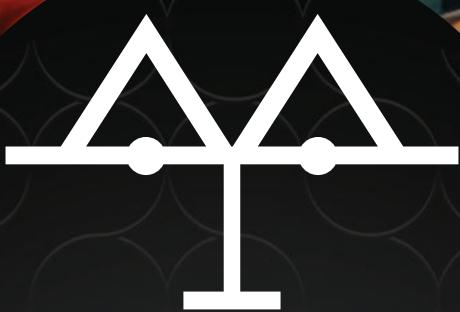


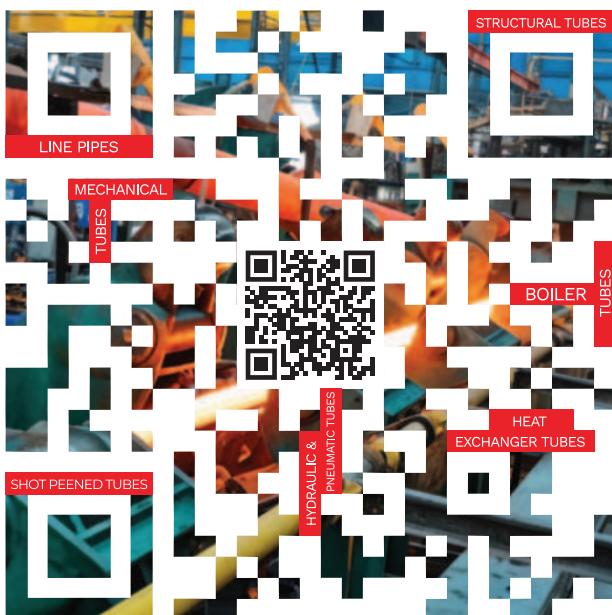
Perfect *blend* of
quality & integrity



HEAVY METAL & TUBES (INDIA) PVT. LTD.



A SELF-RELIANT COMPANY, EMBODYING THE 'MAKE IN INDIA'
VISION WITH UNMATCHED QUALITY AND PERFORMANCE



LINE PIPES

BOILER TUBES

MECHANICAL TUBES

STRUCTURAL TUBES

SHOT PEENED TUBES

HEAT EXCHANGER TUBES

HYDRAULIC & PNEUMATIC TUBES

"U" TUBES & ARBOR COILS

**CARBON, ALLOY &
STAINLESS STEEL**
All under One Brand

UNIT 1

COLD DRAWN STAINLESS
STEEL PLANT
(30,600 SQ. M)



UNIT 2

**COLD DRAWN CARBON &
ALLOY STEEL PLANT
(13,500 SQ. M)**



UNIT 3

**HOT & COLD FINISH CARBON &
ALLOY STEEL PLANT
(30,100 SQ. M)**



ABOUT US

Heavy Metal & Tubes (India) Pvt. Ltd., established in 1978, is one of India's leading manufacturers of Stainless Steel, Carbon Steel, and Alloy Steel tubes and pipes. With over four decades of expertise, we have built a strong foundation based on quality, innovation, and customer trust.

We operate three advanced manufacturing facilities in Gujarat, Western India. Each plant is equipped with cutting-edge machinery and comprehensive testing capabilities, ensuring products that meet the most stringent national and international standards, as well as customized client specifications.

Our success is driven by our highly experienced and skilled workforce, who bring deep technical knowledge and a commitment to excellence in every process from raw material selection to final inspection.

Our facilities and products are approved and trusted by major EPC contractors, PMCs, multinational corporations, consultants, TPIs, OEMs, and end-users worldwide.

With a legacy that spans over 45 years, Heavy Metal & Tubes continues to deliver high-quality, performance-driven solutions, backed by deep industry experience and a passion for precision.



CARBON / ALLOY / STAINLESS STEEL FROM ONE BRAND



69,000
METRIC TON PER ANNUM



75,000
SQ. METER COVERED AREA



30+
COUNTRIES SERVED



1000+
EXPERIENCED TEAM MEMBERS



03
DEDICATED PLANTS



5MW
RENEWABLE POWER



SUSTAINABLE ENERGY. STRONGER STEEL

Clean Power Behind Every Tube & Pipe We Manufacture

As a responsible manufacturer of premium steel tubes and pipes, we are deeply committed to integrating sustainability into our core operations. By harnessing renewable energy, we're not just producing steel - we're shaping a cleaner, smarter industrial future.

Our dedicated wind and solar energy infrastructure powers a significant share of our manufacturing processes, helping reduce emissions, lower operational costs, and enhance long-term energy security.



WIND POWER
2.75 MW



SOLAR POWER
2.15 MW

These investments in green power directly support cleaner production of steel tubes and pipes delivering value to customers who prioritize sustainability in their supply chains. By embracing renewable energy at scale, we're enhancing business continuity, boosting energy independence, and supporting INDIA's vision of a sustainable industrial future.

Green Energy. Greener Steel. Greater Impact.

CORPORATE SOCIAL RESPONSIBILITY (CSR)



At Heavy Metal, we believe in giving back to the community that supports us. Our CSR initiatives reflect our commitment to inclusive growth and social development:



Supporting Rural Education & Healthcare: We have actively contributed to the development of school and hospital in nearby villages, ensuring access to quality education and medical care for underprivileged communities.



Blood Donation & Medical Camps: Regularly organized health check-ups and blood donation drives promote wellness and community bonding.

During the pandemic, **our team stepped up to distribute essential food supplies and hygiene kits** to affected families, ensuring no one was left behind during the crisis.

We continue to strive for meaningful change through every step we take beyond business.

EMPOWERING OPERATIONS WITH TECHNOLOGY

At Heavy Metal, digital transformation is at the core of our operational excellence. In collaboration with Datanote, we have developed a customized Electronic Data Processing (EDP) system that seamlessly integrates all key functions of our business - from order processing and inventory management to production tracking and dispatch planning.

This robust EDP platform ensures:

REAL-TIME DATA VISIBILITY

STREAMLINED WORKFLOW ACROSS DEPARTMENTS

IMPROVED ACCURACY AND TRACEABILITY

FASTER DECISION-MAKING

With Datanote's powerful ERP backbone, our team can monitor, manage, and optimize operations more efficiently - supporting our goal of delivering quality tubes and pipes, on time, every time.

FROM PASSION TO OBSESSION, *45+ Years* OF EVOLUTION



1978



1982



1992



1993

- Heavy Metal's first unit was set up at Mumbai to manufacture cold drawn seamless carbon steel tubes & pipes.

- The second plant was put up at Ankleshwar to manufacture cold drawn seamless carbon steel tubes & pipes.

- Third plant was commissioned at Bileshwarpura, near Chhatral, to produce seamless carbon & alloy steel tubes and pipes.

- Shree Reliable Tubes Pvt. Ltd. makes stainless steel tubes and pipes in Bileshwarpura.



2006

2008

2009

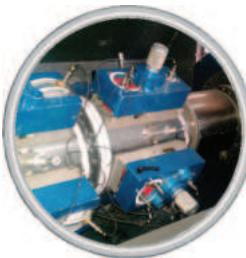
2011

- Shifted Carbon and Alloy Steel cold drawn facility to Unit 2 with capacity expansion upto 24000 MTPA

- New Bright Annealing furnace with 10 MTPD capacity commissioned in CS/AS div.

- HMT initiated a major expansion to set up a state-of-the-art plant for Hot Finish Seamless Carbon and Alloy Steel Pipes & Tubes in Mandali, Gujarat.

- HMT's Unit III began commercial production in June, with a 36,000 MTPA capacity, enabling it to meet rising demand in power, oil & gas, and engineering sectors.
- New 10 probe Rota Ultrasonic Testing machine is commissioned at SS Division.





1998

- HMT was incorporated as a limited company, merging Shree Reliable Tubes Pvt. Ltd. its Stainless-Steel Division.



2004

- India's 1st Hot Piercing Mill & Two pilger mills were added to the Stainless-Steel division.



2005

- Expansion of stainless-steel division was completed by tripling the capacity.

2012

- Bright Annealing Furnace with 12 MTPD capacity is commissioned at SS Division.

2020

- Commissioned 4 pilger mills and 1 cold draw bench (12,000 MTPA capacity) at Unit-3 HFS Division.

2023

- Added 15 new pilger machines in SS Division taking the total to 31 pilgers.

2024

- Started new piercing mill in our SS Div and 2 Shot Peening machines specifically targeting power sector demands.



2025



- Installed a 120-ton cold draw bench, pointing/swaging machine, 100 MTPD furnace, and Shot Blasting line at Unit-3 for heavy wall tube production.
- UT machines of all three units were upgraded to meet the ever-evolving stringent customer requirements.
- Installed a 160-ton cold draw bench with induction pointing machine at Unit-2 and commissioned an additional heavy pilger machine at Unit-1 (SS Division).

ACHIEVEMENTS



ARBOR COILS

MOC : ASTM A335 P9
101.4 mm OD x 5.74 mm WT
114.3 mm OD x 6.02 mm WT

Bend Dia:
3000mm (Radius 1500mm)
with Bevel ends

Tests & Inspection:
100% UT, Hydro, DP, Plane
Testing, Ball Pass Test, PWHT

WHAT
Differentiates
HMT FROM OTHERS



Carbon Steel, Alloy
Steel & Stainless
Steel sourced
from same mfr.



Duplex & Super Duplex,
TP310/TP321H/TP347H/TP405/
TP410, Super S30432,
Shot Peened Tubes



U-Tubes with max.
hydro test pressure
@700 Kg/CM² for
critical applications.



SA334 Gr. 3, SA213
T5/T9/T91/T92



Capability to mfr. st.
length tubes upto 34 Mtrs.



Special grades
with quick delivery

MILESTONES

We take pride in our proven track record of delivering high-quality seamless tubes for critical applications across power, refinery, and chemical sectors. Highlighted below are some of our key milestones:

T-91 GRADE TUBES

- Supplied 900 MT to BHEL, Trichy for NTPC, Talcher Project (2×660 MW)
- Currently executing an additional 863 MT order for the same Client

T-92 & T-91 GRADE TUBES

- Successfully supplied 11 MT to NTPC, Gadarwara Project

T-12 GRADE TUBES

- Ongoing execution of 821 MT order to BHEL, Trichy for various NTPC projects

T-22 GRADE TUBES

- Currently executing a major 3000 MT order to BHEL, Trichy for NTPC applications

GR. A1 / T-22 / T-2 / TP-304H GRADE TUBES

- Exported 183 MT to a USA-based client
- Order value: USD 1.19 million

SUPER S30432 (SHOT PEENED) GRADE TUBES

- Booked order of 1150 MT order from BHEL, Trichy for NTPC Plants at Lara, Singrauli, SIPAT, and DVC Koderma (2×800 MW)

TP-347H (SHOT PEENED) GRADE TUBES

- Successfully executed 642 MT order for NTPC projects via BHEL, Trichy

TP-304N GRADE "U" TUBES

- Supplied 44 MT to BHEL, Bhopal for HP Heater Application
- Supplied more than 70,000 U tubes for Ultra Super Critical Power plants
- Tubes hydro-tested upto 625 Kg/cm² pressure

HEAVY WALL RIFLE TUBES

- Supplied SA210 Gr. C Tubes to NTPC, Singrauli Size: 63.5mm OD × 12.50 mm WT

P-91 GRADE TUBES

- Supplied to BHEL, Trichy in multiple sizes
 - 127 × 20 mm , 114.3 × 17.12 mm, 88.9 × 17 mm, 88.9 × 15.24 mm

TP-310 GRADE TUBES

- Executed 10 MT order for Tata Chemicals

TP-321 GRADE SPECIAL SHAPE BEND TUBES

- Pig Tails Supplied to BPCL upto 5 Radius

LONG LENGTH TUBES

- 27.5 Mtr. straight tubes in SA179 supplied to Brembana & Rolle, Italy

THE ONLY NTPC APPROVED MANUFACTURER FOR THE ENTIRE RANGE OF MATERIALS:

- Carbon Steel / Alloy Steel (up to T91 grade) / Stainless Steel (including Super 304)

UNIT 1

COLD DRAWN STAINLESS STEEL PLANT

At HMT, we operate a dedicated **Cold Drawn Stainless Steel Seamless Tube & Pipe Plant** spanning over **30,600 sq. m** of covered area, equipped with state-of-the-art technology to meet global quality standards.

Our manufacturing process begins with in-house production of high-quality seamless hollows. These are cold finished either through **32 Pilger Mills** or **4 Draw Benches**, utilizing precision dies and plugs to ensure tight dimensional tolerances and superior surface finish.

Key facilities include:

- Hot Piercer
- 32 Pilger Mills
- 2 Bright Annealing Furnaces
- 4 Draw Benches

The tubes and pipes undergo stringent processes including **heat treatment, straightening, surface treatment, and thorough quality testing** to meet international specifications and customer-specific requirements. Final products are **marked, documented and packed** for global dispatch.



PRODUCTS

- Stainless Steel Seamless Tubes and Pipes
- "U" Tubes and Special Shapes
- Bright Annealed Tubes

MANUFACTURING RANGE

Outer Diameter (OD): 4 mm to 220 mm

Wall Thickness (THK): 0.5 mm to 25 mm

Length : Upto 34 Meters depending upon size

CAPACITY

9,000 MTPA

GRADE & SPECIFICATIONS

We offer tubes and pipes in a wide range of stainless steel and special alloy grades including:

ASTM/ASME 213, 249, 268, 270, 312, 688, 376, 789, 790, ASTM A-269

Super 304, 304/L/H/LN, 310, 316/L/H/Ti/LN, 317/L, 321/H, 347/H, 405, 410, 904L

Duplex & Super Duplex (UNS 31803, 32205, 32750, 32760),

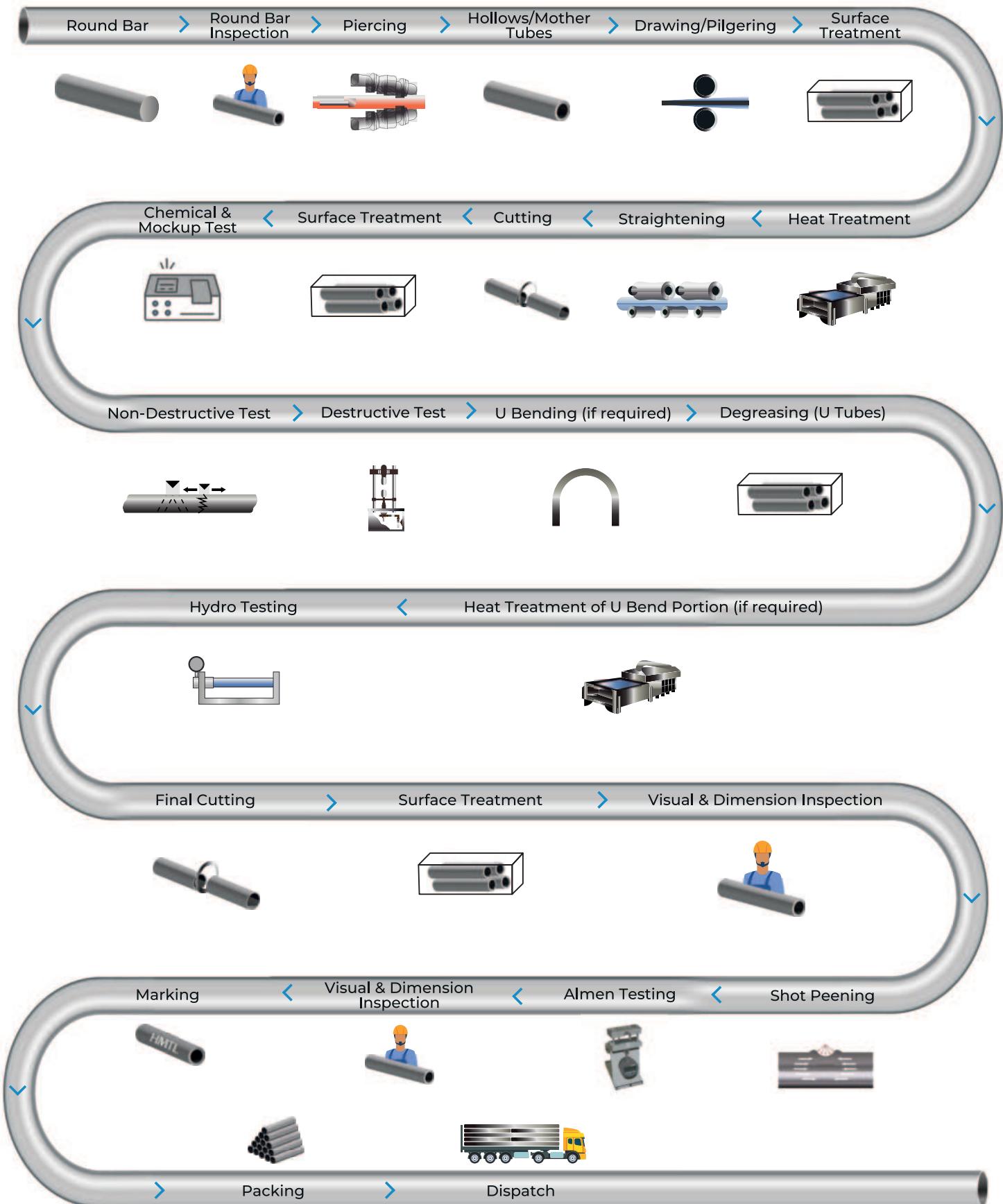
DIN & EN Grades: 1.4006, 1.4301, 1.4401, 1.4541, 1.4462, EN 10216-5, and more.

