

B-Line

# Cevomat® CVO 22



## Double-sided cleaning of coils prior to rolling, levelling or galvanizing



Double-sided cleaning



Flexible pressure buffer



Lifting of linear brushes  
at coil edges



Pneumatic quick-adjustment



Self-cleaning mechanism

### Optional:

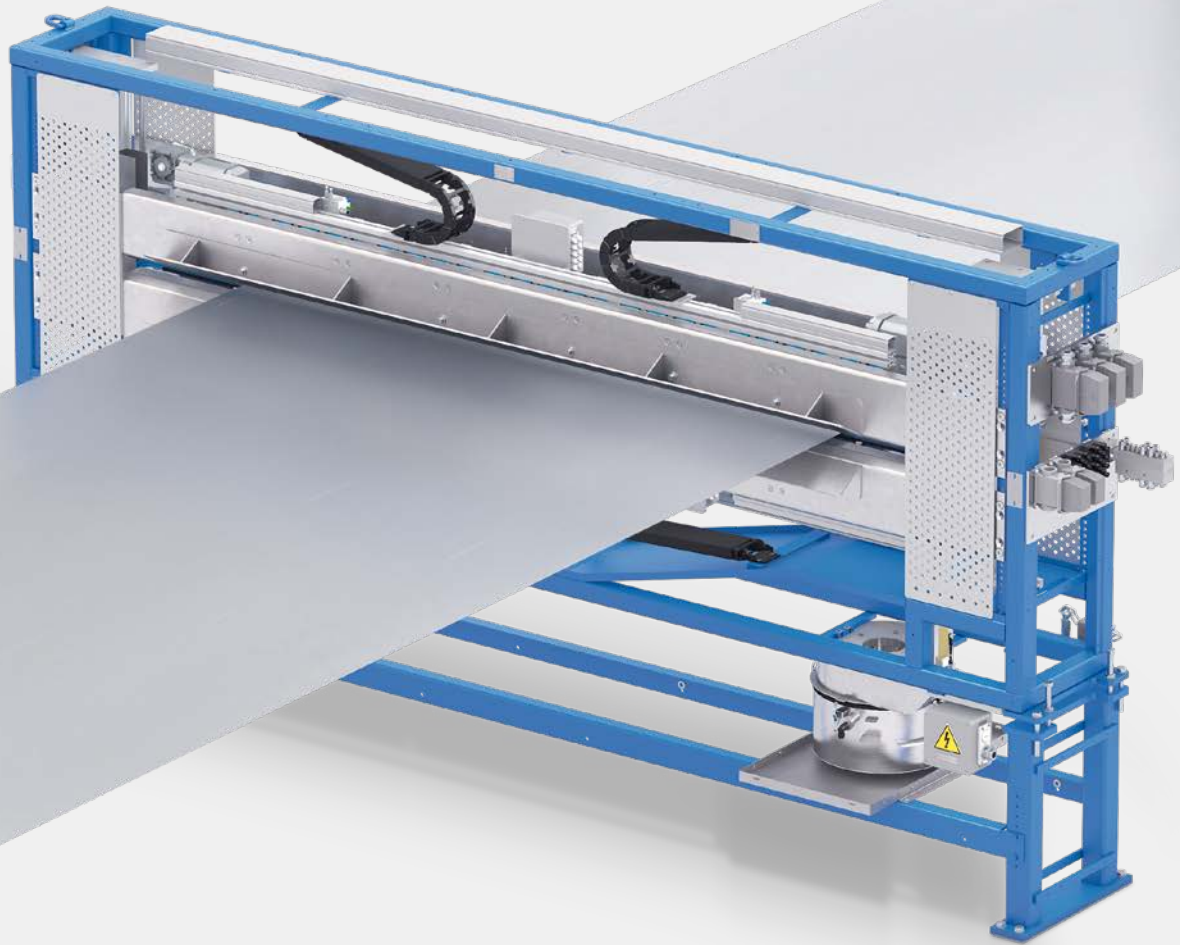


Thermal elements/cyclone separator



Pivotable guide elements

# Effective cleaning of steel, stainless steel, aluminium and non-ferrous metal coils

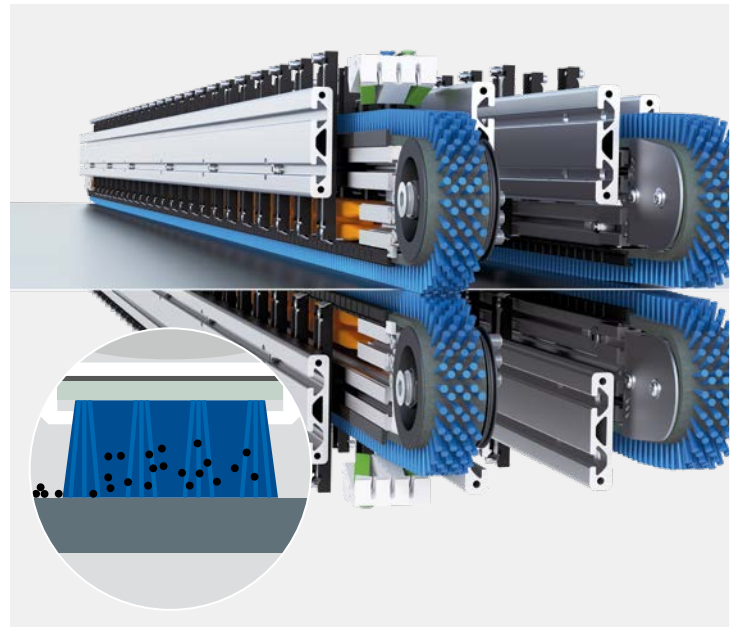


The **Cevomat® CVO 22** delivers outstanding and consistent cleaning results in 24/7 operations and provides for stable production processes. Cleaning endless materials from both sides before rolling or levelling prevents particles from being pressed into the material surface. The Cevomat cleaner effectively cleans sharp-edged and wavy metal strips at high

