

STÜWE®

# SHRINK DISC TYPE SDG AND SDGH



# SHRINK DISC TYPE SDG AND SDGH – GENERAL INFORMATION

## Application Description

The divided type SDG shrink discs are four-part shrink discs which are used for the space-saving shrinking of disc-shaped components such as gearwheels, pulleys or cams. This is frequently used where particularly low space for installation exists. If only a single-sided connection is needed, STÜWE® offers the divided type SDGH shrink disc.

## Areas of Use



Driveline technology



Steel- & rolling mill equipment



Crushing equipment



Conveying equipment



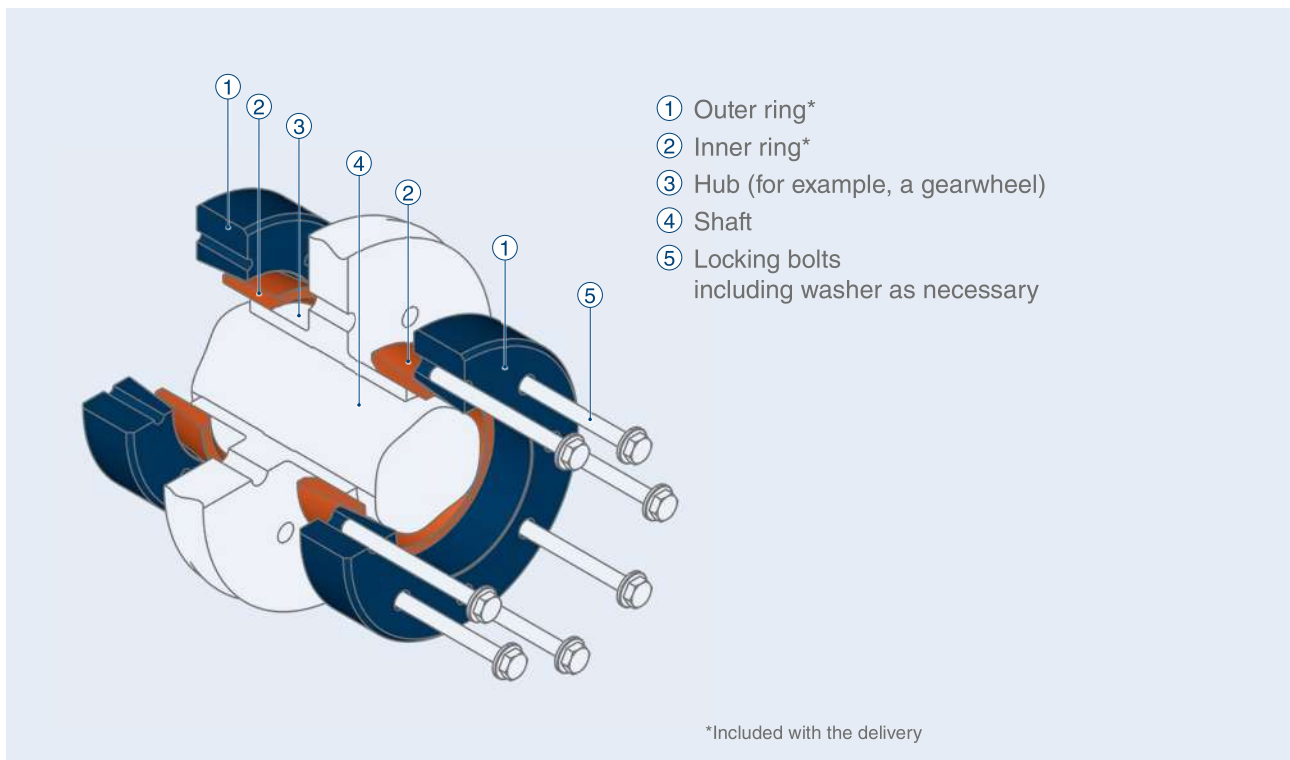
Pulley



Gearbox

# SHRINK DISC TYPE SDG AND SDGH – SERIES

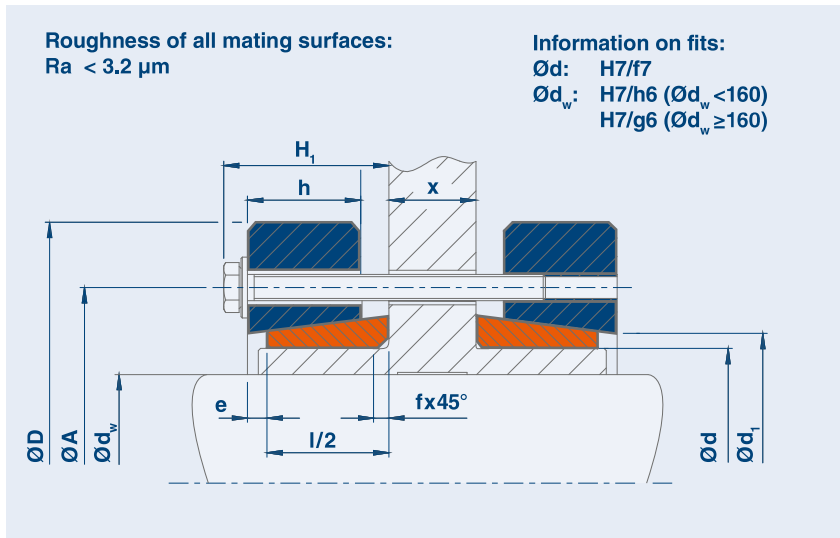
Description	Shaft diameter	Transmissible torque	Features
SDG 71/72	19 - 470 mm	0.26 - 2386 kNm	High torques
SDG 91	95 - 320 mm	23 - 919 kNm	Extremely high torques



All types may be protected against environmental influences by zinc and nickel coating or by a paint which has an appropriate corrosion protection class. We are able to achieve both desired colours which conform with the RAL colour range and products with lubricants in accordance with NSF H1. More detailed information on this may be found in this catalogue on page 151.

