



波纹管截止阀 Bellows Globe Valve

国标 (GB) / 美标 (ASME) / 德标 (DIN)



波纹管截止阀介绍 (Bellows Globe Valve Introduction)

万龙波纹管截止阀设计特色:

1. 多重密封, 确保零泄漏: 采用金属波纹管主密封, 填料辅助密封和上阀杆密封, 形成多重密封屏障, 确保零泄漏;
2. 独特的流道设计: 采用计算机模拟演示的最佳结果进行制作, 优化后, 比同规格的流道能力增加10%~50%, 流阻系数降低;
3. 防转块结构设计: 防止波纹管扭曲, 延长波纹管使用寿命;
4. 铰链式连接: 阀瓣和阀杆采用铰链式连接, 能自定心密封, 从而显著提升内部密封的可靠性与持久性。

Design Features of Wanlong Bellows Globe Valve:

- I. Multi-layer sealing for zero leakage: Utilizes a metal bellows as the primary seal, with a packing auxiliary seal and an upper stem seal, forming multiple sealing barriers to ensure zero leakage;
- II. Unique flow path design: Manufactured based on the optimal results obtained from computer-simulated analyses. After optimization, the flow capacity is increased by 10% to 50% compared to valves of the same specification, Reduction of Flow Resistance Coefficient;
- III. Anti-rotation block structure: Prevents bellows torsion, thereby extending the service life of the bellows;
- IV. Hinge-type connection: The disc and stem are connected via a hinge-type joint, enabling self-centering sealing, which significantly enhances the reliability and durability of the internal seal.



杭州萧山-研发生产基地
Hangzhou Xiaoshan — R&D and Manufacturing Base



品质现场
Quality Control Site



绍兴柯桥-毛坯铸造基地
Shaoxing Keqiao — Raw Casting Base



单杆波纹管截止阀 (Single Stem Bellows Globe Valve)

单杆结构是波纹管截止阀中，最常见且最经典的形式。该结构仅采用一根阀杆，波纹管一端与阀杆焊接，另一端则与阀盖或阀体焊接。在保留波纹管“零泄漏”优势的同时，单杆设计比双杆设计，整体高度降低，所需安装空间更小，特别适用于空间受限的管道工况。

While retaining the bellows' "zero leakage" advantage, the single-stem design offers a reduced overall height and requires less installation space compared to a double-stem design, making it particularly suitable for piping applications where space is limited.



- **产品优点：**多层密封，零泄露
- **国标公称通径：**DN15~DN500
- **公称压力：**PN16~PN100
- **美标公称通径：**1/2"~20"
- **公称压力：**150LB~600LB
- **使用温度：**-101°C~500°C
- **适用介质：**导热油、蒸汽，及易燃易爆、强渗透性、有毒或放射性等特殊工况介质。

- **Product Advantages:** Multi-layer sealing, zero leakage
- **DN:** DN15~DN500
- **PN:** PN16~PN100
- **NPS:** 1/2"~20"
- **Class:** 150LB~600LB
- **Operating Temperature:** -101°C~500°C (-149.8°F ~ 932°F)
- **Applicable Media:** Thermal oil, steam, and other special operating condition media that are flammable and explosive, highly permeable, toxic, or radioactive.

单杆波纹管截止阀 (Single Stem Bellows Globe Valve)

