The KEY to Steel Industry Suppliers 2023/24

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01. Raw Materials. **Auxiliary Materials** and Operating **Materials**

01.01 Ores

10 Chrome Ore

20 Iron Ore

30 Ore

40 Manganese Ore

50 Steelwork Ore

01.02 Coke

60 Lignite Coke

65 Foundry Coke

70 Coke

80 Coke Breeze

90 Coke Breeze

100 Petroleum Coke

110 Pit Coal. Anthracite

01.03 Scrap

120 Scrap

01.04 Direct Reduced Iron (DRI)

128 Direct Reduced Iron (DRI)

129 Hot Briguetted Iron (HBI)

130 Sponge Iron

01.05 Metals and Alloys

140 Cer-Misch-Metal

150 Chrome Metal

160 Cobalt

170 Deoxidation Alloys (also Aluminium)

171 Deoxidation Alloys (also Aluminium-Rod/Solid Wire)

180 Granulated Iron

190 Iron Powder

200 Ferroboron

210 Ferrochromium

220 Ferro-Manganese

230 Ferromolybdenum

240 Ferro-Nickel

250 Ferroniobium

260 Ferroniobium Carbide

270 Ferroniobium Powder

280 Ferrophosphorus

290 Ferro-Selenium

300 Ferrosilicon

310 Ferro-Silicon-Manganese

315 Ferro-Silicon Manganese

320 Ferrotitanium

330 Ferrovanadium

340 Ferrotungsten

350 Ferrozinc

360 Granulated Special Materials

380 Alloys

385 Magnesium Alloys

390 Manganese Metal

400 Metals and Alloys

410 Metal Powder

420 Molybdenum

430 Molybdenum Oxide

435 Non-Ferrous Metals

440 Nickel

450 Nickel-Base Alloys

460 Nickel-Niobium

470 Niobium, Metals, and Alloys

475 Pure Iron

480 Silicon Carbide

490 Silicon and Silicon Alloys

500 Special Metals

510 Special Alloys

520 Tantalum

530 Titanium and Titanium Alloys

540 Vanadium Metal

550 Vanadiumpentoxide

560 Prealloys

570 Tungsten

572 Tungsten, Granulated, for C- and S-Analysis

610 Alloy Addition

01.06 Additives and Fluxes

580 Carburizing Agents

590 Fluorspar

600 Lime and Limestone

612 Slag Conditioner

616 Olivine

618 Raw bauxite

01.07 Gases

620 Acetylene

625 Argon

630 Technical Gases

640 Carbon Dioxide

Raw Materials, Auxiliary Materials and Operating Materials / Raw Material Pretreatment

650 Oxygen

660 Inert Gas

670 Nitrogen

675 Hydrogen

01.08 Lubricants

680 Coating Powder (LDPE, EVA, PP, PU)

690 Lubricants

01.09 Composite Material

678 Duplex Metal for Saws

01.11 Other Matters

695 Glass Granules

698 Titanium Dioxide for Hearth Protection/Repair (Rutilit)

02. Raw Material Pretreatment

700 Engineering and Technical Assistance

703 Engineering and Project Management

02.01 Ore Dressing

710 Beneficiation/Dressing Plant for Ore and Fluxes

720 Crushing Plants

730 Crushing and Mixing Plants

740 Mixers

750 Sieve Bottoms

760 Sieves and Screening Plants

02.02 Coal Preparation

770 Coal Washing and Grading Plants

780 Coal Grinding Plants

02.03 Burden Preparation

790 Burden Preparation

02.04 Pelletizing Plants

795 Ore Dressing Facilities

800 Pelletizing Plants

810 Pelletizing Plants with Ore Dressing Plants

02.05 Sintering Plants

820 Sintering Plants

826 Brate Bars for Sintering Plants

02.06 Briquetting Plants

830 Briquetting Plants

840 Briquetting of Coal and Coke

850 Compacting Plants

02.07 Coke-Oven Plants

854 Charging and Pushing Emission Control for Coke Plants

856 Hest-Recovery Coke Plants

860 Coke Oven Plants (in general)

870 Coke Crushing and Screening Plants

880 Coke Quench Towers

890 Coke Ovens

900 Coke Oven Operating Machinery

910 Coke Oven Gas Treatment Plants

920 Coke Ramming Machines and Pushers

930 Coke Dry-quenching Plants

940 Stamping-Charging-Pushing Machines

950 Heat Exchangers

960 Grapples for Scrap Handling

02.08 Scrap Preparation Plants

968 Coil Magnets

969 Safety Appliance for Electric Load Lifting Magnets

970 Lifting Magnets

971 Safety Appliance for Electric Load Lifting Magnets

980 Magnetic Drums

990 Scrap Baling Presses

999 Scrap Drying Systems

1000 Scrap Mills, Crushers

1010 Scrap Shears

1015 Scrap Shear Knives

1017 Scrap Handling Magnets

1018 Safety Appliance for Electric Load Lifting Magnets

Ironmaking

- 1020 Shredder Plants, also Pre-Shredders
- 1021 Safety Device for Lifting Magnets
- 1022 Separation Magnets
- 1023 Safety Appliance for Electric Load Lifting Magnets
- 1030 Turning Crushers
- 1040 Vertical Grinding Mills

02.09 Other Matters

- 1041 Granulating Plants for Sludges and Dusts
- 1050 Ferroalloy Plants
- 1058 Lime-burning Plants
- 1060 Lime Slaking Plants
- 1070 Calcining Plants

03. Ironmaking

- 1080 Engineering and Technical Assistance
- 1090 Ironmaking Plants
- 1100 Smelting Reduction Plants

03.01 Blast Furnaces

- 1105 Energy Recovery
- 1107 Expansion Turbine
- 1110 Blast Furnaces
- 1120 Blast-Furnace Linings
- 1123 Hearth Protection/Repair 1125 Linings of Blast-Furnace
- 1125 Linings of Blast-Furnace Channels
- 1130 Cowpers for Blast Furnaces
- 1140 Ceramic Burners for Hot-Blast Stoves
- 1145 Shaft Melting Furnaces
- 1150 Heat-Recovery Plants
- 1152 Hot Blast Stoves

03.02 Direct Reduction Plants

- 1160 Direct Reduction Plants
- 1170 Coal-Based Reduction Plants
- 1174 Ore Fines Beneficiation with Coal or Gas
- 1175 Rotary Hearth Furnaces

03.03 Cupolas

- 1180 Hot-Blast Cupolas
- 1190 Cold-Blast Cupolas
- 1195 OxiCup Shaft Furnaces

03.04 Components

- 1200 Valves for Hot-Blast Stoves
- 1205 Cupola Fittings
- 1207 Cupola Copper Fittings
- 1210 Valve Services
- 1220 Charging Installations for Blast Furnaces, Cupolas, and Melting Shops
- 1230 Tuyère and Tuyère Stock Changing Carts
- 1240 Bar Loaders
- 1250 Tuyère Stocks
- 1260 Installations for Carbon Injection
- 1270 Installations to inject Coal, Oil, or Gas into Blast Furnaces
- 1280 Installations to inject Oil or Gas into the Blast Furnaces
- 1285 Top-Gas Expanders
- 1290 Cover Manipulators
- 1295 Hot Gas Generators for Blast Furnace and Coke Oven Gas
 - 1300 Hot-Blast Valves
 - 1310 Blast-Furnace Blowers
 - 1320 Blast Furnace Steel Structures and Jackets
 - 1330 Blast-Furnace Burdening (incl. Larry Cars)
 - 1340 Blast-Furnace Probes
- 1350 Coal Grinding, Drying and Injection Installations
- 1351 Copper Valves and Fittings for Cupolas
- 1353 Ladles and Mixers, Pig Iron/Hot Metal, Engineering and Supply
- 1354 Plate Cooler for Blast Furnace
- 1355 Process-Gas Screw Compressors
- 1360 Radar-aided Stock-Line Measurement
- 1370 Blast-Furnace Bosh and Stack Cooling Plates
- 1380 Pig-Casting Machines
- 1390 Pig Iron Mixers
- 1400 Hot-Metal Ladle Cars, Mixer- and Transfer Cars
- 1410 Slag Monkeys
- 1420 Slag Pots
- 1425 Flexible Tubes for Blast-Furnace Cooling
- 1430 Special Fittings for Blast-Furnace Cooling

Ironmaking / Steelmaking

- 1432 Copper Staves for Blast-Furnace Cooling
- 1440 Blast-Furnace Mud Guns
- 1450 Drills for Tapholes or Slag Holes
- 1460 Heat Exchangers
- 1467 Weighing Systems for Torpedo Cars
- 1470 Tuyères and Tuyère Stocks
- 1480 Blast Gates

03.05 Blast-Furnace Products for Foundries

- 1490 Foundry Pig Iron
- 1500 Hematite Pig Iron
- 1510 Hematite Pig Iron for Grey Cast Iron
- 1520 Blast Furnace Ferro-Manganese
- 1550 Special Crude Iron (for Ductile Iron)
- 1560 Spiegel Iron
- 1570 Basic Pig Iron

03.06 By-Products

- 1580 Ferrous Sulphate or Ferric Sulphate
- 1589 Blast Furnace Slag
- 1590 Blast-Furnace Slag as Road Building Material
- 1600 Blast-Furnace Slag and LD-Slag
- 1610 Foamed Slag
- 1620 Slag Lime
- 1630 Granulated Blast-Furnace Slag
- 1639 Fine-Grained Steel Slag 1640 Fine-grained Steel Slag
- 1643 LD-Slag
- 1650 Thomasphosphate

03.07 Services

1663 Furnace Combustion Optimization

04. Steelmaking

- 1668 Equipment for Steel Works
- 1670 Engineering and Technical Assistance
- 1680 Mini Mills
- 1690 Second-Hand Steelmaking Plants and Equipment

- 1698 Steelmaking Plants and Equipment
- 1699 Steelmaking Equipment
- 1700 Steelmaking Plants and Equipment (Stainless)
- 1710 Steelmaking Plants and Equipment

04.01 Hot-Metal Preparation **Plants**

- 1715 Desulphurizatin Plants with Slag Regeneration 1720 Hot-Metal
 - Desulphurization Plants

04.02 Converters

- 1730 Basic-Oxygen Steelmaking Plants (BOF-Shops)
- 1735 Bottom Blowing Installations (N2 and AR)
- 1740 KTB Equipment (Kawasaki Top Blowing)
- 1745 Combined Bottom Blowing (Converters)
- 1750 Converter Equipment
- 1752 Converter Slag Treatment Installations
- 1755 Converter Stopper Rods
- 1758 Converter Stopper Rod Manipulators
- 1760 Porous Plugs
- 1763 Porous Ceramics (Plugs -Nozzles)

04.03 Energy Optimizing **Furnaces**

1770 Energy Optimizing **Furnaces**

04.04 Electric Furnace Melting Shop

1780 Electric Furnace Charging Devices

AR)

- 1788 Bottom Blowing Installation EAF (N2 and
- 1790 Bottom Tapping
- 1795 CO-Post Combustion
- 1800 AC Electric Arc Furnace
- 1808 Carbon Injection Devices for Electric Furnaces
- 1810 Injection Devices for Electric Furnaces

Steelmaking

- 1820 Electrode Holders and Clamps for Electric **Furnaces**
- 1830 Electrode Regulation for Electric Arc Furnaces and Ladle Heating Systems
- 1840 Extrusion Presses for Electrodes
- 1850 Electrode Jib Arms
- 1855 Electrode Jib Arms of Aluminium, Currentconducting (Hot-Arms)
- 1860 Electrode Jib Arms, Current-Conducting (Hot-Arms)
- 1865 Electrode Arm Insulation
- 1870 Electric Arc Furnaces
- 1875 Electric Arc Ladle **Furnaces**
- 1880 EAF with integrated Scrap Preheater (Shaft Furnace)
- 1882 Electro Magnetic Stirring Power Systems (EAF)
- 1885 Spare and Wear Parts, Consumables
- 1890 DC Arc Furnaces
- 1900 Graphite Electrodes
- 1908 Jet Box Technology
- 1910 Cooling Elements (Radiant Wall Segments, Bay Coverings)
- 1920 Oil/Gas-Oxygen Burners
- 1930 Scrap Baskets
- 1938 Scrap Driers
- 1940 Scrap Preheating Plants
- 1945 Stirring Machines for Electric Furnaces
- 1950 Evaporating Systems/ Heat Recovery Systems
- 1960 Water Cooled Cables
- 1970 Water-cooling Systems
- 1980 AC Arc Furnaces
- 1981 EAF Power Insulation
- 1982 Power Supplies for AC Arc Furnaces
- 1983 Power Supplies for DC Arc Furnaces

04.05 Induction Furnaces

- 1990 Induction Furnaces
- 1995 Protection Systems of Induction Coils
- 1996 Repair-Induction **Furnaces**
- 2000 Water Cooled Cables

04.06 Vacuum Melting **Furnaces**

- 2008 High-Vacuum Melting **Furnaces**
- 2010 High-Vacuum Melting Furnaces (incl. Electron Beam Melting Furnaces)
- 2020 Vacuum Induction Melting Furnaces
- 2021 Vacuum Pumps, Dry Running, for Vacuum **Furnaces**
- 2025 Vacuum precision plant

04.07 Secondary Steelmaking

- 2028 Plants for Chemical Heating
- 2030 Argon Purging Devices
- 2040 Blow and Injection Conveying Equipment for Filtration Residues
- 2042 Combined Blowing and Burning Lances for RH
- 2050 CAS, CAS-OB and CAB **Plants**
- 2060 Injection Devices for Metallurgical Processes
- 2070 ESR-Plants
- 2080 Ladle-Metallurgy Plants
- 2090 Plasma Arc Plants
- 2100 Plasma Ladle-Furnaces 2110 Secondary Steelmaking **Plants**
- 2120 Steel Degassing Plants
- 2130 Steel Desulphurization **Plants**
- 2140 T+P Lance Devices
- 2145 Induction Stirrers for Ladle Furnaces
- 2147 Mechanical vacuum systems for VD, VUD and RH
- 2148 Vacuum Arc Furnaces

04.08 Tertiary Metallurgy

- 2141 Electro Slag Remelting **ESR**
- 2142 Vacuum Arc Remelting VAR
- 2143 Vacuum Induction Furnace VIM
- 2144 Mechanical vacuum systems for VIM and VAR

04.09 Components

2150 Deslagging Machines

Steelmaking

- 2155 Tap Hole Closures for Converters
- 2156 Taphole mud guns and drilling machines for converters
- 2160 Tap Hole Valves for Converters and Electric Arc Furnaces
- 2170 Andromat-Manipulator
- 2175 Burn-out Machines for Ladles
- 2180 Break-out Machines for Electric Furnaces, Converters, Pouring Ladles, etc.
- 2182 Flame Lances (Oxygen) for Tundish and Ladle Slide Gates
- 2184 Co-Injection Devices
- 2190 Equipment for Oxygen/ Carbon Lance Manipulators (EAF)
- 2200 Automatic Stirring Gas (Argon) Coupling-Stations
- 2210 Heating Equipment for Teeming Ladles, Mixers, Converters, and Tundishes
- 2215 Charging Equipment for Metallurgical Plants
- 2220 Brakes
- 2230 Charging Machines (Troughs and Tongs)
- 2235 Stream Jet Vacuum Pumps for Steel Degasing
- 2240 Dolomite Centrifuging Machines
- 2250 Cored-Wire Feeding Machines
- 2268 Argon Bubbling Equipment for Ladles
- 2270 Argon Injecting Equipment
- 2280 Blowing Equipment for Cementite Dust
- 2290 Blowing Equipment for Hyl and DRI Dusts
- 2300 Blowing Equipment for Lime Granules
- 2310 Carbon Injecting Equipment (EAF)
- 2312 Installation for Injection of Alloying Additions
- 2320 Electric Heating Elements for Steel Degassing Plants

