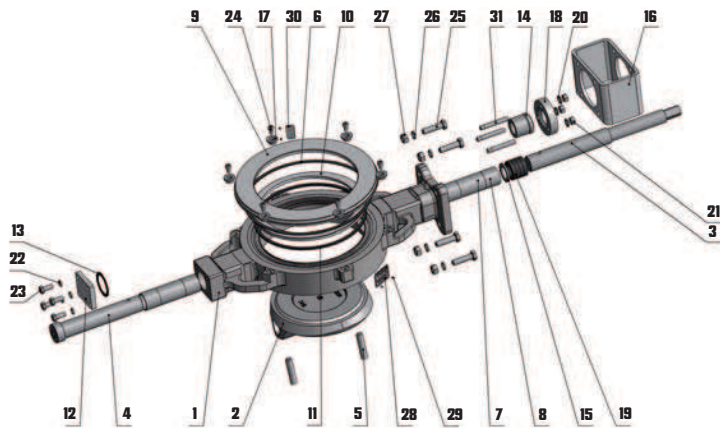


High performance butterfly valves – Series 3E

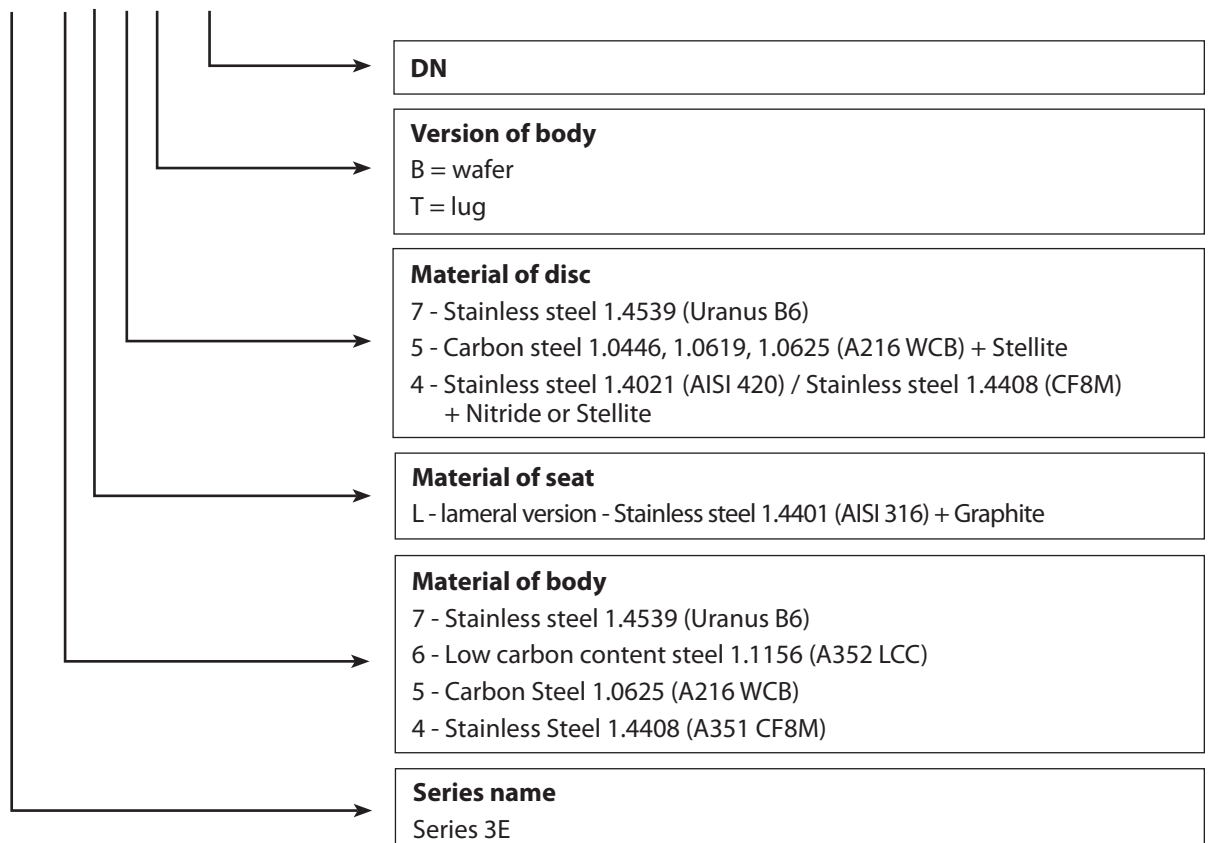
Drawing



Item	Name		
1	Body	16	Bracket
2	Disc	17	Retaining sleeve
3	Shaft	18	Gland flange
4	Pivot	19	Packing
5	Pin	20	Washer
6	Flange seal	21	Hex nut
7	Sleeve	22	Lock washer
8	Sleeve	23	Bolt
9	Ring flange	24	Screw
10	Seat	25	Bolt
11	Bandage	26	Lock washer
12	Cover	27	Hex nut
13	Cover seal	28	Name plate
14	Packaging gland	29	Rivet
15	Lock washer	30	Plate
		31	Stud

Codification

3E-3 5 L 5 B 150



High performance butterfly valves – Series 3E

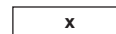
Available connections

INSTALLATION BETWEEN FLANGES (DN 150-400) TYPE B

DN	150	200	250	300	350	400
INCH	6"	8"	10"	12"	14"	16"
ISO PN 6	*	*	*	*	*	*
ISO PN 10	✓	✓	✓	✓	*	*
ISO PN 16	✓	✓	✓	✓	*	*
ISO PN 25	✓	✓	✓	*	*	*
ISO PN 40	✓	✓	✓	*	*	*
ANSI 150	✓	✓	✓	✓	✓	*
ANSI 300	✓	✓	*	*	x	x
JIS 10K	✓	*	✓	*	*	-
JIS 16K	*	✓	✓	*	*	-



suitable



not suitable



suitable with additional machining

Other DN upon request.

For type T installation must be specified in inquiry.

Torque chart (Nm)

DN	150	200	250	300	350	400
PMA 10 bar	120	390	680	1130	2600	4650
PMA 16 bar	168	420	750	1250	2800	4800
PMA 25 bar	240	500	900	1400	3000	5500
PMA 40 bar	250	610*	-	-	-	-

* up to 35 bar

Other dimensions upon request.

Operating torques mentioned include safety reserve.



Series 3E - Application

High performance butterfly valves – Series 3E

Application

