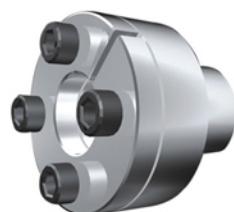


Z型胀紧联结套



上海松铭传动机械有限公司
SHANGHAI SONGMING TRANSMISSION MACHINERY CO.,LTD



公司简介 | Company brief introduction

上海松铭传动机械有限公司是一家研究、设计、销售机械传动类产品的企业，供应产品有：WS/WSD/WSS/WSP万向节、SWP/SWC万向联轴器、ML梅花弹性联轴器、XL/XLD星型弹性联轴器、DJM/JMII/SJM/JMIIJ/ZJM弹性膜片联轴器、TL弹性柱销套联轴器、HL弹性柱销联轴器、ZL柱销齿式联轴器、制动轮式联轴器、铝合金联轴器、UL/LLA/LLB轮胎联轴器、SL十字滑块联轴器，KC/GL链条联轴器、JS蛇型弹簧联轴器、鼓型齿联轴器、凸缘联轴器、JQ夹壳联轴器、WH/SL滑块联轴器、联轴器配件（弹性体/轮胎体/铝合金外罩壳/联轴器膜片组/联轴器弹簧等）、Z型胀紧联结套及SPA/SPB/SPC/SPZ锥套皮带轮等产品，并承接非标传动零部件的定制加工。

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联轴器系列



联轴器系列





松铭传动

共创未来

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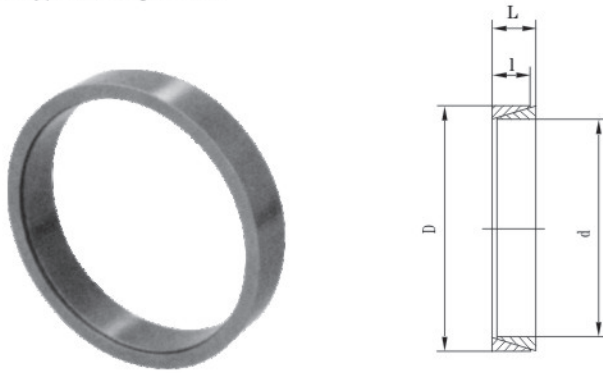
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Z₁型胀紧联结套 Z₁Type Locking Device

Z₁型胀紧联结套的基本参数
Base data of Z₁ type locking device



标记示例：
内径d=50mm，外径D=57mm
Z₁型胀紧联结套：
胀套Z₁-50*57 JB/T7934-1999

图一 Z₁型胀紧联结套 Drawing 1 Z₁Type Locking device

Z ₁ 基本尺寸 Z ₁ Basic Dimension				当P ₁ =100N/mm ² 时的额定负荷 Rating burthen when P ₁ =100N/mm ²		重量 (Kg) Weight
d	D	L	l	轴向力F _t (KN) Power on shaft F _t	转矩M _t (KN · m) Torsion M _t	
mm						
10	13	4.5	3.7	1.4	0.007	0.01
12	15			1.6	0.0098	0.01
13	16			1.8	0.011	0.01
14	18	6.3	5.3	2.8	0.019	0.01
15	19			3.0	0.022	0.01
16	20			3.2	0.025	0.01
17	21			3.4	0.028	0.01
18	22			3.6	0.032	0.01
19	24			3.8	0.035	0.01
20	25			4.0	0.04	0.01
22	26			4.5	0.05	0.01
25	30	7.0	6.0	5.0	0.06	0.01
28	32			5.6	0.08	0.01
30	35			6.0	0.09	0.01
32	36			6.4	0.10	0.01
35	40			8.2	0.15	0.02
40	45	8.0	6.6	9.9	0.20	0.02
45	52			14.6	0.33	0.04
50	57			16.2	0.40	0.05
55	62	10.0	8.6	17.8	0.49	0.05
60	68			23.5	0.70	0.07
65	73			25.6	0.83	0.08
70	79	12.0	10.4	32.0	1.12	0.11
75	84			34.4	1.29	0.12
80	91			45.0	1.81	0.19
85	96	14.0	12.2	48.0	2.04	0.20
90	101			51.0	2.29	0.22
95	106			54.0	2.55	0.23

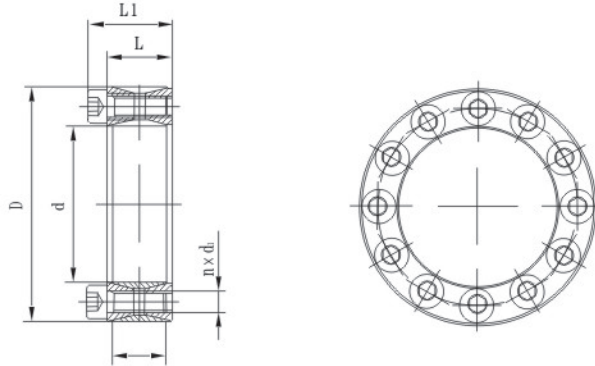


Z ₁ 基本尺寸 Z ₁ Basic Dimension				当P ₁ =100N/mm ² 时的额定负荷 Rating burthen when P ₁ =100N/mm ²		重量 (Kg) Weight
d	D	L	l	轴向力F _t (KN) Power on shaft F _t	转矩M _t (KN·m) Torsion M _t	
mm						
100	114	21.0	18.7	70.0	3.50	0.38
105	119			73.2	3.82	0.40
110	124			77.0	4.25	0.41
120	134			84.0	5.05	0.45
125	139			92.0	5.75	0.62
130	148	28.0	25.3	124.0	8.05	0.85
140	158			134.0	9.35	0.91
150	168			143.0	10.70	0.97
160	178			152.5	12.20	1.02
170	191	33.0	30.0	192.0	16.30	1.50
180	201			204.0	18.30	1.58
190	211			214.0	20.40	1.68
200	224	38.0	34.8	262.0	26.20	2.32
210	234			275	28.90	2.45
220	244			288.0	37.70	2.49
240	267	42.0	39.5	358.0	43.00	3.52
250	280	48.0	44.0	415	52.00	4.68
260	290			435.0	56.50	4.82
280	313	53.0	49.0	520.0	72.50	6.27
300	333			555.0	83.00	6.47
320	360	65.0	59.0	710.0	114.0	10.90
340	380			755	128.50	11.50
360	400			800	144.00	12.20
380	420			845	160.50	12.80
400	440			890	178.00	13.50
420	460			935	196.00	14.10
450	490			998.0	224.50	15.20
480	520			1070.0	256.00	16.00
500	540			1110.0	278.00	16.50

注：P_f为胀紧联结套与轴结合面上的压力。 Note: P_t is the pressure between locking device and the face of shaft.

Z₂型胀紧联结套 Z₂Type Locking Device

Z₂型胀紧联结套的基本参数
Base data of Z₂ type locking device



图二 Z₂型胀紧联结套 Drawing 2 Z₂ type Locking device

Z ₂ 基本尺寸 Z ₂ Basic Dimension						额定负荷 Rating burthen			胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight
d	D	l	L	L ₁	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t				
mm												
20	47	17	20	27.5	M6	8	27	0.27	210	90	14	0.24
22								0.30	195			
25	50					9	30	0.38	190	95		0.25
28								55	10	33		0.47
30	0.50					175	95					0.29
35	60					12	40	0.70	180	105		0.32
38								63	14	46		0.88
40	65					0.92	180					110
42	72	20	24	33.5	M8	12	65	1.36	200	117	35	0.48
45								75	1.62			
50	80					71	1.77	190	115	0.60		
55								85	14	83		2.27
60	90					2.47	180					120
65	95					16	93	3.04	190	130		0.73



Z₂型胀紧联结套
Z₂Type Locking Device

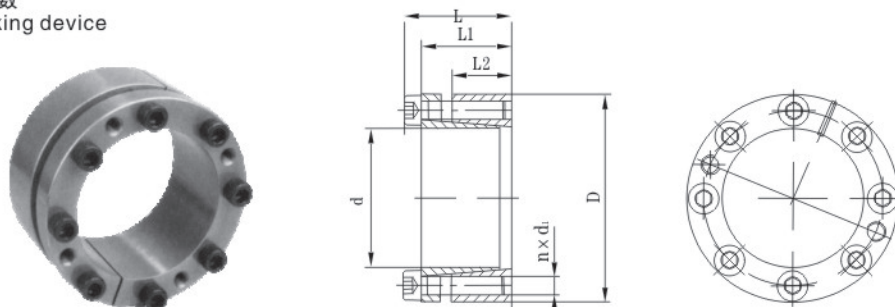
Z ₂ 基本尺寸 Z ₂ Basic Dimension						额定负荷 Rating burthen			胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight		
d	D	l	L	L ₁	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t						
mm														
70	110	24	28	39.0	M10	14	132	4.60	210	130	70	1.26		
75	115						131	4.90				195	125	1.33
80	120							5.20				180	120	1.40
85	125					16	148	6.30	195	130		1.49		
90	130						147	6.60	180	125		1.53		
95	135						18	167	7.90	195		135	1.62	
100	145	29	33	47.0	M12	14	192	9.60	185	130	125	2.01		
105	150						190	9.98				180	125	2.10
110	155						191	10.50				180	125	2.15
120	165					16	218	13.10	185	135		2.35		
125	170						18	220	13.78	180		130	2.95	
130	180						20	272	17.60	165		120	3.51	
140	190	34	38	52.0	M12	22	298	20.90	170	125	3.85			
150	200					24	324	24.20			125	4.07		
160	210					26	350	28.00			130	4.30		
170	225					38	44	60			M14	22	386	32.80
180	235	24	420	37.80	165				125	6.05				
190	250	46	52	68	28				490	46.50		150	115	8.25
200	260				30	525	52.50	150	115	8.65				
210	275	50	56	74	M16	24	599	62.89	151	115	295	10.10		
220	285					26	620	68.00				150	115	11.22
240	305					30	715	85.50				160	125	12.20
250	315					32	768	96.00				162	125	12.70
260	325					34	800	104.00				165	130	13.20
280	355					60	66	86.5				M18	32	915
300	375	1020	153.00	150	120				20.50					
320	405	72	78	100.5	M20	36	1310	210.00	145	115	580	29.60		
340	425						224.00	115				31.10		
360	455	84	90	116.0	M22	1630	294.00	135	110	105	780	42.20		
380	475					1620	308.00					130	105	44.00
400	495					1610	322.00					135	110	46.00
420	515					40	1780					374.00	135	110

Z₂型胀紧联结套 Z₂Type Locking Device

Z ₂ 基本尺寸 Z ₂ Basic Dimension						额定负荷 Rating burthen			胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face p _t	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub p _t '	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight
d	D	l	L	L ₁	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t				
mm												
450	555	96	102	130.0	M24	40	2050	461.25	124	1000	65.00	
480	585					42	2160	518.40				
500	605					44	2240	560.00	123			
530	640					45	2330	617.00	121			
560	670					48	2440	680.00	120			
600	710					50	2580	775.00	118			
630	740					52	2680	844.00	117			
670	780					56	2820	944.00	116			
710	820					60	2970	1054.00	115			
750	860					62	3130	1173.00	115			
800	910					66	3260	1300.00	112			
850	960					70	3500	1487.00	113			
900	1010					75	3680	1650.00	112			100
950	1060					80	3870	1838.00				100
1000	1110					82	4000	2000.00	110			100

注：Z₂型胀紧联结套的机械性能等级为12.9级 Note: The capability of the bolts of Z₂ type locking device is grand 12.9

Z₃型胀紧联结套的基本参数 Base data of Z₃ type locking device



图三 Z₃型胀紧联结套 Drawing 3 Z₃ type Locking device



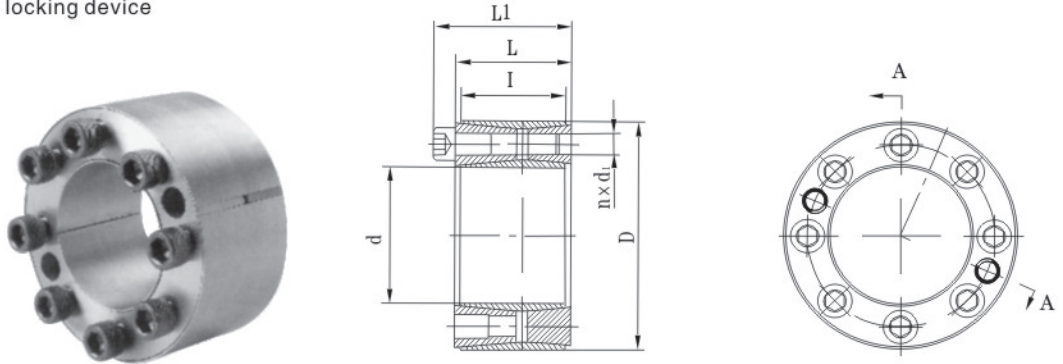
Z₃型胀紧联结套
Z₃Type Locking Device

Z ₃ 基本尺寸 Z ₃ Basic Dimension						额定负荷 Rating burthen			胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight				
d	D	l	L	L ₁	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t								
mm																
20	47	37	31	21.7	M6	4	30	0.30	287	90	17	0.29				
22	47							0.33	260	90			0.27			
25	50					5	35	0.44	287	106				0.30		
28	55							0.49	256	96			0.36			
30	55							0.53	239	96					0.34	
35	60							6	45	0.81			246			106
40	65	0.94	215	98	0.41											
45	75	46	38	25.3		M8	6	80	1.86	283	134	41	0.70			
50	80				2.07				255	126	0.76					
55	85				7		90	2.54	270	138				0.82		
60	90							2.77	247	130	0.88					
65	95							8	105	3.58					261	141
70	110									5.10	244				128	83
75	115	7	140	5.46	228	119	2.20									
80	120			5.85	214	112		2.30								
85	125			8	175	7.45			230	129	2.40					
90	130	7.90	217			124	2.60									
95	135	M10	205	9.90	257	149		2.70								
100	145			10	220	11.00	192		114	3.70						
105	150					11.55	210		114		3.90					
110	155					12.10	175		107			4.00				
120	165	68	58	40.8	M12	12	260	15.70	192	120	145		4.30			
125	170							17.50	189	120		4.80				
130	180					10	320	20.70	188	120				5.90		
140	190							22.50	175	114		6.30				
150	200							12	380	28.50					196	130

