

# JIS G3445

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## ● Production Standard of JIS G3445

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### ● JIS G3445

JIS G3445 Carbon Steel Tubes come with comprehensive specifications to meet your diverse needs. The dimensions range from an outer diameter of 19.05mm to 114.3mm and a wall thickness of 2.0mm to 14mm. The production procedures adhere to stringent quality control measures, ensuring the highest level of precision and consistency. The steel grades include STKM11A, STKM12(A,B,C), STKM13(A,B,C), and STKM14(A,B,C). We offer various surface coatings, end types, joint methods, and machining services to cater to your specific requirements.

## ● Dimensions and Sizes of JIS G3445

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<b>tandard</b>	JIS3445
<b>Procedure</b>	BW ERW SMLS
<b>Dimensions</b>	33.4 – 508mm
	DN25 – DN500

<b>Thickness</b>	3mm – 18mm
<b>Unit Length</b>	specific random
<b>Steel Grade</b>	STKM11A、STKM12(A,B,C)、STKM13(A,B,C)、STKM14(A,B,C), STKM15(A,C), STKM16(A,C), STKM17(A,C), STKM18(A,B,C) STKM19(A,C) STKM20A
<b>Surface Coating</b>	Varnishing, Oiling, Hot Dip Galvanizing
<b>End Type</b>	Square cut, Plain, Bevelled, Threaded, Socket,
<b>Joint Method</b>	Fitting, Flange, Coupling, Clamp, Pipe Shoulder, Welding
<b>Pipe Machining</b>	Welding, Bending, Hole Drilling, Punching, Swaging, Tapering, Flaring, Expanding

## ●Chemical Composition of JIS G3445

Grade		Symbol of Grade	C	Si	Mn	P	S	Nb or V
Grade 11	A	STKM11A	0.12 max.	0.35 max.	0.60 max.	0.040 max.	0.040 max.	–
Grade 12	A	STKM12A	0.20 max.	0.35 max.	0.60 max.	0.040 max.	0.040 max.	–
	B	STKM12B						
	C	STKM12C						

Grade 13	A	STKM13A	0.25 max.	0.35 max.	0.30 to 0.90	0.040 max.	0.040 max.	-
	B	STKM13B						
	C	STKM13C						
Grade 14	A	STKM14A	0.30 max.	0.35 max.	0.30 to 1.00	0.040 max.	0.040 max.	-
	B	STKM14B						
	C	STKM14C						
Grade 15	A	STKM15A	0.25 to 0.35	0.35 max.	0.30 to 1.00	0.040 max.	0.040 max.	-
	C	STKM15C						
Grade 16	A	STKM16A	0.35 to 0.45	0.40 max.	0.40 to 1.00	0.040 max.	0.040 max.	-
	C	STKM16C						
Grade 17	A	STKM17A	0.45 to 0.55	0.40 max.	0.40 to 1.00	0.040 max.	0.040 max.	-
	C	STKM17C						
Grade 18	A	STKM18A	0.18 max.	0.55 max.	1.50 max.	0.040 max.	0.040 max.	-
	B	STKM18B						
	C	STKM18C						
Grade 19	A	STKM19A	0.25 max.	0.55 max.	1.50 max.	0.040 max.	0.040 max.	-
	C	STKM19C						
Grade 20	A	STKM20A	0.25 max.	0.55 max.	1.60 max.	0.040 max.	0.040 max.	0.15 max.

## ●Mechanical Properties Tensile Strength and Yield Strength of JIS G3445

Grade	Symbol of Grade	Tensile Strength N/mm <sup>2</sup>	Yield Point or Proof Stress N/mm <sup>2</sup>	Elongation %		Flattening	Bendability		
				No.11 Test Piece No.12 Test Piece, tube axis direction	No. Test Piece, perpendicular to tube axis	Distance between flat plates	Bend Angle	Inside radius	
Grade 11	A	STKM11A	290 min.	—	35 min.	30 min.	1/2 D	180°	4 D
Grade 12	A	STKM12A	340 min.	175 min.	35 min.	30 min.	2/3 D	90°	6 D
	B	STKM12B	390 min.	275 min.	25 min.	20 min.	2/3 D	90°	6 D
	C	STKM12C	470 min.	355 min.	20 min.	15 min.	—	—	—
Grade 13	A	STKM13A	370 min.	215 min.	30 min.	25 min.	2/3 D	90°	6 D
	B	STKM13B	440 min.	305 min.	20 min.	15 min.	3/4 D	90°	6 D
	C	STKM13C	510 min.	380 min.	15 min.	10 min.	—	—	—
Grade 14	A	STKM14A	410 min.	245 min.	25 min.	20 min.	3/4 D	90°	6 D
	B	STKM14B	500 min.	355 min.	15 min.	10 min.	7/8 D	90°	8 D
	C	STKM14C	550 min.	410 min.	15 min.	10 min.	—	—	—
Grade 15	A	STKM15A	470 min.	275 min.	22 min.	17 min.	3/4 D	90°	6 D
	C	STKM15C	580 min.	430 min.	12 min.	7 min.	—	—	—

Grade 16	A	STKM16A	510 min.	325 min.	20 min.	15 min.	7/8 D	90°	8 D
	C	STKM16C	620 min.	460 min.	12 min.	7 min.	—	—	—
Grade 17	A	STKM17A	550 min.	345 min.	20 min.	15 min.	7/8 D	90°	8 D
	C	STKM17C	650 min.	480 min.	10 min.	5 min.	—	—	—
Grade 18	A	STKM18A	440 min.	275 min.	25 min.	20 min.	7/8 D	90°	6 D
	B	STKM18B	490 min.	315 min.	23 min.	18 min.	7/8 D	90°	8 D
	C	STKM18C	510 min.	380 min.	15 min.	10 min.	—	—	—
Grade 19	A	STKM19A	490 min.	315 min.	23 min.	18 min.	7/8 D	90°	6 D
	C	STKM19C	550 min.	410 min.	15 min.	10 min.	—	—	—
Grade 20	A	STKM20A	540 min.	390 min.	23 min.	18 min.	7/8 D	90°	6 D