

LEVELING FEET

STEEL: 12L14, CARBURIZED-HARDENED (BODY ONLY), ZINC PLATED YELLOW CHROMATE OR BLACK OXIDE FINISH
STAINLESS STEEL: 300 SERIES



**Steel
Zinc Plated**



**Steel
Zinc Plated
with Delrin® Pad**



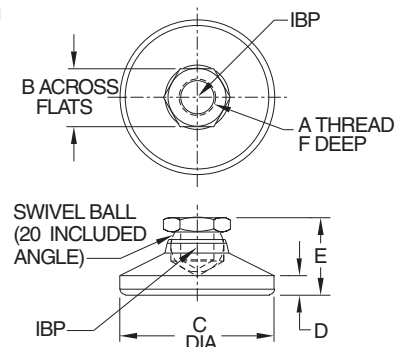
**Steel
Black Oxide Finish**



Stainless Steel

High-quality, heavy-duty leveling foot with large-diameter pad. Large ball provides high load capacity with a 20° total swivel angle.

**ADDITIONAL SIZES
NOW AVAILABLE!**



USA

PART NO. STEEL ZINC PLATED	PART NO. STEEL ZINC PLATED WITH DELRIN® PAD	PART NO. STEEL BLACK OXIDE	PART NO. STAINLESS	A	B	C DIA	D	E	F	LOAD RATING (LBS)*	
										STEEL & STAINLESS	DELRIN®
CL-3-LF	CL-3-LFN	CL-3-LF-BO	CL-3-LF-S	#10-32	3/8	3/4	7/64	17/32	1/4	700	150
CL-4-LF	CL-4-LFN	CL-4-LF-BO	CL-4-LF-S	1/4-20	1/2	1	5/32	45/64	5/16	1,000	200
CL-5-LF	CL-5-LFN	CL-5-LF-BO	CL-5-LF-S	5/16-18	9/16	1-1/8	3/16	3/16	3/8	1,500	250
CL-6-LF	CL-6-LFN	CL-6-LF-BO	CL-6-LF-S	3/8-16	5/8	1-1/4	3/16	7/8	13/32	2,300	300
CL-8-LF	CL-8-LFN	CL-8-LF-BO	CL-8-LF-S	1/2-13	3/4	1-7/8	1/4	1-1/8	1/2	4,200	700
CL-10-LF	CL-10-LFN	CL-10-LF-BO	CL-10-LF-S	5/8-11	15/16	2-1/2	5/16	1-1/4	1/2	6,600	1,200
CL-12-LF	CL-12-LFN	CL-12-LF-BO	CL-12-LF-S	3/4-10	1-1/8	3	1/2	1-1/2	5/8	10,000	1,800
CL-16-LF	—	CL-16-LF-BO	—	1"-8	1-1/2	4	13/32	1-7/8	15/16	18,000	—

METRIC

CLM-6-LF	CLM-6-LFN	CLM-6-LF-BO	CLM-6-LF-S	M6	10mm	1	5/32	45/64	5/16	900	180
CLM-8-LF	CLM-8-LFN	CLM-8-LF-BO	CLM-8-LF-S	M8	13mm	1-1/8	3/16	13/16	3/8	1,500	250
CLM-10-LF	CLM-10-LFN	CLM-10-LF-BO	CLM-10-LF-S	M10	17mm	1-1/4	3/16	7/8	13/32	2,600	300
CLM-12-LF	CLM-12-LFN	CLM-12-LF-BO	CLM-12-LF-S	M12	19mm	1-7/8	1/4	1-1/8	1/2	3,800	700
CLM-16-LF	CLM-16-LFN	CLM-16-LF-BO	CLM-16-LF-S	M16	24mm	2-1/2	5/16	1-1/4	1/2	7,200	1,200
CLM-20-LF	CLM-20-LFN	CLM-20-LF-BO	CLM-20-LF-S	M20	30mm	3	1/2	1-1/2	5/8	11,000	1,800

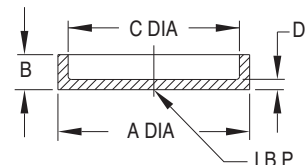
*Safe static load with stud securely mounted in a plate at least one-stud-diameter thick, at maximum stud extension (2:1 safety factor). Leveling Feet are rated with the same-length stud as on Stud Leveling Feet. Load capacity will drop significantly with longer studs.



**Rubber Pad Covers
for Leveling Feet**



Rubber Pad Covers fit over the bottom of Leveling Feet. These pad covers provide increased gripping to prevent sliding on sloped or uneven surfaces. They reduce walking and transmitted machine vibrations. Durable PVC material. Note: load capacity will be reduced with Rubber Pad Covers...see table below.



RUBBER PAD COVERS

PART NO.	FITS LEVELING FEET	A DIA	B	C DIA	D	LOAD RATING (LBS)
CL-6-RPC	3/8-16 and M10	1-1/2	3/8	1-1/4	1/8	300
CL-8-RPC	1/2-13 and M12	2-1/8	3/8	1-7/8		700
CL-10-RPC	5/8-11 and M16	2-3/4	7/16	2-1/2		1,200
CL-12-RPC	3/4-10 and M20	3-1/4	1/2	3		1,800



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

STUD LEVELING FEET

STEEL: 12L14, CARBURIZED-HARDENED (BODY ONLY), ZINC PLATED YELLOW CHROMATE OR BLACK OXIDE FINISH
STAINLESS STEEL: 300 SERIES

**NOW ALSO
AVAILABLE WITH
LONGER STUDS!**



**Steel
Zinc Plated**



**Steel
Zinc Plated
with Delrin® Pad**



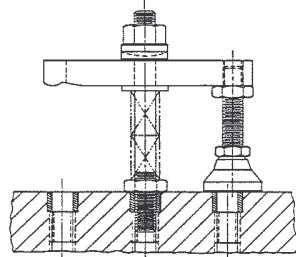
**Steel
Black Oxide Finish**



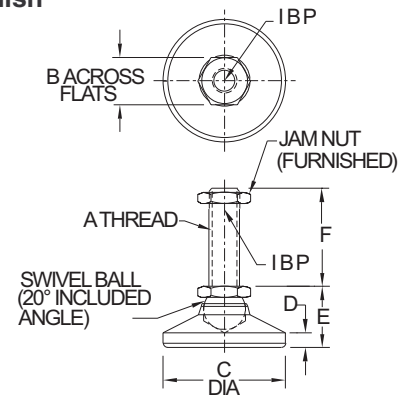
Stainless Steel

High-quality, heavy-duty leveling foot with large-diameter pad and integral stud. Stud and ball are one solid piece. Large ball provides high load capacity with a 20° total swivel angle.

* Safe static load with stud securely mounted in a plate at least one-stud-diameter thick, at maximum stud extension (2:1 safety factor). Load capacity will drop significantly with longer studs.



Can also be used as a clamp rest for Tapped-Heel Clamp Straps.



USA

PART NO. STEEL ZINC PLATED	PART NO. STEEL ZINC PLATED WITH DELRIN® PAD	PART NO. STEEL BLACK OXIDE	PART NO. STAINLESS	A	B	C DIA	D	E	F	LOAD RATING (LBS)*	
										STEEL & STAINLESS	DELRIN®
CL-3-SLF	CL-3-SLFN	CL-3-SLF-BO	CL-3-SLF-S	#10-32	3/8	3/4	7/64	17/32	1	700	150
CL-3-SLF-2	CL-3-SLFN-2	CL-3-SLF-2-BO	CL-3-SLF-2-S						2	200	
CL-4-SLF	CL-4-SLFN	CL-4-SLF-BO	CL-4-SLF-S	1/4-20	1/2	1	5/32	45/64	1-1/4	1,000	200
CL-4-SLF-2.5	CL-4-SLFN-2.5	CL-4-SLF-2.5-BO	CL-4-SLF-2.5-S						2-1/2	250	
CL-5-SLF	CL-5-SLFN	CL-5-SLF-BO	CL-5-SLF-S	5/16-18	9/16	1-1/8	3/16	13/16	2	1,500	250
CL-5-SLF-4	CL-5-SLFN-4	CL-5-SLF-4-BO	CL-5-SLF-4-S						4	400	
CL-6-SLF	CL-6-SLFN	CL-6-SLF-BO	CL-6-SLF-S	3/8-16	5/8	1-1/4	3/16	7/8	2	2,300	300
CL-6-SLF-4	CL-6-SLFN-4	CL-6-SLF-4-BO	CL-6-SLF-4-S						4	600	
CL-8-SLF	CL-8-SLFN	CL-8-SLF-BO	CL-8-SLF-S	1/2-13	3/4	1-7/8	1/4	1-1/8	2	4,200	700
CL-8-SLF-4	CL-8-SLFN-4	CL-8-SLF-4-BO	CL-8-SLF-4-S						4	1100	
CL-10-SLF	CL-10-SLFN	CL-10-SLF-BO	CL-10-SLF-S	5/8-11	15/16	2-1/2	5/16	1-1/4	2	6,600	1,200
CL-10-SLF-4	CL-10-SLFN-4	CL-10-SLF-2-BO	CL-10-SLF-4-S						4	1700	
CL-12-SLF	CL-12-SLFN	CL-12-SLF-BO	CL-12-SLF-S	3/4-10	1-1/8	3	1/2	1-1/2	2	10,000	1,800
CL-12-SLF-4	CL-12-SLFN-4	CL-12-SLF-2-BO	CL-12-SLF-4-S						4	2500	
CL-16-SLF	—	CL-16-SLF-BO	CL-16-SLF-S	1"-8	1-1/2	4	13/32	1-7/8	4-1/4	18,000	—
CL-16-SLF-8	—	CL-16-SLF-8-BO	CL-16-SLF-8-S						8	4500	

METRIC

CLM-6-SLF	CLM-6-SLFN	CLM-6-SLF-BO	CLM-6-SLF-S	M6	10mm	1	5/32	45/64	1.57	900	180
CLM-8-SLF	CLM-8-SLFN	CLM-8-SLF-BO	CLM-8-SLF-S	M8	13mm	1-1/8	3/16	13/16	1.97	1,500	250
CLM-10-SLF	CLM-10-SLFN	CLM-10-SLF-BO	CLM-10-SLF-S	M10	17mm	1-1/4	3/16	7/8	2	2,600	300
CLM-12-SLF	CLM-12-SLFN	CLM-12-SLF-BO	CLM-12-SLF-S	M12	19mm	1-7/8	1/4	1-1/8		3,800	700
CLM-16-SLF	CLM-16-SLFN	CLM-16-SLF-BO	CLM-16-SLF-S	M16	24mm	2-1/2	5/16	1-1/4		7,200	1,200
CLM-20-SLF	CLM-20-SLFN	CLM-20-SLF-BO	CLM-20-SLF-S	M20	30mm	3	1/2	1-1/2		11,000	1,800



MANUFACTURING CO.

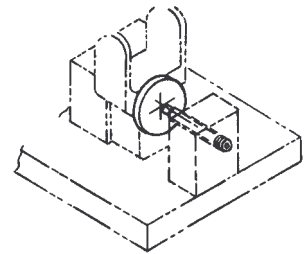
4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

JIG FEET LEVELING

PATENT NO. 2,531,892

SCREW: 12L14 STEEL, CARBURIZED-HARDENED, ZINC PLATED YELLOW CHROMATE
 FOOT: 12L14 STEEL, ZINC PLATED YELLOW CHROMATE

Medium-duty leveling foot with removable pad. Lefthand thread in pad prevents backout while pad rotates and pivots freely.

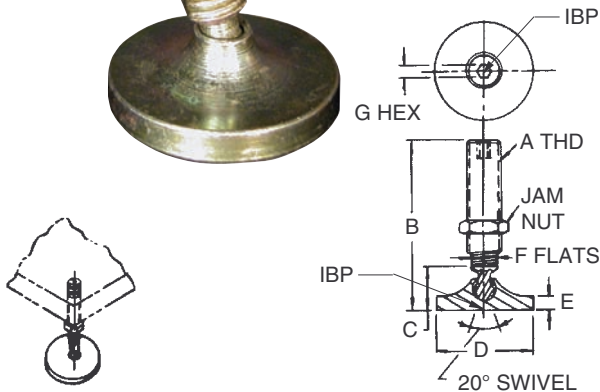


USA

PART NO.	A	B	C	D DIA	E	F	G	*LOAD RATING (LBS)
CL-1-JFL	1/2-13	2-7/32	7/8	1-1/2	1/4	3/8	1/4	1,400
CL-2-JFL		4-7/32						430
CL-3-JFL	5/8-11	3-1/4	29/32	2	5/16	1/2	5/16	2,900
CL-4-JFL		5-1/4						1,200
CL-5A-JFL	3/4-10	3-1/2	1-1/16	2-1/2	3/8	9/16	3/8	3,700
CL-6-JFL		5-17/32						1,800
CL-7A-JFL	1-8	3-1/2	1-19/32	3-1/2	1/2	3/4	1/2	6,700
CL-8-JFL		5-19/32						6,400

METRIC

CLM-1-JFL	M12	2.17	.87	1-1/2	1/4	10mm	6mm	1,400
CLM-2-JFL		4.33						430
CLM-3-JFL	M16	3.35	.91	2	5/16	13mm	8mm	2,900
CLM-4-JFL		5.31						1,200
CLM-5A-JFL	M20	3.54	1.06	2-1/2	3/8	17mm	10mm	3,700
CLM-6-JFL		5.51						1,800
CLM-7A-JFL	M24	3.54	1.61	3-1/2	1/2	19mm	12mm	6,700
CLM-8-JFL		5.71						6,400

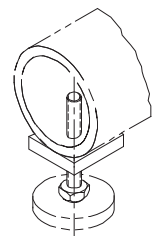
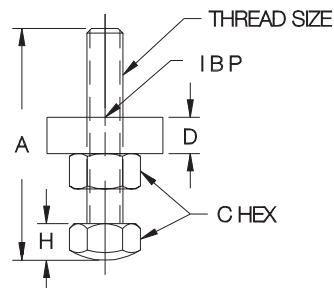
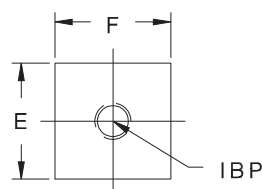


JIG FEET LEVELING ASSEMBLIES

MILD STEEL, BLACK OXIDE FINISH



Complete leveling assembly includes radius-head screw, plate, and hex nut.



