



## JDB 固体润滑轴承 Embedded Solid Lubricating Bearings

### 产品介绍 Product introduction

该系列产品是以高力黄铜、锡青铜、铜钢双金属、铸铁或轴承钢为基材，表面按一定的角度和密度镶嵌以石墨（SL1）或PTFE加二硫化钼（SL4）为主要成分的固体润滑剂，经精密加工而成。该系列产品机械强度和硬度高，适用于重载低速场合。SL4为水或海水中使用的固体润滑剂。

JDB solid lubricant bearing is a kind of finish machining bearing, which based on high strength brass, tin bronze, steel and brass alloy, cast iron or GCr15 steel, drilled proportionally and embedded with SL1(Graphite) or SL4(PTFE+MoS<sub>2</sub>) solid lubricants. Due to the high mechanical strength and hardness, JDB bushings are broadly used for heavy load, low velocity application. SL4 solid lubricant can be used in water.

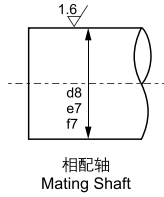
参数 Parameters	JDB-1	JDB-2	JDB-3	JDB-4	JDB-5
	镶嵌式固体润滑轴承 Embedded Solid Lubricating Bearings	镶嵌式固体润滑轴承 Embedded Solid Lubricating Bearings	镶嵌式固体润滑轴承 Embedded Solid Lubricating Bearings	镶嵌式固体润滑轴承 Embedded Solid Lubricating Bearings	镶嵌式固体润滑轴承 Embedded Solid Lubricating Bearings
成分牌号 Chemical Compositions	CuZn25Al6Fe3Mn3	CuSn6Zn6Pb3	Steel+CuSn6Zn6Pb3	HT250	GCr15
摩擦因数 Friction coef	< 16 μ	< 15 μ	< 14 μ	< 18 μ	< 17 μ
线膨胀系数 Dilatibility	1.6-2.0 10 <sup>-5</sup> /°C	1.6-2.0 10 <sup>-5</sup> /°C	1.6-2.0 10 <sup>-5</sup> /°C	1.7-1.9 10 <sup>-5</sup> /°C	1.6-1.8 10 <sup>-5</sup> /°C
硬度 Hardness	210-250HB	80-120HB	60-90HB	180-230HB	HRC55-60
最高滑动速度 (无润滑) Velocity Max. (dry)	0.4 (m/s)	2 (m/s)	2 (m/s)	0.5 (m/s)	0.1 (m/s)
最高滑动速度 (油润滑) Velocity Max. (Oil)	5 (m/s)	10 (m/s)	10 (m/s)	5 (m/s)	3 (m/s)
最高PV值 (无润滑) Max PV Value (dry)	1.8 N/mm <sup>2</sup> - m/s	1.8 N/mm <sup>2</sup> - m/s	1.8 N/mm <sup>2</sup> - m/s	1.8 N/mm <sup>2</sup> - m/s	1.8 N/mm <sup>2</sup> - m/s
最高PV值 (油润滑) Max PV Value (Oil)	1.8 N/mm <sup>2</sup> - m/s	1.8 N/mm <sup>2</sup> - m/s	1.8 N/mm <sup>2</sup> - m/s	1.8 N/mm <sup>2</sup> - m/s	1.8 N/mm <sup>2</sup> - m/s
最高使用温度 Temperature Max.	300°C	350°C	300°C	400°C	350°C
适用情况 Applicable conditions	高载荷 High load 低速 Low speed 一般用 Commonly used	低载荷 Low load 高温 High Temp. 低速 Low speed	低载荷 Low load 高温 High Temp. 低速 Low speed 节约成本 Cost Saving	高载荷 High load 低速 low speed	低载荷 Low load 低速 Low speed

### 固体润滑剂 Solid Lubricant

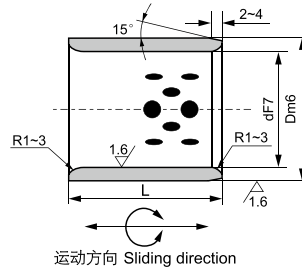
固体润滑剂 Lubricant	特性 Features	典型用途 Typical application
高纯石墨+添加剂 SL1 Graphit+add	很好的耐磨性和化学稳定性，使用温度 <400°C Excellent resistance against chemical attacks and low friction, Temp limit 400°C	应用于一般机械，在大气中使用 Suit for general machines under atmosphere
SI4+MoS <sub>2</sub> PTFE+MoS <sub>2</sub> +CF	极低的摩擦系数和良好的水润滑性，使用温度 <300°C Lowest in friction and good of water Lubrication, Temp limit 300°C	应用于水、海水润滑，如船舶 Suit for water and seawater lubricating

