

STÜWE®

# SHRINK DISC TYPE SD





# SHRINK DISC TYPE SD – GENERAL INFORMATION

## Application Description

In addition to the two-part HSD series STÜWE® also offers a three-part type SD shrink disc. It is characterized by its slim design while at the same time having a high level of torque transmission. The three-part torque-controlled frictional connection is maintenance-free and dirt-resistant due to its press fit and is very versatile in its use.

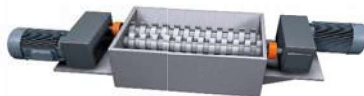
## Areas of Use



Driveline  
technology



Steel- &  
rolling mill equipment



Crushing  
equipment



Conveying  
equipment



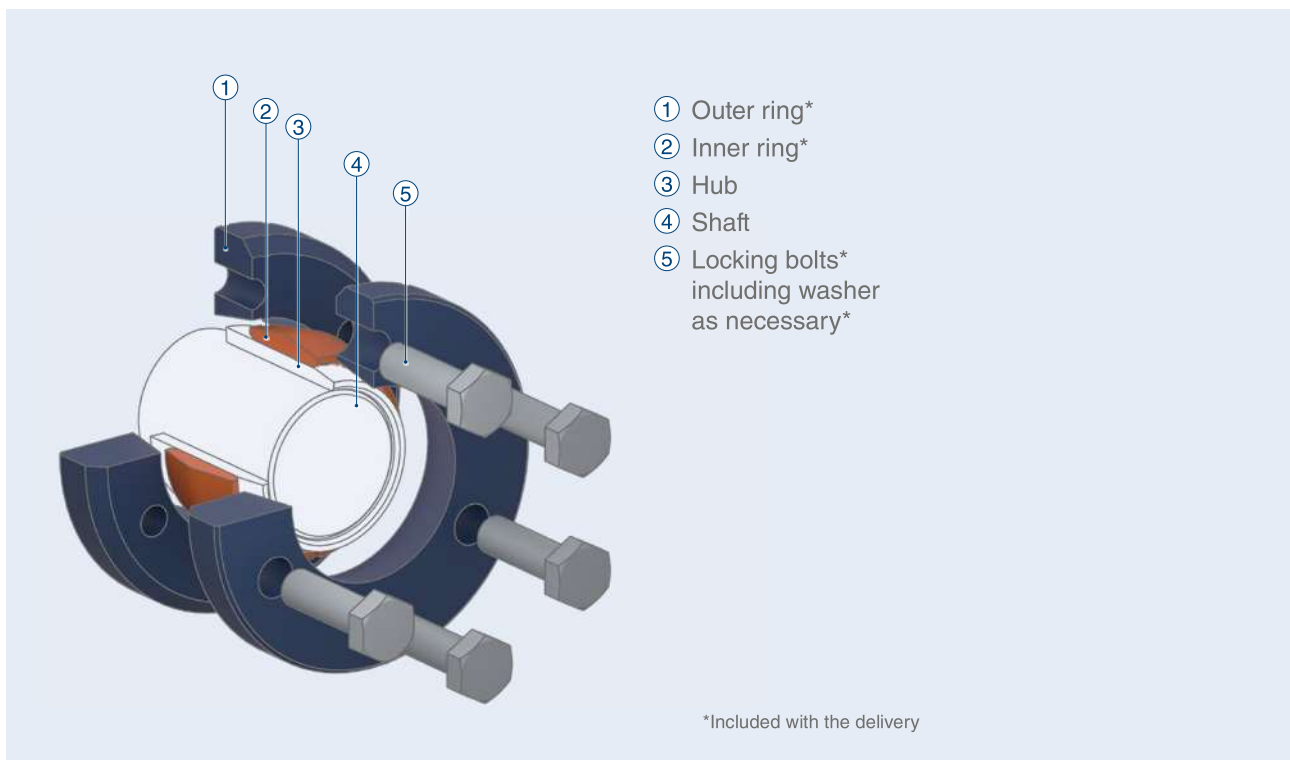
Agitation &  
mixing equipment



Shipbuilding

# SHRINK DISC TYPE SD – SERIES

Description	Shaft diameter	Transmissible torque	Features
SD 71/72	19 - 760 mm	0.28 - 8375 kNm	High torques



