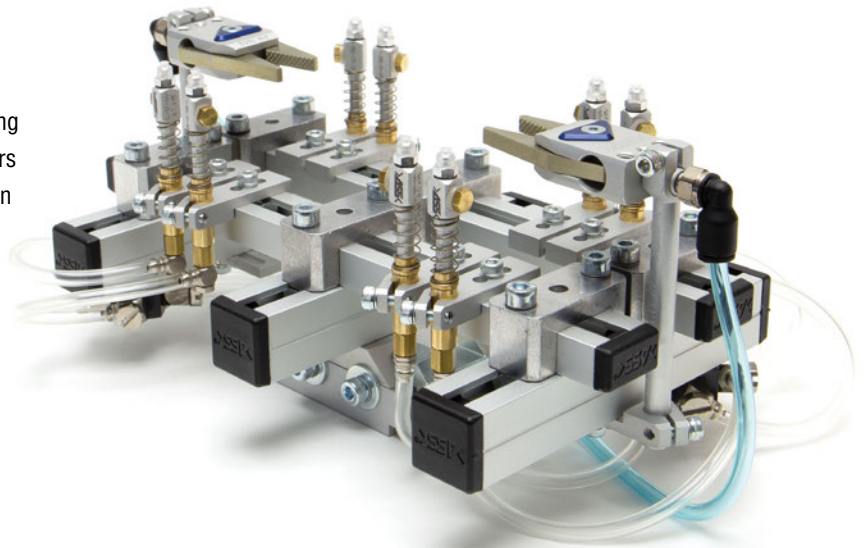


The Original EOAT Gripper System



Designed and manufactured in Germany, >ASS< has been building end-of-arm tooling components since 1984. Relied upon for years by many of the world's largest robot users, these parts are known for their exceptionally high quality and innovative engineering.

These are the authentic components made by the original manufacturer. We have them in stock in the United States and Mexico available for immediate shipment.



New! Micro Series Components: With a clamping diameter of 6mm, the >ASS< Micro EOAT System is significantly smaller and lighter than any other framing components available. With this new system it is now possible to handle even the smallest components simply and cleanly in the tightest of spaces. See pages 222–223.

New! Blue Components: The blue scale system was developed for providing verifiable positions for tooling, fixture and sensor applications. The elbow and mounting arms are pre-drilled for set screws locking their position. See pages 224–227.

>ASS< Framing Overview

These >ASS< components can be found in their respective product sections

EOAT Quick Changers p.16



Vacuum Cups p.360



Sprue Grippers p.429



Finger Grippers p.522



Lightweight ID Grippers p.580

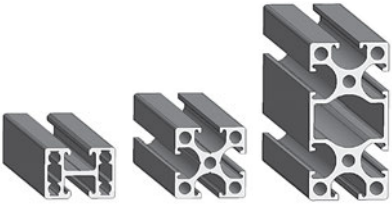


Nipper Brackets p.832




>ASS< Framing Overview


Profile p.190




Angle Connector p.195




End Joint Connector p.196



Cross Joint Connector p.198




Flat Connector p.200



Cross Clamp p.205



Angle Clamp p.208



Swivel Head Clamp p.210



Angle Arm p.212



Heavy-Duty Elbow Arm p.214




Round to Round Clamp p.215




Extensions & Centering Pins p.217




Vacuum Cup Arm p.219



Vacuum Cup Connector p.220



Long Angle Connector p.220



Profile

(Dimensioned drawings shown full scale)

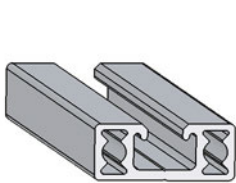
Quick#	Part#	>ASS< #	Price	Slots	Profile Type	T-Slot	Size	Length	Weight
3915	X-25/10-1M	1-052-66-00	\$12.00	1	X	X (M4)	25x10mm	1 meter	294g
3916	X-25/18-1M	1-052-86-00	\$13.88	2			25x18mm	1 meter	454g
3903	X-25/25-1M	1-052-21-00	\$14.75	4	X	X (M5)	25x25mm	1 meter	620g
3904	X-25/25-2M	1-052-22-00	\$29.50					2 meter	1240g
3905	X-50/25-1M	1-052-41-00	\$21.25	6	X	X (M5)	50x25mm	1 meter	1026g
3906	X-50/25-2M	1-052-42-00	\$42.50					2 meter	2052g
3907	J-40/40-2M	1-055-23-00	\$44.00	4	JU	X (M6)	40x40mm	2 meter	2678g
3908	J-80/40-2M	1-055-42-00	\$75.00	6			80x40mm	2 meter	4634g

Save on Shipping Costs !

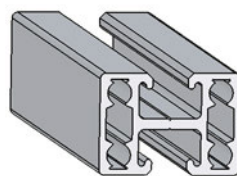
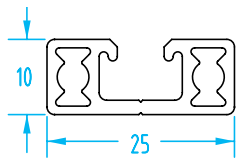
Order 1-meter profiles to save on shipping costs. (2-meter profiles ship UPS oversized and will cost approximately 2½ times as much to ship compared to 1-meter profiles.)

Use Quick#s for easy online ordering.

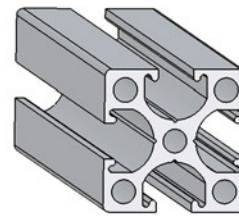
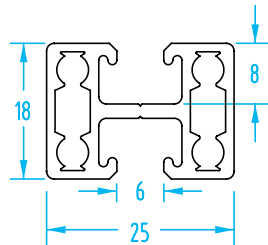
X Profile



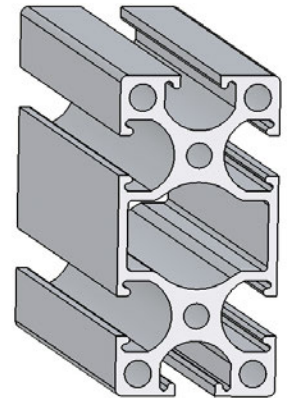
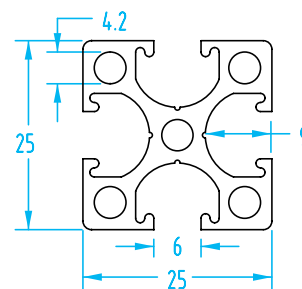
#3915



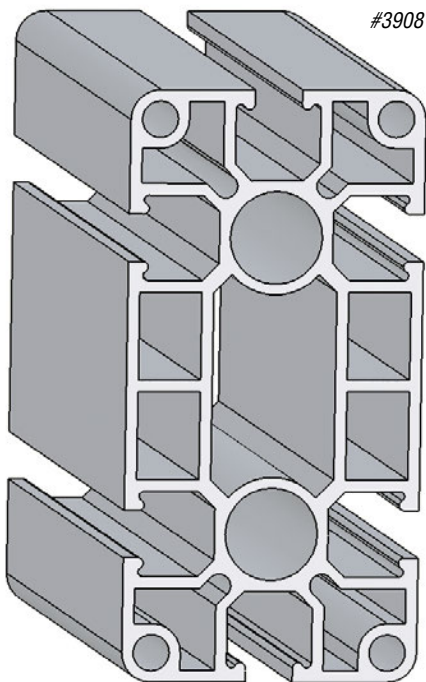
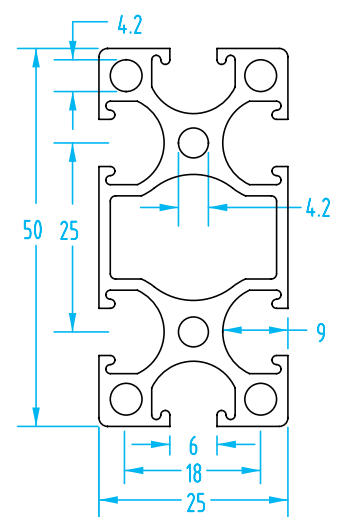
#3916



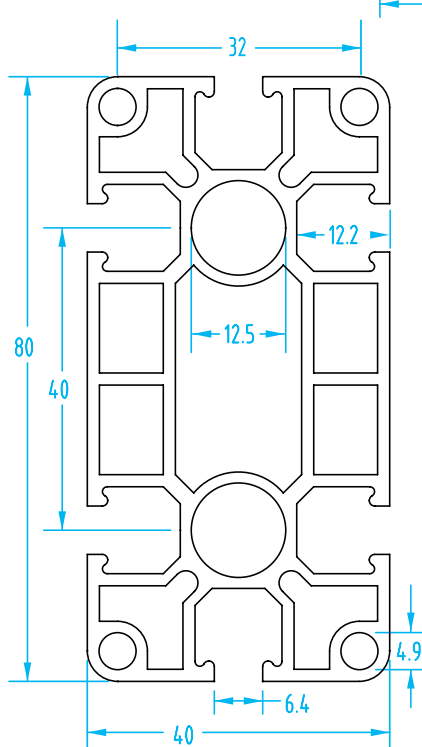
#3903 & 3904



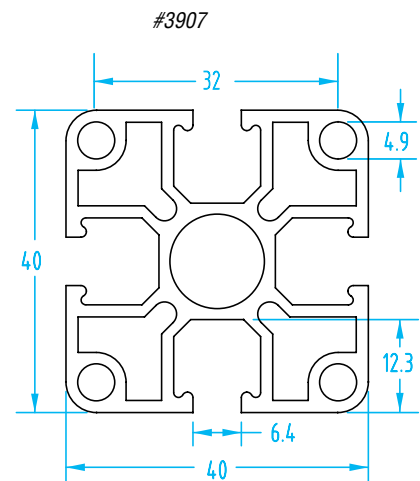
#3905 & 3906



#3908

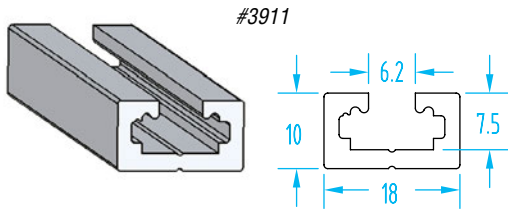


J Profile

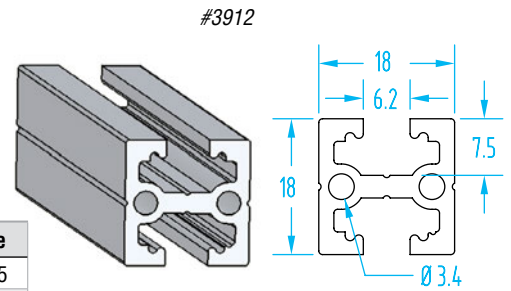


#3907

Profile Accessories

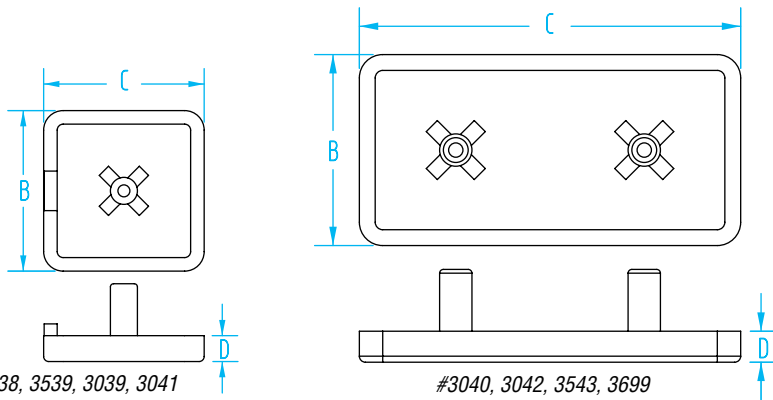


L Profile



L (Light) Aluminum Profile

Quick#	Part#	>ASS< #	Slots	Profile Type	Size	Length	Wt.	Price
3911	L-18/10-1M	1-051-21-00	1	L	18x10mm	1 meter	247g	\$7.75
3912	L-18/18-1M	1-051-46-00	2		18x18mm	1 meter	382g	\$12.00



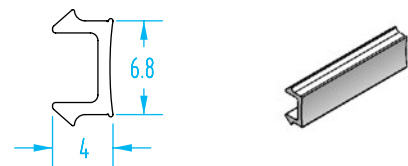
Profile End Cap

Quick#	Part#	>ASS< #	Price	B	C	D	Wt.	Use with:
3543	ADK-L-18-10	1-190-20-00	\$1.05	18	10	4	1g	L 18/10
3699	ADK-L-18-18	1-190-22-00	\$1.05	18	18	4	1g	L 18/18
3538	ADK-X-25-10	1-190-23-00	\$1.05	25	10	4	1g	X 25/10
3539	ADK-X-25-18	1-190-24-00	\$1.05	25	18	4	1g	X 25/18
3039	ADK25/25X	1-190-25-00	\$1.05	25	25	4	2g	X 25/25
3040	ADK50/25X	1-190-30-00	\$1.58	25	50	4	3g	X 50/25
3041	ADK40/40J	1-190-37-00	\$2.10	40	40	4	4g	J 40/40
3042	ADK80/40J	1-190-42-00	\$2.63	40	80	4	8g	J 80/40

Plastic Profile Channel Cover

Quick#	Part#	>ASS< #	Price	Length	Use with:
3698	ADP-1000	1-090-11-00	\$6.30	1 meter	L, X, JU

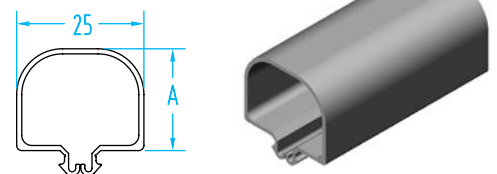
ADP channel covers snap into the profile channel and close the profile channel.



Plastic Tube & Wire Channel

Quick#	Part#	>ASS< #	Price	A	Length	Use with:
3652	KKP-25-20	1-090-13-00	\$5.78	20	1 meter	L, X, JU
3653	KKP-25-35	1-090-16-00	\$7.88	35	1 meter	L, X, JU

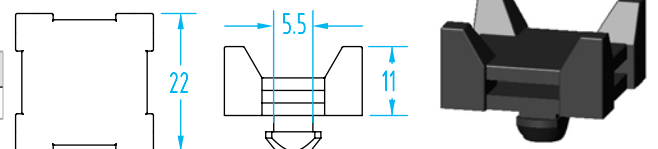
KKP channel covers snap into the profile channel to route tubing and wires.



PA Twist-On Channel Saddle

Quick#	Part#	>ASS< #	Price	Wt.	Use with:
3583	KKB-X-JU	1-790-41-00	\$1.58	4g	X, JU

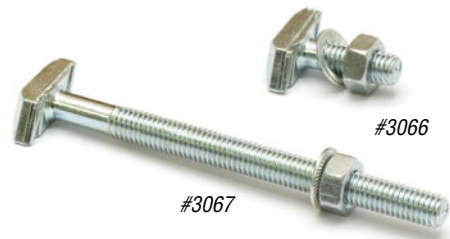
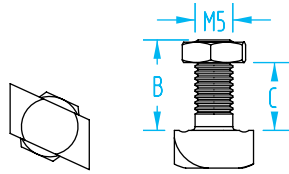
KKB twist on zip-tie saddle used to achieve clean and professional looking end-of-arm tools.



Slotted Nuts



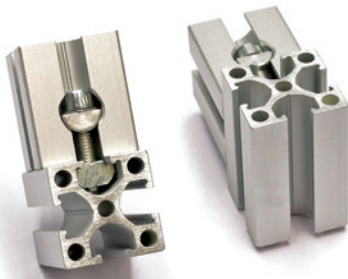
#3066 in profile



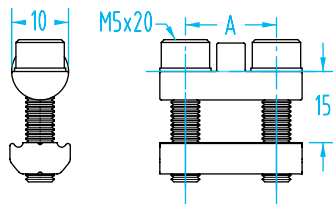
Removable Slotted Bolts

Quick#	Part#	>ASS< #	Price	B	C	Wt.
3066	HKS5-15X	1-121-05-00	\$1.58	15	to 10mm	5g
3067	HKS5-62X	1-121-10-00	\$1.58	62	10-57mm	11g

Note: For use with L, X, and JU profiles

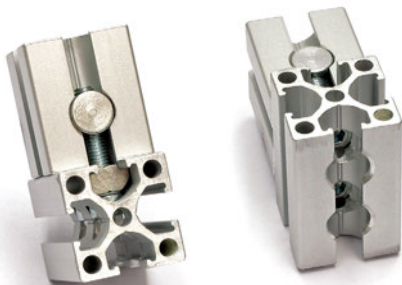


Note: Requires one hole to be drilled using stepped drill STBM5X.

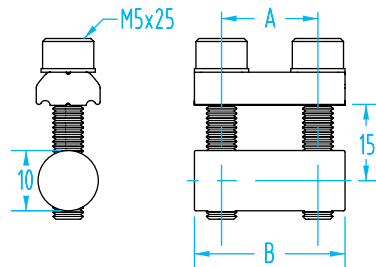


X-Profile Adjustable Universal Joint Connector

Quick#	Part#	>ASS< #	Price	A	Wt.
3068	UVV25X	1-121-15-00	\$5.78	16	19g
3069	UVV50X	1-121-20-00	\$6.30	41	35g



Note: Requires three holes to be drilled using stepped drill STBM5X.

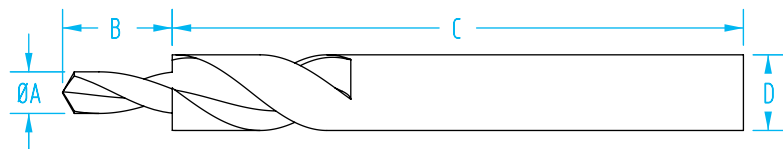


X-Profile Fixed Universal Joint Connector

Quick#	Part#	>ASS< #	Price	A	B	Wt.
3070	UVF25X	1-121-25-00	\$5.78	16	25	17g
3071	UVF50X	1-121-30-00	\$6.30	41	50	29g



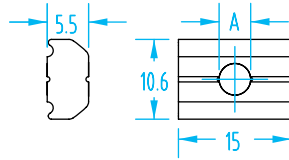
#3078



Stepped Drill

Quick#	Part#	>ASS< #	Price	ØA	B	C	D
3077	STBM4L	1-190-80-00	\$31.50	4.5	12	65	8
3078	STBM5X	1-190-82-00	\$33.60	5.5	15	75	10

Slotted Nuts

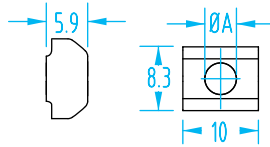


Slotted Nuts (Steel / zinc coated)

NEW

Quick#	Part#	>ASS< #	Price	ØA	Wt.	Use with:
3846	GWP-3-U	1-058-31-15	\$2.10	M3	5g	L, X, J profile
3029	GWP4L/X	1-058-41-15	\$2.10	M4	5.3g	L, X, J profile
3030	GWP5X	1-058-51-15	\$2.10	M5	5g	L, X, J profile
3031	GWP6U	1-058-61-18	\$2.10	M6	4.7g	L, X, J profile

Note: Double slotted nuts are available on page 1078.

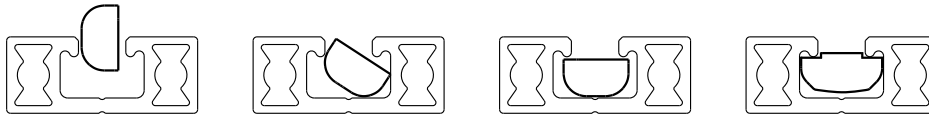


Drop-In Channel Nuts (Steel chromated)

NEW

Quick#	Part#	>ASS< #	Price	ØA	Wt.	Use with:
3853	GWP-EX3-U	1-056-32-01	\$2.10	M3	2g	L, X, J profile
3854	GWP-EX4-U	1-056-42-01	\$2.10	M4	2g	L, X, J profile
3032	GWP-EX5-U	1-056-52-01	\$3.68	M5	2g	L, X, J profile

Drop-in & rotate 90° when you need to add to an already assembled EOAT.



Extensive EOAT Inventory!

Easy Online Ordering!

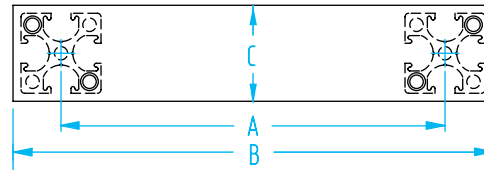
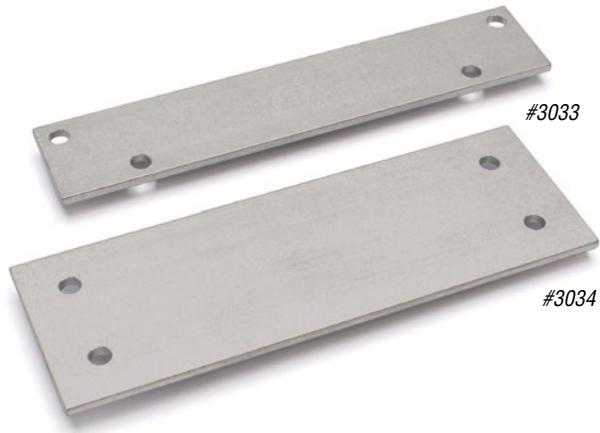
- Create Supply Lists
- Order from History
- Export Purchase Orders
- Track Orders

Product Pages Include:

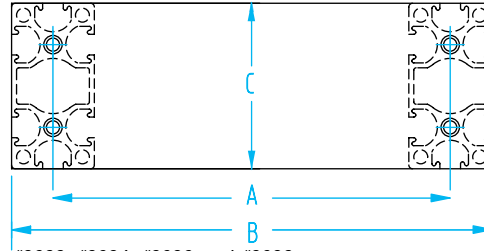
- CAD file downloads
- 360° 3D Views
- Dimensional drawings
- Related items



Profile End Plate



#3687, #3033, #3035, and #3037



#3688, #3034, #3036, and #3038.

