

Standard Commercial Terms and Conditions for the Sale, Manufacture, and Shipping of Seamless Mechanical Tubing

Introduction

This document sets forth Metallus Inc.'s ("Metallus") practices for the manufacture, sale and shipping of tubing, to the extent such practices are not otherwise specifically detailed in our quotations and customer order acknowledgments. Deviations from these practices are subject to review at time of inquiry and should be resolved prior to order acceptance. Special practices should be stated as part of the purchase order or as part of the order specification, and will not apply to the order unless specifically accepted in Metallus' customer order acknowledgment.

Seamless steel tubing that is produced free from defects in materials and workmanship nonetheless may contain surface anomalies that are consistent with good commercial practice for the condition to which the tubing is ordered. Typically, seamless steel mechanical tubing is machined on the OD, ID, or both, prior to its use in mechanical applications, and such machining certainly is recommended. Consideration for the presence of surface anomalies should be made when hot rolled tubing is used in applications without the OD and/or ID surfaces first having been sufficiently machined to remove them.

This document should be included in your quality records.

Conditions of Acknowledgment and Acceptance of Purchase Orders

These standard commercial terms and conditions are in addition to Metallus Inc. terms and conditions of sale, which can be found at: <http://Metallus.com/terms-conditions-of-sales>. All sales of tube products by us are subject to Metallus' terms and conditions of sale, as stated on our customer order acknowledgment. A copy of Metallus Inc. terms and conditions of sale has been mailed to you along with these standard commercial terms and conditions for your information.

General Terms of Sale

Prices are subject to change without notice. Unless otherwise negotiated, prices in effect at the time of shipment will apply. Charges for special processing agreements, product or heat testing, and surcharges may apply.

For Domestic orders: Prices are quoted per hundred feet or per pound, free carrier (FCA) our mill at Canton, Ohio or per other shipping term as negotiated and set forth in the order acknowledgment. Terms are Net 30 Days from date of invoice.

For International orders: Prices are quoted per hundred feet or per pound, free carrier (FCA) our mill at Canton, Ohio, or per other INCOTERMS 2020 as negotiated and set forth in the customer order acknowledgment. Terms are letter of credit unless different terms are approved in writing by a Metallus Sales Manager in conjunction with the Manager – AR/Credit.

Purchase order requirements, including quantity and requested delivery dates, are subject to available capacity at time of order placement. Allocation restrictions may apply.

The quantity is determined by the total quantity of one size, chemical analysis, thermal treatment and finish ordered by one customer for manufacture and shipment at one time to one consignee and one destination.

For tubes >100 pounds per foot, the minimum order quantity is 20,000 lbs.

Dimensional Considerations

Random Length - Tubing lengths will be produced to a minimum length of 8 ft. and a maximum length of 40 ft. with a 7 ft. spread from minimum to maximum length. The exact lengths will be determined by the tube size and mill capability.

Five percent (5%) by weight of the tubing can be shipped in shorts to one-half the minimum random length permissible, which will be bundled separately.

Multiple Length - Within an acceptable random length range, a reasonable maximum length may be specified and the mill can furnish up to 10% of the total footage of an item in the length of a single multiple. Tubing having a TFW greater than 90 lbs. may not be available in multiple lengths.

End Finish - Tubing may be machine cut, or bandsaw cut depending on tubing size. ID burrs are mechanically removed.

OD and Wall Dimensions

OD and Wall dimensions may be measured with a micrometer or a properly calibrated nondestructive testing device of appropriate accuracy. In the case of dispute, the measurement determined by use of the micrometer will govern.

The OD and Wall dimensions of Metallus guaranteed tube sizes (denoted "GUAR" on the order acknowledgment) specify OD tolerances for incoming inspection purposes. These tube sizes are designed to include an allowance for cleanup stock. When properly machined, after the removal of the cleanup stock, we expressly warrant such product will yield the customer finish size shown on the order acknowledgment (denoted "CFS").

Tubing may contain localized spots or strips that can measure up to 1/4 of 1% of the OD dimension over the maximum tolerance and may have localized areas of heavy wall up to 2-1/2% of the nominal wall dimension over the maximum tolerance as determined by properly calibrated nondestructive testing which, when evaluated can be judged merchantable consistent with good commercial practice and can be shipped without special notice. We expressly warrant such product can be processed satisfactorily in commercial machining equipment when machined true to the designated OD or ID surface.