# STÜWE® Shrink Disc Type SDG

## Series 71 | 72



### Code

$M_t$  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$

$P_{ax}$  Maximum transmissible axial load of a shrink disc for  $M_t = 0$

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

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type SDG – Series 71 | 72

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	Locking bolts*	D mm	l/2 mm	h mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	f mm	kg
SDG 24 - 72	24	19	0.26	28	5	6 x M5	50	9	7.8	16	36	25.5	4	1.5	0.2
		20	0.31	31											
		21	0.36	34											
SDG 30 - 72	30	24	0.34	28	5	6 x M5	60	10	8.5	17	44	32	4	1.5	0.3
		25	0.39	31											
		26	0.44	34											
SDG 36 - 72	36	28	0.61	44	12	5 x M6	70	11	10	19	52	38	4	2	0.5
		30	0.76	50											
		33	1.00	60											
SDG 44 - 72	44	34	0.83	49	12	6 x M6	80	12	10.5	20	61	46.5	4	2	0.6
		35	0.91	52											
		36	1.00	55											
SDG 50 - 72	50	38	1.4	72	12	8 x M6	90	13	11.5	20	75	52.5	3	2.5	0.8
		40	1.6	79											
		42	1.8	87											
SDG 55 - 72	55	42	1.5	71	12	8 x M6	100	14	12.5	23	75	57.5	5	2.5	1.1
		45	1.8	81											
		48	2.2	92											
SDG 62 - 72	62	48	2.0	85	12	9 x M6	110	14	12.5	23	86	65	5	2.5	1.3
		50	2.3	92											
		52	2.6	98											
SDG 68 - 72	68	50	2.0	79	12	9 x M6	115	14	12.5	23	86	71	5	2.5	1.4
		55	2.6	94											
		60	3.3	110											