注：Z₃型胀紧联结套的机械性能等级为12.9级 Note: The capability of the bolts of Z₃ type locking device is grand 12.9

Z₄型胀紧联结套 Z₄Type Locking Device

Z₄型胀紧联结套的基本参数
Base data of Z₄ type locking device

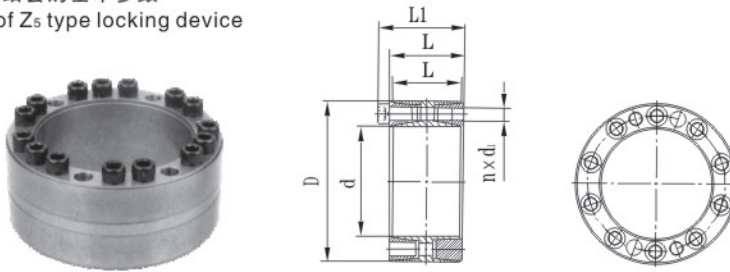


图四 Z₄型胀紧联结套 Drawing 4 Z₄ type Locking device

Z ₄ 基本尺寸 Z ₄ Basic Dimension						额定负荷 Rating burthen		胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _{t'} (N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight		
d	D	I	L	L ₁	d ₁	n	轴向力F _t (KN) Shaft power F _t					转矩M _t (Kn·m) Torque M _t	
mm													
70	120	56	62	74	M12	8	197	6.85	201	145	3.3		
80	130					12	291	11.65	263			162	3.7
90	140						290	13.00	234			150	4.0
100	160	74	80	94	M14	15	389	19.70	213	230	7.2		
110	170						483	22.60	242			157	7.7
120	180						482	28.90	222			148	8.3
125	185						480	30.00	212			143	8.5
130	190						31.20	205	140			8.8	
140	200					18	574	40.20	227			159	9.3
150	210						572	42.90	212			152	10.0
160	230	800	64.00	227	158		14.9						
170	240	88	94	110	M16	21	795	67.80	214	355	15.7		
180	250						923	83.00	235		170	16.4	
190	260					921	88.00	223	163		17.2		
200	270					1050	105.00	242	179		18.8		
210	290	110	116	134	M18	20	1118	117.30	197	485	23.0		
220	300					21	1120	123.00	189		138	27.7	
240	320					24	1280	153.00	198		148	29.8	
250	330					27	1282	160.20	205		157	31.0	
260	340						1430	186.00			157	32.0	
280	370	130	136	156	M20	24	1650	230.00	192	690	46.0		
300	390						245.00	179	138		49.0		

注：Z₄型胀紧联结套的机械性能等级为12.9级 Note: The capability of the bolts of Z₄ type locking device is grand 12.9

Z₅型胀紧联结套的基本参数
Base data of Z₅ type locking device



标记示例：
内径d=300mm，外径D=375mm
Z₅型胀紧联结套：
胀套Z₅-300*375 JB/T7934-1999

图五 Z₅型胀紧联结套 Drawing 5 Z₅ Type Locking Device

Z ₅ 基本尺寸 Z ₅ Basic Dimension						额定负荷 Rating burthen		胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight					
d	D	l	L	L ₁	d ₁	n	轴向力F _t (KN) Shaft power F _t					转矩M _t (Kn·m) Torque M _t				
mm																
100	145	60	65	77	M12	10	288	14.4	192	145	4.1					
110	155					12	346	15.8	175			4.4				
120	165					15	433	20.8	192			4.8				
130	180	68	74	86	M12	18	519	28.1	193	145	6.5					
140	190					21	606	36.3	214			157	7.0			
150	200					24	712	39.0	200			150	7.4			
160	210					21	606	48.5	219			167	7.8			
170	225	75	81	95	M14	18	712	60.6	215	230	10.0					
180	235					20	792	64.1	203			155	10.6			
190	250					24	950	75.2	178			135	14.3			
200	260	88	94	108	M14	24	950	95.0	203	156	15.0					
210	275					18	970	102.0	187			142	355	17.5		
220	285					24	1318	109.0	183			141			22.0	19.8
240	305					25	1340	158.0	222			176				
250	315	120	126	144	M16	25	1370	178.0	215	172	23.0					
260	325					24	1590	222.5	188	149	485	35.2				
280	355					25	1650	248.0	183	146			690	37.4		
300	375					24	1590	222.5	188	149	930	75.4				
320	405					25	1650	248.0	183	146			930	79.0		
340	425					24	1590	222.5	188	149	930	82.8				
360	455					25	1650	248.0	183	146			930	86.5		
380	475					24	1590	222.5	188	149	1200	112.0				
400	495					25	1650	248.0	183	146			1200	119.0		
420	515					24	1590	222.5	188	149	1200	123.0				
450	555	25	1650	248.0	183	146	1600	151.0								
480	585	24	1590	222.5	188	149			1600	160.0						
500	605	25	1650	248.0	183	146	1600	170.0								
530	640	30	3200	673.0	181	147			1600	151.0						
560	670	32	3700	832.5	175	142	1600	160.0								
600	710	30	3200	673.0	181	147			1600	170.0						
		32	3950	948.0	168	139	1600	160.0								
		30	4320	1145.0	157	130			1600	160.0						
		32	4610	1380.0	148	124	1600	160.0								
		30	4320	1145.0	157	130			1600	160.0						
		32	4610	1380.0	147	124	1600	160.0								

注：Z₅型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z₅ type locking device is grand 12.9



Z_{7A} Z_{7B}型胀紧联结套
Z_{7A} Z_{7B}Type Locking Device

Z _{7A} 基本尺寸 Z _{7A} Basic Dimension					六角螺钉 Hexagon Bolts		额定负荷 Rating burthen		螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t			
mm											
460	685	390	132	158	M20X110	24	3949	770	470	235	13
		400					4300	860			
		410					4634	950			
500	750	420	152	178	M20X120	30	4881	1025	320		
		430					5233	1125			
		440					5568	1225			

注：Z_{7A}型胀紧联结套螺钉的机械性能等级为10.9级 Note: The capability of the bolts of Z_{7A} type locking device is grand 10.9

Z _{7B} 基本尺寸 Z _{7B} Basic Dimension					六角螺钉 Hexagon Bolts		额定负荷 Rating burthen		螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t			
mm											
24	50	19	14	18	M5X15	6	17	0.17	5	0.2	2
		20					21	0.21			
		21					23	0.25			
30	60	24	16	20	M5X18	6	25	0.30	12	0.3	
		25					27	0.34			
		26					29	0.38			
36	72	28	18	22	M6X20	6	31	0.44	12	0.4	
		30					38	0.57			
		31					40	0.63			
44	80	34	20	24	M6X20	6	41	0.71	12	0.6	
		35					44	0.78			
		36					47	0.86			
50	90	38	22	26	M6X22	8	49	0.94	12	6.8	
		40					58	1.16			
		42					65	1.38			
55	100	40	23	29	M6X25	8	55	1.16	12	1.1	3
		45					67	1.32			
		48					78	1.88			
62	110	48	23	29	M6X25	10	73	1.75	12	1.2	3
		50					80	2.00			
		52					86	2.25			



Z_{7B} 型胀紧联结套
Z_{7B} Type Locking Device

Z _{7B} 基本尺寸 Z _{7B} Basic Dimension					六角螺钉 Hexagon Bolts		额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t			
mm											
68	115	50	23	29	M6X25	12	74	1.85	12	1.4	
		55					91	2.50			
		60					105	3.15			
75	138	55	25	31	M8X30	8	87	2.40	29	1.2	3
		60					106	3.20			
		65					121	3.95			
80	145	60	30	38	M8X35	10	106	3.20	58	1.9	
		65					120	3.90			
		70					131	4.60			
90	155	65	34	43	M10X40	10	146	4.75	100	3.3	4
		70					171	6.00			
		75					193	7.25			
100	170	70	39	49	M10X45	12	171	6.00	240	4.7	4.5
		75					200	7.50			
		80					225	9.00			
110	185	75	42	53	M12X45	10	192	7.29	100	5.9	5
		80					225	9.00			
		85					254	10.80			
125	215	85	46	58	M12X50	10	258	11.00	240	8.3	5.5
		90					288	13.00			
		95					315	15.00			
140	230	95	50	62	M16X55	8	317	15.1	240	10	7
		100					352	17.6			
		105					382	20.1			
155	263	105	56	68	M16X65	12	419	22	240	15	
		110					454	25			
		115					487	28			
165	290	115	71	85	M16X65	8	539	31	240	22	
		120					583	35			
		125					624	39			
175	300	125	71	85	M16X65	10	640	40	240	37	
		130					677	44			
		135					711	48			
185	330	135	71	85	M16X65	10	815	55	240	41	8
		140					857	60			
		145					896	65			
195	350	140	71	85	M16X65	12	928	65	240	41	
		150					1013	76			
		155					1052	81.5			
200	350	150	71	85	M16X65	12	1040	78	240	41	
		155					1084	84			
		160					1125	90			



Z _{7B} 基本尺寸 Z _{7B} Basic Dimension					六角螺钉 Hexagon Bolts		额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t			
mm											
220	370	160	88	103	M16X75	15	1250	100	470	54	10
		165					1309	108			
		170					1365	116			
240	405	170	92	107	M20X80	12	1412	120			
		180					1533	138			
		190					1642	156			
260	430	190	103	119	M20X85	12	1726	164			
		200					1840	184			
		210					1943	204			
280	460	210	114	132	M20X95	15	2062	217			
		220					2227	245			
		230					2374	273			
300	485	230	122	140	M20X100	16	2278	262			
		240					2442	293			
		245					2514	308			
320	520	240	122	140	M20X100	18	2550	306			
		250					2720	340			
		260					2877	374			
340	570	250	134	155	M20X110	24	3152	394			
		260					3308	430			
		270					3452	466			
350	590	270	140	159	M20X110	24	3393	458			
		280					3572	500			
		285					3656	521			
360	590	280	140	159	M20X110	24	3622	507			
		290					3793	550			
		295					3878	572			
380	645	290	144	163	M24X120	18	4069	590			
		300					4267	640			
		310					4452	690			
390	660	300	144	163	M24X120	20	4400	660			
		310					4580	710			
		320					4750	760			



Z_{7B}型胀紧联结套
Z_{7B}Type Locking Device

Z _{7B} 基本尺寸 Z _{7B} Basic Dimension					六角螺钉 Hexagon Bolts		额定负荷 Rating burthen		螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm									
d	D	d _w	l	H	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t												
mm																				
420	690	330	164	184	M24X130	20	4727	780	820	316	12									
		340					4940	840												
		350					5143	900												
440	750	340	172	192		M24X130	24	5235		890		820	408	12						
		350						5486		960										
		360						5722		1030										
460	770	360						188		213			M24X140		28	5556	1000	820	420	15
		370														5784	1070			
		380														6000	1140			
480	800	380	188	213	M24X140	28	6316	1200	820	505	15									
		390					6513	1270												
		400					6700	1340												
500	850	400	188	213	M24X150	24	7200	1440	820	575		15								
		410					7415	1520												
		420					7619	1600												
530	910	430	213	238	M27X160	30	8465	1820	1100	746			18							
		440					8818	1940												
		450					9156	2060												
560	940	450					228	260		M27X170	36			8889	2000	1100	775	18		
		460												9261	2130					
		470												9617	2260					
590	980	470	254	286	M30X190	30	9574	2250	1640	900	18									
		480					10000	2400												
		490					10410	2550												
620	1020	500	260	292	M30X190	30	10800	2700	1640	1080		18								
		510					11220	2860												
		520					11620	3020												
660	1070	530	260	292	M30X190	36	11700	3100	1640	1190			18							
		540					12150	3280												
		550					12580	3460												
700	1180	560	260	292	M30X190	36	12320	3450	1640	1515	18									
		575					12870	3700												
		590					13390	3950												



Z_{7B} Z_{7C} 型胀紧联结套
Z_{7B} Z_{7B} Type Locking Device

Z _{7B} 基本尺寸 Z _{7B} Basic Dimension					六角螺钉 Hexagon Bolts		额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d _t	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t			
mm											
750	1250	600	278	310	M30X200	40	14670	4400	1640	1785	18
		615					15280	4700			
		630					15870	5000			
800	1370	645	296	334	M30X210	45	16740	5400	2390	20	
		660					17420	5750			
		670					18070	6100			
900	1480	720	332	370	M33X240	40	20000	7200	2200	2930	
		740					20950	7750			
		760					21840	8300			

注：Z_{7B}型胀紧联结套螺钉的机械性能等级为10.9级 Note: The capability of the bolts of Z_{7B} type locking device is grand 10.9

Z _{7C} 基本尺寸 Z _{7C} Basic Dimension					六角螺钉 Hexagon Bolts		额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d _t	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t			
mm											
140	230	95	60	74	M12X55	12	436	20.7	100	13	7
		100					480	24.0			
		105					518	27.2			
155	263	105	66	80	M12X60	15	545	28.6	20		
		110					591	32.5			
		115					633	36.4			
165	290	115	72	88	M16X65	10	701	40.3	240	26	8
		120					758	45.5			
		125					811	50.7			
175	300	125	92	112	M16X80	15	832	52	29		
		130					880	57.2			
		135					924	62.4			
185	330	135	92	112	M16X80	15	1037	70	47		
		140					1100	77			
		145					1159	84			
200	350	145	92	112	M16X80	15	1291	93	50		
		150					1353	101.5			
		155					1409	109.2			

