

**Pipe Class
Specification PN 40**

**Tube parts catalogue
Pipe class: AA40C1**

- 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 according to leaflet AD-2000
- 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** 16 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
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	2	2,3	2,6	2,6	2,6	2,9	2,9	3,2	3,6	4	4,5	6,3	5

ND	300	350	400	500	600								
d _a /mm	323,9	355,6	406,4	508	610								
s/mm	7,1	8	8,8	11	12,5								

- 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 4002, 4007 and 4008 must be absolutely adhered to.

Tube part	nom. width		iden- tifica- tion	dimension standard / terms of delivery	certificate
	from	to			
Flat packings	15	500	FLD	DIN EN 1514-1, Standard 06401	BAM-admission according to BAM-Tbg.-Nr. 10881/8514-3723
Fibrous packings	15	500	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	200	600	RB1,5DG	DIN 2605-1, DIN 2609	3.1.B according to DIN EN 10204
Elbow 90° R=2,5 DA, welded	200	600	RB2,5DG	DIN 2605-1, DIN 2609	3.1.B according to DIN EN 10204
Reducer, eccentric, welded	400	500	RZEG	DIN 2616-1, DIN 2609	3.1.B according to DIN EN 10204
Pipe, welded	200	600	RG	DIN EN 10220, DIN 1626	3.1.B according to DIN EN 10204
Reducer, concentric, welded	400	500	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	500	TG	DIN 2615-1, DIN 2609	3.1.B according to DIN EN 10204
Welding neck flanges	15	500	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	500	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	39	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	39	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
AD 2000-leaflet
BAM-Tgb.-Nr. 10881/85, 4-3723
DGRL 97/23/EG
DIN 1626
DIN 1629
DIN 2605-1
DIN 2909
DIN 2615-1
DIN 2616-1
DIN 2617
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 40**

pipe parts * pipe class: A
pipe, seamless

AIR LIQUIDE

1	Pipe class	AA40C1
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.: 200 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
	ND	d _a x s	kg
19750	15	21,3 x 2	0,95
19751	20	26,9 x 2,3	1,40
19752	25	33,7 x 2,6	1,99
19753	32	42,4 x 2,6	2,55
19754	40	48,3 x 2,6	2,93
19755	50	60,3 x 2,9	4,11
19756	65	76,1 x 2,9	5,24
19757	80	88,9 x 3,2	6,76
19758	100	114,3 x 3,6	9,38
19759	125	139,7 x 4	13,40
19760	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 10220</p>
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**Pipe Class
Specification PN 40**
**pipe parts * pipe class: AA40C1
pipe, welded**

1	Pipe class	AA40C1
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	Pipes at fixed length of 6 m

Calculation stress: 100%

Inner surfaces free of oil, grease and slip additive
(max.: 200 mg/m²)

Ends closed with caps

Requirements AD 2000-leaflet W4, especially section 5,
must be met

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
	ND	d _a x s	kg
19743	200	219,1 x 6,3	33,10
19744	250	273 x 6,3	41,40
19745	300	323,9 x 7,1	55,50
19746	350	355,6 x 8	68,60
19747	400	406,4 x 8,8	86,30
19748	500	508 x 11	135,00
19749	600	610 x 12,5	184,00

10 Valid and listed documents

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

**Pipe Class
Specification PN 40**
**pipe parts * pipe class: AA40C1
Elbow 90° R=1,5 DA, seamless**

1	Pipe class	AA40C1
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.: 200 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

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Ident- No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	s _R
19768	15	21,3 x 2	0,04	2,00
19769	20	26,9 x 2,3	0,06	2,30
19770	25	33,7 x 2,6	0,12	2,60
19771	32	42,4 x 2,6	0,19	2,60
19772	40	48,3 x 2,6	0,26	2,60
19773	50	60,3 x 2,9	0,49	2,90
19774	65	76,1 x 5	1,31	2,90
19775	80	88,9 x 5,6	2,06	3,20

Ident- No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	d _a x s	kg	s _R
19776	100	114,3 x 6,3	4,01	3,60
19777	125	139,7 x 6,3	6,18	4,00
19778	150	168,3 x 7,1	10,14	4,50

10 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 40**

**pipe parts * pipe class: AA40C1
Elbow 90° R=1,5 DA, welded**

1	Pipe class	AA40C1
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.: 200 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 thickness
	ND	d _a x s	kg	s _R
19761	200	219,1 x 6,3	15,86	6,30
19762	250	273 x 8,8	34,29	6,30
19763	300	323,9 x 10	55,56	7,10
19764	350	355,6 x 11	78,28	8,00
19765	400	406,4 x 12,5	115,94	8,80
19766	500	508 x 11	0,00	11,00
19767	600	610 x 12,5	0,00	12,50

