GOEBEL
innovative fastener solutions

G-GRIP®

Full AISI 304 Stainless Steel Lockbolt System

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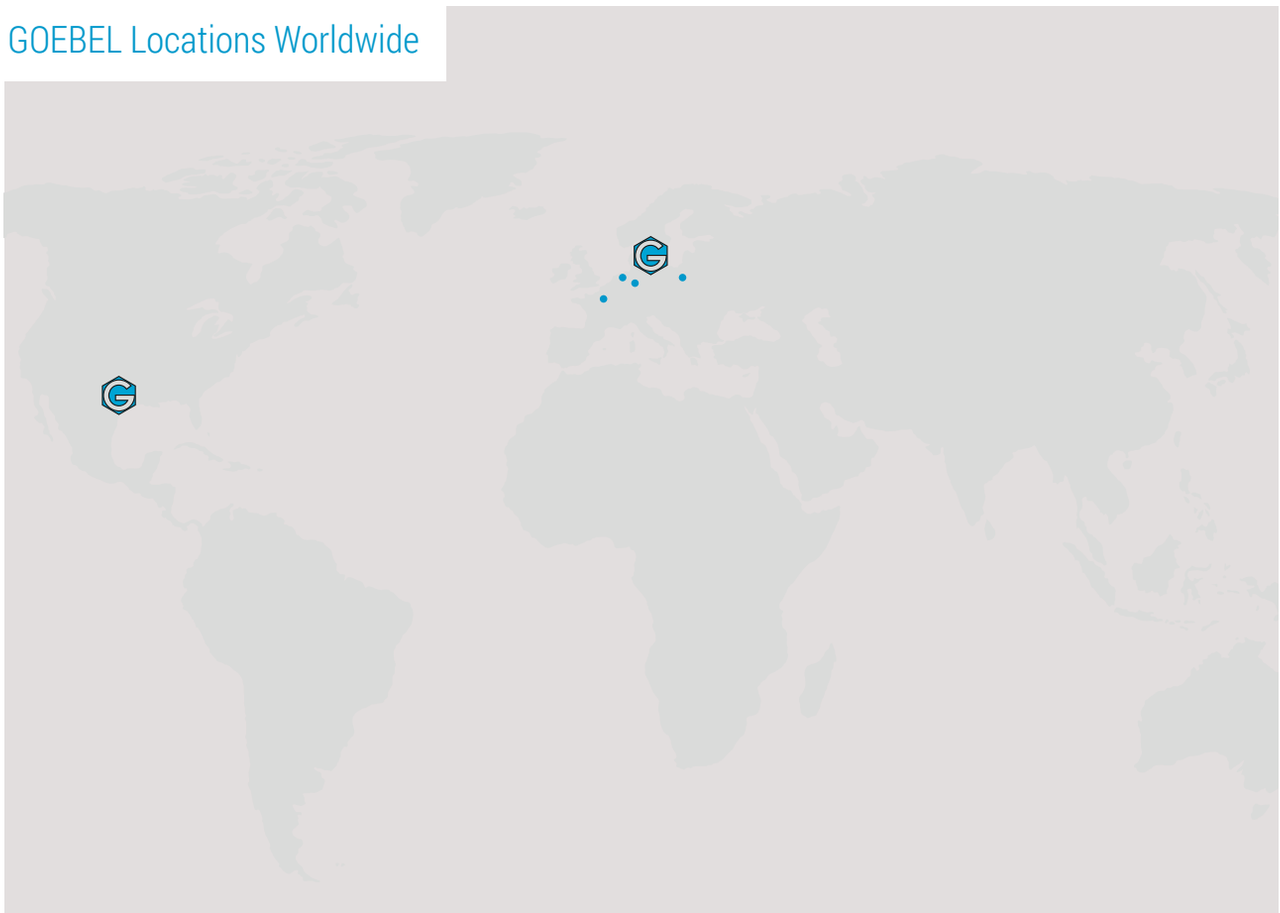
The GOEBEL Group has been the leading company for special fasteners since 1979. Our products showcase innovations that not only exceed the standard, but also improve quality, reduce maintenance and increase application efficiency. Through our subsidiaries and our network of authorised distributors for G-GRIP® all-stainless steel AISI 304 lockbolts, we are close to our customers. It is important to us to offer high quality and first class service to each and every customer.

