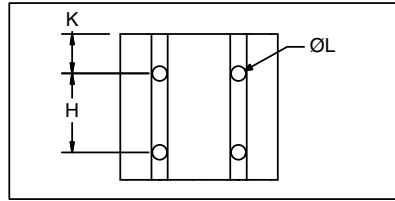
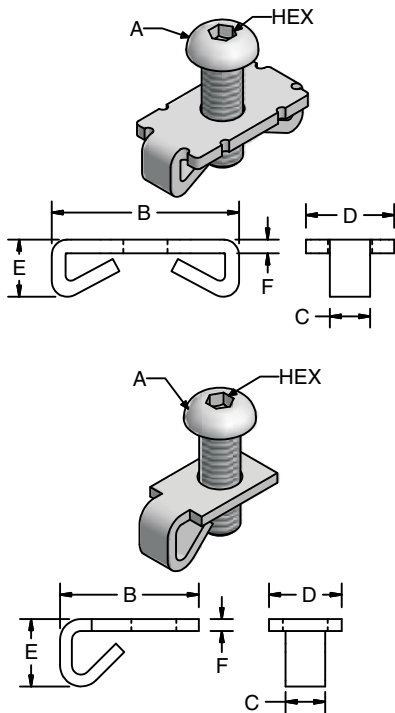
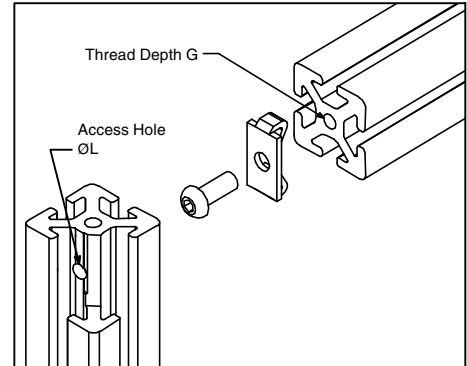


# Standard



Series	G	H*	K	L
40	16	40	20	7
30	16	30	15	7
28	16	28	14	7
20	10	20	10	4.3
1.5"	0.75"	1.5"	0.75"	0.281"
1"	0.625"	1"	0.5"	0.219"



\*All dimensions in mm unless otherwise noted.  
H dimension is required when using multiple T-slot profiles.

## Application

This is the primary fastening method used to join two pieces of profiles together.

The fastener couples with the taper in the T-Slots to create an extremely rigid joint. The tabs on the fastener align the profiles and provide anti-rotational support.

## Technical Data

- Plate
- Std - Steel, Zinc Plated
- SS - Stainless Steel
- SAE - Steel, Zinc Plated w/ SAE hardware

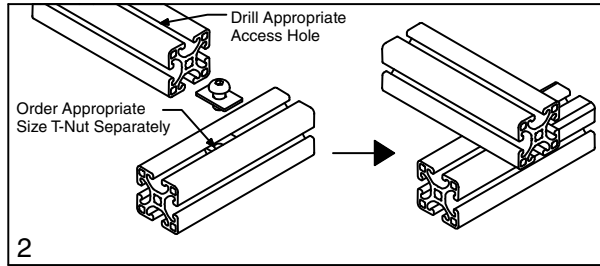
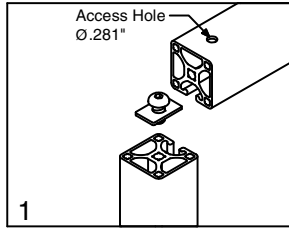
**Note:** You must use 20-028 Flat Standard Fastener or 20-144/25-014 Single Tab Standard Fastener set on closed face profiles.

