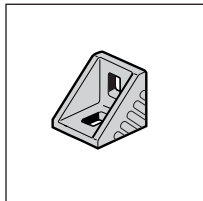


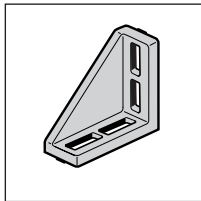
Section 3-Profile Connectors

One of the greatest strengths of the Bosch structural aluminum framing system is the wide choice of connection methods, and the ability to provide the right connection regardless of whether your concern is strength, flexibility, or aesthetics, or a combination of all those advantages.

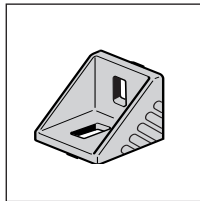
90° Right Angle Connectors



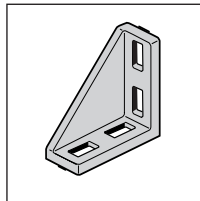
20x20 Gusset
3-5



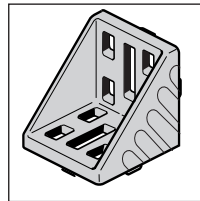
20x40 Gusset
3-5



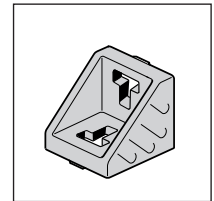
30x30 Gusset
3-6



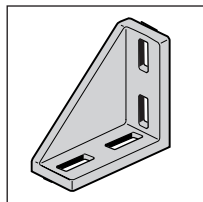
30x60 Gusset
3-6



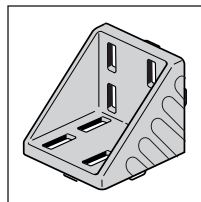
60x60 Gusset
3-7



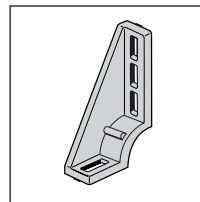
45x45 Gusset
3-7



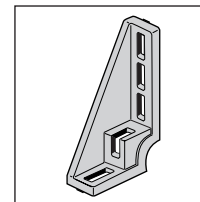
45x90 Gusset
3-8



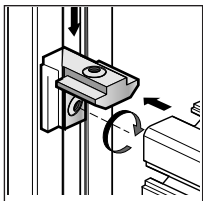
90x90 Gusset
3-8



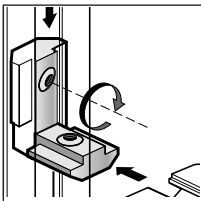
30x120
Foundation
Bracket
3-9



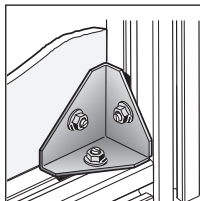
45x180
Foundation
Bracket
3-9



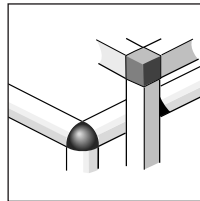
6mm, 8mm, & 10mm
Inside-to-Outside
Gussets
3-10



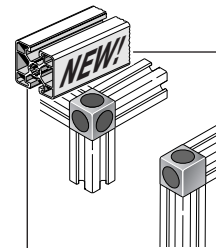
6mm, 8mm, & 10mm
Inside-to-Inside
Gussets
3-11



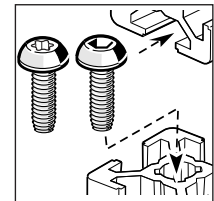
42x60 Sheet
Metal Gusset
3-12



20mm, 30mm,
& 45mm Corner
Brackets
3-13



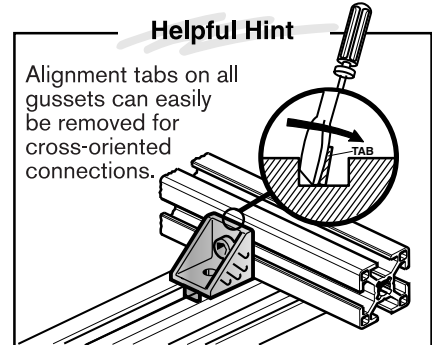
20mm, 30mm, &
45mm Corner
Cube Kits
3-14 & 3-15

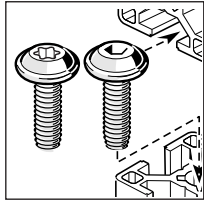


S6 Self-Tapping
Connection Screw
3-16

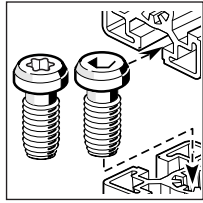
Helpful Hint

Alignment tabs on all gussets can easily be removed for cross-oriented connections.

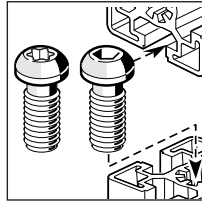


90° Right Angle Connectors (continued)

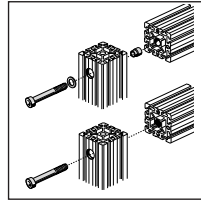
S8 Self-Tapping
Connection Screw
3-17



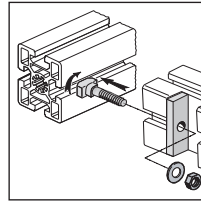
S12 Self-Tapping
Connection Screw
3-18



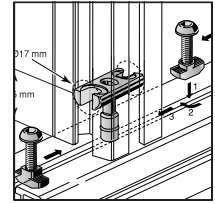
M12 Connection
Screw
3-19



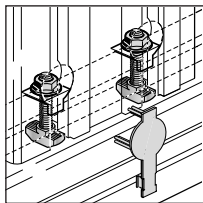
M16 Connection
Screw
3-20



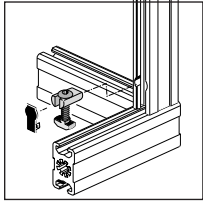
Cross Connector
Kit
3-21



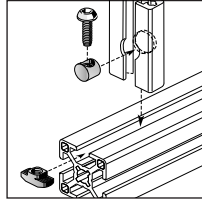
30mm, 45mm,
60mm, & 90mm
Bolt Connector Kits
3-22 & 3-23



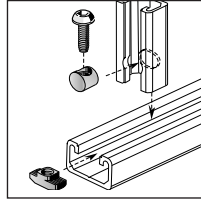
22.5x180mm
Bolt Connector Kit
3-24



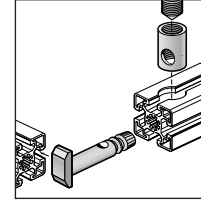
22.5x22.5x45mm
Bolt Connector Kit
3-25



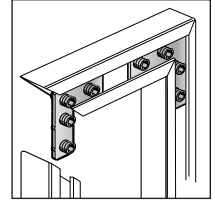
11x30mm
Bolt Connector Kit
3-26



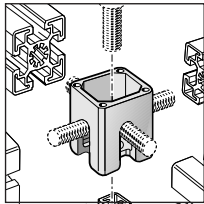
15x22.5mm
Bolt Connector Kit
3-26



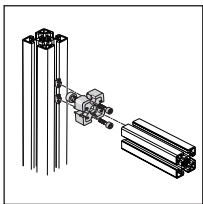
Quick
Connectors/Rigid
3-27



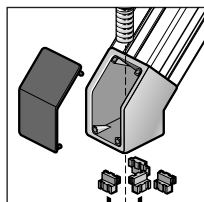
6mm, 8mm, & 10mm
Mitered Corner
Connectors
3-28



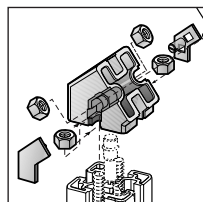
45mm
Junction
Connector
3-29



45x45mm
T-Connector Kit
3-30

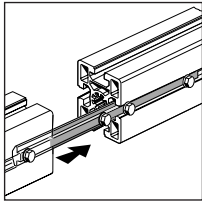
45° Angle Connectors

45° Angle 30mm
Connector Kit
3-31

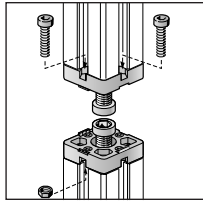


45° Angle 45mm
Connector Kit
3-32

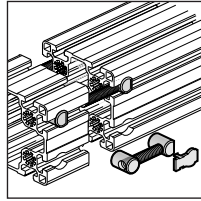
180° Straight-Line Connectors



8mm & 10mm
Connection Link
Kits
3-33

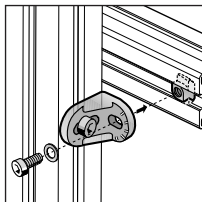


45x45mm
End Connector Kit
3-34

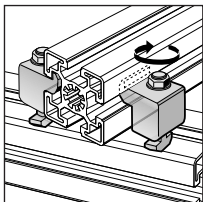


End-to-End
Bolt Connector
Kits
3-35

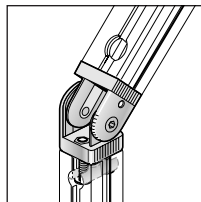
Multi-Angle Connectors



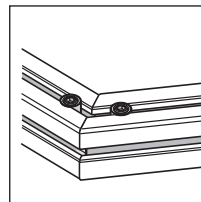
Adjustable Angle
Gusset Kits
3-36



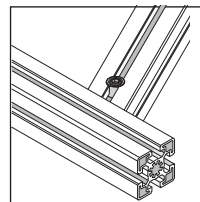
Adjustable Angle
Clamp
3-37



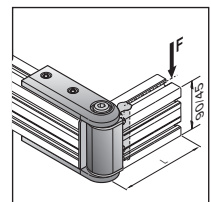
Multi-Angle
Connector Kits
3-38 to 3-40



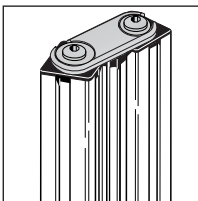
End-to-End
Variable Angle
Bolt Connector
3-41



End-to-Side
Variable Angle
Bolt Connector
3-42

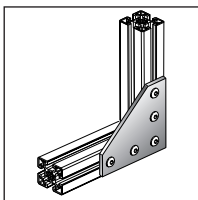


Swivel Arm
Joint Kit
3-43

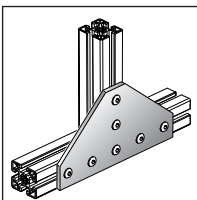


45x45
Panel Connector
3-44

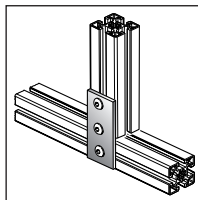
Joining Plates



Corner Joining
Plates for 30-, 45-,
and 90-series
Profiles
3-45



T-Junction Joining
Plates for 30-, 45-,
and 90-series
Profiles
3-46 & 3-47

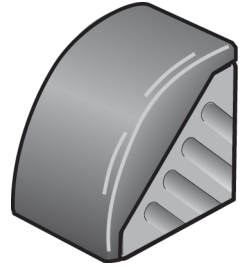


Rectangular
Joining Plates
for 30- and
45-series Profiles
3-48

Profile Connectors

Die Cast Aluminum Gussets

6 8 10



3

Die-cast aluminum gussets are available for connecting a wide range of profile sizes and applications, from 20x20 to 90x90, as well as special sizes such as 30x120 and 45x180. Elongated holes allow gussets to be adjusted for position on the profile, while guide tabs assure proper alignment of gusset in profile's T-slot. Tabs can be easily removed with a flat-tip screwdriver for cross-connection of profiles. All gussets are designed to accept optional cover caps.

Features:

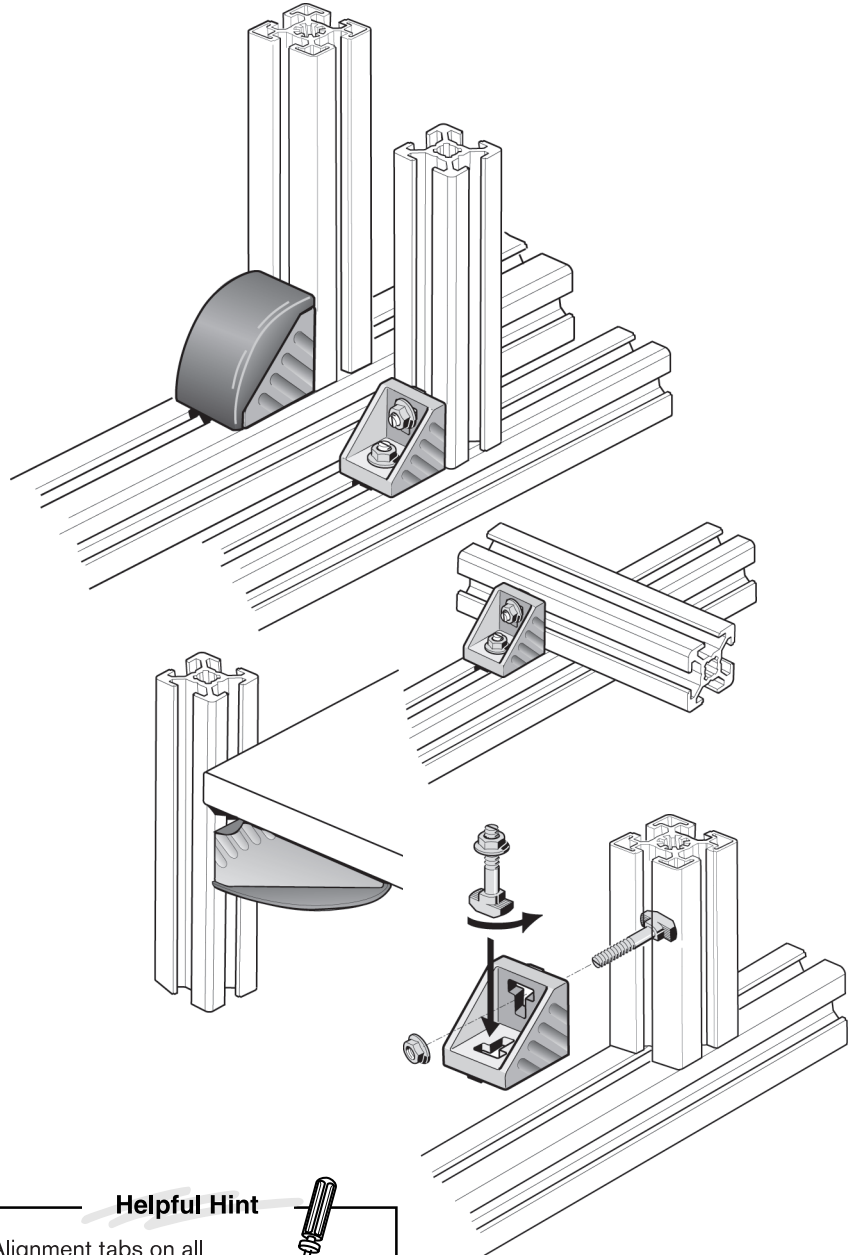
- T-slot alignment tabs for easy positioning and reduced assembly time
- Clean, professional appearance
- Connects anywhere on the profile's T-slot
- Gusset and connecting hardware available as separate components
- Close tolerances on gusset edges provide flush, tight fit
- Alignment tabs can easily be removed for cross-oriented connections
- Optional cover caps available

Machining required:

- None

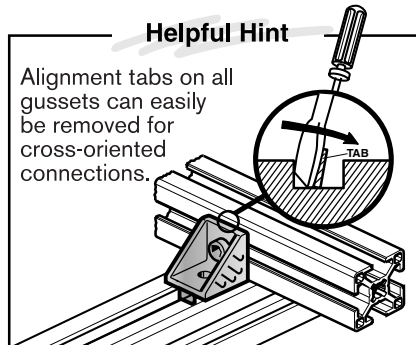
Material:

- Gusset: die-cast aluminum
- Fasteners: zinc-plated steel
- Cover cap: black polyamide 6



Helpful Hint

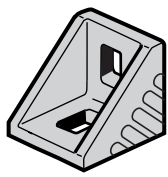
Alignment tabs on all gussets can easily be removed for cross-oriented connections.



20x20 Gusset



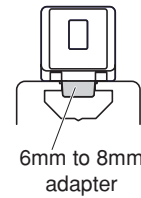
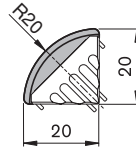
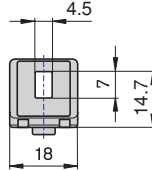
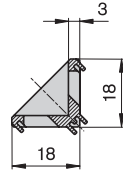
6 8



M4 x 8



6



6mm to 8mm
adapter

Description

Qty

Part Number

20x20 gusset only

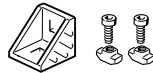


1

3 842 523 508

20x20 gusset with fasteners

6



1



3 842 523 511

20x20 round cover cap



1

3 842 523 513

Plastic adapter

6 → 8

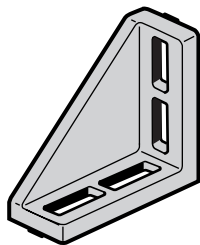


1

3 842 523 516

20x40 Gusset

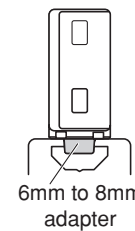
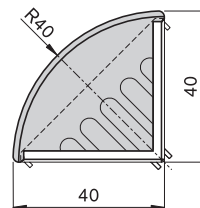
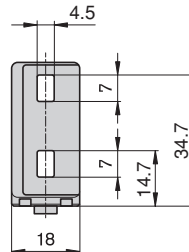
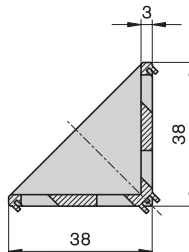
6 8



M4 x 8



6



6mm to 8mm
adapter

Description

Qty

Part Number

20x40 gusset only

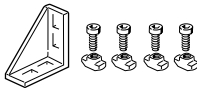


1

3 842 523 517

20x40 gusset with fasteners

6



1

3 842 523 520

20x40 round cover cap



1

3 842 523 522

Plastic adapter

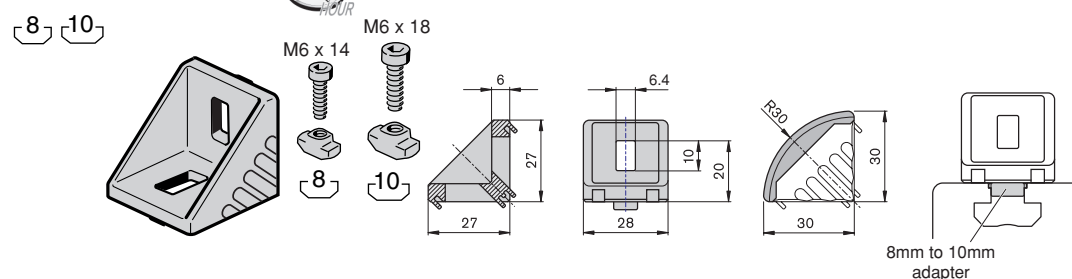
6 → 8



1

3 842 523 516

30x30 Gusset



Description

Qty

Part Number

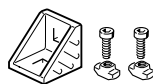
30x30 gusset only



1

3 842 523 525

30x30 gusset with fasteners



1



3 842 523 528

30x30 gusset with fasteners for 8→10

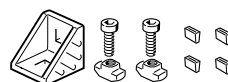


1



3 842 523 530

30x30 gusset with fasteners for 10mm T-slots



1



3 842 523 532

30x30 round cover cap



1

3 842 523 534

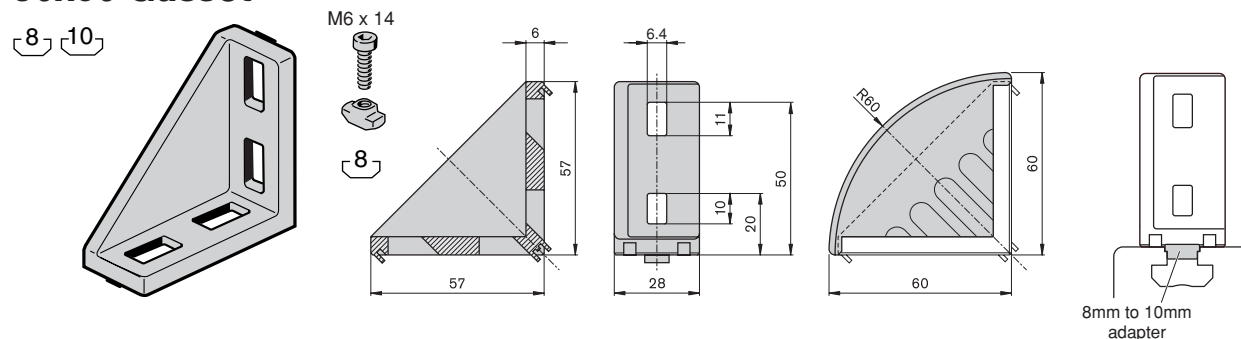
Plastic adapter 8→10



1

3 842 523 537

30x60 Gusset



Description

Qty

Part Number

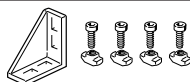
30x60 gusset only



1

3 842 523 538

30x60 gusset with fasteners



1

3 842 523 541

30x60 round cover cap



1

3 842 523 543

Plastic adapter 8→10

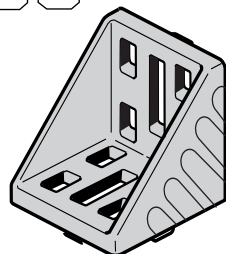


1

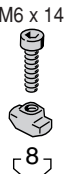
3 842 523 537

60x60 Gusset

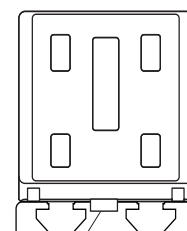
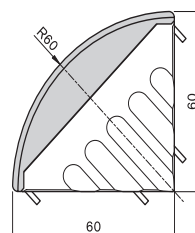
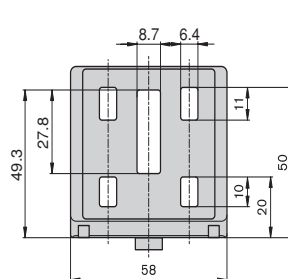
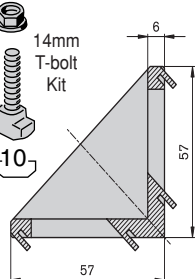
8 10



M6 x 14



14mm T-bolt Kit



Remove 10mm center tab to use on 30x60 profile with 8mm T-slot

Description**Qty****Part Number**

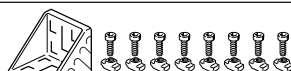
60x60 gusset only



1

3 842 523 546

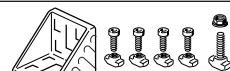
60x60 gusset with fasteners for 8→8



1

3 842 523 549

60x60 gusset with fasteners for 8→10



1

3 842 523 551

60x60 gusset with fasteners for 10→10



1



3 842 523 553

60x60 round cover cap

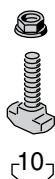
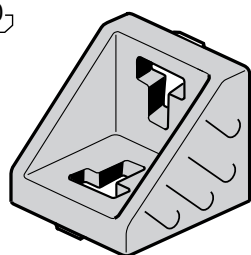


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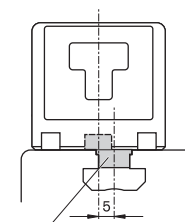
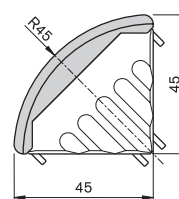
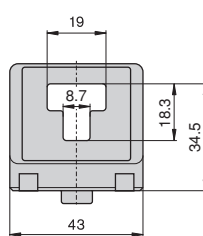
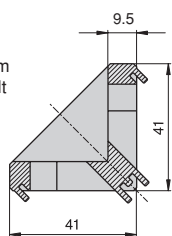
3 842 523 555

45x45 Gusset

10



19mm T-bolt Kit



Offset block

When connecting two profiles with 60mm side dimensions, order offset blocks to help align gusset with outer edge of profiles.

