



FEDERAL SCREW PRODUCTS

SINCE 1930



lockbolts & tooling

Technical Information

Large Diameter Lockbolts

For heavy engineering applications.



Standard Sizes: \varnothing 1/2" - \varnothing 5/8" - \varnothing 3/4" - \varnothing 7/8"
 \varnothing 1" - \varnothing 1-1/8" - \varnothing 1-3/8"

Standard Head Styles: Round head, Truss Head, CSK

Material / Finish: Steel self-color finish (Black, oiled)

Optional Finish: Industry standard finishes available

Optional Very High Tensile Strength: Grade 8

Optional Head or Styles: Custom head styles can be developed for specific applications. Typically used where the outer head of the lock bolts can perform additional functions designed into the manufacture.

Small Diameter Lockbolts

For engineering applications & general fabrications



Standard Sizes: \varnothing 3/16" - \varnothing 1/4" - \varnothing 5/16" - \varnothing 3/8"

Standard Head Styles: Brazier head, Truss Head, CSK

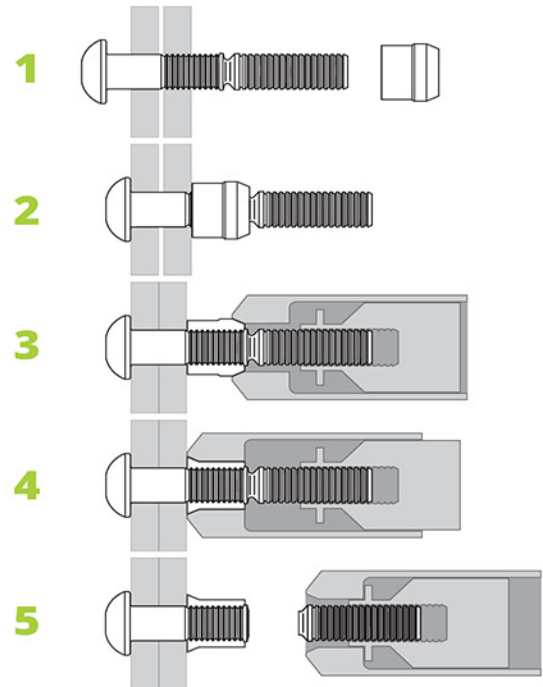
Material / Finish: Steel, Aluminum, Stainless Steel

Optional Finish: Industry standard finishes available

Optional Very High Tensile Strength: Grade 8

Optional Head or Styles: Custom head styles can be developed for specific applications. Typically used where the outer head of the lock bolts can perform additional functions designed into the manufacture.

Lockbolt Installation



1. The pin is inserted into the pre-cut hole
2. The collar is placed over the pin
3. Tool covers the pin tail and is activated
4. Tool swages collar and creates clamp
5. Pin tail breaks and installation is complete

How To Order

Our part numbers are made up of all the elements to uniquely identify each part.

FERSB06-06G

[A] [B] [C] [D] [E] [F]

[A] Brand - *Federal Screw Lock Bolts & Collars*

[B] Material - (S) Steel (A) Aluminum (SS) Stainless Steel

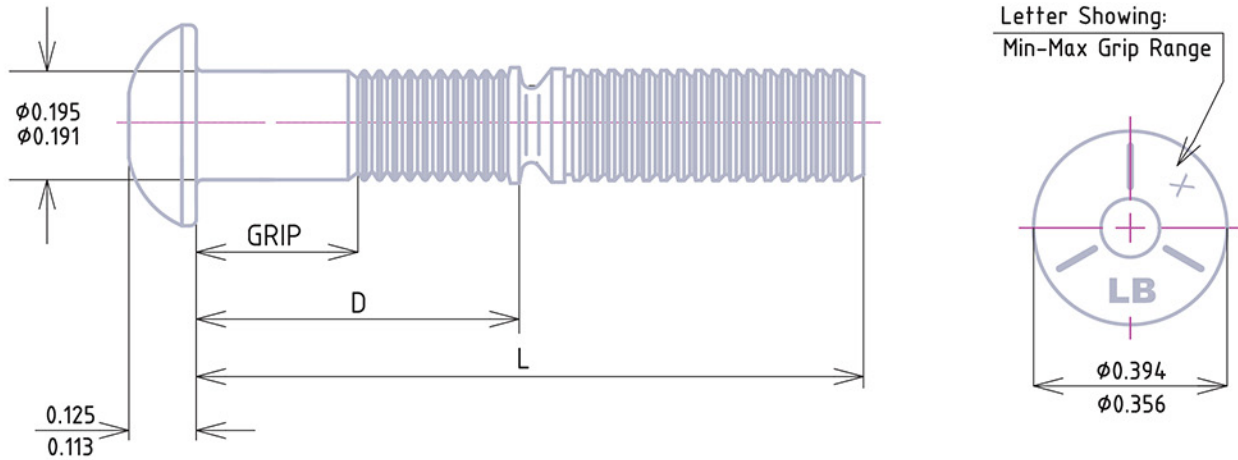
[C] Pin Head Style - (B) Brazier (T) Truss (CSK) Counter Collar Style
(C) Standard (CF) Flanged (L) Low Profile

[D] Diameter - *See specifications*

[E] Grip Range - *See specifications*

[F] Finish - (G) Zinc

FERSB 06-X - 3/16" Round Head Lock Bolt

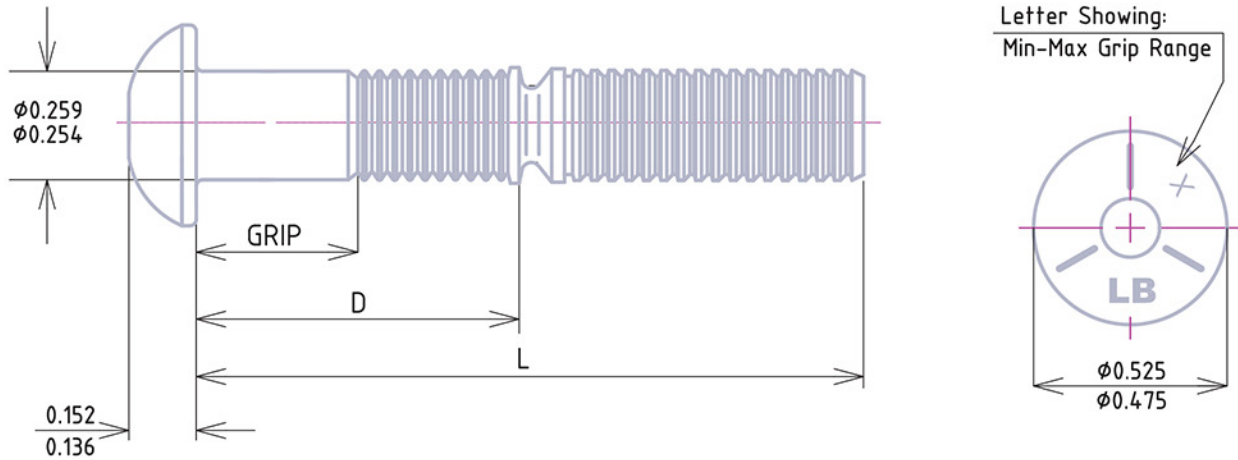


Technical Requirements

Min Ultimate Tensile:	1686.07 (lbf)	Clamping Load:	1056.6 (lbf)
Min Shear Strength:	1753.51 (lbf)	Surface Treatment:	10 µm Zinc Clear
Max Hole Diameter:	0.1969	Raw Material Specification:	Carbon Steel