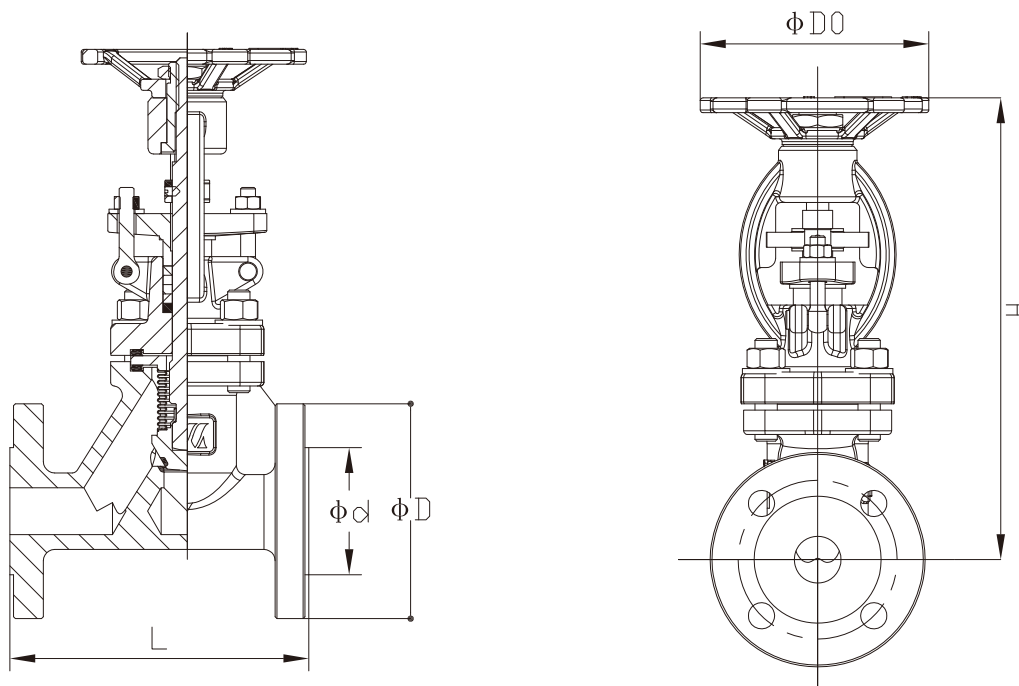
设计制造/Design and manufacturing standard: GB/T 12235

连接尺寸/Connection size: GB/T 9124

结构长度/Structural length: GB/T 12221

试验—检验/Test - Inspection standard: GB/T 13927

氦质谱检漏/Helium mass spectrometer leak detection: API 602



PN40参数表(PN40 parameter)

DN	L	D	d	H	D0
15	130	95	45	247	120
20	150	105	58	247	120
25	160	115	68	247	120
32	180	140	78	270	120
40	200	150	88	310	180
50	230	165	102	310	180
65	290	185	122	350	220
80	310	200	138	350	220
100	350	235	162	425	280
125	400	270	188	480	350
150	480	300	218	480	350
200	600	375	285	610	400
250	730	450	345	885	400

250以上口径, 请联系万龙销售工程师
For DN above 250, please contact Wanlong's sales engineer.

波纹管截止阀 (Bellows Globe Valve)

自2009年荣获波纹管截止阀发明专利以来,我们已在该领域专注研发10多年,积累了深厚的技术与工艺经验。产品密封性能优异、使用寿命长、运行稳定,在各类严苛工况中展现出显著优势。为满足多样化的应用需求,我们提供了全面的阀门型式选择,包括流阻极小的直流式、结构经典的直通式以及便于管道布置的角式。

Since being granted the patent for the bellow globe valve in 2009, we have dedicated over a decade to specialized R&D in this field, accumulating profound technical and process expertise. Our products deliver exceptional sealing performance, extended service life, and stable operation, demonstrating proven performance across a wide range of demanding conditions.



- **产品优点:** 多层密封, 零泄露
- **国标公称通径:** DN15~DN500
- **公称压力:** PN16~PN260
- **美标公称通径:** 1/2"~20"
- **公称压力:** 150LB~1500LB
- **使用温度:** -101°C~650°C
- **适用介质:** 导热油、蒸汽, 及易燃易爆、强渗透性、有毒或放射性等特殊工况介质。

- **Product Advantages:** Multi-layer sealing, zero leakage
- **DN:** DN15~DN500
- **PN:** PN16~PN260
- **NPS:** 1/2"~20"
- **Class:** 150LB~1500LB
- **Operating Temperature:** -101°C~650°C (-149.8°F ~ 1202°F)
- **Applicable Media:** Thermal oil, steam, and other special operating condition media that are flammable and explosive, highly permeable, toxic, or radioactive.