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

Dimension X is specified by the customer and determines the bolt length

**When ordering please state:** (Type x  $\varnothing d$ ) Dimension X, e.g. SDG 62 - 72 x 62 x=15 mm

## Shrink Disc Type SDG – Series 71 | 72

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	Locking bolts*	D mm	l/2 mm	h mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	f mm	kg
SDG 80 - 72	80	60	3.8	128	29	7 x M8	138	17	13	27	100	83.5	5	4	2.5
	75	65	4.8	147											
		70	5.8	165											
SDG 90 - 72	90	65	5.8	178	29	10 x M8	155	20	16.5	31	114	96	6	5	3.7
	85	70	7.0	200											
		75	8.4	223											
SDG 100 - 72	100	70	7.3	209	29	12 x M8	168	24.3	19	32	124	104	2	5	4.9
	95	75	8.7	233											
		80	10.3	257											
SDG 110 - 72	110	80	10.5	261	58	9 x M10	185	24	21.5	37	136	115	7	5	6.2
	105	85	12.2	288											
		90	14.2	315											
SDG 125 - 72	125	90	15.0	333	58	12 x M10	215	26	23	39	160	134	7	5	9.3
	120	95	17.1	361											
	130	100	19.5	389											
SDG 140 - 71	140	95	19.3	407	100	10 x M12	230	28	25	43	176	146	8	5	12
	135	105	24.6	469											
		110	27.6	501											
SDG 155 - 71	155	110	28.0	510	100	12 x M12	263	30	26	45	192	165	8	5	16
	150	115	31.2	542											
	160	120	34.5	575											
SDG 165 - 71	160	120	40	669	240	8 x M16	290	33	29	54	210	174	7	5	22
	165	125	44	707											
	170	130	49	747											
SDG 175 - 71	175	130	45	695	240	8 x M16	300	33	29	54	220	185	7	5	23
	180	135	49	732											
		140	54	770											
SDG 185 - 71	185	140	62	885	240	10 x M16	320	40	36	63	236	195	9	5	32
	190	145	67	929											
		150	73	973											
SDG 200 - 71	200	150	82	1088	240	12 x M16	340	40	37	63	246	206	9	5	39
	195	155	88	1136											
		160	95	1184											
SDG 220 - 71	220	160	102	1276	240	15 x M16	370	52	45	77	276	230	11	8	54
		165	110	1332											
		170	118	1388											
SDG 240 - 71	240	170	125	1474	470	12 x M20	405	54	49	81	295	248	11	8	67
		180	143	1591											
		190	162	1710											
SDG 260 - 71	260	190	173	1824	470	12 x M20	430	59	53	84	321	268	9	8	81
		200	196	1957											
		210	219	2090											
SDG 280 - 71	280	210	228	2168	470	15 x M20	460	67	58	95	346	288	12	10	104
		220	254	2308											
		230	282	2449											
SDG 300 - 71	300	220	247	2250	470	16 x M20	485	71	60	97	364	308	10	10	120
		230	275	2389											
		240	304	2529											
SDG 320 - 71	320	240	316	2631	470	18 x M20	520	71	60	97	386	328	10	10	139
		250	347	2779											
		260	381	2928											

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) Dimension X, e.g. SDG 200 - 71 x 200 X=40 mm

