

产品介绍

- ▶ **Single seal**
- ▶ **Balanced**
- ▶ **Independent of direction of rotation**
- ▶ **To DIN 24960***

The H7N mechanical seal range is designed for universal application and the interchangeable parts concept is ideal for stock rationalisation. The seal faces are loosely inserted and can be easily exchanged, the thrust ring is retained by the drive lugs preventing the springs falling out.

- ▶ 单端面密封
- ▶ 平衡型
- ▶ 任意旋向
- ▶ 符合 DIN 24960 标准

H7N 系列密封应用广泛，互换性好。静环采用浮动式，安装方便，推环由传动搭子卡住，防止弹簧落入。其他特殊的技术处理包括静环可限位及限制弹簧行程，避免碳环过度磨损。

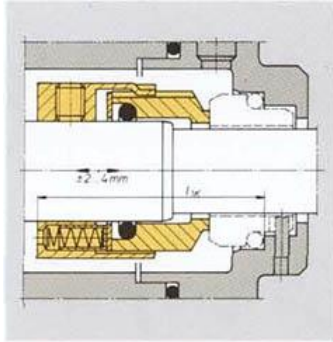
Combination of materials 材料组合

Seal faces 旋转环	Stationary seats 静止环		
	- G9		- G15
	A, B	Q ₂	Q ₁
A ¹⁾	-	●	●
Q ₁	●	●	-
Q ₂	●	●	-
V	●	-	-
S	●	-	-

¹⁾only in the shrink-fitted version for H75 N, H76 N, H75 G 16

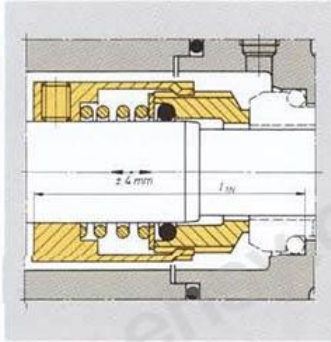
Operating limits 运行参数

$d_1 = 14 \dots 200 \text{ mm}$ 0.55" ... 8"
 $p_1 = 25 (40) \text{ bar}^*)$ 360 (560) PSI
 $t = -50 \dots 220^\circ\text{C}$ -58°F ... 430°F
 $v_0 = 20 \text{ m/s}$ 66 ft/s



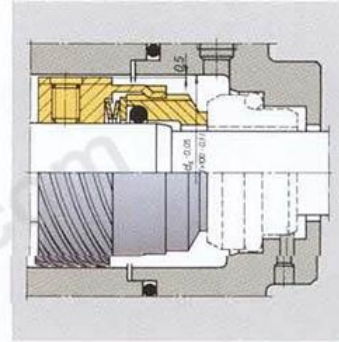
H75 多弹簧结构

$d_1 = 28 \dots 200 \text{ mm}$
 As H7N, but with **multiple springs in sleeves** (Item no. 1.5) axial movements ± 2 to 4 mm, dependent on diameter.



H76 单弹簧结构

$d_1 = 14 \dots 100 \text{ mm}$
 Dimensions, item no's and descriptions as for H7N, but with special **single spring** (Item no. 1.5) for compensating large axial movements ($\pm 4 \text{ mm}$).



H7F 带螺纹泵

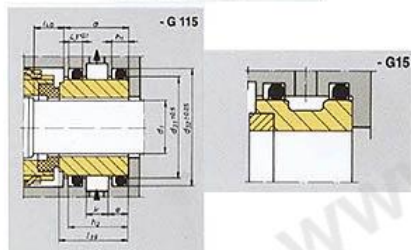
d_1 max. 100 mm; Axial movement $\pm 0.5 \text{ mm}$.

H75 F

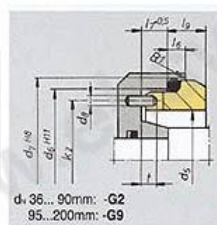
$d_1 = 28 \dots 200 \text{ mm}$
 Axial movement 轴向窜动量

d_1 28 ... 55 = $\pm 2 \text{ mm}$,
 d_1 58 ... 100 = $\pm 3 \text{ mm}$,
 d_1 105 ... 200 = $\pm 4 \text{ mm}$.