- 2340 Electromagnetic Conveying and Dosing Channels for Liquid Metals
- 2350 Desulphurizing Equipment
- 2360 Bay Tapping Fillers, Arc Furnaces
- 2370 Pouring Ladles, in general
- 2380 Pouring Ladle Firing Plants
- 2390 Pouring Ladles for Melting Shops
- 2400 Pouring-Ladle Closing Devices (also Valve Locks)
- 2410 Pouring-Stream Protection
- 2420 Pouring Cars
- 2430 Manipulating Devices
- 2440 Oxygen/Carbon Lance Manipulators
- 2444 Oxygen Probes for Flue Gas
- 2450 Hydraulic Installations for Metallurgical Plants and Rolling Mills
- 2460 Lime-Oxygen-Dosing and Injecting Systems
- 2480 Ladle Tilting Devices
- 2490 Pulverized-Coal Injection-Lances
- 2500 Ingot Moulds for Melting Shops
- 2510 Ingot Mould Buggies 2514 Continuous Optical
- Analysis Equipment for Process Receptables
- 2515 Temperature Measuring, Continuous and Optical, for Process Vessels
- 2525 Converter Probes and Sampling Devices
- 2530 Lance Robots/ Manipulators
- 2535 Lance Tip for Oxygen Lance
- 2540 Alloying Installations for Steelworks
- 2541 Multifunctional Lances and Burners for EAF
- 2542 Ladles and Mixers, Pig Iron/Hot Metal, Engineering and Supply
- 2543 Bull Ladels (Hot Metal Mixing)
- 2545 Ladle Slide Gates 2550 Ladle Cars

Steelmaking

- 2555 Cleaning and Debricking Machines for Electric Furnaces, Converters, Pouring Ladles, etc.
- 2560 Cutting of Slags by Robotics
- 2570 Sand Feeding Devices for Casting Ladle Taphole
- 2580 Oxygen Nozzles and Lances
- 2590 Oxygen Roof Lances
- 2600 Oxygen Lance Equipment
- 2610 Hoses for Oxygen, Heat Protected
- 2615 Shroud Manipulators
- 2618 Ashes (Volume Stability)
- 2620 Slag Pots
- 2640 Slag Cars
- 2650 Hose Reels
- 2655 Fuses, multifunctional, for Torches/EAF
- 2660 Special Safety Oxygen Hose-Reelers
- 2665 Brick Coating Material for Pouring Ladle Valves
- 2666 Ceramic Refractory Brick Lubrications for Sliding Valve Systems
- 2668 Stoking Machines for Electric Furnaces
- 2669 Sublances
- 2670 Submerged Nozzle Spraying-Devices
- 2680 Radar-aided Charge-Level Measurement for Torpedo Cars
- 2686 Vacuum Pumps, Dry Running, for Vacuum **Furnaces**
- 2690 Preheating Station for Casting Ladles and **Tundishes**
- 2695 Weighing Systems for Scrap and Alloying Elements
- 2700 Heat Exchangers for Steelworks
- 2702 Torch Cutting Machines for Ladles
- 2704 Crucibles for Remelting **Furnaces**

04.10 Steel Works Materials

- 2710 Recarburizing Agents, all Grades
- 2712 Burning Lances

- 2713 Safety Igniters for **Burning Lances**
- 2720 Deoxidizing Agents
- 2730 Deoxidation Technology 2735 EBT Taphole Filling Mass
- 2740 Dephosphorizing Agents
- 2748 Desulphurising of Coke Oven Gas
- 2750 Desulphurizing and Deoxidizing Reagents
- 2760 Desulphurizing Agents
- 2770 ESR-Slags
- 2780 FeNb Cored Wire
- 2790 Cored Wire
- 2798 Hot Tops
- 2800 Casting Fluxes
- 2801 Casting Fluxes, Granulated and Powdery
- 2810 Graphite
- 2820 Graphite Powders
- 2825 Heat Resisting Fabrics up to 1260 °C
- 2827 Isulating Covering Agents for Tundish, Ladels, and Channels
- 2830 Moulds
- 2840 Mould Inserts
- 2850 Mould Spray Protection and Plate Protection
- 2851 Release Lubricants for Caster Moulds, Starter Casting, Link Casting
- 2855 Oxygen Nozzles and Blast Lances
- 2860 Anti-Piping Powders
- 2865 Mats and Felts for Temperatures up to 1260 °C
- 2868 Olivine Slag Conditioners 2870 Ladle Covering Compounds
- 2871 Ladle Covering Agents, Granulated and Pulverised
- 2880 Ladle Slide-Gate Sands
- 2885 Rotary Nozzles for Steel-Ladles
- 2887 Slag Conditioners for Pig Iron Production
- 2888 Slag Granulation
- 2890 Slag Sands
- 2900 Slag Foaming
- 2905 Special Stickers up to 1200 °C
- 2907 Special Adhesives (up to 1200 °C)
- 2910 Ladle Slide-Gate Materials

Continuous Casting

- 2915 Crucibles for ESR, VAR, and Direct Strand Reduction
- 2920 Tundish Covering Compounds, Granular or Powdered

04.11 Preparaton of Steel Works Materials

- 2930 Preparation of used Refractories
- 2940 Preparation of Dusts, Fines, and Oily Sludges from Steelworks
- 2950 Preparation of Slags (Slag Transportation and Slag Recycling)
- 2954 Separation Magnets

04.12 Services

- 2956 Engineering for Steelmaking Plants and Equipment
- 2957 Repair of Hydraulic Cylinders
- 2958 Slag Pot Servicing

05. Continuous Casting

2960 Engineering and Technical Assistance

05.01 Continuous Casting Plants of Different Design

- 2962 Flat Ingots
- 2965 Casting Platform Roboters
- 2970 Casting-Wheel Plants
- 2980 Casting Wheels, Casting Rings
- 2982 Casting Rolls, Casting Sleeves
- 2990 Horizontal Continuous Casting Plants
- 3000 Continuous Casting Plants, in general
- 3010 Vertical Continuous Casting Plants

05.02 Continuous Casting Plants for Different Product Dimensions

- 3020 Continuous Casting Plants for Beam Blanks
- 3030 Continuous Casting Plants for Slabs

- 3035 High-Speed Billet Casters
- 3040 Continuous Casting Plants for Billets
- 3043 Continuous Casting Plants for Billets, Horizontal
- 3045 Combined Slab Casters
- 3050 Round Casters
- 3055 Round Casters, Horizontal
- 3058 Continuous Casting Plants for Blooms
- 3060 Continuous Casting Plants for Blooms and Slabs
- 3070 Continuous Casting Plants for Blooms and Billets
- 3071 Continuous Casting Plants for Billets, Blooms, and Slabs
- 3075 Continuous Casting Plants for Blooms and Billets, Horizontal
- 3080 Continuous Casting Plants for Blooms and Rounds
- 3085 Continuous Casting Plants for Blooms and Rounds, Horizontal

05.03 Spray Deposition Plants

3090 Spray Deposition Plants

05.04 Components

- 3100 Al Wire Reeling Machines
- 3110 Slab Finishing
- 3120 Slab Edge Induction Heating
- 3130 Slab Cooling Plants
- 3140 Slab Cooling Boilers/ Heat Recovery Plants
- 3150 Slab Slitters or Cutters
- 3160 Slab Grinders
- 3170 Brakes
- 3180 Flash Trimmers/Deburrer
- 3190 Flame Cutting Machines
- 3200 Rotating Unions for Water-cooled Rollers
- 3210 Stamping Machines
- 3212 Marking Machines
- 3215 Electro Magnetic Stirring Systems (Slab/Bloom/ Billet Casters)
- 3216 Electro Magnetic Brakes, EMBR

Continuous Casting / Near-Net-Shape-Casting / Hot Rolling

- 3220 Single-Component Nozzles for Continuous-Casting Cooling
- 3230 Deburrers
- 3233 Deburring Grinding Machines
- 3240 Paints for Marking Devices
- 3250 Paint Marking Plants
- 3260 Automatic Powder Control
- 3261 Automatic Powder Feeding
- 3262 Pouring-Stream
 Protection by Argon
- 3264 High Speed Billet Moulds with Integrated Hydraulic Oscillation
- 3265 Hydraulic Nozzles for Continuous-Casting Cooling
- 3270 Induction Stirring
- 3280 Cold Tundish Plates
- 3285 Chains and Sprockets
- 3290 Marking Systems for Slabs, Blooms and Billets
- 3292 Billet Grinders
- 3300 Billet Working Machines 3310 Billet Sawing Machines
- 3320 Grinding Machines for
- Billets and Slabs
- 3330 Mould Flow Meters
- 3333 Mould Plates
- 3340 Read Systems for Automatic Identification of Marks
- 3345 Air Atomizing Nozzles for Continuous-Casting Cooling
- 3350 Cutting Torches for Emergency
- 3355 Optical Product Recognition (OPR) for Marked Billets
- 3360 Plasma Tundish Heating
- 3370 Plate Moulds 3380 Precision Stopper
- 3380 Precision Stopper Devices
- 3390 Tubular Moulds
- 3400 Manipulators for Shrouding Nozzles
- 3405 Safety Device for Lifting Magnets
- 3410 Marking Inks
- 3415 Slab Turning Magnets
- 3416 Safety Appliance for Electric Load Lifting Magnets

- 3420 Stamping Machines
- 3422 Stamping Machines, Hydraulic/Pneumatic Driven
- 3429 Continuous Casting Moulds
- 3430 Continuous Casting Moulds (also made of Electro-Graphite)
- 3440 Continuous Casting Rolls
- 3450 Tundish Heating
- 3460 Tundish Plasma Heaters
- 3470 Tundish Flow Control
- 3480 Tundish Slide Gates
- 3490 Finishing Mills for Blooms and Billets
- 3500 Heat Exchangers
- 3503 Weighing Systems for Ladles, Tundish, and Related Products
- 3510 Binary Nozzles for Continuous Casting Cooling

05.05 Operating Materials

- 3520 Casting Powders
- 3530 Lubricants for Continuous Casting Plants
- 3535 Welding Additions for Regeneration and versus Wear-out

05.06 Services

3537 Grinding and Deseaming of Slags, Billets, and Cogged Ingots

06. Near-Net-Shape-Casting

3540 Engineering and Technical Assistance

06.01 Plants

- 3550 Strip Casting Plants
- 3560 Thin Strip Casting Plants
- 3570 Thin-Slab Casters
- 3572 Combined Thin Slab Casting and Rolling Lines
- 3573 EUROSTRIP-Strip Casting Plants
- 3574 EUROSTRIP Strip
 Casting and Rolling
 Plants, directly combined

3575 Continuous Casting Plants for Billets

06.02 Components

3590 Flash Trimmers

3600 Flame Cutting Plants

3610 Stamping Machines

3630 Thin-Slab Slitters or Cutters

3640 Thin-Slab Grinders

3670 Paint Marking Plants

3680 Charging Devices for Casting Fluxes

3690 Moulds

3700 Read Systems for Automatic Identification of Marks

3710 Marking Inks

3712 Punching Machines (Hvdraulic/Pneumatic Driven)

3720 Spray Marking Systems for Thin-Slab Casters

06.03 Operating Materials

3750 Coolants 3760 Lubricants

07. Hot Rolling

3770 Engineering and Technical Assistance 3780 Second-Hand Hot-Rollina Mills

07.01 Hot Strip Mills

3773 Flat Ingot Plants 3776 Flat Ingot Plants for Rolling

3790 Thin Slab Rolling Mills

3805 Modernizing of Rolling Mills

3820 Steckel Mills, complete

3830 Rolling Mills, complete 3840 Hot Rolling Mills for Slab

Products

07.02 Plate Rolling Mills

3850 Hot Rolling Mills, complete

07.03 Rolling Mills for Billets and Semi-finished **Products**

3860 Rolling Mills for Blooms, Rillets and Sheet Bars

07.04 Section Mills

3870 Rolling Mills for Light Sections

3875 Section Machines

3880 Special Steel Section Mills

3890 Rolling Mills for Beams and other Sections

07.05 Bar and Rod Mills

3900 Automatic Coil Handling 3910 Guide Equipment for

Wire, Bar, or Light-Section Rolling Mills

3920 Sizing Mills

3930 Precision Sizing Blocks

3940 Reducing and Sizing Blocks

3944 Reducing and Sizing Mill

3950 Bar and Rod Mills

3955 Bar and Wire Rod Mills for Quality and Special Steels

3960 Bar Mills

3968 Rolling Mills for Flat **Products**

3970 Hot Rolling Mills for Long Products

3974 Rolling Mills for Wire Rods, Rebars, and Bars

07.06 Ring Rolling Mills

3980 Ring Rolling Machines and Mills

07.07 Dressing and Straightening Plants

3990 Dressing and Straightening Facilities

4000 Dressing and Straightening Machines

4010 Chamfering Grinders for Cylindrical and Square Billets

4017 Flat Ingot Plants for Rolling

4020 Flying Shears

4030 Hot/Cold Abrasive Cut-Off-Machines

4040 Cold Circular Sawing Machines

4050 Roller Levellers for Section Steel

4060 Rotary Saws

4065 Second-Hand Dressing and Straightening Lines 4070 Packaging Lines

4080 Hot Levelling and Cropping Machines

4085 Shearing Machines (automatic, hydraulic)

07.08 Rolls for Hot Rolling Mills

4090 Work Rolls

4100 Plate Rolls

4110 Blooming Rolls

4120 Slab Rolls

4123 Coiler Drums

4128 EcoRolls

4130 Small-Section and Wire Rolls

4140 Forged Rolls

4160 Chilled Cast Iron Rolls

4170 Tungsten Carbide/Steel Rolls

4180 Grooved Rolls

4190 Rolls for Billets and Semi-finished Products

4200 Straightening Rolls

4210 Spheroidal Graphite Rolls

4220 Cast Steel Rolls

4230 Back-up Rolls

4240 Composite Cast Rolls

4250 Composite Cast Rolls of High-Chromium and Indefinite Materials

4260 Composite Chilled Cast Rolls

4270 Composite Rolls

4280 Rolls for Tube Mills

4290 Roll Rings

07.09 Roll Machining and Machines

4300 EDT Systems

4310 Surface Grinding Machines

4320 Highly Wear-Resisting Coatings on Rolls etc.

4330 Roll Pass Dressing Machines

4340 Groove Grinding Machines

4350 Notch Milling Machines

4360 Special Machines

4370 Roll Machining Devices

4380 Roll Lathes

4390 Roll Grinding Machines

4395 Roll Grinding Wheels

4400 Shot-Blasting Machines for Rolls

4410 Roll Forming Lines

4420 Services for Roll Surface

07.10 Components

4430 Decoilers - Recoilers

4432 Coiler/Gear Components

4440 Drives, Gearings and Pinion Stands

4450 Strip Cooling Equipment

4460 Strip Grinding Machines

4470 Brakes

4479 Coil Magnets

4480 Coil Cooling Boilers

4482 Coiler Drums

4490 Nozzles for Descaling

4500 Nozzles for Roll Cooling

4502 Selective Roll Cooling Systems

4503 Stainless Steel Roll Cooling

4510 Electric Motor Rollers and Roller Tables

4515 Skimmers for Hot Rolling Strip Plants up to 1000 °C

4520 Descaling Systems using Solid Abrasives

4528 Descaling Systems using High Pressure Water

4530 Descaling Systems using Liquid Abrasives

4540 Inks for Marking Equipment

4550 Paint Marking Systems 4555 Chains and Sprockets

4560 Lubrification Installations

4570 Flame-scarfing Machines, Hot and Cold

4580 Flame-Scarfing Instruments, Machines, and Plants

4582 Robotic Scarfing Machines

4590 Transmission Rolls

4600 Testing, Sorting and Cleaning Lines for Semifinished Products

4610 Reels

4630 Manipulators for Turningover and Shifting

4640 Marking Paints for Sheets, Slabs, and Tubes

4650 Marking Systems for Sections, Coils and Plates

4660 Marking Systems for Slabs, Blooms and Billets

4680 Devices for Coil Compaction and Strapping of Wire Rod

4690 Cooling Banks

- 4700 Read Systems for Automatic Indentification of Marks
- 4710 Oil-Hydraulic Adjusting Equipment
- 4720 Circulation Plants for Oil or Emulsion
- 4730 Rollers for Roller Tables
- 4740 Rotary and Straight Shear Knives
- 4750 Lubricating Plants
- 4760 Quick-Change Mill Stands
- 4770 Safety Device for Lifting Magnets
- 4780 Marking Inks
- 4790 Marking Pencils for Hot Surfaces
- 4800 Steel Strip Strapping
- 4810 Stamping Machines
- 4820 Stamping Machines and Stamps for Hot and Cold Operation (incl. fullyautomatic ones)
- 4830 Stamps and Dies
- 4840 Transport and Conveying Devices for Wide Strip
- 4850 Coil Strapping Machines
- 4860 Heat Exchangers
- 4870 Roll Handling Equipment
- 4880 Roll Cooling Systems
- 4890 Roll-Deadening Devices 4892 Rolling Stock Guiding
- 4893 Cantilevered Rolls
- 4897 Weighing Systems for **Bundles and Coils**

07.11 Operating Materials

- 4898 Controlled Atmosphere for Heat Treatment
- 4900 Lubricants for Hot Rolling Mills

07.12 Services

- 4910 Deposit Strip and Cord Overlaying of Rolls etc.
- 4920 Highly Wear-Resisting Coating of Rolls etc.