USA

PART NO.	THREAD SIZE	A	C	D	E	F	H	*LOAD RATING (LBS)
CL-1-JF	3/8-16	3	11/16	1/2	1-1/2	1-3/4	.42	2,300
CL-2-JF	1/2-13	4	7/8		1-3/4	2	.53	4,200
CL-3-JF	5/8-11	4	1-1/16	5/8	2	2	.63	6,600
CL-4-JF	3/4-10		1-1/4				.75	10,000
CL-5-JF	1-8	5	1-5/8	3/4			1.06	18,000

METRIC

CLM-10-JF	M10	2.95	17mm	1/2	1-1/2	1-3/4	.43	2,600
CLM-12-JF	M12	3.94	19mm		1-3/4	2	.55	3,800
CLM-16-JF	M16	3.94	24mm	5/8	2	2	.63	7,200
CLM-20-JF	M20		30mm				.75	11,000
CLM-24-JF	M24	5.12	36mm	3/4			1.06	16,000

* Safe static load with stud securely mounted in a plate at least one-stud-diameter thick, at maximum stud extension (2:1 safety factor). Jig Feet Leveling Assemblies are rated with the standard plate provided.


MANUFACTURING CO.

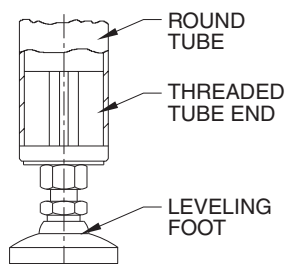
4200 Carr Lane Ct., P.O. Box 191970
 St. Louis, Missouri 63119-7970 USA
 Phone: 314-647-6200, FAX: 314-647-5736
 Web Site: www.carrlane.com

THREADED TUBE ENDS

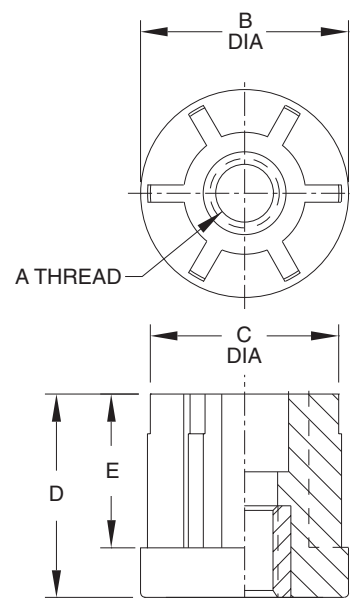
BODY: BLACK NYLON THERMOPLASTIC
THREADED INSERT: BRASS, MOLDED IN



Round



Ideal for mounting a Leveling Foot into the end of a round tube. High-strength ribbed design presses into the tube end, up to the shoulder, providing 1100 lbs load capacity. Available in three thread sizes, to fit round tubing with 1-1/2" outside diameter and .065 to .070" wall thickness.

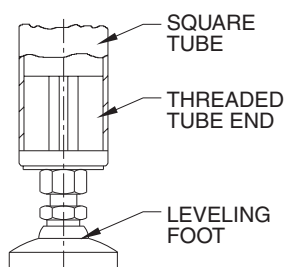


ROUND (USA)

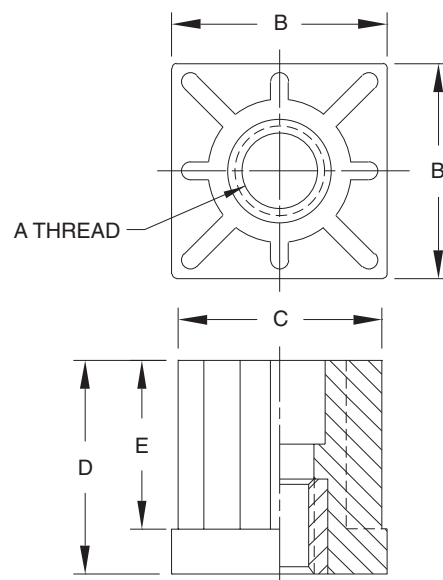
PART NO.	TUBING EXTERNAL DIA	TUBING WALL THICKNESS	A	B DIA	C DIA	D	E	LOAD RATING (LBS)
CL-6-TTER-112	1.50	.065/.070	3/8-16	1.50	1.40	1.70	1.34	1100
CL-8-TTER-112			1/2-13					
CL-10-TTER-112			5/8-11					



Square



Ideal for mounting a Leveling Foot into the end of a square tube. High-strength ribbed design presses into the tube end, up to the shoulder, providing 1300 lbs load capacity. Available in two thread sizes, to fit 1-1/2" square tubing with .065 to .070" wall thickness. Also available to fit 1-1/2" heavy-wall square tubing with .120 to .130" wall thickness.



SQUARE (USA)

PART NO.	TUBING EXTERNAL DIA	TUBING WALL THICKNESS	A	B	C	D	E	LOAD RATING (LBS)
CL-8-TTES-112	1.50	.065/.070	1/2-13	1.50	1.37	1.69	1.38	1300
CL-10-TTES-112			5/8-11					
CL-8-TTES-112H		.120/.130	1/2-13		1.25			
CL-10-TTES-112H			5/8-11					



MANUFACTURING CO.

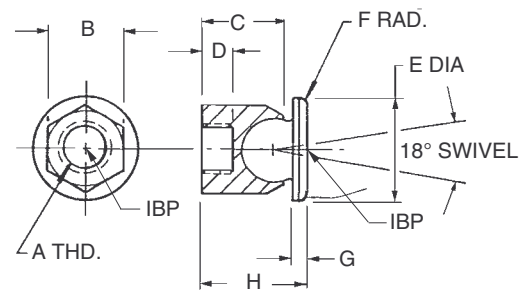
4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

SWIVEL PADS

PAD: 12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH OR DELRIN®
NUT: 12L14 STEEL, BLACK OXIDE FINISH



Heavy-duty swivel foot pivots to contact sloped surfaces evenly. Large ball provides high load capacity with a 18° total swivel angle. Choice of steel or Delrin pad.

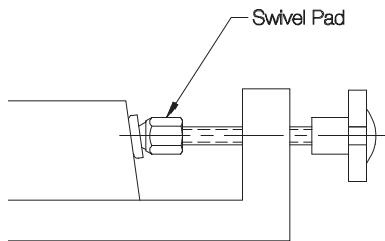


USA

PART NO. STEEL PAD	PART NO. DELIN® PAD	A	B	C	D	E DIA	F	G	H
CL-1-SPA	CL-1-SPAN	1/4-20	1/2	.50	.23	5/8	.06	.10	.67
CL-2-SPA	CL-2-SPAN	5/16-18	9/16	.58	.27	3/4		.12	.75
CL-3-SPA	CL-3-SPAN	3/8-16	5/8	.71	.29	7/8		.15	.91
CL-4-SPA	CL-4-SPAN	1/2-13	3/4	.81	.31	1	.09	.15	1.05
CL-5-SPA	CL-5-SPAN	5/8-11	7/8	1.00	.35	1-1/8		.20	1.25
CL-6-SPA	—	3/4-10	1-1/16	1.12	.35	1-1/4		.20	1.38
CL-7-SPA	—	1-8	1-3/8	1.50	.35	1-5/8			1.82

METRIC

CLM-6-SPA	—	M6	10mm	.56	.23	1/2	.04	.08	.67
CLM-8-SPA	—	M8	13mm	.58	.22	3/4	.06	.10	.75
CLM-10-SPA	—	M10	17mm	.71	.29	7/8	.09	.15	.91
CLM-12-SPA	—	M12	19mm	.81	.31	1	.09	.15	1.05
CLM-16-SPA	—	M16	24mm	1.00	.35	1-1/8	.09	.15	1.25
CLM-20-SPA	—	M20	30mm	1.12	.35	1-1/4			1.38

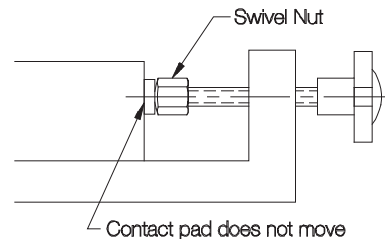


SWIVEL NUTS

NUT: 12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH
PAD: 12L14 STEEL, BLACK OXIDE FINISH



Nut turns freely without pivoting while pad remains stationary, to avoid moving or marring the workpiece.

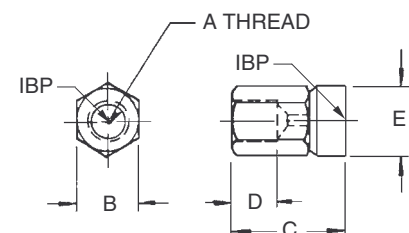


USA

PART NO.	A	B	C	D	E DIA
CL-4-SN	1/4-20	5/16	7/16	3/16	3/8
CL-5-SN	5/16-18	3/8	15/32	1/4	7/16
CL-6-SN	3/8-16	7/16	17/32	17/64	1/2
CL-8-SN	1/2-13	5/8	21/32	3/8	11/16
CL-10-SN	5/8-11	3/4	27/32	7/16	7/8
CL-12-SN	3/4-10	7/8	1	1/2	1

METRIC

CLM-6-SN	M6	8mm	.43	3/16	.39
CLM-10-SN	M10	13mm	.55	17/64	.51
CLM-12-SN	M12	17mm	.67	3/8	.71



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

SWIVEL PAD FEET

STEEL PAD: 12L14 STEEL, ZINC PLATED YELLOW CHROMATE OR BLACK OXIDE FINISH

DELRIN® PAD: WHITE DELRIN 500. STAINLESS PAD: 300-SERIES STAINLESS STEEL

STEEL NUT: 12L14 STEEL, CARBURIZED-HARDENED ZINC PLATED YELLOW CHROMATE OR BLACK OXIDE FINISH

STAINLESS NUT: 300-SERIES STAINLESS STEEL



**Steel
Zinc Plated**



**Steel
Zinc Plated
with Delrin® Pad**



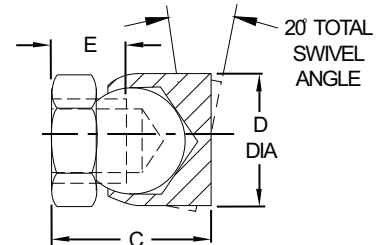
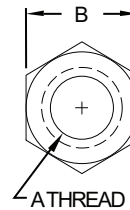
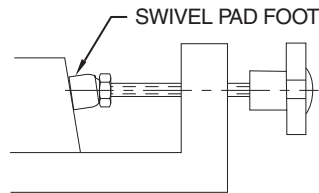
**Steel
Black Oxide Finish**



**Stainless
Steel**

**NOW ALSO
AVAILABLE
IN METRIC!**

Heavy-duty swivel foot pivots to contact sloped surfaces evenly. Large ball provides high load capacity with a 20° total swivel angle. Available in steel (zinc plated or black oxide finish), steel with a Delrin® pad, and stainless steel.



