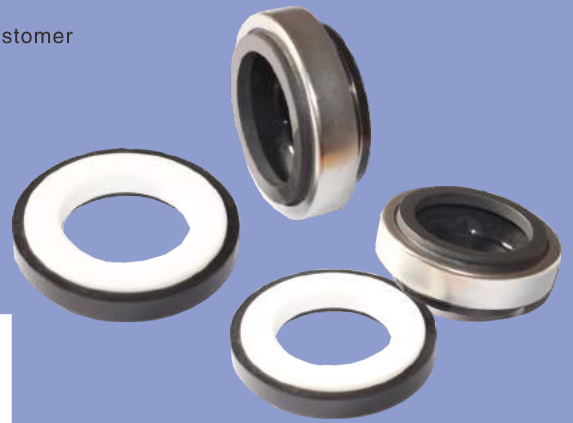
6mm to 70mm

## Performance Capabilities

- Temperature:  
-20°C to 100°C, dependent on the elastomer
- Pressure:  
Up to 5 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance:  
±0.1mm

## Sizes

6mm to 70mm



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellow: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

型号/规格	d	D	d1	L1	L2
R26-6	6	18	22	4	8.7
R26-8	8	18	22	4	8.7
R26-8A	8	18	22	4	11.2
R26-8B	8	24	26	5.5	11.2
R26-8C	8	24	26	8	11.2
R26-9	9	24	26	5.5	11.2
R26-9A	9	24	26	8	11.2
R26-10	10	24	26	5.5	11.2
R26-10A	10	24	26	8	11.2
R26-11	11	24	26	5.5	11.2
R26-11A	11	24	26	8	11.2
R26-12	12	24	26	5.5	13.2
R26-12A	12	24	26	8	13.2
R26-12B	12	32	29.5	8	13.2
R26-12C	12	32	38	8	13.2
R26-13	13	24	26	5.5	13.2
R26-13A	13	24	26	8	13.2
R26-14	14	32	29.5	8	13.2
R26-14A	14	32	38	8	13.2
R26-14B	14	35	29.5	8	13.2
R26-14C	14	35	38	8	13.2
R26-15	15	32	29.5	8	13.2
R26-15A	15	32	38	8	13.2
R26-15B	15	35	29.5	8	13.2
R26-15C	15	35	38	8	13.2

型号/规格	d	D	d1	L1	L2
R26-16	16	32	30	8	13.2
R26-16A	16	32	38	8	13.2
R26-16B	16	35	30	8	13.2
R26-16C	16	35	38	8	13.2
R26-16D	16	39	42	8	13.2
R26-17	17	39	42	8	13.2
R26-18	18	39	42	8	13.2
R26-19	19	39	42	8	13.2
R26-20	20	39	42	8	13.2
R26-20A	20	42	45	10	13.2
R26-22	22	42	45	10	13.2
R26-24	24	47	50	10	14.2
R26-25	25	47	50	10	14.2
R26-28	28	54	57	10	15.2
R26-30	30	54	57	10	15.2
R26-32	32	54	57	10	15.2
R26-35	35	60	63	10	16.2
R26-38	38	65	68	12	18.2
R26-40	40	65	68	12	18.2
R26-45	45	70	73	12	20.2
R26-50	50	85	88	15	23.2
R26-55	55	85	88	15	23.2
R26-60	60	105	110	15	30.2
R26-65	65	105	110	15	30.2
R26-70	70	105	110	15	32.3

橡胶波纹管密封  
rubber bellows seals



# R91



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellow: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

## 技术参数

- 温度：-20℃到150℃
- 压力：最大压力达到8 bar
- 转速：最高10 m/s
- 轴向跳动：±0.1mm

## 产品尺寸

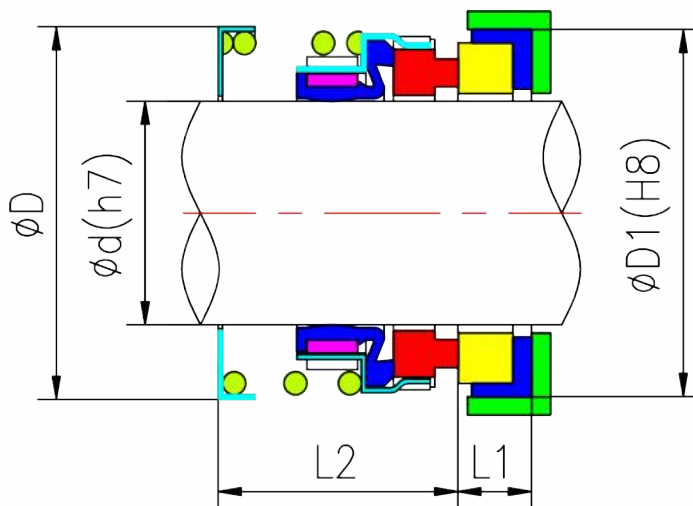
14mm to 90mm

## Performance Capabilities

- Temperature: -20℃ to 150℃, dependent on the elastomer
- Pressure: Up to 8 bar
- Speed: Up to 10 m/s
- End play/axial float allowance: ±0.1mm

## Sizes

14mm to 90mm



型号/规格	d	D	D1	L1	L2
R91-14	14	27.5	30	5	18.7
R91-16	16	28.5	32	5	21
R91-18	18	31.2	35	7.5	22.5
R91-20	20	31.7	35	8	21
R91-24	24	40.2	39	8	25.5
R91-25	25	40.2	40	8	25.5
R91-28	28	44.1	43	8	25.5
R91-30	30	45.1	45	9	25.5
R91-32	32	49	48	9	33.5
R91-33	33	49	48	9	33.5
R91-35	35	50.2	50	9	33.5
R91-38	38	55.3	56	9	33.5
R91-40	40	57	58	9	33.5
R91-43	43	60.7	61	9.5	36.5
R91-45	45	62.5	63	9.5	38
R91-48	48	66.5	66	9.5	38
R91-50	50	68.6	70	9.5	38
R91-53	53	70.8	73	9.5	41
R91-55	55	72.4	75	9.5	41
R91-58	58	80	78	9.5	42
R91-60	60	83	80	9.5	42
R91-65	65	87.2	85	9.5	43
R91-70	70	91.6	92	11	45
R91-75	75	99.4	97	12	48
R91-80	80	104.6	104	12	55
R91-85	85	111	109	12	64.2
R91-90	90	113	114	12	66.2

## 技术参数

- 温度：  
-20℃到150℃
- 压力：  
最大压力达到8 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
±0.1mm

## 产品尺寸

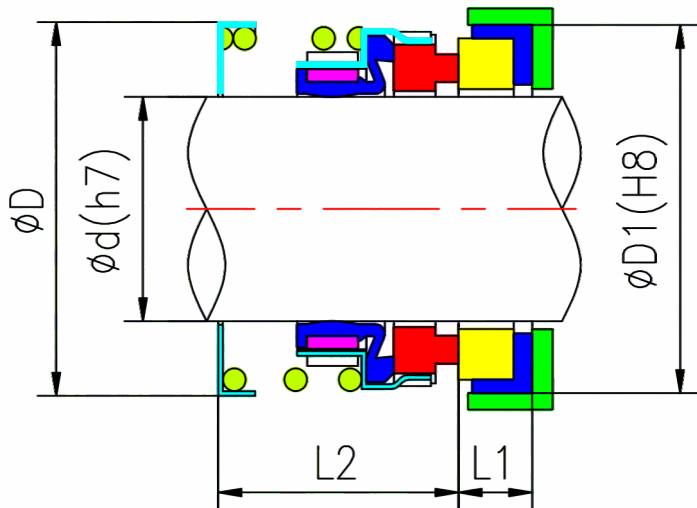
10mm to 75mm  
3/8" to 3"

## Performance Capabilities

- Temperature:  
-20℃ to 150℃, dependent on the elastomer
- Pressure:  
Up to 8 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance:  
±0.1mm

## Sizes

10mm to 75mm  
3/8" to 3"



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellows: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316

型号/规格	d	D	D1	L1	L2
R92-10	10	22.95	24.6	8.74	25.6
R92-12	12	23.9	27.79	8.74	25.6
R92-13	13	23.9	27.79	8.74	25.6
R92-14	14	26.7	30.95	10.32	25.6
R92-15	15	26.7	30.95	10.32	25.6
R92-16	16	26.7	30.95	10.32	25.6
R92-18	18	31.1	34.15	10.32	25.6
R92-19	19	31.1	34.15	10.32	25.6
R92-20	20	33.4	35.7	10.32	25.6
R92-22	22	33.4	37.3	10.32	25.6
R92-24	24	39.2	40.5	10.32	25.6
R92-25	25	39.2	40.5	10.32	25.6
R92-28	28	46.3	47.63	11.99	33.54
R92-30	30	49.4	50.8	11.99	33.54
R92-32	32	49.4	50.8	11.99	33.54
R92-33	33	52.6	53.98	11.99	33.54
R92-34	34	52.6	53.98	11.99	33.54
R92-35	35	52.6	53.98	11.99	33.54
R92-38	38	55.8	57.15	11.99	33.54
R92-40	40	62.2	60.35	11.99	33.54
R92-42	42	66	63.5	11.99	40.68
R92-43	43	66	63.5	11.99	40.68
R92-44	44	66	63.5	11.99	40.68
R92-45	45	66	63.5	11.99	40.68
R92-48	48	66.6	66.7	11.99	40.68
R92-50	50	71.65	69.85	11.99	40.68
R92-53	53	73.3	73.05	13.5	41.2
R92-55	55	78.4	76.2	13.5	41.2
R92-58	58	82	79.4	13.5	41.2
R92-60	60	82	79.4	13.5	41.2
R92-63	63	84.9	82.55	13.5	41.2
R92-65	65	88.4	92.1	15.9	49.2
R92-70	70	92.6	95.52	15.9	49.2
R92-73	73	94.85	98.45	15.9	49.2
R92-75	75	101.9	101.65	15.9	49.2

