

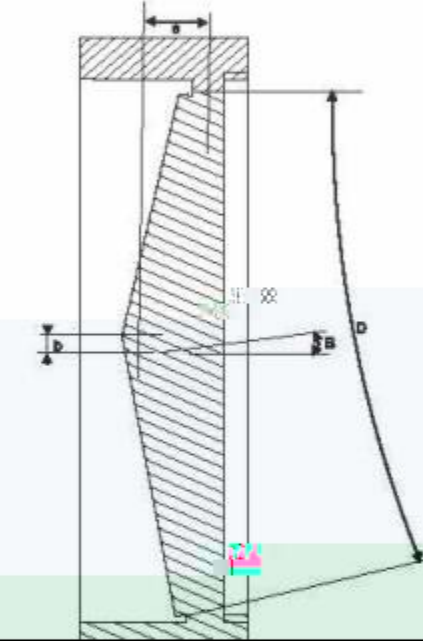
# BUTTERFLY VALVE SERIES

## 蝶阀系列

国标蝶阀  
GB butterfly valve

### 特点Feature

- 1、蝶板密封圈为软硬层叠式金属片，具有金属硬密封和弹性密封的双重优点，无论在低温和高温情况下，均具有优良的密封性能。
- 2、采用三维偏心结构，阀座与蝶板几乎无摩擦，具有越关越紧的密封效果。



### 用途Uses

本蝶阀系吸收、消化国外技术，采用三维偏心多层次金属密封结构，适用介质温度≤550℃冶金、电力、石油化工以及给排水等管道上作调节流量和截断流体的最佳装置。

The valve system to absorb, digest foreign technology, using three-dimensional eccentric multi-level metal seal structure, applicable to medium temperature ≤ 550℃ metallurgy, electric power, petrochemical, as well as to the

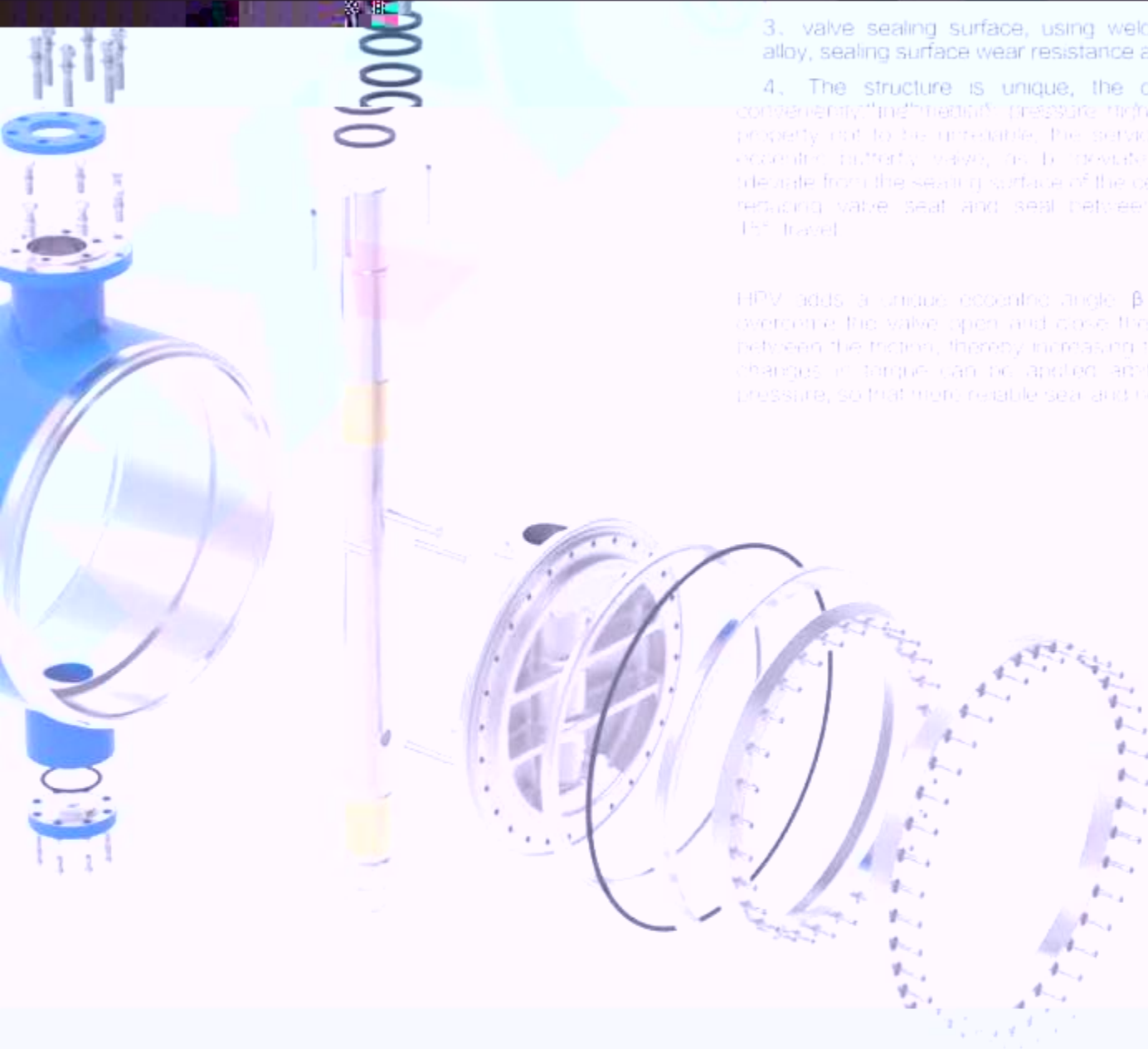
设计与制造 Design and Manufacture	结构长度 Structure Length	压力-温度等级 Pressure-temperature rating	连接法兰 Connection flange	试验与检验 Test and inspection
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1. butterfly plate seal for the hard and soft layering pieces of metal with a metal seal and flexible seal the dual advantage of both low and high temperature cases, both with excellent sealing performance.
2. using three-dimensional eccentric structure, valve seat and butterfly plate almost no friction, with the more closed, the more tight sealing effect.

3. valve sealing surface, using welding stainless steel, cobalt-based alloy, sealing surface wear resistance and long service life.
4. The structure is unique, the operation nimble, reduces effort, conserves energy and improves the flow characteristics, and smoothly property not to be affected, the service life is long. The usual double eccentric butterfly valve, its center (to the pipe center) and a deviate from the sealing surface of the centerline) as shown in the aim of reducing valve seat and seal between the friction of approximately 1/3.

CNXY uses a unique eccentric angle β slope of the cone not only overcome the valve open and close the seal and the seat all contacts between the metal, thereby increasing the service life, but also through changes in torque can be applied arbitrarily to adjust their seal over pressure, so that more reliable seal and never pass phenomenon occurs.



Nominal Pressure	公称压力 Nominal pressure					
	0.6	1.0	1.6	2.5	4.0	6.3
强度试验 Strength test	0.9	1.5	2.4	3.75	5.0	7.5
试验压力 Test Pressure	0.66	1.1	1.76	2.75	4.4	6.6
气密封试验 Gas seal test	0.6	0.6	0.6	0.6	0.6	0.6
泄漏率 Leakage	<0.1xDNmm <sup>3</sup> /s (符合 GB/T13927-92 标准) <0.1xDNmm <sup>3</sup> /s (in line with GB/T13927-92 standard)					
适用温度 Suitable temperature	碳钢: -29℃~425℃; 不锈钢、铬钼钢: -40℃~550℃ Carbon steel: -29℃~425℃, stainless steel, chrome molybdenum steel: 40℃~550℃					
适用介质 Applicable medium	空气、水、蒸气、煤气、油品以及酸、碱、盐带有弱腐蚀性介质等 Air, water, steam, gas, oil and acid, alkali, salt with a weak corrosive media, etc.					
驱动形式 Drive Type	蜗杆蜗轮传动、电传动 Worm worm transmission, electric transmission					

### 主要零件材质 Main part materials

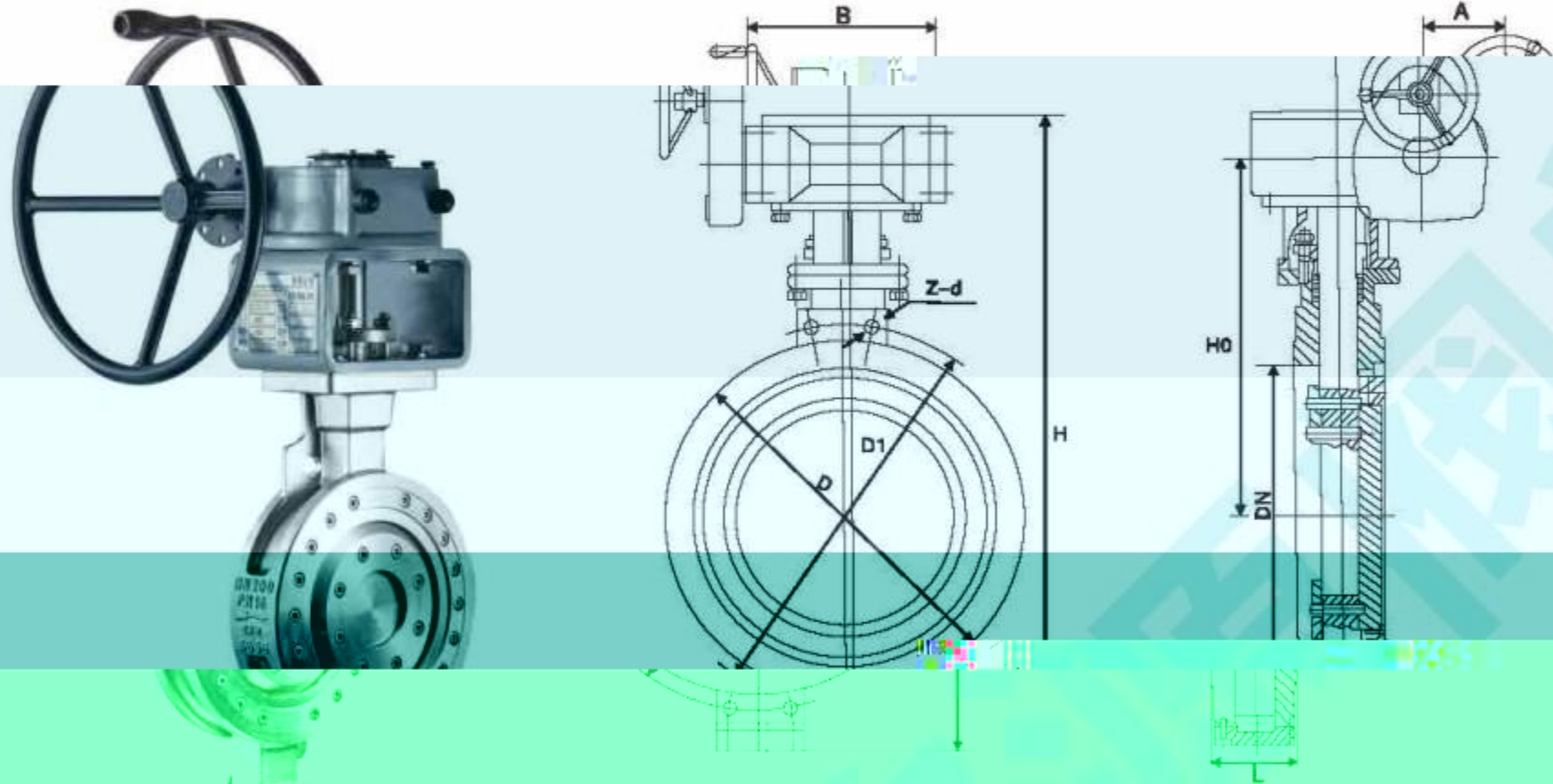
零件名称 Part name	材料 Material	零件名称 Part name	材料 Material
阀体 Body	碳钢、不锈钢、铬钼钢、合金钢 Carbon steel, stainless steel, chrome molybdenum steel, alloy steel	阀杆 Stem	2Cr13, 1Cr13 不锈钢、铬钼钢 2Cr13 1Cr13 stainless steel, chrome molybdenum steel
蝶板 Disc	碳钢、合金钢、不锈钢、铬钼钢 Carbon steel, alloy steel, stainless steel, chrome molybdenum steel	轴承 Bearing	奥氏体不锈钢、304 铬镍钛合金 Austenitic stainless steel, 304 chromium nickel titanium alloy
密封圈 Ring	不锈钢与钴基合金 Stainless steel and cobalt alloy		

