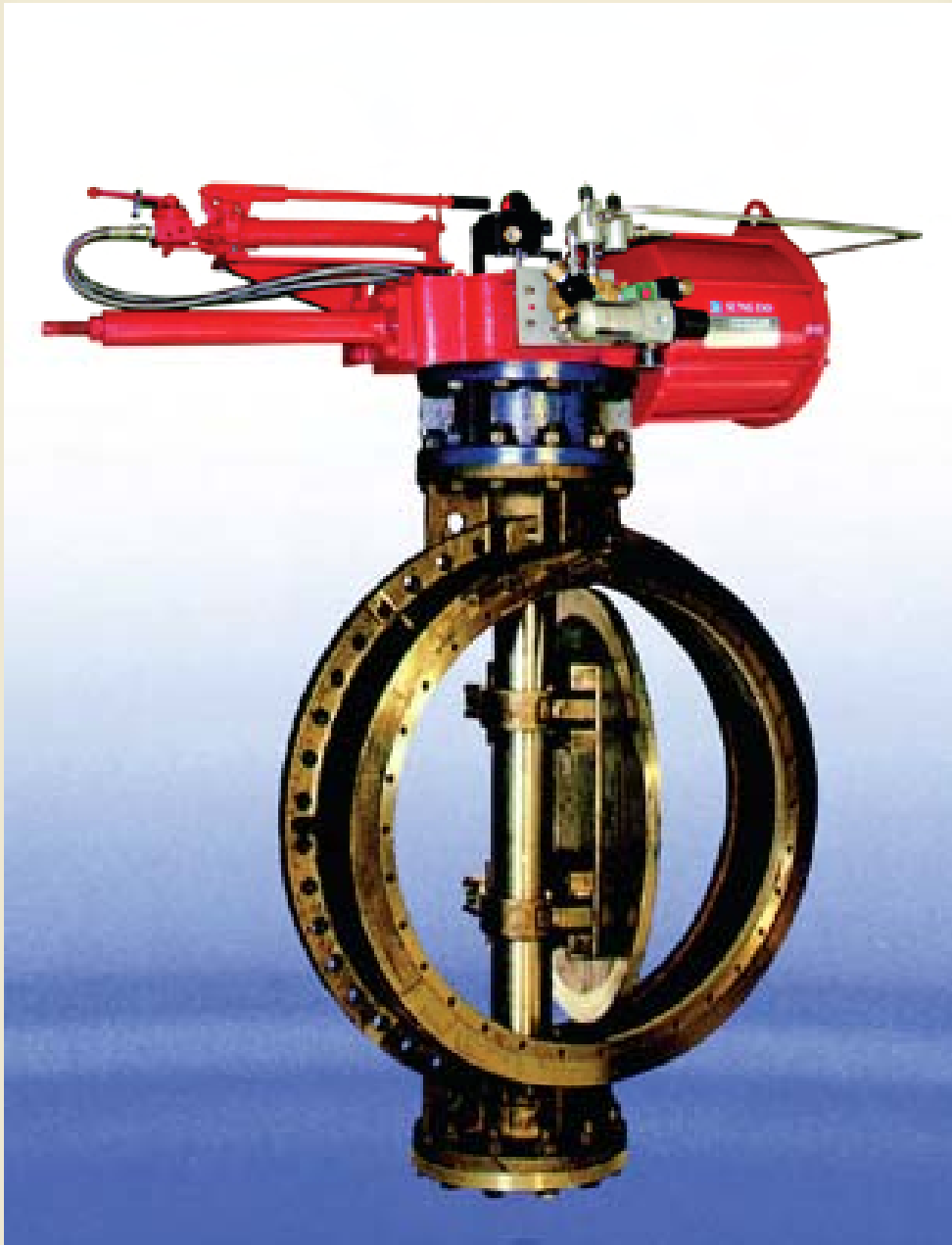


HIGH PERFORMANCE BUTTERFLY VALVE SFB-4700



HIGH PERFORMANCE BUTTERFLY VALVE

Model : SFB-4700

HOW TO ORDER ?

