General Technical Specification

This general technical specification is used as a basic for all quotations and orders where the purchaser does not have specific requirements or specification.

The general rule for quality levels is the higher the demands the more expensive castings becomes. Requirements not noted on the enquiry but which are stipulated in the final order will be charged separately.

Pilot castings

The purpose is to assure acceptable quality before serial production.

Ordering parts will be considered as a Pilot if:

- New product or changed product which is ordered.
- Any changes in the supplier manufacturing technologies (customer will be notified)
- Any changes due to the decline in the quality of products.

Only after reception of official approval serial production can be started (official approval should be issued after all operations will be finished including final machining if parts should be machined before installation).

Patterns

a) Patterns supplied by customer

It is assumed that, unless otherwise stated, the pattern is dimensionally correct. Any costs for adapting the pattern to Jelsingrad Livar casting equipment or costs incurred due to incorrectly manufactured patterns will be debited separately.

b) New patterns ordered from Jelšingrad Livar

Any cost incurred for the adjustment of any new patterns ordered from Jelšingrad Livar will be borne by Jelšingrad Livar

c) Old pattern stored in Jelšingrad Livar

Any cost involved in adjusting old patterns will be debited separately.

Storage of patterns that have not been used for a long time or are rarely used will be charged at an amount agreed by the parties. Payment for the storage service is made within 15 days and if payment is not made within 30 days the patterns will be moved to the open space. If the customer does not pick up the patterns from the open space within 30 days, the foundry has the right to destroy it.

Drawings

Unless otherwise stated the most recent drawing revision received by Jelsingrad Livar is valid for the order. If the drawing is revised once the manufacturing process has been started it will be treated as a completely new order unless the modification can be implemented without additional costs being incurred.

Dimensional tolerances

In accordance with EN-ISO 8062. Tighter tolerances must be specifically agreed.
Required draft will be added to the pattern.

Weight

The price of casting is calculated on base weight of piece and finally weight will be calculated after finishing of castings (before machining).

Machining

Drawings of the finished products are to be supplied even when final machining is to be carried out later. This is to enable that the best castings procedure can be applied thereby trying to avoid the occurrence of defects in the machined surfaces.

When rough machining is specified a machining allowance of 5-8 mm is normally left on the surface.

Surface inspection

The surfaces are visually inspected during final inspection.

(NDT) Non – destructive testing such as penetrant testing (PT) and magnetic powder testing (MT) can be carried out by qualified personnel but is normally only done when directly specified by the purchaser.

When visually inspection is required but no acceptance level stated the results are expected to fulfill the requirements of MSS SP 55

When MT is required but no acceptance level stated the results are expected to fulfill the requirements of EN 1369 for SM3, LM3 and AM3.

The equivalent for PT is EN 1371 for SP3, CP3 and LP3.

Internal defects

Ultrasonic (US) and Radiographic (RT) inspection can be carried out by qualified personnel but is normally only done when directly specified by the purchaser. Refer to the section on machining when directly specified by the purchaser.

When testing is specified but no acceptance level sated the parts are tested to the criteria stated in EN 12680-1 class 3 for US testing and ASTM E 446 or E 186 class 3 for RT testing.

Traceability

Unless otherwise stated all casting are marked with material description, pattern (drawing) and internal number.

Requirements for additional traceability must be stated in the enquiry Stamping of charge number will be carried out on agreement.

Certificate / documentation

Requirements for manufacturing documentation (e.g. analysis, mechanical properties NDT-testing, dimensional inspections, heat treatment, welding documentation etc.) must be stated in the enquiry . Certificate in accordance with EN 10204 can be issued.

Any requirement for inspection by the purchaser's or independent inspector must be stated in the enquiry. Jelšingrad Livar will give notice of the time of visit.

Unless otherwise agreed 3.1 certificates contain only the results of chemical analysis and tensile testing.

Production plans (progress report) quality plans

Any requirement for separate plans must be stated in the enquiry.

Repairs of steel casting

In cases where the steel casting is repaired by welding the operation is carried out with regard to the type of material and in accordance with Jelsingrad Livar's quality system for process control of welding.

All requirements for qualification and documentation for welding must be stated in the enquiry.

Delivery

Buyer will organize and pay costs for transport.

In agreement with the buyer Jelsingrad Livar can organize transport but cost of transport will be debited separately in the invoice.

Storaging

Storaging of finished goods will be free of charge 30 days. In case that the buyer does not pick up the goods from the warehouse 30 days after it is produced and placed at his disposal he must pay storaging costs in amount of 4.35 Euro + VAT (17%) per pallet for each additional working day. Exception in case of safety stock agreements.

Claims

24 hours upon receipt of a claim buyer will receive confirmation of receipt with the basic information about the complaint. Within next 14 days buyer will be notified about supplier official opinion (8D form). Within mentioned period all open issues will be communicated.