

TYPE APPROVAL CERTIFICATE

Certificate no.:
TAP00000MM
Revision No:
3

This is to certify:
that the Globe Valve

with type designation(s)
1114, 1116, 01341, 01342, 01343, 01345, 01351, 01352, 01353, 01355, 01420, 01423, 01470, 01473, 01641, 01643, 01645, 01651, 01655, 01741, 01743, 01745, 01751, 01753, 01755, 01841, 01843, 01845, 01851, 01853, 01855, 03341, 03343, 03351, 03641, 03643, 03651, 03741, 03743, 03751, 03841, 03843, 03851, 11C01

issued to
HEROSE GMBH Armaturen und Metalle
Bad Oldesloe, Schleswig-Holstein, Germany

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV rules for classification – Ships Pt.5 Ch.7 Liquefied gas tankers
DNV class programme DNV-CP-0186 – Type approval – Valves
IMO IGC-Code

Application:

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Type:

1114, 1116, 01341, 01342, 01343, 01345, 01351, 01352, 01353, 01355, 01420, 01423, 01470, 01473, 01641, 01643, 01645, 01651, 01655, 01741, 01743, 01745, 01751, 01753, 01755, 01841, 01843, 01845, 01851, 01853, 01855, 03341, 03343, 03351, 03641, 03643, 03651, 03741, 03743, 03751, 03841, 03843, 03851, 11C01

Temperature range:
See certificate

Max. working press.:

Sizes:

Issued at **Hamburg** on **2024-01-31**

This Certificate is valid until **2027-11-27**.

DNV local unit: **Essen**

Approval Engineer: **Ana Cristina Do Carmo Insfran**

for **DNV**



Digitally Signed By:
Sven Klinger
Location: **DNV Hamburg, Germany**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Product description

Type 1114 Extended Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312
 Flange connection and female thread connection

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal	PTFE/Carbon filled 25 %	
Disc	CW.614N	ASTM C38500
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4308	ASTM A351 CF8
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. CC493K	ASTM C93200
Handwheel	Aluminium -alloy	
Spring plate	Mat. No. 1.4571	ASTM A479 Grade 316Ti
Bush	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 40 and 50

Type 1116 Extended Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312
 Flange connection and female thread connection

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal for .x1	PCTFE	
Valve seal for .x0	PTFE/Carbon filled 25 %	
Disc	1.4301	ASTM A479 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4308	ASTM A351 CF8
Bolts:	Mat.No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat.No. 1.4301	ASTM A276 Grade 304
Gland packing:	Gra phite/PTFE	
Gland nut:	Mat.No.1.4305	ASTM A276 Grade 303
Handwheel	Aluminium -alloy	
Spring plate	Mat. No. 1.4571	ASTM A479 Grade 316Ti
Bush	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 40 and 50

Type 01341 Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A479 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	Aluminium alloy	
Spring plate	Mat. No. 1.4310	ASTM A276 Grade 302
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150 and 200

Type 01342 Globe valve angle type. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal:	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	Aluminium alloy	
Spring plate	Mat. No. 1.4310	ASTM A276 Grade 302
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 15, 20, 25, 32, 40, 50

Type 01343 Actuated Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150 and 200

Type 01345 Actuated Globe valve. Stainless steel body and top work.
 Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Handwheel	Aluminium alloy	
Spring plate	Mat. No. 1.4310	ASTM A276 Grade 302
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 10, 15, 20, 25, 32, 40 and 50

Type 01351 Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN 50:	PTFE/Carbon filled 25 %	
Valve seal from DN 65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	Aluminium alloy	
Spring	Mat. No. 1.4310	ASTM A276 Grade 301
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100 and 150

Type 01352 Globe valve angle type. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal:	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	Aluminium alloy	
Spring	Mat. No. 1.4310	ASTM A276 Grade 302
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 15, 20, 25, 32, 40 and 50

Type 01353 Actuated Globe valve. Stainless steel body and top work.
 Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Elongation tube	Mat. No. 1.4306	ASTM A273 Grade 304L
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Spring	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CW452K	ASTM C51900

