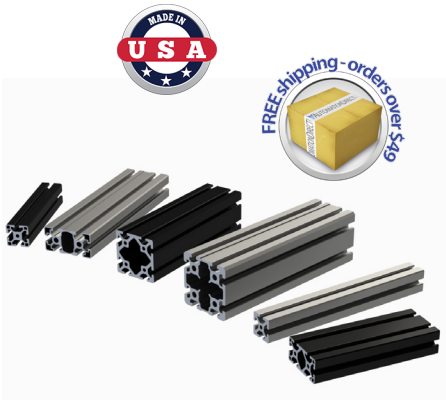
Aluminum T-Slotted Rail

10 Series Fractional T-Slotted Aluminum Rail

SureFrame™ T-slotted aluminum rails are extruded exclusively for AutomationDirect, with features, quality, and performance you expect. SureFrame T-slotted rails are compatible with other popular brands.

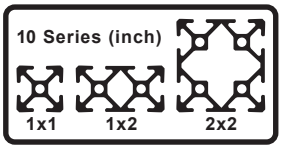
- Cut to length in 0.001 inch increments
- Minimum cut length: 6"
- Maximum cut length: 90"
- Cut accuracy: +/- 0.006"
- Corrosion and UV resistant

Properties	
Material	Aluminum 6063-T6
Finish	Clear or Black Anodize
Hardness	Webster Model B 11-12
Straightness	0.0125 inch/ft [1.042 mm/m]
Twist	0.25°/ft [0.25°/305mm]

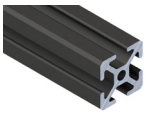
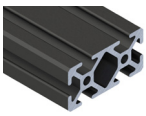
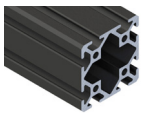


10 Series (inch)

Slot Size 6 — Core Hole Ø 0.20"



T-Slot Drop Lock feature improves connection strength and vibration resistance

Part Number	Part Image	Price per inch	Profile Size	Weight Class	Weight lbs/ft [kg/m]	Moment of Inertia Lx	Moment of Inertia Ly	Drawing Link
1010C		$0.28	1 x 1in	Standard	0.529 [0.787]	0.045 in^4 [1.872 cm^4]	0.045 in^4 [1.872 cm^4]	PDF
1010B		$0.40						PDF
1020C		$0.47	1 x 2in		0.952 [1.417]	0.084 in^4 [3.494 cm^4]	0.308 in^4 [12.813 cm^4]	PDF
1020B		$0.66						PDF
2020C		$0.70	2 x 2in		1.482 [2.205]	0.543 in^4 [22.589 cm^4]	0.543 in^4 [22.589 cm^4]	PDF
2020B		$0.99						PDF

Extruded T-slotted rails have a thru Core Hole feature that can be used to attach various components to the end of the profile using:

- Self-tapping / thread-forming screws (no tapping needed)
- A tap to thread the core hole for a threaded fastener

Core Hole — 2 Places — 4 Places

Please Note: Prices on aluminum are closely tied to the market price. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

Aluminum T-Slotted Rail

Deflection Calculations

Using the calculations below, find your approximate deflection* for a specific extrusion.
See table below for variations.

As always when calculating, use diligence and work only in either imperial or metric units at one time.

Aluminum 6063-T6 Properties	
Yield Strength	29,007 psi [200 MPa]
Tensile Strength	33,359 psi [230 MPa]
Modulus of Elasticity	10,000,000 psi [68.9 GPa]

"E" = Modulus of Elasticity

"F" = Force

"I" = Moment of Inertia

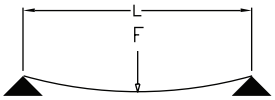
"L" = Length

"W" = Weight

***for reference only**

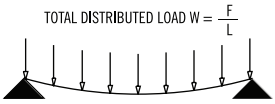
Supported Loads

CONCENTRATED LOAD AT CENTER (simply supported)



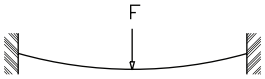
$$\text{MAX DEFLECTION} = \frac{FL^3}{48\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)



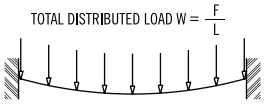
$$\text{MAX DEFLECTION} = \frac{5}{84}\,\frac{WL^4}{EI}$$

CONCENTRATED LOAD AT CENTER (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{FL^3}{192\,EI}$$

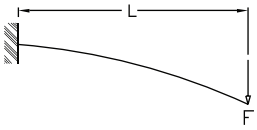
UNIFORMLY DISTRIBUTED LOAD (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{WL^4}{384\,EI}$$

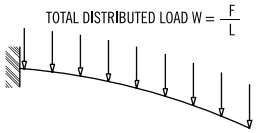
Cantilever Loads

CONCENTRATED LOAD AT CENTER (simply supported)



$$\text{MAX DEFLECTION} = \frac{FL^3}{3\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)

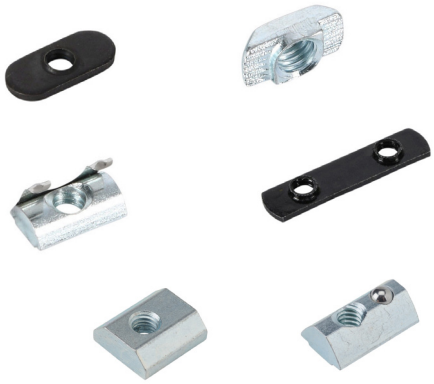


$$\text{MAX DEFLECTION} = \frac{WL^4}{8\,EI}$$

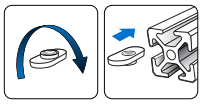
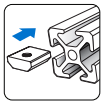
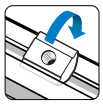
FATH® T-Slotted Rail Accessories

T-Slot Nuts

- Designed to fit into the T-slot cavity of extruded aluminum rails.
- Hammer nuts provide safe electrostatic discharging (ESD) connection.
- No machining required.
- Material: zinc plated steel

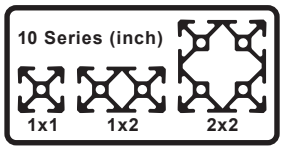


T-Slot Nuts Selection

Part Image	Nut Type	Installation	Holds Position Without Screw	ESD Connection
	Double Economy T-Nut		No	No
	Economy T-Nut			
	Hammer Nut			Yes
	Slide-In Nut			No
	Roll-In Nut with Leaf Spring		Yes	
	Roll-In Nut with Spring Loaded Ball			

10 Series T-Slot Nuts

Fits Slot Size 6



Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
161113		$13.00	Roll-In Nut	8-32 UNF	10	PDF
161124		$9.50	Hammer Nut			PDF
161112		$13.00	Roll-In Nut	10-32 UNF		PDF
151038		$11.00	Hammer Nut	10-32 UNF		PDF
148804		$4.00	Double Economy T-Nut	1/4-20 UNC	4	PDF
151037		$5.50	Economy T-Nut		10	PDF
151039		$15.00	Roll-In Nut			PDF

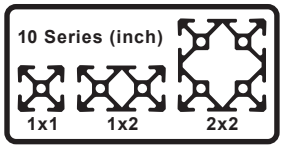
FATH® T-Slotted Rail Accessories

Fasteners

- Choose from 4 Head types in numerous lengths
- Hex socket head
- Select desired T-Slot nut style with corresponding thread size.
- Material: Black zinc plated or bright zinc plated steel, prevents corrosion better than typical black oxide coatings

10 Series Fasteners

Fits Slot Size 6



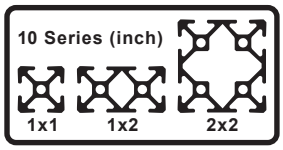
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
162994		$8.00	8-32 UNF x 3/8in	Button head socket cap screw	Flat black	10	PDF
161073		$7.75	8-32 UNF x 1/2in	Flat head socket cap screw			PDF
162993		$7.50	10-32 UNF x 3/8in	Button head socket cap screw			PDF
162995		$7.75	10-32 UNF x 1/2in	Socket head cap screw			PDF
161046		$4.75		Button head socket cap screw			PDF
161047		$5.00	10-32 UNF x 5/8in				PDF
161048		$5.75	10-32 UNF x 3/4in				PDF
161074		$6.25	1/4-20 UNC x 1/2in	Flat head socket cap screw			PDF
151040		$4.25		Button head socket cap screw			PDF
151041		$5.25		Flanged button head socket cap screw	Gloss black		PDF
161049		$4.75	1/4-20 UNC x 9/16in	Button head socket cap screw	Flat black		PDF
161075		$6.25	1/4-20 UNC x 5/8in	Flat head socket cap screw			PDF
161050		$4.75		Button head socket cap screw			PDF
161087		$4.00		Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

10 Series Fasteners

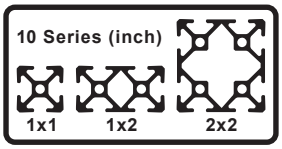
Fits Slot Size 6



Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161051		$4.75	1/4-20 UNC x 3/4in	Button head socket cap screw	Flat black	10	PDF
161052		$5.25	1/4-20 UNC x 1in				PDF

10 Series Self Forming / Tapping Screw

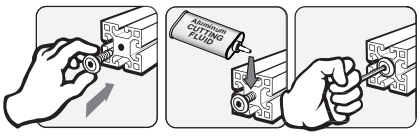
Fits 10 Series Core Hole



Works with Aluminum with hole diameter 0.197" - 0.216" [5.0 - 5.5 mm]

Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161103		$8.75	6 x 16mm	Self-Tapping Screw Button head socket cap T-25 Torx	Bright zinc	10	PDF

Self Forming / Tapping Screw Installation



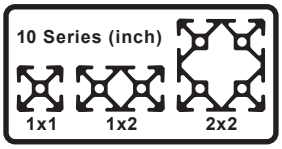
FATH® T-Slotted Rail Accessories

Connecting Components

- Connects two or three T-slot rails together
- Recommended ADC Fastener based on part feature, slot depth and core hole
- Material: varies by part

10 Series Connecting Components

Fits Slot Size 6



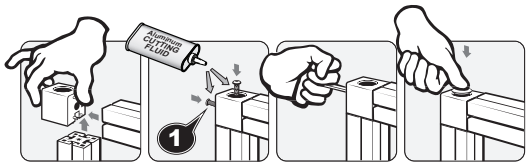
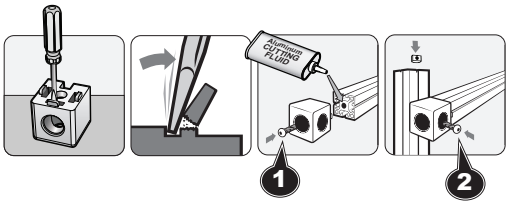
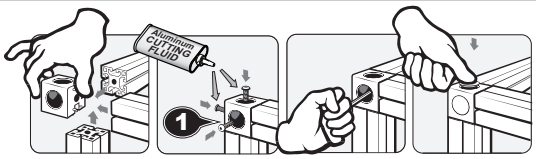
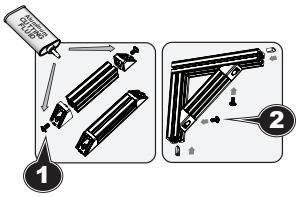
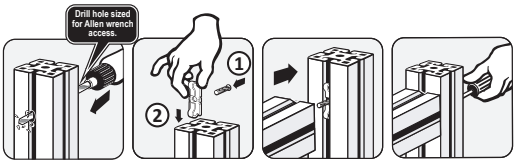
Part Number	Part Image	Price	Description	Fits Profile	Material	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment ❶	*T-Slot Attachment ❷	Pack Quantity	Drawing Link
148953		$8.75	2d Cube Connector	1 x 1in	Die-cast aluminum	161103	Socket Head Cap Screw 1/4-20 x 7/16" **	1	PDF
166230		$10.00							PDF
148956		$10.50	3d Cube Connector				n/a		PDF
166231		$12.00							PDF
151042		$4.50	Angle Connector				151040		PDF
166232		$5.00							PDF
151043		$8.00		1 x 2in					PDF
166233		$8.50							PDF
163007		$10.50	Screw Connector	1 x 1in	Zinc plated steel	Designer's choice	n/a	10	PDF

*T-Slot Nut also required.

** Recommended fastener not available from AutomationDirect.com

FATH® T-Slotted Rail Accessories

Connecting Components - Continued

Connecting Components Installation	
Core Hole Installation	***T-Slot Installation***
2D Cube Connector	
	
3D Cube Connector	
	n/a
Angle Connector	
	
Screw Connector	
	

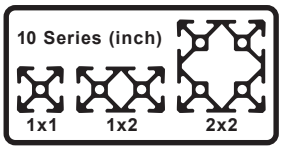
FATH® T-Slotted Rail Accessories

Joining Plates

- Connects two or more T-slot rails together
- Recommended ADC Fastener based on plate thickness and slot depth
- Material: Anodized aluminum

10 Series Joining Plates

Fits Slot Size 6



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Drawing Link
151044		$2.50	Straight Flat Plate	151040 or 151041	1	PDF
166234		$3.00				PDF
151045		$3.75				PDF
166235		$4.00				PDF
151046		$4.50				PDF
166236		$5.00				PDF
151047		$4.25				PDF
166237		$5.00				PDF
151048		$6.50	Rectangular Flat Plate			PDF
166238		$7.00				PDF
151049		$5.50				PDF
166239		$6.00				PDF
151050		$6.25	Flat Plate			PDF
166240		$7.00				PDF

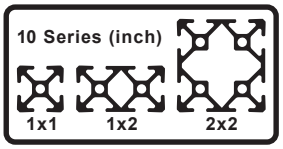
*T-Slot Nut also required

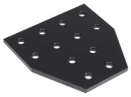
FATH® T-Slotted Rail Accessories

Joining Plates - Continued

10 Series Joining Plates - Cont'd

Fits Slot Size 6



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Drawing Link
151051		$6.50	Flat Plate	151040 or 151041	1	PDF
166241		$7.00				PDF
151052		$6.50	T-Shaped Flat Plate			PDF
166242		$7.00				PDF
151053		$7.25				PDF
166243		$8.00				PDF
151054		$10.50				PDF
166244		$12.00				PDF
151055		$9.50	Cross Flat Plate			PDF
166245		$11.00				PDF
151056		$8.00	L-Shaped Flat Plate			PDF
166246		$9.00				PDF
151057		$10.50	T-Shaped Flat Plate			PDF
166247		$12.00				PDF

*T-Slot Nut also required

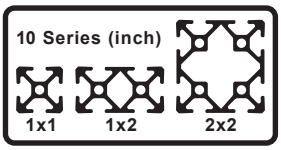
FATH® T-Slotted Rail Accessories

Brackets

- Connects two T-slot rails together at a 90° angle
- Recommended ADC Fastener based on part features and slot depth
- Material: varies by part

10 Series Brackets

Fits Slot Size 6



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
148915		$1.50	Angle Bracket	n/a	162994	1	Die-cast aluminum	PDF
166249		$1.50						PDF
151059		$4.00			162993		Die-cast zinc	PDF
166250		$4.00						PDF
151058		$2.50	Inside Corner Bracket		151040		Anodized aluminum	PDF
166248		$3.00						PDF
151061		$4.75	Tall Inside Corner Bracket					PDF
166252		$5.00						PDF
151060		$4.75	Wide Inside Corner Bracket					PDF
166251		$5.00						PDF
151062		$6.75	Inside Corner Bracket					PDF
166253		$8.00						PDF

*T-Slot Nut also required.

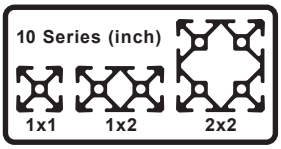
** Recommended fastener not available from AutomationDirect.com

FATH® T-Slotted Rail Accessories

Brackets - Continued

10 Series Brackets - Cont'd

Fits Slot Size 6



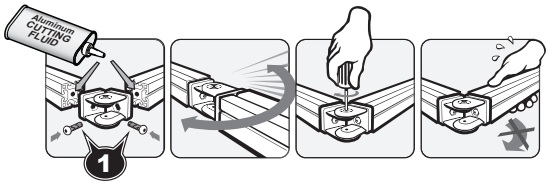
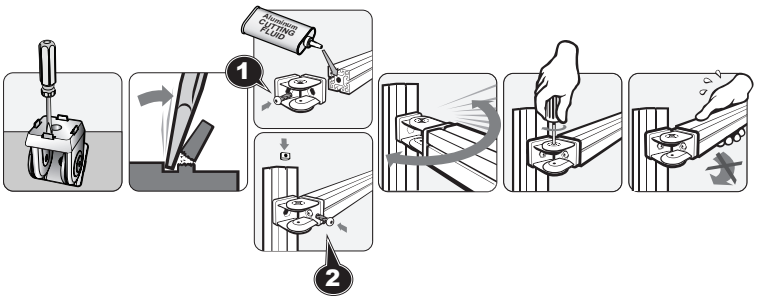
Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151063		$3.00	Gusseted Inside Corner Bracket	n/a	151040	1	Anodized aluminum	PDF
166254		$3.00						PDF
151064		$5.25	Tall Gusseted Inside Corner Bracket					PDF
166255		$6.00						PDF
151065		$5.75	Wide Gusseted Inside Corner Bracket					PDF
166256		$6.00						PDF
151066		$10.50	Gusseted Inside Corner Bracket					PDF
166257		$12.00						PDF
151067		$30.50	Pivot Joint	161103	161049		Die-cast zinc	PDF
166258		$36.00						PDF
148932		$39.50	Pivot Joint With Locking Handle					PDF
166259		$47.00						PDF

*T-Slot Nut also required.

** Recommended fastener not available from AutomationDirect.com

FATH® T-Slotted Rail Accessories

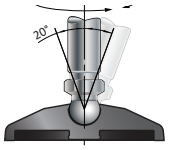
Brackets - Continued

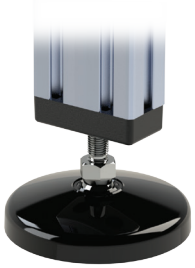
Brackets Installation	
Core Hole Installation	*T-Slot Installation*
Pivot Joint	
	

FATH® T-Slotted Rail Accessories

Bases

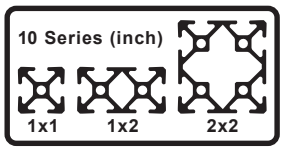
- Recommended ADC Fastener based on part features and extrusion core hole
- Material: varies by part





10 Series Bases

Fits Slot Size 6



Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
118356		$16.00	n/a	1/4-20 UNC Transport/Base Plate	1 x 2in	n/a	161103 (2) included with kit	n/a	1	Die-cast zinc	PDF
146399		$16.00		3/8-16 UNC Transport/Base Plate							PDF
151074		$7.25		1/4-20 UNC x 1-1/2in Swivel Foot Threaded Rod with 15 mm ball	Transport/ Base Plate 118356	210 [463]*	n/a			Zinc plated steel	PDF
151075		$4.50		3/8-16 UNC x 1-1/2in Swivel Foot Threaded Rod with 15 mm ball	Transport/ Base Plate 146399	470 [1036]*				Zinc plated steel	PDF
151068		$4.00	1.57 in [39.0 mm]	Swivel Base With Anti-Slip Plate	Any 15mm ball Threaded Rod	900 [1984]				Nylon	PDF
151071		$9.50				3000 [6614]				Die-cast zinc	PDF
151072		$17.00	3.11 in [79.0 mm]								PDF
151073		$17.00									PDF
151069		$6.00				900 [1984]				Nylon	PDF
151070		$6.00									PDF
151255		$10.00	3.90 in [99.0 mm]			900 [1984]					PDF
151256		$10.00									PDF

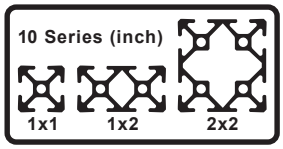
***Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]

FATH® T-Slotted Rail Accessories

Bases - Continued

10 Series Bases - continued

Fits Slot Size 6

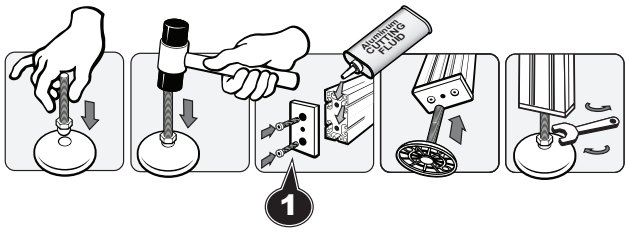


Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) **T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151257		$24.00	3.90 in [99.0 mm]	Swivel Base With Anti-Slip Plate	Any 15mm ball Threaded Rod	3500 [7716]	n/a	n/a	1	Die-cast zinc	PDF
151258		$24.00									PDF
162933		$12.50	See Drawing Link	Extended Swivel Base	Any 15mm ball Threaded Rod	1000 [2204]				Nylon	PDF
162934		$27.00				3000 [6613]				Die-cast zinc	PDF
162955		$10.00	n/a	Floor Bracket	1 x 1in, 1 x 2in, 2 x 2in	n/a		151040		Anodized aluminum	PDF

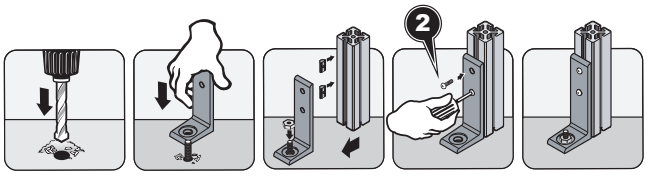
***Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]
****T-Slot nut also required**

Bases Installation

Swivel Foot



Floor Bracket



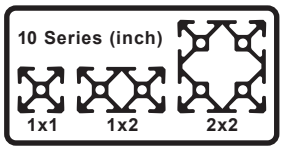
FATH® T-Slotted Rail Accessories

Casters

- Recommended ADC Fastener based on part feature and attachment type
- Material: varies by part

10 Series Casters

Fits Slot Size 6

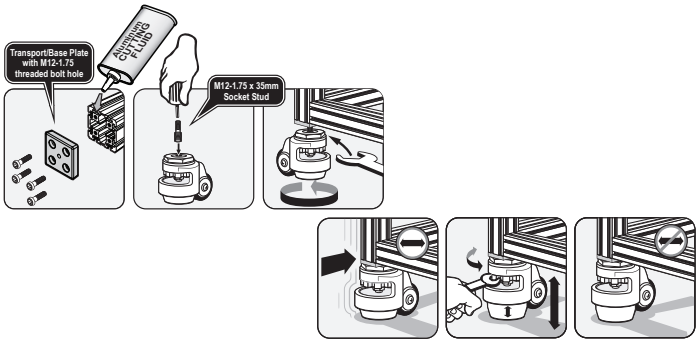


Part Number	Part Image	Price	Description	Load Rating kg [lb]	Requires	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
163010		$40.00	Leveling Caster with M12-1.75 x 35mm threaded stud (included)	250 [551]	Transport / Base Plate with M12-1.75 threaded hole	n/a	1	Die-cast aluminum/ steel/nylon/ rubber	PDF
163011		$52.00		500 [1102]					PDF
163012		$41.00	Leveling Caster With Mounting Plate	250 [551]	n/a	BHCS 1/4-20x7/16" (not sold by ADC)			PDF
163013		$56.00		500 [1102]					PDF

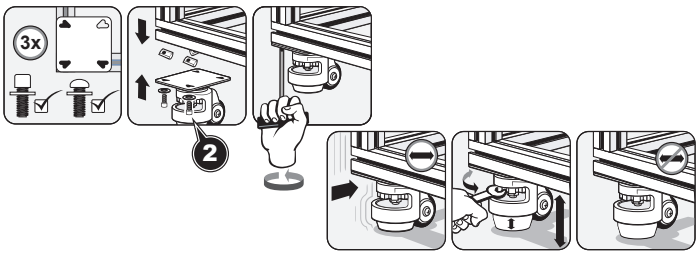
*T-Slot Nut with 1/4 washer also required.

Caster Installation

Leveling Caster with M12-1.75 x 35mm threaded stud



Leveling Caster with mounting plate



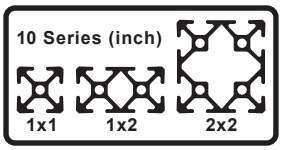
FATH® T-Slotted Rail Accessories

Hinges

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

10 Series Hinges

Fits Slot Size 6



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Material	Drawing Link
151076		$6.00	Left-Hand Detachable Combination Hinge	161074	1	Fiberglass reinforced plastic	PDF
151077		$6.00	Right-Hand Detachable Combination Hinge				PDF
151078		$6.00	Non-Detachable Combination Hinge				PDF
151079		$11.50	Non-Detachable Combination Hinge With Locking Lever				PDF
151080		$17.00	Left-Hand Detachable Combination Hinge			Die-cast aluminum	PDF
151081		$17.00	Right-Hand Detachable Combination Hinge				PDF
151082		$17.00	Non-Detachable Combination Hinge				PDF

*T-Slot Nut also required

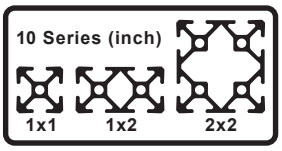
FATH® T-Slotted Rail Accessories

Panel and Door Elements

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

10 Series Panel and Door Elements

Fits Slot Size 6



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151083		$4.25	Bridge Handle	162995	1	Fiberglass reinforced plastic	PDF
151084		$6.50	Cover Cap 3	n/a			PDF
151085		$4.50	Comfort Handle	161087			PDF
151086		$4.00	Cover Cap 3	n/a			PDF
151149		$6.50	Comfort Handle	151050			PDF
162910		$3.00	Panel Holder	151040		Anodized aluminum	PDF
162915		$5.25					PDF
162920		$5.25	Panel Mount Block	Fasteners included		Lacquered aluminum	PDF
162921		$5.25				Powder-coated aluminum black	PDF
162963		$8.50	Magnetic Catch	161047		Nylon/steel	PDF
162977		$8.50	Hanger	151040		Die-cast zinc	PDF
151087		$115.00	Cover And Reduction Profile, 2000mm long per piece	n/a	25	Polypropylene	PDF

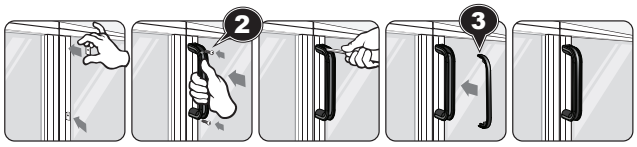
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

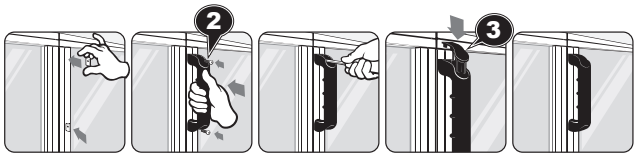
Panel and Door Elements - Continued

Panel and Door Elements Installation

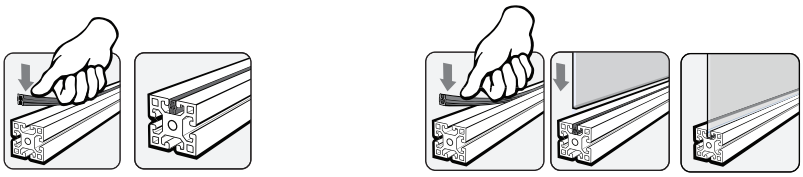
Bridge Handle and Cover Cap



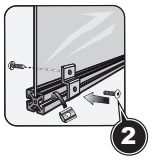
Comfort Handle and Cover Cap



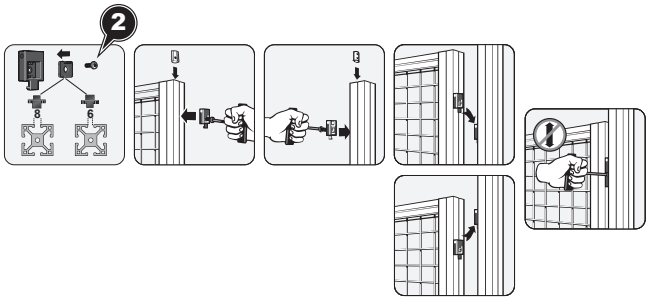
Cover and Reduction Profile



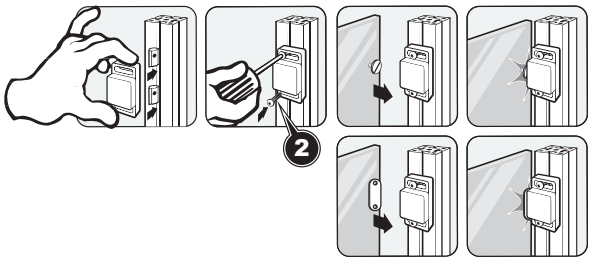
Panel Holder



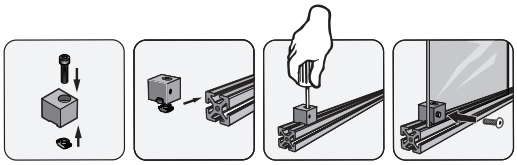
Hanger



Magnetic Catch



Panel Mount Block

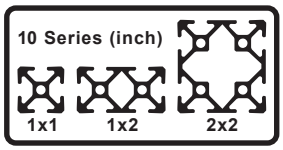


FATH® T-Slotted Rail Accessories

Slides and Rollers

10 Series Slides and Rollers

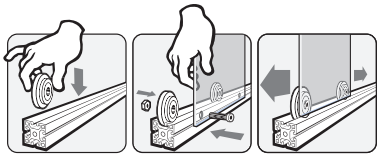
Fits Slot Size 6



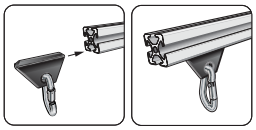
Part Number	Part Image	Price	Description	Fits	Pack Quantity	Material	Drawing Link
151090		$7.25	Roller	All 10 Series	1	Glass-filled nylon	PDF
151088		$4.50	Slider			Glass-filled nylon	PDF
151089		$4.50	Snap Hook	Slider 151088		Zinc plated steel	PDF

Slides and Rollers Installation

Roller



Slider and Snap Hook



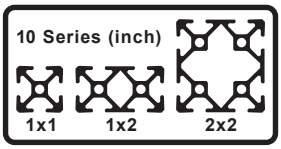
FATH® T-Slotted Rail Accessories

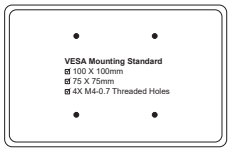
Monitor Mounts

10 Series Monitor Mounts

- Fits monitors with VESA mounting standard
- Durable steel construction
- Powder coat finish
- Mounting hardware included for several mounting locations

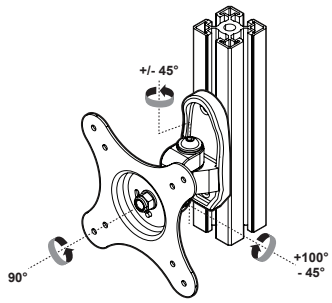
Fits Slot Size 6



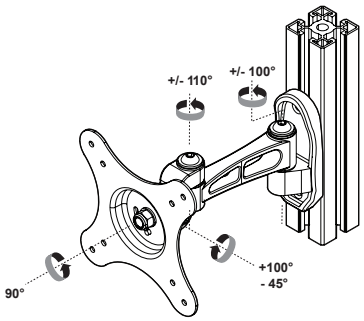


Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Installation Instructions Link	Drawing Link
162893		$42.00	Swivel Monitor Mount	15 [33.1]	1	PDF	PDF
162894		$50.00				PDF	PDF
162895		$58.00				PDF	PDF

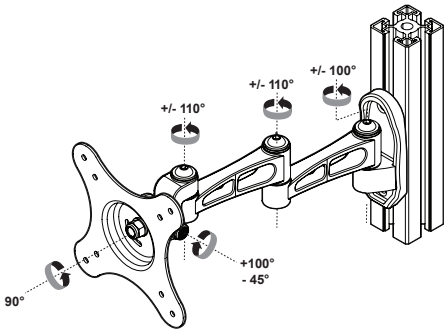
Monitor Mounts Adjustments



162893



162894



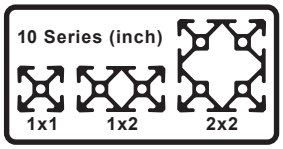
162895

FATH® T-Slotted Rail Accessories

Wire Management

10 Series Wire Management

Fits Slot Size 6

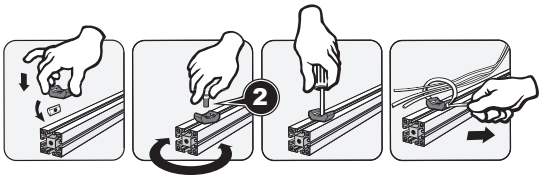


Part Number	Part Image	Price	Description	Pack Quantity	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Material	Drawing Link
151095		$44.00	Clip Cable Binder With Hammer	10	n/a	Nylon/rubber	PDF
162982		$7.50	Universal Cable Binder Block		162993	Nylon	PDF

*T-Slot Nut also required

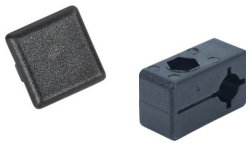
Wire Management Installation

Universal Cable Binder Block



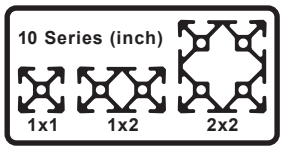
FATH® T-Slotted Rail Accessories

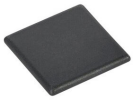
Miscellaneous Accessories



10 Series Miscellaneous Accessories

Fits Slot Size 6

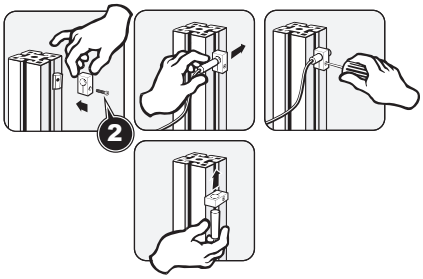


Part Number	Part Image	Price	Description	Fits Profile	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151092		$10.00	End Cap	1 x 1in	n/a	10	Glass-filled nylon	PDF
151093		$14.50		1 x 2in				PDF
151094		$19.00		2 x 2in				PDF
162973		$3.25	Sensor Mounting Block for 8mm diameter proximity sensor	All 10 Series	BHCS 8-32 x 3/4" (not sold by ADC)	1	Nylon	PDF
162974		$3.25	Sensor Mounting Block for 12mm diameter proximity sensor					PDF

*T-Slot Nut also required

Miscellaneous Accessories Installation

Sensor Mounting Block



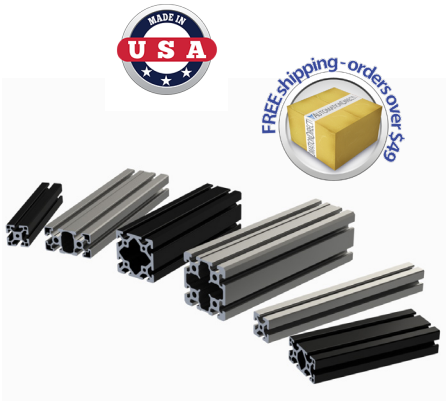
Aluminum T-Slotted Rail

15 Series Fractional T-Slotted Aluminum Rail

SureFrame™ T-slotted aluminum rails are extruded exclusively for AutomationDirect, with features, quality, and performance you expect. SureFrame T-slotted rails are compatible with other popular brands.

