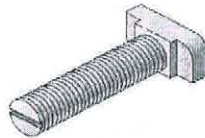




FEATURES

- TM Bolts matching with **GI** and **GF** Anchor Channels
- Available in Hot-dip Galvanized version
- Available also in Stainless Steel version (but only on request)
- Load bearing capacity in 2 directions
- Easy and safe installation check thanks to the NOTCH for marking position

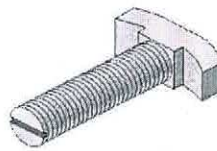


HAMMER HEAD BOLTS: TM



FEATURES

- TA Bolts matching with **GD**, **GE** and **GM** Anchor Channels
- Available in Hot-dip Galvanized version
- Available also in Stainless Steel version (but only on request)
- The Anchor head prevents the TA bolt rotating under dynamic or seismic loading
- Easy and safe installation check thanks to the NOTCH for marking position



ANCHOR HEAD BOLTS: TA



All Edilmatic BOLTS have the Identification Mark and are available in different lengths





PRODUCT INFORMATION

All Edilmatic TM and TA Bolts have a Strength grade 8.8, according to UNI EN ISO 898.

Corrosion protection provided by Hot-dip galvanized (coating $\geq 50\mu\text{m}$), according to UNI EN 4042.

Edilmatic TM and TA Bolts are quoted and available in Hot-dip Galvanized version.
The Stainless Steel version (A4) is available and quoted only on request.

CODIFICATIONS & ORDERS

Each Bolt and related accessory are identified through alphanumeric codes as to describe in detail all features.
The following table contains the main abbreviations used in such codes:

Table: abbreviation

TM	Hammer Head Bolt
TA	Anchor Head Bolt
TMG1	Hammer Head Bolt for GF Anchor Channel
TMG2	Hammer Head Bolt for GI Anchor Channel
TAG1	Anchor Head Bolt for GD Anchor Channel
TAG2	Anchor Head Bolt for GE and GM Anchor Channel
ZC	Hot-dip Galvanized
L	Length (mm)

Examples of alphanumeric CODES

TMG21250ZC	=	TMG2	12	50	ZC
		↓	↑	↓	↑
		Hammer Head Bolt for GI Anchor Channel	Type of Thread M12	Length 50mm	Hot-dip galvanized

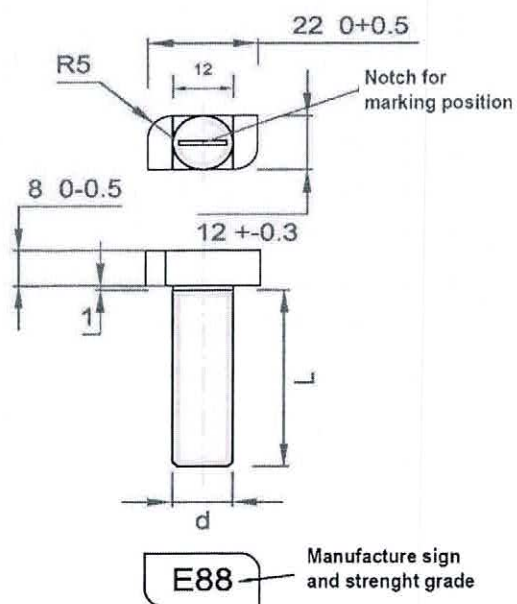


HAMMER HEAD BOLT TMG1

TMG Bolt	Thread: d	Length (mm): L	for Anchor Channel
TMG1	M12	70	GF (28x13x2,3)

