

Certificate

Quality-Assurance System for Manufacturer of Materials acc. to Directive 2014/68/EU

Certificate no.: 01 202 E/Q-02 6904

Name and address of the
manufacturer:

Sidenor Aceros Especiales, S.L.U.
B° Ugarte, s/n
E - 48970 Basauri BIZKAIA

Herewith we certify that the material manufacturer has established and applies a Quality Management System. The system was audited according to the European Directive 2014/68/EU, Annex I, Par. 4.3, with regard to the materials as listed in the scope of approval.

Tested acc. to
Directive 2014/68/EU:

**QM System acc. to EN 764-5, article 4.2 and
AD 2000-Merkblatt W0**

Audit report no.:

E/Q-02 6904

Area of validity:

MANUFACTURER OF STEEL ROLLED (BARS) AND FORGED BARS IN MATERIAL: CARBON, STEEL, ALLOY STEEL, AND STAINLESS STEEL FROM 19 mm Ø TO 1500mmØ, see annex to certificate

Manufacturing plant:

B° Ugarte, s/n, E - 48970 Basauri BIZKAIA
Portal de Gamarra, 22, E - 01013 Vitoria (Alava)
Paseo de Alejandro Calonge, s/n, E - 39200 Reinosa (Cantabria)
Planta de Azkoitia, E - 20720 Azkoitia (Gipuzkoa)

Valid until:

May 31, 2023

Cologne, April 18, 2020

Dipl.-Ing. (FH) Vera Ruff



TÜV Rheinland Industrie Service GmbH
Notifizierte Stelle für Druckgeräte, Kennnummer: 0035
Am Grauen Stein, D-51105 Köln

E-008-D-Rev22

page 1/5

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)				
Manufacturer				Work		Nationality		Date				
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U				PLANT BASAURI		E		28.02.22				
Location: E 48970 BASAURI						Rev.: 9		Page No.: 2 of : 5				
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks 	
					Thick-ness mm		Ø mm					
					from	Up to	fr o m	Up to				
1	2	3	4	5	6a	6b	7 a	7b	8a	8b	9	
2. Materials according to the AD 2000-Code												
The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.												
4	S 235J2 S-235 JR S 275 JR S 275J2 S 355 J2	1.0117 1.0038 1.0044 1.0145 1.0577	DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2	+N +N +N +N +N	BARS BARS BARS BARS BARS	20 20 20 20 20	120 120 120 120 120				AD 2000 W13 AD 2000 W13 AD 2000 W13 AD 2000 W13 AD 2000 W13	a a a a a
5	P 250 GH P 355 NH	1.0460 1.0565	DIN EN 10273 DIN EN 10273	+N +N	BARS BARS	20 20	120 120				AD 2000 W13 AD 2000 W13	a a
Remarks		+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested										

Annex to Certificate No. 01 202 E/Q-02 6904 01


Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)			
Manufacturer				Work		Nationality		Date		Page No..	
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANT BASAURI		E		28.02.22		3	
Location: E 48970 BASAURI								Rev.: 9		of : 5	
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max	Technical Specifications	Remarks
					Thick-ness mm		Ø mm		1=t / 2=kg	Requirements Technical Regulations	
					from	Up to	from	Up to	↓ result		
1	2	3	4	5	6a	6b	7a	7b	8a 8b	9	10