Stationary seat alternatives 可改变静止环结构

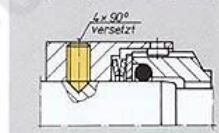


Rotating seat alternatives 可改变的动环结构



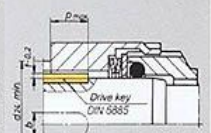
Torque transmission 扭矩传递

For $d_2 > 100 \text{ mm}$: via 4 set screws with cone points (standard arrangement)



当 $d_2 > 100 \text{ mm}$ 时用四只螺钉打入凹坑。

Torque transmission by key is possible for all types in the H7 range (no. item no. 1.6). Seal code e.g. H7S2/d₁.



H7 系列的各类密封均可采用以键传递扭矩的方式，如 H7S2/d₁。

d ₁	d ₂	d ₃	d ₆	d ₇	d ₈	d ₂₄	d ₃₁	d ₃₂	d ₅	l _{IK}	l _{IN}	l ₂	l ₃	l ₅	l ₆	l ₇	l ₈	l ₉	l ₃₉	l ₄₀	a	b	e	f	h ₁	h ₂	k	m _x	p _{max}	t	
14*	18	33	21.0	25.0	3	20	-	-	38	42.5	-	18	32.5	1.5	4	8.5	17.5	10.0	-	-	-	5	-	6.0	-	-	-	-	M5	9	1.1
16*	20	35	23.0	27.0	3	22	-	-	40	42.5	-	18	32.5	1.5	4	8.5	17.5	10.0	-	-	-	5	-	6.0	-	-	-	-	M5	9	1.1
18*	22	37	27.0	33.0	3	24	-	-	42	45.0	55	20	33.5	2.0	5	9.0	19.5	11.5	-	-	-	6	-	7.0	-	-	-	-	M5	9	1.5
20*	24	39	29.0	35.0	3	26	-	-	44	45.0	60	20	33.5	2.0	5	9.0	19.5	11.5	-	-	-	6	-	5.5	-	-	-	-	M5	9	1.5
22*	26	41	31.0	37.0	3	28	-	-	45	45.0	60	20	33.5	2.0	5	9.0	19.5	11.5	-	-	-	6	-	8.0	-	-	-	-	M5	9	1.5
24*	28	43	33.0	39.0	3	30	-	-	47	47.5	60	20	36.0	2.0	5	9.0	19.5	11.5	-	-	-	6	-	5.5	-	-	-	-	M6	9	1.5
25*	30	45	34.0	40.0	3	32	-	-	49	47.5	60	20	36.0	2.0	5	9.0	19.5	11.5	-	-	-	6	-	5.5	-	-	-	-	M6	9	1.5
28*	33	48	37.0	43.0	3	35	44.65	50.57	51	50.0	65	20	38.5	2.0	5	9.0	19.5	11.5	24.0	8.5	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
30*	35	50	39.0	45.0	3	37	47.83	53.75	54	50.0	65	20	38.5	2.0	5	9.0	19.5	11.5	24.5	9.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
32*	38	55	42.0	48.0	3	40	47.83	53.75	59	50.0	65	20	38.5	2.0	5	9.0	19.5	11.5	24.5	9.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
33*	38	55	42.0	48.0	3	40	47.83	53.75	59	50.0	65	20	38.5	2.0	5	9.0	19.5	11.5	24.5	9.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
35*	40	57	44.0	50.0	3	42	51.00	56.92	61	50.0	65	20	38.5	2.0	5	9.0	19.5	11.5	24.5	9.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
38*	43	60	49.0	56.0	4	45	54.18	60.10	65	52.5	75	23	38.5	2.0	6	9.0	22.0	14.0	26.0	11.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
40*	45	62	51.0	58.0	4	47	60.53	66.45	66	52.5	75	23	38.5	2.0	6	9.0	22.0	14.0	26.0	11.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
43*	48	65	54.0	61.0	4	50	63.70	69.82	69	52.5	75	23	38.5	2.0	6	9.0	22.0	14.0	26.0	11.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
45*	50	67	56.0	63.0	4	52	63.70	69.82	71	52.5	75	23	38.5	2.0	6	9.0	22.0	14.0	26.0	11.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
48*	53	70	59.0	66.0	4	55	66.88	72.80	75	52.5	85	23	38.5	2.0	6	9.0	22.0	14.0	26.0	11.0	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
50*	55	72	62.0	70.0	4	57	70.05	75.97	76	57.5	85	25	42.5	2.5	6	9.0	23.0	15.0	26.5	12.5	24.0	6	8.0	8.0	6.6	22.6	9	M6	12	1.5	
53*	58	79	65.0	73.0	4	60	76.40	82.32	83	57.5	85	25	42.5	2.5	6	9.0	23.0	15.0	26.5	12.5	24.0	6	8.0	9.0	6.6	22.6	9	M8	12	1.9	
55*	60	81	67.0	75.0	4	62	76.40	82.32	85	57.5	85	25	42.5	2.5	6	9.0	23.0	15.0	28.5	12.5	26.0	8	8.0	9.0	6.6	24.6	11	M8	12	1.9	
58*	63	84	70.0	78.0	4	65	79.58	85.50	88	62.5	85	25	47.5	2.5	6	9.0	23.0	15.0	28.5	12.5	26.0	8	8.0	9.0	6.6	24.6	11	M8	15	1.9	
60*	65	85	72.0	80.0	4	67	82.75	88.67	95	62.5	95	25	47.5	2.5	6	9.0	23.0	15.0	28.5	12.5	26.0	8	8.0	9.0	6.6	24.6	11	M8	15	1.9	
63*	68	89	75.0	83.0	4	70	85.93	91.85	93	62.5	95	25	47.5	2.5	6	9.0	23.0	15.0	28.5	12.5	26.0	8	8.0	9.0	6.6	24.6	11	M8	15	1.9	
