Connections for lightweight construction

hettinject

Technik für Möbel
hettlejct connecting technology – make tomorrow's furniture lighter
Intelligent solutions that connect all components to create a well-functioning system are key to providing future-proof flexibility in designing and constructing lightweight furniture. Optimum furniture would be impossible without them. That is our claim with regard to the innovative connections known as hettinject for lightweight construction. hettinject fittings connect all components – board, edge and fitting – perfectly. Strength and stability can be planned and established at exactly that point of the lightweight board at which they are needed.

Together with you and your ideas, we develop cost-efficient solutions for future furniture generations based on hettinject. We are looking forward to that – for the future belongs to lightweight construction.

www.hettinject.com
The principle of lightweight construction – using less wood to construct high-quality furniture

Economy and ecology are major objectives for the sustainable use of wood as a natural resource. Conserving this unique raw material requires innovations with which other materials can be processed in the same way and at the same time reduce the proportion of wood used. Hettinject connecting technology is undergoing a process of dynamic development that meets tomorrow’s challenges with lightweight solutions.

Lightweight boards offer advantages that cannot be met by conventional board materials. For less raw material input ensures cost-efficiency despite rising prices for raw materials and transport. Valuable wood is still used in the face layers of lightweight boards, an important quality feature of high-grade furniture. The use of face layers with a thickness of 2 mm or less will become standard in future.
fascinating furniture for living and working can be created with light materials. for lightweight boards are setting completely new standards in furniture construction and interior design. the innovative technology of hettinject fittings permits outstanding designs. a potential with which new markets can be developed.

with lightweight construction, form and function can be implemented both individually and economically. this form of construction is particularly suitable for exhibitions, shopfittings and interior design, as well as in contract business. transport and assembly costs are reduced appreciably. lightweight solutions for exhibition booths, shopfittings or wall elements for interior design can easily be realised in high-quality functional designs.

atmospheric light shows are easily produced with lightweight construction. spotlights or lighting strips can be integrated at any point in the furniture. the wiring is routed through the lightweight board where it is effectively invisible.
Large furniture items can be produced very much more easily with lightweight construction than was the case in the past. The invisible hettinject VB insert (page 25) can be used to create sturdy shelf systems of impressive size without a problem from frameless lightweight boards. One advantage of using lightweight boards is that, compared to conventional boards, a considerably larger span can be achieved without sagging. Even trendy shelf systems with thick side panels can be created without difficulty. Lightweight construction is also ideal for large sliding doors. The lower weight makes it possible to use lighter fittings. Less material – more design.
**hettinject** – the optimum connection for every kind of lightweight board

All the components for a lightweight board can be combined exactly according to personal requirements. The board is selected on the basis of its quality, the thickness of the face layer depending on the required load. The face layer can additionally be finished with special properties, such as resistance to fire and moisture, as well as with a whole variety of decors. In this way, a lightweight board can be produced entirely to meet specific requirements. One of the essential advantages of hettinject: the hettinject glued dowel ensures maximum strength and stability, even in lightweight boards with very thin face layer.

Dynamic loading in the furniture makes it necessary to connect both face layers with one another. Various forces acting on the board are absorbed directly via the hettinject.

hettinject is an innovative system with potential for development. Ask us for your personal solution!
**hettinject – connections with future potential**

The hettinject dowel for 6.3 mm direct fixing screws makes it possible to use fittings with premounted screws as well. Conventional fittings can be secured with hettinject for chipboard screws and also make it possible to use longer screws for this purpose.

hettinject offers unique systematic adaptability. The process can be adapted to the components used with total flexibility. A whole variety of glues can be used with hettinject, depending on the application, processing and cycle time. The glued dowels can also be fitted in various middle layers in a variety of ways, whether foamed, with honeycomb structure or of solid material. Maximum strength is achieved.
hettinject VB insert allows cabinet parts or individual boards to be connected invisibly, in a particularly robust yet detachable manner.

All the advantages of the connecting system can be used 100% with the hettinject Titan.

The benefits at a glance:

- Same interfaces
- High strength
- Tried-and-tested system
- Flexible positioning of the mounting points
- Adhesive channels can be adapted in line with requirements
- Adhesive can be adapted in line with requirements

red dot design award
honourable mention 2009

interzum award: intelligent material & design 2009

product design award 2009

hettinject – an award-winning innovation!

The revolutionary hettinject connecting system stands out through its lightness – for which it has already won several major awards.
The *hettinject* glued dowel – insert standard fittings at any point on the surface

Defects in the face layer due to chipping when drilling are automatically filled with glue.

