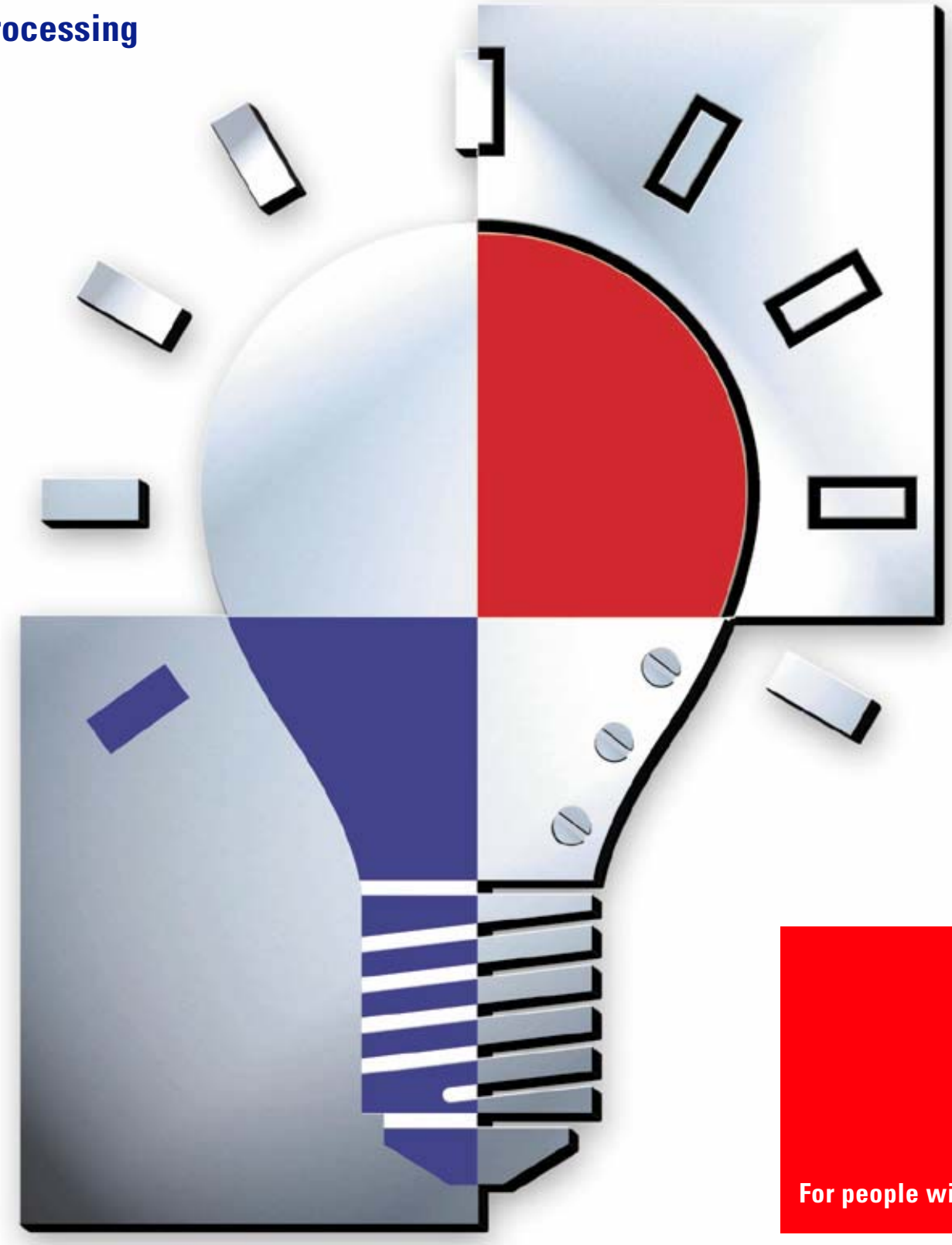
DIBOND®

ALCAN

Processing



For people with ideas

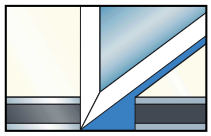
ALCAN COMPOSITES

processing at a glance

Cutting to shape

Sawing see page 7

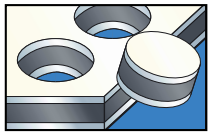
- with vertical panel saw, circular or fret saw



Cutting see page 8

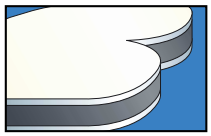
- with guillotine shears (concave PE core edge effect), cushion clamp

Punching / Decorative work



Punching see page 8

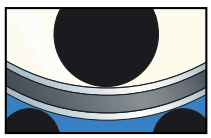
- with steel punch and die 2 and 3 mm panels (concave PE core edge effect)
- with sheet metal punching machines (all panel thicknesses)



Decorative work see page 8

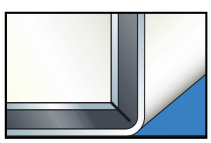
- with fret saw
- with water torch

Shaping



Bending see page 8

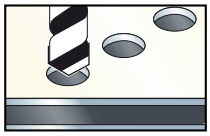
- with folding machine or bending press, min. inner radius r = 15 x t (t = panel thickness) (return travel greater than with solid sheet)



Folding (routing technique) see page 11

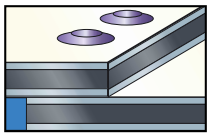
- manually after routing a V-groove using a panel saw with milling attachment or a hand milling cutter (see data sheet "Routing and Folding Technique")

Jointing



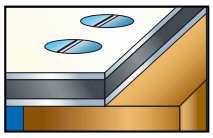
Drilling holes for joining see page 8

- with drill bits for aluminium sheet and plastic panels (for larger holes use a drill bit with locating point)



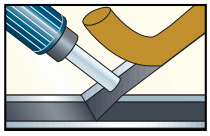
riventing see page 16

- with pop or blind rivets



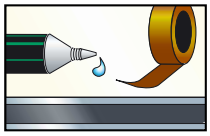
Screwing see page 17

- with normal stainless steel screws or bolts for wood, sheet or metal



Welding see page 18

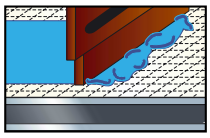
- with standard metal adhesives for aluminium (no adhesion to core edges)



Glueing see page 19

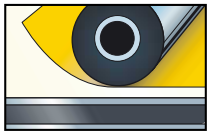
- with standard metal adhesives for aluminium (no adhesion to core edges)
- with commercial double-sided adhesive tape

Surface treatment



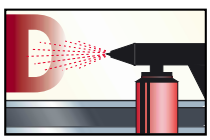
Screen printing see page 21

- with standard silk screen inks (panel must be clean, free of dust and grease)



Laminating / Foto mounting see page 21

- laminating with self-adhesive foils; mounting photos with adhesive film or wet with sprayed adhesive



Lacquering see page 21

- overlacquering of polyester lacquer surfaces possible with suitable lacquer qualities

contents


DIBOND

transport
storage
handling

DIBOND is a prefabricated panelling material, i.e. the surface of the standard panel is either lacquered, anodised or laminated with a self-adhesive foil. These surfaces are protected by a special foil during transport, storage and processing.

Nevertheless, the following information must be observed when storing and handling the panels:

- The pallets must be handled carefully during transport and unloading.

- Upon delivery the pallets must be examined for any damage due to moisture (DIBOND panels that have become wet must be dried to avoid any spots or corrosion forming). Any damage must be reported immediately and confirmed by the forwarding agent.

- Store the pallets so that they are protected against any wetness penetrating due to rain and spray water and avoid any condensation forming (e.g. when transporting cold panels to warmer rooms).

- Store the pallets stacked one over the other (do not store DIBOND panels standing vertically), with a maximum of 6 pallets of the same format stacked on top of each other (heavy pallets at the bottom).

- Individual panels must be lifted off the pallet by two people holding all four corners and not drawn over each other. Carry the panels vertically. Wear gloves to avoid making any marks on them.

