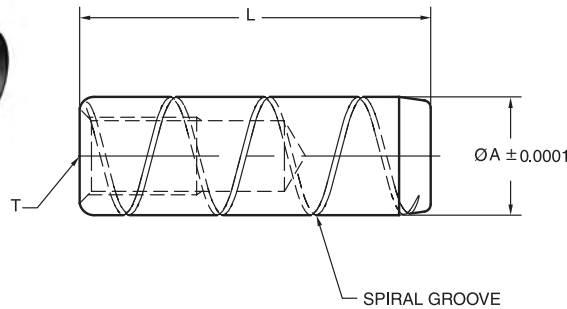


Alloy Steel Pull Dowel Pins

Jergens Offers 3 Styles of Precision Ground Pull Dowels



**Spiral Groove
(Grooves Help to Relieve Trapped Air)**

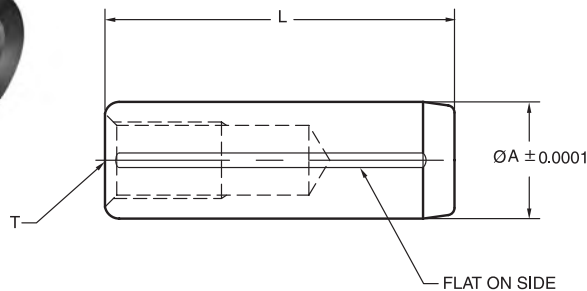


Features, Applications & Benefits

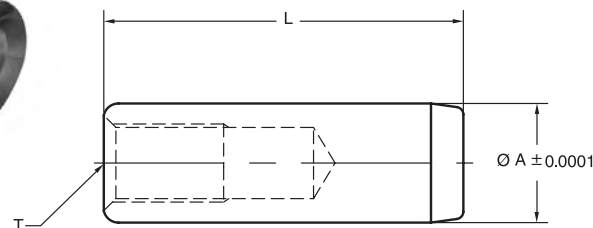
- Internally threaded hole allows removal of pull dowels with a standard screw.
- Standard Round Pull Dowels are typically used in applications featuring a through hole.
- Spiral Groove Pull Dowels feature a groove cut to allow trapped air to be released.
- Flat Vent Pull Dowels feature a ground flat on one side to release trapped air.
- Spiral Groove and Flat Vent Pull Dowels are typically used in blind hole applications.
- All of Jergens Precision Ground Pull Dowels are constructed of heat treated alloy steel.