Other Specification / Grades can be supplied as per customer's requirements

Scan QR to Explore
All Flowchart Videos



FLOW CHART



UNIT 2

COLD DRAWN CARBON & ALLOY STEEL PLANT

HMT's Unit 2 is a state-of-the-art facility dedicated to the production of **Cold Drawn Carbon and Alloy Steel Tubes & Pipes**. Spread across 13,500 sq. m of covered area, the plant is equipped to deliver precision-engineered products for demanding industrial applications.

Starting with seamless hollows manufactured in-house, our tubes are processed through **high-precision draw benches**, utilizing superior dies and plugs to achieve exact dimensional accuracy and smooth internal and external surfaces. We also manufacture **rifle tubes** for specialized and high-performance applications.

All drawn tubes are further processed through **heat treatment, straightening and surface finishing** stages. Each product undergoes **rigorous testing** as per relevant international standards or customers specifications ensuring quality safety and reliability. Final products are **marked, documented and packed** for dispatch.



PRODUCTS

- Carbon Steel Seamless Tubes and Pipes
- Alloy Steel Seamless Tubes and Pipes
- "U" Tubes and Special Shapes
- Rifle Tubes

MANUFACTURING RANGE

Outer Diameter (OD) : 4 mm to 220 mm

Wall Thickness (THK) : 0.5 mm to 25 mm

Length : Upto 34 Meters depending upon size

CAPACITY

24,000 MTPA

GRADE & SPECIFICATIONS

We manufacture as per a broad range of global standards including:

ASTM/ASME A/SA 179, 192, 199, 106 (Gr. A, B, C), 210 (Gr. A1, C), 519, 213 (T1, T2, T5, T9, T11, T12, T22, T91, T92), 335 (P1, P2, P5, P9, P11, P12, P22, P91, P92), 334/333, 209, 556, DIN 17175, 2391 (St35.8, St45.8, St52, 16Mo3, 13CrMo44, 10CrMo910), 2448, 1630, BS 3059, 980, 6323, 3602/1, EN 10716-2, 4130, EN 18, P235, P275, P355, 1026, 1030

Other Specification / Grades can be supplied as per customer's requirements

Scan QR to Explore
All Flowchart Videos



FLOW CHART

Hollows/Mother Tubes

Mother Tubes Inspection

Surface Treatment



Cutting

Straightening

Heat Treatment

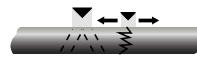
Drawing/Pilgering



Chemical & Mockup Test

Non-Destructive Test

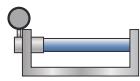
Destructive Test



Hydro Testing

Heat Treatment of U Bend Portion (if required)

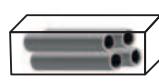
U Bending (if required)



Final Cutting

Surface Treatment

Visual & Dimension Inspection



Dispatch

Packing

Marking



UNIT 3

HOT & COLD FINISH CARBON & ALLOY STEEL PLANT

Advanced Seamless Tube Manufacturing for Demanding Applications

HMT's Unit 3 is a fully integrated manufacturing facility designed to produce **high-quality seamless tubes and pipes** in **Carbon and Alloy steel grades**. Commissioned in **December 2011**, this facility leverages cutting-edge technology including **Cross-Roll Piercing**, **Accu Rolling**, and **Stretch Reducing Mill (SRM)** to deliver products with exceptional dimensional accuracy, uniform wall thickness, and superior surface finish.

The manufacturing process starts with heating high-quality steel round bars, followed by **cross-roll piercing** to convert solid bars into hollow shells. These shells are precision-rolled using **Accu Roll Mills** and further processed through **24-stand SRM**, ensuring tight tolerances, smooth internal surfaces, and consistent product quality.

This hot-finishing route is ideal for producing tubes used in critical applications such as:

- **Boilers & Boiler Components**
- **Economizers**
- **Heat Exchangers**
- **Hydraulic and Mechanical Systems**
- **Cryogenic Services**

With the introduction of **4 Pilger Mills** and **2 Heavy Duty Draw Benches**, Unit 3 also supports **cold finishing operations** - allowing HMT to meet complex demands across various industries through multi-step reduction, heat treatment, and surface refinement.



PROCESS

The hot finish seamless carbon & alloy steel division is equipped with latest machineries and all processes are fully automatic with on line ultrasonic & eddy current testing & latest testing facilities for chemical & mechanical testing to meet the customer requirements.



CROSS-ROLL PIERCING - ACCU ROLLING - SRM TECHNOLOGY

HMT's hot-finish seamless process uses one of the most advanced manufacturing technologies available in the steel tube industry:

1. Heating:

Clean Steel round bars are heated between 1150–1250°C in a rotary hearth furnace.

2. Cross-Roll Piercing:

Heated bars are pierced using a cross-roll piercer to form elongated hollow shells.

3. Accu Rolling:

The hollow shell passes through an Accu Roll Mill where two precision-controlled rollers and an internal mandrel ensure accurate dimensional control and smooth internal surfaces.

4. Re-Heating & SRM:

Hollow shells are reheated to 900–950°C and passed through a 24-stand Stretch Reducing Mill, which refines the final outer diameter, wall thickness, and surface finish.

MANUFACTURING RANGE

Outer Diameter (OD) : 4 mm to 168.3 mm

Wall Thickness (THK) : 0.5 mm to 25 mm

Length : Up to 31 meters (depending on size)

CAPACITY

36,000 MTPA

Other Specification / Grades can be supplied as per customer's requirements

GRADE & SPECIFICATIONS

We supply to a wide range of international standards, including but not limited to:

- ASTM / ASME: A/SA 179, 192, 199, 106 (Gr. A, B, C), 210 (Al, C), 519 213 (T1, T2, T5, T9, T11, T12, T22, T91, T92), 335 (P1, P2, P5, P9, P11, P12, P22, P91, P92), 334/333 (Gr. 1, 3, 6, 8), 209 (T1, T1A, T1B), 556 (A, B, C)
- DIN / EN / BS: DIN 17175, 2391 (St35.8, St45.8, St52, 16Mn3, 13CrMo44, 10CrMo910) DIN 2448, 1630, BS 3059, 980, 6323, 3602/1 EN 10716-2, 1026, 1030, 4130, EN 18, P235, P275, P355

Other Specification / Grades can be supplied as per customer's requirements

Each product undergoes **stringent testing and inspection** to comply with customer specifications and third-party inspection agency requirements. Final tubes are **marked, documented and packed** for safe and traceable delivery.

Scan QR to Explore
All Flowchart Videos



FLOW CHART

Round Bar > Round Bar Inspection > Round Bar Cutting > Rotary Hearth Furnace

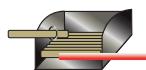


Reheating Furnace

Accu-Rolling

Piercing

Hot Centering



24 Stand SRM

Hot End Cutting

Cooling Bed

Straightening



Cold Pilgering-Drawing (If Required) < Surface Treatment (If Required) < Heat treatment (If Required)



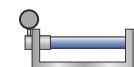
Heat treatment
(If Required)

Straightening

Cutting

Physical & Chemical
Testing

Hydro Testing

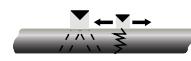


Threading/Bevelling (If Required)

VDI

Final Cutting

NDT (ET UT)



Varnishing

> Length & Weight Measurement

> Marking

> Packing

> Dispatch





SHOT PEENING OF STAINLESS STEEL TUBES

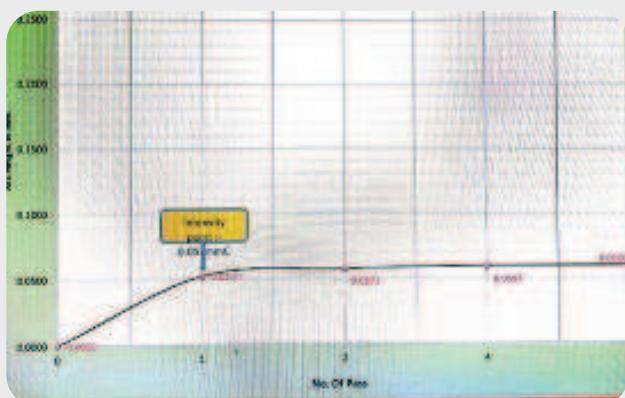
Enhancing Surface Integrity & Fatigue Life

ABOUT THE PROCESS

Shot Peening is a cold working process in which the surface of stainless steel tubes is bombarded with spherical media (shots) to induce compressive residual stress. This improves mechanical properties, surface integrity, and resistance to fatigue, corrosion, and stress cracking-making it essential for demanding applications in aerospace, power, oil & gas, chemical processing, and nuclear industries.

WHY SHOT PEENING?

- Improved Fatigue Strength
- Enhanced Surface Durability
- Resistance to Stress Corrosion Cracking (SCC)
- Reduction of Micro Cracks and Surface Imperfections



OUR SHOT PEENING INFRASTRUCTURE

Two Advanced Shot Peening lines

- Each line capable of processing **4 tubes at a time**
- Automated and precision-controlled peening for consistent quality across the surface area of tube ID



IN-HOUSE QUALITY ASSURANCE

- Full-fledged testing lab to verify **ALMEN testing, surface roughness, residual stress, micro hardness and coverage**
- Adherence to **domestic and international technical standards**

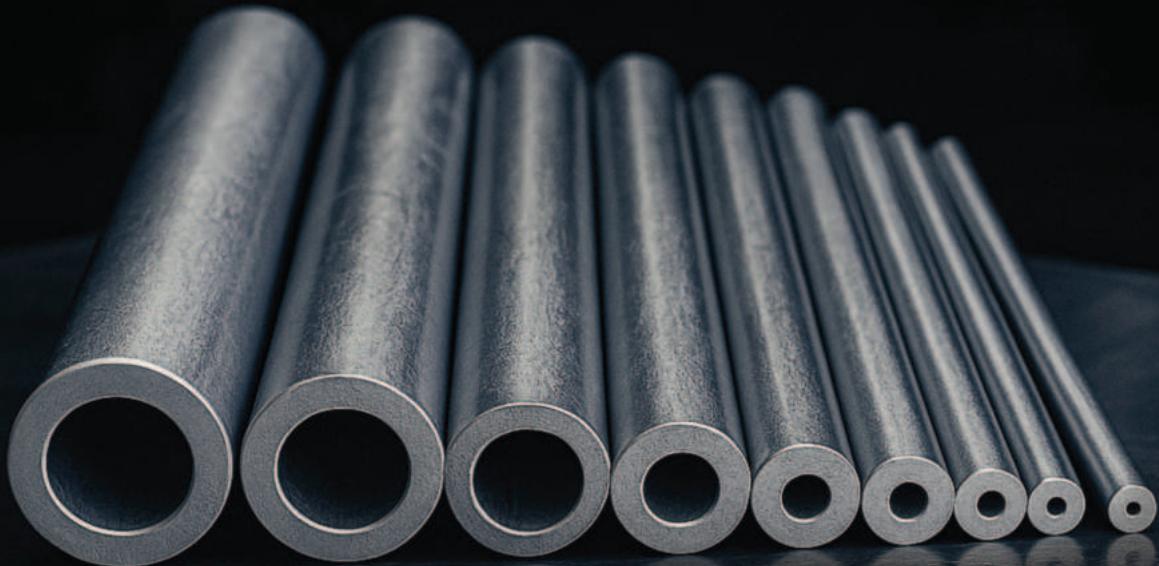
Daily Capacity:

Up to **2000 meters of stainless steel tubes** per day

HEAVY WALL THICKNESS TUBES

OUR CAPABILITY

Heavy Metal & Tubes specializes in manufacturing heavy wall thickness seamless tubes, especially high t/d ratio, with close dimensional accuracy and mechanical integrity. With focus on controlled tolerances and process stability, we are equipped to meet the most demanding engineering applications across various industries.



PRODUCTION INFRASTRUCTURE

- (1) Two Heavy Draw Benches and other smaller draw benches
 - Capable of drawing tubes with wall thickness up to 22 mm
 - Precise speed and load control for dimensional consistency
- (2) Four Heavy-Duty Cold Pilger machines
- (3) One Heavy-Duty Push Pointer
- (4) One Hammer type Hot Pointing Machine
 - Enables smooth pointing and production of thick wall tubes



TECHNICAL SPECIFICATIONS

- Outer Diameter (OD):
21.3 mm to 168.3 mm
- Wall Thickness (WT):
Up to 22 mm
- Length:
Up to 20 meters depending upon size
- Tolerances:
As per ASTM, EN, and customer specific standards

QUALITY CONTROL

- Dimensional Inspection
- Ultrasonic & Eddy Current Testing
- Hydro Testing & PMI
- Microstructure & Grain Flow Evaluation

All processes are controlled and monitored in-house to ensure repeatability and compliance with international quality norms.





"U" TUBES

"U" Tubes for Heat Exchangers

Precision Bending for Critical Thermal Applications

U-tubes are an integral component in heat transfer equipment such as heat exchangers, where thermal efficiency and mechanical reliability are paramount. At HMT, we understand that U-bending is a precision-critical process, where even minor deviations can lead to flow disruption, vibration issues, or thermal inefficiencies.



The Criticality of U-Bending :

U-tube performance depends heavily on:

- Dimensional accuracy to ensure proper tube alignment and fit-up in tube sheets.
- Controlled deformation to prevent thinning, wrinkling, or ovality at the bend.
- Stress management to avoid cracking, hardening, or long-term fatigue failure.
- Consistent radii for optimal flow and heat transfer performance.

To meet these challenges, HMT uses advanced cold U-bending technology, paired with strict quality control at every step.

Precision U-Bending Process at HMT :

1. Cold U-Bending:

Our U-bending machines enable accurate and repeatable bends, even in small radii up to 1D (same as tube diameter). Bends are executed under controlled speed and pressure, ensuring no structural compromise to the tube material.

2. Custom Jigs & Fixtures:

Application-specific three-dimensional jigs and fixtures are used for each batch to guarantee consistent leg lengths, centreline radii and symmetry.

3. Post-Bend Heat Treatment:

Bending induces residual stresses in the bent region. HMT carries out localized stress relieving to restore ductility, eliminate hardening effects, and ensure long-term reliability under cyclic thermal conditions.

4. Dimensional & Visual Inspection:

U-tube is inspected for wall thinning, ovality, bend radius accuracy, and surface integrity using precise measurement tools, templates, and endoscope-based inspection methods.



PERFORMANCE STARTS WITH PRECISION

HMT U-Tubes are engineered to meet the most demanding thermal and mechanical conditions - ensuring safety, efficiency, and long service life.

CUSTOM BENDS ALSO AVAILABLE

In addition to standard U-shapes, HMT can provide multi-plane bends, offset bends, and custom geometries to meet special configuration or compact installation requirements.

PACKING

Packing plays a crucial role in preserving the quality and integrity of steel tubes and pipes during transportation and storage. At Heavy Metal, we place **special emphasis on the careful packing of long, thin-walled tubes and complex shapes like U-bend tubes**, which require extra protection against deformation and damage.

Depending on the **type of product** and **customer requirements**, we employ a variety of proven packing methods to ensure that each shipment reaches its destination in **pristine condition**. These include customized bundling, protective end caps, corrosion prevention treatments, and secure fastening techniques.

Our flexible packing solutions are designed to meet both **domestic and international standards**, guaranteeing safety and reliability. Some of the packing methods used are illustrated in the accompanying photographs.