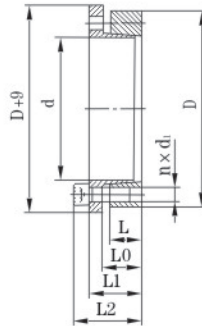


Z_{7c} 型胀紧联结套
Z_{7c} Type Locking Device

Z _{7c} 基本尺寸 Z _{7c} Basic Dimension					六角螺钉 Hexagon Bolts		额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t			
mm											
220	370	160	114	134	M16X90	20	1625	130	240	65	10
		165					1703	140.5			
		170					1776	151			
240	405	170	120	144	M20X100	15	1835	156	470	87	12
		180					1994	179.5			
		190					2137	203			
260	430	190	136	160	M20X110	16	2242	213	470	100	12
		200					2390	239			
		210					2542	265			
280	460	210	148	172	M20X110	20	2686	282	470	132	12
		220					2900	319			
		230					3087	355			
300	485	230	152	176	M20X120	20	2965	341	820	140	12
		240					3175	381			
		245					3273	401			
320	520	240	160	184	M20X130	24	3317	398	820	165	12
		250					3536	442			
		260					3738	486			
340	570	250	176	200	M24X130	20	4080	510	820	240	12
		260					4307	560			
		270					4519	610			
360	590	280	180	204	M24X140	20	4707	659	820	250	12
		290					4931	715			
		295					5044	744			
390	660	300	188	212	M24X140	24	5733	860	820	350	12
		310					5903	915			
		320					6063	970			
420	690	330	214	238	M24X150	28	6182	1020	820	410	12
		340					6470	1100			
		350					6743	1180			
460	770	360	224	252	M27X170	24	7222	1300	1210	540	14
		370					7514	1390			
		380					7789	1480			
500	850	400	246	274	M27X180	30	9400	1880	1210	750	14
		410					9659	1980			
		420					9905	2080			

注：Z_{7c}型胀紧联结套螺钉的机械性能等级为10.9级 Note: The capability of the bolts of Z_{7c} type locking device is grand 10.9

Z₈型胀紧联结套的基本参数
Base data of Z₈ type locking device



标记示例：
内径d=20mm，外径D=47mm
Z₈型胀紧联结套：
胀套Z₈-20*47 JB/T7934-1999

图八 Z₈型胀紧联结套 Drawing8 Z₈ Type Locking Device

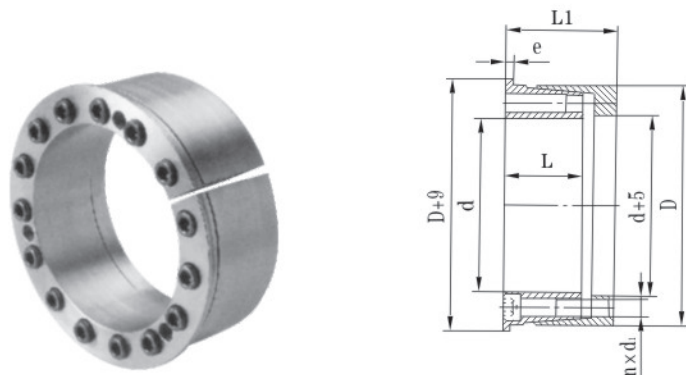
Z ₈ 基本尺寸 Z ₈ Basic Dimension						内六角螺钉 Inner Hexagon Bolts		额定负荷 Rating burthen		胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧力矩M _A (N·m) Torque on bolt MA	重量 (Kg) Weight
d	D	L	L ₀	L ₁	L ₂	d ₁	n	轴向力F _t (KN) Shaft power Ft	转矩M _t (Kn·m) Torque M _t				
mm													
20	47	17	22	28	34	M6X20	5	30	0.29	220	95	17	0.25
22	47	17	22	28	34	M6X20	5	30	0.32	200	95		0.25
24	50	17	22	28	34	M6X20	5	30	0.37	200	95		0.27
25	50	17	22	28	34	M6X20	6	36	0.45	215	110		0.27
28	55	17	22	28	34	M6X20	6	36	0.50	200	100		0.32
30	55	17	22	28	34	M6X20	6	36	0.54	190	100		0.35
32	60	17	22	28	34	M6X20	8	48	0.77	215	115		0.37
35	60	17	22	28	34	M6X20	8	48	0.84	190	110		0.34
38	65	17	22	28	34	M6X20	8	48	0.91	195	115	0.40	
40	65	17	22	28	34	M6X20	8	48	0.96	190	105	0.38	
45	75	20	25	33	41	M8X25	7	77	1.75	230	135	41	0.63
50	80	20	25	33	41	M8X25	7	77	1.93	210	130		0.68
55	85	20	25	33	41	M8X25	8	88	2.45	215	135		0.73
60	90	20	25	33	41	M8X25	8	88	2.70	190	125		0.78
63	95	20	25	33	41	M8X25	9	100	3.18	205	140		0.89
65	95	20	25	33	41	M8X25	9	100	3.25	200	135		0.83
70	110	24	30	40	50	M10X30	8	141	5.00	220	140	83	1.33
75	115	24	30	40	50	M10X30	8	141	5.25	200	130		1.40
80	120	24	30	40	50	M10X30	8	141	5.60	190	125		1.48
85	125	24	30	40	50	M10X30	9	159	6.75	200	135		1.55
90	130	24	30	40	50	M10X30	9	159	7.10	190	130		1.63
95	135	24	30	40	50	M10X30	10	176	8.35	200	140		1.70
100	145	26	32	44	56	M12X30	8	205	10.30	210	145	145	2.60
110	155	26	32	44	56	M12X30	8	205	11.25	190	135		2.80
120	165	26	32	44	56	M12X30	9	231	13.9	210	145		3.00
130	180	34	40	52	64	M12X30	12	308	20.00	190	140		4.60

Z₈ 型胀紧联结套 Z₈ Type Locking Device

Z ₈ 基本尺寸 Z ₈ Basic Dimension						内六角螺钉 Inner Hexagon Bolts		额定负荷 Rating burthen		胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face p _t	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub p _t '	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight
d	D	L	L ₀	L ₁	L ₂	d ₁	n	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t				
mm													
140	190	34	40	54	68	M14X40	9	317	22.25	180	130	230	4.90
150	200	34	40	54	68	M14X40	10	352	26.3	190	140		5.20
160	210	34	40	54	68	M14X40	11	287	31.0	190	145		5.50
170	225	44	50	64	78	M14X40	12	422	35.9	150	115		7.75
180	235	44	50	64	78	M14X40	12	422	38.0	145	110		8.15
190	250	44	50	64	78	M14X40	15	528	50.1	170	130		9.50
200	260	44	50	64	78	M14X40	15	528	52.8	160	125		9.90
220	285	50	56	72	88	M16X40	12	587	64.5	145	110	355	13.40
240	305	50	56	72	88	M16X40	15	734	88	165	130		14.30
260	325	50	56	72	88	M16X40	18	880	114	180	145		15.50
280	355	60	66	84	102	M18X50	16	948	132	150	120	485	22.90
300	375	60	66	84	102	M18X50	18	1059	159	160	125		24.40
320	405	74	81	101	121	M20X50	18	1374	220	150	120	690	36.10
340	425	74	81	101	121	M20X50	21	1603	272.5	175	135		38.40
360	455	86	94	116	138	M22X60	18	1710	308	140	110	930	46.20
380	475	86	94	116	138	M22X60	21	1995	379	155	125		55.00
400	495	86	94	116	138	M22X60	21	1995	399	150	120		61.00

注：Z₈型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z₈ type locking device is grand 12.9

Z₉ 型胀紧联结套的基本参数 Base data of Z₉ type locking device



图九 Z₉ 型胀紧联结套 Drawing 9 Z₉ Type Locking Device

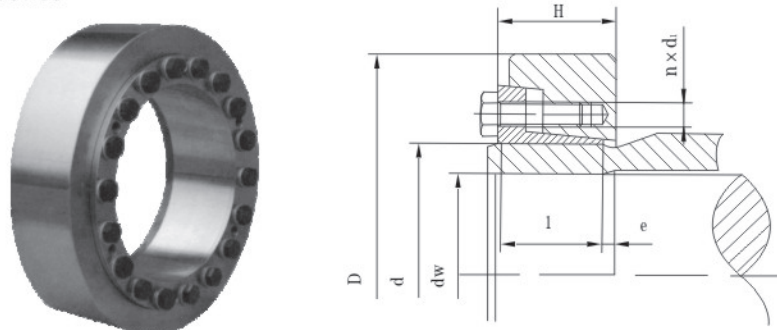
Z₉ 型胀紧联结套 Z₉ Type Locking Device

Z ₉ 基本尺寸 Z ₉ Basic Dimension					内六角螺钉 Inner Hexagon Bolts		额定负荷 Rating burthen		胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face p _t	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub p _t '	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight
d	D	L	L ₁	e	d ₁	N	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t				
mm												
100	145	54	75	5	M12X60	8	192	9.6	102	70	145	4.7
110	155	54	75	5	M12X60	8	191	10.5	93	66	145	5.1
120	165	54	75	5	M12X60	9	216	13	96	70	145	5.5
130	180	63	84	6	M12X70	12	287	17.8	100	78	145	7.5
140	190	63	84	6	M12X70	12	287	20.2	94	69	145	7.9
150	200	63	84	6	M12X70	12	287	21.6	88	66	145	8.4
160	210	63	84	6	M12X70	15	360	28.8	101	77	145	8.9
170	225	63	84	6	M12X70	16	383	32.6	101	76	145	10.5
180	235	63	84	6	M12X70	18	431	38.8	108	82	145	11.0
190	250	69	94	6	M14X75	15	493	46.8	106	80	230	14.3
200	260	69	94	6	M14X75	16	526	52.8	100	77	230	15.0
220	285	69	94	6	M16X75	14	640	70	119	92	355	17.8
240	305	86	112	7	M16X90	16	731	88	96	75	355	23.2
260	325	86	112	7	M16X90	18	822	107	103	82	355	24.8
280	355	94	120	8	M16X100	20	910	128	96	75	355	33
300	375	94	120	8	M16X100	22	1000	151	99	79	355	36
320	405	109	142	8	M20X120	18	1280	206	101	80	690	52
340	425	109	142	8	M20X120	20	1420	242	106	85	690	54
360	455	120	159	8	M22X130	20	1770	319	113	89	930	72
380	475	120	159	8	M22X130	20	1770	337	109	87	930	75
400	485	120	159	8	M22X130	20	1770	355	101	83	930	78
420	515	120	159	8	M22X130	22	1980	410	107	87	930	82

注：Z₉型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z₉ type locking device is grand 12.9

Z₁₀型胀紧联结套的基本参数

Base data of Z₁₀ type locking device



图十 Z₁₀型胀紧联结套 Drawing 10 Z₁₀ Type Locking Device



Z₁₀型胀紧联结套
Z₁₀Type Locking Device

Z ₁₀ 基本尺寸 Z ₁₀ Basic Dimension					六角螺钉 Hexagon Bolts	额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d ₁ × n	轴向力F _t (KN) Shaft power F _t	转矩M _t (KN·m) Torque M _t			
mm										
12	32	10	9	11	M5X8	8	0.038	5	0.06	1
14	37	12				9	0.052			
16	41	14	12	15	M5X12	13	0.090		0.12	1.5
18	44	15				10	0.080			
		16				14	0.112			
20	47	17				16	0.140			
		18				20	0.184			
24	50	19				14	18			
		20	20	0.200						
		22	25	0.280						
30	60	24	16	20	23	0.28	0.3			
		25			25	0.32				
		26			27	0.36				
36	72	28	18	22	37	0.55	0.4			
		30			43	0.68				
		31			46	0.74				
44	80	34	20	24	41	0.70	0.6			
		35			44	0.77				
		36			47	0.85				
50	90	38	22	26	55	1.10	0.8			
		40			64	1.32				
		42			72	1.54				
55	100	42	23	29	M6X16	54	1.13	12	1.1	2.5
		45				66	1.50			
		48				77	1.85			
62	110	48				69	1.60		1.3	
		50				77	1.92			
		52				84	2.17			
68	115	50	23	29	M6X16	73	1.80	1.4	3	
		55				90	2.44			
		60				103	3.10			



Z ₁₀ 基本尺寸 Z ₁₀ Basic Dimension					内六角螺钉 Inner hexagon Bolte		额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm					
d	D	d _w	l	H	d ₁	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t									
mm																
75	138	55	25	31	M8×25	97	2.70	29	1.7	4						
		60				117	3.52									
		65				133	4.30									
80	145	60	108	3.25												
		65	121	3.97												
		70	133	4.70												
90 (85, 90)	155	65	30	38		145	4.70		190		3.3					
		70				170	5.98									
		75				190	7.20									
100 (95, 100)	170	70	34	43		170	5.91		220		4.7					
		75				200	7.42									
		80				220	8.90									
110 (105, 110)	185	80	39	40	M10×30	226	9.05	58	5.9	5						
		85				255	10.38									
		90				280	12.60									
125 (120, 125, 130)	215	90	42	53		280	12.85				340	8.3				
		95				315	14.98									
		100				340	17.00									
140 (135, 140)	230	100	46	58		M12×35	370		18.50		100	10	6			
		105					400		21.10							
		110					431		23.70							
155 (155, 160)	263	110	50	62			440		24.0					508	15	
		115					473		27.0							
		120					508		30.2							
165 (165, 170)	290	120	56	68	M16×40		525	34.5	240	22		7				
		125					620	38.6								
		130					660	42.8								
175 (175, 180)	300	130					650	42.0						720	50.6	8
		135					680	46.2								
		140														