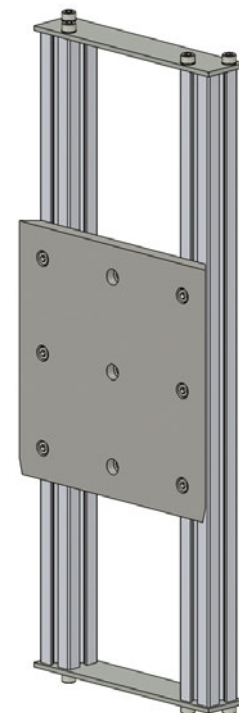
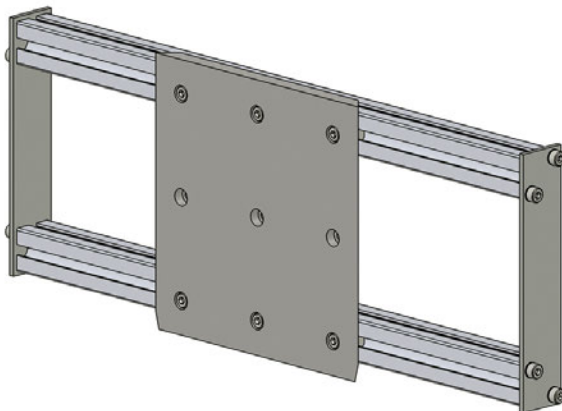
#3033, #3034, #3035, and #3036 are 3mm thick.
#3037 & #3038 are 5mm thick.

Profile End Plate

Quick#	Part#	>ASS< #	Price	A	B	C	Wt.	Use with:	Fits base plate size
3687	EPL1-25X	1-122-81-00	\$6.30	70	100	30	34g	X 25/25	1X
3688	EPL1-50-25X	1-122-83-00	\$6.30	70	95	50	57g	X 50/25	1X
3033	EPL2-25X	1-122-85-00	\$9.45	120	150	30	34g	X 25/25	2X
3034	EPL2-50X	1-122-87-00	\$9.45	120	145	50	57g	X 50/25	2X
3035	EPL3-25X	1-122-89-00	\$7.35	200	230	30	57g	X 25/25	3X
3036	EPL3-50X	1-122-91-00	\$9.45	200	225	50	88g	X 50/25	3X
3037	EPL3-40J	1-122-94-00	\$9.98	200	245	45	126g	J 40/40	3J
3038	EPL3-80J	1-122-96-00	\$12.60	200	240	80	251g	J 80/40	3J

Use with profile size

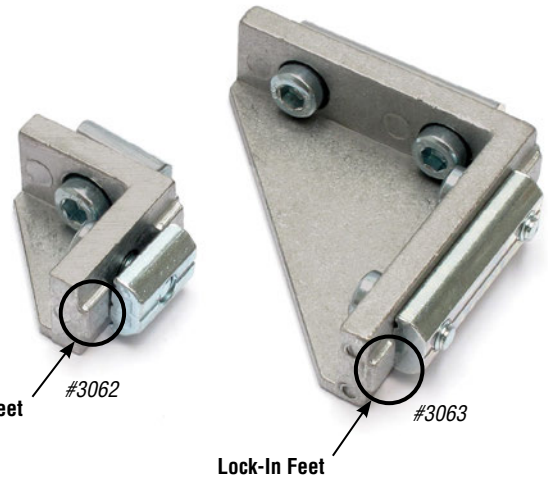
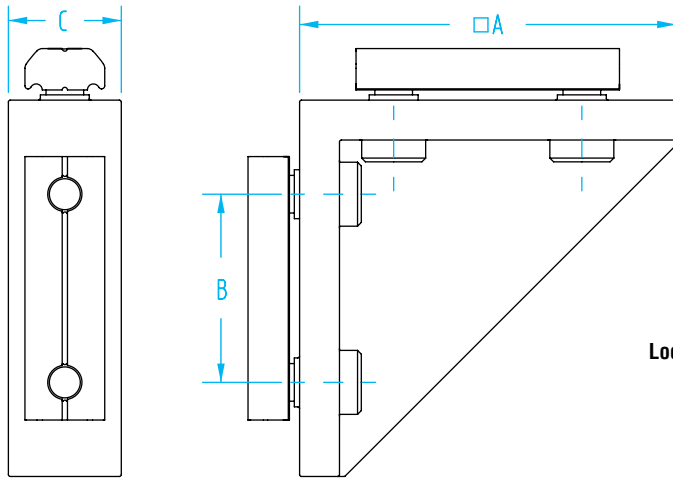
Application Examples



Save on Custom Plates !

Custom mounting plates, interfaces, and brackets for building EOAT are available from EMI. Fast and low cost. EMI's in-house laser cutter precision cuts aluminum and stainless up to 0.250" thick.

Angle Joint Connectors



Angle Joint Connector

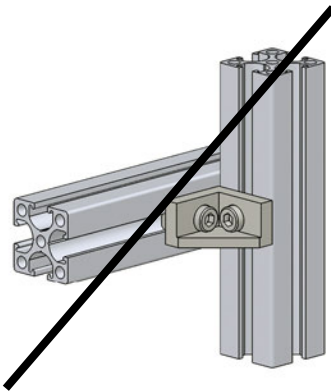
Quick#	Part#	>ASS< #	Price	A	B	C	Wt.
3062	WIV25X	1-121-66-00	\$5.78	25	-	15	26g
3063	WIV50X	1-121-71-00	\$7.88	50	25	15	60g
3064	WIV40J	1-121-77-00	\$11.03	40	-	40	131g
3065	WIV80J	1-121-82-00	\$22.05	80	40	40	377g

Use with profile size ↑

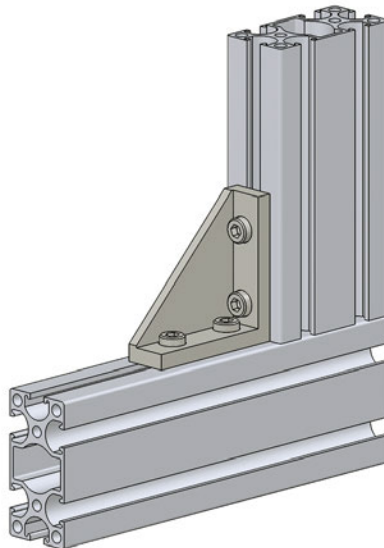
Q# 3064 & 3065 do not have lock-in feet.

Application Examples

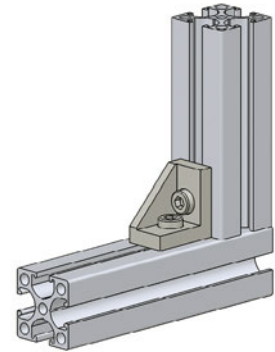
Perpendicular Use:



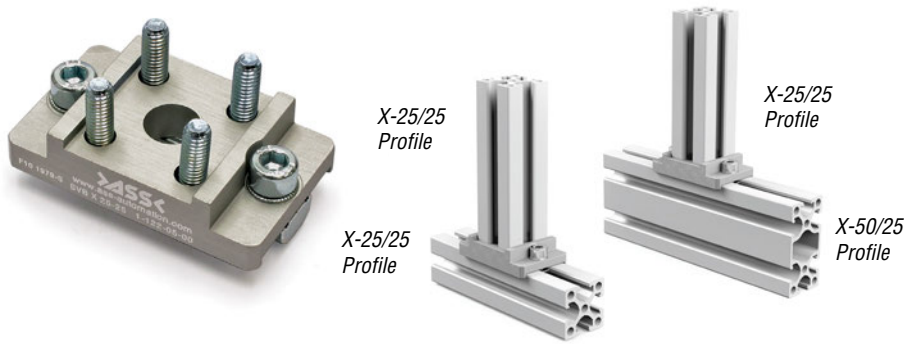
Connector NOT recommended for this type of use.



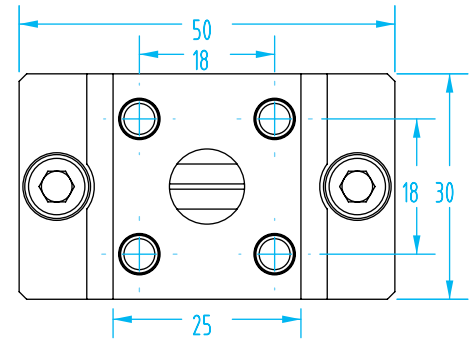
InLine Use:



Profile End Joint Connector

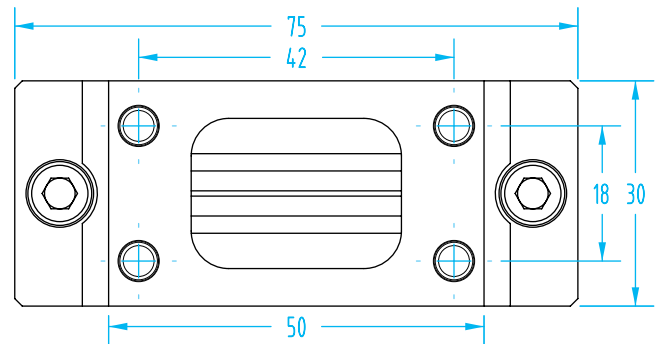
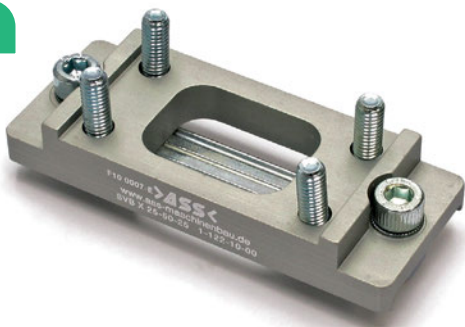


(Dimensioned drawings shown full scale)



90° Profile End Joint Connector

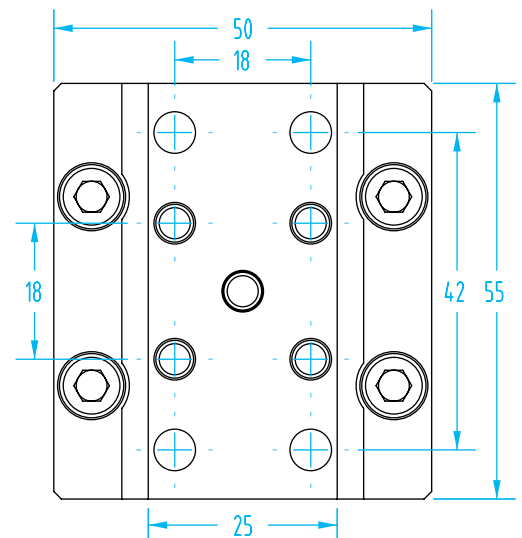
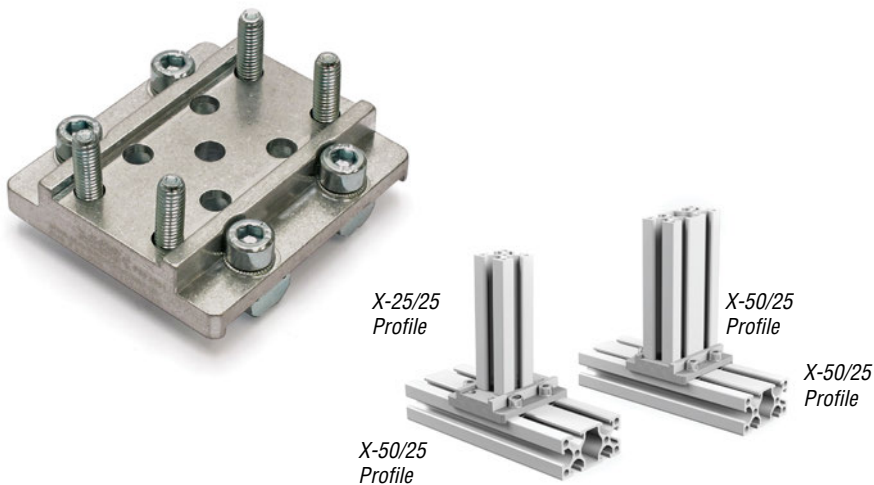
Quick#	Part#	>ASS< #	Price	Wt.	Use with:
3486	SVB25-25X	1-122-05-00	\$27.83	60.5g	X



90° Profile End Joint Connector

Quick#	Part#	>ASS< #	Price	Wt.	Use with:
3487	SVB25-50/25X	1-122-10-00	\$29.40	78g	X

Use Quick#s for easy online ordering.

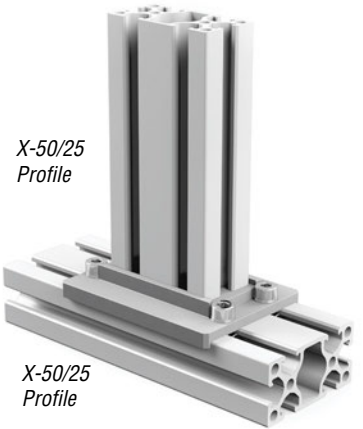
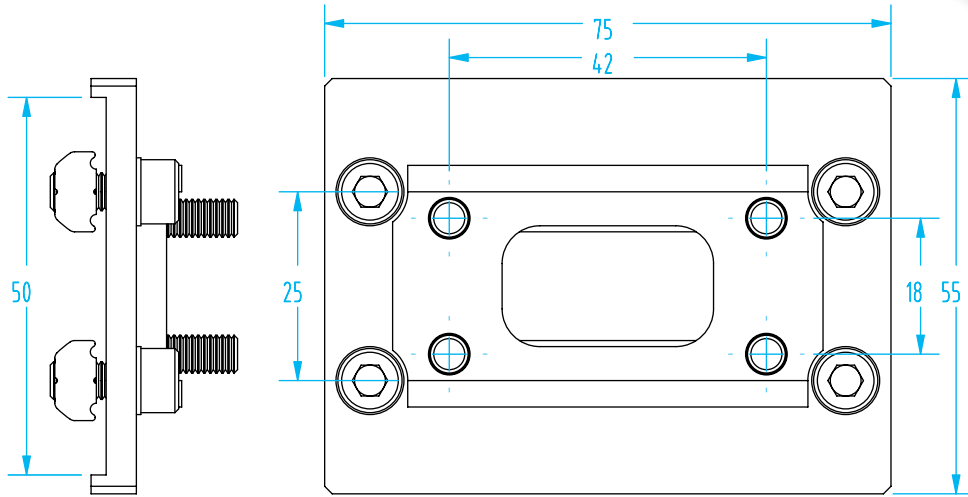
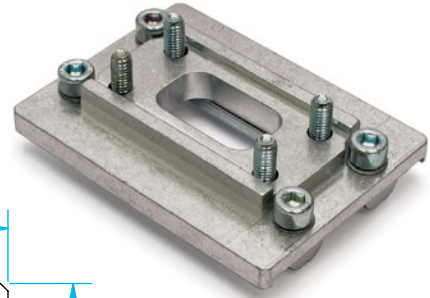


90° Profile End Joint Connector

Quick#	Part#	>ASS< #	Price	Wt.	Use with:
3488	SVB50/25X	1-122-15-00	\$30.45	100g	X 25/

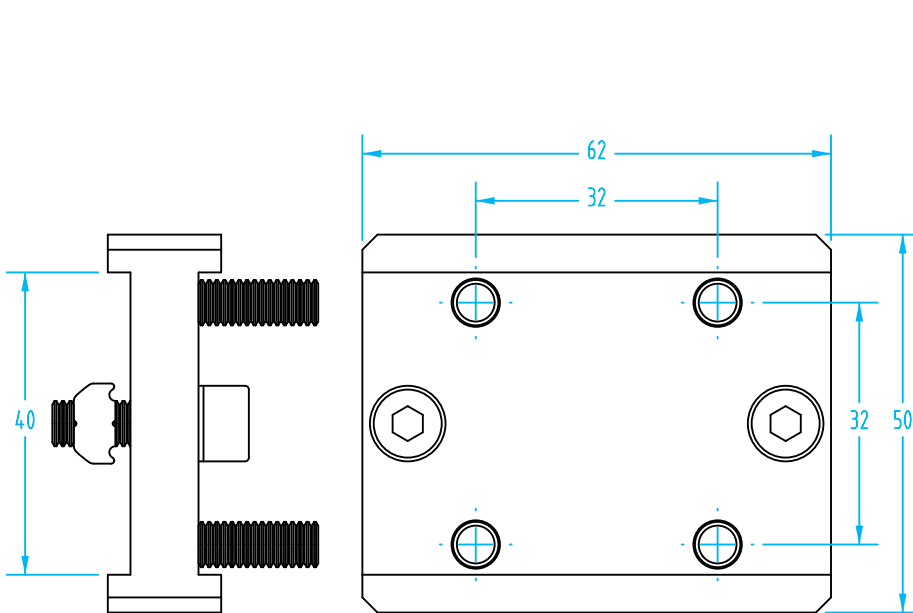
Profile End Joint Connector

(Dimensioned drawings shown full scale)



90° Profile End Joint Connector

Quick#	Part#	>ASS< #	Price	Wt.	Use with:
3489	SVB50/25-50/25X	1-122-20-00	\$32.03	134g	50X

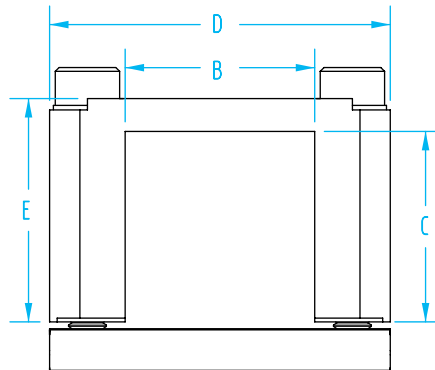
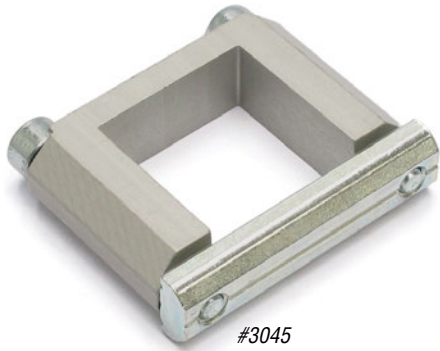


90° Profile End Joint Connector

NEW

Quick#	Part#	>ASS< #	Price	Wt.	Use with:
3354	SVB-JU-40-40	1-122-21-00	\$48.30	135g	J

Square Joint Connectors

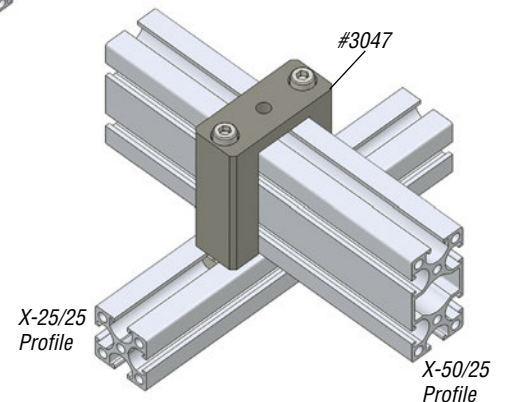
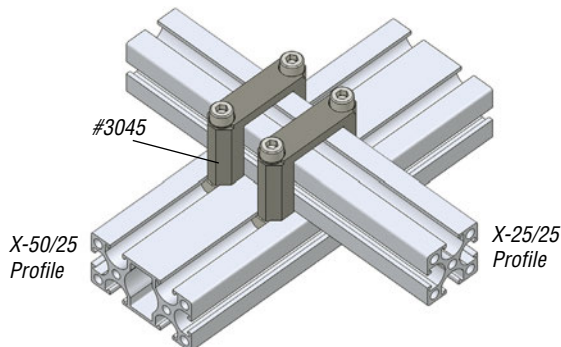
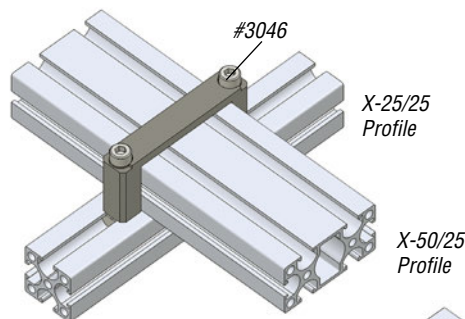
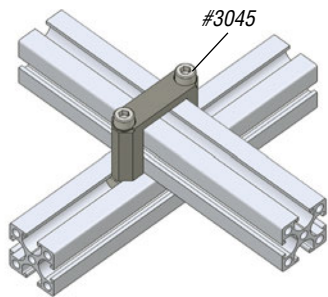


