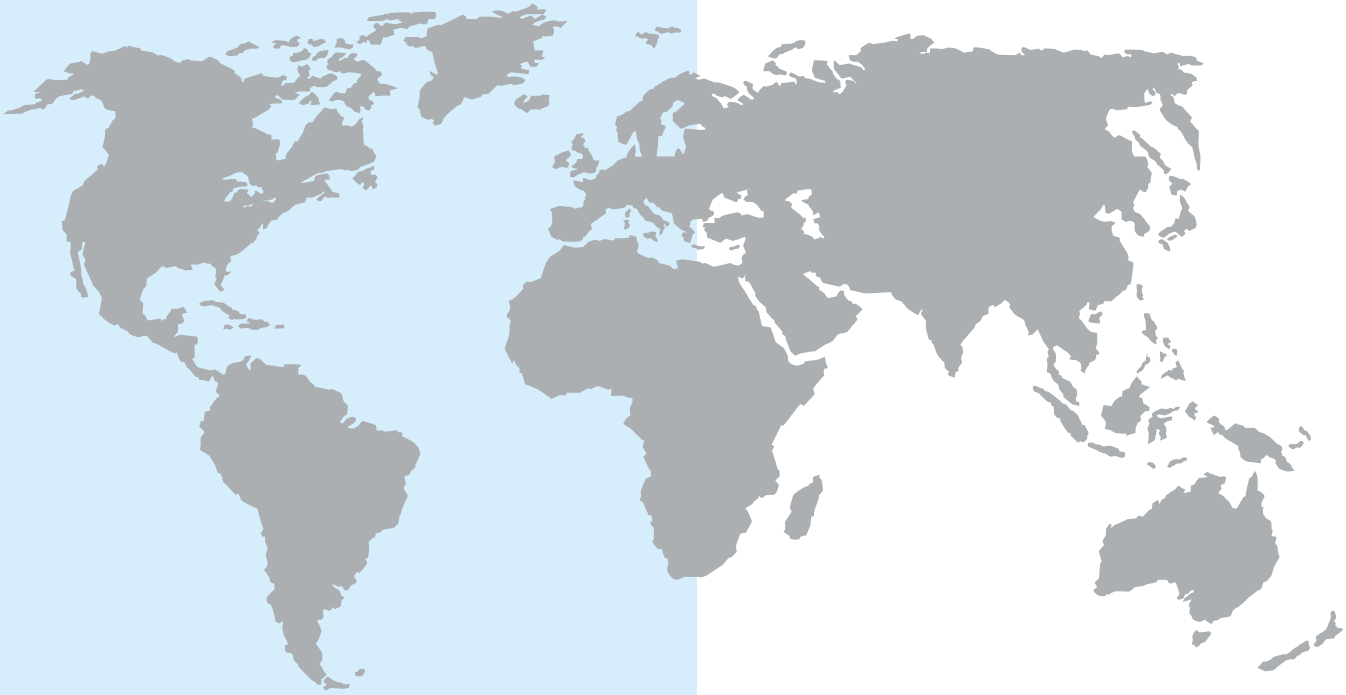
RIEPE®

SPRAYING UNITS AND CHEMICAL PRODUCTS FOR THE WOODWORKING INDUSTRY

Edge processing to finish quality
by electronically controlled spraying units



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About us

For more than 30 years RIEPE® in Bünde, have been developing and producing electronically controlled spraying systems together with the appropriate chemical products, for the woodworking industry.

In addition we are producers of metal detectors for the protection of machine tooling. You will find in our product line-up, buffing wheels and other useful products to assist your production.

Our chemical products for use with the electronically controlled spraying units as well as for special applications are developed and produced by ourselves.

Amongst others we supply the leading manufacturers of woodworking machinery. Take advantage of our many years of experience and know-how, with regard the fitting and use of electronically controlled spraying systems in the various areas of application.

The company, RIEPE®, prides itself in high quality products, service and customer care. It is these factors that have ensured our current successful market position.

Why should you choose RIEPE® products?

RIEPE®, has made edgeband processing to finish quality possible, through many years of development. Release Agent, Antistatic Coolant and Cleaning Agent are specially developed for the RIEPE® spraying systems by RIEPE® themselves.

Currently, RIEPE® products are sold worldwide via a large dealer network, so that you can obtain RIEPE® products where you are, not only in Europe, but throughout the world.

Working very closely with leading machine, edgbanding and adhesive manufacturers we ensure our products always meet the latest demands. Using original RIEPE® products you will cost effectively raise your production standard to new technical heights.

In particular, the use of our spraying systems in combination with RIEPE® special release, antistatic coolant and cleaning agent ensures effective, maintenance-free production.

We are pleased to offer advice and assistance in achieving Finish quality.

We do not only offer you the right products, but also the technical know-how.

Worldwide our customers already put their trust in us and our products.

Choose original RIEPE® products for your production too.

How to avoid undesired glue residue on the top and bottom surfaces of furniture parts.

Glue residue squeezed out after the application of plastic or veneer edging material spoils the appearance of furniture parts. This glue residue quickly adheres to the workpiece and its removal requires time-consuming manual work.

The attachment of RIEPE® release agent and cleaning agent spraying units guarantees a workpiece edge which is absolutely free of glue.

An overview of our spraying systems:

1. An electronically controlled release agent spraying unit applies an ultra-fine coat of the release agent LPZ/II® to the top and bottom surface of the workpiece (in the edge area) prior to formatting. This prevents squeezed out glue residue from adhering to the workpiece.

