

SEAMLESS STEEL INDUSTRIES

MS & CARBON STEEL SEAMLESS PIPE

Technical Datasheet / Product Specification

Product	Seamless Pipe
Material	Mild Steel (MS), Carbon Steel (CS), Low Carbon / Non-Alloy Steel
Manufacturing	Seamless; hot-finished or cold-finished/cold-drawn where applicable
Typical Standards	ASTM A106, ASTM A53, API 5L, IS 1239, IS 1161, IS 1978/1979, EN specifications where applicable
Common Grades	A106 Gr A/B/C; A53 Gr A/B; API 5L Gr B, X42, X52, X60, X65, X70; applicable IS and EN grades
Sizes	1/2" NB to 24" NB and larger, subject to specification and availability
Schedules / Thickness	SCH 5, 10, 20, 30, 40, STD, 60, 80, 100, 120, 140, 160, XXS and other specified wall thicknesses
Documentation	MTC, heat number/traceability, chemical and mechanical test results, dimensional inspection and other project documentation as applicable

1. Product Overview

Seamless pipe is manufactured without a longitudinal welded joint and is used across industrial, engineering, process, oil & gas, petrochemical, power, infrastructure and general piping applications. Seamless Steel Industries supplies and sources MS seamless pipe, mild steel seamless pipe, carbon steel seamless pipe and CS seamless pipe according to the applicable material specification, size, wall thickness, schedule and project requirement.

The terms MS seamless pipe, mild steel seamless pipe and carbon steel seamless pipe are commonly used in procurement. For technical purchasing, the governing standard and grade should always be confirmed rather than relying only on a general commercial description.

2. Common Material Specifications and Grades

Specification	Common Grades / Designations	Typical Relevance
ASTM A106 / ASME SA106	Grade A, Grade B, Grade C	Carbon steel seamless pipe for high-temperature service
ASTM A53 / ASME SA53	Grade A, Grade B	Carbon steel pipe requirements where permitted by the specification
API 5L	Gr B, X42, X52, X60, X65, X70	Line pipe requirements; PSL and product form to be confirmed
IS 1239	Light, Medium, Heavy	Steel tubes for water, gas, air and low-pressure applications; construction/product form to be confirmed
IS 1161	Applicable structural grades	Steel tubes for structural purposes
IS 1978 / IS 1979	Applicable line-pipe grades	Line pipe requirements subject to the governing specification
EN / DIN	E235, E355, ST35, ST52 and related grades	Applicable pipe/tube requirements subject to the exact EN/DIN specification

3. ASTM A106 Gr B Seamless Pipe

ASTM A106 Gr B seamless pipe is a carbon steel pipe grade specified for high-temperature service and is widely encountered in industrial piping and process applications. It may be supplied in different nominal sizes, outside diameters, wall thicknesses, schedules and lengths subject to the applicable specification and availability.

Typical procurement details:

- ASTM A106 Gr B / ASME SA106 Gr B

- Seamless construction
- Nominal pipe size or specified outside diameter
- Schedule or wall thickness
- Required length and quantity
- Inspection, testing and documentation requirements

4. Size Range and Dimensional Requirements

Common seamless pipe requirements range from 1/2" NB through 24" NB and larger sizes depending on the specification, manufacturing route and sourcing requirement. Outside diameter, wall thickness, nominal size and dimensional tolerances shall be determined from the applicable dimensional standard and product specification.

Nominal Size	Common Description
1/2" to 2"	Small-bore seamless pipe requirements
2-1/2" to 6"	Common industrial piping sizes
8" to 12"	Medium/large industrial piping sizes
14" to 24" and larger	Large-diameter requirements subject to applicable manufacturing and specification limits

5. Schedule, Wall Thickness and Length

Seamless pipe can be supplied in a range of schedules and specified wall thicknesses. The actual wall thickness corresponding to a schedule varies with nominal pipe size and the applicable dimensional standard.