The following should be observed as regards the DIBOND protective foil:

- Storage exceeding 6 months should be avoided. In the case of longer storage, the panels should be rubbed – after removing the protective foil – with a cloth moistened with methylated spirit.

- Strong fluctuations in temperature reduce the long-term durability. Remove the protective foil prior to outdoor applications (no resistance against ultraviolet).

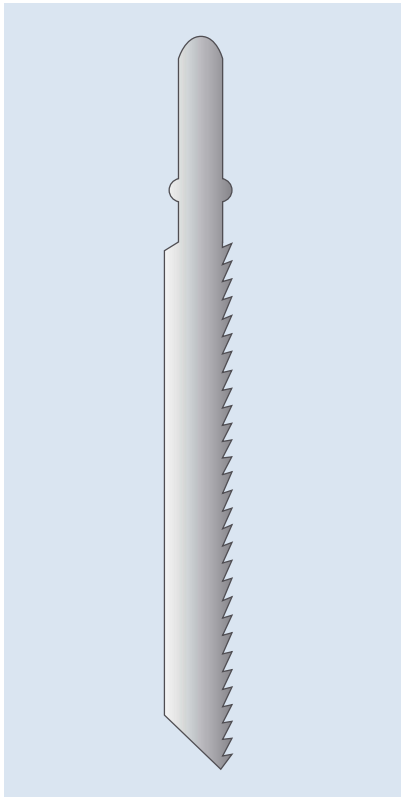
- Should the protective foil partially come off during processing, dirtied edges can occur in the course of time.

cutting and fabricating

Sawing

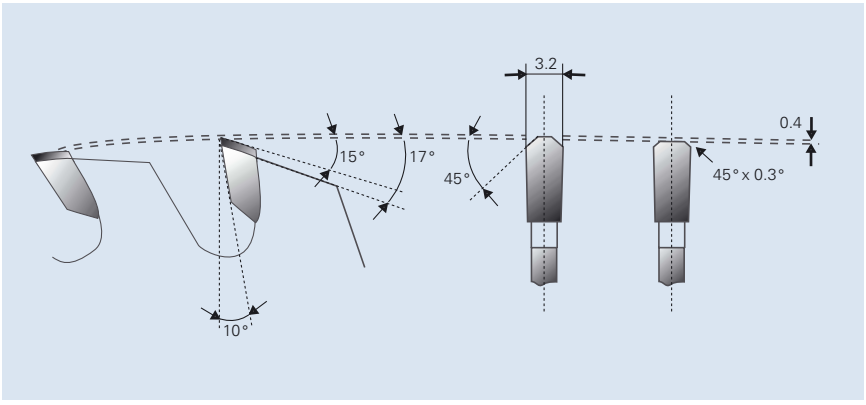
Carbide tipped (CT) saw blades	
Blade geometry	Tooth thickness approx. 2 – 4 mm, tapered to the inside to prevent jamming
Tooth geometry	trapeze tooth / flat thooth
Pitch t Clearance angle α Rake angle γ	10 – 12 mm 15 ° 10 ° positive
Maximum cutting speed v	5000 m/min
Maximum feed s	30 m/min

Carbide tipped (CT) saw blades for HOLZ-HER and Striebig circular panel saws	
Trapezoid/flat tooth saw blade, flat teeth 45° chamfered for burrfree edges	
Saw blade dia. Bore dia. Tooth thickness	D = 300 mm d = 30 mm 3.2 mm
Clearance angle Rake angle Number of teeth Code No. 188389	15 ° 10 ° positive z = 72 (for cuts of up to 5 panels)
Number of teeth	z = 96 (for single cuts without burrs) Code No. 188390

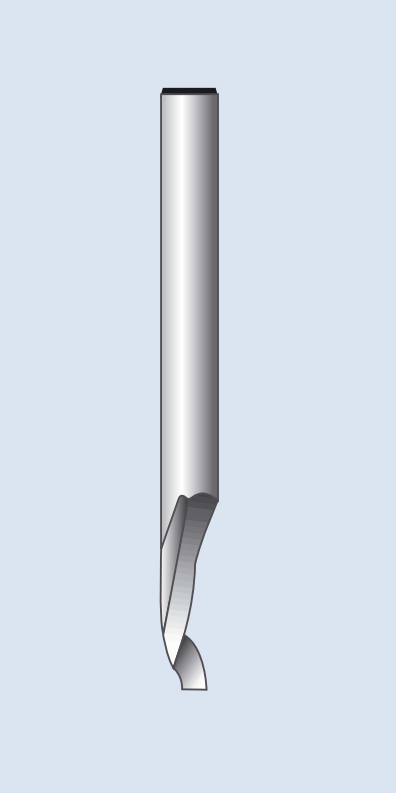


Jig saw blades
for wood or plastics, e.g. T101 B (Bosch),
tooth thickness 2.5 mm for precision cuts

Sketch showing the edge geometry for professional reshapening:



Manufacturer/supplier:
Leuco
Ledermann GmbH
Postfach 1340
D-72153 Horb
Phone +49 74 51 93-0
Fax +49 74 51 9 35 00



Routing

DIBOND can be easily routed on conventional routing machines and CNC machining centres.

To avoid pressure marks on the DIBOND surface, please use plastic or wood vice jaws when chucking the workpieces.

High-speed steel or carbide tipped cutters suitable for aluminium and DIBOND have a wide tooth pitch, radiused and smooth grooves and small lip angles.

They produce perfect cuts, e.g. under the following conditions:

- High-speed steel (HSS),
  max. cutting speed 3000 m/min.,
  max. feed 25m/min.
- Carbide tipped (CT),
  max. cutting speed 5000 m/min.,
  max. feed 30 m/min.

Suitable end milling cutters for DIBOND:

HSS end milling cutter, shank dia. 8 mm

Dim. 5 x 12 x 60 mm
Art. No. 100 56 0008

Dim. 3 x 12 x 60 mm
Art. No. 100 36 0008

Manufacturer/supplier:

Werner Albrecht KG
Be We Präzisionswerkzeuge
Im Öhrlach 11b
D-75417 Mühlacker
Phone ++49 70 41 41 940 310
Fax ++49 70 41 41 414 31

Drilling

DIBOND can be drilled with twist drills normally used for aluminium and plastics on machines common for metals.

Drill material:
High-speed steel (HSS)

Tool geometry:
Lip angle: 100° - 140° or spot facing cutter with centre-point.

Angle of twist: 30° - 45°

Countersinking

Three-lipped core drills and counterbores common for aluminium are used for countersinking pre-drilled holes. Counterbored holes are less out of centre than those produced by twist drills. Countersinks for aluminium can be used for countersinking flat head screws into DIBOND. Head and shank counterbores for aluminium are mainly used for countersinking screw heads or for making holes through DIBOND.

Contour cutting

DIBOND can be cut to size with water torches, profile milling machines, contour saws and jig saws. Please cut abrasively when using a water torch. Pre-drilling of the panels is necessary when starting the cut in the middle of a panel as it is not possible to drill through with a water torch.

Shearing

DIBOND is easily sheared with a guillotine. A slight drawing of the aluminium cover sheet caused at the impact side should be noted. The clamp on the shear should be fitted with a shock-absorbing rubber pad to prevent damage to the cover sheet.

Punching

DIBOND panels of any thickness can be punched with conventional sheet punching machines. For clean cuts please use evenly ground tools and the narrowest possible cutting gap. This punching method also causes a slight drawing of the panel cover sheet.

Bending

DIBOND can be formed by conventional metal and plastic fabrication methods. Certain specific points should be noted relating to the multilayer structure combining materials of different characteristics.

- The minimum radius is r = 15 x d

The spring-back effect experienced when folding sheet metal is larger with DIBOND. For production series a prototype should be made.

The surface should be protected from damage by affixing plastic film or inserting polyethylene of 1 – 2 mm thickness or plastic film strips during processing.