STANDARD PACKING CHART

| Sr. | Type of Packing | Applicability |
|-----|--|--|
| 1 | Hessian / PVC Cloth Bundles with PVC Box Strap or Hexagonal Bundles Details not given in Customer's Order. | As Per Customer Requirement. Regular Packing When Packing |
| 2 | Wooden Crate For Domestic Supply. | As Per Customer Requirement. |
| 3 | Wooden Box made of treated wood or plywood sheet Recommended For Long, Thin Walled & 'U' bend tubes. | As Per Customer Requirement. |
| 4 | Bare Tubes Bundles | For Big Diameter & Heavy Thickness Piping Material |
| 5 | Tubes With PVC Sleeve and packed in Wooden Boxes | For Polished Tubes & If Customer Require |
| 6 | Tubes bundles with PVC Film and Plywood Sheets on the bundles. | For Export Tubes Bundles. |



Key Packing Guidelines

- **Customer-Centric Selection:**
The type of packing is selected based on the customer's specifications in the purchase order. If no specific instructions are provided, our standard packing style is applied.
- **End Protection:**
All tubes are supplied with standard end caps on both ends to protect against contamination and damage. Special end caps can be provided upon customer request.
- **Careful Handling:**
Extra precautions are taken when handling and packing thin-walled tubes to prevent dents and scratches, ensuring product quality is maintained.
- **Shipping Marks:**
Shipping marks are securely attached to every wooden crate, box, and bundle, facilitating easy identification and compliance with shipping standards.

Notes :

- (1) Selection of type of packing depends on customers need as specified in customer's purchase order. If nothing is specified in the customer purchase order, our standard packing style is followed.
- (2) All the tubes are supplied with standard end capes on both ends. Special types of end caps are supplied if required by customer.
- (3) Care is taken during handling & packing of thin tubes to prevent dent & scratches.
- (4) Shipping Marks are attached to each Wooden Crate, Wooden Box and Bundle packing.

QUALITY ASSURANCE

At HMT, quality is embedded in every stage of production - from the selection of raw materials to the final tubular product ready for dispatch. Our comprehensive Quality Assurance System ensures that every tube and pipe meets or exceeds the stringent requirements of national and international standards, as well as specific customer quality criteria.

The quality control department is independent of manufacturing shop. All tests are carried out by qualified & trained quality personnel in compliance with the guidelines of the quality assurance system. The documented 'Quality Assurance Manual' establishes the practice concerning these guidelines.

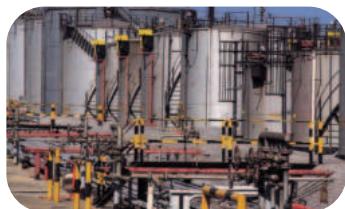
Depending on the intended application and technical delivery conditions or customer's specifications, a variety of specific tests can be carried out to ensure that highest quality standards are maintained. All 3 Plants are equipped with calibrated testing and measuring equipment for destructive and non-destructive testing.

Our products are approved by all leading TPI, EPC, Contractors and sub-contractors:

WORLD IS OUR PLAYGROUND



- ISO 9001 : 2015
- ISO 45001 : 2018
- ISO 14001 : 2015
- AD 2000 - Merkblatt W 0
- PED 2014/68/EU
- Well Known Tube / Pipe Maker under the Indian Boiler Regulations 1950
- NTPC Approved
- BIS Certified



Condensers | Heat Exchanger | Boiler & Pressure Vessel |
Ornamental & Hardware Appliances Thermal & Nuclear Power Plants |
Instrumentation | Hydraulic & Pneumatic Systems | Furniture | Dairies

INDUSTRY APPROVALS AND RECOGNITION

Our products have earned the trust and approval of leading Third Party Inspection (TPI) agencies, Engineering Procurement Contractors (EPC), and major contractors and subcontractors worldwide, reflecting our commitment to uncompromising quality and customer satisfaction.



Sugar Plants | Railways | Solvent Plant | Defence | Petroleum & Petrochemicals | Pharmaceutical & Chemical | Oil & Gas Refineries | Fertilizer Plants | Automobile & Locomotive | Steel Plants

QUALITY CONTROL

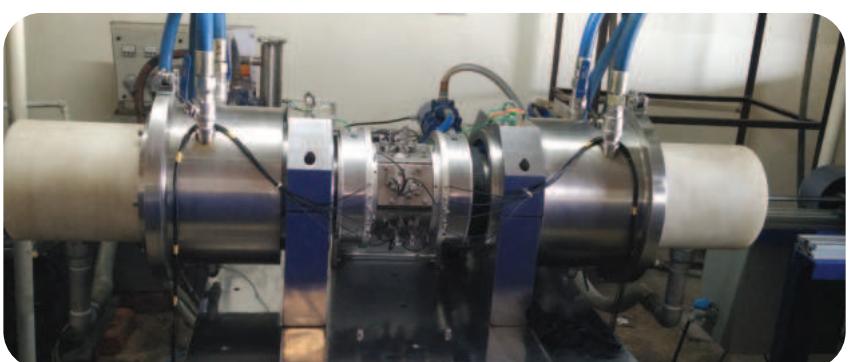
Independent and Skilled Quality Control Team

The Quality Control Department operates independently from manufacturing to ensure unbiased inspection and testing. Staffed by highly qualified & trained professionals, this team implements and adheres strictly to the documented Quality Assurance Manual, which defines our procedures, inspection criteria, and compliance protocols.

All Three Plants are fully Equipped with Latest testing equipments.

| Non-Destructive Test | Destructive Test |
|----------------------------------|-----------------------------|
| Eddy Current Test (3 nos) | Flaring Test |
| Hydrostatic Test (12 nos) | Flattening Test |
| Ultrasonic Testing (4 nos) | Hardness Test |
| Boroscopy | Reverse Bend Test |
| Visual Inspection | Metallography Test |
| DP / MP / RFET Testing | Corrosion Test |
| PMI | Impact Test |
| Almen Test for Shot Peened Tubes | Micro Vickers Hardness Test |
| Spectro Machine (3 nos) | Tensile Test |





INDUSTRY APPROVALS AND RECOGNITION

TÜVNORD

Certificate

TN/PED-4-3/21388/24

Report No. / Manufacturer No. / Validity remark: 912 365 6897 / 21388 / 10.2024 - 10.2027

Quality Management System for Manufacturers of Material for Pressure Equipment

TÜV NORD Systems GmbH & Co. KG confirms that the manufacturer

Heavy Metal & Tubes (India) Pvt. Ltd. (Unit III)
HFS Division - 193-211, Village - Mandali,
Ahmedabad-Mehsana Highway,
Dist:Mehsana-382 732, Gujarat, India

has implemented and applies a quality management system in relation to materials in accordance with the requirements of the certification scheme TNS-WO_PED-4-3. This quality management system has undergone a specific assessment with regard to materials in accordance with Directive 2014/68/EU, Annex I, point 4.3 to ensure the conformity of the materials and inspection certificates.

The scope of the approval is shown on the following page.

Test basis: EN 764-4, section 4.2

Manufacturing site(s): As above.

Issued: 12.03.2023

TÜVNORD Digital unterschrieben von Huesberg Arnd
Certification Body:

TÜV NORD Systems GmbH & Co. KG
Große Bohmstraße 31, 22525 Hamburg, Germany
tuev-nord.de | druekamp@tuev-nord.de

TÜVNORDGROUP

TÜVNORD

Certificate

TN/AD2000-WO/21388/24

Report No. / Manufacturer No. / Validity remark: 912 365 6844 / 21388 / 10.2024 - 10.2027

Material Manufacturer acc. to AD 2000-Merkblatt W 0

TÜV NORD Systems GmbH & Co. KG confirms that the manufacturer

Heavy Metal & Tubes (India) Pvt. Ltd.
Unit I-Plot No.101 (SS Division), Unit II-Plot No.138(CS Division)
Billeswarpora, Taluka-Kalol, A'bad-Mehsana Highway,
Dist:Gandhinagar-382 729, Gujarat, India

has been inspected and recognised as a material manufacturer in accordance with the requirements of the certification scheme TNS-WO_PED-4-3 acc. to AD 2000-Merkblatt W 0.

For details, see the report and the scope of the assessment:

The manufacturer has the following requirements:

- facilities for proper manufacturing and testing,
- appropriate processes for the manufacture of the products,
- skilled personnel for the inspection and testing of the products and
- a quality management system with corresponding records that ensures proper manufacture of the products and compliance with the requirements specified in the material specification.

Issued: 10.03.2023

TÜVNORD Digital unterschrieben von Niekamp Dirk
Certification Body:

TÜV NORD Systems GmbH & Co. KG
Große Bohmstraße 31, 22525 Hamburg, Germany
tuev-nord.de | druekamp@tuev-nord.de

TÜVNORDGROUP

TÜVNORD

Certificate

TN/PED-4-3/21388/24

Report No. / Manufacturer No. / Validity remark: 912 365 6844 / 21388 / 10.2024 - 10.2027

Quality Management System for Manufacturers of Material for Pressure Equipment

TÜV NORD Systems GmbH & Co. KG confirms that the manufacturer

Heavy Metal & Tubes (India) Pvt. Ltd.
Unit I-Plot No.101 (SS Division), Unit II-Plot No.138(CS Division)
Billeswarpora, Taluka-Kalol, A'bad-Mehsana Highway,
Dist:Gandhinagar-382 729, Gujarat, India

has implemented and applies a quality management system in relation to materials in accordance with the requirements of the certification scheme TNS-WO_PED-4-3. This quality management system has undergone a specific assessment with regard to materials in accordance with Directive 2014/68/EU, Annex I, point 4.3 to ensure the conformity of the materials and inspection certificates.

The scope of the approval is shown on the following page.

Test basis: EN 764-4, section 4.2

Manufacturing site(s): As above.

Issued: 10.03.2023

TÜVNORD Digital unterschrieben von Niekamp Dirk
Certification Body:

TÜV NORD Systems GmbH & Co. KG
Große Bohmstraße 31, 22525 Hamburg, Germany
tuev-nord.de | druekamp@tuev-nord.de

TÜVNORDGROUP

TÜVNORD

Certificate

Management system as per

ISO 9001:2015

The Certification Body TÜV INDIA PVT. LTD. hereby confirms as a result of the audit, assessment and certification decision according to ISO/IEC 17021-1:2015, that the organization

HEAVY METAL & TUBES (INDIA) PVT. LTD.
Unit 1 - 101, Billeswarpora, Ahmedabad - Mehsana Road,
Taluka - Kalol, Dist: Gandhinagar,
Billeswarpora - 382 729,
Gujarat, India

operates a management system in accordance with the requirements of ISO 9001: 2015 at the location

HEAVY METAL & TUBES (INDIA) PVT. LTD.

Unit 2 (CS Div) - 138, Billeswarpora,
Taluka - Kalol, Ahmedabad - Mehsana Road,
Dist: Gandhinagar, Billeswarpora - 382 729,
Gujarat, India

is assessed for conformity within the 3 year term of validity of the certificate.

Scope

Unit 2 - Manufacture and Supply of Carbon and Alloy Steel Seamless Tubes and Pipes Sizes Ranging from 4

MM to 200 MM O.D.

Certification Registration No.: 44100 16300573-01 Valid until: 23.04.2024

Audit Report No.: 2-6372021 Valid until: 23.04.2027

Initial certification: 09.10.2016

Mursh. 20.04.2024

Certification Body of TÜV NORD CERT GmbH

This certificate is valid in conjunction with the main certificate

TÜV NORD CERT GmbH

Am TÜV 1, 45307, Essen

www.tuev-nord-cert.com

TÜV*

TÜV NORD PVT. LTD.

801, Rajdhani Plaza, 1, L.B.S Marg,

Billeswarpora, Taluka-Kalol - 400 096,

Gujarat, India

www.tuev-nord.com/tuev

TÜV*

Subject: Reservation of Calibration with TÜV
Date: 10.04.2023, 10:20:20

Mr. Suresh Patel (Customer Representative)

TÜV NORD GROUP, Billeswarpora, Gujarat, India

Mobile: +91 98251 50298

E-mail: suresh.patel@tuev-nord.de

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

We're in the process of validating our calibration equipment. Please let us know if you have any specific requirements or questions.

Subject: Reservation of Calibration with TÜV

Date: 10.04.2023

INDUSTRY APPROVALS AND RECOGNITION

FORM XVI-F [see regulation 4C]

Serial No. Tube /24/007



File No. P-30016/392/2022-Boiler

Central Boilers Board

Certificate of Approval for Well Known Tube Maker

This is to certify that the Inspection and Quality Management System of:

M/s Heavy Metal & Tubes (India) Pvt. Limited,
Unit-3: 193/211, Mandali,
Ahmedabad - Mehsana Highway,
Distt. Mehsana-382 732
Gujarat

has been evaluated by the Central Boilers Board and has been granted recognition under regulation 4C of the Indian Boiler Regulations, 1950, as a Well Known Tube Maker for the manufacture of tubes of sizes from 26.7 mm to 168.3 mm x Wall Thickness(WT) 3.2 mm to 25.00 mm & Cold Drawn Seamless Tubes of sizes of Outside Diameter (OD) 19.05 mm to 127.0 mm x Wall Thickness(WT) 3.0 mm to 20.00 mm^o in Carbon Steel and Alloy Steel grades

for their factory at Unit-3: 193/211, Mandali,
Ahmedabad - Mehsana Highway,
District Mehsana, Gujarat

This Certificate is valid for five years, i.e. upto 20th February, 2029
Validity is subject to the adherence to the quality control prescribed under the provisions of the Indian Boiler Regulations, 1950.

Certificate No. 193

12th August, 2024

Date of Issue


Secretary

ENGINEERS INDIA LIMITED

कैरियर इंडिया

INDIA'S NO. 1 CAREER CONSULTANT

www.engineersindia.com

सिविल एवं मैकेनिकल इंजीनियरिंग के लिए सर्वोत्तम सेवा

Regd. & Corporate Office : Engineers India Bhawan, 1, Shubh Carma Plaza, New Delhi-110 001 India

Procurement Development Department

Ref: 4094/PDD/UEH/25-26/3625

Date: 09th July 2025

M/s Heavy Metal & Tubes (India) Private Limited,
101, Bileswarpura, Ahmedabad Mehsana Road
Chhatral - 382729
Gujarat

Subject: Enhancement & Re-validation of Enlistment with EIL

Dear Sirs,

We refer to your application on subject matter and are pleased to inform that your enlistment with EIL has been enhanced for the items as described below:

| Item Description | Material/Ranges |
|--|--|
| Instrument Tailing | All Range |
| Pipe-SS (Seamless & Welded) to ASTM Std. | Size Thickness Material Specification 0.5"-5" Upto 30.97 mm A312/ASME SA182M/PL, 346/PL, 321/PL, 347/PL Upto 5.0" Upto 5.49 mm A321/ASME SA182M/PL, 320/PL, 316L/PL |
| Tube-Seamless & Welded Stainless Steel | Size Thickness Material Specification Upto 6.3mm OD Upto 12mm A115/A213/ASME SA182M/PL, 316L/H, 321/H, 347/H Upto 40mm OD Upto 5.5mm A269 (Stainless) Gr. 405/410. |

(This enlistment is valid for your works located at Unit-3, 101, Bileswarpura, Taluka Kalol, Ahmedabad Mehsana Highway, Chhatral - 382729, Gujarat)

Kindly note enlistment with EIL does not guarantee any regular flow of enquiries. For information on enquiries raised by EIL, kindly refer our Tender Website: <https://tender.engineersindia.com> or our ECR Portal (<https://ecr.engineersindia.com>). In the event of direct / indirect orders for the projects associated by EIL, supplier shall quote/submit offer and supply material strictly as per the material / range / work as stated above including agreed responsibility matrix, as applicable. Secondly, kindly keep on submitting your regular quotes for EIL RQ's/falling which, EIL shall be entitled to declare you as Dominant supplier as per the Terms and Conditions for enlistment.

Any change in the product range, location of Works/Sales Office, Management/ Organization structure etc., shall be intimated to us immediately along with relevant document for our necessary action. Further, kindly update your contact details on regular basis so that you may keep on receiving EIL communications. Also, kindly ensure submission of your Audited Annual Report on yearly basis to enable us to update your latest financial data.