## JDB 黄铜基标准轴承 JDB Solid Lubricating Bearings

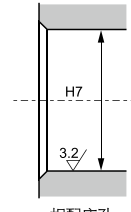
www.st-bearing.com



相配轴  
Mating Shaft



运动方向 Sliding direction



相配座孔  
Mating Housing

d8: 高负荷 high load  
e8: 低承载 Light load  
f7: 高精度 High precision

材质	高力黄铜 + 石墨
Material	CuZn25Al5Mn3Fe3+Graphite

d	公差 (F7)	D	公差 (m6)	L -0.10 -0.30																			
				8	10	12	15	20	25	30	35	40	50	60	70	80	90	100	120	140	160	180	200
8	+0.028 +0.013	12		●	●	●	●																
10		14		+0.018 +0.007	●	●	●	●	●														
12	+0.034 +0.016	18		●	●	●	●	●	●														
14		20			●	●	●	●	●	●													
16		22	+0.021 +0.008		●	●	●	●	●	●	●												
20		28			●	●	●	●	●	●	●	●											
20		30			●	●	●	●	●	●	●												
25		33		+0.041 +0.020			●	●	●	●	●	●	●										
25	35					●	●	●	●	●	●	●	●										
30		38	+0.025 +0.009				●	●	●	●	●	●	●										
30		40					●	●	●	●	●	●	●	●									
35		45						●	●	●	●	●	●	●									
40		50						●	●	●	●	●	●	●	●	●							
40		55						●	●	●	●	●	●	●	●	●							
45		55		+0.050 +0.025					●	●	●	●	●	●	●	●	●	●					
45	56							●	●	●	●	●	●	●	●	●	●						
45		60						●	●	●	●	●	●	●	●	●							
50		60		+0.030 +0.011					●	●	●	●	●	●	●	●	●	●					
50	65							●	●	●	●	●	●	●	●	●	●						
55		70							●	●	●	●	●	●	●	●	●						
60		75								●	●	●	●	●	●	●	●	●	●				
65		80								●	●	●	●	●	●	●	●	●					
70		85		+0.060 +0.030								●	●	●	●	●	●	●	●	●			
70	90										●	●	●	●	●	●	●	●	●				
75		90									●	●	●	●	●	●	●	●	●				
75		95		+0.035 +0.013								●	●	●	●	●	●	●	●	●	●		
80	100											●	●	●	●	●	●	●	●	●			
85		100										●	●	●	●	●	●	●	●	●			
90		110											●	●	●	●	●	●	●	●	●		
100	+0.071 +0.036	120											●	●	●	●	●	●	●	●			
110		130													●	●	●	●	●	●	●		
120		140													●	●	●	●	●	●			
130		150		+0.040 +0.015													●	●	●	●	●	●	
140	160																●	●	●	●	●		
150	+0.083 +0.043	170															●	●	●	●	●		
160		180																	●	●	●	●	●
170		190																	●	●	●	●	
180		200		+0.046 +0.017																		●	●
190	+0.096 +0.050	210																				●	●

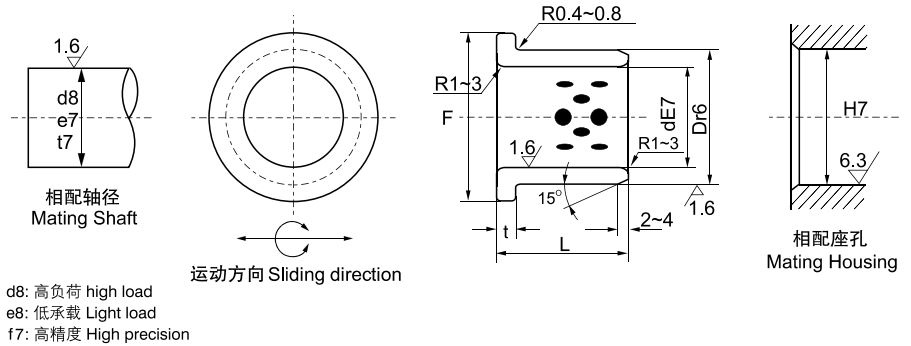
How to order: Part No. d D L  
订单方式: JDB 08 12 08

