



$\phi$ -lite

# dp-lite has unique advantages

**dp-lite can be supplied with raw MDF faces for onward process by veneering, painting or pressing with laminate or as a fully finished product, faced with the extensive range of decorative options available in the dp-decor and dp-specialist product ranges.**

Decorative Panels Lamination have developed dp-lite after many years of extensive research into the market for light weight board materials and have a product that not only offers the manufacturer the benefits of weight saving but one that is also designed for ease of onward processing in any factory environment. The very nature of its construction means that less wood based raw material is used which offers obvious environmental advantages.

Manufactured with 5mm MDF skins and a range of internal core cell sizes to suit every application, dp-lite can accommodate the use of standard furniture fittings with

ease making it the ideal product for the furniture, shopfitting and exhibition industries. Supplied in a thickness range from 22mm right up to 100mm, the product offers weight savings compared to standard chipboard of some 60% (based on 35mm dp-lite).

New developments in dp-lite technology mean that Decorative Panels Lamination is now able to offer plywood faced hollowcore sheet materials, right down to 12mm in thickness. The advantages of this product are most prominent in the leisure and vehicle industry where weight saving is paramount.

Unique to the UK, Decorative Panels Lamination is able to offer the sheet production of a groundbreaking lightweight hollowcore product that the company brands dp-lite.

35mm board thickness



# dp-lite quick start guide

Effortless design...  
Straightforward processing...  
Simple construction...

Making great looking furniture using our dp-lite hollowcore product couldn't be easier. To show you just how easy it really is, we've pulled together this "quick start" guide aimed at providing you with all the information you need to know to get you well on the way to making great looking furniture using dp-lite.

## Quick start contents

- |                          |   |
|--------------------------|---|
| Design solutions -       | Various options available to you when ordering dp-lite plus a few application ideas to get you thinking.  |
| Construction solutions - | All you need to know about the standard fittings available on the market to help you easily construct great looking furniture using dp-lite.            |
| Processing solutions -   | Overview of machine processing using standard equipment. We can provide technical advice to help you process it yourself, or simply process it for you. |

## Fittings suppliers

This document contains some of the fittings already developed for hollowcore construction. More fittings are being developed so please contact each company to find the latest information.



Hettich UK  
Unit 200  
Metroplex Business Park  
Broadway  
Salford  
Manchester  
M50 2UE  
Tel: 0161 872 9552  
email: [info@uk.hettich.com](mailto:info@uk.hettich.com)



Hafele Head Office  
Hafele UK Ltd  
Swift Valley Industrial Estate  
Rugby  
CV21 1RD  
Tel: 01788 542020  
email: [info@hafele.co.uk](mailto:info@hafele.co.uk)



Titus Tool Company  
10 Blackburn Industrial Estate  
Enterprise Way  
Sherburn in Elmet  
LS25 6NA  
Tel: 01977 682582  
email: [info@titusplus.com](mailto:info@titusplus.com)