10 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 40**
**pipe parts * pipe class: AA40C1
Elbow 90° R=2,5 DA, seamless**

1	Pipe class	AA40C1
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.: 200 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	pipe connection wall thickness
	DN	d _a x s	kg	s _R
19786	15	21,3 x 2	0,06	2,00
19787	20	26,9 x 2,3	0,13	2,30
19788	25	33,7 x 2,6	0,23	2,60
19789	32	42,4 x 2,6	0,37	2,60
19790	40	48,3 x 2,6	0,49	2,60
19791	50	60,3 x 2,9	0,87	2,90
19792	65	76,1 x 2,9	1,44	2,90
19793	80	88,9 x 3,2	2,18	3,20

Ident- No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	DN	d _a x s	kg	s _R
19794	100	114,3 x 3,6	4,17	3,60
19795	125	139,7 x 6,3	10,73	4,00
19796	150	168,3 x 7,1	17,28	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 40**
**pipe parts * pipe class: AA40C1
Elbow 90° R=2,5 DA, welded**

1	Pipe class	AA40C1
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 10204</p> <p>Weld preparation according to DIN 2559-1 and DIN 2559-3</p>

Inner surfaces free of oil, grease and slip additive
(max.: 200 mg/m²)

Ends closed with caps

Requirements AD 2000-leaflet W4, especially section 5,

must be met

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 thickness
	ND	d _a x s	kg	
19779	200	219,1 x 6,3	26,52	6,30
19780	250	273 x 8,8	42,27	6,30
19781	300	323,9 x 10	67,56	7,10
19782	350	355,6 x 11	91,59	8,00
19783	400	406,4 x 12,5	131,49	8,80
19784	500	508 x 11	0,00	
19785	600	610 x 12,5	0,00	

10	Valid and listed documents	AD 2000-leaflet W4 DIN 2559-1 DIN 2559-3 DIN 2605-1 DIN 2609 DIN 2616 DIN EN 10204
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**Pipe Class
Specification PN 40**

**pipe parts * pipe class: AA40C1
Tee made of seamless pipe**

1	Pipe class	AA40C1
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.: 200 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

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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 ₁	s ₂
19858	15	15	21,3 x 2	21,3 x 2	0,06	2,00	2,00
19859	20	15	26,9 x 2,3	21,3 x 2	0,10	2,30	2,00
19860	20	20	26,9 x 2,3	26,9 x 2,3	0,10	2,30	2,30
19861	25	15	33,7 x 2,6	21,3 x 2	0,18	2,60	2,00
19862	25	20	33,7 x 2,6	26,9 x 2,3	0,19	2,60	2,30
19863	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	
	ND1	ND2	d1 x s1	d2 x s2	kg	s1	s2
19864	32	15	42,4 x 3,6	21,3 x 3,2	0,38	2,60	2,00
19865	32	20	42,4 x 3,6	26,9 x 3,2	0,40	2,60	2,30
19866	32	25	42,4 x 3,6	33,7 x 3,2	0,41	2,60	2,60
19867	32	32	42,4 x 3,6	42,4 x 3,6	0,42	2,60	2,60
19868	40	20	48,3 x 4	26,9 x 3,2	0,58	2,60	2,30
19869	40	25	48,3 x 4	33,7 x 3,2	0,60	2,60	2,60
19870	40	32	48,3 x 4	42,4 x 3,6	0,62	2,60	2,60
19871	40	40	48,3 x 4	48,3 x 4	0,64	2,60	2,60
19872	50	20	60,3 x 4,5	26,9 x 3,2	0,77	2,90	2,30
19873	50	25	60,3 x 4,5	33,7 x 3,2	0,79	2,90	2,60
19874	50	32	60,3 x 4,5	42,4 x 3,6	0,83	2,90	2,60
19875	50	40	60,3 x 4,5	48,3 x 4	0,87	2,90	2,60
19876	50	50	60,3 x 4,5	60,3 x 4,5	0,90	2,90	2,90
19877	65	25	76,1 x 5	33,7 x 3,2	1,43	2,90	2,60
19878	65	32	76,1 x 5	42,4 x 3,6	1,48	2,90	2,60
19879	65	40	76,1 x 5	48,3 x 4	1,52	2,90	2,60
19880	65	50	76,1 x 5	60,3 x 4,5	1,55	2,90	2,90
19881	65	65	76,1 x 5	76,1 x 5	1,67	2,90	2,90
19882	80	32	88,9 x 5,6	42,4 x 3,6	2,15	3,20	2,60
19883	80	40	88,9 x 5,6	48,3 x 4	2,19	3,20	2,60
19884	80	50	88,9 x 5,6	60,3 x 4,5	2,23	3,20	2,90
19885	80	65	88,9 x 5,6	76,1 x 5	2,37	3,20	2,90
19886	80	80	88,9 x 5,6	88,9 x 5,6	2,46	3,20	3,20