Yours Truly RAJESH SINHA
RAJESH SINHA - MD
Engineers India Limited
Email: rajeesh.sinha@engineersindia.com
Mobile: +91 9825121121 (EWAH)
Fax: +91 11 26762121 (EWAH) CN: 1748950196500004552

Sheet 1 of 2



Tel: / Phone: +91-11-26762121 (EWAH) CN: 1748950196500004552
Corporate office address - pvt. off. Delivering Excellence through People
Website: www.engineersindia.com



Tel: / Phone: +91-11-26762121 (EWAH) CN: 1748950196500004552
Corporate office address - pvt. off. Delivering Excellence through People
Website: www.engineersindia.com

FORM XVI-F [see regulation 4C]

Serial No. Tube /24/006



File No. P-30016/2/2024-Boiler

Central Boilers Board

Certificate of Approval for Well Known Tube Maker

This is to certify that the Inspection and Quality Management System of:

M/s Heavy Metal & Tubes (India) Pvt. Limited,
Unit-2: 138, Bileswarpura,
Chhatral, Tal: Kalol,
Distt. Gandhinagar-382 729
Gujarat

has been evaluated by the Central Boilers Board and has been granted recognition under regulation 4C of the Indian Boiler Regulations, 1950, as a Well Known Tube Maker for the manufacture of tubes of sizes from 26.7 mm to 168.3 mm x Wall Thickness(WT) 3.2 mm to 25.00 mm & Cold Drawn Seamless Tubes of sizes of Outside Diameter (OD) 4.0 mm to 220.0 mm x Wall Thickness(WT) 0.50 mm to 25.00 mm.

for their factory at Unit-2: 138, Bileswarpura,
Chhatral, Tal: Kalol,
District Gandhinagar, Gujarat

This Certificate is valid for five years, i.e. upto 20th February, 2029
Validity is subject to the adherence to the quality control prescribed under the provisions of the Indian Boiler Regulations, 1950.

Certificate No. 192

12th August, 2024

Date of Issue


Secretary

20th February, 2029

This Certificate is valid for five years, i.e. upto 20th February, 2029
Validity is subject to the adherence to the quality control prescribed under the provisions of the Indian Boiler Regulations, 1950.

FORM XVI-F [see regulation 4C]

Serial No. Tube /24/005



File No. P-30016/1/2024-Boiler

Central Boilers Board

Certificate of Approval for Well Known Tube Maker

This is to certify that the Inspection and Quality Management System of:

M/s Heavy Metal & Tubes (India) Pvt. Limited,
Unit-1: 101, Bileswarpura,
Chhatral, Tal: Kalol,
Distt. Gandhinagar-382 729
Gujarat

has been evaluated by the Central Boilers Board and has been granted recognition under regulation 4C of the Indian Boiler Regulations, 1950, as a Well Known Tube Maker for the manufacture of tubes of sizes from 26.7 mm to 168.3 mm x Wall Thickness(WT) 3.2 mm to 25.00 mm & Cold Drawn Stainless Steel Seamless & Welded Tubes of sizes of Outside Diameter (OD) 4.0 mm to 220.0 mm x Wall Thickness(WT) 0.50 mm to 25.00 mm.

for their factory at Unit-1: 101, Bileswarpura,
Chhatral, Tal: Kalol,
District Gandhinagar, Gujarat

This Certificate is valid for five years, i.e. upto 20th February, 2029
Validity is subject to the adherence to the quality control prescribed under the provisions of the Indian Boiler Regulations, 1950.

Certificate No. 191

12th August, 2024

Date of Issue


Secretary

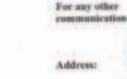
20th February, 2029

This Certificate is valid for five years, i.e. upto 20th February, 2029
Validity is subject to the adherence to the quality control prescribed under the provisions of the Indian Boiler Regulations, 1950.

Certificate No. 192

12th August, 2024

Date of Issue


Secretary

20th February, 2029

This Certificate is valid for five years, i.e. upto 20th February, 2029
Validity is subject to the adherence to the quality control prescribed under the provisions of the Indian Boiler Regulations, 1950.

Certificate No. 193

12th August, 2024

Date of Issue


Secretary

20th February, 2029

This Certificate is valid for five years, i.e. upto 20th February, 2029
Validity is subject to the adherence to the quality control prescribed under the provisions of the Indian Boiler Regulations, 1950.

BUREAU OF INDIAN STANDARDS

Attachment to Licence No. CSU/L-730023406

CIN/L-No. Name of the Licensee with the Factory Address Name of the Product Indian Standard No.

7300234060 Henry Metal & Tubes India Private Limited -Block No. Stainless Steel seamless pipes IS 17875 - 2022

101, Village Bileswarpura , and tubes for general service

Endorsement No. 3 Dated 27-Sep-2024

Whereas, the licence was valid upto Second November Two Thousand Twenty Four.

Now, consequent upon renewal, the validity of the licence given in schedule of the Licence Date 01-NOV-2024 has been extended from Second November Two Thousand Twenty Four to First November Two Thousand Twenty Five.

Other terms and conditions of licence remain same.

Brush Head (Ahmedabad Branch Office)

Manek Bhavani, 9 Bahadur Shah Zafar Marg, New Delhi 110002, J Bahadur Shah Zafar Marg, DELHI 110002

Contact No: +91 11 23230151, FAX: +91 11 23234062, 232 23233375, 232339402, Email: info@bis.gov.in

Sheet 1 of 2

ENGINEERS INDIA LIMITED

कैरियर इंडिया

INDIA'S NO. 1 CAREER CONSULTANT

www.engineersindia.com

Procurement Development Department

Ref: 4094/PDD/UEH/25-26/3756

Date: 15th July, 2025

M/s Heavy Metal & Tubes (India) Private Limited,
101, Bileswarpura,
Ahmedabad Mehsana Road
Chhatral, Mehsana - 382729
Gujarat

Subject: Enhancement of Enlistment with EIL

Dear Sirs,

We refer to your application on subject matter and are pleased to inform that your enlistment with EIL has been enhanced for the items as described below :

| Item Description | Size | Thickness | Specification & Grade |
|------------------------------------|-------------------|--------------|--------------------------------------|
| Pipe-SS (Seamless to ASTM) 0.5"-5" | 0.5"-4" | Upto 17.22 | A355 Gr. P9, P9, P5, P2, P1, P12. |
| Pipe-SS (Seamless to ASTM) 5"-8" | 5"-8" | Upto 11 mm | A312, A310 Gr. A, C, A334 Gr. B. |
| Tube-Seamless Carbon Steel | 12.7 - 38.0 mm OD | Upto 11.0 mm | A209 Gr. T1 |
| Tube-Seamless Alloy Steel | 12.7 - 38.0 mm OD | Upto 11.0 mm | A209 Gr. T1, T2, T3, T4, T5, T6, T8. |

Single Offer shall be valid for your works located at Unit-10, 101-211, Village Mandai, Ahmedabad Mehsana Highway, Mehsana - 382729, Gujarat.

Kindly note enlistment with EIL does not guarantee any regular flow of enquiries. For information on enquiries raised by EIL, kindly refer our Tender Website: <https://tender.engineersindia.com> / CPP portal (<https://ecr.engineersindia.com>). In the event of direct / indirect orders for the projects associated by EIL, supplier shall quote/submit offer and supply material strictly as per the material / range / work as stated above including agreed responsibility matrix, as applicable. Secondly, kindly keep on submitting your regular quotes for EIL RQ's/falling which, EIL shall be entitled to declare you as Dominant supplier as per the Terms and Conditions for enlistment.

Any change in the product range, location of Works/Sales Office, Management/ Organization structure etc., shall be intimated to us immediately along with relevant document for our necessary action. Further, kindly update your contact details on regular basis so that you may keep on receiving EIL communications. Also, kindly ensure submission of your Audited Annual Report on yearly basis to enable us to update your latest financial data.



Rajesh Sinha
RAJESH SINHA
MD
Engineers India Limited
Email: rajeesh.sinha@engineersindia.com

Sheet 1 of 2



RAJESH SINHA
RAJESH SINHA
MD
Engineers India Limited
Email: rajeesh.sinha@engineersindia.com

Sheet 2 of 2

STAINLESS STEEL TUBES/PIPES PRODUCT SPECIFICATIONS



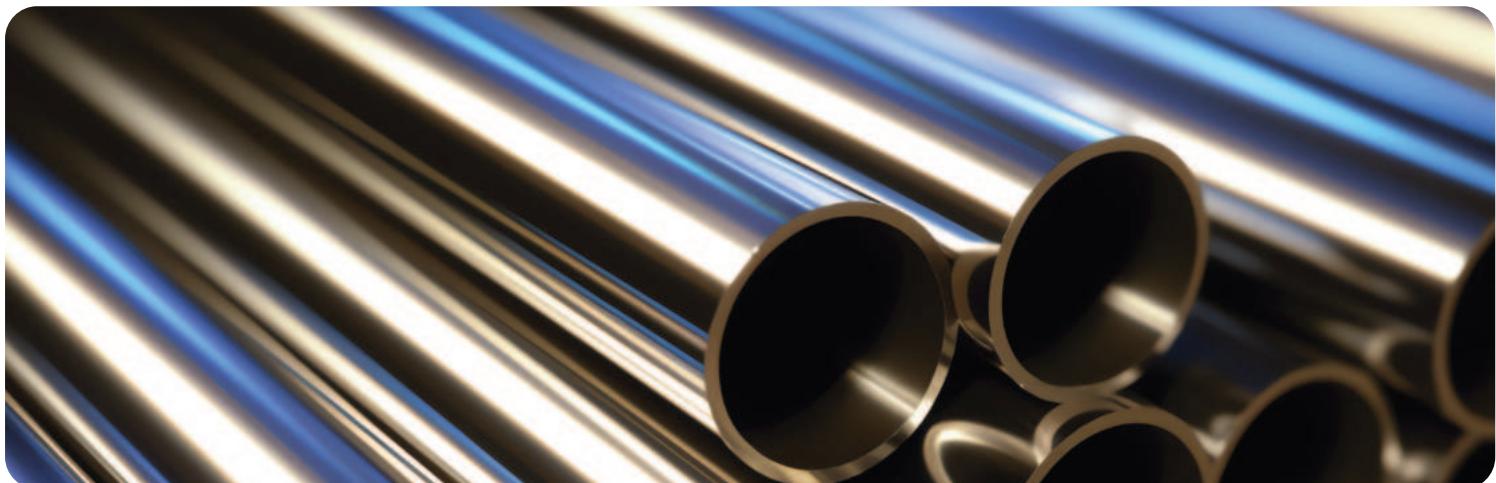
| GRADE | TP-304 | TP-304 CU | TP-304 L | TP-304 H | TP-304 N |
|--|---|--|--|--|--|
| Chemical Composition [Max values %] | C 0.08 Cr 18.00-20.00 Ni 8.00-11.00 Mn (max) 2.00 Si (max) 1.00 P (max) 0.045 S (max) 0.030 | C 0.08 Cr 17.0-19.0 Ni 8.0-10.0 Mn 2.0 Si 1.0 P 0.045 S 0.015 N 0.015 Cu 3.0-4.0 | C 0.035 Cr 18.0-20.0 Ni 8.0-12.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 | C 0.04-0.10 Cr 18.0-20.0 Ni 8.0-11.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 | C 0.08 Cr 18.0-20.0 Ni 8.00-11.00 Mn 2.00 Si 1.00 P 0.045 S 0.030 N 0.10-0.16 |
| According to ASTM A-213/269/688/312 | | | | | |
| Tensile Strength, min, ksi [MPa] | 75[515] | 75[515] | 70[485] | 75[515] | 80[550] |
| Yield Strength, min, ksi [MPa] | 30[205] | 30[205] | 25[170] | 30[205] | 35[240] |
| Equivalent Designation and Specifications | X5CrNi 18-10 EN 1.4301 UNS S30400 AISI304 JIS SUS304 GB S30408 | X3CrNiCu 18-9-4 EN 1.4567 UNS 30430 AISI304Cu JIS SUS304J3 GB S30480 | X2CrNi 18-9 EN 1.4307 UNS S30403 AISI304L JIS SUS304L GB S30403 | X6CrNi 18-10 EN 1.4948 UNS S30409 AISI304H C B S30409 G B S30403 | X5CrNi19-9 EN 1.4315 UNS S30451 AISI304N JIS SUS 304N1 G B S304 |

| GRADE | SUPER304H/ S30432 | TP-304LN | TP-309S | TP-310H |
|--|---|---|--|---|
| Chemical Composition [Max values %] | C 0.07-0.13 Cr 17.0-19.0 Ni 7.5-10.5 Mn (max) 1.00 Si (max) 0.30 P (max) 0.040 S (max) 0.01 N 0.05-0.12 Cu 2.5-3.5 Nb 0.30-0.60 Al 0.003-0.030 B 0.001-0.010 | C 0.035 Cr 18.0-20.0 Ni 8.0-11.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 N 0.10-0.16 | C 0.08 Cr 22.0-24.0 Ni 12.0-15.0 Mn 2.00 Si 1.00 P 0.045 S 0.030 | C 0.04-0.10 Cr 24.0-26.0 Ni 19.0-22.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 |
| Tensile Strength, min, ksi [MPa] | 86[590] | 75[515] | 75[515] | 75[515] |
| Yield Strength, min, ksi [MPa] | 34[235] | 30[205] | 30[205] | 30[205] |
| Equivalent Designation and Specifications | X6CrNi 18-10 UNS S30432 EN NO. 1.4948 | X2 CrNiN 18-10 EN 1.4311 UNS S30453 AISI304LN JIS SUS304LN G B S30453 | X12CrNi23-13 EN 1.4833 UNS S30908 AISI3095 JIS SUH309 G B S30908 | X6CrNi25-20 UNS S31009 EN 1.4951 AISI310H JIS SUS310H |

Above data are only for reference and HMT don't take any liability for the same.

| GRADE | TP-310S | TP-316 | TP-316L | TP-316H | TP-316N |
|--|--|--|---|---|---|
| Chemical Composition [Max values %] | C 0.08 Cr 24.0-26.0 Ni 19.0-22.0 Mn (max) 2.0 Si (max) 1.0 P (max) 0.045 S (max) 0.030 | C 0.08 Cr 16.0-18.0 Ni 10.0-14.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 Mo 2.0-3.0 | C 0.035 Cr 16.0-18.0 Ni 10.0-14.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 Mo 2.0-3.0 | C 0.04-0.10 Cr 16.0-18.0 Ni 11.0-14.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 Mo 2.0-3.0 | C 0.08 Cr 16.0-18.0 Ni 10.0-13.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 N 0.10-0.16 Mo 2.0-3.0 |
| Tensile Strength, min, ksi [MPa] | 75[515] | 75[515] | 70[485] | 75[515] | 80[550] |
| Yield Strength, min, ksi [MPa] | 30[205] | 30[205] | 25[170] | 30[205] | 35[240] |
| Equivalent Designation and Specifications | X8CrNi 25-21 UNS S31008 EN 1.4845 AISI310S JIS SUS310S G B S31008 | X5CrNiMo 17-12-2 EN 1.4401 UNS S31600 AISI316 JIS SUS316 G B S31608 | X2 CrNiMo 17-12-2 EN 1.4404 UNS S31603 AISI316L JIS SUS316L G B S31603 | X5 CrNiMo 17-2-2 UNS S31609 EN 1.4401 AISI 316N AISI316H | X2 CrNiMoN 17-13-3 EN 1.4429 AISI 316N UNS S31651 |

| GRADE | TP-316Ti | TP-316LN | TP-317 | TP-317 L | TP-321 |
|--|---|--|--|---|--|
| Chemical Composition [Max values %] | C 0.08 Cr 16.0-18.0 Ni 10.0-14.0 Mn (max) 2.0 Si (max) 1.0 P (max) 0.045 S (max) 0.030 N 0.10 Mo 2.0-3.0 Ti 5x (C+ N)-0.70 | C 0.035 Cr 16.0-18.0 Ni 10.0-13.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 N 0.10-0.16 Mo 2.0-3.0 | C 0.08 Cr 18.0-20.0 Ni 11.0-15.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 Mo 3.0-4.0 | C 0.035 Cr 18.0-20.0 Ni 11.0-15.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 Mo 3.0-4.0 | C 0.08 Cr 17.0-19.0 Ni 9.0-12.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 Ti 5x (C+ N)-0.70 |
| Tensile Strength, min, ksi [MPa] | 75[515] | 75[515] | 75[515] | 75[515] | 75[515] |
| Yield Strength, min, ksi [MPa] | 30[205] | 30[205] | 30[205] | 30[205] | 30[205] |
| Equivalent Designation and Specifications | X6CrNiMoTi 17-12-2 EN 1.4571 UNS S31635 JIS SUS 316 Ti G B S31668 | X2 CrNiMoN 17-13-3 EN 1.4406 UNS S31653 | X3CrNiMo 18-12-3 EN 1.4449 UNS S31700 AISI317 JIS SUS317 G B S31708 | X2 CrNiMo 18-15-4 EN 1.4438 UNS S31703 JIS SUS317 L G B S31703 | X6CrNiTi 18-10 EN 1.4541 UNS S32100 AISI321 JIS SUS321 G B S32168 |



