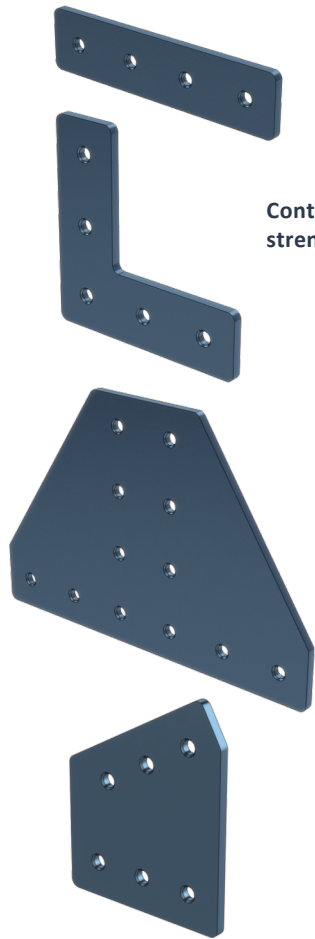


Stabilität und Dauerfestigkeit wie eine Schweißkonstruktion

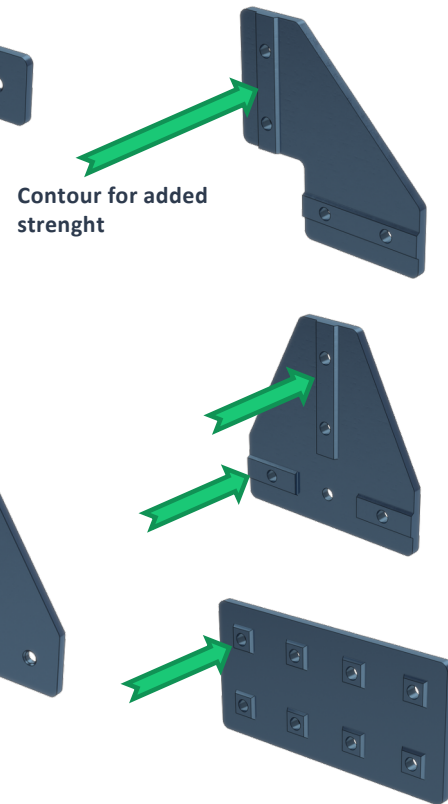


Vention Plates and Connectors

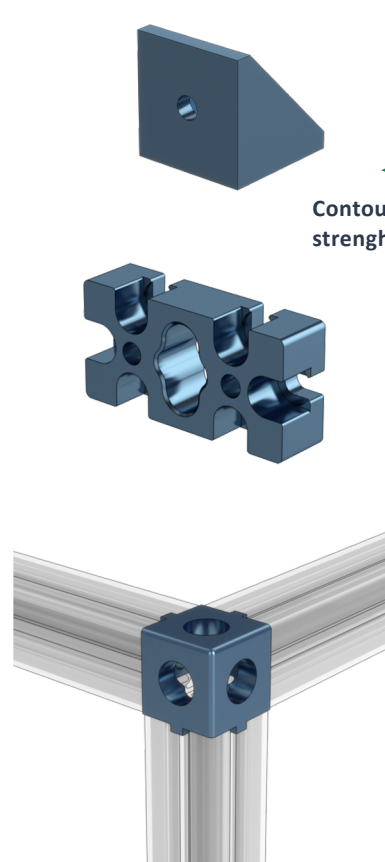
General Precision



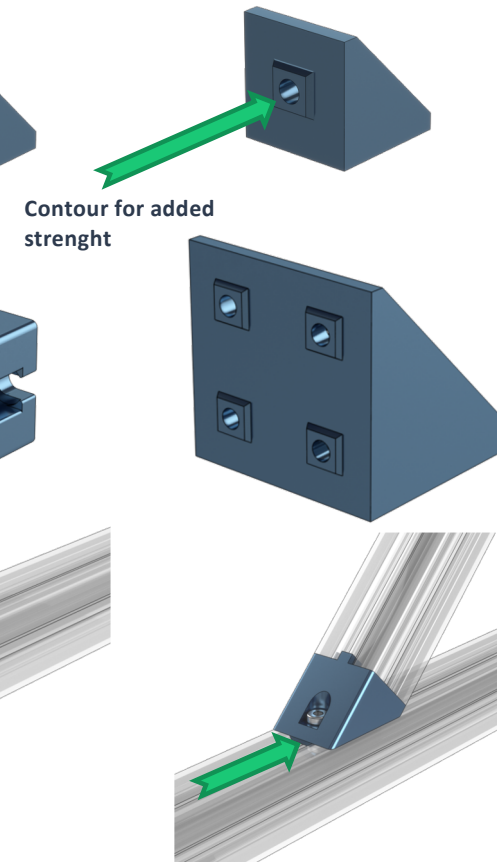
High-Precision Plates



General Precision Connectors



High-Precision Connectors

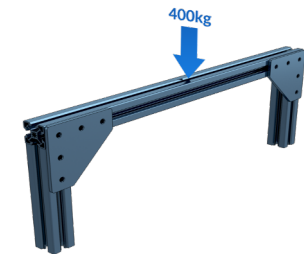


Mit Vention ist es möglich
Die **Stabilität** und **Dauerfestigkeit** einer
Schweißkonstruktion zu erreichen.

