



Jintai Ball Transfer System 锦泰万向球产品（系列）

Pressed Steel Series

冲压轻型万向球



Machined Steel Series

精制重型万向球



Plastic Material Series

塑料材质万向球



锦泰万向球
Jintai Ball Transfer System

万向球使用注意要点 Some suggestions when using

万向球的使用建议

- 1.使用前建议加上润滑油
- 2.计算单个万向球最大负载重量时，建议采用朝上的万向球规格里的“建议负载能力”，钢珠朝上型的万向球朝下使用最大负载量*0.5，以防物料表面不平整导致单个万向球偶尔负载过高。
- 3.和万向球接触的物料平面尽量平整，建议使用铁制托盘
- 4.建议最少放置 3 列（行）万向球与物料接触
- 5.排列方法一般为水平跟菱形，菱形排列需比水平排列多放置一列（行）万向球
- 6.在物料平面凹凸不平时可以使用带弹簧的万向球
- 7.带弹簧的万向球需要考虑负载问题，务必增加承载的万向球数量
- 8.建议平常使用，线速度不超过 2 米/秒
- 9.当线速度为 1 米/秒时，动摩擦系数约为 0.05-0.005 μ ,依照万向球的材质不同摩擦系数会有变化
- 10.全钢制万向球最高耐温 1000 摄氏度，塑料材质的最高 60 摄氏度

Some suggestions when using

1. It is recommended to add lubricant before use.
2. When calculating the maximum load weight of a single unit, it is recommended to use the “Suggested” load capacity.
When the ball-to-up type unit is used downwards, it is recommended with 50% loading capacity data.
3. The material surface is better as flat as possible. It is recommended to use iron tray.
4. It is recommended to place at least 3 columns (rows) of units in contact with the material surface.
5. The arrangement method is generally horizontal and rhombic, and the rhombic arrangement needs to place one column (row) of units more than the horizontal arrangement.
6. You can use spring-loaded ball transfer units when the material surface is uneven
7. The unit with spring needs to consider the load problem, and it is necessary to increase the number of units.
8. It is recommended to use it normally linear speed not exceed 2m/s
9. When the linear speed is 1m/s, the dynamic friction coefficient is about 0.05-0.005 μ , and the friction coefficient will vary according to the material of ball transfer unit.
10. Full steel or stainless steel material ball transfer units can used in maximum temperature of 1000 degrees Celsius, full plastic material type recommended not over 60 degrees Celsius



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锦泰万向球产品（系列）

主球/壳体使用的材制代码 (Material Code for Main-Ball/Shell)

CS/CS	主球材质碳钢，壳体材质碳钢 Main ball in Carbon Steel,Shell in Carbon Steel
BS/CS	主球材质轴承钢，壳体材质碳钢 Main ball in Bearing Steel,Shell in Carbon Steel
PL/CS	主球材质塑料，壳体材质碳钢 Main ball in Plastic,Shell in Carbon Steel
SS/CS	主球材质 304 不锈钢，壳体材质碳钢 Main ball in 304 Stainless steel,Shell in Carbon Steel
SS/SS	主球材质 304 不锈钢，壳体材质 304 不锈钢 Main ball in 304 Stainless Steel,Shell in 304 Stainless Steel
PL/PL	主球材质塑料，壳体材质塑料 Main ball in Plastic,Shell in Plastic
SS/PL	主球材质 304 不锈钢，壳体材质塑料 Main ball in 304 Stainless Steel,Shell in Plastic
S4/SS	主球材质 440 不锈钢，壳体材质 304 不锈钢 Main ball in 440 Stainless Steel,Shell in 304 Stainless Steel
其他(Others)	S6: 316 不锈钢(316 Stainless Steel); NY: 尼龙(Nylon)

说明(Remarks):

