

LOCATING COMPONENT

SERIES

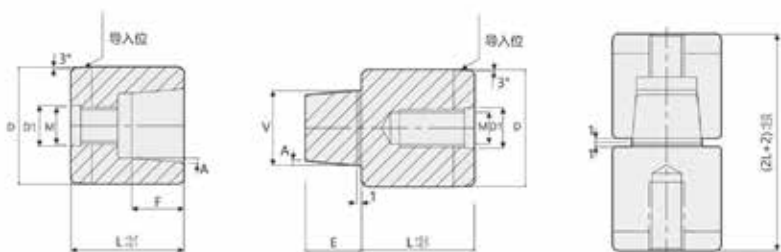
定位组件系列



定位柱

ROUND LOCATING UNITS

TPN



材料	硬度
SKD11	HRC 58-62
SUJ2	HRC 58-62

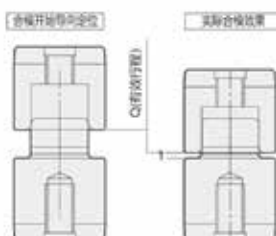
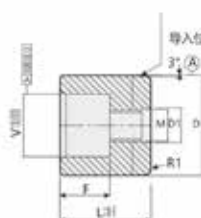
Type	D	D公差	A	L	V	E	F	M	D1
TPN TPNV	12	0.012 0.002	1° 3° 5°	14	7	6	5	M4	4.5
	13				10			M5	5.5
	16			19	13	9	8	M6	6.5
	20			24	16	12	11	M8	8.5
	25			29	20	15	14	M10	10.5
	30			34	24	18	17	M12	12.6
	32	0.015 0.002							
	35								

Grade	Type	D公差	同轴度/Concentricity		M材质	H硬度
普通级	TPN	Dk6	不可互换/Not interchangeable		SKD11 SUJ2	HRC 58-62 HRC 58-62
标准级	TPNV		0.01	可互换 Interchangeable		
精密级	VTPN	0.005				
超级精密	ZTPN	0.003				

定位柱

ROUND LOCATING UNITS

TPNF



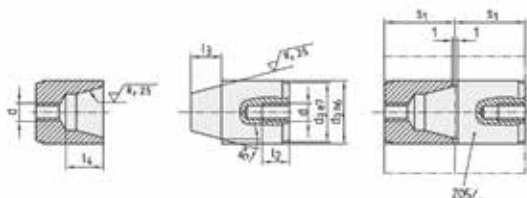
材料	硬度
SKD11	HRC 58-62
SUJ2	HRC 58-62

Type	D	D公差	L	V	E	F	D1	M	
TPNF	10	0.005	14.5	5	7	5	4.5	M4	
	13			7					13
			16	10	7	5	4.5		
	13				11	10.5			
	20		13	14.5	13	8	6	5.5	M6
				19.5		11	9	8.5	
				29		16	14	12	
				19.5		16	11	9	
	24.5		13	11	10.5				
	34		20	18	16				
	30		39	20	25	23	21	M10	

定位柱

ROUND LOCATING UNITS

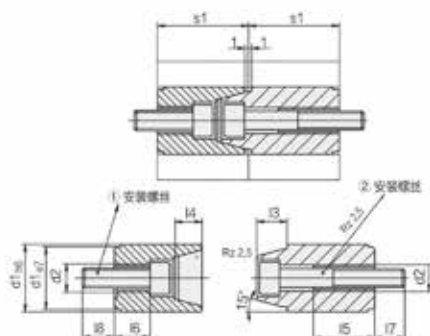
Z05



材料	硬度
SKD11	HRC 58-62
SUJ2	HRC 58-62

Type	d3	l3	l4	l2	s1	d
Z05 / 12	12	5	8	10	17	M4
Z05 / 14	14	7		11		M5
Z05 / 16	16	10	13	15	27	M8
Z05 / 20	20	11		18		
Z05 / 25	25	10		18		
Z05 / 26	26	14	20	18	36	M10
Z05 / 30	30	18				
Z05 / 32	32					
Z05 / 42	42					

Z051



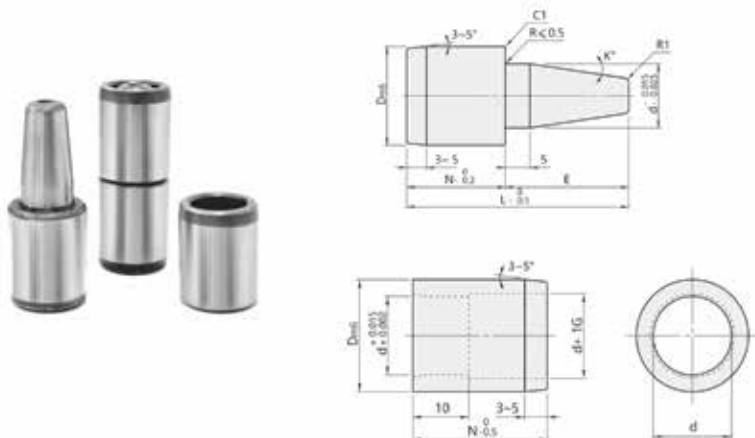
材料	硬度
SKD11	HRC 58-62
S136	HRC 58-62

Type	d1	1 安装螺丝	2 安装螺丝	l8	l7	l6	l5	l4	l3	d2	s1
Z051 / 12	12	M3 x 16	M3 x 25	7,5	8	8,5	9,6	5	4,5	M4	17
Z051 / 14	14	M4 x 14	M4 x 25	8	7,5	6	12,4	7	6	M5	
Z051 / 16	16					5,8					
Z051 / 20	20	M6 x 20	M6 x 40	9,5	12	10,6	19,7	10	9	M8	27
Z051 / 25	25			11	11	9,2		11	10		
Z051 / 26	26										
Z051 / 30	30	M8 x 25	M8 x 55	13	15	12,2	25	16	14	M10	36
Z051 / 32	32										
Z051 / 42	42	M8 x 30	M8 x 70		16	16,8	27	20	18		46

