

**Pipe Class
Specification PN 10**

**Tube parts catalogue
Pipe class: AA10C1**

- 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** 1.0254 (St 37.0)
- 4 Pipe class** Standard pipe class
- 5 Seal form** Form B1 according to DIN EN 1092-1
- 6 Corrosion surcharge** 1,00 mm
- 7 Screws** Hexagon head screw 5.6
Hexagon nut 5-2
- 8 Permitted media** argon, compressed air, rare gases, natural gas, carbon dioxide, oxygen, nitrogen, hydrogen, and its mixtures in gaseous form
- 9 Operating pressure** 10 bar
- 10 Operating temperature** from 263 K (-10°C) to 393 K (120°C)

ND	15	20	25	32	40	50	65	80	100	125	150	200	250
da/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	2	2,3	2,6	2,6	2,6	2,9	2,9	3,2	3,6	4	4,5	4,5	5

ND	300	350	400	500	600	700	800	900	1000	1200	1400	1600	1800
da/mm	323,9	355,6	406,4	508	610	711	813	914	1016	1220	1420	1620	1820
s/mm	5,6	5,6	6,3	6,3	6,3	7,1	8	10	10	12,5	12,5	12,5	16

- 11 Safety notices** The flow rate of conducting gaseous oxygen is not allowed to exceed 25 m/s in tubes of this class with operating pressures > 1 bar.

Vertical impacting gaseous oxygen to the tube wall must be avoided; therefore turns in branches are not allowed to occur in sharp kinks but only in bendings.

To avoid a weakening of the wall thickness at bending tubes, the bending radius must not fall below a value of 5 D.

When using Elbows according to DIN, the bending radius may fall below this value.

Tubes leading oxygen must be free of oil, grease, welding beads and processing shavings and comply with standard 06401.

12 Additional notices

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

When using hydrogen, comb defined seals only must be provided for flange joints.

The application fields (medium, pressure, temperature) defined in the standards 40002, 40007 and 40008 must be absolutely adhered to.

Tube part	nom. width		iden- tifica- tion	dimension standard / terms of delivery	certificate
	from	to			
Cut-off valves (with handwheel)	15	200	ASV-MR	DIN 3202-1, Reihe F1, DIN 3230, Blatt 2	Test certificate 2.2 according to DIN EN 10204 concerning pressure and tightness
Flat packings	15	1800	FLD	DIN EN 1514-1, Standard 40002	2.1 according to DIN EN 10204 concerning purity in accordance with Standard 06401
Fibrous packings	15	1800	FAD	DIN EN 1514-1, Standard 40007	2.1 according to DIN EN 10204 concerning purity in accordance with MG Standard 06401
Caps	15	1200	KAP	DIN 2617, DIN 2609	3.1.B according to DIN EN 10204
Comb defined seals	15	1800	KAD	DIN 2617, Standard 40008	2.1 according to DIN EN 10204 concerning purity in accordance with Standard 06401
Elbow 90° R=1,5 DA, welded	200	1600	RB1,5DG	DIN 2605-1, DIN 2609	3.1.B according to DIN EN 10204
Elbow 90° R=2,5 DA, welded	200	1600	RB2,5DG	DIN 2605-1, DIN 2609	3.1.B according to DIN EN 10204
Reducer, eccentric, welded	400	1000	RZEG	DIN 2616-1, DIN 2609	3.1.B according to DIN EN 10204
Pipe, welded	200	1800	RG	DIN EN 10220, DIN 1626	3.1.B according to DIN EN 10204
Reducer, concentric, welded	400	1000	RZKG	DIN 2616-1, DIN 2609	3.1.B according to DIN EN 10204
Pipe, seamless	15	150	RN	DIN EN 10220, DIN 1629	3.1.B according to DIN EN 10204
Tee made of welded pipe	400	900	TG	DIN 2615-1, DIN 2609	3.1.B according to DIN EN 10204
Welding neck flanges	15	1800	VF	DIN EN 1092-1, DIN EN 1092-1	3.1.B according to DIN EN 10204
Reducer, eccentric, seamless	20	300	RZEN	DIN 2616-1, DIN 2609	3.1.B according to DIN EN 10204
Reducer, concentric, seamless	20	300	RZKN	DIN 2616-1, DIN 2609	3.1.B according to DIN EN 10204
Tee made of seamless pipe	15	350	TN	DIN 2615-1, DIN 2609	3.1.B according to DIN EN 10204
Elbow 90° R=1,5 DA, seamless	15	150	RB1,5DN	DIN 2605-1, DIN 2609	3.1.B according to DIN EN 10204
Elbow 90° R=2,5 DA, seamless	15	150	RB2,5DN	DIN 2605-1, DIN 2609	3.1.B according to DIN EN 10204
Blanks	15	1200	BSS	Uhde-Norm 3902-1, DIN EN 10025	3.1.B according to DIN EN 10204
Blind flanges	15	500	BF	DIN EN 1092-1, DIN EN 1092-1	3.1.B according to DIN EN 10204
Hexagon head screws	12	45	SKS	DIN EN ISO 4014, DIN EN ISO 898-1 / DIN EN ISO 4014	3.1.B according to DIN EN 10204
Hexagon nuts	12	45	SKM	DIN EN ISO 4032, DIN EN ISO 898-2 / DIN EN ISO 4032	3.1.B according to DIN EN 10204

10 Valid and listed documents

Standard 06401
Standard 40002
Standard 40007
Standard 40008
DGRL 97/23/EG
DIN 1626
DIN 1629
DIN 2605-1
DIN 2609
DIN 2615-1
DIN 2616-1
DIN 2617
DIN 3202-1
DIN 3230
DIN EN 1092-1
DIN EN 1514-1
DIN EN 10025
DIN EN 10204
DIN EN 10220
DIN EN ISO 898-1
DIN EN ISO 898-2
DIN EN ISO 4014
DIN EN ISO 4032
Uhde-Norm 3902-1

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: AA10C1
pipe, seamless**

1	Pipe class	AA10C1
2	Part identification	RN
3	Pipe class part	pipe, seamless
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN EN 10220
6	Terms of delivery	DIN 1629
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	DIN 1629, section 6
9	Ordering addition	<p>Pipes at fixed length of 6 m</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

Ident-Nr.	Nom. diameter	dimensions	Weights
	DN	d _a x s	kg
14059	15	21, 3 x 2	0, 95
14060	20	26,9 x 2,3	1,40
14061	25	33, 7 x 2, 6	1, 99
14062	32	42,4 x 2,6	2,55
14063	40	48,3 x 2,6	2,93
14064	50	60,3 x 2,9	4,11
14065	65	76,1 x 2,9	5,24
14066	80	88,9 x 3,2	6,76
14067	100	114,3 x 3,6	9,83
14068	125	139,7 x 4	13,40
14069	150	168,3 x 4,5	18,20

10	Valid an listed documents	<p>AD 2000-leaflet W4</p> <p>DIN 1629</p> <p>DIN EN 10204</p> <p>DIN EN 1020</p>
----	---------------------------	--

Pipe Class
Specification PN 10

pipe parts * pipe class: AA10C1
pipe, welded

1	Pipe class	AA10C1
2	Part identification	RG
3	Pipe class part	pipe, welded
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN EN 10220
6	Terms of delivery	DIN 1626
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	DIN 1626, section 6
9	Ordering addition	<p>Pipes at fixed length of 6 m</p> <p>Calculation stress: 100%</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p> <p>An inspection certificate 3.1.C is required as proof, if the manufacturer does not meet the requirements according to AD 2000-leaflet W4, section 2.2</p>

