


Bubble Levels / Grease Nipples / Hardened Precision Balls



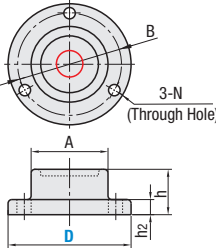
Mounting Bubble Level

SMTP

Material:
5052 Aluminum Alloy
Glass

Surface Treatment:
Black Anodize

Max. Operating Temp.: 55°C



3-N
(Through Hole)


A, B, D, h, h2

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



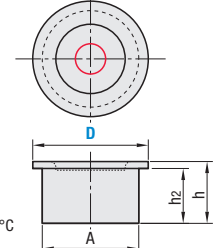
Embedded Bubble Level

SMH

Material:
ABS Resin Plastic
Glass

Surface Treatment:
Black Anodize

Max. Operating Temp.: 55°C




D, A, h, h2

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



Part Number Example

Part Number
SMT**P**28



Grease Nipples

GPA
GPAS

Material:
Free-Cutting Brass (C36000 Brass BD)

Surface Treatment:
Nickel Plating

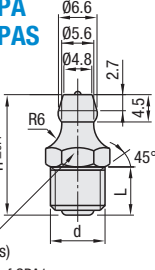



Fig.1 shows the thread shape of GPA1.

(Width Across Flats)

B, d, H±0.4, L, 45°, R6, 06.6, 05.6, 04.8, 2.7, 4.5

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



GPB

Material:
Free-Cutting Brass (C36000 Brass BD)

Surface Treatment:
Nickel Plating

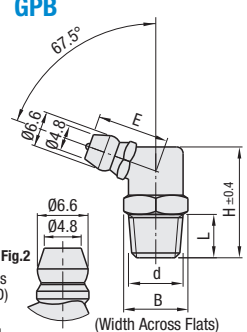



Fig.2 shows the nipple base shape of GPB6 and GPB6A.

67.5°, 06.6, 04.8, E, F, d, B, H±0.4, L



GPC

Material:
Free-Cutting Brass (C36000 Brass BD)

Surface Treatment:
Nickel Plating

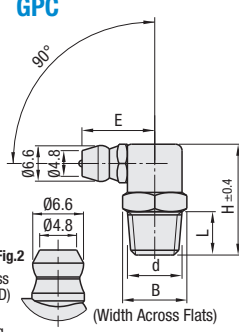



Fig.2 shows the nipple base shape of GPC6 and GPC6A.

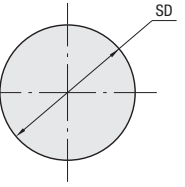
90°, 06.6, 04.8, E, d, B, H±0.4, L

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



SD

* Class 28 Standards (JIS-B1501) μm

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

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

Inch Standards Type

Part Number	SD (Inch)
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	SD (mm)
3	3
3.5	3.5
4	4
4.5	4.5
5	5
6	6
8	8

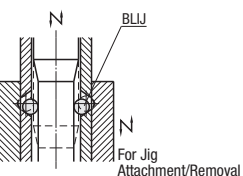


Part Number Example

Part Number
GPA**6**A
BLIJ**1**6
BLMS**3**




Application Example



N, BLIJ, For Jig Attachment/Removal


Stainless Steel Chains

Stainless Steel / Ball / Link



Stainless Steel Chains

SCHSP




d, P, A, L

Material: 304 Stainless Steel

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

① The reference applied load is only a guideline.



Ball Chains

BALLC

(Chain)

P, L, d

BALLC-S
(One coupling is included)

BALLC-W
(Two couplings are included)

(Chain)

P, L, d

(Connector)

d, ℓ

(D2.3 Included Coupling)

(D3.2 Included Coupling)


Material: 304 Stainless Steel

Part Number		L 50 mm Increment	P	Allowable Load (Ref.)	Accessories (Connector)	
Type	D				d	ℓ
BALLC (One connector is included)	2.3	100-500	3.3	4kg	3.0	8
BALLC-S (One coupling is included)		550-1000				
BALLC-W (Two couplings are included)	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.

① The reference applied load is only a guideline.

② Dimensions of chains and connecting parts are for reference only.




Part Number Example

Part Number - L

SCHSP - 600

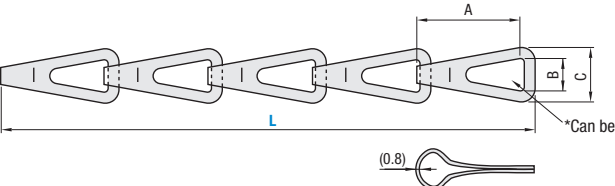
BALLC2.3 - 150

BALLC-W3.2 - 200



Link Chain

CHSP



A, B, C, L

*Can be attached directly with screws (M3).

Material: 304 Stainless Steel

Part Number		L 50 mm Increment	A	B	C	Plate Thickness	Mass	Reference Applied Load
Type	No.							
CHSP	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/>.)

① The reference applied load is only a guideline.



Part Number Example

Part Number - L

CHSP4 - 100