08. Forging, Extrusion

- 4930 Engineering and Technical Assistance 4940 Modernization of Water-
- Hydraulic Controls

08.01 Forging Mills

- 4950 CNC-Precision Forging Machines
- 4955 Cross Wedge Rolling Machines
- 4960 Open-Die Forging Plants
- 4970 Die Forging Plants
- 4980 Steel Die Spray Plants
- 4985 Hot Isotherming Forging Plants (HIF)
- 4990 Hydraulic Forging Presses
- 5000 Cold Flow Forming Presses
- 5020 Presses, in general 5030 Presses/Forging
- Machines 5040 Radial Forging Machines
- 5050 Radial and Axial Die Rolling Mills, Machines, and Plants
- 5060 Radial Forging Machines
- 5061 Radial Forging Machines, Hydraulic
- 5070 Ring Blank Presses
- 5080 Forging Presses
- 5084 Forge Rolling
- 5090 Horizontal Forging Equipment, Upsetting Machines

08.02 Extrusion

- 5100 Metal Tube Pressing and Metal Extrusion
- 5110 Steel Tube Extrusion
- 5120 Extrusion Presses for Sections (non-ferrous)

08.03 Components

- 5130 Brakes
- 5150 Forging Manipulators
- 5155 Rail-Bound Forging Manipulators
- 5160 Forging Robots
- 5170 Self-lubricated Guides and Bushes (High-Temperature)
- 5180 Transportation Manipulators
- 5184 Water-Hydraulic Drive and Control Technology

08.04 Operating Materials

5188 Controlled Atmosphere for Heat Treatment

Powder Metallurgy / Cold Rolling

5190 Lubricants for Extruding Presses 5195 Sliding Materials, Heat

5195 Sliding Materials, Heat Resistant

09. Powder Metallurgy

5200 Engineering and Technical Assistance 5210 Powder Metallurgy

09.01 Hard Metal Alloys

5220 Hard Metal Alloys, in general 5230 Hard Metal Alloy, Machinable and

Hardenable

09.02 Carbides

5240 Carbides, in general 5290 Tungsten Carbides

09.03 Hard Material Powders

5300 Iron-, Steel-, Alloy Powders, Non-Ferrous Metal Powders 5310 Hard Metal Powders

09.04 Additions

5320 Auxiliary Metals 5330 Organic Components

09.05 Equipment for Powder Production

5340 Machines and Plants for Water Atomization

5350 Melt Spinning Machines and Plants

5360 Machines and Plants for Spray Drying

09.06 Equipment for the Production of Sintered Carbide Alloys

5370 Plants, complete 5380 Hot and Cold Isostatic

Presses and Facilities 5390 Metal Powder Extruders

5400 Presses

5405 Hydraulic, Mechanical, and Hybrid Powder Presses

5410 Furnaces with Inert Gas Atmosphere

5420 Vacuum Furnaces

5422 Vacuum Pumps, Dry Running, for Vacuum Furnaces

09.07 Metal Powder Parts

5430 PM-Metals 5432 PM-Rolls Rings 5440 PM-Steels 5450 Compounds

09.08 Further Processing of Metal Powder Parts

5460 Plasma-Powder-Deposit Welding 5470 Thermal Spraying

10. Cold Rolling

5480 Engineering and Technical Assistance 5482 Handling Systems 5484 Engineering and Technical Assistance

10.01 Cold Rolling Mills

5490 Rolling Mills for Strip, Sheet, as well as Cold Rolling Mills and Metal Rolling Mills

5520 Cold Rolling Mills, complete

5523 Modernizing of Cold Rolling Mills

5530 Second-Hand Cold Rolling Mills

5540 Cold Rolling Mills for Flat Products

10.02 Skin Pass Rolling Mills

5550 Skin Pass Rolling Mills 5555 Skin Pass Stands for Hot and Cold Strip

10.03 Dressing and Straightening Plants

5559 Coil Build-up Lines 5560 Dressing and

Straightening Plants

5570 Dressing and Straightening Machines

5580 Strip Edge-Rounding Plants

5590 Strip Processing Lines

5595 Cross-Stretching Rolls 5600 Slitting and Cut-to-

Length Lines

Cold Rolling / Surface Treatment

5610 Cut-to-length-lines

5620 Straightening Machines for Strip and Plate

5630 Roller Levellers

5640 Stretch Levelling

Facilities for Strip

5660 Packaging Lines

5663 Tension Levelling Lines

10.04 Annealing Plants

5668 Continuous Annealing Lines

5670 Annealing Plants

5672 Annealing and Pickling Lines

5673 Bright Annealing Lines 5680 Annealing Plants,

inductive 5682 Annealing Lines.

Continuous

5685 Modernizing of Annealing and Pickling Plants

10.05 Rolls for Cold Rolling Mills

5686 Consolidation Rolls

5690 Working Rolls for Cold Rolling Mills

5695 Curved Rolls

5700 Rolls for Skin Pass Rolling Mills

5710 Planishing Rolls

5715 Levelling Rolls

5720 Straightening Rolls

5730 Back-up Rolls for Cold Rolling Mills

5750 Mill Rolls (Non-Woven Rolls)

5760 Rolls

5766 Roll Core Production and Treatment

5770 Polyurethane-coated Rolls

10.06 Components

5780 Drives, Gearings and Pinion Stands

5784 Strip Flow Control

5790 Baling Cord Removal

5800 Brakes

5803 Brake Coverings made of Felts, Stripper Felts

5810 Types (Numerals and Characters) for Stamping Machines

5814 Labelling Machines for Rolled Sections (Cold)

5830 Labelling Machines

5835 Chains and Sprockets

5840 Paint Marking Systems

5845 Coil Covering Materials 5850 Read Systems for

Automatic Identification of Marks

5860 Marking Systems

5870 Oil-Circulation Plants

5880 Shear Knives, Rotary and Straight

5890 Marking Inks for Stamp Machines

5900 Marking Instruments

5910 Marking Pencils for Metals

5920 Steel Strip Strapping

5930 Stamping Machines and Stamps for Hot and Cold Operation (incl. fullyautomatic ones)

5932 Selective Roll Cooling Systems

5940 Heat Exchangers

5950 Coiling Reels

5952 Weighing Systems for Bundles and Coils

10.07 Operating Materials

5957 Controlled Atmosphere for Heat Treatment

5960 Lubricants for Rolls for Cold Rolling Mills

11. Surface Treatment

5970 Engineering and Technical Assistance

5980 Descaling of Sheet Parts 5988 Treating of Titaneum

5966 Treating of Titalieum

11.01 Descaling Plants

5990 Descaling by Bending of Strip

6000 Descaling by Bending of Wire

6010 Descaling Systems using Solid Abrasives

6018 Descaling Systems using High Pressure Water

6020 Descaling Systems using

Liquid Abrasives 6030 Hose Blasting Machines

6040 Overhead Conveyor Machines

6050 Shot Peening Machines 6060 Tumblast Machines

15

6070 Roller Conveyor Machines

11.02 Pickling Plants

6080 Preparation of Pickling Baths

6088 Pickling Plants for High-Grade Steel, free of Waste Gas Emissions

6090 Pickling Plants, in general

6100 Pickling Lines for Strip and Wire

6109 Pickling Vats, Highly Strainable

6110 Pickling Vats and Electrolysis Cells for High Straining Rates (Mechanical)

6120 Pickling Baskets and Hooks

6130 Pickling Agents

6140 Pickling Agents for High-Grade Steels

6150 Pickling Products for Stainless Steel

6160 Pickling and Surface Treatment Lines, in general

6170 Pickling and Surface Treatment Plants

6180 Pickling Compounds 6190 Job Pickling

6192 Pumps for Pickling of Steel and Special Steel

6200 Pickling Solution Regeneration Plants 6203 Push Pickling Plants

11.03 Grinding and Polishing Machines/Systems

6210 Strip Grinding Machines 6220 Grinding and Polishing

Machines for Strip 6230 Centrifugal Grinding

Machines 6240 Planishing Systems

6250 Drag Grinding Machines

11.04 Surface Treatment Plants

6260 Coil Coating Plants

6270 Edge Working

6280 Equipment for Surface Treatment and Refinement of Strip

6285 Strip Washers

6290 Coating Plants

6295 Burnishing Plants and Appliances

6300 CVD Coating Plants 6305 Color Coating Lines

6310 Industrial Services of Pickling and Electropolishing of Steel and High-Grade Steel

6315 Hammermill Deburrer

6320 Lubrication Machines

6330 Electric Polishing Plants

6340 Deburring

6350 Deburring Machines

6360 Paint Coating Lines 6370 Paint Spraying Systems

6380 Superfinishing Plants for Surface Treatment of Metal Parts

6385 Controlled Atmosphere for Heat Treatment

6386 High Pressure Water Jet Cleaning Technology

6390 Shot Peening

6400 Plastic Coating Lines

6410 Metal Processing Lines, Electrochemical

6420 Metal Degreasing **Facilities**

6430 Degreasing Lines for Metal Strip

6440 Metal Cleaning and **Drying Plants**

6450 Surface Treatment, Surface Techniques

6460 Surface Treatment Lines 6470 Surface Drying, in general

6480 Surface Drying, Inductive

6490 Surface Finishing

6500 Phosphate Coating Lines

6510 Phosphating Methods 6520 Plasma CVD Coating **Plants**

6523 Plasmanitriding Systems

6525 Plasma Power Generators, Power Supply

6527 Sheet Bar Cleaning **Plants**

6530 Plating Installations

6540 Plasma-CVD Plants

6550 PVD Coating Plants

6552 Rotary Deburrer 6560 Ion Implanters

6565 Abrasive Blasting Plants

6570 Pretreatment Plants for Electrogalvanizing Plants

6580 Water Demineralization for Surface Treatment

11.05 Aluminizing, Galvanizing and Tinning

- 6590 Aluminizing, Galvanic/ Electrolytic
- 6595 Aluminizing, Galvanizing and Tinning
- 6600 Continuous Strip Hot Dip Tinning and Aluminizing Equipment
- 6603 Equipment for Hot Dip Tinning, Galvanizing and Aluminising of Strips
- 6610 Electrogalvanizing Plants
- 6620 Electrolytic Tinning Plants 6630 Hot Dip Galvanizing Lines
- 6640 Hot Dip Galvanizing Plants, Equipment
- 6642 Hot Dip Galvanizing Line, Equipment for Zinc Bath
- 6648 Galvannealing
- 6650 Induction Galvannealing
- 6660 High-current Conductions for
- Electrogalvanizing Plants
- 6670 Galvanizing
- 6675 Tinning Plants
- 6680 Fusing of Tin, Inductive (Tin Reflow)

11.06 Corrosion Protection

- 6690 Linings and Coatings 6700 Coatings, Anorganic
- 6702 Layers, Coatings, Reporting
- 6710 Burnishing Agents and Anti-corrosive Compounds
- 6720 Lubrication Machines
- 6740 Rubberizing
- 6744 Corrosion Protection Systems
- 6750 Protection against Corrosion and Oxidation
- 6755 Oil Felt Pads
- 6760 Powder Varnishes
- 6770 Anti-Corrosion Paints

11.07 Components

- 6790 Nozzles (also for Grit-Blasting and Descaling)
- 6800 Rubber and PU-Roller Covers for the Plate Refining Industry
- 6810 Rubber Rollers for Platerefining Industry
- 6820 Spraying Systems

6826 Weighing Systems for Bundles and Coils

11.08 Operating Materials

- 6830 Chips and Compounds for Superfinishing
- 6840 Wire Cores
- 6850 Electrogalvanizing Additives
- 6860 Electro Corundum Abrasives
- 6865 Sliding Lacquers
- 6870 Metal Cleaners
- 6880 Phosphatizing Agents
- 6890 Shot-Blast Glass-Beads
- 6898 Steel Abrasives
- 6900 Abrasives and Shot Techniques, in general

11.09 Consulting

6910 Job Refining

11.10 Wear Protection

- 6914 Ceramic Wear Protection
- 6915 Hard Cast Wear Protection
- 6916 Linings and Coatings
- 6917 Overlay Welding
- 6918 Wear Protection, Metal
- 6919 Wear Protection, in general

12. Production of Bright Steel and Wire

- 6920 Engineering and Technical Assistance
- 6925 Second-Hand Plants and Installations

12.01 Wire Rod Mills

- 6930 Rolling Mills for Rods and Light-Sections
- 6950 Guide Appliances for Wire, Steel Bars and Small Sections Rolling Mills
- 6960 Rolling Mills for Flat Wires and Wire Profiles

12.02 Drawing of Wire, Rods and Structures

6965 Wire Drawing Dies 6970 Wire Drawing Machines 6980 Wire Stretching Machines 6990 Drawing Machines for Bars and Sections

