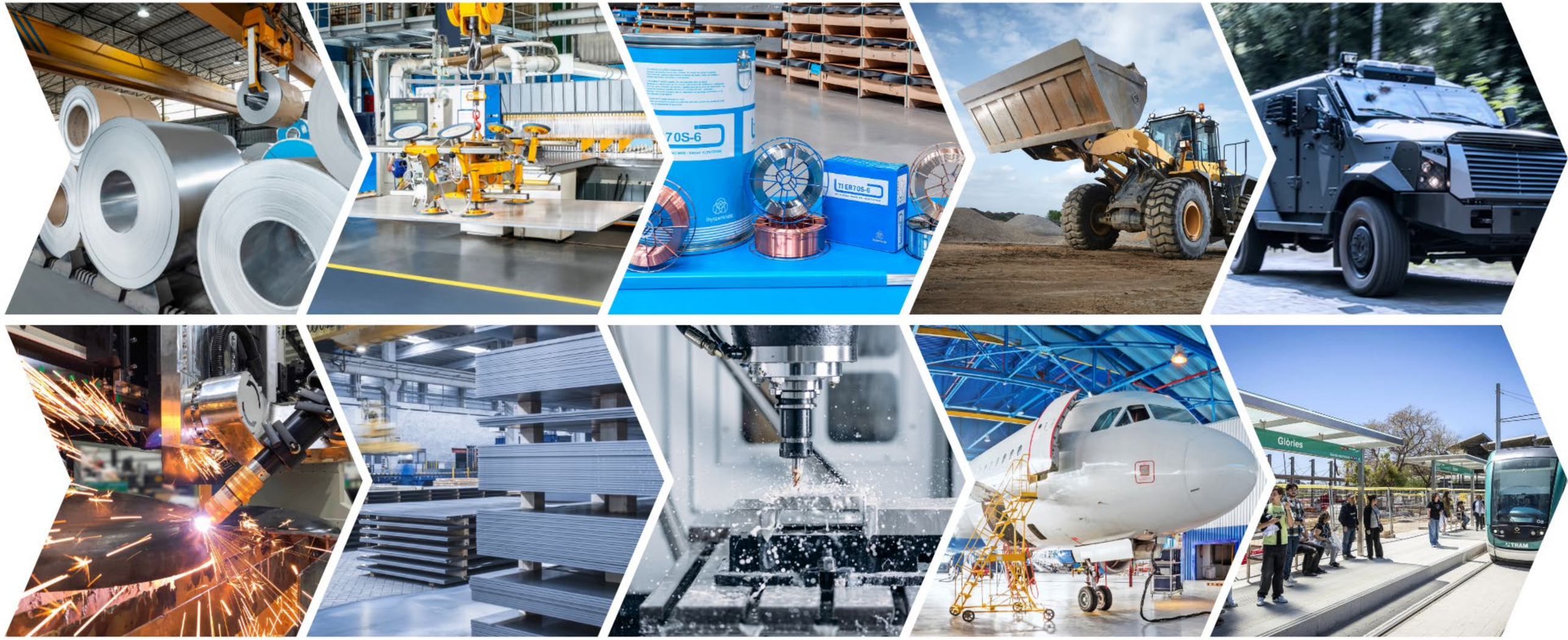


thyssenkrupp Materials Ibérica

Products and Services Presentation

thyssenkrupp

Index

Team: more than 180 professionals at your disposal

Contact

Spain General Contact
Telephone: + 34 935 717 400
materials.iberica@thyssenkrupp-materials.com

Portugal General Contact
Telephone: + 351 263 850 100
geral. carregado@thyssenkrupp-materials.com