STEEL — ZINC PLATED (USA)

PART NO.	A	B	C	D DIA	E
CL-4-SPF	1/4-20	1/2	5/8	5/8	5/16
CL-5-SPF	5/16-18	9/16	3/4	11/16	3/8
CL-6-SPF	3/8-16	5/8	13/16	3/4	7/16
CL-8-SPF	1/2-13	3/4	15/16	7/8	7/16
CL-10-SPF	5/8-11	7/8	1	1	7/16
CL-12-SPF	3/4-10	1-1/16	1-11/32	1-1/4	5/8

STEEL — ZINC PLATED (METRIC)

PART NO.	A	B	C	D DIA	E
CLM-6-SPF	M6	10mm	5/8	5/8	5/16
CLM-8-SPF	M8	13mm	3/4	11/16	3/8
CLM-10-SPF	M10	17mm	13/16	3/4	7/16
CLM-12-SPF	M12	19mm	15/16	7/8	7/16
CLM-16-SPF	M16	24mm	1	1	7/16
CLM-20-SPF	M20	30mm	1-11/32	1-1/4	5/8

STEEL — ZINC PLATED WITH DELRIN® PAD (USA)

CL-4-SPFN	1/4-20	1/2	5/8	5/8	5/16
CL-5-SPFN	5/16-18	9/16	3/4	11/16	3/8
CL-6-SPFN	3/8-16	5/8	13/16	3/4	7/16
CL-8-SPFN	1/2-13	3/4	15/16	7/8	7/16
CL-10-SPFN	5/8-11	7/8	1	1	7/16
CL-12-SPFN	3/4-10	1-1/16	1-11/32	1-1/4	5/8

STEEL — ZINC PLATED WITH DELRIN® PAD (METRIC)

CLM-6-SPFN	M6	10mm	5/8	5/8	5/16
CLM-8-SPFN	M8	13mm	3/4	11/16	3/8
CLM-10-SPFN	M10	17mm	13/16	3/4	7/16
CLM-12-SPFN	M12	19mm	15/16	7/8	7/16
CLM-16-SPFN	M16	24mm	1	1	7/16
CLM-20-SPFN	M20	30mm	1-11/32	1-1/4	5/8

STEEL — BLACK OXIDE FINISH (USA)

CL-4-SPF-BO	1/4-20	1/2	5/8	5/8	5/16
CL-5-SPF-BO	5/16-18	9/16	3/4	11/16	3/8
CL-6-SPF-BO	3/8-16	5/8	13/16	3/4	7/16
CL-8-SPF-BO	1/2-13	3/4	15/16	7/8	7/16
CL-10-SPF-BO	5/8-11	7/8	1	1	7/16
CL-12-SPF-BO	3/4-10	1-1/16	1-11/32	1-1/4	5/8

STEEL — BLACK OXIDE FINISH (METRIC)

CLM-6-SPF-BO	M6	10mm	5/8	5/8	5/16
CLM-8-SPF-BO	M8	13mm	3/4	11/16	3/8
CLM-10-SPF-BO	M10	17mm	13/16	3/4	7/16
CLM-12-SPF-BO	M12	19mm	15/16	7/8	7/16
CLM-16-SPF-BO	M16	24mm	1	1	7/16
CLM-20-SPF-BO	M20	30mm	1-11/32	1-1/4	5/8

STAINLESS STEEL (USA)

CL-4-SPF-S	1/4-20	1/2	5/8	5/8	5/16
CL-5-SPF-S	5/16-18	9/16	3/4	11/16	3/8
CL-6-SPF-S	3/8-16	5/8	13/16	3/4	7/16
CL-8-SPF-S	1/2-13	3/4	15/16	7/8	7/16
CL-10-SPF-S	5/8-11	7/8	1	1	7/16
CL-12-SPF-S	3/4-10	1-1/16	1-11/32	1-1/4	5/8

STAINLESS STEEL (METRIC)

CLM-6-SPF-S	M6	10mm	5/8	5/8	5/16
CLM-8-SPF-S	M8	13mm	3/4	11/16	3/8
CLM-10-SPF-S	M10	17mm	13/16	3/4	7/16
CLM-12-SPF-S	M12	19mm	15/16	7/8	7/16
CLM-16-SPF-S	M16	24mm	1	1	7/16
CLM-20-SPF-S	M20	30mm	1-11/32	1-1/4	5/8



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

**NOW ALSO
AVAILABLE
IN METRIC!**

ROUND GRIPPERS

SERRATED — M-2 TOOL STEEL, HEAT TREATED RC 60-62, BLACK OXIDE FINISH

SERRATED — ALLOY STEEL, HEAT TREATED, WITH BRAZED CARBIDE INSERT

SERRATED — SOLID CARBIDE

FLAT — ALLOY STEEL, HEAT TREATED, WITH BRAZED CARBIDE PAD

FLAT — 8620 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH

FLAT — DELRIN®



**Hardened
Tool Steel
(Serrated)**



**Carbide
Tipped
(Serrated)**



**Solid
Carbide
(Serrated)**



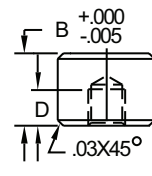
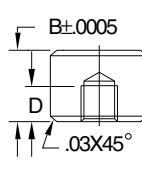
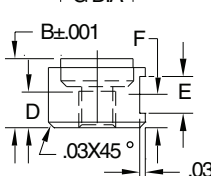
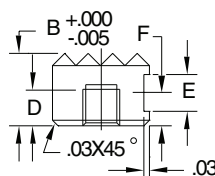
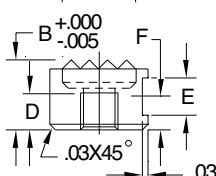
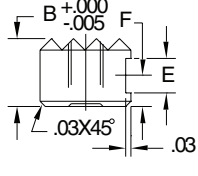
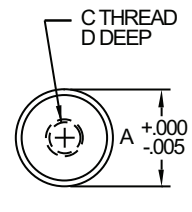
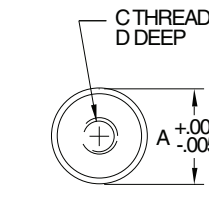
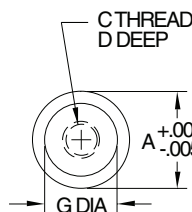
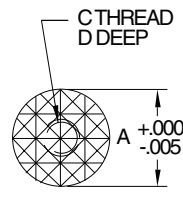
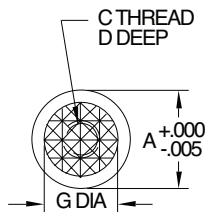
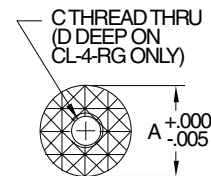
**Carbide
Tipped
(Flat)**



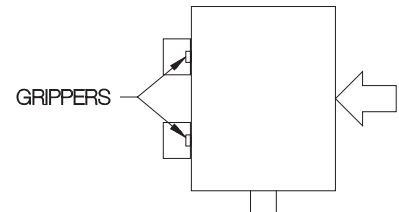
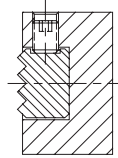
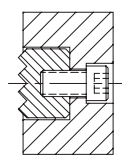
**Hardened
Steel
(Flat)**



**Delrin®
(Flat)**



Grippers are hardened, replaceable inserts used to provide additional holding force and/or wear resistance when installed in a fixture. Serrated grippers are designed to slightly penetrate the workpiece to significantly increase gripping force, versus relying on static friction alone. Round Grippers can be either recess-mounted in a flat-bottom hole, or surface-mounted to use as a rest pad. When grippers are installed in a hole, they should project 50 to 100% of serration height for maximum effectiveness (.047" full serration height on grippers with .094 x 90° serrations, .062" with .125 x 90° serrations). Tapped Round Grippers are available in the six configurations shown above. Hardened tool steel grippers are the most economical and impact resistant, while carbide grippers are the most durable. These inserts can be installed directly, or used with the swivel-ball units on pages 148-150. Round Grippers are also available counter-bored, for blind-hole installations (see page 147).



Tapped Round Grippers can be either fastened from behind with a socket-head cap screw, or clamped with a set screw on the O.D. locking flat. (Steel and Delrin® flat pads, and 1/4" dia serrated grippers, do not have a locking flat.)

Serrated grippers installed in a fixture's locating surfaces dramatically increase resistance to movement by embedding themselves in the workpiece.

TAPPED (USA)

PART NO. TOOL STEEL (SERRATED)	PART NO. CARBIDE TIPPED (SERRATED)	PART NO. SOLID CARBIDE (SERRATED)	PART NO. CARBIDE TIPPED (FLAT)	PART NO. STEEL (FLAT)	PART NO. DELRIN (FLAT)	A DIA	B	C	D	E	F	G DIA	SERRATIONS
CL-4-RG	—	—	—	—	—	1/4	3/8	#8-32	3/16	—	—	—	Extra Fine .094x90°
CL-6-RG	CL-6-RGT	—	CL-6-RGFT	CL-6-RGF	CL-6-RGFN	3/8	3/8	#10-32	3/16	3/16	11/64	5/16	Fine .125x90°
CL-8-RG	CL-8-RGT	CL-8-RGC	CL-8-RGFT	CL-8-RGF	CL-8-RGFN	1/2	1/2	1/4-28	1/2	1/2	1/2	3/8	Fine .125x90°
CL-10-RG	CL-10-RGT	CL-10-RGC	CL-10-RGFT	CL-10-RGF	CL-10-RGFN	5/8	5/8	—	—	—	—	1/2	Fine .125x90°
CL-12-RG	CL-12-RGT	CL-12-RGC	CL-12-RGFT	CL-12-RGF	CL-12-RGFN	3/4	3/4	—	—	—	—	5/8	Fine .125x90°
CL-16-RG	CL-16-RGT	—	CL-16-RGFT	CL-16-RGF	CL-16-RGFN	1	1	—	—	—	—	3/4	Fine .125x90°

TAPPED (METRIC)

CLM-10-RG	CLM-10-RGT	—	—	CLM-10-RGF	CLM-10-RGFN	.394 (10mm)	.3937 (10mm)	M5	.18	.185	.177	—	Xfine .094x90°
CLM-12-RG	CLM-12-RGT	—	—	CLM-12-RGF	CLM-12-RGFN	.472 (12mm)	.472 (12mm)	M6	.18	.185	.177	—	Fine .125x90°
CLM-16-RG	CLM-16-RGT	—	—	CLM-16-RGF	CLM-16-RGFN	.630 (16mm)	.630 (16mm)	M6	.18	.185	.177	—	Fine .125x90°
CLM-20-RG	CLM-20-RGT	—	—	CLM-20-RGF	CLM-20-RGFN	.787 (20mm)	.787 (20mm)	M6	.18	.185	.177	—	Fine .125x90°
CLM-25-RG	CLM-25-RGT	—	—	CLM-25-RGF	CLM-25-RGFN	.984 (25mm)	.984 (25mm)	M6	.18	.185	.177	—	Fine .125x90°



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970

St. Louis, Missouri 63119-7970 USA

Phone: 314-647-6200, FAX: 314-647-5736

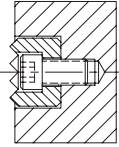
Web Site: www.carrlane.com

ROUND GRIPPERS

USA



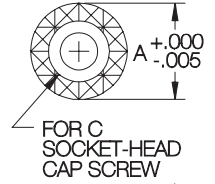
Counterbored



**Hardened Tool Steel
(Serrated)**

Counterbored Round Grippers are useful whenever fastening from behind or the side is not possible. Mount with a standard socket-head cap screw.

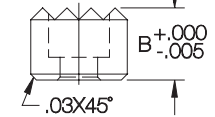
PART NO. TOOL STEEL (SERRATED)	A DIA	B	C	SERRATIONS	
CL-8-RGB	1/2	3/8	#8	Fine	.125x90°
CL-10-RGB	5/8		1/2		
CL-12-RGB	3/4	1/4			
CL-16-RGB	1				



FOR C SOCKET-HEAD CAP SCREW

METRIC

CLM-12-RGB	.472(12mm)	.394	M4	Fine	.125x90°
CLM-16-RGB	.630(16mm)	(10mm)			
CLM-20-RGB	.787(20mm)	.472			
CLM-25-RGB	.984(25mm)	(12mm)			



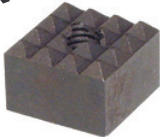
**NOW ALSO
AVAILABLE
IN METRIC!**

SQUARE GRIPPERS

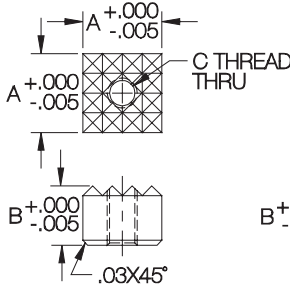
SERRATED — M-2 TOOL STEEL, HEAT TREATED RC 60-62, BLACK OXIDE FINISH

SERRATED — ALLOY STEEL, HEAT TREATED, WITH BRAZED CARBIDE INSERT

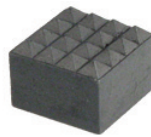
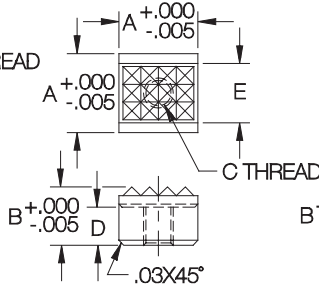
SERRATED — SOLID CARBIDE



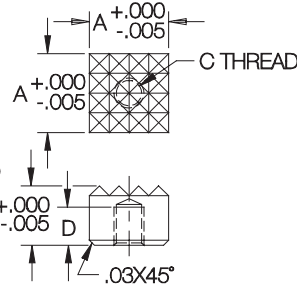
**Hardened
Tool Steel
(Serrated)**



**Carbide
Tipped
(Serrated)**



**Solid
Carbide
(Serrated)**

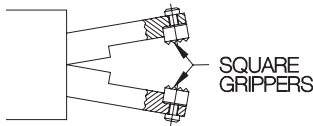


Tapped

Square Grippers are similar to the Round Grippers on page 150, but are useful when positive resistance to rotation is required. These serrated grippers are hardened, replaceable inserts designed to slightly penetrate the workpiece. This significantly increases gripping force versus relying on static friction alone. Tapped Square Grippers are available in the three configurations shown above. Hardened tool steel grippers are the most economical and impact resistant, while carbide grippers are the most durable. Square Grippers are also available counterbored, for blind-hole installations (see below).

TAPPED (USA)

PART NO. TOOL STEEL (SERRATED)	PART NO. CARBIDE TIPPED (SERRATED)	PART NO. SOLID CARBIDE (SERRATED)	A	B	C	D	E	SERRATIONS
CL-6-SG	—	—	3/8	3/8	#10-32	3/16	13/32	XFine .094x90°
CL-8-SG	CL-8-SGT	CL-8-SGC	1/2					Fine .125x90°
CL-12-SG	—	—	3/4					
CL-16-SG	—	—	1					



Square Grippers can be mounted against a step for positive resistance to rotation.

