



**STÜWE<sup>®</sup>**

**Catalogue**  
External Locking Unit Type AS



Certified in accordance with  
DIN ISO 9001:2008

# STÜWE<sup>®</sup>

## EXTERNAL LOCKING UNIT TYPE AS

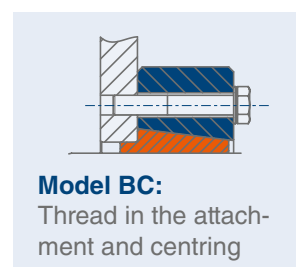
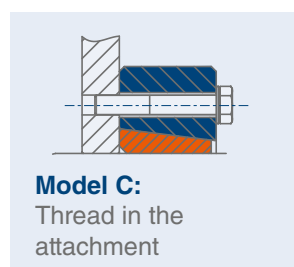
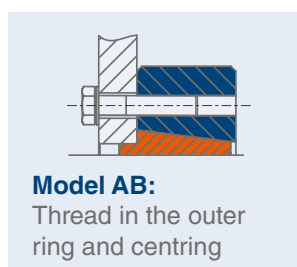
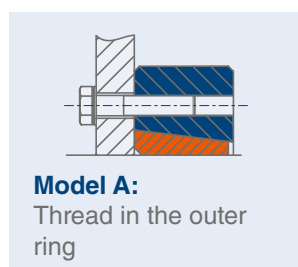


# EXTERNAL LOCKING UNIT TYPE AS – GENERAL INFORMATION

## Description of Application

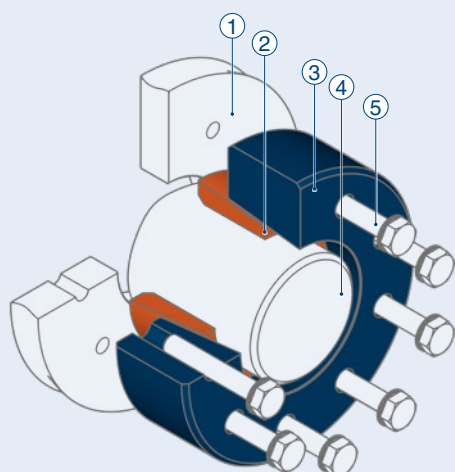
External locking units Type AS enable disc-shaped attachments such as brake discs, sheaves or pulleys to be fastened to standard shafts. The fastening of couplings is a further area of use.

The external locking unit series 12, 22 and 23 is supplied in the standard delivery programme in the following designs:



## Areas of Application

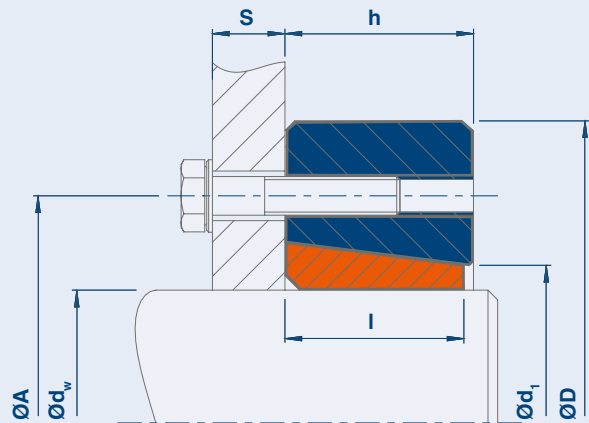
Series	Shaft diameter	Transmissible torque	Feature
12	9 - 100 mm	0.02 - 15.8 kNm	Medium-sized torques, without bending moment
22	11 - 440 mm	0.05 - 426 kNm	High torques + bending moment
23	40 - 440 mm	3.3 - 562 kNm	Highest possible torques + bending moment