定位柱

ROUND LOCATING UNITS

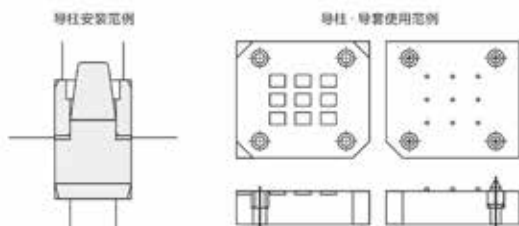
GMT



材料	硬度
SKD11	HRC 58-62
SUJ2	HRC 58-62

Type	D +0.05 +0.04	d +0.01 0	N	E													
				11	14	17	20	23	26	30	35	40	45	50			
GMT	12	8	15														
			18														
			21														
	16	10	23														
			18														
			21														
	18	12	23														
			18														
			21														
	20	12	23														
			21														
			23														

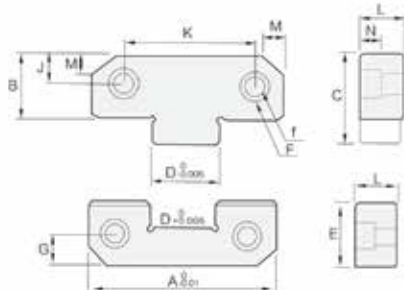
功能示意图 Functional chart



定位块

SQUARE INTERLOCKS

PL



使用例



材料	硬度	热处理
1.2510	HRC 55-58	真空处理

Type	A	B	C	D	E	F	f	G	J	K	L	M	N
PL38	38	22	30	12	22	10.5	6.5	7	7	22	13	5	8
PL50	50	21.5		17	21.5			11	11	34	16		
PL75	75	36	50	25	36	16.5	10.5	18	18	50	19	8	12
PL100	100	45	65	35	45			22	22	70		10	
PL125	125			45				45	22	22	84	25	

Type	A	B	C	D	E	F	f	G	J	K	L	M	N
PL1.5	1.5	0.87	1.18	0.50	0.87	0.433	0.276	0.281	0.437	0.938	0.620	0.19	0.3
PL2.0	2.0			0.68				0.375		1.250			
PL3.0	3.0	1.36	1.91	1.00	1.37	0.590	0.413	0.688	0.688	2.250	0.745	0.38	0.45
PL4.0	4.0	1.87	2.64	1.375	1.87			0.875	0.875	2.750			
PL5.0	5.0			1.75				0.788	0.555	3.500	1.120	0.6	

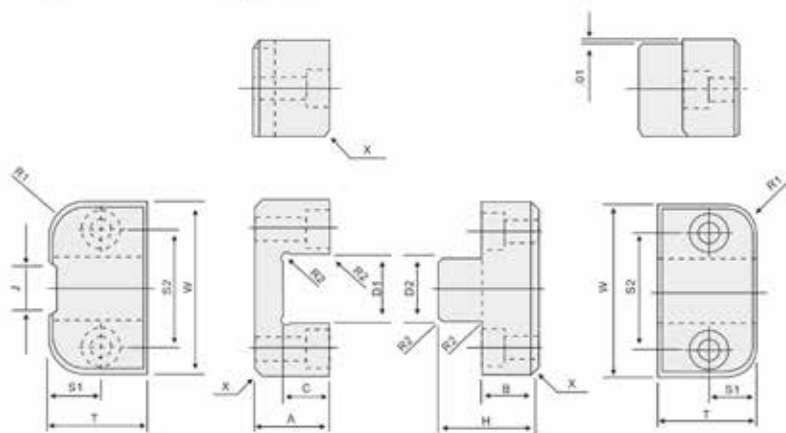
定位块

SQUARE INTERLOCKS

TLK



序号	材质	硬度	
TLK	公件	1.2510	HRC 55-58
	母件	1.2510	HRC 55-58
TLK-T	公件	SKD11 Black	HRC 56-58
	母件	SKD11 DLC	HRC 56-58

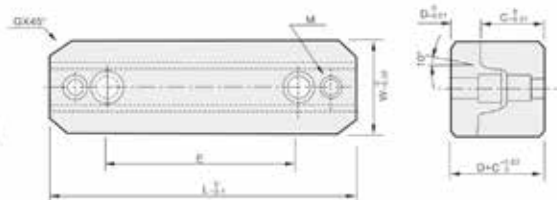


Type	W	T	A	B	C	D1	D2	H	J	R1	R2	S1	S2	X	SHCS
TLK15	1.5	1	0.875	0.375	0.5	0.5	0.5	0.843	3/8x1/16	0.28	0.06	0.5	1	0.04	#10-32
TLK20	2	1.125		0.625		0.75	0.75	1.110				1/2x1/16	0.40		
TLK25	2.5	1.5	1.375	0.875	0.75	1	1	1.344	3/4x3/32	0.53	0.09	0.75	1.75	0.06	5/16-18
TLK30	3	1.75	1.25			1.125	1.125	1.61				0.875	2.25		
TLK35	3.5	2	1.75	0.75	1	1.5	1.5	1.718				1	2.5		3/8-16