65*	70	91	77.0	85.0	4	72	85.93	91.85	95	62.5	95	25	47.5	2.5	6	9.0	23.0	15.0	28.5	12.5	26.0	8	8.0	9.0	6.6	24.6	11	M8	15	1.9	
70*	75	99	83.0	92.0	4	77	89.10	95.02	105	70.0	95	28	52.0	2.5	7	9.0	26.0	18.0	30.5	14.5	26.0	8	8.0	10.0	6.6	24.6	11	M8	15	1.9	
75*	80	104	88.0	97.0	4	82	98.63	104.55	109	70.0	105	28	52.0	2.5	7	9.0	26.0	18.0	30.5	14.5	26.0	8	8.0	10.0	6.6	24.6	11	M8	15	1.9	
80*	85	109	95.0	105.0	4	87	101.80	107.72	114	70.0	105	28	51.8	3.0	7	9.0	26.2	18.2	30.2	14.0	26.0	8	8.0	10.0	6.6	24.6	11	M8	15	1.9	
85*	90	114	100.0	110.0	4	92	108.15	114.07	119	75.0	105	28	56.8	3.0	7	9.0	26.2	18.2	30.2	14.0	26.0	10	8.0	10.0	6.6	24.6	11	M8	23	2.3	
90*	95	119	105.0	115.0	4	97	114.50	120.42	124	75.0	105	28	56.8	3.0	7	9.0	26.2	18.2	30.2	14.0	26.0	10	8.0	10.0	6.6	24.6	11	M8	23	2.3	
95*	100	124	110.0	120.0	4	102	117.68	123.50	129	75.0	105	28	57.8	3.0	7	9.0	25.2	17.2	29.2	14.0	26.0	10	8.0	10.0	6.6	24.6	11	M8	23	2.3	
100*	105	129	115.0	125.0	4	107	124.03	129.95	134	75.0	105	28	57.8	3.0	7	9.0	25.2	17.2	29.2	14.0	26.0	10	8.0	10.0	6.6	24.6	11	M8	23	2.3	
105	115	148	122.2	134.3	5	118	128.98	134.90	153	73.0	-	32	53.0	2.0	10	-	30.0	20.0	29.2	15.2	26.0	10	8.0	10.0	6.6	24.6	11	M8	18	2.3	
110	120	153	128.2	140.3	5	123	135.30	141.20	158	73.0	-	32	53.0	2.0	10	-	30.0	20.0	32.5	14.5	30.0	10	9.5	10.0	6.6	28.6	13	M8	18	2.3	
115	125	158	136.2	148.3	5	128	140.30	146.20	163	73.0	-	32	53.0	2.0	10	-	30.0	20.0	32.5	14.5	30.0	10	9.5	10.0	6.6	28.6	13	M8	18	2.3	
120	130	163	138.2	150.3	5	133	145.30	151.20	168	73.0	-	32	53.0	2.0	10	-	30.0	20.0	32.5	14.5	30.0	10	9.5	10.0	6.6	28.6	13	M8	18	2.3	
125	135	168	142.2	154.3	5	138	150.30	156.20	173	73.0	-	32	53.0	2.0	10	-	30.0	20.0	32.5	14.5	30.0	10	9.5	10.0	6.6	28.6	13	M8	18	2.3	
130	140	173	146.2	158.3	5	143	155.30	161.20	178	73.0	-	32	53.0	2.0	10	-	30.0	20.0	32.5	14.5	30.0	10	9.5	10.0	6.6	28.6	13	M8	18	2.3	
135	145	178	152.2	164.3	5	148	160.30	166.20	183	73.0	-	32	53.0	2.0	10	-	30.0	20.0	32.5	14.5	30.0	10	9.5	10.0	6.6	28.6	13	M8	18	2.3	
140	150	183	156.2	168.3	5	153	165.30	171.20	188	73.0	-	32	53.0	2.0	10	-	30.0	20.0	32.5	14.5	30.0	10	9.5	10.0	6.6	28.6	13	M8	18	2.3	
145	155	191	161.2	173.3	5	158	172.30	178.20	196	83.0	-	34	63.0	2.0	10	-	30.0	20.0	34.5	16.5	32.0	12	10.0	12.0	7.1	30.1	14	M8	22	2.1	
150	160	196	168.2	180.3	5	163	177.30	183.20	201	85.0	-	36	63.0	2.0	10	-	32.0	22.0	34.5	16.5	32.0	12	10.0	12.0	7.1	30.1	14	M8	22	2.1	
155	165	201	173.2	185.3	5	168	182.30	188.20	206	87.0	-	38	63.0	2.0	12	-	34.0	24.0	34.5	16.5	32.0	12	10.0	12.0	7.1	30.1	14	M8	22	2.1	
160	170	206	178.2	190.3	5	173	187.30	193.20	211	87.0	-	38	63.0	2.0	12	-	34.0	24.0	34.5	16.5	32.0	12	10.0	12.0	7.1	30.1	14	M8	22	2.1	
165	175	211	183.2	195.3	5	178	192.30	198.20	216	87.0	-	38	63.0	2.0	12	-	34.0	24.0	34.5	16.5	32.0	12	10.0	12.0	7.1	30.1	14	M8	22	2.1	
170	180	216	188.2	200.3	5	183	197.30	203.20	221	87.0	-	38	63.0	2.0	12	-	34.0	24.0	37.0	16.5	34.5	12	10.0	12.0	7.1	32.1	16	M8	22	2.1	
175	185	221	193.2	205.3	5	188	202.30	208.20	226	87.0	-	38	63.0	2.0	12	-	34.0	24.0	37.0	16.5	34.5	12	10.0	12.0	7.1	32.1	16	M8	22	2.1	
180	190	226	207.5	219.3	5	193	207.30	213.20	231	91.0	-	42	63.0	2.0	12	-	38.0	28.0	37.0	16.5	34.5	12	10.0	12.0	7.1	32.1	16	M8	22	2.1	
185	195	231	212.5	224.3	5	198	212.30	218.20	236	91.0	-	42	63.0	2.0	12	-	38.0	28.0	37.0	16.5	34.5	12	10.0	12.0	7.1	32.1	16	M8	22	2.1	
190	200	236																													