Square Joint Connector

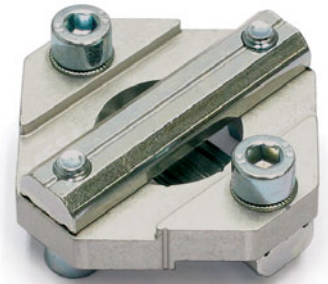
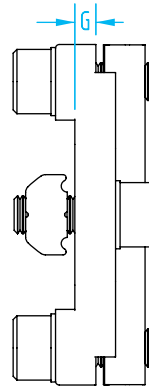
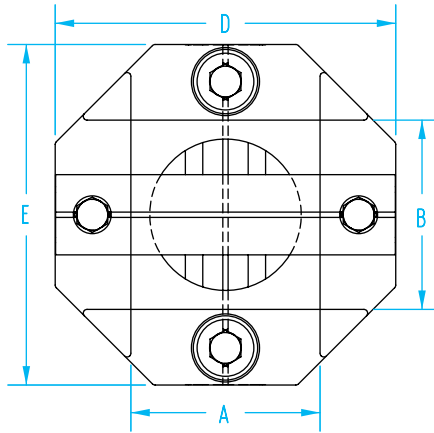
Quick#	Part#	>ASS< #	Price	B	C	D	E	Wt.
3043	KBV10/18L	1-120-05-00	\$16.28	18	10	33	15	23g
3044	KBV18/18L	1-120-10-00	\$17.33	18	18	33	23	28g
3685	KBV-X-10-25	1-120-13-00	\$20.48	25	10	45	15	37g
3686	KBV-X-18-25	1-120-14-00	\$21.00	25	18	45	23	32g
3045	KBV25-25X	1-120-15-00	\$17.85	25	25	45	30	45g
3046	KBV25-50X	1-120-25-00	\$18.90	50	25	70	30	80g
3047	KBV50-25X	1-120-20-00	\$19.95	25	50	50	55	64g
3048	KBV40-40J	1-120-32-00	\$21.53	40	40	65	50	85g
3049	KBV40-80J	1-120-37-00	\$32.55	80	40	105	50	110g
3050	KBV80-40J	1-120-42-00	\$32.55	40	80	60	90	129g

Use with profile size ↑

Application Examples



Cross Joint Connectors



#3053



NEW

Adjustable Cross Joint Connector

Quick#	Part#	For	Price
3897	KPL-D-JU-40	X / JU Profile	\$38.28

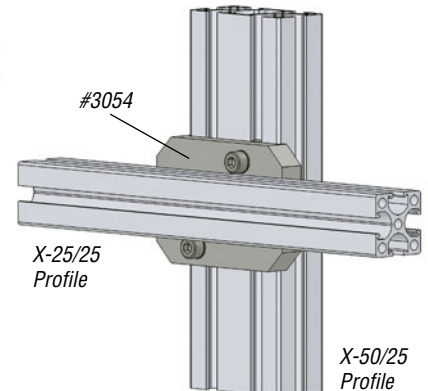
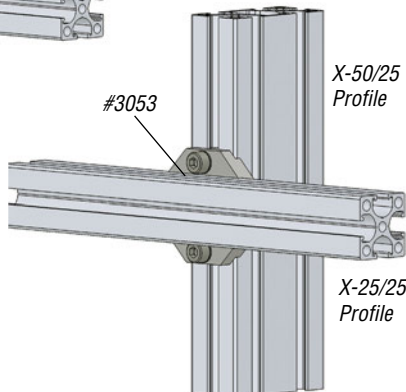
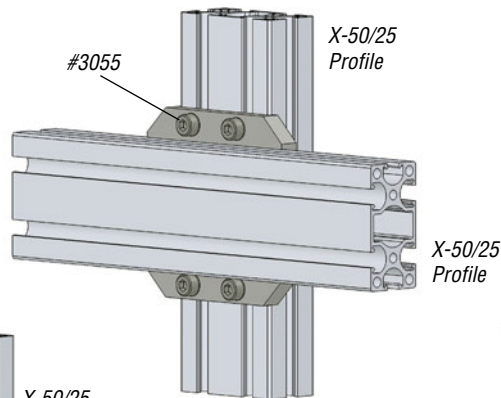
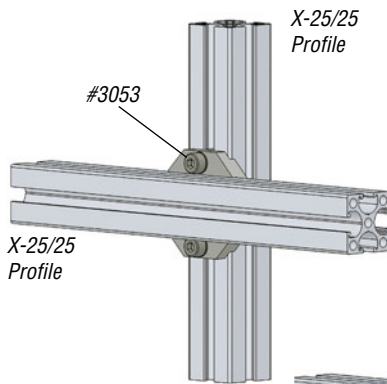
Visit www.EMlcorp.com for dimensional drawing.

Cross Joint Connector

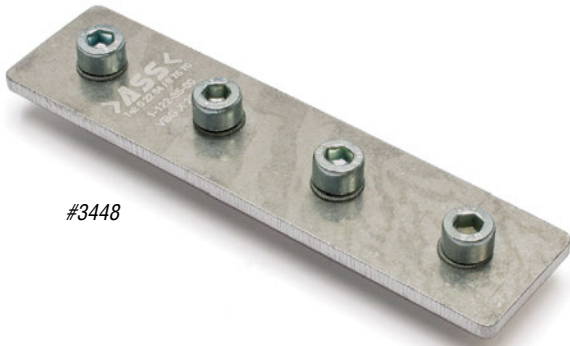
Quick#	Part#	>ASS< #	Price	A	B	D	E	G	Wt.
3052	KPL18-18L	1-120-55-00	\$21.00	18	18	38	38	3	37g
3692	KPL25X-L18	1-120-57-00	\$27.30	25	18	45	38	4	61g
3053	KPL25-25X	1-120-65-00	\$24.68	25	25	45	45	4	61g
3054	KPL25-50X	1-120-70-00	\$27.30	25	50	45	70	4	110g
3693	KPL40J-X25	1-120-76-00	\$33.08	25	40	45	60	4	112g
3694	KPL80J-X25	1-120-83-00	\$49.35	25	80	45	100	4	164g
3055	KPL50-50X	1-120-75-00	\$30.45	50	50	70	70	4	180g
3696	KPL50-40J	1-120-98-00	\$48.30	50	40	70	60	4	152g
3695	KPL80J-50X	1-120-95-00	\$53.03	50	80	70	100	4	227g
3056	KPL40-40J	1-120-82-00	\$27.30	40	40	60	60	4	113g
3057	KPL80-40J	1-120-87-00	\$31.50	80	40	100	60	4	187g
3058	KPL80-80J	1-120-93-00	\$41.48	80	80	100	100	4	298g

Use with profile size

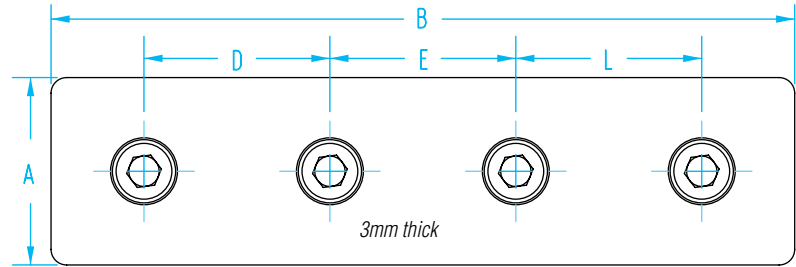
Application Examples



Flat Connectors



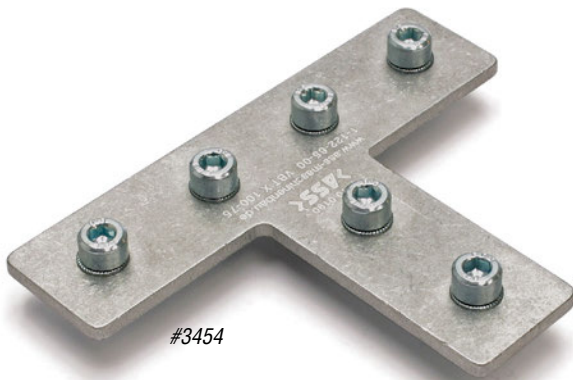
#3448



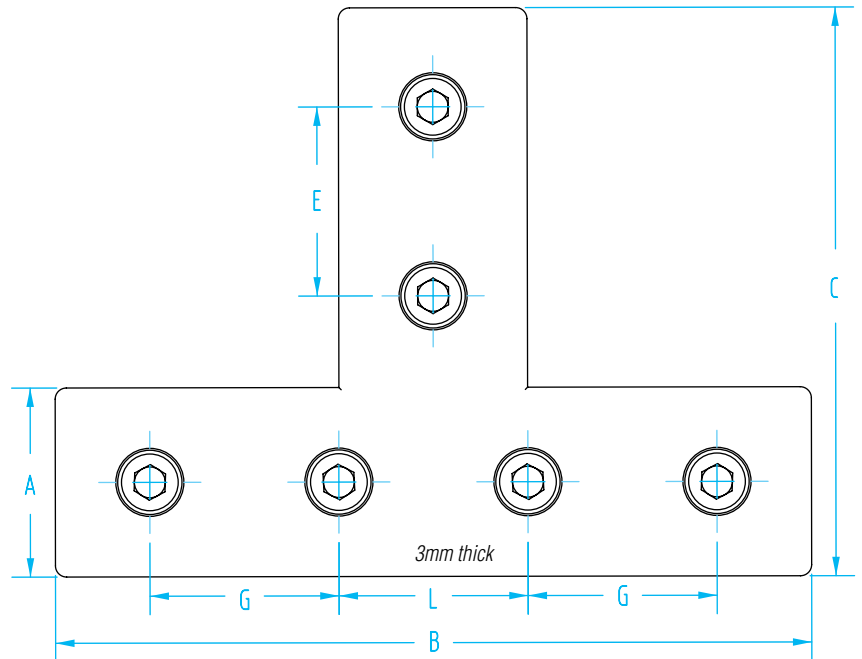
Straight Connector

Quick#	Part#	>ASS< #	Material	Price	A	B	D	E	L	Wt.
3446	VBG25-50X	1-122-25-00	Aluminum	\$8.40	25	50	25	-	-	27g
3447	VBG25-75X	1-122-30-00	Aluminum	\$9.98	25	75	25	25	-	49g
3448	VBG25-100X	1-122-35-00	Aluminum	\$12.08	25	100	25	25	25	55g
3449	VBG40-160J	1-122-42-00	Steel	\$16.80	40	160	40	40	40	209g

Use with profile size



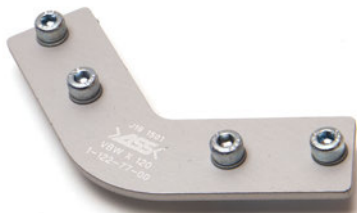
#3454



T Connector

Quick#	Part#	>ASS< #	Material	Price	A	B	C	E	G	L	Wt.
3453	VBT50-75X	1-122-60-00	Aluminum	\$13.65	25	50	75	25	-	25	56g
3454	VBT100-75X	1-122-65-00	Aluminum	\$20.48	25	100	75	25	25	25	84g
3455	VBT120-120J	1-122-72-00	Steel	\$17.85	40	100	120	40	40	-	252g

Use with profile size



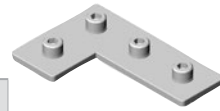
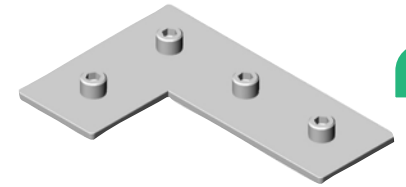
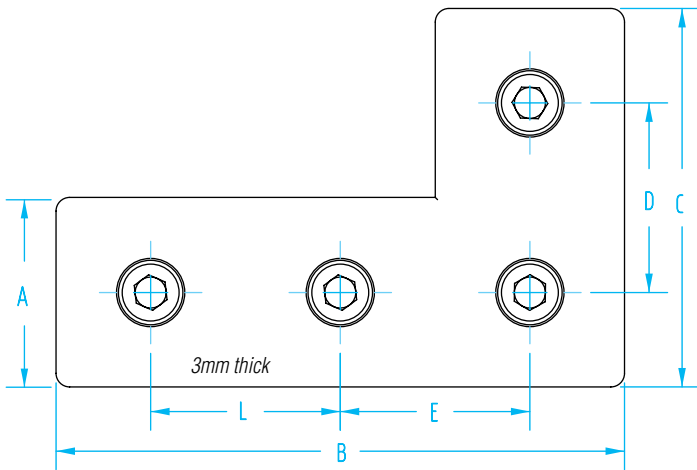
120° Profile Connector

Quick#	Part#	>ASS< #	For	Material	Price	Wt.
3898	VBW-X-120	1-122-77-00	X Profile	Aluminum	\$16.80	57g
3899	VBW-JU-120	1-122-78-00	JU Profile	Steel	\$15.75	320g

NEW

Visit www.EMlcorp.com for dimensional drawings.

Flat Connectors

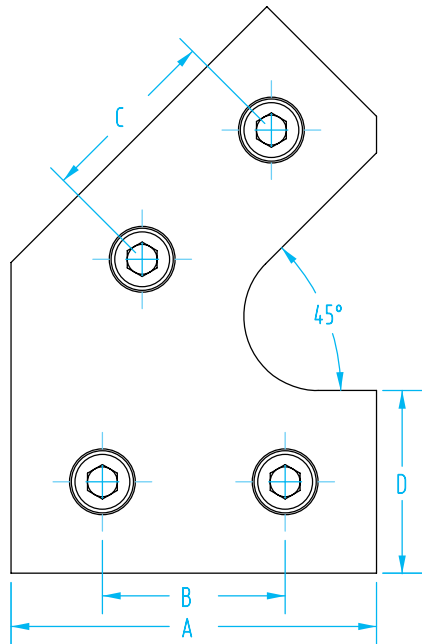
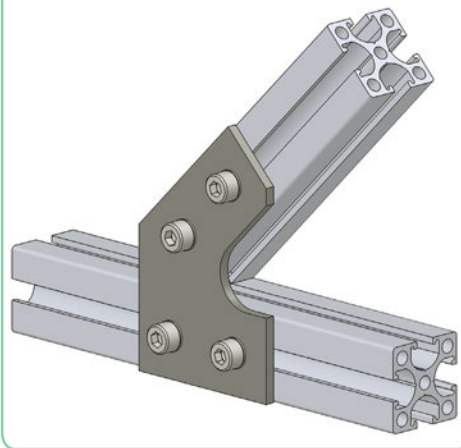


L Connector

Quick#	Part#	>ASS< #	Material	Price	A	B	C	D	E	G	L	Wt.
3450	VBL50-50X	1-122-45-00	Aluminum	\$11.55	25	50	50	25	25	25	-	41g
3451	VBL50-75X	1-122-50-00	Aluminum	\$13.65	25	75	50	25	25	25	25	56g
3452	VBL80-120J	1-122-57-00	Steel	\$16.28	40	120	80	40	40	40	40	197g

Use with profile size ↑

Application Example

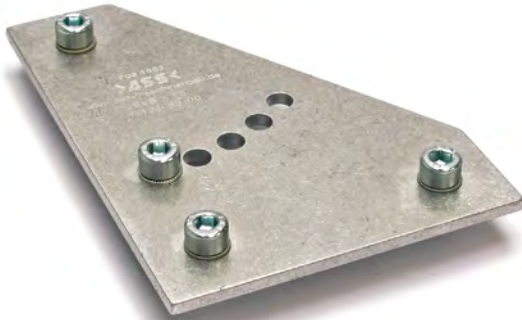


45° Profile Connector

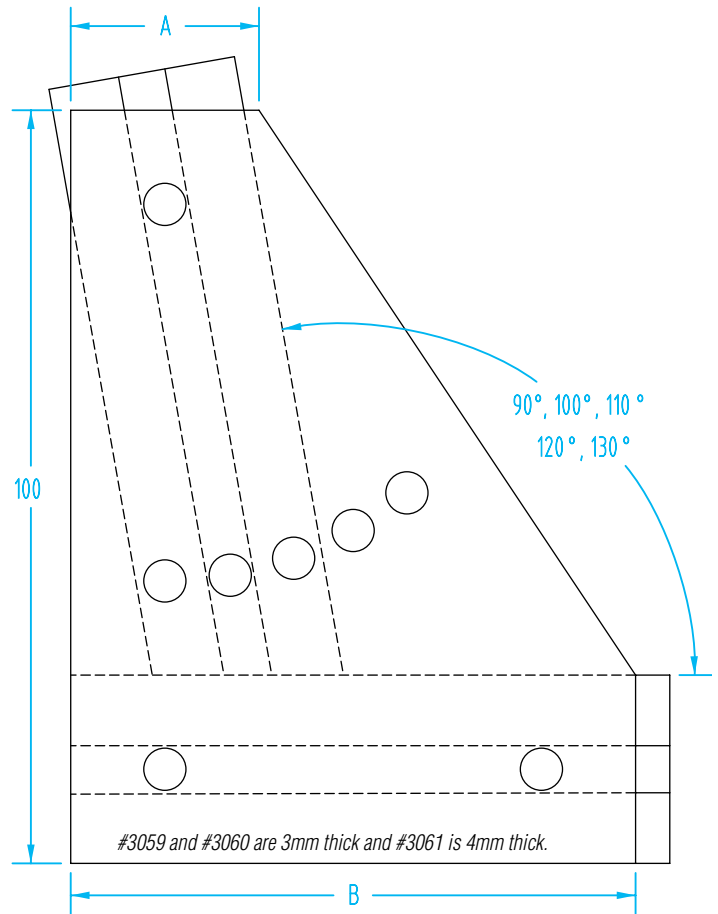
Quick#	Part#	>ASS< #	A	B	C	D	Material	Price	Wt.
3456	VBW45X	1-122-75-00	50	25	25	25	Aluminum	\$15.23	57g
3472	VBW45JU	1-122-76-00	130	40	40	40	Steel	\$23.63	365g

Use with profile size ↑

Corner Joint Plate



#3059

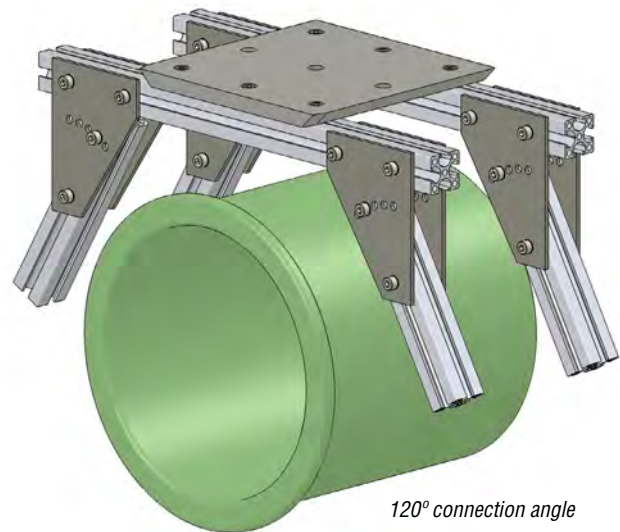
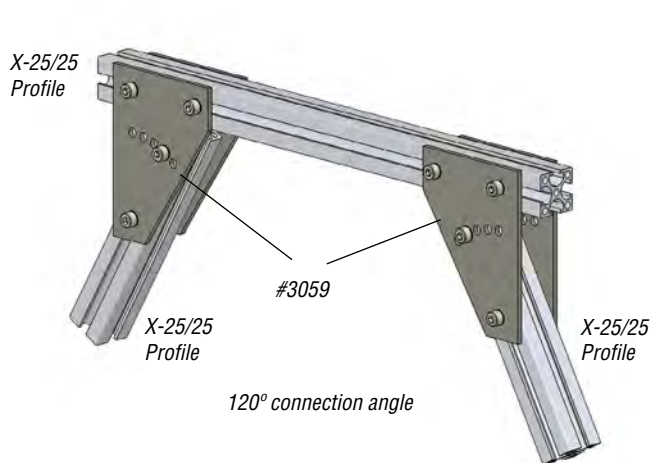


Corner Joint Plate (Aluminum)

Quick#	Part#	>ASS< #	Price	A	B	Wt.
3059	EVB-X-75	1-121-85-00	\$16.80	25	75	99.5g
3060	EVB-X-100	1-121-90-00	\$18.90	50	100	112g
3061	EVB-JU-100	1-121-97-00	\$19.95	40	80	126.7g

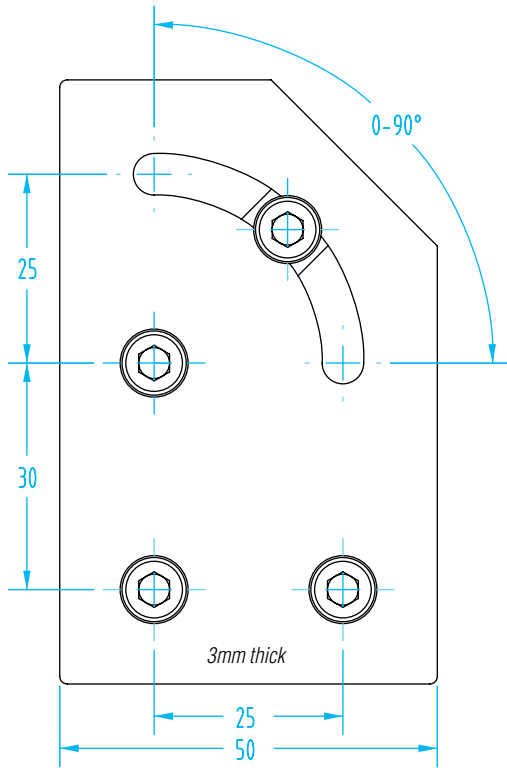
Use with profile size ↑

Application Examples



Adjustable Profile Connector

(Dimensioned drawings shown full scale)