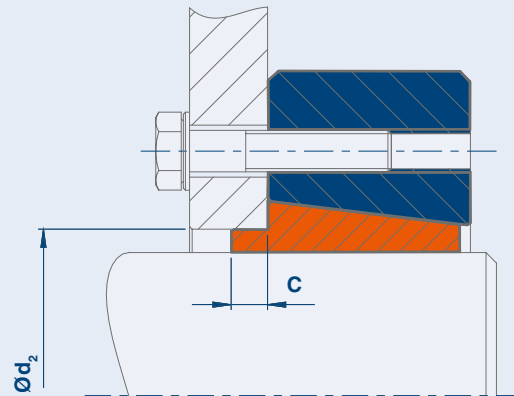
- ① Attachment (such as a pulley)
- ② Inner ring\*
- ③ Outer ring\*
- ④ Shaft
- ⑤ Tightening bolts including washers where necessary

\*Included in the scope of delivery

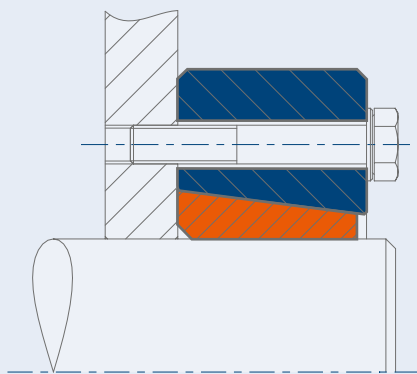
# STÜWE® External Locking Unit Type AS Series 12



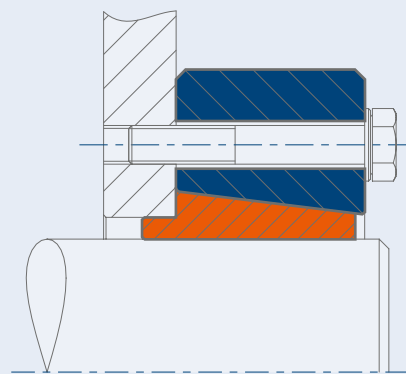
Model A



Model AB



Model C



Model BC

## Code

$M_t$  Maximum transmissible torque of an external locking unit for  $P_{ax} = 0$

$M_a$  Required tightening torque of the tightening bolts (see also "Installation and Removal Instructions")

### Details of the fit:

$\text{Ø}d_w$ : h9

$\text{Ø}d_2$ : H7/g6

### all models:

$S > 1.4 \times \text{Bolts-Ø}$

### Roughness of all fitting surfaces:

$R_a < 3.2 \mu\text{m}$

For the transmission of torque only. For the transmission of both torque and bending moments select series 22 or 23.

## External Locking Unit Type AS – Series 12

Type	d <sub>w</sub> * mm	M <sub>t</sub> kNm	B** Grade 10.9	M <sub>a</sub> Nm	A mm	D mm	l mm	h mm	C mm	d <sub>1</sub> mm	d <sub>2</sub> mm	kg
AS 10 - 12	11	0.02	3 x M6 x 18	12	25	39	9	10	1.5	13	12	0.1
	10	0.02										
	9	0.02										
AS 12 - 12	13	0.05	3 x M6 x 20	12	28	44	12	13	1.5	16	14	0.1
	12	0.05										
	11	0.05										
AS 15 - 12	16	0.13	3 x M8 x 25	29	36	52	14	15	2	21	18	0.2
	15	0.13										
	14	0.13										
AS 20 - 12	20	0.20	3 x M8 x 30	29	42	60	16	17	2	25	22	0.3
	18	0.20										
	16	0.20										
AS 25 - 12	25	0.34	5 x M8 x 30	29	48	66	18	19	2	32	27	0.4
	22	0.34										
	20	0.34										
AS 30 - 12	30	0.55	6 x M8 x 35	29	56	76	20	21	2	38	32	0.6
	28	0.55										
	25	0.55										
AS 40 - 12	40	1.06	6 x M10 x 35	58	70	96	24	25	3	47	43	1.2
	35	1.06										
	30	1.06										
AS 50 - 12	50	2.20	7 x M12 x 45	100	84	112	29	30	3	58	53	2.0
	45	1.80										
	40	1.00										
AS 60 - 12	60	3.23	9 x M12 x 50	100	94	120	32	34	3	66	63	2.3
	55	3.23										
	50	2.30										
AS 70 - 12	70	5.80	8 x M16 x 60	240	112	148	38	40	4	79	74	4.2
	65	5.80										
	60	4.50										
AS 80 - 12	80	8.64	9 x M16 x 65	240	130	170	42	44	4	94	84	6.1
	75	8.64										
	70	6.90										
AS 90 - 12	90	12.00	12 x M16 x 70	240	144	185	48	50	4	104	94	8.0
	85	12.00										
	80	10.70										
AS 100 - 12	100	15.80	14 x M16 x 75	240	156	197	52	54	4	113	104	9.5
	95	15.80										
	90	15.80										

