



# Our value proposition

The reliable supply of high-quality steel tubes and customized service solutions is the promise we make to our customers in more than 30 countries

### Our value proposition

Benteler Distribution is one of the leading international operating stockholding and processing companies of high-quality carbon and stainless steel tubes and fittings.

You can benefit from our comprehensive knowledge of materials, state-of-the-art processing methods, and individual services. We offer competent consultancy, bundling of procurement volumes, as well as customized stocking and logistics solutions, and we can extensively support you in developing new or improving existing products and processes.

We commit ourselves to national and international quality standards, and we can serve you at more than 50 locations in over 30 countries with the same high level of quality, all having attained ISO 9001 approval.

### Technical progress

The intensive dialog with our customers combined with our extensive expertise in the design and manufacture of steel tubes and components available in the Benteler Group, enable us to foresee future developments at an early stage, and to react in a timely manner to them by developing solutions for the changing requirements.



# Processing Pre-finished products up to ready-to-install components



We can take over complete production stages in order to make your production more efficient. We have the expertise, capacity and partners to provide you with the entire range of processing techniques.

#### Primary forming of tubes and tube accessories

- Cast steel and high quality tube sections and formed tube sections
- Tubes using centrifugal casting
- Die casting parts
- Laser stereolithography produced and sintered parts

#### Forming of tubes

- Pressure forming according to DIN 8583
- Tension-compression forming according to DIN 8584
- Tensile forming according to DIN 8585
- Bend forming according to DIN 8586
- Shear forming according to DIN 8587

#### **Cutting of tubes**

- Laser, plasma and waterjet cutting
- Machining with defined cutting: sawing, hammering, adiabatic cutting, rotating, drilling, milling, preturning
- Machining with undefined cutting: grinding, honing, lapping, abrasive blasting and eroding



#### Joining of tubes

- Welding, soldering and bonding
- Pressuring and force fitting
- Mechanical tube connection system PreFiS-XL

#### **Coating of tubes**

- Individually configured coating combinations based on fluorocarbon polymers, metals, synthetic materials, ceramic, nanostructures and powder coating for special applications
- Conventional corrosion protection from varnishing to synthetic, CDP and powder coating
- Coating using soldering, welding and evaporating

#### Modification of material properties

- Reinforcement through forming
- Heat treatments according to DIN 17014 part 1
- Thermomechanical treatment
- Calcination
- Magnetization
- Irradiation
- Photochemical method

# Seamless precision steel tubes

# Seamless precision steel tubes

Standard	EN 10305-1
Dimensions	4 x 0.5 mm to 200 x 10 mm
Lengths	4 to 7 m
	other lengths and fixed lengths on request
Delivery conditions	+С (ВК)
	+N (NBK)
	+SR (BKS)
	other delivery conditions on request
Materials	Steel grade (EN)
	E235
	E355
	other materials on request
Certification	2.2 acc. to EN 10204
	other certifications on request

# Seamless hydraulic and pneumatic steel tubes

Standard	EN 10305-4
Dimensions	4 x 0.5 mm to 114.3 x 20 mm
Lengths	6 m
	other lengths and fixed lengths on request
Delivery conditions	+N (NBK)
	other delivery conditions on request
Materials	Steel grade (EN)
	E235
	E355
	other materials on request
Surface treatment	oiled, bonderised and oiled, outside galvanized and yellow
	chromated or outside galvanized and blue passivated
	(CR-VI-free acc. to End of Life Vehicle Directive)
	other surface treatment on request
Ends	tube ends closed with plugs or caps
Marking	continuous marking along the entire tube length
Certification	3.1 acc. to EN 10204
	other certifications on request



# Seamless cold formed precision steel tubes for the production of piston tubes

Standard	EN 10305-1
Dimensions	35 x 3.5 mm to 300 x 25 mm
Tolerances	outside diameter acc. to customer specifications
Delivery conditions	+C (BK) cold finished, hard
	+SR (BKS) cold finished and stress-relief annealed
	+N (NBK) normal annealed
Materials	Steel grade (EN)
	E355
	other materials on request
Certification	3.1 acc. to EN 10204
	other certifications on request