2. Materials according to the AD 2000-Code

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

6	25 CrMo4	1.7218	DIN EN 10269	+QT	BARS	20	120				AD 2000 W 7	a	and EN 10204 3-2 certificate
	21 CrMoV 5.7	1.7709	DIN EN 10269	+QT	BARS	20	120				AD 2000 W 7	a	and EN 10204 3-2 certificate
	40CrMoV4.6	1.7711	DIN EN 10269	+QT	BARS	20	120				AD 2000 W 7	a	and EN 10204 3-2 certificate
	42 CrMo 4	1.7225	DIN EN 10269	+QT	BARS	20	60				AD 2000 W 7	a ,b	and EN 10204 3-2 certificate
7	X 6CrNiTi 18-10	1.4541	DIN EN 10272	+AT	BARS	20	120				AD 2000 W 2	a	
	X 6CrNiMoTi 17-12-2	1.4571	DIN EN 10272	+AT	BARS	20	120				AD 2000 W 2	a	
	X 2CrNiMo 17-12-2	1.4404	DIN EN 10272	+AT	BARS	20	120				AD 2000 W 2	a	
	X 5CrNi 18-10	1.4301	DIN EN 10272	+AT	BARS	20	120				AD 2000 W 2	a	
	X5CrNiMo 17-12-2	1.4401	DIN EN 10272	+AT	BARS	20	120				AD 2000 W 2	a	
	X2CrNi18-9	1.4307	DIN EN 10272	+AT	BARS	20	120				AD 2000 W 2	a	

Remarks	+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
	+AR = as rolled	+QT = quenched and tempered	b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested
	+M = thermo mechanical treated	+S = soft annealed	
	+N = normalized or normalizing formed	+SR = stress relieved	

Annex to Certificate No. 01 202 E/Q-02 6904 01



Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)			
Manufacturer				Work		Nationality		Date		Page No..	
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANT BASAURI		E		28.02.22		4	
Location: E 48970 BASAURI								Rev.: 9		of : 5	
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions		Weight max		Technical Specifications		Remarks
					Thick-ness mm	Ø mm	1=t / 2=kg		Requirements Technical Regulations		
					from	Up to	fr	Up	↓	res	
1	2	3	4	5	6a	6b	7	7b	8a	8b	9
3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.) The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.											
8	34 CrNiMo 6 1.6582	EN ISO 683 -2	+QT	BARS	20	120					a
	25 CrMo4 1.7218	EN ISO 683 -2	+QT	BARS	20	120					a
	30CrNiMo8 1.6580	EN ISO 683-2	+QT	BARS	20	120					a
	41 Cr4 1.7035	EN ISO 683-2	+QT	BARS	20	120					a
	42CrMoS4 1.7227	EN ISO 683-2	+QT	BARS	20	120					a
	42 CrMo 4 1.7225	EN ISO 683 -2	+QT	BARS	20	120					a
9	B7	ASTM A 193	+QT	BARS	20	120					a
	L7	ASTM A 320	+QT	BARS	20	65					a ,b
	B16	ASTM A 193	+QT	BARS	20	120					a
10	75 K + [AISI 4130]	API6A / ISO 10423 [ASTM A 29]	+QT	BARS	20	120					a
11	S 235J2 1.0117	DIN EN 10025 - 2	+N-AR	BARS	20	120					a
	S-235 JR 1.0038	DIN EN 10025 - 2	+N-AR	BARS	20	120					a
	S 275 JR 1.0044	DIN EN 10025 - 2	+N-AR	BARS	20	120					a
	S 275J2 1.0145	DIN EN 10025 - 2	+N-AR	BARS	20	120					a
	S 355 JR 1.0045	DIN EN 10025 - 2	+N-AR	BARS	20	120					a
	S 355 J2 1.0577	DIN EN 10025 - 2	+N-AR	BARS	20	120					a
Remarks +AT = solution annealed +NT = normalized and tempered a = PMA for the use in pressure equipment +AR = as rolled +QT = quenched and tempered in Directive 2014/68/EU necessary +M = thermo mechanical treated +S = soft annealed b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested +N = normalized or normalizing formed +SR = stress relieved											

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)				
Manufacturer				Work		Nationality		Date				
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANT BASAURI		E		28.02.22				
Location: E 48970 BASAURI								Rev.: 9				
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res	Technical Specifications Requirements Technical Regulations	Remarks	
					Thick-ness mm		Ø mm					
					from	Up to	fr	Up				
1	2	3	4	5	6a	6b	7	7b	8a	8b	9	10