GOEBEL Locations Worldwide



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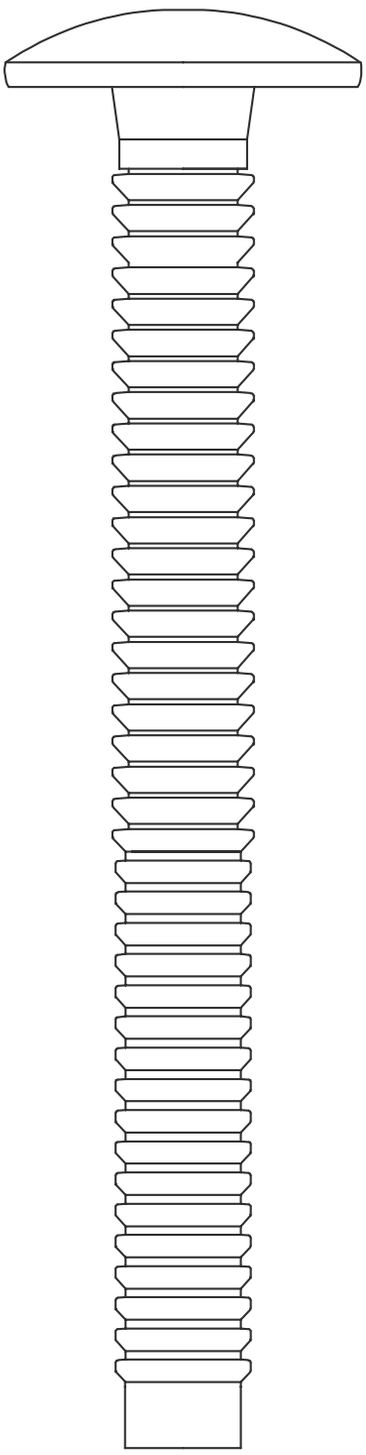
G-GRIP®

Full AISI 304 Stainless Steel Lockbolt System



PATENTED

In applications where an extensive grip range is required and a constant controlled breakage of the lockbolt in combination with the collar is advantageous, the Goebel G-Grip® is the new standard in the market. In essence, the stainless steel G-Grip® with its extensive grip range can replace up to 14 sizes of the classic 6-groove lockbolt in stainless steel, galvanised steel and aluminium.

Similar to all fasteners developed by Goebel, the G-Grip® offers the highest quality in the market with incomparable vibration and installation resistance values.

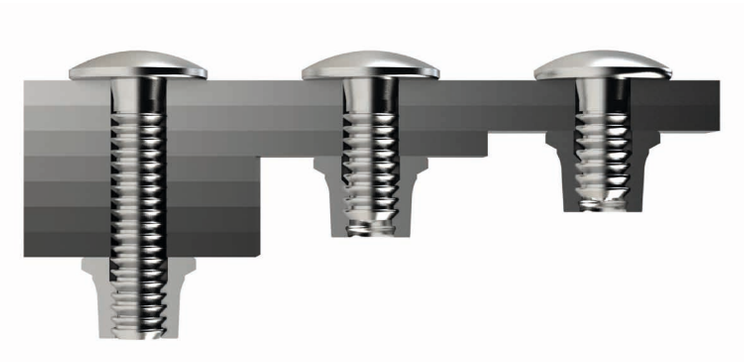
Available: In diameter 4.8 mm (3/16“) and 6.4 mm (1/4“)
Material: AISI 304 Stainless Steel
Head shape: Rivet Head, Truss Head, Button Head, 90° Flush Head (countersunk head)

Advantages:

- Extensive grip range design
- High corrosion resistance
- High vibration resistance
- Controlled breaking lockbolt
- Efficient setting process/installation process
- Reduction of stock compared to standard fasteners (dimensions/qualities)

1. EXTENSIVE GRIP RANGE DESIGN

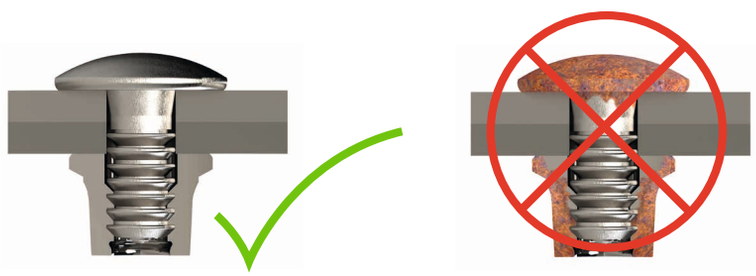
The extensive grip range of the G-Grip® lockbolt system can replace up to 14 sizes of the previously popular 6-groove lockbolt system with just one size. The unparalleled advantage of using a multi-grip lockbolt is that it improves cost efficiency many times over, reduces storage costs and increases performance many times over on the job site by simplifying the installation process. Incorrect setting in the wrong grip range is virtually impossible.