SFB4700 - **MATERIAL** **SEAT** **END CON`** **ACTUATOR** **ACTION** **OPTION** **RAITING** **SIZE**

MATERIAL	SEAT	END CONNECTION	ACTUATOR
1 FC20	1 E P D M	1 WAFER	D CYLINDER DOUBLE ACT
2 FCD	2 SILICON	2 LUG	S CYLINDER SINGLE ACT
3 ALDC	3 MTFE	3 FLANGE	H HEAVY DUTY
4 SCPH2	4 METAL		DS DIAPHRAGM ACTUATOR
5 SCS13			
6 SCS14			

ACTION	OPTION	RATING	SIZE
O : NORMAL OPEN	ON : ON-OFF - SOL VALVE , LIMITS SWITCH , AIR SET	J 1 : JIS 10 K	40A
C : NORMAL CLOSE	CON : CONTROL - E/P POSITIONER , AIR SET	J2 : JIS 20 K	TO
		A1 : ANSI 150#	1500A
		A2 : ANSI 600#	



ORDER EXAMPLE

BODY MATERIAL : SCS 13
SEAT MATERIAL : MATAL
END CONNECTION : FLANGE
ACTUATOR : DIAPHRAGM ACTUATO
ACTION : NORMAL CLOSE
OPTION : CONTROL
RAITING : JIS 10 K
SIZE : 300A
ODER NO. : SFB-4700-543DS-C-CON-J1-300A

HIGH PERFORMANCE BUTTERFLY VALVE

Model : SFB-4700

SFB-4700 SERIES IS OUR LATEST HIGH PERFORMANCE BUTTERFLY VALVE WITH DISC ARE IN SELF IS CONCENTRIC TYPE BUT DISC SEATING SURFACE ARE MACHINED ECCENTRIC. IT HAS SPECIAL SEATING MECHANISM AND ACCORDINGLY HAVING HIGH SEALING PERFORMANCE AND CONTROLLABILITY FOR A VARIETY OF LIQUID AND GAS SERVICES.

ON THE OTHER HAND IT IS COMPACT , LIGHT WEIGHT, FREE MAINTENANCE AND WIDE MANUFACTURING RANGE COVERING LARGE SIZE AND ECONOMIC VALVE. STANDARD COMBINED ACTUATOR ARE DIAPHRAGM , SOLID STATES ELECTRONIC , AND PNEUMATIC CYLINDER TYPE ACTUATOR



GENERAL SPECIFICATION

- TYPE : HIGH PERFORMANCE BUTTERFLY VALVE
- SIZE : 2" ~ 60 " AND OVER
- PRESSURE : ANSI 150~ 300 , JIS10K ~ 20K
- END CONNECTION : WAFER , LUG, FLANGED

MATERIAL DESCRIPTION

BODY : CAST IRON , DUCTILE IRON , CARBON STEEL , NI-AL BRONZE ,
STAINLESS STEEL (SUS 304 , 316, 304L,316L)

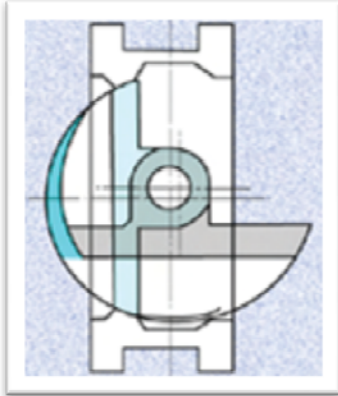
DISC : AL-BRONZE , NI-AL-BRONZE , DUPLEX , HASTELLOY C,
STAINLESS STEEL (SUS304,316, 304L,316L)

SEAT : PTFE / RTFE (MAX 230℃) , FIRE SAFETY (MAX 280℃) METAL(MAX 530℃)

STEM : MONEL , HASTELLOY-C , STAINLESS STEEL (SUS304,316,304L,316L,410,630)