定位块

SQUARE INTERLOCKS

KY



材料	硬度
1.2510	HRC 55-58

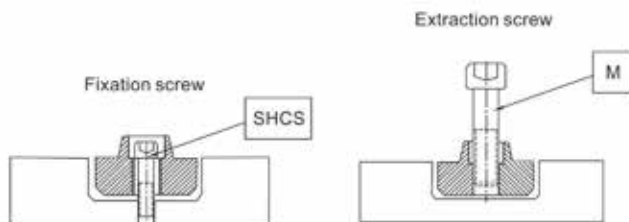
MM (公制)

Type	W	L	C	D	E	G	M
KY50	25	50	17.5	8	36	5	M5
KY100	30	100	22	10	60		M6
KY150	40	150	25	13	100		M8

INCH (英制)

Type	W	L	C	D	E	G	M
KY2.0	1.00	1.98	0.69	0.312	1.4173	0.2	3/16"-24
KY4.0	1.25	3.98	0.87	0.375	2.5		1/4"-20
KY6.0	1.500	5.98	1.00	0.500	4.0		5/16"-18

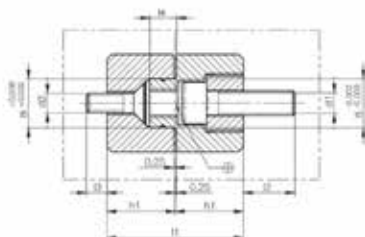
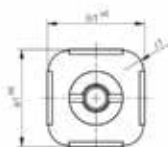
功能示意图 Functional chart



定位块

SQUARE INTERLOCKS

Z080

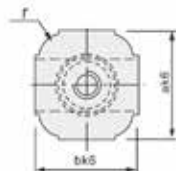
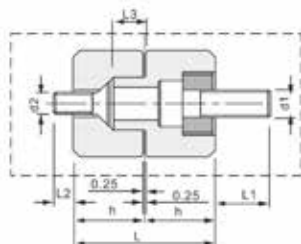


M 材质	H 硬度
SKD11	HRC 56-58
1.2510	HRC 55-58

Type	r1	d1	d2	h1	l1	l2	l3	l4	i5	a1	b1
Z080/20x20	4	M5	M4	14	28	12	4	5.5	10	20	20
25x25	5	M6	M5	16	32	13	8	7.5	12	25	25
32x32	6	M8	M6	18	36	15	12	9.5	16	32	32
40x40		M10	M8	22.5	45	17	10	11.5	20	40	40

Type	r1	d1	d2	h1	Tol. a1/b1	a1	b1
Z080/20x20	4	M5	M4	14	+0.011/+0.017	20	20
25x25	5	M6	M5	16		25	25
32x32	6	M8	M6	18		32	32
40x40		M10	M8	22.5	+0.014/+0.022	40	40

Z08



M 材质	H 硬度
SKD11	HRC 56-58
1.2510	HRC 55-58

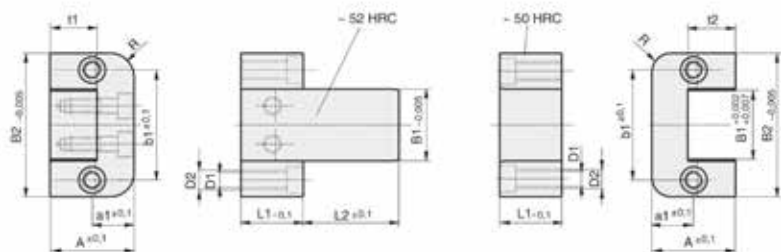
Type	r	d1	d2	l1	l2	l3	l	h	a	b
Z08/20x20	4	M5	M4	12	4	3.5	28	14	20	20
Z08/25x25	5	M6	M5	13	8	5.5	32	16	25	25
Z08/32x32	6	M8	M6	15	12	7.5	36	18	32	32
Z08/40x40		M10	M8	17	10	9.5	45	22.5	40	40

定位块

SQUARE INTERLOCKS

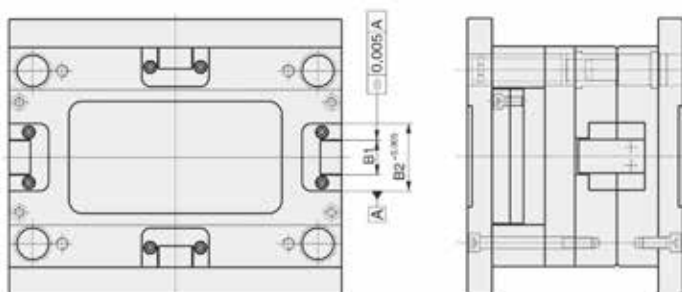
Z46


材料	硬度
SKD11	HRC 56-58
1.2510	HRC 55-58



Type	B1	L1	L2	A	B2	D1	D2	a1	b1	t1	t2	R
Z46	16	20	20	22	45	6.8	M8	11	30	11.5	12	8
			40									
	30	26	40	35	60	6.8	M8	17.5	46	19.5	20	10
			63									
			32									
	48	36	50	46	100	10.3	M12	23	74	25.5	26	12.5
			63									
			80									
			50									
	77	56	71	60	150	14	M16	30	114	35.5	36	16
100												

