

LAPAR

LPB13 Series

High-performance Double Eccentric Butterfly Valve





LPB13— High-performance Double Eccentric Butterfly Valve

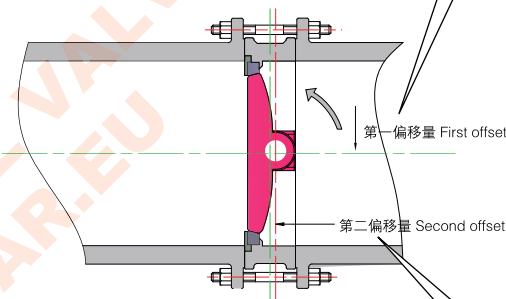
LAPAR
Lapar Control Valve

LPB13, high-performance double eccentric butterfly valve, is usually used in high switch frequency industry, such as gas industry or vacuum industry. Under normal circumstances, it can experience one million times. Even if the seat is worn, we just take down the inserts, do not need to dismantle the stem and disc.

Design Feature

Packing : It is combine with layers of V type PTFE and is compressed by briquetting tightly to acquire automatic compensation function. If the briquetting relaxes, you could tighten the nut to keep the seal.

The first eccentric is the stem deviating from the valve plate edge, to ensure that the sealing surface is not interrupted by stem.



The stem locates on the side of valve body, which is the second eccentric. The disc rotates which looks like cam movement during the disc removes from valve seat. When the valve is closed completely, the movement change from cam into line. In the whole process, the disc edge never touches the valve seat.

Disc seal surface : The surface is wide, slippery and can keep seal for a long time.

Seat: It is inserted below briquetting directly in order to replace and dismantle the seat easily when it is worn, we only need to take down the insert without removing the stem and disc.





LPB13— High-performance Double Eccentric Butterfly Valve



Code	Actuator	Action	Air Fail Position	Control	Structure	Body	Sealing	Disc	Connection DN	PN
LPB13-	1 Pneumatic	D Double-acting	1 Normally Open	A On-off	3 Two Eccentric	B 316	P PTFE	B 316	2 Wafer	
	2 Pneumatic & Handwheel	S Single-acting	2 Normally Closed	B Control	0 Others	C 304	0 Others	C 304		
	3 Electric DC24V	0 Others	3 Flexible	C Intelligent		D WCB		D WCB		
	4 Electric AC220V		4 Held	0 Others		0 Others		0 Others		
	5 Electric AC380V		0 Others							
	7 Handle									
	8 Turbine									
	0 Others									

Parameter

Design Standard:

Valve body is designed to meet API609.

Upper Flange Standard:

Valve mounting flange shall be per ISO 5211.

Flange Standard:

LPB13: ANSI 150 B16.5.

Fire-resistant Structure:

The valve experiences fire experiment according to API 607 and BS 6755, has an excellent sealing effect after the event of fire.

Leak Standard:

Leak standard: ANSI B16.104.

Main Feature:

1. The double eccentric structure is composed of offset stem and eccentric disc, The seat and disc sealing surface are nearly frictionless in the open and closed process to reduce the torque and extend the life.
2. The design of monolithic elastic PTFE seat, is suitable for chlorine gas, oxygen, high vacuum, etc. lip type seal makes up the deformation caused by temperature and pressure when it is working and can keep the bidirectional seal.
3. In the process of dismantling the seat, just take down the inserts, do not need to dismantle the stem and disc.
4. Excellent control performance, linear flow characteristic, even if it was used to control fluid, seal performance also doesn't change.
5. The following optional
 - ① Rating 300LB and 600LB
 - ② High-performance butterfly valve for steam
 - ③ High-performance butterfly valve for chlorine
 - ④ High-performance butterfly valve for oxygen
 - ⑤ High-performance butterfly valve for vacuum
 - ⑥ High-performance butterfly valve for low temperature

Others:

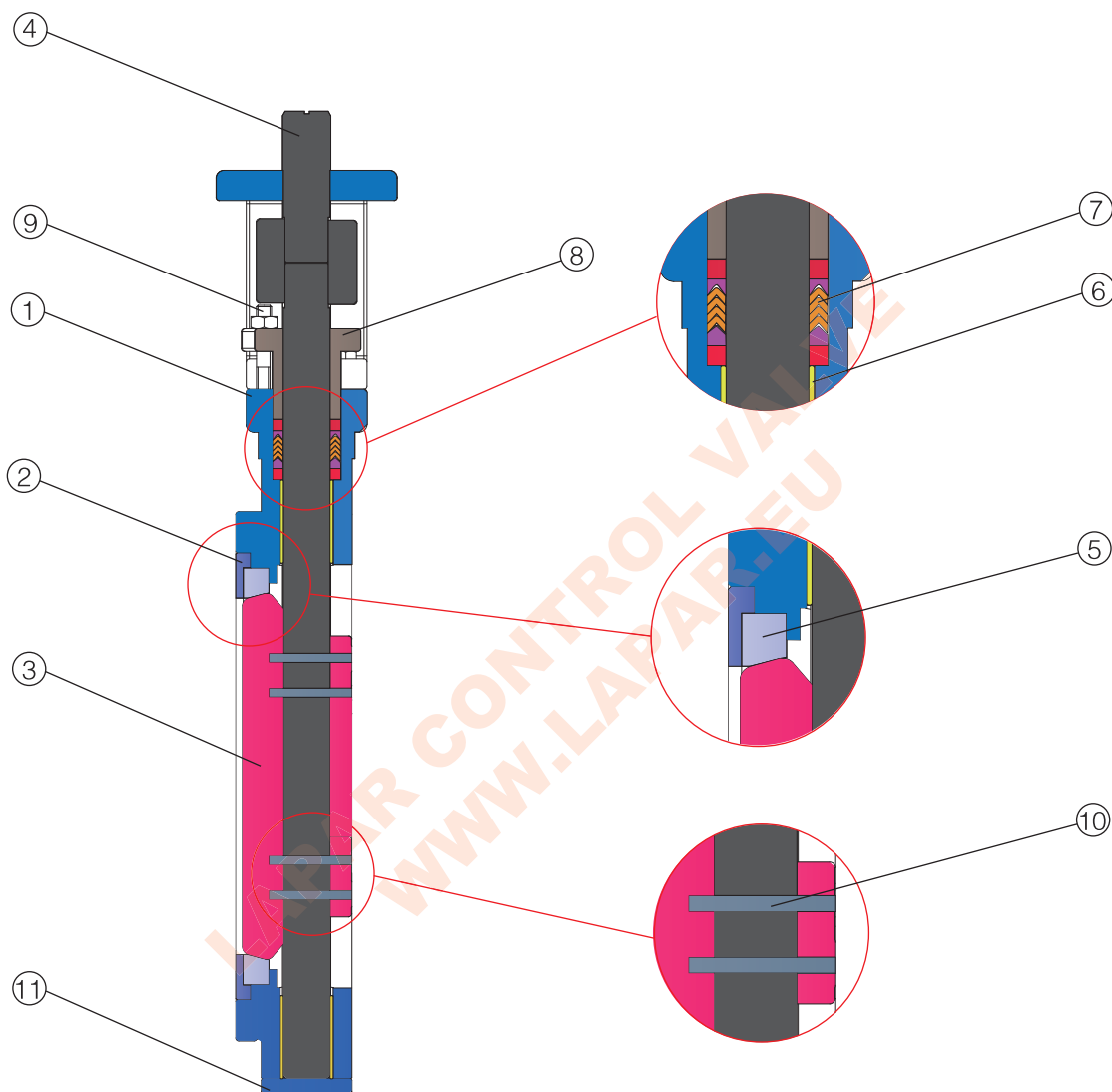
According to customer requirements.



LPB13—

High-performance Double Eccentric Butterfly Valve

DN80–1200 Material



No.	Part	Material		
1	Body	WCB		316 CF8M
2	Inserts	WCB		316
3	Disc	CF8M	MONEL	CF8M
4	Stem (Shaft)	316(2-1/2" ~12")或 17.4-PH	MONEL	316或 17-4PH
5	Seat			
6	Axle Sleeve	316	MONEL (PTFE Lined)	316
7	Shaft Seal	PTFE or Graphite		
8	Pressing Plate	WCB		316
9	Screw Plug (14")	WCB		316
10	Pin	316或 17.4-PH(2-1/2" ~12") 17.4-PH(14" ~60")	MONEL	316或 17-4PH
11	Cover (14" ~60")	WCB		316