*Other lengths available on request

HDG_ M10		
Code	Length (cm)	Price
TMG11270ZC	70	

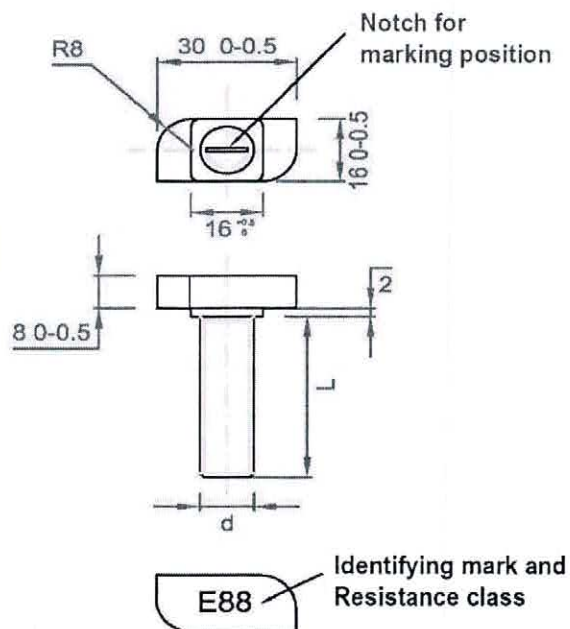


HAMMER HEAD BOLT TMG2

TMG Bolt	Thread: d	Length (mm): L	for Anchor Channel
TMG2	M12	50 / 70	GI (38x18x3)

*Other lengths available on request

HDG_ M12		
Code	Length (cm)	Price
TMG21250ZC	50	
TMG21270ZC	70	

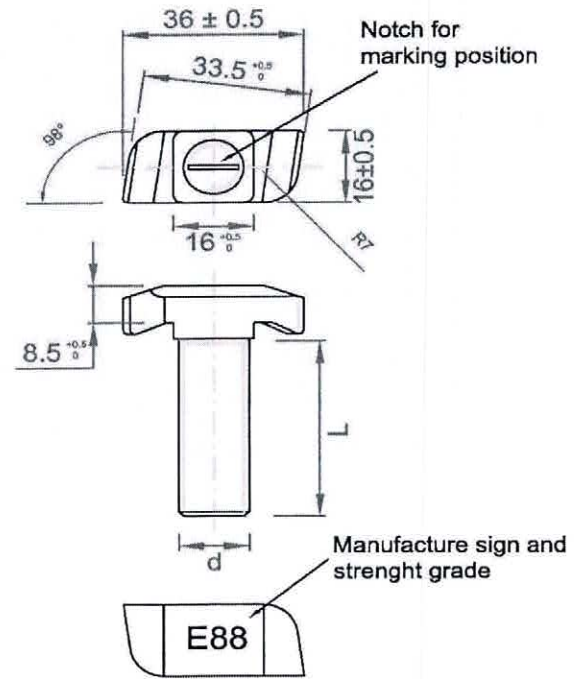




ANCHOR HEAD BOLT TAG1

TMG Bolt	Thread: d	Lenght (mm): L	for Anchor Channel
TAG1	M12	50/ 70 / 100/ 150	GD (40x25x2,5)
	M14	40/50/60/ 70/80/ 100/120/ 150/200 / 250	
	M16	50/ 80 / 100/ 120	

*Other lenghts available on request



HDG_ M12		
Code	Lenght (cm)	Price
TAG11250ZC	50	
TAG11270ZC	70	
TAG112100ZC	100	
TAG112150ZC	150	

HDG_ M14		
Code	Lenght (cm)	Price
TAG11440ZC	40	
TAG11450ZC	50	
TAG11460ZC	60	
TAG11470ZC	70	
TAG11480ZC	80	
TAG114100ZC	100	
TAG114120ZC	120	
TAG114150ZC	150	
TAG114200ZC	200	
TAG114250ZC	250	

HDG_ M16		
Code	Lenght (cm)	Price
TAG11650ZC	50	
TAG11680ZC	80	
TAG116100ZC	100	
TAG116120ZC	120	



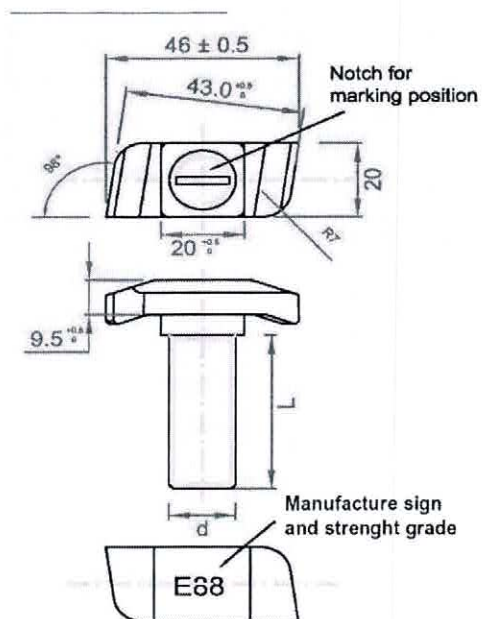
ANCHOR HEAD BOLT TAG2

TMG Bolt	Thread	Lenght (mm)	for Anchor Channel
TAG2	M16	50 / 60 / 80 / 100 / 150 / 200 / 250	GE (50x30x3) & GM (55x31x4)
	M20**	60 / 80 / 100 / 150	