Above data are only for reference and HMT don't take any liability for the same.

| GRADE | TP-321 H | TP-347 | TP-347 H | TP-904L |
|---|--|---|---|--|
| Chemical Composition [Max values %] | C 0.04-0.10 Cr 17.0-19.0 Ni 9.0-12.0 Mn (max) 2.0 Si (max) 1.0 P (max) 0.045 S (max) 0.030 Ti 4(C+N)-0.70 | C 0.08 Cr 17.0-20.0 Ni 9.0-13.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 Nb 10xC-1.10 | C 0.04-0.10 Cr 17.0-19.0 Ni 9.0-13.0 Mn 2.0 Si 1.0 P 0.045 S 0.030 Nb 8xC-1.10 | C 0.02 Cr 19.0-23.0 Ni 23.0-28.0 Mn 2.0 Si 1.0 P 0.040 S 0.030 N 0.10 |
| Tensile Strength, min, ksi [MPa] | 75[515] | 75[515] | 75[515] | 71[490] |
| Yield Strength, min, ksi [MPa] | 30[205] | 30[205] | 30[205] | 31[215] |
| Equivalent Designation and Specifications | X7 CrNiTi 18-10 EN 1.4940 UNS S32109 AISI321H G B S32169 | X6CrNiNb 18-10 EN 1.4550 UNS S347 00 AISI347 JIS SUS347 G B S34778 | X8 CrNiNb 16-13 EN 1.4961 UNS S34709 JIS SUS347 H | X1 NiCrMoCu 25-20-5 EN 1.4539 UNS N08904 AISI904L JIS SUS890L G B S39042 |

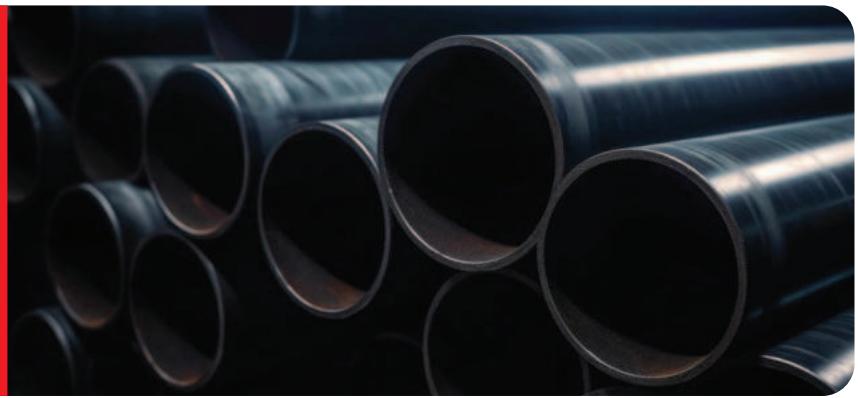
| GRADE | TP-430 | TP-405 | TP-410 | | | |
|---|--|--|---|---|----------------------------------|------------------------------|
| Chemical Composition [Max values %] | C 0.12 Cr 16.0-18.0 Mn (max) 1.0 | Si (max) 1.0 P (max) 0.040 S (max) 0.030 | C 0.08 Cr 11.5-14.5 Ni 0.50 Mn 1.0 | Si 1.0 P 0.040 S 0.030 Al 0.10-0.30 | C 0.15 Cr 11.5-13.5 Mn 1.0 | P 0.040 S 0.030 Si 1.0 |
| Tensile Strength, min, ksi [MPa] | 60[415] | 60[415] | 60[415] | | | |
| Yield Strength, min, ksi [MPa] | 35[240] | 30[205] | 30[205] | | | |
| Equivalent Designation and Specifications | X6Cr17 EN 1.4016 UNS S43000 | AISI430 JIS SUS430 G B S11710 | UNS S40500 EN/DIN 1.4002 AFNOR NF Z6CA113 JIS SUS405 | UNS S41000 EN/DIN1.4006 AFNOR NF Z12 C1 3 | UNI X12 Cr1 3 JIS SUS 410 | |

| GRADE | S32205 | S31803 | S32304 | S32750 |
|---|---|--|---|---|
| Chemical Composition [Max values %] | C 0.03 Cr 22.0-23.0 Ni 4.5-6.5 Mn (max) 2.0 Si (max) 1.0 P (max) 0.030 S (max) 0.020 N 0.14-0.20 Mo 3.0-3.5 | Si 0.03 Cr 21.0-23.0 Ni 4.50-6.50 Mn 2.00 Si 1.00 P 0.030 S 0.020 N 0.08-0.20 Mo 2.5-3.5 | C 0.03 Cr 21.5-24.5 Ni 3.0-5.5 Mn 2.50 Si 1.00 P 0.040 S 0.040 N 0.05-0.20 Mo 0.05-0.60 | C 0.030 Cr 24.0-26.0 Ni 6.0-8.0 Mn 1.20 Si 0.8 P 0.035 S 0.020 N 0.24-0.32 Mo 3.0-5.0 Cu 0.5 |
| Tensile Strength, min, ksi [MPa] | 95[655] | 90[620] | 100[690] | 116[800] |
| Yield Strength, min, ksi [MPa] | 70[485] | 65[450] | 65[450] | 80[550] |
| Equivalent Designation and Specifications | X2 CrNiMoN 22-5-3 EN 1.4462 UNS S32205 JIS SUS3293JL G B S22053 | X2 CrNiMoN 22-5-3 EN 1.4462 UNS S32304 G B S23043 | X2 CrNiN 2-3-4 EN 1.4362 UNS S32304 G B S23043 | X2 CrNiMoN-25-7-4 EN 1.4410 UNS S32750 G B S25073 |

| GRADE | 625 | 825 | Monel 400 | |
|---|--|---|---|---|
| Chemical Composition [Max values %] | C 0.10 Cr 20.0-23.0 Ni 58 (Min) Mn (max) 0.50 Si (max) 0.50 P (max) 0.015 S (max) 0.015 Mo 8.0-10.0 | Nb+Ta 3.15-4.15 Co 1.0 Fe 5.0 Al 0.40 Ti 0.40 | C 0.05 Cr 19.5-23.5 Ni 38.0-46.0 Mn 1.0 Si 0.50 S 0.03 Mo 2.5-3.5 Fe 22.0(Min) Al 0.20 Ti 0.60-1.2 Cu 1.5-3.0 | C 0.30 Ni 63(Min) Mn 2.0 Si 0.50 S 0.024 Fe 2.50 Cu 28.0-34.0 |
| Tensile Strength, min, ksi [MPa] | 120[827] | 75[517] | 70[485] | |
| Yield Strength, min, ksi [MPa] | 60[414] | 25[172] | 28[195] | |
| Equivalent Designation and Specifications | UNS N06625 | UNS N08825 | UNS N04400 | |

Above data are only for reference and HMT don't take any liability for the same.

**CARBON & ALLOY
STEEL SEAMLESS TUBES/
PIPES PRODUCT
SPECIFICATIONS**



| GRADE | ASTM A106 GRADE A | ASTM A106 GRADE B | ASTM A106 GRADE C | ASTM A179 | ASTM A192 | ASTM A210 GRADE A1 |
|--|--|--|--|---|--|---|
| Chemical Composition [Max values %] | C 0.25 Cr 0.40 Ni 0.40 Mn (max) 0.27-0.93 Si (max) 0.10(min) P (max) 0.035 S (max) 0.035 Mo 0.15 V 0.08 Cu 0.40 | C 0.30 Cr 0.40 Ni 0.40 Mn 0.29-1.06 Si 0.10(min) P 0.035 S 0.035 Mo 0.15 V 0.08 Cu 0.40 | C 0.35 Cr 0.40 Ni 0.40 Mn 0.29-1.06 Si 0.10(min) P 0.035 S 0.035 Mo 0.15 V 0.08 Cu 0.40 | C 0.06-0.18 Mn 0.27-0.63 P 0.035 S 0.035 | C 0.06-0.18 Mn 0.27-0.63 P 0.035 S 0.035 Si 0.25 | C 0.27 Mn 0.93 P 0.035 S 0.035 Si 0.10(min) |
| Tensile Strength, min, ksi [MPa] | 48[330] | 60[415] | 70[485] | 47[325] | 47[325] | 60[415] |
| Yield Strength, min, ksi [MPa] | 30[205] | 35[240] | 40[275] | 26[180] | 26[180] | 37[255] |
| Elongation in 2 in. or 50 mm, min, % | NS | NS | NS | 35% | 35% | 30% |

| GRADE | ASTM A210 GRADE C | SA209 T1 | SA209 T1 A | SA209 T1 B |
|--|--|---|---|--|
| Chemical Composition [Max values %] | C 0.35 Mn 0.29-1.06 P 0.035 S 0.035 Si 0.10(min) | C 0.10-0.20 Mn 0.30-0.80 Si 0.10-0.50 P 0.025 S 0.025 Mo 0.44-0.65 | C 0.15-0.25 Mn 0.30-0.80 Si 0.10-0.50 P 0.025 S 0.025 Mo 0.44-0.65 | C 0.14 Max Mn 0.30-0.80 Si 0.10-0.50 P 0.025 S 0.025 Mo 0.44-0.65 |
| Tensile Strength, min, ksi [MPa] | 70[485] | 55[380] | 60[415] | 53[365] |
| Yield Strength, min, ksi [MPa] | 40[275] | 30[205] | 32[220] | 28[195] |
| Elongation in 2 in. or 50 mm, min, % | 30% | 30% | 30% | 30% |

| GRADE | T2 (UNS K11547) | T5 (UNS K41545) | T5B (UNS K51545) | T5C (UNS K41245) | T9 (UNS K90941) |
|--|---|---|--|---|---|
| Chemical Composition [Max values %] | C 0.10-0.20 Cr 0.50-0.81 Mn 0.30-0.61 Si 0.10-0.30 P (max) 0.025 S (max) 0.025 Mo 0.44-0.65 | C 0.15 Cr 4.00-6.00 Mn 0.30-0.60 Si 0.50 P 0.025 S 0.025 Mo 0.45-0.65 | C 0.15 Cr 4.00-6.00 Mn 0.30-0.60 Si 1.00-2.00 P 0.025 S 0.025 Mo 0.45-0.65 | C 0.12 Cr 4.00-6.00 Mn 0.30-0.60 Si 0.50 P 0.025 S 0.025 Mo 0.45-0.65 Others Ti 4 x C-0.70 | C 0.15 Cr 8.00-10.00 Mn 0.30-0.60 Si 0.25-1.00 P 0.025 S 0.025 Mo 0.90-1.10 |
| Tensile Strength, min, ksi [MPa] | 60[415] | 60[415] | 60[415] | 60[415] | 60[415] |
| Yield Strength, min, ksi [MPa] | 30[205] | 30[205] | 30[205] | 30[205] | 30[205] |
| Elongation in 2 in. or 50 mm, min, % | 30% | 30% | 30% | 30% | 30% |

Above data are only for reference and HMT don't take any liability for the same.

| GRADE | T11 (UNS K11597) | T12 (UNS K11562) | T22 (UNS K21590) | T23 (UNS K40712) |
|---|---|--|--|--|
| Chemical Composition [Max values %] | C 0.05-0.15 Cr 1.00-1.50 Mn 0.30-0.60 Si 0.50-1.00 P (max) 0.025 S (max) 0.025 Mo 0.44-0.65 | C 0.05-0.15 Cr 0.80-1.25 Mn 0.30-0.61 Si 0.50 P 0.025 S 0.025 Mo 0.44-0.65 | C 0.05-0.15 Cr 1.90-2.60 Mn 0.30-0.60 Si 0.50 P 0.025 S 0.025 Mo 0.87-1.13 | C 0.04-0.10 Cr 1.90-2.60 Ni 0.40 Mn 0.10-0.60 Si 0.50 P 0.030 S 0.010 Mo 0.05-0.30 V 0.20-0.30 B 0.0010-0.006 Nb 0.02-0.08 N 0.015 Al 0.030 W 1.45-1.75 |
| | | | | Others Ti 0.005-0.060 Ti/N 3.5 (Min) |
| Tensile Strength, min, ksi [MPa] | 60[415] | 60[415] | 60[415] | 74[510] |
| Yield Strength, min, ksi [MPa] | 30[205] | 30[220] | 30[205] | 58[400] |
| Elongation in 2 in. or 50 mm, min, % | 30% | 30% | 30% | 20% |

| GRADE | T91 TYPE 1 (UNSK90901) | T91 TYPE 2 (UNSK90901) | T92 (UNSK92460) |
|---|---|--|--|
| Chemical Composition [Max values %] | C 0.07-0.14 Mo 0.85-1.05 Cr 8.0-9.5 V 0.18-0.25 Ni 0.40 Nb 0.06-0.10 Mn 0.30-0.60 Al 0.02 Si 0.20-0.50 P (max) 0.020 S (max) 0.010 N 0.30-0.070 Others Ti 0.01 Zr 0.01 | C 0.08-0.12 Nb 0.06-0.10 Cr 8.0-9.5 V 0.18-0.25 Ni 0.20 B 0.001 Mn 0.30-0.50 Ti 0.01 Si 0.20-0.40 Zr 0.01 P 0.020 Sb 0.003 S 0.005 Sn 0.010 N 0.035-0.070 Al 0.020 Mo 0.85-1.05 W 0.05 Cu 0.10 N/AI 4.0 min | C 0.07-0.13 Mo 0.30-0.60 Cr 8.5-9.5 Nb 0.04-0.09 Ni 0.40 V 0.15-0.25 Mn 0.30-0.60 B 0.001-0.006 Si 0.50 Al 0.02 P 0.020 W 1.5-2.00 S 0.010 N 0.030-0.070 Others Ti 0.01 Zr 0.01 |
| Tensile Strength, min, ksi [MPa] | 85[585] | 85[585] | 90[620] |
| Yield Strength, min, ksi [MPa] | 60[415] | 60[415] | 64[440] |
| Elongation in 2 in. or 50 mm, min, % | 20% | 20% | 20% |

| GRADE | P1 (UNS K11522) | P2 (UNS K11547) | P5 (UNS K41545) | P5b (UNS K51545) | P5c (UNS K41245) |
|---|---|---|---|--|---|
| Chemical Composition [Max values %] | C 0.10-0.20 Cr - Mn 0.30-0.80 Si 0.10-0.50 P (max) 0.025 S (max) 0.025 Mo 0.44-0.65 | C 0.10-0.20 Cr 0.50-0.81 Mn 0.30-0.61 Si 0.10-0.30 P 0.025 S 0.025 Mo 0.44-0.65 | C 0.15 max Cr 4.00-6.00 Mn 0.30-0.60 Si 0.50 max P 0.025 S 0.025 Mo 0.45-0.65 | C 0.15 max Cr 4.00-6.00 Mn 0.30-0.60 Si 1.00-2.00 P 0.025 S 0.025 Mo 0.45-0.65 | C 0.12 max Cr 4.00-6.00 Mn 0.30-0.60 Si 0.50 max P 0.025 S 0.025 Mo 0.45-0.65 |
| Tensile Strength, min, ksi [MPa] | 55[380] | 55[380] | 60[415] | 60[415] | 60[415] |
| Yield Strength, min, ksi [MPa] | 30[205] | 30[205] | 30[205] | 30[205] | 30[205] |
| Elongation in 2 in. or 50 mm, min, % | 30% | 30% | 30% | 30% | 30% |

| GRADE | P9 (UNS K90941) | P11 (UNS K11597) | P12 (UNS K11562) | P22 (UNS K21590) |
|---|---|---|--|--|
| Chemical Composition [Max values %] | C 0.15 max Cr 8.00-10.00 Mn 0.30-0.60 Si 0.25-1.00 P (max) 0.025 S (max) 0.025 Mo 0.90-1.10 | C 0.05-0.15 Cr 1.00-1.50 Mn 0.30-0.60 Si 0.50-1.00 P 0.025 S 0.025 Mo 0.44-0.65 | C 0.05-0.15 Cr 0.80-1.25 Mn 0.30-0.61 Si 0.50 max P 0.025 S 0.025 Mo 0.44-0.65 | C 0.05-0.15 Cr 1.90-2.60 Mn 0.30-0.60 Si 0.50 max P 0.025 S 0.025 Mo 0.87-1.13 |
| Tensile Strength, min, ksi [MPa] | 60[415] | 60[415] | 60[415] | 60[415] |
| Yield Strength, min, ksi [MPa] | 30[205] | 30[205] | 32[220] | 30[205] |
| Elongation in 2 in. or 50 mm, min, % | 30% | 30% | 30% | 22% |