型号/规格	d	D	D1	L1	L2
R92-3/8"	9.5	22.95	24.6	8.74	25.6
R92-1/2"	12.7	23.9	27.79	8.74	25.6
R92-5/8"	15.8	26.7	30.95	10.32	25.6
R92-3/4"	19.1	31.1	34.15	10.32	25.6
R92-7/8"	22.2	33.4	37.3	10.32	25.6
R92-1"	25.4	43.2	40.5	10.32	25.6
R92-11/8"	28.6	46.3	47.63	11.99	33.54
R92-11/4"	31.7	49.4	50.8	11.99	33.54
R92-13/8"	34.9	52.6	53.98	11.99	33.54
R92-11/2"	38.1	55.8	57.15	11.99	33.54
R92-15/8"	41.2	62.2	60.35	11.99	33.54
R92-13/4"	44.4	66	63.5	11.99	40.68
R92-17/8"	47.6	66.6	66.7	11.99	40.68
R92-2"	50.8	73	69.85	11.99	40.68
R92-21/8"	53.9	73.3	73.05	13.5	41.2
R92-21/4"	57.1	78.4	76.2	13.5	41.2
R92-23/8"	60.3	82	79.4	13.5	41.2
R92-21/2"	63.5	84.9	82.55	13.5	41.2
R92-25/8"	66.6	88.4	92.1	15.9	49.2
R92-23/4"	69.8	92.6	95.25	15.9	49.2
R92-27/8"	73	94.85	98.45	15.9	49.2
R92-3"	76.2	101.9	101.7	15.9	49.2

# R93



## 技术参数

- 温度：  
-20℃到150℃
- 压力：  
最大压力达到8 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
±0.1mm

产品尺寸  
10mm to 100mm

## Performance Capabilities

- Temperature:  
-20°C to 150°C, dependent on the elastomer
- Pressure:  
Up to 8 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance:  
±0.1mm

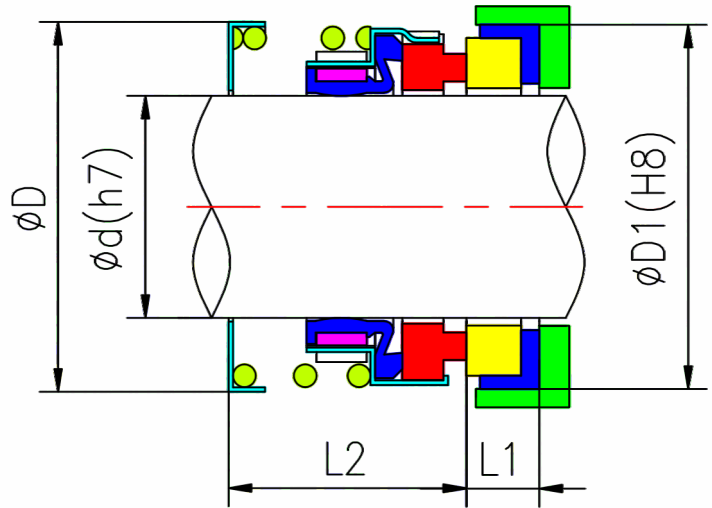
Sizes  
10mm to 100mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellows: NBR, EPDM, VITON etc.
- Spring: SS304, SS316
- Metal parts: SS304, Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：陶瓷，碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON etc.
- 弹簧：SS304, SS316
- 其他金属件：SS304, Ss316



型号/规格	d	D	D1	L1	L2
R93-10	10	20	21	8.5	24.1
R93-12	12	21.7	23	8.5	24.1
R93-14	14	24.5	25	8.5	26.7
R93-16	16	26.65	27	8.5	26.7
R93-18	18	30.35	33	10	27.7
R93-20	20	31.75	35	10	27.7
R93-22	22	33.55	37	10	27.7
R93-24	24	38.3	39	10	30.2
R93-25	25	38.3	40	10	30.2
R93-28	28	42.2	43	10	32.7
R93-30	30	43.95	45	10	32.7
R93-32	32	45.7	48	10	32.7
R93-33	33	46.75	48	10	32.7
R93-35	35	49.1	50	10	32.7
R93-38	38	52.4	56	11	34.2
R93-40	40	55.7	58	11	34.2
R93-43	43	55.8	61	11	34.2
R93-45	45	61.2	63	11	34.2
R93-48	48	64.35	66	11	34.2
R93-50	50	67.35	70	13	34.7
R93-53	53	70.65	73	13	34.7
R93-55	55	71.65	75	13	34.7
R93-58	58	78.4	78	13	39.7
R93-60	60	78.4	80	13	39.7
R93-63	63	81.5	83	13	39.7
R93-65	65	84.3	85	13	39.7
R93-68	68	89.65	90	15.3	37.4
R93-70	70	89.65	92	15.3	44.9
R93-75	75	96.8	97	15.3	44.9
R93-80	80	104	105	15.7	44.5
R93-85	85	107.95	110	15.7	44.5
R93-90	90	111.1	115	15.7	49.5
R93-95	95	119	120	15.7	49.5
R93-100	100	124	125	15.7	49.5

# T11 T12

## 技术参数

- 温度：  
低于120°C
- 压力：  
最大压力达到0.5 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
±0.1mm

## 产品尺寸

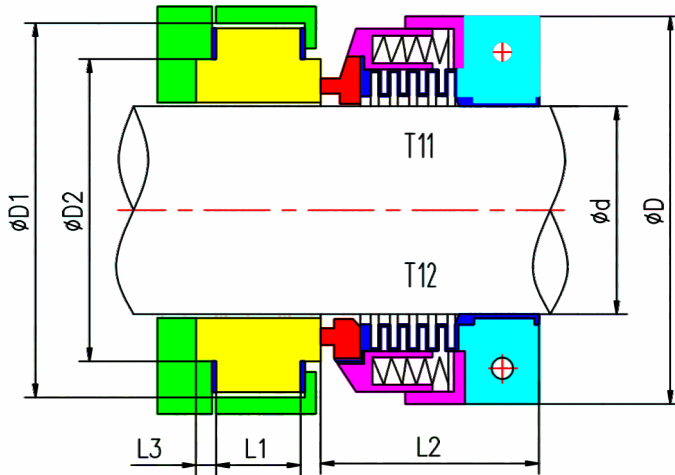
16mm to 100mm  
0.75" to 4"

## Performance Capabilities

- Temperature:  
120°C max.
- Pressure:  
Up to 0.5 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance:  
±0.1mm

## Sizes

16mm to 100mm  
0.75" to 4"



## Materials Combination

- Face: PTFE glassfibre, Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellow: PTFE
- Spring: SS316, hastelloy C
- Metal parts: SS304, Ss316

## 材料组合

- PTFE玻璃纤维填充, 石墨, 碳化硅, 硬质合金
- 静环: 碳化硅, 硬质合金
- 辅助密封: PTFE
- 弹簧: SS316, 哈氏合金
- 其他金属件: SS304, Ss316

规格/尺寸	d	D	D1	D2	L1	L2	L3
T11,T12-16	16	54	48	36.51	8	31	4.8
T11,T12-18	18	54	48	36.51	8	31	4.8
T11,T12-20	20	57	51	39.69	8	31	4.8
T11,T12-22	22	57	51	39.69	8	31	4.8
T11,T12-24	24	61	54	42.86	8	33	4.8
T11,T12-25	25	61	54	42.86	8	33	4.8
T11,T12-28	28	67	65	50.80	11	36	8.0
T11,T12-30	30	70	68	53.98	11	37	8.0
T11,T12-32	32	70	68	53.98	11	37	8.0
T11,T12-33	33	73	71	57.15	11	38	8.0
T11,T12-35	35	73	71	57.15	11	38	8.0
T11,T12-38	38	76	78	63.50	11	38	8.0
T11,T12-40	40	80	81	66.68	11	40	8.0
T11,T12-43	43	83	84	69.85	11	40	8.0
T11,T12-45	45	83	84	69.85	11	40	8.0
T11,T12-48	48	89	97	79.38	14.3	43	9.5
T11,T12-50	50	89	97	79.38	14.3	43	9.5
T11,T12-53	53	103	100	82.55	14.3	53	9.5
T11,T12-55	55	107	103	85.73	14.3	53	9.5
T11,T12-58	58	110	106	88.90	14.3	53	9.5
T11,T12-60	60	110	106	88.90	14.3	53	9.5
T11,T12-63	63	113	110	92.08	14.3	53	9.5
T11,T12-65	65	116	113	95.25	14.3	53	9.5
T11,T12-68	68	118	116	98.43	14.3	53	9.5
T11,T12-70	70	118	116	98.43	14.3	53	9.5
T11,T12-75	75	126	121	103.19	14.3	53	9.5
T11,T12-80	80	150	132	114.30	14.3	73	9.5
T11,T12-85	85	156	138	120.65	14.3	73	9.5
T11,T12-90	90	163	144	127.00	14.3	73	9.5
T11,T12-95	95	163	144	127.00	14.3	73	9.5
T11,T12-100	100	169	151	133.35	14.3	73	9.5

规格/尺寸	d	D	D1	D2	L1	L2	L3
T11,T12-0.75"	19.0	54	48	36.51	8	31	4.8
T11,T12-0.875"	22.2	57	51	39.69	8	31	4.8
T11,T12-1"	25.4	61	54	42.86	8	33	4.8
T11,T12-1.125"	28.5	67	65	50.86	11	36	8.0
T11,T12-1.25"	31.7	70	68	53.98	11	37	8.0
T11,T12-1.375"	34.9	73	71	57.15	11	38	8.0
T11,T12-1.5"	38.1	76	78	63.50	11	38	8.0
T11,T12-1.625"	41.2	80	81	66.68	11	40	8.0
T11,T12-1.75"	44.4	83	84	69.85	11	40	8.0
T11,T12-1.875"	47.6	86	87	73.03	11	43	8.0
T11,T12-2"	50.8	89	97	79.38	14.3	43	9.5
T11,T12-2.125"	53.9	103	100	82.55	14.3	53	9.5
T11,T12-2.25"	57.1	107	103	85.73	14.3	53	9.5
T11,T12-2.375"	60.3	110	106	88.90	14.3	53	9.5
T11,T12-2.5"	63.5	113	110	92.08	14.3	53	9.5
T11,T12-2.625"	66.6	116	113	95.25	14.3	53	9.5
T11,T12-2.75"	69.8	118	116	98.43	14.3	53	9.5
T11,T12-2.875"	73.0	122	117	100.01	14.3	53	9.5
T11,T12-3"	76.2	126	121	103.19	14.3	53	9.5
T11,T12-3.25"	82.5	150	132	114.30	14.3	73	9.5
T11,T12-3.5"	88.9	156	138	120.65	14.3	73	9.5
T11,T12-3.75"	95.2	163	144	127.00	14.3	73	9.5
T11,T12-4"	101.6	169	151	133.35	14.3	73	9.5