7000 Rod Drawing Benches

12.03 Dressing and Straightening Systems for Drawing Plants

7010 Automatic Stirrup **Bending Machines**

7020 Automatic Combi-Machines

7030 Wire Straightening and **Cutting-off Machines**

7040 Rotary Bar and Wire Peeling Machines

7050 Bar Straightening and Polishing Machines

7060 Bar Peeling Machines

7065 Grinders

7070 Bar Grinding Machines

12.04 Components

7080 Binding Machines for Wire Rod. Concrete Steel and Bars

7090 Brakes

7100 Jointings and Packings for Rolling Mills

7110 Wire Cooling Lines

7120 Wire Reeling and Coiling Machines

7140 Wire and Bar Pointing Machines 7150 Flectric Motor Rollers

and Roller Tables

7160 Inks for Marking Devices 7170 Paint Marking Systems

7180 Hook Conveyor Systems

7200 Devices for Coil

Compaction and Strapping of Wire Rod

7210 Read Systems for Automatic Identification of Marks

7220 Marking Systems

7230 Marking Inks

7240 Stamping Machines and Stamps for Hot and Cold Operation (incl. fullyautomatic ones)

7250 Heat Exchangers

12.05 Operating Materials

7267 Controlled Atmosphere for Heat Treatment

7270 Lubricants and Process Auxiliaries

7280 Drawing Agents (Greases, Oils, Soaps, etc.)

13. Production of Tubes/ **Pipes**

7290 Engineering and Technical Assistance 7295 Second-Hand Plants

13.01 Tube Mills

7300 Becking Mills

7310 Diescher Mills

7312 Cross Roll Elongators

7320 Section Mills

7330 Sizina Mills

7332 Precision Sizing Mills

7335 Pilger Mills. Hot and Cold

7340 Sinking Mills

7350 Tube and Becking Mills

7360 Pipe Mill Trains with Planetary Rotary Piercing

7368 Cone-Type Piercing Mills

7370 Rotary Piercing Mills

7380 Plug Mills

7390 Stretch Reducing Mills

13.02 Tube Drawing Machines

7400 Continuous Drawing Machines

7410 Tube Drawing Machines

7420 Bull-Block Machines

7430 Drawing Benches

13.03 Tube Welding Systems

7438 Large-Diameter Pipe Plants

7440 Longitudinal Tube Welding Systems

7450 Tube Welding Installations

7460 Spiral Tube Welding Plants

13.04 Tube Dressing and Straightening Systems

7480 Dressing and Straightening Machines

7490 Dressing and Straightening Systems for Tubes

- 7495 Deburring Machines for Tubes, Pibes, Sections, and Solid Bars
- 7500 Carry-over Separating Devices
- 7510 Straightening Machines for Tubes, Section Steel and Beams
- 7520 Machines for Bending Pipes
- 7525 Steel Wire Industrial Brushes for Tube Trimming
- 7530 Tube-End Sizing and Upsetting Presses
- 7540 Tube Deburring Devices
- 7542 Deburring Machines for Tubes and Pipes
- 7550 Tube Straightening Presses
- 7560 Tube Straightening and Cutting Machines
- 7570 Tube Grinding Machines (inside and outside)

13.05 Components

- 7580 Binding Machines
- 7582 Pipe End Chamfering and Threading Machines
- 7585 Industrial Brushes for Tube Rolling Mills
- 7588 Chains and Sprockets 7590 Strip and Plate Edge
- Milling Machines
 7600 Inks for Marking Devices
- 7610 Paint Marking Systems
- 7615 Cleaning Machines for Pipes, Sections, Profiles, and Solid Pieces
- 7620 Tube Pointing Machines
- 7630 Tube Marking Devices
- 7640 Tube Testing Installations
- 7650 Tube Sawing Installations 7653 Steel Wire Industrial
- 7653 Steel Wire Industrial
 Brushes to Clean Tube
 Coatings
- 7660 Tube Spoolers
- 7663 Sawing Machines, Automatic
- 7665 Technical Brushes

13.06 Operating Materials

- 7678 Controlled Atmosphere for Heat Treatment
- 7680 Lubricants for Mandrel Rods

14. Secondary Forming

7690 CAD Constructions

7700 Metal Spinning

7710 Roller Spinning of Sheets

7720 Engineering and Technical Assistance

7730 Cold Working of Sheets and Plates

14.01 Installations, Presses, Machines

7740 Bending-off Systems

7750 Strip Edge-Working Machines

7760 Strip Straightening Machines

7770 Edge Trimmers for Deep Drawing Parts

7775 Plate Deburrers

7776 Plate Edge Crimping Presses

7780 Machines for Bending Round Plates

7790 Sheet-Metal Stacking

Devices, automatic 7800 Sheet Deformation

7810 Sheet-Metal Working Machines, in general

7820 Bordering Machines

7830 Deburring Machines

7835 Deburrers for Pipes, Profiles, and Solid Rods and Bars

7840 Die-Bending Presses

7845 Riveting Machines (Hot and Cold)

7848 Hydraulic High Pressure Sheet Metal Forming Presses and Plants

7849 Hydro Forming

7850 Hydraulic Presses and Machines

7860 Hydraulic Presses for Fine-blanking

7865 Hydroforming (IHPF)

7868 Internal High-Pressure Systems

7870 Cold Flow Presses

7880 Plants for Cold Profiling 7882 Feeders for Presses

7890 Mechanic Presses for

Fine-blanking 7900 Pneumatic Feeders for Presses

7920 O-Press Installations

7921 Tilting Metal Forming Presses

Secondary Forming

7922 Special Plants for Coiling

7924 Punching Plants

7926 Setting Machines

7930 Deep-Drawing Presses

7940 U-Press Installations

7945 Feed Setting Machines

7947 Roller Feeds

7960 Second-Hand Machine Tools and Sheet Metal Working Machines

14.02 Plate Cutting Systems

7970 Strip Slitting Plants

7980 Sheet Slitting and Cut-to-Length Lines

7990 Laser-Cut Sheet Blanks

7995 Slitter Knives and Accessories for Slitting Lines

8010 Fine-Edge Blanking Plants

8015 High Pressure Water Jet Cutting Technology

8020 Slitting and Cut-to-Length Lines

8030 Slitting and Cut-to-Length Machines

8040 Laser-Beam Cutting Systems

8050 Plasma-Cutting Systems

8070 Cut-to-Length Lines

8072 Plate Shears

8075 Shears for Plates

8080 Laser-Beam Cutting Systems, Second-Hand

8090 Tuning of Shot Blasting Plants

8100 Scrap Optimisation Systems

14.03 Welding Techniques

8110 Deposit Welding of Rolls etc.

8120 Strip Welding Machines

8121 Strip Welding Machines for Coil-Joining

8130 Stud Welding Plants

8140 Electron Beam and Laser Beam Welding (Service)

8150 Electron-Beam Welding Machines

8170 Planing Tools for Edges and Joints

8180 Lattice Girder Welding Machines

8190 Carbon Electrodes 8200 Ingot Mould Welding 8210 Laser-Beam Welding Systems

8211 Laser Welding Systems

8220 Welding Torches

8230 Peripheral Equipment for Robots

8250 Repair of Cracks, Engravings and other Defects

8260 Repair Weldings

8270 Friction Welding Machines

8280 Weldings, in general

8288 Welding Wires

8290 Welding Rods, Stainless

8300 Welding Rods and Additives (also made from CuAl-Alloys)

8310 Welding Electrodes

8316 Textile fabric protective mats and curtains for welders; up to 1250 °C

8320 Welded Structures

8330 Welding Machines, in general

8340 Welding Robots

8350 Welding Technology, in general

8360 Welding Auxiliaries, in general

8363 Wire-Mesh Welding

8370 Sensor Systems for Computer-Aided Welding

8380 Butt Welding Machines, electric

8400 Resistance Welding Plants

14.04 Components

8410 Brakes

8415 Paint Marking Plants

8420 Laser Beam Labelling

8430 Plate Stretchers

8435 Profile Stretchers

8440 Rotary Shear Blades and Equipment

8450 Cutting Tools and Blanking Tools

8460 Self-lubricated Guides and Bushes (high-temperature)

8470 Marking Pencils for Metals

8480 Deep-Drawing Dies

14.05 Services

8481 Electron and Laser Beam Welding

Steel Products

- 8482 Laser Beam Cutting of Steels and Sheet Metal Forming
- 8483 Laser Beam Welding
- 8484 Water Jet Cutting of Steels
- 8485 Cutting Tubes and Pipes with Laser Tube Machine

15. Steel Products

15.01 Rolled Steel

- 8490 Aluminized Sheet (Hot-dip Aluminized or Cladded by Rolling)
- 8500 Al-Zn-Coated Steel Sheet
- 8510 Noise Absorbing Sheets
- 8520 Elevator Tees
- 8530 Strip Steel, Hot-Rolled
- 8540 Machined Plates
- 8550 Tank Bottoms
- 8560 Coated Sheet
 - (Lacquered, Foil Coated)
- 8570 Concrete Reinforcing Steel
- 8580 Cold-Ribbed Concrete Steel in Coils
- 8590 Concrete Reinforcing Steel in Coils, Hot Rolled
- 8600 Concrete Reinforcing Steel, Bars
- 8610 Concrete Reinforcing Steel Bars and Rings
- 8620 Concrete Steel (Stainless) 8630 Wide-Strip Sections,
- organically coated 8640 Wide Strips, Cold Rolled 8650 Wide Strip, Hot Rolled/
- 8650 Wide Strip, Hot Rolle Cold Rolled
- 8660 Wide Flat Steel
- 8670 Wide Flanged Beams
- 8680 Electrical Quality Sheet and Strip
- 8690 Steel Sheet, Suitable for Enamelling
- 8700 Sheet Metals, Special Productions
- 8710 Sheet, Cold Rolled
- 8720 Sheet, Surface Treated
- 8740 Laser-Welded Sheet Products
- 8750 Mash-Seam Welded Sheet Products
- 8760 Flat Steel
- 8769 Section Steel
- 8770 Section Steel (incl. Colliery Arches)
- 8780 Welded Sections

- 8790 Heavy Plate
- 8795 Blanks of Heavy Plate 8800 Heavy-Plate Products,
- Pressed, Dished, Bended, Edge-trimmed
- 8810 Heavy Plate and Light Plate, incl. Coat Plate
- 8820 Semi-finished Products
- 8830 Semi-finished Products, Continuously Cast
- 8831 Semi-finished Products, Continuously Cast, Ingot
- 8840 Semi-finished Products for Finish-Rolling
- 8850 Semi-finished Products for Forging
- 8860 Track Material
- 8870 Cladded Sheets
- 8880 Rails
- 8890 Ship-Building Material
- 8900 Shipbuilding Profiles
- 8910 Semi-finished Products, Forged
- 8915 Forged Bars
- 8920 Slit Strip
- 8922 Slit Strip with Surface Finishing
- 8930 Cold Drawn Special Steel Sections
- 8940 Special Steel Sections, Hot-Rolled
- 8950 Special Sections, Hot Rolled or Drawn, for Fork Lifts, Automotive Construction, Machine Building and Pipeline Construction
- 8960 Special Steel Sections, Hot Extruded
- 8970 Steel Bars (Quality Steel, Case Hardening Steel, Heat-Treatable Steel, Spring Steel, Free-Cutting Steel)
- 8975 Steel Bars (Angles)
- 8976 Bars (High-Grade Steel, of all Dimensions)
- 8980 Steel Sheet Piling Sections (Box-Shaped Piling Planks and Auxiliaries, Sheet Pilings)
- 8981 Steel Sheet Piling Sections (Box-Shaped Piling Planks and Sheet Pilings)
- 8985 Steel Sheat Piling Sections, Box Piles, Steel Piles, Pinnings, and Auxiliaries

8990 CC-Billets

8992 Trapezoid Sections -PUR and Mineral Mode, Sandwich Elements, Acoustic Flements

9010 Galvanized Steel Strip

9020 Galvanized, Shaped Steel Sheets

9029 Galvanized Steel Sheets in Coils, Galvanized Strip Steel

9030 Galvanized Steel Sheets in Panels or Coils. Galvanized Strip Steel

9040 Castellated Beams, Fixed **Beams**

9050 Wire Rod

9060 Wire Rod, Rectangular or Round Cross-Section

9070 Wire Rod, Round

9080 Wire Rod, Spring Steel Quality

9090 Wire Rod, Cold Upsetting Quality

9100 Wire Rod, Welding Rod

9130 Rolled Steel

9140 Hot Wide Strip

9150 Tinplate, Chromium Coated Steel (ECCS/TFS) Blackplate

9160 Y Thresholds

15.02 Tubes

9170 Stainless Steel Fittings 9180 Line Pipes

9190 Line Pipes, Spiral Welded

9200 Boiler Tubes

9210 Stainless Steel Elbows

9220 Stainless Steel Flanges 9230 Line Pipes for Oil Fields

9240 Oil Country Tubular Goods

9260 Clad Tubes

9270 Precision Steel Tubes. Welded

9280 Precision Steel Tubes. Seamless or Seam-Welded (round, oval, square, rectangular, as well as special Shapes)

9290 Precision Steel Tubes, Seamless or Welded. Surface Treated (e. g. electro galvanized, chromized, phosphatized, etc.)

9300 Tube Billets (round/ square)

9310 Tubes

9320 Oxide Ceramic Tubes

9330 Tubes made of Cryogenic Steels or Weldable Fine Grained Structural Steels

9332 Tubes, ceramic

9334 Tubes, Cross Section Square and Circular

9335 Tubes with Round or Square Cross-Sections, Hot-Dip Galvanized

9340 Stainless Steel Tubes

9345 Tubular Parts and Components

9350 Tubular Products (Tube Bends with Special Radii. Pipe Work Systems)

9360 Spun Iron Pipes (also made of High-Grade Steel)

9370 Special Section Tubes, Welded, Cold Rolled

9380 Steel Outlet Pipes. Hot

Dip Galvanised 9390 Mechanical Steel Tubes

9395 Mould Tubes

9400 Steel Tubes, Seam Welded

9410 Steel Tubes, Seamless

9415 Tubes, Pipes, and Services

9420 Reinforcing Sections for Gates, Welded

9430 Reinforcing Sections for Gates. Seamless

9440 Cylinder Tubes

9442 Fittings, in general

15.03 Forged Pieces

9450 Tanks

9460 Products for Mechanical Engineering (Crankshafts, Tools, Gears, etc.)

9470 Products for Energy Mechanical Engineering (for Generators, Turbines, etc.)

9480 Products for Constructing Aero-Engines (e. g. Compressor Blades, Discs)

9490 Products for Shipbuilding 9500 Open-die Forgings, in general

9510 Drop Forgings, in general

9520 Seamless Rings

9530 Forgings, in general

9532 Forgings of Non-Ferrous Metals (Copper and Copper Alloys, Aluminium Alloys)

15.04 Railway Material

9540 Axles 9550 Wheel Tyres

15.05 High-Grade Steel

Following deliveries:

- a) Semi-finished Products, Rolled or Forged
- b) Merchant Bars, Rolled or Forged
- c) Wire Rod
- d) Sheets, Hot Rolled or Cold Rolled
- e) Wide Strip, Hot Rolled or Cold Rolled
- f) Strip Steel, Hot Rolled
- q) Cold Strip
- h) Cladded Sheets
- i) Hammer Forgings
- j) Drop Forgings
- k) Bright Steel (bars or wires, drawn, rough turned, grounded, polished)
- I) Seamless or Seam-welded Tubes and Joints
- m) Special Sections. Hot Rolled. Hot Extruded or Drawn
- n) Cold-rolled Sections
- o) Vacuum-melted Steel, ESR-Steel
- p) Heavy-plate Products, Pressed, Dished, Bended, Edge-trimmed
- g) Seamless Rings
- r) Narrow Strip, GK (cut edges), and Round-off Edaes
- s) Blanks, Round Blanks, Rings
- t) Bars made of Strip, GK (cut edges), Round-off Edges u) Flat Steel
- v) Wide Flat Steel
- 9560 Engineering Steel, in general
- 9570 Special Structural Steels, Tempering Steels, Steels for Surface Hardening, Cryogenic Steels, High-Temperature Steels, Cold Upsetting Steel (a-v)
- 9580 High-Grade Steel Special and Off-Line Items (la and IIa Quality)

