


Bubble Levels / Grease Nipples / Hardened Precision Balls

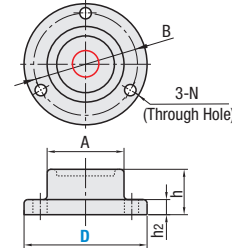
Mounting Bubble Level **SMT**



Material: 5052 Aluminum Alloy
Glass

Surface Treatment: Black Anodize


Max. Operating Temp.: 55°C



3-N (Through Hole)

Part Number	Type	D	A	B	h	h ₂	Mounting Hole (N)	Sensitivity
SMT	28	16	22	10.5	3.5	2	2	38"12" (R-180)
	32	20	27	12.0	4.0	3	3	38"12" (R-180)

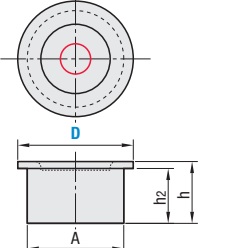
Embedded Bubble Level **SMH**



Material: ABS Resin Plastic
Glass

Surface Treatment: Black Anodize

Max. Operating Temp.: 55°C



Part Number	Type	D	A	h	h ₂	Sensitivity
SMH	20	16.5	11	9.5	9.5	38"12" (R-180)


Bubble Levels

- This bubble level is for mounting on a surface that has already been checked to ensure it is level, and it provides a simple level check. Fit it so that the bubble is stationary within the red circle. (A shim or adjustment mechanism may be required depending on the surface accuracy.)
- Sensitivity: If the bubble shifts 2 mm from the center, the mounting surface is inclined at 38"12" (approximately 0.6 degrees). R-180 is the radius of the curve of the bubble level (in mm).

Part Number Example

Part Number: **SMT28**

Grease Nipples **GPA**



Material: Free-Cutting Brass (C36000 Brass BD)

Surface Treatment: Nickel Plating

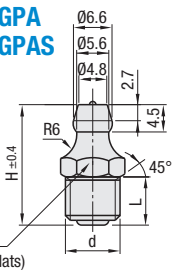



Fig. 1 shows the thread shape of GPA1.

Type	Material	Surface Treatment
GPA	Free-Cutting Brass (C36000 Brass BD)	Nickel Plating
GPAS	303 Stainless Steel	—

Grease Nipples **GPB**



Material: Free-Cutting Brass (C36000 Brass BD)

Surface Treatment: Nickel Plating

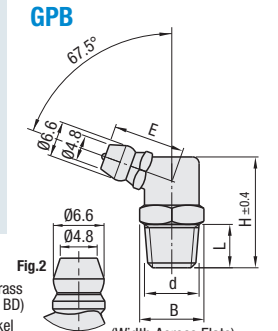



Fig. 2 shows the nipple base shape of GPB6 and GPB6A.

Grease Nipples **GPC**



Material: Free-Cutting Brass (C36000 Brass BD)

Surface Treatment: Nickel Plating

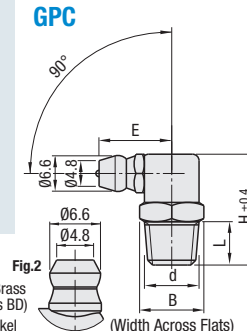



Fig. 2 shows the nipple base shape of GPC6 and GPC6A.

Part Number	Type	No.	d	H	L	E	B
GPA	GPA	6	M6 x P0.75	13.5	5	—	7
		6A	M6 x P1.0	13.5	5	—	7
		1	R (PT) 1/8	20	9	—	10
GPB	GPB	2	R (PT) 1/4	25	12	—	14
		6	M6 x P0.75	16.5	5	10	8
		6A	M6 x P1.0	16.5	5	10	8
GPC	GPC	1	R (PT) 1/8	21.5	8	12.5	10
		2	R (PT) 1/4	25	11	14.2	14
		6	M6 x P0.75	17.5	5	10.2	8
GPC	GPC	6A	M6 x P1.0	17.5	5	10.2	8
		1	R (PT) 1/8	21.5	8	12.5	10
		2	R (PT) 1/4	25	11	14.2	14

Hardened Precision Balls **BLIJ** Inch **BLIS** mm **BLMJ** mm **BLMS** mm



Material: 52100 Bearing Steel / 440C Stainless Steel

Surface Treatment: In accordance with JIS-B1501

Type	Dimension	Material	Class	Hardness	Standards
BLIJ	Inch	52100 Bearing Steel	28	61-67 HRC min.	JIS B1501
BLIS	mm	440C Stainless Steel	28	59-66 HRC min.	In accordance with JIS-B1501
BLMJ	mm	52100 Bearing Steel	28	61-67 HRC min.	JIS B1501
BLMS	mm	440C Stainless Steel	28	59-66 HRC min.	In accordance with JIS-B1501