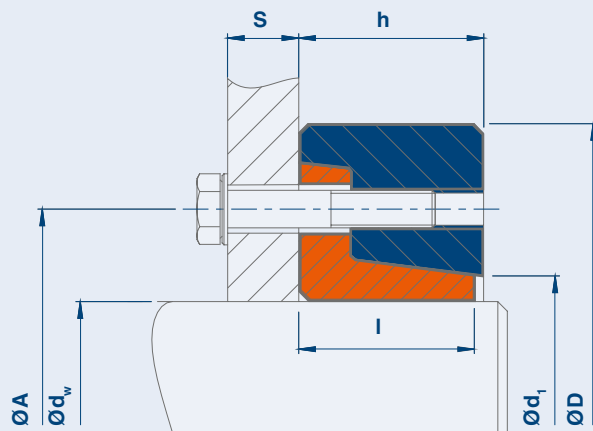
Further sizes on request. Subject to technical change without notice.

\*Diameter d<sub>w</sub> can be chosen within given limitations.

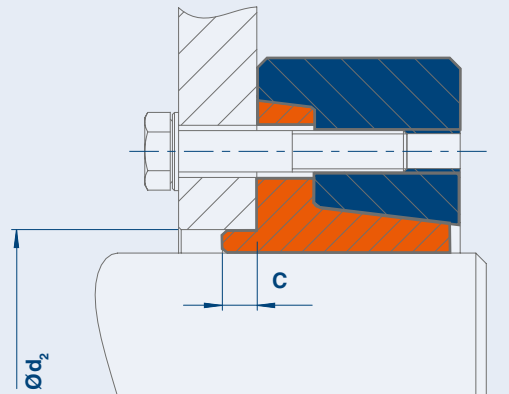
\*Tightening bolts: standard DIN EN ISO 4017/4014: Length for model C and BC, alternative DIN EN ISO 4762  
From M16 and larger with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød<sub>w</sub> x desired model) flange width S for model A and AB,  
e.g. AS 70 - 12 x 65 x A S=8 mm

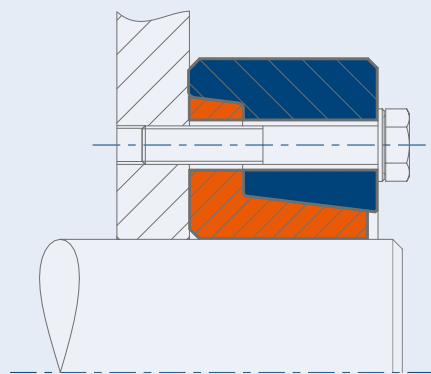
# STÜWE® External Locking Unit Type AS Series 22