www.thyssenkrupp-materials.es

Team and contact

Ricardo Resende

Aluminum area

Juan Miguel Contreras

Heavy plate and
tool steel area

Khaoula Loukili

Stainless steel area

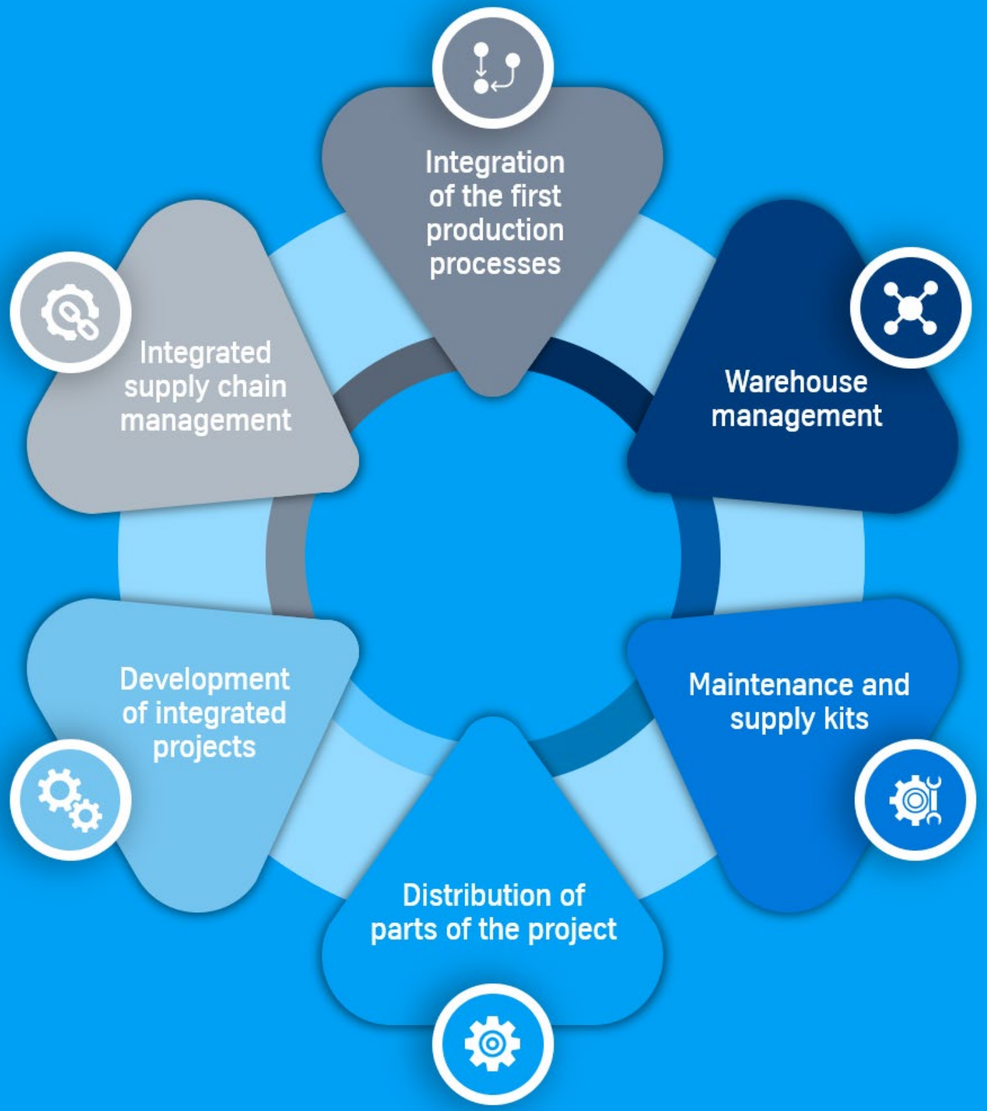
Alvaro de Azcoitia

Welding area

MaaS Service:

We lead solutions that provide

added value to our clients



MaaS Service:

Comprehensive supply chain management

We handle the material from the factory to its final destination with complete logistics management.

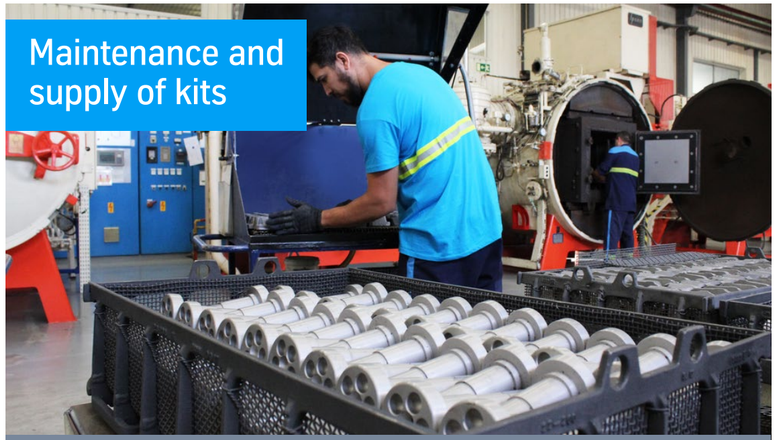
Integration of first production processes

We carry out operations that save time for our clients: machining, milling, oxyplasma, welding, heat treatments, cutting to size, processing, etc.

Warehouse management

We use our network of warehouses in Spain and Portugal to manage the material and distribute it in partial orders.

Maintenance and supply of kits



We bundle and package multiple components from different sources and ship them as a single source.

Distribution of parts for projects

We process and distribute finished parts that are required as a component within your final assembly.

Development of comprehensive projects

We assemble various components to provide the final assembly to the client.

Sustainability:

We work with sustainable certificates to continue building a responsible and emissions-free future.

CERTIFIED ISO 14001 ENVIRONMENTAL MANAGEMENT SYSTEM

greenability

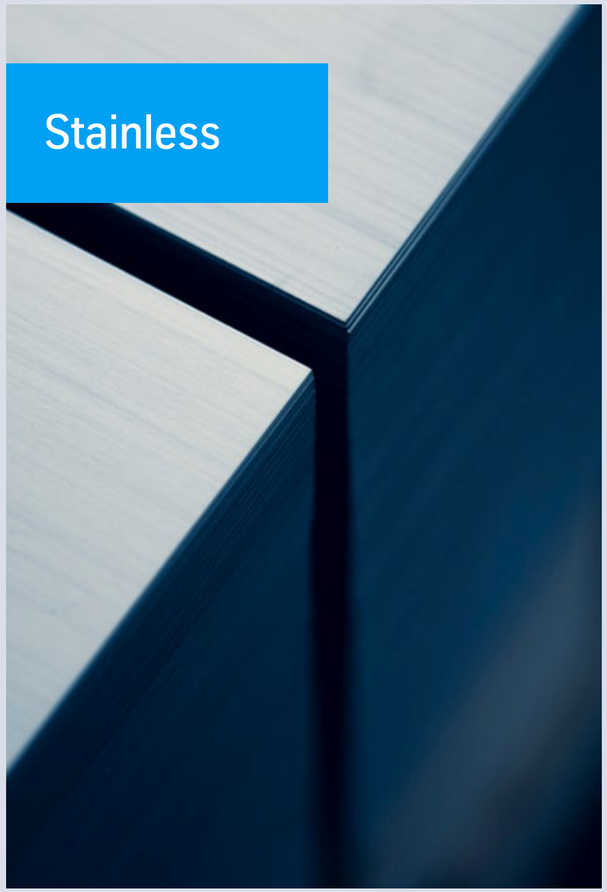
2030 Goal: Climate Neutrality

Own logistics warehouses for optimal and on-time supply

tk Materials Iberia | Spain	
Martorelles	HQ and Central Warehouse and SC
Zona Franca, Barcelona	SC and Stainless Steel Warehouse

tk Materials Ibérica | Portugal	
Carregado	Central warehouse
Marinha Grande	Heat treatment
Rio Meão, Porto	Warehouse and SC, Aluminum and Non-Ferrous Metals
Paços de Brandão	Aluminum and Non-Ferrous Metals Warehouse

Our materials



Our products

Heavy Plate Catalog

Wear-resistant Special Structural Steels

Quality	Thicknesses	Formats
TI-300	6 to 40 mm	2000 x 6000mm
TI-400	3 to 100 mm	1500 x 3000/6000/8000 mm 2000 x 6000/8000 mm 2450 x 8000 mm
perdur® 400	4 to 8 mm	1500 x 3000/6000 mm
TI-450	4 to 40 mm	1500 x 3000/6000 mm 2000 x 6000/8000 mm 2450 x 8000 mm
perdur® 450	4 to 8 mm	1500 x 3000/6000 mm
TI-500	6 to 50 mm	2000 x 6000 mm

High-strength Structural Steels

Quality	Thicknesses	Formats
S500MC	3 to 8 mm	1500 x 3000/6000 mm
perform®700 S700MC	3 to 12 mm	1500 x 3000/6000 mm
S690QL	8 to 100 mm	2000 x 6000/8000 mm
S890QL / S960QL	50 to 100 mm	2000 x 6000 mm