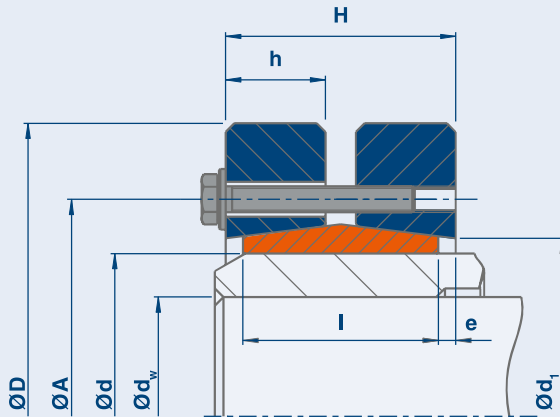
All types may be protected against environmental influences by zinc and nickel coating or by a paint which has an appropriate corrosion protection class. We are able to achieve both desired colours which conform with the RAL colour range and products with lubricants in accordance with NSF H1. More detailed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

# STÜWE® Shrink Disc Type SD

## Series 71 | 72

Roughness of all mating surfaces:  
Ra < 3.2 µm

Information on fits:  
Ød: H7/f7  
Ød<sub>w</sub>: H7/h6 (Ød<sub>w</sub> < 160)  
H7/g6 (Ød<sub>w</sub> ≥ 160)



### Code

**M<sub>t</sub>** Maximum transmissible torque of a shrink disc for P<sub>ax</sub> = 0

**P<sub>ax</sub>** Maximum transmissible axial load of a shrink disc for M<sub>t</sub> = 0

**M<sub>a</sub>** Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")

Dimensions H and e apply to untightened units.

## Shrink Disc Type SD – Series 72 | 71

Type	d mm	d <sub>w</sub>	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	B*	D mm	l mm	h mm	H mm	A mm	d <sub>1</sub> mm	e mm	kg
SD 24-72	24	19	0.28	29	5	6 x M5 x 16	50	14	7.8	19	36	26	2.5	0.2
	20	0.33	33											
	21	0.38	36											
SD 30-72	30	24	0.36	30	5	6 x M5 x 18	60	16	8.5	20	44	32	2.0	0.3
	25	0.41	33											
	26	0.46	36											
SD 36-72	36	28	0.62	44	12	5 x M6 x 20	70	18	10.0	23	52	38	2.5	0.4
	30	0.76	51											
	31	0.80	52											
SD 44-72	44	34	0.83	49	12	6 x M6 x 20	80	20	10.5	24	61	47	2.0	0.6
	35	0.91	52											
	36	0.99	55											
SD 50-72	50	38	1.4	72	12	8 x M6 x 22	90	22	11.5	26	75	53	2.0	0.8
	40	1.6	79											
	42	1.8	87											
SD 55-72	55	42	1.5	71	12	8 x M6 x 25	100	23	12.5	29	75	58	3.0	1.1
	45	1.8	81											
	48	2.2	91											
SD 62-72	62	48	2.0	85	12	9 x M6 x 25	110	23	12.5	29	86	66	3.0	1.3
	50	2.3	91											
	52	2.4	94											

Further sizes on request, subject to technical changes.

\*Locking bolts: DIN EN ISO 4014/4017 grade 10.9 as standard, alternatively DIN EN ISO 4762 grade 10.9

When ordering please state: (Type x Ød), e.g. SD-500-71x500

## Shrink Disc Type SD – Baureihe 72 | 71

Type	d mm	d <sub>w</sub>	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	B*	D mm	l mm	h mm	H mm	A mm	d <sub>1</sub> mm	e mm	kg
SD 68-72	68	50	2.0	79	12	9 x M6 x 25	115	23	12.5	29	86	72	3.0	1.3
		55	2.5	90										
		60	3.2	106										
SD 75-72	75	55	3.4	122	29	7 x M8 x 25	138	25	13.0	31	100	79	3.0	2.3
		60	4.3	142										
		65	5.3	162										
SD 80-72	80	60	3.9	129	29	7 x M8 x 25	138	25	13.0	31	100	84	3.0	2.1
		65	4.8	147										
		70	5.8	166										
SD 90-72	90	65	5.6	172	29	10 x M8 x 30	155	30	16.5	38	114	96	4.0	3.2
		70	6.8	194										
		75	8.1	215										
SD 100-72	100	70	7.5	214	29	12 x M8 x 35	168	34	19.0	43	124	104	4.5	4.2
		75	8.9	238										
		80	10.5	262										
SD 110-72	110	75	9.1	243	58	9 x M10 x 40	185	39	21.5	49	136	115	5.0	5.8
		80	10.7	268										
		85	12.2	286										
SD 125-72	125	85	13.2	310	58	12 x M10 x 40	215	42	23.0	53	160	134	5.5	8.7
		90	15.2	338										
		95	17.4	367										
SD 140-71	140	95	19.9	419	100	10 x M12 x 50	230	46	25.0	58	176	146	6.0	10.3
		100	22.5	451										
		105	25.3	483										
SD 155-71	155	105	25.8	492	100	12 x M12 x 50	263	50	26.0	62	192	165	6.0	15.2
		110	28.9	525										
		115	32.1	558										
SD 165-71	165	115	33.7	586	240	8 x M16 x 60	290	56	29.0	66	210	174	5.0	21.5
		120	37.3	622										
		125	40.4	646										
SD 175-71	175	125	41.2	659	240	8 x M16 x 60	300	56	29.0	68	220	185	6.0	22.5
		130	45.2	695										
		135	49.4	732										
SD 185-71	185	135	56.3	834	240	10 x M16 x 65	320	71	36.0	85	236	195	7.0	32.7
		140	61.4	877										
		145	66.8	921										
SD 195-71	195	140	67.4	963	240	12 x M16 x 70	340	71	37.0	85	246	206	7.0	37.2
		150	79.1	1055										
		155	85.4	1102										
SD 200-71	200	150	80.5	1073	240	12 x M16 x 70	340	71	37.0	85	246	206	7.0	36.3
		155	86.8	1120										
		160	91.7	1147										

