

ISO9001: 2008 CERTIFIED
MANUFACTURER OF

SRI Self-lubricating Maintenance-free Bearings

复合系列自润滑轴承



SRI
SHANGHAI RICH INTERNATIONAL

上海力其国际贸易有限公司
SHANGHAI RICH INTERNATIONAL CO., LTD



Metric Oilless Sliding Components

上海力其国际贸易有限公司专业提供无油润滑产品的设计和生产机械配件的加工制造。生产基地位于浙江嘉善，近邻上海80公里，年生产量500万套。生产设备包括数控加工中心,数控立卧式机床，数控刨及铣床以及平面磨床，使用日本三丰测量设备以确保生产品质的公差范围。按国际标准再结合科学和创新的基础上建立完善本厂生产管理体系。通过不断的努力和高品质的产品供给，大部分产品远销欧美。我们致力于通过完善管理和竞争机制并招募优秀人才来达到一流企业的目标

我们的产品主要用于汽车，工程，建筑，冶金，水力，涡轮，轧钢机械，工具，船舶，矿山和重型机械，注塑，港口物流设备，风力驱动马达以及主机上的滑动轴承。



ISO9001:2008 Certificated

Shanghai Rich International Co., Ltd. is the enterprise who manufactures oilless elements and offer engineering parts. Production base is located in Jiashan, Zhejiang, and 80 Km far away from Shanghai. Annual output of bearings 5 million sets. We are equipped with advanced CNC machining centers, VMCs, digital milling machines, grinding machines, drilling machines, We carry out inspections with Mitsutoyo measuring tools to guarantee the tolerance range and quality.

We established the improved quality management in line with international standard on basis of science, innovation. Through continuous efforts and with high quality products, our products are sold in global markets, especially EU and America. We are committed to be the first-class enterprise by improving management and competition and recruiting elites. Our products are widely used in automobile, engineering, construction, metallurgical, hydraulic, turbine, rolling mill machinery, instruments, vessel, mining and heavy machines, injection plastics, as well as harbor logistic equipments, wind driven generator and sliding bearings in main engines. Etc.



SRI01

无油润滑轴承
Oilless Bushing

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SRI02

边界润滑轴承
Marginal Bushing

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SRI03

双金属轴承
Bimetal Bushing

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SRI09

青铜卷制轴承
Bronze Wrapped
Bushing

Page 19 ~ 24

SRI01

无油润滑轴承 OILLESS BUSHING

标准 STANDARD:

德制 DIN1494

国际标准 ISO3547

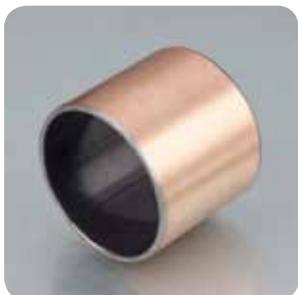
亚洲标准

国家标准



SRI010 无油润滑轴承 SRI010 Oilless Bushing

钢 + 球形青铜粉 + 聚四氟乙烯 (PTFE)
Steel+Porous bronze sinter+PTFE



SRI010 无油润滑轴承，是以钢板为基体，中间烧结球形青铜粉，表面轧制聚四氟乙烯和混合物卷制而成。它具有摩擦系数小、耐磨、抗腐蚀性好和无油润滑的特点。能降低成本、缩小机械体积、避免咬轴现象和降低噪音等优点。产品已广泛应用于各种机械的滑动部位，例如：印刷机、纺织机、烟草机械、汽车、摩托车与农林机械等。

SRI010 is wall wrapped bushing made of triple layer composites material which be consisted of a steel backing, a sintered porous bronze particles interlayer and calendered and mixture as surface layer. It is of low friction coefficient, anti-wear, anti-corrosion and can be used without oil, or only a trace of oil if needed. Moreover, it is of low cost, low vibration and low noise, compacted and light. It is widely applied in various sliding articles of different kind of machines, such as textile machines, tobacco machines, hydraulic vehicles, automobiles, agriculture and forests machinese and so on.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (油润滑) Max line speed V	m/s	5.0
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-195 ~ +270
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.04 ~ 0.20
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	22	导热系数 Thermal conductivity	W/m · K	13
	干摩擦 Dry	N/mm ² · m/s	3.6	线胀系数 Linear expansion	$11 \times 10^{-6}/K$	

SRI01T 齿轮泵专用轴承 SRI01T Gear Pump Bushing

钢 + 球形青铜粉 + 聚四氟乙烯 (PTFE)
Steel+Porous bronze sinter+PTFE



SRI01T 齿轮油泵的高 PV 值工况条件而设计推出的特殊配方产品。产品具有特殊的抗疲劳冲击优点。适应的油泵压力：16~25Mpa, 线速为度 3.5~5m/s。产品具有特殊的抗疲劳、抗冲击的优点，在流体润滑境界下 PV 值可达到 120N/mm².m/s 是各种齿轮油泵、柱塞泵、叶片泵的最佳选择。

SRI01T is composed of a specially designed surface layer of PTFE formulations and is specifically applied for the high PV bushes of gear oil pumps. It is to be used in hydrodynamic or boundary lubricating condition of medium or high pressure gear oil pumps such as P=16~25 Mpa, V=3.5~5m/s. it shows the benefits of low friction coefficient, wear resistant and anti-impact properties. At hydrodynamic lubrication, the PV limit reaches to 120N/mm².m/s. It is a best choice for the bushes of various kinds of gear pumps as well as plunger pumps, vane pumps and so on.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (油润滑) Max line speed V	m/s	10
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-195 ~ +270
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.03 ~ 0.18
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	60	导热系数 Thermal conductivity	W/m · K	13
	干摩擦 Dry	N/mm ² · m/s	4.3	线胀系数 Linear expansion	$11 \times 10^{-6}/K$	

SRI01P 往复运动轴承
SRI01P Reciprocating Motion Bushing

钢 + 球形青铜粉 + 聚四氟乙烯 (PTFE)
Steel+Porous bronze+PTFE



SRI01P 往复运动轴承，是在 SRI01 材料的结构基础上，根据往复运动的特殊共况条件而设计的新颖配方产品，其性能与国外 DD2 相似。因其不含铅，故符合了环保要求。

SRI01P is particularly suitable for bushes in reciprocating motion, and the properties are similar to that of the foreign product designated as DD2. It is wear resistant, and so can keep the lubricating oil clear after long period of working. Meanwhile it can protect the mating surface from wearing. It is used widely as oil damping vibrating absorber of automobiles, motorcycles and various hydraulic cylinders, hydraulic motors and pneumatic elements.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (油润滑) Max line speed V	m/s	2.5
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-195 ~ +270
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.04 ~ 0.20
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	22	导热系数 Thermal conductivity	W/m · K	13
	干摩擦 Dry	N/mm ² · m/s	1.8	线胀系数 Linear expansion	$11 \times 10^{-6}/K$	

SRI01W 无铅轴承
SRI01W Lead-Free Bushing

钢 + 球形青铜粉 + 聚四氟乙烯 (PTFE)
Steel+Porous bronze+PTFE



SRI01W 无铅轴承，是以钢板为基体，中间烧结球形青铜粉，表面轧制聚四氟乙烯 (PTFE) 和其它的混合物，是卷制而成的滑动轴承。它具有摩擦系数小、耐磨、抗腐蚀性好和无油润滑的特点。使用该产品能降低成本、缩小机械体积、避免咬轴现象和降低噪音等优点。钢背面可电镀多种金属，可在腐蚀介质中使用；目前已广泛应用于各种机械的滑动部位，例如：印刷机、纺织机、烟草机械、微电机、汽车、摩托车与农林机械等。

SRI01 is wall wrapped bushing made of triple layer composites material which be consisted of a steel backing, a sintered porous bronze particles interlayer and calendered with PTFE and mixture as surface layer. It is of low friction coefficient, anti-wear, anti-corrosion and can be used without oil, or only a trace of oil if needed. Moreover, it is of low cost, low vibration and low noise, compacted and light, SRI01 is widely applied in various sliding articles of different kind of machines, such as textile machines, tobacco machines, hydraulic vehicles, automobiles, agriculture and forests machinese and so on.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (油润滑) Max line speed V	m/s	50
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-195 ~ +300
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.04 ~ 0.20
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	50	导热系数 Thermal conductivity	W/m · K	13
	干摩擦 Dry	N/mm ² · m/s	3.6	线胀系数 Linear expansion	$11 \times 10^{-6}/K$	

SRI01B 青铜基轴承
SRI01B Bronze-Based Bushing

铜 + 球形青铜粉 + 聚四氟乙烯 (PTFE)
Bronze+Porous bronze+PTFE



SRI01B 青铜基轴承，是以锡青铜为基体，中间烧结青铜球形粉，表面轧制 PTFE 和耐高温填充材料而成。它具有很高的安全系数，在连续工作不能停机修理的场所和高温不能加油的场所特别适用。广泛应用在冶金钢铁工业，连铸机方坯滚道、高温炉炉前设备，水泥灌浆泵和螺旋式输送机上。它可以在外部组合钢套，也可以制成翻边，达到端面、内孔同时摩擦使用的效果。

SRI01B is of high safety factor, and is particularly appropriate for high temperature environment where no oil is effcient and where the machine must be under successive long period working condition. This is widely used in steel metallurgy industry such as bushes for roller grooves of successive casting machines. cement grouting pumps and screw conveyers for cement. It can also be composed in steel housing or fabricated into flanged bushes which can move both in radial and in axial directions.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (油润滑) Max line speed V	m/s	50
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-195 ~ +300
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.04 ~ 0.18
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	60	导热系数 Thermal conductivity	W/m · K	13
	干摩擦 Dry	N/mm ² · m/s	4.3	线胀系数 Linear expansion	$11 \times 10^{-6}/K$	

SRI01D 液压专用轴承
SRI01D Hydraulic Bushing

钢 + 球形青铜粉 + 聚四氟乙烯和亲油性纤维混合物 (PTFE)
Steel + Porous bronze + PTFE with fibre



SRI01D 液压专用轴承，是在 SRI01P 的基础上结合油缸及减震器工作原理而设计的一种新型材料，在无油的条件下显得更耐磨，该产品除具有 SRI01P 的优点外，特别适用于往复频繁的大侧向力场合。其性能与国外 DP4 相似，目前该产品逐步替代 SRI01P 产品，适用于汽车、摩托车减震器以及各种液压缸等领域。SRI01D Hydraulic bushing is developed on the basis of SRI01P and meanwhile considering the motion way of oil pump and damper. It is the substitute of and parallels in performance with abroad DP4. In addition to covering the same usage of SRI01P, SRI01D in particular fits frequently reciprocating motion with a high side force. It is a tendency to gradually replace SRI01P with SRI01D, the latter will Cicer a Wide application in auto mobile, motor damper and oilpumps, etc.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (润滑) Max line speed V	m/s	3.0
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-195 ~ +270
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.04 ~ 0.18
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	50	导热系数 Thermal conductivity	W/m · K	16
	干摩擦 Dry	N/mm ² · m/s	3.8	线胀系数 Linear expansion	$15 \times 10^{-6}/K$	