## JFB 自润滑翻边轴承 JFB Flanged Bushing

www.st-bearing.com



材质	高力黄铜 + 石墨
Material	CuZn25Al5Mn3Fe3+ Graphite

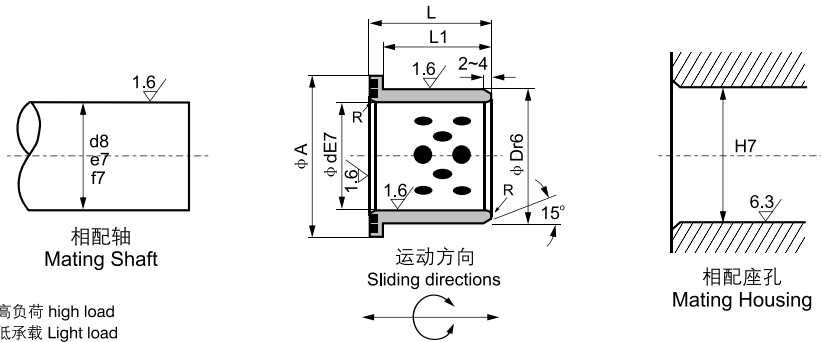


d	公差 Tolerance	D	公差 Tolerance	ΦF	t	L <sup>-0.10</sup> / <sub>-0.30</sub>																												
						10	12	15	20	25	30	35	40	45	50	55	60	65	70	75	80	90	100	120										
8	+0.040 +0.025	12		20	2	●	●	●																										
10		14	+0.034 +0.023	22	2	●	●	●	●																									
12		18		25	3	●	●	●	●	●																								
14	+0.050 +0.032	20		27	3	●	●	●	●	●	●																							
16		22		29	3	●	●	●	●	●	●																							
18		24	+0.041 +0.028	32	3		●	●	●	●	●	●																						
20		28		35	3			●	●	●	●	●	●																					
20	+0.061 +0.040	30		40	5			●	●	●	●	●	●																					
25		35		45	5			●	●	●	●	●	●	●																				
30		40		50	5				●	●	●	●	●	●																				
31.5		40	+0.050 +0.034	50	5				●	●	●	●	●	●	●																			
35		45		60	5					●	●	●	●	●	●																			
40	+0.075 +0.050	50		65	5						●	●	●	●	●	●																		
45		55		70	5								●	●	●	●	●																	
50		60	+0.060 +0.041	75	5								●	●	●	●	●																	
55		65		80	5									●	●	●	●	●																
60		75	+0.062 +0.043	90	7.5										●	●	●	●	●	●														
65	+0.090 +0.060	80		95	7.5												●	●	●	●	●	●												
70		85		105	7.5												●	●	●	●	●	●	●											
75		90	+0.073 +0.051	110	7.5												●	●	●	●	●	●	●	●										
80		100		120	10													●	●	●	●	●	●	●	●	●								
90		110	+0.076 +0.054	130	10														●	●	●	●	●	●	●	●	●							
100	+0.107 +0.072	120		150	10																●	●	●	●	●	●	●	●	●					
120		140	+0.088 +0.063	170	10																	●	●	●	●	●	●	●	●					
130		150	+0.090 +0.065	180	10																	●	●	●	●	●	●	●						
140	+0.125 +0.085	160		190	10																			●	●	●	●	●	●					
150		170	+0.093 +0.068	200	10																									●	●			
160		180		210	10																										●	●		

How to order: Part No. d D L  
订单方式: JFB 08 12 10

# JDBB 自润滑翻边轴承 JDBB Oilless Flange Bushes

www.st-bearing.com



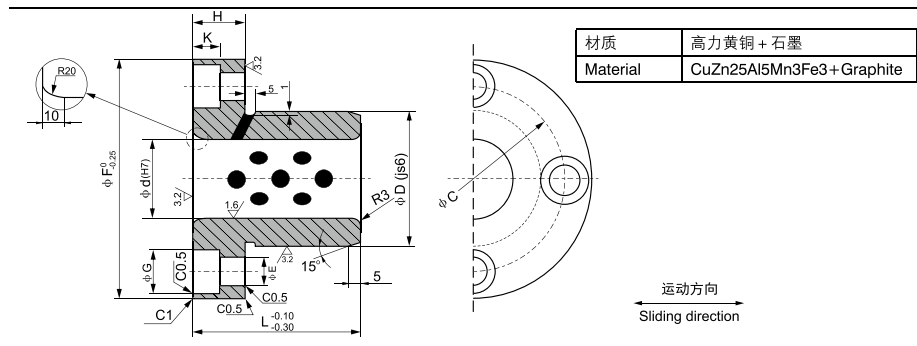
d8: 高负荷 high load  
e8: 低承载 Light load  
f7: 高精度 High precision