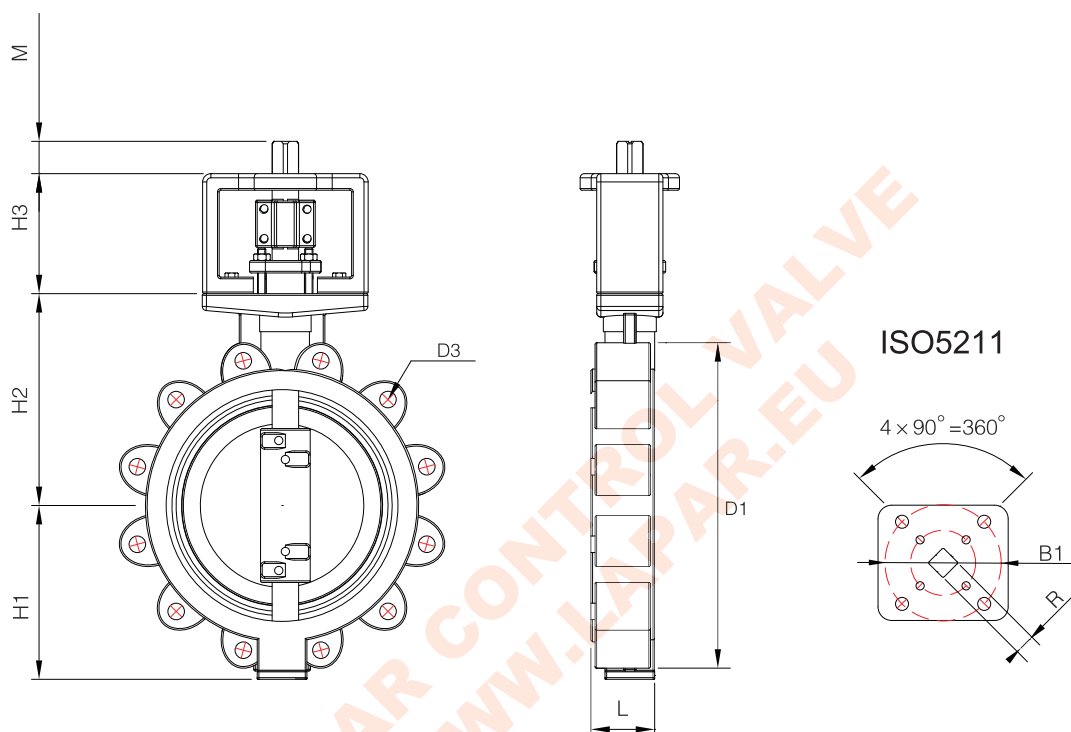
LPB13—



LPB13—
High-performance Double Eccentric Butterfly Valve

LAPAR
Lapar Control Valve

LT Type Size :DN65–700



ANSI 150LB

Unit:mm

SIZE		L	D1	D3	H1	H2	H3	M	R	B1	ISO5211
DN65	2.5"	49	178	140	105	111	145	17	17	70	F07
DN80	3"	49	191	152.4	122	147	145	17	17	70	F07
DN100	4"	54	229	190.5	132	162	145	17	17	70	F07
DN125	5"	57	264	215.9	145	152	145	17	17	70	F07
DN150	6"	64	279	241.3	159	172	145	22	22	70	F07
DN200	8"	64	343	298.5	198	208	145	22	22	102	F10
DN250	10"	71	406	362.0	224	255	145	26	26	102	F10
DN300	12"	81	483	431.8	259	275	145	26	26	102	F10
DN350	14"	92	—	476.3	304	318	165	32	32	125	F12
DN400	16"	102	—	539.8	325	340	165	32	32	125	F12
DN450	18"	114	—	577.9	364	380	165	38	38	140	F14
DN500	20"	127	—	635.0	394	420	165	38	38	140	F14
DN600	24"	154	—	749.3	449	485	165	54	54	165	F16
DN750	30"	167	—	914.0	490	510	200	54	54	165	F16
DN900	36"	184	—	1086	545	580	200	—	—	254	F25

Note: D3 is designed to meet ANSI 150 B16.5

Lapar Control Valve



LPB13— 

High-performance Double Eccentric Butterfly Valve

LAPAR
Lapar Control Valve

Torque (Nm)

DN		Closing Differential Pressure (bar)						
		0.6Mpa	1.0Mpa	1.6Mpa	2.0Mpa	2.5Mpa	4.0Mpa	5.0Mpa
50	2"	30	35	42	0	66	123	140
65	2-1/2"	36	42	56	43	102	148	168
80	3"	48	56	70	51	132	197	224
100	4"	60	70	105	75	171	246	280
125	5"	89	105	140	112	257	370	420
150	6"	119	140	315	164	350	493	560
200	8"	268	315	420	282	740	1109	1260
250	10"	357	420	630	413	1010	1478	1680
300	12"	536	630	840	618	1510	2218	2520
350	14"	714	840	1400	1104	2170	2957	3360
400	16"	1190	1400	1750	1413	3380	4928	5600
450	18"	1488	1750	2100	1850	4270	6160	7000
500	20"	1785	2100	3500	2504	5280	7392	8400
600	24"	2975	3500	4550	3878	8640	12320	14000
700	28"	3868	4550	6300	6335	11920	16016	18200
800	32"	5355	6300	10500	10557	17460	22176	25200
900	36"	8925	10500	17500	17365	28970	36960	42000
1000	40"	14875	17500	21000	28129	47850	61600	70000
1100	44"	17850	21000	22400	38970	60200	73920	84000
1200	48"	25075	29500	36560	56410	69500	79500	92600
1400	56"	31000	39830	51070	67200	78830	86240	98000
1600	64"	37300	47840	61330	80700	92230	103488	117600
1800	72"	50360	64580	82800	108950	123610	139710	158760

Including a 30% safety factor.

Do not apply a safety factor to above torque value when determining actuator.