



Heat treatment of cast iron

WN
9 66 65-01

Replacement for
edition 2008-11

1 Range of application and purpose:

This standard applies to heat treatment of cast iron ensuring a constant, defined and good quality.

The purpose of this standard is to avoid and to remove internal tensions influencing the dimensional accuracy of the workpiece during and after machining, even after a longer period of time.

It is mandatory to adhere to the cooling rates defined in this works standard after casting.

The heat treatment is to be specified in the drawing and to be confirmed by the supplier.

2 Cooling and heat treatment specifications:

2.1 Cooling in the mould:

- Cooling rate max. 30°/h within a temperature range of 800° - 300°C.
- Removal temperature < 150°C

Drawing note: „ Raw part cooled according to works standard 9 66 65-01 “

2.2 Stress relieving:

- Running-in into the annealing furnace at a temperature of max. 50°C
- Heating up with a rate of max. 50°/h
- Annealing temperature: 580°C
- Exposure time for wall thicknesses ≤ 50 mm: 4 h
- Exposure time for wall thicknesses > 50 mm: 6 h
- Cooling rate: max. 30°/h
- Furnace temperature on removal < 150°C

Drawing notes:

„ Raw part stress relieved according to works standard 9 66 65-01 “

„ Pre-machined finished part stress relieved according to works standard 9 66 65-01 “

3 Documentation:

Details regarding furnace operation, annealing temperatures and heating-up and cooling rates are to be documented and to be delivered to SW in writing.

4 Additional valid standards:

- VDG data sheet - No. 1

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Modifications

In comparison with works standard 9 66 65-01:2008-10 the following has been modified:

a) The drawing notes

„Raw part cooled according to works standard 9 66 65-01“,

„Raw part stress relieved according to works standard 9 66 65-01“

and

„Pre-machined finished part stress relieved according to works standard 9 66 65-01“

have been fixed.

Former editions:

Works standard 9 66 65-01: 2007-05, 2008-11