密封选型指南

机械密封材料代号一览表

1. 密封面材料

	DIN24960 代号	BURGMANN 代号	材 料 名 称	上海博格曼代号
石 墨 类	A	Buko 03	浸渍碳石墨	M106D 或 M120D
	B	Buko 1	合成树脂浸渍碳石墨	M106K 或 M158K
	B3	Buko 02	合成树脂浸渍碳石墨	
	B5	Buko 34	合成树脂粘碳	
	B6	Buko 41	浸渍碳石墨, 用于食品加工	
	C	Buko 22	浸渍电化石墨	
金 属 类	▲ E	Bume 20	铬钢	4Cr16Mo
	▲ S	Bume 5	铬钼铸钢	1Cr27Mo2
碳 化 物	▲ U1	Buka 1 整体	钴基碳化钨	YG6 或 YG8
	▲ U12	Buka 1 镶装	钴基碳化钨	YG6 或 YG8
	▲ U2	Buka 16 整体	镍基碳化钨	YWN8
	▲ U22	Buka 16 镶装	镍基碳化钨	YWN8
	U3	Buka 15 整体	镍铬钼基碳化钨	W7
	U32	Buka 15 镶装	镍铬钼基碳化钨	W7
	▲ Q1	Buka 22 整体	常压烧结碳化硅	Sic(常压)
	▲ Q12	Buka 22 镶装	常压烧结碳化硅	Sic(常压)
	▲ Q2	Buka 20 整体	Sic-Si 反应粘合碳化硅	Sic(反应)
	▲ Q22	Buka 20 镶装	Sic-Si 反应粘合碳化硅	Sic(反应)
	Q3	Buka 30 整体	Sic-C-Si 浸硅碳	
	Q32	Buka 30 镶装	Sic-C-Si 浸硅碳	
	Q4	Buka 24 整体	C-Sic 表面渗硅碳	
	金 属 氧 化 物 (陶瓷)	▲ V	Buke 5	氧化铝 99.7%
V2		Buke 3	氧化铝 97.5%	Al ₂ O ₃ -97
塑 料	▲ Y1	Buku 2	填充玻璃纤维的 PTFE	
	Y2	Buku 3	填充石墨的 PTFE	