High performance applications such as chilled water, water, utility lines, gasoline, natural gas, air, oil, jet fuels and process lines, such as:

- Oil tankers
- Steel & Mining
- Refineries
- Chemical industry
- Oil & Gas

Models

Wafer type (B)



Lug type (T)



General characteristics

- Triple offset design
- Shut-off and regulating device
- Metal/Metal sealing
- High opening & closing performance
- Bubble tight
- Easy repair & maintenance
- Easy installation & mounting

Materials

Body	Stainless steel 1.4539 (Uranus B6) Low carbon content steel 1.1156 (A352 LCC) Carbon Steel 1.0625 (A216 WCB) Stainless Steel 1.4408 (A351 CF8M)
Disc	Stainless steel 1.4539 (Uranus B6) Carbon steel 1.0446, 1.0619, 1.0625 (A216 WCB) + Stellite Stainless steel 1.4021 (AISI 420) / Stainless steel 1.4408 (CF8M) + Nitride or Stellite
Stem	Stainless steel 1.4021 (AISI 420) Stainless steel 1.4462 (A182 F51)
Sealing	Stainless steel 1.4401 (AISI 316) + Graphite
Pivot	Stainless steel 1.4021 (AISI 420) Stainless steel 1.4462 (A182 F51)
Bushing	Stainless steel 1.4404 (AISI 316L) + Ni
Washer	Stainless steel 1.4404 (AISI 316L)

Coating

- High temperature resistant coating (up to 600 °C).
More information upon request
- Based on customer's request, higher degree of coating can be provided

Working conditions

Working pressure	DN 150: 40 bar DN 200: up to 35 bar DN 250 - DN 400: 25 bar
Working temperature	max temperature range: - 100°C + 500°C with WCB body - 29°C + 425°C with CF8M body - 100°C + 500°C

Specific requirements on tightness please specify in the inquiry.