3/16"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
6-2	FERSB06-02G	0.063	0.188	0.363	0.426	1.404	1.463	2
6-3	FERSB06-03G	0.125	0.25	0.426	0.489	1.466	1.525	3
6-4	FERSB06-04G	0.188	0.313	0.487	0.55	1.529	1.588	4
6-5	FERSB06-05G	0.25	0.375	0.55	0.613	1.591	1.65	5
6-6	FERSB06-06G	0.313	0.438	0.613	0.676	1.654	1.713	6
6-7	FERSB06-07G	0.375	0.5	0.676	0.739	1.716	1.775	7
6-8	FERSB06-08G	0.438	0.563	0.737	0.8	1.779	1.838	8
6-9	FERSB06-09G	0.5	0.625	0.8	0.863	1.841	1.9	9
6-10	FERSB06-10G	0.563	0.688	0.863	0.926	1.904	1.963	10
6-11	FERSB06-11G	0.625	0.75	0.926	0.989	1.966	2.025	11
6-12	FERSB06-12G	0.688	0.813	0.987	1.05	2.029	2.088	12
6-13	FERSB06-13G	0.75	0.875	1.05	1.113	2.091	2.15	13
6-14	FERSB06-14G	0.813	0.938	1.113	1.176	2.154	2.213	14
6-15	FERSB06-15G	0.875	1	1.176	1.239	2.216	2.275	15
6-16	FERSB06-16G	0.938	1.063	1.237	1.3	2.279	2.338	16
6-17	FERSB06-17G	1	1.125	1.3	1.363	2.341	2.4	17
6-18	FERSB06-18G	1.063	1.188	1.363	1.426	2.404	2.463	18
6-19	FERSB06-19G	1.125	1.25	1.426	1.489	2.466	2.525	19
6-20	FERSB06-20G	1.188	1.313	1.487	1.55	2.529	2.588	20

FERSB 08-X - 1/4" Round Head Lock Bolt

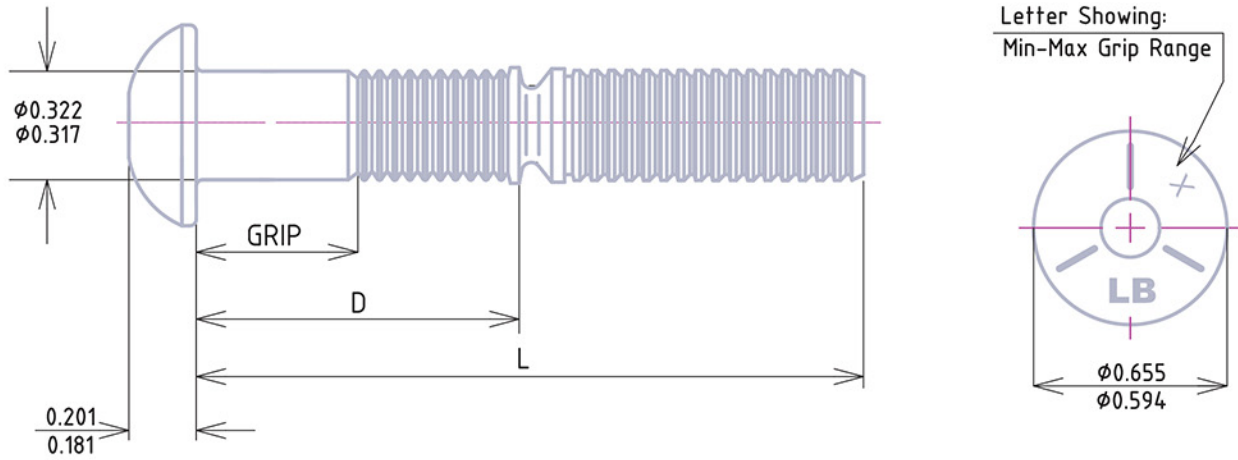


Technical Requirements

Min Ultimate Tensile:	3034.92 (lbf)	Clamping Load:	1798.47 (lbf)
Min Shear Strength:	3147.33 (lbf)	Surface Treatment:	10 µm Zinc Clear
Max Hole Diameter:	0.2598	Raw Material Specification:	Carbon Steel

1/4"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
8-2	FERSB08-02G	0.063	0.188	0.454	0.517	1.52	1.463	2
8-3	FERSB08-03G	0.125	0.25	0.517	0.58	1.583	1.525	3
8-4	FERSB08-04G	0.188	0.313	0.578	0.641	1.645	1.588	4
8-5	FERSB08-05G	0.25	0.375	0.641	0.704	1.708	1.65	5
8-6	FERSB08-06G	0.313	0.438	0.704	0.767	1.77	1.713	6
8-7	FERSB08-07G	0.375	0.5	0.767	0.83	1.833	1.775	7
8-8	FERSB08-08G	0.438	0.563	0.828	0.891	1.895	1.838	8
8-9	FERSB08-09G	0.5	0.625	0.891	0.954	1.958	1.9	9
8-10	FERSB08-10G	0.563	0.688	0.954	1.017	2.02	1.963	10
8-11	FERSB08-11G	0.625	0.75	1.017	1.08	2.083	2.025	11
8-12	FERSB08-12G	0.688	0.813	1.078	1.141	2.145	2.088	12
8-13	FERSB08-13G	0.75	0.875	1.141	1.204	2.208	2.15	13
8-14	FERSB08-14G	0.813	0.938	1.204	1.267	2.27	2.213	14
8-15	FERSB08-15G	0.875	1	1.267	1.33	2.333	2.275	15
8-16	FERSB08-16G	0.938	1.063	1.328	1.391	2.395	2.338	16
8-17	FERSB08-17G	1	1.125	1.391	1.454	2.458	2.4	17
8-18	FERSB08-18G	1.063	1.188	1.454	1.517	2.52	2.463	18
8-19	FERSB08-19G	1.125	1.25	1.517	1.58	2.583	2.525	19
8-20	FERSB08-20G	1.188	1.313	1.578	1.641	2.645	2.588	20