波纹管截止阀 (Bellows Globe Valve)

法兰连接(Flanged Connection)

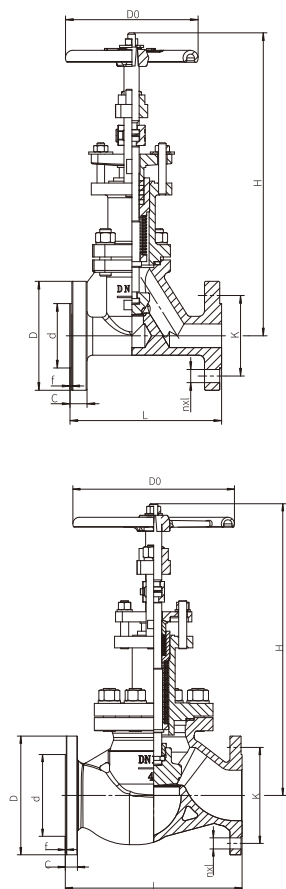
设计制造/Design and manufacturing standard: GB/T 12235

法兰尺寸/Flange Dimensions standard: GB/T 9124

结构长度/Structural length: GB/T 12221

试验—检验/Test - Inspection standard: GB/T 13927

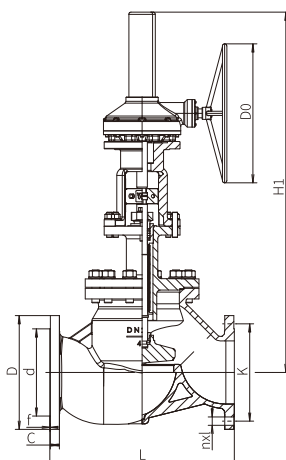
氦质谱检漏/Helium mass spectrometer leak detection: API 602



DN	PN	L	D0	H	D	K	n*l	d	f	C
15	16-40	130	140	316-323	95	65	4*14	45	2	16
20	16-40	150	140	316-323	105	75	4*14	58	2	18
25	16-40	160	140	316-323	115	85	4*14	68	2	18
32	16-40	180	140	335-342	140	100	4*18	78	2	18
40	16-40	200	200	378-392	150	110	4*18	88	2	18
50	16-40	230	200	378-392	165	125	4*18	102	2	20

DN	PN	L	D0	H	D	K	n*l	d	f	C
65	16-40	290	250	456-477	185	145	8*18	122	2	22
80	16-40	310	250	456-477	200	160	8*18	138	2	24
100	16	350	320	565-591	220	180	8*18	158	2	20
	25-40	350	320	565-591	235	190	8*22	162	2	24
125	16	400	500	682-721	250	210	8*18	188	2	22
	25-40	400	500	682-721	270	220	8*26	188	2	26
150	16	480	500	682-721	285	240	8*22	212	2	22
	25-40	480	500	682-721	300	250	8*26	218	2	28
200	16	600	500	845-896	340	295	12*22	268	2	24
	25	600	500	845-896	360	310	12*26	278	2	30
	40	600	500	845-896	375	320	12*30	285	2	34
250	16	730	500	933-997	405	355	12*26	320	2	26
	25	730	500	933-997	425	370	12*30	335	2	32
	40	730	500	933-997	450	385	12*33	345	2	38
300	16	850	600	1041-1117	460	410	12*26	378	2	28
	25	850	600	1041-1117	485	430	16*30	395	2	34
	40	850	600	1041-1117	515	450	16*33	410	2	42

口径300以上, 建议安装执行器。Above DN 300: install actuator.



