

**Pipe Class
Specification PN 10**

**Tube parts catalogue
Pipe class: ZB10C1**

- 1 **Aim** Aim of this guideline is the specification of tube parts under defined operating conditions under consideration of the requirements of guideline 97/23/EC (Pressure equipment guideline)
- 2 **Scope** Air Liquide Deutschland GmbH
- 3 **Material** 1.4541 (X 6 CrNiTi 18 10)
- 4 **Pipe class** Standard pipe class according to leaflet AD-2000
- 5 **Seal form** Form B1 according to DIN EN 1092-1
- 6 **Corrosion surcharge**
- 7 **Screws** Hexagon head screw A2-70 resp. A2-50
Hexagon head nut A2-70 resp. A2-50
- 8 **Permitted media** Argon, ethylene, dinitrogenoxide, compressed air, noble gases, natural gas, carbon dioxide, methane, oxygen, nitrogen, hydrogen and its mixtures in gaseous and liquid form, water and steam
- 9 **Operating pressure** 10 bar
- 10 **Operating temperature** from 3 K (-270°C) to 393 K (120°C)

ND	15	20	25	32	40	50	65	80	100	125	150	200	250
d _a /mm	21,3	26,9	33,7	42,4	48,3	60,3	76,1	88,9	114,3	139,7	168,3	219,1	273
s/mm	1,6	1,6	2	2	2	2	2,3	2,3	2,6	2,6	2,6	2,9	2,9

ND	300	350	400	500	600								
d _a /mm	323,9	355,6	406,4	508	610								
s/mm	2,9	3,2	3,2	4	5								

- 11 **Safety notices** Oxygen leading pipes must be cleaned of oil, grease, welding beads, processing shaving etc. inside and comply with the standard 06401 before putting into operation.

12 Additional notices

At operating temperatures of $-200\text{ }^{\circ}\text{C} \leq TS < -10\text{ }^{\circ}\text{C}$ the requirements to be met must be according to account 2000 leaflet W10 ad.

Additionally, when using LH2, the special requirements to the examination of the notched bar impact work have to be met according to notice 2000 leaflet W10, table 1. This is caused by the lowest application temperature of $-253\text{ }^{\circ}\text{C}$.

At operating temperatures of $50\text{ }^{\circ}\text{C} < TS \leq 120\text{ }^{\circ}\text{C}$ flanges of the next higher pressure level must be used.

Only comb defined seals must be provided for flange joints.

The application fields (medium, pressure, temperature) defined in the standards 4002, 4007 and 4008 must be absolutely adhered to.

Screws from A2 -are allowed to be used according to AD 2000 leaflet W10 only to $TS = -200^{\circ}\text{C}$.

Tube part	nom. width		iden- tifica- tion	dimension standard / terms of delivery	certificate
	from	to			
Flat packings	15	600	FLD	DIN EN 1514-1, Standard 06401	2.1 according to DIN EN 1024 concerning purity in accordance with Standard 06401
Fibrous packings	15	600	FAD	DIN EN 1514-1, Standard 40007	2.1 according to DIN EN 1024 concerning purity in accordance with Standard 06401
Caps	15	600	KAP	DIN 2617, DIN 2609	3.1.B according to DIN EN 10204
Comb defined seals	15	500	KAD	DIN 2617, Standard 40008	2.1 according to DIN EN 1024 concerning purity in accordance with Standard 06401
Elbow 90° R=1,5 DA, welded	15	600	RB1,5DG	DIN 2605-1, DIN 2609	3.1.C or 3.2 according to DIN EN 10204
Elbow 90° R=2,5 DA, welded	15	600	RB2,5DG	DIN 2605-1, DIN 2609	3.1.C or 3.2 according to DIN EN 10204
Reducer, eccentric, welded	20	500	RZEG	DIN 2616-1, DIN 2609	3.1.C or 3.2 according to DIN EN 10204
Pipe, welded	15	600	RG	DIN EN ISO 1127, DIN 17457	3.1.C or 3.2 according to DIN EN 10204
Reducer, concentric, welded	20	500	RZKG	DIN 2616-1, DIN 2609	3.1.C or 3.2 according to DIN EN 10204
Tee made of welded pipe	15	600	TG	DIN 2615-1, DIN 2609	3.1.C or 3.2 according to DIN EN 10204
Welding neck flanges	15	600	VF	DIN EN 1092-1, DIN EN 1092-1	3.1.C or 3.2 according to DIN EN 10204
Blanks	15	600	BSS	Uhde-Norm 3902-1, DIN 17440	3.1.C or 3.2 according to DIN EN 10204
Blind flanges	15	500	BF	DIN EN 1092-1, DIN EN 1092-1	3.1.C or 3.2 according to DIN EN 10204
Hexagon head screws	12	27	SKS	DIN ES ISO 4014, requirements according to AD 2000-leaflet W2	3.1.B according to DIN EN 10204
Hexagon nuts	12	27	SKM	DIN ES ISO 4032, DIN EN ISO 3506	3.1.B according to DIN EN 10204

10 Valid and listed documents

Standard 06401
Standard 40002
Standard 40007
Standard 40008
Standard 50030 Att. 1 - 15
AD 2000-leaflet W2
AD 2000-leaflet W10
DGRL 97/23/EG
DIN 2605-1
DIN 2609
DIN 2615-1
DIN 2616-1
DIN 2617
DIN 17440
DIN 17457
DIN EN 1092-1
DIN EN 1514-1
DIN EN 10204
DIN EN ISO 1127
DIN EN ISO 3506
DIN EN ISO 4014
DIN EN ISO 4032
Uhde-Norm 3902-1

Pipe Class
Specification PN 10

pipe parts * pipe class: ZB10C1
pipe, welded

1	Pipe class	ZB10C1
2	Part identification	RG
3	Pipe class part	pipe, welded
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN EN ISO 1127
6	Terms of delivery	DIN 17457
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	DIN 17457, section 7, across whole length
9	Ordering addition	Pipes at fixed lengths of 6 m Tolerance class D2, T3 according to DIN EN ISO 1127 Testing class 2 according to DIN 17457, AD 2000-leaflet W2 Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²) Ends closed with caps Requirements AD 2000-leaflet W2 and W10, table 1, must be met At wall thicknesses ≤ 10 mm, an inspection certificate 3.1.B is sufficient, if the requirements according to AD 2000-leaf W2, section 6.2.1, are met.

Ident- No.	nom. diameter	dimensions	weights
	ND	d _a x s	kg
22785	15	21,3 x 1,6	0,79
22786	20	26,9 x 1,6	1,01
22787	25	33, 7 x 2	1, 58
22788	32	42,4 x 2	2,02
22789	40	48,3 x 2	2,31
22790	50	60,3 x 2	2,92

Ident-No.	nom. diameter	dimensions	weights
	ND	d _a x s	kg
22791	65	76,1 x 2,3	4,25
22792	80	88,9 x 2,3	4,98
22793	100	114,3 x 2,6	7,27
22794	125	139,7 x 2,6	8,92
22795	150	168,3 x 2,6	10,80
22796	200	219,1 x 2,9	15,70
22797	250	273 x 2,9	19,60
22798	300	323,9 x 2,9	23,30
22799	350	355,6 x 3,2	28,20
22800	400	406,4 x 3,2	32,30
22801	500	508 x 4	50,40
22802	600	610 x 5	75,70

10 Valid and listed documents

AD 2000-leaflet W2
AD 2000-leaflet W10
DIN 17457
DIN EN 10204
DIN EN ISO 1127

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: ZB10C1
Elbow 90° R=1,5 DA, welded**

1	Pipe class	ZB10C1
2	Part identification	RB1,5DG
3	Pipe class part	Elbow 90° R=1,5 DA, welded
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN 2605-1
6	Terms of delivery	DIN 2609
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	DIN 2609, section 6
9	Ordering addition	Elbow 90°, type 3, with decreased utilization factor, made of welded pipe according to DIN 17457 Type d2 / k2 according to DIN 17457, table 6 Weld preparation according to DIN 2559-1 and DIN 2559-3 Testing class 2 according to DIN 17457, AD 2000-leaflet W2 Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²) Ends closed with caps Requirements AD 2000-leaflet W2 and W10, table 1, must be met At wall thicknesses ≤ 10 mm, an inspection certificate 3.1.B is sufficient, if the requirements according to AD 2000-sheet W2, section 6.2.1, are met.

Ident- No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	s _R
22803	15	21,3 x 1,6	0,03	1,60
22804	20	26,9 x 1,6	0,05	1,60
22805	25	33,7 x 2	0,09	2,00
22806	32	42,4 x 2	0,15	2,00

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	s _R
22807	40	48,3 x 2	0,21	2,00
22808	50	60,3 x 2	0,35	2,00
22809	65	76,1 x 2,3	0,63	2,30
22810	80	88,9 x 2,3	0,89	2,30
22811	100	114,3 x 2,6	1,74	2,60
22812	125	139,7 x 2,6	2,66	2,60
22813	150	168,3 x 2,6	3,88	2,60
22814	200	219,1 x 2,9	7,52	2,90
22815	250	273 x 2,9	11,73	2,90
22816	300	323,9 x 2,9	16,73	2,90
22817	350	355,6 x 3,2	23,61	3,20
22818	400	406,4 x 3,2	30,95	3,20
22819	500	508 x 4	60,33	4,00
22820	600	610 x 5	108,68	5,00

- 10 Valid and listed documents
- AD 2000-leaflet W2
 - AD 2000-leaflet W10
 - DIN 2559-1
 - DIN 2559-3
 - DIN 2605-1
 - DIN 2609
 - DIN 17457
 - DIN EN 10204

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: ZB10C1
Elbow 90° R=2,5 DA, welded**

1	Pipe class	ZB10C1
2	Part identification	RB2,5DG
3	Pipe class part	Elbow 90° R=2,5 DA, welded
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN 2605-1
6	Terms of delivery	DIN 2609
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	DIN 2609, section 6
9	Ordering addition	Elbow 90°, type 5, with decreased utilization factor, made of welded pipe according to DIN 17457 Type d2 / k2 according to DIN 17457, table 6 Weld preparation according to DIN 2559-1 and DIN 2559-3 Testing class 2 according to DIN 17457, AD 2000-leaflet W2 Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²) Ends closed with caps Requirements AD 2000-leaflet W2 and W10, table 1, must be met At wall thicknesses ≤ 10 mm, an inspection certificate 3.1.B is sufficient, if the requirements according to AD 2000-leaflet W2, section 6.2.1, are met.

Ident-Nr.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	SR
22821	15	21,3 x 1,6	0,05	1,60
22822	20	26,9 x 1,6	0,09	1,60
22823	25	33, 7 x 2	0,18	2, 00
22824	32	42,4 x 2	0,29	2,00

Ident-Nr.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	SR
22825	40	48,3 x 2	0,39	2,00
22826	50	60,3 x 2	0,62	2,00
22827	65	76,1 x 2, 3	1,14	2, 30
22828	80	88,9 x 2,3	1,60	2,30
22829	100	114,3 x 2,6	3,08	2,60
22830	125	139,7 x 2,6	4,62	2,60
22831	150	168,3 x 2,6	6,62	2,60
22832	200	219,1 x 2,9	12,58	2,90
22833	250	273 x 2,9	20,01	2,90
22834	300	323,9 x 2,9	28,37	2,90
22835	350	355,6 x 3,2	37,65	3,20
22836	400	406,4 x 3,2	49,22	3,20
22837	500	508 x 4	98,57	4,00
22838	600	610 x 5	181,34	5,00

10 Valid and listed documents

AD 2000-leaflet W2
 AD 2000-leaflet W10
 DIN 2559-1
 DIN 2559-3
 DIN 2605-1
 DIN 2609
 DIN 17457
 DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
Tee made of welded pipe**

1	Pipe class	ZB10C1
2	Part identification	TG
3	Pipe class part	Tee made of welded pipe
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN 2615-1
6	Terms of delivery	DIN 2609
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	DIN 2609, section 6
9	Ordering addition	Tee with decreased utilization factor, made of welded pipe according to DIN 17457 Type d2 / k2 according to DIN 17457, table 6 Weld preparation according to DIN 2559-1 and DIN 2559-3 Testing class 2 according to DIN 17457, AD 2000-sheet W2 Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²) Ends closed with caps Requirements AD 2000-sheet W2 and W10, table 1, must be met At wall thicknesses ≤ 10 mm, an inspection certificate 3.1.B is sufficient, if the requirements according to AD 2000-sheet W2, section 6.2.1, are met.

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Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	ND ₁	ND ₂	d ₁ x s ₁	d ₂ x s ₂	kg	[°] R ₁	[°] R ₂
22917	15	15	21,3 x 1,6	21,3 x 1,6	0,05	1,60	1,60
22918	20	15	26,9 x 1,6	21,3 x 1,6	0,07	1,60	1,60
22919	20	20	26,9 x 1,6	26,9 x 1,6	0,07	1,60	1,60

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	*R ₁	*R ₂
22920	25	15	33,7 x 2	21,3 x 1,6	0,14	2,00	1,60
22921	25	20	33,7 x 2	26,9 x 1,6	0,15	2,00	1,60
22922	25	25	33,7 x 2	33,7 x 2	0,15	2,00	2,00
22923	32	15	42,4 x 2	21,3 x 1,6	0,22	2,00	1,60
22924	32	20	42,4 x 2	26,9 x 1,6	0,23	2,00	1,60
22925	32	25	42,4 x 2	33,7 x 2	0,24	2,00	2,00
22926	32	32	42,4 x 2	42,4 x 2	0,25	2,00	2,00
22927	40	20	48,3 x 2	26,9 x 1,6	0,31	2,00	1,60
22928	40	25	48,3 x 2	33,7 x 2	0,33	2,00	2,00
22929	40	32	48,3 x 2	42,4 x 2	0,34	2,00	2,00
22930	40	40	48,3 x 2	48,3 x 2	0,34	2,00	2,00
22931	50	20	60,3 x 2	26,9 x 1,6	0,41	2,00	1,60
22932	50	25	60,3 x 2	33,7 x 2	0,43	2,00	2,00
22933	50	32	60,3 x 2	42,4 x 2	0,45	2,00	2,00
22934	50	40	60,3 x 2	48,3 x 2	0,46	2,00	2,00
22935	50	50	60,3 x 2	60,3 x 2	0,47	2,00	2,00
22936	65	25	76,1 x 2,3	33,7 x 2	0,71	2,30	2,00
22937	65	32	76,1 x 2,3	42,4 x 2	0,73	2,30	2,00
22938	65	40	76,1 x 2,3	48,3 x 2	0,75	2,30	2,00
22939	65	50	76,1 x 2,3	60,3 x 2	0,76	2,30	2,00
22940	65	65	76,1 x 2,3	76,1 x 2,3	0,81	2,30	2,30
22941	80	32	88,9 x 2,3	42,4 x 2	0,96	2,30	2,00
22942	80	40	88,9 x 2,3	48,3 x 2	0,97	2,30	2,00
22943	80	50	88,9 x 2,3	60,3 x 2	0,99	2,30	2,00
22944	80	65	88,9 x 2,3	76,1 x 2,3	1,05	2,30	2,30
22945	80	80	88,9 x 2,3	88,9 x 2,3	1,06	2,30	2,30

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	°R1	°R2
22946	100	40	114,3 x 2,6	48,3 x 2	1,67	2,60	2,00
22947	100	50	114,3 x 2,6	60,3 x 2	1,70	2,60	2,00
22948	100	65	114,3 x 2,6	76,1 x 2,3	1,77	2,60	2,30
22949	100	80	114,3 x 2,6	88,9 x 2,3	1,79	2,60	2,30
22950	100	100	114,3 x 2,6	114,3 x 2,6	1,88	2,60	2,60
22951	125	50	139,7 x 2,6	60,3 x 2	2,43	2,60	2,00
22952	125	65	139,7 x 2,6	76,1 x 2,3	2,51	2,60	2,30
22953	125	80	139,7 x 2,6	88,9 x 2,3	2,54	2,60	2,30
22954	125	100	139,7 x 2,6	114,3 x 2,6	2,65	2,60	2,60
22955	125	125	139,7 x 2,6	139,7 x 2,6	2,70	2,60	2,60
22956	150	65	168,3 x 2,6	76,1 x 2,3	3,44	2,60	2,30
22957	150	80	168,3 x 2,6	88,9 x 2,3	3,49	2,60	2,30
22958	150	100	168,3 x 2,6	114,3 x 2,6	3,62	2,60	2,60
22959	150	125	168,3 x 2,6	139,7 x 2,6	3,69	2,60	2,60
22960	150	150	168,3 x 2,6	168,3 x 2,6	3,72	2,60	2,60
22961	200	80	219,1 x 2,9	88,9 x 2,3	6,13	2,90	2,30
22962	200	100	219,1 x 2,9	114,3 x 2,6	6,31	2,90	2,60
22963	200	125	219,1 x 2,9	139,7 x 2,6	6,41	2,90	2,60
22964	200	150	219,1 x 2,9	168,3 x 2,6	6,50	2,90	2,60
22965	200	200	219,1 x 4,5	219,1 x 4,5	10,10	2,90	2,90
22966	250	100	273 x 2,9	114,3 x 2,6	9,40	2,90	2,60
22967	250	125	273 x 6,3	139,7 x 4	20,08	2,90	2,60
22968	250	150	273 x 5	168,3 x 4	16,27	2,90	2,60
22969	250	200	273 x 5	219,1 x 4,5	16,70	2,90	2,90
22970	250	250	273 x 5	273 x 5	17,14	2,90	2,90

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	^a R ₁	^a R ₂
22971	300	125	323,9 x 7,1	139,7 x 4	30,60	2,90	2,60
22972	300	150	323,9 x 5,6	168,3 x 4	24,92	2,90	2,60
22973	300	200	323,9 x 5,6	219,1 x 4,5	25,55	2,90	2,90
22974	300	250	323,9 x 5,6	273 x 5	26,21	2,90	2,90
22975	300	300	323,9 x 5,6	323,9 x 5,6	26,82	2,90	2,90
22976	350	150	355,6 x 5,6	168,3 x 4	29,53	3,20	2,60
22977	350	200	355,6 x 5,6	219,1 x 4,5	30,30	3,20	2,90
22978	350	250	355,6 x 5,6	273 x 5	31,04	3,20	2,90
22979	350	300	355,6 x 5,6	323,9 x 5,6	31,84	3,20	2,90
22980	350	350	355,6 x 5,6	355,6 x 5,6	31,90	3,20	3,20
22981	400	150	406,4 x 6,3	168,3 x 4	40,90	3,20	2,60
22982	400	200	406,4 x 6,3	219,1 x 4,5	41,83	3,20	2,90
22983	400	250	406,4 x 6,3	273 x 5	42,85	3,20	2,90
22984	400	300	406,4 x 6,3	323,9 x 5,6	43,89	3,20	2,90
22985	400	350	406,4 x 6,3	355,6 x 5,6	44,10	3,20	3,20
22986	400	400	406,4 x 6,3	406,4 x 6,3	44,27	3,20	3,20
22987	500	200	508 x 6,3	219,1 x 4,5	65,40	4,00	2,90
22988	500	250	508 x 6,3	273 x 5	66,86	4,00	2,90
22989	500	300	508 x 6,3	323,9 x 5,6	68,50	4,00	2,90
22990	500	350	508 x 11	355,6 x 8	116,80	4,00	3,20
22991	500	400	508 x 11	406,4 x 8,8	117,80	4,00	3,20
22992	500	500	508 x 11	508 x 11	121,80	4,00	4,00
22993	600	250	610 x 12,5	273 x 6,3	171,97	5,00	2,90
22994	600	300	610 x 12,5	323,9 x 7,1	174,80	5,00	2,90
22995	600	350	610 x 12,5	355,6 x 8	177,45	5,00	3,20
22996	600	400	610 x 12,5	406,4 x 8,8	179,33	5,00	3,20
22997	600	500	610 x 12,5	508 x 11	185,96	5,00	4,00
22998	600	600	610 x 12,5	610 x 12,5	185,32	5,00	5,00

10 Valid and listed documents

AD 2000-leaflet W2
AD 2000-leaflet W10
DIN 2559-1
DIN 2559-3
DIN 2615-1
DIN 2609
DIN 17457
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
Reducer, concentric, welded**

1	Pipe class	ZB10C1
2	Part identification	RZKG
3	Pipe class part	Reducer, concentric, welded
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN 2616-1
6	Terms of delivery	DIN 2609
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	DIN 2609, section 6
9	Ordering addition	Reducer, concentric, with decreased utilization factor, made of welded pipe according to DIN 17457 Type d2 / k2 according to DIN 17457, table 6 Weld preparation according to DIN 2559-1 and DIN 2559-3 Testing class 2 according to DIN 17457, AD 2000-leaflet W2 Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²) Ends closed with caps Requirements AD 2000-sheet W2 and W10, must be met At wall thicknesses ≤ 10 mm, an inspection certificate 3.1.B is sufficient, if the requirements according to AD 2000-sheet W2, section 6.2.1, are met.

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Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	ND ₁	ND ₂	d ₁ x s ₁	d ₂ x s ₂	kg	^s R1	^s R2
22721	20	15	26,9 x 1,6	21,3 x 1,6	0,03	1,60	1,60
22722	25	15	33,7 x 2	21,3 x 1,6	0,06	2,00	1,60
22723	25	20	33,7 x 2	26,9 x 1,6	0,07	2,00	1,60

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	^s R ₁	^s R ₂
22724	32	15	42,4 x 2	21,3 x 1,6	0,75	2,00	1,60
22725	32	20	42,4 x 2	26,9 x 1,6	0,08	2,00	1,60
22726	32	25	42,4 x 2	33,7 x 2	0,09	2,00	2,00
22727	40	20	48,3 x 2	26,9 x 1,6	0,12	2,00	1,60
22728	40	25	48,3 x 2	33,7 x 2	0,13	2,00	2,00
22729	40	32	48,3 x 2	42,4 x 2	0,14	2,00	2,00
22730	50	20	60,3 x 2	26,9 x 1,6	0,16	2,00	1,60
22731	50	25	60,3 x 2	33,7 x 2	0,17	2,00	2,00
22732	50	32	60,3 x 2	42,4 x 2	0,19	2,00	2,00
22733	50	40	60,3 x 2	48,3 x 2	0,20	2,00	2,00
22734	65	25	76,1 x 2,3	33,7 x 2	0,27	2,30	2,00
22735	65	32	76,1 x 2,3	42,4 x 2	0,30	2,30	2,00
22736	65	40	76,1 x 2,3	48,3 x 2	0,31	2,30	2,00
22737	65	50	76,1 x 2,3	60,3 x 2	0,34	2,30	2,00
22738	80	32	88,9 x 2,3	42,4 x 2	0,33	2,30	2,00
22739	80	40	88,9 x 2,3	48,3 x 2	0,35	2,30	2,00
22740	80	50	88,9 x 2,3	60,3 x 2	0,38	2,30	2,00
22741	80	65	88,9 x 2,3	76,1 x 2,3	0,42	2,30	2,30
22742	100	40	114,3 x 2,6	48,3 x 2	0,52	2,60	2,00
22743	100	50	114,3 x 2,6	60,3 x 2	0,55	2,60	2,00
22744	100	65	114,3 x 2,6	76,1 x 2,3	0,61	2,60	2,30
22745	100	80	114,3 x 2,6	88,9 x 2,3	0,65	2,60	2,30
22746	125	50	139,7 x 2,6	60,3 x 2	0,81	2,60	2,00
22747	125	65	139,7 x 2,6	76,1 x 2,3	0,87	2,60	2,30
22748	125	80	139,7 x 2,6	88,9 x 2,3	0,93	2,60	2,30
22449	125	100	139,7 x 2,6	114,3 x 2,6	1,03	2,60	2,60

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	*R ₁	*R ₂
22750	150	65	168,3 x 2,6	76,1 x 2,3	1,10	2,60	2,30
22751	150	80	168,3 x 2,6	88,9 x 2,3	1,15	2,60	2,30
22752	150	100	168,3 x 2,6	114,3 x 2,6	1,26	2,60	2,60
22753	150	125	168,3 x 2,6	139,7 x 2,6	1,31	2,60	2,60
22754	200	80	219,1 x 2,9	88,9 x 2,3	1,67	2,90	2,30
22755	200	100	219,1 x 2,9	114,3 x 2,6	1,81	2,90	2,60
22756	200	125	219,1 x 2,9	139,7 x 2,6	1,95	2,90	2,60
22757	200	150	219,1 x 2,9	168,3 x 2,6	2,10	2,90	2,60
22758	250	100	273 x 2,9	114,3 x 2,6	2,47	2,90	2,60
22759	250	125	273 x 2,9	139,7 x 2,6	2,63	2,90	2,60
22760	250	150	273 x 2,9	168,3 x 2,6	2,82	2,90	2,60
22761	250	200	273 x 2,9	219,1 x 2,9	3,14	2,90	2,90
22762	300	125	323,9 x 2,9	139,7 x 2,6	3,38	2,90	2,60
22763	300	150	323,9 x 2,9	168,3 x 2,6	3,59	2,90	2,60
22764	300	200	323,9 x 2,9	219,1 x 2,9	3,96	2,90	2,90
22765	300	250	323,9 x 2,9	273 x 2,9	4,36	2,90	2,90
22766	350	150	355,6 x 3,2	168,3 x 2,6	6,85	3,20	2,60
22767	350	200	355,6 x 3,2	219,1 x 2,9	7,52	3,20	2,90
22768	350	250	355,6 x 3,2	273 x 2,9	8,23	3,20	2,90
22769	350	300	355,6 x 3,2	323,9 x 2,9	8,90	3,20	2,90
22770	400	150	406,4 x 3,2	168,3 x 2,6	8,10	3,20	2,60
22771	400	200	406,4 x 3,2	219,1 x 2,9	8,81	3,20	2,90
22772	400	250	406,4 x 3,2	273 x 2,9	9,58	3,20	2,90
22773	400	300	406,4 x 3,2	323,9 x 2,9	10,30	3,20	2,90
22774	400	350	406,4 x 3,2	355,6 x 3,2	10,75	3,20	3,20

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	^s R ₁	^s R ₂
22775	500	200	508 x 4	219,1 x 2,9	18,32	4,00	2,90
22776	500	250	508 x 4	273 x 2,9	19,70	4,00	2,90
22777	500	300	508 x 4	323,9 x 2,9	21,00	4,00	2,90
22778	500	350	508 x 4	355,6 x 3,2	21,78	4,00	3,20
22779	500	400	508 x 4	406,4 x 3,2	23,10	4,00	3,20
22780	600	250	610 x 5	273 x 2,9	27,83	5,00	2,90
22781	600	300	610 x 5	323,9 x 2,9	29,45	5,00	2,90
22782	600	350	610 x 5	355,6 x 3,2	30,45	5,00	3,20
22783	600	400	610 x 5	406,4 x 3,2	32,10	5,00	3,20
22784	600	500	610 x 5	508 x 4	35,27	5,00	4,00

10 Valid and listed documents

AD 2000-leaflet W2
 AD 2000-leaflet W10
 DIN 2559-1
 DIN 2559-3
 DIN 2616-1
 DIN 2609
 DIN 17457
 DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
Reducer, eccentric, welded**

1	Pipe class	ZB10C1
2	Part identification	RZEG
3	Pipe class part	Reducer, eccentric, welded
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN 2616-1
6	Terms of delivery	DIN 2609
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	DIN 2609, section 6
9	Ordering addition	Reducer, eccentric, with decreased utilization factor, made of welded pipe according to DIN 17457 Type d2 / k2 according to DIN 17457, table 6 Weld preparation according to DIN 2559-1 and DIN 2559-3 Testing class 2 according to DIN 17457, AD 2000-leaflet W2 Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²) Ends closed with caps Requirements AD 2000-sheet W2 and W10, table 1, must be met At wall thicknesses <= 10 mm, an inspection certificate 3.1.B is sufficient, if the requirements according to AD 2000-sheet W2, section 6.2.1, are met.

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Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	*R1	*R2
22646	20	15	26,9 x 1,6	21,3 x 1,6	0,03	1,60	1,60
22647	25	15	33,7 x 2	21,3 x 1,6	0,06	2,00	1,60
22648	25	20	33,7 x 2	26,9 x 1,6	0,07	2,00	1,60

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	*R ₁	*R ₂
22649	32	15	42,4 x 2	21,3 x 1,6	0,08	2,00	1,60
22650	32	20	42,4 x 2	26,9 x 1,6	0,08	2,00	1,60
22651	32	25	42,4 x 2	33,7 x 2	0,09	2,00	2,00
22652	40	20	48,3 x 2	26,9 x 1,6	0,12	2,00	1,60
22653	40	25	48,3 x 2	33,7 x 2	0,13	2,00	2,00
22654	40	32	48,3 x 2	42,4 x 2	0,14	2,00	2,00
22655	50	20	60,3 x 2	26,9 x 1,6	0,16	2,00	1,60
22656	50	25	60,3 x 2	33,7 x 2	0,17	2,00	2,00
22657	50	32	60,3 x 2	42,4 x 2	0,19	2,00	2,00
22658	50	40	60,3 x 2	48,3 x 2	0,20	2,00	2,00
22659	65	25	76,1 x 2,3	33,7 x 2	0,27	2,30	2,00
22660	65	32	76,1 x 2,3	42,4 x 2	0,30	2,30	2,00
22661	65	40	76,1 x 2,3	48,3 x 2	0,31	2,30	2,00
22662	65	50	76,1 x 2,3	60,3 x 2	0,34	2,30	2,00
22663	80	32	88,9 x 2,3	42,4 x 2	0,33	2,30	2,00
22664	80	40	88,9 x 2,3	48,3 x 2	0,35	2,30	2,00
22665	80	50	88,9 x 2,3	60,3 x 2	0,38	2,30	2,00
22666	80	65	88,9 x 2,3	76,1 x 2,3	0,42	2,30	2,30
22667	100	40	114,3 x 2,6	48,3 x 2	0,52	2,60	2,00
22668	100	50	114,3 x 2,6	60,3 x 2	0,55	2,60	2,00
22669	100	65	114,3 x 2,6	76,1 x 2,3	0,61	2,60	2,30
22670	100	80	114,3 x 2,6	88,9 x 2,3	0,65	2,60	2,30
22671	125	50	139,7 x 2,6	60,3 x 2	0,81	2,60	2,00
22672	125	65	139,7 x 2,6	76,1 x 2,3	0,87	2,60	2,30
22673	125	80	139,7 x 2,6	88,9 x 2,3	0,93	2,60	2,30
22674	125	100	139,7 x 2,6	114,3 x 2,6	1,03	2,60	2,60

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	*R ₁	*R ₂
22675	150	65	168,3 x 2,6	76,1 x 2,3	1,10	2,60	2,30
22676	150	80	168,3 x 2,6	88,9 x 2,3	1,15	2,60	2,30
22677	150	100	168,3 x 2,6	114,3 x 2,6	1,26	2,60	2,60
22678	150	125	168,3 x 2,6	139,7 x 2,6	1,31	2,60	2,60
22679	200	80	219,1 x 2,9	88,9 x 2,3	1,67	2,90	2,30
22680	200	100	219,1 x 2,9	114,3 x 2,6	1,81	2,90	2,60
22681	200	125	219,1 x 2,9	139,7 x 2,6	1,95	2,90	2,60
22682	200	150	219,1 x 2,9	168,3 x 2,6	2,10	2,90	2,60
22683	250	100	273 x 2,9	114,3 x 2,6	2,45	2,90	2,60
22684	250	125	273 x 2,9	139,7 x 2,6	2,63	2,90	2,60
22685	250	150	273 x 2,9	168,3 x 2,6	2,82	2,90	2,60
22686	250	200	273 x 2,9	219,1 x 2,9	3,14	2,90	2,90
22687	300	125	323,9 x 2,9	139,7 x 2,6	3,38	2,90	2,60
22688	300	150	323,9 x 2,9	168,3 x 2,6	3,59	2,90	2,60
22689	300	200	323,9 x 2,9	219,1 x 2,9	3,96	2,90	2,90
22690	300	250	323,9 x 2,9	273 x 2,9	4,36	2,90	2,90
22691	350	150	355,6 x 3,2	168,3 x 2,6	6,85	3,20	2,60
22692	350	200	355,6 x 3,2	219,1 x 2,9	7,52	3,20	2,90
22693	350	250	355,6 x 3,2	273 x 2,9	8,23	3,20	2,90
22694	350	300	355,6 x 3,2	323,9 x 2,9	8,90	3,20	2,90
22695	400	150	406,4 x 3,2	168,3 x 2,6	8,10	3,20	2,60
22696	400	200	406,4 x 3,2	219,1 x 2,9	8,81	3,20	2,90
22697	400	250	406,4 x 3,2	273 x 2,9	9,58	3,20	2,90
22709	400	300	406,4 x 3,2	323,9 x 2,9	10,30	3,20	2,90
22710	400	350	406,4 x 3,2	355,6 x 3,2	10,75	3,20	3,20

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	DN ₁	DN ₂	d ₁ x s ₁	d ₂ x s ₂	kg	^s R ₁	^s R ₂
22711	500	200	508 x 4	219,1 x 2,9	18,32	4,00	2,90
22712	500	250	508 x 4	273 x 2,9	19,70	4,00	2,90
22713	500	300	508 x 4	323,9 x 2,9	21,00	4,00	2,90
22714	500	350	508 x 4	355,6 x 3,2	21,78	4,00	3,20
22715	500	400	508 x 4	406,4 x 3,2	23,10	4,00	3,20
22716	600	250	610 x 5	273 x 2,9	27,83	5,00	2,90
22717	600	300	610 x 5	323,9 x 2,9	29,45	5,00	2,90
22718	600	350	610 x 5	355,6 x 3,2	30,45	5,00	3,20
22719	600	400	610 x 5	406,4 x 3,2	32,10	5,00	3,20
22720	600	500	610 x 5	508 x 4	35,27	5,00	4,00

10 Valid and listed documents

AD 2000-leaflet W2
 AD 2000-leaflet W10
 DIN 2559-1
 DIN 2559-3
 DIN 2616-1
 DIN 2609
 DIN 17457
 DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
Caps**

1	Pipe class	ZB10C1
2	Part identification	KAP
3	Pipe class part	Caps
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN 2617
6	Terms of delivery	DIN 2609
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	DIN 2609, section 6
9	Ordering addition	Cap to weld in, made of sheet steel, forging or bar stock Weld preparation according to DIN 2559-1 and DIN 2559-3 Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²) Ends closed with caps Requirements AD 2000-sheet W2 and W10, table 1, must be met

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	SR
22628	15	21,3 x 1,6	0,02	1,60
22629	20	26,9 x 1,6	0,03	1,60
22630	25	33,7 x 2	0,06	2,00
22631	32	42,4 x 2	0,08	2,00
22632	40	48,3 x 2	0,10	2,00
22633	50	60,3 x 2	0,13	2,00
22634	65	76,1 x 2,3	0,18	2,30
22635	80	88,9 x 2,3	0,29	2,30

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	SR
22636	100	114,3 x 2,6	0,53	2,60
22637	125	139,7 x 2,6	0,77	2,60
22638	150	168,3 x 2,6	1,10	2,60
22639	200	219,1 x 2,9	1,88	2,90
22640	250	273 x 2,9	2,93	2,90
22641	300	323,9 x 2,9	4,17	2,90
22642	350	355,6 x 3,2	5,48	3,20
22643	400	406,4 x 3,2	6,84	3,20
22644	500	508 x 4	13,69	4,00
22645	600	610 x 5	24,05	5,00

10 Valid and listed documents

AD 2000-leaflet W2
AD 2000-leaflet W10
DIN 2559-1
DIN 2609
DIN 2617
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
Blanks**

1	Pipe class	ZB10C1
2	Part identification	BSS
3	Pipe class part	Blanks
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	Uhde- Norm 3902-1
6	Terms of delivery	DIN 17440
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	
9	Ordering addition	Two-part figure-eight blank for DIN-flange with flat seal, made of hot-rolled flat steel according to DIN EN 10029, class A Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²) Packed in PE-bags, diameter 200 and above shrink-wrapped in PE-foil Requirements AD 2000-sheet W2 and W10, table 1, must be met At wall thicknesses <= 30 mm, an inspection certificate 3.1.B is sufficient

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Ident-No.	nom. width	diameter	diameter	thickness	weights
	ND	d ₁	d ₂	s ₁	kg
22567	15	40,00	20,00	10	0,00
22568	20	60,00	25,00	10	0,00
22569	25	70,00	30,00	10	0,00
22570	32	81,00	40,00	10	0,00
22571	40	91,00	45,00	10	0,00
22572	50	106,00	57,00	10	0,00
22573	65	126,00	73,00	10	0,00

Ident-No.	nom. width	diameter	diameter	thickness	weights
	ND	d ₁	d ₂	s ₁	kg
22574	80	141,00	85,00	10	0,00
22575	100	161,00	110,00	10	0,00
22576	125	191,00	135,00	10	0,00
22577	150	217,00	160,00	12	0,00
22578	200	272,00	210,00	12	0,00
22579	250	327,00	262,00	15	0,00
22580	300	377,00	312,00	20	0,00
22581	350	437,00	342,00	20	0,00
22582	400	488,00	390,00	20	0,00
22583	500	593,00	498,00	25	0,00
22584	600	694,00	600,00	30	0,00

10 Valid and listed documents

AD 2000-leaflet W2
AD 2000-leaflet W10
DIN 17440
DIN EN 10029
DIN EN 10204
Uhde-Norm 3902-1

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
Welding neck flanges**

1	Pipe class	ZB10C1
2	Part identification	VF
3	Pipe class part	Welding neck flanges
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN EN 1092-1
6	Terms of delivery	DIN EN 1092-1
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	AD 2000-leaflet W9, section 5
9	Ordering addition	Forged welding neck flanges with flat seal (shape B1)

free of oil, grease and slip additive
(max.: 300 mg/m²)

Ends closed with caps

Requirements AD 2000-Merkblatt W2, W9 and W10,
table 1, must be met

At forged pieces with wall thicknesses ≤ 250 mm as
input stock, an inspection certificate 3.1.B is sufficient
according to AD 2000-leaf W2, table 6.2

Ident-No.	nom. diameter	dimensions	weights
	ND	ND x ØA	kg
22999	15	15 x 21, 3	1, 00
23000	20	20 x 26,9	1,00
23001	25	25 x 33, 7	1, 00
23002	32	32 x 42,4	2,00
23003	40	40 x 48,3	2,00
23004	50	50 x 60,3	3,00

Ident-No.	nom. diameter	dimensions	weights
	ND	ND x ØA	kg
23005	65	65 x 76,1	3,50
23006	80	80 x 88,9	4,00
23007	100	100 x 114,3	4,50
23008	125	125 x 139,7	6,50
23009	150	150 x 168,3	7,50
23010	200	200 x 219,1	11, 50
23011	250	250 x 273	15,50
23012	300	300 x 323,9	18,00
23013	350	350 x 355,6	24,50
23014	400	400 x 406,4	29,50
23015	500	500 x 508	39,50
23016	600	600 x 610	56,00

10 Valid and listed documents

AD 2000-leaflet W2
AD 2000-leaflet W9
AD 2000- leaflet W10
DIN EN 1092-1
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
blind flanges**

1	Pipe class	ZB10C1
2	Part identification	BF
3	Pipe class part	Blind flanges
4	Material	1.4541 (X 6 CrNiTi 18 10)
5	Dimension standard	DIN EN 1092-1
6	Terms of delivery	DIN EN 1092-1
7	Certificate	3.1.C or 3.2 according to DIN EN 10204
8	Identification	AD 2000-sheet W9, section 5
9	Ordering addition	blind flanges with flat seal (shape A) free of oil, grease and slip additive (max.: 300 mg/m²) Packed in PE-bags, diameter 200 and above shrink- wrapped in PE-foil Requirements AD 2000-Merkblatt W2, W9 and W10, must be met At forged pieces with wall thicknesses <= 250 mm as input stock, an inspection certificate 3.1.B is sufficient according to AD 2000-leaf W2, table 6.2

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Ident-No.	nom. diameter	weights
	ND	kg
22550	15	1, 00
22551	20	1, 00
22552	25	1, 50
22553	32	2,00
22554	40	2,50
22555	50	3,00

Ident-No.	nom. diameter	weights
	ND	kg
22556	65	3,50
22557	80	4,50
22558	100	5,50
22559	125	8,00
22560	150	10,50
22561	200	16,50
22562	250	24,00
22563	300	31,00
22564	350	39,50
22565	400	49,50
22566	500	75,50

Valid and listed documents

AD 2000-leaflet W2
AD 2000-leaflet W9
AD 2000-leaflet W10
DIN EN 1092-1
DIN EN 10204

Pipe Class Specification PN 10

**pipe parts * pipe class: ZB10C1
Hexagon head screws**

1	Pipe class	ZB10C1
2	Part identification	SKS
3	Pipe class part	Hexagon head screws
4	Material	A2-70 resp. A2-50
5	Dimension standard	DIN EN ISO 4014
6	Terms of delivery	DIN EN ISO 3506
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	DIN EN ISO 3506-1, section 3
9	Ordering addition	Product class A (minimum value from thread $\leq$ M24 or nominal length $>$ 10d or 150 mm) Product class B (minimum value from thread $>$ M24 or nominal length $>$ 10d or 150 mm) A2/A4-50 at diameters $\leq$ M24 A2/A4-70 at diameters $>$ M24 Requirements AD 2000-leaflet W2 and W10, table 1, must be met

Ident-No.	thread x length	weights
		kg
22872	M 12 x 55	0,06
22873	M 12 x 70	0,07
22874	M 16 x 55	0,12
22875	M 16 x 60	0,12
22876	M 16 x 65	0,13
22877	M 16 x 70	0,14

Ident-No.	thread x length	weights
		kg
22878	M 16 x 80	0,16
22879	M 16 x 90	0,17
22880	M 20 x 80	0,26
22881	M 20 x 90	0,27
22882	M 20 x 100	0,30
22883	M 24 x 90	0,43
22884	M 24 x 120	0,54
22885	M 27 x 90	0,56
22886	M 27 x 130	0, 72

Valid and listed documents

AD 2000-leaflet W2
AD 2000-leaflet W10
DIN EN ISO 3506
DIN EN ISO 3506-1
DIN EN ISO 4014
DIN EN 10204

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: ZB10C1
Hexagon nuts**

1	Pipe class	ZB10C1
2	Part identification	SKM
3	Pipe class part	Hexagon nuts
4	Material	A2-70 resp. A2-50
5	Dimension standard	DIN EN ISO 4032
6	Terms of delivery	DIN EN ISO 3506
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	DIN EN ISO 3506-2, section 3
9	Ordering addition	Product class A (≤ M16) Product class B (> M16) A2/A4-70 at diameters ≤ M24 A2/A4-50 at diameters > M24 Requirements AD 2000-leaflet W2 and W10, table 1, must be met

Ident-No.	thread	weights
		kg
22857	M 12	0,02
22858	M 16	0,03
22859	M 20	0,06
22860	M 24	0,11
22861	M 27	0,17

10 Valid and listed documents

AD 2000-leaflet W2
 AD 2000-leaflet W10
 DIN EN ISO 3506
 DIN EN ISO 3506-2
 DIN EN ISO 4032
 DIN EN 10204

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: ZB10C1
Comb defined seals**

1	Pipe class	ZB10C1
2	Part identification	KAD
3	Pipe class part	Comb defined seals
4	Material	1.4541 (X 6 CrNiTi 18 10 - Graphite)
5	Dimension standard	
6	Terms of delivery	Standard 40008
7	Certificate	2.1 according to DIN EN 10204 concerning purity in accordance with Standard 06401
8	Identification	According to Standard 40008
9	Ordering addition	Qualification certificate according to standard 40008

Ident-No.	nom. width	diameter	diameter	thickness	weights
	ND	d3	d2	d1	s
22610	15	51,00	42,00	26,00	5,00
22611	20	61,00	47,00	31,00	5,00
22612	25	71,00	52,00	36,00	5,00
22613	32	82,00	62,00	46,00	5,00
22614	40	92,00	69,00	53,00	5,00
22615	50	107,00	81,00	65,00	5,00
22616	65	127,00	100,00	81,00	5,00
22617	80	142,00	115,00	95,00	5,00
22618	100	162,00	138,00	118,00	5,00
22619	125	192,00	162,00	142,00	5,00
22620	150	217,00	190,00	170,00	5,00
22621	200	272,00	240,00	220,00	5,00
22622	250	327,00	290,00	270,00	5,00

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Ident-No.	nom. width	diameter	diameter	thickness	weights
	ND	d ₃	d ₂	d ₁	s
22623	300	377,00	340,00	320,00	5,00
22624	350	437,00	395,00	375,00	5,00
22625	400	489,00	450,00	426,00	5,00
22626	500	594,00	560,00	530,00	5,00
22627	600	695,00	664,00	630,00	5,00

10 Valid and listed documents

Standard 06401
Standard 40008
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
flat packings**

1	Pipe class	ZB10C1
2	Part identification	FLD
3	Pipe class part	Flat packings
4	Material	Graphite with CrNi-insert
5	Dimension standard	DIN EN 1514-1
6	Terms of delivery	Standard 40002
7	Certificate	2.1 according to DIN EN 10204 concerning purity in accordance with standard 06401
8	Identification	According to standard 40002
9	Ordering addition	Type according to standard 40002

Ident-No.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
22706	15	50,00	22,00	2,00
22707	20	60,00	28,00	2,00
22708	25	70,00	35,00	2,00
22595	32	82,00	43,00	2,00
22596	40	92,00	49,00	2,00
22597	50	107,00	61,00	2,00
22598	65	127,00	77,00	2,00
22599	80	142,00	90,00	2,00
22600	100	162,00	115,00	2,00
22601	125	192, 00	141,00	2, 00
22602	150	218,00	169,00	2,00
22603	200	273,00	220,00	2,00
22604	250	328,00	274,00	2,00

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Ident-No.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
22605	300	378,00	325,00	2,00
22606	350	435,00	368,00	2,00
22607	400	490,00	420,00	2,00
22608	500	595,00	520,00	2,00
22609	600	695,00	620,00	2,00

10 Valid and listed documents

Standard 06401
Standard 40002
DIN EN 1514-1
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: ZB10C1
fibrous packings**

1	Pipe class	ZB10C1
2	Part identification	FAD
3	Pipe class part	fibrous packings
4	Material	asbestos-free laminate made of aramide fiber, bound with NBR
5	Dimension standard	DIN EN 1514-1
6	Terms of delivery	Standard 40007
7	Certificate	2.1 according to DIN EN 10204 concerning purity in accordance with standard 06401
8	Identification	
9	Ordering addition	Type according to standard 40007

Ident-No.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
22585	15	50,00	22,00	2,00
22586	20	60,00	28,00	2,00
22587	25	70,00	35,00	2,00
22588	32	82,00	43,00	2,00
22589	40	92,00	49,00	2,00
22590	50	107,00	61,00	2,00
22591	65	127,00	77,00	2,00
22592	80	142,00	90,00	2,00
22593	100	162,00	115,00	2,00
22594	125	192, 00	141, 00	2, 00
22698	150	218,00	169,00	2,00
22699	200	273,00	220,00	2,00
22700	250	328,00	274,00	2,00

Ident-No.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
22701	300	378,00	325,00	2,00
22702	350	435,00	368,00	2,00
22703	400	490,00	420,00	2,00
22704	500	595,00	520,00	2,00
22705	600	695,00	620,00	2,00

10 Valid and listed documents

Standard 06401
Standard 40007
DIN EN 1514-1
DIN EN 10204