国标对夹蝶阀

GB clamp butterfly valve

国标对夹蝶阀

GB clamp butterfly valve



主要连接尺寸 Main connection dimensions

PN	DN	标准值normal					参考值reference				
		L	D	D1	Z-d	b	H	HO	A	B	
2.5 Mpa	50	43	165	125	4-18	20	170	130	45	120	
	65	46	185	145	8-18	22	170	145	45	120	
	80	49	200	160	8-18	24	310	233	206	90	
	100	56	235	190	8-22	24	343	242	206	120	
	125	64	270	220	8-26	26	385	254	206	120	
	150	70	305	250	8-26	28	481	320	206	475	
	200	71	360	310	12-26	30	547	355	442	610	
	250	76	425	370	12-30	32	621	389	442	610	
6.4 Mpa	300	83	465	430	16-30	34	653	423	558	670	
	350	92	555	490	16-33	38	730	463	558	670	
	400	102	620	550	16-36	40	810	495	491	1120	
	450	114	670	600	20-36	46	850	566	687	1120	
	500	127	730	660	20-36	48	940	630	687	1120	
	600	154	845	770	20-39	58	1150	727	710	1456	
	700	165	960	875	24-42	50	1328	823	710	1456	
	800	190	1085	990	24-42	50	1425	823	710	1456	

主要外形尺寸及连接尺寸 Main external and connection dimension

PN	DN	L	D	D1	Z-d	b	H	HO	A	B
1.6 Mpa	50	43	165	125	4-18	20	170	130	45	120
	65	46	185	145	8-18	22	170	145	45	120
	80	49	200	160	8-18	24	310	233	206	90
	100	56	220	180	8-18	20	320	192	45	120
	125	64	250	210	8-18	22	345	200	45	120
	150	70	285	240	8-22	22	385	230	66	150
	200	71	340	295	12-22	24	471	297	85	170
	250	76	405	355	12-26	26	533	327	85	170
6.4 Mpa	300	83	460	410	12-26	28	606	364	106	205
	350	92	520	470	16-26	30	694	520	106	205
	400	102	580	525	26-30	32	757	444	130	240
	450	114	640	585	20-30	40	814	472	155	240
	500	127	715	650	20-33	44	902	523	159	240
	600	154	840	770	20-33	44	1048	610	198	324
	700	165	910	840	24-36	42	1277	810	220	335
	800	190	1085	990	24-36	42	1425	810	220	335

PN	DN	L	D	D1	Z-d	b	H	HO	A	B
10.0 Mpa	125	64	295	240	8-30	34	345	280	8-33	36
	150	70	345	280	8-33	36	415	345	12-36	42
	200	71	415	345	12-36	42	470	400	12-36	46
	250	76	470	400	12-36	46	530	460	16-36	52
	300	83	530	460	16-36	52	600	525	16-39	56
	350	92	600	525	16-39	56	670	585	16-42	60
	400	102	670	585	16-42	60	750	660	20-42	66
	500	127	810	700	20-42	66	900	780	24-42	72
16.0 Mpa	65	46	220	170	8-26	34	310	233	206	90
	80	49	230	180	8-26	36	343	242	206	120
	100	56	265	210	8-30	40	385	254	206	120
	125	64	315	250	8-33	40	481	320	206	475
	150	70	355	290	12-33	44	547	355	442	610
	200	71	430	360	12-36	52	621	389	442	610
	250	76	505	430	12-36	52	700	463	442	610
	300	83	585	510	16-36	56	780	545	442	610



主要连接尺寸 Main connection dimensions

PN	DN	标准型Normal							高耐压High pressure			
		L	D	D1	D2	Z-d	b	f	H	HO	A	B

		150	140	300	250	218	18-26	28	2	445	580	65	150
2.5 Mpa		200	152	360	310	235	12-26	30	2	510	297	85	170
		250	165	425	370	345	12-30	32	2	565	339	85	170
		300	178	485	430	410	16-30	33	2	620	375	105	205
		350	190	555	480	465	16-33	36	2	730	420	105	205
		400	215	620	550	535	16-36	40	2	810	463	130	240
		450	222	670	600	560	20-36	46	2	950	495	155	240

主要连接尺寸 Main connection dimensions

PN	DN	L	D	D1	D2	Z-d	b	f	H	HO	A	B
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美标法兰蝶阀

API Flange Butterfly Valve

美标对夹式蝶阀

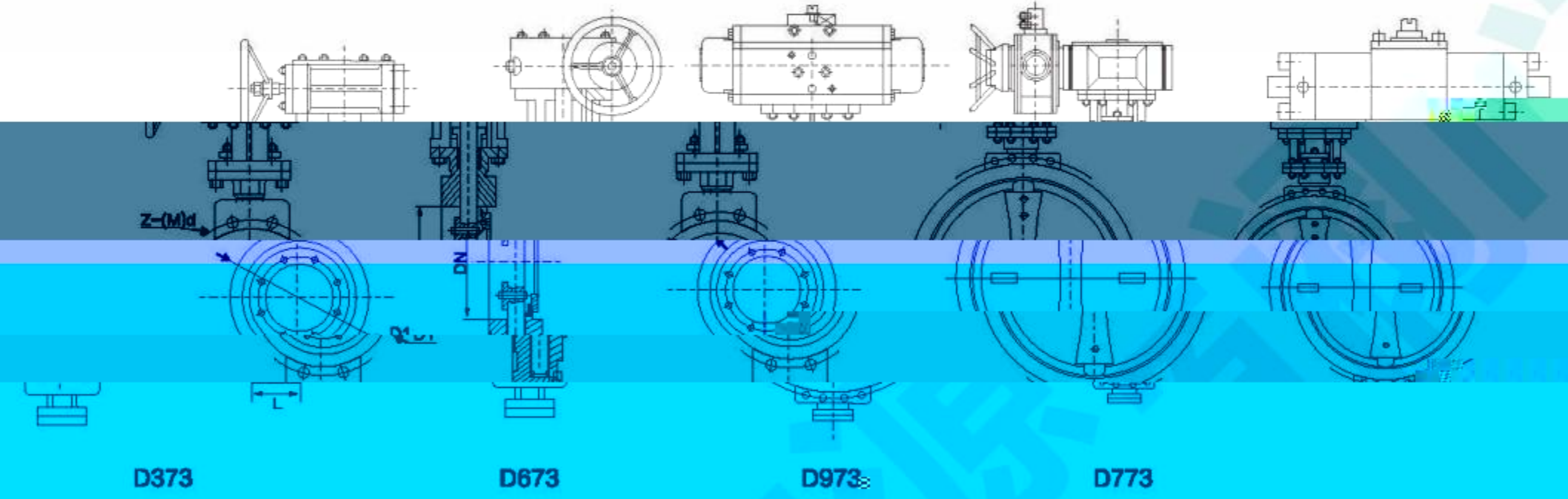
API Wafer Butterfly Valve

主要连接尺寸 Main Connection Dimensions

ASME 16.5

单位: Unit:mm

通径 Diameter(mm)	结构长度 Structural length		150Lb								300Lb								600Lb							
	Inch	mm	L1	L2	D	D1	D2	b	f	Z-φd	D	D1	D2	b	f	Z-φd	D	D1	D2	b	f	Z-φd				
2	50	108	150	150	120.7	92.1	19.5	2	4-φ19	165	127	92.1	22.7	2	8-φ19	165	127	92.1	32.4	7	8-φ19					
2.5	65	112	170	180	139.7	104.8	22.7	2	4-φ19	190	149.2	104.8	25.9	2	8-φ22	190	149.2	104.8	35.6	7	8-φ22					
3	80	114	180	190	152.4	127	24.3	2	4-φ19	210	168.3	127	29	2	8-φ22	210	168.3	127	38.8	7	8-φ22					
4	100	127	190	230	190.5	157.2	24.3	2	8-φ19	255	200	157.2	32.2	2	8-φ22	275	215.9	157.2	45.1	7	8-φ25					
5	125	140	200	255	215.9	185.7	24.3	2	8-φ22	280	235	185.7	35.4	2	8-φ22	330	266.7	185.7	54.7	7	8-φ29					
6	150	140	210	280	241.3	215.9	25.9	2	8-φ22	320	269.9	215.9	37.1	2	12-φ22	355	292.1	215.9	54.7	7	12-φ29					
8	200	152	230	345	298.5	269.9	29	2	8-φ22	380	330.2	269.9	41.7	2	12-φ25	420	349.2	269.9	62.6	7	12-φ32					
10	250	165	250	405	362	323.8	30.6	2	12-φ25	445	387.4	323.8	48.1	2	16-φ29	510	431.8	323.8	70.5	7	16-φ35					
12	300	178	270	485	431.8	381	32.2	2	12-φ25	520	450.8	381	51.3	2	16-φ32	560	489	381	73.7	7	20-φ35					
14	350	190	290	535	476.3	412.8	35.4	2	12-φ29	585	514.4	412.8	54.4	2	20-φ32	605	527	412.8	76.9	7	20-φ38					
16	400	216	310	595	539.8	469.9	37	2	16-φ29	650	571.5	469.9	57.6	2	20-φ35	685	603.2	469.9	83.2	7	20-φ41					
18	450	222	330	635	577.9	533.4	40.1	2	16-φ32	710	628.6	533.4	60.8	2	24-φ35	745	654	533.4	89.6	7	20-φ44					
20	500	229	350	700	635	584.2	43.3	2	20-φ32	775	685.8	584.2	64	2	24-φ35	815	723.9	584.2	95.9	7	24-φ44					
24	600	267	390	815	749.3	692.2	48.1	2	20-φ35	915	812.8	692.2	70.3	2	24-φ41	940	838.2	692.2	108.6	7	24-φ51					



主要连接尺寸 Main Connection Dimensions

ASME B 16.47

series A 单位: Unit:mm

结构长度 Structural length		150Lb								300Lb								600Lb							
L1	L2	D	D1	D2	b	f	Z-φd	D	D1	D2	b	f	Z-φd	D	D1	D2	b	f	Z-φd						

主要技术参数 Main Technology Parameter

公称压力 Nominal	试验压力(MPa) Test Pressure	适用温度 Applicable	适用介质 Applicable	驱动形式
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主要连

通径 Diameter(mm)	Inch	mm
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### 美标凸耳式蝶阀 API Lug Butterfly Valve

