

Actuators, Accessories and Replacement Parts

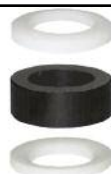


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EEx-protected
version



Pneumatic Actuators

Standard actuator - air opens, spring closes
 maximum air pressure for operation 6.0 bar ü
 Actuator coating outside - Epoxy resin

Available options - on request only:

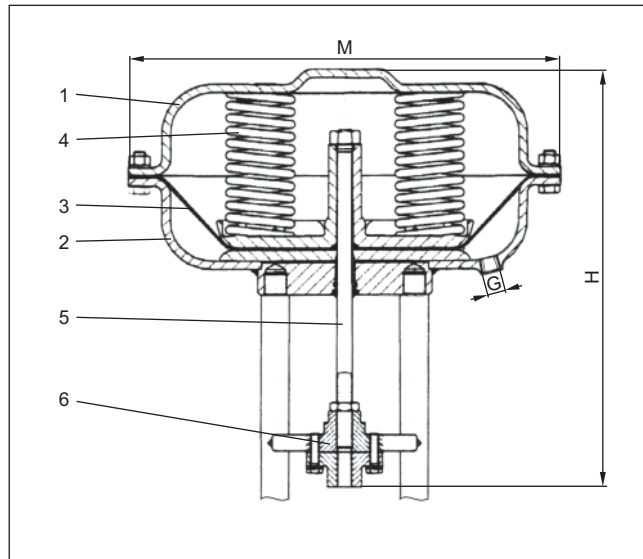
- Actuator - spring opens, air closes
- Actuator - cleaned and degreased for oxygen service
- Pneumatic actuator with override handwheel

Ambient temperature limit: -20°C / -4°F (253K) up to +80°C / 176°F (353K)

*PNASO Series***Overview - required actuator sizes for different working pressures**

Code in Table	Part No. Actuator	Nom. Size (in.)	Lift in mm	Working pressure in P.S.I.												
				29	58	72.5	87	116	145	217	246	290	362	435	507	580
A	27511.15A6.3SPO	3/8	14	A	A	A	A	A	A	A	A	A	A	A	A	A
B	27511.35B6.6GPO	1/2	14	A	A	A	A	A	A	A	A	A	A	A	A	A
C	27511.60A6.6GPO	3/4	12	A	A	A	A	A	A	A	A	A	A	B	B	B
D	27511.60C6.7GPO	1	14	A	A	A	A	A	A	A	B	B	B	B	B	B
E	27511.41B6.6SPO	1-1/4	15	A	A	A	A	A	A	B	B	B	B	B	B	C
F	27511.41C6.2SPO	1-1/2	18	B	B	B	B	B	B	B	B	B	C	C	C	C
		2	19	B	B	B	B	B	B	C	C	C	D	D	E	E
		2-1/2	25	C	C	C	C	C	C	D	D	E	E	E	F	o.r.
		3	30	C	C	C	D	D	E	E	E	F	F	F	o.r.	o.r.
		4	30	C	C	D	D	E	E	F	o.r. – on request					
		6	40	D	E	F	o.r. – on request									

Materials	ASTM
1 Body	A 619 Grade 1008
2 Body	A 619 Grade 1008
3 Diaphragm	NBR
4 Springs	A 576 Grade 1045
5 Actuator stem	A 276 Grade 304
6 Coupling	B 148 UNS C95800



Type 27511		Technical data					
		27511					
Part No. Actuator		.15A6.3SPO	.35B6.6GPO	.60A6.6GPO	.60C6.7GPO	.41B6.6SPO	.41C6.2SPO
Diameter actuator	M	162	210	320	320	415	415
Height	H	204	260	296	339	399	570
Thread	G	M12	M12	M12	M12	M16	M16
Diaphragm area	cm ²	120	280	530	530	1000	1000
Spring range	P.S.I.	13-29	11.6-40	11.6-40	10-43	9-33	15-36
Regulating lift	mm	20	35	40	60	60	80
Weight	LBS.	6.6	11.0	27.5	30.8	103.4	167.2

Dimensions in mm.

Pneumatic Actuators

Standard actuator - air opens, spring closes
maximum air pressure for operation 6.0 bar
Actuator coating - Epoxy resin

Available options - on request only:

- Actuator - spring opens, air closes
- Pneumatic actuator with override handwheel

Ambient temperature limit: -40°C / -40°F (233K) up to +100°C / 212°F (373K)



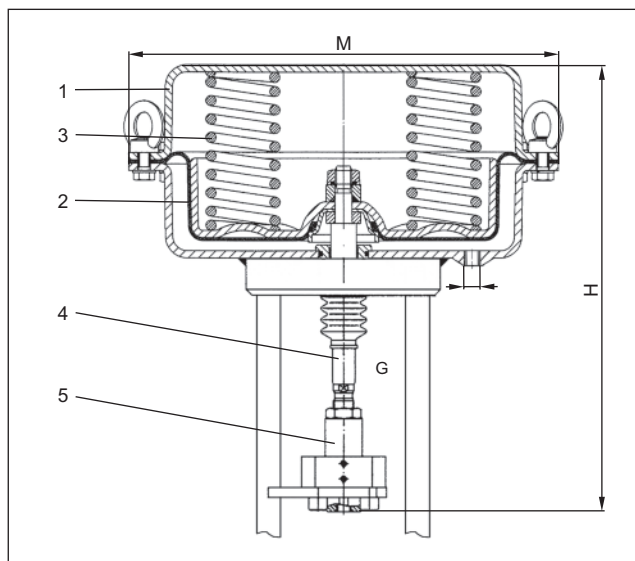
PNAS Series

Overview - required actuator sizes for different working pressures

Code in Table	Part No. Actuator
A	27514.DP32.2O08
B	27514.DP32.2O20
C	27514.DP33.3O20
D	27514.DP34.5O15
E	27514.DP34.5O20

Valve size (in.)	Lift in mm	Working pressure in P.S.I.									
		8.7	116	145	246	362	435	536	580	652	725
3/8	14	A	A	A	A	A	A	A	A	A	A
1/2	14	A	A	A	A	A	A	A	A	A	A
3/4	12	A	A	A	A	A	A	A	A	A	A
1	14	A	A	A	A	A	A	A	A	A	B
1-1/4	15	A	A	A	A	A	B	B	B	B	B
1-1/2	18	A	A	A	A	B	B	B	C	C	C
2	19	A	A	A	B	B	C	C	C	C	C
2-1/2	25	C	C	C	C	C	D	D	D	D	E
3	30	C	C	C	D	D	D	E	E	o.r.	o.r.
4	30	C	C	D	D	E	o.r. on request				
6	40	D	E	o.r. on request							

Materials	ASTM
1 Body	A 622 Grade 1008
2 Diaphragm	NBR + tissue
3 Springs	A 313 Grade 302
4 Actuator stem	A 276 Grade 420
5 Coupling	A 276 Grade 420

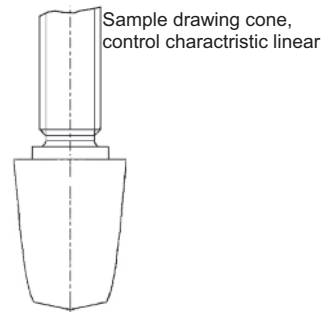
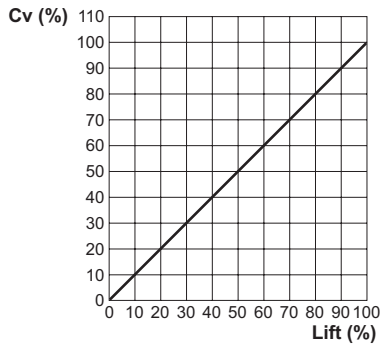


Type 27514		Technical data				
		27514				
Part No. Actuator		.DP32.2O08	.DP32.2O20	.DP33.3O20	.DP34.5O15	.DP34.5O20
Diameter Actuator	M	250	250	300	405	405
Height	H	ca. 240	ca. 240	ca. 300	ca. 375	ca. 375
Thread	G	1/4"	1/4"	1/4"	3/8"	3/8"
Diaphragm area	cm ²	250	250	400	800	800
Spring rage	P.S.I.	11-35	29-48	29-58	22-43	29-58
Regulating lift	mm	20	20	30	50	50
Weight	LBS.	19.8	19.8	33	99	99

Dimensions in mm.