冲压系列(CY)未指定材制代码时默认为 CS/CS
(Default material is CS/CS for CY series)
其他车制系列未指定材制代码时默认为 BS/CS
(Default material is BS/CS for machined steel series)
仿 MSM 系列未指定材制代码时默认为 SS/SS
(Default material is SS/SS for MSM series)
NL 系列未指定材制代码时默认为 PL/PL
(Default material is PL/PL for NL series)

常见的安装方式(General Installation Ways)

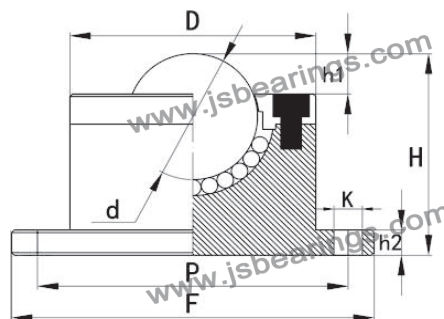
自攻螺钉 Self Tapping Screw	适用于轻载薄法兰上带孔的型号，如 CY-A,CY-B 等系列 Fit for light duty flanged type, like CY-A, CY-B series
拉铆钉 Rivet	适用于轻载薄法兰上带孔的型号，如 CY-A,CY-B 等系列 Fit for light duty flanged type, like CY-A, CY-B series
螺栓 Bolt	适用于重载法兰上带孔的型号，如 IA,IS,SD,SI,UK,KSF,NL-A,NL-B 等系列 Fit for heavy duty flanged type,like IA,IS,SD,SI,UK,KSF,NL-A,NL-B series
钻孔压入 Press Drop-in	适用于无法兰或法兰上无孔的型号，如 CY-H,SP,KSM 等系列 Fit for none flange type, like CY-H, SP, KSM series
DIN471 卡簧 DIN471 Circlip	适用于小尺寸无法兰型号，如 CY-H,SP,KSM,NL-C,NL-H 等系列 Fit for none flange type small sizes, like CY-H, SP, KSM,NL-C,NL-H series
螺母 Nut	适用于带螺杆型，如 CY-F,SP-FL,KSM-FL,等系列 Fit for bolt type, like CY-F, SP-FL, KSM-FL series
焊接 Welding	使用于外壳为碳钢材质的型号，需考虑是否方便更换 Fit for carbon steel shell types, please consider how to replaced if welded



Jintai Ball Transfer System 锦泰万向球产品（系列）

D-HB 重载万向球系列 Heavy Duty D-HB Series

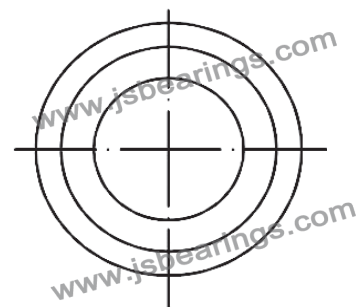
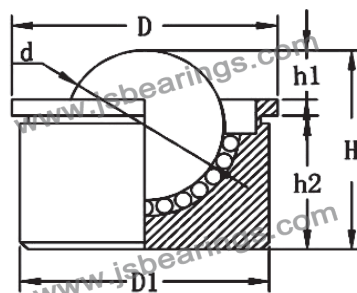
可选材质(Available Materials):
BS/CS,SS/CS,SS/SS,PL/CS,PL/SS



型号 Model No.	负载能力 Loading Capacity (kg)			尺寸(mm) Dimensions								重量 (kg) Weight
	材质 Material	建议 Suggest	最大 Max.	d	D	b1	h2	H	F	P	K	
D-8HB	BS/CS	100	150	25.4	56	8	3	32	67	78	4- ϕ 6.5	0.450
D-10H	BS/CS	200	250	30.1	65	6.5	6	48	95	80	4- ϕ 7	0.890
D-12H	BS/CS	300	350	38.1	70	11	6	60	110	94	4- ϕ 7	1.200
D-16H	BS/CS	300	400	50	95	16	10	80	140	120	4- ϕ 11	4.500
D-24H	BS/CS	600	800	76.2	130	20	10	120	180	155	4- ϕ 11	5.400

