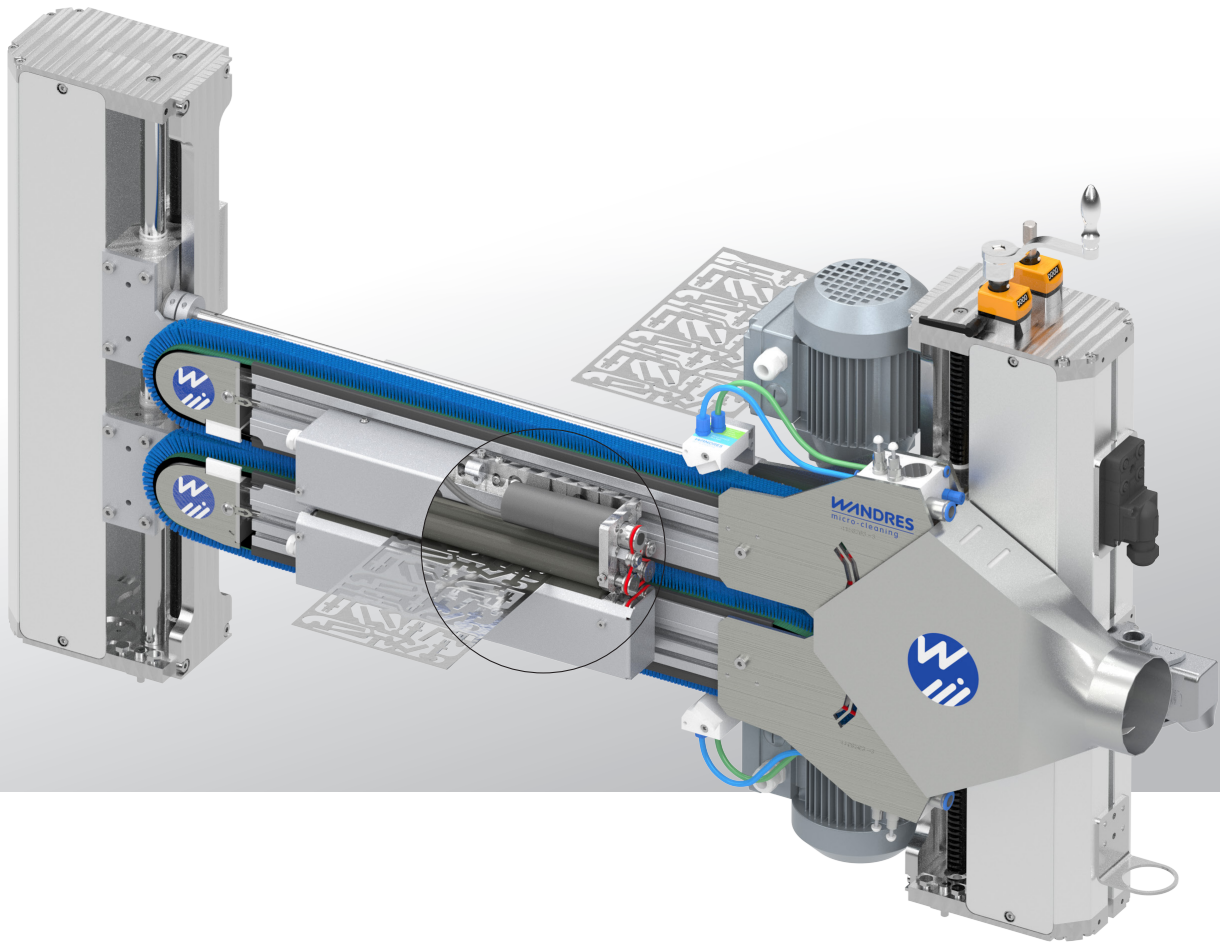


PCL Cleaner 121 ..

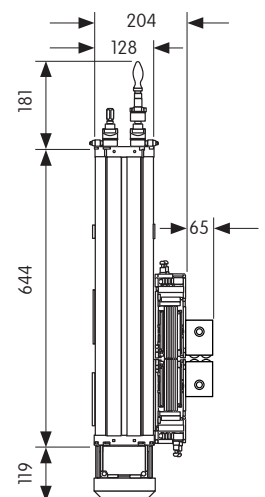
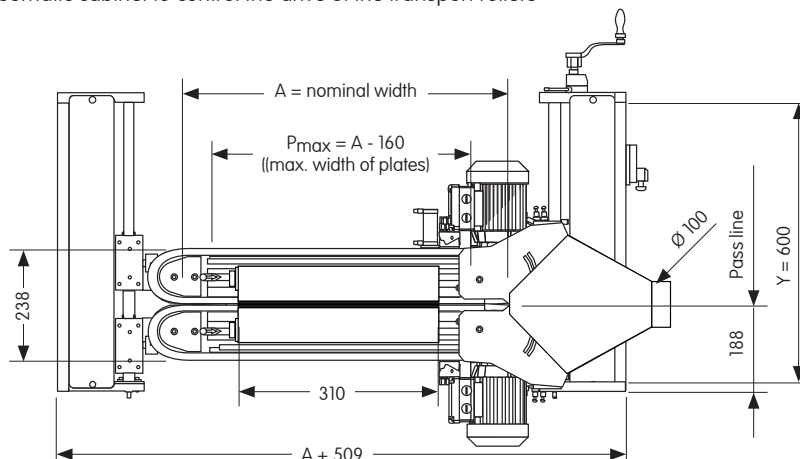