2. Upstream of the buffing unit, an electronically controlled cleaning agent spraying unit applies the cleaning agent LP163/93® to the top and bottom of the panel edge (edging material). The release agent applied in the infeed area and the loose glue residue is removed by the application of the cleaning agent and by the buffing process. In addition, the edging material radius is polished to regain its sheen and re-match the surface.

3. The perfect enhancement to the release and cleaning agent spraying units is the antistatic-coolant unit. The use of this spraying unit after the edge application, leads to faster curing of the surface of the glue joint. Incrustation on the tools is notably reduced. The glue no longer adheres to the edging material. Furthermore, the edging material is statically discharged. Tracer rollers and workpieces remain free of milling chips.

4. The antistatic cooling agent spraying unit can be equipped with an additional fine spray nozzle. This nozzle is used to apply the special release agent/lubricant NFLY® laterally to the edging material surface, which helps avoid damage to the sensitive edging material (acrylic/aluminium). This damage is caused by the detection runners. In addition, damage to the protective film on the edgeband caused by the tooling is prevented.

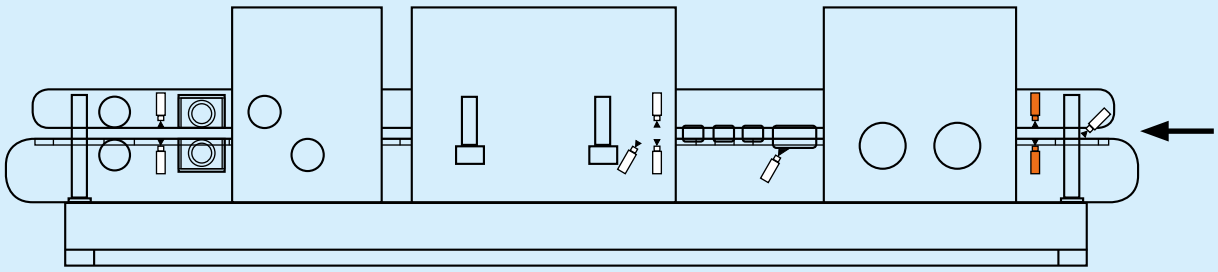
5. When gluing problems occur the cleaning of the pressure roller is time consuming and labour intensive. The release agent spraying unit for pressure roller offers the clean solution. The release agent NFLY® is periodically sprayed on the main pressure roller. The glue residue is thus prevented from adhering to the pressure roller.

6. The edging of corner joints particularly on thick workpieces, presents problems. The release agent LP113/03® is sprayed onto the corner area of the glued on longitudinal edge to prevent the adherence of the glue residue emerging from the corner during the cross gluing process.

7. For edgebanding machines that do not have size cutters at the infeed, our release agent roller application unit comes into play. The fine nozzle sprays the release agent very finely onto the application roller. Subsequently, this applies the release agent accurately to the edge of the workpiece. In this way the release agent is prevented from coming into contact with the unfinished edge and therefore the gluing process is not negatively affected.

8. For veneer and wrapping machines the electronically controlled spraying unit sprays a water/air mix onto the veneer strip. In this way the cracking/breaking of the veneer in the problem zones is prevented.

We have developed special fluids for each of the above mentioned spraying units. The spraying units will only operate maintenance free and ensure the success of your production if these fluids are used. This is confirmed by our long years of experience.



Electronically controlled release agent spraying unit

Upstream of the formatting unit, an ultra-thin coat of the release agent LPZ/II® is applied to the top and bottom surface of the workpieces (edge area) by means of our electronically controlled release agent spraying unit. This prevents squeezed out glue from adhering to the workpiece.

An ultra-thin application of our release agent in the edge area **(consumption per nozzle under 1 liter per 5000 running meters)** guarantees a perfect result.

The electronically controlled release agent spraying unit only requires a 3 bar compressed air connection and a 230/24V outlet.

Our special release agents are adapted to all commercially available glues. In illustration 1 you can see the installation of the spraying unit inside the cladding directly before the formatting unit, with the relevant fixing bracket. Our fine nozzles are not sensitive to dust and can therefore be fitted directly in front of the tooling.

In illustration 2 you can see the installation outside the cladding, prior to formatting, with the appropriate bracket. On the opposite side of the machine the unit is connected to the longitudinal fence with the appropriate bracket. We also have an assortment of special fixings to meet your needs.

For post- or softforming machines our high heat resistant release agent TH97® is used. This special release agent can pass without problem through hot zones without losing its effectiveness.