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**When ordering please state:** (Type x Ød), e.g. SD-500-71x500

## Shrink Disc Type SD – Series 72 | 71

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	B*	D mm	l mm	h mm	H mm	A mm	d <sub>1</sub> mm	e mm	kg
SD 220-71	220	160	102	1276	240	15 x M16 x 80	370	88	45.0	103	276	230	7.5	53.0
		165	110	1332										
		170	118	1388										
SD 240-71	240	170	124	1462	470	11 x M20 x 90	405	92	47.0	110	296	248	9.0	66.0
		180	142	1579										
		190	159	1675										
SD 260-71	260	190	172	1812	470	12 x M20 x 90	430	103	53.0	120	321	268	8.5	82.0
		200	194	1943										
		210	218	2076										
SD 280-71	280	210	226	2153	470	15 x M20 x 100	460	114	58.0	132	346	288	9.0	103
		220	252	2292										
		230	280	2433										
SD 300-71	300	230	273	2373	470	16 x M20 x 100	485	122	60.0	138	364	308	8.0	120
		240	302	2513										
		245	316	2583										
SD 320-71	320	240	318	2646	470	18 x M20 x 100	520	122	60.0	134	386	328	6.0	138
		250	349	2791										
		260	378	2909										
SD 340-71	340	250	441	3526	470	24 x M20 x 110	570	134	69.0	156	420	348	11.0	189
		260	477	3668										
		270	520	3848										
SD 350-71	350	270	505	3742	470	24 x M20 x 110	580	140	69.0	156	432	358	8.0	196
		280	549	3920										
		285	571	4010										
SD 360-71	360	280	526	3758	470	24 x M20 x 110	590	140	73.0	161	432	367	10.5	207
		290	570	3931										
		295	593	4018										
SD 380-71	380	290	592	4081	820	18 x M24 x 130	645	144	74	164	458	387	10.0	250
		300	639	4260										
		310	688	4440										
SD 390-71	390	300	769	5124	820	20 x M24 x 120	650	144	76	170	468	397	13.0	249
		310	826	5332										
		320	882	5514										
SD 420-71	420	330	829	5026	820	20 x M24 x 130	670	164	82	184	504	428	10.0	285
		340	888	5221										
		350	948	5418										
SD 440-71	440	340	933	5488	820	24 x M24 x 130	730	172	86	192	527	450	10.0	373
		350	996	5693										
		360	1062	5898										
SD 460-71	460	360	1099	6108	820	24 x M24 x 140	760	172	86	192	547	468	10.0	402
		370	1169	6319										
		380	1241	6530										

Further sizes on request, subject to technical changes.

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**When ordering please state:** (Type x Ød), e.g. SD-500-71x500