2. HIGH CORROSION RESISTANCE

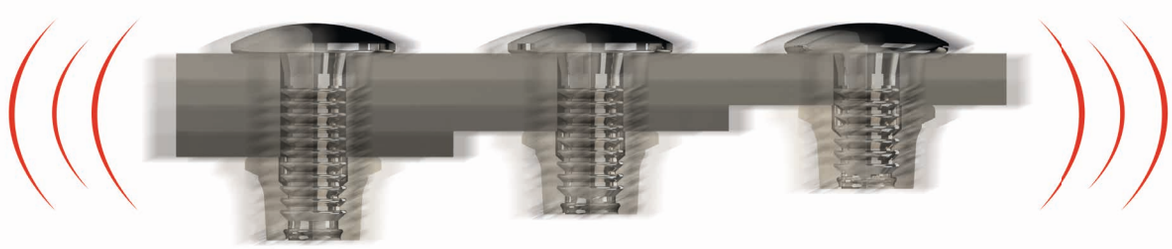
The G-Grip® lockbolt and collar are made of AISI 304 stainless steel. The head of the locking ring bolt is highly polished and the collar has an additional zinc coating. On request, the G-Grip® lockbolt can also be provided with a chrome or nickel coating. The high corrosion resistance of stainless steel G-Grip® lockbolts compared to conventional steel lockbolts, which start to rust after the galvanisation has been removed, makes the stainless steel G-Grip® lockbolt system a proven solution for industrial applications, especially in harsh environments. The use of stainless steel parts ensures that the application will have lower maintenance costs, increased structural integrity and a return on investment. Likewise, in many applications with aggressive media, aluminium lockbolts do not offer the same resistance as our highly corrosion resistant G-Grip® stainless steel lockbolt system.

For more information on stainless steel, please visit our website.



3. VIBRATION RESISTANCE

The G-Grip® has been developed and tested to ensure the highest vibration resistance in all applications. During assembly, the collar is placed on the lockbolt and locks via the grooves during the setting process. The locking mechanism guarantees consistent clamping forces, shear and tensile values in the assembled state. You can be sure that the application is locked, secured and vibration-proof with our stainless steel lockbolt system.



4. CONTROLLED BREAKING LOCKBOLT

Stainless steel is known to be a tough but malleable material. For our research and development department, the challenge was to ensure a controlled-break multi-grip lockbolt system, the G-Grip®. Proven to break in a controlled manner every time, Goebel's patented design is ensured by various design factors, creating a smooth, safe and easy installation in any application.

5. EFFICIENT INSTALLATION PROCESS

GOEBEL offers a wide range of setting tools for the patented G-Grip® AISI 304 stainless steel lockbolt system. From hand tools to cordless tools and pneumatic setting tools. The selection of the right tool depends solely on the number of setting operations. All our tools are easy to use. The G-Grip® can also be set with common setting tools. The G-Grip® lockbolt is processed in seconds and, depending on the tool, up to 1,200 lockbolts per hour can be processed. The installer can quickly see at a glance that the break-off of the lockbolt has been carried out in a controlled manner and can carry out his work efficiently.

OUR TOOLS FEATURE:

- Ergonomic Design
- Safe & Quiet Setting Process
- Consistent Installation Setting Each Time

6. REDUCTION OF STOCK COMPARED TO STANDARD FASTENERS (DIMENSIONS/QUALITIES)

The G-Grip® covers a range of 14 bolts of the classic 6-groove lockbolt system in one size. This huge advantage reduces the stock of the many dimensions/qualities to just a few of the G-Grip®. Creating a cost effective storage system is critical in today's manufacturing environment and the G-Grip® will help you achieve this. Our G-Grip® will save you time, space and money by simplifying your warehousing process. Standardise your production to only a few fasteners (dimensions/qualities), thereby creating maximum production efficiency to almost mix-up/fault-free rivets.