- Cut to length in 0.001 inch increments
- Minimum cut length: 6"
- Maximum cut length: 90"
- Cut accuracy: +/- 0.006"
- Corrosion and UV resistant

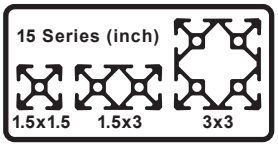
Properties	
Material	Aluminum 6063-T6
Finish	Clear or Black Anodize
Hardness	Webster Model B 11-12
Straightness	0.0125 inch/ft [1.042 mm/m]
Twist	0.25°/ft [0.25°/305mm]



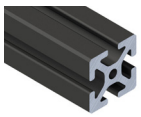
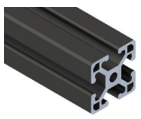
15 Series (inch)

Slot Size 8

Core Hole Ø 0.27"



T-Slot Drop Lock feature improves connection strength and vibration resistance

Part Number	*Part Image*	*Price per inch*	*Profile Size*	*Weight Class*	*Weight lbs/ft [kg/m]*	*Moment of Inertia Lx*	*Moment of Inertia Ly*	*Drawing Link*
1515C		$0.64	1.5 x 1.5in	Standard	1.404 [2.089]	0.261 in^4 [10.816 cm^4]	0.261 in^4 [10.816 cm^4]	PDF
1515B		$0.91						PDF
1515CL		$0.52		Light	1.093 [1.627]	0.186 in^4 [7.738 cm^4]	0.186 in^4 [7.738 cm^4]	PDF
1515BL		$0.76						PDF
1515CUL		$0.48		Ultra-light	1.029 [1.531]	0.174 in^4 [7.238 cm^4]	0.174 in^4 [7.238 cm^4]	PDF

Extruded T-slotted rails have a thru Core Hole feature that can be used to attach various components to the end of the profile using:

- Self-tapping / thread-forming screws (no tapping needed)
- A tap to thread the core hole for a threaded fastener

Please Note: Prices on aluminum are closely tied to the market price. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

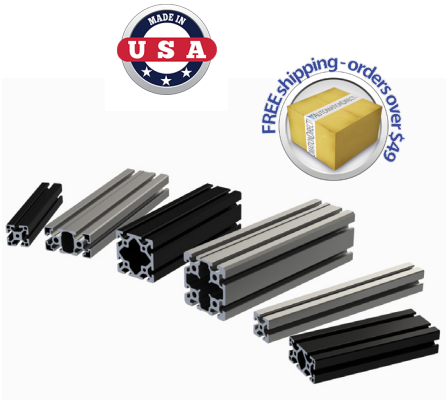
Aluminum T-Slotted Rail

15 Series Fractional T-Slotted Aluminum Rail

SureFrame™ T-slotted aluminum rails are extruded exclusively for AutomationDirect, with features, quality, and performance you expect. SureFrame T-slotted rails are compatible with other popular brands.

- Cut to length in 0.001 inch increments
- Minimum cut length: 6"
- Maximum cut length: 90"
- Cut accuracy: +/- 0.006"
- Corrosion and UV resistant

Properties	
Material	Aluminum 6063-T6
Finish	Clear or Black Anodize
Hardness	Webster Model B 11-12
Straightness	0.0125 inch/ft [1.042 mm/m]
Twist	0.25°/ft [0.25°/305mm]

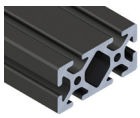
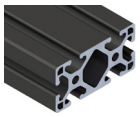
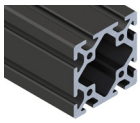


15 Series (inch) - Continued

Slot Size 8 — Core Hole Ø 0.27"

15 Series (inch): 1.5x1.5, 1.5x3, 3x3

2° Drop Lock — T-Slot Drop Lock feature improves connection strength and vibration resistance

Part Number	*Part Image*	*Price per inch*	*Profile Size*	*Weight Class*	*Weight lbs/ft [kg/m]*	*Moment of Inertia Lx*	*Moment of Inertia Ly*	*Drawing Link*
1530C		$1.16	1.5 x 3in	Standard	2.526 [3.759]	0.572 in^4 [23.795 cm^4]	2.139 in^4 [88.982 cm^4]	PDF
1530B		$1.53						PDF
1530CL		$0.99		Light	2.093 [3.115]	0.408 in^4 [16.973 cm^4]	1.431 in^4 [59.529 cm^4]	PDF
1530BL		$1.32						PDF
3030C		$1.86	3 x 3in	Standard	4.058 [6.039]	3.379 in^4 [140.566 cm^4]	3.379 in^4 [140.566 cm^4]	PDF
3030B		$2.30						PDF

Extruded T-slotted rails have a thru Core Hole feature that can be used to attach various components to the end of the profile using:

- Self-tapping / thread-forming screws (no tapping needed)
- A tap to thread the core hole for a threaded fastener

Core Hole — 2 Places — 4 Places

Please Note: Prices on aluminum are closely tied to the market price. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

Aluminum T-Slotted Rail

Deflection Calculations

Using the calculations below, find your approximate deflection* for a specific extrusion.
See table below for variations.

As always when calculating, use diligence and work only in either imperial or metric units at one time.

Aluminum 6063-T6 Properties	
Yield Strength	29,007 psi [200 MPa]
Tensile Strength	33,359 psi [230 MPa]
Modulus of Elasticity	10,000,000 psi [68.9 GPa]

"E" = Modulus of Elasticity

"F" = Force

"I" = Moment of Inertia

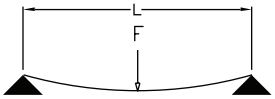
"L" = Length

"W" = Weight

***for reference only**

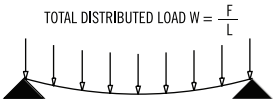
Supported Loads

CONCENTRATED LOAD AT CENTER (simply supported)



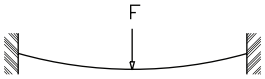
$$\text{MAX DEFLECTION} = \frac{FL^3}{48\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)



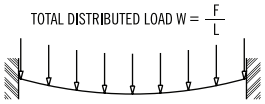
$$\text{MAX DEFLECTION} = \frac{5}{84}\,\frac{WL^4}{EI}$$

CONCENTRATED LOAD AT CENTER (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{FL^3}{192\,EI}$$

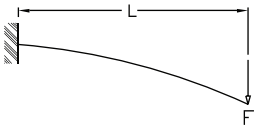
UNIFORMLY DISTRIBUTED LOAD (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{WL^4}{384\,EI}$$

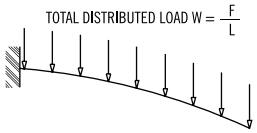
Cantilever Loads

CONCENTRATED LOAD AT CENTER (simply supported)



$$\text{MAX DEFLECTION} = \frac{FL^3}{3\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)

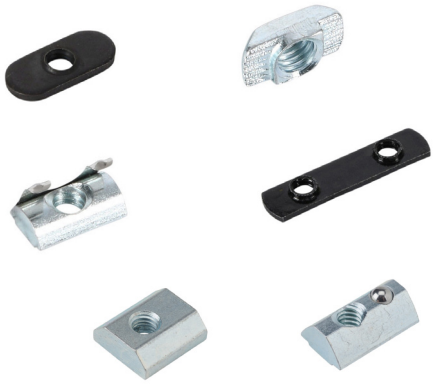


$$\text{MAX DEFLECTION} = \frac{WL^4}{8\,EI}$$

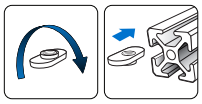
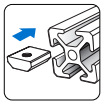
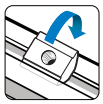
FATH® T-Slotted Rail Accessories

T-Slot Nuts

- Designed to fit into the T-slot cavity of extruded aluminum rails.
- Hammer nuts provide safe electrostatic discharging (ESD) connection.
- No machining required.
- Material: zinc plated steel

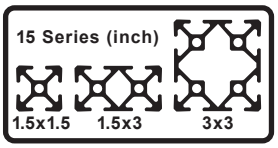


T-Slot Nuts Selection

Part Image	Nut Type	Installation	Holds Position Without Screw	ESD Connection
	Double Economy T-Nut		No	No
	Economy T-Nut			
	Hammer Nut			Yes
	Slide-In Nut			No
	Roll-In Nut with Leaf Spring		Yes	
	Roll-In Nut with Spring Loaded Ball			

15 Series T-Slot Nuts

Fits Slot Size 8



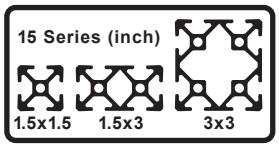
Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
161115		$17.50	Roll-In Nut	8-32 UNF	10	PDF
161125		$9.50	Hammer Nut			PDF
161114		$17.50	Roll-In Nut	10-32 UNF		PDF
162996		$17.50				PDF
162903		$9.50	Slide-In Nut			PDF
161126		$8.25	Hammer Nut			PDF

FATH® T-Slotted Rail Accessories

T-Slot Nuts - Continued

15 Series T-Slot Nuts - Continued

Fits Slot Size 8



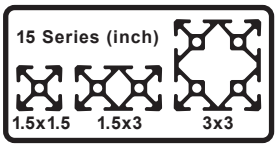
Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
162904		$9.50	Slide-In Nut	1/4-20 UNC	10	PDF
151097		$9.50	Hammer Nut			PDF
162997		$17.50	Roll-In Nut			PDF
161123		$5.50	Economy T-Nut	1/4-20 UNC		PDF
151098		$20.00	Roll-In Nut			PDF
151096		$6.50	Economy T-Nut	5/16-18 UNC		PDF
148805		$5.50	Double Economy T-Nut		4	PDF
162905		$9.50	Slide-In Nut		10	PDF
151099		$20.00	Roll-In Nut			PDF
162998		$17.50	Roll-In Nut			PDF
161129		$8.00	Hammer Nut	M4-0.7		PDF
161119		$16.75	Roll-In Nut			PDF
162999		$17.50				PDF

FATH® T-Slotted Rail Accessories

T-Slot Nuts - Continued

15 Series T-Slot Nuts - Continued

Fits Slot Size 8



Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
161130		$8.00	Hammer Nut	M5-0.8	10	PDF
161120		$16.75	Roll-In Nut			PDF
163000		$17.50				PDF
151214		$9.00	Hammer Nut	M6-1.0		PDF
162884		$9.75	Slide-In Nut			PDF
151215		$19.00	Roll-In Nut			PDF
163001		$17.50				PDF
162885		$9.75	Slide-In Nut	M8-1.25		PDF
151216		$19.00	Roll-In Nut			PDF
163002		$17.50				PDF

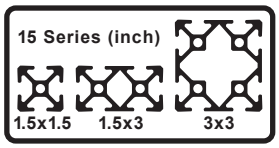
FATH® T-Slotted Rail Accessories

Fasteners

- Choose from 4 Head types in numerous lengths
- Hex socket head
- Select desired T-Slot nut style with corresponding thread size.
- Material: Black zinc plated or bright zinc plated steel, prevents corrosion better than typical black oxide coatings

15 Series Fasteners

Fits Slot Size 8



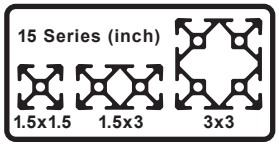
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
162994		$8.00	8-32 UNF x 3/8in	Button head socket cap screw	Flat black	10	PDF
161073		$7.75	8-32 UNF x 1/2in	Flat head socket cap screw			PDF
162993		$7.50	10-32 UNF x 3/8in	Button head socket cap screw			PDF
162995		$7.75	10-32 UNF x 1/2in	Socket head cap screw			PDF
161046		$4.75		Button head socket cap screw			PDF
161047		$5.00	10-32 UNF x 5/8in				PDF
161048		$5.75	10-32 UNF x 3/4in				PDF
161074		$6.25	1/4-20 UNC x 1/2in	Flat head socket cap screw			PDF
151040		$4.25		Button head socket cap screw			PDF
151041		$5.25		Flanged button head socket cap screw	Gloss black		PDF
161049		$4.75	1/4-20 UNC x 9/16in	Button head socket cap screw	Flat black		PDF
161075		$6.25	1/4-20 UNC x 5/8in	Flat head socket cap screw			PDF
161050		$4.75		Button head socket cap screw			PDF
161087		$4.00		Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

15 Series Fasteners - Continued

Fits Slot Size 8



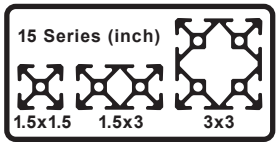
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161051		$4.75	1/4-20 UNC x 3/4in	Button head socket cap screw	Flat black	10	PDF
161052		$5.25	1/4-20 UNC x 1in				PDF
151100		$5.25	5/16-18 UNC x 5/8in	Button head socket cap screw			PDF
151101		$6.00	5/16-18 UNC x 11/16in	Flanged button head socket cap screw	Gloss black		PDF
161053		$6.00	5/16-18 UNC x 1/2in	Button head socket cap screw	Flat black		PDF
161054		$6.50	5/16-18 UNC x 3/4in				PDF
161055		$7.50	5/16-18 UNC x 1in				PDF
161088		$2.25	M4-0.7 x 8mm	Socket head cap screw	Bright zinc		PDF
161089		$2.50	M4-0.7 x 10mm				PDF
161056		$1.00		Button head socket cap screw			PDF
161076		$1.50	M4-0.7 x 12mm	Flat head socket cap screw			PDF
161057		$1.25	M5-0.8 x 10mm	Button head socket cap screw			PDF
161090		$2.50		Socket head cap screw			PDF
161077		$1.75	M5-0.8 x 12mm	Flat head socket cap screw			PDF
161091		$2.75		Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

15 Series Fasteners - Continued

Fits Slot Size 8



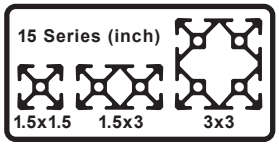
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161058		$1.75	M5-0.8 x 12mm	Button head socket cap screw	Bright zinc	10	PDF
161092		$2.75	M6-1.0 x 10mm	Socket head cap screw			PDF
161078		$2.25	M6-1.0 x 12mm	Flat head socket cap screw			PDF
161059		$2.00		Button head socket cap screw			PDF
161093		$2.75		Socket head cap screw			PDF
161079		$2.50	M6-1.0 x 14mm	Flat head socket cap screw			PDF
161060		$2.25		Button head socket cap screw			PDF
161094		$3.00		Socket head cap screw			PDF
161080		$2.50	M6-1.0 x 16mm	Flat head socket cap screw			PDF
161061		$2.50		Button head socket cap screw			PDF
161095		$3.00		Socket head cap screw			PDF
161062		$3.00	M6-1.0 x 18mm	Button head socket cap screw			PDF
161096		$3.25		Socket head cap screw			PDF
161081		$2.75	M6-1.0 x 20mm	Flat head socket cap screw			PDF
161063		$3.00		Button head socket cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

15 Series Fasteners - Continued

Fits Slot Size 8



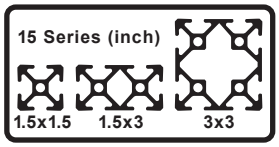
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161097		$3.25	M6-1.0 x 20mm	Socket head cap screw	Bright zinc	10	PDF
161064		$3.25	M6-1.0 x 25mm	Button head socket cap screw			PDF
161082		$4.75	M8-1.25 x 12mm	Flat head socket cap screw			PDF
161065		$4.25		Button head socket cap screw			PDF
161098		$4.75		Socket head cap screw			PDF
161066		$4.50	M8-1.25 x 14mm	Button head socket cap screw			PDF
161083		$5.00		Flat head socket cap screw			PDF
161099		$5.00		Socket head cap screw			PDF
161084		$5.50	M8-1.25 x 16mm	Flat head socket cap screw			PDF
161100		$5.50		Socket head cap screw			PDF
161067		$4.75		Button head socket cap screw			PDF
151183		$4.75			Gloss black		PDF
151184		$5.50		Flanged button head socket cap screw			PDF
161085		$5.50	M8-1.25 x 18mm	Flat head socket cap screw	Bright zinc		PDF
161068		$5.25		Button head socket cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

15 Series Fasteners - Continued

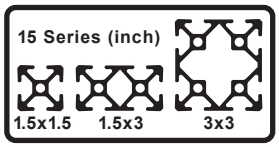
Fits Slot Size 8



Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161101		$5.50	M8-1.25 x 18mm	Socket head cap screw	Bright zinc	10	PDF
151241		$4.50	M8-1.25 x 20mm	Button head socket cap screw			PDF
161102		$5.75		Socket head cap screw			PDF
161086		$7.00	M8-1.25 x 25mm	Flat head socket cap screw			PDF
161069		$5.25		Button head socket cap screw			PDF
161070		$8.00	M8-1.25 x 40mm				PDF
118284		$2.50	5/16-18 UNC x 1in	Hammer head screw and flange nut		1	PDF

15 Series Self Forming / Tapping Screws

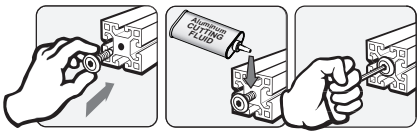
Fits 15 Series Core Hole



Works with Aluminum with hole diameter 0.256" - 0.276" [6.6 - 7.0 mm]

Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161105		$17.00	7 x 25mm	Self-Tapping Screw Button head socket cap	Bright zinc	10	PDF
161106		$9.25		Self-Tapping Screw Flanged button head socket cap T-40 Torx			PDF
161107		$17.00	7 x 40mm	Self-Tapping Screw Button head socket cap			PDF

Self Forming / Tapping Screw Installation



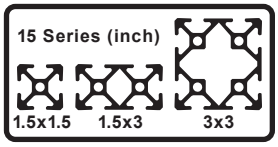
FATH® T-Slotted Rail Accessories

Connecting Components

- Connects two or three T-slot rails together.
- Recommended ADC Fastener based on part feature, slot depth and core hole.
- Material: varies by part

15 Series Connecting Components

Fits Slot Size 8



Part Number	Part Image	Price	Description	Fits Profile	Material	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Drawing Link
148954		$10.00	2d Cube Connector	1.5 x 1.5in	Die-cast aluminum	161105	151100	1	PDF
166302		$12.00							PDF
148957		$11.50	3d Cube Connector						PDF
166303		$13.00							PDF
151107		$8.00	Angle Connector				161054		PDF
166304		$8.50							PDF
151108		$11.50		1.5 x 3in					PDF
166305		$13.50							PDF
151102		$23.50	Duo Connector	All 15 Series	Steel	n/a	n/a	10	PDF
151103		$96.00	T-Matic Connector		Zinc plated steel				PDF
151104		$59.00	Automatic Connector		Steel			1	PDF

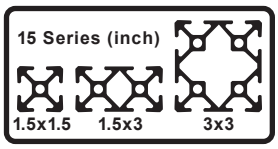
*T-Slot Nut also required.

FATH® T-Slotted Rail Accessories

Connecting Components - Continued

15 Series Connecting Components - Continued

Fits Slot Size 8

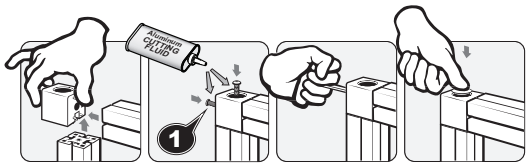
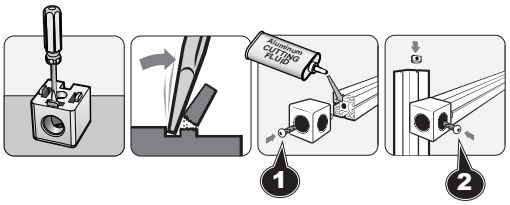
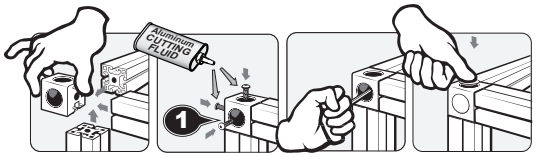
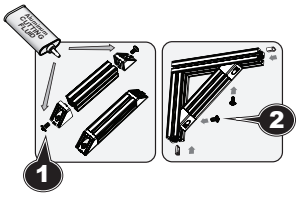
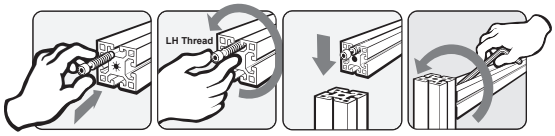


Part Number	Part Image	Price	Description	Fits Profile	Material	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Drawing Link
151105		$9.50	Automatic Butt Connector	All 15 Series	Steel	n/a	n/a	1	PDF
151106		$8.50	Milling Connector		Zinc plated steel				PDF
151109		$15.50	Connecting Strip						PDF
162891		$13.00	Direct Connector		Steel		Fasteners included		PDF
162961		$11.50	Miter Connector		Steel		M8-1.25 x 8mm set screw (4) included		PDF
163009		$13.25	Screw Connector	1.5 x 1.5in	Zinc plated steel		Designer's choice	10	PDF

*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

Connecting Components - Continued

Connecting Components Installation	
Core Hole Installation	***T-Slot Installation***
2D Cube Connector	
	
3D Cube Connector	
	n/a
Angle Connector	
	
Duo Connector	
n/a	

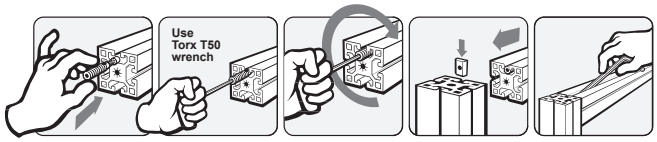
FATH® T-Slotted Rail Accessories

Connecting Components - Continued

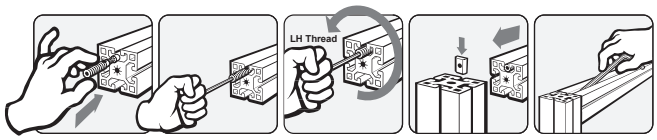
Connecting Components Installation

T-Slot Installation

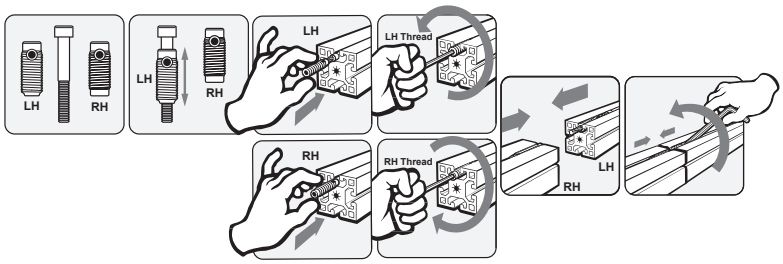
T-matic Connector



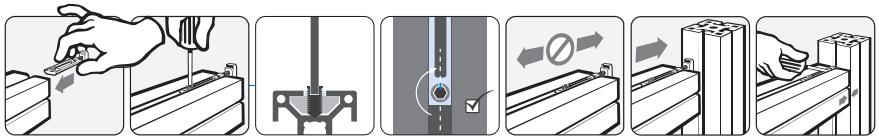
Automatic Connector



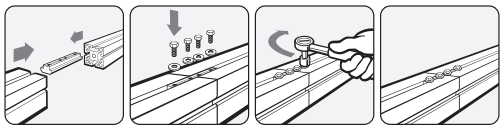
Automatic Butt Connector



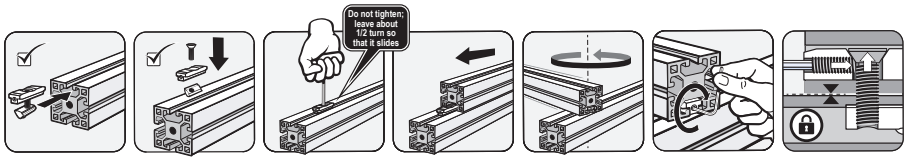
Milling Connector



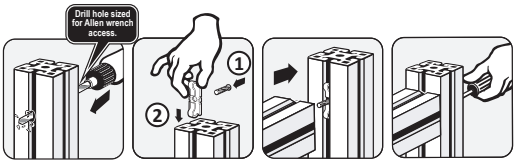
Connecting Strip



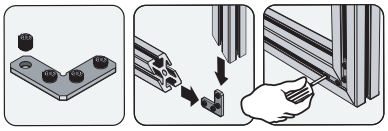
Direct Connector



Screw Connector



Miter Connector



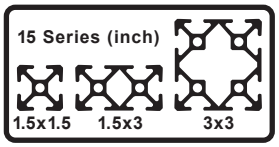
FATH® T-Slotted Rail Accessories

Joining Plates

- Connects two or more T-slot rails together.
- Recommended ADC Fastener based on part feature and slot depth.
- Material: Anodized aluminum

15 Series Joining Plates

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Drawing Link
151110		$5.25	Straight Flat Plate	151100 or 151101	1	PDF
166306		$6.00				PDF
151111		$4.75				PDF
166307		$6.00				PDF
151112		$6.25				PDF
166308		$7.00				PDF
151113		$6.00	Square Flat Plate			PDF
166309		$7.00				PDF
151114		$8.50	Rectangular Flat Plate			PDF
166310		$10.00				PDF
151115		$11.00				PDF
166311		$12.00				PDF
151116		$8.50	Flat Plate			PDF
166312		$10.00				PDF

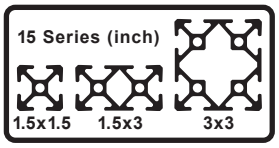
*T-Slot Nut also required

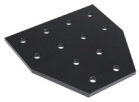
FATH® T-Slotted Rail Accessories

Joining Plates - Continued

15 Series Joining Plates - Cont'd

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Drawing Link
151117		$12.00	Flat Plate	151100 or 151101	1	PDF
166313		$14.00				PDF
151118		$9.25	T-Shaped Flat Plate			PDF
166314		$11.00				PDF
151119		$12.00				PDF
166315		$14.00				PDF
151120		$18.50				PDF
166316		$22.00				PDF
151121		$18.50	Cross Flat Plate			PDF
166317		$22.00				PDF
151122		$13.50	L-Shaped Flat Plate			PDF
166318		$16.00				PDF
151123		$14.50	T-Shaped Flat Plate			PDF
166319		$17.00				PDF

*T-Slot Nut also required

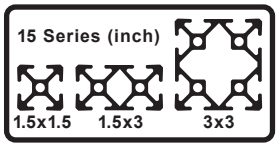
FATH® T-Slotted Rail Accessories

Brackets

- Connects two T-slot rails together at a 90° angle
- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

15 Series Brackets

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
148916		$4.00	Angle Bracket	n/a	151100	1	Die-cast aluminum	PDF
166321		$4.00						PDF
151125		$7.75			161054			PDF
166322		$9.00						PDF
151126		$11.50			151101		Die-cast zinc	PDF
166323		$13.00						PDF
151124		$3.75	Inside Corner Bracket		151100 or 151101		Anodized aluminum	PDF
166320		$4.00						PDF
151127		$6.50	Wide Inside Corner Bracket					PDF
166324		$8.00						PDF
151128		$6.00	Tall Inside Corner Bracket					PDF
166325		$7.00						PDF
148906		$9.00	Inside Corner Bracket					PDF
166326		$11.00						PDF

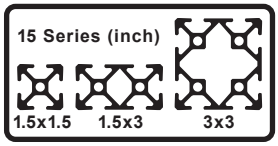
*T-Slot Nut also required.

FATH® T-Slotted Rail Accessories

Brackets - Continued

15 Series Brackets - Continued

Fits Slot Size 8

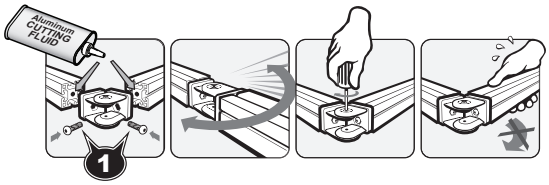
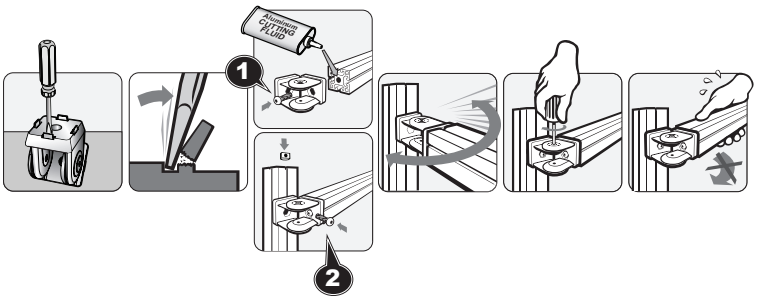


Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151129		$3.75	Gusseted Inside Corner Bracket			1	Anodized aluminum	PDF
166327		$4.00						PDF
151130		$7.75	Tall Gusseted Inside Corner Bracket	n/a	151100 or 151101			PDF
166328		$9.00						PDF
148910		$6.75	Wide Gusseted Inside Corner Bracket					PDF
166329		$8.00						PDF
151131		$13.00	Gusseted Inside Corner Bracket					PDF
166330		$16.00						PDF
151132		$29.50	Pivot Joint	161055	151100		Die-cast zinc	PDF
166331		$35.00						PDF
148933		$39.50	Pivot Joint With Locking Handle					PDF
166332		$45.00						PDF

*T-Slot Nut also required.

