



**TASSO
BERNAREGGI**

PART OF BIRN GROUP

**CONTINUOUS
CAST-IRON BARS
BRONZE BARS**

As cast, semi-finished
and machined on drawing

CAST-IRON

**TASSO
BERNAREGGI**

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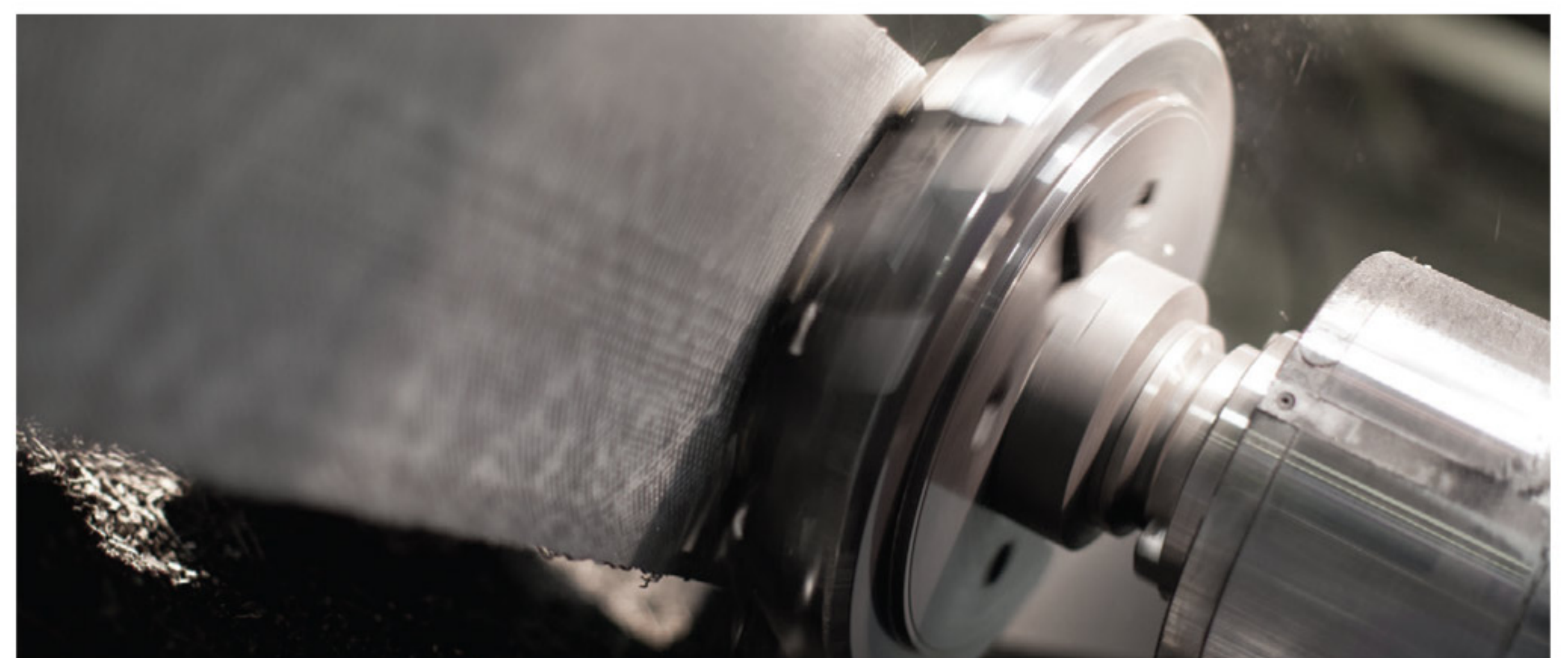
An established company
in processing and
distribution of
continuous
cast-iron bars
for over
40 years

In 1976
Bernareggi started
operating from a 100
square meters warehouse,
supplying continuous cast-iron
bars to customers in the
surrounding area.