Ident- No.	nom. diameter	dimensions	weights
	ND	d _a x s	kg
14044	200	219,1 x 4,5	23,80
14045	250	273 x 5	33,00
14046	300	323,9 x 5,6	44,00
14047	350	355,6 x 5,6	48,30
14048	400	406,4 x 6,3	62,20
14049	500	508 x 6,3	77,90
14050	600	610 x 6,3	93,80
14051	700	711 x 7,1	123,00
14052	800	813 x 8	159,00
14053	900	914 x 10	223,00
14054	1000	1016 x 10	248,00

Ident-No.	nom. diameter	dimensions	weights
	ND	da x s	kg
14055	1200	1220 x 12,5	372,00
14056	1400	1420 x 12,5	434,00
14057	1600	1620 x 12,5	496,00
14058	1800	1820 x 16	712,00

10 Valid and listed documents

AD 2000-leaflet W4
DIN 1626
DIN EN 10204
DIN EN 10220

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
Elbow 90° R=1,5 DA, seamless**

1	Pipe class	AA10C1
2	Part identification	RB1,5DN
3	Pipe class part	Elbow 90° R=1,5 DA, seamless
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2605-1
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	<p>Elbow 90°, type 3, with decreased utilization factor, made of seamless pipe according to DIN 1629</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-2</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

Ident- No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	s _R
14084	15	21,3 x 2	0,04	2,00
14085	20	26,9 x 2,3	0,06	2,30
14086	25	33,7 x 2,6	0,12	2,60
14087	32	42,4 x 2,6	0,19	2,60
14088	40	48,3 x 2,6	0,26	2,60
14089	50	60,3 x 2,9	0,49	2,90
14090	65	76,1 x 2,9	0,78	2,90
14091	80	88,9 x 3,2	1,21	3,20

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	s _R
14092	100	114,3 x 3,6	2,35	3,60
14093	125	139,7 x 4	4,00	4,00
14094	150	168,3 x 4,5	6,55	4,50

10 Valid and listed documents

AD 2000-leaflet W4
DIN 2559-1
DIN 2559-2
DIN 2605-1
DIN 2609
DIN EN 10204

**Pipe Class
Specification PN 10**

pipe parts * pipe class: AA0C1
Elbow 90° R=1,5 DA, welded

1	Pipe class	AA10C1
2	Part identification	RB1,5DG
3	Pipe class part	Elbow 90° R=1,5 DA, welded
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2605-1
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	<p>Elbow 90°, type 3, with decreased utilization factor, made of welded pipe according to DIN 1626</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-3</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>requirements AD 2000-leaflet W4, especially section 5, must be met</p>

An inspection certificate 3.1.C is required as proof, if the
manufacturer does not meet the requirements
according to AD 2000-leaflet W4, section 2.2

Ident- No.	nom. diameter	dimensions	weights	pipe wall connection thickness
	ND	d _a x s	kg	s _R
14070	200	219,1 x 4,5	11,40	4,50
14071	250	273 x 5	19,75	5,00
14072	300	323,9 x 5,6	31,59	5,60
14073	350	355,6 x 5,6	40,44	5,60
14074	400	406,4 x 6,3	59,60	6,30
14075	500	508 x 6,3	93,24	6,30
14076	600	610 x 6,3	134,67	6,30

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	DN	d _a x s	kg	SR
14077	700	711 x 7,1	206,15	7,10
14078	800	813 x 8	304,45	8,00
14079	900	914 x 10	480,60	10,00
14080	1000	1016 x 10	593,69	10,00
14081	1200	1220 x 12,5	1069,34	12,50
14082	1400	1420 x 12,5	1452,08	12,50
14083	1600	1620 x 12,5	2717,74	12,50

Valid and listed documents

AD 2000-leaflet W4
DIN 2559-1
DIN 2559-3
DIN 2605-1
DIN 2609
DIN EN 10204

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: AA10C1
Elbow 90° R=2,5 DA, seamless**

1	Pipe class	AA10C1
2	Part identification	RB2,5DN
3	Pipe class part	Elbow 90° R=2,5 DA, seamless
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2605-1
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	<p>Elbow 90°, type 5, with decreased utilization factor, made of seamless pipe according to DIN 1629</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-2</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

Ident- No.	nom. diameter	dimensions	weights kg	pipe connection wall thickness s _R
	ND	d _a x s		
1410	15	21,3 x 2	0,06	2,00
1411	20	26,9 x 2,3	0,13	2,30
14111	25	33,7 x 2,6	0,23	2,60
1411	32	42,4 x 2,6	0,37	2,60
1411	40	48,3 x 2,6	0,49	2,60
1411	50	60,3 x 2,9	0,87	2,90
1411	65	76,1 x 2,9	1,44	2,90
1411 6	80	88,9 x 3,2	2,18	3,20

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	s _R
14117	100	114,3 x 3,6	4,17	3,60
14118	125	139,7 x 4	6,95	4,00
14119	150	168,3 x 4,5	11,15	4,50

Valid and listed documents

AD 2000-leaflet W4
DIN 2559-1
DIN 2559-2
DIN 2605-1
DIN 2609
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
Elbow 90° R=2,5 DA, welded**

1	Pipe class	AA10C1
2	Part identification	RB2,5DG
3	Pipe class part	Elbow 90° R=2,5 DA, welded
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2605-1
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	<p>Elbow 90°, type 5, with decreased utilization factor, made of welded pipe according to DIN 1626</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-3</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

An inspection certificate 3.1.C is required as proof, if the manufacturer does not meet the requirements according to AD 2000-leaflet W4, section 2.2

Ident- No.	nom. diameter	dimensions	weights	pipe connection wall
	ND	d _a x s	kg	s _R
14095	200	219,1 x 4,5	19,07	4,50
14096	250	273 x 5	33,69	5,00
14097	300	323,9 x 5,6	53,56	5,60
14098	350	355,6 x 5,6	64,49	5,60
14099	400	406,4 x 6,3	94,77	6,30
14100	500	508 x 6,3	152,34	6,30
14101	600	610 x 6,3	242,70	6,30

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	s _R
14102	700	711 x 7,1	343, 52	7,10
14103	800	813 x 8	507,76	8,00
14104	900	914 x 10	800,41	10,00
14105	1000	1016 x 10	989,48	10,00
14106	1200	1220 x 12,5	1782,23	12,50
14107	1400	1420 x 12,5	2420,13	12,50
14108	1600	1620 x 12,5	3155,42	12,50

0

Valid and listed documents

AD 2000-leaflet W4
DIN 2559-1
DIN 2559-3
DIN 2605-1
DIN 2609
DIN 1626
DIN EN 10204

1

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
Tee made of seamless pipe**

1	Pipe class	AA10C1
2	Part identification	TN
3	Pipe class part	Tee made of seamless pipe
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2615-1
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	<p>Tee with decreased utilization factor, made of seamless pipe according to DIN 1629</p> <p>type A according to DIN 2615-1</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-2</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

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
14222	15	15	21,3 x 2	21,3 x 2	0,61	2,00	2,00
14223	20	15	26,9 x 2,3	21,3 x 2	0,10	2,30	2,00
14224	20	20	26,9 x 2,3	26,9 x 2,3	0,10	2,30	2,30
14225	25	15	33,7 x 2,6	21,3 x 2	0,18	2,60	2,00
14226	25	20	33,7 x 2,6	26,9 x 2,3	0,19	2,60	2,30
14227	25	25	33,7 x 2,6	33,7 x 2,6	0,19	2,60	2,60