Heavy Plate Catalog

Construction Steel

Quality	Thicknesses	Formats
TBL®Boron Steel 27/28/30MnB5	4 to 12 mm	Coil 1500 mm L 2000/3000/6000 mm
Boron steel	15 mm	Sheet 2000 x 6000 mm
C45	2 to 30 mm	Width 1250/1500/2000 L = 2000/3000/6000 mm
S355J0/2W/P Patinax®	1 to 10 mm	Coil 1000/1250/1500/2000 mm
S355J0/2W/P Patinax®	8 to 10 mm 8 to 30 mm	Sheets 2000 x 8000 mm Sheets 2500 x 12000 mm
S355J2+N	8 to 100 mm 3 to 25 mm	Width 2500 mm Width 1500 mm

High Temperature Sheet and Case-hardening

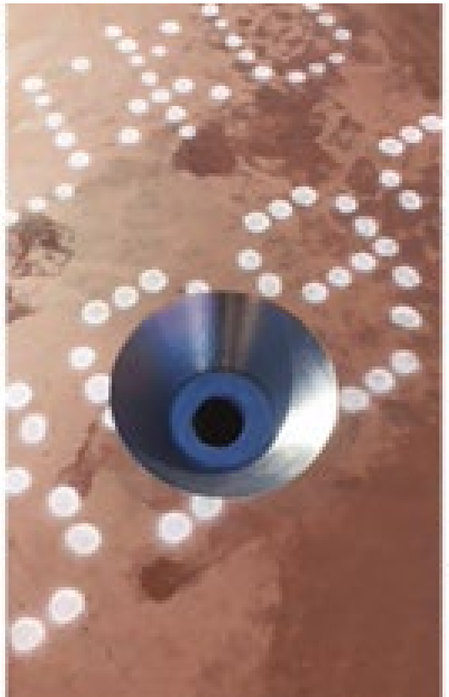
Quality	Thicknesses	Formats
16Mo3	2,5 to 8 mm	Coils 1000/1250/1500/2000mm
16Mo3	5 to 30 mm	Sheets 2000 x 6000/8000 mm
13CrMo4-5	4 to 40 mm	2000 x 6000 mm
16MnCr5 (case-hardening)	4 to 50 mm	Width 1500 mm Width 2000 mm

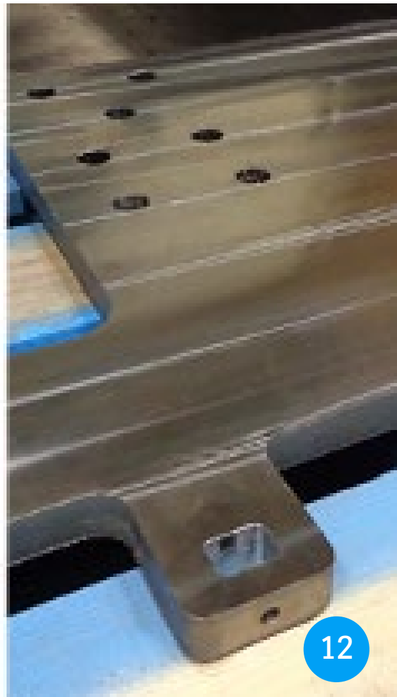
Heavy Plate Services

Custom Cut

Type	Capacity
HD Plasma High Definition	3000 x 12000 mm Thickness up to 60 mm
CNC Oxycut	3000 x 12000 mm Thickness <150 mm
Drilling / Countersinking Threading Chamfering Marking Folding	Up to Ø110 mm Under consultation
Milling	2.5 axes

We add value to the supply chain

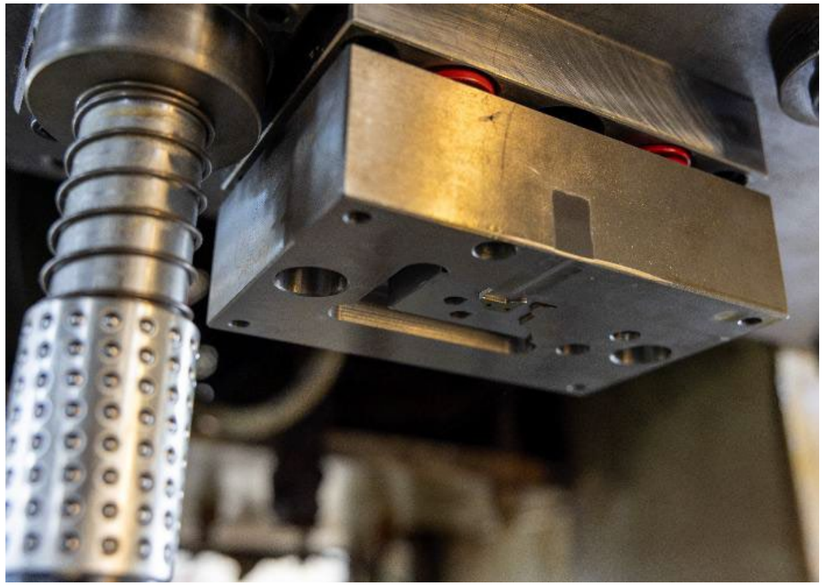




Tool Steel Catalog

Cold Work Steels

Quality	DIN	Applications
1.1730	C45u	Supplements, die bases, hammers, axes, sickles, blades, saws, etc.
Chapa azul 1.2018	90Cr2	The 'blue sheet', with reduced tolerance, allows for fine and precise tracing. It is used for gauges, springs, bearers, cutting tools, blades, pressure plates, supports, templates, etc.
1.2080	X210Cr12	High-performance cutting and punching tools, blades.
1.2162	21MnCr5	Case-hardening steel for machine construction, plastic moulds, dies, synthetic resin pressing moulds, gear parts.
Acero plata 1.2210	115CrV3	'Silver steel' Cr-V for positioning pins and cutting tools with limited performance.
1.2358	60CrMoV18-5	Sheet metal cutting and forming, deep drawing, complex cold working dies, rollers, shears.
1.2363	X100CrMoV5	Circular blades, stamping and deburring tools.
1.2379	X153CrMoV12	Thread rolling rollers and combs, cutting dies, circular blades.
1.2436	X210CrW12	High-performance cutting dies, shears.
1.2510	100MnCrW4	Tapping tools, milling cutters, punching and cutting tools.
1.2550	60WCrV7	Cold punches for thick sheets.
1.2709	X3NiCoMoTi8-9-5	Press punches, fittings.
1.2746	45NiCrMoV16-6	Shear blades, pressing dies.
1.2767	X45NiCrMo4	Stamps for cutlery, pressing tools, shear blades.
1.2842	90MnCrV8	Cutting and stamping tools, small blades.
1.2990	~X100CrMoV8-1-1	Blades, fine cutting tools, laminating combs, circular blades, mandrels for cold forming, for wood cutting, laminating rollers, moulds for abrasive substances.



