

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 application Production 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



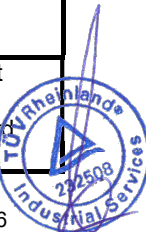
TÜV Rheinland Industrie Service GmbH
Notified Body for Pressure Equipment, ID-No. 0035
Am Grauen Stein, D-51105 Cologne

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 | |
| 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 | | Technical Specifications Requirements Technical Regulations | Remarks | |
| | | | | | Thick-ness mm | | Ø mm | | 1=t / 2=kg | | | | |
| | | | | | from | Up to | fro m | Up to | ↓ | res ult | | | |
| 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 | | | | +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 | | | | d = dimension acc. to the technical standard | | | |
| | | +M = thermo mechanical treated | | | | +S = soft annealed | | | | | | | |
| | | +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.: | | 2 | |
| 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 | ∅ mm | from | Up to | | | | | 6a |
| 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. | | | | | | | | | | | | | |
| 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 +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 | | |



| 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.: | | 3 | |
| 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.: | | | | | | | | Rev.: | | 05 | | GbH | |
| 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 | fro m | 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 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.: | | 4 | |
| 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 | fro m | Up to | 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. | | | | | | | | | | | | | |
| 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 | | | | | | Forging & ring rolling up to 200 tons | EN 10222-1 | | |
| 28 | X5CrNiMo17.12.2 (1.4401) | EN 10222-5 EN 10272 | +AT | | | | | | 1 | | EN 10222-1 | | |
| 29 | X6CrNi18-10 (1.4948) | EN 10222-5 | +AT | | d | d | d | d | 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 +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.: | 5 | | |
| 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 | GbH | | |
| 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 | fro m | 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. | | | | | | | |
| 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 | | | | | |



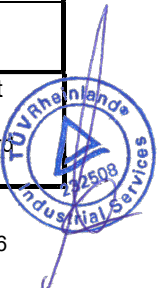
| | | | | | | | | | | | | | |
|--|---------------------------------|--|-------------------|----------------------------|------------------|--|----------|--|---------------|---|---|------------|--|
| Scope: | | <input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3 | | | | <input type="checkbox"/> EN 764-4 | | | | <input checked="" type="checkbox"/> AD 2000-Merkblatt W 0 | | | |
| Certificate holder (Manufacturer of materials) | | | | Manufacturing plant | | | | Nationality | | Page No.: | | 6 | |
| 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 | Technical Specifications | | Remarks | |
| | | | | | Thick-ness mm | | Ø mm | | 1=t / 2=kg | Requirements Technical Regulations | | | |
| | | | | | from | Up to | fro m | 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.

| | | | | | | | | | | | | |
|----|---------------------|---------------------------|------------|--|---|---|---|---|---|---------------------------------------|--------------------------------|---|
| 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 in Directive 2014/68/EU necessary |
| | +AR = as rolled | +QT = quenched and tempered | d = dimension acc. to the technical standard |
| | +M = thermo mechanical treated | +S = soft annealed | |
| | +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.: | | 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 | |
| | | | | | | | | | | Rev.: | | 05 | |
| 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. | | | | | | | | | | | | | |
| 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. | |
| 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.: | 8 | | | |
| 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 | Technical Specifications Requirements Technical Regulations | | Remarks | | |
| | | | | | Thick-ness mm | | Ø mm | | 1=t / 2=kg | | | | | |
| | | | | | from | Up to | fro m | 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. | | | | | | | | | | | | | | |
| 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 | | | | |



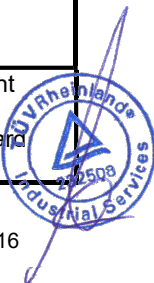
| | | | | | | | | | | | | | | | |
|---|---|--|-------------------------------------|---------------------|--|--|----------|--|---|---|---------------------------------------|---|---|--|--|
| Scope: | | <input checked="" type="checkbox"/> Directive 2014/68/EU Annex I point 4.3 | | | | <input type="checkbox"/> 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 | | | |
| 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 | | Technical Specifications Requirements Technical Regulations | Remarks | | |
| | | | | | | Thick-ness mm | | Ø mm | | 1=t / 2=kg | | | | | |
| | | | | | | from | Up to | fro m | 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 | | | | | | | | 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 | * 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 | 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 | TÜV Rheinland Industrie Service GmbH | |
| 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 | | Technical Specifications Requirements Technical Regulations | Remarks | |
| | | | | | Thick-ness mm | | Ø mm | | 1=t / 2=kg | res ult | | | |
| | | | | | from | Up to | fro m | 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. | 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 | |
| 35 | X6CrNiNb18-10 (1.4550) | EN 10222-5 EN 10272 | +AT | ** Production Process: Hot-Forging Hot Pressing and Ring-Rolling | | | | | | | 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 | | | |



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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.: | | 11 | | | | | | | | | | | | | | | |
| 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 | | Technical Specifications | | Remarks | | | | | | | | | | | |
| | | | | | | | | | | Thick-ness mm | | Ø mm | | Requirements Technical Regulations | | | | | | | | | | | | | |
| | | | | | | | | | | 1=t / 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 | | Forging & ring rolling 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 | | Forging & ring rolling up to 200 tons | | 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 | | | | | | | | | | | | | | | | | |



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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.: | | 12 | | | | | | | |
| 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 | | Technical Specifications Requirements Technical Regulations | | Remarks | | | | | | |
| | | | | | Thick-ness mm | | Ø mm | | 1=t / 2=kg | | | | | | | | | | |
| | | | | | from | Up to | fro m | 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 | | | | | | | | ASTM A765 | | 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 | | | | d = dimension acc. to the technical standard | | | | |
| | | +M = thermo mechanical treated | | | | | | | | | +S = soft annealed | | | | | | | | |
| | | +N = normalized or normalizing formed | | | | +SR = stress relieved | | | | | | | | | | | | | |



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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.: | | 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 | | Technical Specifications Requirements Technical Regulations | | Remarks |
| | | | | | Thick-ness mm | | Ø mm | | 1=t / 2=kg | | | | |
| | | | | | from | Up to | fro m | 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. | | | | | | | | | | | | | |
| 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 | Forgin 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 | | | | +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 | | | | d = dimension acc. to the technical standard | | | |
| | | +M = thermo mechanical treated | | | | +S = soft annealed | | | | | | | |
| | | +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.: | | 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 | |
| | | | | | | | | | | | | TÜV Rheinland Industrie Service GbH | |
| 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 | fro m | 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. | | | | | | | | | | | | | |
| 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 in Directive 2014/68/EU necessary | | | |
| | | +AR = as rolled | | | | +QT = quenched and tempered | | | | d = dimension acc. to the technical standard | | | |
| | | +M = thermo mechanical treated | | | | +S = soft annealed | | | | | | | |
| | | +N = normalized or normalizing formed | | | | +SR = stress relieved | | | | | | | |



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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.: | | 15 | |
| 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 | fro m | 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 | | | | +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 | | | | d = dimension acc. to the technical standard | | | |
| | | +M = thermo mechanical treated | | | | +S = soft annealed | | | | | | | |
| | | +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.: | | 16 | |
| 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 | ∅ mm | 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. | | | | | | | | | | | | | |
| 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 +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 | | | |