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	ND ₁	ND ₂
14228	32	15	42,4 x 2,6	21,3 x 2	0,28	2,60	2,00
14229	32	20	42,4 x 2,6	26,9 x 2,3	0,29	2,60	2,30
14230	32	25	42,4 x 2,6	33,7 x 2,6	0,31	2,60	2,60
14231	32	32	42,4 x 2,6	42,4 x 2,6	0,31	2,60	2,60
14232	40	20	48,3 x 2,6	26,9 x 2,3	0,40	2,60	2,30
14233	40	25	48,3 x 2,6	33,7 x 2,6	0,41	2,60	2,60
14234	40	32	48,3 x 2,6	42,4 x 2,6	0,43	2,60	2,60
14235	40	40	48,3 x 2,6	48,3 x 2,6	0,43	2,60	2,60
14236	50	20	60,3 x 2,9	26,9 x 2,3	0,57	2,90	2,30
14237	50	25	60,3 x 2,9	33,7 x 2,6	0,59	2,90	2,60
14238	50	32	60,3 x 2,9	42,4 x 2,6	0,62	2,90	2,60
14239	50	40	60,3 x 2,9	48,3 x 2,6	0,63	2,90	2,60
14240	50	50	60,3 x 2,9	60,3 x 2,9	0,67	2,90	2,90
14241	65	25	76,1 x 2,9	33,7 x 2,6	0,88	2,90	2,60
14242	65	32	76,1 x 2,9	42,4 x 2,6	0,91	2,90	2,60
14243	65	40	76,1 x 2,9	48,3 x 2,6	0,92	2,90	2,60
14244	65	50	76,1 x 2,9	60,3 x 2,9	0,96	2,90	2,90
14245	65	65	76,1 x 2,9	76,1 x 2,9	1,00	2,90	2,90
14246	80	32	88,9 x 3,2	42,4 x 2,6	1,29	3,20	2,60
14247	80	40	88,9 x 3,2	48,3 x 2,6	1,31	3,20	2,60
14248	80	50	88,9 x 3,2	60,3 x 2,9	1,35	3,20	2,90
14249	80	65	88,9 x 3,2	76,1 x 2,9	1,40	3,20	2,90
14250	80	80	88,9 x 3,2	88,9 x 3,2	1,44	3,20	3,20

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	ND ₁	ND ₂
14251	100	40	114,3 x 3,6	48,3 x 2,6	2,25	3,60	2,60
14252	100	50	114,3 x 3,6	60,3 x 2,9	2,31	3,60	2,90
14253	100	65	114,3 x 3,6	76,1 x 2,9	2,36	3,60	2,90
14254	100	80	114,3 x 3,6	88,9 x 3,2	2,43	3,60	3,20
14255	100	100	114,3 x 3,6	114,3 x 3,6	2,54	3,60	3,60
14256	125	50	139,7 x 4	60,3 x 2,9	3,63	4,00	2,90
14257	125	65	139,7 x 4	76,1 x 2,9	3,69	4,00	2,90
14258	125	80	139,7 x 4	88,9 x 3,2	3,77	4,00	3,20
14259	125	100	139,7 x 4	114,3 x 3,6	3,91	4,00	3,60
14260	125	125	139,7 x 4	139,7 x 4	4,05	4,00	4,00
14261	150	65	168,3 x 4,5	76,1 x 2,9	5,64	4,50	2,90
14262	150	80	168,3 x 4,5	88,9 x 3,2	5,74	4,50	3,20
14263	150	100	168,3 x 4,5	114,3 x 3,6	5,92	4,50	3,60
14264	150	125	168,3 x 4,5	139,7 x 4	6,11	4,50	4,00
14265	150	150	168,3 x 4,5	168,3 x 4,5	6,28	4,50	4,50
14266	200	80	219,1 x 6,3	88,9 x 3,2	12,51	4,50	3,20
14267	200	100	219,1 x 6,3	114,3 x 3,6	12,76	4,50	3,60
14268	200	125	219,1 x 6,3	139,7 x 4	13,02	4,50	4,00
14269	200	150	219,1 x 6,3	168,3 x 4,5	13,31	4,50	4,00
14270	200	200	219,1 x 6,3	219,1 x 6,3	14,05	4,50	4,50
14271	250	100	273 x 6,3	114,3 x 3,6	19,13	5,00	3,60
14272	250	125	273 x 6,3	139,7 x 4	19,51	5,00	4,00
14273	250	150	273 x 6,3	168,3 x 4,5	19,88	5,00	4,00
14274	250	200	273 x 6,3	219,1 x 6,3	20,98	5,00	4,50
14275	250	250	273 x 6,3	273 x 6,3	21,18	5,00	5,00

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	ND1	ND2	d ₁ x s ₁	d ₂ x s ₂	kg	ND1	ND2
14276	300	125	323,9 x 7,1	139,7 x 4	30,15	5,60	4,00
14277	300	150	323,9 x 7,1	168,3 x 4,5	30,65	5,60	4,00
14278	300	200	323,9 x 7,1	219,1 x 6,3	32,15	5,60	4,50
14279	300	250	323,9 x 7,1	273 x 6,3	32,52	5,60	5,00
14280	300	300	323,9 x 7,1	323,9 x 7,1	33,30	5,60	5,60
14281	350	150	355,6 x 8	168,3 x 4,5	41,08	5,60	4,00
14282	350	200	355,6 x 8	219,1 x 6,3	42,86	5,60	4,50
14283	350	250	355,6 x 8	273 x 6,3	43,27	5,60	5,00
14284	350	300	355,6 x 8	323,9 x 7,1	44,28	5,60	5,60
14285	350	350	355,6 x 8	355,6 x 8	45,22	5,60	5,60

Valid and listed documents AD 2000-leaflet W4
DIN 2559-1
DIN 2559-2
DIN 2615-1
DIN 2609
DIN 1629
DIN EN 10204

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: AA10C1
Tee made of welded pipe**

1	Pipe class	AA10C1
2	Part identification	TG
3	Pipe class part	Tee made of welded pipe
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2615-1
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	<p>Tee with decreased utilization factor, made of welded pipe according to DIN 1626</p> <p>Type A according to DIN 2615-1</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-3</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p> <p>An inspection certificate 3.1.C is required as proof, if the manufacturer does not meet the requirements according to AD 2000-leaflet W4, section 2.2</p>

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

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
14182	400	150	406,4 x 8,8	168,3 x 4,5	55,92	6,30	4,50
14183	400	200	406,4 x 8,8	219,1 x 6,3	58,05	6,30	4,50
14184	400	250	406,4 x 8,8	273 x 6,3	58,71	6,30	5,00
14185	400	300	406,4 x 8,8	323,9 x 7,1	60,03	6,30	5,60
14186	400	350	406,4 x 8,8	355,6 x 8	61,37	6,30	5,60
14187	400	400	406,4 x 8,8	406,4 x 8,8	61,43	6,30	6,30