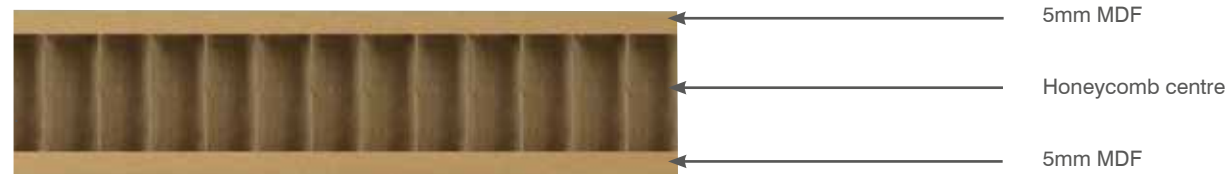


# board with and without internal rails

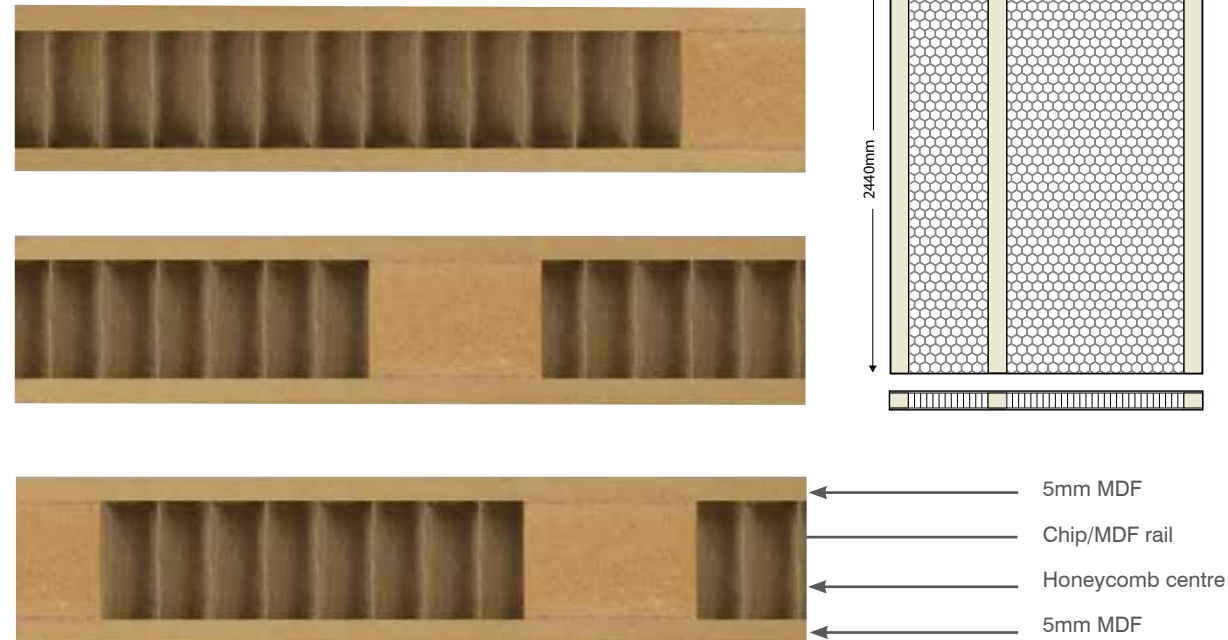
dp-lite is available as a completely frameless material or alternatively complete with strategically placed longitudinal rails.

The longitudinal MDF rails can be placed across the board to a customer's specification. This allows for a rail to be positioned along a cut line, providing a solid edge for applications such as back panel fixing.

Board without internal rails



Internal rail options



## dp-lite - stats

### dp-lite with MDF skins

- Thickness range - 22mm to 100mm
- Width options - 1020mm or 1220mm
- Length range - 2010mm to 2440mm
- Skin thickness - 5mm
- Density - 265kg/m3 (35mm thickness)
- Flexible - Easily cut, edged, drilled, routed

### dp-lite with plywood skins

- Thickness range - 12mm to 22mm
- Width option - 1220mm
- Length option - 2440mm
- Skin thickness - 3mm
- Density - 245kg/m3 (15mm thickness)



## Markets

dp-lite is an ideal product for a wide variety of end uses within the flat pack market.

Traditionally chunky furniture was too heavy and awkward to produce for self assembly and therefore designers were restricted as to what they could create.

dp-lite has revolutionised flat pack furniture creation.

Some areas dp-lite is perfect for include:

- Modern, modular bedroom furniture
- Versatile living room furniture
- Durable, stylish office furniture
- Contemporary kitchens, particularly decor ends
- Bookcases and shelving
- Bespoke shopfitting
- Exhibition and stand building

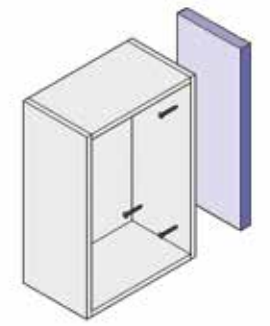




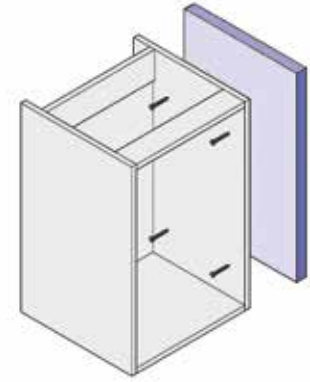
## decor ends

**A modern contemporary look can be quickly and easily achieved by adding chunky dp-lite decor end panels to your existing range.**

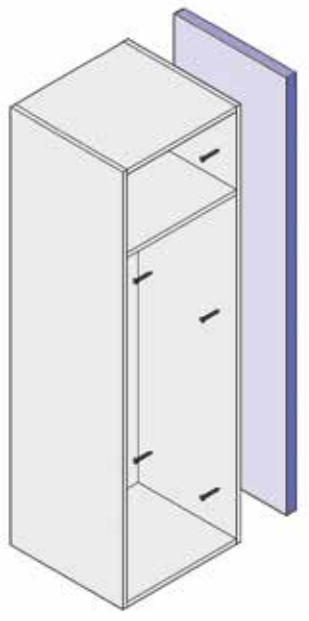
Available in three thickness options of 22mm, 35mm and 50mm, dp-lite panels can be easily secured to the existing carcass by screwing directly through from the inside, right into the 5mm MDF skin of the dp-lite panel. Simple and extremely effective!