DN	PN	L	D0	H	D	K	n*l	d	f	C
350	16	980	600	1281-1374	520	470	16*26	438	2	30
	25	980	600	1281-1374	555	490	16*33	450	2	38
	40	980	600	1281-1374	580	510	16*36	465	2	46
400	16	1100	600	1323-1427	580	525	16*30	490	2	32
	25	1100	600	1323-1427	620	550	16*36	505	2	40
	40	1100	600	1323-1427	660	585	16*39	535	2	50
450	16	1200	-	1584-1703	640	585	20*30	550	2	40
	25	1200	-	1584-1703	670	600	20*36	555	2	46
	40	1200	-	1584-1703	685	610	20*39	560	2	57
500	16	1250	-	1635-1755	715	650	20*33	610	2	44
	25	1250	-	1635-1755	730	660	20*36	615	2	48
	40	1250	-	1635-1755	755	670	20*42	615	2	57

H为手轮高度, H1为安装执行器的高度, H1高度, 请咨询万龙销售工程师。

H (handwheel height) and H1 (actuator installation height). Confirm H1 with a Wanlong sales engineer.

波纹管截止阀 (Bellows Globe Valve)

法兰连接(Flanged Connection)

设计制造/Design and manufacturing standard: API 602

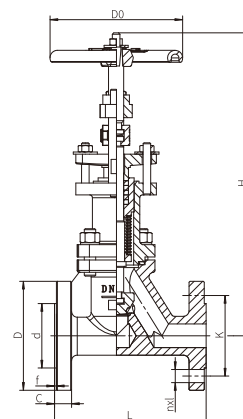
法兰尺寸/Flange Dimensions standard: ASME B16.5

结构长度/Structural length: ASME B16.10

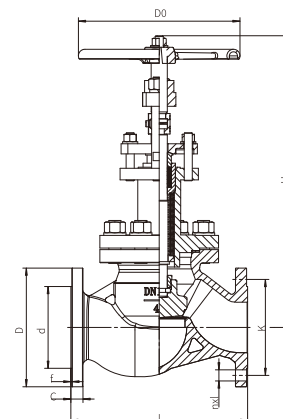
试验—检验/Test - Inspection standard: API 598

氦质谱检漏/Helium mass spectrometer leak detection: API 602

NPS	CLASS	L	D0	H	D	K	n* <i>l</i>	d	f	C
1/2"	150	108	140	310-316	89	60.5	4*16	35.1	1.5	9.7
	300	152	140	316-323	95	66.5	4*16	35.1	1.5	12.7
3/4"	150	117	140	317-323	99	69.8	4*16	42.9	1.5	11.2
	300	178	140	316-323	117	82.6	4*19	42.9	1.5	14.2
1"	150	127	140	317-323	108	79.2	4*16	50.8	1.5	12.7
	300	203	140	316-323	124	88.9	4*19	50.8	1.5	15.7
1 1/4"	150	140	140	336-343	117	88.9	4*16	63.5	1.5	14.2
	300	216	140	335-342	133	98.6	4*19	63.5	1.5	17.5
1 1/2"	150	165	200	375-386	127	98.6	4*16	73	1.5	15.9
	300	229	200	378-392	155	114.3	4*22.5	73	1.5	19
2"	150	203	200	380-391	152	120.6	4*19	91.9	1.5	17.5
	300	267	200	378-392	165	127	8*19	91.9	1.5	20.6