**M20 Bolts available only on request

HDG_M16		
Code	Lenght (cm)	Price
TAG21650ZC	50	
TAG21660ZC	60	
TAG21680ZC	80	
TAG216100ZC	100	
TAG216150ZC	150	
TAG216200ZC	200	
TAG216250ZC	250	

HDG_M20		
Code	Lenght (cm)	Price
TAG22060ZC	60	
TAG22080ZC	80	Only on request
TAG220100ZC	100	
TAG220150ZC	150	



NUTS & WASHERS

NUTS_HDG Class 8		
Code	Description	Price
D12ZC	12MA	
D14ZC	14MA	
D16ZC	16MA	



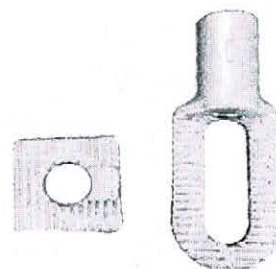
WASHERS_HDG R40		
Code	Description	Price
R12ZC	D12	
R14ZC	D14	
R16ZC	D16	





PLAQUE with PB BOLT

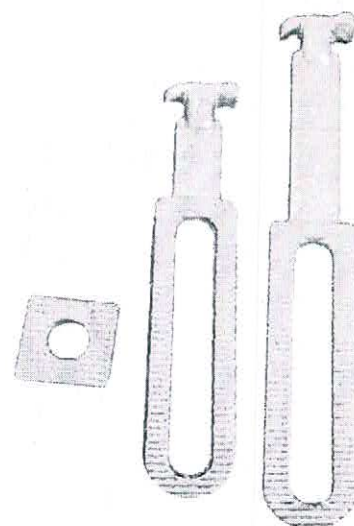
	Anchorage and Retention elements	
	Anchor Channels to be used	PB Bolt Plaque associated:
With TMG1 & TMG2 M12 Bolts	GF (28X13X2,3) & GI (38x18x3)	PB12ZC
With TAG1 M14 Bolts	GD (40x25x2,5)	PB14ZC
With TAG1 M16 & TAG2 M16 Bolts	GE (50x30x3) & GM (55x31x4)	PB16ZC



HDG_ PB BOLT Plaques		
Code	Description	Price
PB12ZC	12MA	
PB14ZC	14MA	
PB16ZC	16MA	

PLAQUE with ANCHOR HEAD

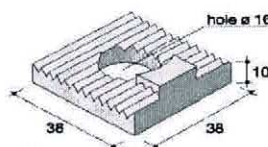
	Anchorage and Retention elements	
	Anchor Channels to be used	Anchor Head Plaque associated:
With TAG1 M14 Bolts	GD (40x25x2,5)	TA100ZC / TA150ZC / TA200ZC / TA250ZC
With TAG1 M16 & TAG2 M16 Bolts	GE (50x30x3) & GM (55x31x4)	TA185ZC



HDG_ Anchor Head Plaques		
Code	Lenght (mm)	Price
TA100ZC	100	
TA150ZC	150	
TA185ZC	185	
TA200ZC	200	
TA250ZC	250	

COUNTER PLATE for all PLAQUES

HDG_ Counter Plate		
Code	Lenght (mm)	Price
CP38ZC	38x38	



Squares and Angle Bars

STANDARD SQUARES

General

The **Edilmatic knurled SQUARES** in standard models are available in 5 different types, in many shapes and colours to satisfy any adjustment requirements in case of retention and connection of concrete elements.

Available **WITH** or **WITHOUT** side supports:

EDIL...-SR Squares = without side supports

EDIL...-R Squares = with side supports

For a correct fastening of the squares we always recommend to use the knurled counter-plates.

