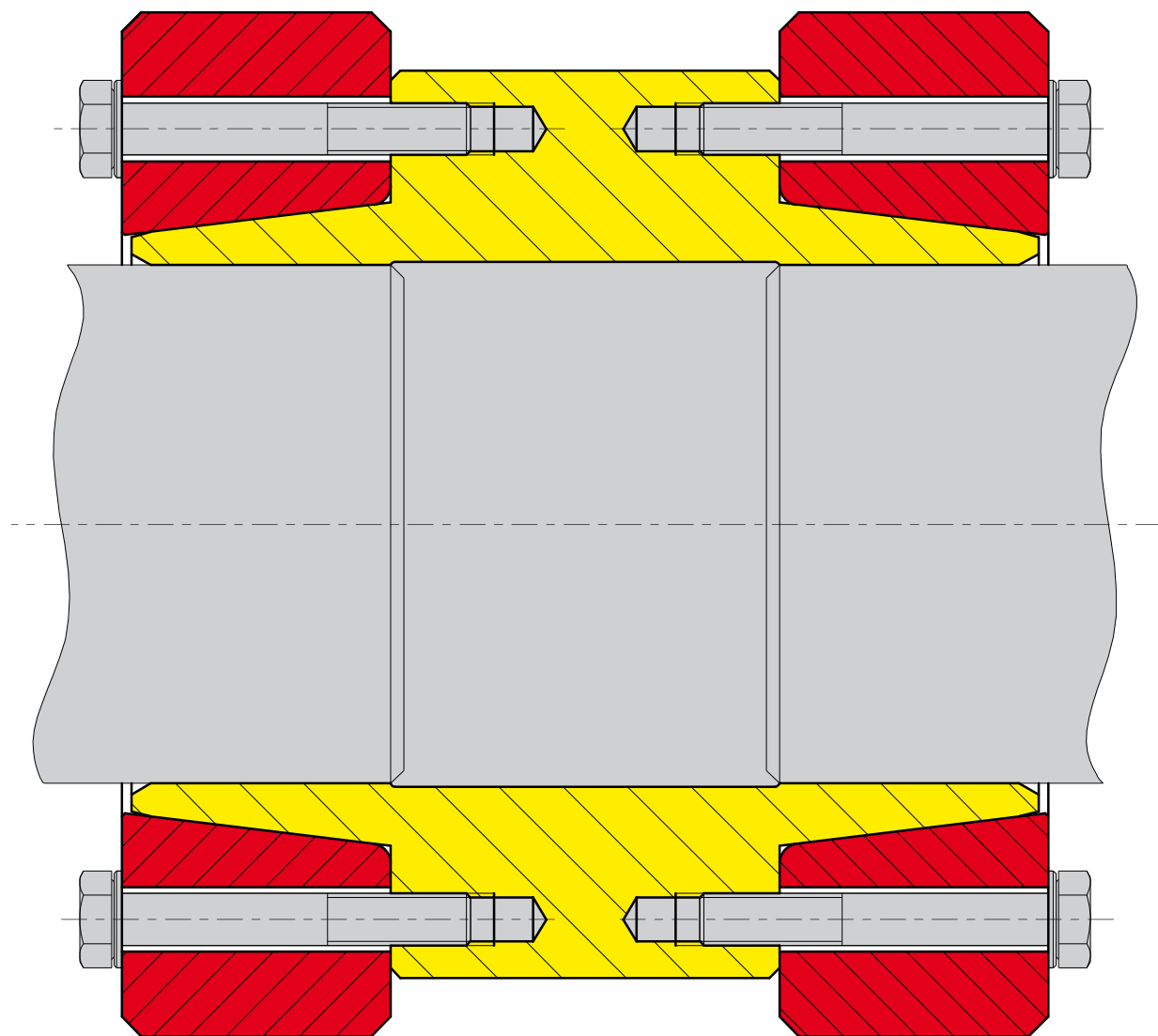
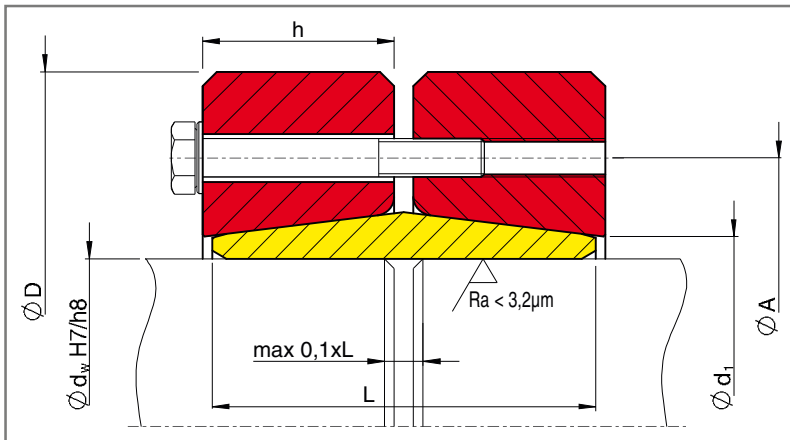