TAPPED (METRIC)

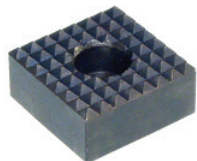
CLM-10-SG	—	—	.394(10mm)	.394 (10mm)	M5	3/16	13/32	XFine .094x90°
CLM-12-SG	CLM-12-SGT	—	.472(12mm)					
CLM-20-SG	—	—	.787(20mm)					
CLM-25-SG	—	—	.984(25mm)					

COUNTERBORED (USA)

PART NO. TOOL STEEL (SERRATED)	A	B	C	SERRATIONS	
CL-8-SGB	1/2	1/2	#10	Fine	.125x90°
CL-12-SGB	3/4		1/4		
CL-16-SGB	1				

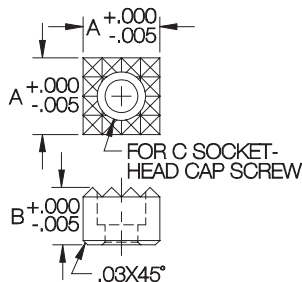
COUNTERBORED (METRIC)

CLM-12-SGB .472(12mm)	.472 (12mm)	M4	Fine	.125x90°
CLM-20-SGB .787(20mm)		M5		
CLM-25-SGB .984(25mm)				



Counterbored

**Hardened Tool Steel
(Serrated)**


MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

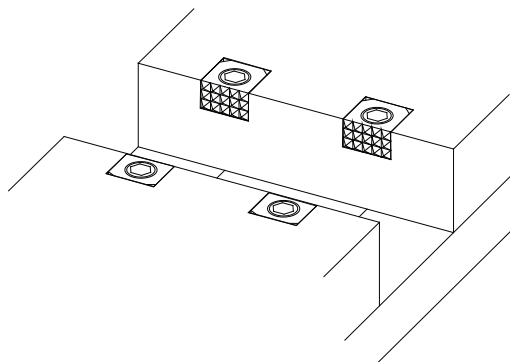
EDGE GRIPPERS

M-2 TOOL STEEL, HEAT TREATED RC 60-62, BLACK OXIDE FINISH

NEW!



**Serrated
Hardened Tool Steel**

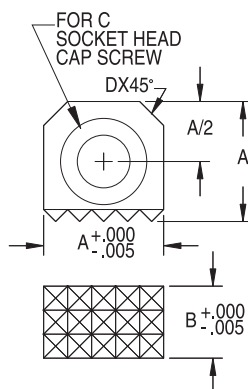


Edge Grippers are ideal for mounting at the top edge of a clamping face such as a vise jaw.

Edge Grippers are helpful for applications where traditional face-mounted grippers are difficult to install. They have a useful flat profile because the mounting screw is parallel to the serrated face. These serrated grippers are hard, replaceable inserts used to provide additional holding force and/or wear resistance when installed in a fixture. They are designed to slightly penetrate the workpiece to significantly increase gripping force, rather than relying on static friction alone. Edge Grippers should be mounted in a flat-bottom recess that provides support behind the gripper. Fasten with a standard socket-head cap screw. The serrated face should project 50 to 100% of serration height for maximum effectiveness (serration height is .062" on grippers with fine serrations, .047" on grippers with extra-fine serrations, and .031" on grippers with super-fine serrations).

USA

PART NO.	A	B	SERRATIONS		C	COUNTER-BORE DEPTH	D				
CL-6-EG-4	3/8	1/4	Extra Fine	.094x90°	#6	.146	1/16				
CL-6-EG-4-SF			Super Fine	.062x90°							
CL-6-EG-6		3/8	Extra Fine	.094x90°							
CL-6-EG-6-SF			Super Fine	.062x90°							
CL-8-EG-4	1/2	1/4	Fine	.125x90°	#8	.170	3/32				
CL-8-EG-4-EF			Extra Fine	.094x90°							
CL-8-EG-6		3/8	Fine	.125x90°		.175					
CL-8-EG-6-EF			Extra Fine	.094x90°							
CL-8-EG-8		1/2	Fine	.125x90°							
CL-8-EG-8-EF			Extra Fine	.094x90°							
CL-10-EG-4		5/8	1/4	Fine		.125x90°		1/4	.130	1/8	
CL-10-EG-4-EF				Extra Fine		.094x90°					
CL-10-EG-6	3/8		Fine	.125x90°							
CL-10-EG-6-EF			Extra Fine	.094x90°							
CL-10-EG-8	1/2		Fine	.125x90°							
CL-10-EG-8-EF			Extra Fine	.094x90°							
CL-12-EG-4	3/4	1/4	Fine	.125x90°	5/16	.161	1/8				
CL-12-EG-4-EF			Extra Fine	.094x90°							
CL-12-EG-6		3/8	Fine	.125x90°							
CL-12-EG-6-EF			Extra Fine	.094x90°							
CL-12-EG-8		1/2	Fine	.125x90°							
CL-12-EG-8-EF			Extra Fine	.094x90°							
CL-16-EG-6		1	3/8	Fine				.125x90°	3/8	.194	1/8
CL-16-EG-6-EF				Extra Fine				.094x90°			
CL-16-EG-8	1/2		Fine	.125x90°							
CL-16-EG-8-EF			Extra Fine	.094x90°							



METRIC

CLM-10-EG-6	.394(10mm)	.236(6mm)	Extra Fine	.094x90°	M3 or #6	.148	.06
CLM-10-EG-10		.394(10mm)					
CLM-12-EG-6		.236(6mm)	Fine	.125x90°	M4 or #8	.160	.09
CLM-12-EG-10	.472(12mm)	.394(10mm)					
CLM-12-EG-12		.472(12mm)	Fine	.125x90°	M6 or 1/4	.165	.13
CLM-16-EG-6		.236(6mm)					
CLM-16-EG-10	.630(16mm)	.394(10mm)	Fine	.125x90°	M8 or 5/16	.200	.13
CLM-16-EG-12		.472(12mm)					
CLM-20-EG-6		.236(6mm)	Fine	.125x90°	M10 or 3/8	.260	.13
CLM-20-EG-10	.787(20mm)	.394(10mm)					
CLM-20-EG-12		.472(12mm)	Fine	.125x90°			
CLM-25-EG-10	.984(25mm)	.394(10mm)					
CLM-25-EG-12		.472(12mm)					



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

GRIPPER CONTACT BOLTS

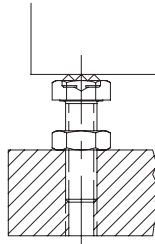
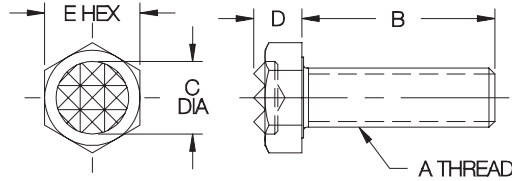
STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH, WITH BRAZED CARBIDE GRIPPER

**NOW ALSO
AVAILABLE
IN METRIC!**



**Carbide Tipped
(Serrated)**

Fully threaded contact bolt with a carbide-tipped gripper head. Can be used as an adjustable support, or as a contact bolt in a clamp. Available in thread sizes from 1/4-20 to 5/8-11 (M6 to M16 in metric) each in a choice of lengths.



USA

PART NO.	A	B	C DIA	D	E	SERRATIONS	
CL-405-GCB	1/4-20	1/2	5/16	13/64	7/16	Extra Fine	.094x90°
CL-410-GCB		1					
CL-505-GCB	5/16-18	1/2	3/8	1/4	1/2	Fine	.125x90°
CL-510-GCB		1					
CL-515-GCB		1-1/2					
CL-605-GCB	3/8-16	1/2	1/2	9/32	9/16	Fine	.125x90°
CL-610-GCB		1					
CL-615-GCB		1-1/2					
CL-810-GCB	1/2-13	1	5/8	23/64	3/4	Fine	.125x90°
CL-815-GCB		1-1/2					
CL-1010-GCB	5/8-11	1	3/4	7/16	15/16	Fine	.125x90°
CL-1020-GCB		2					

METRIC

CLM-612-GCB	M6	.47	5/16	.20	10mm	Extra Fine	.094x90°
CLM-625-GCB		.98					
CLM-812-GCB	M8	.47	3/8	.25	13mm	Fine	.125x90°
CLM-825-GCB		.98					
CLM-835-GCB	M10	1.38	1/2	.33	17mm	Fine	.125x90°
CLM-1012-GCB		.47					
CLM-1025-GCB		.98					
CLM-1040-GCB	M12	1.57	5/8	.34	19mm	Fine	.125x90°
CLM-1225-GCB		.98					
CLM-1240-GCB	M16	1.57	3/4	.43	24mm	Fine	.125x90°
CLM-1635-GCB		1.38					
CLM-1650-GCB		1.97					

GRIPPER SWIVEL SCREWS

BODY: STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH
SWIVEL BALL: HIGH-SPEED TOOL STEEL

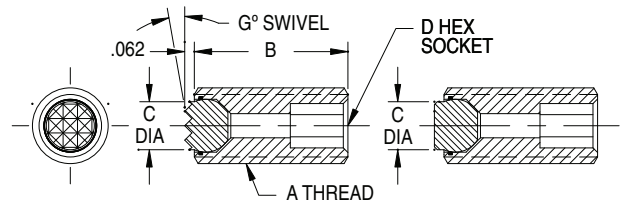
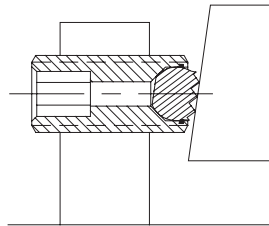
**NOW ALSO
AVAILABLE
IN METRIC!**



**Hardened
Tool Steel
(Serrated)**



**Hardened
Tool Steel
(Flat)**



COMPLETE ASSEMBLY (USA)

PART NO. — COMPLETE		A	B	C DIA	D	G	SERRATIONS	
TOOL STEEL (SERRATED)	TOOL STEEL (FLAT)	3/8-16	1/2	5/32	3/16	14°	Super Fine	.062x90°
CL-605-GSS	CL-605-GSF		1					
CL-610-GSS	CL-610-GSF	1/2-13	2	1/4	1/4	14°	Super Fine	.062x90°
CL-620-GSS	CL-620-GSF		1					
CL-810-GSS	CL-810-GSF		2					
CL-820-GSS	CL-820-GSF	5/8-11	3	5/16	5/16	14°	Extra Fine	.094x90°
CL-830-GSS	CL-830-GSF		1					
CL-1010-GSS	CL-1010-GSF	5/8-11	2	5/16	5/16	14°	Extra Fine	.094x90°
CL-1020-GSS	CL-1020-GSF		3					
CL-1030-GSS	CL-1030-GSF	5/8-11	1	5/16	5/16	14°	Extra Fine	.094x90°
CL-1030-GSS	CL-1030-GSF		3					

COMPLETE ASSEMBLY (METRIC)

CLM-1025-GSS	CLM-1025-GSF	M10	.98	.16	5mm	15°	Super Fine	.062x90°
CLM-1050-GSS	CLM-1050-GSF		1.97					
CLM-1225-GSS	CLM-1225-GSF	M12	.98	.24	6mm	14°	Super Fine	.062x90°
CLM-1250-GSS	CLM-1250-GSF		1.97					
CLM-1625-GSS	CLM-1625-GSF	M16	.98	.33	8mm	12°	Extra Fine	.094x90°
CLM-1650-GSS	CLM-1650-GSF		1.97					



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

GRIPPER SWIVEL CONTACT BOLTS

**NOW ALSO
AVAILABLE
IN METRIC!**

BODY AND GRIPPER SCREW: STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH
SWIVEL BALL: 440C STAINLESS STEEL, HEAT TREATED. O-RING: RUBBER
SEE PAGE 150 FOR ROUND GRIPPER MATERIAL SPECIFICATIONS



**Hardened
Tool Steel
(Serrated)**



**Carbide
Tipped
(Serrated)**



**Solid Carbide
(Serrated)**



**Carbide
Tipped
(Flat)**

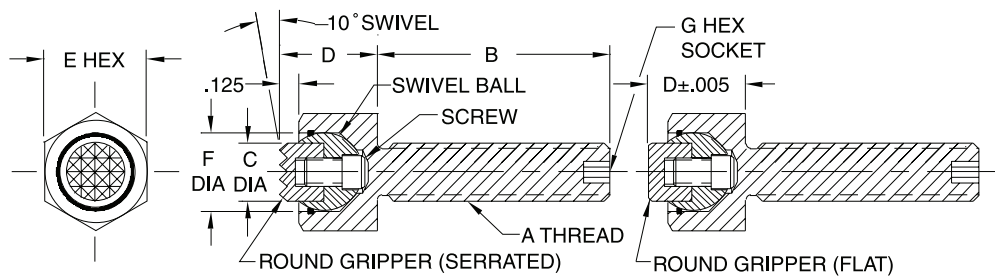


**Hardened
Steel
(Flat)**



**Delrin®
(Flat)**

Threaded contact bolt with a built-in swivel ball to hold a Round Gripper. This swivel ball, held by a retaining ring, is removable to allow installing any of the six different gripper types (order gripper separately). A fastening screw is furnished with the contact bolt. This screw serves as a positive stop to prevent the ball from swiveling too far. Can be used as a contact bolt, or as a support. Available in thread sizes from 3/8-16 to 1"-8 (M10 to M24 in metric), most in a choice of several lengths.



