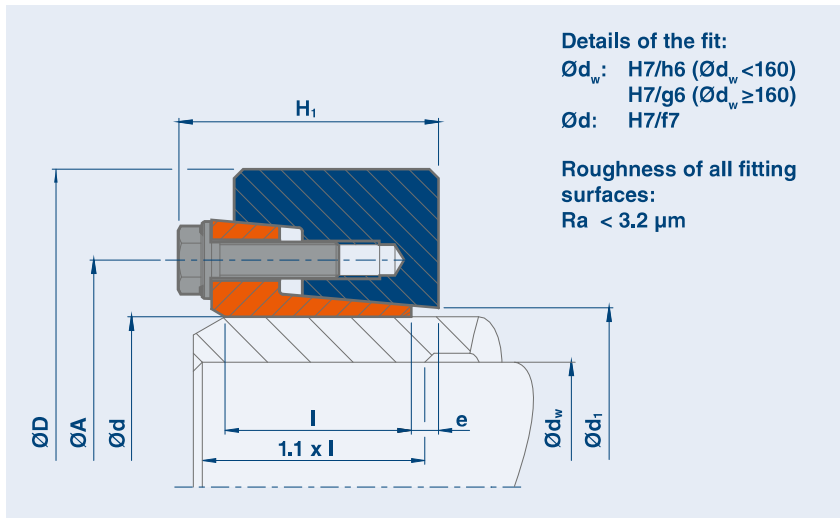


# STÜWE® Shrink Disc Type HSD Series 22



## Code

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

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

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

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

## Shrink Disc Type HSD – Series 22

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 <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	kg
HSD 12 - 22	12	9	0.02	5	12	3x M6	35	10	16	24	13	2	0.1
		10	0.04	8									
HSD 14 - 22	14	11	0.03	6	12	3 x M6	38	10	16	26	15	2	0.1
		12	0.05	9									
HSD 16 - 22	16	13	0.07	10	12	3 x M6	41	13.5	20	28	17	2.5	0.1
		14	0.09	13									
HSD 18 - 22	18	15	0.08	11	12	4x M6	44	13.5	20	30	19	2.5	0.1
		16	0.11	14									
HSD 20 - 22	20	17	0.15	18	12	4 x M6	47	13.5	20	32	21	2.5	0.2
		18	0.18	20									
HSD 24 - 22	24	19	0.16	17	12	5 x M6	47	14	23	36	26	2.5	0.2
		20	0.20	20									
		22	0.28	25									
HSD 30 - 22	30	24	0.27	23	12	6 x M6	60	16	26	44	32	3	0.4
		25	0.32	25									
		26	0.36	28									
HSD 36 - 22	36	28	0.49	35	29	5 x M8	72	18	29	52	38	3.4	0.5
		30	0.61	41									
		33	0.82	50									
HSD 44 - 22	44	34	0.69	41	29	6 x M8	80	20	33	61	47	4.7	0.7
		35	0.77	44									
		36	0.84	47									

\*Tightening bolts: standard DIN EN ISO 4014/4017 Grade 10.9, alternative DIN EN ISO 4762 Grade 10.9