四氟波纹管密封  
PTFE bellows seals

# T91



## 技术参数

- 温度：  
低于120°C
- 压力：  
最大压力达到0.5 bar
- 转速：  
最高10 m/s
- 轴向跳动：  
±0.1mm

**产品尺寸**  
25mm to 65mm  
1" to 2 3/8"

## Performance Capabilities

- Temperature:  
120°C max.
- Pressure:  
Up to 0.5 bar
- Speed:  
Up to 10 m/s
- End play/axial float allowance:  
±0.1mm

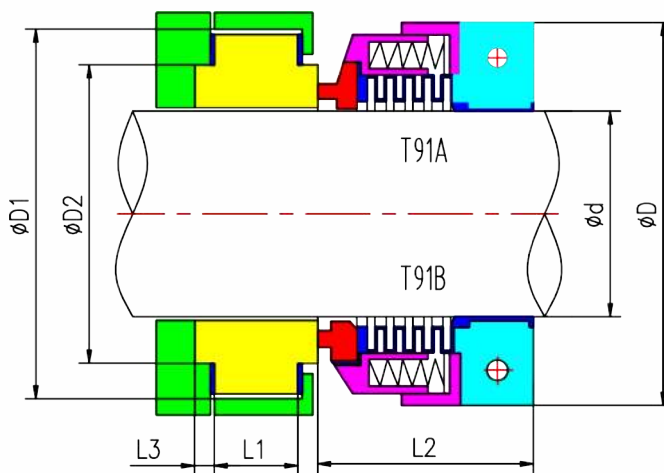
**Sizes**  
25mm to 65mm  
1" to 2 3/8"

## Materials Combination

- Face: PTFE glassfibre, Carbon, SiC, TC
- Seat: Ceramic, SiC, TC
- Bellow: PTFE
- Spring: SS316, hastelloy C
- Metal parts: SS304, Ss316

## 材料组合

- PTFE玻璃纤维填充, 石墨, 碳化硅, 硬质合金
- 静环: 碳化硅, 硬质合金
- 辅助密封: PTFE
- 弹簧: SS316, 哈氏合金
- 其他金属件: SS304, Ss316



型号/规格	d	D	D1	D2	L1	L2	L3
T91-1"	25.4	60	54	42.86	8	45	4.8
T91-1 1/8"	28.6	67	60	46.03	11	45	8.0
T91-1 1/4"	31.75	69	65	50.8	11	45	8.0
T91-1 3/8"	34.93	72	68	53.98	11	45	8.0
T91-1 1/2"	38.1	76	71	57.15	11	45	8.0
T91-1 5/8"	41.28	80	78	63.5	11	45	8.0
T91-1 3/4"	44.45	84	81	66.68	11	46	8.0
T91-1 7/8"	47.63	86	84	69.85	11	46	8.0
T91-2"	50.8	90	87	73.03	14.3	46	9.5
T91-2 1/8"	53.98	95	97	79.38	14.3	46	9.5
T91-2 1/4"	57.15	98	100	82.55	14.3	46	9.5
T91-2 3/8"	60.3	100	103	85.73	14.3	46	9.5

型号/规格	d	D	D1	D2	L1	L2	L3
T91-25	25	60	60	47	11	45	8.0
T91-30	30	67	67	53	11	45	8.0
T91-32	32	69	64	50.7	11	45	8.0
T91-35	35	72	70	57	11	45	8.0
T91-40	40	78	76	62	11	45	8.0
T91-45	45	84	82	67	11	46	8.0
T91-50	50	88	86	72	11	46	8.0
T91-55	55	95	90	77	11	46	8.0
T91-60	60	100	95	82	11	46	8.0
T91-65	65	105	100	87	11	46	8.0



# S11

## Performance Capabilities

- Temperature: -30°C to 250°C dependent on the elastomer
- Pressure: Up to 75mm/3.0" 21 bar g/300 psig max.  
75mm/3.0" and over 13 bar g/200 psig max.
- Speed: Up to 25 m/s
- End play/axial float allowance: 0.13mm/0.005"
- Run out/out of squareness: 0.05mm/0.002"

## Materials Combination

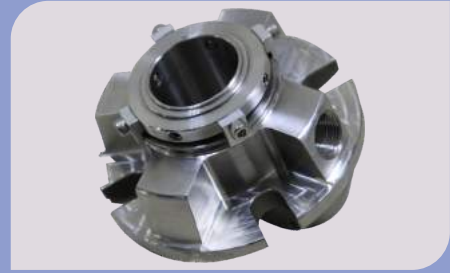
- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 技术参数

- 温度: -30°C to 250°C 取决于橡胶
- 压力: 75mm/3.0" 以下 21 bar g/300 psig 最大  
75mm/3.0" 以上 13 bar g/200 psig 最大
- 转速: Up to 25 m/s
- 轴向跳动: 0.13mm/0.005"

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧: SS316, 哈氏合金
- 其他金属件: SS316



## Sizes

24mm to 140mm  
1" to 5.5"

## 产品尺寸

24mm to 140mm  
1" to 5.5"

# S15



## Sizes

30mm, 40mm, 50mm, 60mm,  
80mm, 90mm, 100mm

## 产品尺寸

30mm, 40mm, 50mm, 60mm,  
70mm, 80mm, 90mm, 100mm

## Performance Capabilities

- Temperature: Up to 120°C, dependent on the elastomer
- Pressure: Up to 15 bar g/215 psig max.
- Speed: Up to 20 m/s
- End play/axial float allowance: 0.13mm/0.005"
- Run out/out of squareness: 0.05mm/0.002"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 技术参数

- 温度: 最高120°C, 取决于橡胶
- 压力: 达到15 bar g/215 psig 最大
- 转速: 最高20 m/s
- 轴向跳动: 0.13mm/0.005"

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧: SS316, 哈氏合金
- 其他金属件: SS316

# S21



## 技术参数

- 温度: -40°C到220°C, 取决于橡胶
- 压力: 最大压力达到25 bar
- 轴向跳动: ±1.0mm

## Performance Capabilities

- Temperature: -40°C to 220°C, dependent on the elastomer
- Pressure: Up to 25 bar
- Speed: Up to 25 m/s
- End play/axial float allowance: ±1.0mm

## 产品尺寸

25mm to 100mm  
1" to 4"

## Sizes

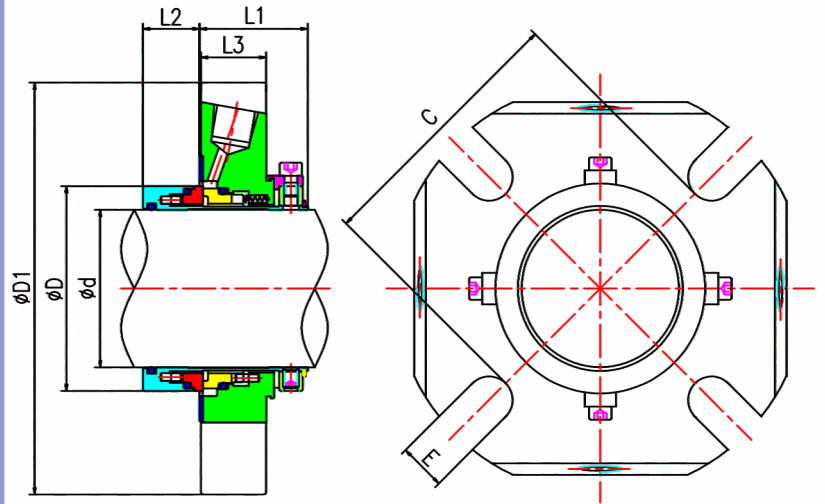
25mm to 100mm  
1" to 4"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧: SS316, 哈氏合金
- 其他金属件: SS316



型号/尺寸	d	D	D1	L1	L2	L3	C	E
S21-25	25	43	105	42.4	24.6	25.4	62	13.2
S21-28	28	46	105	42.4	24.6	25.4	62	13.2
S21-30	30	48	105	42.4	24.6	25.4	65	13.2
S21-32	32	49.8	108	42.4	24.6	25.4	67	13.2
S21-33	33	49.8	108	42.4	24.6	25.4	67	13.2
S21-35	35	53	113	42.4	24.6	25.4	70	13.2
S21-38	38	56	123	42.4	24.6	25.4	75	13.2
S21-40	40	58	123	42.4	24.6	25.4	75	14.2
S21-42	42	60.5	133	42.4	24.6	25.4	80	14.2
S21-43	43	60.5	133	42.4	24.6	25.4	80	14.2
S21-45	45	62.5	138	42.4	24.6	25.4	81	14.2
S21-48	48	65.6	138	42.4	24.6	25.4	84	14.2
S21-50	50	68	148	42.4	24.6	25.4	87	14.2
S21-53	53	72	148	42.4	24.6	25.4	90	18
S21-55	55	73	148	42.4	24.6	25.4	90	18
S21-60	60	78	157	42.4	24.6	25.4	102	18
S21-65	65	84.8	163	42.4	24.6	25.4	109	18
S21-70	70	93	178	42.4	24.6	25.4	118	18
S21-75	75	100	190	57.4	26.6	28	129	18
S21-80	80	106	195	57.4	26.6	28	135	18
S21-85	85	110	198	57.4	26.6	28	139	22
S21-90	90	116	205	57.4	26.6	28	145	22
S21-95	95	119	208	57.4	26.6	28	148	22
S21-100	100	125	218	57.4	26.6	28	154	22