SRI01S 不锈钢耐腐蚀轴承
SRI01S Stainless Steel Bushing

钢 + 球形青铜粉 + 聚四氟乙烯 (PTFE)
Steel + Porous bronze + PTFE with fibre



SRI01S 不锈钢耐腐蚀轴承，是以不锈钢材料为基体，中间烧结耐腐蚀合金粉末，表面轧制以聚四氟乙烯为主的低摩擦材料，经过卷制成型的一种十分有效的耐腐蚀材料。它具有耐油、耐酸、耐碱、耐海水和耐磨损的特点，表面的 PTEE 材料不含铅成份。在食品饮料机械、印染机械、化工机械、海洋工业耐腐蚀滑动部位最适合使用。

SRI01S is of oil resistant, acid resistant, alkaliresistant and seawater resistant. more over, there is no lead in the PTFE surface layer and so is particularly fit for bushings in food stuff machines, alkali flow meters, pumps motion elements in pharmaceutical machines, printing machines chemical engineering machines and other ocean industry.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (润滑) Max line speed V	m/s	4.5
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-195 ~ +270
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.04 ~ 0.20
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	50	导热系数 Thermal conductivity	W/m · K	16
	干摩擦 Dry	N/mm ² · m/s	3.6	线胀系数 Linear expansion	$15 \times 10^{-6}/K$	

SF-TEX 弹钢基PTFE织物自润滑轴承
SF-TEX Stainless Steel Textile Bushing

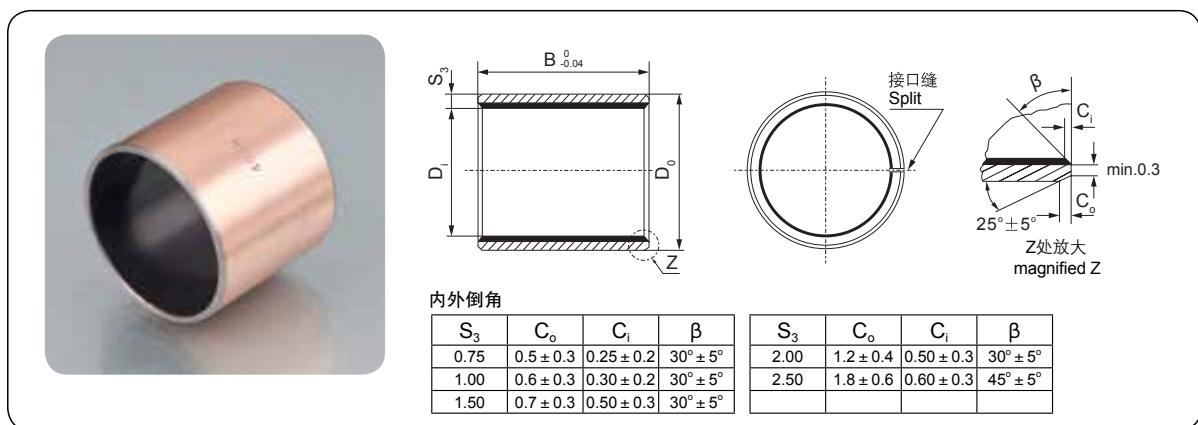
钢 + 聚四氟乙烯 (PTFE) 和耐磨编织物
Steel + PTFE fibre fabric



该材料以各种优质金属为基体，表面覆着以 PTFE 和其它添加剂为主的低摩擦耐摩编织物材料。这种材料结构相比一般三层复合材料具有更高的承载能力和更长的使用寿命。基材为低碳钢(SF-TEX)、不锈钢 (SF-TEX3)、铜 (SF-TEXB) 等。主要运用于农用机械、建筑机械、汽机车底盘零部件、球阀、蝶阀各种阀门，水泵及化工工业等重载低速而无法加油的场合。

Steel with PTFE fibre fabric. This new material use the PTFE fibres fabric overlay on metal backings, the fabric have very high load capacity and much longer operating life compare with conventional 3-layer bushes. the metal can be carbon steel(SF-TEX), stainless steel(SF-TEX3), bronze(SF-TEXB) etc. Suitable for rotary and oscillating movement, lower maintenance requirements due to the long re-lubrication intervals, lower wear, lower susceptibility to edge loading, no absorption of water and therefore no swelling, good damping behaviours,good resistance to shock loads. much long service life under lower speed with high load.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	360	最大 (PV) 干 PVlimit	短时间 Short-term	N/mm ² · m/s	3.6
	动承载 Dynamic	N/mm ²	180		连续 Continuous	N/mm ² · m/s	-195 ~ +300
最快速度 Max line speed V	干运动 Dry	N/mm ²	0.5	使用温度 Temp.limit	°C	0.04 ~ 0.18	
	带油运行 Oil	M/s	1		摩擦系数 Friction Coef.	μ	18
线膨胀系数 Coefficient of Linear Expansion			$21 \times 10^{-6}/K$	导热系数 Thermal conductivity	W/m · K		



※标准直套标注方式: Standard Bushing Label Mode SRI01

单位unit:mm

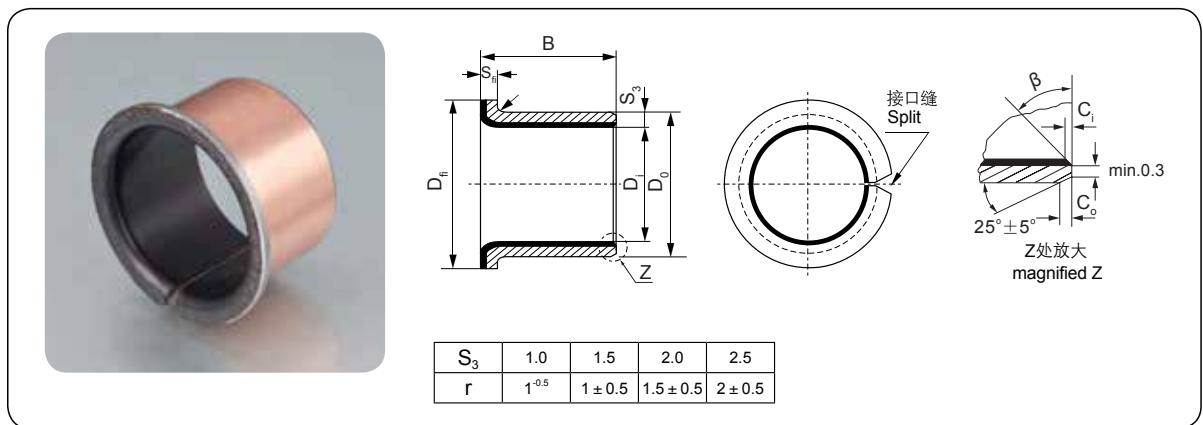
型号 Type	轴径(f7) D_s	座孔(H7) D_H	外径公差 D_o	压装后 内孔公差 $D_{i,a}$	配合间隙 D_D	壁厚 S_3	长度B ⁰ _{-0.40} (d≤Φ28 L-0.30) (d>Φ30 L-0.40)									
							6	8	10	12	15	20	25	30	40	50
SRI01	6 _{-0.010} -0.022	8 ^{+0.015}	8 ^{+0.055} +0.025	6.055 5.990	0.077 0.000	1.005 0.980	0606	0608	0610							
SRI01	8 _{-0.013} -0.028	10 ^{+0.015}	10 ^{+0.055} +0.025	8.055 7.990	0.083 0.003		0806	0808	0810	0812	0815					
SRI01	10 _{-0.013} -0.028	12 ^{+0.018}	12 ^{+0.065} +0.030	10.058 9.990	0.086 0.003		1006	1008	1010	1012	1015	1020				
SRI01	12 _{-0.016} -0.034	14 ^{+0.018}	14 ^{+0.065} +0.030	12.058 11.990			1206	1208	1210	1212	1215	1220	1225			
SRI01	13 _{-0.016} -0.034	15 ^{+0.018}	15 ^{+0.065} +0.030	13.058 12.990					1310			1320				
SRI01	14 _{-0.016} -0.034	16 ^{+0.018}	16 ^{+0.065} +0.030	14.058 13.990					1410	1412	1415	1420	1425			
SRI01	15 _{-0.016} -0.034	17 ^{+0.018}	17 ^{+0.065} +0.030	15.058 14.990					1510	1512	1515	1520	1525			
SRI01	16 _{-0.016} -0.034	18 ^{+0.018}	18 ^{+0.065} +0.030	16.058 15.990					1610	1612	1615	1620	1625			
SRI01	17 _{-0.016} -0.034	19 ^{+0.021}	19 ^{+0.075} +0.035	17.061 16.990					1710	1712		1720				
SRI01	18 _{-0.016} -0.034	20 ^{+0.021}	20 ^{+0.075} +0.035	18.061 17.990					1810	1812	1815	1820	1825			
SRI01	20 _{-0.020} -0.041	23 ^{+0.021}	23 ^{+0.075} +0.035	20.071 19.990	0.112 0.1010	1.505 1.475				2010	2012	2015	2020	2025	2030	
SRI01	22 _{-0.020} -0.041	25 ^{+0.021}	25 ^{+0.075} +0.035	22.071 21.990						2210	2212	2215	2220	2225	2230	
SRI01	24 _{-0.020} -0.041	27 ^{+0.021}	27 ^{+0.075} +0.035	24.071 23.990							2415	2420	2425	2430		
SRI01	25 _{-0.020} -0.041	28 ^{+0.021}	28 ^{+0.075} +0.035	25.071 24.990						2510	2512	2515	2520	2525	2530	2540
SRI01	28 _{-0.020} -0.041	32 ^{+0.025}	32 ^{+0.085} +0.045	28.085 27.990	0.126 0.010	2.005 1.970					2815	2820	2825	2830	2840	
SRI01	30 _{-0.020} -0.041	34 ^{+0.025}	34 ^{+0.085} +0.045	30.085 29.990						3012	3015	3020	3025	3030	3040	
SRI01	32 _{-0.025} -0.050	36 ^{+0.025}	36 ^{+0.085} +0.045	32.085 31.990							3220		3230	3240		
SRI01	35 _{-0.025} -0.050	39 ^{+0.025}	39 ^{+0.085} +0.045	35.085 34.990	0.135 0.015					2512	2515	2520	2525	2530	2540	3550
SRI01	38 _{-0.025} -0.050	42 ^{+0.025}	42 ^{+0.085} +0.045	38.085 37.990							3815		3830	3840		
SRI01	40 _{-0.025} -0.050	44 ^{+0.025}	44 ^{+0.085} +0.045	40.085 39.990						4012		4020	4025	4030	4040	4050