功能示意图 Functional chart

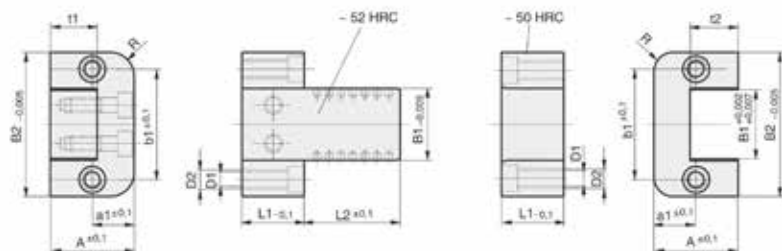


定位块

SQUARE INTERLOCKS

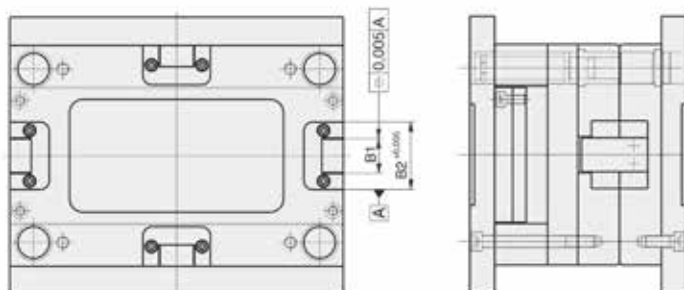
Z48


材料	硬度
SKD11	HRC 56-58
1.2510	HRC 55-58



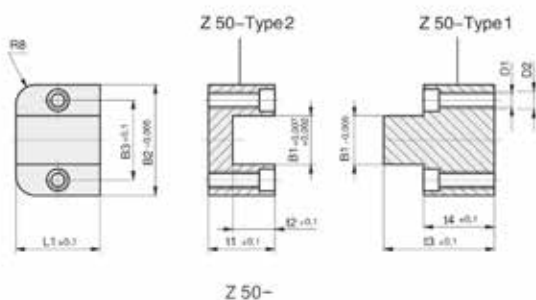
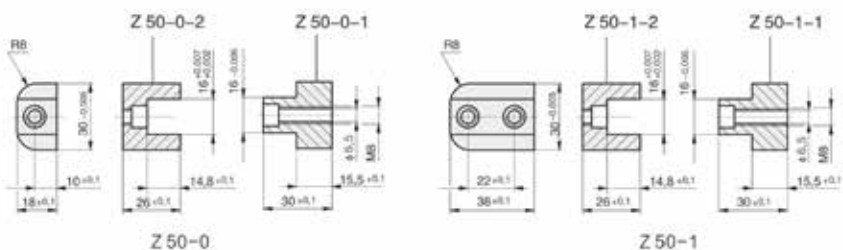
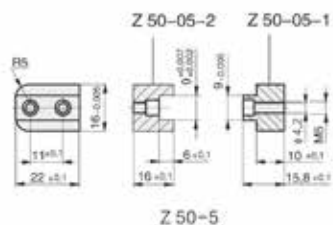
Type	B1	L1	L2	A	B2	D1	D2	a1	b1	t1	t2	R		
Z48	16	20	20	22	45	6.8	M8	11	30	11.5	12	8		
			40											
	30	26	63	35	60			10.3	M12	23	74	25.5	26	12.5
			32											
	48	36	50	46	100	14	M16	30	114	35.5	36	16		
			63											
			80											
	77	56	50	60	150	10.3	M12	23	74	25.5	26	12.5		
			71											
			100											

功能示意图 Functional chart



定位块

SQUARE INTERLOCKS

Z50


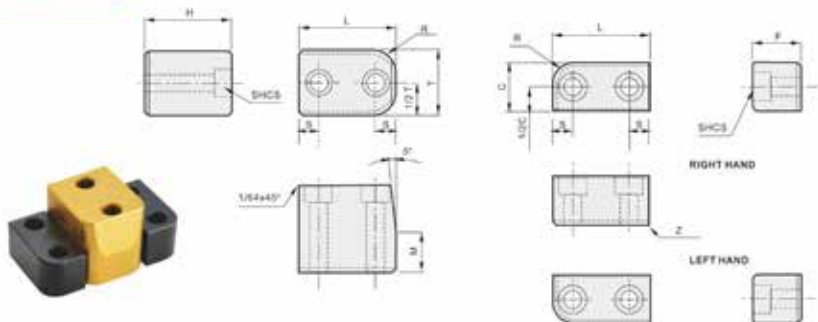
M 材质	H 硬度
SKD11	HRC 56-58
1.2510	HRC 55-58

Type	B1	B2	B3	t1	t2	t3	t4	L1	D1	D2
2	20	50	35	29.8	20	48.8	29.8	38	6.5	M8
3	30	75	52	39.8	25	63.8	39.8	38	8.3	M10

