

Applications

- All liquefied gases

Working conditions

- Temperature: from -200 ° C to +200 ° C
- Maximum working pressure: 16 bar
- Rating: ASME B16.34 Class 150
- Pressure / Temperature rating

Class 150	PFA	until 200 ° C
	CU	until 100 ° C

- Maximum available fluid velocity
 - 8 m/s for liquid
 - 50 m/s for gas

Materials

See page 2.

Design

- Full-lug body with raised faces (Type 4):
DN 80 (3") to DN 600 (24").
- Flanged body with raised faces (Type 7):
DN 80 (3") to DN 600 (24").
- Face-to-face length in accordance with standards:
 - EN 558 Series 20, ISO 5752 Series 20
 - (except for DN350 & DN80: EN 558 / ISO 5752 Series 25)
 - and API 609-A Table 2 Class 150
- The valves meet the safety requirements of the pressure Equipment's Directive 2014/68/UE (PED) Appendix I for fluids of the groups 1 and 2.
- Face to face (see pages 6 and 10)
- Lip seal ring for installation in any position
- Oxygen degreasing.
- Pickling & passivation treatment
- Oxygen construction (GOX/LOX)

Connections

- PN10 / PN 16 in accordance with EN 1092
- N 20 in accordance with ISO 7005
- ASME B 16.5 Class 150

Standard options

- Cover plate with Moller-balg
- ATEX version in accordance with 2014/34/UE Directive
- Sand wind protection

Standard variants

- Manual actuator: MR
- Pneumatic actuator:
 - ACTAIR / DYNACTAIR (On-Off / Control)
 - ACTAIR NG / DYNACTAIR NG (On-Off / Control)
- Limit switches box AMTROBOX R

Remarks

Operating instructions 8450.810/.-90

Materials

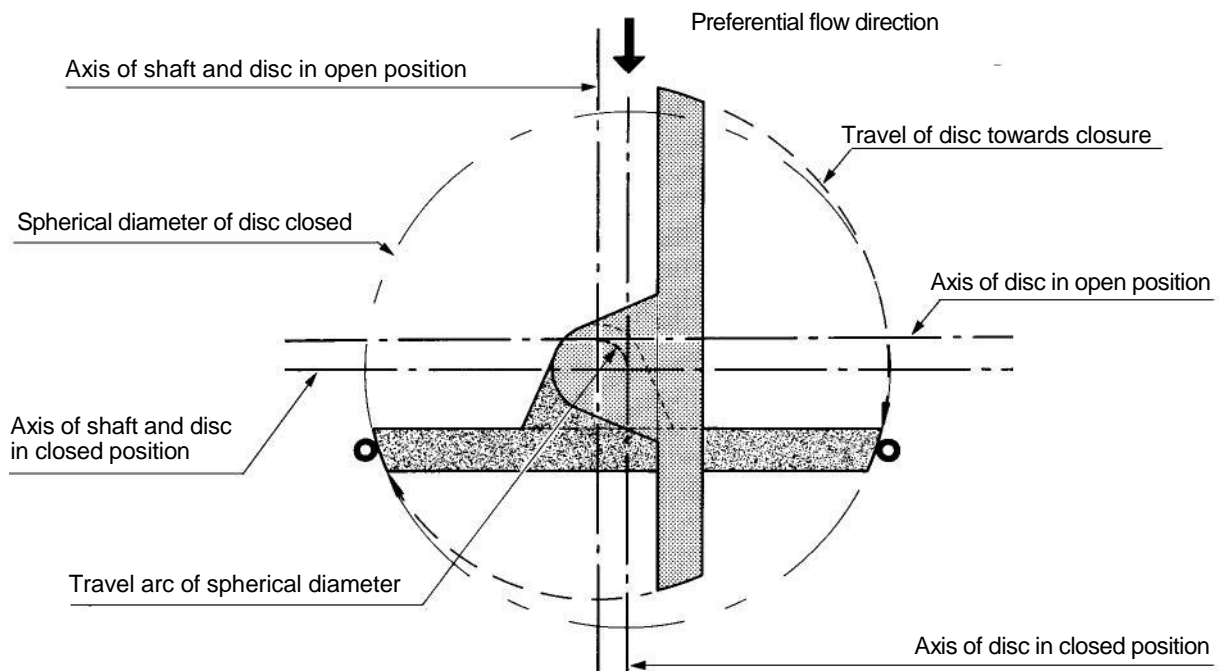
Body	KSB code
Stainless steel ASTM A 351 gr. CF 8M / 1.4408	6
Stainless steel ASTM A 351 gr. CF 3M	6t
Disc	KSB code
Stainless steel ASTM A 351 gr. CF 8M / 1.4408 (with hard chromium for metallic seat)	6
Operating shaft	KSB code
Stainless steel 316L (4 bar / 10 bar)	6
Stainless steel A638 gr. 660 (16 bar)	6f
Stainless steel A479 gr.XM19 (16 bar)	6r
Extension	KSB code
Stainless steel ASTM A 351 gr. CF 8M / 1.4408	6
Seat	KSB code
PFA : Perfluoro-Alchoxyalkane (4 bar) – in accordance with BAM/WHA requirements	F
CU : Copper (10 bar / 16 bar)	CU

Kinematics

The compression of the seating disc edge onto the seat is achieved by double-eccentric kinematics. The axis of the shafts is off-set to valve axis and eccentric to pipe axis.

This design eliminates the possibility of friction during operation and, as a result ensures long life service while maintaining tight shut-off characteristics.

These tight shut-off characteristics comply with to the most severe requirements of Standards.



Hydraulic characteristics

DN	NPS	Flow coefficient in full open position		Zeta
		Kvo	Cvo	
80	3	190	220	1.81
100	4	340	400	1.38
150	6	980	1 140	0.84
200	8	1 850	2 150	0.75
250	10	3 350	3 880	0.56
300	12	4 870	5 650	0.55
350	14	7 070	8 200	0.48
400	16	10 350	12 000	0.38
450	18	12 500	14 500	0.42
500	20	15 090	17 500	0.44
600	24	22 410	26 000	0.41

Upstream / downstream sealing

The DANAÏS CRYO TBT II ASU valve conforms to the following sealing standards.

The DANAÏS CRYO TBT II ASU valve is a bi-directional valve with a preferential flow direction shown by an arrow on the body.

Valve	With PFA seat	With metallic seat (copper)
On liquids	EN 12266-1 rate A ISO 5208 category A API 598	EN 12266-1 rate < D ISO 5208, category C API 598 MSS SP 61 ANSI / FCI 70.2 class V
On gas	EN 12266-1 rate A ISO 5208, category A API 598 ANSI / FCI 70.2 class VI	EN 12266-1 rate < D ISO 5208 leakage < cat. D MSS SP 61 ANSI / FCI 70.2 class VI

Operating torque (in Nm)