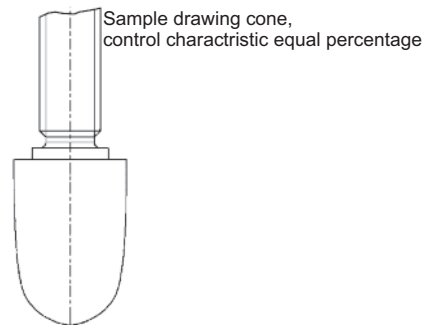
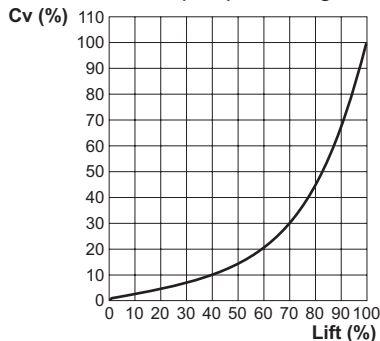
Type 01343 Flow coefficient for Control Valves – Control characteristic linear																		
Control valve	Kvs-Value in m ³ /h, Cv-Value in gal/min																	
Lift in mm	20		20		20		30		30		30		40		40		40	
Seat-Ø in mm	15		20		25		32		36		45		62		76		94	
Nominal size (in.)	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv
1/2	3.5	4.0																
3/4			6.3	7.3														
1					10.0	11.6												
1-1/4							16.0	18.5										
1-1/2									19.0	22.0								
2											30.0	34.7						
2-1/2													60.0	69.3				
3															86.0	99.4		
4																	140.0	161.8

Ideal inherent linear characteristic line acc. to DIN IEC 60534 Part 2-4



Type 01343 Flow coefficient for Control Valves – Control characteristic equal percentage																		
Control valve	Kvs-Value in m ³ /h, Cv-Value in gal/min																	
Lift in mm	20		20		20		30		30		30		40		40		40	
Seat-Ø in mm	15		20		25		32		36		45		62		76		94	
Nominal size (in.)	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv	Kvs	Cv
1/2	3.5	4.0																
3/4			4.0	4.6														
			6.0	6.9														
1					2.5	2.9												
					4.5	5.2												
					6.3	7.3												
					10.0	11.6												
1-1/4							10.0	11.6										
							14.0	16.2										
1-1/2									10.0	11.6								
									19.0	22.0								
2											10.0	11.6						
											16.0	18.5						
											25.0	28.9						
											30.0	34.7						
2-1/2													60.0	69.3				
3															80.0	92.5		
4																	130.0	150.3

Ideal inherent equal percentage characteristic curve acc. to DIN IEC 60534 Part 2-4



3/2 way Solenoid Valve

direct acting solenoid valve DN3, fast acting, for neutral medium like air and water
 port connections G1/4, body in brass, NBR seal,
 circuit function: power free - outlet balanced, Pressure range 0 - 145 P.S.I., Voltage tolerance $\pm 10\%$,
 Ambient temperature max $+55^{\circ}\text{C}$ / 131°F , with flat seal and fixing screw

Standard version

Protecting class IP65, with cable plug for cable- $\varnothing 7$ mm, Medium temperature: 0°C / 32°F up to $+80^{\circ}\text{C}$ / 176°F

Part No. 40060.0200.C024

Operating voltage 24V, AC (50Hz)

Part No. 40060.0200.C110

Operating voltage 110V, AC (50Hz)

Part No. 40060.0200.C230

Operating voltage 230V, AC (50Hz)

Part No. 40060.0200.C24D

Operating voltage 24V, DC



Standard version

HSNS Series**EEx-protected version**

Protecting class IP65 EEx ed IIC T5, with cable $3 \times 0.75 \text{ mm}^2$, Medium temperature: 0°C / 32°F up to $+70^{\circ}\text{C}$ / 158°F
 semi time-lag fuse acc. to nominal voltage

Part No. 40061.0200.C024

Operating voltage 24V, UC

Part No. 40061.0200.C230

Operating voltage 230V, UC

UC = DC and AC



EEx-protected version

HSNF Series**Available options - on request only:**

- Solenoid Valve "cleaned and degreased for oxygen"
- other port connections (1/4"NPT, G1/8), body and seat material 1.4401
- seal material EPDM or FPM, circuit function: power free - outlet pressure loaded

Position and Limit Switches

Limit switch (0/100%) with parallel roller lever and fixing device, quick-break switch,
 Max. fuse rating 6A gL/gD D-fuse, Switching frequency 3600/h,

Part No. 40070.0011.0000Z - Standard version

Protecting class IP65 acc. to EN 60529,

Rated operating current/-voltage I_e/U_e : 6A / 400VAC, 3 cable entries M16 x 1.5,
 change-over contact with double break (1 break contact / 1 make contact),
 Ambient temperature -20°C / -4°F up to $+80^{\circ}\text{C}$ / 176°F

Part No. 40071.0011.0000Z - EEx-protected version

Protecting class IP67 acc. to EN 60529, EEX d IIC T6,

Rated operating current/-voltage I_e/U_e : 5A / 250VAC, with cable $4 \times 0.75 \text{ mm}^2$,
 change-over contact with single break (1 break contact / 1 make contact),
 Ambient temperature -20°C / -4°F up to $+65^{\circ}\text{C}$ / 149°F

Available options - on request only:

- overrun limit switch to signal intermediate positions



Standard version

HPLS Series

EEx-protected version

HPLSE Series**Inductive proximity switches**

Functions: inductive, Switching element function NAMUR NC, Output polarity NAMUR, Rated operating distance 2mm,
 Assured operating distance 0 - 1.62 mm, Installation embeddable,
 Nominal voltage 8V, Switch frequency 0 - 1000 Hz, Short-circuit and reverse polarity protection,
 Indication of the switching state all direction LED yellow, with cable $2 \times 0.34 \text{ mm}^2$ and fixing device

Part No. 40080.1235.0000Z

Protecting class IP67 acc. to EN 60529, EEX ia IIC T6

**HIPS Series**

for Cryogenic-Globe and Globe/Check Valves, 725 P.S.I.