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
14188	500	200	508 x 11	219,1 x 6,3	109,97	6,30	4,50
14189	500	250	508 x 11	273 x 6,3	111,01	6,30	5,00
14190	500	300	508 x 11	323,9 x 7,1	113,09	6,30	5,60
14191	500	350	508 x 11	355,6 x 8	115,10	6,30	5,60
14192	500	400	508 x 11	406,4 x 8,8	116,06	6,30	6,30
14193	500	500	508 x 11	508 x 11	120,02	6,30	6,30
14194	600	250	610 x 12,5	273 x 6,3	169,22	6,30	5,00
14195	600	300	610 x 12,5	323,9 x 7,1	172,02	6,30	5,60
14196	600	350	610 x 12,5	355,6 x 8	174,63	6,30	5,60
14197	600	400	610 x 12,5	406,4 x 8,8	176,48	6,30	6,30
14198	600	500	610 x 12,5	508 x 11	183,01	6,30	6,30
14199	600	600	610 x 12,5	610 x 12,5	182,34	6,30	6,30
14200	700	300	711 x 12,5	323,9 x 7,1	239,91	7,10	5,60
14201	700	350	711 x 12,5	355,6 x 8	243,18	7,10	5,60
14202	700	400	711 x 12,5	406,4 x 8,8	245,94	7,10	6,30
14203	700	500	711 x 12,5	508 x 11	254,95	7,10	6,30
14204	700	600	711 x 12,5	610 x 12,5	261,38	7,10	6,30
14205	700	700	711 x 12,5	711 x 12,5	259,61	7,10	7,10
14206	800	350	813 x 12,5	355,6 x 8	317,57	8,00	5,60
14207	800	400	813 x 12,5	406,4 x 8,8	321,22	8,00	6,30
14208	800	500	813 x 12,5	508 x 11	332,58	8,00	6,30
14209	800	600	813 x 12,5	610 x 12,5	341,65	8,00	6,30
14210	800	700	813 x 12,5	711 x 12,5	341,47	8,00	7,10
14211	800	800	813 x 12,5	813 x 12,5	341,97	8,00	8,00

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	ND1	ND2	d1 x s1	d2 x s2	kg	*R1	*R2
14212	900	400	914 x 12,5	406,4 x 8,8	404,89	10,00	6,30
14213	900	500	914 x 12,5	508 x 11	418,74	10,00	6,30
14214	900	600	914 x 12,5	610 x 12,5	430,31	10,00	6,30
14215	900	700	914 x 12,5	711 x 12,5	431,49	10,00	7,10
14216	900	800	914 x 12,5	813 x 12,5	433,84	10,00	8,00
14217	900	900	914 x 12,5	914 x 12,5	434,24	10,00	10,00
14218	1000	500	1016 x 12,5	508 x 11	514,32	10,00	6,30
14219	1000	600	1016 x 12,5	610 x 12,5	528,20	10,00	6,30
14220	1000	700	1016 x 12,5	711 x 12,5	531,15	10,00	7,10
14221	1000	800	1016 x 12,5	813 x 12,5	538,09	10,00	8,00

Valid and listed documents AD 2000-leaflet W4
DIN 2559-1
DIN 2559-3
DIN 2615-1
DIN 2609
DIN 1626
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
Reducer, concentric, seamless**

1	Pipe class	AA10C1
2	Part identification	RZKN
3	Pipe class part	Reducer, concentric, seamless
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2616-1
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	<p>Reducer, concentric, with decreased utilization factor, made of seamless pipe according to DIN 1629</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-2</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

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
13995	20	15	26,9 x 2,3	21,3 x 2	0,05	2,30	2,00
13996	25	15	33,7 x 2,6	21,3 x 2	0,08	2,60	2,00
13997	25	20	33,7 x 2,6	26,9 x 2,3	0,09	2,60	2,30
13998	32	15	42,4 x 2,6	21,3 x 2	0,10	2,60	2,00
13999	32	20	42,4 x 2,6	26,9 x 2,3	0,10	2,60	2,30
14000	32	25	42,4 x 2,6	33,7 x 2,6	0,11	2,60	2,60

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
14001	40	20	48,3 x 2,6	26,9 x 2,3	0,14	2,60	2,30
14002	40	25	48,3 x 2,6	33,7 x 2,6	0,16	2,60	2,60
14003	40	32	48,3 x 2,6	42,4 x 2,6	0,18	2,60	2,60
14004	50	20	60,3 x 2,9	26,9 x 2,3	0,22	2,90	2,30
14005	50	25	60,3 x 2,9	33,7 x 2,6	0,24	2,90	2,60
14006	50	32	60,3 x 2,9	42,4 x 2,6	0,26	2,90	2,60
14007	50	40	60,3 x 2,9	48,3 x 2,6	0,28	2,90	2,60
14008	65	25	76,1 x 2,9	33,7 x 2,6	0,34	2,90	2,60
14009	65	32	76,1 x 2,9	42,4 x 2,6	0,36	2,90	2,60
14010	65	40	76,1 x 2,9	48,3 x 2,6	0,38	2,90	2,60
14011	65	50	76,1 x 2,9	60,3 x 2,9	0,42	2,90	2,90
14012	80	32	88,9 x 3,2	42,4 x 2,6	0,45	3,20	2,60
14013	80	40	88,9 x 3,2	48,3 x 2,6	0,47	3,20	2,60
14014	80	50	88,9 x 3,2	60,3 x 2,9	0,51	3,20	2,90
14015	80	65	88,9 x 3,2	76,1 x 2,9	0,56	3,20	2,90
14016	100	40	114,3 x 3,6	48,3 x 2,6	0,69	3,60	2,60
14017	100	50	114,3 x 3,6	60,3 x 2,9	0,75	3,60	2,90
14018	100	65	114,3 x 3,6	76,1 x 2,9	0,82	3,60	2,90
14019	100	80	114,3 x 3,6	88,9 x 3,2	0,87	3,60	3,20
14020	125	50	139,7 x 4	60,3 x 2,9	1,21	4,00	2,90
14021	125	65	139,7 x 4	76,1 x 2,9	1,31	4,00	2,90
14022	125	80	139,7 x 4	88,9 x 3,2	1,39	4,00	3,20
14023	125	100	139,7 x 4	114,3 x 3,6	1,54	4,00	3,60

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
14024	150	65	168,3 x 4,5	76,1 x 2,9	1,84	4,50	2,90
14025	150	80	168,3 x 4,5	88,9 x 3,2	1,94	4,50	3,20
14026	150	100	168,3 x 4,5	114,3 x 3,6	2,13	4,50	3,60
14027	150	125	168,3 x 4,5	139,7 x 4	2,33	4,50	4,00
14028	200	80	219,1 x 4,5	88,9 x 3,2	2,53	4,50	3,20
14029	200	100	219,1 x 4,5	114,3 x 3,6	2,74	4,50	3,60
14030	200	125	219,1 x 4,5	139,7 x 4	2,96	4,50	4,00
14031	200	150	219,1 x 4,5	168,3 x 4,5	3,19	4,50	4,50
14032	250	100	273 x 5	114,3 x 3,6	4,16	5,00	3,60
14033	250	125	273 x 5	139,7 x 4	4,43	5,00	4,00
14034	250	150	273 x 5	168,3 x 4,5	4,74	5,00	4,50
14035	250	200	273 x 5	219,1 x 4,5	5,30	5,00	4,50
14036	300	125	323,9 x 5,6	139,7 x 4	6,36	5,60	4,00
14037	300	150	323,9 x 5,6	168,3 x 4,5	6,76	5,60	4,50
14038	300	200	323,9 x 5,6	219,1 x 4,5	7,47	5,60	4,50
14039	300	250	323,9 x 5,6	273 x 5	8,22	5,60	5,00
14040	350	150	355,6 x 5,6	168,3 x 4,5	11,71	5,60	4,50
14041	350	200	355,6 x 5,6	219,1 x 4,5	12,87	5,60	4,50
14042	350	250	355,6 x 5,6	273 x 5	14,08	5,60	5,00
14043	350	300	355,6 x 5,6	323,9 x 5,6	15,23	5,60	5,60

