Alberta Municipal Affairs

ABSA
the pressure equipment safety authority

AB-41 2019-08

STATUTORY DECLARATION
Registration of Fittings
Single or Multiple Fitting Designs within one Fitting Category

In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting.

I, Gerhard Kopplin (name of applicant), Technical Director (position title) (must be in a position of authority)

of Mann Teknik AB (name of manufacturer)

located at Strandvägen 16, 54231 Mariestad, Sweden (plant address)

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (select only one)

☒ comply with the requirements of ASME B31.3 Process piping (title of recognized North American Standard) which specifies the dimensions, materials of construction, pressure/temperature ratings and identification marking of the fittings, or

☐ are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with _____ (title of code of construction or other applicable document) as supported by the attached data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the identification marking of the fittings.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified as described in the below Table as being suitable for the manufacturing of these fittings to the stated standard, regulation, code, guideline or other applicable document. The fittings covered by the declaration for which I seek registration are as provided in the Supplementary Sheet(s) attached.

Quality Program Verification and Manufacturing Sites

A copy of the Quality Certificate from each manufacturing site must be included

Item #	Product Description, Model or Series	Quality Program	Scope of Certification	Expiry Date	Verifying Organization	Location(s) Plant Name and address
1.	Dry Disconnect Coupling DDA, DDC, DGA, DGC	ISO, PED	Pressure Equipment up to DN300	2023-03-16	LRQA Deutschland GmbH	Mann Teknik AB 54231 Mariestad Sweden
2.	Safety Breakaway Coupling SBC, MSBC	ISO, PED	Pressure Equipment up to DN300	2023-03-16	LRQA Deutschland GmbH	Mann Teknik AB 54231 Mariestad Sweden

2023-01504

Tracking #: _____

NOTARIUS PUBLICUS MARIESTADENSIS 20/23

Alberta Municipal Affairs

ABSA
the pressure equipment safety authority

AB-41 2019-08

In support of this application, the following information, calculations and/or test data are attached:

LRQA verification statement GOT 2290019/1 incl. test reports

ASME Calculation sheet for burst test SS_2023-01-31.xlsx

(Signature of the Declarer) 2023-03-03 (Date)

DECLARED before me at Mariestad (city) in the Västra Götaland of Sweden (province, territory, or state)

this 03 day of March (Month), 2023 (Year)

(print) Lars Nilsson (Notary Public)
(a Commissioner of Oaths or Notary Public)

(sign) _____
(a Commissioner of Oaths or Notary Public)

02/01/24
(expiry date (mm/dd/yy))

NOTARIUS PUBLICUS MARIESTAD

Commissioner of Oaths / Notary Public in and for: Västra Götalands län
(province, territory, or state)

For ABSA Office Use Only:

NOTES: _____

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Part 1, Clause 4.2, and is accepted for registration in Category _____.

CRN: _____

Registered Date: _____

Expiry Date: 2030-02-06

Signature: _____
(Signature of the Administrator/SCO)

The information you provide is necessary only for the administration of the programs as required by the Alberta Safety Codes Act and Regulations in the Pressure Equipment Discipline

2023-01504
ABSA
SAFETY CODES ACT - PROVINCE OF ALBERTA
ACCEPTED: 0A16899.2
See acceptance letter for conditions of registration.
Date: 2023-08-02 By:
TETYANA ONSHCHENKO, P. Eng
DOP: D00010125

This stamp and signature have been affixed electronically to this registered design as required by Section 20(1) of the Pressure Equipment Safety Regulation, in accordance with the Electronic Transactions Act.

