

Palnuts®

Self-Locking Smooth Stud Fasteners

The product displayed in this catalog is a preferred sampling of the larger product offering. For additional product refer to our website or contact a sales professional.

PUSH-ONS

ARaymond Tinnerman Palnut® Push-On fasteners provide a good balance between maximum holding strength and reasonable push-on force. They feature inner teeth that slide over and bite into a round stud, preventing two panels from disengaging. Push-Ons are applied much faster than standard hex-nuts.

PS and PV style push-ons are the most commonly used. The serrated teeth provide flexibility, allowing them to accommodate larger stud variations. The separation of the teeth add flexibility and reduce insertion efforts.

Thin wall fasteners are higher strength versions of the push-on family. The interior design is much more rigid, making them suited for higher retention applications.

Rectangular removeable push-ons offer a different exterior footprint, and can be removed on a D-shaped stud by twisting the part 90 degrees.

Inserts provide a larger bearing surface so parts can be installed with automated assembly or can be pre-assembled to trim pieces.

Palnut® Threaded Push-On Fasteners can also be used in assembly applications where screws or bolts need to be retained in place before a nut is positioned and tightened.

Industries and Applications

- Domestic Appliances
- Toys, lawn carts, and coolers with axles
- Small mechanical or electrical devices

Benefits

- Provides maximum holding power, eliminating warranty issues caused by vibration loosening
- No tools required - eliminating time-consuming assembly operations
- One-piece design eliminates the need for multiple small parts, reducing inventory space
- Low profile design, allowing parts to be used in small mechanical and electrical devices

Performance Specifications

Insertion and retention efforts are dependent on the material and material thickness of the part, the size of the spring fingers and the material of the stud. Retention capability is typically up to three times that of insertion efforts.

ARaymond Tinnerman will offer samples for testing or will perform testing on customer provided components.



Palnut® (PS)



Palnut® (PV)



Thinwall (PG)



Rectangular Push-On



Palnut® - Insert (PN)



Palnut® Bolt Retainer (PT)



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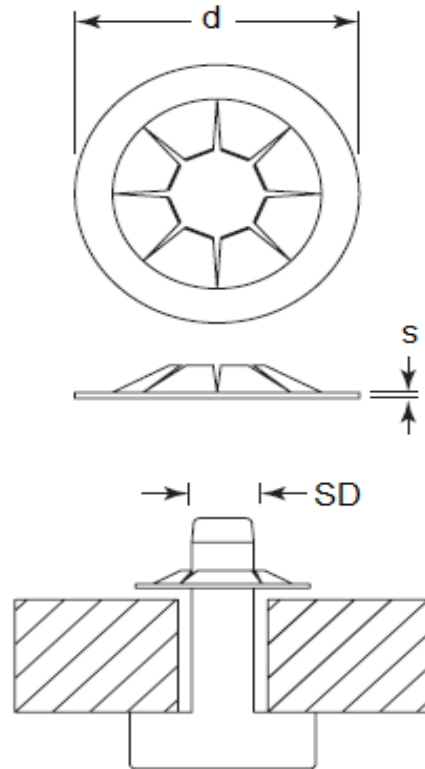
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Push-On (PS)

Part Number	Stud Size	Stud Diameter (SD)	Diameter (d)	Material Thick. (s)	# of Prongs
PS 062032	1/16"	0.060-0.065	0.195	0.010	6
PS 094032	3/32"	0.091-0.097	0.195	0.010	6
PS 125306	1/8"	0.122-0.128	0.375	0.009	6
PS 125006	1/8"	0.122-0.128	0.375	0.014	6
PD 156307	5/32-4mm	0.153-0.158	0.437	0.010	8
PD 156007	5/32-4mm	0.153-0.158	0.437	0.014	8
PS 188307	3/16"	0.185-0.191	0.437	0.010	8
PS 188007	3/16"	0.185-0.191	0.437	0.014	8
PS 050311	5mm	4.920-5.050	11.100	0.250	8
PS 050011	5mm	4.920-5.050	11.100	0.360	8
PD 219385	7/32"	0.216-0.222	0.531	0.012	8
PD 219085	7/32"	0.216-0.222	0.531	0.016	8
PS 060313	6mm	5.920-6.050	13.500	0.250	8
PS 060013	6mm	5.920-6.050	13.500	0.410	8
PS 250385	1/4"	0.247-0.253	0.531	0.012	8
PS 250075	1/4"	0.247-0.253	0.531	0.016	8
PS 312310	5/16"-8mm	0.310-0.316	0.625	0.015	8
PS 312010	5/16"-8mm	0.310-0.316	0.625	0.020	8
PS 375312	3/8"	0.372-0.378	0.750	0.017	8
PS 375012	3/8"	0.372-0.378	0.750	0.026	8
PS 100319	10mm	9.920-10.050	19.000	0.380	8
PS 100019	10mm	9.920-10.050	19.000	0.680	8
PS 438014	7/16"	0.436-0.441	0.875	0.030	8
PS 120022	12mm	11.920-12.050	22.100	0.860	8
PS 500016	1/2"	0.497-0.503	1.000	0.035	8
PZ 002015	5/8"	0.622-0.628	1.000	0.016	8