### 美标对夹式蝶阀 API Wafer Butterfly Valve

ASME 16.5 单位: Unit:mm

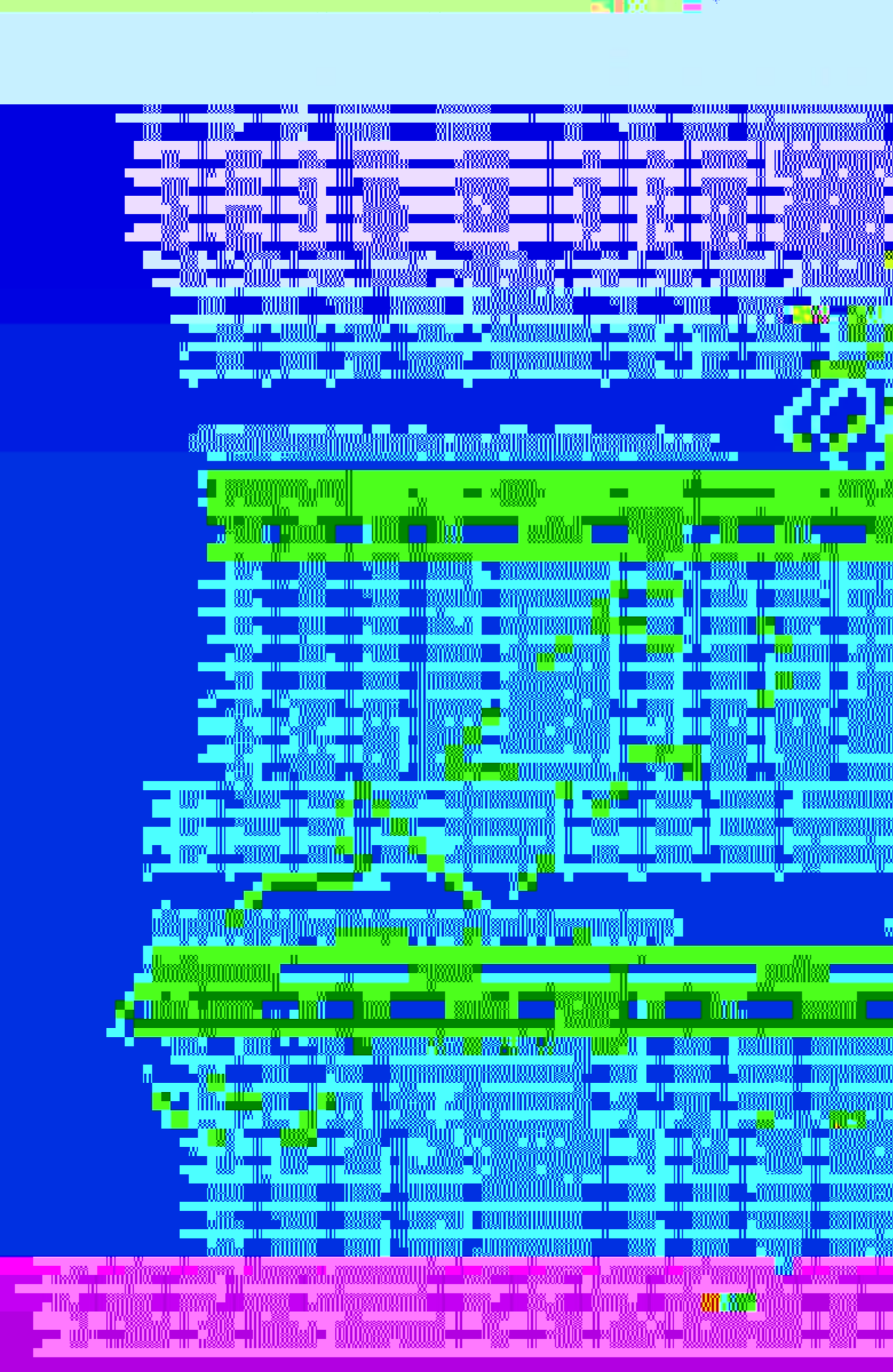
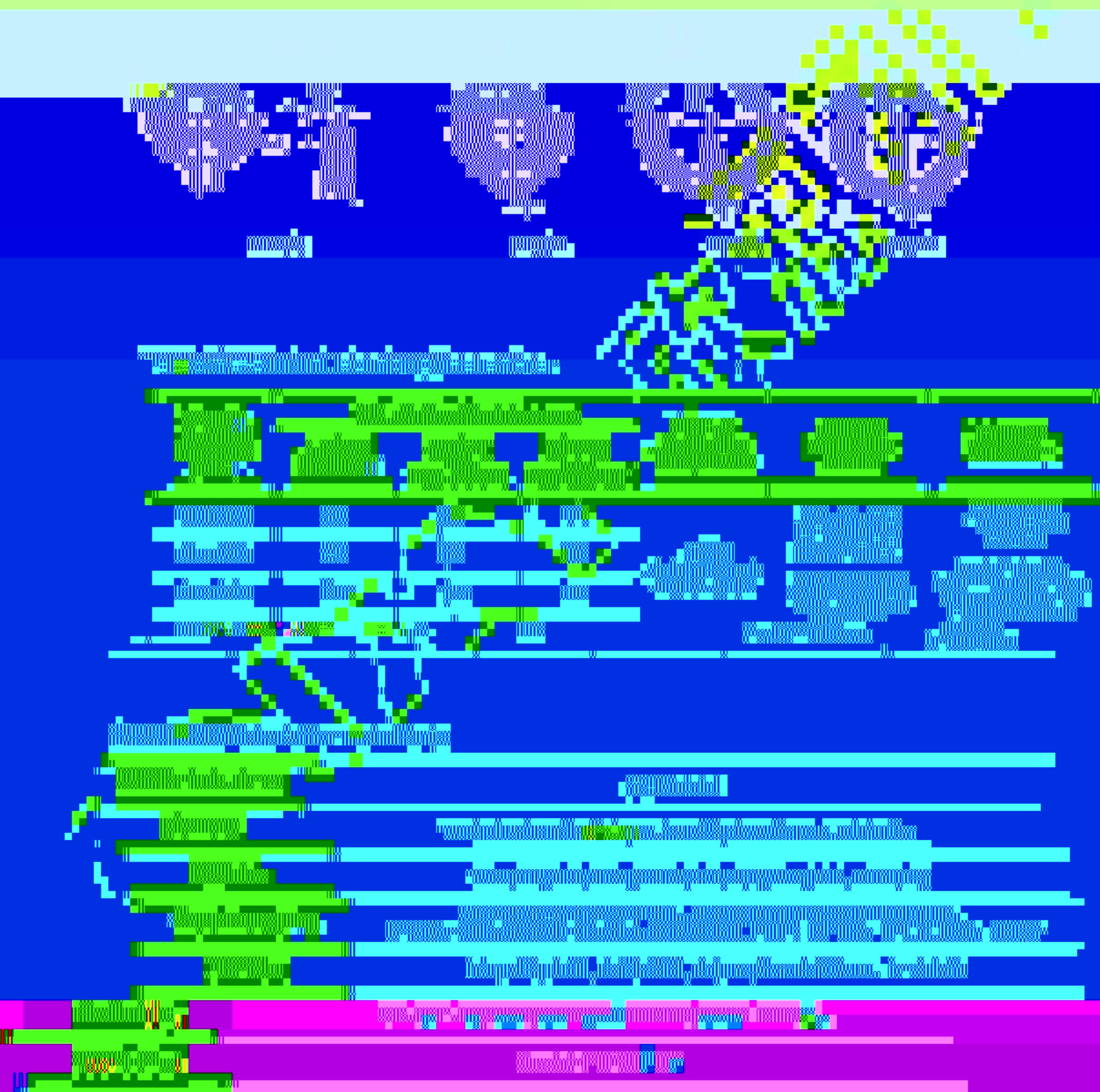
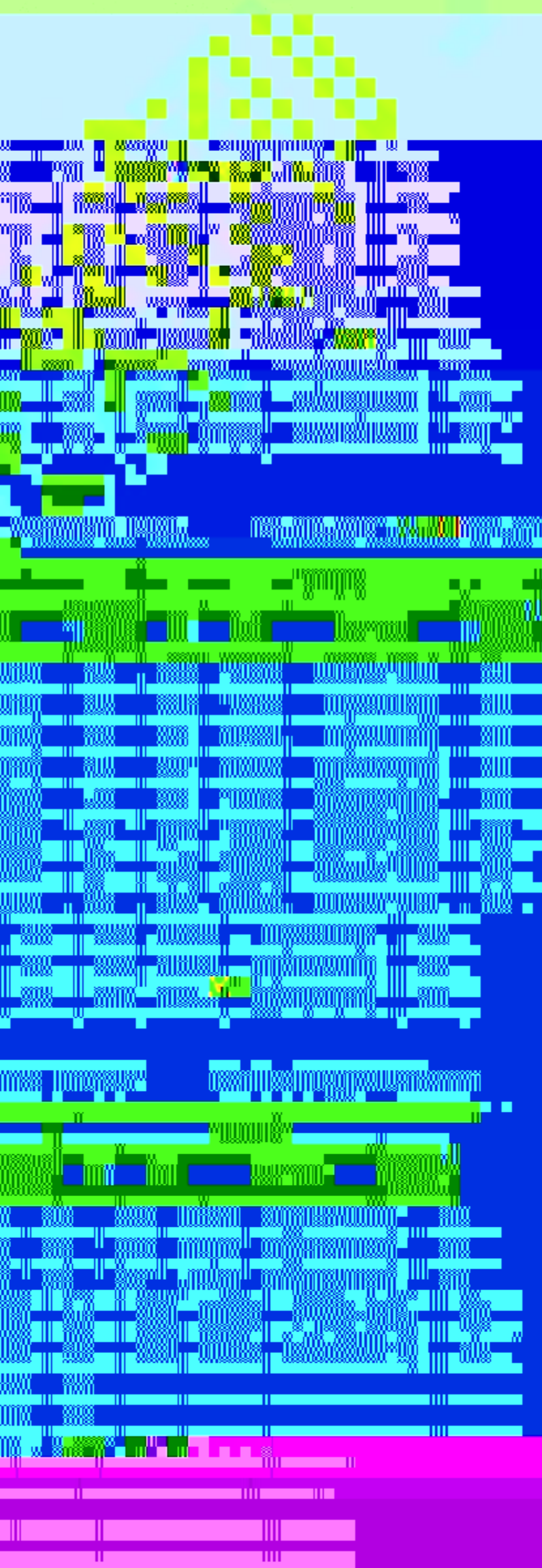
600Lb

11 D1 Z-M4

3000 1000

#### 主要连接尺寸Main Connection Dimensions

直径Diameter		150Lb			300Lb		
inch	mm	L1	D1	Z-M4	L1	D1	Z-M4



### 美标凸耳式蝶阀

API Lug Butterfly Valve

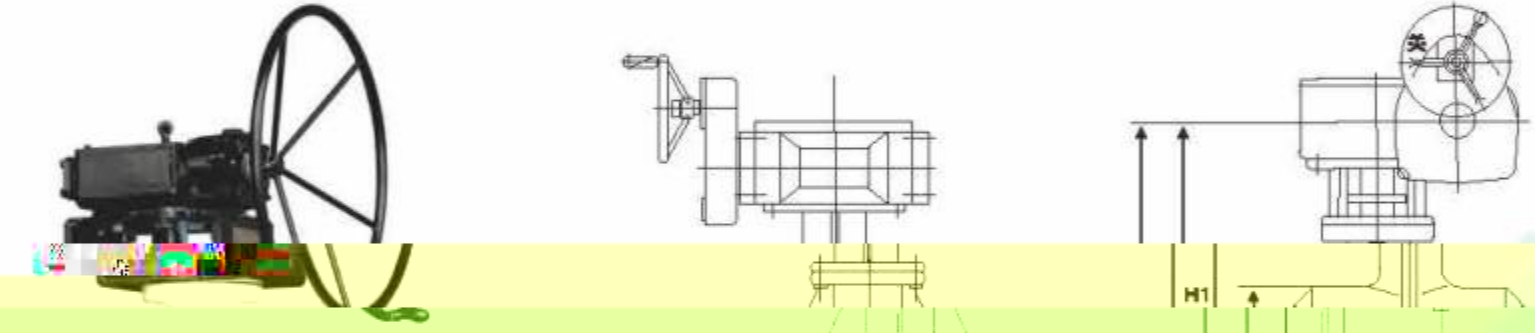
### 对焊式三偏心多层次硬密封蝶阀

Butt welding type three eccentric multi-level hard seal butterfly valves

#### 主要连接尺寸Main Connection Dimensions

ASME 16.5

直径Diameter		150Lb			300Lb			600Lb		
Inch	mm	L1	D1	Z-Md	L1	D1	Z-Md	L1	D1	Z-Md
2	50	43	120.7	4-(M5/8"-UNC11)	43	127	8-(M5/8"-UNC11)	43	127	8-(M5/8"-UNC11)
2.5	65	46	139.7	4-(M5/8"-UNC11)	46	149.2	8-(M3/4"-UNC10)	46	149.2	8-(M3/4"-UNC10)
3	76.2	48	152.4	4-(M5/8"-UNC11)	48	160.0	8-(M3/4"-UNC10)	48	160.0	8-(M3/4"-UNC10)
4	100	50	177.8	4-(M5/8"-UNC11)	50	177.8	8-(M3/4"-UNC10)	50	177.8	8-(M3/4"-UNC10)
5	125	53	190.5	4-(M5/8"-UNC11)	53	190.5	8-(M3/4"-UNC10)	53	190.5	8-(M3/4"-UNC10)
6	150	55	215.9	4-(M5/8"-UNC11)	55	215.9	8-(M3/4"-UNC10)	55	215.9	8-(M3/4"-UNC10)
8	200	60	254.0	4-(M5/8"-UNC11)	60	254.0	8-(M3/4"-UNC10)	60	254.0	8-(M3/4"-UNC10)
10	250	71	302.1	12-(M7/8"-UNC9)	71	307.4	16-(M1"-UN8)	117	431.8	16-(M1 1/2"-UN8)
12	300	81	431.8	12-(M7/8"-UNC9)	92	450.8	16-(M1 1/4"-UN8)	140	489	20-(M1 1/4"-UN8)
14	350	92	476.3	12-(M1"-UNC8)	117	514.4	20-(M1 1/4"-UN8)	155	527	20-(M1 1/4"-UN8)
16	400	102	539.8	16-(M1"-UN8)	133	571.5	20-(M1 1/4"-UN8)	178	603.2	20-(M1 1/2"-UN8)
18	450	114	577.9	16-(M1 1/2"-UN8)	149	628.6	24-(M3/4"-UN8)	200	654	20-(M1 1/2"-UN8)
20	500	127	635	20-(M1 1/2"-UN8)	159	685.8	24-(M3/4"-UN8)	216	723.9	24-(M1 1/2"-UN8)
24	600	154	749.3	20-(M1 1/2"-UN8)	181	812.8	24-(M3/4"-UN8)	232	838.2	24-(M1 1/2"-UN8)