型号/尺寸	d	D	D1	L1	L2	L3	C	E
S21-1"	1	1.693	4.134	1.67	0.969	1	2.44	0.52
S21-1.125"	1.125	1.811	4.134	1.67	0.969	1	2.44	0.52
S21-1.25"	1.25	1.96	4.33	1.67	0.969	1	2.64	0.52
S21-1.375"	1.375	2.086	4.449	1.67	0.969	1	2.75	0.52
S21-1.5"	1.5	2.2	4.842	1.67	0.969	1	2.95	0.52
S21-1.625"	1.625	2.34	4.842	1.67	0.969	1	3.03	0.599
S21-1.75"	1.75	2.46	5.433	1.67	0.969	1	3.19	0.599
S21-1.875"	1.875	2.582	5.433	1.67	0.969	1	3.19	0.599
S21-2"	2	2.677	5.827	1.67	0.969	1	3.43	0.599
S21-2.125"	2.125	2.834	5.827	1.67	0.969	1	3.82	0.709
S21-2.25"	2.25	2.96	6.181	1.67	0.969	1	3.94	0.709
S21-2.375"	2.375	3.07	6.181	1.67	0.969	1	4.02	0.709
S21-2.5"	2.5	3.212	6.417	1.67	0.969	1	4.17	0.709
S21-2.625"	2.625	3.338	6.417	1.67	0.969	1	4.29	0.709
S21-2.75"	2.75	3.66	7.008	1.67	0.969	1	4.65	0.709
S21-2.875"	2.875	3.811	7.283	2.26	1.047	1	4.96	0.709
S21-3"	3	3.937	7.48	2.26	1.047	1.102	5.08	0.709
S21-3.125"	3.125	4.063	7.677	2.26	1.047	1.102	5.2	0.709
S21-3.25"	3.25	41.89	7.677	2.26	1.047	1.102	5.32	0.709
S21-3.375"	3.375	4.311	7.795	2.26	1.047	1.102	5.47	0.866
S21-3.5"	3.5	4.437	7.795	2.26	1.047	1.102	5.59	0.866
S21-3.625"	3.625	4.563	8.071	2.26	1.047	1.102	5.71	0.866
S21-3.75"	3.75	4.689	8.189	2.26	1.047	1.102	5.83	0.866
S21-4"	4	4.937	8.583	2.26	1.047	1.102	6.06	0.866

# S22

### 技术参数

- 温度：  
-40°C到220°C，取决于橡胶
- 压力：  
最大压力达到25 bar
- 转速：  
最高25 m/s
- 轴向跳动：  
±1.0mm

### 产品尺寸

25mm to 75mm  
1" to 2.625"

### Performance Capabilities

- Temperature:  
-40°C to 220°C, dependent on the elastomer
- Pressure:  
Up to 25 bar
- Speed:  
Up to 25 m/s
- End play/axial float allowance:  
±1.0mm

### Sizes

25mm to 75mm  
1" to 2.625"

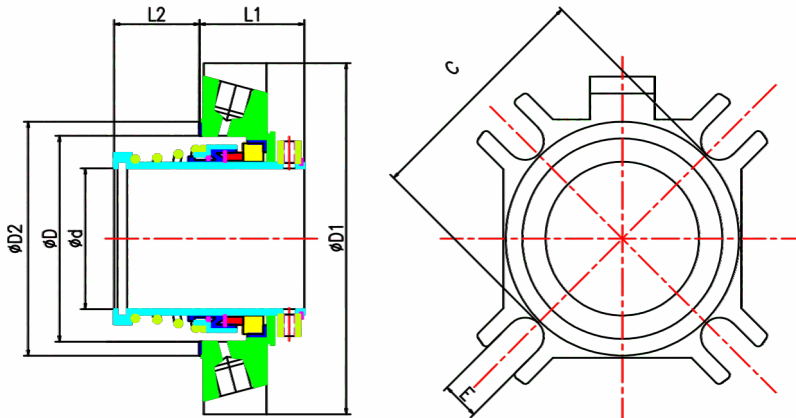


### Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

### 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS316, 哈氏合金
- 其他金属件：SS316



型号/尺寸	d	D min	D max	D1	D2	C	E	L1	L2
S22-25	25	41.5	51	105	60	62	13.2	41	24.5
S22-28	28	44.5	52	105	60	62	13.2	41.5	26.5
S22-30	30	45.5	56	105	63	67	13.2	41.5	26.5
S22-33	33	48	57	110	65	67	13.2	42	27.5
S22-35	35	50.8	61.5	107	68	70	13.2	44	28.5
S22-38	38	54.5	66	123	73	75	14.7	44	28.5
S22-40	40	57.5	68	123	75	77	14.7	44.5	31
S22-43	43	59.5	70.5	133	78	80	14.7	44.5	32
S22-45	45	63	73	130	79	82	14.2	44.5	32
S22-48	48	65	75	130	82	84	14.2	45	33
S22-50	50	58	78	148	85	87	14.7	47	33.5
S22-53	53	70	87	148	95	97	17.5	47	34.5
S22-55	55	73	83	148	90	92	17.5	47	36.5
S22-60	60	79	91	157	100	102	17.5	47	38.5
S22-65	65	85.7	98.5	162	108	110	17.5	48.5	39.5
S22-70	70	94	108	178	116	118	17.5	48.5	43.5
S22-75	75	98.4	118	190	125	127	17.5	49	44.5
S22-1"	1	1.634	2	4.134	2.362	2.44	0.52	1.614	0.965
S22-1.125"	1.125	1.75	2.05	4.134	2.362	2.441	0.52	1.634	1.043
S22-1.25"	1.25	1.89	2.25	4.331	2.559	2.638	0.52	1.654	1.083
S22-1.375"	1.375	2	2.42	4.213	2.677	2.756	0.52	1.732	1.122
S22-1.5"	1.5	2.146	2.625	4.843	2.874	2.95	0.579	1.732	1.122
S22-1.75"	1.75	2.48	2.812	5.118	3.11	3.23	0.559	1.752	1.26
S22-1.875"	1.875	2.559	2.94	5.118	3.228	3.207	0.559	1.772	1.299
S22-2"	2	2.677	3.19	5.827	3.346	3.43	0.579	1.85	1.319
S22-2.125"	2.125	2.875	3.437	5.512	3.74	3.82	0.689	1.85	1.437
S22-2.25"	2.25	2.992	3.56	6.181	3.78	3.858	0.689	1.85	1.437
S22-2.375"	2.375	3.11	3.59	6.181	3.937	4.02	0.689	1.85	1.516
S22-2.5"	2.5	3.287	3.8	6.693	4.173	4.252	0.689	1.909	1.555
S22-2.625"	2.625	3.374	3.937	6.378	4.252	4.331	0.689	1.909	1.555

单端面集装式  
single cartridge seals

# S51



## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS316, 哈氏合金
- 其他金属件：SS316

## 技术参数

- 温度：-40°C到220°C，取决于橡胶
- 压力：最大压力达到28 bar
- 转速：最高35 m/s
- 轴向跳动：±1.0mm

## 产品尺寸

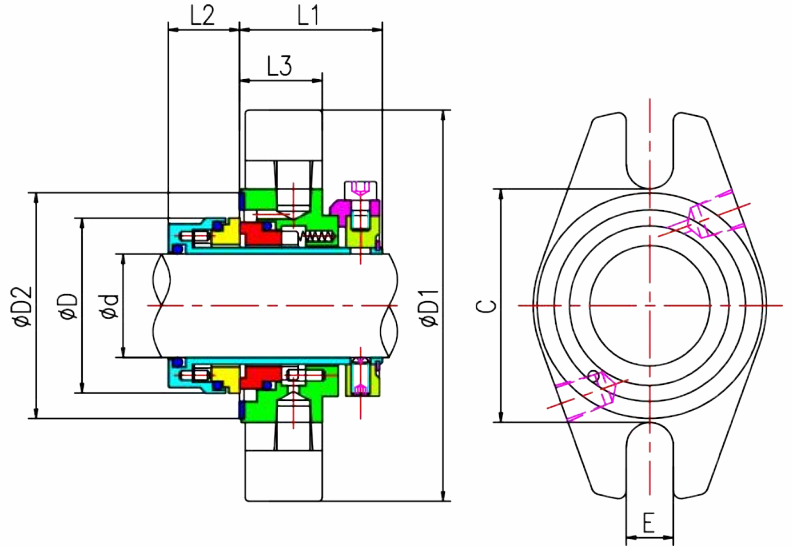
24mm to 100mm  
1" to 4"

## Performance Capabilities

- Temperature: -40°C to 220°C, dependent on the elastomer
- Pressure: Up to 28 bar
- Speed: Up to 35 m/s
- End play/axial float allowance: ±1.0mm

## Sizes

24mm to 100mm  
1" to 4"



型号/尺寸	d	C	D	D1	D2	E	L1	L2	L3
S51-24	24	62	43.5	104	60	12.5	38	19	22
S51-25	25	62	43.5	104	60	12.5	38	19	22
S51-28	28	62	46.5	104	60	12.5	38	19	22
S51-30	30	65	48.5	104	63	12.5	38	19	22
S51-32	32	67	50	104	65	12.5	38	19	22
S51-33	33	67	50	104	65	12.5	38	19	22
S51-35	35	70	53.5	115	68	12.5	38	19	22
S51-38	38	75	56.5	125	73	14.7	38	19	22
S51-40	40	75	58.5	125	73	14.7	38	19	22
S51-43	43	80	61.5	133	78	14.7	38	19	22
S51-45	45	81	63.5	140	79	14.7	38	19	22
S51-48	48	84	66.5	140	82	14.7	38	19	22
S51-50	50	87	68.5	140	85	14.7	38	19	22
S51-53	53	90	71.5	150	88	17.5	38	19	22
S51-55	55	92	73.5	150	90	17.5	38	19	22
S51-60	60	100	78.5	160	98	17.5	38	19	22
S51-65	65	105	83.5	165	103	17.5	38	19	22
S51-70	70	120	88.5	180	118	17.5	38	19	22
S51-75	75	125	100	190	123	17.5	36	26	23
S51-80	80	130	105	190	128	17.5	36	26	23
S51-85	85	135	110	220	133	20.5	36	26	23
S51-90	90	140	115	220	138	20.5	36	26	23
S51-95	95	145	120	220	143	20.5	36	26	23
S51-100	100	150	125	220	148	20.5	36	26	23