FATH® T-Slotted Rail Accessories

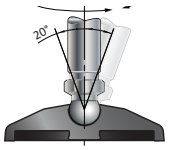
Brackets - Continued

Brackets Installation	
Core Hole Installation	*T-Slot Installation*
Pivot Joint	
	

FATH® T-Slotted Rail Accessories

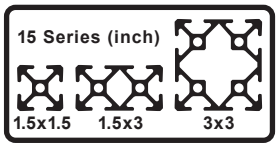
Bases

- Recommended ADC Fastener based on part feature and core hole
- Material: varies by part



15 Series Bases

Fits Slot Size 8



Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
118357		$17.00	n/a	3/8-16 UNC Transport/Base Plate	1.5 x 3in	n/a	161105 (2) included with kit	n/a	1	Die-cast zinc	PDF
161043		$29.50			3 x 3in		161105 (4) included with kit				PDF
151075		$4.50		3/8-16 UNC x 1-1/2in Swivel Foot Threaded Rod with 15mm ball	Transport/Base Plate 118357 and 161043	470 [1036]**	n/a			Zinc plated steel	PDF
151068		$4.00	1.57 in [39.0 mm]	Swivel Base With Anti-Slip Plate	Any 15mm ball Threaded Rod	900 [1984]				Nylon	PDF
151071		$9.50				3000 [6614]				Die-cast zinc	PDF
151072		$17.00	3.11 in [79.0 mm]								PDF
151073		$17.00									PDF
151069		$6.00				900 [1984]				Nylon	PDF
151070		$6.00									PDF
151255		$10.00	3.90 in [99.0 mm]								PDF
151256		$10.00									PDF
151257		$24.00				3500 [7716]				Die-cast zinc	PDF
151258		$24.00									PDF

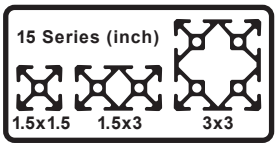
***T-Slot Nut also required**
****Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]

FATH® T-Slotted Rail Accessories

Bases - Continued

15 Series Bases - continued

Fits Slot Size 8



Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
162933		$12.50	See 2D drawing	Extended Swivel Base	Any 15mm ball Threaded Rod	1000 [2204]	n/a	n/a	1	Nylon	PDF
162934		$27.00				3000 [6613]				Die-cast zinc	PDF
166333		$30.00	n/a	Foot Console	1.5 x 1.5 in, 3 x 3in	n/a		161054		Die-cast aluminum	PDF
166334		$30.00									PDF
166335		$30.00			1.5 x 3in, 3 x 3in						PDF
166336		$30.00									PDF
162957		$11.50		Floor Bracket	1.5 x 1.5 in, 1.5 x 3in, 3 x 3in			151100		Anodized aluminum	PDF

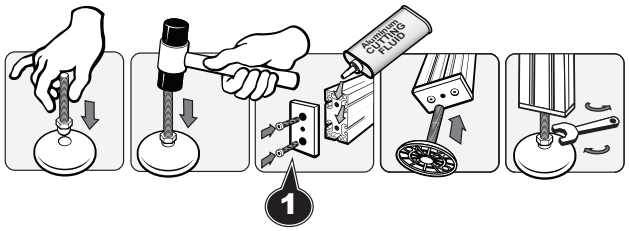
***T-Slot Nut also required**
****Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]

FATH® T-Slotted Rail Accessories

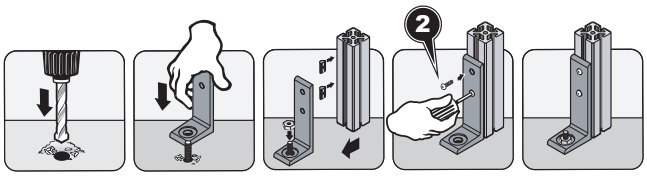
Bases - Continued

Bases Installation

Swivel Foot



Floor Bracket



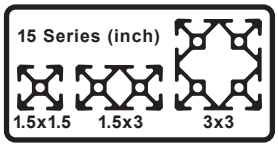
FATH® T-Slotted Rail Accessories

Casters

- Recommended ADC Fastener based on part feature and attachment type
- Material: varies by part

15 Series Casters

Fits Slot Size 8



Part Number	Part Image	Price	Description	Requires	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151134		$47.00	Swivel Caster (requires Swivel Caster Adapter Plate 151136)	n/a	122 [269]	161107	n/a	1	Thermoplastic polyurethane/ nylon/steel	PDF
151135		$40.50	Fixed Caster (requires Fixed Fixed Caster Adapter Plate 161040)			161106				PDF
151136		$4.50	3 Swivel Caster Adapter Plate	Requires Swivel Caster 151134)	n/a	n/a			Steel	PDF
161040		$3.50	3 Fixed Fixed Caster Adapter Plate	Requires Fixed Caster 151135					Die-cast zinc	PDF
151137		$62.00	Swivel Caster	n/a	122 [269]		161053		Thermoplastic polyurethane/ nylon/steel	PDF
151138		$49.00	Fixed Caster							PDF
163010		$40.00	Leveling Caster	Transport / Base Plate with M12-1.75 threaded hole	250 [551]		n/a		Die-cast aluminum/ steel/nylon/ rubber	PDF
163011		$52.00			500 [1102]					PDF
163012		$41.00		n/a	250 [551]		151040			PDF
163013		$56.00			500 [1102]					PDF

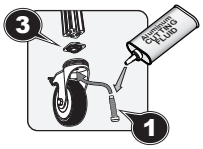
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

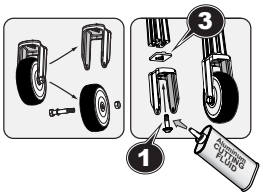
Casters - Continued

Caster Installation

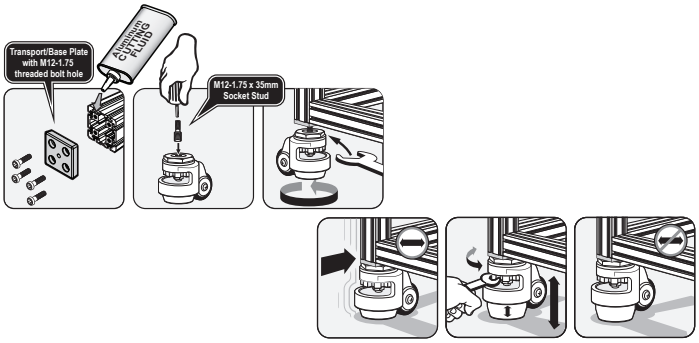
Swivel Caster



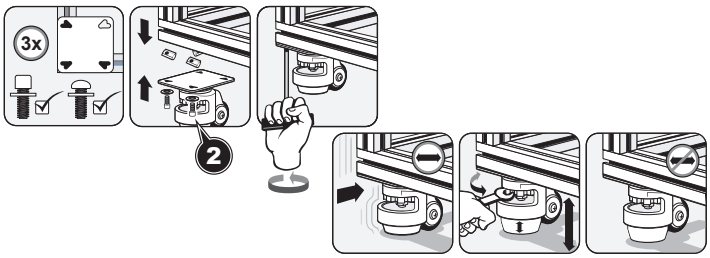
Fixed Caster



Leveling Caster with bolt hole thread



Leveling Caster with mounting plate



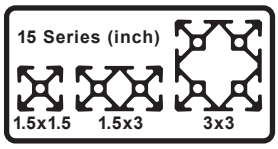
FATH® T-Slotted Rail Accessories

Hinges

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

15 Series Hinges

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Material	Drawing Link
151139		$7.25	Left-Hand Detachable Combination Hinge	161075	1	Fiberglass reinforced plastic	PDF
151140		$7.25	Right-Hand Detachable Combination Hinge				PDF
151141		$7.25	Non-Detachable Combination Hinge				PDF
151142		$12.50	Non-Detachable Combination Hinge With Locking Lever				PDF
151143		$18.00	Left-Hand Detachable Combination Hinge			Die-cast aluminum	PDF
151144		$18.00	Right-Hand Detachable Combination Hinge				PDF
151145		$18.00	Non-Detachable Combination Hinge				PDF

*T-Slot Nut also required

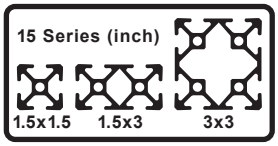
FATH® T-Slotted Rail Accessories

Panel and Door Elements

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

15 Series Panel and Door Elements

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151146		$6.00	Bridge Handle	161048	1	Fiberglass reinforced plastic	PDF
151147		$6.00		151100			PDF
151148		$6.25	Cover Cap 3	n/a			PDF
151149		$6.50	Comfort Handle	161054			PDF
151150		$2.25	Cover Cap 3	n/a			PDF
151151		$12.50	Comfort Handle	161054			PDF
151152		$3.00	Cover Cap 3	n/a			PDF
151153		$33.50	Machine Handle	151100			PDF
151154		$47.00	Compact Slam Latch	161050		Die-cast aluminum	PDF
151155		$58.00	Compact Sliding Door Latch				PDF
151156		$37.00	Emergency Opener	161087		Fiberglass reinforced plastic	PDF
151157		$7.25	Ball Catch	161051			PDF

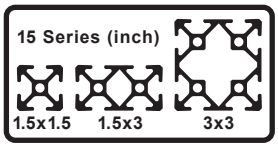
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

Panel and Door Elements - Continued

15 Series Panel and Door Elements - Continued

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151158		$14.50	Double Ball Catch	161076	1	Brass	PDF
151159		$23.00	Door Latch	161087		Die-cast zinc	PDF
162963		$8.50	Magnetic Catch	161048		Nylon/steel	PDF
162911		$5.00	Panel Holder	151100		Anodized aluminum	PDF
162916		$6.00					PDF
162922		$5.75	Panel Mount Block	Fasteners included		Lacquered aluminum	PDF
162923		$5.75				Powder-coated aluminum	PDF
162977		$8.50	Hanger	161050		Die-cast zinc	PDF
162978		$3.00	Panel Uni-Block	n/a	10	Nylon	PDF
162979		$3.00					PDF

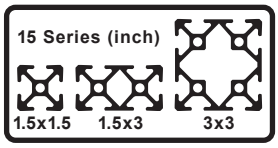
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

Panel and Door Elements - Continued

15 Series Panel and Door Elements - Continued

Fits Slot Size 8

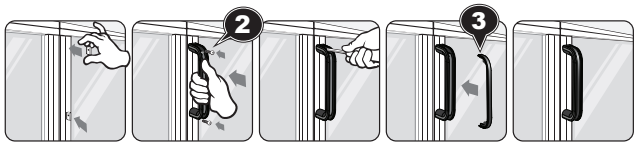


Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151160		$58.00	Sealing Strip	n/a	2	PVC/TPE	PDF
151163		$25.00	Cover Profile		1	Nitrile rubber	PDF
162928		$525.00	Sealing Profile			Nitrile rubber	PDF
151165		$91.00	Cover Profile		25	Polypropylene	PDF
151164		$115.00	Cover And Reduction Profile				PDF

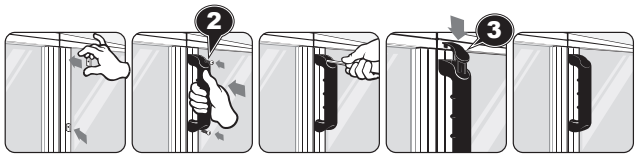
*T-Slot Nut also required

Panel and Door Elements Installation

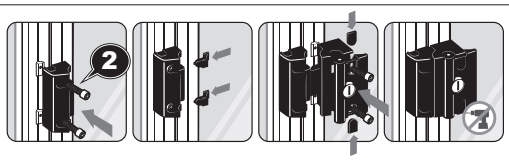
Bridge Handle and Cover Cap



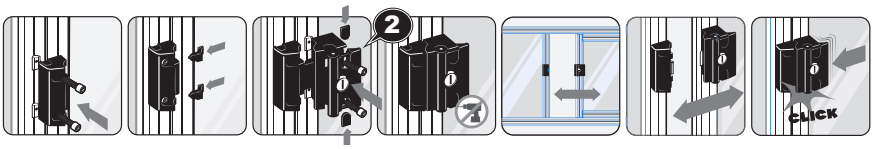
Comfort Handle and Cover Cap



Slam Latch



Sliding Door Latch

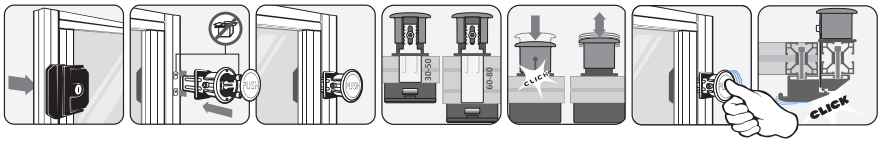


FATH® T-Slotted Rail Accessories

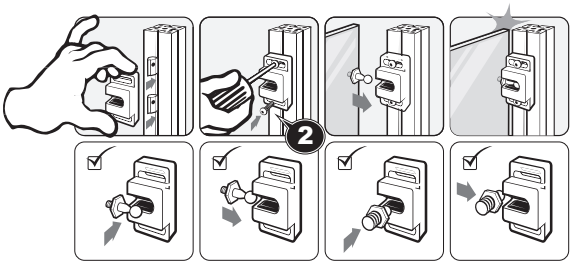
Panel and Door Elements - Continued

Panel and Door Elements Installation - Continued

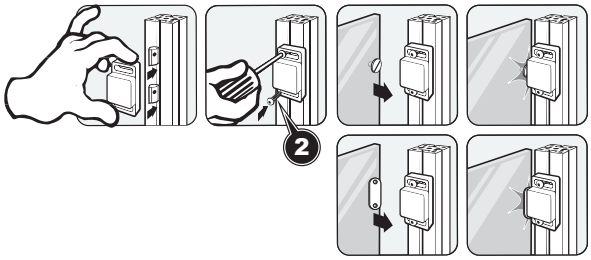
Emergency Opener



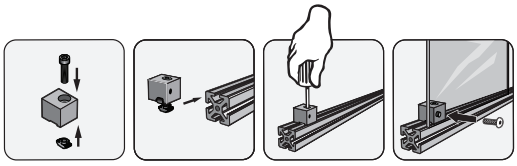
Ball Catch



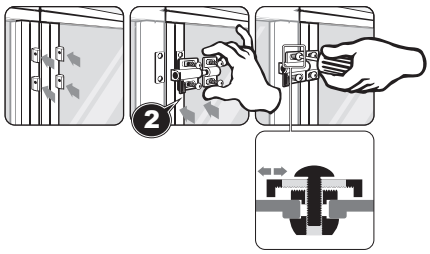
Magnetic Catch



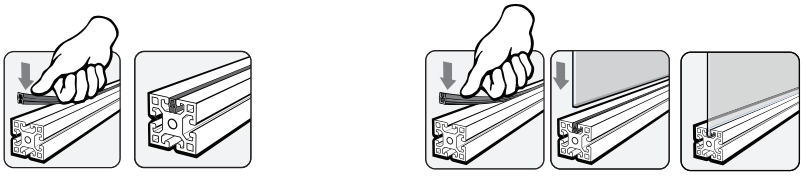
Panel Mount Block



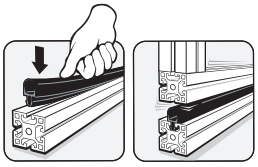
Door Latch



Cover and Reduction Profile



Sealing Profile

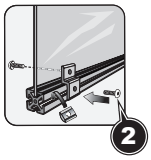


FATH® T-Slotted Rail Accessories

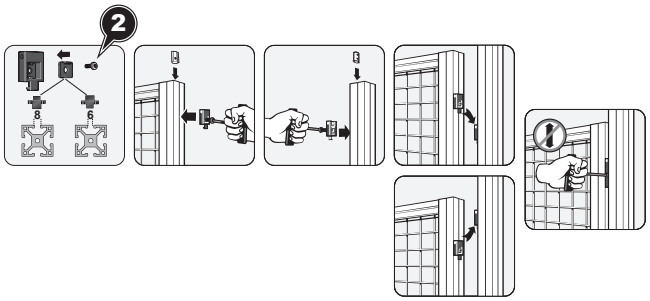
Panel and Door Elements - Continued

Panel and Door Elements Installation - Continued

Panel Holder



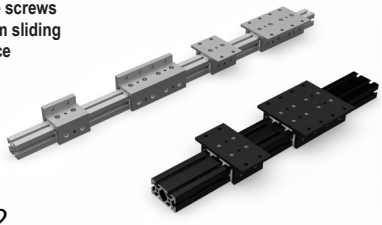
Hanger

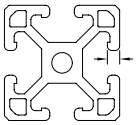


FATH® T-Slotted Rail Accessories

Slides and Rollers

Adjust side screws for optimum sliding performance

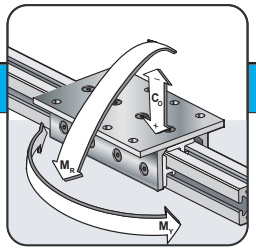




Linear Bearings

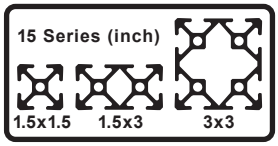
- No Shimming required!
- Verified fit with SureFrame 15 & 40 Series
- Static Load rating (Co) up to 4,000 N (900 lbf)
- Single and Double Flange Styles
- Available in Black or Silver
- Optional Brake Assemblies

Note: Not all Slot size 8 profiles are made the same, so it is important to confirm that the "a2" dimension of the profile is 3.0-4.5mm for adequate engagement and ultimate slide performance.



15 Series Slides and Rollers

Fits Slot Size 8



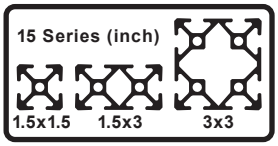
Part Number	Part Image	Price	Description	Fits	Pack Quantity	Load Ratings: Static (Co) N[lbf]	Load Ratings: Reverse Static (-Co) N[lbf]	Load Ratings: Roll Moment (Mr) N-m[lbf-ft]	Load Ratings: Yaw Moment (My) N-m[lbf-ft]	Material	Drawing Link
166337		$63.00	3-slot, double flange, short linear bearing	1.5 x 1.5 in, 1.5 x 3in,	1	1000 [225]	500 [112]	40 [29]	150 [111]	Aluminum/ die-cast zinc/ polyoxymethylene (POM)	PDF
166338		$63.00									PDF
166339		$126.00	3-slot, double flange, long linear bearing			2000 [450]	1000 [225]	80 [59]	200 [147]		PDF
166340		$130.00									PDF
166341		$80.00	4-slot, double flange, short linear bearing	1.5 x 3in, 3 x 3in				50 [37]	150 [111]		PDF
166342		$84.00									PDF
166343		$158.00	4-slot, double flange, long linear bearing			4000 [889]	2000 [450]	100 [74]	200 [147]		PDF
166344		$168.00									PDF
166345		$60.00	3-slot, single flange, short linear bearing	1.5 x 1.5 in, 1.5 x 3in,		1000 [225]	500 [112]	40 [29]	150 [111}		PDF
166346		$63.00									PDF
166347		$120.00	3-slot, single flange, long linear bearing			2000 [450]	1000 [225]	80 [59]	200 [147]		PDF
166348		$126.00									PDF

FATH® T-Slotted Rail Accessories

Slides and Rollers - Continued

15 Series Slides and Rollers - Cont'd

Fits Slot Size 8



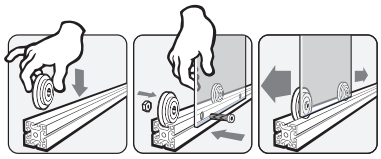
Part Number	Part Image	Price	Description	Fits	Pack Quantity	Recommended Screw Fastener T-Slot Attachment 2	Material	Drawing Link
166349		$45.00	Cam Lever Brake	All 15 Series Linear Bearings	1	n/a	Plastic/steel	PDF
166350		$28.00	L-Handle Brake					PDF
151168		$18.00	Slider	n/a		Fasteners included	Rubber/plastic/ steel	PDF
151169		$36.00	Slider With Clamp Lever					PDF
148974		$9.50	Roller			n/a	Nylon	PDF
151166		$4.50	Slider				Glass-filled nylon	PDF
151089		$4.50	Snap Hook	Slider 151166			Zinc plated steel	PDF
163020		$14.50	Roller Element With Guide	All 15 Series		Fasteners included	Thermoplastic polyurethane/ nylon/steel	PDF
163021		$14.50	Roller Element Without Guide					PDF

FATH® T-Slotted Rail Accessories

Slides and Rollers - Continued

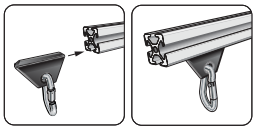
Slides and Rollers Installation

Roller

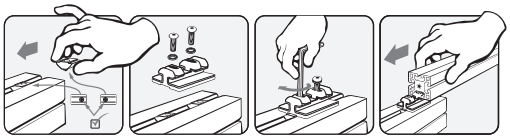


Bolt and nut not included and not available from AutomationDirect

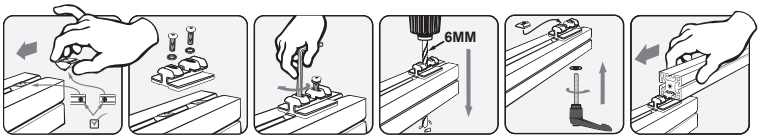
Slider and Snap Hook



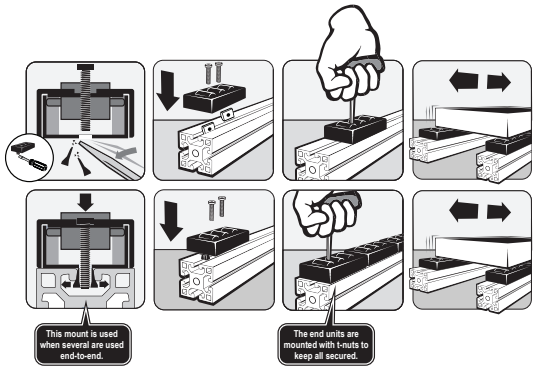
Slider



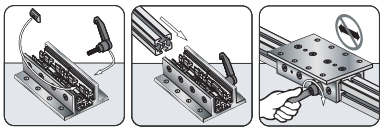
Slider with Clamp Lever



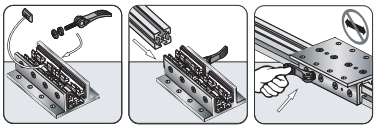
Roller Element



L-Handle Brake

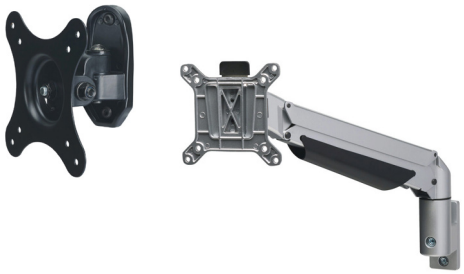


Cam Lever Brake



FATH® T-Slotted Rail Accessories

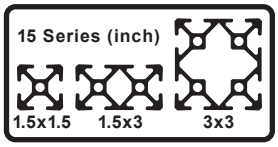
Monitor Mounts

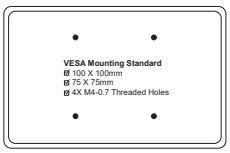


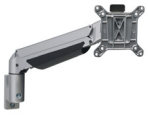
15 Series Monitor Mounts

- Fits monitors with VESA mounting standard
- Durable steel construction
- Mounting hardware included for several mounting locations

Fits Slot Size 8



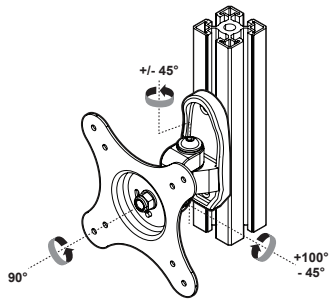


Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Installation Instructions Link	Drawing Link
162893		$42.00	Swivel Monitor Mount	15 [33.1]	1	PDF	PDF
162894		$50.00				PDF	PDF
162895		$58.00				PDF	PDF
162896		$92.00	Monitor Mounting Joint			PDF	PDF
162897		$92.00	Monitor Holder			PDF	PDF
162899		$325.00	4-Axis Mounting Support	10 [22.0]		PDF	PDF
162900		$394.00	5-Axis Mounting Support			PDF	PDF
162901		$630.00	4-Axis Workstation	8 [17.6]		PDF	PDF

FATH® T-Slotted Rail Accessories

Monitor Mounts - Continued

Monitor Mounts Adjustments



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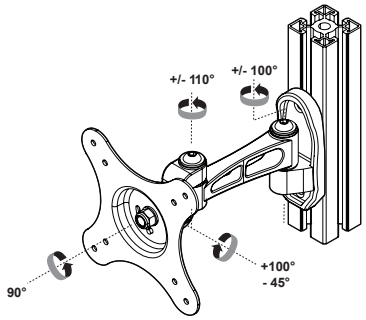

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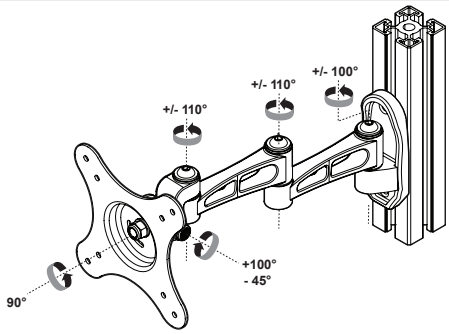

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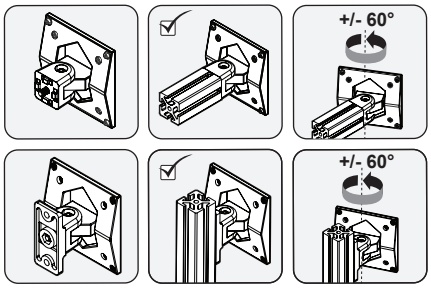

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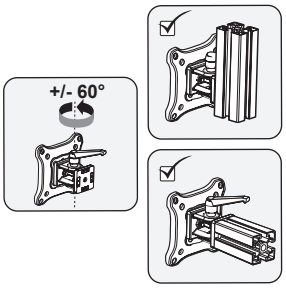

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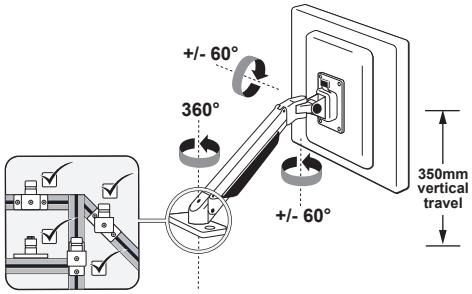

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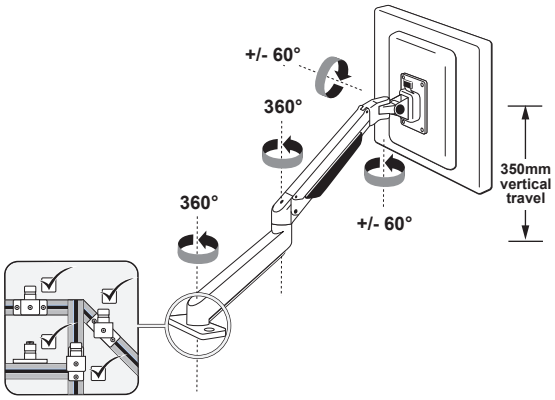
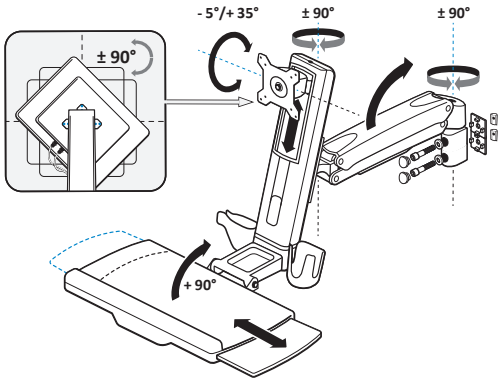


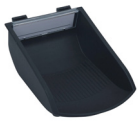
162900



162901

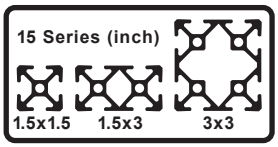
FATH® T-Slotted Rail Accessories

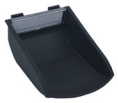
Workstation Components



15 Series Workstation Components

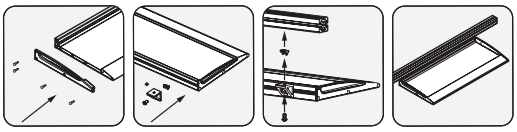
Fits Slot Size 8



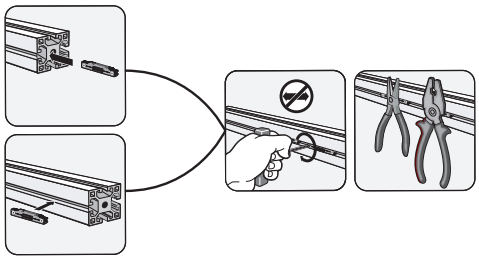
Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Material	Drawing Link
162902		$185.00	Keyboard Holder (requires mounting solution, designer's choice)	n/a	1	Aluminum/nylon	PDF
162906		$8.00	Magnetic Holder			Nylon/steel	PDF
162964		$9.00	Grab Tray			Nylon	PDF
162965		$2.00	Label Clip			PVC	PDF

Workstation Components Installation

Keyboard Holder (mounting example)

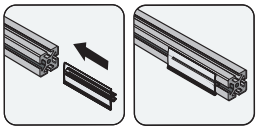


Magnetic Holder



Grab Tray

Label Clip

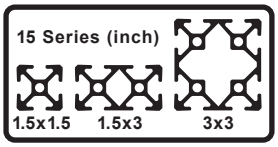


FATH® T-Slotted Rail Accessories

Wire Management

15 Series Wire Management

Fits Slot Size 8

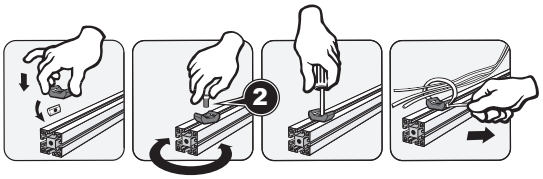


Part Number	Part Image	Price	Description	Pack Quantity	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Material	Drawing Link
151161		$89.00	Conduit Cover 2000mm long	2	n/a	Polypropylene	PDF
151162		$93.00					PDF
151174		$15.50	Cross Cable Binding Block	10		Nylon	PDF
151175		$64.00	Hook And Loop			Glass-filled nylon/ polypropylene	PDF
151176		$38.50	Clip Cable Binder With Hammer			Nylon/rubber	PDF
151177		$28.50	Ground Connector	1	Fasteners included	Glass-filled nylon/ copper/steel	PDF
151178		$4.00	Grounding Terminal			Steel/brass	PDF
162982		$7.50	Universal Cable Binder Block	10	161046	Nylon	PDF

*T-Slot Nut also required

Wire Management Installation

Universal Cable Binder Block

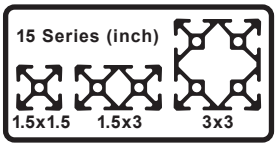


FATH® T-Slotted Rail Accessories

Miscellaneous Accessories

15 Series Miscellaneous Accessories

Fits Slot Size 8



Part Number	Part Image	Price	Description	Requires	Fits Profile	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151171		$16.50	End Cap	n/a	1.5 x 1.5in	n/a	10	Glass-filled nylon	PDF
151172		$21.00			1.5 x 3in				PDF
151173		$37.00			3 x 3in				PDF
151091		$6.00	Stop Bumper		All 15 Series		1	Rubber/zinc-plated steel	PDF
151170		$9.00							PDF
162973		$3.25	Sensor Mounting Block for 8mm proximity sensor			BHCS 8-32 x 1" (not sold by ADC)		Nylon	PDF
162974		$3.25	Sensor Mounting Block for 12mm proximity sensor						PDF
162929		$252.00	Side Protection Profile			n/a	5	Thermoplastic rubber	PDF
162930		$284.00	Corner Protection Profile						PDF
162931		$28.00	Cover Cap for Side	162929 or 162930			10		PDF
162932		$21.00	Cover Cap for Corner	162930					PDF

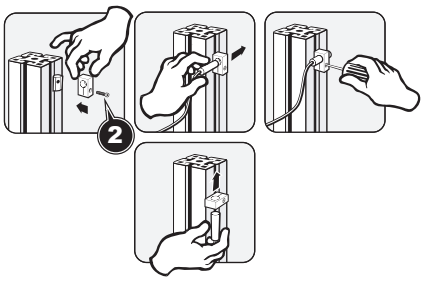
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

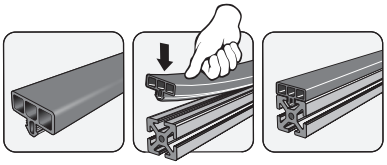
Miscellaneous Accessories - Continued

Miscellaneous Installation

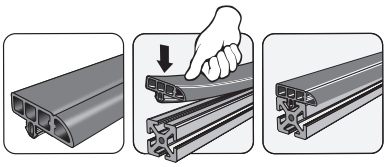
Sensor Mounting Block



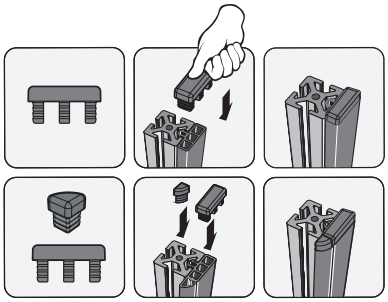
Side Protection Profile



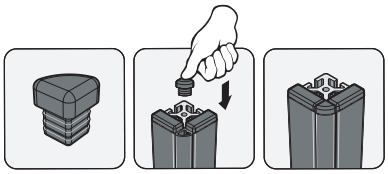
Corner Protection Profile



Cover Cap for Side



Cover Cap for Corner



Aluminum T-Slotted Rail

30 Series Metric T-Slotted Aluminum Rail

SureFrame™ T-slotted aluminum rails are extruded exclusively for AutomationDirect, with features, quality, and performance you expect. SureFrame T-slotted rails are compatible with other popular brands.

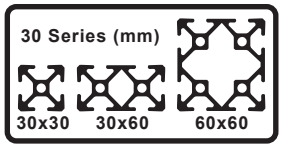
- Cut to length in 0.01 cm increments
- Minimum cut length: 15.24 cm
- Maximum cut length: 228.0 cm
- Cut accuracy: +/- 0.015 cm [0.15mm]
- Corrosion and UV resistant

Properties	
Material	Aluminum 6063-T6
Finish	Clear Anodize
Hardness	Webster Model B 11-12
Straightness	0.0125 inch/ft [1.042 mm/m]
Twist	0.25°/ft [0.25°/305mm]

30 Series (metric)

Slot Size 8

Core Hole Ø 7.3 mm



T-Slot Drop Lock feature improves connection strength and vibration resistance

Part Number	*Part Image*	*Price per cm*	*Profile Size*	*Weight Class*	*Weight lbs/ft [kg/m]*	*Moment of Inertia Lx*	*Moment of Inertia Ly*	*Drawing Link*
30-3030C		$0.13	30 x 30mm	Standard	0.605 [0.900]	0.068 in^4 [2.829 cm^4]	0.068 in^4 [2.829 cm^4]	PDF
30-3060C		$0.21	30 x 60mm		1.058 [1.574]	0.130 in^4 [5.408 cm^4]	0.473 in^4 [19.677 cm^4]	PDF
30-6060C		$0.31	60 x 60mm		1.681 [2.502]	0.871 in^4 [36.234 cm^4]	0.871 in^4 [36.234 cm^4]	PDF

Extruded T-slotted rails have a thru Core Hole feature that can be used to attach various components to the end of the profile using:

- Self-tapping / thread-forming screws (no tapping needed)
- A tap to thread the core hole for a threaded fastener

Core Hole

2 Places

4 Places

Please Note: Prices on aluminum are closely tied to the market price. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

Aluminum T-Slotted Rail

Deflection Calculations

Using the calculations below, find your approximate deflection* for a specific extrusion.
See table below for variations.

As always when calculating, use diligence and work only in either imperial or metric units at one time.