Z₁₀型胀紧联结套
Z₁₀Type Locking Device

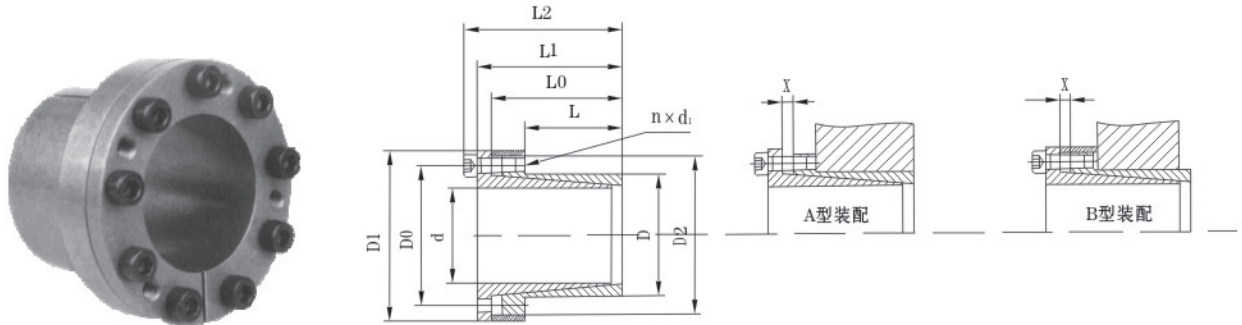
Z ₁₀ 基本尺寸 Z ₁₀ Basic Dimension					内六角螺钉 Inner hexagon Bolte		额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm			
d	D	d _w	l	H	d ₁	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t							
mm														
185 (185, 190)	330	140	71	85	M16×40	870	61.0	240	37	8				
		145				910	66.2							
		150				960	71.7							
200 (195, 200)	350	150	88	103		1020	77				41	9		
		155				1070	82.7							
		160				1100	88.1							
220 (210, 220)	370	160	92	107		M16×50	1210				97	470	54	9
		165					1270				105			
		170					1335				113.5			
240 (230, 240)	405	170	103	119	1390		118	67	10					
		180			1515		136							
		190			1630		154.8							
260 (250, 260)	430	190	114	132	M20×60		1700	162	102	118				
		200					1820	182						
		210					1930	202.8						
280 (270, 280)	460	210	122	140		2030	213	131			12			
		220				2150	240							
		230				2330	269							
300 (290, 300)	485	230	134	155		2280	262	186			204			
		240				2450	294							
		245				2530	310							
320 310, 320)	520	240	140	159	2510	301	204	12						
		250			2682	335								
		260			2850	370								
340 (330, 340)	570	250	155	159	M20×70	3120	389	186	204					
		260				3300	426							
		270				3430	463							
360 (350, 360)	590	280	140	159		3800	532			204	12			
		290				3970	575							
		300				3990	599							



Z ₁₀ 基本尺寸 Z ₁₀ Basic Dimension					内六角螺钉 Inner hexagon Bolte		额定负荷 Rating burthen		螺钉的拧紧 力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight	e mm
d	D	d _w	l	H	d ₁	轴向力F _t (KN) Shaft power F _t	转矩M _t (Kn·m) Torque M _t				
mm											
390 (380, 390)	650	300	144	163	M24 × 80	4260	640	820	250	14	
		310				4400	690				
		320				4640	742				
420 (400, 420)	670	330	164	184		4770	787				300
		340				5000	846				
		350				5200	910				
440 (430, 440)	740	340	172	192		5500	935		400		
		350				5720	1000				
		360				6000	1060				
460 (450, 460)	770	360				6050	1090				420
		370				6200	1150				
		380				6500	1235				
480 (470, 480)	800	380	188	213	M24 × 90	6560	1280	500			
		390				6750	1350				
		400				6940	1420				
500 (490, 500)	850	400			M27 × 90	7500	1480		570		
		410				7720	1600				
		420				7920	1720				
530 (520, 530)	910	430	213	238	M27 × 100	8470	1880	740			
		440				9000	2000				
		450				9250	2120				
560 (550, 560)	940	450			8950	2020	770				
		460			9350	2150					
		470			9700	2280					
590 (580, 590)	980	470	228	260	10600	2500		900			
		480			11000	2650					
		490			11450	2800					
620 (610, 620)	1020	500	254	286	M30 × 110	11000	2740	1080			
		510				11300	2900				
		520				11900	3100				

Z₁₁型胀紧联结套 Z₁₁Type Locking Device

Z₁₁型胀紧联结套的基本参数
Base data of Z₁₁ type locking device

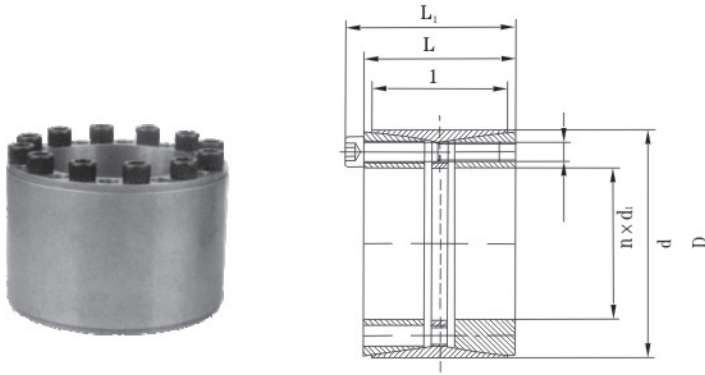


图十一 Z₁₁型胀紧联结套 Drawing 11 Z₁₁ Type Locking Device

Z ₁₁ 基本尺寸 Z ₁₁ Basic Dimension									额定负荷 Rating burthen				内六角螺钉 Inner hexagon Bolte		螺钉的 拧紧力矩M _A (N·m) Torque on bolt M _A	胀套与轴结 合面上的压 力P _t (N/mm ²) Pressure between lock and the shaft face pt		胀套与轮毂结 合面上的压力 P _{t'} (N/mm ²) Pressure between lock and hub pt'		重量 (Kg) Weight
d	D	d ₀	L ₀	L	L ₁	L ₂	D ₁	D ₂	轴向力F ₁ (KN) Shaftt power F ₁		转矩M _t (N·m) Torque M _t		d ₁	n		A	B	A	B	
mm																				
装配模式									A	B	A	B			A	B	A	B		
14	23	28.5	23	14	26	30	38	33	15.5	9.7	108	68	M4	4	4.9	210	132	128	80	0.15
15	24	32	29	16	36	42	45	40	35.5	22.4	285	179	M6	4	17	307	193	219	138	0.26
16	24	32	29	16	36	42	45	40	35.5	22.4	285	179	M6	4	17	328	206	219	138	0.25
18	26	34	34	18	41	47	47	42	35.5	22.4	320	200	M6	4	17	290	184	202	127	0.27
19	27	35	34	18	41	47	49	43	35.5	22.4	335	212	M6	4	17	276	174	195	122	0.30
20	28	36	34	18	41	47	50	44	35.5	22.4	350	224	M6	4	17	262	165	187	118	0.30
22	32	40	41	25	48	54	54	48	35.5	22.4	353	231	M6	4	17	155	101	106	69	0.38
24	34	42	41	25	48	54	56	50	53.4	33.6	636	400	M6	6	17	237	149	167	105	0.40
25	34	42	41	25	48	54	56	50	53.4	33.6	665	420	M6	6	17	228	143	167	105	0.39
28	39	47	41	25	48	54	61	55	53.4	33.6	745	470	M6	6	17	204	128	146	92	0.47
30	41	49	41	25	48	54	62	57	53.4	33.6	795	500	M6	6	17	189	119	139	87	0.48
32	43	51	41	25	48	54	65	59	71.3	44.8	1136	715	M6	8	17	237	149	177	111	0.52
35	47	54	45	32	52	58	69	62	71.3	44.8	1160	735	M6	8	17	152	99	114	74	0.63
38	50	58	45	32	52	58	72	66	71.3	44.8	1223	797	M6	8	17	140	92	106	70	0.67
40	53	61	45	32	52	58	75	69	71.3	44.8	1287	840	M6	8	17	133	87	100	66	0.74
42	55	63	45	32	52	58	78	71	71.3	44.8	1352	881	M6	8	17	127	82	102	66	0.78
45	59	69.5	64	45	72	80	86	80	119	77.6	2677	1745	M8	8	41	155	102	119	78	1.23
48	62	71.5	64	45	72	80	87	81	119	77.6	2855	1860	M8	8	41	145	95	113	74	1.24
50	65	75.5	64	45	72	80	92	86	119	77.6	2975	1940	M8	8	41	140	92	108	70	1.40
55	71	81.5	74	55	82	90	98	92	133	87.2	3680	2400	M8	9	41	117	77	91	60	1.70
60	77	87.5	74	55	82	90	104	98	133	87.2	4015	2620	M8	9	41	107	70	84	55	1.90
65	84	94.5	74	55	82	90	111	105	133	87.2	4350	2840	M8	9	41	100	65	77	55	2.20
70	90	101.5	87	65	97	107	119	113	212	139	7440	4850	M10	9	83	123	81	96	63	3.05
75	95	107	87	65	97	107	126	119	212	139	7970	5200	M10	9	83	114	75	91	59	3.32
80	100	112.5	87	65	97	107	131	125	283	184	11335	7390	M10	12	83	144	94	115	75	3.50
85	106	118.5	87	65	97	107	137	131	283	184	12040	7850	M10	12	83	135	88	108	71	3.81
90	112	124.5	87	65	97	107	144	137	283	184	12750	8320	M10	12	83	128	83	102	67	4.20

注：Z₁₁型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z₁₁ type locking device is grand 12.9

Z_{12A} Z_{12B} Z_{12C}型胀紧联结套的基本参数
Base data of Z_{12A} Z_{12B} Z_{12C} type locking device



标记示例:
内径d=30mm, 外径D=55mm
Z_{12A}型胀紧联结套:
胀套Z_{12A}-30*55 JB/T7934-1999

图十二 Z_{12A} Z_{12B} Z_{12C}型胀紧联结套 Drawing12 Z_{12A} Z_{12B} Z_{12C} Type Locking Device

Z _{12A} 基本尺寸 Z _{12A} Basic Dimension					内六角螺钉 Inner hexagon Bolt		额定负荷 Rating burthen		胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧力矩 M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight
d	D	l	L	L ₁	d ₁	n	轴向力F _t (KN) Shaftt power F _t	转矩M _t (KN·m) Torque M _t				
25	55	32	40	46	M6	6	67	0.84	297	101	17	0.47
28								0.94	265	101		0.44
30								1.0	248	101		0.42
35	60	44	54	60	M8	7	74	1.3	165	87	1.0	
40	75	44	54	62			145	2.9	282	116	1.1	
45	75	44	54	62			145	3.26	251	116	1.2	
50	80	56	64	72	M8	8	165	4.15	200	98	41	1.4
55	85						186	5.15	205	104		1.6
60	90						207	6.2	202	106		1.7
65	95						207	6.75	187	100		1.9
70	110	70	78	88	M10	10	329	11.5	223	114	83	3.1
80	120						362	14.5	215	115		3.5
90	130						390	17.8	208	115		3.8
100	145	90	100	112	M12	14	527	26.3	200	107	145	6.1
110	155						575	31.8	198	110		6.6
120	165						670	40.4	212	120		7.2



上海松铭传动机械有限公司

Z_{12A}型胀紧联结套
Z_{12A}Type Locking Device

Z _{12A} 基本尺寸 Z _{12A} Basic Dimension					内六角螺钉 Inner hexagon Bolte		额定负荷 Rating burthen		胀套与轴结 合面上的压 力P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结 合面上的压力 P _{t'} (N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧 力矩M _A (N·m) Torque on bolt MA	重量 (Kg) Weight
d	D	I	L	L1	d ₁	n	轴向力F _t (KN) Shaftt power F _t	转矩M _t (KN·m) Torque M _t				
mm												
130	180	104	116	130	M14	16	759	49	180	112	230	11.1
140	190					18	842.8	59	186	124		11.8
150	200					19	896.6	67	185	127		12.6
160	210					20	950	76	183	128		13.4
170	225	134	146	162	M16	19	1223.5	104	172	113	355	19.6
180	235					20	1288.8	116	172	115		20.6
190	250					21	1363	129.5	172	116		23.8
200	260					22	1437.5	143.7	172	112		24.9
220	285					24	1581.8	174	172	115		29.6
240	305					26	1725	207	172	119		31.9
260	325					28	1846	240	170	117		34.3
280	355	165	177	197	M20	24	2428.5	340	168	117	690	52
300	375					25	2540	381	161	123		55.3
320	405					28	2881	461	175	119		67.3
340	425					29	2994	509	171	119		71
360	455	190	202	224	M22	28	3588.8	646	169	115	930	96.5
380	475					30	3821	726	170	115		101.2
400	495					31	3960	792	168	120		106
420	515					32	4100	861	165	116		110.7
440	535					24	4260	937	165	112		110
460	555					24	4260	980	158	107		113
480	575					28	5000	1200	176	121		118
500	595					28	5000	1240	169	117		122
520	615					30	5330	1390	174	121		126
540	635					30	5330	1440	168	117		131
560	655					32	5680	1590	172	121		135
580	675					33	5860	1705	172	121		140
600	695					33	5860	1760	166	118		144

注：Z_{12A}型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z_{12A} type locking device is grand 12.9