Size range: DN 20, 25, 40, 50, 65 and 80

Type 01355 Globe valve. Stainless steel body and top work.
 Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Elongation tube	Mat. No. 1.4301	ASTM A276 Grade 304
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	Aluminium alloy	
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bushing	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 40 and 50

Type 01420 Extended To- Entry Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Elongation tube	Mat. No. 1.4306	ASTM A273 Grade 304L
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat.No.1.4305	ASTM A276 Grade 303
Handwheel	Aluminium -alloy	
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CC493K	ASTM C93200

Size range: DN 10, 15, 20, 25, 40, 50, 65, 80 and 100

Type 01423 Actuated Top-Entry Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CC493K	ASTM C93200

Size range: DN 10, 15, 20, 25, 40, 50, 65, 80 and 100

Type 01470 Actuated Top-Entry Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM 351 CF3M
Valve seal	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	A2-70	ASTM A194 B8
Elongation tube	Mat. No. 1.4571	ASTM TP316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Spring plate	Mat. No. 1.4310	ASTM A276 Grade 302
Bush	Graphite	

Size range: DN 10, 15, 20, 25, 40, 50, 65, 80 and 100

Type 01473 Actuated Top-Entry Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM 351 CF3M
Valve seal	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. A4-70	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM TP316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. A4-70	ASTM A194 B8M
Spring plate	Mat. No. 1.4310	ASTM A276 Grade 302
Bush	Graphite	

Size range: DN 10, 15, 20, 25, 40, 50, 65, 80 and 100

Type 01641 Globe valve “fire safe”

Stainless steel body and top work, “live loaded” gland packing

Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal:	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Bellow:	Mat. No. 1.4571	ASTM A276 Grade 321
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	up to DN 50 1.4409	ASTM 351 CF3M
From DN65	1.4571	ASTM A276 Grade 316Ti
Bush	CW452K	ASTM 51900

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150 and 200

Type 01643 Actuated Globe valve “fire-safe”. Stainless steel body and top work.

Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Bushing	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150 and 200

Type 01645 Extended Globe valve. Stainless steel body and top work.

Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite	
Handwheel	Mat. No. 1.4409	ASTM SA351 CF3M
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CC452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 40, 50

Type 01651 Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4308	ASTM A351 CF8
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Elongation tube	Mat. No. 1.4301	ASTM A276 Grade 304
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	up to DN 50 1.4409	ASTM 351 CF3M
From DN65 1.4571	ASTM A276 Grade 316Ti	
Spring plate	Mat. No. 1.4310	ASTM A276 Grade 302
Bush	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80 and 100

Type 01655 Globe valve. Stainless steel body and top work.
 Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4308	ASTM A351 CF8
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4301	ASTM A276 Grade 304
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	up to DN 50 1.4409	ASTM 351 CF3M
From DN65 1.4571	ASTM A276 Grade 316Ti	
Spring plate	Mat. No. 1.4310	ASTM A276 Grade 302
Bush	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 40 and 50

Type 01741 Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Handwheel	up to DN 50 1.4409	ASTM 351 CF3M
From DN65 1.4571	ASTM A276 Grade 316Ti	
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bushing	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150 and 200

Type 01743 Actuated Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bushing	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150 and 200

Type 01745 Globe valve. Stainless steel body and top work.
 Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Handwheel	up to DN 50 1.4409	ASTM 351 CF3M
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bushing	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 40 and 50

Type 01751 Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Handwheel	up to DN 50 1.4409	ASTM 351 CF3M
From DN65	1.4571	ASTM A276 Grade 316Ti
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80 and 100

Type 01753 Actuated Globe valve. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4404	ASTM A A276 Grade 316L
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bushing	CW452K	ASTM C51900

Size range: DN 20, 25, 40, 50, 65 and 80

Type 01755 Globe valve. Stainless steel body and top work.
 Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Handwheel	Mat. No. 1.4409	SA351 CF3M
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bushing	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 40, 50

Type 01841 Globe valve "fire-safe". Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4571/A4	ASTM A194 B8T
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4401	ASTM A276 Grade 316
Gland packing:	Graphite/PTFE/Mica	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Handwheel	up to DN 50 1.4409	ASTM 351 CF3M
From DN65 1.4571	ASTM A276 Grade 316Ti	
Spring	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150 and 200