Aluminum 6063-T6 Properties	
Yield Strength	29,007 psi [200 MPa]
Tensile Strength	33,359 psi [230 MPa]
Modulus of Elasticity	10,000,000 psi [68.9 GPa]

"E" = Modulus of Elasticity

"F" = Force

"I" = Moment of Inertia

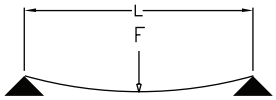
"L" = Length

"W" = Weight

***for reference only**

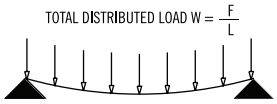
Supported Loads

CONCENTRATED LOAD AT CENTER (simply supported)



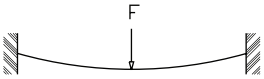
$$\text{MAX DEFLECTION} = \frac{FL^3}{48\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)



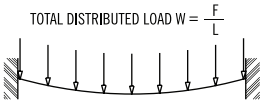
$$\text{MAX DEFLECTION} = \frac{5}{84}\,\frac{WL^4}{EI}$$

CONCENTRATED LOAD AT CENTER (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{FL^3}{192\,EI}$$

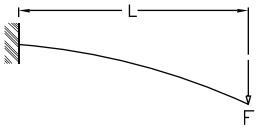
UNIFORMLY DISTRIBUTED LOAD (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{WL^4}{384\,EI}$$

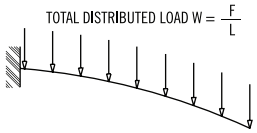
Cantilever Loads

CONCENTRATED LOAD AT CENTER (simply supported)



$$\text{MAX DEFLECTION} = \frac{FL^3}{3\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)

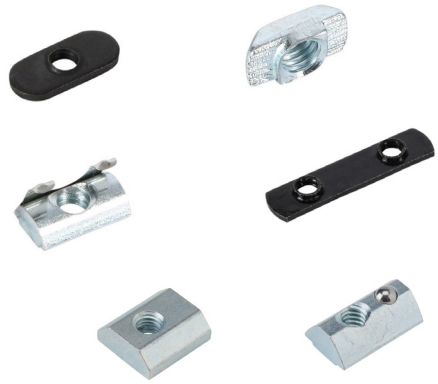


$$\text{MAX DEFLECTION} = \frac{WL^4}{8\,EI}$$

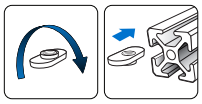
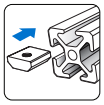
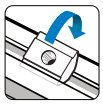
FATH® T-Slotted Rail Accessories

T-Slot Nuts

- Designed to fit into the T-slot cavity of extruded aluminum rails.
- Hammer nuts provide safe electrostatic discharging (ESD) connection.
- No machining required.
- Material: zinc plated steel

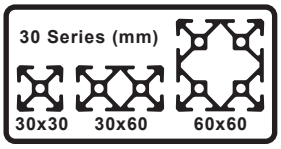


T-Slot Nuts Selection

Part Image	Nut Type	Installation	Holds Position Without Screw	ESD Connection
	Double Economy T-Nut		No	No
	Economy T-Nut			
	Hammer Nut			Yes
	Slide-In Nut			No
	Roll-In Nut with Leaf Spring		Yes	
	Roll-In Nut with Spring Loaded Ball			

30 Series T-Slot Nuts

Fits Slot Size 8



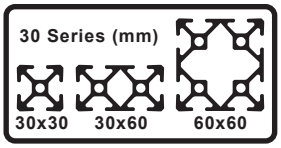
Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
161126		$8.25	Hammer Nut	10-32 UNF	10	PDF
151097		$9.50		1/4-20 UNC		PDF
161127		$8.00		M4-0.7		PDF
161116		$16.75	Roll-In Nut			PDF
161128		$8.00	Hammer Nut	M5-0.8		PDF
161117		$16.75	Roll-In Nut			PDF

FATH® T-Slotted Rail Accessories

T-Slot Nuts - Continued

30 Series T-Slot Nuts - Continued

Fits Slot Size 8



Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
151179		$6.50	Economy T-Nut	M6-1.0	10	PDF
151180		$5.25	Double Economy T-Nut		4	PDF
151181		$9.00	Hammer Nut		10	PDF
161118		$16.75	Roll-In Nut			PDF
151182		$19.00		M8-1.25		PDF

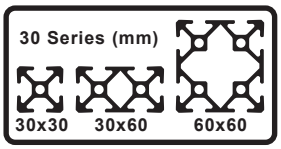
FATH® T-Slotted Rail Accessories

Fasteners

- Choose from 4 Head types in numerous lengths
- Hex socket head
- Select desired T-Slot nut style with corresponding thread size.
- Material: Black zinc plated or bright zinc plated steel, prevents corrosion better than typical black oxide coatings

30 Series Fasteners

Fits Slot Size 8



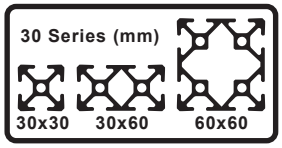
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
162994		$8.00	8-32 UNF x 3/8in	Button head socket cap screw	Flat black	10	PDF
161073		$7.75	8-32 UNF x 1/2in	Flat head socket cap screw			PDF
162993		$7.50	10-32 UNF x 3/8in	Button head socket cap screw			PDF
162995		$7.75	10-32 UNF x 1/2in	Socket head cap screw			PDF
161046		$4.75		Button head socket cap screw			PDF
161047		$5.00	10-32 UNF x 5/8in				PDF
161048		$5.75	10-32 UNF x 3/4in				PDF
161074		$6.25	1/4-20 UNC x 1/2in	Flat head socket cap screw			PDF
151040		$4.25		Button head socket cap screw			PDF
151041		$5.25		Flanged button head socket cap screw	Gloss black		PDF
161049		$4.75	1/4-20 UNC x 9/16in	Button head socket cap screw	Flat black		PDF
161075		$6.25	1/4-20 UNC x 5/8in	Flat head socket cap screw			PDF
161050		$4.75		Button head socket cap screw			PDF
161087		$4.00		Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

30 Series Fasteners - Continued

Fits Slot Size 8



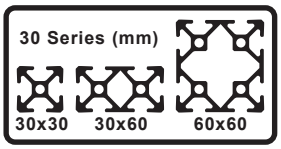
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161051		$4.75	1/4-20 UNC x 3/4in	Button head socket cap screw	Flat black	10	PDF
161052		$5.25	1/4-20 UNC x 1in				PDF
161088		$2.25	M4-0.7 x 8mm	Socket head cap screw	Bright zinc		PDF
161089		$2.50	M4-0.7 x 10mm				PDF
161056		$1.00		Button head socket cap screw			PDF
161076		$1.50	M4-0.7 x 12mm	Flat head socket cap screw			PDF
161057		$1.25	M5-0.8 x 10mm	Button head socket cap screw			PDF
161090		$2.50		Socket head cap screw			PDF
161077		$1.75	M5-0.8 x 12mm	Flat head socket cap screw			PDF
161091		$2.75		Socket head cap screw			PDF
161058		$1.75		Button head socket cap screw			PDF
161092		$2.75	M6-1.0 x 10mm	Socket head cap screw			PDF
161078		$2.25	M6-1.0 x 12mm	Flat head socket cap screw			PDF
161059		$2.00		Button head socket cap screw			PDF
161093		$2.75		Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

30 Series Fasteners - Continued

Fits Slot Size 8



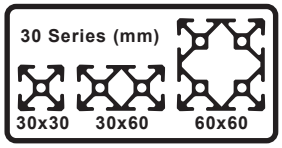
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161079		$2.50	M6-1.0 x 14mm	Flat head socket cap screw	Bright zinc	10	PDF
161060		$2.25		Button head socket cap screw			PDF
161094		$3.00	M6-1.0 x 14mm	Socket head cap screw			PDF
161080		$2.50	M6-1.0 x 16mm	Flat head socket cap screw			PDF
161061		$2.50		Button head socket cap screw			PDF
161095		$3.00		Socket head cap screw			PDF
161062		$3.00	M6-1.0 x 18mm	Button head socket cap screw			PDF
161096		$3.25		Socket head cap screw			PDF
161081		$2.75	M6-1.0 x 20mm	Flat head socket cap screw			PDF
161063		$3.00		Button head socket cap screw			PDF
161097		$3.25		Socket head cap screw			PDF
161064		$3.25	M6-1.0 x 25mm	Button head socket cap screw			PDF
161082		$4.75	M8-1.25 x 12mm	Flat head socket cap screw			PDF
161065		$4.25		Button head socket cap screw			PDF
161098		$4.75		Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

30 Series Fasteners - Continued

Fits Slot Size 8



Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161066		$4.50	M8-1.25 x 14mm	Button head socket cap screw	Bright zinc	10	PDF
161083		$5.00		Flat head socket cap screw			PDF
161099		$5.00	M8-1.25 x 14mm	Socket head cap screw			PDF
161084		$5.50	M8-1.25 x 16mm	Flat head socket cap screw			PDF
161100		$5.50		Socket head cap screw			PDF
161067		$4.75		Button head socket cap screw			PDF
151183		$4.75			Gloss black		PDF
151184		$5.50		Flanged button head socket cap screw			PDF
161085		$5.50	M8-1.25 x 18mm	Flat head socket cap screw	Bright zinc		PDF
161068		$5.25		Button head socket cap screw			PDF
161101		$5.50		Socket head cap screw			PDF
151241		$4.50	M8-1.25 x 20mm	Button head socket cap screw			PDF
161102		$5.75		Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

30 Series Fasteners - Continued

Fits Slot Size 8

30 Series (mm): 30x30, 30x60, 60x60

Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161086		$7.00	M8-1.25 x 25mm	Flat head socket cap screw	Bright zinc	10	PDF
161069		$5.25		Button head socket cap screw			PDF
161070		$8.00	M8-1.25 x 40mm				PDF

30 Series Self Forming / Tapping Screws

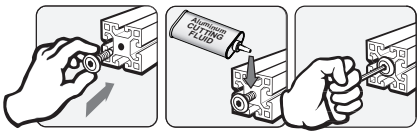
Fits 30 Series Core Hole

30 Series (mm): 30x30, 30x60, 60x60

Works with Aluminum with hole diameter 0.276" - 0.295" [7.0 - 7.5 mm]

Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161108		$9.25	8 x 25mm	Self-Tapping Screw Flanged button head socket cap T-40 Torx	Bright zinc	10	PDF
161109		$8.75		Self-Tapping Screw Flat head socket cap			PDF

Self Forming / Tapping Screw Installation



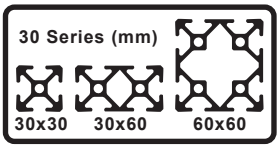
FATH® T-Slotted Rail Accessories

Connecting Components

- Connects two or three T-slot rails together
- Recommended ADC Fastener based on part feature, slot Depth and core hole
- Material: varies by part

30 Series Connecting Components

Fits Slot Size 8

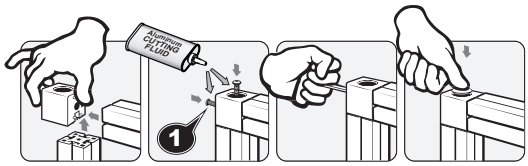
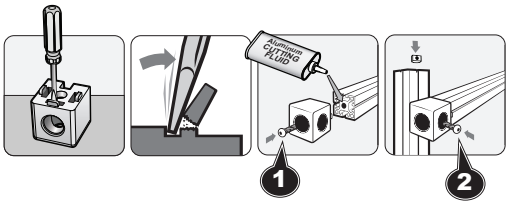
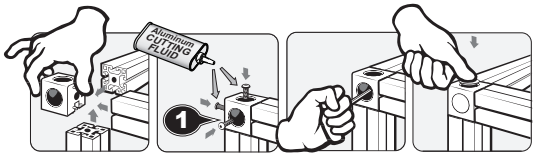
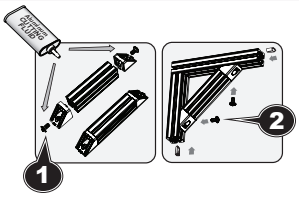
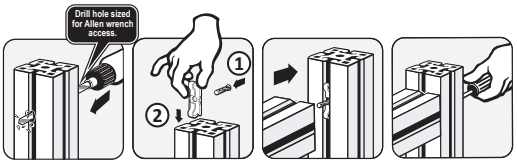
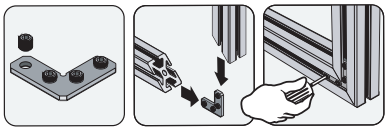


Part Number	Part Image	Price	Description	Fits Profile	Material	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Drawing Link
151185		$9.50	2d Cube Connector	30 x 30mm 30 x 60mm 60 x 60mm	Die-cast aluminum	161085	161083	1	PDF
151186		$10.50	3d Cube Connector				n/a		PDF
151187		$6.00	Angle Connector	30 x 30mm		151241 Requires manually tapping core hole to M8-1.25 x 20 DP	161066		PDF
151188		$10.00		30 x 60mm					PDF
162961		$11.50	Miter Connector	30 x 30mm 30 x 60mm 60 x 60mm	Steel	n/a	M8-1.25 x 8mm set screw (4) included		PDF
163008		$10.75	Screw Connector		Zinc plated steel	Designer's choice	n/a	10	PDF

***T-Slot Nut also required.**

FATH® T-Slotted Rail Accessories

Connecting Components - Continued

Connecting Components Installation	
Core Hole Installation	***T-Slot Installation***
2D Cube Connector	
	
3D Cube Connector	
	n/a
Angle Connector	
	
Screw Connector	
	
Miter Connector	
	

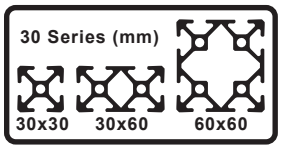
FATH® T-Slotted Rail Accessories

Joining Plates

- Connects two or more T-slot rails together.
- Recommended ADC Fastener based on part feature and slot depth.
- Material: Anodized aluminum

30 Series Joining Plates

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener - T-Slot Hole Attachment (ADC Part Number)	Pack Quantity	Drawing Link
151189		$4.50	Straight Flat Plate	161059	1	PDF
162985		$8.00				PDF
151190		$5.50				PDF
151191		$5.50	Square Flat Plate			PDF
151192		$9.50	Rectangular Flat Plate			PDF
151193		$9.50	Flat Plate			PDF
151194		$10.00	T-Shaped Flat Plate			PDF
162988		$18.00				PDF

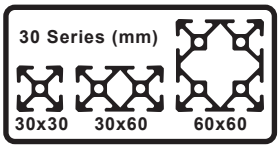
FATH® T-Slotted Rail Accessories

Brackets

- Connects two T-slot rails together at a 90° angle
- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

30 Series Brackets

Fits Slot Size 8



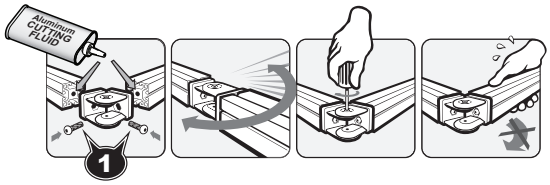
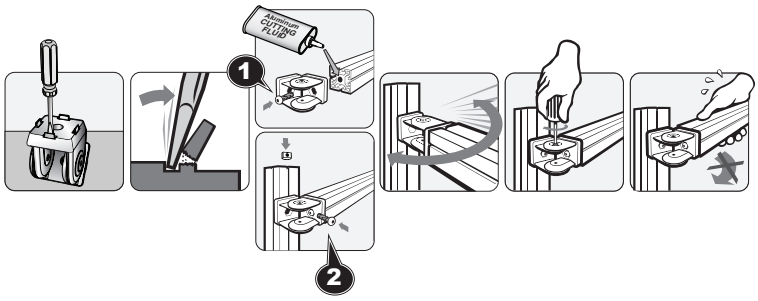
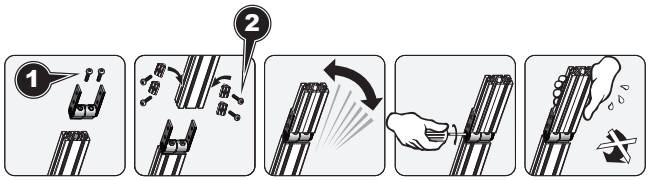
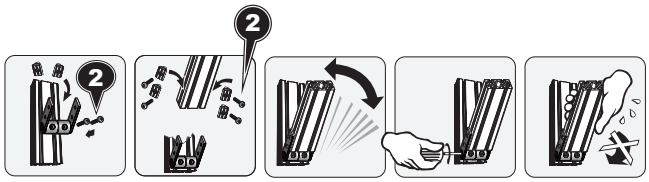
Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number)		Pack Quantity	Material	Drawing Link
				Core Hole Attachment 1	*T-Slot Attachment 2			
151195		$4.25	Inside Corner Bracket	n/a	161059	1	Anodized aluminum	PDF
151196		$5.25	Wide Inside Corner Bracket					PDF
151197		$5.75	Tall Inside Corner Bracket					PDF
151198		$11.00	Inside Corner Bracket					PDF
162989		$2.25	Gusseted Inside Corner Bracket					PDF
162990		$4.75	Tall Gusseted Inside Corner Bracket					PDF
162991		$4.75	Wide Gusseted Inside Corner Bracket					PDF
162992		$8.00	Gusseted Inside Corner Bracket					PDF
151199		$28.50	Pivot Joint	161102 Requires manually tapping core hole to M8-1.25 x 20mm DP	161099		Die-cast zinc	PDF
151200		$38.50	Pivot Joint With Locking Handle					PDF
163014		$27.50	1-Slot Pivot Joint	Not possible	161092		Die-cast zinc/die-cast aluminum/ nylon	PDF
163017		$36.50	2-Slot Pivot Joint					PDF

*T-Slot Nut also required.

FATH® T-Slotted Rail Accessories

Brackets - Continued

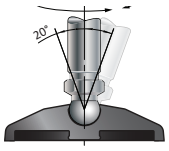
Brackets Installation

Core Hole Installation	T-Slot Installation
Pivot Joint	
 Manually tap core hole for screw	
Pivot Joint	
	

FATH® T-Slotted Rail Accessories

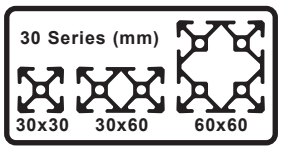
Bases

- Recommended ADC Fastener based on part feature and core hole
- Material: varies by part



30 Series Bases

Fits Slot Size 8



Part Number	Part Image	Price	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	***T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
162940		$11.50	M8-1.25 Transport/ Base Plate	30 x 60mm	n/a	161102** (2) included with kit	n/a	1	Die-cast zinc	PDF
162941		$11.50	M10-1.5 Transport/ Base Plate							PDF
162942		$11.50	M12-1.75 Transport/ Base Plate							PDF
162943		$17.50	M8-1.25 Transport/ Base Plate	60 x 60mm		161102** (4) included with kit				PDF
162944		$17.75	M10-1.5 Transport/ Base Plate							PDF
162945		$20.00	M12-1.75 Transport/ Base Plate							PDF
162946		$20.00	M14-2.0 Transport/ Base Plate							PDF
162947		$20.00	M16-2.0 Transport/ Base Plate							PDF
151201		$3.75	M8-1.25 x 40mm Swivel Foot Threaded Rod with 15mm ball	Requires Transport / Base Plate 162940 or 162943	350 [772]*	n/a			Zinc plated steel	PDF
151202		$4.00	M10-1.5 x 45mm Swivel Foot Threaded Rod with 15 mm ball	Requires Transport / Base Plate 162941 or 162944	470 [1036]*					PDF
162938		$6.50	M16-2.0 x 100mm Swivel Foot Threaded Rod with 15mm ball	Requires Transport / Base Plate 162947	1450 [3197]					PDF

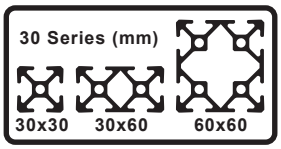
***Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]
****Requires tapping Core Hole (M8-1.25 x 20mm deep)**
*****T-Slot Nut also required.**

FATH® T-Slotted Rail Accessories

Bases - Continued

30 Series Bases - continued

Fits Slot Size 8



Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	***T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151068		$4.00	1.57 in [39.0 mm]	Swivel Base With Anti-Slip Plate	Any 15mm ball Threaded Rod	900 [1984]	n/a	n/a	1	Nylon	PDF
151071		$9.50				3000 [6614]				Die-cast zinc	PDF
151072		$17.00	3.11 in [79.0 mm]								PDF
151073		$17.00									PDF
151069		$6.00				900 [1984]				Nylon	PDF
151070		$6.00									PDF
162933		$12.50	see 2D drawing	Extended Swivel Base		1000 [2204]				Nylon	PDF
162934		$27.00				3000 [6613]				Die-cast zinc	PDF
162956		$11.00	n/a	Floor Bracket	30 x 30mm, 30 x 60mm, 60 x 60mm	n/a		161066		Anodized aluminum	PDF

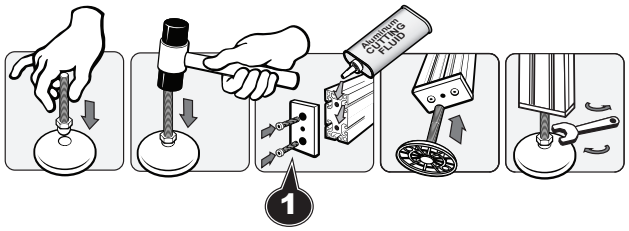
***Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]
****Requires tapping Core Hole (M8-1.25 x 20mm deep)**
*****T-Slot Nut also required.**

FATH® T-Slotted Rail Accessories

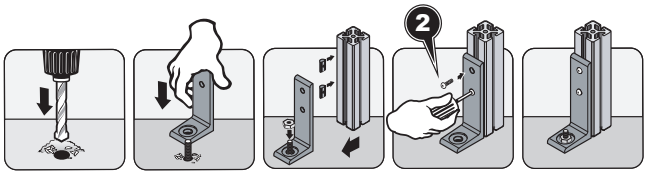
Bases - Continued

Bases Installation

Swivel Foot



Floor Bracket



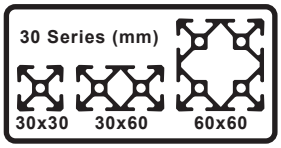
FATH® T-Slotted Rail Accessories

Casters

- Recommended ADC Fastener based on part feature and attachment type
- Material: varies by part

30 Series Casters

Fits Slot Size 8

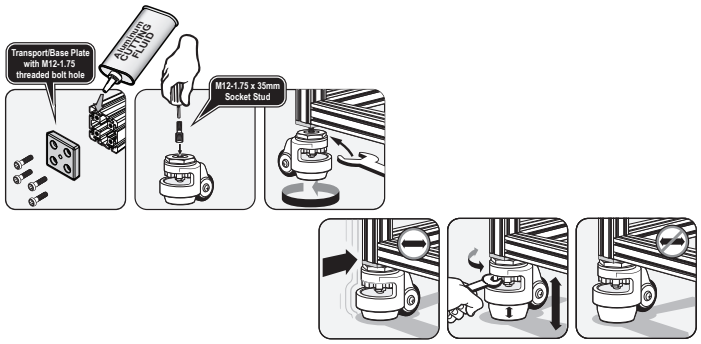


Part Number	Part Image	Price	Description	Requires	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
163010		$40.00	Leveling Caster	Transport / Base Plate with M12-1.75 threaded hole	250 [551]	n/a	n/a	1	Die-cast aluminum/ steel/nylon/ rubber	PDF
163011		$52.00			500 [1102]					PDF
163012		$41.00		n/a	250 [551]		161059			PDF
163013		$56.00			500 [1102]					PDF

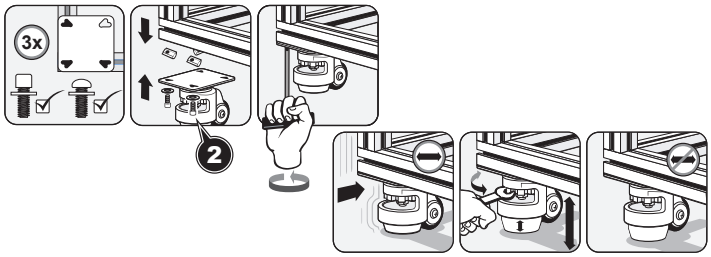
*T-Slot Nut also required.

Caster Installation

Leveling Caster with bolt hole thread



Leveling Caster with mounting plate



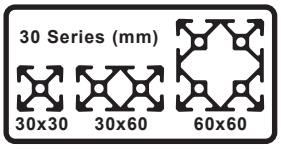
FATH® T-Slotted Rail Accessories

Hinges

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

30 Series Hinges

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Material	Drawing Link
151203		$6.25	Left-Hand Detachable Combination Hinge	161079	1	Fiberglass reinforced plastic	PDF
151204		$6.50	Right-Hand Detachable Combination Hinge				PDF
151205		$6.50	Non-Detachable Combination Hinge				PDF
151206		$11.50	Non-Detachable Combination Hinge With Locking Lever				PDF
151207		$16.50	Left-Hand Detachable Combination Hinge			Die-cast aluminum	PDF
151208		$16.50	Right-Hand Detachable Combination Hinge				PDF
151209		$16.50	Non-Detachable Combination Hinge				PDF

*T-Slot Nut also required

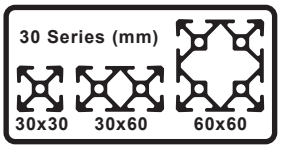
FATH® T-Slotted Rail Accessories

Panel and Door Elements

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

30 Series Panel and Door Elements

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151146		$6.00	Bridge Handle	161061	1	Fiberglass reinforced plastic	PDF
151147		$6.00		161065			PDF
151148		$6.25	Cover Cap 3	n/a			PDF
151149		$6.50	Comfort Handle	151183			PDF
151085		$4.50	Comfort Handle	161095			PDF
151086		$4.00	Cover Cap 3	n/a			PDF
151157		$7.25	Ball Catch	151162			PDF
151158		$14.50	Double Ball Catch	FHCS M4-0.7 x 10mm**		Brass	PDF
162963		$8.50	Magnetic Catch	161062		Nylon/steel	PDF
162912		$4.50	Panel Holder	161066		Anodized aluminum	PDF
162917		$5.75					PDF
162977		$8.50	Hanger	161059		Die-cast zinc	PDF
151210		$150.00	Cover And Reduction Profile	n/a	25	Thermoplastic elastomer	PDF

***T-Slot Nut also required**

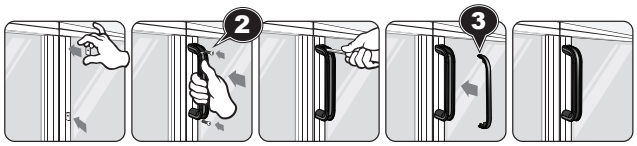
**** Recommended fastener not available from AutomationDirect.com**

FATH® T-Slotted Rail Accessories

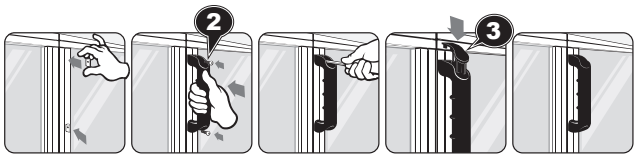
Panel and Door Elements - Continued

Panel and Door Elements Installation

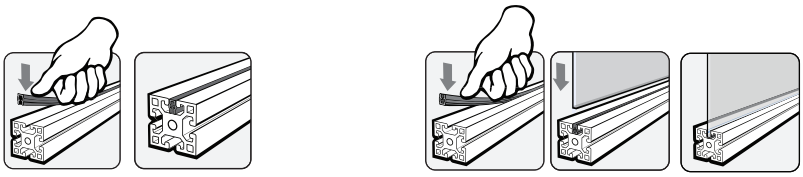
Bridge Handle and Cover Cap



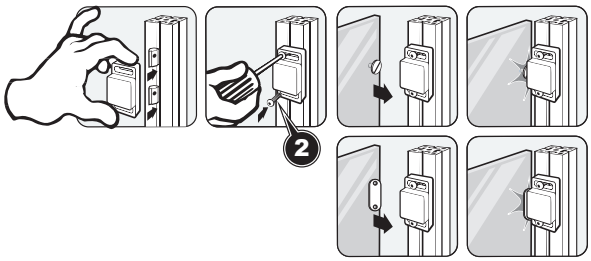
Comfort Handle and Cover Cap



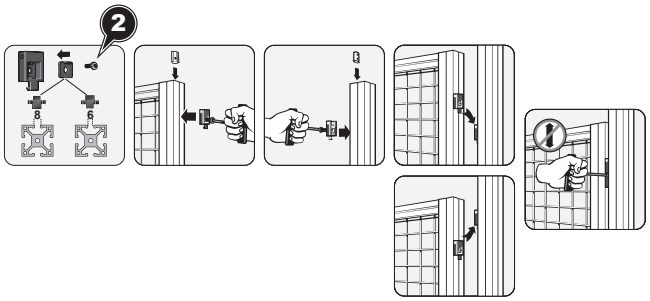
Cover and Reduction Profile



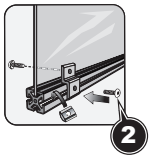
Magnetic Catch



Hanger

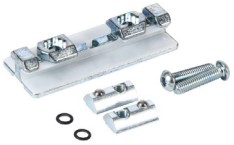


Panel Holder



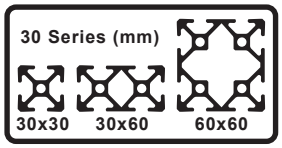
FATH® T-Slotted Rail Accessories

Slides and Rollers



30 Series Slides and Rollers

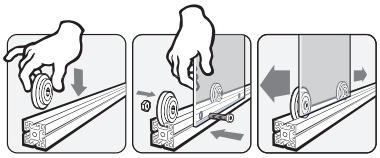
Fits Slot Size 8



Part Number	Part Image	Price	Description	Fits	Pack Quantity	Material	Drawing Link
148974		$9.50	Roller	All 30 Series	1	Nylon	PDF
151211		$4.50	Slider			Glass-filled nylon	PDF
151089		$4.50	Snap Hook	Slider 151211		Zinc plated steel	PDF
162968		$7.50	Profile Slider Center Slot	All 30 Series		Polyoxymethylene (POM)	PDF

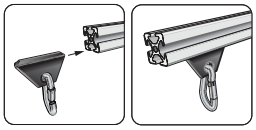
Slides and Rollers Installation

Roller

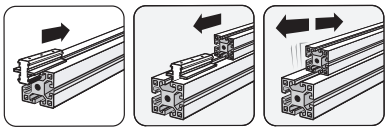


Bolt and nut not included and not available from AutomationDirect

Slider and Snap Hook



Profile Slider



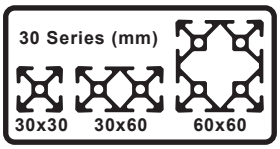
FATH® T-Slotted Rail Accessories

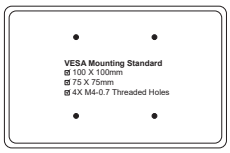
Monitor Mounts

30 Series Monitor Mounts

- Fits monitors with VESA mounting standard
- Durable steel construction
- Powder coat finish
- Mounting hardware included for several mounting locations

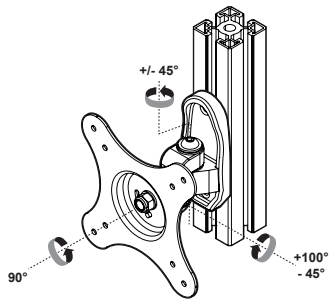
Fits Slot Size 8



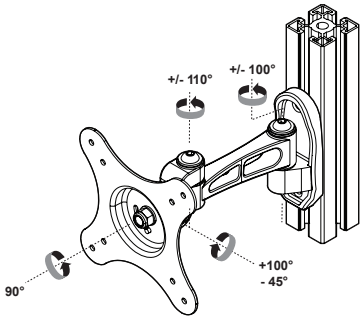


Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Installation Instructions Link	Drawing Link
162893		$42.00	Swivel Monitor Mount	15 [33.1]	1	PDF	PDF
162894		$50.00				PDF	PDF
162895		$58.00				PDF	PDF

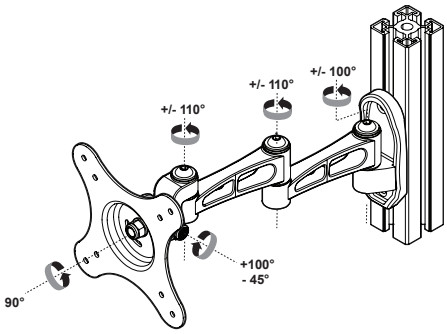
Monitor Mounts Adjustments



162893



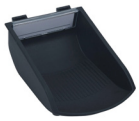
162894



162895

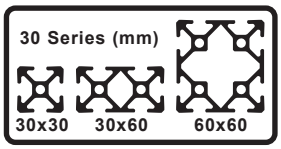
FATH® T-Slotted Rail Accessories

Workstation Components



30 Series Workstation Components

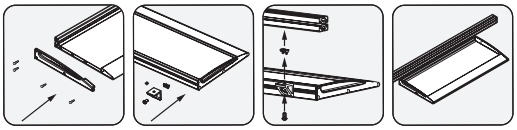
Fits Slot Size 8



Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Material	Drawing Link
162902		$185.00	Keyboard Holder	n/a	1	Aluminum/nylon	PDF
162964		$9.00	Grab Tray			Nylon	PDF
162965		$2.00	Label Clip			PVC	PDF

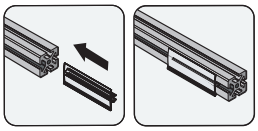
Workstation Components Installation

Keyboard Holder (mounting example)



Grab Tray

Label Clip

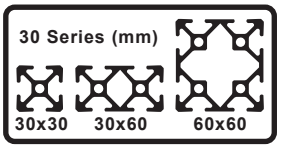


FATH® T-Slotted Rail Accessories

Wire Management

30 Series Wire Management

Fits Slot Size 8

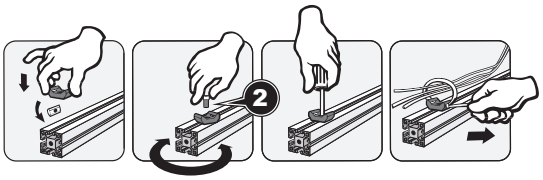


Part Number	Part Image	Price	Description	Pack Quantity	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Material	Drawing Link
162982		$7.50	Universal Cable Binder Block	10	161057	Nylon	PDF
162983		$15.75	Cable Binder Block		n/a		PDF

*T-Slot Nut also required

Wire Management Installation

Universal Cable Binder Block

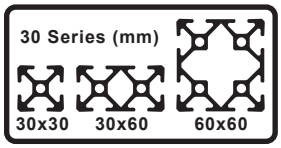


FATH® T-Slotted Rail Accessories

Miscellaneous Accessories

30 Series Miscellaneous Accessories

Fits Slot Size 8



Part Number	Part Image	Price	Description	Fits Profile	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151212		$9.25	End Cap	30 x 30mm	n/a	10	Glass-filled nylon	PDF
151170		$9.00	Stop Bumper	All 30 Series		1	Rubber/zinc-plated steel	PDF
162973		$3.25	Sensor Mounting Block for 8mm diameter sensors		BHCS M4-0.7 x 20mm (not sold by ADC)		Nylon	PDF
162974		$3.25	Sensor Mounting Block for 12mm diameter sensors					PDF

*T-Slot Nut also required

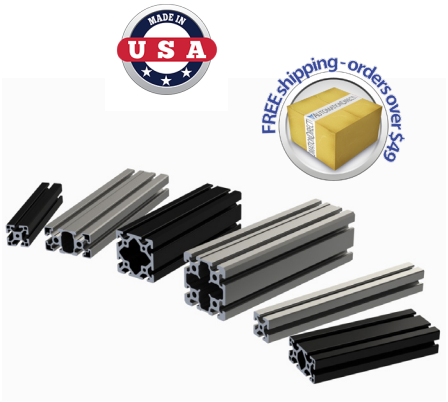
Aluminum T-Slotted Rail

40 Series Metric T-Slotted Aluminum Rail

SureFrame™ T-slotted aluminum rails are extruded exclusively for AutomationDirect, with features, quality, and performance you expect. SureFrame T-slotted rails are compatible with other popular brands.