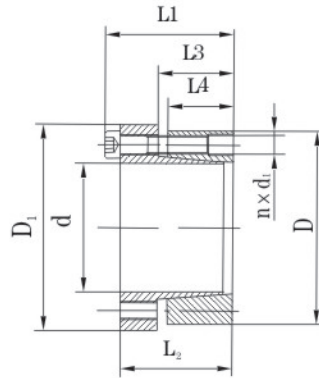
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Z_{12c}型胀紧联结套
Z_{12c}Type Locking Device

Z _{12c} 基本尺寸 Z _{12c} Basic Dimension					内六角螺钉 Inner hexagon Bolte		额定负荷 Rating burthen		胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t '(N/mm ²) Pressure between lock and hub pt'	螺钉的拧紧力矩M _A (N·m) Torque on bolt M _A	重量 (Kg) Weight
d	D	L	L ₁	L ₂	d ₁	n	轴向力F _t (KN) Shaftt power F _t	转矩M _t (KN·m) Torque M _t				
mm												
70	110	50	60	70	M10	8	121	4.25	115	64	49	2.3
80	120					10	152	6.10	125	73		2.5
90	130					11	167	7.50	122	74		2.7
100	145	60	70	82	M12	10	177	8.81	97	60	69	4.1
110	155					10	177	9.74	89	56		4.4
120	165					11	193	11.6	89	58		4.8
130	180	65	79	91	M12	14	247	16.06	93	61	69	6.3
140	190					15	264	18.5	93	62		6.6
150	200					15	264	19.86	87	59		7.8
160	210					16	290	23.27	87	60		9.4
170	225	78	92	106	M14	15	363	30.87	92	63	108	10.7
180	235					15	363	32.75	87	60		11.3
190	250	88	102	116		16	387	36.8	78	50		14.6
200	260					18	484	48.45	92	59		15.3
220	285	96	108	124	M16	15	505	55.57	83	54	168	20.2
240	305					18	673	80.75	100	67		21.8
260	325					21	705	91.67	97	66		23.4
280	355	124	136	156	M20	15	877	122.8	114	75	369	30.0
300	375					15	887	133	106	72		31.2
320	405					20	1181	189	102	67		48.0
340	425					20	1181	200.8	96	64		51.0
360	455	140	155	177	M22	20	1455	262	98	62	495	69.0
380	475					20	1455	277.7	93	60		73.0
400	495					22	1595	319	97	65		76.0
420	515					24	1751	367.8	100	68		80.0
440	535					24	1952	429.5	98	73	550	81.0
460	555					24	1952	448.4	94	70		85.0
480	575					25	2040	489.7	94	70		88.0
500	595	25	2040	508	90	68	91.0					
520	615	28	2273	591	97	73	95.0					
540	635	28	2273	614	93	71	98.0					
560	655	30	2437	682.6	96	74	101.0					
580	675	30	2437	707.4	93	72	104.0					
600	695	30	2437	731.6	90	70	108.0					

注：Z_{12c}型胀紧联结套螺钉的机械性能等级为8.8级 Note: The capability of the bolts of Z_{12c} type locking device is grand 8.8

Z₁₃型胀紧联结套的基本参数
Base data of Z₁₃ type locking device



标记示例：
内径d=20mm，外径D=47mm
Z₁₃型胀紧联结套：
胀套Z₁₃-20*47 JB/T7934-1999

图十三 Z₁₃型胀紧联结套 Drawing 13 Z₁₃ Type Locking Device

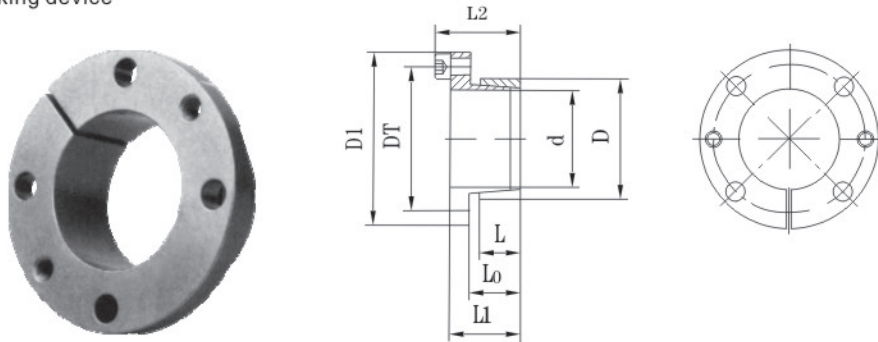
Z ₁₃ 基本尺寸 Z ₁₃ Basic Dimension							额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结 合面上的压力 P _i (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结 合面上的压力 P _i '(N/mm ²) Pressure between lock and hub pt	重量 (Kg) Weight
d	D	L ₁	L ₂	L ₃	L ₄	D ₁	转矩M _t (Kn·m) Torque M _t	轴向力F _t (KN) Shattft power F _t	D ₁	n	M _A N·m			
mm														
20	47	48	42	29	26	53	0.54	54	M6	7	14	276	117	0.51
22	47	48	42	29	26	53	0.6	54	M6	7	14	253	118	0.53
24	50	48	42	29	26	56	0.65	54	M6	7	14	230	110	0.55
25	50	48	42	29	26	56	0.68	54	M6	7	14	222	111	0.65
28	55	48	42	29	26	61	0.76	54	M6	7	14	198	100	0.62
30	55	48	42	29	26	61	0.82	54	M6	7	14	186	101	0.80
32	60	48	42	29	26	66	1.31	82	M6	11	14	261	139	0.70
35	60	48	42	29	26	66	1.44	82	M6	11	14	240	140	0.81
38	65	48	42	29	26	71	1.56	82	M6	11	14	220	129	0.77
40	65	48	42	29	26	71	1.64	82	M6	11	14	209	129	1.33
42	75	59	51	34.4	30	81	2.13	101	M8	6	41	213	119	1.24
45	75	59	51	34.4	30	81	2.28	101	M8	6	41	199	119	1.44
48	80	59	51	34.4	30	86	2.43	101	M8	6	41	186	112	1.41
50	80	59	51	34.4	30	86	2.53	101	M8	6	41	179	112	1.35
55	85	59	51	34.4	30	91	4.18	152	M8	9	41	244	158	1.45
60	90	59	51	34.4	30	96	4.56	152	M8	9	41	224	149	1.55
65	95	59	51	34.4	30	102	4.94	152	M8	9	41	206	141	1.67
70	110	66	56	45	40	117	6.5	186	M10	7	83	176	112	2.61
75	115	66	56	45	40	122	7	186	M10	7	83	165	107	2.75
80	120	66	56	45	40	127	7.4	186	M10	7	83	153	102	2.89
85	125	66	56	45	40	132	9	213	M10	8	83	165	112	3.04
90	130	66	56	45	40	137	9.6	213	M10	8	83	157	109	3.18
95	135	66	56	45	40	142	12.6	267	M10	10	83	185	130	3.33
100	145	77	65	52	46	153	13.3	270	M12	7	145	153	105	4.62
110	155	77	65	52	46	163	14.7	270	M12	7	145	140	99	5.00
120	165	77	65	52	46	173	18.4	309	M12	8	145	147	107	5.37

Z₁₃ Z₁₄型胀紧联结套 Z₁₃ Z₁₄Type Locking Device

Z ₁₃ 基本尺寸 Z ₁₃ Basic Dimension							额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结合面上的压力P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力P _t '(N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight
d	D	L ₁	L ₂	L ₃	L ₄	D ₁	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shatft power F _t	D ₁	n	M _A N·m			
mm														
130	180	77	65	52	46	188	25.1	388	M12	10	145	171	124	6.46
140	190	87.5	73.5	58.5	51	199	40.15	586	M14	11	230	213	157	7.73
150	200	87.5	73.5	58.5	51	209	47	639	M14	12	230	217	163	8.21
160	210	87.5	73.5	58.5	51	219	54.3	692	M14	13	230	220	167	8.64
170	225	87.5	73.5	58.5	51	234	63	746	M14	14	230	226	171	10.14
180	235	87.5	73.5	58.5	51	244	66	746	M14	14	230	212	162	10.66

注：Z₁₃型胀紧联结套螺钉的机械性能等级为12.9级。
Note: The capability of the bolts of Z₁₃ type locking device is grand 12.9

Z₁₄型胀紧联结套的基本参数 Base data of Z₁₄ type locking device



图十四 Z₁₄型胀紧联结套 Drawing14 Z₁₄ Type Locking Device

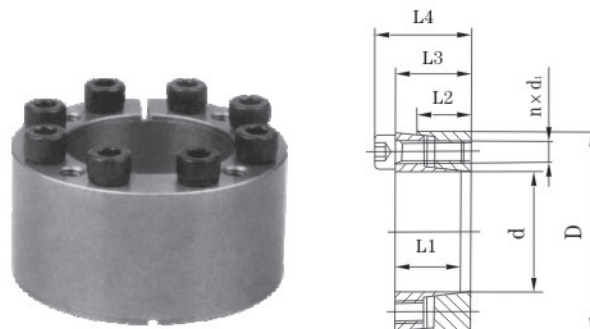
Z ₁₄ 基本尺寸 Z ₁₄ Basic Dimension								额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结合面上的压力P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力P _t '(N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight
d	D	D _T	D ₁	L	L ₀	L ₁	L ₂	轴向力F _t (KN) Shatft power F _t	转矩M _t (KN·m) Torque M _t	d ₁	n	M _A N·m			
mm															
14								9.20	64	M4	4	2.9	109	61	0.091
16	25	33	42	16	20	26	30	9.20	74	M4	4	2.9	95	61	0.082
18								9.20	82	M4	4	2.9	85	61	0.072
19								9.20	87	M4	4	2.9	80	61	0.068
20								15.00	150	M5	4	6	124	82	0.113
22	30	39	50	16	20	26	31	15.00	165	M5	4	6	113	82	0.110
24								15.00	180	M5	4	6	104	82	0.088

Z ₁₄ 基本尺寸 Z ₁₄ Basic Dimension								额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结 合面上的压力 P _i (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结 合面上的压力 P _t '(N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight
d	D	D _T	D ₁	L	L ₀	L ₁	L ₂	轴向力F _i (KN) Shaftt power F _i	转矩M _t (KN·m) Torque Mt	d ₁	n	M _A N·m			
mm															
25								15.0	187	M5	4	6	100	69	0.144
28	36	45	55	16	20	26	31	15.0	210	M5	4	6	89	69	0.121
30								15.0	225	M5	4	6	83	69	0.105
32								15.0	240	M5	4	6	77	59	0.200
35	42	51	62	16	20	28	33	15.0	260	M5	4	6	71	59	0.173
36								15.0	270	M5	4	6	69	59	0.162
38	44	54	66	16	20	28	34	21.2	400	M6	4	10	93	80	0.182
40	48	58	70	16	20	28	34	21.2	425	M6	4	10	88	73	0.223
42								21.2	446	M6	4	10	83	73	0.191
45	55	67	82	20	25	35	43	38.9	875	M8	4	25	115	94	0.400
48								38.9	935	M8	4	25	107	94	0.350
50	62	74	89	20	25	35	43	38.9	974	M8	4	25	103	83	0.500
55								38.9	1070	M8	4	25	94	83	0.410
60	72	84	99	20	25	35	43	38.9	1165	M8	4	25	86	71	0.580
65								38.9	1265	M8	4	25	79	71	0.460

注：Z₁₄型胀紧联结套螺钉的机械性能等级为8.8级 Note: The capability of the bolts of Z₁₄ type locking device is grand 8.8

Z₁₅型胀紧联结套的基本参数

Base data of Z₁₅ type locking device



图十五 Z₁₅型胀紧联结套 Drawing15 Z₁₅ Type Locking Device



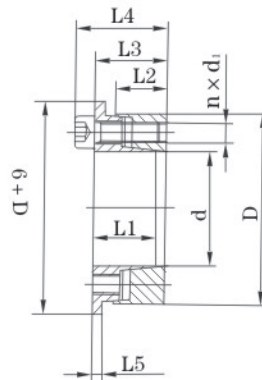
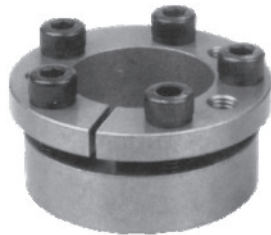
上海松铭传动机械有限公司