They are delivered with yellow cold electrolytic zinc-plating (UNI ISO 2081 – yellow colour) and on request also hot zinc-plated (UNI ISO 1461).

On every square you find the product traceability marking identifying producer (**EDILMATIC**) and the lot code (material casting number, year /month of production of the part).

Capacities

The **SQUARES** have different capacities depending on the shape and on the anchorage used.

The **SQUARES** without **SIDE SUPPORTS** have a max. capacity of **Pmax. = 4.0 kN**.

The **SQUARES** with **SIDE SUPPORTS** used without **hollow profiles** (fastened with chemical or mechanical small blocks) have a max. applicable capacity of **Pmax. = 32 kN**.

In applications with **HOLLOW PROFILES** the max load applicable depends on the profile type used.

For more technical details please contact the Edilmatic engineering department

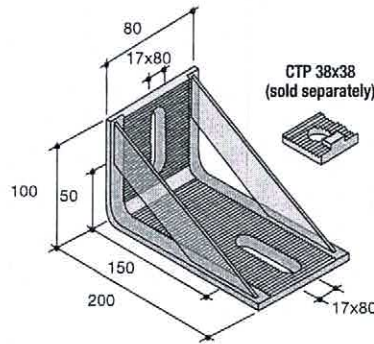
Capacities with fastenings without HOLLOW PROFILES

Type of square	Load
with reinforcements	32 kN
Without reinforcements	5.0 kN

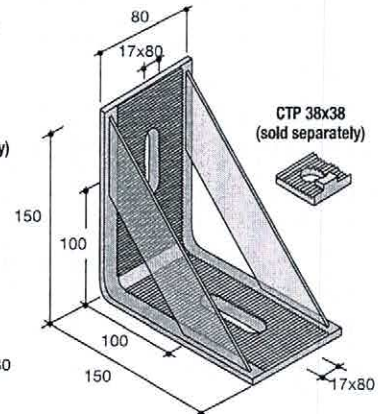
Capacities with fastenings with HOLLOW PROFILES

Type of square	Load
with reinforcements	According to the profile
Without reinforcements	4.0 kN

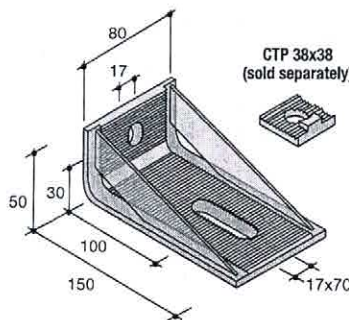
Square Edil 1 - R (with reinforcements)
Square Edil 1 - SR (without reinforcements)



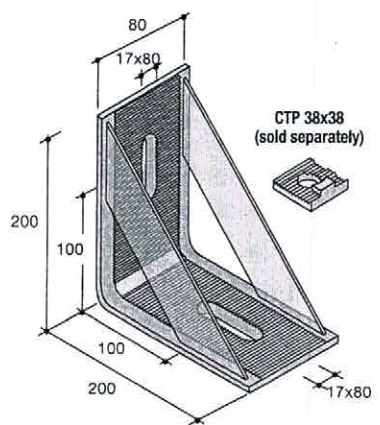
Square Edil 2 - R (with reinforcements)
Square Edil 2 - SR (without reinforcements)



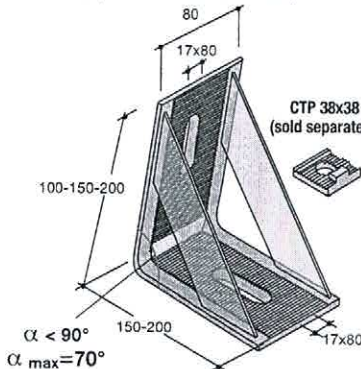
Square Edil 3 - R (with reinforcements)
Square Edil 3 - SR (without reinforcements)



Square Edil 4 - R (with reinforcements)
Square Edil 4 - SR (without reinforcements)



Edil 5 Special square
Edil 5 - R (with reinforcements)
Edil 5 - SR (without reinforcements)



On request we can deliver special EDIL 5 Squares with angle $\alpha < 90^\circ$ up to max. $\alpha_{max} = 70^\circ$ (depending on the customer's requirements).