Tool Steel Catalog

High-speed Steels

Quality	DIN	Applications
1.3243	HS 6-5-2-5 (M35)	All types of drill bits, for the most demanding applications.
1.3247	HS 2-10-1-8 (M42)	Milling cutters, engraving dies, high wear tools.
1.3343	HS 6-5-2 C (M2)	Reamers, twist drills, milling cutters, fine cutting dies.
1.3344	HS 6-5-3 (M3/2)	High-performance tools with maximum wear resistance.

Powder Metallurgy Steels

Quality	DIN	Applications
TSP 4	HS 6-5-4 (~ M4 PM)	Cold working, universal use. When cold, it has greater toughness and wear resistance than TSP 23.
TSP 8	HS 8-6-3-2	Compaction of abrasive powders. For cold work. Excellent resistance to abrasive wear.
TSP 23	HS 6-5-3 (~ M3/2 PM)	Standard powder metallurgy steel for cutting tools.

Tool Steel Catalog

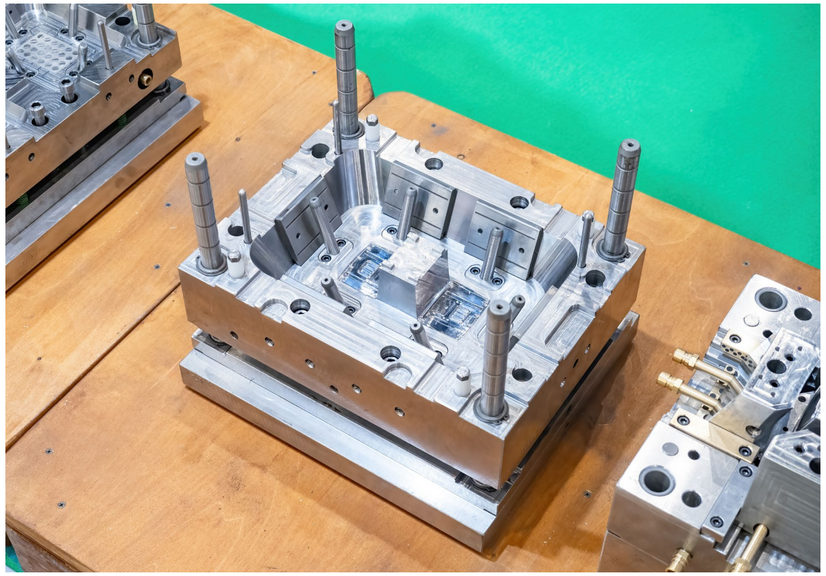
Hot Work Steels

Quality	DIN	Applications
1.2329	46CrSiMoV7	It has greater resistance to tempering at temperatures > 300°C than 1.2714 and greater wear resistance. For pressure rings, forging dies and dies for preform presses.
1.2343/2343 SUPRA	X38CrMoV5-1	Light metal pressure injection moulds. Optional ESR-ESU (SUPRA) remelting.
1.2344/2344 SUPRA	X40CrMoV5-1	Punches and mandrels, light metal extrusion dies. Optional ESR-ESU (SUPRA) recasting.
1.2365	X32CrMoV3-3	Heavy metal pressure injection moulds. For forging, where rapid cooling is used, e.g. with water.
1.2367 ESU	X38CrMoV5-3	For light metal injection moulds where greater resistance to thermal fatigue is required. High-performance forging dies, dies for the production of hollow and hollow-walled components.
1.2714	55NiCrMoV7	Forging dies and stamps, punch heads, extrusion pistons.
1.2782	X16CrNiSi25-20	Refractory austenitic steel with resistance to scale formation in air up to 1150 °C, for glass processing.
1.2787	X23CrNi17	Hardenable, corrosion-resistant steel. Tools for glass processing.
1.2799 ESU	X2NiCoTi12-8-8	Pressure injection tools and extreme stress nozzles. Vacuum recasting.
1.2885	X32CrMoCoV3-3-3	Press and extrusion tools for heavy metals.
1.2999 ESU	X45MoCrV5-3-1	For forging in automated lines, where good resistance to hot wear is required. It has excellent thermal conductivity. Remelted.