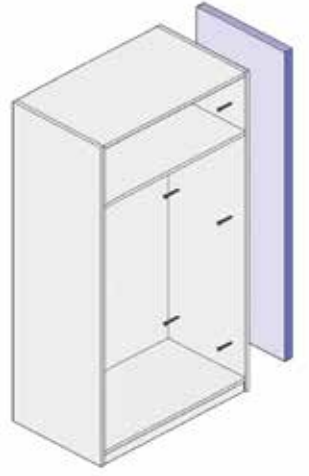
Wall unit  
decor end



Base unit  
decor end



Larder unit  
decor end



Wardrobe  
unit decor end



# dp-lite fixed to dp-lite

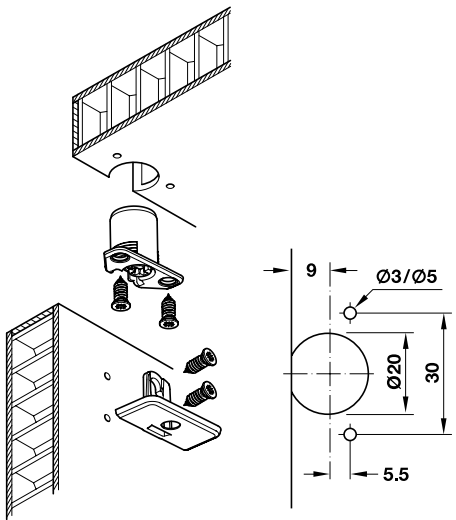


Hollowcore to hollowcore panels can be easily connected using a variety of fittings already available on the market.

VB36HT



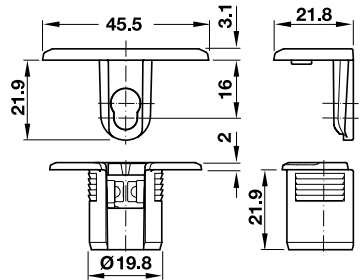
- Furniture connector with expandable housing
- Expansion dowel secured housing during tightening
- Knock-in pin for improved grip
- Optional ridge assists assembly
- Torque support thanks to proven cam locking design
- For 35mm board use part no: VB36HT38
- For 50mm board use part no: VB36HT50



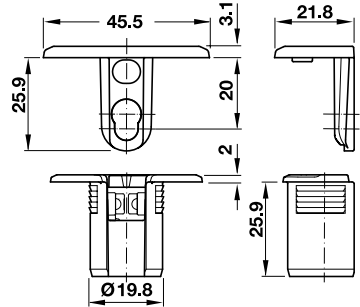
**HÄFELE**

## Tab 20 HC RTA connector

Area of application	For lightweight panels with a top layer thickness of 4mm and above, irrespective of the type of core
Diameter	Boss insert 20mm
For panel thickness	From 32 or 40mm
Drilling depth	22 or 26.5mm



**Connector housing**  
For panel thicknesses from 32mm



For panel thicknesses from 40mm

# dp-lite fixed to dp-lite (cont.)

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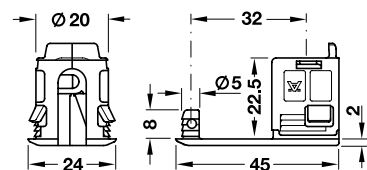
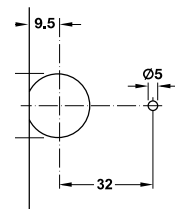
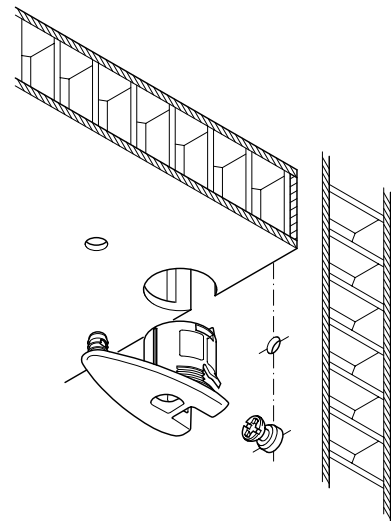
## Rafix 20 HC RTA connectors