transport speeds. A thermal self-cleaning unit allows the cleaning of aluminium coils with dry lubes. These may also be cleaned in alternating operations with oily steel strips without any reset time. The cleaning system has a narrow footprint and can be integrated easily into new or existing production lines.

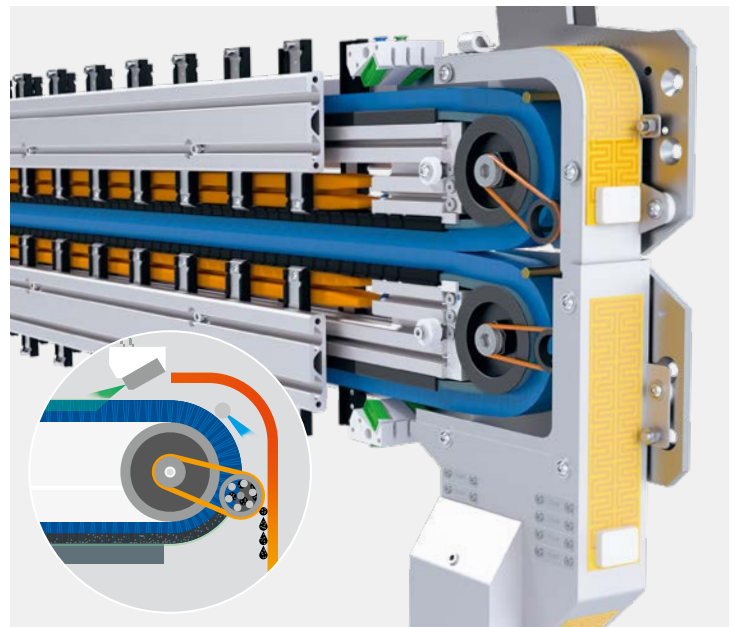
## High cleaning performance Sword Brushes®

Sword Brushes wipe crosswise across the coil surface on both sides and effectively remove particles and dust with their circulating linear brushes. Wandres' sister company with its plant in the Black Forest in Germany produces and delivers the high-end linear brushes. They have proven their effectiveness in 24/7 operations of numerous production lines and have a long industrial life.



