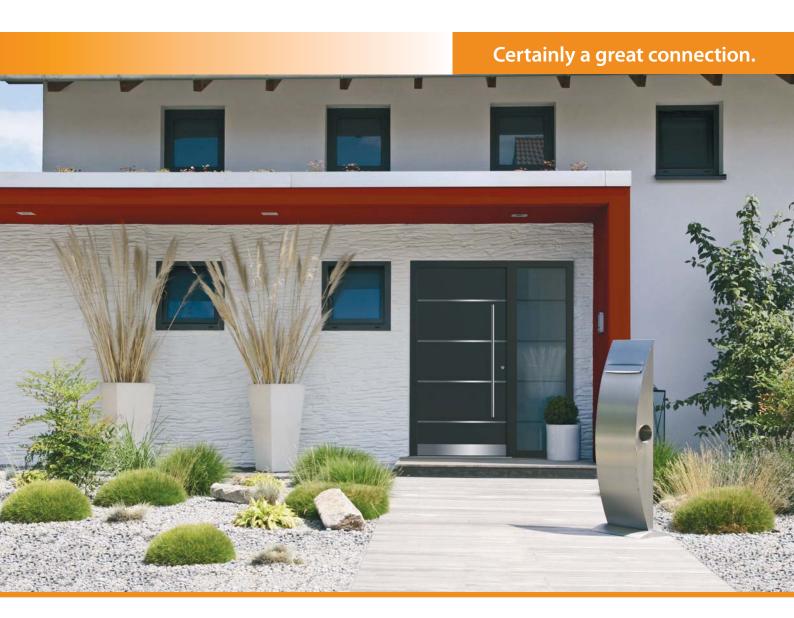
Connecting systems

for modern door and window construction













Friedrich Knapp Company founder

Welcome to the World of KNAPP®!

As a producer of patented connecting systems we develop and produce high-quality products which are distributed worldwide. Not only will our connecting systems convince – but also inspire you with the wide range of applications. The comprehensive service offers you the possibility to find the best, the most efficient and innovative solution for the realisation of your products. On the following pages you will find our connector systems for modern door and window construction. All connectors allow a high degree of prefabrication. The FIXclip and FIXclip-Profile system, especially for the window, was tested at ift Rosenheim and thus offers security both for planners, architects, contractors and building owners.

DUO 30, DUO 35 | The hook connector made of steel

System advantages:

- Easy to mount, concealed and immediately loadable
- Low cutting depth only 3 mm
- Flexible use as a variant $\emptyset = 30$ and 35 mm
- Optional mL / oL (with / without tolerance)
- To be installed with standard industrial screws
- Hooking way 15 mm



Installation example: Mounting on door leaf and facing element.

DUO 30 mL

Art.-No. K070





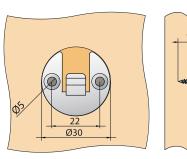


CS-screws 3,5x16 mm (not included)









Hooking way 15 mm



Installation DUO 30







or drilling according to mark



2) Mark with center punch



3) Screwing with CS-screws

DUO 35 mL

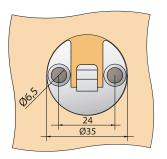
Art.-No. K061

DUO 35 oL

Art.-No. K062









Hooking way 15 mm

Optimized for CNC-processing: Euro screws 6x10 mm

Installation DUO 35







2) Drilling according to mark



3) Copy drill position with center punch and pre-drill with $\emptyset = 5$ mm 12 mm deep.



4)Screwing

Mounting: DUO 30 with 3,5x16 mm CS-screws / DUO 35 with 6x10 mm Euro screws, only 3 mm cutting depth.

Advantages: Concealed, self-tightening, demountable connector which allows shrinkage and expansion moving

(mL = with tolerances) or for exact placing (oL = without tolerances).

Installation: Drill installation holes using the TCT boring bit according to marking or by using depth gauge or center punches or with

CNC equipment.

Suitable materials:

All kind of wood and particle boards.

Application: Facades and windows, staircases and handrails, coverings and door covering layers.

TCT boring bit ($\emptyset = 30/35$ mm, adjustable depth gauge) | Art.-No. Z070 / Art.-No. Z071

Accessories: Center punch DUO 30/35 | Art.-No. K071 / Art.-No. K069, handrail punch DUO 30 | Art.-No. K075

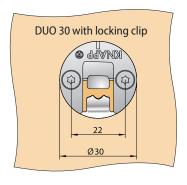
Adjustable boring template DUO 30/35 | Art.-No. K563

Locking clip

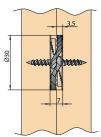
for DUO 30

Art.-No. K121





DUO 30 with locking clip



Mounting: By underlaying and screwing with DUO 30.

