

KOLBUS CASTING

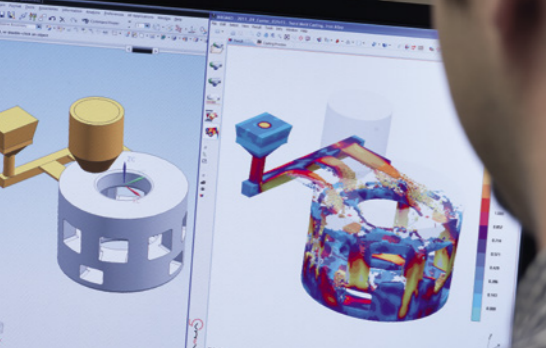
for your company

Advanced foundry technology.
Castings from prototypes
to single pieces – to small
production runs.

SINCE
1877



 **KOLBUS**
FOUNDRY



CASTINGS FROM THE FOUNDRY

Services offered by KOLBUS Foundry

We are experts in ferrous-based casting, producing high quality castings for customers in a wide range of industries for over 125 years. We'll cast anything from single pieces to small production runs and we can offer you the expertise and all-round support of 60 highly skilled employees committed to delivering quality for our customers.

Demand for the technically challenging castings produced in the KOLBUS foundry comes mainly from the engineering and heavy engineering industries. We apply our in-depth experience and wide know-how to developing custom solutions for our customers. Production capacity of >good castings< is 3,500 t per year. 20% of foundry production is used in our own KOLBUS machines; 80% are custom castings for other industrial customers.

- Consultancy on choice of materials and processes for product designs
- Heat treatment/colouring
- Further value-added processing in the KOLBUS Mechanical Production unit

Lab facilities

- Dye penetrant testing
- Brinell hardness testing
- Magnetic particle method
- Dimensional testing
- Metallographic testing
- Spectral analysis
- Ultrasonic testing
- Tensile tests
- X-ray
- Coordinate measuring machine

Other services

- Other services
- Model construction, model repair
- Model storage
- Online data exchange
- Simulation (mould filling/solidification)
- 3D sand printing
- Heat treatment
- Priming, spraying
- Machining

We maintain a stock of 11,500 moulds available immediately on demand.

Castings materials

- Cast iron with lamellar graphite
 - GJL-200
 - GJL-250
 - GJL-300
 - GJL, alloyed
 - Special alloys for traction sheaves and rope pulleys (eg, lifts)
- Cast iron with spheroidal graphite
 - GJS-400-18-LT
 - GJS-400-15
 - GJS-500-7
 - GJS-600-3
 - GJS-700-2
 - GJS, alloyed

CASTINGS FROM PROTOTYPES

To single pieces – to small production runs.

We manufacture parts or components for: CONSTRUCTION MACHINERY · HOUSINGS · GEAR MANUFACTURE · PLASTICS PROCESSING MACHINERY · AGRICULTURAL MACHINERY · IMPELLERS, ROLLERS · MECHANICAL ENGINEERING · MACHINE BASES AND BEDS · MEASUREMENT AND CONTROL TECHNOLOGY · PULLEYS · TEXTILE MACHINERY · GEAR CUTTING MACHINES · MACHINE TOOLS · SPROCKETS · GEARS, ETC.