Appropriate Release Agents

Release Agent LPZ/II®

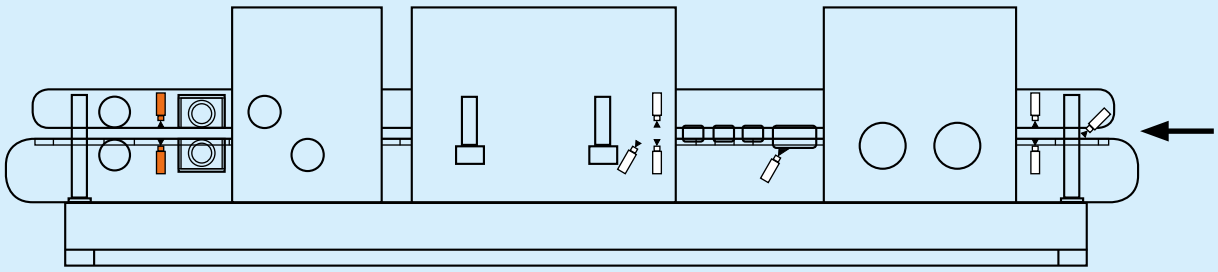
Area of application:	Machine infeed
Container:	30 Liter | 200 Liter | 1000 Liter
Colour:	transparent

Release Agent TH97® -highly heat resistant-

Area of application:	Machine infeed
Example:	Postforming | Softforming | Hot zones
Container:	30 Liter | 200 Liter | 1000 Liter
Colour:	transparent

2


1



Electronically controlled cleaning agent spraying unit

This unit is used to spray the cleaning agent LP163/93® on the top and bottom surface of the board edge, as well as the edgeband. The release agent applied at the machine infeed side and the loose glue residue are removed by the application of the cleaning agent and subsequent buffing.

Furthermore, the glue joint and the edge banding are cooled. Heat generation during buffing is considerably reduced by the application of the liquid. Smearing of glue emerging from the joint is avoided. The edge banding radius is wet buffed with the special cleaning agent LP163/93®. As a consequence, heating of the thermoplastic material is notably reduced, and a smearing of the plastic is prevented. Moreover, the radius is polished to match the surface sheen. Glue residue no longer adheres to the buffing wheels.
Result: An absolutely clean board edge!

This result can only be obtained when the buffing wheels are used across its entire width without oscillation. The buffing disc must be used with an inclination in relation to the workpiece of 3°, without oscillation and applying only slight pressure. Rotational direction should be in synchronous run to reduce heat generation.

Consumption per fine nozzle: under 1 liter for 5000 running meters. The electronically controlled cleaning agent spraying unit only requires a compressed air connection of 3 bar and a 230/24 V socket.

Appropriate Cleaning Agent

Cleaning Agent LP163/93®

Area of application:	Before buffing wheels
Container:	30 Liter | 200 Liter | 1000 Liter
Colour:	red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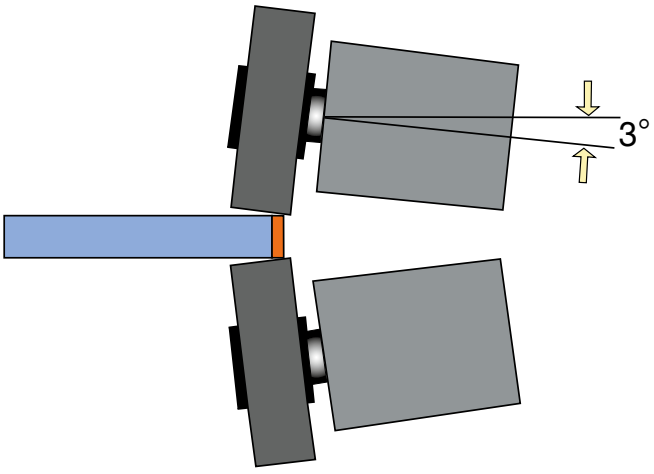
REINIGUNGSMITTEL


3 bar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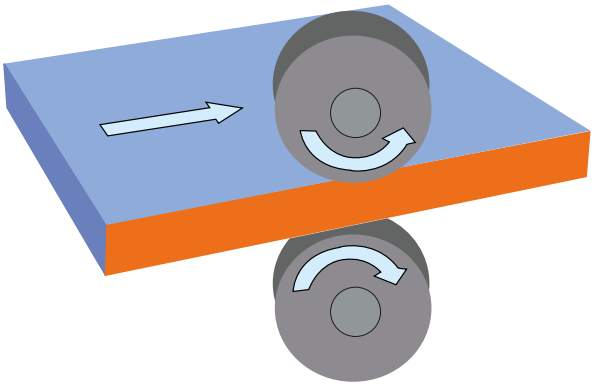
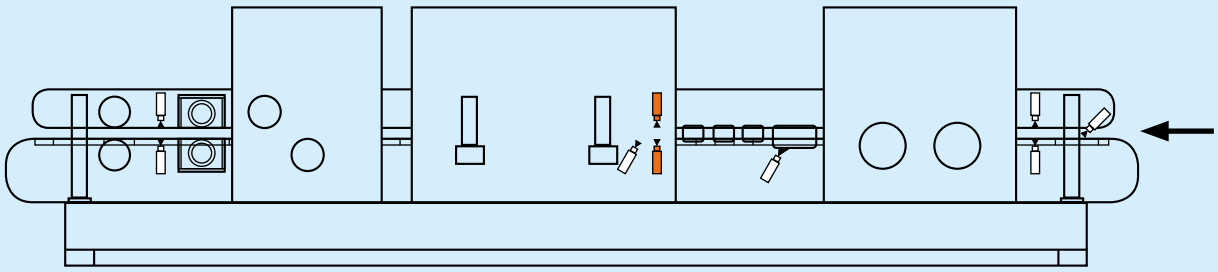




Electronically controlled antistatic-coolant spraying unit

To cool the glue joint and statically discharge the edging material

The perfect addition to the release agent spraying unit fitted at the machine infeed and the cleaning agent spraying unit fitted at the end of the machine is the antistatic-coolant unit shown in the adjacent photograph. It can be fitted downstream of the last contact pressure roller, upstream of the cross cut saws or upstream of the radius milling stations.