The configuration for the EDIL 5 square can be obtained with the squares type EDIL 1 - 2 - 4 with or without supports.

Instructions and capacities are identical to the ones shown for the standard types.

SPECS ON MATERIALS

Material	Characteristics	Kind of coating
S355JO UNI EN 10025	$\sigma_{rott, min.} = 490\text{Mpa}$ $A_{\%} = 22$	yellow old electrolytic zinc-plating (UNI ISO 2081)

The Technical Department is at disposal in order to release ON DEMAND test certifications both on RAW MATERIAL and PRODUCT. The test certifications are available for each lot bought.

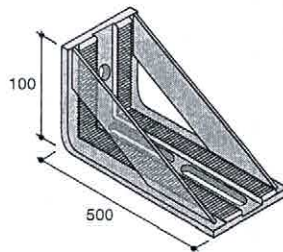
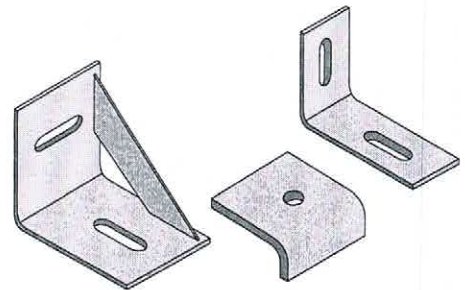
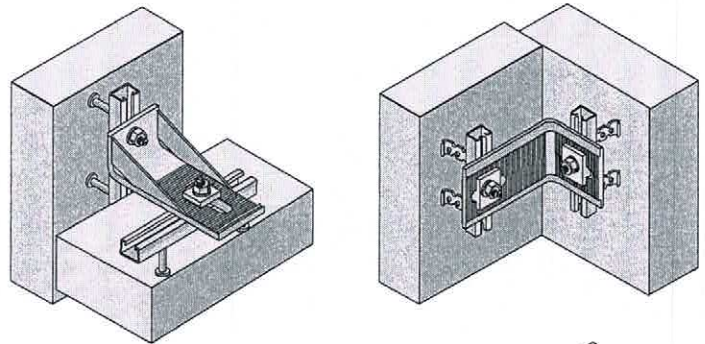
Squares and Angle Bars

CORNERPIECES ON REQUEST

In addition to the standard squares, on request, we can deliver customized **CORNERPIECES** manufactured according to the customer's drawings.

They can be delivered cold electrolytic zinc-plated (UNI EN ISO 2081), raw without surface coating and also hot zinc-plated (UNI EN ISO 1461).

Here following you will find some examples of **CORNERPIECES** built according to the customer's drawings, with some application examples. The **CORNERPIECES** are manufactured according to a customer's drawing; we do not make testings, but for special requests, therefore the customer can decide the max applicable load values; when we use corner pieces together with **EDILMATIC HOLLOW PROFILES**, the applicable **LOAD** always depends on the profiles used.



KNURLED PLATES

The knurled plates are used to manufacture the standard squares and can also be used in their original shape for particular applications such as the joining of two adjacent elements.

They are available in 3 different types with 3 different lengths:

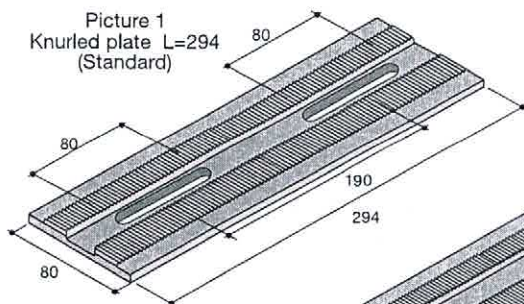
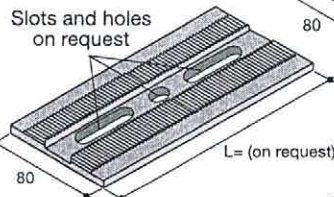
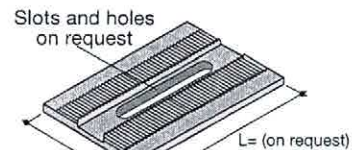
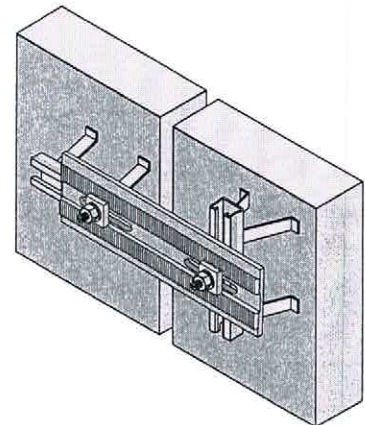
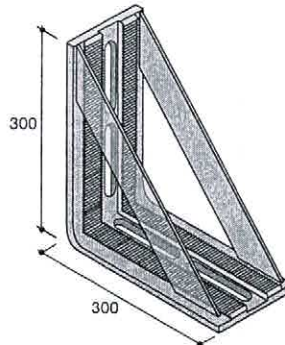
- Knurled plate L=294mm already slotted (Picture 1)
- Knurled plate L=388 (Picture 2)
- Knurled plate L=194mm (Picture 3)