Standards

LEAK TEST:

- EN 12266-1, CLASS A
- ISO 5208, CLASS A
- API 598, TAB.5

FACE TO FACE ACC.:

- EN 558, SERIES 20
- ISO 5752, SERIES 20
- API 609, TAB.3

TOP FLANGE:

- EN ISO 5211

ATEX OPTION:

- Version according to ATEX 94/9/EC,
- Zone 1 and 21 – Gr II, Cat. 2 G

MARKING

- EN19

CONNECTION BETWEEN FLANGES:

- EN 1092-1, 2
- DIN 2631 - 35
- ASME B16.5

WORKING STANDARD:

- EN 593 + A1



Cross-section view

Standard and testing

- Test procedures are established according to: EN 12266-1, ISO 5208, API 598, ANSI/FCI 70-2
- Manufacture according to the requirements of the European Directive 97/23/CE – Equipment under pressure (Category III, modul B)

Actuation possibilities

- Manual gearbox with handwheel
- Electric actuator 24V, 230V, 400V, other upon request
- Pneumatic actuator
 - o single acting
 - o double acting



Triple offset butterfly valve serie 3E B

Face to face dimension:

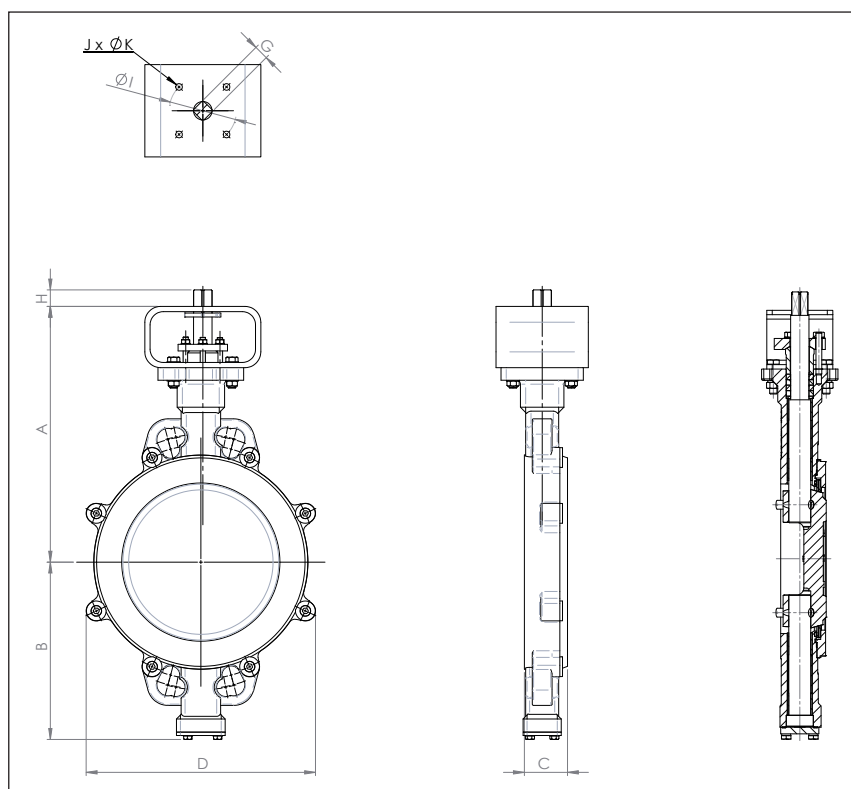
ISO 5752/20

EN 558

API 609, TABLE 3

Actuation:

Bare shaft



DN		A	B	C	D	G	H	I	J	K	Weight (kg)
mm	inch										
150	6"	317	214	56	252	17	25	102	4	11	21
200	8"	349	246	50	308	17	25	102	4	11	29
250	10"	395	275	69	349	22	31	125	4	13	46
300	12"	460	313	79	393	27	31	140	4	17	67
350	14"	508	355	92	448	27	45	165	4	21	91
400	16"	556	402	103	542	36	58	165	4	21	132

Above mentioned dimensions are indicative only.