Ident-No.	nom. width		dimensions		weights	pipe connection wall thickness	
	ND1	ND2	d1 x s1	d2 x s2	kg	s1	s2
19887	100	40	114,3 x 6,3	48,3 x 4	3,80	3,60	2,60
19888	100	50	114,3 x 6,3	60,3 x 4,5	3,86	3,60	2,90
19889	100	65	114,3 x 6,3	76,1 x 5	4,03	3,60	2,90
19890	100	80	114,3 x 6,3	88,9 x 5,6	4,14	3,60	3,20
19891	100	100	114,3 x 6,3	114,3 x 6,3	4,33	3,60	3,60
19892	125	50	139,7 x 10	60,3 x 5,6	8,50	4,00	2,90
19893	125	65	139,7 x 10	76,1 x 7,1	8,78	4,00	2,90
19894	125	80	139,7 x 10	88,9 x 8	9,00	4,00	3,20
19895	125	100	139,7 x 10	114,3 x 8,8	9,31	4,00	3,60
19896	125	125	139,7 x 10	139,7 x 10	9,67	4,00	4,00
19897	150	65	168,3 x 11	76,1 x 7,1	13,22	4,50	2,90
19898	150	80	168,3 x 11	88,9 x 8	13,49	4,50	3,20
19899	150	100	168,3 x 11	114,3 x 8,8	13,88	4,50	3,60
19900	150	125	168,3 x 11	139,7 x 10	14,36	4,50	4,00
19901	150	150	168,3 x 11	168,3 x 11	14,73	4,50	4,50
19902	200	80	219,1 x 12,5	88,9 x 8	24,40	6,30	3,20
19903	200	100	219,1 x 12,5	114,3 x 8,8	24,94	6,30	3,60
19904	200	125	219,1 x 12,5	139,7 x 10	25,63	6,30	4,00
19905	200	150	219,1 x 12,5	168,3 x 11	26,26	6,30	4,50
19906	200	200	219,1 x 12,5	219,1 x 12,5	27,04	6,30	6,30
19907	250	100	273 x 14,2	114,3 x 8,8	42,04	6,30	3,60
19908	250	125	273 x 14,2	139,7 x 10	43,02	6,30	4,00
19909	250	150	273 x 14,2	168,3 x 11	43,83	6,30	4,50
19910	250	200	273 x 14,2	219,1 x 12,5	45,09	6,30	6,30
19911	250	250	273 x 14,2	273 x 14,2	46,34	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	s ₁	s ₂
19912	300	125	323,9 x 16	139,7 x 10	66,15	7,10	4,00
19913	300	150	323,9 x 16	168,3 x 11	67,27	7,10	4,50
19914	300	200	323,9 x 16	219,1 x 12,5	69,08	7,10	6,30
19915	300	250	323,9 x 16	273 x 14,2	70,94	7,10	6,30
19916	300	300	323,9 x 16	323,9 x 16	72,61	7,10	7,10
19917	350	150	355,6 x 11	168,3 x 7,1	56,51	5,60	4,50
19918	350	200	355,6 x 11	219,1 x 8	57,93	5,60	4,50
19919	350	250	355,6 x 11	273 x 8,8	59,08	5,60	5,00
19920	350	300	355,6 x 11	323,9 x 10	60,54	5,60	5,60
19921	350	350	355,6 x 11	355,6 x 11	61,64	5,60	5,60

10 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 40**

**pipe parts * pipe class: AA40C1
Tee made of welded pipe**

- | | | |
|----------|----------------------------|---|
| 1 | Pipe class | AA406C1 |
| 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.: 200 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. 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}
19846	400	150	406,4 x 20	168,3 x 11	123,95	8,80	4,50
19847	400	200	406,4 x 20	219,1 x 12,5	126,68	8,80	6,30
19848	400	250	406,4 x 20	273 x 14,2	129,55	8,80	6,30
19849	400	300	406,4 x 20	323,9 x 16	132,42	8,80	7,10
19850	400	350	406,4 x 20	355,6 x 17,5	134,83	8,80	8,80
19851	400	400	406,4 x 20	406,4 x 20	135,67	8,80	8,80