BCHA 仿 MSM 万向球系列 Stainless Steel BCHA Series

可选材质(Available Materials):
SS/SS,PL/SS,NY/SS



型号 Model No.	编号	负载能力 Loading Capacity (kg)			尺寸(mm) Dimensions					重量 (kg) Weight
		材质 Material	建议 Suggest	最大 Max.	d	D	D1	H	h1	
HA8	1702	SS/SS	5.5	7	8.73	17	15	12.5	9	0.015
HA10	1703	SS/SS	6	8	10.3	20	18	14.5	10	0.030
HA15	1704	SS/SS	35	40	15.9	26	24	20.8	14	0.060
HA19	1705	SS/SS	40	45	19.05	32	30	25.3	17	0.185



Jintai

Ball Transfer System

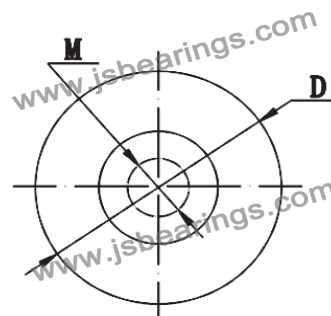
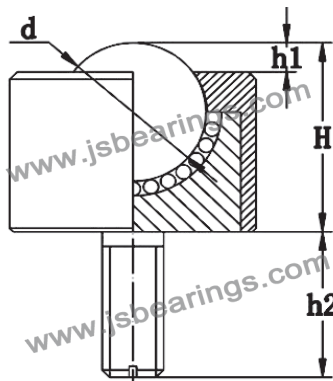
锦泰万向球产品（系列）

D 精制带杆万向球系列

Machined Steel Bolt D Series

可选材质(Available Materials):

BS/CS,PL/CS,SS/CS,SS/SS,PL/SS



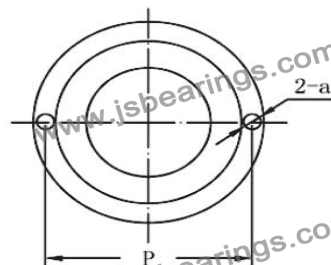
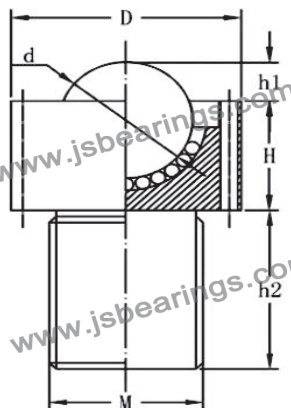
型号	编号	负载能力 Loading Capacity (kg)			尺寸(mm)						重量 (kg)
		材质	建议	最大	Dimensions						
Model No.		Material	Suggest	Max.	d	D	H	h1	h2	M	Weight
D-2H(6)	1601	BS/CS	5	6	6.35	12	9	1.5	12	M6	0.035
D-3H(9)	1602	BS/CS	7	8	9.525	15	15	1.5	12	M6	0.042
D-4H(12)	1603	BS/CS	8	10	12.7	20	18	3	12	M8	0.055
D-5H(15)	1604	BS/CS	15	20	15.875	24	20.5	4	12	M8	0.060
D-6H(19)	1605	BS/CS	40	50	19.05	32	26	4	12	M8	0.130
D-8H(25)	1615	BS/CS	100	150	25.4	42	42	7	21	M10	0.210

BCHM 仿 MSM 万向球系列

BCHN BCHM Series

可选材质(Available Materials):