Above data are only for reference and HMT don't take any liability for the same.

| GRADE | P23 (UNS K41650) | P91 TYPE 1 (UNS K91560) | P91 TYPE 2 (UNS K91560) | P92 (UNS K92460) |
|---|---|---|---|--|
| Chemical Composition [Max values %] | C 0.04-0.10 Cr 1.90-2.60 Ni 0.40 max Mn 0.10-0.60 Si 0.50 max P 0.030 max S 0.010 max N 0.015 max Mo 0.05-0.30 V 0.20-0.30 | Cb 0.02-0.08 B 0.0010-0.006 Al 0.030 max W 1.45-1.75 Ti 0.005-0.060 Ti/N 3.5 max | C 0.08-0.12 Cr 8.00-9.50 Ni 0.40 max Mn 0.30-0.60 Si 0.20-0.50 P 0.020 S 0.010 N 0.030-0.070 Mo 0.85-1.05 V 0.18-0.25 Al 0.02 max Cb 0.06-0.10 Ti 0.01 max Zr 0.01 max | C 0.07-0.13 Cr 8.50-9.50 Ni 0.40 Mn 0.30-0.60 Si 0.50 Ti 0.01 As 0.010 N 0.03-0.07 Mo 0.30-0.60 V 0.15-0.25 |
| Tensile Strength, min, ksi [MPa] | 74[510] | 85[585] | 85[585] | 90[620] |
| Yield Strength, min, ksi [MPa] | 58[400] | 60[415] | 60[415] | 64[440] |
| Elongation in 2 in. or 50 mm, min, % | 20% | 20% | 20% | 20% |

| GRADE | ASTM A334 GRADE 1 | ASTM A334 GRADE 3 | ASTM A334 GRADE 6 | ASTM A334 GRADE 7 | ASTM A334 GRADE 8 | ASTM A334 GRADE 9 | ASTM A334 GRADE 11 |
|---|---|--|--|--|---|--|---|
| Chemical Composition [Max values %] | C 0.30 Mn 0.4-1.06 P 0.025 S 0.025 | C 0.19 Mn 0.31-0.64 P 0.025 S 0.025 | C 0.30 Mn 0.29-1.06 P 0.025 S 0.025 | C 0.19 Mn 0.90 P 0.025 Si 0.10(min) | C 0.13 Mn 0.90 P 0.025 S 0.025 | C 0.20 Mn 0.40-1.06 P 0.025 S 0.025 | C 0.10 Mn 0.60 Cr 0.50 P 0.025 Co 0.50 S 0.025 Mo 0.50 Ni 1.60-2.24 Cu 0.75-1.25 |
| Tensile Strength, min, ksi [MPa] | 55[380] | 65[450] | 60[415] | 65[450] | 100[690] | 63[435] | 65[450] |
| Yield Strength, min, ksi [MPa] | 30[205] | 35[240] | 35[240] | 35[240] | 75[520] | 46[315] | 35[240] |
| Elongation in 2 in. or 50 mm, min, % | 35% | 30% | 30% | 30% | 22% | 28% | 18% |

| GRADE | ASTM A333 GRADE 1 | ASTM A333 GRADE 3 | ASTM A 333 GRADE 4 | ASTM A333 GRADE 6 | ASTM A 333 GRADE 7 | |
|---|--|--|--|--|--|---|
| Chemical Composition [Max values %] | C 0.30 Mn 0.40-1.06 P 0.025 S 0.025 | C 0.19 Mn 0.31-0.64 P 0.025 S 0.025 | C 0.12 Mn 0.50-1.05 P 0.025 S 0.025 | Ni 0.47-0.98 Cr 0.44-1.01 Cu 0.40-0.75 Al 0.04-0.30 | C 0.30 Mn 0.29-1.06 P 0.025 S 0.025 | C 0.19 Mn 0.90 P 0.025 S 0.025 |
| Tensile Strength, min, ksi [MPa] | 55[380] | 65[450] | 60[415] | 60[415] | 65[450] | |
| Yield Strength, min, ksi [MPa] | 30[205] | 35[240] | 35[240] | 35[240] | 35[240] | |
| Elongation in 2 in. or 50 mm, min, % | 35% | 30% | 30% | 30% | 30% | 30% |

| GRADE | ASTM A333 GRADE 8 | ASTM A333 GRADE 9 | ASTM A333 GRADE 10 | ASTM A333 GRADE 11 | |
|---|---|---|---|---|---|
| Chemical Composition [Max values %] | C 0.13 Mn 0.90 P 0.025 S 0.025 Si 0.13-0.32 Ni 8.40-9.60 | C 0.20 Mn 0.40-1.06 P 0.025 S 0.025 Ni 1.6-2.24 Cu 0.75-1.25 | C 0.20 Mn 1.15-1.50 P 0.035 S 0.015 Si 0.10-0.35 Nb 0.05 Ni 0.25 | Cr 0.15 Cu 0.15 Al 0.06 V 0.12 Nb 0.05 Mo 0.05 | C 0.10 Mn 0.60 Cr 0.50 P 0.025 Mo 0.50 S 0.025 Co 0.50 Ni 0.35 |
| Tensile Strength, min, ksi [MPa] | 100[690] | 63[435] | 80[550] | 65[450] | |
| Yield Strength, min, ksi [MPa] | 75[515] | 46[315] | 65[450] | 35[240] | |
| Elongation in 2 in. or 50 mm, min, % | 22% | 28% | 22% | 18% | |

Above data are only for reference and HMT don't take any liability for the same.

| GRADE | ASTM/ASME SA556 A2 | ASTM/ASME SA556 B2 | ASTM/ASME SA556 C2 | DIN 1629 ST 37.0 | DIN 1629 ST 44.0 | DIN 1629 ST 52.0 |
|--------------------------------------|--|---|---|---|---|--|
| Material No. | - | - | - | 1.0254 | 1.0256 | 1.0421 |
| Chemical Composition [Max values %] | C 0.18 Mn 0.27-0.63 P 0.035 S 0.035 | C 0.27 Mn 0.29-0.93 Si 0.10 Min P 0.035 S 0.035 | C 0.30 Mn 0.29-1.06 Si 0.10 Min P 0.035 S 0.035 | C 0.17 P 0.040 S 0.040 N 0.009 | C 0.21 P 0.040 S 0.040 N 0.009 | C 0.22 P 0.040 S 0.035 Al total 0.020 |
| Tensile Strength, min, ksi [MPa] | 320 | 410 | 480 | 350-480 | 420-550 | 500-650 |
| Yield Strength, min, ksi [MPa] | 180 | 260 | 280 | 235 | 275 | 355 |
| Elongation in 2 in. or 50 mm, min, % | 35% | 30% | 30% | 25% | 21% | 21% |

PART-1

BS:3059

PART-2

| GRADE | 320 | GRADE | 360 | 440 | 243 | 460 | 622-490 |
|--|--|--|--|---|---|---|--|
| Chemical Composition [Max values %] | C 0.16 Mn 0.30-0.70 Si 0.10-0.35 P 0.040 S 0.040 | Chemical Composition [Max values %] | C 0.17 Mn 0.40-0.80 Si 0.10-0.35 P 0.035 S 0.035 | C 0.12-0.18 Mn 0.90-1.20 Si 0.10-0.35 P 0.035 S 0.035 | C 0.12-0.20 Mn 0.40-0.80 Si 0.10-0.35 P 0.035 S 0.035 Mo 0.25-0.35 Al 0.012 | C 0.10-0.15 Mn 0.40-0.70 Si 0.10-0.35 P 0.030 S 0.030 Cr 0.70-1.10 Mo 0.45-0.65 Al 0.020 | C 0.08-0.15 Mn 0.40-0.70 Si 0.50 P 0.030 S 0.030 Cr 2.0-2.5 Mo 0.90-1.20 Al 0.020 |
| Tensile Strength, min [N/mm ²] | 320-480 | Tensile Strength, min [N/mm ²] | 360-500 | 440-580 | 480-630 | 460-610 | 490-640 |
| Yield Strength, min[N/mm ²] | 195 | Yield Strength, min[N/mm ²] | 235 | 245 | 275 | 180 | 275 |
| Elongation | 25% | Elongation | 24% | 21% | 22% | 22% | 20% |

| GRADE | 10CrMo 9 10 | 13 CrMo4 4 | X 20 CrMoV 12 1 | 15 MO 3 |
|--|---|--|--|--|
| Material No. | 1.7380 | 1.7335 | 1.4922 | 1.5415 |
| Chemical Composition [Max values %] | C 0.08-0.15 S 0.035 Mn 0.40-0.70 Cr 2.00-2.50 Si 0.50 Mo 0.90-1.20 P 0.035 | C 0.10-0.18 S 0.035 Mn 0.40-0.70 Cr 0.70-1.10 Si 0.10-0.35 Mo 0.45-0.65 P 0.035 | C 0.17-0.23 Cr 10.0-12.5 Mn < 1.00 Mo 0.80-1.20 Si < 0.50 Ni 0.30-0.80 P 0.030 V 0.25-0.35 S 0.030 | C 0.12-0.20 P 0.035 Mn 0.40-0.80 S 0.035 Si 0.10-0.35 Mo 0.25-0.35 |
| Tensile Strength, min [N/mm ²] | 450-600 | 440-590 | 690-840 | 450-600 |
| Yield Strength, min[N/mm ²] | 280 | 290 | 490 | 270 |
| Elongation | 20% | 22% | 17% | 22% |

| GRADE | ST 35.8 | ST 45.8 | ST 30 SI | ST 30 AI | ST. 35 | ST. 45 |
|--------------------------------------|--|--|--|--|--|--|
| Material No. | 1.0305 | 1.0405 | 1.0211 | 1.0212 | 1.0308 | 1.0408 |
| Chemical Composition [Max values %] | C 0.17 Mn 0.40-0.80 Si 0.10-0.35 P 0.040 S 0.040 | C 0.21 Mn 0.40-1.20 Si 0.10-0.35 P 0.040 S 0.040 | C 0.10 Mn 0.55 Si 0.30 P 0.025 S 0.025 | C 0.10 Mn 0.55 Si 0.05 P 0.025 S 0.025 | C 0.17 Mn 0.40 Min Si 0.35 P 0.025 S 0.025 | C 0.21 Mn 0.40 Min Si 0.35 P 0.025 S 0.025 |
| Tensile Strength, min, ksi [MPa] | 360-480 | 410-530 | 290-420 | 290-420 | 340-470 | 440-570 |
| Yield Strength, min, ksi [MPa] | 235 | 255 | 215 | 215 | 235 | 255 |
| Elongation in 2 in. or 50 mm, min, % | 25% | 21% | 30% | 30% | 25% | 21% |

Above data are only for reference and HMT don't take any liability for the same.

| GRADE | 1008 | 1010 | 1012 | 1015 | 1016 | 1017 |
|--|--|---|---|---|---|---|
| Chemical Composition [Max values %] | C 0.10 Mn 0.30-0.50 P 0.040 S 0.050 | C 0.08-0.13 Mn 0.30-0.60 P 0.040 S 0.050 | C 0.10-0.15 Mn 0.30-0.60 P 0.040 S 0.050 | C 0.13-0.18 Mn 0.30-0.60 P 0.040 S 0.050 | C 0.13-0.18 Mn 0.60-0.90 P 0.040 S 0.050 | C 0.15-0.20 Mn 0.30-0.60 P 0.040 S 0.050 |

| GRADE | 1018 | 1019 | 1020 | 1021 | 1022 | 1025 | 1026 |
|--|---|---|---|---|---|---|---|
| Chemical Composition [Max values %] | C 0.15-0.20 Mn 0.60-0.90 P 0.040 S 0.050 | C 0.15-0.20 Mn 0.70-1.00 P 0.040 S 0.050 | C 0.18-0.23 Mn 0.30-0.60 P 0.040 S 0.050 | C 0.18-0.23 Mn 0.60-0.90 P 0.040 S 0.050 | C 0.18-0.23 Mn 0.70-1.00 P 0.040 S 0.050 | C 0.22-0.28 Mn 0.30-0.60 P 0.040 S 0.050 | C 0.22-0.28 Mn 0.60-0.90 P 0.040 S 0.050 |
| Tensile Strength, min, ksi [MPa] | - | - | 379 | - | - | 379 | - |
| Yield Strength, min, ksi [MPa] | - | - | 234 | - | - | 248 | - |
| Elongation | - | - | 22% | - | - | 22% | - |

| GRADE | 1030 | 1040 | 1045 | 1050 | 1541 |
|--|---|---|---|---|---|
| Chemical Composition [Max values %] | C 0.28-0.34 Mn 0.60-0.90 P 0.040 S 0.050 | C 0.37-0.44 Mn 0.60-0.90 P 0.040 S 0.050 | C 0.43-0.50 Mn 0.60-0.90 P 0.040 S 0.050 | C 0.48-0.55 Mn 0.60-0.90 P 0.040 S 0.050 | C 0.36-0.44 Mn 1.35-1.65 P 0.040 S 0.050 |
| Tensile Strength, min, ksi [MPa] | - | - | 517 | 538 | - |
| Yield Strength, min, ksi [MPa] | - | - | 331 | 345 | - |
| Elongation | - | - | 15% | 12% | - |

| GRADE | ASTM A519 4130 | ASTM A519 4140 | ASTM A519 8620 | EN 18 | AISI 602 |
|--|---|---|---|---|--|
| Chemical Composition [Max values %] | C 0.28-0.33 Cr 0.80-1.10 Mn 0.40-0.60 Si 0.15-0.35 P 0.040 S 0.040 Mo 0.15-0.25 | C 0.38-0.43 Cr 0.80-1.10 Mn 0.75-1.00 Si 0.15-0.35 P 0.040 S 0.040 Mo 0.15-0.25 | C 0.18-0.23 Cr 0.40-0.60 Mn 0.70-0.90 P 0.040 S 0.040 Ni 0.40-0.70 Mo 0.15-0.25 | C 0.35-0.45 Cr 0.90-1.40 Mn 0.50-0.80 Si 0.10-0.35 P 0.040 S 0.040 Mo 0.20-0.40 | C 0.24-0.33 Cr 1.0-1.5 Mn 0.45-0.65 Si 0.55-0.75 P 0.025(Max) S 0.025(Max) Mo 0.40-0.60 V 0.20-0.30 |
| Tensile Strength, min, ksi [MPa] | 621 HR 724 SR 517 A 621 N | - | - | - | - |
| Yield Strength, min, ksi [MPa] | 483 HR 586 SR 379 A 414 N | - | - | - | - |

| GRADE | IS 1239 (PART-1) | | | | IS 1239 (PART-2) | |
|--|------------------|---------|---------|---------|------------------|---------|
| Chemical Composition [Max values %] | C 0.20 | Mn 1.30 | S 0.040 | P 0.040 | S 0.050 | P 0.050 |
| Tensile Strength, min, ksi [MPa] | 320 | | | | | |

Above data are only for reference and HMT don't take any liability for the same.