Tool Steel Catalog

Steels for Plastics Processing

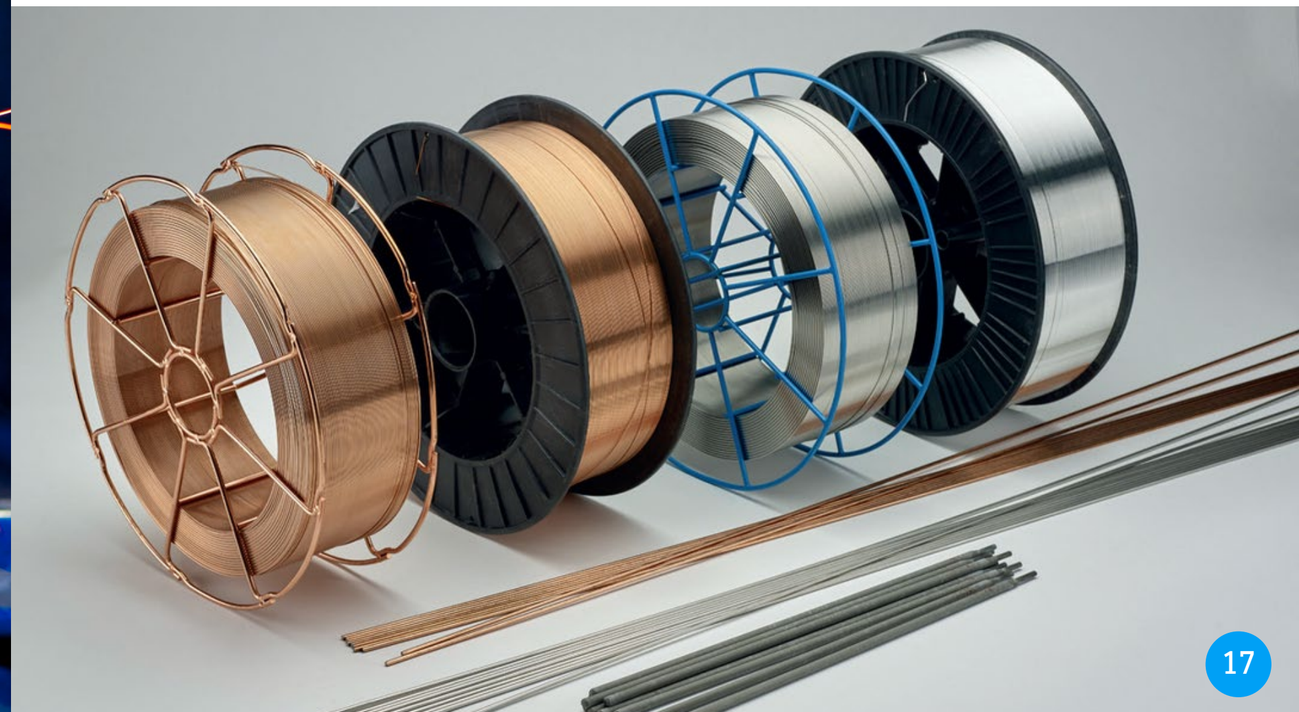
Quality	DIN	Applications
1.1730	C45u	For supports, bases and components subject to lower mechanical demands.
1.2702	~ C55u	Forged and normalised steel with a strength of approx. 650 - 800 N/mm2. Quality suitable for moulds used for prototypes.
1.2311	40CrMnMo8-6	Pre-treated steel with a strength of approx. 950–1150 N/mm², with good polishability. For thicknesses up to 400 mm.
1.2312	40CrMnMo8-6	Pre-treated steel with a strength of approx. 950–1150 N/mm2, with excellent machinability. Chemical etching and limited electroerosion.
1.2711	~ 54NiCrMoV6	Pre-treated steel with a strength of approx. 1200–1350 N/mm2, with good polishability. For high-quality moulds.
1.2738	40CrMnNiMo8-6-4	Pre-treated steel with a strength of approx. 950–1150 N/mm2, with good polishability.
SP300 (2738Mod)	~ 40CrMnNiMo8-6-4	Pre-treated steel with a hardness of 290-320HB for inserts and cavities in plastic injection moulds, compression moulds and plastic extrusion dies. Excellent hardness uniformity.
SP350 (2738ModHH)	~ 40CrMnNiMo8-6-4	Pre-treated steel with a hardness of 330-360HB for inserts and cavities in plastic injection moulds, compression moulds and plastic extrusion dies. Excellent hardness uniformity.
1.2083 SUPRA	X42Cr13	Hardened stainless steel, annealed as supplied. For inserts in moulds for corrosive plastics. Excellent polish. Material ESU.
1.2316	X38CrMo16	Stainless steel pre-treated to a strength of 950–1100 N/mm2. For moulds used in the injection moulding of corrosive plastics.
1.2085	X33CrS16	Stainless steel pre-treated to a strength of 950–1100 N/mm². For moulds for injection moulding of corrosive plastics. Excellent machinability. Not suitable for chemical engraving or electroerosion.
1.2343/2343 SUPRA	X38CrMoV5-1	Medium-hardness tempering steel, good machinability and good polishability. For high-quality plastic moulds, nitridable. Optional remelting (SUPRA).
1.2344/2344 SUPRA	X40CrMoV5-1	Medium-hardness tempering steel, good machinability and good polishability. For high-quality plastic moulds, nitridable. Optional remelting (SUPRA)



Welding Products Catalog

Tubular Threads

Quality	Standard
TI E70C-6M	EN ISO 17632-A T T 42 3 M M 3 H5 AWS A5.18/ASME SFA5.18 E70C-6M
TI E71T-1M	EN ISO 17632-A T 42 3 P M 1 AWS A5.20/ASME SFA5.20 E71T-1M
TI 308L Cored	EN ISO 17633-A T19 12 3 L P M21/C1 2 AWS A5.22 E316LT1-1/-4
TI 316L Cored	EN ISO 17633-A T19 12 3 L P M21/C1 2 AWS A5.22 E316LT1-1/-4
Recharge	Regeneration of parts / Impact and abrasion / Tools / Stellite / Abrasion, erosion and corrosion / Nickel base / High alloy steels



Welding Products Catalog

Solid Threads

Quality	Standard
TI ER70S-6 G4	EN ISO 14341-A G 42 4 M21 4Si1 AWS A5.18/ASME A5.18 ER70S-6
TI ER70S-6 G46	EN ISO 14341-A G46 4 M21 3Si1 AWS A5.18/ASME A5.18 ER70S-6
TI ER100S-G	EN ISO 16834-A G62 5 M21 Mn3NiCrMo AWS A5.28 ER100S-G
TI ER110S-G	EN ISO 16834-A G69 5 M21 Mn3Ni1CrMo AWS A5.28 ER110S-G
TI CuSi3	EN ISO 24373: CuSiMn1 Cu6560
TI CuAl7	EN ISO 24373: CuAl7 Cu6100
TI CORTEN	EN ISO 14341-A G 50 4 M21 Z AWS A5.28 ER80S-G
TI ER80S-Ni1	EN ISO 14341-A G 46 5 M21 3Ni1 AWS A5.28 ER80S-Ni1
TI ER307Si	EN ISO 14343-A 18 8 Mn AWS/ASME A5.9 ER307Si

Quality	Standard
TI ER308LSi	EN ISO 14343-A 19 9 L Si AWS/ASME A5.9 ER308LSi
TI ER309LSi	EN ISO 14343-A 23 12 L Si AWS/ASME A5.9 ER309LSi
TI ER316LSi	EN ISO 14343-A 19 123 L Si AWS/ASME A5.9 ER316LSi
TI ER347Si	EN ISO 14343-A 19 9 Nb AWS/ASME A5.9 ER437
TI ER430LNb	EN ISO 14343-A 18 LNb AWS/ASME A5.9 ER430L Nb
TI ER2209	EN ISO 14343-A 22 9 3N L AWS/ASME A5.9 ER2209
TI ER5183	EN ISO 18273 Al 5183 / AlMg4.5Mn0.7(A) DIN 1732 AlMg 4.5 Mn
TI ER5356 ALMG5	EN ISO 18273 Al 5356 / AlMg5Cr(A) DIN 1732 AlMg 5