BODY AND GRIPPER — ORDER SEPARATELY (USA)

PART NO. BODY WITHOUT GRIPPER	PART NO. — ROUND GRIPPER						A	B	C DIA	D	E	F DIA	G	SERRATIONS		
	TOOL STEEL (SERRATED)	CARBIDE TIPPED (SERRATED)	SOLID CARBIDE (SERRATED)	CARBIDE TIPPED (FLAT)	STEEL (FLAT)	DELRIN (FLAT)										
CL-605-GSB	CL-6-RG	CL-6-RGT	—	CL-6-RGFT	CL-6-RGF	CL-6-RGFN	3/8-16	1/2	3/8	5/8	5/8	1/2	1/8	Extra Fine	.094x90°	
CL-610-GSB								1								
CL-615-GSB								1-1/2								
CL-810-GSB	CL-8-RG	CL-8-RGT	CL-8-RGC	CL-8-RGFT	CL-8-RGF	CL-8-RGFN	1/2-13	1	1/2	3/4	13/16	5/8	3/16	Fine	.125x90°	
CL-815-GSB								1-1/2								
CL-1010-GSB								CL-10-RG								CL-10-RGT
CL-1020-GSB	2															
CL-1210-GSB	CL-12-RG	CL-12-RGT	CL-12-RGC	CL-12-RGFT	CL-12-RGF	CL-12-RGFN	3/4-10	1	3/4	7/8	1-1/8	7/8	5/16			
CL-1225-GSB								2-1/2								
CL-1620-GSB	CL-16-RG	CL-16-RGT	—	CL-16-RGFT	CL-16-RGF	CL-16-RGFN	1-8	2	1	1	1-1/2	1-1/8	3/8			

BODY AND GRIPPER — ORDER SEPARATELY (METRIC)

CLM-1015-GSB	CLM-10-RG	CLM-10-RGT	—	—	CLM-10-RGF	CLM-10-RGFN	M10	.59	.394	.669	17mm	.51	3mm	Extra Fine	.094x90°
CLM-1030-GSB								1.18							
CLM-1220-GSB	CLM-12-RG	CLM-12-RGT	—	—	CLM-12-RGF	CLM-12-RGFN	M12	.79	.472	.748	19mm	.59	5mm	Fine	.125x90°
CLM-1240-GSB								1.57							
CLM-1625-GSB	CLM-16-RG	CLM-16-RGT	—	—	CLM-16-RGF	CLM-16-RGFN	M16	.98	.630	.906	24mm	.79	6mm		
CLM-1650-GSB								1.97							
CLM-2030-GSB	CLM-20-RG	CLM-20-RGT	—	—	CLM-20-RGF	CLM-20-RGFN	M20	1.18	.787	.945	30mm	.91	8mm		
CLM-2060-GSB								2.36							
CLM-2440-GSB	CLM-25-RG	CLM-25-RGT	—	—	CLM-25-RGF	CLM-25-RGFN	M25	1.57	.984	1.181	36mm	1.10	10mm		



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970

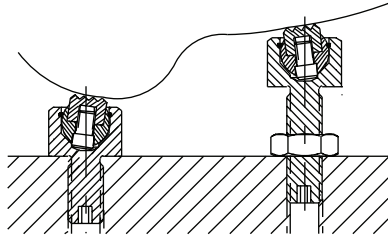
St. Louis, Missouri 63119-7970 USA

Phone: 314-647-6200, FAX: 314-647-5736

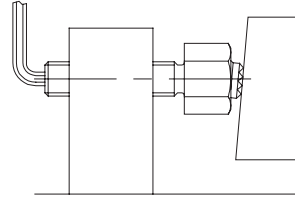
Web Site: www.carrlane.com

GRIPPER SWIVEL CONTACT BOLTS

BODY AND GRIPPER SCREW: STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH
 SWIVEL BALL: 440C STAINLESS STEEL, HEAT TREATED (H.S. TOOL STEEL ON SMALL SIZES). O-RING: RUBBER
 SEE PAGE 150 FOR ROUND GRIPPER MATERIAL SPECIFICATIONS



Gripper Swivel Contact Bolts are ideal as either fixed or adjustable supports under workpieces with curved or sloped surfaces.



Gripper Swivel Contact Bolts can also be used as screw clamps by turning them with a hex wrench (large sizes only).



**Hardened
Tool Steel
(Serrated)**



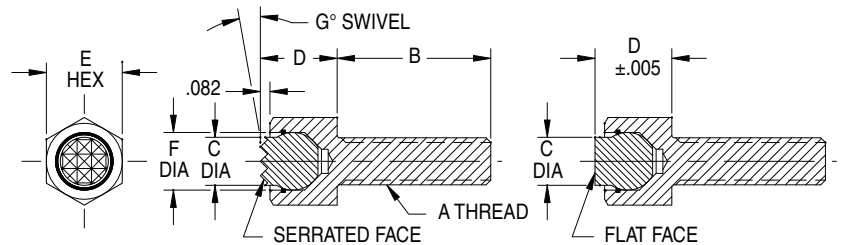
**Hardened
Steel
(Flat)**



**Delrin®
(Flat)**

Mini Sizes

Mini threaded contact bolt with a built-in swivel ball held by a retaining ring. Choose from the three gripper types shown, serrated or flat. The gripper face is machined directly on the swivel ball. A positive stop prevents the ball from swiveling too far. Can be used as a contact bolt, or as a support. Available in thread sizes from #10-32 to 5/16-18 (M6 to M8 in metric), most in a choice of several lengths.



MINI — COMPLETE ASSEMBLY (USA)

PART NO. — COMPLETE			A	B	C DIA	D	E	F DIA	G	SERRATIONS	
TOOL STEEL (SERRATED)	STEEL (FLAT)	DELRLIN® (FLAT)									
CL-305-GSB	CL-305-GBF	CL-305-GBFN	#10-32	1/2	5/32	5/16	3/8	3/16	14°	Super Fine	.062x90°
CL-405-GSB	CL-405-GBF	CL-405-GBFN	1/4-20	1/2	1/4	3/8	7/16	7/32			
CL-410-GSB	CL-410-GBF	CL-410-GBFN									
CL-415-GSB	CL-415-GBF	CL-415-GBFN									
CL-505-GSB	CL-505-GBF	CL-505-GBFN	5/16-18	1/2	5/16	7/16	1/2	3/8		Extra Fine	.094x90°
CL-510-GSB	CL-510-GBF	CL-510-GBFN									
CL-515-GSB	CL-515-GBF	CL-515-GBFN		1-1/2							

**NOW ALSO
AVAILABLE
IN METRIC!**

MINI — COMPLETE ASSEMBLY (METRIC)

CLM-612-GSB	CLM-612-GSF	CLM-612-GSFN	M6	.47	.24	.374	10mm	.28	14°	Super Fine	.062x90°
CLM-625-GSB	CLM-625-GSF	CLM-625-GSFN		.98							
CLM-640-GSB	CLM-640-GSF	CLM-640-GSFN		1.57							
CLM-812-GSB	CLM-812-GSF	CLM-812-GSFN	M8	.47	.33	.512	13mm	.39	12°	Extra Fine	.094x90°
CLM-825-GSB	CLM-825-GSF	CLM-825-GSFN		.98							
CLM-840-GSB	CLM-840-GSF	CLM-840-GSFN		1.57							



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
 St. Louis, Missouri 63119-7970 USA
 Phone: 314-647-6200, FAX: 314-647-5736
 Web Site: www.carrlane.com

GRIPPER SWIVEL PADS

BODY AND GRIPPER SCREW: STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH. O-RING: RUBBER.

SWIVEL BALL ON STANDARD SIZES: 440C STAINLESS STEEL, HEAT TREATED

SEE PAGE 150 FOR ROUND GRIPPER MATERIAL SPECIFICATIONS

SWIVEL BALL ON MINI SIZES: HARDENED M-2 TOOL STEEL, HARDENED ALLOY STEEL, OR DELRIN®

**NOW ALSO
AVAILABLE
IN METRIC!**



**Hardened
Tool Steel
(Serrated)**



**Carbide
Tipped
(Serrated)**



**Solid
Carbide
(Serrated)**



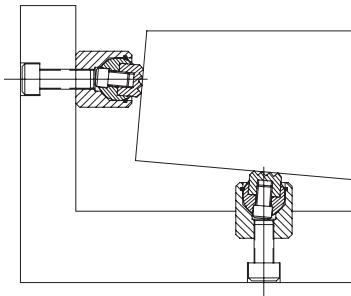
**Carbide
Tipped
(Flat)**



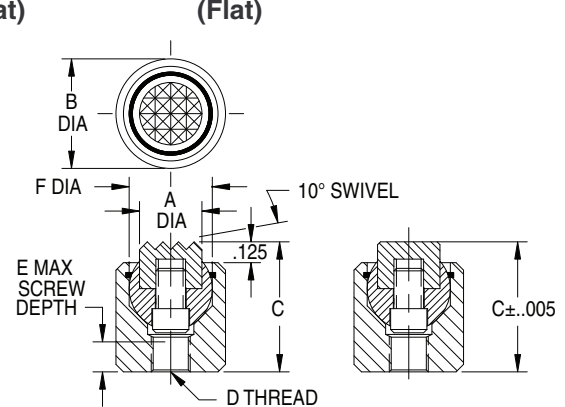
**Hardened
Steel
(Flat)**



**Delrin®
(Flat)**



Rest pad with a built-in swivel ball held by a retaining ring. A positive stop prevents the ball from swiveling too far. The swivel ball is removable to allow installing any of five different Round-Gripper types (order separately). Simply insert a hex wrench or rod to push the ball out from behind. Gripper Swivel Pads are available in a wide range of sizes. They can be surface-mounted or installed in a counterbored hole.



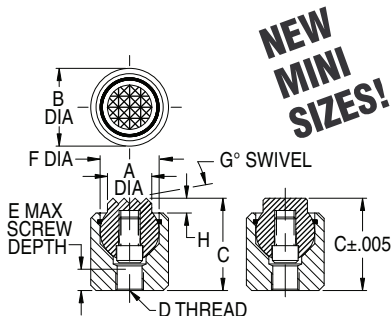
BODY AND GRIPPER — ORDER SEPARATELY (USA)

PART NO. BODY WITHOUT GRIPPER	PART NO. — ROUND GRIPPER						A DIA	B DIA	C	D	E	F DIA	SERRATIONS	
	TOOL STEEL (SERRATED)	CARBIDE TIPPED (SERRATED)	SOLID CARBIDE (SERRATED)	CARBIDE TIPPED (FLAT)	STEEL (FLAT)	DELTRIN® (FLAT)								
CL-6-GSP	CL-6-RG	CL-6-RGT	—	CL-6-RGFT	CL-6-RGF	CL-6-RGFN	3/8	5/8	7/8	1/4-28	.24	1/2	XFine	.094x90°
CL-8-GSP	CL-8-RG	CL-8-RGT	CL-8-RGC	CL-8-RGFT	CL-8-RGF	CL-8-RGFN	1/2	13/16	1	5/16-24	.35	5/8		
CL-10-GSP	CL-10-RG	CL-10-RGT	CL-10-RGC	CL-10-RGFT	CL-10-RGF	CL-10-RGFN	5/8	15/16	1	3/8-24	.28	3/4	Fine	.125x90°
CL-12-GSP	CL-12-RG	CL-12-RGT	CL-12-RGC	CL-12-RGFT	CL-12-RGF	CL-12-RGFN	3/4	1-1/8	1-1/16	1/2-20	.25	7/8		
CL-16-GSP	CL-16-RG	CL-16-RGT	—	CL-16-RGFT	CL-16-RGF	CL-16-RGFN	1	1-1/2	1-3/8		.44	1-1/8		

BODY AND GRIPPER — ORDER SEPARATELY (METRIC)

CLM-10-GSP	CLM-10-RG	CLM-10-RGT	—	—	CLM-10-RGF	CLM-10-RGFN	10mm	.67	.866	M6	.29	.512	XFine	.094x90°
CLM-12-GSP	CLM-12-RG	CLM-12-RGT	—	—	CLM-12-RGF	CLM-12-RGFN	12mm	.75	.945	M8	.33	.591		
CLM-16-GSP	CLM-16-RG	CLM-16-RGT	—	—	CLM-16-RGF	CLM-16-RGFN	16mm	.94	1.102	M10	.35	.787	Fine	.125x90°
CLM-20-GSP	CLM-20-RG	CLM-20-RGT	—	—	CLM-20-RGF	CLM-20-RGFN	20mm	1.18	1.181	M12	.33	.906		
CLM-25-GSP	CLM-25-RG	CLM-25-RGT	—	—	CLM-25-RGF	CLM-25-RGFN	25mm	1.42	1.417	M12	.47	1.102		

COMPLETE ASSEMBLY — MINI (USA)



Mini-size rest pad with a built-in swivel ball. Gripper face is machined directly on the swivel ball.