Since then, the acquisition of an ever
increasing number of qualified customers
had determined a balanced, steady growth
engaged in a constant extension of storage space.



Today, with the acquisition of a new commercial area, **the warehouse occupy a covered area of 5.600 square meters (the total warehouse is about 11.000 square meters) with a stock of more than 3.500 tonnes and a wide range machine tools.** Since 2010 BERNAREGGI has expanded its own range of products by introducing continuous and non-continuous casting bronze, supplied in bars, cut and semi-finished in all its forms and qualities. Forty-years-lasting experience and selection of the best cast-iron foundries, a wealth of ideas and prepared and skilled men, a streamlined and efficient structure, a range of solutions able to satisfy the most demanding customers: this is the business card with which we offer ourselves as a trustful reference and competent for all users of cast-iron. In February 2021, the Danish Tasso foundry, a partner in Bernareggi for over 20 years, acquired the entire company, guaranteeing continuity in the casting business for the years to come.



applications



Hydraulics

valves - power units - piston pumps - screw pumps - hydraulic cylinders

Oil & Gas

hydraulic power plants - cylinder bushes

Compressed air solution

vanes and screw rotors

Power and transmissions

gears - whells - pulleys - transmissions shafts

Generic mechanics

scroll boards - rotary tables - transfer bases - rollers for rolling mills

Glass industry

machines - moulds - accessories



Machining



Milling

nr. 4 vertical milling centers

nr. 1 orizontal CNC multipallet "OKUMA"

nr. 1 orizontal CNC "MANDELLI" with anthropomorphic robot

Machining range:

milled bars length:

1000 mm - 1500 mm - 2000 mm - 3000 mm

cut on special length

6 sides milled with 45° chamfer

4/6 sides milled and shaped on demand ("T" - "L" - etc.)

Tolerances:

roughness Ra max 1,6 or 3,2

dimensions $\pm 0,1$ - $\pm 0,05$

Boring machine

nr. 2 boring machine

Machining range:

bars length from 850 mm to 3000 mm

cut on special length

outside turning (only on demand)

Tolerances:

inside diam. ± 1 mm

concentricity value on radius:

2 mm on bars length 1000 mm

2,5 mm on bars length 1500 mm

3 mm on bars length 2000/3000 mm

on nodular and annealed flake bars: + 1 mm on value indicated

turned hollow bars: outside diam. -0/+1 mm

Turning

n. 1 automatic turning center "Graziano"

Machining range:

bars length: from 40 mm to 1000 mm

turning - boring - semi-finished and machined on drawing

Peeling

Turned and peeled bars according to specifications

in length up to 3 m or cut to size

Cut to size

nr. 1 six-stations saw machine with 4.0 technology

nr. 3 saw machine dedicated to machining department

nr. 7 performing saw machine for series cuts up to \varnothing 540 mm

nr. 1 extra size saw machine up to rect. 720 x 820 mm

Machining range:

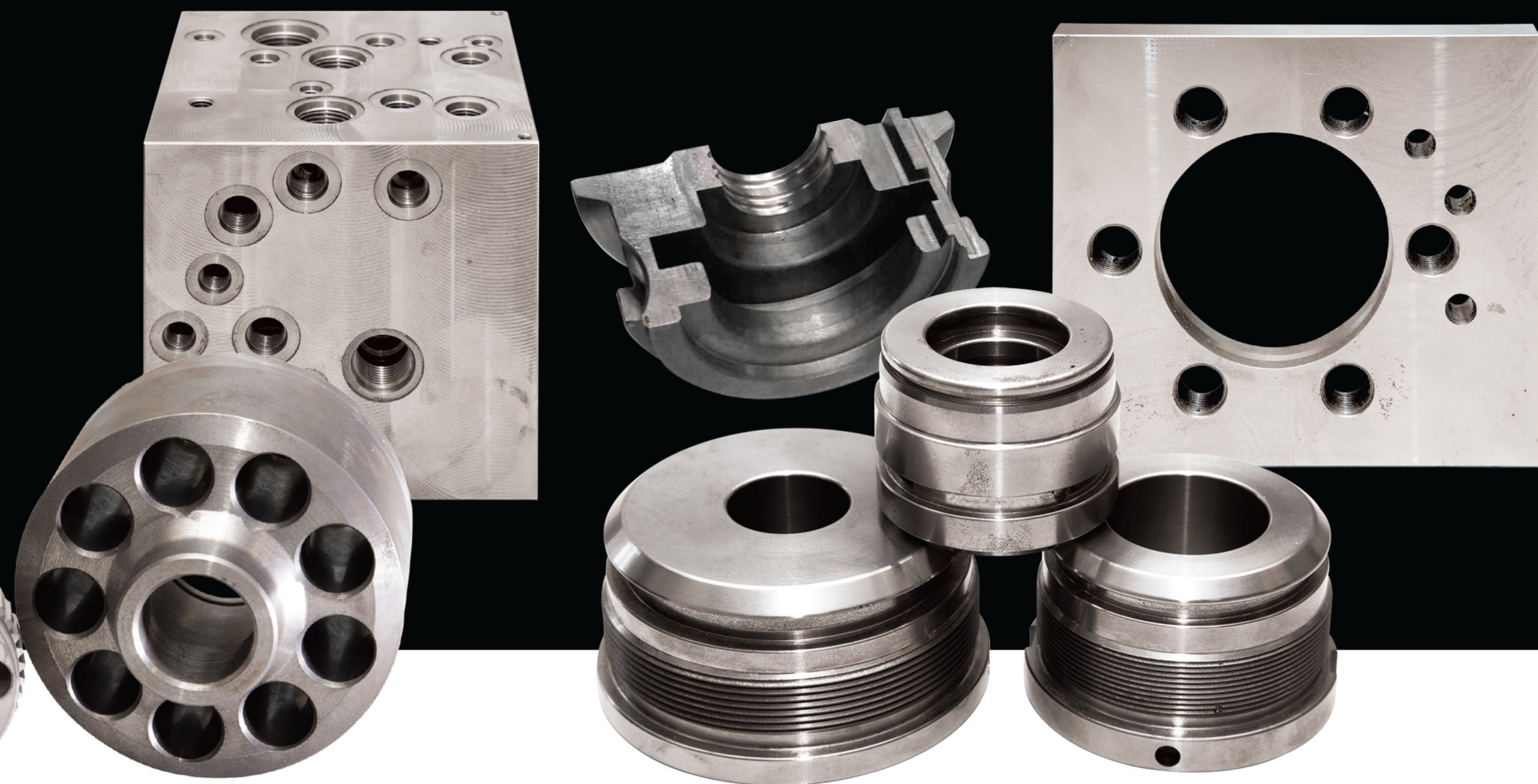
high precision cut to size for single and serial pieces

Tolerances:

length: \varnothing 0 to 240 mm: -0/+1 mm (-0/+0,5 mm on demand)

\varnothing 241 to 540 mm: -0/+2 mm

\varnothing 541 to 720 mm: -0/+5 mm



Tensile properties of continuous cast grey - cast-iron bars

Material designation		Bar diameter	Tensile strength	Matrix structure	
Grades	Brinell hardness HBW*		D mm	Rm MPa - min.	
	min.	max.			
EN-GJL-150C HB150	110	180	20 - 400	80 - 110	ferritic/annealed
EN-GJL-200C HB175	140	210	20 - 400	115 - 155	ferritic/pearlitic
EN-GJL-250C HB200	170	240	20 - 400	155 - 195	pearlitic/ferritic
EN-GJL-300C HB250	220	290	20 - 400	185 - 220	predominantly pearlitic