## Shrink Disc Type SD – Series 72 | 71

Type	d mm	d <sub>w</sub> mm	M <sub>t</sub> kNm	P <sub>ax</sub> kN	M <sub>a</sub> Nm	B*	D mm	l mm	h mm	H mm	A mm	d <sub>1</sub> mm	e mm	kg
SD 480-71	480	380	1266	6661	820	28 x M24 x 140	785	188	97	213	570	490	12.5	463
		390	1341	6879										
		400	1420	7098										
SD 500-71	500	400	1710	8551	1210	24 x M27 x 150	840	188	96	214	590	508	13.0	547
		410	1796	8763										
		420	1895	9022										
SD 530-71	530	430	2102	9776	1210	30 x M27 x 160	910	213	108	238	620	540	12.5	744
		440	2211	10051										
		450	2324	10328										
SD 560-71	560	450	2195	9757	1210	30 x M27 x 160	940	213	108	238	650	568	12.5	776
		460	2304	10019										
		470	2417	10283										
SD 590-71	590	470	2732	11623	1210	36 x M27 x 180	945	228	118	260	684	600	16.0	794
		480	2860	11918										
		490	2992	12212										
SD 620-71	620	500	2961	11845	1640	30 x M30 x 190	970	254	131	288	726	630	17.0	903
		510	3077	12068										
		520	3213	12359										
SD 660-71	660	530	3428	12938	1640	30 x M30 x 190	1045	260	133	292	766	670	16.0	1090
		540	3573	13235										
		550	3721	13532										
SD 700-71	700	560	3988	14242	1640	36 x M30 x 190	1120	260	133	292	806	710	16.0	1269
		575	4226	14698										
		590	4471	15156										
SD 750-71	750	600	4766	15887	1640	40 x M30 x 200	1150	278	141	310	864	760	16.0	1350
		615	5030	16359										
		630	5302	16832										
SD 800-71	800	645	5810	18014	1640	45 x M30 x 210	1270	296	153	334	920	810	19.0	1839
		660	6111	18518										
		675	6420	19022										
SD 900-71	900	720	7439	20664	2210	40 x M33 x 240	1420	332	170	370	1030	910	19.0	2558
		740	7900	21350										
		760	8375	22040										

Further sizes on request, subject to technical changes.

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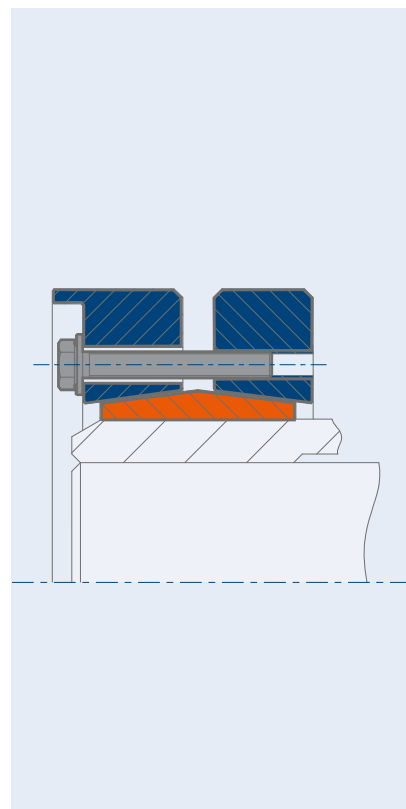
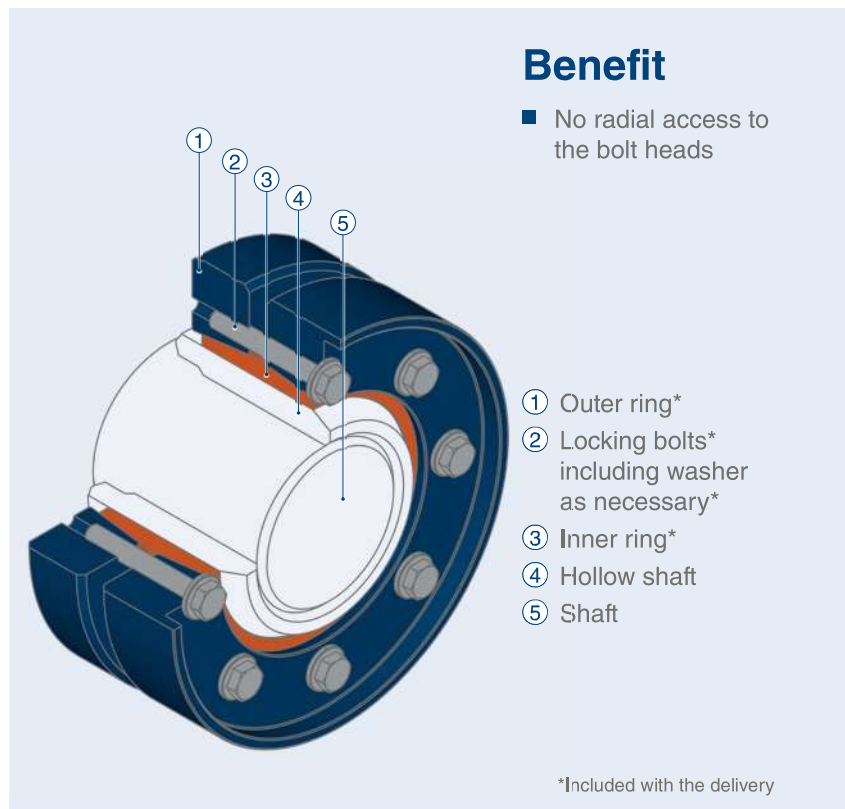
**When ordering please state:** (Type x Ød), e.g. SD-500-71x500

