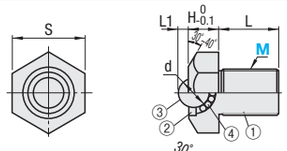
Ball Rollers (For upward facing)

Milled Stainless Steel

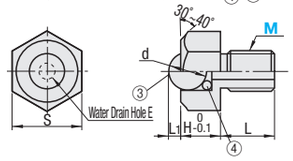
■Hex Head Stud

RoHS 10

BCHL
BCHLJ

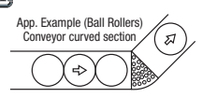


BCHLJJ
BCHLJP



Example

App. Example (Ball Rollers)
Conveyor curved section



Type	Material ① Main Body	② Spacer	③ Main Ball	④ Sub Ball
BCHL	SUS304	SUS304	SUS440C(HRC55~)	SUS440C(HRC55~)
BCHLJ			Polyacetal Ball	
BCHLJJ	Polyacetal	-		
BCHLJP	PEEK	-	PEEK	

Part Number Type	M	L	L1	H	d	S	Allowable Load N (kgf) BCHL	BCHLJ	Unit Price
BCHL (Stainless Steel Ball) BCHLJ (Polyacetal Ball)	5	6	1.1	5	4	8	12(1.2)	6(0.6)	
	6	8	1.2	6	4.76	10	14(1.4)	7(0.7)	
	8	10	1.5	7	5.56	13	41(4.2)	27(2.8)	
	10	12	2.5	10	8.73	17	55(5.6)	34(3.5)	
	12	15	3.5	11	10.32	19	62(6.3)	55(5.6)	
	16	20	5.3	15	15.87	24	343(35)	69(7)	
	20	25	6.3	18	19.05	30	412(42)	82(8.4)	

Part Number Type	M	L	L1 BCHLJJ	L1 BCHLJP	H	d BCHLJJ	d BCHLJP	S	E	Allowable Load N (kgf) BCHLJJ	Allowable Load N (kgf) BCHLJP	Unit Price BCHLJJ	Unit Price BCHLJP
BCHLJJ Polyacetal BCHLJP (PEEK)	5	6	1.5	-	5	4.76	-	8	1.5	2(0.2)	-		-
	6	8	1.7	2	6	5.56	6.35	10	2.5	4(0.4)	5(0.5)		
	8	10	2.8	2.5	8	8.73	7.94	13	3	7(0.7)	6(0.6)		
	10	12	3.5	3	10	10.32	9.53	17	3.5	11(1.1)	8(0.8)		

BCHLJJ is not suitable for high-speed transfer.

■Press Fit

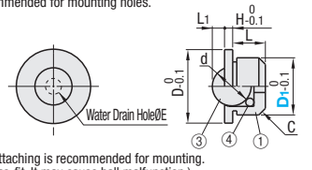
■Insertion, Adhesive

RoHS 10

BCHA
BCHAJ

H7 is recommended for mounting holes.

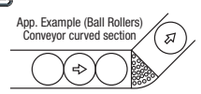
BCHJJ
BCHJP



Adhesive attaching is recommended for mounting.
(Do not press-fit. It may cause ball malfunction.)

Example

App. Example (Ball Rollers)
Conveyor curved section



Type	Material ① Main Body	② Spacer	③ Main Ball	④ Sub Ball
BCHA	SUS304	SUS304	SUS440C (HRC55~)	SUS440C (HRC55~)
BCHAJ			Polyacetal Ball	
BCHJJ	Polyacetal	-		
BCHJP	PEEK	-	PEEK	

Part Number Type	D1	D	L	H	L1	d	Allowable Load N (kgf) BCHA	BCHAJ	Unit Price
BCHA (Stainless Steel Ball) BCHAJ (Polyacetal Ball)	7.5	9	4	1	1.1	4	12(1.2)	6(0.6)	
	9	11	5		1.2	4.76	14(1.4)	7(0.7)	
	11	13	6		1.5	5.56	41(4.2)	27(2.8)	
	15	17	9		2.5	8.73	55(5.6)	34(3.5)	
	18	20	10		3.5	10.32	62(6.3)	55(5.6)	
	24	26	14	1.5	5.3	15.87	343(35)	69(7)	
	30	32	17	2	6.3	19.05	412(42)	82(8.4)	