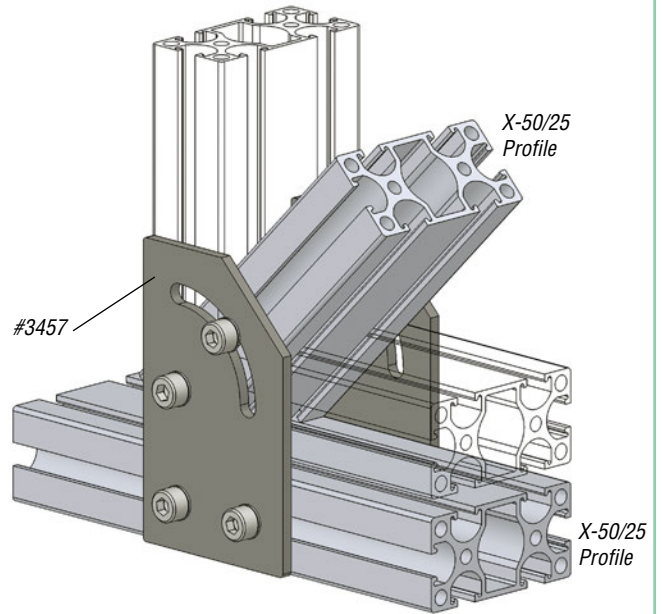
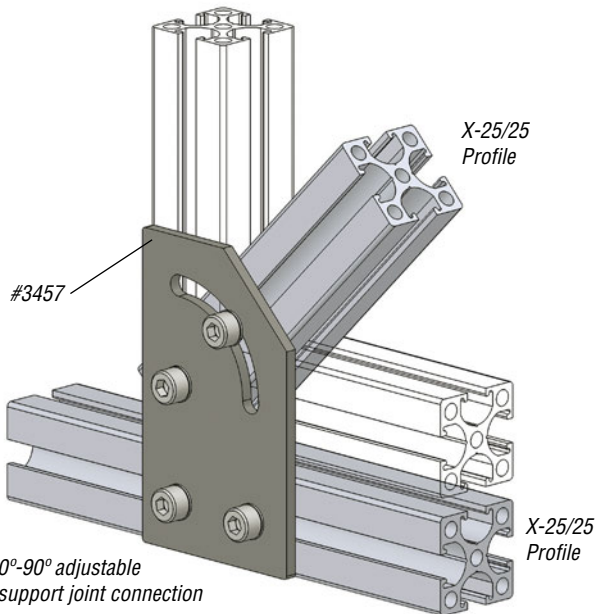


Adjustable Connector (Aluminum)

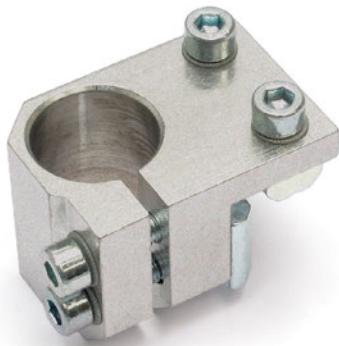
Quick#	Part#	>ASS< #	Price	Wt.
3457	VBW0-90X	1-122-80-00	\$15.23	65g

Use with profile size ↑

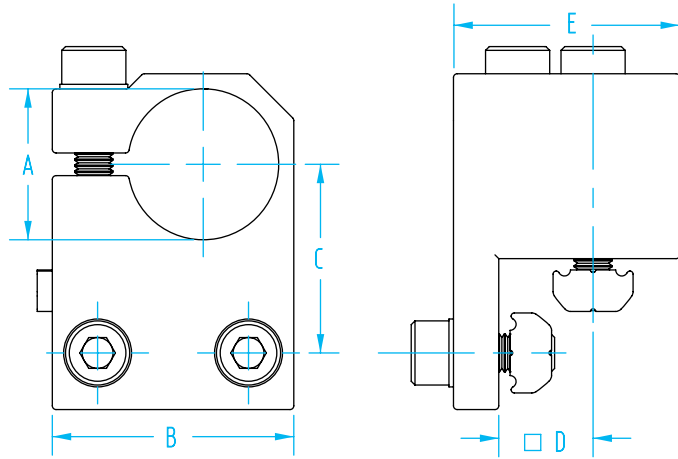
Application Examples



Heavy-Duty Cross Clamp



#3514



Cross Clamp (Heavy-duty, clamps on two profile sides)

Quick#	Part#	>ASS< #	Price	A	B	C	D	E	Wt.	Use with:
3512	WSWX10	1-102-02-00	\$33.08	10	25	19.5	12.5	25	32g	L
3513	WSWX14	1-102-03-00	\$34.13	14	25	21.5	12.5	25	47g	X
3514	WSWX20	1-102-06-00	\$34.65	20	32	24	12.5	30	70g	X
3515	WSWJU20	1-102-09-00	\$40.95	20	35	33	20	40	115g	J
3516	WSWJU30	1-102-12-00	\$44.10	30	45	39	20	45	185g	J

Cross Clamp, Mirrored Version (Heavy-duty, clamps on two profile sides)

NEW

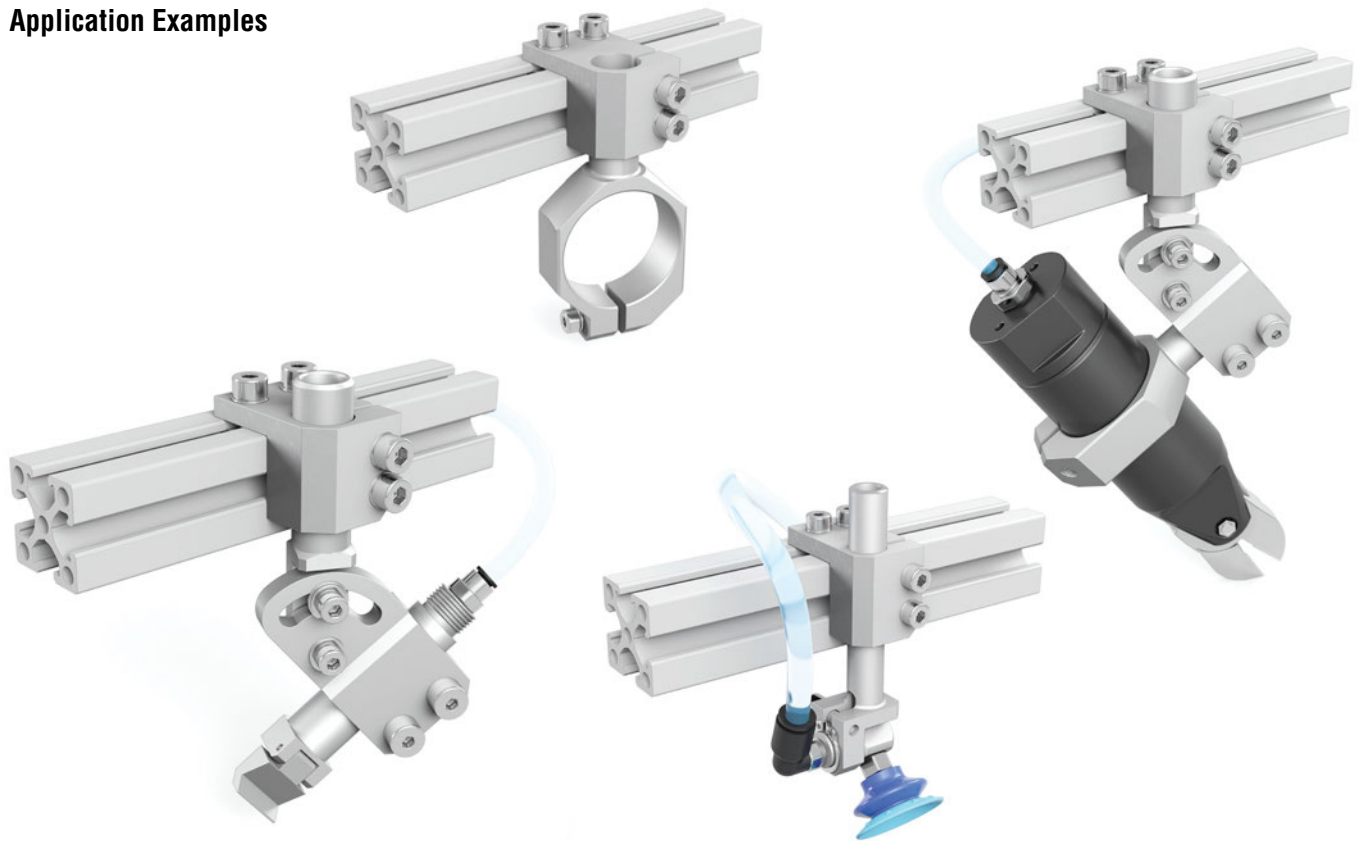
Quick#	Part#	>ASS< #	Price	Wt.	Use with:
3351	WSW-M-X-20	1-102-07-00	\$34.65	74g	X
3352	WSW-M-JU-20	1-102-08-00	\$40.95	115g	J

Check EMI website for dimensional drawing.

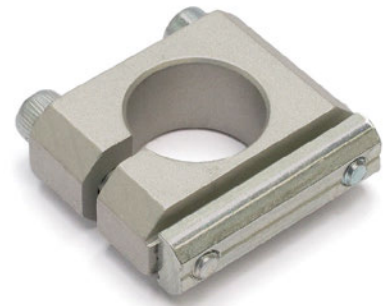
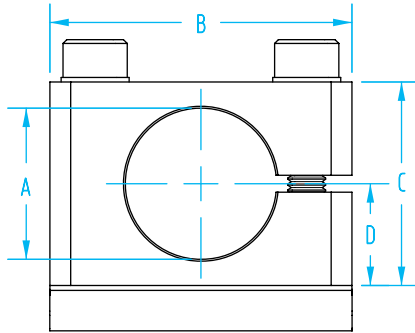


#3351, mirrored version

Application Examples



Cross Connector Clamp



#3094

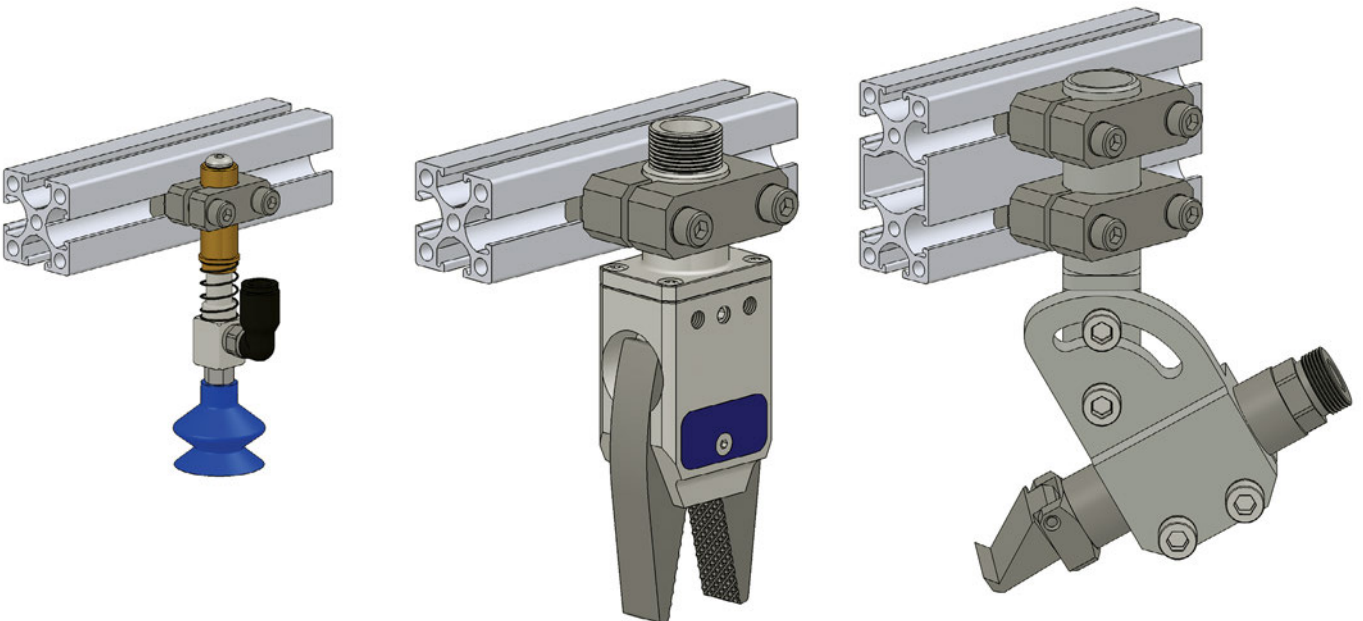
Cross Connector Clamp

Quick#	Part#	>ASS< #	Price	A	B	C	D	T	Wt.
3092	KVB10L/X	1-115-05-00	\$10.50	10	25	14	7	10	20g
3093	KVB14X	1-115-15-00	\$15.23	14	32	19	9	12	32g
3094	KVB20X	1-115-20-00	\$15.23	20	38	26	12	15	52g
3096	KVB20J	1-115-27-00	\$19.95	20	40	29	13	20	71g
3097	KVB30J	1-115-37-00	\$21.00	30	50	34	17	20	87g

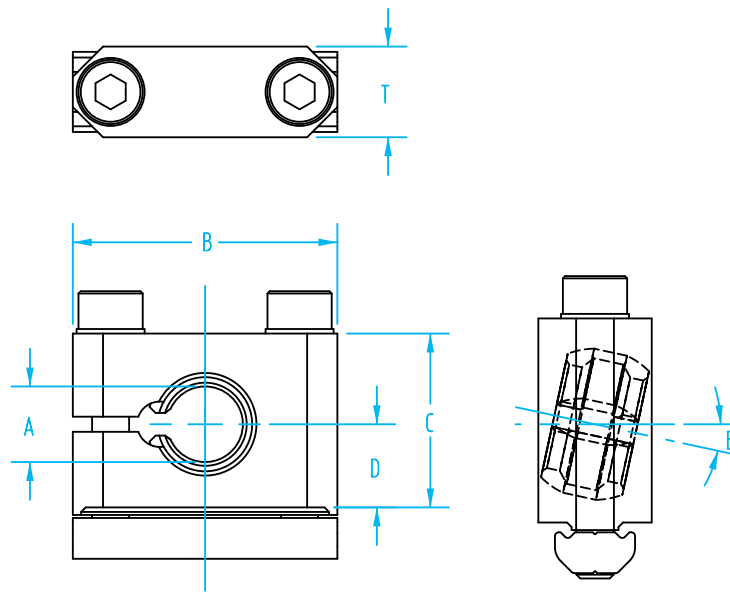
Use with profile size

T=Thickness

Application Examples



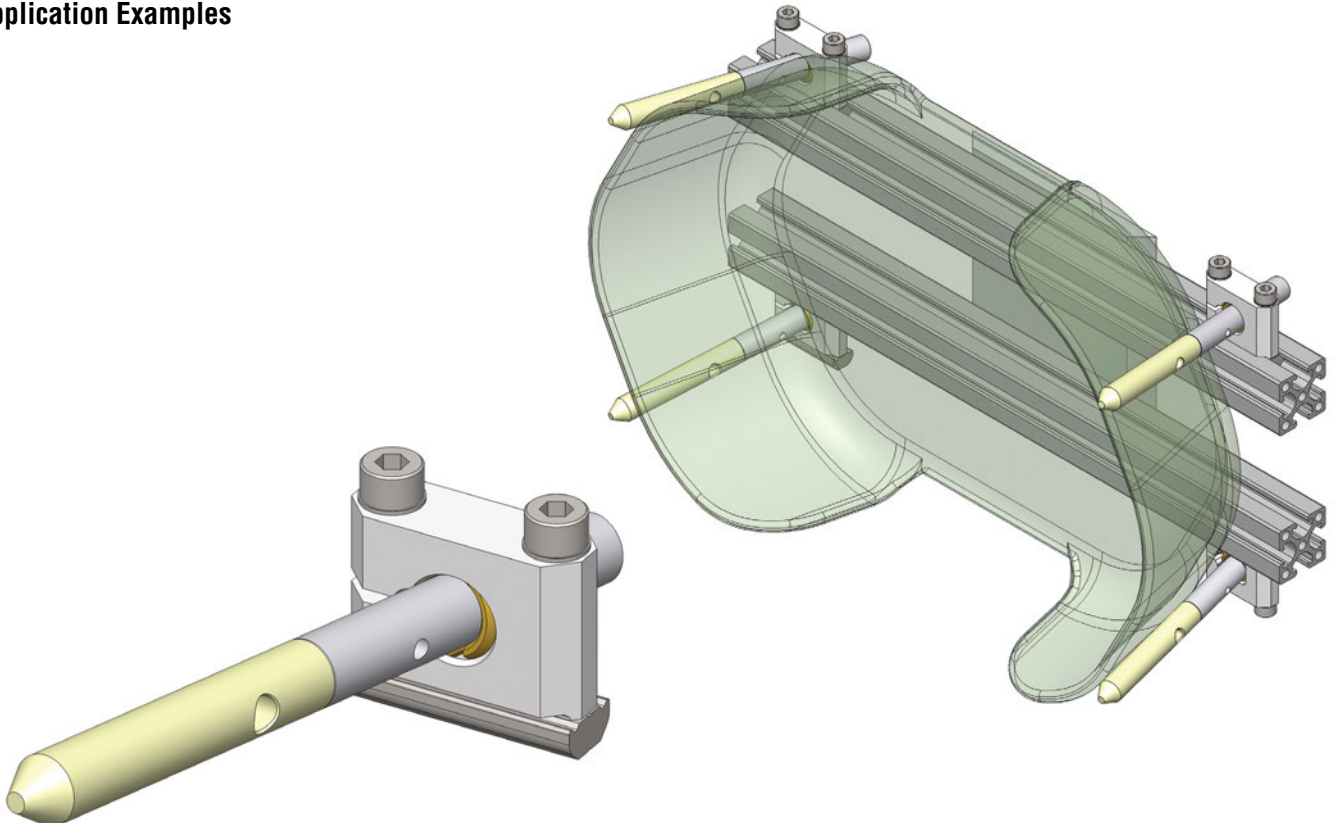
Cross Clamp with Ball Joint



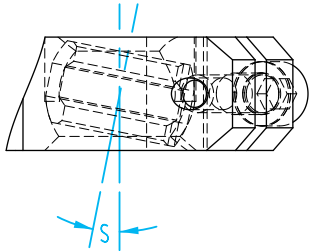
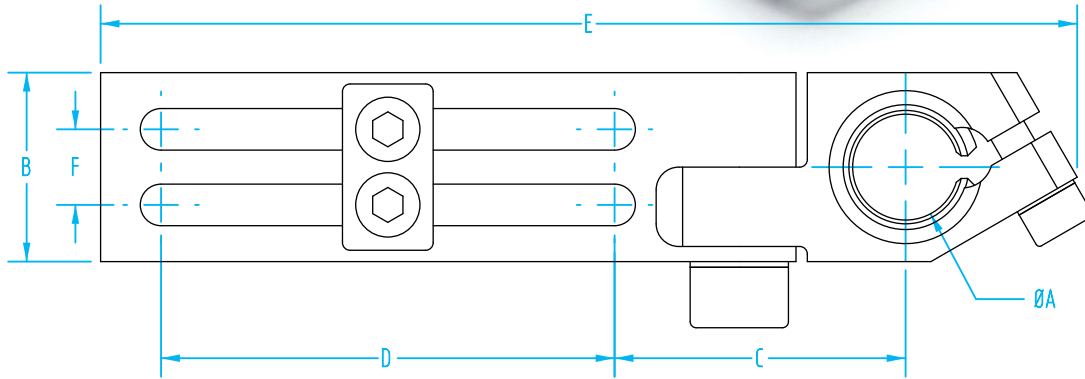
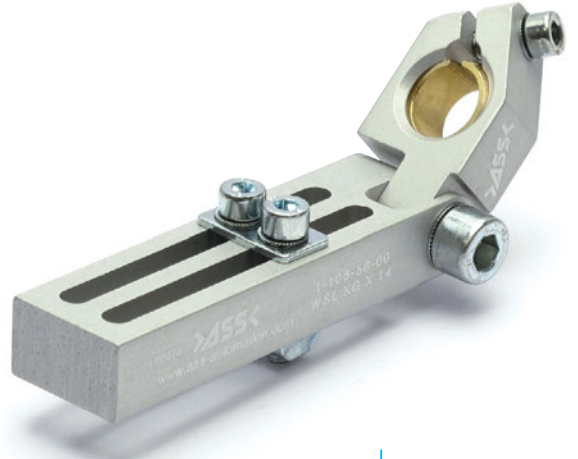
Cross Connector Clamp with Swivel Ball Joint Clamp

Quick#	Part#	>ASS< #	Price	A	B	C	D	E	T	Wt.
3334	KVB-G-10	1-116-46-00	\$35.70	10	35	23	11	12	12	47g
3335	KVB-G-14	1-116-56-00	\$37.28	14	40	27	13	12	15	50g
3336	KVB-G-14-JU	1-116-58-00	\$37.28	14	45	26.5	12.5	12	15	78g
3337	KVB-G-20	1-116-66-00	\$38.85	20	50	37	18	19	20	137g
3338	KVB-G-20-JU	1-116-68-00	\$38.85	20	55	36.5	17.5	19	20	149g

Application Examples



Long Angle Clamp with Swivel Head and Ball Joint



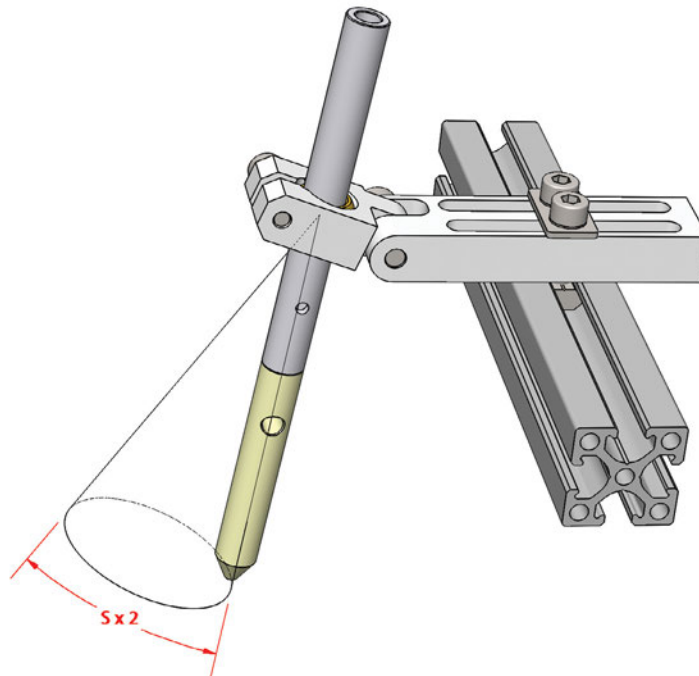
Long Angle Clamp with Swivel Head & Ball Joint Clamp

