

MISCELLANEOUS FASTENERS

Miscellaneous Fasteners

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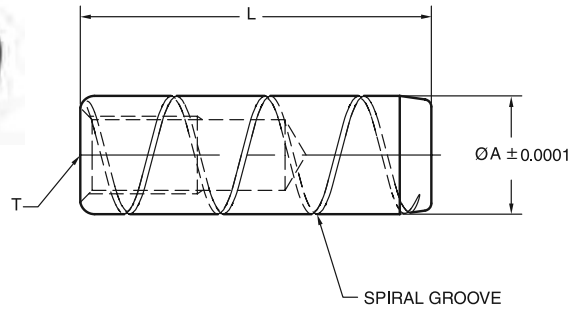


Alloy Steel Pull Dowel Pins

Jergens Offers 3 Styles of Precision Ground Pull Dowels



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

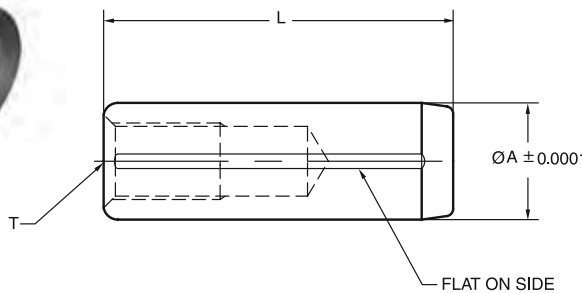


Features, Applications & Benefits

- 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.



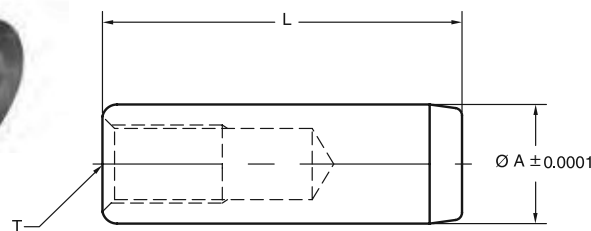
**Flat Vent
(Ground Flat Helps to Relieve Trapped Air)**



- Spiral Groove and Flat Vent Pull Dowels are typically used in blind hole applications
- Special materials and sizes available upon request.
- All of Jergens Precision Ground Pull Dowels are constructed of heat treated alloy steel.