# Shaft Coupling Type WK, Type WKL



# Shaft Coupling Type WK

Series 12



## Code:

- $M_t$  maximum transmissible torque of a shrink disc with  $P_{ax}=0$
- $P_{ax}$  maximum transmissible axial load of a shrink disc with  $M_t=0$
- $M_a$  required tightening torque of the tightening bolts (see also "Mounting and Removal Instructions")

Type	$d_w$ mm	$M_t$ kNm	$P_{ax}$ kN	$M_a$ Nm	B*	D mm	L mm	h mm	A mm	$d_1$ mm	kg
W K 10 - 12	9	0,04	8	12	M6	39	20	10	25	13	0,2
	10	0,04	9								
	11	0,05	10								
W K 12 - 12	12	0,07	11	12	M6	44	26	13	28	16	0,3
	13	0,08	12								
	14	0,09	13								
W K 15 - 12	15	0,16	21	29	M8	52	30	15	36	21	0,5
	17	0,20	24								
	19	0,26	27								
W K 20 - 12	20	0,29	29	29	M8	60	34	17	42	26	0,7
	22	0,35	32								
	24	0,41	35								
W K 25 - 12	25	0,49	40	29	M8	66	38	19	48	32	0,9
	27	0,58	43								
	29	0,66	46								
W K 30 - 12	30	0,77	51	29	M8	76	42	21	56	38	1,3
	32	0,87	55								
	35	1,05	60								
W K 40 - 12	36	1,3	70	58	M10	96	50	25	70	47	2,5
	40	1,8	92								
	43	2,3	109								
W K 50 - 12	44	2,3	102	100	M12	112	60	30	84	58	4,1
	50	3,4	137								
	54	4,3	161								
W K 60 - 12	55	4,1	150	100	M12	120	70	34	94	66	4,9
	60	5,5	184								
	62	6,1	197								
W K 70 - 12	63	6,2	196	100	M12	148	80	40	112	79	9,1
	70	8,6	245								
	73	9,7	266								
W K 80 - 12	74	10	275	160	M14	170	94	44	130	94	13,1
	80	13	320								
	85	15	358								
W K 90 - 12	86	16	381	240	M16	185	104	50	144	104	17,1
	90	19	417								
	95	22	461								
W K 100 - 12	96	23	483	240	M16	197	114	54	156	114	20,4
	100	26	521								
	106	31	578								
W K 120 - 12	107	35	648	240	M16	230	138	65	174	134	34,3
	120	47	787								
	125	53	841								

\*Tightening bolts: standard DINENISO 4014/4017 Grade 10.9, alternative DINENISO 4762 Grade 10.9  
M16 and upwards with washers: DINENISO 7416 When ordering please state : e. g. WK40-12x43 (Type x  $\varnothing d_w$ )