## Ordering Information

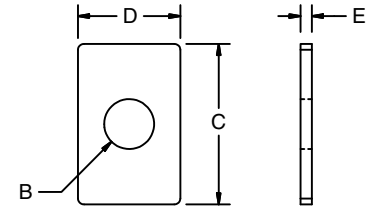
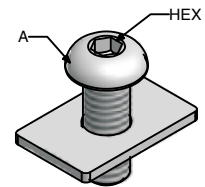
Profile Series	Type	Dimensions							Torque Nm (in-lb)	Weight (g)	Part #*
		A	Hex	B	C	D	E	F			
40	Std	M8x18*	5	36	7.8	17	11	2.9	25 (220)	25	20-002
	SS	M8x18*	5	36	7.8	17	11	2.9	20 (180)	21	20-002SS
	SAE	5/16-18 x 3/4"	3/16"	36	7.8	17	11	2.3	25 (220)	25	25-003
	SAE SS	5/16-18 x 3/4"	3/16"	36	7.8	17	11	2.3	25 (220)	25	25-003SS
	S End	5/16-18 x 3/4"	3/16"	27	7.6	14	13	2.3	25 (220)	21	25-014
	S End	M8x18	5	27	7.8	17	11	2.3	25 (220)	21	20-144
	Flat Std	M8x18	5	27	—	17	11	2	25 (220)	41	20-028
	SAE Flat	5/16-18 x 5/8"	3/16"	27	—	17	11	2	25 (220)	21	25-028
30/28	Std	M8x18	5	23.7	7.8	16	8.9	1.9	25 (220)	15	20-003
	SS	M8x18	5	23.7	7.8	16	8.9	1.9	20 (180)	14	20-003SS
	S End	M8x18	5	21	7.8	14	8.9	1.9	25 (220)	15	20-143
20	Std	M5x12	3	4.8	4.8	10	4.5	1.1	4.5 (40)	5	20-021
1.5"	Std	5/16-18 x 3/4"	3/16"	1.42"	0.307"	0.669"	0.433"	0.114"	25 (220)	25	25-003
	SS	5/16-18 x 3/4"	3/16"	1.42"	0.307"	0.669"	0.433"	0.114"	25 (220)	25	25-003SS
	S End	5/16-18 x 3/4"	3/16"	1.05"	0.300"	0.550"	0.510"	0.090"	25 (220)	21	25-014
	Flat	5/16-18 x 3/4"	3/16"	1.30"	0.307"	0.669"	0.433"	0.090"	25 (220)	21	25-028
1"	Std	1/4-20 x 5/8"	5/32"	0.795	0.250	0.520	0.300	0.060	20 (180)	13	25-022

\*Fastening plates may be ordered without a screw by adding "Z1" to part number, i.e. 20-002Z1.





## Flat Plate



20-028  
25-028

### Application

This fastening set is suitable for connecting two profiles at 90° when a standard fastener cannot be used. It can also be used to connect two profiles where no end hole is available (see detail 2).

### Technical Data

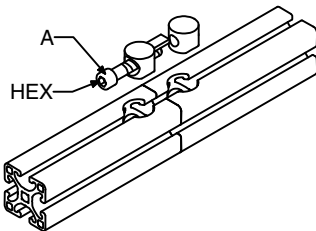
Plate: Steel, Zinc Plated

### Ordering Information

Profile Series	A	HEX	B	C	D	E	Torque Nm (in-lb)	Wgt.	Part #
40	M8 x 18	5	8	27	17.5	2	25 (220)	13 g	20-028
1.5"	5/16-18 x 5/8"	3/16"	0.31"	1.06"	0.677"	0.075"	25 (220)	13 g	25-028

#### For 28 Series order:

Flat Plate Only **20-028Z1**  
M8x10 BHCS Screw **24-110-8**



\* All fastener dimensions and servicing dimensions for butt-fasteners are the same as the corresponding universal fastener.

## Butt-Fastening

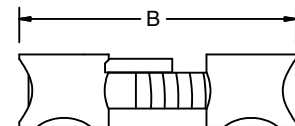
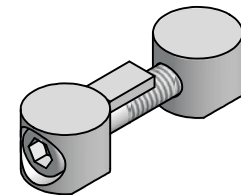
### Application

For joining profiles end to end. Fastening dimensions and servicing are the same as corresponding universal fasteners.

For 40 Series pneumatic applications use M6 fastener (20-012). See page 178.

### Technical Data

Plate: Zinc Cast, galvanized  
Requires service part #19-015.

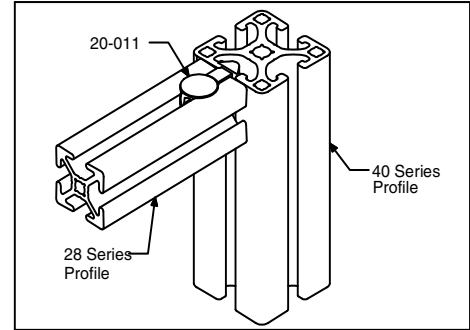
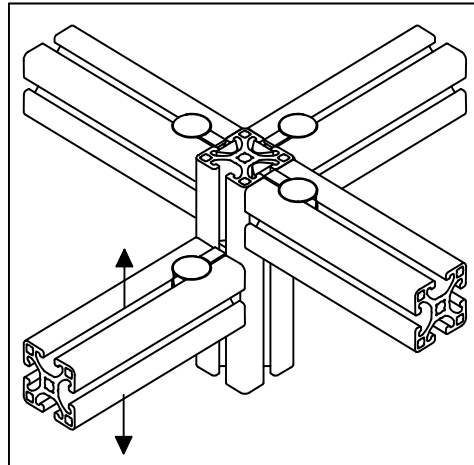
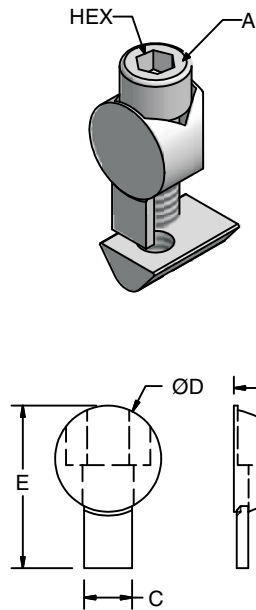