Description**Qty****Part Number**

45x45 gusset only

10



1

3 842 523 558

45x45 gusset with fasteners

10



1



3 842 523 561

45x45 round cover cap



1

3 842 523 563

Offset block 10mm T-slot-5mm offset

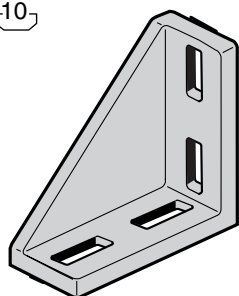


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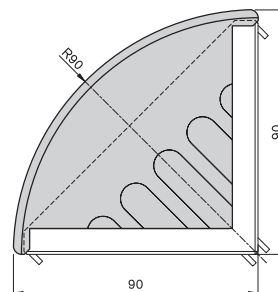
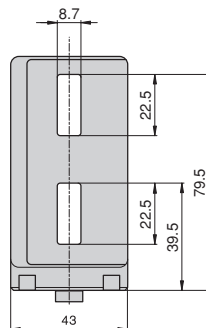
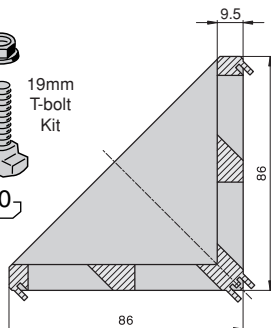
3 842 523 593

45x90 Gusset

10



10



Description

Qty

Part Number

45x90 gusset only

10



1

3 842 523 567

45x90 gusset with fasteners

10



1

3 842 523 570

45x90 round cover cap



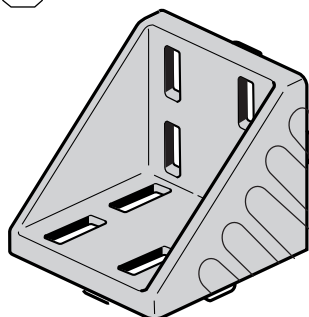
1

3 842 523 572

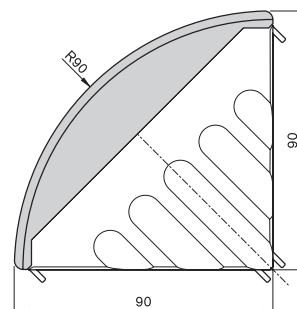
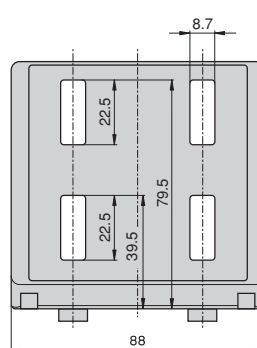
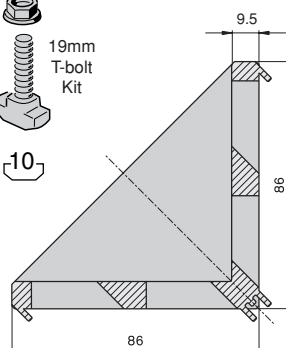
90x90 Gusset

24 HOUR

10



10



Description

Qty

Part Number

90x90 gusset only

10

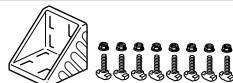


1

3 842 523 575

90x90 gusset with fasteners

10



1

24 HOUR

3 842 523 578

90x90 round cover cap

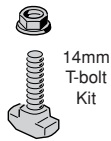
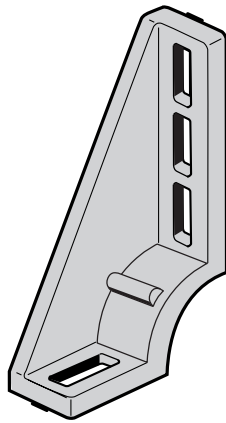


1

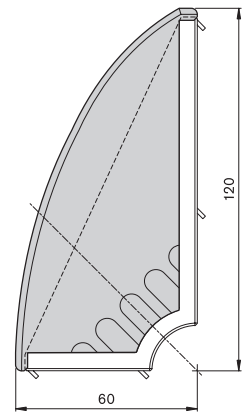
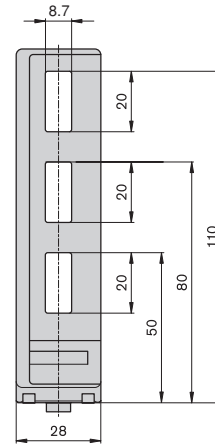
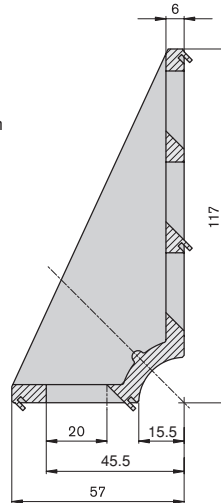
3 842 523 580

30x120 Foundation Bracket

8



8



Description

Qty

Part Number

30x120 foundation bracket only

8



1

3 842 523 587

30x120 foundation bracket with fasteners



1

8 981 021 023

30x120 round cover cap

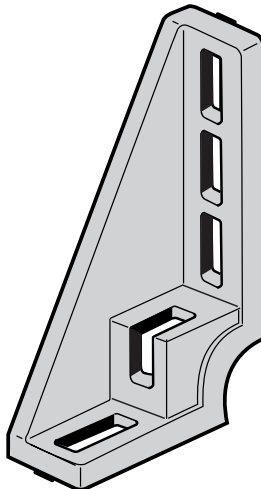


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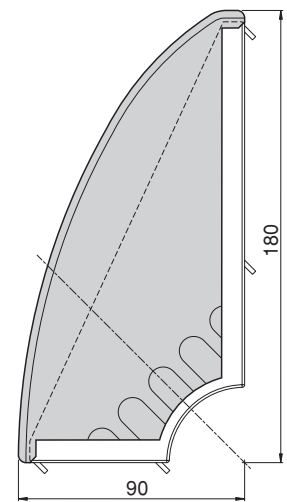
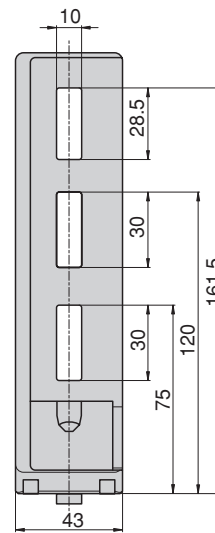
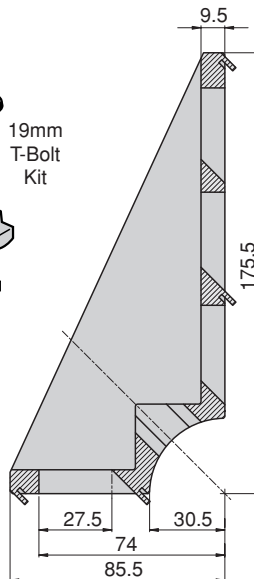
3 842 523 589

45x180 Foundation Bracket

10



10



Description

Qty

Part Number

45x180 foundation bracket only

10



1

3 842 523 583

45x180 foundation bracket with fasteners



1

3 842 527 535

45x180 round cover cap



1

3 842 523 585

6mm, 8mm, & 10mm Inside-to-Outside Gussets



These gussets provide concealed right-angle connections when joining the inside 6mm, 8mm, or 10mm T-slot of one profile to the outside 6mm, 8mm, or 10mm T-slot of another profile. This enables you to make the type of connection shown at right. This connection method provides easy access to the fastening set screws (included with connector), while the inside T-slots remain unobstructed.

Features:

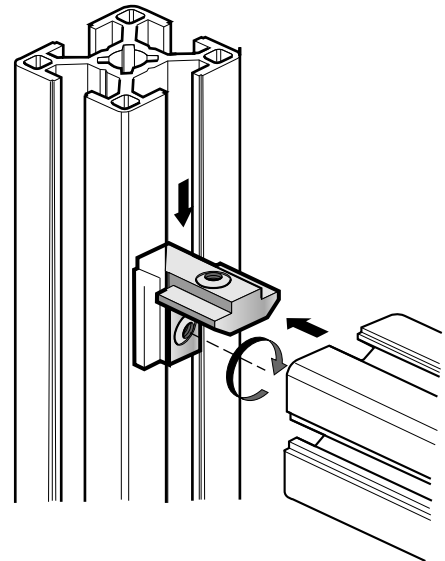
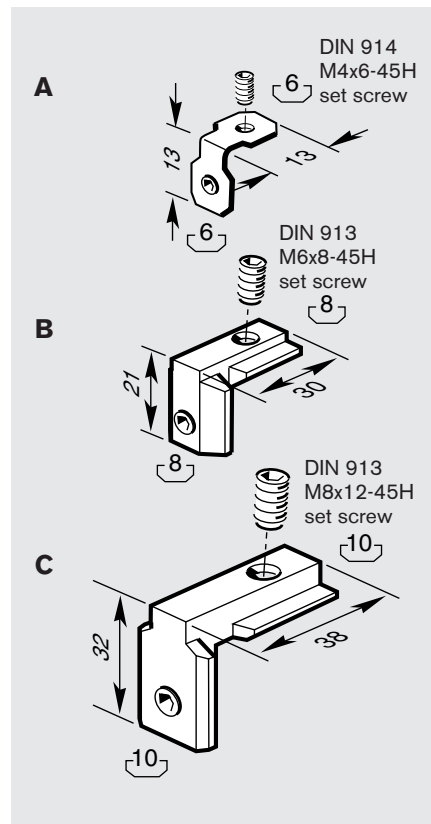
- Clean appearance
- Easy set screw installation
- Does not obstruct the T-slot

Machining required:

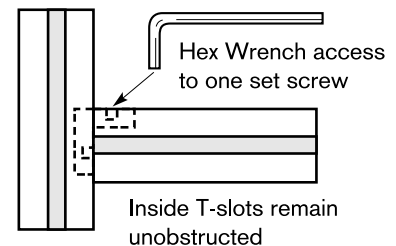
- None

Material:

- Die-cast brass



Assembly Note



Description	Part Number
A – 6mm inside-to-outside gusset  and set screws, package of 10	3 842 519 718
B – 8mm inside-to-outside gusset  and set screws, package of 10	3 842 352 334
C – 10mm inside-to-outside gusset  and set screws, package of 10	 3 842 506 380

6mm, 8mm, & 10mm Inside-to-Inside Gussets

6 8 10



These gussets provide concealed right-angle connections when joining the inside 6mm, 8mm, or 10mm T-slot of one profile to the inside 6mm, 8mm, or 10mm T-slot of another profile. This enables you to make the type of connection shown below right. This connection method provides easy access to the fastening set screws (included with package) and allows adjustability of profiles after the structure is assembled.

Features:

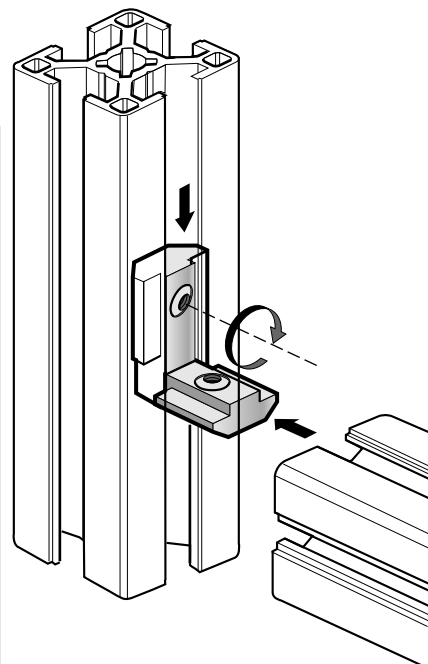
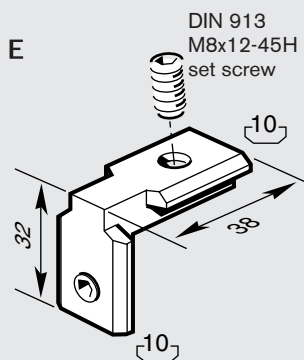
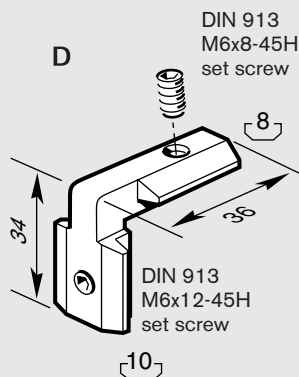
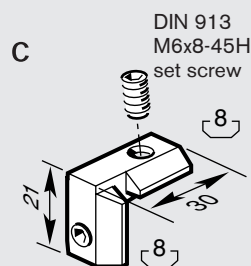
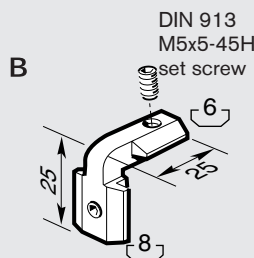
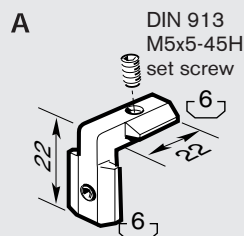
- Clean appearance
- Easy set screw installation

Machining required:

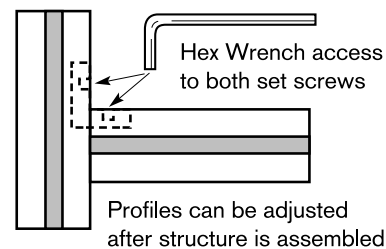
- None

Material:

- Die-cast brass



Assembly Note



Description

Part Number

A – 6mm inside-to-inside gusset and set screws, package of 10	3 842 523 216
B – 6mm to 8mm inside-to-inside gusset and set screws, package of 10	3 842 523 217
C – 8mm inside-to-inside gusset and set screws, package of 10	3 842 515 256
D – 8mm to 10mm inside-to-inside and set screws, package of 10	3 842 517 974
E – 10mm inside-to-inside gusset and set screws, package of 10	3 842 515 252

Sheet Metal Gusset-42x60

10

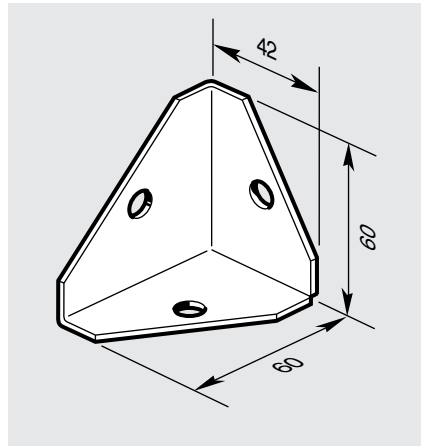
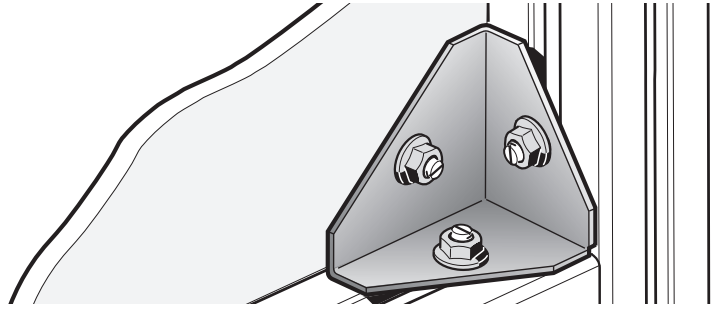
This gusset may be used with 45-series profiles to form a butt connection. The hole in the gusset side may be used to attach panels or tabletops to workstation bases.

Machining required:

- None

Material:

- Zinc-plated, black-chromated sheet steel



Description

Part Number

42x60 sheet metal gusset, one

3 842 146 813

20mm, 30mm, & 45mm Corner Brackets

6 8 10

These corner brackets connect 20-, 30-, and 45-series square or radius profiles at right angles. Ideal for use as in-plant poster frames, trade show display tables, custom table legs, or any application that requires aesthetics. Self-tapping fastening screws included with each bracket. After fastening the bracket, square or radius cover caps are available to provide neat, finished appearance.

Features:

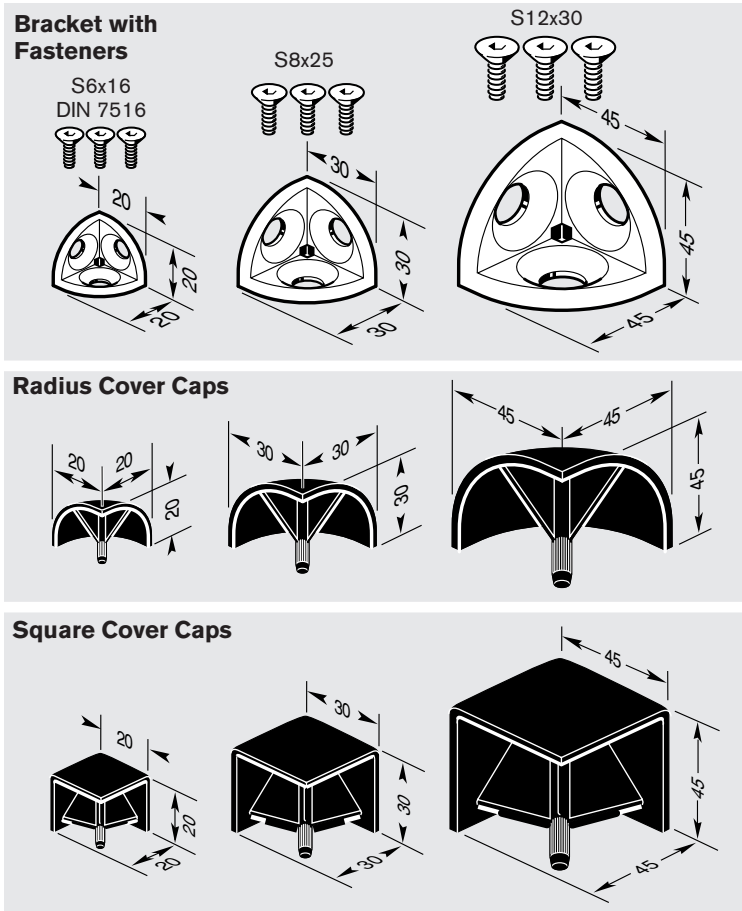
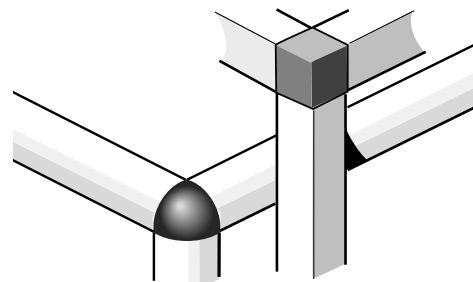
- One bracket connects two or three profiles
- Compatible with square or radius profiles
- Provides neat, finished appearance

Machining required:

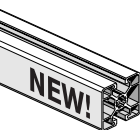
- None

Material:

- Bracket: die-cast zinc
- Plastic cover caps: black polyamide 6
- Fasteners: zinc-plated steel



Description	Part Number
20mm corner bracket with fasteners, one 	3 842 519 318
20mm radius cover cap, one only	3 842 517 146
20mm square cover cap, one only	3 842 517 147
30mm corner bracket with fasteners, one 	3 842 519 319
30mm radius cover cap, one only	3 842 517 281
30mm square cover cap, one only	3 842 517 282
45mm corner bracket with fasteners, one 	3 842 519 321
45mm radius cover cap, one only	3 842 517 290
45mm square cover cap, one only	3 842 517 291
Replacement screw for 20mm bracket, DIN 7516 M6x16 flat-head screw, one	3 842 517 132
Replacement screw for 30mm bracket, S8x25 flat-head screw, one	3 842 517 543
Replacement screw for 45mm bracket, S12x30 flat-head screw, one	3 842 517 613



20mm & 30mm Corner Cube Kits

6 8

These corner brackets connect 20- and 30-series square profiles at right angles. 2S corner cube kits connect two profiles together for creating two dimensional structures such as picture frames. 3S corner cube kits can be used to build 3-dimensional structures such as tables, shelving frames, and much more. Kits include all necessary hardware, including cover caps for the screw access holes to provide neat, finished appearance.