型号/尺寸	d	C	D	D1	D2	E	L1	L2	L3
S51-1"	1	2.441	1.713	4.094	2.362	0.492	1.496	0.748	0.866
S51-1.125"	1.125	2.441	1.831	4.094	2.362	0.492	1.496	0.748	0.866
S51-1.25"	1.25	2.638	1.988	4.094	2.559	0.492	1.496	0.748	0.866
S51-1.375"	1.375	2.756	2.106	4.2528	2.677	0.492	1.496	0.748	0.866
S51-1.5"	1.5	2.953	2.224	4.921	2.874	0.579	1.496	0.748	0.866
S51-1.625"	1.625	3.15	2.382	5.236	3.071	0.579	1.496	0.748	0.866
S51-1.75"	1.75	3.189	2.5	5.512	3.11	0.579	1.496	0.748	0.866
S51-1.875"	1.875	3.307	2.618	5.512	3.228	0.579	1.496	0.748	0.866
S51-2"	2	3.425	2.697	5.512	3.346	0.579	1.496	0.748	0.866
S51-2.125"	2.125	3.543	2.815	5.906	3.465	0.689	1.496	0.748	0.866
S51-2.25"	2.25	3.74	3.012	6.102	3.661	0.689	1.496	0.748	0.866
S51-2.375"	2.375	3.937	3.091	6.299	3.858	0.689	1.496	0.748	0.866
S51-2.5"	2.5	4.055	3.209	6.469	3.975	0.689	1.496	0.748	0.866
S51-2.625"	2.625	4.331	3.406	6.693	4.252	0.689	1.496	0.748	0.866
S51-2.75"	2.75	4.724	3.484	7.087	4.648	0.689	1.496	0.748	0.866
S51-2.875"	2.875	4.843	3.858	7.48	4.764	0.689	1.417	1.024	0.906
S51-3"	3	4.921	3.937	7.48	4.843	0.689	1.417	1.024	0.906
S51-3.125"	3.125	5.118	4.135	7.48	5.039	0.689	1.417	1.024	0.906
S51-3.25"	3.25	5.236	4.252	8.661	5.157	0.846	1.417	1.024	0.906
S51-3.375"	3.375	5.315	4.331	8.661	5.236	0.846	1.417	1.024	0.906
S51-3.5"	3.5	5.512	4.528	8.661	5.433	0.846	1.417	1.024	0.906
S51-3.625"	3.625	5.591	4.606	8.661	5.512	0.846	1.417	1.024	0.906
S51-3.75"	3.75	5.709	4.724	8.661	5.63	0.846	1.417	1.024	0.906
S51-3.875"	3.875	5.906	4.921	8.661	5.827	0.846	1.417	1.024	0.906
S51-4"	4	5.906	4.921	8.661	5.827	0.846	1.417	1.024	0.906



# D11

## Performance Capabilities

- Temperature: -20°C to 200°C, dependent on the elastomer
- Pressure: Up to 15 bar
- Speed: Up to 20 m/s
- End play/axial float allowance: ±1.0mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 技术参数

- 温度: -20°C到200°C, 取决于橡胶
- 压力: 最大压力达到15 bar
- 转速: 最高20 m/s
- 轴向跳动: ±1.0mm

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧: SS316, 哈氏合金
- 其他金属件: SS316



## Sizes

30mm, 40mm, 50mm, 60mm,  
80mm, 90mm, 100mm

## 产品尺寸

30mm, 40mm, 50mm, 60mm,  
80mm, 90mm, 100mm

# D13



## Sizes

45mm, 58mm, 77mm, 108mm

## 产品尺寸

45mm, 58mm, 77mm, 108mm

## Performance Capabilities

- Temperature: -20°C to 200°C, dependent on the elastomer
- Pressure: Up to 15 bar
- Speed: Up to 20 m/s
- End play/axial float allowance: ±1.0mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 技术参数

- 温度: -20°C到200°C, 取决于橡胶
- 压力: 最大压力达到15 bar
- 转速: 最高20 m/s
- 轴向跳动: ±1.0mm

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧: SS316, 哈氏合金
- 其他金属件: SS316

# D14

## Performance Capabilities

- Temperature: -20°C to 200°C, dependent on the elastomer
- Pressure: Up to 15 bar
- Speed: Up to 15 m/s
- End play/axial float allowance ±2.0mm

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 技术参数

- 温度: -20°C到200°C, 取决于橡胶
- 压力: 最大压力达到15 bar
- 转速: 最高15 m/s
- 轴向跳动: ±2.0mm

## 材料组合

- 动环: 石墨, 碳化硅, 硬质合金
- 静环: 碳化硅, 硬质合金
- 辅助密封: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧: SS316, 哈氏合金
- 其他金属件: SS316



## Sizes

30mm, 50mm, 55mm, 60mm, 65mm, 70mm,  
85mm, 95mm, 110mm, 130mm, 150mm

## 产品尺寸

30mm, 50mm, 55mm, 60mm, 65mm, 70mm,  
85mm, 95mm, 110mm, 130mm, 150mm



# D21



## 技术参数

- 温度：  
-20°C到250°C，取决于橡胶
- 压力：  
最大压力达到25 bar
- 转速：  
最高25 m/s
- 轴向跳动：  
±1.0mm

## 产品尺寸

25mm to 100mm  
1" to 4"

## Performance Capabilities

- Temperature:  
-20°C to 250°C, dependent on the elastomer
- Pressure:  
Up to 25 bar
- Speed:  
Up to 25 m/s
- End play/axial float allowance:  
±1.0mm

## Sizes

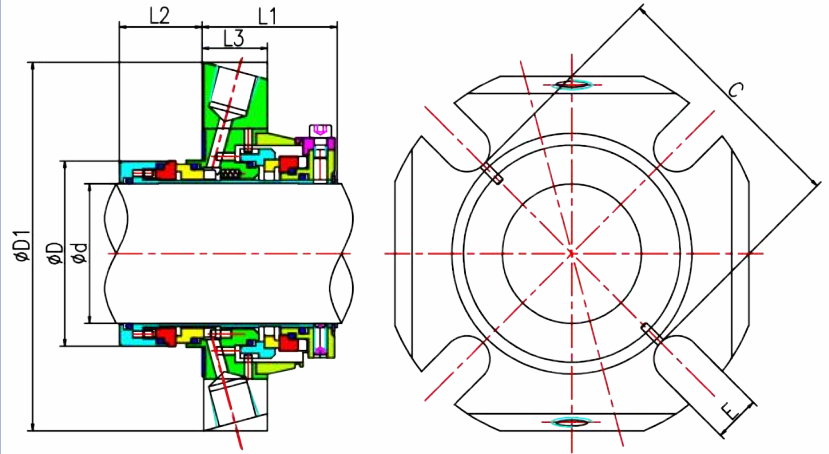
25mm to 100mm  
1" to 4"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- O-rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS316, 哈氏合金
- 其他金属件：SS316



型号/尺寸	d	D	D1	L1	L2	L3	C	E
D21-25	25	43	105	53.4	33.1	25.4	62	13.2
D21-28	28	46	105	53.4	33.1	25.4	62	13.2
D21-30	30	48	105	53.4	33.1	25.4	65	13.2
D21-32	32	49.8	108	53.4	33.1	25.4	67	13.2
D21-33	33	49.8	108	53.4	33.1	25.4	67	13.2
D21-35	35	53	113	53.4	33.1	25.4	70	13.2
D21-38	38	56	123	53.4	33.1	25.4	75	14.2
D21-40	40	58	123	53.4	33.1	25.4	75	14.2
D21-42	42	60.5	133	53.4	33.1	25.4	80	14.2
D21-43	43	60.5	133	53.4	33.1	25.4	80	14.2
D21-45	45	62.5	138	53.4	33.1	25.4	81	14.2
D21-48	48	65.6	138	53.4	33.1	25.4	84	14.2
D21-50	50	68	148	53.4	33.1	25.4	87	14.2
D21-53	53	72	148	53.4	33.1	25.4	97	18
D21-55	55	73	148	53.4	33.1	25.4	90	18
D21-60	60	78	157	53.4	33.1	25.4	102	18
D21-65	65	84.8	163	53.4	33.1	25.4	109	18
D21-70	70	93	178	53.4	33.1	25.4	118	18
D21-75	75	100	190	63.9	44.1	28	129	18
D21-80	80	106.4	195	63.9	44.1	28	135	18
D21-85	85	109.5	198	63.9	44.1	28	139	22
D21-90	90	115.9	205	63.9	44.1	28	145	22
D21-95	95	119.1	208	63.9	44.1	28	148	22
D21-100	100	125.4	218	63.9	44.1	28	154	22

型号/尺寸	d	D	D1	L1	L2	L3	C	E
D21-1"	1	1.693	4.134	2.102	1.303	1	2.44	0.52
D21-1.125"	1.125	1.811	4.134	2.102	1.303	1	2.44	0.52
D21-1.25"	1.25	1.96	4.33	2.102	1.303	1	2.64	0.52
D21-1.375"	1.375	2.086	4.449	2.102	1.303	1	2.75	0.52
D21-1.5"	1.5	2.2	4.842	2.102	1.303	1	2.95	0.52
D21-1.625"	1.625	2.34	4.842	2.102	1.303	1	3.03	0.599
D21-1.75"	1.75	2.46	5.433	2.102	1.303	1	3.19	0.599
D21-1.875"	1.875	2.582	5.433	2.102	1.303	1	3.19	0.599
D21-2"	2	2.677	5.827	2.102	1.303	1	3.43	0.599
D21-2.125"	2.125	2.834	5.827	2.102	1.303	1	3.82	0.709
D21-2.25"	2.25	2.96	6.181	2.102	1.303	1	3.94	0.709
D21-2.375"	2.375	3.07	6.181	2.102	1.303	1	4.02	0.709
D21-2.5"	2.5	3.212	6.417	2.102	1.303	1	4.17	0.709
D21-2.625"	2.625	3.338	6.417	2.102	1.303	1	4.29	0.709
D21-2.75"	2.75	3.66	7.008	2.102	1.303	1	4.65	0.709
D21-2.875"	2.875	3.811	7.283	2.102	1.303	1	4.96	0.709
D21-3"	3	3.937	7.48	2.516	1.736	1.102	5.079	0.709
D21-3.125"	3.125	4.063	7.677	2.516	1.736	1.102	5.197	0.709
D21-3.25"	3.25	4.189	7.677	2.516	1.736	1.102	5.315	0.709
D21-3.375"	3.375	4.311	7.795	2.516	1.736	1.102	5.472	0.866
D21-3.5"	3.5	4.437	7.795	2.516	1.736	1.102	5.591	0.866
D21-3.625"	3.625	4.563	8.071	2.516	1.736	1.102	5.709	0.866
D21-3.75"	3.75	4.689	8.189	2.516	1.736	1.102	5.827	0.866
D21-4"	4	4.937	8.583	2.516	1.736	1.102	6.063	0.866