定位块

SQUARE INTERLOCKS

YLM



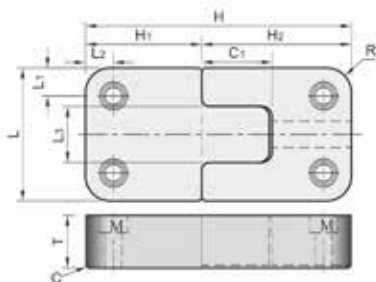
材质	硬度
SKD11 Black	HRC 56-58
SKD11 DLC	HRC 56-58

Type	L	W	C	F	T	M	H	S	R	Z	SHCS	
YLM25x45	25	45	15	15	15	10	24	7	4	1	M: M4 x 25	M: M4 x 14
YLM40x65	40	65	20	20	25	15	34	10	9	1.5	M: M5 x 35	M: M5 x 22
YLM50x90	50	90	25	25	40	20	44				M: M6 x 45	M: M6 x 30

SL / SLM



材质	硬度
SKD11 Black	HRC 56-58
SKD11 DLC	HRC 56-58



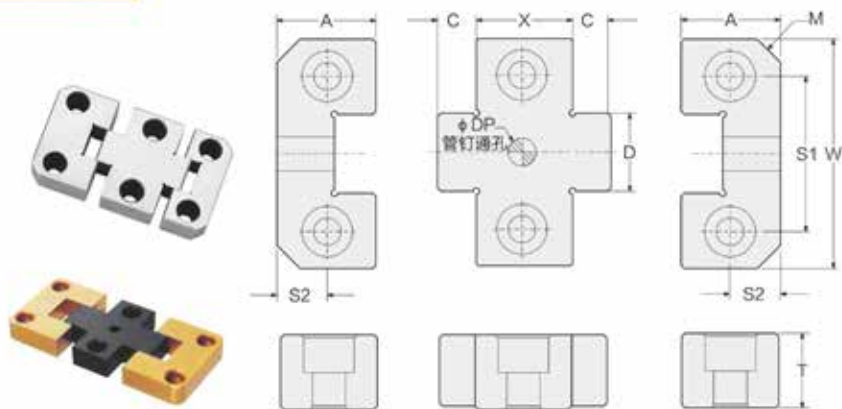
Type	T ^{±.002}	L ^{±.002}	H2 ^{±.002}	H1 ^{±.002}	C1	L3 ^{±.001/±.002}	H ^{±.001}	R Pocket Radius	L1/L2 ±0.1	C Chamfer	安装螺丝
SL-37-100	0.375	1.000	1.125	0.875	0.82	0.500	2.000	0.187	0.250	0.015	#10-32x12"
SL-60-125	0.490	1.250	1.375		0.88	0.750	2.250				# 8-32x5/8"
SL-60-150	0.500	1.500	1.875		0.56	0.563	1.750	0.250	0.312		# 8-32x5/8"
SL-60-200		2.000	1.375		0.86	0.750	2.250				#10-32x5/8"
SL-75-300	0.750	3.000	1.875	1.18	1.250	2.750	0.500	0.625	0.03	1/4-20x3/4"	
SL-100-400	1.000	4.000	2.375	1.43	1.500	3.750				0.500	3/8-16x1"
SL-125-500	1.250	5.000	2.875	1.75	2.000	4.250				0.500	1/2-13x1-1/4"
SL-160-600	1.500	6.000		1.87	2.500						1/2-13x1-1/2"

Type	T ^{±.05}	L ^{±.05}	H2 ^{±.05}	H1 ^{±.05}	C1	L2 ^{±.002/±.005}	H ^{±.01}	C	R Pocket Radius	L1x.25	L2x.25	C
SLM-16-50	16	50	21.5	21.5	13	17	43	6.5	5	8	11	0.8
SLM-19-75	19	75	39	39	22.5	26	72	12		18		
SLM-26-100	26	100	45	45	30	30	90	15		22		
SLM-25-125	25	125	45	45	28.7	35	90	20.5		22		

十字边锁

X-SERIES LOCKS

PLF / XSI



序号	材质	硬度	
PLF	公件	1.2510	HRC 55-58
	母件	1.2510	HRC 55-58
XSI	公件	SKD11 Black	HRC 56-58
	母件	SKD11 DLC	HRC 56-58

Type	X	W	A	T	D	C	M	S1	S2	DP	螺丝
PLF50-030	30	50	21.5	16	17	8.5	5	34	11	6	M6 X 16
PLF50-035	35										
PLF50-040	40										
PLF75-035	35	75	36	19	25	14	8	50	18	8	M10 X 20
PLF75-040	40										
PLF75-045	45										
PLF100-045	45	100	45	19	35	20	10	70	22	10	M10 X 20
PLF100-050	50										

Type	X	W	A	T	D	C	M	S1	S2	DP	螺丝
XSI5026	26	50	21.5	16	17	8.5	5*45°	34	11	6	
XSI5036	36										
XSI7526	26	75	36	19	25	12.5		50	18	10	
XSI7536	36										
XSI10036	36	100	45		35	17.5		70	22		
XSI10046	46										
XSI12536	36	125		25	42		84		12		
XSI12546	46										