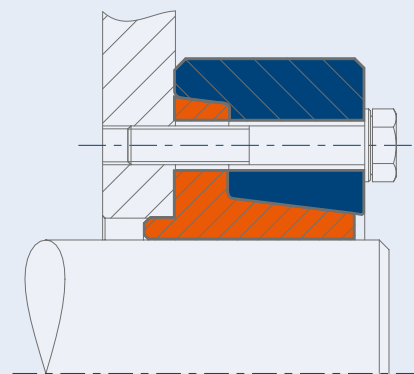
Model A



Model AB



Model C



Model BC

## Code

$M_t$  Maximum transmissible torque of an external locking unit for  $P_{ax} = 0$

$M_a$  Required tightening torque of the tightening bolts (see also "Installation and Removal Instructions")

### Details of the fit:

$\varnothing d_w$ : h9

$\varnothing d_2$ : H7/g6

### all models:

$S > 1.4 \times \text{Bolts-}\varnothing$

### Roughness of all fitting surfaces:

$R_a < 3.2 \mu\text{m}$

## External Locking Unit Type AS – Series 22

Type	d <sub>w</sub> * mm	M <sub>t</sub> kNm	B** Grade 10.9	M <sub>a</sub> Nm	A mm	D mm	l mm	h mm	C mm	d <sub>1</sub> mm	d <sub>2</sub> mm	kg
AS 12 - 22	12	0.05	3 x M6 x 20	12	24	35	10	7	1.5	13	14	0.1
	11	0.05										
AS 14 - 22	14	0.07	3 x M6 x 20	12	26	38	10	7.3	1.5	15	16	0.1
	13	0.07										
AS 16 - 22	16	0.08	3 x M6 x 25	12	28	41	13.5	9	2	17	18	0.1
	15	0.08										
AS 18 - 22	18	0.13	4 x M6 x 25	12	30	44	13.5	9	2	19	20	0.1
	17	0.13										
AS 20 - 22	20	0.14	4 x M6 x 25	12	32	47	13.5	9	2	21	22	0.2
	19	0.14										
AS- 25 - 22	25	0.20	5 x M6 x 30	12	36	50	17	17	2	26	27	0.2
	24	0.20										
	22	0.20										
AS 30 - 22	30	0.30	6 x M6 x 30	12	44	60	18	19	3	32	32	0.3
	28	0.30										
	26	0.30										
AS 35 - 22	36	0.50	5 x M8 x 35	29	52	72	20	21	3	38	38	0.5
	35	0.50										
	32	0.45										
AS 40 - 22	44	0.75	6 x M8 x 35	29	61	80	22	23	3	47	46	0.7
	40	0.75										
	38	0.72										
AS 50 - 22	50	1.3	8 x M8 x 40	29	68	90	24	25	3	53	53	0.9
	45	1.3										
	42	1.0										
AS 55 - 22	55	1.6	8 x M8 x 40	29	72	100	26	27	3	58	58	1.2
	52	1.6										
	45	1.6										
AS 60 - 22	62	2.0	9 x M8 x 40	29	80	110	26	27	3	66	63	1.4
	60	2.0										
	50	2.0										
AS 70 - 22	70	2.1	9 x M8 x 40	29	86	115	26	27	4	72	74	1.5
	65	2.1										
	60	2.1										
AS 80 - 22	80	4.0	10 x M10 x 45	58	100	141	28	29	4	84	84	2.5
	75	4.0										
	70	4.0										
AS 90 - 22	90	5.7	12 x M10 x 50	58	114	155	34	35	4	94	94	3.6
	85	5.7										
	80	5.7										
AS 100 - 22	100	8.4	12 x M12 x 60	100	124	170	39	40	4	104	104	4.6
	95	8.4										
	90	8.4										
AS 110 - 22	110	9.2	12 x M12 x 70	100	136	185	45	46	5	114	116	6.2
	105	9.2										
	100	9.2										

\*Diameter d<sub>w</sub> can be chosen within given limitations.

