

Certificate

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

Certificate no.: 01 202 I/Q-13 6602.01

Name and address of the
certificate holder: **Forgiatura A. Vienna S.r.l.**
Via Ospiate 46/48
20017 Rho MI
Italy

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, point 4.3, with regard to the materials
as listed in the scope of approval.

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

Audit report no.: 01 202 I/Q-13 6602

Scope: **Production of open die forgings, hot rolled rings and shell rings,**
pre machined and finish machined items for various
applicationProduction of ingot with Electroslag Remelting Process
(ESR), see annex to certificate: 01 202 I/Q-13 6602, revision 05 from
18.12.2024

Manufacturing plant: see annex 2

Validity: **This certificate is valid to 2028-02-08.**

Cologne, 2025-01-11

Ines Krüger-Führ



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 I/Q-13 6602.01

Name and address of the
certificate holder: **Forgiatura A. Vienna S.r.l.**
Via Ospiate 46/48
20017 Rho MI
Italy

Manufacturing plants: Forgiatura A. Vienna S.r.l.
Via Ospiate 46/48
20017 Rho MI
Italy

Forgiatura A. Vienna S.r.l.
Via Alfeo snc
26040 Cella Dati CR
Italy

Cologne,
2025-01-11

Ines Krüger-Führ



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

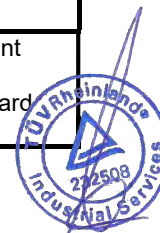
E-999

Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		1	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland Industrie Service GmbH	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024			
								Rev.:		05			
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	P245GH (1.0352)	EN 10222-2	+N	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging & ring rolling up to 200 tons	EN 10222-1	(*) as per relevant standards	
2	P250GH (1.0460)	EN 10222-2	+N								EN 10222-1		
3	P265GH (1.0425)	EN 10222-2	+N								EN 10222-1		
4	P280GH (1.0426)	EN 10222-2	+N								EN 10222-1		
5	P295GH (1.0481)	EN 10222-2	+N								EN 10222-1		
6	P305GH (1.0436)	EN 10222-2	+N								EN 10222-1		
7	P285NH (1.0477)	EN 10222-4	+N								EN 10222-1		
8	P355NH (1.0565)	EN 10222-4	+N								EN 10222-1		
9	P420NH (1.8932)	EN 10222-4	+N								EN 10222-1		
10	P285QH (1.0478)	EN 10222-4	+QT								EN 10222-1		
11	P355QH (1.0571)	EN 10222-4	+QT								EN 10222-1		
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 d = dimension acc. to the technical standard											

Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		2	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland Industrie Service GmbH	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024			
								Rev.:		05			
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	
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12	P420QH (1.8936)	EN 10222-4	+QT	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling, rings	d	d	d	d	1	Forging & ring rolling up to 200 tons	EN 10222-1		
13	11CrMo9-10 (1.7383)	EN 10222-2	+NT +QT								EN 10222-1		
14	12Ni14 (1.5637)	EN 10222- 3	+N +NT +QT								EN 10222-1		
15	13CrMo4.5 (1.7335)	EN 10222-2	+NT +QT								EN 10222-1		
16	16Mo3 (1.5415)	EN 10222-2	+N +QT								EN 10222-1		
17	X10CrMoVNb9-1 (1.4903)	EN 10222-2	+NT								EN 10222-1		
18	X1CrNiMoCuN20-18-7 (1.4547)	EN10272 EN 10222-5	+AT								EN 10222-1		
19	X2CrNi18-9 (1.4307)	EN 10222-5 EN 10272	+AT	EN 10222-1									
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 d = dimension acc. to the technical standard +N = normalized or normalizing formed +SR = stress relieved											