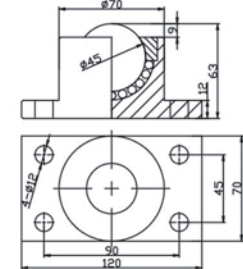
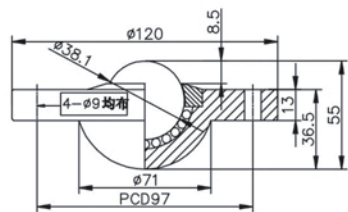
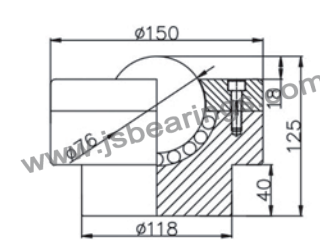
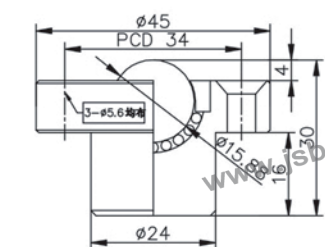
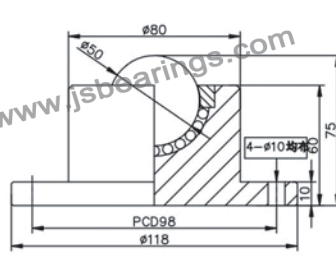
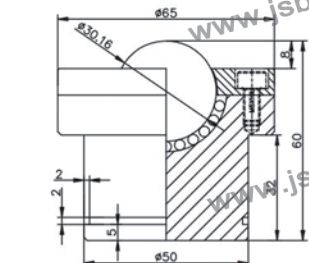
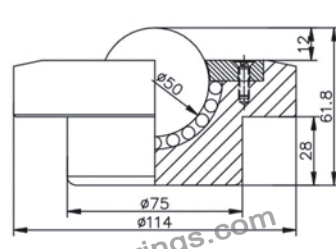
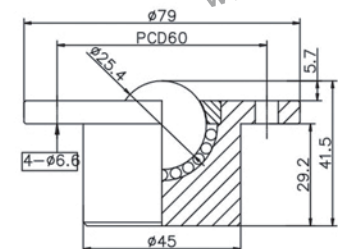
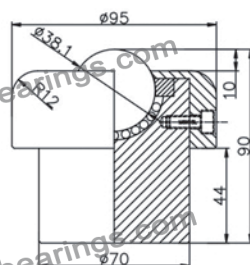
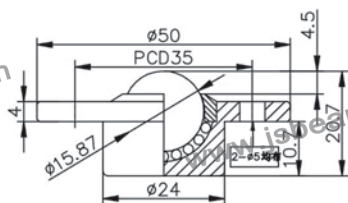
SS/SS,PL/SS,NY/SS



型号	编号	负载能力 Loading Capacity (kg)			尺寸(mm)								重量 (kg)
		材质	建议	最大	Dimensions								
Model No.		Material	Suggest	Max.	d	D	h1	h2	H	M	P	a	Weight
HM8	1706	SS/SS	5.5	7	8.73	18.5	2.5	12	10	M10	15	2	0.060
HM10	1707	SS/SS	6	8	10.32	22	3.5	15	11	M12	18.5	2	0.070
HM15	1708	SS/SS	35	40	15.9	27	5.3	20	15	M16	24	2.5	0.090
HM19	1709	SS/SS	42	50	19.1	33	6.3	25	18	M20	29.6	2.5	0.140



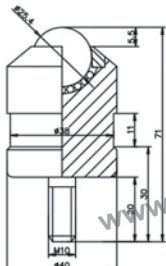
(可根据客户要求定制各种非标万向球)



型号	编号	单体重	容许荷重	本体重量
FB-010型	1510	300kg	350kg	



(可根据客户要求定制各种非标万向球)



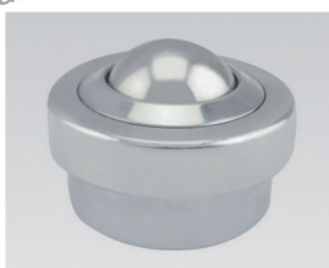
Technical drawing of a mechanical part. The part has a semi-circular top with a radius of $\phi 25.4$. The total width is $\phi 40$. The total height is 35 . A hatched section is shown on the right side, with a vertical dimension of 8.5 indicating the height of the hatched area from the top surface.