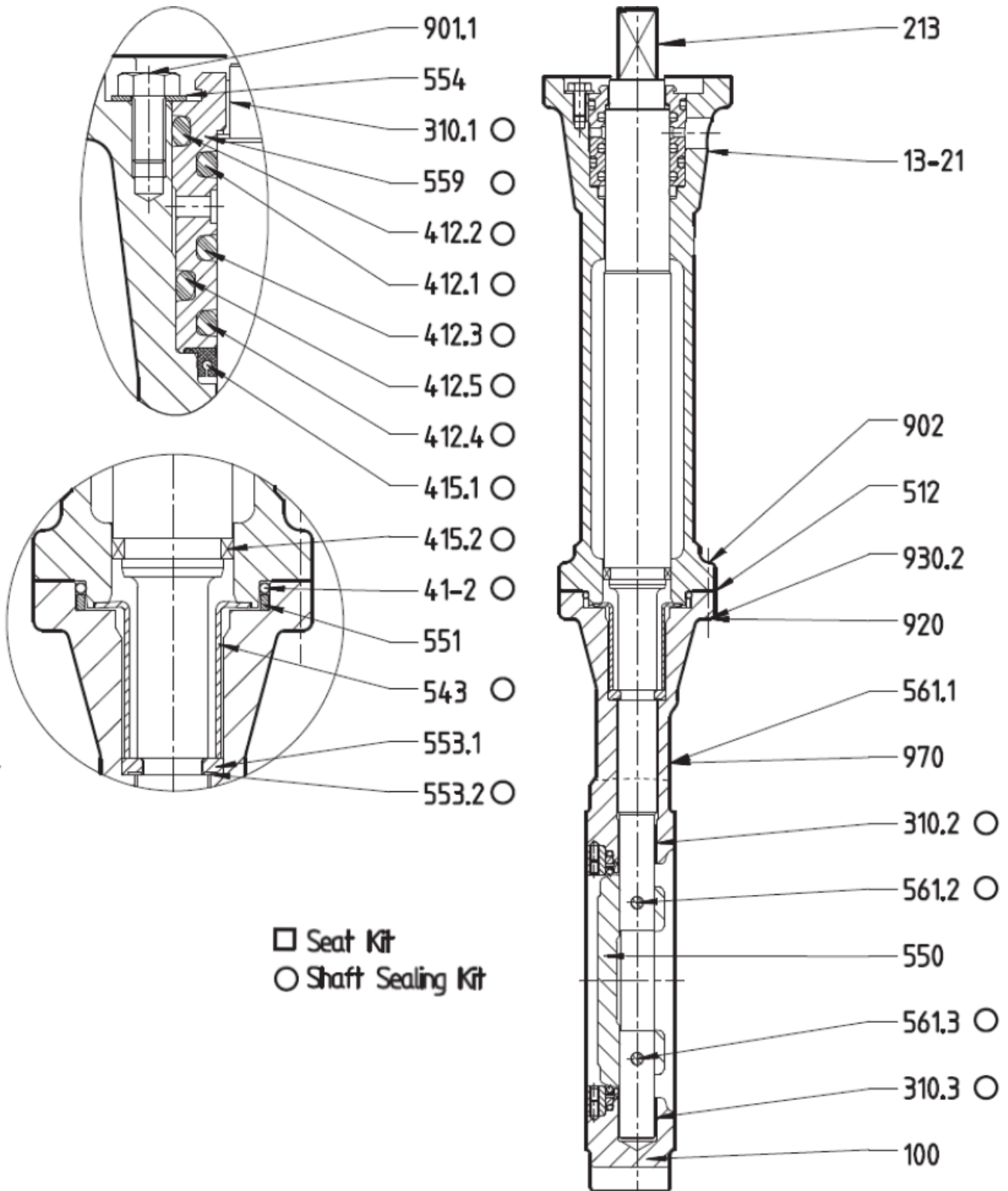
With PFA seat

DN	NPS	Interface		Torque
		Plate	Square	Nm for P ≤ 4 bar
80	3	F10	19	30
100	4	F10	19	40
150	6	F12	22	80
200	8	F12	22	150
250	10	F14	25	210
300	12	F16	36	410
350	14	F16	36	500
400	16	F16	36	700
450	18	F25	50	1010
500	20	F25	50	1300
600	24	F25	60	1930

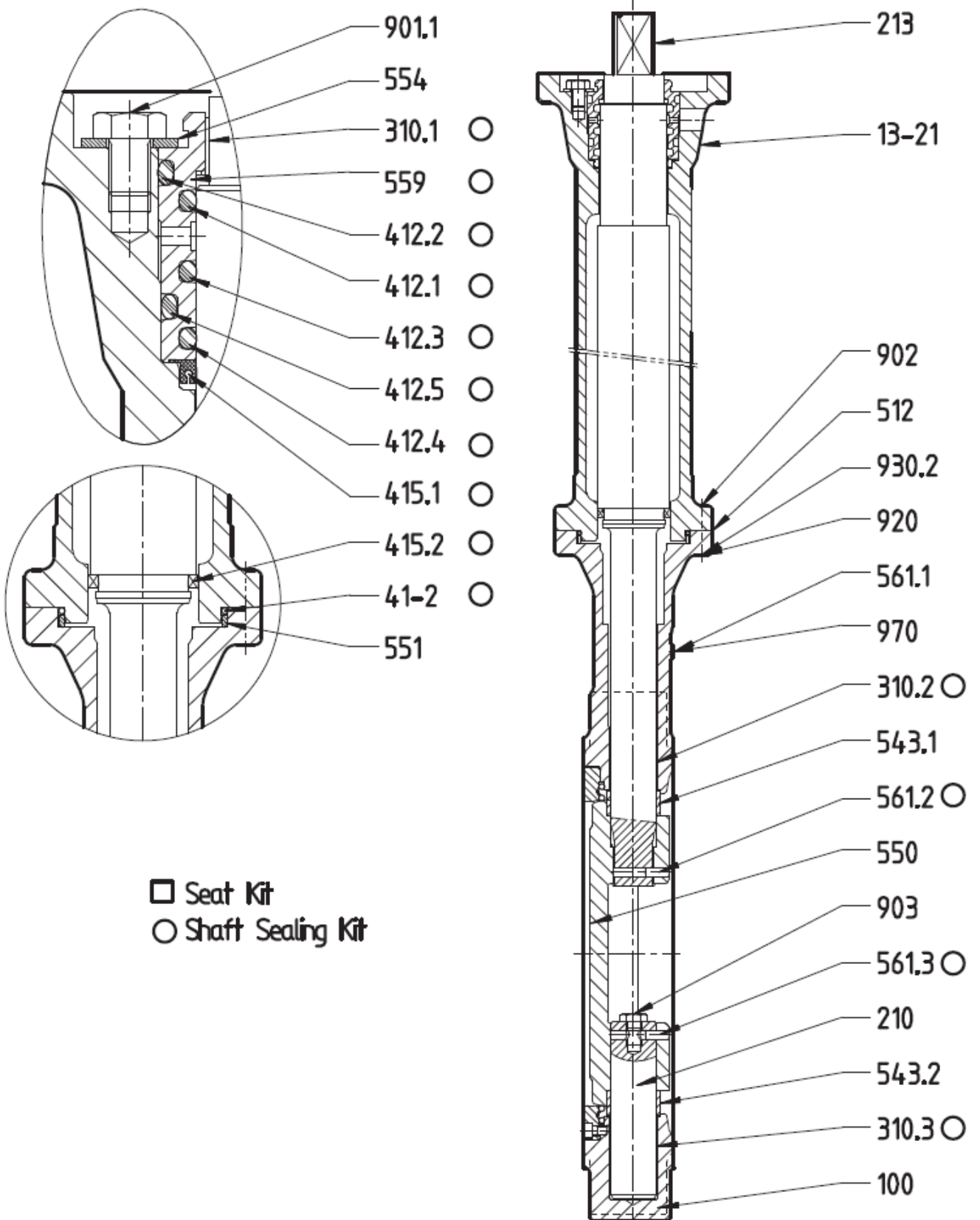
With metallic seat (copper)

DN	NPS	Interface			Torque (Nm)						
		Plate	Square P ≤ 10 bar	Square P ≤ 16 bar	4	6	8	10	12	14	16
80	3	F10	19	19	100						
100	4	F10	19	19	120					130	140
150	6	F12	25	25	300			320	340	360	
200	8	F12	30	30	500			550	590	630	
250	10	F14	36	36	860			930	1000	1070	
300	12	F16	36	40	1260			1370	1480	1590	
350	14	F16	36	50	1860			2030	2200	2370	
400	16	F16	50	50	2680			2920	3150	3390	
450	18	F25	50	60	3550		3900	4260	4620	4980	
500	20	F25	50	70	3900		4370	4840	5310	5790	6260
600	24	F25	60	70	5150	5840	6550	7260	7970	8680	9390

Construction – Lug Type Body – Type 4 - DN 80(3'') to 250 (10'')



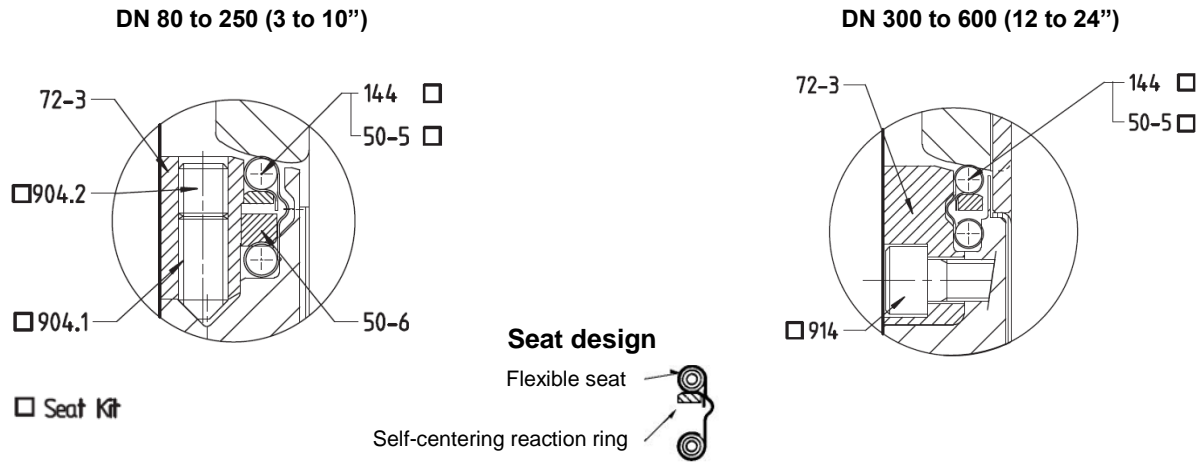
Construction – Lug Type Body – Type 4 - DN 300(12'') to 600 (24'')



