TECHNICAL DATA SHEET

references
10CD1E1
10CD1E1R*
10CD0E1R*
(*with gearbox)

CONCENTRIC WAFER BUTTERFLY VALVE – DUCTILE IRON BODY – STAINLESS STEEL DISC AND EPDM ACS SEAT - DN350 AU DN500

CERTIFICAT 3.1 | ATEX | SIL3 | Marine & Offshore Division | Lloyd's Register

GARANTIE 5 ans FABRICATION *



à levier *with lever*	10CD1E1									
ØNOMINAL	32/40	50	65	80	100	125	150	200	250	300
PS (bar) *WP*	16	16	16	16	16	16	16	16	16	16
Ecart (mm) *FtF*	33	43	46	46	52	56	56	60	68	78
Raccord. *Connection*	PN10/16 CLASS 150									

*à réducteur *with gearbox*	10CD1E1R*				10CD0E1R*				
ØNOMINAL	150	200	250	300	350	400	450	500	600
PS (bar) *WP*	16	16	16	16	10	10	10	10	10
Ecart (mm) *FtF*	56	60	68	78	78	102	114	127	154
Raccord. *Connection*	PN10/16 CLASS 150				PN10				



1. Standards

- ✓ Manufacturer certified ISO 9001:2015
- ✓ Designing according to ISO 10631 and EN 593
- ✓ DIRECTIVE 2014/68/EU : CE N° 0038 Risk Category III module H
- ✓ Certificate 3.1 on request
- ✓ Pressure tests according to EN 12266-1, Rate A
- ✓ Between flanges according to EN 1092-1 PN10/16 and class 150 (PN20)
- ✓ ISO 5211 mounting pad
- ✓ Length according to :
  - ISO 5752 short series 20
  - EN 558 series 20 (NF 29305)
  - BS 5155 series 4
  - DIN 3202 part 3, series K1
  - API 609 Table 1 up to DN500
  - ASME B16.10 Table 8 column 3 up to DN500
- ✓ ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 &22 (on request)
- ✓ The valves are suitable for use in a safety instrumented system up to SIL 2 in low demand mode. Under consideration of the minimum required hardware fault tolerance HFT= 1 the valves may be used in a redundant architecture up to SIL 3.
- ✓ French water agreement A.C.S. N° 19 ACC LY 080
- ✓ Approval certificate Marine BUREAU VERITAS on request

2. Features

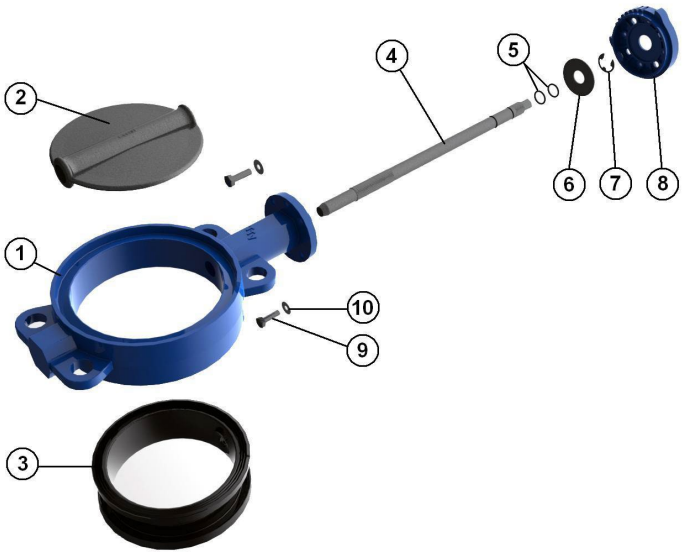
Use:	Applications: Cold water, hot water, drinking water, sea water, demineralised water, alcohol, milk of lime, mercury, alkalis, sodium hydroxide Not recommended for: Hydrocarbons, steam, gases, acids, oils, freon
Size:	DN32 to DN500
Connection:	Between flanges PN10/16 and Class 150 (PN20)
Min Temperature:	-20°C
Max Temperature:	+110°C
Max Pressure:	16 Bars up to DN300, 10 bars over
Specifications:	Long neck for isolation
	Wafer type
	Full crossing stem
	ISO 5211 direct mounting pad
Materials:	Ductile iron GJS 500-7 body, ACS EPDM seat