Features:

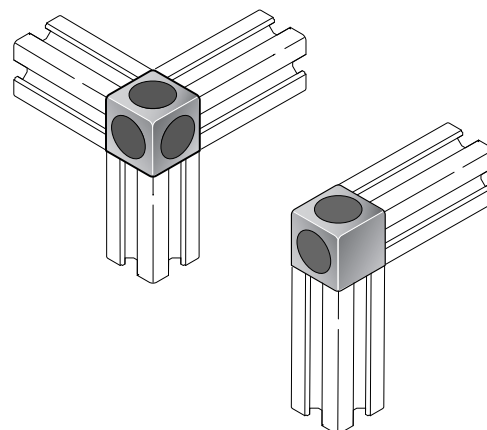
- Includes all necessary hardware
- Self-tapping screws (no special machining needed)
- Cover caps included to provide neat, finished appearance

Machining required:

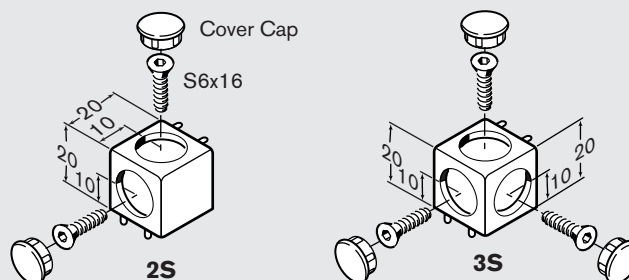
- None

Material:

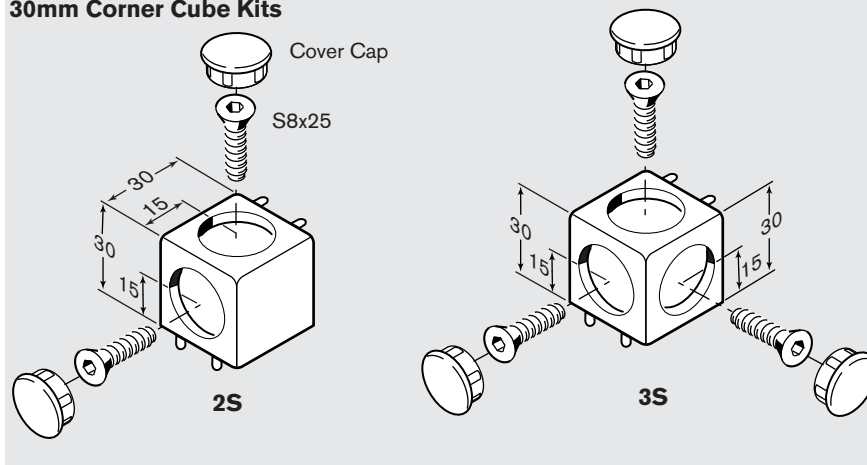
- Corner cube: die-cast aluminum
- Cover caps: black polyamide
- Screws: steel



20mm Corner Cube Kits



30mm Corner Cube Kits



Description

Part Number

Corner cube 20 kit 2S, one		3 842 524 484
Corner cube 20 kit 3S, one		3 842 524 478
Corner cube 30 kit 2S, one		3 842 524 485
Corner cube 30 kit 3S, one		3 842 524 479

45mm Corner Cube Kits

10

These corner brackets connect 45-series square profiles at right angles. 2S corner cube kits connect two profiles together for creating two dimensional structures such as picture frames. 3S corner cube kits can be used to build 3-dimensional structures such as tables, shelving frames, and much more. Kits include all necessary hardware, including cover caps for the screw access holes to provide neat, finished appearance.

Features:

- Includes all necessary hardware
- Self-tapping screws (no special machining needed)
- Cover caps included to provide neat, finished appearance

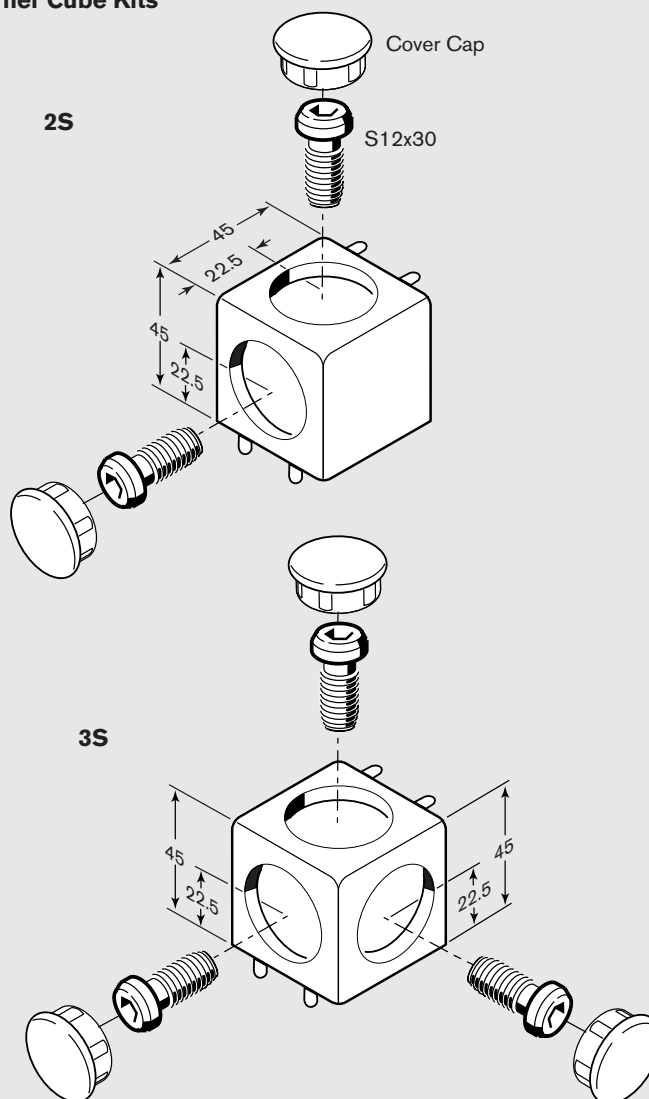
Machining required:

- None

Material:

- Corner cube: die-cast aluminum
- Cover caps: black polyamide
- Screws: steel

45mm Corner Cube Kits



Description

Part Number

Corner cube 45 kit 2S, one

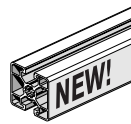


3 842 524 486

Corner cube 45 kit 3S, one



3 842 524 480



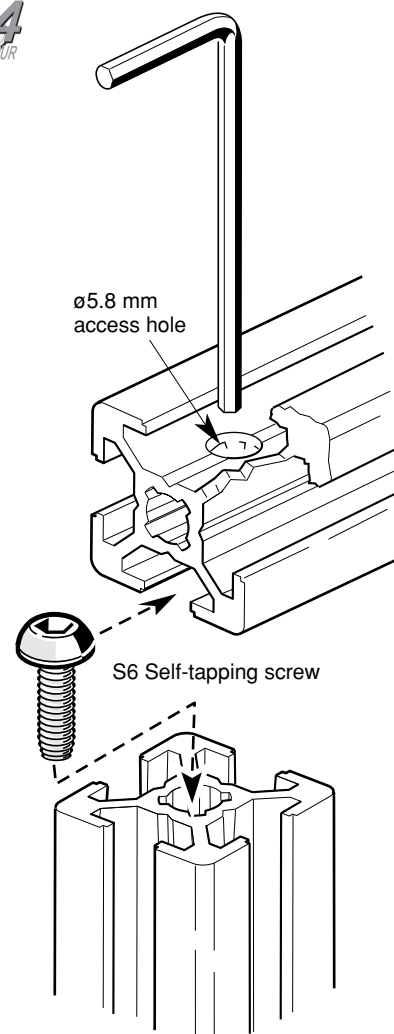
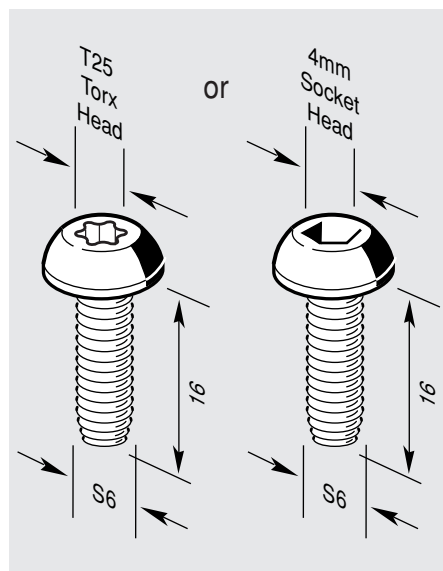
S6 Self-Tapping Connection Screw



6



The S6 self-tapping connection screw connects a profile with a 6mm T-slot to a 20-series profile with a 6mm center bore at right angles. Because the screw head does not obstruct the T-slot, it is ideal for applications where a panel or pane is inserted into the slot. To form a butt joint, the screw is threaded into the center bore of one profile until 4mm of the thread remains. The screw head is then slipped into the T-slot of the second profile. Depending on the screw type, either a T25 Torx wrench or 4mm hex head wrench is then inserted through the 5.8mm access hole (drilled by end user) and the screw is tightened. To order drilling jigs and wrenches, see “Tools,” Section 15.



Features:

- Large thread diameter ensures connection strength, vibration resistance, and pull-out strength
- Does not obscure the profile's T-slot, easy panel insertion
- Self-threading for quick, easy installation
- Hardened and tempered for extra strength

Machining required:

- 5.8mm access hole

Material:

- Industrial grade 8.8 steel, zinc-plated

Description

Part Number

S6x16 self-tapping connection screw, 4mm socket head, one



3 842 523 968

S6x16 self-tapping connection screw, T25 Torx head, one



3 842 528 593

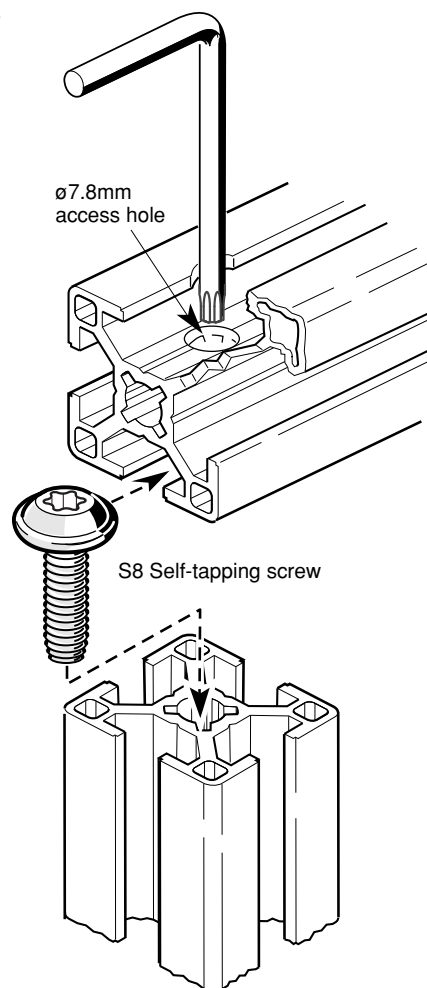
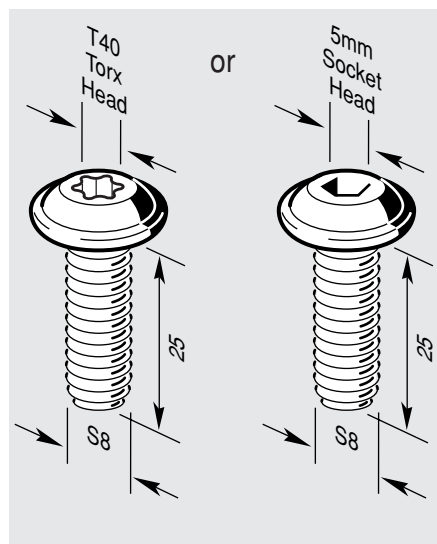
S8 Self-Tapping Connection Screw



8



The S8 self-tapping connection screw connects a profile with an 8mm T-slot to a 30-series profile with an 8mm center bore at right angles. Because the screw head does not obstruct the T-slot, it is ideal for applications where a panel or pane is inserted into the slot. To form a butt joint, the screw is threaded into the center bore of one profile until 4mm of the thread remains. The screw head is then slipped into the T-slot of the second profile. Depending on the screw type, either a T40 Torx wrench or 5mm hex head wrench is then inserted through the 7.8mm access hole (drilled by end user) and the screw is tightened. To order drilling jigs and wrenches, see “Tools,” Section 15.



Features:

- Large thread diameter ensures connection strength, vibration resistance, and pull-out strength
- Does not obscure the profile's T-slot, easy panel insertion
- Self-threading for quick, easy installation
- Hardened and tempered for extra strength

Machining required:

- 7.8mm access hole

Material:

- Industrial grade 8.8 steel, zinc-plated

Description

Part Number

S8x25 self-tapping connection screw, 5mm socket head, one



3 842 523 970

S8x25 self-tapping connection screw, T40 Torx head, one



3 842 527 174

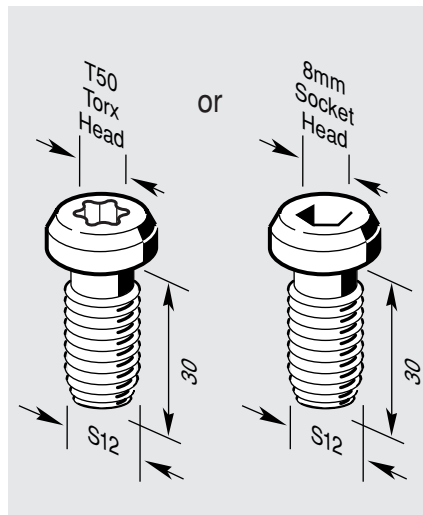
8mm anti-rotation T-block kit, optional, one (see page 4-9)

3 842 530 325

S12 Self-Tapping Connection Screw



The S12 self-tapping connection screw connects a profile with a 10mm T-slot to 45-, 60-, and 90-series profiles with 12mm center bore at right angles. Because the screw head does not obstruct the T-slot, it is ideal for applications where a panel or pane is inserted into the slot. To form a butt joint, the screw is threaded into the center bore of one profile until 4mm of the thread remains. The screw head is then slipped into the T-slot of the second profile. Depending on the screw type, either a T50 Torx wrench or an 8mm hex head wrench is then inserted through the 9.8mm access hole (drilled by end user) and the screw is tightened. To order drilling jigs and wrenches, see “Tools,” Section 15.



Assembly Note

Never tap center bore of profile when using S12 self-tapping screws

Features:

- Large thread diameter ensures connection strength, vibration resistance, and pull-out strength
- Does not obscure the profile's T-slot, easy panel access
- Self-threading for quick, easy installation
- Hardened and tempered for extra strength

Machining required:

- 9.8mm access hole

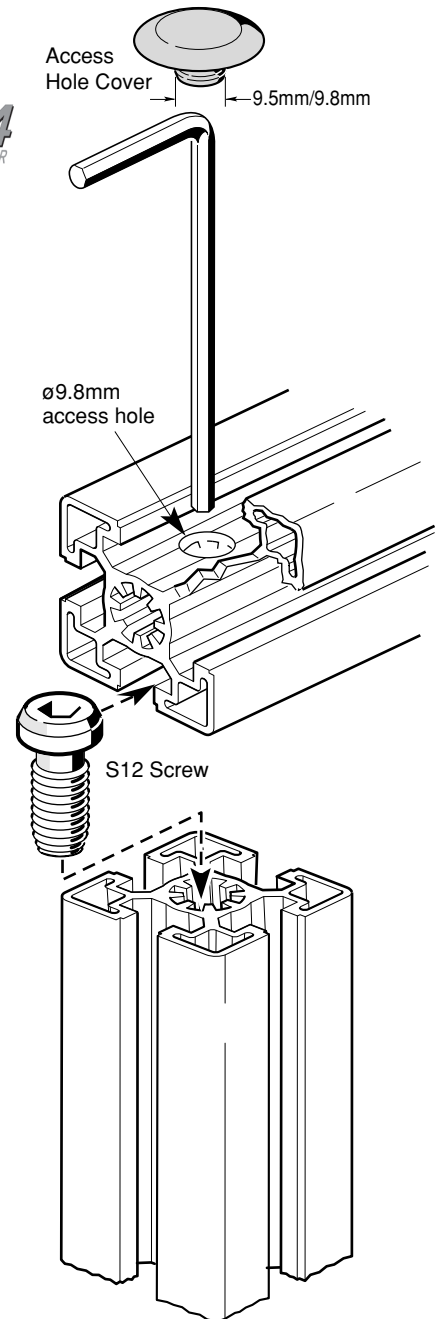
Material:

- Industrial grade 8.8 steel, zinc-plated

Description

Part Number

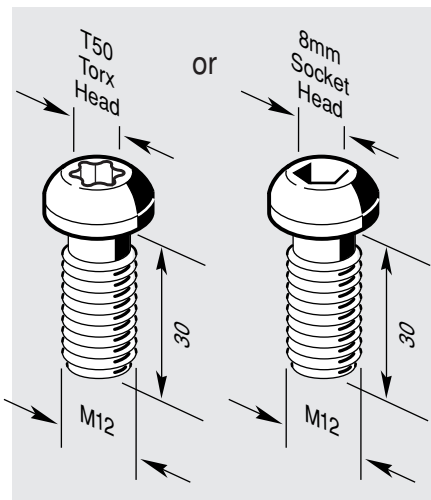
S12x30 self-tapping connection screw, 8mm socket head, one	 		8 981 021 302
S12x30 self-tapping connection screw, T50 Torx head, one	 		3 842 530 236
9.5/9.8mm access hole cover, one			8 981 005 306
10mm anti-rotation T-block kit, optional, one (see page 4-9)			3 842 530 326



M12 Connection Screw



The M12 connection screw connects a profile with 10mm T-slot to 45-, 60-, and 90-series profiles with 12mm center bore at right angles. Because the screw head does not obstruct the T-slot, it is ideal for applications where a panel or pane is inserted into the slot. To form a butt joint, the screw is threaded into the center bore of one profile until 4mm of the thread remains. The screw head is then slipped into the T-slot of the second profile. An 8mm hex head wrench is then inserted through the 9.8mm access hole (drilled by end user) and the screw is tightened. To order drilling jigs and wrenches, see "Tools," Section 15.



Features:

- Large thread diameter ensures connection strength, vibration resistance, and pull-out strength
- Does not obscure the profile's T-slot, easy panel access
- Hardened and tempered for extra strength

Machining required:

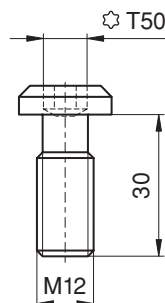
- 12mm tap
- 9.8mm access hole

Material:

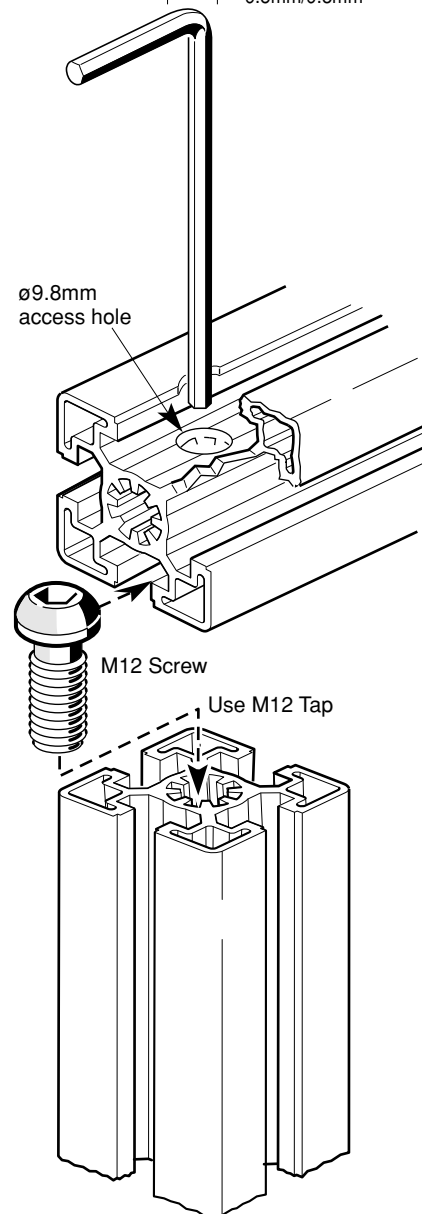
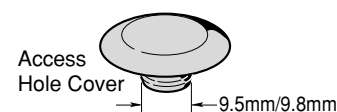
- Industrial grade 8.8 steel, zinc-plated

Assembly Note

Tap center bore in profile when using M12 connection screws



$F_{max} = 40 \text{ KN}$



Description

Part Number

M12 connection screw, 8mm socket head, one		8 981 021 301
M12 connection screw, T50 Torx head, one		3 842 530 235
9.5/9.8mm access hole cover, one		8 981 005 306
10mm anti-rotation T-block kit, optional, one (see page 4-9)		3 842 530 326

M16 Connection Screw

10

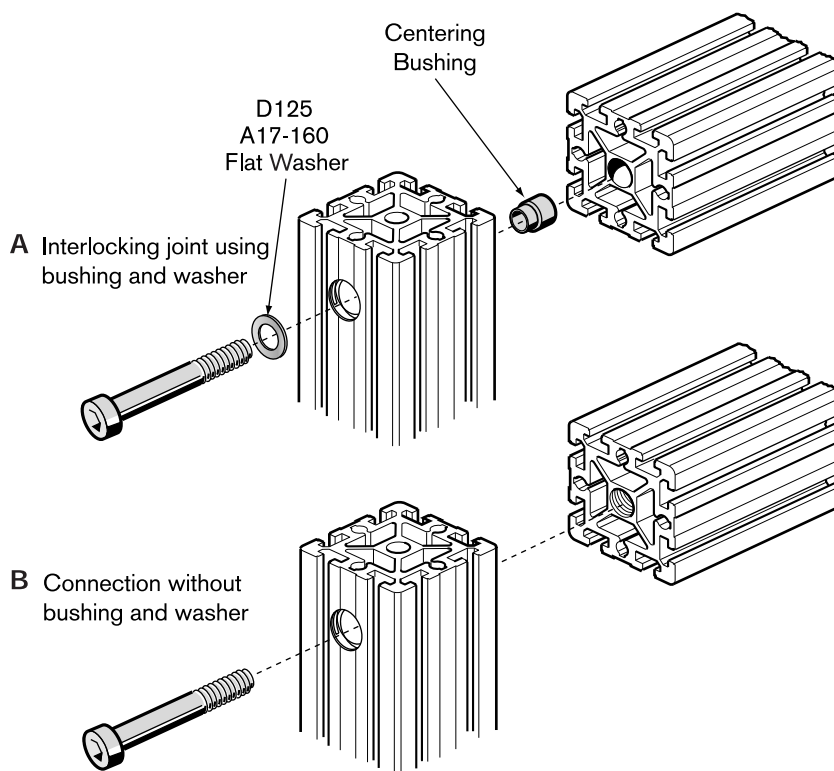
The M16 connection screw connects 90-series profiles at right angles. **A.** Using bushing and washer forms interlocking connection. When using bushing and washer, one profile has center bore tapped 16mm and counter-bored 22mm (15.5mm deep) to accommodate bushing; other profile must have a 20mm through-hole for screw and bushing on one side, and counter-bored 31mm (33mm deep) to accept washer on other side. **B.** When NOT using bushing and washer, one profile has center bore tapped 16mm; other profile must have a 17mm through-hole for screw and counter-bored 26mm (33mm deep) to accommodate screw head.

