Overview

Ball Plungers

	Economy	Standard	Roller	Load Adjustable	Plastic	Fine Thread	Short	Long
Туре								
Features	By omitting the hardening on the plunger, competitive pricing is achieved.	General Ball Plunger	As the ball rotates smoothly, it prevents the mating parts from being damaged.	By compressing the inner spring, the load can be adjusted.	Ball Plunger with plastic body.	Fine threads provide an easy fine adjustment.	The overall length is shorter than conventional ball plungers by 30%.	The overall length is long and selectable. Plunger can be installed using nuts.
Page	P.1748	P.1748	P.1748	P.1748	P.1749	P.1749	P.1749	P.1750-1751

O Some products' Hex Holes are colored with markers for identifying products.

	Bolt	Flanged	Press-Fit	Press-Fit Rollers
Туре		3 8		
Features	As the Plunger bodies are bolt shape, installation is very easy.	Flanges keep constant heights from the plate.	A Ball Plunger which has no threads on the outer diameter.	A Press-Fit Plunger with ball that rotates smoothly.
Page	P.1752	P.1752	P.1753	P.1753

Roller Plungers

	Bolt	Flange Mount
Туре		
Features	Easy to install.	Position can be adjusted using slotted holes
Page	P.1754	P.1754

Spring Plungers

	Standard	Long Sleeve	Short	Micro	Micro Spring Pin	Tapped Nose	Hex Socket	Hex Nose	Flat Tip	Flanged
Туре		11			The state of the s					
Features	General Spring Plungers.	With structure to bear diagonal loads.	A Spring Plunger with both short length and stroke.	The Small Diameter Type with Ø1.5–5 in outer dimensions.	With resin tip	Stop pins can be mounted on the nose tip.	It can be mounted using a hex wrench.	As the pin is Hex shape, users can mount plunger using a wrench.	Suitable for working with its flat tip on the work.	Flanges keep constant heights from the plate.
Page	P.1755	P.1757	P.1758	P.1759	P.1760	P.1760	P.1761	P.1761	P.1762	P.1762
Page	P.1755	P.1757	P.1758	P.1759	P.1760	P.1760	P.1761	P.1761	P.1762	P.1762

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Indexing Plungers

	Knobless	Flanged	Tapped Nose	Short Threads	Compact	Long	With Precision Pilot	Press-Fitted
Туре				ŢŢ	-	II	Ţ	ţ
Features	Most general Indexing Plungers	Flange plate allows for positioning adjustment.	An attachment can be mounted on the nose tip.	Has shorter threads than those of the Standard Type and saves space.	As the overall length is 2/3 that of conventional products, it can be used in the limited space.	As this Type has longer mounting threads than those of the Standard Type, it can be mounted to a thick plate.	The combination of pilots and the inner structure keeps high repeatability.	Press-fit when installing.
Page	P.1763	P.1765	P.1765	P.1766	P.1767	P.1767	P.1768	P.1768

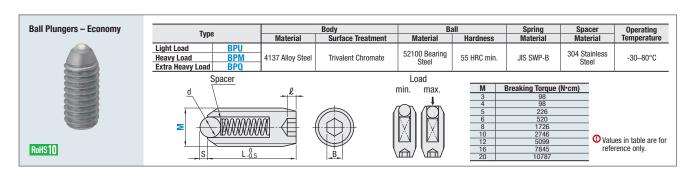
	Knobless	Lever Type	Push Type	Plate Mount Type
Туре	##		##	
Features	The most suitable knob for each purpose can be mounted.	Can be used in limited spaces.	A Push-Type can be operated by one finger.	Can be used in a location with limited space.
Page	P.1769	P.1770	P.1771	P.1771

Ball Lock Pins

	Spring	Push Type
Туре		
Features	Balls are spring loaded.	Ball retraction is controlled by push of a button
Page	P.1773	P.1773

