



**Charge raw materials for foundries**

- 12.1.1 Pig irons**
  - 12.1.1.1 Foundry pig iron
  - 12.1.1.2 Steel-making pig iron
- 12.1.2 Nonferrous metals, their alloys and master alloys**
- 12.1.3 Waste metal (scrap)**
  - 12.1.3.1 Iron scrap
  - 12.1.3.2 Waste from nonferrous metals
  - 12.1.3.3 Breakers, presses for waste metal, return material
- 12.1.4 Deoxidizing additives**
- 12.1.5 Alloying additives**
  - 12.1.5.1 Ferroalloys
- 12.1.6 Lag-forming additives**
- 12.1.7 Foundry coke**
- 12.1.99 Charge raw materials for foundries - other**

**Equipment of melting plants**

- 12.2.1 Equipment of cast iron melting plants**
- 12.2.2 Equipment of steel melting plants**
- 12.2.3 Equipment of nonferrous metals metal plants**

**Refractory materials**

- 12.3.1 Non-shaped refractory materials**
- 12.3.2 Shaped refractory materials, shaped pieces**
- 12.3.3 Ceramic filters, sieves for the foundry industry**
- 12.3.4 Melting and holding crucibles of furnaces and ladles**
- 12.3.5 Chemical raw materials and additives for manufacturing refractory products**
- 12.3.99 Refractory materials - other**
- 12.4 Technical gases for foundry industry**

**Pattern making equipment**

- Pattern making equipment (patterns, core boxes, sweep patterns)**
  - 12.5.1.1 Pattern making equipment from wood
  - 12.5.1.2 Pattern making equipment from plastics, resin
  - 12.5.1.3 Pattern making equipment from metal
  - 12.5.1.4 Pattern making equipment from wax
  - 12.5.1.99 Pattern making equipment (patterns, core boxes, sweep patterns) - other
- 12.5.2 Machines and aids for manufacturing pattern making equipment**
- 12.5.3 Manufacturing patterns with the help of Rapid Prototyping System**
- 12.5.4 Materials for manufacturing pattern making equipment**

**Materials for moulding and core mixtures**

- 12.6.1 Grog**
- 12.6.2 Binders**
  - 12.6.2.1 Inorganic binders
  - 12.6.2.2 Organic binders
- 12.6.3 Additives into sand and core mixtures**
- 12.6.4 Sand and core mixtures**

**Equipment for treatment of sand and core mixtures**

- 12.7.1 Equipment for treatment of binding mixtures**
- 12.7.2 Equipment for treatment of non-binding mixtures**
- 12.7.3 Equipment for sand mixtures reclamation**
  - 12.7.3.1 Magnets, separators and metal detectors for foundry industry

**12.8 Runner and gate technology**

**Equipment of moulding shops and core shops**

- Equipment of moulding shops**
  - 12.9.1.1 Machines for bentonite mixture moulding in flasks
  - 12.9.1.2 Automatic moulding lines with flasks and their accessories
  - 12.9.1.3 Automatic flaskless moulding lines and their accessories
  - 12.9.1.4 Sand-aerators, sand-aerating lines and their accessories
  - 12.9.1.5 Machines and equipment for self-hardening technology processes
  - 12.9.1.6 Equipment for manufacturing shell moulds
  - 12.9.1.7 Equipment for vacuum hardening of moulds (V-process)
  - 12.9.1.8 Equipment mould manufacturing without binder with wax patterns
  - 12.9.1.99 Equipment of moulding shops - other
- Equipment of core shops**
  - 12.9.2.1 Shooting machines
  - 12.9.2.2 Equipment for core shooting from self-setting mixtures
  - 12.9.2.3 Equipment for thermohardening of cores
  - 12.9.2.4 Equipment for manufacturing Cold Box cores
  - 12.9.2.5 Automated lines and their accessories for core manufacturing
  - 12.9.2.99 Equipment of core shops - other

**12.9.3 Driers, drying chambers**

**12.9.4 Aids, auxiliary tools for moulding shops and core shops**

- 12.9.4.1 Foundry coats for moulds and cores
- 12.9.5 Auxiliary materials and accessories for risers

**Foundry melting and holding furnaces**

- 12.10.1 Foundry fuel-heated furnaces**
  - 12.10.1.1 Foundry furnaces firing solid fuels (cupolas, crucible furnaces)
  - 12.10.1.2 Foundry furnaces firing gas fuel (crucibles, rotary, hearth furnaces)
  - 12.10.1.3 Foundry furnaces firing liquid fuel (crucibles, hearth furnaces)
- 12.10.2 Foundry electric furnaces**
  - 12.10.2.1 Foundry induction crucible and channel-type furnaces (low and mid frequency)
  - 12.10.2.2 Foundry arc furnaces
  - 12.10.2.3 Foundry resistance furnaces
- 12.10.3 Foundry vacuum furnaces**
- 12.10.4 Foundry plasma furnaces**
- 12.10.5 Foundry electron-beam furnaces**
- 12.10.6 Accessories of foundry furnaces**
  - 12.10.6.1 Fuel burners
  - 12.10.6.2 Coils for induction furnaces
- 12.10.99 Foundry melting and holding furnaces – other**

**Casting machines and equipment, accessories**

- Casting machines and equipment**
  - 12.11.1.1 Pouring ladles
  - 12.11.1.2 Machines and equipment for tipping and gravity casting
  - 12.11.1.3 Machines and equipment for low-pressure casting
  - 12.11.1.4 Metal die casting machines
  - 12.11.1.5 Pressure die casting machines
  - 12.11.1.6 Centrifugal metal casting machines and accessories
  - 12.11.1.7 Automated casting equipment
  - 12.11.1.99 Casting machines and equipment - other
- 12.11.2 Permanent moulds**
  - 12.11.2.1 Permanent moulds made of metal
  - 12.11.2.2 Permanent moulds made of ceramic materials
  - 12.11.2.99 Permanent moulds – other