Machining required:

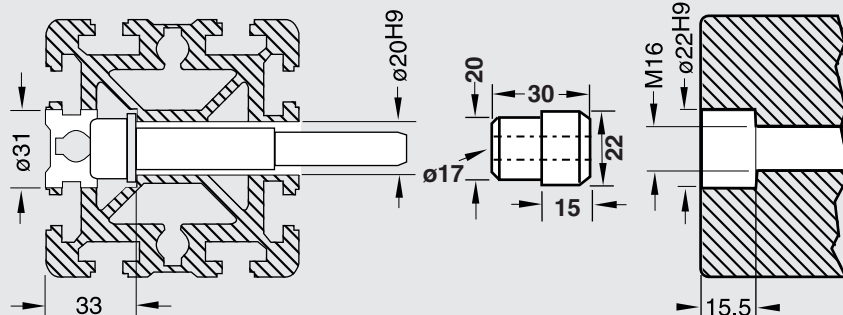
- See diagram at right

Material:

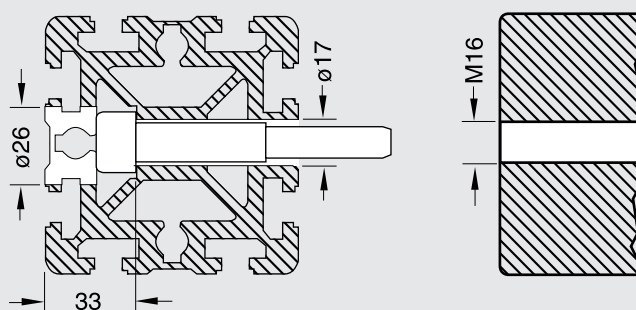
- Screw: industrial grade 8.8 steel, zinc-plated
- Bushing and washer: zinc-plated steel



A Interlocking joint when using M16 with bushing and washer



B Connection when using M16 without bushing and washer



Description

Part Number

M16 connection screw M16x100-8.8, one

2 910 141 454

Centering bushing, one

3 842 501 360

D125 A17-160 plain washer, one

2 916 011 024

Cross Connector Kit

10

The cross connector provides a strong rigid connection for 45- and 90-series profiles (also 60x90H) at right angles, and is used primarily in conveyor leg sets. The large, rectangular bar offers maximum surface contact to provide strong support for heavy loads. Profiles are milled on one or both sides to accommodate the bar(s). The T-bolt aligns itself within the 10mm T-slot as the nut is tightened.

Features:

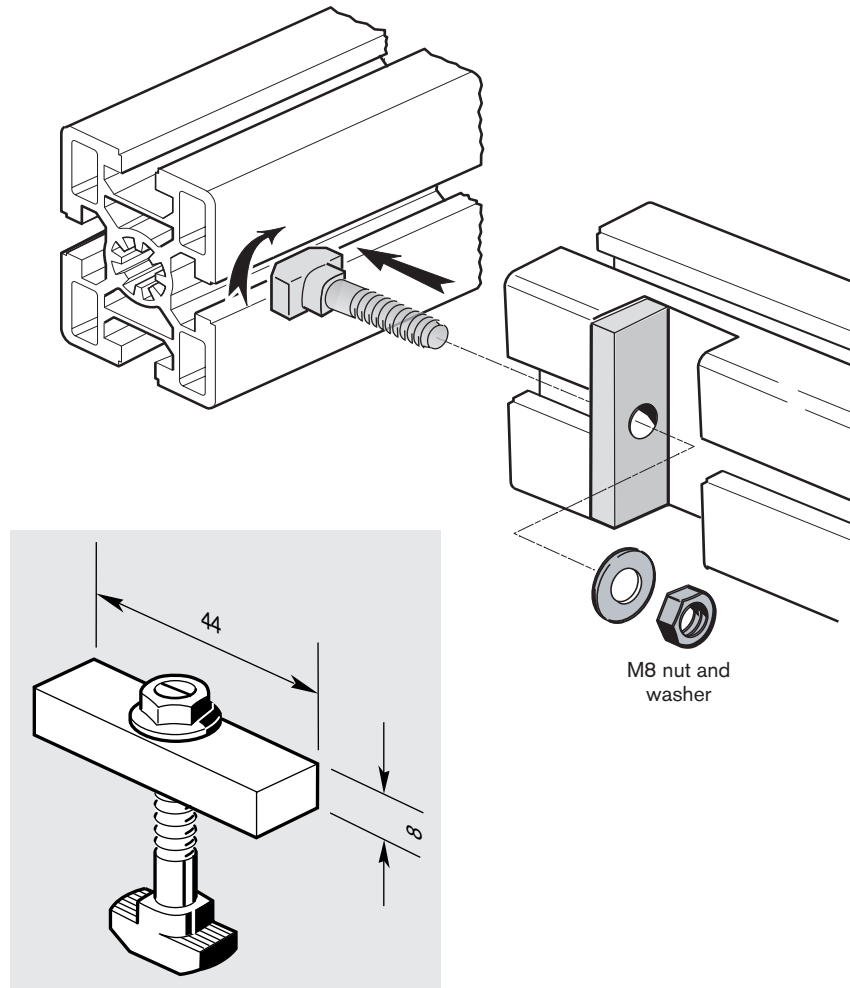
- Large surface area
- Torque resistant

Machining required:

- 30mm wide milled slot

Material:

- Zinc-plated steel

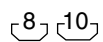
**Description**

Cross connector kit, one

Part Number

3 842 146 972

30mm Bolt Connector Kit



This bolt connector kit provides an extremely strong right-angle connection for 30-series profiles. An 11mm hole must be drilled through the side of one profile to accommodate the barrel. Kit comes with a pin that, when inserted into the profile's central bore, helps align the two profiles and holds the barrel in position until the connection is completed. Kit also includes cover caps to conceal bolt connector and provide a neat, clean appearance. Kit is available with two sizes of T-nuts: 8mm T-nuts for connecting profiles with 8mm T-slots, or 10mm T-nuts for connecting profile with 8mm T-slot to profile with 10mm T-slot. Because the bolt connector obscures the profile's T-slot, panels or panes must be trimmed.

Note: For precise positioning, use drilling/boring jig 3 842 503 850.

Features:

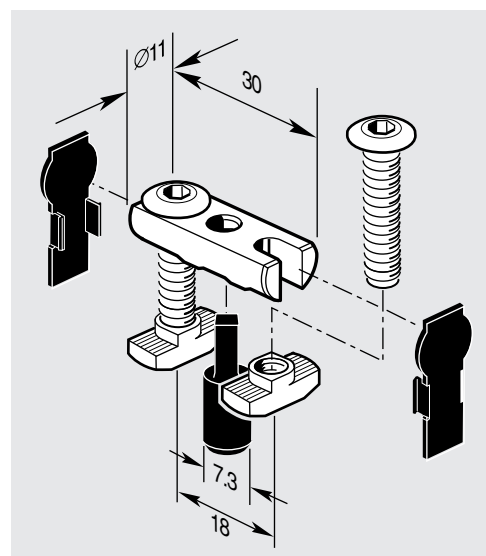
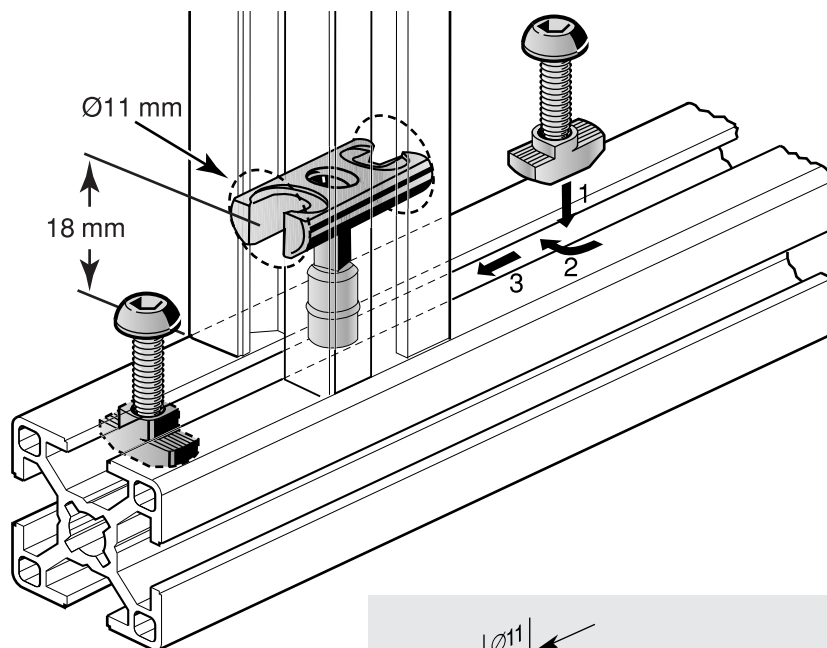
- Strongest of all Bosch connectors
- Alignment pin helps provide quick installation

Machining required:

- 11mm through-hole

Material:

- Bolt connector:
zinc-plated steel 8.8
- Cover cap and alignment pin:
black polyamide 6



Description

Part Number

Bolt connector kit for connecting profiles with 8mm T-slot , package of 10

3 842 352 333

Bolt connector kit for connecting profile with 8mm T-slot to profile with 10mm T-slot , package of 10

3 842 352 335

45mm, 60mm, & 90mm Bolt Connector Kits



These kits provide an extremely strong right-angle connection for 45-, 60-, or 90-series profiles to each other. A 17mm through-hole must be drilled through the side of one profile to accommodate the barrel. Kit comes with a pin (2 pins for 90mm) that, when inserted into the profile's central bore, helps align the two profiles and holds the barrel in position until the connection is completed. Kit also includes cover caps to conceal bolt connector and provide a neat, clean appearance. Kits are available with barrels either 45mm, 60mm, or 90mm long. Because the bolt connector obscures the profile's T-slot, panels or panes must be trimmed.

Note: For precise positioning, use drilling/boring jig 3 842 218 960.

Features:

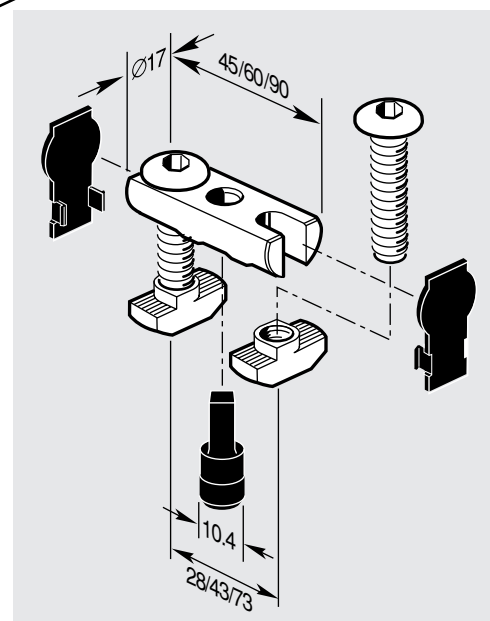
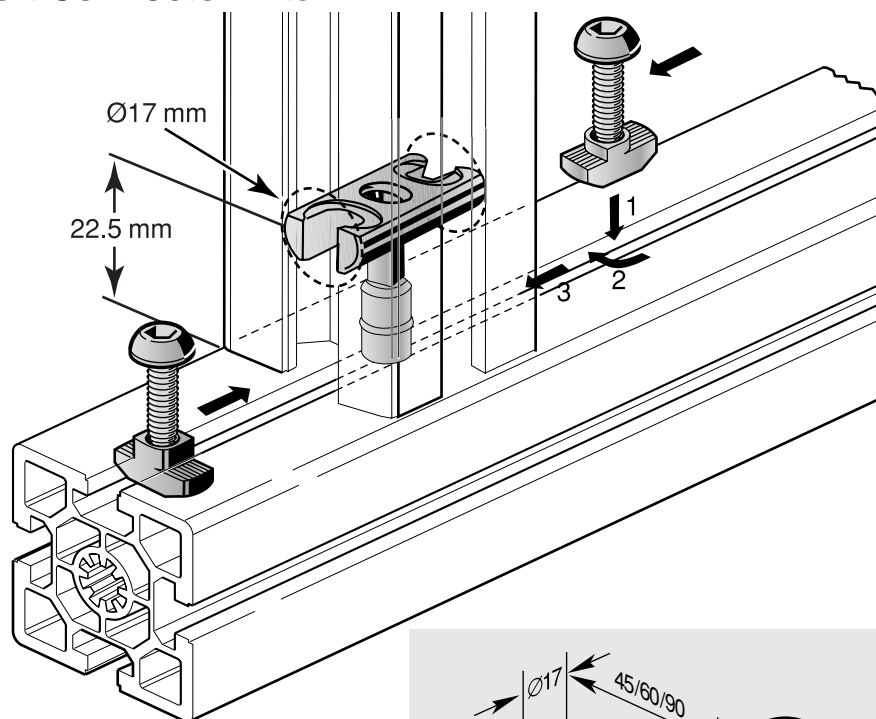
- Strongest of all Bosch connectors
- Alignment pin helps provide quick installation

Machining required:

- 17mm through-hole

Material:

- Bolt connector:
zinc-plated steel 8.8
- Cover cap and alignment pin:
black polyamide 6



Description

Part Number

45mm bolt connector kit, package of 10

3 842 500 924

60mm bolt connector kit, package of 10

3 842 500 925

90mm bolt connector kit, package of 10

3 842 500 926

22.5x180mm Bolt Connector Kit

10

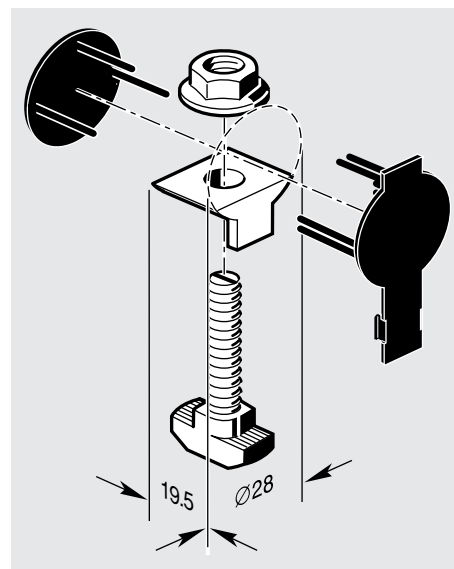
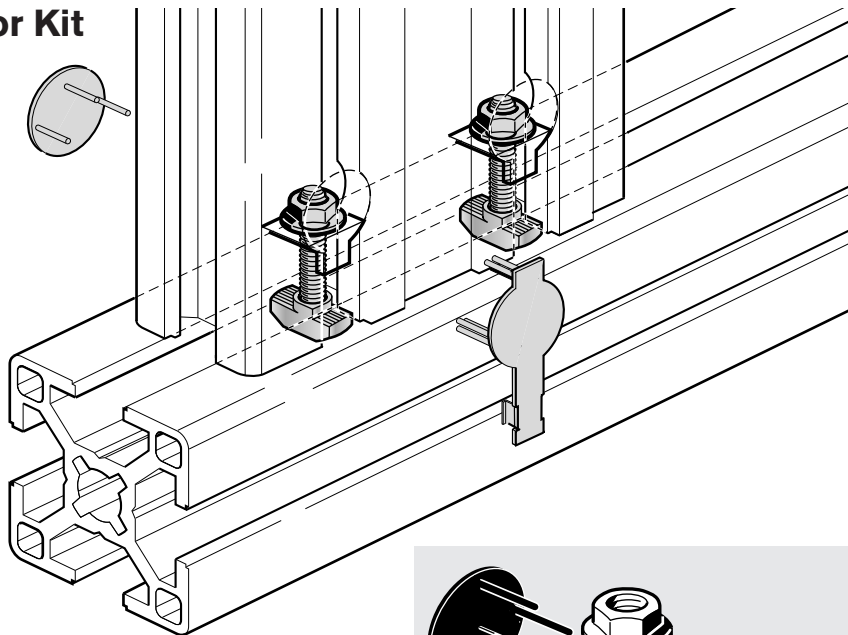
This bolt connector kit provides an extremely strong right-angle connection for joining a 22.5x180 profile to profiles with 8mm or 10mm T-slots. A 28mm hole must be drilled through the side of the profile to accommodate the connector. The T-bolt is placed in the T-slot and the flange nut is tightened to secure the connection. Kit includes cover caps to conceal bolt connector and provide a neat, clean appearance.

Machining required:

- 28mm through-hole

Material:

- Bolt: die-cast zinc bolt
- T-bolt and flange nut: zinc-plated steel
- Cover cap: black polyamide 6



Description

22.5x180mm bolt connector kit, package of 10

Part Number

3 842 518 421

22.5x45x45mm Bolt Connector Kit

10

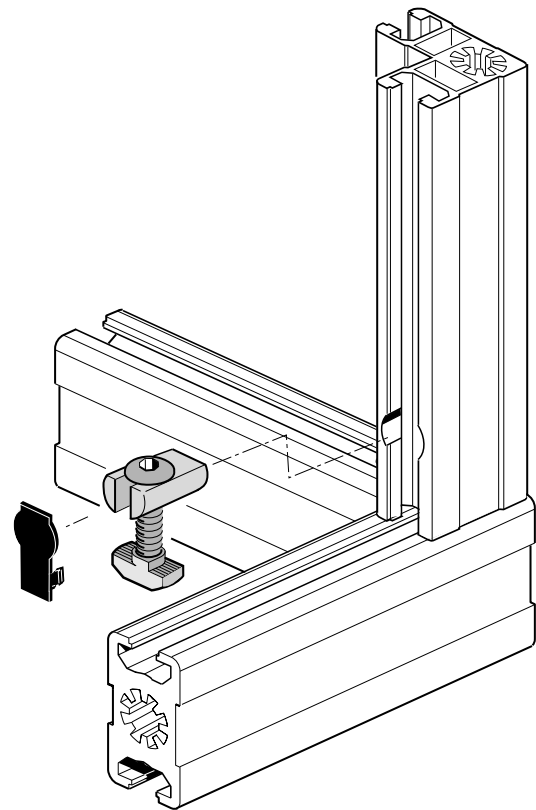
This bolt connector kit provides an extremely strong right-angle connection for joining a 22.5x45x45mm profile to profiles with 10mm T-slots. 17mm holes must be drilled into the sides of the profile to accommodate the barrel (see diagram at right). Because the bolt connector obscures the profile's T-slot, panels or panes must be trimmed. Includes cover cap for a neat, finished appearance.

Machining required:

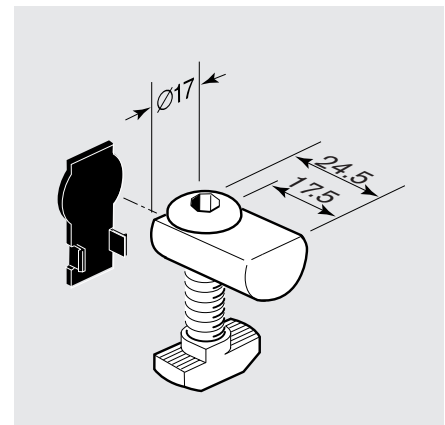
- 17mm hole

Material:

- Zinc-plated steel
- Cover cap: black polyamide



3



Description

22.5x45x45mm bolt connector kit, package of 10

Part Number

3 842 502 692

11x30mm Bolt Connector Kit

8 10

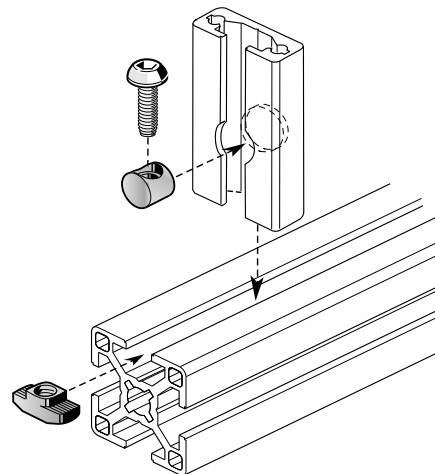
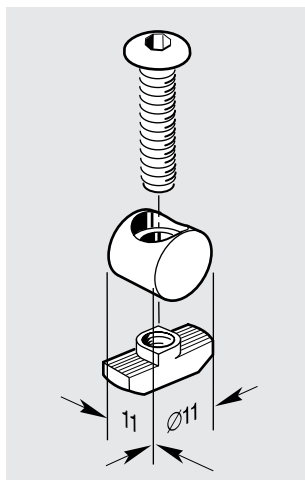
This bolt connector kit provides an extremely strong right-angle connection for joining an 11-series profile to profiles with 8mm or 10mm T-slots. An 11mm hole must be drilled through the side of one profile to accommodate the barrel. Kit is available with either 8mm or 10mm T-nut. Because the bolt connector obscures the profile's T-slot, panels or panes must be trimmed.