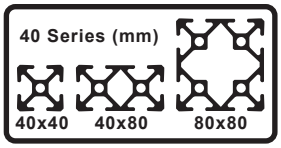
- Cut to length in 0.01 cm increments
- Minimum cut length: 15.24 cm
- Maximum cut length: 228.0 cm
- Cut accuracy: +/- 0.015 cm [0.15mm]
- Corrosion and UV resistant

Properties	
Material	Aluminum 6063-T6
Finish	Clear or Black Anodize
Hardness	Webster Model B 11-12
Straightness	0.0125 inch/ft [1.042 mm/m]
Twist	0.25°/ft [0.25°/305mm]

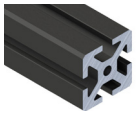
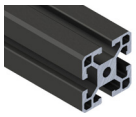


40 Series (metric)

Slot Size 8 — Core Hole Ø 6.8 mm



T-Slot Drop Lock feature improves connection strength and vibration resistance

Part Number	*Part Image*	*Price per cm*	*Profile Size*	*Weight Class*	*Weight lbs/ft [kg/m]*	*Moment of Inertia Lx*	*Moment of Inertia Ly*	*Drawing Link*
40-4040C		$0.30	40 x 40mm	Standard	1.624 [2.417]	0.324 in^4 [13.478 cm^4]	0.324 in^4 [13.478 cm^4]	PDF
40-4040B		$0.40						PDF
40-4040CL		$0.24		Light	1.170 [1.741]	0.219 in^4 [9.110 cm^4]	0.219 in^4 [9.110 cm^4]	PDF
40-4040BL		$0.31						PDF

Extruded T-slotted rails have a thru Core Hole feature that can be used to attach various components to the end of the profile using:

- Self-tapping / thread-forming screws (no tapping needed)
- A tap to thread the core hole for a threaded fastener

Core Hole

2 Places

4 Places

Please Note: Prices on aluminum are closely tied to the market price. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

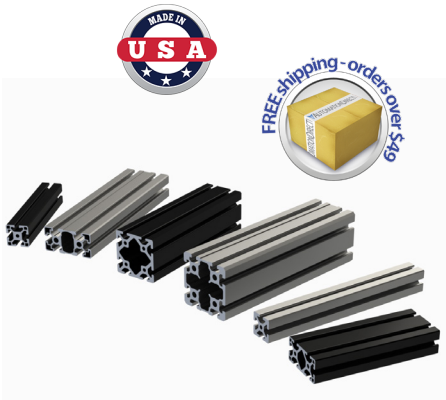
Aluminum T-Slotted Rail

40 Series Metric T-Slotted Aluminum Rail

SureFrame™ T-slotted aluminum rails are extruded exclusively for AutomationDirect, with features, quality, and performance you expect. SureFrame T-slotted rails are compatible with other popular brands.

- Cut to length in 0.01 cm increments
- Minimum cut length: 15.24 cm
- Maximum cut length: 228.0 cm
- Cut accuracy: +/- 0.015 cm [0.15mm]
- Corrosion and UV resistant

Properties	
Material	Aluminum 6063-T6
Finish	Clear or Black Anodize
Hardness	Webster Model B 11-12
Straightness	0.0125 inch/ft [1.042 mm/m]
Twist	0.25°/ft [0.25°/305mm]

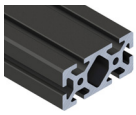
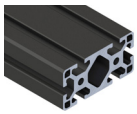
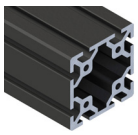


40 Series (metric) - Continued

Slot Size 8 — Core Hole Ø 6.8 mm

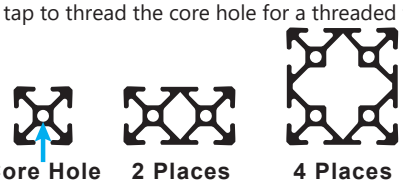
40 Series (mm): 40x40, 40x80, 80x80

Drop Lock (2°) — T-Slot Drop Lock feature improves connection strength and vibration resistance

Part Number	*Part Image*	*Price per cm*	*Profile Size*	*Weight Class*	*Weight lbs/ft [kg/m]*	*Moment of Inertia Lx*	*Moment of Inertia Ly*	*Drawing Link*
40-4080C		$0.54	40 x 80mm	Standard	2.925 [4.353]	.0621 in^4 [25.834m^4]	2.848 in^4 [118.477 cm^4]	PDF
40-4080B		$0.69						PDF
40-4080CL		$0.47		Light	2.482 [3.694]	0.495 in^4 [20.592 cm^4]	1.761 in^4 [73.258 cm^4]	PDF
40-4080BL		$0.59						PDF
40-8080C		$0.78	80 x 80mm	Standard	4.281 [6.371]	4.075 in^4 [169.520 cm^4]	4.075 in^4 [169.520 cm^4]	PDF
40-8080B		$0.95						PDF

Extruded T-slotted rails have a thru Core Hole feature that can be used to attach various components to the end of the profile using:

- Self-tapping / thread-forming screws (no tapping needed)
- A tap to thread the core hole for a threaded fastener



Please Note: Prices on aluminum are closely tied to the market price. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

Aluminum T-Slotted Rail

Deflection Calculations

Using the calculations below, find your approximate deflection* for a specific extrusion.
See table below for variations.

As always when calculating, use diligence and work only in either imperial or metric units at one time.

Aluminum 6063-T6 Properties	
Yield Strength	29,007 psi [200 MPa]
Tensile Strength	33,359 psi [230 MPa]
Modulus of Elasticity	10,000,000 psi [68.9 GPa]

"E" = Modulus of Elasticity

"F" = Force

"I" = Moment of Inertia

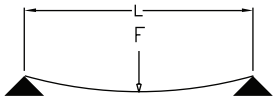
"L" = Length

"W" = Weight

***for reference only**

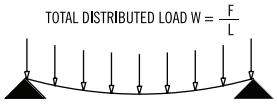
Supported Loads

CONCENTRATED LOAD AT CENTER (simply supported)



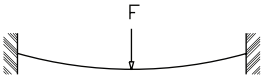
$$\text{MAX DEFLECTION} = \frac{FL^3}{48\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)



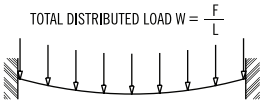
$$\text{MAX DEFLECTION} = \frac{5}{84}\,\frac{WL^4}{EI}$$

CONCENTRATED LOAD AT CENTER (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{FL^3}{192\,EI}$$

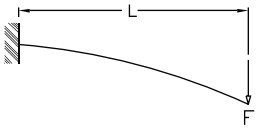
UNIFORMLY DISTRIBUTED LOAD (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{WL^4}{384\,EI}$$

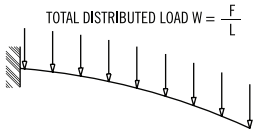
Cantilever Loads

CONCENTRATED LOAD AT CENTER (simply supported)



$$\text{MAX DEFLECTION} = \frac{FL^3}{3\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)

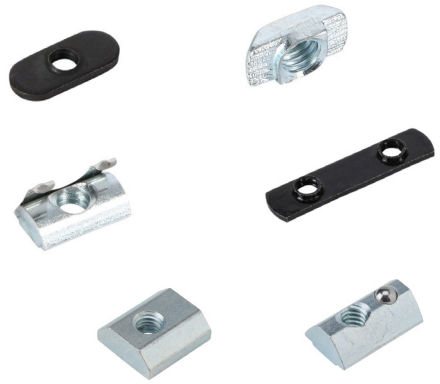


$$\text{MAX DEFLECTION} = \frac{WL^4}{8\,EI}$$

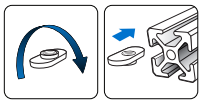
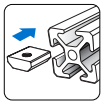
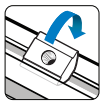
FATH® T-Slotted Rail Accessories

T-Slot Nuts

- Designed to fit into the T-slot cavity of extruded aluminum rails.
- Hammer nuts provide safe electrostatic discharging (ESD) connection.
- No machining required.
- Material: zinc plated steel

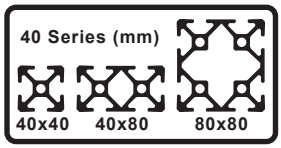


T-Slot Nuts Selection

Part Image	Nut Type	Installation	Holds Position Without Screw	ESD Connection
	Double Economy T-Nut		No	No
	Economy T-Nut			
	Hammer Nut			Yes
	Slide-In Nut			No
	Roll-In Nut with Leaf Spring		Yes	
	Roll-In Nut with Spring Loaded Ball			

40 Series T-Slot Nuts

Fits Slot Size 8



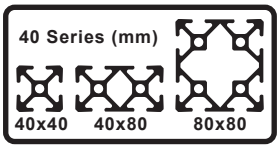
Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
161126		$8.25	Hammer Nut	10-32 UNF	10	PDF
162996		$17.50	Roll-In Nut			PDF
162903		$9.50	Slide-In Nut			PDF
151097		$9.50	Hammer Nut	1/4-20 UNC		PDF
151098		$20.00	Roll-In Nut			PDF
162997		$17.50				PDF

FATH® T-Slotted Rail Accessories

T-Slot Nuts - Continued

40 Series T-Slot Nuts - Continued

Fits Slot Size 8



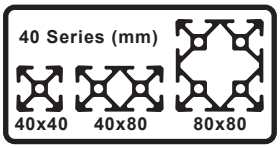
Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
162904		$9.50	Slide-In Nut	1/4-20 UNC	10	PDF
151099		$20.00	Roll-In Nut	5/16-18 UNC		PDF
162998		$17.50				PDF
161129		$8.00	Hammer Nut	M4-0.7		PDF
162999		$17.50	Roll-In Nut			PDF
161130		$8.00	Hammer Nut	M5-0.8		PDF
161120		$16.75	Roll-In Nut			PDF
163000		$17.50				PDF
151214		$9.00	Hammer Nut	M6-1.0		PDF
162884		$9.75	Slide-In Nut			PDF
151215		$19.00	Roll-In Nut			PDF
163001		$17.50				PDF

FATH® T-Slotted Rail Accessories

T-Slot Nuts - Continued

40 Series T-Slot Nuts - Continued

Fits Slot Size 8



Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
151213		$6.00	Economy T-Nut	M8-1.25	10	PDF
148802		$5.50	Double Economy T-Nut		4	PDF
162885		$9.75	Slide-In Nut		10	PDF
151216		$19.00	Roll-In Nut			PDF
163002		$17.50				PDF

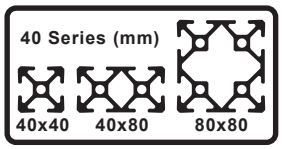
FATH® T-Slotted Rail Accessories

Fasteners

- Choose from 4 Head types in numerous lengths
- Hex socket head
- Select desired T-Slot nut style with corresponding thread size.
- Material: Black zinc plated or bright zinc plated steel, prevents corrosion better than typical black oxide coatings

40 Series Fasteners

Fits Slot Size 8



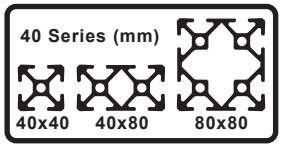
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
162994		$8.00	8-32 UNF x 3/8in	Button head socket cap screw	Flat black	10	PDF
161073		$7.75	8-32 UNF x 1/2in	Flat head socket cap screw			PDF
162993		$7.50	10-32 UNF x 3/8in	Button head socket cap screw			PDF
162995		$7.75	10-32 UNF x 1/2in	Socket head cap screw			PDF
161046		$4.75		Button head socket cap screw			PDF
161047		$5.00	10-32 UNF x 5/8in				PDF
161048		$5.75	10-32 UNF x 3/4in				PDF
161074		$6.25	1/4-20 UNC x 1/2in	Flat head socket cap screw			PDF
151040		$4.25		Button head socket cap screw			PDF
151041		$5.25		Flanged button head socket cap screw	Gloss black		PDF
161049		$4.75	1/4-20 UNC x 9/16in	Button head socket cap screw	Flat black		PDF
161075		$6.25	1/4-20 UNC x 5/8in	Flat head socket cap screw			PDF
161050		$4.75		Button head socket cap screw			PDF
161087		$4.00		Socket head cap screw			PDF

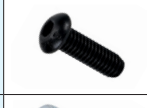
FATH® T-Slotted Rail Accessories

Fasteners - Continued

40 Series Fasteners - Continued

Fits Slot Size 8



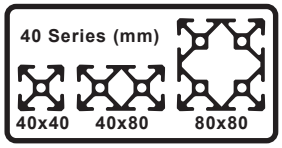
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161051		$4.75	1/4-20 UNC x 3/4in	Button head socket cap screw	Flat black	10	PDF
161052		$5.25	1/4-20 UNC x 1in				PDF
151100		$5.25	5/16-18 UNC x 5/8in				PDF
151101		$6.00	5/16-18 UNC x 11/16in	Flanged button head socket cap screw	Gloss black		PDF
161053		$6.00	5/16-18 UNC x 1/2in	Button head socket cap screw	Flat black		PDF
161054		$6.50	5/16-18 UNC x 3/4in				PDF
161055		$7.50	5/16-18 UNC x 1in				PDF
161088		$2.25	M4-0.7 x 8mm	Socket head cap screw	Bright zinc		PDF
161089		$2.50	M4-0.7 x 10mm				PDF
161056		$1.00		Button head socket cap screw			PDF
161076		$1.50	M4-0.7 x 12mm	Flat head socket cap screw			PDF
161057		$1.25	M5-0.8 x 10mm	Button head socket cap screw			PDF
161090		$2.50		Socket head cap screw			PDF
161077		$1.75	M5-0.8 x 12mm	Flat head socket cap screw			PDF
161091		$2.75		Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

40 Series Fasteners - Continued

Fits Slot Size 8



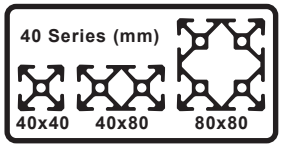
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161058		$1.75	M5-0.8 x 12mm	Button head socket cap screw	Bright zinc	10	PDF
161092		$2.75	M6-1.0 x 10mm	Socket head cap screw			PDF
161078		$2.25	M6-1.0 x 12mm	Flat head socket cap screw			PDF
161059		$2.00		Button head socket cap screw			PDF
161093		$2.75		Socket head cap screw			PDF
161079		$2.50	M6-1.0 x 14mm	Flat head socket cap screw			PDF
161060		$2.25		Button head socket cap screw			PDF
161094		$3.00		Socket head cap screw			PDF
161080		$2.50	M6-1.0 x 16mm	Flat head socket cap screw			PDF
161061		$2.50		Button head socket cap screw			PDF
161095		$3.00		Socket head cap screw			PDF
161062		$3.00	M6-1.0 x 18mm	Button head socket cap screw			PDF
161096		$3.25		Socket head cap screw			PDF
161081		$2.75	M6-1.0 x 20mm	Flat head socket cap screw			PDF
161063		$3.00		Button head socket cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

40 Series Fasteners - Continued

Fits Slot Size 8



Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161097		$3.25	M6-1.0 x 20mm	Socket head cap screw	Bright zinc	10	PDF
161064		$3.25	M6-1.0 x 25mm	Button head socket cap screw			PDF
161082		$4.75	M8-1.25 x 12mm	Flat head socket cap screw			PDF
161065		$4.25		Button head socket cap screw			PDF
161098		$4.75		Socket head cap screw			PDF
161066		$4.50	M8-1.25 x 14mm	Button head socket cap screw			PDF
161083		$5.00		Flat head socket cap screw			PDF
161099		$5.00		Socket head cap screw			PDF
161084		$5.50	M8-1.25 x 16mm	Flat head socket cap screw			PDF
161100		$5.50		Socket head cap screw			PDF
161067		$4.75		Button head socket cap screw			PDF
151183		$4.75			Gloss black		PDF
151184		$5.50		Flanged button head socket cap screw			PDF
161085		$5.50	M8-1.25 x 18mm	Flat head socket cap screw	Bright zinc		PDF
161068		$5.25		Button head socket cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

40 Series Fasteners - Continued

Fits Slot Size 8

40 Series (mm): 40x40, 40x80, 80x80

Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161101		$5.50	M8-1.25 x 18mm	Socket head cap screw	Bright zinc	10	PDF
151241		$4.50	M8-1.25 x 20mm	Button head socket cap screw			PDF
161102		$5.75	M8-1.25 x 20mm	Socket head cap screw			PDF
161086		$7.00	M8-1.25 x 25mm	Flat head socket cap screw			PDF
161069		$5.25		Button head socket cap screw			PDF
161070		$8.00	M8-1.25 x 40mm				PDF
118287		$2.50	M8-1.25 x 25mm	Hammer head screw and flange nut		1	PDF

40 Series Self Forming / Tapping Screws

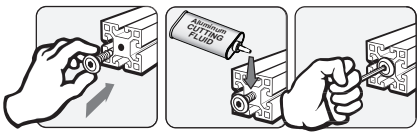
Fits 40 Series Core Hole

40 Series (mm): 40x40, 40x80, 80x80

Works with Aluminum with hole diameter 0.256" - 0.276" [6.6 - 7.0 mm]

Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161105		$17.00	7 x 25mm	Self-Tapping Screw Button head socket cap	Bright zinc	10	PDF
161106		$9.25		Self-Tapping Screw Flanged button head socket cap T-40 Torx			PDF
161107		$17.00	7 x 40mm	Self-Tapping Screw Button head socket cap			PDF

Self Forming / Tapping Screw Installation



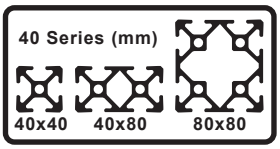
FATH® T-Slotted Rail Accessories

Connecting Components

- Connects two or three T-slot rails together
- Recommended ADC Fastener based on part feature, slot Depth and core hole
- Material: varies by part

40 Series Connecting Components

Fits Slot Size 8



Part Number	Part Image	Price	Description	Fits Profile	Material	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Drawing Link
148958		$10.00	2d Cube Connector	40 x 40mm	Die-cast aluminum	161105	161085	1	PDF
166369		$12.00							PDF
148959		$11.50	3d Cube Connector				n/a		PDF
166370		$13.00							PDF
151217		$13.50	Angle Connector				161067		PDF
166371		$16.00							PDF
151218		$13.50		40 x 80mm			161068		PDF
166372		$16.50							PDF

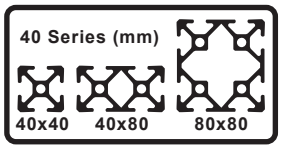
*T-Slot Nut 3 also required.

FATH® T-Slotted Rail Accessories

Connecting Components - Continued

40 Series Connecting Components - Continued

Fits Slot Size 8



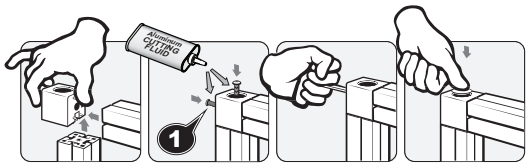
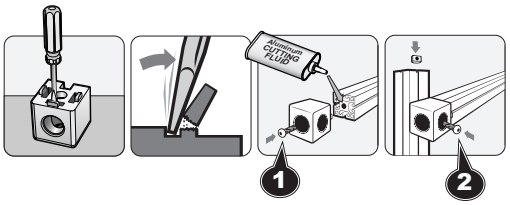
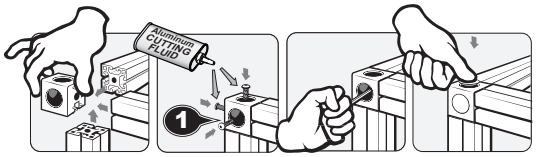
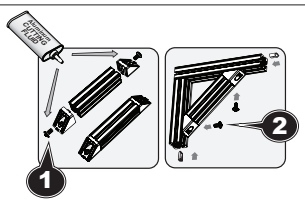
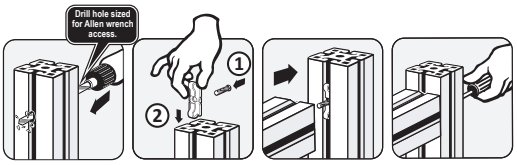
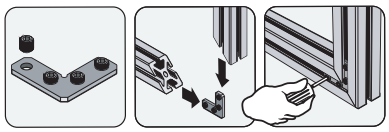
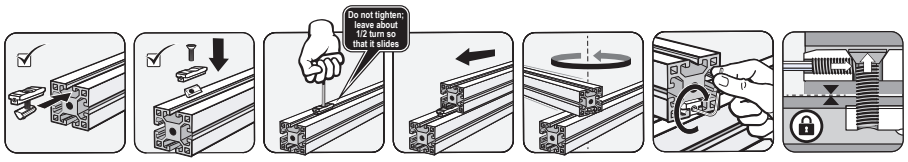
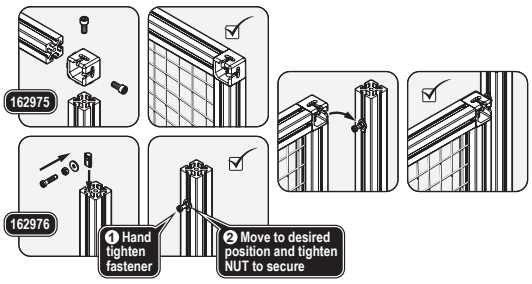
Part Number	Part Image	Price	Description	Fits Profile	Material	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Drawing Link
151102		$23.50	Duo Connector	All 40 Series	Steel	n/a	n/a	10	PDF
151103		$96.00	T-Matic Connector		Zinc plated steel				PDF
151104		$59.00	Automatic Connector		Steel				PDF
151105		$9.50	Automatic Butt Connector					1	PDF
151106		$8.50	Milling Connector		Zinc plated steel				PDF
151109		$15.50	Connecting Strip						PDF
162891		$13.00	Direct Connector		Steel		Fasteners included		PDF
162961		$11.50	Miter Connector		Steel	n/a	M8-1.25 x 8mm set screw (4) included		PDF
162975		$21.00	Clamp Profile Connector works with 162976		Die-cast zinc	161105 (2) included with kit	n/a		PDF
162976		$5.50	Mounting Element works with 162975		Steel	n/a	Fasteners included		PDF
163009		$13.25	Screw Connector		Zinc plated steel	Designer's choice	n/a	10	PDF

***T-Slot Nut also required.**

FATH® T-Slotted Rail Accessories

Connecting Components - Continued

Connecting Components Installation

Core Hole Installation	T-Slot Installation
2D Cube Connector	
	
3D Cube Connector	
	n/a
Angle Connector	
	
Screw Connector	
	
Miter Connector	
	
Direct Connector	
	
Clamp Profile Connector	
	

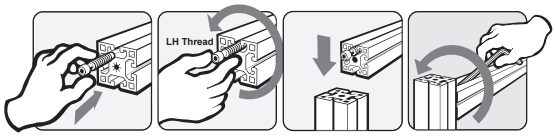
FATH® T-Slotted Rail Accessories

Connecting Components - Continued

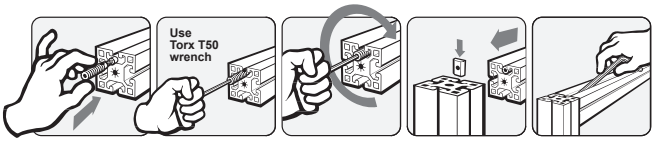
Connecting Components Installation

T-Slot Installation

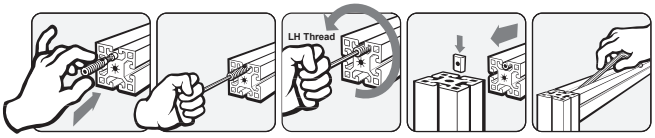
Duo Connector



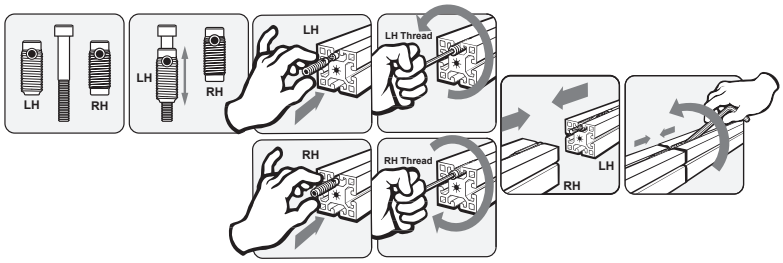
T-matic Connector



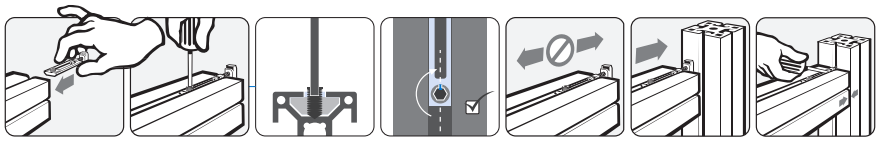
Automatic Connector



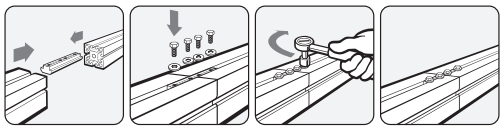
Automatic Butt Connector



Milling Connector



Connecting Strip



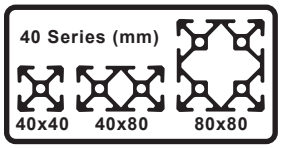
FATH® T-Slotted Rail Accessories

Joining Plates

- Connects two or more T-slot rails together.
- Recommended ADC Fastener based on part feature and slot depth.
- Material: Anodized aluminum

40 Series Joining Plates

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Drawing Link
148850		$5.75	Straight Flat Plate	151183 or 151184	1	PDF
166373		$7.00				PDF
162986		$8.00				PDF
166374		$11.00				PDF
148856		$12.00				PDF
166375		$14.00				PDF
148853		$11.50	Square Flat Plate			PDF
166376		$14.00				PDF
148858		$12.00	Rectangular Flat Plate			PDF
166377		$15.00				PDF
151219		$14.50	Flat Plate			PDF
166378		$17.00				PDF

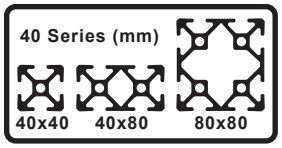
*T-Slot Nut also required.

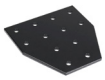
FATH® T-Slotted Rail Accessories

Joining Plates - Continued

40 Series Joining Plates - Cont'd

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Drawing Link
151220		$16.50	T-Shaped Flat Plate	151183 or 151184	1	PDF
166379		$21.00				PDF
151221		$27.50	T-Shaped Flat Plate			PDF
166380		$34.00				PDF

*T-Slot Nut also required.

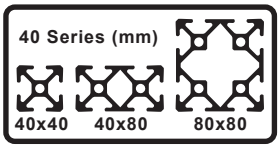
FATH® T-Slotted Rail Accessories

Brackets

- Connects two T-slot rails together at a 90° angle
- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

40 Series Brackets

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151125		$7.75	Angle Bracket	n/a	151241	1	Die-cast aluminum	PDF
166322		$9.00						PDF
151126		$11.50			161068		Die-cast zinc	PDF
166323		$13.00						PDF
151222		$4.25	Inside Corner Bracket		151183 or 151184		Anodized aluminum	PDF
166381		$5.00						PDF
151223		$6.25	Wide Inside Corner Bracket					PDF
166382		$7.00						PDF
151224		$6.25	Tall Inside Corner Bracket					PDF
166383		$7.00						PDF
151225		$11.50	Inside Corner Bracket					PDF
166384		$14.00						PDF

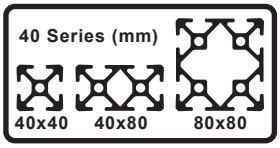
*T-Slot Nut also required.

FATH® T-Slotted Rail Accessories

Brackets - Continued

40 Series Brackets - Cont'd

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151226		$3.75	Gusseted Inside Corner Bracket	n/a	151183 or 151184	1		PDF
166385		$4.00						PDF
151227		$9.00	Tall Gusseted Inside Corner Bracket					PDF
166386		$11.00						PDF
148911		$6.75	Wide Gusseted Inside Corner Bracket					PDF
166387		$8.00						PDF
151228		$14.50	Gusseted Inside Corner Bracket					PDF
166388		$17.00						PDF
151229		$29.50	Pivot Joint	161105	161066		Die-cast zinc	PDF
166389		$36.00						PDF
151230		$39.50	Pivot Joint With Locking Handle					PDF
166390		$47.00						PDF

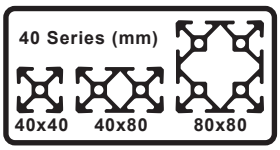
*T-Slot Nut also required.

FATH® T-Slotted Rail Accessories

Brackets - Continued

40 Series Brackets - Continued

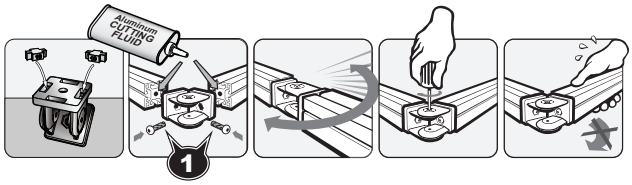
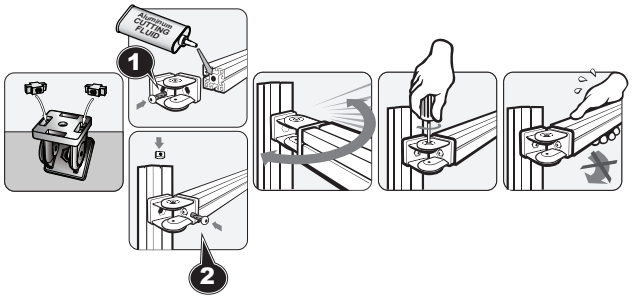
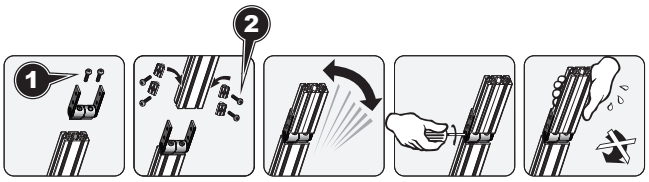
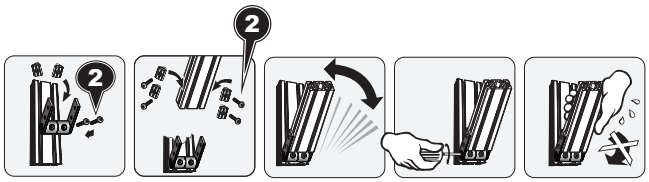
Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
163015		$31.25	1-Slot Pivot Joint	161105	161068	1	Die-cast zinc/die-cast aluminum/ nylon	PDF
163018		$41.00	2-Slot Pivot Joint					PDF

*T-Slot Nut also required.

Brackets Installation

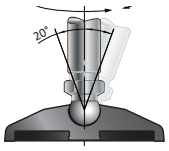
Core Hole Installation	T-Slot Installation
Pivot Joint*	
	
Pivot Joint	
	

*For 45 series installation, the 10mm embossed key should face toward the aluminum extrusion upon assembly.

FATH® T-Slotted Rail Accessories

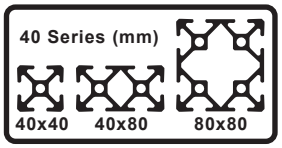
Bases

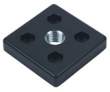
- Recommended ADC Fastener based on part features and extrusion core hole
- Material: varies by part



40 Series Bases

Fits Slot Size 8



Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151232		$16.50	n/a	M12-1.75 Transport/Base Plate	40 x 80mm	n/a	161105 (2) included with kit	n/a	1	Die-cast zinc	PDF
151233		$23.00			80 x 80mm		161105 (4) included with kit				PDF
162948		$20.00		M16-2.0 Transport/Base Plate	40 x 80mm		161105 (2) included with kit				PDF
162949		$25.00			80 x 80mm		161105 (4) included with kit				PDF
162950		$25.00		M20-2.5 Transport/Base Plate							PDF
151231		$4.50		M12-1.75 x 66mm Swivel Foot Threaded Rod with 15mm ball	Transport/Base Plate 151232 or 151233	770 [1698]**	n/a			Zinc plated steel	PDF
162938		$6.50		M16-2.0 x 100mm Swivel Foot Threaded Rod with 15mm ball	Transport/Base Plate 162948 or 162949	1450 [3197]					PDF
162939		$11.00		M20-2.5 x 150mm Swivel Foot Threaded Rod with 15mm ball	Transport/Base Plate 162950	2430 [5357]					PDF
151068		$4.00	1.57 in [39.0 mm]	Swivel Base With Anti-Slip Plate	Any 15mm ball Threaded Rod	900 [1984]				Nylon	PDF
151071		$9.50				3000 [6614]				Die-cast zinc	PDF

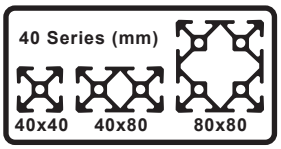
***T-Slot Nut also required.**
****Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]

FATH® T-Slotted Rail Accessories

Bases - Continued

40 Series Bases - Continued

Fits Slot Size 8



Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151069		$6.00	3.11 in [79.0 mm]	Swivel Base With Anti-Slip Plate	Any 15mm ball Threaded Rod	900 [1984]	n/a	n/a	1	Nylon	PDF
151070		$6.00									PDF
151255		$10.00	3.90 in [99.0 mm]			900 [1984]					PDF
151256		$10.00									PDF
151257		$24.00				3500 [7716]				Die-cast zinc	PDF
151258		$24.00									PDF
162933		$12.50	See 2D drawing	Extended Swivel Base	Any 15mm ball Threaded Rod	1000 [2204]		n/a		Nylon	PDF
162934		$27.00				3000 [6613]				Die-cast zinc	PDF

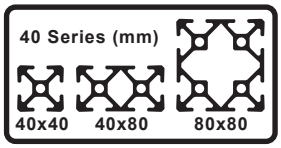
***T-Slot Nut also required.**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]

FATH® T-Slotted Rail Accessories

Bases - Continued

40 Series Bases - Continued

Fits Slot Size 8

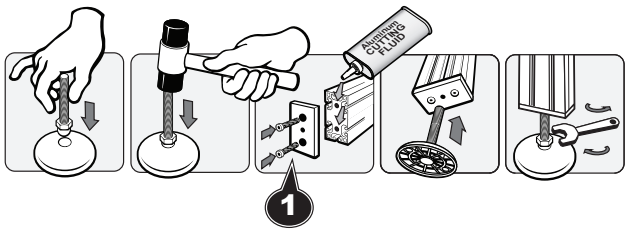


Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
162889		$24.50	n/a	Foot Console	40 x 40mm, 40 x 80mm	n/a	n/a	161068	1	Die-cast aluminum	PDF
166391		$33.00									PDF
162890		$25.50			40 x 80mm, 80 x 80mm						PDF
166392		$35.00									PDF
162960		$47.00		Support Bracket				M8-1.25 x 30mm (not sold by ADC)			PDF
162958		$11.50		Floor Bracket	All 40 Series			161068		Anodized aluminum	PDF

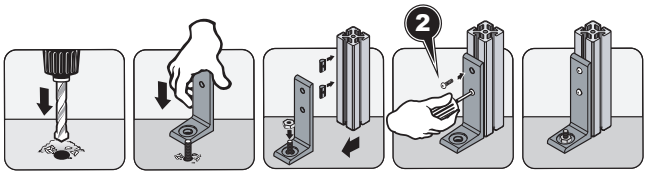
*T-Slot Nut also required.