\*\*Tightening bolts: standard DIN EN ISO 4017/4014: Length for model C and BC, alternative DIN EN ISO 4762  
From M16 and larger with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød<sub>w</sub> x desired model) flange width S for model A and AB, e.g.  
AS 40 - 22 x 44 x A S=8 mm

## External Locking Unit Type AS – Series 22

Type	d <sub>w</sub> * mm	M <sub>t</sub> kNm	B** Grade 10.9	M <sub>a</sub> Nm	A mm	D mm	l mm	h mm	C mm	d <sub>1</sub> mm	d <sub>2</sub> mm	kg
AS 125 - 22	125	21	12 x M16 x 75	240	160	215	47	49	5	133	126	8.8
	120	21										
	115	21										
AS 140 - 22	140	26	14 x M16 x 80	240	172	230	52	53	5	145	146	11
	135	26										
	130	26										
AS 155 - 22	160	31	15 x M16 x 80	240	192	263	54	55	5	162	166	15
	155	31										
	150	31										
AS 170 - 22	170	36	16 x M16 x 90	240	204	290	61	62	5	175	176	21
	165	36										
	160	36										
AS 180 - 22	180	43	18 x M16 x 90	240	218	300	61	62	5	185	186	22
	175	43										
	170	43										
AS 190 - 22	190	60	15 x M20 x 110	470	232	320	77	78	5	195	196	31
	185	60										
	180	60										
AS 200 - 22	200	67	16 x M20 x 110	470	246	340	75	78	5	209	206	35
	195	67										
	190	67										
AS 220 - 22	220	93	14 x M24 x 130	820	270	370	95	96	5	230	226	53
	210	93										
	200	93										
AS 240 - 22	240	117	16 x M24 x 140	820	296	405	98	100	5	248	246	64
	230	117										
	220	117										
AS 260 - 22	260	126	16 x M24 x 150	820	318	430	106	106	5	266	266	80
	250	126										
	240	126										
AS 280 - 22	280	151	18 x M24 x 160	820	340	460	118	118	5	288	286	95
	270	151										
	260	151										
AS 300 - 22	300	178	20 x M24 x 170	820	360	485	125	126	5	309	306	110
	290	178										
	280	178										
AS 320 - 22	320	248	20 x M27 x 170	1210	380	520	125	126	5	328	330	134
	300	248										
	280	248										
AS 340 - 22	340	275	21 x M27 x 180	1210	402	570	134	136	5	351	350	180
	320	275										
	300	275										
AS 360 - 22	360	290	21 x M27 x 180	1210	424	590	142	144	8	367	370	200
	340	290										
	320	290										
AS 390 - 22	390	363	20 x M30 x 190	1640	458	630	146	148	8	398	400	222
	370	363										
	350	363										
AS 420 - 22	420	407	21 x M30 x 210	1640	490	650	166	168	8	424	430	263
	400	407										
	380	407										
AS 440 - 22	440	426	21 x M30 x 220	1640	512	670	174	176	8	448	450	309
	420	426										
	400	426										

Further sizes on request. Subject to technical change without notice.

\*Diameter d<sub>w</sub> can be chosen within given limitations.