- SPECIAL MATERIAL ARE ALSO AVAILABLE

Construction



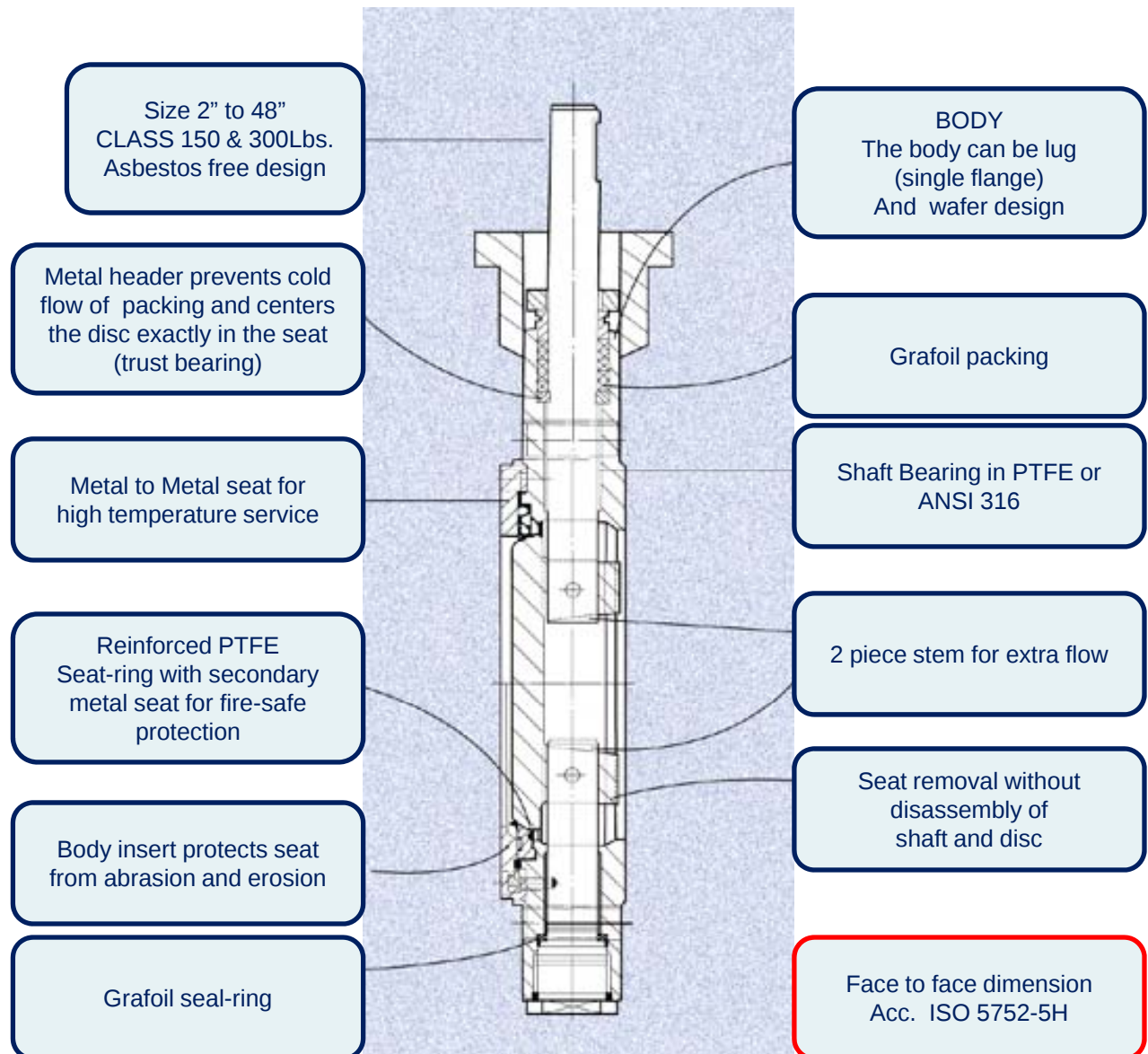
MULTI –PURPOSE IVEX RANGE

The inter valve IVEX-Range is based on an unique quarter-turn design. The double offset shaft and disc configuration as to the seat together with the advanced high technology seat systems brings in a multi –purpose IVEX – butterfly valve range

MAIN DESIGN FEATURES

Double offset disc design.