Area of application For lightweight panels with a top layer thickness of 4mm and expansion capability for mounting lugs in the core

Diameter Boss insert 20mm, dowel 5mm

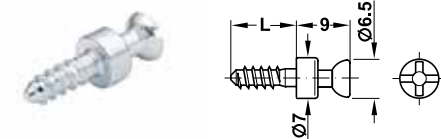
For panel thickness From 32mm

Drilling depth 22.5mm

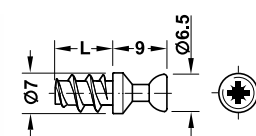


Connector housing

For panel thicknesses from 32mm



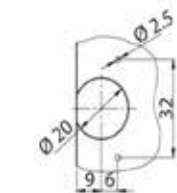
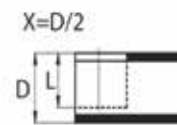
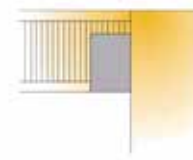
S20 Connecting bolt  
- for aerofix 100



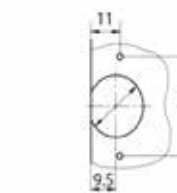
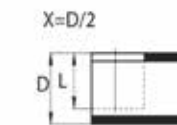
M20 Connecting bolt  
- For 5mm drill hole



HC adapter for



Standard system 6  
HC connector



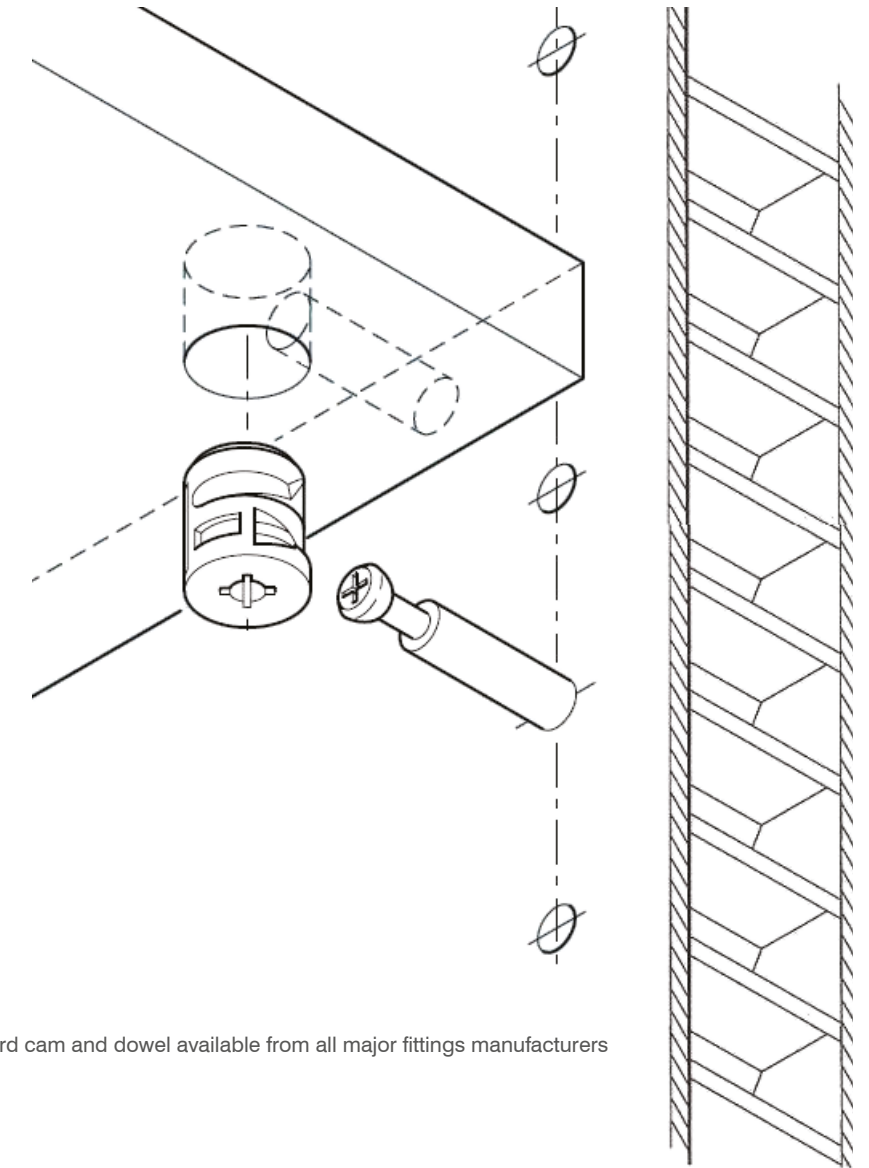
Titus+





## dp-lite to chipboard

Chipboard or MDF panels can be connected directly to dp-lite hollowcore by means of traditional cam and dowels with 5mm Euro screw thread.