10 Valid and listed documents AD 2000-leaflet W4
 DIN 2559-1
 DIN 2559-2
 DIN 2616-1
 DIN 2609
 DIN 1629
 DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
Reducer, concentric, welded**

1	Pipe class	AA10C1
2	Part identification	RZKG
3	Pipe class part	Reducer, concentric, welded
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2616-1
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	<p>Reducer, concentric, with decreased utilization factor, made of welded pipe according to DIN 1626</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-3</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-sheet W4, especially section 5, must be met</p> <p>An inspection certificate 3.1.C is required as proof, if the manufacturer does not meet the requirements according to AD 2000-leaflet W4, section 2.2</p>

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	ND1	ND2	d1 x s1	d2 x s2	kg	*R1	*R2
13955	400	150	406,4 x 6,3	168,3 x 4	15,57	6,30	4,50
13956	400	200	406,4 x 6,3	219,1 x 4,5	16,95	6,30	4,50
13957	400	250	406,4 x 6,3	273 x 5	18,43	6,30	5,00
13958	400	300	406,4 x 6,3	323,9 x 5,6	19,81	6,30	5,60
13959	400	350	406,4 x 6,3	355,6 x 5,6	20,69	6,30	5,60

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	ND1	ND2	d1 x s1	d2 x s2	kg	*R1	*R2
13960	500	200	508 x 6,3	219,1 x 4,5	28,27	6,30	4,50
13961	500	250	508 x 6,3	273 x 5	30,38	6,30	5,00
13962	500	300	508 x 6,3	323,9 x 5,6	32,36	6,30	5,60
13963	500	350	508 x 6,3	355,6 x 5,6	33,61	6,30	5,60
13964	500	400	508 x 6,3	406,4 x 6,3	35,59	6,30	6,30
13965	600	250	610 x 6,3	273 x 5	34,40	6,30	5,00
13966	600	300	610 x 6,3	323,9 x 5,6	36,39	6,30	5,60
13967	600	350	610 x 6,3	355,6 x 5,6	37,64	6,30	5,60
13968	600	400	610 x 6,3	406,4 x 6,3	39,61	6,30	6,30
13969	600	500	610 x 6,3	508 x 6,3	43,62	6,30	6,30
13970	700	300	711 x 7,1	323,9 x 5,6	54,59	7,10	5,60
13971	700	350	711 x 7,1	355,6 x 5,6	56,24	7,10	5,60
13972	700	400	711 x 7,1	406,4 x 6,3	58,96	7,10	6,30
13973	700	500	711 x 7,1	508 x 6,3	64,38	7,10	6,30
13974	700	600	711 x 7,1	610 x 6,3	69,83	7,10	6,30
13975	800	350	813 x 8	355,6 x 5,6	69,50	8,00	5,60
13976	800	400	813 x 8	406,4 x 6,3	72,52	8,00	6,30
13977	800	500	813 x 8	508 x 6,3	78,63	8,00	6,30
13978	800	600	813 x 8	610 x 6,3	84,77	8,00	6,30
13979	800	700	813 x 8	711 x 7,1	90,80	8,00	7,10
13980	900	400	914 x 10	406,4 x 6,3	98,09	10,00	6,30
13981	900	500	914 x 10	508 x 6,3	105,73	10,00	6,30
13982	900	600	914 x 10	610 x 6,3	113,41	10,00	6,30
13983	900	700	914 x 10	711 x 7,1	120,94	10,00	7,10
13984	900	800	914 x 10	813 x 8	128,55	10,00	8,00

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
13985	1000	500	1016 x 10	508 x 6,3	113,41	10,00	6,30
13986	1000	600	1016 x 10	610 x 6,3	121,08	10,00	6,30
13987	1000	700	1016 x 10	711 x 7,1	128,61	10,00	7,10
13988	1000	800	1016 x 10	813 x 8	136,22	10,00	8,00
13989	1000	900	1016 x 10	914 x 10	143,67	10,00	10,00
13990	1200	600	1220 x 12,5	610 x 6,3	198,49	12,50	6,30
13991	1200	700	1220 x 12,5	711 x 7,1	209,47	12,50	7,10
13992	1200	800	1220 x 12,5	813 x 8	220,55	12,50	8,00
13993	1200	900	1220 x 12,5	914 x 10	231,40	12,50	10,00
13994	1200	1000	1220 x 12,5	1016 x 10	242,58	12,50	10,00

- 10 Valid and listed documents**
- AD 2000-leaflet W4
 - DIN 2559-1
 - DIN 2559-3
 - DIN 2616-1
 - DIN 2609
 - DIN 1626
 - DIN EN 10204

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: AA10C1
Reducer, eccentric, seamless**

1	Pipe class	AA10C1
2	Part identification	RZEN
3	Pipe class part	Reducer, eccentric, seamless
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2616-1
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	<p>Reducer, eccentric, with decreased utilization factor, made of seamless pipe according to DIN 1626</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-2</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-sheet W4, especially section 5, must be met</p>

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
13906	20	15	26,9 x 2,3	21,3 x 2	0,05	2,30	2,00
13907	25	15	33,7 x 2,6	21,3 x 2	0,08	2,60	2,00
13908	25	20	33,7 x 2,6	26,9 x 2,3	0,09	2,60	2,30
13909	32	15	42,4 x 2,6	21,3 x 2	0,10	2,60	2,00
13910	32	20	42,4 x 2,6	26,9 x 2,3	0,10	2,60	2,30
13911	32	25	42,4 x 2,6	33,7 x 2,6	0,11	2,60	2,60

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

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
13912	40	20	48,3 x 2,6	26,9 x 2,3	0,14	2,60	2,30
13913	40	25	48,3 x 2,6	33,7 x 2,6	0,16	2,60	2,60
13914	40	32	48,3 x 2,6	42,4 x 2,6	0,18	2,60	2,60
13915	50	20	60,3 x 2,9	26,9 x 2,3	0,22	2,90	2,30
13916	50	25	60,3 x 2,9	33,7 x 2,6	0,24	2,90	2,60
13917	50	32	60,3 x 2,9	42,4 x 2,6	0,26	2,90	2,60
13918	50	40	60,3 x 2,9	48,3 x 2,6	0,28	2,90	2,60
13919	65	25	76,1 x 2,9	33,7 x 2,6	0,34	2,90	2,60
13920	65	32	76,1 x 2,9	42,4 x 2,6	0,36	2,90	2,60
13921	65	40	76,1 x 2,9	48,3 x 2,6	0,38	2,90	2,60
13922	65	50	76,1 x 2,9	60,3 x 2,9	0,42	2,90	2,90
13923	80	32	88,9 x 3,2	42,4 x 2,6	0,45	3,20	2,60
13924	80	40	88,9 x 3,2	48,3 x 2,6	0,47	3,20	2,60
13925	80	50	88,9 x 3,2	60,3 x 2,9	0,51	3,20	2,90
13926	80	65	88,9 x 3,2	76,1 x 2,9	0,56	3,20	2,90
13927	100	40	114,3 x 3,6	48,3 x 2,6	0,69	3,60	2,60
13928	100	50	114,3 x 3,6	60,3 x 2,9	0,75	3,60	2,90
13929	100	65	114,3 x 3,6	76,1 x 2,9	0,82	3,60	2,90
13930	100	80	114,3 x 3,6	88,9 x 3,2	0,87	3,60	3,20
13931	125	50	139,7 x 4	60,3 x 2,9	1,21	4,00	2,90
13932	125	65	139,7 x 4	76,1 x 2,9	1,31	4,00	2,90
13933	125	80	139,7 x 4	88,9 x 3,2	1,39	4,00	3,20
13934	125	100	139,7 x 4	114,3 x 3,6	1,54	4,00	3,60