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}
19852	500	200	508 x 25	219,1 x 12,5	240,58	11,00	6,30
19853	500	250	508 x 25	273 x 14,2	244,75	11,00	6,30
19854	500	300	508 x 25	323,9 x 16	249,27	11,00	7,10
19855	500	350	508 x 25	355, 6 x 17, 5	252, 94	11, 00	8, 00
19856	500	400	508 x 25	406,4 x 20	256,05	11,00	8,80
19857	500	500	508 x 25	508 x 25	264, 74	11, 00	11, 00

10 Valid and listed documents

AD 2000-leaflet W4
DIN 2559-1
DIN 2559-3
DIN 2615-1
DIN 2609
DIN 2616
DIN EN 10204

**Pipe Class
Specification PN 40**

**pipe parts * pipe class: AA40C1
Reducer, concentric, seamless**

1	Pipe class	AA40C1
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.: 200 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-leaflet W4, especially section 5, must be met</p>

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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}
19694	20	15	26,9 x 2,3	21,3 x 2	0,05	2,30	2,00
19695	25	15	33,7 x 2,6	21,3 x 2	0,08	2,60	2,00
19696	25	20	33,7 x 2,6	26,9 x 2,3	0,09	2,60	2,30
19697	32	15	42,4 x 2,6	21,3 x 2	0,10	2,60	2,00
19698	32	20	42,4 x 2,6	26,9 x 2,3	0,10	2,60	2,30
19699	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	s _{R1}	s _{R2}
19700	40	20	48,3 x 2,6	26,9 x 2,3	0,14	2,60	2,30
19701	40	25	48,3 x 2,6	33,7 x 2,6	0,16	2,60	2,60
19702	40	32	48,3 x 2,6	42,4 x 2,6	0,18	2,60	2,60
19703	50	20	60,3 x 2,9	26,9 x 2,3	0,22	2,90	2,30
19704	50	25	60,3 x 2,9	33,7 x 2,6	0,24	2,90	2,60
19705	50	32	60,3 x 2,9	42,4 x 2,6	0,26	2,90	2,60
19706	50	40	60,3 x 2,9	48,3 x 2,6	0,28	2,90	2,60
19707	65	25	76,1 x 2,9	33,7 x 2,6	0,34	2,90	2,60
19708	65	32	76,1 x 2,9	42,4 x 2,6	0,36	2,90	2,60
19709	65	40	76,1 x 2,9	48,3 x 2,6	0,38	2,90	2,60
19710	65	50	76,1 x 2,9	60,3 x 2,9	0,42	2,90	2,90
19711	80	32	88,9 x 3,2	42,4 x 2,6	0,45	3,20	2,60
19712	80	40	88,9 x 3,2	48,3 x 2,6	0,47	3,20	2,60
19713	80	50	88,9 x 3,2	60,3 x 2,9	0,51	3,20	2,90
19714	80	65	88,9 x 3,2	76,1 x 2,9	0,56	3,20	2,90
19715	100	40	114,3 x 6,3	48,3 x 4	1,18	3,60	2,60
19716	100	50	114,3 x 6,3	60,3 x 4,5	1,27	3,60	2,90
19717	100	65	114,3 x 3,6	76,1 x 2,9	0,82	3,60	2,90
19718	100	80	114,3 x 3,6	88,9 x 3,2	0,87	3,60	3,20
19719	125	50	139,7 x 6,3	60,3 x 4,5	1,87	4,00	2,90
19720	125	65	139,7 x 6,3	76,1 x 5	2,02	4,00	2,90
19721	125	80	139,7 x 6,3	88,9 x 5,6	2,14	4,00	3,20
19722	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	s _{R1}	s _{R2}
19723	150	65	168,3 x 4,5	76,1 x 2,9	1,84	4,50	2,90
19724	150	80	168,3 x 4,5	88,9 x 3,2	1,94	4,50	3,20
19725	150	100	168,3 x 4,5	114,3 x 3,6	2,13	4,50	3,60
19726	150	125	168,3 x 4,5	139,7 x 4	2,33	4,50	4,00
19727	200	80	219,1 x 6,3	88,9 x 3,2	3,52	6,30	3,20
19728	200	100	219,1 x 6,3	114,3 x 3,6	3,82	6,30	3,60
19729	200	125	219,1 x 6,3	139,7 x 4	4,12	6,30	4,00
19730	200	150	219,1 x 6,3	168,3 x 4,5	4,45	6,30	4,50
19731	250	100	273 x 14,2	114,3 x 8,8	11,35	6,30	3,60
19732	250	125	273 x 6,3	139,7 x 4	5,56	6,30	4,00
19733	250	150	273 x 6,3	168,3 x 4,5	5,95	6,30	4,50
19734	250	200	273 x 6,3	219,1 x 6,3	6,36	6,30	6,30
19735	300	125	323,9 x 16	139,7 x 10	17,53	7,10	4,00
19736	300	150	323,9 x 16	168,3 x 11	18,63	7,10	4,50
19737	300	200	323,9 x 7,1	219,1 x 6,3	9,41	7,10	6,30
19738	300	250	323,9 x 7,1	273 x 6,3	10,37	7,10	6,30
19739	350	150	355,6 x 8	168,3 x 4,5	16,65	8,00	4,50
19740	350	200	355,6 x 8	219,1 x 6,3	18,24	8,00	6,30
19741	350	250	355,6 x 8	273 x 6,3	20,00	8,00	6,30
19742	350	300	355,6 x 8	323,9 x 7,1	21,63	8,00	7,10