NPS	CLASS	L	D0	H	D	K	n* <i>l</i>	d	f	C
2 1/2"	150	216	250	446-462	178	139.7	4*19	104.6	1.5	20.6
	300	292	250	446-462	190	149.4	8*22.5	104.6	1.5	23.9
3"	150	241	250	447-466	190	152.4	4*19	127	1.5	22.4
	300	318	250	447-466	210	168.1	8*22.5	127	1.5	26.9
4"	150	292	320	552-578	229	190.5	8*19	157.2	1.5	22.4
	300	356	320	552-578	254	200.2	8*22.5	157.2	1.5	30.2
5"	150	356	500	667-699	254	215.9	8*22.5	185.7	1.5	22.4
	300	400	500	668-699	279	235	8*22.5	185.7	1.5	33.2
6"	150	406	500	669-705	279	241.3	8*22.5	215.9	1.5	23.9
	300	444	500	669-704	318	269.7	12*22.5	215.9	1.5	35.1
8"	150	495	500	841-889	343	298.4	8*22.5	269.7	1.5	26.9
	300	559	500	841-889	381	330.2	12*26	269.7	1.5	39.6
10"	150	622	500	901-981	406	362	12*26	323.8	1.5	28.4
	300	622	600	1024-1090	444	387.4	16*30	323.8	1.5	46
12"	150	698	600	1015-1066	484	431.8	12*26	381	1.5	30.2
	300	711	600	1015-1066	521	450.8	16*33	381	1.5	49.3

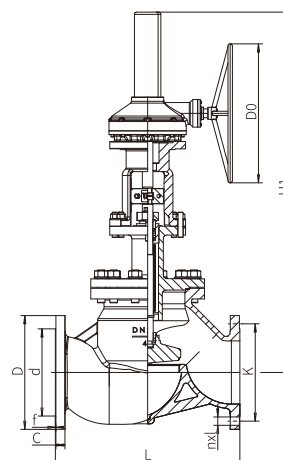


口径12"以上, 建议安装执行器。Above NPS 12": install actuator.

NPS	CLASS	L	D0	H	D	K	n* <i>l</i>	d	f	C
14"	150	787	-	1275-1363	533	476.2	12*30	412.8	1.5	33.3
	300	838	-	1275-1363	584	514.4	20*33	412.8	1.5	52.3
16"	150	914	-	1323-1427	597	539.8	16*30	469.9	1.5	35.1
	300	864	-	1323-1427	648	571.5	20*36	469.9	1.5	55.6
18"	150	978	-	1584-1703	635	577.8	16*33	533.4	1.5	38.1
	300	978	-	1584-1703	711	628.6	24*36	533.4	1.5	58.7
20"	150	978	-	1635-1755	693	635	20*33	584.2	1.5	41.1
	300	1016	-	1635-1755	775	685.8	24*36	584.2	1.5	62

H为手轮高度, H1为安装执行器的高度, H1高度, 请咨询万龙销售工程师。

H (handwheel height) and H1 (actuator installation height). Confirm H1 with a Wanlong sales engineer.



波纹管截止阀 (Bellows Globe Valve)

对接焊连接 (Butt-Weld Connection)

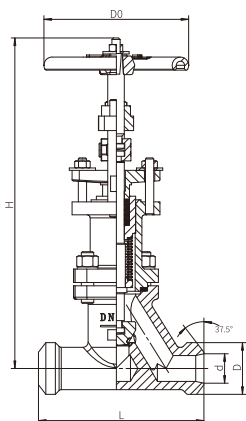
设计制造/Design and manufacturing standard: GB/T 12235

焊端尺寸/Weld End Dimension: GB/T 12224

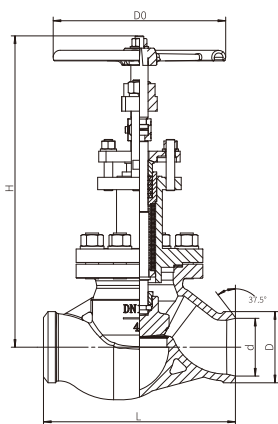
结构长度/Structural length: GB/T 12221

试验—检验/Test - Inspection standard: GB/T 13927

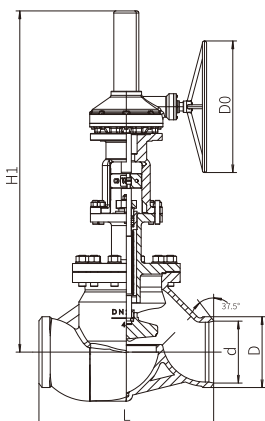
氦质谱检漏/Helium mass spectrometer leak detection: API 602