20-006  
20-012  
25-016  
25-017

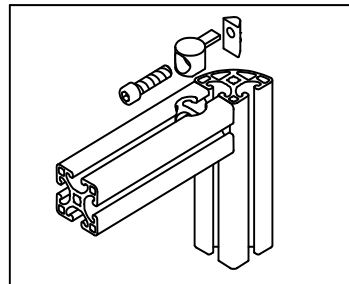
### Ordering Information

Profile Series	Dimensions (mm)			Torque, Nm (lb-in)	Weight	Part #
	A	HEX	B			
40	M8 x 45	6	60	25 (220)	59 g	20-006
30 & 28	M6 x 50 & M6 Nut	5	60	14 (125)	45 g	20-012
1.5"	5/16-18 x 1 3/4"	3/16"	2.41"	25 (220)	59 g	25-016
1"	1/4-20 x 7/8"	5/32"	1.55"	13.5 (120)	40 g	25-017

# Universal



Series	F	G	H
40	20	20	16
30	20	20	11
28	20	20	11
1.5"	0.813"	0.813"	0.625"
1"	0.563"	0.500"	0.430"



## Application

For adjustable 90° profile connections. Ideal for retrofits and additions to existing frames.

Fastening set 20-011 is used to connect 28 Series to 40 Series profiles and for pneumatic applications. See page 178.

Fastening set 25-015 is used for connecting 1.5" Series to other parts without T-slots. (See page 108 for corner element examples.)

## Technical Data

Zinc Cast, galvanized

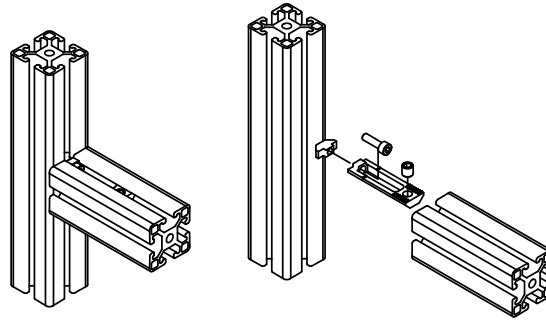
Includes screw and T-Nut

Requires service part #19-015.

## Ordering Information

Series	A (SHCS)	Hex	B	C	D	E	Torque Nm (in-lb)	Wt. (g)	Part #
40,	M8x30	6	16	8	20	33.8	25 (220)	41	20-004
1.5"	5/16-18 x 1 1/4"	3/16"	16	8	20	33.8	25 (220)	41	25-004
28	M6x27	5	11	8	20	31.3	14 (125)	30	20-005
28 to 40	M6x30	5	11	8	20	33.5	14 (125)	36	20-011
30	M6x27	5	11	8	20	31.3	14 (125)	31	20-008
1"	1/4-20 x 3/4"	5/32"	10.7	6.4	14	21.5	13 (120)	25	25-023
Universal Zinc Casting 40 (40 Series without T-Nut or Screw)									20-004Z1
Universal Zinc Casting 28 (28 Series without T-Nut or Screw)									20-005Z1

\* Fastening plates may be ordered without a screw by adding "Z1" to the part number, i.e. 20-004Z1



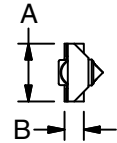
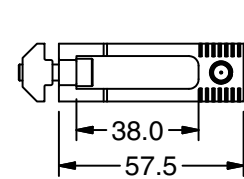
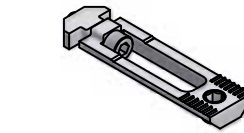
## Milling Connector

### Application

For adjustable 90° profile connections. Milling Connectors allow the connection of two profiles without additional machining.