**Flat Vent
(Ground Flat Helps to Relieve Trapped Air)**



**Standard Round
(Non-Vented)**



LOCATING COMPONENTS

Precision Ground Pull Dowels

Spiral Groove	Flat Vent	Standard Round	Nominal	Actual	Length	Internal Thread
31800	31400	31600	1/4	.2502	1/2	8 - 32
31801	31401	31601	1/4	.2502	3/4	8 - 32
31802	31402	31602	1/4	.2502	1	8 - 32
31803	31403	31603	1/4	.2502	1-1/4	8 - 32
31804	31404	31604	1/4	.2502	1-1/2	8 - 32
31805	31405	31605	1/4	.2502	1-3/4	8 - 32
31806	31406	31606	1/4	.2502	2	8 - 32
31807	31407	31654	1/4	.2502	2-1/4	8 - 32
31808	31408	31607	1/4	.2502	2-1/2	8 - 32
31809	31409	31608	5/16	.3127	3/4	10 - 32
31810	31410	31609	5/16	.3127	1	10 - 32
31811	31411	31610	5/16	.3127	1-1/4	10 - 32
31812	31412	31611	5/16	.3127	1-1/2	10 - 32
31813	31413	31612	5/16	.3127	2	10 - 32
31814	31414	31613	5/16	.3127	2-1/4	10 - 32
31815	31415	31614	5/16	.3127	2-1/2	10 - 32
31816	31416	31615	3/8	.3752	3/4	10 - 32
31817	31417	31616	3/8	.3752	1	10 - 32
31818	31418	31617	3/8	.3752	1-1/4	10 - 32
31819	31419	31618	3/8	.3752	1-1/2	10 - 32
31820	31420	31619	3/8	.3752	1-3/4	10 - 32
31821	31421	31620	3/8	.3752	2	10 - 32
31822	31422	31621	3/8	.3752	2-1/4	10 - 32
31823	31423	31622	3/8	.3752	2-1/2	10 - 32
31824	31424	31623	3/8	.3752	3	10 - 32
31825	31425	31624	7/16	.4377	1	1/4 - 20
31826	31426	31625	7/16	.4377	1-1/2	1/4 - 20
31827	31427	31626	7/16	.4377	2	1/4 - 20
31828	31428	31627	1/2	.5002	3/4	1/4 - 20
31829	31429	31628	1/2	.5002	1	1/4 - 20
31830	31430	31629	1/2	.5002	1-1/4	1/4 - 20
31831	31431	31630	1/2	.5002	1-1/2	1/4 - 20
31832	31432	31631	1/2	.5002	1-3/4	1/4 - 20
31833	31433	31632	1/2	.5002	2	1/4 - 20
31834	31434	31633	1/2	.5002	2-1/4	1/4 - 20
31835	31435	31634	1/2	.5002	2-1/2	1/4 - 20
31836	31436	31635	1/2	.5002	3	1/4 - 20
31837	31437	31636	1/2	.5002	3-1/2	1/4 - 20
31838	31438	31637	1/2	.5002	4	1/4 - 20
31839	31439	31638	5/8	.6252	1-1/4	1/4 - 20
31840	31440	31639	5/8	.6252	1-1/2	1/4 - 20
31841	31441	31640	5/8	.6252	2	1/4 - 20
31842	31442	31641	5/8	.6252	2-1/4	1/4 - 20
31843	31443	31642	5/8	.6252	2-1/2	1/4 - 20
31844	31444	31643	5/8	.6252	3	1/4 - 20
31845	31445	31644	5/8	.6252	4	1/4 - 20
31846	31446	31645	3/4	.7502	1-1/2	5/16 - 18
31847	31456	31655	3/4	.7502	1-3/4	5/16 - 18
31848	31447	31646	3/4	.7502	2	5/16 - 18
31849	31448	31647	3/4	.7502	2-1/2	5/16 - 18
31850	31449	31648	3/4	.7502	3	5/16 - 18
31851	31450	31649	3/4	.7502	4	5/16 - 18
31856*	31451	31656	1	1.0002	1-3/4	5/16 - 18
31852*	31452	31650	1	1.0002	2	5/16 - 18
31853*	31453	31651	1	1.0002	2-1/2	5/16 - 18
31854*	31454	31652	1	1.0002	3	5/16 - 18
31855*	31455	31653	1	1.0002	4	5/16 - 18

*3/8-16 Internal Thread

Technical Data
Material:

Alloy Steel

Length Tolerance:

± .010"

Core Hardness:

47 - 58 Rockwell C

Diameter Tolerance:

± .0001"

Surface Hardness:

60 - 64 Rockwell C

Recommended Hole Size:

.0005" under Nom. Dia.

Surface Finish:

8 Micro-Inch

Specification:

ASME B18.8.2

Spiral Groove

Flat Vent

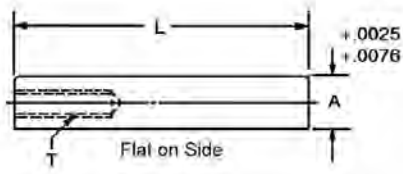
Standard Round


Pull Dowels Metric



- Material: Low Carbon Steel
- Heat Treat: Case Hardened
- Available in Fixture Pro® Design Software

Flat ground on the side for air release in blind holes.