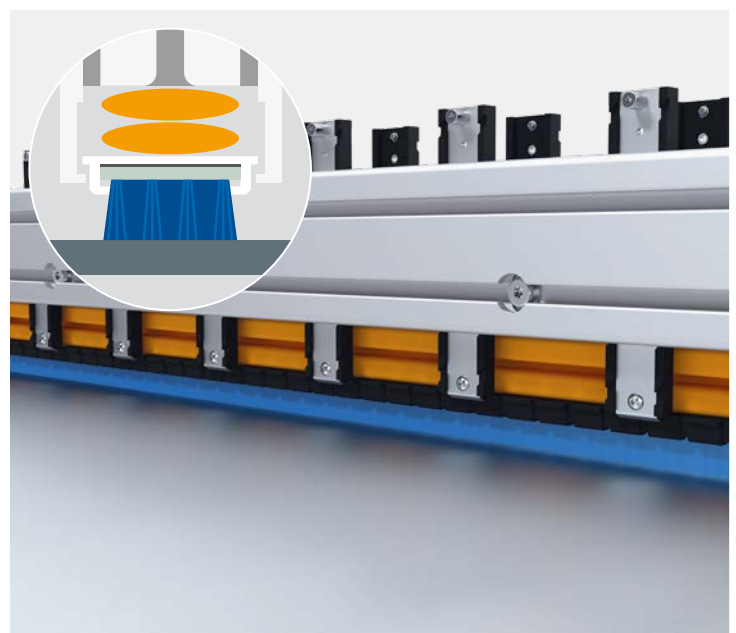
## Stable continuous operation Self-cleaning mechanism

Compressed air nozzles and a roto-rack permanently clean the brush filaments. Cleaning results thus become reproducible. The cleaning agent Ingromat® facilitates regeneration of the linear brushes during the washing periods. A **thermal self-cleaning mechanism** is available as an option. Here, the entire suction channel and the deviation area of the linear brushes are heated to liquefy dry lubes. The dry lubes may be separated from the exhaust air in the optional cyclone filters if requested.



## Consistent wiping pressure Flexible pressure buffer

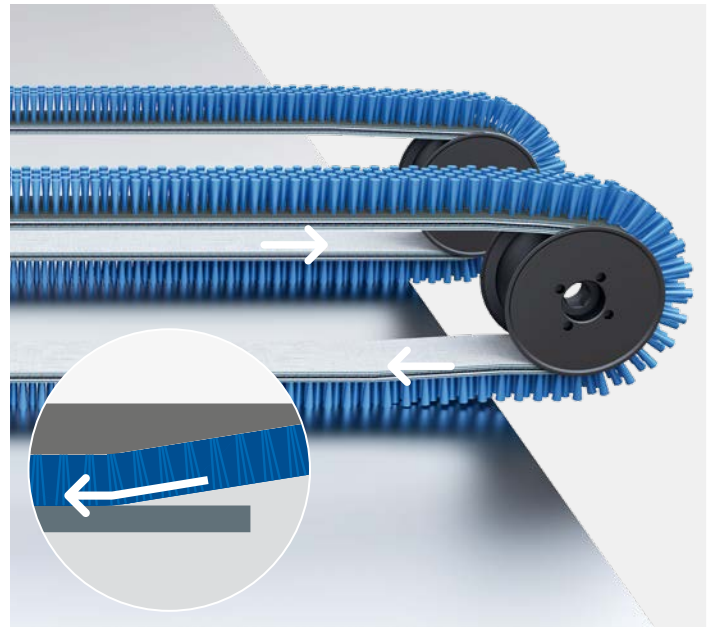
The linear brushes are supported by flexible pressure buffers that are operated pneumatically. This ensures a constant wiping pressure of the brush on the subject material even if metal thicknesses vary or if metal strips have wavy surfaces. Even if wiping pressure is very light, a high-end and reproducible cleaning result will still be achieved for the entire surface.



## Clean edges

### Lifting of linear brushes

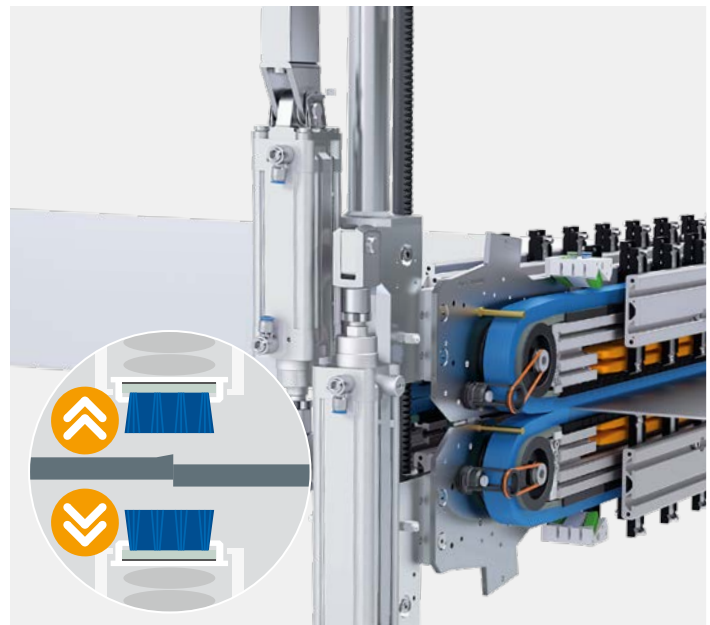
In order to protect brush filaments if the material's edges are sharp, linear brushes are slightly lifted at the material's edges. They touch the surface only after having passed the edge areas. This significantly prolongs the useful life of the linear brushes. The wiping forces of the front and back Sword Brushes working in opposite directions cancel each other out. The entire product surface is cleaned completely up to the outer edges.