材质	高力黄铜 + 石墨
Material	CuZn25Al5Mn3Fe3 + Graphite

订货代号 Stanard No.	Φd	E7	ΦD	r6	ΦA	L1	L
JDBB-12 × 15	12	+0.050 +0.032	18	+0.034 +0.023	25	11	15
JDBB-16 × 20	16		22	+0.041 +0.028	30	15	20
JDBB-20 × 25	20	+0.061 +0.040	28		+0.050 +0.034	36	20
JDBB-25 × 30	25		33	43		25	30
JDBB-30 × 35	30	+0.075 +0.050	38	+0.060 +0.041	48	30	35
JDBB-40 × 45	40		50		60	40	45
JDBB-50 × 55	50		62		75	49	55
JDBB-60 × 65	60	+0.090 +0.060	75	+0.062 +0.043	90	58	65

How to order: Part No. d D L  
订单方式: JDBB 12 18 15

# HGB 自润滑导向套 HGB Self-lubricant Guide Bushes



材质	高力黄铜 + 石墨
Material	CuZn25Al5Mn3Fe3 + Graphite

项目 NO.	代号 Code	尺寸 Spcification	ΦF	ΦD (js6)	Φd (H7)	H	L	ΦC	ΦE	ΦG	K
1	30	90 × 50 × 30 × 50	90	50	30	20	50	70	11	17.5	10.8
2	40	100 × 60 × 40 × 65	100	60	40	20	65	80	11	17.5	10.8
3	50	125 × 75 × 50 × 80	125	75	50	20	80	100	11	17.5	10.8
4	60	135 × 85 × 60 × 100	135	85	60	20	100	110	11	17.5	10.8
5	80	170 × 110 × 80 × 130	170	110	80	25	130	140	14	20	13
6	100	190 × 130 × 100 × 160	190	130	100	25	160	160	14	20	13

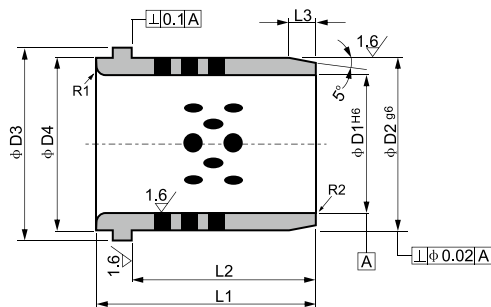
How to order: Part No. d D L  
订单方式: JFB 30 50 50

# JNA 自润导向套 JNA Oilless Guide Bushes

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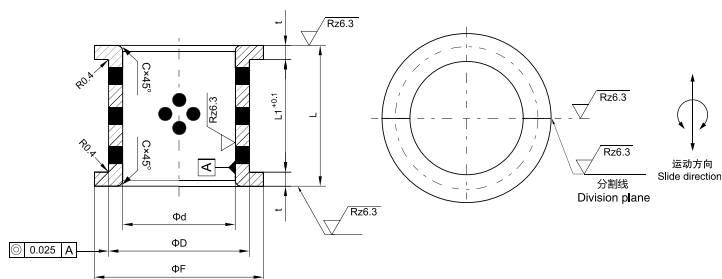
材质	高力黄铜 + 石墨
Material	CuZn25Al5Mn3Fe3 + Graphite



型号规格 Standard No.	D1	H6	D2	g6	D3	D4	L1	L2	L3	R1
JNA 32 × 50	32	+0.016 0	40	-0.009	50	40	50	40	4	3
JNA 40 × 63	40		50	-0.025	63	50	63	50	5	3
JNA 50 × 71	50	+0.019 0	63	-0.010	71	63	71	56	6	5
JNA 63 × 80	63		80	-0.029	90	80	80	63	8	6
JNA 80 × 100	80	+0.022 0	100	-0.012 -0.034	112	100	100	80	10	8
JNA 100 × 125	100		125	-0.014	140	125	125	106	12	10
JNA 115 × 140	115		140	-0.039	155	140	140	120	12	10