FERSB 10-X - 5/16" Round Head Lock Bolt

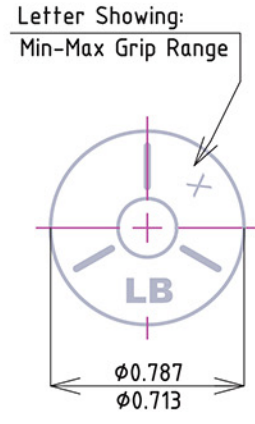
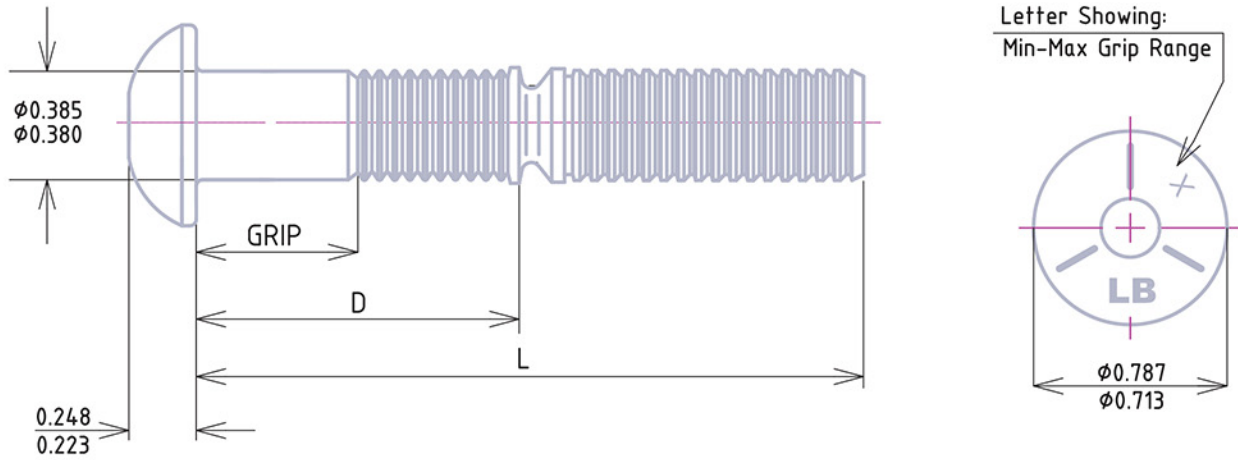


Technical Requirements

Min Ultimate Tensile:	4720.99 (lbf)	Clamping Load:	2922.52 (lbf)
Min Shear Strength:	4833.39 (lbf)	Surface Treatment:	10 µm Zinc Clear
Max Hole Diameter:	0.3228	Raw Material Specification:	Carbon Steel

5/16"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
10-4	FERSB10-04G	0.125	0.375	0.717	0.78	1.91	1.969	4
10-6	FERSB10-06G	0.25	0.5	0.843	0.906	2.035	2.094	6
10-8	FERSB10-08G	0.375	0.625	0.967	1.03	2.16	2.219	8
10-10	FERSB10-10G	0.5	0.75	1.093	1.156	2.285	2.344	10
10-12	FERSB10-12G	0.625	0.875	1.217	1.28	2.41	2.469	12
10-14	FERSB10-14G	0.75	1	1.343	1.406	2.535	2.594	14
10-16	FERSB10-16G	0.875	1.125	1.467	1.53	2.66	2.719	16
10-18	FERSB10-18G	1	1.25	1.593	1.656	2.785	2.844	18
10-20	FERSB10-20G	1.125	1.375	1.717	1.78	2.91	2.969	20

FERSB 12-X - 3/8" Round Head Lock Bolt

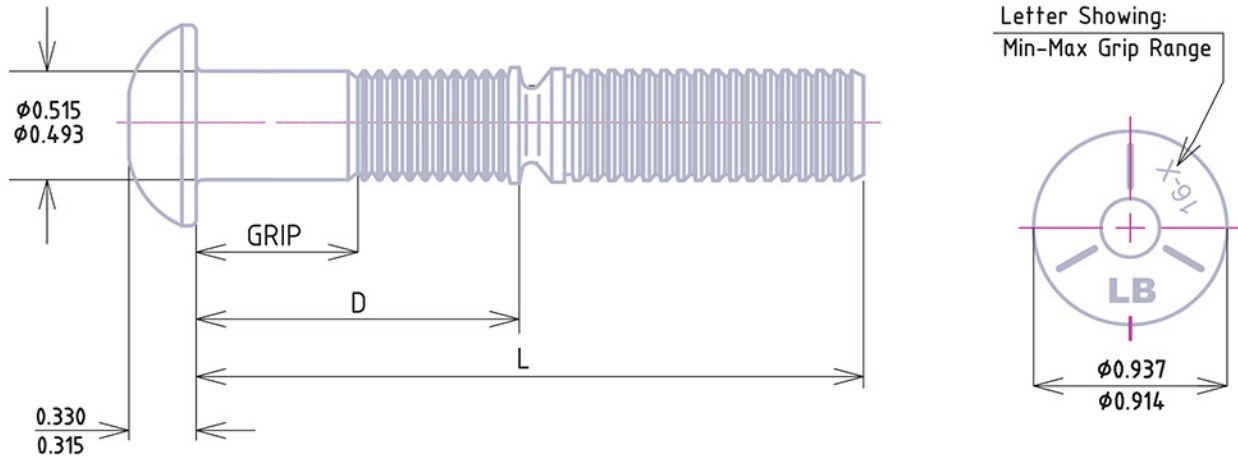


Technical Requirements

Min Ultimate Tensile:	6519.46 (lbf)	Clamping Load:	4046.56 (lbf)
Min Shear Strength:	6969.08 (lbf)	Surface Treatment:	10 μ m Zinc Clear
Max Hole Diameter:	0.3858	Raw Material Specification:	Carbon Steel

3/8"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
12-4	FERSB12-04G	0.125	0.375	0.778	0.841	2.121	2.180	4
12-6	FERSB12-06G	0.250	0.500	0.902	0.965	2.246	2.305	6
12-8	FERSB12-08G	0.375	0.625	1.028	1.091	2.371	2.430	8
12-10	FERSB12-10G	0.500	0.750	1.152	1.215	2.496	2.555	10
12-12	FERSB12-12G	0.625	0.875	1.278	1.341	2.621	2.680	12
12-14	FERSB12-14G	0.750	1.000	1.402	1.465	2.746	2.805	14
12-16	FERSB12-16G	0.875	1.125	1.528	1.591	2.871	2.930	16
12-18	FERSB12-18G	1.000	1.250	1.652	1.715	2.996	3.055	18
12-20	FERSB12-20G	1.125	1.375	1.778	1.841	3.121	3.180	20