# D51

## 技术参数

- 温度：  
-40°C到250°C，取决于橡胶
- 压力：  
最大压力达到28 bar
- 转速：  
最高35 m/s
- 轴向跳动：  
±1.0mm

## 产品尺寸

24mm to 100mm  
1" to 4"

## Performance Capabilities

- Temperature:  
-40°C to 250°C, dependent on the elastomer
- Pressure:  
Up to 28 bar
- Speed:  
Up to 35 m/s
- End play/axial float allowance:  
±1.0mm

## Sizes

24mm to 100mm  
1" to 4"

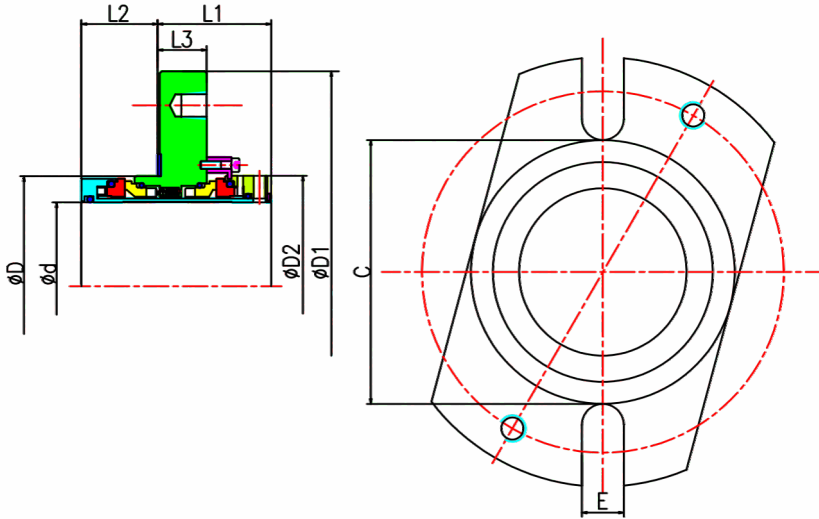


## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS316, 哈氏合金
- 其他金属件：SS316



型号/尺寸	d	C	D	D1	D2	E	L	L2	L3
D51-24	24	60	44.7	105	52	12.5	50	35	24
D51-25	25	60	44.7	105	52	12.5	50	35	24
D51-28	28	60	47.7	105	55	12.5	50	35	24
D51-30	30	60	49.7	105	57	12.5	50	35	24
D51-32	32	60	50.9	105	60	12.5	50	35	24
D51-33	33	60	50.9	105	60	12.5	50	35	24
D51-35	35	67	54.7	115	62	12.5	50	35	24
D51-38	38	75	57.7	130	65	14.7	50	35	24
D51-40	40	75	59.7	130	67	14.7	50	35	24
D51-43	43	82	62.7	140	70	14.7	50	35	24
D51-45	45	82	64.7	140	72	14.7	50	35	24
D51-48	48	82	67.7	140	75	14.7	50	35	24
D51-50	50	82	69.7	140	77	14.7	50	35	24
D51-53	53	92	72.7	150	80	17.5	50	35	24
D51-55	55	92	74.7	150	82	17.5	50	35	24
D51-60	60	100	79.7	160	87	17.5	50	35	24
D51-65	65	100	84.7	160	92	17.5	50	35	24
D51-70	70	112	89.7	180	97	17.5	50	35	24
D51-75	75	125	102.8	190	108	17.5	54	39	25
D51-80	80	130	107.8	190	113	17.5	54	39	25
D51-85	85	135	112.8	220	118	21.5	54	39	25
D51-90	90	140	117.8	220	123	21.5	54	39	25
D51-95	95	145	122.8	220	128	21.5	54	39	25
D51-100	100	150	127.8	220	133	21.5	54	39	25

型号/尺寸	d	C	D	D1	D2	E	L1	L2	L3
D51-1"	1	2.382	1.76	4.134	1.85	0.492	2.126	1.387	0.945
D51-1.125"	1	2.362	1.878	4.134	1.969	0.492	2.126	1.387	0.945
D51-1.25"	1	2.362	2.004	4.134	2.126	0.492	2.126	1.387	0.945
D51-1.375"	1	2.638	2.154	4.528	2.244	0.492	2.126	1.387	0.945
D51-1.5"	2	2.953	2.272	5.118	2.362	0.579	2.126	1.387	0.945
D51-1.625"	2	3.228	2.429	5.512	2.52	0.579	2.126	1.387	0.945
D51-1.75"	2	3.228	2.547	5.512	2.638	0.579	2.126	1.387	0.945
D51-1.875"	2	3.228	2.665	5.512	2.756	0.579	2.126	1.387	0.945
D51-2"	2	3.228	2.744	5.512	2.835	0.579	2.126	1.387	0.945
D51-2.125"	2	3.622	2.862	5.906	2.953	0.689	2.126	1.387	0.945
D51-2.25"	2	3.622	3.02	5.906	3.11	0.689	2.126	1.387	0.945
D51-2.375"	2	3.937	3.138	6.299	3.228	0.689	2.126	1.387	0.945
D51-2.5"	2	3.937	3.256	6.299	3.346	0.689	2.126	1.387	0.945
D51-2.625"	3	4.409	3.413	7.087	3.504	0.689	2.126	1.387	0.945
D51-2.75"	3	4.409	3.531	7.087	3.622	0.689	2.126	1.387	0.945
D51-2.875"	3	4.843	3.969	7.48	3.976	0.689	2.126	1.387	0.945
D51-3"	3	4.921	4.047	7.48	4.055	0.689	2.283	1.535	0.984
D51-3.125"	3	5.118	4.244	7.48	4.252	0.689	2.283	1.535	0.984
D51-3.25"	3	5.236	4.362	7.48	4.37	0.689	2.283	1.535	0.984
D51-3.375"	3	5.315	4.441	8.661	4.449	0.846	2.283	1.535	0.984
D51-3.5"	4	5.512	4.638	8.661	4.646	0.846	2.283	1.535	0.984
D51-3.625"	4	5.591	4.717	8.661	4.724	0.846	2.283	1.535	0.984
D51-3.75"	4	5.709	4.835	8.661	4.843	0.846	2.283	1.535	0.984
D51-3.875"	4	5.906	5.031	8.661	5.039	0.846	2.283	1.535	0.984
D51-4"	4	5.906	5.031	8.661	5.039	0.846	2.283	1.535	0.984

双端面集装式  
double cartridge seals

# D53



## 技术参数

- 温度：  
-40°C到250°C，取决于橡胶
- 压力：  
最大压力达到28 bar
- 转速：  
最高25 m/s
- 轴向跳动：  
± 1.0mm

## 产品尺寸

50mm to 200mm  
2" to 7.875"

## Performance Capabilities

- Temperature:  
-40°C to 250°C, dependent on the elastomer
- Pressure:  
Up to 28 bar
- Speed:  
Up to 25 m/s
- End play/axial float allowance:  
±1.0mm

## Sizes

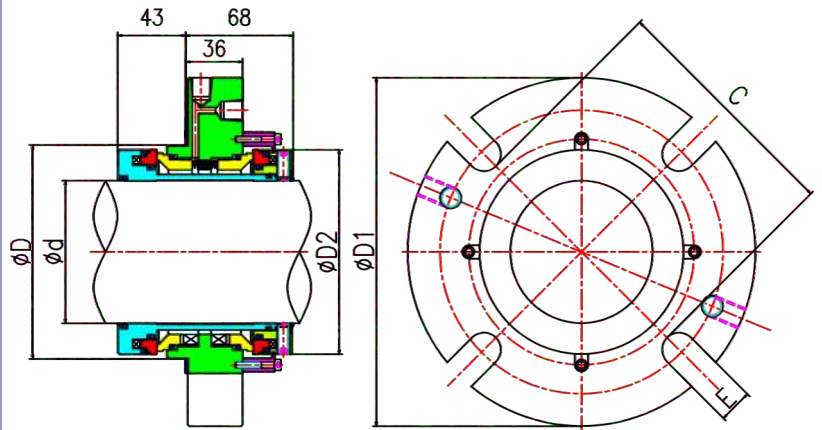
50mm to 200mm  
2" to 7.875"

## Materials Combination

- Face: Carbon, SiC, TC
- Seat: SiC, TC
- rings: NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- Spring: SS316, hastelloy C
- Metal parts: Ss316

## 材料组合

- 动环：石墨，碳化硅，硬质合金
- 静环：碳化硅，硬质合金
- 辅助密封：NBR, EPDM, VITON, Aflas, FEP, Kalrez, Chemraz etc.
- 弹簧：SS316, 哈氏合金
- 其他金属件：SS316