NOTARIUS PUBLICUS MARIESTAD 14/23

Tracking #: _____

Table 1 Scope of Fitting Designs**

Item #	Primary Pressure Bearing / Retaining Component	Material of Construction	Port Connections and Size Range	MDMT	Rated Pressure		Pressure Class(es) / Schedule(s)	Design Code(s) of Construction	Reference Catalogue (pages) or Drawing(s)
					At Ambient Temperature	At Maximum Temperature			
DDC200SS	Swivel sleeve 1382-4	SS-EN 10272 - 1.4404+AT	2" NPT	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	S211A4401
DDC200SS FL	Swivel sleeve 1909-4F	SS-EN 10272 - 1.4404+AT	2" ANSI CL150	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B16.5	S257A4401
DDA200SS	Tank unit body 1435-4	SS-EN 10272 - 1.4404+AT	2" NPT	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	T211A4401
DDA200SS FL	Tank unit body 3273-4S	SS-EN 10272 - 1.4404+AT	2" ANSI CL150	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B16.5	T257A4401
DGC200SS	Swivel sleeve 1772-4	SS-EN 10272 - 1.4404+AT	2" NPT	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	M211A4471
DGA200SS	Tank unit body 1672-4	SS-EN 10272 - 1.4404+AT	2" NPT	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	L211A4401
DGA200SS FL	Swivel sleeve 1866-4S	SS-EN 10272 - 1.4404+AT	2" ANSI CL150	-72°F	431 psi	360psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B16.5	L257A4471

Tracking #:_____

MSBC200SS	BA-Body 2399-4 2400-4	SS-EN 10272 - 1.4404+AT	2" NPT	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	N211M4401
MSBC200SSMNPT	BA-Body 2699-4 2700-4	SS-EN 10272 - 1.4404+AT	2" NPT male	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10222 ASME B31.3 ANSI B1.20.1	N279M4401
MSBC200SSFL	BA-Body 2581-4 2582-4	SS-EN 10222 - 1.4404+AT	2" ANSI CL150	-72°F	428 psi	374psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10222 ASME B31.3 ANSI B16.5	N257M4401
MSBC300SS	BA-Body 2392-4B	SS-EN 10213 - 1.4409+AT	3" NPT	-72°F	360 psi	286 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10213 ASME B31.3 ANSI B1.20.1	N415M4401
MSBC300SSMNPT	BA-Body xx-4	SS-EN 10272 - 1.4404+AT	3" NPT male	-72°F	360 psi	286 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	N482M4401
MSBC300SSFL	BA-Body xx-4	SS-EN 10213 - 1.4409+AT	3" ANSI CL150	-72°F	360 psi	286 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10213 ASME B31.3 ANSI B16.5	N461M4401
MSBC400SS	BA-Body 2392-4B	SS-EN 10213 - 1.4409+AT	4" NPT	-72°F	375 psi	298 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10213 ASME B31.3 ANSI B1.20.1	N517M4401
MSBC400SSMNPT	BA-Body xx-4	SS-EN 10272 - 1.4404+AT	4" NPT male	-72°F	375 psi	298 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	N585M4401
MSBC400SSFL	BA-Body 2476-4F	SS-EN 10272 - 1.4404+AT	4" ANSI CL150	-72°F	312 psi	257 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10213 ASME B31.3	N563M4401

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								ANSI B16.5	
SBC200SS	BA-Body 2399-4 2400-4	SS-EN 10272 - 1.4404+AT	2" NPT	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	N211D4401
SBC200SS MNPT	BA-Body 2699-4 2700-4	SS-EN 10272 - 1.4404+AT	2" NPT male	-72°F	431 psi	356psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	N279D4401
SBC200SS FL	BA-Body 2581-4 2582-4	SS-EN 10222 - 1.4404+AT	2" ANSI CL300	-72°F	428 psi	374psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10222 ASME B31.3 ANSI B16.5	N258D4401
SBC300SS	BA-Body 2392-4B	SS-EN 10213 - 1.4409+AT	3" NPT	-72°F	360 psi	286 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10213 ASME B31.3 ANSI B1.20.1	N415D4401
SBC300SS MNPT	BA-Body xx-4	SS-EN 10272 - 1.4404+AT	3" NPT male	-72°F	360 psi	286 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	N482D4401
SBC300SS FL	BA-Body xx-4	SS-EN 10213 - 1.4409+AT	3" ANSI CL150	-72°F	360 psi	286 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10213 ASME B31.3 ANSI B16.5	N461D4401
SBC400SS	BA-Body 2392-4B	SS-EN 10213 - 1.4409+AT	4" NPT	-72°F	375 psi	298 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10213 ASME B31.3 ANSI B1.20.1	N517D4401
SBC400SS MNPT	BA-Body xx-4	SS-EN 10272 - 1.4404+AT	4" NPT male	-72°F	375 psi	298 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	N585D4401
SBC400SS FL	BA-Body 2476-4F	SS-EN 10272 - 1.4404+AT	4" ANSI CL150	-72°F	312 psi	257 psi	PN25	ASME BPVC-VIII-1 UG-101 EN 10213	N563D4401