Bases Installation

Swivel Foot



Floor Bracket



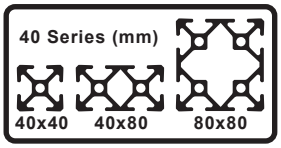
FATH® T-Slotted Rail Accessories

Casters

- Recommended ADC Fastener based on part feature and core hole
- Material: varies by part

40 Series Casters

Fits Slot Size 8



Part Number	Part Image	Price	Description	Requires	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151134		$47.00	Swivel Caster (requires Swivel Caster Adapter Plate 151136)	n/a	122 [269]	161107	n/a	1	Thermoplastic polyurethane/ nylon/steel	PDF
151135		$40.50	Fixed Caster (requires Fixed Fixed Caster Adapter Plate 161040)			161106				PDF
151136		$4.50	3 Swivel Caster Adapter Plate	Requires Swivel Caster 151134)	n/a	n/a			Steel	PDF
161040		$3.50	3 Fixed Fixed Caster Adapter Plate	Requires Fixed Caster 151135					Die-cast zinc	PDF
151137		$62.00	Swivel Caster	n/a	122 [269]		161053		Thermoplastic polyurethane/ nylon/steel	PDF
151138		$49.00	Fixed Caster							PDF
163010		$40.00	Leveling Caster	Transport / Base Plate with M12-1.75 threaded hole	250 [551]		n/a		Die-cast aluminum/ steel/nylon/ rubber	PDF
163011		$52.00			500 [1102]					PDF
163012		$41.00		n/a	250 [551]		161060			PDF
163013		$56.00			500 [1102]					PDF

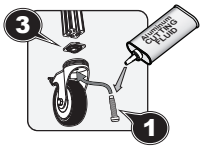
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

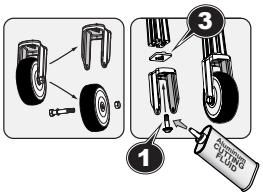
Casters - Continued

Caster Installation

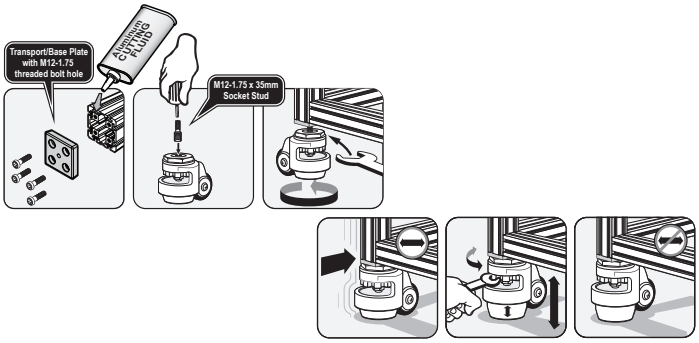
Swivel Caster



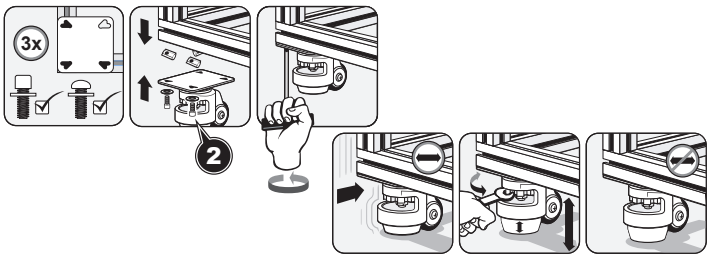
Fixed Caster



Leveling Caster with bolt hole thread



Leveling Caster with mounting plate



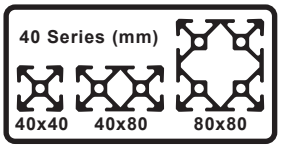
FATH® T-Slotted Rail Accessories

Hinges

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

40 Series Hinges

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Material	Drawing Link
151139		$7.25	Left-Hand Detachable Combination Hinge	161080	1	Fiberglass reinforced plastic	PDF
151140		$7.25	Right-Hand Detachable Combination Hinge				PDF
151141		$7.25	Non-Detachable Combination Hinge				PDF
151142		$12.50	Non-Detachable Combination Hinge With Locking Lever				PDF
151143		$18.00	Left-Hand Detachable Combination Hinge			Die-cast aluminum	PDF
151144		$18.00	Right-Hand Detachable Combination Hinge				PDF
151145		$18.00	Non-Detachable Combination Hinge				PDF

*T-Slot Nut also required

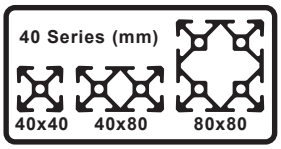
FATH® T-Slotted Rail Accessories

Panel and Door Elements

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

40 Series Panel and Door Elements

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151146		$6.00	Bridge Handle	n/a	161063	1	Fiberglass reinforced plastic	PDF
151147		$6.00			161067			PDF
151148		$6.25	Cover Cap 3		n/a			PDF
151149		$6.50	Comfort Handle		161068			PDF
151150		$2.25	Cover Cap 3		n/a			PDF
151151		$12.50	Comfort Handle		161054			PDF
151152		$3.00	Cover Cap 3		n/a			PDF
151153		$33.50	Machine Handle		161099			PDF
151154		$47.00	Compact Slam Latch		161061		Die-cast aluminum	PDF
151155		$58.00	Compact Sliding Door Latch					PDF
162971		$33.00	Sliding Door Guide	Fasteners included	n/a		Die-cast aluminum/nylon	PDF
151156		$37.00	Emergency Opener	n/a	161060		Fiberglass reinforced plastic	PDF

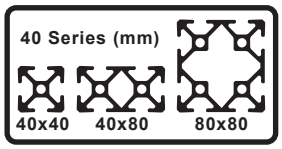
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

Panel and Door Elements - Continued

40 Series Panel and Door Elements - Continued

Fits Slot Size 8



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151157		$7.25	Ball Catch	n/a	161063	1	Fiberglass reinforced plastic	PDF
151158		$14.50	Double Ball Catch		161076		Brass	PDF
151159		$23.00	Door Latch		161061		Die-cast zinc	PDF
162963		$8.50	Magnetic Catch		161063		Nylon/steel	PDF
162913		$5.00	Panel Holder		161068		Anodized aluminum	PDF
162918		$6.00						PDF
162924		$5.75	Panel Mount Block		Fasteners included		Lacquered aluminum	PDF
162925		$5.75					Powder-coated aluminum	PDF
162928		$525.00	Sealing Profile		n/a		Nitrile rubber	PDF
162977		$8.50	Hanger		161059	1	Die-cast zinc	PDF
162978		$3.00	Panel Uni-Block		n/a	10	Nylon	PDF
162979		$3.00						PDF

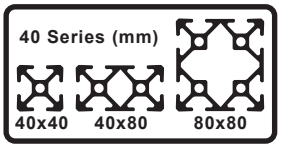
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

Panel and Door Elements - Continued

40 Series Panel and Door Elements - Continued

Fits Slot Size 8

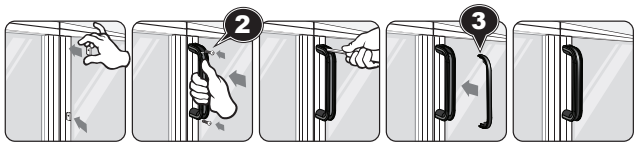


Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151160		$58.00	Sealing Strip		n/a	2	PVC/TPE	PDF
151163		$25.00	Cover Profile			1	Nitrile rubber	PDF
151165		$91.00				25	Polypropylene	PDF
151164		$115.00	Cover And Reduction Profile					PDF

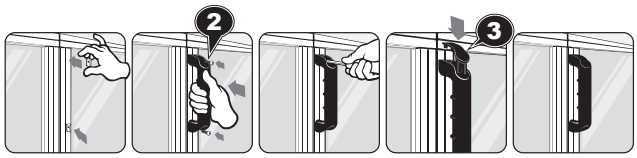
*T-Slot Nut also required

Panel and Door Elements Installation

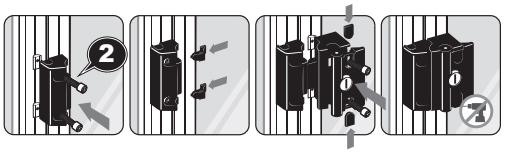
Bridge Handle and Cover Cap



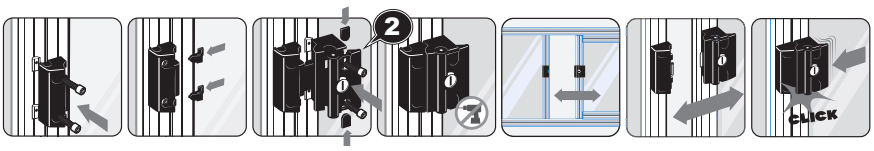
Comfort Handle and Cover Cap



Slam Latch



Sliding Door Latch

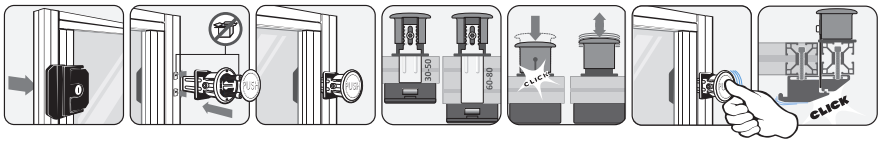


FATH® T-Slotted Rail Accessories

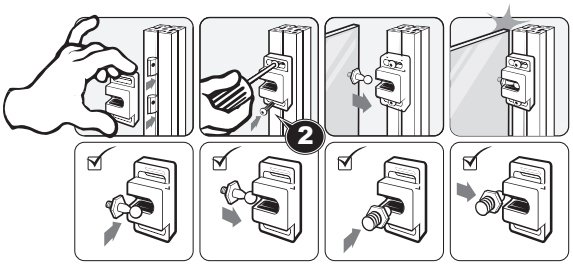
Panel and Door Elements - Continued

Panel and Door Elements Installation - Continued

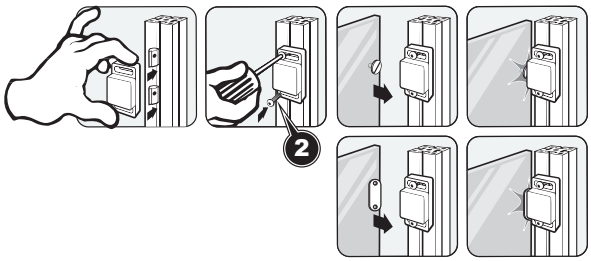
Emergency Opener



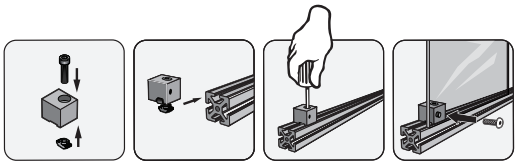
Ball Catch



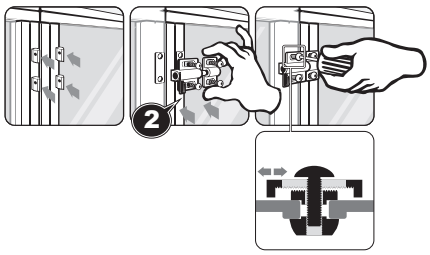
Magnetic Catch



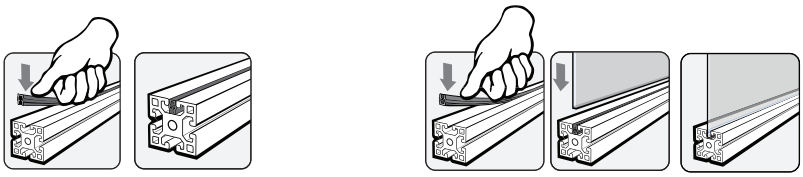
Panel Mount Block



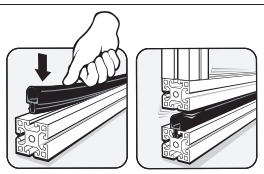
Door Latch



Cover and Reduction Profile



Sealing Profile

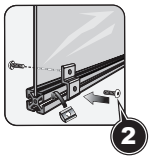


FATH® T-Slotted Rail Accessories

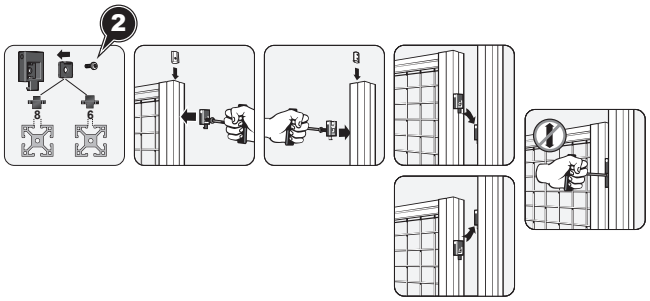
Panel and Door Elements - Continued

Panel and Door Elements Installation - Continued

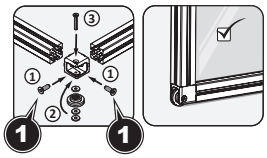
Panel Holder



Hanger



Sliding Door Guide

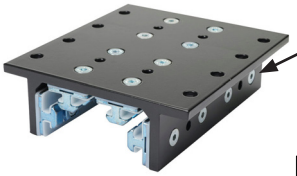


FATH® T-Slotted Rail Accessories

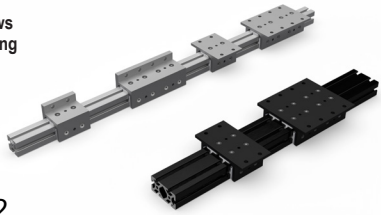
Slides and Rollers

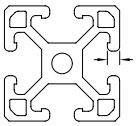
Linear Bearings

- No Shimming required!
- Verified fit with SureFrame 15 & 40 Series
- Static Load rating (Co) up to 4,000 N (900 lbf)
- Single and Double Flange Styles
- Available in Black or Silver
- Optional Brake Assemblies

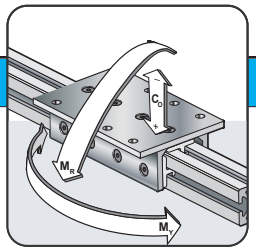


Adjust side screws for optimum sliding performance



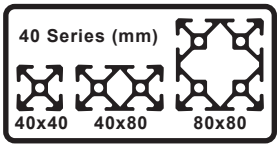


Note: Not all Slot size 8 profiles are made the same, so it is important to confirm that the "a2" dimension of the profile is 3.0-4.5mm for adequate engagement and ultimate slide performance.



40 Series Slides and Rollers

Fits Slot Size 8



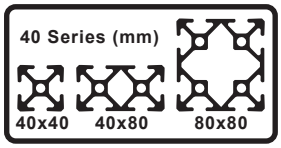
Part Number	Part Image	Price	Description	Fits	Pack Quantity	Load Ratings: Static (Co) N[lbf]	Load Ratings: Reverse Static (-Co) N[lbf]	Load Ratings: Roll Moment (Mr) N-m[lbf-ft]	Load Ratings: Yaw Moment (My) N-m[lbf-ft]	Material	Drawing Link
166393		$63.00	3-slot, double flange, short linear bearing	40 x 40mm, 40 x 80mm	1	1000 [225]	500 [112]	40 [29]	150 [111]	Aluminum/ die-cast zinc/ polyoxymethylene (POM)	PDF
166394		$63.00									PDF
166395		$126.00	3-slot, double flange, long linear bearing			2000 [450]	1000 [225]	80 [59]	200 [147]		PDF
166396		$130.00									PDF
166397		$80.00	4-slot, double flange, short linear bearing	40 x 80mm, 80 x 80mm				50 [37]	150 [111]		PDF
166398		$84.00									PDF
166399		$157.00	4-slot, double flange, long linear bearing			4000 [889]	2000 [450]	100 [74]	200 [147]		PDF
166400		$168.00									PDF
166401		$60.00	3-slot, single flange, short linear bearing	40 x 40mm, 80 x 80mm		1000 [225]	500 [112]	40 [29]	150 [111}		PDF
166402		$63.00									PDF
166403		$120.00	3-slot, single flange, long linear bearing			2000 [450]	1000 [225]	80 [59]	200 [147]		PDF
166404		$126.00									PDF

FATH® T-Slotted Rail Accessories

Slides and Rollers - Continued

40 Series Slides and Rollers - Cont'd

Fits Slot Size 8



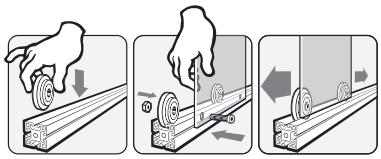
Part Number	Part Image	Price	Description	Fits	Pack Quantity	Recommended Screw Fastener T-Slot Attachment	Material	Drawing Link
166349		$45.00	Cam Lever Brake	All 40 Series Linear Bearings	1	n/a	Plastic/steel	PDF
166350		$28.00	L-Handle Brake					PDF
151168		$18.00	Slider	n/a		Fasteners included	Rubber/plastic/ steel	PDF
151169		$36.00	Slider With Clamp Lever					PDF
148974		$9.50	Roller			n/a	Nylon	PDF
151166		$4.50	Slider				Glass-filled nylon	PDF
151089		$4.50	Snap Hook	Slider 151166			Zinc plated steel	PDF
163020		$14.50	Roller Element With Guide	All 40 Series		Fasteners included	Thermoplastic polyurethane/ nylon/steel	PDF
163021		$14.50	Roller Element Without Guide					PDF

FATH® T-Slotted Rail Accessories

Slides and Rollers - Continued

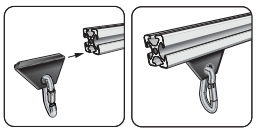
Slides and Rollers Installation

Roller

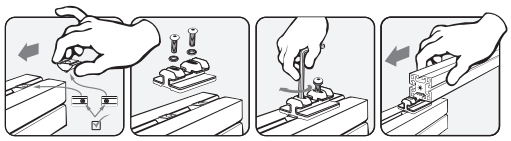


Bolt and nut not included and not available from AutomationDirect

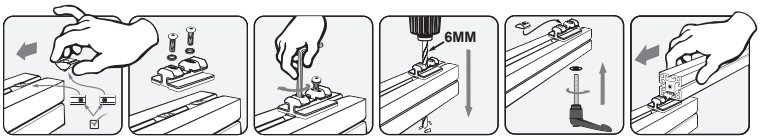
Slider and Snap Hook



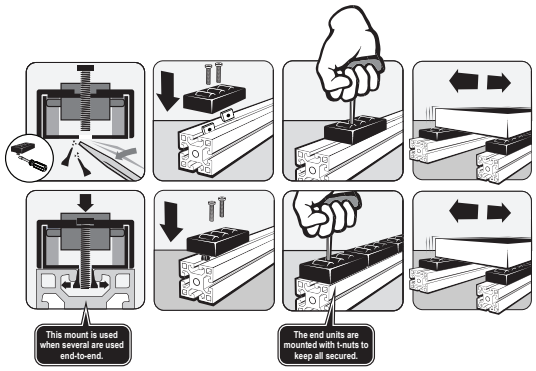
Slider



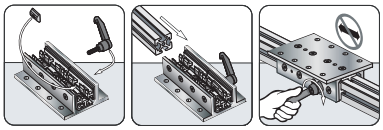
Slider with Clamp Lever



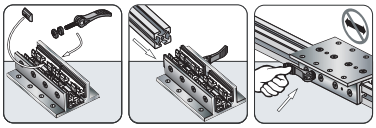
Roller Element



L-Handle Brake

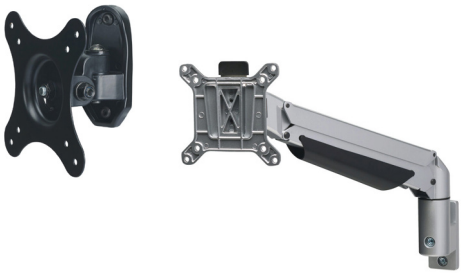


Cam Lever Brake



FATH® T-Slotted Rail Accessories

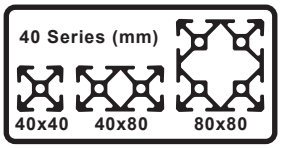
Monitor Mounts

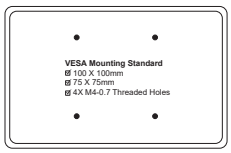


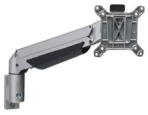
40 Series Monitor Mounts

- Fits monitors with VESA mounting standard
- Durable steel construction
- Mounting hardware included for several mounting locations

Fits Slot Size 8



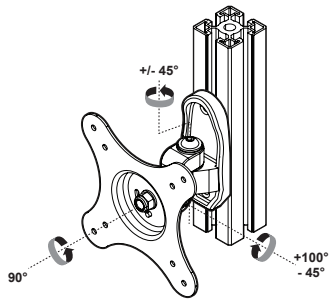


Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Installation Instructions Link	Drawing Link
162893		$42.00	Swivel Monitor Mount	15 [33.1]	1	PDF	PDF
162894		$50.00				PDF	PDF
162895		$58.00				PDF	PDF
162896		$92.00	Monitor Mounting Joint			PDF	PDF
162897		$92.00	Monitor Holder			PDF	PDF
162899		$325.00	4-Axis Mounting Support	10 [22.0]		PDF	PDF
162900		$394.00	5-Axis Mounting Support			PDF	PDF
162901		$630.00	4-Axis Workstation	8 [17.6]		PDF	PDF

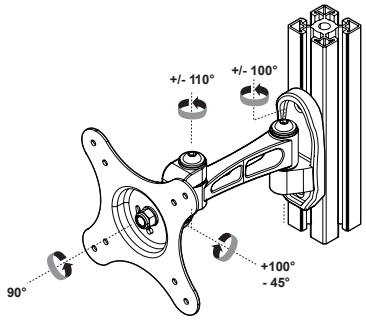
FATH® T-Slotted Rail Accessories

Monitor Mounts - Continued

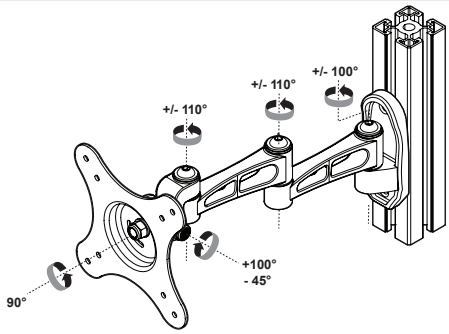
Monitor Mounts Adjustments



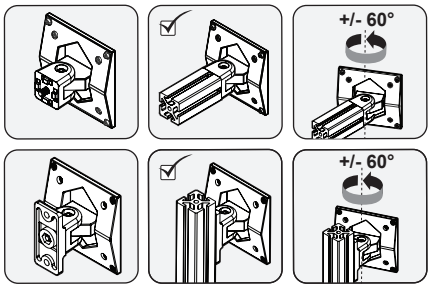
162893



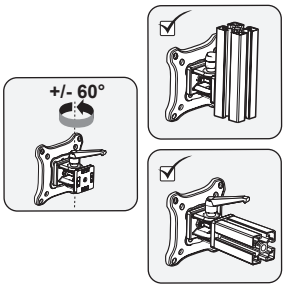
162894



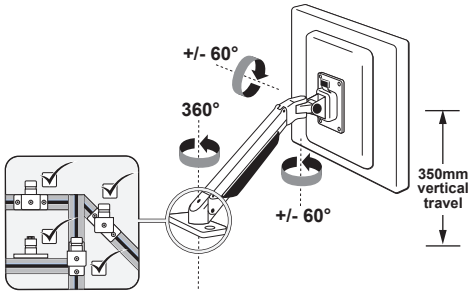
162895



162896



162897



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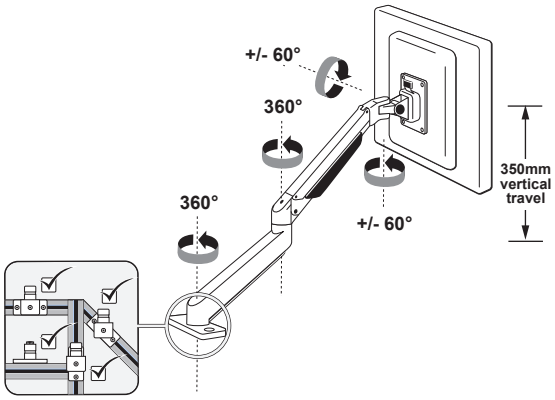
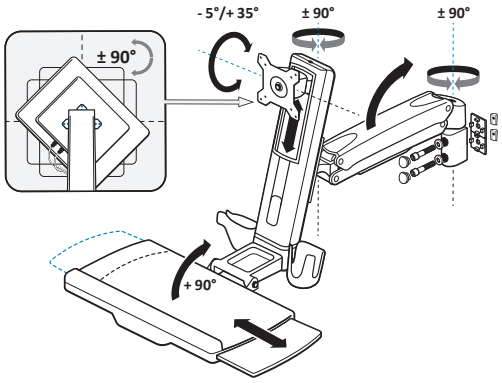


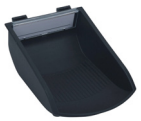
162900



162901

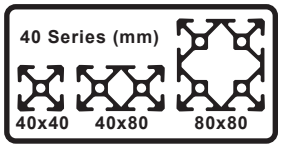
FATH® T-Slotted Rail Accessories

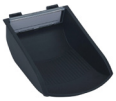
Workstation Components



40 Series Workstation Components

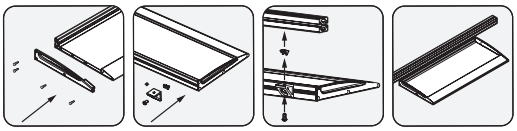
Fits Slot Size 8



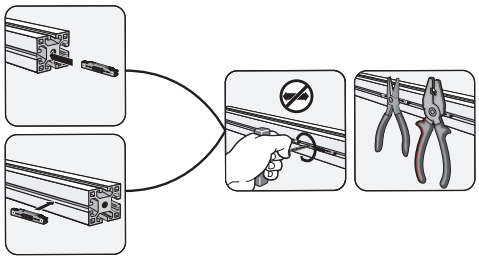
Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Material	Drawing Link
162902		$185.00	Keyboard Holder (requires mounting solution, designer's choice)	n/a	1	Aluminum/nylon	PDF
162906		$8.00	Magnetic Holder			Nylon/steel	PDF
162909		$5.50	Top Angle Clamp			Nylon/steel	PDF
162964		$9.00	Grab Tray			Nylon	PDF
162965		$2.00	Label Clip			PVC	PDF

Workstation Components Installation

Keyboard Holder (mounting example)

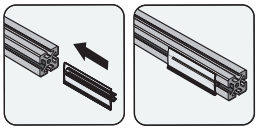


Magnetic Holder



Grab Tray

Label Clip

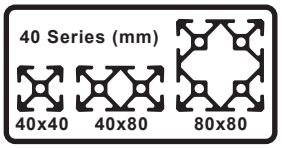


FATH® T-Slotted Rail Accessories

Wire Management

40 Series Wire Management

Fits Slot Size 8

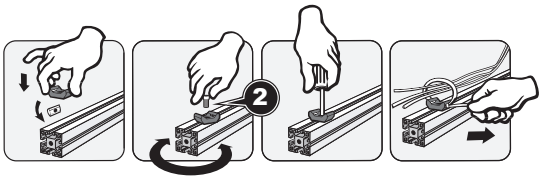


Part Number	Part Image	Price	Description	Pack Quantity	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Material	Drawing Link
151161		$89.00	Conduit Cover 2000mm long	2	n/a	Polypropylene	PDF
151162		$93.00					PDF
151174		$15.50	Cross Cable Binding Block	10		Nylon	PDF
151175		$64.00	Hook And Loop			Glass-filled nylon/ polypropylene	PDF
151176		$38.50	Clip Cable Binder With Hammer			Nylon/rubber	PDF
151177		$28.50	Ground Connector	1	Fasteners included	Glass-filled nylon/ copper/steel	PDF
151178		$4.00	Grounding Terminal			Steel/brass	PDF
162982		$7.50	Universal Cable Binder Block	10	161058	Nylon	PDF

*T-Slot Nut also required

Wire Management Installation

Universal Cable Binder Block



FATH® T-Slotted Rail Accessories

Miscellaneous Accessories

40 Series Miscellaneous Accessories

Fits Slot Size 8

40 Series (mm): 40x40, 40x80, 80x80

Part Number	Part Image	Price	Description	Requires	Fits Profile	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151234		$16.50	End Cap	n/a	40 x 40mm	n/a	10	Glass-filled nylon	PDF
151235		$20.50			40 x 80mm				PDF
151236		$32.00			80 x 80mm				PDF
151091		$6.00	Stop Bumper		All 40 Series		1	Rubber/zinc-plated steel	PDF
151170		$9.00							PDF
162973		$3.25	Sensor Mounting Block for 8mm proximity sensor		All 40 Series	BHCS M4-0.7 x 25mm (not sold by ADC)		Nylon	PDF
162974		$3.25	Sensor Mounting Block for 12mm proximity sensor						PDF
162929		$252.00	Side Protection Profile			n/a	5	Thermoplastic rubber	PDF
162930		$284.00	Corner Protection Profile						PDF
162931		$28.00	Cover Cap for Side	162929 or 162930			10		PDF
162932		$21.00	Cover Cap for Corner	162930					PDF

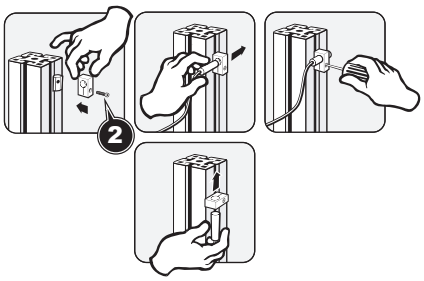
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

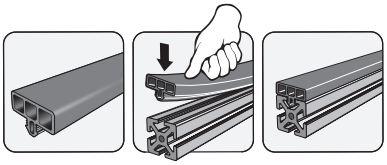
Miscellaneous Accessories - Continued

Workstation Components Installation

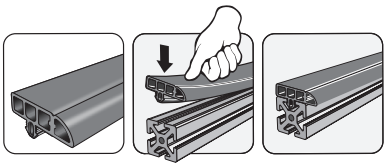
Sensor Mounting Block



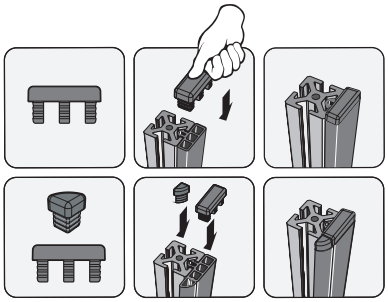
Side Protection Profile



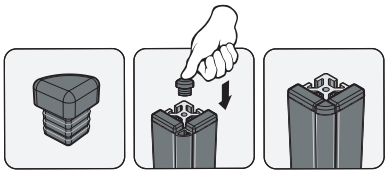
Corner Protection Profile



Cover Cap for Side



Cover Cap for Corner



Aluminum T-Slotted Rail

45 Series Metric T-Slotted Aluminum Rail

SureFrame™ T-slotted aluminum rails are extruded exclusively for AutomationDirect, with features, quality, and performance you expect. SureFrame T-slotted rails are compatible with other popular brands.

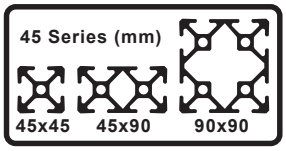
- Cut to length in 0.01 cm increments
- Minimum cut length: 15.24 cm
- Maximum cut length: 228.0 cm
- Cut accuracy: +/- 0.015 cm [0.15mm]
- Corrosion and UV resistant

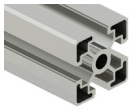
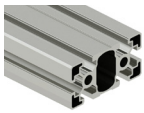
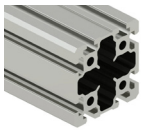
Properties	
Material	Aluminum 6063-T6
Finish	Clear Anodize
Hardness	Webster Model B 11-12
Straightness	0.0125 inch/ft [1.042 mm/m]
Twist	0.25°/ft [0.25°/305mm]

45 Series (metric)

Slot Size 10

Core Hole Ø 10.0 mm



Part Number	*Part Image*	*Price per cm*	*Profile Size*	*Weight Class*	*Weight lbs/ft [kg/m]*	*Moment of Inertia Lx*	*Moment of Inertia Ly*	*Drawing Link*
45-4545C		$0.28	45 x 45mm	Standard	1.480 [2.202]	0.389 [16.824 cm^4]	0.389 [16.824 cm^4]	PDF
45-4545CL		$0.22		Light	1.100 [1.637]	0.290 [12.064m^4]	0.290 [12.064m^4]	PDF
45-4590C		$0.59	45 x 90mm	Standard	3.081 [4.585]	0.866 [36.026 cm^4]	3.295 [137.072 cm^4]	PDF
45-4590CL		$0.44		Light	2.159 [3.213]	0.708 [29.453 cm^4]	2.584 [107.494 cm^4]	PDF
45-9090C		$0.98	90 x 90mm	Standard	5.518 [8.212]	5.941 [247.146 cm^4]	5.941 [247.146 cm^4]	PDF

Extruded T-slotted rails have a thru Core Hole feature that can be used to attach various components to the end of the profile using:

- Self-tapping / thread-forming screws (no tapping needed)
- A tap to thread the core hole for a threaded fastener

Please Note: Prices on aluminum are closely tied to the market price. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

Aluminum T-Slotted Rail

Deflection Calculations

Using the calculations below, find your approximate deflection* for a specific extrusion.
See table below for variations.