CLASSIC 6-GROOVE LOCKING FASTENER SYSTEM

VS.

G-GRIP

INSTALLATION SEQUENCE

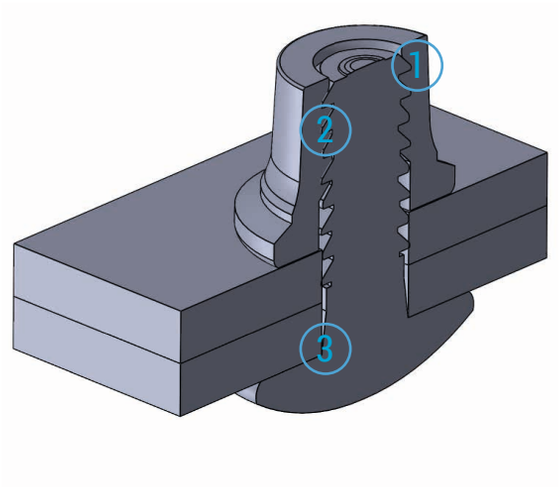
The G-GRIP® pin is inserted in the prepared hole from one side, whereas the collar is placed on top of the pin's end and is pushed down until it reaches the working piece.

The pin is inserted in the nose piece of the installation tool. The nose piece goes downwards along the pin until it reaches the collar.

The next step is pushing the button of the installation tool, the swaging process of the collar starts immediately. In the meantime the jaws inside of the mouthpiece started to pull the pin until it breaks off. The setting process is done by now.

The result is a flush broken pin and a tight fitting collar. The combination of the pin and collar result in a high permanent clamping force and are mechanically locked.

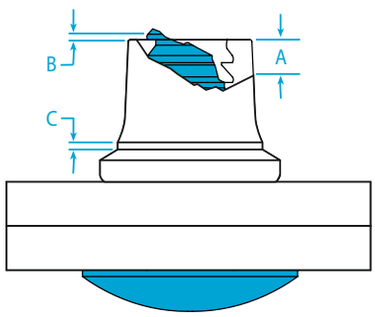
INSPECTION DATA



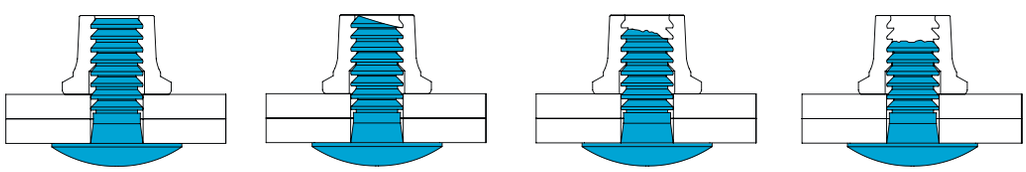
1. The G-GRIP® design guarantees flush breaking stainless steel pins. These pins lock with the custom stainless steel collar. The G-GRIP® can be used for various grip ranges and therefore reduce inventory levels.

2. The pin grooves are being filled up by collar material during the swaging process. This locks the working piece and results in guaranteed vibration resistance. With increased customer satisfaction and reduced warranty claims, this part is a great solution for any application.

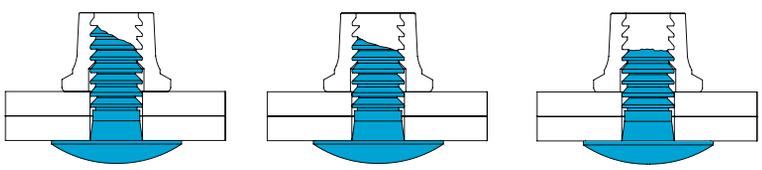
3. The G-GRIP® lockbolt system has unique features which result in high yield values, consistent clamp loads, and gaps are filled out by the collar swaging process.



