ASTM A200-89 SEAMLESS intermediate ALLOY STEEL TUBES FOR FEFINERY SERVICE

This standard is issued under the fixed designation A 200; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (2) indicates an editorial change since the last revision or reapproval.

1.Scope

1.1This specification covers several grades of minimum-wall-thickness, chromium-molybdenum and chromium-molybdenum-silicon, seamless, hot-finished and cold-finished, intermediate alloy-steel still tubes, for use in carrying fluids at elevated temperatures and pressures in various types of heaters, in which the tubes may be subjected to a furnace temperature higher than that of the contained fluid.

1.2 This specification covers tubes 2 to 9 in., (50.8 to 228.6 mm) inclusive, in outside diameter and over 0.220 in. (5.59 mm)in minimum wall thickness.

1.3 Where butt welding is used to obtain length longer than single length normally produced in the mill, Specification A 422 shall cover the requirements for butt welds.

1.4 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

Material Comparison Tables (ASTM, KS, JIS, DIN, BS, NBN, NF, UNI)

ASTM Standard	UNS NO.	KOREA/JAPANES			GERMAN				BRITISH			BELGIAN			FRENCH			ITALIAN		
		KS/JIS Symbol	KS/JIS Number	Remarks	DIN Type	DIN Number	Material Number	Remarks	B.S Number	B.S Grade	Remarks	NBN Type	NBN Grade	Remarks	AFNOR Type	NF Number	Remarks	UNI Type	UNI No	Remarks
A 200 Seamless Intermediate Alloy Steel Tubes for Refinery Service																				
T 5	K41545	STHA 24 / STBA 25	D3572 / G3462	(32)	12CrMo 19 5		1.7362	(3a)	3604	625	(30)(32)	X12CrMo	837	(32)	TU Z 12 CD	A49-213	(32)			Dalmine 234(3b)
T 11	K11597	STHA 22 / STBA 23	D3572 / G3462	(32)	13CrMo 44	17175	1.7335	(8)	3604	621	(30)(32)				5.05	A49-213	(32)			Dalmine 227(3b)
T 22	K2159	STHA 23 / STBA 24	F3572 / G3462	(32)	10CrMo 9 10	17175	1.7380		3606	622	(30)(32)	10CrMo 9 10	837	(32)	TU 10 CD 5.05	A49-213	(32)	12CrMo 9 10	5462	(3b)
															TU 12 CD 9.10					

JIS Number and Corresponding Foreign Standards

JIS			ASTM			NF			ISO			Index Number
Standard Number	Grade	Type	Standard Number	Grade	Type	Standard Number	Grade	Type	Standard Number	Grade	Type	
G3467	STF								2604/2	TS9H	C	C013
	(STF42)	C										
	STFA12	Mo	A161	T1	Mo							
	STFA22	CrMo										
	STFA23	CrMo	A200	T11	CrMo							
	STFA24	CrMo	A200	T22	CrMo							
	STFA25	CrMo	A200	T5	CrMo				2604/2	TS37	CrMo	
	STFA26	CrMo	A200	Tp	CrMo							
	SUS		A271	TP304	SUS				2604/2	TS47	SUS	
	304FT	SUS										
	SUS		A271	TP304H	SUS	A49-218	TUZ6CN 18.09		2604/2	TS48	SUS	
	304HTF											
	SUS				SUS							
	309SFT	SUS										
	SUS				SUS				2604/2	TS68	SUS	
	310STF	SUS										
	SUS		A271	TP316	SUS	A49-218	TUZ6CND 17.11		2604/2	TS61	SUS	
	316TF	SUS										
	SUS		A271	TP316H	SUS				2604/2	TS63	SUS	
	316HTF	SUS										

	SUS		A271	TP321	SUS				2604/2	TS53	SUS	
	321TF	SUS										
	SUS		A271	TP321H	SUS	A49-218	TUZ6CNT 18.10	SUS				
	321HTF	SUS										
	SUS		A271	TP347	SUS	A49-218	TUZ6CNNb 18.10	SUS	2604/2	TS50	SUS	
	347TF	SUS										
	SUS		A271	TP347H	SUS							
	347HTF	SUS										
	NCF8000TF	NiCr										
	NCF8000HTF	NiCr										