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								ASME B31.3 ANSI B16.5	

Material specification SS

Material definition in drawing	*Rp0,2 at 20 °C [MPa]*	*Source*	*Basic allowable stress at 100 °C [MPa]*	*Source*	*K*	*Rm [MPa]*	*Source*	*Corresponding Materials*
EN10272 1,4404+AT X2CrNiMo17-12-2	200	EN 10272 Table 8	165	EN 10272 Table 11	1,21	440	EN 10272 Table 8	ASTM A 182 / 276 / 479 F316L and ASME SA 182 / 479 F316L UNS 31603 AISI 316L
EN10272 1,4401+AT X5CrNiMo17-12-2	200	EN 10272 Table 8	175	EN 10272 Table 11	1,14	500	EN 10272 Table 8	ASTM A 182 / 276 / 479 F316 and ASME SA 182 / 479 F316 UNS 31600 AISI 316
EN10222-5 1,4404+AT X2CrNiMo17-12-2	190	EN 10222 Table 4	166	EN 10222 Table 5	1,14	490	EN 10222 Table 4	ASTM A 182 / 276 F316L and ASME SA 182 F316L UNS S31603 AISI 316L
EN10222-5 1,4401+AT X5CrNiMo17-12-2	205	EN 10222 Table 4	177	EN 10222 Table 5	1,16	510	EN 10222 Table 4	ASTM A 182 / 276 F316 and ASME SA 182 F316 UNS S31600 AISI 316
EN10213 1,4409+AT GX2CrNiMo19-11-2	220	EN 10213 Table 3	175	EN 10213 Table 6	1,26	440	EN 10213 Table 3	ASTM A 351 CF3M and ASME SA 351 CF3M UNS J92800
EN10213 1,4408+AT GX5CrNiMo19-11-2	210	EN 10213 Table 3	170	EN 10213 Table 6	1,24	440	EN 10213 Table 3	ASTM A 351 CF8M and ASME SA 351 CF8M UNS J92900

Table 2 Additional Scope Information

List/Attach Additional Detail and References (Product Configurations, Options, Illustrations, etc.)
Example: Series X Options
Wall thickness for Swivel sleeve 1909-4F is the same as for 1381-4, connection to the hose is 2" ANSI CL150 flange instead of 2" NPT thread Wall thickness for Tank unit body 3272-4S is the same as for 1435-4, connection to hose is 2" ANSI CL150 flange instead of 2" NPT thread

** For additional alternatives of Table 1, refer to Form AB-41a, Guide for Completing Form AB-41

2023-01504

Tracking #:_____

Scope of Registration_SS

MannTek Dry Disconnect Couplings and Dry Gas Couplings DDC, DGC
MannTek Safety Breakaway Couplings SBC

Catalog page: DPL418 2020, Page 11, 12, 14, 17, 18

Size (inch):	2",3",4" Stainless steel
Material:	EN 10272 1,4404+AT; EN 10222-5 1,4404+AT
Minimum Working Temperature ˚F (˚C):	-72 (-58)
Maximum Working Temperature ˚F (˚C):	212 (100)
Maximum Working Pressure PSI (bar):	360 (25)