#### 主要连接尺寸Main Connection Dimensions

ASME B 16.47

直径Diameter		150Lb			300Lb			600Lb		
Inch	mm	L1	D1	Z-Md	L1	D1	Z-Md	L1	D1	Z-Md
26	650	165	806.4	24-(M1 1/4"-UN8)	229	876.3	28-(M1 1/2"-UN8)	229	914.4	28-(M1 1/2"-UN8)
28	700	165	863.6	28-(M1 1/4"-UN8)	229	939.8	28-(M1 1/2"-UN8)	229	965.2	28-(M2"-UN8)
30	750	190	914.4	28-(M1 1/4"-UN8)	241	997	28-(M1 1/2"-UN8)	241	1022.4	28-(M2"-UN8)
32	800	190	977.9	28-(M1 1/2"-UN8)	241	1054.1	28-(M1 1/2"-UN8)	241	1079.5	28-(M2 1/4"-UN8)
36	900	203	1085.8	32-(M1 1/2"-UN8)	241	1168.4	32-(M2"-UN8)	241	1193.8	28-(M2 1/4"-UN8)
40	1000	216	1200.2	36-(M1 1/2"-UN8)	330	1155.7	32-(M1 1/2"-UN8)	330	1212.8	32-(M2 1/4"-UN8)
44	1100	254	1314.4	40-(M1 1/2"-UN8)	360	1263.6	32-(M1 1/4"-UN8)	360	1333.5	32-(M2 1/4"-UN8)
48	1200	254	1422.4	44-(M1 1/2"-UN8)	360	1371.6	32-(M1 1/2"-UN8)	360	1460.5	32-(M2 1/4"-UN8)
52	1300	279	1536.7	44-(M1 1/4"-UN8)	390	1479.6	32-(M2"-UN8)	390	1574.8	32-(M3"-UN8)
56	1400	279	1651	48-(M1 1/4"-UN8)	390	1600.2	28-(M2 1/4"-UN8)	390	1695.4	32-(M3 1/4"-UN8)
60	1500	318	1759	52-(M1 1/4"-UN8)	440	1701.8	32-(M2 1/4"-UN8)	440	1822.4	28-(M3 1/4"-UN8)

#### 主要连接尺寸Main Connection Dimensions

ASME B 16.47

直径Diameter		150Lb			300Lb			600Lb		
Inch	mm	L1	D1	Z-Md	L1	D1	Z-Md	L1	D1	Z-Md
26	650	165	744.5	36-(M3/4"-UNC10)	229	803.3	32-(M1 1/4"-UN8)	229	806.4	28-(M1 1/4"-UN8)
28	700	165	795.3	40-(M3/4"-UNC10)	229	857.2	36-(M1 1/4"-UN8)	229	863.6	28-(M1 1/4"-UN8)
30	750	190	846.1	44-(M3/4"-UNC10)	241	920.8	36-(M1 1/4"-UN8)	241	927.1	28-(M1 1/4"-UN8)
32	800	190	900.1	48-(M3/4"-UNC10)	241	977.9	32-(M1 1/2"-UN8)	241	984.2	28-(M2"-UN8)

#### 主要性能规范Main performance standard

公称压力 PN(MPa)	强度试验 Strength test (MPa)	密封试验 Seal test (Mpa)	适用温度(°C) Suitable temperature	适用介质 Applicable medium
1.0	1.5	1.1	0~400	水、蒸气、煤气、油品
4.0	6.0	4.4	0~400	水、蒸气、煤气、油品

#### 主要零件材质Main part materials

阀体、蝶板 Valve body, butterfly plate	阀杆Stem	密封圈Ring	填料 packing
铸钢、铸不锈钢 Cast steel, cast stainless steel	不锈钢stainless steel	不锈钢+石墨片 Stainless steel + graphite sheet	柔性石墨 Flexible Graphite

#### 主要连接尺寸 Main connection dimensions

公称直径 DN(mm)	L	1.0MPa		1.6MPa		2.5MPa		4.0MPa	
		H1	H	H1	H	H1	H	H1	H
100	190	280	390	280	390	280	390	280	390
125	200	300	420	300	420	300	420	300	420
150	210	320	460	320	460	320	460	320	460
200	230	370	550	370	550	370	550	370	550
250	250	420	620	420	620	420	620	420	620
300	270	500	750	500	750	500	750	500	750
350	290	530	800	530	800	530	800	530	800
400	310	570	870	570	870	570	870	570	870
450	330	600	920	600	920	600	920	600	920
500	350	680	1040	680	1040	680	1040	680	1040
600	390	750	1190	750	1190	750	1190	750	1190
700	430	810	1290	810	1290	810	1290	810	1290

## 法兰式/对夹式双向金属硬密封蝶阀

Flanged/clip-on butterfly valve with double metal hard seal

### 用途Uses

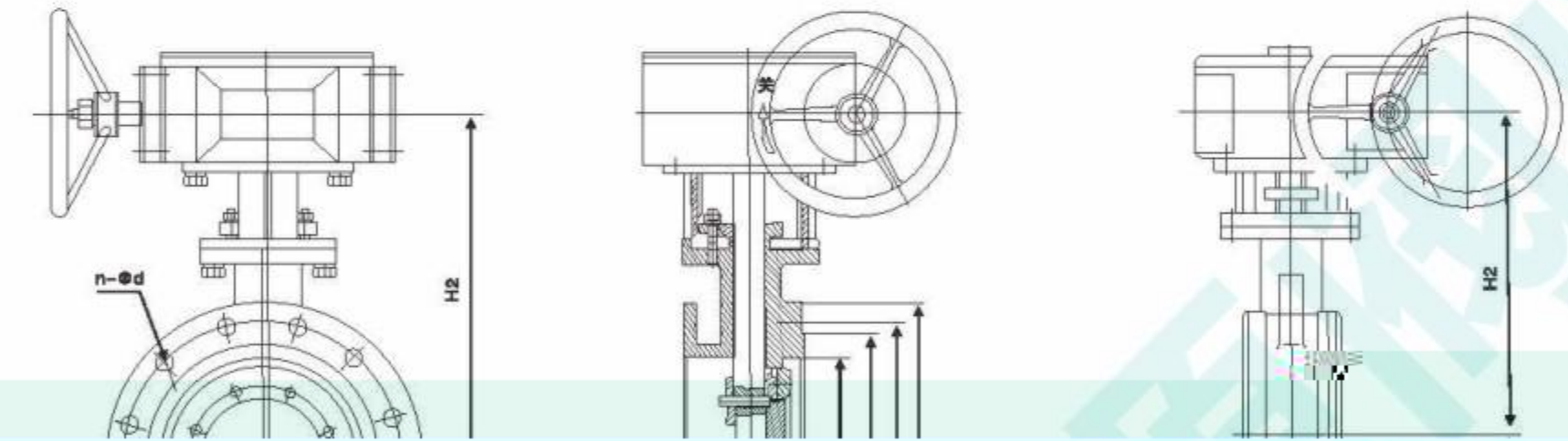
本蝶阀系吸收、消化国外技术，采用三维偏心多层次金属密封结构，适用介质温度≤600℃冶金、电力、石油化工、空气、煤气、可燃气体，以及给排水等介质管道上作调节流量和截断流体的最佳装置。

### 特点Feature

本双向蝶阀采取多层次三偏心金属硬密封结构，不仅具有普通多层次三偏心金属硬密封蝶阀的全部优良性能，由于在设计上合理地减小了径向偏心值，在关闭状态下阀杆所受转矩较小，处于静平衡，同时，蝶板密封圈采用了优质碳素材料与高韧性不锈钢组成多层次结构，不仅柔中有刚能与阀座保持最佳密封，而且具有非常好的自动补偿功能，特别在较大温差的工况条件下，可以消除由此引起的结构变形对密封的影响。

## 法兰式/对夹式双向金属硬密封蝶阀

Flanged/clip-on butterfly valve with double metal hard seal



设计制造 Design and Manufacture	结构形式 Structure Length	压力等级 Pressure-temperature rating	连接形式 Connection flange	试验标准 Test and Inspection
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公称通径 DN(mm)	主要尺寸 Main dimensions				密封试验压力等级 Sealing test pressure rating							
	L	L1	H2	H1	0.6MPa				1.0MPa			
					D	D1	D2	n-Ød	D	D1	D2	n-Ød

密封材料 Sealing material
公称压力 Nominal Pressure
试验压力 Test Pressure
密封形式 Sealing form
适用温度 Temperature
备注 Remarks

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1163

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法兰式/对夹式双向金属硬密封蝶阀

多偏心全属密封蝶阀



主要连接尺寸 Main connection dimensions

公称通径 DN(Nom)	主要尺寸 Main dimensions				法兰尺寸和螺栓规格 Flange dimensions and bolt specifications								
					1.0MPa				1.5MPa				
	L	L <sub>1</sub>	H <sub>1</sub>	H <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	n <sub>1</sub> φ <sub>d<sub>1</sub></sub>	D <sub>4</sub>	n <sub>2</sub>	φ <sub>d<sub>2</sub></sub>	n <sub>3</sub>	φ <sub>d<sub>3</sub></sub>
100	127	56	285	107	220	180	156	8-18	235	190	156	8-22	
125	140	64	300	123	250	210	184	8-18	270	220	184	8-26	
150	140	70	320	140	285	240	211	8-22	300	250	211	8-26	
200	152	71	370	180	340	295	266	12-22	360	310	274	12-26	
250	165	76	420	200	405	355	319	12-26	425	370	330	12-30	
300	178	83	500	250	460	410	370	12-26	485	430	389	16-30	
350	190	92	530	270	520	470	429	16-26	555	490	448	16-33	
400	216	102	570	300	580	525	480	16-30	620	550	503	16-36	
450	222	114	600	320	640	585	548	20-30	670	600	548	20-36	
500	229	127	680	360	715	650	609	20-33	730	660	609	20-36	
600	267	154	750	420	840	770	720	20-36	845	770	720	20-39	
700	292	165	810	480	910	840	794	24-36	960	875	820	24-42	
800	318	180	905	540	1000	920	860	24-36	1040	950	890	24-42	



阀轴系统

采用17-4PH, XM-19或双相钢的高强度阀杆配合自润滑轴承和奥氏体球铁轴承, 摩擦系数低, 并避免了阀门长期使用后产生卡滞、擦伤等问题。此外, 轴承的端盖加长, 以提供对阀杆的最大支撑, 这大大地提高了阀门寿命和操作性能。

Spindle system

High strength stem with 17-4 PH, XM-19 or duplex steel combined with self-lubricating bearing and austenitic cast iron bearing has low friction coefficient and avoids the problems of sticking and scratching after long-term use of valve. In addition, the inner end of the bearing is lengthened to provide maximum support to the stem, which greatly improves valve life and operating performance.



防飞出设计

蝶阀标配有防吹出阀杆设计, 在阀杆填料外部有一个最小截面沟槽并放置一个对开环, 底部的也有一个阀杆固定环, 这二部分结构的双重保护, 阀杆内部和连接强度高于压力边界外10%, 完全防止阀杆在发生意外断裂的情况下弹出, 避免安全事故, 符合API609标准要求。

Anti ejection Design

Butterfly valve standard with anti-blow stem design, outside the stem packing with a minimum cross-section groove and placed a pair of open-loop, the bottom also has a stem fixed ring, these two parts of the structure of dual protection, stem internal and connection strength is higher than 10% outside the pressure boundary, completely prevent the stem from ejection in the event of accidental fracture, avoid safety accidents, meet the API609 standard requirements.