FERSB 16-X - 1/2" Round Head Lock Bolt

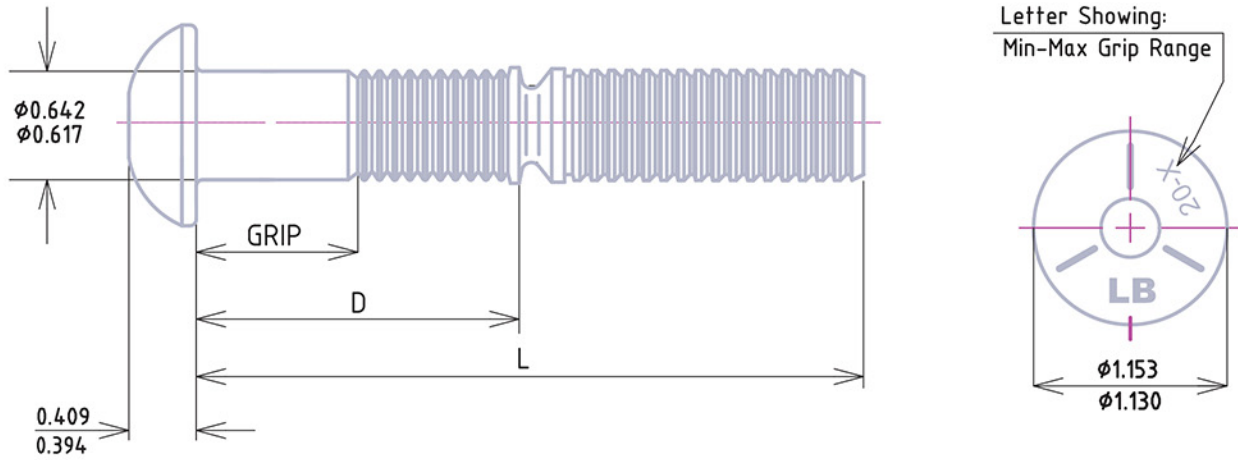


Technical Requirements

Min Ultimate Tensile:	17085.48 (lbf)	Max Pin Protusion:	0.374
Clamping Load:	12139.68 (lbf)	Max Pin Intrusion:	0.063
Min Shear Strength:	14387.77 (lbf)	Surface Treatment:	Black and Oiled
Max Hole Diameter:	0.5590	Raw Material Specification:	Alloy Steel

1/2"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
16-4	FERSB16-04	0.25	0.5	1.2	1.23	3.12	3.23	16-4
16-8	FERSB16-08	0.5	0.75	1.45	1.48	3.37	3.48	16-8
16-12	FERSB16-12	0.75	1	1.7	1.73	3.62	3.73	16-12
16-16	FERSB16-16	1	1.25	1.95	1.98	3.87	3.98	16-16
16-20	FERSB16-20	1.25	1.5	2.2	2.23	4.12	4.23	16-20
16-24	FERSB16-24	1.5	1.75	2.45	2.48	4.37	4.48	16-24
16-28	FERSB16-28	1.75	2	2.7	2.73	4.62	4.73	16-28
16-32	FERSB16-32	2	2.25	2.95	2.98	4.87	4.98	16-32
16-36	FERSB16-36	2.25	2.5	3.2	3.23	5.12	5.23	16-36
16-40	FERSB16-40	2.5	2.75	3.45	3.48	5.37	5.48	16-40
16-44	FERSB16-44	2.75	3	3.7	3.73	5.62	5.73	16-44
16-48	FERSB16-48	3	3.25	3.95	3.98	5.87	5.98	16-48
16-52	FERSB16-52	3.25	3.5	4.19	4.23	6.11	6.23	16-52
16-56	FERSB16-56	3.5	3.75	4.44	4.48	6.36	6.48	16-56
16-60	FERSB16-60	3.75	4	4.69	4.73	6.61	6.73	16-60
16-64	FERSB16-64	4	4.25	4.94	4.98	6.86	6.98	16-64
16-68	FERSB16-68	4.25	4.5	5.19	5.23	7.11	7.23	16-68
16-72	FERSB16-72	4.5	4.75	5.44	5.48	7.36	7.48	16-72
16-76	FERSB16-76	4.75	5	5.69	5.73	7.61	7.73	16-76

FERSB 20-X - 5/8" Round Head Lock Bolt

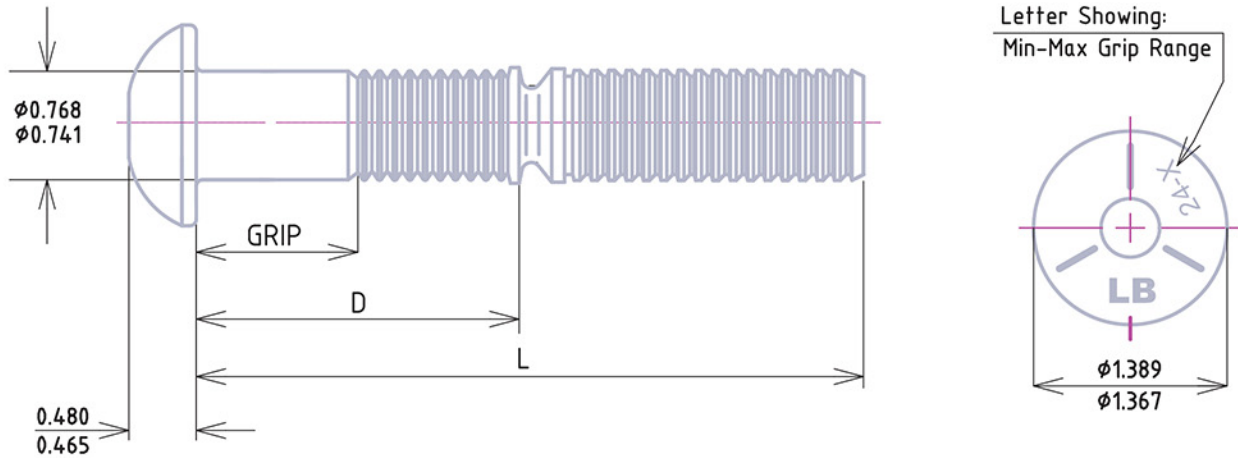


Technical Requirements

Min Ultimate Tensile:	27201.88 (lbf)	Max Pin Protusion:	0.374
Clamping Load:	19108.76 (lbf)	Max Pin Intrusion:	0.063
Min Shear Strength:	22480.89 (lbf)	Surface Treatment:	Black and Oiled
Max Hole Diameter:	0.6889	Raw Material Specification:	Alloy Steel

