NQKSF®

OIL SEAL 油 封

O-RING O型圈



邢台山峰特种橡胶制品有限公司

XINGTAI SHANFENG SPECIAL RUBBER PRODUCT CO.,LTD

NQKSF®

OIL SEAL FACTORY



邢台山峰特种橡胶制品有限公司成立于1990年，深耕密封行业30年，是一家专注于研发制造油封和O型圈以及各类密封件产品的生产厂家。创立的自主品牌是“NQKSF”。

公司引进SAP的ERP管理系统和MES执行系统，严格执行ISO 9001和TS16949 国际管理体系认证标准。

生产设备高度自动化，拥有强大生产制造能力，大大的提高了生产效率，大幅度缩短了生产周期.

公司拥有先进的研发检测设备，配备了高标准现代化实验室.

产品广泛应用于汽车，农机，电机，减速机，液压气动，钢厂，煤矿，化工等各种机械制造业，已销往亚洲、欧洲、美洲大洋洲的90多个国家.

山峰的宗旨：

把产品做精，做专！把企业做强，做大，做久！

Xingtai Shanfeng Special Rubber Products Co., Ltd was founded in 1990, which specially Research and Develop rubber oil seals and O-rings more than 30 years. Our own brand is “NQKSF”.

We introduce SAP's ERP management system and MES implementation system, and strictly implement ISO 9001 and TS16949 international management system certification standards.

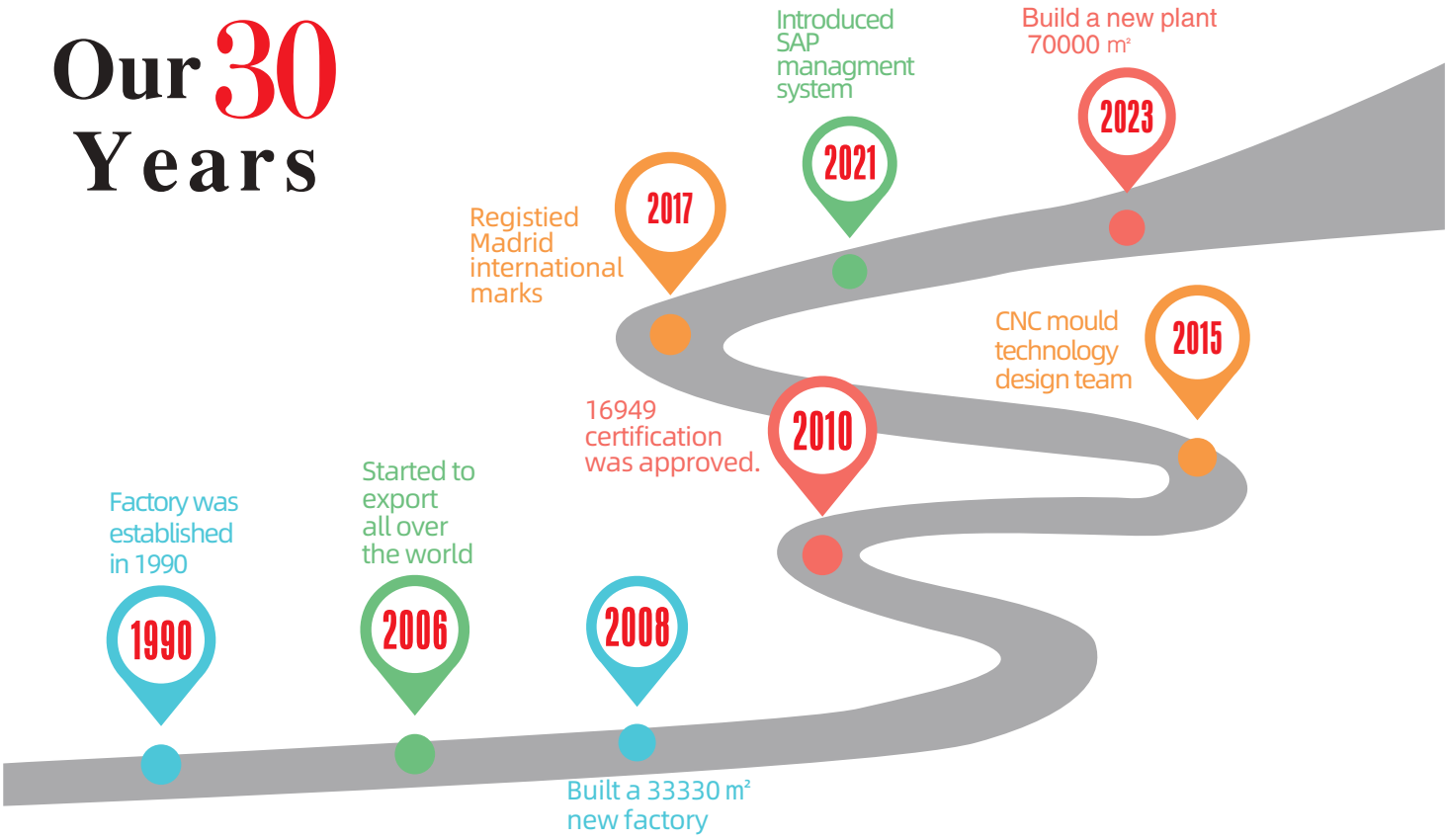
With highly automated equipment and strong manufacturing capacity. It improve the production efficiency and shorten production period.