Z₁₅型胀紧联结套 Z₁₅ Type Locking Device

Z ₁₅ 基本尺寸 Z ₁₅ Basic Dimension						额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结 合面上的压 力P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结 合面上的压力 Pt'(N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight
d	D	L ₁	L ₂	L ₃	L ₄	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shaftt power F _t	d ₁	n	M _A N·m			
mm													
20	47	20	17	23	29	0.34	34	M6	5	17	242	121	0.25
22	47	20	17	23	29	0.38	34	M6	5	17	220	121	0.24
24	50	20	17	23	29	0.41	34	M6	5	17	202	114	0.27
25	50	20	17	23	29	0.43	34	M6	5	17	194	114	0.29
28	55	20	17	23	29	0.60	42	M6	6	17	207	124	0.31
30	55	20	17	23	29	0.64	42	M6	6	17	194	124	0.30
35	60	20	17	23	29	0.90	51	M6	7	17	194	133	0.33
40	65	20	17	23	29	1.03	51	M6	8	17	194	140	0.37
45	75	24	20	28	36	1.80	80	M8	6	41	200	144	0.62
50	80	24	20	28	36	2.3	80	M8	7	41	210	156	0.67
55	85	24	20	28	36	2.9	107	M8	8	41	218	169	0.72
60	90	24	20	28	36	3.2	107	M8	8	41	200	160	0.77
65	95	24	20	28	36	3.8	120	M8	9	41	208	171	0.82
70	110	29	24	34	44	6.0	170	M10	8	83	225	173	1.50
75	115	29	24	34	44	6.4	170	M10	8	83	210	166	1.59
80	120	29	24	34	44	6.8	170	M10	8	83	197	159	1.67
85	125	29	24	34	44	8.1	190	M10	9	83	209	171	1.76
90	130	29	24	34	44	9.6	210	M10	10	83	219	183	1.84
95	135	29	24	34	44	10.1	210	M10	10	83	207	176	1.90
100	145	33	28	38	50	11	220	M12	8	145	190	154	2.58
110	155	33	28	38	50	14	250	M12	9	145	194	162	2.79
120	165	33	28	38	50	17	280	M12	10	145	198	170	3.00
130	180	38	33	43	55	23	350	M12	12	145	190	158	4.10
140	190	38	33	43	55	24	354	M12	12	145	177	150	4.37
150	200	38	33	43	55	30	400	M12	14	145	192	166	4.63
160	210	38	33	43	55	35	440	M12	15	145	193	170	4.90
170	225	43	38	49	63	41	480	M14	12	230	176	151	6.56
180	235	43	38	49	63	51	560	M14	14	230	194	168	6.90
190	250	51	46	57	71	61	640	M14	16	230	177	150	9.27
200	260	51	46	57	71	72	700	M14	18	230	190	162	9.70
220	285	55	50	61	77	99	900	M16	16	355	198	168	12.3
240	305	55	50	61	77	108	900	M16	16	355	181	157	13.3
260	325	55	50	61	77	130	1000	M16	18	355	188	165	14.3
280	355	65	60	73	91	170	1200	M18	18	485	178	152	21.4
300	375	65	60	73	91	200	1350	M18	20	485	184	160	22.7
320	405	77	72	85	105	275	1700	M20	20	690	189	160	32.2
340	425	77	72	85	105	290	1700	M20	20	690	178	152	34.0
360	455	89	84	99	121	385	2000	M22	20	930	181	152	47.2
380	475	89	84	99	121	430	2200	M22	21	930	180	153	49.5
400	495	89	84	99	121	450	2200	M22	21	930	171	147	51.8
420	515	89	84	99	121	545	2500	M22	24	930	186	161	54.2
440	545	101	96	113	137	660	3000	M24	24	1200	181	154	72.0
460	565	101	96	113	137	690	3000	M24	24	1200	173	148	74.9
480	585	101	96	113	137	720	3000	M24	24	1200	166	143	77.9
500	605	101	96	113	137	880	3400	M24	28	1200	186	162	80.8
520	630	101	96	113	137	915	3400	M24	28	1200	179	155	88.1
540	650	101	96	113	137	950	3400	M24	28	1200	172	150	91.1
560	670	101	96	113	137	1060	3700	M24	30	1200	178	156	94.2
580	690	101	96	113	137	1100	3700	M24	30	1200	172	152	97.3
600	710	101	96	113	137	1130	3700	M24	30	1200	166	148	100.3

注: Z₁₅型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z₁₅type locking device is grand 12.9

Z₁₆型胀紧联结套的基本参数
Base data of Z₁₆ type locking device



标记示例：
内径d=20mm，外径D=47mm
Z₁₆型胀紧联结套：
胀套Z₁₆-20*47 JB/T7934-1999

图十六 Z₁₆ 型胀紧联结套 Drawing16 Z₁₆ Type Locking Device

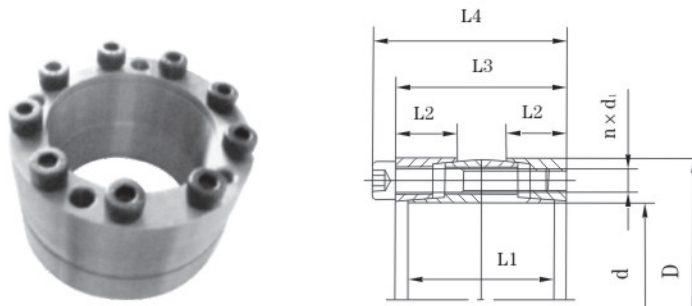
Z ₁₆ 基本尺寸 Z ₁₆ Basic Dimension							额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结 合面上的压力 P _i (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结 合面上的压力 P _t (N/mm ²) Pressure between lock and hub pt	重量 (Kg) Weight
d	D	L ₁	L ₂	L ₃	L ₄	L ₅	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shatft power F _t	d ₁	n	M _A N·m			
mm														
20	47	20	17	23	29	3	0.28	28	M6	6	17	185	92	0.26
22	47	20	17	23	29	3	0.31	28	M6	6	17	168	92	0.25
24	50	20	17	23	29	3	0.34	28	M6	6	17	154	87	0.28
25	50	20	17	23	29	3	0.35	28	M6	6	17	148	87	0.30
28	55	20	17	23	29	3	0.52	37	M6	8	17	176	105	0.32
30	55	20	17	23	29	3	0.56	37	M6	8	17	164	105	0.31
35	60	20	17	23	29	3	0.74	42	M6	9	17	158	109	0.34
40	65	20	17	23	29	3	0.93	46	M6	10	17	154	111	0.38
45	75	24	20	28	36	4	1.56	69	M8	8	41	170	122	0.64
50	80	24	20	28	36	4	2.00	78	M8	9	41	172	129	0.69
55	85	24	20	28	36	4	2.40	86	M8	10	41	173	135	0.75
60	90	24	20	28	36	4	2.60	86	M8	10	41	159	127	0.8
65	95	24	20	28	36	4	3.40	104	M8	12	41	176	145	0.85
70	110	29	24	34	44	5	4.80	137	M10	10	83	179	138	1.56
75	115	29	24	34	44	5	5.15	137	M10	10	83	167	132	1.65
80	120	29	24	34	44	5	6.05	151	M10	11	83	172	139	1.73
85	125	29	24	34	44	5	7.0	164	M10	12	83	177	145	1.83
90	130	29	24	34	44	5	7.4	164	M10	12	83	167	140	1.91
95	135	29	24	34	44	5	7.8	164	M10	12	83	158	135	1.99
100	145	33	28	38	50	5	10.3	207	M12	11	145	166	135	2.68
110	155	33	28	38	50	5	11.4	207	M12	11	145	151	126	2.90
120	165	33	28	38	50	5	15.8	263	M12	14	145	176	151	3.1
130	180	38	33	43	55	5	19.5	301	M12	16	145	161	134	4.25
140	190	38	33	43	55	5	21.0	301	M12	16	145	150	127	4.5
150	200	38	33	43	55	5	25.4	338	M12	18	145	157	136	4.8
160	210	38	33	43	55	5	30.0	376	M12	20	145	164	144	5.0

Z₁₆型胀紧联结套 Z₁₆Type Locking Device

Z ₁₆ 基本尺寸 Z ₁₆ Basic Dimension							额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 Pt'(N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight	
d	D	L ₁	L ₂	L ₃	L ₄	L ₅	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shaftt power F _t	d ₁	n	M _A N·m				
mm															
170	225	43	38	49	63	5	35.0	412	M14	16	230	150	128	6.8	
180	235	43	38	49	63	5	41.8	464	M14	18	230	159	138	7.1	
190	250	51	46	57	71	5	51.4	541	M14	21	230	148	125	9.6	
200	260	51	46	57	71	5	62	619	M14	24	230	161	137	10	
220	285	55	50	61	77	5	78	714	M16	20	355	156	133	12.7	
240	305	55	50	61	77	5	92	770	M16	21	355	154	137	13.8	
260	325	55	50	61	77	5	112	860	M16	24	355	159	140	14.8	
280	355	65	60	73	91	5	145	1034	M18	24	485	151	129	22.2	
300	375	65	60	73	91	5	175	1164	M18	27	485	158	137	23.6	
320	405	77	72	85	105	5	242	1510	M20	27	690	162	137	33.4	
340	425	77	72	85	105	5	257	1510	M20	27	690	153	131	35.3	
360	455	89	84	99	121	5	338	1880	M22	24	930	156	131	49	
380	475	89	84	99	121	5	360	1890	M22	24	930	148	126	51.5	
400	495	89	84	99	121	5	439	2193	M22	28	930	163	140	53.8	
420	515	89	84	99	121	5	494	2350	M22	30	930	167	145	56.3	
440	545	101	96	113	137	5	566	2572	M24	32	1200	153	130	74.8	
460	565	101	96	113	137	5	592	2572	M24	32	1200	147	126	77.8	
480	585	101	96	113	137	5	617	2572	M24	32	1200	141	121	81	
500	605	101	96	113	137	5	723	2893	M24	36	1200	152	132	84	
520	630	101	96	113	137	5	752	2893	M24	36	1200	146	128	91.6	
540	650	101	96	113	137	5	781	2893	M24	36	1200	141	123	94.7	
560	670	101	96	113	137	5	900	3215	M24	40	1200	151	133	97.9	
580	690	101	96	113	137	5	932	3215	M24	40	1200	145	129	101	
600	710	101	96	113	137	5	964	3215	M24	40	1200	141	125	104	

注：Z₁₆型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z₁₆ type locking device is grand 12.9

Z_{17A} Z_{17B}型胀紧联结套的基本参数 Base data of Z_{17A} Z_{17B} type locking device



图十七 Z_{17A} Z_{17B}型胀紧联结套 Drawing17 Z_{17A} Z_{17B} Type Locking Device



上海松铭传动机械有限公司

Z_{17A} 型胀紧联结套
Z_{17A} Type Locking Device

Z _{17A} 基本尺寸 Z _{17A} Basic Dimension						额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结合面上的压力 P _t (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _{t'} (N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight
d	D	L ₁	L ₂	L ₃	L ₄	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shaftt power F _t	d ₁	n	M _A N·m			
mm													
30	55	40	17	46	52	0.9	60	M6	6	17	132	85	0.5
35	60	40	17	46	52	1.25	71	M6	7	17	135	93	0.6
40	65	40	17	46	52	1.5	75	M6	8	17	124	90	0.7
45	75	48	20	56	64	2.5	112	M8	6	41	136	98	1.1
50	80	48	20	56	64	3	120	M8	7	41	132	100	1.2
55	85	48	20	56	64	3.8	138	M8	8	41	138	108	1.3
60	90	48	20	56	64	4.3	143	M8	8	41	127	102	1.4
65	95	48	20	56	64	5.3	162	M8	9	41	132	108	1.5
70	110	58	24	68	78	7.6	219	M10	8	83	143	110	2.6
75	115	58	24	68	78	8.2	219	M10	8	83	134	105	2.8
80	120	58	24	68	78	8.7	219	M10	8	83	125	101	2.9
85	125	58	24	68	78	10.4	240	M10	9	83	133	109	3.1
90	130	58	24	68	78	12.3	274	M10	10	83	139	116	3.2
95	135	58	24	68	78	13.0	274	M10	10	83	132	112	3.3
100	145	66	28	76	88	15.0	301	M12	8	145	121	98	4.5
110	155	66	28	76	88	18.6	338	M12	9	145	123	103	4.9
120	165	66	28	76	88	22.5	376	M12	10	145	126	108	5.3
130	180	76	33	86	98	29.3	451	M12	12	145	121	101	7.3
140	190	76	33	86	98	31.5	451	M12	12	145	112	95	7.8
150	200	76	33	86	98	39.4	526	M12	14	145	122	106	8.2
160	210	76	33	86	98	45	563	M12	15	145	123	108	8.7
170	225	86	38	98	112	52.5	619	M14	12	230	112	96	11.6
180	235	86	38	98	112	64.9	722	M14	14	230	124	107	12.2
190	250	102	46	114	126	78.3	825	M14	16	230	113	95	16.7
200	260	102	46	114	126	92.7	928	M14	18	230	121	103	17.4
220	285	110	50	122	138	126	1146	M16	16	355	126	107	22.3
240	305	110	50	122	138	137.5	1146	M16	16	355	115	100	24.1
260	325	110	50	122	138	167.6	1289	M16	18	355	120	105	25.8
280	355	130	60	146	164	217	1552	M18	18	485	113	97	38.2
300	375	130	60	146	164	258.5	1724	M18	20	485	117	102	40.6
320	405	154	72	170	190	357.8	2236	M20	20	690	120	102	58.6
340	425	154	72	170	190	380	2236	M20	20	690	113	97	61.8
360	455	178	84	198	220	501	2784	M22	20	930	115	97	85.0
380	475	178	84	198	220	555	2923	M22	21	930	115	97	87.2
400	495	178	84	198	220	584	2923	M22	21	930	109	93	93.4
420	515	178	84	198	220	657	3132	M22	24	930	111	96	97.5
440	545	202	96	226	250	795	3617	M24	24	1200	108	92	128.9
460	565	202	96	226	250	831	3617	M24	24	1200	103	88	134.1
480	585	202	96	226	250	868	3617	M24	24	1200	99	85	139.3
500	605	202	96	226	250	985	3940	M24	28	1200	104	91	144.5
520	630	202	96	226	250	1024	3940	M24	28	1200	100	88	157.6
540	650	202	96	226	250	1063	3940	M24	28	1200	96	84	163.1
560	670	202	96	226	250	1181	4219	M24	30	1200	100	88	168.6
580	670	202	96	226	250	1224	4219	M24	30	1200	96	84	174.0
600	710	202	96	226	250	1266	4219	M24	30	1200	92	83	179.5