SRI01 标准公制轴套
SRI01 Normal Metric Bushing



单位unit:mm

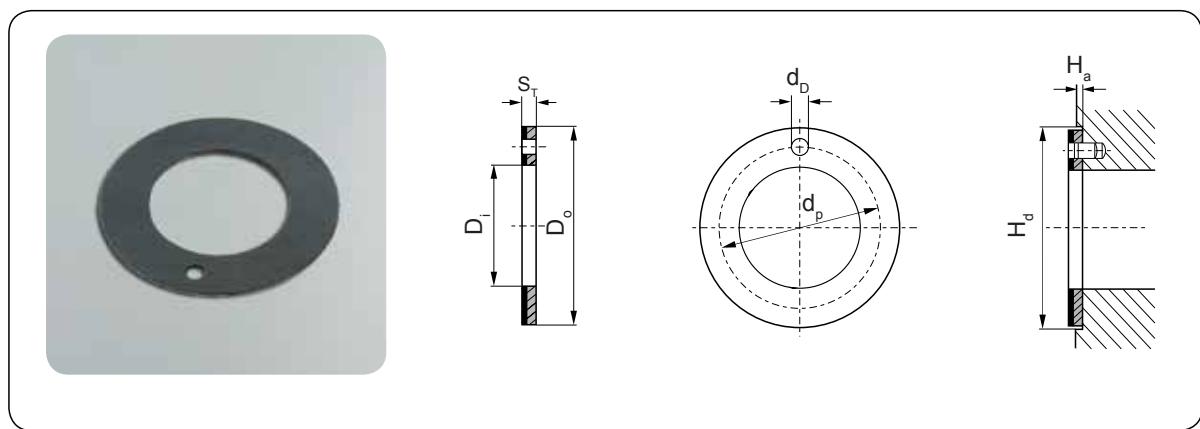
型号 Type	轴径(f7) D_s	座孔(H7) D_H	外径公差 D_o	压装后 内孔公差 $D_{i,a}$	配合间隙 C_o	壁厚 S_3	长度B									
							20	25	30	40	50	60	70	80	100	115
SRI01	45 -0.050 -0.025	50 $+0.025$	50 $+0.085$ $+0.045$	45.105 44.990	0.155 0.015	2.505 2.460	4520	4525	4530	4540	4550					
SRI01	50 -0.050 -0.025	55 $+0.030$	55 $+0.100$ $+0.055$	50.110 49.990	0.160 0.015		5020		5030	5040	5050	5060				
SRI01	55 -0.060 -0.030	60 $+0.030$	60 $+0.100$ $+0.055$	55.110 54.990				5530	5540	5550	5560					
SRI01	60 -0.060 -0.030	65 $+0.030$	65 $+0.100$ $+0.055$	60.110 59.990				6030	6040	6050	6060	6070				
SRI01	65 -0.060 -0.030	70 $+0.030$	70 $+0.100$ $+0.055$	65.110 64.990				6530	6540	6550	6560	6570				
SRI01	70 -0.060 -0.030	75 $+0.030$	75 $+0.100$ $+0.055$	70.110 69.990					7040	7050	7060	7070	7080			
SRI01	75 -0.060 -0.030	80 $+0.030$	80 $+0.100$ $+0.055$	75.110 74.990				7530	7540	7550	7560	7570	7580			
SRI01	80 -0.045	85 $+0.035$	85 $+0.120$ $+0.070$	80.155 80.020	0.201 0.020	2.490 2.440			8040	8050	8060	8070	8080	80100		
SRI01	85 -0.054	90 $+0.035$	90 $+0.120$ $+0.070$	85.155 85.020					8540		8560		8580	85100		
SRI01	90 -0.054	95 $+0.035$	95 $+0.120$ $+0.070$	90.155 90.020					9040	9050	9060		9080	90100		
SRI01	95 -0.054	100 $+0.035$	100 $+0.120$ $+0.070$	95.155 95.020						9550	9560		9580	95100		
SRI01	100 -0.054	105 $+0.035$	105 $+0.120$ $+0.070$	100.155 100.020						10050	10060		10080		100115	
SRI01	105 -0.054	110 $+0.035$	110 $+0.120$ $+0.070$	105.155 105.020							10560		10580		105115	
SRI01	110 -0.054	115 $+0.035$	115 $+0.120$ $+0.070$	110.115 110.020							11060		11080		110115	
SRI01	120 -0.054	125 $+0.040$	125 $+0.170$ $+0.100$	120.210 120.070	0.264 0.070	2.465 2.415					12060		12080	120100		
SRI01	125 -0.063	130 $+0.040$	130 $+0.170$ $+0.100$	125.210 125.070							12560			125100	125115	
SRI01	130 -0.063	135 $+0.040$	135 $+0.170$ $+0.100$	130.210 130.070							13060		13080	130100		
SRI01	140 -0.063	145 $+0.040$	145 $+0.170$ $+0.100$	140.210 140.070							14060		14080	140100		
SRI01	150 -0.063	155 $+0.040$	155 $+0.170$ $+0.100$	150.210 150.070							15060		15080	150100		
SRI01	160 -0.063	165 $+0.040$	165 $+0.170$ $+0.100$	160.210 160.070							16060		16080	160100	160115	
SRI01	180 -0.063	185 $+0.046$	185 $+0.210$ $+0.130$	180.216 180.070	0.279 0.070	2.465 2.415							18080	180100		
SRI01	190 -0.072	195 $+0.046$	195 $+0.210$ $+0.130$	190.216 190.070									19080	190100		
SRI01	200 -0.072	205 $+0.046$	205 $+0.210$ $+0.130$	200.016 200.070									20080	200100		
SRI01	220 -0.072	225 $+0.046$	225 $+0.210$ $+0.130$	220.216 220.070								20060		22080	220100	
SRI01	250 -0.072	255 $+0.052$	255 $+0.260$ $+0.170$	250.222 250.070	0.294 0.070	2.465 2.415							25080	250100		
SRI01	260 -0.081	265 $+0.052$	265 $+0.260$ $+0.170$	260.222 260.070									26080	260100		
SRI01	280 -0.081	285 $+0.052$	285 $+0.260$ $+0.170$	280.222 280.070	0.303 0.070								28080	280100		
SRI01	300 -0.081	305 $+0.052$	305 $+0.260$ $+0.170$	300.222 300.070									30080	300100		



※标准翻边套标注方式: Standard Flange Bushing Label Mode SRI01F 06040

单位unit:mm

型号规格 Designation	轴径 D_s	座孔(H7) D_H	外径公差 D_O	压装后 内孔公差 $D_{i,a}$	配合间隙 C_O	壁厚 S_3	尺寸							
							D_i	D_o	$D_f \pm 0.5$	$B \pm 0.25$	$S_f - 0.2$			
SRI01F 06040	6 -0.013 -0.028	8 +0.015	8 +0.055 +0.025	6.055 5.990	0.077 0.000	1.005 0.980	6	8	12	4	1			
SRI01F 06070										7				
SRI01F 08055	8 -0.013 -0.028	10 +0.015	10 +0.055 +0.025	8.055 7.990	0.083 0.003		8	10	15	5.5				
SRI01F 08075										7.5				
SRI01F 10070	10 -0.016 -0.034	12 +0.018	12 +0.055 +0.025	10.058 9.990	0.086 0.003		10	12	18	7				
SRI01F 10090										9				
SRI01F 10120										12				
SRI01F 12070	12 -0.016 -0.034	14 +0.018	14 +0.065 +0.030	12.058 11.990	0.092 0.006		12	14	20	7				
SRI01F 12090										9				
SRI01F 12120										12				
SRI01F 14120	14 -0.016 -0.043	16 +0.018	16 +0.065 +0.030	14.058 13.990			14	16	22	12				
SRI01F 14170										17				
SRI01F 15090	15 -0.016 -0.034	17 +0.018	17 +0.065 +0.030	15.058 14.990			15	17	23	9				
SRI01F 15120										12				
SRI01F 15170										17				
SRI01F 16120	16 -0.016 -0.034	18 +0.018	18 +0.065 +0.030	16.058 15.990			16	18	24	12				
SRI01F 16170										17				
SRI01F 18120	18 -0.016 -0.034	20 +0.021	20 +0.075 +0.035	18.061 17.990	0.095 0.006	1.505 1.475	18	20	26	12	1.5			
SRI01F 18170										17				
SRI01F 18200										20				
SRI01F 20115	20 -0.020 -0.041	23 +0.021	23 +0.075 +0.035	20.071 19.990	0.112 0.010		20	23	30	11.5				
SRI01F 20165										16.5				
SRI01F 20215										21.5				
SRI01F 22150	22 -0.020 -0.041	25 +0.021	25 +0.075 +0.035	22.071 21.990			22	25	32	15				
SRI01F 22200										20				
SRI01F 25115	25 -0.020 -0.041	28 +0.021	28 +0.075 +0.035	25.071 24.990			25	28	35	11.5	2			
SRI01F 25165										16.5				
SRI01F 25215										21.5				
SRI01F 30160	30 -0.025 -0.050	34 +0.025	34 +0.075 +0.035	30.285 29.990	0.126 0.010	2.005 1.970	30	34	42	16	2			
SRI01F 30260										26				
SRI01F 35160	35 -0.025 -0.050	39 +0.025	39 +0.085 +0.045	35.085 34.990			35	39	47	16				
SRI01F 35260										26				
SRI01F 40260	40 -0.025 -0.050	44 +0.025	44 +0.085 +0.045	40.085 39.990			40	44	53	26				
SRI01F 40400										40				