Information provided as an indication and subject to possible modification

CONCENTRIC WAFER BUTTERFLY VALVE – DUCTILE IRON BODY – STAINLESS STEEL DISC AND EPDM ACS SEAT - DN350 AU DN500

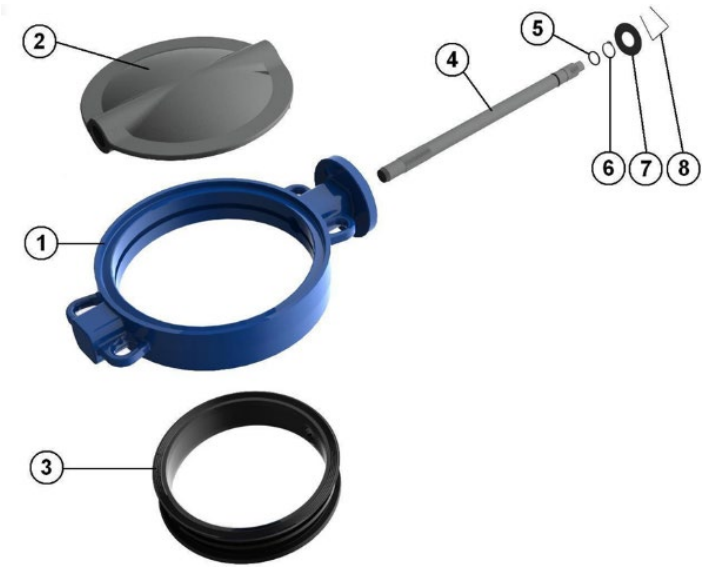
3. Materials

DN 32 to DN 200



Item	Designation	Materials
1	Body	Ductile iron EN GJS-500-7 rilsan coated color RAL 5024 250-300 µ thickness
2	Disc	ASTM A351 CF8M
3	Seat	EPDM
4	Stem	AISI 304
5	O ring	NBR
6	Circlips	Steel
7	Ring	Steel
8	Plate	Aluminium
9	Plate screw	5.6
10	Wahser	Steel
Lever		Aluminium ADC10 with epoxy painting 50µ thickness

DN 350 to DN 400

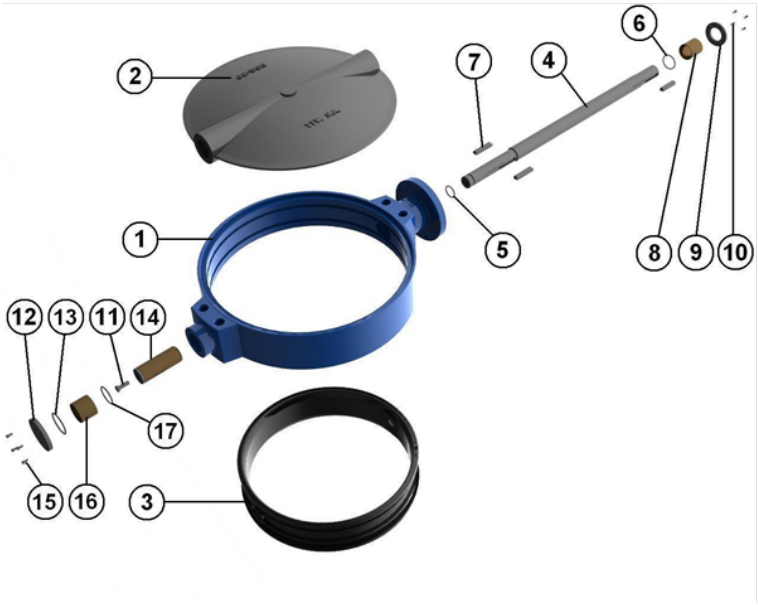


Item	Designation	Materials
1	Body	Ductile iron EN GJS-500-7 rilsan coated color RAL 5024 250-300 µ thickness
2	Disc	EN GJS-500-7 black rilsan coated disc +/- 300 µ
3	Seat	EPDM
4	Stem	AISI 420
5	O ring	NBR
6	Circlips	Steel
7	Ring	Steel
8	Spring	Steel
Lever (up to DN300)		Ductile iron EN GJS-500-7 with epoxy painting 50µ thickness

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CONCENTRIC WAFER BUTTERFLY VALVE – DUCTILE IRON BODY – STAINLESS STEEL DISC AND EPDM ACS SEAT - DN350 AU DN500