## Shrink Disc Type SDG – Series 71 | 72

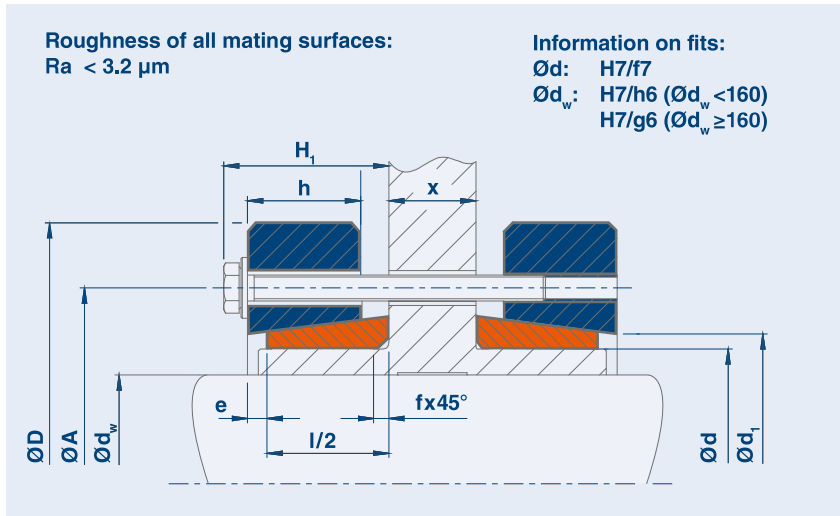
Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	Locking bolts*	D mm	l/2 mm	h mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	f mm	kg
SDG 340 - 71	340	250	439	3511	470	24 x M20	570	77	69	103	420	348	10	10	188
		260	480	3691											
		270	523	3873											
SDG 360 - 71	360	270	485	3593	470	24 x M20	590	80	73	107	432	367	11	10	204
		280	527	3765											
		290	571	3939											
SDG 390 - 71	390	290	696	4798	820	20 x M24	650	85	76	113	468	397	9	13	268
		300	751	5005											
		310	808	5213											
SDG 420 - 71	420	320	763	4768	820	20 x M24	670	95	82	123	504	428	9	13	302
		330	818	4960											
		340	876	5153											
SDG 440 - 71	440	340	927	5456	820	24 x M24	730	99	86	128	527	450	10	13	409
		350	990	5660											
		360	1056	5864											
SDG 460 - 71	460	360	1085	6028	820	24 x M24	760	99	86	127	547	468	9	13	441
		370	1154	6237											
		380	1225	6447											
SDG 480 - 71	480	380	1257	6618	820	28 x M24	785	109	97	143	570	490	15	15	521
		390	1333	6835											
		400	1411	7053											
SDG 500 - 71	500	400	1521	7603	1100	24 x M27	850	109	96	145	590	508	14	15	601
		410	1607	7839											
		420	1696	8076											
SDG 530 - 71	530	430	2086	9704	1100	30 x M27	910	122	108	156	620	538	12	15	779
		440	2195	9978											
		450	2307	10253											
SDG 560 - 71	560	450	2167	9631	1100	30 x M27	940	122	108	156	650	568	12	15	811
		460	2275	9891											
		470	2386	10152											

Further sizes on request, subject to technical changes.

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) Dimension X, e.g. SDG 560 - 71 x 560 x=110 mm

# STÜWE® Shrink Disc Type SDG Series 91



## Code

$M_t$  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$

$P_{ax}$  Maximum transmissible axial load of a shrink disc for  $M_t = 0$

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

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type SDG – Series 91

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	Locking bolts*	D mm	l/2 mm	h mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	f mm	kg
SDG 140 - 91	140	95	23	476	100	12 x M12	230	35	32	51	175	145	9	5	14
		100	26	514											
		110	32	591											
SDG 155 - 91	155	110	34	618	100	15 x M12	263	38	35	54	198	165	9	5	20
		160	38	659											
		120	42	699											
SDG 165 - 91	165	120	49	818	240	10 x M16	290	41	38	64	210	176	9	5	27
		170	54	866											
		130	59	915											
SDG 175 - 91	175	130	55	852	240	10 x M16	300	41	38	65	220	186	10	5	28
		180	61	898											
		140	66	944											
SDG 185 - 91	185	140	93	1329	240	15 x M16	320	50	50	76	236	189	12	5	41
		145	101	1392											
		150	109	1456											
SDG 200 - 91	200	150	105	1393	240	15 x M16	340	51	50	76	246	205	11	5	45
		195	113	1455											
		160	121	1517											
SDG 220 - 91	220	160	140	1744	240	20 x M16	370	65	57	90	270	225	11	8	67
		165	150	1820											
		170	161	1895											
SDG 240 - 91	240	170	172	2025	470	15 x M20	405	68	65	98	295	246	14	8	84
		180	197	2184											
		190	223	2345											
SDG 260 - 91	260	190	205	2162	470	16 x M20	430	75.5	72	105	321	266	13	8	104
		200	232	2323											
		210	261	2486											