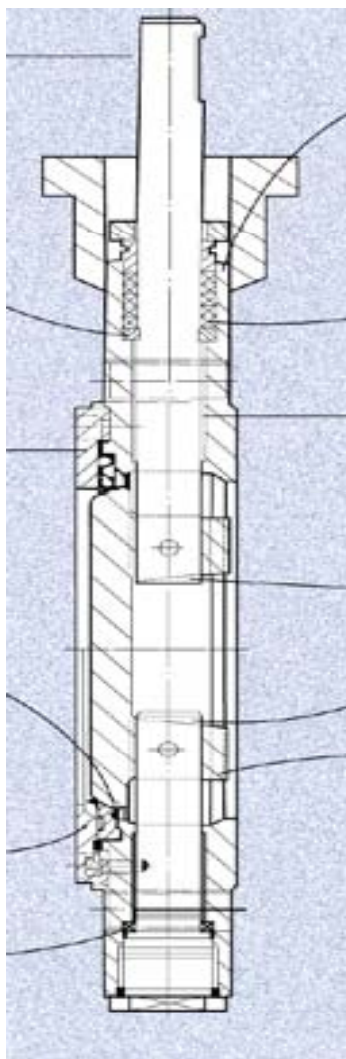
At the initial point of disc opening , the double offset disc provides a cam -like action. Thus preventing excessive seat wear and creating the possibility for frequent operation



Valve standard materials

No	Part	Materials		
1	Body	A216 WCB	A351 CF8	A351 CF8M
2	disc	A276 304	A276 304	A276 316
3	seat	ptfe	ptfe	ptfe
4	stem	A276 304	A276 304	A276 304
5	Gland Packing	GRAPHITE	GRAPHITE	GRAPHITE
6	Gland	BRASS	BRASS	BRASS

(Please contact factory in advance for other materials)



SEAT SYSTEM

ACTUATORS

The IVEX-Butterfly Valve range will be supplied with an actuator bracket according to ISO 5211 , which allows replacement of stem seals without removal of actuator.

Every required actuator can be supplied :

- Wrench -10 positions - Pneumatic actuators , double or single action.
- Gearbox -Weatherproof. - Electric actuators.

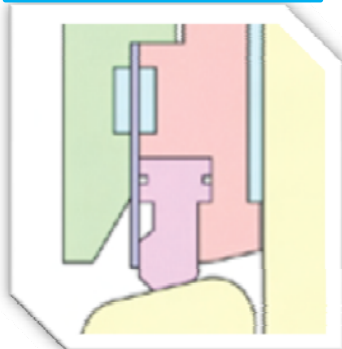
POWER-SEAL VALVE PRODUCES THE IVEX RANGE IN THREE MAIN EXECUTIONS :

IVEX – T : PTFE seat – system

IVEX – F : PTFE METAL seat-system, bi-directional sealing and fire-safe design.

IVEX – M : Metal to metal seat-system High temperature service

IVEX-T



PTFE –SEAT – SYSTEM

In the preferred flow-direction as indicated, the PTFE-Seat-System will bring its optimum performance.

In this design , the line pressure act as positive force in the seat-system even at fluctuating working condition.

The seat-ring is well-protected by the valve-body ,thus preventing distortion at negative, non-preferred flow direction.

IVEX-F



PTFE –METAL-SEAT – SYSTEM

Bi-directional sealing and fire safe design.

Bi-directional.

The primary PTFE-seat-ring will be replenished with a secondary metal back-up ring This metal seat provides a mechanical load to energize the PTFE-seat.

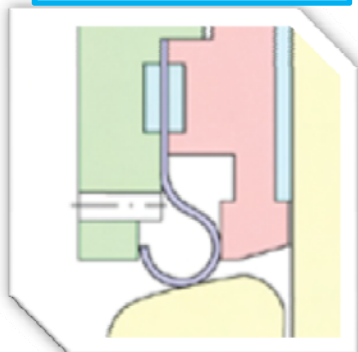
In combination with the line pressure a Bi-directional sealing against the design pressure is obtained.

Fire Safe Design.

After a fire , when the PTFE-seat ring has burned away, the secondary metal seat gives bi-directional sealing.