2. 辅助密封件材料

	DIN24960 代号	BURGMANN 代号	材 料 名 称
橡 胶 类 弹 性 体	B	B	丁基橡胶 (BR)
	▲ E	E	乙丙橡胶 (EPDM)
	K	K	全氟橡胶 (Kalrez [®])
	N	N	氯丁橡胶 (CR)
	▲ P	P	丁腈橡胶 (NBR) / NBR40
	S	S	硅橡胶 (MVQ)
	▲ V	V	氟橡胶 (FPM) / F26 (Viton [®])
包 覆 弹 性 体	▲ M1	TTV	双层 PTFE 包覆的氟橡胶
	▲ M2	TTE	双层 PTFE 包覆的乙丙橡胶
	M3	TTS	双层 PTFE 包覆的硅橡胶
	M4	TTN	双层 PTFE 包覆的氯丁橡胶
	M5	FEP	氯化乙丙烯 (FEP) 包覆的氟橡胶
	M7	TTV/T	双层 PTFE 包覆的氟橡胶 / 整体
	其 他 材 料	U1	K / T
非 弹 性 体	Y1	Burasil [®]	非石棉密封垫
	G	Statotherm [®]	柔性石墨
	T	T	PTFE
	T2	T2	填充玻璃纤维的 PTFE
	T3	T3	填充石墨的 PTFE
	T12	T12	填充碳石墨的 PTFE

注: ▲为首选材料

3. 弹性及其他结构材料

	DIN24960 代号	BURGMANN 代号	中国 GB1220	可代用材料
弹簧材料	▲ G	1,4571	0Cr18Ni12Mo2Ti	或 1Cr18Ni12Mo2Ti
	▲ M	Hast, C4	Hast, C4(2,4610)	
结构材料	▲ E	1,4122	3Cr17Mo	Cr17Ni2
	F	1,4301	0Cr18Ni9	1Cr18Ni9Ti
	F1	1,4313	X4CrNi13-4(X3CrNiMo13-4)	2Cr13 或 3Cr13
	▲ G	1,4571	0Cr18Ni12Mo2Ti	或 1Cr18Ni12Mo2Ti
	▲ G1	1,4462	X2CrNiMoN22-5-3	
	G2	1,4439	X2CrNiMoN17-13-5	
	▲ M	Hast, C4	Hast, C4(2,4610)	
	M1	Hast, B2	Hast, B2(2,4617)	
	M3	Carp, 20	20 [#] 合金 Cb3(2,4660)	
	M4	Monel K500	蒙乃尔合金 K500(2,4375)	
	M5	Hast, C276	Hast, C276(2,4819)	
	T1	1,4505	X4NiCrMoCuNb20-18-2	
	T2	Titan	纯钛 TA ₁	
	T3	Ine, 625	Ine, 625(2,4856)	
	T4	Carp, 42	4J42	
	T5	Ine, 800	Ine, 800(1,4876)	
T6	AM350	沉淀硬化不锈钢 AM350		
M6	Incon, 718			