The antistatic-coolant LP289/99® is sprayed directly on the glue joint and on the edging material by means of our spraying units.

As a result the glue joint surface is hardened. The glue buildup on the tools is notably reduced and consequently the glue is no longer transferred onto the edging material. Furthermore, the edging material is statically discharged. Tracer rollers and workpieces remain free from milling chips.

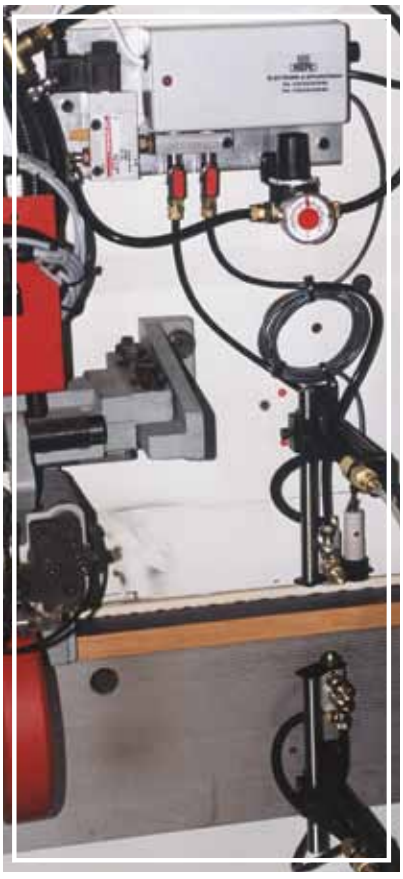
Milling off (flush trimming) the PVC or PP edges causes static charging of the edging material and the adjoining top and bottom face of the workpieces.

Milled off chips adhere to the edging material and on the top and bottom surface of the panel negatively impairing the function of the tracer rollers and making a precise finishing by scraper blades or milling impossible.

This unit remedies the above problems instantly !!

In short:

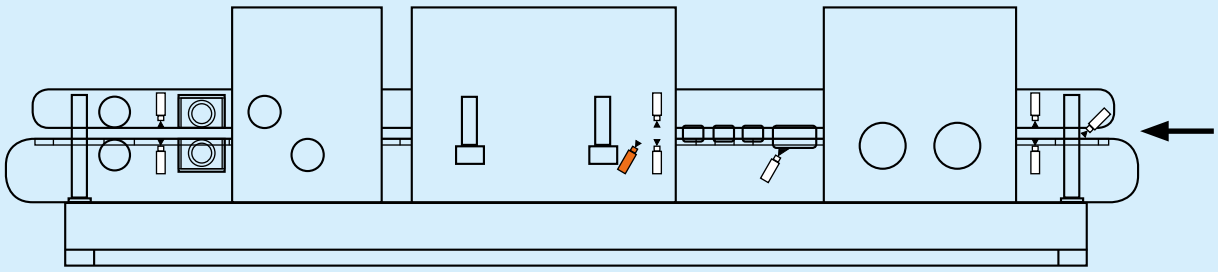
- The glue joint hardens quicker
- Build-up on tooling is greatly reduced
- Frequent replacement or cleaning of tooling is not necessary
- Chippings do not adhere to the edgeband or the top or bottom of the workpiece
- Chippings are statically discharged and therefore enter the extractor system more easily



Appropriate Antistatic-Coolant Agent

Antistatic-Coolant Agent LP289/99®

Area of application:	Following edge application
Container:	30 Liter | 200 Liter | 1000 Liter
Colour:	blue



Edging Material Moistening (Acrylic / Aluminium)

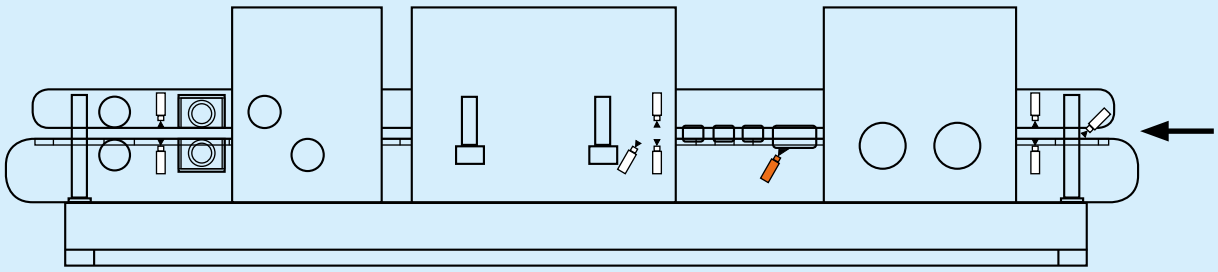
The antistatic cooling agent spraying unit can be equipped with an additional fine spray nozzle. This nozzle is used to apply the release agent NFLY®, laterally to the edging material surface. As result damage to sensitive edging material (Acrylic/Aluminium) caused by the detection shoes is avoided.

In addition, protective film on the edgeband is prevented from becoming detached.