This sealing systems meets the fire test requirements(API 607 and BS5146)

IVEX-M



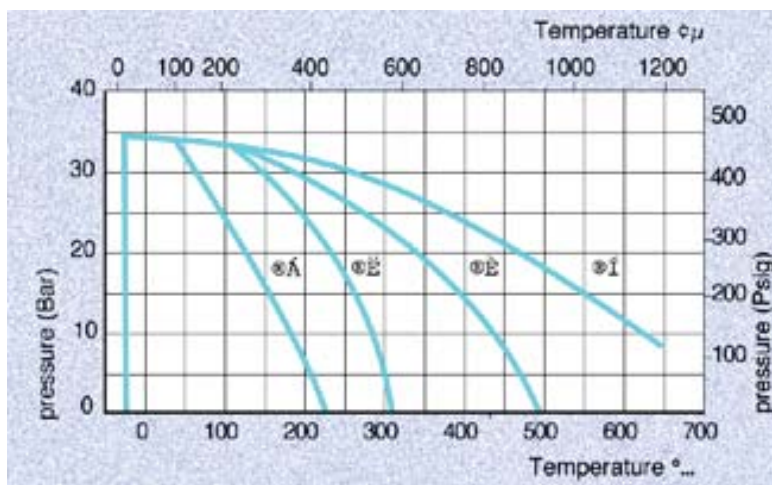
METAL TO METAL SEAT DESIGN

High temperature service

The primary metal seal enables this execution to be used up to 670 grade C Seat-rings available are stainless steel AISI 316 L chromium plated, (maximum allowable temperature : 310 grade C.) and Inconel 625 (maximum temperature:670 grade C.) As a result the IVEX-M-Metal-to-Metal range meets the full pressure temperature rating according to the ANSI class 150 and class 300 rules.

SEAT SYSTEM

PRESSURE-TEMPERATURE LIMITS BY SEAT



MATERIALS

A – REINFORCED PTFE SEAT

E'' – STAINLESS STEEL 316L SEAT

E' – INCONEL/BODY STEEL

F – INCONEL/BODY STAINLESS STEEL

BODY PRESSURE – TEMPERATURE RATING

BODY MATERIAL	ANSI CLASS	Temperature (°C)										
		-29	38	94	149	204	260	316	371	427	482	538
		Temperature (°F)										
		-20	100	200	300	400	500	600	700	800	900	1000
CARBON STEEL	150	285	285	260	230	200	170	140	110	80		
	300	740	740	675	655	635	600	550	535	410		
STAINLESS STEEL	150	275	275	240	215	195	170	140	110	80	50	30
	300	720	720	620	560	515	480	450	430	415	395	365

VALVE TORQUE & CV

Valve Operating Torques for PTFE Seat

size	P = 10Bar	P = 20Bar
2"	22	27
3"	46	55
4"	92	110
5"	115	154
6"	176	253
8"	330	452
10"	520	710
12"	685	960
14"	1020	1460
16"	1180	1980
18"	1540	2300
20"	2420	3300
24"	3400	4880

-Break away

-Including safety factor 15%

For IVEX-F(fire safe) take a extra factor 20%

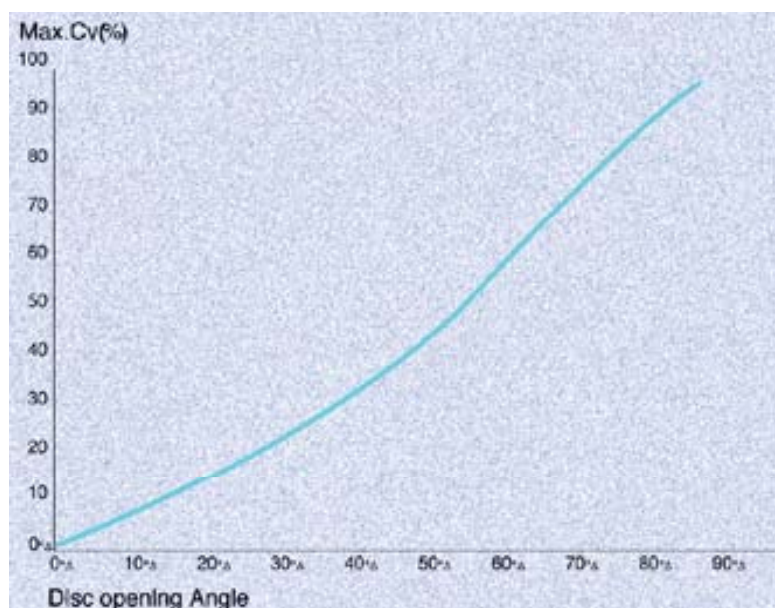
For IVEX-M(metal seat) take a extra factor 30%

CV-valves for High Performance Butterfly valves

-Type IVEX-F,M & T.