- 9590 High-Grade Steels (a-v) 9600 Case Hardening Steel, Wear Resisting Steel (a-v)
- 9610 Case Hardening Steels, Nitriding Steels, Spring Steels, Wear Resisting Steels (a-v)
- 9620 Spring Steel Wire. Stainless
- 9625 Sheet Metal
- 9630 High-Temperature Steels and Alloys (a-v)
- 9635 Perforated Plates
- 9638 Cold Rolled Sections
- 9640 Stainless Bars and Tubes
- 9642 Special Sectons, Hot Rolled. Hot Extruded or Drawn
- 9645 Stainless Steel Wire
- 9650 Stainless, Acid, and Heat Resistant Steels (a-v)
- 9655 Stainless, Acid and Heat Resistant Steels and Alloys (a-v)
- 9660 Stainless, Acid-resisting, and Heat-resistant Steels and Allovs, also Allovs for Electric Resistance (a-v)
- 9670 High-Speed Steels (a-v)
- 9680 Special Steels, Alloyed, Weldable (a-v)
- 9685 Special Constructional Steel, Alloyed, Weldable
- 9690 Steels with Special Physical Properties (a-v)
- 9696 Chrome Plated Steel
- 9700 Rough-machined Steel Bars or Panels, Rough Milled. Precision Milled. Ground
- 9710 Roller-Bearing Steels (a-v)
- 9714 Low-Carbon Steel
- 9716 Tool Steel, Bars, hardened (a-v)
- 9718 Tool Steel, hardened (a-v)
- 9720 Tool Steel, alloyed or unalloyed (a-v)

15.06 Products from Drawing Plants and Cold-Rolling Mills

9730 Bright Steel (incl. Bright Free-Cutting Steel, Bright-Steel shafts. Bright Special shapes) 9740 Steel Strip for Springs

Steel Products / Furnace and Energy Technology

- 9750 Cold Rolled Strip
- 9755 Cold Strip with Plated Surface
- 9760 Cold Strip with Bright Surface
- 9770 Cold Strip with Refined Surface
- 9780 Cold Strip, Cladded by Rolling
- 9790 Cold-Shaped Profiles Made of Hot or Cold Strip
- 9800 Cold-Shaped Profiles with Refined Surface
- 9810 Autobody Components
- 9814 Plate Shapes
- 9817 Precision Strip Steel
- 9820 Pressed, Stamped and Drawn Parts
- 9830 Steel Strips for Baling
- 9838 Tailored Beams
- 9840 Tailored Blanks
- 9850 Metal-Working Components for Automobile Industry (made of Tubes or Sheets)
- 9860 Products from Drawing Plants and Cold-Rolling Mills
- 9870 Cylindrical Tubes for Hydraulics and Pneumatics

15.07 Wire and Wire Products

- 9880 Tie Steel, Screwable 9885 Welded Wire Fabrics
- 9885 Welded Wire Fabrics 9890 Reinforcing Wire,
 - 9890 Reinforcing Wire, Reinforcing Wire Mesh, Mine Matting
- 9900 Rod Mats for Concrete Reinforcing Steel
- 9920 Wire Nettings
- 9930 Wire Weavings
- 9932 Wire Grates
- 9948 Wire Ropes
- 9950 Wire Ropes and Braided Wire
- 9960 Wire and Wire Products
- 9970 Wires (Galvanised Iron, Easy-Machining, Cold Upsetting and Extrusion)
- 9980 Fine Wire (Iron)
- 9990 Iron and Steel Wire, Drawn
- 10000 Spring Steel Wire, Oil Hardened

- 10010 Spring Steel Wires, Unalloyed
- 10015 Section Wire
- 10020 Flat Wire, Section Wire 10025 Chaser
- 10030 Other Wire Products
- 10035 Prestressing Steel
- 10040 Prestressing Steel, Prestressed Concrete Strand
- 10050 Galvanised and PVC-Coated Iron Wire

15.08 Steel Structural Work

- 10058 Lifting Devices,
- Automotive, Mobile 10060 Automatic Reinforcing System
- 10070 Plate and Sheet Construction
- 10080 Bridge Construction
- 10090 Construction of Halls
- 10100 Masts
- 10110 Steel Structural Work, in general
- 10115 Joining in Structural Steel Work
- 10120 Steel Structural Engineering
- 10130 Construction of Assembly Buildings

15.09 Services

10145 Finish Rolling 10146 Blanks (Tool Steel)

16. Furnace and Energy Technology

- 10150 Engineering and Technical Assistance
- 10160 Heating Installations, complete
- 10170 Furnace Optimization (Low NOx Combustion)
- 10180 Process Control Systems for Industrial Furnaces and Power Plants
- 10190 Economic Energy Employment

16.01 Rolling Mill Furnaces

- 10200 Soaking Pits for Annealing
- 10210 Rolling-Mill Furnaces, Inductive

10220 Soaking Pits for Rolling

16.02 Forging Furnaces

10230 Forging Furnaces

10240 Forging Furnaces, Gas Fired

10250 Forging Furnaces, Inductive

16.03 Continuous Roller-Hearth Annealing **Furnaces**

10260 Continuous Roller-Hearth Furnaces 10270 Roller Hearth and Walking Beam Furnaces

16.04 Continuous Furnaces for Wire Strip

10280 Strip Heating, Inductive 10290 Strip Edge Heating,

Inductive 10300 Continuous Furnaces for Wide Strip

16.05 Bell-Type Furnaces

10310 Bell-Type Furnaces 10320 Bell-Type Annealing and Pot Annealing Furnaces

16.06 Vacuum Furnaces

10330 Vacuum Annealing **Furnaces**

10340 Vacuum Hardening **Furnaces**

10341 Vacuum Pumps, Dry Running, for Vacuum **Furnaces**

16.07 Hardening and QT-Plants

10350 Quenching Baths

10355 Carburizing Furnaces 10360 Hardening Furnaces

10370 Hardening Shop

Installations, in general

10375 Hardening and QT-Plants, Electric Heated

10380 Hardening and QT-Plants, Gas-fired

10390 Hardening and QT-Plants, Inductionheated

10400 Hardening and QT-Plants, with Resistance Heating 10401 Laser Hardening Plants

10403 Nitriding Furnaces

16.08 Heating and Heat Treatment Installations

10408 Continuous Furnaces 10410 Double Walking Beam

Furnaces

10420 Hardening Shops

10430 Bogie-Type Furnaces

10440 Induction Heating Systems

10450 Industrial Furnaces. Second Hand

10460 Cell Furnaces

10470 Conductive Heating **Plants**

10480 Furnaces with Mechanically Driven Hearth

10490 Wire Patenting Plants

10500 Plasma Nitriding Plants

10505 Radiators

10510 Roller Hearth and Walking Beam Furnaces

10520 Shaft Furnaces

10530 Steckel Furnaces

10540 Pusher-Type Furnaces, Roller Hearth, and Rotary Hearth Furnaces

10545 Tempering and Drying Stations

10550 Continuous Strand Furnaces for Heat Treatment, Vertical and Horizontal

10560 Heat Treatment Installations

10565 Automated Heat Treatment Units for Quality Assurance

10570 Intermittent Reheating and Heat-treating Furnaces, Open-fired

16.09 Bath Furnaces

10580 Melting Furnaces for Aluminium

10590 Furnaces and Installations for Leadcoating, Galvanizing and Tinning

10600 Salt Bath and Metal Bath Furnaces

16.10 Industrial Furnaces for Special Use

10606 Furnaces for Heat Stability Testing of Steam Turbine Rotors

10607 Furnaces for Fire Resistance Testing

10608 Furnaces for Materials Testing

10610 Kilns for Ceramic Industry

10615 Lime Kilns

10620 Controlled Atmosphere And Vacuum Furnaces 10630 Malleablizing Furnaces

10640 Drying Ovens for Cores, Moulds and Die Hoods

10650 Drying Ovens for Stopper Rods

10652 Microwave Furnaces/ Dryers

10660 Auxiliaries for Industrial Furnaces

16.11 Inert Gas Plants

10670 Inert Gas Plants

16.12 Insulations

10680 Ingot Insulation

10690 Burning Supports

10700 Calcium Silicate

10710 Insulation Materials

10720 Concussion Protection

10730 Backing Insulating

10735 Heat Protection and Insulation Products 10746 Insulating cord, tape,

wrapping and hoses up to 1260 °C

10750 Insulating Bricks 10760 Cooling Tube

Insulations

10770 Building Components for Furnaces

10780 Sound Insulation

10790 Vibration Insulation

10800 Thermal Insulation

10803 Wools Felts for Bright Annealing Boxes

16.13 Components

10805 Waste Gas Technology

10810 Bath Rollers

10820 Strip Coolers and Dryers

10830 Ingot Pushers

10840 Ingot and Slab Pusher for Heating Furnaces

10850 Burners for Gas and Oil 10860 Burners, Special Design

10870 Charging and
Discharging Machines

Discharging Machines
10880 Electric Heating

Elements 10890 Natural Gas Burners

10895 Fire Place Probes (for Video Cameras)

10900 Gas Burners

10910 Generators for Inert and Reaction Gases

10915 Hardening Agents

10920 Heating Conductors

10950 Pulverised Coal Firing, Plants and Equipment

10960 Laser Light Barriers

10970 Oil Burners

10990 Furnace Riders

11000 Furnace Rolls

11005 Plasma Power Generator

11010 Regenerative Burners

11020 Recuperator Burners

11028 Recuperators

11030 Recuperators, Regenerators

11050 Safety Devices for EAF Oxy Fuel Burners

11060 Radiant Tubes

11070 Radiant Tube Burners

11078 Vacuum Pumps, Dry Running, for Vacuum Furnaces

11080 Heat Exchangers

11085 Furnace Charging/ Discharging Systems

11090 Heat Recovery Systems

11092 Weighing Systems for Melting Furnaces

11093 Wool Felts for Bright Annealing Boxes

16.14 Operating Materials

11100 Heat Carrier Oil Systems

11110 Hardening Agents (also Hardening Powders and Recarburizing Agents)

11120 Hardening Oils

11130 Hardening Protection Agents

11140 High Quenching Oils

11150 Fire Resistant Hydraulic Fluids

Refractories Technology

11155 Controlled Atmosphere for Heat Treatment

11160 Polymer Solutions

11170 Lubricants

11180 Spraying Cleaners

11190 Heat Transfer Fluids

16.15 Services

11200 Energy Consulting

11210 Energy Savings

11215 Launching, Attendance and Service for Heating Equipment

11240 Planning and Projecting of Power Plants

17. Refractories Technology

11245 Product Know How for Basic Refractory Bricks and Mixes

11248 Controlling of Refractory Components

17.01 Heating and Heat Treatment Installations

11250 Aluminum Hydroxide

11260 Aluminium Oxide, Alumina

11263 Reinforcement Rods for Refractories

11265 Binding Agents for Refractory Materials

11270 Electro Corundum

11280 Graphite

11290 Ganister

11300 Coke Breeze

11310 Coke Breeze, Dry

11320 Burnt Magnesite

11330 Micro Silica

11340 Fused Aluminium Oxide

11360 Silicon Carbide

11366 Titanium Dioxide

11370 Clays

11380 Alumina Specials

11390 Zirconium Oxide

17.02 Refractory Producing Plants

11400 Refractory Producing Plants

17.03 Refractories

11410 Taphole Bricks for Converter Vessels and Electric Arc Furnaces 11420 Coating, Primer and Gunning Materials

11430 Basic Tamping Clay, Spraying Mixtures and Refractory Mixtures

11440 Basic Bricks

(Magnesia-, Magnesia-Chromium-, Chromium Ore-, Chromite-, Dolomite-, Forsterite bricks)

11450 Calcium Silicate

11460 Dolomite Products

11470 Electrode Pastes

11480 Fibre-Ceramic Moulded Articles, Vacuum Moulded

11481 Finre-Ceramic Moulded Articles, Vacuum Moulded, up to 1750 °C

11485 Fibre Mats and Felts up to 1600 °C

11490 Fibre Products, Ceramic

11500 Prefabricated Units, Refractory

11510 Refractory Concrete

11512 Refractory Concrete, High Strength, for Industrial Floors

11520 Refractories, in general

11521 Release Lubricants for Monoliths Moulds and Formers

11530 Refractory Tamping Clays

11540 Anchorages, Refractory 11550 Refractory Materials

11560 Light-Weight Refractory

Bricks
11570 Light-Weight and

Insulating Refractory
Mixes
11580 Light-Weight and

Insulating Refractory
Bricks

11590 Gas Rinsing Devices, Refractory

11600 Foundry Refractory Mixtures, Self-fluxing

11603 Foundry Mica Slipping plane, Coil Protection, System Coilguard

11610 Hearth Mixes

11620 High-Temperature Burnt Bricks

11630 Blast-Furnace Bricks

11640 Induction-Furnace Mixes

Refractories Technology / Machinery and Plant Engineering

- 11650 Insulating Material, free from Asbestos
- 11660 Isostatically Pressed Products
- 11670 Carbon- and Graphite Bricks
- 11690 Converter Bricks
- 11700 Arc-Furnace Bricks
- 11710 Perforated Bricks
- 11720 Refractory Mixes, in general
- 11725 MgO-C-Stones
- 11730 Mortars and Putties, Refractory
- 11740 Injection Materials
- 11750 Ladle Mixes
- 11752 Torpedo Ladle Linings
- 11753 Tundish Lining Refractories
- 11755 Ladle Lining, monolithic
- 11760 Ladle Bricks
- 11768 High Temperature Wool (HTW) Products
- 11790 Runner- and Taphole Linings
- 11800 Gutter Relining, Cooled
- 11810 Acid-Proof Bricks
- 11820 Acid Ramming Masses and Slinger Masses
- 11830 Fire-Clay Bricks
- 11840 Ladle Shrouds
- 11850 Slide Gate Nozzle Ceramics
- 11860 Cast Basalt
- 11865 Protection Coats, Fabric, Fire-Resisting
- 11870 Silicon-Carbide Bricks
- 11880 Silica Bricks, Refractories "Tondinas"
- 11886 Special Adhesives (up to 1200 °C)
- 11890 Spraying and Repair Compounds
- 11900 Casting Pit Refractories
- 11910 Tamping Clays, Foundry Refractory Mixtures, and Vibrating Compounds
- 11915 Tamping Clays, Spraying and Refractory Mixtures
- 11920 Stoppers and Nozzles 11930 CC-Products,
- Refractory
- 11940 Submerged Entry Nozzle (SEN), Mono Submerged Nozzle
- 11950 Technical Ceramics

- 11960 High-Alumina Bricks (Andalusite, Bauxite, Corundum, Mullite, and Sillimanite bricks)
- 11970 Torpedo Ladle Bricks 11978 Release Lubricants for
 - Sliding Valve Refractory Nozzles
- 11979 Release Lubricants for Sliding Valve, Nozzles as well as Steel Ladle Gas pouring Cones
- 11980 Tundish Compounds
- 11985 Cementfree Castables for Blast Furnace Runners
- 11990 Vermiculite
- 12000 Thermal Insulation Materials, free from Asbestos
- 12004 Vacuum Moulded Articles
- 12005 Vacuum Moulded Articles, free from Ceramic Fibre
- 12020 Zirconium Nozzles
- 12030 Zirconium Bearing Bricks
- 12040 Zirconium Silicate and Powder

17.04 Processing of Refractories

- 12050 Preparation of Used Refractories
- 12060 Testing of Refractory Material

17.05 Machines for Refractory Construction

- 12070 Air Hammers to Break-out Slag and Refractories
- 12071 Lining and Removal Robots
- 12075 Chaff
- 12080 Converter-Taphole Repair Cars
- 12090 Converter Lining Devices, Mobile
- 12095 Converter lining equipment
- 12100 Manipulators for Refractories
- 12110 Ladle Spraying and Gunning Installations

