

Butterfly Valves

Soft Seat



PD, KI Series	178
technical data	178
components DN 80-300	179
components DN 350-500	180
components DN 600-800	181
KA, KX technical data	182
technical data	182
KA series	183
components DN 40-300	183
components DN 350-400	184
components DN 450-500	185
components DN 600-800	186
KX series	187
components DN 50-250	187
PD, KI, KA series	188
dimension tables	188
BVKX, BLKX series	189
dimension tables	189
Torque values tables	190
Head losses tables	191
Flanges	192
Bolts and rods dimensions	193
Installation instructions	194
Handlever	195
Gearbox	196
aluminium bods	196
cast iron body	197
Actuators and coupling	198
pneumatic adtuators	198
declutchable gearboxes	200
hydraulic actuators	201

BVPD - Wafer BLPD - Lug
DN 80 - 800 • 3" - 32"
Max working pressure:
BVPD/BLPD DN080÷500: **10 Bar**
BVPD/BLPD DN800÷600: **6 Bar**
Flange: **PN 6-10-16 • A150**
BVKI/BLKI DN40÷500: **16 Bar**
Flange: **PN 10-16 • A150**

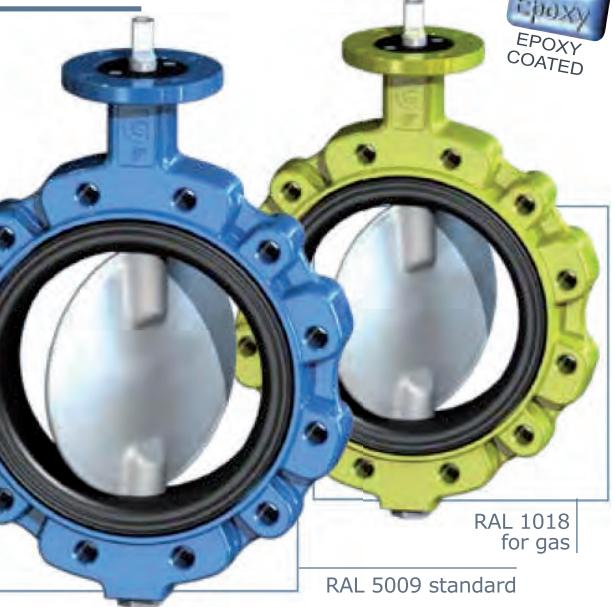
BVKI/BLKI DN600÷800: **10 Bar**
Flange: **PN 10-16 • A150**
KI series to be used also with vacuum**Design:**
EN 593 ~ EN 736 ~ EN 12516 ~ EN 1092
ISO 5211 ~ DIN 3337 ~ API 609
PED 2014/68/EU - Mod. H
Face to face:
DIN EN 558 Series 20 ~ ISO 5752 Series 20
BS-5155 Series 4 ~ MSS-SP67
API609 cat.A ~ NFE 29305-1
Testing:
EN 12266-1 Rate A (supersedes DIN 3230)
ISO 5208 Rate A ~ API 598
Tag:

EN 19 ~ MSS SP-25

BVKI - Wafer BLKI - Lug
DN 40 - 800 • 1"1/2 - 32"


DNV
TYPE APPROVAL




TÜV
TA-LuftRAL 1018
for gas

RAL 5009 standard





All valves are supplied with a metallic label
in compliance with PED directive.

BODY		BVPD	BVKI/BLKI	
material	references	standard coating	DN	DN
Ductile iron	EN-GJS 400-15 (GS400)	Epoxy RAL 5009	80-800	40-800
Carbon steel	ASTM A216-WCB	Epoxy RAL 9005	80-800	40-800
Stainless steel	ASTM A351 CF8M (A316)	-	80-800	40-800
Aluminium-bronze	ASTM B148-C958.00	-	80-800	40-800
Aluminium (P_{max} 10Bar)	EN AB 46400	Epoxy RAL 7024	80-500	40-500 only wafer

DISC		BVPD	BVKI/BLKI	
material	references	standard coating	DN	DN
Steel	ASTM A105	Zinc	80-100	50-100
Ductile iron	EN-GJS 400-15 (GS400)	Zinc	125-500	125-500
Stainless steel	ASTM A351 CF8M (A316)	-	80-800	40-800
Aluminuim-bronze	ASTM B148-C958.00	-	80-800	40-800
Hastelloy®	ASTM A494 CX2MW	-	80-800	40-800
Super Duplex	EN 1.4469 (A890 Gr. 5A)	-	80-800	40-800

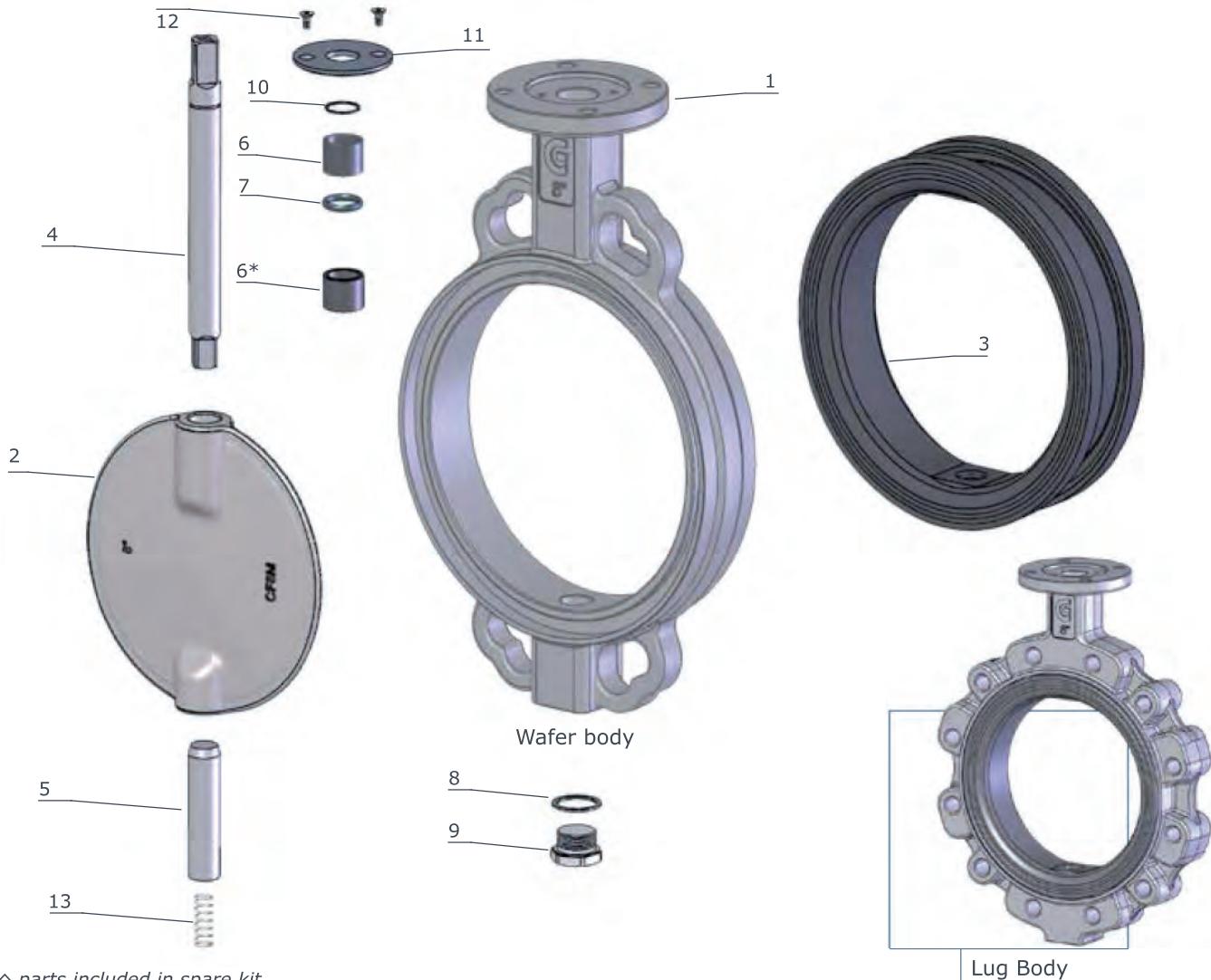
BODY RUBBER SEAT		DN 40/500 replaceable - DN 600/800 vulcanized not replaceable				
ref.	designation	PD 6bar PD 10bar	KI	trade name	working temp.	applications
NBR	nitrile rubber	✓	✓	BUNA®	-25°C / +100°C	oils, hydrocarbons, gas, air, water
EPDM	copolymer EPDM	✓	✓	-	-35°C / +130°C	water, sea water, steam, diluted acids
EPDM HT	copolimery EPDM HT	✓	✓	-	-45°C / +150°C	water, sea water, steam, diluted acids
CO	carboxide	✓	✗	✓	-25°C / +100°C	dust, air
FKM	fluoroelastomer	✓	✗	✓	VITON®	-20°C / +200°C
CR	polychloroprene	✓	✗	✓	NEOPRENE®	-20°C / +100°C
NR	natural rubber	✓	✗	✓	-	-40°C / + 80°C
MVQ	silicon rubber	✓	✗	✓	SILOPREN®	-60°C / +190°C
CSM	chlorosulfonated polyethylene	✓	✗	✓	HYPALON®	-20°C / +125°C
PU	poliurethane	✓	✓	✓	POLIURETANE®	-25°C / +90°C

On request can be supplied other materials as:
Coating on request:

LCB, Hastelloy, Uranus, Alloy, Super Duplex, Special steels, Special bronzes.
RILSAN®, Halar®, Chenisil®

BVPD-Wafer BLPD-Lug
DN 80 - 300 • 3" - 12"
PN 6-10-16 • ANSI 150

BVKI - Wafer BLKI - Lug
DN 40 - 300 • 1"1/2 - 12"
PN 10-16 • ANSI 150



◊ parts included in spare kit

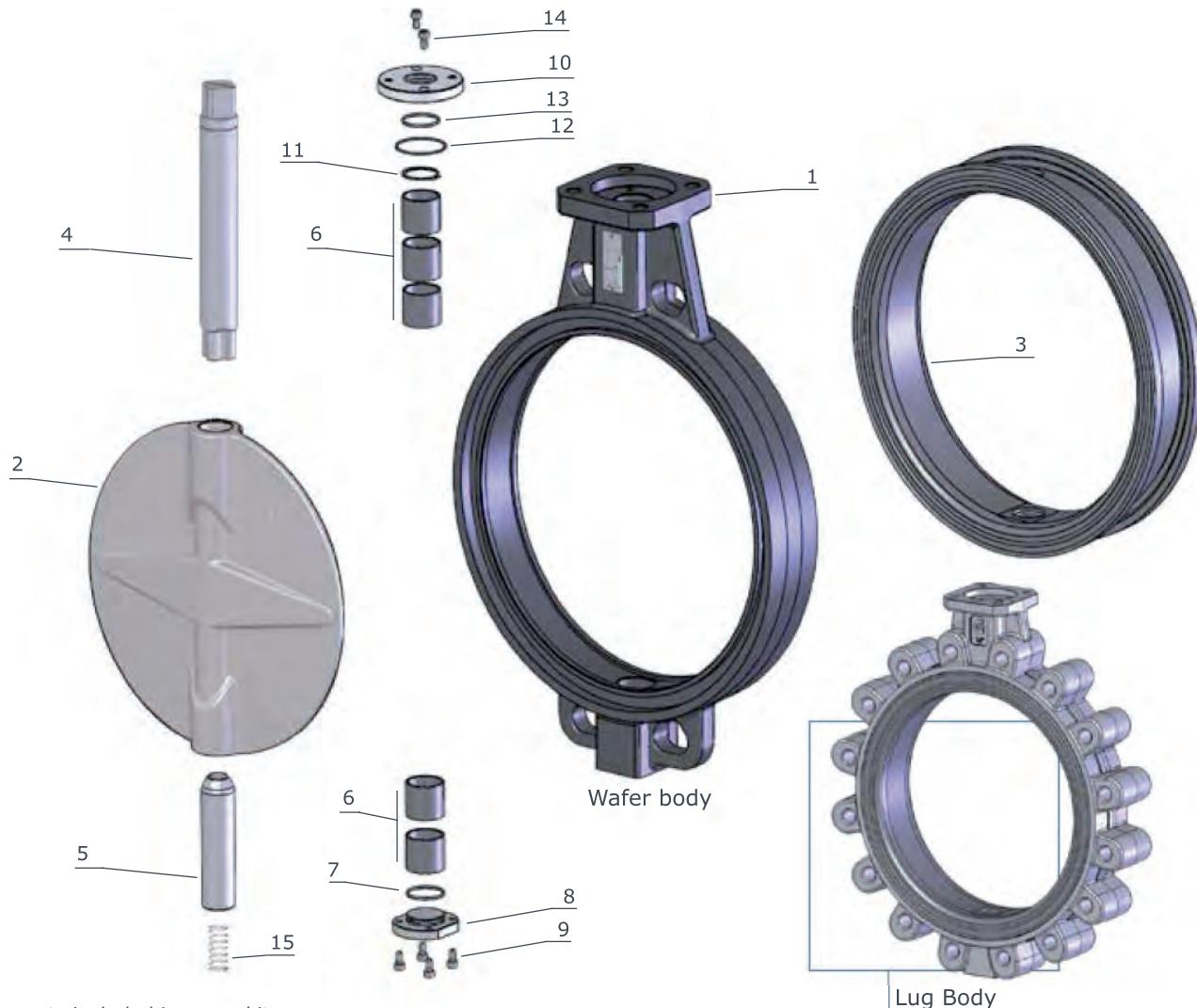
item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~ A216-WCB 1.1156~A352-LCB 1.4408~ A351-CF8M (AISI 316) EN1982-CC333G~ASTM B148 -C958.00 EN AB 46400 (only WAFER)
2	1	disc	EN-GJS400-15 (GS400) EN 1.4408~ A351-CF8M EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
◊3	1	body seat (replaceable)	NBR (BUNA®) EPDM EPDM HT FKM (VITON®) carboxide polychloroprene (NEOPRENE®) natural rubber silicon
4	1	upper shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)

* only for DN300

item	q.ty	part	material
5	1	lower shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)
◊6	1	bush	bronze
◊6*	3	bush	A105+PTFE A316+PTFE (only Inox body)
◊7	1	shaft packing	NBR (BUNA®) FKM (VITON®) on request
8	1	plug packing	aluminium PTFE (CF8M body / ASTM B148)
9	1	threaded plug	zinc plated steel 1.4401~A316 (CF8M body / ASTM B148)
10	1	stop ring	steel
11	1	upper flange	IXF (DN 40-150) aluminium (DN 200-300)
12	2	screw	10.9 zinc plated steel A4~A316 (CF8M body / ASTM B148)
13	1	spring	1.4401 ~ A316 (antistatic device)