From M16 and larger with washers: DIN EN ISO 7416

**When ordering please state:** (Type x  $\varnothing d$ ) e.g. HSD 44 - 22 x 42

## Shrink Disc Type HSD – Series 22

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 <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	kg
HSD 50 - 22	50	38	1.10	58	29	8 x M8	90	22	34	68	53	4.4	0.9
		40	1.29	65									
		42	1.50	71									
HSD 55 - 22	55	42	1.23	59	29	8 x M8	100	23	36	72	58	4.4	1.2
		45	1.53	68									
		48	1.86	78									
HSD 62 - 22	62	48	1.67	70	29	9 x M8	110	23	36	80	66	4.4	1.4
		60	1.89	76									
		52	2.12	81									
HSD 68 - 22	68	50	1.87	75	29	9 x M8	115	23	36	86	72	4.4	1.4
		55	2.45	89									
		60	3.12	104									
HSD 75 - 22	75	55	2.33	85	58	10 x M10	138	25	40	100	79	4.6	2.5
		60	3.02	101									
		65	3.80	117									
HSD 80 - 22	80	60	3.19	106	58	10 x M10	141	25	40	104	84	4.6	2.5
		65	4.00	123									
		70	4.90	140									
HSD 90 - 22	90	65	5.4	166	58	10 x M10	155	30	46	114	94	5.1	3.5
		85	6.5	187									
		75	7.8	208									
HSD 100 - 22	100	70	6.0	171	58	12 x M10	170	34	51	124	104	5.1	4.7
		95	7.2	192									
		80	8.5	213									
HSD 110 - 22	110	80	10.0	249	100	12 x M12	185	39	59	137	114	5.5	6.3
		105	11.7	275									
		90	13.6	302									
HSD 120 - 22	120	85	11.9	280	100	12 x M12	197	42	63	147	124	6.5	7.4
		115	13.8	307									
		95	15.9	334									
HSD 125 - 22	125	90	14.4	319	100	12 x M12	215	42	63	152	129	6.5	9.3
		95	16.5	347									
		100	18.7	375									
HSD 135 - 22	135	95	18.1	382	160	10 x M14	230	46	69	165	139	7.2	11.5
		130	20.6	412									
		110	26.0	473									
HSD 140 - 22	140	100	19.6	392	160	12 x M14	230	46	70	172	146	8.2	11.1
		105	22.1	421									
		115	27.6	481									
HSD 155 - 22	155	110	26.5	482	160	12 x M14	263	50	74	186	159	8.7	15.9
		150	29.5	514									
		125	36.1	578									
HSD 165 - 22	165	120	37.3	622	240	12 x M16	290	56	85	198	169	9	22.2
		160	41.2	659									
		135	49.6	734									
HSD 175 - 22	175	130	45	692	240	12 x M16	300	56	85	208	179	9	23.3
		170	49	730									
		145	58	805									
HSD 185 - 22	185	140	64	916	240	16 x M16	320	71	102	222	191	10	33.3
		180	70	961									
		155	82	1053									
HSD 200 - 22	200	150	80	1073	240	16 x M16	340	71	102	238	206	10	36.9
		195	87	1120									
		190	100	1216									

\*Tightening bolts: standard DIN EN ISO 4014/4017 Grade 10.9, alternative DIN EN ISO 4762 Grade 10.9

From M16 and larger with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 200 - 22 x 195

## Shrink Disc Type HSD – Series 22

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	I mm	H <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	kg
HSD 220 - 22	220	160	103	1283	470	15 x M20	370	93	121	270	230	12	51.5
		170	119	1395									
		180	136	1509									
HSD 240 - 22	240	170	122	1439	470	16 x M20	405	95	124	288	248	12	63.9
		180	140	1555									
		200	179	1790									
HSD 260 - 22	260	190	163	1715	470	15 x M20	430	105	136	306	268	14	77.5
		200	184	1842									
		220	231	2099									
HSD 280 - 22	280	210	215	2051	470	16 x M20	460	114	146	328	288	16	94.7
		220	240	2186									
		240	295	2458									
HSD 300 - 22	300	220	270	2456	820	16 x M24	485	123	158	354	309	16	112
		230	300	2605									
		250	363	2906									
HSD 320 - 22	320	240	301	2511	820	18 x M24	520	125	159	380	328	14	133
		250	332	2655									
		270	398	2945									
HSD 340 - 22	340	250	390	3118	820	18 x M24	570	134	171	402	349	16	177
		260	427	3283									
		280	506	3617									
HSD 350 - 22	350	270	493	3649	820	20 x M24	580	140	178	414	365	16	190
		280	535	3825									
		290	580	4001									
HSD 360 - 22	360	270	496	3676	820	20 x M24	590	140	179	424	369	17	194
		280	539	3852									
		300	631	4206									
HSD 380 - 22	380	290	585	4034	1210	18 x M27	640	146	188	444	388	19	244
		300	632	4215									
		310	681	4397									
HSD 390 - 22	390	290	640	4411	1210	18 x M27	645	146	189	454	398	20	243
		300	691	4605									
		320	799	4996									
HSD 420 - 22	420	320	742	4640	1210	18 x M27	670	167	210	490	428	20	286
		330	797	4829									
		350	912	5209									
HSD 440 - 22	440	340	945	5557	1210	21 x M27	710	174	219	506	448	22	339
		350	1009	5764									
		370	1143	6181									
HSD 460 - 22	460	360	1104	6133	1210	21 x M27	745	174	222	534	470	25	375
		370	1174	6345									
		390	1320	6771									
HSD 480 - 22	480	380	1300	6843	1640	20 x M30	770	192	239	552	488	22	437
		390	1378	7066									
		410	1541	7516									
HSD 500 - 22	500	400	1496	7478	1640	21 x M30	800	192	241	572	509	24	470
		410	1581	7711									
		430	1759	8180									
HSD 530 - 22	530	430	1930	8976	1640	24 x M30	845	213	266	606	540	29	576
		440	2031	9234									
		460	2243	9752									
HSD 560 - 22	560	450	2097	9318	1640	24 x M30	900	213	264	632	568	27	660
		460	2201	9572									
		480	2420	10081									