Bending with a brake press

(Fig. 1) DIBOND, like sheet metal, is easily formed with a brake press. The air-bending process is used when forming with a brake press.

The DIBOND panel rests on the edges of the die (rails, channels) and is bent by the punch (tube or shaft). The bending angle is determined by the width of the die and the stroke of the punch. The die edges should be rounded and smooth.

Ideal die width:
2 x t + 2 x protective foil thickness +
punch diameter + 15 mm

The minimum side length of the bent part should be 5 times the DIBOND thickness.

Bending with a folding machine

(Fig. 2) When working with folding machines, the panel to be bent is clamped between two cheeks. The projecting edge is bent around the upper clamping cheek and former using the movable swivel bar. The bending radius is determined by interchangeable formers attached to the upper clamping cheek.

Bending with a roll bending machine

DIBOND can be bent with sheet metal roll bending machines – mainly with three and four-roll machines. Please make sure that the feeder does not exert too much pressure.

Bending rolls which are also used for bending other metals must be thoroughly cleaned from swarf before processing DIBOND. We recommend ground rolls to avoid damaging the cover sheets.

Fig.1:
Bending with a brake press

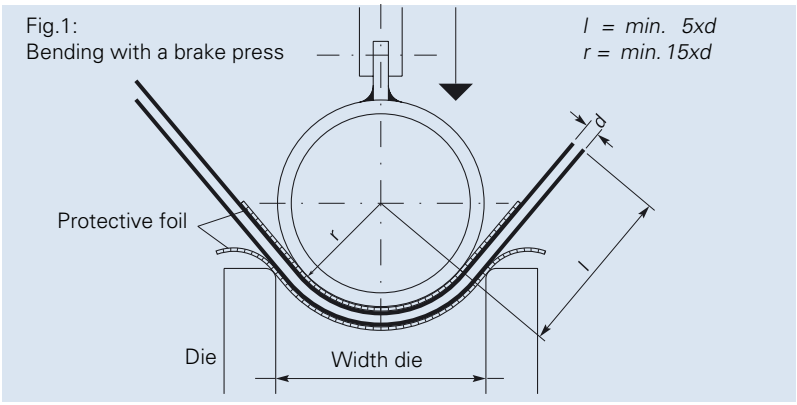
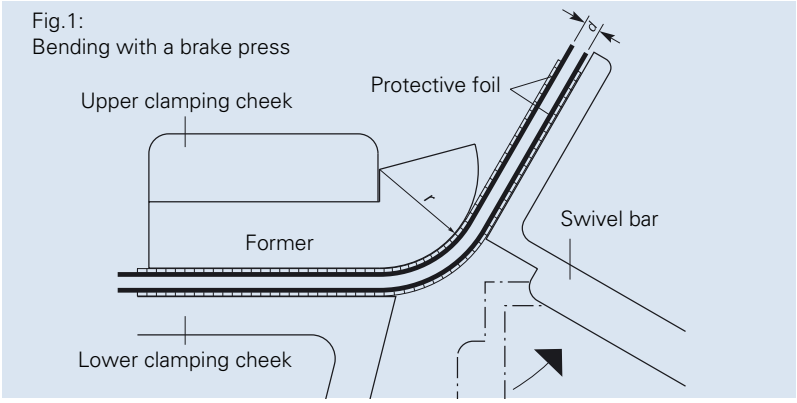


Fig.1:
Bending with a brake press



routing and folding technique for individual shaping and design

Method

DIBOND composite panels can be shaped by means of a simple processing technique. This procedure, the routing and folding technique, enables a variety of shapes and sizes to be manufactured.

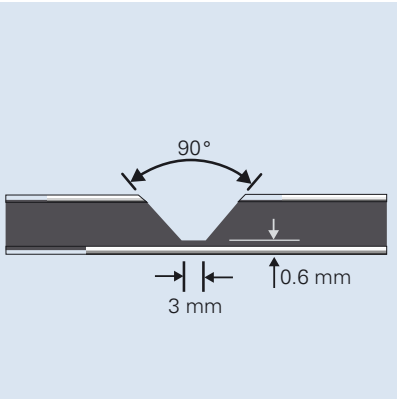
V-shaped or rectangular grooves are routed on the rear of the panels with disk or end milling cutters, whereby the aluminium cover sheet at the front and part of the polyethylene core are retained. The small thickness of the remaining material then allows folding by hand. A brake press is not required. The groove shape determines the radius of the bend.

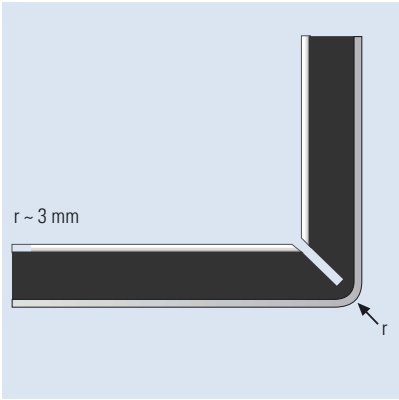
The grooves can be produced with both a panel saw with routing device for DIBOND and a hand routing machine. The routing and folding technique can be used for composite panels of all standard surfaces.

Advantages

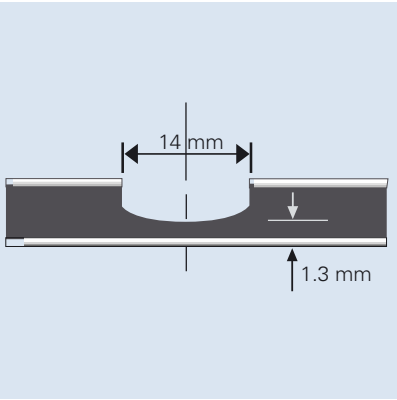
The convincing advantages of the routing and folding techniques are:

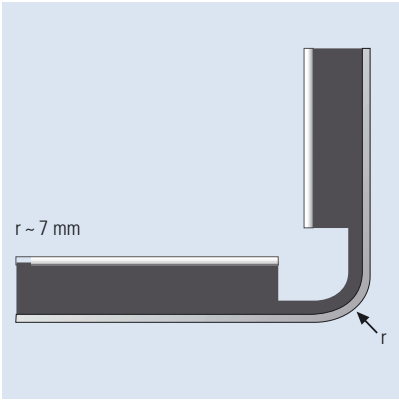
- Minimum investment
- Simple operating technique
- Folding need not be done in the workshop, it can be done on site; this means low transport and storage costs
- Low-cost manufacture of preformed decorative elements, advertising boards, large signboards and many more are possible
- Versatile formability
- Good economy
- Shapes are not restricted by machine dimensions



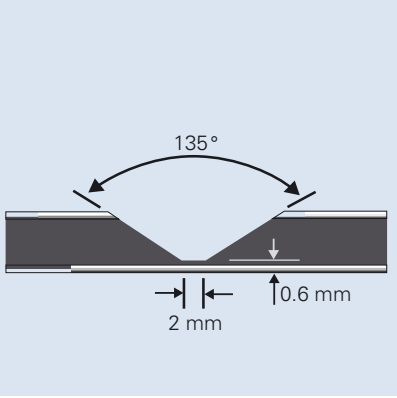


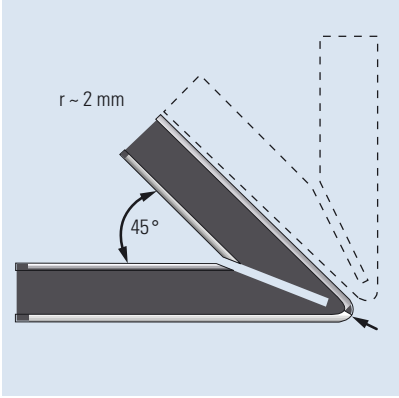
Groove (V-shaped) for edges up to 90°



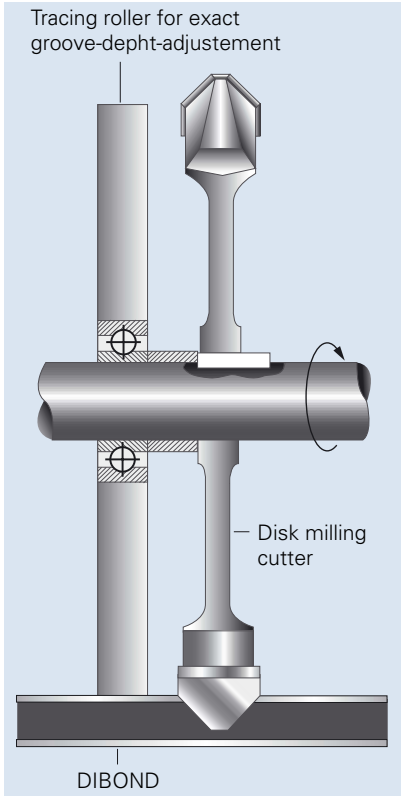


Rectangular groove for edges up to 180° depending on panel thickness





Groove 135° (V-shaped) for edges up to 135°



Tools and machinery for routing and folding technique

Panel saws DIBOND routing device (special accessory)