# Series 12

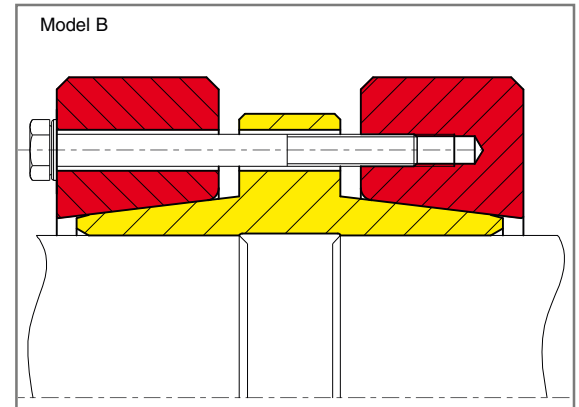
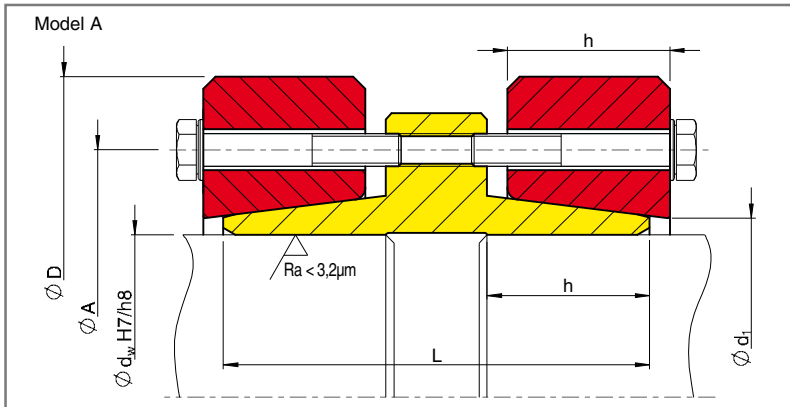
Type	$d_w$ mm	$M_t$ kNm	$P_{ax}$ kN	$M_a$ Nm	$B^*$	D mm	L mm	h mm	A mm	$d_1$ mm	kg
W K 140 - 12	126	56	881	470	M20	290	160	76	206	160	66,1
	140	74	1052								
	150	88	1178								
W K 160 - 12	150	81	1081	470	M20	320	176	83	234	180	85
	160	96	1202								
	165	104	1264								
W K 180 - 12	165	114	1381	470	M20	340	200	94	276	205	106
	180	143	1594								
	185	154	1665								
W K 200 - 12	185	164	1778	470	M20	370	228	107	290	226	140
	200	201	2011								
	210	228	2169								
W K 220 - 12	210	231	2199	820	M24	405	250	118	320	246	180
	220	260	2362								
	230	291	2527								
W K 240 - 12	230	271	2353	820	M24	430	270	128	340	266	215
	240	302	2513								
	250	334	2675								
W K 260 - 12	240	322	2683	1210	M27	460	290	138	366	288	271
	250	357	2860								
	260	395	3039								
W K 280 - 12	260	424	3265	1210	M27	485	330	166	400	308	355
	270	467	3459								
	280	512	3656								
W K 300 - 12	280	530	3787	1210	M27	520	346	174	420	328	426
	290	579	3990								
	300	629	4195								
W K 320 - 12	300	662	4414	1640	M30	550	376	190	446	348	514
	310	718	4631								
	320	776	4849								
W K 340 - 12	320	806	5038	1640	M30	590	380	194	466	368	607
	330	869	5267								
	340	935	5499								
W K 360 - 12	340	967	5686	2210	M33	650	400	202	500	398	790
	350	1037	5924								
	360	1109	6163								
W K 390 - 12	370	1195	6459	2210	M33	670	440	224	530	428	891
	380	1274	6706								
	390	1356	6954								
W K 420 - 12	400	1637	8187	2210	M33	740	470	238	560	448	1175
	410	1737	8471								
	420	1839	8758								
W K 460 - 12	430	1841	8561	2210	M33	780	500	246	590	498	1291
	450	2050	9112								
	460	2160	9390								
W K 500 - 12	470	2568	10929	2850	M36	860	560	276	648	540	1772
	480	2700	11249								
	500	2974	11895								
W K 550 - 12	510	3014	11820	2850	M36	960	600	296	710	600	2421
	530	3301	12456								
	550	3602	13097								
W K 600 - 12	560	3610	12893	2850	M36	1000	620	310	760	650	2614
	580	3921	13520								
	600	4245	14151								
W K 650 - 12	620	4555	14695	2850	M36	1080	640	320	824	700	3074
	530	4732	15023								
	650	5097	15684								
W K 700 - 12	660	5360	16243	2850	M36	1140	680	340	890	760	3608
	680	5751	16916								
	700	6158	17593								
W K 750 - 12	710	6256	17623	2850	M36	1280	720	360	950	814	5016
	730	6679	18298								
	750	7116	18977								

Further sizes on request. Technical changes to be reserved without notice.

\*Tightening bolts: standard DIN EN ISO 4014/4017 Grade 10.9, alternative DIN EN ISO 4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416 When ordering please state : e.g. WK390 - 12x380 (Type x  $\varnothing d_w$ )

# Shaft Coupling Type WKL

Series 12



**Code:**  $M_t$  maximum transmissible torque of a shrink disc with  $P_{ax}=0$   
 $P_{ax}$  maximum transmissible axial load of a shrink disc with  $M_t=0$   
 $M_a$  required tightening torque of the tightening bolts (see also "Mounting and Removal Instructions")