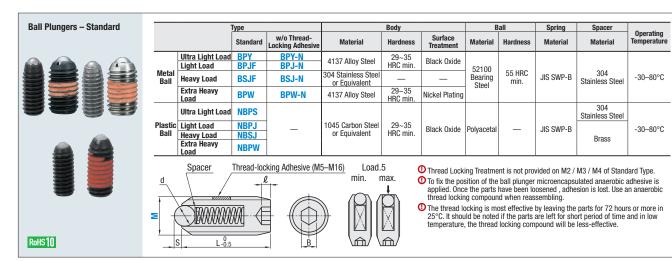
Ball Plungers

Economy / Standard



Part N	umber			L			Light	Load	Heavy	/ Load	Extra He	avy Load
Type	M	d	S		l	В	Load (N)		Loa	d (N)	Load (N)	
Туре	(Coarse)						min.	max.	min.	max.	min.	max.
	3	1.5	0.5	7	1	1.5	1	2	1.5	2.9	2.2	5
	4	2.5		9	2.4	2	2	4.9	3.9	9.8	2.5	12.5
	5	2	0.8	12	2	2.5	2.9	9.8	4.9	19.6	11.2	24.1
BPU	6] 3		13	2.5	3	4.9	14.7	9.8	29.4	17.7	33.4
BPM	8	4	1	15	2.5	4	6.9	19.6	12.7	39.2	21.4	45.3
BPQ	10	5	1.2	16	3	5	8.8	24.5	18.6	49	23.5	58.7
	12	7.1	1.8	20	3	6	9.8	29.4	19.6	58.8	24.1	62.3
	16	9.5	2.5	25	3	8	15.7	49	29.4	98	43.6	116
	20	11.9	4.5	40	6	10	53.9	98	78.4	147.6	84.6	196.6

① Has no slits for a wrench on the tip. It can be installed only by using an allen wrench. ① Min. load is the initial load, and max. load is when the tip is fully compressed.



	Part Number		Meta	Metal Ball		Plastic Ball				Ultra Light Load		Light Load		Heavy	Load	Extra Heavy Load	
	Duna	M	ء ا ہا	s	- 4	d S	L	l l	В	Load (N)		Load (N)		Load (N)		Load (N)	
	Туре	(Coarse)	d	3	d	3				min.	max.	min.	max.	min.	max.	min.	max.
		2	1	0.2	—	_	5	1	0.9	_	_	0.7	1.4	1.2	2	_	_
		*3	1.5	0.5		_	7	1	1.5	0.3	0.64	1	2	1.5	2.9	2.2	5
	PJF NBPJ (*only) SJF NBSJ (*only)	**4	2.5	2.5 3 0.8	2.4	2.4 3.2 3.2 0.8	9	1.5	2	0.6	1.6	2	4.9	3.9	9.8	2.5	12.5
BPY (*only)		**5	3		3.2		12	2	2.5	1	3.12	2.9	9.8	4.9	19.6	11.2	24.1
BPJF		**6	3]	3.2		13	2.5	3	1.6	4.85	4.9	14.7	9.8	29.4	17.7	33.4
BSJF		**8	4	1	4	1.0	15	2.5	4	2.4	6.36	6.9	19.6	12.7	39.2	21.4	45.3
BPW (*only)		**10	5	1.2	4.8	1.2	16	3	5	3	8.1	8.8	24.5	18.6	49	23.5	58.7
DI W (Ulliy)	NET W (Only)	**12	7.1	1.8	7.1	1.8	20	3	6	3.5	9.68	9.8	29.4	19.6	58.8	24.1	62.3
		**16	9.5	2.5	9.5	2.5	25	3	8	5.7	15.8	15.7	49	29.4	98	43.6	116

① M2 / M3 / M4 have no slits for a screwdriver on the tip. It can be installed only by using an allen wrench. ① Min. load is the initial load, and max. load is when the tip is fully compressed.

Part Number		ļ					Ultra Light Load Load (N)		Light Load Load (N)		Heavy Load Load (N)		Extra Heavy Load Load (N)	
Tuno	Turns M		S	L	l &	В								
Туре	(Coarse)						min.	max.	min.	max.	min.	max.	min.	max.
Metal Ball	5	3	0.0	12	2	2.5	1	3.12	2.9	9.8	4.9	19.6	11.2	24.1
BPY-N	6	3	0.8	13	2.5	3	1.6	4.85	4.9	14.7	9.8	29.4	17.7	33.4
BPJ-N	8	4	1	15	2.5	4	2.4	6.36	6.9	19.6	12.7	39.2	21.4	45.3
	10	5	1.2	16	3	5	3	8.1	8.8	24.5	18.6	49	23.5	58.7
BSJ-N	12	7	1.8	20	3	6	3.5	9.68	9.8	29.4	19.6	58.8	24.1	62.3
BPW-N	16	9.5	2.5	25	3	8	5.7	15.8	15.7	49	29.4	98	43.6	116