12120 Pumping Machines for Refractories

12130 Centrifugal Machines for Refractories

12140 Spraying and Gunning Machines for Refractories

12142 Tundish Lining, Casting and Spraying

12150 Ladle Ramming Equipment, automatic

17.06 Refractory Constructions

12160 Linings for Furnaces of all Types

12170 Combustion Chambers

12180 Refractory

Constructions

12190 Refractory Tamping Clays

12200 Suspended Roofs

17.07 Services

12204 Training Measures -Refractories 12205 Refractory Maintenance at Operating Temperature 12206 Refractory Systems

18. Machinery and Plant **Engineering**

12210 Plant Construction, in general

12220 CAD Constructions

12230 Engineering and Technical Assistance

12240 Bars, Columns, and Shafts

12250 Industrial Engineering

12258 Standard Elements for the Production of Cutting and Punching Tools

12260 Cleaning Material

12270 Second-Hand Machines (Buv and Sell)

12280 Special Constructions 12285 Heat Exchangers

18.01 Mining Plants, Machines and Equipment

12290 Underground Plants and Machines 12300 Bucket Conveyors

12309 Conveyors

12310 Conveying Plants and Machines

12330 Structural Steel Sections for Mines

18.02 Chemical Plants and **Auxiliaries**

12350 Construction of Vessels and Apparatus

12360 Liquid Gas - Deposit Stations

12370 Gas Holders. Gasometers

12390 Acid Stacks

12400 Acid and Chemical Resisting Plants and Installations

12410 Nitrogen Extraction Plants

12420 Hydrogen Producing Plants

18.03 Steam Generators. Plants and Auxiliaries

12425 Waste Gas Techniques

12430 Waste Heat Boilers

12440 Steam Filters

12450 Steam Boilers, in general

12460 Pressure Vessels

12480 Pulverized Coal Firing Plants and Equipment

18.04 Foundry Plants, Machines and Requirements

12354 Pouring Ladles

12489 Automatic Pouring Control

12490 Shot Blast Equipment

12500 Moulding Machines

12520 Pouring Units

12530 Foundry Plants, Machines and

Equipment

12535 Casting Auxiliaries

12536 Foundry Tools 12540 Foundry Consulting and Engineering

12542 Casting Software

12550 Core Shooters

12560 Boshing Machines

12570 Robots

12580 Sandmixer

12586 Melting Furnaces, inductive

12590 Shaking Ladles

12592 Lifter

12600 Mould Plates

12605 Vacuum Precision Casting Plants - Super Alloys

12607 Vacuum Precision
Casting Plants with
Cold Crucibles for
Titanium or rather
Titanium Alloys

18.05 Power Stations

12610 Steam Power Stations 12620 Power Stations (Plants and Centers), Electric

18.06 Airing Plants and Appliances

12630 Blowers

12635 Ventilators for Industrial Use

12650 Air-Conditioning Systems, in general

12660 Heating/Cooling Instruments for Hot Shops

12670 Air-Conditioning Systems for High Temperatures up to 90°C, for Crane Cabins, Control Rooms, etc.

12690 Expansion Pipes

12700 Air Ducts

12710 Airing Plants and Appliances, in general

12720 Natural Ventilation

12730 Exhausters

10740 Variation

12740 Ventilators

18.07 Water-Economic Plants, Appliances and Auxiliaries

12750 Chemical Water Treatment

12760 Equipment for Hydraulic Water and Accumulators

12770 Filtering Installations for Circulating Water

12780 Expansion Pipes (Rubber)

12790 Cooling Towers

12796 Magnetic Filters

12800 Additions for Hydraulic Pressure Water 12810 Water Preparation Plants

12820 Water Treatment Plants 12830 Chemical-free Water

Demineralization, Water Purification and Recycling

12840 Water Re-cooling Plants

12845 Liquide Chillers

12846 Water Filtration

18.08 Other Plants

12850 Flexible Tubes for Granulated Slags

12860 Slag-Disposal Plants (incl. Slag Granulation Plants)

12862 Slag Granulation Plants 12870 Plants for Lubricating Oil

18.09 Maintenance

12875 Erection and Maintenance

12880 Spare Parts and Consumer Goods

12890 Maintenance, in general

12894 Maintenance Systems

12895 Steel Mill Services 12896 Repairing and

Modernizing of Machine-Tools

12900 Maintenance of Large Gearings

12920 Maintenance for Continuous Casting Plants for Blooms and Slabs

12930 Maintenance for Continuous Casting Plants for Blooms and Billets

12940 Maintenance for Continuous Casting Plants for Blooms and Rounds

12950 Mould Repair

12960 Ingot Mould Repairs

12964 Cleaning of Cooling Systems

12970 Ladle Repair Technique, Refractories

12980 Repairs, Spare Parts

12983 Software for Maintenance

12990 Preventive Maintenance

13000 Cleaning of Heat Transfer Systems

13010 State-dependent Maintenance of Machines

18.10 Engines and Machines

13020 Steam Turbines

13021 Gas Turbines

13030 Rotary-Piston

Compressors

13040 Compressed Air Equipment

13050 Compressors for Natural Gas and Long-Distance Gas

13060 HD Stores for Natural Gas

13070 Piston Pumps

13080 Piston Compressors

13083 Corrosion Resistant Pumps

13090 Centrifugal Pumps

13100 Mixers for Fuel Gases

13120 Lubricating Pumps

13130 Screw-Type Compressors

13150 Turbo Compressors

13160 Vacuum Pumps

18.11 Gearings and Driving Elements

13168 Driving Elements 13170 Driving Technology Engineering

13174 Steel Fitting Gears

13180 Brakes

13190 Brake-Disc Fastening

13195 Torque Limiting

13200 Flanged Couplings

13210 Articulations (Wearing Pieces)

13220 Universal-joint Shafts

13230 Geared Rollers

13240 Gearings and Driving Elements

13250 Heavy Gearings

13255 Chain Gears and Wheels

13260 Hirth Serration

13261 Serration

13270 Couplings

13280 Couplings, Elastic

13285 Couplings, Flexible, Elastic

13290 Couplings, Mechanical and Hydrodynamic

13298 Planetary Gearboxes

13300 Planetary Gearings

13308 Swivelling Drives

13310 Safety Couplings

13318 Shafts, Spindles

13320 Special Constructions

13350 Shaft-Hub Junctions. free from Play

13360 Shaft Couplings (Rigid) 13365 Shaft Couplings,

Flexible, Gear- and Disc

13380 Gearings (Toothed Wheel)

13390 Cogged Wheels

18.12 Bearings

13400 Rotating Unions

13404 Elastomer Bearings

13406 Joint Bearings/Tops 13410 Sleeve Bearings

13420 Compact Sleeve

Bearings (Ceramics-Metal)

13430 Ball Bearings

13440 Cam Rollers

13460 Linear Systems

13470 Roller Bearings

13480 Back-up Rollers

13484 Thermal Separation

13485 Supporting and Controlling Rollers

13490 Anti-Friction Bearings

13492 High-Temperature Ball and Roller Bearings

13500 Roll Bearings

18.13 Oil-Hydraulic Equipment, Appliances and Auxiliaries

13510 Rotary Feeders

13520 Pressure Gauges, Switchgears, and Logging Devices

13530 Pressure Switches

13540 High-Pressure Flange Couplings

13548 Hydraulic Accumulators

13550 Hydraulic Power Units

13560 Hydraulic Jointings and Shaft Seals

13570 Hydrogearings

13580 Hydromotors

13590 Hydropumps

13595 Hydro-Stores

13600 Hydrovalves

13610 Hydrocylinders

13620 Oil-hydraulic

Equipment, Appliances and Auxiliaries

13630 Vibration Dampers

13640 Servo Valves

13645 Continuous Valves

13660 Oil-hydraulic Plants (complete)

13670 Water Hydraulics

18.14 Control Equipment and Components

13680 Cut-off Fittings

13695 Torque Limiting

13710 Electric-hydraulic Actuators

13718 Cylinders, Power-Assisted

13720 Multiple-Spot, Single-Purpose and All-Purpose Controllers

13730 Control Equipment, complete

13740 Control Armatures

13745 Control Valves

13760 Servomotors

13780 Continuous Single-Purpose and All-Purpose Controllers

18.15 Pipelines and Auxiliaries

13786 Waste Gas Technology

13790 Retaining Valves

13810 Fittings

13820 Flanges

13840 Rubber Expansion Joints

13850 High-Pressure-Tube Technology

13859 Excess Flow Cut Off Valves

13860 Expansion Joints

13890 Pipe-Break Safety Valves

13900 Pipe Swivel Joints

13910 Pipelines and Auxiliaries

13920 Pipework

13930 Pipeline Auxiliaries

13940 Return Valves

13945 Flexible Tubes

13947 Flexible Tubes with Ceramic Wear Protection

13950 Goggle Valves

18.16 Wire-Stranding Machines

13955 Cable-Stranding Machines

13958 Rope-Stranding Machines

18.17 Pattern Construction

13960 Material for Pattern and Prototype Construction

13970 Pattern and Prototype Construction

18.18 Machine Tools

13980 Slicing Machines

13990 Threading Machines

14000 Band Sawing Machines

14010 Bending and

Straightening Machines

14015 Slab-Sawing-Machines

14020 Wire Processing Machines

14030 Roller Spinning Machines

14040 Milling Machines

14060 Spark-Erosion Machines

14070 Honing and Lapping Machines

14080 Cable Sheathing Presses

14081 Cable Sheathing Presses (Lead and Aluminium)

14088 Sharpening Machines

14090 Cold Circular Sawing Machines

14095 Hot Circular Sawing Machines

14100 Mould-working Machines

14130 Shears for Metallurgical **Plants**

14140 Flying Shears, Pedestal Shears, Plate-working Machines

14148 Shear Blade Grinders

14150 Shears Centers

14158 Rotary Table Grinders 14160 Grinding and Polishing

Machines 14168 Slitter Knife Grinders

14170 Special Machines for Machining 14180 Special Machines for

Chipless Forming

14190 Special Machines for Special Jobs

14195 Concrete Cutting Saws

14200 Stone-cutting Saws

14210 Plate Shears

14215 Saw Manufacturers

14220 Friction Sawing Machines

Machinery and Plant Engineering / Transport and Storage Techniques

18.19 Tools

14230 Bending-off Tools

14240 Drills

14242 Drills for Tapholes

14250 Diamond Tools

14260 Pneumatic Tools

14280 Cemented Carbide Alloys (Cermets)

14290 Hard Metal Cutting Panels and Shape Elements

14300 Carbide/Hard Metal Cutting Tools

14302 Saw Blades Armed with Carbide Alloy

14304 HP-Grinding Wheels

14306 Sawing Bands and Blades for Metallic and Non-Metallic Materials

14310 Saw Blades for Metal

14318 Mill Blades

14320 Shear Blades

14323 Slitter Knives and Accessories for Slitting Lines

14324 HP-grinding Wheels

14325 Cut-off Wheels

14326 Roll Grinding Wheels

14330 Abrasive Materials and Wheels

14334 Special Tools for Die Casting

14336 Cutting Wheels

14337 Roll Grinding Discs

14338 Machining Tools, Special Machining Tools

18.20 Tooling and Chucking Techniques

14380 Clamping Hydraulic

14400 Prestressing Elements

14401 Bolting, large

18.21 Components

14410 Sealings

14412 High Chemical- and Thermal-Resistant Sealings

14420 Rotary Sealings for Charging of Gases or Liquids

14430 Rotating Unions for Cooling Water for Continuous-Caster Rollers 14440 Nozzles (incl. Blow-off Nozzles and Descaling Nozzles)

