

# Certificate

## Quality management system for Manufacturer of Materials acc. to Directive 2014/68/EU

Certificate no.: 01 202 USA/Q-03 8928

Name and address of the certificate holder: **Carpenter Technology Corporation  
101 West Bern Street  
Reading PA 19601  
USA**

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.

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

Audit report no.: 01 202 USA/Q-03 8928

Scope: **Manufacturer of austenitic steel and non-ferrous bars, forgings and wire products, see annex, 25-Jul-2019, Rev.: 18, to certificate**

Manufacturing plant: see annex 2

Validity: **This certificate is valid until 2024-07-30.**

Cologne, 2022-02-01

Dipl.-Ing. (FH) Vera Ruff



TÜV Rheinland Industrie Service GmbH  
Notified Body for Pressure Equipment, ID-No. 0035  
Am Grauen Stein, D-51105 Cologne

E-108a

# Annex 2

## Quality management system for Manufacturer of Materials acc. to Directive 2014/68/EU

Certificate no.: 01 202 USA/Q-03 8928

Name and address of the certificate holder: **Carpenter Technology Corporation  
101 West Bern Street  
Reading PA 19601  
USA**


Manufacturing plants: Carpenter Technology Corporation  
101 West Bern Street  
Reading PA 19601  
USA

Carpenter Technology Corporation  
Hartsville Operations  
205 Carpenter Technology Lane  
McBee SC 29101  
USA

Carpenter Technology Corporation  
Orwigsburg Operations  
116 Pinedale Industrial Road  
Orwigsburg PA 17961  
USA

Carpenter Technology Corporation  
Athens Operations  
22110 Thomas L Hammons Rd.,  
Tanner AL 35671  
USA

Cologne, 2022-02-01

  
Dipl.-Ing. (FH) Vera Ruff



TÜV Rheinland Industrie Service GmbH  
Notified Body for Pressure Equipment, ID-No. 0035  
Am Grauen Stein, D-51105 Cologne

E-999

Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3		<input type="checkbox"/> EN 764-4		<input checked="" type="checkbox"/> AD 2000-Merkblatt W0		<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)				
Manufacturer				Work				Nationality	Date	Page No..		
Company Name: Carpenter Technology Corporation Location: 101 Bern Street, Reading, PA 19601, USA				-Same As Manufacturer -116 Pinedale Ind. Rd., Orwigsburg, PA 17961 -205 Talley Metals Ln, McBee, SC 29101 -22110 Thomas L Hammons Rd, Tanner, AL 35671				USA	25-Jul-2019	1	TÜV Rheinland Industrie Service GmbH	
								Rev.: 18	of : 4			
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max		Technical Specifications Requirements Technical Regulations	Remarks
					Thick-ness mm		∅ mm		1=t / 2=kg	result		
					from	Up to	from	Up to	↓			
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

**1) 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.

<u>Reading &amp; Orwigsburg</u>												
01	316,316L,316N,304,304L,304N	ASTM / ASME A/SA276	A	Bars	3.2	83	3.2	83	-	-	ASTM/ASME	a
02	304, 304N, 316, 316N	ASTM / ASME A/SA276	SH	Bars	3.2	83	3.2	83	-	-	ASTM/ASME	a
03	316,316L,316N,304,304L,304N	ASTM / ASME A/SA479	A	Bars	3.2	250	3.2	250	-	-	ASTM/ASME	a
04	304, 304L, 316, 316L	ASTM / ASME A/SA 479	SH	Bars	3.2	250	3.2	250	-	-	ASTM/ASME	a
05	F316, F316L, F304, F304L	ASTM / ASME A/SA182 (Chem. Only)	AT	Bars	3.2	83	3.2	83	-	-	ASTM/ASME	a*
06	Grade 660	ASTM / ASME A/SA453	AT	Bars	3.2	250	3.2	250	-	-	ASTM/ASME	a
07	N04400	ASTM / ASME B/SB164	SR	Bars	3.2	250	3.2	250	-	-	ASTM/ASME	a
08	Alloy N10276	ASTM / ASME B/SB574	A	Bars	3.2	250	3.2	250	-	-	ASTM/ASME	a
09	N07750	ASTM / ASME B/SB637	A	Bars	3.2	250	3.2	250	-	-	ASTM/ASME	a
10	N06625	ASTM / ASME B/SB446	A	Bars	3.2	255	3.2	255	-	-	ASTM/ASME	a
11	N08020	ASTM / ASME B/SB473	A	Bars	3.2	255	3.2	255	-	-	ASTM/ASME	a

<b>Results</b>	+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
	+AF = As Forged	+QT = quenched and tempered	* = Equipment Manufacturer to carry out EN 10204 3.2/3.1.C
	+M = thermo mechanical treated	+A = annealed	
	+N = normalized or normalizing formed	+SR = stress relieved	
	+SH = Strain Hardening		

Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3		<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD2000-Merkblatt W0		<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)		
Manufacturer				Work				Nationality	Date	Page No.		
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									Rev.: 18	of : 4		
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max  1=t / 2=kg	Technical Specifications  Requirements  Technical Regulations	Remarks	
					Thick-ness mm	Ø mm	from	Up to				from
					6a	6b	7a	7b	↓ result			
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10
<b>1) Materials according to international standards ( e. g. ASTM, ASME, IBR etc. )</b>												
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	<u>McBee</u> 316,316L,316N,304,304L,304N	ASTM / ASME A/SA 276	A	Bars	22	38	22	76	-	-	ASTM/ASME	a
13	304, 304N, 316, 316N	ASTM / ASME A/SA 276	SH	Bars	22	38	22	76	-	-	ASTM/ASME	a
14	316,316L,316N,304,304L,304N	ASTM / ASME A/SA 479	A	Bars	22	38	22	76	-	-	ASTM/ASME	a
15	304, 304L, 316, 316L	ASTM / ASME A/SA 479	SH	Bars	22	38	22	76	-	-	ASTM/ASME	a
16	F316, F316L, F304, F304L	ASTM / ASME A/SA 182 (Chemistry Only)	A	Wire	-	-	13	38	-	-	ASTM/ASME	a
			AT	Bars	22	38	22	76	-	-	ASTM/ASME	a*
17	<u>Athens</u> 316/316L	ASTM / ASME A/SA 484 (Excluding Mechanicals)	AT	Wire	-	-	13	38	-	-	ASTM/ASME	a*
			AF	Bar	-	-	153	180	-	-	ASTM/ASME	a*
18	<u>All Facilities (except Athens)</u> UNS S17400 (Type 630) 17-4 PH (H900, H1150)	ASTM / ASME A/SA 564	AT & AT/SH	Bars	-	-	3.2	102	-	-	ASTM/ASME	a
			AT & A/TSH	Wire	-	-	9.1	38	-	-	ASTM/ASME	a
<b>Results</b>		+AT = solution annealed		+NT = normalized and tempered		a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary						
		+AF = As Forged		+QT = quenched and tempered		* = Equipment Manufacturer to carry out EN 10204 3.2/3.1.C						
		+M = thermo mechanical treated		+A = annealed								
		+N = normalized or normalizing formed		+SR = stress relieved								
		+SH = Strain Hardening										

Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4		<input checked="" type="checkbox"/> AD 2000-Merkblatt W0		<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)						
Manufacturer				Work				Nationality	Date	Page No..			
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								Rev.: 18	of : 4				
Cur -	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max		Technical Specifications Requirements	Technical Regulations	Remarks
					Thick-ness mm		Ø mm		1=t / 2=kg	↓			
					from	Up to	from	Up to					
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10	
<b>2) Materials according to AD 2000</b>													
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.													
	<b>Reading &amp; Orwigsburg</b>												
01	1.4301, 1.4306, 1.4401, 1.4404	EN 10272	A	Bar	3.2	250	2.5	250	-	-	AD2000-W0, W2, W10		
02	1.4303	EN 10269	A	Wire	-	-	2.5	32	-	-	AD2000-W0, W2, W10		
	<b>Athens</b>												
01	1.4401, 1.4404	EN 10272 (Excluded Mechanical)	AF	Bar	-	-	153	180	-	-	AD2000-W0, W2	*	
<b>Results</b>	+AT = solution annealed +AF = As Forged +M = thermo mechanical treated +N = normalized or normalizing formed +SH = Strain Hardening			+NT = normalized and tempered +QT = quenched and tempered +A = annealed +SR = stress relieved			a = PMA for use in pressure equipment In directive 2014/68/EU necessary * = Equipment Manufacturer to carry out EN 10204 3.2/3.1c						

Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4		<input checked="" type="checkbox"/> AD 2000-Merkblatt W0		<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)					
Manufacturer				Work				Nationality	Date	Page No..	TÜV Rheinland Industrie Service GmbH	
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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		
					from	Up to	from	Up to	↓	result	Technical Regulations	
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10
<b>1) Materials according to EN Standards</b>												
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.												
	<b>Reading &amp; Orwigsburg</b>											
01	1.4301, 1.4306, 1.4401, 1.4404	EN 10088-3	AT	Bar	3.2	250	3.2	250	-	-	EN	a
02	1.4303	EN 10088-3	AT	Bar	3.2	250	3.2	250	-	-	EN	a
	<b>McBee</b>											
03	1.4401, 1.4404	EN 10088-3	AT	Bar	-	-	22	76	-	-	EN	a
<b>Results</b>	+AT = solution annealed +AF = As Forged +M = thermo mechanical treated +N = normalized or normalizing formed +SH = Strain Hardening				+NT = normalized and tempered +QT = quenched and tempered +A = annealed +SR = stress relieved				a=PMA for the use in pressure equipment in Directive 2014/68/EU necessary			