**Standard Round
(Non-Vented)**



Special materials and sizes available upon request

MISCELLANEOUS FASTENERS



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



Special materials and sizes available upon request

Precision Ground Pull Dowels Stainless Steel

Spiral Groove	Standard Round	Nominal	Actual	Length	Internal Thread
31800-SS	31600-SS	1/4	.2502	1/2	8 - 32
31801-SS	31601-SS	1/4	.2502	3/4	8 - 32
31802-SS	31602-SS	1/4	.2502	1	8 - 32
31803-SS	31603-SS	1/4	.2502	1-1/4	8 - 32
31804-SS	31604-SS	1/4	.2502	1-1/2	8 - 32
31805-SS	31605-SS	1/4	.2502	1-3/4	8 - 32
31806-SS	31606-SS	1/4	.2502	2	8 - 32
31807-SS	31654-SS	1/4	.2502	2-1/4	8 - 32
31808-SS	31607-SS	1/4	.2502	2-1/2	8 - 32
31809-SS	31608-SS	5/16	.3127	3/4	10 - 32
31810-SS	31609-SS	5/16	.3127	1	10 - 32
31811-SS	31610-SS	5/16	.3127	1-1/4	10 - 32
31812-SS	31611-SS	5/16	.3127	1-1/2	10 - 32
31813-SS	31612-SS	5/16	.3127	2	10 - 32
31814-SS	31613-SS	5/16	.3127	2-1/4	10 - 32
31815-SS	31614-SS	5/16	.3127	2-1/2	10 - 32
31816-SS	31615-SS	3/8	.3752	3/4	10 - 32
31817-SS	31616-SS	3/8	.3752	1	10 - 32
31818-SS	31617-SS	3/8	.3752	1-1/4	10 - 32
31819-SS	31618-SS	3/8	.3752	1-1/2	10 - 32
31820-SS	31619-SS	3/8	.3752	1-3/4	10 - 32
31821-SS	31620-SS	3/8	.3752	2	10 - 32
31822-SS	31621-SS	3/8	.3752	2-1/4	10 - 32
31823-SS	31622-SS	3/8	.3752	2-1/2	10 - 32
31824-SS	31623-SS	3/8	.3752	3	10 - 32
31825-SS	31624-SS	7/16	.4377	1	1/4 - 20
31826-SS	31625-SS	7/16	.4377	1-1/2	1/4 - 20
31827-SS	31626-SS	7/16	.4377	2	1/4 - 20
31828-SS	31627-SS	1/2	.5002	3/4	1/4 - 20
31829-SS	31628-SS	1/2	.5002	1	1/4 - 20
31830-SS	31629-SS	1/2	.5002	1-1/4	1/4 - 20
31831-SS	31630-SS	1/2	.5002	1-1/2	1/4 - 20
31832-SS	31631-SS	1/2	.5002	1-3/4	1/4 - 20
31833-SS	31632-SS	1/2	.5002	2	1/4 - 20
31834-SS	31633-SS	1/2	.5002	2-1/4	1/4 - 20
31835-SS	31634-SS	1/2	.5002	2-1/2	1/4 - 20
31836-SS	31635-SS	1/2	.5002	3	1/4 - 20
31837-SS	31636-SS	1/2	.5002	3-1/2	1/4 - 20
31838-SS	31637-SS	1/2	.5002	4	1/4 - 20
31839-SS	31638-SS	5/8	.6252	1-1/4	1/4 - 20
31840-SS	31639-SS	5/8	.6252	1-1/2	1/4 - 20
31841-SS	31640-SS	5/8	.6252	2	1/4 - 20
31842-SS	31641-SS	5/8	.6252	2-1/4	1/4 - 20
31843-SS	31642-SS	5/8	.6252	2-1/2	1/4 - 20
31844-SS	31643-SS	5/8	.6252	3	1/4 - 20
31845-SS	31644-SS	5/8	.6252	4	1/4 - 20
31846-SS	31645-SS	3/4	.7502	1-1/2	5/16 - 18
31847-SS	31655-SS	3/4	.7502	1-3/4	5/16 - 18
31848-SS	31646-SS	3/4	.7502	2	5/16 - 18
31849-SS	31647-SS	3/4	.7502	2-1/2	5/16 - 18
31850-SS	31648-SS	3/4	.7502	3	5/16 - 18
31851-SS	31649-SS	3/4	.7502	4	5/16 - 18
31856-SS*	31656-SS	1	1.0002	1-3/4	5/16 - 18
31852-SS*	31650-SS	1	1.0002	2	5/16 - 18
31853-SS*	31651-SS	1	1.0002	2-1/2	5/16 - 18
31854-SS*	31652-SS	1	1.0002	3	5/16 - 18
31855-SS*	31653-SS	1	1.0002	4	5/16 - 18

*3/8-16 Internal Thread

Technical Data

Material:

300 Series SS (18-8)

Length Tolerance:

± .010"

Diameter Tolerance:

± .0001"

Recommended Hole Size:

.0005" under Nom. Dia.

Surface Finish:

8 Micro-Inch

Specification:

ASME B18.8.2

(Parts are not heat treated/hardened)

Spiral Groove



Standard Round



Special materials and sizes available upon request

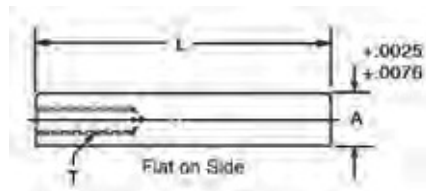


Pull Dowels Metric



- Material: Low Carbon Steel
- Heat Treat: Case Hardened
- 3D Solid Models are available in multiple formats from www.jergensinc.com

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.

Special materials and sizes available upon request

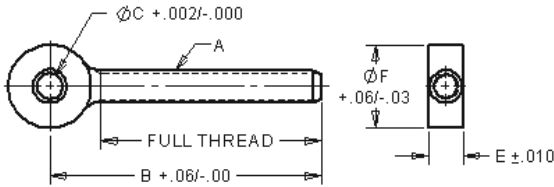


Rod Ends Threaded



- Material: Alloy Steel
- Finish: Black Oxide
- Heat Treat: 32-36 Rc
- Thread: Class 2A-UNC
- * 150,000 PSI Tensile

Rod Ends are forged and finished for applications not requiring flat contact with the head. All holes are reamed. Rod Ends can be used with spherical flange assemblies, flange nuts and clamp assemblies.