## Easy exchange of coils

### Quick adjustment HVP

When exchanging coils, pneumatic cylinders quickly raise the Sword Brushes. Damaged front and tail ends or coil stitches may then pass through the Cevomat® without producing a crash. By rapidly raising the Sword Brushes when the coil stops, polish marks on the surface will be avoided.

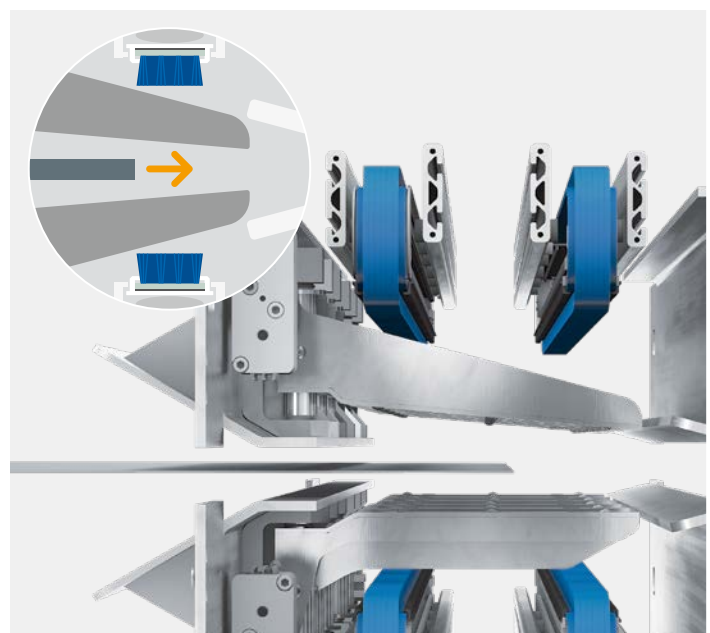


Optional

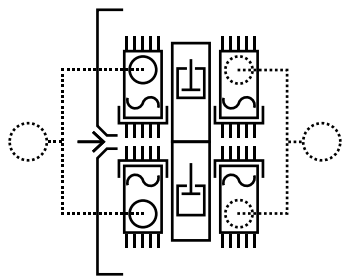
## Threading of new metal strips

### Pivotal guide elements

To protect Sword Brushes from colliding with wavy front and tail ends of metal strips during the threading of a new coil, pivotal guide elements are available. When turned outwards, they extend the guide elements that are mounted at the infeed of the cleaning machine. With this option, new metal strips may be threaded more easily during the exchange of a coil. During the cleaning operation, the guide elements are in a standby position.



# Technical details and dimensions



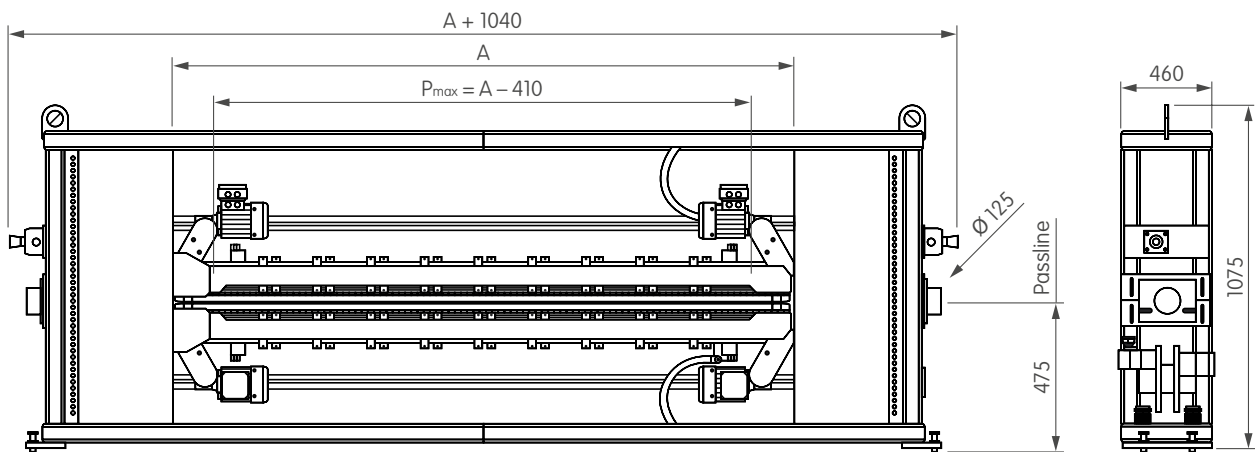
4 x **Sword Brush CVO 51** with flexible pressure buffers