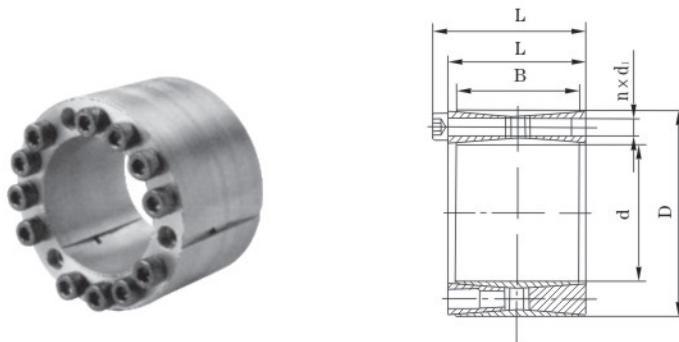
注：Z_{17A} 型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z_{17A} type locking device is grand 12.9

Z_{17B}型胀紧联结套 Z_{17B}Type Locking Device

Z _{17B} 基本尺寸 Z _{17B} Basic Dimension						额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结合面上的压力 P _i (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t (N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight
d	D	L ₁	L ₂	L ₃	L ₄	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shaftt power F _t	d ₁	n	M _A N·m			
mm													
100	145	66	28	76	86	10.3	206	M10	8	83	83	67	4.5
110	155	66	28	76	86	12.7	232	M10	9	83	85	71	4.9
120	165	66	28	76	86	15.5	258	M10	10	83	86	74	5.3
130	180	76	33	86	96	20.1	310	M10	12	83	83	69	7.3
140	190	76	33	86	96	21.6	310	M10	12	83	77	65	7.8
150	200	76	33	86	96	27.0	361	M10	14	83	84	73	8.2
160	210	76	33	86	96	31.0	387	M10	15	83	84	74	8.7
170	225	86	38	98	110	38.3	451	M12	12	145	82	70	11.6
180	235	86	38	98	110	47.3	526	M12	14	145	90	78	12.2
190	250	102	46	114	126	57.0	601	M12	16	145	82	69	16.7
200	260	102	46	114	126	67.6	676	M12	18	145	88	75	17.4
220	285	110	50	122	136	90.7	825	M14	16	230	90	77	22.3
240	305	110	50	122	136	99.0	825	M14	16	230	83	72	24.1
260	325	110	50	122	136	120.6	928	M14	18	230	86	76	25.8
280	355	130	60	146	162	180.5	1289	M16	18	355	94	80	38.2
300	375	130	60	146	162	215	1433	M16	20	355	97	84	40.6
320	405	154	72	170	188	276	1724	M18	20	485	93	78	58.6
340	425	154	72	170	188	293	1724	M18	20	485	87	75	61.8
360	455	178	84	198	216	372	2069	M18	24	485	86	72	85.0
380	475	178	84	198	216	393	2069	M18	24	485	81	69	89.2
400	495	178	84	198	216	414	2069	M18	24	485	77	66	93.4
420	515	178	84	198	216	507	2413	M18	28	485	86	74	97.5
440	545	202	96	226	246	517	2348	M20	24	690	70	59	128.9
460	565	202	96	226	246	540	2348	M20	24	690	67	57	134.1
480	585	202	96	226	246	564	2348	M20	24	690	64	55	139.3
500	605	202	96	226	246	685	2740	M20	28	690	72	63	144.5
520	630	202	96	226	246	712	2740	M20	28	690	69	60	157.6
540	650	202	96	226	246	740	2740	M20	28	690	67	58	163.1
560	670	202	96	226	246	822	2935	M20	30	690	69	60	168.6
580	690	202	96	226	246	851	2935	M20	30	690	66	59	174.0
600	710	202	96	226	246	880	2935	M20	30	690	64	57	179.5

注：Z_{17B}型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z_{17B} type locking device is grand 12.9

Z₁₈型胀紧联结套的基本参数 Base data of Z₁₈ type locking device

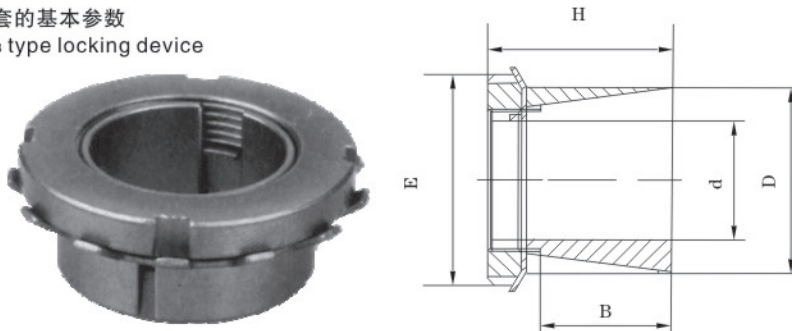


图十八 Z₁₈型胀紧联结套 Drawing18 Z₁₈Type Locking Device

Z ₁₈ 基本尺寸 Z ₁₈ Basic Dimension					额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			胀套与轴结合面上的压力 P _i (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t (N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight
d	D	B	I	L	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shaftt power F _t	d ₁	n	M _A N·m			
mm												
45	75	56	64	72	3.9	174	M8	9	41	185	110	1.5
48	80	56	64	72	4.15	174	M8	9	41	170	105	1.7
50	80	56	64	72	4.3	174	M8	9	41	165	105	1.6
55	85	56	64	72	4.8	174	M8	9	41	150	95	1.7
60	90	56	64	72	6.4	213	M8	11	41	170	110	1.8
65	95	56	64	72	6.9	213	M8	11	41	155	105	2.0
70	110	70	78	88	11.8	338	M10	11	83	185	115	3.6
75	115	70	78	88	12.7	338	M10	11	83	170	110	3.8
80	120	70	78	88	14.7	369	M10	12	83	175	115	4.0
85	125	70	78	88	15.7	369	M10	12	83	165	110	4.3
90	130	70	78	88	18.0	400	M10	13	83	170	115	4.5
95	135	70	78	88	19.0	400	M10	13	83	160	110	4.7
100	145	90	100	112	26.9	538	M12	12	145	160	110	7.2
110	155	90	100	112	32.0	583	M12	13	145	155	110	7.7
120	165	90	100	112	40.3	673	M12	15	145	165	120	8.3
130	180	104	116	130	52.0	800	M14	13	230	155	115	11.7
140	190	104	116	130	64.6	923	M14	15	230	170	125	12.5
150	200	104	116	130	73.8	985	M14	16	230	165	125	13.2
160	210	104	116	130	83.7	1045	M14	17	230	165	125	14.0
170	225	134	146	162	109	1283	M16	15	355	150	115	20.6
180	235	134	146	162	123.2	1369	M16	16	355	150	115	21.6
190	250	134	146	162	138	145×4	M16	17	355	150	115	25.0
200	260	134	146	162	145.4	1454	M16	17	355	145	110	26.2
220	285	134	146	162	188	1710	M16	20	355	155	120	31.1
240	305	134	146	162	225	1880	M16	22	355	155	120	33.6
260	325	134	146	162	244	1880	M16	22	355	145	115	36.1
280	355	165	177	197	373	2670	M20	20	690	155	120	54.9
300	375	165	177	197	440	2930	M20	22	690	155	125	58.3
320	405	165	177	197	470	2930	M20	22	690	145	115	71.0

注：Z₁₈ 型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z₁₈ type locking device is grand 12.9

Z_{19A} Z_{19B} 型胀紧联结套的基本参数
Base data of Z_{19A} Z_{19B} type locking device



图十九 Z_{19A} Z_{19B} 型胀紧联结套 Drawing19 Z_{19A} Z_{19B} Type Locking Device



上海松铭传动机械有限公司

Z_{19A} 型胀紧联结套
Z_{19A} Type Locking Device

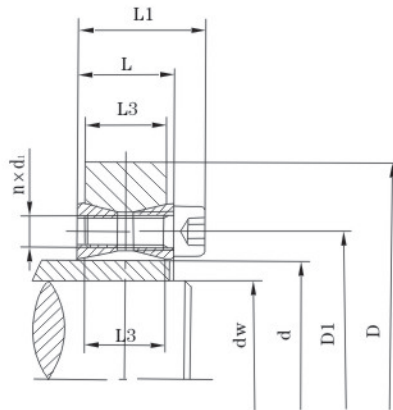
Z _{19A} 基本尺寸 Z _{19A} Basic Dimension					额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte		胀套与轴结合面上的压力 P _i (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t (N/mm ²) Pressure between lock and hub pt'	重量 (Kg) Weight
d	D	E	H	B	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shaft power F _t	d ₁	M _A N·m			
mm											
14	25	32	16.5	6.5	38	5.10	M20×1	95	200	110	0.05
15	25	32	16.5	6.5	41	5.50	M20×1	95	185	110	0.04
16	25	32	16.5	6.5	43	5.45	M20×1	95	174	110	0.04
17	26	32	16.5	6.5	47	5.50	M20×1	95	164	107	0.04
18	26	32	16.5	6.5	49	5.40	M22×1	95	155	107	0.04
18	30	38	16.5	6.5	58	6.60	M25×1.5	160	185	112	0.06
19	30	38	18	6.5	62	6.60	M25×1.5	160	176	112	0.06
20	30	38	18	6.5	66	6.60	M25×1.5	160	167	111	0.06
22	32	38	18	6.5	73	6.60	M25×1.5	160	152	105	0.06
24	35	45	18	6.5	105	8.75	M30×1.5	220	185	127	0.08
25	35	45	18	6.5	110	8.80	M30×1.5	220	178	127	0.07
28	36	45	18	6.5	120	8.55	M32×1.5	220	159	124	0.06
28	40	52	18	6.5	149	10.60	M35×1.5	340	188	141	0.09
30	40	52	19.5	7	160	10.60	M35×1.5	340	164	123	0.09
32	42	52	19.5	7	170	10.60	M36×1.5	340	154	117	0.09
35	45	58	21.5	8	230	13.10	M40×1.5	480	153	120	0.11
36	45	58	21.5	8	240	13.30	M40×1.5	480	149	120	0.11
38	48	58	21.5	8	250	13.10	M42×1.5	480	141	112	0.12
38	50	58	21.5	8	250	13.10	M42×1.5	480	141	112	0.14
40	50	65	24.5	10	310	15.50	M42×1.5	680	124	93	0.14
40	52	65	24.5	10	310	15.50	M45×1.5	680	120	93	0.17
42	55	65	25.5	10	320	15.20	M48×1.5	680	114	87	0.2
45	55	70	25.5	10	400	17.70	M50×1.5	870	122	96	0.16
45	57	70	25.5	10	400	17.70	M50×1.5	870	122	96	0.2
48	60	75	25.5	10	500	20.80	M55×2	970	135	105	0.21
50	60	75	25.5	10	520	20.80	M55×2	970	130	105	0.18
50	62	75	25.5	10	520	20.80	M55×2	970	130	105	0.22
55	65	80	27.5	12	610	22.00	M60×2	1100	103	84	0.21
55	68	80	27.5	12	610	22.00	M60×2	1100	103	84	0.28
56	68	80	27.5	12	620	22.00	M60×2	1100	101	82	0.26
60	70	85	30	12	800	26.60	M65×2	1300	113	93	0.24
60	73	85	30.5	12	800	26.60	M65×2	1300	113	93	0.33
63	79	92	30.5	14	980	31.10	M70×2	1600	107	86	0.43
65	79	92	30.5	14	1010	31.00	M70×2	1600	104	86	0.38
70	84	98	31.5	14	1240	35.40	M75×2	2000	110	92	0.42



Z _{19B} 基本尺寸 Z _{19B} Basic Dimension					额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte		胀套与轴结合面上的压力 P _i (N/mm ²) Pressure between lock and the shaft face pt	胀套与轮毂结合面上的压力 P _t (N/mm ²) Pressure between lock and hub pt	重量 (Kg) Weight
d	D	E	H	B	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shatft power F _t	d ₁	M _A N·m			
mm											
14	25	32	30	20	64	9.1	M20×1	95	85	45	0.08
15	25	32	30	20	70	9.1	M20×1	95	80	45	0.08
16	25	32	30	20	73	9.1	M20×1	95	75	45	0.07
17	25	32	32	20	80	9.1	M22×1	95	70	45	0.07
18	30	32	32	20	83	9.1	M22×1	95	65	40	0.12
19	30	38	32	20	105	11.0	M25×1.5	160	75	45	0.11
20	30	38	32	20	112	11.0	M25×1.5	160	70	45	0.10
22	35	45	36	25	163	14.5	M30×1.5	220	70	45	0.17
24	35	45	36	25	178	14.5	M30×1.5	220	65	45	0.15
25	35	45	36	25	185	14.5	M30×1.5	220	60	45	0.14
28	40	52	42	30	250	14.5	M35×1.5	340	55	40	0.22
30	40	52	42	30	270	17.5	M35×1.5	340	50	40	0.19
32	42	52	44	30	350	21.5	M36×1.5	340	60	45	0.20
32	45	58	44	30	350	21.5	M40×1.5	480	60	45	0.27
35	45	58	44	30	390	21.5	M40×1.5	480	55	45	0.22
38	50	65	45	30	500	26.0	M45×1.5	680	60	45	0.30
40	50	65	45	30	520	26.0	M45×1.5	680	60	50	0.25
45	55	70	46	30	680	30.0	M50×1.5	870	60	50	0.29
48	60	75	46	30	840	35.0	M55×2	970	60	50	0.37
50	60	75	46	30	880	35.0	M55×2	970	60	50	0.32
55	65	80	46	30	1030	37.5	M60×2	1100	60	50	0.34
60	70	85	52	30	1360	45.0	M65×2	1300	65	55	0.42