BVPD-Wafer BLPD-Lug
DN 350 - 500 • 14" - 20"
PN 6-10-16 • ANSI 150

BVKI - Wafer BLKI - Lug
DN 350 - 500 • 14" - 20"
PN 10-16 • ANSI 150



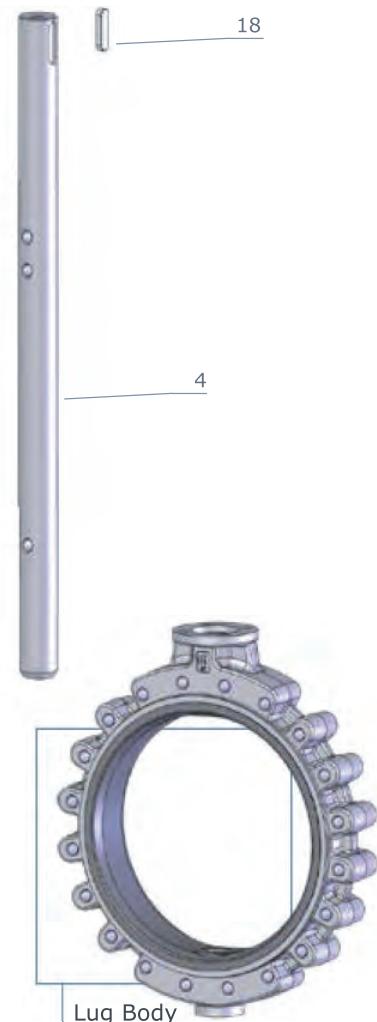
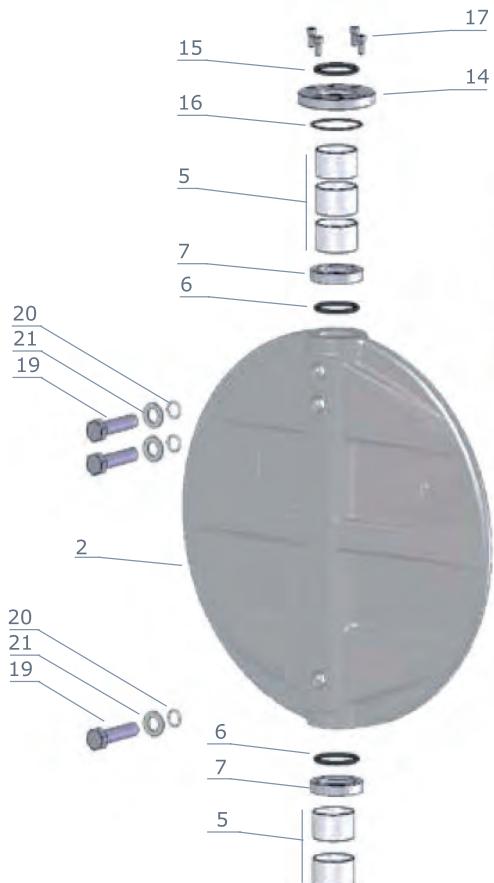
◊ parts included in spare kit

item	q.tà	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~ A216-WCB 1.1156~A352-LCB 1.4408~ A351-CF8M (AISI 316) EN1982-CC333G~ASTM B148 - C958.00 EN AB 46400 (only WAFER)
2	1	disc	EN-GJS400-15 (GS400) EN 1.4408~ A351-CF8M EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
◊3	1	body seat (replaceable)	NBR (BUNA®) EPDM EPDM HT FKM (VITON®) carboxide polychloroprene (NEOPRENE®) natural rubber silicon
4	1	upper shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)

item	q.tà	part	material
5	1	lower shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)
◊6	5	bush	bronze steel+PTFE (DN 450-500)
◊7	1	packing lower flange	NBR (BUNA®)
8	1	lower flange	zinc plated steel 1.4401~A316 (CF8M body / ASTM B148)
9	4	screw	8.8 zinc plated steel A4~A316 (CF8M body / ASTM B148)
10	1	upper flange	zinc plated steel 1.4401~A316 (CF8M body / ASTM B148)
11	1	stop ring	steel
◊12	1	O.Ring	NBR (BUNA®)
◊13	1	O.Ring	NBR (BUNA®)
14	2	screw	8.8 zinc plated steel A4~A316 (CF8M body / ASTM B148)
15	1	spring	1.4401 ~ A316 (antistatic device)

BVPD-Wafer BLPD-Lug
DN 600 - 800 • 24" - 32"
PN 6-10-16 • ANSI 150

BVKI - Wafer BLKI - Lug
DN 600 - 800 • 24" - 32"
PN 10-16 • ANSI 150



◊ parts included in spare kit

item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~ A216-WCB 1.1156~A352-LCB 1.4408~ A351-CF8M (AISI 316) EN1982-CC333G~ASTM B148 - C958.00
2	1	disc	EN 1.4408~ A351-CF8M EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
3	1	body seat (vulcanized not replaceable)	NBR (BUNA®) EPDM EPDM HT FKM (VITON®)
4	1	shaft	EN 1.4305~A303 EN 1.4401~A316 (on request)
◊5	5	bush	steel + PTFE
◊6	2	shaft O.ring	NBR (BUNA®) FKM (VITON®) on request
7	2	O.ring housing	A4~A316

item	q.ty	part	material
8	1	shaft support	Bronze
9	2	adjusting screw	A4~A316
10	1	lower flange	zinc plated steel 1.4401~A316 (CF8M body / ASTM B148)
◊11	1	O.ring	NBR (BUNA®)
◊12	1	O.ring	NBR (BUNA®)
13	6	screw	8.8 zinc plated steel A4~A316 (CF8M body / ASTM B148)
14	1	upper flange	zinc plated steel 1.4401~A316 (CF8M body ASTM B148)
◊15	1	O.ring	NBR (BUNA®)
◊16	1	O.ring	NBR (BUNA®)
17	4	screw	8.8 zinc plated steel A4~A316 (CF8M body/ AST M B148)
18	1	key	steel
19	3	screw	A4~A316
◊20	3	O.ring	PTFE
21	3	washer	A4~A316
22	1	spring	1.4401 ~ A316 (antistatic device)

BVKA - Wafer **BLKA** - Lug
DN 40 - 800 • 1"1/2" - 32"
Max working pressure:BVKA/BLKA DN 40÷800: **20 Bar**Flange: **PN 10-16 • A150**BVKX DN 50÷250: **25 Bar**Flange: **PN 25 • A150**BLKX DN 50÷200: **25 Bar**Flange: **PN 25****To be used also with vacuum****Design:**

EN 593 ~ EN 736 ~ EN 12516 ~ EN 1092

ISO 5211 ~ DIN 3337 ~ API 609

PED 2014/68/EU - Mod. H

Face to face:

DIN EN 558 Series 20 ~ ISO 5752 Series 20

BS-5155 Series 4 ~ MSS-SP67

API609 cat.A ~ NFE 29305-1

Testing:

EN 12266-1 Rate A (supersedes DIN 3230)

ISO 5208 Rate A ~ API 598

Tag:

EN 19 ~ MSS SP-25

BVKX - Wafer
DN 50 - 250 • 2" - 10"


TYPE APPROVAL



TYPE APPROVAL



safety integrity level



All valves are supplied with a metallic label in compliance with PED directive.



BVKA

BODY			BVKA/BLKA	BVKX	BLKX
material	references	standard coating	DN	DN	DN
Ductile iron	EN-GJS 400-15 (GS400)	Epoxy RAL 5009	40-800	50-250	50-200
Carbon steel	ASTM A216-WCB	Epoxy RAL 9005	40-800	50-100	50-100
Stainless steel	ASTM A351 CF8M (A316)	-	40-800	50-100	50-100
Aluminium-bronze	ASTM B148-C958.00	-	40-800	50-100	50-100

DISCO			BVKA/BLKA	BVKX	BLKX
material	references	standard coating	DN	DN	DN
Stainless steel	ASTM A351 CF8M (A316)	-	40-800	50-250	50-200
Aluminium-bronze	ASTM B148-C958.00	-	40-800	50-250	50-200
Hastelloy®	ASTM A494 CX2MW	-	40-800	50-250	50-200
Super Duplex	EN 1.4469 (A890 Gr. 5A)	-	40-800	50-250	50-200

BODY RUBBER SEAT		KA DN 40/150 replaceable - DN 200/800 vulcanized not replaceable		
		KX DN 50/250 vulcanized not replaceable		
ref.	designation	trade name	working temp.	applications
NBR	nitrile rubber	BUNA®	-25°C / +100°C	oils, hydrocarbons, gas, air, water
EPDM	copolymer EPDM	-	-35°C / +130°C	water, sea water, steam, diluted acids
EPDM HT	copolymer EPDM HT	-	-45°C / +150°C	water, sea water, steam, diluted acids
FKM	fluoroelastomer	VITON®	-20°C / +200°C	oils, acids, hydrocarbons

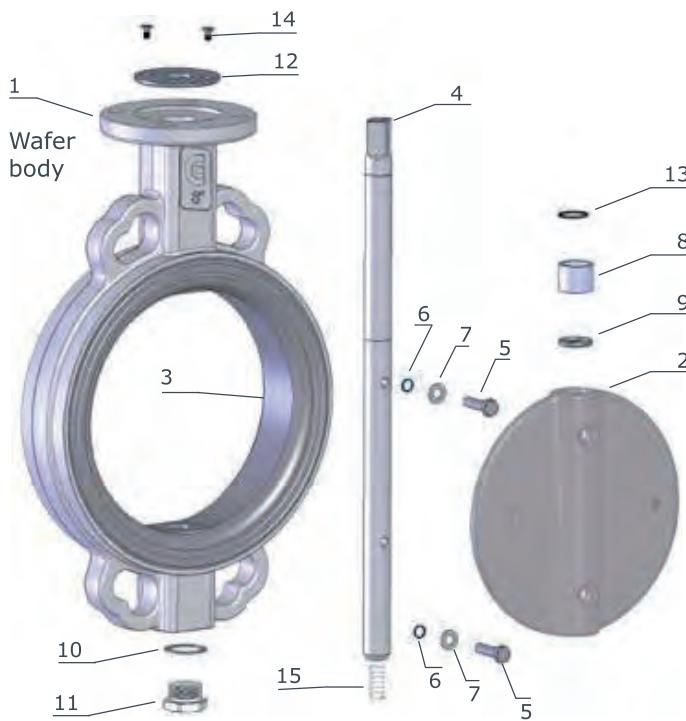
On request can be supplied other materials as: LCB, Hastelloy, Uranus, Alloy, Super Duplex, Special steels, Special bronzes.
Coating on request: RILSAN®, Halar®, Chenilis®

BVKA - Wafer BLKA - Lug
DN 40 - 150 • 1"1/2 - 6"
PN 10-16 • ANSI 150



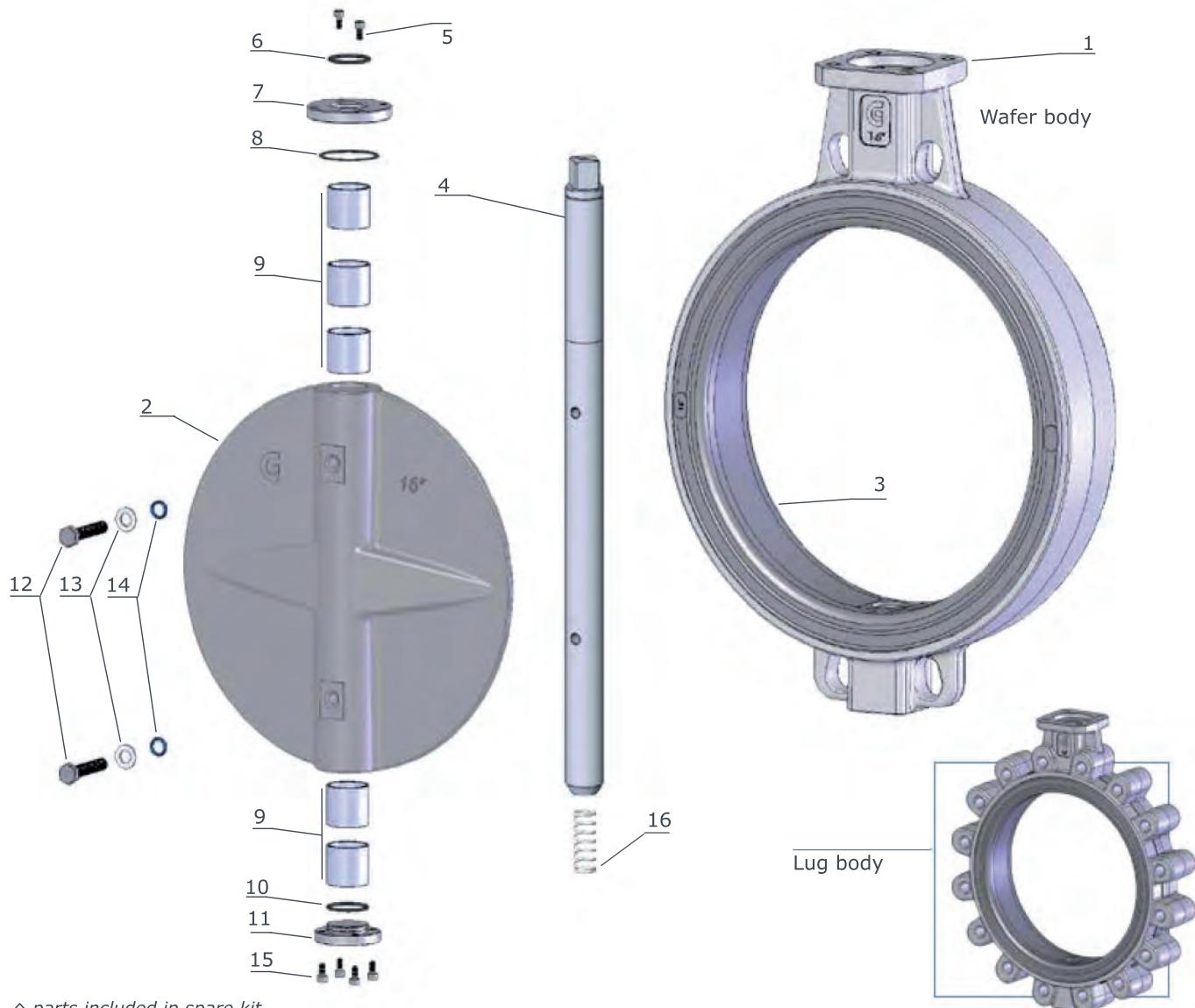
item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~ A216-WCB 1.1156~A352-LCB EN 1.4408~A351-CF8M
2	1	disc	EN 1.4408~ A351-CF8M EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
◇3	1	body seat (replaceable)	NBR (BUNA [®]) EPDM EPDM HT FKM (VITON [®])
4	1	upper shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)
5	1	lower shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)
◇6	1	bush	bronze
◇7	1	shaft packing	NBR (BUNA [®]) FKM (VITON [®]) (on request)
8	1	plug packing	aluminium PTFE (CF8M body / ASTM B148)
9	1	threaded plug	zinc plated steel 1.4401~A316 (CF8M body/ASTM B148)
10	1	stop ring	steel
11	1	upper flange	IXE (DN 40-150) aluminium (DN 200-300)
12	2	screw	10.9 zinc plated steel A4~A316 (CF8M body/ ASTM B148)
13	1	spring	1.4401 ~ A316 (antistatic device)

BVKA - Wafer BLKA - Lug
DN 200 - 300 • 8" - 12"
PN 10-16 • ANSI 150



item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~ A216-WCB 1.1156~A352-LCB EN 1.4408~A351-CF8M EN1982-CC333G~ASTM B148 - C958.00
2	1	disc	EN 1.4408~ A351-CF8M EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
3	1	body seat (vulcanized not replaceable)	NBR (BUNA [®]) EPDM EPDM HT FKM (VITON [®])
4	1	shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)
5	2	screw	10.9 zinc plated steel A4~A316 (CF8M body/ ASTM B148)
◇6	2	O.Ring	NBR (BUNA [®])
7	2	washer	A4~A316
◇8	1	bush	bronze
◇9	1	shaft packing	NBR (BUNA [®]) FKM (VITON [®]) (on request)
10	1	plug packing	alluminium PTFE (CF8M body/ ASTM B148)
11	1	threaded plug	zinc plated steel 1.4401~A316 (CF8M body/ASTM B148)
12	1	upper flange	aluminium
13	1	stop ring	steel
14	2	screw	zinc plated steel
15	1	spring	1.4401 ~ A316 (antistatic device)