※标准垫片标注方式：Standard Washer Label Mode SRI01WC 10

单位unit:mm

型号规格	轴径 D_s	垫片尺寸				安装尺寸		$H_d + 0.12$	
		$D_i + 0.25$	$D_o - 0.25$	$S_t - 0.05$	$d_p \pm 0.125$	$d_D \text{ } +0.4 \text{ } +0.1$	$H_a \pm 0.2$		
SRI01WC 10	8	10	20	1.5	15	1.5	1	20	
SRI01WC 12	10	12	24		18			24	
SRI01WC 14	12	14	26		20	2		26	
SRI01WC 16	14	16	30		23			30	
SRI01WC 18	16	18	32		25			32	
SRI01WC 20	18	20	36		28	3		36	
SRI01WC 22	20	22	38		30			38	
SRI01WC 24	22	24	42		33			42	
SRI01WC 26	24	26	44		35			44	
SRI01WC 28	26	28	48		38	4		48	
SRI01WC 32	30	32	54		43			54	
SRI01WC 38	36	38	62		50			62	
SRI01WC 42	40	42	66		54			66	
SRI01WC 48	46	48	74	2	61	1.5	1.5	74	
SRI01WC 52	50	52	78		65			78	
SRI01WC 62	60	62	90		76			90	



SRI02

边界润滑轴套 MARGINAL LUBRICATING BUSHING

标准 STANDARD:

德制 DIN1494

国际标准 ISO3547

亚洲标准

国家标准

SRI02 碳钢基边界无铅自润滑轴承 SRI02 Marginal Pb-free self-lubricating bearing

钢 + 球形青铜粉 + 聚甲醛 (POM)
Steel+Porous bronze+POM



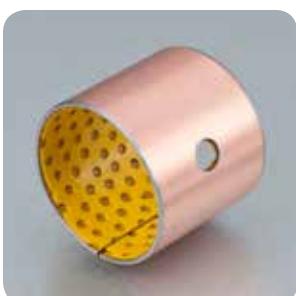
SRI02 边界润滑轴承，该产品以优质低碳钢为基体，中间烧结球形青铜层，表面轧制改性聚甲醛 (POM)。在边界润滑条件下可长期使用而不加油，耐磨层表面有储油坑。产品广泛应用于冶金机械、矿山机械、水利机械、汽机车、建筑机械、农用机械、轧钢行业等。

SRI02 Marginal Pb-free self-lubricating bearing is used steel-backing as its structure, sintered porous bronze as its interlayer, surface inlaid the modified POM. Suitable for marginally lubricated and dry operation on the conditions of lubrication indents grease. It has been widely applied to metallurgical machinery, Mine machinery, water conservancy machinery, vapor locomotive, building machinery, agriculture machinery, steel rolling industry etc.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (油润滑) Max line speed V	m/s	2.5
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-40 ~ +130
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.05 ~ 0.25
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	22	导热系数 Thermal conductivity	W/m · K	13
	干摩擦 Dry	N/mm ² · m/s	2.8	线胀系数 Linear expansion	$11 \times 10^{-6}/K$	

SRI02Y 碳钢基边界无铅自润滑轴承 SRI02Y Marginal Pb-free self-lubricating bearing

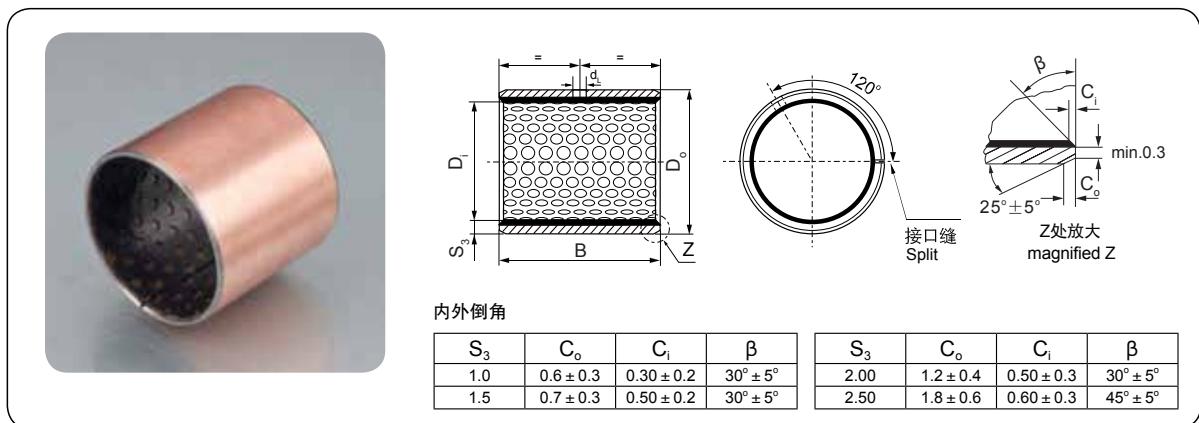
钢 + 球形青铜粉 + 聚甲醛 (POM)
Steel+Porous bronze+POM



SRI02Y 碳钢基边界无铅自润滑轴承，该产品与 SRI02 具有相同结构和使用性能，在边界润滑条件下可长期使用而不加油，耐磨层表面有储油坑。产品广泛应用于冶金机械、矿山机械、水利机械、汽机车、建筑机械、农用机械、轧钢行业等。

SRI02Y has the same structure and functional performance with SRI02. It can work long time without oil in the condition of prelubricated with lubrication indents. Widely applied to metallurgy machinery, Mining machinery, water conservancy machinery, automobile, building machinery, agriculture machinery, rolling steel industry etc.

最大承载压力 Load capacity P	静承载 Static	N/mm ²	250	最高滑动速度 (油润滑) Max line speed V	m/s	2.5
	动承载 Dynamic	N/mm ²	140	使用温度 Temp.limit	°C	-40 ~ +130
	摇摆运动 Oscillating	N/mm ²	60	摩擦系数 Friction Coef.	μ	0.05 ~ 0.2
最大 PV 值 PVlimit	油润滑 Oil	N/mm ² · m/s	22	导热系数 Thermal conductivity	W/m · K	13
	干摩擦 Dry	N/mm ² · m/s	2.8	线胀系数 Linear expansion	$11 \times 10^{-6}/K$	



※标准直套标注方式：Standard Bushing Label Mode SRI02

单位unit:mm

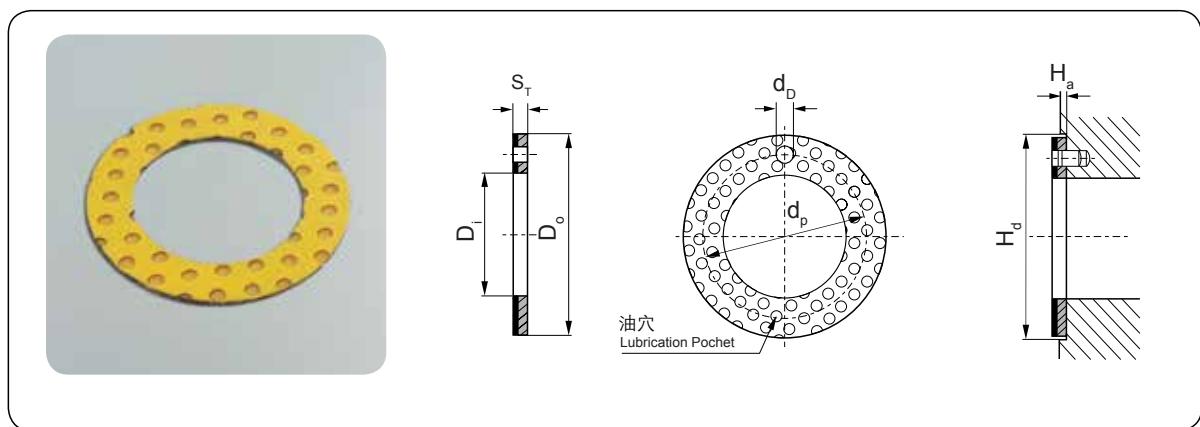
型号规格 Designation	轴径 D_i h8	座孔 $H7$ D_h	外径公差 D_o	压装后 内孔公差 $D_{i,a}$	配合间隙 C_D	壁厚 S_3	油孔 d_L	长度 B $^{+0}_{-0.40}$									
								10	15	20	25	30	35	40	45	50	60
SRI02	10 -0.022	12 $+0.018$	12 $+0.065$	10.108 10.040	0.130 0.040	0.135 0.040	0.980 0.955	1010	1015	1020							
SRI02	12 -0.027	14 $+0.018$	14 $+0.065$	12.108 12.040				1210	1215	1220							
SRI02	14 -0.027	16 $+0.018$	16 $+0.065$ $+0.030$	14.108 14.040				1415	1420								
SRI02	15 -0.027	17 $+0.018$	17 $+0.065$ $+0.030$	15.108 15.040				1515	1520	1525							
SRI02	16 -0.027	18 $+0.018$	18 $+0.065$ $+0.030$	16.108 16.040				1615	1620	1625							
SRI02	18 -0.027	20 $+0.021$	20 $+0.075$ $+0.035$	18.111 18.040	0.138 0.040			1815	1820	1825							
SRI02	20 -0.033	23 $+0.021$	23 $+0.075$ $+0.035$	20.131 20.050	0.164 0.050	1.475 1.445	4	2015	2020	2025	2030						
SRI02	22 -0.033	25 $+0.021$	25 $+0.075$ $+0.035$	22.131 22.050				2215		2225							
SRI02	25 -0.033	28 $+0.021$	28 $+0.075$ $+0.035$	25.131 25.050					2515	2520	2525	2530					
SRI02	28 -0.033	32 $+0.025$	32 $+0.085$ $+0.045$	28.155 28.060	0.188 0.060	1.970 1.935	6			2820		2830					
SRI02	30 -0.033	34 $+0.025$	34 $+0.085$ $+0.045$	30.155 30.060						3020	3025	3030		3040			
SRI02	35 -0.039	39 $+0.025$	39 $+0.085$ $+0.045$	35.155 35.060						3520		3530	3535	3540			
SRI02	40 -0.039	44 $+0.025$	44 $+0.085$ $+0.045$	40.155 40.060	0.194 0.060	2.460 2.415	8			4020		4030		4040		4050	
SRI02	45 -0.039	50 $+0.025$	50 $+0.085$ $+0.045$	45.195 45.080						4520		4530		4540	4545	4550	
SRI02	50 -0.039	55 $+0.030$	55 $+0.100$ $+0.055$	50.200 50.080							5030		5040		5050	5060	
SRI02	55 -0.046	60 $+0.030$	60 $+0.100$ $+0.055$	55.200 55.080	0.246 0.080	2.460 2.415	8				5530		5540		5550	5560	
SRI02	60 -0.046	65 $+0.030$	65 $+0.100$ $+0.055$	60.200 60.080							6030		6040		6050	6060	