Holz-Her vertical panel saw
1215 ALUCOBOND

Striebig vertical panel saw

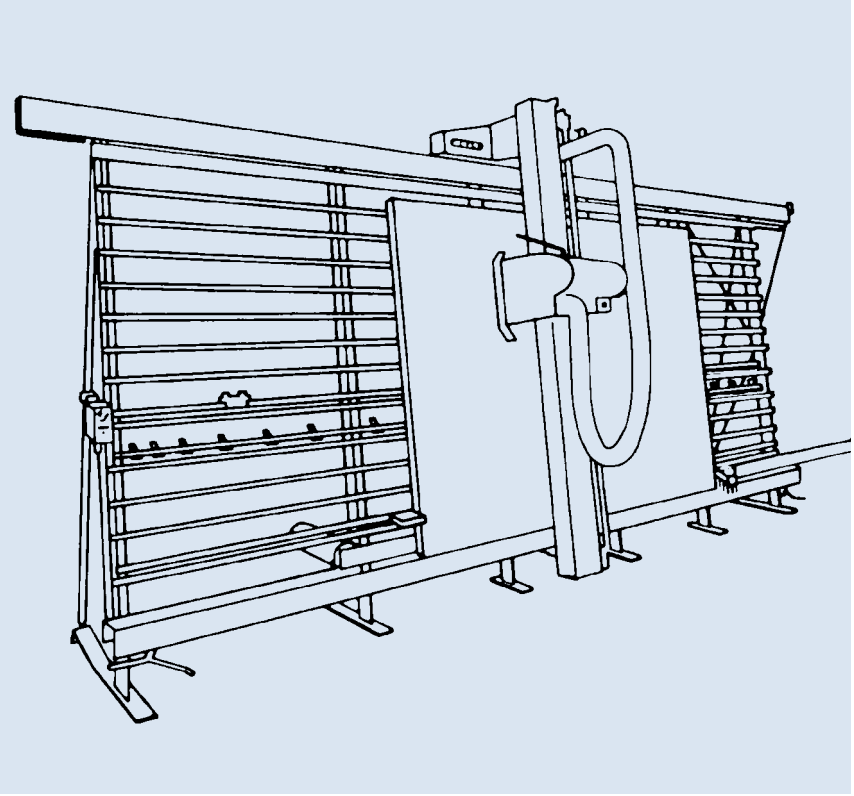
- Standard II for composite panels
- Compact TRK
  (Please order saw with raised stand.)

Manufacturers/Suppliers:

Reich Spezialmaschinen GmbH Plochinger Straße 65
D-72622 Nürtingen
Phone +49 70 22 7 02 – 0

Striebig AG Maschinenbau
Großmatte 26a
CH-6014 Littau
Phone +41 41 2 50 02 57

Other panel saws can subsequently be provided by the manufacturer with an additional routing device. Please ask for details.



DIBOND milling cutter 2373

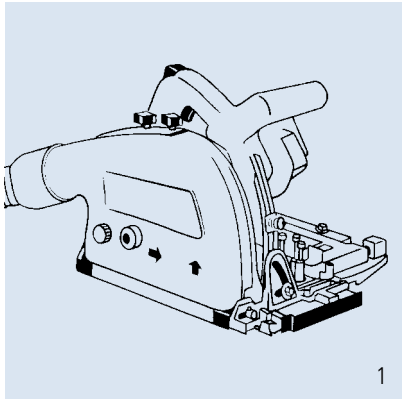
Fig. 1

Supplied with:

- Tracing roller to fit 2, 3, 4, and 6 mm
- Disk milling cutter for V-grooves 90°
- Suction adapter
- Adjustment template

Hersteller/Lieferant

Festo Tooltechnic GmbH & Co.
Wertstraße 20
D-73240 Wendlingen
Phone +49 70 24 804 – 0
Fax +49 70 24 804 – 608



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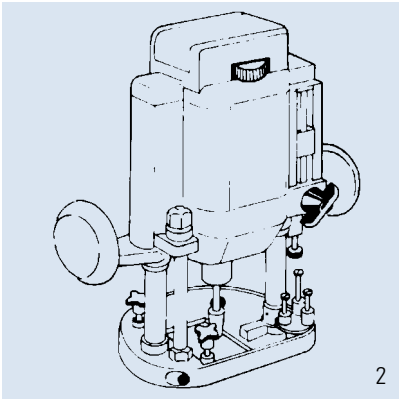


2

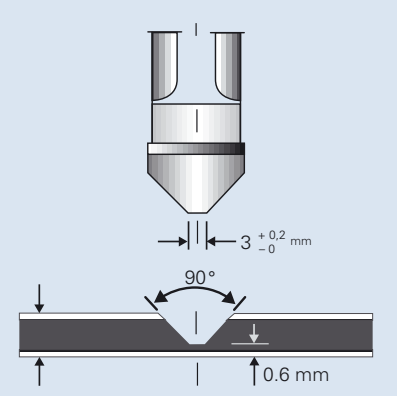
Hand routing machines

Fig. 2

Commercially available hand routing machines with a minimum rating of 800 W are suitable.

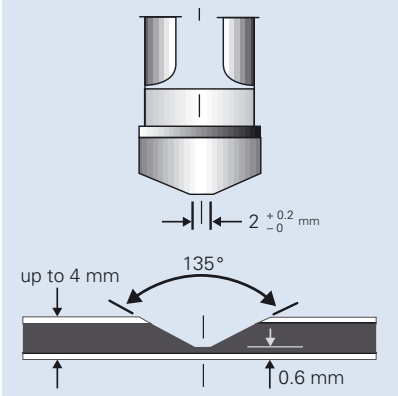
Collet chucks 8 mm dia.

Carbide tipped disk milling cutters for panel saws



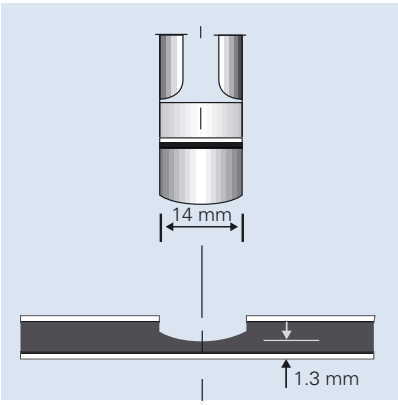
Disk milling cutter for V-grooves 90°

- to fit the Holz-Her
  panel saw 1215 ALUCOBOND
  external diameter 244 ± 0.05 mm
  bore diameter* 30 mm
  number of teeth 8



Disk milling cutter for V-grooves 135°

- to fit the Holz-Her
  panel saw 1215 ALUCOBOND
  external diameter 244 ± 0.05 mm
  bore diameter* 30 mm
  number of teeth 8



Disk milling cutter for rectangular grooves

- to fit the Holz-Her
  panel saw 1215 ALUCOBOND
  external diameter 242.6 +0.1 mm
  bore diameter* 30 mm
  number of teeth 8

*Other Holz-Her panel saws require a bore diameter of 50 mm.
Please address all enquiries and orders relating to disk milling cutters for Striebig panel saws directly to Striebig AG, CH-Littau, stating machine type and year of construction.