We introduce advanced testing and R&D equipment to build a high standard oil seal modern laboratory.

Our products are widely used in automobile , agricultural, hydraulic pneumatic, steel plant, coal mine, chemical and other machinery manufacturing. They have been exported to more than 90 countries in Asia, Europe, North America and South America.

NQKSF Slogan:
Oil Seals , Be professional and excellent.
NQKSF company, Be powerful and forever.

Our 30 Years



企业荣誉 Company honor











OIL SEAL FACTORY


Trimming


Trimming


Trimming

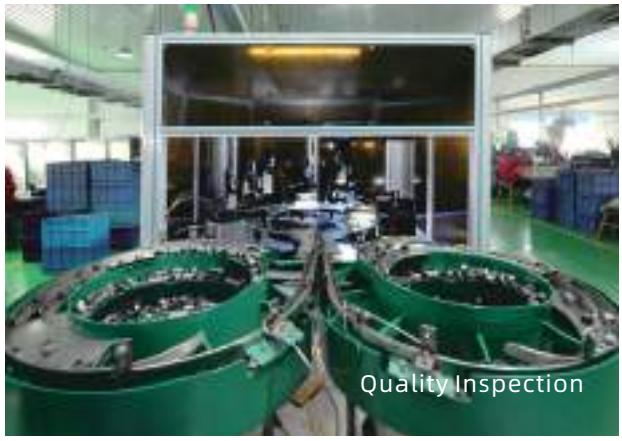

Molding



Rubber mixing

OIL SEAL FACTORY


Quality inspection

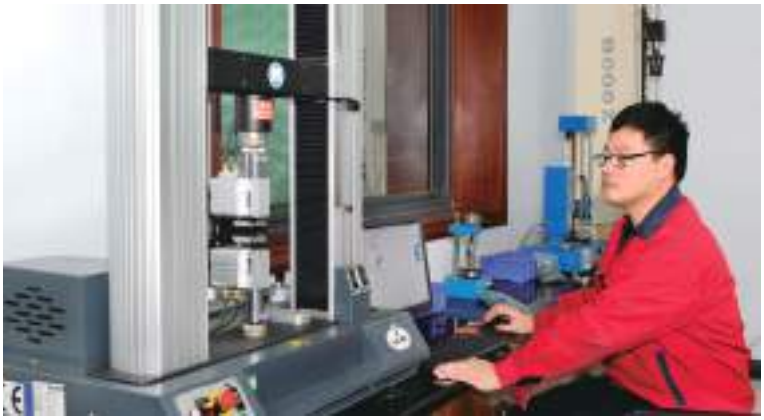

Quality Inspection


Vulcanizing


Vulcanizing









弹簧 金属骨架 SPRING & STEEL

弹簧与金属骨架的标准材料只限用于使用介质润滑所用的油封。
弹簧与金属骨架的专用材料用于水及含有腐蚀性化学药液及气体所用的油封。

the normal material of spring and steel only work in the medium which is lubricating oil
Special materials of spring and steel work in the medium which contains water, corrosive chemicals and gases

弹簧的作用是提高密封唇在轴上的压紧力，是保持此压紧力所需部件，油封所使用的弹簧具有图所示特性。微小的伸长可以得到必要的负荷。在一定伸长限度下，弹簧负荷就没有太大变化。另外，在使用范围内油封的弹簧应能发挥功能，对设定长度考虑适当的伸长率。

The function of the spring is to increase the pressing force of the sealing lip on the shaft.The spring used in the oil seal has the characteristics shown in the picture A slight stretch can get the necessary load. Within a certain elongation limit.The spring load does not change much.In addition, the spring should be able to play function within the range,and set to different lengths to account for proper elongation.