### Technical Data

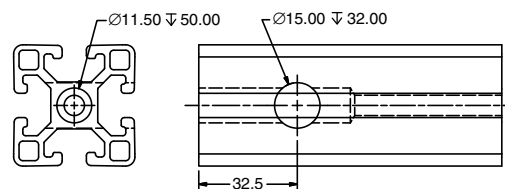
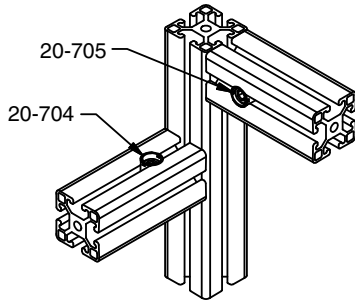
Plate: Steel, Zinc Plated  
Includes screw and T-nut.



### Ordering Information

Profile Series	A	B	Weight (g)	Part #
40, 1.5"	18	6.8	37.3	28-004
30	16	6.3	31.7	28-005

28-004  
28-005



## Central Connector

### Application

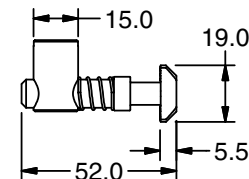
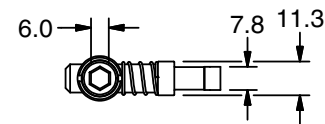
For adjustable 90° profile connections. Central Connectors allow the connection of two profiles. A step drill operation (19-015) is required to one of the profiles in addition to an end drill (19-014) to accommodate the barrel and tightening screw.

### Technical Data

Plate: Steel, Zinc Plated  
Requires services 19-014 and 19-015.  
See detail above.



20-704



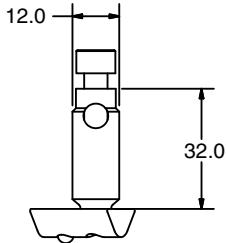
### Ordering Information

Description	Unit	Weight	Part #
Hammer Perpendicular to Barrel	Each	49 g	20-704
Hammer Parallel to Barrel	Each	49 g	20-705

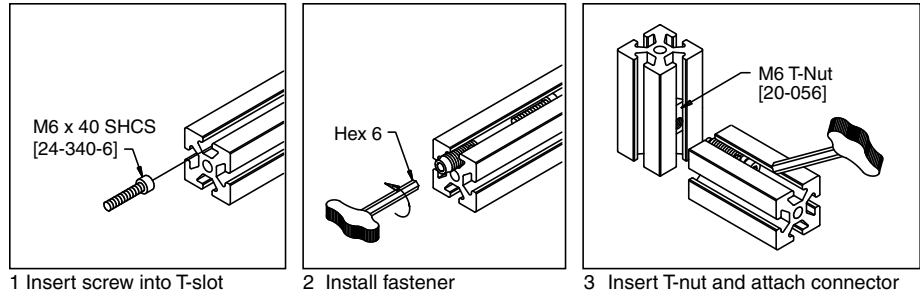


20-705

## Self Tapping Connector



20-019



### Application

For right angle attachment of 40 and 1.5" Series Profiles. No servicing is required making it ideal for retrofitting existing structures.

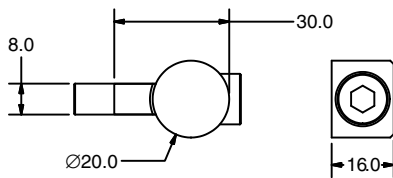
### Ordering Information

Description	Unit	Weight	Part #
Self Tapping Connector 40/1.5"	1 Set	34 g	20-019

### Technical Data

Steel  
Torque: 14 Nm (125 in-lb)  
Threads – Left Handed

## Profile to Wall Fastening Set



20-015

### Application

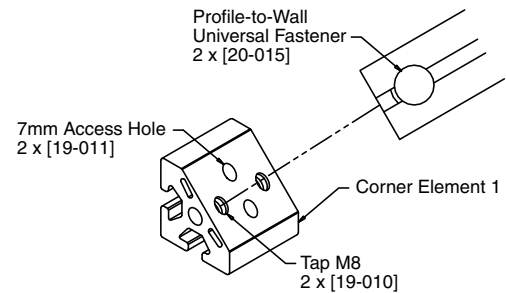
Designed for connecting 40 and 1.5" Series profiles to parts without T-Slots such as corner elements or reversing units.

### Technical Data

Plate: Steel, Zinc Plated  
Requires service part #19-015.

### Ordering Information

Profile Series	Dimensions						Torque Nm (in-lb)	Weight (g)	Part #
	A	HEX	B	C	D	E			
40	M8x30 SHCS	6	16	8	20	30	25 (220)	32	20-015
1.5"	5/16-18 x 1 1/4"	3/16"	0.630"	0.315"	0.787"	1.18"	20 (180)	32	25-015



Profile to wall casting without screw or washer **20-015Z1**