**Face layer**

Glue applied over a large area

**Filling with glue**

**Glue channels**

Glue applied over a large area

Air gap (1 – 3 mm) between dowel and lower face layer compensates for tolerances

Every *hettinject* glued dowel guides the glue to the upper and lower face layers via flow channels. This produces a three-dimensional structure similar to a supporting system connecting the face layers. The result is a highly stable structure capable of absorbing tensile forces as well as compressive forces. Even lightweight boards with very thin face layers (< 4 mm) can be processed reliably. Cycle times are short, as little glue is required. The curing time can be selected individually, depending on the glue used.
hettinject can also be used in solid materials, such as balsa, foamed middle layers, boards with pegged profile and boards of or with metal.

The benefits at a glance:

- Maximum stability
- Flexible positioning
- Maximum process control
- Permits use of different glues
- Glues can be metered individually
- Standard fittings can be used
- Available for very thin boards and face layers
- Compensates tolerances
- No working on the lower face layer
- No need to clean the drilled hole
The totally concealed hettinject VB insert connects size 38 or 50 lightweight boards with 4 mm thick face layers. A standard drilled hole is all that is needed for its use, thus saving time in relation to surface cutting. The glue for the VB insert is applied at two points from which it simultaneously flows through special glue channels to both face layers, securing the fitting. Ideal distribution of forces ensures that the finished product can withstand heavy loads. One exceedingly useful advantage is that this connecting fitting can be combined with the tried-and-tested Twister dowel.
The fitting is inserted at any desired attachment point from the front and can be operated from both sides.

The benefits at a glance:

- Invisible
- Simple drilling
- Can be operated from both sides
- Can be combined with Twister dowels
- High strength permits constructions without back panel
- Can also be fitted in frame systems or solid material
- Saves time
hettinject is easily integrated into workflows. All conventional fittings based on a 4 or 6,3 mm screw can consequently be used in furniture making. Unlike methods with integrated glue, the fact that the glue is supplied separately offers enormous advantages for process control, as the amount and type of glue can be precisely matched with the board. In addition, the glued dowel automatically compensates for tolerances from manufacture of the board. Even the hole drilled in the board need not meet any particular demands. The lower face layer remains untouched, leaving 1 mm of air under the dowel. This prevents the dowel pressing through or marking the lower face layer. Through just one channel in the dowel the glue automatically spreads to the attachment points via a number of other flow channels.

1. Drill a hole in the lightweight board 2. Fitting the hettinject glued dowel 3. Glue is injected with a compressed-air gun. The tip seals the dowel from above and ensures a clear screw slot.
The benefits at a glance:

- Easy handling
- Reliable processing
- Maximum strength
- No marking of the lower face layer
- Dowel compensate for tolerances

hettinject can also be processed perpendicularly or inserted retroactively.

4. The end of the injection process is indicated by the change of colour.

5. Standard fittings can be mounted when the glue has cured.
**hettinject** –
the standard for all-automatic processing in controlled processes

Existing machining centres can easily be upgraded via units. Dowel magazines and automatic application of the glue ensure a reliably controlled process.

Existing machine concepts allow glued dowels and front connectors to be processed automatically. Even continuous-feed processing is possible.

The hettinject process owes its process capability to the simplicity of the principle and is based on many years of using adhesives in the furniture industry. In this way, different glues can be matched with corresponding cycle times.

1. Drill a hole in the lightweight board
2. Drilling chips can be left in the board.
3. Fitting the hettinject and simultaneously glueing the dowel
4. The glue bonds the chips and dowel to the face layers and honeycomb structure over a large area.

The process is identical for the hettinject VB insert connecting fitting.

hettinject supplies a growing concept with future potential for processing – a concept permitting maximum flexibility combined with reliable process control in production. The entire process is easily implemented in the process chain, from upgrading individual machine tools in CNC production to all-automatic production lines and complete concepts for pass-through production.

The benefits at a glance:

- Reliable, quick, for controlled processes
- Constant quality
- Maximum strength
- Competent machine suppliers
- Based on an unchanging interface
hettinject – outstanding in tests and in practice

### Pull-out strengths in lightweight boards with a 4 mm surface layer
1. Direct connector screws 260 – 300 N
2. Special screw for lightweight boards 270 – 310 N
3. Hettich socket no. 4 HT 300 – 400 N
4. hettinject glued dowel 650 – 850 N

### Pull-out strengths in lightweight boards with an 8 mm surface layer
5. Special screw for lightweight boards 620 – 720 N
6. hettinject glued dowel 750 – 1250 N

### Face layer thickness

The pull-out strength increases slightly as the thickness of the face layer increases.