DN	PN	L	D0	H	d	D
15	16-40	130	140	316-323	17	35
20	16-40	152	140	316-323	22.3	41
25	16-40	160	140	316-323	28.5	50
32	16-40	180	140	335-342	37.2	56
40	16-40	200	200	378-392	43.1	62
50	16-40	230	200	378-392	54.5	76



DN	PN	L	D0	H	d	D
65	16-40	292	250	456-477	67.2	92
80	16-40	318	250	456-477	82.5	105
100	16-40	356	320	565-591	107.1	132
125	16-40	406	500	682-721	133.3	157
150	16-40	480	500	682-721	159.3	184
200	16-40	600	500	845-896	206.5	238
250	16-40	730	500	933-997	260	296
300	16-40	850	600	1041-1117	309	348



口径300以上, 建议安装执行器。Above DN 300: install actuator.

DN	PN	L	D0	H	d	D
350	16-40	980	600	1281-1374	360	403
400	16-40	1100	600	1323-1427	410	446
450	16-40	1200	-	1584-1703	460	507
500	16-40	1250	-	1635-1755	510	565

H为手轮高度, H1为安装执行器的高度, H1高度, 请咨询万龙销售工程师。

H (handwheel height) and H1 (actuator installation height). Confirm H1 with a Wanlong sales engineer.

波纹管截止阀 (Bellows Globe Valve)

对接焊连接 (Butt-Weld Connection)

设计制造/Design and manufacturing standard: API 602

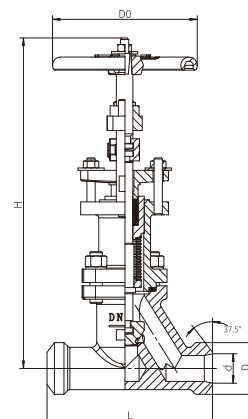
焊端尺寸/Weld End Dimension: ASME B16.25

结构长度/Structural length: ASME B16.10

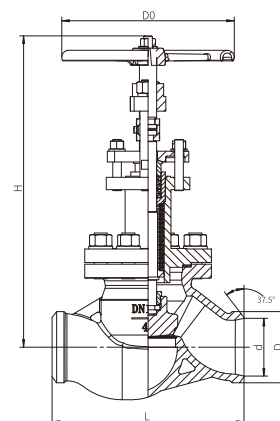
试验—检验/Test - Inspection standard: API 598

氦质谱检漏/Helium mass spectrometer leak detection: API 602

DN	PN	L	D0	H	d	D
1/2"	300	130	140	316-323	15.76	29.5
3/4"	300	152	140	316-323	20.96	36.3
1"	300	160	140	316-323	26.64	45
1 1/4"	300	180	140	335-342	35.08	54.4
1 1/2"	300	200	200	378-392	40.94	61.5
2"	300	230	200	378-392	52.48	75.1

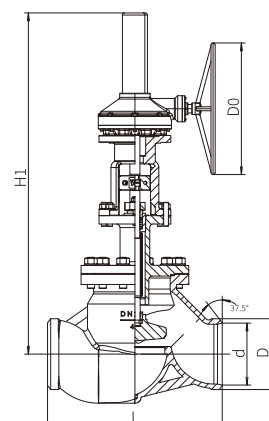


DN	PN	L	D0	H	d	D
2 1/2"	300	292	250	446-462	62.68	89.8
3"	300	318	250	447-466	77.92	108.3
4"	300	356	320	552-578	102.26	138.1
5"	300	400	500	668-699	128.2	169.3
6"	300	444	500	669-704	154.08	200.3
8"	300	559	500	841-889	202.74	254.1
10"	300	622	600	1024-1090	254.46	311.2
12"	300	711	600	1015-1066	303.18	365



口径12"以上, 建议安装执行器。Above NPS 12": install actuator.