Welding Products Catalog

Rods

Quality	Standard
TI ER70S-6	EN ISO 636-A: W 42 3 W3Si AWS A5.18 ER70S-6
TI ER5183	EN ISO 18273 Al 5183 / AlMg4.5Mn0.7(A) DIN 1732 AlMg 4.5 Mn
TI ER5356	EN ISO 18273 Al 5356 / AlMg5Cr(A) DIN 1732 AlMg5Cr(A)
TI ER307Si	EN ISO 14343-A 18 8 Mn AWS/ASME A5.9 ER307Si
TI ER308LSi	EN ISO 14343-A 19 9 L Si AWS/ASME A5.9 ER308LSi
TI ER309LSi	EN ISO 14343-A 23 12 L Si AWS/ASME A5.9 ER309LSi
TI ER316LSi	EN ISO 14343-A 19 123 L Si AWS/ASME A5.9 ER316LSi
TI ER347Si	EN ISO 14343-A 19 9 Nb AWS/ASME A5.9 ER437
TI ER430LNb	EN ISO 14343-A 18 LNb AWS/ASME A5.9 ER430L Nb
TI ER2209	EN ISO 14343-A 22 9 3N L AWS/ASME A5.9 ER2209

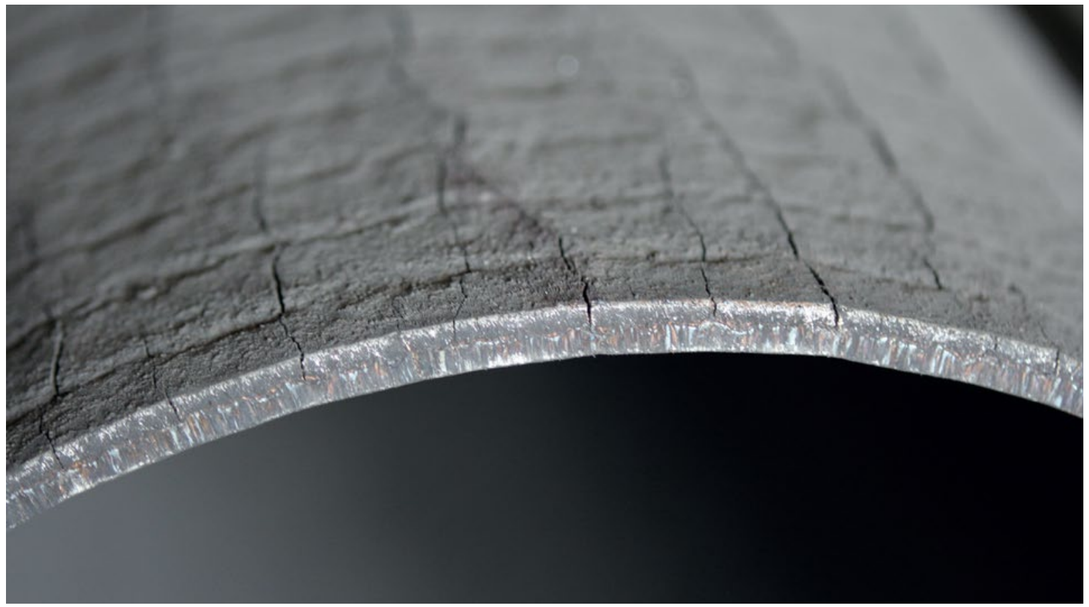
Copper Alloys

Composition	DIN ISO 5182	DIN EN 12163	DIN 17672-1	UNS
CuCr1Zr	A2/2	CW106C	2.1293	C18150
CuCo1Ni1Be	A3/1	CW104C	2.1285	C17510
CuNi2CrSi	A3/2	CW111C	2.0855	C18000

Welding Products Catalog

Recharged Plates tkMI 480 / 480 BI

Base Plate	Recharged Zone	Base Plate Thickness	Thickness Recharge
1500 x 3000 mm	1400 x 2950 mm	3 mm	3 to 4 mm
1250 x 2500 mm	1150 x 2450 mm	5 mm	3 to 4 mm
1000 x 2000 mm	900 x 1950 mm	6 mm	3 to 6 mm
2000 x 4000 mm	1900 x 3950 mm	8 mm	3 to 10 mm
		10 mm	3 to 17 mm
		12 mm	3 to 18 mm



Aluminum Catalog

Unalloyed Aluminium

Standards DIN 1725	DIN 1712	Standard E.N. 573-1	State of supply
3.0255	AL 99,5	1050	0 H12/H22 H14/H24 H18/H28
3.0205	AL 99	1200	0 H12/H22 H14/H24 H18/H28

Aluminum with Manganese

Standards DIN 1725	DIN 1712	Standard E.N. 573-1	State of supply
3.0517	AlMnCu	3003	0 H12/H22 H14/H24 H18/H28
3.0505	AlMn0,5Mg0,5	3105	0 H12/H22 H14/H24 H18/H28

Aluminum with Zinc

Standards DIN 1725	DIN 1712	Standard E.N. 573-1	State of supply
3.4335	AlZn4,5Mg1	3003	T4 T6/T651
3.4365	AlZn6MgCu1,5	3105	T6/T651 T73/T7351

Customized solutions for each client

Aluminum Catalog

Aluminum with Magnesium

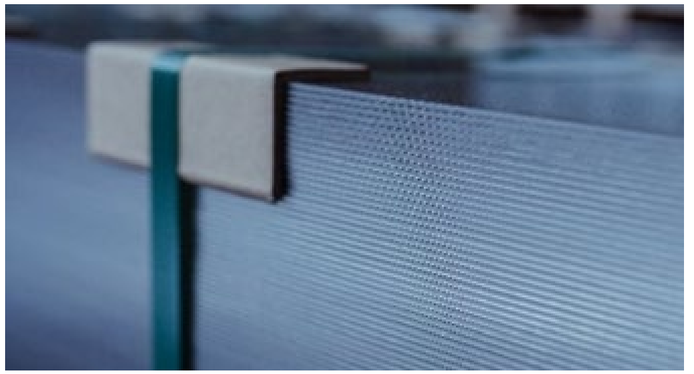
Standards DIN 1725	DIN 1712	Standard E.N. 573-1	State of supply
3.3315	AlMg1	5005	0 H12/H22 H14/H24 H18/H28
3.3523	AlMg2,5	5052	0 H12/H22 H14/H24 H18/H28
3.3547	AlMg4,5Mn	5083	0 H12/H22 H14/H24
3.3545	AlMg4Mn	5086	0 H12/H22 H14/H24 H18/H28
3.3525	AlMg2Mn0,3	5251	0 H12/H22 H14/H24 H18/H28
3.3535	AlMg3	5754	0 H12/H22 H14/H24 H18/H28

