

Steel pipes supplied according to GB3283 standard wall thickness and outer diameter deviation

Steel pipe types	Steel pipe size mm		Allowable deviation	
			Ordinary level	advanced
hot rolled pipe	Outer diameter D	≤ 159	± 1.0% (minimum value is ±0.5mm)	±0.75% (minimum value is ±0.3mm)
		> 159	± 1.0%	± 0.90%
	Wall thickness S	< 3.5	+15% (minimum value is +0.48mm - 10% - 0.32mm)	±10% (minimum value is ±0.2mm)
		3.5~20	+15%-10%	±10%
		> 20	D < 219	± 10%
			D ≥ 219	±12.5%-10.0%
cold drawn tube	Outer diameter D	≤ 30	± 0.20mm	± 0.15mm
		> 30~50	± 0.30mm	± 0.25mm
		> 50	±0.8%	±0.6%
	Wall thickness S	2~3	+12%-10%	±10%
		> 3	±10%	±7.5%

Steel pipes supplied according to GB5310 standard wall thickness and outer diameter deviation

Steel pipe types	Steel pipe size mm		Allowable deviation	
			Ordinary level	advanced
hot rolled pipe	Outer diameter D	≤ 159	±1.0% (minimum ±0.50mm)	±0.75% (minimum ±0.40mm)
		> 159	±1.0%	±0.90%
	Wall thickness	≤ 20	+15.0% (minimum +0.45mm) - 12.5% (0.35mm)	±10% (minimum ±0.30mm)
		> 20	±12.5%	±10%
cold drawn tube	Outer diameter D	10 ~ 30	± 0.40mm	± 0.20mm
		> 30 ~ 50	± 0.45mm	± 0.25mm
		> 50	+1.0%	±0.75%
	Wall thickness	1.5 ~ 3.0	+15% - 10%	±10%
		> 3.0	+12.5% - 10%	±10%

Wall thickness and outer diameter deviations of steel pipes supplied according to the standard.

project	standard	scope		Allowable deviation
Outer diameter	DIN17175	Heat pipe	D ≤ 100mm	±0.75% (minimum ±0.5mm)
			D > 100~ 320mm	± 0.9%
		Cold pipe: D≤120mm		±0.6% (minimum ±0.25mm)
	ASME SA-192M, ASME SA-209M, ASME SA-210M, ASME SA-213M, ASME SA-335M, JIS G 3461	Heat pipe	D < 100mm	+0.4~ -0.8mm
			D ≥ 100~ < 160mm	+0.4~ -1.2mm
			D ≥ 160~ < 200mm	+0.4~ -1.8mm
			D ≥ 200 mm	+0.4~ -2.4mm
		Cold pipe	D < 25mm	± 0.10 mm
			D ≥ 25~ < 40mm	± 0.15 mm
			D ≥ 40~ < 50mm	± 0.20 mm
			D ≥ 50~ < 60mm	± 0.25 mm
			D ≥ 60 ~ < 80mm	± 0.30 mm
	ASME SA-106	D 10.3~ 48.3mm		± 0.40 mm
		D > 48.3~ 114.3mm		± 0.79 mm
		D > 114.3~ 219.1mm		+1.59~ -0.79mm
		D > 219.1~ 457mm		+2.38~ -0.79mm

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DIN17175	D ≤ 130mm	S ≤ 2Sn		+15%~-10%		
		S > 2Sn~4Sn		+12.5%~-10%		
		S > 4Sn		± 9%		
	130 < D ≤ 320mm	S ≤ 0.05D		+17.5%~-12.5%		
		0.05D < S ≤ 0.11D		± 12.5%		
		S > 0.11D		± 10%		
ASME SA-192M, ASME SA-209M, ASME SA-210M, ASME SA-213M, ASME SA-335M、JIS G 3461		heat pipe	S ≥ 2 ~ < 2.4mm, and D < 100		+40~0%	
			S ≥ 2.4~ < 3.8mm		+35~0%	
			S ≥ 3.8~ < 4.6mm		+33~0%	
			S ≥ 4.6mm		+28~0%	
		Cold pipe	D < 40	S < 2mm		+0.4~ 0mm
				S ≥ 2mm		+20~0%
			D ≥ 40		+22~0%	
ASME SA-106				-12.5%		