定位块

SQUARE INTERLOCKS

TBSF



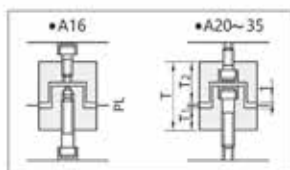
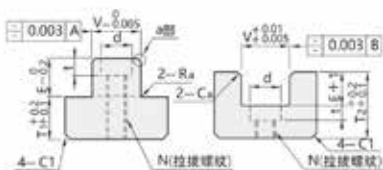
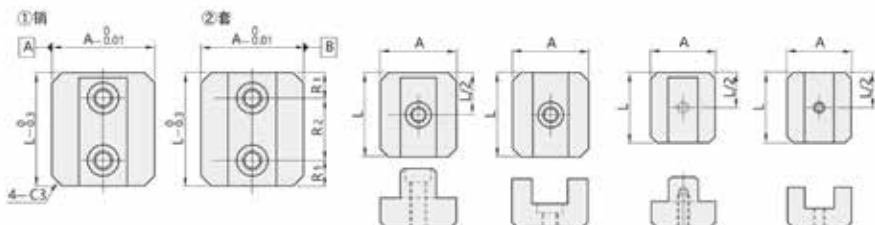
2个螺栓安装孔(L30-50)



1个螺栓安装孔(L25)



1个螺栓安装孔(L16-20)



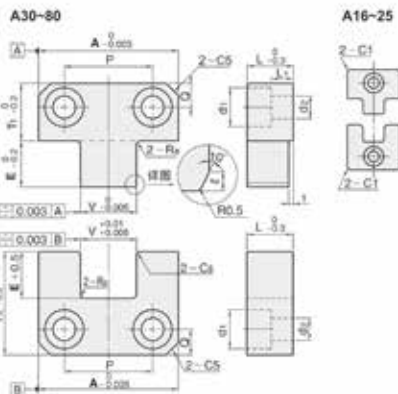
材质	硬度
SKD11	HRC 56-58
T. 2510	HRC 55-58

Type	A	V	T	T1	T2	R	Ra	Ca	螺孔		安装螺栓	拉接螺栓 N	螺孔数量	L 选择	E		
									R1	R2						d	t
TBSF	16	9	28	8	17	1	0.5	0.5	-	-	-	-	M4	1	16	8	
					21										20		
					17										25		
	20	12	30	10	21	-	-	-	7.5	15	6.5	3.5	M3	2	30	12	
					17										8		
					30										12		
	25	15	32	10	21	2	1	1	7.5	15	8	5	M4	M5	1	25	10
					37											26	
					36											23	
	30	17	44	12	31	2	1	1	-	-	9.5	6	M5	M6	2	30	15
					44											31	
					36											23	
44					31												
35	20	41	12	31	2	1	1	10	20	11	7	M6	M8	2	40	20	
				28											2		

定位块

SQUARE INTERLOCKS

TSSB / VTSSB



Group	Type	V公差		定位精度 (间隔)	榫子A-B面, V尺寸的精度	M 材质	H 硬度
		①精	②粗				
精密级	TSSB	± 0.005	± 0.010	0.003~0.015	0.003以下	SKD11	HRC 56-58
超精密级	VTSSB	± 0.003	± 0.005	0.002~0.009	0.003以下	SKD11	HRC 56-58

Type	A	E	V	T	T1	T2	Ra	Ca	螺孔				安装螺柱	L	L1	
									P	Q	d1	d2				
TSSB	16	6	7	29	11	17	.1	0.5	-	5	8	4.5	M4	8	3	
	20	6	8	29												
	25	8	10	31	14	22	2	1	16	6	9.5	5.5	M5	10	4	
	30	8	12	37												
	TSSB	40	10	15	47	18	28	1	0.5	22	7	11	6.6	M6	13	6
			25	62	43											
		60	20	25	81	30	50	2	1	36	12	14	8.6	M8	20	11
			35	96	65											
		80	30	30	111	40	70	2	1	52	14	18	11	M10	25	14
			45	126	85											
VTSSB	16	6	7	29	11	17	.1	0.5	-	5	8	4.5	M4	8	3	
	20	6	8	29												
	25	8	10	31	14	22	1	0.5	16	6	9.5	5.5	M5	10	4	
	30	8	12	37												
	40	10	15	47	18	28	2	1	22	7	11	6.6	M6	13	6	

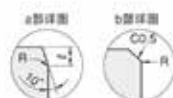
产品特点 Precautions

- 适用于接插件和电子元件等精密模具的定位。
- 在型芯等放入型腔之前即进行定位，可防止型芯的磨损和破坏。
- 因配合间隙狭小，建议配套使用精密导电柱。
- It is suitable for the positioning of precision mould such as connectors and electronic components.
- Locating the core before it is embedded in the cavity can prevent wear and tear of the core.
- Because of the narrow fit clearance, it is recommended to use precision round locating units.

定位块

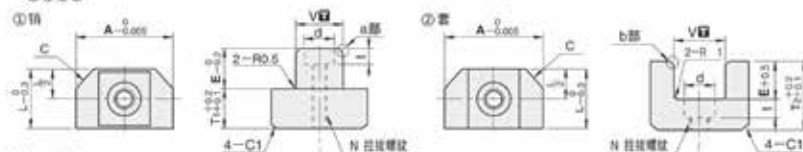
SQUARE INTERLOCKS

VTTSB / TTSB

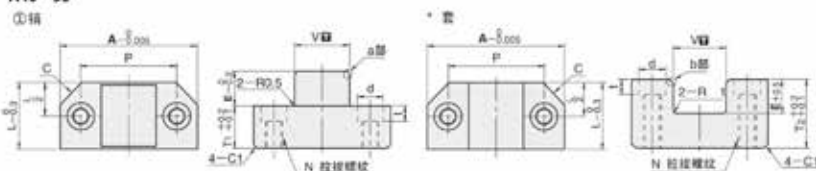


A20 • 25 • 30

①②③④



A40 • 50



Group	Type	V公差		定位精度 (间隔)	相对于A-B面, V尺寸到顶面	材料	硬度
		①精	②粗				
精密级	TTSB	±0.005	+0.010 -0.005	0.005-0.015	0.003以下	SKD11	HRC 56-58
超精密级	VTTSB	±0.003	+0.003 -0.003	0.0042~7	请标注配合型	SKD11	HRC 56-58

