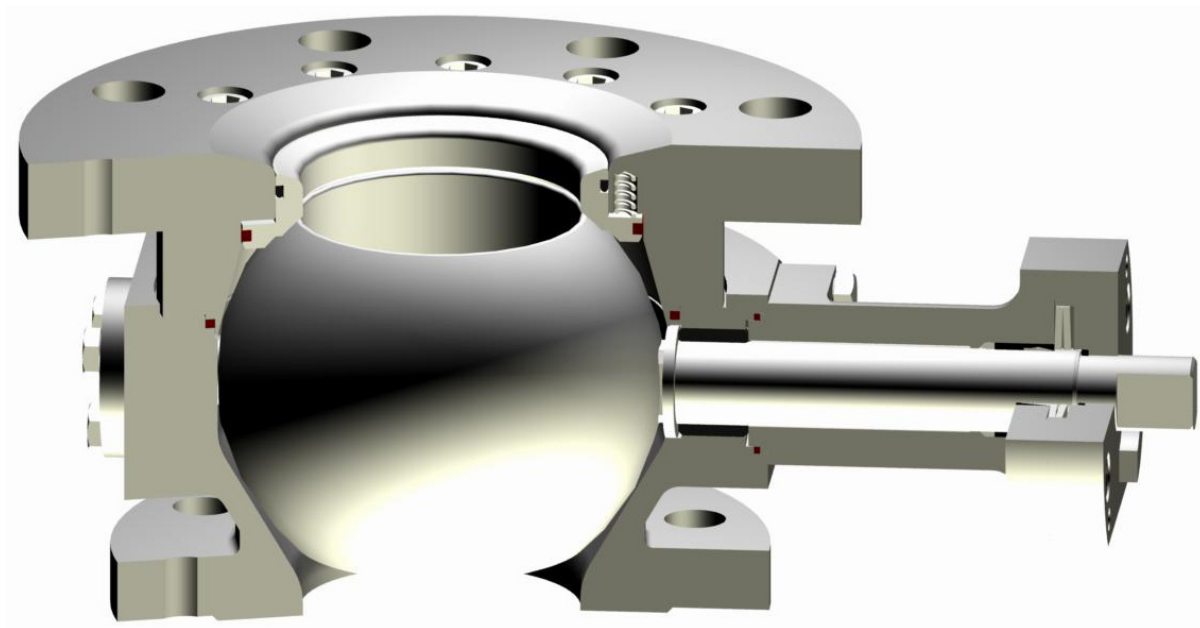




金属硬密封罐底球阀15-M



结构特征

- ✓ 两件式阀体结构
- ✓ 带底轴的固定阀球
- ✓ 防喷出式阀杆
- ✓ 动负载阀杆填料
- ✓ 弹簧加载阀座密封结构
- ✓ 消防火烧安全设计（选项）

设计参照标准

- ✓ EN 12516, EN 1983, ISO 5211, AD-2000
- ✓ ASME B 16.34, API 608

应用范围

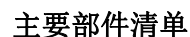
- ✓ 设计通径 1" to 12" / DN 15 to 300
- ✓ 压力等级 Class 150 to 300 / PN 10 to 40
- ✓ 操作温度 -20°F to +850°F / -60°C to +450°C

环保认证

- ✓ “TA-Luft” 低逸散性排放认证

测试参照标准

- ✓ EN 12266-1/2
- ✓ API 598



-
- This exploded view diagram illustrates the assembly of a mechanical component, likely a valve or a pump head. The components are numbered 1 through 43. The assembly is shown in a disassembled state to show the relationship between parts. Key components include a main body (1), a central shaft (27), a piston or plunger (26), a valve seat (25), and a valve core (29). The assembly is shown in a disassembled state to show the relationship between parts. The diagram includes various seals, O-rings, and gaskets (e.g., 16, 17, 18, 20, 21, 23, 24, 28, 43) to ensure a tight seal. The components are arranged in a vertical column, with the main body (1) at the bottom and the valve core (29) at the top. The exploded view shows the assembly sequence and the relative positions of the parts.