金属骨架的作用是保持油封与腔体孔间的配合力,更重要的作用是保持密封唇在确定的位置上.

The function of the steel is to maintain the matching force between the oil seal and the cavity hole and more importantly, to keep the sealing lip in a certain position.

备注：○优 × 差
Remarks: ◯ Excellent × Poor

密封介质 Medium	弹 簧 SPRING		
	标准材料 Normal Material	专用材料 Special Material	
	高碳钢丝（弹簧、钢丝） High-carbon steel wire	不锈钢丝 Stainless steel wire	
		304	316
润滑油 Lubricant	○	○	○
水 Water	×	○	○
水蒸气 Steam	×	○	○
海水 Seawater	×	×	○
酸 Acid	×	×	○
碱 Alkali	×	○	○

密封介质 Medium	金属骨架 STEEL		
	标准材料 Normal Material	专用材料 Special Material	
	碳钢板 Steel	不锈钢 Stainless steel	
	冷轧钢板 Cold rolled steel	304	316
润滑油 Lubricant	○	○	○
水 Water	×	○	○
水蒸气 Steam	×	○	○
海水 Seawater	×	×	○
酸 Acid	×	×	○
碱 Alkali	×	○	○

橡 胶 特 性 Rubber Characteristics

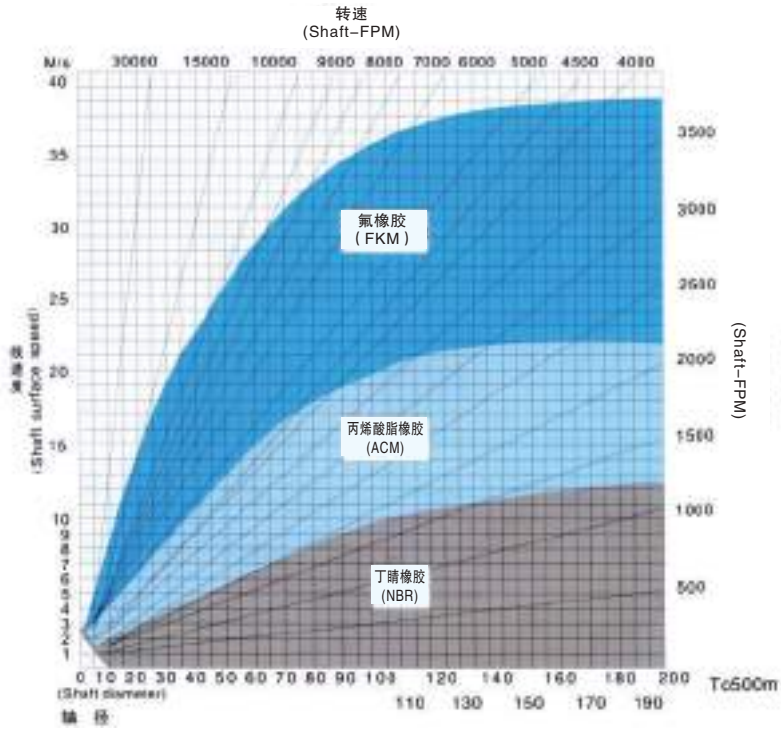
种类 Materials / 项目 Performance	耐油性 Oil Resistance	耐硬性 Hardresistance	耐酸性 Acid Resistance	耐水性 Wear Resistance	耐候性 Weather Resistance	耐磨性 Wear Resistance	温度范围 Temperature 最低温度 Low	温度范围 Temperature 最高温度 High	特 长 Characteristics
丁腈橡胶(NBR)	◎	○	○	○	△	◎	-40	*120	耐矿物油，耐磨性好，在油封中使用的最多，但不能使用于酮类及脂类极性溶剂中。 Oil Resistance and wear Resistance both good, NBR is more popular material in oil seal,But it cannot be used in ketones and lipid polar solvents.
氢化丁腈橡胶(HNBR)	◎	○	○	○	○	◎	-50	*150	保持了丁晴橡胶的特性，耐热性，耐油性及耐候性比丁晴橡胶优良。 Keep the NBR Performance,Heat Resistance and weather Resistance better the NBR
丙烯酸脂橡胶(ACM)	◎	×	△	△	◎	◎	-25	*150	保持了丁晴橡胶同样的耐油性，耐热性比硅橡胶稍差，但是耐候性优良，耐碱性与耐水性比丁晴橡胶和其他橡胶要差些 Oil Resistance is same with NBR, but weather Resistance is good, Acid Resistance and water Resistance is poor then NBR, heat Resistance is poor then VMQ
硅橡胶(VMQ)	○	×	△	△	◎	○	-60	*225	兼有优良的耐热性，耐寒性与耐候性，但耐碱性与耐水性比其他橡胶差一些 Good heat resistance, cold resistance, weather resistance, but the Acid resistance and water resistance is poor then other material
氟橡胶(FKM)	◎	△	○	○	◎	◎	-20	*250	具有超过硅橡胶的耐热性，优良的耐油性和耐化学药品性相配合，在各种橡胶中是油封有橡胶性能平衡最优良的品种 Good heat resistance, cold resistance, weather resistance, but the Acid resistance and water resistance is poor then other material
乙烯-丙烯橡胶 (EPDM)	×	○	○	◎	◎	○	-40	*125	耐水性，耐极性溶剂性，耐无机药品性及耐候性优良的油封橡胶但耐油性差。 Good Water resistance , Polar solvent resistance, weather resistance, chemicals resistance,but oil resistance is poor
聚四氟乙烯 (PTFE)	◎	◎	◎	◎	◎	◎	-65	*260	耐热性，耐寒性，耐化学药品性，耐候性最优良，低摩擦系数的油封用材料差. Good Heat resistannce, cold resistance, weather resistance and chemicals resisrance