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

Dimension X is specified by the customer and determines the bolt length

**When ordering please state:** (Type x  $\varnothing d$ ) Dimension X, e.g. SDG 260 - 91 x 260 X=70 mm

## Shrink Disc Type SDG – Series 91

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	Locking bolts*	D mm	l/2 mm	h mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	f mm	kg	
SDG 280 - 91	280	210	301	2870	470	20 x M20	460	84	78	114	340	285	14	10	131	
		220	336	3054												
		230	373	3239												
SDG 300 - 91	300	220	307	2790	470	20 x M20	485	86	80	116	364	309	14	10	146	
		230	341	2962												
		240	376	3137												
SDG 320 - 91	320	240	422	3518	470	24 x M20	520	90	82	118	386	329	12	10	176	
		250	464	3710												
		260	507	3903												
SDG 340 - 91	340	250	515	4118	820	20 x M24	570	98	92	131	420	348	14	10	239	
		260	564	4335												
		270	615	4554												
SDG 360 - 91	360	270	571	4232	820	20 x M24	590	100	92	131	432	365	12	10	255	
		350	280	622												4440
		290	674	4648												
SDG 390 - 91	390	300	793	5289	820	24 x M24	660	107	96	140	468	401	14	13	361	
		380	310	855												5514
		320	919	5741												

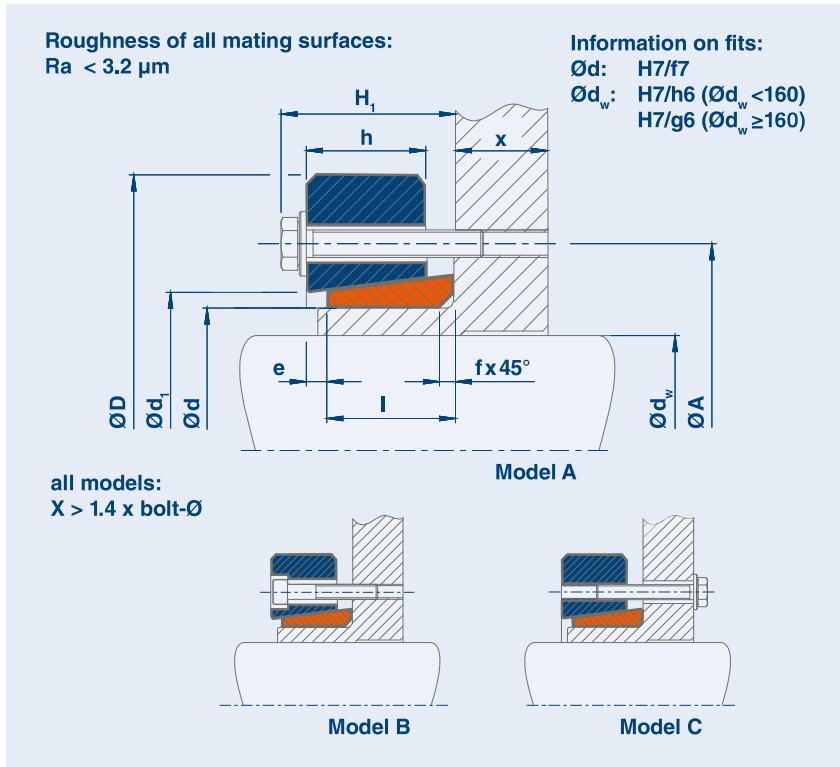
Further sizes on request, subject to technical changes.

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) Dimension X, e.g. SDG 390 - 91 x 390 x=120 mm



# STÜWE® Shrink Disc Type SDGH Series 71 | 72



## Code

- $M_t$  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$
- $P_{ax}$  Maximum transmissible axial load of a shrink disc for  $M_t = 0$
- $M_a$  Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type SDGH – Series 71 | 72