Quick#	Part#	>ASS< #	A	B	C	D	E	F	S	T	Price	Wt.
3645	WSL-KG-X10	1-106-53-00	10	20	32.5	50	106.5	10	13°	12	\$61.95	60
3646	WSL-KG-X14	1-106-56-00	14	25	38.5	60	129.2	10	17°	15	\$67.20	125
3647	WSL-KG-JU20	1-106-59-00	20	35	50	82	175	20	19°	20	\$76.65	305

Use with profile size ↑

T=Thickness

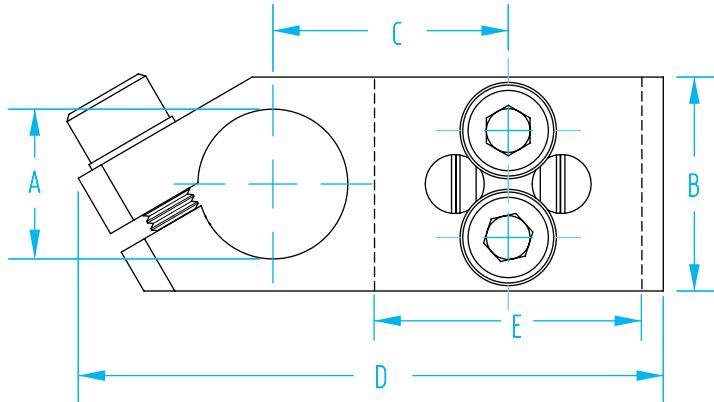
Application Examples



Angle Clamp



#3103



Angle Clamp

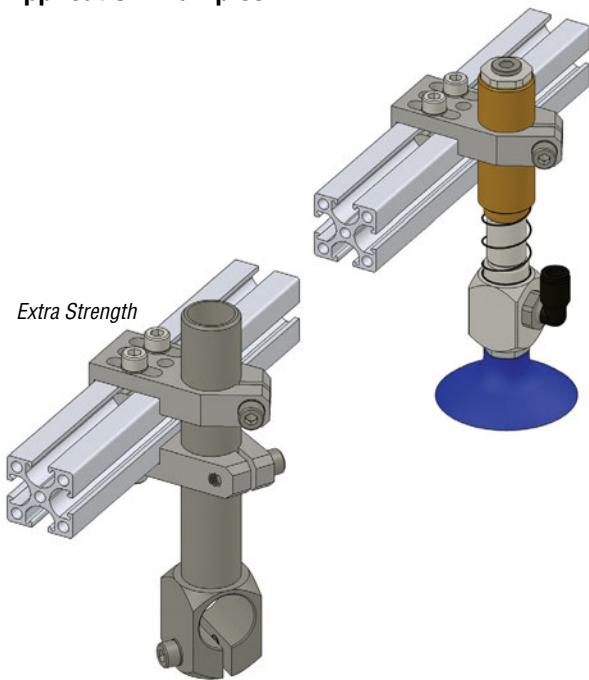
Quick#	Part#	>ASS< #	Price	A	B	C	D	E	T	Wt.
3100	WST10L	1-103-00-00	\$12.60	10	16	16	41	18	4	17g
3511	WST14L	1-103-03-00	\$13.13	14	20	18	55	18	6	26g
3101	WST10X	1-103-06-00	\$14.70	10	16	19.5	48	25	4	19g
3102	WST14X	1-103-09-00	\$15.75	14	20	21.5	55	25	6	33g
3103	WST20X	1-103-12-00	\$16.28	20	25	17.5-32.5	63	25	6	40g
3104	WST30X	1-103-15-00	\$19.43	30	35	22.5-37.5	74	25	10	80g
3105	WST20J	1-103-18-00	\$19.43	20	25	32	77	40	7.5	58g
3106	WST30J	1-103-21-00	\$21.53	30	40	27-47	91	40	10	117g

Use with profile size

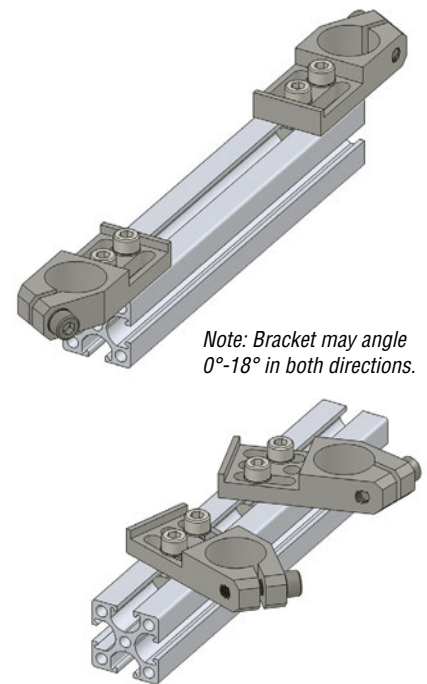
T= thickness

Application Examples

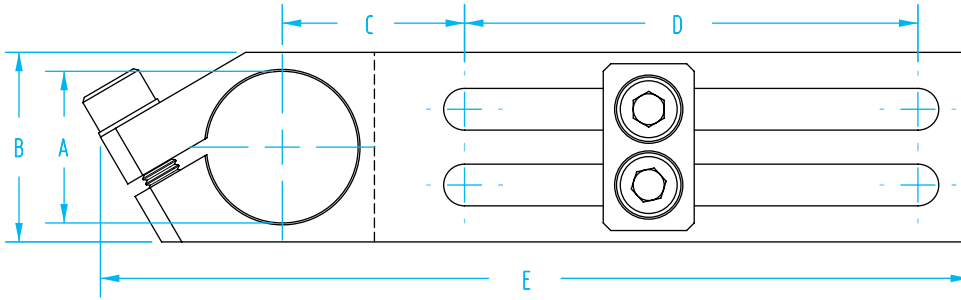
Extra Strength



Note: Bracket may angle 0°-18° in both directions.



Long Angle Clamp



Long Angle Clamp

Quick#	Part#	>ASS< #	Price	A	B	C	D	E	T	Wt.
3108	WSL10L/X	1-105-07-00	\$17.33	10	16	16	40	76	4	22g
3109	WSL14X	1-105-17-00	\$20.48	14	20	21	50	97	6	41g
3110	WSL20X	1-105-22-00	\$21.53	20	25	25	60	114	6	53g
3111	WSL30X	1-105-37-00	\$31.50	30	35	29	60	126	10	115g
3112	WSL20J	1-105-32-00	\$23.63	20	30	31	70	140	7.5	116g
3113	WSL30J	1-105-42-00	\$25.73	30	35	28	70	143	10	135g

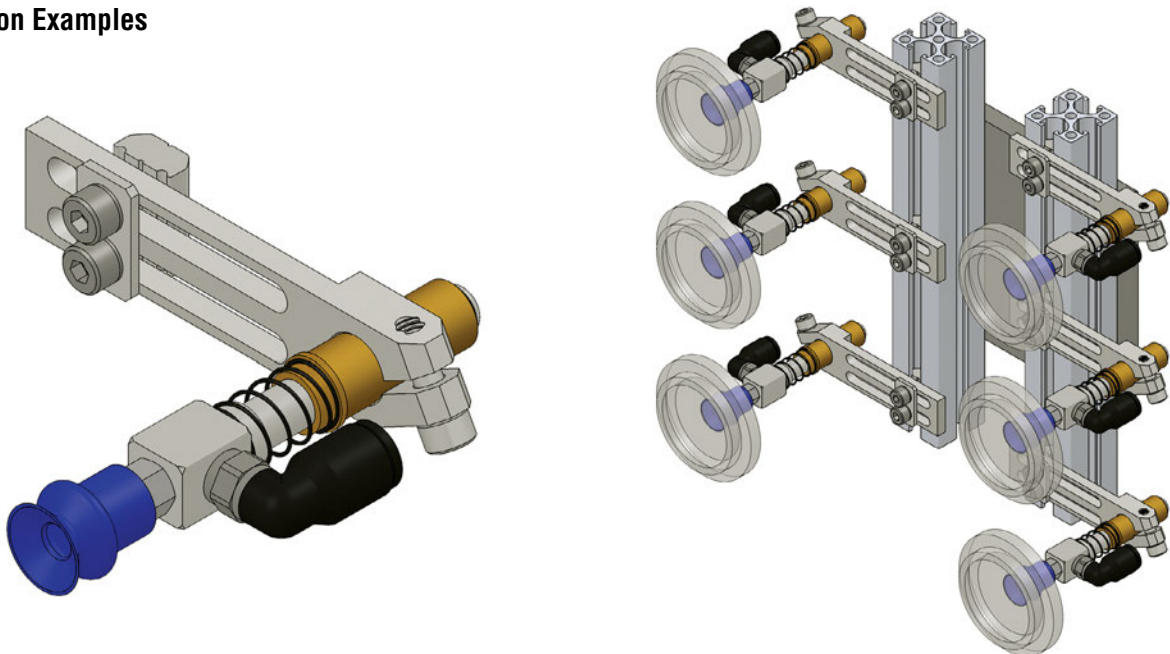
Extra-Strong Version

3564	WSL10VX	1-105-09-00	\$22.05	10	16	16	40	80	8	24g
3616	WSL14VX	1-105-19-00	\$22.58	14	20	21	50	100	12	41g
3107	WSL20VX	1-105-27-00	\$23.63	20	25	24	60	115	15	91g
3569	WSL30VX	1-105-39-00	\$26.25	30	35	30	60	128	20	180g
3570	WSL20VJ	1-105-35-00	\$25.73	20	30	31	73.5	140	15	125g
3571	WSL30VJ	1-105-45-00	\$27.30	30	35	30	70	148	20	198g

Use with profile size

T= thickness

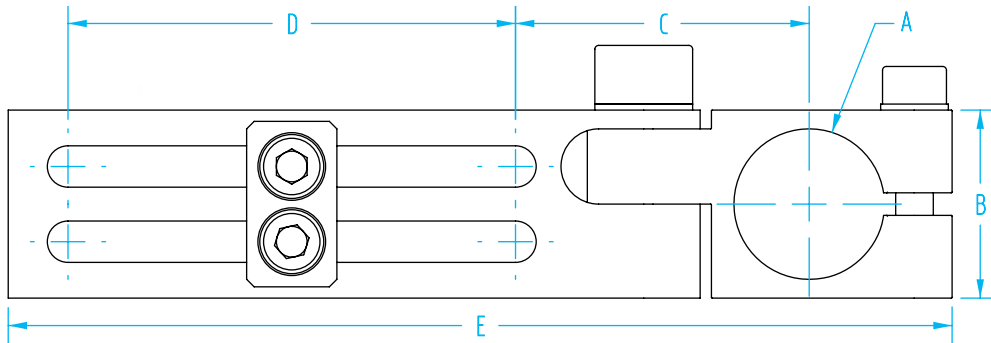
Application Examples



Long Angle Clamp with Swivel Head



#3581



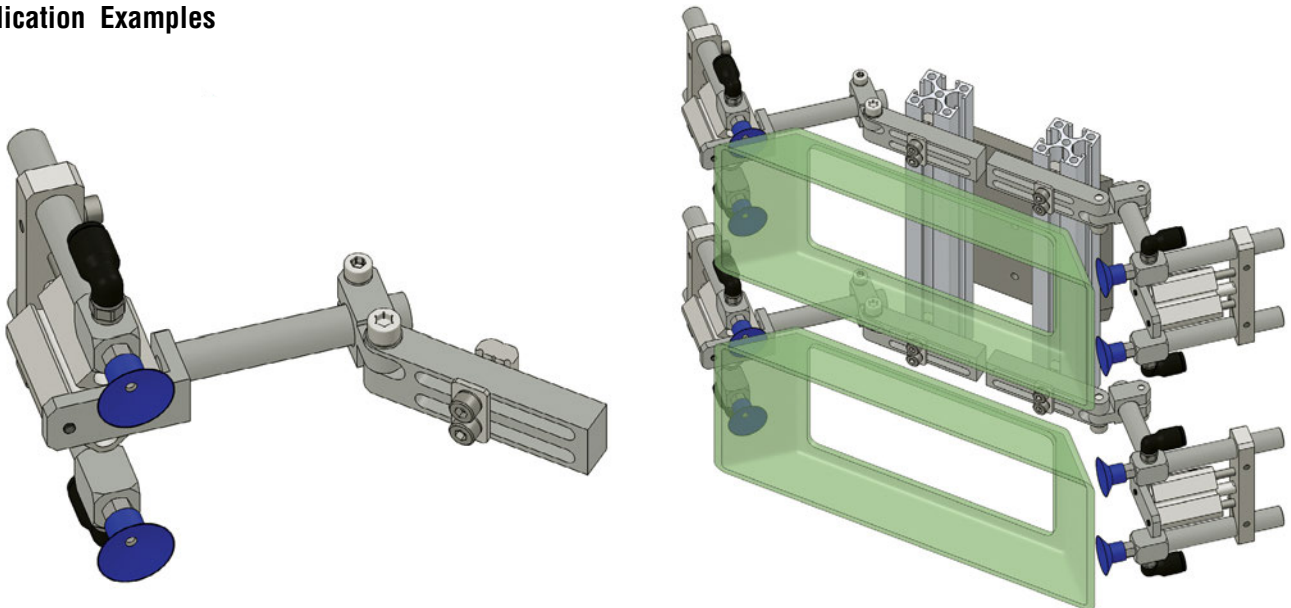
Long Angle Clamp with Swivel Head

Quick#	Part#	>ASS< #	Price	A	B	C	D	E	T	Wt.
3579	WSL-GA-X10	1-106-33-00	\$36.75	10	16	27	40	85	10	31g
3580	WSL-GA-X14	1-106-36-00	\$39.90	14	20	32.5	50	107	12	54g
3581	WSL-GA-X20	1-106-39-00	\$42.53	20	25	38.5	60	125	15	97g
3582	WSL-GA-JU30	1-106-42-00	\$78.75	30	35	52	82	170	20	246g

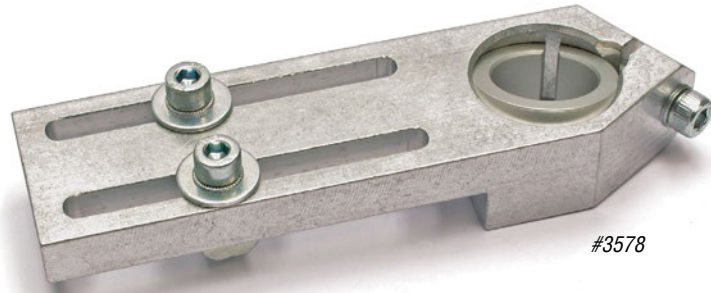
Use with profile size ↑

T= thickness

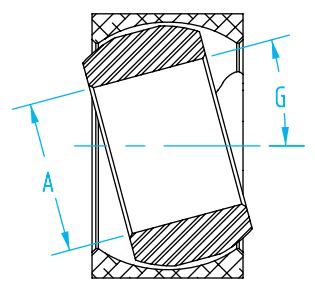
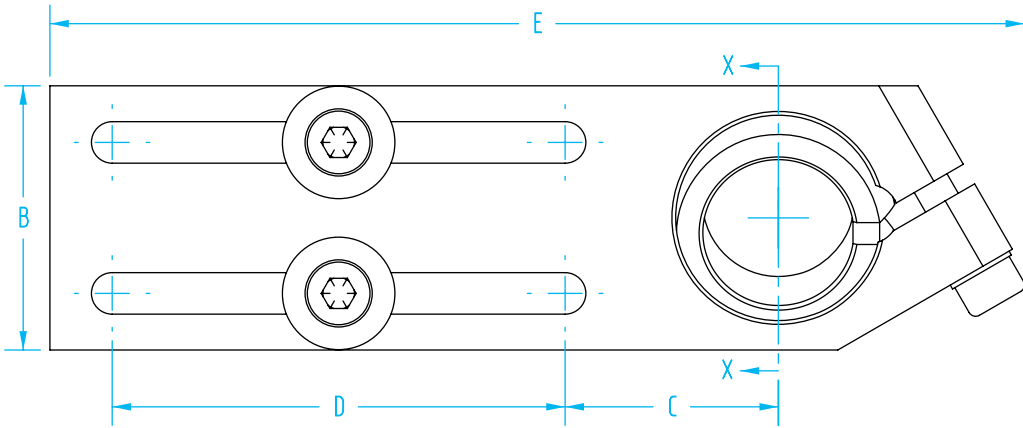
Application Examples



Long Angle Clamp with Ball-Joint Clamp



#3578



SECTION X-X

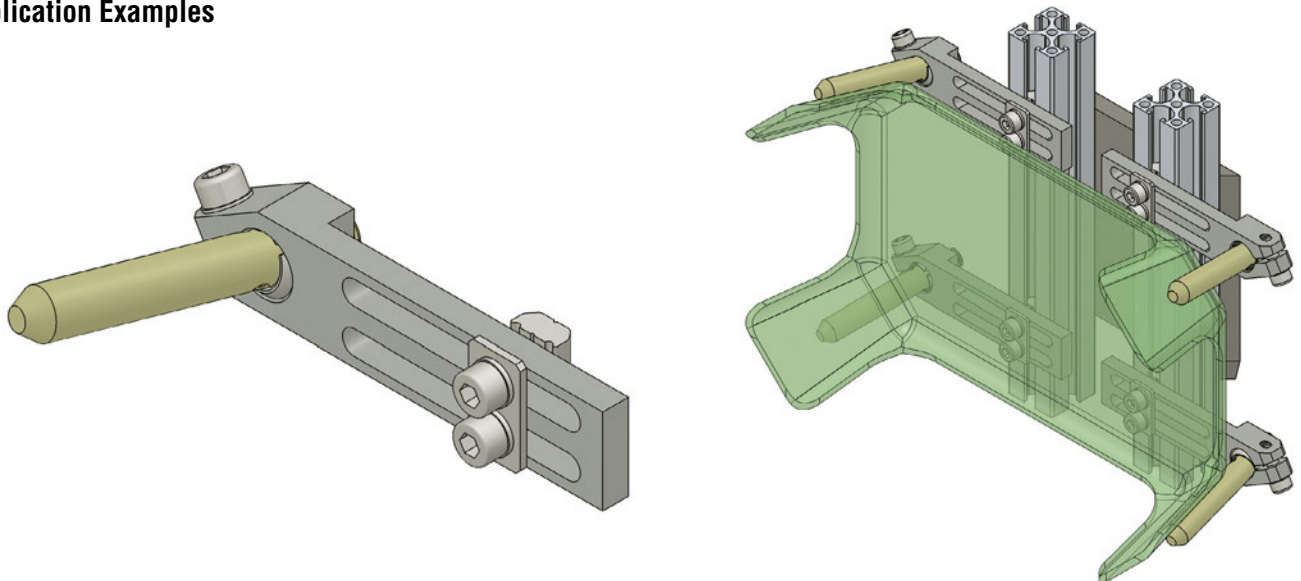
Long Angle Clamp with Ball-Joint Clamp

Quick#	Part#	>ASS< #	Price	A	B	C	D	E	G	T	Wt.
3576	WSL-G-X-10-40-U	1-106-03-00	\$42.00	10	20	20	40	100	max. 13°	6	41g
3577	WSL-G-X-14-60-U	1-106-06-00	\$46.20	14	25	24	60	117	max. 17°	6	55g
3578	WSL-G-X-20-60-U	1-106-09-00	\$48.30	20	35	29	60	128	max. 19°	10	115g