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Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		3	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland Industrie Service GmbH	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024			
								Rev.:		05			
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.													
20	X2CrNi19-11 (1.4306)	EN 10222-5 EN 10272	+AT	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging & ring rolling up to 200 tons	EN 10222-1		
21	X2CrNiMo17-12-2 (1.4404)	EN 10222-5 EN 10272	+AT								EN 10222-1		
22	X2CrNiMo 17-12-3 (1.4432)	EN 10222-5 EN 10272	+AT								EN 10222-1		
23	X2CrNiMo18-14-3 (1.4435)	EN 10222-5 EN 10272	+AT								EN 10222-1		
24	X2CrNiMoCuWN25-7-4 (1.4501)	EN 10222-5 EN 10272	+AT								EN 10222-1		
25	X2CrNiMoN 22-5-3 (1.4462)	EN 10222-5 EN 10272	+AT								EN 10222-1		
26	X3CrNiMo17-13-3 (1.4436)	EN 10222-5 EN 10272	+AT								EN 10222-1		
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 d = dimension acc. to the technical standards											

Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		4	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024		Industrie Service	
								Rev.:		05		GmbH	
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 ↓	res ult			
					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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27	X5CrNi18-10 (1.4301)	EN 10222-5 EN 10272	+AT	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging & ring rolling up to 200 tons	EN 10222-1		
28	X5CrNiMo17.12.2 (1.4401)	EN 10222-5 EN 10272	+AT								EN 10222-1		
29	X6CrNi18-10 (1.4948)	EN 10222-5	+AT								EN 10222-1		
30	X6CrNiNb18-10 (1.4550)	EN 10222-5 EN 10272	+AT								EN 10222-1		
31	X6CrNiTi18-10 (1.4541)	EN 10222-5 EN 10272	+AT								EN 10222-1		
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 d = dimension acc. to the technical standard +N = normalized or normalizing formed +SR = stress relieved											



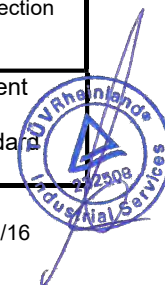
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Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		5	
Company Name:		Forgiatura A.Vienna S.r.l.				Forgiatura A.Vienna S.r.l.				IT		of : 16	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy				Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024	
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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.

1	P245GH (1.0352)	EN 10222-2	+N +NT +QT	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging & ring rolling up to 200 tons	AD2000 W9 – W13	Inspection Certificate 3.1 acc. EN 10204 is required
2	P250GH (1.0460)	EN 10222-2	+N								AD2000- W9 – W12 – W13	
3	P265GH (1.0425)	EN 10222-2	+N								AD2000 W9 – W13	
4	P280GH (1.0426)	EN 10222-2	+N +NT +QT								AD2000 W9 – W13	
5	P295GH (1.0481)	EN 10222-2	+N								AD2000 W9 – W13	
6	P305GH (1.0436)	EN 10222-2	+N +NT +QT								AD2000 W9 – W13	Inspection Certificate 3.2 acc. EN 10204 is required
7	P355NH (1.0565)	EN 10222-4 VdTuv 354-3	+N								AD2000 W9 – W12 – W13 – W10	Material Manufacturer is listed in the VdTUV material data sheet. Inspection Certificate 3.2 acc. EN 10204 is required.

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	+M = thermo mechanical treated	+S = soft annealed	d = dimension acc. to the technical standard
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Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		6	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024		Industrie Service	
								Rev.:		05		GmbH	
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 ↓ res ult	8a			8b
					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.

8	P420NH (1.8932)	EN 10222-4 VdTuv 356-3	+N	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging & ring rolling up to 200 tons	AD2000 W12 – W13 – W10	Material Manufacturer is listed in the VdTUV material data sheet. Inspection Certificate 3.2 acc. EN 10204 is required.
9	P460NH (1.8935)	VdTuv 357-3	+N								AD2000 W9 – W12 – W13 – W10	Material Manufacturer is listed in the VdTUV material data sheet. Inspection Certificate 3.2 acc. EN 10204 is required.
10	P420QH (1.8936)	EN 10222-4 VdTuv 356-3	+QT								AD2000 W12 – W13 – W10	Material Manufacturer is listed in the VdTUV material data sheet. Inspection Certificate 3.2 acc. EN 10204 is required.
11	S235 JR (1.0038)	EN 10250-2	+N								AD2000 W9 – W13	
12	S215G (1.0116)	EN 10250-2	+N								AD2000 W9 – W13	
13	S325G (1.0570)	EN 10250-2	+N								AD2000 W9 – W13	
14	P355 NL (1.0566)	EN 10222-4	+N								AD2000 W9 – W13 – W10	
15	11CrMo9-10 (1.7383)	EN 10222-2	+NT +QT								AD2000 W12 – W13	Certificate 3.2 acc. EN 10204 is required.