Machining required:

- 11mm through-hole

Material:

- Zinc-plated steel, 8.8



Description

Part Number

11x30mm bolt connector kit for connecting 11-series profile to profile with 8mm T-slot, package of 10

3 842 513 605

11x30mm bolt connector kit for connecting 11-series profile to profile with 10mm T-slot, package of 10

3 842 513 627

15x22.5mm Bolt Connector Kit

10

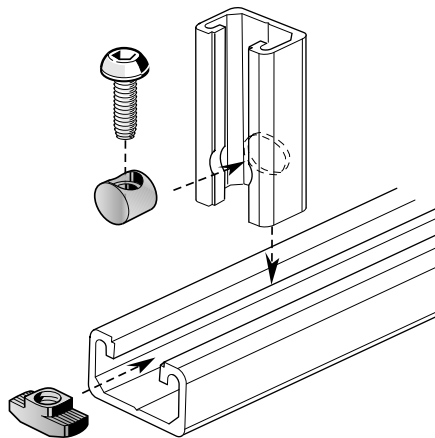
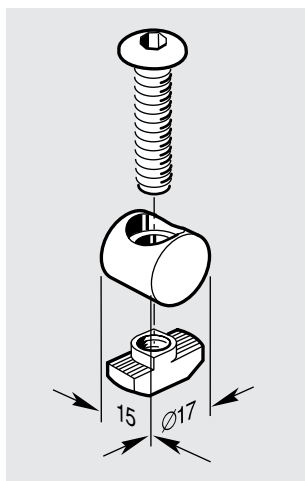
This bolt connector kit provides an extremely strong right-angle connection for joining 15-series profiles. A 17mm hole must be drilled through the side of one profile to accommodate the barrel. Because the bolt connector obscures the profile's T-slot, panels or panes must be trimmed.

Machining required:

- 17mm through-hole

Material:

- Zinc-plated steel, 8.8



Description

Part Number

15x22.5 bolt connector kit for connecting 15-series profiles, package of 10

3 842 513 604

Quick Connectors/Rigid

8 10

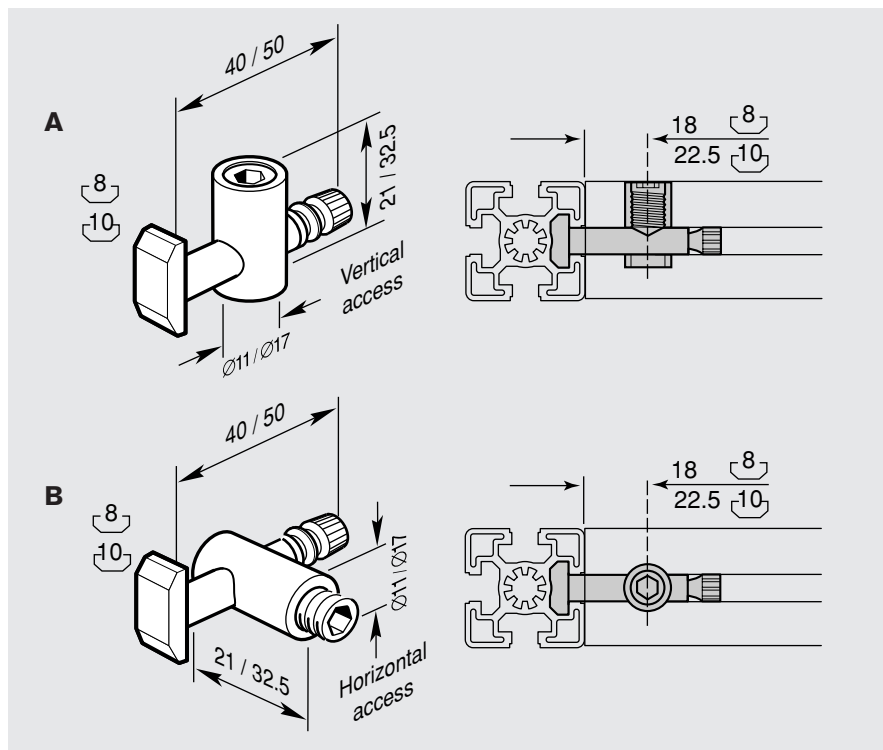
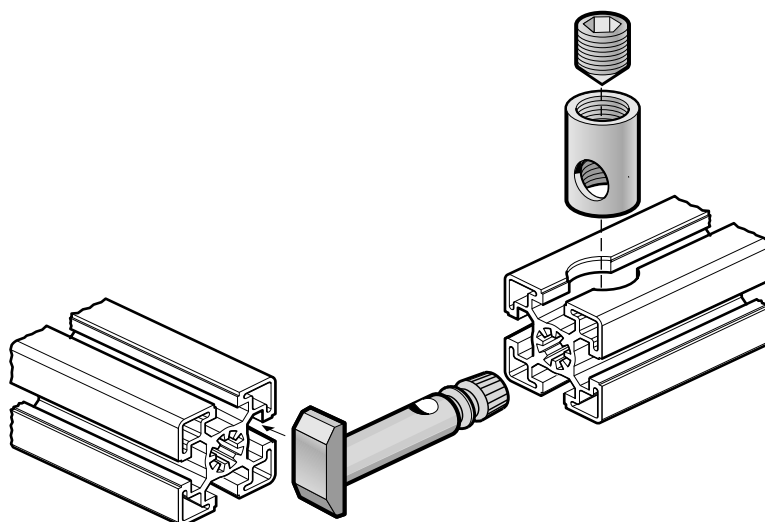
Quick connectors/rigid provide a simple and easy way to connect profiles with 8mm and 10mm T-slots at right angles to form supporting frames or protective barriers. Ideal for fast assembly and disassembly of temporary structures such as trade show displays and fixtures. An 11mm or 17mm hole must be drilled through profile to accommodate the barrel and provide access to tightening screw. Note that barrel is either perpendicular to or parallel with T-bolt head. Determine which will give you better access to set screw; then specify that quick connector. When using any quick connector/rigid, three T-slots remain open for mounting accessories.

Machining required:

- 11mm barrel requires 11mm through-hole
- 17mm barrel requires 17mm through-hole

Material:

- Zinc-plated steel, 8.8



Description

Part Number

A – Quick connector/rigid for 8mm T-slot to 8mm T-slot $\overbrace{8 \rightarrow 8}$. Vertical access. Includes 8mm T-bolt, 11mm barrel. Package of 10	3 842 516 221
A – Quick connector/rigid for 8mm T-slot to 10mm T-slot $\overbrace{8 \rightarrow 10}$. Vertical access. Includes 10mm T-bolt, 11mm barrel. Package of 10	3 842 529 407
A – Quick connector/rigid for 10mm T-slot to 10mm T-slot $\overbrace{10 \rightarrow 10}$. Vertical access. Includes 10mm T-bolt, 17mm barrel. Package of 10	3 842 529 405
B – Quick connector/rigid for 8mm T-slot to 8mm T-slot $\overbrace{8 \rightarrow 8}$. Horizontal access. Includes 8mm T-bolt, 11mm barrel. Package of 10	3 842 514 562
B – Quick connector/rigid for 10mm T-slot to 10mm T-slot $\overbrace{10 \rightarrow 10}$. Horizontal access. Includes 10mm T-bolt, 17mm barrel. Package of 10	3 842 529 406

6mm, 8mm, & 10mm Mitered Corner Connectors

6 8 10

The mitered corner connectors are used to connect 20-, 30-, and 45-series profiles whose ends have been cut at a 45° angle. Typical applications are door or window frames. The connector slides into place in the T-slot and is fastened by four set screws.

Features:

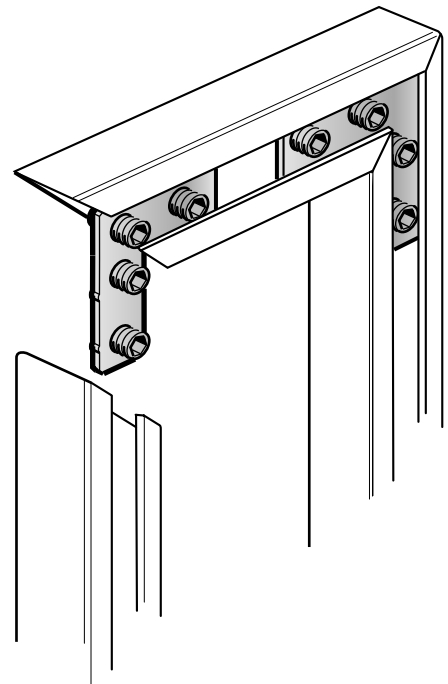
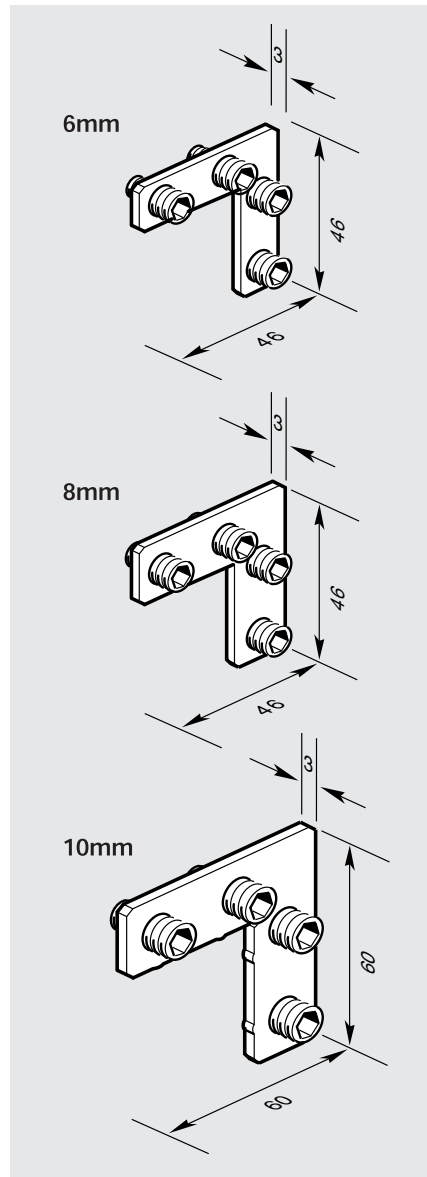
- Easy set screw installation
- Aesthetically pleasing appearance

Machining required:

- Mitering of profile corners must be performed by end user or Bosch distributor.

Material:

- Zinc-plated sheet metal



Description

Part Number

6mm mitered corner connector, package of four

3 842 525 046

8mm mitered corner connector, package of four

3 842 509 906

10mm mitered corner connector, package of four

3 842 510 753

45mm Junction Connector

10

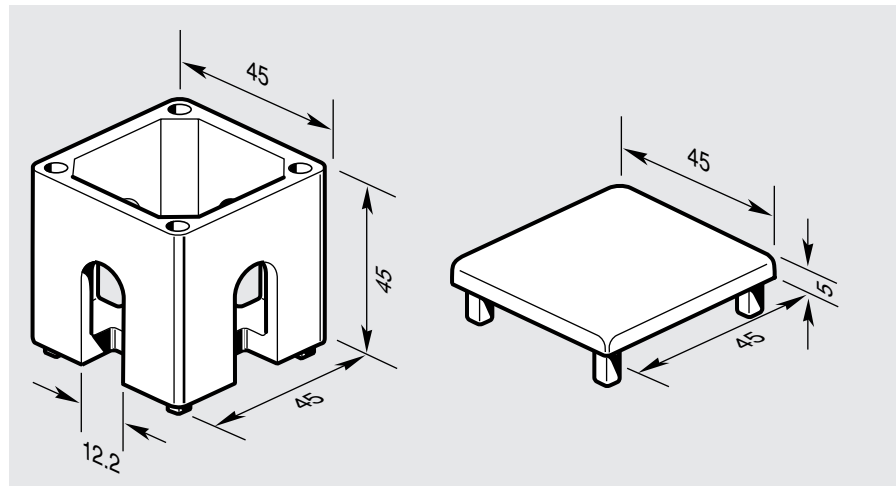
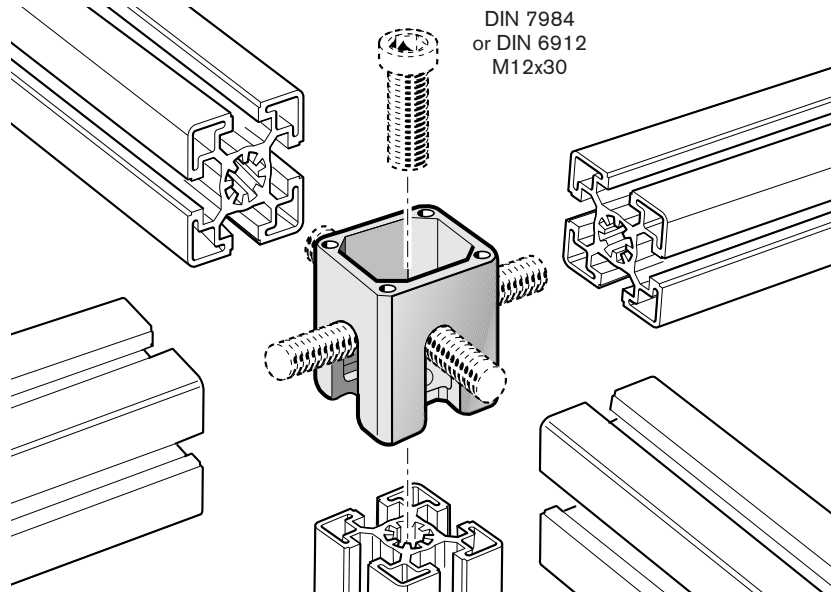
The junction connector connects up to five 45x45 or 45x45H profiles. Profiles must be center-bore tapped 12mm. Since this connector does not obstruct the T-slot, it is ideal for guarding applications where panels or wire mesh screens are used. End cap to cover access hole can be ordered separately. DIN7984 or DIN6912 M12x30 screws are not included. A hex wrench is needed to tighten these screws.

Machining required:

- M12 tap

Material:

- Connector: die-cast aluminum
- End cap: black polyamide 6



Description

Part Number

Junction connector, one

3 842 179 948

End cap, black, one

3 842 502 674

45x45 T-Connector Kit

10

This connector is ideal for connecting two profiles to form a tee connection.

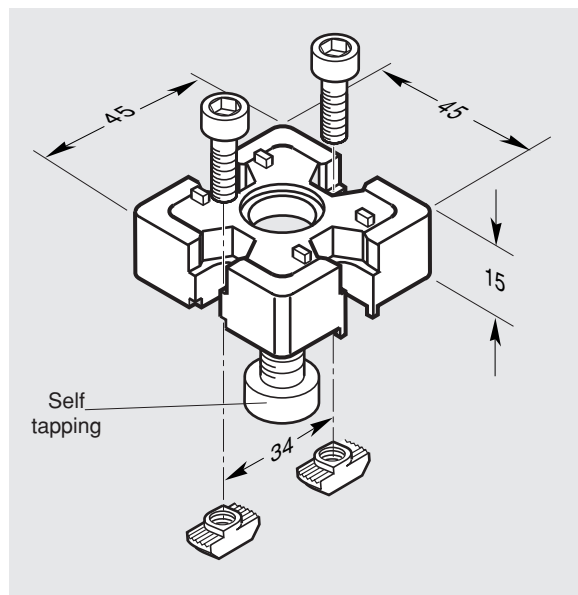
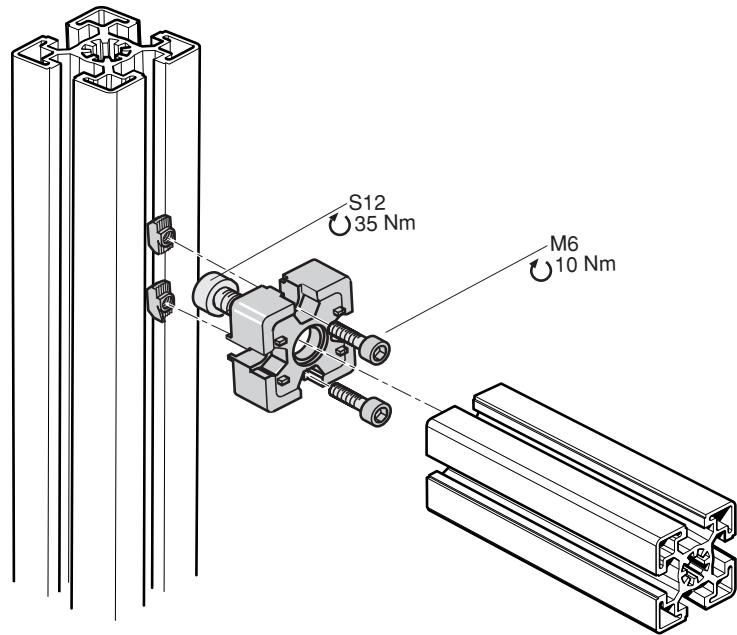
All fastening hardware is included, along with self-tapping screw. Do not tap end of profile when using this connector. The T-connector can **only** be used with 45x45 and 45x45H profiles.

Machining required:

- None

Material:

- Die-cast zinc



Description

45x45 T-connector kit, one

Part Number

3 842 520 802

45° Angle 30mm Connector Kit

8 10

This connector connects 30x30mm profiles with 8mm or 10mm T-slots at 45° angles, often acting as a reinforcing brace. Kit includes 45° connector, cover cap, plastic adapters, T-nuts, and all fastening hardware for end-to-end connection of profiles with 10mm slots, or end-to-side connection of profiles with 8mm or 10mm T-slots.

Features:

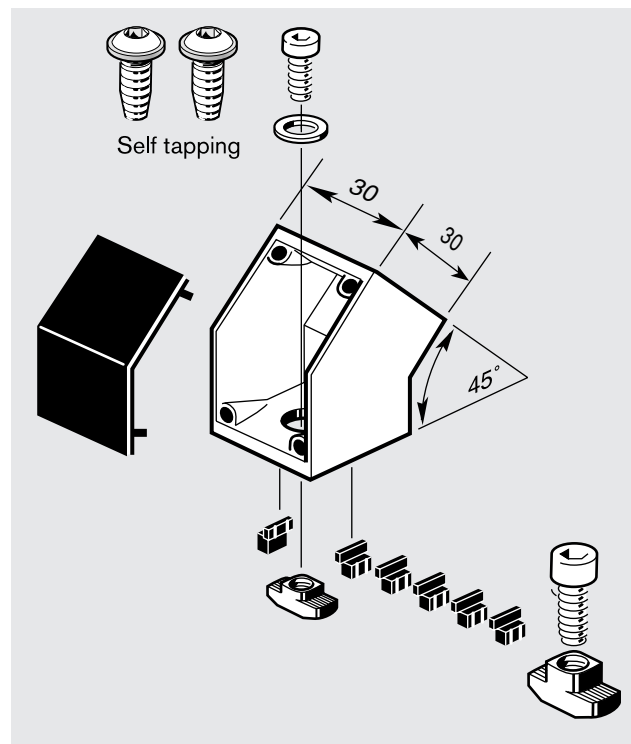
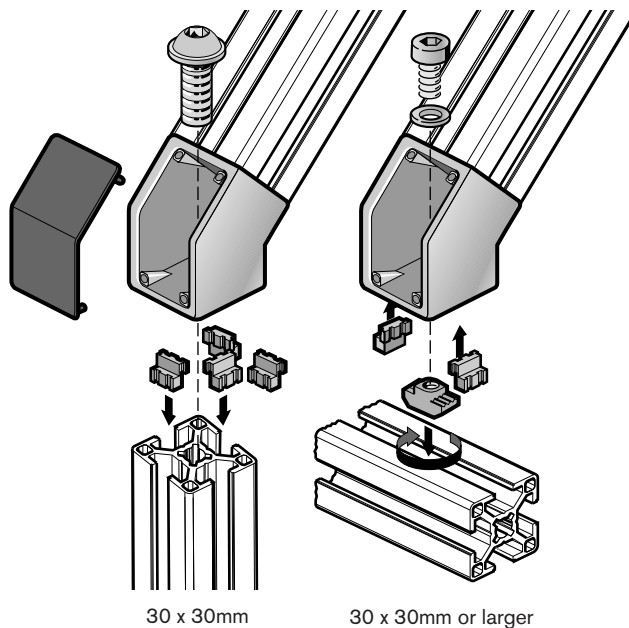
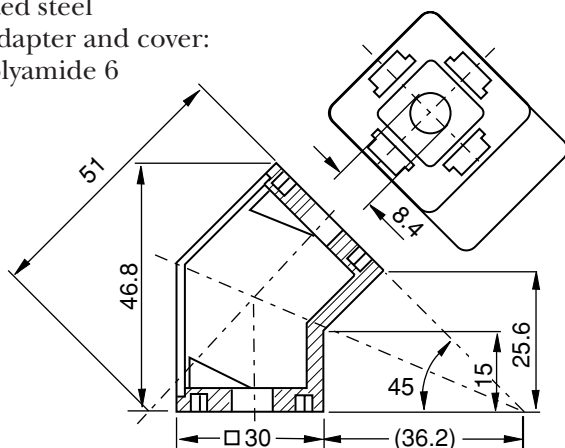
- Provides strong 45° connection and neat, finished appearance
- Complete kit

