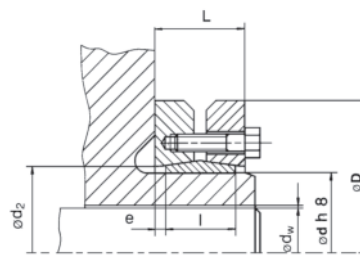
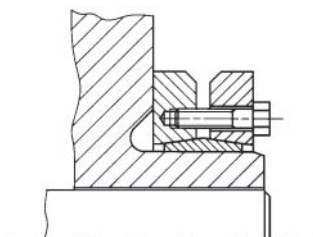


SIT-LOCK® 11 - External

Shrink discs are external locking devices which are installed over hub projections. By locking the screws, radial pressures act on the hub allowing an effective and solid connection.

Recommended for medium and high torque. SIT-LOCK® 11S is also available in "SPLIT" and "HALF" for special applications.



Installation

Carefully remove, if present, protection spacers used during transport.

Check if the screws and the rings' cone surfaces are well lubricated, otherwise, lightly oil them with molybdenum disulfide lubricants, like "Molykote" or similar. Clean, with care, contact surfaces of shaft and hub.

Position the components to connect. In uniform sequence, tighten the clamping screws to the tightening torque (M_s). Check optically that the gap between outer rings is the most uniform possible.

Note: once the tightening torque is reached, do not tighten the screws.

Removal

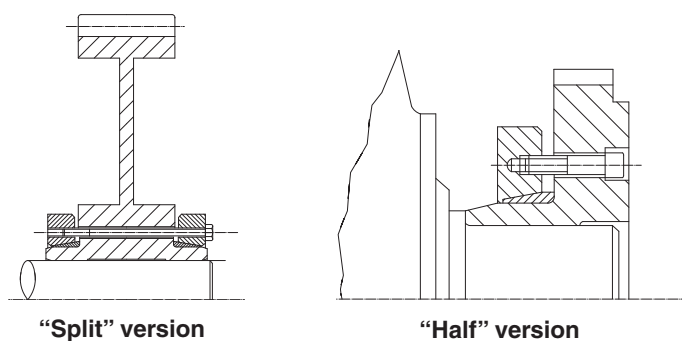
Loosen the screws uniformly and gradually to prevent rings from jamming. When all the screws are loose, remove the shaft or separate the hub and shaft itself.

Note: To reuse the locking element, carefully disassemble, clean and inspect all the components; oil the screws and the conical surfaces, then follow Installation instructions.

Maximum recommended tolerance

diameter shaft d ; h 8
 diameter shaft d_w ;
 j6 for $\varnothing \leq 30$
 h6 for \varnothing between 30 to 50
 g6 for \varnothing between 50 to 80
 g6 for $\varnothing > 80$

diameter bore d_w ;
 H6 for $\varnothing \leq 30$
 H6 for \varnothing between 30 to 50
 H6 for \varnothing between 50 to 80
 H7 for $\varnothing > 80$



"Split" version

"Half" version

Maximum allowable roughness

Rt 16 μm

SIT-LOCK® 11S - standard version

Dimensions [mm]							Performances		Clamping screws (DIN 913 - 10,9)		
d	D	d _w	l	L	d ₂	e	M _T [Nm]	F _{ax} [kN]	Type	N°	M _S [Nm]
24	50	19	14	19,5	26	2,75	170	3	6	M 5	4
		20					210	3			
		21					250	3			
30	60	24	16	21,5	32	2,75	300	3	7	M 5	4
		25					340	3			
		26					380	3			
36	72	28	18	23,5	38	2,75	440	5	5	M 6	12
		30					570	6			
		31					630	6			
44	80	32	20	25,5	47	2,75	620	6	7	M 6	12
		35					780	7			
		36					860	8			
50	90	38	22	27,5	53	2,75	940	9	8	M 6	12
		40					1.160	9			
		42					1.380	9			
55	100	42	23	30,5	58	3,75	1.160	8	8	M 6	12
		45					1.520	9			
		48					1.880	10			
62	110	48	23	30,5	66	3,75	1.750	10	10	M 6	12
		50					2.000	11			
		52					2.250	12			
68	115	50	23	30,5	72	3,75	2.000	10	10	M 6	12
		55					2.600	11			
		60					3.150	12			
75	138	55	25	32,5	79	3,75	2.400	12	7	M 8	30
		60					3.200	14			
		65					3.950	16			
80	145	60	25	32,5	84	3,75	3.200	12	7	M 8	30
		65					3.900	14			
		70					4.600	16			
90	155	65	30	39	94	4,5	4.750	17	10	M 8	30
		70					6.000	19			
		75					7.250	21			
100	170	70	34	44	104	5,0	6.900	20	12	M 8	30
		75					7.500	22			
		80					9.000	24			
110	185	75	39	50	114	5,5	7.200	23	9	M10	59
		80					9.000	25			
		85					10.800	26			
125	215	85	42	54	134	6,0	11.000	30	12	M10	59
		90					13.000	32			
		95					15.000	35			
140	230	95	46	60,5	146	7,25	15.100	37	10	M12	100
		100					17.600	40			
		105					20.100	43			
155	265	105	50	64,5	165	7,25	22.000	45	12	M12	100
		110					25.000	48			
		115					28.000	51			
165	290	115	56	71	175	7,5	31.000	60	8	M16	250
		120					35.000	63			
		125					39.000	66			
175	300	125	56	71	185	7,5	36.000	61	8	M16	250
		130					41.000	64			
		135					45.000	68			
185	330	135	71	86	195	7,5	52.000	78	10	M16	250
		140					57.000	82			
		145					62.000	86			