Pull-out strength was determined in tests using honeycomb board with face layers of chipboard to DIN EN 312 and bulk density to DIN EN 3323. The tear-out values of fastening material can be strongly effected by the nature and quality of the lightweight panels used as well as the manufacturing tolerances. Therefore the application of the selected fastening material needs to be verified from cast to case.
The benefits at a glance:

- Reliable
- Tested quality
- Ready for future needs through standardisation
- Continuous further development ensures future potential

Make tomorrow’s furniture lighter – with solutions developed by Hettich!

Hettich’s lightweight construction specialists will gladly advise you on site on everything associated with lightweight construction and help you to arrive at a complete solution. The most important thing is that all components – board, edge and fitting – must be matched with one another and suitable for the planned application. Hettich can draw on a network of competence in lightweight construction and will help you to find the right partners.

hettinject Technical Centre: Hettich transforms ideas into special solutions for lightweight construction

Bring your wishes, ideas and furniture to our Technical Centre in Kirchlengern. Nowhere else will you be so close to the continuous development efforts underlying the glued dowel technology of hettinject. In the end, our customers in industry and trade deliver the challenges leading to the development of special fittings. Prototypes are tested in joint tests with you, precisely tailored to your requirements and then developed further until ready for series production. That gives you and us a leading edge. Join with us in shaping the innovation hettinject!
## Specification of lightweight boards available on the market

<table>
<thead>
<tr>
<th>Fitting</th>
<th>Without frame</th>
<th>4 mm face layer</th>
<th>4 mm + hettinject</th>
<th>4 mm + socket no. 4. HT</th>
<th>8 mm face layer</th>
<th>8 mm + hettinject</th>
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<tr>
<td>Connecting fittings</td>
<td>VB 18 / 20 D / 19 / 21 D</td>
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<td>Shelf support Sekura / 30 kg</td>
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<tr>
<td></td>
<td>Socket ø 8</td>
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<td>Euro screws countersunk ø 6,3</td>
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<td>Euro screws countersunk ø 6,3</td>
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<td>Flexible washer and moulded-on socket ø 5 / ø 10</td>
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<td>Drawer runners</td>
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<td>Folding and sliding doors</td>
<td>TopLine 22 / 27</td>
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* Used for hettinject dowels with ø 5 mm screw slots

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards

**hettinject dowel**
- For flexibility positioning of fittings on lightweight panels
- Suitable for chipboard and direct fixing screws of ø 4 mm
- For hole diameter 10 mm
- White plastic

**Mount with 1 - 3 mm gap to lower face layer**

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<tr>
<th>Length (mm)</th>
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<th>PU</th>
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<tr>
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<td>20</td>
<td>9 066 397</td>
<td>1 / 200</td>
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<td>25</td>
<td>9 066 404</td>
<td>1 / 200</td>
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<td>27</td>
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<tr>
<td>33</td>
<td>9 066 407</td>
<td>1 / 200</td>
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<tr>
<td>41</td>
<td>9 083 492</td>
<td>1 / 200</td>
</tr>
<tr>
<td>45</td>
<td>9 066 409</td>
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**Mount with drilled lower face layer**

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<tr>
<td>41</td>
<td>9 083 493</td>
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<tr>
<td>45</td>
<td>9 083 490</td>
<td>1 / 200</td>
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</table>

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Shelf supports hettinject Titan

Mount for shelf supports hettinject Titan 50
- For sturdy, positive-fitting and friction-locked attachment of the Titan 1 shelf support, see below
- Concealed shelf mounting
- Can be used with face layers from 4 mm
- For panel thickness 50 mm
- Only for mounting in edged lightweight panels
- For height, side and angle adjustment of the Titan 1 shelf support
- White plastic

Order no. PU
on request

Shelf supports Titan 1
- Concealed shelf mounting
- Maximum load capacity with two shelf supports including panel 9 kg
- Bolt: SW 10 mm
- Height adjustment: ±4 mm
- Side adjustment: ±4 mm
- Shelf angle adjustment
- Galvanized steel

Order no. PU
0 079 713 1 / 20

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Cam fitting
hettinject VB insert 38 / 50

- Invisible connecting fitting for very sturdy, positive-fitting and friction-locked connections between shelves and side panels based on the proven eccentric latching principle
- Can be used with face layers from 4 mm
- For panel thicknesses of 38 or 50 mm
- Housing: white plastic
- Eccentric: die-cast zinc