SRI02 边界润滑轴套
SRI02 Marginal Lubricating Bushing



单位 unit:mm

型号规格 Designation	轴径 D_i h8	座孔 $H7$ D_H	外径公差 D_o	压装后 内孔公差 $D_{i,a}$	配合间隙 C_D	壁厚 S_3	油孔 d_L	长度 B ${}^0_{-0.40}$								
								40	50	60	80	90	95	100	110	120
SRI02	65 -0.046	70 $+0.030$	70 $+0.030$	65.200 65.080	0.246 0.080	2.460 2.415	8	6540		6560						
SRI02	70 -0.046	75 $+0.030$	75 $+0.030$	70.200 70.080				7040	7050		7080					
SRI02	75 -0.046	80 $+0.030$	80 $+0.030$	75.200 75.080				7540		7560	7580					
SRI02	80 -0.046	85 $+0.035$	85 $+0.035$	80.265 80.100	0.313 0.100	0.321 0.100	9.5	8040		8060	8080					
SRI02	85 -0.054	90 $+0.035$	90 $+0.035$	85.265 85.100	8540				8560	8580						
SRI02	90 -0.054	95 $+0.035$	95 $+0.035$	90.265 90.100	9040				9060	9080	9090					
SRI02	100 -0.054	105 $+0.035$	105 $+0.035$	100.265 100.100	10050				10080		10095					
SRI02	105 -0.054	110 $+0.035$	110 $+0.035$	105.265 105.100				10560	10580		10595		105110			
SRI02	110 -0.054	115 $+0.035$	115 $+0.035$	110.265 110.110				11060	11080		11095		110110			
SRI02	120 -0.054	125 $+0.040$	125 $+0.040$	120.270 120.110	0.324 0.100	2.450 2.385	9.5		12060	12080					120110	
SRI02	125 -0.063	130 $+0.040$	130 $+0.040$	125.270 125.110					12560						125110	
SRI02	130 -0.063	135 $+0.040$	135 $+0.040$	130.270 130.110					13050	13060	13080		130100			
SRI02	140 -0.063	145 $+0.040$	145 $+0.040$	140.270 140.110					14050	14060	14080		140100			
SRI02	150 -0.063	155 $+0.040$	155 $+0.040$	150.270 150.110					15050	15060	15080		150100			
SRI02	160 -0.063	165 $+0.040$	165 $+0.040$	160.270 160.110					16050	16060	16080		160100			
SRI02	170 -0.063	175 $+0.040$	175 $+0.040$	170.270 170.110	0.339 0.110	2.385	9.5		17050		17080		170100			
SRI02	180 -0.063	185 $+0.046$	185 $+0.046$	180.270 180.110					18050	18060	18080		180100			
SRI02	190 -0.072	195 $+0.046$	195 $+0.046$	190.276 190.110					19050	19060	19080		190100		190120	
SRI02	200 -0.072	205 $+0.046$	205 $+0.046$	200.276 200.110					20050	20060	20080		200100		200120	
SRI02	220 -0.072	225 $+0.046$	225 $+0.046$	220.276 220.110					22050	22060	22080		220100		220120	
SRI02	240 -0.072	245 $+0.046$	245 $+0.046$	240.276 240.110					24050	24060	24080		240100		240120	
SRI02	250 -0.072	255 $+0.052$	255 $+0.052$	250.282 250.110	0.354 0.110	2.385	9.5		25050	25060	25080		250100		250120	
SRI02	260 -0.081	265 $+0.052$	265 $+0.052$	260.282 260.110					26050	26060	26080		260100		260120	
SRI02	280 -0.081	285 $+0.052$	285 $+0.052$	280.282 280.110					28050	28060	28080		280100		280120	
SRI02	300 -0.081	305 $+0.052$	305 $+0.052$	300.282 300.110					30050	30060	30080		300100		300120	



※标准垫片标注方式：Standard Washer Label Mode SRI02WC 10

单位unit:mm

型号规格	轴径 D_s	垫片尺寸				安装尺寸		$H_d \pm 0.12$	
		$D_i + 0.25$	$D_o - 0.25$	$S_T - 0.05$	$d_p \pm 0.125$	$d_D \pm 0.4$	$H_a \pm 0.2$		
SRI02WC 10	8	10	20	1.5	15	1.5	1	20	
SRI02WC 12	10	12	24		18			24	
SRI02WC 14	12	14	26		20			26	
SRI02WC 16	14	16	30		23			30	
SRI02WC 18	16	18	32		25			32	
SRI02WC 20	18	20	36		28	2		36	
SRI02WC 22	20	22	38		30			38	
SRI02WC 24	22	24	42		33			42	
SRI02WC 26	24	26	44		35			44	
SRI02WC 28	26	28	48		38	3		48	
SRI02WC 32	30	32	54		43			54	
SRI02WC 38	36	38	62		50			62	
SRI02WC 42	40	42	66		54			66	
SRI02WC 48	46	48	74	2	61	4	1.5	74	
SRI02WC 52	50	52	78		65			78	
SRI02WC 62	60	62	90		76			90	

SRI03

双金属轴套 BIMETAL BUSHING



**SRI03-800 双金属轴套
SRI03-800 Bimetal Bushing**

钢 + CuPb10Sn10
Steel + CuPb10Sn10



SRI03-800 双金属轴承，是以低碳钢板为基体材料，表面烧结了 CuPb10Sn10 或者 CuSn6Zn6Pb3 材料的钢铜合金产品。该产品是双合金轴承中承载能力最强的一种，重型车的平衡桥衬套，均使用该产品。它是一种用途很广的高载低速运动轴承。

SRI03-800 bimetal bushing is based on steel and sintered with CuPb10Sn10 or CuSn6Zn6Pb3 as a lining layer. The strongest type of bimetal bushings and widely applied in so many fields. This type has the best performance within the range of Cu-Pb alloy structured bushing. Therefore it has a wide application and is mostly suitable for where is middle speed and high impact etc.

材料型号 Material type	CuPb10Sn10/CuSn6Zn6Pb3	对磨轴硬度 Hardness of mating surface	53HRC
合金层硬度 Hardness of bronze alloy	70~100HB	最高使用温度 Max. temperature	260°C
最大荷载 Max. dynamic Load	65N/mm ²	最高静承载压力 Load limit	150N/mm ²
拉伸强度 Tensile strength	150N/mm ²	最高速度 Speed limit v max.	5m/s
摩擦系数(油) Friction coef(Oil)	0.06~0.14	允许 PV 值 PV limit	脂 Grease 2.8N/mm ² .m/s
“蓝宝石”疲劳级 Mpa Sapphire Fatigue Calss	125	油 oil	10N/mm ² .m/s

**SRI03-720 双金属轴套
SRI03-720 Bimetal Bushing**

钢 + CuPb24Sn4
Steel + CuPb24Sn4



SRI03-720 双金属轴承，是以钢板为基体，表面烧结 CuPb24Sn4 材料的产品。该产品具有较好的疲劳强度和承载能力。适用于中速中载，有油润滑的场合表面镀软合金时，可用作高速内燃机轴承、连杆衬套，达到良好的耐磨、耐疲劳效果。

SRI03-720 is a bimetal bushing with steel as backing and sintered CuPb24Sn24 as lining layer. This type has fairly good performance in anti-fatigue and load capacity. It is suitable for middle speed and middle load. When over plated certain soft alloy, it can be applied in high-speed internal combustion engine and as connect rod.

材料型号 Material type	CuPb24Sn4	对磨轴硬度 Hardness of mating surface	50HRC
合金层硬度 Hardness of bronze alloy	45~70HB	最高使用温度 Max. temperature	200°C
最大荷载 Max. dynamic Load	38N/mm ²	最高静承载压力 Load limit	130N/mm ²
拉伸强度 Tensile strength	150N/mm ²	最高速度 Speed limit v max.	10m/s
摩擦系数(油) Friction coef(Oil)	0.06~0.16	允许 PV 值 PV limit	脂 Grease 2.8N/mm ² .m/s
“蓝宝石”疲劳级 Mpa Sapphire Fatigue Calss	115	油 oil	10N/mm ² .m/s

SRI03-700 双金属轴套
SRI03-700 Bimetal Bushing

钢 + CuPb30
Steel + CuPb30



SRI03-700 双金属轴承，是以钢板为基体，表面烧结 CuPb30 材料的产品。该产品由于含铅量高，所以具有良好的抗咬轴性和异物埋没性。工作表面需镀软合金材料，可用作高速、中低载的内燃机主轴瓦、连杆衬套、摇臂衬套；油泵侧摩擦片。

SRI03-700 is a bimetal bushing with steel as backing and sintered CuPb30 as lining layer. It has good performance in anti-seizing, alien substance contamination. It is necessary to be overplated certain soft alloy and mostly applied in internal combustion engine under high speed and middle to low load, e.g. main bushing of inner-combustion engine and connect-rod bushing.

材料型号 Material type	CuPb30	对磨轴硬度 Hardness of mating surface	270HRC
合金层硬度 Hardness of bronze alloy	30~45HB	最高使用温度 Max. temperature	170°C
最大荷载 Max. dynamic Load	25N/mm ²	最高静承载压力 Load limit	120N/mm ²
拉伸强度 Tensile strength	200N/mm ²	最高速度 Speed limit v max.	15m/s
摩擦系数(油) Friction coef(Oil)	0.08~0.16	允许 PV 值 PV limit	2.5N/mm ² .m/s
“蓝宝石” 疲劳级 Mpa Sapphire Fatigue Calsss	105	脂 Grease	油 oil
			8N/mm ² .m/s

SRI03-20 双金属轴套
SRI03-20 Bimetal Bushing

钢 + AlSn20Cu
Steel + AlSn20Cu

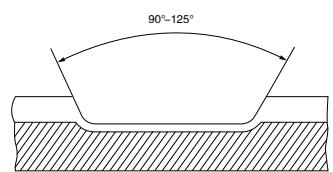
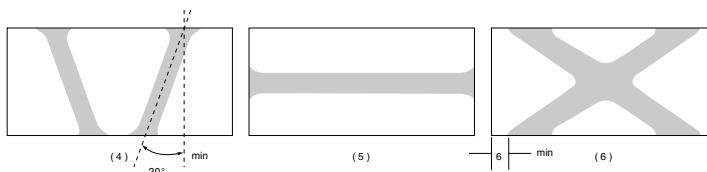
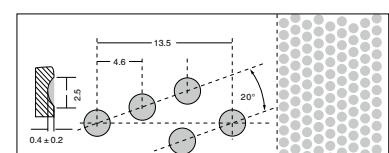
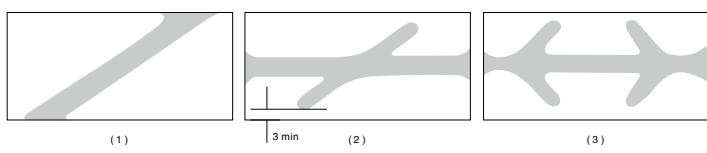


SRI03-20 高锡铝基轴承是以钢板为基体，表面辊压 AlSn20Cu 材料的产品。该产品具有中等疲劳强度和承载能力，良好抗腐蚀性能，较好的轴承滑动性能等特点，常用作中小功率的内燃机轴瓦、火车发动机轴瓦、空气压力机轴套、制冷机轴承，是取代巴氏合金的新颖产品。

SRI03-20 is a high tin and aluminum based bushing, which adopts steel as backing and is coated a lining of AlSn20Cu through rolling treatment. It is a fairly good fatigue resistance, load capatity and good anti-corrosion and also performs well in Bushing's sliding properties. It is widely applied under high speed and low load such as in internal combustion engine, air compressor and cooling machine.