3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

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12	X 8CrNiS 18-9	1.4305	DIN EN 10088 - 3	+AT	BARS	20	120						a
	X 20 Cr 13	1.4021	DIN EN 10088 - 3	+AT	BARS	20	120						a
	X 20 Cr 13	1.4021	DIN EN 10088 - 3	+QT	BARS	20	120						a
	X 6CrNiMoTi 17-12-2	1.4571	DIN EN 10088 - 3	+AT	BARS	20	120						a
	X 2CrNiMo 17-12-2	1.4404	DIN EN 10088 - 3	+AT	BARS	20	120						a
	X 5CrNi 18-10	1.4301	DIN EN 10088 - 3	+AT	BARS	20	120						a
	X 6CrNiTi 18-10	1.4541	DIN EN 10088 - 3	+AT	BARS	20	120						a
	X5CrNiMo 17-12-2	1.4401	DIN EN 10088 - 3	+AT	BARS	20	120						a
13	304, 304L	S30400S30403	ASTM 479	+AT	BARS	20	76,2						a ,b
	316,	S31600	ASTM 479	+AT	BARS	20	76,2						a
	316L	S31603,	ASTM 479	+AT	BARS	20	76,2						a
	316Ti	S31635	ASTM 479	+AT	BARS	20	76,2						a ,b
	309 H	S 30909	ASTM 479	+AT	BARS	20	76,2						a ,b
	303	S 30300	ASTM 479	+AT	BARS	20	76,2						a ,b
14	F5	182 K42544	ASTM A182/ ASME SA182	+QT	BARS	20	120						a
	F9	182 K90941	ASTM A182/ ASME SA182	+QT	BARS	20	120						a
	F11	182 K 11597	ASTM A182/ ASME SA182	+QT	BARS	20	120						a
	F22	182 K21590	ASTM A182/ ASME SA182	+QT	BARS	20	120						a
	F91	182 K90901	ASTM A182/ ASME SA182	+QT	BARS	20	120						a

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Scope according to	☒ Directive 2014/68/EU Annex I §4.3	☒ EN 764-4	☒ AD 2000-Merkblatt W0	☐ FPC, Regulation (EU) No. 305/2011(System 2+)																				
Manufacturer		Work		Nationality	Date	Page No..																		
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.		PLANTA AZKOITIA		E	09.09.20	1	TÜV Rheinland Industrie Service GmbH																	
Location: : E 20720 AZKOITIA (GUPUZKOA)					Rev.: 8	of : 4																		
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks													
					Thick-ness mm		Ø mm																	
					from	Up to	from	Up to																
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10												
1. Materials according to harmonized European standards (hEN) and European Approval for Materials (EAM) acc. Directive 2014/68/EU The use of the materials according to Directive 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.																								
1	X 6CrNiMoTi 17-12-2 X 2CrNiMo 17-12-2 X 5CrNi 18-10	1.4571 1.4404 1.4301	DIN EN 10272 DIN EN 10272 DIN EN 10272	+AT +AT +AT	BARS BARS BARS	19 19 19	200 200 200				EN 10272 EN 10272 EN 10272													
2	P 250 GH 16 Mo 3 13 CrMo 44 10 CrMo 9-10	1.0460 1.5415 1.7335 1.7380	DIN EN 10273 DIN EN 10273 DIN EN 10273 DIN EN 10273	+N +QT +QT +QT	BARS BARS BARS BARS	19 19 19 19	150 150 150 150				EN 10273 EN 10273 EN 10273 EN 10273	b b b b												
3	25 CrMo4 34 CrNiMo 6 40CrMoV4.6 21 CrMoV 5.7 42 CrMo 4	1.7218 1.6582 1.7711 1.7709 1.7225	DIN EN 10269 DIN EN 10269 DIN EN 10269 DIN EN 10269 DIN EN 10269	+S,+QT +QT +QT +QT +QT	BARS BARS BARS BARS BARS	19 19 19 19 19	150 100 160 160 65				EN 10269 EN 10269 EN 10269 EN 10269 EN 10269	b b b b b												
Remarks <table border="0"> <tr> <td>+AT = solution annealed</td> <td>+NT = normalized and tempered</td> <td>a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary</td> </tr> <tr> <td>+AR = as rolled</td> <td>+QT = quenched and tempered</td> <td>b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested</td> </tr> <tr> <td>+M = thermo mechanical treated</td> <td>+S = soft annealed</td> <td></td> </tr> <tr> <td>+N = normalized or normalizing formed</td> <td>+SR = stress relieved</td> <td></td> </tr> </table>													+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary	+AR = as rolled	+QT = quenched and tempered	b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested	+M = thermo mechanical treated	+S = soft annealed		+N = normalized or normalizing formed	+SR = stress relieved	
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serial approval or to the
l. The requirements and limits