BVKA - Wafer BLKA - Lug
DN 350 - 400 • 14" - 16"
PN 10-16 • ANSI 150

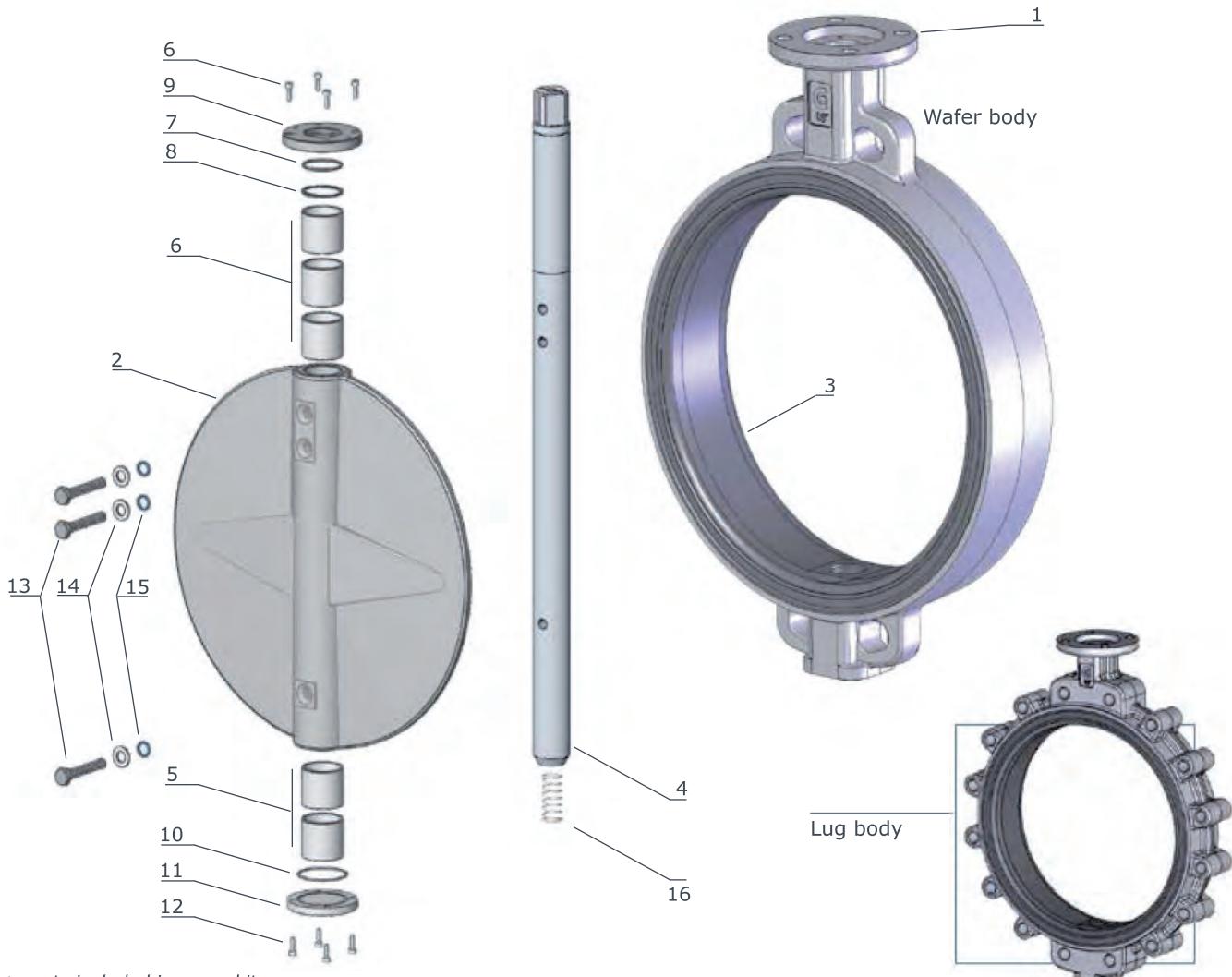


◊ parts included in spare kit

item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~ A216-WCB 1.1156~A352-LCB EN 1.4408~A351-CF8M EN1982-CC333G~ASTM B148 - C958.00
2	1	disc	EN 1.4408~A351-CF8M EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
3	1	body seat (vulcanized not replaceable)	NBR (BUNA®) EPDM EPDM HT FKM (VITON®)
4	1	shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)

item	q.ty	part	material
5	2	screw	10.9 zinc plated steel
◊6	1	O.ring	NBR (BUNA®)
7	1	upper flange	10.9 zinc plated steel
◊8	1	O.ring	NBR (BUNA®)
◊9	5	bush	bronze
◊10	1	O.ring	NBR (BUNA®)
11	1	lower flange	IXEF (DN 40-150) aluminium (DN 200-300) aluminio (DN 200-300)
12	2	screw	10.9 zinc plated steel
13	2	washer	A4~A316
◊14	2	O. ring	NBR (BUNA®)
15	4	screw	10.9 zinc plated steel
16	1	spring	1.4401 ~ A316 (antistatic device)

BVKA - Wafer **BLKA** - Lug
 DN 450 - 500 • 18" - 20"
 PN 10-16 • ANSI 150

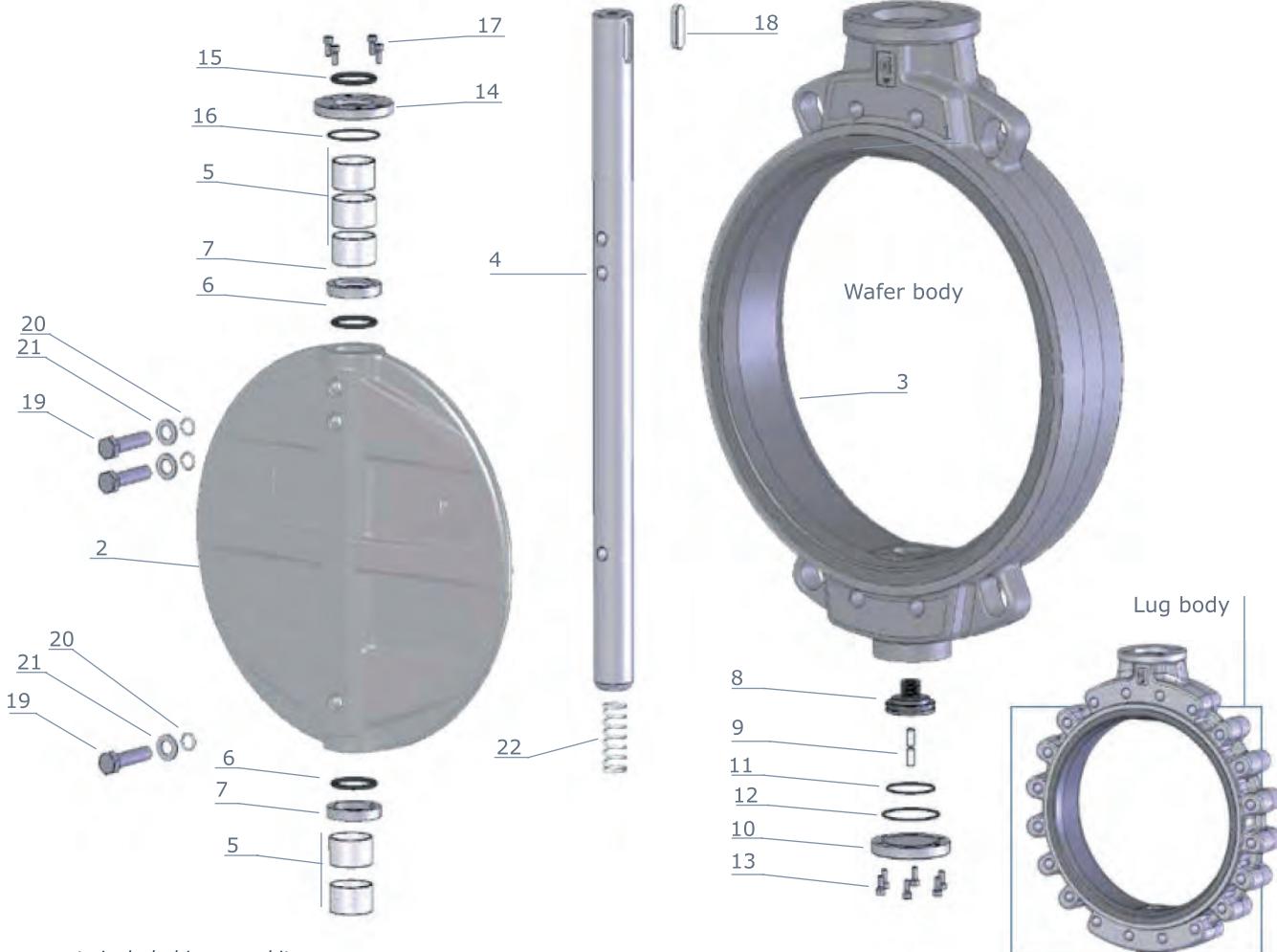


◊ parts included in spare kit

item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~ A216-WCB 1.1156~A352-LCB 1.4408~ A351-CF8M (A316) EN1982-CC333G~ASTM B148-C958.00
2	1	disc	EN 1.4408~ A351-CF8M EN1982-CC333G~ASTM B148-C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
3	1	body seat (vulcanized not replaceable)	NBR (BUNA [®]) EPDM EPDM HT FKM (VITON [®])
4	1	shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)
◊5	5	bush	steel + PTFE

item	q.ty	part	material
6	4	screw	8.8 zinc plated steel A4~A316 (CF8M body/ ASTM B148)
◊7	1	O.ring	NBR (BUNA [®])
8	5	stop ring	steel
9	1	upper flange	zinc plated steel 1.4401~A316 (CF8M body/ASTM B148)
◊10	1	O.ring	NBR (BUNA [®])
11	1	lower flange	zinc plated steel 1.4401~A316 (CF8M body/ASTM B148)
12	4	screw	8.8 zinc plated steel A4~A316 (CF8M body / ASTM B148)
13	2	screw	A4~A316
14	2	washer	A4~A316
◊15	2	O. ring	PTFE
16	1	spring	1.4401 ~ A316 (antistatic device)

BVKA - Wafer BLKA - Lug
DN 600 - 800 • 24" - 32"
PN 16 • ANSI 150



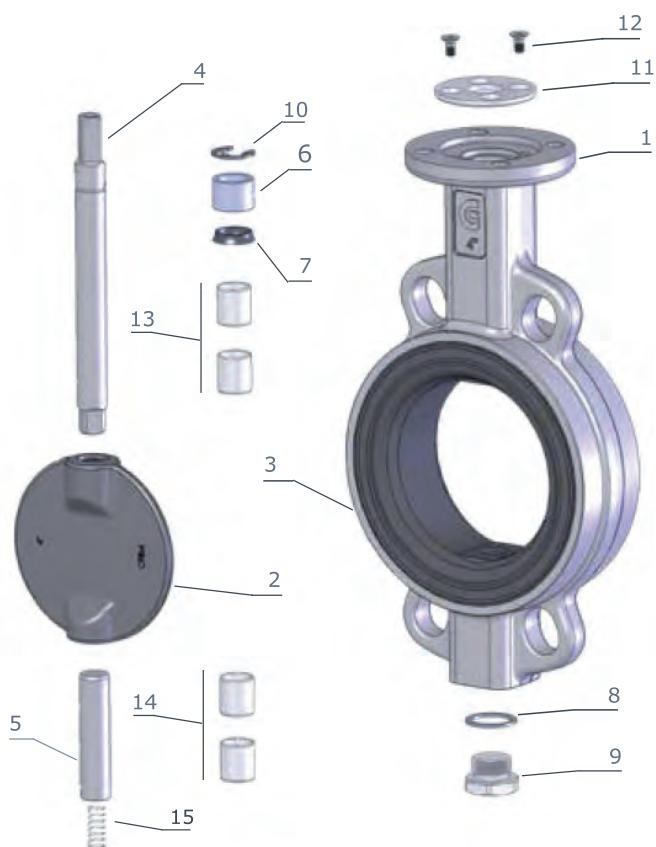
◊ parts included in spare kit

item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~ A216-WCB 1.1156~A352-LCB EN 1.4408~A351-CF8M EN1982-CC333G~ASTM B148 - C958.00
2	1	disc	EN 1.4408~ A351-CF8M EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
3	1	body seat (vulcanized not replaceable)	NBR (BUNA®) EPDM EPDM HT FKM (VITON®)
4	1	shaft	EN 1.4305~A303 EN 1.4401~A316 (on request)
◊5	5	bush	steel + PTFE
◊6	2	O.ring	NBR (BUNA®) FKM (VITON®) on request
7	2	O.ring housing	A4~A316

item	q.ty	part	material
8	1	shaft support	Bronze
9	2	adjusting screw	A4~A316
10	1	lower flange	zinc plated steel 1.4401~A316 (CF8M body/ASTM B148)
◊11	1	O.ring	NBR (BUNA®)
◊12	1	O.ring	NBR (BUNA®)
13	6	screw	8.8 zinc plated steel A4~A316 (CF8M body / ASTM B148)
14	1	upper flange	zinc plated steel 1.4401~A316 (CF8M body/ASTM B148)
◊15	1	O.ring	NBR (BUNA®)
◊16	1	O.ring	NBR (BUNA®)
17	4	screw	8.8 zinc plated steel A4~A316 (CF8M body / ASTM B148)
18	1	key	steel
19	3	screw	A4~A316
◊20	3	O.ring	PTFE
21	3	washer	A4~A316
22	1	spring	1.4401 ~ A316 (antistatic device)

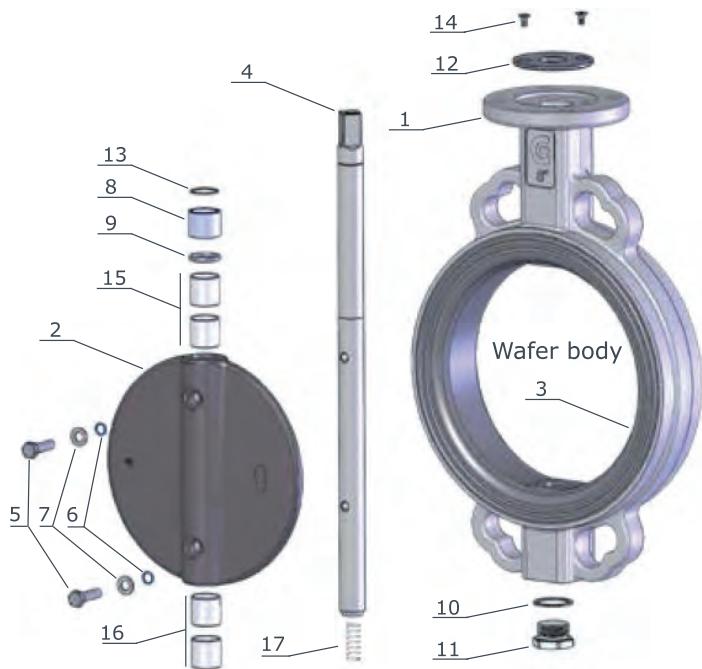
BVKX - Wafer **BLKX - Lug**
DN 50 - 100 • 2" - 4"
PN 25

item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400) EN 1.069~A216-WCB 1.1156~A352-LCB EN 1.4408~A351-CF8M
2	1	disc	EN 1.4408~A351-CF8M (A316) EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
3	1	body seat (vulcanized not replaceable)	NBR (BUNA®) EPDM EPDM HT FKM (VITON®)
4-5	1	upper shaft	EN 1.4016~A430
	1	lower shaft	EN 1.4401~A316 (on request)
◊6	1	bush	bronze
◊7	1	shaft packing	NBR (BUNA®) FKM (VITON®) (on request)
8	1	plug packing	aluminium PTFE (corpo CF8M / ASTM B148)
9	1	threaded plug	zinc plated steel 1.4401~A316 (CF8M body/ASTM B148)
10	1	stop ring	steel
11	1	upper flange	IXEF (DN 40-150) aluminium (DN 200-300)
12	2	screw	zinc plated steel A4~A316 (CF8M body/ ASTm B148)
◊13	2	upper bush	A105+PTFE
◊14	2	lower bush	A105+PTFE
15	1	spring	1.4401 ~ A316 (antistatic device)