Dixon Catalog Part No.	***DPL418 page***	***Description***	***Drawing No.***	***Matrl 1***	***Matrl 2***
DDC200SS	11	COUPLER & Female NPT	S211A4401	1,4404+AT	1,4401+AT
DDC200SSFL	11	COUPLER & FLANGE	S257A4401	1,4404+AT	1,4401+AT
DDA200SS	12	ADAPTER & Female NPT	T211A4401	1,4404+AT	1,4401+AT
DDA200SSFL	12	ADAPTER & FLANGE	T257A4401	1,4404+AT	1,4401+AT
DGC200SS	14	COUPLER & Female NPT	M211A4401	1,4404+AT	1,4401+AT
DGA200SS	14	ADAPTER & Female NPT	L211A4401	1,4404+AT	1,4401+AT
DGA200SSFL	14	ADAPTER & FLANGE	L257A4401	1,4404+AT	1,4401+AT
MSBC200SS	17	Female NPT & Female	N211M4401	1,4404+AT	1,4401+AT
MSBC300SS	17	Female NPT & Female	N415M4401	1,4404+AT	1,4401+AT
MSBC400SS	17	Female NPT & Female	N517M4401	1,4404+AT	1,4401+AT
MSBC200SSMNPT	17	Male NPT & Male NPT	N279M4401	1,4404+AT	1,4401+AT
MSBC300SSMNPT	17	Male NPT & Male NPT	N482M4401	1,4404+AT	1,4401+AT
MSBC400SSMNPT	17	Male NPT & Male NPT	N585M4401	1,4404+AT	1,4401+AT
MSBC200SSFL	17	Flange 150 & FLANGE	N257M4401	1,4404+AT	1,4401+AT
MSBC300SSFL	17	Flange 150 & FLANGE	N461M4401	1,4404+AT	1,4401+AT
MSBC400SSFL	17	Flange 150 & FLANGE	N563M4401	1,4404+AT	1,4401+AT
SBC200SS	18	Female NPT & Female	N211D4401	1,4404+AT	1,4401+AT
SBC300SS	18	Female NPT & Female	N415D4401	1,4404+AT	1,4401+AT
SBC400SS	18	Female NPT & Female	N517D4401	1,4404+AT	1,4401+AT

SBC200SSMNPT	18	Male NPT & Male NPT	N279D4401	1,4404+AT	1,4401+AT
SBC300SSMNPT	18	Male NPT & Male NPT	N482D4401	1,4404+AT	1,4401+AT
SBC400SSMNPT	18	Male NPT & Male NPT	N585D4401	1,4404+AT	1,4401+AT
SBC200SSFL	18	Flange 150 & FLANGE	N257D4401	1,4404+AT	1,4401+AT
SBC300SSFL	18	Flange 150 & FLANGE	N461D4401	1,4404+AT	1,4401+AT
SBC400SSFL	18	Flange 150 & FLANGE	N563D4401	1,4404+AT	1,4401+AT

Product Description	Primary Pressure Bearing /Retaining Component	Material of Construction	End Connections and Size Range	Design Condition		MDMT	Pressure Class or Schedule	Design Code of Construction or Standard	Drawing Numbers	Hydro Test Pressure	Catalog page
				Pressure at Ambient Temp.	Pressure at Design Temp.						
DDC200SS	Swivel Sleeve 1382-4	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" NPT	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	S211A4401	>166bar	DPL PAGE 11
DDC200SSFL	Swivel Sleeve 1909-4F	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" Class 150	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B16.5 ASME BPVC-VIII-1 UG-101	S257A4401	>166bar	DPL PAGE 11
DDA200SS	Adapter Body 1435-4	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" NPT	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	T211A4401	>166bar	DPL PAGE 12
DDA200SSFL	Adapter Body 3273-4S	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" Class 150	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B16.5 ASME BPVC-VIII-1 UG-101	T257A4401	>166bar	DPL PAGE 12
DGC200SS	Swivel Sleeve 1772-4	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" NPT	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	ASME BPVC-VIII-1 UG-101 EN 10272 ASME B31.3 ANSI B1.20.1	M211A4471	>166bar	DPL PAGE 14