Bronze topwork

"live loaded" gland packing

"cleaned and degreased for oxygen service"

Part No. 28301.X.0000

Part No. 28301.X.5001 with check function

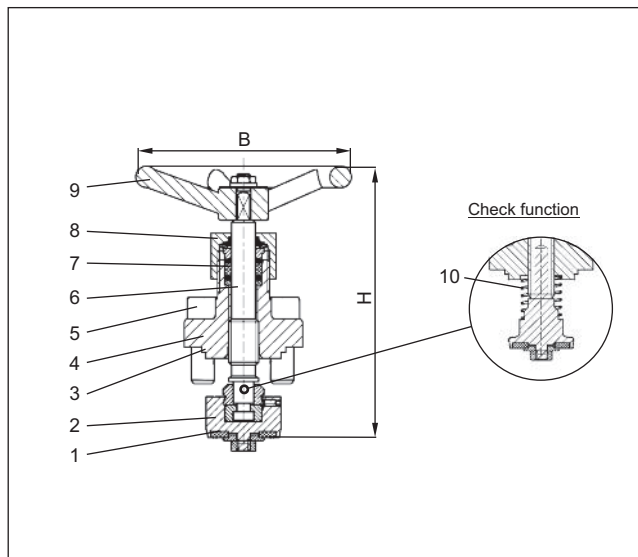
suitable for:

Type	Nominal size
01301	3/8 - 2"
01305	3/8 - 2"
02401	3/8 - 2"
01331	3/8 - 3"
01335	3/8 - 2"
03331	3/8 - 3"



TWNBA Series

Materials	DIN EN	ASTM
1 Valve seal	PTFE / Carbon filled (25%)	
2 Disc	CW614N	B 283 UNS C38500
3 Bonnet gasket	PTFE	
4 Headpiece	CC493K	B 505 UNS C93200
5 Bolts	1.4301/A2	A 194 B8
6 Stem	1.4301	A 276 Grade 304
7 Gland packing	Graphite / PTFE	
8 Gland nut	CW614N	B 283 UNS C38500
9 Handwheel	Aluminium alloy	
10 Spring	CW452K	B 103 UNS C51900



Type 28301	Technical Data										
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000
Height	H	130	130	130	130	155	160	185	240	285	320
Number of bolts		4	4	4	4	4	4	6	6	6	6
Handwheel-ø	B	80	100	100	100	125	125	125	200	250	315
Weight	LBS.	1.32	1.54	2.09	2.2	3.3	4.18	5.94	10.56	12.98	18.48

Dimensions in mm.



for Cryogenic-Globe Valves Angle Type, 725 P.S.I.

Bronze topwork,

“live loaded” gland packing

“cleaned and degreased for oxygen service ”

Part No. 28302.X.0000

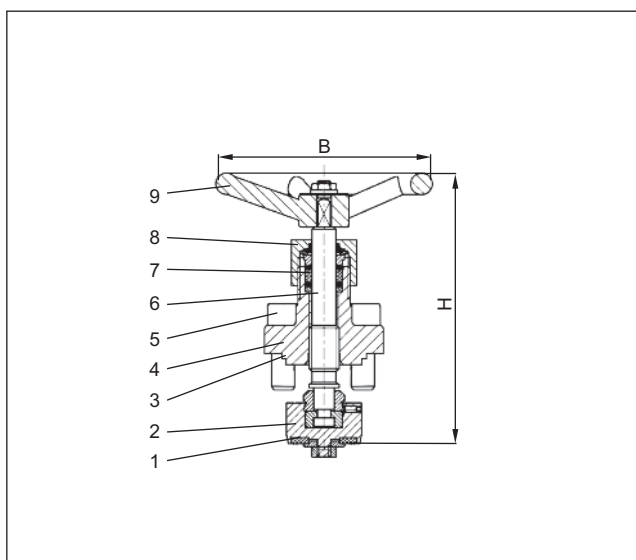
suitable for:

Type	Nominal size
01301	1/2 - 2"



TWNBB Series

Materials	ASTM
1 Valve seal	PTFE / Carbon filled (25%)
2 Disc	B 283 UNS C38500
3 Bonnet gasket	PTFE
4 Headpiece	B 505 UNS C93200
5 Bolts	A 194 B8
6 Stem	A 276 Grade 304
7 Gland packing	Graphite / PTFE
8 Gland nut	B 283 UNS C38500
9 Handwheel	Aluminium alloy



Type 28302	Technical data								in preparation	
Nominal size	Inches	1/2	3/4	1	1-1/4	1-1/2	2	3	4	
Dimension code	.X.	0150	0200	0250	0320	0400	0500	-	-	
Height	H	130	130	130	155	160	185	-	-	
Number of bolts		4	4	4	4	4	6	-	-	
Handwheel-ø	B	100	100	100	125	125	125	-	-	
Weight	LBS.	1.54	1.87	2.2	3.3	4.18	5.94	-	-	

Dimensions in mm.

for Cryogenic-Globe and Globe/Check Valves, 725 P.S.I.

Bronze topwork

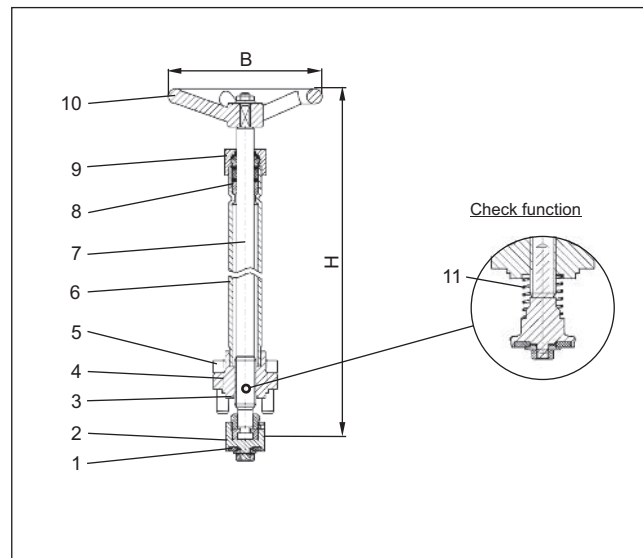
"live loaded" gland packing

"cleaned and degreased for oxygen service"

Part No. 28311.X.0010 (H=270mm)**Part No. 28311.X.0020 (H=370mm)****Part No. 28311.X.5010 (H=270mm) with check function****Part No. 28311.X.5020 (H=370mm) with check function****suitable for:**

Type	Nominal size
01311	3/8 – 2"
01315	3/8 – 2"
02411	3/8 – 2"
01321	3/8 – 6"
01325	3/8 – 2"
03321	1" – 4"
07003	1" and 1-1/2"
07004	1" and 1-1/2"

Materials	ASTM
1 Valve seal	PTFE / Carbon filled (25%)
2 Disc	B 283 UNS C38500
3 Bonnet gasket	PTFE
4 Headpiece	B 505 UNS C93200
5 Bolts	A 194 B8
6 Elongation tube	A 213 TP 321
7 Stem	A 276 Grade 304
8 Gland packing	Graphite / PTFE
9 Gland nut	B 283 UNS C38500
10 Handwheel	Aluminium alloy
11 Spring	B 103 UNS C51900

*TWBA Series*

Type 28311	Technical Data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Height	H	270 mm or 370 mm (10" or 14")							400	400	400	420
Number of bolts		4	4	4	4	4	4	6	6	6	6	6
Handwheel-Ø	B	80	100	100	100	125	125	125	200	250	315	350
Weight	LBS.	2.2	2.42	3.08	3.08	4.4	5.28	6.6	12.1	14.96	20.9	40.48

Dimensions in mm.



for Cryogenic-Globe Valves Angle Type, 725 P.S.I.