Common Schedule / Designation	Note
SCH 5 / 5S	Light-wall requirements where applicable
SCH 10 / 10S	Light-wall requirements; exact use depends on material and dimensional standard
SCH 20 / SCH 30	Intermediate wall requirements
SCH 40 / STD	Common industrial wall designations
SCH 60 / SCH 80 / 80S	Higher wall-thickness requirements
SCH 100 / 120 / 140 / 160	Heavy-wall requirements
XXS	Extra-heavy wall designation; dimensions depend on nominal size and standard

Pipe lengths may be supplied as random lengths or specified lengths subject to the applicable specification, manufacturer capability and project requirement. Required length should be stated at enquiry stage, particularly when a fixed 12 m length or another controlled length is required.

6. Manufacturing and Supply Condition

Depending on the governing specification, seamless pipes and tubes may be supplied in hot-finished, cold-finished or cold-drawn conditions. Manufacturing route, heat treatment, testing and dimensional tolerances are controlled by the applicable product specification.

Hot-Finished Seamless Pipe

Hot-finished seamless pipe is produced through hot-working processes and is commonly used for industrial, pressure and engineering applications.

Cold-Finished / Cold-Drawn Seamless Tube

Cold finishing or cold drawing may be used where the applicable specification requires tighter dimensional control, surface characteristics or specific mechanical properties.

7. Applicable Standards

Standard	Description / Use
ASTM A106	Seamless carbon steel pipe for high-temperature service
ASTM A53	Steel pipe specification; grade, type and product form to be confirmed
API 5L	Line pipe specification; PSL, grade and product form to be confirmed
IS 1239	Steel tubes for water, gas, air and related applications
IS 1161	Steel tubes for structural purposes
IS 1978 / IS 1979	Line-pipe requirements subject to the applicable edition/specification
EN 10216 and related EN standards	Seamless steel tubes for pressure purposes where applicable

8. Testing, Inspection and Documentation

Testing and inspection shall be carried out according to the governing material specification, purchase order and project requirements. Depending on the requirement, documentation may include:

- Mill Test Certificate (MTC)
- Heat number and material traceability
- Chemical composition
- Tensile and other mechanical test results as applicable
- Dimensional inspection
- Hydrostatic or other specified testing
- Heat treatment records where applicable
- Third-party inspection where required
- EN 10204 3.1 certification where applicable
- Project-specific inspection and quality documentation

9. Typical Applications

- Oil & Gas
- Refineries
- Petrochemical Plants
- Power Generation
- Chemical and Process Industries
- Boiler and Steam Systems
- Pressure Piping
- Hydraulic Systems
- Engineering and Fabrication
- Industrial Fluid Transfer
- Infrastructure and Utility Projects
- Mechanical Applications

10. Procurement Information

For quotation and material sourcing, the following information should be provided where applicable:

- Pipe Size / NB / OD
- Grade
- ASTM / ASME / API / IS / EN Standard
- Schedule or Wall Thickness
- Required Length
- Quantity
- Make / Manufacturer / Origin
- Inspection and Testing Requirements
- MTC / EN 10204 3.1 Requirement
- Special Project or Client Specifications

11. Seamless Steel Industries Supply

Seamless Steel Industries supplies and sources MS seamless pipe, carbon steel seamless pipe, mild steel seamless pipe and related steel piping products for industrial and project requirements. Material can be arranged according to grade, standard, size, schedule, wall thickness, length, quantity, origin, manufacturer/make, inspection and documentation requirements.

Ready-stock availability and non-stock sourcing are subject to current inventory, specification, quantity, manufacturer availability and project requirements. Customers are requested to confirm the exact specification before placing an order.

12. Request a Seamless Pipe Quotation

Send the required pipe size, grade, standard, schedule or thickness, quantity, required length, make/origin and inspection or documentation requirements for material availability and quotation.

SEAMLESS STEEL INDUSTRIES

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Technical note: This datasheet is a general product reference. Exact grade, dimensions, tolerances, manufacturing condition, testing, certification and acceptance requirements shall be confirmed against the applicable standard, purchase order and project specification.