Type 01843 Actuated Globe valve “fire-safe”. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PTFE/ Carbon filled	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE/Mica	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bushing	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150 and 200

Type 01845 Actuated Globe valve “fire-safe”. Stainless steel body and top work.
 Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4571/A4	ASTM A194 B8T
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316 L
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Spring	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CW452K	ASTM C51900

Size range: DN 10, 15, 20, 25, 40 and 50

Type 01851 Globe valve “fire-safe”. Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4571/A4	ASTM A194 B8T
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4401	ASTM A276 Grade 316
Gland packing:	Graphite/PTFE/Mica	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L
Handwheel	up to DN 50 1.4409	ASTM 351 CF3M
From DN65	1.4571	ASTM A276 Grade 316Ti
Spring	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 10, 15, 20, 25, 32, 40, 50, 65, 80, 100

Type 01853 Actuated trailer valve. "Fire safe". Stainless steel body and top work.
 Butt weld or socket weld connection or stainless-steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PTFE Carbon filled	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Spring	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CW452K	ASTM C51900

Size range: DN 20, 25, 40, 50, 65 and 80

Type 01855 Actuated trailer valve. "Fire safe". Stainless steel body and top work.
 Female thread connection G acc. ISO 228/1, R acc. ISO 7-Rc or NPT ANSI B1.20.3

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PTFE / Carbon filled	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite/PTFE	
Spring plate	Mat. No. 1.4571	ASTM A276 Grade 316Ti
Bush	CW452K	ASTM C51900

Size range: DN 10, 15, 25, 40, and 50

Type 03341 Globe valve. Stainless steel body and top work.
 Flanged connection acc. to DIN EN 1092-1 PN 16 and 40 or ANSI B16.5 Class150 and Class 300

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	Aluminium alloy	
Spring	Mat. No. 1.4310	ASTM A276 Grade 302
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, 150 and 200

Type 03343 Actuated Globe valve. Stainless steel body and top work.
 Flanged connection acc. to DIN EN 1092-1 PN 16 and 40 or ANSI B16.5 Class150 and Class 300

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4541	ASTM A213 TP 321
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, 125, 150 and 200

Type 03351 Globe valve. Stainless steel body
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class150 /300

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat. No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat. No. 1.4301	ASTM A194 B8
Elongation tube	Mat. No. 1.4301	ASTM A276 Grade 304
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	Aluminium-alloy	

Size range: DN 15, 25, 40, 50, 65, 80, 100 and 150

Type 03641 Globe valve "fire safe"
 Stainless steel body and top work, "live loaded" gland packing
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class150/300

Materials:

Body	Mat.No. 1.4308	ASTM A351 CF8
Valve seal:	PTFE/Carbon filled 25 %	
Disc	Mat.No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	Graphite	
Headpiece	Mat.No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat.No. 1.4301/A2	ASTM A194 B8
Bellow:	Mat.No. 1.4571	ASTM A276 Grade 321
Elongation tube	Mat.No. 1.4541	ASTM A213 TP 321
Stem	Mat.No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE/MICA	
Gland nut:	Mat.No. 1.4305	ASTM A276 Grade 303
Handwheel	Mat.No. 1.4409	SA351 CF3M
Spring	Mat.No. 1.4310	ASTM A276 Grade 302
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, 150 and 200

Type 03643 Actuated Globe valve “fire-safe”. Stainless steel body and top work.
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class150/300

Materials:

Body	Mat.No. 1.4308	ASTM A351 CF8
Valve seal up to DN50:	PTFE/Carbon filled 25 %	
Valve seal from DN65:	PTFE	
Disc	Mat.No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	PTFE	
Headpiece	Mat.No. 1.4301	ASTM A276 Grade 304
Bolts:	Mat.No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat.No. 1.4541	ASTM A213 TP 321
Stem	Mat.No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat.No. 1.4305	ASTM A276 Grade 303
Bush	CW452K	ASTM B103 Alloy A