PART NO. — COMPLETE			A DIA	B DIA	C	D	E	F BALL DIA	G	H	SERRATIONS
TOOL STEEL (SERRATED)	STEEL (FLAT)	DELTRIN® (FLAT)									
CL-3-GSPS	CL-3-GSPF	CL-3-GSPN	5/32	3/8	3/8	#4-40	1/4	3/16	14°	.062	Super
CL-4-GSPS	CL-4-GSPF	CL-4-GSPN	1/4	7/16	7/16	#8-32	5/32	9/32	14°	.062	Fine
CL-5-GSPS	CL-5-GSPF	CL-5-GSPN	5/16	1/2	9/16	#10-32	5/32	3/8	14°	.062	Extra
CL-6-GSPS	CL-6-GSPF	CL-6-GSPN	3/8	5/8	15/16	1/4-28	1/4	1/2	17°	.125	Fine

COMPLETE ASSEMBLY — MINI (METRIC)

CLM-6-GSPS	CLM-6-GSPF	CLM-6-GSPN	.24	.39	.472	M4	.14	.276	14°	.059	SFine
CLM-8-GSPS	CLM-8-GSPF	CLM-8-GSPN	.33	.51	.630	M5	.25	.394	12°	.059	Extra
CLM-10-GSPS	CLM-10-GSPF	CLM-10-GSPN	.39	.67	.768	M6	.27	.512	21°	.059	Fine



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970

St. Louis, Missouri 63119-7970 USA

Phone: 314-647-6200, FAX: 314-647-5736

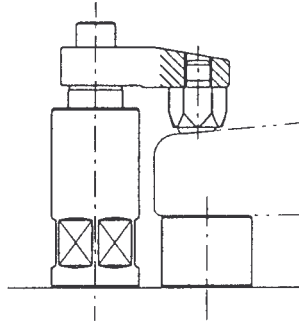
Web Site: www.carrlane.com

SWIVEL CONTACT BOLTS

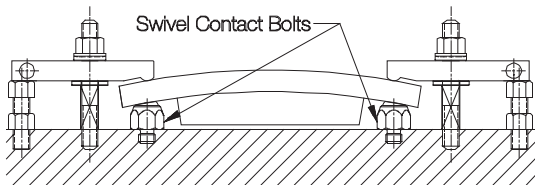
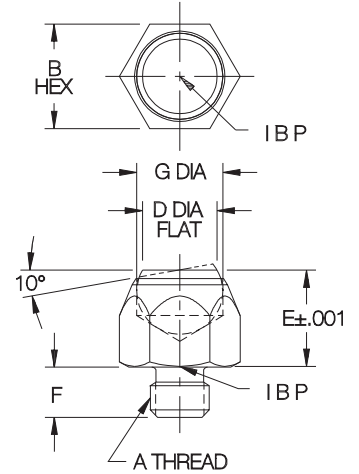
BALL: CHROME STEEL, HEAT TREATED RC 60-67
BODY: 1144 STEEL, HEAT TREATED RC 35-40, BLACK OXIDE FINISH



Precision swivel ball that can be used as either a contact bolt or rest pad.



Swivel Contact Bolts are ideal for evenly distributing clamping pressure on sloped surfaces.



Swivel Contact Bolts are precision ground for accurate height location, even on sloped surfaces. See pages 35-38MF for Riser Blocks, Extension Supports, and Height Shims.

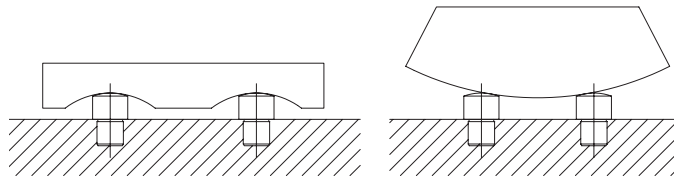
PART NO.	A	B	D DIA	E		F	G
				NOMINAL	ACTUAL		
CL-MF25-2502	5/16-18	9/16	13/32	1/2	.5000	.32	15/32
CL-MF30-2503	3/8-16	13/16	19/32	13/16	.8125	.47	23/32
CL-MF40-2501	1/2-13	7/8	5/8	13/16	.8125	.41	23/32
CL-MF50-2501	5/8-11	1-1/16	13/16	1	1.0000	.61	29/32

SPHERICAL RADIUS LOCATOR BUTTONS

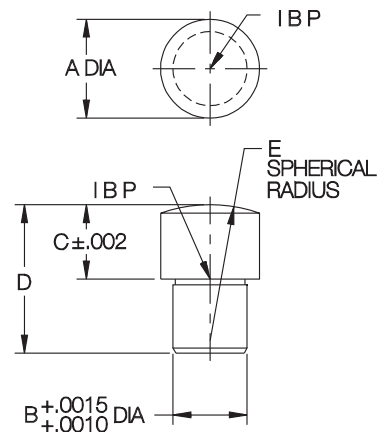
1144 STEEL, HEAT TREATED RC 40-45, BLACK OXIDE FINISH



Rest button with a spherical-radius head to minimize workpiece contact area. Press-fit shank.



PART NO.	B DIA	A DIA	C	D	E
CL-1-SLB	3/16	5/16	.1250	3/8	1/2
CL-2-SLB	1/4	3/8	.1875	1/2	5/8
CL-3-SLB			.1875	9/16	
CL-4-SLB	3/8	1/2	.2500	5/8	3/4
CL-5-SLB			.3750	3/4	
CL-6-SLB			.5000	7/8	



MANUFACTURING CO.

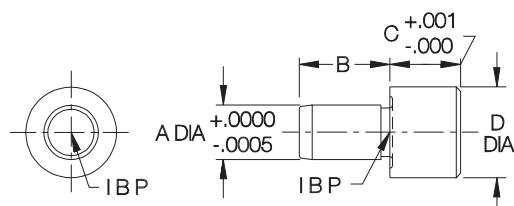
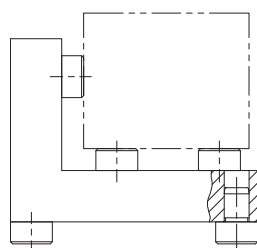
4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

REST BUTTONS

STEEL: 1144, HEAT TREATED RC 40-45 BLACK OXIDE FINISH
STAINLESS STEEL: 300-SERIES



Precision rest button with a press-fit shank. Excellent as either a workpiece support or a jig foot.



STEEL (USA)

PART NO.	A DIA		B	C		D DIA
	NOMINAL	ACTUAL		NOMINAL	ACTUAL	
CL-12-RB	3/16	.1885	3/8	1/4	.2500	3/8
CL-13-RB				3/8	.3750	
CL-14-RB				1/2	.5000	
CL-2-RB	1/4	.2510	1/2	1/4	.2500	1/2
CL-3-RB				3/8	.3750	
CL-1-RB				1/2	.5000	
CL-5-RB	3/8	.3760	5/8	1/4	.2500	5/8
CL-6-RB				3/8	.3750	
CL-4-RB				1/2	.5000	
CL-7-RB	1/2	.5010	5/8	5/8	.6250	7/8
CL-8-RB				3/4	.7500	
CL-15-RB				3/8	.3750	
CL-9-RB	5/8	.6260	3/4	1/2	.5000	1
CL-16-RB				5/8	.6250	
CL-17-RB				3/8	.3750	
CL-10-RB	3/4	.7515	7/8	1/2	.5000	1-1/4
CL-18-RB				3/4	.7500	
CL-19-RB				5/8	.6250	
CL-11-RB						

STAINLESS STEEL (USA)

PART NO.	A DIA		B	C		D DIA
	NOMINAL	ACTUAL		NOMINAL	ACTUAL	
CL-26432	3/16	.1885	1/4	1/4	.2500	3/8
CL-26433				3/8	.3750	
CL-26434				1/2	.5000	
CL-26542	1/4	.2510	5/16	1/4	.2500	1/2
CL-26646	5/16	.3135	5/16	3/4	.7500	1/2

STEEL (METRIC)

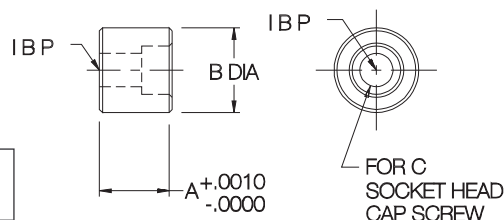
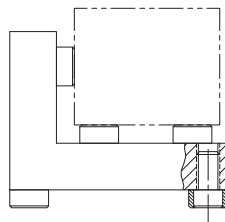
CLM-605-RB	6mm	.2372	.31	5mm	.1969	.39
CLM-610-RB				10mm	.3937	
CLM-805-RB				5mm	.1969	
CLM-810-RB	8mm	.3160	.39	10mm	.3937	.63
CLM-815-RB				15mm	.5906	
CLM-820-RB				20mm	.7874	
CLM-1010-RB	10mm	.3947	.47	10mm	.3937	.79
CLM-1015-RB				15mm	.5906	
CLM-1020-RB				20mm	.7874	

JIG REST BUTTONS

12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH



Precision rest button mounted with a socket-head cap screw (not furnished). Excellent as either a workpiece support or a jig foot.



USA

PART NO.	B DIA	A		C
		NOMINAL	ACTUAL	
CL-24-JRB	1/2	1/8	.1250	#8 Flat Head*
CL-00-JRB		3/8	.3750	#10
CL-0-JRB		1/2	.5000	
CL-12-JRB	5/8	1/4	.2500	
CL-13-JRB		3/8	.3750	1/4
CL-1-JRB		1/2	.5000	
CL-14-JRB	7/8	5/8	.6250	
CL-2-JRB		3/4	.7500	5/16
CL-16-JRB		1	1.0000	
CL-17-JRB	1-1/4	3/8	.3750	3/8
CL-18-JRB		1/2	.5000	
CL-3-JRB		5/8	.6250	
CL-19-JRB	1-1/4	3/4	.7500	3/8
CL-20-JRB		1	1.0000	
CL-25-JRB		1/2	.5000	
CL-21-JRB	1-1/4	3/4	.7500	3/8
CL-6-JRB		1	1.0000	
CL-7-JRB		1-1/2	1.5000	
CL-8-JRB		2	2.0000	

* Flat-head screw these sizes only.

METRIC

PART NO.	B DIA	A		C
		NOMINAL	ACTUAL	
CLM-1-JRB	.63	10mm	.3937	M5
CLM-2A-JRB		15mm	.5906	
CLM-4-JRB		10mm	.3937	M6
CLM-6A-JRB	.79	15mm	.5906	
CLM-7A-JRB		20mm	.7874	
CLM-8-JRB		25mm	.9843	M8
CLM-11A-JRB	.98	15mm	.5906	
CLM-12A-JRB		20mm	.7874	
CLM-13-JRB		25mm	.9843	M10
CLM-14A-JRB	1.26	20mm	.7874	
CLM-15-JRB		25mm	.9843	
CLM-16A-JRB	1.26	30mm	1.1811	M10
CLM-17A-JRB		50mm	1.9685	



MANUFACTURING CO.

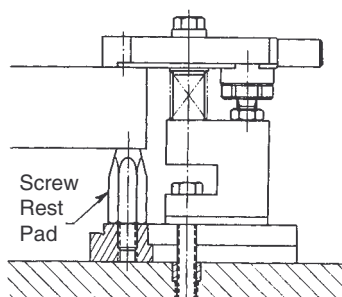
4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

SCREW REST PADS

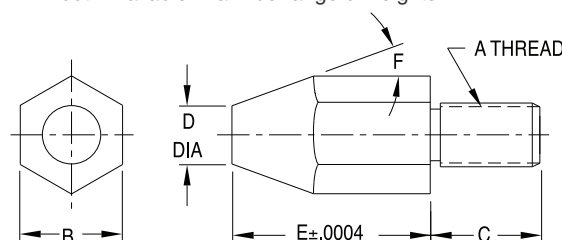
12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH



**NOW ALSO
AVAILABLE
IN METRIC!**



Precision height locator with a small contact area. Excellent as either a workpiece support or a jig foot. Available in a wide range of heights.



USA

PART NO.	A	B	C	D DIA	E	F
CL-MF25-4801	5/16-18	3/4	5/8	5/16	.2500	75°
CL-MF25-4802					.3750	60°
CL-MF25-4803					.5000	35°
CL-MF25-4804					.7500	25°
CL-MF25-4805					1.0000	20°
CL-MF25-4806					1.2500	15°
CL-MF25-4807					1.5000	15°
CL-MF40-4801	1/2-13	7/8	15/16	1/2	.2500	75°
CL-MF40-4802					.3750	60°
CL-MF40-4803					.5000	35°
CL-MF40-4804					.7500	25°
CL-MF40-4805					1.0000	20°
CL-MF40-4806					1.2500	15°
CL-MF40-4807					1.5000	15°
CL-MF40-4808					2.0000	15°
CL-MF50-4801	5/8-11	1	1-1/4	5/8	.2500	75°
CL-MF50-4802					.3750	60°
CL-MF50-4803					.5000	35°
CL-MF50-4804					.7500	25°
CL-MF50-4805					1.0000	20°
CL-MF50-4806					1.2500	15°
CL-MF50-4807					1.5000	15°
CL-MF50-4808					2.0000	15°

METRIC

PART NO.	A	B	C	D DIA	E	F
CL-MF08-4801	M8	17mm	.63	.31	.1969 (5mm)	75°
CL-MF08-4802					.3937 (10mm)	60°
CL-MF08-4803					.5906 (15mm)	35°
CL-MF08-4804					.7874 (20mm)	25°
CL-MF08-4805					.9843 (25mm)	20°
CL-MF08-4806					1.1811 (30mm)	15°
CL-MF08-4808					1.5748 (40mm)	15°
CL-MF12-4801	M12	19mm	.94	.47	.1969 (5mm)	75°
CL-MF12-4802					.3937 (10mm)	60°
CL-MF12-4803					.5906 (15mm)	35°
CL-MF12-4804					.7874 (20mm)	25°
CL-MF12-4805					.9843 (25mm)	20°
CL-MF12-4806					1.1811 (30mm)	15°
CL-MF12-4808					1.5748 (40mm)	15°
CL-MF12-4810					1.9685 (50mm)	15°
CL-MF16-4802	M16	24mm	1.26	.63	.3937 (10mm)	60°
CL-MF16-4803					.5906 (15mm)	35°
CL-MF16-4804					.7874 (20mm)	25°
CL-MF16-4805					.9843 (25mm)	20°
CL-MF16-4806					1.1811 (30mm)	15°
CL-MF16-4808					1.5748 (40mm)	15°
CL-MF16-4810					1.9685 (50mm)	15°

SCREW REST BUTTONS

12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH



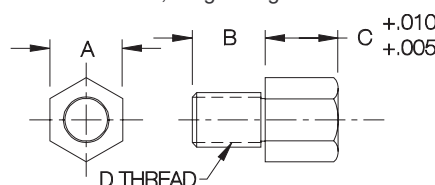
USA

PART NO.	A	B	C NOMINAL ACTUAL	D
CL-1-SRB	3/8	3/8	1/4 .2500	1/4-20
CL-2-SRB			3/8 .3750	
CL-3-SRB			1/2 .5000	
CL-4-SRB			3/4 .7500	
CL-5-SRB			1 1.0000	
CL-6-SRB	1/2	1/2	1/4 .2500	3/8-16
CL-7-SRB			3/8 .3750	
CL-8-SRB			1/2 .5000	
CL-9-SRB			3/4 .7500	
CL-10-SRB	5/8	5/8	1 1.0000	1/2-13
CL-11-SRB			1/4 .2500	
CL-12-SRB			3/8 .3750	
CL-13-SRB			1/2 .5000	
CL-14-SRB			5/8 .6250	
CL-15-SRB			3/4 .7500	
CL-16-SRB			1 1.0000	

METRIC

PART NO.	A	B	C NOMINAL ACTUAL	D
CLM-605-SRB	10mm	.39	5mm .1969	M6
CLM-610-SRB			10mm .3937	
CLM-615-SRB			15mm .5906	
CLM-620-SRB			20mm .7874	
CLM-625-SRB	13mm	.51	25mm .9843	M10
CLM-1005-SRB			5mm .1969	
CLM-1010-SRB			10mm .3937	
CLM-1015-SRB			15mm .5906	
CLM-1020-SRB	17mm	.63	20mm .7874	M12
CLM-1025-SRB			25mm .9843	
CLM-1205-SRB			5mm .1969	
CLM-1210-SRB			10mm .3937	
CLM-1215-SRB	17mm	.63	15mm .5906	M12
CLM-1220-SRB			20mm .7874	
CLM-1225-SRB			25mm .9843	

Threaded rest button left unground, with .005 to .010 extra stock, for grinding after installation.