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 40**

**pipe parts * pipe class: AA40C1
Reducer, concentric, welded**

1	Pipe class	AA40C1
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 2559-3</p> <p>Inner surfaces free of oil, grease and slip additive (max.: 200 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>

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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}
19679	400	150	406,4 x 12,5	168,3 x 7,1	30,37	8,80	4,50
19680	400	200	406,4 x 12,5	219,1 x 8	33,10	8,80	6,30
19681	400	250	406,4 x 12,5	273 x 8,8	36,01	8,80	6,30
19682	400	300	406,4 x 8,8	323,9 x 7,1	27,52	8,80	7,10
19683	400	350	406,4 x 8,8	355,6 x 8	28,71	8,80	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	s _{R1}	s _{R2}
19684	500	200	508 x 16	219,1 x 8	70,47	11,00	6,30
19685	500	250	508 x 16	273 x 8,8	75,79	11,00	6,30
19686	500	300	508 x 11	323,9 x 7,1	56,07	11,00	7,10
19687	500	350	508 x 11	355,6 x 8	58,20	11,00	8,00
19688	500	400	508 x 11	406,4 x 8,8	61,64	11,00	8,80
19689	600	250	610 x 17,5	273 x 8,8	93,91	12,50	6,30
19690	600	300	610 x 17,5	323,9 x 10	99,36	12,50	7,10
19691	600	350	610 x 17,5	355,6 x 11	102,73	12,50	8,00
19692	600	400	610 x 17,5	406,4 x 12,5	108,13	12,50	8,80
19693	600	500	610 x 12,5	508 x 11	85,70	12,50	11,00

10 Valid and listed documents

AD 2000-Merkblatt W4
DIN 2559-1
DIN 2559-3
DIN 2616-1
DIN 2609
DIN 1626
DIN EN 10204

**Pipe Class
Specification PN 40**
**pipe parts * pipe class: AA40C1
Reducer, eccentric, seamless**

1	Pipe class	AA40C1
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.: 200 mg/m²)</p> <p>Ends closed with caps</p> <p>Requirements AD 2000-sheet W4, especially section 5, must be met</p>