Melt facilities

- Induction furnaces/mid-frequency electric furnaces capacity 2 t/h

Hand moulding

- 21 t/h continuous mixer
- Furan resin sand

Dimensional limits for castings

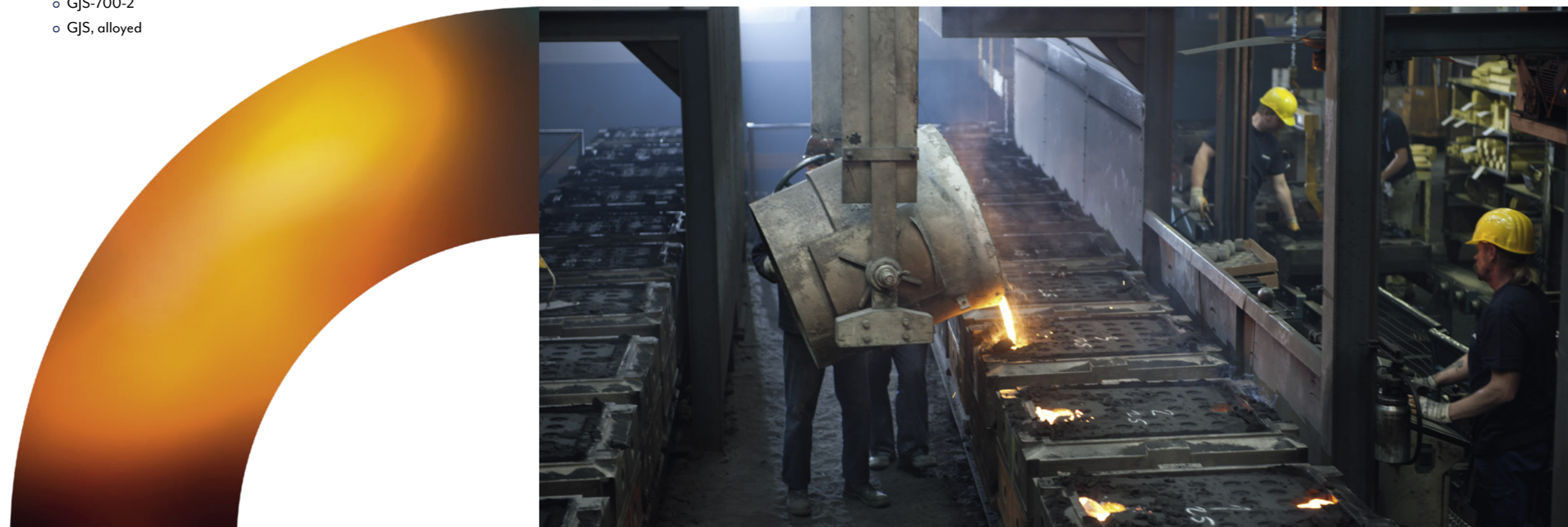
max. Width	2500 x 2700 mm
max. Length	4000 mm
max. Volume	1500 x 3000 x 500 mm
Part weight	
– EN-GJL (GG)	0.5 – 2300 kg
– EN-GJS (GGG)	0.5 – 1400 kg

Machine moulding

- BMD Dynapulse moulding machine
- Bentonite/quartz sand

Dimensional limits for castings

Max. size	max. 600 x 600 x 200 mm
Max. part weight	max. 100 kg



CAST IRON

with spheroidal graphite

Designation according to DIN

1691

European standard DIN EN 1561

			GG-20 EN-GJL-200	GG-25 EN-GJL-250	GG-30 EN-GJL-300
Tensile strength	$R_m^{min.}$	N/mm ²	200 – 300	250 – 350	300 – 400
0.1%-yield strength	$R_{p0,1}^{min.}$	N/mm ²	130 – 195	165 – 228	195 – 260
Elongation at fracture	$A_5^{min.}$	%	0,3 – 0,8	0,3 – 0,8	0,3 – 0,8
Brinell hardness	HB 30		160 – 220	170 – 230	190 – 240
Modulus of elasticity	E	kN/mm ²	88 – 113	103 – 116	108 – 137
0.1%-compressive strength	$s_{d0,2}$	N/mm ²	260	325	390
Bending strength	s_{db}	N/mm ²	290	340	390
Shear strength	s_{ab}	N/mm ²	230	290	345
Torsional strength	t_{tB}	N/mm ²	230	290	345
Density (20°C)	r	g/cm ³	7,16	7,20	7,25

with spheroidal graphite

Designation according to DIN

1691

European standard DIN EN 1561

			GGG-40 EN-GJS-400- 18-LT	GGG-40 EN-GJS-400-15	GGG-50 EN-GJS-500-7	GGG-60 EN-GJS-600-3	GGG-70 EN-GJS-700-2
Tensile strength	$R_m^{min.}$	N/mm ²	400	400	500	600	700
0.2%-yield strength	$R_{p0,2}^{min.}$	N/mm ²	230	250	320	380	440
Elongation at fracture	$A_5^{min.}$	%	18	15	7	3	2
Brinell hardness	HB 30		120 – 175	140 – 190	170 – 220	200 – 250	230 – 260

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