材料型号 Material type	AlSn20Cu	对磨轴硬度 Hardness of mating surface	250HRC
合金层硬度 Hardness of bronze alloy	30~40HB	最高使用温度 Max. temperature	150°C
最大荷载 Max. dynamic Load	30N/mm ²	最高静承载压力 Load limit	100N/mm ²
拉伸强度 Tensile strength	200N/mm ²	最高速度 Speed limit v max.	25m/s
摩擦系数(油) Friction coef(Oil)	0.08~0.17	允许 PV 值 PV limit	—
“蓝宝石” 疲劳级 Mpa Sapphire Fatigue Calsss	105	脂 Grease	—
		油 oil	6N/mm ² .m/s

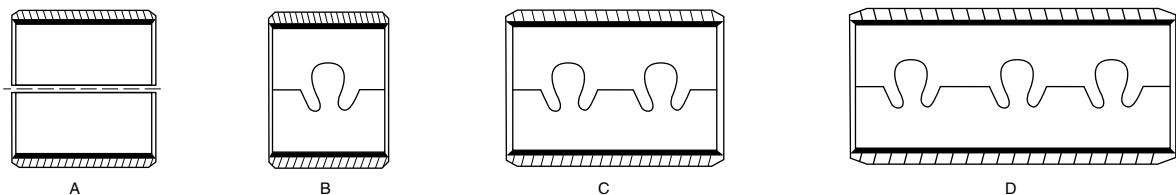
双金属自润滑轴承的油槽油穴形式
Type for Bi-Metallic Bushing Grooves and Indents



SRI03双金属轴套合金化学成分
Composition analysis of alloy

化学元素 chemical elements	SRI03-800 CuPb10Sn10	SRI03-800 CuPb24Sn4	SRI03-700 CuPb30	SRI03-20 AlSn20Cu
Cu	余量 Remainder	余量 Remainder	余量 Remainder	1.7~1.3
Pb	9.0~11.0	21.0~27.0	26.0~33.0	—
Sn	9.0~11.0	3.0~4.5	0.5	17.5~22.5
Zn	0.5	0.5	0.5	—
P	0.1	0.1	0.1	—
Fe	0.7	0.7	0.7	0.7
Ni	0.5	0.5	0.5	0.1
Sb	0.2	0.2	0.2	—
Al	—	—	—	余量 Remainder
Si	—	—	—	0.7
Mn	—	—	—	0.7
Ti	—	—	—	0.2
其他 Other	0.5	0.5	0.5	0.5

双金属自润滑轴承的搭扣形式
Lock Types for Bi-Metallic Bushing



SRI03型双金属轴套的油孔设计
The designing of oil indentations

为了使 SRI03 双金属轴套在使用中，能得到充分的油润滑，因此推荐如下尺寸油孔，客户需油孔而无特殊要求的，都按此油孔标准制作。

In order to fully lubricate the bush when in the performance, the indentations with size as follow are recommended. They should be manufactured according to the standard below if without special requirements.

轴承外径 Bush O.D	12~23	25~39	42~80	85~155
油孔直径 Lubricating hole	4	6	8	9.5

油孔的位置应避开接缝处和承载区域，这有利于进油。

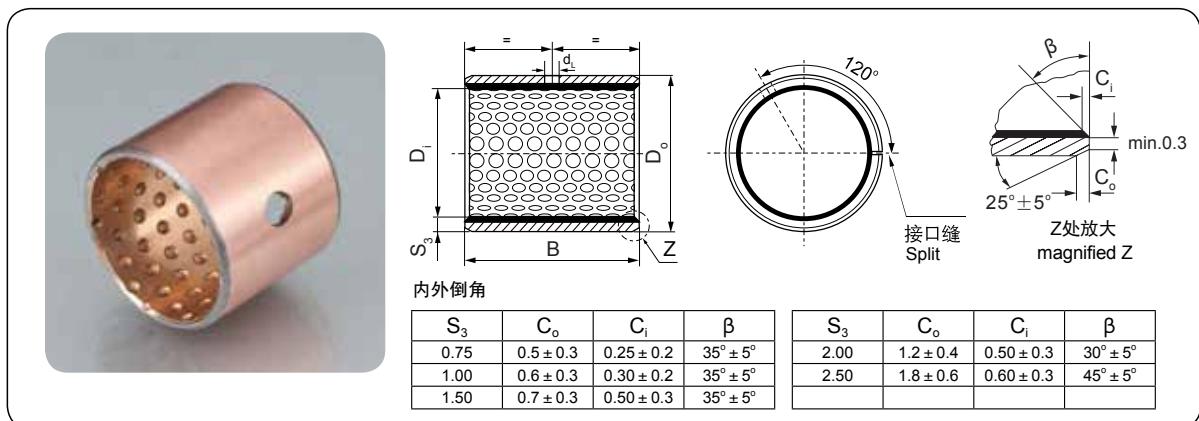
the lubricating hole should be away from butt joint and loading area and designed to be easy-oil-feding as well.

SRI03双金属板材厚度尺寸及公差
Normal thickness of the SRI03 bimetal and their tolerances

公差厚度 Tolerance Thickness	1	1.5	2	2.5	3	3.5	4	5
钢基厚度 Thickness of steel backing	0.6	1	1.4	1.9	2.3	2.8	3.2	4
有效合金厚度 Thickness of bronze layer	0.4	0.5	0.6	0.6	0.7	0.7	0.8	1.0
可加工轴承壁厚 Manufacturable wall thickness	$1^{+0.25}_{-0.15}$	$1.5^{+0.25}_{-0.15}$	$2^{+0.25}_{-0.15}$	$2.5^{+0.25}_{-0.15}$	$3^{+0.25}_{-0.15}$	$1^{+0.25}_{-0.15}$	$1^{+0.25}_{-0.15}$	$1^{+0.25}_{-0.15}$
已加工轴承壁厚 Manufactured wall thickness	$1_{-0.025}$	$1.5_{-0.03}$	$2_{-0.035}$	$2.5_{-0.04}$	$3_{-0.045}$	$3.5_{-0.05}$	$4_{-0.055}$	$5_{-0.06}$

板材合金厚度可以根据要求定制。

The thickness of the plate alloy should be according to customer's request.



※标准直套标注方式：Standard Bushing Label Mode SRI03-800

单位unit:mm

型号规格 Designation	D_i	D_o	轴径(h8) D_s	座(H7) D_H	压装后 内孔公差 $D_{i,a}$	配合间隙 C_D	壁厚 S_3	油孔 d_L	B $^0_{-0.40}$								
									10	15	20	25	30	40	50		
SRI03-800	10	12	10 -0.022	12 $+0.018$	+0.148 +0.010	0.170 0.010	0.995 0.935	4	1010	1015	1020						
SRI03-800	12	14	12 -0.027	14 $+0.018$		0.175 0.010			1210	1215	1220						
SRI03-800	14	16	14 -0.027	16 $+0.018$					1410	1415	1420						
SRI03-800	15	17	15 -0.027	17 $+0.018$					1510	1515	1520						
SRI03-800	16	18	16 -0.027	18 $+0.018$		+0.151 +0.010	0.178 0.010		1610	1615	1620						
SRI03-800	18	20	18 -0.027	20 $+0.021$					1810	1815	1820	1825					
SRI03-800	20	23	20 -0.033	23 $+0.021$					2010	2015	2020	2025					
SRI03-800	22	25	22 -0.033	25 $+0.021$	+0.161 +0.020	0.194 0.020	1.490 1.430	6	2210	2215	2220	2225					
SRI03-800	24	27	24 -0.033	27 $+0.021$					2410	2415	2420	2425	2430				
SRI03-800	25	28	25 -0.033	28 $+0.021$					2515	2520	2525	2530					
SRI03-800	26	30	26 -0.033	30 $+0.021$		+0.181 +0.040	0.214 0.040		2615	2620	2625	2630					
SRI03-800	28	32	28 -0.033	32 $+0.025$	+0.185 +0.040	0.218 0.040	1.980 1.920	8	2815	2820	2825	2830	2840				
SRI03-800	30	34	30 -0.033	34 $+0.025$					3015	3020	3025	3030	3040				
SRI03-800	32	36	32 -0.039	36 $+0.025$					3215	3220	3225	3230	3240				
SRI03-800	35	39	35 -0.039	39 $+0.025$					3520	3525	3530	3540	3550				
SRI03-800	38	42	38 -0.039	42 $+0.025$					3820	3825	3830	3840	3850				
SRI03-800	40	44	40 -0.039	44 $+0.025$					4020	4025	4030	4040	4050				