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
13935	150	65	168,3 x 4,5	76,1 x 2,9	1,84	4,50	2,90
13936	150	80	168,3 x 4,5	88,9 x 3,2	1,94	4,50	3,20
13937	150	100	168,3 x 4,5	114,3 x 3,6	2,13	4,50	3,60
13938	150	125	168,3 x 4,5	139,7 x 4	2,33	4,50	4,00
13939	200	80	219,1 x 4,5	88,9 x 3,2	2,53	4,50	3,20
13940	200	100	219,1 x 4,5	114,3 x 3,6	2,74	4,50	3,60
13941	200	125	219,1 x 4,5	139,7 x 4	2,96	4,50	4,00
13942	200	150	219,1 x 4,5	168,3 x 4,5	3,19	4,50	4,50
13943	250	100	273 x 5	114,3 x 3,6	4,16	5,00	3,60
13944	250	125	273 x 5	139,7 x 4	4,43	5,00	4,00
13945	250	150	273 x 5	168,3 x 4,5	4,74	5,00	4,50
13946	250	200	273 x 5	219,1 x 4,5	5,30	5,00	4,50
13947	300	125	323,9 x 5,6	139,7 x 4	6,36	5,60	4,00
13948	300	150	323,9 x 5,6	168,3 x 4,5	6,76	5,60	4,50
13949	300	200	323,9 x 5,6	219,1 x 4,5	7,47	5,60	4,50
13950	300	250	323,9 x 5,6	273 x 5	8,22	5,60	5,00
13951	350	150	355,6 x 5,6	168,3 x 4,5	11,71	5,60	4,50
13952	350	200	355,6 x 5,6	219,1 x 4,5	12,87	5,60	4,50
13953	350	250	355,6 x 5,6	273 x 5	14,08	5,60	5,00
13954	350	300	355,6 x 5,6	323,9 x 5,6	15,23	5,60	5,60

10 Valid and listed documents AD 2000-leaflet W4
 DIN 2559-1
 DIN 2559-2
 DIN 2616-1
 DIN 2609
 DIN 1629
 DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
Reducer, eccentric, welded**

1	Pipe class	AA10C1
2	Part identification	RZEG
3	Pipe class part	Reducer, concentric, welded
4	Material	1.0254 (St 37.0)
5	Dimension standard	DIN 2616-1
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	<p>Reducer, concentric, with decreased utilization factor, made of welded pipe according to DIN 1626</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-3</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-sheet W4, especially section 5, must be met</p> <p>An inspection certificate 3.1.C is required as proof, if the manufacturer does not meet the requirements according to AD 2000-leaflet W4, section 2.2</p>

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

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
13866	400	150	406,4 x 6,3	168,3 x 4	15,57	6,30	4,50
13867	400	200	406,4 x 6,3	219,1 x 4,5	16,95	6,30	4,50
13868	400	250	406,4 x 6,3	273 x 5	18,43	6,30	5,00
13869	400	300	406,4 x 6,3	323,9 x 5,6	19,81	6,30	5,60
13870	400	350	406,4 x 6,3	355,6 x 5,6	20,69	6,30	5,60

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	ND1	ND2	d1 x s1	d2 x s2	kg	*R1	*R2
13871	500	200	508 x 6,3	219,1 x 4,5	28,27	6,30	4,50
13872	500	250	508 x 6,3	273 x 5	30,38	6,30	5,00
13873	500	300	508 x 6,3	323,9 x 5,6	32,36	6,30	5,60
13874	500	350	508 x 6,3	355,6 x 5,6	33,61	6,30	5,60
13875	500	400	508 x 6,3	406,4 x 6,3	35,59	6,30	6,30
13876	600	250	610 x 6,3	273 x 5	34,40	6,30	5,00
13877	600	300	610 x 6,3	323,9 x 5,6	36,39	6,30	5,60
13878	600	350	610 x 6,3	355,6 x 5,6	37,64	6,30	5,60
13879	600	400	610 x 6,3	406,4 x 6,3	39,61	6,30	6,30
13880	600	500	610 x 6,3	508 x 6,3	43,62	6,30	6,30
13881	700	300	711 x 7,1	323,9 x 5,6	54,59	7,10	5,60
13882	700	350	711 x 7,1	355,6 x 5,6	56,28	7,10	5,60
13883	700	400	711 x 7,1	406,4 x 6,3	58,96	7,10	6,30
13884	700	500	711 x 7,1	508 x 6,3	64,38	7,10	6,30
13885	700	600	711 x 7,1	610 x 6,3	69,83	7,10	6,30
13886	800	350	813 x 8	355,6 x 5,6	69,50	8,00	5,60
13887	800	400	813 x 8	406,4 x 6,3	72,52	8,00	6,30
13888	800	500	813 x 8	508 x 6,3	78,63	8,00	6,30
13889	800	600	813 x 8	610 x 6,3	84,77	8,00	6,30
13890	800	700	813 x 8	711 x 7,1	90,80	8,00	7,10
13891	900	400	914 x 10	406,4 x 6,3	98,09	10,00	6,30
13892	900	500	914 x 10	508 x 6,3	105,73	10,00	6,30
13893	900	600	914 x 10	610 x 6,3	113,41	10,00	6,30
13894	900	700	914 x 10	711 x 7,1	120,94	10,00	7,10
13895	900	800	914 x 10	813 x 8	128,55	10,00	8,00

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
13896	1000	500	1016 x 10	508 x 6,3	113,41	10,00	6,30
13897	1000	600	1016 x 10	610 x 6,3	121,08	10,00	6,30
13898	1000	700	1016 x 10	711 x 7,1	128,61	10,00	7,10
13899	1000	800	1016 x 10	813 x 8	136,22	10,00	8,00
13900	1000	900	1016 x 10	914 x 10	143,67	10,00	10,00
13901	1200	500	1220 x 12,5	610 x 6,3	198,49	12,50	6,30
13902	1200	600	1220 x 12,5	711 x 7,1	209,47	12,50	7,10
13903	1200	700	1220 x 12,5	813 x 8	220,55	12,50	8,00
13904	1200	800	1220 x 12,5	914 x 10	231,40	12,50	10,00
13905	1200	900	1220 x 12,5	1016 x 10	242,58	12,50	10,00

10 Valid and listed documents AD 2000-leaflet W4
DIN 2559-1
DIN 2559-3
DIN 2616-1
DIN 2609
DIN 1626
DIN EN 10204

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: AA10C1
caps**

1	Pipe class	AA10C1
2	Part identification	KAP
3	Pipe class part	Caps
4	Material	1.0254 (St 37.0)
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	<p>Cap to weld in, made of seamless or welded pipe, made of seamless or welded pipe according to DIN 1629 resp. 1626</p> <p>Weld preparation according to DIN 2559</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed</p> <p>Requirements AD 2000-leaflet W4 must be met</p>

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	SR
13843	15	21,3 x 2	0,02	2,00
13844	20	26,9 x 2,3	0,04	2,30
13845	25	33,7 x 2,6	0,08	2,60
13846	32	42,4 x 2,6	0,10	2,60
13847	40	48,3 x 2,6	0,12	2,60
13848	50	60,3 x 2,9	0,17	2,90
13849	65	76,1 x 2,9	0,22	2,90
13850	80	88,9 x 3,2	0,38	3,20