Fig.1

产品介绍

Perrin 15-M系列球阀是带底轴装配的固定球球阀，阀体为分体式结构，一体式阀杆设计。弹簧预紧的金属硬密封阀座以及动负载阀杆填料确保在使用温度和压力变化时能提供连续可靠的密封性能。通过采用加大的入口法兰，使阀球上部的净空间降到最小。

阀门按照ISO5211标准设计了一体式执行机构安装法兰，便于装配阀门驱动机构，阀杆加长件以及阀位锁定机构。

阀门采用防静电和防喷出式阀杆设计，阀杆填料和密封取得了“TA-Luft”低逸散性排放认证。

部件及材质列表

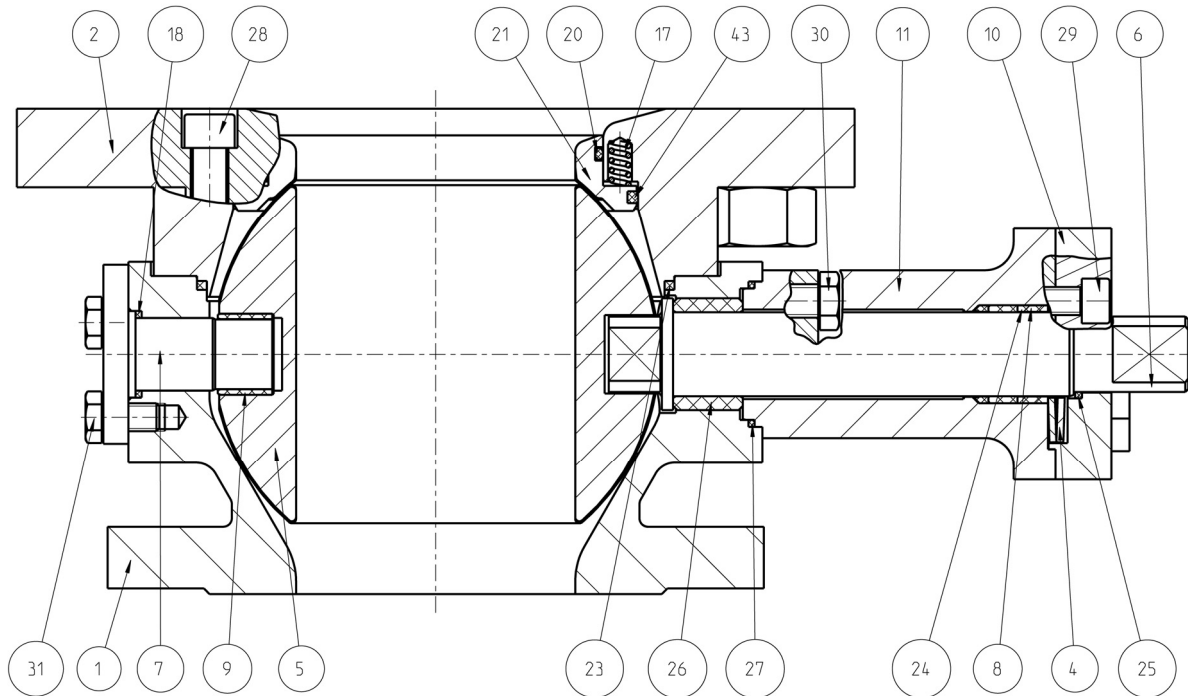


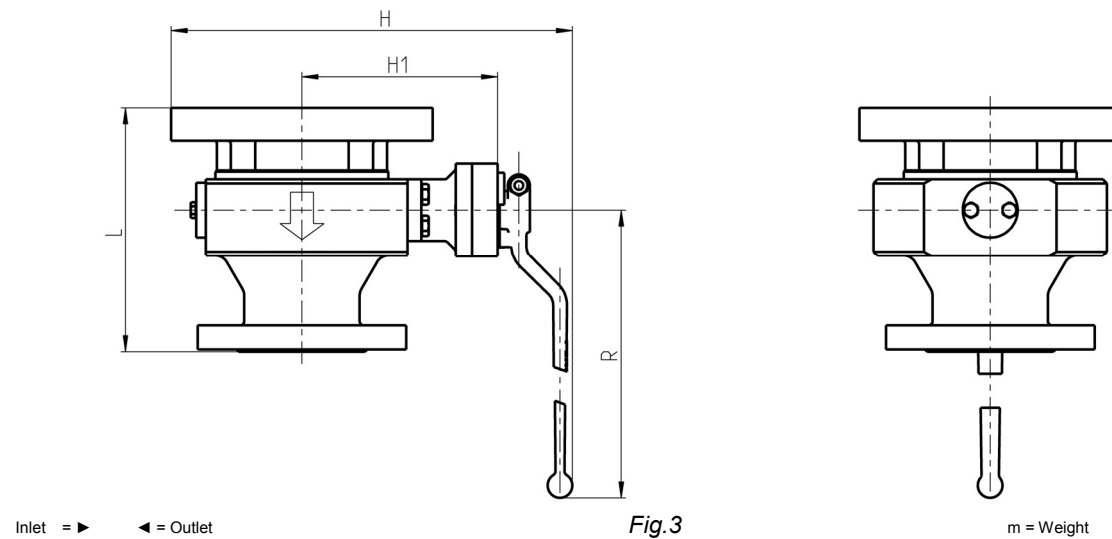
Fig.2

Item	Designation	ASME		DIN EN	
		-20°F up to +850°F	-20°F up to +850°F	-60°C up to +450°C	-10°C up to +450°C
1	阀体	A351 CF8M	A216 WCB	1.4408 ¹⁾	1.0619
2	阀体连接端	Type 316 (up to 2")	A105 (up to 2")	1.4571 (up to 2")	1.0460 (up to 2")
5	阀球	Type 316 coated A351 CF8M coated	Type 316 coated A351 CF8M coated	1.4571 coated 1.4408 ¹⁾ coated	1.4571 coated 1.4408 ¹⁾ coated
6	阀杆	Type 51 ²⁾ Type 316	Type 51 ²⁾ Type 316	1.4462 ²⁾ 1.4571	1.4462 ²⁾ 1.4571
7	底轴	Type 316	Type 316	1.4571	1.4571
8	填料压环	Type 316	Type 316	1.4571	1.4571
9	轴承套	Type 316 coated	Type 316 coated	1.4571 coated	1.4571 coated
10	填料压盖	Type 301	A105	1.4571	1.0460
11	阀盖				
16	碟簧 ³⁾	Type 301	AISI 6150	1.4310	1.8159
17	柱簧	Type 316	Type 316	1.4571	1.4571
18	阀体垫片	Graphite	Graphite	Graphite	Graphite
20	O型圈	Polymer or Elastomer	Polymer or Elastomer	Polymer or Elastomer	Polymer or Elastomer
21	阀座	Type 316 coated	Type 316 coated	1.4571 coated	1.4571 coated
