Optomechanics

CHAPTERS

Mechanics

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Modular Structures Construction Techniques



For this step, you will need the T119873 drill bit, the XE25DG Drill Guide, a hand drill or drill press, and a vise such as the TMV2. If your application requires a three-way corner, you will have to drill a second hole in the rail, 90° from the first hole.

If you cut a standard rail or are using the XE25RL2 raw extrusion, you will need to tap a hole into the end of the rail. For this step, use the 71598 1/4"-20 (or 71498 M6) tap, and fix it in the TW25 tap wrench. Place the XE25TG tap guide over the end of the rail. Turn the tap to thread the hole.

Step 3: Attach Channel Screw



Insert the SH25LP438 1/4"-20-threaded (SH6M10LP M6threaded) channel screw into the threaded hole in the end of the rail, and tighten down partway with the 1/8" (4 mm) balldriver.

Step 4: Join the Rails

Step 2: Tap Center Hole



Slide the head of the channel screw into the rail channel with the drilled holes, so that the hex head lines up with the hole. Insert the balldriver, and tighten the channel screw. If making a three-way connection, repeat this process with the third rail, as shown in the inset. For increased stability, the corners may be reinforced with the XE25A90 angle bracket.

Build Rigid Structures with a Hand Drill and These Tools

XE25 Construction Rail Tools



SH25LP38/SH6M10LP Box of 100 Pieces 1/4"-20 x 3/8" (M6 x 1.0 x 10.0 mm) Screws T119873 Ø4.60 mm Drill Bit Fast Spiral for Best Performance



71598 Tap: 1/4"-20







Tap Wrench and Guide

ITEM #	METRIC ITEM #	\$		£		€		RMB		DESCRIPTION
XE25DG	XE25DG*	\$	81.20	£	58.46	€	70,64	¥	647.16	XE25 Ø4.60 mm Drill Guide
XE25TG	XE25TG*	\$	66.30	£	47.74	€	57,68	¥	528.41	XE25 Tap Guide
TW25	TW25*	\$	56.00	£	40.32	€	48,72	¥	446.32	Tap Wrench
71598	71498	\$	25.20	£	18.14	€	21,92	¥	200.84	1/4"-20 (M6 x 1.0) Tap
T119873	T119873*	\$	8.00	£	5.76	€	6,96	¥	63.76	Ø4.60 mm Drill Bit
SH25LP38	SH6M10LP	\$	21.60	£	15.55	€	18,79	¥	172.15	Low-Profile 1/4"-20 (M6 x 1.0) Channel Screws (Box of 100)
T119873	T119873* SH6M10LP	\$ \$ \$	8.00	£	5.76	€	6,96	¥ ¥ ¥	63.76	Ø4.60 mm Drill Bit