

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Globe Valve

with type designation(s)

1114, 1116, 01341, 01342, 01343, 01345, 01351, 01352, 01353, 01355, 01420, 01423, 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,

Issued to

**Herose GmbH Armaturen und Metalle
Bad Oldesloe Schleswig-Holstein, Germany**

is found to comply with

**DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV GL rules for classification – Ships Pt.5 Ch.7 Liquefied gas tankers
DNV GL class programme DNVGL-CP-0186 – Type approval – Valves
DNV GL offshore standards**

Application :

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

For installation on Offshore units the requirements specified in the applicable DNV GL rules for classification of Offshore units (RU-OU) are to be observed.

Type:

**Temperature
range:**

**Max.
working
press.:**

Sizes:

1114, 1116, 01341, 01342, 01343, 01345, 01351, 01352, 01353, 01355, 01420, 01423, 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

See certificate

This Certificate is valid until **2022-01-29**.

Issued at **Hamburg** on **2017-01-30**

DNV GL local station: **Hamburg**

for **DNV GL**

Approval Engineer: **Guido Friederich**

**Olaf Drews
Head of Section**

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.

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	
Springplate	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:	Graphite/PTFE	
Gland nut:	Mat.No.1.4305	ASTM A276 Grade 303
Handwheel	Aluminium -alloy	
Springplate	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

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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	
Springplate	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	
Springplate	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	

Job Id:
Certificate No: **TAP00000MM**

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	
Springplate	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, 50, 65, 80, 100, 150 and 200

Job Id:
Certificate No: **TAP00000MM**

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 15, 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

Job Id:
Certificate No: **TAP00000MM**

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	
Springplate	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	
Springplate	Mat.No. 1.4571	ASTM A276 Grade 316Ti
Bush	CC493K	ASTM C93200

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

Job Id:
Certificate No: **TAP00000MM**

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
Springplate	Mat.No. 1.4571	ASTM A276 Grade 316Ti
Bush	CC493K	ASTM C93200

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

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

Job Id:
Certificate No: **TAP00000MM**

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
Springplate	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
Springplate	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
Springplate	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:

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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 10, 15, 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

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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

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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 trailervlve. "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 15, 25, 40, 50, 65 and 80

Type 01855 Actuated trailervlve. "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

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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	

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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	Graphit	
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

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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

Job Id:
Certificate No: **TAP00000MM**

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

Application/Limitation

May be used for compressed air, nitrogen and cryogenic liquified gases, LNG.

Pressure rating: PN 50, PN 40 (DN 100, DN 150) and PN 25 (DN 200)

Working temperature: -196°C to +120°C,

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-255°C to +120°C

Valve types
01353, 01753, 01853

DN 15 / DN 25	50 bar
DN 40 / DN 50	16 bar
DN 65	10 bar
DN 80	4 bar

Limitation

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

Type Approval documentation

Tests carried out

Burst test, fire test
Pressure test, tightness test

Marking of product

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

- Manufacturers 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

A condition for retention of the Type Approval Certificate in its validity period is that periodical assessments are successfully carried out.

The objective of the periodical assessment is to verify that the conditions for the type approval have not been altered. The main scope of the periodical assessment will normally include:

- Verification of the TA applicant's production and quality system w.r.t ensuring continued consistent production of the type approved products at the TA applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the TA documentation and that this is still used as a basis for the production
- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking

END OF CERTIFICATE