Triple offset butterfly valve series 3E B

Face to face dimension:

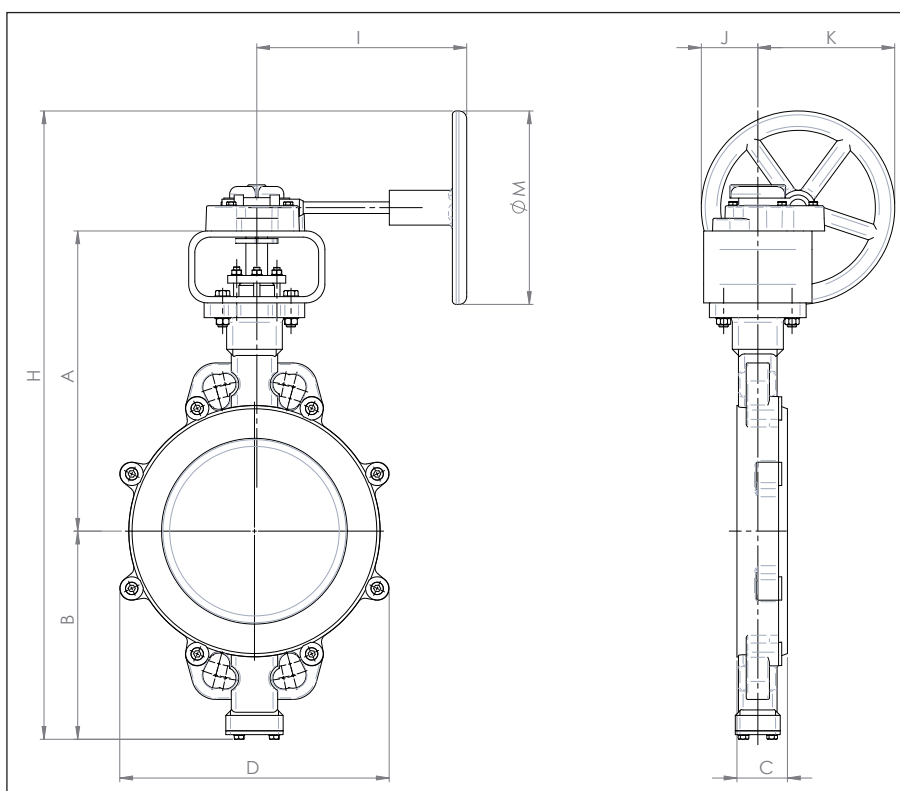
ISO 5752/20

EN 558

API 609, TABLE 3

Actuation:

Manual gearbox with handwheel



DN		A	B	C	D	H	I	J	K	M	Weight (kg)
150	6"	317	214	56	253	710	215	73	177	250	24,4
200	8"	349	246	60	307	750	215	73	177	250	44
250	10"	395	275	69	348	883	250	109	241	350	51
300	12"	460	313	79	393	998	215	135	315	450	80,8
350	14"	508	355	92	448	1213	215	210	390	600	102,8
400	16"	556	402	103	542	1408	280	310	490	800	150

Above mentioned dimensions are indicative only.