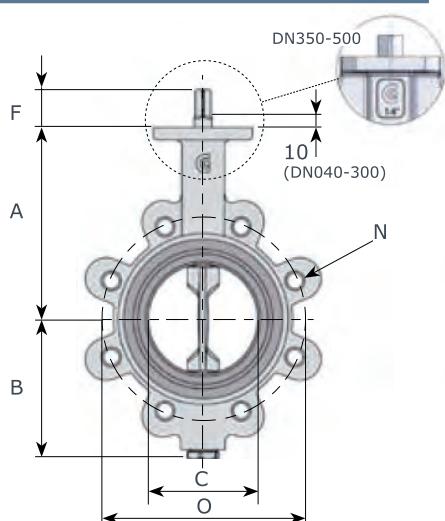
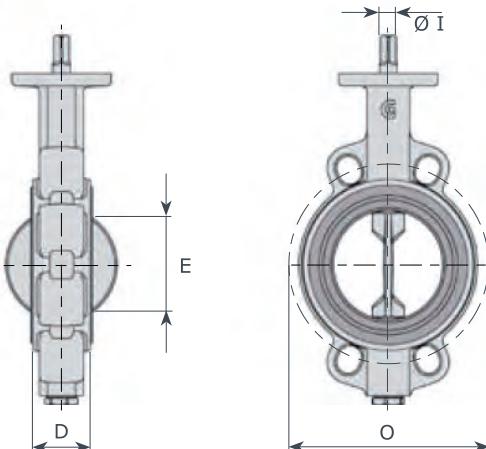
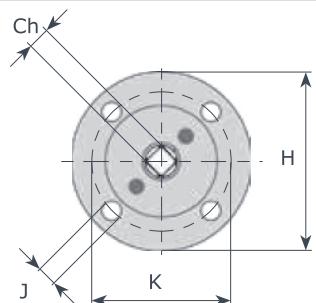
◊ parts included in spare kit

Wafer body

BVKX - Wafer
DN 125 - 250 • 5" - 10"
PN 25
BLKX - Lug
DN 125 - 200 • 5" - 8"
PN 25


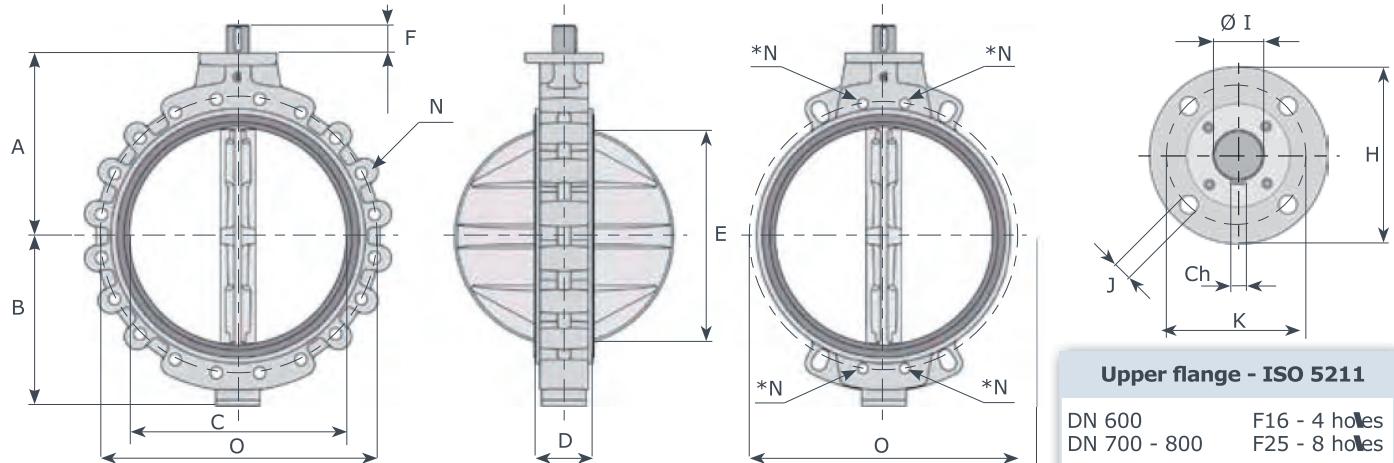
◊ parts included in spare kit

item	q.ty	part	material
1	1	body	EN-GJS400-15 (GS400)
2	1	disc	EN 1.4408~A351-CF8M EN1982-CC333G~ASTM B148 - C958.00 EN 2.4602~HASTELLOY-CX2MW EN 1.4469 (A890 Gr. 5A) SUPER DUPLEX
3	1	body seat (vulcanized not replaceable)	NBR (BUNA®) EPDM EPDM HT FKM (VITON®)
4	1	shaft	EN 1.4016~A430 EN 1.4401~A316 (on request)
5	2	screw	A4~A316
◊6	2	O.Ring	PTFE
7	2	washer	A4~A316
◊8	1	bush	bronze
◊9	1	shaft packing	NBR (BUNA®) FKM (VITON®) (on req.)
10	1	plug packing	aluminium PTFE (corpo CF8M / ASTM B148)
11	1	threaded plug	zinc plated steel 1.4401~A316 (CF8M body/ASTM B148)
12	1	upper flange	IXEF (DN 125-150) aluminium (DN 200-250)
13	1	stop ring	steel
14	2	screw	10.9 zinc plated steel A4~A316 (CF8M body/ ASTm B148)
◊15	2	upper bush	A105+PTFE
◊16	2	lower bush	A105+PTFE
17	1	spring	1.4401 ~ A316 (antistatic device)

BVPD - Wafer **BLPD - Lug****BVKI - Wafer** **BLKI - Lug****BVKA - Wafer** **BLKA - Lug****Upper flange - ISO 5211**

DN 40 - 150	F07 - 4 holes
DN 200 - 300	F10 - 4 holes
DN 350 - 400	F12 - 4 holes
DN 450	F14 - 4 holes
DN 500	F14/16 - 4 holes

DN	A	B	C	D	E	F	Ø I	Ch	H	K	J	PN 6			PN 10			PN 16			ANSI 150			Kg			
												N	n.	O	N	n.	O	N	n.	O	M14	4	98.4	W	L	W	L
40	130	75	49	33	36	34	14	11	90	70	9	-	-	-	M16	4	110	M16	4	110	M14	4	98.4	2.2	3	2.2	3
50	138	81	55	43	35	34	14	11	90	70	9	M12	4	110	M16	4	125	M16	4	125	M16	4	120.7	2.8	3.7	2.8	3.7
65	144	98	68	46	50	34	14	11	90	70	9	M12	4	130	M16	8	145	M16	8	145	M16	4	139.7	3.7	5.3	3.7	5.3
80	158	110	81	46	67	34	14	11	90	70	9	M16	4	150	M16	8	160	M16	8	160	M16	4	152.4	4	6.1	4	6.1
100	173	128	101	52	87	34	16	11	90	70	9	M16	4	170	M16	8	180	M16	8	180	M16	8	190.5	6	8.1	6	8.1
125	186	140	126	56	113	34	18	14	90	70	9	M16	8	200	M16	8	210	M16	8	210	M20	8	215.9	7.2	9.7	7.2	9.7
150	202	155	150	56	140	34	18	14	90	70	9	M16	8	225	M20	8	240	M20	8	240	M20	8	241.3	9.1	11.5	9.5	11.8
200	240	190	200	60	191	38	22	17	125	102	11	M16	8	280	M20	8	295	M20	12	295	M20	8	298.5	14	27	16	29
250	270	220	250	68	241	38	30	22	125	102	11	M16	12	335	M20	12	350	M24	12	355	M22	12	362.0	22	34	26	38
300	300	247	298	78	289	38	30	22	125	102	11	M20	12	395	M20	12	400	M24	12	410	M22	12	431.8	32	49	36	53
350	330	280	341	78	332	28	35	27	150	125	14	M20	12	445	M20	16	460	M24	16	470	M24	12	476.3	42	62	55	75
400	355	305	390	102	376	28	40	27	150	125	14	M20	16	495	M24	16	515	M27	16	525	M27	16	539.8	76	90	94	104
450	400	343	444	114	430	37	45	36	175	140	18	M20	16	550	M24	20	565	M27	20	585	M27	16	577.8	110	170	135	195
500	422	366	495	127	479	37	45	36	210	140/165	18/22	M20	20	600	M24	20	620	M30	20	650	M27	20	635.0	140	180	165	205

**Upper flange - ISO 5211**

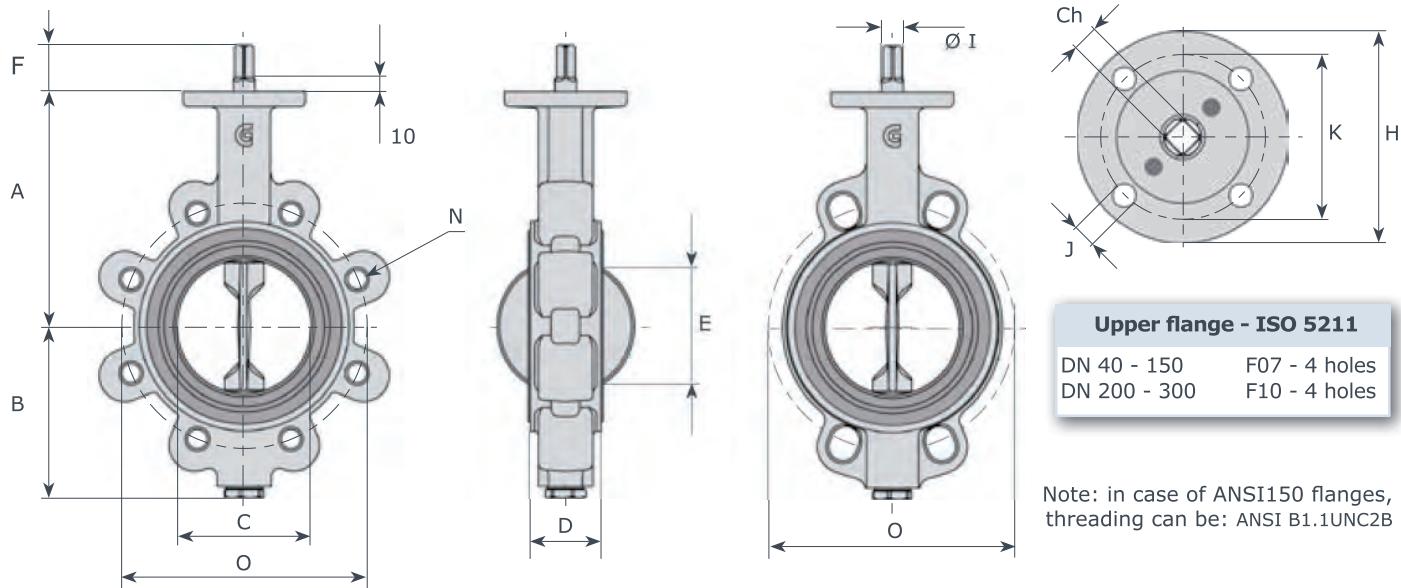
DN 600	F16 - 4 holes
DN 700 - 800	F25 - 8 holes

Note: in case of ANSI150 flanges, threading can be:
14" ANSI B1.1UNC2B
16"-32" ANSI B1.1-8 UNC2B

*Note: WAFER bodies DN 600 - 700 - 800 have 4 holes N threaded as relevant LUG version

DN	A	B	C	D	E	F	Ø I	Ch	H	K	J	PN 6			PN 10			PN 16			ANSI 150			Kg			
												N	n.	O	N	n.	O	N	n.	O	M33	20	749.3	220	290	220	290
600	495	460	595	154	575	75	60	18	210	165	22	M24	20	705	M27	20	725	M33	20	770	M33	20	749.3	220	290	220	290
700	550	506	690	165	670	90	70	20	300	254	18	M24	24	810	M27	24	840	M33	24	840	M33	28	863.6	300	415	300	415
800	640	590	780	190	757	100	80	22	300	254	18	M27	24	920	M30	24	950	M36	24	950	M39	28	977.9	444	570	465	570

BVKX - Wafer BLKX - Lug



DN	"	A	B	C	D	E	F	Ø I	Ch	H	K	J	PN 25			Kg.	
													N	n.	O	wafer	lug
50	2	138	81	55	43	35	34	14	11	90	70	9	M16	4	125	2.8	3.7
65	2 ^{1/2}	144	98	68	46	50	34	14	11	90	70	9	M16	8	145	3.7	5.3
80	3	158	110	81	46	67	34	14	11	90	70	9	M16	8	160	4	6.1
100	4	173	128	101	52	87	34	16	11	90	70	9	M20	8	190	6	8.1
125	5	186	140	126	56	113	34	18	14	90	70	9	M24	8	220	7.2	9.7
150	6	202	155	150	56	140	34	18	14	90	70	9	M24	8	250	9.5	11.8
200	8	240	190	200	60	191	38	22	17	125	102	11	M24	12	310	16	29
250	10	270	220	250	68	241	38	30	22	125	102	11	--	--	370	25	--

PD Series - Torque values - Nm - safety factor excluded

Seat body NBR/EPDM						fluid H ₂ O - 20°C					
working pressure BAR											
DN	0	6	10	DN	0	6	10	DN	0	6	10
80	5	7	11	250	89	100	115	500	410	430	460
100	8	12	24	300	167	180	280	600	1330	1577	-
125	22	31	40	350	245	340	395	700	1409	1904	-
150	40	45	49	400	382	405	420	800	2890	3400	-
200	47	58	90	450	395	418	445	-	-	-	-

Seat body FKM/natural rubber						fluid H ₂ O - 20°C					
working pressure BAR											
DN	0	6	DN	0	6	DN	0	6	DN	0	6
80	7	11	250	120	134	500	607	675			
100	11	16	300	225	241	600	1795	2130			
125	29	42	350	465	495	700	2310	3300			
150	52	65	400	515	540	800	3376	3960			
200	62	78	450	578	627	-	-	-			