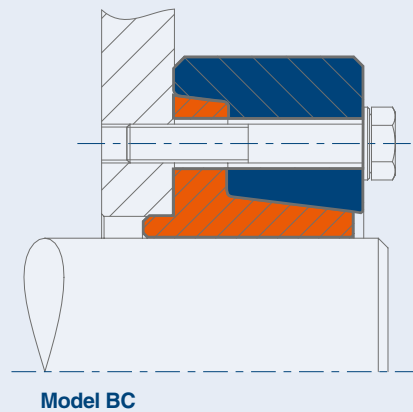
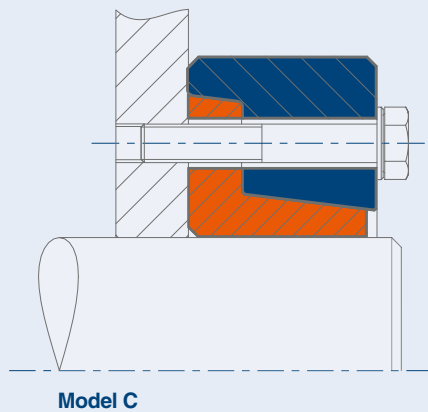
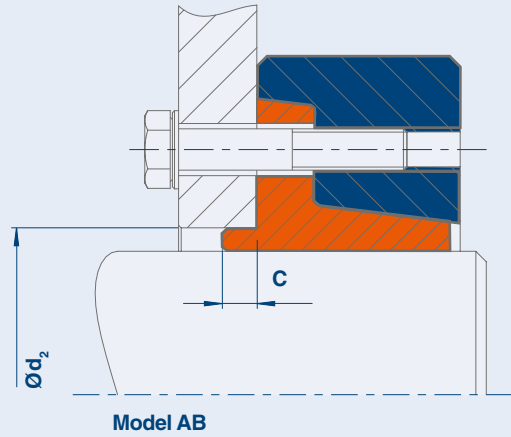
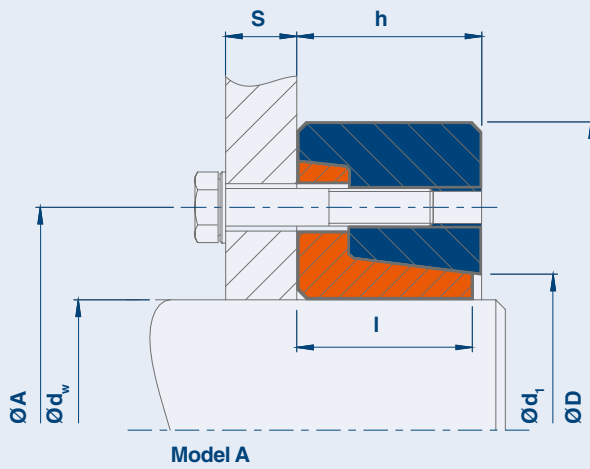
\*\*Tightening bolts: standard DIN EN ISO 4017/4014: Length for model C and BC, alternative DIN EN ISO 4762  
From M16 and larger with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød<sub>w</sub> x desired model) flange width S for model A and AB, e.g.

AS 300 - 22 x 290 x A S=50 mm



# STÜWE® External Locking Unit Type AS Series 23



## Code

- M<sub>t</sub>** Maximum transmissible torque of an external locking unit for  $P_{ax} = 0$
- M<sub>a</sub>** Required tightening torque of the tightening bolts (see also "Installation and Removal Instructions")