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, 150 and 200

Type 03651 Globe valve. Stainless steel body
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class150/300

Materials:

Body	Mat. No. 1.4308	ASTM A351 CF8
Valve seal:	PTFE/Carbon filled 25 %	
Disc	Mat. No. 1.4301	ASTM A276 Grade 304
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4308	ASTM A351 CF8
Bolts:	Mat. No. 1.4301/A2	ASTM A194 B8
Elongation tube	Mat. No. 1.4301	ASTM A276 Grade 304
Stem	Mat. No. 1.4301	ASTM A276 Grade 304
Gland packing:	Graphite/PTFE	
Gland nut:	Mat. No. 1.4305	ASTM A276 Grade 303
Handwheel	Mat. No. 1.4409	ASTM SA351 CF3M
Threaded bushing	CW452K	ASTM C51900

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100 and 150

Type 03741 Globe valve. Stainless steel body and top work.
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class 150/300

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4409	ASTM A351 CF3M
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite	
Handwheel:	Mat. No. 1.4409	ASTM SA351 CF3M
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, 150 and 200

Type 03743 Actuated Globe valve. Stainless steel body and top work.
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class 150/300

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4409	ASTM A351 CF3M
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, 150 and 200

Type 03751 Globe valve. Stainless steel body.
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class 150/300

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4409	ASTM A351 CF3M
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Stem:	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite	
Handwheel:	Mat.No.1.4409	ASTM SA351 CF3M
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, and 150

Type 03841 Globe valve. Stainless steel body and top work.
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class 150/300

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	Graphite	
Handwheel:	Mat. No. 1.4409	ASTM SA351 CF3M
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, 150 and 200

Type 03843 Actuated Globe valve. Stainless steel body and top work.
 Flanged connection acc. to DIN EN 1092-1 PN 16/40 or ANSI B16.5 Class 150/300

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Elongation tube	Mat. No. 1.4571	ASTM A213 TP 316Ti
Stem	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	PTFE / Graphite	
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100, 150 and 200

Type 03851 Globe valve. Stainless steel body.
 Flanged connection acc. to DIN EN 1092-1 PN16/40 or ANSI B16.5 Class 150/300

Materials:

Body	Mat. No. 1.4409	ASTM A351 CF3M
Valve seal:	PCTFE	
Disc	Mat. No. 1.4404	ASTM A276 Grade 316L
Bonnet gasket	Graphite	
Headpiece	Mat. No. 1.4409	ASTM A351 CF3M
Bolts:	Mat. No. 1.4401	ASTM A194 B8M
Stem:	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland packing:	PTFE / Graphite	
Handwheel:	Mat. No. 1.4409	ASTM SA351 CF3M
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L

Size range: DN 15, 20, 25, 40, 50, 65, 80, 100 and 150

Type 11C01 – Shutt off valve. Stainless steel body.
 Welding connections acc. to EN 10253-4, DIN EN 12627

Materials:

Body	Mat. No. 1.4571	ASTM A479 Grade 316Ti
Valve seal:	PCTFE	
Disc	Mat. No. 1.4571	ASTM A479 Grade 316Ti
Flange	Mat. No. 1.4404	ASTM A276 Grade 316L
Headpiece	Mat. No. 1.4404	ASTM A276 Grade 316L
Bolts:	Mat. No. A4-70	ASTM A194 B8M
Stem:	Mat. No. 1.4404	ASTM A276 Grade 316L
Gland screw:	Mat. No. 1.4404	ASTM A276 Grade 316L
Handwheel:	Mat. No. 1.4409	ASTM SA351 CF3M
Gland nut:	Mat. No. 1.4404	ASTM A276 Grade 316L

Size range: DN 10 up to DN 50

Application

Stainless steel globe valves approved for the use in ships piping, machinery piping, fuel systems and cargo handling piping systems. Operating media include flammable gases, nitrogen and cryogenic liquefied gases including LNG^{1,2}.