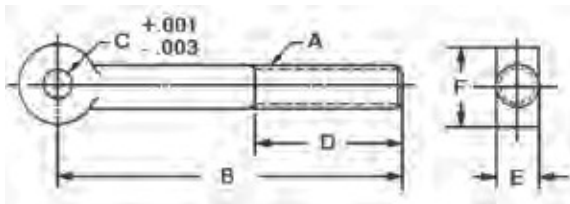
Part Number	Thread A	B	C	E	F	Wt. (lbs)
35301*	1/4-20	2	3/16	1/4	39/64	.04
35302	1/4-20	2	1/4	1/4	-	.03
35318*	5/16-18	3	1/4	5/16	43/64	.08
35319*	5/16-18	3	5/16	5/16	-	.08
35303*	3/8-16	3	5/16	3/8	13/16	.11
35320	3/8-16	4	5/16	3/8	-	.11
35304	3/8-16	2 3/16	3/8	3/8	-	.08
35305*	3/8-16	3	3/8	3/8	-	.11
35306*	3/8-16	5	3/8	3/8	-	.12
35307*	1/2-13	3 3/4	3/8	1/2	1 1/32	.25
35308	1/2-13	2 11/16	1/2	1/2	-	.19
35309	1/2-13	3 3/4	1/2	1/2	-	.24
35310	1/2-13	5	1/2	1/2	-	.31
35311	5/8-11	3 11/16	5/8	5/8	1 5/16	.40
35312*	5/8-11	4 1/2	5/8	5/8	-	.46
35314*	5/8-11	6	5/8	5/8	-	.60
35315*	3/4-10	4 1/2	3/4	3/4	1 9/16	.73
35321*	3/4-10	6	3/4	3/4	-	1.00
35317	1-8	8	1	1	2 3/32	2.25

*Conforms to TMCA.
Not to be used for lifting.

Rod Ends Stainless Steel



- Material: 303 Stainless
- Thread Class 2A-UNC



Part Number	Ref. A	B	Ref. C	D	E	F
35721	1/4-20	2 1/8	3/16	7/8	1/4	1/2
35722	1/4-20	2 1/8	1/4	7/8	1/4	1/2
35723	5/16-18	3 1/2	1/4	1 1/2	5/16	5/8
35724	5/16-18	3 1/2	5/16	1 1/2	5/16	5/8
35725	3/8-16	3 1/2	3/8	1 1/2	3/8	3/4
35726	3/8-16	5	3/8	2 1/2	3/8	3/4
35727	1/2-13	3 3/4	1/2	1 1/2	1/2	1
35728	1/2-13	5	1/2	2	1/2	1
35729	5/8-11	4 1/2	5/8	2	5/8	1 1/4
35730	5/8-11	6	5/8	3	5/8	1 1/4
35731	3/4-10	4 1/2	3/4	2	3/4	1 1/2
35732	3/4-10	6	3/4	2 1/2	3/4	1 1/2

Not to be used for lifting.

Special materials and sizes available upon request

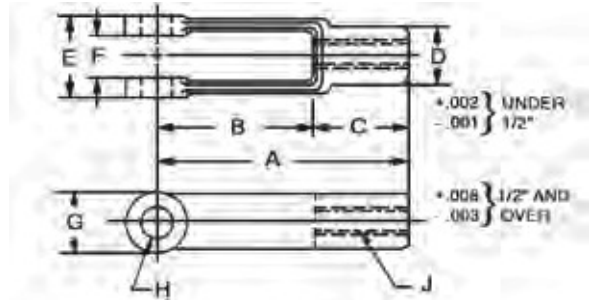


Yokes Tapped



- Material: C-1021 Forging
- Finish: Black Oxide
- Thread: 2B

Jergens offers these yokes for attaching to threaded linkage at stem end. The forged holes are reamed and faced-off parallel inside and outside the yoke ends.