Part Number	A	L	T
31751	8	20	M5 x 1.0
31753	8	30	M5 x 1.0
31755	8	40	M5 x 1.0
31759	10	20	M6 x 1.0
31761	10	30	M6 x 1.0
31763	10	40	M6 x 1.0
31765	10	50	M6 x 1.0
31767	10	70	M6 x 1.0
31769	12	20	M6 x 1.0
31771	12	30	M6 x 1.0
31773	12	40	M6 x 1.0

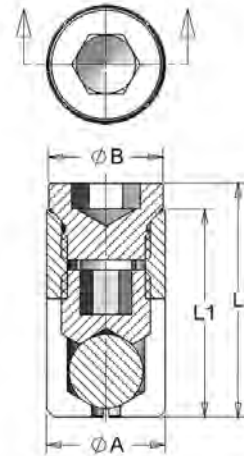
Part Number	A	L	T
31775	12	50	M6 x 1.0
31776	12	60	M6 x 1.0
31777	12	70	M6 x 1.0
31780	16	40	M8 x 1.25
31782	16	50	M8 x 1.25
31783	16	60	M8 x 1.25
31784	16	70	M8 x 1.25
31787	20	50	M10 x 1.6
31788	20	60	M10 x 1.6
31789	20	70	M10 x 1.6

Button head screw not included.

Precision Expanding Dowels



- Material: Alloy Steel, case hardened to 50-55 Rockwell C
- Self-Centering and Repeatable within $\pm 0.0005"$ (0.013mm)
- Top and bottom half of dowel expand separately
- Patented



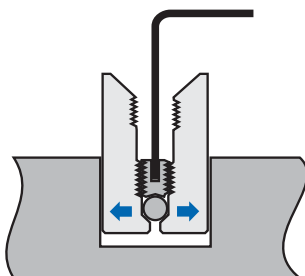
Inch

Part Number	Nominal Diameter Inch	Nominal Length (L) Inch	Recommended Hole Diameter	Hex Key Sizes				
				A Diameter	B Diameter	L1	Bottom	Top
				$+0.001/-0.000"$	$+0.000/-0.001"$	$+0.000/-0.010"$	$\pm 0.005"$	Step 1
29401	1/4	1/2	0.250	0.249	0.245	0.428	5/64	3/32
29402	3/8	3/4	0.375	0.374	0.370	0.634	1/8	5/32
29403	1/2	1	0.500	0.499	0.495	0.881	5/32	3/16
29404	5/8	1 1/4	0.625	0.624	0.620	1.162	3/16	7/32
29405	3/4	1 1/2	0.750	0.749	0.745	1.390	1/4	5/16
29406	1	2	1.000	0.999	0.995	1.758	3/8	1/2

Metric

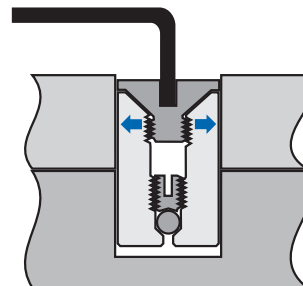
Part Number	Nominal Diameter (mm)	Nominal Length (L) (mm)	Recommended Hole Diameter	Hex Key Sizes				
				A Diameter	B Diameter	L1	Bottom	Top
				$+0.025/-0.00mm$	$+0.00/-0.025mm$	$+0.00/-0.254mm$	$\pm 0.13mm$	Step 1
29451	10	20	10	9.98	9.88	17.45	3	4
29452	12	25	12	11.98	11.89	22.48	4	5
29453	14	28	14	13.97	13.89	24.74	4	5
29454	16	32	16	15.98	15.90	29.51	5	6
29455	20	38	20	19.98	19.89	35.31	6	8

Installation Instructions



Step 1

Remove the top screw, insert the dowel into the locating hole of the first part, and expand the bottom half with a hex wrench.



Step 2

Replace the top screw, slide the locating hole of the second part over the dowel and expand top half with a hex wrench.