Parts list - Lug type body - Type 4

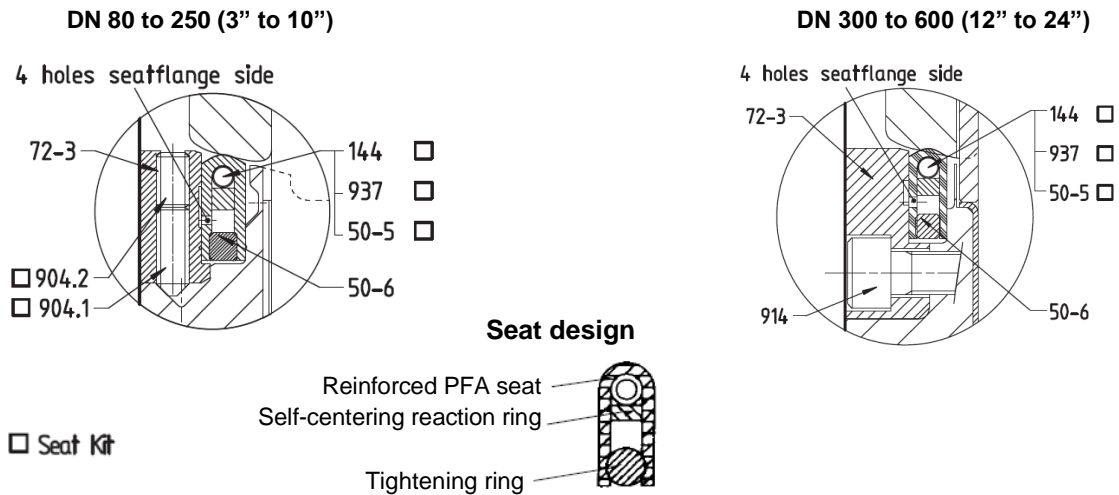
Item	Designation	Materials
Common parts		
100	Body	Stainless steel A351 gr CF8M (1.4408) or CF3M
13-21	Extension	Stainless steel A351 gr CF8M (1.4408)
210	Shaft	Stainless steel 316L
310.1	Self lubricating strip	Stainless steel + PTFE (in accordance with BAM/WHA)
310.2	Self lubricating strip	Stainless steel + PTFE (in accordance with BAM/WHA)
310.3	Self lubricating strip	Stainless steel + PTFE (in accordance with BAM/WHA)
41-2	Static joint	Nickel
412.1	O-ring	Viton (in accordance with BAM/WHA)
412.2	O-ring	Viton (in accordance with BAM/WHA)
412.3	O-ring	Viton (in accordance with BAM/WHA)
412.4	O-ring	Viton (in accordance with BAM/WHA)
412.5	O-ring	Viton (in accordance with BAM/WHA)
415.1	Lip seal ring	PTFE + ELGILOY (in accordance with BAM/WHA)
415.2	Lip seal ring	PTFE + ELGILOY (in accordance with BAM/WHA)
512	Adjusting ring	Stainless steel
543	Spacer bush	Stainless steel
550	Disc	Stainless steel A351 gr CF8M (1.4408) with hard chromium or stellite overlay on edge
551	Spacer disc	Stainless steel
553.1	Thrust insert	Stainless steel
553.2	Thrust insert	Stainless steel + PTFE (in accordance with BAM/WHA)
554	Plain washer	Stainless steel
559	Gasket holder	Stainless steel
561.1	Grooved pin	Stainless steel
561.2	Grooved pin	Stainless steel
561.3	Grooved pin	Stainless steel
901.1	Hexagon head screw	Stainless steel
902	Stud	Stainless steel
920	Hexagon nut	Stainless steel
930.2	Retainer	Stainless steel
970	Identity plate	Stainless steel
Valve 4 bar/ 10 bar		
213	Operating shaft	Stainless steel 316L
Valve 16 bar		
213	Operating shaft	Stainless steel A638 gr 660

Lug type with flexible metallic seat (copper): working pressure 10/16 bar



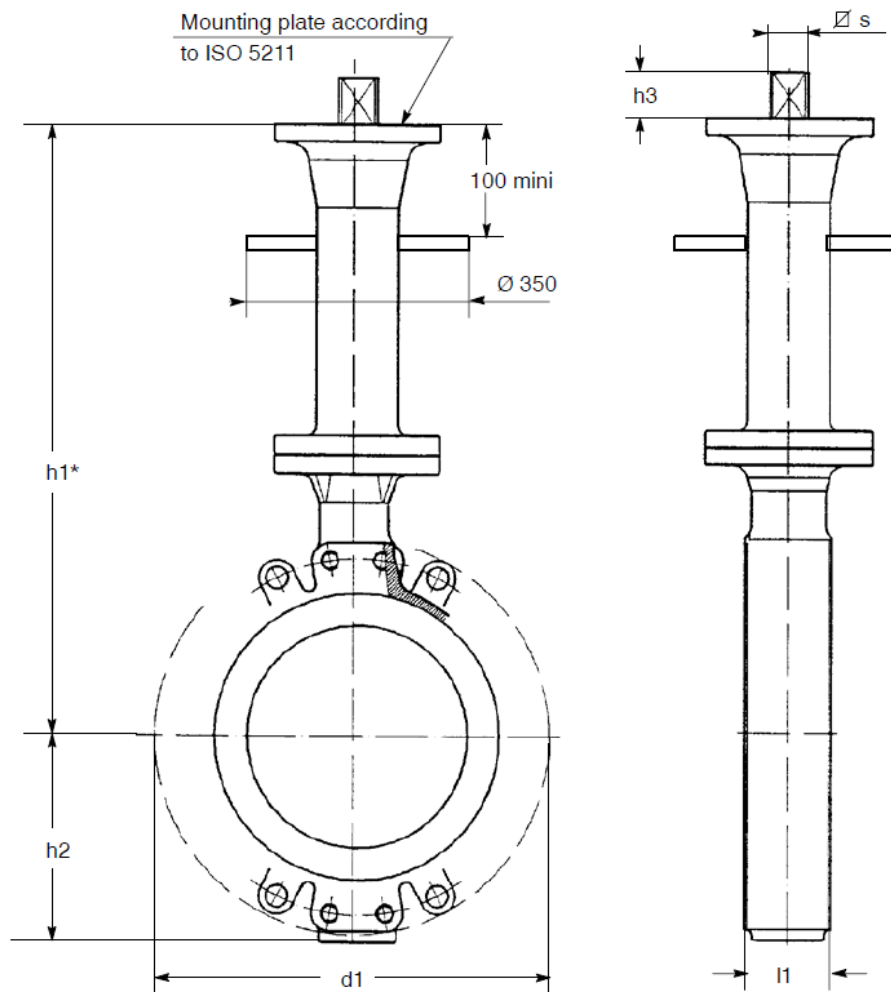
Item	Designation	DN	Materials
50-5	Reaction ring	50 to 600	Stainless steel
50-6	Tightening ring	50 to 250	Stainless steel
72-3	Tightening flange	50 to 600	Stainless steel
144	Metallic seat	50 to 600	Copper
904.1	Grub screw	50 to 250	Stainless steel cl. A4.70
904.2	Grub screw	50 to 250	Stainless steel cl. A4.70
914	Cheese-head screw	300 to 600	Stainless steel cl. A4.70

Lug type with PFA seat: working pressure 4 bar



Item	Designation	DN	Materials
50-5	Reaction ring	50 to 600	Stainless steel
50-6	Tightening ring	50 to 250	Stainless steel
72-3	Tightening flange	50 to 600	Stainless steel
144	Seat	50 to 600	PFA
904.1	Grub screw	50 to 250	Stainless steel cl. A4.70
904.2	Grub screw	50 to 250	Stainless steel cl. A4.70
914	Cheese-head screw	300 to 600	Stainless steel cl. A4.70
937	Spring	50 to 600	Stainless steel

Dimensions – Lug type body – Type 4



mm

DN	NPS	$h1^*$	$h2$	$d1$	$l1$	ISO plate	4 bar		10 bar		16 bar	
							$\varnothing s$	$h3$	$\varnothing s$	$h3$	$\varnothing s$	$h3$
80	3	760	94	188	50	F10	19	33	19	33	19	33
100	4	780	105	210	52	F10	19	33	19	33	19	33
150	6	870	129	257	56	F12	22	38	25	43	25	43
200	8	910	155	340	62	F12	22	38	30	53	30	53
250	10	910	202	417	68	F14	25	43	36	53	36	53
300	12	1070	237	478	78	F16	36	53	36	53	40	63
350	14	1100	274	542	92	F16	36	53	36	53	50	63
400	16	1070	300	587	102	F16	36	53	50	78	50	78
450	18	1070	329	657	114	F25	50	78	50	78	60	78
500	20	1100	356	702	127	F25	50	78	50	78	70	83
600	24	1180	449	834	154	F25	60	78	60	78	70	83