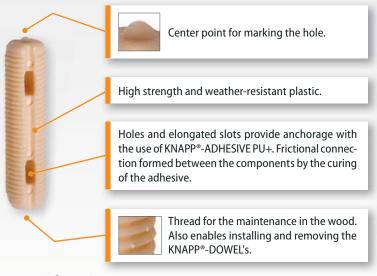
Advantages: Safety catch loads up to 24 kg (failure load approx. 73 kg).

KNAPP®-DOWEL

The modern dowel made of plastic

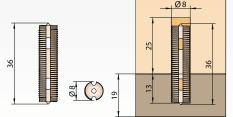
System advantages:

- Effective prefabrication drill in with dowel inserting machine (chamfer opposite drill hole 1 mm)
- Fast mounting connection is immediately loadable because traversal grooves raise the stability
- Depending on the material up to 6 KNAPP®-DOWELS are recommended for 600 mm
- Longitudinal grooves distribute the glue and prevent bulging of the panels (PVA glue)
- When the gluing is double-sided deeper drilling is recommended (+6 up to 8mm)
- No shrinking or swelling, risk of breakage or cleaving as with a hardwood dowel
- Weather resistant resistant compound for interior and exterior use
- I Stable through additional bonding with KNAPP®-ADHESIVE PU+ particularly high loads



KNAPP®-DOWEL 6 mm Art.-No. K066 6x28 mm Info: Moisten the surface of very dry wood before gluing.





More information:

www.knapp-connectors.com/dowel

Mounting: Knock in, optionally gluing with KNAPP®-ADHESIVE PU+.

Advantages: UV-resistant, self-tightening dowel.

Installation: Dowel-jig, power drill, dowel inserting machine.

Suitable materials: All kinds of wood materials (solid and composite materials). **Application:** Carcase furniture, interior design, windows, shopfitting.

Accessories: see page 23

KNAPP®-ADHESIVE PU+ | Art.-No. Z011

KNAPP®-DOWEL

Installation



 Drill with dowel inserting machine



or with table dowel driller



2) Gluing

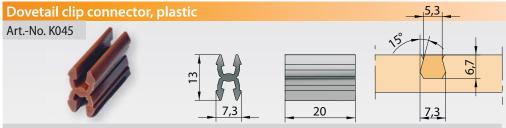


3) Knock in



4) Assemble

KLICK



Mounting: Clips into the dovetail groove.

Advantages: Concealed, self-tightening connector.

Using a plunge router or CNC and an original KNAPP® dovetail router, make a pocket

Installation: groove or continuous groove. Can also be used without groove in conjunction

with KLICKpro.

Suitable materials: Solid wood, wood panels, composite materials.

Application: For invisible fastening of trim or as an aid for gluing mitered corners.

Accessories: TCT router with $\emptyset = 8$ mm shank | Art.-No. K046/F



Installation









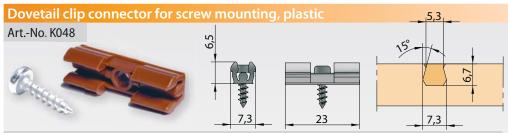
1) Cut grooves

2) Insert

3) Positioning

3) Assemble

sKLICK



Mounting: By screwing with PH-screw.

Advantages: Self-tightening, demountable connector for any angles 0-90°.

Using a plunge router or CNC and an original KNAPP® dovetail router, make a

Installation: pocket groove or continuous groove. Can also be used without groove in con-

junction with KLICKpro.

Suitable materials: Solid wood, wood panels, composite materials.

Application: For concealed fixing of panels, covers and trim.

Accessories: TCT router with $\emptyset = 8 \text{ mm shank} \mid \text{Art.-No. } \text{K}046/\text{F}$

PH-screw 3x13 mm | Art.-No. Z600



Installation









1) Cut grooves

2) Screwing

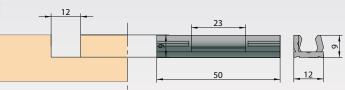
3) Positioning

3) Assemble

KLICKpro

Dovetail groove connector, plastic







KLICKpro can either be surface mounted or mounted into a groove. Mounting:

It is fixed by screwing, nailing or gluing.

Advantages: Concealed, self-tightening dovetail housing suitable for KLICK and sKLICK.

Cut either groove or rebate (9x12 mm by using a spindle moulder) or install Installation:

KLICKpro surface mounted. For use with KLICK or sKLICK.

Suitable Solid wood, wood panels, composite materials. materials:

Application: For mouldings and cover plates, for furniture.