Use with profile size

T= thickness

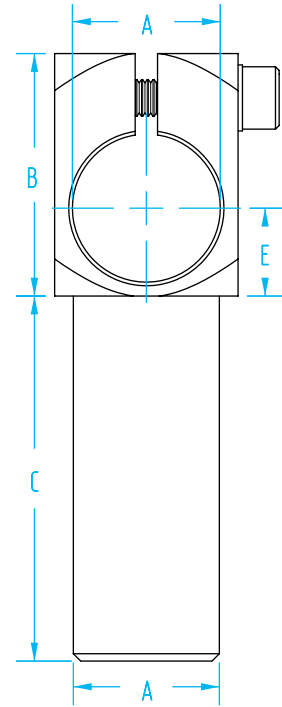
Application Examples



Angle Arm



#3117

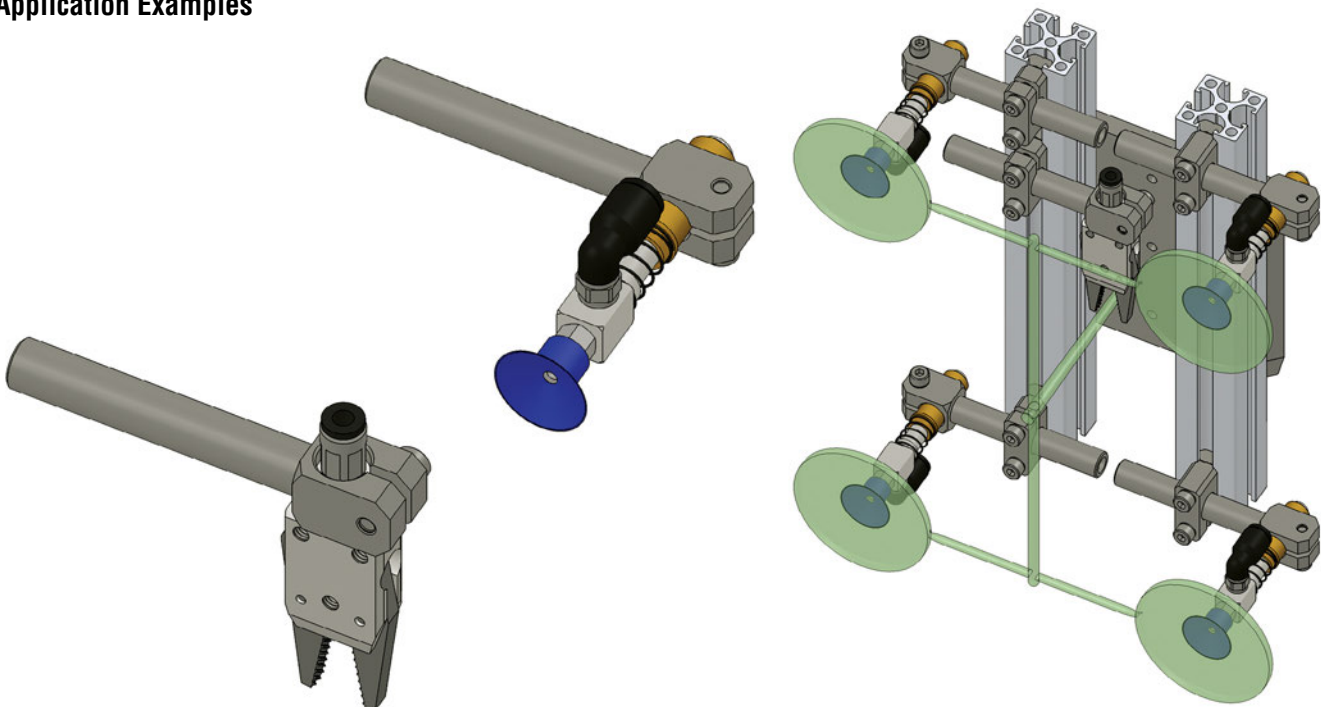


Angle Arm

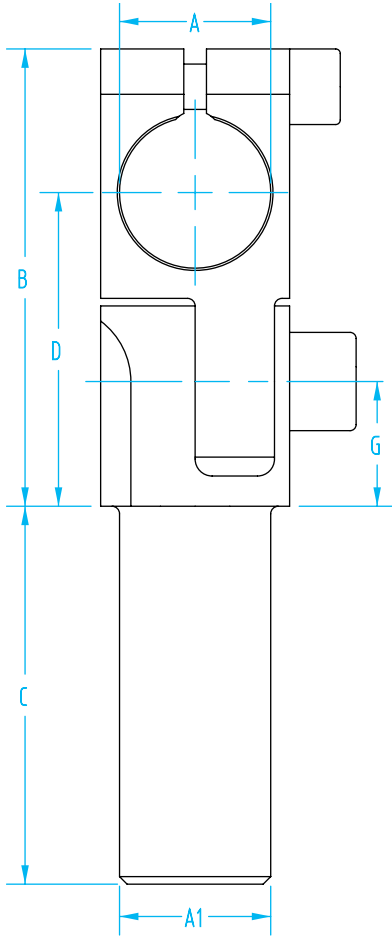
Quick#	Part#	>ASS< #	Price	ØA	B	C	E	Wt.
3114	WKA10-30	1-320-03-00	\$17.33	10	19	30	7	10g
3115	WKA10-60	1-320-06-00	\$17.85	10	19	60	7	13g
3116	WKA10-90	1-320-09-00	\$18.38	10	19	90	7	21g
3481	WKA14-40	1-320-12-00	\$34.65	14	26	40	10	25g
3482	WKA14-80	1-320-15-00	\$35.70	14	26	80	10	32g
3483	WKA14-120	1-320-18-00	\$36.75	14	26	120	10	41g
3117	WKA20-50	1-320-21-00	\$27.30	20	32	50	13	48g
3118	WKA20-100	1-320-24-00	\$28.88	20	32	100	13	64g
3119	WKA20-150	1-320-27-00	\$30.45	20	32	150	13	79g
3120	WKA30-80	1-320-30-00	\$36.75	30	44	80	19	223g
3121	WKA30-140	1-320-33-00	\$37.80	30	44	140	19	279g
3122	WKA30-200	1-320-36-00	\$39.90	30	44	200	19	391g

Use Quick#s for easy online ordering.

Application Examples



Elbow Arm

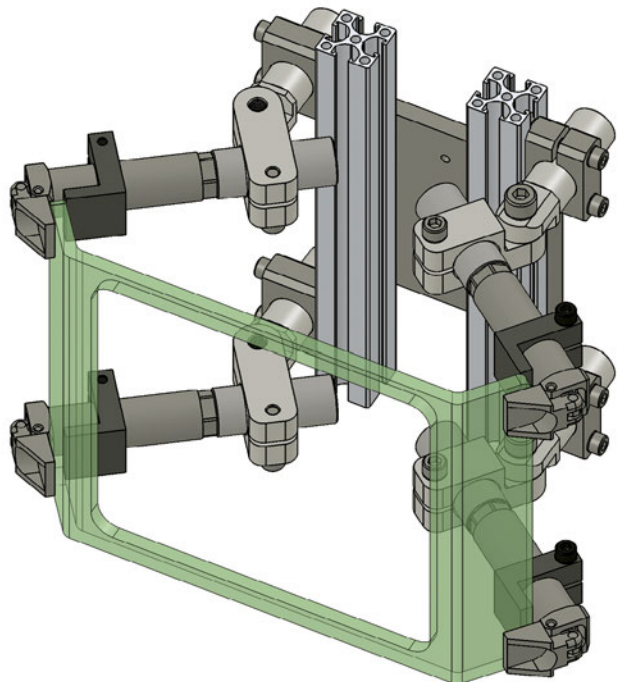
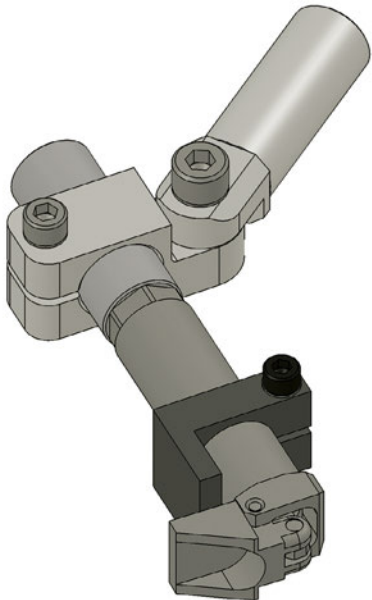


#3126

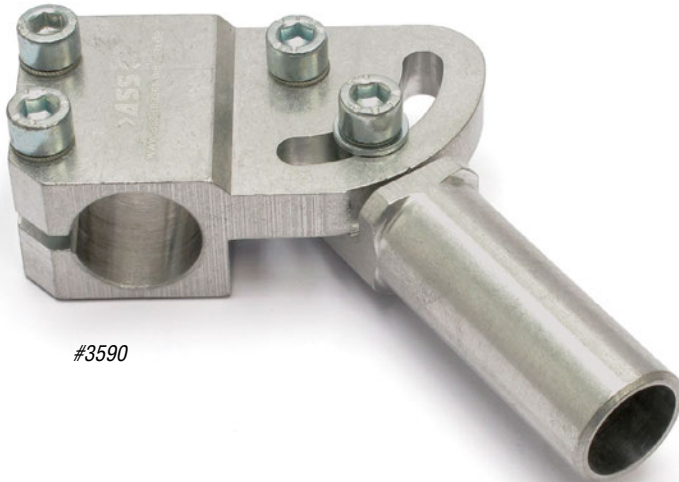
Elbow Arm

Quick#	Part#	>ASS< #	Price	A	A1	B	C	D	G	Wt.
3123	GLA10-30	1-325-03-00	\$20.48	10	10	34	30	22	10	17g
3124	GLA10-60	1-325-06-00	\$21.00	10	10	38	60	25	10	19g
3125	GLA10-90	1-325-09-00	\$21.53	10	10	38	90	25	10	23g
3478	GLA14-40	1-325-12-00-1	\$32.55	14	14	46	40	30	13	43g
3479	GLA14-80	1-325-15-00-1	\$33.60	14	14	46	80	30	13	51g
3480	GLA14-120	1-325-18-00-1	\$34.65	14	14	46	120	30	13	60g
3126	GLA20-50	1-325-21-00-1	\$39.38	20	20	60.5	50	41.5	16.5	95g
3127	GLA20-100	1-325-24-00-1	\$40.95	20	20	60.5	100	41.5	16.5	107g
3128	GLA20-150	1-325-27-00-1	\$42.00	20	20	60.5	150	41.5	16.5	127g
3129	GLA20/30-50	1-325-30-00-1	\$45.68	30	20	75.5	50	48.5	16.5	152g
3130	GLA20/30-100	1-325-33-00-1	\$46.73	30	20	75.5	100	48.5	16.5	163g
3131	GLA20/30-150	1-325-36-00-1	\$47.78	30	20	75.5	150	48.5	16.5	181g
3700	GLA30/30-80	1-325-39-00-1	\$45.68	30	30	84.5	80	59.5	21.5	245g
3701	GLA30/30-140	1-325-42-00-1	\$46.73	30	30	84.5	140	59.5	21.5	290g
3702	GLA30/30-200	1-325-45-00-1	\$47.78	30	30	84.5	200	59.5	21.5	355g

Application Examples



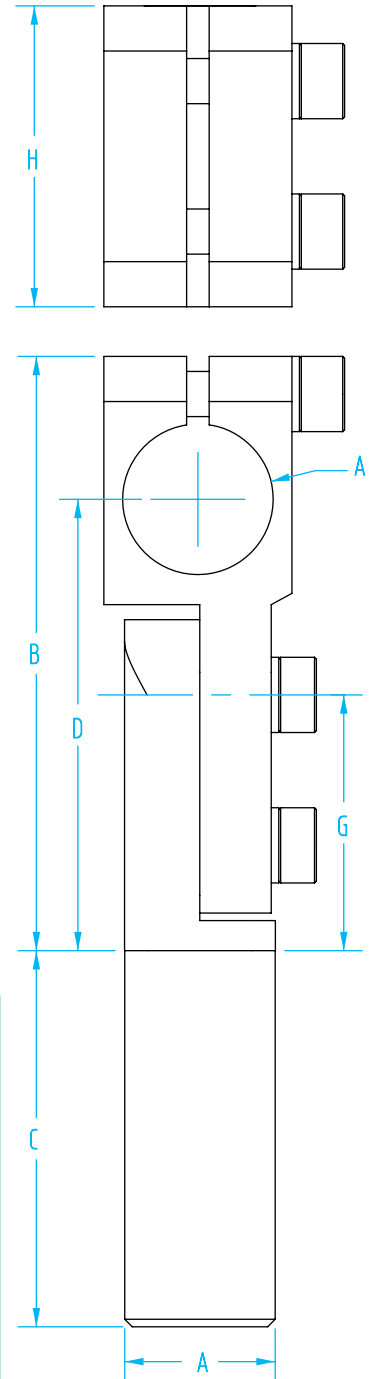
Heavy-Duty Elbow Arm



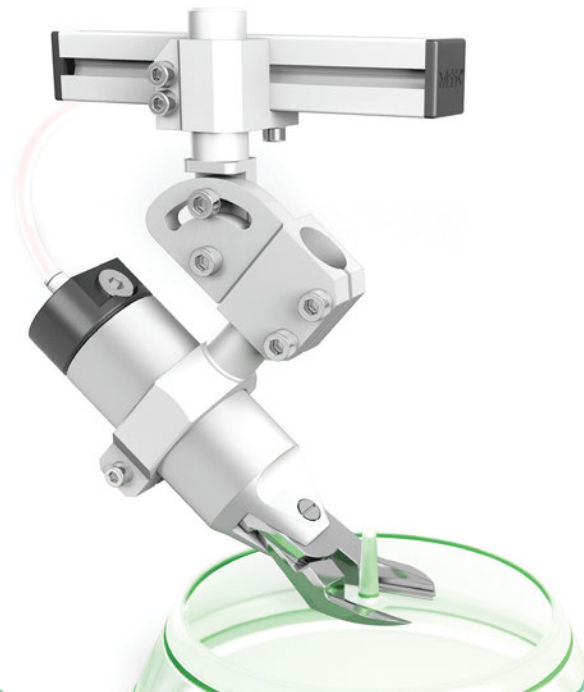
#3590

Heavy-Duty Elbow Arm

Quick#	Part#	>ASS< #	Price	ØA	B	C	D	G	H	Wt.
3584	GLA-V-10-10-30	1-325-53-00	\$48.30	10	44	30	32	19	20	25g
3585	GLA-V-10-10-60	1-325-56-00	\$50.40	10	44	60	32	19	20	28g
3586	GLA-V-10-10-90	1-325-59-00	\$51.45	10	44	90	32	19	20	32g
3587	GLA-V-14-14-40	1-325-62-00	\$52.50	14	59	40	43	25	28	67g
3588	GLA-V-14-14-80	1-325-65-00	\$53.55	14	59	80	43	25	28	76g
3589	GLA-V-14-14-120	1-325-68-00	\$54.60	14	59	120	43	25	28	84g
3590	GLA-V-20-20-50	1-325-71-00	\$56.70	20	79	50	60	35	40	128g
3591	GLA-V-20-20-100	1-325-74-00	\$57.75	20	79	100	60	35	40	144g
3592	GLA-V-20-20-150	1-325-77-00	\$58.80	20	79	150	60	35	40	160g
3593	GLA-V-30-30-80	1-325-89-00	\$85.05	30	110	80	85	50	60	419g
3594	GLA-V-30-30-140	1-325-92-00	\$86.10	30	110	140	85	50	60	462g
3595	GLA-V-30-30-200	1-325-95-00	\$87.15	30	110	200	85	50	60	505g



Application Example

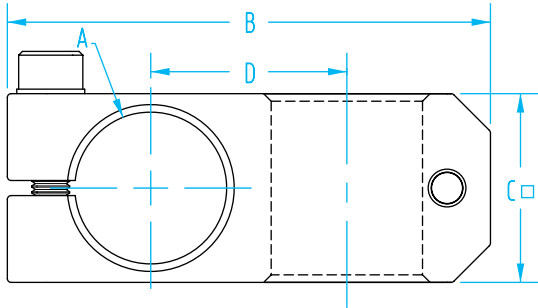


NEW Mirrored Version

Available now in the same sizes that are listed above on EMI's website, [click here for more information.](#)



Round to Round Clamps



Cross Clamp

Quick#	Part#	>ASS< #	Price	A	B	C	D	Wt.
3458	KKS10L	1-115-40-00	\$15.75	10	38	14	14	24g
3459	KKS14X	1-115-45-00	\$16.28	14	50	20	18	43g
3460	KKS20X	1-115-50-00	\$17.85	20	64	25	26	66g

Cross Clamp, Mirrored Version

NEW

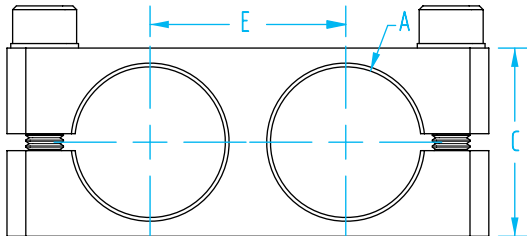
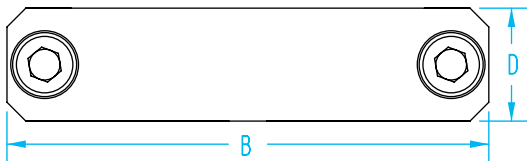
Quick#	Part#	>ASS< #	Price	Ø Clamp	Wt.
3353	KKS-M-20-20-26	1-115-51-00	\$17.85	20	66g



#3460



#3353, mirrored version

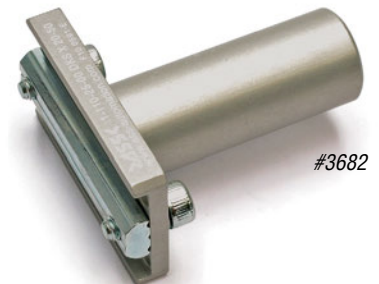
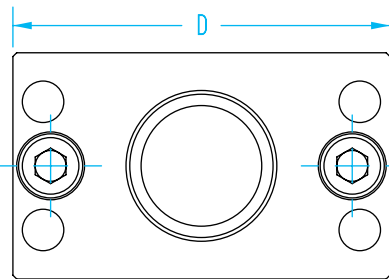
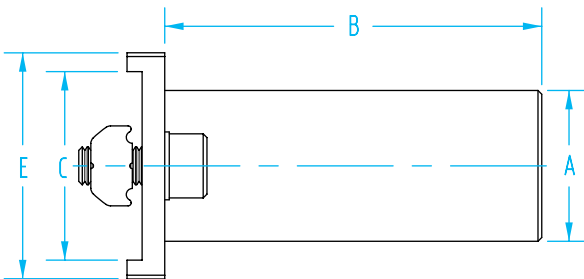


#3463

Parallel Clamp

Quick#	Part#	>ASS< #	Price	A	B	C	D	E	Wt.
3461	PKS10	1-115-60-00	\$14.18	10	38	15	8	15	15g
3462	PKS14	1-115-65-00	\$15.23	14	52	20	12	20	29g
3463	PKS20	1-115-70-00	\$16.28	20	64	25	15	26	43g
3684	PKS-30-30-38	1-115-75-00	\$28.35	30	88	35	20	38	83g

Profile Mounting Post

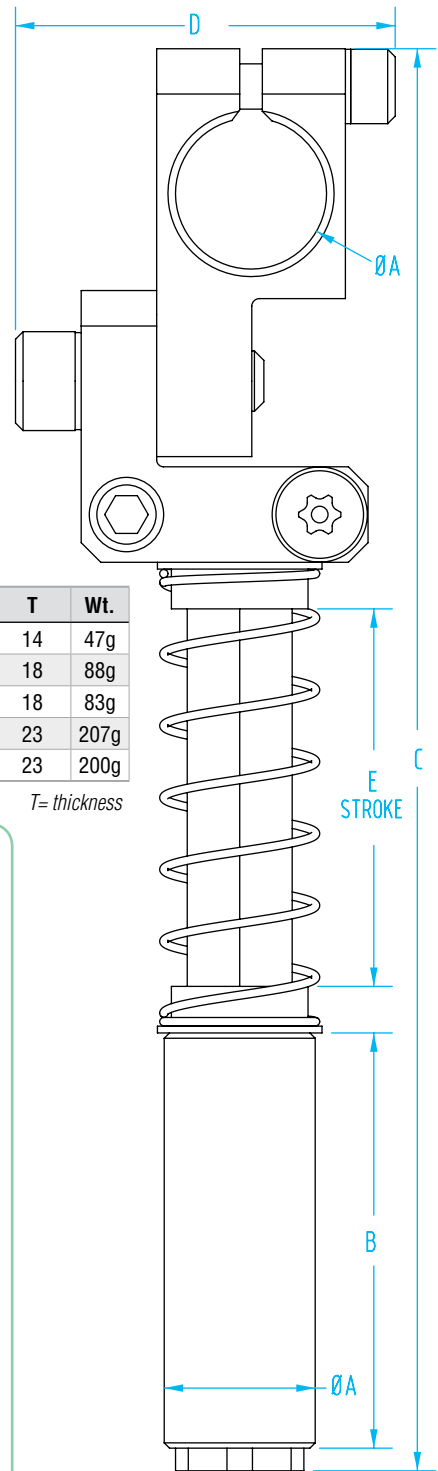


#3682

Profile Mounting Post

Quick#	Part#	>ASS< #	Price	A	B	C	D	E	Wt.	Use with:
3464	DKS10L	1-110-10-00	\$19.95	10	60	18	30	20	27g	L
3465	DKS14X	1-110-20-00	\$24.15	14	80	25	40	30	51g	X
3682	DKS-X-20-50	1-110-25-00	\$21.00	20	50	25	50	30	62g	X
3466	DKS20X	1-110-30-00	\$26.25	20	100	25	50	30	77g	X