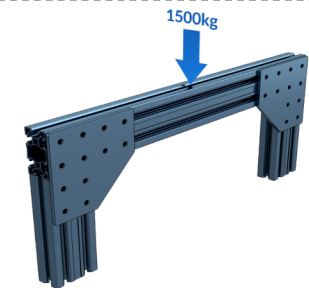
Besonders bei Applikationen mit aktiv
bewegten Teilen ist dies entscheidend.

- **Cobot-Aufbauten**
- **Aufbauten mit Linearachsen**

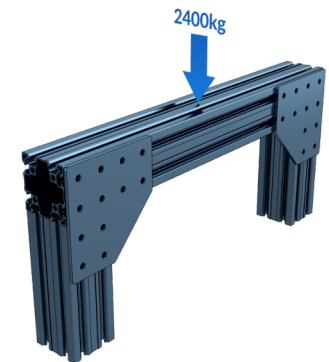
Maximum payload for a 1meter
extrusion length, simply supported



Profile 45mm x 45mm



Profile 45mm x 90 mm



Profile 90mm x 90mm

Wie geht das?

1. (innerer) Aufbau der Aluprofile
2. Verbinder mit Konturen

Computer-optimized profile with best in class moment of inertia per surface area ratio

Ready to assemble out of the box with no subsequent cutting or drilling required

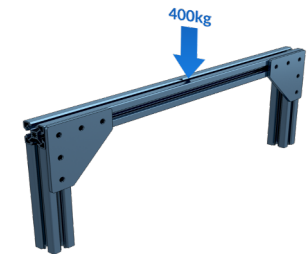
Patent pending v-shape interface creates self-aligning joint, supporting up to 25% more payload than traditional assembly plates and extrusion assemblies

Photometry compliant blue anodized color with low reflectivity

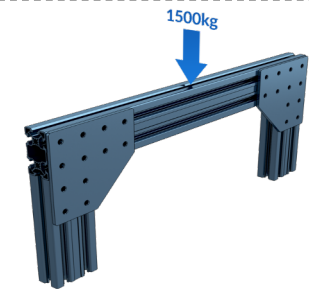
Laser-engraved part numbers matching visual assembly instructions

Single M8 screw and fastener size across all profile dimensions

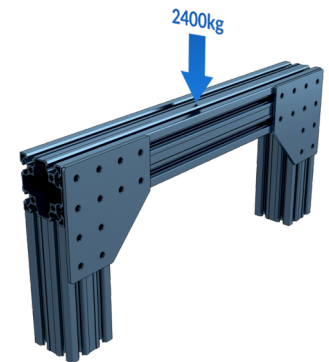
Maximum payload for a 1meter extrusion length, simply supported



Profile 45mm x 45mm



Profile 45mm x 90 mm



Profile 90mm x 90mm

Vention family of extrusions: 4 sizes, 1 fastener

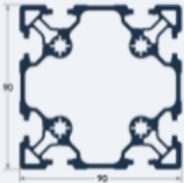
	Part Number	Length range (mm)	Yield strength (MPa)	Area moment of inertia (mm ⁴)*	Torsional constant (mm ⁴)**	Weight per 45 mm
	ST-EXT-006-XXXX	45–1,530	140	8,885	2,043	20.1 g
	ST-EXT-001-XXXX	45–2,295	240	162,325	31,851	92.5 g
	ST-EXT-002-XXXX	45–3,330	240	1,111,757 I _x 287,967 I _y ***	189,708	149.4 g
	ST-EXT-005-XXXX	45–3,330	240	1,850,913	941,414	228.6 g
	ST-EXT-009-XXXX	450–1,530	240	77,150 I _x 3,783,293 I _y ***	52,788	162.9 g

Table 2: profile specifications.

*Area moment of inertia (or the second moment of area) describes a profile's resistance to beam bending. A higher value indicates less deflection.

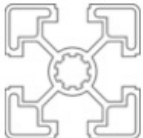
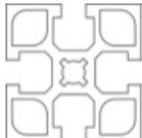
**Torsional constant describes a beam's resistance to torsional force.

***Note: The 45 x 90 mm and 22.5 x 180 extrusions' moment of inertia depends on the extrusion's orientation.



Vention extrusions: More rigid than other common brands

• • • • •

	Vention V2	McMaster-Carr	80/20	Bosch Rexroth	Minitec
					
Profile Dimensions (mm)	45 x 45	45 x 45	45 x 45	45 x 45	45 x 45
Material (aluminum)	6005-T5	6560-T6	6105-T5	6063-T5	6063-T5
Profile area (mm ²)	761	563	757	571	737
Area moment of inertia (mm ⁴)	162,325	107,780	139,310	109,635	141,720
Torsional constant (mm ⁴)	31,851	19,394	31,042	19,836	39,719
Weight per meter (kg)	2.06	1.53	2.05	1.55	2.03
(Area moment of inertia) / (Surface Area)(mm ²)	213	191	184	192	192
Max deflection (500mm cantilever) at 1500 N force (mm)	5.58	8.28	6.50	8.25	6.30
Stress (500mm cantilever) at 1500 N force (MPa)	103.96	156.57	121.05	153.48	117.11
Torsional displacement (1m length) at 50 Nm torque (degrees)	3.46	5.68	3.55	5.55	2.77