### Details of the fit:

$\text{Ød}_w$ : h9  
 $\text{Ød}_2$ : H7/g6

**all models:**  
 $S > 1.4 \times \text{Bolts-Ø}$

**Roughness of all fitting surfaces:**  
 $Ra < 3.2 \mu\text{m}$

## External Locking Unit Type AS – Series 23

Type	d <sub>w</sub> * mm	M <sub>t</sub> kNm	B** Grade 10.9	M <sub>a</sub> Nm	A mm	D mm	l mm	h mm	C mm	d <sub>1</sub> mm	d <sub>2</sub> mm	kg
AS 50 - 23	50	3.3	7 x M12 x 45	100	84	115	29	30	3	58	53	2.0
	45	2.2										
	40	1.4										
AS 60 - 23	60	4.7	9 x M12 x 50	100	94	120	32	34	3	66	63	2.2
	55	3.5										
	50	2.3										
AS 70 - 23	70	9.4	8 x M16 x 60	240	112	148	38	40	4	79	74	3.9
	65	7.6										
	60	5.8										
AS 80 - 23	80	12	9 x M16 x 65	240	130	167	42	44	4	94	84	5.4
	75	10										
	70	8										
AS 90 - 23	90	18	12 x M16 x 70	240	144	185	48	50	4	104	94	7.4
	85	15										
	80	12										
AS 100 - 23	100	23	14 x M16 x 75	240	156	197	52	54	4	113	104	8.7
	95	19										
	90	16										
AS 110 - 23	110	27	10 x M20 x 90	470	166	215	56	58	5	124	116	11.0
	105	26										
	100	22										
AS 120 - 23	120	43	14 x M20 x 90	470	186	230	62	65	5	134	126	13.6
	115	38										
	110	33										
AS 140 - 23	140	56	16 x M20 x 100	470	216	290	73	76	5	160	146	29.0
	130	50										
	120	39										
AS 160 - 23	160	77	14 x M24 x 110	820	234	320	80	80	5	185	166	36.1
	150	77										
	140	64										
AS 180 - 23	180	104	16 x M24 x 130	820	276	340	91	94	5	205	186	45.3
	170	101										
	160	85										
AS 200 - 23	200	144	16 x M27 x 140	1210	290	370	95	96	5	226	206	53.7
	190	133										
	180	114										
AS 220 - 23	220	178	18 x M27 x 140	1210	320	405	96	96	5	246	226	64.3
	210	178										
	200	159										
AS 240 - 23	240	211	20 x M27 x 150	1210	340	430	109	110	5	267	246	81.0
	230	211										
	220	211										
AS 260 - 23	260	232	21 x M27 x 160	1210	356	460	118	118	5	289	286	109.4
	250	232										
	240	232										
AS 280 - 23	280	234	21 x M27 x 180	1210	360	485	124	125	5	304	306	116
	270	234										
	260	234										

\*Diameter d<sub>w</sub> can be chosen within given limitations.

\*\*Tightening bolts: standard DIN EN ISO 4017/4014: Length for model C and BC, alternative DIN EN ISO 4762 From M16 and larger with washers: DIN EN ISO 7416

When ordering please state: (Type x Ød<sub>w</sub> x desired model) flange width S for model A and AB  
e.g. AS 180 - 23 x 175 x A S=50

## External Locking Unit Type AS – Series 23

Type	d <sub>w</sub> * mm	M <sub>t</sub> kNm	B** Grade 10.9	M <sub>a</sub> Nm	A mm	D mm	l mm	h mm	C mm	d <sub>1</sub> mm	d <sub>2</sub> mm	kg
AS 300 - 23	300	247	21 x M27 x 180	1210	380	520	128	126	5	315	330	141
	290	247										
	280	247										
AS 320 - 23	320	299	24 x M27 x 180	1210	402	550	134	136	5	336	350	161
	310	299										
	300	299										
AS 340 - 23	340	315	24 x M27 x 180	1210	424	570	140	142	8	355	370	177
	330	315										
	320	315										
AS 360 - 23	360	410	24 x M30 x 190	1640	454	610	144	147	8	383	400	210
	350	410										
	340	410										
AS 390 - 23	390	439	24 x M30 x 200	1640	486	630	164	167	8	428	430	250
	380	439										
	360	439										
AS 420 - 23	420	457	24 x M30 x 220	1640	506	670	172	175	10	448	450	292
	410	457										
	390	457										
AS 440 - 23	440	562	28 x M30 x 220	1640	534	700	172	175	10	468	470	318
	420	562										
	400	562										

Further sizes on request. Subject to technical change without notice.

\*Diameter d<sub>w</sub> can be chosen within given limitations.

\*\*Tightening bolts: standard DIN EN ISO 4017/4014: Length for model C and BC, alternative DIN EN ISO 4762  
From M16 and larger with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ødw x desired model) flange width S for model A and AB  
e.g. AS 320 - 23 x 320 x A S=90 mm

**STÜWE**®

**STÜWE® GmbH & Co. KG**

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For further information about our international sales agents we kindly refer you to [www.stuewe.de/en/contact](http://www.stuewe.de/en/contact)