5/8"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
20-4	FERSB20-04	0.25	0.5	1.42	1.45	3.6	3.77	20-4
20-8	FERSB20-08	0.5	0.75	1.67	1.7	3.85	4.02	20-8
20-12	FERSB20-12	0.75	1	1.92	1.95	4.1	4.27	20-12
20-16	FERSB20-16	1	1.25	2.17	2.2	4.35	4.52	20-16
20-20	FERSB20-20	1.25	1.5	2.42	2.45	4.6	4.77	20-20
20-24	FERSB20-24	1.5	1.75	2.67	2.7	4.85	5.02	20-24
20-28	FERSB20-28	1.75	2	2.92	2.95	5.1	5.27	20-28
20-32	FERSB20-32	2	2.25	3.17	3.2	5.35	5.52	20-32
20-36	FERSB20-36	2.25	2.5	3.42	3.45	5.6	5.77	20-36
20-40	FERSB20-40	2.5	2.75	3.67	3.7	5.85	6.02	20-40
20-44	FERSB20-44	2.75	3	3.92	3.95	6.1	6.27	20-44
20-48	FERSB20-48	3	3.25	4.17	4.2	6.35	6.52	20-48
20-52	FERSB20-52	3.25	3.5	4.41	4.45	6.6	6.78	20-52
20-56	FERSB20-56	3.5	3.75	4.66	4.7	6.85	7.02	20-56
20-60	FERSB20-60	3.75	4	4.91	4.95	7.1	7.28	20-60
20-64	FERSB20-64	4	4.25	5.16	5.2	7.35	7.52	20-64
20-68	FERSB20-68	4.25	4.5	5.41	5.45	7.6	7.78	20-68
20-72	FERSB20-72	4.5	4.75	5.66	5.7	7.85	8.02	20-72
20-76	FERSB20-76	4.75	5	5.91	5.95	8.1	8.28	20-76

FERSB 24-X - 3/4" Round Head Lock Bolt

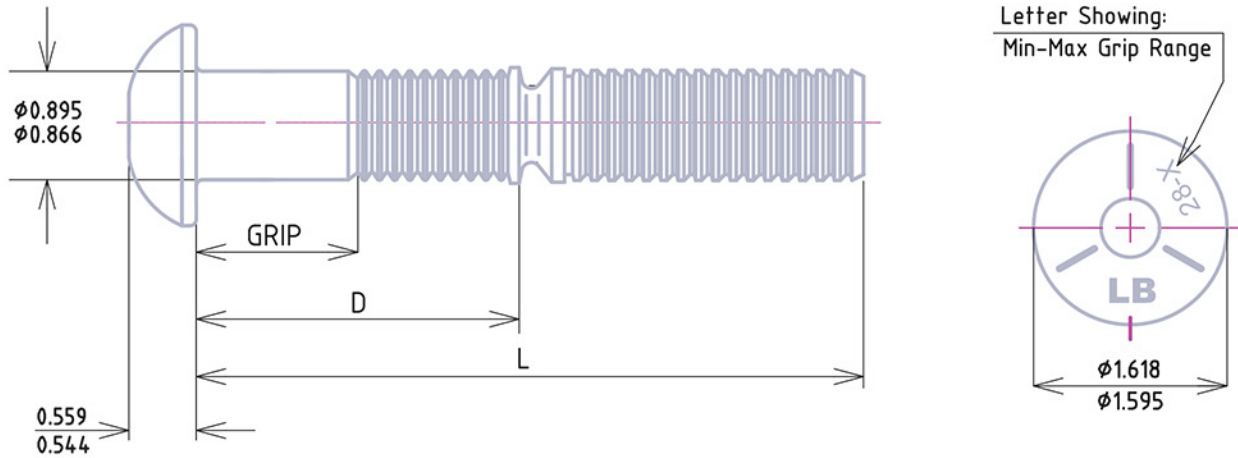


Technical Requirements

Min Ultimate Tensile:	40015.99 (lbf)	Max Pin Protusion:	0.374
Clamping Load:	28550.74 (lbf)	Max Pin Intrusion:	0.063
Min Shear Strength:	32372.49 (lbf)	Surface Treatment:	Black and Oiled
Max Hole Diameter:	0.8070	Raw Material Specification:	Alloy Steel

3/4"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
24-4	FERSB24-04	0.25	0.5	1.5	1.53	4.1	4.27	24-4
24-8	FERSB24-08	0.5	0.75	1.75	1.78	4.35	4.52	24-8
24-12	FERSB24-12	0.75	1	2	2.03	4.6	4.77	24-12
24-16	FERSB24-16	1	1.25	2.25	2.28	4.85	5.02	24-16
24-20	FERSB24-20	1.25	1.5	2.5	2.53	5.1	5.27	24-20
24-24	FERSB24-24	1.5	1.75	2.75	2.78	5.35	5.52	24-24
24-28	FERSB24-28	1.75	2	3	3.03	5.6	5.77	24-28
24-32	FERSB24-32	2	2.25	3.25	3.28	5.85	6.02	24-32
24-36	FERSB24-36	2.25	2.5	3.5	3.53	6.1	6.27	24-36
24-40	FERSB24-40	2.5	2.75	3.75	3.78	6.35	6.52	24-40
24-44	FERSB24-44	2.75	3	4	4.03	6.6	6.77	24-44
24-48	FERSB24-48	3	3.25	4.25	4.28	6.85	7.02	24-48
24-52	FERSB24-52	3.25	3.5	4.5	4.54	7.1	7.28	24-52
24-56	FERSB24-56	3.5	3.75	4.75	4.79	7.35	7.52	24-56
24-60	FERSB24-60	3.75	4	5	5.04	7.6	7.78	24-60
24-64	FERSB24-64	4	4.25	5.25	5.29	7.85	8.02	24-64
24-68	FERSB24-68	4.25	4.5	5.5	5.54	8.1	8.28	24-68
24-72	FERSB24-72	4.5	4.75	5.75	5.79	8.35	8.52	24-72
24-76	FERSB24-76	4.75	5	6	6.04	8.6	8.78	24-76