Brief description

The PCL Cleaner is ideal for the double-sided cleaning of small plates such as stamped plates, circuit boards, blanks or identification labels. Driven transport and pressure rollers at the infeed and the outfeed of the machine ensure that parts are kept in a precise position during transport and cleaning. Two Sword Brushes wipe crosswise to the transport direction removing even the tiniest particles with their integrated micro-moistened brush filaments (Ingromat® system). An integrated pressure buffer provides for a constant wiping force and a consistent high-quality cleaning result.

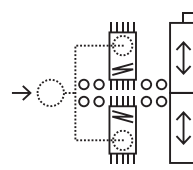
Technical details

- 2 x Sword Brush BIX 51/1M/A with pressure buffer, Ingromat® system and an Ingromat® regulator and filter unit IR 100..
- 2 x driven transport rollers with Ø 24 mm at the infeed and at the outfeed
- 2 x spring mounted pressure rollers with Ø 24 mm at the infeed and at the outfeed
- adjustment frame VEG 25/600, with mechanical height adjustment (standard).
An electrical and/or pneumatic height adjustment is available as an option.
- 1 x control and pneumatic cabinet to control the drive of the transport rollers



Values in mm

PCL Cleaner 121..



Order no.
2374-

	Nominal width A in mm	Nominal width A in inches	
- 005	650	25.59	
- 006	850	33.46	

Ordering example

The subject plates have a max. width of

$P_{max} = 450 \text{ mm}$.

Minimum nominal width of PCL Cleaner:

$A_{min} = P_{max} + 160 \text{ mm} = 610 \text{ mm}$.

The most suitable PCL Cleaner has

a nominal width of $A = 650 \text{ mm}$.

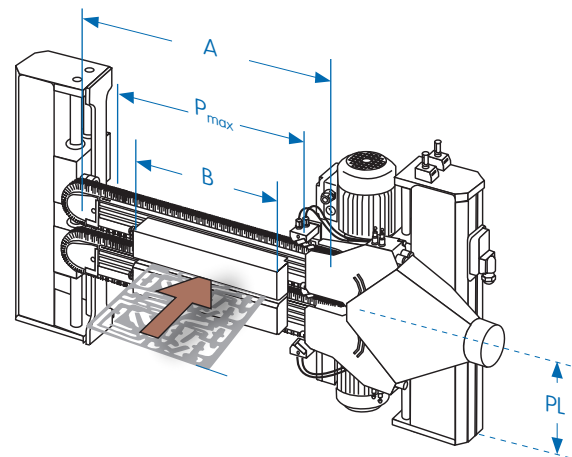
Order no. 2374-005

corresponds to

PCL Cleaner 121/600/650

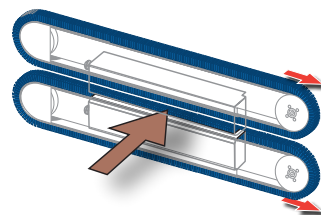
Explanation

- A Nominal width of Sword Brush
= distance between deviation roller shafts
- P_{max} max. width of plate = $A - 160 \text{ mm}$
- B Width of transport carrier = 310 mm
= max. recommended cleaning width
- PL Distance between screw down area and
lower surface of plates = 188 mm (standard),
adjustable $180 - 280 \text{ mm}$

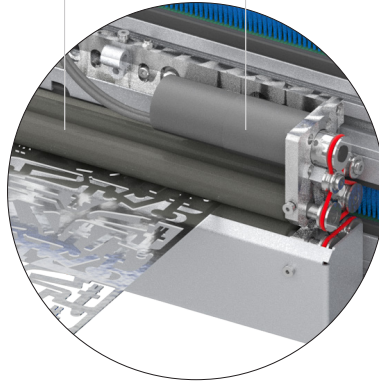


Wiping direction

Upper and lower Sword Brushes wipe in the same direction. The pressure of the rollers within the transport carrier avoids a potential lateral displacement of the plates.



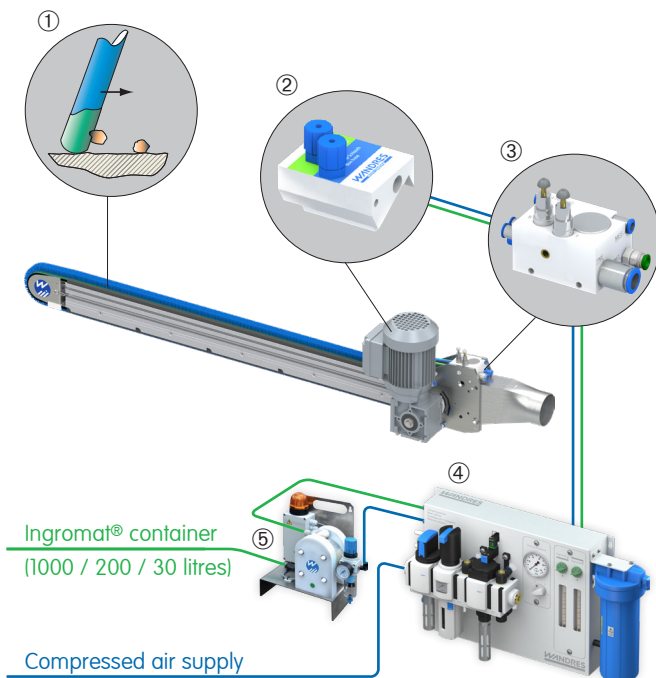
Transport and pressure rollers
Drive motor