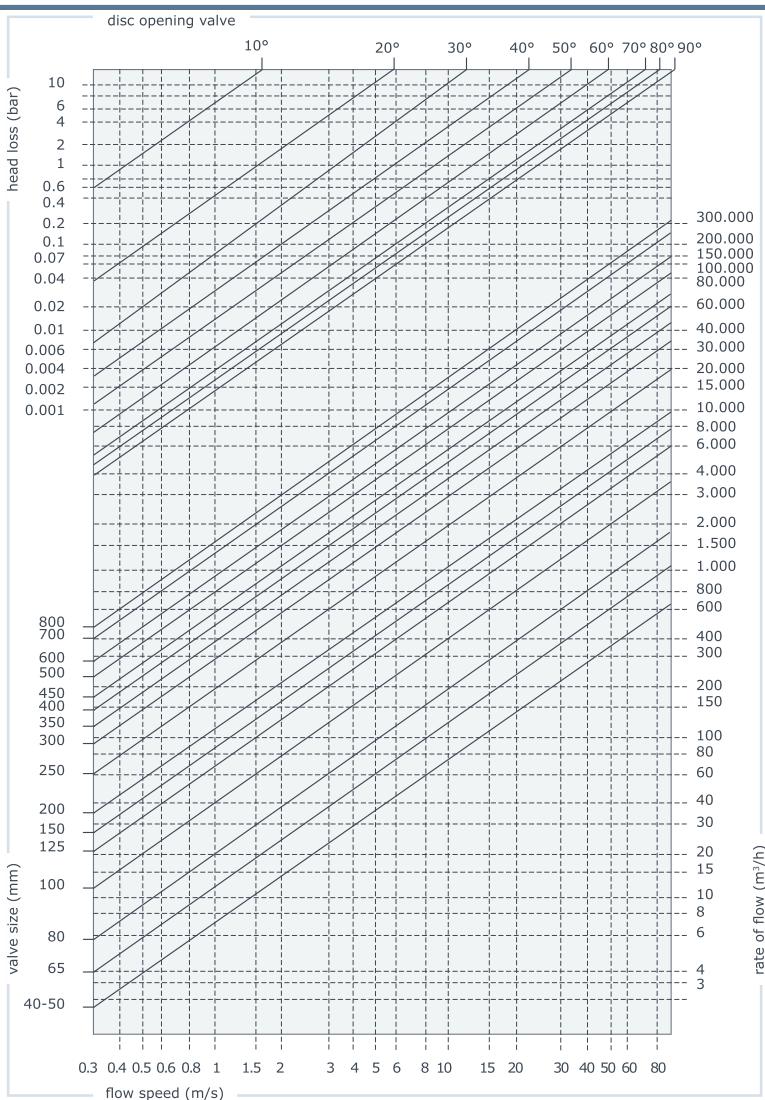
KI Series - Torque values - Nm - safety factor excluded

Seat body NBR/EPDM fluid H ₂ O - 20°C											
working pressure BAR						working pressure BAR					
DN	0	6	10	16	DN	0	6	10	16	DN	0
40	11	11	13	14	150	55	60	84	90	450	480
50	11	12	13	15	200	100	107	180	210	500	550
65	11	16	16	18	250	160	175	220	320	600	1650
80	20	30	36	40	300	260	270	320	390	700	2270
100	40	43	45	48	350	410	450	590	850	800	3200
125	48	52	52	70	400	450	480	650	900		

Seat body FKM/natural rubber fluid H ₂ O - 20°C											
working pressure BAR						working pressure BAR					
DN	0	6	10	16	DN	0	6	10	16	DN	0
40	14	14	16	17	150	66	72	101	108	450	580
50	14	15	16	18	200	120	129	216	252	500	660
65	14	20	20	22	250	192	210	264	386	600	1980
80	24	36	44	48	300	312	330	396	480	700	2750
100	48	52	54	58	350	498	545	728	1050	800	3880
125	60	62	64	84	400	550	584	798	1120		

KA/KX Series - Torque values - Nm - safety factor excluded

Seat body NBR/EPDM fluid H ₂ O - 20°C											
working pressure BAR						working pressure BAR					
DN	0	6	10	16	20	25	DN	0	6	10	16
40	12	12	14	15	15	-	300	272	294	362	410
50	12	13	14	16	17	20	350	431	557	714	1071
65	12	17	17	19	20	31	400	683	767	893	1470
80	21	32	38	42	44	49	450	1000	1208	1313	1995
100	42	45	47	50	53	65	500	1155	1418	1733	2625
125	50	55	55	74	77	82	600	2300	2800	3700	4800
150	58	63	88	95	99	103	700	3800	5050	5600	6900
200	105	112	189	221	231	320	800	5200	6800	7900	10300
250	175	190	231	336	352	440					

Head losses

NOTES: values indicated in this page is only for information

Formulae for calculation of rate flow

Liquids:
$$Q = \frac{KV}{\sqrt{\frac{PS}{\Delta P}}}$$

Q rate of flow (m^3/h)
 PS specific gravity (water=1)
 ΔP pressure drop (bar)

Gas:
$$Q = 28.5 \frac{KV}{\sqrt{\frac{PS}{P_2 \cdot \Delta P}}}$$

Q rate of flow (m^3/h)
 PS specific gravity (air=1)
 ΔP pressure drop (bar)
 ()
 P_2 outlet pressure

Steam:
$$Q = 22.5 \cdot KV \cdot \sqrt{P_2 \cdot \Delta P}$$

Q rate of flow (Kg/h)
 ΔP pressure drop (bar)
 ()
 P_2 outlet pressure

Calculation of the rate of flow equivalent to H₂O

$$Q_e = Q \sqrt{\frac{d}{1000}}$$

For different liquid, gas or steam head losses are determined by equivalent water of flow, as follows:

Q_e equivalent water flow
 (mc/l o l/s)
Q fluid flow
 (mc/l o l/s)
d fluid specific gravity
 (Kg/mc)

Values KV (CV = 1,16 KV)

angle	40/50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	
5°	-	-	-	-	-	-	-	-	-	53	68	85	106	151	206	270	
10°	-	-	-	-	-	-	-	-	21	49	123	161	199	246	354	482	629
15°	0,2	0,6	1,8	2,4	4,2	5,6	14	80	188	228	299	369	457	658	900	1168	
20°	0,9	2,5	5,2	9,5	15	23	110	156	280	315	412	511	630	907	1234	2010	
25°	3	6,1	12	22	38	61	125	225	354	457	597	740	914	1314	1789	2735	
30°	6,1	11	21	39	69	112	211	310	381	661	863	1069	1320	1899	2585	5080	
35°	9,9	18	33	60	105	166	303	433	521	890	1162	1440	1778	2560	3484	6254	
40°	15	27	49	88	148	228	405	591	742	1184	1547	1916	2366	3407	4638	9700	
45°	21	38	68	121	199	303	528	774	987	1552	2028	2512	3102	4466	6079	11581	
50°	29	51	91	159	262	394	679	988	1252	2008	2620	3248	4010	5774	7860	15000	
55°	39	68	119	207	338	505	863	1247	1571	2548	3318	4123	5090	7329	9976	17765	
60°	53	90	156	269	434	641	1085	1591	2059	3225	4202	5218	6442	9277	12627	22200	
65°	72	121	209	357	565	820	1364	2065	2807	3983	5196	6445	7957	11457	15595	26077	
70°	92	161	283	487	768	1097	1788	2715	3744	5195	6775	8412	10377	14944	20341	34500	
75°	109	209	381	662	1059	1507	2425	3625	4935	6964	9084	11269	13912	20032	27267	39546	
80°	115	240	457	815	1303	1861	3043	4768	6831	9301	12142	15048	18578	26752	36413	47560	
85°	115	253	502	906	1457	2008	3642	4890	8230	10280	13408	16632	20533	29568	40246	52566	
90°	116	257	508	925	1492	2168	3838	5010	9233	10792	14082	17840	22024	31715	43166	56381	

Flanges to be usedEN1092-1
Tipo 11UNI
2280/81
2282/67DIN
2631
2632
2633A150
B16.5
welding neckEN1092-1
Tipo 01UNI
2276/77
2278/67DIN
2575
2576
2577A150
B16.5
slip onEN1092-1
Tipo 02/32UNI
6088/89
6090DIN
2641
2642
2643EN1092-1
Tipo 04/34UNI
2289/90
2291DIN
2672
2673
2674EN1092-1
Tipo 02/33

NOTE
only valves
with vulcanized
seat (KA/KX)
are recommended
with these flanges

Compatibility flanges - body Wafer

DN	EN 1092-1 / EN 1092-2					ASME/ANSI			BS 10		JIS B2220		
	PN 6	PN 10	PN 16	PN 25	PN 40	class 125	class 150	class 300	tab D	tab E	5K	10K	16K
40	□	✓	✓	✓	✓	✓	✓	●	✓	✓	✓	✓	✓
50	□	✓	✓	✓	✓	✓	✓	✗	●	●	●	□	✗
65	□	✓	✓	✓	✓	✓	✓	●	●	●	✓	✓	□
80	□	✓	✓	✓	✓	✓	✓	●	●	●	●	●	✓
100	□	✓	✓	●	●	✓	✓	✗	●	✓	✗	●	✓
125	□	✓	✓	● (1)	● (1)	✓	✓	✗	✓	✓	□	✓	● (1)
150	□	✓	✓	● (1)	● (1)	✓	✓	✗	●	●	□	✓	✗
200	□	✓	✓	✓ (2)	✗	✓	✓	✗	✓	✓	●	●	✓ (2)
250	□	✓	✓	●	✗	✓	✓	✗	✗	✓	●	✓	✗
300	□	✓	✓	✓ (2)	✗	✓	✓	✗	✓	✓	●	●	✓ (2)
350	□	✓	✓	●	✗	✓	✓	✗	✓	✓	●	●	●
400	□	✓	✓	●	✗	✓	✓	✗	✗	✗	●	●	✓
450	□	✓	✓	●	✗	✓	✓	✗	✗	✗	●	●	✗
500	□	✓	✓	●	✗	✓	✓	✗	✗	✗	●	✓	✓
600	□	✓	✓	●	✗	✓	✓	✗	✗	✗	●	✗	✗
700	□	✓	✓	✗	✗	✓	✓	✗	✗	✗	●	✓	✗
800	□	✓	✓	✗	✗	✓	✓	✗	✓	✗	●	✓	✗

✓ standard
● on request

□ only body PN 6 version
✗ not possible

(1) only with ductile iron bodies

(2) standard with ductile iron and steel bodies,
on request with different materials**Compatibility flanges - body Lug**

DN	EN 1092-1 / EN 1092-2					ASME/ANSI			BS 10		JIS B2220		
	PN 6	PN 10	PN 16	PN 25	PN 40	class 125	class 150	class 300	tab D	tab E	5K	10K	16K
40	□	✓	✓	✓	✓	✓	✓	●	□	□	●	●	●
50	□	✓	✓	✓	✓	✓	✓	✗	●	●	●	●	✗
65	□	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●
80	□	✓	✓	✓	✓	✓	✓	●	●	●	●	●	✓
100	□	✓	✓	●	●	✓	✓	✗	●	✓	●	●	●
125	□	✓	✓	✓	● (1)	● (1)	✓	✓	✓	✓	✓	✓	● (1)
150	□	✓	✓	✓	● (1)	● (1)	✓	✓	✓	●	●	✓	✗
200	□	✓	✓	✓	●	✗	✓	✓	●	●	●	●	✗
250	□	✓	✓	✓	✗	✗	✓	✓	✗	●	●	●	✗
300	□	✓	✓	✓	✗	✗	✓	✓	●	●	●	✓ (1)	✗
350	□	✓	✓	✓	✗	✗	✓	✓	●	●	●	●	✗
400	□	✓	✓	✓	✗	✗	✓	✓	●	●	●	✓	✗
450	□	✓	✓	✓	✗	✗	✓	✓	●	●	●	✓	✗
500	□	✓	✓	✓	✗	✗	✓	✓	●	●	●	✓	✗
600	□	✓	✓	✓	●	✗	✓	✓	●	●	●	●	✗
700	□	✓	✓	✓	✗	✗	✓	✓	●	●	●	✓	✗
800	□	✓	✓	✗	✗	✓	✓	✗	●	●	●	✓	✗

✓ standard
● on request

□ only body PN 6 version
✗ not possible

(1) only with ductile iron bodies

(2) standard with ductile iron and steel bodies,
on request with different materials

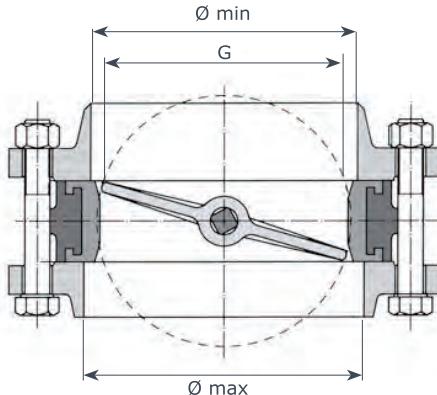
Bolts and rods dimensions

DN	Wafer valves											
	PN 6			PN 10			PN 16			ANSI 150		
	Bolts	Rods	N°	Bolts	Rods	N°	Bolts	Rods	N°	Bolts	Rods	N°
40	M12x80	M12x90	4	M16x90	M16x100	4	M16x90	M16x100	4	M14x90	M14x110	4
50	M12x90	M12x100	4	M16x100	M16x120	4	M16x100	M16x120	4	M16x100	M16x130	4
65	M12x100	M12x110	4	M16x110	M16x130	8	M16x110	M16x130	8	M16x110	M16x140	4
80	M16x100	M16x120	4	M16x110	M16x130	8	M16x110	M16x130	8	M16x120	M16x150	4
100	M16x110	M16x120	4	M16x120	M16x140	8	M16x120	M16x140	8	M16x120	M16x150	8
125	M16x120	M16x140	8	M16x120	M16x150	8	M16x120	M16x150	8	M20x130	M20x160	8
150	M16x120	M16x140	8	M20x130	M20x160	8	M20x130	M20x160	8	M20x140	M20x160	8
200	M16x130	M16x150	8	M20x140	M20x170	8	M20x140	M20x170	12	M20x150	M20x170	8
250	M16x140	M16x160	12	M20x150	M20x180	12	M24x150	M24x180	12	M22x160	M22x190	12
300	M20x150	M20x180	12	M20x160	M20x190	12	M24x160	M24x190	12	M22x170	M22x210	12
350	M20x150	M20x180	12	M20x160	M20x190	16	M24x170	M24x200	16	M24x180	M24x220	12
400	M20x180	M20x210	16	M24x190	M24x220	16	M27x210	M27x240	16	M27x210	M27x250	16
450	M20x190	M20x220	16	M24x200	M24x230	20	M27x220	M27x250	20	M27x230	M27x270	16
500	M20x210	M20x240	20	M24x210	M24x240	20	M30x240	M30x280	20	M27x250	M27x290	20
600	M24x240	M24x270	20	M27x250	M27x290	20	M33x270	M33x320	20	M33x290	M33x340	20
700	M24x250	M24x280	24	M27x260	M27x310	24	M33x280	M33x330	24	M33x350	M33x400	28
800	M27x280	M27x320	24	M30x290	M30x350	24	M36x320	M36x360	24	M39x400	M33x460	28

DN	Lug valves					
	PN 6		PN 10		PN 16	
	Bolts	N°	Bolts	N°	Bolts	N°
40	M12x30	8	M16x30	8	M16x30	8
50	M12x35	8	M16x35	8	M16x35	8
65	M12x35	8	M16x40	16	M16x40	16
80	M16x40	8	M16x40	16	M16x40	16
100	M16x40	8	M16x40	16	M16x40	16
125	M16x45	16	M16x45	16	M16x45	16
150	M16x45	16	M20x45	16	M20x50	16
200	M16x50	16	M20x50	16	M20x55	16
250	M16x55	24	M20x55	24	M22x60	24
300	M20x60	24	M20x60	24	M22x60	24
350	M20x60	24	M20x60	32	M24x65	32
400	M20x70	32	M24x70	32	M27x80	32
450	M20x80	32	M24x80	40	M27x80	32
500	M20x80	40	M24x80	40	M27x90	40
600	M24x90	40	M27x90	40	M33x100	40
700	M24x100	48	M27x100	48	M33x110	48
800	M27x110	48	M30x120	48	M36x130	56

NOTE 1 Screw and rod dimensions have been calculated with WELDING NECK flanges PN 6/10/16 (EN1092-1 Type 11) ANSI150 (ANSI B16.5)

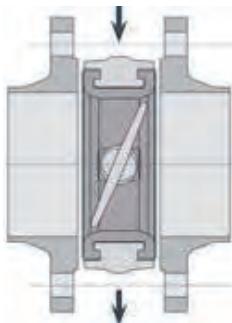
NOTE 2 Number of nuts should be double when WAFER valves are assembled with threaded rods.