备注：◎有耐性： ○除特定场合有耐性 △除特定场合外无耐性 × 无耐性
Remark: ◎ Excellent ○ Fair-to-good △ Fair × Poor



O-型圈尺寸公差标准
O-ring Dimension Tolerance Standard

内径 ID			公差 (±)
	——	1.50	0.10
1.51	——	14.00	0.12
1.01	——	25.00	0.00
25.01	——	30.00	0.25
30.01	——	38.00	0.30
38.01	——	42.00	0.33
42.01	——	48.00	0.38
48.01	——	57.00	0.41
57.01	——	64.00	0.45
64.01	——	73.00	0.50
73.01	——	89.00	0.60
89.01	——	102.00	0.68
102.01	——	105.00	0.71
105.01	——	125.00	0.76
125.01	——	153.00	0.88
153.01	——	178.00	1.01
178.01	——	203.00	1.14
203.01	——	230.00	1.27
230.01	——	267.00	1.39
267.01	——	330.00	1.52
330.01	——	381.00	1.65
381.01	——	394.00	1.77
394.01	——	418.00	1.90
418.01	——	431.00	2.03
431.01	——	470.00	2.15
470.01	——	533.00	2.28
533.01	——	558.02	2.54
558.01	——	583.00	2.66
583.01	——	610.00	2.78
610.01	——	634.00	2.92
	——	2.00	0.07
2.01	——	3.00	0.08
3.01	——	4.00	0.10
4.01	——	5.00	0.12
5.01	——	7.00	0.15
7.01	——	10.00	0.20
10.01	——	15.00	0.25
15.01	——	25.00	0.35
25.01	——	100.00	0.45



油封内径公差值
Oil Seal Inner Diameter Tolerance Value

轴径 Shaft Diameter	主唇口 primary lip		副唇口 secondary lip	
大于 至	过盈量interference fit	极限偏差limit deviations	过盈量interference fit	极限偏差limit deviations
5-30	0.7-1.0	+0.2 -0.3	0.3	±0.15
30-60	1.0-1.2	+0.2 -0.5	0.4	±0.20
60-80	1.2-1.4	+0.2 -0.6	0.5	±0.25
80-130	1.4-1.8	+0.2 -0.8	0.6	±0.30
130-250	1.8-2.4	+0.3 -0.9	0.7	±0.35
250-400	2.4-3.0	+0.4 -1.0	0.9	±0.40

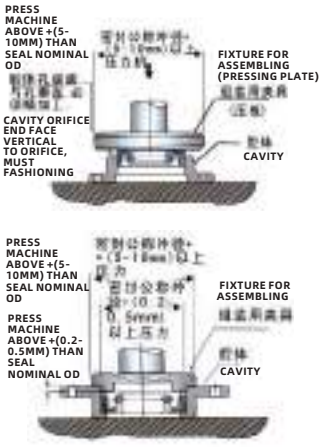
油封外径公差值及配套轴孔公差值
Oil Seal Outer Diameter Tolerance Value – Matching Shaft Hole Tolerance Value