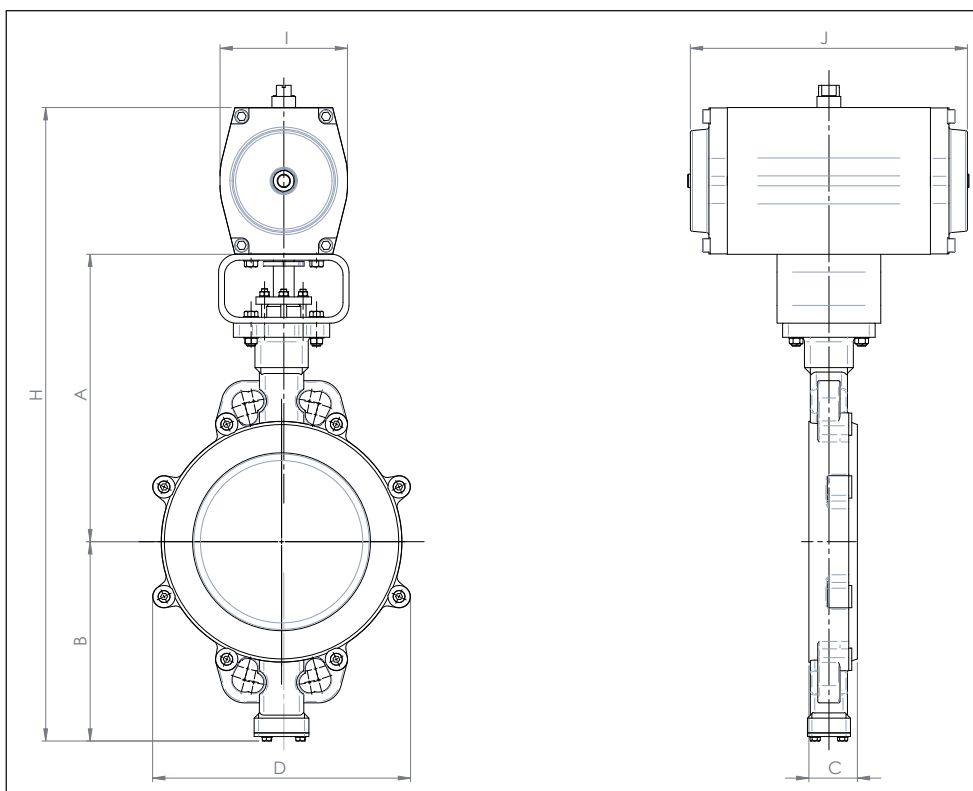
Triple offset butterfly valve series 3E B

Face to face dimension:

ISO 5752/20
EN 558
API 609, TABLE 3

Actuation:

Pneumatic actuator



DN		A	B	C	D	H	I	J	Weight (kg)
mm	inch								
150	6"	317	214	56	252	700	172	332	27,2
200	8"	349	246	50	308	790	172	332	37,4
250	10"	395	275	69	349	1065	224	422	61,8
300	12"	460	313	79	393	1175	224	464	88,1
350	14"	508	355	92	448	1195	272	603	128,6
400	16"	556	402	103	542	1318	272	683	169,6

Above mentioned dimensions are indicative only.

Dimensions for double acting pneumatic actuator, $p_{pneu} = 5,6 \text{ bar}$, medium: water, $p = 10 \text{ bar}$, $T = 20^\circ\text{C}$ (68 °F).

Triple offset butterfly valve serie 3E T

Face to face dimension:

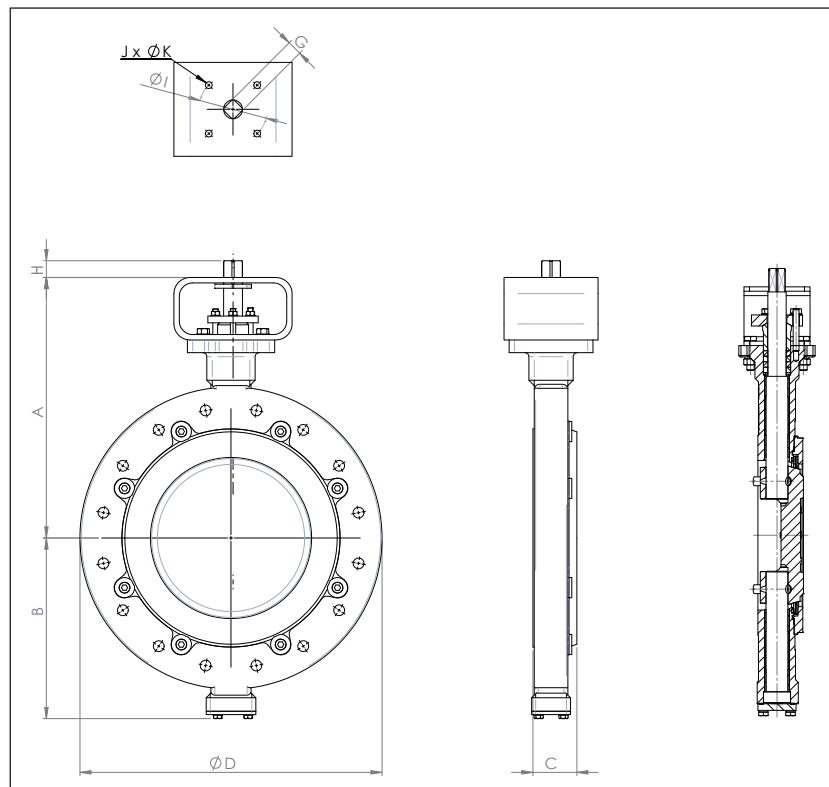
ISO 5752/20

EN 558

API 609, TABLE 3

Actuation:

Bare shaft



DN		A	B	C	D	G	H	I	J	K	Weight (kg)
150	6"	317	214	56	318	17	25	102	4	11	28
200	8"	349	246	50	381	17	25	102	4	11	41
250	10"	395	275	69	450	22	31	125	4	13	70
300	12"	460	313	79	521	27	31	140	4	17	105
350	14"	508	355	92	557	27	45	165	4	21	140
400	16"	556	402	103	657	36	58	165	4	21	211

Above mentioned dimensions are indicative only.

Triple offset butterfly valve series 3E T

Face to face dimension:

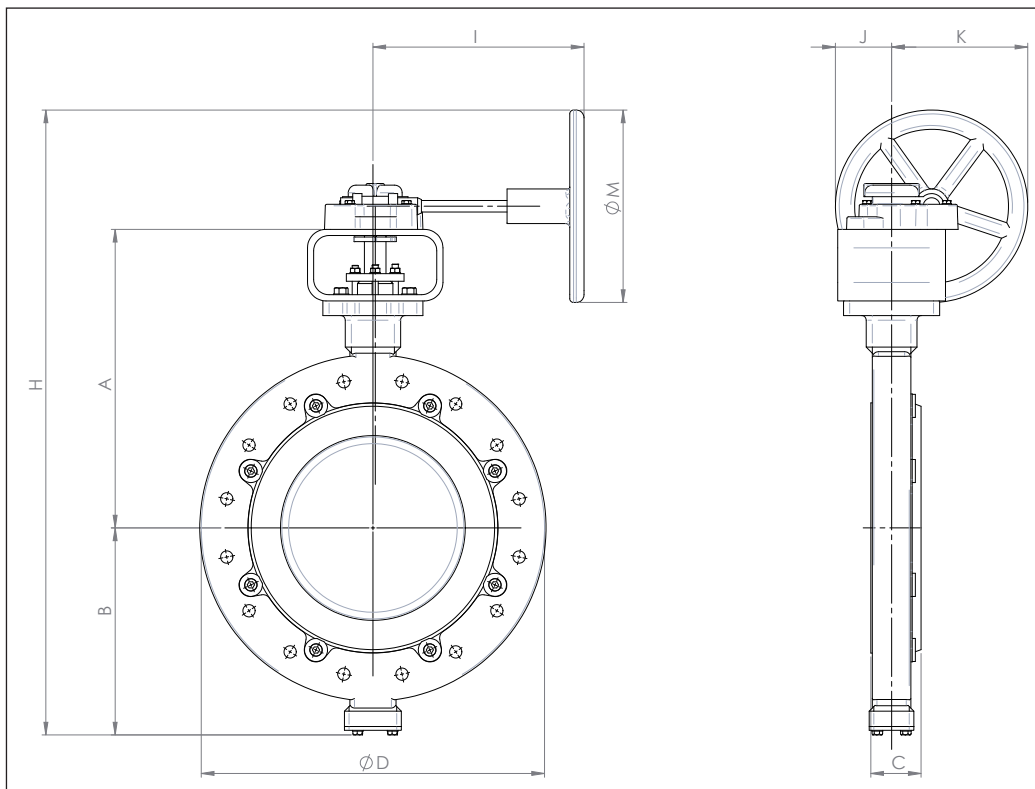
ISO 5752/20

EN 558

API 609, TABLE 3

Actuation:

Manual gearbox with handwheel



DN		A	B	C	D	H	I	J	K	M	Weight (kg)
150	6"	317	214	56	318	710	215	73	177	250	26
200	8"	349	246	50	381	750	215	73	177	250	38
250	10"	395	275	69	450	883	250	109	241	350	53
300	12"	460	313	79	521	998	215	135	315	450	118,8
350	14"	508	355	92	557	1213	215	210	390	600	151,8
400	16"	556	402	103	657	1408	280	310	490	800	229

Above mentioned dimensions are indicative only.