Standard cam and dowel available from all major fittings manufacturers



For fixing of drawer runners to dp-lite, we would recommend using a product such as the Hafele Varianta screw with a minimum of two screws at the front edge and one at the back. This aids load bearing while the drawer is extended.

Internal fittings

The 5mm MDF skins of dp-lite provide a suitable substance for direct fixing of fittings currently available on the market. This allows for simple and conventional design solutions where in many cases you will be able to utilise your existing hardware.



screws  
and inserts



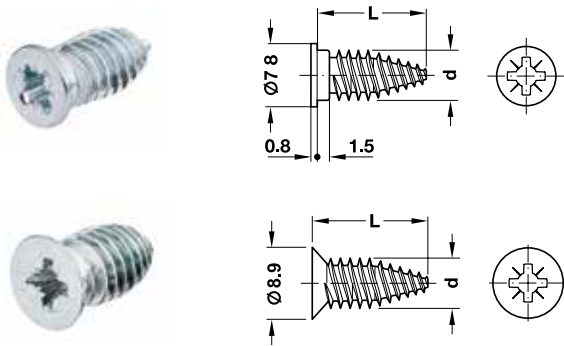
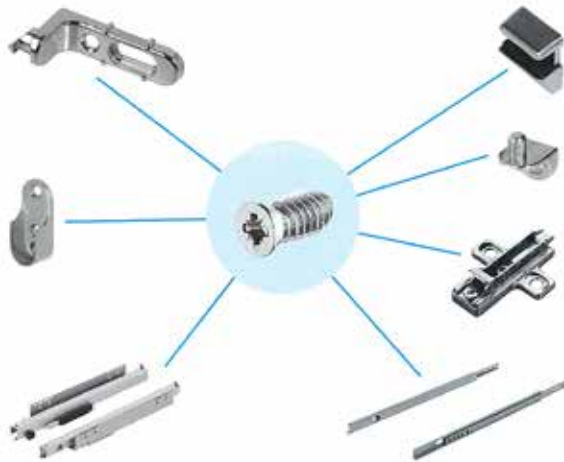
Hardware such as standard drawer runners, hinges, hanging rails, shelf pegs, glass shelf brackets and back fixing brackets can be securely and easily fastened to the 5mm MDF skins using the tight threaded Hafele Varianta Screw.

Installation

The Varianta HC can be processed manually or using a machining centre.

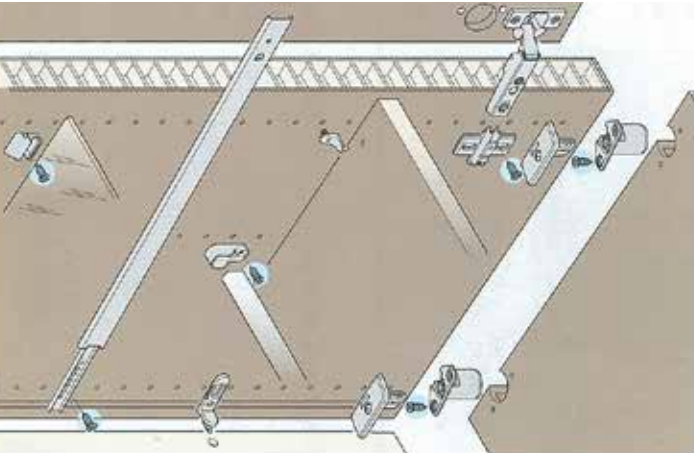
Drill a 3mm or 5mm hole in the top layer in required position and screw in the Varianta HC special screw.

The screw can be subjected to load immediately after installation.