SRI03 标准公制轴套
SRI03 Normal Metric Bushing

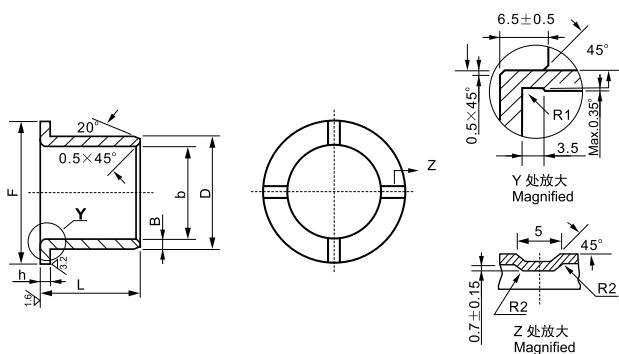
SRI
SHANGHAI RICH INTERNATIONAL

单位unit:mm

型号规格 Designation	D _i	D _O	轴径(h8) D _s	座(H7) D _H	压装后 内孔公差 D _{i,a}	配合间隙 C _D	壁厚 S ₃	油孔 d _L	B _{-0.40}								
									25	30	40	50	60	80	90	100	
SRI03-800	45	50	45 -0.039	50 +0.025	+ 0.225 + 0.080	0.264 0.080	8	0.276 0.080	4525	4530	4540	4550					
SRI03-800	50	55	50 -0.039	55 +0.030		0.269 0.080			5030	5040	5050	5060					
SRI03-800	55	60	55 -0.046	60 +0.030					5530	5540	5550	5560					
SRI03-800	60	65	60 -0.046	65 +0.030	+ 0.230 + 0.080				6030	6040	6050	6060					
SRI03-800	65	70	65 -0.046	70 +0.030					6530	6540	6550	6560					
SRI03-800	70	75	70 -0.046	75 +0.030					7030	7040	7050	7060	7080				
SRI03-800	75	80	75 -0.046	80 +0.030					7530	7540	7550	7560					
SRI03-800	80	85	80 -0.046	85 +0.035		0.281 0.080	2.460 2.400	0.289 0.080		8040	8050	8060	8080				
SRI03-800	85	90	85 -0.054	90 +0.035					8530		8550	8560	8580		85100		
SRI03-800	90	95	90 -0.054	95 +0.035						9050	9060	9080		90100			
SRI03-800	95	100	95 -0.054	100 +0.035	+ 0.235 + 0.080						9560	9580	9590	95100			
SRI03-800	100	105	100 -0.054	105 +0.035							10060	10080	10090	100100			
SRI03-800	105	110	105 -0.054	110 +0.035							10560	10580		105100			
SRI03-800	110	115	110 -0.054	115 +0.035							11060	11080		110100			
SRI03-800	115	120	115 -0.054	120 +0.035			2.400	0.303 0.080			11550		11580				
SRI03-800	120	125	120 -0.054	125 +0.040							12050	12030			120100		
SRI03-800	125	130	125 -0.063	130 +0.040											125100		
SRI03-800	130	135	130 -0.063	135 +0.040	+ 0.240 + 0.080							13060			130100		
SRI03-800	135	140	135 -0.063	140 +0.040								13560	13580				
SRI03-800	140	145	140 -0.063	145 +0.040							14060	14080		140100			
SRI03-800	150	155	150 -0.063	155 +0.040							15060	15080		150100			

注：内孔公差是轴套压入0位座孔时的公差

Note: In addition to the above specifications of size, manufactured according to customer drawings .



单位unit:mm

规格型号 Type	F	D	d	L	h	B
4040	60	46	40	39.5	3.5	3.0
4035	62	47	40	35	3.5	3.5
4055	68	55	45	55	3.5	5.0
5040A	72	57	50	40	3.5	3.5
5040B	70	57	50	40	3.5	3.5
5050	70	57	50	50	3.5	3.5
5460	92	60.6	54	60	3.5	3.3
6053	83	67	60	53	3.5	3.5
6060	87	67	60	60	3.5	3.5
6065	77	67	60	65	3.5	3.5
6060A	88	68	60	60	4.0	4.0
6060B	87	68	60	60	4.0	4.0
6465	102.6	70.4	63.5	65	3.5	3.5
6473	103	70.8	63.8	73	3.5	3.5
6553	85	72	65	53	3.5	3.5
6564	87	72	65	64	3.5	3.5
6575	108	72	65	75	3.5	3.5
7060	93	77	70	60	3.5	3.5
7090	108	80	70	90	5.0	5.0
7560	100	82	75	60	3.5	3.5
8060	105	87	80	68	3.5	3.5
8580	127	92	85	80	3.5	3.5
85103	128	92.6	85	103.5	3.5	3.8
89126	138	97.5	89.2	126.5	4.2	4.2
95127	144	105	95	127	5.0	5.0

SRI09

青铜卷制轴套

BRONZE WRAPPED BUSHING



SRI090 青铜卷制轴套
SRI090 Bronze Wrapped Bushing

青铜
CuSn8P



SRI090 青铜轴承，采用特殊配方的高密度铜合金带材为基体，表面可以按用户要求轧制菱形或半球形油穴和油槽。具有密度高、承载压力大、耐磨性能好、使用寿命长等优点，以取代传统的铸造铜套，可以缩小机械体积，降低成本。SRI090 已广泛应用于起重机械、建筑机械、汽车拖拉机底盘、机床工业及采矿机械中，还可以制成轴瓦、翻边轴套、止推垫片和球碗等形式。

SRI090 is a kind of bushes wrapped by bronze strip. The bronze is made as the particular formulation with high specific and gravity, and on its surface may be incorporated with spherical or diamond shaped indentations or/and oil grooves as required by customers. It is of high load capacity and long life, in place of traditional casting bronze bush. It is more cheap and more compact. It is widely applied in hoisting machines and other construction machines, automobiles, tractors, trucks, machine tools and some mineral engines.

密度 Density	8.9 g/cm ³	硬度 Hardness	90~120 HB
抗压强度 Pressure resistance strength	470 N/mm ²	延伸率 Elongation	55%
导热系数 Coefficient of heat conduction	60 W/m.K	材料名称 Alloy material	CuSn8P
线膨胀系数 Linear expansion coefficient	$18.5 \times 10^{-6}/K$	其它可选材料 Other material	CuSn6.5P

SRI091 黄铜卷制轴套
SRI091 Copper Wrapped Bushing

黄铜
CuZn31Si



SRI091 黄铜卷制轴套，是以特殊配方的高密度合金为基体，表面可根据客户要求轧制油穴或油槽等，它有较高的承载压力，很好的耐磨性，产品运用于汽车工业、建筑机械、机床工业等。

SRI091 is based in high density copper alloy of special formula. The alloy surface is rolled to oil holes and grooves according to client requires. It has good load capacity and wear-resistant. The product is applied to construction machinery and machine tool, etc.

密度 Density	8.9 g/cm ³	硬度 Hardness	80~110 HB
抗压强度 Pressure resistance strength	440 N/mm ²	延伸率 Elongation	30%
导热系数 Coefficient of heat conduction	71 W/m.K	材料名称 Alloy material	CuZn31Si
线膨胀系数 Linear expansion coefficient	$19.2 \times 10^{-6}/K$		

SRI092 青铜布孔轴套
SRI092 Bronze Wrapped Bushing

青铜
CuSn8P



SRI092 青铜轴承，以青铜材料为基体，加工均匀有序的注油孔，经卷制而成的薄壁轴承，在装配后注入润滑油脂。该轴承具有存油量大、安装方便、设计机子小的优点，而且可以取代铜套使用，能大大地降低成本。目前该产品已应用于输送机、升降机、卷扬机、校平机等中载、低速的场合。

SRI092 bronze bushing is based on bronze of CuSn8.0P0.3 and evenly distributed drilling oil holes on the body. When in assembly, oil or grease should be stored in the holes before bushing is sealed from both ends. SRI092 has the advantages of abundant oil storage, easy-to-assemble, machine compactness etc. It can replace the conventional whole copper sleeves, thus to save much cost. It is mostly applied under middle load, low speed such as in convey machine, hoisting machine, windlass, aligning machine etc.

密度 Density	8.9 g/cm ³	硬度 Hardness	90~120 HB
抗压强度 Pressure resistance strength	470 N/mm ²	延伸率 Elongation	55%
导热系数 Coefficient of heat conduction	60 W/m.K	材料名称 Alloy material	CuSn8P
线膨胀系数 Linear expansion coefficient	$18.5 \times 10^{-6}/K$	其它可选材料 Other material	CuSn6.5P

SRI094 青铜布孔轴套带密封圈
SRI094 Bronze Wrapped Bushing with Seals

青铜
CuSn8P



该产品是在 SRI092 基础上，在轴套高度两端配置密封圈而成。它具有防止油脂倒漏，延长润滑时间，防止灰尘、沙等物质的渗透等优点。

The product is improved from SRI092. It is configured airproof ring in the bushing height. It can prevent grease leaking and dirt penetrating, so as to delay lubricating time.

密度 Density	8.9 g/cm ³	硬度 Hardness	90~120 HB
抗压强度 Pressure resistance strength	470 N/mm ²	延伸率 Elongation	55%
导热系数 Coefficient of heat conduction	60 W/m.K	材料名称 Alloy material	CuSn8P
线膨胀系数 Linear expansion coefficient	$18.5 \times 10^{-6}/K$	其它可选材料 Other material	CuSn6.5P

SRI09G 青铜嵌石墨卷制轴套
SRI09G Bronze Wrapped Bushing

青铜 + 石墨
CuSn8P+Graphite



SRI09G 青铜固体润滑轴承，是以青铜材料为基体，表面埋入固体润滑剂制作而成。由于以延伸率较高的铜合金材料作为基体，所以可以制成特薄的卷制轴套，再加上理想的填充材料为耐磨剂，因此适用于汽车传动轴内作为耐磨的轴套使用，也可以在无油润滑的其它场合使用。

SRI09G is based bronze material and embedded with solid lubricants in its diamond or round shape pockets which are evenly distributed on its inside layers. Due to the higher elongation of the copper alloy material as the substrate, can be made extra thin wrapped bushes, plus on the ideal filler material for anti-wear agent for automotive transmission as a wear-resistant sleeve use can also be other occasions in the oil-free lubrication.

密度 Density	8.3 g/cm ³	硬度 Hardness	90~120 HB
抗压强度 Pressure resistance strength	470 N/mm ²	延伸率 Elongation	55%
导热系数 Coefficient of heat conduction	58 W/m.K	材料名称 Alloy material	CuSn8P
线膨胀系数 Linear expansion coefficient	$18.5 \times 10^{-6}/K$	其它可选材料 Other material	CuSn6.5P

**SRI07G 钢基嵌石墨轴套
SRI07G Steel+Graphite Wrapped Bushing**

钢 + 烧结铜合金 + 石墨
Steel+Porous bronze sinter+Graphite



SRI07G 固体润滑轴承，是以 SRI03-800 双金属材料为基体，合金层埋入特殊固体润滑剂制作而成的新颖薄壁固体润滑轴承。由于采用高强度承载的合金材料作基体，理想的填充材料为耐磨剂，合理的菱形块状润滑设计，润滑面积达 25% 以上，因此，能发挥良好的润滑性和抗磨耗性能。

SRI07G embedded with solid lubricating bushing, it is based on SRI03-800 bi-metal material, embedding special solid lubricant in the alloy layer. Owing to the high strength, high load capacity and the spirally distributed diamond embedded with solid lubricant, with a lubrication area of 25% on the bushing surface, the bushing shows good performance in lubricating property and anti-wear.