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	SR
13851	100	114,3 x 3,6	0,70	3,60
13852	125	139,7 x 4	1,15	4,00
13853	150	168,3 x 4,5	1,83	4,50
13854	200	219,1 x 4,5	2,82	4,50
13855	250	273 x 5	4,88	5,00
13856	300	332,9 x 5,6	7,78	5,60
13857	350	355,6 x 5,6	9,31	5,60
13858	400	406,4 x 6,3	13,04	6,30
13859	500	508 x 6,3	21,02	6,30
13860	600	610 x 6,3	29,71	6,30
13861	700	711 x 7,1	40,05	7,10
13862	800	813 x 8	52,98	8,00
13863	900	914 x 10	76,04	10,00
13864	1000	1016 x 10	96,29	10,00
13865	1200	1220 x 12,5	171,03	12,50

10 Valid and listed documents

AD 2000-leaflet W4

DIN 1626

DIN 1629

DIN 2559

DIN 2609

DIN 2617

DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
Blanks**

1	Pipe class	AA10C1
2	Part identification	BSS
3	Pipe class part	Blanks
4	Material	1.0038 (S235JRG2)
5	Dimension standard	Uhde- Norm 3902-1
6	Terms of delivery	DIN EN 10025
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	AD 2000-leaflet W1, section 4
9	Ordering addition	<p>Two-part figure-eight blank for DIN-flange with flat seal, made of hot-rolled flat steel according to DIN EN 10029, class A</p> <p>free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Packed in PE-bags, diameter 200 and above shrink-wrapped in PE-foil</p> <p>Requirements AD 2000-leaflet W1 must be met</p>

Ident-No.	nom. width	diameter	diameter	thickness	weights
	ND	d ₁	d ₂	s ₁	kg
13742	15	40,00	20,00	10	0,00
13743	20	60,00	25,00	10	0,00
13744	25	70,00	30,00	10	0,00
13745	32	81,00	40,00	10	0,00
13746	40	91,00	45,00	10	0,00
13747	50	106,00	57,00	10	0,00
13748	65	126,00	73,00	10	0,00

Ident-No.	nom. width	diameter	diameter	thickness	weights
	ND	d ₁	d ₂	s ₁	kg
13749	80	141,00	85,00	10	0,00
13750	100	161,00	110,00	10	0,00
13751	125	191,00	135,00	10	0,00
13752	150	217,00	160,00	12	0,00
13753	200	272,00	210,00	12	0,00
13754	250	327,00	262,00	15	0,00
13755	300	377,00	312,00	20	0,00
13756	350	437,00	342,00	20	0,00
13757	400	488,00	390,00	20	0,00
13758	500	593,00	498,00	25	0,00
13759	600	694,00	600,00	30	0,00
13760	700	809,00	700,00	40	0,00
13761	800	916,00	800,00	40	0,00
13762	900	1016,00	900,00	50	0,00
13763	1000	1123,00	1000,00	50	0,00
13764	1200	1340,00	1200,00	60	0,00

10 Valid and listed documents

AD 2000-leaflet W1
DIN EN 10025
DIN EN 10029-A
DIN EN 10204
Uhde-Norm 3902-1

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: AA10C1
Welding neck flanges**

1	Pipe class	AA10C1
2	Part identification	VF
3	Pipe class part	Welding neck flanges
4	Material	1.0038 (S235JRG2)
5	Dimension standard	DIN EN 1092-1
6	Terms of delivery	DIN EN 1092-1
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	AD 2000-leaflet W9, section 5
9	Ordering addition	<p>Forged or seamless rolled welding neck flange with flat seal (shape B1)</p> <p>Surfaces free of rust and scale</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W9 must be met</p>

Ident-No.	nom. diameter	dimensions	weights
	ND	ND x ØA	kg
14312	15	15 x 21,3	1,00
14313	20	20 x 26,9	1,00
14314	25	25 x 33,7	1,00
14315	32	32 x 42,4	2,00
14316	40	40 x 48,3	2,00
14317	50	50 x 60,3	3,00
14318	65	65 x 76,1	3,50
14319	80	80 x 88,9	4,00
14320	100	100 x 114,3	4,50

Ident-No.	nom. diameter	dimensions	weights
	ND	ND x ØA	kg
14321	125	125 x 139,7	6,50
14322	150	150 x 168,3	7,50
14323	200	200 x 219,1	11, 50
14324	250	250 x 273	15,50
14325	300	300 x 323,9	18,00
14326	350	350 x 355,6	24,50
14327	400	400 x 406,4	29,50
14328	500	500 x 508	39,50
14329	600	600 x 610	56,00
14330	700	700 x 711	65,00
14331	800	800 x 813	87,00
14332	900	900 x 914	106,00
14333	1000	1000 x 1016	123,00
14334	1200	1200 x 1220	184,00
14335	1400	1400 x 1420	252,00
14336	1600	1600 x 1620	363,00
14337	1800	1800 x 1820	445,50

10 Valid and listed documents

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

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
blind flanges**

1	Pipe class	AA10C1
2	Part identification	BF
3	Pipe class part	Blind flanges
4	Material	1.0038 (S235JRG2)
5	Dimension standard	DIN EN 1092-1
6	Terms of delivery	DIN EN 1092-1
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	AD 2000-leaflet W9, section 5
9	Ordering addition	<p>Forged, seamlessly rolled or blanked out of sheets blind flanges made by metal-cutting processing with flat seals (shape A)</p> <p>free of oil, grease and slip additive (max.: 300 mg/m²)</p> <p>Packed in PE-bags, diameter 200 and above shrink-wrapped in PE-foil</p> <p>Requirements AD 2000-Merkblatt W1 and W9, must be met</p>

Ident-No.	nom. diameter	weights
	ND	kg
13725	15	1,00
13726	20	1,00
13727	25	1,50
13728	32	2,00
13729	40	2,50
13730	50	3,00
13731	65	3,50
13732	80	4,50
13733	100	5,50

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

Ident-No.	nom. diameter	weights
	ND	kg
13734	125	8,00
13735	150	10,50
13736	200	16,50
13737	250	24,00
13738	300	31,00
13739	350	39,50
13740	400	49,50
13741	500	75,50

10 Valid and listed documents

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

**Pipe Class
Specification PN 10**
**pipe parts * pipe class: AA10C1
hexagon head screws**

1	Pipe class	AA10C1
2	Part identification	SKS
3	Pipe class part	Hexagon head screws
4	Material	5.6
5	Dimension standard	DIN EN ISO 4014
6	Terms of delivery	DIN EN ISO 898-1 / DIN EN ISO 4014
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	AD 2000-leaflet W7, section 5
9	Ordering addition	<p>Product class A (minimum value from thread \leq M24 and nominal length \leq 10d or 150 mm)</p> <p>Product class B (minimum value from thread $>$ M24 or nominal length $>$ 10d or 150 mm)</p> <p>Surface galvanized according to DIN EN ISO 4042</p> <p>Requirements AD 2000-leaflet W7 must be met</p>

Ident-No.	thread x length	weights
		kg
14156	M 12 x 55	0,06
14157	M 12 x 70	0,07
14158	M 16 x 55	0,12
14159	M 16 x 60	0,12
14160	M 16 x 65	0,13
14161	M 16 x 70	0,14
14162	M 16 x 80	0,16
14163	M 16 x 90	0,17
14164	M 20 x 80	0,26