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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}
19630	20	15	26,9 x 2,3	21,3 x 2	0,05	2,30	2,00
19631	25	15	33,7 x 2,6	21,3 x 2	0,08	2,60	2,00
19632	25	20	33,7 x 2,6	26,9 x 2,3	0,09	2,60	2,30
19633	32	15	42,4 x 2,6	21,3 x 2	0,10	2,60	2,00
19634	32	20	42,4 x 2,6	26,9 x 2,3	0,10	2,60	2,30
19635	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	S _{R1}	S _{R2}
19636	40	20	48,3 x 2,6	26,9 x 2,3	0,14	2,60	2,30
19637	40	25	48,3 x 2,6	33,7 x 2,6	0,16	2,60	2,60
19638	40	32	48,3 x 2,6	42,4 x 2,6	0,18	2,60	2,60
19639	50	20	60,3 x 2,9	26,9 x 2,3	0,22	2,90	2,30
19640	50	25	60,3 x 2,9	33,7 x 2,6	0,24	2,90	2,60
19641	50	32	60,3 x 2,9	42,4 x 2,6	0,26	2,90	2,60
19642	50	40	60,3 x 2,9	48,3 x 2,6	0,28	2,90	2,60
19643	65	25	76,1 x 2,9	33,7 x 2,6	0,34	2,90	2,60
19644	65	32	76,1 x 2,9	42,4 x 2,6	0,36	2,90	2,60
19645	65	40	76,1 x 2,9	48,3 x 2,6	0,38	2,90	2,60
19646	65	50	76,1 x 2,9	60,3 x 2,9	0,42	2,90	2,90
19647	80	32	88,9 x 3,2	42,4 x 2,6	0,45	3,20	2,60
19648	80	40	88,9 x 3,2	48,3 x 2,6	0,47	3,20	2,60
19649	80	50	88,9 x 3,2	60,3 x 2,9	0,51	3,20	2,90
19650	80	65	88,9 x 3,2	76,1 x 2,9	0,56	3,20	2,90
19651	100	40	114,3 x 6,3	48,3 x 4	1,18	3,60	2,60
19652	100	50	114,3 x 6,3	60,3 x 4,5	1,27	3,60	2,90
19653	100	65	114,3 x 3,6	76,1 x 2,9	0,82	3,60	2,90
19654	100	80	114,3 x 3,6	88,9 x 3,2	0,87	3,60	3,20
19655	125	50	139,7 x 6,3	60,3 x 4,5	1,87	4,00	2,90
19656	125	65	139,7 x 6,3	76,1 x 5	2,02	4,00	2,90
19657	125	80	139,7 x 6,3	88,9 x 5,6	2,14	4,00	3,20
19658	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	s _{R1}	s _{R2}
19659	150	65	168,3 x 7,1	76,1 x 5	2,85	4,50	2,90
19660	150	80	168,3 x 7,1	88,9 x 5,6	3,00	4,50	3,20
19661	150	100	168,3 x 7,1	114,3 x 6,3	3,30	4,50	3,60
19662	150	125	168,3 x 4,5	139,7 x 4	2,33	4,50	4,00
19663	200	80	219,1 x 6,3	88,9 x 3,2	3,52	6,30	3,20
19664	200	100	219,1 x 6,3	114,3 x 3,6	3,82	6,30	3,60
19665	200	125	219,1 x 6,3	139,7 x 4	4,12	6,30	4,00
19666	200	150	219,1 x 6,3	168,3 x 4,5	4,45	6,30	4,50
19667	250	100	273 x 14,2	114,3 x 8,8	11,35	6,30	3,60
19668	250	125	273 x 6,3	139,7 x 4	5,56	6,30	4,00
19669	250	150	273 x 6,3	168,3 x 4,5	5,95	6,30	4,50
19670	250	200	273 x 6,3	219,1 x 6,3	6,63	6,30	6,30
19671	300	125	323,9 x 16	139,7 x 10	17,53	7,10	4,00
19672	300	150	323,9 x 16	168,3 x 11	18,63	7,10	4,50
19673	300	200	323,9 x 7,1	219,1 x 6,3	9,41	7,10	6,30
19674	300	250	323,9 x 7,1	273 x 6,3	10,37	7,10	6,30
19675	350	150	355,6 x 8	168,3 x 4,5	16,65	8,00	4,50
19676	350	200	355,6 x 8	219,1 x 6,3	18,24	8,00	6,30
19677	350	250	355,6 x 8	273 x 6,3	20,00	8,00	6,30
19678	350	300	355,6 x 8	323,9 x 7,1	21,63	8,00	7,10

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 40**

**pipe parts * pipe class: AA16C1
Reducer, eccentric, welded**

1	Pipe class	AA16C1
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.: 200 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>

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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}
19615	400	150	406,4 x 12,5	168,3 x 7,1	30,37	8,80	4,50
19616	400	200	406,4 x 12,5	219,1 x 8	33,10	8,80	6,30
19617	400	250	406,4 x 12,5	273 x 8,8	36,01	8,80	6,30
19618	400	300	406,4 x 8,8	323,9 x 7,1	27,52	8,80	7,10
19619	400	350	406,4 x 8,8	355,6 x 8	28,71	8,80	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	s _{R1}	s _{R2}
16920	500	200	508 x 16	219,1 x 8	70,47	11,00	6,30
19621	500	250	508 x 16	273 x 8,8	75,79	11,00	6,30
19622	500	300	508 x 11	323,9 x 7,1	56,07	11,00	7,10
19623	500	350	508 x 11	355,6 x 8	58,20	11,00	8,00
19624	500	400	508 x 11	406,4 x 8,8	61,64	11,00	8,80
19625	600	250	610 x 17,5	273 x 8,8	93,91	12,50	6,30
19626	600	300	610 x 17,5	323,9 x 10	99,36	12,50	7,10
19627	600	350	610 x 17,5	355,6 x 11	102,73	12,50	8,00
19628	600	400	610 x 17,5	406,4 x 12,5	108,13	12,50	8,80
19629	600	500	610 x 12,5	508 x 11	85,70	12,50	11,00