Machining required:

- None

Material:

- Connector: die-cast zinc
- T-nut and washer: zinc-plated steel
- Plastic adapter and cover: black polyamide 6



Description

45° angle 30mm connector kit (complete with connector, cover, adapters, T-nuts, and all fastening hardware), one

Part Number

3 842 518 426

45° Angle 45mm Connector Kit

10

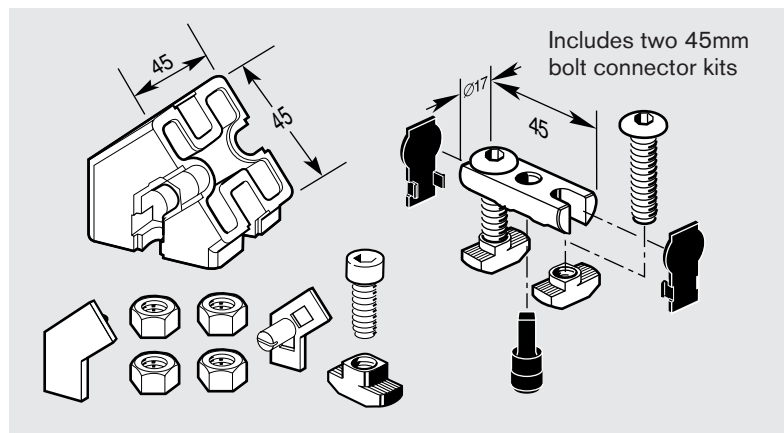
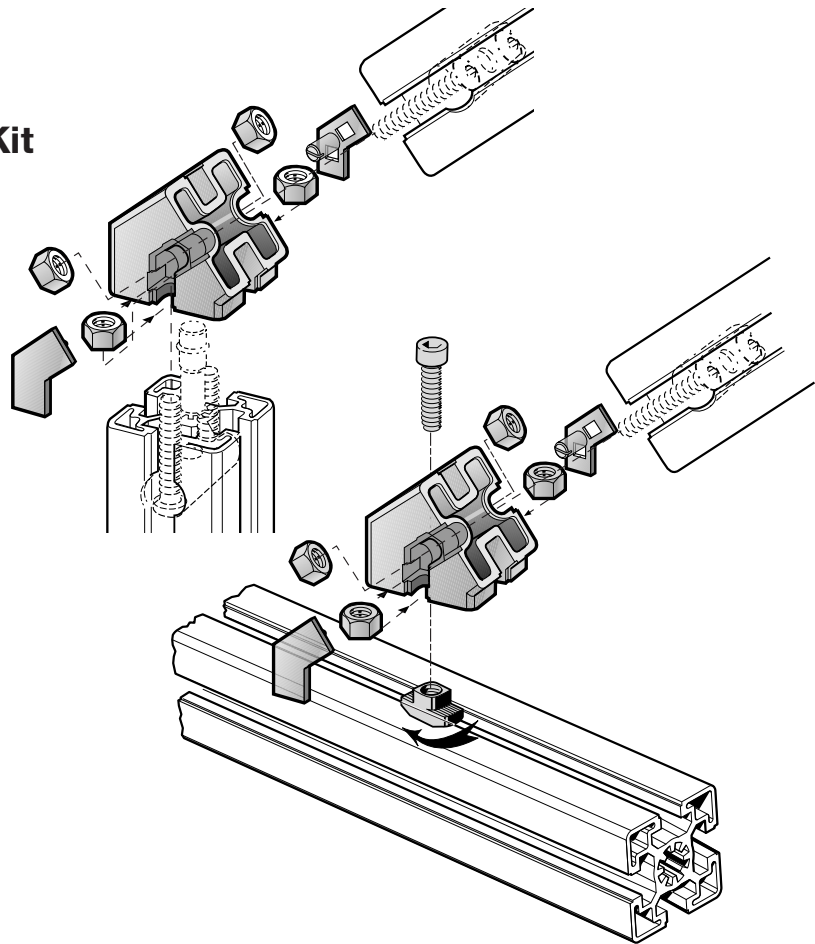
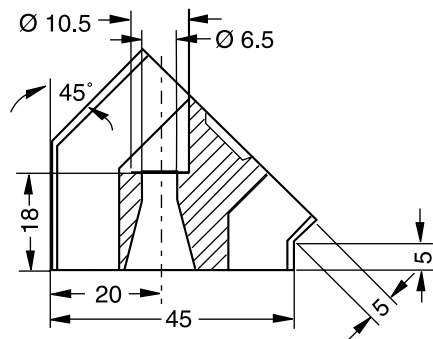
This connector provides an extremely strong 45° angle connection for 45x45 or 45x45H profiles. A 17mm hole must be drilled through side of one profile to accommodate the barrel of the bolt connector. Kit includes 45° connector, two 45mm bolt connectors, cover caps, and fastening hardware for making one end-to-side connection. To complete end-to-side connection, use one 45mm bolt connector kit. For making end-to-end connection, use two 45mm bolt connector kits.

Machining required:

- 17mm through-hole in at least one profile

Material:

- T-nut, screw, and nuts: zinc-plated steel
- Connector: die-cast aluminum
- Cover caps: black polyamide 6



Description

45° angle 45mm connector kit (includes 45° angle connector, two 45mm bolt connector kits, covers, and fastening hardware), one

Part Number

3 842 518 425

8mm & 10mm Connection Link Kits



These connectors provide a heavy-duty end-to-end connection for profiles with 8mm or 10mm T-slots. Ideal for creating perimeter guards and conveyor rails. All fastening hardware included with each connection link.

Features:

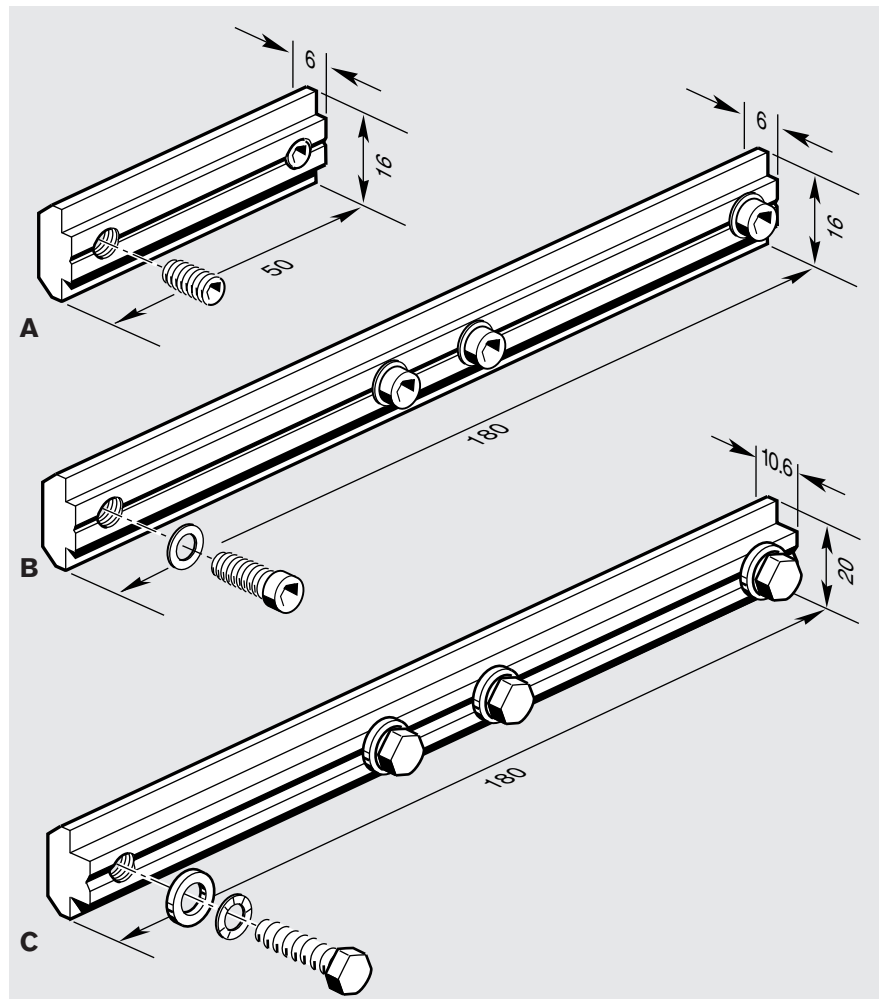
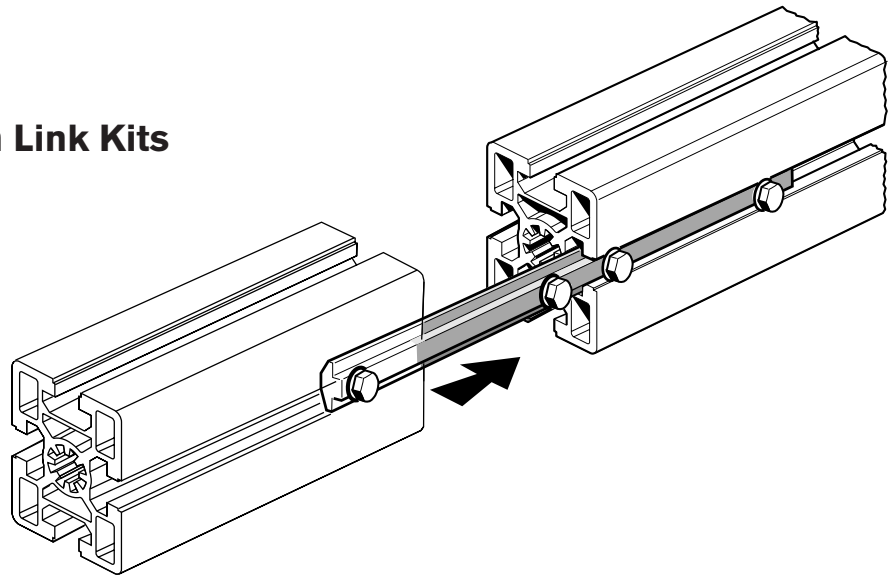
- Easy assembly and disassembly
- Large surface area contact with profile T-slots allows use in heavy-duty applications

Machining required:

- None

Material:

- Zinc-plated steel



Description

Part Number

A – 8mm connection link and fastener kit, 50mm long, one

3 842 518 427

B – 8mm connection link and fastener kit, 180mm long, one

3 842 521 216

C – 10mm connection link and fastener kit, 180mm long, one



3 842 528 746

45x45 End Connector Kit

10

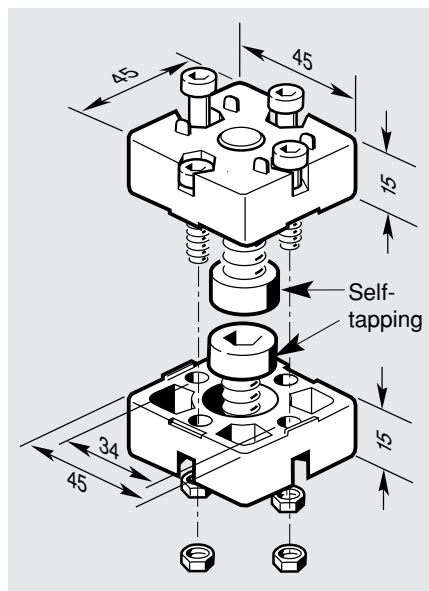
This connector is ideal for extending 45x45, 45x45H profiles beyond the standard length or to attach overhead tool holders to work tables. All fastening hardware included along with self-tapping screws. Do not tap end of profile when using this connector. The connector can **only** be used with 45x45 and 45x45H profiles.

Machining required:

- None

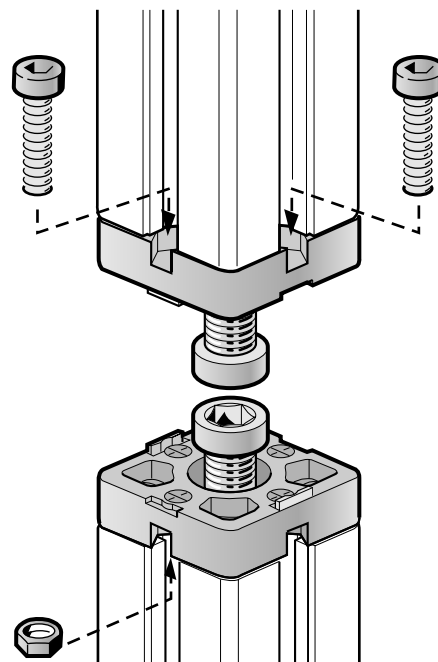
Material:

- Die-cast zinc

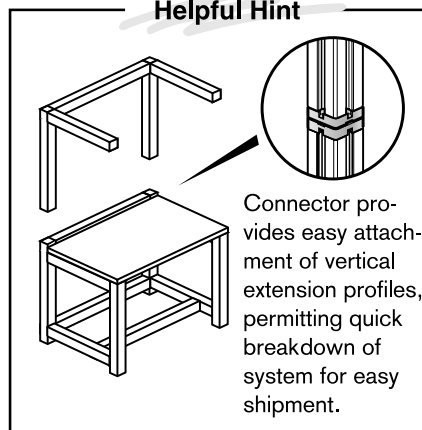


Assembly Note

Never tap center bore of profile when using S12 self-tapping screws



Helpful Hint



Description

45x45 end connector kit, one

Part Number

3 842 191 175

End-to-End Bolt Connector Kit Universal End-to-End Bolt Connector Kit

10

These connector kits provide a strong end-to-end connection for any 10mm T-slotted profiles. A 17mm hole must be drilled through the sides of profiles to accommodate barrels. Kits include cover caps to conceal bolt connector and provide neat, finished appearance.

Note: For precise positioning, use drilling/boring jig 3 842 218 960.

Features:

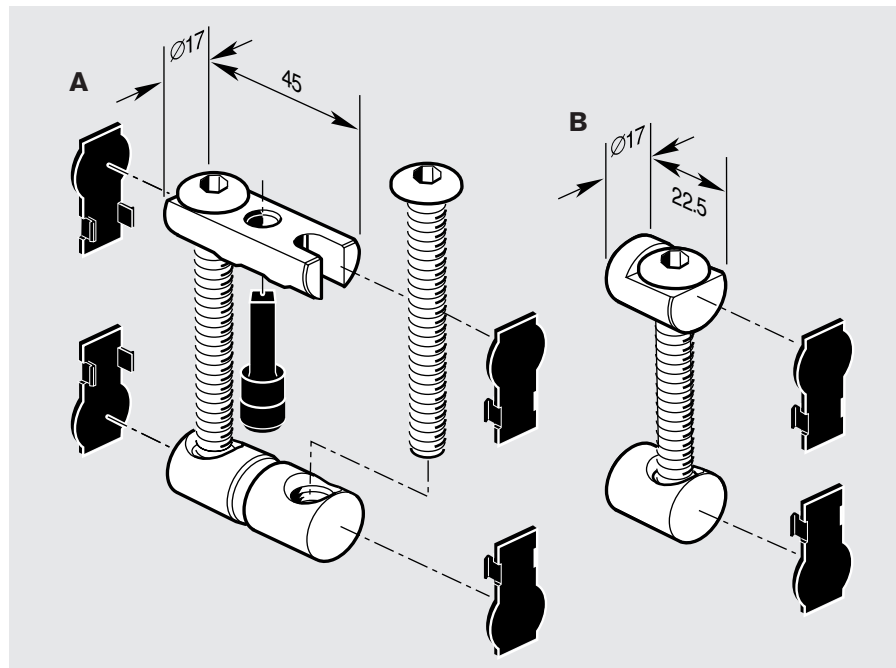
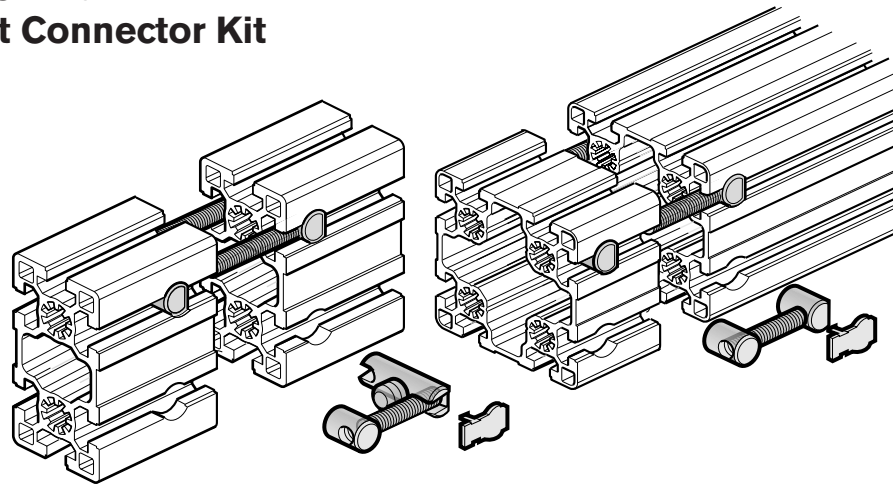
- Single side connection is possible
- Quick, easy installation

Machining required:

- 17mm through-hole

Material:

- Barrel and screws: zinc-plated steel, 8.8
- Cover caps: black polyamide 6



Description

Part Number

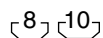
A – End-to-end bolt connector kit

3 842 529 248

B – Universal end-to-end bolt connector kit

3 842 529 334

Adjustable Angle Gusset Kits



These gussets permit adjustment of angle by loosening screw. They are ideal for creating adjustable shelves and carts.

Features:

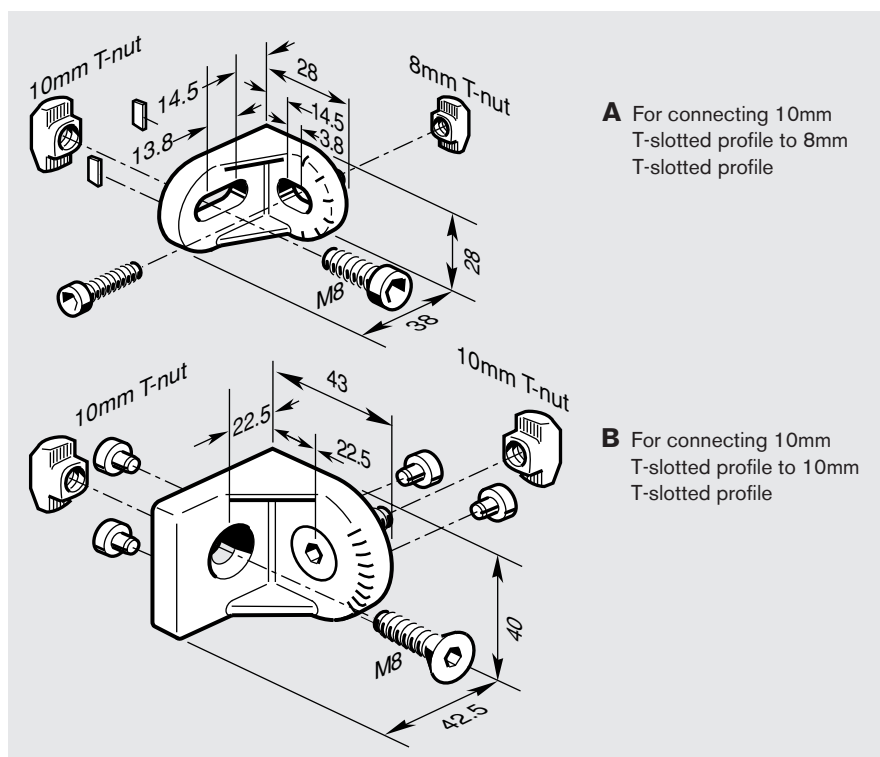
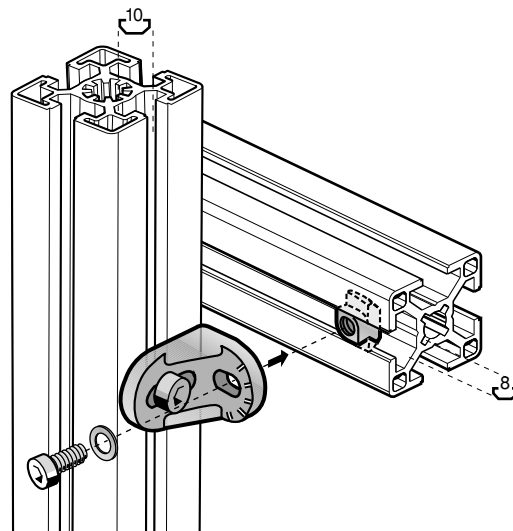
- T-slot alignment pins for easy positioning and reduced assembly time
- Connects anywhere on profile's T-slot
- Includes fastening kit

Machining required:

- None

Material:

- Gusset: die-cast zinc
- Fastening hardware: zinc-plated steel
- Alignment pins and adapters: black polyamide 6



Description

Part Number

A – Adjustable angle gusset only, one	3 842 515 473
A – Adjustable angle gusset kit with fasteners and adapters  , one	3 842 515 547
A – Adjustable angle gusset kit with fasteners  , one	3 842 521 580
B – Adjustable angle gusset only, one	3 842 504 760
B – Adjustable angle gusset kit with fasteners and alignment pins  , one	 3 842 518 424

Adjustable Angle Clamp



This clamp fastens 10mm T-slotted profiles at any angle, including right angles. Ideal for quick changeover of fixture or tooling. The “claw” portion of the clamp is inserted into the T-slot of one profile and a 34mm T-bolt is used to attach it to the second profile. To change the angle, simply loosen the T-bolt.