On request, we can obtain from the **knurled plate L=388/600mm**, various "customized" plates with different lengths and slots and/or holes in any position useful for the application.

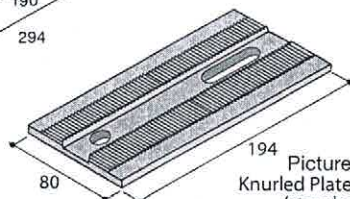
The plates can be delivered cold by electrolytically zinc-plated (UNI ISO 2081) and raw without surface coating.

For more technical details please contact the Edilmatic Engineering Department.

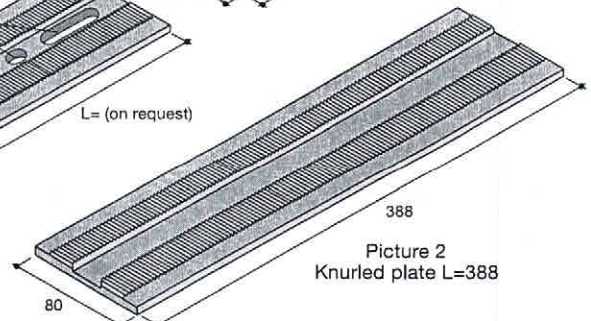
Special squares with plate L= 388 mm



Picture 1
Knurled plate L=294
(Standard)



Picture 3
Knurled Plate L=194
(standard)



Picture 2
Knurled plate L=388

Squares and Angle Bars

SPECIAL FRG CORNERPIECE

The corner piece for the FRG eaves retention has been studied for applications with pole plates, that due to their shape it is not possible to attach inserts in the following anchorage. Thanks to the particular FRG cornerpieces shape the hollow beam part can be attached and enables a safe anchorage of the panel and other retained elements.

The connection to the beams "teeth" is possible using variable shims between 5 and 10cm

For the application we can use hollow profiles type "H" - "D" or "H30" with different clampings and TA M14 bolts.