Bronze topwork

"live loaded" gland packing

"cleaned and degreased for oxygen service"

Part No. 28312.X.0010 (H=270mm)

Part No. 28312.X.0020 (H=370mm)

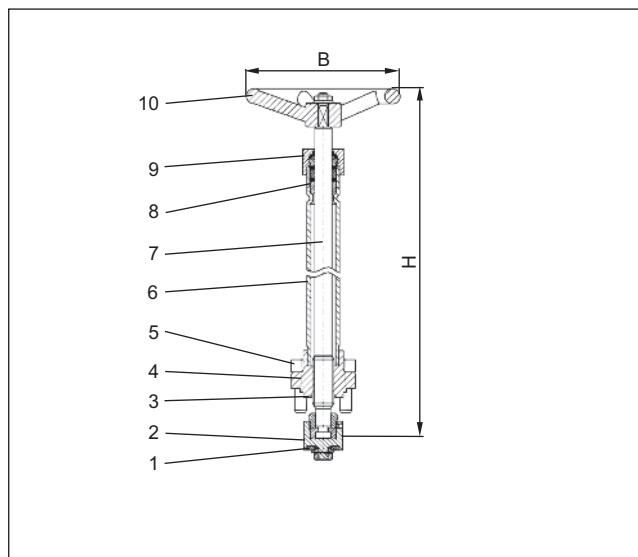
suitable for:

Type	Nominal size
01322	1/2 – 2"
07015	1" and 1-1/2"



TWBB Series

Materials	ASTM
1 Valve seal	PTFE / Carbon filled (25%)
2 Disc	B 283 UNS C38500
3 Bonnet gasket	PTFE
4 Headpiece	B 505 UNS C93200
5 Bolts	A 194 B8
6 Elongation tube	A 213 TP 321
7 Stem	A 276 Grade 304
8 Gland packing	Graphite / PTFE
9 Gland nut	B 283 UNS C38500
10 Handwheel	Aluminium alloy



Type 28312	Technical data							in preparation	
Nominal size	Inches	15	20	25	32	40	50	80	100
Dimension code	.X.	0150	0200	0250	0320	0400	0500	-	-
Height	H	270 mm or 370 mm (10-1/2" or 14")							-
Number of bolts		4	4	4	4	4	6	-	-
Handwheel-Ø	B	100	100	100	125	125	125	-	-
Weight	LBS.	2.42	3.08	3.08	4.4	5.29	6.61	-	-

Dimensions in mm.

for Cryogenic-Globe and Globe/Check Valves, 725 P.S.I. (4" = 580 P.S.I.)

Stainless steel topwork,

"live loaded" gland packing

"cleaned and degreased for oxygen service "

Part No. 28351.X.0000

Part No. 28351.X.5000 with check function

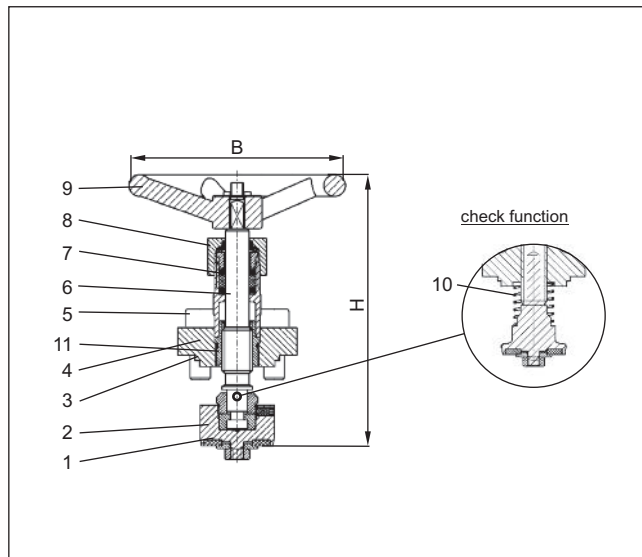
suitable for:

Type	Nominal size
01351	3/8 – 4"
01355	3/8 – 2"
03351	1" – 4"



TWNSSA Series

Materials	DIN EN	ASTM
1 Valve seal	PTFE / Carbon filled (25%)	
2 Disc		A 276 Grade 304
3 Bonnet gasket	PTFE	
4 Headpiece		A 276 Grade 304
5 Bolts		A 194 B8
6 Stem		A 276 Grade 304
7 Gland packing	Graphite / PTFE	
8 Gland nut		A 276 Grade 303
9 Handwheel	Aluminium alloy	
10 Spring		A 276 Grade 302
11 Bush		B 130 Alloy A



Type 28351	Technical data										
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000
Height	H	130	130	130	130	155	160	185	240	285	320
Number of bolts		4	4	4	4	4	4	6	6	6	6
Handwheel-Ø	B	80	100	100	100	125	125	125	200	250	315
Weight	LBS.	1.32	1.54	2.09	2.2	3.3	4.18	5.94	10.56	12.98	18.48

Dimensions in mm.



for Cryogenic-Globe Valves Angle Type, 725 P.S.I.

Stainless steel topwork,

"live loaded" gland packing

"cleaned and degreased for oxygen service "

Part No. 28352.X.0000

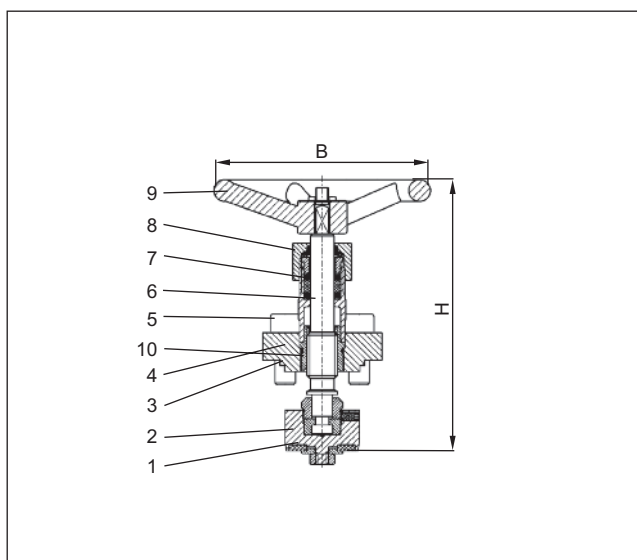
suitable for:

Type	Nominal size
01352	1/2" – 2"



TWNSSB Series

Materials	ASTM
1 Valve seal	PTFE / Carbon filled (25%)
2 Disc	A 276 Grade 304
3 Bonnet gasket	PTFE
4 Headpiece	A 276 Grade 304
5 Bolts	A 194 B8
6 Stem	A 276 Grade 304
7 Gland packing	Graphite / PTFE
8 Gland nut	A 276 Grade 303
9 Handwheel	Aluminium alloy
10 Bush	B 130 Alloy A



Type 28352	Technical data	in preparation							
Nominal size	Inches	1/2	3/4	1	1-1/4	1-1/2	2	3	4
Dimension code	.X.	0150	0200	0250	0320	0400	0500	-	-
Height	H	130	130	130	155	160	185	-	-
Number of bolts		4	4	4	4	4	6	-	-
Handwheel-Ø	B	100	100	100	125	125	125	-	-
Weight	LBS.	1.54	2.09	2.2	3.3	4.18	5.94	-	-

Dimensions in mm.

for Cryogenic-Globe and Globe/Check Valves, 725 P.S.I. (4" = 580 P.S.I., 6" 362 P.S.I.)