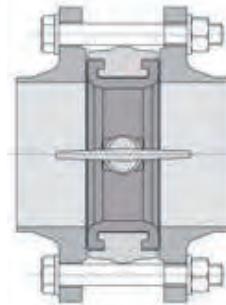
DN	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800
G	36	35	50	67	87	113	140	191	241	289	332	376	430	475	575	670	757
Ø min	46	44	60	75	98	122	148	196	244	296	342	378	440	485	585	681	782
Ø max	49	62	80	93	118	146	175	225	275	330	372	422	450	500	600	717	815

Installation

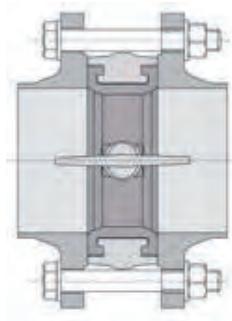
Assembly



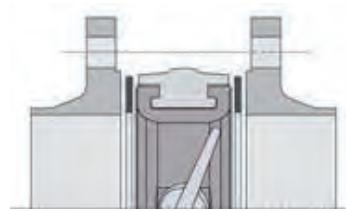
- 1 -** Leave a space between flanges so that valve can be easily inserted and removed.



- 2 -** Open completely the valve before tightening flanges.



- 3 -** Tighten bolts till flanges are in contact with valve body.

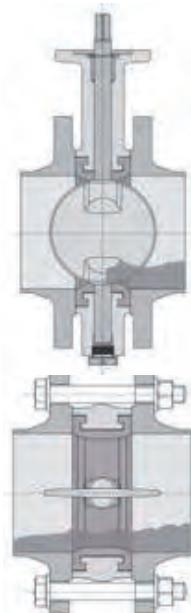


- 4 - NOTE:**
do not insert other packing between flange and valve.

NOTE: Weld the pipe only in spots with the valve between flanges.
Remove the valve before finishing welding to avoid that heat damage the seat.
Clean carefully the welding to avoid that slags damage the seat.

Installation for powders and muddy fluids

In case of use with powders or muddy fluids, install the valve with horizontal rotation axis, to allow sediments to flow easily on opening.



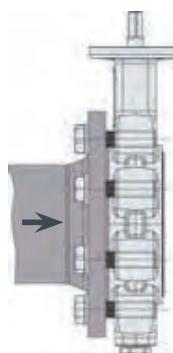
Wrong
Vertical rotation axis

←
powders
or muddy
fluids

This type of installation is always advisable with valve diameters over DN 400.

End piping installation

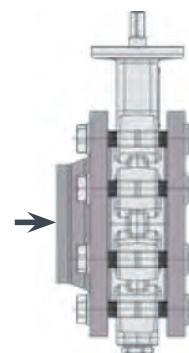
When valves are installed end of piping, a counterflange as per dwg type B is needed to secure tightness at max pressure.



Right
Horizontal rotation axis

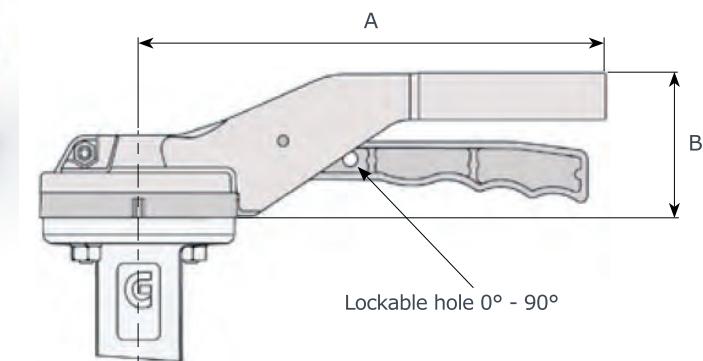
←
powders
or muddy
fluids

Type A installation
without counterflange

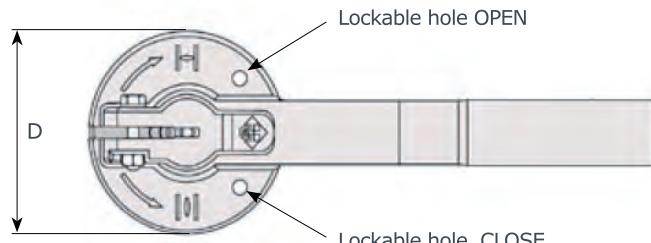


Type B installation
with counterflange

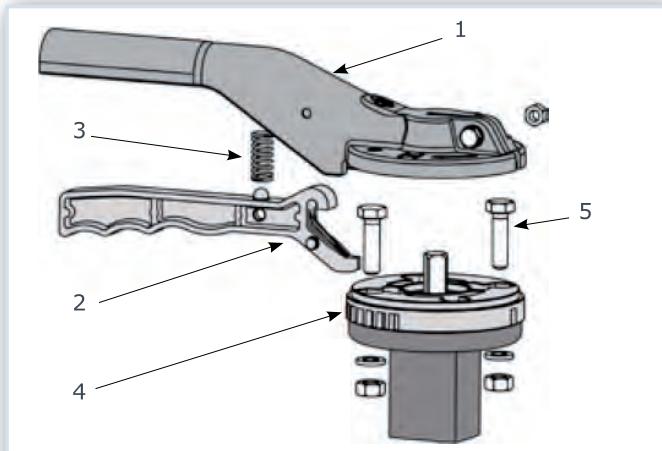
valve type	P _{max} (Bar)	
	type A inst.	type B inst.
BLPD	4	6
BLKI	6	16
BLKA	16	20
BLKX	16	25

Handlevers

DN	A	B	D	Kg	
				aluminium	st. steel
40 - 100	220	67	93	0.60	1.80
125 - 150	275	67	93	0.65	2.05
200 - 300	340	76	125	1	--



Note: DN 250 - 300 handlever not recommended
(PD series excluded)



	DN40 - 300	DN40 - 150
1	lever	aluminium
2	trigger	A351 CF8M
3	spring	aluminium
4	disc positioning	A351 CF8M
5	screws	stainless steel

positioning disc DN 40 - 150 designed for flanges ISO 5211 F05/F07

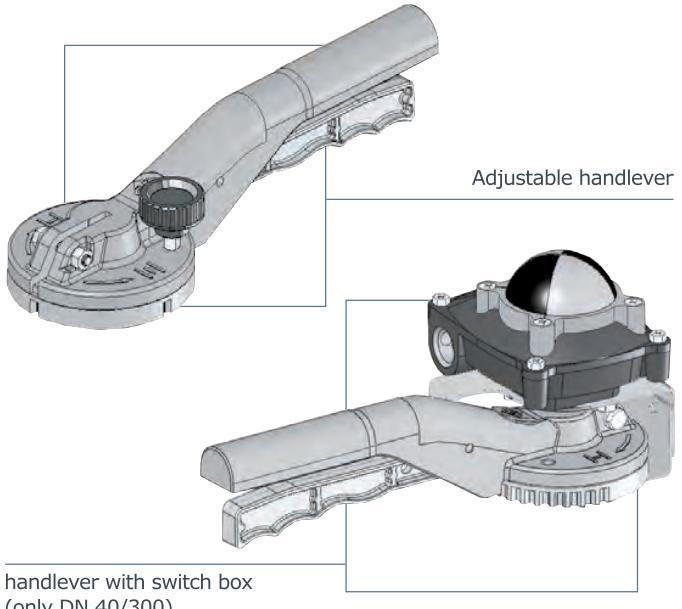


10 positions



Open - Closed

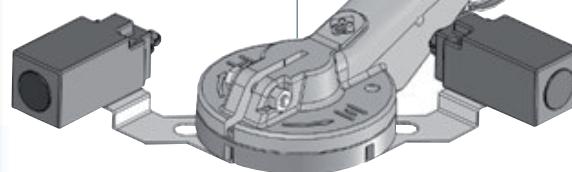
positioning disc with two types
of regulation: 10 positions or Open/Close

OPTIONALS

handlever with switch box

(only DN 40/300)

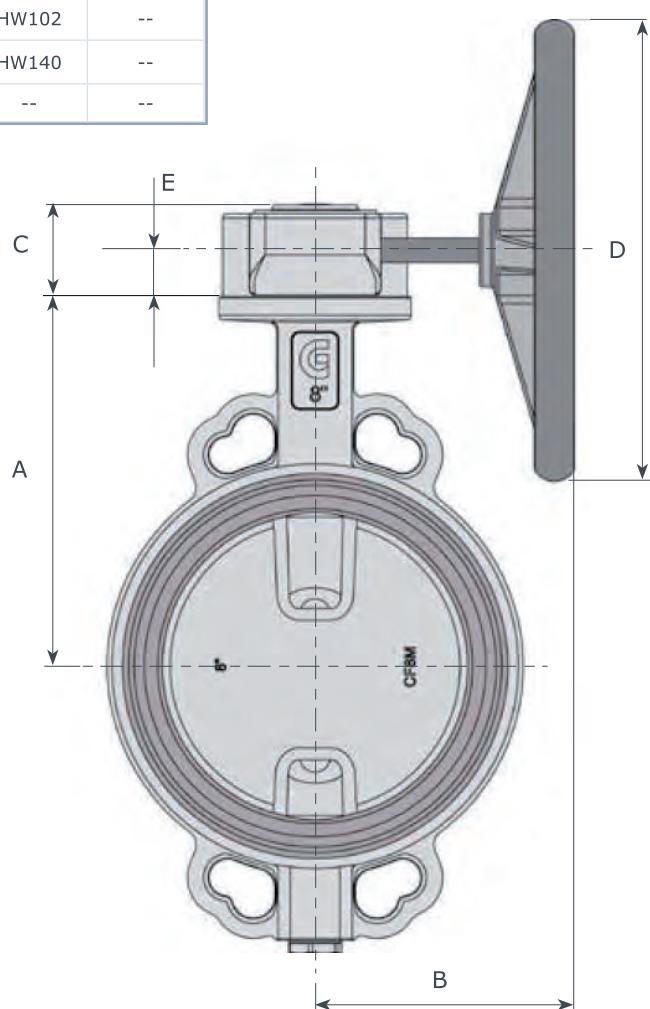
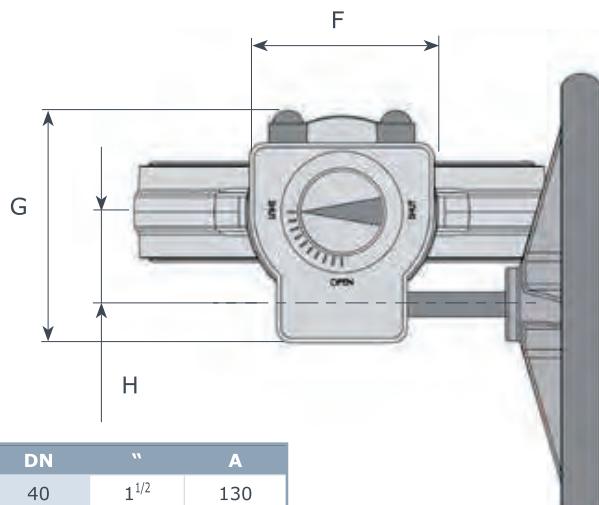
handlever with 2 SPDT or
inductive limit switches



Gearboxes Aluminium body - HW Series**Coupling valve - actuators**

DN	"	PD	KI			KA	KX
			p = 6 bar	p = 10 bar	p = 16 bar		
40	1½	--	HW070	HW070	HW070	--	--
50	2	--	HW070	HW070	HW070	HW070	HW070
65	2½	--	HW070	HW070	HW070	HW070	HW070
80	3	HW070	HW070	HW070	HW070	HW070	HW070
100	4	HW070	HW070	HW070	HW070	HW070	HW070
125	5	HW070	HW070	HW070	HW070	HW070	HW070
150	6	HW070	HW070	HW070	HW070	HW070	HW070
200	8	HW102	HW102	HW102	HW102	HW102	HW102
250	10	HW102	HW102	HW102	HW102	HW102	HW102
300	12	HW102	HW102	HW102	HW102	HW102	--
350	14	HW140	HW140	HW140	HW140	HW140	--
400	16	HW140	HW140	HW140	--	--	--

HW series	
body:	aluminium
worm gears:	steel
sector gear:	ductile iron
shaft:	stainless steel
handwheel:	steel
protection:	IP65
T:	-20 / +120 °C



DN	"	A
40	1½	130
50	2	138
65	2½	144
80	3	158
100	4	173
125	5	186
150	6	202
200	8	240
250	10	270
300	12	300
350	14	330
400	16	355
450	18	400
500	20	422
600	24	495
700	28	550
800	32	640

Mod.	B	C	D	E	F	G	H	Kg
HW070	165	48	140	27	80	115	42	1.6
HW102	240	56	300	33	120	150	60	3
HW140	250	95	400*	51	185	225	80	10

* for DN 350: D = 350

Gearboxes Cast Iron body - GH/AB Series**Coupling valve - actuators**

DN	"	PD	KI	KA	KX
40	1 1/2	--	GH10	GH10	GH10
50	2	--	GH10	GH10	GH10
65	2 1/2	--	GH10	GH10	GH10
80	3	GH10	GH10	GH10	GH10
100	4	GH10	GH10	GH10	GH10
125	5	GH10	GH10	GH10	GH10
150	6	GH10	GH10	GH10	GH20
200	8	GH20	GH20	GH10	GH20
250	10	GH20	GH20	GH10	AB550
300	12	GH20	GH20	AB550	--
350	14	GH30	GH30	AB880	--
400	16	GH30	GH30	AB880	--
450	18	GH55	GH55	AB1250	--
500	20	GH55	GH55	AB1250	--
600	24	GH88	GH88	AB1954	--
700	28	GH99	GH99	AB6804	--
800	32	GH99	GH195	AB6806	--

DN	"	A
40	1 1/2	130
50	2	138
65	2 1/2	144
80	3	158
100	4	173
125	5	186
150	6	202
200	8	240
250	10	270
300	12	300
350	14	330
400	16	355
450	18	400
500	20	422
600	24	495
700	28	550
800	32	640

GH/AB series

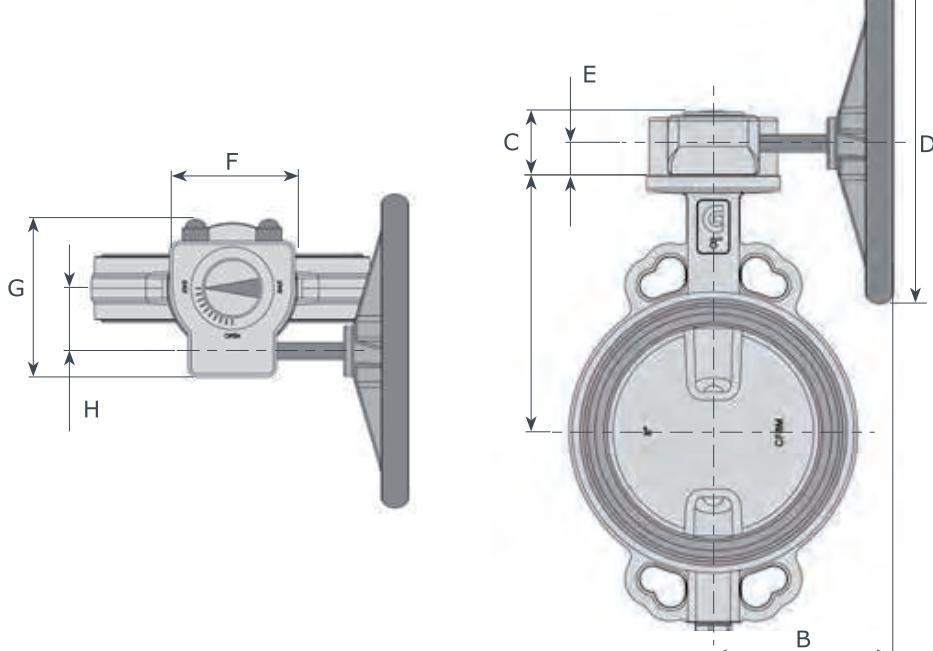
body: ductile iron
 worm gears: steel
 sector gear: ductile iron
 shaft: steel
 handwheel: steel
 protection: IP67
 T: -20 / +80 °C

low/high temperature execution on request

Waterproof valve shaft extension

When necessary, it's possible to extend the valve shaft as indicated in the figure. Construction is in carbon steel with protective paint (on request stainless steel).