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 40**
**pipe parts * pipe class: AA40C1
caps**

1	Pipe class	AA40C1
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	Cap to weld in, made of seamless or welded pipe

Weld preparation according to DIN 2559

Inner surfaces free of oil, grease and slip additive
(max.: 200 mg/m²)

Ends closed

Requirements AD 2000-leaflet W4 must be met

Ident-No.	nom. diameter	dimensions	weights	pipe connection wall thickness
	ND	da x s	kg	SR
19597	15	21,3 x 2	0,02	2,00
19598	20	26,9 x 2,3	0,04	2,30
19599	25	33,7 x 2,6	0,08	2,60
19600	32	42,4 x 2,6	0,10	2,60
19601	40	48,3 x 2,6	0,12	2,60
19602	50	60,3 x 2,9	0,17	2,90
19603	65	76,1 x 2,9	0,22	2,90
19604	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
19605	100	114,3 x 3,6	0,70	3,60
19606	125	139, 7 x 4	1,15	4, 00
19607	150	168,3 x 4,5	1,83	4,50
19608	200	219,1 x 6,3	3,87	6,30
19609	250	273 x 6,3	6,08	6,30
19610	300	332, 9 x 7,1	9, 75	7,10
19611	350	355,6 x 8	13,10	8,00
19612	400	406,4 x 8,8	17,94	8,80
19613	500	508 x 11	35,93	11,00
19614	600	610 x 12,5	57,52	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 40**
**pipe parts * pipe class: AA40C1
Blanks**

1	Pipe class	AA40C1
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.: 200 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
19529	15	40,00	20,00	10	0,00
19530	20	60,00	25,00	10	0,00
19531	25	70,00	30,00	10	0,00
19532	32	81,00	40,00	10	0,00
19533	40	91,00	45,00	10	0,00
19534	50	106,00	57,00	10	0,00
19535	65	126,00	73,00	10	0,00

Ident-No.	nom. width	diameter	diameter	thickness	weights
	ND	d ₁	d ₂	s ₁	kg
19536	80	141,00	85,00	10	0,00
19537	100	167,00	110,00	15	0,00
19538	125	193,00	135,00	15	0,00
19539	150	223,00	160,00	20	0,00
19540	200	289,00	210,00	25	0,00
19541	250	351,00	262,00	30	0,00
19542	300	416,00	312,00	40	0,00
19543	350	473,00	342,00	40	0,00
19544	400	545,00	390,00	50	0,00
19545	500	627,00	498,00	50	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 40**
**pipe parts * pipe class: AA40C1
Welding neck flanges**

1	Pipe class	AA40C1
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.: 200 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
19939	15	15 x 21,3	1,00
19940	20	20 x 26,9	1,00
19941	25	25 x 33,7	1,00
19942	32	32 x 42,4	2,00
19943	40	40 x 48,3	2,00
19944	50	50 x 60,3	3,00
19945	65	65 x 76,1	4,00
19946	80	80 x 88,9	5,00
19947	100	100 x 114,3	6,50

Ident-No.	nom. diameter	dimensions	weights
	ND	ND x ØA	kg
19948	125	125 x 139,7	9,00
19949	150	150 x 168,3	11,50
19950	200	200 x 219,1	21,00
19951	250	250 x 273	34,00
19952	300	300 x 323,9	47,50
19953	350	350 x 355,6	69,00
19954	400	400 x 406,4	105,08
19955	500	500 x 508	130,50

10 Valid and listed documents

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

**Pipe Class
Specification PN 40**

**pipe parts * pipe class: AA40C1
blind flanges**

1	Pipe class	AA40C1
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.: 200 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
19512	15	1,00
19513	20	1,00
19514	25	1, 50
19515	32	2,00
19516	40	2,50
19517	50	3,00
19518	65	4,50
19519	80	5,50
19520	100	7,50

Ident-No.	nom. diameter	weights
	ND	kg
19521	125	11, 00
19522	150	14,50
19523	200	29,00
19524	250	44,50
19525	300	64,00
19526	350	89,50
19527	400	127,00
19528	500	188,00

10 Valid and listed documents

AD 2000-leaflet W1
AD 2000-leaflet W9
DIN EN 1092-1
DIN EN 10204

**Pipe Class
Specification PN 40**

**pipe parts * pipe class: AA40C1
hexagon head screws**

1	Pipe class	AA40C1
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
19824	M 12 x 55	0,06
19825	M 12 x 65	0,07
19826	M 16 x 60	0,12
19827	M 16 x 70	0,14
19828	M 16 x 80	0,16
19829	M 20 x 80	0,26
19830	M 20 x 90	0,28
19831	M 24 x 90	0,43
19832	M 24 x 100	0,48