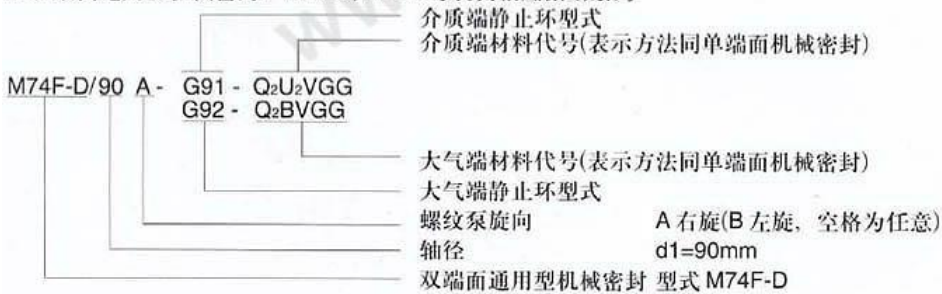
注: ▲为优选材料

型号意义

1. 单端面通用型机械密封: M2, M3, M7, MG1, MFL, H7, H12, H17, HJ92 等及其相应的派生系列。

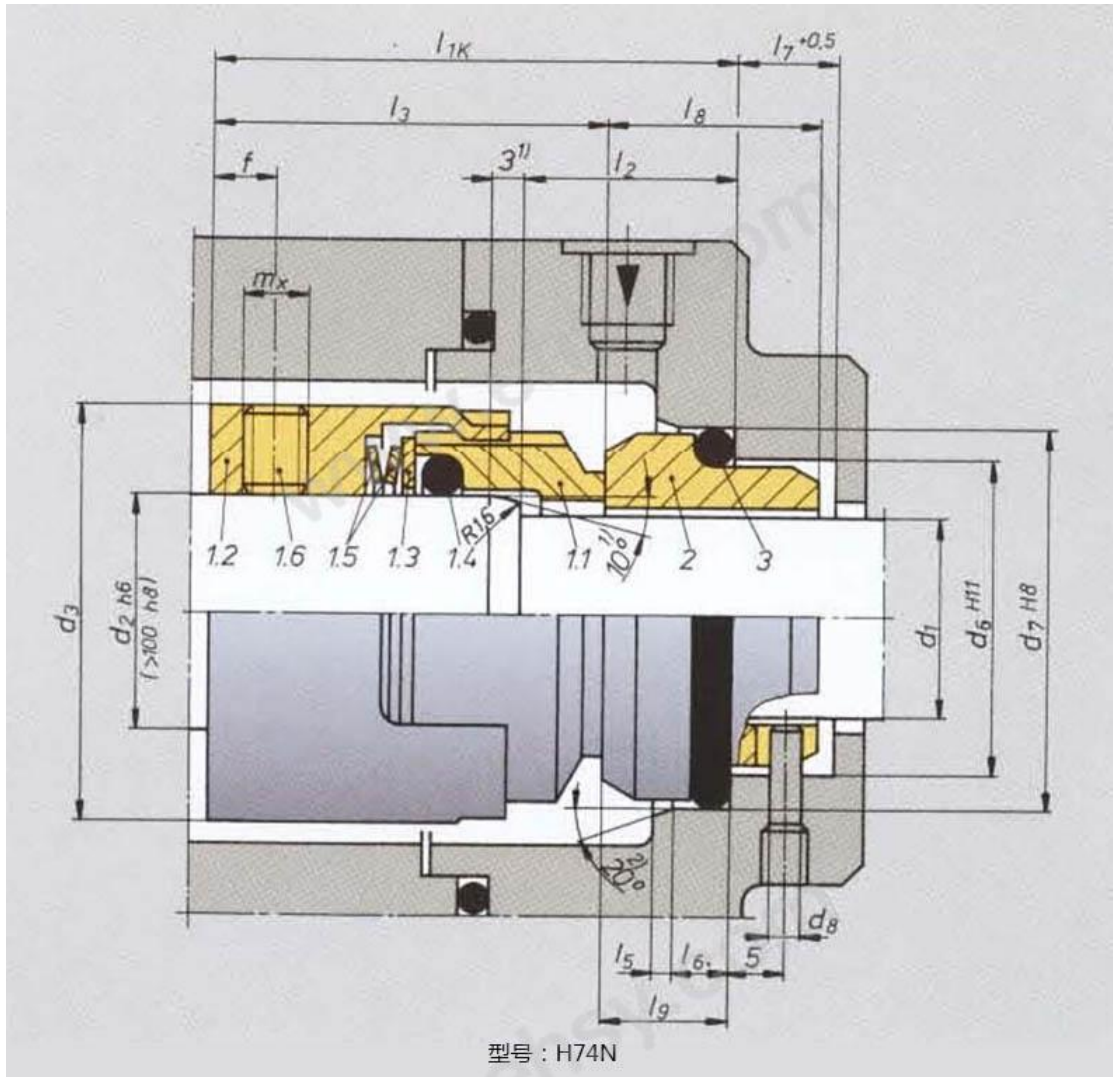


2. 双端面通用型机械密封: M74-D, H74-D 等及其相应派生系列









型号：H74N