As always when calculating, use diligence and work only in either imperial or metric units at one time.

Aluminum 6063-T6 Properties	
Yield Strength	29,007 psi [200 MPa]
Tensile Strength	33,359 psi [230 MPa]
Modulus of Elasticity	10,000,000 psi [68.9 GPa]

"E" = Modulus of Elasticity

"F" = Force

"I" = Moment of Inertia

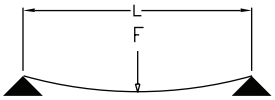
"L" = Length

"W" = Weight

***for reference only**

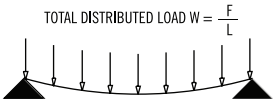
Supported Loads

CONCENTRATED LOAD AT CENTER (simply supported)



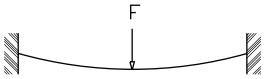
$$\text{MAX DEFLECTION} = \frac{FL^3}{48\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)



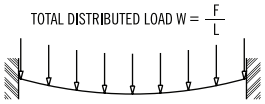
$$\text{MAX DEFLECTION} = \frac{5}{84}\,\frac{WL^4}{EI}$$

CONCENTRATED LOAD AT CENTER (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{FL^3}{192\,EI}$$

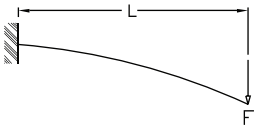
UNIFORMLY DISTRIBUTED LOAD (between fixed supports)



$$\text{MAX DEFLECTION} = \frac{WL^4}{384\,EI}$$

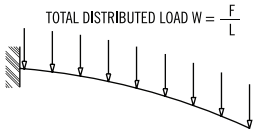
Cantilever Loads

CONCENTRATED LOAD AT CENTER (simply supported)



$$\text{MAX DEFLECTION} = \frac{FL^3}{3\,EI}$$

UNIFORMLY DISTRIBUTED LOAD (simply supported)

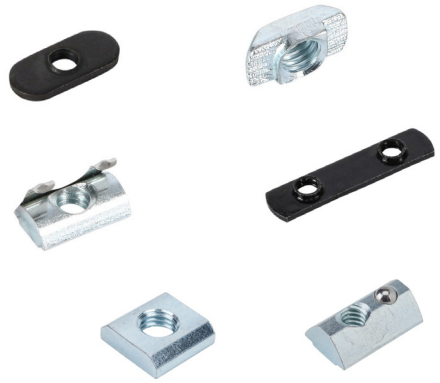


$$\text{MAX DEFLECTION} = \frac{WL^4}{8\,EI}$$

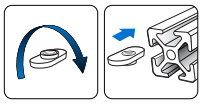
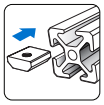
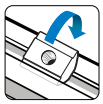
FATH® T-Slotted Rail Accessories

T-Slot Nuts

- Designed to fit into the T-slot cavity of extruded aluminum rails.
- Hammer nuts provide safe electrostatic discharging (ESD) connection.
- No machining required.
- Material: zinc plated steel

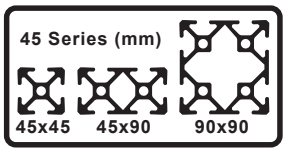


T-Slot Nuts Selection

Part Image	Nut Type	Installation	Holds Position Without Screw	ESD Connection
	Double Economy T-Nut		No	No
	Economy T-Nut			
	Hammer Nut			Yes
	Slide-In Nut			No
	Roll-In Nut with Leaf Spring		Yes	
	Roll-In Nut with Spring Loaded Ball			

45 Series T-Slot Nuts

Fits Slot Size 10



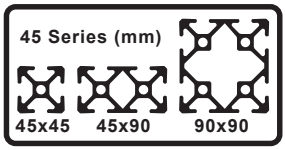
Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
161131		$8.00	Hammer Nut	M4-0.7	10	PDF
161121		$21.00	Roll-In Nut			PDF
161132		$8.00	Hammer Nut	M5-0.8		PDF
161122		$21.00	Roll-In Nut			PDF
161133		$8.00	Hammer Nut	M6-1.0		PDF
162886		$12.50	Slide-In Nut			PDF
151239		$24.00	Roll-In Nut			PDF

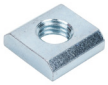
FATH® T-Slotted Rail Accessories

T-Slot Nuts - Continued

45 Series T-Slot Nuts - Continued

Fits Slot Size 10



Part Number	Part Image	Price	Nut Type	Thread Size	Pack Quantity	Drawing Link
151237		$7.25	Economy T-Nut	M8-1.25	10	PDF
148803		$5.75	Double Economy T-Nut		4	PDF
151238		$9.00	Hammer Nut		10	PDF
162887		$12.50	Slide-In Nut			PDF
151240		$24.00	Roll-In Nut			PDF
162888		$17.00	Slide-In Nut	M10-1.5		PDF

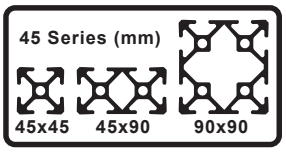
FATH® T-Slotted Rail Accessories

Fasteners

- Choose from 4 Head types in numerous lengths
- Hex socket head
- Select desired T-Slot nut style with corresponding thread size.
- Material: Black zinc plated or bright zinc plated steel, prevents corrosion better than typical black oxide coatings

45 Series Fasteners

Fits Slot Size 10



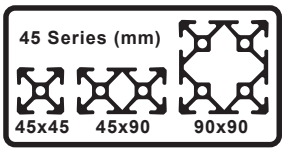
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
162994		$8.00	8-32 UNF x 3/8in	Button head socket cap screw	Flat black	10	PDF
161073		$7.75	8-32 UNF x 1/2in	Flat head socket cap screw			PDF
162993		$7.50	10-32 UNF x 3/8in	Button head socket cap screw			PDF
162995		$7.75	10-32 UNF x 1/2in	Socket head cap screw			PDF
161088		$2.25	M4-0.7 x 8mm	Socket head cap screw	Bright zinc		PDF
161089		$2.50	M4-0.7 x 10mm				PDF
161056		$1.00		Button head socket cap screw			PDF
161076		$1.50	M4-0.7 x 12mm	Flat head socket cap screw			PDF
161057		$1.25	M5-0.8 x 10mm	Button head socket cap screw			PDF
161090		$2.50		Socket head cap screw			PDF
161077		$1.75	M5-0.8 x 12mm	Flat head socket cap screw			PDF
161091		$2.75		Socket head cap screw			PDF
161058		$1.75		Button head socket cap screw			PDF
161092		$2.75	M6-1.0 x 10mm	Socket head cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

45 Series Fasteners - Continued

Fits Slot Size 10



Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161078		$2.25	M6-1.0 x 12mm	Flat head socket cap screw	Bright zinc	10	PDF
161059		$2.00		Button head socket cap screw			PDF
161093		$2.75		Socket head cap screw			PDF
161079		$2.50	M6-1.0 x 14mm	Flat head socket cap screw			PDF
161060		$2.25	M6-1.0 x 14mm	Button head socket cap screw			PDF
161094		$3.00		Socket head cap screw			PDF
161080		$2.50	M6-1.0 x 16mm	Flat head socket cap screw			PDF
161061		$2.50		Button head socket cap screw			PDF
161095		$3.00		Socket head cap screw			PDF
161062		$3.00	M6-1.0 x 18mm	Button head socket cap screw			PDF
161096		$3.25		Socket head cap screw			PDF
161081		$2.75	M6-1.0 x 20mm	Flat head socket cap screw			PDF
161063		$3.00		Button head socket cap screw			PDF
161097		$3.25		Socket head cap screw			PDF
161064		$3.25	M6-1.0 x 25mm	Button head socket cap screw			PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

45 Series Fasteners - Continued

Fits Slot Size 10

45 Series (mm)

45x45 45x90 90x90

Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161082		$4.75	M8-1.25 x 12mm	Flat head socket cap screw	Bright zinc	10	PDF
161065		$4.25		Button head socket cap screw			PDF
161098		$4.75		Socket head cap screw			PDF
161066		$4.50	M8-1.25 x 14mm	Button head socket cap screw			PDF
161083		$5.00	M8-1.25 x 14mm	Flat head socket cap screw			PDF
161099		$5.00		Socket head cap screw			PDF
161084		$5.50	M8-1.25 x 16mm	Flat head socket cap screw			PDF
161100		$5.50		Socket head cap screw			PDF
161067		$4.75		Button head socket cap screw			PDF
151183		$4.75			Gloss black		PDF
151184		$5.50		Flanged button head socket cap screw			PDF
161085		$5.50	M8-1.25 x 18mm	Flat head socket cap screw	Bright zinc		PDF
161068		$5.25		Button head socket cap screw			PDF
161101		$5.50		Socket head cap screw			PDF
151241		$4.50	M8-1.25 x 20mm	Button head socket cap screw			PDF

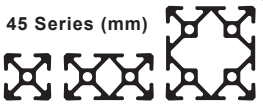
FATH® T-Slotted Rail Accessories

Fasteners - Continued

45 Series Fasteners - Continued

Fits Slot Size 10

45 Series (mm)



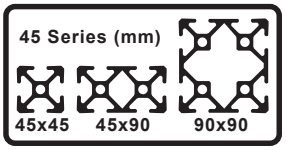
Part Number	Part Image	Price	Thread X Length	Head Type	Color	Pack Quantity	Drawing Link
161102		$5.75	M8-1.25 x 20mm	Socket head cap screw	Bright zinc	10	PDF
161086		$7.00	M8-1.25 x 25mm	Flat head socket cap screw			PDF
161069		$5.25		Button head socket cap screw			PDF
161070		$8.00	M8-1.25 x 40mm	Button head socket cap screw			PDF
161071		$15.50	M12-1.75 x 25mm				PDF
161072		$23.00	M12-1.75 x 40mm				PDF
118590		$2.25	M8-1.25 x 25mm	Hammer head screw and flange nut		1	PDF

FATH® T-Slotted Rail Accessories

Fasteners - Continued

45 Series Self Forming / Tapping Screws

Fits

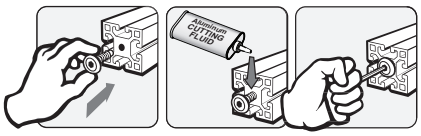


Works with Aluminum with hole diameter 0.394" - 0.413" [10.0 - 10.5 mm]

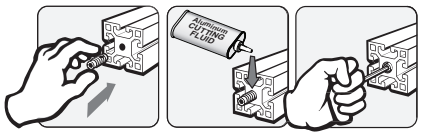
Part Number	Part Image	Price	Thread X Length	Description	Color	Pack Quantity	Drawing Link
161110		$10.50	12 x 30mm	Self-Tapping Screw Button head socket cap T-50 Torx	Bright zinc	10	PDF
161111		$28.00	12 x 40mm	Self-Tapping Screw Button head socket cap			PDF
161042		$27.00	M8-1.25 Internal thread	Reducer Bushing			PDF

Self Forming / Tapping Screw Installation

Self Forming / Tapping Screw



Reducer Bushing



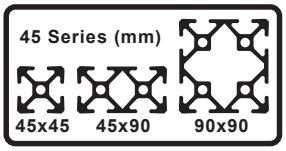
FATH® T-Slotted Rail Accessories

Connecting Components

- Connects two or three T-slot rails together
- Recommended ADC Fastener based on part feature, slot Depth and core hole
- Material: varies by part

45 Series Connecting Components

Fits Slot Size 10

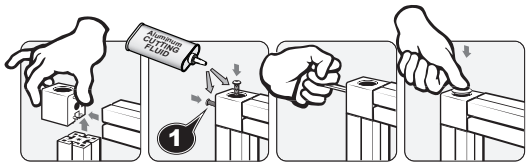
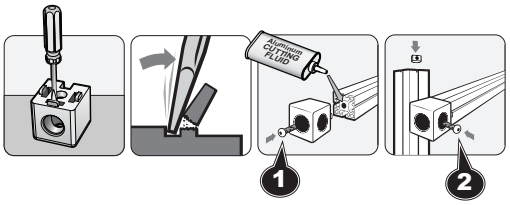
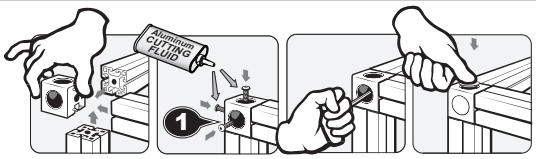
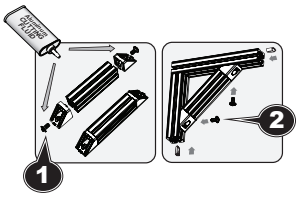
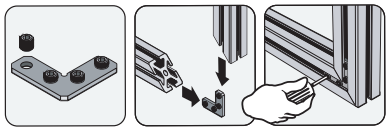


Part Number	Part Image	Price	Description	Fits Profile	Material	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Drawing Link
148960		$11.00	2d Cube Connector	45 x 45mm	Die-cast aluminum	161110	161068	1	PDF
148961		$11.50	3d Cube Connector				n/a		PDF
151246		$10.50	Angle Connector				151241		PDF
151247		$16.50		45 x 90mm					PDF
**151242		$96.00	T-Matic Connector	All 45 Light Series (45-xxxxCL)	Zinc plated steel	n/a	n/a	10	PDF
**151243		$59.00	Automatic Connector		Steel				PDF
**151244		Retired	Automatic Butt Connector					1	PDF
151245		$11.50	Milling Connector	All 45 Series	Zinc plated steel				PDF
151248		$18.00	Connecting Strip						PDF
162892		$13.00	Direct Connector		Steel		Fasteners included		PDF
162962		$12.50	Miter Connector				M10-1.25 x 8mm set screw (4) included		PDF

*T-Slot Nut also required.
** Does not fit 45 standard series (45-xxxxC)

FATH® T-Slotted Rail Accessories

Connecting Components - Continued

Connecting Components Installation	
Core Hole Installation	***T-Slot Installation***
2D Cube Connector	
	
3D Cube Connector	
	n/a
Angle Connector	
	
Miter Connector	
	

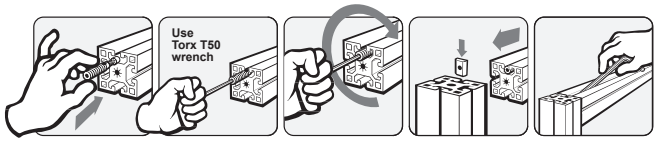
FATH® T-Slotted Rail Accessories

Connecting Components - Continued

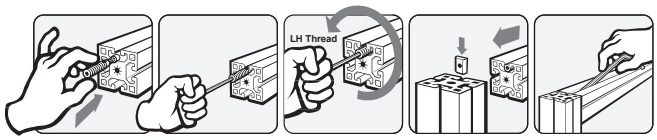
Connecting Components Installation

T-Slot Installation

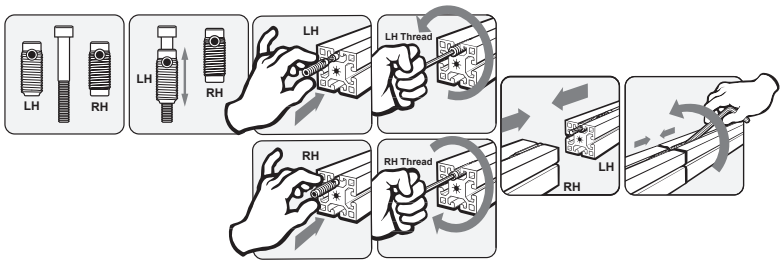
T-matic Connector



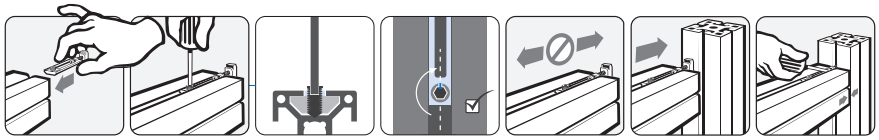
Automatic Connector



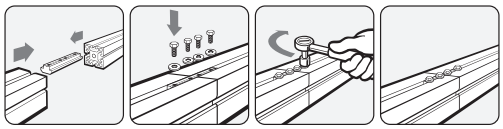
Automatic Butt Connector



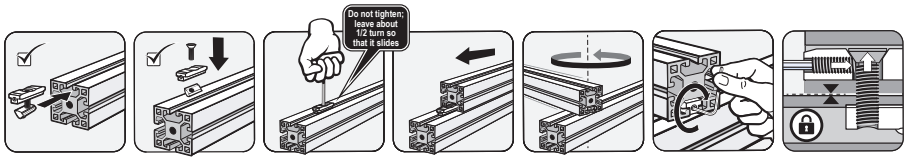
Milling Connector



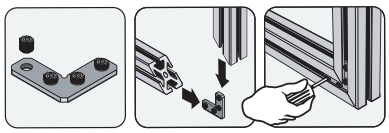
Connecting Strip



Direct Connector



Miter Connector



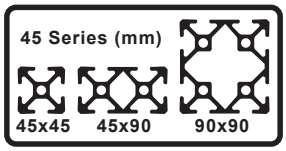
FATH® T-Slotted Rail Accessories

Joining Plates

- Connects two or more T-slot rails together.
- Recommended ADC Fastener based on part feature and slot depth.
- Material: Anodized aluminum

45 Series Joining Plates

Fits Slot Size 10



Part Number	Part Image	Price	Description	Recommended Screw Fastener - T-Slot Hole Attachment (ADC Part Number)	Pack Quantity	Drawing Link
148851		$8.25	Straight Flat Plate	151183 or 151184	1	PDF
162987		$10.50				PDF
148857		$12.00				PDF
148854		$10.00	Square Flat Plate			PDF
148859		$18.00	Rectangular Flat Plate			PDF
151249		$19.00	Flat Plate			PDF
151250		$20.50	T-Shaped Flat Plate			PDF
148863		$29.50				PDF

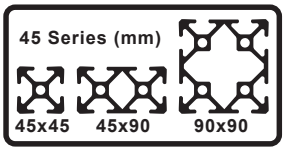
FATH® T-Slotted Rail Accessories

Brackets

- Connects two T-slot rails together at a 90° angle
- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

45 Series Brackets

Fits Slot Size 10



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151251		$4.00	Angle Bracket	n/a	151241	1	Die-cast aluminum	PDF
151252		$7.75						PDF
148899		$5.25	Inside Corner Bracket		151183 or 151184		Anodized aluminum	PDF
148902		$7.50	Wide Inside Corner Bracket					PDF
148904		$7.50	Tall Inside Corner Bracket					PDF
148907		$11.50	Inside Corner Bracket					PDF
148912		$5.25	Gusseted Inside Corner Bracket					PDF
148914		$12.00	Tall Gusseted Inside Corner Bracket					PDF
148913		$11.00	Wide Gusseted Inside Corner Bracket					PDF
148979		$21.50	Gusseted Inside Corner Bracket					PDF

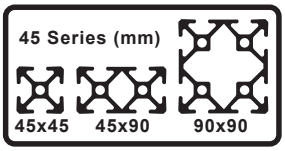
*T-Slot Nut also required.

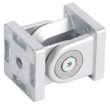
FATH® T-Slotted Rail Accessories

Brackets - Continued

45 Series Brackets - Continued

Fits Slot Size 10

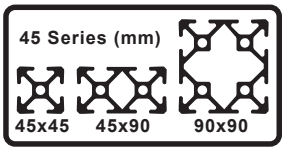


Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number)		Pack Quantity	Material	Drawing Link
				Core Hole Attachment 1	*T-Slot Attachment 2			
151253		$29.50	Pivot Joint	161042 and 161067 Install 161042 first then 161067	161067	1	Die-cast zinc	PDF
151254		$39.50	Pivot Joint With Locking Handle					PDF
163016		$35.00	1-Slot Pivot Joint	161069 and 161042 install 161042 first then 161069	161068		Die-cast zinc/die-cast aluminum/ nylon	PDF
163019		$53.00	2-Slot Pivot Joint					PDF

*T-Slot Nut also required.

45 Series Reducer Bushing

Fits 45 Series Core Hole

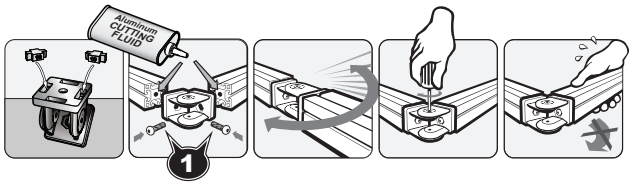
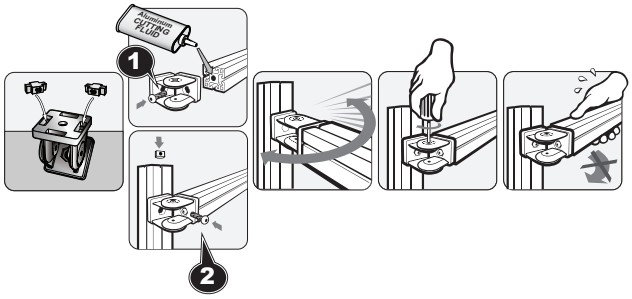
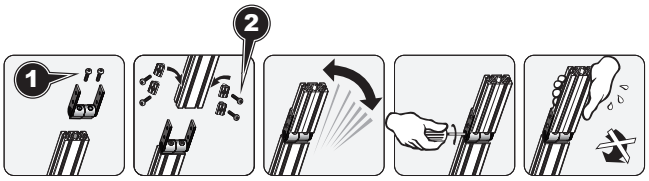
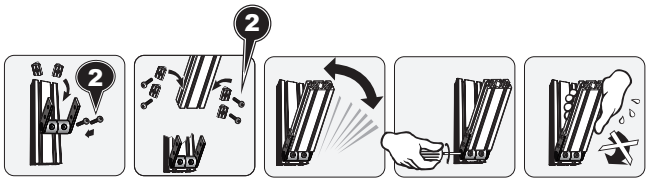
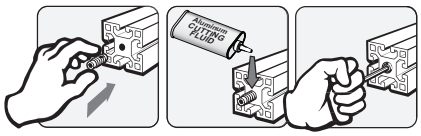


Part Number	Part Image	Price	Thread X Length	Description	Color	Pack Quantity	Drawing Link
161042		$27.00	M8-1.25 Internal thread	Reducer Bushing	Bright zinc	10	PDF

FATH® T-Slotted Rail Accessories

Brackets - Continued

Brackets Installation

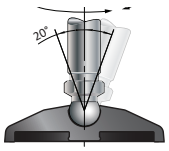
Core Hole Installation	T-Slot Installation
Pivot Joint*	
	
Pivot Joint	
	
Reducer Bushing	
	

*For 45 series installation, the 10mm embossed key should face toward the aluminum extrusion upon assembly.

FATH® T-Slotted Rail Accessories

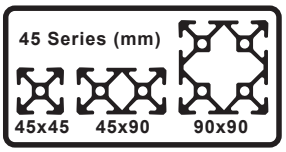
Bases

- Recommended ADC Fastener based on part features and extrusion core hole
- Material: varies by part



45 Series Bases

Fits Slot Size 10



Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	*T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151259		$20.50	n/a	M12-1.75 Transport/ Base Plate	45 x 90mm	n/a	161111 (2) included with kit	n/a	1	Die-cast zinc	PDF
151260		$25.00			90 x 90mm		161111 (4) included with kit				PDF
162951		$20.00		M16-2.0 Transport/ Base Plate	45 x 90mm		161111 (2) included with kit				PDF
162952		$20.00		M20-2.5 Transport/ Base Plate							PDF
162953		$25.00		M16-2.0 Transport/ Base Plate	90 x 90mm		161111 (4) included with kit				PDF
162954		$25.00		M20-2.5 Transport/ Base Plate							PDF
151231		$4.50		M12-1.75 x 66mm Swivel Foot Threaded Rod with 15mm ball	Transport/Base Plate 151259 or 151260	770 [1698]**	n/a			Zinc plated steel	PDF
162938		$6.50		M16-2.0 x 100mm Swivel Foot Threaded Rod with 15mm ball	Transport/Base Plate 162951 or 162953	1450 [3197]**					PDF
162939		$11.00		M20-2.5 x 150mm Swivel Foot Threaded Rod with 15mm ball	Transport/Base Plate 162952 or 162954	2430 [5357]**					PDF
151068		$4.00	1.57 in [39.0 mm]	Swivel Base With Anti-Slip Plate	Any 15mm ball Threaded Rod	900 [1984]				Nylon	PDF
151071		$9.50				3000 [6614]				Die-cast zinc	PDF

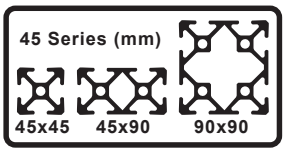
***T-Slot Nut also required.**
****Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]

FATH® T-Slotted Rail Accessories

Bases - Continued

45 Series Bases - continued

Fits Slot Size 10



Part Number	Part Image	Price	Diameter	Description	Fits	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151072		$17.00	3.11 in [79.0 mm]	Swivel Base With Anti-Slip Plate	Any 15mm ball Threaded Rod	3000 [6614]	n/a	n/a	1	Die-cast zinc	PDF
151073		$17.00									PDF
151069		$6.00				900 [1984]				Nylon	PDF
151070		$6.00									PDF
151255		$10.00	3.90 in [99.0 mm]			900 [1984]					PDF
151256		$10.00									PDF
151257		$24.00	3.90 in [99.0 mm]			3500 [7716]				Die-cast zinc	PDF
151258		$24.00									PDF
162933		$12.50	See 2D drawing	Extended Swivel Base	Any 15mm ball Threaded Rod	1000 [2204]				Nylon	PDF
162934		$27.00				3000 [6613]				Die-cast zinc	PDF
162959		$12.50	n/a	Floor Bracket	All 45 Series	n/a		161068		Anodized aluminum	PDF

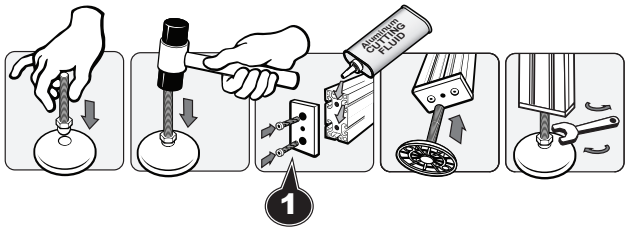
***T-Slot Nut also required.**
****Based on installation with Transport / Base Plate**
Load rating of a swivel foot assembly is based on the part with the lowest load rating, typically the threaded rod.
Example:
Threaded rod load rating = 210kg [463lb]
Swivel base load rating = 3000kg [6614lb]
Swivel foot assembly load rating = 210kg [463lb]

FATH® T-Slotted Rail Accessories

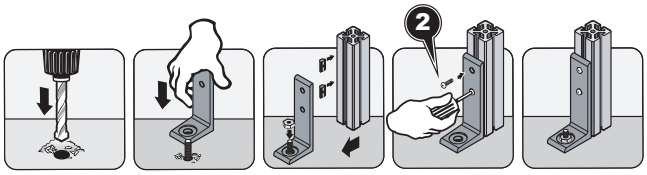
Bases - Continued

Bases Installation

Swivel Foot



Floor Bracket



FATH® T-Slotted Rail Accessories

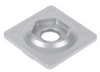
Casters

- Recommended ADC Fastener based on part feature and core hole
- Material: varies by part

45 Series Casters

Fits Slot Size 10

45 Series (mm): 45x45, 45x90, 90x90

Part Number	Part Image	Price	Description	Requires	Load Rating kg [lb]	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151134		$47.00	Swivel Caster	Requires Swivel Caster Adapter Plate 151261)	122 [269]	161111	n/a	1	Thermoplastic polyurethane/ nylon/steel	PDF
151135		$40.50	Fixed Caster	Requires Fixed Caster Adapter Plate 161041)		161110				PDF
151261		$4.50	3 Swivel Caster Adapter Plate	Requires Swivel Caster 151134)	n/a	n/a			Steel	PDF
161041		$3.50	3 Fixed Caster Adapter Plate	Requires Fixed Caster 151135					Die-cast zinc	PDF
151137		$62.00	Swivel Caster	n/a	122 [269]		161066		Thermoplastic polyurethane/ nylon/steel	PDF
151138		$49.00	Fixed Caster							PDF
163010		$40.00	Leveling Caster	Transport / Base Plate with M12-1.75 threaded hole	250 [551]		n/a		Die-cast aluminum/ steel/nylon/ rubber	PDF
163011		$52.00			500 [1102]					PDF
163012		$41.00		n/a	250 [551]		161061			PDF
163013		$56.00			500 [1102]					PDF

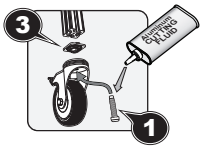
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

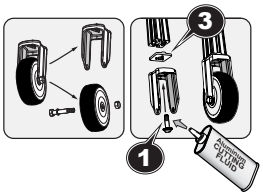
Casters - Continued

Caster Installation

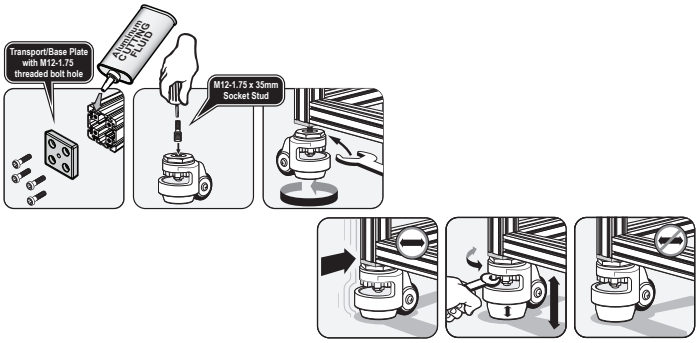
Swivel Caster



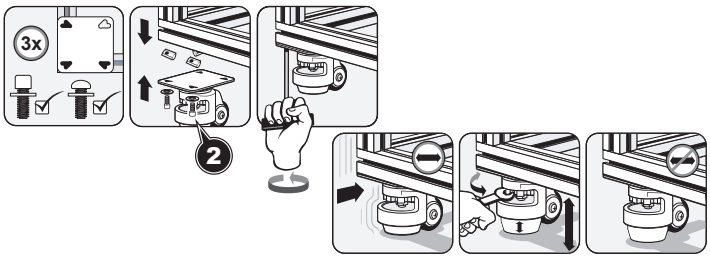
Fixed Caster



Leveling Caster with bolt hole thread



Leveling Caster with mounting plate



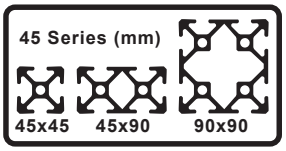
FATH® T-Slotted Rail Accessories

Hinges

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

45 Series Hinges

Fits Slot Size 10



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment (ADC Part Number)	Pack Quantity	Material	Drawing Link
151262		$7.75	Left-Hand Detachable Combination Hinge	161080	1	Fiberglass reinforced plastic	PDF
151263		$7.75	Right-Hand Detachable Combination Hinge				PDF
151264		$7.75	Non-Detachable Combination Hinge				PDF
151265		$12.00	Non-Detachable Combination Hinge With Locking Lever				PDF
151266		$18.00	Left-Hand Detachable Combination Hinge			Die-cast aluminum	PDF
151267		$18.00	Right-Hand Detachable Combination Hinge				PDF
151268		$18.00	Non-Detachable Combination Hinge				PDF

*T-Slot Nut also required

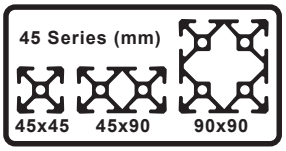
FATH® T-Slotted Rail Accessories

Panel and Door Elements

- Recommended ADC Fastener based on part feature and slot depth
- Material: varies by part

45 Series Panel and Door Elements

Fits Slot Size 10



Part Number	Part Image	Price	Description	Recommended Screw Fastener (ADC Part Number) Core Hole Attachment 1	Recommended Screw Fastener (ADC Part Number) *T-Slot Attachment 2	Pack Quantity	Material	Drawing Link
151146		$6.00	Bridge Handle	n/a	161063	1	Fiberglass reinforced plastic	PDF
151147		$6.00			161067			PDF
151148		$6.25	Cover Cap 3		n/a			PDF
151149		$6.50	Comfort Handle		151241			PDF
151150		$2.25	Cover Cap 3		n/a			PDF
151151		$12.50	Comfort Handle		151241			PDF
151152		$3.00	Cover Cap 3		n/a			PDF
151153		$33.50	Machine Handle		161100			PDF
151154		$47.00	Compact Slam Latch		161061		Die-cast aluminum	PDF
151155		$58.00	Compact Sliding Door Latch					PDF
162972		$34.00	Sliding Door Guide	Fasteners included	n/a		Die-cast aluminum/nylon	PDF
151156		$37.00	Emergency Opener	n/a	161094		Fiberglass reinforced plastic	PDF
162963		$8.50	Magnetic Catch		161063		Nylon/steel	PDF

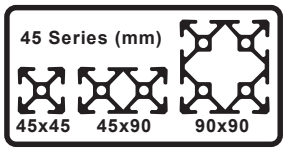
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