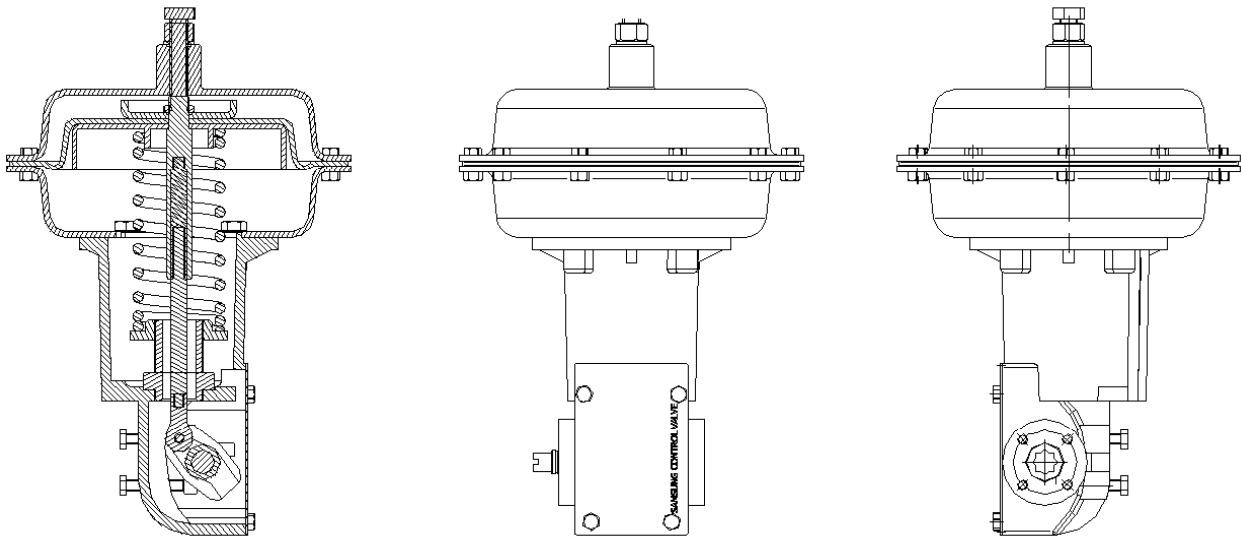
Cv = flow in US- gallon per minute at a pressure drop of 1 PSI and 60°F

size	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Cv	105	210	440	605	900	1900	3100	4800	6100	8100	10800	13700	21000



The manufacturer reserves the right to change product designs and specifications without notice

DIA PHRAGM ACTUATOR



DIAPHRAGM ACTUATOR 의 상하 직선운동을 캠을 연결하여 90도 회전운동으로 변환하여 BUTTER FLY VALVE , BALL VALVE 등 90도 회전하여 사용하는 VALVE에 사용되도록 설계된 ACTUATOR 입니다.