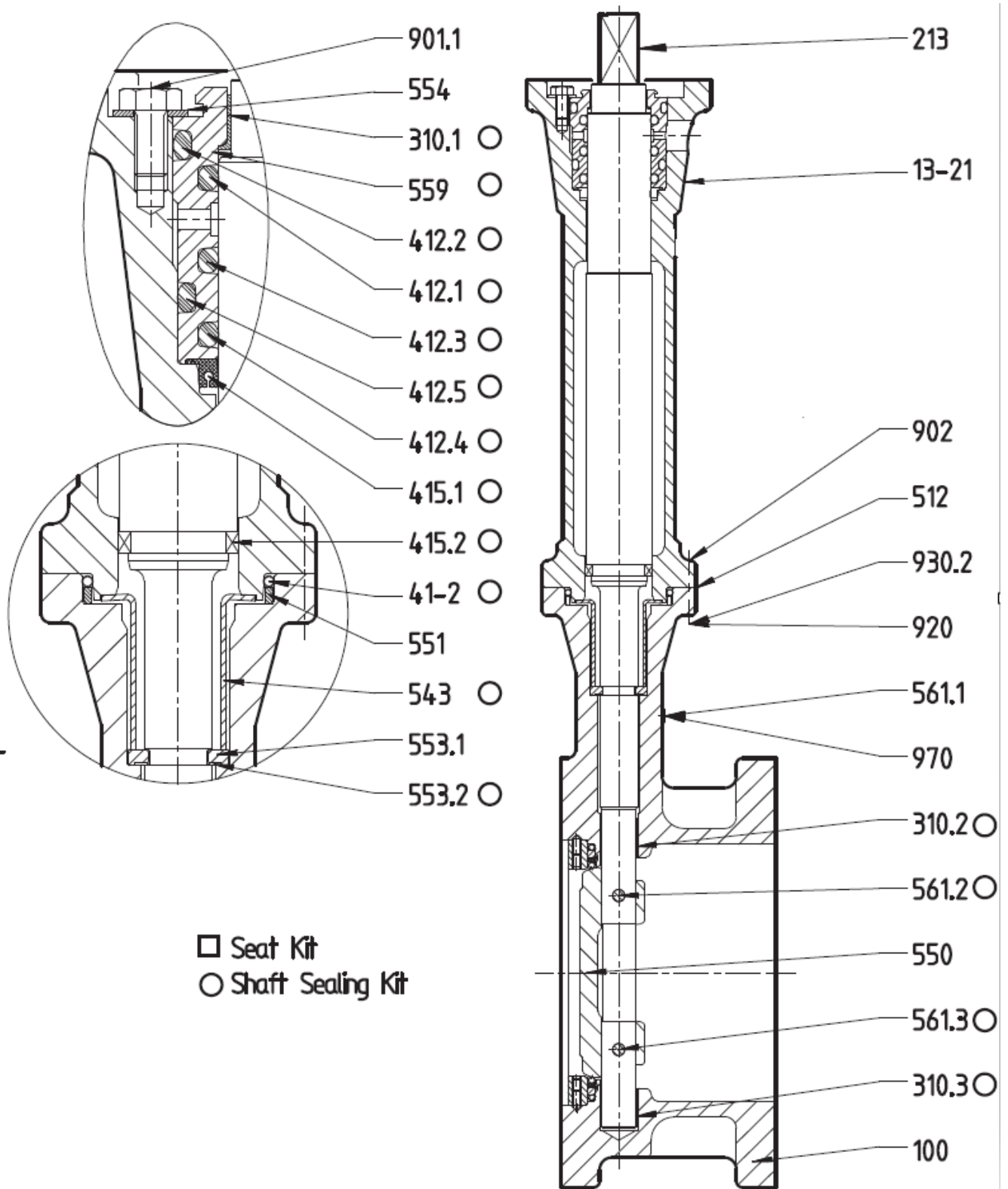
* Standard length of the neck extension
Other dimensions available on request: see page 12

Face to face

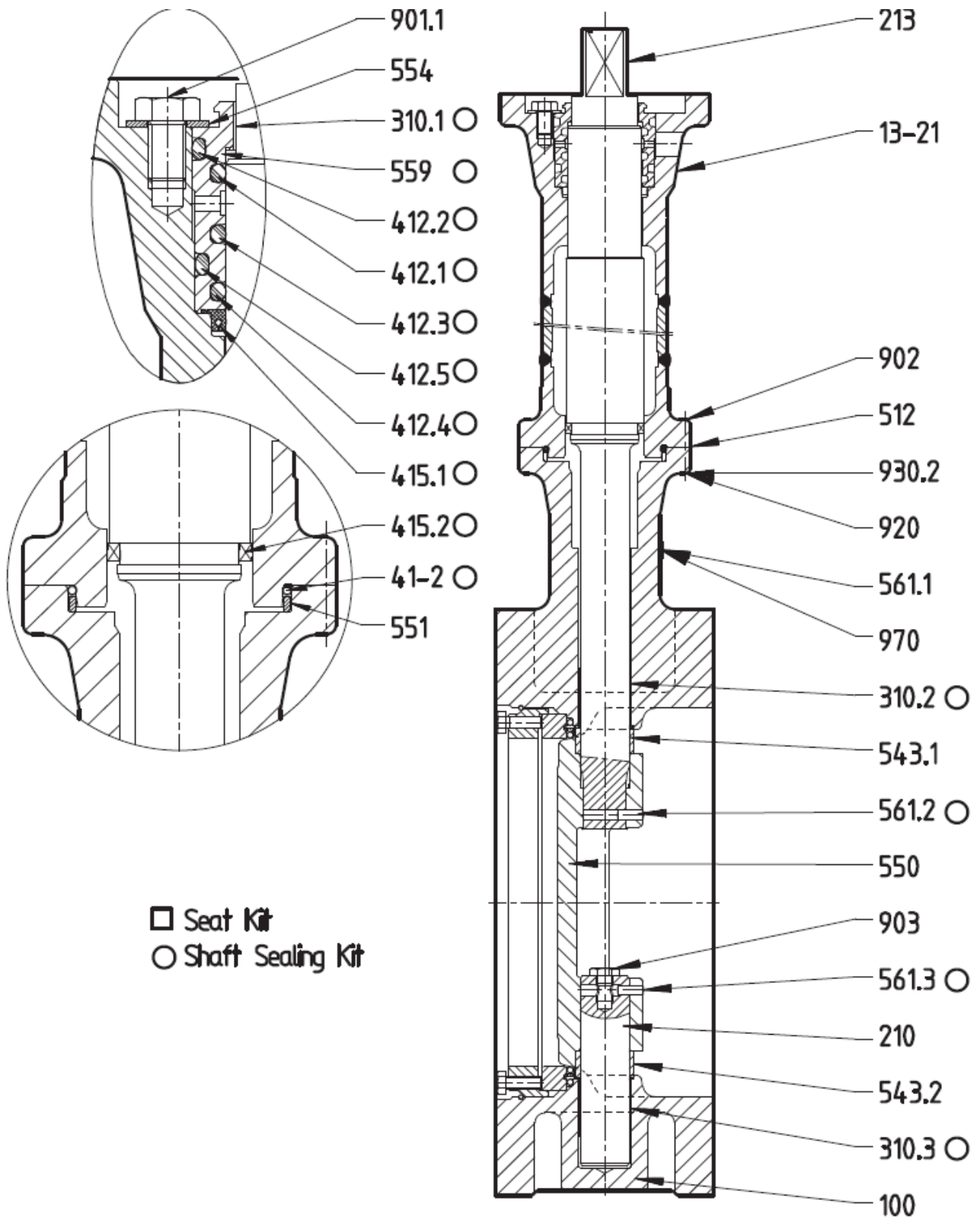
DN	NPS	Lug type
80 to 300 (1)	3" to 12"	EN 558-1 series 20 ; API 609 table 2 class 150 and ISO 5752 series 20
350	14"	EN 558-1 series 20 ; API 609 table 2 class 150 and ISO 5752 series 25
400 to 600	16" to 24"	EN 558-1 series 20 ; API 609 table 2 class 150 and ISO 5752 series 20

(1) DN 80- 3" : only in accordance with API 609 table 2 class 150 standard

Construction – Flanged Type Body – Type 7 - DN 80 (3'') to 250 (10'')