轴径与孔径 Shaft & Hole Diameter	配套孔径公差 Hole tolerances	配套轴径公差 Shaft tolerances	油封外径公差 oil seal Out Diameter tolerances	
			金属外壳 metal (outside)	包胶外壳 rubber (outside)
6.00-10.00	+0.020	-0.090	+0.07/+0.18	+0.12/+0.27
10.01-18.00	+0.027	-0.110	+0.07/+0.18	+0.12/+0.27
18.01-30.00	+0.033	-0.130	+0.08/+0.20	+0.15/+0.30
30.01-50.00	+0.039	-0.160	+0.08/+0.20	+0.15/+0.30
50.01-80.00	+0.046	-0.190	+0.09/+0.23	+0.17/+0.32
80.01-120.00	+0.054	-0.220	+0.10/+0.25	+0.20/+0.35
120.01-180.00	+0.063	-0.250	+0.11/+0.28	+0.22/+0.40
180.01-250.00	+0.072	-0.290	+0.13/+0.31	+0.25/+0.45
250.01-315.00	+0.081	-0.320	+0.15/+0.35	+0.28/+0.50
315.01-400.00	+0.089	-0.360	+0.18/+0.40	+0.30/+0.55
400.01-500.00	+0.097	-0.400	+0.20/+0.45	+0.33/+0.60