Installation







1) Cut grooves

2) Screwing

3) Assemble

miniKLICK

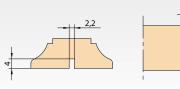
2-part dovetail clip connector, plastic

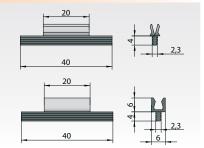
Art.-No. K059



Info: Moisten the surface of very dry wood before gluing.

2,2





Mounting: Gluing into pre-cutted groove with KNAPP®-ADHESIVE PU+.

Advantages: Concealed, self-tightening dovetail connector for glue on mounting.

Installation: With spindle moulder and original Knapp cutting saw blade.

Suitable materials:

Solid wood, wood panels, composite materials.

Application: All kinds of mouldings, interior glazing e.g. for interior doors.

Cutting saw blade 120 mm, Ø = 30 mm spindle | Art.-No. Z065, insert tool miniKLICK | Art.-No. K068 **Accessories:**

KNAPP®-ADHESIVE PU+ | Art.-No. Z011

Installation







3) Installation with insert tool



3) Assemble

1) Cut grooves

2) Gluing

FIXclip

Glazing bead and profile connector, plastic



The FIXclip was tested at ift-Rosenheim, which stated the given requirement classes.



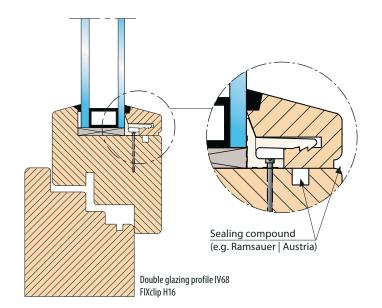
Resistance to wind load – EN 12210



Class 5



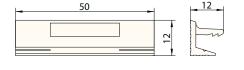


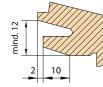


FIXclip H12

Art.-No. K078



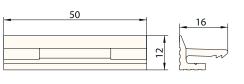




FIXclip H16

Art.-No. K076



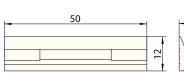




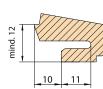
FIXclip H20

Art.-No. K077









Mounting: By nailing 1,2x25 mm (head diameter 2 mm) or screwing with PH-screw 3x25 mm.

Invisible fixing of glass and glazing beads, removable without damage, tested for wind load Class C5 (EN 12210) Advantages:

and shock resistance Class 3 (EN 13049).

Installation: With spindle moulder and cutting saw blade.

Suitable materials:

Glass profiles, sectional strip made of solid wood and composite materials.

Application: For glazing of doors and windows.

Cutter FIXclip for spindle $\emptyset = 30$ mm in the FIXclip sizes H16/H20 (H12 on request) available **Accessories:**

Cutter FIXclip for spindle $\emptyset = 40$ oder $\emptyset = 50$ mm available on request

Installation



1) Cut grooves



2) Fasten with nails



3) Click on the glazing beads 4) Assemble







FIXclip-Profile | The innovative glazing system

- I Glazing and sealing in one system
- Saves time Effective production process guaranteed (also on site)
- The perfect look No visible fasteners
- Dry glazing rabbet Hermetically sealed to eliminate condensation
- Simple mounting Just clip in the glazing-bead
- Safe No damage to the window glass by "faulty nailing"
- Tested Meets all requirements for windows







Information about the FIXclip-Profile is now available on CE-fix®, a data base for industry solutions: www.ce-fix.de

- Easy and fast to the CE-mark and declaration of conformity
- Valid throughout Europe

Resistance to wind load – EN 12210



Class C5/B5

Driving rain tightness – EN 12208



Class E1650



Air permeability – EN 12207



Class 4





Class 5





The screwed FIXclip-Profile GLE 18 was tested at ift-Rosenheim and met the highest requirements in all classes.

FIXclip-Profile

Comparison



Conventionally glass bar attached with exposed nails



New method with FIXclip-Profile (no visible nails and tight joint)





Slat cutter for FIXclip-Profile (45° miter cut)





Variants



Available colour	
ArtNo. Ko79/RAL 7040	GLE 18 window grey
ArtNo. Ko79/RAL 1001	GLE 18 beige
ArtNo. Ko79/RAL 8002	GLE 18 middle brown
ArtNo. Ko79/RAL 8014	GLE 18 dark brown
ArtNo. Ko79	GLE 18 black

RAL 7040
RAL 8002
RAL 1001
RAL 8014

Here in the CMYK-Color-Space shown colors are for guidance only. Binding RAL-colour-Values refer to the RAL-colour-Chart.

Mounting: By screwing with CS-screws 3x 20 mm with small head (in the given row of holes) or to shoot with wire nails 1,2x25 mm.