23	阀体垫片	Graphite	Graphite	Graphite	Graphite
24	阀杆填料				
25	轴承环	Carbon-Antimony	Carbon-Antimony	Carbon-Antimony	Carbon-Antimony
26	轴套	Carbon-Antimony	Carbon-Antimony	Carbon-Antimony	Carbon-Antimony
27	阀体垫片	Graphite	Graphite	Graphite	Graphite
28	螺钉	SS	SS	SS	SS
29	螺钉	SS	SS	SS	SS
30	螺钉	SS	SS	SS	SS
31	螺钉	SS	SS	SS	SS
43	密封线	Graphite	Graphite	Graphite	Graphite

Tab.1

- 1) Temperature limitation 300°C [576°F] acc. to German technical rule AD-2000 W5 if intercrystalline corrosion resistant is required
2) Temperature limitation 280°C [536°F]
3) Material 2.4668 (Inconel 718) is generally required for operating temperature over 200°C [392°F]
4) Materials for lower / higher temperature on request

技术数据



CLASS 150

NPS [inch]		DN [mm]		H		H1		R		L Perrin Standard		Cv	m	
►	◄	►	◄	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[gal/min]	[lbs]	[kg]
1½	1	40	25	11,3	287	4,5	114	12	300	3,9	98	75	18	8
2	1¼	50	32	11,9	303	4,7	119	12	300	3,9	98	124	24	11
2½	1½	65	40	13,4	340	6,1	156	18	450	4,4	112	193	33	15
3	2	80	50	14	355	6,5	165	18	450	4,9	124	302	68	31
4	2½	100	65	14,9	379	6,9	175	18	450	5,3	135	510	106	48
5	3	125	80	20,9	532	9,6	244	31	800	6,5	164	772	158	72
6	4	150	100	22,2	565	10,4	264	31	800	6,9	174	1206	196	89

