

GOST 10704 Grade 35

- ALLLAND Production Standards Overview



Definition and Applications

1. Definition

GOST 10704 Grade 35 Steel Pipe is a welded carbon steel pipe manufactured for general engineering, mechanical, structural, and pipeline applications. Produced with controlled welding processes and dimensional tolerances, Grade 35 steel pipes offer reliable strength, weldability, and machining performance.

2. ALLLAND GOST 10704 Grade 35 Steel Pipe Dimensions

Item	Specification
Product Name	GOST 10704 Grade 35 Steel Pipe
Standard	GOST 10704
Steel Grade	Grade 35 / Steel 35
Product Type	Welded Steel Pipe
Manufacturing Process	ERW / Electric Welded
Outside Diameter	10 – 1420 mm
Wall Thickness	0.8 – 32 mm
Length	5 – 12 m or Customized
Surface	Black, Oiled, Painted, Anti-Corrosion Coating
Pipe End	Plain End, Beveled End
Inspection	UT, Hydrostatic Testing, Dimensional Inspection
Documentation	EN 10204 3.1 MTC Available

3. Application

GOST 10704 Grade 35 Steel Pipes are widely used in industrial and engineering applications requiring reliable mechanical strength and dimensional stability. Typical applications include **general pipelines, mechanical equipment, structural components, machinery manufacturing, industrial facilities, water transmission systems, and infrastructure projects.**

Critical Tolerances

1. Outside Diameter Tolerance

Outside Diameter (mm)	Regular Accuracy	Increased Accuracy
10	±0.2 mm	—
>10–30	±0.3 mm	±0.25 mm
>30–51	±0.4 mm	±0.35 mm
>51–193.7	±0.8%	±0.7%
>193.7–426	±0.75%	±0.65%
>426–1020	±0.7%	±0.65%
>1020	±0.6%	±6.0 mm

2. Wall Thickness Tolerance

Pipe Outside Diameter	Wall Thickness Tolerance
Up to 152 mm	±10%
Above 152 mm	According to GOST 19903 requirements for normal accuracy plate/strip
Above 1020 mm	Specific wall thickness tolerances apply depending on wall thickness

For pipes with an outside diameter greater than 76 mm, local wall thickening at the weld upset of up to **0.15 mm** is permitted.

3. Cut Length Tolerance

Specified Pipe Length	Accuracy Class I	Accuracy Class II
Up to 6 m	+10 mm	+50 mm
Over 6 m	+15 mm	+70 mm

For multiple-length pipes, the total maximum deviation shall not exceed:

- **+15 mm** for Accuracy Class I
- **+100 mm** for Accuracy Class II

4. Ovality

For pipes manufactured according to GOST 10705 with an outside diameter up to 630 mm, ovality shall not exceed the applicable outside diameter tolerance.

For pipes manufactured according to GOST 10706 with an outside diameter of 478 mm and above, the ovality at pipe ends shall not exceed:

Accuracy Class	Maximum Ovality
Class 1	1.0% of OD
Class 2	1.5% of OD
Class 3	2.0% of OD

5. Straightness

For pipes manufactured according to GOST 10705, curvature shall not exceed:

- **1.5 mm per meter**
- **1.0 mm per meter** for pipes up to 152 mm OD when specifically required by the purchaser.

These tolerances help ensure dimensional consistency, welding compatibility, and reliable performance during fabrication, installation, and service.

Chemical and Mechanical Properties

1. Steel Grade 35 Chemical Composition

Element	C	Mn	Si	P	S
Max. / Typical Range	0.32–0.39%	0.50–0.80%	0.17–0.37%	≤0.035%	≤0.040%

Chemical composition may vary according to the applicable material specification and supply condition.

2. Steel Grade 35 Mechanical Properties

Property	Requirement
Tensile Strength	Approx. 530 MPa and above
Yield Strength	According to applicable specification
Elongation	According to pipe dimensions and material condition
Material Type	Medium Carbon Steel
Weldability	Good with appropriate welding procedures
Machinability	Good

Dimension Specifications Table

Outside Diameter (OD) mm	Wall Thickness (WT) mm	Standard Length	Manufacturing Process	Typical Application
10 – 20	0.8 – 2.0	5 – 12 m	ERW	Light Mechanical Components
>20 – 48	1.0 – 3.0	5 – 12 m	ERW	General Engineering
>48 – 76	1.5 – 4.0	5 – 12 m	ERW	Structural & Mechanical Applications
>76 – 114	2.0 – 6.0	5 – 12 m	ERW	Industrial Pipelines
>114 – 219	3.0 – 10.0	5 – 12 m	ERW	Pipeline & Structural Projects
>219 – 426	4.0 – 16.0	6 – 12 m	Electric Welded	Industrial & Infrastructure Projects
>426 – 820	6.0 – 25.0	6 – 12 m	Electric Welded	Large-Diameter Pipelines
>820 – 1420	8.0 – 32.0	6 – 12 m	Electric Welded	Major Infrastructure Projects

Available Dimensions: OD 10 – 1420 mm | WT 0.8 – 32 mm | Length 5 – 12 m or Customized

Specific dimensions, wall thicknesses, and length tolerances can be supplied according to GOST 10704 requirements and customer specifications.

ALLLAND GOST 10704 Grade 35 Product Images



The image shows steel pipes actually produced by our company