DN	PN	L	D0	H	d	D
14"	300	838	-	1275-1363	333.34	403.5
16"	300	864	-	1323-1427	381	457.2
18"	300	978	-	1584-1703	428.66	511.4
20"	300	1016	-	1635-1755	477.42	566.4



H为手轮高度, H1为安装执行器的高度, H1高度, 请咨询万龙销售工程师。

H (handwheel height) and H1 (actuator installation height). Confirm H1 with a Wanlong sales engineer.

关于应用 (Typical Applications)

聚碳酸酯 – Polycarbonate
聚氨酯 – Polyurethane
化肥制造 – Fertilizer manufacturing
氯碱 – Chlor-alkali
化纤 – Chemical fiber
染料 – Dye
塑料 – Plastics
有机硅 – Silicone
多晶硅 – Polysilicon
半导体行业 – Semiconductor industry
农药杀虫剂 – Pesticides
医药行业 – Pharmaceutical industry
制冷剂行业 – Refrigerant industry
氟和氟化氢行业 – Fluorine and hydrogen fluoride industry
新能源 – New energy



我们的承诺 (Our Commitment)

我司就质量保证与售后服务郑重承诺如下：

一、质量 保证

严格按照ISO 9001质量管理体系执行生产。

二、质保政策

买方收到产品18个月或产品安装调试合格起12个月(二者以先到期者为准), 在质保期内, 如产品出现非人为因素导致的质量缺陷问题, 均可免费修理或更换零件。

三、售后服务

用户在使用过程中遇任何问题, 我司承诺在收到反馈后2小时内予以响应。如需现场服务, 我们将第一时间派遣专业技术工程师赶赴现场, 高效排除故障。同时, 所有用户反馈及处理记录均会归档保存, 作为产品持续改进和创新的重要依据, 以不断提升用户体验。

万龙的售后实行终身跟踪服务。



Our company solemnly commits to the following regarding quality assurance and after-sales service:

I. Quality Assurance

Production is strictly carried out in accordance with the ISO 9001 quality management system.

II. Warranty Policy

The warranty period shall be the earlier of 18 months from the date of the Buyer's receipt of the Products and 12 months from the date of successful installation and commissioning of the Products. During the warranty period, any quality defects in the Products that are not caused by human factors shall be repaired or have parts replaced free of charge.

III. After-sales service

If users encounter any issues during use, our company commits to responding within 2 hours upon receiving feedback. For on-site services, we will promptly dispatch professional technical engineers to the scene to efficiently resolve faults. Additionally, all user feedback and handling records will be archived and preserved as crucial references for product continuous improvement and innovation, to consistently enhance user experience.

Wanlong's after-sales service implements lifelong tracking service.



浙江万龙机械有限公司

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阀体 ASTM A105 A105

ASTMA182 F91

ASTMA182 F304

ASTMA182 F316

ASTMA182 F316L

ASTMA216 WCB

ASTMA352 LCB

ASTMA351 CF8

ASTMA351 CF8M

ASTMA351 CF3M

ASTMA494 Hastelloy C-22

ASTMA494 Hastelloy C-276

ASTMA995 CD4MCu

密封面 不锈钢

司太立合金

蒙乃尔合金

哈氏合金 B、C

波纹管 ASTM A276 304

ASTMA276 316

ASTMA276 316L

ASTMA182 F91

ASTMA494 Hastelloy C-22

ASTMA494 Hastelloy C-276

阀杆 ASTM A276 304

ASTMA276 316

ASTMA276 316L

ASTMA564 630 HT1075

13Cr 系不锈钢

螺栓/螺母 A193 B7/A1942H

A193 B8/A1948

手轮 ASTM A216 WCB

ASTMA351 CF8

填料 柔性石墨

PTFE、PPL



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