Tab.2

CLASS 300

NPS [inch]		DN [mm]		H		H1		R		L Perrin Standard		Cv	m	
►	◄	►	◄	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[gal/min]	[lbs]	[kg]
1½	1	40	25	11,3	287	4,5	114	12	300	4,1	103	75	20	9
2	1¼	50	32	11,9	303	4,7	119	12	300	4,1	103	124	26	12
2½	1½	65	40	13,4	340	6,1	156	18	450	4,6	117	193	35	16
3	2	80	50	14	355	6,5	165	18	450	5,3	134	302	73	33
4	2½	100	65	14,9	379	6,9	175	18	450	5,7	145	510	117	53
5	3	125	80	20,9	532	9,6	244	31	800	6,9	174	772	174	79
6	4	150	100	22,2	565	10,4	264	31	800	7,2	184	1206	213	97

Tab.3

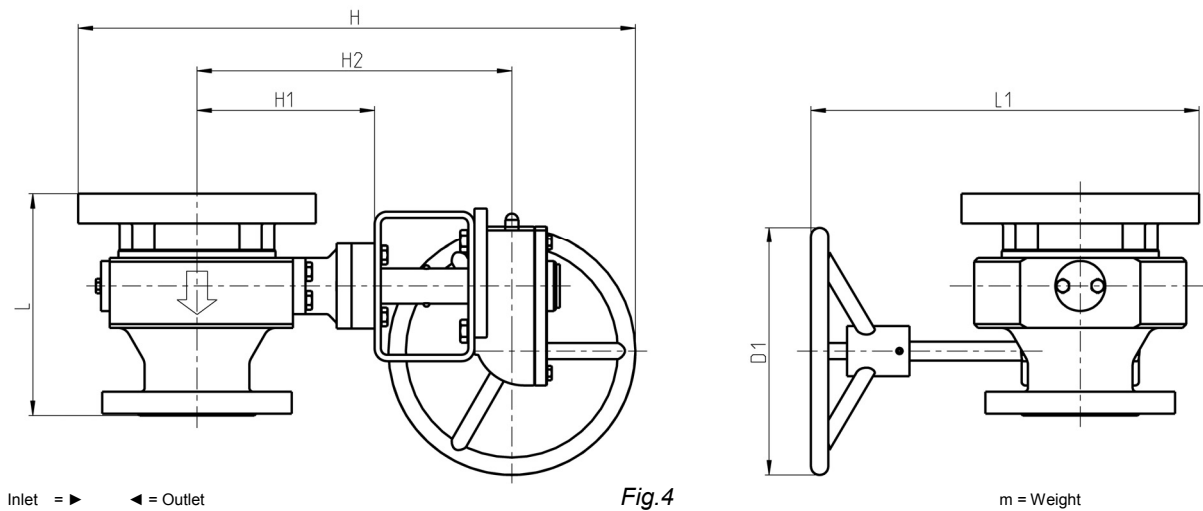


PN 16 – PN 40

DN [mm]		H [mm]	H1 [mm]	R [mm]	L [mm] Perrin Standard	Kv [m ³ /h]	m [kg]
▶	◀						
40	25	287	114	300	98	64	8
50	32	303	119	300	98	106	11
65	40	340	156	450	112	165	15
80	50	355	165	450	124	258	31
100	65	379	175	450	135	436	48
125	80	532	244	800	164	660	72
150	100	565	264	800	174	1031	89

Tab.4

注：其他通径和压力等级的阀门，可按照客户要求设计制造。



CLASS 150

NPS [inch]		DN [mm]		H		H1		H2		L1		D1		L Perrin Standard		Cv	m	
►	◄	►	◄	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[gal/min]	[lbs]	[kg]
8	5	200	125	29	742	11	272	16	396	15	373	14	350	11	275	1885	240	109
10	6	250	150	33	834	12	307	17	431	15	373	16	400	12	292	2714	275	125
10	8	250	200	38	960	14	366	20	507	18	467	20	500	14	354	4825	627	285
12	10	300	250	42	1074	18	452	25	633	21	528	16	400	16	405	7840	825	375
14	12	350	300	52	1323	21	538	30	756	24	600	24	600	19	470	10856	1287	585