DIAMETER	A MAX	B MAX	C MAX
6 (4,8 mm)	1,58 mm	0,79 mm	1,27 mm
8 (6,4 mm)	3,18 mm	2,36 mm	2,54 mm

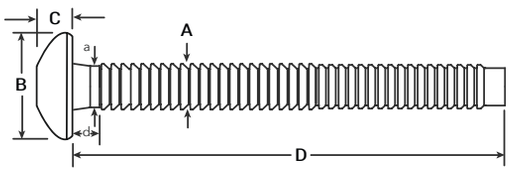


Acceptable breaking of the pin
- flush with the end of the collar
- up to a maximum of two witness marks within the collar

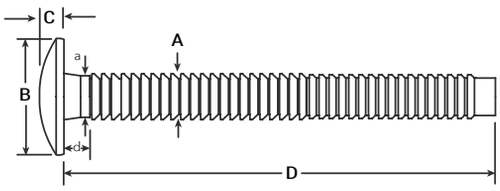


Unacceptable breaking of the pin
- three witness marks within the collar

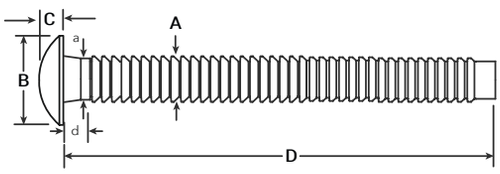
DATE AND DIMENSION
HEAD STYLEOPTIONS



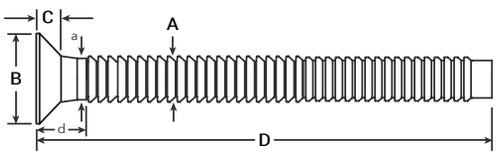
BUTTON HEAD MGBH



TRUSS HEAD MGTH



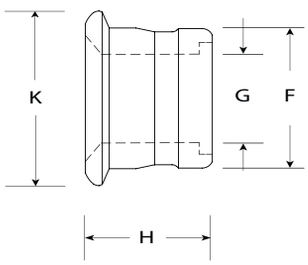
RIVET HEAD MGRH



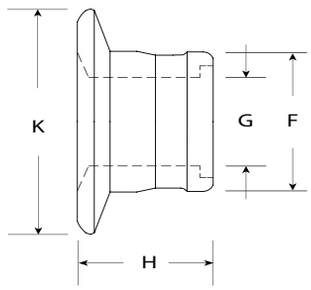
FLUSH HEAD 90° MGFH

Diameter	Grip Number	Grip Range (mm)	Hole Size Max	A MAX	B	C	D	a MAX	d REF
Button Head Dimensions (MGBH)									
6 (4,8 mm)	10	1,57- 15,88	5,56	4,80	9,14 - 9,90	2,82 - 3,23	44,98- 46,50	4,88	2,20
	20	7,92- 31,75	5,56	4,80	9,14 - 9,90	2,82 - 3,23	59,76- 61,29	4,88	7,92
8 (6,4 mm)	10	3,18- 15,88	7,14	6,35	12,19-13,21	3,43 - 3,94	49,91 -51,81	6,58	3,17
	20	7,92- 31,75	7,14	6,35	12,19-13,21	3,43 - 3,94	65,02- 66,92	6,58	7,92
Truss Head Dimensions (MGTH)									
8 (6,4 mm)	10	3,18- 15,88	7,14	6,35	13,46-15,11	2,92 - 3,43	49,91 -51,81	6,58	3,17
	20	7,92 -31,75	7,14	6,35	13,46-15,11	2,92 - 3,43	65,02- 66,92	6,58	7,92
Rivet Head Dimensions (MGRH)									
6 (4,8 mm)	10	1,57- 15,88	5,56	4,80	11,86-12,39	2,49 - 2,79	44,98- 46,50	4,88	2,20
	20	7,92- 31,75	5,56	4,80	11,86-12,39	2,49 - 2,79	59,76- 61,29	4,88	7,92
8 (6,4 mm)	10	3,18- 15,88	7,14	6,35	12,19-13,21	3,40 - 3,91	49,91- 51,81	6,58	3,17
	20	7,92 -31,75	7,14	6,35	12,19-13,21	3,40 - 3,91	63,90 -65,81	6,58	7,90
90° Flush Head Dimensions (MGFH)									
6 (4,8 mm)	10	1,57- 15,88	5,56	4,80	8,25 - 9,14	1,90 - 2,29	44,98- 46,50	4,88	-
	20	7,92- 31,75	5,56	4,80	8,25 - 9,14	1,90 - 2,29	59,76- 61,29	4,88	7,92
8 (6,4 mm)	10	3,18- 15,88	7,14	6,35	11,05-12,06	2,92 - 3,30	49,91- 51,81	6,58	-
	20	7,92- 31,75	7,14	6,35	11,05-12,06	2,92 - 3,30	65,02- 66,92	6,58	7,92