# Welded precision steel tubes

# Welded cold drawn precision steel tubes

Standard	EN 10305-2
Dimensions	8 x 1 mm to 200 x 10 mm
Lengths	4 to 7 m
	other lengths and fixed lengths on request
Delivery conditions	+С (ВК)
	+N (NBK)
	+A (GBK)
	+LC (BKW)
	+SR (BKS)
Materials	Steel grade (EN)
	E235
	E355
	other materials on request
Certification	2.2 acc. to EN 10204
	other certifications on request

# Welded precision steel tubes

Standard	EN 10305-3
Dimensions	8 x 1 mm to 159 x 4.5 mm
Lengths	6 m
	other lengths and fixed lengths on request
Delivery conditions	+CR1 (BKM)
	+CR2 (BKM/soft)
	+N (NBK)
	other delivery conditions on request
Materials	Steel grade (EN)
	E195
	E235
	other materials on request
Surface treatment	blank, cold rolled strip, aluminized, thermally galvanized,
	galvanized, sendzimir galvanized strip, inside grated
Certification	2.2 acc. to EN 10204
	other certifications on request



# Welded precision steel tubes (square or rectangular)

Standard	EN 10305-5
Dimensions	
– square	12 x 12 x 1.5 mm to 100 x 100 x 5 mm
- rectangular	20 x 10 x 1.5 mm to 120 x 80 x 5 mm
Lengths	6 m
	other lengths and fixed lengths on request
Delivery conditions	+CR1 (BKM)
	+CR2 (BKM/soft)
	other delivery conditions on request
Materials	Steel grade (EN)
	E195
	E235
	E275
	E355
	other materials on request
Surface treatment	pickled or non-pickled hot rolled strip, cold rolled strip,
	aluminized, thermally galvanized, galvanized, sendzimir
	galvanized strip, inside grated, welded seam positioned
	(on request positioned on the edge)
Certification	2.2 acc. to EN 10204
	other certifications on request

# Welded precision steel tubes

# Welded precision steel tubes – Benteler Special 07

Dimensions	4.75 x 0.5 mm to 12 x 1.8 mm
Tolerances	outside diameter ±0,08 mm
	wall thickness ±10% (except welded seam)
Lengths	6 m or on coil
	other lengths and fixed lengths on request
Delivery conditions	+N (NBK)
	+CR1, other delivery conditions on request
Materials	Steel grade (EN)
	E195
	E235
	IF25
	other materials on request
Surface treatment	non-galvanized
Testing	eddy current testing acc. to EN 10246-3, ZK E3H
Certification	3.1 acc. to EN 10204
	other certifications on request

# Welded precision steel tubes – Benteler Zista 07

Dimensions	4.75 x 0.5 mm to 12 x 1.8 mm
Tolerances	outside diameter ±0,08 mm
	wall thickness ±10% (except welded seam)
Lengths	6 m or on coil
	other lengths and fixed lengths on request
Delivery conditions	+N (NBK)
	+CR1
	other delivery conditions on request
Materials	Steel grade (EN)
	E195
	E235
	IF25
	other materials on request
Surface treatment	outside galvanized (layer thicknesses min. 12 $\mu m)$ and yellow
	chromated or outside galvanized and passivated
	(CR-VI-free acc. to End of Life Vehicle Directive)
	thin and thick coat passivation on request
Testing	eddy current testing acc. to EN 10246-3, ZK E3H
Certification	3.1 acc. to EN 10204
	other certifications on request