Tab.5

CLASS 300

NPS [inch]		DN [mm]		H		H1		H2		L1		D1		L Perrin Standard		Cv	m	
►	◄	►	◄	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[gal/min]	[lbs]	[kg]
8	5	200	125	31	787	11	272	16	396	23	592	16	400	11	285	1885	268	122
10	6	250	150	34	853	12	307	17	431	25	640	16	400	12	307	2714	319	145
10	8	250	200	41	1029	14	366	20	507	27	675	24	600	14	360	4825	669	304
12	10	300	250	47	1193	18	452	25	633	30	770	24	600	17	420	7840	882	401
14	12	350	300	53	1348	21	538	30	756	33	847	24	600	19	485	10856	1371	623

Tab.6



PN 16

DN [mm]		H [mm]	H1 [mm]	H2 [mm]	L1 [mm]	D1 [mm]	L [mm] Perrin Standard	Kv [m³/h]	m [kg]
▶	◀								
200	125	741	272	396	373	350	275	1611	109
250	150	834	307	431	373	400	292	2320	125
250	200	960	366	507	467	500	345	4124	285
300	250	1063	452	633	528	400	405	6701	375
350	300	1316	538	756	600	600	470	9279	585

Tab.7

PN 40

DN [mm]		H [mm]	H1 [mm]	H2 [mm]	L1 [mm]	D1 [mm]	L [mm] Perrin Standard	Kv [m³/h]	m [kg]
▶	◀								
200	125	759	272	396	592	350	285	1611	113
250	150	856	307	431	640	400	307	2320	137
250	200	957	366	507	675	450	360	4124	296
300	250	1191	452	633	770	600	420	6701	387
350	300	1346	538	756	847	600	485	9279	607

Tab.8

注：其他通径和压力等级的阀门，可按照客户要求设计制造。

驱动机构连接尺寸

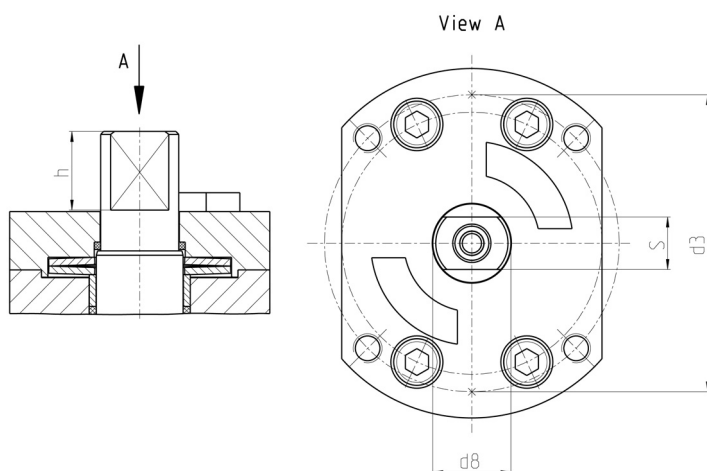


Fig.5

F	h		s		d3		d8	
	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]
F07	22	0,9	12	0,5	70	2,8	17	0,7
F10	27	1,1	18	0,7	102	4	27	1,1
F12	38	1,5	32	1,3	125	4,9	40	1,6
F14	38	1,5	38	1,5	140	5,5	57	2,2
F16	48	1,9	44	1,7	165	6,5	68	2,7
F25	48	1,9	55	2,2	254	10	82	3,2

Tab.9

执行机构连接参照标准 ISO 5211

NPS [inch]		DN [mm]		CLASS	
▶	◀	▶	◀	150	300
1½	1	40	25	F07	F07
2	1¼	50	32	F07	F10
2½	1½	65	40	F07	F10
3	2	80	50	F10	F10
4	2½	100	65	F10	F10
5	3	125	80	F12	F12
6	4	150	100	F12	F12
8	5	200	125	F12	F14
10	6	250	150	F12	F14
10	8	250	200	F14	F16
12	10	300	250	F16	F25
14	12	350	300	F16	F25