"L" measure should be indicated when ordering.



Mod. GH	B	C	D	E	F	G	H	I	Kg
GH10	170	64	200	29	90	122.5	44	52.5	2.2
GH20	179	65.5	200	29	125	144	52	65	3.6
GH21	214	73	300	36	125	162	62	74	4.8
GH30	265	89	350	46	150	202	79	89	12
GH55	300	99	400	49.5	210	229	89	105	13
GH88	350	350	500	55	225	267	112	112	20.1
GH99	374	374	500	55	300	317	124	150	28.5
GH195	430	430	600	63	300	350	129	150	37

Mod. AB	B	C	D	E	F	G	H	I	Kg
AB550	282	88	300	41	138	174	71	69	8.5
AB880	282	93	400	42	200	226	86	100	14
AB1250	322	102	500	48	220	258	105	110	22
AB1950	425	126	600	55	285	323	130	143	32
AB1954	398	126	600	55	285	323	130	143	39
AB6804	451	159	600	59	370	407	182	170	62.5
AB6806	451	159	600	59	370	407	182	170	64.2

Our technical department is available to solve special applications.

Pneumatic actuator DA / DOUBLE ACTING**Rack & Pinion Actuators**

Max air pressure: 8 bar - 5,5 bar (AT series)
 Temperature: -20/+85°C
 -20/+80°C (AT series)

Torque range: 8/5059 Nm
 13,2/9173 Nm a 5,5 bar
 (AT series)

Double travel stop open/close: ±5°
 -5°/+15° close (serie AT)
 +5°/-15° open (serie AT)

valve seat: EPDM/NBR

fluid: H₂O

T: 20°C

operating air pressure: ≥5,5 bar

DN	"	M	PD				KI						KA		KX	
			P=6 B	G	P=10 B	G	P=6 B	G	P=10 B	G	P=16 B	G	mod.	G	mod.	G
40	1½	130	≈	≈	≈	≈	VA 52	24	VA 52	24	VA 52	24	VA 52	24	VA 52	≈ ≈
50	2	138	≈	≈	≈	≈	VA 52	24	VA 52	24	VA 52	24	VA 63	24	VA 63	20
65	2½	144	≈	≈	≈	≈	VA 52	24	VA 52	24	VA 63	20	VA 63	20	VA 75	16
80	3	158	VA 52	24	VA 52	24	VA 75	16	VA 75	16	VA 75	16	VA 75	16	VA 75	16
100	4	173	VA 52	24	VA 63	20	VA 75	16	VA 75	16	VA 75	16	VA 85	16	VA 85	16
125	5	186	VA 75	16	VA 75	16	VA 75	16	VA 75	16	VA 85	16	VA 100	16	VA 100	16
150	6	202	VA 75	16	VA 75	16	VA 85	16	VA 100	16	VA 100	16	VA 100	16	VA 100	16
200	8	240	VA 85	20	VA 100	20	VA 100	20	VA 115	20	VA 125	14	VA 125	14	VA 140	14
250	10	270	VA 115	14	VA 115	14	VA 115	14	VA 125	14	VA 140	14	VA 140	14	VA 160	14
300	12	300	VA 115	14	VA 140	14	VA 140	14	VA 140	14	VA 160	14	VA 160	14	VA 160	≈ ≈
350	14	330	VA 140	0	VA 160	0	VA 160	0	VA 180	0	VA 200	0	VA 230	100	VA 230	≈ ≈
400	16	355	VA 160	0	VA 160	0	VA 160	0	VA 180	0	VA 200	0	VA 230	100	VA 230	≈ ≈
450	18	400	VA 180	0	VA 180	0	VA 180	0	VA 200	0	VA 230	0	VA 270	100	VA 270	≈ ≈
500	20	422	VA 180	0	VA 180	0	VA 180	0	VA 200	0	VA 270	0	VA 330	0	VA 330	≈ ≈
600	24	495	VA 270	100	≈	≈	VA 270	100	VA 330	100	≈	≈	AT 1001	100	AT 1001	≈ ≈
700	28	550	VA 270	100	≈	≈	VA 330	150	VA 330	150	≈	≈	≈	≈	≈	≈ ≈
800	32	640	VA 330	150	≈	≈	VA 330	150	VA 330	150	≈	≈	≈	≈	≈	≈ ≈

valve seat: EPDM/NBR

fluid: Aria

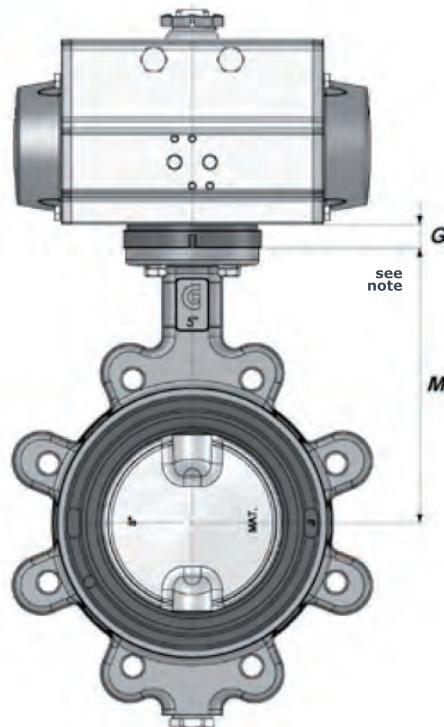
T: 20°C

valve seat: FKM (n.a. for PD 10bar)

fluid: H₂O

operating air pressure: ≥5,5 bar

DN	"	M	PD				KI					
			P=6 B	G	P=10 B	G	P=6 B	G	P=10 B	G	P=16B	G
40	1½	130	≈	≈	≈	≈	VA 52	16	VA 52	24	VA 63	20
50	2	138	≈	≈	≈	≈	VA 52	24	VA 63	20	VA 63	20
65	2½	144	≈	≈	≈	≈	VA 63	20	VA 63	20	VA 63	20
80	3	158	VA 52	24	VA 52	24	VA 75	16	VA 75	16	VA 75	16
100	4	173	VA 52	24	VA 75	20	VA 75	16	VA 85	16	VA 85	16
125	5	186	VA 75	16	VA 75	16	VA 85	16	VA 85	16	VA 100	16
150	6	202	VA 85	16	VA 85	16	VA 85	16	VA 100	16	VA 100	16
200	8	240	VA 85	20	VA 100	29	VA 115	20	VA 125	14	VA 125	14
250	10	270	VA 115	14	VA 115	14	VA 125	14	VA 140	14	VA 160	14
300	12	300	VA 125	14	VA 140	14	VA 140	14	VA 160	14	VA 160	14
350	14	330	VA 150	0	VA 180	0	VA 180	0	VA 200	0	VA 230	100
400	16	355	VA 180	0	VA 180	0	VA 180	0	VA 200	0	VA 230	100
450	18	400	VA 180	0	VA 180	0	VA 180	0	VA 200	0	VA 230	0
500	20	422	VA 200	0	VA 200	0	VA 200	0	VA 230	0	VA 270	0
600	24	495	VA 270	100	≈	≈	VA 330	100	VA 330	100	≈	≈
700	28	550	VA 330	100	≈	≈	VA 330	150	AT 1001	150	≈	≈
800	32	640	VA 330	150	≈	≈	VA 330	150	AT 1001	150	≈	≈



G dimension can change depending on valve/actuator coupling.

Pneumatic actuator SR / SPRING RETURN**Rack & Pinion Actuators**

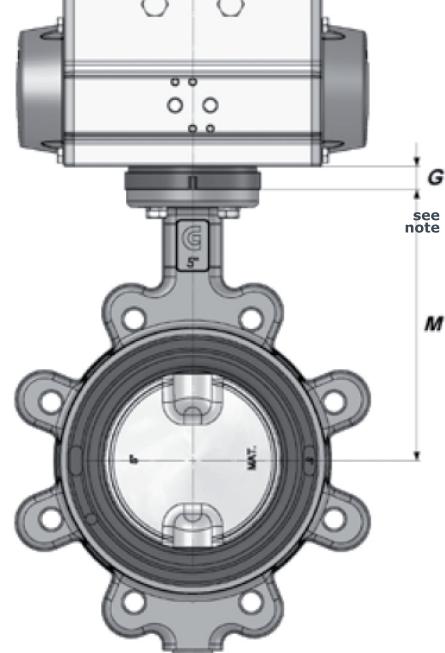
Max air pressure: 8 bar - 5,5 bar (AT series)
 Temperature: -20/+85°C
 -20/+80°C (AT series)

Torque range: 8/5059 Nm
 13,2/9173 Nm a 5,5 bar
 (AT series)

Double travel stop open/close: ±5°
 -5°/+15 close (serie AT)
 +5°/-15 open (serie AT)

valve seat: EPDM/NBR			fluid: H ₂ O				T: 20°C				operating air pressure: ≥5,5 bar					
DN	"	M	PD				KI						KA			
			P=6 B	G	P=10 B	G	P=6 B	G	P=10 B	G	P=16 B	G	mod.	G		
40	1½	130	≈	≈	≈	≈	VA 75 SR	16	VA 75 SR	16	VA 75 SR	24	VA 75 SR	16	≈	≈
50	2	138	≈	≈	≈	≈	VA 75 SR	16	VA 75 SR	16	VA 75 SR	24	VA 75 SR	16	VA 85 SR	16
65	2½	144	≈	≈	≈	≈	VA 75 SR	16	VA 75 SR	16	VA 75 SR	20	VA 85 SR	16	VA 100 SR	16
80	3	158	VA 63 SR	20	VA 75 SR	16	VA 85 SR	16	VA 100 SR	16	VA 100 SR	16	VA 100 SR	16	VA 115 SR	16
100	4	173	VA 75 SR	24	VA 85 SR	20	VA 100 SR	16	VA 115 SR	16	VA 115 SR	16	VA 115 SR	16	VA 115 SR	16
125	5	186	VA 100 SR	16	VA 100 SR	16	VA 115 SR	16	VA 115 SR	16	VA 125 SR	16	VA 125 SR	16	VA 125 SR	16
150	6	202	VA 100 SR	16	VA 115 SR	16	VA 115 SR	16	VA 125 SR	16	VA 125 SR	16	VA 140 SR	16	VA 140 SR	16
200	8	240	VA 115 SR	14	VA 125 SR	14	VA 140 SR	14	VA 160 SR	14	VA 160 SR	14	VA 180 SR	14	VA 200 SR	14
250	10	270	VA 140 SR	14	VA 140 SR	14	VA 160 SR	14	VA 180 SR	50	VA 200 SR	50	VA 200 SR	50	VA 230 SR	50
300	12	300	VA 160 SR	14	VA 180 SR	50	VA 180 SR	50	VA 200 SR	50	VA 200 SR	50	VA 230 SR	50	≈	≈
350	14	330	VA 200 SR	0	VA 200 SR	0	VA 230 SR	100	VA 230 SR	100	VA 270 SR	100	VA 330 SR	100	≈	≈
400	16	355	VA 200 SR	0	VA 230 SR	100	VA 230 SR	100	VA 270 SR	100	VA 270 SR	100	VA 330 SR	100	≈	≈
450	18	400	VA 230 SR	0	VA 230 SR	0	VA 230 SR	0	VA 270 SR	100	VA 330 SR	100	AT 1001 SR	100	≈	≈
500	20	422	VA 230 SR	0	VA 230 SR	0	VA 230 SR	0	VA 270 SR	0	VA 330 SR	0	AT 1001 SR	0	≈	≈
600	24	495	VA 330 SR	100	≈	≈	AT 1001 SR	100	AT 1001 SR	100	≈	≈	≈	≈	≈	≈
700	28	550	AT 1001 SR	150	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈
800	32	640	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈

valve seat: EPDM/NBR			fluid: Aria				fluid: H ₂ O				T: 20°C				operating air pressure: ≥5,5 bar					
valve seat: FKM (n.a. for PD 10bar)																				
DN	"	M	PD				KI													
			P=6 B	G	P=10 B	G	P=6 B	G	P=10 B	G	P=16 B	G								
40	1½	130	≈	≈	≈	≈	VA 75 SR	16	VA 75 SR	16	VA 75 SR	16								
50	2	138	≈	≈	≈	≈	VA 75 SR	16	VA 75 SR	16	VA 75 SR	16								
65	2½	144	≈	≈	≈	≈	VA 85 SR	16	VA 85 SR	16	VA 85 SR	16								
80	3	158	VA 75 SR	16	VA 75 SR	16	VA 100 SR	16	VA 115 SR	16	VA 115 SR	16								
100	4	173	VA 75 SR	16	VA 100 SR	16	VA 115 SR	16	VA 115 SR	16	VA 125 SR	16								
125	5	186	VA 100 SR	16	VA 115 SR	16	VA 115 SR	16	VA 115 SR	16	VA 125 SR	16								
150	6	202	VA 115 SR	16	VA 115 SR	16	VA 125 SR	16	VA 140 SR	16	VA 140 SR	16								
200	8	240	VA 125 SR	16	VA 140 SR	14	VA 160 SR	14	VA 180 SR	50	VA 180 SR	50								
250	10	270	VA 160 SR	14	VA 160 SR	14	VA 180 SR	50	VA 180 SR	50	VA 200 SR	50								
300	12	300	VA 180 SR	50	VA 200 SR	14	VA 200 SR	50	VA 200 SR	50	VA 230 SR	50								
350	14	330	VA 230 SR	100	VA 230 SR	100	VA 230 SR	100	VA 270 SR	100	VA 270 SR	100								
400	16	355	VA 230 SR	100	VA 230 SR	100	VA 230 SR	100	VA 270 SR	100	VA 330 SR	100								
450	18	400	VA 270 SR	100	VA 230 SR	0	VA 270 SR	100	VA 270 SR	100	VA 330 SR	100								
500	20	422	VA 270 SR	0	VA 230 SR	0	VA 270 SR	0	VA 330 SR	0	AT 1001 SR	0								
600	24	495	AT 1001 SR	150	≈	≈	≈	≈	≈	≈	≈	≈								
700	28	550	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈								
800	32	640	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈								

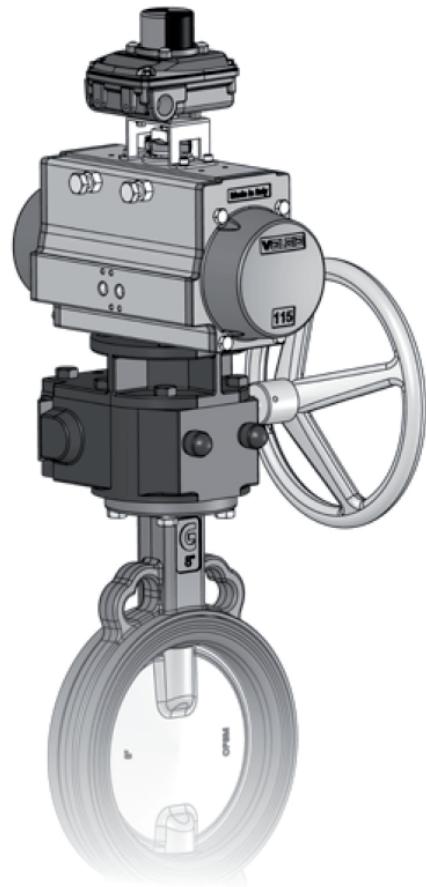


G dimension can change depending on valve/actuator coupling.