M _S	Screw tightening torque	Nm
M _T	Transmissible torque moment	Nm
F _{ax}	Transmissible axial load	N

SIT-LOCK® 11S - standard series

Dimensions [mm]							Performances		Clamping screws (DIN 913 - 10,9)		
d	D	d _w	l	L	d ₂	e	M _T [Nm]	F _{ax} [kN]	Type	N°	M _s [Nm]
195	350	140	71	86	210	7,5	65.000	93	12	M16	250
		150					76.000	103			
		155					81.500	107			
200	350	150	71	86	210	7,5	74.000	99	12	M16	250
		155					80.000	104			
		160					86.000	108			
220	370	160	88	104	230	8	95.000	119	15	M16	250
		165					102.000	124			
		170					110.000	129			
240	405	170	92	109	248	8,5	120.000	146	12	M20	490
		180					138.000	158			
		190					156.000	168			
260	430	190	103	120	268	8,5	164.000	176	14	M20	490
		200					184.000	188			
		210					205.000	201			
280	460	210	114	134	288	10	217.000	209	16	M20	490
		220					244.000	222			
		230					270.000	235			
300	485	230	122	142	308	10	275.000	247	18	M20	490
		240					295.000	257			
		245					315.000	264			
320	520	240	122	142	328	10	312.000	265	20	M20	490
		250					340.000	279			
		260					374.000	290			
340	570	250	134	156	348	11	390.000	312	24	M20	490
		260					422.500	325			
		270					460.000	340			
350	580	270	140	162	358	11	442.000	328	24	M20	490
		280					480.000	343			
		285					500.000	350			
360	590	280	140	162	368	11	463.000	331	24	M20	490
		290					502.000	346			
		295					522.000	354			
380	645	290	144	168	387	12	567.000	391	20	M24	840
		300					610.000	408			
		310					658.000	425			
390	660	300	144	168	397	12	624.000	416	21	M24	840
		310					671.000	433			
		320					718.000	448			
400	680	315	144	168	407	12	670.000	426	21	M24	840
		320					695.000	435			
		330					744.000	450			
420	690	330	164	188	427	12	780.000	485	24	M24	840
		340					840.000	504			
		350					900.000	522			
440	750	340	177	202	447	12,5	806.000	474	24	M24	840
		350					860.000	491			
		360					917.000	509			
460	770	360	177	202	468	12,5	1.000.000	567	28	M24	840
		370					1.070.000	586			
		380					1.140.000	605			
480	800	380	188	213	488	12,5	1.170.000	615	30	M24	840
		390					1.240.000	635			
		400					1.310.000	655			

Note: For larger sizes, please contact our technical office.

M _S	Screw tightening torque	Nm
M _T	Transmissible torque moment	Nm
F _{ax}	Transmissible axial load	N