FERSB 28-X - 7/8" Round Head Lock Bolt

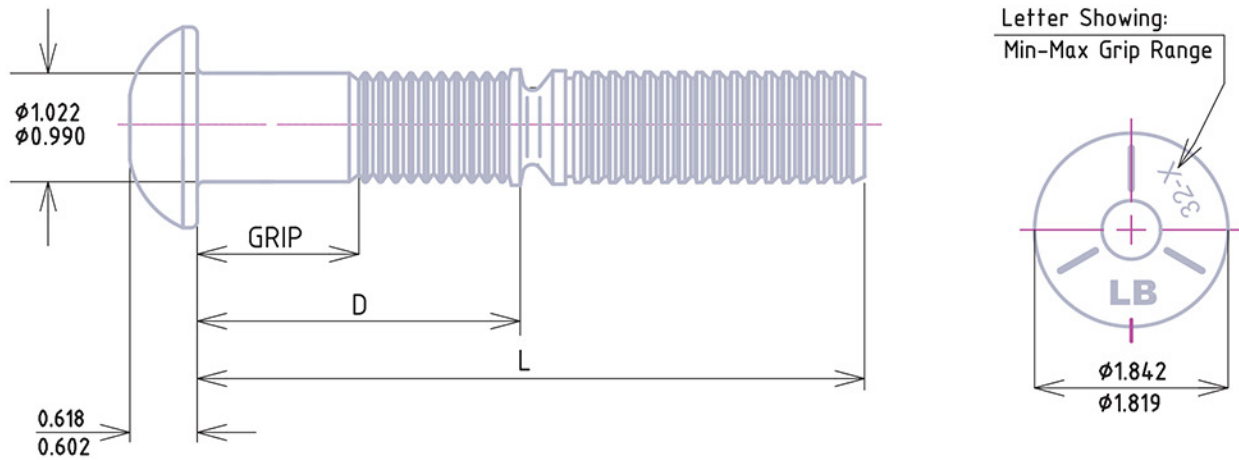


Technical Requirements

Min Ultimate Tensile:	55527.81 (lbf)	Max Pin Protusion:	0.374
Clamping Load:	39341.57 (lbf)	Max Pin Intrusion:	0.063
Min Shear Strength:	43388.13 (lbf)	Surface Treatment:	Black and Oiled
Max Hole Diameter:	0.9330	Raw Material Specification:	Alloy Steel

7/8"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
28-8	FERSB28-08	0.5	0.75	1.9	1.94	4.63	4.8	28-8
28-12	FERSB28-12	0.75	1	2.15	2.19	4.88	5.05	28-12
28-16	FERSB28-16	1	1.25	2.4	2.44	5.13	5.3	28-16
28-20	FERSB28-20	1.25	1.5	2.65	2.69	5.38	5.55	28-20
28-24	FERSB28-24	1.5	1.75	2.9	2.94	5.63	5.8	28-24
28-28	FERSB28-28	1.75	2	3.15	3.19	5.88	6.05	28-28
28-32	FERSB28-32	2	2.25	3.4	3.44	6.13	6.3	28-32
28-36	FERSB28-36	2.25	2.5	3.65	3.69	6.38	6.55	28-36
28-40	FERSB28-40	2.5	2.75	3.9	3.94	6.63	6.8	28-40
28-44	FERSB28-44	2.75	3	4.15	4.19	6.88	7.05	28-44
28-48	FERSB28-48	3	3.25	4.4	4.44	7.13	7.3	28-48
28-52	FERSB28-52	3.25	3.5	4.65	4.69	7.38	7.56	28-52
28-56	FERSB28-56	3.5	3.75	4.9	4.94	7.63	7.81	28-56
28-60	FERSB28-60	3.75	4	5.15	5.19	7.88	8.06	28-60
28-64	FERSB28-64	4	4.25	5.4	5.44	8.13	8.31	28-64
28-68	FERSB28-68	4.25	4.5	5.65	5.69	8.38	8.56	28-68
28-72	FERSB28-72	4.5	4.75	5.9	5.94	8.63	8.81	28-72
28-76	FERSB28-76	4.75	5	6.15	6.19	8.88	9.06	28-76

FERSB 32-X - 1" Round Head Lock Bolt

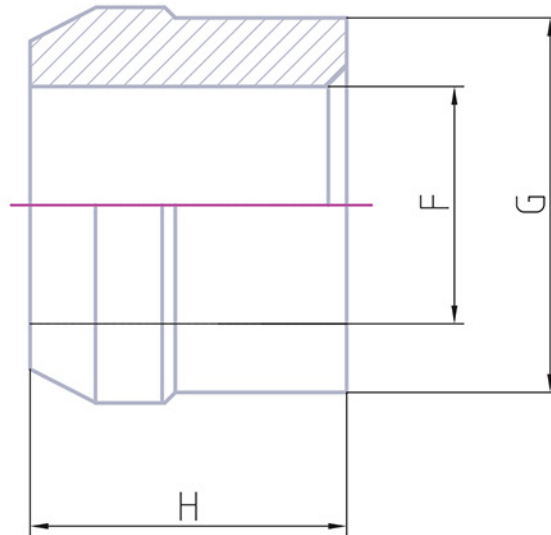


Technical Requirements

Min Ultimate Tensile:	72613.29 (lbf)	Max Pin Protusion:	0.374
Clamping Load:	51481.25 (lbf)	Max Pin Intrusion:	0.063
Min Shear Strength:	56427.04 (lbf)	Surface Treatment:	Black and Oiled
Max Hole Diameter:	1.0629	Raw Material Specification:	Alloy Steel

1"	Part Number	Grip Min	Grip Max	D Min	D Max	L Min	L Max	Head Marking
32-08	FERSB32-08	0.5	0.75	2.05	2.1	5.32	5.49	32-8
32-12	FERSB32-12	0.75	1	2.3	2.35	5.57	5.74	32-12
32-16	FERSB32-16	1	1.25	2.55	2.6	5.82	5.99	32-16
32-20	FERSB32-20	1.25	1.5	2.8	2.85	6.07	6.24	32-20
32-24	FERSB32-24	1.5	1.75	3.05	3.1	6.32	6.49	32-24
32-28	FERSB32-28	1.75	2	3.3	3.35	6.57	6.74	32-28
32-32	FERSB32-32	2	2.25	3.55	3.6	6.82	6.99	32-32
32-36	FERSB32-36	2.25	2.5	3.8	3.85	7.07	7.24	32-36
32-40	FERSB32-40	2.5	2.75	4.05	4.1	7.32	7.49	32-40
32-44	FERSB32-44	2.75	3	4.3	4.35	7.57	7.74	32-44
32-48	FERSB32-48	3	3.25	4.55	4.6	7.82	7.99	32-48
32-52	FERSB32-52	3.25	3.5	4.8	4.85	8.07	8.24	32-52
32-56	FERSB32-56	3.5	3.75	5.05	5.1	8.31	8.49	32-56
32-60	FERSB32-60	3.75	4	5.3	5.35	8.57	8.74	32-60
32-64	FERSB32-64	4	4.25	5.55	5.6	8.81	8.99	32-64
32-68	FERSB32-68	4.25	4.5	5.8	5.85	9.07	9.24	32-68
32-72	FERSB32-72	4.5	4.75	6.05	6.1	9.31	9.49	32-72
32-76	FERSB32-76	4.75	5	6.3	6.35	9.57	9.74	32-76

FERSC X-G - Standard Collars - 3/16" - 3/8"