\*Tightening bolts: standard DIN EN ISO 4014/4017 Grade 10.9, alternative DIN EN ISO 4762 Grade 10.9

From M16 and larger with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 280 - 22 x 280

## Shrink Disc Type HSD – Series 22

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 <sub>1</sub> mm	A mm	d <sub>1</sub> mm	e mm	kg
HSD 590 - 22	590	470	2593	11032	1640	28 x M30	950	230	287	664	598	32	821
		480	2715	11314									
		500	2970	11881									
HSD 620 - 22	620	500	2904	11616	1640	28 x M30	960	254	310	706	630	30	872
		520	3169	12190									
		540	3447	12767									
HSD 660 - 22	660	530	3329	12562	2210	24 x M33	1020	260	320	748	670	34	1004
		550	3614	13140									
		570	3911	13722									
HSD 700 - 22	700	560	3804	13585	2210	28 x M33	1080	260	318	780	710	32	1141
		580	4109	14169									
		600	4427	14756									
HSD 750 - 22	750	600	4801	16004	2210	32 x M33	1150	278	344	850	760	38	1346
		620	5157	16636									
		650	5716	17589									
HSD 800 - 22	800	640	5620	17562	2210	30 x M33	1230	296	376	900	814	52	1646
		660	6012	18219									
		700	6839	19541									
HSD 850 - 22	850	650	5942	18282	2850	30 x M36	1300	315	386	950	860	43	1942
		700	6994	19983									
		730	7669	21011									
HSD 900 - 22	900	700	6967	19905	2850	32 x M36	1350	332	413	992	920	51	2142
		730	7640	20930									
		760	8345	21961									
HSD 950 - 22	950	750	8295	22121	2850	36 x M36	1400	360	438	1050	970	50	2425
		780	9041	23182									
		820	10088	24606									
HSD 1000 - 22	1000	800	9568	23920	2850	36 x M36	1460	380	461	1100	1020	53	2740
		830	10380	25013									
		860	11228	26111									
HSD 1050 - 22	1050	850	11241	26449	2850	36 x M36	1520	400	481	1150	1070	53	3078
		880	12135	27579									
		920	13383	29092									
HSD 1100 - 22	1100	900	13045	28990	2850	40 x M36	1570	430	511	1200	1120	53	3438
		930	14023	30156									
		960	15038	31328									
HSD 1200 - 22	1200	940	12902	27452	2850	40 x M36	1630	460	541	1300	1220	53	3566
		1000	14803	29606									
		1050	16493	31415									

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

\*Tightening bolts: standard DIN EN ISO 4014/4017 Grade 10.9, alternative DIN EN ISO 4762 Grade 10.9

From M16 and larger with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 750 - 22 x 750