GENEERL SPECIFICATION

- TYPE : DIAPHRAGM ACTUATOR
- SIZE : 220 ~ 470D
- SUPPLY PRESSURE : 2.8 ~3.2 K

MATERIAL DESCRIPTION

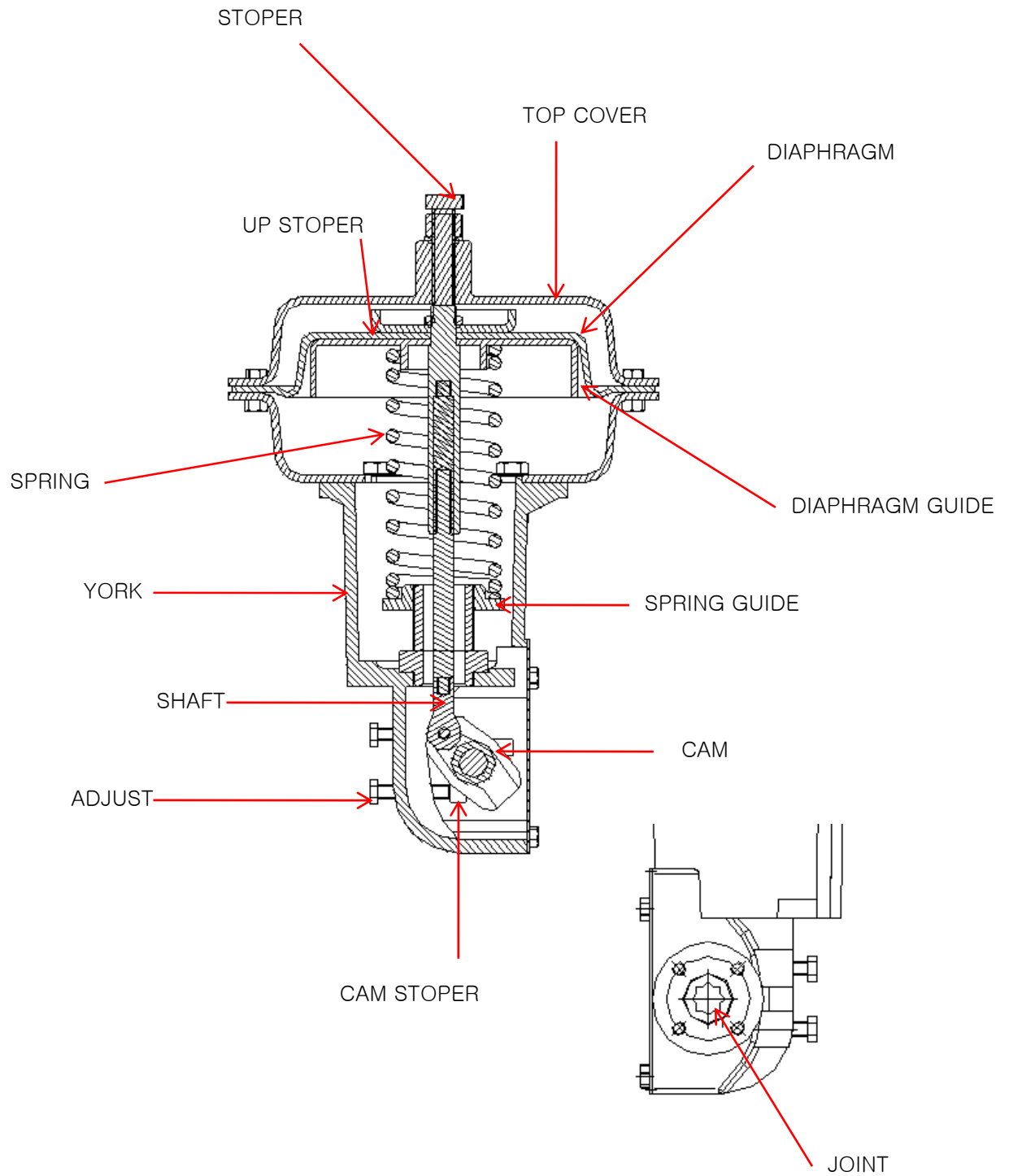
DIAPHRAGM COVER : SS41

DIAPHRAGM : EPDM

STEM : SUS 304

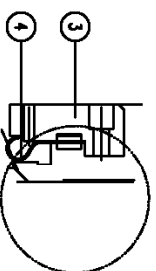
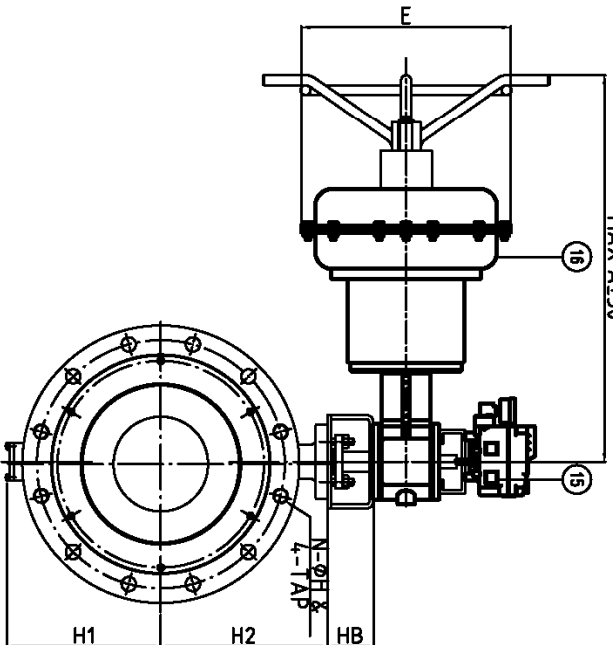