DN450 to 500

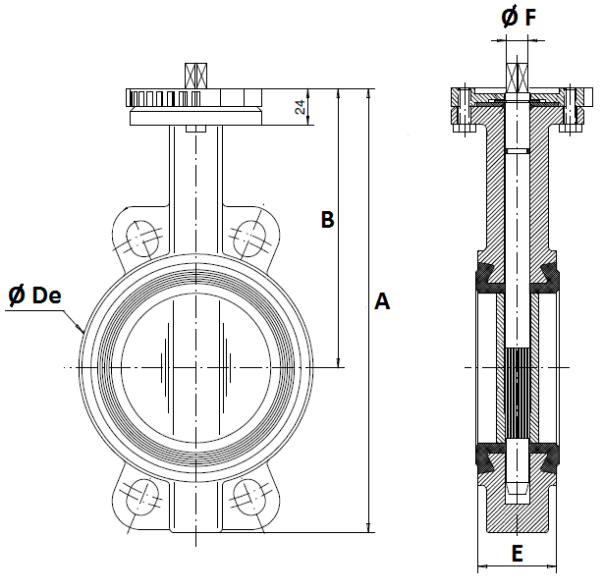


Item	Designation	Materials
1	Body	Ductile iron EN GJS-500-7 rilsan coated color RAL 5024 250-300 µ thickness
2	Disc	ASTM A351 CF8M
3	Seat	EPDM
4	Stem	AISI 304
5	O ring	NBR
6	O ring	NBR
7	Pin	ST – 60
8	Socket	BRONZE
9	Ring	F1110
10	Screw	5.6
11	Screw	5.6
12	Cap	F1110
13	O ring	NBR
14	Socket	F1110
15	Screw	5.6
16	Socket	BRONZE
17	O ring	NBR

Information provided as an indication and subject to possible modification

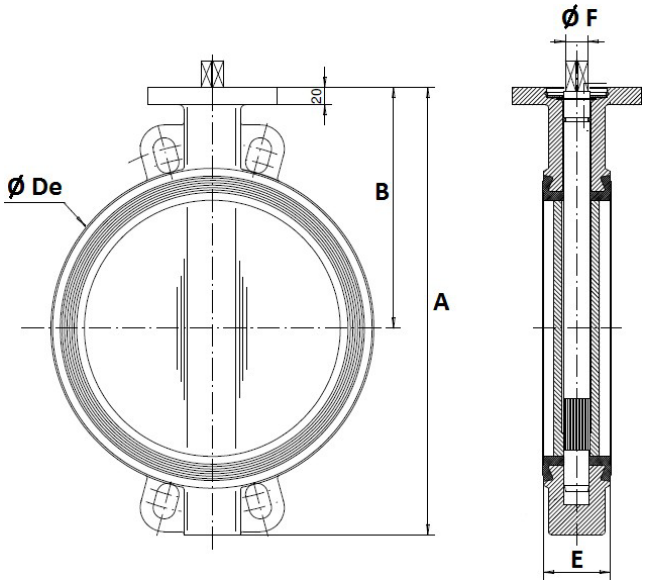
4. Size valve (in mm)

DN32 – DN200

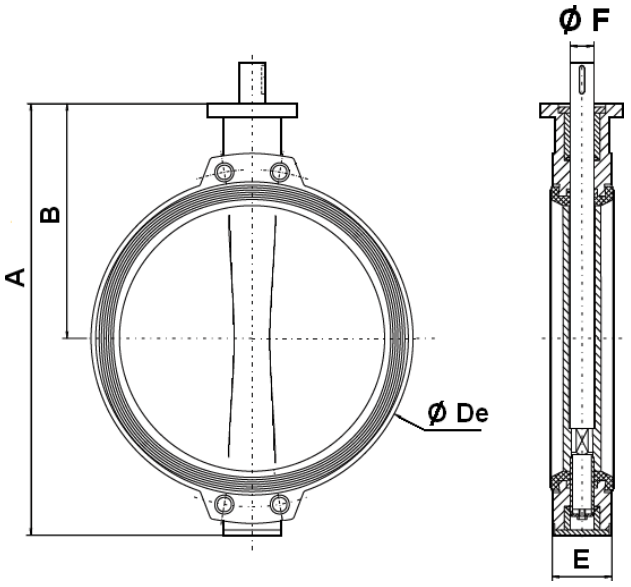


DN	32/40	50	65	80	100	125	150	200
A	206	228	248	265	298	331	349	430
B	140	156	161	169	187	206	215	255
Ø De	82	102	119	135	155	185	208	270
E	33	43	46	46	52	56	56	60
Ø F	9.5	9.5	12	14	14	17	17	21
Weight (Kg)	2.46	3.66	4.4	4.6	6	7.6	9.2	14.7