Triple offset butterfly valve series 3E T

Face to face dimension:

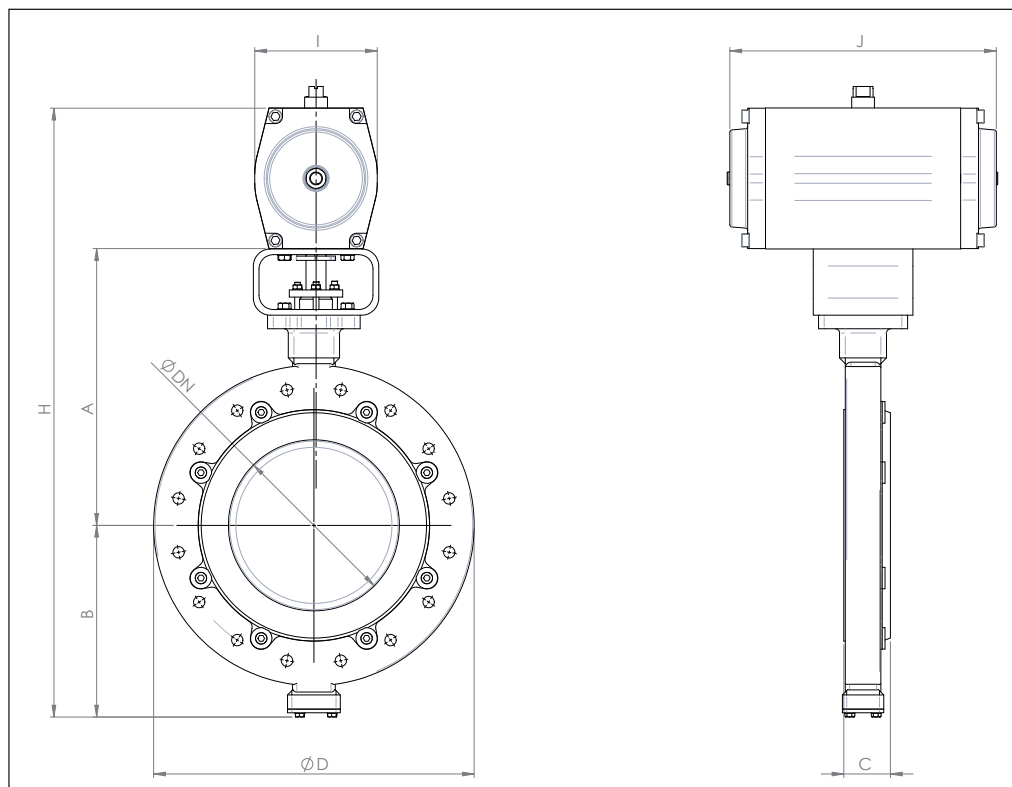
ISO 5752/20

EN 558

API 609, TABLE 3

Actuation:

Pneumatic actuator



DN		A	B	C	D	H	I	J	Weight (kg)
mm	inch								
150	6"	317	214	56	318	700	172	332	34,2
200	8"	349	246	50	381	790	172	332	49,5
250	10"	395	275	69	450	1065	224	422	85,8
300	12"	460	313	79	521	1175	224	464	126,1
350	14"	508	355	92	557	1195	272	603	177,8
400	16"	556	402	103	657	1318	272	683	248,8

Above mentioned dimensions are indicative only.

Dimensions for double acting pneumatic actuator, ppneu = 5,6 bar, medium: water, p = 10 bar, T = 20°C (68 °F).