Stainless steel topwork,

"live loaded" gland packing

"cleaned and degreased for oxygen service "

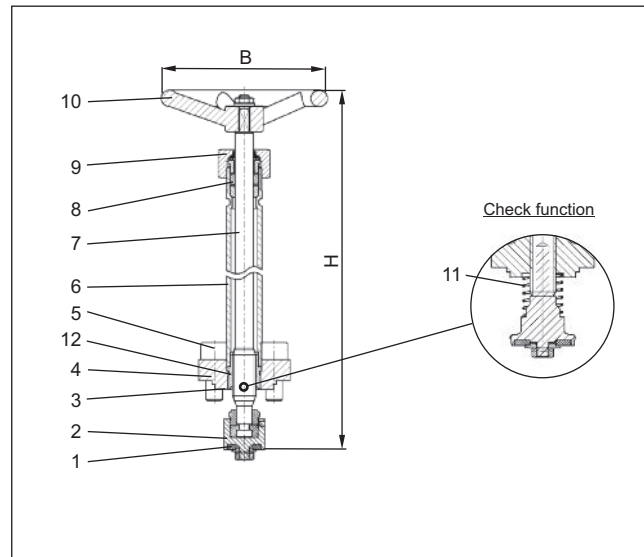
Part No. 28341.X.0010 (H=270mm)**Part No. 28341.X.0020 (H=370mm)****Part No. 28341.X.5010 (H=270mm) with check function****Part No. 28341.X.5020 (H=370mm) with check function**

suitable for:

Type	Nominal size
01341	3/8" – 6"
01345	3/8" – 2"
03341	1" – 4"

*TWSSA Series*

Materials	ASTM
1 Valve seal	PTFE / Carbon filled (25%)
2 Disc	A 276 Grade 304
3 Bonnet gasket	PTFE
4 Headpiece	A 276 Grade 304
5 Bolts	A 194 B8
6 Elongation tube	A 213 TP 321
7 Stem	A 276 Grade 304
8 Gland packing	Graphite / PTFE
9 Gland nut	A 276 Grade 303
10 Handwheel	Aluminium alloy
11 Spring	A 276 Grade 302
12 Bush	B 103 Alloy A



Type 28341	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Height	H	270 mm or 370 mm (10-1/2" or 14")							400	400	400	420
Number of bolts		4	4	4	4	4	4	6	6	6	6	6
Handwheel-Ø	B	80	100	100	100	125	125	125	200	250	315	350
Weight	LBS.	2.2	2.42	3.08	3.08	4.4	5.28	6.6	12.1	14.96	20.9	40.48

Dimensions in mm.



Type 28342 – Topwork Angle Type

for Cryogenic-Globe Valves Angle Type, 725 P.S.I.

Stainless steel topwork,
“live loaded” gland packing
“cleaned and degreased for oxygen service ”

Part No. 28342.X.0010 (H=270mm)

Part No. 28342.X.0020 (H=370mm)

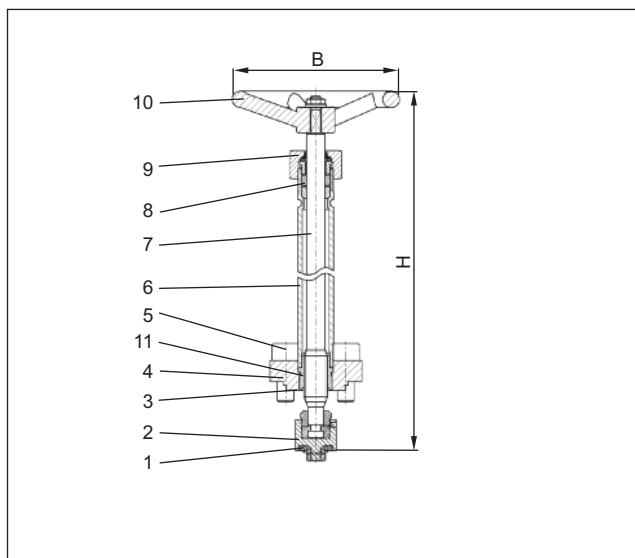
suitable for:

Type	Nominal size
01342	1/2" – 2"
07017	1" and 1-1/2"



TWSSB Series

Materials	DIN EN	ASTM
1 Valve seal	PTFE / Carbon filled (25%)	
2 Disc		A 276 Grade 304
3 Bonnet gasket	PTFE	
4 Headpiece		A 276 Grade 304
5 Bolts		A 194 B8
6 Elongation tube		A 213 TP 321
7 Stem		A 276 Grade 304
8 Gland packing	Graphite / PTFE	
9 Gland nut		A 276 Grade 303
10 Handwheel	Aluminium alloy	
11 Bush		B 103 Alloy A



Type 28342	Technical data	in preparation							
Nominal size	Inches	1/2	3/4	1	1-1/4	1-1/2	2	3	4
Dimension code	X.	0150	0200	0250	0320	0400	0500	-	-
Height	H	130	130	130	155	160	185	-	-
Number of bolts		4	4	4	4	4	6	-	-
Handwheel-ø	B	100	100	100	125	125	125	-	-
Weight	LBS.	2.42	3.08	3.08	4.4	5.28	6.6	-	-

Dimensions in mm.

for Cryogenic-Gate Valves, 725 P.S.I.

Stainless steel topwork,
 one way tightening (in flow direction),
 “live loaded” gland packing
 “cleaned and degreased for oxygen service “

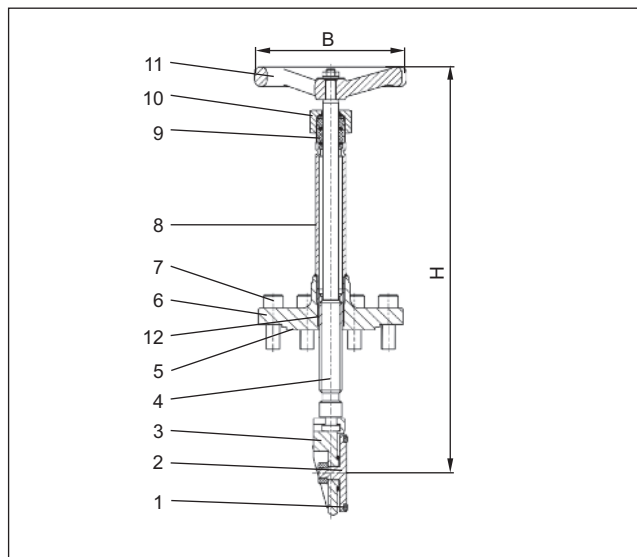
Part No. 29340.0400.0010 (1-1/2”)**Part No. 29340.X.0020**

suitable for:

Type	Nominal size
09340	1-1/2” – 3”

*TWSSIF Series*

Materials	ASTM
1 Valve seal	PTFE / Carbon filled (25%)
2 Disc	B 103 UNS C51900
3 Wedge	A 351 CF8
4 Stem	A 276 Grade 304
5 Bonnet gasket	PTFE
6 Headpiece	A 351 CF8
7 Bolts	A 194 B8
8 Elongation tube	A 213 TP 321
9 Gland packing	Graphite / PTFE
10 Gland nut	A 276 Grade 303
11 Handwheel	Aluminium alloy
12 Bush	B 103 UNS C51900



Type 29340	Technical data				
Nominal size	Inches	1-1/2	2	2-1/2	3
Dimension code	.X.	4048	5060	657x	8088
Height	H	320	360	370	380
Number of bolts		4	6	8	6
Handwheel-Ø	B	125	150	150	150
Weight	LBS.	5.06	7.92	9.24	12.1

Dimensions in mm.



for Cryogenic-Globe Valves with Pneumatic Actuator

air pressure for operation 87 P.S.I. (145 P.S.I. max) ,

Stainless steel topwork,

Actuator - air opens, spring closes

“live loaded” gland packing

“ cleaned and degreased for oxygen service “ - the actuator is not cleaned and degreased for oxygen