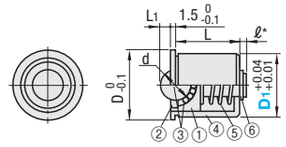
Part Number Type	D1	D	L	H	L1 BCHJJ	L1 BCHJP	d BCHJJ	d BCHJP	E	C	Allowable Load N (kgf) BCHJJ	Allowable Load N (kgf) BCHJP	Unit Price BCHJJ	Unit Price BCHJP
BCHJJ (Polyacetal) BCHJP (PEEK)	7	9	4	1	1.5	-	4.76	-	1.5	0.8	2(0.2)	-		-
	9	11	5		1.7	2	5.56	6.35	2.5	1	4(0.4)	5(0.5)		
	11	13	7		-	2.5	-	7.94	3		-	6(0.6)		
	13	15	8		2.8	3	8.73	9.53	3.5		7(0.7)	8(0.8)		
	15	17	8		3.5	-	10.32	-	3.5		11(1.1)	-		-
	20	22	11.5	1.5	5.2	-	15.87	-	5.3		14(1.4)	-		-
	24	26	15		6.6	-	19.05	-	6.4		21(2.1)	-		-

BCHJJ is not suitable for high-speed transfer.

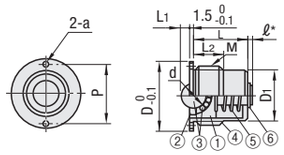
■Plunger Type (Press Fit)

(Threaded)

BCHP
(Press Fit)



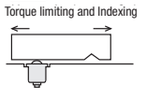
BCHPT
(Threaded)



The ball lowers by L1.
H7 is recommended for mounting holes.

Example

Torque limiting and Indexing



Slides in the amount of the ball stroke.
For tightening, wrenches for ball rollers are required.
(Refer to Alteration BR on the next page.)

Type	Material ① Main Body	② Spacer	③ Ball	④ Casing	⑤ Spring	⑥ Retaining Ring
BCHP BCHPT	SUS304	SUS304	SUS440C (HRC55~)	SUS304	SUS631J1	SUS304

Part Number Type	D1	D	L	L1	d	ℓ	Load (N) min.	Load (N) max.	Unit Price
BCHP	14	16	14	1.5	5.56	1.5	23	30	
	18	20	17	2.5	8.73	2	24	38	
	22	24	21.5	3.5	10.32		24	55	

Part Number Type	Nominal	M (Fine)	D	D1	L	L1	L2	a	d	P	ℓ	Load (N) min.	Load (N) max.	Unit Price
BCHPT	16	16x1.5	19	13.5	14	1.5	9	2	5.56	15.4	1.5	23	30	
	20	20x1.5	24	16.5	17	2.5	10	2	8.73	18.5	2	24	38	
	24	24×1.5	28	20.5	21.5	3.5	12	2.5	10.32	24		24	55	

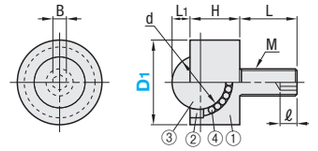
kgf=Nx0.101972

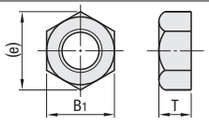
■Lock Nut

■Flange Mounting

RoHS 10

BCHN

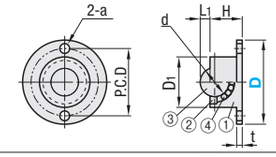




■Nut Dimensions

M	B1	(e)	T
M6	10	11.5	5
M8	13	15	6.5
M10	17	19.6	8

BCHF



Type	Material ① Main Body	② Spacer	③ Main Ball	④ Sub Ball
BCHN BCHF	SUS304		SUS440C(HRC55~)	

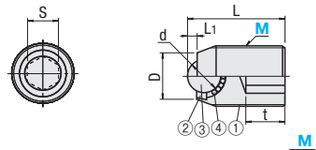
Part Number Type	D1	L1	H	M	L	d	B	(ℓ)	Allowable Load N (kgf)	Unit Price
BCHN	12	1.5	6.5	6	15	5.56	3	3.5	41(4.2)	
	16	2.5	9.5			8.73			55(5.6)	
	19	3.5	11.5	8	20	10.32	4	5	62(6.3)	
	25	5.3	14.7			15.87			343(35)	
	31	6.3	18.7	10	25	19.05	5	6	412(42)	