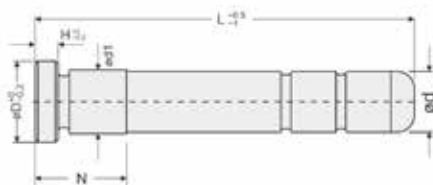
Type	A	E	V	T	T1	T2	l	C	P	螺栓孔		安装螺栓	N拉接螺纹
										d	t		
VTTSB TTSB	20	6	10	23	8	14	0.5	4	-	6.5	3.5	M3	M4
	25	8	12	28	10	17	1			28	8	4.5	M4
	30	8	15	32	12	19		6	35				
	40	10		43	17	25							
TTSB	50	15	20	46	28	28	2	35	9.5	5.5	M5	M6	

导柱

GUIDE PIN

GP

带屑导柱 (带油槽型)

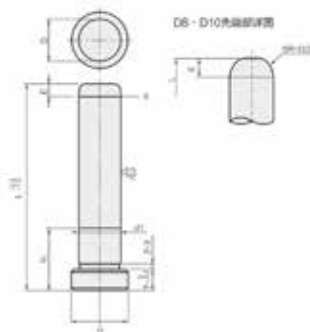


M	材质	H	硬度
	SUJ2		HRC 60 ± 2
	20Cr		HRC 60 ± 2

Type	d		dt		D	H	L
	尺寸 Size	公差 Tolerance	尺寸 Size	公差 Tolerance			
GP	12	-0.016	12	+0.018	17	5	50-140
	16	-0.027	16	+0.007	20	6	50-250
	20	-0.020	20	+0.021	25	8	50-300
	25	-0.033	25	+0.008	30	8	50-340
	30	-0.020	30	+0.025	35	8	70-410
	35	-0.025	35	+0.009	40	8	70-480
	40	-0.040	40	+0.009	45	10	80-480
	50	-0.030	50	+0.011	55	12	120-520
	60	-0.030	60	+0.011	66	15	180-620

GPH

带屑导柱 (无油槽型)

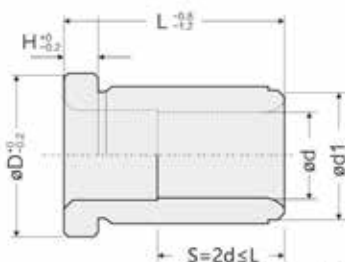


M	材质	H	硬度
	SUJ2		HRC 60 ± 2

Type	d		dt		D	T	L	
	尺寸 Size	公差 Tolerance	尺寸 Size	公差 Tolerance				
GPH	8	-0.015	8	+0.012	11	5	30-70	
	10	-0.020	10	+0.006	13	5	30-70	
	12	-0.020	12	+0.015	17	5	30-200	
	13	-0.025	13	+0.020	18	5	30-200	
	16	-0.020	16	+0.015	21	8	30-250	
	20	-0.025	20	+0.017	25	8	30-300	
	25	-0.030	25	+0.008	30	8	40-350	
	28	-0.030	28	+0.008	33	8	50-300	
	30	-0.030	30	+0.020	35	8	50-400	
	32	-0.030	32	+0.020	37	8	50-350	
	36	-0.035	36	+0.009	40	8	60-450	
	40	-0.030	40	+0.020	45	10	80-500	
	50	-0.040	50	+0.009	55	12	100-550	
	60	-0.030	60	+0.024	65	15	200-550	
		-0.050		+0.011				

导套

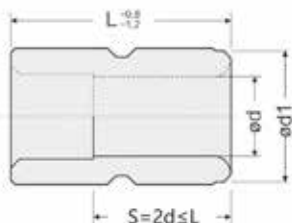
GUIDE BUSH

GBA 带肩导套


S为内孔有效长

M	材质	H	硬度
	SUJ2		HRC 60 ± 2
	20Cr		HRC 60 ± 2

Type	d			H	d1			D	L					
	尺寸 Size	公差 Tolerance			尺寸 Size	公差 Tolerance			15	20	25	30	35	40
GBA	8	+0.014 +0.005		5	12	+0.015 +0.007		14						
	10				14			16						
	12				18			22						
	13	+0.017 +0.006		6	20	+0.017 +0.008		25						
	16				25			30						
	20				30			35	-					
	25	+0.02 +0.007		8	35	+0.02 +0.009		40	-	-				
	30				42			47	-	-				
	35				48			54	-	-				
	40	+0.025 +0.009		10	55	+0.024 +0.011		60	-	-	-			
	50				70			75	-	-	-	-		
	60	+0.029 +0.01			80			86	-	-	-	-	-	