<b>12.11.3</b>	<b>Auxiliary materials and accessories for casting machines and equipment</b>	12.23.4.1	Castings for the automotive industry
12.11.3.1	Tools for casting machines and equipment	12.23.4.2	Castings for agricultural machines
12.11.3.2	Chemicals for casting and casting machines	12.23.4.3	Castings for general engineering
12.11.3.3	Malleablizing equipment for pressure die casting moulds	12.23.4.4	Castings for the chemical and petrochemical industries
<b>12.11.99</b>	<b>Casting machines and equipment, accessories - other</b>	12.23.4.5	Castings for the food processing industry
<b>12.12</b>	<b>Equipment and aids for casting knock-out from moulds</b>	12.23.4.6	Castings for building industry
		12.23.4.7	Castings for power engineering
		12.23.4.8	Castings for electrical engineering, aviation, medical equipment
		12.23.4.9	Castings for domestic appliances, garden machinery, hobby
		12.23.4.10	Art castings, statues, statuettes, decorative objects
		12.23.4.99	Castings for selected branches of industry and end consumption - other
<b>Equipment and accessories for finishing raw castings</b>		<b>12.23.99</b>	<b>Castings - other</b>
<b>12.13.1</b>	<b>Equipment and accessories for surface cleaning of castings</b>		
<b>12.13.2</b>	<b>Gating and feeding system separator equipment and accessories</b>		
<b>12.13.3</b>	<b>Equipment and accessories for finishing of castings</b>		
<b>12.14</b>	<b>Equipment and materials for welding, cutting and repairs of castings</b>	<b>12.24.2</b>	<b>Offer of manufacturing capacities in area of the foundry industry</b>
<b>12.15</b>	<b>Equipment and materials for treatment and machining of castings</b>	12.24.2.1	Manufacturing patterns to order
<b>12.16</b>	<b>Air conditioning for foundries</b>	12.24.2.2	Manufacturing cores to order
<b>12.17</b>	<b>Transport and storage equipment for the foundry industry</b>	12.24.2.3	Manufacturing moulds to order
<b>12.18</b>	<b>Robots, manipulators, handling equipment and their accessories for the foundry industry</b>	12.24.2.4	Manufacturing castings to order
<b>12.19</b>	<b>Control and regulation technology for the foundry industry</b>	<b>12.24.3</b>	<b>Consultancy in area of the foundry industry</b>
<b>12.20</b>	<b>Measuring and testing technology for the foundry industry</b>	<b>12.24.4</b>	<b>Engineering and design services in area of the foundry industry</b>
<b>12.20.1</b>	<b>Scales and weighing systems for foundries</b>	<b>12.24.5</b>	<b>Service and repairs of machines and equipment in the foundry industry</b>
<b>12.21</b>	<b>Computer equipment, control, calculations, simulation</b>	12.24.5.1	Spare parts for machines and equipment in the foundry industry
<b>12.21.1</b>	<b>CAD, CAM, CIM for foundry industry</b>	<b>12.24.6</b>	<b>Refurbishment and modernization of machines and equipment in the foundry industry</b>
<b>12.22</b>	<b>Environment protection and waste disposal in the foundry industry waste</b>	<b>12.24.7</b>	<b>Overhauled machines and equipment for the foundry industry</b>
<b>Castings</b>		<b>12.24.8</b>	<b>Manufacturing of prototype and single-purpose equipment for the foundry industry</b>
	<b>Cast iron castings</b>	<b>12.24.9</b>	<b>Technology for the foundry industry</b>
12.23.1.1	Grey cast iron castings	12.24.9.1	Turn-key implementation of new technology processes in the foundry industry
12.23.1.2	Nodular cast iron castings	<b>12.24.10</b>	<b>Execution of investment projects for the foundry industry</b>
12.23.1.3	Malleable cast iron castings	<b>12.24.11</b>	<b>Professional literature, periodicals in area of the foundry industry</b>
12.23.1.4	Compacted graphite cast iron castings	<b>12.24.12</b>	<b>Institutions and organizations in area of the foundry industry</b>
12.23.1.5	White cast iron castings	<b>12.24.13</b>	<b>Vocation schools in area of the foundry industry</b>
12.23.1.6	Hardened cast iron castings	<b>12.24.14</b>	<b>Professional courses and education in area of the foundry industry</b>
12.23.1.7	Alloyed cast iron castings	<b>12.24.99</b>	<b>Research, services, institutions, literature for foundry industry – other</b>
	<b>Steel castings</b>		
12.23.2.1	Carbon steel castings		
12.23.2.2	Alloy steel castings		
12.23.2.2.1	Low-alloy steel castings		
12.23.2.2.2	Medium-alloy steel castings		
12.23.2.2.3	High-alloy steel castings		
12.23.2.2.4	Corrosion-proof steel castings		
12.23.2.2.5	Heat-resistant steel castings		
12.23.2.2.6	Wear-resistant steel castings		
	<b>Nonferrous metal and alloy castings</b>		
12.23.3.1	Aluminium alloy castings		
12.23.3.2	Magnesium alloy castings		
12.23.3.3	Copper alloy castings		
12.23.3.4	Zinc alloy castings		
12.23.3.99	Nonferrous metal and alloy castings – other		
	<b>Castings for selected branches of industry and end consumption</b>		