DN 250 to 400



DN450 to DN500



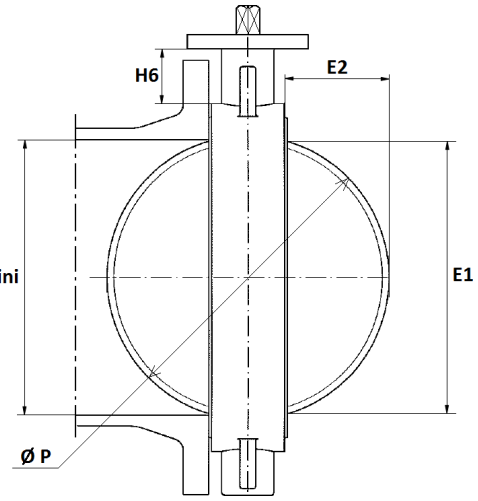
DN	250	300	350	400	450	500
A	461	524	570	644	738	822
B	248	280	300	340	394	440
Ø De	328	381	437	486	538	595
E	68	78	78	102	114	127
Ø F	23	26.5	26.5	33	50	50
Poids (Kg)	24.7	33	39	52	87	117

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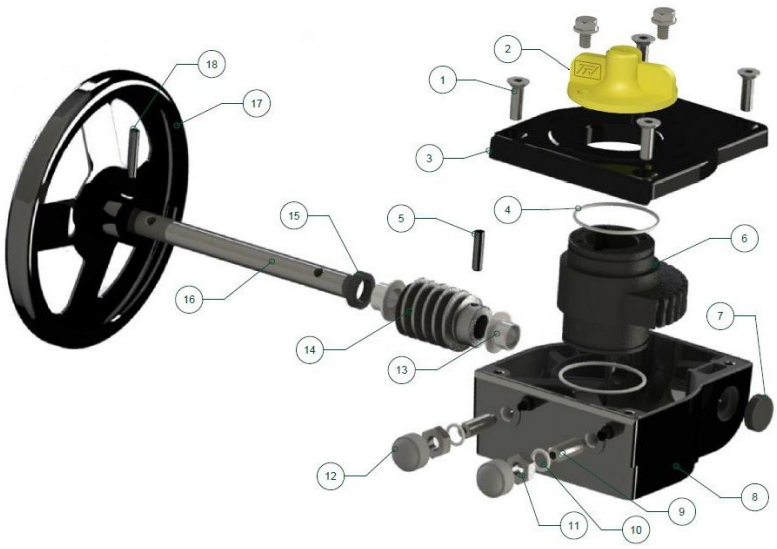
5. Neck and disc size

DN	350	400	450	500
E1	331	385	424	479
E2	131	148	162.5	184
H6	69	80	96	119
Ø T mini	334	388	427	482
Ø P	340	398	439	495