<table>
<thead>
<tr>
<th>Article</th>
<th>Article</th>
<th>mm</th>
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<th>PU</th>
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<td>hettinject VB insert 38</td>
<td>32</td>
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<td>9 097 989</td>
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<td>hettinject VB insert 50</td>
<td>44</td>
<td></td>
<td>9 097 991</td>
<td>1/200</td>
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</tbody>
</table>

Twister Screw-in dowel DU 232 for hettinject VB insert 38 / 50

- Can be used for lightweight panels with 8 mm face layers
- Face layers from 4 mm: mounting only with hettinject glued dowels
- With direct fixing thread for drilling ø 5 mm
- Dowel length 30 mm
- Galvanized steel / black plastic

Order no. PU
0 020 058 1 / 200

Twister Screw-in dowel DU 320 for hettinject VB insert 38 / 50

- Can be used for lightweight panels with 8 mm face layers
- Face layers from 4 mm: mounting only with hettinject glued dowels
- With direct fixing thread for drilling ø 5 mm
- Dowel length 30 mm
- Galvanized steel / black plastic

Order no. PU
0 048 038 1 / 200

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Cam fitting VB 36

· Connecting fitting for sturdy, positive-fitting and friction-locked connections between shelves and side panels based on the proven eccentric latching principle
· Suitable for face layers from 3 mm
· For panel thicknesses of 16 or 19 mm
· The fitting is pressed into double holes with a drilling distance of 32 mm, 20 mm and 10 mm diameter insertion drilling holes.
· Only for mounting in edged lightweight panels
· Housing: zinc die-cast or plastic
· Eccentric: die-cast zinc

Connecting fitting VB 36 / 16
· For 16 mm panels

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<td>VB 36 / 16</td>
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<td>brown</td>
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<td></td>
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<td>black</td>
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Connecting fitting VB 36 / 19
· For 19 mm panels

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<td>die-cast nickel-plated</td>
<td>0 065 529</td>
<td>1 / 200</td>
</tr>
<tr>
<td>VB 36 / 19</td>
<td>Plastic</td>
<td>white</td>
<td>0 065 531</td>
<td>1 / 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>brown</td>
<td>0 065 532</td>
<td>1 / 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>black</td>
<td>0 079 646</td>
<td>1 / 200</td>
</tr>
</tbody>
</table>

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Connecting fitting VB 36 M / 16

- For 16 mm panels

<table>
<thead>
<tr>
<th>Article</th>
<th>Material</th>
<th>Finish</th>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>VB 36 MD / 16</td>
<td>Zinc die-cast</td>
<td>nickel-plated</td>
<td>0 065 517</td>
<td>1 / 200</td>
</tr>
<tr>
<td>VB 36 M / 16</td>
<td>Plastic</td>
<td>white</td>
<td>0 065 519</td>
<td>1 / 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>brown</td>
<td>0 065 520</td>
<td>1 / 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>black</td>
<td>0 079 647</td>
<td>1 / 200</td>
</tr>
</tbody>
</table>

Connecting fitting VB 36 M / 19

- For 19 mm panels

<table>
<thead>
<tr>
<th>Article</th>
<th>Material</th>
<th>Finish</th>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>VB 36 MD / 19</td>
<td>Zinc die-cast</td>
<td>nickel-plated</td>
<td>0 065 521</td>
<td>1 / 200</td>
</tr>
<tr>
<td>VB 36 M / 19</td>
<td>Plastic</td>
<td>white</td>
<td>0 065 523</td>
<td>1 / 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>brown</td>
<td>0 065 524</td>
<td>1 / 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>black</td>
<td>0 079 648</td>
<td>1 / 200</td>
</tr>
</tbody>
</table>

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Cam fitting VB 36 HT 38

- Connecting fitting for sturdy, positive-fitting and friction-locked connections between shelves and side panels based on the proven eccentric latching principle
- Suitable for face layers from 3 mm
- For panel thicknesses from 30 – 38 mm
- The fitting is pressed into double holes with a drilling distance of 32 mm, 25 mm and 10 mm diameter insertion drilling holes.
- Only for mounting in edged lightweight panels
- Knock-in pin increases expanding action
- With optional rib as mounting aid
- Housing: plastic
- Eccentric: die-cast zinc

Finish Order no.
with rib without rib PU
black 9 066 389 9 066 388 1 / 200
grey 9 066 864 9 066 865 1 / 200
brown 9 078 237 9 078 233 1 / 200
white 9 078 236 9 078 232 1 / 200