Declutchable manual gearboxes

GD Series body: worm gears: sector gear:	aluminium steel ductile iron	shaft: handwheel: protection: T:	stainless steel steel IP65 -20 / +120 °C
Ø valve	DA actuator double action	SR actuator spring return	emergency gearbox type
DN040-150	VA 63-100 VA 125	VA 75-115 VA 125	GD070 GD102
DN200	VA 85-100		GD070
DN200-300	VA 115-160 VA 180-200	VA 115-160 VA 180-200	GD102 GD140
DN350-500	VA 140-200	VA 200	GD140

ILGD Series body: worm gears: sector gear:	ductile iron GGG40 steel ductile iron	shaft: handwheel: protection: T:	steel steel IP65 (IP67 on req.) -20 / +120 °C
Ø valve	DA actuator double action	SR actuator spring return	emergency gearbox type
DN 40÷150	VA 63-100	VA 63-100	ILGD200
	VA 115-125	VA 115-160	ILGD600
		VA 180-200	ILGD900
DN 200÷300	VA 85-160	VA 115-160	ILGD600
	VA 180-200	VA 180-200	ILGD900
	VA 230	VA 230	ILGD1500
DN 350÷400	VA 140-200	VA 200	ILGD900
	VA 230	VA 230	ILGD1500
	VA 270	270	ILGD2400
DN 450	VA 180-230	VA 230	ILGD1500
	VA 270	VA 270-330	ILGD2400
DN 500	VA 180-230	VA 230	ILGD1500
	VA 270	VA 270	ILGD2400
	VA 330	VA 330	ILGD5000
DN 600	VA 270		ILGD2400
	VA 330	VA 330	ILGD5000
DN 700	VA 270-330-AT1001		ILGD5000
		AT1001	ILGD16000
DN 800	VA 330-AT1001		ILGD16000

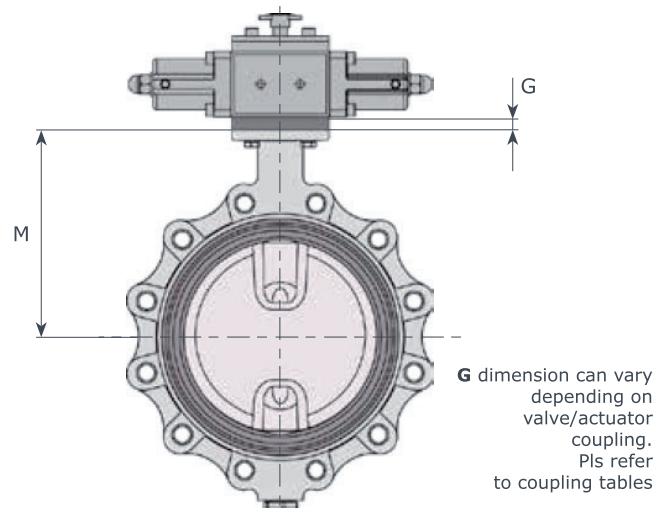


Hydraulic actuators ARES

- Technical features:
 - » ductile iron cast body
 - » steel rack and pinion
 - » NBR seats
- fluid material:
 - » hydraulic oil type : HPL DIN51524-2 / ISO 6743-4. Viscosity 15/200 cst
- working pressure: 10 - 120 bar
- working temperature: -20°C / +80°C

Compact design, 90° rotation $\pm 5^\circ$,
Travel adjustment in both direction
of rotation, Flange ISO 5211,
Double or single acting with spring return

DN	40	50	65	80	100	125	150	200	250
M	130	138	148	158	173	186	202	240	270
DN	300	350	400	450	500	600	700	800	
M	300	330	355	400	422	495	550	640	



valve seat: NBR / EPDM - Fluid H ₂ O - T = 20°C - oil pressure: 60 Bar																	
DN "		DA type - Double Acting					SR type - Spring close										
		PD series	G	KI series	G	KA series	G	KX series	G	PD series	G	KA series	G	KA series	G	KX series	G
40	1 1/2	≈	≈	H 28	0	H 28	0	≈	≈	H 40 SRA	0	H 40 SRA	0	H 40 SRA	0	≈	≈
50	2	≈	≈	H 28	0	H 28	0	H 28	0	H 40 SRA	0	H 40 SRA	0	H 40 SRA	0	H 40 SRA	0
65	2 1/2	≈	≈	H 28	0	H 28	0	H 28	0	H 40 SRA	0	H 40 SRA	0	H 40 SRA	0	H 40 SRA	0
80	3	H 28	0	H 28	0	H 28	0	H 28	0	H 40 SRA	0	H 40 SRA	0	H 40 SRA	0	H 40 SRA	0
100	4	H 28	0	H 28	0	H 28	0	H 28	0	H 40 SRA	0	H 40 SRA	0	H 40 SRA	0	H 50 SRA	14
125	5	H 28	0	H 28	0	H 28	0	H 28	0	H 40 SRA	0	H 50 SRA	14	H 50 SRA	14	H 50 SRA	14
150	6	H 28	0	H 28	0	H 40	0	H 40	0	H 40 SRA	0	H 50 SRA	14	H 50 SRA	14	H 50 SRA	14
200	8	H 50	0	H 50	0	H 50	0	H 63	50	H 50 SRA	0	H 63 SRA	50	H 63 SRA	50	H 80 SRA	100
250	10	H 50	0	H 50	0	H 50	0	H 63	50	H 50 SRA	0	H 80 SRA	100	H 80 SRA	100	H 80 SRA	100
300	12	H 50	0	H 63	50	H 63	50	≈	≈	H 63 SRA	50	H 80 SRA	100	H 80 SRA	100	≈	≈
350	14	H 63	100	H 80	100	H 80	100	≈	≈	H 80 SRA	100	≈	≈	≈	≈	≈	≈
400	16	H 80	100	H 80	100	≈	≈	≈	≈	H 80 SRA	100	≈	≈	≈	≈	≈	≈
450	18	H 80	100	H 80	100	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈
500	20	H 80	100	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈
600	24	a ric.	a ric.	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈

valve seat: NBR / EPDM - Fluid H ₂ O - T = 20°C - oil pressure: 120 Bar																	
DN "		DA type - Double Acting					SR type - Spring close										
		PD series	G	KI series	G	KA series	G	KX series	G	PD series	G	KA series	G	KA series	G	KX series	G
40	1 1/2	≈	≈	H 28	0	H 28	0	≈		H 40 SRB	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0
50	2	≈	≈	H 28	0	H 28	0	H 28	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0
65	2 1/2	≈	≈	H 28	0	H 28	0	H 28	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0
80	3	H 28	0	H 28	0	H 28	0	H 28	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0
100	4	H 28	0	H 28	0	H 28	0	H 28	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0
125	5	H 28	0	H 28	0	H 28	0	H 28	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0
150	6	H 28	0	H 28	0	H 28	0	H 28	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0
200	8	H 50	0	H 50	0	H 50	0	H 50	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0	H 40 SRB	0
250	10	H 50	0	H 50	0	H 50	0	H 50	0	H 50 SRB	0	H 50 SRB	0	H 50 SRB	0	H 63 SRB	50
300	12	H 50	0	H 50	0	H 50	0	H 50	0	H 50 SRB	0	H 63 SRB	50	H 63 SRB	50	H 63 SRB	50
350	14	H 63	100	H 63	100	H 63	100	H 63	100	H 50 SRB	0	H 63 SRB	50	H 63 SRB	50	H 63 SRB	50
400	16	H 63	100	H 63	100	H 63	100	H 63	100	H 63 SRB	50	H 63 SRB	50	H 63 SRB	50	H 63 SRB	50
450	18	H 80	100	H 80	100	H 80	100	H 80	100	H 63 SRB	100	H 80 SRB	100	≈	≈	≈	≈
500	20	H 80	100	H 80	100	≈	≈	≈	≈	H 80 SRB	100	≈	≈	≈	≈	≈	≈
600	24	a ric.	a ric.	H 80	100	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈
700	28	H 80	100	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈	≈

Our agencies



Germany + Switzerland

MARTIN LOHSE GmbH
Unteres Paradies 63
89522 Heidenheim
Phone: +49 7321 755-0
sales@lohse-gmbh.de
www.lohse-gmbh.de

Australia, New Zealand, Indonesia, Singapore, Malaysia

P.T. VOITH PAPER
Jl. Permata V Lot EE - 1
Kawasan Industri KIIC
Karawang 41361, INDONESIA
Phone : +62 267 419 719
Fax : +62 267 419 717

Austria (Papier- + Zellstoffindustrie, Abwasser + Kläranlagen) + CZ, SK, SLO, SRB, HR, H

Peter Reiter
Handel Mazzetti-Str. 85
3100 St. Pölten
Phone: +43 2742 77366
Fax: +43 2742 77366
office@industriematuren.at

Austria

Klinger Gebetsroither GmbH & Co KG
Am Kanal 8-10
2352 Gumpoldskirchen
Phone: +43 2252 60 71 00 3029
Fax: +43 2252 60 71 00 3010
gerhard.praxmarer@gebetsroither.at
www.gebetsroither.at

Belgium

Hanwel Belgium N.V.
Winninglaan 15
9140 Temse
Phone: +32 3 7110353
Fax: +32 3 7110579
info@hanwel.be
www.hanwel.be

Chile

INTERTECH
Prat 116, Of 31
Curicó, Chile
phone +56.075.322033
www.inter-tech.cl
n.flores@inter-tech.cl

People's Rep. Of China

Shanghai Fier Mechanical Co. LTD
Room B4, 15/F HuaFu Bldg.
No. 585 LongHua xi Rd.
ShangHai, China 200232
Phone: +86 21 54591038
Fax: +86 21 54240616
MP: 13611665381
shfier@163.com
www.fier.com.cn

Denmark

Uni-Valve A/S
Sydvestvej 138 – 140
2600 Glostrup
Phone: +45 43 438200
Fax: +45 43 437475
mail@uni-valve.com
www.uni-valve.com

Finland

KLINGER Finland Oy
Tinankuja 3
02430 Masala
Phone: +358 10 4001011
info@klinger.fi
www.klinger.fi

France, MA, TN, DZ

T.N.P.

30 Boussegé
58140 Lormes
Phone: +33 1 559711-11
Fax: +33 1 48835207
contact@tnp.fr
www.tnp.fr

Great Britain

Voith Turbo Ltd.
6 Beddington Farm Road
Croydon, Surrey CRO, 4XB
Phone: +44 208 6673013
Fax: +44 208 6670403
matthew.healy@voith.com

Greece

Niko Mikopoulos, BSc.
Metron Str. 28
17123 Nea Smyrni-Athens
Phone: +30 6 98 305 10 70
n.mikopoulos@nm-bc.com

India

Antrieb Technik Private Limited
59 (old 359) Sidco Industrial Estate
Ambattur
Chennai-600 098
Tamilnadu / INDIA
Phone: +91 44 262-58303
Fax: +91 44 2819-3718
antrieb.technik@gmail.com

Israel

P.B.A Wiesner Agencies Ltd.
P. O. Box 4622
Petach-Tikva 49277
Phone: +972 3 9052111
Fax: +972 3 9052110
ofra@pba.co.il

Italy

Techno Paper S.R.L.
Viale Certosa 269
20151 Milano (MI)
Phone: +39 02 78627750
Fax: +39 02 45471638
info@techno-paper.com
www.techno-paper.com

Japan

Voith IHI Paper Technology Co.Ltd.
River City M-SQUARE 7F
2-1-6 Tsukuda, Chuo-ku
1040051 Tokyo
Phone: +81 3 6221 3108
Fax: +81 3 6221 3126

Korea

C.S-Automation Co., Ltd. (Customer Satisfaction Automation)
#804 Seung Technovalley
279-5 Songjeong-Dong
Heungdeok-Gu
Cheongju-Si
South Korea. 361-290
Phone: +82 43 276 1332
Fax: +82 43 278 1332
changseol@korea.com

Netherlands

Hanwel B. V.
Jan Tinbergenstraat 209
7559 SP Hengelo
The Netherlands
Phone: +31 74 2650000
Fax: +31 74 2650001
verkoop@hanwel.com
www.hanwel.com

Norway

KSB Norge AS
Holtbråtveien 69
1449 Drøbak
Phone: +47 917 19995
firmapost@ksb.com
www.ksb.com/en-no

Philippines

R. Dan and Co., Inc.
Lot 6-9 Block 5 Greenway Business Park
Bulihan, Silang,
Cavite Philippines 4118
Phone: +63 960 690 0244
ester.poe@robertdan.com.ph
www.robertdan.com.ph

Poland

Waldemar Kulicki
ul. Heweliusza 37/4
87-148 Papowo Toruńskie
Phone: +48 509 46 64 25
waldemar-kulicki@wp.pl
www.wkulicki.eu

Rep. of South Africa

Voith Turbo (Pty) Ltd
P.O. Box 13171
Witfield, 1467
Gauteng, SOUTH AFRICA
Phone: +27 11 418 4000
Fax: +27 11 418 4080
info.vtza@voith.com
www.rsa.voithturbo.com

Spain, Portugal

CELPAP EQUIPOS, S.L.
C/Amposta, 14-18
08174 Sant Cugat del Vallés
(Barcelona)
Phone +34 93 415 18 75
celpap@celpap.com
www.celpap.com

Sweden

PA-Ventiler AB
Sagbäcksvägen 3B
43736 Lindome
Phone: +46 31 992500
Fax: +46 31 992503
info@paventiler.se
www.paventiler.se

Switzerland

dampfEXPERTE GmbH
Häsiweg 33
5018 Erlinsbach
Phone: +41 62 5448090
roger.fehr@dampfexperte.ch
www.dampfexperte.ch

Taiwan

E-Chen Engineering Co., Ltd.
3F-3, No. 151, Sec. 4,
Hsin-Yi Road,
Taipei, Taiwan, R.O.C.
Phone: +886 22 7056185
Fax: +886 22 7045967
echen123@ms15.hinet.net

Thailand

Weston Myer Ltd.
8 Soi Seri-Thai 58
Seri-Thai Road
10510 Minburi Bangkok
Phone: +66 2 3745869
Fax: +66 2 375-1179
comm1@westonmyer.com

Turkey

Sanrep Kağıt San. ve Tic. Ltd. Şti.
Altıyol, Kuşdili Caddesi No:19/7
H.Fazlıoğlu İş Merkezi
34714 Kadıköy – İSTANBUL
Phone: +90 216 345 40 48
Fax: +90 216 330 73 12
sanrep@sanrep.com
www.sanrep.com

USA, Canada, Mexico

Voith Paper Inc.
2200 N. Roemer Rd.
Appleton, WI 54912-2237
Phone: +1 920 – 358 – 2396
Fax: +1 920 – 731 – 5126
VPAWSpareParts@voith.com