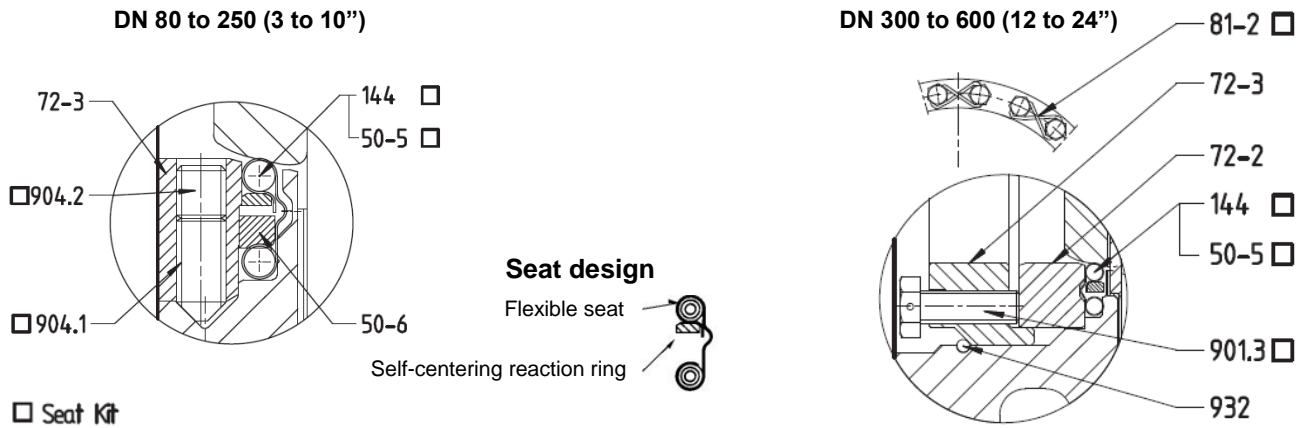
Construction – Flanged Type Body – Type 7 - DN 300 (12'') to 600 (24'')



Parts list - Lug type body - Type 7

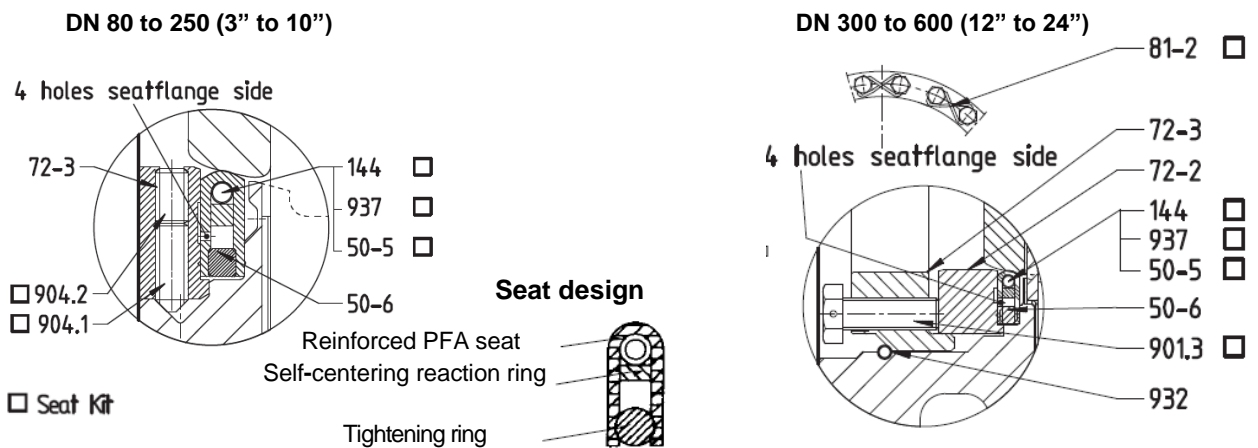
Item	Designation	Materials
Commun parts		
100	Body	Stainless steel A351 gr CF8M (1.4408) or CF3M
13-21	Extension	Stainless steel A351 gr CF8M (1.4408)
210	Shaft	Stainless steel 316L
310.1	Self lubricating strip	Stainless steel + PTFE (in accordance with BAM/WHA)
310.2	Self lubricating strip	Stainless steel + PTFE (in accordance with BAM/WHA)
310.3	Self lubricating strip	Stainless steel + PTFE (in accordance with BAM/WHA)
41-2	Static joint	Nickel
412.1	O-ring	Viton (in accordance with BAM/WHA)
412.2	O-ring	Viton (in accordance with BAM/WHA)
412.3	O-ring	Viton (in accordance with BAM/WHA)
412.4	O-ring	Viton (in accordance with BAM/WHA)
412.5	O-ring	Viton (in accordance with BAM/WHA)
415.1	Lip seal ring	PTFE + ELGILOY (in accordance with BAM/WHA)
415.2	Lip seal ring	PTFE + ELGILOY (in accordance with BAM/WHA)
512	Adjusting ring	Stainless steel
543	Spacer bush	Stainless steel
550	Disc	Stainless steel A351 gr CF8M (1.4408) with hard chromium or stellite overlay on edge
551	Spacer disc	Stainless steel
553.1	Thrust insert	Stainless steel
553.2	Thrust insert	Stainless steel + PTFE (in accordance with BAM/WHA)
554	Plain washer	Stainless steel
559	Gasket holder	Stainless steel
561.1	Grooved pin	Stainless steel
561.2	Grooved pin	Stainless steel
561.3	Grooved pin	Stainless steel
901.1	Hexagon head screw	Stainless steel
902	Stud	Stainless steel
920	Hexagon nut	Stainless steel
930.2	Retainer	Stainless steel
970	Identity plate	Stainless steel
Valve 4 bar/ 10 bar		
213	Operating shaft	Stainless steel 316L
Valve 16 bar		
213	Operating shaft	Stainless steel A638 gr660

Flanged type with flexible metallic seat (copper): working pressure 10/16 bar



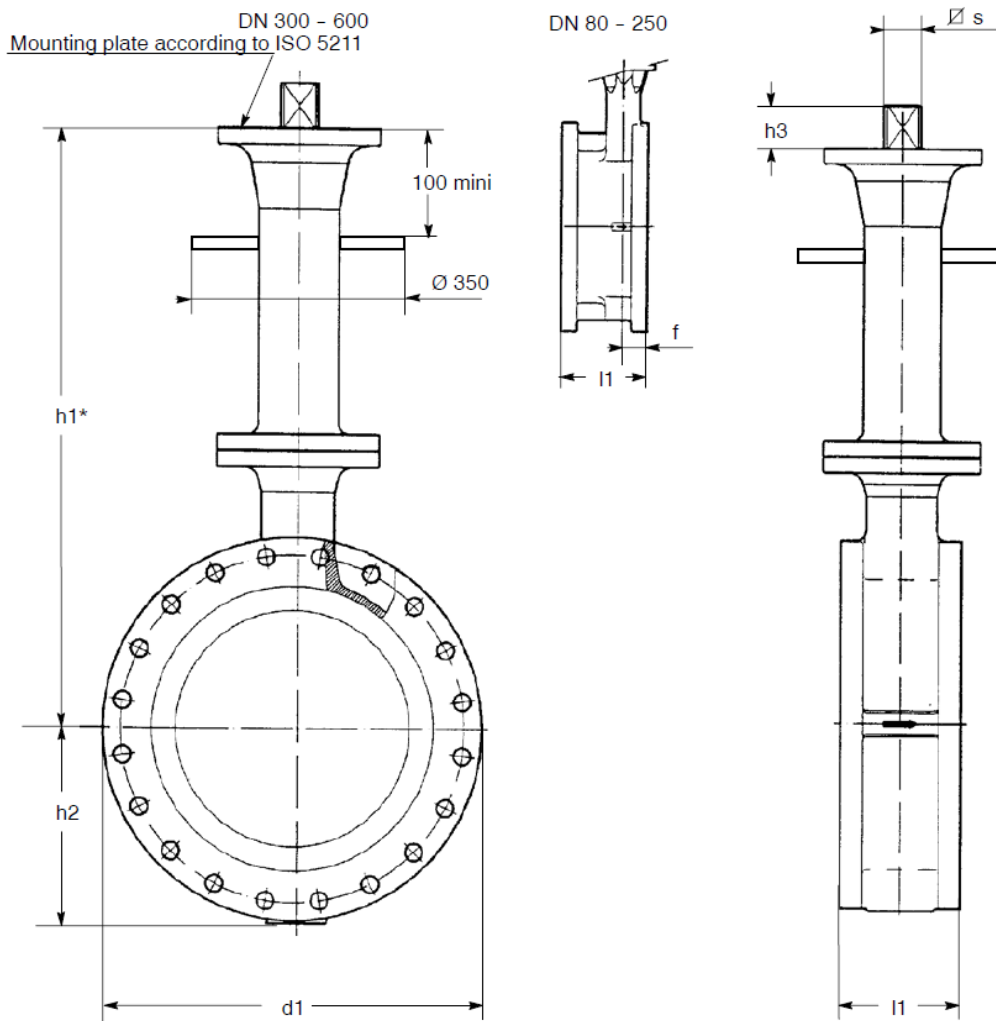
Item	Designation	DN	Materials
50-5	Reaction ring	50 to 600	Stainless steel
50-6	Tightening ring	50 to 250	Stainless steel
72-2	Centring flange	300 to 600	Stainless steel
72-3	Tightening flange	50 to 600	Stainless steel
81-2	Wire	300 to 600	Stainless steel
144	Metallic seat	50 to 600	Copper
901.3	Hexagonal screw	300 to 600	Stainless steel cl. A4-70
904.1	Grub screw	50 to 250	Stainless steel cl. A4.70
904.2	Grub screw	50 to 250	Stainless steel cl. A4.70
932	Retaining ring	300 to 600	Stainless steel cl. A4.70