Part No. 28353.X.T00*

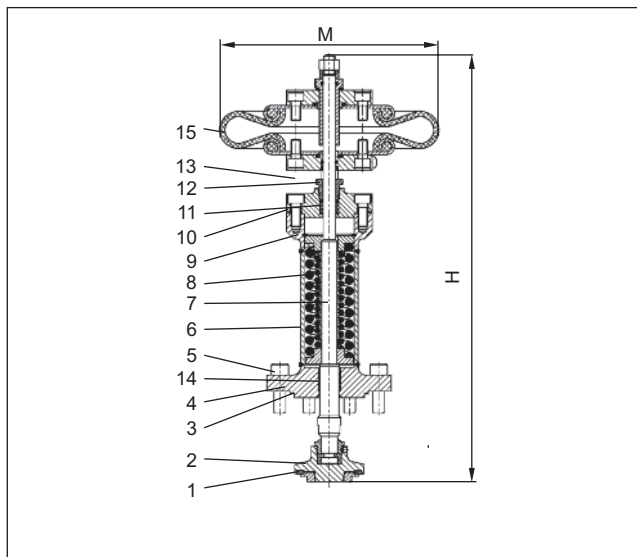
suitable for:

Type	Nominal size
01353	1-1/2" – 3"



TWPA Series

Materials	DIN EN	ASTM
1 Valve seal	PTFE / Carbon filled (25%)	
2 Disc		A 276 Grade 304
3 Bonnet gasket	PTFE	
4 Headpiece flange		A 276 Grade 304
5 Bolts		A 194 B8
6 Elongation tube		A 312 TP 304L
7 Stem		A 276 Grade 304
8 Spring		A 276 Grade 316Ti
9 Flange		A 276 Grade 304
10 Headpiece		A 276 Grade 304
11 Gland packing	Graphite / PTFE	
12 Gland nut		A 276 Grade 316Ti
13 Pillars		A 276 Grade 304
14 Bush		B 103 UNS C51900
15 Actuator	Rubber	



Type 28353	Technical data				
Nominal size	Inches	1-1/2	2	2-1/2	3
Dimension code	.X.	0400	0500	0650	0800
Height	H	385	420	450	475
Number of bolts		4	6	8	6
Handwheel-Ø	B	125	150	150	150
Weight	LBS.	18.7	22.0	25.3	40.26

Dimensions in mm.

for Cryogenic-Gate Valves with Pneumatic Actuator, 725 P.S.I.

air pressure for operation 87 P.S.I. (145 P.S.I. max) ,

Stainless steel topwork,

Actuator - air opens, spring closes

one way tightening (in flow direction),

"live loaded" gland packing

"cleaned and degreased for oxygen service" - the actuator is not cleaned and degreased for oxygen

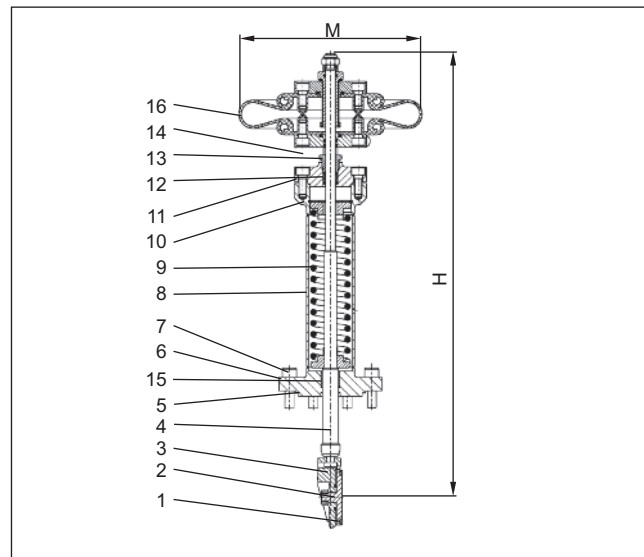
Part No. 29343.X.T020

suitable for:

Type	Nominal size
09343	1-1/2" – 3"

*TWPAIF Series*

Materials	DIN EN	ASTM
1 Valve seal	PTFE / Carbon filled (25%)	
2 Disc		B 103 UNS C51900
3 Wedge		A 351 CF8
4 Stem		A 276 Grade 304
5 Bonnet gasket	PTFE	
6 Headpiece		A 351 CF8
7 Bolts		A 194 B8
8 Elongation tube		A 213 TP 321
9 Spring		A 276 Grade 316Ti
10 Flange		A 276 Grade 304
11 Headpiece		A 276 Grade 304
12 Gland packing	Graphite / PTFE	
13 Gland nut		A 276 Grade 303
14 Pillars		A 276 Grade 304
15 Bush		B 103 UNS C51900
16 Actuator	Rubber	



Type 29343.X.T020	Technical data				
Nominal size	Inches	1-1/2	2	2-1/2	3
Dimension code	.X.	0400	0500	0650	0800
Height	H	520	540	560	580
Number of bolts		4	6	8	6
Handwheel-Ø	B	125	150	150	150
Weight	LBS.	18.92	21.12	23.10	25.52

Dimensions in mm.



for Cryogenic-Globe Valves

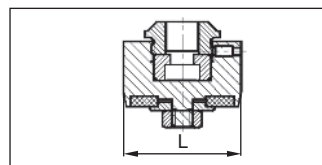
brass disc CW614N

"cleaned and degreased for oxygen service"

Part No. 28203.X.0000

suitable for:

Type	Nominal size
01301, 01311	3/8" – 2"
01305, 01315, 02401, 02411	3/8" – 2"
01331,	3/8" – 4"
01321	3/8" – 6"
01332, 01322	3/8" – 2"
01335, 01325	3/8" – 2"
03331, 03321	1" – 4"



DAB Series

Type 28203.X.0000	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	155
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	7.21

Dimensions in mm.

for Cryogenic-Globe Valves

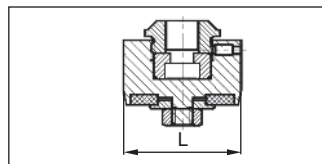
stainless steel disc 1.4301

"cleaned and degreased for oxygen service"

Part No. 28203.X.0765

suitable for:

Type	Nominal size
01351	3/8" – 4"
01341	3/8" – 6"
01352, 01342	1/2" – 2"
01355, 01345	3/8" – 2"
03351, 03341	1" – 4"
01353	1-1/2" – 3"



DASSA Series

Type 28203.X.0765	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	155
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	7.21

Dimensions in mm.

for Cryogenic-Globe Valves

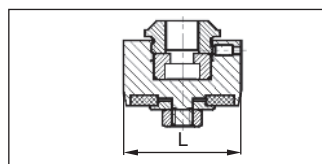
stainless steel disc 1.4404

"cleaned and degreased for oxygen service"

Part No. 28203.X.0783

suitable for:

Type	Nominal size
01751, 01741	3/8" – 4"
01755, 01745	3/8" – 2"



DASSB Series

Type 28203.X.0783	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	

Dimensions in mm.

for Cryogenic-Globe/Check Valves

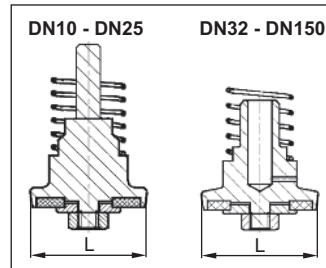
brass check disc CW614N

“cleaned and degreased for oxygen service”

Part No. 28203.X.5000

suitable for:

Type	Nominal size
01301, 01311	3/8" – 2"
01305, 01315, 02401, 02411	3/8" – 2"
01331,	3/8" – 4"
01321	3/8" – 6"
01332, 01322	3/8" – 2"
01335, 01325	3/8" – 2"
03331, 03321	1" – 4"



DACVBA Series

Type 28203.X.5000	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	155
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	6.82