Tab.10

额定压力温度曲线

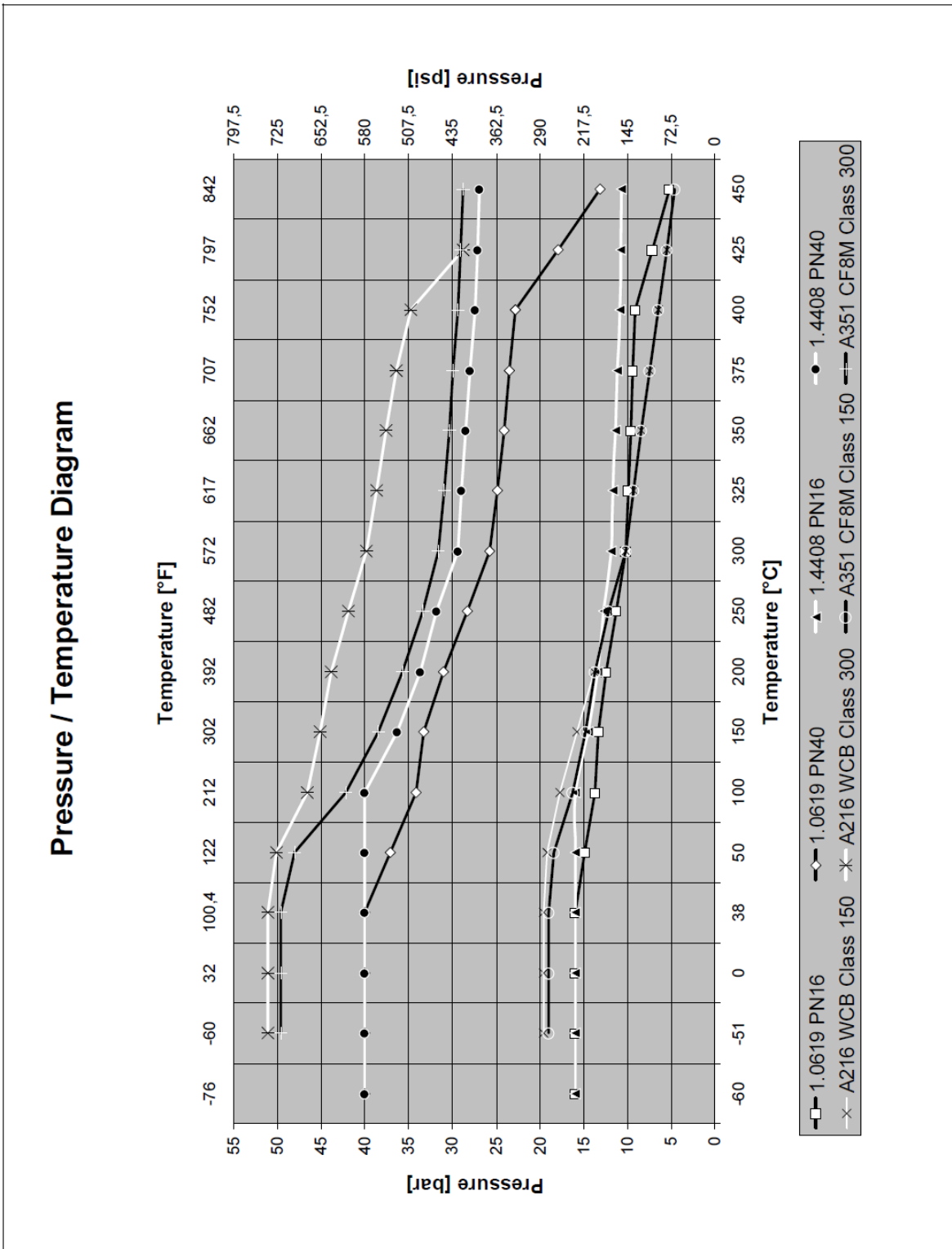


Fig.6

阀门配置选项

1) 具有弹簧防护功能的阀座系统:

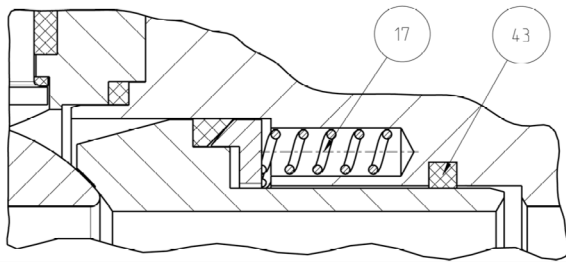


Fig.7

密封线（43）可保护阀座系统的弹簧（17）区域。
密封线可阻挡管路介质中的泥浆或颗粒进入弹簧区域，同时又能使管线压力进入以保证阀座单元的密封比压。

2) 带可调压紧机构的填料压盖

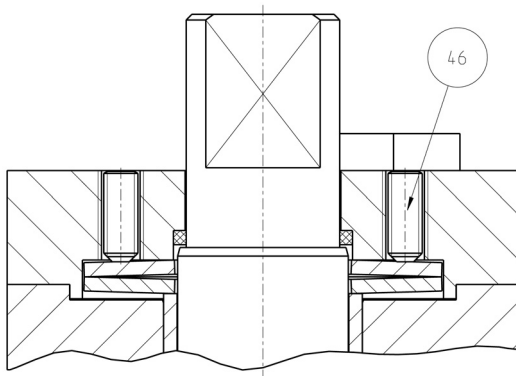


Fig.8

可为动负载阀杆填料配置带调整螺钉（46）的填料压盖。填料磨损发生泄漏时，拧紧这些调整螺钉可增加填料的压紧力。

3) 带探测接口的双级填料结构

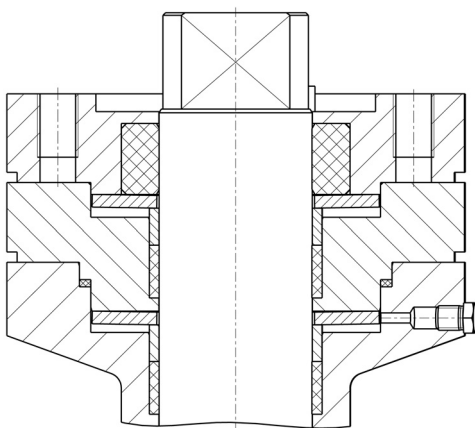


Fig.9

4) 带伴热夹套的球阀

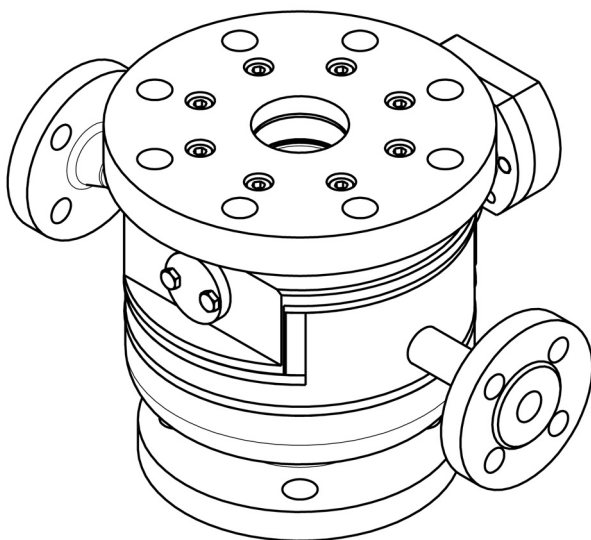


Fig.10

5) 可采用带倾斜阀杆的球阀，满足罐底操作空间要求。

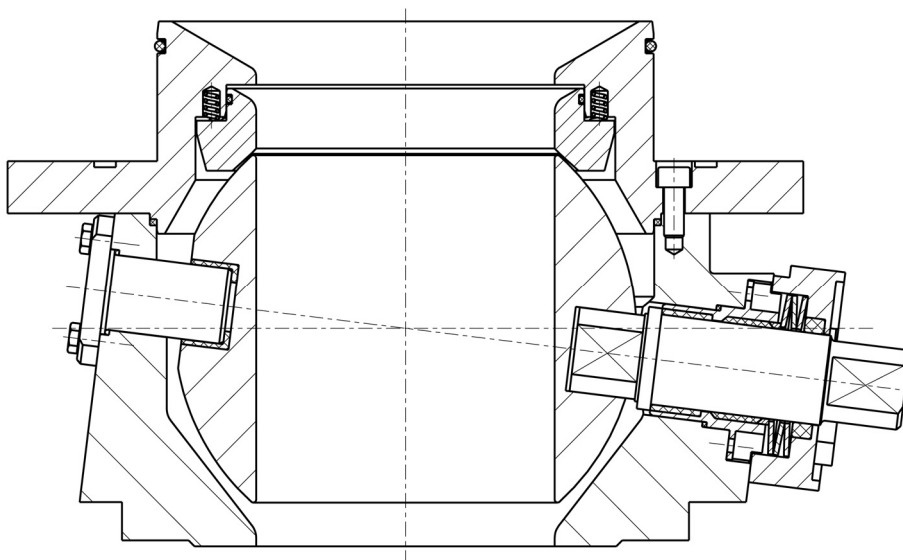


Fig.11

Technical modifications are reserved.