(Ø mini pipe) Ø T mini



6. Gearbox materials

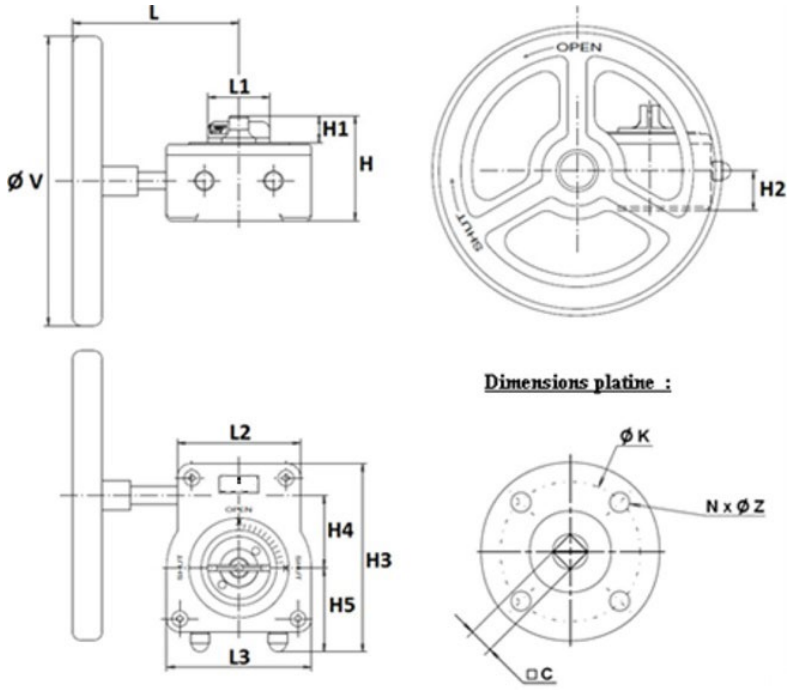


Item	Designation	Materials
1	Screw	AISI 304
2	Pointer	PVC
3	Bonnet	Aluminium
4	O ring	NBR
5	Pin	Carbon steel
6	Quadrant	Ductile iron EN GJS-400-15
7	Gasket	NBR
8	Body	Aluminium
9	Adjusting bolt	Carbon steel
10	Washer	Galvanized steel
11	Nut	Galvanized steel
12	Cap	NBR 70
13	Bushing	Bronze
14	Worm	Carbon steel 45
15	Gasket	NBR
16	Stem	Carbon steel 45
17	Handwheel	Carbon steel
18	Pin	Carbon steel

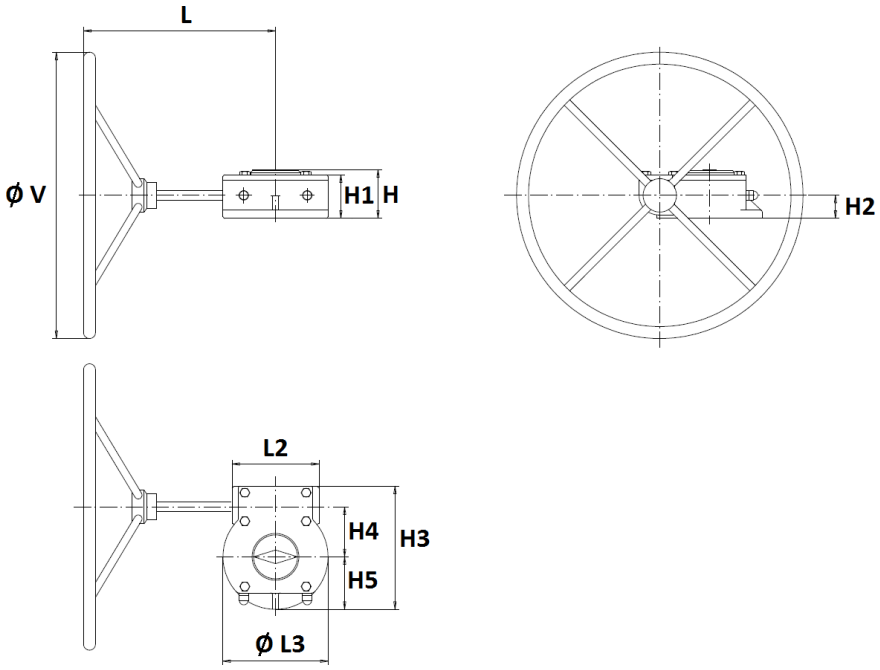
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Gearbox size (mm)



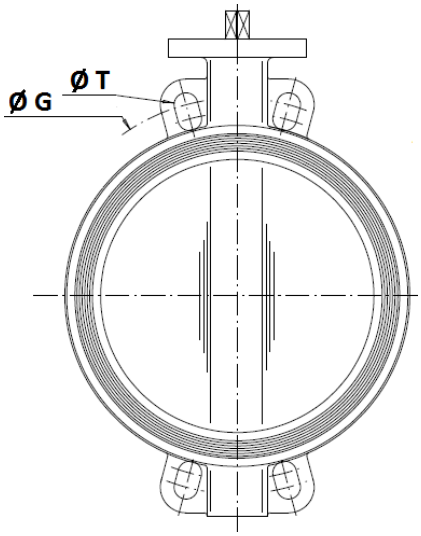
DN	350	400
L	325	325
L1	75	75
L2	150	150
L3	185	185
H	126	126
H1	32	32
H2	51	51
H3	224	224
H4	80	80
H5	98	98
Ø V	400	400
C	22	27
Ø K	140	140
ISO	F14	F14
N x Ø Z	4 x M16	4 x M16
Weight (Kg)	9.5	9.5