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

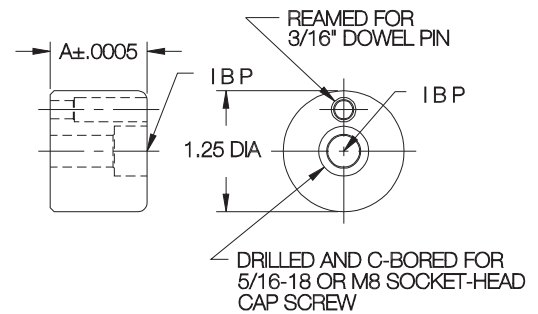
DRILL JIG FEET

12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH



Precision jig foot available in four heights. Dowel in place to prevent rotation.

PART NO.	A
CL-1-DJF	.5000
CL-2-DJF	1.0000
CL-3-DJF	2.0000
CL-4-DJF	3.0000



DOUBLE-END JIG FEET

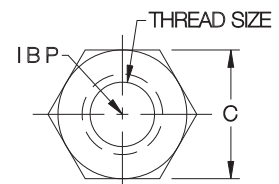
12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH



Tapped jig foot commonly used in pairs with a stud.

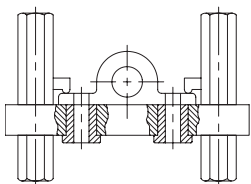
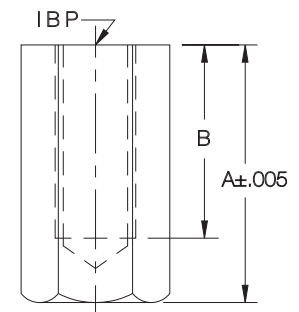
USA

PART NO.	THREAD SIZE	A	B	C
CL-1-DEJF	5/8-11	1.000	5/8	1
CL-3-DEJF		1.500	1	
CL-4-DEJF		1.750	1-1/4	
CL-5-DEJF		2.000	1-1/2	
CL-6-DEJF		2.500		
CL-7-DEJF		3.000		
CL-8-DEJF		3.500		
CL-9-DEJF		4.000		
CL-10-DEJF		6.000		
CL-11-DEJF		8.000		



METRIC

CLM-30-DEJF	M16	1.181 (30mm)	.63	24mm
CLM-40-DEJF		1.575 (40mm)	.98	
CLM-50-DEJF		1.969 (50mm)	1.50	
CLM-75-DEJF		2.953 (75mm)		
CLM-100-DEJF		3.937 (100mm)		

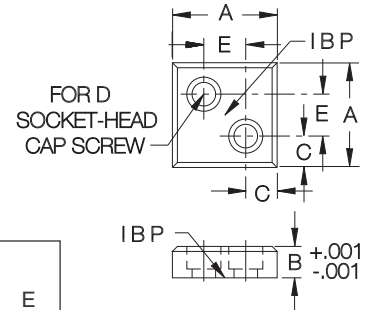
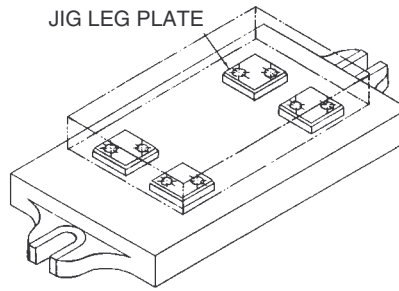
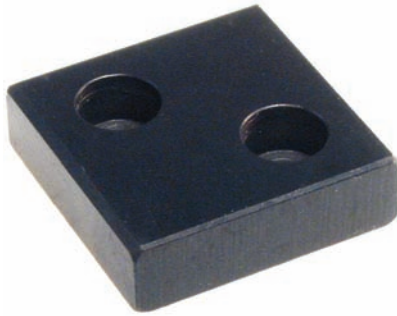


MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

JIG LEG PLATES

1020 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH

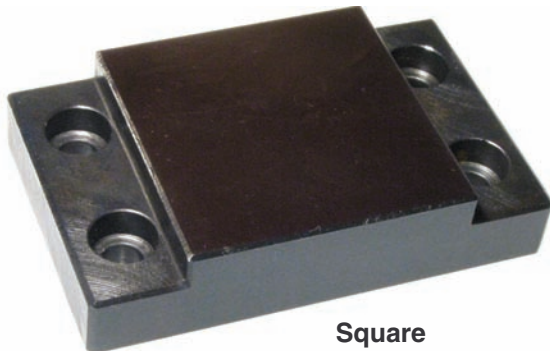


Precision ground pad with a large contact area. Can be used either as a jig foot, or as a rest pad for heavy workpieces. Choice of three sizes.

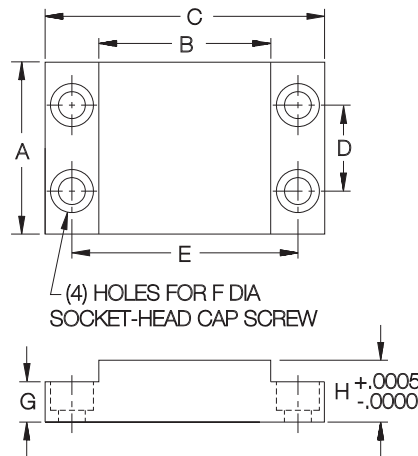
PART NO.	A	B	C	D	E
CL-1-JLP	1	.3125	5/16	#10-32 OR M5	3/8
CL-2-JLP	1-1/4	.3750	3/8	1/4-20 OR M6	1/2
CL-3-JLP	1-1/2	.4375	7/16		5/8

HEAVY-DUTY REST PADS

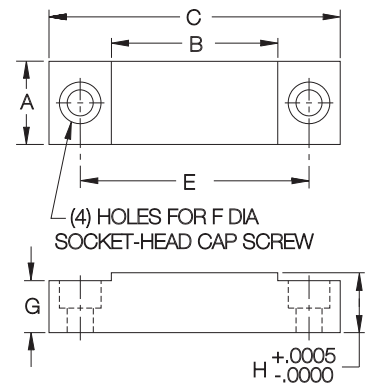
1018 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH



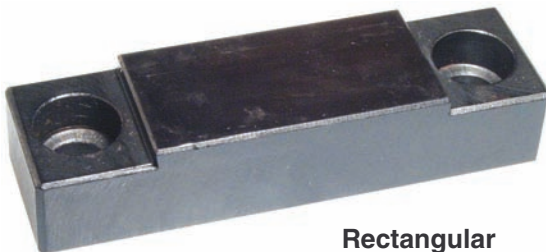
Square



Square



Rectangular



Rectangular

Large, precision rest pad for heavy-duty applications. These hardened pads have a large, durable contact surface to support heavy workpieces, or to serve as wear plates. Choice of four sizes.

SQUARE

PART NO.	A	B	C	D	E	F	G	H
CL-1-HDRP	2	2	3-1/4	1	2-1/2	1/4-20 OR M6	1/2	.7500

RECTANGULAR

PART NO.	A	B	C	D	E	F	G	H
CL-2-HDRP	1	2	3-1/2	—	2-3/4	5/16-18 OR M8	5/8	.7500
CL-3-HDRP		3	4-1/2		3-3/4			
CL-4-HDRP		4	5-1/2		4-3/4			

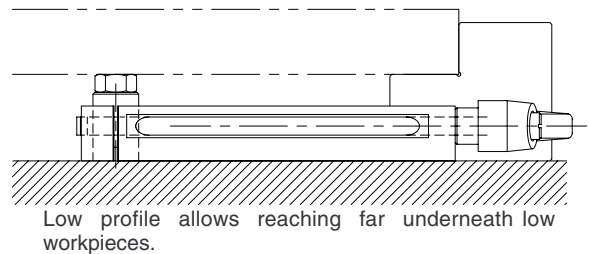


MANUFACTURING CO.

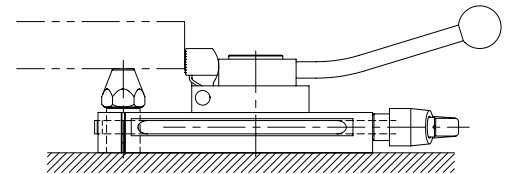
4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

MANUAL WORK SUPPORTS

BODY & PLUNGER: CARBON STEEL, CASE HARDENED, BLACK OXIDE FINISH
HANDLE: ZINC DIE CASTING, ENAMEL PAINT



Spring-extended work support with an extremely low profile. Ideal for supporting in hard-to-reach places, because the handle can be positioned for convenient access. Turning the handle counterclockwise unlocks the plunger, allowing the plunger to float. Turning the handle clockwise locks the plunger. If desired, the plunger can be locked in retracted position before loading, for easier loading of light parts. The zinc die-cast Adjustable Handle can be reset to any angle for best leverage.



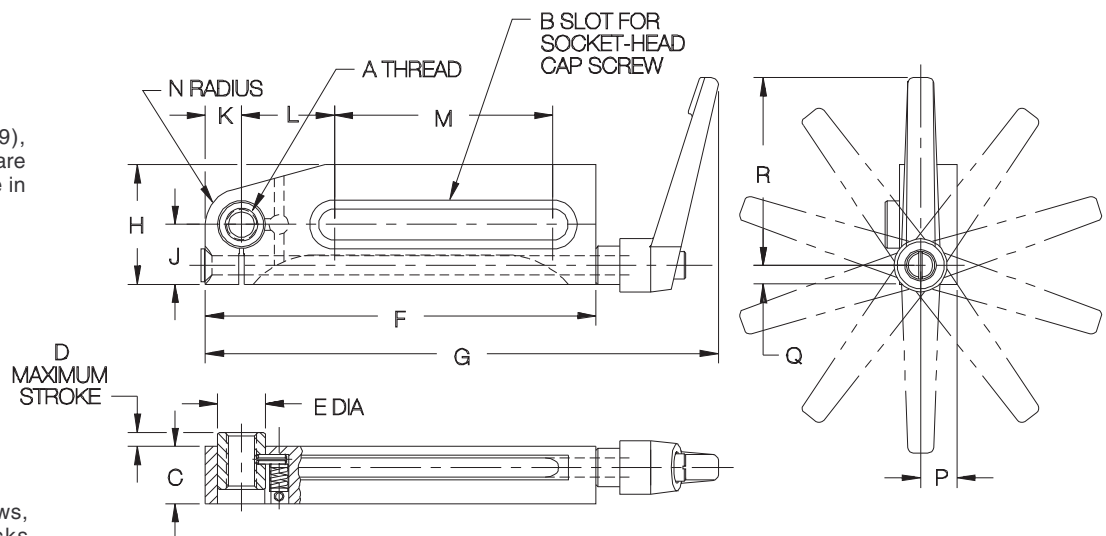
Mounting slot allows stacking other components, such as this Cam Edge Clamp, on top of the support.



Screw Rest Pads (page 159), available from 1/4" to 2" tall, are ideal fixed contact bolts to use in the support plunger.



For adjustable contact screws, see Knurled Screw Jacks (page 163).



USA

PART NO.	A	B	C	D	E DIA	F	G	H	J	K	L	M	N	P	Q	R	LOAD CAPACITY (LBS)
CL-MF25-5701	5/16-18	5/16-18 or M8	.708	.118	.591	3-3/8	5-1/16	1-3/16	25/32	13/32	1-1/16	1-13/32	13/32	.433	9/32	2-9/16	110
CL-MF40-5701	1/2-13	1/2-13 or M12	.945	.236	.787	6-1/2	8-9/16	2	1	19/32	1-17/32	3-9/16	19/32	.551	5/16	3-1/8	550
CL-MF50-5701	5/8-11	5/8-11 or M16	1.339	.433	1.102	7-1/2	10-7/16	2-3/8	1-9/16	13/16	1-3/4	4-1/16	13/16	.846	1/2	4-5/16	1100

METRIC

PART NO.	A	B	C	D	E DIA	F	G	H	J	K	L	M	N	P	Q	R	LOAD CAPACITY (LBS)
CL-MF08-5701	M8	5/16-18 or M8	.708	.118	.591	3-3/8	5-1/16	1-3/16	25/32	13/32	1-1/16	1-13/32	13/32	.433	9/32	2-9/16	110
CL-MF12-5701	M12	1/2-13 or M12	.945	.236	.787	6-1/2	8-9/16	2	1	19/32	1-17/32	3-9/16	19/32	.551	5/16	3-1/8	550
CL-MF16-5701	M16	5/8-11 or M16	1.339	.433	1.102	7-1/2	10-7/16	2-3/8	1-9/16	13/16	1-3/4	4-1/16	13/16	.846	1/2	4-5/16	1100



MANUFACTURING CO.