Flanged type body with PFA seat: working pressure 4 bar



Item	Designation	DN	Materials
50-5	Reaction ring	50 to 600	Stainless steel
50-6	Tightening ring	50 to 250	Stainless steel
72-2	Centring flange	300 to 600	Stainless steel
72-3	Tightening flange	50 to 600	Stainless steel
81-2	Wire	300 to 600	Stainless steel
144	Seat	50 to 600	PFA
901.3	Hexagonal screw	300 to 600	Stainless steel cl. A4-70
904.1	Grub screw	50 to 250	Stainless steel cl. A4.70
904.2	Grub screw	50 to 250	Stainless steel cl. A4.70
932	Retaining ring	300 to 600	Stainless steel cl. A4.70
937	Spring	50 to 600	Stainless steel

Dimensions – Flanged type body – Type 7



mm

DN	NPS	h1*	h2	d1	l1	f	ISO plate	4 bar		10 bar		16 bar	
								∅ s	h3	∅ s	h3	∅ s	h3
80	3	760	95	190	114	33,5	F10	19	33	19	33	19	33
100	4	780	115	229	127	36,0	F10	19	33	19	33	19	33
150	6	870	140	279	140	38,0	F12	22	38	25	43	25	43
200	8	910	172	343	152	42,5	F12	22	38	30	53	30	53
250	10	910	203	406	165	46,5	F14	25	43	36	53	36	53
300	12	1070	242	483	178		F16	36	53	36	53	40	63
350	14	1100	274	535	190		F16	36	53	36	53	50	63
400	16	1070	300	600	216		F16	36	53	50	78	50	78
450	18	1070	329	635	222		F25	50	78	50	78	60	78
500	20	1100	356	700	229		F25	50	78	50	78	70	83
600	24	1180	449	826	267		F25	60	78	60	78	70	83

* Standard length of the neck extension
Other dimensions available on request: see page 12

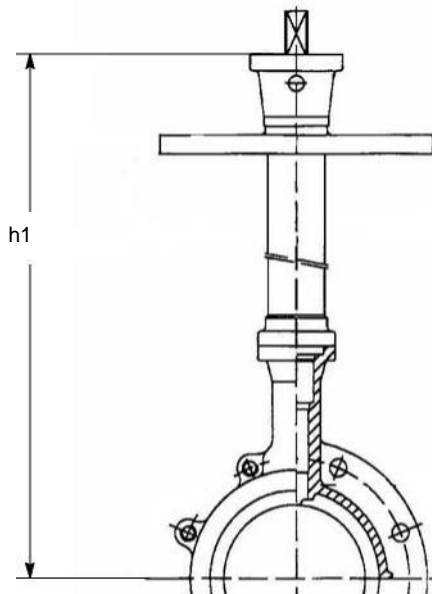
Face to face

The face to face dimensions of DANAİS CRYO TBT II ASU valves with flanged type body are in accordance with ISO 5752 series 13, EN 558-1 series 13 standards.

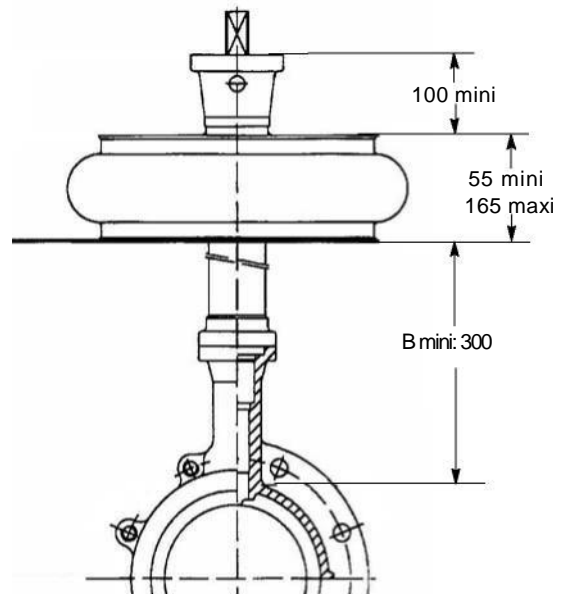
Standard variants

Neck extension

Dimensions available on request



Cover plate with Moller-Balg



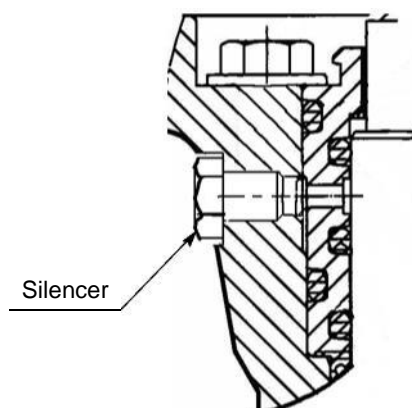
mm

DN	NPS	h1 (on request)			
		size 1	size 2	size 3	size 4
80	3	510	560	630	
100	4	530	580	650	
150	6	580	650	780	
200	8	650	780	870	
250	10	720	870		1070
300	12	780	870		1180
350	14	870	910		1180
400	16	910		1180	1280
450	18		1180	1280	1380
500	20		1180	1280	1380
600	24		1280	1380	/

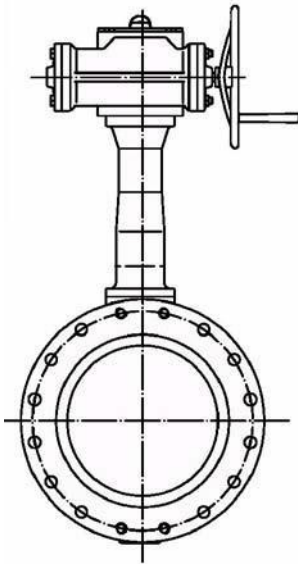
B*
with balg height mini 55
305
307
331.5
354
417.5
452
516.5
530

Standard sizes, see pages 7 and 11

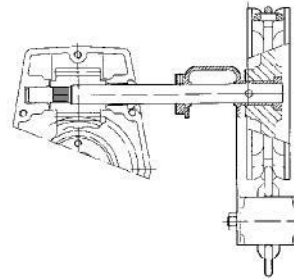
Sand wind protection



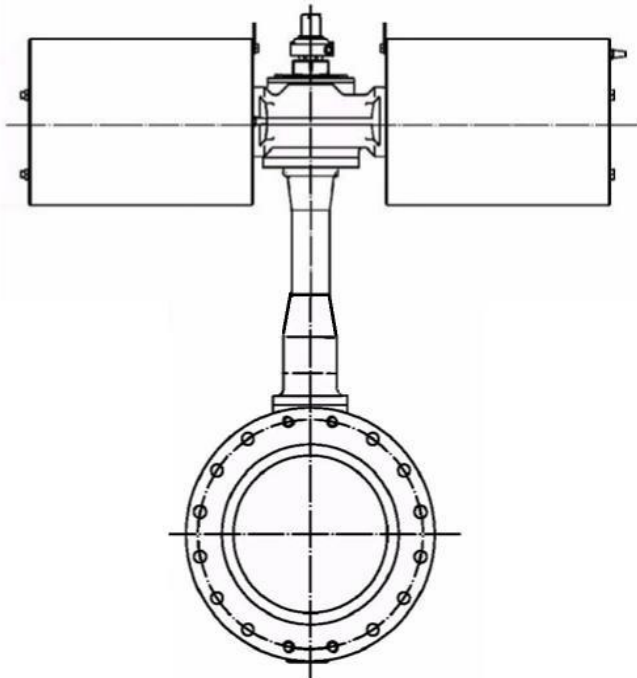
MR manual reducer



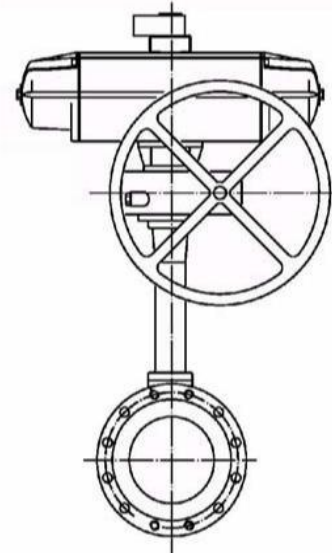
Chain wheel



DYNACTAIR pneumatic actuator



ACTAIR pneumatic with manual override



Actuator selection - Valve with PFA seat Manual actuators MR type

DN	NPS	Interface		Manual actuator
		Plate	Square	MR type
80	3	F10	19	MR 25
100	4	F10	19	
150	6	F12	22	
200	8	F12	22	
250	10	F14	25	MR 50
300	12	F16	36	MR100
350	14	F16	36	
400	16	F16	36	
450	18	F25	50	MR 200
500	20	F25	50	
600	24	F25	60	MR 400