Tracing rollers

- to fit Holz-Her panel saws
  for panel thicknesses

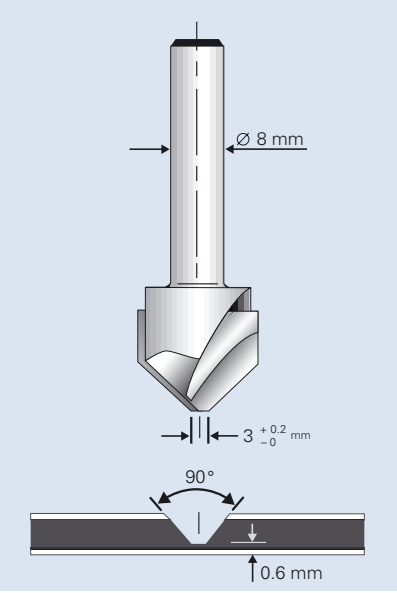
2 mm	Ø 241.2 ± 0.05 mm
3 mm	Ø 239.2 ± 0.05 mm
4 mm	Ø 237.2 ± 0.05 mm
6 mm	Ø 233.2 ± 0.05 mm

Please address all enquiries and orders relating to tracing rollers for Striebig panel saws directly to Striebig AG, CH-Littau, stating machine type and year of construction.

Please note:

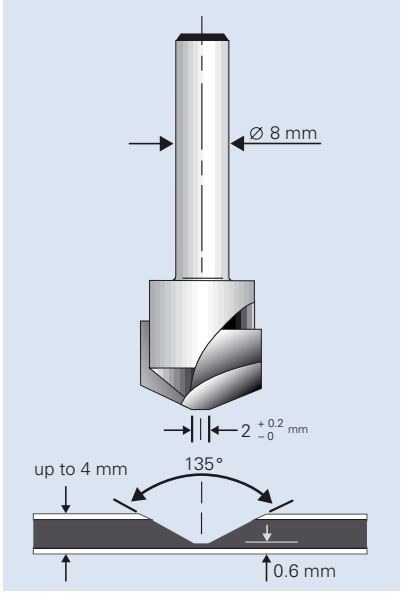
Make sure to state the following in your order:
"Tracing rollers for DIBOND panels"

Milling cutters with cylindrical shank for hand routing machines



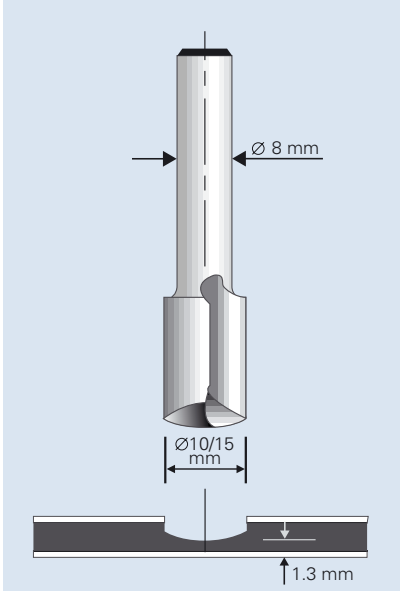
End milling cutter for V-grooves 90°

CT cutter No. 79 803 (KWO)
HSS cutter No. 201 00 83 08 (MAWEX)



End milling cutter for V-grooves 135°

CT cutter No. 79 804 (KWO)



End milling cutter for rectangular grooves

HSS cutter Ø 10 mm No. 79 800 (KWO)
HSS cutter Ø 15 mm No. 79801 (KWO)

Suppliers of profile cutters

KWO-Werkzeuge GmbH
Aalener Straße 44
D-73447 Oberkochen
Phone +49 73 64 9 51 – 8

MAWEX GmbH
Maschinen und Werkzeuge

Postfach 65
D-75417 Mühlacker
Phone +49 70 41 2001

jointing / fixing technique

DIBOND can be joined by means of standard processes used in metal and plastics technology.

If DIBOND is to be joined to structural parts of metals other than aluminium, or if fasteners (e.g. bolts, screws) are to be used, the following material guidelines should be observed:

Fasteners and structural parts made of aluminium, plastic or stainless steel should be suitable for the assembly with DIBOND.

When using other materials please insert insulating washers etc. or apply protective coating to prevent corrosion.

Please take the thermal expansion of the panel into account for outdoor use of DIBOND to avoid jamming or deformation.

The minimum gap depends on the expected expansion of the panel.

Please refer to processing recommendations for rivets and bolts for additional measures to prevent jamming.

The linear thermal expansion of DIBOND is determined by the aluminium cover sheets. At a temperature difference of 100 K the longitudinal deformation is 2.4 mm/m.

Riveting

Please take the thermal expansion of the DIBOND panel into account when riveting for outdoor use. To avoid jamming, the hole in the panel must be large enough to allow for expansion.

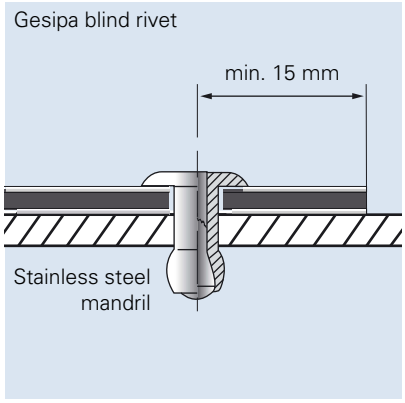
DIBOND panels can be fastened together or joined to other materials with rivets common to aluminium constructions (Fig. 1).

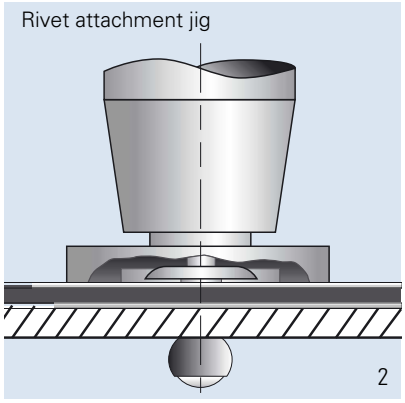
For outdoor use and for use in areas of high humidity, aluminium blind rivets with stainless steel mandrils should be used to prevent ugly corrosive edges. When using aluminium blind rivets with steel mandrils, the mandril should drop out after riveting (detachable version).

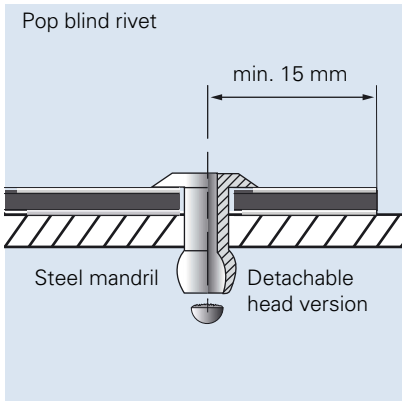
To prevent jamming the panel, the rivet should be fitted into the panel hole with a rivet attachment jig (Fig. 2) to avoid excessive pressure of the rivet onto the panel. The attachment jigs are obtainable from manufacturers of blind rivets with an attachment head diameter of 11 or 14 mm.

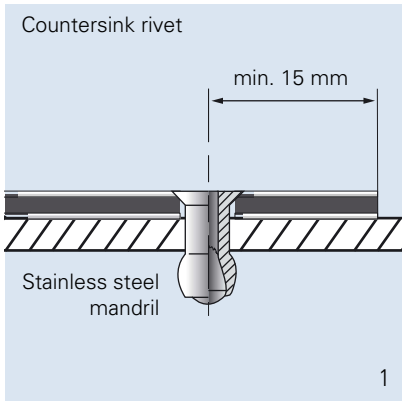
Countersink rivets do not allow for panel expansion and are therefore unsuitable for outdoor use.