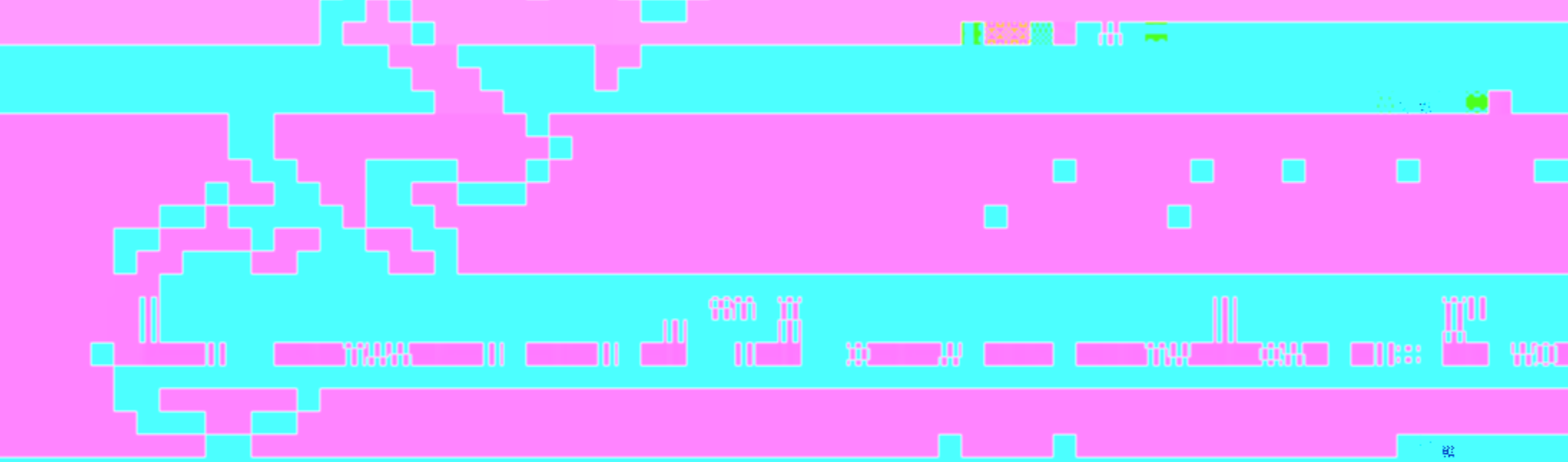
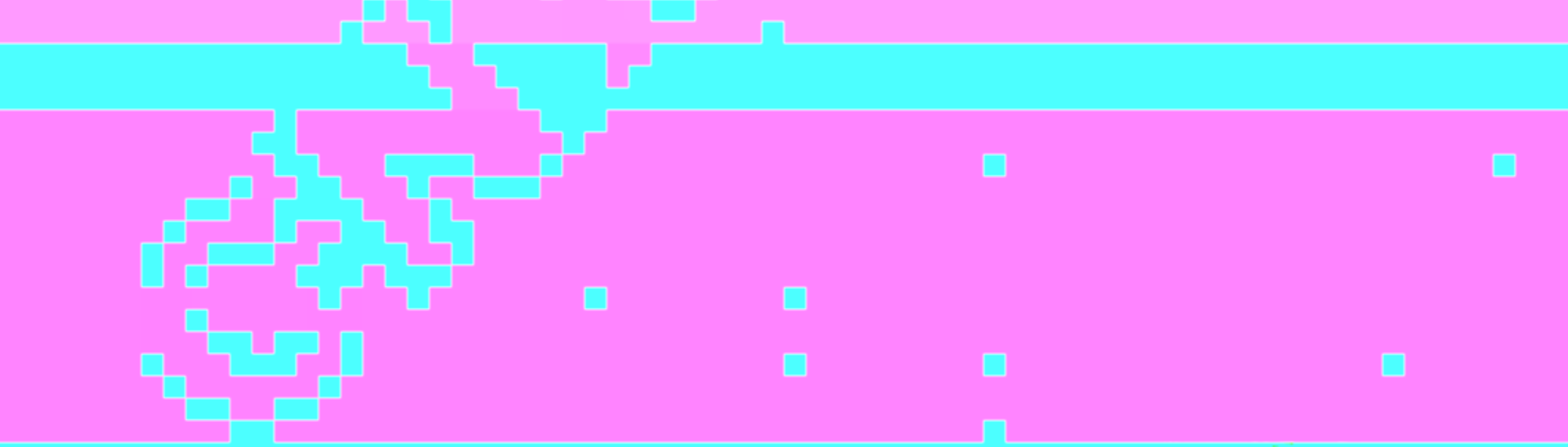
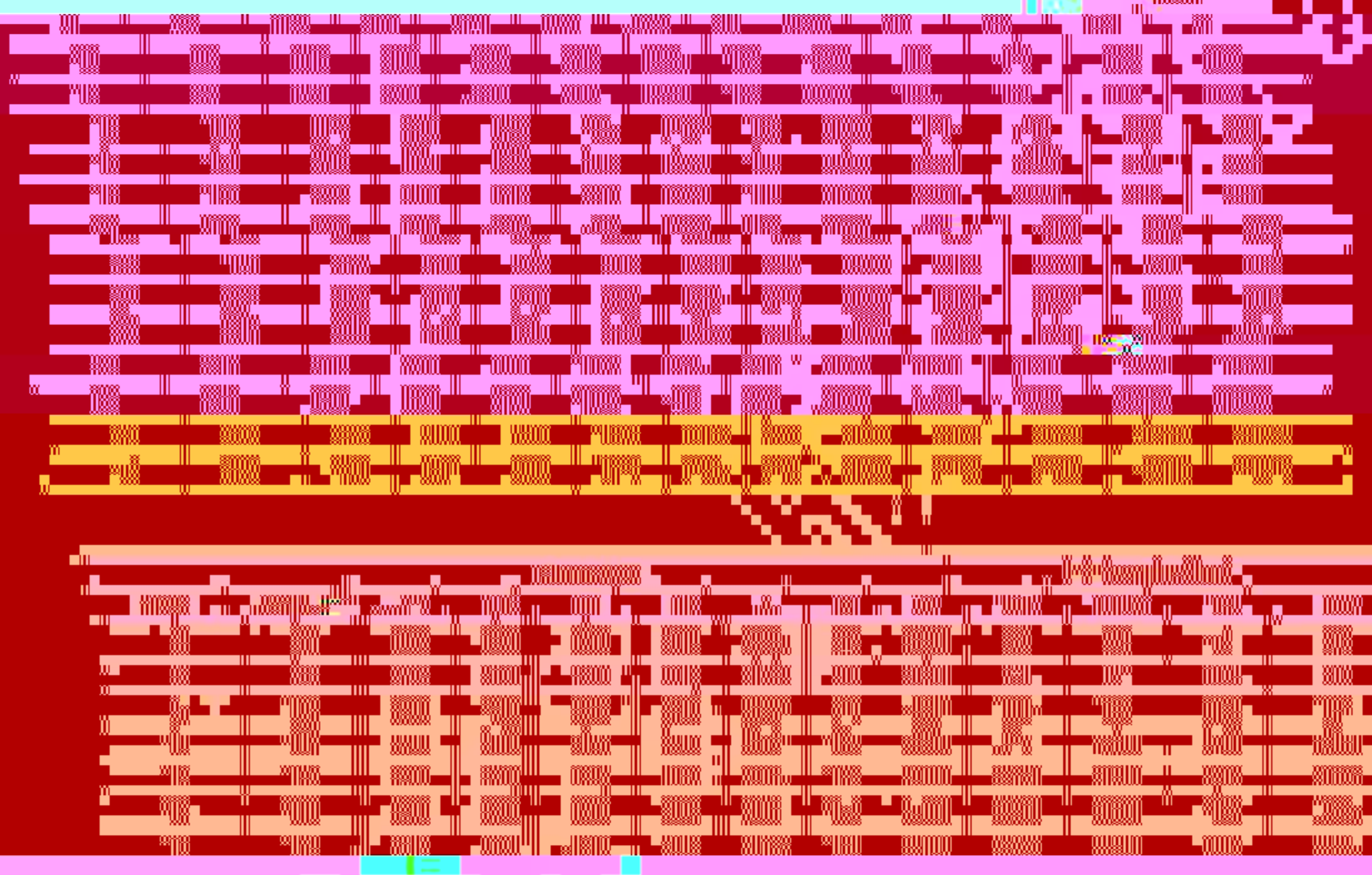
# 多偏心金属密封蝶阀

Multi-eccentric metal seal butterfly valve

# 多偏心金属密封蝶阀

Multi-eccentric metal seal butterfly valve

Class 300										重量 weight (kg)		
DN	LW10	L1	L2	H	D	A	B	W	W1	LW2	H1	W2

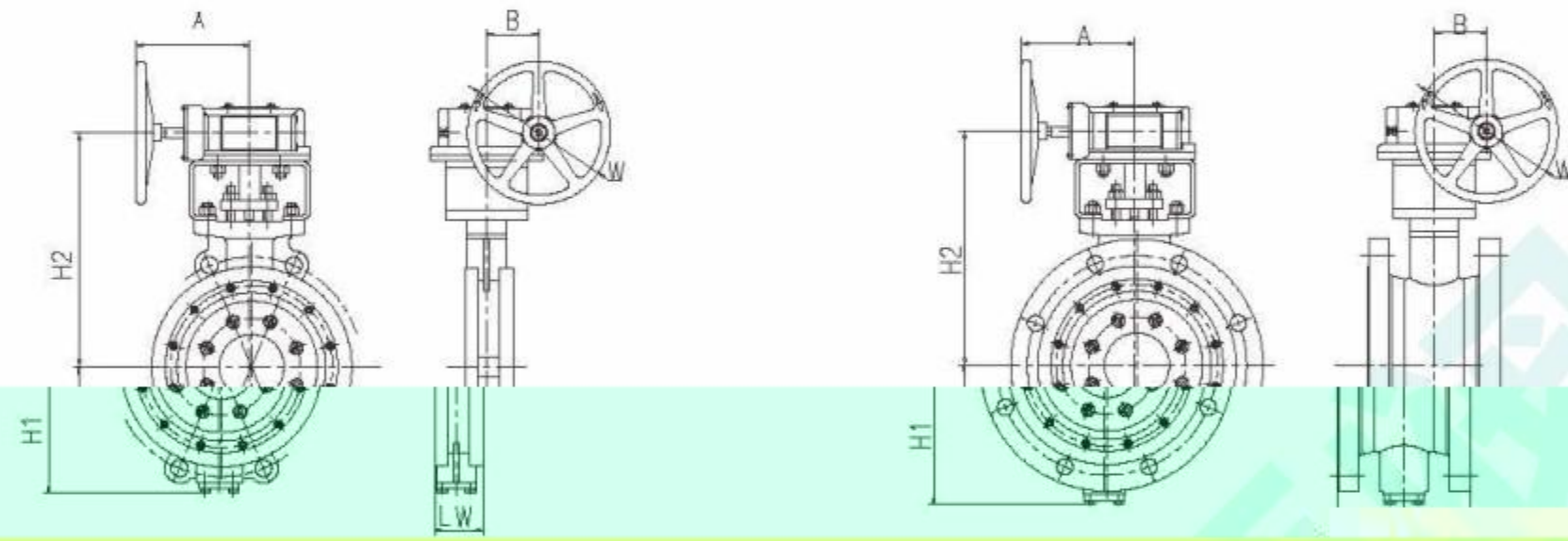


多偏心金属密封蝶阀

Multi-eccentric metal seal butterfly valve

多偏心金属密封蝶阀

Multi-eccentric metal seal butterfly valve



PN16/25									重量 weight (kg)			
DN	LW	LF	LB	H1	H2	A	B	W	WF	RF(PN16)	RF(PN25)	BW
80	48	114	180	110	195	162	45	320	10	18	20	15
100	54	127	190	130	215	162	62	360	12	23	25	20
150	57	140	210	155	245	162	80	460	15	30	36	25
200	64	152	230	190	325	230	90	460	30	42	55	49
250	71	165	250	225	380	360	126	600	47	80	104	71
300	81	178	270	265	420	402	126	600	79	115	158	104
350	92	190	290	290	445	402	138	600	84	142	174	144
400	102	205	310	325	515	520	150	600	140	200	245	180
450	114	222	330	355	550	543	155	600	187	257	315	232
500	127	229	350	400	590	543	155	600	227	304	375	272