Hot rolled and rough turned tubing is produced to OD and Wall dimensions only. Three circumferential dimensions cannot be specified.

Straightness

Straightness is a quality that can be altered by mishandling. Preservation of straightness requires utmost care in handling after the tubing leaves Metallus' control.

Scale Free

The term "scale free" in a condition indicates a process to reduce scale has been used but does not imply the total absence of any scale on shipped product.

Stress Free

The term "stress free" in the condition of thermally treated products indicates a process to reduce residual stress has been used but does not imply the total absence of any residual stress in the shipped product.

Rust Free

The term "rust free" on Metallus acknowledgement forms, certifications or other correspondence indicates that actions were taken to minimize the presence of rust but does not imply the complete absence of rust.

Testing Considerations

Use standard methods and/or validated modifications of standard methods.

Typical Hardness Locations When A Hardness Test Is Specified

Single thermal treated or non-heat treated product: Mid-wall.
Double thermal treated product: OD surface.

Grain Size

When aluminum is used as the grain-refining element, fine grain size may be determined based on chemical content.

Hardenability

Hardenability values may be calculated.**

Mechanical Properties

Mechanical properties for hot roll or annealed product may be reported as typical values based on process path and grade data.**

Macroetch and/or Nonmetallic Inclusion

Statements of capability for macroetch, and/or magnetic particle and/or nonmetallic inclusions may be used based on periodic testing.**
Macroetch is typically a heat test, and as such test size may not be representative of the product size ordered.

Magnetic Particle Rating

Magnetic particle rating is reported as a summary number for the heat. Statement of Capability may be used based upon the process qualification requirements in AMS 2300, 2301, 2304.

Chemistry Check Analysis

Chemistry check analysis may be performed on semi-finished product samples from the heat.

**Refer to Steel Certificate of Test

Customer Material Conversion considerations

Incoming billets will be supplied by customer to the mill in Canton, OH in the condition specified by Metallus.

Toll processing is performed on a commercially reasonable "best effort" basis. Metallus will put forth its commercially reasonable best effort to convert incoming billets to customer specification based on material and manufacturing knowledge, which may be limited. Any material not converted to tube form will be returned to the customer.

General Sales Terms apply.

Shipping Considerations

Shipping Practice

Tube products are shipped via flat bed truck, rail, or ocean containers using a carrier selected by Metallus to provide the lowest cost reliable service for the freight lane.

Freight is paid by Metallus and added to the steel invoice as a separate line item. Freight rates are subject to change without notice.

For customers who specify specific carriers, freight costs will be billed as collect.

Customers who utilize their own trucks, upon notification that material is available for shipment, have seven (7) calendar days to pick up their material. After this period, Metallus may ship the material via commercial carrier.

Metallus is authorized (without prior notification) to make partial shipments of an order to complete a truckload or to meet a delivery promise date.

Shipping Quantity

Due to variation in production yield, shipment of 10% over or under the ordered quantity is permitted except for the following:

- Consumable vacuum remelt tubes:
 - Order quantity \geq 5,000 lbs.: Over and under tolerance is 15%.
- Bearing tubing for OEM bearing manufacturers:
 - Order quantity < 10,000 lbs.: Over and under tolerance is 1,000 lbs.
- Tubes over 2,000 lbs. in weight:
 - All order quantities < 40,000 lbs.: Whichever is greater between (1) Over tolerance of 2 tubes and under tolerance of 1 tube, or (2) Over and under tolerance of 10% by weight.
 - Order quantities \geq 40,000 lbs.: Whichever is greater between (1) Over and under tolerance of 2 tubes, or (2) Over and under tolerance of 10% by weight.
- Tubes for customer release from finished inventory programs:
 - Truckload releases: no ship tolerance applies.
 - Less-than-truckload releases: plus or minus one bundle.
- Heat Lots:

Shipping quantity tolerances will not apply to special grades melted on a restricted heat lot basis.

Promise Week

The promise week date is the Monday of the week the tubing is expected to be ready to ship. Shipments are authorized one week prior to the promise week date, and orders available to ship Thursday of the promise week are considered on time.