Panel and Door Elements - Continued

45 Series Panel and Door Elements - Continued

Fits Slot Size 10



Part Number	Part Image	Price	Description	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
162914		$5.75	Panel Holder	161068	1	Anodized aluminum	PDF
162919		$8.25					PDF
162926		$7.25	Panel Mount Block	Fasteners included		Lacquered aluminum	PDF
162927		$7.25				Powder-coated aluminum	PDF
162980		$3.25	Panel Uni-Block	n/a	10	Nylon	PDF
151269		$60.00	Sealing Strip		2	PVC/TPE	PDF
151272		$115.00	Cover Profile		25	Polypropylene	PDF
162981		$190.00	Cover And Reduction Profile				PDF

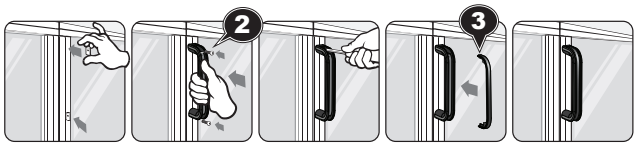
*T-Slot Nut also required

FATH® T-Slotted Rail Accessories

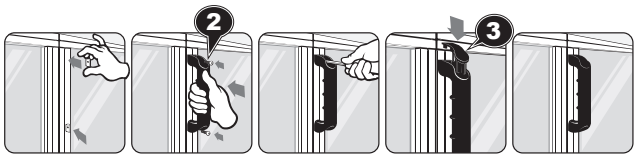
Panel and Door Elements - Continued

Panel and Door Elements Installation

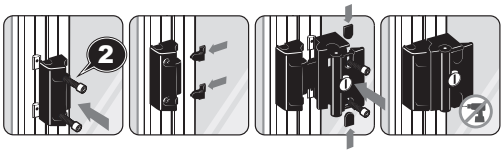
Bridge Handle and Cover Cap



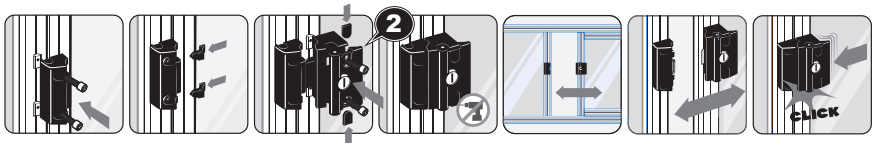
Comfort Handle and Cover Cap



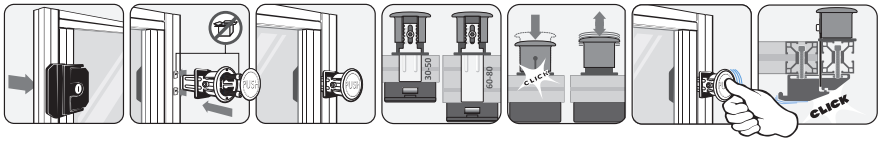
Slam Latch



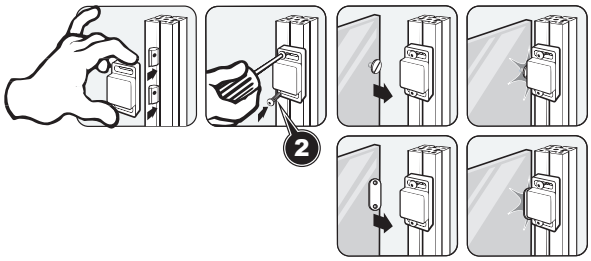
Sliding Door Latch



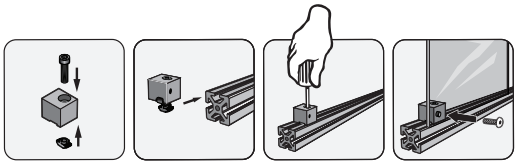
Emergency Opener



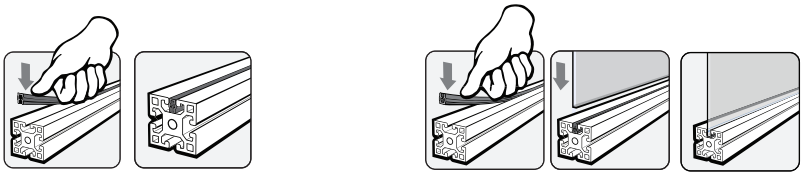
Magnetic Catch



Panel Mount Block

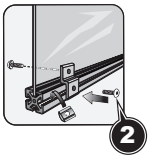
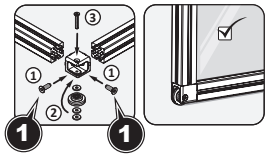


Cover and Reduction Profile



FATH® T-Slotted Rail Accessories

Panel and Door Elements - Continued

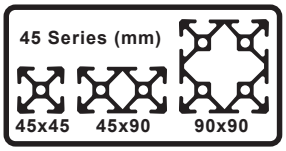
Panel and Door Elements Installation - Continued
Panel Holder

Sliding Door Guide


FATH® T-Slotted Rail Accessories

Slides and Rollers

45 Series Slides and Rollers

Fits Slot Size 10



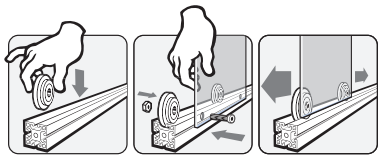
Part Number	Part Image	Price	Description	Fits	Pack Quantity	Recommended Screw Fastener T-Slot Attachment	Material	Drawing Link
151274		$9.50	Roller	All 45 Series	1	n/a	Glass-filled nylon/ steel	PDF
151273		$4.50	Slider					PDF
151089		$4.50	Snap Hook	Slider 151273			Zinc plated steel	PDF
162969		$7.75	Profile Slider Center Slot	All 45 Series			Polyoxymethylene (POM)	PDF
162970		$8.00	Profile Slider Center Ridge					PDF
163022		$16.00	Roller Element With Guide			Fasteners included	Thermoplastic polyurethane/nylon/ steel	PDF
163023		$16.50	Roller Element Without Guide					PDF

FATH® T-Slotted Rail Accessories

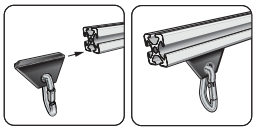
Slides and Rollers - Continued

Slides and Rollers Installation

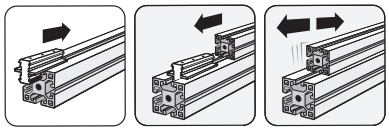
Roller



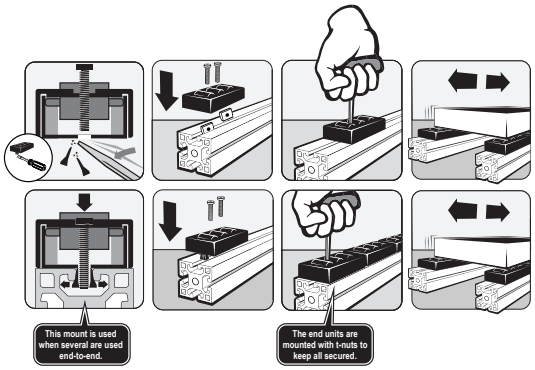
Slider and Snap Hook



Profile Slider



Roller Element



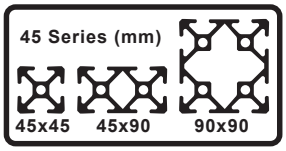
FATH® T-Slotted Rail Accessories

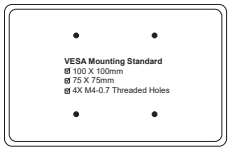
Monitor Mounts

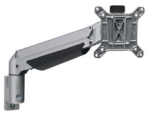
45 Series Monitor Mounts

- Fits monitors with VESA mounting standard
- Durable steel construction
- Powder coat finish
- Mounting hardware included for several mounting locations

Fits Slot Size 10



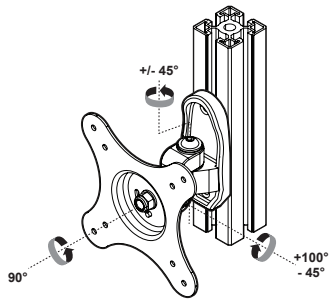


Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Installation Instructions Link	Drawing Link
162893		$42.00	Swivel Monitor Mount	15 [33.1]	1	PDF	PDF
162894		$50.00				PDF	PDF
162895		$58.00				PDF	PDF
162896		$92.00	Monitor Mounting Joint			PDF	PDF
162898		$93.00	Monitor Holder			PDF	PDF
162899		$325.00	4-Axis Mounting Support	10 [22.0]		PDF	PDF
162900		$394.00	5-Axis Mounting Support			PDF	PDF
162901		$630.00	4-Axis Workstation	8 [17.6]		PDF	PDF

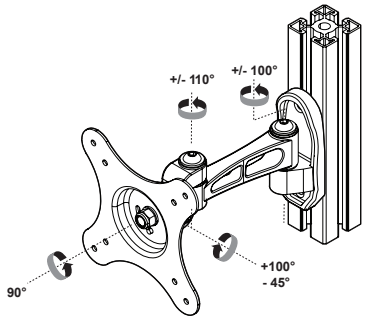
FATH® T-Slotted Rail Accessories

Monitor Mounts - Continued

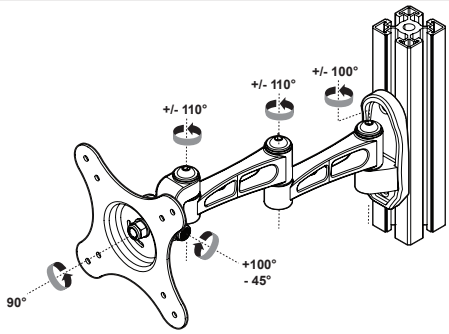
Monitor Mounts Adjustments



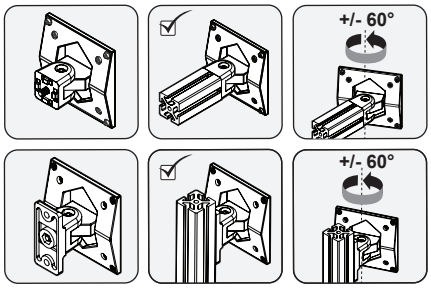
162893



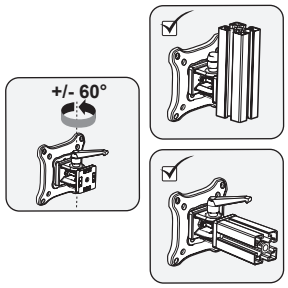
162894



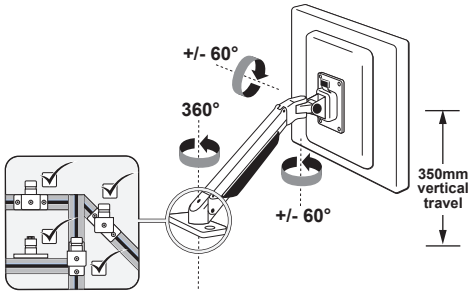
162895



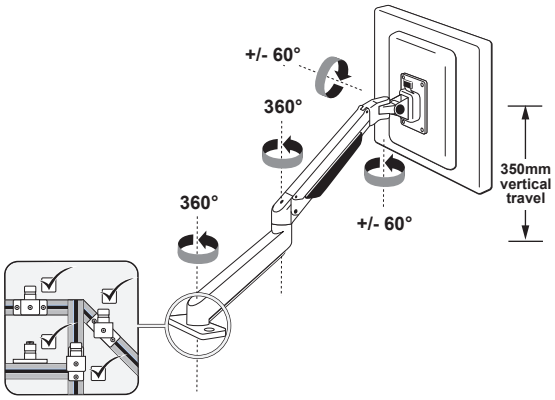
162896



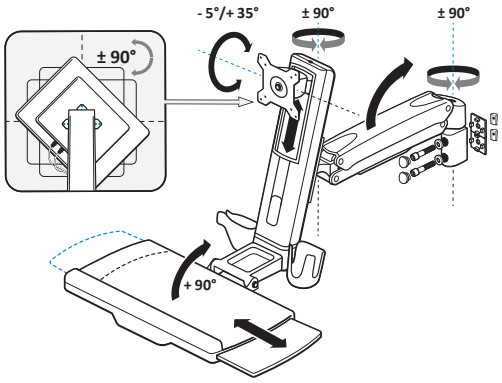
162898



162899



162900



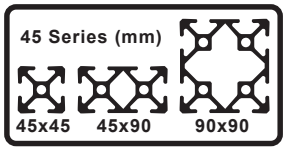
162901

FATH® T-Slotted Rail Accessories

Workstation Components

45 Series Workstation Components

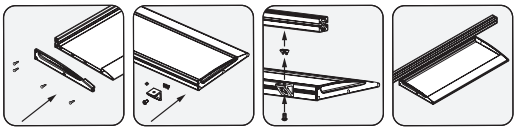
Fits Slot Size 10



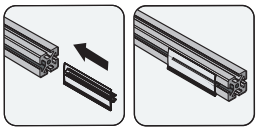
Part Number	Part Image	Price	Description	Load Rating kg [lb]	Pack Quantity	Material	Drawing Link
162902		$185.00	Keyboard Holder (requires mounting solution, designer's choice)	n/a	1	Aluminum/nylon	PDF
162966		$2.25	Label Clip		10	PVC	PDF

Workstation Components Installation

Keyboard Holder (mounting example)



Label Clip

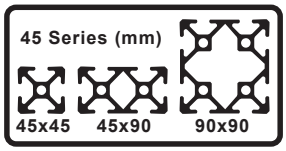


FATH® T-Slotted Rail Accessories

Wire Management

45 Series Wire Management

Fits Slot Size 10

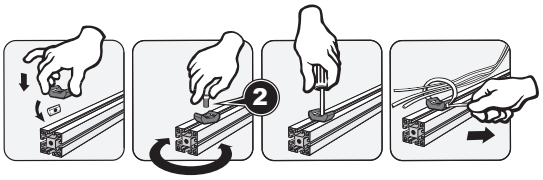


Part Number	Part Image	Price	Description	Pack Quantity	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Material	Drawing Link
151270		$94.00	Conduit Cover 2000 mm long	2	n/a	Polypropylene	PDF
151271		$94.00					PDF
151278		$15.50	Cross Cable Binding Block	10		Nylon	PDF
151279		$59.00	Hook And Loop			Glass-filled nylon/ polypropylene	PDF
151280		$33.50	Clip Cable Binder			Nylon/rubber	PDF
151281		$28.50	Ground Connector	1	Fasteners included	Nylon/rubber	PDF
151178		$4.00	Grounding Terminal			Steel/brass	PDF
162982		$7.50	Universal Cable Binder Block	10	161058	Nylon	PDF
162984		$16.50	Cable Binder Block		n/a		PDF

*T-Slot Nut also required

Wire Management Installation

Universal Cable Binder Block

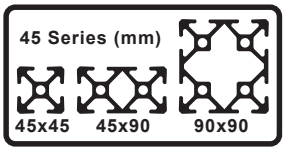


FATH® T-Slotted Rail Accessories

Miscellaneous Accessories

45 Series Miscellaneous Accessories

Fits Slot Size 10

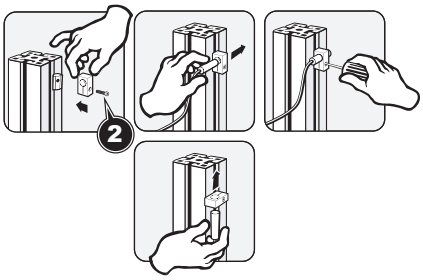


Part Number	Part Image	Price	Description	Fits	Recommended Screw Fastener *T-Slot Attachment 2 (ADC Part Number)	Pack Quantity	Material	Drawing Link
151275		$16.50	End Cap	45 x 45mm	n/a	10	Glass-filled nylon	PDF
151276		$24.00		45 x 90mm				PDF
151277		$32.00		90 x 90mm				PDF
151091		$6.00	Stop Bumper	All 45 Series		1	Rubber/zinc-plated steel	PDF
151170		$9.00						PDF
162973		$3.25	Sensor Mounting Block for 8mm diameter sensor		BHCS M4-0.7 x 25mm (not sold by ADC)		Nylon	PDF
162974		$3.25	Sensor Mounting Block for 12mm diameter sensor					PDF

*T-Slot Nut also required

Miscellaneous Accessories Installation

Sensor Mounting Block

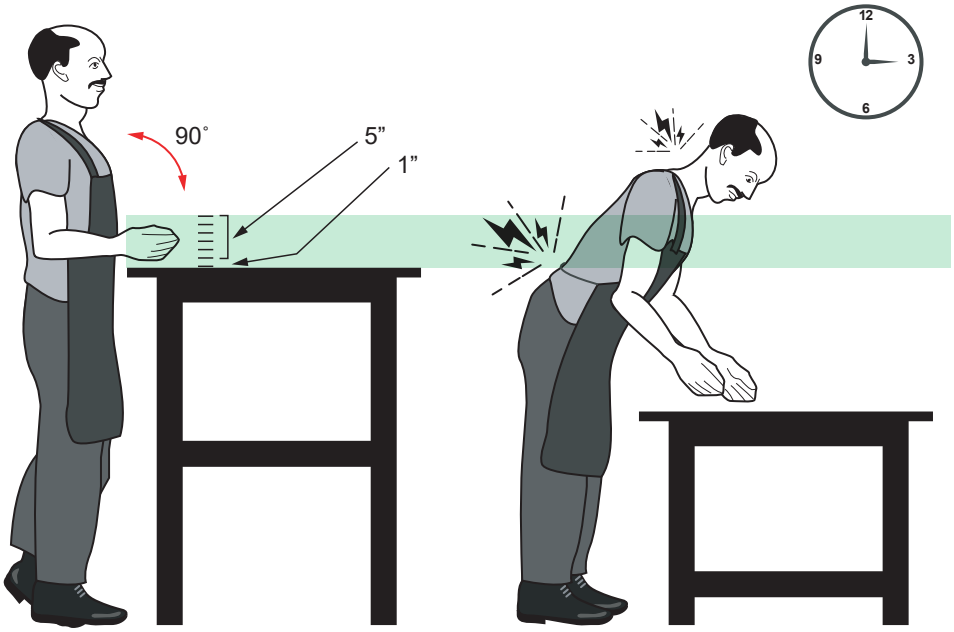


What is Ergonomics About?

Physical discomfort such as backache and leg pains have a major impact on a person's quality of life. As a result, a person's ability to work may also suffer. These ailments can lead to a decline in productivity, a deterioration of work quality, and a rise in sick leave. The aim of ergonomics is to provide a workspace or environment that is tailored to a person's natural posture and position to reduce strain and injury. Ergoswiss lift systems accomplish this by adapting the height at which people work to their different body heights and activities as well as optimizing working conditions, work processes, and equipment. Perfectly equipped workstations reduce the worker's strain, movement and related injuries, while increasing productivity and efficiency. Ergonomic workstations promote employee motivation, thereby increasing productivity. Taking these factors into consideration, you can see how the Ergoswiss system can pay for itself in just a few months.

Why Height Adjustable?

Obviously, people in every workplace are not the same height. In some companies, different people may move from station to station in order to do their work or there might be multiple people using the same workstation but on different shifts. In either case, a workstation with a static height is only ergonomic for one type of person. If someone of another build were to use that workstation, they could strain or injure themselves over time due to having to adjust to the workstation. By having a height adjustable workstation, the employee can instead adjust the workstation to themselves, greatly decreasing the likelihood of strain or injury as a result of a poor working posture.



ERGOSWISS
table lift systems

Ergoswiss Lift System

Application

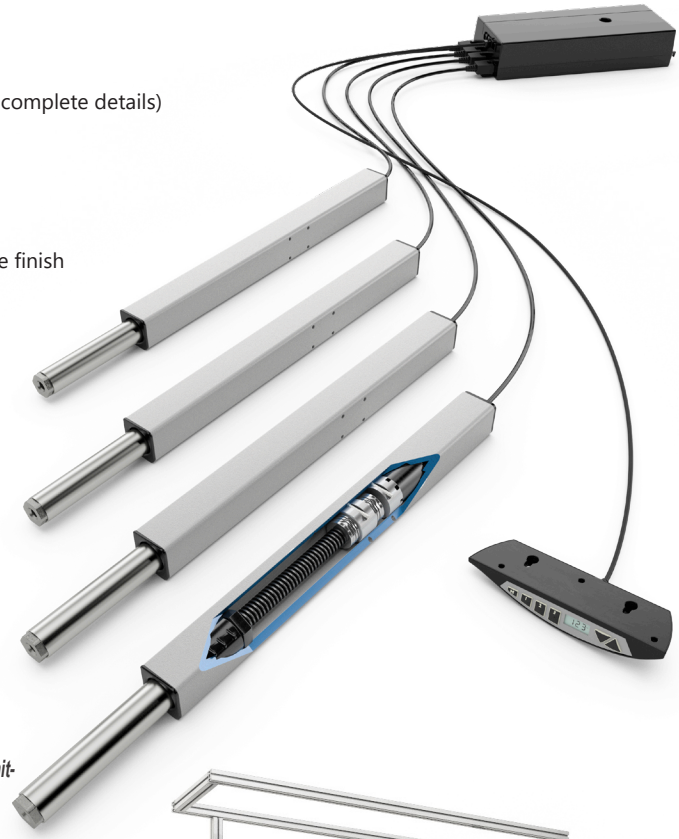
The electrically driven lifting column is suitable for height adjustable tables, laboratory workstations and furniture. Up to 4 lifting columns can be connected to one control box and are operated synchronously. In synchronous operation with 2 control boxes, up to 8 lifting columns can be operated. Each lifting column has an internal motor that drives the threaded spindle. The T-slots on 2 sides (Slot Size 8 or 8 mm wide) allow the mounting of crossbars, shelves and other attachments along the entire length of the leg.

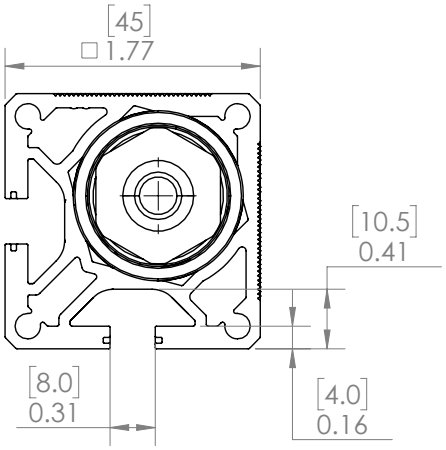
Features

- Stroke Length: 300mm [11.8”] or 400mm [15.7”]
- Leveling feet included
- Synchronous control of 1 to 8 Spindle Lifting Columns (See User Manual for complete details)
- Up/Down positioning with up to 3 memory positions
- Compatible with SureFrame™ rails and FATH® hardware/accessories
- Up to 1320lb weight capacity (using 4 Spindle Lifting Columns)
- Can be combined with multiple kits and linked for larger workspaces
- Spindle Lifting Legs Housing Material: Extruded Aluminum with clear anodize finish
- Spindle Lifting Legs have 2 extruded T-slot features, slot size 8**
- For use indoors in dry, non-explosive environments.
  - Ambient temperature is between +10°C [50°F] and +40°C [104°F].
  - Relative humidity range is between 30 % and 70 % (not condensed)
- The maximum continuous operating time is 2 minutes.***
- Versatile linear guide rail with internal drive unit
- Compressive force per lifting element 1500 N
- Tensile force per lifting element 1500 N
- Lifting speed: 9 mm/s [0.35in/s]
- Noise Level: <60 dBA
- Mb stat. = 200 Nm
- Mb dyn. = 80 Nm
- Product Life: 5000 cycles
- Integrated Tilt Sensing: >2.5° inclination change STOPS lifting movement
- Required Input Power: 110 VAC, 60Hz, single phase

***** Slots are shallower than most SureFrame profile slots. Please verify dimensions carefully before committing to design details.***

******When this does occur the system will become inoperable for 18 minutes to allow cooldown of the motor drive components***





Spindle Column Profile ([mm] in)

Ergoswiss Lift System

Custom Workstations

Ergoswiss lift systems work hand-in-hand with SureFrame T-slot rails and FATH accessories. You can combine the two products to build custom workstations to fit your specific needs.*

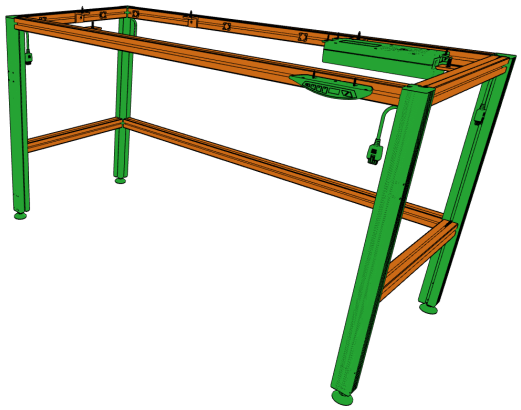
Recommended Parts

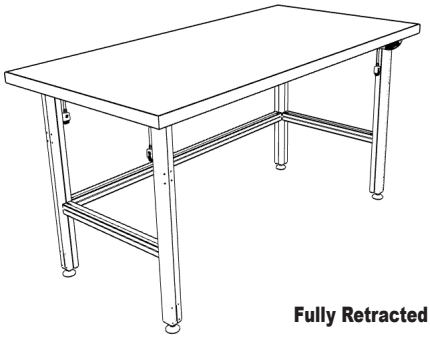
- 15 Series - PDF
- 40 Series - PDF

To the right is an example of a desk frame built with Ergoswiss, SureFrame, and FATH parts.

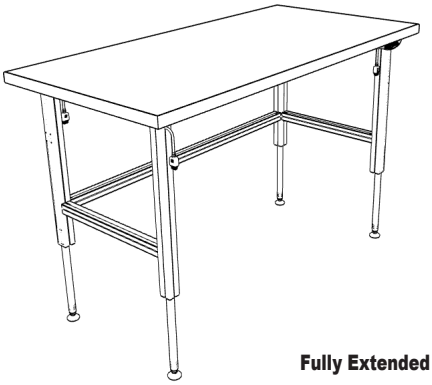
Included in the Ergoswiss Kit

SureFrame™ and FATH® Components (Sold Separately)





Fully Retracted



Fully Extended

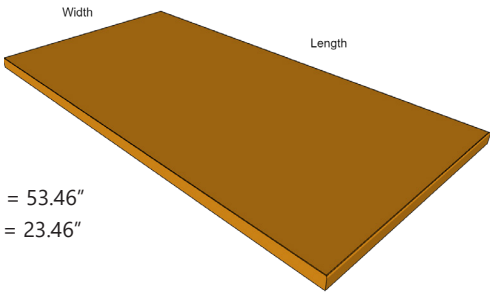
Build an Ergonomic Table with SureFrame, FATH, and ErgoSwiss

1. Determine table top dimensions (Not sold by ADC)
   - e.g. 60″ x 30″ x 1″

2. Determine desired table top overhang
   - e.g. 1.5″

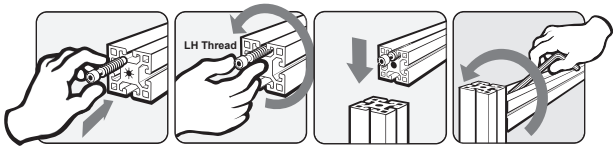
3. Calculate SureFrame cross member lengths
   - e.g. $CM_{Long} = TT_{Length}$ - 2 (Overhang) - 2 (45mm, ErgoSwiss leg width) = 60″ - 2 (1.5″) - 2 (45mm) = 53.46″
   - e.g. $CM_{Short} = TT_{Width}$ - 2 (Overhang) - 2 (45mm, ErgoSwiss leg width) = 30″ - 2 (1.5″) - 2 (45mm) = 23.46″

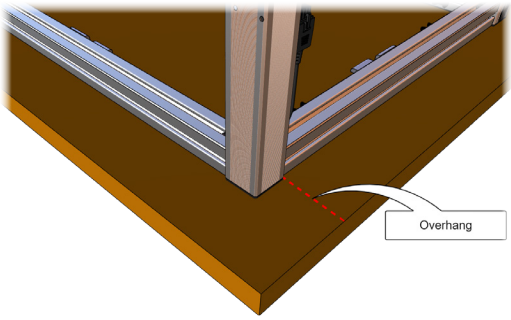
4. Choose desired FATH accessories for attaching the table top, cable management, shelving, etc.



Recommended part for attaching SureFrame to Spindle Column:

Duo Connector (10 pack)
151102 **$23.50**





*PLEASE NOTE: Some FATH accessories are not directly compatible with Ergoswiss channels. Please check dimensional drawings to ensure proper fit. For example, FATH roll-in nuts do NOT fit the T-slot on the Spindle Column. Hammer nuts and Economy nuts, however, do fit.

ERGOSWISS table lift systems

Ergoswiss 300mm [11.8 in] Lift System

Ergoswiss 300mm [11.8 in] Lift Kit

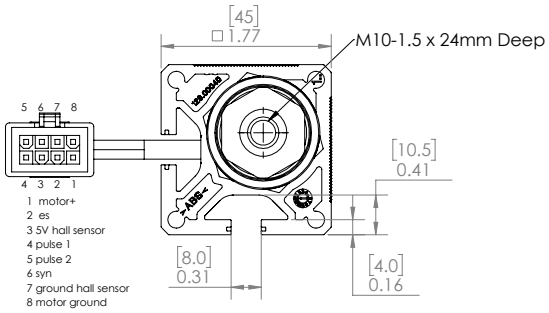
Part Number	Price	Stroke Length	Capacity	Includes			Image
				Qty	Description	Part Number	
907.42236-PP000001	$1,955.00	300mm [11.8 in]	1320 lbs/600 kg	4	Spindle lifting columns	907.02003-PP000001	
				1	Control box	124.43801-PP000001	
				4	Leveling feet	113.00006-PP000004	
				1	SCT memory module	124.00281-PP000001	
				1	Power cable	124.00145-PP000001	

Hardware Included: (5) M3.5 x 20mm and (6) M5.5 x 25mm Phillips Round Head Screws

Features

- Protection class (DIN EN 60529): IP20
- Lifting speed: 9 mm/s (0.35 in/s)
- Voltage: 24V
- Electrical connection: Molex MiniFit plug 8-Pin, Cable length 2m (6.5')
  - Can be extended up to 6m (20').

Dimensions shown as: [mm] in



Spindle Lifting Column

Part Number	Price	Stroke Length	Capacity	Image	Drawing Link
907.02003-PP000001	$575.00	300mm [11.8 in]	330 lbs/150 kg		PDF

Control Box

Part Number	Price	Description	For use with	Image	Drawing Link
124.43801-PP000001	$450.00	Ergoswiss SQ series control box, 110 VAC nominal input, 24 VAC, IP20.	ONLY works with up to (4) 300mm Spindle Lifting Columns (PN: 907.02003-PP000001)		PDF

Hardware Included: (3) M3.5 x 20mm Phillips Round Head Screws

ERGOSWISS table lift systems

Ergoswiss 400mm [15.7 in] Lift System

Ergoswiss 400mm [15.7 in] Lift Kit

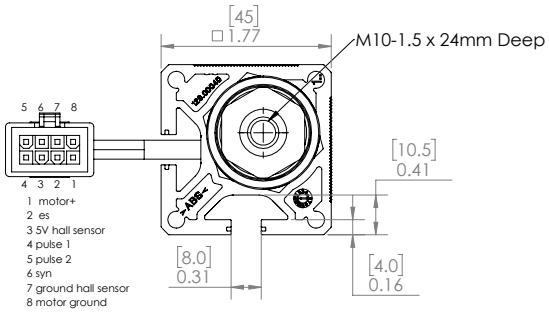
Part Number	Price	Stroke Length	Capacity	Includes			Image
				Qty	Description	Part Number	
907.42237-PP000001	$1,995.00	400mm [15.7 in]	1320 lbs/600 kg	4	Spindle lifting columns	907.02004-PP000001	
				1	Control box	124.43800-PP000001	
				4	Leveling feet	113.00006-PP000004	
				1	SCT memory module	124.00281-PP000001	
				1	Power cable	124.00145-PP000001	

Hardware Included: (5) M3.5 x 20mm and (6) M5.5 x 25mm Phillips Round Head Screws

Features

- Protection class (DIN EN 60529): IP20
- Lifting speed: 9 mm/s (0.35 in/s)
- Voltage: 24V
- Electrical connection: Molex MiniFit plug 8-Pin, Cable length 2m (6.5')
  - Can be extended up to 6m (20').

Dimensions shown as: [mm] in



Spindle Lifting Column

Part Number	Price	Stroke Length	Capacity	Image	Drawing Link
907.02004-PP000001	$600.00	400mm [15.7 in]	330 lbs/150 kg		PDF

Control Box

Part Number	Price	Description	For use with	Image	Drawing Link
124.43800-PP000001	$450.00	Ergoswiss SQ series control box, 110 VAC nominal input, 24 VAC, IP20.	ONLY works with up to (4) 400mm Spindle Lifting Columns (PN: 907.02004-PP000001)		PDF

Hardware Included: (3) M3.5 x 20mm Phillips Round Head Screws

Ergoswiss Lift System Universal Accessories

Features
- Electrical connection: RJ12 plug 6-Pin
- Cable length 2m (6.5')
- Protection class (DIN EN 60529): IP 30
- The cable can be extended up to 3m [9.8ft]

SCT Memory Module

Part Number	Price	Description	Image	Drawing Link
124.00281-PP000001	$90.00	Ergoswiss SQ series SCT memory module, manual switch, IP30. (1) 6.5ft/2m power cable included. Saves (3) intermediate positions in addition to up and down function.		PDF

Hardware Included: (2) M3.5 x 20mm Phillips Round Head Screws

Leveling Foot

Part Number	Price	Description	Image	Drawing Link
113.00006-PP000004	$40.00	Ergoswiss SQ series leveling foot, package of 4. (M10-1.5 x 25mm)		PDF

SQ Series Cables

Part Number	Price	Cable Type	Cable Length	Image	Package Qty
124.00137-PP000002	$55.00	Motor Extension Cable	3.9ft/1.2m		2
124.00145-PP000001	$20.00	Power Cable	9.8ft/3m		1
124.00183-PP000001	$45.00	Sync Cable	13.1ft/4m		1