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Industrial Services

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)			
Manufacturer				Work		Nationality		Date			
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA AZKOITIA		E		09.09.20			
Location: : E 20720 AZKOITIA (GUPUZKOA)						Rev.: 8		Page No.: 3 of : 4			
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks
					Thick-ness mm		Ø mm				
					from	Up to	from	Up to			
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9

3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

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7	X 20 Cr 13 1.4021	DIN EN 10088 -3	+QT	BARS	19	200					a
9	B7	ASTM A 193	+QT	BARS	19	177,8					a,b
	L7	ASTM A 320	+QT	BARS	19	65					a,b
	B16	ASTM A 193	+QT	BARS	19	200					b
10	75 K + [AISI 4130]	API6A / ISO 10423 [ASTM A 29]	+QT	BARS	19	200					a
11	S 235J2 1.0117	DIN EN 10025 - 2	+N,+AR	BARS	19	200					a
	S-235 JR 1.0038	DIN EN 10025 - 2	+N,+AR	BARS	19	200					a
	S 275 JR 1.0044	DIN EN 10025 - 2	+N,+AR	BARS	19	200					a
	S 275J2 1.0145	DIN EN 10025 - 2	+N,+AR	BARS	19	200					a
	S 355 JR 1.0045	DIN EN 10025 - 2	+N,+AR	BARS	19	200					a
	S 355 J2 1.0577	DIN EN 10025 - 2	+N,+AR	BARS	19	200					a
12	34 CrNiMo 6 1.6582	EN ISO 683.2	+QT	BARS	19	200					a
	25 CrMo4 1.7218	EN ISO 683.2	+QT	BARS	19	160					a ,b
	30CrNiMo8 1.6580	EN ISO 683.2	+QT	BARS	19	200					a
	42 CrMo 4 1.7225	EN ISO 683.2	+QT	BARS	19	200					a
	42CrMoS4 1.7227	EN ISO 683.2	+QT	BARS	19	200					a
	41 Cr4 1.7035	EN ISO 683-2	+QT	BARS	19	100					A, b

Remarks	+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment
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Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)	
Manufacturer				Work		Nationality		Date	
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA AZKOITIA		E		09.09.20	
Location: : E 20720 AZKOITIA (GUPUZKOA)						Rev.: 8		Page No.: 4 of 4	
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions		Weight max	Technical Specifications	
					Thick-ness mm		Ø mm	Requirements Technical Regulations	
					from	Up to	from	Up to	Remarks
					6a	6b	7a	7b	
1	2	3	4	5	6a	6b	7a	7b	9
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13	F5 K42544 F9 K90941 F11 K 11597 F22 K21590 F91 K90901	ASTM A 182/ ASME SA 182 ASTM A 182/ ASME SA 182 ASTM A 182/ ASME SA 182 ASTM A 182/ ASME SA 182 ASTM A 182/ ASME SA 182	+QT +QT +QT +QT +QT	BARS BARS BARS BARS BARS	19 19 19 19 19	200 200 200 200 200			a a a a a
Remarks		+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed			+NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved			a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested	

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)				
Manufacturer				Work		Nationality		Date		Page No..		
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA REINOSA		E		09.09.20		1		
Location: E 39200 REINOSA (CANTABRIA)								Rev.: 8		of : 5		
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks	
					Thick-ness mm		Ø mm					
					from	Up to	from	Up to				
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