How to order: Part No. D1 L1  
订单方式: JNA 32 50

# JFFB 自润滑轴瓦 Half-Bearing

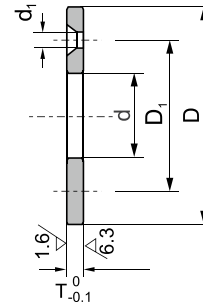
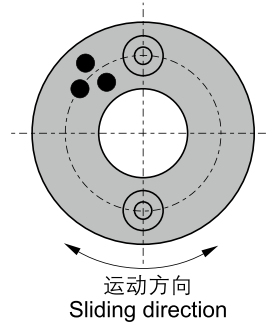


产品代号 Part No.	I.D. $\Phi d$ 内径 H7	O.D. $\Phi D$ 外径	$\Phi F$ d11	L h12	L1 +0.1 0	t	C
JFFB-030	30	38	s6	48	22	6	1
JFFB-035	35	45	"	55	32	6.5	"
JFFB-040	40	50	"	60	35	7.5	"
JFFB-045	45	55	"	65	40	7.5	"
JFFB-050	50	60	"	70	45	7.5	"
JFFB-060	60	70	"	80	50	10	2
JFFB-070	70	85	"	95	60	10	"
JFFB-080	80	95	"	110	70	12.5	"
JFFB-090	90	105	"	120	80	12.5	"
JFFB-100	100	115	"	130	90	12.5	"
JFFB-110	110	125	r6	140	100	12.5	"
JFFB-120	120	135	"	150	110	15	"
JFFB-140	140	160	"	175	120	20	"
JFFB-160	160	180	"	200	140	20	"

How to order: Part No. d D L  
订单方式: JFFB 30 38 34

## JTW 止推垫片 JTW Metric Thrust Washer

www.st-bearing.com



材质	高力黄铜+石墨
Material	CuZn25Al5Mn3Fe3+Graphite

订货代号 Designation	d		D	T		螺丝孔 Screw Holes			
						D <sub>1</sub>	数量 Q'ty	尺寸 size	d <sub>1</sub>
JTW-0603	6.2		25			15	2	M3	3.5
JTW-0803	8.2		28		18				
JTW-1003	10.2		30		20				
JTW-1203	12.2		40		28				
JTW-1203N	12.2		40		Without flat head screw hole 无平头螺丝孔				
JTW-1303	13.2		40	3		28	2	M3	3.5
JTW-1403	14.2		40						
JTW-1503	15.2		50		35				
JTW-1603	16.2	+0.20 +0.10	50		Without flat head screw hole 无平头螺丝孔				
JTW-1603N	16.2		50		Without flat head screw hole 无平头螺丝孔				
JTW-1803	18.2		50			35		M3	3.5
JTW-2005	20.2		50			40	2	M5	6
JTW-2505	25.2		55	5					
JTW-3005	30.2		60	0 -0.1	45				
JTW-3505	35.2		70			50	7	M6	7
JTW-4007	40.2		80						
JTW-4507	45.2		90		67.5				
JTW-5008	50.3		100			75	4	M8	9
JTW-5508	55.3		110	8					
JTW-6008	60.3		120		90				
JTW-6508	65.3		125		95				
JTW-7010	70.3	+0.30 +0.10	130			100	M10	11	
JTW-7510	75.3		140		110				
JTW-8010	80.3		150		120				
JTW-9010	90.5		170		140				
JTW-10010	100.5		190			160			
JTW-12010	120.5		200			175			