Appropriate Release Agent

Release Agent NFLY®

Area of application:	pressure roller | sliding shoes | tool wetting | Edgeband
Container:	30 Liter | 200 Liter | 1000 Liter | Aerosols
Colour:	green



Electronically controlled spraying unit for contact pressure roller, anti-friction shoes and Post-/Soft-forming

The fine nozzle of this electronically controlled unit applies the release agent NFLY® to the contact pressure roller. This is achieved by adjustable timing interval. The spray duration is about 3 seconds. In this way glue is prevented from adhering to the contact pressure rollers. In addition the special release agent is taken from the edge and transferred to the downstream contact pressure rollers or anti-friction shoes. The contact pressure rollers and the anti-friction shoes remain free of glue residue. The anti-friction shoes are simultaneously cooled.

Result:
A notably enhanced quality. Contact pressure rollers and anti-friction shoes need no longer be cleaned.

POSTFORMING:
For POSTFORMING work, the release agent NFLY® is sprayed directly on the top coat in front of the anti-friction shoes. The special release agent is transferred to the anti-friction shoes to form a glide film. This prevents squeezed out glue residue from adhering to them and the workpiece.

As a result, a considerable improvement in production during the postforming process is achieved. This principle can also be used during the softforming process.

Appropriate Release Agent

Release Agent NFLY®

Area of application:	pressure roller | sliding shoes | tool wetting | Edgeband
Container:	30 Liter | 200 Liter | 1000 Liter | Aerosols
Colour:	green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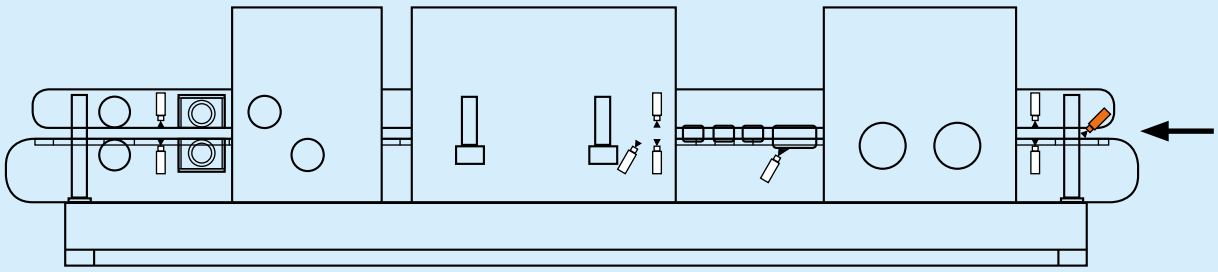
ELEKTRONIK & APPARATEBAU
3 bar



Release agent spraying unit for leading and trailing edges (edging of corner joints)

The release agent LP113/03® is sprayed onto the corner area of the glued on longitudinal edge to prevent the adherence of glue emerging in the corner as a result of the cross gluing process.

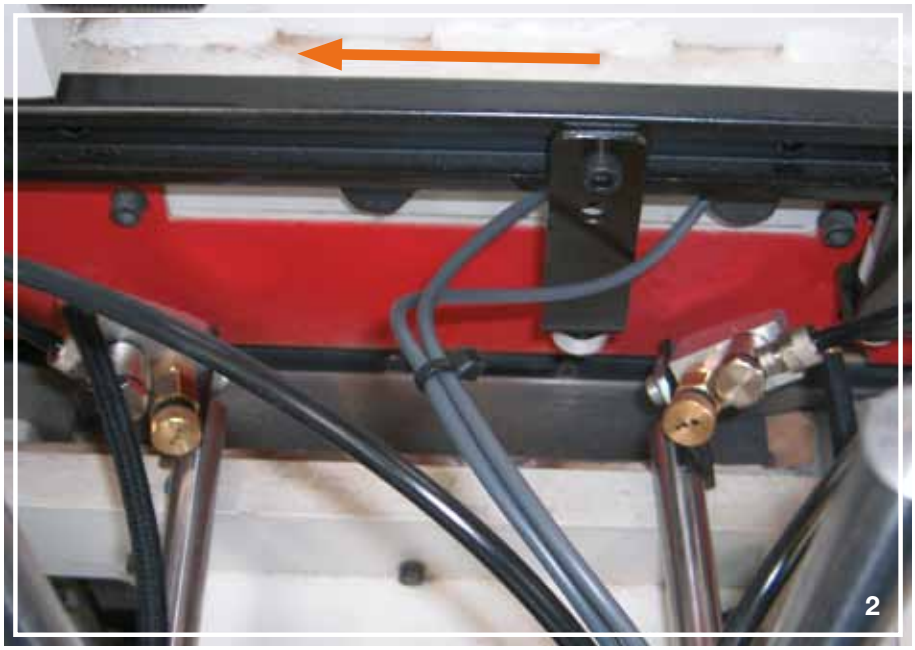
Picture 1 shows a fine nozzle used to spray the release agent LP113/03® onto the trailing edge moving in the running direction. In picture 2 the leading and trailing edge is being sprayed with special release agent LP113/03®.