Varianta HC special screw  
Cylinder head

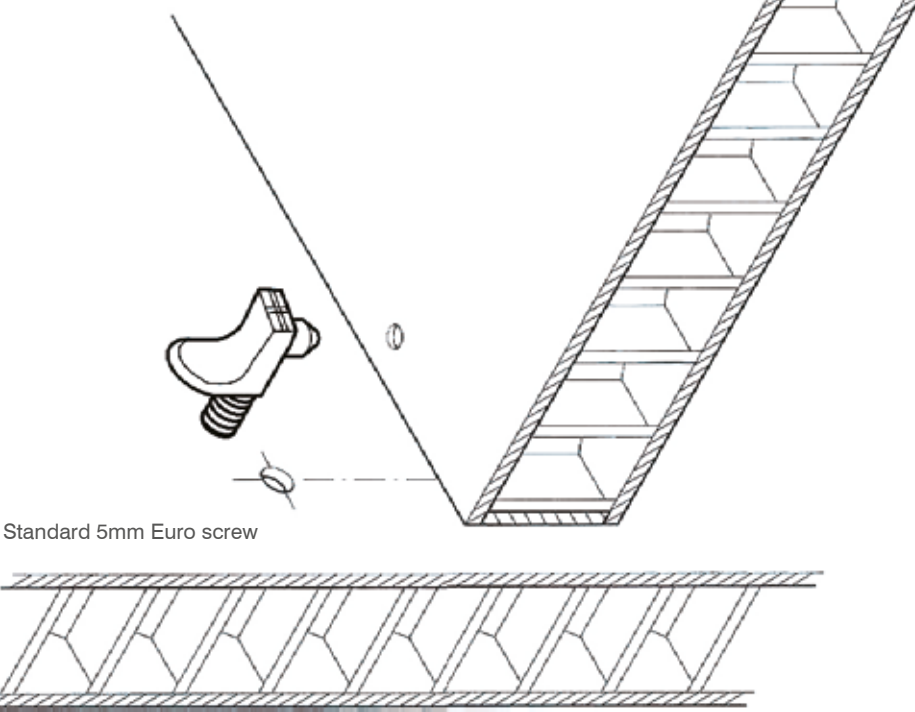
Area of application	For lightweight panels with a top layer thickness of 4mm and above, irrespective of the type of core
Material	Steel
Finish	Galvanized
Drive	PZ2 cross slot
For drill hole Ø	3 or 5mm





# shelf supports

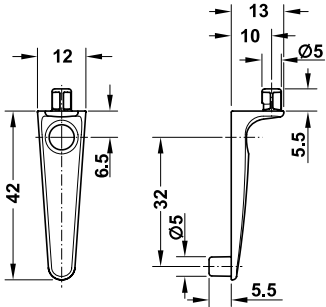
Standard shelf supports with 5mm Euro screw and lug can be used for dp-lite chipboard or MDF shelves.



Standard 5mm Euro screw

## HAFELE

HC Shelf support with visible screws



Area of application

For lightweight panels with a top layer thickness of 4mm and above, irrespective of the type of core

Material

Zinc alloy

Installation

For plug fitting and screw fixing (Varianta HC special screw) into 32mm series drilled holes

Shelf support with visible screws provides increased strength





# back panel fixing

Longitudinal MDF rails can be strategically placed so that once the panel is cut, the MDF runs down the back edge of the panel. Traditional grooving or rebating can then be achieved for the back panel to be located into.



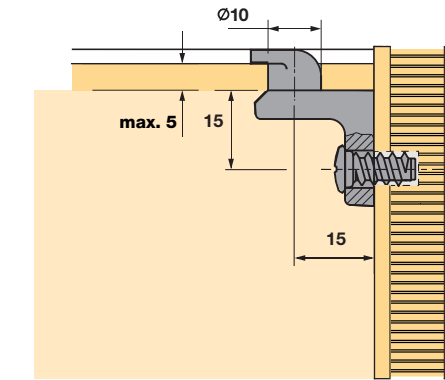
Rebate



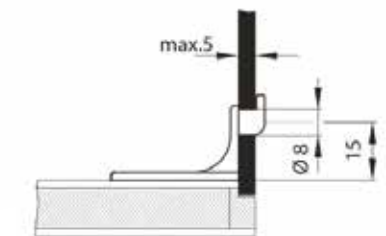
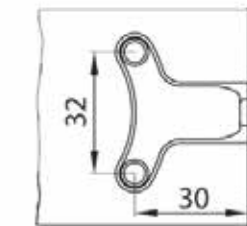
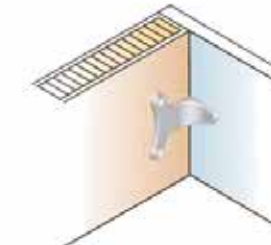
Groove

Panel connectors can be purchased which hook the thinboard back panel through a small drill hole.