GBB 直导套


S为内孔有效长

M	材质	H	硬度
	SUJ2		HRC 60 ± 2
	20Cr		HRC 60 ± 2

Type	d		d1		L
	尺寸 Size	公差 Tolerance	尺寸 Size	公差 Tolerance	
GBB	10	+0.009 0	14	+0.018 +0.007	10
	12	+0.017 +0.006	18		13
	16		25	+0.021 +0.008	16
	20		30		20
	25	+0.02 +0.007	35		25
	30		42	+0.025 +0.009	20
	35		48		
	40	+0.025 +0.009	55		
	50		70	+0.03 +0.011	
	60	+0.003 +0.01	880		

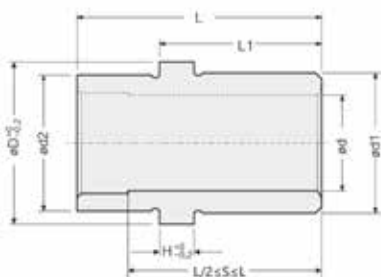
导套

GUIDE BUSH

GBC



材料	硬度
SUJ2	HRC 60 ± 2
20Cr	HRC 60 ± 2



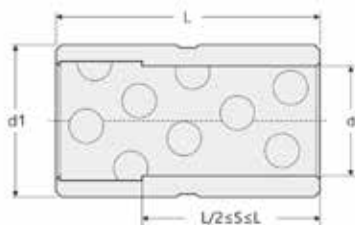
S为内孔有效长

Type	尺寸公差						中托的尺寸						
	d		d1		d2	D	H	L/L1					
	直径	公差	直径	公差									
GBC	12	+0.018	20		-0.04 -0.06	25	4	25/13	30/18	40/23	50/28	60/33	80/43
	16	+0.007	25	+0.020		30							
	20		30	+0.010		35							
	25	+0.020	35			40							
	30	+0.008	42	+0.025		47							
	35		48	+0.010		54							
	40	+0.025	55	+0.035		61							
	50	+0.008	70	+0.015		76							

GBE



材料
黄铜+石墨



S为内孔有效长

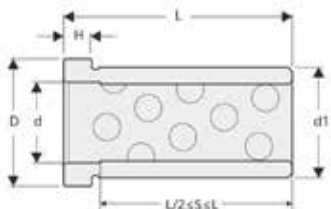
Type	dH7	d1m6	L									
GBE	20	30	20	25	30	35	40	50	60	70	80	
	25	35										
	30	42										
	35	48										
	40	55										
	50	70										
	60	80										
	70	90										
80	105											

导套 GUIDE BUSH

GBF


材料

黄铜+石墨



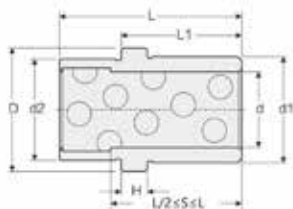
S为内孔有效长

Type	dH7	d1m6	D _{-0.1}	H _{±0.1}	L																			
GBF	20	30	35	8	35	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	200	250		
	25	35	40																					
	30	42	47																					
	35	48	54	10																				
	40	55	61																					
	50	70	76	12																				
	60	80	86	15																				
	70	90	96																					
80	105	111	20																					

GBG


材料

黄铜+石墨



S为内孔有效长

Type	d _{h7}	d1 _{m6}	d2 ^{+0.04} _{-0.04}	D ^{-0.1} _{-0.1}	H ^{±0.1} _{±0.1}	中托司尺寸				
						L/L1				
GBG	12	20	25	4	25/13	30/18	40/23	50/28	60/33	
	16	25	30							
	20	30	35							
	25	35	40							
	30	42	47							
	35	48	54							
	40	55	61							
	50	70	76							

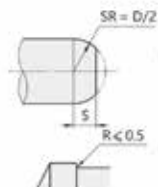
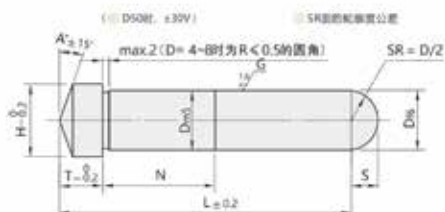
斜导柱

ANGLE GUIDE PIN



材料	硬度
SUJ2	HRC 60 ± 2
20Cr	HRC 60 ± 2

AP

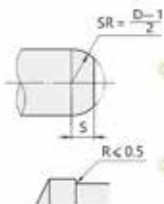
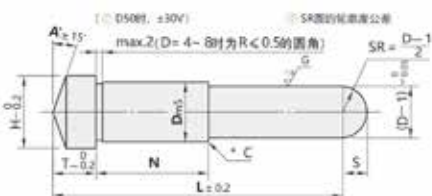


① $D > 25$ 时
球面端以左图为准。

② $D = 4-8$ 时
肩部根部为 $R < 0.5$ 的圆角。

● $D = 20-25$ 时, 有时一端带有中心孔, 此时斜导柱的各尺寸为中心孔加工前的尺寸, $D > 30$ 时, 两端带中心孔。

APS



① $D > 25$ 时
球面端以左图为准。

② $D = 4-8$ 时
肩部根部为 $R < 0.5$ 的圆角。

* $D4-25$ 的台阶周边作了倒角C加工。(倒角C约0.3)

● $D = 20-25$ 时, 有时一端带有中心孔, 此时斜导柱的各尺寸为中心孔加工前的尺寸, $D > 30$ 时, 两端带中心孔。

