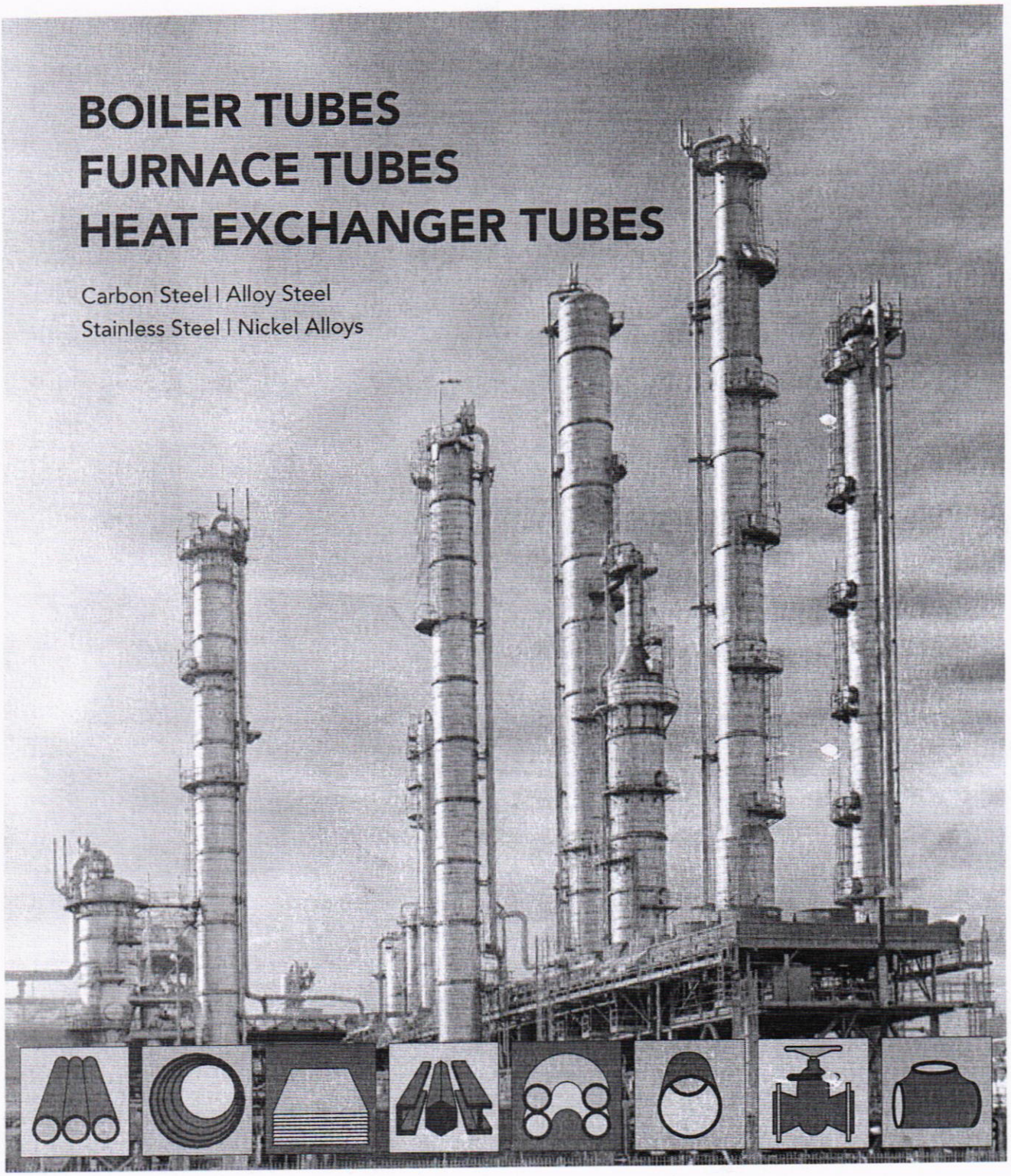
TPS TECHNITUBE®
RÖHRENWERKE GMBH

BOILER TUBES
FURNACE TUBES
HEAT EXCHANGER TUBES

Carbon Steel | Alloy Steel
Stainless Steel | Nickel Alloys



TPS-Technitube Röhrenwerke GmbH is a privately owned company operating most modern production mills and stocks for tubes and pipes in carbon steel, alloy steel, stainless steel, copper alloys, copper-nickel alloys, nickel alloys, titanium, oil- and gasfield tubular products, extended surfaces as well as accessories like fittings, flanges, plates and bars.