DATE AND DIMENSION
COLLAR STYLE OPTIONS



STANDARD FLANGE MGCS



MEDIUM FLANGE MGCM

COLLAR DIMENSIONS

COLLAR	DIAMETER	F	G	H	K
MGCS	4,8 mm	7,74 - 8,00	4,82 - 5,18	6,85 - 7,39	9,52 - 10,33
	6,4 mm	10,03 -10,28	6,04 - 6,60	10,69 - 11,09	12,82 - 13,41
MGCM	4,8 mm	7,74 - 8,00	4,82 - 5,18	7,49 - 8,00	12,57 - 13,59
	6,4 mm	10,03 -10,28	6,04 - 6,60	12,39 - 13,05	16,89 - 18,16

INSTALLED VALUES IN NOMINAL GRIP (N)

Diameter		ALUMINIUM		STEEL / STAINLESS STEEL	
		MIN. (N)	TYPICAL (N)	MIN. (N)	TYPICAL (N)
4,8 mm	Shear	3336	4448	7673	8896
	Tensile	4003	5782	7340	12010
	Clamp	2446	3558	4560	6672
6,4 mm	Shear	5338	7117	9786	12010
	Tensile	7206	11120	13122	17792
	Clamp	4225	6227	6005	8896

ORDERING INFORMATION
PINS

The table below shows how the item code is created. Please use those charts for ordering.
Example: GGBH-J8-10 is a G-GRIP® fastener, Button Head, Stainless Steel (AISI 316), Ø 4,8 mm, Grip Range 10

HEAD STYLE	PREFIX
BUTTON HEAD	BH
TRUSS HEAD	TH
BROAD TRUSS HEAD	BTH
RIVET HEAD	RH
90° FLUSH HEAD	FH

MATERIAL	CODE
STEEL	S
STAINLESS STEEL 304	I
STAINLESS STEEL 316	J

Ø	CODE
4,8 mm	6
6,4 mm	8

GRIP RANGE	CODE
1,57 - 15,87	10
7,92 - 31,75	20

BESCHICHTUNG	CODE
ZINC PLATED	Z
CLEAR CHRO-MATE	C
PASSIVATED	P

ORDERING INFORMATION
COLLARS

The table below shows how the item code is created. Please use those charts for ordering.
Example: GGCW-J8 is a wide Flange G-GRIP® Collar, Stainless Steel (AISI 316), Ø 4,8 mm

FLANGE STYLE	CODE
G-GRIP Collar Standard	MGCS
G-GRIP Collar Medium	MGCM

MATERIAL	CODE
ALUMINIUM	A
STEEL	S
STAINLESS STEEL 304	I
STAINLESS STEEL 316	J

Ø	CODE
4,8 mm	6
6,4 mm	8

FINISH	CODE
ZINC PLATED	Z
CLEAR CHROMATE	C
PASSIVATED	P

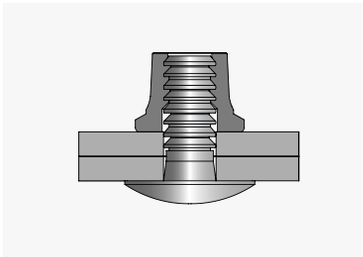
TOOLING
WEIGHT AND DIMENSIONS

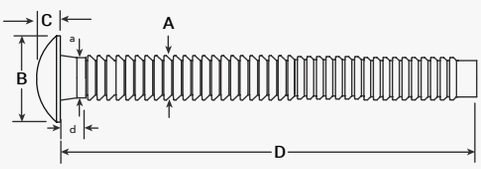
GO-12-P

GO-LB1

MODEL	TYPE	CAPACITY	WEIGHT	LENGTH	HEIGHT	ITEM CODE
GO-12-P	Hand Ratchet Tool	4,8 mm - 6,4 mm	1,1 kg	186 mm	207 mm	22450 00300
GO-LB1	Cordless Tool	4,8 mm - 6,4 mm	1,5 kg	245 mm	260 mm	22770 40010

LOCKBOLTS - G-GRIP®
RIVET HEAD





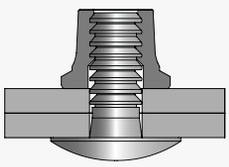
Body: **AISI 304 STAINLESS STEEL**
Finish: **POLISHED & PASSIVATED**

