

Steel foundry production and materials



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Miilucast Oy is part of the Miilukangas group. The steel foundry produces customer specified castings from single pieces into long product series using a wide range of materials.

STAINLESS STEELS

| EN | ASTM | SS | Other Standard | R _{p0,2} (N/mm ²) | R _m (N/mm ²) | A5 (%) | HB (Brinell) |
|--|---------|------|----------------|--|-------------------------------------|--------|--------------|
| Stainless | | | | | | | |
| Typical values unless otherwise stated | | | | | | | |
| 1.4308 | CF8 | 2333 | | 230 | 470 | 45 | 155 |
| 1.4309 | CF3 | | | 250 | 490 | 40 | 155 |
| Acid proof | | | | | | | |
| 1.4408 | CF8M | 2343 | | 250 | 520 | 40 | 155 |
| 1.4409 | CF3M | | | 260 | 530 | 40 | 155 |
| Duplex | | | | | | | |
| 1.4462 | 4A | 2377 | | 500 | 700 | 30 | 220 |
| 1.4460 | | 2324 | | 450 | 650 | 27 | 220 |
| Martensitic | | | | | | | |
| 1.4317 | CA6NMA | | | 740 | 920 | 16 | 290 |
| 1.4405 | | 2387 | | 700 | 900 | 17 | 290 |
| Super austenitic | | | | | | | |
| 1.4547 | CK3MCuN | 2378 | SMO254 | 270 | 570 | 40 | 155 |

HEAT-RESISTANT STEELS

| EN | ASTM | SS | | R _{p0,2} (N/mm ²) | R _m (N/mm ²) | A5 (%) | HB (Brinell) |
|--------|------|----|--|--|-------------------------------------|--------|--------------|
| 1.4837 | HH | | | 250 | 520 | 15 | 155 |

STEELS FOR HIGH TEMPERATURE SERVICE

| EN | ASTM | SS | Other Standard | R _{p0,2} (N/mm ²) | R _m (N/mm ²) | A5 (%) | HB (Brinell) |
|--------|------|------|----------------|--|-------------------------------------|--------|--------------|
| 1.7357 | WC6 | 2223 | | 300 | 500 | 20 | 165 |
| 1.7379 | WC9 | 2224 | | 320 | 520 | 20 | 180 |

STEELS FOR QUENCHING AND TEMPERING

| EN | ASTM | SS | Other Standard | R _{p0,2} (N/mm ²) | R _m (N/mm ²) | A5 (%) | HB (Brinell) |
|---------|------|------|----------------|--|-------------------------------------|--------|--------------|
| G20Mn5 | WCB | | GS45 | 300 | 500 | 25 | 160 |
| 25CrMo4 | | 2225 | | 550 | 750 | 12 | 250 |
| | | | Boron steels | 700 | 800 | 15 | 260 |

WEAR RESISTANT STEELS AND IRONS

| EN | ASTM | SS | Other Standard | R _{p0,2} (N/mm ²) | R _m (N/mm ²) | A5 (%) | HB (Brinell) |
|----|------|----|----------------|--|-------------------------------------|--------|--------------|
| | | | TA | | | | 450-500 |
| | | | TC | | | | 500-600 |
| | | | XA | | | | 500-600 |
| | | | Boron steels | 800- | 950- | 12- | 300- |



Casting weights and batch sizes:

Shell moulding:

weight range of castings 1- approx. 50 kg
ideal for serial production – batch sizes from 50 pcs
max product dimensions 450*450*600 mm

Hand moulding:

weight range of castings 10 - approx. 5000 kg
for smaller production series – batch sizes from 1 piece
max product dimensions 3000*2500*1500 mm

The shape of the product will affect to max casting weight and dimensions.
In cases the product is ideal for casting little heavier castings can be made.

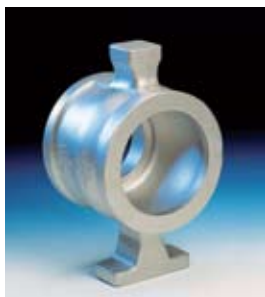
Quality

Miilucast is certified in accordance with ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007.
Foundry is also certified material manufacturer according to Pressure Equipment Directive (PED) 97/23/EC.

Modern 3D- and simulation software's are used in casting design.

Inspection methods covers typical NDT-methods (ultrasonic test UT, magnetic particle test MT and liquid penetrant test PT) and also X-ray test, all in-house.

Miilukangas Group:





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