1. Materials according to harmonized European standards (hEN) and European Approval for Materials (EAM) acc. Directive 2014/68/EU

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1	X 6CrNiMoTi 17-12-2	1.4571	DIN EN 10272	+AT	BARS	100	230					
	X 2CrNiMo 17-12-2	1.4404	DIN EN 10272	+AT	BARS	100	230					
	X 5CrNi 18-10	1.4301	DIN EN 10272	+AT	BARS	100	230					
	X 6CrNiTi 18-10	1.4541	DIN EN 10272	+AT	BARS	100	230					
	X 5CrNiMo 17-12-2	1.4401	DIN EN 10272	+AT	BARS	100	230					
	X 2CrNi18-9	1.4307	DIN EN 10272	+AT	BARS	100	230					
	X 8CrNiS 18-9	1.4305	DIN EN 10272	+AT	BARS	100	230					
2	25 CrMo4	1.7218	DIN EN 10269	+S, +QT	BARS	100	150					b
	34 CrNiMo 6	1.6582	DIN EN 10269	+QT	BARS	100	120					b
	40CrMoV4.6	1.7711	DIN EN 10269	+QT	BARS	100	160					b
	21 CrMoV 5.7	1.7709	DIN EN 10269	+QT	BARS	100	160					b
	42 CrMo 4	1.7225	DIN EN 10269	+QT	BARS	100	65					b
3	P 250 GH	1.0460	DIN EN 10273	+N	BARS	100	150					b
	16 Mo 3	1.5415	DIN EN 10269	+QT	BARS	100	150					b
	13 CrMo 45	1.7335	DIN EN 10269	+QT	BARS	100	150					b
	10 CrMo 9-10	1.7380	DIN EN 10269	+QT	BARS	100	150					b

Remarks	+AT = solution annealed	+NT =	
	+AR = as rolled	+QT = quenched and tempered	
	+M = thermo mechanical treated	+S = soft annealed	b = in Directive 2014/68/EU necessary
	+N = normalized or normalizing formed	+SR = stress relieved	If the size of the product is outside the approved scope acc. to the standard, a PMA is requested
			Over limits will need PMA

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)				
Manufacturer				Work		Nationality		Date		Page No..		
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA REINOSA		E		09.09.20		2		
Location: E 39200 REINOSA (CANTABRIA)								Rev.: 8		of : 5		
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks	
					Thick-ness mm		Ø mm					
					from	Up to	from	Up to				
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	
2. Materials according to the AD 2000-Code The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.												
8	S 235J2 S-235 JR S 275 JR S 275J2 S 355 J2	1.0117 1.0038 1.0044 1.0145 1.0577	DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2	+N +N +N +N +N	BARS BARS BARS BARS BARS	100 100 100 100 100	230 230 230 230 230				AD 2000 W13 AD 2000 W13 AD 2000 W13 AD 2000 W13 AD 2000 W13	a a a a a
5	P 250 GH P 355 NH	1.0460 1.0565	DIN EN 10273 DIN EN 10273	+N +N	BARS BARS	100 100	150 150				AD 2000 W13 AD 2000 W13	a ,b a ,b
6	25 CrMo4 34 CrNiMo 6 40CrMoV4.6 21 CrMoV 5.7 42 CrMo 4	1.7218 1.6582 1.7711 1.7709 1.7225	DIN EN 10269 DIN EN 10269 DIN EN 10269 DIN EN 10269 DIN EN 10269	+QT +QT +QT +QT +QT	BARS BARS BARS BARS BARS	100 100 100 100 100	150 120 160 160 65				AD 2000 W 7 AD 2000 W 7 AD 2000 W 7 AD 2000 W 7 AD 2000 W 7	a,b EN 10204 3-2 certificate a,b EN 10204 3-2 certificate a,b EN 10204 3-2 certificate a,b EN 10204 3-2 certificate a,b EN 10204 3-2 certificate
Remarks		+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested										