Important:
If no attachment jig is used, please remove protective foil prior to riveting.









Manufacturers/Suppliers:

Blind rivets
Fachhandel oder
Gebr. Titgemeyer GmbH & Co KG
Postfach 4309
D-49033 Osnabrück
Phone +49 5 41 58 22 – 0
Fax +49 5 41 58 64 44

GESIPA-Blindniettechnik GmbH
Postfach
D-64534 Mörfelden-Walldorf
Phone +49 61 05 40 02 – 0
Fax +49 61 05 40 02 – 87

VVG GmbH & Co KG
Postfach 1537
D-58721 Fröndenberg / Ruhr
Phone +49 23 73 76 50 0
Fax +49 23 73 77 99 1

Blind rivets lacquered
MBE GmbH
Postfach 2525
D-58685 Menden
Phone +49 23 73 40 34
Fax +49 23 73 1 88 55

Plastic covers for rivets
KU-FA Befestigungs GmbH
Hinterm Hainberg 10
D-57334 Bad Laasphe
Phone +49 27 54 3 74 50
Fax +49 27 54 81 19

Threaded fasteners

Threaded fasteners for indoor use

Sheet metal and wooden screws with different head-shapes are suitable for indoor use (Fig. 1). They do not normally allow for any panel expansion.

Countersink screws can be inserted by the usual countersinking method or by depressing the aluminium surface into the panel. When depressing the aluminium surface, the hole diameter in the panel must be larger than the screw diameter.

Important:

Make sure to remove protective foil prior to screwing.

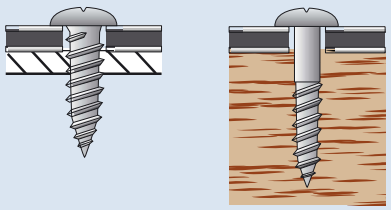
Threaded fasteners for outdoor use

Please take thermal expansion of the DIBOND panel into account when using threaded fasteners outdoors. To avoid jamming, the hole diameter in the panel must allow for the expansion.

Fastening without jamming is possible with fascia screws (Fig. 2). Please make sure that the screws are not too tight.

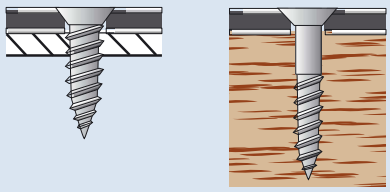
Standard colour covers are available for covering screw heads (please state width with your order).

Sheet metal / wooden screws with cross recess



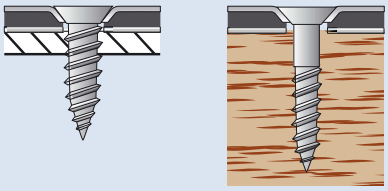
1

Countersunk bore



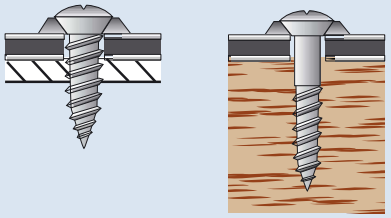
1

Countersink screw head with cover sheet depressed



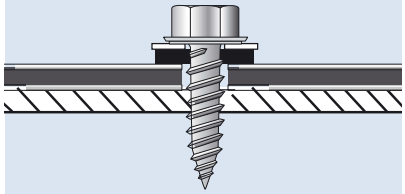
1

Tallow-drop screws with tapered washer



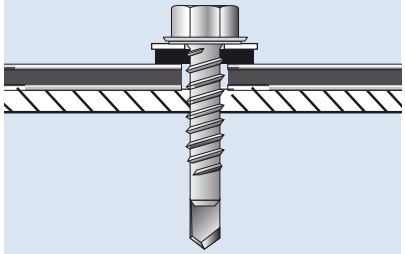
1

Fascia screws for metal substructure



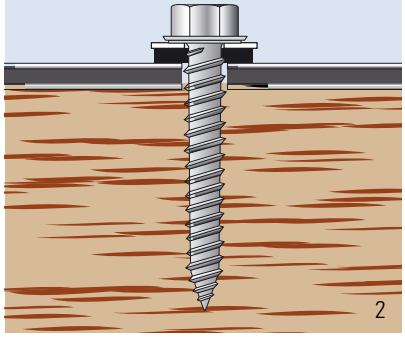
2

Selftapping screw



2

Fascia screws for wooden substructures



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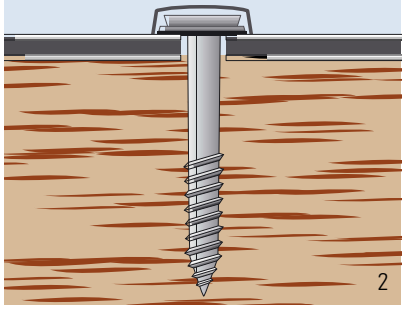

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Manufacturers/Suppliers:

Fascia screws

EJOT Baubefestigungen GmbH
Postfach 11 35
D-57323 Bad Laasphe
Phone +49 27 52 9 08 – 0
Fax +49 27 52 9 08 – 731

SFS Stadler GmbH & Co KG
Postfach 1860
D-61408 Oberursel
Phone +49 61 71 7 00 20
Fax +49 61 71 7 93 85

KU-FA Befestigungs GmbH
Hinterm Hainberg 10
D-57334 Bad Laasphe
Phone +49 27 54 3 74 50
Fax +49 27 54 81 19

Plastic covers for fascia screws

KU-FA Befestigungs GmbH
Hinterm Hainberg 10
D-57334 Bad Laasphe
Phone +49 27 54 3 74 50
Fax +49 27 54 81 19

Hot-air welding

Hot-air welding has proved useful for joining thermoplastic plastics and for welding DIBOND. The plastic core and the plastic welding rod are heated and welded with electrical hot-air welding sets. The following conditions are essential for good results:

- Well prepared welding joint
- Good quality welding rod
- Clean hot air
- Correct temperature
- Correct contact pressure
- Welding speed

Welding with rapid welding nozzle

(Fig. 1) The rapid welding nozzle method ensures uniform heating of the core material and the welding rod and thus results in a better welding quality. Rod A is inserted manually through nozzle tongue B. By applying constant pressure to the nozzle tongue, the rod is pressed into the joint.

Preparation of welding joint

For butt-welding, the edges of the DIBOND panels must be chamfered (Fig. 2).

As the plastic core oxydizes relatively quickly when exposed to air, welding should be completed within 24 hours after chamfering.

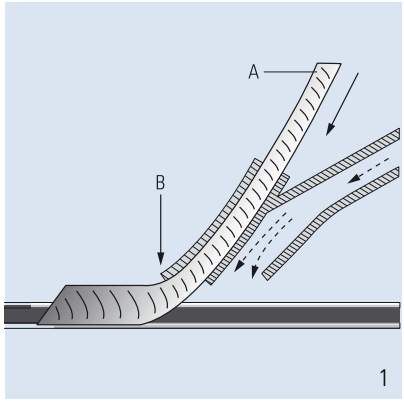
Welding rod

Please use the following quality:

Polyethylene, soft, Type: 1800-h

Colour: black, diameter: 3-4 mm

The outer layer (oxide layer) of the welding rod should be removed with emery cloth immediately before welding. Please chamfer the starting end of the rod to approx. 45°.