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	Locking bolts*	D mm	l/2 mm	h mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	f mm	kg
SDGH 24 - 72	24	19	0.13	14	5	6 x M5	50	9	7.8	16	36	25.5	4	1.5	0.1
		20	0.16	16											
		21	0.18	17											
SDGH 30 - 72	30	24	0.17	14	5	6 x M5	60	10	8.5	17	44	32	4	1.5	0.2
		25	0.19	15											
		26	0.22	17											
SDGH 36 - 72	36	28	0.30	22	12	5 x M6	70	11	10	19	52	38	4	2	0.3
		30	0.38	25											
		33	0.50	30											
SDGH 44 - 72	44	34	0.41	24	12	6 x M6	80	12	10.5	20	61	46.5	4	2	0.3
		35	0.45	26											
		36	0.50	27											
SDGH 50 - 72	50	38	0.7	36	12	8 x M6	90	13	11.5	20	75	52.5	3	2.5	0.4
		40	0.8	39											
		42	0.9	43											
SDGH 55 - 72	55	42	0.7	35	12	8 x M6	100	14	12.5	23	75	57.5	5	2.5	0.6
		45	0.9	40											
		48	1.1	46											

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

Dimension X is specified by the customer and determines the bolt length

**When ordering please state:** (Type x Ød x desired model) Dimension X for model C,  
e.g. SDGH 50 - 72 x 50 x C X=10 mm

## Shrink Disc Type SDGH – Series 71 | 72

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	Locking bolts*	D mm	I/2 mm	h mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	f mm	kg
SDGH 62 - 72	62	48	1.0	42	12	9 x M6	110	14	12.5	23	86	65	5	2.5	0.7
		50	1.1	46											
		52	1.3	49											
SDGH 68 - 72	68	50	1.0	39	12	9 x M6	115	14	12.5	23	86	71	5	2.5	0.7
		55	1.3	47											
		60	1.6	55											
SDGH 80 - 72	80	60	1.9	64	29	7 x M8	138	17	13	27	100	83.5	5	4	1.3
		75	2.4	73											
		70	2.9	82											
SDGH 90 - 72	90	65	2.9	89	29	10 x M8	155	20	16.5	31	114	96	6	5	1.9
		85	3.5	100											
		75	4.2	111											
SDGH 100 - 72	100	70	3.6	104	29	12 x M8	168	24.3	19	32	124	104	2	5	2.4
		95	4.3	116											
		80	5.1	128											
SDGH 110 - 72	110	80	5.2	130	58	9 x M10	185	24	21.5	37	136	115	7	5	3.1
		105	6.1	144											
		90	7.1	157											
SDGH 125 - 72	125	90	7.5	166	58	12 x M10	215	26	23	39	160	134	7	5	4.6
		120	8.5	180											
		130	9.7	194											
SDGH 140 - 71	140	95	9.6	203	100	10 x M12	230	28	25	43	176	146	8	5	6
		135	12.3	234											
		110	13.8	250											
SDGH 155 - 71	155	110	14.0	255	100	12 x M12	263	30	26	45	192	165	8	5	8
		150	15.6	271											
		160	17.2	287											
SDGH 165 - 71	165	120	20	334	240	8 x M16	290	33	29	54	210	174	7	5	11
		170	22	353											
		130	24	373											
SDGH 175 - 71	175	130	22	348	240	8 x M16	300	33	29	53	220	185	6	5	11
		180	24	366											
		140	27	385											
SDGH 185 - 71	185	140	31	442	240	10 x M16	320	40	36	63	236	195	9	5	16
		190	33	464											
		150	36	468											
SDGH 200 - 71	200	150	41	544	240	12 x M16	340	40	37	63	246	206	9	5	19
		195	44	568											
		160	47	592											
SDGH 220 - 71	220	160	51	638	240	15 x M16	370	52	45	77	276	230	11	8	27
		165	55	666											
		170	59	694											
SDGH 240 - 71	240	170	62	737	470	12 x M20	405	54	49	81	295	248	11	8	34
		180	71	795											
		190	81	855											
SDGH 260 - 71	260	190	86	912	470	12 x M20	430	59	53	83.5	321	268	9	8	41
		200	98	978											
		210	109	1045											

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød x desired model) Dimension X for desired model C,  
e.g. SDGH 260 - 71 x 260 x C X=80 mm