**Ingromat® system** for the micro-moistening and the self-cleaning of the brush filaments. Option: Thermal self-cleaning unit possible with cyclone separator

1 x **Adjustment frame VEG 40** with pneumatic quick adjustment HVP

1 x **Protective frame** with guide elements at infeed

1 x **Pivotable guide elements** (option)



A      Nominal width of Sword Brush = Distance between deviation roller shafts  
P<sub>max</sub>      max. cleaning width = A – 410 mm

A in mm  
A in inches (rounded)

|      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|
| 1300 | 1500 | 1650 | 1750 | 2000 | 2200 | 2500 |
| 51   | 59   | 65   | 69   | 79   | 87   | 99   |

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 2750 | 3000 | 3200 | 3500 | 3750 | 4000 |
| 108  | 118  | 126  | 138  | 148  | 158  |

# Technical data

## Electrical details

|                                  |                                                                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sword Brush drive motor          | 4 x 0.25 kW SEW motor, IP 54, UL compatible, CSA compatible<br>50 Hz; 220 – 240 V; 1.01 A; 380 – 415 V; 0.58 A<br>60 Hz; 240 – 266 V; 0.89 A; 415 – 480 V; 0.58 A |
| Main valve Sword Brushes         | 2/2 directional valve; 1 x 24 V DC each; 1.5 W                                                                                                                    |
| Pneumatic quick adjustment (HVP) | 5/3 directional valve: 2 x 24 V DC; 1.08 W                                                                                                                        |
| Heating elements (optional)      | 224 V DC; 75 W for each heating element (variable number)                                                                                                         |

## Pneumatic details

|                                   |                                                                                                                                                                                                               |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compressed air quality            | Purity classes compressed air ISO 8573-1:2010 [6:4:3] (at 20 °C   1 bar)<br>filtered ( $C_p \leq 5 \text{ mg/m}^3$ ), dry (pressure dew point $\leq 3 \text{ °C}$ ), oil-free ( $C_o \leq 1 \text{ mg/m}^3$ ) |
| Compressed air connection IR unit | 1 x 1/2" female thread; 6 bar                                                                                                                                                                                 |
| Total compressed air consumption  | 930 l/min (with standard SR nozzles at 1.013 bar and 20 °C)<br>1130 l/min (with standard SR nozzles at 1.013 bar and 20 °C)                                                                                   |

## Fluidics (option)

|                           |                                       |
|---------------------------|---------------------------------------|
| Ingromat® hose connection | 1 x Ø 8 mm                            |
| Ingromat® consumption     | 0.2 l/h – 0.4 l/h per cleaning module |

## Suction

|                     |                                                          |
|---------------------|----------------------------------------------------------|
| Suction socket      | 1 x Ø 200 mm                                             |
| Suction air         | 1 x 1800 m³/h                                            |
| Operating parameter | min. –500 Pa vacuum; min. 28 m/s (at suction connection) |

## Acoustic emission

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| Max. sound pressure level LPA | 80 dB(A) depending on surface features and dimensions of subject blank |
|-------------------------------|------------------------------------------------------------------------|

## Linear brush

|                   |                                              |
|-------------------|----------------------------------------------|
| Linear brush type | Quadro R6                                    |
| Filament material | Polyamide 6.12                               |
| Filament length   | 17 mm                                        |
| Filament-Ø        | 0.127 mm (standard), option: 0.15 mm; 0.2 mm |

## Coil width

|                 |                                 |
|-----------------|---------------------------------|
| Max. coil width | $P_{\max} = A - 410 \text{ mm}$ |
|-----------------|---------------------------------|

Technical data are subject to changes