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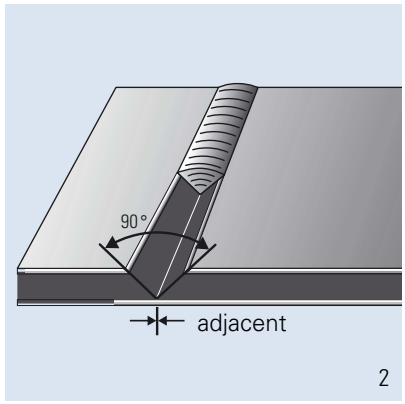

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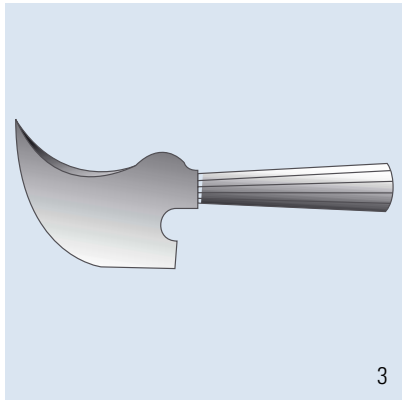

3

Temperature

The following air temperature is required for hot-air welding:

DIBOND: 265°C +/- 5°C

The temperature must be continuously adjustable and is measured with a mercury thermometer or bimetal measuring unit 5 mm from the nozzle point. To measure the temperature, please take off the rapid welding nozzle.

Contact Pressure

The required pressure to the nozzle shoe (rapid welding nozzle) should be approx. 3 kp.

Hot-air welding sets

We recommend using the Leister hot-air welding set, Type DIODE PID, in connection with the ventilator, Type MINOR.

Skimming the welding seam

A scraper blade or knife is used at a very flat angle to shave the welding seam as soon as it has cooled down. For visible welding joints, the seam on butt and corner welds is removed using a crescent-shaped knife (Fig. 3).

Manufacturers/Suppliers:

Hot-air welding sets, temperature measuring devices, crescent-shaped knives and welding rod
Heißlufttechnik GmbH & Co
Leister Vertrieb
Postfach 19 03 29
D-42703 Solingen
Phone +49 2 12 31 70 31
Fax +49 2 12 31 23 24

Herz GmbH
Leister-Vertrieb
Postfach 21 02 60
D-56539 Neuwied
Phone +49 26 22 8 10 86
Fax +49 26 22 8 10 80

Welding rod
Ketterer + Liebherr GmbH & Co KG Postfach 969
D-79009 Freiburg
Phone +49 7 61 4 78 14 – 0
Fax +49 7 61 4 78 14 – 90

Glueing

Metal adhesives / Universal adhesives

For indoor use, trade fair/exhibition stand structures and machines, most metal or universal adhesives are suitable.

Tapes / Velcro tapes

Double-sided tapes (such as the 3M Isotac products or acrylic foam) can be used for the above applications with low tensile or transversal strength requirements. Velcro tapes are available for detachable joints, for example SCOTCHMATE or tapes marketed under the Dual Lock trademark.

Both products are also available from 3M
Deutschland GmbH
Carl-Schurz-Straße 1
D-41460 Neuss
Phone +40 2131 14-0
Fax +49 2131 14 34 70

Adhesive sealing compounds

For high-strength and elastic connections we recommend the following one-component adhesive sealing compound:

Sika Bond-T2
(polyurethane base)
Sika Chemie GmbH
Stuttgarter Straße 117
D-72574 Bad Urach
Phone +49 71 25 9 40 – 0
Fax +49 71 25 9 40 – 7 10

For outdoor use, this adhesive can be used for fastening parts of minor static importance.

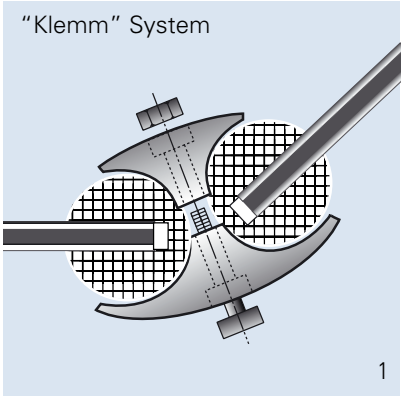
Important:

Please observe the manufacturer's instructions regarding the application and use of adhesives / tapes.

Adhesives and sealing compounds do not adhere to the DIBOND plastic core (cut edges).

Laminating of DIBOND panels to other materials may result in deformation of the laminates (differing expansion / bimetal effect).

Clamp Connections



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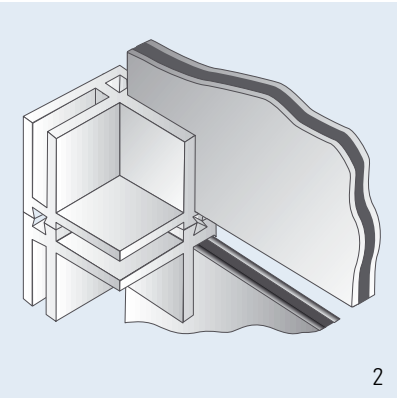

2

Clamp connections incorporating aluminium or plastics are particularly suitable for DIBOND. They generally consist of two parts with the clamping effect achieved by bolting.

Various designs of clamping elements are used for display and store fitting purposes (no outdoor use).

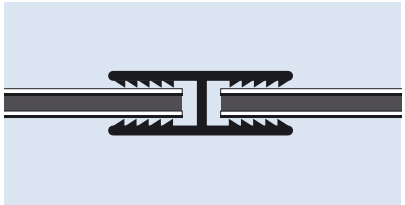
The "Klemm" clamping system (Fig. 1) has adjustable clamping jaws made of plastics. Fig. 2 illustrates a clamp connection as a corner joint ("rts" system).

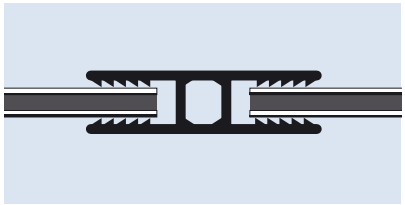
Supplier:
Raumtechnik-Systeme GmbH
Postfach 4120
D-73740 Ostfildern
Phone +49 711 44 01-0
Fax +49 711 4 40 11 20

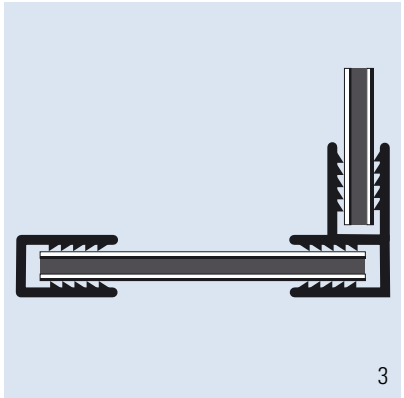
Any suitable connection or shock-resistant frame can easily be made with aluminium sections.

The inevitable tolerances signify different retention forces. A uniform and solid fit of the sections is obtained by pressing the section sides together prior to inserting the panels.

Butt joint, corner and edge sections are available for panels of 3, 4 and 6 mm (Fig. 3). Please ask for our stock list.