14450 Pistons

14460 Flexible Tubes, made of Metal

14470 Buffers (made of Rubber or Cellulose) 14480 Stuffing-Box Packings

14480 Stuffing-Box Packing: 14490 Wear Plates

18.22 Operating Materials

14500 Solid Lubricants 14510 Industrial Oils

14520 Cooling Lubricants

18.23 Tribology

14522 Metering and Monitoring Devices for Lubricants

14523 Oil Circulating Systems for Bearing and Gear Lubrication

14524 Dual-line Grease Lubrication Systems for Steel Works and Rolling Mill Plants

14525 Special Lubricants

14526 Lubricating Devices, Central

14527 Oiling and Deoiling Machines

18.24 Services

14528 Service for Compressors and Turbines

14529 Mechanical Treatment of Hydraulic Setters

19. Transport and Storage Techniques

14530 Engineering and Technical Assistance

14532 Steel Logistics

14535 Hot Material Conveyor

14538 Magnetic Stackers and Conveyors

14540 Transports and Logistics for Industrial Recyclings

14548 Transports, Forwarding, Haulage

14550 Transport Technology

14551 Heavy Duty Transporters (Manufacturers)

19.01 Iron and Steel Works Vehicles

14560 Slab, Bloom and Billet Transporting Equipment, Rubber-Mounted

14570 Coil Transport Systems

14580 Coil Transfer Cars

14590 Iron and Steel Works Vehicles, in general

14600 Railmounted Vehicles for Metallurgical Plants

14605 Air Cushion Vehicle

14610 Slag Pot Carriers

14620 Slag Transfer Cars

14630 Scrap Transport Trailer with Weighing Device 14640 Steel Work Vehicles

19.02 Rail-Born Vehicles

14650 Diesel Locomotives/ Engines

14660 Railway Wagons

14670 Self-propelling Wagons

19.03 Track Technique

14680 Turntables and Transfer Tables

14684 Track Technique

14690 Shunting Units

19.04 Trackless Vehicles

14700 Trailers

14705 Trucks and Trailers

14720 Electric Ground Level Transporters

14730 Electric Trucks

14734 Electric Four-Way Sideloaders

14740 Driverless Transport Systems

14742 Driverless Transport Systems for Steel and Aluminium Coils

14750 Fork Pilers and Transverse Fork Pilers

14760 Rubber-tired Heavy-Load Vehicles

14790 Trucks

14810 Heavy-Load Tractors (Vehicles)

14820 Telescopic Excavators

14822 Transport Systems for Coils

19.05 Continuous Conveyors

14830 Conveying Installations, in general

14840 Pneumatic Conveyors

14850 Vibrating Conveyors

14860 Vertical Conveying

14880 Steeply Inclined Conveyors

14890 Continuous Conveyors for Bulk Material

14900 Continuous Conveyors for Parcelled Goods

14910 Belt Conveyors and Worm Conveyors

14920 Troughed Chain Conveyor

19.06 Cranes

14930 Rotary Cranes

14940 Casting Cranes

14950 Cranes, Lifting Gears, and Auxiliaries, in general

14955 Crane Services

14960 Overhead Travelling Cranes

14970 Portal Cranes

14980 Claw Cranes

14990 Buffers

14992 Vacuum Devices for Heavy Industry

14993 Automatic Pilers/ Stackers (vacuum lifting devices)

19.07 Balances

14997 Balances for Bunches and Coils

15000 Blending and Mixing Scales

15010 Wagon Weighbridges and Vehicle Balances

15020 Crane Scales

15030 Scales for Roller Tables 15040 Balances for

Continuous Weighing

15041 Balances for Alloying Elements

15042 Balances for Pig Iron

15043 Balances for Scrap

15044 Balances for Static Weighing

15045 Balances for Stationary Weighing

15050 Load Systems for Ladle-Turrets or Cars

Transport and Storage Techniques

15057 Profile Measuring Gauges

15060 Load Cells

15080 Weighing Systems for

19.08 Storage and Handling Equipment

15090 Coil High-Bay Warehouses

15100 Flowbien Yard Systems

15110 Labelling Systems

15120 Lattice Girder Storage Systems

15134 Lift Working Stage

15140 Storage Technology and Automation Systems for Sheets, Long Products, and Stackable Boxes

15141 Storage Technology and Automation Systems for Sheets, Long Products, and Bunker Stocks

15150 Storage and Handling Equipment

15154 Vacuum Lifting Devices for Large and Medium Formate Plates

15155 Storage Systems for Coils

15160 Stock and Shelf Systems

15164 Dispatch Equipment for Long Items, Stackers for High-Bay Warehouses 15170 Marking Systems

15180 Pallets and Cassettes

15188 Vertical Carousels (Paternosters)

15189 AS/RS (automated storage/retrieval system)

15190 Operation of Shelves

15192 Sideloaders

15193 Crossheads and Turning Arrangements

15195 Castellated Shelves Systems

19.09 Stores Organization

15198 Labels

15200 Identification 15208 Stock Logistics

15210 Stores Organization

19.10 Components

15220 Arresting Appliances

15230 Loading and Unloading Devices

15240 Sheet Pack Dogs

15250 Ingot Pusher, Withdrawing Devices

15270 Bunker Discharging Equipment

15280 Bunkers and Silos 15290 Coil and Sheet

Packaging

15300 Dogs for Coils

15310 Permanent Magnets

15320 Electric Equipment for Cranes etc.

15330 Electric Hoists

15335 Labels

15350 Conveyor Belt Skimmers

15360 Conveying Plants and **Appliances**

15380 Conveyor-Belt Vulcanizing Devices and Materials

15390 Grabs and Tongs

15400 Manipulators

15410 Lifting Clamps, Safety Clamps

15420 Industrial Robots, Suitable for Ironworks, Sensor-controlled

15430 Chains

15431 Chain Wheels

15435 Sprockets

15440 Tilting Shackles, Heavy Shackles

15450 Crane Traversing Wheels

15455 Crane Cables

15460 Stock Yard Equipment

15470 Laser Distance Measuring Instruments for Cranes

15480 Lifting Belts

15490 Lifting Magnets and Equipment

15500 Electromagnetic Brake Systems

15510 Magnets, Magnetic Systems

15511 Safety Appliance for Electric Load Lifting Magnets

15515 Slab Turning and Transportation Magnets

15516 Safety Appliance for Electric Load Lifting Magnets

15520 Wheels

Electrical Engineering and Automation

15530 Corrosion-, Friction and Wear Protection

15540 Containers for Bulk Materials

15550 Sheaves

15555 Safety Device for Lifting Magnets

15560 Separation Magnets

15570 Silos for Refractories

15580 Silos for Bulk Materials 15590 Bulk Handling Plants

15600 Guide Pulleys

15610 Packaging Technique

15620 Wear Resisting Coating (Aluminum Oxide Ceramics)

15630 Wear Resisting Coatings (Rubber)

15632 Wear Protection

15635 Rotary Railcar Dumpers

15640 Wagon Tipplers

15650 Hot Transport and Thermo-Hoods for Steel Ingots

15652 Weighing Systems for Steelmaking

19.11 Operating Materials

15660 Lubricants

19.12 Packaging Technique

15664 Packaging Materials

20. Electrical **Engineering and Automation**

15670 Linear Actuators and Turn Tables. electromechanically

15680 Engineering and Technical Assistance 15690 Technical Translations

and Documentation

20.01 Electrical Equipment for Metallurgical Plants and Rolling Mills

15700 Work Layout Systems 15720 Three-Phase AC Motors

15730 Electrical Equipment for Metallurgical Plants and Rollina Mills

15740 Electrical Equipment for Rolling Mills

15750 Electric Large Plants, complete

15760 Energy Supply for Movable Consumers

15770 Spring Cable Reels 15780 Spring Hose Reels

15785 Remote Radio Control Systems

15788 Radio Systems

15790 Radio Control Systems

15800 Gear motors

15810 DC Motors

15820 High Current Cables and Electric Wires. Water Cooled

15830 Cables and Electric Wires

15850 Motor Wire Reels

15860 Low-Voltage Switch Gears

15864 Switches, Pressure

15866 Switches, Temperature

15870 Switch Stations

15880 Slipring Assemblies

15890 Safety Systems

15900 Heavy Current Capacitors

15910 Plug Appliances

15920 Current converters (frequency converters)

15930 Current Leads (incl. Moveable ones and Bus-Bars)

15932 Thermowells

15940 Transformers (also for Industrial Furnaces)

15960 Intercom Telephone Systems

15962 High Tension Leads and Contact Pieces

15964 Speed and Position Measurement Units

15965 Speed and Position Measurement Encoders

20.02 Automation

15967 Electrical-, measuringand control technical plant construction, in general

15970 Automation, in general

15980 Automation Lines for Ores and Fines

15990 Automation Lines for Blast Furnaces

16000 Automation Lines for Industrial Furnaces, in general

Electrical Engineering and Automation / Measuring and Testing Techniques

- 16010 Automation Systems for Cold-Rolling Mills
- 16020 Automation Lines for Cokery
- 16030 Automation Lines for Steelworks
- 16035 Automation Systems for Blast Furnaces
- 16040 Automation Systems for Hot Rolling and Pipe Mills
- 16041 Automation Systems for Hot Rolling
- 16050 Automation Lines and Process Control Systems for Metallurgical Plants
- 16055 Automation of Strip Processing Lines
- 16060 Automatic Character Recognition Systems
- 16063 Strip Flow Control
- 16070 Data Transmission Systems
- 16080 Industrial TV-Engineering
- 16090 Information and
- Communication Systems
- 16100 Identification
- 16110 Tailor-Made Complete Systems
- 16120 Automation Systems for Vehicles (inductive)
- 16130 Automation Systems (by Image Processing) for Vehicles
- 16140 Automation, in general 16150 Positioning Devices for
- Cranes 16160 Process Automation
- 16162 Process Automation for Strip Processing Lines
- 16170 Process Automation for Continuous Steel Casters
- 16180 Process Automation for Steelworks Plants
- 16190 Process Control Systems
- 16192 Process Control with IR-Detectors
- IR-Detectors 16200 Process Optimization
- 16202 Process Optimization with Weighing Systems
- 16205 Shopfloor Systems
- 16210 Control Equipment, complete

- 16220 Control Centres for Metallurgical Plants and Rolling Mills
- 16230 Controls, electric
- 16240 Controls, electronic
- 16250 Controls for Pressure-Water Tanks
- 16260 Controls, hydraulic
- 16270 Controlling Devices, Infrared
- 16280 Current Supply for Automation and Control
- 16290 Networks (LAN, WAN)
- 16293 Video Technology
- 16295 Weighing Systems for Steel Plant Process Automation

20.03 Data Processing

- 16300 Analog Instruments and Auxiliaries
- 16305 Archiving
- 16310 Acquisition of Operating Data and Machine Data
- 16320 Data Acquisition Systems
- 16330 Data Processing
- 16338 Digital Image Processing
- 16340 Digital Instruments and Auxiliaries
- 16350 Expert Systems
- 16355 Manufacturing Execution System (MES)
- 16360 Turnkey Hard-/Software Systems
- 16376 Weighing Systems for Steel Plant Data Processing
- 16380 X-Window Terminal

20.04 Software

- 16390 Software for Simulations
- 16393 Software for Archiving, Document Management, and Workflow
- 16395 Software for Order Processing, Warehouse, and Test Certificate Management
- 16400 Application Software 16410 Software for Slitting

Lines

16415 Merchandise Planning and Control Systems for Steel and Metal Trade

Measuring and Testing Techniques

- 16420 Software for Production Planning and Control
- 16430 Software for Statistic Process Control and Quality Control
- 16440 Technical Calculation Programs

20.05 Maintenance

16450 Machine Diagnosis 16460 Maintenance and Inspection

21. Measuring and Testing Techniques

- 16470 Gas Measuring Instruments for Degreasing Lines
- 16472 Gas Measuring Instruments for Metal Degreasing Plants
- 16480 Gas Measuring Instruments for Metal Cleaning Systems

21.01 Measuring and Testing Techniques, in general

- 16490 Automation and Measuring, Colorimetry
- 16500 Pressure Transmitter
- 16508 Corrosion Testing Sets 16510 Measuring Techniques
- 16511 Measuring of
 Magnetism
- 16520 Measuring and Testing Systems, in general
- 16530 Measuring and Testing Techniques, in general
- 16540 Data Acquisition
- 16550 Data Processing 16552 Identification Markers
- for Measuring and Testing Means
- 16553 Labels for Measuring Devices and Testing Status Marking
- 16560 Radio Activity Signalling
- 16564 Recorders
- 16565 Tension Control and Tension Measurement
- 16566 Breakout Detection and Residual Wall Thickness Testing (Refractory Relining)
- 16568 Roll Measuring Instruments

21.02 Measurement Physical Properties

- 16570 Distance Gauges 16580 Distance Sensors for Positioning and
 - for Positioning and Length Measurement (Laser, Ultrasonic, and Inductive)
- 16581 Distance Sensors for Positioning and Length Measurement (magnetostrictive)
- 16585 Molten Metal Level Control
- 16590 Converter Bath-Level Indication
- 16600 Bath Level Control Systems
- 16605 Coating Measurement Systems
- 16608 Automatic Gauge Control (AGC)
- 16610 Slip Gauge
- 16612 Strip Flatness Gauges
- 16613 Strip Flatness Control
- 16615 Strip Flow Control
- 16620 Strip Tension Measuring Systems
- 16625 Strip Tension Installations for Driven S-Rolls
- 16630 Width Gauges
- 16640 Extensometers and Resistance Strain Gauges
- 16645 Extensometers (noncontact, optical)
- 16650 Elongation and Massflow Measuring Systems
- 16652 Temper Rolling and Bulk Flow Measuring Systems
- 16660 Thickness Measuring Devices and Gauges
- 16670 Thickness Gauge 16680 Distance-to-Fault
 - Switches and Measuring Devices (Optical, Acoustical and Inductive)
- 16690 Torque Measuring Installations for S-Rolls
- 16700 Torque Measuring Devices
- 16702 Edge Defect Detection

Measuring and Testing Techniques

16704 Section and Profile Measurement for Rods and Bars 16710 Revolution Counters 16720 Flow Meters 16721 Flow Meters, e. g. for Coal Injection 16730 Flow Control 16740 Measuring of Diameter 16750 Electrical Measuring of Mechanical Quantities 16755 Electronic Measuring Systems for Hydraulic and Lubricating Oils 16770 Shape Measuring Technology 16780 Level Indicators 16790 Level Control 16791 Mould Level Control (AMLC) 16800 Level Control 16810 Gas-measuring Instruments 16815 Oxygen Probes for Flue Gas 16820 Instruments and Chemicals for Waste Water Control 16830 Speed Gauges 16840 Mold Flow Measurement Systems 16850 IR-Switches 16860 IR-Radiation Pyrometers 16861 IR-Radiation **Thermometers** 16870 IR-Radiation Pyrometers with Scanner 16871 IR-Radiation Thermometers with Scanner 16875 Infra-red Thermography 16877 IR-Cameras, Infrared Slag Detection 16878 Cameras, Furnace Cameras 16879 Cast Temperature Detection 16880 Insulating Capillaries 16890 Dynamometers for Tension and Pressure 16891 Force Measurement and

Weighing Systems

Devices for Tubes

16900 Cooling-Water Control

16910 Length-Measuring

16920 Length Gauges

16930 Length Measuring Instruments (also for Lines and Paths) 16940 Length Measuring Equipment, Ultrasonic, (also for Distances. Intervalls, and Lines) 16950 Length and Speed Measuring Systems (Optical) 16955 Speed and Position Measurement Units 16956 Speed and Position Measurement Encoders 16960 Laser Speed and Length Measuring Instruments 16970 Measuring Devices for pH and Conductibility 16980 Mass Flowmeters 17000 Measuring of Refractory Linings (under Operating Conditions) 17010 Electric Measuring Instruments 17020 Measuring Machines 17030 Data Printers 17033 Microstructure/ Roughness Measurement 17035 Surface Crack Identification 17040 Measuring Instruments, opto-electronic 17050 Flatness Measuring Devices 17057 Profile Measuring Gauges 17060 Shape Measuring Systems (Non-Contact) 17080 Pyrometers 17090 Pyrometer Pipes 17100 Quotient Pyrometers 17105 Inline concentration measurement of liquids 17110 Hot Metal Detectors, **HMD** 17118 Measurement Devices for Rolls 17120 Measuring Devices for Tubes

17130 Layer Thickness

17133 Layer Thickness

17135 Layer Thickness Controlling

Controlling

Gauges

Measuring and Testing Techniques / Materials Testing

- 17138 Slag Detection by Infrared
- 17140 Slag Detectors
- 17150 Slag Thickness Measurement
- 17155 Ladle Hot Spot Detection
- 17160 Forgings, Measuring 17170 Lubrication Control for
- Roller Bearings 17180 Vibration Measuring
- 17180 Vibration Measuring Devices
- 17190 Wire Rope Testing Machines for Steel Ropes having Round or Rectangular Cross-Sections (Rope Belt Conveyor)
- 17200 Dust Measuring Devices
- 17210 Radiation Detection Equipment
- 17220 Input Inspection Concerning Nuclear Radiation
- 17230 Immersion Thermocouples
- 17240 Dew-Point Measuring Devices
- 17250 Thermometers
- 17260 Thermocouples
- 17270 Sheath Tubes for Thermocouples
- 17274 Thermographic Measurement
- 17276 Thermometers
- 17280 Measuring Instruments for Thermal Conductivity
- 17290 Roll Force Measuring Systems
- 17300 Measuring Devices for Rolling Mills
- 17310 Resistance Thermometers
- 17320 Line Scan Cameras
- 17322 Non-destructive Thickness Measuring of Refracotry Linings (while Shut Down)
- 17325 2-Colour Pyrometers with Glass Fibre Optics
- 17326 Crop Optimization
- 17327 Absolute Displacement Transducers

21.03 Quality Management

17340 3-D Shape Measuring of Rails and Similar Profiles

- 17341 3-D Shape Measuring of Welded Joints
- 17345 Inline Measurement of Pickling Bath Concentrations
- 17350 Breakout Predetection
- 17352 Break-out Protection and Control
- 17354 Break-out Prevention Systems
- 17360 Break-Out Control
- 17365 Inline Measurement of Chrome Plating Bath Concentrations
- 17368 Inline Measurement of Rolling Emulsion Concentrations
- 17370 In-line Optical Surface Inspection
- 17380 Measuring Instruments for Quality Management
- 17384 Mould Check
- 17387 Mould Check
- 17390 Length, Speed, and Profile Measuring Systems
- 17395 Pinhole Detection
- 17400 Pit Detection
- 17408 Surface Inspection
- 17410 Surface Inspection
- 17415 Surface Inspection of Strip Steel
- 17420 Measuring of Refractory Linings (under Operating Conditions)
- 17426 On-line Measuring of Oils and Waxes
- 17430 On-line Optical Surface Inspection
- 17432 Online Surface Quality Control, Optical
- 17440 Roughness Detection, online
- 17442 Weld Seam Tracking Systems for Tubes
- 17445 Systems for Quality
 Data Inspection and
 Treatment

21.04 Quality Control

- 17446 Strip edge inspection
- 17447 Surface Inspection of Strip Steel, automatic and complete
- 17448 Suface Inspection of Strip Steel, automatic, complete
- 17450 Quality Control, visual

21.05 Services

17470 Measuring Techniques, Services

22. Materials Testing

17473 Destructive and Nondestructive Testing

22.01 Non-destructive Testing

17480 Consulting, Performance, and Equipment

17490 Image Processing, IR, Barcode with Radio-MDF

17500 Demagnetising Facilities 17510 Testing Devices for Internal Pressure

17520 Corrosion Testing

17530 Measuring and Testing Devices, Automatic

17540 Ultrasonic Testing Instruments/Machines

17560 Non-Destructive Testing of Steel Ropes having Round or Rectangular Cross-Sections

17570 Non-Destructive Tube Testing Devices

17580 Non-Destructive Materials Testing Instruments, in general

17589 Non-Destructive
Materials Testing
Devices, Acoustic

17590 Non-Destructive Materials Testing Instruments, electromagnetic

17610 Non-destructive
Materials Testing
Instruments, X-ray
Operated, ComputerTomography

17620 Non-Destructive Material Testing Instruments, optical

17630 Non-Destructive Materials Testing, X-ray Operated

17640 Non-destructive Material Testing by Acoustic Emission Analysis

17650 Ultrasonic Testing

Materials Testing
17664 Non-destructive
Material Testing by
Fluorescent and Red/
White Penetration
Methods