Technical drawing of a mechanical part (Fig. 1.10) showing a cross-section with dimensions: outer diameter 30, inner hole diameter 22, total height 57, and a base section height of 25.



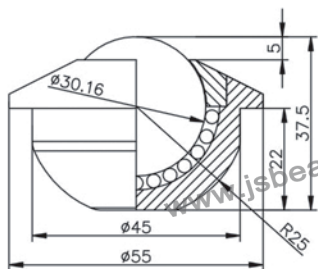
Technical drawing of a mechanical part showing a cross-section with dimensions: outer diameter $\phi 19$, inner hole diameter $\phi 10$, total height 20, and section cut dimensions 12.5 and 2.5. The base is labeled M16.



锦泰万向球 37 Jintai Ball Transfer System



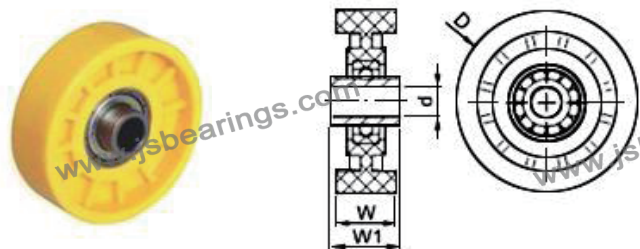
(可根据客户要求定制各种非标万向球)



Technical drawing of a mechanical part with dimensions: outer diameter 20, inner diameter 18, height 90, and a 12mm diameter hole with a 5mm depth.

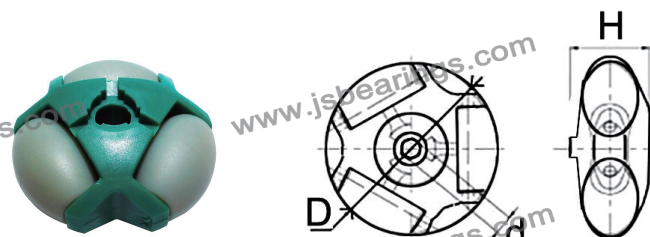
福来轮

Conveyor Roller SWS Series



全向轮

Conveyor Roller Omniwheel



型号 Model	d	D	W	W1
SWS-38	8	38	14	18
SWS-50	8	48.5	15	18

型号 Model	d	D	Height	滚子数 Rollers
SWT-48	8 R/H	48	22	3
SWT-82	12 R/H	82	34	3

全向轮

Conveyor Roller Omniwheel



型号 Model	d	D	Height	滚子数 Rollers
SWC-50	8 Round	50	40	6
SWC-60	10 Round	60	40	6

型号 Model	d	D	Height	滚子数 Rollers
SWC-70R	15 Round	70	46	8
SWC-70H	14 Hex	70	46	8

冲压转盘轴承

Lazy Susan Bearing



型号 Model	d	h	L	S	T
LS-51	11	4	51	68	9
LS-71	36	4	71	86	9
LS-95	54	4	95	120	9
LS-149	10	6x15	149	205	22

型号 Model	d	D	h	L	S	T
LS-139	62.5	77.5	4	40	139	10
LS-204	102	134.5	4	74	204	9
LS-230	115	145	7	78	230	8.6