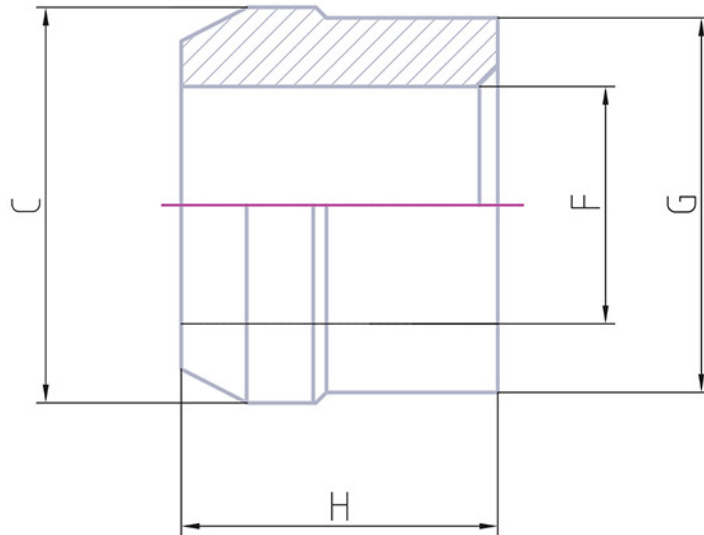


Technical Requirements

Material: Low Carbon Steel Heat Treatment: Annealing
 Smooth Surface: Without Burr Surface Treatment: Zinc Clear and Waxed

Part Number	F Min	F Max	G Min	G Max	H Min	H Max
FERSC 06G	0.187	0.196	0.304	0.311	0.220	0.260
FERSC 08G	0.256	0.265	0.402	0.409	0.290	0.320
FERSC 10G	0.304	0.312	0.485	0.494	0.350	0.380
FERSC 12G	0.375	0.385	0.590	0.600	0.430	0.460

FERSC X-G - Standard Collars - 1/2" - 1 1/8"



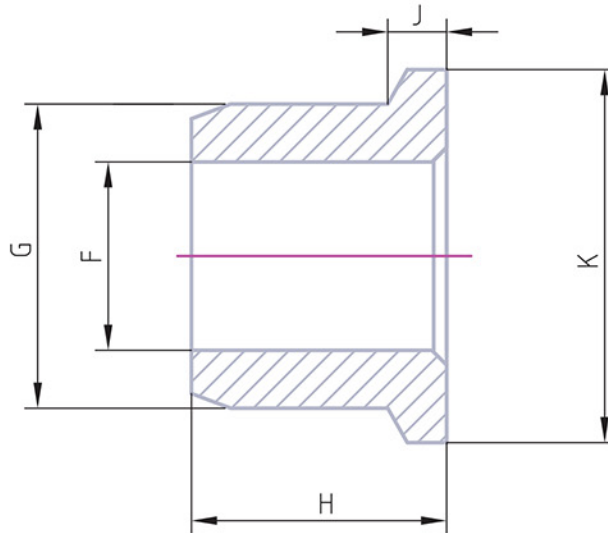
Technical Requirements

Material: Low Carbon Steel
Smooth Surface: Without Burr

Heat Treatment: Annealing. Hardness: HRB50-75
Surface Treatment: 10 µm zinc Clear and Waxed

Part Number	F Min	F Max	G Min	G Max	C Min	C Max	H Min	H Max
FERSC 16G	0.515	0.539	0.765	0.799	0.811	0.842	0.610	0.643
FERSC 20G	0.651	0.663	0.970	1.007	1.007	1.039	0.846	0.874
FERSC 24G	0.775	0.789	1.165	1.179	1.204	1.236	0.931	0.958
FERSC 28G	0.911	0.933	1.346	1.374	1.401	1.433	1.084	1.112
FERSC 32G	1.025	1.049	1.535	1.574	1.586	1.629	1.230	1.273
FERSC 36G	1.151	1.179	1.742	1.769	1.807	1.842	1.385	1.423

FERSCF X-G - Flanged Collars - 3/16" - 3/8"

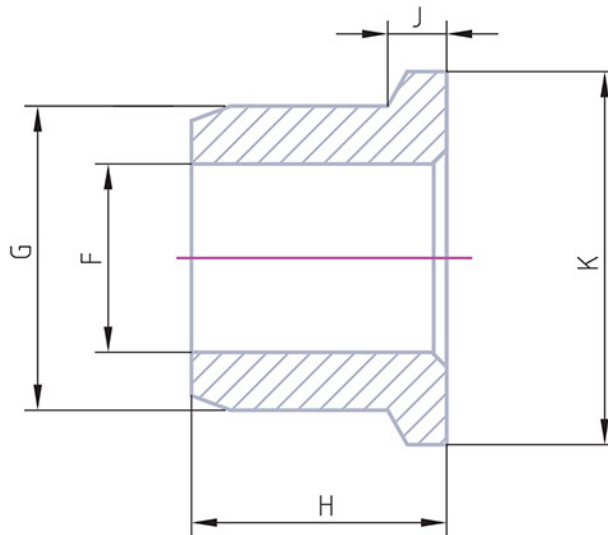


Technical Requirements

Material: Low Carbon Steel Heat Treatment: Annealing
 Smooth Surface: Without Burr Surface Treatment: Minimum 5µm Zinc Clear and Waxed

Part Number	F Min	F Max	G Min	G Max	H Min	H Max	J Min	J Max	K Min	K Max
FERSCF 06G	0.187	0.196	0.304	0.311	0.250	0.280	0.031	0.062	0.359	0.391
FERSCF 08G	0.256	0.267	0.402	0.409	0.349	0.379	0.047	0.078	0.484	0.516
FERSCF 10G	0.304	0.312	0.498	0.507	0.394	0.426	0.062	0.094	0.609	0.641
FERSCF 12G	0.378	0.390	0.599	0.610	0.502	0.532	0.062	0.125	0.719	0.781

FERSCF X-G - Flanged Collars - 1/2" - 1 1/8"



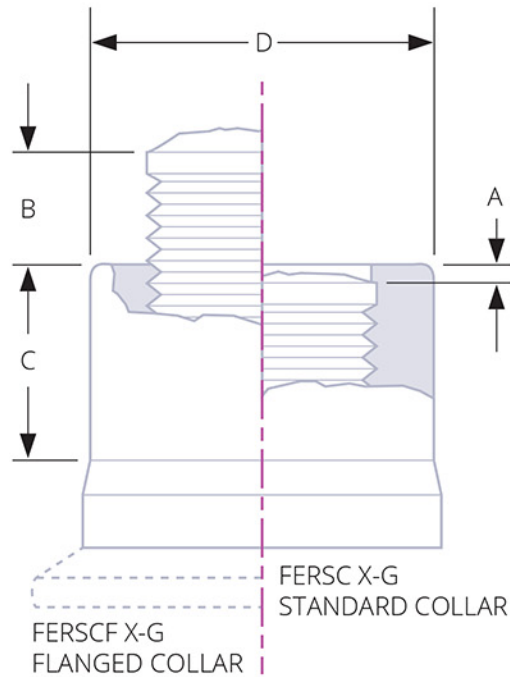
Technical Requirements

Material: Low Carbon Steel
Smooth Surface: Without Burr

Heat Treatment: Annealing, Hardness: HRB50-75
Surface Treatment: 10 µm zinc Clear and Waxed