17665 Non-Destructive Material Testing by Fluorescent and Red/ White Testing Methods

17670 Non-Destructive
Materials Testing with
Ultrasonic Excitation
without Coupling Agent

17680 Non-Destructive Materials Testing, Optoelectronic

17690 Non-Destructive Materials Testing (Services)

22.02 Tensile Testing, Fatigue Testing

17698 Grips for Tensile Testing 17700 Stress Analyses and Reliability Tests for Machines and Components

17710 Consulting, Performance, and Equipment

17720 Fatigue Testing Machines

17730 Hardness Testing Instruments/Machines

17740 Hardness Testing Instruments

17750 Machines for Preparation of Tensile Test Specimens

17760 Testing And Analysis of Friction and Scuffing

17770 Crack Detecting Devices

17780 Presses for Tube Testing

17790 Torsion Testing Machines

17800 Universal Testing Machines for Tensile, Compression, Bending and Tensile Test Specimens

22.03 Test Methods

17810 Chemical Analysis 17820 Particle Size Analysis

Analysis and Laboratory Equipment / Environmental Protection and Disposal

- 17830 Mechanicaltechnological Testing
- 17840 Metallographic Testing
- 17845 Specific Surface Analyser according BET Method
- 17850 Technological Testing Methods
- 17852 Technological Testing Methods, Microscope Video Analysis
- 17860 Deep Drawing Testing Machines (Plates, Sheets, and Strips)
- 17880 Testing of Rolls (Concentric Running, Eccentricity)

22.04 Destructive Testing

17888 Corrosion Testing 17890 Machines for Impact Tests

22.05 Fatigue Strength Tests under Variable Stress Amplitude

17896 Testing of Safety
Valves under Operating
Conditions

22.06 Failure Analysis

17898 Failure Analysis

23. Analysis and Laboratory Equipment

17900 Engineering and Technical Assistance

23.01 Sampling and Preparation

17910 Gas Probes

17915 Sampling

17920 Sampling Devices

17940 Sample Stamping Dies

17950 Transport of Samples

17960 Preparation of Samples

17970 Specimen Preparation

for X-ray Fluorescence Analysis

17980 Sample Preparation for OES and XRF

17990 Sample-Preparation Machines 18000 Spectrometer Sample Preparation with Remelting Units

18010 Stamping Tools for Samples

23.02 Analytical Equipment

- 18020 Analytical Equipment 18022 Tools for inline
- concentration measurements of liquids
- 18025 Evaluating Instruments for Oxygen Measuring
- 18027 Automated Analysis for Process Control and Waste Water Management
- 18030 Automation Lines for Analysis and Laboratories
- 18035 Carbon and Sulfur Analyser
- 18040 Gas Analysing Instruments
- 18048 Laser Induced Fluorescence
- 18050 Laser Plasma Spectrometers
- 18059 Mass Spectrometers
- 18060 Measuring Devices for pH and Conductivity
- 18070 Oil-in-Water Monitoring in Laboratories and Industries
- 18080 Optical Emission Spectrometers
- 18090 Analytical Equipment for O₂
- 18100 Plasma Spectrometers
- 18105 X-ray Diffractometers
- 18110 X-ray Fluorescence Spectrometers
- 18120 X-ray Fluorescence Spectrometer, portable
- 18130 Oxygen Probes
- 18138 Heavy Metal Analysis in Water, Laboratories, Field, Process, and Online
- 18140 Nitrogen Analysis Systems for Direct Evaluation
- 18150 Nitrogen Probes
- 18160 Hydrogen Analysis Systems for Direct Evaluation
- 18170 Hydrogen Probes
- 18180 Auxiliaries for Analysis

23.03 Laboratory Equipment, in general

18190 Analytical Standards 18200 Analytical Reference

Materials

18202 Sample Preparation Equipment for OES and XRF

18210 Calibration Test Pieces

18220 Annealing Boxes

18230 Laboratory Furnaces

18240 Laboratory Equipment

18250 Laboratory Automation

18260 Saggers

18270 Spectographic Samples/Tests

18280 Crucibles

23.04 Metallography

18290 Services

18300 Metallographic Equipment

18310 Metallographic Laboratories

18320 Metallographic Testing

24. Environmental Protection and Disposal

18330 Consulting and Measuring

18340 Engineering and Technical Assistance

18343 Environmental
Protection and Dispard
Recycling of Steel Mill
Wastes

18344 Environmental Systems

24.01 Dust Removal and Gas Purification

18342 Waste Gas Techniques

18348 Oxygen Probes for Flue Gas

18350 Suction Systems and Equipment

18360 Waste-Gas Cooling Facilities

18362 Waste Gas Cooling with Heat Reclamation

18370 Waste-Gas Purification

18375 Secondary Waste Gas Cleaning Systems 18376 Sintering Waste Gas Cleaning Systems

18377 Desulphurisation of Sintering Waste Gas

18378 Waste Gas Cleaning for Pelletizing Plants

18380 Waste Heat Boilers

18390 Aerosol Separation

18400 Agglomeration of Fines from Foundries and Steelworks

18410 Electrostatic
Precipitators (also Wet)

18420 Dust Removal and Gas Purification

18430 Dust Removal Installations and Auxiliaries, in general

18434 Dedusting Systems

18436 Primary Dedusting 18438 Secondary Dedusting

18440 Dust Removal Filters and Installations

(Cartridge, Circular and Hose Filters)

18450 Plants for Nitrogen Removal

18460 Catalysts for Nitrogen Removal (DENOX)

18470 Secondary Dust Removal for Sintering Plants

18480 Filter Media

18490 Gas-Recovery Plants

18500 Cloth Filters

18502 Puls Jet Filters

18504 Reverse Air Filters

18510 Casthouse Dust-Removal

18515 Blast Furnace Off-Gas Cleaning

18520 Hot-Gas Filtration

18530 Industrial Vacuum Cleaners

18535 Catalytic Plants

18536 Service for Catalysts

18540 Compact Air Purifiers

18550 Laser-Clean-Box

18560 Air Filters (also Tandem Filters)

18570 Cyclones

18580 Post-Combustion, Catalytic

18590 Post-Combustion, Thermal

18600 Wet Separators

18608 Wet Dust Removing Plants

Environmental Protection and Disposal

- 18610 Secondary Dust Removal (wet) for Sintering Plants
- 18615 Wet Electro Filters
- 18620 Wet Cleaning Plants
- 18630 Exhaust Gas
 Desulphurization for
 Boiler and Sintering
 Plants
- 18640 Flue Gas Collectors for Waste and Miscellaneous Waste Compustion Plants
- 18645 Recycling of Steel Mill Wastes
- 18650 Dust Separators
- 18660 Dust Measuring Devices
- 18670 Dust Recovery Plants
- 18675 Dust and Erosion Control
- 18680 Dust Suction Systems and Equipment
- 18690 Thermal Waste Air Cleaning
- 18693 Dry Cleaning Plants for Waste Gas
- 18695 Quenching Towers 18700 Dust Removing Plants,
- 18/00 Dust Removing Plants Dry 18710 Dry Cleaning Plants
- 18720 Venturi-Tube-Type Dust Removers
- 18728 Central Exhausting
 Plants
- 18730 Central Dust Suction Fans
- 18735 Forced Draught Coolers
- 18737 Canopy Hoods

24.02 Sewage Clarification

- 18740 Waste Water Plants, Grease Separators, Chemistry Pumps
- 18750 Waste Water Treatment
- 18755 Waste Water Treatment, thermal
- 18760 Sewage Treatment Plants
- 18770 Chemical Water Treatment
- 18774 Evaporation Plants
- 18790 Waste-Water Purification Plants
- 18800 Circuit Systems
- 18802 Water Recirculation Treatment
- 18810 Solvent Recovery Plants

- 18820 Neutralization and Detoxification Plants
- 18830 Sludge-draining Systems, mobile
- 18840 Sludge-Draining Systems, stationary
- Systems, stationary 18841 Vacuum Evaporators for
- Waste Water Treatment 18842 Water Management

24.03 Regeneration Plants

- 18860 Plants for Regeneration of Hydrochlorid Acid
- 18870 Plants for Regeneration of Spent Pickle Liquor
- 18880 Acid Resistant Drip Pans and Wall Coatings with DIBT Character Check
- 18890 Plants for Regeneration of Sand

24.04 Disposal Plants

- 18900 Waste Air Purification 18910 Reprocessing of
 - Contaminated Materials
- 18920 Plants for Recycling of Raw Materials (Dusts)
- 18921 Residue Recycling Plants
- 18923 Electric Arc Dust Utilisation
- 18925 Exhaust Air Cleaning, Natural
- 18928 Briquetting of Steel Swarf
- 18930 Reprocessing of Sites and Ground Water
- 18940 Excess Gas Burning Systems, Thermal Post Combustion
- 18970 Injection Installations for Filter Residues
- 18975 Injection Plants for Alloying Additions and other Residuals (by Oxygen Burners)
- 18980 Storage of Water Polluting Materials
- 18990 Oil and Grease Removal
- 18997 Radioactive Materials 19000 Superfinishing, free
- 19000 Superfinishing, free from Waste Material
- 19005 Preparation of Slags (Slag Transportation and Slag Recycling)

Accident Prevention and Ergonomics / Other Products / Consulting, Planning, Services

19009 Construction and Building of Chimneys and Smokestacks

19010 Chimneys and Smokestacks

19020 Separation of NF-Metals

19040 Plants for Vacuum Thermal Recycling

19045 Plants for Processing and Recycling of Residuals from Blast Furnaces

19050 Other Disposal Plants

19060 Utilisation of Residuals (like Ashes, Slags, Dusts, Granulates)

19070 Roll Scale Sludge Oil Seperation

19072 Dezincification of Blast Furnace Dusts

19080 Recovery of Valuable Materials

24.05 Components

19110 Separators (Distillate Fuel, Benzene, Oil, Water)

19120 Demulsifier Plants

19130 Preparation and Injection of Dusts, Fines and Oily Mill Scale Sludge

19140 Injection Installations for CARBOFER

19150 Injection Installations for PE-Granules

19160 Heat Exchangers

24.06 Operating Materials

19170 Activated Carbon 19180 Lignite Coke 19190 Oil Binding Agents

19200 Lubricants

24.07 Services

19210 Waste Gas Measurings 19220 Chemical and

Mineralogical Analyses

19230 Emission Measurings

19232 Simulation Software for Waste Gas Data and Optimizing of Waste Gas Systems

25. Accident Prevention and Ergonomics

25.01 Accident Prevention

19240 Workers' Protective Clothes

19260 Respiratory Protection Masks

19263 Fire Protection Covers

19266 Fireproof Protection Covers

19270 Gas Alarm Apparatus

19280 Heat Protective Clothing

19285 High-Temperature Resistant Protection Covers

19289 Protective Glass

19290 Protective Glass for Industries

19300 Light Protection Curtains (for Accident Prevention etc.)

19305 Soldering Protection Cover

19310 Siting Glass for Observing Melting Furnaces, Neotherm®

Furnaces, Neother 19320 Switchboards

19340 Protective Glass for Welders' Goggles (Athermal ©)

19350 Welding Equipment

19360 Dust Measuring Devices

25.02 Noise-protecting Installations

19368 Hearing Protection Devices

19370 Noise-Deadening

19380 Industrial Sound Protection

19390 Noise Protection Systems

19400 Noise Control

19410 Level Recorders

19420 Sound Absorption

19430 Sound Level Meters

19432 Sound Protection

26. Other Products

26.01 Foundry Products

19469 Foundry Products, in general

Steels in Civil and Structural Engineering / Consulting, Planning, Services

19470 Special Steel Centrifugal Casting

19490 Investment Casting

19500 Spheroidal Graphit Cast Iron

19510 Grev Cast Iron

19520 Cast-Iron Mould Castina

19530 Cast-Iron Continuous Casting

19540 Chilled-Iron Castings

19550 Heat-resisting Casting 19560 Die Casting

19570 Copper and Copper Alloy Casting

19580 Light-Metal Casting

19590 Engineering Casting

19610 Acid-Proof Casting

19630 Centrifugal Casting 19640 Heavy-Metal Casting

19660 Steel Casting

19670 Wear-resistant Casting

27. Consulting, Planning, Services

19695 Hot Tapping

19700 Accessories' Services

19710 Skill in Welding Technology

19715 Consulting, Planning, Services

19720 Information Centres

19721 Weighing System Optimization Consulting

19730 Consulting Services

19731 Purchasing. Procurement.

eProcurement

19734 Blended Learning

19740 Services, Quality Assurance

19750 Emission Measuring

19760 Energy Consulting

19770 Energy Savings

19780 Energy Services (Optimizing, Recycling, Supply)

19785 Complete Coke Battery Maintenance

19786 Complete Coke Battery Maintenance and Rebricking

19790 Decoating

19792 Spare Parts for Start-Ups

19794 Commissioning

19800 Industry and Market Assessment

19805 Inspection Services 19806 Inspection Services and

Condition Monitoring

19810 Consulting Engineers (also start-up of iron and steel works equipment)

19815 Technical Problem Solutions

19820 Maintenance Organization

19822 Cooling and Boiling Water Treatment

19824 Lean Management

19825 Leak Tightening under Operating Pressure

19830 Logistic Consulting 19850 Job Annealings (own Mobile Annealing

Plants)

19860 Management Consulting 19862 Management Consulting

- Coachina

19875 Mechanical Processing (Milling, Drilling, Turning, Grinding, etc.)

19880 Erection and Maintenance

19890 Marketing Services

19892 Offline Maintenance

19893 Online Maintenance

19895 Quality Management Consulting

19900 Experts

19910 Cutting and Welding Consulting

19911 Cutting, Nesting, and Slitting Optimisation Software

19920 Welding Technology, Research and Teaching

19930 Simulation Studies and Software

19935 Software for Metals Processing

19940 Steel Industry Suppliers for Spare Parts, Machinery, and Equipment, in general

19950 Shot Blasting

19952 Radiation Protection

19955 Supply Chain Management

19960 Subcontracting PVD Coating

Steels in Civil and Structural Engineering / Consulting, Planning, Services

19970 Subcontracting Heat Treatment

19980 Ion Implantation Service 19990 Technical Translations and Documentation

20000 Training and Start-Up of Iron and Steel Works Equipment

20005 Management Consultancies

20010 Rental of Electronic Measuring Instruments, Data Technology and Computers

20015 Training, Vocational 20016 Training Measures -Refractories

20020 Certification

28. Steels in Civil and Structural Engineering

28.01 Software for Building and Construction

20050 CAD-Software

28.02 Steel for Structural Steelwork

20058 Constructional Steel 20070 Hall Gates 20086 Pipelines

28.03 Steels in Civil Engineering

20100 Offshore Tchnology 20106 Tubes 20112 Sheet Piling

30. Service concerning Steel Materials, in general

30.01 Joining

20178 Brazing Technology

30.02 Cutting/Separating

20190 Folding and Cutting

30.03 Stainless Steel Cutting Services

20230 Laser Cutting 20238 Plasma Cutting 20246 Shearing

30.04 Metal Forming and Shaping

20258 Cold and Warm
Bending of Tubes and
Sections
20260 Cold Bending of Tubes

20260 Cold Bending of Tubes, Profiles etc.

30.05 Surface Treatment

20310 Pickling 20320 Descaling 20332 Surface Treatment 20335 Surface Conditioning Services (grinding/ scarfing)

20340 Treating of Titaneum

30.06 Heat Treatment and Drying

20346 Services 20374 Heat Treatment, Annealing 20375 Heat Treatment and Drying

31. Steel Trading/ Distribution

20400 Steel Trading/ Distribution

31.01 Products, in general

20420 Bright Steel, in general

31.02 Products, particularly

20450 Shapes and Sections, bright drawn