Precise conveying technology

At the indeed and the outfeed, the PCL Cleaner has a transport carrier containing driven transport rollers and spring mounted pressure rollers. As a result, small plates may be transported through the machine while maintaining their exact position. Even plates that are hardly larger than a business card, may be cleaned from above and from below using brush cleaning technology and the Ingromat system.

A flexible bedding of the linear brushes on a pressure buffer provides for a constant wiping pressure and delivers optimal cleaning results.



Ingromat® system

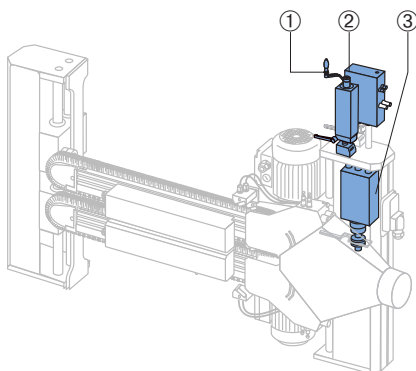
Ingromat® is an anti-static cleaning agent. The brush filaments are micro-moistened with Ingromat® and effectively remove even the tiniest dust particles.

- ① Micro-moistened brush filament with Ingromat® (shown in green)
- ② Ingromat® sprayer SQL 51..
- ③ distributor block VTB 100..
- ④ Ingromat® regulator and filter unit IR 100..
Ingromat® filter, dosage and display of inner pressure of pressure buffer
- ⑤ Option: Ingromat® central supply pump, e.g. IS 102

Height adjustment

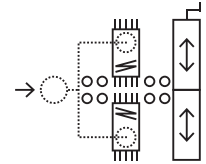
The Sword Brushes are mounted on an adjustment frame to allow the cleaning module to be adjusted to the relevant panel thickness.

- ① HVM: Normally, adjustment takes place manually via a crank.
- ② HVE: An electrical actuator (option) provides for an automatic thickness adjustment in combination with the overall control of the line.
- ③ HVP: Additionally, the cleaning module may be rapidly removed from the surface with the help of a pneumatic cylinder (e.g. for crash situations). Different versions with varying strokes are available. Both the mechanical and the electrical height adjustment may be combined with pneumatic quick adjustment.



Technical data

PCL Cleaner 121..



Electrical details

Brush drive motor	2 x 0.25 kW SEW motor, IP 54, UL-compatible 50 Hz; Δ 220 - 240 V; 1.14 A; Υ 380 - 415 V; 0.66 A 60 Hz; Δ 240 - 266 V; 1.03 A; Υ 415 - 480 V; 0.6 A
Drive transport rollers	2 x 48 V DC; 10 A; 70 W (integrated within control cabinet)
Connection data for control cabinet	0.5 kW; 3 Ph + PE 400 - 480V AC; 50-60 Hz
Main valve	2/2 control valve: 1 x 24 V DC; 1.5 W
Electrical height adjustment (HVE)	24 V DC; 160 W; control via PLC
Pneumatic quick adjustment (HVP)	5/3 directional valve: 2 x 24 V DC; 1.08 W

Pneumatic details

Compressed air quality	filtered (particle size < 40 μ m), oil free (residual oil < 1.5 mg/m ³ at 24° C)
Compressed air connection	1 x 1/2" female thread; 6 bar
Compressed air consumption	470 l/min (with standard self-cleaning nozzles) 570 l/min (with reinforced self-cleaning nozzles)

Fluidics

Ingromat® hose connections	1 x \varnothing 8 mm
Ingromat® consumption	2 x 0.2 - 0.8 l/h

Suction

Suction connection	1 x \varnothing 100 mm
Suction capacity	1 x 14 m ³ /min
Operating parameters	min. -500 Pa vacuum; min. 28 m/s (measured at suction connection)

Acoustic emission

Sound pressure level LpA	approx. 77 dB (A) - Acoustic emission depends on surface features and the dimensions of the subject panel.
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Linear brush

Linear brush type	Quadro R6
Filament material	Polyamide 6.12
Filament length	17 mm
Filament diameter	0.127 mm

Transport speed

Max. transport speed	adjustable 15 - 50 m/min
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Dimensions of subject panel

Min. panel length	L _{min} = 80 mm
Max. panel width	P _{max} = A - 160 mm
Max. recommended cleaning width	310 mm
Max. thickness of plates	5 mm

Technical data are subject to change

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