Appropriate Release Agent

Release Agent LP113/03®

Area of application:	Edging material corner joint
Container:	30 Liter | 200 Liter | 1000 Liter
Colour:	transparent


1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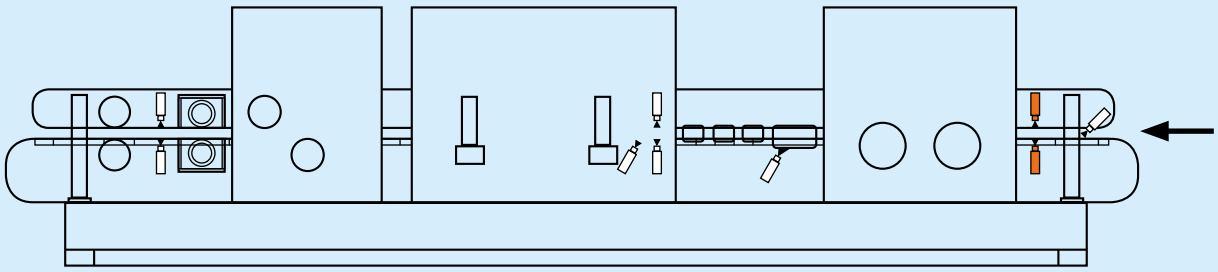


Electronically controlled release agent application unit (application via roller)

For special requirements (e.g. machines without formatting), the roller application device pictured here operates upstream of the edge pull-in of the machine. The release agent application roller is misted with a special RIEPE® release agent by a fine nozzle, and then the roller applies the release agent precisely to the workpiece edge area.

As a result the release agent does not come into contact with the unfinished edge and therefore cannot hinder the bonding process. Due to the applied release agent the emerging glue residue can no longer adhere to the workpiece.

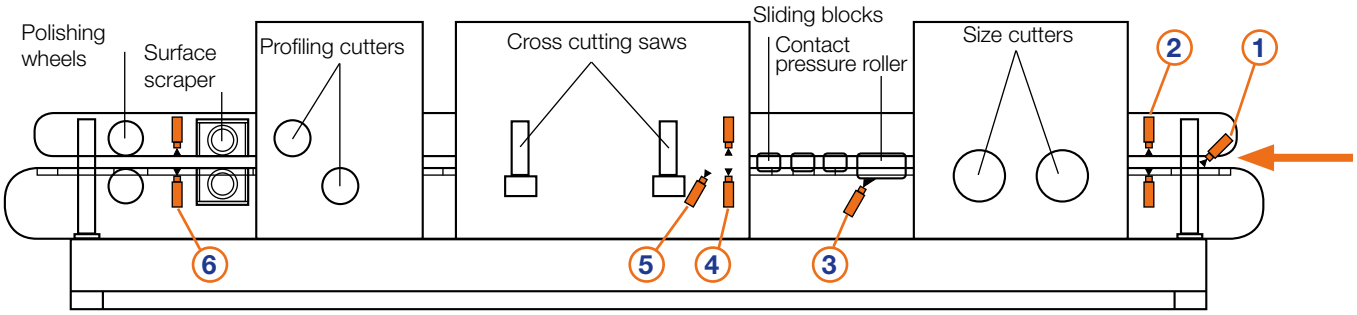
This release roller agent unit is available in 2 different sizes.

Appropriate Release Agent

Release Agent LPZ/II®

Area of application:	Machine infeed
Container:	30 Liter | 200 Liter | 1000 Liter
Colour:	transparent

Positioning of the RIEPE® spraying units on the edge-banding machine



In the diagram you can see the different positions for the individual RIEPE® spraying units.

The basic requirements for the achievement of Finish quality are the units at 2+6. Further options for improvement of Finish quality are shown by the units at 1, 3, and 4+5.

The various adhesives, edges and machines present diverse requirements.

We offer you individual, tailor-made solutions to meet your needs in the achievement of Finish quality.

1 Electronically controlled Release Agent Spraying unit for leading and trailing edge. (Edging of corners)
→ Release Agent LP113/03®

2 Electronically controlled Release Agent Spraying Unit.
→ Release Agent LPZ/II® oder TH97® -highly heat resistant-

3 Electronically controlled Spraying Unit for Pressure Rollers and Anti-Friction Shoes.
→ Release Agent NFLY®

4 Electronically controlled Antistatic-Coolant Spraying Unit.
→ Antistatic-Coolant LP289/99®

5 Electronically controlled Spraying Unit for Edge-band Acrylic/Aluminium and Protective Film
→ Release Agent NFLY®

6 Electronically controlled Cleaning Agent Spraying Unit
→ Cleaning Agent LP163/93®

Original RIEPE® Release and Cleaning Agents for spraying units

② RELEASE AGENT LPZ/II®

Area of application: Machine infeed
Container in Liters: 30 | 200 | 1000
Colour: transparent

Application of the release agent LPZ/II® on upper and lower sides of the workpiece prevents emerging glue residue from adhering to the workpiece.

② RELEASE AGENT TH97® -highly heat resistant-

Area of application: Machine infeed
Example: Postforming / Softforming
Container in Liters: 30 | 200 | 1000
Colour: transparent

Using release agent TH97® the workpiece can pass through the hot zones without reducing the effect of the release agent.

⑥ CLEANING AGENT LP163/93®

Area of application: Prior to the buffing wheels
Container in Liters: 30 | 200 | 1000
Colour: red

The application of the cleaning agent LP163/93® prior to the buffing wheels removes the previously applied release agent and any glue residue. In addition, the edge and glue joint are cooled. The radius of the milled edgeband re-matches the sheen of the surface.

④ ANTISTATIC-COOLANT AGENT LP289/99®

Area of application: Following edge application
Container in Liters: 30 | 200 | 1000
Colour: blue

Through the application of the antistatic-coolant LP289/99® the edgeband is statically discharged and the glue joint is simultaneously cooled. Guide rollers and workpiece remain free of chippings. The glue dries quicker. The build-up on the tooling is greatly reduced and as a result their longevity is increased. Frequent replacing or cleaning of tooling becomes unnecessary.