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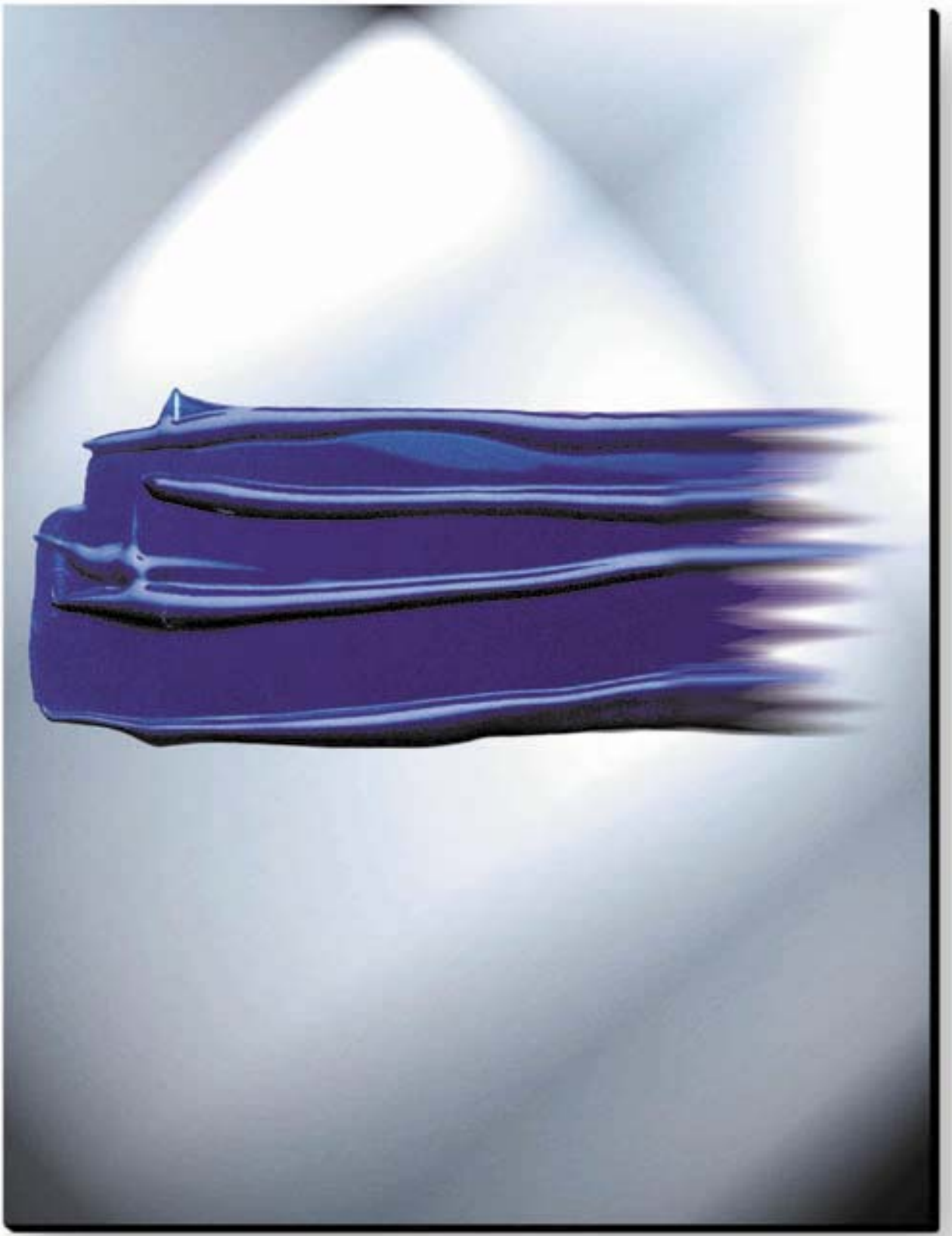

Overlacquering (spray painting) of stove-lacquered DIBOND surfaces of polyester lacquer quality

The aluminium treatment and priming carried out at the factory in a continuous process with continuous quality control is advantageous to the overlacquering of the stove-lacquered DIBOND surface.

DIBOND overlacquering procedure

- Pre-cleaning of the panels using methylated spirit
- Grinding the surfaces with wet abrasive paper (grain size 360)
- Removing grinding dust with a lintfree cloth moistened with spirit
- For the top coat, please follow the instructions of the top coat suppliers

Any information given with regard to overlacquering does not apply to DIBOND SR panels.

Please note:

- **The maximum permissible temperature of the material (DIBOND panels) must not exceed 70° when applying fast-drying methods. During the drying process at high temperatures the DIBOND panels must be positioned with great care to prevent deforming.**
- DIBOND cut edges should not be in contact with organic solvents for a prolonged period of time to avoid weakening the bond.
- DIBOND panels lacquered or overlacquered at a later stage should not be bent or folded. The lacquer in the bends or folds may be damaged due to the low elasticity of the top coat.
- Only inferior lacquer adhesion can be achieved on core material exposed at cut edges.
- Please make a test prior to overlacquering and follow the instructions of the lacquer suppliers.

Lacquering of mill-finish DIBOND surfaces

The composition of lacquer coating for DIBOND is basically the same as those for mill finish aluminium surfaces. However, it is advisable to be familiar with coating systems and materials as well as working methods for aluminium.

Additional information

- For general information on painting, lacquering and coating of aluminium we recommend the leaflets on “02, 03, 012, 015 surfaces” issued by

  Aluminiumzentrale
  Postfach 101 262
  D-40003 Düsseldorf.

Surface treatment / Screen printing

Screen printing on DIBOND surfaces of polyester lacquer quality

Stove-lacquered DIBOND panels are well suited for screen printing.

Prior to printing, please make sure to clean the surface with methylated spirit.

Practice has shown that even within a given specification of stove lacquer paint and printing ink there may be variances, and in view of this it is recommended that in the case of each particular application the adhesion properties of the selected printing ink should be tested.

In order to achieve certain surface characteristics or to improve mechanical or chemical resistance it may be useful to overlacquer the print.

Please follow the instructions of the printing ink suppliers.

The above information does not apply to DIBOND SR panels.

Laminating / foto mounting

DIBOND areas can be laminated (manually or by machine) with cast or calendered self-adhesive foils. The varnish does not come off when changing the foils.

Foto mounting is done with adhesive film or wet with dispersion adhesive. The panels must be clean and free of dust and grease prior to applying foils or fotos.

Expert and regular cleaning not only maintains the aesthetic and representative finish of stove-lacquered surfaces but also maintains their quality through the removal of dirt and aggressive deposits.

Cleaning intervals depend on local environmental conditions and the resulting amount of soiling.

Surfaces should be cleaned either manually or with a suitable cleaning device from top to bottom.

Please do not use any abrasive pads on lacquered surfaces.

We recommend that the cleaning agent be tried on an unobtrusive part of the object to be cleaned to check whether the surface is affected.

Do not clean hot surfaces (>40° C) as the quick drying process may cause blemishes.

cleaning and maintenance of stove-lacquered surfaces

Suitable cleaning agents

A list of neutral cleaning agents for organically coated or anodized aluminium components is available at

Aluminiumzentrale e.V.
Postfach 101 262
D-40003 Düsseldorf
Phone +49 2 11 47 96-200
Fax +49 2 11 47 96-410

Please observe the manufacturer's cleaning and safety instructions!

For further information such as addresses of approved and recommended cleaning companies, please contact

Gütegemeinschaft für die Reinigung von Metallfassaden e.V. (GRM)
(= Association for quality control of metal facade cleaning agents)

Marientorgraben 13
D-90402 Nürnberg
Phone +49 9 11 20 44 41
Fax +49 9 11 22 6755

Non-suitable cleaning agents

Please do not use any powerful alkaline cleaning agents such as potassium hydroxide, sodium carbonate or caustic soda, or any powerful acidic products or heavily abrasive scouring agents such as Vim, Ajax, Imi or lacquer-dissolving cleaning agents.

Remarks

Information

(Please ask for our additional documentation on)

DIBOND Product Information

DIBOND SR Product Information

DIBOND Applications

DIBOND The Colours

DIBOND Processing

DIBOND Design

DIBOND Documentation File

Samples

Original samples with standard surface

DIBOND®

ALCAN COMPOSITES –
a global organisation

- Alcan Airex AG, Sins, Switzerland
- Alcan Kapa GmbH, Osnabrück, Germany
- Alcan Singen GmbH, Singen, Germany
- Alcan Thermoplastics (Lawson Mardon Packaging UK Ltd.), Chelmsford, UK
- Alcan Composites USA Inc., St. Louis
- Alcan Composites Ltd., Shanghai, China
- Alcan Composites Brasil S.A.

ALCAN COMPOSITES –
a truly global player

- Sales offices and production sites in Europe, the Americas and Asia
- Widest selection of sheet materials
- Partnerships with leading distributors
- Shortest delivery times
- Professional sales team

DIBOND® FOREX® KAPA® FOAM-X® THERMOPET®

1/03/2003 Verarbeitung GB

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composites@alcan.com

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