Part Number	F Min	F Max	G Min	G Max	H Min	H Max	J Min	J Max	K Min	K Max
FERSCF 16G	0.515	0.533	0.793	0.807	0.716	0.746	0.094	0.155	0.970	1.029
FERSCF 20G	0.651	0.663	0.972	1.007	0.929	0.958	0.125	0.187	1.218	1.279
FERSCF 24G	0.775	0.789	1.171	1.198	1.118	1.145	0.157	0.216	1.468	1.529
FERSCF 28G	0.911	0.929	1.360	1.374	1.301	1.328	0.187	0.250	1.562	1.624
FERSCF 32G	1.031	1.049	1.551	1.574	1.486	1.513	0.218	0.279	1.844	1.905

Inspection Data - Large Diameter

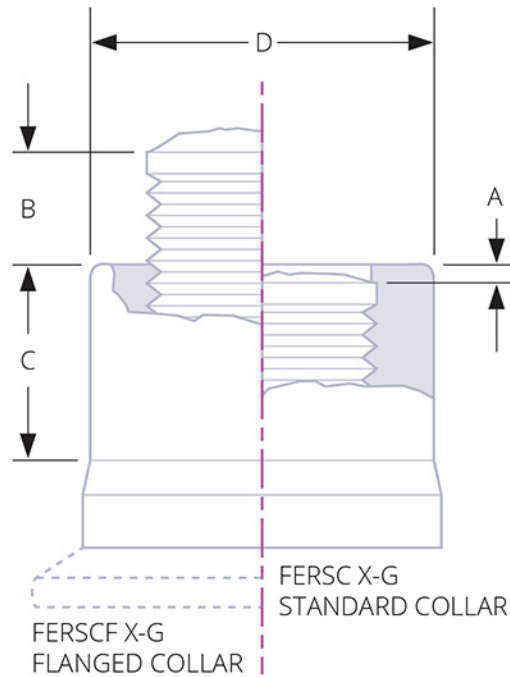


Description

A properly installed Lock bolt fastener will possess the dimensional characteristics tabulated below. Should the dimensions 'A' or 'B' exceed the indicated values, the fastener is being used out-of-grip. A 'C' dimension less than the values specified is an indication of incomplete swage. A 'D' dimension exceeding the tabulated values is an indication of an incorrect or worn anvil on the installation tool. The 'A' dimension can be increased to 1/8" and still meet published values, provided there is no requirement to meet ASTM specifications pertaining to locking grooves (threads) in the shear plane.

Diameter	Part Number	Collar Type		A Max	B Max	C Min	D Max
		STANDARD	FLANGED				
1/2"	FERSB 16-X	FERSC 16G	FERSCF 16G	0.063	0.375	0.406	0.733
5/8"	FERSB 20-X	FERSC 20G	FERSCF 20G	0.063	0.375	0.625	0.916
3/4"	FERSB 24-X	FERSC 24G	FERSCF 24G	0.063	0.375	0.656	1.110
7/8"	FERSB 28-X	FERSC 28G	FERSCF 28G	0.063	0.375	0.750	1.282
1"	FERSB 32-X	FERSC 32G	FERSCF 32G	0.063	0.375	0.875	1.465
1.1/8"	FERSB 36-X	FERSC 36G	FERSCF 36G	0.063	0.375	0.906	1.646

Inspection Data - Small Diameter



Description

A properly installed Lock bolt fastener will possess the dimensional characteristics tabulated below. Should the dimensions 'A' or 'B' exceed the indicated values, the fastener is being used out-of-grip. A 'C' dimension less than the values specified is an indication of incomplete swage. A 'D' dimension exceeding the tabulated values is an indication of an incorrect or worn anvil on the installation tool.

Diameter	Part Number	Collar Type		A Max	B Max	C Min	D Max
		STANDARD	FLANGED				
3/16"	FERSB 6-X	FERSC 06G	FERSCF 06G	0.078	0.125	0.172	0.276
1/4"	FERSB 8-X	FERSC 08G	FERSCF 08G	0.078	0.156	0.250	0.364
5/16"	FERSB 10-X	FERSC 10G	FERSCF 10G	0.140	0.212	0.281	0.454
3/8"	FERSB 12-X	FERSC 12G	FERSCF 12G	0.125	0.281	0.344	0.552

Tooling Products

A comprehensive range of Pneudraulic and hydraulic tools to install Lockbolts, Blind Fasteners and Rivets. Suitable for the installation of fasteners from 3/16" up to 1-3/8" diameter.



GB713

Pneudraulic Bilnd Rivet and Lockbolt Tool



GB745

Pneudraulic Bilnd Rivet and Lockbolt Tool



GB756

Pneudraulic Bilnd Rivet and Lockbolt Tool



GB585

Hydraulic Lockbolt Tool



GB2480

Hydraulic Lockbolt and Blind Rivet Tool



GB2581

Hydraulic Lockbolt and Blind Rivet Tool



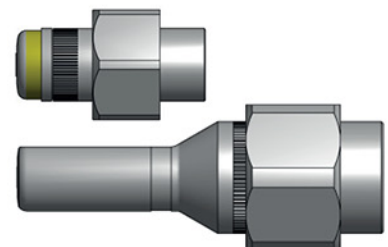
GB2620

Hydraulic Lockbolt and Blind Rivet Tool



GB2630

Hydraulic Lockbolt Tool



Service

Comprehensive stock of nose assemblies and replacements parts. Full service maintenance facility for your existing tools.



CERTIFICATE



This is to certify that

Federal Screw Products

245 Ambrogio Dr.
Gurnee, IL 60031
United States of America

has implemented and maintains a **Quality Management System**.

Scope:
The distribution of fastener products including screws, nuts, bolts, and related products which may be from sources that are not ISO 9001 registered. The provision of value-added secondary services including inspection and testing, machining, plating, and thread coating.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 9001 : 2015

Certificate registration no.	10000902 QM15
Date of original certification	2009-10-23
Date of certification	2018-01-31
Valid until	2021-01-30



DQS Inc.

Brad McGuire
Managing Director

Accredited Body: DQS Inc., 1130 West Lake Cook Road, Suite 340, Buffalo Grove, IL 60089 USA





FEDERAL SCREW PRODUCTS

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