CARBON & ALLOY STEEL SEAMLESS TUBES/PIPES PRODUCT COMPARISON

| ASTM STANDARD | ASTM STEEL | DIN STANDARD | DIN STEEL | BS STANDARD | BS STEEL | EN STANDARD | EN STEEL | UNI STANDARD | UNI STEEL | GOST STANDARD | GOST STEEL | JIS STANDARD | JIS STANDARD |
|---------------|------------|--------------|-------------|-------------|----------|--------------|--------------|--------------|-----------------|---------------|------------|--------------|--------------|
| A106 | CrA | 17175 | St35.8 | 3059-2 | 360 | 10216-2 | P235GH | - | C14 | 1050 | 10 | C3456 | STP1370 |
| | CrB | 17175 | St45.8 | 3059-2 | 430 | 10216-2 | P265GH | - | C18 | 1050 | 20 | C3456 | STPT410 |
| | CrC | 17175 | 17Mn4 | 3059-2 | 440 | - | (P295 GH) | - | - | 4543 | 14C2 | C3456 | STPT480 |
| A179 | A179 | 17175 | St35.8 | 3602-1 | 360 | 10216-2 | P235GH | - | C14 | 1050 | 10 | C3456 | STP1370 |
| A192 | A192 | 17175 | St35.8 | 3602-1 | 360 | 10216-2 | P235GH | - | C14 | 1050 | 10 | C3456 | STP1370 |
| A209 | T1,Tia,Tib | - | 16Mo5 | - | - | - | - | - | 16Mo5 | - | - | C3462 | STBA12 |
| A210 | GrA-1 | 17175 | St45.8 | 3602-1 | 430 | 10216-2 | P265GH | - | - | - | - | C3456 | STPT410 |
| | CrC | 17175 | 17Mn4 | - | - | - | - | - | - | - | - | - | - |
| A213 | T/P122 | - | - | - | - | - | - | - | 11CrW(Cu)MoNbNB | - | - | - | HCM 12A |
| | T/P91 | - | - | - | - | - | - | - | X11CrMoWVNb9-1 | - | - | - | - |
| | T/P92 | - | - | - | - | - | - | - | X11CrMoWVNb9-2 | - | - | - | STBA29 |
| T11 | - | - | 3604-1 | 621 | 10216-2 | 10CrMo5-5 | - | - | - | - | - | C3462 | STBA23 |
| T12 | 17175 | 13CrMo4.4 | 3059-2 | 620 | 10216-2 | 13CrMo4-5 | - | 14CrMo3 | 4543 | 15CrM | - | C3462 | STBA22 |
| T2 | - | - | - | - | - | (15CrMo2-5) | - | - | - | - | - | C3462 | STBA20 |
| T21 | 17176 | 12CrMo12-10 | - | - | - | - | - | - | - | - | - | C3462 | STBA25 |
| T22 | 17175 | 10CrMo9.10 | 3059-2 | 622-490 | 10216-2 | 10CrMo9-10 | - | 12CrMo9.10 | 5520 | 10CrM | - | C3462 | STBA24 |
| T23 | - | - | - | - | - | 7CrWVNbNb9-6 | - | - | - | - | - | - | HCM 25 |
| T24 | - | - | 3604-1 | 625 | 10216-2 | X11CrMo5 | - | - | - | - | - | - | - |
| T5,T5b,T5c | 17176 | 12CrMo9.5 | 3604-1 | 625 | 10216-2 | X11CrMo7 | - | - | - | - | - | C3462 | STBA26 |
| T7 | - | - | 3604-1 | 629 | 10216-2 | X11CrMo9-1 | - | - | - | - | - | - | - |
| T9 | 17176 | X12CrMo9.1 | 3059-2 | 629 | 10216-2 | X10CrMoNb9-1 | - | - | - | - | - | 63462 | STBA28 |
| A333 | T91 | - | 3059-2 | 629-590 | 10216-2 | P215NL | - | C15 | - | - | - | C3460 | STPL380 |
| | Cr11 | 17173 | TTSt35N | 3603 | 430LT | 10216-4 | - | 12Ni14 | - | - | - | C3460 | STPL450 |
| | Cr3 | 17173 | 10Ni14 | 3603 | 503LT | 10216-4 | P265NL | - | C20 | - | - | - | - |
| | CrF6 | 17174 | TTSt35V | 3603 | 430LT | 10217-4 | (10Ni9) | - | 18Ni9 | - | - | C3464 | STBL380 |
| | Cr7 | - | - | - | - | 10216-4 | X10Ni9 | - | X12Ni9 | - | - | C3464 | STBL450 |
| A334 | Cr8 | 17173 | X8Ni9 | 3603 | 509LT | 10217-4 | P215NL | - | - | - | - | C3458 | STPA23 |
| | Cr11 | 17174 | TTSt35N | - | - | 10217-4 | P265NL | - | 12Ni14 | - | - | C3458 | STPA22 |
| | Cr3 | 17173 | 10Ni14 | 3603 | 503LT | 10253-2 | P265NL | - | 18Ni14 | - | - | C3458 | STPA20 |
| | Cr6 | 17173 | TTSt35V | 3603 | 430LT | 10217-6 | C20 | - | - | - | - | C3458 | STPA25 |
| A335 | Cr7 | - | - | - | - | - | - | - | 18Ni9 | - | - | C3458 | STPA24 |
| | P1 | - | - | - | - | - | - | - | 16Mo5 | - | - | - | - |
| | P11 | - | - | 3604-2 | 621 | 10253-2 | 10CrMo5-5 | - | - | - | - | C3458 | - |
| | P12 | 2609 | 13CrMo4.4 | 3604-1 | 620-440 | 10253-2 | 13CrMo4-5 | - | - | - | - | C3458 | STPA22 |
| | P2 | - | - | - | - | - | - | - | - | - | - | C3458 | STPA20 |
| | P21 | - | 12CrMo12-10 | - | - | - | - | - | - | - | - | C3458 | STPA25 |
| | P22 | 2609 | 10CrMo9.10 | 3604-1 | 622 | 10253-2 | 10CrMo9-10 | - | - | - | - | C3458 | STPA24 |
| A53 | P24 | - | 12CrMo9.5 | 3606 | 625 | 10253-2 | X11CrMo5 | - | - | - | - | C3458 | STPA28 |
| | P5,P5b,P5c | 17176 | 12CrMo9.5 | - | - | (X11CrMo7) | - | - | - | - | - | - | - |
| A556 | P7 | - | - | 3604-1 | 629 | 10253-2 | X11CrMo9-1 | - | - | - | - | C3458 | STPA26 |
| | P9 | - | - | - | - | 10253-2 | X10CrMoNb9-1 | - | - | - | - | C3458 | - |
| | P91 | - | - | - | - | - | S235JR | - | Fe35-1 | 1050 | 10 | - | - |
| | CrA | 17121 | RSt37-2 | 6323-3 | HFS 3 | 1025-2 | HFS4 | - | Fe45-1 | 1050 | 20 | - | - |
| | CrB | 17121 | St44-3 | 6323-3 | S275J2 | 10025-2 | P235GH | - | C14 | 1050 | 10 | C3456 | STPT370 |
| | GrA-2 | 17175 | 5155.8 | 3602-1 | 360 | 10216-2 | P265GH | - | - | - | - | - | - |
| | GrB-2 | 17175 | St5.8 | 3602-1 | 430 | 10216-2 | P265GH | - | - | - | - | - | - |
| | GrC2 | - | - | - | - | - | - | - | - | - | - | - | - |

Above data are only for reference and HMT don't take any liability for the same.

COLD DRAWN SEAMLESS STAINLESS, CARBON & ALLOY STEEL MANUFACTURING RANGE

| OUTSIDE DIAMETER | in mm | 6.35 | 12.7 | 19.05 | 25.4 | 31.75 | 38.1 | 44.45 | 50.8 | 57.15 | 63.5 | 69.85 | 76.2 | 82.55 | 88.9 | 95.25 | 101.6 |
|------------------|---------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| WALL THICKNESS | in inch | 1/4 | 1/2 | 3/4 | 1 | 1 1/4 | 1 3/4 | 2 | 2 1/4 | 2 1/2 | 3 | 3 1/4 | 3 1/2 | 3 3/4 | 4 | | |
| Gauge | mm | inch | | | | | | | | | | | | | | | |
| 22 SWG | 0.711 | 0.028 | 0.099 | 0.210 | 0.322 | 0.433 | 0.544 | 0.656 | 0.767 | 0.878 | 0.990 | 1.101 | | | | | |
| 22 BWG | 0.711 | 0.028 | 0.099 | 0.210 | 0.322 | 0.433 | 0.544 | 0.656 | 0.767 | 0.878 | 0.990 | 1.101 | | | | | |
| 21 SWG | 0.813 | 0.032 | 0.111 | 0.238 | 0.366 | 0.493 | 0.620 | 0.748 | 0.875 | 1.002 | 1.130 | 1.257 | | | | | |
| 21 BWG | 0.813 | 0.032 | 0.111 | 0.238 | 0.366 | 0.493 | 0.620 | 0.748 | 0.875 | 1.002 | 1.130 | 1.257 | | | | | |
| 20 SWG | 0.914 | 0.036 | 0.123 | 0.266 | 0.409 | 0.552 | 0.695 | 0.838 | 0.981 | 1.124 | 1.268 | 1.411 | 1.554 | | | | |
| 20 BWG | 0.889 | 0.035 | 0.120 | 0.259 | 0.398 | 0.537 | 0.677 | 0.816 | 0.955 | 1.094 | 1.233 | 1.373 | 1.512 | | | | |
| 19 SWG | 1.016 | 0.040 | 0.134 | 0.293 | 0.452 | 0.611 | 0.770 | 0.929 | 1.088 | 1.247 | 1.406 | 1.566 | 1.725 | | | | |
| 19 BWG | 1.067 | 0.042 | 0.139 | 0.306 | 0.473 | 0.640 | 0.807 | 0.974 | 1.142 | 1.309 | 1.476 | 1.643 | 1.810 | | | | |
| 18 SWG | 1.219 | 0.048 | 0.154 | 0.345 | 0.536 | 0.727 | 0.918 | 1.109 | 1.300 | 1.491 | 1.681 | 1.872 | 2.063 | 2.254 | 2.445 | 2.636 | 2.827 |
| 18 BWG | 1.245 | 0.049 | 0.157 | 0.352 | 0.547 | 0.742 | 0.937 | 1.132 | 1.327 | 1.522 | 1.716 | 1.911 | 2.106 | 2.301 | 2.496 | 2.691 | 2.886 |
| 17 SWG | 1.473 | 0.058 | 0.177 | 0.408 | 0.639 | 0.869 | 1.100 | 1.331 | 1.561 | 1.792 | 2.023 | 2.253 | 2.484 | 2.715 | 2.945 | 3.176 | 3.407 |
| 17 BWG | 1.499 | 0.059 | 0.179 | 0.414 | 0.649 | 0.884 | 1.118 | 1.353 | 1.588 | 1.823 | 2.057 | 2.292 | 2.527 | 2.762 | 2.996 | 3.231 | 3.466 |
| 16 SWG | 1.626 | 0.064 | 0.189 | 0.444 | 0.699 | 0.953 | 1.208 | 1.463 | 1.717 | 1.972 | 2.226 | 2.481 | 2.736 | 2.990 | 3.245 | 3.500 | 3.754 |
| 16 BWG | 1.661 | 0.065 | 0.191 | 0.450 | 0.708 | 0.967 | 1.226 | 1.484 | 1.743 | 2.001 | 2.260 | 2.518 | 2.777 | 3.035 | 3.294 | 3.552 | 3.811 |
| 15 SWG | 1.829 | 0.072 | 0.204 | 0.490 | 0.777 | 1.063 | 1.350 | 1.636 | 1.922 | 2.209 | 2.495 | 2.782 | 3.068 | 3.355 | 3.641 | 3.927 | 4.214 |
| 15 BWG | 1.829 | 0.072 | 0.204 | 0.490 | 0.777 | 1.063 | 1.350 | 1.636 | 1.922 | 2.209 | 2.495 | 2.782 | 3.068 | 3.355 | 3.641 | 3.927 | 4.214 |
| 14 SWG | 2.032 | 0.080 | 0.216 | 0.535 | 0.853 | 1.171 | 1.489 | 1.807 | 2.126 | 2.444 | 2.762 | 3.080 | 3.399 | 3.717 | 4.035 | 4.353 | 4.671 |
| 14 BWG | 2.108 | 0.083 | 0.221 | 0.551 | 0.881 | 1.211 | 1.541 | 1.871 | 2.201 | 2.531 | 2.861 | 3.192 | 3.522 | 3.852 | 4.182 | 4.512 | 4.842 |
| 13 SWG | 2.337 | 0.092 | 0.229 | 0.597 | 0.963 | 1.329 | 1.695 | 2.061 | 2.427 | 2.793 | 3.159 | 3.525 | 3.891 | 4.257 | 4.623 | 4.989 | 5.355 |
| 13 BWG | 2.413 | 0.095 | 0.236 | 0.612 | 0.990 | 1.368 | 1.746 | 2.124 | 2.502 | 2.879 | 3.257 | 3.635 | 4.013 | 4.391 | 4.769 | 5.147 | 5.525 |
| 12 SWG | 2.642 | 0.104 | 0.255 | 0.655 | 1.069 | 1.483 | 1.897 | 2.310 | 2.724 | 3.138 | 3.552 | 3.965 | 4.379 | 4.793 | 5.206 | 5.620 | 6.034 |
| 12 BWG | 2.769 | 0.109 | 0.269 | 0.678 | 1.112 | 1.545 | 1.979 | 2.413 | 2.846 | 3.280 | 3.714 | 4.147 | 4.581 | 5.014 | 5.448 | 5.882 | 6.315 |
| 11 SWG | 2.946 | 0.116 | 0.276 | 0.709 | 1.170 | 1.631 | 2.093 | 2.554 | 3.015 | 3.477 | 3.938 | 4.399 | 4.861 | 5.322 | 5.783 | 6.245 | 6.706 |
| 11 BWG | 3.048 | 0.120 | 0.281 | 0.726 | 1.203 | 1.680 | 2.157 | 2.635 | 3.112 | 3.589 | 4.067 | 4.544 | 5.021 | 5.499 | 5.976 | 6.453 | 6.931 |
| 10 SWG | 3.251 | 0.128 | 0.298 | 0.758 | 1.267 | 1.776 | 2.285 | 2.794 | 3.303 | 3.812 | 4.321 | 4.830 | 5.340 | 5.849 | 6.358 | 6.867 | 7.376 |
| 10 BWG | 3.404 | 0.134 | 0.304 | 0.780 | 1.313 | 1.847 | 2.380 | 2.913 | 3.446 | 3.979 | 4.512 | 5.045 | 5.578 | 6.111 | 6.644 | 7.177 | 7.710 |
| 9 SWG | 3.658 | 0.144 | 0.316 | 0.816 | 1.389 | 1.961 | 2.534 | 3.107 | 3.680 | 4.253 | 4.826 | 5.398 | 5.971 | 6.544 | 7.117 | 7.690 | 8.263 |
| 9 BWG | 3.759 | 0.148 | 0.329 | 0.829 | 1.418 | 2.006 | 2.595 | 3.183 | 3.772 | 4.361 | 4.949 | 5.538 | 6.127 | 6.715 | 7.304 | 7.893 | 8.481 |
| 8 SWG | 4.064 | 0.160 | 0.346 | 0.866 | 1.502 | 2.138 | 2.775 | 3.411 | 4.048 | 4.684 | 5.321 | 5.957 | 6.553 | 7.230 | 7.866 | 8.503 | 9.139 |
| 8 BWG | 4.191 | 0.165 | 0.356 | 0.879 | 1.536 | 2.192 | 2.848 | 3.505 | 4.161 | 4.817 | 5.474 | 6.130 | 6.756 | 7.443 | 8.099 | 8.755 | 9.412 |
| 7 SWG | 4.470 | 0.176 | 0.367 | 1.607 | 2.307 | 3.007 | 3.707 | 4.407 | 5.107 | 5.807 | 6.507 | 7.207 | 7.907 | 8.607 | 9.307 | 10.007 | 10.707 |
| 7 BWG | 4.572 | 0.180 | 0.374 | 1.632 | 2.348 | 3.064 | 3.780 | 4.496 | 5.212 | 5.928 | 6.644 | 7.360 | 8.076 | 8.792 | 9.508 | 10.224 | 10.940 |
| 6 SWG | 4.877 | 0.192 | 0.382 | 1.705 | 2.468 | 3.232 | 3.996 | 4.760 | 5.523 | 6.287 | 7.051 | 7.815 | 8.578 | 9.342 | 10.106 | 10.870 | 11.633 |
| 6 BWG | 5.156 | 0.203 | 0.392 | 1.767 | 2.574 | 3.382 | 4.189 | 5.011 | 5.804 | 6.611 | 7.419 | 8.226 | 9.034 | 9.841 | 10.648 | 11.456 | 12.263 |
| 5 SWG | 5.385 | 0.212 | 0.404 | 1.815 | 2.658 | 3.501 | 4.345 | 5.188 | 6.031 | 6.875 | 7.718 | 8.561 | 9.404 | 10.248 | 11.091 | 11.934 | 12.778 |
| 5 BWG | 5.588 | 0.220 | 0.414 | 1.855 | 2.730 | 3.605 | 4.480 | 5.356 | 6.231 | 7.106 | 7.981 | 8.856 | 9.731 | 10.606 | 11.481 | 12.356 | 13.231 |
| 4 SWG | 5.893 | 0.232 | 0.427 | 1.912 | 2.835 | 3.758 | 4.681 | 5.603 | 6.526 | 7.449 | 8.372 | 9.295 | 10.218 | 11.141 | 12.063 | 12.986 | 13.909 |
| 4 BWG | 6.045 | 0.238 | 0.435 | 2.885 | 3.832 | 4.779 | 5.725 | 6.672 | 7.619 | 8.565 | 9.512 | 10.459 | 11.405 | 12.352 | 13.299 | 14.245 | |
| 3 SWG | 6.401 | 0.252 | 0.452 | 2.999 | 4.002 | 5.004 | 6.006 | 7.009 | 8.011 | 9.014 | 10.016 | 11.018 | 12.021 | 13.023 | 14.026 | 15.028 | |
| 3 BWG | 6.579 | 0.259 | 0.454 | 3.054 | 4.084 | 5.114 | 6.144 | 7.175 | 8.205 | 9.235 | 10.266 | 11.296 | 12.326 | 13.356 | 14.387 | | |
| 2 SWG | 7.010 | 0.276 | 0.477 | 3.179 | 4.277 | 5.375 | 6.473 | 7.570 | 8.668 | 9.766 | 10.864 | 11.961 | 13.059 | 14.157 | 15.255 | 16.352 | |
| 2 BWG | 7.214 | 0.284 | 0.485 | 3.235 | 4.365 | 5.495 | 6.625 | 7.754 | 8.884 | 10.014 | 11.143 | 12.273 | 13.403 | 14.533 | 15.662 | 16.792 | |
| 1 SWG | 7.620 | 0.300 | 0.534 | 3.341 | 4.535 | 5.728 | 6.921 | 8.114 | 9.308 | 10.501 | 11.694 | 12.888 | 14.081 | 15.274 | 16.467 | 17.661 | |
| 1 BWG | 7.620 | 0.300 | 0.535 | 3.341 | 4.535 | 5.728 | 6.921 | 8.114 | 9.308 | 10.501 | 11.694 | 12.888 | 14.081 | 15.274 | 16.467 | 17.661 | |
| 0 SWG | 8.829 | 0.324 | 0.568 | 3.608 | 4.991 | 6.373 | 7.756 | 9.139 | 10.521 | 11.904 | 13.286 | 14.669 | 16.052 | 17.434 | 18.817 | 20.200 | |
| 0 BWG | 8.636 | 0.340 | 0.570 | 3.570 | 4.923 | 6.275 | 7.628 | 8.980 | 10.332 | 11.685 | 13.037 | 14.390 | 15.742 | 17.094 | 18.447 | 19.799 | |