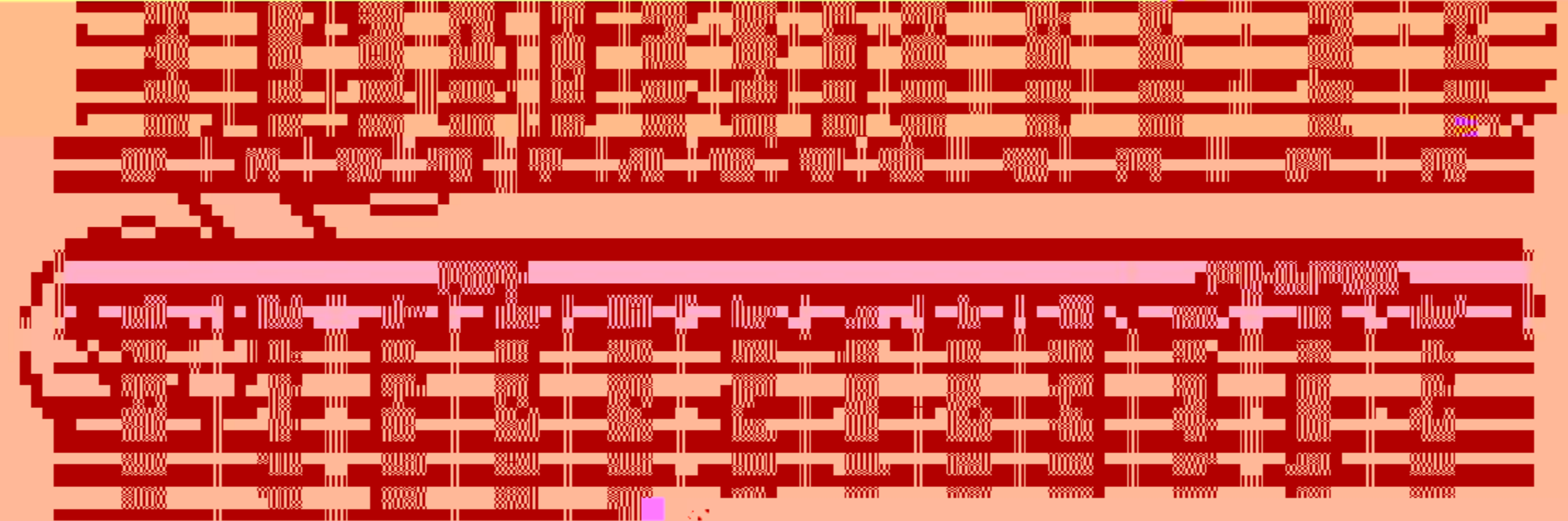
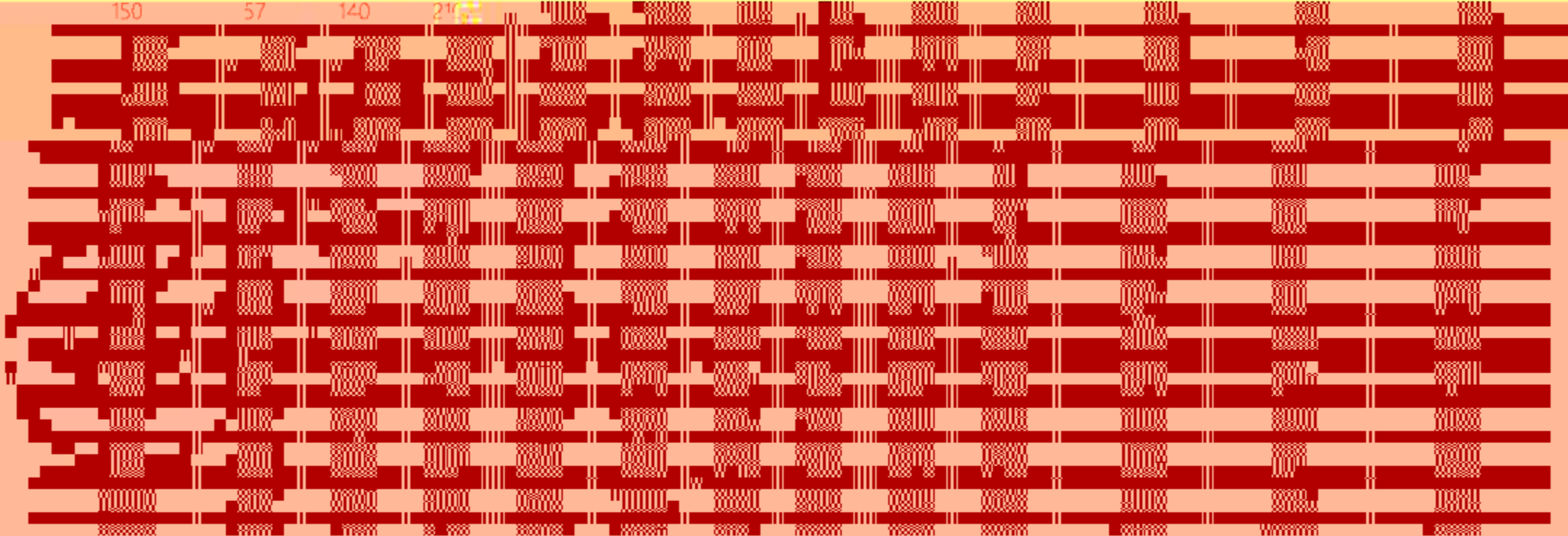
标准规范Standard Specification:

设计标准 Design standards: GB 50263, GB 12221  
 结构标准 Structure standards: BS 5743, GB 12222  
 法兰标准 Flange standards: ISO 5208, HG 20615, GB 15918  
 对夹式蝶阀尺寸和性能标准 Clamping butterfly valve dimension and performance standard: GB 12224, ASME B16.45  
 压力等级 Pressure level: ISO 5208, BS 5743, GB 15918  
 注: 阀门可按其他标准制造, 请联系我们  
 Note: The valves can be made according to other standards if required and please contact us

PN40/63									重量 weight (kg)			
DN	LW	LF	LB	H1	H2	A	B	W	WF	RF(PN40)	RF(PN63)	BW
100	64	190	190	145	245	162	80	460	20	25	35	25
150	76	210	210	180	320	230	90	460	42	51	65	50
200	89	230	230	210	370	402	126	600	60	68	88	71
250	114	250	250	245	445	520	126	600	110	124	156	130
300	114	270	270	290	780	520	138	600	136	156	200	160

PN10/16									重量 weight (kg)			
DN	LW	LF	LB	H1	H2	A	B	W	WF	RF(PN10)	RF(PN16)	BW
80	48	114	180	110	195	162	45	250	13	16	8	15
100	54	127	190	130	215	162	45	250	14	18	20	17

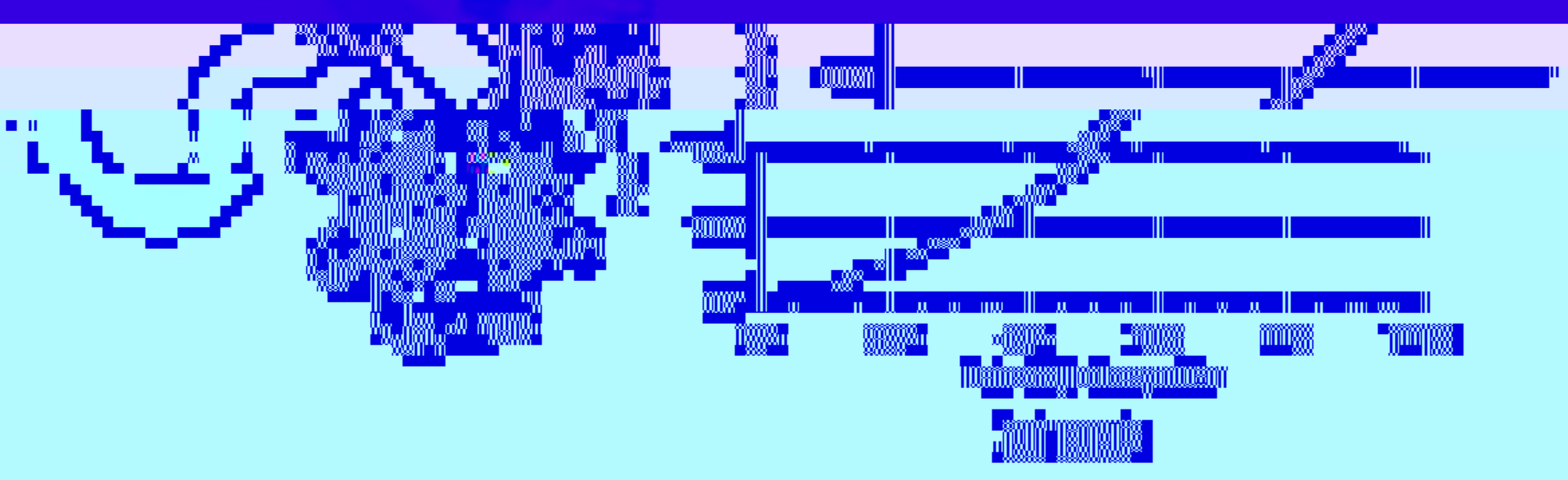
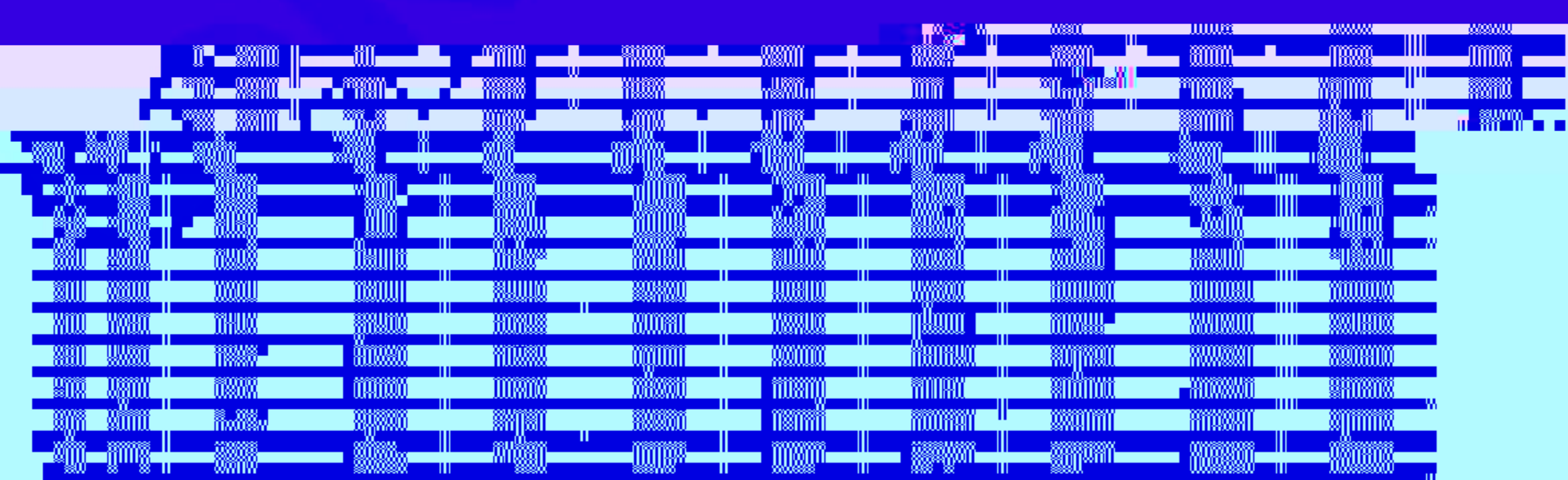
PN40/63									重量 weight (kg)			
DN	LW	LF	LB	H1	H2	A	B	W	WF	RF(PN40)	RF(PN63)	BW
100	64	190	190	145	245	162	80	460	20	25	35	25
150	76	210	210	180	320	230	90	460	42	51	65	50
200	89	230	230	210	370	402	126	600	60	68	88	71
250	114	250	250	245	445	520	126	600	110	124	156	130
300	114	270	270	290	780	520	138	600	136	156	200	160



DN50		100	150	200	250	300	350	400	450	500
in	mm	in	mm	in	mm	in	mm	in	mm	in
3	80	6	11	20	26	33	55	81	103	121
4	100	12	28	40	55	81	115	165	285	302
6	150	45	90	131	178	297	448	616	758	956
8	200	75	165	236	327	544	821	1130	1390	1621
10	250	124	268	445	566	820	1230	1860	2410	2700
12	300	248	544	810	989	1410	2120	3420	4600	5422
14	350	288	620	933	1250	1920	2890	3980	5690	6237
16	400	340	687	1034	1410	2060	3070	4280	6000	6560
18	450	450	914	1271	1710	2410	3520	4840	6660	7260
20	500	550	1200	1544	2020	2810	4120	5540	7500	8100
24	600	675	1461	1910	2510	3470	5110	6810	9160	9870

DN65		100	150	200	250	300	350	400	450	500
in	mm	in	mm	in	mm	in	mm	in	mm	in
3	80	6	9	15	20	28	45	61	99	110
4	100	12	23	40	44	66	99	144	199	223
6	150	25	72	110	134	202	307	437	608	672
8	200	48	108	160	211	316	475	685	940	1060
10	250	81	178	266	354	531	790	1148	1590	1770
12	300	132	286	430	573	860	1280	1880	2520	2900
14	350	188	400	614	810	1260	1850	2680	3660	4220
16	400	260	562	849	1133	1690	2590	3610	5020	5720
18	450	380	788	1180	1580	2320	3390	4880	6680	7580
20	500	481	1055	1587	2150	3120	4540	6390	8800	9900
24	600	685	1550	2300	3000	4370	6370	8850	12200	13800