Pressure rating: 11C01: PN63

other Valves: PN50, PN40 (DN150, flanged valves, DN100 for types 014xx), PN25 (DN200)

Working temperature: 11C01: -269°C to +80°C

other valves: -196°C to +120°C
-255°C to +120°C

1: Valve designs for use and installation in ammonia (NH₃) and methanol (CH₃OH) ship fuel systems require additional approval by the flag state administration for each particular ship as these fuels are not covered by the IGF Code at present.

2: Valve designs for installation in ship's liquid nitrogen (LN₂) systems require additional approval by the flag state administration for each particular ship as liquid nitrogen (LN₂) with a design temperature of -196°C is not covered by the IGF Code and IGC Code. The minimum design temperature in the IGF Code and IGC Code is limited to -165°C for LNG, while LN₂ is only referred for testing with a test temperature of -196°C.

Limitation

Valves may not be used for sour gas and media specified as toxic and/or dangerous fluids.

Valve subjected to hydrogen service conditions are not covered within this type approval.

Valves with threaded connections are NOT permitted for installation in fuel pipes systems and cargo pipes systems on board of DNV classed liquefied gas tankers and in ship's LNG and gas fuel systems.

Valves with threaded connections shall only be used for accessory lines and instrumentation lines with external diameters of 25 mm or less.

For valves to be installed on board of ships other than liquefied gas tankers the following limitations apply:
Valves for installation in systems operating with flammable gases are to be classed within Pipe Class I, see DNV Rules Pt. 4 Ch. 6 - Piping systems.

Threaded joints may be used for outside diameters as stated below except for piping systems conveying toxic or flammable media or services where fatigue, severe erosion or crevice corrosion is expected to occur.

Threaded joints in CO₂ systems shall be allowed only inside protected spaces and in CO₂ cylinder rooms

Threaded joints with tapered thread shall be allowed for pipe class I, outside diameter not more than 33,7 mm.

Pipe Class II and Class III outside diameter not more than 60,3 mm.

Threaded joints with parallel thread shall be allowed for Pipe class III, outside diameter not more than 60.3 mm.

Installation

The following valve connections are permitted for installation in liquefied gas applications (including LNG):

But welded joints with full penetration welding

Flange connections in accordance with recognized standards

For all types of valves connections, the requirements in DNV Rules Pt. 5 Ch. 7 – Liquefied gas tankers, Section 5 shall be observed.

Type Approval documentation

Letter – Apply modification of Type Approval TAP00000MM

Type Approval Application Extension dated 2024-01-31

Drawings:

01473-DNXX- Zulassung – Version 1- dated on 2020-01-29

01470-DNXX- Zulassung – Version 1- dated on 2020-01-23

11C01-A001-DN10 – DN50 - Revision 1- dated on 2023-08-11

Herose – Prototype Test Plan for cryogenic valves – Valve type 11C01 by NK Class dated on 2023-06-27

Herose Test Protocol *– cryogenic test of type valve: 01341, 01641, 01252 by LR, dated on 2015-02-26-27-28

*The adding valve type: 01470 and 01473, are similar construction as in Protocol by LR and material used on type 01741 and 01841.

Type Approval Application dated on 2022-08-02

Type Approval Assessment Report dated on 2022-10-19

Approval Letter _Approval of valve bodies with double walled valve ends Doc. Order: A1112823-1 dated on 2021-11-08

Table overview

Assemblies of actual 49 Drawings for the renewal and modification certificate dated 2022

Test report from TÜV Nord dated 2007-10-04 and 2005-02-25

Leaflet "Fire Safe Valves Type 01641 – Globe valve

Final assessment report for pressure equipment, TÜV Nord dated 2016-04-15 and 2016-08-01

HEROSE Test Plan for cryogenic valves, dated 2015-07-09

Tests carried out

Burst test, fire test, Pressure test, tightness test

Production testing and valve certification

I. Application for Liquefied gas tankers

1. Certification of valves [DN ≥ 100 or Working temperature < -55°C]

For all valves having a nominal diameter DN ≥ 100 or a working temperature below -55°C a Product Certificate (PC) shall be issued by DNV based on the following scope of tests and according to: DNV Rules Part 5, Chapter 7 – Liquefied gas tankers, Section 5, Item 13.2