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)				
Manufacturer				Work				Nationality	Date	Page No..		
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA REINOSA				E	09.09.20	3	TÜV Rheinland Industrie Service GmbH	
Location: E 39200 REINOSA (CANTABRIA)								Rev.: 8	of : 5			
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks	
					Thick-ness mm		Ø mm					
					from	Up to	from	Up to				
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10
2. Materials according to the AD 2000-Code The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.												
7	X 6CrNiMoTi 17-12-2 1.4571 X 2CrNiMo 17-12-2 1.4404 X 5CrNi 18-10 1.4301 X 6CrNiTi 18-10 1.4541 X5CrNiMo 17-12-2 1.4401 X2CrNi18-9 1.4307	DIN EN 10272 DIN EN 10272 DIN EN 10272 DIN EN 10272 DIN EN 10272 DIN EN 10272	+AT +AT +AT +AT +AT +AT	BARS BARS BARS BARS BARS BARS	100	230					AD 2000 W 2 AD 2000 W 2 AD 2000 W 2 AD 2000 W 2 AD 2000 W 2 AD 2000 W 2	a a a a a a
Remarks		+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved										
		a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested										

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)	
Manufacturer				Work		Nationality		Date	
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA REINOSA		E		09.09.20	
Location: E 39200 REINOSA (CANTABRIA)						Rev.: 8		Page No.: 4 of 5	
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions		Weight max		Technical Specifications
					Thick-ness mm		Ø mm		Requirements Technical Regulations
					from	Up to	from	Up to	
1	2	3	4	5	6a	6b	7a	7b	8a
									8b
									9
									10

3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

8	B7 L7 B16	ASTM A 193 ASTM A 320 ASTM A 193	+QT +QT +QT	BARS BARS BARS	100 100 100	177,8 65 200						b b b
9	75 K + [AISI 4130]	API6A / ISO 10423 [ASTM A 29]	+QT	BARS	100	230						a
10	S 235J2 1.0117 S-235 JR 1.0038 S 275 JR 1.0044 S 275J2 1.0145 S 355 JR 1.0045 S 355 J2 1.0577	DIN EN 10025 - 2- DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2 DIN EN 10025 - 2	+N+AR +N+AR +N+AR +N+AR +N+AR +N+AR	BARS BARS BARS BARS BARS BARS	100 100 100 100 100 100	230 230 230 230 230 230						a a a a a a
11	F5 K42544 F9 K90941 F11 K 11597 F22 K21590 F91 K90901	ASTM A 182/ ASME SA 182 ASTM A 182/ ASME SA 182 ASTM A 182/ ASME SA 182 ASTM A 182/ ASME SA 182 ASTM A 182/ ASME SA 182	+QT +QT +QT +QT +QT	BARS BARS BARS BARS BARS	100 100 100 100 100	230 230 230 230 230						a a a certificate 3.1 reviewed by NoBo a certificate 3.1 reviewed by NoBo a certificate 3.1 reviewed by NoBo

Results	+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed	+NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary b = If the size of the product is outside the approved scope acc. to the standard, a PMA is requested
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Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)				
Manufacturer				Work		Nationality		Date				
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA REINOSA		E		09.09.20				
Location: E 39200 REINOSA (CANTABRIA)						Rev.: 8		Page No.: 5 of 5				
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res	Technical Specifications Requirements Technical Regulations	Remarks	
					Thick-ness mm		Ø mm					
					from	Up to	from	Up				
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