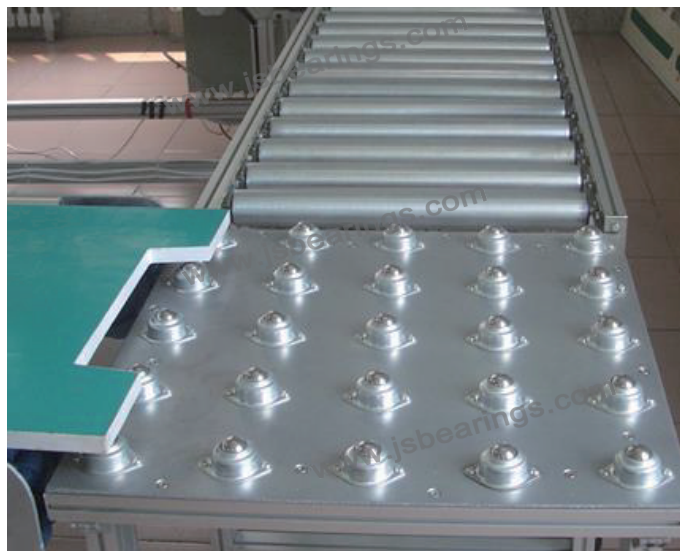


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万向球应用案例 application cases



万向球用于空运货物转运中心
Used in air cargo transfer center



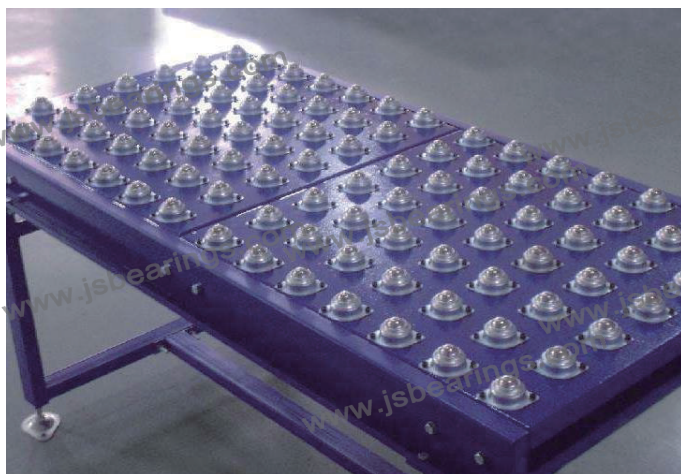
万向球用于车间装配生产线
Used in workshop assembly line



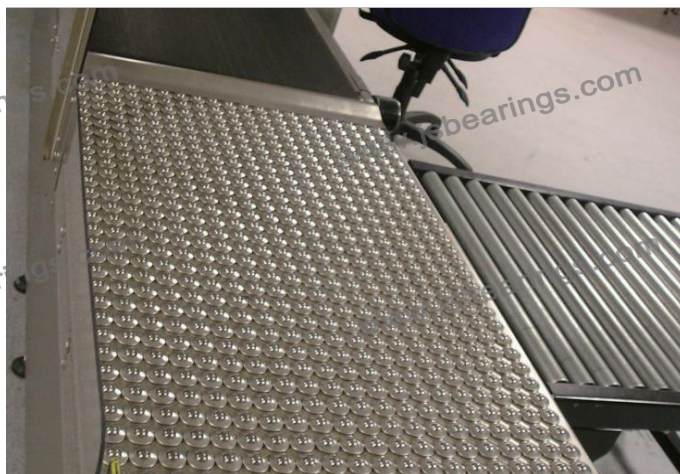
万向球用于货运飞机货舱
Used in cargo hold of cargo planes



万向球用于货物装卸平台
Used for cargo handling platforms



万向球用于物料周转台
Used for material turnover table



万向球用于行李包裹安检设备
Used for baggage screening equipment



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Ball Transfer System
锦泰万向球产品（系列）

Hunan Jintai Hardware and Machinery Co.,Ltd

Address: No. 503, Hunan International Commerce Center,
Jintai Square, Changsha 410001, Hunan.

Mob: +86 13974953910

Tel: +86 731 84770165

Fax: +86 731 84770163

Email: sales@slide-bearing.com

bearing.jim.luo@gmail.com

Website: www.jsbearings.com

www.slide-bearing.com