* HBW indicative values
Reference standard: DS/EN 16482

Tensile properties of continuous cast spheroidal graphite - cast-iron bars

Material designation	Brinell hardness range	Bar diameter	0,2% proof strength	Tensile strength	Elongation the after fracture	Struttura matrice
Grades	HBW *	D mm	$R_{p0,2}$ MPa - min.	R_m MPa - min.	A % - min.	
EN-GJS-350C-22C-LT/RT/C	less than 170	20 - 400	200 - 220	230 - 350	15 - 22	ferritic
EN-GJS-400-18C-LT	120 to 180	20 - 400	220 - 240	360 - 400	12 - 18	ferritic
EN-GJS-400-18C/RT	120 to 180	20 - 400	240 - 250	370 - 400	12 - 18	ferritic
EN-GJS-400-15C	120 to 180	20 - 400	240 - 250	370 - 400	11 - 15	ferritic
EN-GJS-400-7C	140 to 210	20 - 400	240 - 250	370 - 400	7 - 11	ferritic-pearlitic
EN-GJS-450-18C	170 to 200	20 - 400	340 - 350	430 - 450	14 - 18	ferritic
EN-GJS-450-10C	160 to 210	20 - 400	310	450	10	predominantly ferritic
EN-GJS-500-14C	180 to 210	20 - 400	360 - 400	470 - 500	10 - 14	ferritic
EN-GJS-500-7C	170 to 240	20 - 400	290 - 320	420 - 500	5 - 7	ferritic-pearlitic
EN-GJS-600-3C	200 to 290	20 - 400	340 - 370	550 - 500	1 - 3	pearlitic-ferritic
EN-GJS-700-2C	210 to 305	20 - 400	380 - 420	650 - 700	1 - 2	predominantly ferritic