Z₂₀型胀紧联结套 Z₂₀Type Locking Device

Z₂₀型胀紧联结套的基本参数
Base data of Z₂₀ type locking device



标记示例：
内径d=25mm，外径D=60mm
Z₂₀型胀紧联结套：
胀套Z₂₀-25*60 JB/T7934-1999

图二十 Z₂₀型胀紧联结套 Drawing 20 Z₂₀ Type Locking Device

Z ₂₀ 基本尺寸 Z ₂₀ Basic Dimension							额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			重量 (Kg) Weight
d	d _w	D	D ₁	L ₁	L	L ₃	转矩M _t (KN·m) Torque M _t	轴向力F _t (KN) Shaft power F _t	d ₁	n	M _A N·m	
mm												
25	18	60	37.5	27.5	20	17	0.190	21	M6×18	9	17	0.37
	20						0.255	25				
30	20	65	42.5	27.5	20	17	0.205	20	M6×18	9	17	0.42
	22						0.270	24				
35	25	72	47.5	27.5	20	17	0.365	29	M6×18	12	17	0.48
	28						0.490	35				
40	30	78	52.5	27.5	20	17	0.555	37	M6×18	15	17	0.54
	32						0.590	37				
45	35	92	60	33.5	24	20	0.710	42	M8×22	12	41	0.92
	34						0.770	44				
50	35	98	65	33.5	24	20	0.960	55	M8×22	12	41	1.0
	36						1.030	57				
50	38	98	65	33.5	24	20	1.200	63	M8×22	12	41	1.0
	40						1.010	53				
50	40	98	65	33.5	24	20	1.160	58	M8×22	12	41	1.0
	42						1.320	63				



Z₂₀型胀紧联结套
Z₂₀Type Locking Device

Z ₂₀ 基本尺寸 Z ₂₀ Basic Dimension							额定负荷 Rating burthen		内六角螺钉 Inner hexagon Bolte			重量 (Kg) Weight
d	d _w	D	D ₁	L ₁	L	L ₃	转矩M _t (Kn·m) Torque M _t	轴向力F _t (KN) Shaftt power F _t	d ₁	n	M _A N·m	
mm												
55	42	105	70	33.5	24	20	1.330	63	M8×22	14	41	1.1
	45						1.590	70				
	48						1.880	78				
60	48	110	75	33.5	24	20	1.600	67	M8×22	14	41	1.2
	50						1.780	71				
	52						1.890	73				
70	55	138	90	39.5	28	24	2.930	106	M10×25	14	83	2.3
	58						3.370	116				
	60						3.690	123				
80	62	145	100	39.5	28	24	3.140	101	M10×25	14	83	2.4
	65						3.570	110				
	68						4.020	118				
	70						4.350	124				
90	70	160	110	39.5	28	24	4.090	117	M10×25	16	83	2.8
	75						4.890	130				
	78						5.420	139				
100	78	180	122.5	47	33	26	5.980	153	M12×30	14	145	3.8
	80						6.370	159				
	82						6.490	158				
	85						7.160	168				
110	85	190	132.5	47	33	26	6.180	145	M12×30	14	145	4.1
	88						6.800	154				
	90						7.240	160				
	95						8.380	176				
120	95	205	142.5	47	33	26	8.250	173	M12×30	16	145	4.7
	100						9.450	189				
	105						10.740	204				
140	110	230	165	52	38	34	12.860	233	M12×35	22	145	7.4
	115						14.440	251				
	120						16.140	269				
160	125	260	185	52	38	34	17.130	274	M12×35	26	145	9.2
	130						18.990	292				
	135						20.940	310				
	140						23.000	328				

注：Z₂₀ 型胀紧联结套螺钉的机械性能等级为12.9级 Note: The capability of the bolts of Z₂₀ type locking device is grand 12.9



胀紧联结套的选用说明 Selection explanation of Locking devices

一、胀紧联结套的选用说明 Selection explanation of locking devices

1、按照负荷选择胀套 Select locking devices as Rating burthen

1.1 选择胀套应符合式(A1)、式(A2)、式(A3)和式(A4)的规定
Select locking devices according prescript of format(A1), (A2), (A3)and(A4)

- a) 传递扭矩: Torque: $M1 \geq M$ (A1)
- b) 承受轴向力: Power on axle: $F1 \geq FX$ (A2)
- c) 传递力: Transfer power: $F1 \geq \sqrt{F_X^2 + (M_d^2 \times 10^3)^2}$ (A3)
- d) 承受径向力: Power on radial: $P1 \geq \frac{F_r}{d_l} \times 10^3$ (A4)

式中: Note

- M---需传递的转矩, KN·m; M---The torque need to be transferred, KN·m;
- F_x---需承受的轴向力, KN; F_x---axle power need to endure, KN;
- F_t---需承受的径向力, KN; F_t---radial power need to endure, KN;
- M_t---胀套的额定转矩, KN·m; M_t---rating torque of the locking devices, KN·m;
- F_t---胀套的额定轴向力, KN; F_t---rating axle power of the locking devices, kN;
- d、l---胀套内径和内环的宽度, mm; d、l---inner diameter / ring width of locking devices, mm;
- P_t---胀套与轴结合面上的压力, N/mm²。 P_t---the pressure between locking devices and connection faces, N/mm²

1.2 一个联结采用数个胀套时的额定负荷

More than one locking device used in one joint and the rating burthen should be calculated as belowc

一个胀套的额定负荷小于需传递的负荷时, 可用两个以上的胀套串联使用, 其总额定负荷按式(A5)
When the rating burthen is less than the burthen needed to transfer, more than 2 locking devices used in series so that get burthen requlrement, and its total rating burthen can be calculated as format(A5) h

$$M_{in} \geq mM_t \text{ (A5)}$$

式中: Note:

- M_{in}---N个胀套总额定负荷; M_{in}----total rating burthen of N rating locking devices;
- m---负荷系数 m----rating factor
- m值见表A1 Find M in sheetA1

表1

联结中胀套数量 Locking devices quantity in series n	m		
	Z ₁ 型胀套 Z ₁ Type Locking device	Z ₂ 、Z ₃ 、Z ₄ 、Z ₅ 型胀套 Z ₂ 、Z ₃ 、Z ₄ 、Z ₅ Type Locking device	Z ₁₂ 、Z ₁₅ 、Z ₁₇ 、Z ₁₈ 型胀套 Z ₁₂ 、Z ₁₅ 、Z ₁₇ 、Z ₁₈ Type Locking device
1	1.0	1.0	1.0
2	1.56	1.8	1.8
3	1.86	2.7	--
4	2.03	--	--

2、结合面的公差及表面粗糙度 The joint face tolerance and roughness degree of surface

2.1 与胀套结合的轴和孔, 其公差带按GB/1800-79《公差与配合总论标准公差与基本偏差》和GB1801《公差与配合尺寸500m孔公差带与配合》的规定, 推荐的孔、轴公差带列于表。
the tolerance range of the axles and holes united with locking devices should be as the prescript of GB/T1800.1,GB/T1800.2 And GB/T1800.3

胀紧联结套的安装和拆卸要求 Installation and dismantling of Locking devices

表2

胀套型式 Locking Devices	胀套内径d Inner Diameter d (mm)	与胀套结合的轴的公差带 Tolerance range of the axles which united with locking devices	与胀套结合的孔的公差带 Tolerance range of the radial which united with locking devices
Z1	≤38	h6	H7
	>38	h7	H8
Z2	所有直径 All diameters	h7或(or)h8	H7或 (or)H8
Z3		h8	H8
Z4		h9或 (or)k9	N7或 (or)N9
Z5-Z6		h8	H8
Z7			--
Z8-Z9			H8
Z10			--
Z11-Z19			H8
Z20			--

2.2 与胀套结合的轴和孔，其表面粗糙度按GB/T1031的规定，见表A3。

The surface roughness degree of axles and holes which joint with locking devices should comply with prescript of GB/T1031, please find it in sheet A3

表3

胀套型式 Type of locking devices	轮毂算术平均偏差Ra The average arithmetic windage of hub Ra	
	与胀套结合的轴 The axles which joint with locking devices	与胀套结合的孔 The holes which joint with locking devices
Z1	≤1.6	≤1.6
Z2-Z6	≤3.2	≤3.2
Z7	≤3.2	--
Z8-Z9	≤3.2	≤3.2
Z10	≤3.2	--
Z11-Z20	≤3.2	≤3.2

二、胀紧联结套安装和拆卸的一般要求

Normal requests of installation and taking-down of locking devices are as below

1、联结前的准备工作Prepare working advanced joint.

1.1 结合件的尺寸应按GB/T3177规定的方法进行检验。

The dimensions of joint components inspected and measurements of GB / T3177.

1.2 结合表面必须无污物、腐蚀和损伤。

It must no contamination, cauterization and damnification on the joint face.

1.3 在清洗干净的胀套表面和结合件的结合表面上，均匀涂一层薄润滑油(不应含二硫化钼添加剂)。

Equally lay thin lubricant without additive molybdenum disulfide on cleared surface of locking devices and joint face.

2、胀套的安装 The installation of locking devices

2.1 把被联结件推移到轴上，并达设计规定的位置。

Pushing the components needed installation onto axle, and get them to design stipulated situation.

2.2 将拧松螺钉的胀套平滑地装入联结孔处，要防止结合件的倾斜，然后用手将螺钉拧紧。

Smoothly pushing the locking devices with released bolts into joint holes.

3、拧紧胀套螺钉的方法 The methods of locking device' S bolt screwing down

3.1 胀套螺钉应使用力矩扳手按对角、交叉、均匀地拧紧。

locking device' s bolts should be screwed down on the cross, across and smoothly with torque Spanner.

3.2 螺钉的拧紧力矩MA值按样本表格的规定，并按下列步骤：

The bolts screw down torque MA should be as the prescript of sheet, and as below Steps:

- a)以1 / 3 MA值拧紧；
- b)以1 / 2 MA值拧紧；
- c)以MA值拧紧；
- d)以MA检查全部螺钉。

- a)Screw down as MA 1 / 3 value
- b)Screw down as MA 1 / 3 value
- c)Screw down as MA value
- d)Inspecting all bolts with MA value

胀紧套联结应用举例

Application sample of locking device

4、胀套的拆卸 taking down of locking devices.

4.1 拆卸时先松开全部螺钉，但不要将螺钉全部拧出。

Releasing but not take out all bolts when taking down locking devices.

4.2 取下镀锌的螺钉和垫圈，将拉出螺钉旋入前压环的辅助螺孔中，轻轻敲击螺钉的头部，使胀套松动然后拉动螺钉，即可将胀套拉出。

Disassemble locking device, Unbolting galvanized bolts and washers, then screwing the bolts in assistant holes of fore clamping collar, Gently knock on bolts head, making locking device flexible, then pull out locking device by pulling bolts.

5、防护 Safeguard

5.1 安装完毕后，在胀套外露端面及螺钉头部涂上一层防锈油脂。

Installation finished, please wiping a bed of anti-corrosive grease on bolts head and exerted parts of the locking device.

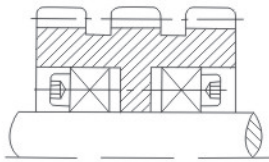
5.2 在露天作业或工作环境较差的机器，应定期在外露端面及螺钉头部涂上一层防锈油脂。

For outdoor working or poor working surrounding machines, wiping anti-corrosive grease on exerted parts periodic.

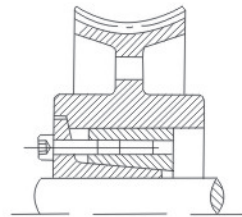
5.3 需在腐蚀介质中工作的胀套，应采用专门的防护（例如加盖板）以防胀套腐蚀。

For these locking devices whice working in corrosive medium, in order to corrosion, please use special safeguard, for example adding cover board.

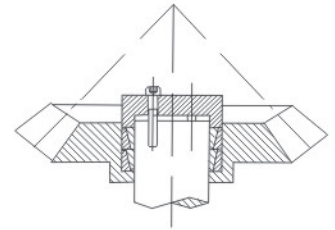
三、胀紧套联结应用举例 Application sample of locking device



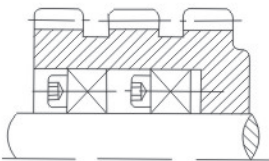
大齿轮的两边用胀套受力均匀
Equally under stress on two sides of large gear by locking device



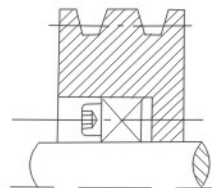
使蜗轮轴向定位灵活（无定位台阶）
Make worm wheel keep a flexible orientation on axial (without orientate step)



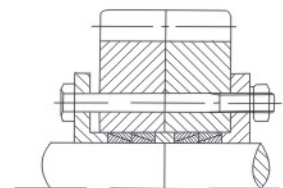
螺旋伞齿轮运转更平稳
Make spiral umbrella tooth function more steady



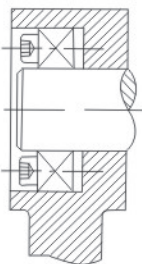
需大扭矩时可以两只胀套同时使用
Two locking devices can be used together when large torque needed.



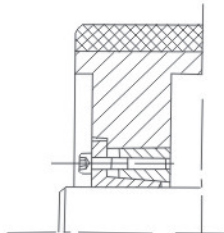
单只Z2型胀套与轴连结
Connection of single Z2 type locking device with axle



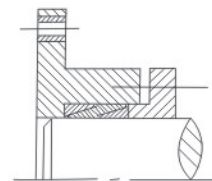
双侧压紧的Z1型胀套在数控机床上，消除反向间隙
Two sides compacted Z1 type locking device on numerical lathe can eliminate inverted space



摆杆及凸轮径向或轴向调整更方便
Adjustment of pendulum rod and cam on radial or axial is more convenient



胀套用于皮带输送机传动滚筒中，改善焊接性，便于装拆
Locking device applied in transmission cylinder of belt conveyer can improve weldability and easy for disassemble.



精密传动正反转无键带来的间隙
The accurate transmission is transferred positive and negativly to the interval that without key to bring