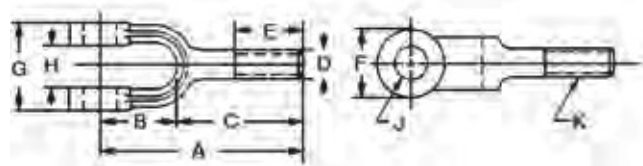
Part Number Coarse Pitch	UNC J	Part Number Fine Pitch	UNF J	A	B	C	D	E	F	G	H	Wt. (lbs) 10 Pcs.
		45501	10-32	1 9/16	1	9/16	5/16	7/16	3/16	3/8	3/16	.21
45302	1/4-20	45502	1/4-28	2	1 1/4	3/4	7/16	5/8	9/32	1/2	1/4	.62
45303	5/16-18	45503	5/16-24	2 1/4	1 7/16	13/16	1/2	3/4	11/32	19/32	5/16	.94
45304	3/8-16	45504	3/8-24	2 1/2	1 5/8	7/8	5/8	7/8	7/16	11/16	3/8	1.45
45305	7/16-14	45505	7/16-20	2 7/8	1 7/8	1	23/32	1	1/2	13/16	7/16	2.35
45306	1/2-13	45506	1/2-20	3	1 7/8	1 1/8	13/16	1 1/8	9/16	15/16	1/2	3.10
45307	1/2-13	45507	1/2-20	4 3/16	3 1/16	1 1/8	13/16	1 1/8	9/16	15/16	1/2	4.35
45308	5/8-11	45508	5/8-18	4 15/16	3 11/16	1 1/4	1 1/16	1 3/8	11/16	1 3/16	5/8	8.10
45309	3/4-10	45509	3/4-16	4	2 3/4	1 1/4	1 1/8	1 1/2	11/16	1 3/8	5/8	7.50
45310	3/4-10	—	—	6 1/16	4 9/16	1 1/2	1 1/4	1 5/8	13/16	1 7/16	3/4	15.00
45312	1-8	—	—	8	6	2	1 5/8	2 1/8	1 1/16	1 15/16	1	32.50

Yokes Threaded



- Material: C-1021 Forging
- Finish: Black Oxide
- Thread: 2A-UNC

This style yoke is similar to the above except the stem is threaded for attaching to tapped linkage.



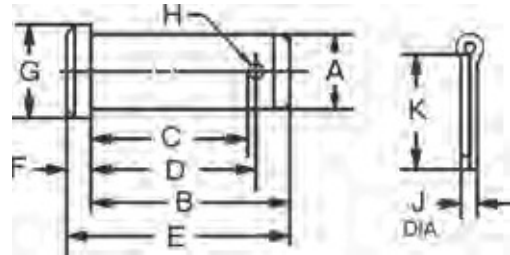
Part Number	K	A	B	C	D	E	F	G	H	J	Wt. (lbs) 10 Pcs.
45902	1/4-20	1 3/4	5/8	1 1/8	1/4	3/4	1/2	5/8	9/32	1/4	.47
45903	5/16-18	2	3/4	1 1/4	5/16	3/4	19/32	3/4	11/32	5/16	.85
45904	3/8-16	2 1/8	27/32	1 9/32	3/8	3/4	11/16	7/8	7/16	3/8	1.10
45906	1/2-13	2 1/2	1 1/8	1 3/8	1/2	3/4	15/16	1 1/8	9/16	1/2	2.35
45908	3/4-10	3 5/8	1 11/16	1 15/16	3/4	1 1/4	1 7/16	1 5/8	13/16	3/4	7.35
45910	1-8	4 1/2	2 1/2	2	1	1 1/8	1 15/16	2 1/8	1 1/16	1	17.50



Clevis Pins



- Material: Low Carbon Steel
- All Clevis Pins supplied with cotter pins.



Part Number	A	B	C	D	E	F	G	H	J	K	Wt. (lbs) 10 Pcs.
32701	3/16	37/64	29/64	31/64	41/64	1/16	5/16	5/64	1/16	1/2	.08
32702	1/4	49/64	41/64	43/64	55/64	3/32	3/8	5/64	1/16	1/2	.15
32703	5/16	15/16	49/64	13/16	1 1/32	3/32	7/16	7/64	3/32	1/2	.30
32704	3/8	1 1/16	57/64	15/16	1 3/16	1/8	1/2	7/64	3/32	5/8	.45
32705	7/16	1 3/16	1 1/64	1 1/16	1 11/32	5/32	9/16	7/64	3/32	5/8	.60
32706	1/2	1 23/64	1 9/64	1 13/64	1 33/64	5/32	5/8	9/64	1/8	1	1.00
32707	5/8	1 39/64	1 25/64	1 29/64	1 13/16	13/64	13/16	9/64	1/8	1	1.18
32708	5/8	1 3/4	1 33/64	1 19/32	1 63/64	13/64	13/16	9/64	1/8	1	1.82
32709	3/4	1 29/32	1 41/64	1 23/32	2 5/32	1/4	15/16	11/64	5/32	1 1/2	3.00
32711	1	2 13/32	2 9/64	2 7/32	2 3/4	11/32	1 3/16	11/64	5/32	1 1/2	7.00