The production mills of TPS-Technitube Röhrenwerke GmbH, located on a total area of more than 100.000 m² in Daun/Germany in the centre of Europe have an outstanding worldwide reputation as a reliable and competent manufacturer and stockist.

From our central European location we have excellent access to the interconnecting roadways of the area, the north sea ports of Bremen, Hamburg, Rotterdam or Antwerp and the major continental airports. Wherever your location is, our quotations can be tailored to meet your emergency breakdown or planned maintainance requirements. Please tell us what you need and we make it possible.

TPS-Technitube Röhrenwerke GmbH, your partner for tubes, pipes and accessories for the oil- and gas industry, chemical and petrochemical industry, energy and offshore technology, paper, pharma, textile industry and automotive.

View our catalogues on your mobile device.

With this catalogue we like to introduce you our possibilities for:

Boiler Tubes / Furnace Tubes / Heat Exchanger Tubes:
- seamless and welded
- carbon steel / alloy steel / stainless steel / nickel alloys
- acc. to ASTM or ASME
- acc. to DIN or EN
- or any other international standards on request

Sizes:
- OD 5,00 - 610,00 mm
- WT 0,90 - 60,00 mm
- Minimum or average wall thickness
- Length of hot finished tubes up to 25 m
- Length of cold finished tubes up to 27 m
- Special tolerances on request

Our Service:
- mill production
- a well assorted stock
- just in time logistics

Technical Service:
- NDT testing facilities etc.
- qualified personal
- quality management system

CHEMICAL COMPOSITION AND MECHANICAL PROPERTIES

Material Grade	C	Mn	P (max)	S (max)	Si	Ni	Cr	Mo
T2	0,10 - 0,20	0,30 - 0,61	0,025	0,025	0,10 - 0,30	-	0,50 - 0,81	0,44 - 0,65
T5	max. 0,15	0,30 - 0,60	0,025	0,025	max. 0,5	-	4,00 - 6,00	0,45 - 0,65
T5b	max. 0,15	0,30 - 0,60	0,025	0,025	1,00 - 2,00	-	4,00 - 6,00	0,45 - 0,65
T5c	max. 0,12	0,30 - 0,60	0,025	0,025	max. 0,5	-	4,00 - 6,00	0,45 - 0,65
T9	max. 0,15	0,30 - 0,60	0,025	0,025	0,25 - 1,00	-	8,00 - 10,00	0,90 - 1,10
T11	0,05 - 0,15	0,30 - 0,60	0,025	0,025	0,50 - 1,00	-	1,00 - 1,50	0,44 - 0,65
T12	0,05 - 0,15	0,30 - 0,61	0,025	0,025	max. 0,5	-	0,80 - 1,25	0,44 - 0,65
T17	0,15 - 0,25	0,30 - 0,61	0,025	0,025	0,15 - 0,35	-	0,80 - 1,25	-
T21	0,05 - 0,15	0,30 - 0,60	0,025	0,025	0,50 - 1,00	-	2,65 - 3,35	0,80 - 1,06
T22	0,05 - 0,15	0,30 - 0,60	0,025	0,025	max. 0,5	-	1,90 - 2,60	0,87 - 1,13
T23	0,04 - 0,10	0,10 - 0,60	0,030	0,010	max. 0,5	max. 0,4	1,90 - 2,60	0,05 - 0,30
T24	0,05 - 0,10	0,30 - 0,70	0,020	0,010	0,15 - 0,45	-	2,20 - 2,60	0,90 - 1,10
T36	0,10 - 0,17	0,80 - 1,20	0,030	0,025	0,25 - 0,50	1,00 - 1,30	max. 0,3	0,25 - 0,50
T91	0,07 - 0,14	0,30 - 0,60	0,020	0,010	0,20 - 0,50	max. 0,4	8,00 - 9,50	0,85 - 1,05
T92	0,07 - 0,13	0,30 - 0,60	0,020	0,010	max. 0,5	max. 0,4	8,50 - 9,50	0,30 - 0,60
T122	0,07 - 0,14	max. 0,7	0,020	0,010	max. 0,5	max. 0,5	10,00 - 11,50	0,25 - 0,60
T911	0,09 - 0,13	0,30 - 0,60	0,020	0,010	0,10 - 0,50	max. 0,4	8,50 - 9,50	0,90 - 1,10

Material Grade	Tensile Strength min. KSI (MPa)	Yield Strength min. KSI (MPa)	Elongation min. %	Hardness max.	
				Brinell/Vickers	Rockwell
T2	60 (415)	30 (205)	30	163 HB / 170 HV	85 HRB
T5	60 (415)	30 (205)	30	163 HB / 170 HV	85 HRB
T5b	60 (415)	30 (205)	30	179 HBW / 190 HV	89 HRB
T5c	60 (415)	30 (205)	30	163 HB / 170 HV	85 HRB
T9	60 (415)	30 (205)	30	179 HBW / 190 HV	89 HRB
T11	60 (415)	30 (205)	30	163 HB / 170 HV	85 HRB
T12	60 (415)	32 (220)	30	163 HBW / 170 HV	85 HRB
T17	60 (415)	30 (205)	30	163 HB / 170 HV	85 HRB
T21	60 (415)	30 (205)	30	163 HB / 170 HV	85 HRB
T22	60 (415)	30 (205)	30	163 HB / 170 HV	85 HRB
T23	74 (510)	58 (400)	20	220 HBW / 230 HV	97 HRB
T24	85 (585)	60 (415)	20	250 HBW / 265 HV	25 HRC
T36 Class 1	90 (620)	64 (440)	15	250 HBW / 265 HV	25 HRC
T36 Class 2	95,5 (660)	66,5 (460)	15	250 HBW / 265 HV	25 HRC
T91	85 (585)	60 (415)	20	190 - 250 HBW / 196 - 265 HV	90 HRB - 25 HRC
T92	90 (620)	64 (440)	20	250 HBW / 265 HV	25 HRC
T122	90 (620)	58 (400)	20	250 HBW / 265 HV	25 HRC
T911	90 (620)	64 (440)	20	250 HBW / 265 HV	25 HRC

Tolerance: ASTM / ASME-A / SA 1016
(ASTM A 199 and A 200 are replaced by ASTM A 213, however we supply and certify still acc. to ASTM A 199 and A 200 if required)

CARBON AND ALLOY STEEL GRADES

ASTM A ASME SA	Steel Grade	EN 10216-2	Material Number	DIN
		P195GH	1.0348	17175
179	low carbon steel	P235GH	1.0345	ST35.8
192	carbon steel			
210	A-1	P265GH	1.0425	17175 ST45.8
210	C			17175: 17Mn4
209	T1, T1A, T1B			
213	T2			
213	T5, T5B**, T5C**	X11CrMo5 + I	1.7362	17176: 12CrMo19-5
		X11CrMo5 + NT1		
		X11CrMo5 + NT2		
213	T9	X11CrMo9-1 + I	1.7386	17176: X12CrMo9-1
		X11CrMo9-1 + NT		
213	T11	10CrMo5-5	1.7338	
213	T12	13CrMo4-5	1.7335	17175, 17176 13CrMo44
213	T17			
213	T21			17176 12CrMo1210
213	T22	10CrMo9-10	1.7380	17175: 10CrMo910
213	T23	7CrWVMoNb9-6	1.8201	
213	T24	7CrMoVTiB10-10	1.7378	
213	T91	X10CrMoVNb9-1	1.4903	17175 VdTÜV 511: X10CrMoVNb91
213	T92	X10CrWMoVNb9-2	1.4901	
213	T122			
213	T911	X11CrMoWVNb9-1-1	1.4905	
		16Mo3	1.5415	17175: 15Mo3
		20MnNb6	1.0471	17175: 15Mo3
		8MoN5-4	1.5450	
		11CrMo9-10	1.7383	
		25CrMo4	1.7218	17176: 25CrMo4
		20CrMoNb5-6-4	1.7779	
213	T36	15NiCuMoNb5-6-4	1.6368	
		X20CrMoV11-1	1.4922	17175: X20CrMoV-12 1

ASTM A ASME SA	Steel Grade	EN 10216-4	Material Number	DIN
334	1	P215NL	1.0451	17173: TTSt35N
334	3	12Ni14	1.5637	17173: 10Ni14
334	6	P265NL	1.0453	
334	7			
334	8			
334	9			
334	11			
		P255QL	1.0452	17173: TTSt35V
		26CrMo4-2	1.7219	
		11MnNi5-3	1.6212	
		13MnNi6-3	1.6217	
		X12Ni5	1.5680	
		X10Ni9		