ACTAIR double acting pneumatic actuators

DN	NPS	Interface		ACTAIR selection	
		Plate	Square	3 bar ON-OFF 4 bar Throttling duties	4-5-6 bar ON-OFF 5-6 bar Throttling duties
80	3	F10	19	ACTAIR 12	ACTAIR 12
100	4	F10	19		
150	6	F12	22	ACTAIR 25	ACTAIR 25
200	8	F12	22		
250	10	F14	25	ACTAIR 50	ACTAIR 50
300	12	F16	36	ACTAIR 100	ACTAIR 100
350	14	F16	36		
400	16	F16	36		
450	18	F25	50	ACTAIR 200	ACTAIR 200
500	20	F25	50		
600	24	F25	60	ACTAIR 400	ACTAIR 400

DYNACTAIR single acting pneumatic actuators

DN	NPS	Interface		3 bar ON-OFF 4 bar Throttling duties	DYNACTAIR selection	
		Plate	Square		4 bar ON-OFF 5 bar Throttling duties	5-6 bar ON-OFF 6 bar Throttling duties
80	3	F10	19	DYNACTAIR 12	DYNACTAIR 6	DYNACTAIR 6
100	4	F10	19			
150	6	F12	22	DYNACTAIR 25	DYNACTAIR 12	DYNACTAIR 12
200	8	F12	22	DYNACTAIR 50	DYNACTAIR 25	DYNACTAIR 25
250	10	F14	25		DYNACTAIR 50	
300	12	F16	36	DYNACTAIR 100	DYNACTAIR 100	DYNACTAIR 50
350	14	F16	36			
400	16	F16	36	DYNACTAIR 200		DYNACTAIR 100
450	18	F25	50	DYNACTAIR 400	DYNACTAIR 200	DYNACTAIR 200
500	20	F25	50			
600	24	F25	60	DYNACTAIR 800	DYNACTAIR 400	DYNACTAIR 400

Actuator selection - Valve with metallic seat (copper)

Manual actuators MR type

DN	NPS	Interface Plate	Differential pressure ΔP					
			4	6	8	10	12	14
80	3	F10	MR 25					
100	4	F10						
150	6	F12	MR 50					
200	8	F12	MR 100					
250	10	F14						
300	12	F16	MR 200					
350	14	F16						
400	16	F16	MR 400					
450	18	F25						
500	20	F25	MR 800					
600	24	F25	MR 1200					

ACTAIR double acting pneumatic actuators

DN	NPS	Interface Plate	3 bar ON-OFF 4 bar Throttling duties						4 bar ON-OFF 5 bar Throttling duties					
			Differential pressure ΔP						Differential pressure ΔP					
			4	6	8	10	12	14	16	4	6	8	10	12
80	3	F10	ACTAIR 25						ACTAIR 25					
100	4	F10	ACTAIR 50						ACTAIR 50					
150	6	F12	ACTAIR 100						ACTAIR 100					
200	8	F12	ACTAIR 200						ACTAIR 200					
250	10	F14	ACTAIR 400						ACTAIR 400					
300	12	F16	ACTAIR 800						ACTAIR 800					
350	14	F16	ACTAIR 1600						ACTAIR 1600					
400	16	F16	ACTAIR 1600						ACTAIR 1600					
450	18	F25	ACTAIR 1600						ACTAIR 1600					
500	20	F25	ACTAIR 1600						ACTAIR 1600					
600	24	F25	ACTAIR 1600						ACTAIR 1600					

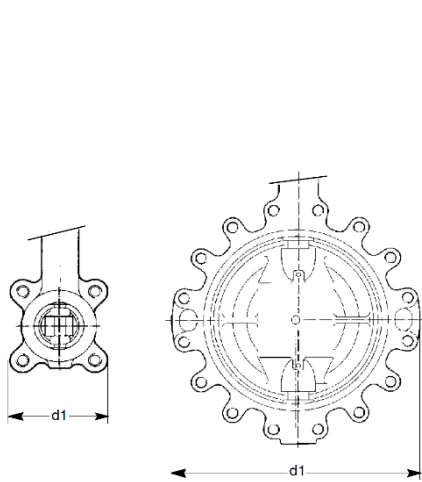
DN	NPS	Interface Plate	5 bar ON-OFF 6 bar Throttling duties						6 bar ON-OFF					
			Differential pressure ΔP						Differential pressure ΔP					
			4	6	8	10	12	14	16	4	6	8	10	12
80	3	F10	ACTAIR 12						ACTAIR 12					
100	4	F10	ACTAIR 25						ACTAIR 25					
150	6	F12	ACTAIR 50						ACTAIR 50					
200	8	F12	ACTAIR 100						ACTAIR 100					
250	10	F14	ACTAIR 200						ACTAIR 200					
300	12	F16	ACTAIR 400						ACTAIR 400					
350	14	F16	ACTAIR 800						ACTAIR 800					
400	16	F16	ACTAIR 1600						ACTAIR 1600					
450	18	F25	ACTAIR 1600						ACTAIR 1600					
500	20	F25	ACTAIR 1600						ACTAIR 1600					
600	24	F25	ACTAIR 1600						ACTAIR 1600					

DYNACTAIR single acting pneumatic actuators

DN	NPS	Interface	3 bar ON-OFF 4 bar Throttling duties							4 bar ON-OFF 5 bar Throttling duties						
			Differential pressure ΔP							Differential pressure ΔP						
		Plate	4	6	8	10	12	14	16	4	6	8	10	12	14	16
80	3	F10	DYN 25							DYN 25						
100	4	F10	DYN 25							DYN 25						
150	6	F12	DYN 100							DYN 50						
200	8	F12	DYN 100							DYN 100						
250	10	F14	DYN 200							DYN 200						
300	12	F16	DYN 400							DYN 400						
350	14	F16	DYN 400							DYN 400						
400	16	F16	DYN 800							DYN 800						
450	18	F25	DYN 800							DYN 800						
500	20	F25	DYN 800							DYN 800						
600	24	F25	DYN 800							DYN 800						

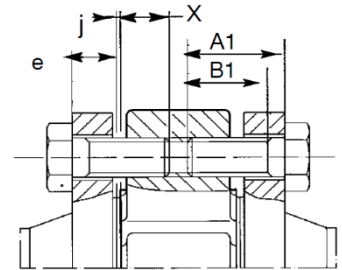
DN	NPS	Interface	5 bar ON-OFF 6 bar Throttling duties							6 bar ON-OFF						
			Differential pressure ΔP							Differential pressure ΔP						
		Plate	4	6	8	10	12	14	16	4	6	8	10	12	14	16
80	3	F10	DYN 12							DYN 12						
100	4	F10	DYN 25							DYN 25						
150	6	F12	DYN 50							DYN 50						
200	8	F12	DYN 50							DYN 50						
250	10	F14	DYN 100							DYN 100						
300	12	F16	DYN 200							DYN 200						
350	14	F16	DYN 200							DYN 200						
400	16	F16	DYN 400							DYN 400						
450	18	F25	DYN 400							DYN 400						
500	20	F25	DYN 800							DYN 800						
600	24	F25	DYN 800							DYN 800						

Bolting and weight for full-lug type body - Type 4



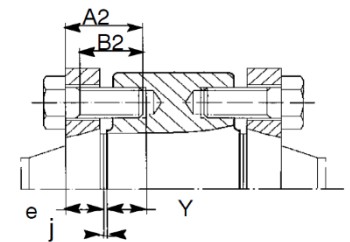
Screw length
A1 max. = e + X + j

e : Flange thickness (customer specification)
 X : Max. implantation of the screw
 j : Thickness of the flange gasket
 B1: Min. threaded length of the screw $B1 > A1 - e$



Screw length at shaft passages
A2 max. = e + Y + j

e : Flange thickness (customer specification)
 Y : Max. implantation of the screw
 j : Thickness of the flange gasket
 B2: Min. threaded length of the screw $B2 > A2 - e$