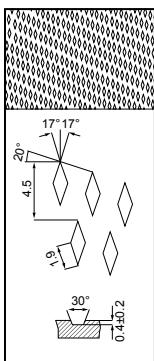
最大承载压力 P Load capacity P		90N/mm ²	摩擦系数 Friction coef μ	干摩擦 Dry friction	<0.22
合金硬度 Alloy hardness		60~90HB		脂润滑 Grease lubrication	<0.08
最大线速度 Max line speed V	干摩擦 Dry friction	0.4m/s	最高 PV 值 Maximum PV value	干摩擦 Dry friction	1.8N/mm ² .m/s
	脂润滑 Grease lubrication	2m/s			

油穴形式(根据DIN1494/ISO3547)

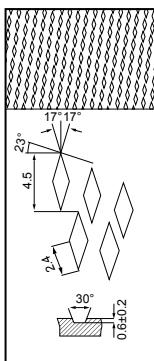
Type of oil pockets (according to DIN1494/ISO3547)

采用高密度青铜卷制成形或球形油袋、油穴特殊合成内部表面以减少磨损延长使用时间并且很好的做到防腐功能。

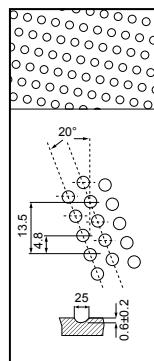
High-density bronze is rolled into shape or oil bags and oil holes specially integrated into the inner surface to reduce the wearing and prolong the service hours. Besides, it has excellent anti-corrosion functions.



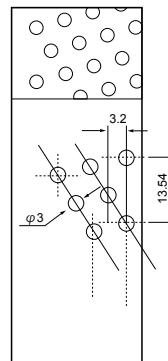
轴衬套内
Inside the bush of the shaft
菱形油穴 $r \leq \varphi 22$
Rhomb oil holes $r \leq \varphi 22$



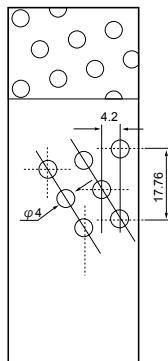
轴衬套内
Inside the bush of the shaft
菱形油穴 $r > \varphi 22$
Rhomb oil holes $r > \varphi 22$



形成圆形
Forming a circle



轴承内径 $r \leq \varphi 25$
Inside Dia $r \leq \varphi 25$



轴承内径 $r > \varphi 25$
Inside Dia $r > \varphi 25$

SRI09 油穴

SRI09G 油穴

SRI07G 油穴

SRI09 油穴

SRI09 油穴

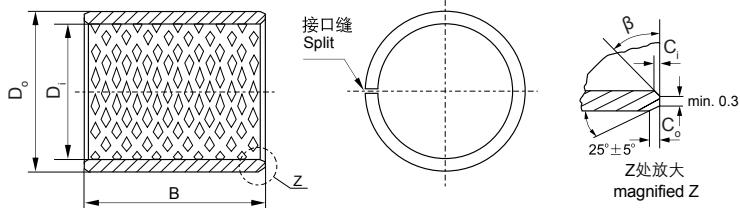
SRI09 油穴

SRI09 油穴

化学成分

Chemical composition

材料 Material	Cu	Sn	P	Pb	Zn
CuSn8	91.3%	8.0%	0.3%		



ID and OD chamfers

S_3	C_o	C_i	β
0.75	0.5 ± 0.3	0.25 ± 0.2	$35^\circ \pm 5^\circ$
1.00	0.6 ± 0.3	0.30 ± 0.2	$35^\circ \pm 5^\circ$
1.50	0.7 ± 0.3	0.50 ± 0.3	$35^\circ \pm 5^\circ$

S_3	C_o	C_i	β
2.00	1.2 ± 0.4	0.50 ± 0.3	$30^\circ \pm 5^\circ$
2.50	1.8 ± 0.6	0.60 ± 0.3	$45^\circ \pm 5^\circ$

单位unit:mm

压入H7座孔内径 Installed Bushing I.D.	外径 O.D.	f_1	f_2	$B \begin{smallmatrix} 0 \\ -0.40 \end{smallmatrix}$												
				10	15	20	25	30	35	40	50	60	70	80		
10	$+0.060$ -0.005	$+0.065$ $+0.030$	0.5	0.3	1010	1015	1020									
12					1210	1215	1220									
14					1410	1415	1420	1425								
15					1510	1515	1520	1525								
16					1610	1615	1620	1625								
18					1810	1815	1820	1825								
20	$+0.070$ -0.005	$+0.075$ $+0.035$	0.8	0.4	2010	2015	2020	2025								
22					2210	2215	2220	2225	2230							
24						2415	2420	2425	2430							
25						2515	2520	2525	2530							
28	$+0.070$ -0.010	$+0.085$ $+0.045$	1.0	0.6		2815	2820	2825	2830							
30						3015	3020	3025	3030	3035	3040					
32						3215	3220	3225	3230	3235	3240					
35						3515	3520	3525	3530	3535	3540					
40							4020	4025	4030	4035	4040	4050				
45								4520	4525	4530	4535	4540	4550			
50	$+0.090$ -0.015	$+0.100$ $+0.055$	1.2	0.8				5020	5025	5030	5035	5040	5050	5060		
55								5520	5525	5530	5535	5540	5550	5560		
60									6025	6030	6035	6040	6050	6060	6070	
65										6530	6535	6540	6550	6560	6570	
70										7030	7035	7040	7050	7060	7070	7080
75										7530	7535	7540	7550	7560	7570	7580
80										8030	8035	8040	8050	8060	8070	8080

SRI090 标准公制轴套
SRI090 Normal Metric Bushing

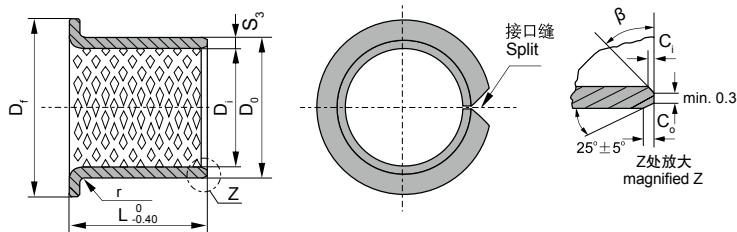


单位 unit:mm

压入H7座孔内径 Installed Bushing I.D.	外径 O.D.	f_1	f_2	B $\overset{0}{\underset{-0.40}{\text{--}}}$								
				30	35	40	50	60	70	80	90	100
85	$+0.130$ 0	$+0.120$ $+0.070$	1.4	8530	8535	8540	8550	8560	8570	8580	8590	85100
				9030	9035	9040	9050	9060	9070	9080	9090	90100
						9540	9550	9560	9570	9580	9590	95100
							10050	10060	10070	10080	10090	100100
							10550	10560	10570	10580	10590	105100
							11050	11060	11070	11080	11090	110100
							11550	11560	11570	11580	11590	115100
120	$+0.170$ $+0.070$	0.8	0.8					12060	12070	12080	12090	120100
								12560	12570	12580	12590	125100
								13060	13070	13080	13090	130100
								13560	13570	13580	13590	135100
								14060	14070	14080	14090	140100
								14560	14570	14580	14590	145100
								15060	15070	15080	15090	150100
								15560	15570	15580	15590	155100
								16060	16070	16080	16090	160100
								16560	16570	16580	16590	165100
								17060	17070	17080	17090	170100
								17560	17570	17580	17590	175100
								18060	18070	18080	18090	180100
								18560	18570	18580	18590	185100
185	$+0.140$ 0	$+0.210$ $+0.130$	0.8					19060	19070	19080	19090	190100
								19560	19570	19580	19590	195100
								20060	20070	20080	20090	200100
								20560	20570	20580	20590	205100
								21560	21570	21580	21590	215100
								22560	22570	22580	22590	225100
								23060	23070	23080	23090	230100
								24060	24070	24080	24090	240100
								25060	25070	25080	25090	250100
								26060	26070	26080	26090	260100
								27060	27070	27080	27090	270100
								28060	28070	28080	28090	280100
								29060	29070	29080	29090	290100
								30060	30070	30080	30090	300100

SRI090 标准公制翻边轴套
SRI090 Normal Metric Flange Bushing

SRI
 SHANGHAI RICH INTERNATIONAL



S_3	1.0	1.5	2.0	2.5
r	$1^{0.5}$	1 ± 0.5	1.5 ± 0.5	2 ± 0.5

单位unit:mm

内径 D_i ϕd	外径 D_o ϕD	法兰外径 D_f	长度 L $^0_{-0.40}$								
			15	20	25	30	35	40	50	60	70
25	28	35	2515	2520	2525						
30	34	45		3020	3025	3030					
35	39	50		3520	3525	3530	3535				
40	44	55			4025	4030	4035	4040			
45	50	60				4530	4535	4540	4550		
50	55	65				5030	5035	5040	5050		
55	60	70				5530	5535	5540	5550		
60	65	75				6030	6035	6040	6050	6060	
65	70	80				6530	6535	6540	6550	6560	
70	75	85				7035	7040	7050	7060	7070	
75	80	90				7535	7540	7550	7560	7570	
80	85	100				8035	8040	8050	8060	8070	8080
90	95	110						9050	9060	9070	9080
100	105	120						10050	10060	10070	10080
110	115	130						11050	11060	11070	11080
120	125	140						12050	12060	12070	12080
130	135	155							13060	13070	13080
140	145	165							14060	14070	14080
150	155	180							15060	15070	15080
160	165	190							16060	16070	16080
170	175	200							17060	17070	17080
180	185	215							18060	18070	18080
190	195	225							19060	19070	19080
200	205	235							20060	20070	20080
225	230	260							22560	22570	22580
250	255	290							25060	25070	25580
265	270	305							26560	26570	26580
285	290	325							28560	28570	28580
300	305	340							30060	30070	30080

SRI01



SRI01P



SRI01B



SRI01D



SRI-TEX



SRI01F



SRI01WC



SRI02YWC



SRI02



SRI02Y



SRI03-800



SRI03-720



SRI03-700



SRI03-20



SRI03-800F



SRI090



SRI090F



SRI092



SRI09G



SRI07G



SRIDB



SRI03B



SRI03BB



SRTIW



SRISL



SRI03FB



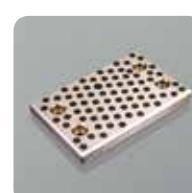
RGB 9834



RJEGB



RSEW



FZH



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