Dimensions in mm.

for Cryogenic-Globe/Check Valves

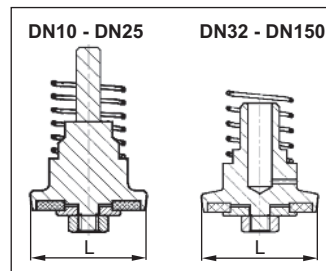
stainless steel check disc 1.4301

“cleaned and degreased for oxygen service”

Part-No. 28205.X.5000

suitable for:

Type	Nominal size
01351	3/8" – 4"
01341	3/8" – 6"
01352, 01342	1/2" – 2"
01355, 01345	3/8" – 2"
03351, 03341	1" – 4"



DACVSSA Series

Type 28205.X.5000	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	155
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	6.82

Dimensions in mm.

for Cryogenic-Globe/Check Valves

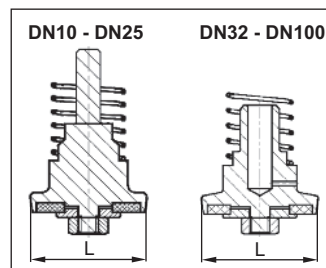
stainless steel check disc 1.4404

“cleaned and degreased for oxygen service”

Part-No. 28205.X.5783

suitable for:

Type	Nominal size
01751, 01741	3/8" – 4"
01755, 01745	3/8" – 2"



DACVSSB Series

Type 28205.X.5783	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	

Dimensions in mm.



for Cryogenic-Check Valves

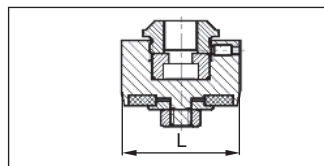
brass check disc CW614N

"cleaned and degreased for oxygen service"

Part No. 28205.X.0000

suitable for:

Type	Nominal size
05411	3/8" – 2"
05412	3/8" – 2"
05413	3/8" – 2"
05415	3/8" – 2"
05416	3/8" – 6"
05418	1" – 6"



DACVBB Series

Type 28205.X.0000	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	155
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	7.21

Dimensions in mm.

for Cryogenic-Check Valves

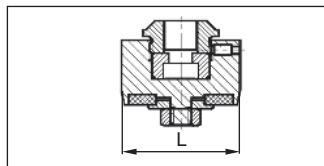
stainless steel check disc 1.4301

"cleaned and degreased for oxygen service"

Part-No. 28206.X.0000

suitable for:

Type	Nominal size
05414	3/8" – 6"
05417	3/8" – 2"
05419	1" – 4"



DACVSSC Series

Type 28206.X.0000	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	155
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	7.21

Dimensions in mm.

for Cryogenic-Check Valves

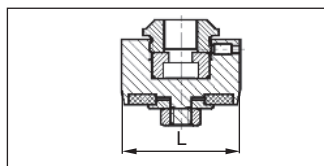
stainless steel check disc 1.4404

"cleaned and degreased for oxygen service"

Part-No. 28206.X.0783

suitable for:

Type	Nominal size
05714	3/8" – 4"
05717	3/8" – 2"



DACVSSD Series

Type 28206.X.0783	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	
Disc Ø	L	23	25	30	34.5	42	47	55	73	86	104	
Weight	LBS.	.11	.132	.198	.264	.396	.484	.66	1.21	1.61	2.31	

Dimensions in mm.

for Cryogenic-Gate Valves

brass disc CW452K

"cleaned and degreased for oxygen service"

Artikel-Nr. 29240.X.0000composed of:

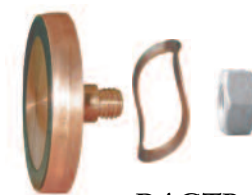
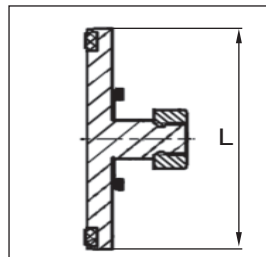
1x Disc complete + Disc seal PTFE/Carbon filled (25%)

1x Spring ring

1x Disc nut M10 self locking

suitable for:

Type	Nominal size
09340, 09343	1-1/2" – 3"

*DAGTB Series*

Type 29240		Technical data			
Nominal size	Inches	1-1/2	2	2-1/2	3
Dimension code	.X.	0400	0500	0650	0800
Disc-Ø	L	45	55	70	78
Weight	LBS.	.24	.40	.55	.62

Dimensions in mm.



for Cryogenic-Globe Valves

“ cleaned and degreased for oxygen service”

Part No. 30000.X.0000

consisting of:

2x Bonnet gasket PTFE

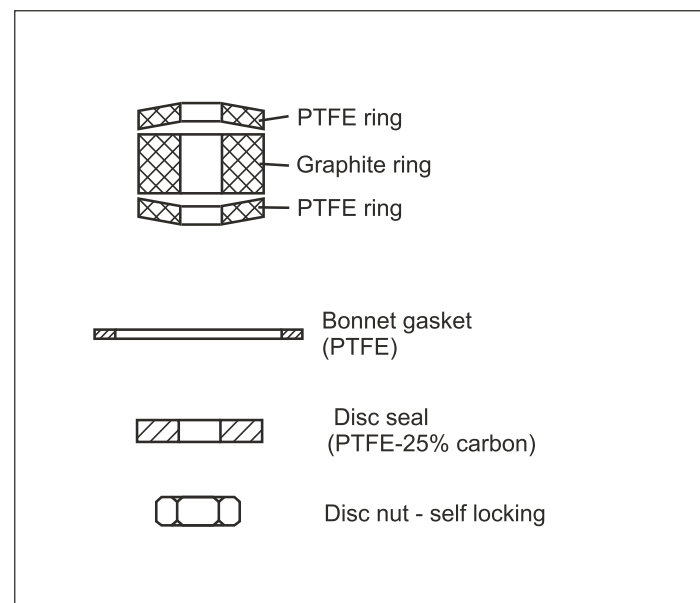
1x Disc seal PTFE/Carbon filled (25%)

1x Disc nut 1.4301

1x Stem sealing kit complete PTFE/Graphite

suitable for:

Type	Nominal size
01301, 01311	3/8" – 2"
01305, 01315, 02401, 02411	3/8" – 2"
01331	3/8" – 4"
01321	3/8" – 6"
01332, 01322	3/8" – 2"
01335, 01325	3/8" – 2"
03331, 03321	1" – 4"



SKGVA Series

Type 30000	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Weight	LBS.	.066	.066	.088	.11	.154	.176	.264	.374	.506	.682	.77

Dimensions in mm.

for Cryogenic-Globe Valves

“ cleaned and degreased for oxygen service”

Part No. 30514.X.0000

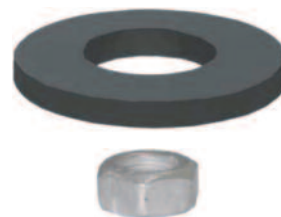
consisting of:

2x Bonnet gasket PTFE

1x Disc seal PTFE/Carbon filled (25%)

1x Disc nut 1.4301

Type	Nominal size
05412, 05411, 05413	3/8" – 2"
05416, 05414	3/8" – 6"
05415, 05417	3/8" – 2"
05418, 05419	3/8" – 4"

*SKGVB Series*Bonnet gasket
(PTFE)Disc seal
(PTFE-25% carbon)

Disc nut - self locking

Type 30514	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Weight	LBS.	.044	.044	.066	.88	.132	.154	.242	.352	.484	.66	.748

Dimensions in mm.