Features:

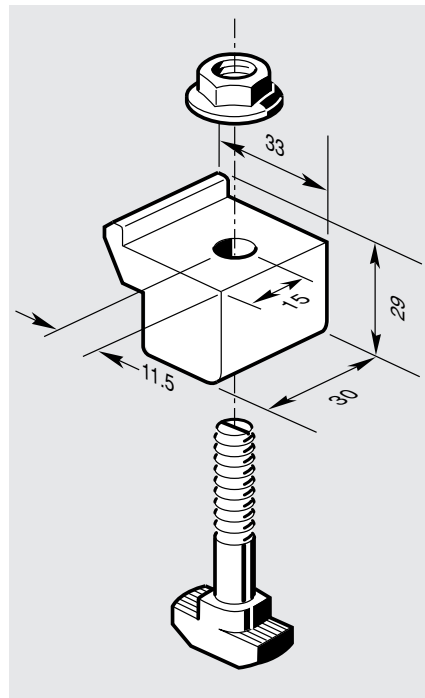
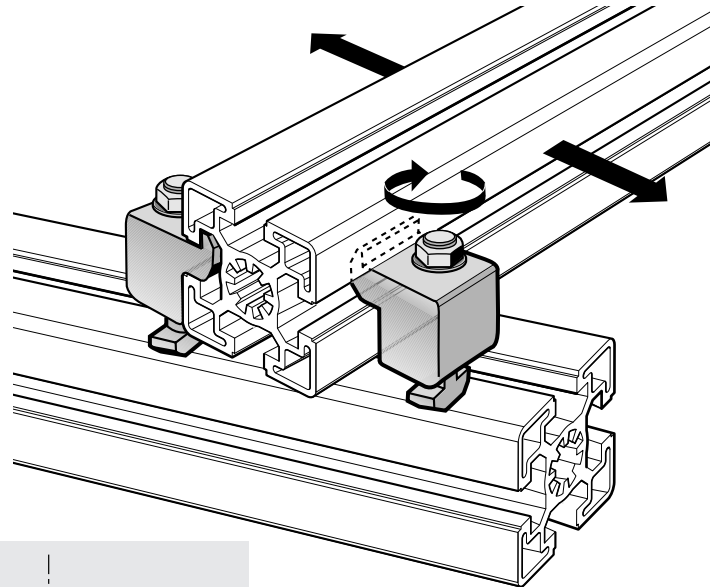
- Allows quick, easy adjustment of angle
- Economical

Machining required:

- None

Material:

- Clamp: zinc-plated steel
- Fastener: zinc-plated grade 8.8



Description

Part Number

Clamp only, one

3 842 528 736

Fastener only, one

3 842 146 824

30x30 Multi-Angle Connector Kit

8 10

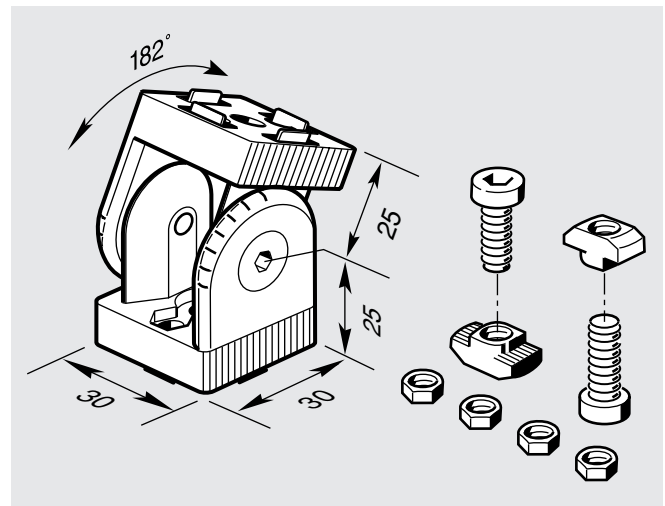
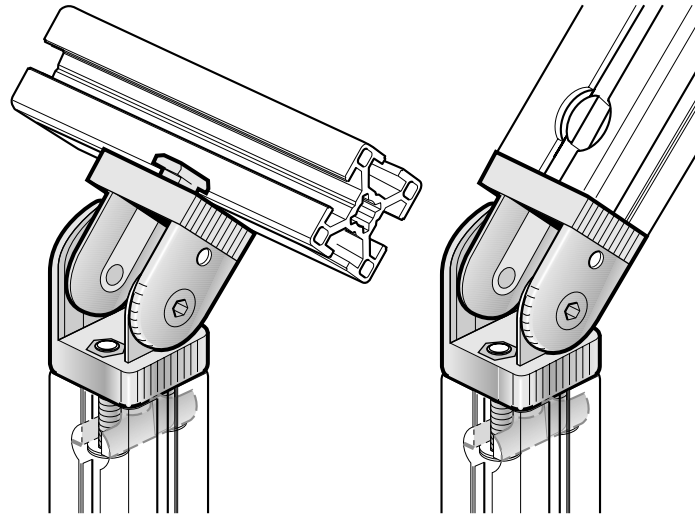
This multi-angle connector kit connects two 30x30 profiles (including 30x30 2S and 30x30 3S). Kit includes adapters for connecting end of a 30x30 profile to the side of an 8mm or 10mm T-slotted profile, or the side of 8mm or 10mm T-slotted profile to the side of another 8mm or 10mm T-slotted profile. Design allows angle to be adjusted without loosening screws or T-nuts, or pinned into a fixed position. Whenever mounting the 30x30 multi-angle connector to ends of a 30x30 profile, be sure to specify a 30mm bolt connector kit for each end. Also, be sure to specify profile drilled with an 11mm hole. Max torque: 15 Nm.

Machining required:

- 11mm through-hole in at least one profile

Material:

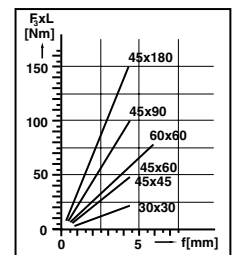
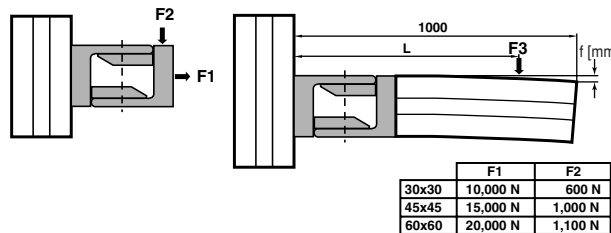
- Joint components: die-cast zinc
- Fastening hardware: zinc-plated steel



Assembly Hint

Be sure to specify a 30mm bolt connector kit when mounting 30x30 multi-angle connector to end of 30x30 profile

Assembly Note



Description

30x30 multi-angle connector kit, one

Part Number

3 842 502 683

30mm bolt connector kit (for fastening 30x30 multi-angle connector to end of 30x30 profile), package of 10

3 842 352 335

45x45 & 45x60 Multi-Angle Connector Kits



These multi-angle connectors join 45x45H, 45x45, 45x45 1S, 45x45 2S, 45x45 2SA, 45x45 3S, or 45x60H profiles either end to end, end to side, or side to side. Design allows angle to be adjusted without loosening screws or T-nuts, or pinned into a fixed position. Max torque: 15 Nm.

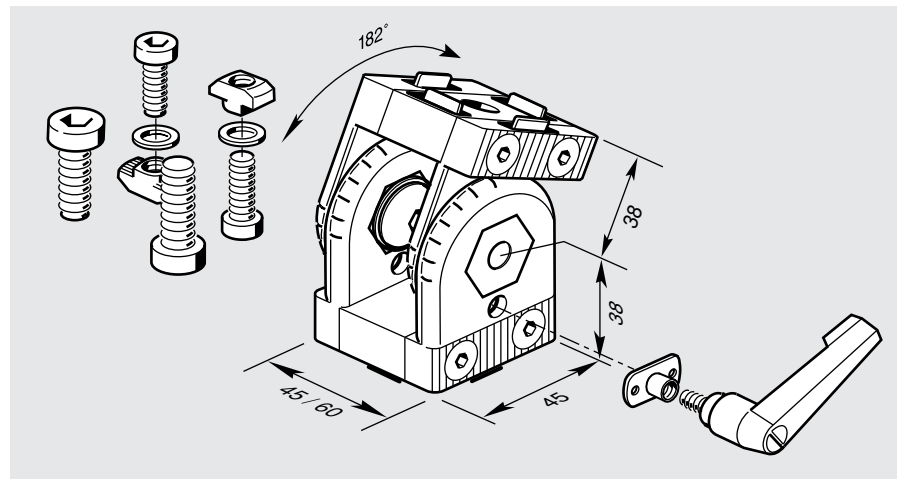
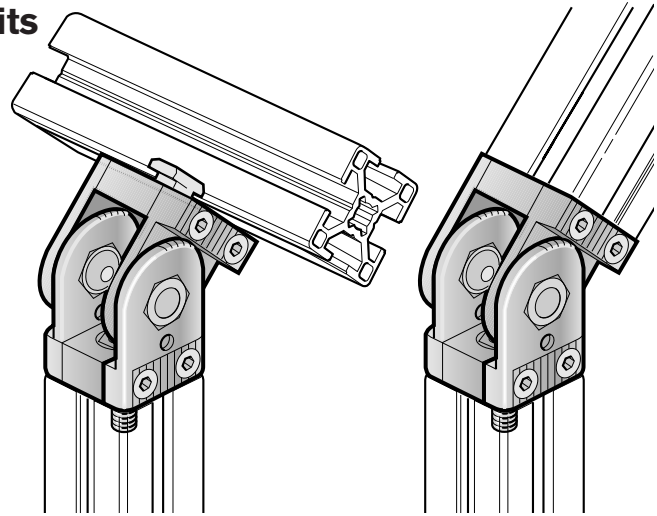
Use the optional locking handle to secure the joint in a fixed position. Max torque: 5 Nm.

Machining required:

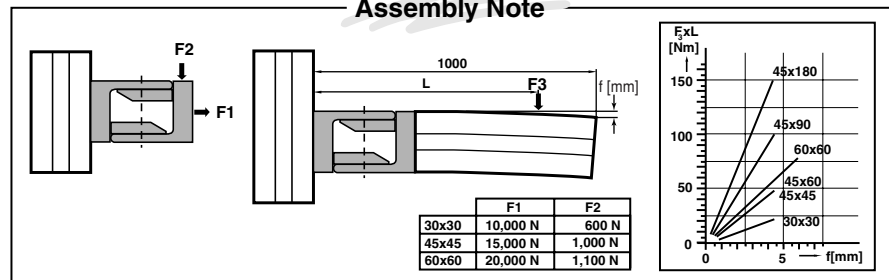
- 12mm tap

Material:

- Joint components: die-cast zinc
- Fastening components: zinc-plated steel
- Locking handle: die-cast zinc painted black (steel components in locking handle have gunmetal finish)



Assembly Note



Description

Part Number

45x45 multi-angle connector kit, one



3 842 502 684

45x60 multi-angle connector kit, one

3 842 502 685

Locking handle and fastener, one

3 842 505 144

60x45 & 60x60 Multi-Angle Connector Kits

10

These multi-angle connectors join 45x60H and 60x60H profiles either end to end, end to side, or side to side. Design allows angle to be adjusted without loosening screws or T-nuts, or pinned into a fixed position. Max torque: 15 Nm.

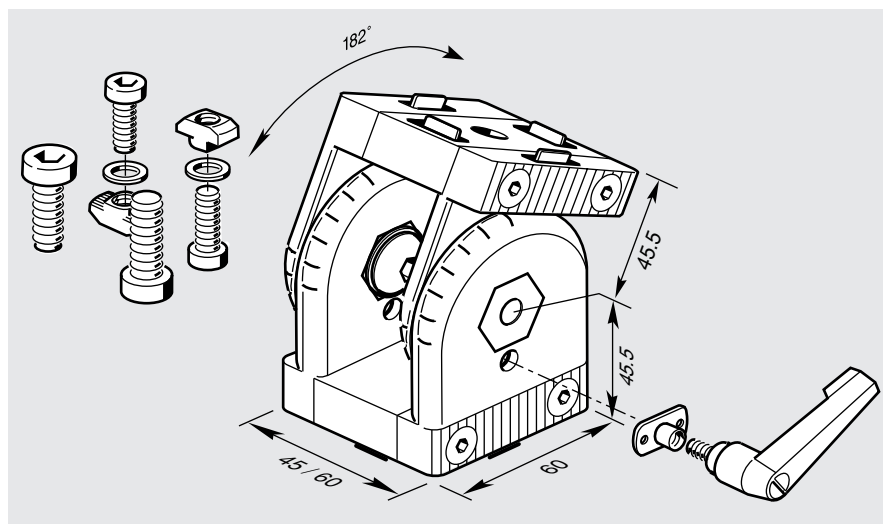
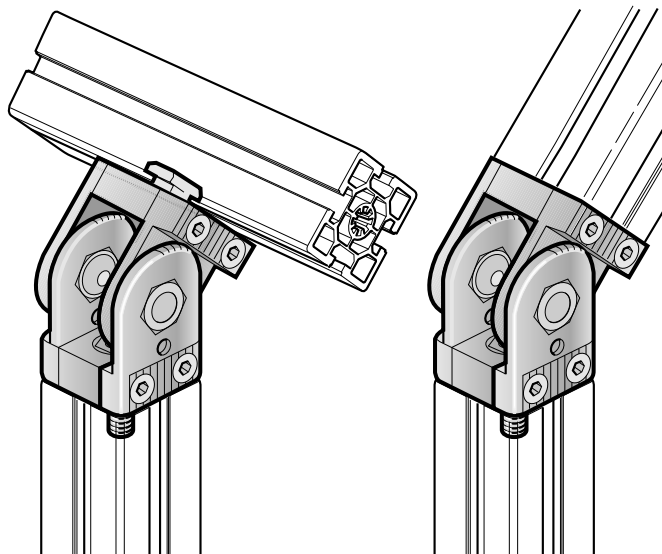
Use the optional locking handle to secure the joint in a fixed position. Max torque: 5 Nm.

Machining required:

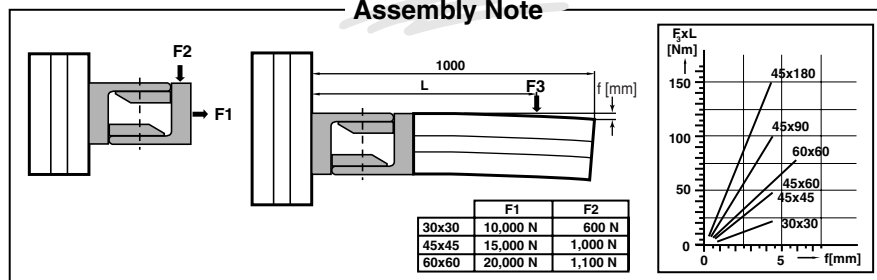
- 12mm tap

Material:

- Joint components: die-cast zinc
- Fastening components: zinc-plated steel
- Locking handle: die-cast zinc painted black (steel components in locking handle have gunmetal finish)



Assembly Note



Description

Part Number

60x45 multi-angle connector kit, one

3 842 502 688

60x60 multi-angle connector kit, one

3 842 502 687

Locking handle and fastener kit, one

3 842 505 144

End-to-End Variable Angle Bolt Connector



This bendable connector provides a simple and easy way to connect the ends of profiles with 8mm or 10mm T-slots at various angles. This connector can be bent one time at any angle up to 90° with a permissible correction bend of up to 10°. 11mm or 17mm holes must be drilled through both profiles to accommodate the barrels and provide access to the tightening screws. The available drilling jigs provide the proper end spacing for 8mm and 10mm T-slots.

Features:

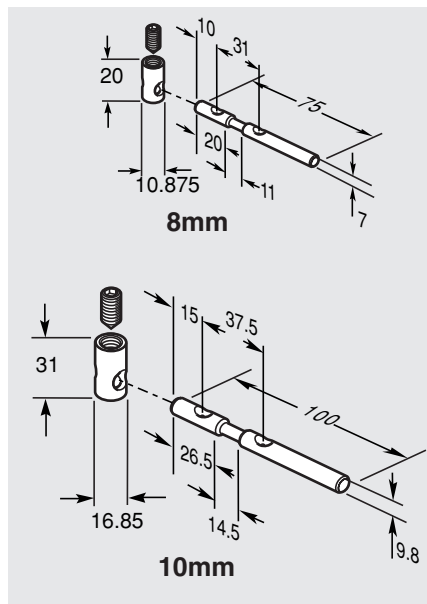
- Allows quick assembly and disassembly
- Three T-slots remain open for mounting panels and accessories

Machining required:

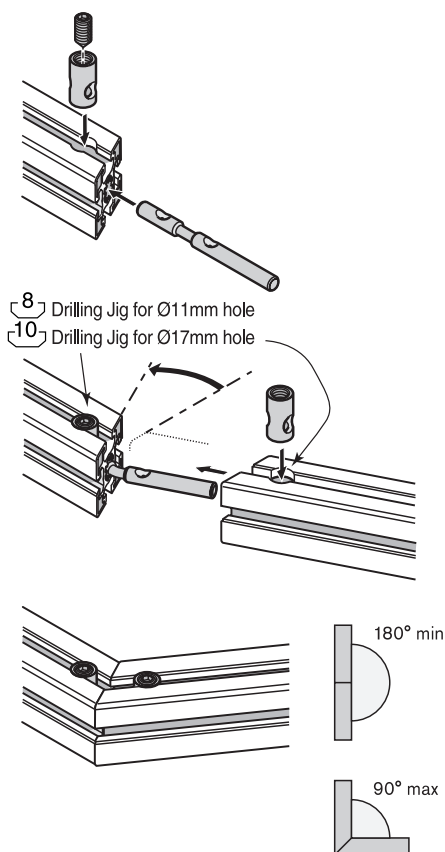
- 17mm or 11mm through-hole required in both profiles

Material:

- Tie-rod: stainless steel
- Barrel: galvanized steel

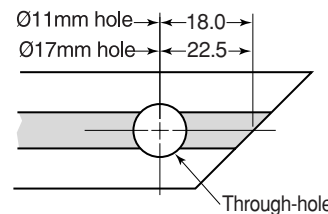


	24 Nm	110 Nm	145 Nm



Assembly Note

When making angled connections, locate through-holes in the profiles as specified below.



Prior to installation, bend connector to within $\pm 10^\circ$ of desired angle

Description

Part Number

End-to-end variable angle bolt connector , package of 10	3 842 521 723
End-to-end variable angle bolt connector , package of 10	3 842 529 231
8mm miter drilling jig, one (see page 15-6)	3 842 516 729
10mm miter drilling jig, one (see page 15-6)	3 842 516 731

End-to-Side Variable Angle Bolt Connector



This bendable connector provides a simple and easy way to connect the end of one profile to the side of another at various angles. Two versions are available: 8mm and 10mm. This connector can be bent one time at any angle in the range between 45° and 135° from perpendicular with a permissible correction bend of up to 10°. 11mm or 17mm holes must be drilled through both profiles to accommodate the barrels and provide access to the tightening screws. Two available drilling jigs provide the proper end spacing for 8mm and 10mm T-slots.

Features:

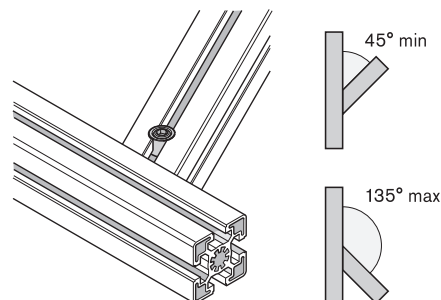
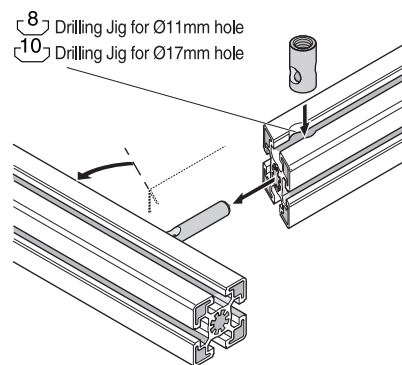
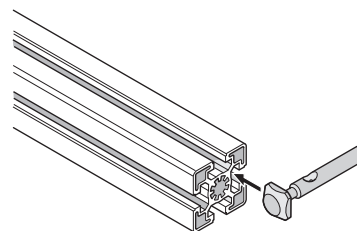
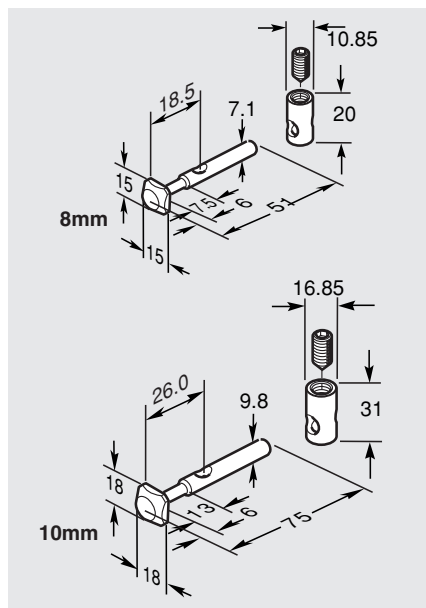
- Allows quick assembly and disassembly
- Three T-slots remain open for mounting panels and accessories

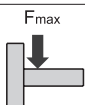
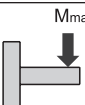
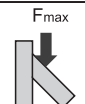
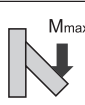
Machining required:

- 17mm or 11mm through-hole required in both profiles

Material:

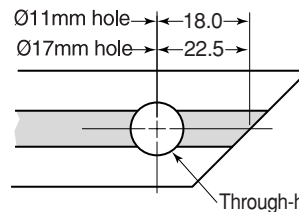
- Tie-rod: stainless steel
- Barrel: galvanized steel



			
$F_{\max}$ 	1100 N	1500 N	1500 N
$M_{\max}$ 	35 Nm	120 Nm	140 Nm
$F_{\max}$ 	650 N	1000 N	1100 N
$M_{\max}$ 	40 Nm	95 Nm	180 Nm

- Assembly Note

When making angled connections, locate through-holes in the profiles as specified below.