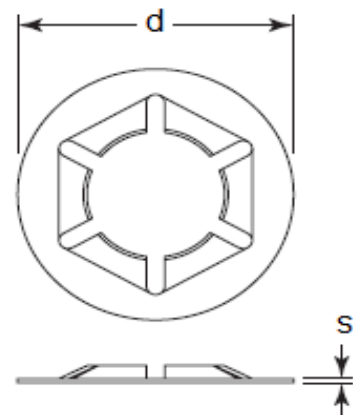
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Push-On (PV)

Part Number	Stud Size	Stud Diameter (SD)	Diameter (d)	Material Thick. (s)
PV 050024	5mm	4.920-5.050	23.800	0.380
PZ 002011	6mm	5.920-6.050	23.800	0.380
PV 250015	1/4"	0.247-0.253	0.937	0.015
PV 312015	5/16"-8mm	0.310-0.316	0.937	0.015
PV 880018	11/32"	8.720-8.850	18.000	0.500
PV 375015	3/8"	0.372-0.378	0.937	0.015
PV 438015	7/16"	0.435-0.441	0.937	0.015
PV 500015	1/2"	0.497-0.503	0.937	0.015

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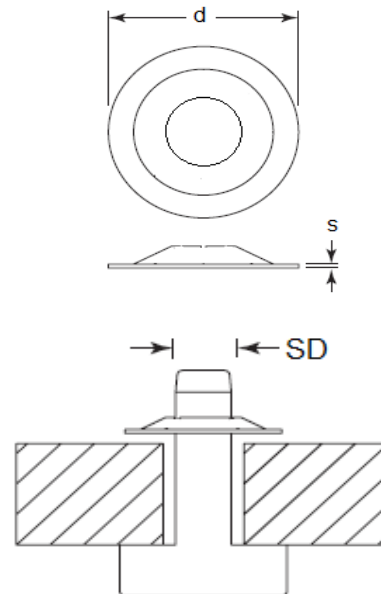
Push-On Thinwalls (Grooveless Retaining Rings - PG)

Part Number	Stud Size	Stud Diameter (SD)	Diameter (d)	Material Thick. (s)
T99220SS-128	1/16"	0.059-0.065	0.150	0.006
T99220SS-93	2mm	0.075-0.081	0.178	0.006
T99220SS-60	3/32"	0.090-0.096	0.218	0.008
T99220SS-83	3mm	0.114-0.120	0.245	0.010
T99220SS-167	1/8"	0.122-0.128	0.194	0.012
T99220SS-96	1/8"	0.122-0.128	0.245	0.008
T99220SS-74	1/8"	0.122-0.128	0.325	0.006
T99220SS-77	0.130"	0.127-0.133	0.245	0.006
T99220SS-153	0.143"	0.140-0.146	0.260	0.008
T99220SS-66	5/32"-4mm	0.153-0.159	0.260	0.008
T99220-162	4mm	0.159-0.165	0.437	0.014
T99220SS-68	3/16"	0.185-0.191	0.312	0.006
T99220SS-126	3/16"	0.185-0.191	0.375	0.012
T99220SS-196	6mm	0.234-0.239	0.531	0.017
PG 237043	6mm	0.237-0.243	0.625	0.022
T99220SS-80	1/4"	0.247-0.253	0.312	0.006
T99220SS-259	1/4"	0.247-0.253	0.437	0.020
T99220-119	1/4"	0.247-0.253	0.625	0.022
T99220SS-137	1/4"	0.247-0.253	0.625	0.010
T99220-171	1/4"	0.247-0.253	0.750	0.025
T99220SS-118	.300"	0.297-0.303	0.500	0.020
T99220SS-64	5/16"	0.310-0.316	0.437	0.010
T99220SS-261	5/16"-8mm	7.950-7.990	12.600	0.510
T99220-112	5/16"	0.310-0.316	0.625	0.022
T99220SS-132	11/32"	0.337-0.346	0.562	0.010
T99220SS-173	3/8"	0.369-0.375	0.500	0.020
T99220SS-91	3/8"	0.372-0.378	0.625	0.010
T99220SS-122	11mm	0.427-0.433	0.625	0.010
T99220SS-172	7/16"	0.434-0.439	0.575	0.010
T99220-201	12mm	11.980-12.050	19.900	1.060

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Part Number	Stud Size	Stud Diameter (SD)	Diameter (d)	Material Thick. (s)
T99220-193	.245"	0.492-0.498	0.750	0.010
T99220SS-258	1/2"	12.600-12.600	19.050	0.560
T99220SS-120	1/2"	0.497-0.503	0.750	0.010
T99220-200	14mm	13.980-14.020	21.900	1.060
T99220-223	15mm	14.920-15.050	23.050	0.510
T99220SS-100	5/8"	15.770-15.900	19.050	0.380
136447	17mm	0.666-0.672	1.000	0.034
PG 190025	3/4"	19.000-19.100	25.400	0.640
225547	20mm	19.930-20.000	27.990	1.000
136446	25mm	0.981-0.987	1.438	0.040
T99220-208	1"	0.997-1.003	1.750	0.014

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Push-On (Rectangular - Removable)

Part Number	Stud Diameter (D1)	Alt. Stud Dia. (D)	Length (l)	Width (b)	Material Thick. (s)
C12002-012	3/32"	0.074	0.450	0.230	0.012
D12003-012	1/8"	0.100	0.580	0.310	0.012
D12004-017	5/32-4mm	0.125	0.560	0.380	0.017
C12005-017	3/16"	0.150	0.630	0.380	0.017
C12007-017	1/4"	0.200	0.620	0.440	0.017
C12008-020	5/16"-8mm	0.250	0.690	0.500	0.020