for Cryogenic-Globe Valves

“ cleaned and degreased for oxygen service”

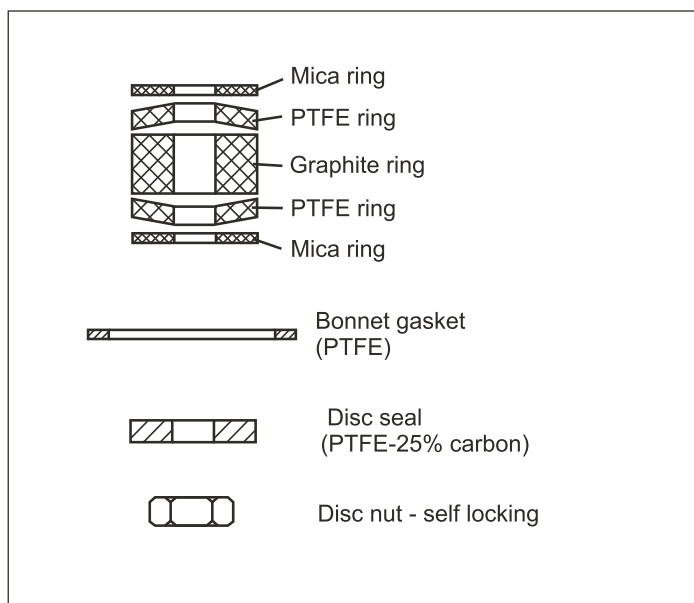
Part No. 30341.X.0000

consisting of:

- 2x Bonnet gasket PTFE
- 1x Disc seal PTFE/Carbon filled(25%)
- 1x Disc nut 1.4301
- 1x Gland packing kit complete PTFE/Graphite
- 2x Stem gasket Mica

suitable for:

Type	Nominal size
01351	3/8" – 4"
01341	3/8" – 6"
01352, 01342	1/2" – 2"
01355, 01345	3/8" – 2"
03351, 03341	1" – 4"



SKGVC Series

Type 30341	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Dimension code	.X.	0100	0150	0200	0250	0320	0400	0500	0650	0800	1000	1500
Weight	LBS.	.066	.066	.088	.11	.154	.176	.286	.396	.528	.704	.814

Dimensions in mm.

for Cryogenic-Gate Valves with Rubber Pneumatic Actuator

“cleaned and degreased for oxygen service “

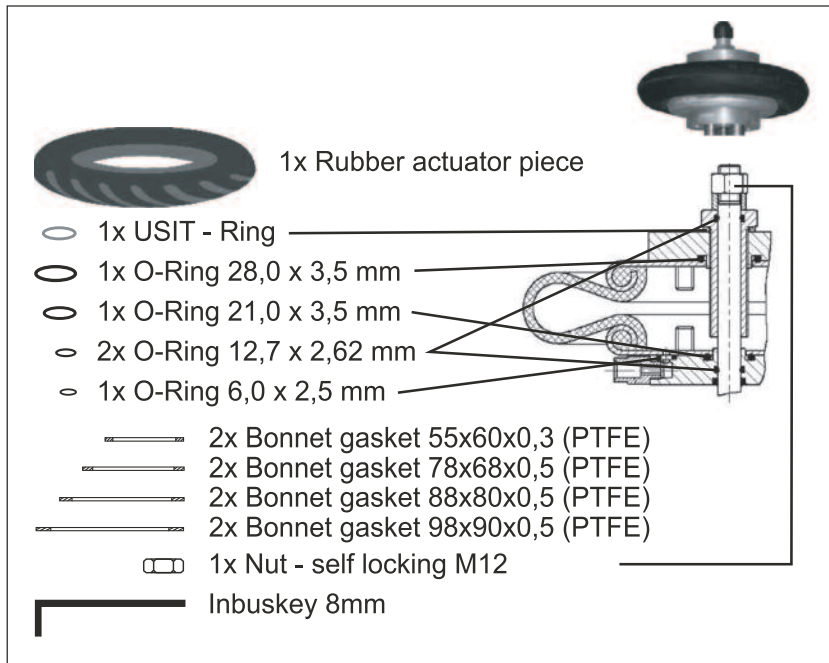
Part No. 30353.0000.S000

suitable for:

Type	Nominal size
09343	1-1/2" – 3"



consisting of:



Type 30353.0000.S000	Technical data	
Nominal size	Inches	1-1/2" – 3"
Weight	LBS.	4.4

*PNARSK Series*



for Rubber Pneumatic Actuator

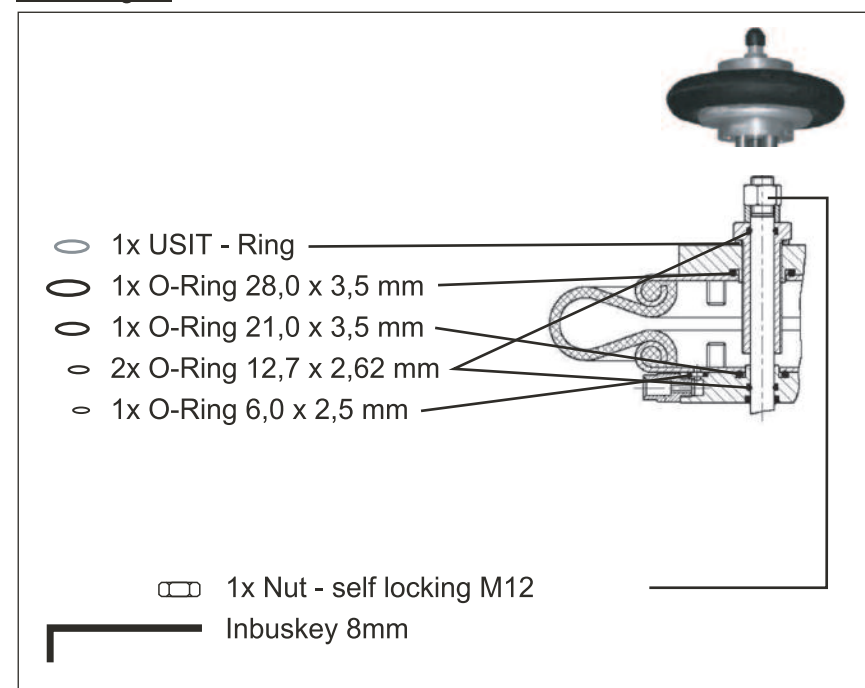
“ cleaned and degreased for oxygen service “

Part No. 30003.0000.T000

suitable for:

Type	Nominal size
01353	1-1/2" – 3"
09343	1-1/2" – 3"

consisting of:



Type 30003.0000.T000	Technical data	
Nominal size	Inches	1-1/2" – 3"
Weight	LBS.	.55

for Cryogenic-Globe Valves

Aluminium Handwheels

Part No.	Nominal size
55317.0050.0402	3/8"
55317.0051.0402	1/2" – 1"
55317.0052.0402	1-1/4" – 2"

*GVHWA Series*

Part No.	Nominal size
55317.0021.0402	2"
55317.0022.0402	3"
55317.0068.0402	4"
55317.0016.0402	6"

*GVHWA Series***Attention!**

Please use special handwheel 150x10mm for Bellow Sealed Globe Valves.

Part No. 55317.0029.0402

Type 55317	Technical data											
Nominal size	Inches	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Handwheel-Ø	B	80	100	100	100	125	125	125	200	250	315	360
Square		7	7	7	7	10	10	10	10	10	12	15
Weight	LBS.	.132	.22	.22	.22	.33	.33	.33	.176	3.3	7.48	.814

Dimensions in mm.