* HBW indicative values
Reference standard: DS/EN 16482

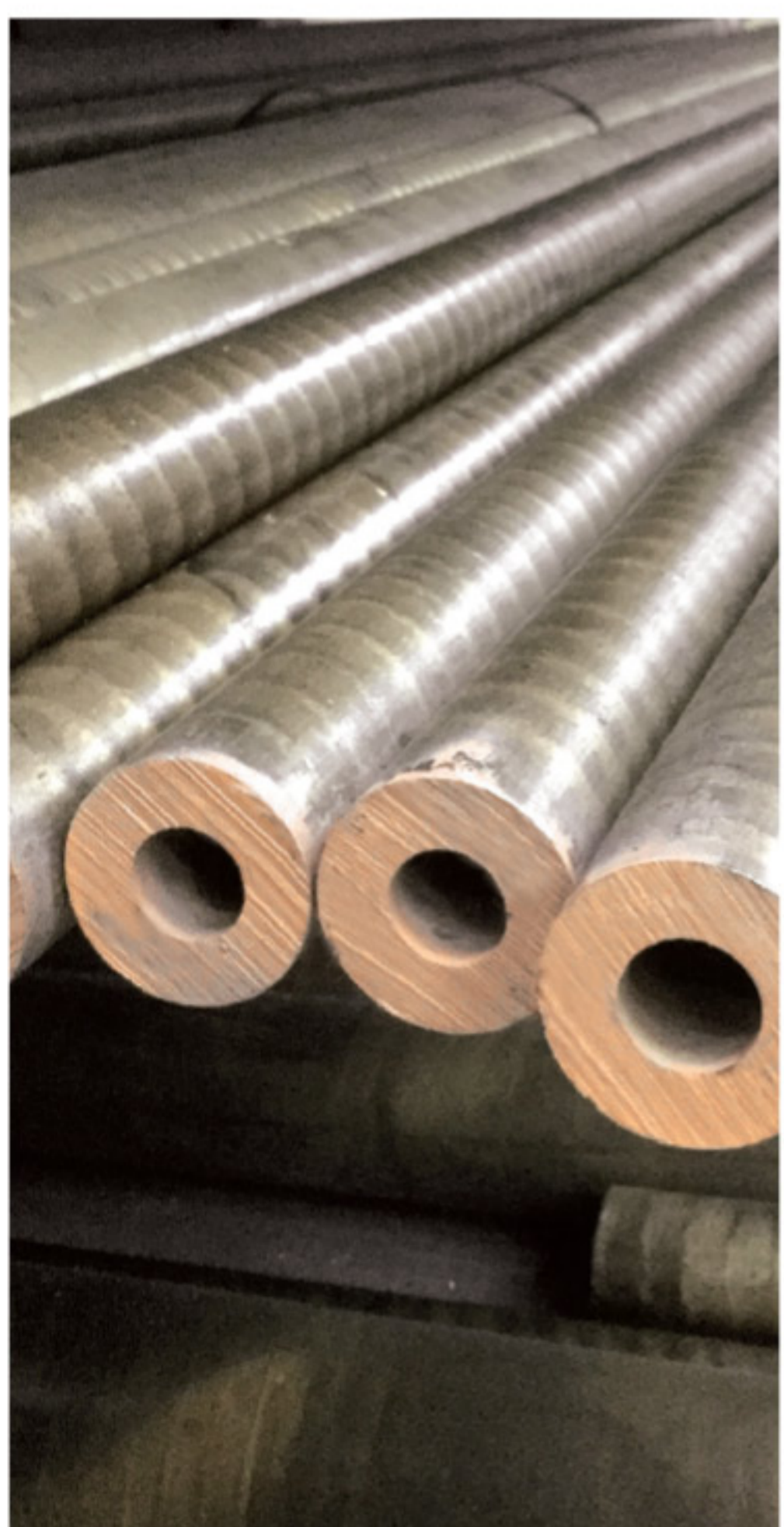
BRONZE

Availability

Hollow and solid round bars
 Square and rectangular bars
 Centrifugal pre-turned bars
 Pre-machined flanges and bushes
 Standard length 3000 - 500 mm
 Cut to size



Technical sheet



Quality	Detail	EN 1982	Specific weight	Minimum mechanical properties EN				
				Rm	Rp 0,2	A%	Hb	
Tin Bronze Alloy din 1705	RG5	CC491K	Cusn5Zn5Pb5-C	8,7	250	110	13	65
	RG7	CC493K	Cusn7Zn4Pb7-C	8,8	260	120	12	70
	Gbz12 (Ex B14)	CC483K	Cusn12-C	8,7	300	150	6	90
Leaded Bronze din 1716	SnPbBz10	CC495K	Cusn10Pb10-C	9	220	110	8	70
	SnPbBz15	CC496K	Cusn10Pb15-C	9,1	200	90	8	65
	SnPbBz20	CC497K	Cusn10Pb20-C	9,3	180	90	7	20
Aluminum Bronze Alloy din 1714	Cual10Ni	CC333G	CuAl10Fe5Ni5-C	7,6	650	280	13	150
	Cual11Ni	CC334G	CuAl11Fe6Ni6-C	7,6	750	380	5	185



Sustainability program

In the summer of 2022, we invested in a greener future as we renewed our photovoltaic system. With the photovoltaic system, we have assured a nonpolluting source of energy, which has been producing approx. 1/3 of our energy consumption so far and reducing the CO2 emission by approx. 40 ton.

Customer service

Daily deliveries throughout Italy - Europe. Available storage space of stock material - Kanban service. Storage of containers and packaging owned by the customer. Feasibility studies for semi-finished and finished parts in cast-iron and bronze design. Applicative technical consulting.

Surface treatments:

thermal distension - deep annealing - sandblasting
certifications 2.2 standard and 3.1 on request

Dimensional control:

roughness - dimensions - parallelism - perpendicularity

TO COMPLETE THE SERVICE WE ALSO PROVIDE:

Aluminum - Brass - Copper - Steel - Iron - Chrome bars



PART OF BIRN GROUP

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