Packaging Considerations

Surface Preparation

All tubes ordered in the hot roll condition are shipped dry and stored outdoors prior to shipment.

Bundles

Tubing is shipped in uniform bundles (2 piece minimum all rounds) with bundles containing random lengths in 4 ft. increments. Two-piece bundles are required for loading. Residual pieces may be shipped loose. If necessary for safety considerations, Metallus may bundle two pieces together even if doing so exceeds the customer's maximum bundle weight. Bundles are blocked on a minimum of 3" x 4" horizontal dunnage provided by the carrier. The following strapping configurations apply, unless the customer specifies additional banding as listed on the order:

Bundles manually banded use 0.029" steel bands with notched seals as follows:

Bundles up to 3,000 lbs. – 4 single bands
Bundles 3,000 to 6,000 lbs. – 2 single bands, 2 double loop bands
Bundles 6,000 lbs. and over – 4 double loop bands

End bands are placed within 18" of bundle end or to capture shortest piece within a bundle

Bundles automatically banded use 0.031" minimum steel bands with welded joints as follows:

Two-piece bundles of any weight – 4 single bands

---//-----//--

Bundles up to 3,000 lbs. – 4 single bands

---//-----//--

Bundles 3,000 to 8,000 lbs. – 6 single bands

---//-----//-----//--

Bundles 8,000 lbs. and over – 8 single bands

---//---//-----//-----//--

Note: The single bands used on the automatically applied bands are considered equivalent to the double loop bands of the manually applied bands, since the automatically applied bands are placed in pairs as illustrated in the Example of Band Spacing column.

Identification

Heat identity is stamped or stenciled on each tube. If stenciling is specified and the product is domestically produced, the tube is stenciled one time reporting: Metallus-Type-Size-Heat No.-Customer Order No.-Made in USA.

All tubing bundles are tagged with a bar-coded tag showing the following:
Metallus
Metallus; Production Order Number

Standard Commercial Terms and Conditions for the Sale, Manufacture, and Shipping of Seamless Mechanical Tubing (Cont'd.)

Specification ("customer type" of steel grade)
Customer Part Number (when shown on production order)
Supplier Number (when provided by the customer)
Bundle Number
Customer Purchase Order Number
Metallus Heat Number
Tube Size (nominal OD and Wall no tolerances)
The "Ship To" Customer and Address
Bundle Weight, Bundle Footage, and Bundle Piece Count

Painting

Tubes requiring painting will be painted on one end only.

Quality System Requirements

Communications are periodically sent to customers identifying their Supplier Quality System Requirements that are on file at Metallus. It is the customer's responsibility to review and act on any such communications and to notify Metallus immediately of any updates to the Supplier Quality System Requirements.

Control Plans

In the absence of an application-specific control plan, Metallus standard control plans will apply.

Process Changes

Process changes and customer notifications are managed and defined through internal standards.

Enhanced Proliferation Control Initiative (EPCI)

Import and export control laws and regulations, including but not limited to the Enhanced Proliferation Control Initiative (EPCI), the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR) may restrict Metallus and/or its customers from exporting, re-exporting, or transferring products or conducting services unless explicitly authorized by the U.S. Government.

Customer is responsible for compliance with all import and export control laws and regulations. Customer will obtain import, export, re-export approvals and licenses required for goods, transfers, services and technical data delivered to it, and will retain documentation to support compliance with those laws and regulations. Metallus will not be liable to customer for any failure to provide goods, transfers, services or technical data as a result of Metallus' adherence to applicable laws or regulations, government actions, or customer's failure to follow applicable import or export laws and regulations, to the extent the same impacts Metallus' ability to perform.

Documentation Considerations

Steel tubing certifications contain chemical analysis and, when requested, grain size (coarse or fine) and, as specified by the customer are emailed and/or included with the packing slip and sent with the steel carrier. There are no advance shipping notices unless EDI notification is requested.

Order status is available electronically as part of our 24 hour web based portal (<https://portal.Metallus.com>). This real-time status report shows customer PO and/or part number, promise date, order quantity, quantity shipped, quantity available in shipping, partial and/or complete shipments, Bill of Lading number, name of the carrier, any appointments the carrier has made, and repromise dates if applicable. Repromise dates may not be available during holiday weeks such as Thanksgiving and Christmas.