# Welded precision steel tubes – Benteler Zistaplex

Dimensions4 x 0.5 mm to 42 x 6 mmLengths6 mother lengths and fixed lengths on requestDelivery conditions+N (NBK)other delivery conditions on requestMaterialsSteel grade (EN)E235E355other materials on requestSurface treatmentoutside galvanized (min. 8 μm), CR-VI-free passivation, additional organic coating (EP0XY ≤ 50 μm), RAL 9005, black other colors, coatings and thicknesses on requestMarkingcontinuous marking along the entire tube length on request other certification on request	Standard	EN 10305-1/-2/-3/-4
Other lengths and fixed lengths on requestDelivery conditions+N (NBK) other delivery conditions on requestMaterialsSteel grade (EN) E235 E355 other materials on requestSurface treatmentoutside galvanized (min. 8 µm), CR-VI-free passivation, additional organic coating (EPOXY ≤ 50 µm), RAL 9005, black other colors, coatings and thicknesses on requestMarking Certificationcontinuous marking along the entire tube length on request	Dimensions	4 x 0.5 mm to 42 x 6 mm
Delivery conditions+N (NBK) other delivery conditions on requestMaterialsSteel grade (EN) E235 E355 other materials on requestSurface treatmentoutside galvanized (min. 8 μm), CR-VI-free passivation, additional organic coating (EPOXY ≤ 50 μm), RAL 9005, black other colors, coatings and thicknesses on requestMarkingcontinuous marking along the entire tube length on request 3.1 acc. to EN 10204	Lengths	6 m
Materialsother delivery conditions on requestMaterialsSteel grade (EN)E235E355other materials on requestSurface treatmentoutside galvanized (min. 8 µm), CR-VI-free passivation, additional organic coating (EPOXY ≤ 50 µm), RAL 9005, black other colors, coatings and thicknesses on requestMarkingcontinuous marking along the entire tube length on requestCertification3.1 acc. to EN 10204		other lengths and fixed lengths on request
Materials   Steel grade (EN)     E235   E355     other materials on request   other materials on request     Surface treatment   outside galvanized (min. 8 μm), CR-VI-free passivation, additional organic coating (EP0XY ≤ 50 μm), RAL 9005, black other colors, coatings and thicknesses on request     Marking   continuous marking along the entire tube length on request     Certification   3.1 acc. to EN 10204	Delivery conditions	+N (NBK)
E235     E355     other materials on request     Surface treatment     outside galvanized (min. 8 μm), CR-VI-free passivation, additional organic coating (EPOXY ≤ 50 μm), RAL 9005, black other colors, coatings and thicknesses on request     Marking   continuous marking along the entire tube length on request     Certification   3.1 acc. to EN 10204		other delivery conditions on request
E355 other materials on requestSurface treatmentoutside galvanized (min. 8 μm), CR-VI-free passivation, additional organic coating (EPOXY ≤ 50 μm), RAL 9005, black other colors, coatings and thicknesses on requestMarkingCertification3.1 acc. to EN 10204	Materials	Steel grade (EN)
Surface treatmentother materials on requestSurface treatmentoutside galvanized (min. 8 µm), CR-VI-free passivation, additional organic coating (EPOXY ≤ 50 µm), RAL 9005, black other colors, coatings and thicknesses on requestMarkingcontinuous marking along the entire tube length on requestCertification3.1 acc. to EN 10204		E235
Surface treatmentoutside galvanized (min. 8 μm), CR-VI-free passivation, additional organic coating (EPOXY ≤ 50 μm), RAL 9005, black other colors, coatings and thicknesses on requestMarkingcontinuous marking along the entire tube length on request 3.1 acc. to EN 10204		E355
additional organic coating (EP0XY ≤ 50 µm), RAL 9005, black other colors, coatings and thicknesses on requestMarkingcontinuous marking along the entire tube length on requestCertification3.1 acc. to EN 10204		other materials on request
other colors, coatings and thicknesses on requestMarkingcontinuous marking along the entire tube length on requestCertification3.1 acc. to EN 10204	Surface treatment	outside galvanized (min. 8 $\mu$ m), CR–VI–free passivation,
Markingcontinuous marking along the entire tube length on requestCertification3.1 acc. to EN 10204		additional organic coating (EPOXY ≤ 50 µm), RAL 9005, black
Certification 3.1 acc. to EN 10204		other colors, coatings and thicknesses on request
	Marking	continuous marking along the entire tube length on request
other certifications on request	Certification	3.1 acc. to EN 10204
		other certifications on request

# Cylinder tubes

# Ready to use cylinder tubes

Standard	EN 10305-2
Dimensions	30 x 5 mm to 140 x 7.5 mm
Tolerances	outside diameter acc. to EN 10305-1/-2
	inside diameter acc. to H9, ISO 286 part 2
Lengths	manufactured and fixed lengths
Delivery conditions	+C (BK) cold finished
Materials	Steel grade (EN)
	E355
	other materials on request
Surface roughness	Ra max. 0.8 $\mu$ , exceptions admitted up to 1 $\mu$
Testing	non-destructive testing acc. to EN 10246-7
	non-destructive eddy current testing acc. to EN 10246-3
Certification	3.1 acc. to EN 10204
	other certifications on request



# Honed or skived and roller burnished cylinder tubes

Standard	EN 10305-1/-2
Dimensions	30 x 5 mm to 300 x 25 mm
Tolerances	outside diameter acc. to EN 10305-1/-2
	inside diameter acc. to H8, ISO 286 part 2
Lengths	manufactured and fixed lengths
Delivery conditions	+SR
Materials	Steel grade (EN)
	E355
	other materials on request
Surface roughness (inside)	Ra max. 0.3 µ acc. to EN ISO 4287
Testing	non-destructive testing acc. to EN 10246-7
	non-destructive eddy current testing acc. to EN 10246-3
Certification	3.1 acc. to EN 10204
	other certifications on request

### Cylinder tubes suitable for honing and roller burnishing

Standard	EN 10305-1/-2
Dimensions	30 x 5 mm to 300 x 25 mm
Tolerances	outside diameter acc. to EN 10305-2
Delivery conditions	+SR
Surface treatment	inside suitable for honing or skiving and roller burnishing
Certification	3.1 acc. to EN 10204
	other certifications on request

# Piston tubes and bars

# Hard chromed bars for piston rod applications

Dimensions	outside diameter 8 to 18 mm or 20 to 250 mm	
Tolerances outside diameter 8 to 18 mm acc. to f8		nm acc. to f8
	outside diameter 20 to 250 mm acc. to f7	
	other tolerances on reque	st
Materials	Material number	Steel grade (EN)
	1.5217	20MnV6
	1.1213*	Cf 53 (DIN)
	1.1303*	38MnVS6
	1.7225*	42CrMo4 +QT
	1.1191*	C45E
	other materials on reques	t
	* also induction hardened	
Surface		
- treatment	chromed	
	double chromed tubes on	request
- roughness	Ra max. 0.2 μm	
Chrome		
- thickness	min. 16 µm for tubes with	an outside diameter of 8 to 18 mm
	min. 20 µm for tubes with	an outside diameter of 20 to 250 mm
– micro hardness	min. 850 HV 0.1	
Corrosion resistance	min. 200 h in NSS rating 9	with an outside diameter of 20
	to 100 mm	
Testing	corrosion testing acc. to IS	0 9227
Certification	3.1 acc. to EN 10204	
	other certifications on req	uest



# Hard chromed piston tubes

Standard	EN 10305-1
Dimensions	16 x 3 mm to 140 x 10 mm
Tolerances	outside diameter acc. to f7
Delivery conditions	+C (BK) cold finished, hard
	+SR cold finished and stress-relief annealed
	+N normal annealed
Materials	Steel grade (EN)
	E355
	other materials on request
Surface	
- treatment	chromed
- roughness	Ra max. 0.2 µm
Chrome	
– thickness	min. 20 μm
– micro hardness	min. 850 HV 0.1
Corrosion resistance	min. 120 h in NSS rating 9
Testing	corrosion testing acc. to ISO 9227
Certification	3.1 acc. to EN 10204
	other certifications on request

# Heavy, standard wall and mechanical tubes

# Seamless hot rolled tubes for the steel construction industry

Standard	EN 10210	
Dimensions	10.2 x 1.6 mm to 711 x 100 mm	
	other dimensions on request	
Lengths	4 to 15 m	
	other lengths and fixed lengths	s on request
Materials	Material number	Steel grade (EN)
	1.0576	S355 J2H
	1.0539	S355 NH
	other materials on request	
Marking	producer, EN standard, materia	l, heat code or identification
	number	
Testing	testing on request	
Certification	3.1 acc. to EN 10204	
	other certifications on request	

### Seamless hot rolled tubes for pressure purposes

Standard (part 1)	EN 10216-1	
Dimensions	10.2 x 1.6 mm to 711 x 14.2 mm	
	other dimensions on request	
Lengths	4 to 15 m	
	other lengths and fixed lengths	on request
Materials	Material number	Steel grade (EN)
	1.0254	P235 TR 1
	1.0258	P265 TR 1
	other materials on request	
Standard (part 3)	EN 10216-3	
Dimensions	10.2 x 1.6 mm to 711 x 100 mm	
	other dimensions on request	
Lengths	4 to 15 m	
Materials	Material number	Steel grade (EN)
	1.0562	P355 N TC1 (usually in
		combination with E355 N
		and \$355 J2H)
	other materials on request	
Marking	producer, EN standard, materia	l, delivery condition,
	heat code or identification num	ber, certification mark
Certification	3.1 acc. to EN 10204, other certif	ications on request



# Seamless hot rolled tubes for the mechanical engineering industry

Standard	EN 10297-1		
Dimensions	10.2 x 1.6 mm to 711 x 100	10.2 x 1.6 mm to 711 x 100 mm	
	other dimensions on reque	est	
Lengths	4 to 15 m		
	other lengths and fixed le	ngths on request	
Delivery conditions	+AR		
	+ N		
	other delivery conditions o	n request	
Materials	Material number	Steel grade (EN)	
	1.0308	E235	
	1.0580	E355	
	1.0536	E470	
	other materials on request		
Marking	producer, EN standard, ma	terial, heat code or identification number,	
	delivery conditions		
Testing	water pressure testing or le	eak testing acc. to EN ISO 10893-1	
	other testing on request		
Certification	3.1 acc. to EN 10204		
	other certifications on requ	Jest	

# Seamless steel tubes for machining

Standard	EN 10294-1	
Dimensions	30 x 20 mm to 250 x 120 mm	1
	other dimensions on reques	st
Lengths	4 to 8 m	
	other lengths and fixed leng	gths on request
Materials	Material number	Steel grade (EN)
	1.0580	E355
	1.0592	E355 J2
	1.0599	E420 J2
	1.0536	E470
	1.0644	E590 K2
	other materials on request	
Marking	producer, EN standard, mate	erial, heat code or identification number,
	delivery conditions	
Testing	testing on request	
Certification	3.1 acc. to EN 10204	
	other certifications on reque	est
		16

# Hollow sections

# Cold formed and welded hollow sections of non-alloy and fine grain construction steels

Standard	EN 10219-1/-2	
Dimensions		
- round	26.9 x 2.6 mm to 1,21	9 x 25 mm
– square	25 x 25 x 3 mm to 40	0 x 400 x 20 mm
– rectangular	40 x 30 x 3 mm to 60	0 x 400 x 20 mm
Tolerances		
– outside diameter	round	±1 % (min. ±0.5 mm, max. ±10 mm)
	square, rectangular	±1 % (min. ±0.5 mm), if height
		and width < 100 mm
		±0,8 %, if height and width $\ge$ 100
		and ≤ 200 mm
		±0,6 %, if height and width > 200 mm
- straightness	round	0.2 % of the tube length
	square, rectangular	0.15 % of the tube length
Lengths	6 to 15 m, special len	ngths up to 18 m, single lengths up to 24 m
	other lengths and fix	ed lengths on request
Delivery conditions	electric resistance we	elding or submerged arc welding or heat
	treatment, welded se	eam on request annealed or unannealed
Materials	Material number	Steel grade (EN)
- unannealed steel	1.0039	S235 JRH
	1.0149	S275 JOH
	1.0138	S275 J2H
	1.0547	S355 JOH
	1.0576	S355 J2H
- fine grain steel	materials on request	
Marking	producer, EN standard, material, heat code or identification	
	number	
Certification		
– grade JR and J0	2.2 acc. to EN 10204	
	other certifications o	n request
– grade J2 and fine grain steel	3.1 acc. to EN 10204	
	other certifications o	n request



# Hot formed hollow sections of non-alloy and fine grain construction steels

Standard	EN 10210-1/-2	
Dimensions		
- round	21.3 x 2.3 mm to 1,219 x 100 mm	n
- square	40 x 40 x 2.6 mm to 400 x 400	x 20 mm
- rectangular	50 x 30 x 2.6 mm to 500 x 300 x 20 mm	
Delivery conditions	hot or cold formed with a following suitable heat treatment	
Materials	Material number	Steel grade (EN)
- non-alloy steel	1.0039	S235 JRH
	1.0149	S275 JOH
	1.0138	S275 J2H
	1.0547	S355 JOH
	1.0576	S355 J2H
- fine grain steel	materials on request	
Marking	producer, EN standard, material, heat code or identification number	
Testing	testing on request	
Certification		
– grade JR and J0	2.2 acc. to EN 10204	
	other certifications on request	
– grade J2 and fine grain steel	3.1 acc. to EN 10204	
	other certifications on request	

# Stainless steel and ferritic tubes

### Seamless stainless steel tubes

Standard	EN 10216-5, AD2000-W2 ASTM A 312	
Dimensions	4 x 0.5 mm to 219.1 x 12.7 mm	
	other dimensions on request	
Tolerances	acc. to EN ISO 1127 or EN 10305-1	or ASTM A 269/312/999
Lengths	4 to 7 m	
	other lengths and fixed lengths	s on request
Delivery conditions	cold finished or extruded, blan	k annealed or pickled
Materials	Material number	Steel grade (ASTM/ASME)
	1.4301/06	TP 304/304L
	1.4401/04	TP 316/316L
	1.4541	TP 321
	1.4571	TP 316Ti
	other materials on request	
Certification	3.1 or 3.2 (in case of AD2000–W2	22) acc. to EN 10204



# Welded stainless process tubes (diary tubes)

Standard	EN 10217-7	
Dimensions	4 x 1 mm to 609.6 x 4 mm	
	other dimensions on reques	t
Tolerances	acc. to EN ISO 1127	
Lengths	6 m	
	other lengths and fixed leng	gths on request
Delivery conditions	heat-treated or non-heat-t	reated, blank, pickled or polished
Materials	Material number	Steel grade (ASTM/ASME)
	1.4301/07	TP 304/304L
	1.4401/04	TP 316/316L
	1.4541	TP 321
	1.4571	TP 316Ti
	other materials on request	
Certification	3.1 acc. to EN 10204	
	other certifications on reque	est

# Square and rectangular tubes

Dimensions
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– square	10 x 10 x 1 mm
- rectangular	250 x 150 x 5 mm
	other dimensions on request
Lengths	6 m
	other lengths and fixed lengths on request
Delivery conditions	metal blank or polished grain 240
Materials	Material number
	1.4301
	1.4571
	other materials on request
Certification	2.2 or 3.1 (for raw material)
	other certifications on request

# Boiler and heat exchanger tubes

# Seamless boiler tubes

Standard	EN 10216-2		
	other standards on	request	
Dimensions	13.5 x 1.8 mm to 61	0 x 30 mm	
	other dimensions o	on request	
Tolerances	outside diameter a	nd wall thickness acc	. to EN 10216-2
Lengths	5 to 7 m, partly 10 t	to 14 m	
	other lengths and t	fixed lengths on requ	est
Materials	Steel grade (EN)	Steel grade (JIS)	Steel grade (ASTM/ASME)
	P235 GH TC 1	ST B 340	A/SA 192
	P235 GH TC 2	ST B 410	A/SA 210
	16Mo3	ST B 510	A/SA 213
	13CrMo4-5	ST BA 12	T5, T11, T12, T22, T91
	10CrMo9-10	ST BA 22	
		ST BA 24	
	other materials on	request	
Surface protection	surface protection	on request	
Marking	producer, EN stand	ard, material, heat co	de or identification
	number, if applicat	ole test category and t	tube number (depending
	on material)		
Leak testing	water pressure or e	lectromagnetic testin	g acc. to
	EN 10246-1 (SEP 192	5)	
	other testing on re	quest	
Certification	3.1 acc. to EN 10204		
	3.2 acc. to EN 10204	for alloyed boiler tub	Des



# Seamless heat exchanger tubes

#### Standard

Standard		
- metric dimensions	EN 10216-2	
- inch dimensions	ASTM A 179M–1990a, ASME SA	A 179M, ASME Section II part A
Dimensions		
- metric dimensions	10 x 1 mm to 30 x 2.5 mm	
- inch dimensions	19.05 x 1.65 mm to 25.4 x 3.4	4 mm
	other dimensions on reques	st
Lengths	lengths and fixed lengths o	n request
Materials	Steel grade (EN)	Steel grade (ASTM/ASME)
- metric dimensions	P235 GH TC 1	SA 556 C 2
- inch dimensions	P235 GH TC 1	A 179/SA 179
	other materials on request	
Marking producer, material, heat		de or identification number,
	certification mark	
Leak testing		
- metric dimensions	electromagnetic testing acc.	. to EN 10246-1 (SEP 1925)
– inch dimensions	electromagnetic testing acc. to ASME SA 450, test hole 0.8 mm	
Certification	ication 3.1 acc. to EN 10204	
	other certifications on requ	est

### U-bent tubes

Standard		
- metric dimensions	EN 10216-2	
– inch dimensions	ASME SA 556 C 2	
	ASTM A 179M 1990a, ASME SA 179M,	ASME Section II part A
Dimensions		
- metric dimensions	10 x 1 mm to 30 x 2.5 mm	
- inch dimensions	19.05 x 1.65 mm to 25.4 x 3.4 mm	
Tolerances		
- metric dimensions	acc. to EN 10305-1	
– inch dimensions	outside diameter acc. to EN 10305	-1
	wall thickness 0/+20 % (SA 556M)	
Materials	Steel grade (EN)	Steel grade (ASTM/ASME)
- metric dimensions	P235 GH TC 1	SA 556 C 2
- inch dimensions	P235 GH TC 1	A 179/SA 179
	other materials on request	
Certification	3.1 acc. to EN 10204	
	other certifications on request	
Certification		

# Accessoires

# Stainless steel flanges DIN/EN

Standard	DIN 2631, 2632, 2633, 2634, 2635
	DIN 2527
	DIN 2566
	DIN 2573, 2576
	DIN 2642
	EN 1092
Materials	Material number
	1.4541
	1.4571

# Flanges ANSI

ANSI B 16.5
Steel grade (ASTM/ASME)
TP 304L
TP 316L
welding neck, blind

# Pipe bends DIN

DIN 2605 part 1 type 3 90°
Material number
1.4307
1.4541
1.4571
welded, seamless

# Pipe bends ANSI

Standard	ANSI B16.9 ASTM A403 L.R. 90°
Materials	Steel grade (ASTM/ASME)
	TP 304L
	TP 316L
Surface treatment	seamless



### Tee connector DIN

Standard	DIN 2615 part 1
Materials	Material number
	1.4541
	1.4571
Surface treatment	seamless

### Tee connector ANSI

Standard	ANSI B16.9 ASTM A403
Materials	Steel grade (ASTM/ASME)
	TP 304L
	TP 316L
Surface treatment	seamless

### Reducers DIN

Surface treatment	welded, seamless
	1.4571
	1.4541
Materials	Material number
	DIN 2616 part 1 eccentric
Standard	DIN 2616 part 2 concentric

### Reducers ANSI

ANSI B16.9 ASTM A403
Steel grade (ASTM/ASME)
TP 304L
TP 316L
seamless

# Press fitting system PreFiS-XL

# Fitting specifications

### Materials

body: 1.0570
press ring sets: 42CrMo4 (1.7225, 1.7227)
body: 1.4404, 1.4571
press ring sets: 42CrMo4 (1.7225, 1.7227)
10.0 – 88.9 mm
10.0 – 76.1 mm
–55°C – 400°C (depending on approval)
up to 630 bar operating pressure
up to 260 bar operating pressure
body and press ring sets: zinc-nickel 6-16 µm
press ring sets: zinc-nickel 6-16 µm

### Certificates

Det Norske Veritas (DNV)	Type Approval Certification No. P-14208		
Bureau Veritas (BV)	Type Approval Certification No. 33955/A0 BV		
Lloyd's Register (LR)	Type Approval Certification No. 01/20024 (E4)		
	PED Certification No. 50223/1		
Germanischer Lloyd (GL)	Type Approval Certification No. 43 340 – 02 HH		
Deutscher TÜV	Certification No. 922/915-011087		
American Bureau of Shipping &	Type Approval Certification No. 13-HG994027-PDA		
Affiliated Companies (ABS)			
Wehrtechnische Dienststelle für	Test report WTA 91317		
Schiffe und Marinewaffen (WTD71)			



# Pipe specifications

	Pipe outside diameter	Wall thickness			
mm	inch	Pipe	Pipe	Pipe	Pipe
	(ASME/ASA pipe schedule)	mm (min.)	mm (max.) <sup>1</sup>	mm (max.) <sup>2</sup>	mm (max.) <sup>3</sup>
10.0	-	0.8	1.5	2.0	2.0
10.3	1/8"				
12.0	-				
13.7	1/4''	1.0			
15.0	-				
16.0	-				
17.1	3/8"				
17.2	-				
18.0	-				
20.0	-	1.6	2.6	4.0	3.2
21.3	1/2''				
22.0	-				
25.0	-				
26.7	3/4''				
26.9	-				
28.0	-				
30.0	-	1.6	3.6	4.5	3.6
33.4	1"				
33.7	-				
35.0	-				
38.0	-				
42.0	-	1.6	3.6	5.0	4.0
42.2	1 1/4''				
42.4	-				
48.3	1 1/2''				
54.0	-	1.8	4.0	5.0	4.0
60.3	2''	2.0	4.0	5.0	4.0
73.0	2 1/2''	2.0	4.0	5.6	4.5
76.1	-				
88.9	3"	2.0	4.0	5.6	4.5

<sup>1</sup> acc. to type approval shipbuilding for stainless steel pipes
<sup>2</sup> acc. to type approval shipbuilding for steel pipes with Rp<sub>0.2</sub> < 350 N/mm<sup>2</sup>
<sup>3</sup> acc. to type approval shipbuilding for steel pipes with Rp<sub>0.2</sub> > 350 N/mm<sup>2</sup>

Errors and technical modifications reserved.



Additonal services Our contribution to strengthen your competitiveness



Our proximity to the procurement and sales markets enables us to react to changing demands and utilize the potential of latest technological developments. We give you advice in all questions regarding material selection and the optimum adjustment of product properties. The right material will help you increase your product reliability and quality and improve your profitability by means of material and weight savings. We can also support you in the development of individual steel tube products for specific requirements.

### Partner for logistic challenges

We use modern and automated storage technologies and packaging systems and we consistently work on minimizing the processing times from order receipt until shipment of the goods. We make sure that your production process continues to run smoothly with production–synchronous delivery concepts such as Just–in–Time (JIT), Just–in–Sequence (JIS), Kanban or express deliveries and on request, we operate integrated consignments at our your production facilities. These concepts help to reduce your material in stock and free up valuable capital.



### Worldwide logistics capacities

We offer our support for complex global procurement and supply requirements. We provide you with access to leading steel tube suppliers and to a worldwide expert and distribution network. We take care of the optimum selection of the steel tube production facility and negotiate all parameters defining the basic framework and order. We only work with certified partners and we personally assure ourselves of potential suppliers' performance at the production facilities. You receive your merchandise on schedule and furnished with all necessary customs and shipping documents.

### Global account management

Companies with production facilities in more than one country benefit from our integrated global account management approach. By working with a main supplier, you not only lower your administrative and financial costs but also increase your local quality level. We provide your central purchasing department with a contact person for the negotiation of all international contractual parameters and we provide you with a competent and efficient business associate on location for all operational matters.





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