* Class 28 Standards (JIS-B1501) μm

Dimension	max.	μm
Diameter Deviation	max.	0.7
Sphericity	max.	0.7
Surface Roughness	max.	0.05
Diameter Size Variation of the Lot	max.	1.4

Inch Standards Type

Part Number	Type	No.	SD (Inch)
BLIJ	BLIS	8	1/8
		10	5/32
		12	3/16
		14	7/32
		15	15/64
		16	1/4
		17	17/64
		18	9/32
		20	5/16
		22	11/32
24	3/8		
26	13/32		

Metric Standards Type

Part Number	Type	No.	SD (mm)
BLMJ	BLMS	3	3
		3.5	3.5
		4	4
		4.5	4.5
		5	5
		6	6
		8	8

Part Number Example

Part Number: **GPA6A**

Part Number Example

Part Number: **BLIJ16**

Application Example




For Jig Attachment/Removal

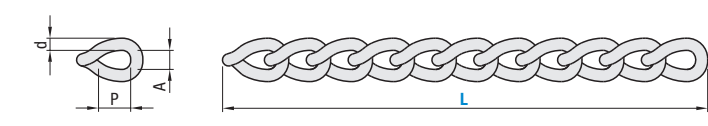
Stainless Steel Chains

Stainless Steel / Ball / Link

Stainless Steel Chains **SCHSP**




Material: 304 Stainless Steel



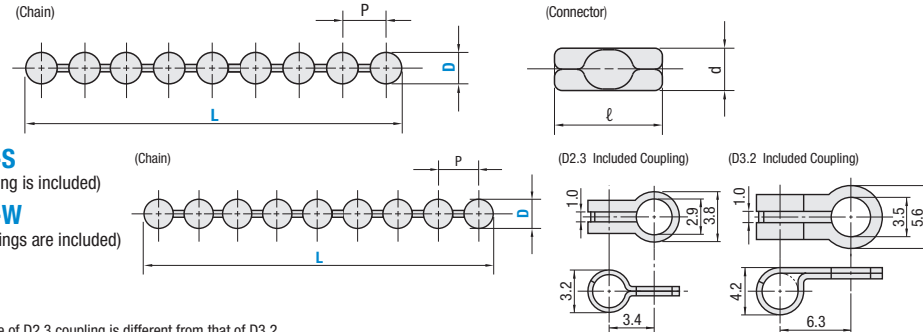
Part Number	Type	L 50 mm Increment	P	A	d	Mass	Allowable Load (Ref.)
SCHSP	4	100-500	5.5	2.5	1.6	57g/m	9 kg
		550-1000					

The reference applied load is only a guideline.

Ball Chains **BALLC**



Material: 304 Stainless Steel



BALLC-S (One coupling is included)

BALLC-W (Two couplings are included)

The shape of D2.3 coupling is different from that of D3.2.

For BALLC-S, coupling is attached to one side; for BALLC-W, to both sides.

Part Number	Type	D	L 50 mm Increment	P	Allowable Load (Ref.)	Accessories (Connector)	
						d	ℓ
BALLC	BALLC	2.3	100-500	3.3	4kg	3.0	8
			550-1000				
BALLC-S	BALLC-S	3.2	100-500	4.4	6kg	4.3	11
			550-1000				

*Depending on the number of links, the actual L dimension may be slightly longer than the specified dimension.

The reference applied load is only a guideline.

Dimensions of chains and connecting parts are for reference only.


Part Number Example

Part Number: **SCHSP** - L 600

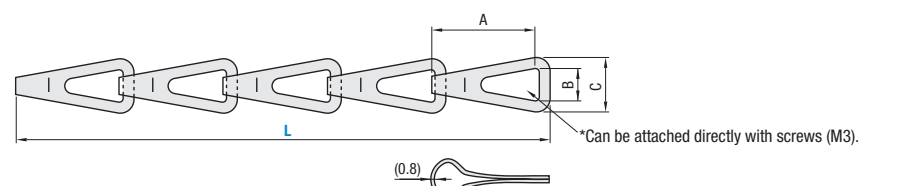
Part Number: **BALLC2.3** - L 150

Part Number: **BALLC-W3.2** - L 200

Link Chain **CHSP**



Material: 304 Stainless Steel



*Can be attached directly with screws (M3).

Part Number	Type	No.	L 50 mm Increment	A	B	C	Plate Thickness	Mass	Reference Applied Load
CHSP	4	4	100-500	15.5	4.2	8	0.8	60 g/m	70 kg
			550-1000						

*Depending on the number of links, the actual L dimension may be slightly longer than the specified dimension. (Connecting parts are not included. Please refer to <http://jp.misumi-ec.com/mech/>.)

The reference applied load is only a guideline.

Part Number Example

Part Number: **CHSP4** - L 100