12	34 CrNiMo 6 25 CrMo4 30CrNiMo8 42 CrMo 4 42CrMoS4 41 Cr4	1.6582 1.7218 1.6580 1.7225 1.7227 1.7035	EN ISO 683.2 EN ISO 683.2 EN ISO 683.2 EN ISO 683.2 EN ISO 683.2 EN ISO 683-2	+QT +QT +QT +QT +QT +QT	BARS BARS BARS BARS BARS BARS	100 100 100 100 100 100	230 160 230 230 230 100						a a,b a a a a,b
13	304, 304L 316, 316L, 316Ti 309 H 303	S30400, S30403 S31600 S31603, S31635 S 30909 S 30300	ASTM 479 ASTM 479 ASTM 479 ASTM 479 ASTM 479	+AT +AT +AT +AT +AT	BARS BARS BARS BARS BARS	100 100 100 100 100	76,2 76,2 76,2 76,2 76,2						b b b b b
14	X 8CrNiS 18-9 X 20 Cr 13 X 20 Cr 13 X 6CrNiMoTi 17-12-2 X 2CrNiMo 17-12-2 X 5CrNi 18-10 X 6CrNiTi 18-10 X5CrNiMo 17-12-2	1.4305 1.4021 1.4021 1.4571 1.4404 1.4301 1.4541 1.4401	DIN EN 10088 - 3 DIN EN 10088 - 3 DIN EN 10088 - 3 DIN EN 10088 - 3 DIN EN 10088 - 3 DIN EN 10088 - 3 DIN EN 10088 - 3 DIN EN 10088 - 3	+AT +AT +QT +AT +AT +AT +AT +AT	BARS BARS BARS BARS BARS BARS BARS BARS	100 100 100 100 100 100 100 100	160 160 230 230 230 230 230 230						b b a a a a a a

Results	+AT	= solution annealed	+NT	= normalized and tempered	a	= PMA for the use in pressure equipment in Directive 2014/68/EU necessary
	+AR	= as rolled	+QT	= quenched and tempered	b	= If the size of the product is outside the approved scope acc. to the standard, a PMA is requested
	+M	= thermo mechanical treated	+S	= soft annealed		
	+N	= normalized or normalizing formed	+SR	= stress relieved		

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)			
Manufacturer				Work		Nationality		Date		Page No..	
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA VITORIA		E		10.07.20		1	
Location: E 01013 VITORIA (ARABA)								Rev.: 7		of : 3	
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks
					Thick-ness mm	Ø mm					
					from	Up to	from	Up to			
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9
1. Materials according to harmonized European standards (hEN) and European Approval for Materials (EAM) acc. Directive 2014/68/EU											
The use of the materials according to Directive 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.											
1	X 6CrNiMoTi 17-12-2 X 2CrNiMo 17-12-2 X 5CrNi 18-10 X 6CrNiTi 18-10 X5CrNiMo 17-12-2 X2CrNi18-9	EN 10272 1.4571 EN 10272 1.4404 EN 10272 1.4301 EN 10272 1.4541 EN 10272 1.4401 EN 10272 1.4307	+AT +AT +AT +AT +AT +AT	BARS BARS BARS BARS BARS BARS	--	26					EN 10272 EN 10272 EN 10272 EN 10272 EN 10272 EN 10272
1	25 CrMo4 21 CrMoV 5.7 42 CrMo 4 34 CrNiMo 6 40CrMoV4.6	EN 10269 1.7218 EN 10269 1.7709 EN 10269 1.7225 EN 10269 1.6582 EN 10269 1.7711	+S, +QT +QT +QT +QT +QT	BARS BARS BARS BARS BARS	--	26					EN 10269 EN 10269 EN 10269 EN 10269 EN 10269
3	P 250 GH 16 Mo 3 13 CrMo 44 10 CrMo 9-10	EN 10273 - 1.0460 EN 10273 1.5415 EN 10273 1.7335 EN 10273 1.7380	+N +QT +QT +QT	BARS BARS BARS BARS	--	26					EN 10273 EN 10273 EN 10273 EN 10273
Remarks		+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary									

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)			
Manufacturer				Work		Nationality		Date		Page No..	
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA VITORIA		E		10.07.20		2	
Location: E 01013 VITORIA (ARABA)								Rev.: 7		of : 3	
Cur -	Materials-term Materials-No.	Material Specification	Delivery Con d.	Article Type of Product	Dimensions				Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks
					Thick- ness mm	Ø mm					
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9