Ident-No.	thread x length	weights
		kg
14165	M 20 x 90	0,28
14166	M 20 x 100	0,30
14167	M 24 x 90	0,43
14168	M 24 x 120	0,54
14169	M 27 x 90	0,56
14170	M 27 x 100	0,60
14171	M 27 x 130	0,72
14172	M 27 x 140	0,79
14173	M 30 x 110	0,83
14174	M 30 x 150	1,03
14175	M 30 x 160	1,09
14176	M 33 x 110	1,02
14177	M 33 x 170	1,41
14178	M 36 x 120	1,32
14179	M 36 x 190	1,87
14180	M 39 x 130	1,58
14181	M 45 x 150	2,60

10 Valid and listed documents

AD 2000-leaflet W7
DIN EN ISO 898-1
DIN EN ISO 4014
DIN EN ISO 4042
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
hexagon nuts**

1	Pipe class	AA10C1
2	Part identification	SKM
3	Pipe class part	Hexagon nuts
4	Material	5-2
5	Dimension standard	DIN EN ISO 4032
6	Terms of delivery	DIN EN ISO 898-2 / DIN EN ISO 4032
7	Certificate	3.1.B according to DIN EN 10204
8	Identification	AD 2000-leaflet W7. section 5
9	Ordering addition	Product class A (≤ M16) Product class B (> M16) Surface galvanized according to DIN EN ISO 4042 Requirements AD 2000-leaflet W7 must be met

Ident-No.	thread	weights
		kg
14146	M 12	0,02
14147	M 16	0,03
14148	M 20	0,06
14149	M 24	0,11
14150	M 27	0,17
14151	M 30	0,22
14152	M 33	0,29
14153	M 36	0,39
14154	M 39	0,50
14155	M 45	0,80

This document is protected by copyright and may not be distributed, copied, used in any way, or passed to third parties without permission.

10 Valid and listed documents

AD 2000-leaflet W2
DIN EN ISO 898-2
DIN EN ISO 4032
DIN EN ISO 4042
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
Comb defined seals**

- | | | |
|---|----------------------------|--|
| 1 | Pipe class | AA10C1 |
| 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 for different mediums according to DIN 40008

Type according to standard 40008 |

Ident-No.	nom. width	diameter	diameter	diameter	thickness
	ND	d ₃	d ₂	d ₁	s
13817	15	51,00	42,00	26,00	5,00
13818	20	61,00	47,00	31,00	5,00
13819	25	71,00	52,00	36,00	5,00
13820	32	82,00	62,00	46,00	5,00
13821	40	92,00	69,00	53,00	5,00
13822	50	107,00	81,00	65,00	5,00
13823	65	127,00	100,00	81,00	5,00
13824	80	142,00	115,00	95,00	5,00
13825	100	162,00	138,00	118,00	5,00
13826	125	192,00	162,00	142,00	5,00
13827	150	217,00	190,00	170,00	5,00
13828	200	272,00	240,00	220,00	5,00
13829	250	327,00	290,00	270,00	5,00

Ident-No.	nom. width	diameter	diameter	diameter	thickness
	ND	d ₃	d ₂	d ₁	s
13830	300	377,00	340,00	320,00	5,00
13831	350	437,00	395,00	375,00	5,00
13832	400	489,00	450,00	426,00	5,00
13833	500	594,00	560,00	530,00	5,00
13834	600	695,00	664,00	630,00	5,00
13835	700	810,00	770,00	730,00	5,00
13836	800	917,00	876,00	830,00	5,00
13837	900	1017,00	982,00	930,00	5,00
13838	1000	1124,00	1098,00	1040,00	5,00
13839	1200	1341,00	1320,00	1250,00	5,00
13840	1400	1548,00	1522,00	1440,00	5,00
13841	1600	1772,00	1742,00	1650,00	5,00
13842	1800	1972,00	1914,00	1850,00	5,00

10 Valid and listed documents

Standard 06401
Standard 40008
DIN EN 10204

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
flat packings**

1	Pipe class	AA10C1
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-Nr.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
13791	15	50,00	22,00	2,00
13792	20	60,00	28,00	2,00
13793	25	70,00	35,00	2,00
13794	32	82,00	43,00	2,00
13795	40	92,00	49,00	2,00
13796	50	107,00	61,00	2,00
13797	65	127,00	77,00	2,00
13798	80	142,00	90,00	2,00
13799	100	162,00	115,00	2,00
13800	125	192,00	141,00	2,00
13801	150	218,00	169,00	2,00
13802	200	273,00	220,00	2,00
13803	250	328,00	274,00	2,00

Ident-Nr.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
13804	300	378,00	325,00	2,00
13805	350	435,00	368,00	2,00
13806	400	490,00	420,00	2,00
13807	500	595,00	520,00	2,00
13808	600	695,00	620,00	2,00
13809	700	810,00	720,00	2,00
13810	800	915,00	820,00	2,00
13811	900	1015,00	920,00	2,00
13812	1000	1120,00	1020,00	2,00
13813	1200	1340,00	1220,00	2,00
13814	1400	1545,00	1420,00	2,00
13815	1600	1770,00	1620,00	2,00
13816	1800	1970,00	1820,00	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: AA10C1
fibrous packings**

1	Pipe class	AA10C1
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
13765	15	50,00	22,00	2,00
13766	20	60,00	28,00	2,00
13767	25	70,00	35,00	2,00
13768	32	82,00	43,00	2,00
13769	40	92,00	49,00	2,00
13770	50	107,00	61,00	2,00
13771	65	127,00	77,00	2,00
13772	80	142,00	90,00	2,00
13773	100	162,00	115,00	2,00
13774	125	192,00	141,00	2,00
13775	150	218,00	169,00	2,00
13776	200	273,00	220,00	2,00
13777	250	328,00	274,00	2,00

Ident-No.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
13778	300	378,00	325,00	2,00
13779	350	435,00	368,00	2,00
13780	400	490,00	420,00	2,00
13781	500	595,00	520,00	2,00
13782	600	695,00	620,00	2,00
13783	700	810,00	720,00	2,00
13784	800	915,00	820,00	2,00
13785	900	1015,00	920,00	2,00
13786	1000	1120,00	1020,00	2,00
13787	1200	1340,00	1220,00	2,00
13788	1400	1545,00	1420,00	2,00
13789	1600	1770,00	1620,00	2,00
13790	1800	1970,00	1820,00	2,00

10 Valid and listed documents

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

**Pipe Class
Specification PN 10**

**pipe parts * pipe class: AA10C1
cut-off valves with hand wheel & regulating cone**

- | | | |
|---|----------------------------|--|
| 1 | Pipe class | AA10C1 |
| 2 | Part identification | ASV-MR |
| 3 | Pipe class part | cut-off valves with hand wheel and regulating cone |
| 4 | Material | 2.1096.01 (CuSnZn (housing material)) |
| 5 | Dimension standard | DIN 3202-1, row F1 |
| 6 | Terms of delivery | 3230, leaflet 2 |
| 7 | Certificate | 3.1.B according to DIN EN 10204 for the material

test certificate 2.2 in accordance with standard 10204 concerning pressure and tightness |
| 8 | Identification | TRB 801, Nr. 45 |
| 9 | Ordering addition | Tightness according to DIN 3230-B0, leak rate 1 |

Ident-Nr.	nom. width	length	weights
	DN ₁	L	kg
27973	15	130,00	0,00
27974	20	150,00	0,00
27975	25	160,00	0,00
27976	32	180,00	0,00
27977	40	200,00	0,00
27978	50	230,00	0,00
27979	65	290,00	0,00
27980	80	310,00	0,00
27981	100	350,00	0,00
27982	125	400,00	0,00
27983	150	480,00	0,00
27984	200	600,00	0,00

- 10 **Valid and listed documents**

DIN 3202-1
DIN 3230
DIN EN 10204
TRB 801