Alternatively, thicker chipboard back panels can be connected using traditional cam and dowel fixing. A 5mm Euro Pin is recommended for this solution.



Titus+

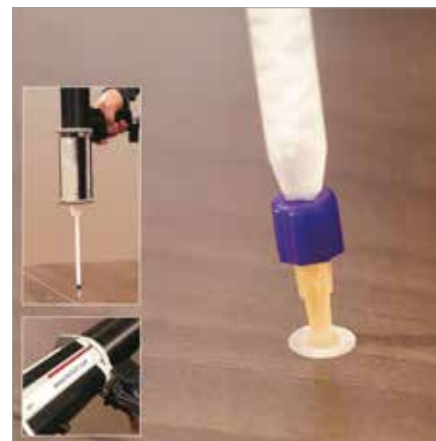
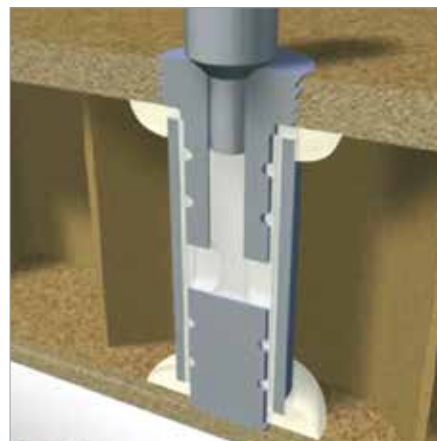


# dowel technology

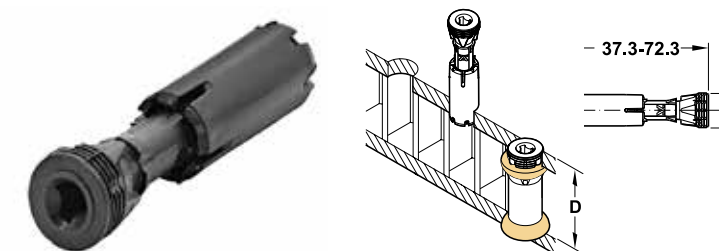
For applications where an extremely high tear out strength is required (such as attaching table legs) special adhesive fittings can be inserted directly into a dp-lite panel.



The Hettinject dowel system is glued within the dp-lite panel and takes a 3.5mm-4mm chipboard screw. A tear out strength greater than that found from conventional chipboard is then achieved.



HÄFELE



## Drill size and depth

### Installation

The Aerofix 100 is fitted by drilling a hole in the panel from above (manually or using a machining centre (CNC)) and is then inserted. With continuous automatic processes the fitting is inserted from below. No additional special attached parts for gluing or applying adhesive are required.

Drill 10mm hole into top layer in required position.  
Drilling depth  $D$  = panel thickness-top layer thickness.

Insert the Aerofix 100 into the drill hole. Then press in. The adhesive is forced out of the cartridge and distributes itself.

### Attention

Bolts, screws and fittings can be screwed in immediately after inserting the

## Aerofix 100 adhesive insert

**Area of application** For use as variably positioned fixing point, for lightweight panels with top layers from 4mm and above and expansion option for adhesive and mounting lugs in the core

**Material** Plastic, extremely expansive single component PUR adhesive

**For drill hole Ø** 10mm

Aerofix, but may not be subjected to full load immediately. The full load bearing capacity is not reached until the adhesive is fully cured, after approx. 16 hours.

### Installation reference

In order to guarantee a secure grip of the Aerofix 100, it must be ensured during the drilling process that the core and its residual adhesive is removed within the drill hole area.

The following can be screwed into the adhesive insert:

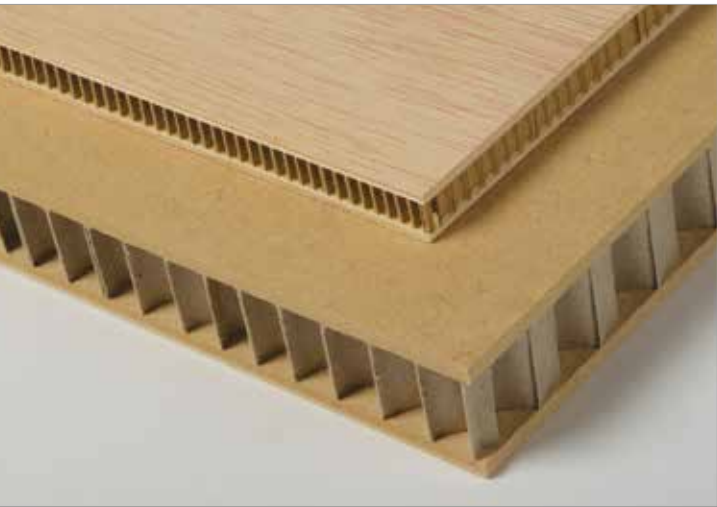
- 3.5 and 4.0mm chipboard screws
- 3.0mm Varianta screws
- 3.0mm Rafix connecting bolts

Cat. No. 263.20.805 page 4.11



# processing

We're here to help guide you through the simple methods of processing dp-lite on existing machinery.