③ | ⑤ RELEASE AGENT NFLY®

Area of application: Pressure Roller | Anti-friction shoes | Tool wetting | Edgeband
Container in Liters: 30 | 200 | 1000 | Aerosols
Colour: green

- The application of release agent NFLY® at the pressure roller prevents the glue adhering to the pressure roller.
- Release agent NFLY® is also used for direct application to the tooling.
- Release agent NFLY® can be applied to the surface of the edgeband to prevent it being damaged (Acrylic/Aluminium). In addition it prevents the protective film from being removed from the edgeband.

① RELEASE AGENT LP113/03®

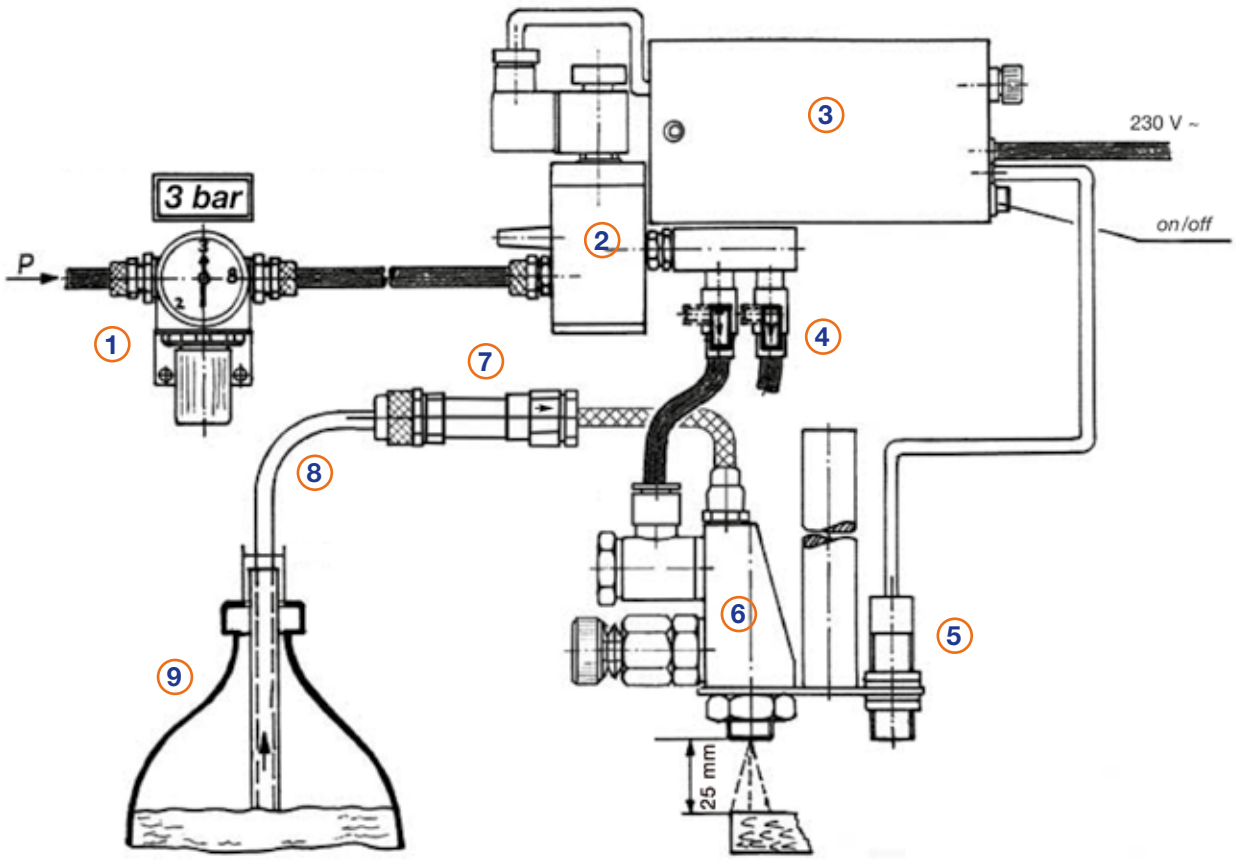
Area of application: Edging application corner joint
Container in Liters: 30 | 200 | 1000 |
Colour: transparent

The release agent is sprayed onto the corner area of the glued on longitudinal edge to prevent the adherence of glue emerging in the corner as a result of the cross gluing process.

The spraying units only work maintenance free if used with these liquids which have been especially developed for this purpose.

This is confirmed by our many years of experience. Lacquers can be used without problem on surfaces treated with our products.

The consumption per fine nozzle is under 1 liter per 5000 running meters.



Spraying system

The picture shows the complete system including electronics. A RIEPE® spraying unit for retro-fit includes an electronic control with a sensor. As a result it is not necessary to enter the machine program. The sensor sees the beginning and end of the work-piece and gives the signal to spray.

This retro-fit system only requires a compressed air and 230/24 volt connection.

Our specially developed fine nozzles distinguish themselves above all for their low consumption and robustness. The consumption per nozzle is under 1 liter per 5000 running meters.

1. Manometer
2. Magnetic valve
3. Electronic
4. Shut-off valves
5. Sensor
6. Fine nozzle
7. Non-return valve
8. Flow tube
9. 2 Liter Bottle

Veneer moistening

Solution for profile wrapping problems
(wrapping machines and edgeband application)

This electronic moistening unit sprays an air-water mix onto veneer strips via fine nozzles. A micro-fine moistening spray is applied to the veneer directly before fitting, thus ensuring that the veneer is elastic and does not crack at critical points.