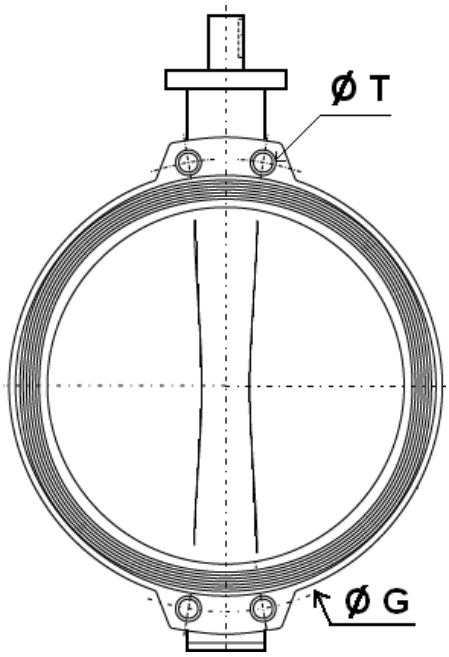
DN	450	500
L	381	402
L2	150	182
Ø L3	200	220
H	93	102
H1	82	91
H2	42	48
H3	226	258
H4	86	104.5
H5	100	110
Ø V	600	600
Weight (Kg)	18.8	26.8

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7. Between flanges (mm)



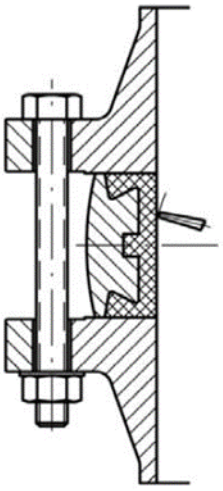
	DN (mm)	350	400
	NPS (")	14"	16"
PN10	Ø G	460	515
	Ø T	23	27
PN16	Ø G	470	525
	Ø T	27	30
Class 150	Ø G	476.3	539.8
	Ø T	29	29



	DN (mm)	450	500
	NPS (")	18"	20"
PN10	Ø G	565	620
	Ø T	M24	M24
PN16	Ø G	585	650
	Ø T	M27	M30
Class 150	Ø G	577.9	635
	Ø T (BSW)*	1 1/8"	1 1/8"
	Ø T (MétriC)	M30	M30

* Threaded BSW on standard, on request metric threaded for Class 150

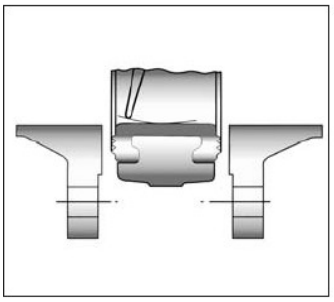
8. Maximum thightening torques for bolting flanges



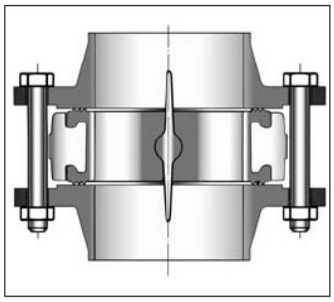
	Maximum torques (Nm)				
	Bolting types	5,6/A307 GrB	8,8/A193 B7	10,9	12,9
Bolting DN	M12 - 1/2"	41,16	84,28	117,6	142,1
	M14 - 9/16"	66,64	132,3	186,2	225,4
	M16 - 5/8"	102,9	205,8	289,1	347,9
	M18 - 3/4"	142,1	284,2	396,9	475,3
	M20 - 3/4"	196	401,8	568,4	676,2
	M22 - 7/8"	259,7	539	764,4	911,4
	M24 - 1"	338,1	695,8	980	1176
	M27 - 1"1/8	499,8	1029	1470	1764
	M30 - 1"1/4	666,4	1421	1960	2352

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9. Installation instructions



Half open valve introduction



Complete opened disc valves when screw tightening

OPTIONS

We can provide you :

- ✓ Stainless steel levers
- ✓ Chain gearbox
- ✓ Square adaptor for lever wrench (30 x 30 mm)
- ✓ Extensions

See our additional technical documentation including:

- ✓ Flow coefficients
- ✓ Pressure loss calculation
- ✓ Pressure/temperature curve (excluding steam)
- ✓ Gearbox specifications including: ratio factor, turn number for closing / opening, input/output torques.

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