DIA PHRAGM ACTUATOR Construction

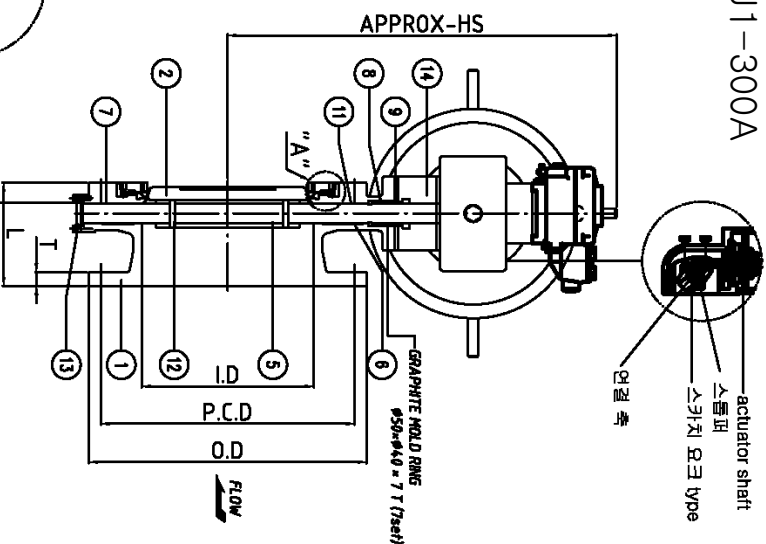


MODEL : SFB-4700-543DS-C-CON-J1-300A

MAX A±50



DETAIL "A"



GRAPHITE HOLD RING (face to face)
φ50-φ40 = 7 T (face)

DIMENSIONS

	L	H1	H2	HB	HS	E	A	O.D	P.C.D	I.D	N	φH	T	TYP	ACTUATOR
250 A	10"	180	244	265	80	700	365	700	400	355	324	12	25	24	W22
300 A	12"	180	289	290	80	730	365	700	445	400	366	16	25	24	W22
350 A	14"	180	294	310	80	800	470	900	480	445	413	16	25	28	W22

Unit : mm

Rev. No.	Revision Note	DATE	DWG. CHK'D
Δ			
Δ			

Notes

1. VALVE DESIGN : SPECIAL
2. END CONN. : KS B 1511 10K
3. PAINT : MAKER STANDARD.

Assembly Dwg. Tolerances
120~ 315 : ± 4
315~ 1000 : ± 9
1000~ 2000 : ± 12
2000~ 4000 : ± 16
4000~ 8000 : ± 21
8000~ 12000 : ± 27
12000~ 18000 : ± 32
18000~ 20000 : ± 36
20000~ : ± 40

NO.	DESCRIPTION	MATERIAL	QTY	REMARK
17	AIR SET	YT-200	1	YTC
16	ACTUATOR	DIAPHRAGM	1	
15	POSITIONER	APF-300	1	
14	BRACKET	A36	1	
13	BOTTOM COVER	SUS 304	1	
12	PIN	SUS 316L	1 SET	
11	THRUST BEARING	RITE	1	
10	GLAND FLG.	SUS 316L	1	
9	GLAND	BRASS	1	
8	PACKING	GRAPHITE	1 SET	
7	LOWER BEARING	METALLOPLAST	1	
6	UPPER BEARING	METALLOPLAST	1	
5	STEM	SUS 630	1	
4	SEAT	SUS 316L	1	
3	CLAMP RING	SUS 316L	1	
2	DISC	SCS 13	1	
1	BODY	SCS 13	1	

SAMSUNG CONTROL VALVE CO., LTD.

DWG. NAME : H-P BUTTERFLY VALVE
METAL SEAT TYPE
WITH DIAPHRAGM ACTUATOR

APP'D	S.J. SHIN
CHK'D	J.S. PARK
DWG.	D.K. LEE
DATE	'14.05.27
SCALE	N/S

DWG. NO. : SFB 610.10-4153-SR

CLIENT : -

TEST	SHELL	SEAT
HYDROSTATIC	15 Kgf/cm ²	11 Kgf/cm ²
AIR	- Kgf/cm ²	- Kgf/cm ²