Type	$d_w$ mm	$M_t$ kNm	$P_{ax}$ kN	$M_a$ Nm	$B^*$	$D$ mm	$L$ mm	$h$ mm	$A$ mm	$d_1$ mm	kg
W K L 10 - 12	9	0,04	8	12	M6	39	32	10	25	13	0,3
	10	0,04	9								
	11	0,05	10								
W K L 12 - 12	12	0,07	11	12	M6	44	38	13	28	16	0,4
	13	0,08	12								
	14	0,09	13								
W K L 15 - 12	15	0,16	21	29	M8	52	50	15	36	21	0,7
	17	0,20	24								
	19	0,26	27								
W K L 20 - 12	20	0,29	29	29	M8	60	54	17	42	26	1,0
	22	0,35	32								
	24	0,41	35								
W K L 25 - 12	25	0,49	40	29	M8	66	62	19	48	32	1,3
	27	0,58	43								
	29	0,66	46								
W K L 30 - 12	30	0,77	51	29	M8	76	70	21	56	38	1,9
	32	0,87	55								
	35	1,05	60								
W K L 40 - 12	36	1,3	70	58	M10	96	80	25	70	47	3,5
	40	1,8	92								
	43	2,3	109								
W K L 50 - 12	44	2,3	102	100	M12	112	90	30	84	58	5,5
	50	3,4	137								
	54	4,3	161								
W K L 60 - 12	55	4,1	150	100	M12	120	120	34	94	66	7,8
	60	5,5	183								
	62	6,1	197								
W K L 70 - 12	63	6,2	196	100	M12	148	140	40	112	79	13,6
	70	8,6	245								
	73	9,7	266								
W K L 80 - 12	74	10	282	160	M14	170	170	44	130	94	21,4
	80	13	326								
	85	15	364								
W K L 90 - 12	86	17	387	240	M16	185	200	50	144	104	29,3
	90	19	421								
	95	22	466								
W K L 100 - 12	96	23	487	240	M16	197	210	54	156	114	34,2
	100	26	523								
	106	31	579								
W K L 120 - 12	107	35	659	240	M16	230	230	65	174	134	50,1
	120	48	796								
	125	53	850								

\* Tightening bolts: standard DINENISO 4014/4017 Grade 10.9, alternative DINENISO 4762 Grade 10.9  
M16 and upwards with washers: DINENISO 7416 When ordering please state : e.g. WKL 40 - 12 x 43 (Type x  $\phi d_w$ )

# Series 12

Type	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	B* M	D mm	L mm	h mm	A mm	d <sub>1</sub> mm	kg
W K L 140 - 12	126	56	895	470	M20	290	250	76	206	160	87,7
	140	74	1064								
	150	89	1188								
W K L 160 - 12	150	82	1096	470	M20	320	280	83	234	180	115
	160	97	1216								
	165	105	1277								
W K L 180 - 12	165	116	1404	470	M20	340	310	94	260	205	152
	180	145	1613								
	185	156	1684								
W K L 200 - 12	185	167	1805	470	M20	370	350	96	266	226	192
	200	203	2034								
	210	230	2190								
W K L 220 - 12	210	234	2224	820	M24	405	390	118	320	246	252
	220	262	2385								
	230	293	2548								
W K L 240 - 12	230	273	2377	820	M24	430	430	128	340	267	302
	240	304	2536								
	250	337	2696								
W K L 260 - 12	240	325	2712	1210	M27	460	450	138	366	288	376
	250	361	2888								
	260	398	3065								
W K L 280 - 12	260	431	3312	1210	M27	485	470	154	400	308	443
	270	473	3504								
	280	518	3698								
W K L 300 - 12	280	537	3834	1210	M27	520	470	162	420	328	502
	290	585	4035								
	300	636	4237								
W K L 320 - 12	300	667	4450	1640	M30	550	510	180	446	348	609
	310	723	4664								
	320	781	4881								
W K L 340 - 12	320	811	5066	1640	M30	590	510	184	466	368	694
	330	874	5294								
	340	939	5525								
W K L 360 - 12	340	973	5725	2210	M33	650	530	192	490	398	881
	350	1043	5961								
	360	1116	6199								
W K L 390 - 12	370	1199	6479	2210	M33	670	580	216	526	428	1004
	380	1278	6725								
	390	1360	6972								
W K L 420 - 12	400	1647	8234	2210	M33	740	600	226	550	448	1257
	410	1746	8517								
	420	1848	8801								
W K L 460 - 12	430	1841	8561	2210	M33	780	640	246	590	498	1483
	450	2050	9112								
	460	2160	9390								
W K L 500 - 12	470	2568	10929	2850	M36	860	690	276	648	540	1989
	480	2700	11249								
	500	2974	11895								
W K L 550 - 12	510	3014	11820	2850	M36	960	760	296	710	600	2739
	530	3301	12456								
	550	3602	13097								
W K L 600 - 12	560	3610	12893	2850	M36	1000	780	310	760	650	2957
	580	3921	13520								
	600	4245	14151								
W K L 650 - 12	620	4555	14695	2850	M36	1080	820	320	824	700	3501
	630	4732	15023								
	650	5097	15684								
W K L 700 - 12	660	5360	16243	2850	M36	1140	840	340	890	760	4056
	680	5751	16916								
	700	6158	17593								
W K L 750 - 12	710	6256	17623	2850	M36	1280	880	360	950	814	5511
	730	6679	18298								
	750	7116	18977								