Part Number Type	D	D1	L1	H	t	P.C.D	a	d	Allowable Load N (kgf)	Unit Price
BCHF	27	15	2.5	9.5	2	21	3.5	8.73	55(5.6)	
	30	18	3.5	11.5	2	24	3.5	10.32	62(6.3)	
	39	24	5.3	14.7	3	31.5	4.5	15.87	343(35)	
	48	30	6.3	18.7	4	39	5.5	19.05	412(42)	

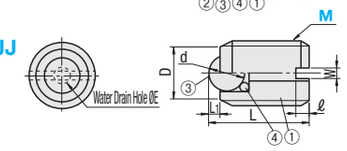
■Set Screw

RoHS 10

BCSB
BCSBJ



BCSBJJ



Size M8 main balls are swaged in place without a spacer ②.

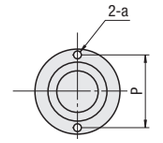
Type	Material ① Main Body	② Spacer	③ Main Ball	④ Sub Ball
BCSB	SUSXM-7	SUS304	SUS440C (HRC55~)	SUS440C (HRC55~)
BCSBJ			Polyacetal Ball	
BCSBJJ	Polyacetal	-		

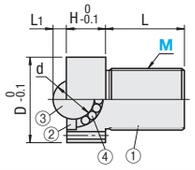
Part Number Type	M	L	L1	D	d	S	t	Allowable Load N (kgf) BCSB	Allowable Load N (kgf) BCSBJ	Unit Price
BCSB (Stainless Steel Ball) BCSBJ (Polyacetal Ball)	8	14	1.3	5	4.76	4	5	5(0.5)	1(0.1)	
	10	16	1.2	7	4.76	5	6	14(1.4)	7(0.7)	
	12	20	1.5	8	5.56	6	8	41(4.2)	27(2.8)	
	16	25	2.5	12	8.73	8	10	55(5.6)	34(3.5)	
	20	30	3.5	15	10.32	10	12	62(6.3)	55(5.6)	

Part Number Type	M	L	L1	D	d	E	W	ℓ	Allowable Load N (kgf)	Unit Price
BCSBJJ (Polyacetal)	8	14	1.5	6	4.76	1.5	1.2	1.5	2(0.2)	
	10	16	1.7	8	5.56	2.5	1.5	2	4(0.4)	
	16	25	2.8	12	8.73	3	2	3	7(0.7)	
	20	30	3.5	14	10.32	3.5	3	4	11(1.1)	

■Round Head Stud

BCHM





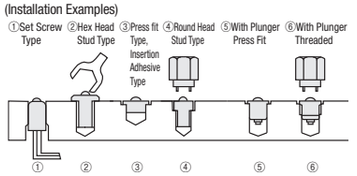
For tightening, wrenches for ball rollers are required.
(Refer to Alteration BR)

Type	Material ① Main Body	② Spacer	③ Main Ball	④ Sub Ball
BCHM	SUS304	SUS304	SUS440C (HRC55~)	SUS440C (HRC55~)

Part Number Type	M	L	L1	H	D	d	a	P	Allowable Load N (kgf)	Unit Price
BCHM (Stainless Steel Ball)	10	12	2.5	10	18.5	8.73	2	15.4	55(5.6)	
	12	15	3.5	11	22	10.32		18.5	62(6.3)	
	16	20	5.3	15	27	15.87	2.5	24	343(35)	
	20	25	6.3	18	33	19.05		29.6	412(42)	

Example

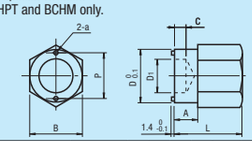
(Installation Examples)



Ordering Example: Part Number **BCHP18**

Alterations: Part Number - (BR) **BCHPT20 - BR**

Alteration	Code	Spec.
Special Wrench Included	BR	Includes a special wrench. For BCHPT and BCHM only.



Nominal	BCHPT Applicable (Nominal)	BCHM Applicable (M)	L	A	B	C	D	D1	P	a
10	16	For M10	25	8	19	3	18.5	10	15.4	2
12	20	For M12	30	10	24	4	22	12	18.5	
16	24	For M16	35	12	27	6	27	17	24	2.5
20	-	For M20	40	14	30	7	33	20	29.6	