## Shrink Disc Type SDGH – Series 71 | 72

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	Locking bolts*	D mm	l/2 mm	h mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	f mm	kg
SDGH 280 - 71	280	210	113	1083	470	15 x M20	460	67	58	95	346	288	12	10	52
		220	126	1153											
		230	140	1224											
SDGH 300 - 71	300	220	123	1124	470	16 x M20	485	71	60	96.5	364	308	10	10	60
		230	137	1194											
		240	151	1264											
SDGH 320 - 71	320	240	157	1315	470	18 x M20	520	71	60	96.5	386	328	10	10	70
		250	173	1389											
		260	190	1464											
SDGH 340 - 71	340	250	219	1755	470	24 x M20	570	77	69	102.5	420	348	10	10	94
		260	239	1845											
		270	261	1936											
SDGH 360 - 71	360	270	242	1796	470	24 x M20	590	80	73	107	432	367	11	10	102
		350	263	1882											
		290	285	1969											
SDGH 390 - 71	390	290	347	2399	820	20 x M24	650	85	76	113	468	397	9	13	134
		380	375	2502											
		310	404	2606											
SDGH 420 - 71	420	320	381	2383	820	20 x M24	670	95	82	123	504	428	9	13	151
		330	409	2479											
		340	438	2576											
SDGH 440 - 71	440	340	463	2727	820	24 x M24	740	99	86	128	527	448	10	13	204
		350	495	2829											
		360	527	2932											
SDGH 460 - 71	460	360	542	3014	820	24 x M24	760	99	86	127	547	468	9	13	220
		370	576	3118											
		380	612	3223											
SDGH 480 - 71	480	380	628	3308	820	28 x M24	785	109	97	143	570	490	15	15	260
		390	666	3417											
		400	705	3526											
SDGH 500 - 71	500	400	760	3801	1100	24 x M27	850	109	96	145	590	508	14	15	301
		410	803	3919											
		420	847	4037											
SDGH 530 - 71	530	430	1043	4851	1100	30 x M27	910	122	108	156	620	538	12	15	390
		440	1097	4989											
		450	1153	5126											
SDGH 560 - 71	560	450	1083	4815	1100	30 x M27	940	122	108	156	650	568	12	15	406
		460	1137	4945											
		470	1192	5075											

Further sizes on request, subject to technical changes.

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

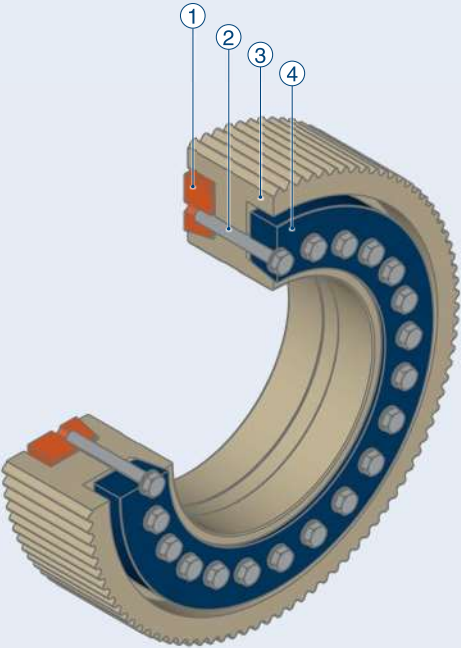
**When ordering please state:** (Type x Ød x desired model) Dimension X for model C,  
e.g. SDGH 560 - 71 x 560 x C X=115 mm

**You have not found what you are looking for in our comprehensive range of standard-products?  
We will be happy to promptly prepare any form of custom-made product and development innovation  
even using special materials such as 1.3974. Please feel free to contact us.**

# SHRINK DISC TYPE SDG AND SDGH – SPECIAL SOLUTIONS

## STÜWE® Complete Solution ZSDG

Example: Complete gearwheel including locking elements



**Benefits**

- Less components
- Supply of a finished component

- ① Outer ring\*
- ② Locking bolts\* including washer as necessary\*
- ③ Gearwheel with integrated inner ring\*
- ④ Outer ring\*

\*Included with the delivery