## Cutting

dp-lite can be processed on most traditional beam saws. This can be achieved by reducing the grip and beam pressure down to the minimum setting which therefore prevents crushing of the hollowcore board.

## Edging

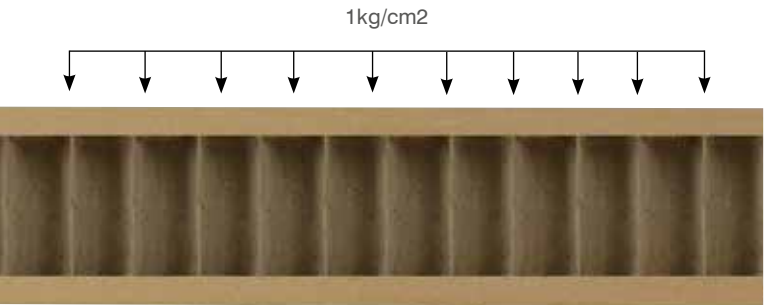
Due to the 5mm MDF skins, a standard PVC/ABS edgebanding of 1.5mm or thicker can be applied using traditional methods without the need for a supportive edge. This can be achieved on many modern edgebanders without further investment using an unfilled hotmelt or PUR glue.



## Onward veneering

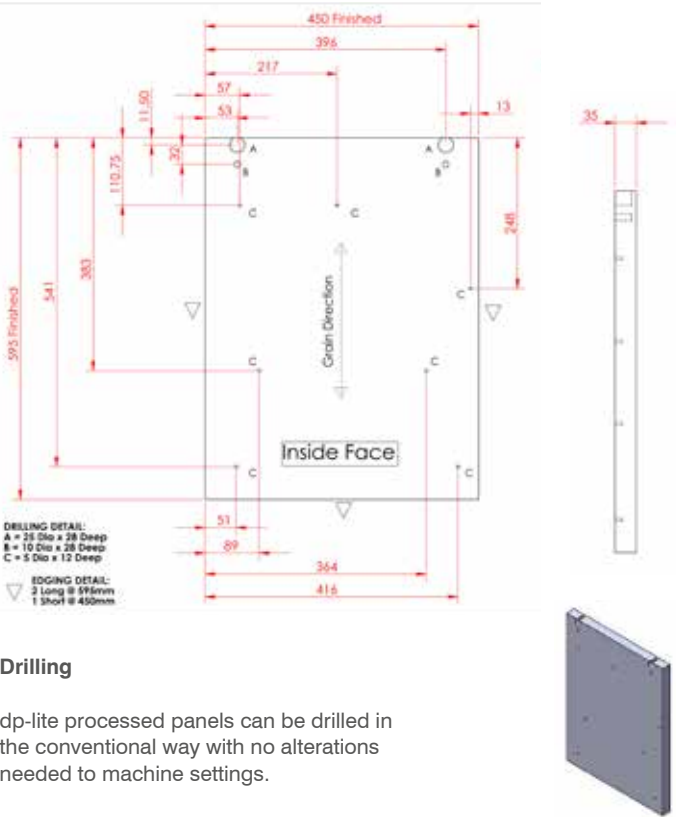
dp-lite is available from Decorative Panels either raw or foil laminated.

Purchased as a raw product for onward processing, the sanded 5mm skins allow for wood veneering, CPL/ HPL lamination or even painting. We would recommend a press pressure of circa 1kg per cm<sup>2</sup> should you wish to veneer in-house.



## Shaping

dp-lite can be routed to produce curved edges in exactly the same way as processing chipboard. A PVC or ABS edging tape of 1.5mm or thicker can then be applied without the need for a supportive edge using either an unfilled hotmelt or PUR glue.



## Drilling

dp-lite processed panels can be drilled in the conventional way with no alterations needed to machine settings.





YOUR PERFECT PARTNER

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