Aluminum with Magnesium - Silicon

Standards DIN 1725	DIN 1712	Standard E.N. 573-1	State of supply
3.3206	AlMgSi0,5	6060	T4 T6
3.3214	AlMg1SiCu	6061	T6/T651
3.2315	AlMgSi1	6082	T4 T6/T651
3.0615	AlMg1SiPb	6262	T6

Aluminum with Copper

Standards DIN 1725	DIN 1712	Standard E.N. 573-1	State of supply
3.1645	AlCu4PbMgMn	2007	T3/T351 T4/T451
3.1655	AlCuBiPb	2011	T3 T4 T6
3.1645	AlCu4MgPb	2030	T3 T4
3.1325	AlCuMg1	2017A	T4 T451
3.1355	AlCuMg2	2024	T3 T4



Stainless Steel Catalog

Ferritic, Martensitic and Precipitation Hardened Stainless Steels

Numerical designation	EN 10088 Symbolic	State of supply	Hardness HB max.	Yield Strength Rr0.2€ N/mm2 mín.	Tensile Str. Rm N/mm2 mín.	Elongation % mín.
1.4005	X12CrS13	A	220	–	máx. 730	–
		QT650	–	450	650-850	12
1.4006	X12Cr13	A	220	–	máx. 730	–
		QT650	–	450	650-851	15
1.4021	X20Cr13	A	230	–	máx. 760	–
		QT700	–	500	700-850	13
		QT800	–	600	800-950	12
1.4028	X30Cr13	A	245	–	máx. 800	–
		QT850	–	650	850-1000	10
1.4034	X46Cr13	A	245	–	máx. 800	–
1.4057	X17CrNi16-2	A	295	–	máx. 950	–
		QT800	–	600	800-950	14
		QT900	–	700	900-1050	12
1.4104	X14CrMoS17	A	220	–	máx. 730	–
		QT650	–	500	650-850	12
1.4112	X90CrMoV18	A	265	–	–	–
1.4122	X39CrMo17-1	A	280	–	máx. 900	–
		QT750	–	550	750-950	12
1.4125	X105CrMo17	A	285	–	–	–
1.4313	X3CrNiMo13-4	A	320	–	máx. 1100	–
		QT650	–	520	650-830	15
		QT780	–	620	780-980	15
		QT900	–	800	900-1100	12
1.4418	X4CrNiMo16-5-1	A	320	–	máx. 1100	–
		QT760	–	550	760-960	16
		QT900	–	700	900-1100	16
1.4542	X5CrNiCuNb16-4	AT	360	–	máx. 1200	–
		P800	–	520	800-950	18
		P930	–	720	930-1100	16
		P960	–	790	960-1160	12
		P1070	–	1000	1070-1270	10

Stainless Steel Catalog

Austen - Ferritic Stainless Steels

Numerical designation	EN 10088 Symbolic	State of supply	Hardness HB max.	Yield Strength Rr0.2€ N/mm2 mín.	Tensile Str. Rm N/mm2 mín.	Elongation % mín.
1.4410	X2CrNiMoN25-7-4	H	310	530	800	15
1.4460	X3CrNiMoN27-5-2	H	260	460	620-880	20
1.4462	X2CrNiMoN22-5-3	H	270	450	650-880	25
1.4501	X2CrNiMoCuWN25-7-4	H	290	530	730-930	25

Ferritic and Austenitic Refractory Stainless Steels

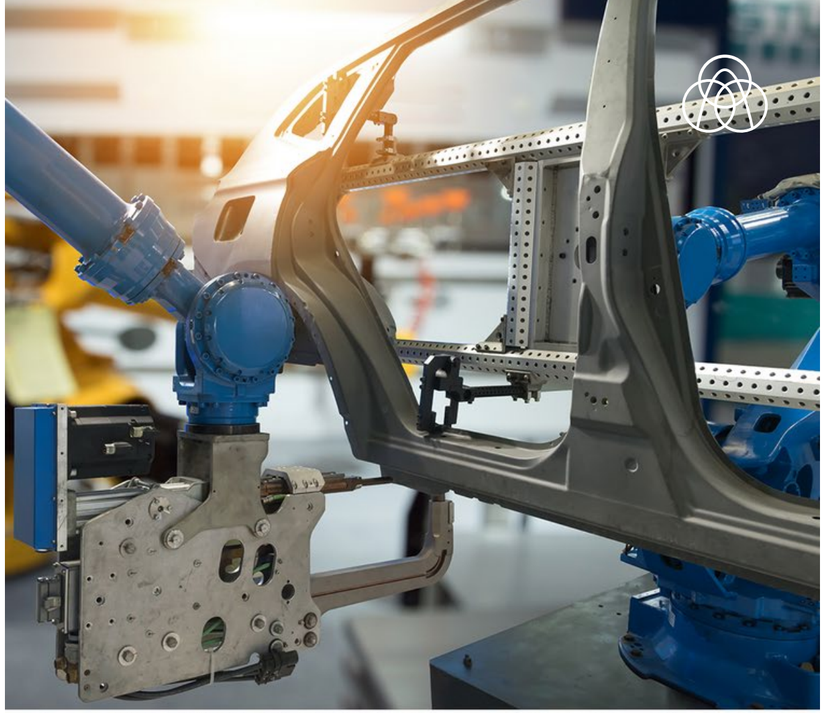
Numerical designation	EN 10088 Symbolic	State of supply	Hardness HB max.	Yield Strength Rr0.2€ N/mm2 mín.	Tensile Str. Rm N/mm2 mín.	Elongation % mín.
1.4713	X10CrAl7	A	192	220	420-620	20
1.4762	X10CrAl24	A	223	280	520-720	10
1.4828	X15CrNiSi20-12	AT	223	230	550-750	30
1.4841	X15CrNiSi25-20	AT	223	530	550-750	30
1.4845	X8CrNi25-21	AT	192	210	500-700	35
1.4878	X12CrNiTi18-9	AT	215	190	500-720	40