球墨铸铁截止阀





# 高性能蝶阀

High performance butterfly valve

# 高性能蝶阀

High performance butterfly valve

## 阀座密封性 Seat sealing all

所有聚合物阀座的阀门均在工厂经过严格压力试验，按标准1.1倍额定压力工况下的双向切断严密性测试，泄漏量达到无气泡级零泄漏，高于 ANSI/FCI 70-2 的标准规定V级泄漏要求。

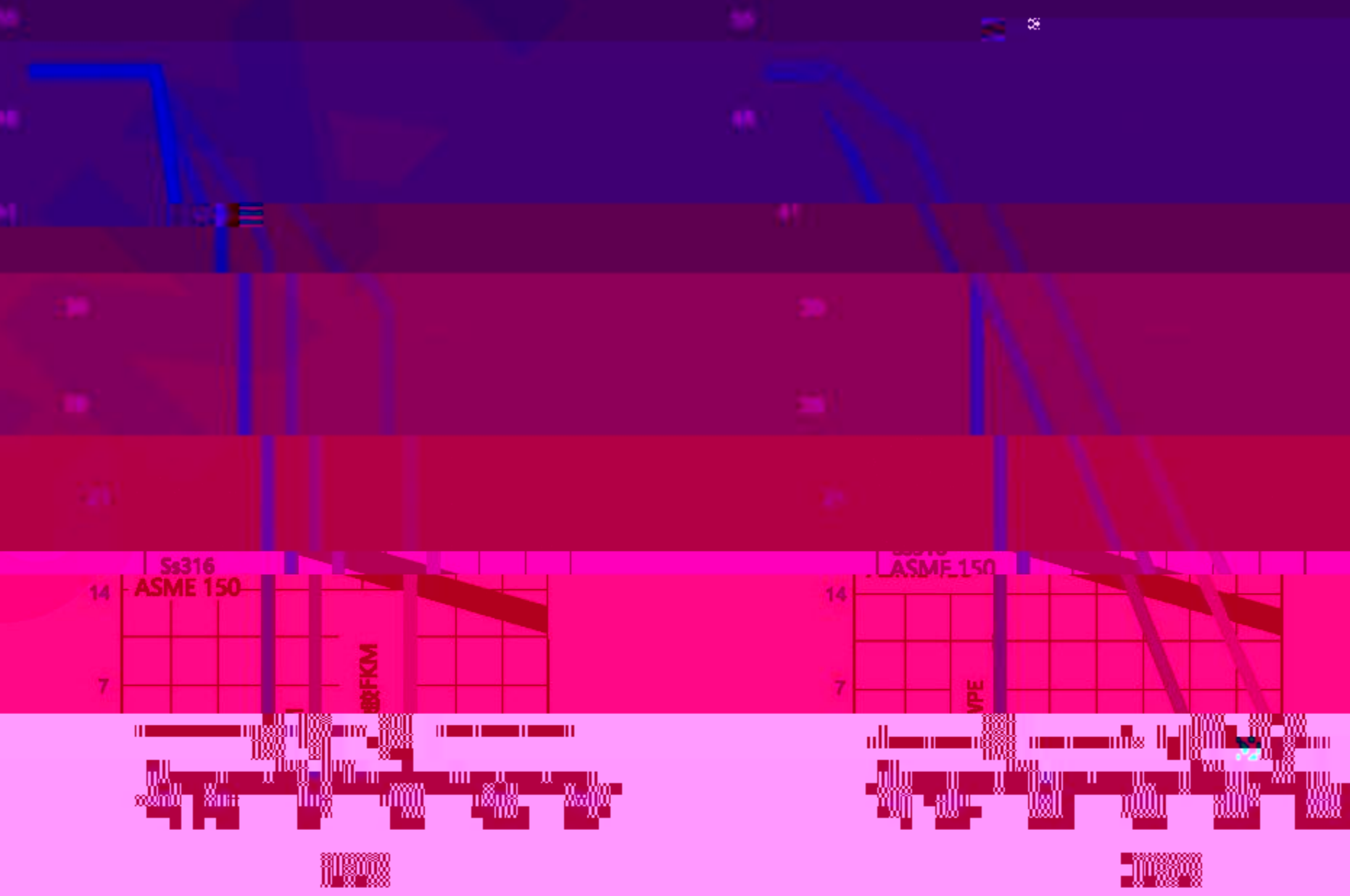
ANSI/FCI 70-2 此标准确定了控制阀阀座泄漏量的六个等级，标准的泄漏等级、泄漏量和测试条件如下：

polymer seat valves in the factory

等级	允许泄漏量 (m³/年) 或 (磅/年) (allowing number)	允许 (磅/年) (allowing)	试验介质	试验和温度	
V级	5000	1	0.43	空气或蒸汽	工作压力或1.4bar(20psi)，以较低者为限，温度100℃。
IV级	1000	4	0.80	The test medium is air or steam.	Test and test pressure: Working pressure or 1.4 bar (20 psi), whichever is lower. The temperature is 10 to 121 degrees Celsius.
III级	200	8	1.60		
II级	20	17	3.17		
I级	2	37	6.35		
V级	(5.47E-12 m³/年) (bar压力/年) (allowing number)	1	0.43	空气或水	工作压力，温度100℃。
IV级	(1.07E-12 m³/年) (bar压力/年) (allowing number)	4	0.80	The test medium is air or water.	Working pressure or 1.4 bar (20 psi), whichever is lower. The temperature is 10 to 121 degrees Celsius.
III级	(2.14E-13 m³/年) (bar压力/年) (allowing number)	8	1.60		
II级	(4.28E-14 m³/年) (bar压力/年) (allowing number)	17	3.17		
I级	(8.56E-15 m³/年) (bar压力/年) (allowing number)	37	6.35		

力矩和轴承磨损  
 阀板尖端位块和阀座铸成一体，使阀板相对阀座定位精准，延长阀座的使用寿命。  
 \*整体铸造的ISO 5211标准上法兰和方形连接轴，可方便可靠连接任何驱动装置。

plate relative to the seat positioning accuracy, extend the service life of the seat.  
 standard upper flange and square connecting shaft for integral casting for easy and reliable connection to any form of drive



# 高性能蝶阀

High performance butterfly valve

# 高性能蝶阀

High performance butterfly valve

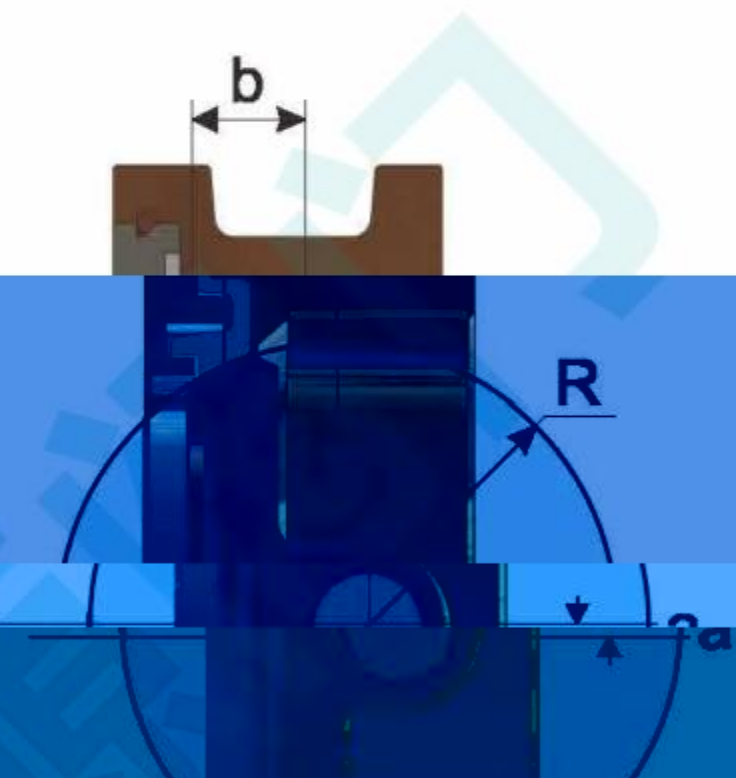
## 结构设计

采用双偏心结构，阀杆轴孔和阀体中心偏移A；阀座和阀体中心偏移B，在2个偏心作用下蝶板关闭时，由旋转到平移，使之与阀座吻合，蝶板开启时，由于偏心的作用使蝶板与阀座密封面迅速完全分离从而大大减轻了密封面磨损和启闭扭矩。

密封面采用球弧面设计，光洁度达到镜面，当介质压力越大蝶板受压越大，其密封性能越佳。阀座密封材料采用聚四氟乙烯或增强聚四氟乙烯，它与蝶板球弧面的摩擦系数仅有0.07甚至更小，同时还解决了耐温、耐磨、耐老化的难题，并提高工作压力，延长了使用寿命，扩大使用范围。

## Structural design

With double eccentric structure, the shaft hole and valve body center are offset by A; the seat and valve body center are offset by B. Under the action of two eccentricities, when the butterfly plate is closed, it is rotated and translated to match the seat. When the butterfly plate is opened, the butterfly plate and the seat sealing surface quickly and completely separate due to the eccentricity, which greatly reduces the wear of the sealing surface and the opening and closing torque.



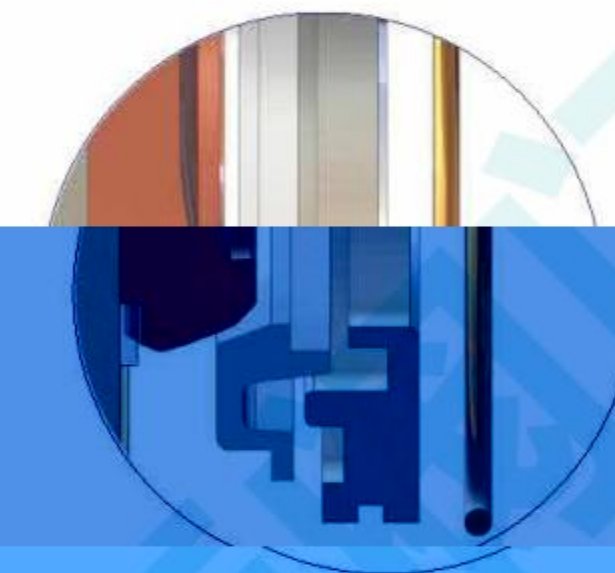
## 密封副

阀座具有特殊的截面形状使其弹性更好，并与阀板密封面过盈配合达到最佳密封效果，同时借助管路中的介质辅助力使阀座始终紧密贴合在蝶板密封面上，使密封性能得到长期保证，当阀门开启或压力降低时，密封圈又恢复原来初始状态，使密封圈在工况下长期使用不磨损、不变形、使用寿命更长。

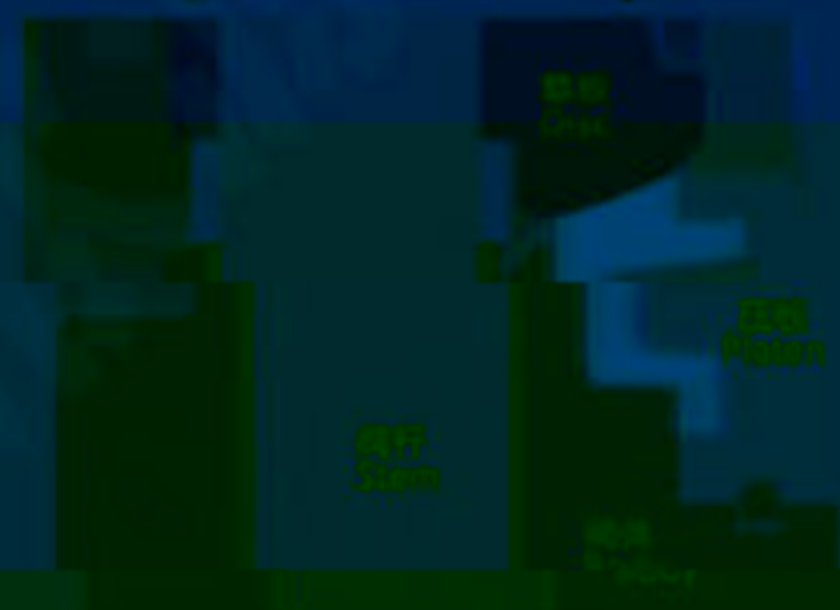
这种设计的阀座密封圈可实现蝶阀的双向气泡级密封，当介质正向流动时，介质压力作用在进口侧的蝶板上，使蝶板产生轴向位移向阀座靠近，保证了阀门正向密封(见图)；当介质反向流动时，介质压力作用在阀座一侧的表面上，介质压力使密封圈产生反向变形，压向蝶板密封面形成密封比压阻止介质泄漏，保证了阀门反向密封效果。