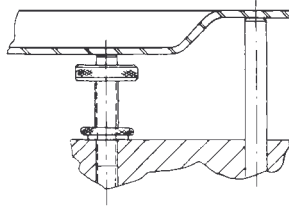
4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

KNURLED SCREW JACKS

12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH

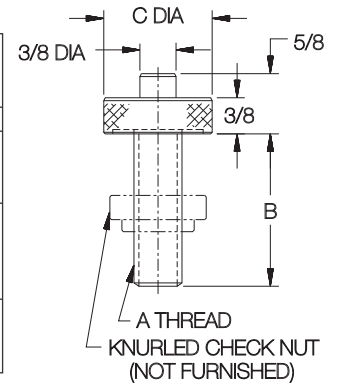


Knurled head allows quick, easy, finger adjustment. Order Knurled Check Nut separately (page 214).



USA

PART NO.	A	B	C DIA	KNURLED CHECK NUT (NOT FURNISHED)
CL-0-KSJ	5/16-18	1-5/8	7/8	CL-51618-TSJN
CL-1-KSJ	3/8-16	1-1/4	1-1/8	CL-3816-TSJN
CL-2-KSJ		1-5/8		
CL-3-KSJ		2		
CL-4-KSJ	1/2-13	1-1/4	1-1/8	CL-1213-TSJN
CL-5-KSJ		1-5/8		
CL-6-KSJ		2		
CL-7-KSJ		2-1/2		
CL-8-KSJ	5/8-11	1-5/8	1-3/8	CL-5811-TSJN
CL-9-KSJ		2		
CL-10-KSJ		2-1/2		

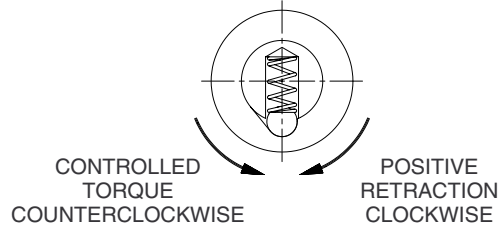


TORQUE SCREW JACKS

12L14 STEEL, BLACK OXIDE FINISH

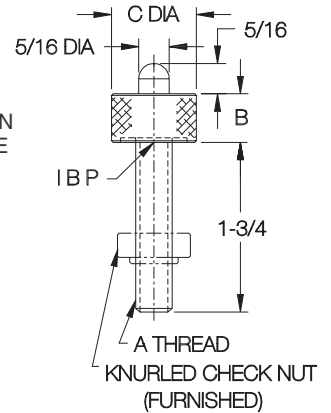


When indicated end force is reached, the knurled head disengages, eliminating the possibility of exerting excessive pressure on thinwall pieces. Furnished with Knurled Check Nut (see page 214 for dimensions).



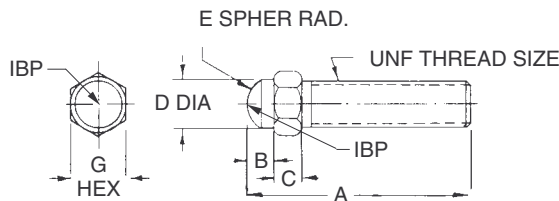
USA

PART NO.	A	END FORCE (LBS)	B	C DIA	KNURLED CHECK NUT (FURNISHED)
CL-4-TSJ	1/4-20	12-14	7/16	7/8	CL-1420-TSJN
CL-4A-TSJ	5/16-18	14-16			CL-51618-TSJN
CL-5-TSJ	3/8-16	16-18	1/2	1-1/8	CL-3816-TSJN
CL-6-TSJ	1/2-13	18-20			CL-1213-TSJN
CL-8-TSJ	5/8-11	20-22			CL-5811-TSJN



ADJUSTABLE LOCATING BUTTONS

12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH



A support screw with fine threads for precise adjustment. (Metric threads and CL-LB-2A are coarse).

USA

PART NO.	THREAD SIZE	A	B	C	D DIA	E	G
CL-LB-1	#10-32	1	1/8	1/8	3/16	1/8	1/4
CL-LB-2	1/4-28	1-1/2	3/16	3/16	1/4	3/16	3/8
CL-LB-2A	1/4-20						
CL-LB-7	5/16-24	1-3/4	1/4	1/4	5/16	3/16	7/16
CL-LB-3	3/8-24	2			3/8	1/4	1/2
CL-LB-4	1/2-20	2-1/2	5/16	5/16	1/2	5/16	5/8
CL-LB-5	5/8-18	3	3/8	3/8	5/8	3/8	3/4
CL-LB-6	3/4-16	3-1/2	7/16	7/16	3/4	7/16	7/8

METRIC

CLM-5-LB	M5	.98	.12	.12	.20	.20	8mm
CLM-6-LB	M6	1.57	.20	.20	.24	.20	10mm
CLM-8-LB	M8	1.77	.24	.24	.31	.20	13mm
CLM-10-LB	M10	1.97			.39	.24	17mm
CLM-12-LB	M12	2.56	.31	.31	.47	.31	19mm
CLM-16-LB	M16	2.95	.39	.39	.63	.39	24mm

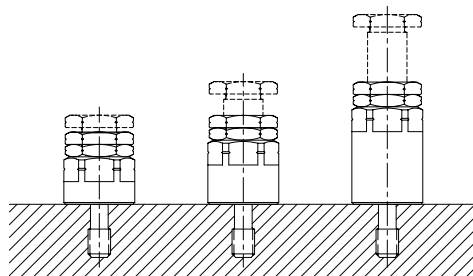


MANUFACTURING CO.

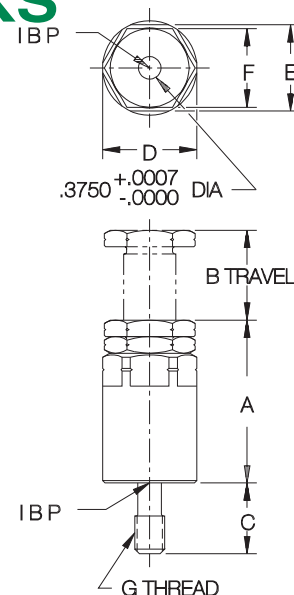
4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

HEAVY-DUTY SCREW JACKS

JACK SCREW: 4135 STEEL, HEAT TREATED, BLACK OXIDE FINISH
TIP: 1144 OR 1045 STEEL, HEAT TREATED, BLACK OXIDE FINISH
BODY: 1045 STEEL, BLACK OXIDE FINISH



Heavy-duty adjustable support that accepts any of the three tips shown below. Choice of three heights in each size cover the full range of height possibilities.

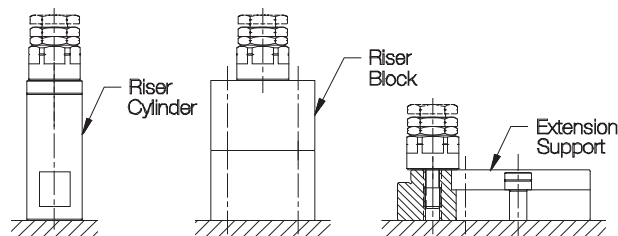


SCREW JACKS (USA)

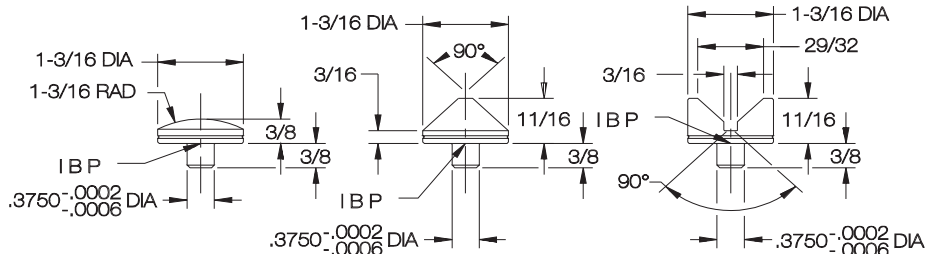
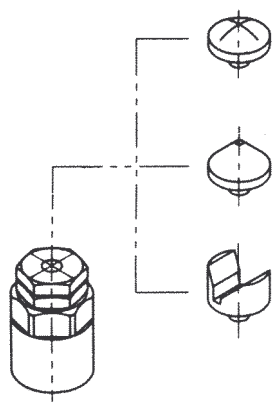
PART NO.	MOUNTING SCREW SIZE	A	B	C	D DIA	E	F	G
CL-MF40-3401	1/2-13	1-5/8	3/8	1-1/4	1-9/16	1-7/16	1-5/16	1/2-13
CL-MF40-3402		2	3/4					
CL-MF40-3403		2-3/4	1-1/2					
CL-MF50-3401	5/8-11	1-5/8	3/8	1-3/8	1-9/16	1-7/16	1-5/16	5/8-11
CL-MF50-3402		2	3/4					
CL-MF50-3403		2-3/4	1-1/2					

SCREW JACKS (METRIC)

CL-MF12-3401	M12	1-5/8	3/8	1-1/4	1-9/16	1-7/16	1-5/16	M12
CL-MF12-3402		2	3/4					
CL-MF12-3403		2-3/4	1-1/2					
CL-MF16-3401	M16	1-5/8	3/8	1-3/8	1-9/16	1-7/16	1-5/16	M16
CL-MF16-3402		2	3/4					
CL-MF16-3403		2-3/4	1-1/2					



For additional height and/or mounting flexibility, use Riser Cylinders (page 38MF), Support Riser Blocks (page 35MF), or Extension Supports (page 36MF).



SCREW-JACK TIPS

PART NO.	TYPE	FITS SCREW JACKS
CL-MF10-3501	RADIUS	ALL SIZES
CL-MF10-3502	CONICAL	
CL-MF10-3503	V-SHAPED	



MANUFACTURING CO.

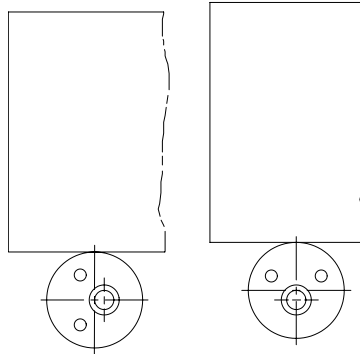
4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com

ECCENTRIC LEVELING LUGS

12L14 STEEL, CARBURIZED-HARDENED, BLACK OXIDE FINISH



Precision side locator that can be doweled in place after adjustment. Use for vertical leveling or horizontal locating. Available hardened, or soft to allow drilling and reaming after installation.

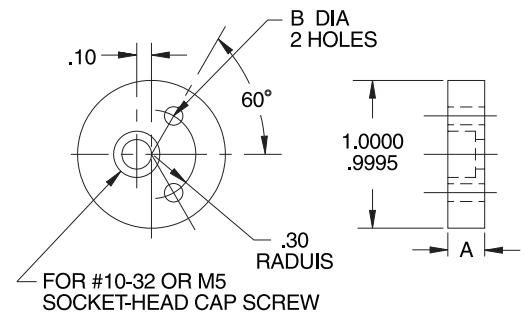


HARDENED

PART NO.	A	B DIA
CL-3-ELL	1/4	1/8 REAMED
CL-4-ELL	3/8	

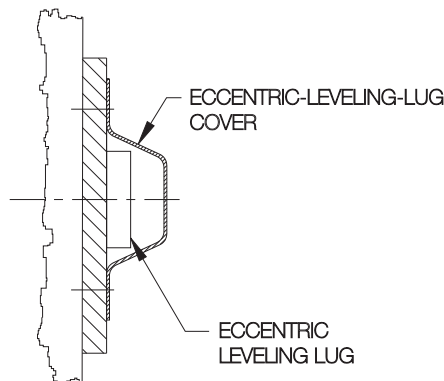
SOFT

CL-1-ELL	1/4	#31
CL-2-ELL	3/8	



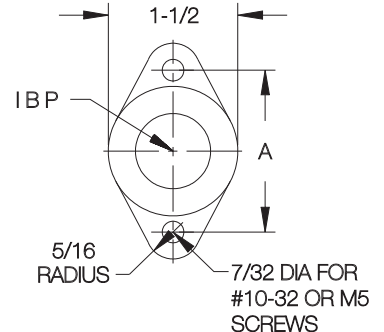
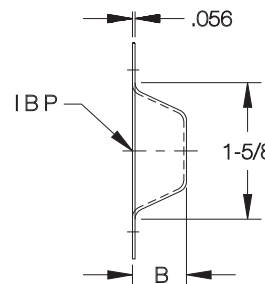
ECCENTRIC-LEVELING-LUG COVERS

MILD STEEL, BLACK OXIDE FINISH



Sturdy cover that protects an Eccentric Leveling Lug from damage or misadjustment after setting.

PART NO.	A	B
CL-1-COVER	1-7/8	5/8



MANUFACTURING CO.

4200 Carr Lane Ct., P.O. Box 191970
St. Louis, Missouri 63119-7970 USA
Phone: 314-647-6200, FAX: 314-647-5736
Web Site: www.carrlane.com