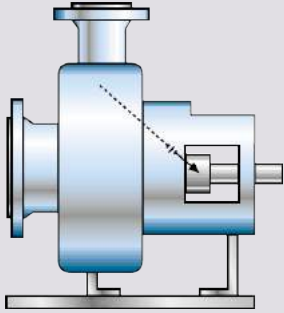


型号/尺寸	d	C	D	D1	D2	E
D53-50	50	113	95	180	89	17.5
D53-55	55	118	100	185	94	17.5
D53-60	60	123	105	190	99	17.5
D53-65	65	128	110	195	104	17.5
D53-70	70	133	115	200	109	17.5
D53-75	75	138	120	205	114	17.5
D53-80	80	143	125	210	119	17.5
D53-85	85	148	130	215	124	21.5
D53-90	90	153	135	220	129	21.5
D53-95	95	158	140	225	134	21.5
D53-100	100	163	145	230	139	21.5
D53-105	105	168	150	235	144	21.5
D53-110	110	173	155	240	149	21.5
D53-115	115	178	160	245	154	21.5
D53-120	120	183	165	250	159	21.5
D53-125	125	188	170	255	164	21.5
D53-130	130	193	175	260	169	21.5
D53-135	135	198	180	265	174	21.5
D53-140	140	203	185	270	179	21.5
D53-145	145	208	190	275	184	21.5
D53-150	150	213	195	280	189	21.5
D53-155	155	218	200	285	194	21.5
D53-160	160	223	205	290	199	21.5
D53-165	165	228	210	295	204	21.5
D53-170	170	233	215	300	209	21.5
D53-175	175	238	220	305	214	21.5
D53-180	180	243	225	310	219	21.5
D53-185	185	248	230	315	224	21.5
D53-190	190	253	235	320	229	21.5
D53-195	195	258	240	325	234	21.5
D53-200	200	263	245	330	239	21.5

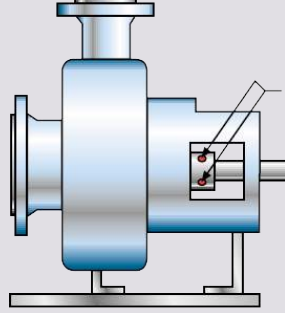
型号/尺寸	d	C	D	D1	D2	E
D53-2"	2	4.646	3.937	7.283	3.701	0.689
D53-2.125"	2.125	4.646	3.937	7.283	3.701	0.689
D53-2.25"	2.25	4.843	4.134	7.48	3.898	0.689
D53-2.375"	2.375	4.843	4.134	7.48	3.898	0.689
D53-2.5"	2.5	5.039	4.331	7.677	4.094	0.689
D53-2.625"	2.625	5.236	4.528	7.874	4.291	0.689
D53-2.75"	2.75	5.236	4.528	7.874	4.291	0.689
D53-2.875"	2.875	5.433	4.724	8.071	4.488	0.689
D53-3"	3	5.63	4.921	8.268	4.685	0.689
D53-3.125"	3.125	5.63	4.921	8.268	4.685	0.689
D53-3.25"	3.25	5.827	5.118	8.465	4.882	0.846
D53-3.375"	3.375	6.024	5.315	8.661	5.079	0.846
D53-3.5"	3.5	6.024	5.315	8.661	5.079	0.846
D53-3.625"	3.625	6.22	5.512	8.858	5.276	0.846
D53-3.75"	3.75	6.22	5.512	8.858	5.276	0.846
D53-3.875"	3.875	6.417	5.709	9.055	5.472	0.846
D53-4"	4	6.614	5.906	9.252	5.669	0.846
D53-4.25"	4.25	6.811	6.102	9.449	5.866	0.846
D53-4.5"	4.5	7.008	6.299	9.646	6.063	0.846
D53-4.75"	4.75	7.402	6.693	10.009	6.457	0.846
D53-5"	5	7.598	6.89	10.236	6.654	0.846
D53-5.25"	5.25	7.795	7.087	10.433	6.85	0.846
D53-5.5"	5.5	7.992	7.283	10.63	7.047	0.846
D53-5.75"	5.75	8.386	7.677	11.024	7.441	0.846
D53-6"	6	8.583	7.874	11.22	7.638	0.846
D53-6.25"	6.25	8.78	8.071	11.417	7.835	0.846
D53-6.5"	6.5	8.976	8.268	11.614	8.031	0.846
D53-6.75"	6.75	9.37	8.661	12.008	8.245	0.846
D53-7"	7	9.567	8.858	12.205	8.622	0.846
D53-7.25"	7.25	9.764	9.055	12.402	8.819	0.846
D53-7.5"	7.5	10.157	9.449	12.795	9.213	0.846

双端面集装式 double cartridge seals

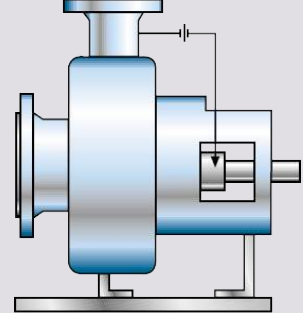
# 冲洗方式 API plan



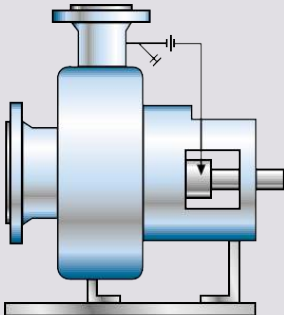
**API PLAN NO.1**  
Integrated internal product recirculation from Pump Discharge to the seal cavity



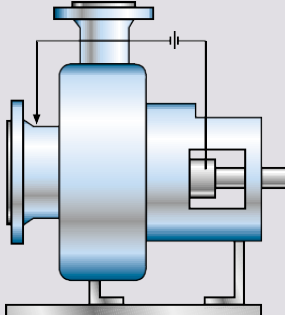
**API PLAN NO.2**  
Environmental Control Ports Plugged off



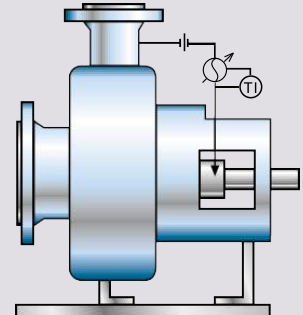
**API PLAN NO.11**  
Product Recirculation from Pump Discharge to Seal through a Flow Control Orifice



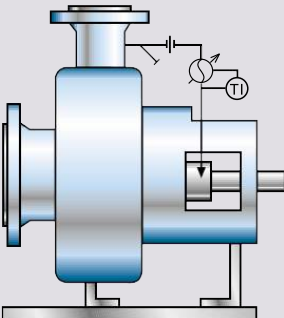
**API PLAN NO.12**  
Product Recirculation from Pump Discharge through Flow Control Orifice and Strainer



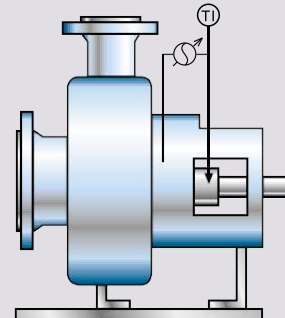
**API PLAN NO.13**  
Product Recirculation from Seal Chamber to Pump Suction via a Flow Control Orifice



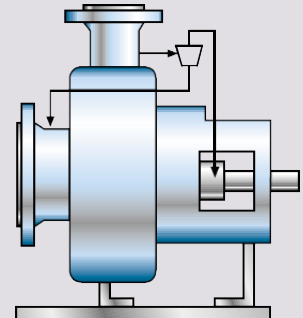
**API PLAN NO.21**  
Product Recirculation from Discharge through Orifice and Heat Exchanger



**API PLAN NO.22**  
Product Recirculation from Discharge through Strainer, Orifice and Heat Exchanger



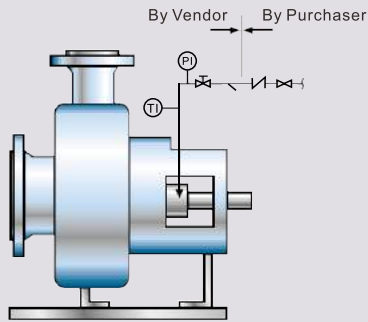
**API PLAN NO.23**  
Product Recirculation from Seal Cavity through Heat Exchanger and back to the Seal Chamber. Normally includes some form of Pumping Ring



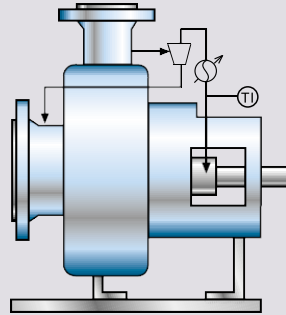
**API PLAN NO.31**  
Product Recirculation from Discharge through Cyclone Separator which directs Clean Fluid to the seal and Dirty Fluid to the Pump Suction



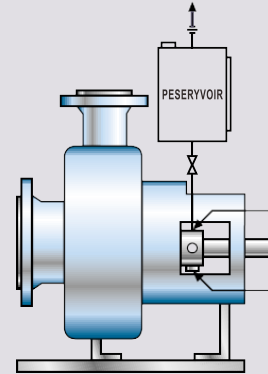
# 冲洗方式 API plan



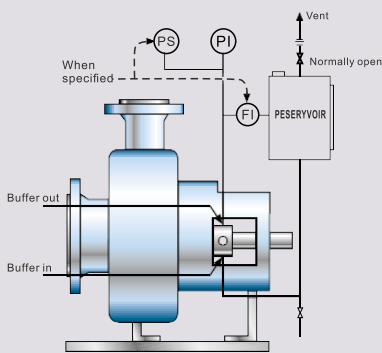
API PLAN NO. 32  
Flush injected from an External Source



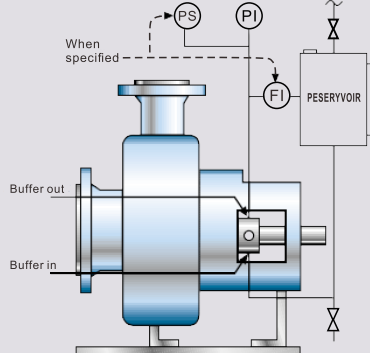
API PLAN NO. 41  
Pump Recirculation from Discharge through Cyclone Separator and Heat Exchanger. Normally cool clean fluid is sent to the Seal Chamber



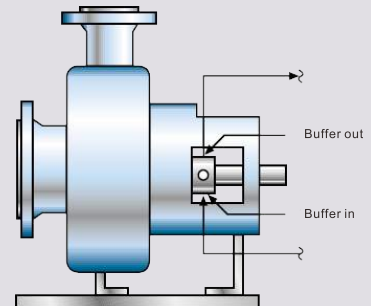
API PLAN NO. 51  
Dead Ended Buffer Reservoir