## Sealing pair

The seat has a special



介质正向流向 Positive  
介质反向流向 Reverse



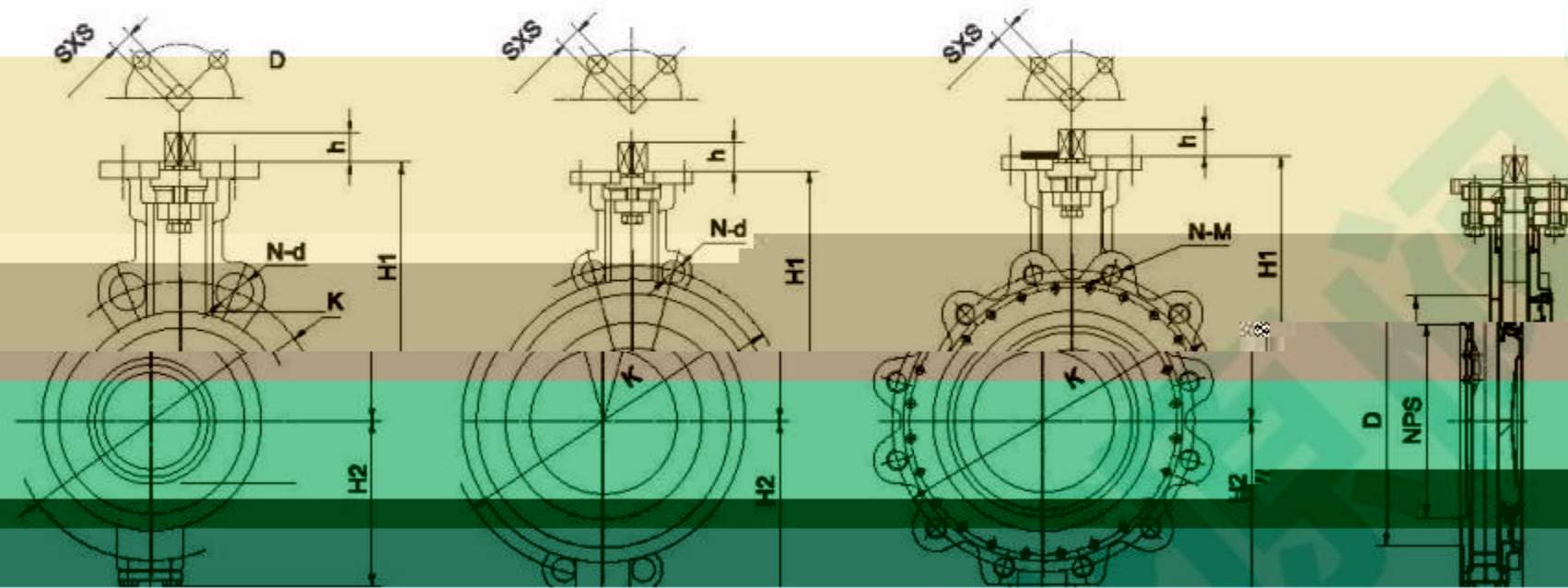


高性能蝶阀

High performance butterfly valve

高性能蝶阀

High performance butterfly valve



PN16												重量 (kg)	
NPS	DN	L	K	D	H1	H2	N-d	N-M	ISO5211	SXS	h	WF	LUG
2	50	44	125	99	125	66	4-18	4-M16	F05	11X11	16	5	6
2.5	65	46	145	118	138	78	4-18	4-M16	F05	11X11	16	6	7
3	80	48	160	132	156	100	8-18	8-M16	F07	14X14	18	7	9
4	100	54	180	156	168	115	8-18	8-M16	F07	14X14	22	8	10
5	125	56	210	184	188	135	8-18	8-M16	F10	17X17	22	11	14
6	150	57	240	211	205	150	8-22	8-M20	F10	17X17	22	15	18
8	200	64	295	266	240	182	12-22	12-M20	F12	22X22	27	22	28
10	250	71	355	319	280	216	12-26	12-M24	F12	27X27	27	34	40
12	300	81	431	397	322	256	12-26	12-M24	F14	27X27	32	53	68
14	350	92	470	429	375	285	16-26	16-M24	F14	27X27	32	60	85
16	400	102	525	480	400	325	16-30	16-M27	F14	36X36	42	82	95
18	450	114	585	540	480	350	20-27	20-M27	F16	36X36	42	130	156
20	500	127	650	609	512	402	20-33	20-M30	F16	45X45	54	170	210

Class 150												重量 (kg)	
NPS	DN	L	K	D	H1	H2	N-d	N-M	ISO5211	SXS	h	WF	LUG

PN20												重量 (kg)	
NPS	DN	L	K	D	H1	H2	N-d	N-M	ISO5211	SXS	h	WF	LUG

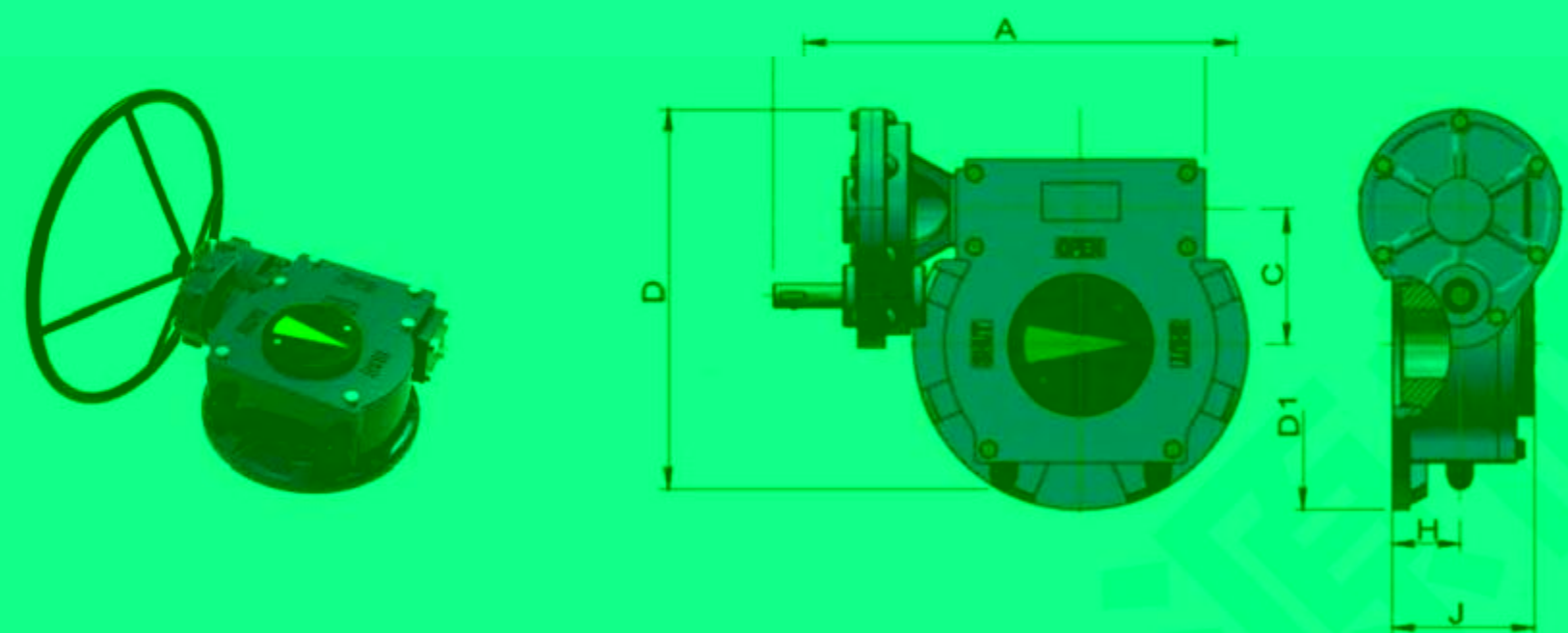
Class 300												重量 (kg)	
NPS	DN	L	K	D	H1	H2	N-d	N-M	ISO5211	SXS	h	WF	LUG

PN40												重量 (kg)	
NPS	DN	L	K	D	H1	H2	N-d	N-M	ISO5211	SXS	h	WF	LUG



齿轮箱  
Worm Gear

驱动方式  
Driving Mode



齿轮箱  
Worm gear

双作用气动  
pneumatic double-action

单作用气动  
operating single-action

技术参数technical parameter						外形尺寸Overall dimension							
型号 Type	速比 Rratio	阀杆直径 Stem (Max)	输出 output	输入 input	放大系数 enlarge coefficient ±15%	连接 法兰 ISO5211	D1	A	H	J	C	D	手轮 handwheel
			扭矩torqueNm										
SWV20	37:1	28	330	30	11	F07	90	185	29	64	52	140	200
SWV21	38:1	36	850	75	11	F10	125	200	36	74	62	162	300
SWVS30	40:1	45	1350	113	12	F12	175	219	46	93	79	202	350
SWV55	47:1	55	2000	142	14	F14	175	241	50	99	89	223	400
SWV88	61:1	65	3000	164	18	F16	210	290	55	115	112	267	500
SWV88-2.5	130:1	65	4000	121	33	F16	210	367	55	115	112	276	500
SWV195-2.5	130:1	80	5000	151	33	F16	210						



智能电装  
Smart electric





316+Graphite, seat F51, Body WCB, Disc CF8M, Stem 17-4PH, ...

Size 4", Sealing ring

(a) 连接方式 connection

L-支耳式 LUG	F-凸面法兰 RF Flange
R-环连接法兰 RTJ Flange	B-对焊 Butt welding

(b) 压力等级 pressure

C-600LB	D-900LB	E-1500LB
H-PN16	I-PN25	J-PN40
M-PN160	N-PN250	

(c) 连接方式 connection

L-支耳式 LUG	F-凸面法兰 RF Flange
R-环连接法兰 RTJ Flange	B-对焊 Butt welding

(d) 压力等级 pressure

C-600LB	D-900LB	E-1500LB
H-PN16	I-PN25	J-PN40
M-PN160	N-PN250	

(e) 阀门尺寸 size

14-14*(350)	30-30*(750)
16-16*(400)	32-32*(800)
18-18*(450)	34-34*(850)
20-20*(500)	36-20*(900)
24-24*(600)	40-24*(1000)
26-26*(650)	44-44*(1100)
28-28*(700)	48-48*(1200)

(h) 阀体 body

01-WCB	02-A105	03-LCB	04-CF8
05-CF8M	06-4A/6A	07-Ductile iron	
08-Copper alloy	09-Other		

(i) 阀板 disc

01-WCB	02-A105	03-LCB	04-CF8
05-CF8M	06-4A/6A	07-Ductile iron	
08-Copper alloy	09-Other		

(j) 阀杆 stem

C-420 (2Cr12)	P-431(1Cr17Ni2)	N-630(17-4PH)
X-XM19 (Nitronic 50)	U-2205/2507	K-Monel

Dimension standard:  
API609, AWWAC504, BS EN558, GB/T12221  
连接尺寸 Flange connection dimension:  
ASME B16.5 (NPS≤24), ASME B16.47, ISO7005, BS EN1092, GB/T9113  
对焊连接 Weld ends dimension standard:  
ASME B16.25, GB/T12224  
温度压力等级表 Temperature-pressure rating table:  
ASME B16.34, GB/T12224  
压力测试 Pressure test:  
API598, ISO5208, BS EN12266, GB/T13927  
防火试验 Fire safe standard:  
API607, ISO10497  
逸散性排放测试 Fugitive emission test:  
ISO 15848, API622  
执行机构安装 Actuator installation:  
ISO5211  
质量标准 Quality standard:  
ISO9001, CE/PED  
如果阀门按照其他标准制造或要求, 请联系我们  
If the valve is to be made according to other standards or requirements, please contact us.

W-对夹式 Wafer  
M-凹面法兰 FM Flange

A-150LB B-300LB  
F-PN6 G-PN10  
K-PN63 L-PN10

03-3\*(80)  
04-4\*(100)  
05-5\*(125)  
06-6\*(150)  
08-8\*(200)  
10-10\*(250)  
12-12\*(300)