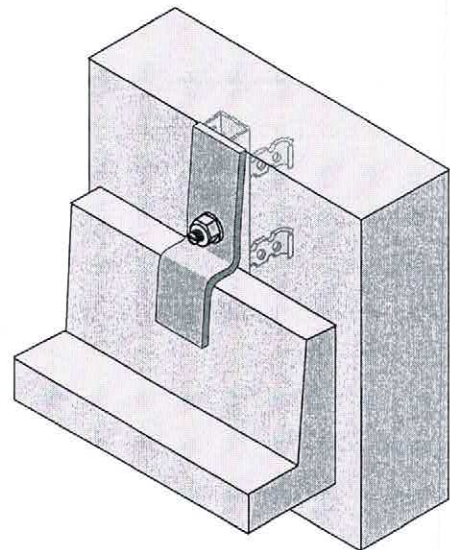
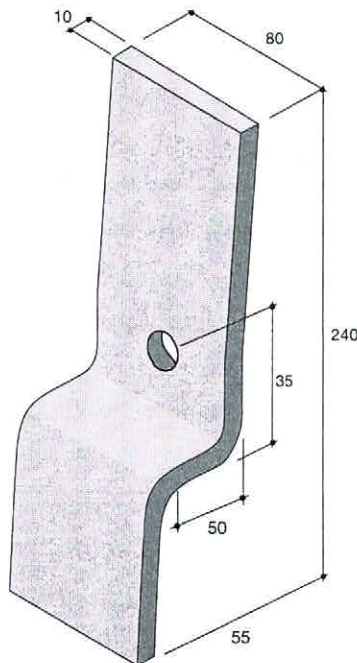
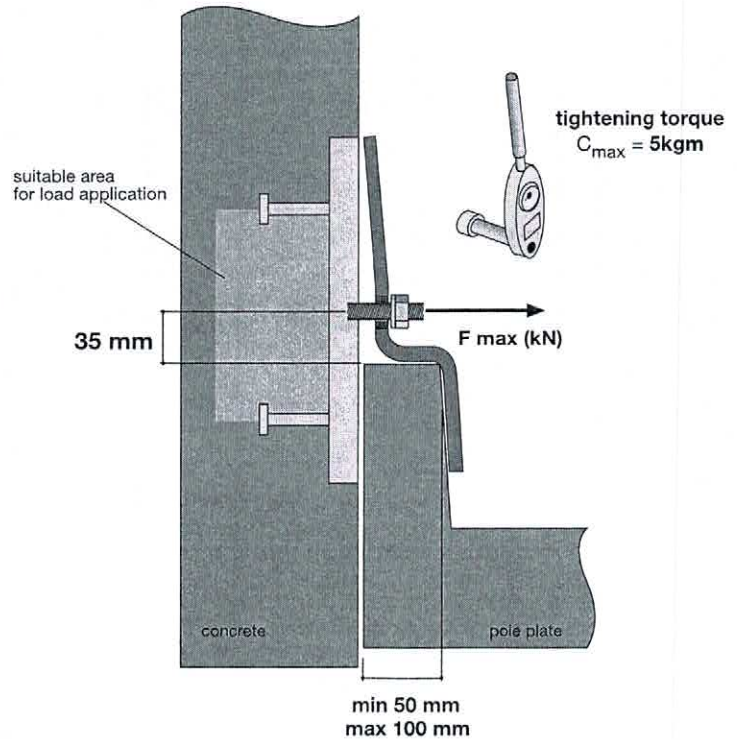
In the Table 1 you find the various allowed loads depending on the profile and clamping type used.

The TA bolts "L" anchorage length can be chosen depending on the useful coupling thickness.

For a correct use of the system it is necessary to comply with the indicated tightening torque and consider the connection with the profile in the area between the clampings, as shown in the side picture.

The FRG corner pieces are made of S355JR steel. They can be delivered with a cold electrolytic zinc-plating (UNI ISO 2081), raw without surface coating and also hot zinc-plated (UNI EN 1461) on request.

On request they can be produced also in AISI 304 and/or AISI 316 STAINLESS STEEL.

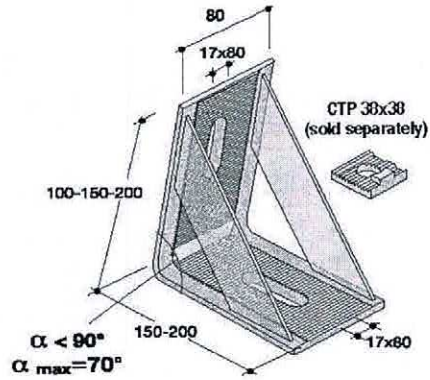


Profile type	Allowed capacity Fmax. (kN)		
	with S1 Brackets	With P1 Pegs	With Z1 Clampings
H	10	11	11
H30	11	13	13
D	11	13	13



SPECIAL Type of Square: EDIL5

ONLY ON REQUEST
(price can vary according to quantities)



KNURLED PLATES

The knurled plates (used to manufacture the standard Squares) can also be used in their original shape for particular applications such as the joining of two adjacent elements.

They are available in 3 different types with 3 different lengths:

- Knurled plate **L=294 mm** already slotted (Standard)
- Knurled plate **L=388 mm** (Special - only on request)
- Knurled plate **L=194 mm** (Special - only on request)

HDG_Knurled Plate		
Code	Lenght (mm)	Price
PZ294ZZC	294	