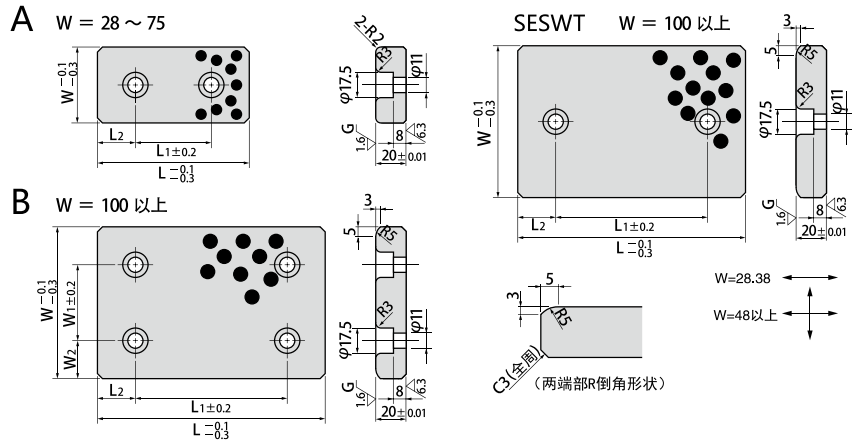
How to order: Part No. d  
订单方式: JTW 10

## SWSW 20mm 厚度自润滑导板 SWSW 20mm Oilless Wear Plate

www.st-bearing.com



材质	高力黄铜 + 石墨
Material	CuZn25Al5Mn3Fe3 + Graphite



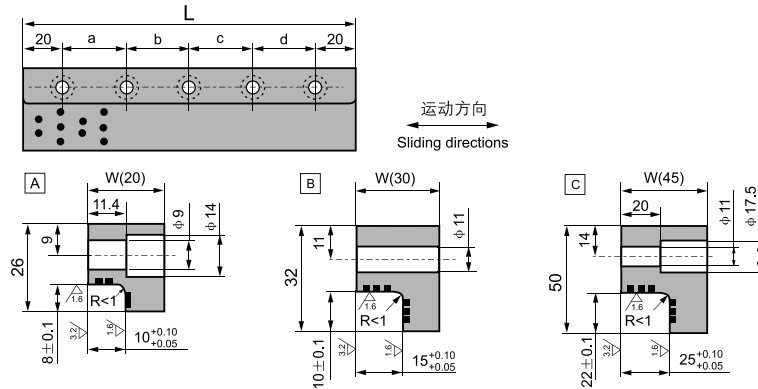
产品代号 Part No.	W	L	W <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	Catalog No.	
SESW - 2875	28	75	-	45	15	A	SESW
SESW - 28100		100	-	50	25		
SESW - 28150		150	-	100	25		
SESW - 3875	38	75	-	45	15		
SESW - 38100		100	-	50	25		
SESW - 38150		150	-	100	25		
SESW - 4875	48	75	-	45	15		
SESW - 48100		100	-	50	25		
SESW - 48125		125	-	75	25		
SESW - 48150		150	-	100	25		
SESW - 48200	58	200	-	150	25		
SESW - 5875		75	-	45	15		
SESW - 58100		100	-	50	25		
SESW - 58150	75	150	-	100	25		
SESW - 7575		75	-	25	25		
SESW - 75100		100	-	50	25		
SESW - 75125		125	-	75	25		
SESW - 75150	100	150	-	100	25		
SESW - 75200		200	-	150	25		
SESW - 100100		100	50	50	25		
SESW - 100125		125	50	75	25		
SESW - 100150	125	150	50	100	25		
SESW - 100200		200	50	150	25		
SESW - 100250		250	50	200	25		
SESW - 100300		300	50	200	50		
SESW - 125125	150	125	50	75	25		
SESW - 125150		150	50	100	25		
SESW - 125200		200	50	150	25		
SESW - 125250		250	50	200	25		
SESW - 125300	150	300	50	200	50		
SESW - 125350		350	50	200	75		
SESW - 150150		150	100	100	25		
SESW - 150200	150	200	100	150	25		
SESW - 150250		250	100	200	25		

How to order: Part No. W L  
订单方式: SESW 28 75



## JSL 滑板标准公制尺寸 JSL Wear Plate Standard Metric Size

www.st-bearing.com



材质	高力黄铜 + 石墨
Material	CuZn25Al5Mn3Fe3 + Graphite

单位Unit: mm

型号规格 Standard No.	W	L	螺孔 Bolt Hole				螺孔 Size	数量 Q'ty	图示 Sketch
			a	b	c	d			
JSL-20 × 100	20	100	60	—	—	—	M8	2	A
JSL-20 × 150		150	55	55	—	—		3	
JSL-20 × 200		200	55	50	55	—		4	
JSL-30 × 100	30	100	60	—	—	—	M10	2	B
JSL-30 × 150		150	55	55	—	—		3	
JSL-30 × 200		200	55	50	55	—		4	
JSL-30 × 250		250	70	70	70	—		4	
JSL-45 × 200	45	200	55	50	55	—	M10	4	C
JSL-45 × 250		250	70	70	70	—		4	
JSL-45 × 300		300	65	65	65	65		5	
JSL-45 × 350		350	80	75	75	80		5	

How to order: Part No. W L  
 订单方式: JSL 20 100