The completely invisible mounted FIXclip-Profile makes a perfect looking glass bead. With this new glazing method from

Advantages: KNAPP®, typical problems like rotten wood in the glazing rabbet, unclean silicone joints or visible fasteners like nails or

screwheads, belong to the past.

Installation: With table and cutting saw blade, cut the glass bar and the FIXclip-Profile on a chop saw or double head.

Suitable

materials: Glass / Mouldings

For all standard window and door fenestrations, such as insulated glass windowprofiles IV68/IV78 and fixed glazing.

The FIXclip-Profile is independent from the outside sealing system. The exterior sealing can be done by silicone,

gaskets or glued, wet or dry. Individual cutters for the glas bar are available on request.

Installation

Application:



1) Cut to size glass bar and FIXclip-Profile



2) Pressing pane of glass against outer seal



3) Screwing or nailing the FIXclip-Profile



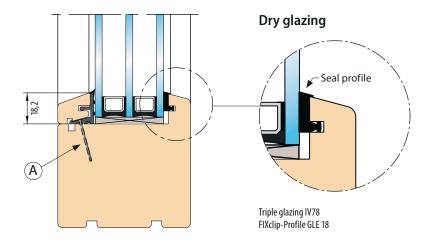
4)Clip on glas bar



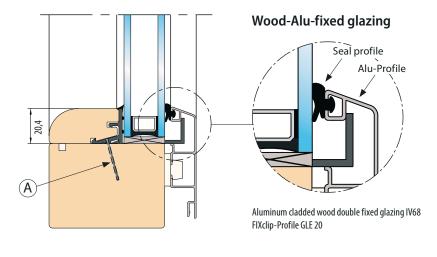
FIXclip-Profile

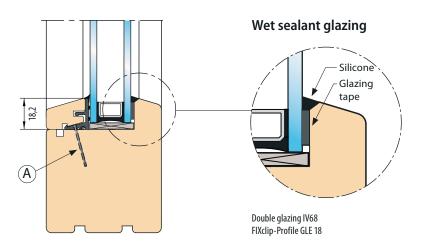
Processing options

Using KNAPP® FIXclip-Profile you are going to have the best system for interior glazing. The FIXclip-Profile is flexible, because of dry glazing, aluminum cladded wood windows for fixed glazing, structural sealant glazing and glazing sealant is possible.

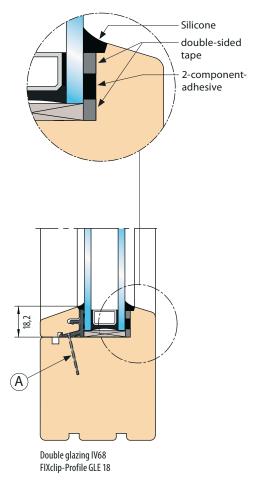


Fixation with wire nails 1,2x25 mm or CS-screws 3x20 mm





Structural sealant glazing



Our FIXclip-Profile service

We will advise you about the connection solution and production technology. Contact us by sending your window connection details. We provide you a non-binding quick and easy solution. A local sales representative will also advise you for a installation on site of the FIXclip-Profile in your production. We provide you a high quality glass cutter from the ZUANI company on hire.

Door and window construction

Selected reference project







THERMOSECUR front door, noblesse GmbH & Co. KG, www.thermosecur.de

Our Customer Service

The KNAPP®-Team provides competent advice and excellent service for your projects.

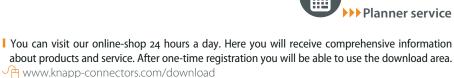
In Germany and Austria we offer full-coverage service by representatives on-site. You will find the right contact person easily and quickly.

www.knapp-connectors.com/ad

You can reach our internal consultants in Germany and Austria, Monday – Tuesday 8 a.m. to 5 p.m. and on Friday 8 a.m. to noon.

You can reach our global sales manager on phone +43 (o)664 / 88 51 52 87 or E-Mail : globalsales@knapp-connectors.com www.knapp-connectors.com/contact

Our Planner Service





We offer comprehensive planning and structural-engineering calculations for architects, planners and structural engineers. Contact us for your next project! We'd like to offer you statics predimensioning, recommending the right connector from KNAPP®. Benefit from our know-how, many years of experience and rely on our engineers consulting.

www.knapp-connectors.com/planner

KNAPP® offers the right connection for the areas of:

I Timber construction I Post-beam wood-glass-facade I Prefab walls I Timber construction engineering I Door- and window construction I Furniture and interior design I Glued glass elements for timber and metal construction







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Concealed I Self-tightening I Demountable



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