Type of test	Test pressure
Shell strength	1,5 times the design pressure
Tightness test of pressure bearing housing	1,1 times the design pressure
Seat tightness test	1,1 times the design pressure
Functional test	Design / work pressure

DNV Rules Pt. 5 Ch. 7, Section 1, Table 7 – Compliance documents

DN ≥ 100 or Working temperature < -55°C	Type of certificate / Issued by
	Product Certificate (PC) / DNV

2. Additional cryogenic testing – 10 % of the batch

In addition, cryogenic testing consisting of valve operation and leakage verification for a minimum of 10% of each type and size of valve intended to be used at a working temperature below -55°C shall be carried out.

3. Material certification of valves

DNV Rules Part 5, Chapter 7 – Liquefied gas tankers

Pt. 5 Ch. 7, Section 1, Table 8 – Compliance documents for material quality and testing
 Material certificates of valve bodies

Valve nominal diameter	Type of Certificate / Issued by
DN > 100, design temperature < -55°C	Material Certificate (MC) / DNV
DN > 100, design temperature ≥ -55°C	Material Declaration (MD) / Manufacturer
DN ≤ 100	Material Declaration (MD) / Manufacturer

4. Certification of valves [DN < 100 and working temperature ≥ -55°C]

For all valves having a nominal diameter DN < 100 intended for use at a working temperature ≥ -55°C a Product Declaration (PD) shall be issued based on the tests listed above and according to DNV Rules Part 5, Chapter 7 – Liquefied gas tankers, Section 1, Table 7 – Compliance documents

Valve nominal size	Type of certificate / Issued by
DN < 100	Product Declaration (PD) / Manufacturer

Production testing and valve certification - continuation

II. Application in Gas as fuel systems

For each valve intended to be installed in ship's gas fuel supply systems a Product Certificate (PC) shall be issued based on the following scope of tests and according to DNV Rules Part 6, Chapter 2, Section 5 – Gas fuelled ship installations

1. Type of test	Test pressure
Shell strength	1,5 times the design pressure
Tightness test of pressure bearing housing	1,1 times the design pressure
Seat tightness test	1,1 times the design pressure
Functional test	Design / work pressure

2. Valves in LNG / Gas fuel system – Table 3 Certification required

Valve design conditions - Test and certification	Type of certificate / Issued by
Design temperature < 0°C / DNV Pt.5 Ch.7 irrespective of size	Product Certificate (PC) / DNV
Design pressure > 10 bar/ DNV Pt.5 Ch.7 irrespective of size	Product Certificate (PC) / DNV
Design pressure ≤ 10 bar Design temperature ≥ 0°C	Product Declaration (PD) / Manufacturer

3. Material certificates

DNV Pt. 6 Ch.2 Section 5 – Gas fuelled ship installations
 Table 4 Certification of material quality and testing

Design temperature	Type of certificate / Issued by
< 0°C	Material Certificate (MC) / DNV
≥ 0°C	Material Declaration (MD) / Manufacturer

III Application in machinery piping systems

Valves intended to be installed in piping systems listed in DNV Rules Pt.4 Ch.6 – Section 1 shall be certified according to DNV Rules Pt.4 Ch.6 – Piping systems, Section 1, Table 3 Compliance documents – piping components

Valve nominal size / Pressure rating	Type of certificate / Issued by
DN > 100 mm / PN > 16 bar	Product Certificate (PC) / DNV
DN ≤ 100 mm / PN ≤ 16 bar	Product Declaration (PD) / Manufacturer

Material certificates (valve bodies)

In accordance with DNV Rules Pt.4 Ch.6 – Piping systems, Section 2, Table 3 – Material certificates

Marking of product

For traceability to this type approval the products are to be marked with:

- Manufacturer's name or trade mark
- Valve type designation
- Size
- Maximum design pressure and temperature
- Arrow to indicate direction of flow on one way flow valves

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the Type Approval are complied with Refer to DNV CP-0338, Sec.4.

The certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

END OF CERTIFICATE