DGA200SS	Adapter Body 1672-4	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" NPT	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	L211A4401	>166bar	DPL PAGE 14
DGA200SSFL	Adapter Body 1866-4S	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" Class 150	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	L257A4471	>166bar	DPL PAGE 14
MSBC200SS	BA-Body 2399-4 2400-4	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" NPT	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N211M4401	>166bar	DPL PAGE 17
MSBC200SSMNPT	BA-Body 2699-4 2700-4	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" NPT male	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N279M4401	>166bar	DPL PAGE 17
MSBC200SSFL	BA-Body 2581-4 2582-4	EN10222 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2" class 300	428 psi @ 68 ˚F	374 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B16.5 ASME BPVC-VIII-1 UG-101	N258M4401	>166bar	DPL PAGE 17
MSBC300SS	BA-Body 2392-4B	EN10213 1,4409+AT / 1,4408+AT (ASTM A351 CF3M/CF8M)	3" NPT	360 psi @ 68 ˚F	286 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N415M4401	>144bar	DPL PAGE 17
MSBC300SSMNPT	BA-Body xx	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	3" NPT male	360 psi @ 68 ˚F	286 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N482M4401	>144bar	DPL PAGE 17

MSBC300SSFL	BA-Body xx	EN10213 1,4409+AT / 1,4408+AT (ASTM A351 CF3M/CF8M)	3” class 150	360 psi @ 68 ˚F	286 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B16.5 ASME BPVC-VIII-1 UG-101	N461M4401	>144bar	DPL PAGE 17
MSBC400SS	BA-Body 2392-4B	EN10213 1,4409+AT / 1,4408+AT (ASTM A351 CF3M/CF8M)	4” NPT	375 psi @ 68 ˚F	298 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N517M4401	>150bar	DPL PAGE 17
MSBC400SSMNPT	BA-Body xx	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	4” NPT male	375 psi @ 68 ˚F	298 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N585M4401	>150bar	DPL PAGE 17
MSBC400SSFL	BA-Body 2476-4F	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	4” class 150	312 psi @ 68 ˚F	257 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B16.5 ASME BPVC-VIII-1 UG-101	N563M4401	>120bar	DPL PAGE 17
SBC200SS	BA-Body 2399-4 2400-4	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2” NPT	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N211D4401	>166bar	DPL PAGE 18
SBC200SSMNPT	BA-Body 2699-4 2700-4	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2” NPT male	431 psi @ 68 ˚F	356 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N279D4401	>166bar	DPL PAGE 18
SBC200SSFL	BA-Body 2581-4 2582-4	EN10222 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	2” class 300	428 psi @ 68 ˚F	374 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B16.5 ASME BPVC-VIII-1 UG-101	N258D4401	>166bar	DPL PAGE 18

SBC300SS	BA-Body 2392-4B	EN10213 1,4409+AT / 1,4408+AT (ASTM A351 CF3M/CF8M)	3” NPT	360 psi @ 68 ˚F	286 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N415D4401	>144bar	DPL PAGE 18
SBC300SSMNPT	BA-Body xx	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	3” NPT male	360 psi @ 68 ˚F	286 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N482D4401	>144bar	DPL PAGE 18
SBC300SSFL	BA-Body xx	EN10213 1,4409+AT / 1,4408+AT (ASTM A351 CF3M/CF8M)	3” class 150	360 psi @ 68 ˚F	286 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B16.5 ASME BPVC-VIII-1 UG-101	N461D4401	>144bar	DPL PAGE 18
SBC400SS	BA-Body 2392-4B	EN10213 1,4409+AT / 1,4408+AT (ASTM A351 CF3M/CF8M)	4” NPT	375 psi @ 68 ˚F	298 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N517D4401	>150bar	DPL PAGE 18
SBC400SSMNPT	BA-Body xx	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	4” NPT male	375 psi @ 68 ˚F	298 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B1.20.1 ASME BPVC-VIII-1 UG-101	N585D4401	>150bar	DPL PAGE 18
SBC400SSFL	BA-Body 2476-4F	EN10272 1,4404+AT / 1,4401+AT (ASTM A182/276/479 F316L /F316)	4” class 150	312 psi @ 68 ˚F	257 psi @ 212 ˚F	-72 ˚F	PN 25	EN 12516-2 ASME B31.3 ANSI B16.5 ASME BPVC-VIII-1 UG-101	N563D4401	>120bar	DPL PAGE 18