Ident-No.	thread x length	weights
		kg
19833	M 24 x 110	0,50
19834	M 27 x 100	0,60
19835	M 27 x 130	0, 72
19836	M 30 x 110	0,82
19837	M 30 x 120	0,88
19838	M 30 x 140	0,98
19839	M 30 x 160	1,09
19840	M 33 x 130	1,15
19841	M 33 x 180	1,48
19842	M 36 x 140	1,47
19843	M 36 x 200	1,95
19844	M 39 x 150	1, 74
19845	M 39 x 200	2,20

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 40**

**pipe parts * pipe class: AA40C1
hexagon nuts**

1	Pipe class	AA40C1
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
19815	M 12	0,02
19816	M 16	0,03
19817	M 20	0,06
19818	M 24	0,11
19819	M 27	0,17
19820	M 30	0,22
19821	M 33	0,29
19822	M 36	0,39
19823	M 39	0,50

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10	Valid and listed documents	AD 2000-leaflet W7 DIN EN ISO 898-2 DIN EN ISO 4032 DIN EN ISO 4042 DIN EN 10204
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**Pipe Class
Specification PN 40**
**pipe parts * pipe class: AA40C1
Comb defined seals**

1	Pipe class	AA40C1
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	d1	d2	s1	kg
19580	15	51,00	42,00	26,00	5,00
19581	20	61,00	47,00	31,00	5,00
19582	25	71,00	52,00	36,00	5,00
19583	32	82,00	62,00	46,00	5,00
19584	40	92,00	69,00	53,00	5,00
19585	50	107,00	81,00	65,00	5,00
19586	65	127,00	100,00	81,00	5,00
19587	80	142,00	115,00	95,00	5,00
19588	100	168,00	138,00	118,00	5,00
19589	125	194,00	162,00	142,00	5,00
19590	150	224,00	190,00	170,00	5,00
19591	200	290,00	240,00	220,00	5,00
19592	250	352,00	290,00	270,00	5,00

Ident-No.	nom. width	diameter	diameter	thickness	weights
	ND	d ₁	d ₂	s ₁	kg
19593	300	417,00	340,00	320,00	5,00
19594	350	474,00	395,00	375,00	5,00
19595	400	546,00	450,00	426,00	5,00
19596	500	628,00	560,00	530,00	5,00

10 **Valid and listed documents** Standard 06401
Standard 40008
DIN EN 10204

**Pipe Class
Specification PN 40**
**pipe parts * pipe class: AA40C1
flat packings**

1	Pipe class	AA40C1
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
19563	15	50,00	22,00	2,00
19564	20	60,00	28,00	2,00
19565	25	70,00	35,00	2,00
19566	32	82,00	43,00	2,00
19567	40	92,00	49,00	2,00
19568	50	107,00	61,00	2,00
19569	65	127,00	77,00	2,00
19570	80	142,00	90,00	2,00
19571	100	168,00	115,00	2,00
19572	125	195,00	141,00	2,00
19573	150	225,00	169,00	2,00
19574	200	292,00	220,00	2,00
19575	250	353,00	274,00	2,00

Ident-No.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
19576	300	418,00	325,00	2,00
19577	350	475,00	368,00	2,00
19578	400	547,00	420,00	2,00
19579	500	628,00	520,00	2,00

10 Valid and listed documents

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

**Pipe Class
Specification PN 40**
**pipe parts * pipe class: AA40C1
fibrous packings**

1	Pipe class	AA40C1
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
19546	15	50,00	22,00	2,00
19547	20	60,00	28,00	2,00
19548	25	70,00	35,00	2,00
19549	32	82,00	43,00	2,00
19550	40	92,00	49,00	2,00
19551	50	107,00	61,00	2,00
19552	65	127,00	77,00	2,00
19553	80	142,00	90,00	2,00
19554	100	168,00	115,00	2,00
19555	125	195, 00	141, 00	2, 00
19556	150	225,00	169,00	2,00
19557	200	285,00	220,00	2,00
19558	250	342,00	274,00	2,00

Ident-No.	nom. diameter	diameter	diameter	thickness
	ND	d ₂	d ₁	s
19559	300	402,00	325,00	2,00
19560	350	458,00	368,00	2,00
19561	400	515,00	420,00	2,00
19562	500	625,00	520,00	2,00

10 Valid and listed documents

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