**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 SD – SPECIAL SOLUTIONS

## STÜWE® SD with Protection

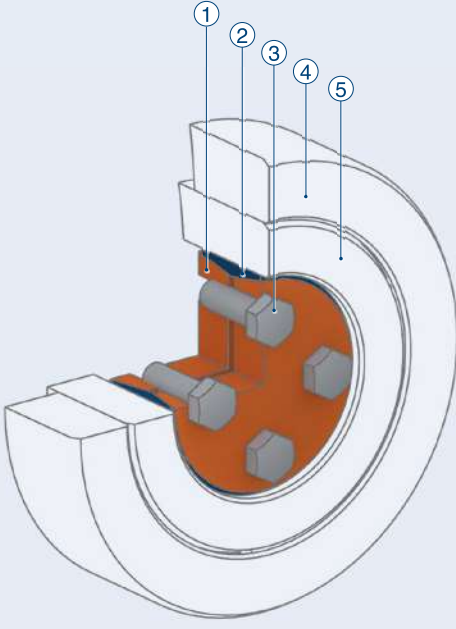
Connection element with a protrusion on the outer ring





# STÜWE® Individual solution USD

Internal locking frictional connection

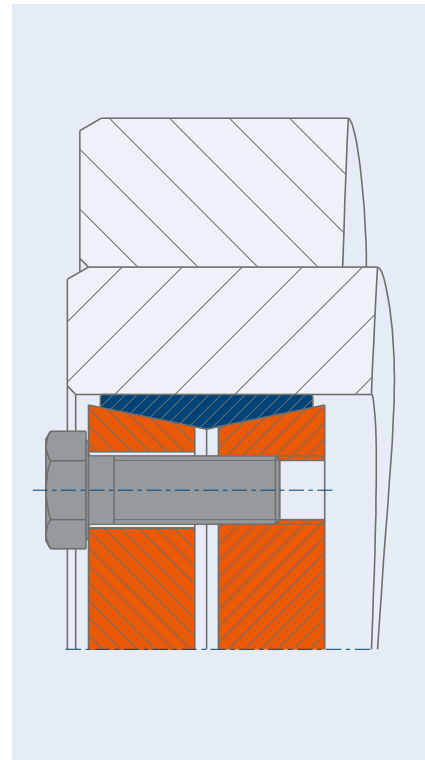


**Benefits**

- Less components
- Outside the flow of loads
- Alternative to UHSD
- Possible compensation of varying fitting tolerance

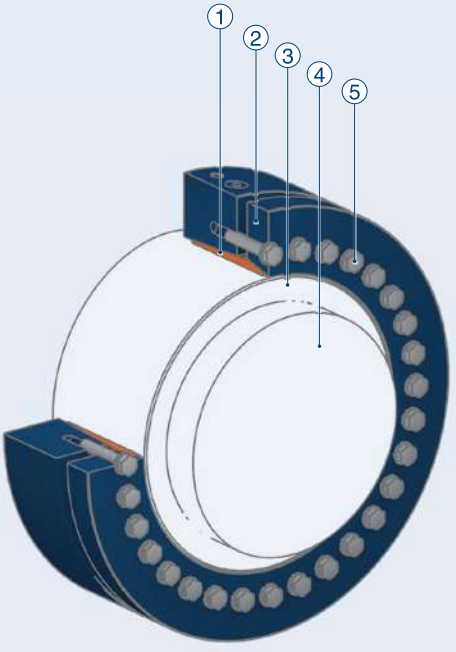
① Inner ring\*  
 ② Outer ring\*  
 ③ Locking bolts\* including washer as necessary\*  
 ④ Hub  
 ⑤ Shaft

\*Included with the delivery



# STÜWE® Individual solution SDB

Connection element for particularly compact installation spaces



**Benefits**

- Reduced width in non-tensioned condition
- Smaller protrusion on one side
- Compact design for limited width

① Inner ring\*  
 ② Outer ring\*  
 ③ Hub  
 ④ Shaft  
 ⑤ Locking bolts\* including washer as necessary\*

\*Included with the delivery