Material specification SS

Material definition in drawing	*Rp0,2 at 20 ˚C [MPa]*	*Source*	*Basic allowable stress at 100 ˚C [MPa]*	*Source*	*K*	*Rm [MPa]*	*Source*	*Corresponding Materials*
EN10272 1,4404+AT X2CrNiMo17-12-2	200	EN 10272 Table 8	165	EN 10272 Table 11	1,21	440	EN 10272 Table 8	ASTM A 182 / 276 / 479 F316L and ASME SA 182 / 479 F316L UNS S31603 AISI 316L
EN10272 1,4401+AT X5CrNiMo17-12-2	200	EN 10272 Table 8	175	EN 10272 Table 11	1,14	500	EN 10272 Table 8	ASTM A 182 / 276 / 479 F316 and ASME SA 182 / 479 F316 UNS S31600 AISI 316
EN10222-5 1,4404+AT X2CrNiMo17-12-2	190	EN 10222 Table 4	166	EN 10222 Table 5	1,14	490	EN 10222 Table 4	ASTM A 182 / 276 F316L and ASME SA 182 F316L UNS S31603 AISI 316L
EN10222-5 1,4401+AT X5CrNiMo17-12-2	205	EN 10222 Table 4	177	EN 10222 Table 5	1,16	510	EN 10222 Table 4	ASTM A 182 / 276 F316 and ASME SA 182 F316 UNS S31600 AISI 316
EN10213 1,4409+AT GX2CrNiMo19-11-2	220	EN 10213 Table 3	175	EN 10213 Table 6	1,26	440	EN 10213 Table 3	ASTM A 351 CF3M and ASME SA 351 CF3M UNS J92800
EN10213 1,4408+AT GX5CrNiMo19-11-2	210	EN 10213 Table 3	170	EN 10213 Table 6	1,24	440	EN 10213 Table 3	ASTM A 351 CF8M and ASME SA 351 CF8M UNS J92900

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Summary test results

Dixon Part number	Drawing / Component list	Primary Pressure Bearing Components	Tested part	Mill cert number	Min calculated burst pressure	Max pressure tested
DDA200SS	T211A4401	1435-4	T211A4401		166bar	220bar
DDA200SSFL	T257A4401	3273-4S	T211A4401		166bar	220bar
DDC200SS	S211A4401	1382-4	S211A4401		166bar	200bar
DDC200SSFL	S257A4401	1909-4F	S211A4401		166bar	200bar
DGA200SS	L211A4401	1672-4	L211A4401		166bar	210bar
DGA200SSFL	L257A4471	1866-4S	L211A4401		166bar	210bar
DGC200SS	M211A4471	1772-4	M211A4401		166bar	190bar
MSBC200SS	N211M4401	2399-4 2400-4	N211/57D4401		166bar	200bar
MSBC200SSMNPT	N279M4401	2699-4 2700-4	N211/57D4401		166bar	200bar
MSBC200SSFL	N258M4401	2581-4 2582-4	N211/57D4401		166bar	250bar
SBC200SS	N211D4401	2346-4 2347-4	N211/57D4401		166bar	200bar
SBC200SSMNPT	N279D4401	3264-4 2645-4	N211/57D4401		166bar	200bar
SBC200SSFL	N258D4401	2526-4 2527-4	N211/57D4401		166bar	250bar
MSBC300SS	N415M4401		N415/61D4401		144bar	145bar
MSBC300SSMNPT	N482M4401		N415/61D4401		144bar	145bar
MSBC300SSFL	N461M4401		N415/61D4401		144bar	145bar
SBC300SS	N415D4401		N415/61D4401		144bar	145bar
SBC300SSMNPT	N482D4401		N415/61D4401		144bar	145bar
SBC300SSFL	N461D4401		N415/61D4401		144bar	145bar
MSBC400SS	N517M4401		N517/63D4401		150bar	225bar
MSBC400SSMNPT	N585M4401		N517/63D4401		150bar	225bar
MSBC400SSFL	N563M4401		N517/63D4401		120bar	135bar
SBC400SS	N517D4401		N517/63D4401		150bar	225bar
SBC400SSMNPT	N585D4401		N517/63D4401		150bar	225bar
SBC400SSFL	N563D4401		N517/63D4401		120bar	135bar