We offer a comprehensive and specialized service

Stainless Steel Catalog

Austenitic Stainless Steels

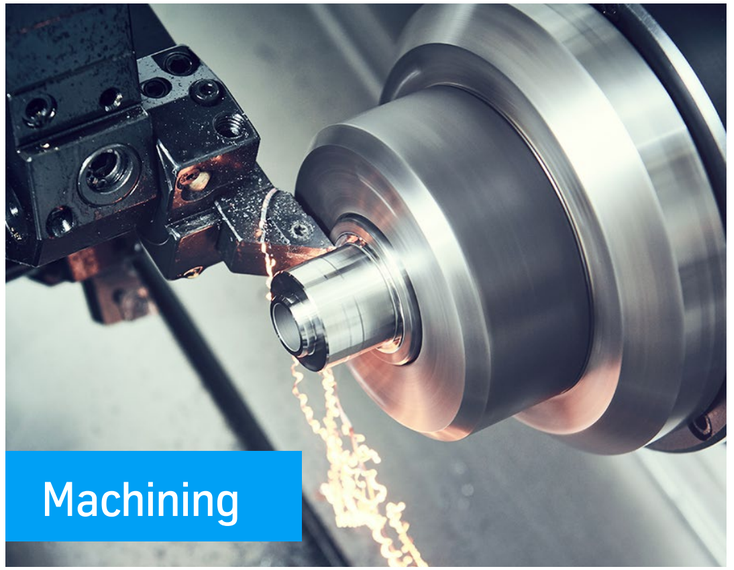
Numerical designation	EN 10088 Symbolic	State of supply	Hardness HB max.	Yield Strength Rr0.2€ N/mm2 mín.	Tensile Str. Rm N/mm2 mín.	Lengthening % mín.
1.4301	X5CrNi18-10	H	215	190	500-700	45
1.4305	X8CrNiS18-9	H	230	190	500-750	35
1.4306	X2CrNi19-11	H	215	180	460-680	45
1.4307	X2CrNi18-9	H	215	175	450-680	45
1.4310	X100CrNi18-8	H	230	195	500-750	40
1.4401	X5CrNiMo17-12-2	H	215	235	500-700	40
1.4404	X2CrNiMo17-12-3	H	215	200	500-700	40
1.4429	X2CrNiMoN17-13-3	H	250	280	580-800	40
1.4435	X2CrNiMo18-14-3	H	215	200	500-750	40
1.4436	X3CrNiMo17-13-3	H	215	200	500-700	40
1.4539	X1NiCrMoCu25-20-2	H	230	230	530-730	35
1.4541	X6CrNiTi18-10	H	215	190	500-750	40
1.4550	X6CrNiNb18-10	H	230	205	510-740	40
1.4571	X6CrNiMoTi17-12-2	H	215	200	500-700	40
1.4580	X6CrNiMoNb17-12-2	H	230	215	510-740	35
1.4919	X6CrNiMoB17-12-2	H	215	205	490-690	35
1.4948	X6CrNi18-10	H	215	230	500-700	40



Aluminum and Stainless Steel Services

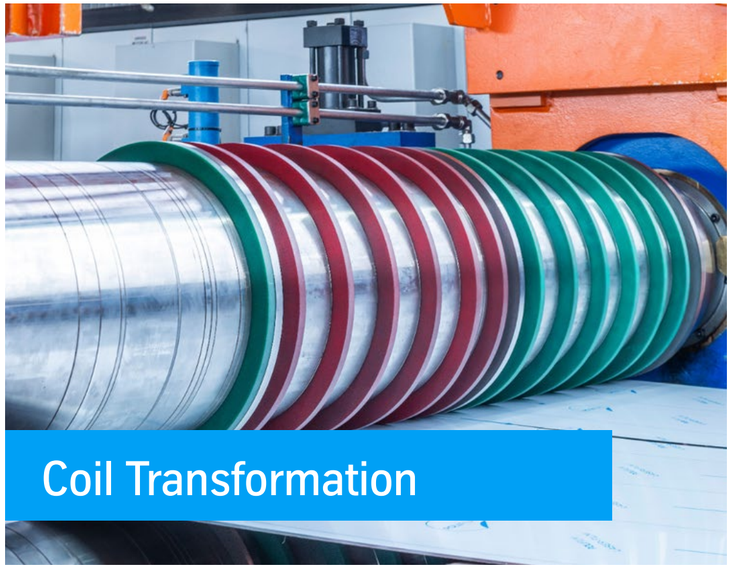
Cut to Size

Oxiplasma



Machining

Milling



Coil Transformation

Thermal Treatments

Aluminum and Stainless Steel Services

Available Equipment

Equipment	Tag	Strip and Sheet Dimensions [mm]						Entry Coil [t]	Installed	Renewed	Supplier	Nominal Capacity
		Thickness		Width		Length		Weight				
		Min	Max	Min	Max	Min	Max	Max				[tpy]
Slitting Line N°1	S1	0,3	3,3	45	1.550			30	1996	2006	Athader / Fagor	40.000
Slitting Line N°2	S2	0,4	5,0	20	1.550			30	2020		Faspar	40.000
Cut-to-length Line N°2	C2	0,4	3,0	400	1.500	500	4.000	15	1989	2006	Novastilmec / Fagor	17.000
Cut-to-length Line N°3	C3	0,4	1,5	200	660	300	3.000	5	1997		Athader	6.000
Scotch Brite Line	SA	0,4	3,0	500	1.550			20	2006	2011	Demis / Siemens	12.000
Polishing & Scotch Brite Line	ES	0,4	2,0	400	1.550			15	1995		Imeas / VAI	3.750

Aluminum and Stainless Steel Services

Product Range

Product	Strip and Sheet Dimensions & Weight								Grades	Finishes
	[mm]						[kg]			
	Thickness		Width		Length		Unit Weight			
	Min	Max	Min	Max	Min	Max	Min	Max		
Coils									304, 304L, 304DDQ, 316, 316L, 409,436,439,441 Other grades and aluminum upon request	2B, BA,Grinding finish, duplo finish, scocth brite finish, mirror polished, patterned
Standard Coils	0,4	5,0	1.000, 1.250 & 1.500				1.000	25.000		
Non-standard coils	0,4	5,0	20	1.500			200	25.000		
Sheets										
Standard Sheets	0,4	3,0	1.000, 1.250 & 1.500		2.000	3.000	800	2500		
Non-standard sheets	0,4	3,0	100	1.500	300	4.000	400	1500		

thyssenkrupp Materials Ibérica

Thank you very much for your attention and trust

thyssenkrupp