2. Materials according to the AD 2000-Code

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

4	S 235J2 S-235 JR S 275 JR S 275J2 S 355 J2	EN 10025.2 1.0117 EN 10025.2 1.0038 EN 10025.2 1.0044 EN 10025.2 1.0145 EN 10.025.2 1.0577	+N +N +N +N +N	BARS BARS BARS BARS BARS	-- -- -- -- --	26 26 26 26 26					AD 2000 W13 AD 2000 W13 AD 2000 W13 AD 2000 W13 AD 2000 W13	a a a a a
5	P 250 GH P 355 NH	EN 10273 - 1.0460 EN 10273 1.0565	+N +N	BARS BARS	-- --	26 26					AD 2000 W13 AD 2000 W13	a a
6	25 CrMo4 21 CrMoV 5.7 42 CrMo 4 40CrMoV4.6	EN 10269 1.7218 EN 10269 1.7709 EN 10269 1.7225 EN 10269 1.7711	+QT +QT +QT +QT	BARS BARS BARS BARS	-- -- -- --	26 26 26 26					AD 2000 W 7 AD 2000 W 7 AD 2000 W 7 AD 2000 W 7	a a a a and 3-2 certificate and 3-2 certificate and 3-2 certificate and 3-2 certificate

Remarks	+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
	+AR = as rolled	+QT = quenched and tempered	
	+M = thermo mechanical treated	+S = soft annealed	
	+N = normalized or normalizing formed	+SR = stress relieved	

Scope according to		☒ Directive 2014/68/EU Annex I §4.3		☒ EN 764-4		☒ AD 2000-Merkblatt W0		☐ FPC, Regulation (EU) No. 305/2011(System 2+)	
Manufacturer				Work		Nationality		Date	
Company Name: SIDENOR ACEROS ESPECIALES, S.L.U.				PLANTA VITORIA		E		10.07.20	
Location: E 01013 VITORIA (ARABA)						Rev.: 7		of :3	
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions		Weight	Technical Specifications Requirements Technical Regulations	
					Thick-ness mm	Ø mm	max 1=t / 2=kg ↓ r		
					from	Up to	from	Up to	
1	2	3	4	5	6a	6b	7a	7b	8 8
9									
3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)									
The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.									
7	34 CrNiMo 6 25 CrMo4 42 CrMo 4 41 Cr4 42CrMoS4	EN ISO 683-2 1.6582 EN ISO 683-2 1.7218 EN ISO 683-2 1.7225 EN ISO 683-2 1.7035 EN ISO 683-2 1.7227	+QT +QT +QT +QT +QT	BARS BARS BARS BARS BARS	-- -- -- -- --	26 26 26 26 26			EN ISO 683-2 EN ISO 683-2 EN ISO 683-2 EN ISO 683-2 EN ISO 683-2
8	X 20 Cr 13	EN 10088.3 1.4021	+QT	BARS	--	26			EN 10088.3
9	B7 L7 B16	ASTM A 193 ASTM A 320 ASTM A 193	+QT +QT +QT	BARS BARS BARS	-- -- --	26 26 26			ASTM A 193 ASTM A 320 ASTM A 193
10	75 K + [AISI 4130]	API6A / ISO 10423 [ASTM A 29]	+QT	BARS	--	26			API6A / ISO 10423 [ASTM A 29]
11	S 235J2 S-235 JR S 275 JR S 275J2 S 355 JR S 355 J2	EN 10025.2-1.0117 EN 10025.2 - 1.0038 EN 10025.2 - 1.0044 EN 10025.2 - 1.0145 EN 10025.2 - 1.0045 EN 10.025.2 - 1.0577	N-AR N-AR N-AR N-AR N-AR N-AR	BARS BARS BARS BARS BARS BARS	-- -- -- -- -- --	26 26 26 26 26 26			EN 10025.2 EN 10025.2 EN 10025.2 EN 10025.2 EN 10025.2 EN 10025.2
Remarks		+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary							