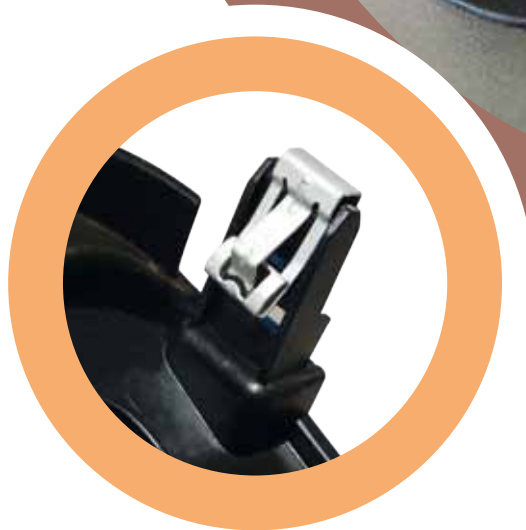


INDUSTRIAL PRODUCT CATALOG



Assembling

Protecting & Finishing

Connecting



A tailor-made catalog, dedicated to industrialists & distributors

Here is our new "Industrial" catalog, designed especially for you; it will allow you to rapidly choose the products you need from an extensive assortment adapted to your particular sector of operations.

Whether you specialize in electrical, home appliances, HVAC, or other trades such as railway, lighting, electronics, furniture manufacturing, elevators, tools, or agricultural machinery... this catalog was made for you.

We have essentially compiled a selection of more than 500 references in our general catalog: all the standard fasteners that you will need to assemble, protect, or connect your products or equipment. We have adapted our organization to keep these references in stock.

One glance at the selection guide (page 6-7) and you will discover our standard product lineup, easily identifiable by function.

Alongside this standard offering, we provide you with a choice of surface treatments: color and finish, available upon request. We know who you are and know that our attachment-and assembly systems need to be integrated into highly variable environments.

Should you wish to further personalize your equipment, you can always turn to our network of distributors. And if it's a particular product more closely adapted to your manufacturing process that you're after, the distributors will be happy to put you in touch with our servicing experts to design the product you need.

Simplicity and a sense of closeness are at the core of our values- it is in this light that we created this new catalog. I hope you find it meets your needs.

François Raymond
.....

Finding the right product quickly

We have developed a selection guide to help you find references faster...

Our selection guide is on page 6-7.

You can use the double-entry table to identify the product family you need:

• The first column shows the type of products to be fastened: cables, tubes, panels, trim pieces, etc. They are grouped by the following functions:

- assembling,
- protecting,
- connecting

Each function is identified by a colour code, which matches the colour coding used in the catalogue pages.

• The top row indicates the element to be fastened to: tube, panel edge, panel hole...

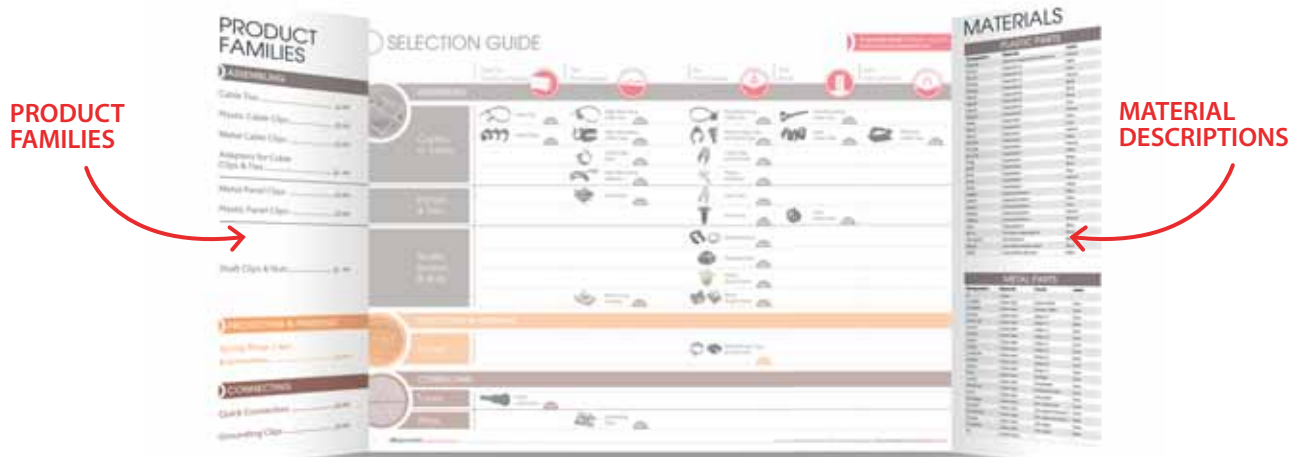
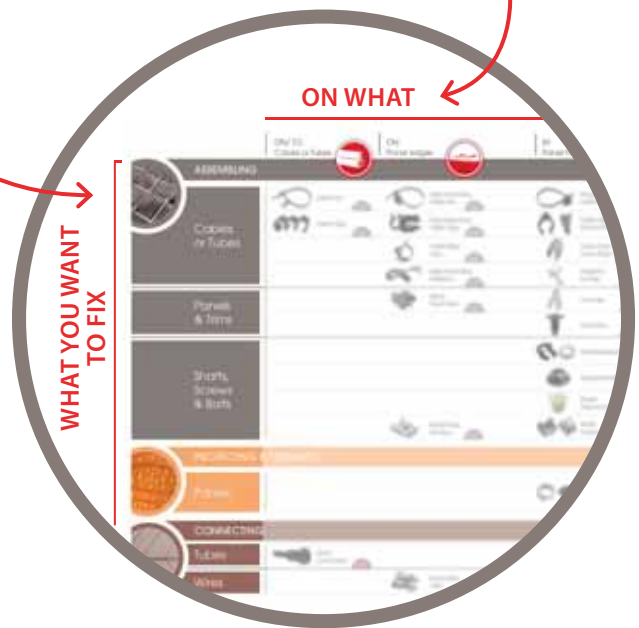
Each type of element is identified by a pictogram, found in the catalogue pages and used to confirm your selection. Simply match what you want to fix with what you want to mount it on and you'll find the product line you need... with a reference to the appropriate page number in the catalogue.

...Fold out flaps to assist your selection

The flap on the left shows the product families. The flap on the right gives the material description. You use the right-hand flap to identify the type of material contained in metal or plastic parts.

On the front of the flap, you can find the material and colour for plastic parts and the finish for metal parts. And on the back of the flap, the material and colour for assembled parts.

Once you've chosen the part you need, entering your finish options is child's play and you can easily confirm that you've selected the right part for your needs.



Choosing the right surface treatment

Sometimes it can be hard to choose the right surface treatment, depending on the function and location of the part. A few points should therefore be classified with your quality and production departments, in liaison with your sales person:

- Type of assembly: manual or automatic
- Corrosion resistance: how many hours?
- Environment in which the assembly is located: saline or polluted atmosphere?
- Colours: Will the part be visible? What colours are available?

Finishes for metal parts

There are two solutions for protecting parts from corrosion: lamellar galvanizing and electrolytic galvanizing.

The table below indicates the corrosion resistance of the different finishes available. Salt spray resistance is given in hours of exposure to white rust or red rust.

You'll find the surface treatments available for all of the references on the materials flap on the catalogue cover page.

We have many other finishes available, please contact us for more details.



| Surface treatments | Corrosion resistance* | |
|--------------------|-----------------------|--|
|--------------------|-----------------------|--|

Lamellar Galvanizing

| | White rust | Red rust |
|------------------|------------|----------|
| PHOSPHATED OILED | - | 20h |
| GEOMET 500A | 200h | 500/600h |
| GEOMET 500B | 200h | 1000h |
| Magni 2.0 | 200h | 600h |
| Magni 2.1 | 200h | 600h |
| Magni 2.2 | 200h | 600h |
| Magni 3.0 | 200h | 720h |
| Magni 3.1 | 200h | 1000h |

Electrolytic Galvanizing

| | White rust | Red rust |
|--------------|------------|----------|
| Zn pass. Cr3 | 200h | 384h |
| Zn Matt | - | 96h |
| Zinc nickel | 200h | 400h |
| Zinc-plated | - | 96h |

*For information only/ Data of June 2013

Colours for plastic parts

This type of selection is much simpler since all you do is choose a colour. Most of our parts come in 4 colours: white, natural, black and grey. But other colours may be produced as well: brown, green, blue, etc.

Please contact us.



SELECTION GUIDE

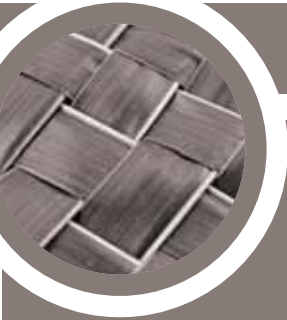
ON/ TO
Cables or Tubes



ON
Panel edges



ASSEMBLING



Cables
or Tubes



Cable Ties

p.12-14



Cable Clips

p.20-22



Edge Mounting
Cable Ties

p.15



Edge Mounting
Cable Clips

p.23



Cable Edge
Clips

p.44-47



Edge Mounting
Adapters

p.55-58



Panel Clips

p.62-65

Panels
& Trim

Shafts,
Screws
& Bolts



Metal Snap
on Nuts

p.93-98

PROTECTING & FINISHING



Panels

CONNECTING

Tubes



Quick
Connectors

p.110-111


Wires



Grounding
Clips

p.114-115

IN
Panel holes





ON
Studs




ON
Flat surfaces




 Plug Mounting Cable Ties p.16


 Stud Mounting Cable Ties p.17


 Plug in Cable Clips & Push Pin Clips p.24-36


 Stud Cable Clips p.38-40


 Adhesive Cable Clips p.41


 Cable Clips Screw Fixed p.48-50


 Plug in Adapters p.54


 Trim Clips p.66


 Panel Pins p.70-75


 Stud Panel Clips p.76

 Shaft Retainers p.80-85

 Stamped Nuts p.86-87

 Plastic Snap in Nuts p.91-92

 Metal Snap in Nuts p.88-90

 Spring Rings, Caps & Grommets p.102-107

Catalogue products and custom solutions

Since our experts know your needs and pay close attention to your manufacturing methods and processes, they can provide you with customised assembly solutions, whatever sector you're in. To deserve your loyalty, we are uncompromising when it comes to quality and precision. The solutions we deliver are tested and approved in our state-of-the-art laboratories. We have a development centre in each country for even faster response to your needs.

Our business: more than fastening...

Fastening specialists, backed by a wealth of experience built up since 1865, we have shaped our development with a series of innovations, from press-studs for the textile industry to plastic injection for the automotive sector. Today, we have five areas of competencies:

- Engineering & Services: design of customised solutions
- Metal transformation: cutting, bending, stamping and roll forming
- Plastic injection: over-moulding, bi-injection, special manufacturing conditions (ISO 5 to 8)
- Bonding services: tailored solutions using fast-curing adhesives
- Assembly: all types of assembly with our manual, semi-automatic and high-speed automatic equipment; Quick Connectors for example.

We can offer you our latest innovations, developed to boost your productivity: traceability, plastic parts that absorb vibrations, fast-curing adhesive tablets, an automatic assembly gun and security solutions. You'll find more information on innovations on the blue inserts in the catalogue p.25, p.37, p.59, p.71 and p.97.



Engineering & Services



Metal transformation



Plastic injection



Bonding services



Assembly

Special requirements? Our experts at your service

- **Assembly line support by our staff**

ARaymond offers you the service of assembly line-walks. During the walks, our experts closely observe your assembly or production lines in order to help you choose the fastening system best-suited to your requirements, optimize your manufacturing process and reduce the number of references used in your products. Our experts' prime concern is to improve your productivity.

With our expertise in metal and plastic parts manufacturing, we can design and produce custom parts, in three steps:

- **Preparation of the mock-up (1 to 3 units)**

We prepare a mock-up, without surface treatment, to define the geometry of the part. Mock-ups of metal parts are made manually. Plastic part mock-ups are produced by 3D printing or sintering (production of plastic components by polymerization).

- **Development of a prototype (100 to 500 units)**

In the prototyping phase, up to 500 standard parts are made. Metal parts are produced on a bending machine simpler than the machines used for batch production.

For plastic parts, we inject the plastic into a soft metal mould.

- **Release of batch production**

After the part is validated, the final mould, made of steel, is fabricated and we release batch production on our series production machines.

Using this method, we have produced mock-ups for parts to fasten bicycle mudguards and even light fittings.





On / To
Cables or Tubes

Cable Ties



Standard



p.12



Re-openable



p.13



For tube mounting



p.14



On Panel edges

Edge Mounting Cable Ties



Edge mounting cable ties



p.15

Plug Mounting Cable Ties



In Panel holes



Plug mounting cable ties



p.16

Stud Mounting Cable Ties



On Studs



Stud mounting cable ties



p.17

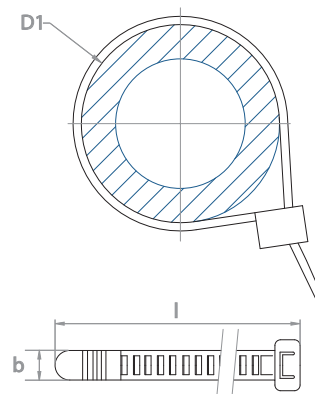


On cables or tubes



Cable Ties

Standard

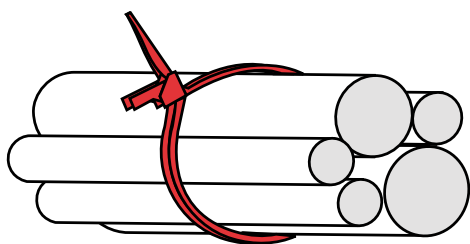


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Max tube diameter (Ø D1) | Cable strap width (b) | Cable strap length (l) | Material* | Carton quantity |
|------------|--------------------------|-----------------------|------------------------|-----------|-----------------|
| 056799000 | 3-26 | 4,5 | 120 | PA66-BI | 2 000 |
| 013427001 | 4-20 | 4,5 | 87 | PA66-BI | 3 000 |
| 056889000 | 5-35 | 4,5 | 160 | PA66-BI | 1 000 |
| 013428000 | 6-30 | 6 | 128,7 | PA6-BI | 3 000 |
| 013429002 | 6-60 | 6 | 218,7 | PA66-BI | 1 000 |
| 056686000 | 10-32 | 3,6 | 139 | PA66-Na | 2 000 |
| 056686001 | 10-32 | 3,6 | 139 | PA66-BI | 2 000 |
| 056792000 | 10-65 | 4,8 | 250 | PA66-BI | 1 000 |
| 056799002 | 24 | 4,5 | 120 | PA66-Na | 2 000 |
| 056767000 | 45 | 4,8 | 178 | PA66-BI | 1 000 |
| 056476000 | 50 | 3,6 | 200 | PA66-Na | 2 000 |
| 056476001 | 50 | 3,6 | 200 | PA66-BI | 2 000 |
| 013430000 | 60-135 | 6 | 459 | PA66-BI | 500 |
| 013430001 | 60-135 | 6 | 459 | PA66-Na | 500 |
| 056688000 | 80 | 3,6 | 290 | PA66-Na | 2 500 |
| 056689000 | 103 | 3,6 | 370 | PA66-Na | 2 000 |
| 056766000 | 115 | 4,8 | 430 | PA66-Na | 2 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix wires onto many supports or to ARaymond adapters
- Complies to norm MIL-S-23190
- Homologated R.I.Na N. 5/043/93
- See also p.53, the product family : adapters for cable clips and ties

COMPLEMENTARY PRODUCTS



Plug in Adapters
p. 54



Edge Mounting
Adapters
p. 55



Edge Mounting
Adapters
p. 56

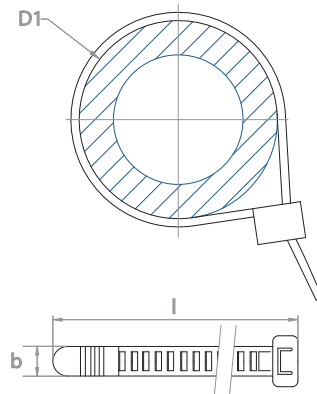
A specific need ? Contact us, p.122





On cables or tubes

Cable Ties

Re-openable

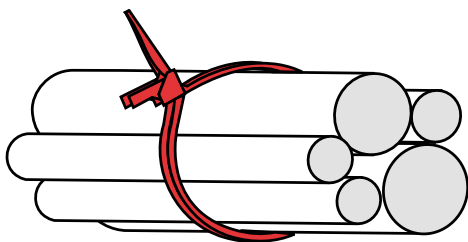


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Max tube diameter (Ø D1) | Max tube diameter 2 (Ø D2) | Cable strap width (b) | Cable strap length (l) | Material* | Carton quantity |
|------------|---|--------------------------|----------------------------|-----------------------|------------------------|-----------|-----------------|
| 208596000 |  Double | 2-38 | 3-36,5 | 4,8 | 151,6 | PA66-Na | 6 000 |
| 014691000 |  Single | 6-45 | - | 4 | 161,5 | PA66-Na | 1 000 |
| 014691004 | | 6-45 | - | 4 | 161,5 | PA66-BI | 1 000 |
| 012526000 | | 8-20 | - | 7 | 100 | PA12-BI | 2 500 |
| 012528000 | | 10-70 | - | 9 | 250 | PA12-BI | 1 200 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix wires onto many supports or to ARaymond adapters
- With a re-openable locking system
- See also p.53, the product family : adapters for cable clips and ties

COMPLEMENTARY PRODUCTS



Plug in Adapters
p. 54



Edge Mounting
Adapters
p. 55



Edge Mounting
Adapters
p. 56

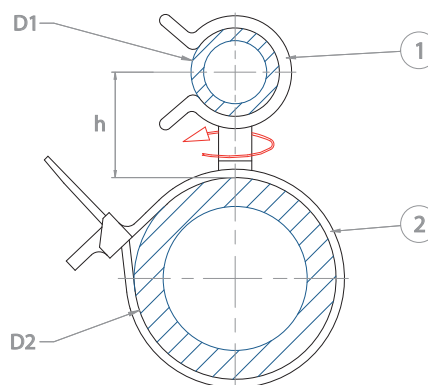
A specific need ? Contact us, p.122



On cables or tubes

Cable Ties

For tube mounting

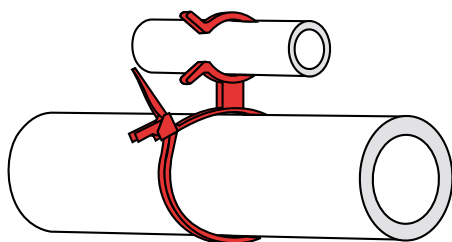


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Max tube diameter (Ø D1) | Max bundle diameter (Ø D2) | Clip width ① | Cable strap width ② | Distance (h) | Material* | Carton quantity |
|------------|--------|--------------------------|----------------------------|--------------|---------------------|--------------|-----------------|-----------------|
| 081354000 | | 4,3-5,2 | 10-52 | 10 | 7 | 13,5 | POM-BI/PA12-BI | 2 500 |
| 080477000 | | 6-6,5 | 10-52 | 8 | 7 | 14 | POM-BI/PA12-BI | 2 000 |
| 082400000 | | 7,8-8,5 | 10-52 | 10 | 7 | 15,4 | PA12-BI/PA66-BI | 500 |
| 081929000 | | 7,8-8,5 | 46-95 | 10 | 7 | 15,4 | POM-BI/PA12-BI | 1 500 |
| 080487000 | | 8-9 | 10-52 | 8 | 7 | 15 | POM-BI/PA12-BI | 2 000 |
| 081284000 | | 10-12 | 10-52 | 10 | 7 | 18 | POM-BI/PA12-BI | 2 000 |
| 080465002 | | 10-12 | 46-75 | 10 | 7 | 18 | POM-BI/PA66-BI | 1 500 |
| 081104000 | | 11-13 | 10-52 | 10 | 7 | 16,5 | POM-BI/PA12-BI | 2 000 |
| 081363000 | | 13-14 | 10-52 | 10 | 7 | 17,5 | POM-BI/PA12-BI | 1 500 |
| 081127001 | | 13-14 | 46-75 | 10 | 7 | 17,5 | PA66/PA46-BI | 200 |
| 081287001 | | 15-16 | 46-75 | 10 | 7 | 18 | POM-BI/PA66-BI | 1 000 |
| 082604000 | | 16-18 | 30-80 | 12 | 8 | 17 | PA66-BI/PA66-BI | 250 |
| 081295000 | | 19-24,5 | 10-52 | 12 | 7 | 20,8 | POM-BI/PA12-BI | 1 500 |
| 081966000 | | 19-24,5 | 46-95 | 12 | 7 | 20,5 | PA66-BI/PA12-BI | 200 |
| 080983000 | | | 14-16 | 10-52 | 12 | 7 | 18 | POM-BI/PA12-BI |
| 082165000 | | 23-30 | 10-52 | 10 | 7 | 28,6 | POM-BI/PA12-BI | 2 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To assemble a bundle at any orientation to a tube
- With a swivel system to orientate the bundle
- With a re-openable locking system

ALTERNATIVE PRODUCTS



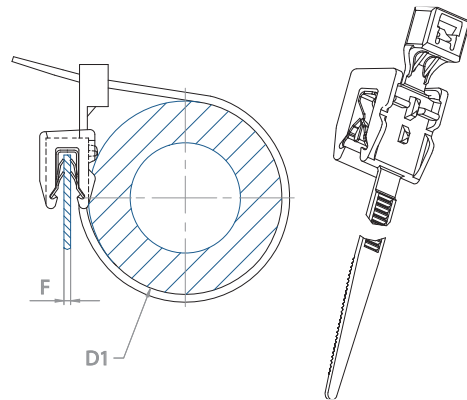
Cable Clips
p. 22

A specific need ? Contact us, p.122



On Panel edges

Edge Mounting Cable Ties

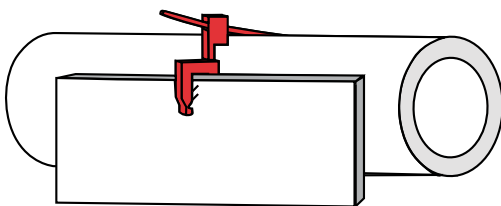


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Max tube diameter (ØD1) | Cable strap width | Cable strap length | Swivel | Material* | Carton quantity |
|------------|--------|---------------------|-------------------------|-------------------|--------------------|--------|------------------------|-----------------|
| 190042000 | | 0,7-2,5 | 1,5-40 | 4,8 | 182,5 | Yes | PA66-BI/CS-M1.2 | 3 000 |
| 203870000 | | 1-3 | 8-33 | 4,5 | 140 | Yes | PA66-BI/CS-M2.2-BI | 800 |
| 201174002 | | 2-4 | 8-33 | 7 | 140 | Yes | PA66-BI/POM-BI/CS-M2.1 | 600 |
| 082651000 | | 1,5-3,5 | 1,5-43 | 4,6 | 191 | No | PA66-BI/CS-M2.1 | 2 000 |
| 082652000 | | 1,5-3,5 | 1,5-43 | 4,5 | 180 | No | PA66-BI/CS-M2.1 | 2 000 |
| 082653000 | | 1,5-3,5 | 1,5-43 | 4,5 | 186 | No | PA66-BI/CS-M2.1 | 3 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- Cable tie integrating a clip for panel edge fixing
- The panel clip contains a metal part to ensure best performance
- Available in different configurations to cover many fixing layouts
- Some parts include a swivel system and/or reopenable lock

ALTERNATIVE PRODUCTS

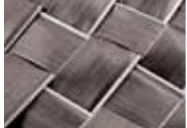


Edge Mounting Cable Clips p. 23



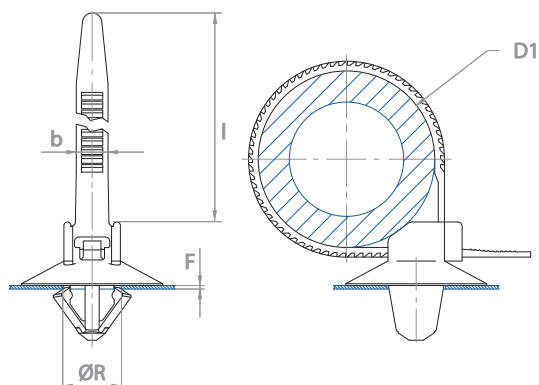
Edge Mounting Adapters p. 55 + Cable Ties p.12

A specific need ? Contact us, p.122



In Panel
holes

Plug Mounting Cable Ties

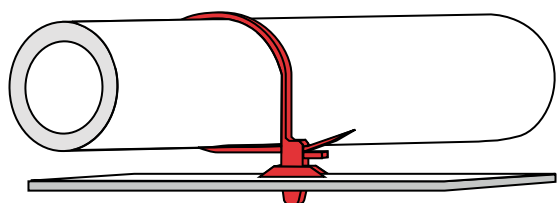


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Hole size (ØR) | Max tube diameter (ØD1) | Cable strap width (b) | Cable strap length (l) | Material* | Carton quantity |
|------------|--------|---------------------|----------------|-------------------------|-----------------------|------------------------|-----------|-----------------|
| 056299000 | | 0,5-3 | 6,2x12,2 | 3-40 | 4,5 | 160,6 | PA6-BI | 1 200 |
| 205246000 | | 0,8-1,3 | 6,6 | 0,5-25 | 3,6 | 113,6 | PA66-BI | 6 000 |
| 014832001 | | 0,8-1,8 | 6,5 | 3-24 | 4,2 | 110 | PA66-Na | 900 |
| 014832002 | | 0,8-1,8 | 6,5 | 3-24 | 4,2 | 110 | PA66-BI | 900 |
| 208025000 | | 0,8-2,8 | 6,1-6,5 | 2-30 | 4,4 | 130 | PA66-BI | 6 000 |
| 056350000 | | 0,5-3 | 6,7 | 3-40 | 4,7 | 182,4 | PA6-BI | 600 |
| 216956000 | | 0,6-3 | 5,4 | 0,5-25 | 3,8 | 114 | PA66-BI | 8 000 |
| 108408001 | | 0,7-3 | 6,5 | 3-40 | 4,5 | 180 | PA66-BI | 3 000 |
| 175200000 | | 0,6-3 | 6,2-7,2 | 1-40 | 4,8 | 170 | PA66-BI | 3 000 |
| 175057000 | | 0,7-1,8 | 6,5 | 2-40 | 4,8 | 155 | PA66-BI | 5 000 |
| 064576000 | | 0,5-3 | 6,3 | 10-40 | 9 | 174 | PA6-BI | 700 |
| 015118001 | | 0,8-2,2 | 7 | 15-55 | 9 | 201,5 | PA66-BI | 2 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- Cable tie integrating an anchoring system
- To fasten a bundle onto a panel
- With different anchoring systems to suit different hole depths

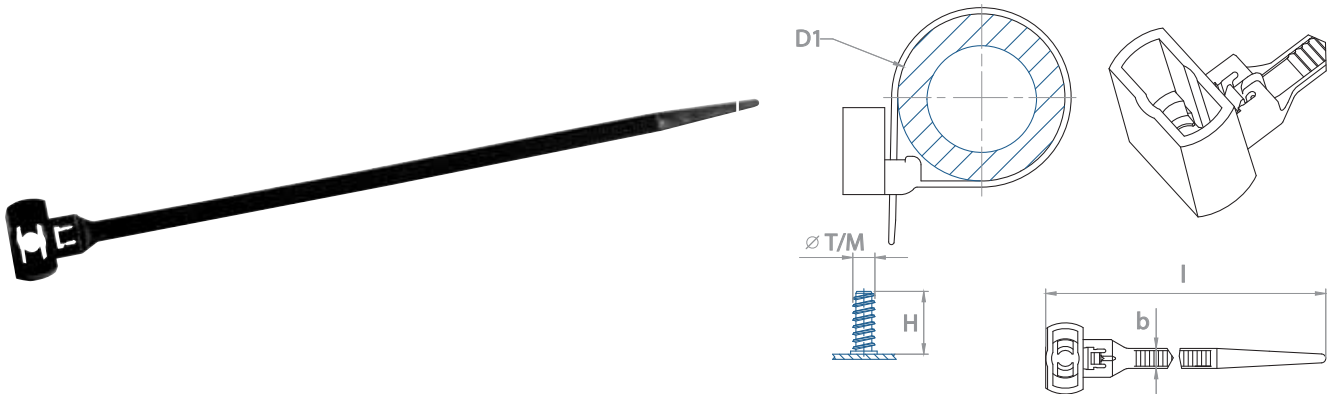
ALTERNATIVE PRODUCTS



Plug in Adapters
p. 54

A specific need ? Contact us, p.122

Stud Mounting Cable Ties

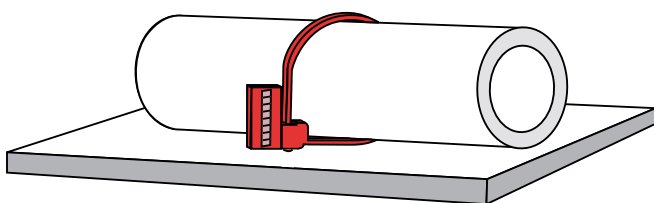


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Stud size (ØTx H) | Max tube diameter (ØD1) | Cable strap width (b) | Cable strap length (l) | Material* | Carton quantity |
|------------|--------|-------------------|-------------------------|-----------------------|------------------------|-----------|-----------------|
| 203449000 | | Ø5/6x14,2 | 2-40 | 4,5 | 171,3 | PA66-BI | 3 000 |
| 201614001 | | Ø 5x12 or M6x12 | 1,5-40 | 4,5 | 175,5 | PA66-BI | 700 |
| 020494000 | | M8x14,5 | 2-25 | 4,5 | 135 | PA66-BI | 800 |
| 202587000 | | M8x14,2 | 2-40 | 4,8 | 183,5 | PA66-BI | 2 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- Cable tie integrating a female clip to fix onto metric studs
- To fix wire bundles onto a stud or onto a panel with a welded stud

ALTERNATIVE PRODUCTS



A specific need ? Contact us, p.122

Assembling Plastic Cable Clips



On / To
Cables or Tubes

Cable Clips



Double tube



p.20



Triple tube



p.21



Swivel tube



p.22



On Panel edges

Edge Mounting Cable Clips



Edge mounting cable clips



p.23



In Panel holes

Plug in Cable Clips

| | | | |
|--|-----------------------|--|------|
| | Standard/ Single tube | | p.24 |
| | Swivel/ Single tube | | p.26 |
| | Standard/ Double tube | | p.28 |
| | Swivel/ Double tube | | p.30 |
| | Universal | | p.31 |
| | Manual locking | | p.32 |
| | Omega clips | | p.33 |



In Panel holes

Push Pin Clips

| | | | |
|--|--------------|--|------|
| | Single cable | | p.34 |
| | Multi cable | | p.36 |



On Studs

Stud Cable Clips

| | | | |
|--|--------------|--|------|
| | Single cable | | p.38 |
| | Double cable | | p.40 |



On Flat surfaces

Adhesive Cable Clips

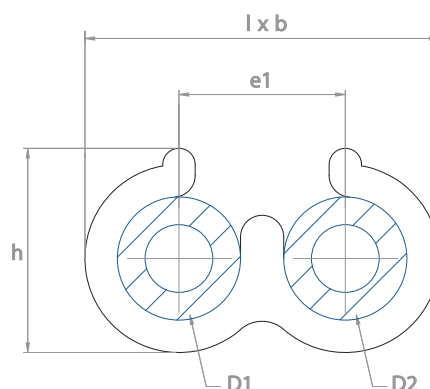
| | | | |
|--|----------------------|--|------|
| | Adhesive cable clips | | p.41 |
|--|----------------------|--|------|



On cables or tubes

Cable Clips

Double tube

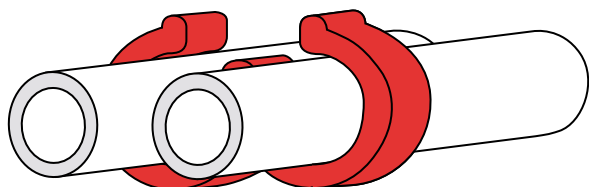


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Tube diameter (Ø D1 & D2) | Distance (e1) | Length x Width (lxb) | Height (h) | Material* | Carton quantity |
|------------|--------|---------------------------|---------------|----------------------|------------|-----------|-----------------|
| 012583002 | | x2 (4,75) | 6,3 | 13x12 | 7,6 | POM-BI | 5 000 |
| 202339000 | | x2 (4,75-5,2) | 6,3 | 13x12 | 8 | PA66-BI | 3 000 |
| 053760004 | | x2 (6-7) | 7,7 | 16,8x8 | 9,45 | POM-BI | 3 500 |
| 017420003 | | x2 (7) | 8,5 | 23,12x10 | 18 | POM-BI | 6 500 |
| 054477002 | | x2 (8) | 10 | 21,5x8 | 12 | POM-BI | 2 200 |
| 012738003 | | x2 (10) | 12,1 | 25,7x10 | 14,8 | POM-BI | 3 000 |
| 018524000 | | x2 (4,3-5,2) | 14 | 20,7x10 | 10,35 | POM-BI | 5 000 |
| 016983000 | | x2 (6) | 12 | 21x8 | 13 | PA66-BI | 4 700 |
| 018900001 | | x2 (12) | 18 | 34x10 | 16,5 | POM-BI | 2 000 |
| 110075001 | | x2 (4,7-4,9) | 10,0 | 26x12 | 18 | TPE-BI | 2 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To hold two wires/tubes together with a distance between them
- Selected parts fit two wires/ tubes of the same diameter
- Also available for wires/ tubes of different diameters, contact us

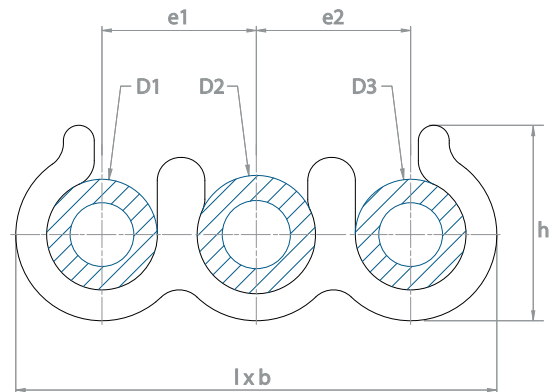
A specific need ? Contact us, p.122



On cables or tubes

Cable Clips

Triple tubes

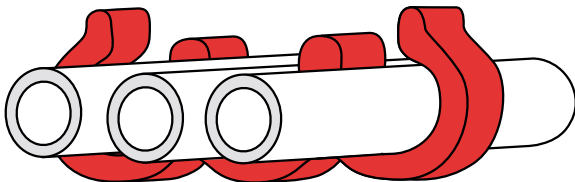


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Tube diameter (Ø D1-D2-D3) | Distance (e1 & e2) | Length x Width (lxb) | Height (h) | Material* | Carton quantity |
|------------|--------|----------------------------|--------------------|----------------------|------------|-----------------|-----------------|
| 055451001 | | x3 (4,5-5) | 6 | 18,7x12 | 7,6 | POM-BI | 2 000 |
| 175000002 | | x3 (8) | 12 | 35x8 | 14 | PA66-Na | 10 000 |
| 020040000 | | x3 (8-10) | 15,5 | 45x12 | 16,5 | POM-BI | 1 200 |
| 018556000 | | x3 (10) | 11,5 | 36x15 | 14,7 | PA66-BI | 800 |
| 110074002 | | x3 (4,7-4,9) | 10 | 36x12 | 18 | PP/EPDM 40Sd-BI | 1 500 |
| 018539001 | | x3 (4,75-6) | 10,5 | 36,6x12 | 14,3 | POM-BI | 1 600 |
| 057255002 | | x3 (8-10) | 19 | 58,5x11 | 21,5 | PE LD-Na | 600 |
| 055351000 | | x3 (4,75-5,05) | 12 | 24,8x15 | 21 | POM-BI | 500 |

*For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To hold three wires/tubes together with a distance between them
- Selected parts fit three wires/ tubes of the same diameter
- Also available for wires/ tubes of different diameters, contact us

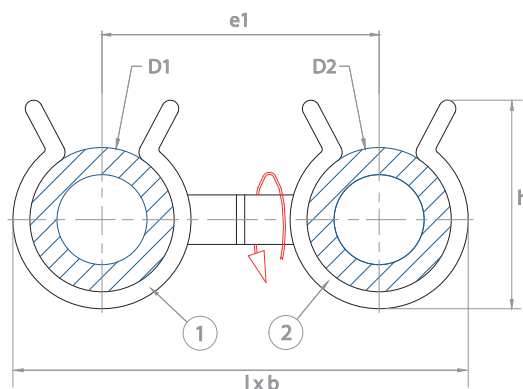
A specific need ? Contact us, p.122



On cables or tubes

Cable Clips

Swivel tube

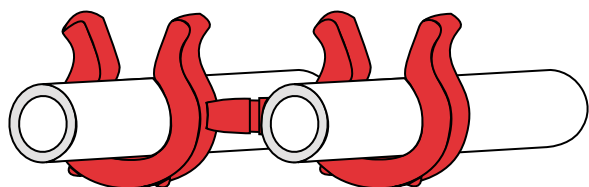


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Tube diameter (Ø D1 & D2) | Distance (e1) | Length x Width (lxb) | Height (h) | Material* | Carton quantity |
|------------|--------|---------------------------|---------------|----------------------|------------|-----------|-----------------|
| 081226000 | | x2 (4,3-5,2) | 14,5 | 21,25x10 | 9,4 | PA66-BI | 1 200 |
| 081083000 | | x2 (6-6,5) | 16,5 | 25,5x8 | 11,5 | PA66-BI | 1 500 |
| 081424003 | | x2 (7,8-8,5) | 17,6 | 28x12 | 16,9 | PA66-BI | 1 000 |
| 081778002 | | x2 (8-9) | 25 | 36x8 | 13,5 | PA66-BI | 3 000 |
| 060710001 | | x2 (11-13) | 21,5-23,5 | 36,5x10 | 17,5 | POM-BI | 500 |
| 061000001 | | x2 (13-14) | 19 | 36,3x10 | 20 | POM-BI | 900 |
| 081157000 | | x2 (13-14) | 30 | 47x10 | 22,5 | POM-BI | 2 500 |
| 060776000 | | x2 (8-10) | 21,3 | 51,1x10 | 26 | POM-BI | 450 |
| 081379000 | | x2 (16-24) | 36,7 | 80,9x10 | 44,9 | POM-BI | 800 |
| 081995001 | | x2 (23-30) | 45,3 | 98x10 | 45,75 | PA66-BI | 200 |
| 060655001 | | x2 (14-16) | 24,5 | 56,5x12 | 21 | POM-BI | 1 600 |
| 060637002 | | x2 (23,5-25) | 34,5 | 74,5x12 | 33,5 | POM-BI | 900 |
| 081382000 | | x2 (38-45) | 48,7 | 105x10 | 62 | PA66-BI | 200 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To hold two wires/tubes together with a distance between them, integrating a swivel system
- Selected parts fit two wires/ tubes of the same diameter
- Also available for wires/ tubes of different diameters, contact us
- Spare connections allow the assembly of more than two clips and in different layouts
- Contact us for specific layouts

ALTERNATIVE PRODUCTS



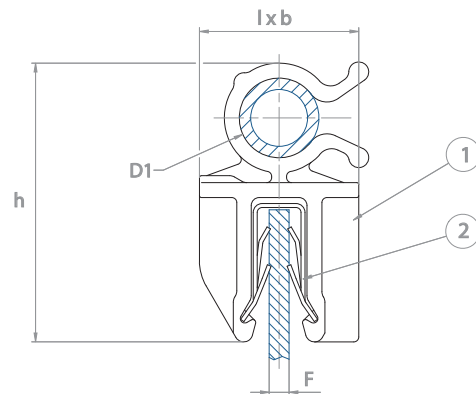
Cable Ties
p. 14

A specific need ? Contact us, p.122



On Panel
edges

Edge Mounting Cable Clips

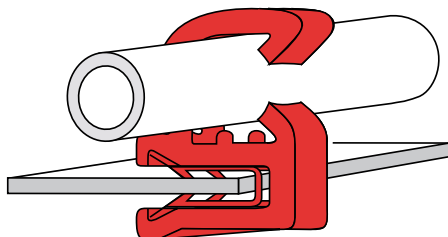


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube capacity | Tube diameter (Ø D1) | Length x Width (lxb) | Height (h) | Material* | Carton quantity |
|------------|--------|---------------------|---------------|----------------------|----------------------|------------|--------------------|-----------------|
| 205203001 | | 8 | Single | 8 | 16x15 | 28 | PA66-BI/CS-M2.1 | 450 |
| 132068001 | | 1,5-2,5 | Multi | 3-13 | 25,1x13 | 23,9 | POM-BI/CS-ZnNi | 750 |
| 081401000 | | 2-2,5 | Multi | 6-14 | 31,5x15 | 22,5 | POM-BI/CS-PHO | 1 000 |
| 061576002 | | 1-2,5 | Multi | 3-25 | 37x29 | 48 | POM-BI/CS-ZnNi | 400 |
| 061585005 | | 1-2,5 | Multi | 3-25 | 36x14 | 33 | POM-BI/CS-ZnNi | 500 |
| 082047001 | | 1-2 | Multi | 3-5 | 16,15x40 | 18,8 | PA66-Na/CS-M2.2-BI | 1 300 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix one or more wires to a panel edge
- The panel clip contains a metal part to ensure best performance
- Available in different configurations to cover most fixing layout
- See also the product family: Edge Mounting Cable Ties p.15

ALTERNATIVE PRODUCTS



Edge Mounting
Cable Ties
p. 15

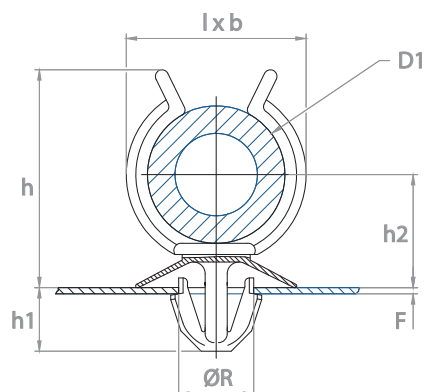
A specific need ? Contact us, p.122



In Panel
holes

Plug in Cable Clips

Standard/ Single tube

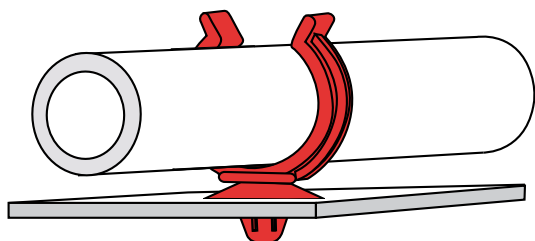


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (Ø D1) | Hole diameter (ØR) | Length x Width (lxb) | Height (h) | Depth (h1) | Tube height (h2) | Material* | Carton quantity |
|------------|--------|---------------------|----------------------|--------------------|----------------------|------------|------------|------------------|-----------|-----------------|
| 018441000 | | 0,7-1,3 | 5 | 9 | 9,4x13 | 10,6 | 7,5-8,1 | 6,9-7,5 | POM-BI | 4 500 |
| 016048000 | | 0,7-2 | 7,5-7,8 | 6-6,2 | 10,5x10 | 15,8 | 8,8 | 7,5-8,8 | PA66-BI | 3 500 |
| 132033001 | | 0,7-2 | 9-12 | 8,2 | 15,7x10 | 18,5 | 9 | 11 | POM-BI | 1 000 |
| 054478001 | | 0,7-2 | 17-21 | 6,5-6,7 | 24x12 | 32 | 6,5 | 13-17,3 | POM-BI | 600 |
| 108130000 | | 0,7-2 | 21-23 | 6,5-6,7 | 28,5x12 | 30,2 | 6 | 17 | PA66-BI | 2 400 |
| 016850001 | | 0,7-3,2 | 23-24 | 5-5,2 | 30x10 | 35 | 8,2-10,7 | 19 | PA66-BI | 650 |
| 019050000 | | 0,8-4 | 10-12 | 6,5-6,7 | 14x10 | 26 | 8,5 | 17 | PA66-BI | 400 |
| 018776000 | | 1,6-6 | 16 | 6,5-6,7 | 19x10 | 23 | 10 | 11 | POM-BI | 1 900 |
| 055259001 | | 0,7-2 | 10-12 | 6,2x8,2 | 20,5x12 | 37,5 | 7 | 15 | POM-BI | 1 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix one tube/wire to a panel with holes
- With different anchoring systems to suit different hole depths
- Available also with swivel or locking systems (see ranges on the following pages)

A specific need ? Contact us, p.122

Better equipment traceability

- *Make underground network maintenance easier?*
- *Safely identify electric cables and wires?*
- *Make sure equipment temperature is right?*

We have specially designed products for the embedded identification of your equipments: fastening systems that include encapsulated RFID chips or sensors to facilitate pressure or temperature measurements.

With our expertise in plastics, the aesthetics of visible fastenings are maintained.

Since the company was founded, nearly 150 years ago, our development has been shaped by innovations, from the press-stud to plastic injection moulding. Today, we spend 6% of our turnover on R&D, 3% on staff training, and we have 22 production sites world-wide. We make it our business to design advanced products to help you boost your productivity.

www.araymond.com



Plastic fastener encapsulating RFID chips



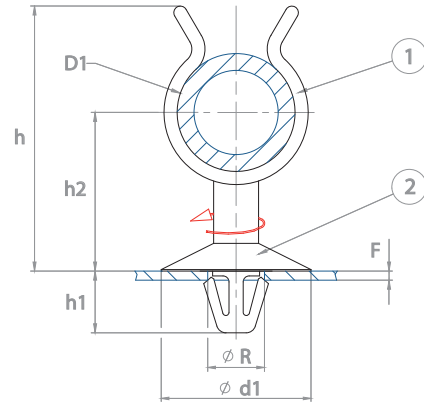
RFID chips



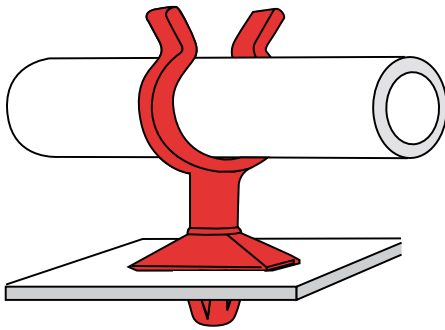
Plastic fastener with integral RFID chip for road network maintenance

Plug in Cable Clips

Swivel/ Single tube



APPLICATION INFORMATION



- To fix one tube/wire to a panel with holes, integrating a swivel system
- With different anchoring systems to suit different hole depths






In Panel
holes

Plug in Cable Clips

Swivel/ Single tube

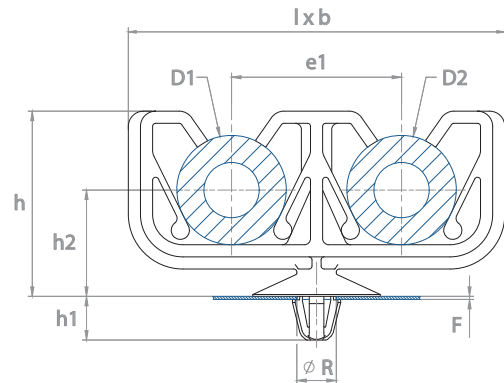
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (Ø D1) | Hole diameter (ØR) | Base diameter (Ød1) | Height (h) | Depth (h1) | Tube height (h2) | Material* | Carton quantity |
|------------|---|---------------------|----------------------|--------------------|---------------------|------------|------------|------------------|----------------|-----------------|
| 081790000 |  | 0,8-6 | 6-6,5 | 6,5 | 20 | 21,4 | 10,5 | 14,4 | POM-BI | 10 000 |
| 081442000 | | 0,8-6 | 18-20 | 6,5 | 20,5 | 36,3 | 10,3 | 22,3 | POM-BI | 3 000 |
| 081474001 | | 0,8-6 | 25-27 | 6,5 | 20 | 44,9 | 10,5 | 25,4 | POM-BI | 3 000 |
| 081580000 |  | 0,5-3 | 7,2-7,5 | 6,5 | 21 | 23,8 | 6,8 | 16,8 | POM-BI/PA66-BI | 1 000 |
| 081418000 | | 0,5-3 | 13-14 | 6,5 | 21 | 32,2 | 6,8 | 20,2 | POM-BI/PA6-BI | 5 000 |
| 081471000 | | 0,5-3 | 16-18 | 6,5 | 21 | 35,2 | 6,8 | 21,7 | PA66-BI | 800 |
| 081794000 | | 0,7-2 | 35-38 | 6,5 | 20 | 57,5 | 6,5 | 31,5 | POM-BI | 2 000 |
| 205951000 | | 0,8-2 | 10-12 | 6,5 | 20 | 28 | 6,5 | - | POM-BI | 4 000 |
| 081624000 | | 0,8-2 | 28-30 | 6,5 | 20 | 51 | 6,5 | 28,5 | POM-BI | 400 |
| 061240000 | | 0,8-2 | 29-33 | 6,5 | 20 | 51,4 | 6,5 | 27,2 | POM-BI | 800 |
| 082131000 |  | 0,8-2 | 34-36 | 6,5 | 20 | 56,9 | 6,5 | 30,9 | POM-BI | 550 |

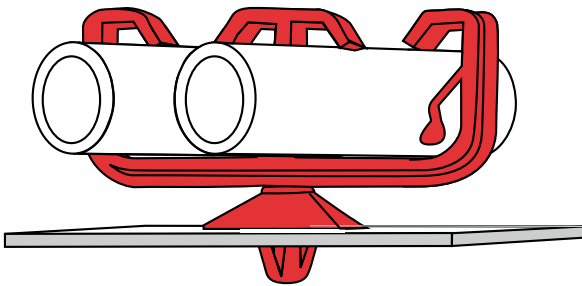
* For material description see the flap at the end of the catalog

Plug in Cable Clips

Standard/ Double tube



APPLICATION INFORMATION



- To fix two tubes/wires on a panel with holes
- With different anchoring systems to suit different hole depths
- Available also with swivel system (see ranges on the following page)



In Panel holes

Plug in Cable Clips

Standard/ Double tube

All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (ØD1 & D2) | Hole diameter (ØR) | Distance (e1) | Length x Width (lxb) | Height (h) | Depth (h1) | Tube height (h2) | Material* | Carton quantity |
|------------|--------|---------------------|--------------------------|--------------------------------------|---------------|----------------------|------------|------------|------------------|-----------|-----------------|
| 017363000 | | 0,5-3 | x2 (16-18) | 6,5 | 28 | 62x12 | 31 | 6,7 | 18 | POM-BI | 450 |
| 129597000 | | 0,5-6 | x2 (9-10,5) | 6,2-6,55 | 16 | 39,15x21 | 26,25 | 9,9 | 17,5 | PA6-BI | 500 |
| 055766000 | | 0,7-2 | x2 (10-14) | 6,2x8,2 *hole with specific shape | 20 | 20,5x12 | 30,4 | 6,10 | 15,40 | PA66-BI | 1 000 |
| 201143000 | | 0,7-2 | x2 (13,5) | 6,5 | 21 | 40x18 | 23 | 8,5 | 11 | POM-BI | 500 |
| 016608002 | | 0,8-4 | x2 (4-6) | 6,5 | 8,5 | 18,5x10 | 12,4 | 9,3 | 7,2 | PA6-BI | 2 000 |

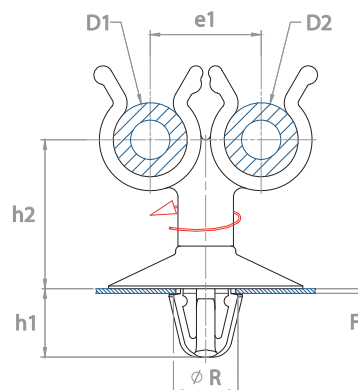
* For material description see the flap at the end of the catalog



In Panel
holes

Plug in Cable Clips

Swivel/ Double tube

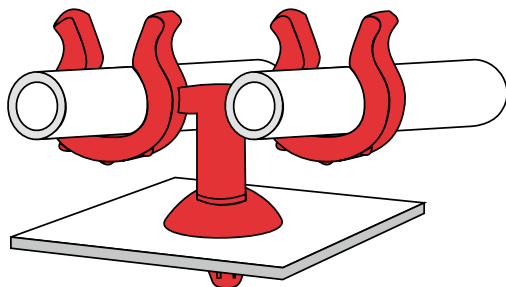


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Tube diameter (ØD1 & D2) | Hole diameter (ØR) | Distance (e1) | Base diameter (Ød1) | Depth (h1) | Tube height (h2) | Material* | Carton quantity |
|------------|---------------------|--------------------------|--------------------|---------------|---------------------|------------|------------------|---------------|-----------------|
| 082420000 | 0,5-3 | x2 (6) | 6,5 | 14 | 21 | 6,8 | 16,7 | PA66-BI | 3 500 |
| 081898000 | 0,5-3 | x2 (8-9) | 6,5 | 12 | 21 | 6,8 | 16,7 | PA66-BI | 4 000 |
| 081873000 | 0,5-3 | x2 (13-14) | 6,5 | 19 | 21 | 6,8 | 17,2 | PA6-BI/POM-BI | 2 500 |
| 082258001 | 0,5-3 | x2 (16-17) | 6,5 | 22 | 21 | 6,8 | 17,2 | PA66-BI | 2 000 |
| 082351000 | 0,5-3 | x2 (25-27) | 6,5 | 32 | 21 | 6,8 | 21,7 | PA66-BI | 2 200 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix two tubes/wires to a panel with holes, integrating a swivel system

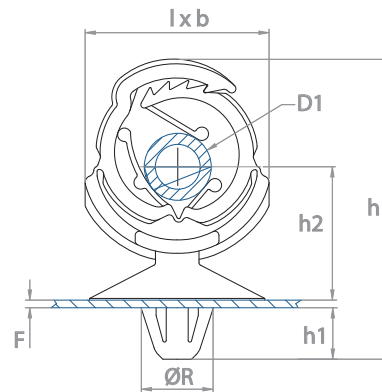
A specific need ? Contact us, p.122



In Panel
holes

Plug in Cable Clips

Universal

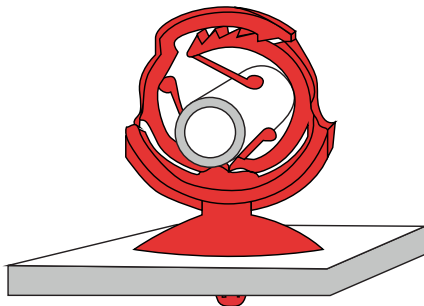


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Tube diameter (ØD1) | Hole diameter (ØR) | Length x Width (lxb) | Height (h) | Depth (h1) | Tube height (h2) | Material* | Carton quantity |
|------------|---------------------|---------------------|--------------------|----------------------|------------|------------|------------------|-----------|-----------------|
| 055286007 | 0,5-2 | 6-12 | 6,35-6,7 | 24x18 | 37,1 | 6,7 | 13-20 | PA66-BI | 1 000 |
| 055473000 | 0,5-3 | 11-18 | 6,35-6,7 | 32x20 | 48,5 | 6,7 | 21-27 | PPC-BI | 900 |
| 132029000 | 0,7-3 | 3-16 | 6,7 | 22,6x10 | 44,6 | 5,7 | - | PPC-BI | 800 |
| 054283001 | 0,7-3 | 17-24 | 6,3-6,7 | 34x10 | 55,5 | 6,7 | 21-28 | PPC-BI | 1 250 |

*For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix one tube/wire to a panel with holes
- Self-adaptable: suitable for a wide range of tube/ wire diameters
- Self-locking: the clip locks when the tube is installed

COMPLEMENTARY PRODUCTS



Edge Mounting
Adapters
p. 57



Edge Mounting
Adapters
p. 58

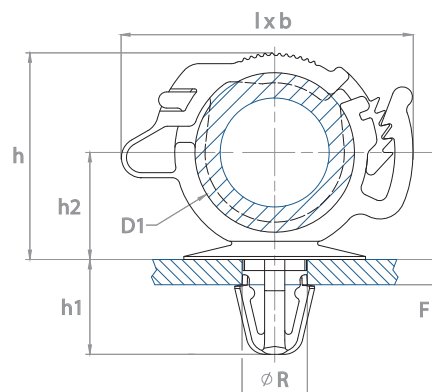
A specific need ? Contact us, p.122



In Panel
holes

Plug in Cable Clips

Manual locking

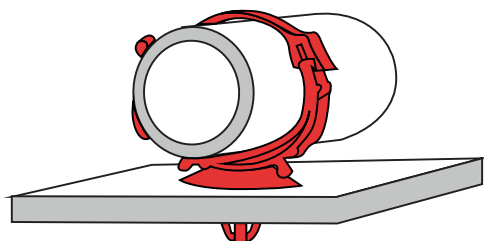


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (ØD1) | Hole diameter (ØR) | Length x Width (lxb) | Height (h) | Depth (h1) | Tube height (h2) | Material* | Carton quantity |
|------------|--------|---------------------|---------------------|--------------------|----------------------|------------|------------|------------------|-----------|-----------------|
| 017521000 | | 0,8-2,5 | 20,6-21,4 | 6,5-6,7 | 31x20 | 28 | 8,4 | 13,2-14,9 | PA66-BI | 500 |
| 017529000 | | 0,8-2,5 | 25,1-25,9 | 6,5-6,7 | 37x20 | 32,5 | 8,4 | 15,45-17,15 | PA66-BI | 1 500 |
| 020726000 | | 0,8-2,5 | 33-35 | 6,5-6,7 | 45,3x20 | 40,5 | 7 | 23,2-24,9 | PA66-BI | 300 |
| 018890000 | | 2,5 | 15,5-16,1 | 6,5-6,7 | 25,5x20 | 20,5 | 9,3 | 11 | PA66-BI | 750 |
| 017098000 | | 0,8-6 | 16-18,5 | 6,5 | 20x10 | 34,2 | 10,5 | 15,8 | PA6-BI | 600 |
| 204496000 | | 0,8-6 | 22,6-23,4 | 6,5-6,7 | 34,4x20 | 29,4 | 12,75 | 16,1 | PA66-BI | 450 |
| 019778000 | | 1-6 | 25,1-25,9 | 6,5-6,7 | 37,5x20 | 31 | 10,5 | 16,55 | PA66-BI | 400 |
| 017482000 | | 1-6 | 6,8-7,4 | 6,5-6,7 | 15x10 | 10 | 10,4 | 5,7 | PA66-BI | 4 000 |
| 017713000 | | 1-6 | 9,6-10,2 | 6,5-6,7 | 15x15 | 17 | 10,5 | 10,15 | PA66-BI | 6 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix one tube/wire to a panel with holes
- With different anchoring systems to suit different hole depths
- With an adjustable locking hood

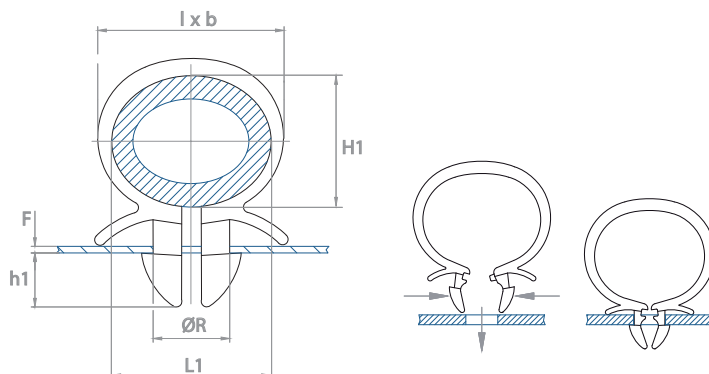
A specific need ? Contact us, p.122





In Panel
holes

Plug in Cable Clips

Omega clips

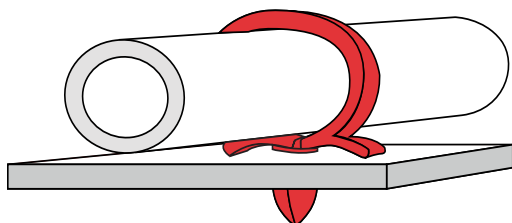


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (L1xH1) | Hole diameter (ØR) | Length x Width (lxb) | Depth (h1) | Material* | Carton quantity |
|------------|---|---------------------|-----------------------|--------------------|----------------------|------------|-----------|-----------------|
| 054170000 |  Standard | 0,5-3 | 16,8x13,5 | 6,5-6,7 | 21x8 | 4,9 | PA66-BI | 2 300 |
| 053163007 | | 0,7-2 | 16,8x13,5 | 6,5-6,7 | 17,5x8 | 5 | PA6-BI | 7 500 |
| 053164001 | | 0,7-2 | 10,8x8,2 | 6,5-6,7 | 13,8x8 | 5 | PA6-BI | 2 900 |
| 053490001 | | 0,7-2 | 25x22 | 6,5-6,7 | 30,5x8 | 5 | PP-BI | 1 900 |
| 015181001 | | 1-3 | 8x6 | 6,5 | 12,5x8 | 4 | PA66-BI | 4 500 |
| 014075001 | | 1-3 | 16,8x13,5 | 6,5 | 22x8 | 4,9 | PA66-BI | 1 500 |
| 015008000 | | 1,5-3 | 15,8x8,6 | 6,5 | 20,8x8 | 4,7 | PA66-BI | 2 500 |
| 015270001 | | 2,7-4 | 10,8x7,8 | 6,5 | 15,25x8 | 4,7 | PA6-BI | 2 500 |
| 014767000 |  Multi-diameter | 0,7-3 | 18x20,7 | 6,5-6,7 | 21,6x24 | 4,7 | PA6-BI | 1 400 |

*For material description see the flap at the end of the catalog

APPLICATION INFORMATION

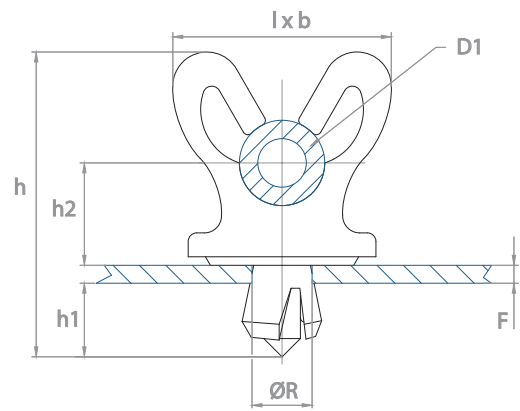


- To fix one tube/wire to a panel with holes
- Positioned first around the tube/ wire before pushing clip foot into the panel hole

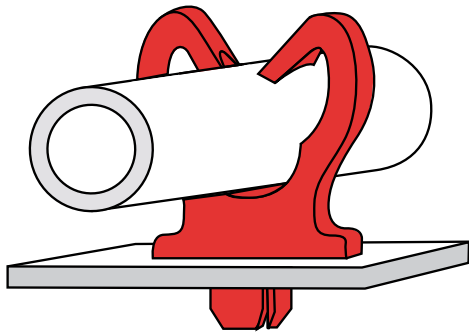
A specific need ? Contact us, p.122

Push Pin Clips

Single cable



APPLICATION INFORMATION



- To fix one tube/wire to a panel with holes
- With a pre-assembled rivet system
- High pull out resistance



In Panel
holes

Push Pin Clips

Single cable

All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (ØD1) | Hole diameter (ØR) | Length x Width (lxb) | Height (h) | Depth (h1) | Tube height (h2) | Material* | Carton quantity |
|------------|--------|---------------------|---------------------|--------------------|----------------------|------------|------------|------------------|-----------|-----------------|
| 063274001 | | 0,5-3 | 4,8 | 6,5 | 14x12 | 18,4 | 9,9-12,4 | 5,5 | PA66-Na | 2 400 |
| 064697001 | | 0,5-4 | 4,8-6 | 6,5 | 12,8x12 | 22,5 | 6,5-10 | 5,5 | POM-BI | 2 200 |
| 063571008 | | 0,5-4 | 8-10 | 6,5 | 17x14 | 26,5 | 3,5-7 | 9 | PA6-BI | 1 000 |
| 063350001 | | 0,5-4 | 12,3-15 | 6,5 | 19x15 | 30 | 3,5-7 | 12 | PA6-BI | 1 200 |
| 055154001 | | 0,5-4 | 17-19 | 6,5 | 22x22 | 31,5 | 3,5-7 | 14 | PA66-BI | 750 |
| 064894001 | | 0,7-4 | 6,5-6,8 | 6,5 | 10x10 | 18,5 | 3,5-6,8 | 5,5 | PA6-BI | 1 900 |
| 056654001 | | 0,75-2,5 | 24-26 | 7,1 | 31x13,5 | 34 | 5-6,75 | 16 | POM-BI | 1 500 |
| 064266001 | | 0,5-4 | 4,8-8 | 6,6 | 20x20 | 26 | 3,5-7 | 9,3 | POM-BI | 500 |

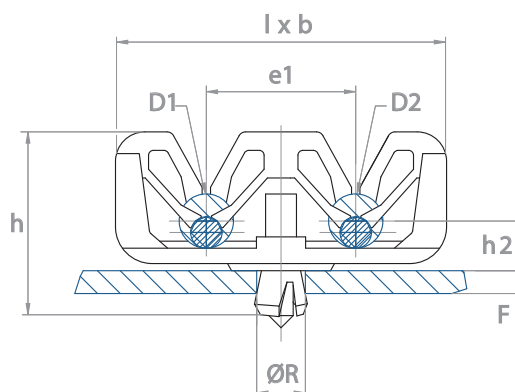
* For material description see the flap at the end of the catalog



In Panel
holes

Push Pin Clips

Multi cables

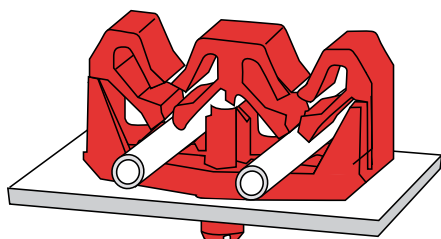


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Number of tubes | Panel thickness (F) | Tube diameter (ØD1 & D2 (& D3)) | Hole diameter (ØR) | Length x Width (lxb) | Height (h) | Distance (e1) | Tube height (h2) | Material* | Carton quantity |
|------------|--------|-----------------|---------------------|---------------------------------|--------------------|----------------------|------------|---------------|------------------|-----------|-----------------|
| 064262000 | | 2 | 0,5-2,5 | x2 (4,8-10) | 6,6 | 45x20 | 30 | 20 | 8,5 | POM-BI | 1 200 |
| 064967000 | | 3 | 0,5-4 | x3 (4,8-8) | 6,6 | 50,6x20 | 26 | 15,5 | 9,4 | PA66-BI | 1 000 |
| 055297000 | | 2 | 0,5-4 | x2 (13-15) | 6,6 | 38x20 | 31,5 | 19 | 12 | PA66-BI | 500 |
| 061357001 | | 3 | 0,7-2,5 | x3 (13-15) | 6,5 | 57x12 | 36 | 19,5 | 17 | PA12-BI | 400 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix two or three tubes/wires to a panel with holes
- With a pre-assembled rivet system
- High pull out resistance

A specific need ? Contact us, p.122

Bi-injection assembly

- *Do you want a sliding assembly?*
- *Absorb tube vibrations?*
- *Save assembly time?*
- *Make procurement simpler?*

For the adjustment of panel mounted components, we use a part with two components that slide on one another. To produce the part, we inject two types of polyamides that don't adhere to each other.

With our expertise in bi-injection technology, we can produce an all-in-one part that would normally have to be assembled. You only order and fit a single part, which save assembly time and mean simpler procurement for you.

To absorb equipment vibrations, we have designed a push-fit part with anti-vibration rubber. It consists of two reopenable locking caps to allow the tubes to be easily installed. With just a few well-placed injection points, the anti-vibration rubber is spread evenly through the many channels of this complex design.

Since the company was founded, nearly 150 years ago, our development has been shaped by innovations, from the press-stud to plastic injection moulding. Today, we spend 6% of our turnover on R&D, 3% on staff training, and we have 22 production sites world-wide. We make it our business to design advanced products to help you boost your productivity.



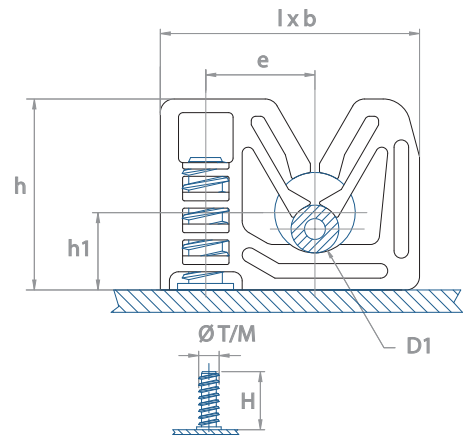
Bi-injection with sliding effect to save assembly time



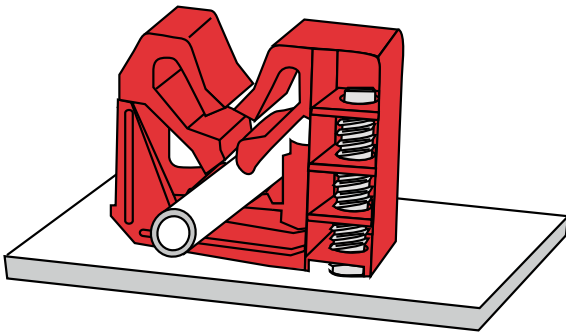
Push-fit part with anti-vibration rubber

Stud Cable Clips

Single cable



APPLICATION INFORMATION



- To fix one tube/wire to a panel with metric studs
- To be pushed onto a stud

ALTERNATIVE PRODUCTS



Stud Mounting
Cable Ties
p. 17

A specific need ? Contact us, p.122



On Studs

Stud Cable Clips

Single cable

All dimensions in mm, angles in ° / Other dimensions and variants on request

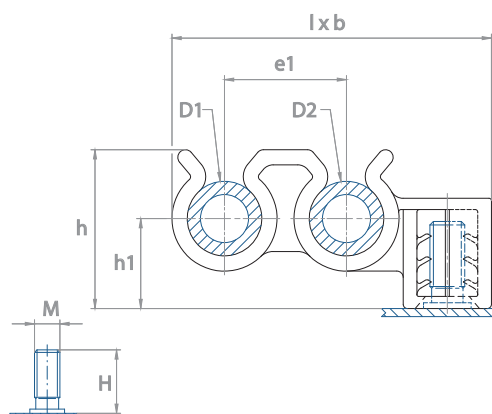
| References | Design | Stud size (ØTxH) | Tube diameter (ØD1) | Length x Width (lxb) | Tube height (h1) | Distance (e) | Height (h) | Material* | Carton quantity |
|------------|--------|------------------|---------------------|----------------------|------------------|--------------|------------|-----------|-----------------|
| 054799001 | | M6x(14-19) | 4,8-6 | 28,5x10 | 6,5-10 | 12 | 21 | POM-BI | 1 500 |
| 206941000 | | M6x18 | 10 | 29,5x10 | 9 | 12,5 | 21,5 | POM-BI | 1 700 |
| 055999000 | | M8 | 6-8 | 31,25x16 | 7-9 | 15 | 18 | PA66-BI | 600 |
| 108060003 | | M6 | 5-8 | 25x10 | 12 | 13,5 | 20,5 | PA66-BI | 2 000 |
| 016547000 | | M8x18 | 10-12 | 32,5x12,5 | 12,5 | 18 | 26,5 | POM-BI | 1 300 |
| 056081000 | | M6 | 12-16 | 51x39 | 33,4 | 23,35 | 37 | PA6-BI | 380 |
| 055689001 | | M6 | 15-19 | 53x12 | 9 | 31 | 25 | PA6-BI | 500 |
| 108233000 | | M6 | 14,5-16,5 | 34,5x10 | 9 | 15,5 | 20 | PA66-BI | 3 000 |

* For material description see the flap at the end of the catalog



Stud Cable Clips

Double cables

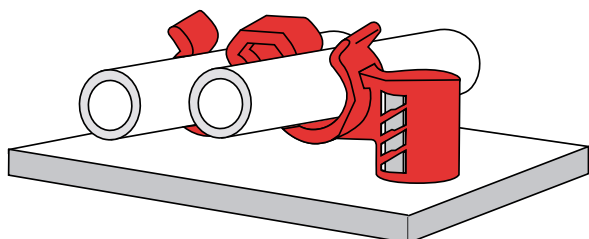


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Stud size (MxH) | Tube diameter (Ø D1&D2) | Length x Width (lxb) | Tube height (h1) | Distance (e1) | Height (h) | Material* | Carton quantity |
|------------|--------|-----------------|-------------------------|----------------------|------------------|---------------|------------|-----------|-----------------|
| 055465001 | | M6x(7-10) | x2 (16-18) | 41x21,5 | 21,7 | 21 | 31,5 | POM-BI | 700 |
| 200439000 | | M6x14 | x2 (10) | 42,5x12 | 13 | 16 | 22 | PA66-BI | 700 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix two tubes/wires to a panel with metric studs
- To be pushed onto a stud

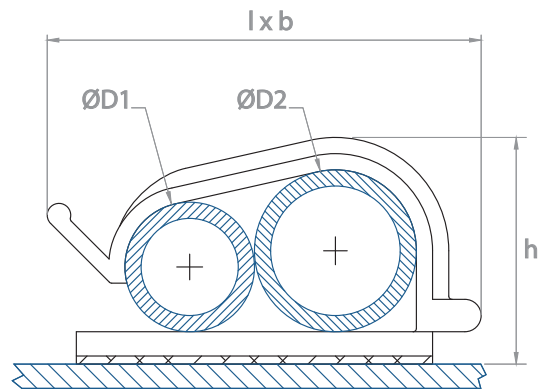
A specific need ? Contact us, p.122



On flat surfaces

Adhesive Cable Clips

Plastic
Cable Clips

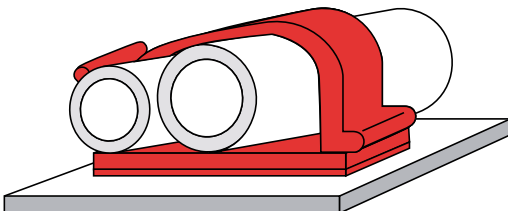


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Tube diameter (Ø D1 / Ø D2) | Length x Width (lxb) | Height (h) | Material* | Carton quantity |
|------------|--------|-----------------------------|----------------------|------------|------------|-----------------|
| 060988001 | | 6-12 | 25x25 | 27 | AD/PP-BI | 700 |
| 108011000 | | 8/10 | 27x22 | 15 | AD/PA66-BI | 4 500 |

* For material description see the flap at the end of the catalog

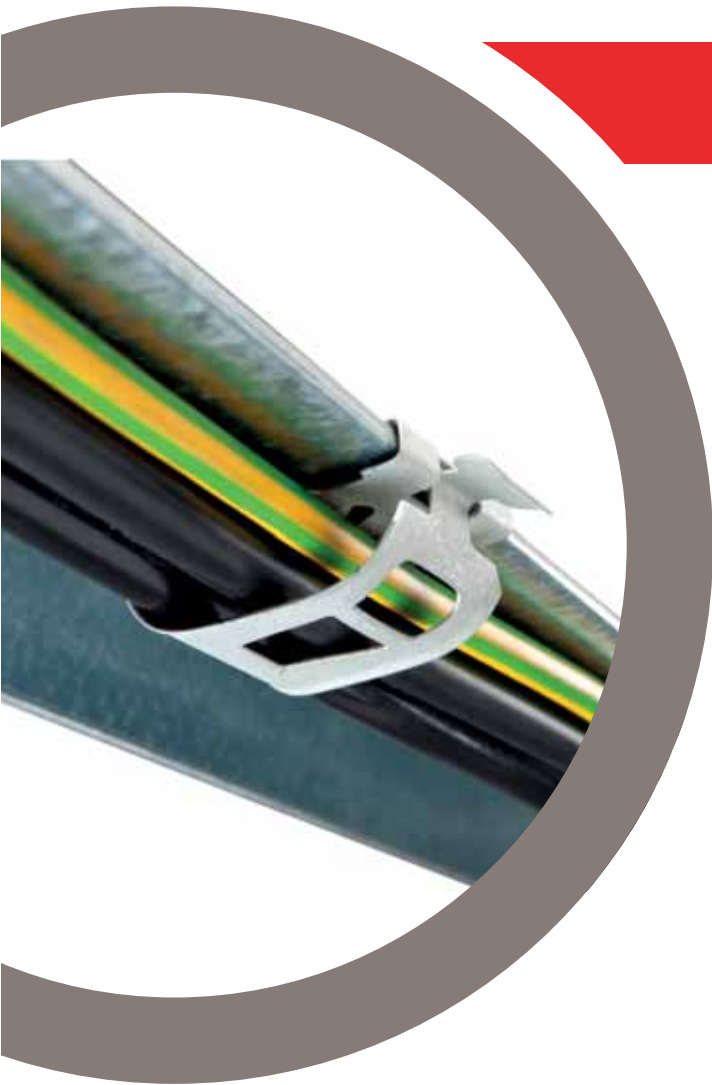
APPLICATION INFORMATION



- To fix one or several tubes/wires to a panel flat surface
- With pre-assembled high quality adhesive tape
- Ensure surface is dry and clean, remove the protective film and position the clip

A specific need ? Contact us, p.122

Assembling Metal Cable Clips



On Panel edges

Cable Edge Clips



Single standard



p.44



Single with rolled edge



p.45



Double with rolled edge



p.46



Universal



p.47



In Panel holes

Cable Clips Screw Fixed



V shape



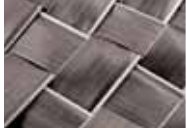
p.48



P shape



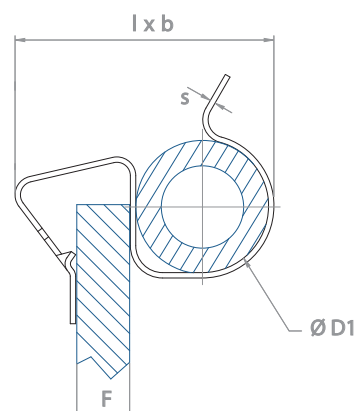
p.50



On Panel
edges

Cable Edge Clips

Single standard

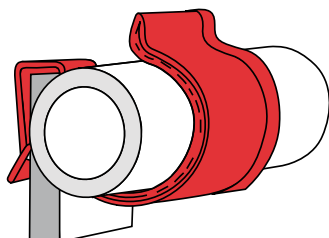


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Tube diameter (ØD1) | Length x Width (lxb) | Material thickness (s) | Material* | Carton quantity |
|------------|---------------------|---------------------|----------------------|------------------------|-----------|-----------------|
| 055127005 | 2-7 | 6-9 | 17,2x12 | 0,6 | CS-ZnCR3 | 3 000 |
| 055129001 | 2-7 | 10-14 | 17,2x12 | 0,6 | CS-ZnCR3 | 2 500 |
| 055131013 | 2-7 | 15-21 | 17,2x12 | 0,6 | CS-ZnCR3 | 2 500 |
| 055133001 | 2-7 | 22-32 | 17,2x12 | 0,6 | CS-ZnCR3 | 2 000 |
| 055128001 | 7-12 | 6-9 | 21,4x12 | 0,6 | CS-ZnCR3 | 2 500 |
| 055130001 | 7-12 | 10-14 | 21,4x12 | 0,6 | CS-ZnCR3 | 2 000 |
| 055132001 | 7-12 | 15-21 | 21,4x12 | 0,6 | CS-ZnCR3 | 2 000 |
| 055134001 | 7-12 | 22-32 | 21,4x12 | 0,6 | CS-ZnCR3 | 1 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix one tube along a panel edge
- Spring steel: to be installed by hand, or gently with a hammer
- Instant application achieved with the barb design

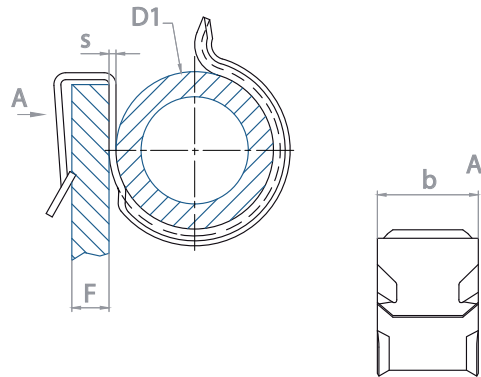
A specific need ? Contact us, p.122



On Panel
edges

Cable Edge Clips

Single with rolled edge

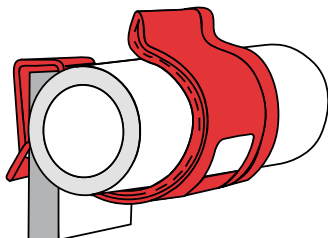


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Tube diameter (ØD1) | Width (b) | Material thickness (s) | Material* | Carton quantity |
|------------|---------------------|---------------------|-----------|------------------------|------------|-----------------|
| 018415002 | 0,7-1,2 | 13 | 15 | 0,4 | CS-M2.2 | 2 000 |
| 014277005 | 0,7-1,4 | 8-9 | 12,75 | 0,4 | CS-ZnCR3 | 4 000 |
| 052674007 | 0,7-2,1 | 10 | 14 | 0,4 | CS-ZnNi | 3 100 |
| 020525001 | 0,8-1,5 | 14-19 | 15 | 0,4 | CS-M2.2-BI | 1 100 |
| 011936004 | 1-1,5 | 12 | 18 | 0,4 | CS-M2.2-BI | 1 700 |
| 018348005 | 2-2,5 | 14 | 15 | 0,4 | CS-ZnCR3 | 1 400 |
| 200504001 | 2-3,5 | 14,3 | 13 | 0,4 | CS-M3.0 | 2 000 |
| 018529001 | 3,5-4 | 15 | 15 | 0,4 | CS-M2.2-BI | 1 400 |

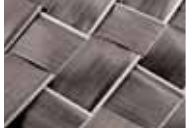
* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix one tube/wire along a panel edge
- Spring steel: to be installed by hand, or gently with a hammer
- Instant application achieved with the barb design
- With rolled edge to prevent damage to the sheath when pulling wires

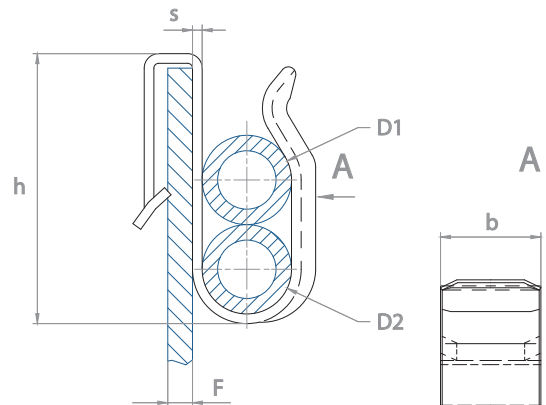
A specific need ? Contact us, p.122



On Panel
edges

Cable Edge Clips

Double with rolled edge

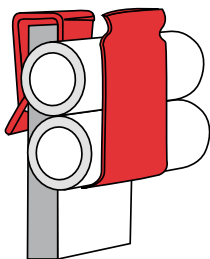


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (ØD1) | Tube diameter 2 (ØD2) | Height (h) | Width (b) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|---------------------|-----------------------|------------|-----------|------------------------|-----------|-----------------|
| 013475003 | | 0,75-1 | 5 | 5 | 13 | 13 | 0,4 | CS-ZnCr3 | 4 500 |
| 012744001 | | 0,75-1,25 | 6 | 6 | 13,7 | 15 | 0,4 | CS-ZnCR3 | 3 000 |
| 011289005 | | 1,5-2 | 4 | 4 | 13 | 13 | 0,4 | CS-ZnCR3 | 4 000 |
| 013493004 | | 2 | 12 | 12 | 24 | 18 | 0,5 | CS-ZnCR3 | 800 |
| 012247006 | | 2-2,5 | 5 | 5 | 15 | 15 | 0,4 | CS-ZnCR3 | 3 000 |
| 014173003 | | 3,25-4,2 | 5,8-6,2 | 5,8-6,2 | 13 | 15 | 0,4 | CS-M2.0 | 2 000 |
| 211723000 | | 0,7-2 | 3-5 | 3-5 | 19,91 | 12,7 | 0,5 | CS-ZnCR3 | 2 000 |
| 018551002 | | 3-6 | 7 | 7 | 18,5 | 18 | 0,4 | CS-M2.1 | 1 600 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix two tubes/wires along a panel edge
- Spring steel: to be installed by hand, or gently with a hammer
- Instant application achieved with the barb design
- With rolled edge to prevent damage to the sheath when pulling wires

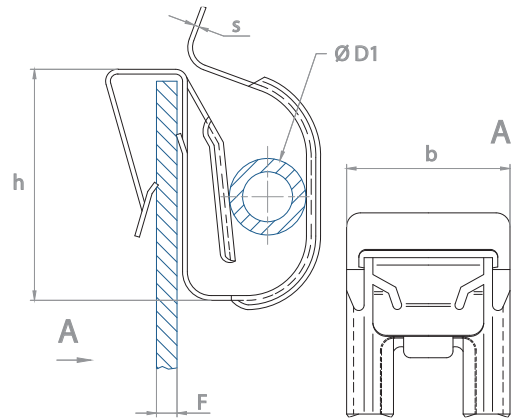
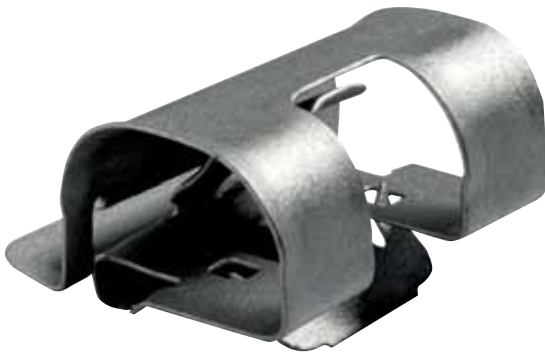
A specific need ? Contact us, p.122



On Panel
edges

Cable Edge Clips

Universal

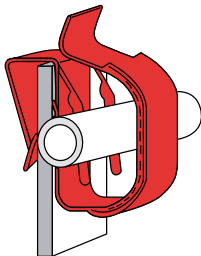


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (ØD1) | Height (h) | Width (b) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|---------------------|------------|-----------|------------------------|-----------|-----------------|
| 052495005 | | 0,5-4,5 | 8-12 | 14,5 | 15 | 0,4 | CS-ZnNi | 2 300 |
| 151177005 | | 0,7-3,5 | 4-7 | 14 | 15 | 0,4 | CS-M2.2 | 1 000 |
| 053810006 | | 0,8-2 | 3,5-6,5 | 17 | 15 | 0,4 | CS-ZnCR3 | 2 400 |
| 228187001 | | 1,5-2,5 | 15-16/8-9 | 26,5 | 24 | 0,4 | CS-M2.2 | 600 |
| 018690003 | | 0,8-3 | 4,5-10 | 19 | 24 | 0,4 | CS-M2.2 | 700 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION

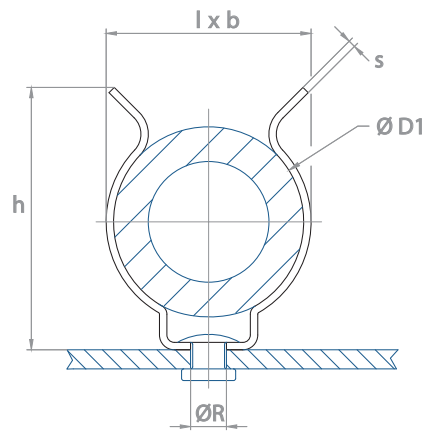


- To fix one or more tubes/wires of various diameters along a panel edge
- Spring steel: to be installed by hand, or gently with a hammer
- Instant application achieved with the barb design
- With rolled edge to prevent damage to the sheath when pulling wires

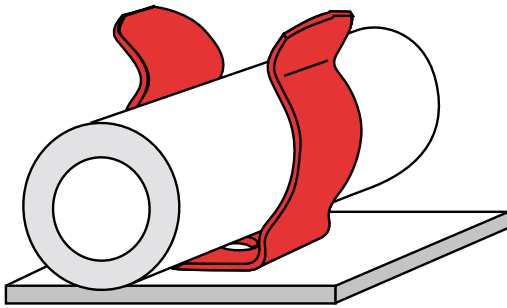
A specific need ? Contact us, p.122

Cable Clips Screw Fixed

V shape



APPLICATION INFORMATION



- To fix one tube to a panel
- To screw or rivet into a panel hole








In Panel
holes

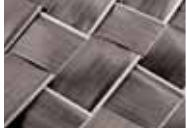
Cable Clips Screw Fixed

V shape

All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Tube diameter (Ø D1) | Hole diameter (Ø R) | Length x Width (lxb) | Height (h) | Material thickness (s) | Material* | Carton quantity |
|------------|---|----------------------|---------------------|----------------------|------------|------------------------|-----------------|-----------------|
| 053133010 |  | 7,5-8,5 | 3,5 | 9,3x16 | 11,5 | 0,4 | CS-M2.1 | 6 000 |
| 053133005 | | 7,5-8,5 | 3,5 | 9,3x16 | 11,5 | 0,4 | CS-ZnNi | 6 000 |
| 051964003 | | 13-16 | 5,0 | 13,7x20 | 19,7 | 0,6 | CS-ZnNi | 3 000 |
| 051963004 | | 17-20 | 5,0 | 16,7x20 | 23,5 | 0,6 | CS-ZnCR3 | 1 800 |
| 051955017 | | 21-25 | 5,0 | 21,2x20 | 27,1 | 0,6 | CS-ZnNi | 1 500 |
| 051955021 | | 21-25 | 5,0 | 21,2x20 | 27,1 | 0,6 | CS-ZnCR3/PVC-BI | 1 500 |
| 052244001 | | 26-30 | 5,0 | 26,2x20 | 32,6 | 0,6 | CS-Zn | 1 200 |
| 052245001 | | 31-36 | 5,0 | 30,6x20 | 38,5 | 0,6 | CS-ZnNi | 1 000 |
| 054500003 | | 31-36 | 6,0 | 32,6x11 | 35,3 | 0,8 | CS-M2.2-BI | 2 000 |
| 054136006 | | 35-40 | 5,2 | 35x17,5 | 46 | 1 | CS-ZnNi | 900 |
| 054436007 |  | 10-12 | 3,5 | 12,5x20 | 16 | 0,4 | CS-M2.1 | 1 200 |
| 054631004 | | 21-25 | 5,0 | 22x20 | 27 | 0,6 | CS-ZnNi | 1 500 |
| 052466005 |  | 9-10 | 3,5 | 10,2x15 | 12,5 | 0,6 | CS-ZnNi | 4 000 |
| 053901011 |  | 43-50 | 6,3 | 41x20 | 56 | 1 | CS-ZnCR3 | 750 |
| 053901016 | | 43-50 | 6,3 | 41x20 | 56 | 1 | CS-ZnNi/PVC-BI | 360 |
| 053934007 |  | 55-58 | 6,3 | 53x17,5 | 72 | 1 | CS-ZnNi | 400 |

* For material description see the flap at the end of the catalog

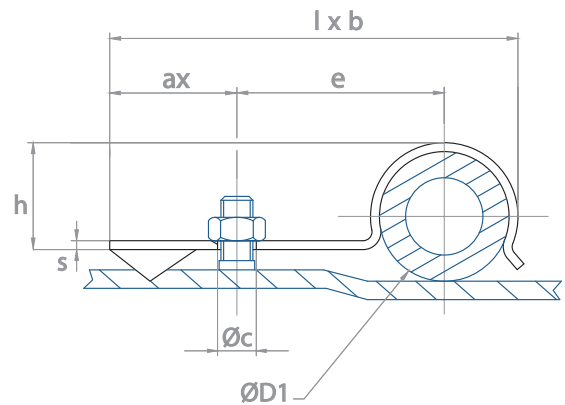


In Panel
holes

Cable Clips Screw Fixed

P shape

Metal Cable
Clips

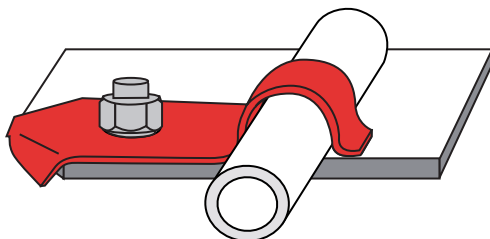


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Tube diameter (Ø D1) | Hole diameter (Ø c) | Distance (e) | Length x Width (lxb) | Height (h) | Distance 2 (ax) | Material thickness (s) | Material* | Carton quantity |
|------------|----------------------|---------------------|--------------|----------------------|------------|-----------------|------------------------|-----------|-----------------|
| 052544000 | 7 | 5,5 | 15 | 33,4x20 | 7,5 | 12,0 | 0,6 | CS-ZnCR3 | 3 000 |
| 052540000 | 12-13 | 5,5 | 15,2 | 35x20 | 9,5 | 12,0 | 0,6 | CS-ZnCR3 | 4 000 |
| 054749003 | 14-16 | 6,5 | 16 | 37,5x20 | 12,1 | 12,0 | 0,6 | CS-ZnCR3 | 1 800 |
| 054116005 | 16 | 8,5 | 19,5 | 60x20 | 15,9 | 9,2 | 0,6 | CS-ZnCR3 | 1 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix one tube to a panel
- To screw or rivet into a panel hole
- With an anti-rotation tab
- Can be positioned anywhere on soft panels (wood) as anti-rotation tab penetrate material whilst screwing
- to position on the sides or corners of hard (metal) panels (for anti-rotation tabs)
- Also available with a push on stud system instead of a hole, contact us

A specific need ? Contact us, p.122

Assembling Adapters for Cable Clips & Ties



In Panel holes

Plug in Adapters



For cable ties



p.54



On Panel edges

Edge Mounting Adapters



For cable ties



p.55



Universal clip



p.56



For cable clips / 0°



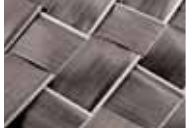
p.57



For cable clips / 90°



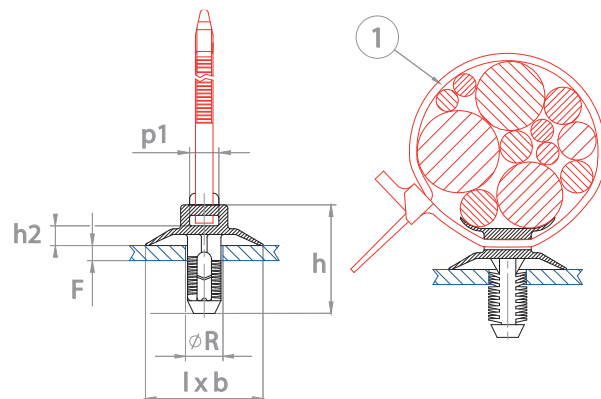
p.58



In Panel
holes

Plug in Adapters

For cable ties

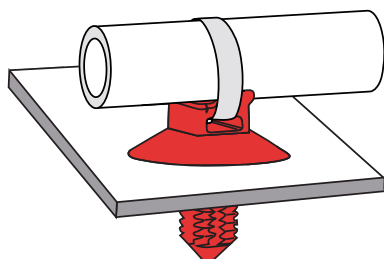


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Hole diameter (ØR) | Cable strap width (p1) | Length x Width (lxb) | Height (h) | Height 2 (h2) | Material* | Carton quantity |
|------------|--------|---------------------|--------------------|------------------------|----------------------|------------|---------------|-----------|-----------------|
| 017160001 | | 0,8-10 | 6,5 | 5 | 20x20 | 20 | 3,4 | POM-BI | 3 600 |
| 013888001 | | 4,5-6 | 11,1 | 9,2 | 18x18 | 27,5 | 8,5 | PA66-BI | 1 500 |
| 055969000 | | 0,5-4 | 7,1 | 9,5 | 31x13 | 17,6 | 5,5 | PA66-BI | 600 |
| 014130000 | | 2,5-2,6 | 6,5 | 6,6 | 11x10 | 13,5 | 8,5 | POM-Na | 5 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- Cable tie bases to plug into a panel hole
- To be used with standard or re-openable cable ties
- See also Plug Mounting Cable Ties p.16

ALTERNATIVE PRODUCTS



Plug Mounting
Cable Ties
p. 16

COMPLEMENTARY PRODUCTS



Cable Ties
p. 12



Cable Ties
p. 13

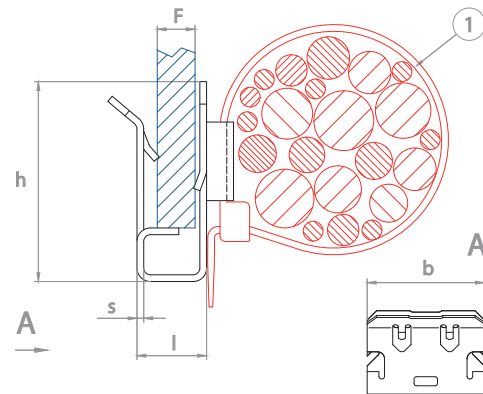
A specific need ? Contact us, p.122



On Panel edges

Edge Mounting Adapters

For cable ties



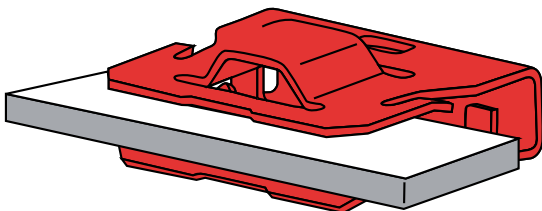
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Length (l) | Width (b) | Height (h) | Cable strap width ① | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|------------|-----------|------------|---------------------|------------------------|------------|-----------------|
| 019752001 | | 0,8-1,2 | 0,8-1,2 | 16 | 15,7 | 5 | 0,5 | CS-M2.2-BI | 4 000 |
| 017890001 | | 1,5-4,5 | 1,5-4,5 | 25 | 17,8 | 5,8 | 0,6 | CS-M2.0 | 1 600 |
| 208738001 | | 1,5-4 | 1,5-4 | 15 | 14,2 | 5 | 0,5 | CS-M2.2 | 4 300 |
| 019408001 | | 1-3 | 18 | 13 | 15,3 | 5 | 0,5 | CS-M2.0 | 2 000 |

* For material description see the flap at the end of the catalog

Adapters for Cable Clips & Ties

APPLICATION INFORMATION



- To be used with standard or re-openable cable tie
- See also, p.15, the product family: Edge Mounting Cable Ties

ALTERNATIVE PRODUCTS



Edge Mounting Cable Ties
p. 15

COMPLEMENTARY PRODUCTS

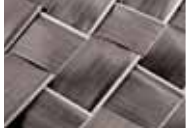


Cable Ties
p. 12



Cable Ties
p. 13

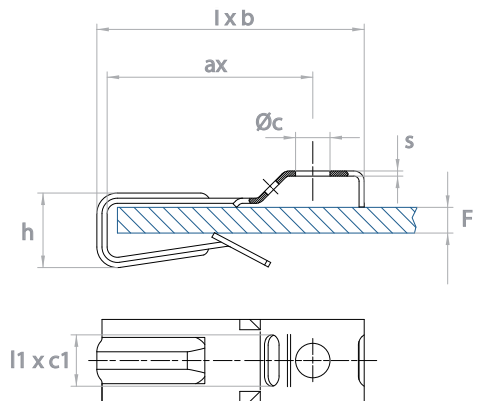
A specific need ? Contact us, p.122



On Panel
edges

Edge Mounting Adapters

Universal



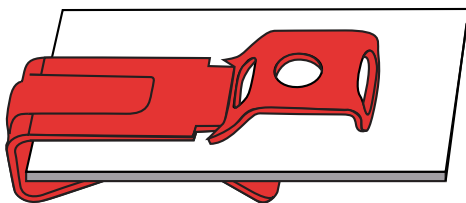
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Hole diameter (Øc) | Hole size (l1xc1) | Hole fastener fitting | Distance (ax) | Height (h) | Length x Width (lxb) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|--------------------|-------------------|-----------------------|---------------|------------|----------------------|------------------------|-----------|-----------------|
| 053748000 | | 3-10 | 6,7 | 10x4 | strap 9mm | 40 | 14,5 | 52x16 | 1 | CS-ZnCR3 | 1 000 |
| 053749000 | | 10-18 | 6,7 | 10x4 | strap 9mm | 40 | 22,5 | 52x16 | 1 | CS-ZnCR3 | 1 000 |
| 203297005 | | 2-8 | 6,6 | 10x9 | Rod M6-M8 | 2,7 | 30 | 28x19 | 0,7 | CS-M2.0 | 1 000 |
| 203697005 | | 8-16 | 6,6 | 10x9 | Rod M6-M8 | 2,7 | 38 | 30x19 | 0,7 | CS-M2.0 | 800 |

Tiger clip®

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- Multi-purpose base to fit onto a panel edge
- To install by hand or softly with a hammer
- Suitable for cable ties, studs or AR plastic clips for holes Ø6,5-6,7mm
- Instant application achieved with the barb design

COMPLEMENTARY PRODUCTS



Cable Ties
p. 12



Cable Ties
p. 13



Plug in Cable Clips
p. 31

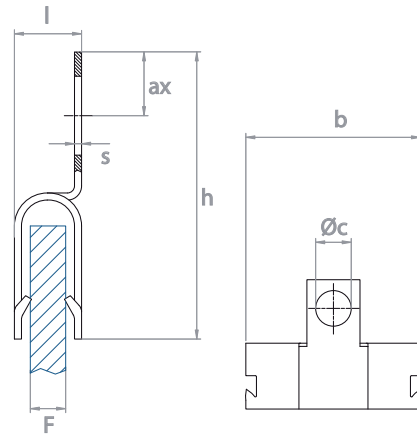
A specific need ? Contact us, p.122



On Panel
edges

Edge Mounting Adapters

For cable clips/ 0°



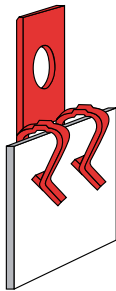
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Hole diameter (Øc) | Length x Width (l.x.b) | Height (h) | Distance (ax) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|--------------------|------------------------|------------|---------------|------------------------|------------|-----------------|
| 054207005 | | 0,7-2 | 6,7 | 5,2x28 | 21 | 8,2 | 0,6 | CS-ZnCR3 | 3 100 |
| 054218008 | | 1,5-3 | 6,7 | 5,2x28 | 21,8 | 8,2 | 0,6 | CS-ZnNi | 1 500 |
| 054026007 | | 3-5 | 6,7 | 6,7x28 | 21 | 7,7 | 0,6 | CS-G500B | 1 500 |
| 054030000 | | 0,5-3 | 6,6 | 4,2x33 | 24,9 | 5,4 | 0,6 | CS-M2.2-BI | 1 500 |

* For material description see the flap at the end of the catalog

Adapters for Cable
Clips & Ties

APPLICATION INFORMATION



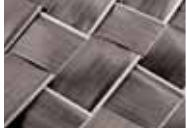
- Cable clip base to fit onto a panel edge
- To install by hand or softly with a hammer
- Suitable for AR plastic clips for holes Ø6,5-6,7mm
- Instant application achieved with the barb design

COMPLEMENTARY PRODUCTS



Plug in Cable Clips
p. 31

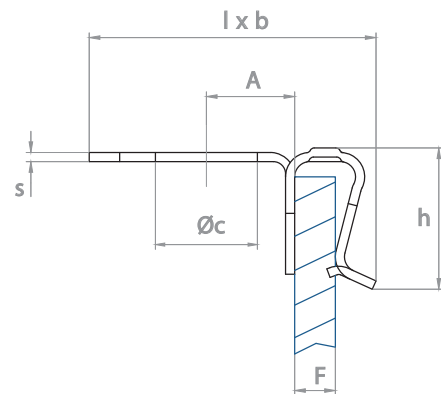
A specific need ? Contact us, p.122



On Panel
edges

Edge Mounting Adapters

For cable clips/ 90°

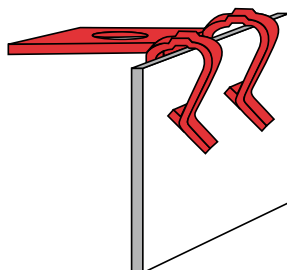


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Hole diameter (Øc) | Length x Width (lxb) | Height (h) | Distance (A) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|--------------------|----------------------|------------|--------------|------------------------|-----------|-----------------|
| 054220004 | | 0,7-2 | 6,6 | 18,1x28 | 9 | 6 | 0,6 | CS-G500A | 1 300 |
| 054219006 | | 1,5-3 | 6,6 | 19,1x28 | 9 | 5,8 | 0,6 | CS-G500B | 1 200 |
| 054025008 | | 3-5 | 6,7 | 19,7x28 | 8 | 6,5 | 0,6 | CS-ZnNi | 1 300 |
| 020305002 | | 3,3-3,7 | 6,25 | 18,8x30 | 12,5 | 6,2 | 0,6 | CS-ZnCR3 | 1 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- Cable clip base to fit onto a panel edge
- To install by hand or softly with a hammer
- Suitable for AR plastic clips for holes Ø6,5-6,7mm
- Instant application achieved with the barb design

COMPLEMENTARY PRODUCTS



Plug in Cable Clips
p. 31

A specific need ? Contact us, p.122

Speeding up the bonding processes

- *Reduce assembly time? Simplify storage?*
- *Avoid waste? Reduce errors?*
- *Improve quality?*

Our Techbond Pur Tab dry adhesive bonding ranges are effective for both integrated manufacturing processes and manual methods. They may be used on steel, aluminium, glass, composite materials and most plastics.

We've developed:

- fast-curing polyurethane adhesives. Assembly time is sharply reduced since the adhesive sets in less than a minute. This also reduces the cost of work in process.
- extremely precise, pre-dosed adhesive tablets which avoid all waste. Available as granules, tablets and pearls.
- even easier application, as the adhesive tablets are tack free; the capsules may be prepositioned.

We've also developed a self-checking pearl dispensing system, to dispense just the right number of pearls, with no location errors or missing pearls.

Since the company was founded, nearly 150 years ago, our development has been shaped by innovations, from the press-stud to plastic injection moulding. Today, we spend 6% of our turnover on R&D, 3% on staff training, and we have 22 production sites world-wide. We make it our business to design advanced products to help you boost your productivity.



Assembling Metal Panel Clips



On Panel edges

Panel Clips



U shape / Barbs on both legs



p.62



U shape/ Barbs on one leg



p.63



S shape/ Barbs on both legs



p.64



Snap on lock



p.65



In Panel holes

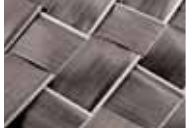
Trim Clips



Standard



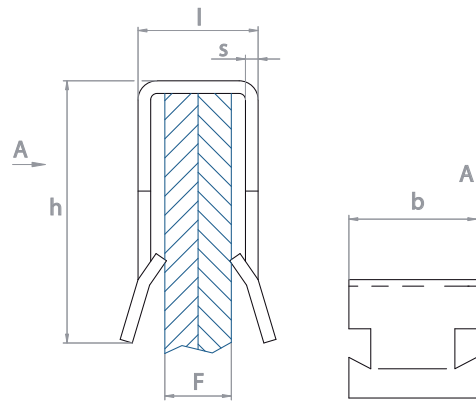
p.66



On Panel
edges

Panel Clips

U shape/ Barbs on both legs

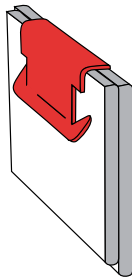


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Length (l) | Width (b) | Height (h) | Material thickness (s) | Material* | Carton quantity |
|------------|---------------------|------------|-----------|------------|------------------------|------------|-----------------|
| 011847004 | 0,75-2 | 2,6 | 13 | 4,7 | 0,3 | CS-ZnCR3 | 13 000 |
| 013031002 | 1-2,2 | 3,75 | 20 | 8,75 | 0,5 | CS-M1.1-BI | 5 700 |
| 054712015 | 1-2,5 | 6,2 | 10 | 9,7 | 0,4 | CS-ZnCR3 | 10 000 |
| 013414006 | 1,5 - 3,5 | 5,1 | 20 | 13 | 0,6 | CS-M2.2-BI | 3 500 |
| 013126004 | 3,5 - 4 | 5 | 20 | 13 | 0,4 | CS-ZnCR3 | 3 000 |
| 053328004 | 4-5 | 5,2 | 13,5 | 8,7 | 0,5 | CS-G500A | 6 000 |
| 136895002 | 6,2-6,5 | 9,1 | 12,7 | 9,77 | 0,36 | CS-Zn | 10 000 |
| 012204009 | 6,9-7,1 | 8 | 15 | 11 | 0,5 | CS-ZnCR3 | 4 000 |

*For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To hold two panels together or a trim piece onto a panel
- With barbs on both sides
- With straight back

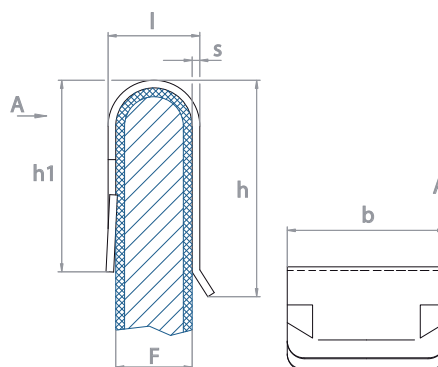
A specific need ? Contact us, p.122



On Panel
edges

Panel Clips

U shape/ Barbs on one leg



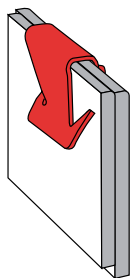
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Length (l) | Width (b) | Height (h) | Height (h1) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|------------|-----------|------------|-------------|------------------------|------------|-----------------|
| 053438003 | | 2,5-3,5 | 4,75 | 12,7 | 8,6 | 8,3 | 0,4 | CS-M2.2-BI | 7 000 |
| 053327006 | | 2,8 - 3,3 | 4,6 | 12,7 | 8,7 | 8,7 | 0,5 | CS-ZnCR3 | 2 500 |
| 011802003 | | 1,5 - 2 | 3 | 15 | 13 | 11 | 0,5 | CS-M2.2 | 7 000 |
| 015435002 | | 1,75 - 2 | 3 | 14 | 14,8 | 9,1 | 0,4 | CS-ZnCR3 | 7 700 |
| 012070004 | | 1,75 - 2 | 3,2 | 12,5 | 8,5 | 8 | 0,4 | CS-M2.2 | 7 500 |
| 011619003 | | 2 - 2,5 | 3,6 | 12,5 | 8,2 | 7,8 | 0,3 | CS-M2.0 | 8 500 |
| 013750003 | | 3 - 4,5 | 5,9 | 25 | 12 | 12 | 0,45 | CS-M2.0 | 3 000 |

*For material description see the flap at the end of the catalog

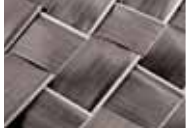
Metal
Panel Clips

APPLICATION INFORMATION



- To hold two panels together or a trim piece onto a panel
- With barbs on one side
- With straight or curved back

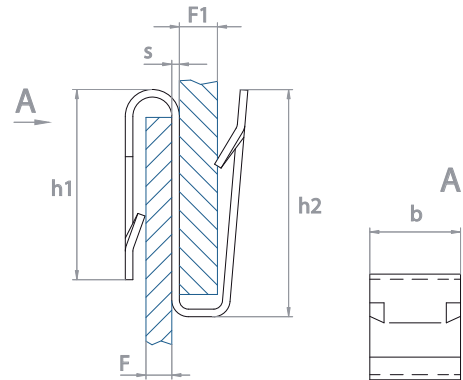
A specific need ? Contact us, p.122



On Panel
edges

Panel Clips

S shape/ Barbs on both legs

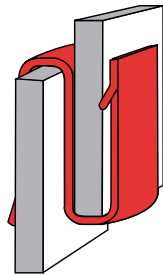


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Panel thickness 2 (F1) | Height (h1) | Height 2 (h2) | Width (b) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|------------------------|-------------|---------------|-----------|------------------------|-----------|-----------------|
| 011516006 | | 0,9 | 2,3 | 9 | 10,1 | 12,5 | 0,4 | CS-ZnCR3 | 8 000 |
| 052047004 | | 2-3 | 0,8-1,4 | 9 | 9 | 13 | 0,4 | CS-ZnNi | 4 000 |
| 013698003 | | 0,8-1,5 | 0,5-1,5 | 10 | 14 | 12,75 | 0,4 | CS-ZnCR3 | 5 000 |
| 053142001 | | 0,8-1,7 | 0,8-1,7 | 9,2 | 9,2 | 13 | 0,4 | CS-ZnNi | 5 000 |
| 055536000 | | 2-2,3 | 2-2,3 | 9 | 10 | 13 | 0,4 | Sst | 4 000 |
| 136918003 | | 2,2-3,1 | 2,2-3,1 | 10 | 12 | 9,52 | 0,5 | CS-PHO | 8 000 |
| 052225000 | | 0,8-1 | 0,7-2 | 10 | 10 | 13 | 0,4 | CS-PHO | 10 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To hold two panels together
- With barbs on both sides
- With straight or curved back

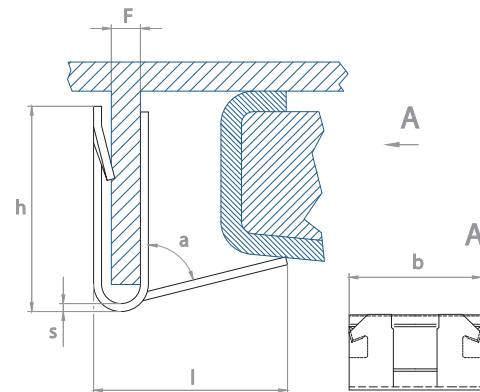
A specific need ? Contact us, p.122



On Panel
edges

Panel Clips

Snap on lock

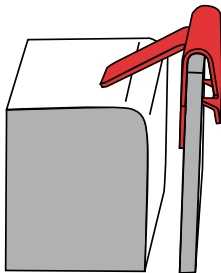


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Width (b) | Height (h) | Lug length (l) | Lug angle (a) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|-----------|------------|----------------|---------------|------------------------|-----------|-----------------|
| 013075003 | | 1 - 1,5 | 14 | 9,5 | 9 | 50 | 0,4 | CS-ZnCR3 | 5 000 |
| 014812001 | | 1 - 1,5 | 13 | 8,5 | 4,75 | 45 | 0,5 | CS-M2.0 | 7 000 |
| 011855003 | | 1,25 - 1,75 | 18 | 10,4 | 12 | 75 | 0,35 | CS-ZnCR3 | 5 500 |
| 012964005 | | 1,9 - 2,3 | 18 | 8 | 6,8 | 85 | 0,3 | CS-ZnCR3 | 7 500 |
| 018148002 | | 1,5 - 1,8 | 18 | 7,5 | 8,6 | 68 | 0,5 | CS-ZnCR3 | 7 500 |

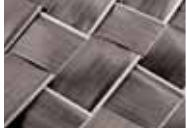
* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To hold a panel in a specific position from a perpendicular panel edge
- With barbs on one or both sides

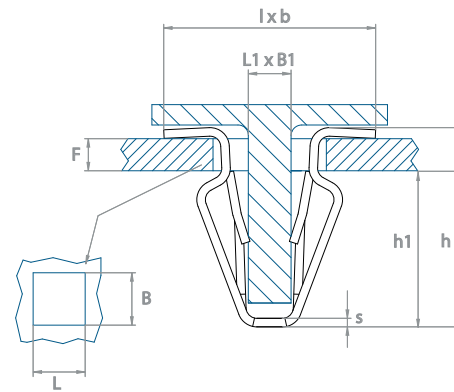
A specific need ? Contact us, p.122



In Panel
holes

Trim Clips

Standard

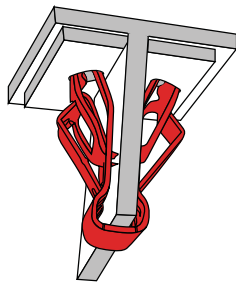


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Length1 x Width1 (L1xB1) | Length2 x Width2 (Lxb) | Hole size (LxB) | Height (h) | Height (h1) | Material thickness (s) | Carton quantity |
|------------|--------|---------------------|--------------------------|------------------------|-----------------|------------|-------------|------------------------|-----------------|
| 104009004 | | 0,7-3 | 1,5x12 | 14x12 | 20x6 | 15 | 10,5 | 0,5 | 3 000 |
| 209684000 | | 0,7-3 | 1,5 | 16-16,7x12 | 20x6 | 13,5 | 9,5 | 0,6 | 3 500 |
| 204469000 | | 2 | 4,6x5,4 | 10,4x9 | 7,7x10 | 17 | 15 | 0,5 | 5 000 |
| 212576000 | | 3,5 | 4,4 | 10,4x9 | 7x15 | 17 | 15 | 0,6 | 5 000 |
| 016437001 | | 2,3-2,7 | (1,7-2,1)x14 | 12,5x9,45 | (8-8,5)x16 | 16,5 | 13,2 | 0,5 | 4 500 |
| 151898004 | | 2,5 | (1,1-1,3)x9,5 | 11x9,5 | (8-8,2)x10 | 18,1 | 15,5 | 0,4 | 4 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- Part that attaches two panels together by pushing onto a stud or clip tower on one panel and snapping into a hole in the other panel
- Comes in several different design variations, contact us

A specific need ? Contact us, p.122

Assembling Plastic Panel Clips



In Panel holes

Panel Pins



Push to lock rivet



p.70



Rokut rivets



p.72



Fir tree fix



p.74



Plasti plug



p.75



On Studs

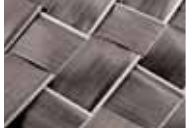
Stud Panel Clips



For insulation fixing



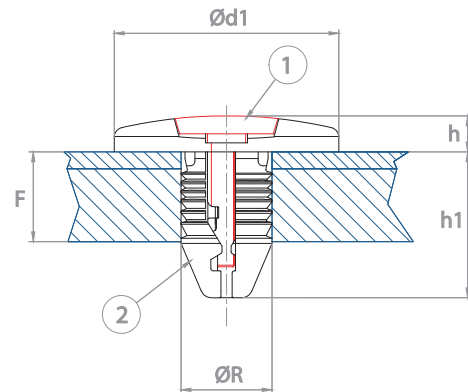
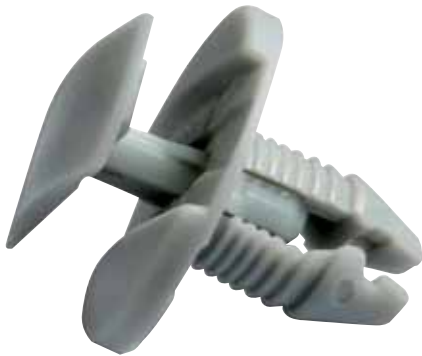
p.76



In Panel
holes

Panel Pins

Push to lock rivet

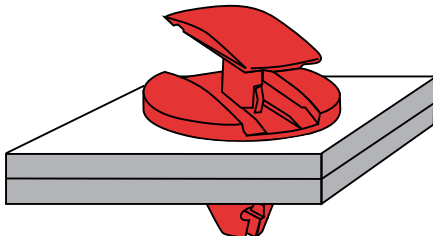


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Hole diameter (Ø R) | Head diameter (Ø d1) | Head thickness (h) | Height (h1) | Material* | Carton quantity |
|------------|--------|---------------------|---------------------|----------------------|--------------------|-------------|-----------|-----------------|
| 202493000 | | 2-7 | 6,5 | 22 | 2,6 | 14 | PA66-BI | 1 800 |
| 201793000 | | 2-7,5 | 8,1-8,3 | 20 | 3,2 | 13 | PA66-BI | 3 600 |
| 201793001 | | 2-7,5 | 8,1-8,3 | 20 | 3,2 | 13 | PA66-Gr | 3 600 |
| 018610000 | | 0,8-7 | 7,8-8,8 | 17 | 4,5 | 13 | PA66-Gr | 1 200 |
| 018610003 | | 0,8-7 | 7,8-8,8 | 17 | 4,5 | 13 | PA66-BI | 1 200 |
| 015269000 | | 2,5-8,5 | 7 | 15 | 6 | 17 | PA6-BI | 2 000 |
| 018795003 | | 3-6 | 4,6-4,9 | 15 | 3 | 11,5 | PA6-BI | 5 500 |
| 207926000 | | 4,5 | 15 | 22 | 4,5 | 13,7 | PA66-BI | 1 500 |
| 020074000 | | 4,5-5 | 10 | 17,8 | 5 | 11,5 | PA6-BI | 2 500 |
| 017489000 | | 4,6 | 12 | 18 | 6 | 10 | PA66-BI | 1 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To hold two panels together
- The pin ensures a high pull out resistance
- Easy push to lock system
- Disassemblable by pulling out the pin

A specific need ? Contact us, p.122

High-speed assembly

- *Optimize the assembly process?*
- *Improve workstation ergonomics?*
- *Reduce assembly time and downtime costs?*

Although our core competencies are assembly, connection and protection systems, we also have the know-how to design the tools to perform these operations. A good example is our automatic assembly gun.

Fed by an “endless” reel of plastic clips, the gun ensures regularly positioned, high-quality fasteners, with a cycle time of less than a second. Plus, the gun is reloaded in an instant. Your operators save time and the fasteners are perfectly installed every time.

Research is still on going to further improve this production optimization tool, already covered by three patents with another six pending.

Since the company was founded, nearly 150 years ago, our development has been shaped by innovations, from the press-stud to plastic injection moulding. Today, we spend 6% of our turnover on R&D, 3% on staff training, and we have 22 production sites world-wide. We make it our business to design advanced products to help you boost your productivity.

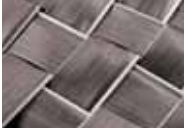
www.araymond.com



Automatic assembly gun

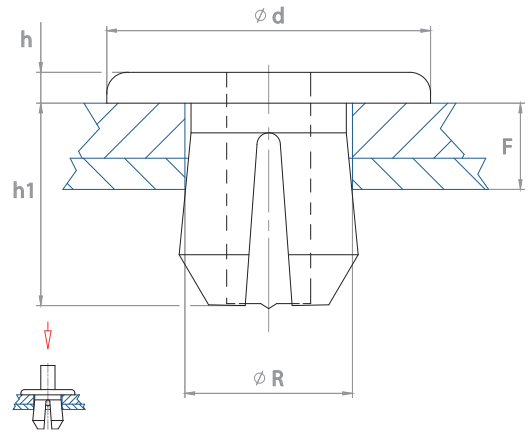


Araymond parts to assemble in the industrial equipment

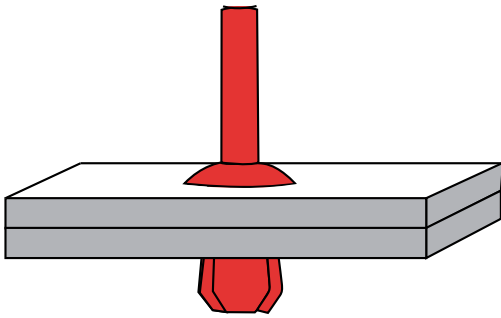


Panel Pins

Rokut rivets



APPLICATION INFORMATION



- To hold two panels together
- The pin ensures a high pull out resistance
- Easy push to lock system



In Panel
holes

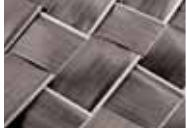
Panel Pins

Rokut rivets

All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Hole diameter (Ø R) | Head diameter (Ø d) | Head thickness (h) | Height (h1) | Material* | Carton quantity |
|------------|---------------------|---------------------|---------------------|--------------------|-------------|-----------|-----------------|
| 012821000 | 0,75-3 | 5-5,2 | 8,5 | 2 | 6 | PA66-Na | 5 000 |
| 012821001 | 0,75-3 | 5-5,2 | 8,5 | 2 | 6 | PA66-BI | 5 000 |
| 012694001 | 0,8-4,5 | 3-3,65 | 4,8 | 1,3 | 6,2 | POM-BI | 20 000 |
| 013266000 | 1,5-5 | 4,95-5,35 | 9 | 2,3 | 7,5 | PA66-Gr | 3 000 |
| 013266001 | 1,5-5 | 4,95-5,35 | 9 | 2,3 | 7,5 | PA66-BI | 3 000 |
| 013266002 | 1,5-5 | 4,95-5,35 | 9 | 2,3 | 7,5 | PA66-Bg | 3 000 |
| 063863000 | 1,5-6,5 | 6,2-6,5 | 10 | 2 | 12 | PA6-BI | 2 200 |
| 063277001 | 2-6 | 4-4,2 | 8 | 1 | 8,5 | POM-Na | 11 000 |
| 063277002 | 2-6 | 4-4,2 | 8 | 1 | 8,5 | POM-BI | 11 000 |
| 012710031 | 2-8 | 5,9-7,1 | 10 | 2 | 12 | PA6-BI | 2 000 |
| 062314001 | 2,5-8 | 5-5,2 | 10 | 2 | 11,4 | PA12-Na | 2 000 |
| 062314002 | 2,5-8 | 5-5,2 | 10 | 2 | 11,4 | PA12-BI | 4 600 |
| 012696000 | 3-8 | 4,95-5,55 | 10 | 2 | 11,5 | PA12-Na | 8 000 |
| 012696014 | 3-8 | 4,95-5,55 | 10 | 2 | 11,5 | PA6-BI | 4 000 |
| 013011005 | 4-7 | 7,9-8,7 | 16 | 2 | 12 | PA66-Na | 1 000 |
| 013011006 | 4-7 | 7,9-8,7 | 16 | 2 | 12 | PA66-BI | 1 000 |
| 014584001 | 4-8 | 8-8,4 | 22 | 3 | 13 | PA12-BI | 3 000 |
| 014584000 | 4,8 | 8-8,4 | 22 | 3 | 13 | PA12-Gr | 3 000 |
| 052864001 | 5,5-12 | 5-5,4 | 10 | 2 | 15 | PA12-BI | 3 500 |
| 017385000 | 5,5-10 | 8-8,6 | 13 | 3 | 15 | PA12-Na | 5 500 |
| 017385002 | 5,5-10 | 8-8,6 | 13 | 3 | 15 | PA66-BI | 5 500 |
| 063652000 | 6-10 | 6,05-6,2 | 10 | 3 | 15,3 | PA6-Na | 2 400 |
| 014142000 | 7,5-8,6 | 6-6,2 | 16 | 2,5 | 14,5 | POM-BI | 4 500 |

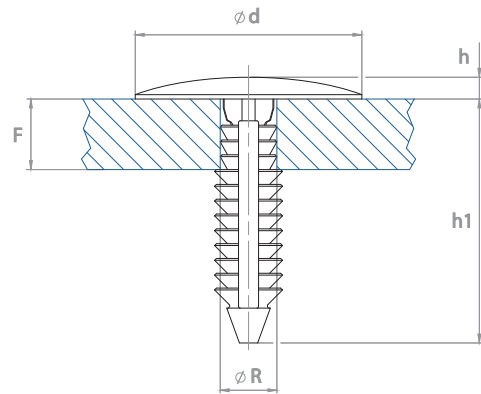
* For material description see the flap at the end of the catalog



In Panel
holes

Panel Pins

Fir tree fix



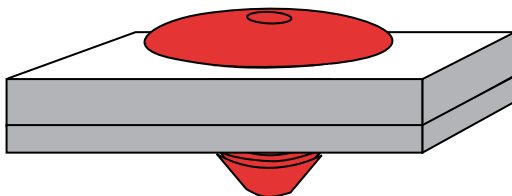
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Hole diameter (Ø R) | Head diameter (Ø d) | Head thickness (h) | Height (h1) | Material* | Carton quantity |
|------------|---------------------|---------------------|---------------------|--------------------|-------------|-----------|-----------------|
| 017905001 | 0,5-4 | 6,5 | 12 | 1 | 7 | POM-Gr | 7 500 |
| 017905003 | 0,5-4 | 6,5 | 12 | 1 | 7 | POM-BI | 7 500 |
| 206987000 | 1,25-8,4 | 8 | 11,5 | 1,7 | 13 | PA6-BI | 2 500 |
| 201012000 | 1,6-10,3 | 5-5,4 | 16 | 2,2 | 14,9 | POM-BI | 5 000 |
| 201012002 | 1,6-10,3 | 5-5,4 | 16 | 2,2 | 14,9 | POM-Na | 5 000 |
| 018751001 | 1,9-8 | 6,8-7,1 | 18 | 2,5 | 15 | PA6-BI | 2 000 |
| 018751003 | 1,9-8 | 6,8-7,1 | 18 | 2,5 | 15 | PA6-Gr | 2 000 |
| 019246000 | 3,4-19,4 | 6,5-6,7 | 26 | 2,5 | 28 | PA66-BI | 2 500 |

* For material description see the flap at the end of the catalog

Plastic Panel
Clips

APPLICATION INFORMATION



- To hold two panels together or a trim piece to a panel
- Not disassemblable

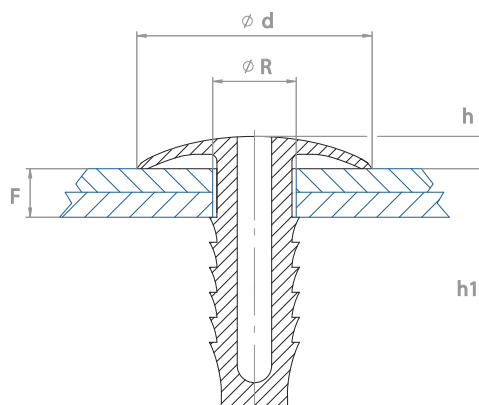
A specific need ? Contact us, p.122



In Panel
holes

Panel Pins

Plasti plug

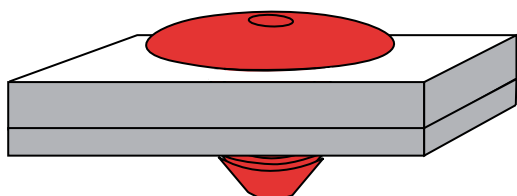


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Hole diameter ($\varnothing R$) | Head diameter ($\varnothing d$) | Head thickness (h) | Height (h1) | Material* | Carton quantity |
|------------|---------------------|-----------------------------------|-----------------------------------|--------------------|-------------|-----------|-----------------|
| 015009000 | 1,5-17 | 9,5 | 22 | 5,5 | 21,5 | PE-Gr | 2 300 |
| 015009001 | 1,5-17 | 9,5 | 22 | 5,5 | 21,5 | PE-BI | 2 300 |
| 018000000 | 2-13 | 10,2 | 35 | 4 | 22 | PE-BI | 1 300 |
| 016293002 | 2,7-6,7 | 10,5 | 23 | 2,8 | 16,2 | PE-Wh | 2 800 |
| 012911001 | 3-6,5 | 8 | 27 | 3,5 | 14 | PE-BI | 2 500 |
| 012911008 | 3-6,5 | 8 | 27 | 3,5 | 14 | PE-Gr | 2 500 |
| 015081000 | 3-6,5 | 8 | 20 | 2,75 | 9,5 | PE-BI | 6 000 |
| 016512000 | 3-6,5 | M10 | 31 | 3,5 | 14 | PE-Gr | 2 000 |
| 016512001 | 3-6,5 | 9,5 | 31 | 3,5 | 14 | PE-BI | 2 000 |
| 012301010 | 3-14 | 8-8,5 | 20 | 2,75 | 20 | PE-Gr | 4 000 |
| 012301011 | 3-14 | 8-8,5 | 20 | 2,75 | 20 | PE-BI | 4 000 |
| 012271004 | 3,5-11 | 6-6,2 | 17 | 3 | 15 | PE-BI | 6 500 |
| 012271015 | 3,5-11 | 6-6,2 | 17 | 3 | 15 | PE-Gr | 6 500 |
| 012574001 | 5,5-13,5 | 9,5-9,7 | 22 | 4 | 17 | PE-Bg | 3 000 |
| 012574002 | 5,5-13,5 | 9,5-9,7 | 22 | 4 | 17 | PE-BI | 3 000 |
| 011620000 | 6,5-13,5 | 7 | 17 | 4 | 30 | PE-BI | 3 500 |
| 012631006 | 7,5-22,5 | 7 | 30 | 4 | 30 | PE-Na | 1 500 |
| 012631010 | 7,5-22,5 | 7 | 30 | 4 | 30 | PA12-BI | 1 500 |

*For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix a flexible cover/ trim piece to a panel
- To fill holes
- Not suitable for high shear forces
- Not disassemblable

ALTERNATIVE PRODUCTS

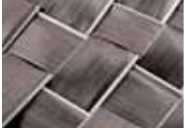


Panel Pins
p. 72



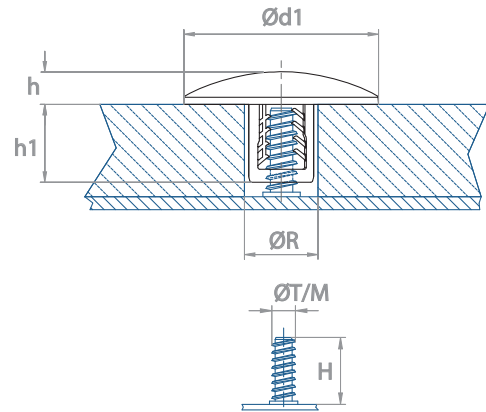
Panel Pins
p. 70

A specific need ? Contact us, p.122



Stud Panel Clips

For insulation fixing

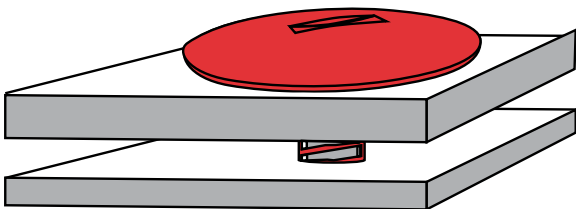


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Stud size (ØTx H) | Hole diameter (Ø R) | Head diameter (Ø d1) | Head thickness (h) | Minimum depth (h1) | Material* | Carton quantity |
|------------|-------------------|---------------------|----------------------|--------------------|--------------------|-----------|-----------------|
| 204367001 | M6x9 | 10,2-15 | 30 | 5 | 8 | PA66-Gr | 850 |
| 200139000 | M6x14 | 10,2-15 | 30 | 5 | 12 | PP-BI | 1 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To hold insulation or a trim piece to a panel with welded studs
- Installed by pushing onto the stud, and then tightening with a straight bladed screwdriver to clamp up
- Disassemblable by unscrewing with a straight bladed screwdriver (screwdriver impression in cap)

A specific need ? Contact us, p.122

Assembling Shaft Clips & Nuts



In Panel holes

Shaft Retainers



Clip for grooved shafts



p.80



Circular push on fix - Light duty



p.81



Circular push on fix - Heavy duty



p.82



Rectangular push on fix



p.84



Circular push on threaded studs



p.85



In Panel holes

Stamped Nuts



Self-Threading - For smooth pins



p.86



Self-locking - For threaded studs



p.87



In Panel holes

Metal Snap in Nuts



For metric bolts



p.88



For ST screws



p.89



Metric cage nuts



p.90



In Panel holes

Plastic Snap in Nuts



For square holes



p.91



For oblong holes



p.92



On Panel edges

Metal Snap on Nuts



Universal - For metric bolts



p.93



For metric bolts



p.94



Universal - For ST screws



p.95



For ST screws



p.96



For ST screws / With retaining tab

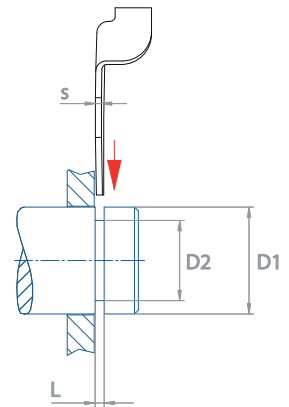
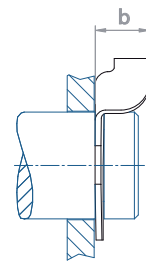
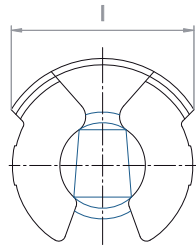


p.98



Shaft Retainers

C clip for grooved shafts



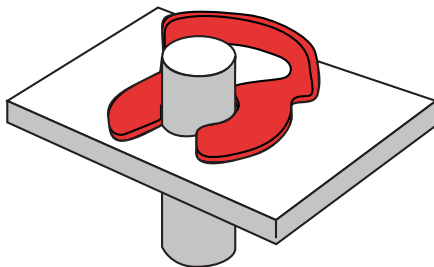
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Shaft diameter (D1) | Groove diameter (D2) | Groove width (L) | Clip size (lxb) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|----------------------|------------------|-----------------|------------------------|------------|-----------------|
| 054518005 | | 6 | 5 | 0,74-0,75 | 11 x 4 | 0,5 | CS-ZnNi-BI | 7 500 |
| 013973004 | | 8 | 6 | 1,0-1,2 | 16 x 4 | 0,5 | CS-M2.2 | 6 500 |
| 151255001 | | 10-12 | 8 | 1,05 | 16 x 5 | 0,5 | CS-PHO | 6 000 |
| 018177003 | | 16 | 12 | 1,25-1,45 | 23,6 x 7 | 0,8 | CS-ZnCR3 | 3 000 |
| 054633006 | | 6 | 5 | 1,2-1,3 | 11,2 x 3 | 0,4 | CS-ZnCR3 | 5 000 |
| 054516002 | | 8 | 6 | 1,1-1,2 | 14 x 3 | 0,4 | CS-ZnNi | 4 000 |

* For material description see the flap at the end of the catalog

Shaft Clips & Nuts

APPLICATION INFORMATION



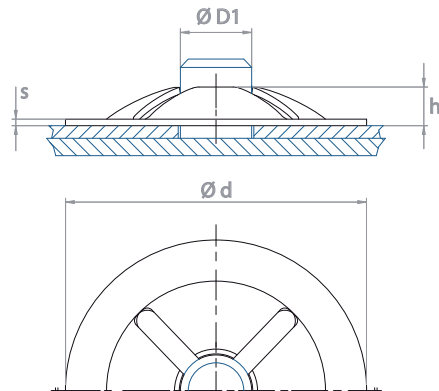
- To lock grooved shafts in panels or any elements with a flat surface
- The clip must be pushed into the groove in the shaft from the side
- The first design for grooves at any position on the shaft
- The second design needs the groove to be at a certain distance from the shaft end

A specific need ? Contact us, p.122



Shaft Retainers

Circular push on fix - Light duty

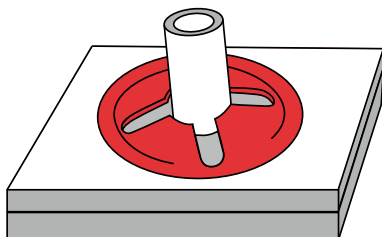


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Stud size (ØD1) | Outside diameter (Ød) | Height (h) | Material thickness (s) | Material* | Carton quantity |
|------------|-----------------|-----------------------|------------|------------------------|-------------|-----------------|
| 011876004 | 2-2,1 | 9,5 | 1,3 | 0,3 | CS-ZnCR3 | 35 000 |
| 051856006 | 2,5-2,7 | 9,5 | 1,3 | 0,25 | CS-ZnCR3 | 10 000 |
| 051857006 | 3-3,2 | 9,5 | 1,2 | 0,25 | CS-ZnNi | 10 000 |
| 051858007 | 3,5-3,7 | 9,5 | 1,1 | 0,25 | CS-ZnCR3 | 10 000 |
| 051859002 | 4-4,1 | 9,5 | 1 | 0,25 | CS-ZnCR3 | 10 000 |
| 051833009 | 4,5-4,7 | 13 | 1 | 0,35 | CS-ZnCR3-BI | 7 000 |
| 052675006 | 4,9-5,1 | 13 | 1,3 | 0,5 | CS-ZnCR3 | 7 500 |
| 051834003 | 5,5 | 13 | 1,2 | 0,35 | CS-ZnNi | 8 000 |
| 051835014 | 6-6,2 | 13,1 | 1,1 | 0,35 | CS-ZnNi | 8 000 |
| 019236004 | 6-6,1 | 22 | 2,7 | 0,45 | CS-ZnCR3 | 8 000 |
| 015212001 | 6,5-6,7 | 20,5 | 2,2 | 0,25 | CS-M2.0 | 7 000 |
| 014343005 | 8,41-8,5 | 20 | 2,7 | 0,7 | CS-ZnCR3 | 7 500 |

*For material description see the flap at the end of the catalog

APPLICATION INFORMATION

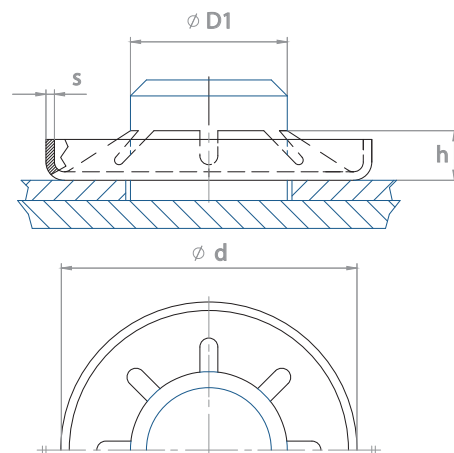


- To lock smooth shafts in panels or any elements with a flat surface
- The clip must be pushed onto the shaft from the top with a magnetic cylindrical hollow tool
- For smooth (not threaded) shafts in metal or plastic
- For light duty applications

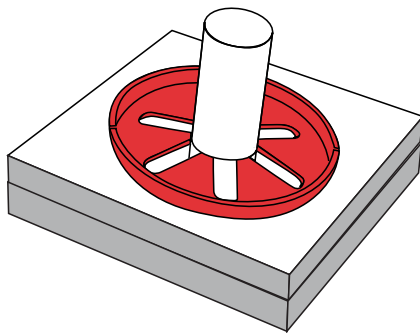
A specific need ? Contact us, p.122

Shaft Retainers

Circular push on fix - Heavy duty



APPLICATION INFORMATION



- To lock smooth shafts in panels or any elements with a flat surface
- The clip must be pushed onto the shaft from the top with a magnetic cylindrical hollow tool
- For smooth (not threaded) shafts in metal
- Designed to reach a higher performance than the regular version









On Studs

Shaft Retainers

Circular push on fix - Heavy duty

All dimensions in mm, angles in ° / Other dimensions and variants on request

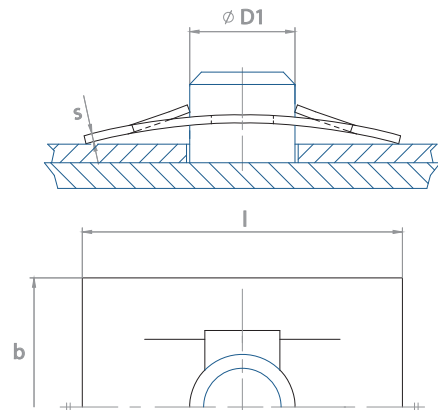
| References | Design | Stud size (ØD1) | Outside diameter (Ød) | Height (h) | Material thickness (s) | Material* | Carton quantity |
|------------|---|-----------------|-----------------------|------------|------------------------|-----------|-----------------|
| 011959002 |  | 4 | 9,6 | 1,6 | 0,3 | CS-ZnCR3 | 26 000 |
| 138603002 |  | 4 | 11 | 1,1 | 0,25 | CS-Zn | 10 000 |
| 138605003 | | 5 | 16 | 1,32 | 0,38 | CS-Zn | 5 000 |
| 138608003 | | 6 | 13,5 | 1,8 | 0,41 | CS-Zn | 5 000 |
| 138613002 | | 8 | 15,9 | 1,8 | 0,51 | CS-PHO | 5 000 |
| 138617000 | | 10 | 19,1 | 1,4 | 0,41 | CS-PHO | 5 000 |
| 138618003 | | 12 | 22,1 | 2,7 | 0,86 | CS-ZnCR3 | 5 500 |
| 020586001 |  | 5 | 12 | 0,9 | 0,3 | Sst | 25 000 |
| 054947009 |  | 6 | 13,4 | 1 | 0,3 | CS-ZnCR3 | 10 000 |
| 018572002 |  | 6 | 20,5 | 2,1 | 0,45 | CS-ZnCR3 | 6 000 |
| 019496002 |  | 8 | 17,5 | 1,8 | 0,5 | CS-ZnCR3 | 8 500 |

* For material description see the flap at the end of the catalog



Shaft Retainers

Rectangular push on fix

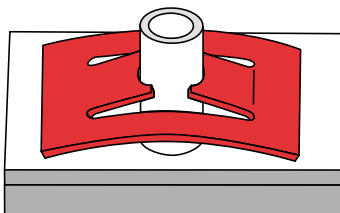


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Stud size ($\varnothing D1$) | Length (l) | Width (b) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|--------------------------------|------------|-----------|------------------------|-----------|-----------------|
| 011513001 | | 2 | 10 | 6 | 0,25 | CS-PHO | 40 000 |
| 011245004 | | 4,75 | 20 | 13,5 | 0,5 | CS-ZnCR3 | 8 000 |
| 011330002 | | 6 | 20 | 13 | 0,5 | CS-ZnCR3 | 8 000 |
| 011204003 | | 8 | 24 | 16 | 0,5 | CS-ZnCR3 | 6 500 |
| 011748003 | | 2,5 | 11 | 7 | 0,3 | CS-ZnCR3 | 32 000 |
| 013730002 | | 3 | 11 | 11 | 0,3 | CS-ZnCR3 | 26 000 |
| 011182005 | | 4 | 15 | 10 | 0,35 | CS-ZnCR3 | 10 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



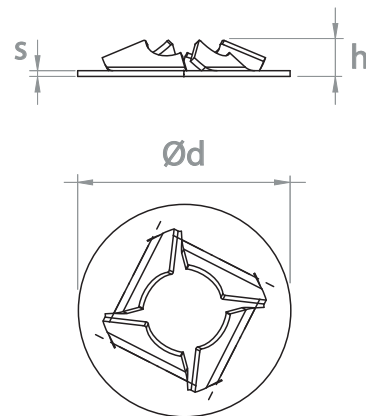
- To lock smooth shafts in panels or any elements with a flat surface
- The clip must be pushed onto the shaft from the top by hand or with a magnetic cylindrical hollow tool
- For smooth (not threaded) shafts in metal and plastic
- For light duty applications

A specific need ? Contact us, p.122



Shaft Retainers

Circular push on threaded studs

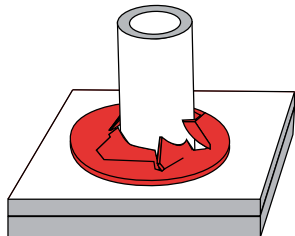


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Thread size | Outside diameter (Ød) | Height (h) | Material thickness (s) | Material* | Carton quantity |
|------------|-------------|-----------------------|------------|------------------------|-----------|-----------------|
| 138642003 | M5 | 11,1 | 1,65 | 0,3 | CS-PHO | 5 000 |
| 151769002 | M6 | 17 | 1,9 | 0,25 | CS-ZnCr3 | 7 000 |
| 135209004 | M8 | 15,9 | 2,1 | 0,36 | CS-PHO | 15 000 |
| 138646006 | M10 | 19,9 | 2,74 | 0,8 | CS-ZnCR3 | 8 500 |
| 151857003 | M12 | 21,4 | 2,9 | 0,38 | CS-M3.1 | 3 250 |
| 151924001 | M14 | 21,5 | 2,9 | 0,38 | CS-M3.1 | 6 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



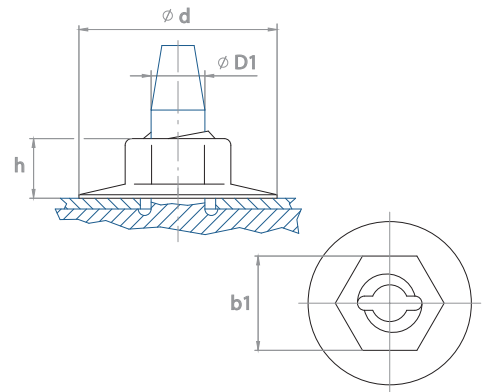
- To lock threaded metric shafts/bolts in panels or any elements with a flat surface
- The clip must be pushed onto the shaft from the top with a magnetic cylindrical hollow tool
- For metric threaded shafts in metal

A specific need ? Contact us, p.122



Stamped Nuts

Self-Threading- For smooth pins

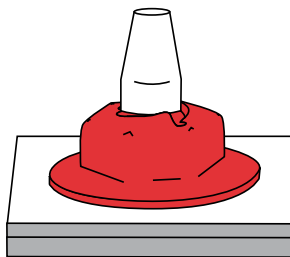


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Stud size (ØD1) | Outside diameter (Ød) | Height (h) | Nut size (b1) | Material* thickness | Material* | Carton quantity |
|------------|--------|-----------------|-----------------------|------------|---------------|---------------------|-----------|-----------------|
| 011914007 | | 3 | 13,5 | 4,25 | 8 | 0,5 | CS-ZnCR3 | 6 500 |
| 011993004 | | 4 | 14,5 | 4,5 | 9 | 0,5 | CS-ZnCR3 | 5 500 |
| 012269005 | | 5 | 14,5 | 4,5 | 9 | 0,5 | CS-ZnCR3 | 5 500 |
| 052835008 | | 6 | 15,1 | 5,8 | 11 | 0,5 | CS-ZnCR3 | 8 000 |
| 138786013 | | 5 | 15 | 5,4 | 10 | 0,4 | CS-ZnNi | 10 000 |
| 138802005 | | 8 | 13 | 7,9 | 20 | 0,6 | CS-Zn | 4 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



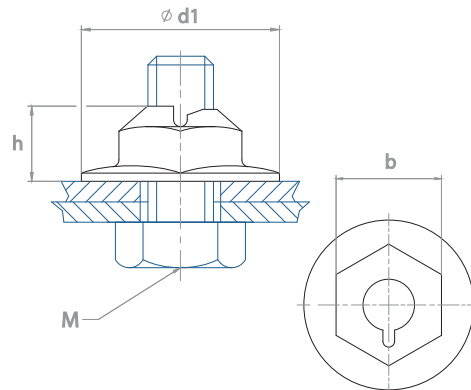
- To lock smooth shafts in panels or any elements with a flat surface
- To be screwed onto smooth metal studs/shafts with a hardness of 50kg/mm² max

A specific need ? Contact us, p.122



Stamped Nuts

Self-Locking - For threaded studs

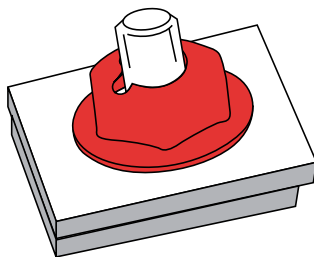


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Thread size (M) | Outside diameter ($\phi d1$) | Height (h) | Nut size (b) | Material* thickness | Material* | Carton quantity |
|------------|-----------------|--------------------------------|------------|--------------|---------------------|-----------|-----------------|
| 012604001 | M4 | 13 | 5,2 | 9 | 0,4 | CS-PHO | 7 000 |
| 138100000 | M5 | 14 | 5,8 | 10 | 0,38 | Co | 5 000 |
| 138101003 | M5 | 14 | 6,4 | 10 | 0,46 | CS-Zn | 5 000 |
| 012470003 | M5 | 14,5 | 5 | 9 | 0,45 | CS-ZnCR3 | 5 500 |
| 012148004 | M6 | 15 | 6,5 | 11 | 0,55 | CS-ZnCR3 | 7 000 |
| 138104000 | M6 | 24 | 7,8 | 11 | 0,46 | CS-Zn/Al | 3 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To lock threaded metric shafts, studs or bolts in panels or any elements with a flat surface
- For installation with open ended or ring spanners

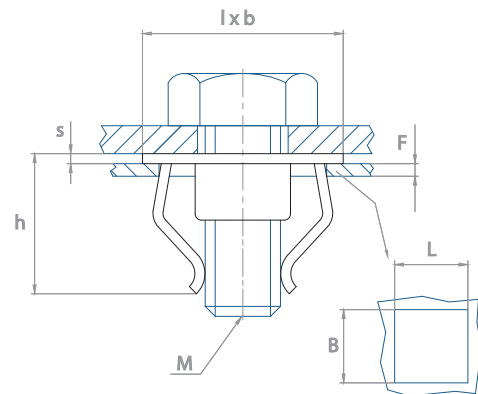
A specific need ? Contact us, p.122



In Panel holes

Metal Snap in Nuts

For metric bolts

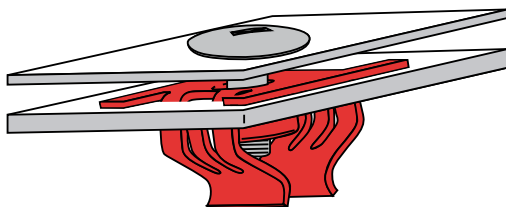


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Thread size (M) | Panel thickness (F) | Hole size (LxB) | Length x Width (lxb) | Height (h) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|-----------------|---------------------|-------------------------------|----------------------|------------|------------------------|------------|-----------------|
| 212657001 | | M5 | 0,7-0,9 | 12x12 | 16x20 | 9,7 | 0,6 | CS-M2.2-BI | 3 000 |
| 018709002 | | M6 | 0,8-2 | 13x9 | 16x20 | 11 | 0,8 | CS-M1.2 | 2 800 |
| 020235001 | | M6 | 0,8-2 | 16x9 *Hole: specific shape | 18x22 | 13,2 | 1 | CS-M2.0 | 2 000 |
| 137808001 | | M6 | 1,2-2 | 15,3-15,3 | 20x14,8 | 11 | 0,86 | CS-G500B | 2 000 |
| 135200002 | | M6 | 2,2-3 | 14,9x14,9 | 22,2x14,7 | 15,5 | 0,86 | CS-M2.0 | 2 500 |
| 213591000 | | M6 | 3 | 12,2x13,2 | 18x14 | 14,2 | 0,8 | CS-M2.0 | 1 600 |
| 203245000 | | M6 | 2,5-3 | 12,2x13,5 | 18x14 | 14,2 | 0,8 | CS-M2.1 | 1 600 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix elements to a panel with holes using metric bolts
- The nut must be pushed in the hole, then the element is positioned above the nut, and lastly, put the bolt (and washer if needed) through it and screw
- Permits blind assembly and prevents nut rotation

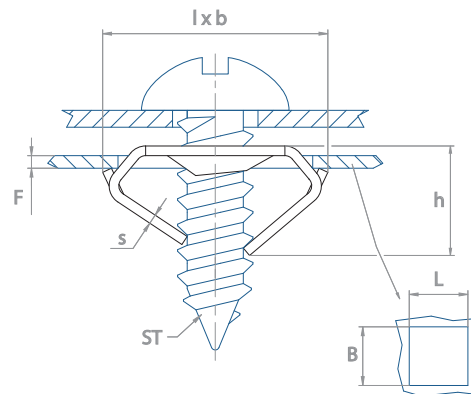
A specific need ? Contact us, p.122



In Panel holes

Metal Snap in Nuts

For ST screws

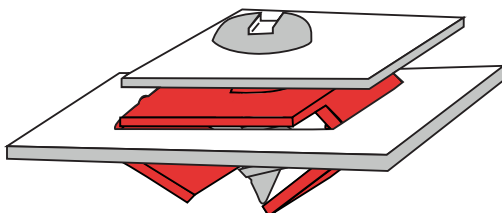


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Screw size (ST) | Panel thickness (F) | Hole size (LxB) | Length x Width (lxb) | Height (h) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|-----------------|---------------------|-----------------|----------------------|------------|------------------------|-----------|-----------------|
| 012036005 | | 4,2 | 0,75-2 | 11x13 | 15,75x18 | 6,8 | 0,6 | CS-ZnCR3 | 4 000 |
| 012415004 | | 4,8 | 0,75-1 | 9x9 | 8x15 | 6,3 | 0,55 | CS-ZnCR3 | 8 500 |
| 011463004 | | 4,8 | 0,75-2 | 11x13 | 16x18 | 7 | 0,6 | CS-ZnCR3 | 4 000 |
| 012991003 | | 4,2 | 1,5-2 | 9x9 | 8x15 | 6 | 0,4 | CS-ZnCR3 | 9 000 |
| 015548003 | | 4,2 | 0,8-1,5 | 7x9 | 8,6x11 | 5,6 | 0,5 | CS-ZnCR3 | 7 000 |
| 207999001 | | 4,8 | 1,5-2 | 12x15 | 16x26 | 17,6 | 0,6 | CS-M1.2 | 1 500 |

*For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix elements to a panel with square or oblong holes with metric ST screws
- The nut must be pushed in the hole, then the element is positioned over the nut and lastly the screw (and washer if needed) is put through it and tightened
- Permits blind assembly and prevents nut rotation

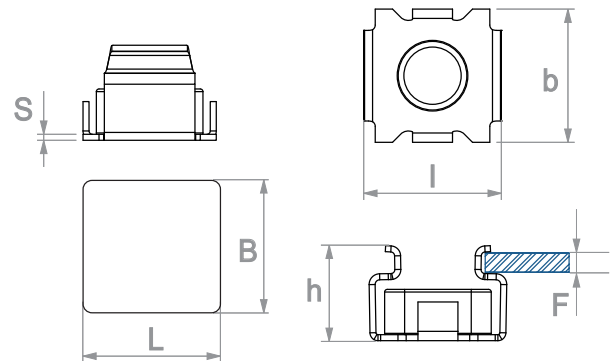
A specific need ? Contact us, p.122



In Panel holes

Metal Snap in Nuts

Metric cage nuts



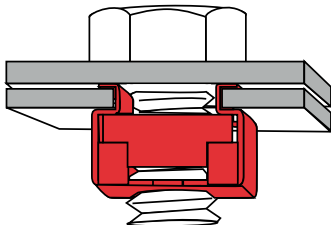
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Thread size | Panel thickness (F) | Hole size (LxB) | Height (h) | Length (l) | Width (b) | Material thickness (s) | Material* | Carton quantity |
|------------|-------------|---------------------|-----------------|------------|------------|-----------|------------------------|-----------|-----------------|
| 230285000 | M3 | 0,3-0,9 | 6,7x6,7 | 5,2 | 9,7 | 9,3 | 0,3 | CS-Zn | 10 000 |
| 230286000 | M3 | 1,0-1,6 | 6,7x6,7 | 5,9 | 9,7 | 9,3 | 0,3 | CS-Zn | 10 000 |
| 230287000 | M4 | 0,5-1,6 | 6,7x6,7 | 7,1 | 10,3 | 10 | 0,45 | CS-Zn | 5 000 |
| 230288000 | M5 | 0,7-1,6 | 9,5x9,5 | 8,6 | 13,5 | 13,1 | 0,5 | CS-Zn | 3 000 |
| 230289000 | M5 | 1,7-2,7 | 9,5x9,5 | 9,6 | 13,5 | 13,1 | 0,5 | CS-Zn | 3 000 |
| 230290000 | M6 | 0,7-1,6 | 9,5x9,5 | 8,6 | 13,5 | 13,1 | 0,5 | CS-Zn | 3 000 |
| 230291000 | M6 | 1,7-2,7 | 9,5x9,5 | 9,6 | 13,5 | 13,1 | 0,5 | CS-Zn | 3 000 |
| 230292000 | M8 | 0,7-1,7 | 12,7x12,7 | 10,4 | 17,5 | 16,7 | 0,6 | CS-Zn | 1 500 |
| 230293000 | M8 | 1,8-3,0 | 12,7x12,7 | 11,6 | 17,5 | 16,7 | 0,6 | CS-Zn | 1 500 |
| 230294000 | M10 | 0,7-1,7 | 12,7x12,7 | 10,4 | 17,5 | 16,7 | 0,6 | CS-Zn | 1 500 |
| 230295000 | M10 | 1,8-3,0 | 12,7x12,7 | 11,6 | 17,5 | 16,7 | 0,6 | CS-Zn | 1 500 |

* For material description see the flap at the end of the catalog

Shaft Clips & Nuts

APPLICATION INFORMATION



- To fix elements to panels with square holes using metric bolts
- The nut must be pushed in the hole, then the element is positioned over it, and lastly the bolt (and washer if needed) is installed and tightened
- Permits blind assembly and prevents nut rotation

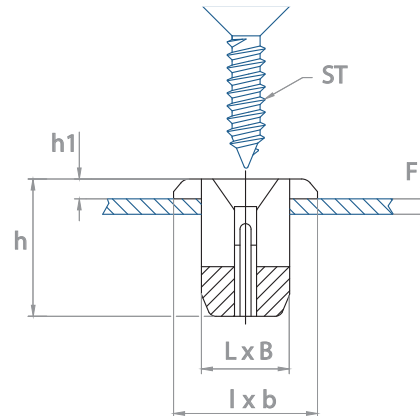
A specific need ? Contact us, p.122



In Panel holes

Plastic Snap in Nuts

For square holes



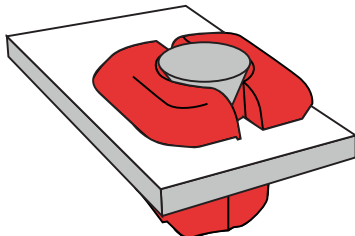
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Screw size (ST) | Panel thickness (F) | Hole size (LxB) | Length x Width (lxb) | Height (h) | Head thickness (h1) | Material* | Carton quantity |
|------------|--------|-----------------|---------------------|-----------------|----------------------|------------|---------------------|-----------|-----------------|
| 053853001 | | 4,2 | 0,5-3 | 7,2x7,2 | 9,5x9,5 | 8,3 | 1,2 | PA66-BI | 5 500 |
| 207747000 | | 4,2/4,8/5,2 | 0,7-1 | 7x7 | 12x12 | 12 | 1 | PA66-Na | 10 000 |
| 015197002 | | Hi-Lo 5,8 | 0,8-1,2 | 8,2x8,2 | 11x11 | 12 | 0,8 | PA6-Na | 2 000 |
| 019503000 | | Hi-Lo 5,8 | 1,2-1,6 | 8,2x8,2 | 11x11 | 10 | 0,8 | PA6-Na | 2 000 |
| 055995000 | | 4,2 | 0,6-3 | 8,2x8,2 | 12,8x12,8 | 12,2 | 2,2 | PA66-Na | 2 500 |
| 055995001 | | 4,2 | 0,6-3 | 8,2x8,2 | 12,8x12,8 | 12,2 | 2,2 | PA66-BI | 2 500 |

*For material description see the flap at the end of the catalog

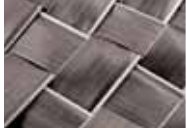
Shaft
Clips & Nuts

APPLICATION INFORMATION



- To fix elements with metric screws to a panel with holes
- The nut is snapped into the hole, the hole in the element is positioned above the nut and finally the screw (and washer if needed) is inserted through the element into the nut and tightened
- The nut tapping is done by the screw
- Permits blind assembly and prevents nut rotation

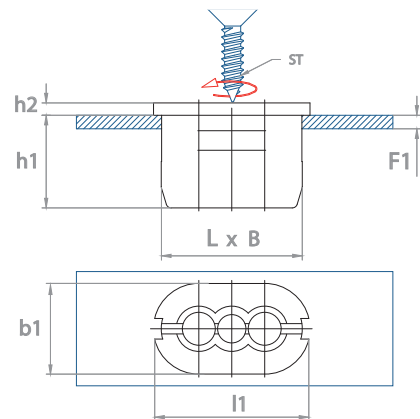
A specific need ? Contact us, p.122



In Panel
holes

Plastic Snap in Nuts

For oblong holes



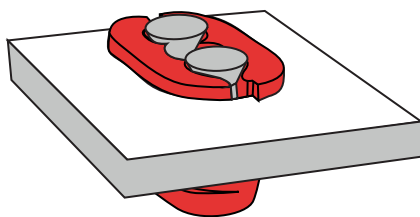
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Screw size (ST) | Panel thickness (F1) | Hole size (LxB) | Length (l1) | Width (b1) | Height (h1) | Head thickness (h2) | Material* | Carton quantity |
|------------|--------|-----------------|----------------------|-----------------|-------------|------------|-------------|---------------------|-----------|-----------------|
| 055975000 | | 4,2 | 0,6 - 3 | 7,2x14 | 15,2 | 8,8 | 10,2 | 1,2 | PA66-Na | 10 000 |
| 053670002 | | 4,2/4,8 | 0,5 - 1,2 | 14,2 x 7,2 | 20 | 13 | 17 | 2 | PA66-BI | 1 500 |

* For material description see the flap at the end of the catalog

Shaft
Clips & Nuts

APPLICATION INFORMATION



- To fix elements with metal ST screws to a panel with oblong holes
- Permits blind assembly and prevents nut rotation
- With different screw positions absorb assembly tolerances
- For higher performance, use metal snap in nuts

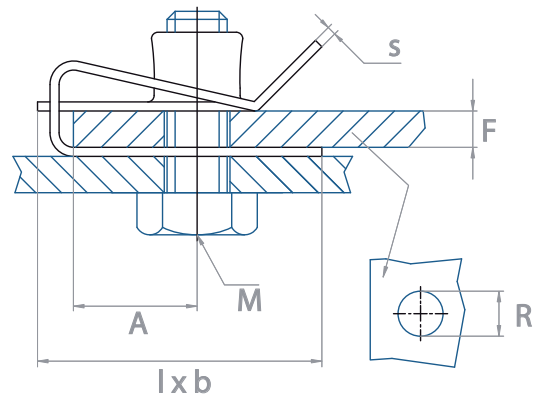
A specific need ? Contact us, p.122



On Panel edges

Metal Snap on Nuts

Universal- For metric bolts

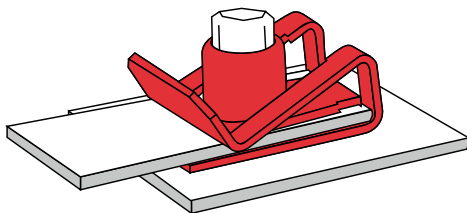


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Thread size (M) | Panel thickness (F) | Length x Width (lxb) | Max distance (A) | Hole diameter (R) | Material thickness (s) | Material* | Carton quantity |
|------------|--------|-----------------|---------------------|----------------------|------------------|-------------------|------------------------|------------|-----------------|
| 054044011 | | M5 | 0,5-4 | 15,2x12 | 6,8 | 6 | 0,6 | CS-M2.1 | 5 000 |
| 054044024 | | M5 | 0,5-4 | 15,2x12 | 6,8 | 6 | 0,6 | CS-ZnCR3 | 5 000 |
| 206960004 | | M5 | 0,5-4 | 19,9x13,8 | 10 | 7,5 | 0,6 | CS-ZnCR3 | 2 000 |
| 013176010 | | M6 | 0,5-4 | 24,1x16 | 11,5 | 7 | 0,8 | CS-M2.2-BI | 1 500 |
| 013176016 | | M6 | 0,5-4 | 24,1x16 | 11,5 | 7 | 0,8 | CS-ZnCR3 | 1 500 |
| 013965006 | | M8 | 0,8-4 | 28x18 | 13 | 9 | 1 | CS-ZnCR3 | 1 200 |
| 013965008 | | M8 | 0,8-4 | 28x18 | 13 | 9 | 1 | CS-M3.0 | 1 200 |
| 016205003 | | | M5 | 0,8-4,3 | 20,8x15 | 10,5 | 7,5 | 0,6 | CS-M2.1 |
| 016205004 | M5 | | 0,8-4,3 | 20,8x15 | 10,5 | 7,5 | 0,6 | CS-ZnCR3 | 2 300 |
| 130793007 | M6 | | 0,5-4 | 22,3x15 | 11 | 8,5 | 0,8 | CS-ZnCR3 | 1 800 |
| 053313010 | M8 | | 0,5-4 | 25,5x17 | 13 | 11,2 | 1 | CS-ZnCR3 | 1 000 |
| 151854000 | | M6 | 0,8-4 | 24,3x15 | 12,5 | 10 | 0,8 | CS-M2.0 | 2 000 |
| 151838002 | | M6 | 0,8-4 | 30,3x15 | 18,5 | 10 | 0,8 | CS-M1.1 | 1 600 |
| 138330004 | | M8 | 1,5-5,5 | 24,9x17 | 13 | 11,7 | 1 | CS-Zn | 1 200 |
| 138331003 | | M10 | 1,5-5,5 | 32,5x24,5 | 17,5 | 15 | 1,4 | CS-PHO | 700 |
| 015371003 | | M4 | 0,8-4,3 | 16,9x15 | 7 | 7 | 0,5 | CS-M2.0 | 3 000 |
| 015463001 | | M4 | 0,8-4,3 | 16,9x15 | 7 | 7 | 0,5 | Sst | 3 000 |
| 015501003 | | M5 | 0,8-4,3 | 16,9x17 | 7 | 8 | 0,6 | CS-ZnCR3 | 2 500 |

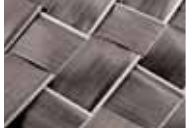
* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix elements with metric bolts in a panel with holes
- The nut is slid onto the panel edge and over the panel hole (or through a second hole when fitted mid panel)
- The element is positioned over the nut and finally the bolt (and washer if needed) is inserted into the nut and tightened
- Design allows variable panel thickness with the thread remaining parallel to the surface
- If nut to be pre-assembled, use the version with the retaining tab (to prevent the nut from moving during transport for example)

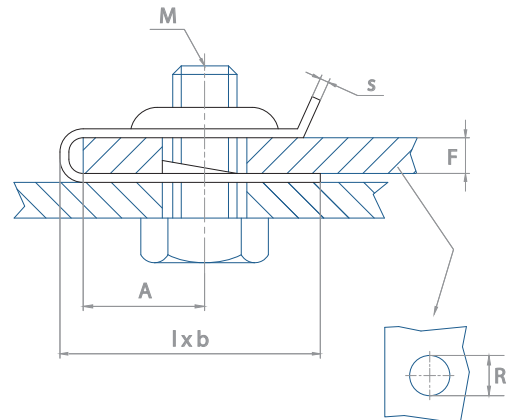
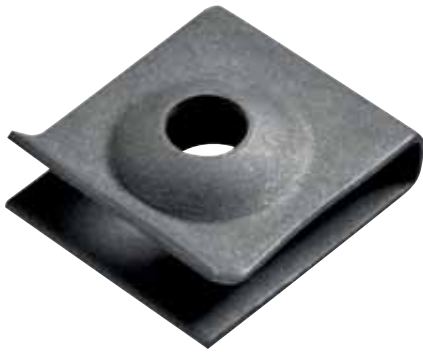
A specific need ? Contact us, p.122



On Panel edges

Metal Snap on Nuts

For metric bolts



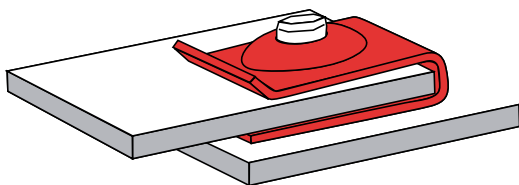
All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Thread size (M) | Panel thickness (F) | Length x Width (lxb) | Max distance (A) | Hole diameter (R) | Material thickness (s) | Material* | Carton quantity |
|------------|-----------------|---------------------|----------------------|------------------|-------------------|------------------------|-----------|-----------------|
| 015095002 | M4 | 0,5-1,5 | 13 x 11 | 6 | 6,5 | 0,5 | CS-M2.2 | 9 500 |
| 014885002 | M4 | 1,5 - 2 | 12,75 x 11 | 6 | 6,5 | 0,5 | CS-PHO | 9 000 |
| 015617002 | M5 | 0,6-1,7 | 15,7 x 14,5 | 7,5 | 8 | 0,7 | CS-M2.2 | 5 000 |
| 015617003 | M5 | 0,6-1,7 | 15,7 x 14,5 | 7,5 | 8 | 0,7 | CS-ZnCR3 | 5 000 |
| 016770001 | M6 | 2 | 24,8 x 16 | 11 | 8,7 | 0,8 | CS-M2.0 | 2 800 |

* For material description see the flap at the end of the catalog

Shaft
Clips & Nuts

APPLICATION INFORMATION



- To fix elements with metric screws to a panel with holes
- The nut is slid onto the panel edge and over the panel hole (or through a second hole when fitted mid panel)
- The element is positionned over the nut and finally the bolt (and washer if needed) is inserted the element into the nut and tightened
- Version with retaining tab, ideal for pre-assembly
- Metric snail gives good torque resistance but less than metric tapped barrel impression

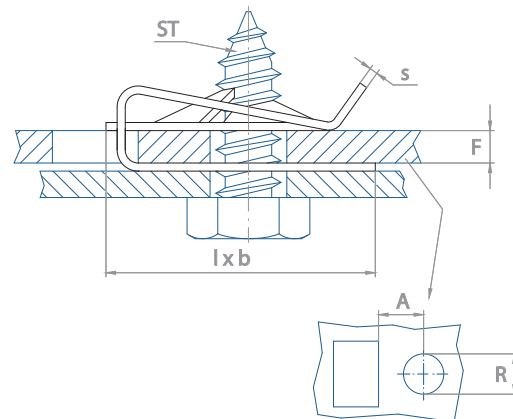
A specific need ? Contact us, p.122



On Panel edges

Metal Snap on Nuts

Universal- For ST screws

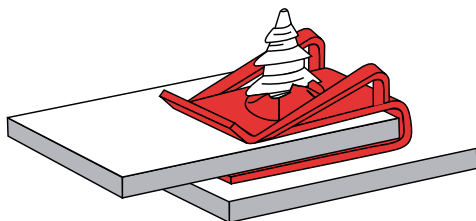


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Screw size (ST) | Panel thickness (F) | Length x Width (lxb) | Max distance (A) | Hole diameter (R) | Material thickness (s) | Material* | Carton quantity |
|------------|-----------------|---------------------|----------------------|------------------|-------------------|------------------------|------------|-----------------|
| 014519003 | 4,2 | 0,5 - 4,5 | 20 x 15 | 10,5 | 6 | 0,6 | CS-M3.0 | 3 500 |
| 014519005 | 4,2 | 0,5 - 4,5 | 20 x 15 | 10,5 | 6 | 0,6 | CS-ZnCR3 | 3 000 |
| 014043008 | 4,8 | 0,5 - 4,5 | 21 x 15 | 10,5 | 6 | 0,6 | CS-ZnCR3 | 3 000 |
| 018594002 | 4,8 | 0,5 - 4,5 | 21 x 15 | 10,5 | 6 | 0,7 | CS-M2.2-BI | 2 700 |

*For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix elements to a panel with holes with metal ST screws
- The nut is slid onto the panel edge and over the panel hole (or through a second hole when fitted mid panel)
- The element is positioned over the nut and finally the bolt (and washer if needed) is inserted the element into the nut and tightened
- Design allows variable panel thickness with the thread remaining parallel to the surface

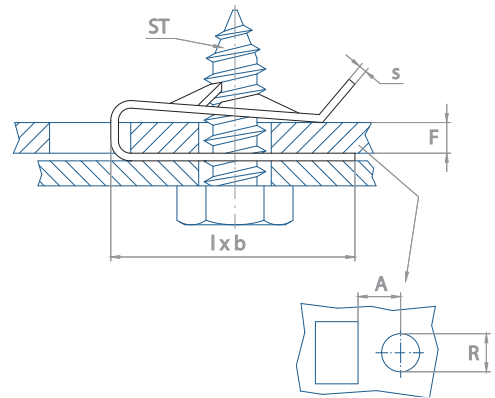
A specific need ? Contact us, p.122



On Panel edges

Metal Snap on Nuts

For ST screws

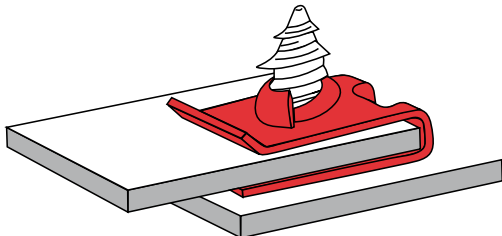


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Screw size (ST) | Panel thickness (F) | Length x Width (lxb) | Max distance (A) | Hole diameter (R) | Material thickness (s) | Material* | Carton quantity |
|------------|-----------------|---------------------|----------------------|------------------|-------------------|------------------------|-----------|-----------------|
| 011912002 | 3,5 | 2,5 | 12,5x11 | 5,8 | 6 | 0,5 | CS-ZnCR3 | 8 000 |
| 013199003 | 3,5 | 3-4 | 15,5x11 | 6,5 | 6 | 0,5 | CS-PHO | 6 000 |
| 013695002 | 3,5 | 3,75-5,2 | 12x11 | 5 | 5 | 0,5 | CS-ZnCR3 | 7 500 |
| 014105002 | 3,9 | 2,3-2,8 | 13x11 | 8 | 5 | 0,5 | CS-ZnCR3 | 7 000 |
| 013778002 | 4,2 | 0,7 - 1,75 | 16,5 x 8 | 7,5 | 5 | 0,5 | CS-M2.0 | 7 500 |
| 013778003 | 4,2 | 0,7 - 1,75 | 16,5 x 8 | 7,5 | 5 | 0,5 | CS-ZnCR3 | 7 500 |
| 012893006 | 4,2 | 1,5 - 2 | 12,7 x 11 | 6 | 6 | 0,7 | CS-ZnCR3 | 6 000 |
| 012893007 | 4,2 | 1,5 - 2 | 12,7 x 11 | 6 | 6 | 0,7 | CS-M1.2 | 6 000 |
| 013699001 | 4,2 | 1,75 - 2,25 | 19,1 x 16 | 11 | 6 | 0,6 | Sst | 3 500 |
| 151658004 | 4,8 | 1-3 | 19,5 x 12,5 | 9 | 6 | 0,5 | CS-ZnCr3 | 5 000 |
| 012763003 | 4,8 | 1,5 - 2 | 25 x 20,5 | 14 | 6 | 0,5 | CS-M2.1 | 3 000 |
| 211439000 | 4,8 | 2 - 3,5 | 15x12 | 7 | 6 | 0,7 | CS-ZnCR3 | 4 000 |
| 054649001 | 4,8 | 3-4 | 15,5x11 | 6 | 6,2 | 0,5 | Sst | 4 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To fix elements with metal ST screws to a panel with holes
- The nut is slid onto the panel edge and over the panel hole (or through a second hole when fitted mid panel)
- The element is positioned over the nut and finally the bolt (and washer if needed) is inserted the element into the nut and tightened
- If nut to be pre-assembled, use the version with the retaining tab (to prevent the nut from moving during transport for example)

A specific need ? Contact us, p.122

Securing lighting units

- *Optimize your products?*
- *Add value to your products?*
- *Create competitive advantage?*

We've invested in advanced technologies to be able to provide you with systems for fastening and assembling all types of materials: metal-to-metal, plastic-to-plastic and plastic-to-metal. Our full catalog includes more than 20,000 references. But we are still open to working with you to design the part that will give your equipment the added value you're looking for.

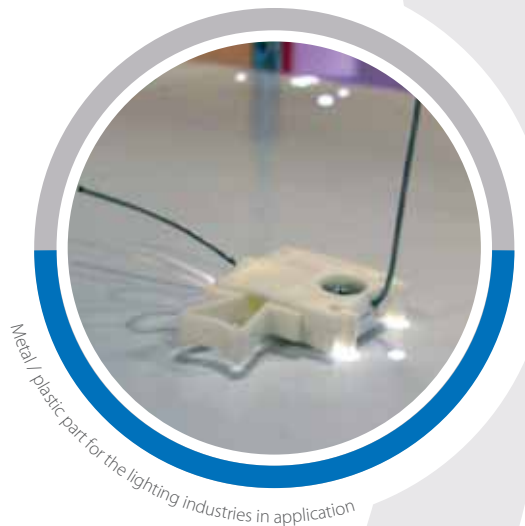
For the lighting industries, we've developed a metal/plastic part to secure suspended lighting units.

Since the company was founded, nearly 150 years ago, our development has been shaped by innovations, from the press-stud to plastic injection moulding. Today, we spend 6% of our turnover on R&D, 3% on staff training, and we have 22 production sites world-wide. We make it our business to design advanced products to help you boost your productivity.

www.araymond.com



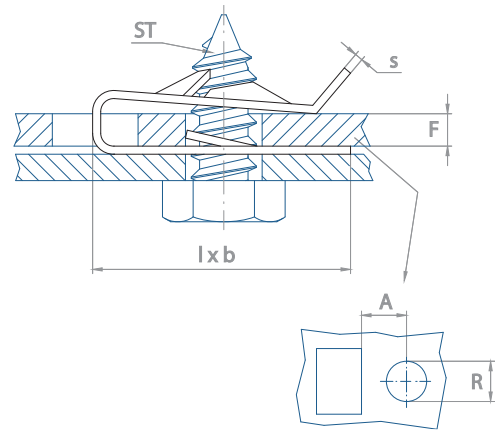
Metal/ plastic solution to secure light units



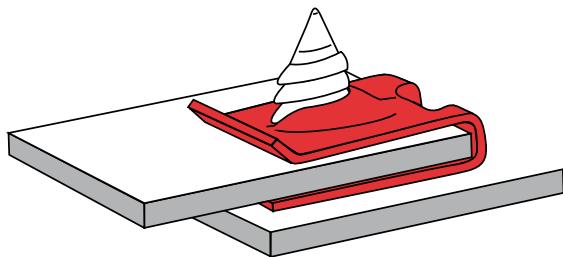
Metal/ plastic part for the lighting industries in application

Metal Snap on Nuts

For ST screws / With retaining tab



APPLICATION INFORMATION



- To fix elements with metal ST screws to a panel with holes
- The nut is slid onto the panel edge and over the panel hole (or through a second hole when fitted mid panel)
- The element is positioned over the nut and finally the bolt (and washer if needed) is inserted the element into the nut and tightened
- Version with retaining tab, ideal for pre-assembly



On Panel
edges

Metal Snap on Nuts

For ST screws / With retaining tab

All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Screw size (ST) | Panel thickness (F) | Length x Width (lxb) | Max distance (A) | Hole diameter (R) | Material thickness (s) | Material* | Carton quantity | |
|------------|--|---|---------------------|----------------------|------------------|-------------------|------------------------|------------|-----------------|-------|
| 013825003 |  | 3,5 | 2-2,75 | 12,5x11 | 5,8 | 6,8 | 0,5 | CS-ZnCR3 | 4 500 | |
| 014333002 | | 3,5 | 2,5 | 12,5x11 | 5,8 | 5,5 | 0,5 | CS-M2.2-BI | 4 000 | |
| 011347002 | | 3,9 | 1-3,0 | 16x11 | 7 | 7,2 | 0,5 | CS-ZnCR3 | 7 000 | |
| 012240005 | | 4,2 | 0,5-1,5 | 13x11 | 6 | 6,8 | 0,5 | CS-M2.2 | 10 000 | |
| 012240004 | | 4,2 | 0,5-1,5 | 13x11 | 6 | 6,8 | 0,5 | CS-ZnCR3 | 6 500 | |
| 012757003 | | 4,2 | 0,5-1,75 | 16,6x11 | 7,5 | 7,2 | 0,6 | CS-ZnCR3 | 8 000 | |
| 012367002 | | 4,2 | 1-2,5 | 12,6x8 | 5,5 | 5 | 0,6 | Sst | 8 000 | |
| 215635001 | | 4,2 | 1,25-2 | 20,7x13 | 10,8 | 8 | 0,7 | CS-ZnCR3 | 4 500 | |
| 055111000 | | 4,2 | 1,5-2,5 | 13,5x10 | 6,5 | 6,2 | 0,5 | Sst | 5 000 | |
| 055639007 | | 4,2 | 2-3 | 13,8x13 | 6,8 | 6 | 0,5 | CS-G500A | 5 000 | |
| 013219004 | | 4,8 | 0,5-1,7 | 24,9x11 | 16 | 7,2 | 0,5 | CS-ZnCR3 | 3 000 | |
| 013219005 | | 4,8 | 0,5-1,7 | 24,9x11 | 16 | 7,2 | 0,5 | CS-M2.2 | 3 000 | |
| 013133005 | | 4,8 | 0,6-1,7 | 14,7x11 | 7,2 | 7,2 | 0,7 | CS-ZnCR3 | 8 000 | |
| 013133006 | | 4,8 | 0,6-1,7 | 14,7x11 | 7,2 | 7,2 | 0,7 | CS-M2.2 | 8 000 | |
| 015954002 | | 4,8 | 1,7-2,3 | 16,6x11 | 7,2 | 7,2 | 0,6 | CS-M2.1 | 7 000 | |
| 011967002 | | 4,8 | 2-3 | 16x11 | 6,75 | 7,2 | 0,5 | CS-M2.0 | 7 000 | |
| 013806004 | | 5,5 | 3-4 | 23,7x16 | 12 | 8,7 | 0,7 | CS-M2.2-BI | 1 400 | |
| 020857003 | |  | 4,2 | 2-3,5 | 16x12 | 8 | 6,5 | 0,5 | CS-Zn | 5 000 |

* For material description see the flap at the end of the catalog

Protecting & Finishing Spring Rings, Caps & Grommets



In Panel holes

Metal Spring Rings

For round holes



p.102

For oblong holes



p.104



In Panel holes

Caps

For round holes



p.105

For oblong holes



p.106



In Panel holes

Grommets

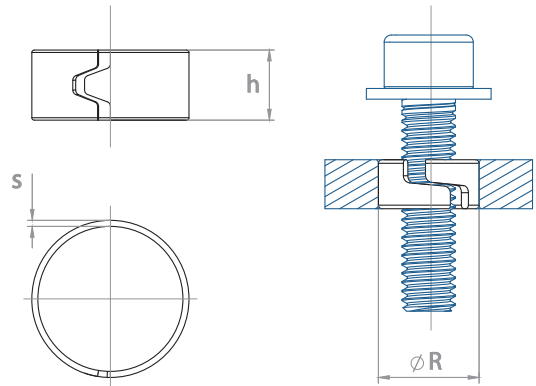
For round holes



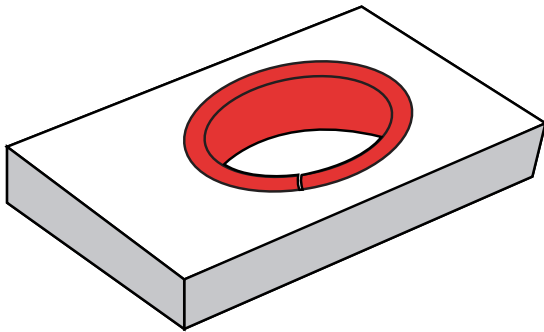
p.107

Metal Spring Rings

For round holes



APPLICATION INFORMATION



- To prevent soft panels (plastic) from creeping when fastened
- To be inserted into the panel hole before screwing through it
- Can be pre-assembled into the hole (Self-retaining through spring tension)
- Choose ring height according to panel thickness
- For use with flat head screws (and washer if necessary)





In Panel
holes

Metal Spring Rings

For round holes

All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Mounted internal diameter (Ø) | Hole diameter (Ø R) | Ring height (h) | Spring thickness (s) | Material* | Carton quantity |
|------------------|---|---|---------------------|-----------------|----------------------|------------|-----------------|
| 202527000 |  | 6,2 | 7,2 | 3,1 | 0,5 | CS-Zn Matt | 7 500 |
| 131473003 | | 6,2 | 8,6 | 4 | 1,2 | CS-M2.1 | 5 000 |
| 130037002 | | 6,7 | 8,7 | 3 | 1 | CS-ZnNi | 5 000 |
| 204303000 | | 7,9 | 9,5 | 5,1 | 0,8 | CS-ZnNi | 10 000 |
| 202105000 | | 8 | 10 | 3 | 1 | CS-ZnNi | 5 000 |
| 215481000 | | 8,1 | 10,1 | 4 | 1 | CS-M2.1 | 10 000 |
| 204803000 | | 8,5 | 10,1 | 4,7 | 0,8 | CS-ZnNi-BI | 10 000 |
| 207073000 | | 8,8 | 9,8 | 3 | 0,5 | CS-ZnNi | 5 000 |
| 129754002 | | 8,8 | 9,8 | 5,5 | 0,5 | CS-M2.1 | 8 000 |
| 202515000 | | 13,4 | 15,4 | 3 | 1 | CS-M3.0 | 5 000 |
| 210701000 | | 14 | 16 | 5 | 1 | CS-ZnNi | 5 000 |
| 055438006 | |  | 7,1 | 8,1 | 6 | 0,5 | CS-G500A |
| 055533002 | 9,6 | | 10,8 | 6,3 | 0,6 | CS-G500A | 5 000 |
| 128689004 | 9,4 | | 11 | 7,8 | 0,8 | CS-ZnNi | 5 000 |
| 220003000 | 10,2 | | 11,2 | 10 | 0,5 | CS-ZnNi | 4 500 |
| 055439002 | 10,4 | | 12 | 6 | 0,8 | CS-ZnNi | 5 000 |
| 213504003 | 10,7 | | 12,3 | 6 | 0,8 | CS-ZnNi | 5 000 |
| 213505000 | 11,5 | | 12,5 | 5,8 | 0,5 | CS-G500B | 4 000 |
| 203970000 | 12,4 | | 14 | 7,8 | 0,8 | CS-ZnNi | 4 500 |
| 055404002 | 12,7 | | 13 | 5,8 | 0,5 | CS-G500B | 4 000 |
| 132644004 | 17 | | 18,6 | 6,3 | 0,8 | CS-ZnNi | 2 000 |

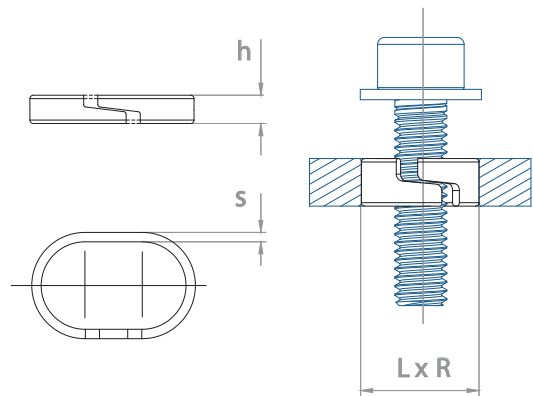
* For material description see the flap at the end of the catalog



In Panel holes

Metal Spring Rings

For oblong holes

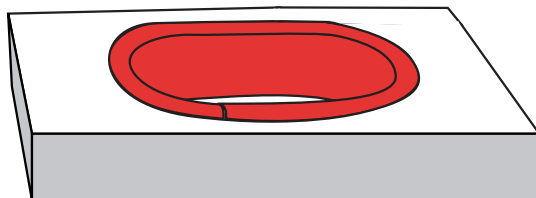


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Mounted internal diameter (Ø) | Hole size (LxR) | Ring height (h) | Spring thickness (s) | Material* | Carton quantity |
|------------|--------|-------------------------------|-----------------|-----------------|----------------------|------------|-----------------|
| 130562001 | | 12,3x7,6 | 14,2x10 | 4 | 1,2 | CS-ZnCR3 | 8 000 |
| 206444000 | | 13,3x7 | 15,2x9,4 | 4 | 1,2 | CS-ZnNi | 10 000 |
| 209874000 | | 14,1x7,8 | 15,2x9,4 | 4 | 0,8 | CS-ZnNi-BI | 10 000 |
| 218080000 | | 14,6x9,4 | 16,5x11,8 | 4,8 | 1,2 | CS-ZnNi | 4 500 |
| 203758000 | | 15,3x11,9 | 17,2x14,3 | 4 | 1,2 | CS-ZnCR3 | 4 000 |
| 128949006 | | 15,4x9,8 | 16,9x11,8 | 3 | 1 | CS-M3.0 | 6 000 |
| 131459001 | | 16x7 | 17,9x9,4 | 4 | 1,2 | CS-ZnNi | 6 000 |
| 131474001 | | 16x10,5 | 17,9x12,9 | 4 | 1,2 | CS-M2.1 | 8 000 |
| 207543000 | | 16,8x11,3 | 17,9x12,9 | 4 | 0,8 | CS-ZnNi | 4 500 |
| 209013000 | | 18,3x7,9 | 19,8x9,9 | 3 | 1 | CS-ZnNi | 5 000 |
| 218079000 | | 21,6x9,4 | 23,5x11,8 | 4,8 | 1,2 | CS-ZnNi | 3 000 |
| 202409000 | | 22x12,5 | 22,2x13,5 | 4,1 | 0,5 | CS-ZnNi | 5 000 |
| 208723000 | | 22,2x15,1 | 23,4x17,1 | 3 | 1 | CS-ZnNi | 3 700 |
| 213933000 | | 12,9x7 | 14,4x9 | 7 | 1 | CS-M2.1 | 5 000 |
| 214278000 | | 15,3x11,3 | 16,8x13,3 | 10 | 1 | CS-M2.1 | 2 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To prevent soft panels (plastic) from creeping when fastened
- To be inserted into the panel hole before screwing through it
- Can be pre-assembled into the hole (Self-retaining through spring tension)
- Choose ring height according to panel thickness
- For use with flat head screws (and washer if necessary)
- Oblong shape absorbs assembly tolerances

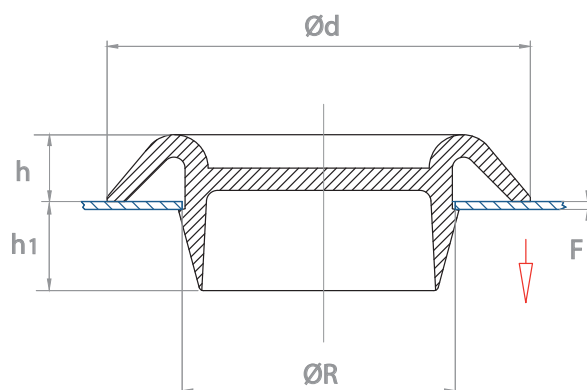
A specific need ? Contact us, p.122



In Panel holes

Caps

For round holes

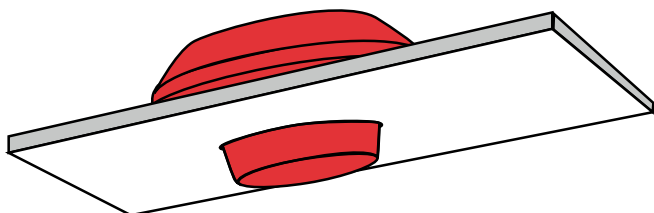


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Hole diameter (Ø R) | Head diameter (Ø d) | Head thickness (h) | Depth (h1) | Material* | Carton quantity |
|------------|---------------------|---------------------|---------------------|--------------------|------------|----------------|-----------------|
| 053054002 | 0,5-1,5 | 12 | 19 | 3 | 4 | PE LD-Na | 1 000 |
| 053054004 | 0,5-1,5 | 12 | 19 | 3 | 4 | TPE-BI | 2 400 |
| 052213000 | 0,5-2,5 | 18 | 30 | 4 | 5 | PE LD-BI | 1 800 |
| 052213001 | 0,5-2,5 | 18 | 30 | 4 | 5 | PE LD-Wh | 1 800 |
| 053296000 | 0,5-3 | 20,5 | 29,6 | 3,7 | 2,4 | PE LD-BI | 1 500 |
| 053296001 | 0,5-3 | 20,5 | 29,6 | 3,7 | 2,4 | PE LD-Wh | 1 500 |
| 175155000 | 0,6 | 6,5 | 10,5 | 2,2 | 2,8 | TPE-BI | 5 000 |
| 053188000 | 0,6-2 | 28 | 39,5 | 4,8 | 5,2 | PE LD-BI | 2 800 |
| 053188007 | 0,6-2 | 28 | 39,5 | 4,8 | 5,2 | EPDM-Na | 2 800 |
| 112145000 | 0,7-2,5 | 14 | 24,1 | 6,5 | 7 | SEBS-BI | 5 000 |
| 207249000 | 3-4 | 22-24 | 31,4 | 6,1 | 6,8 | PP/EPDM 60S-BI | 3 500 |
| 112019001 | 3 | 24,5-25 | 34 | 3 | 7 | PP/EPDM 70S-BI | 2 500 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To seal round holes
- Avoids water damp and dust ingress

ALTERNATIVE PRODUCTS



Panel Pins
p. 70

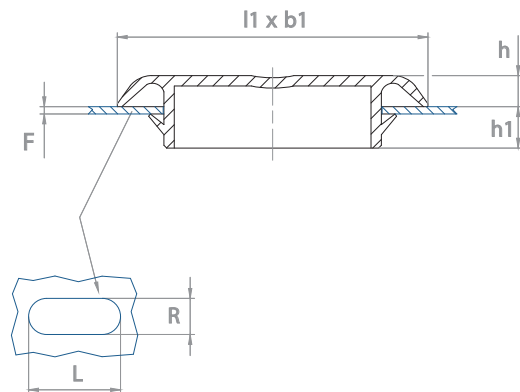
A specific need ? Contact us, p.122



In Panel holes

Caps

For oblong holes

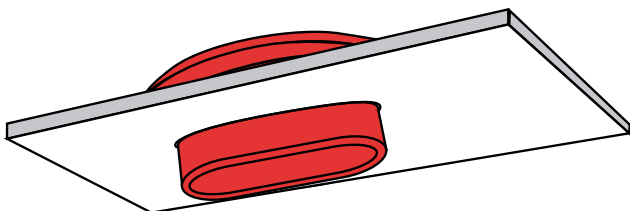


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Hole size (LxR) | Head size (l1 x b1) | Head thickness (h) | Depth (h1) | Material* | Carton quantity |
|------------|---------------------|-----------------|---------------------|--------------------|------------|----------------|-----------------|
| 020758001 | 0,7-0,9 | 22x16 | 30x23,85 | 3 | 4 | PE-BI | 3 000 |
| 202395000 | 0,7-1,5 | 40x12 | 46x18 | 4,3 | 6 | PP/EPDM 60S-BI | 2 300 |
| 016673000 | 0,8-1,5 | 70x30 | 74x34 | 2,2 | 6,8 | PE-BI | 550 |
| 112064000 | 1-1,2 | 50x30 | 62x42 | 3 | 3,7 | PVC 60Sa-BI | 1 400 |
| 210121000 | 1-4,3 | 60x48 | 75,6x63,7 | 7 | 6,7 | PP/EPDM 60S-BI | 500 |
| 207308000 | 3 | 16,7x13,1 | 26,7x23,1 | 6 | 8 | PP/EPDM 60S-BI | 5 000 |
| 214672000 | 5 | 22,3x16,3 | 31,3x25,3 | 4 | 11,2 | SEBS-BI | 2 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- To seal oblong holes
- Prevents water damp and dust ingress

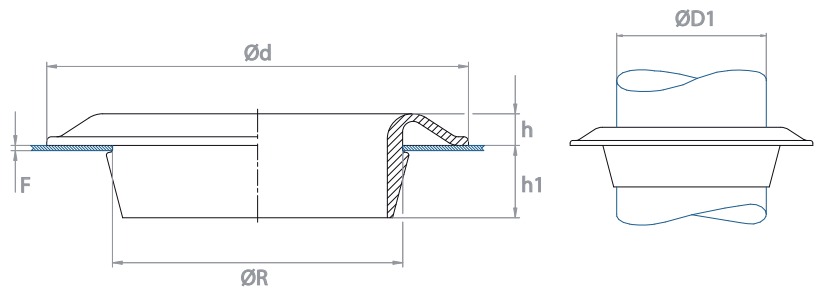
A specific need ? Contact us, p.122



In Panel holes

Grommets

For round holes

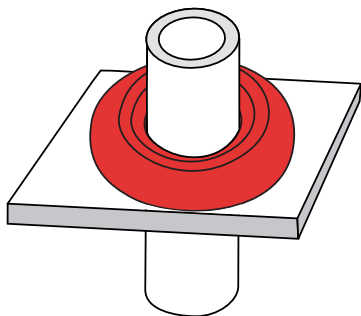


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Tube diameter (Ø D1) | Hole diameter (Ø R) | Head diameter (Ø d) | Head thickness (h) | Depth (h1) | Material* | Carton quantity |
|------------|--------|---------------------|----------------------|---------------------|---------------------|--------------------|------------|------------|-----------------|
| 015509000 | | 0,5-1,5 | 7,2-7,8 | 10 | 17 | 3 | 4 | PE-BI | 9 500 |
| 017960000 | | 0,5-2 | 25 | 28 | 40 | 4 | 6 | PE-Na | 1 000 |
| 056750000 | | 0,5-2,5 | 12 | 16 | 18x26 | 4,3 | 4,9 | PE LD-Na | 1 000 |
| 017289000 | | 0,5-2 | 7 | 28 | 39 | 4,8 | 5,2 | PE-BI | 1 000 |
| 208071000 | | 0,5-2 | 14 | 28 | 39 | 4,8 | 5,2 | PE-BI | 270 |
| 056873001 | | 1-1,5 | 4,8-5,05 | 40 | 53 | 5 | 5 | PP/EPDM-BI | 400 |
| 206858000 | | 1,2 | 18 | 30 | 49,7 | 12 | 4,4 | SEBS-BI | 300 |

* For material description see the flap at the end of the catalog

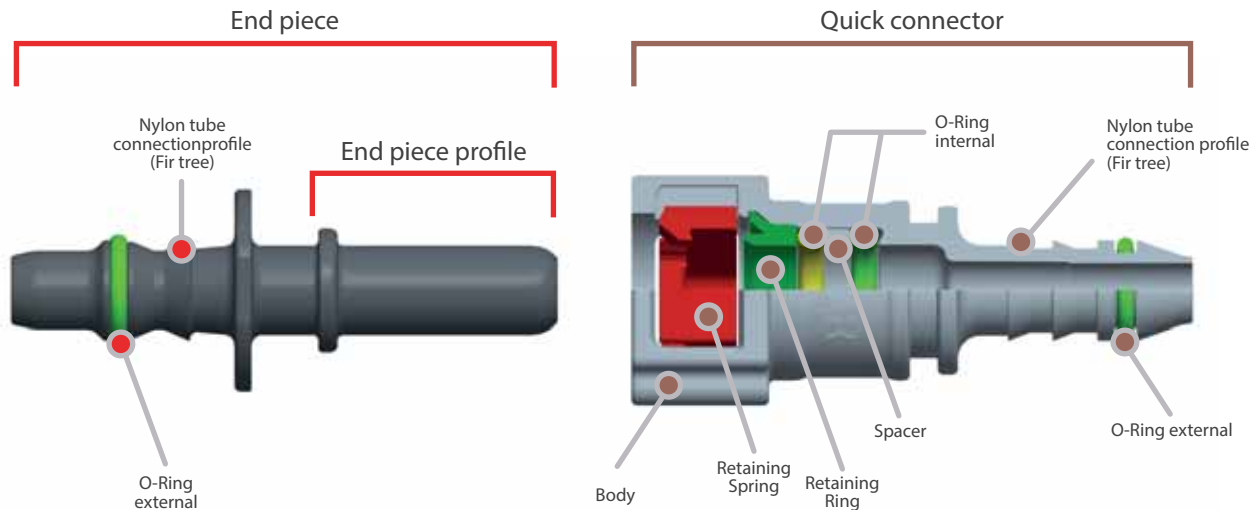
APPLICATION INFORMATION



- To prevent wires/tubes being damaged when passing through a panel hole
- When adjusted to fit the wire/ tube diameter, it also prevents, water and dust ingress
- Grommets for oblong holes also available, contact us

A specific need ? Contact us, p.122

COMPONENTS DESCRIPTION



ADVANTAGES

- Manufactured in plastic for reduced weight and corrosion resistance
- Helps meet environmental requirements/ Emissions.
- A very compact and short connector, easy for use.
- Reduces assembly cycle time and increases productivity: no tool required to disconnect in aftermarket applications.
- Variety of angles (0° - 30° - 35° - 45° - 55° - 65° - 90° - 3 way QCs), diameters (from 6,3 to 56mm), fluids (fuel, water, oil, air & vacuum...).
- Variety of performances which depend on type of fluid, diameter, temperature (from -40 to +125°) and pressure (from -1 to +10 bars).
- Versatility of our quick connectors: Integrated functions such as shut-off valve, calibrated valve, one-way-valve, pressure regulator valve, integrated pressure check valve.
- Critical cleanliness guaranteed on all quick connectors.
- Assembly proofing devices.

> *Our wide range of products is bringing technical solutions for fluid connection*

Connecting Quick Connectors



On / To
Cables or Tubes

Hose QC



For rubber hoses



p.110



On / To
Cables or Tubes

Pipe QC



For polyamid pipes



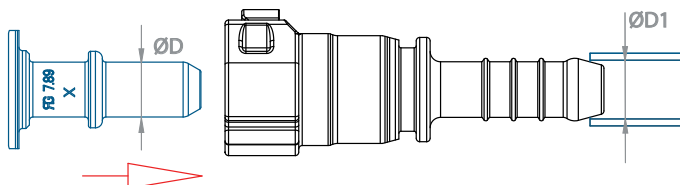
p.111








On cables or tubes

Hose Quick Connectors

For rubber hoses



All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Connection diameter (ØD) | Tube diameter (ØD1) | Geometry | Application |
|------------|--|--------------------------|---------------------|----------|-------------|
| B30 |  1 button QC | 7,89mm - 5/16" SAE | 7,5 | 0° | Fuel* |
| B31 |  1 button QC | 7,89mm - 5/16" SAE | 7,5 | 90° | Fuel* |
| B56 |  1 button QC | 7,89mm - 5/16" SAE | 7,5 | 65° | Fuel* |
| B49 |  End piece | 7,89mm - 5/16" SAE | 7,5 | 0° | Fuel* |
| S5 |  Adapter | - | 7,5 | 3 ways | Fuel* |

*These products are subject to automotive safety standards according to the specification SAE J2044, please specify the destination of the product when you make the order.
Special studies are possible to adapt the parts design to your application (material, temperature, pressure, fluid application...)

APPLICATION INFORMATION

- Hose to fix on the bead shape with a clamp
- Tube material: rubber
- Tube connection shape: Bead
- To respond to your need, we must have specifications and information on your operating conditions: please contact us to obtain the product corresponding to your application.
- The Quick connectors are not on stock and have to be manufactured on demand.

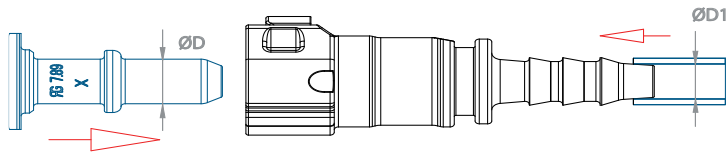
A specific need ? Contact us, p.122






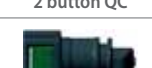


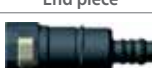
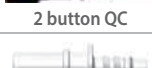
On cables or tubes

Pipe Quick Connectors

For polyamid pipes



All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Connection diameter (ØD) | Tube diameter (ØD1int & ØD1ext) | Geometry | Application | Added function |
|------------|--|--------------------------|---------------------------------|----------|------------------------|-------------------|
| B21 |  2 button QC | 7,89mm - 5/16" SAE | 6x8 | 0° | Fuel* | - |
| B24 |  2 button QC | 7,89mm - 5/16" SAE | 6x8 | 0° | Fuel* | Shut off valve ** |
| B22A |  2 button QC | 7,89mm - 5/16" SAE | 6x8 | 45° | Fuel* | - |
| B22 |  2 button QC | 7,89mm - 5/16" SAE | 6x8 | 90° | Fuel* | - |
| B69 |  End piece | 7,89mm - 5/16" SAE | 6x8 | 0° | Fuel* | - |
| J19 |  2 button QC | 16 mm | 10x12,5 | 0° | Fuel* | Shut off valve ** |
| 020492000 |  End piece | 16 mm | 10x12 | 0° | Fuel* | - |
| 215319000 |  2 button QC | 7,89mm - 5/16" SAE | 6x8 | 0° | Water / Drinking water | - |

*These products are subject to automotive safety standards according to the specification SAE J2044, please specify the destination of the product when you make the order.
Special studies are possible to adapt the parts design to your application (material, temperature, pressure, fluid application...)

APPLICATION INFORMATION

- Polyamid pipe to fix on the fir tree shape in force with or without expansion process
- Tube material: Polyamides
- Tube connection shape: Fir tree
- Shut off valve ** is specified to allow flow when connected to an end piece and no flow when disconnected.
- To respond to your need, we must have specifications and information on your operating conditions: please contact us to obtain the product corresponding to your application.
- The Quick connectors are not on stock and have to be manufactured on demand.

A specific need ? Contact us, p.122

Connecting Grounding Clips



On Panel edges

Grounding Wire Connectors



For electric wires with sheath



p.114



On Panel edges

Lugged Grounding Connectors



For electric wires with lugs



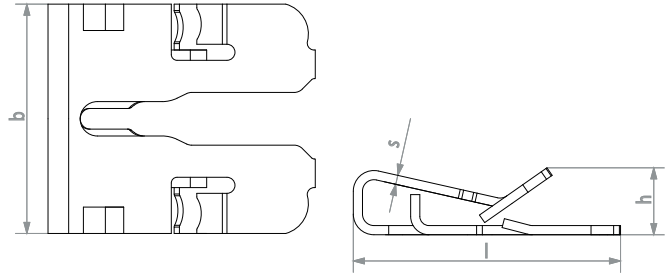
p.115



On Panel
edges

Grounding Wire Connectors

For electric wires with sheath

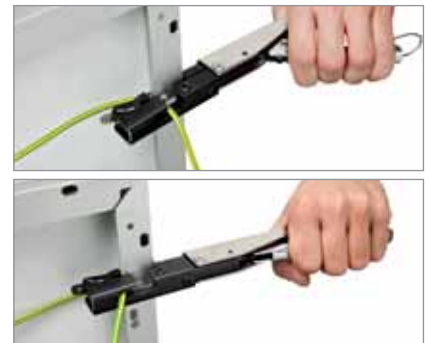
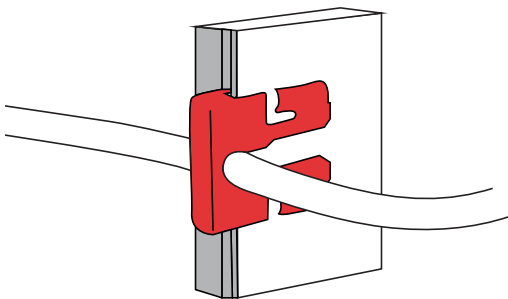


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Panel thickness (F) | Wire type | Length (l) | Width (b) | Height (h) | Material* thickness (s) | Material* | Carton quantity |
|------------|----------------------------|-----------|------------|-----------|------------|-------------------------|-----------|-----------------|
| 220492000 | 1,2-2,5 | H07V-K6 | 23,3 | 20,0 | 5,84 | 0,8 | CS-M2.0 | 2 000 |
| 222717000 | ARaymond installation tool | | | | | | | |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- Use on aluminium frames panels (For examples: solar panels)
- To ensure conductivity between an Aluminium edge and a grounding wire type H07V-K6
- One single action to cutting the wire insulation, connecting the wire and fixing it to the frame
- For use with AR installation tool, reference 222717000.

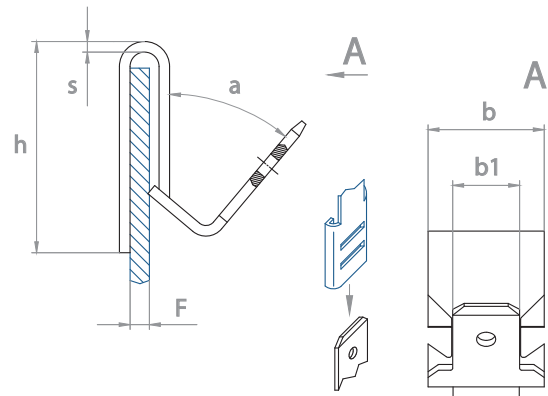
Pictures of the installation of the part on a solar panel, for example



On Panel
edges

Lugged Grounding Connectors

For electric wires with lugs

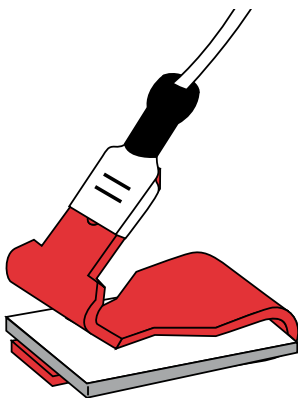


All dimensions in mm, angles in ° / Other dimensions and variants on request

| References | Design | Panel thickness (F) | Height (h) | Width (b) | Lug width (b1) | Lug quantity | Lug angle (a) | Material* thickness (s) | Material* | Carton quantity |
|------------|--------|---------------------|------------|-----------|----------------|--------------|---------------|-------------------------|-----------|-----------------|
| 055625000 | | 0,3-0,5 | 9 | 10 | 6,3 | 1 | 40 | 0,5 | CS-ZnCR3 | 10 000 |
| 214634001 | | 0,4-1,5 | 16 | 11 | 6,3 | 1 | 40 | 0,8 | CS-ZnCR3 | 5 000 |
| 014354004 | | 1-2 | 16 | 11 | 6,3 | 1 | 40 | 0,8 | CS-ZnCR3 | 5 000 |
| 019765003 | | 1-2 | 16 | 16 | 6,3 | 2 | 40 | 0,8 | CS-ZnCR3 | 3 000 |

* For material description see the flap at the end of the catalog

APPLICATION INFORMATION



- For grounding metal panels
- To ensure conductivity between a metal edge and a grounding wire with a lug connector
- For insertion onto the edge by hand or with a mallet
- With sharp teeth to ensure good pull off resistance and a good connection through the surface treatment of panels

A specific need ? Contact us, p.122

| | | | |
|---|---------|--|-------|
| A | | P | |
| Adhesive Cable Clips - Double cables..... | 41 | Panel Clips - S shape/ Barbs on both legs..... | 64 |
| C | | Panel Clips - Snap on lock..... | 65 |
| Cable Clips - Double tube..... | 20 | Panel Clips - U shape/ Barbs on both legs..... | 62 |
| Cable Clips - Swivel tube..... | 22 | Panel Clips - U shape/ Barbs on one leg..... | 63 |
| Cable Clips - Triple tubes..... | 21 | Panel Pins - Fir tree fix..... | 74 |
| Cable Clips Screw Fixed - P shape..... | 50 | Panel Pins - Plasti plug..... | 75 |
| Cable Clips Screw Fixed - V shape..... | 48-49 | Panel Pins - Push to lock rivet..... | 70 |
| Cable Edge Clips - Double with rolled edge..... | 46 | Panel Pins - Rokut rivets..... | 72-73 |
| Cable Edge Clips - Single standard..... | 44 | Pipe Quick Connectors - For polyamid pipes..... | 111 |
| Cable Edge Clips - Single with rolled edge..... | 45 | Plastic Snap in Nuts - For oblong holes..... | 92 |
| Cable Edge Clips - Universal..... | 47 | Plastic Snap in Nuts - For square holes..... | 91 |
| Cable Ties - For tube mounting..... | 14 | Plug in Adapters - For cable ties..... | 54 |
| Cable Ties - Re-openable..... | 13 | Plug in Cable Clips - Manual locking..... | 32 |
| Cable Ties - Standard..... | 12 | Plug in Cable Clips - Omega clips..... | 33 |
| Caps - For oblong holes..... | 106 | Plug in Cable Clips - Standard/ Double tube..... | 28-29 |
| Caps - For round holes..... | 105 | Plug in Cable Clips - Standard/ Single tube..... | 24 |
| E | | Plug in Cable Clips - Swivel/ Double tube..... | 30 |
| Edge Mounting Adapters - For cable clips/ 0°..... | 57 | Plug in Cable Clips - Swivel/ Single tube..... | 26-27 |
| Edge Mounting Adapters - For cable clips/ 90°..... | 58 | Plug in Cable Clips - Universal..... | 31 |
| Edge Mounting Adapters - For cable ties..... | 55 | Plug Mounting Cable Ties - For tube mounting..... | 16 |
| Edge Mounting Adapters - Universal..... | 56 | Push Pin Clips - Multi cables..... | 36 |
| Edge Mounting Cable Clips - Swivel tube..... | 23 | Push Pin Clips - Single cable..... | 34-35 |
| Edge Mounting Cable Ties - For tube mounting..... | 15 | S | |
| G | | Shaft Retainers - C clip for grooved shafts..... | 80 |
| Grommets - For round holes..... | 107 | Shaft Retainers - Circular push on fix - Heavy duty..... | 82-83 |
| Grounding Wire Connectors - For electric wires with sheath..... | 114 | Shaft Retainers - Circular push on fix - Light duty..... | 81 |
| H | | Shaft Retainers - Circular push on threaded studs..... | 85 |
| Hose Quick Connectors - For rubber hoses..... | 110 | Shaft Retainers - Rectangular push on fix..... | 84 |
| L | | Stamped Nuts - Self-Locking - For threaded studs..... | 87 |
| Lugged Grounding Connectors - For electric wires with lugs..... | 115 | Stamped Nuts - Self-Threading- For smooth pins..... | 86 |
| M | | Stud Cable Clips - Double cables..... | 40 |
| Metal Snap in Nuts - For metric bolts..... | 88 | Stud Cable Clips - Single cable..... | 38-39 |
| Metal Snap in Nuts - For ST screws..... | 89 | Stud Mounting Cable Ties - For tube mounting..... | 17 |
| Metal Snap in Nuts - Metric cage nuts..... | 90 | Stud Panel Clips - For insulation fixing..... | 76 |
| Metal Snap on Nuts - For metric bolts..... | 94 | T | |
| Metal Snap on Nuts - For ST screws..... | 96 | Trim Clips - Standard..... | 66 |
| Metal Snap on Nuts - For ST screws / With retaining tab..... | 98-99 | | |
| Metal Snap on Nuts - Universal- For metric bolts..... | 93 | | |
| Metal Snap on Nuts - Universal- For ST screws..... | 95 | | |
| Metal Spring Rings - For oblong holes..... | 104 | | |
| Metal Spring Rings - For round holes..... | 102-103 | | |

PART NUMBER INDEX

| | | | | | |
|------------|----|-----------|-----|-----------|-----|
| 011182005 | 84 | 013133005 | 99 | 015501003 | 93 |
| 0111204003 | 84 | 013133006 | 99 | 015509000 | 107 |
| 0111245004 | 84 | 013176010 | 93 | 015548003 | 89 |
| 0111289005 | 46 | 013176016 | 93 | 015617002 | 94 |
| 0111330002 | 84 | 013199003 | 96 | 015617003 | 94 |
| 0111347002 | 99 | 013219004 | 99 | 015954002 | 99 |
| 0111463004 | 89 | 013219005 | 99 | 016048000 | 24 |
| 0111513001 | 84 | 013266000 | 73 | 016205003 | 93 |
| 0111516006 | 64 | 013266001 | 73 | 016205004 | 93 |
| 0111619003 | 63 | 013266002 | 73 | 016293002 | 75 |
| 0111620000 | 75 | 013414006 | 62 | 016437001 | 66 |
| 0111748003 | 84 | 013427001 | 12 | 016512000 | 75 |
| 0111802003 | 63 | 013428000 | 12 | 016512001 | 75 |
| 0111847004 | 62 | 013429002 | 12 | 016547000 | 39 |
| 0111855003 | 65 | 013430000 | 12 | 016608002 | 29 |
| 0111876004 | 81 | 013430001 | 12 | 016673000 | 106 |
| 0111912002 | 96 | 013475003 | 46 | 016770001 | 94 |
| 0111914007 | 86 | 013493004 | 46 | 016850001 | 24 |
| 0111936004 | 45 | 013695002 | 96 | 016983000 | 20 |
| 0111959002 | 83 | 013698003 | 64 | 017098000 | 32 |
| 0111967002 | 99 | 013699001 | 96 | 017160001 | 54 |
| 0111993004 | 86 | 013730002 | 84 | 017289000 | 107 |
| 012036005 | 89 | 013750003 | 63 | 017363000 | 29 |
| 012070004 | 63 | 013778002 | 96 | 017385000 | 73 |
| 012148004 | 87 | 013778003 | 96 | 017385002 | 73 |
| 012204009 | 62 | 013806004 | 99 | 017420003 | 20 |
| 012240004 | 99 | 013825003 | 99 | 017482000 | 32 |
| 012240005 | 99 | 013888001 | 54 | 017489000 | 70 |
| 012247006 | 46 | 013965006 | 93 | 017521000 | 32 |
| 012269005 | 86 | 013965008 | 93 | 017529000 | 32 |
| 012271004 | 75 | 013973004 | 80 | 017713000 | 32 |
| 012271015 | 75 | 014043008 | 95 | 017890001 | 55 |
| 012301010 | 75 | 014075001 | 33 | 017905001 | 74 |
| 012301011 | 75 | 014105002 | 96 | 017905003 | 74 |
| 012367002 | 99 | 014130000 | 54 | 017960000 | 107 |
| 012415004 | 89 | 014142000 | 73 | 018000000 | 75 |
| 012470003 | 87 | 014173003 | 46 | 018148002 | 65 |
| 012526000 | 13 | 014277005 | 45 | 018177003 | 80 |
| 012528000 | 13 | 014333002 | 99 | 018348005 | 45 |
| 012574001 | 75 | 014343005 | 81 | 018415002 | 45 |
| 012574002 | 75 | 014354004 | 115 | 018441000 | 24 |
| 012583002 | 20 | 014519003 | 95 | 018524000 | 20 |
| 012604001 | 87 | 014519005 | 95 | 018529001 | 45 |
| 012631006 | 75 | 014584000 | 73 | 018539001 | 21 |
| 012631010 | 75 | 014584001 | 73 | 018551002 | 46 |
| 012694001 | 73 | 014691000 | 13 | 018556000 | 21 |
| 012696000 | 73 | 014691004 | 13 | 018572002 | 83 |
| 012696014 | 73 | 014767000 | 33 | 018594002 | 95 |
| 012710031 | 73 | 014812001 | 65 | 018610000 | 70 |
| 012738003 | 20 | 014832001 | 16 | 018610003 | 70 |
| 012744001 | 46 | 014832002 | 16 | 018690003 | 47 |
| 012757003 | 99 | 014885002 | 94 | 018709002 | 88 |
| 012763003 | 96 | 015008000 | 33 | 018751001 | 74 |
| 012821000 | 73 | 015009000 | 75 | 018751003 | 74 |
| 012821001 | 73 | 015009001 | 75 | 018776000 | 24 |
| 012893006 | 96 | 015081000 | 75 | 018795003 | 70 |
| 012893007 | 96 | 015095002 | 94 | 018890000 | 32 |
| 012911001 | 75 | 015118001 | 16 | 018900001 | 20 |
| 012911008 | 75 | 015181001 | 33 | 019050000 | 24 |
| 012964005 | 65 | 015197002 | 91 | 019236004 | 81 |
| 012991003 | 89 | 015212001 | 81 | 019246000 | 74 |
| 013011005 | 73 | 015269000 | 70 | 019408001 | 55 |
| 013011006 | 73 | 015270001 | 33 | 019496002 | 83 |
| 013031002 | 62 | 015371003 | 93 | 019503000 | 91 |
| 013075003 | 65 | 015435002 | 63 | 019752001 | 55 |
| 013126004 | 62 | 015463001 | 93 | 019765003 | 115 |

PART NUMBER INDEX

| | | | | | |
|----------------|-----|----------------|-----|----------------|-----|
| 019778000..... | 32 | 054044024..... | 93 | 056792000..... | 12 |
| 020040000..... | 21 | 054116005..... | 50 | 056799000..... | 12 |
| 020074000..... | 70 | 054136006..... | 49 | 056799002..... | 12 |
| 020235001..... | 88 | 054170000..... | 33 | 056873001..... | 107 |
| 020305002..... | 58 | 054207005..... | 57 | 056889000..... | 12 |
| 020492000..... | 111 | 054218008..... | 57 | 057255002..... | 21 |
| 020494000..... | 17 | 054219006..... | 58 | 060637002..... | 22 |
| 020525001..... | 45 | 054220004..... | 58 | 060655001..... | 22 |
| 020586001..... | 83 | 054283001..... | 31 | 060710001..... | 22 |
| 020726000..... | 32 | 054436007..... | 49 | 060776000..... | 22 |
| 020758001..... | 106 | 054477002..... | 20 | 060988001..... | 41 |
| 020857003..... | 99 | 054478001..... | 24 | 061000001..... | 22 |
| 051833009..... | 81 | 054500003..... | 49 | 061240000..... | 27 |
| 051834003..... | 81 | 054516002..... | 80 | 061357001..... | 36 |
| 051835014..... | 81 | 054518005..... | 80 | 061576002..... | 23 |
| 051856006..... | 81 | 054631004..... | 49 | 061585005..... | 23 |
| 051857006..... | 81 | 054633006..... | 80 | 062314001..... | 73 |
| 051858007..... | 81 | 054649001..... | 96 | 062314002..... | 73 |
| 051859002..... | 81 | 054712015..... | 62 | 063274001..... | 35 |
| 051955017..... | 49 | 054749003..... | 50 | 063277001..... | 73 |
| 051955021..... | 49 | 054799001..... | 39 | 063277002..... | 73 |
| 051963004..... | 49 | 054947009..... | 83 | 063350001..... | 35 |
| 051964003..... | 49 | 055111000..... | 99 | 063571008..... | 35 |
| 052047004..... | 64 | 055127005..... | 44 | 063652000..... | 73 |
| 052213000..... | 105 | 055128001..... | 44 | 063863000..... | 73 |
| 052213001..... | 105 | 055129001..... | 44 | 064262000..... | 36 |
| 052225000..... | 64 | 055130001..... | 44 | 064266001..... | 35 |
| 052244001..... | 49 | 055131013..... | 44 | 064576000..... | 16 |
| 052245001..... | 49 | 055132001..... | 44 | 064697001..... | 35 |
| 052466005..... | 49 | 055133001..... | 44 | 064894001..... | 35 |
| 052495005..... | 47 | 055134001..... | 44 | 064967000..... | 36 |
| 052540000..... | 50 | 055154001..... | 35 | 080465002..... | 14 |
| 052544000..... | 50 | 055259001..... | 24 | 080477000..... | 14 |
| 052674007..... | 45 | 055286007..... | 31 | 080487000..... | 14 |
| 052675006..... | 81 | 055297000..... | 36 | 080983000..... | 14 |
| 052835008..... | 86 | 055351000..... | 21 | 081083000..... | 22 |
| 052864001..... | 73 | 055404002..... | 103 | 081104000..... | 14 |
| 053054002..... | 105 | 055438006..... | 103 | 081127001..... | 14 |
| 053054004..... | 105 | 055439002..... | 103 | 081157000..... | 22 |
| 053133005..... | 49 | 055451001..... | 21 | 081226000..... | 22 |
| 053133010..... | 49 | 055465001..... | 40 | 081284000..... | 14 |
| 053142001..... | 64 | 055473000..... | 31 | 081287001..... | 14 |
| 053163007..... | 33 | 055533002..... | 103 | 081295000..... | 14 |
| 053164001..... | 33 | 055536000..... | 64 | 081354000..... | 14 |
| 053188000..... | 105 | 055625000..... | 115 | 081363000..... | 14 |
| 053188007..... | 105 | 055639007..... | 99 | 081379000..... | 22 |
| 053296000..... | 105 | 055689001..... | 39 | 081382000..... | 22 |
| 053296001..... | 105 | 055766000..... | 29 | 081401000..... | 23 |
| 053313010..... | 93 | 055969000..... | 54 | 081418000..... | 27 |
| 053327006..... | 63 | 055975000..... | 92 | 081424003..... | 22 |
| 053328004..... | 62 | 055995000..... | 91 | 081442000..... | 27 |
| 053438003..... | 63 | 055995001..... | 91 | 081471000..... | 27 |
| 053490001..... | 33 | 055999000..... | 39 | 081474001..... | 27 |
| 053670002..... | 92 | 056081000..... | 39 | 081580000..... | 27 |
| 053748000..... | 56 | 056299000..... | 16 | 081624000..... | 27 |
| 053749000..... | 56 | 056350000..... | 16 | 081778002..... | 22 |
| 053760004..... | 20 | 056476000..... | 12 | 081790000..... | 27 |
| 053810006..... | 47 | 056476001..... | 12 | 081794000..... | 27 |
| 053853001..... | 91 | 056654001..... | 35 | 081873000..... | 30 |
| 053901011..... | 49 | 056686000..... | 12 | 081898000..... | 30 |
| 053901016..... | 49 | 056686001..... | 12 | 081929000..... | 14 |
| 053934007..... | 49 | 056688000..... | 12 | 081966000..... | 14 |
| 054025008..... | 58 | 056689000..... | 12 | 081995001..... | 22 |
| 054026007..... | 57 | 056750000..... | 107 | 082047001..... | 23 |
| 054030000..... | 57 | 056766000..... | 12 | 082131000..... | 27 |
| 054044011..... | 93 | 056767000..... | 12 | 082165000..... | 14 |

PART NUMBER INDEX

| | | | | | |
|-----------------|-----|-----------------|-----|-----------------|-----|
| 082258001 | 30 | 190042000 | 15 | 214672000 | 106 |
| 082351000 | 30 | 200139000 | 76 | 215319000 | 111 |
| 082400000 | 14 | 200439000 | 40 | 215481000 | 103 |
| 082420000 | 30 | 200504001 | 45 | 215635001 | 99 |
| 082604000 | 14 | 201012000 | 74 | 216956000 | 16 |
| 082651000 | 15 | 201012002 | 74 | 218079000 | 104 |
| 082652000 | 15 | 201143000 | 29 | 218080000 | 104 |
| 082653000 | 15 | 201174002 | 15 | 220003000 | 103 |
| 104009004 | 66 | 201614001 | 17 | 220492000 | 114 |
| 108011000 | 41 | 201793000 | 70 | 222717000 | 114 |
| 108060003 | 39 | 201793001 | 70 | 228187001 | 47 |
| 108130000 | 24 | 202105000 | 103 | 230285000 | 90 |
| 108233000 | 39 | 202339000 | 20 | 230286000 | 90 |
| 108408001 | 16 | 202395000 | 106 | 230287000 | 90 |
| 110074002 | 21 | 202409000 | 104 | 230288000 | 90 |
| 110075001 | 20 | 202493000 | 70 | 230289000 | 90 |
| 112019001 | 105 | 202515000 | 103 | 230290000 | 90 |
| 112064000 | 106 | 202527000 | 103 | 230291000 | 90 |
| 112145000 | 105 | 202587000 | 17 | 230292000 | 90 |
| 128689004 | 103 | 203245000 | 88 | 230293000 | 90 |
| 128949006 | 104 | 203297005 | 56 | 230294000 | 90 |
| 129597000 | 29 | 203449000 | 17 | 230295000 | 90 |
| 129754002 | 103 | 203697005 | 56 | B21 | 111 |
| 130037002 | 103 | 203758000 | 104 | B22 | 111 |
| 130562001 | 104 | 203870000 | 15 | B22A | 111 |
| 130793007 | 93 | 203970000 | 103 | B24 | 111 |
| 131459001 | 104 | 204303000 | 103 | B30 | 110 |
| 131473003 | 103 | 204367001 | 76 | B31 | 110 |
| 131474001 | 104 | 204469000 | 66 | B49 | 110 |
| 132029000 | 31 | 204496000 | 32 | B56 | 110 |
| 132033001 | 24 | 204803000 | 103 | B69 | 111 |
| 132068001 | 23 | 205203001 | 23 | J19 | 111 |
| 132644004 | 103 | 205246000 | 16 | S5 | 110 |
| 135200002 | 88 | 205951000 | 27 | | |
| 135209004 | 85 | 206444000 | 104 | | |
| 136895002 | 62 | 206858000 | 107 | | |
| 136918003 | 64 | 206941000 | 39 | | |
| 137808001 | 88 | 206960004 | 93 | | |
| 138100000 | 87 | 206987000 | 74 | | |
| 138101003 | 87 | 207073000 | 103 | | |
| 138104000 | 87 | 207249000 | 105 | | |
| 138330004 | 93 | 207308000 | 106 | | |
| 138331003 | 93 | 207543000 | 104 | | |
| 138603002 | 83 | 207747000 | 91 | | |
| 138605003 | 83 | 207926000 | 70 | | |
| 138608003 | 83 | 207999001 | 89 | | |
| 138613002 | 83 | 208025000 | 16 | | |
| 138617000 | 83 | 208071000 | 107 | | |
| 138618003 | 83 | 208596000 | 13 | | |
| 138642003 | 85 | 208723000 | 104 | | |
| 138646006 | 85 | 208738001 | 55 | | |
| 138786013 | 86 | 209013000 | 104 | | |
| 138802005 | 86 | 209684000 | 66 | | |
| 151177005 | 47 | 209874000 | 104 | | |
| 151255001 | 80 | 210121000 | 106 | | |
| 151658004 | 96 | 210701000 | 103 | | |
| 151769002 | 85 | 211439000 | 96 | | |
| 151838002 | 93 | 211723000 | 46 | | |
| 151854000 | 93 | 212576000 | 66 | | |
| 151857003 | 85 | 212657001 | 88 | | |
| 151898004 | 66 | 213504003 | 103 | | |
| 151924001 | 85 | 213505000 | 103 | | |
| 175000002 | 21 | 213591000 | 88 | | |
| 175057000 | 16 | 213933000 | 104 | | |
| 175155000 | 105 | 214278000 | 104 | | |
| 175200000 | 16 | 214634001 | 115 | | |

GENERAL TERMS AND CONDITIONS

1 - General information

These General Terms and Conditions apply to the contractual relationship between the supplier ARAYMOND INDUSTRIAL S.L. (hereinafter "Supplier" or "ARAYMOND INDUSTRIAL") and the Customer company (hereinafter "Customer").

The Customer's general terms and conditions expressly agreed by ARAYMOND INDUSTRIAL can apply in addition to the present General Terms and Conditions and the Particular Conditions, insofar as these Customer's general terms and conditions are not in contradiction with these terms and comply with contract law and competition law.

The present General Terms and Conditions apply to all contracts, all orders and all open orders.

It is expressly agreed that all references to Customer's documents on any documents, including on an Internet site, referring to another document, shall not be agreed by ARAYMOND INDUSTRIAL without its written and prior agreement. No website usage agreement or any other click through agreement on a website will have any applicability or binding effect whether or not Supplier clicks on an "ok", "I accept" or similar acknowledgment.

Any derogation to the present General Terms and Conditions shall be confirmed in writing.

The term in "writing" means any document drawn up on any paper, electronics medium or by fax.

Conversely any order or any acceptance of the Products constitutes full and entire acceptance of these General Terms and all the terms of the ARAYMOND INDUSTRIAL offer including the SPECIFICATIONS. The SPECIFICATIONS mean: (i) the Customer's written requirements specifically accepted in writing by ARAYMOND INDUSTRIAL relating to the Product, or (ii) the ARAYMOND INDUSTRIAL document validated by the Customer containing the characteristics defined as functional with indication of the measurement and testing resources used. The first order from the Customer shall be considered as an acceptance of last SPECIFICATIONS provided by the Supplier.

2 - The contract's scope of application

The following documents are part of the contract in the order shown below:

- (i) The present General Terms and Conditions,
- (ii) The Offer accepted by any means, in particular by acknowledgment of receipt,
- (iii) The SPECIFICATIONS completing the present General Terms and Conditions,
- (iv) The delivery order,
- (v) The invoice.

The following documents are not part of the contract: documents, catalogues, advertising, "Written" fees not mentioned and not expressly agreed by the Parties in the particular conditions.

3 - Method used to place orders

The contract is only valid after express agreement of the order by ARAYMOND INDUSTRIAL in the event that this order will have different terms from the Offer.

The order shall be accepted by any written means.

Any order expressly accepted by ARAYMOND INDUSTRIAL, whether closed or open, will be deemed to entail the Customer's acceptance of ARAYMOND INDUSTRIAL's offer.

Any order strictly in conformity with the Offer could not be the subject of confirmation and will de facto be regarded as accepted.

Any request of the Customer to recover his orders via a portal or any other means shall be subject to the agreement of ARAYMOND INDUSTRIAL. In any event, even though ARAYMOND INDUSTRIAL would have accepted this practice, the Customer will have to make sure that ARAYMOND INDUSTRIAL recovered the aforementioned orders. In this respect, in the absence of verification by the Customer, ARAYMOND INDUSTRIAL will not be held liable.

3.1 - Closed order

The closed order specifies the quantities, prices and timeframes in a closed manner.

3.2 - Open order and Program of delivery

The open order must satisfy the following conditions:

- It is limited in time by the agreed timeframe; and
- It defines the product's characteristics and prices; and
- Minimum and maximum quantities and execution timeframes are stipulated at the time of the open order's conclusion; and
- The pace of delivery orders defines quantities and timeframes that fall within the scope of the open order.

If the corrections to the forecasted estimates expressed by the Customer deviate of more than 20% upward or downward, of the amount of the said estimates, ARAYMOND INDUSTRIAL evaluates the consequences of these variations.

In the event of a variation whether upward or downward, the parties must meet to find a solution to the consequences of this variation, which could modify the contract's balance to ARAYMOND INDUSTRIAL's detriment. In the event of variation upward, ARAYMOND INDUSTRIAL will make all its efforts to fulfil the request of the Customer within quantities and times compatible with its capabilities (production, transport, subcontracting, human capabilities, financial capabilities etc).

3.3 - Amendment of the orders

Any modification to the contract requested by the Customer is conditional upon ARAYMOND INDUSTRIAL's express acceptance.

3.4 - Cancellation of order

The order expresses the Customer's irrevocable consent; the Customer cannot cancel such order without the prior and express consent of ARAYMOND INDUSTRIAL. In this case, the Customer shall indemnify ARAYMOND INDUSTRIAL for all of the expenses incurred (in particular specific equipment, research's costs, labour's and supplying's expenses, tooling) and for all direct and indirect consequences resulting thereof. In addition, the deposit already paid shall remain at ARAYMOND INDUSTRIAL.

4 - The order's preparatory and ancillary work

4.1 - Plans, researches, descriptions

All the technical plans, descriptions, documents or quotations given to the Customer are communicated within the framework of a loan for use whose purpose is the evaluation and the discussion of the commercial offer of ARAYMOND INDUSTRIAL. They will not be used by the Customer for any other purposes. ARAYMOND INDUSTRIAL keeps all of the material and intellectual property rights on the documents loaned. These documents shall be sent back to ARAYMOND INDUSTRIAL upon first request of ARAYMOND INDUSTRIAL.

4.2 - Handing-over of samples

The samples or prototypes transmitted to the Customer are covered by a strict confidentiality. Samples may only be furnished to a third party with ARAYMOND INDUSTRIAL's express authorisation.

4.3 - Conservation of tooling

The expenses incurred by ARAYMOND INDUSTRIAL for the research, the creation of tooling and the adjustment of manufacture shall be the subject of the Customer's financial participation.

Tools which are designed by ARAYMOND INDUSTRIAL and adjusted to its methods and its equipment shall remain ARAYMOND INDUSTRIAL sole property.

The Customer's participation in tooling expense shall not entail any transfer of material or intellectual property rights or know-how.

5 - Characteristics and status of products ordered

5.1 - Usage of the products

The delivered products shall comply with the SPECIFICATIONS at the time of delivery in accordance with the Incoterms (see Article 7.5 - Reception) and with the technical regulation and the technical standards as mentioned in the SPECIFICATIONS.

The Customer is responsible for ensuring that the product is used in normal foreseeable conditions of use and in accordance with safety and environmental legislation in effect at the place of use, as well as

with industry practice.

The Customer is solely responsible for determining whether such product is fit for a particular purpose and suitable for Customer's method of application.

Unless express provision mentioned on the product, the delivered product shall not be intended to be put in use for aeronautical purpose.

5.2 - Packing of the products

Packages not consigned shall not be taken back by ARAYMOND INDUSTRIAL. The Customer undertakes to dispose of packages in accordance with local environmental legislation.

5.3 - Transmission of the information concerning the product

The Customer undertakes to transmit to any sub-buyer any information that is useful to using the product. ARAYMOND INDUSTRIAL shall be responsible for the product's traceability, up to the date of delivery to the Customer.

6 - Intellectual property and confidentiality

6.1 - Intellectual property and know-how of the documents and the products

All drawings, know-how, designs, specifications, inventions, devices, developments, processes, copyrights, trademarks, patents and applications therefore, and other information or Intellectual Property whether registered or not, disclosed, handed over or otherwise provided to the Customer by the Supplier and all rights therein shall be collectively referred as "Intellectual Property" of the Supplier. Intellectual Property will remain the property of Supplier and will be kept confidential by Customer in accordance with these terms and conditions. Customer shall have no claim to, nor ownership interest in, any Intellectual Property and such other information, in whatever form and any copies thereof, shall be promptly returned to Supplier upon written request from Supplier. Customer acknowledges that no license or rights whether express or implied of any sort are granted to Customer hereunder in respect of any Intellectual Property, other than the limited right to use the Supplier's proprietary Products purchased from Supplier. Unless specifically provided for and itemized for payment as agreed to by Supplier, the sale of Products or Services by Supplier to Customer does not include any design, development or related services associated with the Intellectual Property of the Supplier.

Mentioning, incorporating of the Customer's title block, or any other Customer's detail in the drawing shall not be construed as any assignment whatsoever to the Customer of any IP and/or know-how rights attached the Drawing and the norms shown in the Customer's title block shall not in any case represent, or be interpreted as an endorsement by ARAYMOND INDUSTRIAL.

6.2 - Confidentiality

The parties enter into with one another a general obligation of confidentiality concerning the components (documents on any media whatsoever, discussion reports, plans, exchanges of computerised data, etc.) exchanged within the framework of the contract preparation and implementation.

However the following information shall not be subject of an obligation of confidentiality:

- Information belonging to the public domain at the time of the conclusion of the contract
- All information that is already lawfully known by a Party prior to the conclusion of the contract, or prior to the preliminary works to the conclusion of the contract.

These stipulations shall not impede ARAYMOND INDUSTRIAL's option to use its know-how and its own technology developed during the contract, in the absence of a specific agreement concluded between the parties. These provisions shall not impede ARAYMOND INDUSTRIAL's option to protect his achievements.

6.3 - Guarantee in the event of infringement

When design, drawing, technical information ("Data") is provided by the Customer, the Customer guarantees that such Data and their use do / will not infringe third party intellectual property rights or know-how., Customer further warrants that ARAYMOND INDUSTRIAL can use it freely without infringing a contractual or legal obligations.

The Customer shall hold ARAYMOND INDUSTRIAL harmless from direct or indirect consequences of any civil liability proceedings or criminal liability proceedings resulting from infringement or unfair competition proceedings.

When Intellectual Property rights are owned by Supplier, it warrants that the Parts manufactured under the contract do not directly infringe any third party intellectual property rights published at the time of the Supplier's offer and in the place of production. If a claim under this section results, or is likely to result, in an injunction or other order that would prevent Supplier from supplying or Customer from using Parts for their intended purpose, Supplier will at its option and expense either (i) secure a license of the Intellectual Property Right that permits Supplier to continue supplying the Parts to Customer, or (ii) modify the Parts so that they become non-infringing, or (iii) replace the Parts with non-infringing but practically equivalent Part.

Supplier will have no liability under this section unless Customer provides Supplier with full information, cooperation, and assistance regarding, and authority to defend, a claim covered by this section. Supplier will have no liability under this clause if and to the extent that a claim of infringement is based on (1) a Part modification made by Customer or a third party, (2) a Part modification made by Supplier at Customer's request, (3) use or interconnection by Customer of the Part in combination with other products not made or sourced by Supplier.

7 - Delivery, transport, inspection and acceptance of products

7.1 - Delivery timeframe

The delivery timeframe shall commence as of the latest of the following dates:

- the date of the order's acknowledgment of receipt,
- the date of receipt of all of the materials, equipment, tools, and execution details due by the Customer,
- the fulfilment date of prior contractual or legal obligations due by the Customer.

The agreed delivery timeframe is an important element which is specified in the Offer. However, timeframes stipulated are given for information purposes only and can be reconsidered if circumstances that are beyond ARAYMOND INDUSTRIAL's control occur.

7.2 - Delivery terms

The risks are transferred to the Customer upon delivery (Legal Acceptance), without prejudice to ARAYMOND INDUSTRIAL's right to rely on the benefit of the reservation of title clause or to make use of its right of retention.

The delivery is carried out in accordance with the Incoterms (INCOTERMS 2010).

In the event that the Customer has the initiative of the transport and bears the transport's cost, the Customer shall be responsible for all financial consequences for direct action of the carrier against ARAYMOND INDUSTRIAL.

7.3 - Transport, customs, insurance

Unless otherwise agreed, all operations involving transport, insurance, customs, maintenance, and bringing to the site shall be carried out and paid by the Customer, at its own risk. The Customer shall be responsible for the Legal Acceptance and for exercising, if need be, remedies against carriers, even if shipping has been done carriage free.

7.4 - Checking of the products

The Customer must, at its expense and under its responsibility, check or make check the product's conformity to the SPECIFICATIONS Drawing at the delivery time.

Any claim based on defects of quantity, quality or internal defects of the products, shall be made in a written notice to ARAYMOND INDUSTRIAL within the deadlines specified in Articles 336 and 342 of the Commercial Code ARAYMOND INDUSTRIAL.

7.5 - Reception

The Customer is required to carry out the Legal Acceptance of the Products by which it acknowledges said Product's conformity to the SPECIFICATIONS Drawing. The Legal Acceptance is deemed as recognition of the absence of visible defects.

GENERAL TERMS AND CONDITIONS

7.6 - Handling and storage

The Customer shall respect the recommendations relating to storage and handling including, but not limited to, reconditioning of pallets, change of conditioning by the non-utilization of the products fallen on the ground, or the inventory turnover to ensure the availability of the last index in force of the modification of the Products.

8 - Case of hardship and force majeure

8.1 - Clause of hardship

The Parties recognize that the ARAYMOND INDUSTRIAL Offer constitutes a reasonable and equitable basis of their co-operation. If the data on which this contract is based are modified with the result that ARAYMOND INDUSTRIAL encounters serious and unforeseeable difficulties (for example but not limited to the following, significant increases in raw material's prices ...), then ARAYMOND INDUSTRIAL, after prior written notification, will make the adjustments, which are necessary in consequence of the circumstances and which were not reasonably foreseeable at the time of the Offer, in order for the contract to be balanced.

8.2 - Force majeure

The occurrence of an event of force majeure will lead to the suspension of ARAYMOND INDUSTRIAL's obligations with regard to the Customer. However ARAYMOND INDUSTRIAL will inform the Customer as soon as possible of the occurrence of a case of force majeure. ARAYMOND INDUSTRIAL will endeavour to remedy the situation, which has thus arisen, as soon as reasonably possible. It is expressly agreed that the Parties shall meet in order to agree as to the postponement of ARAYMOND INDUSTRIAL's obligations, which are affected by the event of force majeure, and to the rescheduling of the instalment schedule. Should this event continue for a period longer than 10 calendar days, and in the absence of an agreement 15 days following notice of the occurrence of the event of force majeure, either Party may terminate the contract without prior notice. Pursuant to this contract, it is expressly agreed that events of force majeure shall be, in particular: the occurrence of incidents, as upheld by effective legislation or by case law, but also strikes or other blocking labour unrest, paralysing bad weather, blocking road accidents or incidents, fires, shortage of raw materials, or generally, the fact, in spite of all due care taken, of not being able to make the delivery in accordance with the instalment dates as a result of a ban on, or non-receipt, of carriage authorisations by the relevant authorities for all the plants concerned by the issuance.

9 - Establishment of the price

The prices are indicated in the Offer. They are invoiced in the Offer's conditions.

The price corresponds exclusively to the products and services specified in the Offer.

The payments are made in Euros unless specific provisions in the contract.

10 - Payment

10.1 - Term of payment

Unless otherwise expressly agreed in a specific agreement, payments are made in accordance with the payment terms as stated in the Offer. Any negotiation of compensation due to the change of payment term is prohibited.

The dates of payment agreed upon in the contract shall never be unilaterally reconsidered by the Customer for whatever reasons, even in the event of litigation.

The advance payments are made without discount, unless otherwise agreed in a specific agreement.

10.2 - Delay of payment

Any delay in payments will lead to the application of interests which is equal to the interest rate set out in Article 7 of Ley 3/2004 of December the 29th.

At ARAYMOND INDUSTRIAL's sole discretion, any delay in payments within due date will lead ARAYMOND INDUSTRIAL to withhold shipment of products, institute new terms of payment, cancel any order and ARAYMOND INDUSTRIAL will not be liable for direct or indirect consequences arising from such actions. In addition, ARAYMOND INDUSTRIAL shall be entitled to obtain reasonable compensation from the Customer for any recovery costs exceeding that fixed sum and incurred due to the Customers' late payment.

10.3 - Modification of Client's situation

In the event of deterioration of the Customer's situation noticed by a financial institution and attested by a significant delay in payments or when the financial position differs appreciably from the given data, the delivery will have place only in consideration of renegotiated terms of payment.

In the event of delay in payments, ARAYMOND INDUSTRIAL has a right of retention on the manufactured products and its accessories.

In the event of sale, of transfer, of handing-over in security or in the event of capital invested of his goodwill, or of a significant part of his assets or of his material by the Customer, also in the event that the bill did not return with acceptance within the seven days following its sending, ARAYMOND INDUSTRIAL reserves the right without injunction:

- to pronounce the termination of the contractual term and consequently the immediate payability of the sums still due
- to suspend all shipments
- to note on the one hand the annulment of all the current contracts and to practice on the other hand the retention of the received down payments, the held tooling and parts, until the determination of the possible indemnity.

10.4 - Compensation of the payments

The Customer undertakes not to engage into any illicit debiting or crediting or not to invoice ARAYMOND INDUSTRIAL for any amount that has not been expressly acknowledged by the latter as

being its responsibility. Any automatic debit shall constitute an outstanding payment and shall give rise to the application of the provisions of Article 10.2 with respect to delay in payments.

10.5 - Reservation of title

ARAYMOND INDUSTRIAL keeps full ownership of the properties that are the subject of the contract until the effective payment of the entire price in principal and ancillary amounts. The non-payment of any of the due date could lead to the claim of these products. However, as of delivery, the Customer assumes liability for any damages that these properties could suffer or cause.

11 - Responsibility/Liability

11.1 - Definition of ARAYMOND INDUSTRIAL's liability

ARAYMOND INDUSTRIAL's responsibility is strictly limited to complying with the SPECIFICATIONS Drawing.

Indeed, the Customer, as a professional in his field of competency, shall be able to define with precision the specifications according to his own industrial data or data of his Customers and consequently shall be able to appreciate that the SPECIFICATIONS fully corresponds to its expectations.

ARAYMOND INDUSTRIAL shall not be liable:

- for defects resulting from materials furnished by the Customer,
- for defects resulting from design carried out or recommended by the Customer,
- for defects that result partially or completely from normal wear and tear of the product, damages or accidents attributable to the Customer or to a third party,
- in the case of abnormal or atypical use or use that is inconsistent with the product's intended use, industry practice, or ARAYMOND INDUSTRIAL's advice or recommendations, in case of loss of traceability of the product by the Customer.
- If the Customer refuses to participate in a product recall, whether initiated internally or imposed by authorities, it will indemnify and hold ARAYMOND INDUSTRIAL harmless against any expense, claim or legal action resulting from any delay or failure to conduct the recall.

11.2 - Limitation of ARAYMOND INDUSTRIAL's liability

ARAYMOND INDUSTRIAL's liability shall be limited to direct material damages caused to the Customer that result from fault attributable to ARAYMOND INDUSTRIAL in implementing the contract.

ARAYMOND INDUSTRIAL shall not be required to compensate harmful consequences due to the faults of the Customer or of third parties in connection with the implementation of the contract.

ARAYMOND INDUSTRIAL shall not be liable for damages resulting from the Customer's use of technical documents, information or data from the Customer or imposed by the latter. Under no circumstances will ARAYMOND INDUSTRIAL be required to compensate immaterial or indirect damages, included but not limited to: losses in productivity, losses of chance, losses of benefit, commercial damage, shortfall, punitive damages.

If penalties and compensations planned were agreed by mutual agreement, these penalties and compensations have the value of fixed compensation, are in full discharge and are exclusive of any other sanction or compensation.

ARAYMOND INDUSTRIAL's civil liability, all causes taken together except for personal injuries and for gross misconduct liability, is limited to the amount of the selling price of the batch to which belongs the non-conform product.

The Customer guarantees waiver of remedy by its issuers or third parties in a contractual relationship with it, against ARAYMOND INDUSTRIAL or its insurers that is above and beyond the aforementioned limits and exclusions.

Notwithstanding anything contained in this agreement or any other document, Supplier's liability shall not exceed insurance coverage taken by the Supplier.

12 - Termination

12.1 - Supplier's right to terminate for Breach

Supplier reserves the right to terminate all or any part of the order, without any liability of Supplier to Customer or any other third party if Customer repudiates, breaches, or threatens to breach any of the terms.

12.2 - Supplier's right to terminate for Convenience

In addition to any other rights of Supplier to terminate all or any order, Supplier may, at its option, immediately terminate all or any part of the order at any time and for any reason by giving written notice to Customer.

13 - Amicable resolution of disputes

All disputes, controversies or differences that may arise between the parties hereto, out of or in relation to or in connection with contractual relationship or for the breach thereof, shall be settled amicably through negotiations in good faith.

14 - Applicable law - Attribution of jurisdiction

In the absence of amicable agreement, it is expressly agreed that any dispute relating to the contract shall be subjected to the Spanish law and shall be of the exclusive competence of the commercial Court of ARAYMOND INDUSTRIAL's headquarter, even in the event of appeal and of plurality of defendants.

15 - Miscellaneous

In the event that any clause of these Terms and Conditions or other elements of the contract should be or become invalid this shall not affect the validity of the remaining clauses.

None of the terms or conditions of these Terms and Conditions shall be deemed or construed to have been waived by any Party unless such waiver is set forth in a written instrument properly signed by such Party.

DISCLAIMER

"ARaymond", "ARaymond branches", "facility", "we", "our", "us", "the company", "the group", "subsidiary(ies)", "ARaymond company", "ARaymond Network" refers, in this Catalogue, to ARAYMOND INDUSTRIAL, S.L., located in Ctra. de Manresa Berga Km. 0,5 - 08272 Sant Fruitos De Bages, Barcelona, Spain, registered in Registro Mercantil de Barcelona under the registration number: Tomo 43761 Folio 163 Hoja B437597, which is an independent company and is the editor of this Catalogue and that is responsible for this Catalogue (hereinafter referred to as "ARaymond").

"Catalogue" means the information and any materials available in this Catalogue including, without any limitation, texts, figures, pictures, datasheets, product descriptions etc.

"Service(s)" refers, in this Catalogue, to services expressly defined on a case by case basis in a dedicated agreement signed by ARaymond.

"Quality" means, in this Catalogue, the conformity of a product to the PPAP drawing.

"Safety" and/or "safe" means, in this Catalogue, the conformity of a product to the PPAP drawing.

"Requirement(s)" means, in this Catalogue, the PPAP drawing.

THIS CATALOGUE DOES NOT CONSTITUTE AN OFFER OR AN AGREEMENT OF ANY KIND. THIS CATALOGUE DOES NOT CONSTITUTE A TECHNICAL NOTE. THE CATALOGUE IS PROVIDED «AS IS» AND ONLY FOR EVALUATION PURPOSE. THIS IS A MARKETING MATERIAL ONLY. IN THE EVENT THAT YOU WOULD BE INTERESTED BY ONE OF THE PRODUCT IN THIS CATALOGUE, PLEASE SEND A REQUEST FOR QUOTATION TO ARAYMOND. ARAYMOND WILL THEN SEND AN OFFICIAL OFFER WITH THE DRAWING OF THE PRODUCT, THE PRICE, DELIVERY TERMS AND THE APPLICABLE TERMS AND

CONDITIONS. ONLY THE ARAYMOND OFFER AND ARAYMOND TERMS AND CONDITIONS ATTACHED TO THIS OFFER WILL BE LEGALLY BINDING.

ARaymond makes no warranty or representation whatsoever regarding the Catalogue, its use or its suitability to meet specific needs.

ARAYMOND DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE ACCURACY, RELIABILITY, NOVELTY, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE CATALOGUE, NOR THAT WILL ITS USE NOT INFRINGE ON ANY THIRD PARTY'S RIGHTS.

ARaymond is not liable for any incidental, consequential or special damages of any kind due to the use of the Catalogue.

The Catalogue and/or its contents is copyrighted works of ARaymond and may be also protected by trademark laws, patent laws or other laws. All other copyrights, trademarks or patents not owned by ARaymond are the property of their respective owners. The only use permitted is to consult the Catalogue. Any rights not expressly granted herein are reserved. Except as expressly specified in these terms, nothing contained herein shall be construed as conferring any license or right of any copyright, trademark, patent, or any proprietary rights. Any unauthorized use of this Catalogue may violate rights, and so, ARaymond or any third party concerned may claim any damages or losses suffered.

This Catalogue is dated of June 2013.

If you need further information, please contact ARaymond.

Contact us

Our customer service

Just one phone number for your country,
from Monday to Friday

Consult the following page

Our advisors will take your call and give you the answer
or the appropriate department:

- Special requests: technical information, help with choosing a replacement or complementary product
- Supply chain requests: purchase order status, purchase order changes
- Commercial requests: prices, delivery times, availability, documentation



** The carton quantity is indicated on the product pages for each references, so please order multiply of this amount.*

• Your ARaymond contacts

The contact information for the subsidiary nearest you is given on the page opposite.

- **Our network of distributor-partners** is available as well, to give you advice on our products. In order to have the list of our distributor-partners and their contacts, please call your customer service.

On-line catalogue (available beginning of 2014)

We provide you with an on-line catalogue full of information:

- Search engine for queries by keyword, product reference, product family and application
- Detailed technical drawings of our parts
- 3D part viewing
- 24-hour access
- Regular updates

Visit our website:

www.araymond.com

www.araymond-industrial.com



Your ARaymond Industrial Contacts

BULGARIA, CZECH REPUBLIC, HUNGARY, POLAND, ROMANIA, SLOVAKIA, SLOVENIA

Cs. Armady 27

CZ 6 466 05 Jablonec - Czech Republic

Czech Rep Customer Service: +34 935 216 934

e-mail: contact.cz@araymond-industrial.com

FRANCE

ZA Technisud

38030 Grenoble Cedex 2 - France

Tel: +33 456 52 53 16

e-mail: contact.fr@araymond-industrial.com

GERMANY

Teichstrasse 57

79539 Lörrach - Germany

Tel: +49 7621 174-222

e-mail: contact.de@araymond-industrial.com

ITALY

Strada Complanare n. 26.

13040 Carisio (Verticelli) - Italy

Italian Customer Service: +34 935 216 933

e-mail: contact.it@araymond-industrial.com

SPAIN

Carretera Manresa a Berga, Km0.5

08272 Sant-Fruitos-de-Bages (Barcelona) - Spain

Tel: +34 935 216 933

e-mail: contact.es@araymond-industrial.com

TURKEY

TOSB 1.Cad. 14.Yol No. 9

41490 Cayirova - Kocaeli - Turkey

Tel: +90 262 658 1058 ext.159

e-mail: contact.tr@araymond-industrial.com

UNITED KINGDOM

Mill Court Oast - Mill Street

East Malling - Kent ME19 6BU - UK

Tel: +44 1732 871934

e-mail: contact.uk@araymond-industrial.com

OTHER COUNTRIES

English Customer Service: +34 935 216 934

e-mail: contact@araymond-industrial.com





www.araymond-industrial.com

Distributed by