Prior to installation, bend connector to within $\pm 10^\circ$ of desired angle

Description	Part Number
End-to-side variable angle bolt connector  , package of 10	3 842 521 724
End-to-side variable angle bolt connector  , package of 10	3 842 529 232
8mm drilling jig, one (see page 15-5)	3 842 516 729
10mm drilling jig, one (see page 15-6)	3 842 516 731

Swivel Arm Joint Kit

10

The swivel arm joint kit is available for 45x45mm and 45x90mm profiles. It allows a 210° swiveling joint and has a clean, high-tech appearance. It attaches on one side with a bolt connector kit, and on the other side with T-nuts. The kit includes all necessary hardware for assembly, including swivel plates, half-round hinge profile, bolt connector kit, and end caps/cover caps.

Features:

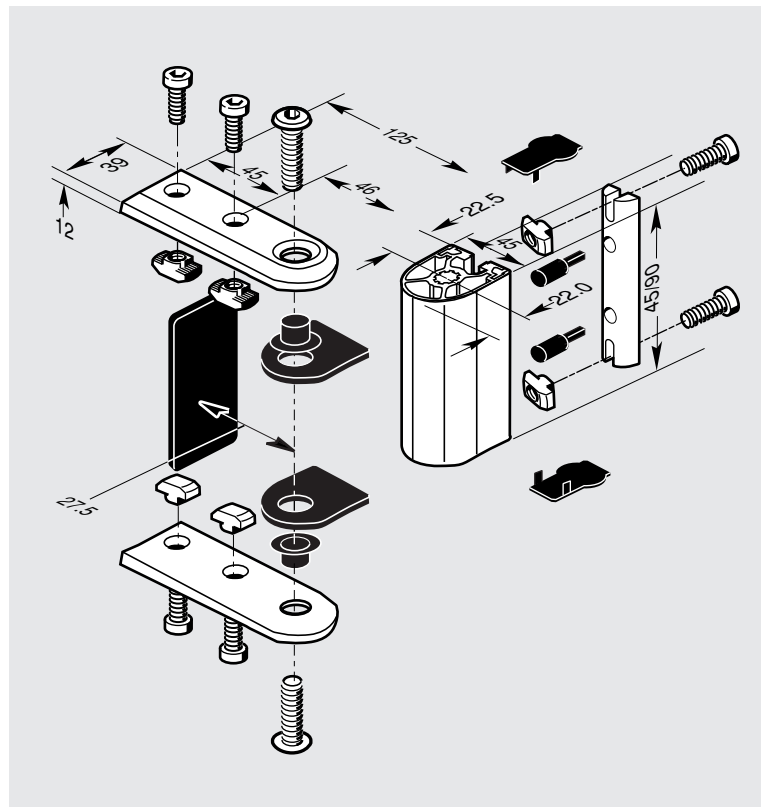
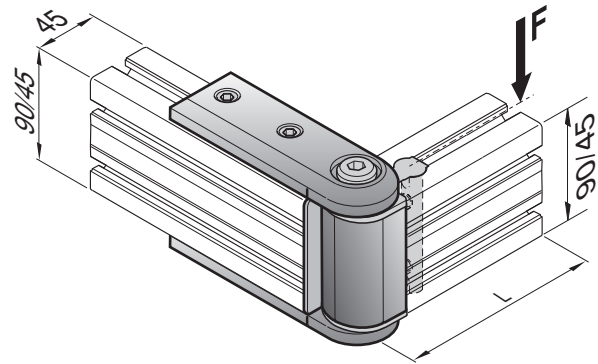
- Clean appearance
- Easy installation

Machining required:

- 17mm through-hole required in one profile

Material:

- Hinge arms: die-cast zinc
- End caps: black polyamide 6



3

Description	Part Number
A–Swivel arm joint kit for 45x90mm profiles, one kit ($m_{MAX} = F \times L = 150 \text{ Nm}$)	3 842 521 262
B–Swivel arm joint kit for 45x45mm profiles, one kit ($m_{MAX} = F \times L = 50 \text{ Nm}$)	3 842 521 263

45x45 Panel Connector

10

The 45 series side-to-side panel connector is designed for use in constructing perimeter guards or building easily removed panels for machine guards or structures. The 62.5mm center-to-center hole pattern leaves sufficient space between panel sides to accommodate mounting panels at angles to one another.

Features:

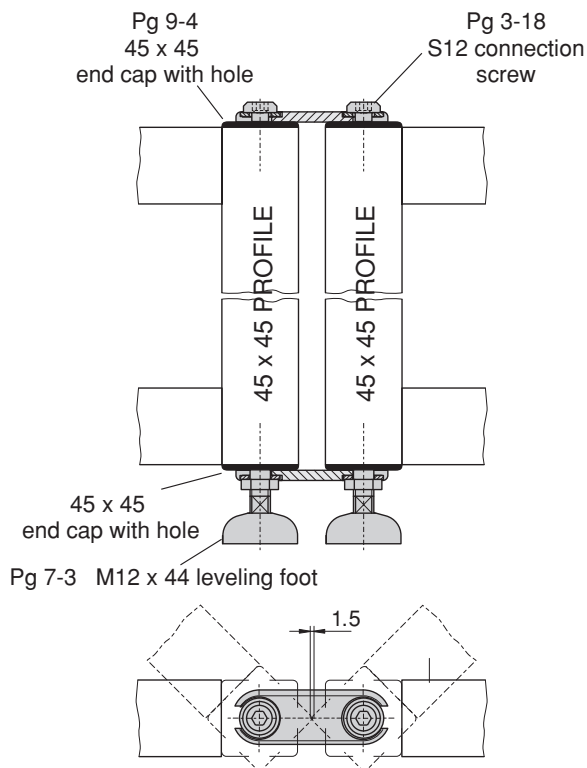
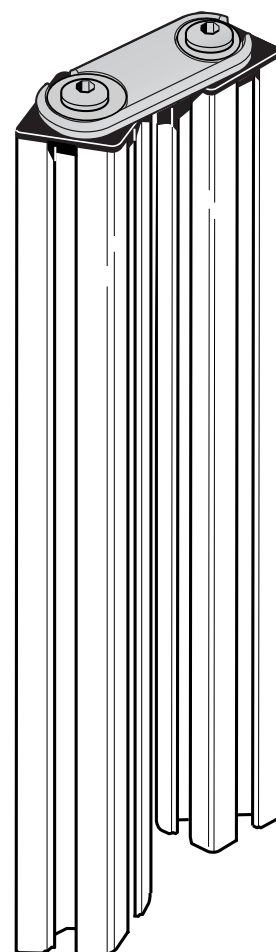
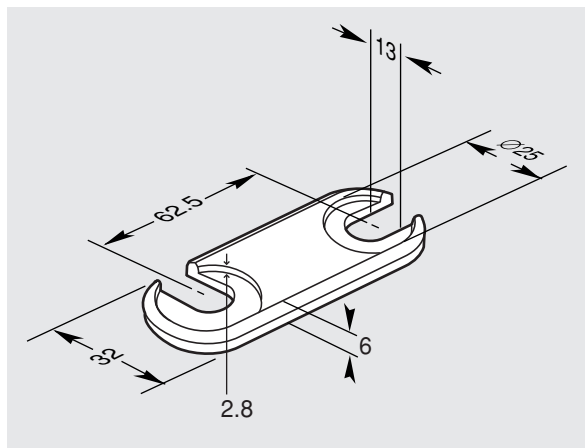
- Easy installation and reconfiguration

Machining required:

- None (if S12 self-tapping screw is used)

Material:

- Panel connector: die-cast aluminum
- End cap: black polyamide 6



Description

Description	Qty	Part Number
Panel connector	1	3 842 523 703
45x45 end cap with hole	1	3 842 523 442
M12x44 leveling foot	1	3 842 352 061
S12 self-tapping connection screw	1	8 981 021 302

Corner Joining Plates

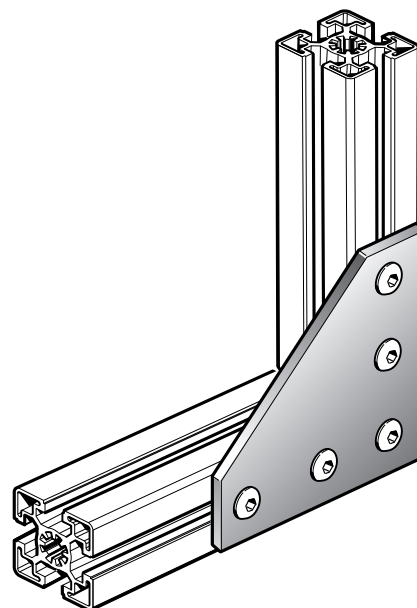
for 30-series, 45-series, and 90-series profiles

These joining plates fasten to the outside face of a wide variety of profiles and provide a strong 90° connection without interfering with the inside T-slot.

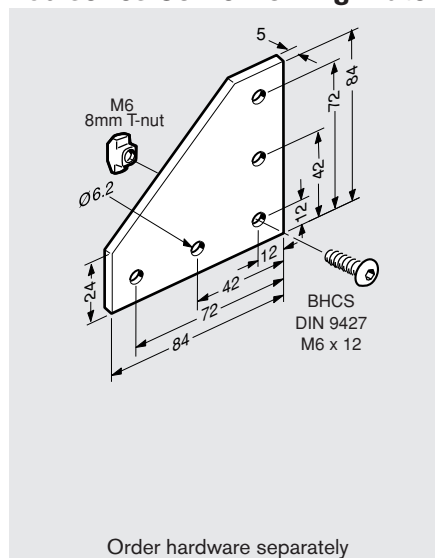
Material:

- 6063-T6 anodized aluminum
- Finish: clear anodized

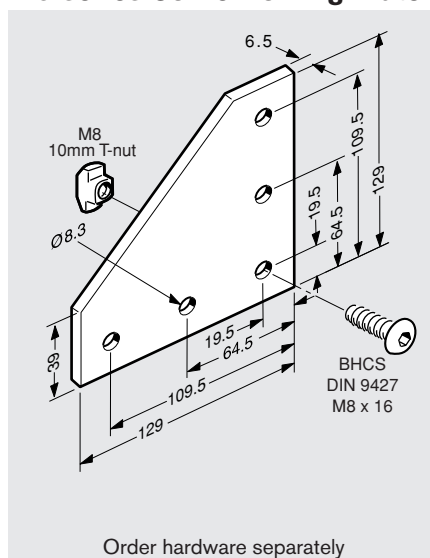


3

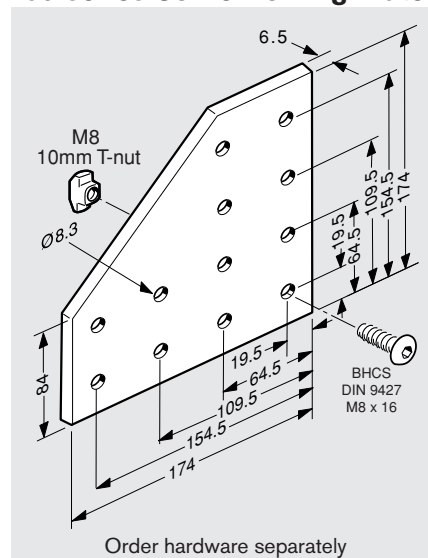
30-series Corner Joining Plate



45-series Corner Joining Plate



90-series Corner Joining Plate



Description

Part Number

30-series corner joining plate, one



8 981 019 457

45-series corner joining plate, one



8 981 019 448

90-series corner joining plate, one

8 981 019 452

M6, 8mm T-nut, one

3 842 501 753

M6 x 12 BHCS, DIN 9427, one

3 842 507 071

M8, 10mm T-nut, one

3 842 530 287

M8 x 16 BHCS, DIN 9427, one

3 842 509 423

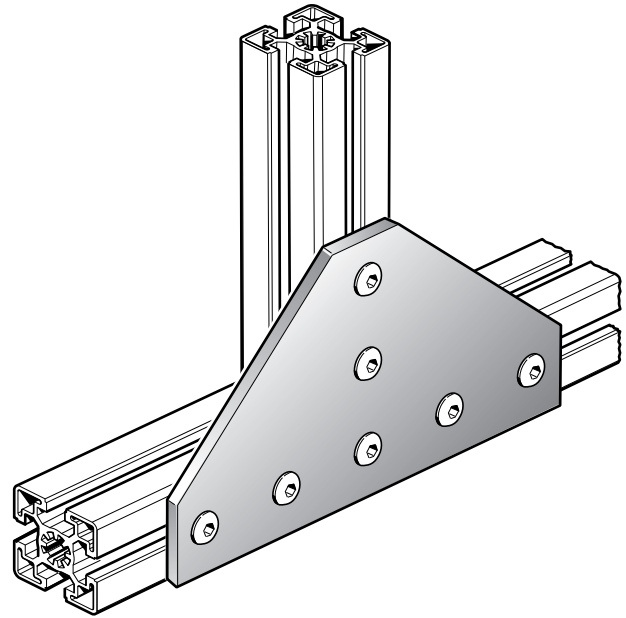
T-Junction Joining Plates for 30-series and 45-series profiles

8 10

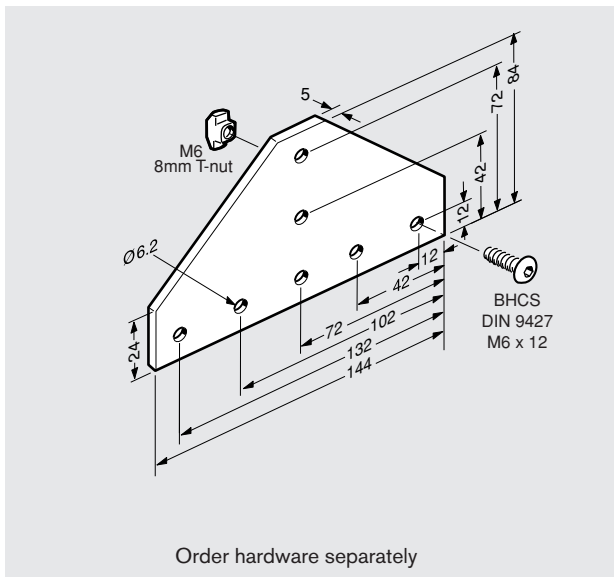
These joining plates attach to the outside face of 30-series and 45-series profiles. They provide a strong and convenient method to connect profile to form a T-connection without interfering with the inside T-slots.

Material:

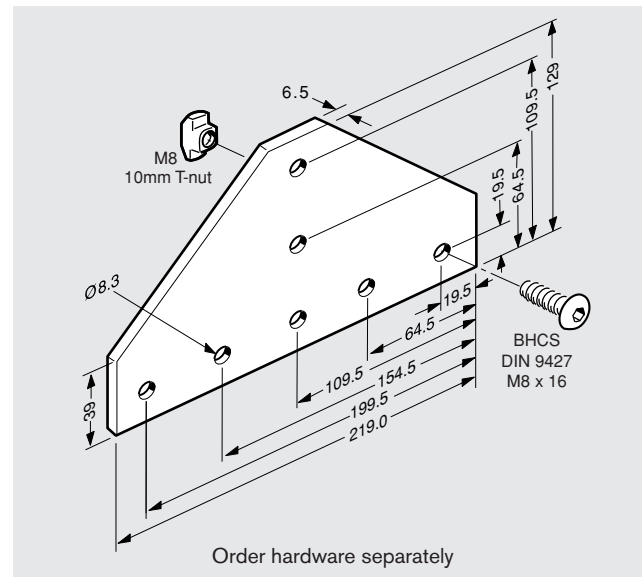
- 6063-T6 anodized aluminum
- Finish: clear anodized



30-series T-Junction Joining Plate



45-series T-Junction Joining Plate



Description

Part Number

30-series T-junction joining plate, one	8 981 019 461
45-series T-junction joining plate, one	8 981 019 450
M6, 8mm T-nut, one	3 842 501 753
M6 x 12 BHCS, DIN 9427, one	3 842 507 071
M8, 10mm T-nut, one	3 842 530 287
M8 x 16 BHCS, DIN 9427, one	3 842 509 423

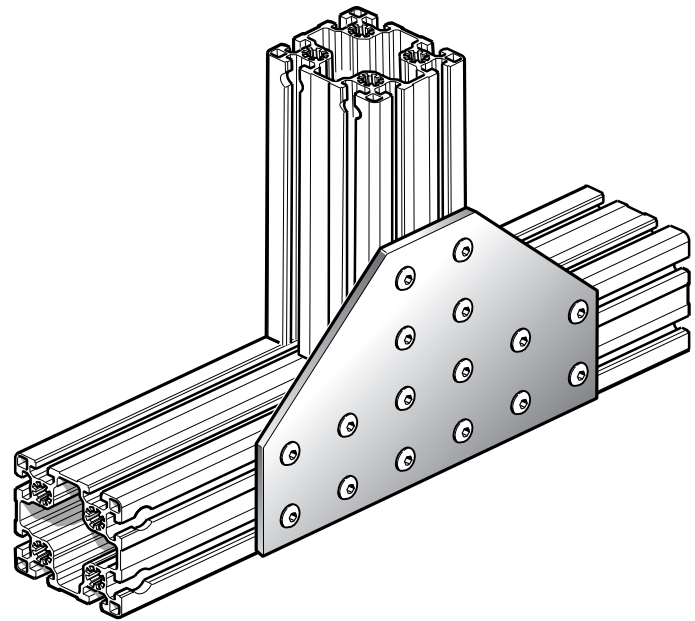
T-Junction Joining Plates for 90-series profiles



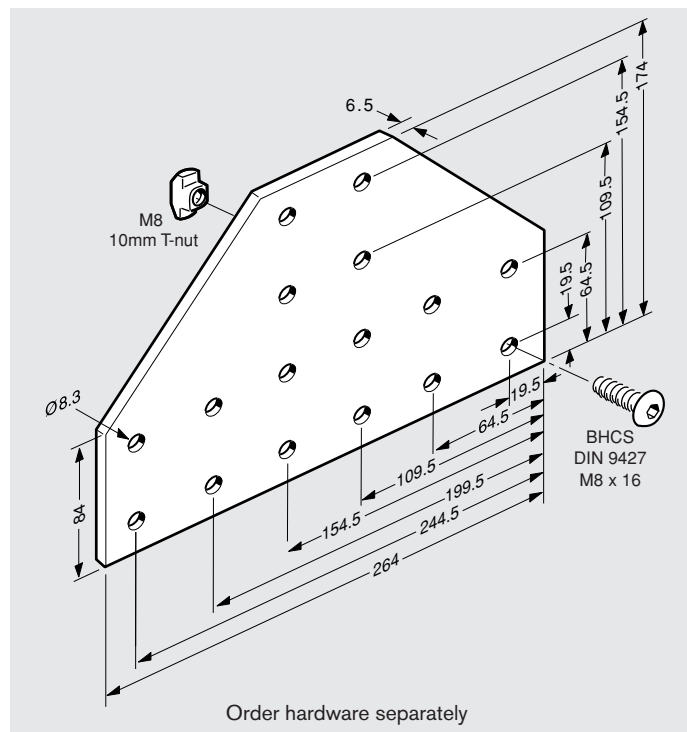
These joining plates attach to the outside face of 90-series profiles. They provide a strong and convenient method to connect profile to form a T-connection without interfering with the inside T-slots.

Material:

- 6063-T6 anodized aluminum
- Finish: clear anodized


3

90-series T-Junction Joining Plate



Description

Part Number

90-series T-junction joining plate, one

8 981 019 455

M8, 10mm T-nut, one

3 842 530 287

M8 x 16 BHCS, DIN 9427, one

3 842 509 423

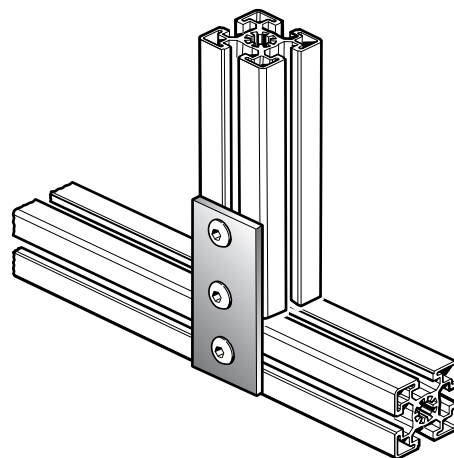
Rectangular Joining Plates for 30-series and 45-series profiles

8 10

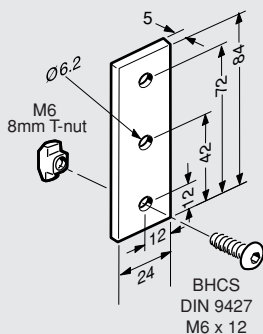
These joining plates attach to the outside face of 30-series or 45-series profiles. They provide a 90° connection without interfering with the inside T-slots.

Material:

- 6063-T6 anodized aluminum
- Finish: clear anodized



30-series Rectangular Joining Plate



Order hardware separately

Description

Part Number

30-series rectangular joining plate, one

8 981 019 458

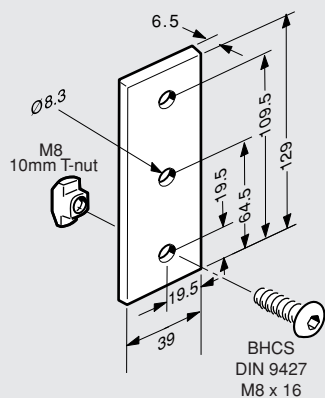
M6, 8mm T-nut, one

3 842 501 753

M6 x 12 BHCS, DIN 9427, one

3 842 507 071

45-series Rectangular Joining Plate



Order hardware separately

Description

Part Number

45-series rectangular joining plate, one

8 981 019 449

M8, 10mm T-nut, one

3 842 530 287

M8 x 16 BHCS, DIN 9427, one

3 842 509 423