SIT-LOCK® 11H - heavy series

Dimensions [mm]							Performances		Clamping screws (DIN 913 - 10,9)		
d	D	d _w	l	L	d ₂	e	M _T [Nm]	F _{ax} [kN]	Type	N°	M _S [Nm]
125	215	85	55	65	129	5	15.000	36	10	M12	100
		90					39				
		95					42				
140	230	95	60	74	144	7	20.600	43	12	M12	100
		100					47				
		105					50				
155	265	105	66	80	164	7	28.600	55	15	M12	100
		110					59				
		115					63				
165	290	115	72	88	174	8	41.000	74	10	M16	250
		120					79				
		125					82				
175	300	125	72	88	184	8	47.000	75	10	M16	250
		130					80				
		135					84				
185	330	135	92	112	194	10	72.000	110	14	M16	250
		140					115				
		145					120				
195	350	140	92	112	199	10	75.000	108	14	M16	250
		150					118				
		155					124				
200	350	145	92	112	204	10	85.000	117	15	M16	250
		150					123				
		155					129				
220	370	160	114	134	2224	10	127.000	159	20	M16	250
		165					165				
		170					172				
240	405	170	120	144	244	12	155.000	182	15	M20	490
		180					196				
		190					208				
260	430	190	136	160	265	12	213.000	226	18	M20	490
		200					242				
		210					258				
280	460	210	148	172	285	12	285.000	274	21	M20	490
		220					291				
		230					309				
300	485	230	152	176	305	12	341.000	296	22	M20	490
		240					313				
		245					322				
320	520	240	160	184	325	12	378.500	315	24	M20	490
		250					333				
		260					347				
340	570	250	176	200	345	12	489.500	391	21	M24	840
		260					408				
		270					428				
350	580	270	176	200	355	12	556.000	412	21	M24	840
		280					432				
		285					442				
360	590	280	180	204	365	12	612.000	437	22	M24	840
		290					457				
		295					467				
380	645	290	180	204	387	12	618.000	427	22	M24	840
		300					446				
		310					465				
390	660	300	188	212	397	12	708.000	472	24	M24	840
		310					491				
		320					509				
400	680	315	188	212	407	12	765.000	486	24	M24	840
		320					493				
		330					513				
420	690	330	214	238	427	12	999.000	606	30	M24	840
		340					629				
		350					652				
440	750	340	224	252	448	14	1.058.000	623	24	M27	1.250
		350					646				
		360					669				
460	770	360	224	252	468	14	1.320.000	744	28	M27	1.250
		370					770				
		380					795				

Note: For larger sizes, please contact our technical office.

M _S	Screw tightening torque	Nm
M _T	Transmissible torque moment	Nm
F _{ax}	Transmissible axial load	N

SIT-LOCK® 11L - light series

Dimensions [mm]							Performances		Clamping screws (DIN 913 - 10,9)		
d	D	d _w	l	L	d ₂	e	M _T [Nm]	F _{ax} [kN]	Tipo	N°	M _S [Nm]
125	185	95	39	51	129	6	10.550	22	10	M10	59
		100					12.100	24			
		105					13.800	26			
140	220	110	39	51	144	6	14.800	27	12	M10	59
		120					18.640	31			
		125					20.500	33			
155	245	130	39	51	159	6	24.000	37	15	M10	59
		135					26.400	39			
		140					29.000	41			
165	260	135	46	62	169	8	32.000	48	10	M12	100
		140					35.200	50			
		145					38.500	53			
175	275	145	46	62	179	8	39.000	54	10	M12	100
		150					42.400	56			
		155					46.000	59			
185	295	155	46	62	189	8	46.600	60	14	M12	100
		160					50.300	63			
		165					54.000	65			
195	315	165	56	72	199	8	63.000	76	14	M12	100
		170					67.700	80			
		175					72.500	83			
200	330	175	56	72	204	8	74.000	85	15	M12	100
		180					79.500	89			
		185					84.500	92			
220	345	180	66	84	224	9	82.800	92	20	M16	250
		190					93.500	98			
		200					105.000	106			
240	370	200	66	84	244	9	113.000	114	15	M16	250
		210					127.500	121			
		215					134.500	125			
260	395	220	72	92	265	10	149.000	135	18	M16	250
		230					165.000	144			
		235					173.000	148			
280	425	230	84	104	285	10	171.000	149	21	M16	250
		240					189.000	157			
		250					208.000	166			
300	460	250	84	104	305	10	215.000	172	22	M16	250
		260					234.000	180			
		270					255.000	189			
320	495	270	84	106	325	11	260.000	194	24	M16	250
		280					284.000	203			
		290					306.000	212			
340	535	290	84	106	345	11	300.000	207	21	M16	250
		300					324.400	216			
		305					337.000	221			
350	545	300	100	122	355	11	372.000	248	21	M20	490
		305					385.000	254			
		310					400.000	259			
360	555	300	100	122	365	11	360.000	240	22	M20	490
		310					388.000	250			
		320					415.000	259			
380	585	320	112	136	387	12	435.000	272	22	M20	490
		325					451.000	278			
		330					467.000	284			
390	595	330	112	136	397	12	505.000	306	24	M20	490
		340					540.000	318			
		350					577.000	330			
400	615	340	112	136	407	12	550.000	323	24	M20	490
		350					587.000	336			
		360					626.000	348			
420	630	350	120	144	427	12	578.000	330	30	M20	490
		360					617.000	343			
		370					655.000	355			
440	660	370	120	144	447	12	677.000	366	24	M20	490
		380					719.000	379			
		390					762.000	391			
460	685	390	132	158	468	13	840.000	432	28	M20	490
		400					890.000	446			
		410					935.000	458			

M _S	Screw tightening torque	Nm
M _T	Transmissible torque moment	Nm
F _{ax}	Transmissible axial load	N

Note: For larger sizes, please contact our technical office.