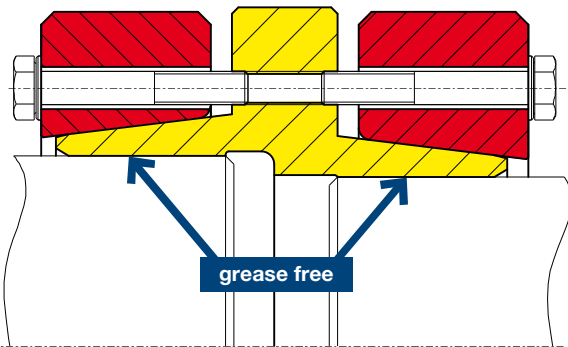
Further sizes on request. Technical changes to be reserved without notice.

\*Tightening bolts: standard DIN EN ISO 4014/4017 Grade 10.9, alternative DIN EN ISO 4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416 When ordering please state : e.g. WKL 240 - 12 x 230 (Type x Ød<sub>w</sub>)

# Mounting and Removal Instructions for Shaft Coupling Type WK, WKL

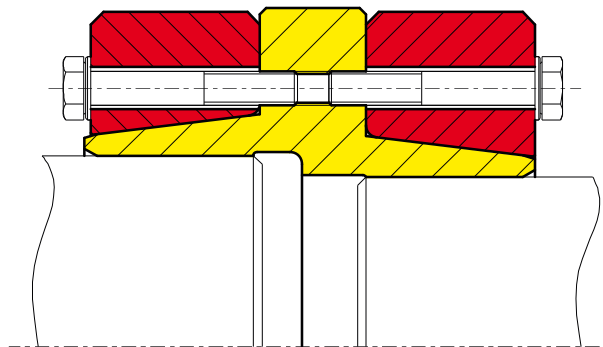
If two shafts with different diameters are to be connected, shaft couplings can be supplied with adapted holes.

Before mounting



Conical surfaces and bolts are lubricated

After mounting



## Mounting

The STÜWE® shaft couplings type WK resp. WKL are supplied ready to be mounted. Therefore they should not be dismantled prior to employing the unit for the first time.

1. Using a solvent, degrease the shaft and the bore. Safe torque transmission substantially depends on this procedure. Dirty solvent or cleaning clothes should not be used for degreasing.
2. Push shaft coupling onto the shaft ends and align shafts exactly. The coupling is not able to compensate any alignment or angle divergence.
3. Tighten four bolts evenly distributed over the circumference by reduced torque (approx. 50 to 70 % of maximum tightening torque).
4. Afterwards tighten all tightening bolts uniformly, one by one, over several revolutions until the specified tightening torque is achieved in all bolts. The correct mounting of the assembly can be checked easily: the clamping rings (WK) respectively the clamping rings and the center section (WKL) must be in tight contact.
5. Check each tightening bolt twice for the required tightening torque.



**If the shaft clearance is bigger than state in our catalogue, please contact us!**

## Dismounting

The greased tapers are not self-locking.

The dismounting process is similar to mounting. The shaft coupling is released by loosening the tightening bolts uniformly one by one, initially not more than a quarter turn per bolt, until it is observed that the outer rings have released from the inner ring.



**Under no circumstances should the locking bolts be completely removed as this could be dangerous and result in injury.**

## Cleaning and lubrication

Dismounted shaft couplings do not have to be dismantled and re-lubricated before remounting.

The shaft coupling has to be cleaned and re-lubricated only if employed in dirty environment.

Use a solid containing lubricant with a high content of MoS<sub>2</sub> and a coefficient of friction of  $\mu=0,04$  to lubricate the conical surfaces.

Usually a combination of bonded coating and paste is chosen.

Examples:

Lubricant	Source
Molykote D 321 R (bonded coating)	Dow Corning
Aema-Sol MO 84-K (bonding coating)	A.C. Matthes
Molykote G Rapid + (paste)	Dow Corning
Aema-Sol M 19 P (paste)	A.C. Matthes



**The coupling bore ( $\varnothing d_w$ ) has to stay grease free.**

The bolts have to be renewed if possible.

The bolts are lubricated with commercially available bolt lubricants ( $\mu=0,1$ ).