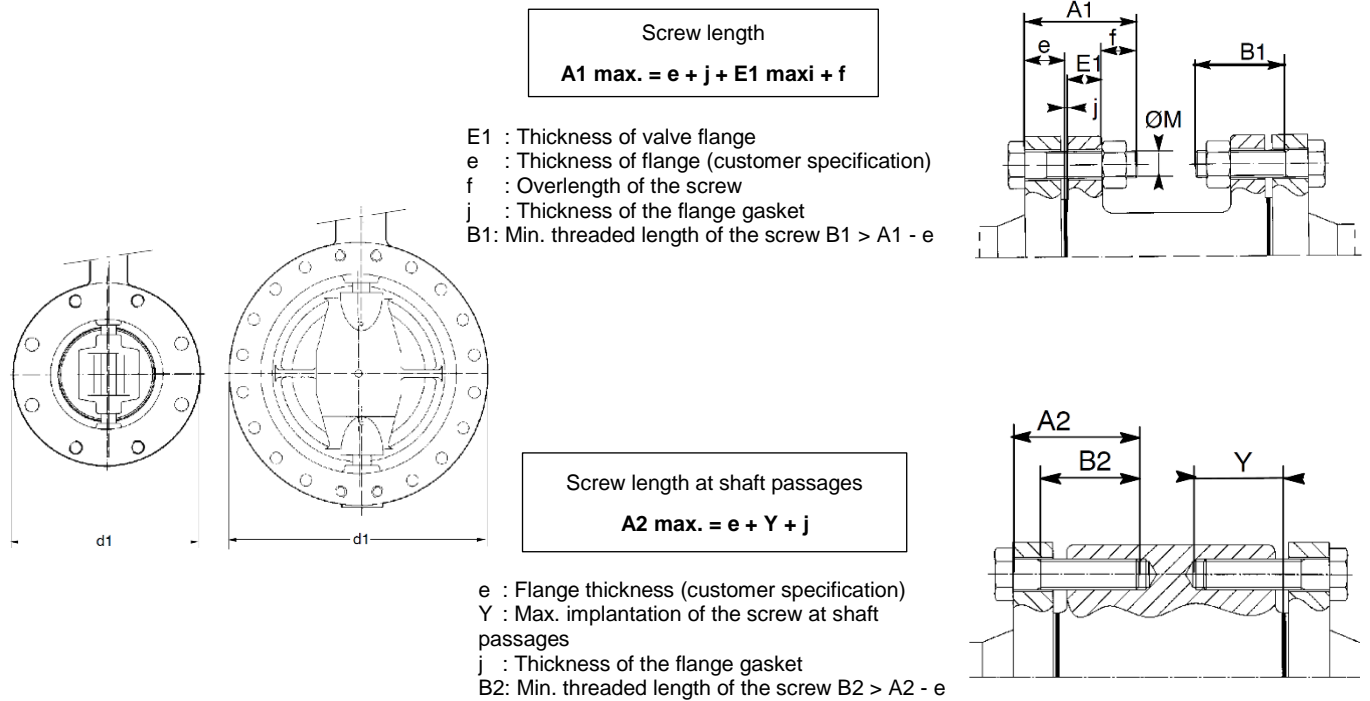
The drawings are not the correct representation of our manufacture (quantity for full - lug holes).

NB: We do not supply the bolting

DN	NPS	d1	EN 1092-1 PN 10				EN 1092-1 PN 16				ISO 7005 PN 20				ASME B16-5 class 150				weight kg				
			ØM	Screw A1		Screw A2		ØM	Screw A1		Screw A2		ØM	Screw A1		Screw A2		UNC		Screw A1		Screw A2	
				X	Qty*	Y	Qty*		X	Qty*	Y	Qty*		X	Qty*	Y	Qty*			X	Qty*	Y	Qty*
80	3	188	M16	21	8			M16	21	8			M16	21	4			5/8"	21	4			9.0
100	4	210	M16	21	8			M16	21	8			M16	21	8			5/8"	21	8			11.2
150	6	270	M20	24	8			M20	24	8			M20	24	8			3/4"	24	8			18.5
200	8	310	M20	26	8								M20	26	8			3/4"	26	8			30.0
200	8	340						M20	26	12													31.0
250	10	417	M20	26	12			M24	30	12			M24	30	12			7/8"	30	12			48.0
300	12	478	M20	26	12			M24	30	8	35	4	M24	26	12			7/8"	26	12			70.0
350	14	523											M27	39	12			1"	39	12			99.0
350	14	542	M20	37	16			M24	37	16													108.0
400	16	606	M24	42	16			M27	44	16			M27	44	16			1"	44	16			130.0
450	18	630											M30	51	12	40	4	1 1/8"	51	12	40	4	167.0
450	18	657	M24	40	16	24	4	M27	44	16	24	4											207.0
500	20	716	M24	42	16	32	4	M30	51	16	31	4	M30	51	16	31	4	1 1/8"	51	16	31	4	237.0
600	24	834	M27	43	20			M33	52	16	48	4	M33	52	16	47	4	1 1/4"	52	16	47	4	363.0

*Quantity of screws by face

Bolting and weight for flanged type body - Type 7



The drawings are not the correct representation of our manufacture (quantity for full - lug holes).

NB: We do not supply the bolting

DN	NPS	d1	E1	EN 1092-1 PN 10				EN 1092-1 PN 16				ISO 7005 PN 20				ASME B16-5 cl 150				weight kg				
				ØM	Screw A1		Screw A2		ØM	Screw A1		Screw A2		ØM	Screw A1		Screw A2		UNC		Screw A1		Screw A2	
					f	Qty*	Y	Qty*		f	Qty*	Y	Qty*		f	Qty*	Y	Qty*			f	Qty*	Y	Qty*
80	3	190	27,0	M16	20	4	24	4	M16	20	4	24	4	M16	20	4			5/8"	20	4			16.0
100	4	229	27,0	M16	20	4	24	4	M16	20	4	24	4	M16	20	4	24	4	5/8"	20	4	24	4	23.5
150	6	279	28,5	M20	24	4	25	4	M20	24	4	25	4	M20	24	4	25	4	3/4"	24	4	25	4	32.0
200	8	343	31,5	M20	24	4	28	4	M20	24	8	28	4	M20	24	4	28	4	3/4"	24	4	28	4	52.0
250	10	406	33,5	M20	24	8	30	4	M24	29	8	30	4	M24	29	8	30	4	7/8"	29	8	30	4	73.0
300	12	483	35,0	M20	24	8	32	4	M24	29	8	32	4	M24	29	8	32	4	7/8"	29	8	32	4	115.0
350	14	535	38,0	M20	24	12	35	4	M24	29	12	35	4	M27	32	8	35	4	1"	32	8	35	4	147.0
400	16	600	40,0	M24	29	12	37	4	M27	32	12	37	4	M27	32	12	37	4	1"	32	12	37	4	207.0
450	18	635	42,5	M24	29	16	39	4	M27	32	16	39	4	M30	35	12	39	4	1"1/8	35	12	39	4	243.0
500	20	700	46,0	M24	29	16	42	4	M30	35	16	42	4	M30	35	16	42	4	1"1/8	35	16	42	4	335.0
600	24	826	52,0	M27	32	16	48	4	M33	38	16	48	4	M33	38	16	48	4	1"1/4	38	16	48	4	463.0

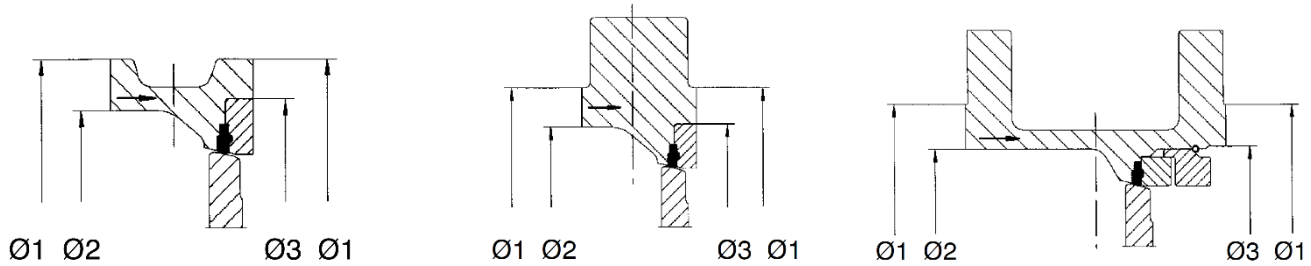
* Quantity of screws by face

Flanging dimensions

DANAIS CRYO TBT II ASU valves are designed to be fitted with flat gaskets or spiral-wound gaskets between any type of flanges and connection standards currently used.

SEALING AREA ON FLANGE FACES

In order to ensure a correct connection, the dimensions of flange gaskets must be compatible with the dimensions mentioned in the table below.



DN	NPS	Full-lug type body			Flanged type body		
		Ø 1	Ø 2	Ø 3	Ø 1	Ø 2	Ø 3
50	2	91.9	62	73	91.9	61	73
65	2 1/2	104.6	74	91	104.6	73	91
80	3	127.0	90	106	127.0	98	106
100	4	157.2	117	128	157.2	124	128
125	5	185.7	142	148	185.7	148	148
150	6	215.9	168	173	215.9	173	173
200	8	269.7	219	226	269.7	226	226
250	10	323.9	273	274	323.9	277	274
300	12	381.0	327	331	381.0	326	324
350	14	412.8 *	363	386	412.8	375	372
400	16	469.9	414	438	469.9	430	425
450	18	533.4	468	498	533.4	468	489
500	20	584.2	518	538	584.2	526	529
600	24	692.2	623	644	692.2	630	625

* Ø 1 : 438 for EN 1092-1 PN 10, 16

Product features - to our customer's benefit