The picture on the right shows a unit with fine nozzles and the attendant electronics. The veneer strip is accurately moistened from start to finish. For larger surfaces (wrapping) it is possible to connect several fine nozzle units.

Special buffing wheels as well as lamellar wheels for your edge processing

Technical information on buffing wheels

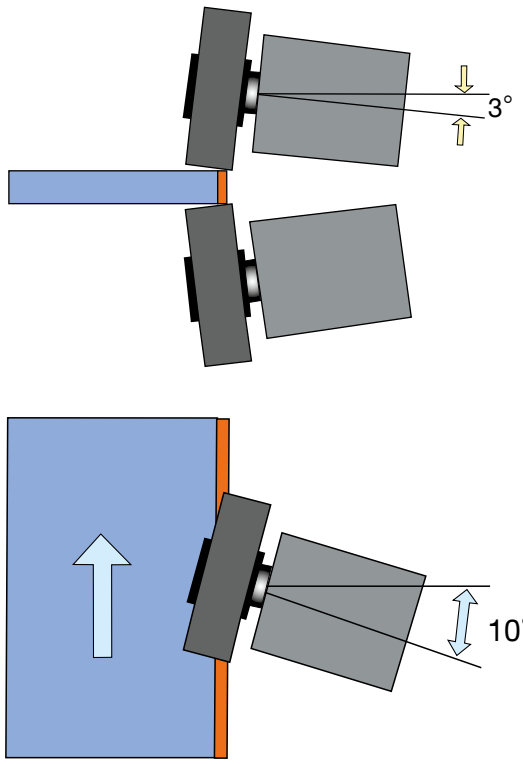
Buffing wheel arrangement in combination with RIEPE® release & cleaning agents:

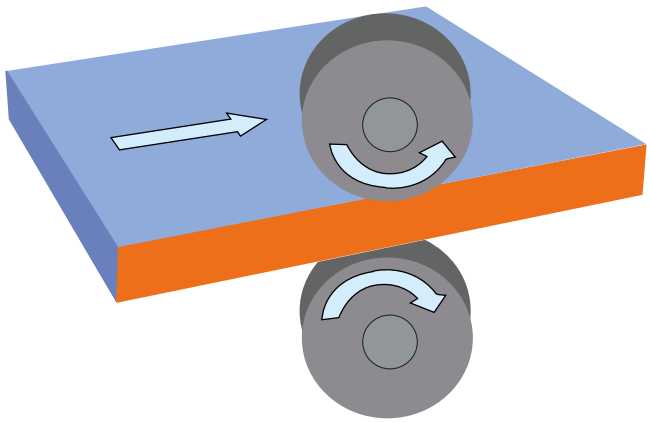
Buffing wheel adjustment

- approx. 3° inclined to the board (vertical)
- approx. 10° inclined to the support (if possible)
- approx. 1400 rpm motor speed (if possible)
- no oscillation
- rotational direction in synchronous run

It is only possible to obtain an absolutely clean board edge in combination with the original RIEPE® release & cleaning agents when the buffing wheel makes contact over the entire width of the board and does not oscillate.

The buffing wheel must be inclined by approx. 3° to the workpiece, rigid (no oscillation), applying only a slight pressure. Rotational direction in synchronous run to reduce heat development.





Fabric-Sisal-Lamellar wheels 3:1 ratio

The fabric-sisal-lamellar wheels are brushes with a cast mounting core. The lamellar are composed of the following ratio:
3 x fabric and 1 x sisal. The cloth in the lamellar serves to absorb the previously applied special cleaning agent LP163/93®. The sisal is used to polish the edge banding.

The use of the fabric-sisal-lamellar wheels while processing all types of thermoplastic edges in combination with the special cleaning agent LP163/93® leads to the following result:

- **Material re-finishing**
- **Edge polishing**
- **Reduction in stress whitening**
- **Edgeband radius re-matches the sheen of the surface**

The fabric-sisal-lamellar wheels are suitable for all types of thermoplastic edgings. In addition, they have a very long operating life.

The use of the fabric-sisal-lamellar wheels while processing thin edges leads to the following result:

- **Removal of the protruding edging material**
- **Trimming of the edge band (smooth)**

Available sizes:

Outer diameter	160 mm	160 mm	190 mm	190 mm
Width	25 mm	20 mm	20 mm	20 mm
Boreholes	50 mm	40 mm	50 mm	40 mm

(special sizes on request)

Fabric buffing wheels

The fabric buffing wheels offered by us are distinguished by a strong fabric quality.

Composed of 2 x 14 layers of fabric they are extremely strong.

As a result, a spreading of the buffing wheels on the edge radius is avoided.

In connection with the special cleaning agent LP163/93®, the edge radius is polished so that its sheen matches that of the surface. The life of the buffing wheels is also considerably increased by the cleaning agent LP163/93®.

Result:

- **Material re-finishing**
- **Edge polishing**
- **Reduction in stress whitening**
- **Edgeband radius re-matches the sheen of the surface**

The operating life is substantially increased.

Available sizes:

Outer diameter	160 mm	160 mm	190 mm	190 mm
Width	25 mm	20 mm	20 mm	20 mm
Boreholes	50 mm	40 mm	50 mm	40 mm

(special sizes on request)

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