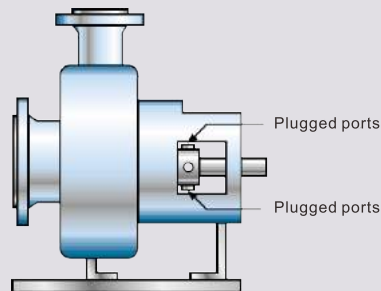
API PLAN NO. 52  
Unpressurized Buffer Reservoir, Circulation normally maintained by Pumping Ring. Also system Normally continuously vented



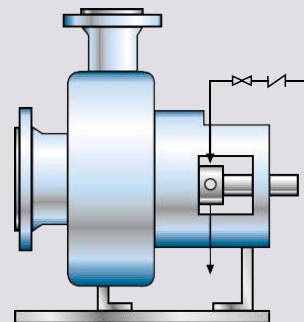
API PLAN NO. 53  
Pressurized Barrier Fluid Reservoir, Barrier pressure is greater than Product pressure. Circulation is maintained by a Pumping Ring



API PLAN NO. 54  
Pressurized External Barrier Fluid, normally from a separate Pumped system



API PLAN NO. 61  
Tapped Ports available for Purchaser's use



API PLAN NO. 62  
External Quench straight through to drain





Sealcon	Johncrane-1	Burgmann-2	AES-3	Roten-4	Depac-5	Flowserve-6	Chesterton-7	Other-9
M10	215							
M11	604							
M12	606							
M13	609							
M14	670							
M15	676							
M16	680							
M17	515E							
M21		MFL85N						
M22		MFLWT80						
N11	109							
N12	109B							
N13	58U							
N14	58B							
N15	59U							
N16	59B							
N17	8							
N18	8T							
N19	8B							
N110	8BT							
N111	9							
N112	9T							
N113	9B							
N114	9BT							
N21		H10						
N22		H12N						
N23		M2N						
N24		M3N						
N25		M7N						
N26		M74						
N27		M74F						
N28		M74D						
N29		H7N						
N210		H75						

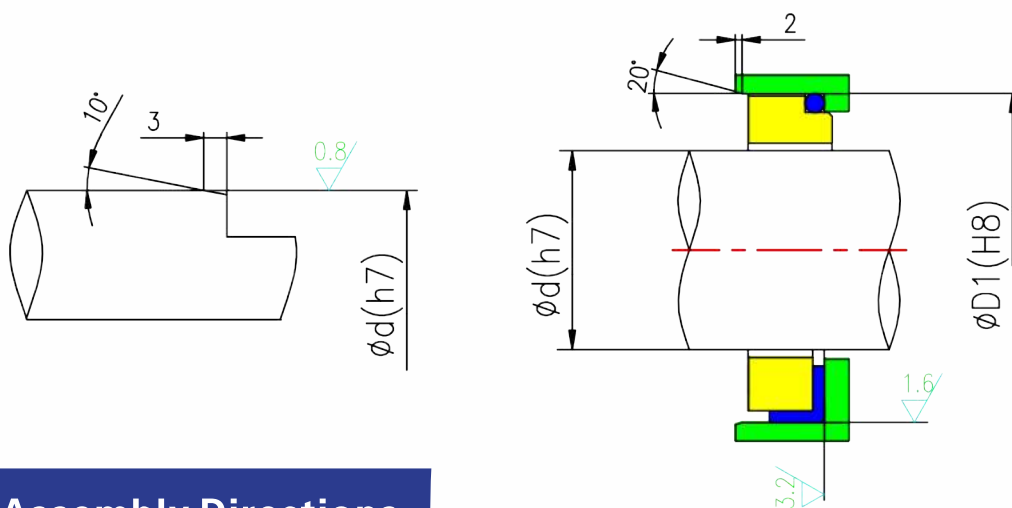
Sealcon	Johncrane-1	Burgmann-2	AES-3	Roten-4	Depac-5	Flowserve-6	Chesterton-7	Other-9
N212		H74D						
N213		HJ92N						
N31			SAI					
N41				Roten 2				
N42				Uniten 2				
N43				Roten 3				
N44				Uniten 3				
N45				Roten 45				
N46				Uniten 45				
N47				Roten 5				
N48				Roten 7				
N48U				Uniten 7				
N49				Roten 7K				
N49U				Uniten 7K				
N410				Roten 82				
N411				Roten 84				
N71							C891	
N81								
N91								1527
N92								Pillar US1
N93								Pillar US2
N94								Pillar US3
R11	JC1							
R12	JC6							
R13	JC16							
R14	JC2							
R15	2100S							
R16	2100K							
R17	2100N							
R18	21							
R19	502							
R110	521							
R20		MG1S20						
R21		MG1						

Sealcon	Johncrane-1	Burgmann-2	AES-3	Roten-4	Depac-5	Flowserve-6	Chesterion-7	Other-9
R22		MG12						
R23		MG13						
R24		560						
R25		MG9						
R26		BT-AR						
R91								BIA
R92								20
R93								24
T11	10T							
T12	10R							
S11	5610							
S12	5615							
S13	5860							
S14	SB1							
S15	SE1							
S16	JCS1							
S17	SBW							
S21		Cartex SN						
S21Q		Cartex QN						
S22		Unitex						
S31			CON II					
S32			SCUSI					
S33			CURC					
S51					270			
D11	SE2							
D12	SE2C							
D13	SL							
D14	SAF							
D15	SB2							
D16	JCS2							
D17	SAB							
D21		Cartex D						
D31			CDSA					
D51					321			
D52					322			

Sealcon	Johncrane-1	Burgmann-2	AES-3	Roten-4	Depac-5	Flowserve-6	Chesterion-7	Other-9
D53					365			
J11	BO							
J12	BP							
J13	N							
J14	W							
J15	WM							
J16	M							
J17	BD							
J18	CE							
J19	YG							
J110	NG							
J111	AG							
J112	BS							
J113	PG							
J114	BC							
J115	WG							
J116	V							
J117	U							
J21		G115						
J22		G13						
J23		G16						
J24		G4						
J25		G50						
J26		G55						
J27		G60						
J28		G6						
J29		G606						
J210		G9						
J211		G9A						
J212		G24						
J31		C15(443)						
J41				C05				
J42				C19				
J91								1527 seat

## 机械密封安装使用技术要求及说明

- 1、按工况条件与主机情况选择适宜型号的机械密封及材料匹配
- 2、装入机械密封的轴（或轴套）的端部及台阶处必须有倒角且尖角处要圆滑过渡，安装部位的尺寸偏差及表面粗糙度要求参照下图。
- 3、设备转轴（或轴套）的径向跳动应 $\leq 0.04\text{mm}$ ，转子的轴向窜动量 $\leq 0.1\text{mm}$ 。静止环的密封端盖（或壳体）的定位端面对轴的垂直度 $\leq 0.04\text{mm}$ 。
- 4、密封安装尺寸必须符合装配图尺寸要求。
- 5、设备的密封部位在安装时应保持清洁，密封端面应完好无损并涂一层机械油，防止任何杂质和灰尘带入密封部位。
- 6、安装密封的部位可以涂油润滑，必须注意乙丙橡胶不能与油脂接触，推荐用肥皂液或水润滑，装好后用手推动动组件，能使动组件在轴上灵活移动并具有一定弹性。
- 7、安装静环压盖时，拧紧螺丝必须受力均匀，保证静环端面与轴心线的垂直要求。
- 8、在安装过程中严禁碰击、敲打，以免使机械密封摩擦副破损而使密封失效。
- 9、弹簧传动的机械密封，应合理选择弹簧旋向，一般从电机端向叶轮端看，转轴为顺时针时，应选用右弹簧；反之则选用左弹簧。
- 10、安装后用手盘动转轴，转轴应无轻重感觉。
- 11、设备在运转前必须充满介质，以防止干摩擦而使密封失效。
- 12、当输送介质温度偏高、过低、或含有杂质颗粒、易燃、易爆、有毒液体或气体时，必须参照API682标准，采取相应的阻封、冲洗、冷却、过滤等措施，以防事故发生



### Assembly Directions

1. Make a careful selection of the corresponding seal type and the right seal face materials, which are able to satisfy the working conditions.
2. The shaft ends and steps where the mechanical seal is mounted requires chamfering. A smooth transition is needed if there is a sharp edge or corner. The deviations of the assembling dimensions and the roughness are shown in the above table for your reference.
3. The diameter run-out of the rotating shaft shall not be more than  $0.04\text{mm}$ , and the axial run-out shall not be more than  $0.1\text{mm}$ . The perpendicularity between the back side of the stationary face (or where the stationary face lies) and the shaft shall not be more than  $0.04\text{mm}$ .
4. Check whether the real dimensions of the selected seal agree with the assembling dimensions.
5. Prevent any dust, any sand, etc. from entering where the seal is mounted. Keep it clean. Moreover, don't make any accidental damage to the sealing position.
6. Oil may be applied to lubricate where the seal is mounted. But oil is not used when the sealing material is EPDM. It is recommended that soap water be applied. After being mounted, push the rotary part with hands to check whether it can move in a flexible and elastic way.
7. Give a balanced force to the screws while tightening them up. After the stationary gland is fixed, please check whether the seal face is vertical to the axis.
8. Avoid hitting and knocking the seal parts in a strong way to stop the seal faces from cracking and breaking. Any damage to the seal faces will cause failure.
9. For the seals which are driven by springs, so it is important to choose the spring direction. If the shaft runs clockwise, seen from the motor to the impeller, choose a right hand spring. Otherwise choose a left hand spring.
10. After being fixed, please rotate the shaft with hands to check whether the shaft runs smoothly.
11. Fill the needed medium in the chamber before starting to prevent dry wear to avoid any leakage.
12. Please refer to API682 and take relevant measures to prevent any accident from occurring by blocking, washing, cooling, filtering and so on, when the mediums are too high or low in temperature, contain solid grains, are flammable, explosive or moxious.



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