Cover cap for VB 36 HT
- Nickel-plated zinc die-cast

Order no. PU
9 081 302 1 / 200

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Cam fitting VB 36 HT 50

- Connecting fitting for sturdy, positive-fitting and friction-locked connections between shelves and side panels based on the proven eccentric latching principle
- Suitable for face layers from 3 mm
- For panel thicknesses from 45 - 60 mm
- The fitting is pressed into double holes with a drilling distance of 32 mm, 25 mm and 10 mm diameter insertion drilling holes.
- Only for mounting in edged lightweight panels
- Knock-in pin increases expanding action
- With optional rib as mounting aid
- Housing: plastic
- Eccentric: die-cast zinc

Cover cap for VB 36 HT
- Nickel-plated zinc die-cast

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Screw-in dowel for VB 36 / VB 36 M / VB 36 HT

Screw-in dowel DU 261
- Can be used for lightweight panels with 8 mm face layers
- Face layers from 4 mm: mounting only with hettinject glued dowels
- With direct fixing thread for drilling ø 3 mm
- Dowel length 6.7 mm
- Galvanized steel

Order no. PU
0 065 540 1 / 200

Screw-in dowel DU 279
- Can be used for lightweight panels with 8 mm face layers
- Face layers from 4 mm: mounting only with hettinject glued dowels
- With direct fixing thread for drilling ø 5 mm
- Dowel length 6.7 mm
- Galvanized steel

Order no. PU
0 074 688 1 / 200

Screw-in dowel DU 260
- Can be used for lightweight panels with 8 mm face layers
- Face layers from 4 mm: mounting only with hettinject glued dowels
- With direct fixing thread for drilling ø 5 mm
- Dowel length 6.7 mm
- Galvanized steel

Order no. PU
0 064 872 1 / 200

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Double dowel for VB 36 / VB 36 M / VB 36 HT

**Double dowel DU 712**
- For 16 mm centre panel
- Hole diameter 5 mm
- Dowel length 6,7 mm
- Steel self-colour

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 065 535</td>
<td>1 / 100</td>
</tr>
</tbody>
</table>

**Double dowel DU 867**
- For 19 mm centre panel
- Hole diameter 5 mm
- Dowel length 6,7 mm
- Steel self-colour

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 065 536</td>
<td>1 / 100</td>
</tr>
</tbody>
</table>

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Shelf supports Safety
- Pin diameter 5 mm
- Steel pin, housed in moulded plastic

<table>
<thead>
<tr>
<th>Finish</th>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>white</td>
<td>0 025 090</td>
<td>1 / 500</td>
</tr>
<tr>
<td>translucent</td>
<td>0 016 180</td>
<td>1 / 500</td>
</tr>
<tr>
<td>beige</td>
<td>0 025 092</td>
<td>1 / 500</td>
</tr>
<tr>
<td>brown</td>
<td>0 025 091</td>
<td>1 / 500</td>
</tr>
</tbody>
</table>

Shelf support Universal 1
- Pin diameter 5 mm
- 1 additional pin for shelf
- Nickel-plated zinc die-cast

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 019 557</td>
<td>1 / 500</td>
</tr>
</tbody>
</table>

Shelf support Sekura 2
- Pin diameter 5 mm
- Nickel-plated zinc die-cast

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 025 100</td>
<td>1 / 500</td>
</tr>
</tbody>
</table>

Shelf support Sekura 6
- Pin diameter 5 mm
- 1 additional pin for shelf
- Nickel-plated zinc die-cast

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 079 707</td>
<td>1 / 500</td>
</tr>
</tbody>
</table>

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Shelf supports / socket no. 4 HT

Shelf support Sekura 7

1. Hole diameter 5 mm for Euro screw, countersunk head diameter 6,3 mm
   Note: To ensure safe attachment, expanding socket no. 4 HT must be used for face layers of 4 mm; see below for details
2. Hole ø 3 mm for chipboard screw, countersunk ø 4 mm
   Note: To ensure safe attachment, expanding socket no. 4 HT must be used for face layers of 4 mm; see below for details
   - Each contains 1 additional pin for shelf
   - Zinc die-cast

<table>
<thead>
<tr>
<th>Hole dia.</th>
<th>Finish</th>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 mm</td>
<td>nickel-plated</td>
<td>0053012</td>
<td>1 / 500</td>
</tr>
<tr>
<td>3 mm</td>
<td>nickel-plated</td>
<td>0079711</td>
<td>1 / 500</td>
</tr>
</tbody>
</table>