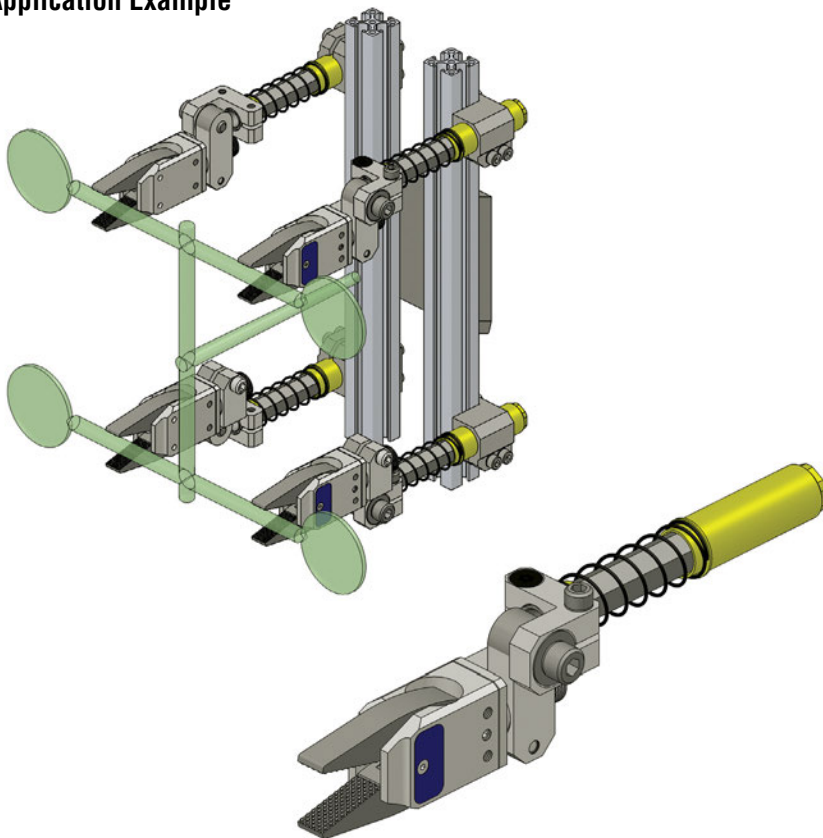
Spring-Loaded Elbow Arm



Non-Rotating Spring-Loaded Elbow Arm

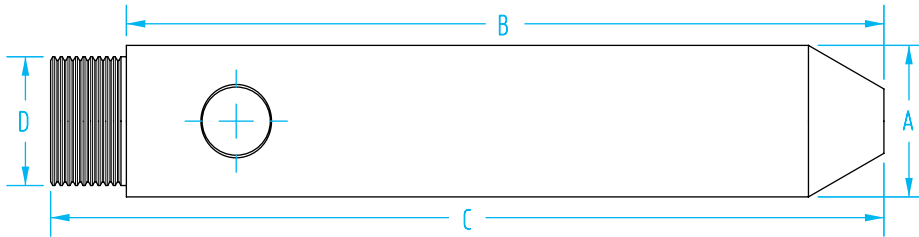
Quick#	Part#	>ASS< #	Price	A	B	C	D	E	T	Wt.
3735	GGs-W-10-10-10	1-362-03-00	\$41.48	10	25	87	24	10	14	47g
3736	GGs-W-14-14-15	1-362-09-00	\$60.90	14	32	114	33	14	18	88g
3738	GGs-W-14-14-40	1-362-15-00	\$68.25	14	32	139	33	40	18	83g
3737	GGs-W-20-20-20	1-362-21-00	\$72.45	20	55	160	41	20	23	207g
3697	GGs-W-20-20-50	1-362-27-00	\$76.65	20	55	190	41	50	23	200g

Application Example



Centering Pin and Extension

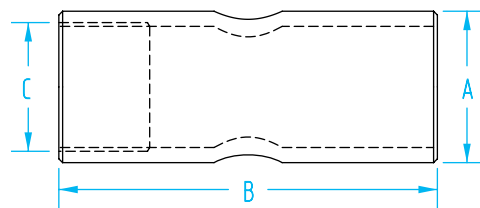
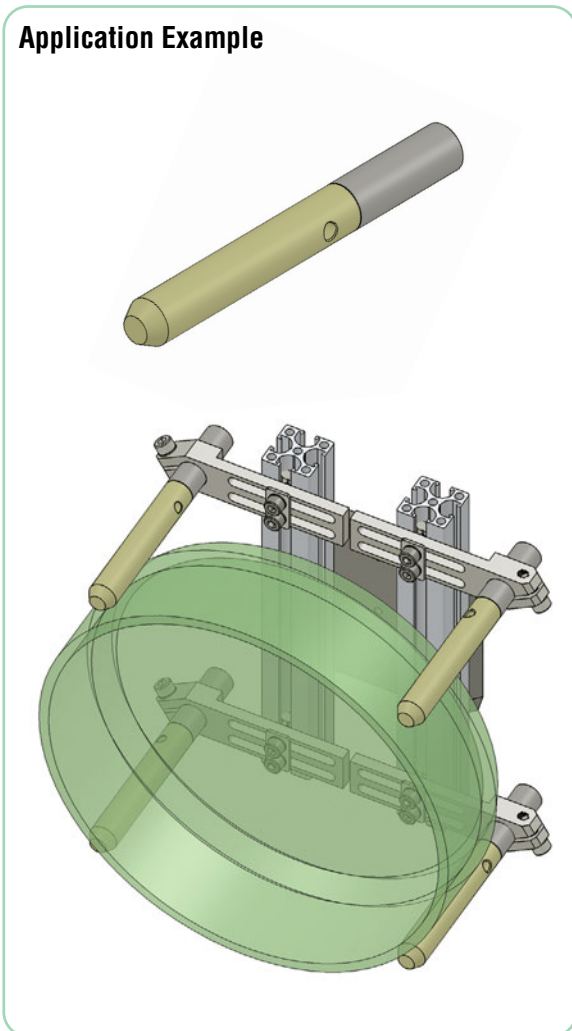
- Finger stops found on pages 526–528 can be used with centering pins to help position a part.



Centering Pin

Quick#	Part#	>ASS< #	Price	A	B	C	D	Wt.
3532	ZTB10	1-790-20-00	\$22.05	10	60	68	M8x1	7g
3561	ZTB14	1-790-23-00	\$22.05	14	80	88	M12x1	18g
3382	ZTB20	1-790-29-00	\$22.05	20	100	110	M17x1	36g
3383	ZTB30	1-790-35-00	\$26.25	30	100	110	M27x1	82g

Application Example



Extension Tube

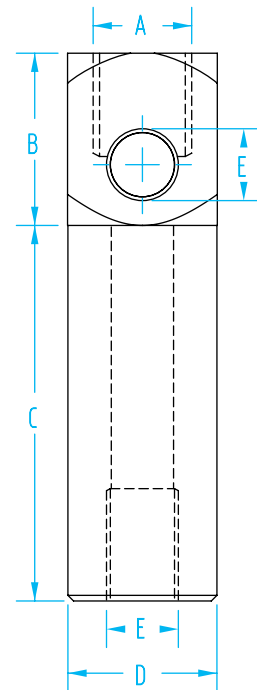
Quick#	Part#	>ASS< #	Price	A	B	C	Wt.
3562	VLR10-30	1-735-03-00	\$8.40	10	30	M8x1	3g
3563	VLR10-60	1-735-06-00	\$8.40	10	60	M8x1	7g
3531	VLR10-90	1-735-09-00	\$8.40	10	90	M8x1	11g
3384	VLR14-40	1-735-12-00	\$8.40	14	40	M12x1	6g
3385	VLR14-80	1-735-15-00	\$10.50	14	80	M12x1	14g
3386	VLR14-120	1-735-18-00	\$10.50	14	120	M12x1	23g
3387	VLR20-50	1-735-21-00	\$10.50	20	50	M17x1	15g
3388	VLR20-100	1-735-24-00	\$10.50	20	100	M17x1	29g
3389	VLR20-150	1-735-27-00	\$11.55	20	150	M17x1	44g
3390	VLR30-80	1-735-30-00	\$13.13	30	80	M27x1	51g
3391	VLR30-140	1-735-33-00	\$13.65	30	140	M27x1	88g
3392	VLR30-200	1-735-36-00	\$14.70	30	200	M27x1	128g

Use Quick#s for easy online ordering.

Gripper Arm for Vacuum Cup



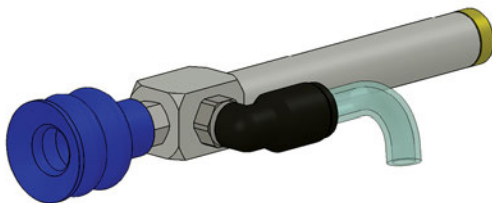
#3626



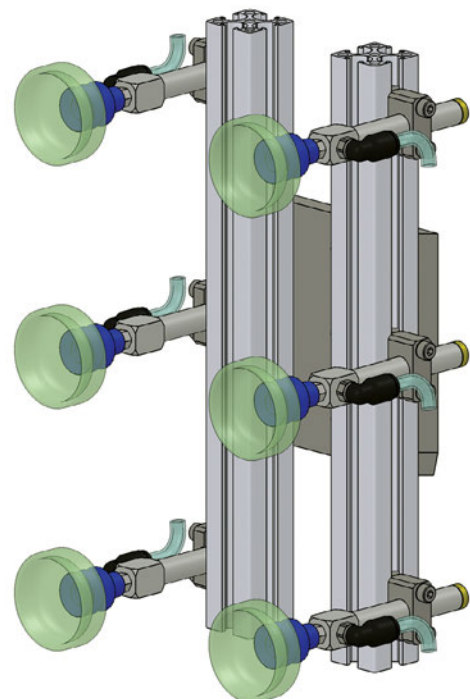
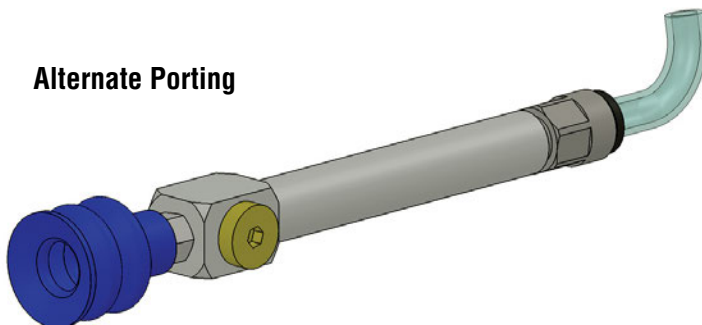
Gripper Arm for Vacuum Cup

Quick#	Part#	>ASS< #	Price	A	B	C	ØD	E	Wt.
3619	GSE-U-10-M5-M5-30	1-311-00-00	\$15.75	M5	16	30	10	M5	7g
3620	GSE-U-10-M5-M5-60	1-311-01-00	\$16.28	M5	16	60	10	M5	11g
3605	GSE-U-10-M5-M5-90	1-311-02-00	\$16.80	M5	16	90	10	M5	14g
3621	GSE-U-10-1/8-M5-30	1-311-03-00	\$17.33	G1/8"	16	30	10	M5	8g
3622	GSE-U-10-1/8-M5-60	1-311-04-00	\$17.85	G1/8"	16	60	10	M5	12g
3623	GSE-U-10-1/8-M5-90	1-311-05-00	\$18.90	G1/8"	16	90	10	M5	15g
3624	GSE-U-14-1/8-1/8-40	1-311-06-00	\$25.73	G1/8"	22	40	14	G1/8"	20g
3625	GSE-U-14-1/8-1/8-80	1-311-07-00	\$26.78	G1/8"	22	80	14	G1/8"	28g
3598	GSE-U-14-1/8-1/8-120	1-311-08-00	\$27.83	G1/8"	22	120	14	G1/8"	37g
3626	GSE-U-20-1/4-1/8-50	1-311-09-00	\$27.30	G1/4"	23	50	20	G1/8"	37g
3627	GSE-U-20-1/4-1/8-100	1-311-10-00	\$29.40	G1/4"	23	100	20	G1/8"	52g
3628	GSE-U-20-1/4-1/8-150	1-311-11-00	\$30.98	G1/4"	23	150	20	G1/8"	68g

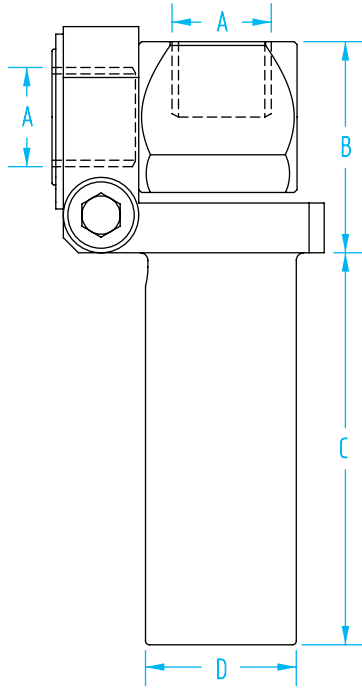
Application Examples



Alternate Porting



Elbow Arm for Vacuum Cup



Elbow Gripper Arm for Vacuum Cup

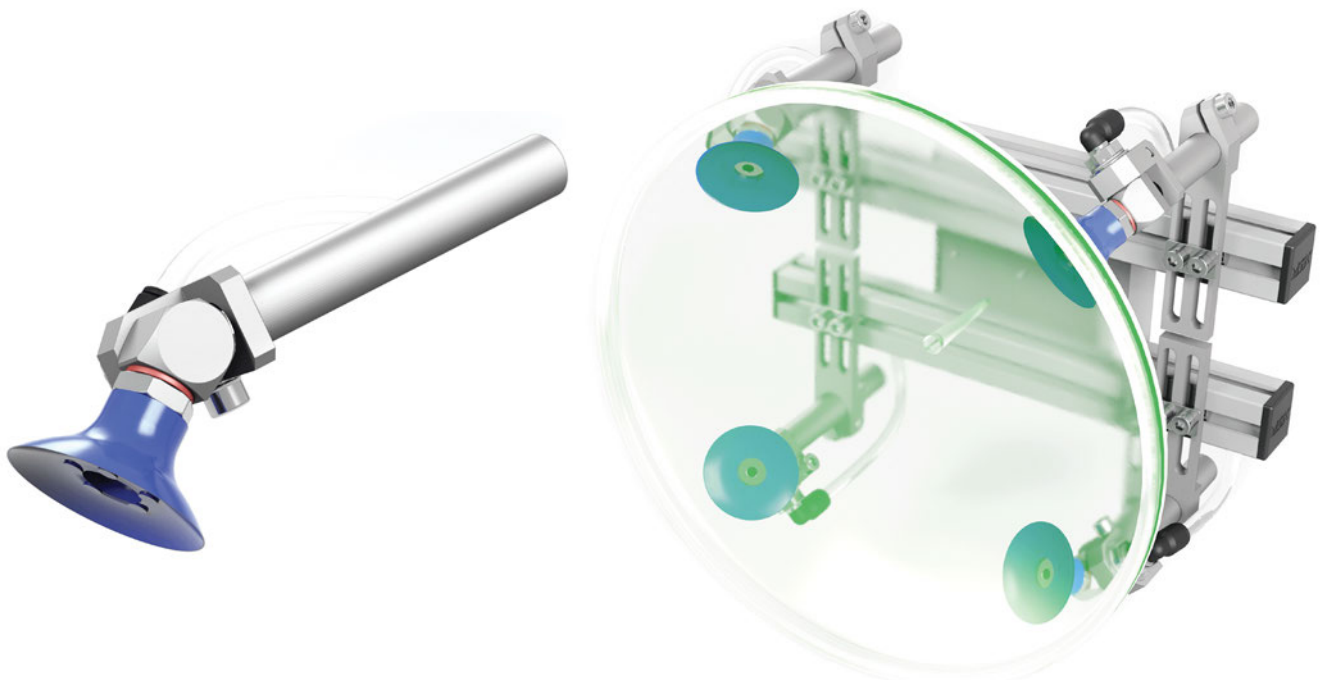
Quick#	Part#	>ASS< #	Price	A	B	C	ØD	Wt.
3147	GGE10-30	1-315-03-00	\$23.10	M5	15	30	10	15g
3148	GGE10-60	1-315-06-00	\$24.15	M5	15	60	10	18g
3149	GGE10-90	1-315-09-00	\$25.20	M5	15	90	10	21g
3150	GGE14-40	1-315-21-00	\$32.55	G1/8"	20	40	14	33g
3151	GGE14-80	1-315-24-00	\$33.60	G1/8"	20	80	14	40g
3152	GGE14-120	1-315-27-00	\$34.65	G1/8"	20	120	14	49g
3153	GGE20-50	1-315-39-00	\$34.13	G1/4"	25	50	20	59g
3154	GGE20-100	1-315-42-00	\$35.18	G1/4"	25	100	20	74g
3155	GGE20-150	1-315-45-00	\$36.75	G1/4"	25	150	20	89g



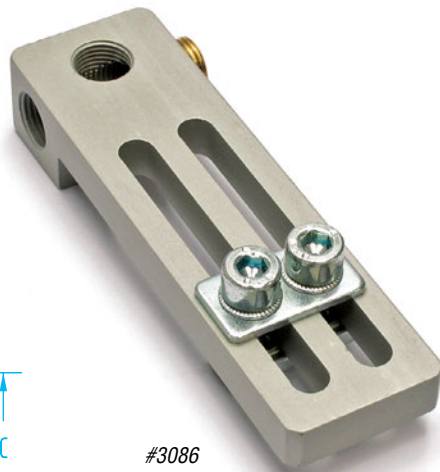
Elbow Gripper Arm with Fine Adjustment for Vacuum Cup

Quick#	Part#	>ASS< #	Price	Vacuum Port	Air Port	Length	Ø Shaft	Wt.
3949	GG020 50	1-314-39-00	\$43.05	G1/4"	G1/8"	50	20	80g
3369	GG0-20-1/4-1/8-100	1-314-42-00	\$36.40	G1/4"	G1/8"	100	20	95g
3370	GG0-20-1/4-1/8-150	1-314-45-00	\$37.59	G1/4"	G1/8"	150	20	111g

Application Examples



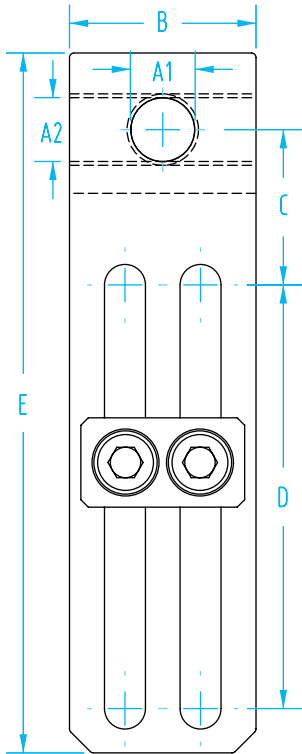
Vacuum Cup Connectors



Long Angle Connector with Swivel Head

Quick#	Part#	Price	Wt.
3160	WLS-GA-X-1/4-1/8-50	\$45.15	80g

See www.EMlcorp.com for more information.



#3086

Threaded Long Angle Connector

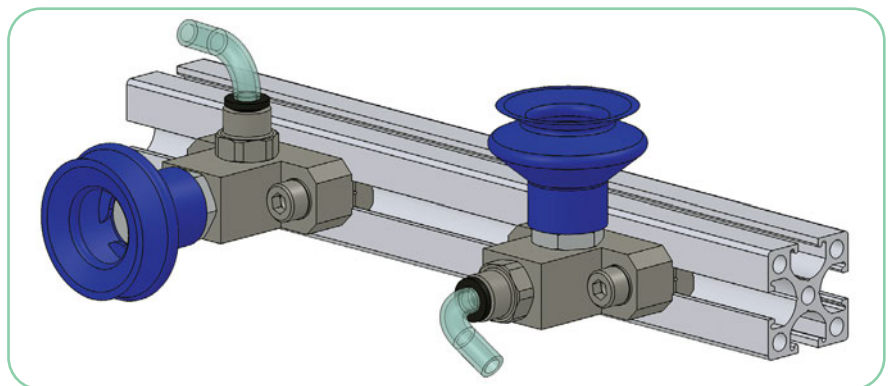
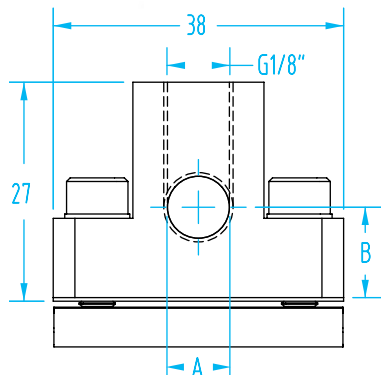
Quick#	Part#	>ASS< #	Price	A1	A2	B	C	D	E	Wt.
3085	WLSM5L/X	1-200-30-00	\$13.65	M5	M5	16	14	40	65	21g
3086	WLS1/8X	1-200-35-00	\$19.43	G1/8"	G1/8"	25	22	50	88	56g
3087	WLS1/4X	1-200-40-00	\$19.43	G1/4"	G1/8"	25	22	57	94	57g
3088	WLS1/4J	1-200-47-00	\$20.48	G1/4"	G1/8"	30	30	60	110	82g

Use Quick#s for easy online ordering.