MISCELLANEOUS FASTENERS

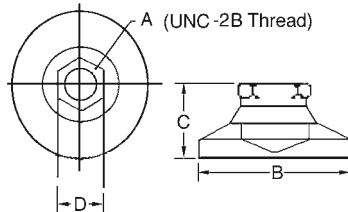


Leveling Mounts

- Material: 1214 Steel
- Zinc plated, yellow finish
- Non-Skid Material: Neoprene
- Case hardened, file hard

- Swivels 10° in all directions
- Available with non-skid on base
- Available in stainless steel, or with a delrin pad, and in larger sizes upon request.

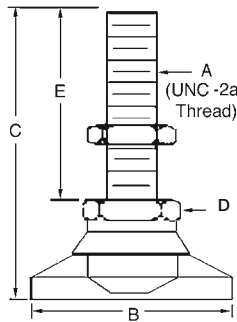
Tapped



Part Number		A	B	C*	Across Flats D	Maximum Load (lbs)	
Standard	Non-skid					Standard	Non-skid
32601	32651	10-32	3/4	17/32	3/8	700	550
32602	32652	1/4-20	1	45/64	1/2	1000	825
32606	32656	3/8-16	1 1/4	7/8	5/8	3750	2820
32608	32658	1/2-13	1 7/8	1 1/8	3/4	5000	3750
32610	32660	5/8-11	2 1/2	1 1/4	7/8	6000	5000
32612	32662	3/4-10	3	1 1/2	1 1/16	7400	6000
32616	32666	1-8	4	1 7/8	1 3/8	21000	16500

*Add 1/8" to C Dimension for non-skid style.

Threaded



Part Number		A	B	C*	Across Flats D	E	Maximum Load (lbs)	
Standard	Non-skid						Standard	Non-skid
32621	32671	10-32	3/4	1 17/32	3/8	1	700	550
32623	32673	1/4-20	1	1 61/64	1/2	1 1/4	1000	825
32626	32676	3/8-16	1 1/4	2 7/8	5/8	2	3750	2850
32629	32679	1/2-13	1 7/8	3 1/8	3/4	2	5000	3750
32632	32682	5/8-11	2 1/2	3 1/4	7/8	2	6000	4350
32635	32685	3/4-10	3	3 1/2	1 1/16	2	7400	5500
32640	32690	1-8	4	5 3/8	1 3/8	3 1/2	20000	16500

*Add 1/8" to C Dimension for non-skid style.

USAE™ Heavy Duty Flat Washers



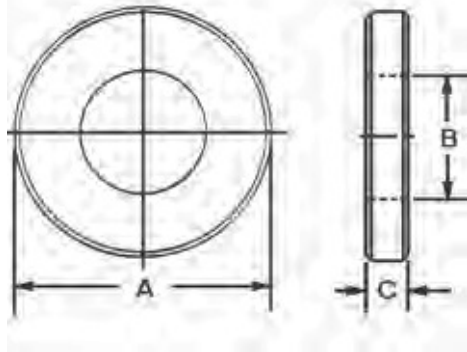
USS + SAE = USAE

What is a USAE™ Washer?

- It is a simple but effective idea that is long overdue.
- The Outside Diameter conforms to USS standards. This provides a washer that is up to 36% larger than standard hardened washers.

More Contact Area = More Holding Power

- The Inside Diameter conforms to SAE standards. The small ID provides a more precise fit on bolts, studs, etc.
- USAE Washers are also up to 37% thicker than standard hardened washers for greater strength.
- Washers are made from mild steel. They are case hardened to 60 HRc and have a black oxide finish.
- Bolt size is stamped on each washer for easy identification.



USAE™ Heavy Duty Flat Washers

Part No.	Bolt Size	A (OD)	B (ID)	C (Thickness)
FW00001	1/4	3/4	9/32	9/64
FW00002	5/16	7/8	11/32	9/64
FW00003	3/8	1	13/32	9/64
FW00004	1/2	1-3/8	17/32	5/32
FW00005	5/8	1-3/4	21/32	5/32
FW00006	3/4	2	13/16	1/4
FW00007	1	2-1/2	1-1/16	1/4

*Tolerances for all dimensions are +/- .010"