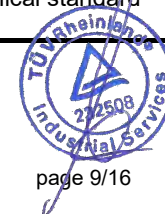
Remarks	+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment
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Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		7	
Company Name:		Forgiatura A.Vienna S.r.l.				Forgiatura A.Vienna S.r.l.				IT		of : 16	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy				Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024	
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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				
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1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10	
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16	12CrMo9-10 (1.7375)	VdTuv 404-3	+NT +QT	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging & ring rolling up to 200 tons	AD2000 W12-W10-W13	Material Manufacturer is listed in the VdTUV material data sheet. Inspection Certificate 3.2 acc. EN 10204 is required.	
17	12Ni14 (1.5637)	EN 10222-3	+N +NT +QT								AD2000 W9 – W10 - W12 – W13	Certificate 3.2 acc. EN 10204 is required	
18	13CrMo4.5 (1.7335)	EN 10222-2	+NT +QT								AD2000 W9 –W12 – W13	Certificate 3.2 acc. EN 10204 is required	
19	16Mo3 (1.5415)	EN 10222-2	+N +QT								AD2000 W9 –W13		
20	C21 (1.0432)	VdTuv 399-3	+N								AD2000 W13-W9	Material Manufacturer is listed in the VdTUV material data sheet. Inspection Certificate 3.2 acc. EN 10204 is required.	
21	P250GH / C22.8 (1.0460)	EN 10222-2 VdTuv 350-3	+N								AD2000 W13-W9	Material Manufacturer is listed in the VdTUV material data sheet. Inspection Certificate 3.2 acc. EN 10204 is required.	
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Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		8	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024		Industrie Service	
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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				
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22	X2CrNi18-9 (1.4307)	EN 10222-5 EN 10272	+AT	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging & ring rolling up to 200 tons	AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
23	X2CrNi19-11 (1.4306)	EN 10222-5 EN 10272	+AT								AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
24	X2CrNiMo17-12-2 (1.4404)	EN 10222-5 EN 10272	+AT								AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
25	X2CrNiMo 17-12-3 (1.4432)	EN 10222-5 EN 10272	+AT								AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
26	X2CrNiMo18-14-3 (1.4435)	EN 10222-5 EN 10272	+AT								AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
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 d = dimension acc. to the technical standard											



Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		9	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024		Industrie Service	
								Rev.:		05		GmbH	
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	↓	res ult			
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.													
27	X2CrNiMoCuWN25-7-4 (1.4501)	EN 10222-5 EN 10272	+AT	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging & ring rolling up to 200 tons	AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required	
28	X2CrNiMoN 22-5-3 (1.4462)	EN 10222-5 EN 10272 VdTuv 418	+AT								AD2000 W2 – W10	Material Manufacturer is listed in the VdTUV material data sheet. Inspection Certificate 3.2 acc. EN 10204 is required.	
29	X3CrNiMo17-13-3 (1.4436)	EN 10222-5 EN 10272	+AT								AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 160 mm	
30	X5CrNi18-10 (1.4301)	EN 10222-5 EN 10272	+AT								AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
31	X5CrNiMo17.12.2 (1.4401)	EN 10222-5 EN 10272	+AT								AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
32	X6CrNi18-10 (1.4948)	EN 10222-5	+AT								AD2000-W2	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
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 d = dimension acc. to the technical standard											



Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		10	
Company Name:		Forgiatura A.Vienna S.r.l.				Forgiatura A.Vienna S.r.l.				IT		of : 16	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy				Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024	
										Rev.:		05	
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.													
34	X6CrNiMoTi17-12-2 (1.4571)	EN 10222-5 EN 10272	+AT	* Discs, flanges, shafts, plates, rods and mechanical pieces for several uses.						Forging & ring rolling up to 200 tons	AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
35	X6CrNiNb18-10 (1.4550)	EN 10222-5 EN 10272	+AT	** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1		AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
36	X6CrNiTi18-10 (1.4541)	EN 10222-5 EN 10272	+AT								AD2000 W2 – W10	Certificate 3.2 acc. EN 10204 is required for thickness > 250mm	
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 d = dimension acc. to the technical standard											



Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		11	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland	
Location:		Via Ospiate, 46/48		Via Ospiate, 46/48		via Alfeo snc		Date:		18.12.2024		Industrie Service	
		I-20017 Rho (Milan) - Italy		I-20017 Rho - MI		I-26040 Cella Dati-CR		Rev.:		05		GmbH	
Cur	Materials-term	Material	Delivery	Article	Dimensions				Weight	Technical Specifications		Remarks	
-	Materials-No.	Specification	Cond.	Type of Product					max	Requirements			
									1=t /	Technical Regulations			
									2=kg				
									↓				
									res				
									ult				
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10	
3. Materials according to international standards (e. g. ISO, 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.													
1	X2CrNiMo17.12.2 controlled Nitrogen 316L(N)-IG	(*)	AT		-	-	-	-	1	Press forging unit weight up to 20 tons	*) = As defined in the specifications ITER_D_2DX6KS v1.4, ITER_D_2EFZGP v1.3 and RCC-MR Edition 2007 Sect.RM 3321		a
2	A105/A105M	ASTM A105	+N +NT +QT	* Disks, flanges, shafts, plates, rods and mechanical pieces for several uses.	-	-	-	-	1	Press forging unit weight up to 200 tons	ASTMA105		a
3	F1, F2, F5, F9 F6, Cl.1 / Cl.2 / Cl.3/NM F11, Cl.1 / Cl.2 / Cl.3 F12, Cl.1 / Cl.2 F21/ F22, Cl.1 / Cl.2 / Cl.3 F51 / F53 / F55 / F91 F304 / 304L / 304H F310 / 310H / 310MoLN F316 / F316L / 316LN / F316Ti / Urea grade F317L / 317LN F321 / 321H F347 / 347H	ASTM A182/A182M	+AT +N +NT +SR +QT	** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	-	-	-	-	1		ASTM A182		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 d = dimension acc. to the technical standard											



Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		12	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024		Industrie Service	
								Rev.:		05		GmbH	
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	↓	res ult			
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10	
3. Materials according to international standards (e. g. ISO, 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.													
4	A350-LF2 / LF3 / LF6	ASTM A350/350M	+N +QT	* Disks, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging and ring rolling up to 50/200 Tons	ASTM A350	a	
5	Cl.1/2/4 , A266 Gr.2/4	ASTM A266/266M	+N +QT								ASTM A266	a	
6	F1 / F5 /F5A / F11 / F22 / F91	ASTM A336/336M	+AT +NT								ASTM A336	a	
7	F304 / 304L / 304H F310H / F316 / 316L F321/ 321H / F347 / 347H	ASTM A695/695M	+AT								ASTM A695	a	
8	Gr.1/ Gr.2 Cl.1/Gr.3 Cl.1/Gr.4N Cl.1	ASTM A508/508M	+QT								ASTM A508	a	
9	Gr.I / Gr.II / Gr.III	ASTM A765/765M	N+SR							Forging & ring rolling up to 200 tons	ASTM A765	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 d = dimension acc. to the technical standard +N = normalized or normalizing formed +SR = stress relieved											

Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		13	
Company Name:		Forgiatura A.Vienna S.r.l.				Forgiatura A.Vienna S.r.l.				IT		of : 16	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy				Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024	
										Rev.:		05	
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	
3. Materials according to international standards (e. g. ISO, 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.													
10	F52 / F60 / F65 / F70	ASTM A694/694M	+QT	* Disks, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging g and ring rolling up to 5 Tons	ASTM A694	a	
11	UNS NO4400/NO8811 UNS NO8800/NO8810 UNS NO8825/NO10276	ASTM B564/564M	+AT								ASTM B564	a	
12	UNS N08904	ASTM A480/480M	+AT								ASTM A480	a	
13	S355 JR (1.0570)	EN 10250-2	+N								EN 10250-1	a	
14	WStE355 (P355NH) (1.0565)	DIN 17102 (EN 10222-4)	+N								DIN 17102	a	
15	WStE460 (1.8935)	DIN 17102	+QT								DIN 17102	a	
16	X6CrNiTiMoVB25-15-2	(*)	+AT								*) = As defined in the specifications ITER_D_AHJVPJ v1.2		
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 d = dimension acc. to the technical standard											

Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		14	
Company Name:		Forgiatura A.Vienna S.r.l.				Forgiatura A.Vienna S.r.l.				IT		of : 16	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy				Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024	
										Rev.:		05	
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	

3. Materials according to international standards (e. g. ISO, 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.

17	20MnMoNi4-5 (1.6311)	EN 10250-3	+QT	* Disks, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging and ring rolling up to 200 Tons	EN 10250-1	a
18	X1CrNiMoCuN20-18-7 (1.4547)	EN 10250-4	+AT								EN 10250-1	a
19	X2CrNi18-9 (1.4307)	EN 10250-4	+AT								EN 10250-1	a
20	X2CrNi19-11 (1.4306)	EN 10250-4	+AT								EN 10250-1	a
21	X2CrNiMo17-12-2 (1.4404)	EN 10250-4	+AT								EN 10250-1	a
22	X2CrNiMo18-14-3 (1.4435)	EN 10250-4	+AT								EN 10250-1	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	d = dimension acc. to the technical standard
	+N = normalized or normalizing formed	+SR = stress relieved	

Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		15	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024		Industrie Service	
								Rev.:		05		GmbH	
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	
3. Materials according to international standards (e. g. ISO, 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.													
23	X2CrNiMoCuWN25-7-4 (1.4501)	EN 10250-4	+AT	* Disks, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging and ring rolling up to 50/200 Tons	EN 10250-1	a	
24	X2CrNiMoN 22-5-3 (1.4462)	EN 10250-4	+AT								EN 10250-1	a	
25	X3CrNiMo17-13-3 (1.4436)	EN 10250-4	+AT								EN 10250-1	a	
26	X5CrNi18-10 (1.4301)	EN 10250-4	+AT								EN 10250-1	a	
27	X5CrNiMo17.12.2 (1.4401)	EN 10250-4	+AT								EN 10250-1	a	
28	X6CrNi18-10 (1.4948)	EN 10250-4	+AT								EN 10250-1	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 d = dimension acc. to the technical standard											



Scope:		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3				<input type="checkbox"/> EN 764-4				<input checked="" type="checkbox"/> AD 2000-Merkblatt W 0			
Certificate holder (Manufacturer of materials)				Manufacturing plant				Nationality		Page No.:		16	
Company Name:		Forgiatura A.Vienna S.r.l.		Forgiatura A.Vienna S.r.l.		IT		of :		16		TÜV Rheinland	
Location:		Via Ospiate, 46/48 I-20017 Rho (Milan) - Italy		Via Ospiate, 46/48 I-20017 Rho - MI		via Alfeo snc I-26040 Cella Dati-CR		Date:		18.12.2024		Industrie Service	
								Rev.:		05		GmbH	
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	↓	res ult			
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10	
3. Materials according to international standards (e. g. ISO, 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.													
29	X6CrNiMoTi17-12-2 (1.4571)	EN 10250-4	+AT	* Disks, flanges, shafts, plates, rods and mechanical pieces for several uses. ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling	d	d	d	d	1	Forging and ring rolling up to 50/200 Tons	EN 10250-1	a	
30	X6CrNiNb18-10 (1.4550)	EN 10250-4	+AT								EN 10250-1	a	
31	X6CrNiTi18-10 (1.4541)	EN 10250-4	+AT								EN 10250-1	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 d = dimension acc. to the technical standard +N = normalized or normalizing formed +SR = stress relieved											