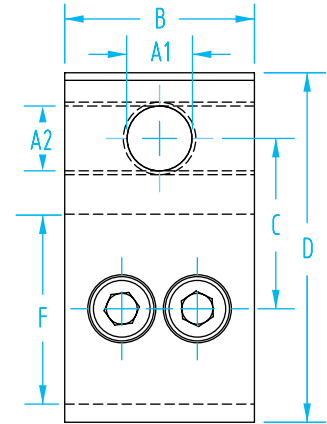
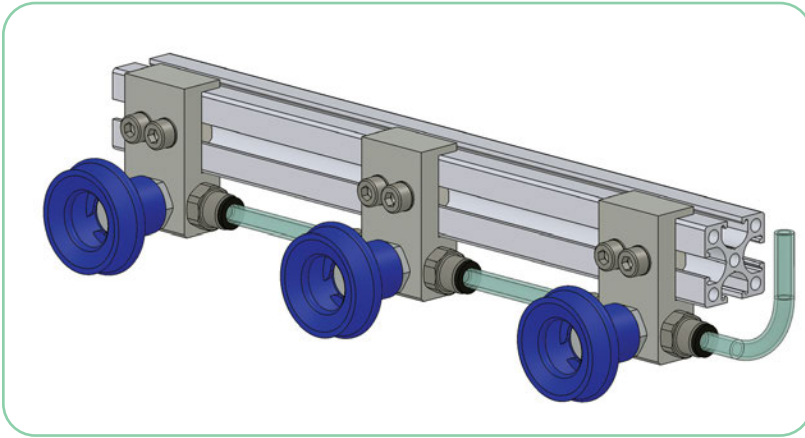


Vacuum Cup Connector

Quick#	Part#	>ASS< #	Price	A	B	Wt.
3079	SAS1/8X	1-200-70-00	\$11.55	G1/8"	12	41g
3080	SAS1/4X	1-200-75-00	\$11.55	G1/4"	10	43g



Vacuum Cup Connectors



Threaded Angle Connector

Quick#	Part#	>ASS< #	Price	A1	A2	B	C	D	F	Wt.
3081	WSSM5L	1-200-05-00	\$12.60	M5	M5	16	13.5	30	18	17g
3082	WSS1/8X	1-200-10-00	\$15.75	G1/8"	G1/8"	25	22	45	25	42g
3083	WSS1/4X	1-200-15-00	\$16.80	G1/4"	G1/8"	25	22	45	25	40g
3084	WSS1/4J	1-200-22-00	\$20.48	G1/4"	G1/8"	30	30	63	40	83g

Use with profile size \uparrow

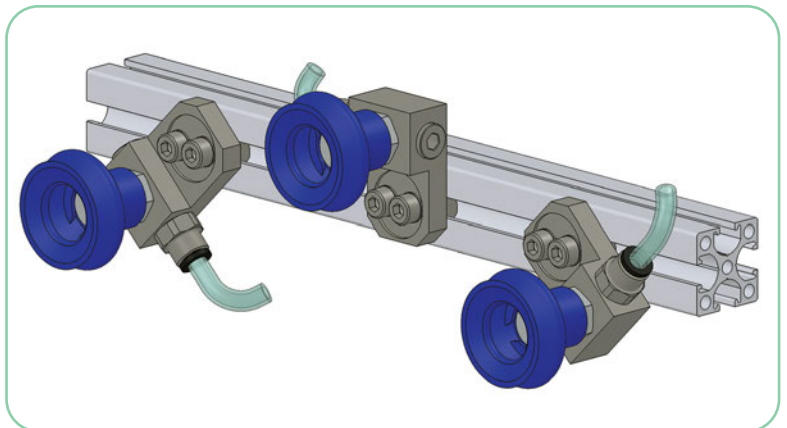
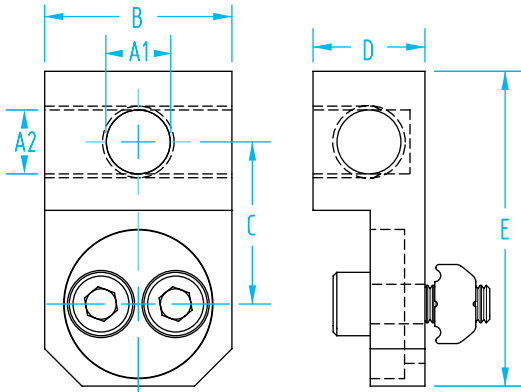
#3082



Adjustable Angle Connector 360°

Quick#	Part#	>ASS< #	Price	A1	A2	B	C	D	E	Wt.
3089	WSDM5L/X	1-200-55-00	\$15.23	M5	M5	16	13	16	26	18g
3090	WSD1/8X	1-200-60-00	\$19.95	G1/8"	G1/8"	25	22	25	41	38g
3091	WSD1/4X	1-200-65-00	\$19.95	G1/4"	G1/8"	25	22	25	41	39g

#3090



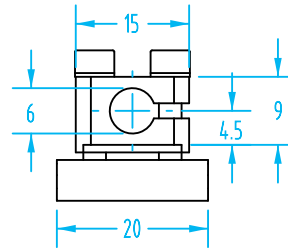
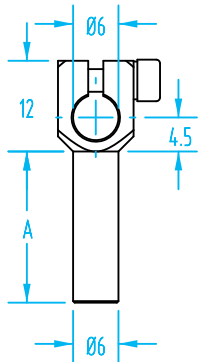
Micro Series Framing – Ø6mm

NEW

(Dimensioned drawings shown full scale)



#3787

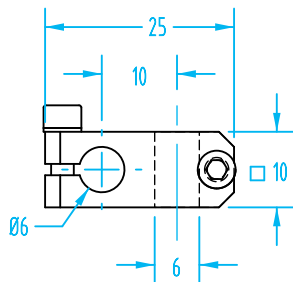


Micro Series Angle Arm

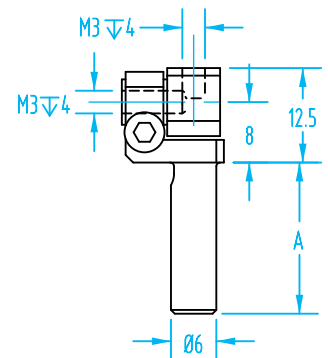
Quick#	Part#	>ASS< #	Price	A	Wt.
3787	WKA6-20	1-320-63-00	\$13.13	20	3g
3788	WKA6-40	1-320-66-00	\$13.65	40	4g
3789	WKA6-60	1-320-69-00	\$14.70	60	6g

Micro Series Cross Connector

Quick#	Part#	>ASS< #	Price	Wt.
3780	KVB6L	1-115-01-00	\$8.93	11g



#3795



Micro Series Round Cross Connector

Quick#	Part#	>ASS< #	Price	Wt.
3779	KKS6L	1-115-39-00	\$12.08	6g

Micro Series Swivel Gripper Arm

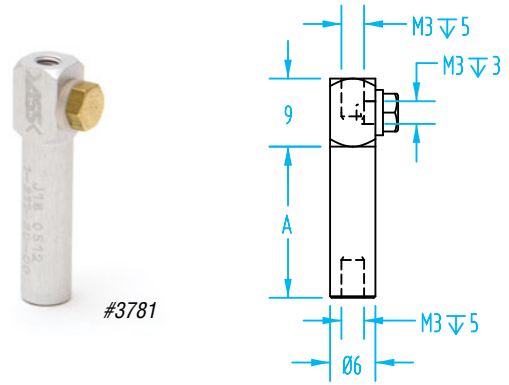
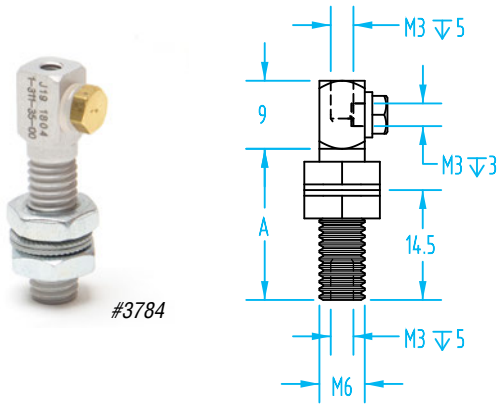
Quick#	Part#	>ASS< #	Price	A	Wt.
3795	GGE6-20	1-315-00-00	\$18.90	20	4g
3796	GGE6-40	1-315-01-00	\$19.95	40	6g
3797	GGE6-60	1-315-02-00	\$21.00	60	8g

- See page 281 for M6 and Ø6mm Suspensions.
- See pages 412–416 for Mini Vacuum Cups and M3 Fittings.
- See page 490 for New Micro Series (Nano) Sprue Grippers.

Micro Series Framing – Ø6mm

NEW

(Dimensioned drawings shown full scale)

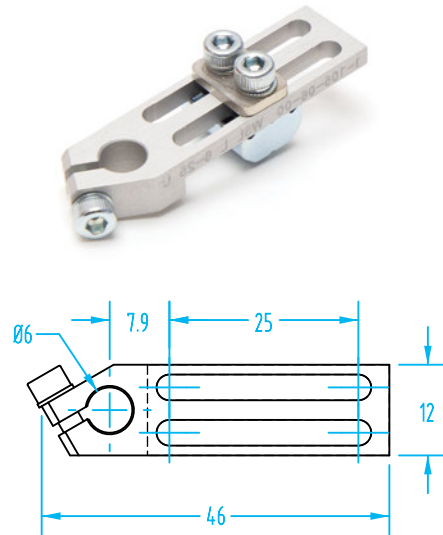
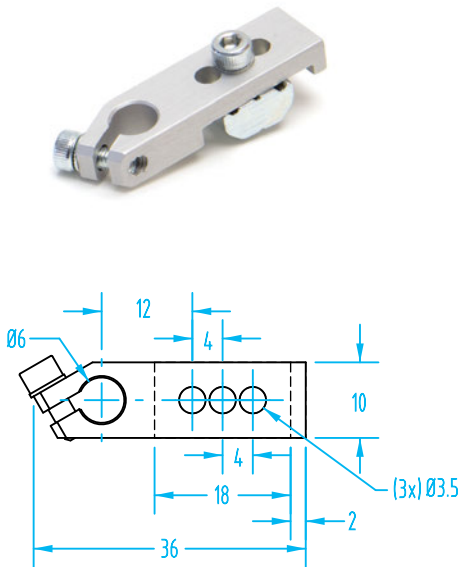


Threaded Micro Series Gripper Arm

Quick#	Part#	>ASS< #	Price	A	Wt.
3784	GSE-U-6-M6-M3-20	1-311-35-00	\$12.60	20	5g
3785	GSE-U-6-M6-M3-40	1-311-36-00	\$13.13	40	6g
3786	GSE-U-6-M6-M3-60	1-311-37-00	\$13.65	60	7g

Clampable Micro Series Gripper Arm

Quick#	Part#	>ASS< #	Price	A	Wt.
3781	GSE-U-6-M3-M3-20	1-311-30-00	\$12.60	20	3g
3782	GSE-U-6-M3-M3-40	1-311-31-00	\$13.13	40	4g
3783	GSE-U-6-M3-M3-60	1-311-32-00	\$13.65	60	6g



Micro Series Angle Clamp

Quick#	Part#	>ASS< #	Price	Wt.
3778	WST6L	1-103-01-00	\$9.98	7g

Micro Series Long Angle Clamp

Quick#	Part#	>ASS< #	Price	Wt.
3798	WSL6L	1-105-06-00	\$13.65	11g

Blue Scale Series – Angle Clamp

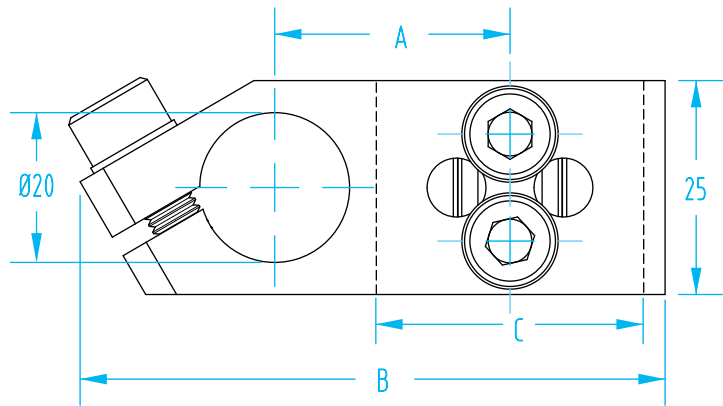
NEW



#3883



#3884

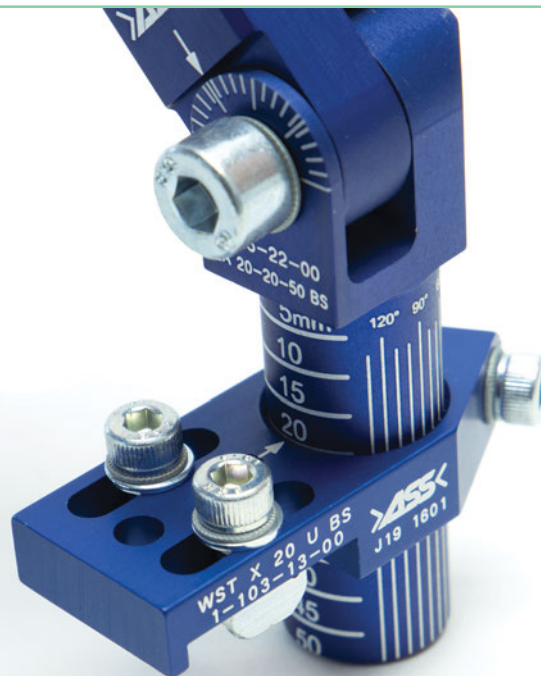


The blue scale system was developed for providing verifiable positions for tooling, fixture and sensor applications. The elbow and mounting arms are pre-drilled for set screws locking their position.

Angle Clamp – Blue Scale

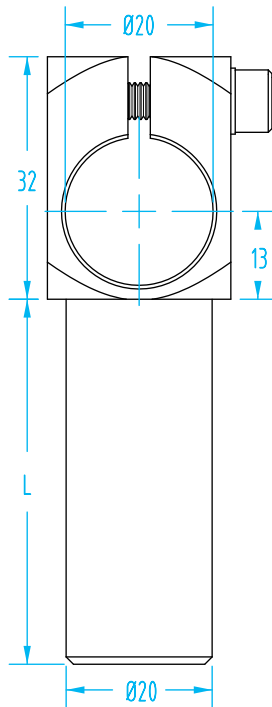
Quick#	Part#	>ASS< #	Price	Use with Profile	A	B	C	T	Wt.
3883	WST20X-BS	1-103-13-00	\$23.10	X	22.5-37.5	63	25	6	46g
3884	WST20J-BS	1-103-19-00	\$27.30	J	27-47	77	40	7.5	62g

T = thickness



Blue Scale Series – Angle Arm

NEW



Angle Arm – Blue Scale

Quick#	Part#	>ASS< #	Price	L (Post Length)	Wt.
3880	WKA20-50-BS	1-320-22-00	\$42.00	50mm	46g
3881	WKA20-100-BS	1-320-25-00	\$43.58	100mm	63g
3882	WKA20-150-BS	1-320-28-00	\$44.63	150mm	79g

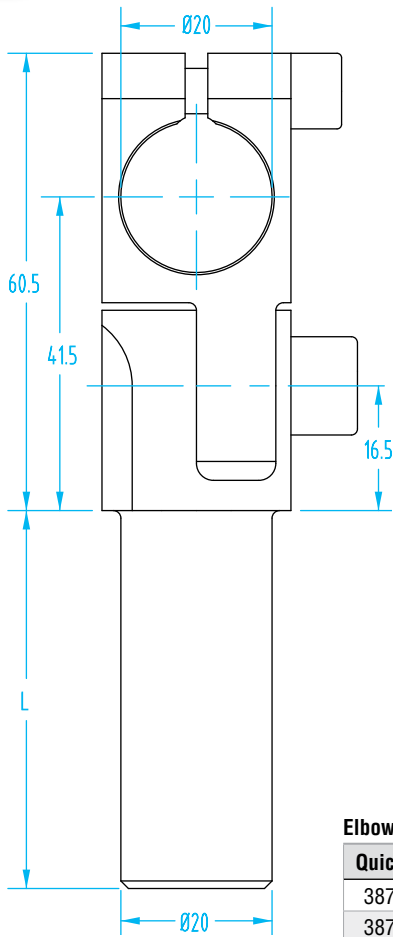
Use Quick#s for easy online ordering.

The blue scale system was developed for providing verifiable positions for tooling, fixture and sensor applications. The elbow and mounting arms are pre-drilled for set screws locking their position.



Blue Scale Series – Elbow Arm

NEW

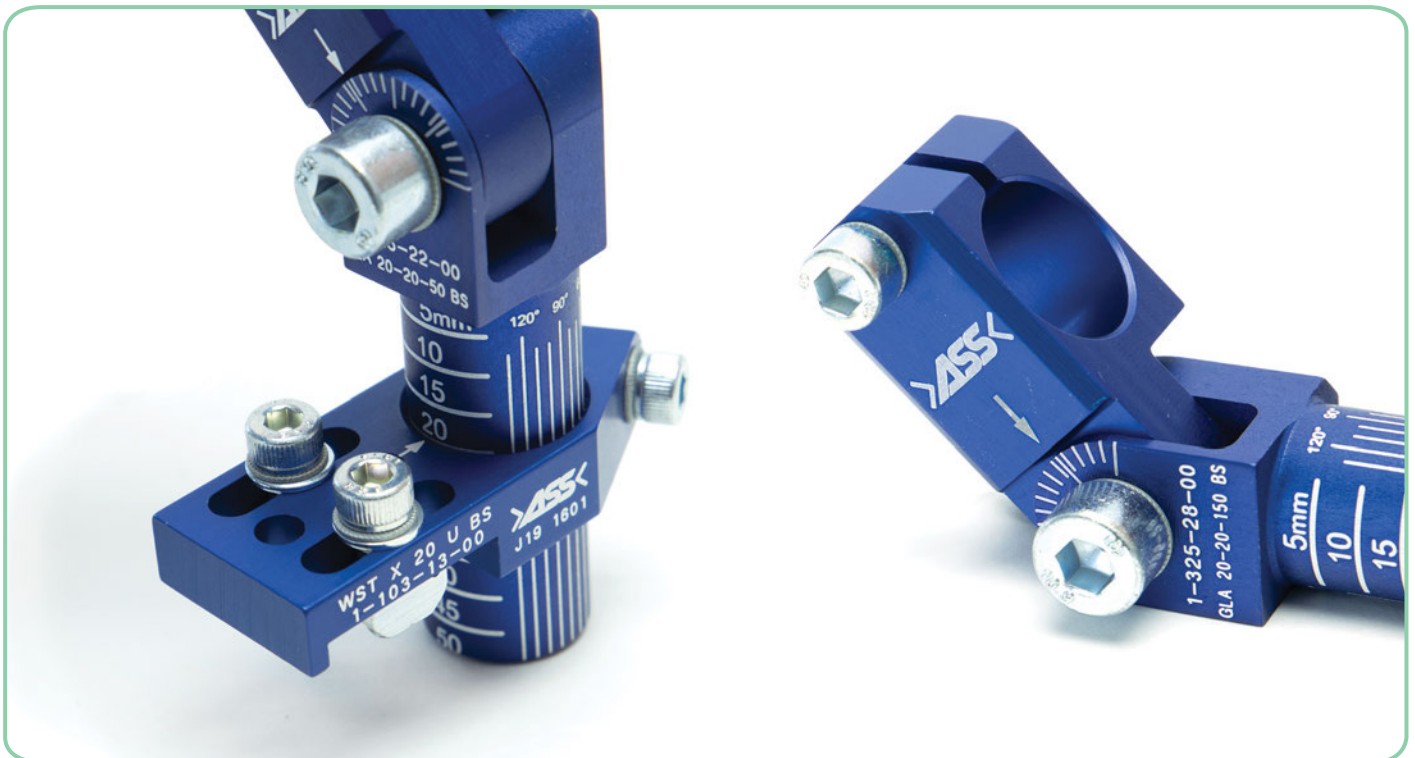


#3875

The blue scale system was developed for providing verifiable positions for tooling, fixture and sensor applications. The elbow and mounting arms are pre-drilled for set screws locking their position.

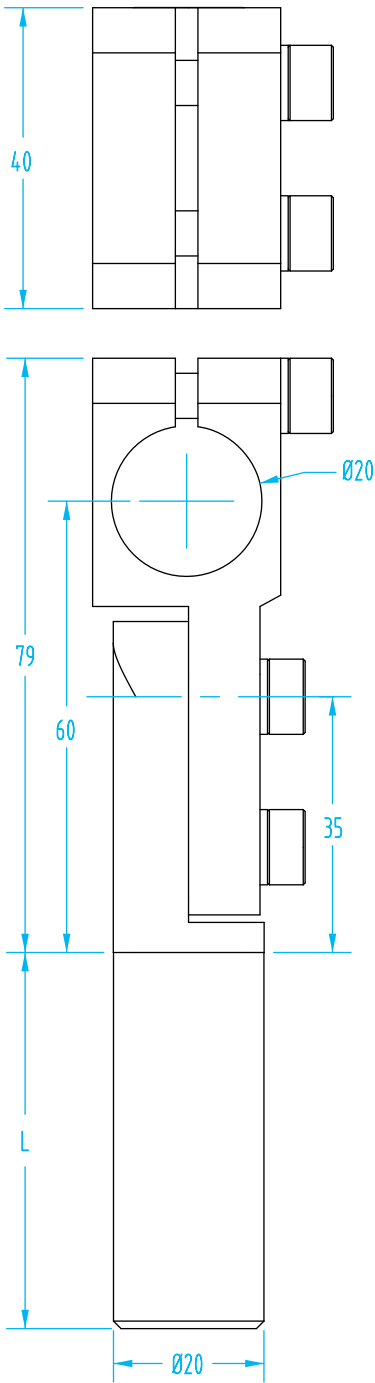
Elbow Arm – Blue Scale

Quick#	Part#	>ASS< #	Price	L (Post Length)	Wt.
3874	GLA20-50-BS	1-325-22-00	\$52.50	50mm	93g
3875	GLA20-100-BS	1-325-25-00	\$54.08	100mm	108g
3876	GLA20-150-BS	1-325-28-00	\$55.13	150mm	129g



Blue Scale Series – Heavy-Duty Elbow Arm

NEW



#3878

The blue scale system was developed for providing verifiable positions for tooling, fixture and sensor applications. The elbow and mounting arms are pre-drilled for set screws locking their position.

Heavy-Duty Elbow Arm – Blue Scale

Quick#	Part#	>ASS< #	Price	L (Post length)	Wt.
3877	GLA-V-20-50-BS	1-325-72-00	\$64.05	50mm	153g
3878	GLA-V-20-100-BS	1-325-75-00	\$65.10	100mm	169g
3879	GLA-V-20-150-BS	1-325-78-00	\$65.63	150mm	191g

Use Quick#s for easy online ordering.