Glass shelf support Sekura 8

- Pin diameter 5 mm
- With glass shelf support
- Nickel-plated zinc die-cast / transparent

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>0047609</td>
<td>1 / 500</td>
</tr>
</tbody>
</table>

Expanding socket for honeycomb board

- To secure fittings to lightweight panels with face layers of 3 - 4 mm
- Suitable for fittings with a resting load (known as static load) such as shelf supports, wardrobe rail supports or back-panel connectors
- For 8 mm hole diameter
- Suitable for direct fixing screws ø 6,3 mm, see below
- Plastic, self-colour

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>9079736</td>
<td>1 / 500</td>
</tr>
</tbody>
</table>

Direct fixing screw ø 6,3 mm for socket no. 4 HT

- Oval head
- For 5 mm diameter drilled holes
- To ensure safe attachment, expanding socket no. 4 HT must be used with face layers of 4 mm; details see above
- EN-Pozidrive screw
- Nickel-plated steel

<table>
<thead>
<tr>
<th>Length mm</th>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>0040006</td>
<td>1 / 200</td>
</tr>
<tr>
<td>13</td>
<td>0040007</td>
<td>1 / 200</td>
</tr>
<tr>
<td>15</td>
<td>0040008</td>
<td>1 / 200</td>
</tr>
</tbody>
</table>

Direct fixing screw ø 6,3 mm for socket no. 4 HT

- Countersunk
- For 5 mm diameter drilled holes
- To ensure safe attachment, expanding socket no. 4 HT must be used with face layers of 4 mm; details see above
- EN-Pozidrive screw
- Nickel-plated steel

<table>
<thead>
<tr>
<th>Length mm</th>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>0047451</td>
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<tr>
<td>14</td>
<td>0047452</td>
<td>1 / 200</td>
</tr>
</tbody>
</table>

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Back panel connectors RV 1 / RV 3

Back panel connector RV 1
- To secure rear walls to lightweight panels with face layers from 4 mm
- To ensure safe attachment, expanding socket no. 4 HT must be used with face layers of 4 mm; see page 33 for details
- Can be mounted in a hole-line hole diameter of 5 mm
- Fitting holds back panel tight against cabinet side
- Nickel-plated zinc die-cast

Order no. | PU
---|---
0019558 | 1 / 100

Mounting to lightweight panels
(face layer min. 4 mm) with direct fixing screw ø 6.3 mm

Mounting to lightweight panels
(face layer min. 8 mm) with direct fixing screw ø 6.3 mm

Direct fixing screw ø 6.3 mm For RV 1 / RV 3
- Oval head
- For 5 mm diameter drilled holes
- EN-Pozidrive screw
- Nickel-plated steel

<table>
<thead>
<tr>
<th>Length mm</th>
<th>Order no.</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>0040006</td>
<td>1 / 200</td>
</tr>
<tr>
<td>13</td>
<td>0040007</td>
<td>1 / 200</td>
</tr>
<tr>
<td>15</td>
<td>0040008</td>
<td>1 / 200</td>
</tr>
</tbody>
</table>

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.
Fittings for lightweight boards
Worktop connector AVB HT

- For sturdy, positive-fitting and friction-locked connections between lightweight worktops
- For Worktop thicknesses of 50 and 60 mm
- Suitable for use with 8 mm surface layers
- Housing drill hole ø 40 mm
- Drilling depth 46 or 56 mm
- An 90° angle gear with hexagon socket integrated in the plastic housing permits fast, convenient bracing with cordless screwdriver
- Chromated steel / black plastic

<table>
<thead>
<tr>
<th>Length mm</th>
<th>Size X mm</th>
<th>Worktop thickness 50 mm</th>
<th>Worktop thickness 60 mm</th>
<th>PU</th>
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</thead>
<tbody>
<tr>
<td>65</td>
<td>33 - 44</td>
<td>9 079 567</td>
<td>9 080 216</td>
<td>1 / 20</td>
</tr>
<tr>
<td>100</td>
<td>49 - 61</td>
<td>9 079 570</td>
<td>9 080 217</td>
<td>1 / 20</td>
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<tr>
<td>150</td>
<td>75 - 86</td>
<td>9 079 571</td>
<td>9 080 218</td>
<td>1 / 20</td>
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</tbody>
</table>

The load capacity is determined by the quality of the lightweight panels used. Refer to page 20 for information on the pull-out values.