For Carbon and Alloy Steel Tubes Cross Section Kg/mtr weight is: (in mm): (OD - Thk) x Thk x 10³. For Stainless Steel Tubes Cross Section Kg/mtr weight: (in mm): (OD - Thk) x Thk x 0.0246615.

SEAMLESS CARBON & ALLOY STEEL LINE PIPE MANUFACTURING RANGE

| NOMINAL PIPE SIZE | | | SCHEDULE STANDARD | | | SCHEDULE 40 | | | SCHEDULE XS | | | SCHEDULE 80 | | | SCHEDULE 120 | | | SCHEDULE 160 | | | SCHEDULE XXS | | |
|-------------------|-----|--------|-------------------|-------|------|-------------|-------|-------|-------------|-------|-------|-------------|-------|-------|--------------|-------|------|--------------|------|-----|--------------|--|--|
| INCH | MM | IN MM | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | | | |
| 1/4 | 8 | 13.7 | 2.24 | 0.63 | 2.24 | 0.80 | 3.02 | 0.8 | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| 3/8 | 10 | 17.1 | 2.31 | 0.84 | 2.31 | 0.84 | 3.2 | 1.1 | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| 1/2 | 15 | 21.3 | 2.77 | 1.27 | 2.77 | 1.27 | 3.73 | 1.62 | 3.73 | 1.62 | - | - | - | - | - | - | - | - | - | - | | | |
| 5/8 | 20 | 26.7 | 2.87 | 1.69 | 2.87 | 1.69 | 3.91 | 2.20 | 3.91 | 2.20 | - | - | - | - | - | - | - | - | - | - | | | |
| 1 | 25 | 33.4 | 3.38 | 2.50 | 3.38 | 2.50 | 4.55 | 3.24 | 4.55 | 3.24 | - | - | - | - | - | - | - | - | - | - | | | |
| 1 1/4 | 32 | 42.2 | 3.56 | 3.39 | 3.56 | 3.39 | 4.85 | 4.47 | 4.85 | 4.47 | - | - | - | - | - | - | - | - | - | - | | | |
| 1 1/2 | 40 | 48.3 | 3.68 | 4.05 | 3.68 | 4.05 | 5.08 | 5.41 | 5.08 | 5.41 | - | - | - | - | - | - | - | - | - | - | | | |
| 2 | 50 | 60.30 | 3.91 | 5.44 | 3.91 | 5.44 | 5.54 | 7.48 | 5.54 | 7.48 | - | - | - | - | - | - | - | - | - | - | | | |
| 2 1/2 | 65 | 73.00 | 5.16 | 8.63 | 5.16 | 8.63 | 7.01 | 11.41 | 7.01 | 11.41 | - | - | - | - | - | - | - | - | - | - | | | |
| 3 | 80 | 88.90 | 5.49 | 11.29 | 5.49 | 11.29 | 7.62 | 15.27 | 7.62 | 15.27 | - | - | - | - | - | - | - | - | - | - | | | |
| 3 1/2 | 90 | 101.60 | 5.74 | 13.57 | 5.74 | 13.57 | 8.08 | 18.64 | 8.08 | 18.64 | - | - | - | - | - | - | - | - | - | - | | | |
| 4 | 100 | 114.30 | 6.02 | 16.08 | 6.02 | 16.08 | 8.58 | 22.32 | 8.56 | 22.32 | 11.13 | 28.32 | 13.49 | 33.54 | 17.12 | 41.03 | - | - | - | - | | | |
| 5 | 125 | 141.30 | 6.55 | 21.77 | 6.55 | 21.77 | 9.52 | 30.94 | 9.52 | 30.94 | 12.70 | 40.28 | 15.88 | 49.12 | 19.05 | 57.43 | - | - | - | - | | | |
| 6 | 150 | 168.30 | 7.11 | 8.26 | 7.11 | 8.26 | 10.97 | 42.56 | 10.97 | 42.56 | 14.27 | 54.21 | 18.28 | 67 | 21.95 | 79.22 | - | - | - | - | | | |

SEAMLESS COLD DRAWN STAINLESS STEEL LINE PIPE MANUFACTURING RANGE

| NOMINAL PIPE SIZE | | | SCHEDULE 5 S | | | SCHEDULE 10 S | | | SCHEDULE 20 S | | | SCHEDULE 40 S | | | SCHEDULE 80 S | | | SCHEDULE 160 S | | | SCHEDULE XXS | | |
|-------------------|-----|--------|--------------|-------|------|---------------|------|-------|---------------|-------|-------|---------------|-------|--------|---------------|--------|------|----------------|------|-----|--------------|--|--|
| INCH | MM | IN MM | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | WALL | WT. | | | |
| 1/8 | 6 | 10.30 | 1.20 | 0.28 | 1.24 | 0.28 | 1.50 | 0.33 | 1.73 | 0.37 | 2.41 | 0.48 | - | - | - | - | - | - | - | - | | | |
| 1/4 | 8 | 13.70 | 1.20 | 0.38 | 1.65 | 0.50 | 2.00 | 0.59 | 2.24 | 0.65 | 3.02 | 0.81 | - | - | - | - | - | - | - | - | | | |
| 3/8 | 10 | 17.10 | 1.20 | 0.48 | 1.65 | 0.64 | 2.00 | 0.79 | 2.31 | 0.86 | 3.20 | 1.12 | - | - | - | - | - | - | - | - | | | |
| 1/2 | 15 | 21.30 | 1.65 | 0.82 | 2.11 | 1.02 | 2.30 | 1.10 | 2.77 | 1.29 | 3.73 | 1.65 | 4.75 | 1.98 | 7.47 | 2.60 | - | - | - | - | | | |
| 3/4 | 20 | 26.70 | 1.65 | 1.04 | 2.11 | 1.31 | 2.55 | 1.55 | 2.87 | 1.72 | 3.91 | 2.25 | 5.56 | 2.96 | 7.82 | 3.72 | - | - | - | - | | | |
| 1 | 25 | 33.40 | 1.65 | 1.32 | 2.77 | 2.14 | 2.55 | 1.98 | 3.38 | 2.56 | 4.55 | 3.31 | 6.35 | 4.33 | 9.09 | 5.57 | - | - | - | - | | | |
| 1 1/4 | 32 | 42.20 | 1.65 | 1.69 | 2.77 | 2.75 | 3.00 | 2.96 | 3.56 | 3.47 | 4.85 | 4.56 | 6.35 | 5.74 | 9.70 | 7.94 | - | - | - | - | | | |
| 1 1/2 | 40 | 48.30 | 1.65 | 1.94 | 2.77 | 3.18 | 3.00 | 3.42 | 3.58 | 4.14 | 5.08 | 5.53 | 7.14 | 7.41 | 11.10 | 10.41 | - | - | - | - | | | |
| 2 | 50 | 60.30 | 1.65 | 2.44 | 2.77 | 4.02 | 3.00 | 4.33 | 3.91 | 5.56 | 5.54 | 7.64 | 8.74 | 11.36 | 11.07 | 13.73 | - | - | - | - | | | |
| 2 1/2 | 65 | 73.00 | 2.11 | 3.77 | 3.05 | 5.38 | 4.00 | 6.06 | 5.16 | 8.82 | 7.01 | 11.66 | 9.53 | 15.24 | 14.02 | 20.84 | - | - | - | - | | | |
| 3 | 80 | 88.90 | 2.11 | 4.61 | 3.05 | 6.60 | 4.00 | 8.56 | 5.49 | 11.54 | 7.62 | 15.61 | 11.10 | 21.76 | 15.24 | 28.29 | - | - | - | - | | | |
| 4 | 100 | 114.30 | 2.11 | 5.97 | 3.05 | 8.55 | 4.50 | 12.45 | 6.02 | 16.43 | 8.56 | 22.81 | 13.49 | 34.27 | 17.12 | 41.93 | - | - | - | - | | | |
| 5 | 125 | 141.30 | 2.77 | 9.67 | 3.40 | 11.82 | 5.00 | 17.17 | 6.55 | 22.24 | 9.53 | 31.65 | 15.88 | 50.19 | 19.05 | 58.69 | - | - | - | - | | | |
| 6 | 150 | 168.30 | 2.77 | 11.55 | 3.40 | 14.13 | 6.35 | 25.92 | 7.11 | 28.88 | 10.97 | 43.49 | 18.25 | 69.01 | 21.95 | 80.95 | - | - | - | - | | | |
| 8 | 200 | 219.08 | 2.77 | 15.10 | 3.76 | 20.40 | 6.35 | 34.04 | 8.18 | 43.47 | 12.70 | 66.05 | 23.01 | 113.69 | 22.23 | 110.27 | - | - | - | - | | | |

For Carbon and Alloy Steel Tubes Cross Section Kg/mtr Weight Is: (in mm); (OD -Thk) x Thk x 0.0246615. For Stainless Steel Tubes Cross Section Kg/mtr weight: (in mm); (OD -Thk) x Thk x 0.0252

CARBON DRAWN SEAMLESS STAINLESS, CARBON & ALLOY STEEL HYDRAULIC/MECHANICAL TUBES MANUFACTURING RANGE

CARBON DRAWN SEAMLESS STAINLESS, CARBON & ALLOY STEEL HYDRAULIC/MECHANICAL

| WT IN MM | | OD IN MM | | | | | | | | | | | | | | | | | | | |
|----------|----------|----------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| MIN | MAX | 0.50 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | 9.00 | 10.00 | 12.00 | 14.00 | 16.00 | 18.00 | 20.00 | |
| MIN | MAX | 0.50 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | 9.00 | 10.00 | 12.00 | 14.00 | 16.00 | 18.00 | 20.00 | |
| MAX | MIN | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | 9.00 | 10.00 | 12.00 | 14.00 | 16.00 | 18.00 | 20.00 | 22.00 | |
| OD IN MM | WT IN MM | 0.50 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | 9.00 | 10.00 | 12.00 | 14.00 | 16.00 | 18.00 | 20.00 | 22.00 |
| 6.00 | 8.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 8.00 | 10.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 10.00 | 16.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 16.00 | 25.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 25.00 | 30.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 30.00 | 40.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 40.00 | 50.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 50.00 | 60.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 60.00 | 75.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 75.00 | 90.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 90.00 | 110.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 110.00 | 130.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 130.00 | 150.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 150.00 | 175.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 175.00 | 200.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 200.00 | 220.00 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |

For Carbon and Alloy Steel Tubes Cross Section Kg/mtr Weight is: (in mm): (OD - Thk) x Thk x 0.0246615. For Stainless Steel Tubes Cross Section Kg/mtr weight is: (in mm): (OD - Thk) x Thk x 0.0252



HEAVY METAL FINE TUBES PVT. LTD.

Redefining Global Standards

COIL TUBING SOLUTIONS

Your Partner in High-Precision Stainless Steel & High Nickel Alloy Coil Tubing

Heavy Metal Fine Tubes Pvt Ltd is a premier manufacturer of seamless stainless steel and high nickel alloy steel coil tubing, delivering tubes in lengths upwards of 250 meters in a single seamless coil. Our focus is on precision, quality, and reliability for the most demanding applications.

MANUFACTURING RANGE

Outer Diameter (OD): 3 mm to 20 mm

Wall Thickness (THK): 0.25 mm to 2 mm

Length: Up-to 250 meters depending on size

World-Class Manufacturing Facility

Located in the industrial heartland of Mehsana District, Gujarat (India), our plant is equipped with:

- 7 Coil Tubing Draw Benches
- Bright Annealing Furnace for Ultra Clean Tube Surface
- Comprehensive In-House Testing & Inspection Facilities



Designed for Critical Applications

Our seamless coil tubes are trusted by global industries for their superior strength, corrosion resistance, and long-length capability. We serve key sectors including:



Engineered for Excellence

Whether you need high-nickel alloy tubing for corrosive environments or stainless steel coils for precision fluid transfer, Heavy Metal Fine Tubes Pvt Ltd delivers custom-engineered coil solutions with international quality standards and consistent performance.

Contact us today to learn how we can support your tubing requirements.

www.hmft.in

info@hmft.in

+91 70392 62962

Survey No. 2129, Parshawa Industrial park, Ahmedabad Mehsana Highway, Village - Rajpur, Taluka - Kadi, Gujarat - 382715 | INDIA



HEAVY METAL & TUBES (INDIA) PVT. LTD.

NAME

.....

DATE

.....

EVENT

.....

LOCATION

.....

NOTES

.....

.....

.....

.....

.....

.....

.....

.....

.....

SCAN QR FOR TUBE/PIPE CALCULATOR





HEAVY METAL & TUBES (INDIA) PVT. LTD.

Registered Office

302, Heritage Tower, Gujarat Vidyapith Lane,
Ashram Road, Ahmedabad-380 013 Gujarat, India

Unit - 1 : Cold Drawn Stainless Steel Plant

101, Bileshwarpura Chhatral, Tal. Kalol,
Dist. Gandhinagar - 382729 North Gujarat (INDIA)

Unit - 2 : Cold Drawn Carbon & Alloy Steel Plant

138, Bileshwarpura Chhatral, Tal. Kalol,
Dist. Gandhinagar - 382729 North Gujarat (INDIA)

Unit - 3 : Hot & Cold Finish Carbon & Alloy Steel Plant

193-211, Village Mandali, Ahmedabad - Mehsana
Highway, Dist. Mehsana - 382732 North Gujarat (INDIA)

Website: www.hmtl.in | Email: info@hmtl.in, exports@hmtl.in

Mobile: +91 90165 49266, Tel.: +91 90812 55991 / 92