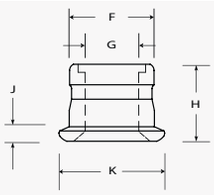
	DESCRIPTION ITEM-CODE	BODY LENGTH D		GRIP NUMBER	GRIP RANGE		d REF	
		in	mm		in	mm	in	mm
6 3/16" (4.8 mm) B = .467-.488" 11.862 -12.395 mm C = .098 -.110" 2.489 - 2.794 mm A MAX = .189" 4.800 mm a MAX = .192" 4.887 mm Hole Size MAX = .219" 5.563 mm	GGRH-I6-10P	1.771 - 1.831	44.983 - 46.507	10	.0625 -.625	1.588 - 15.875	.087	2.210
	GGRH-I6-20P	2.353 - 2.413	59.766 - 61.290	20	.312 - 1.250	7.925 - 31.750	.312	7.925
8 1/4" (6.4 mm) B = .480 -.520" 12.192-13.208 mm C = .134 -.154" 3.404 - 3.911 mm A MAX = .250" 6.350 mm a MAX = .259" 6.577 mm Hole Size MAX = .281" 7.134 mm	GGRH-I8-10P	1.965 - 2.040	49.911 - 51.820	10	.125 -.625	3.175 - 15.875	.125	3.175
	GGRH-I8-20P	2.560 - 2.635	65.024 - 66.930	20	.312 - 1.250	7.925 - 31.750	.311	7.925

INSTALLED VALUES IN NOMINAL GRIP FOR STAINLESS STEEL

	DIAMETER	SHEAR		TENSILE		CLAMP	
		MIN. (lbf.)	TYPICAL (lbf.)	MIN. (lbf.)	TYPICAL (lbf.)	MIN. (lbf.)	TYPICAL (lbf.)
		MIN. (kn)	TYPICAL (kn)	MIN. (kn)	TYPICAL (kn)	MIN. (kn)	TYPICAL (kn)
6 3/16" (4.8 mm)	3/16"	1725	2000	1650	2700	1025	1500
	4.8 mm	7.67	8.90	7.34	12.01	4.56	6.67
8 1/4" (6.4 mm)	1/4"	2200	2700	2950	4000	1350	2000
	6.4 mm	9.79	12.01	13.12	17.79	6.00	8.90

LOCKBOLTS - COLLAR FOR G-GRIP®
STANDARD

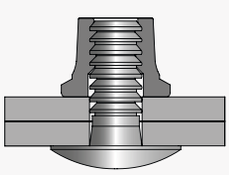


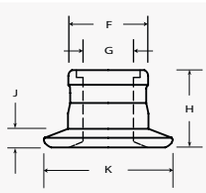


Body: **AISI 304 STAINLESS STEEL**
Finish: **ZINC PLATED**

Ø	DESCRIPTION ITEM-CODE	BODY LENGTH H in / mm	J REF in / mm	K in / mm	F in / mm	G in / mm
6						
3/16"	GGCS-I6Z	.270 -.291	.055	.375 -.407	.305 -.315	.190 -.204
4.8 mm		6.858 - 7.391	1.400	9.525 - 10.330	7.747 - 8.001	4.820 - 5.182
Ø						
8						
1/4"	GGCS-I8Z	.421 -.437	.071	.505 -.528	.395 -.405	.238 -.260
6.4 mm		10.690 - 11.100	1.800	12.820 - 13.410	10.033 - 10.287	6.050 - 6.604

LOCKBOLTS - COLLAR FOR G-GRIP®
MEDIUM





Body: **AISI 304 STAINLESS STEEL**
Finish: **ZINC PLATED**

Ø	DESCRIPTION ITEM-CODE	BODY LENGTH H in / mm	J REF in / mm	K in / mm	F in / mm	G in / mm
6						
3/16"	GGCM-I6Z	.295 -.315	.068	.495 -.535	.305 -.315	.190 -.204
4.8 mm		7.493 - 8.001	1.750	12.573 - 13.589	7.747 - 8.001	4.820 - 5.182
Ø						
8						
1/4"	GGCM-I8Z	.488 -.514	.100	665 -.715	.395 -.405	.238 -.260
6.4 mm		12.395 -13.055	2.540	16.891 - 18.161	10.033 - 10.287	6.050 - 6.604

NOTES

NOTES

11-2021
4 049337 591962

40 YEARS
OF
EXCEEDING EXPECTATIONS

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