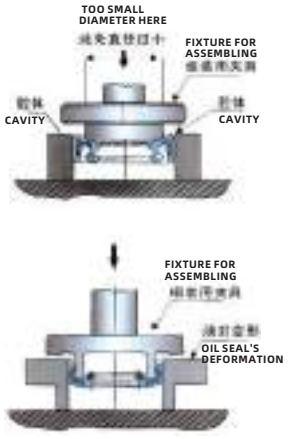
骨架油封正确安装与不正确安装对比图

COMPARISON CHART FOR CORRECT AND INCORRECT INSTALLATION

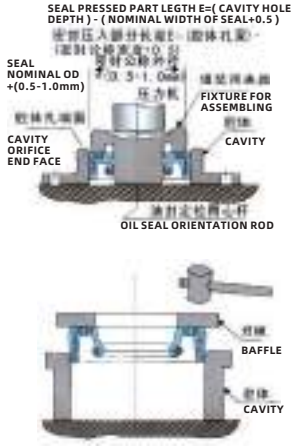
骨架油封的正确组装
CORRECT ASSEMBLING



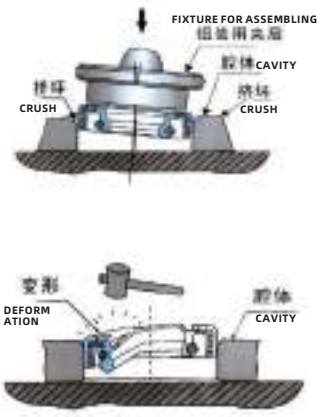
骨架油封不正确的组装
INCORRECT ASSEMBLING



骨架油封的正确组装
CORRECT ASSEMBLING



骨架油封不正确的组装
INCORRECT ASSEMBLING



包装PACKAGE



















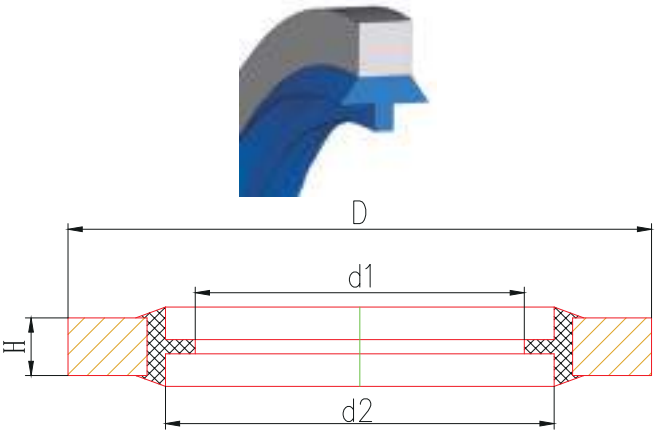
USIT Ring组合密封垫圈

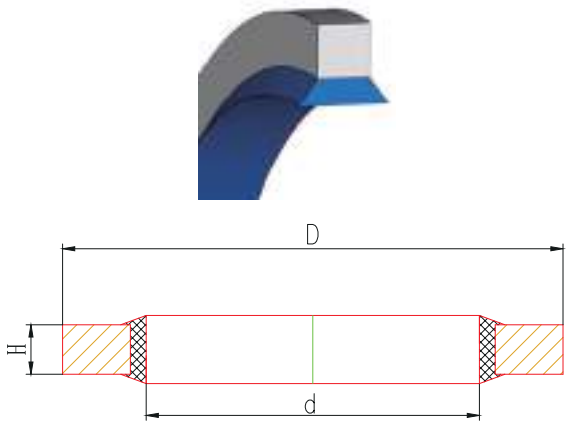
PRODUCT INSTRUCTION

SUITABLE FOR PIPELINE SYSTEM WITH OIL AS MEDIUM, USED AS JOINT FOR WELDING PART, CUTTING FERRULE AND EXPANDING TUBE. SEAL IN PRESSURE SYSTEMS FOR PLUGS AND MECHANICAL DEVICES. TO PREVENT LEAKAGE OF OIL, FUEL, WATER, DRUG AND SO ON NOMINAL PRESSURE: TO 40 MPA OPERATING TEMPERATURE: -25℃ to 80℃.

产品说明:

适用于以油为介质的管路系统中，供焊接，卡套，扩大管接头，螺塞及机械装置的压力系统密封，为防止油液，燃料，水和药品等泄露，公称压力至40MPa工作温度为–25℃至80℃





自定心镀锌 USIT–Ring I SF					
规格	外径	大内径	小内经	厚度	价格RMB
SPECIFICATION	D	d2	d1	H	Price
M5	9	5.7	4.5	1	0.91
M 6	11	6.7	5	1	0.91
M 8	14	8.7	6.5	1	0.91
M 10	16	10.7	8.5	1.5	1.04
M 12	18	12.7	9.8	1.5	1.04
M 14	22	14.7	11.5	1.5	1.17
M 16	24	16.7	13.5	1.5	1.3
M 18	26	18.7	15	1.5	1.43
M 20	28	20.7	17	1.5	1.82
M 22	29.7	22.7	19	2	2.21
M 24	31.7	24.7	20	2	2.34
M 26	34.7	26.7	22.5	2	2.47
M 27	34.7	27.7	23	2	2.6
M 30	37.7	30.7	27	2	2.73
M 33	41.7	33.7	30	2	2.86
M 36	45.7	36.7	33	2	3.25
M 39	49.7	39.7	34	2	3.64
M 42	52.7	42.7	39	2	3.9
M 45	55.7	45.7	40	2	4.16
M 48	59.7	48.7	42	2	4.55
M 54	67.7	54.7	47	2	4.94
M 60	74.7	60.7	53	2	5.2
1/8	15.88	10.37	8.56	2	1.3
1/4	20.57	13.74	11.45	2	1.43
3/8	23.80	17.20	14.96	2	1.56
1/2	28.58	21.54	18.64	2	2.08
1/2	28.58	21.54	18.64	2.5	2.34
3/4	34.93	27.05	24.13	2	2.99
3/4	34.93	27.05	24.13	2.5	3.25
5/8	31.25	23.49	20.60	2.5	3.64
7/8	38.10	30.81	27.89	2.5	3.9
1"	42.80	33.89	30.30	2.5	4.68
1 1/4	52.38	42.93	38.96	2.5	5.46
1 1/2	58.60	48.44	43.86	2.5	6.63
2"	73.00	60.58	56.67	2.5	9.1
2 1/2	90.17	76.08	72.20	2.5	11.7
1 3/4	69.58	54.89	50.80	2	9.1

JB982–77国标 B型 USIT–Ring I				
规格	外径	内径	壳厚度	价格RMB
SPECIFICATION	D	d	H	Price
ϕ6	11.8	6.2	2	0.650
ϕ8	13.8	8.2	2	0.650
ϕ10	15.8	10.2	2	0.650
ϕ12	17.8	12.2	2	0.650
ϕ14	19.8	14.2	2	0.780
ϕ16	21.8	16.2	2	0.910
ϕ18	24.8	18.2	2	1.040
ϕ20	27.8	20.2	2	1.170
ϕ22	29.8	22.2	2	1.300
ϕ24	31.7	24.2	2	1.430
ϕ27	34.7	27.3	2	1.560
ϕ30	37.7	30.3	2	1.950
ϕ33	41.7	33.3	2	2.080
ϕ36	45.7	36.3	2	2.730
ϕ39	49.7	39.3	2	2.990
ϕ42	52.7	42.3	2	3.380
ϕ45	55.7	45.3	2	3.640
ϕ48	59.7	48.3	2	3.770
ϕ52	65.7	52.3	2	4.290
ϕ60	74.7	60.3	2	4.940