

Rittal – The System.

Faster – better – everywhere.



ENCLOSURES

POWER DISTRIBUTION

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IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



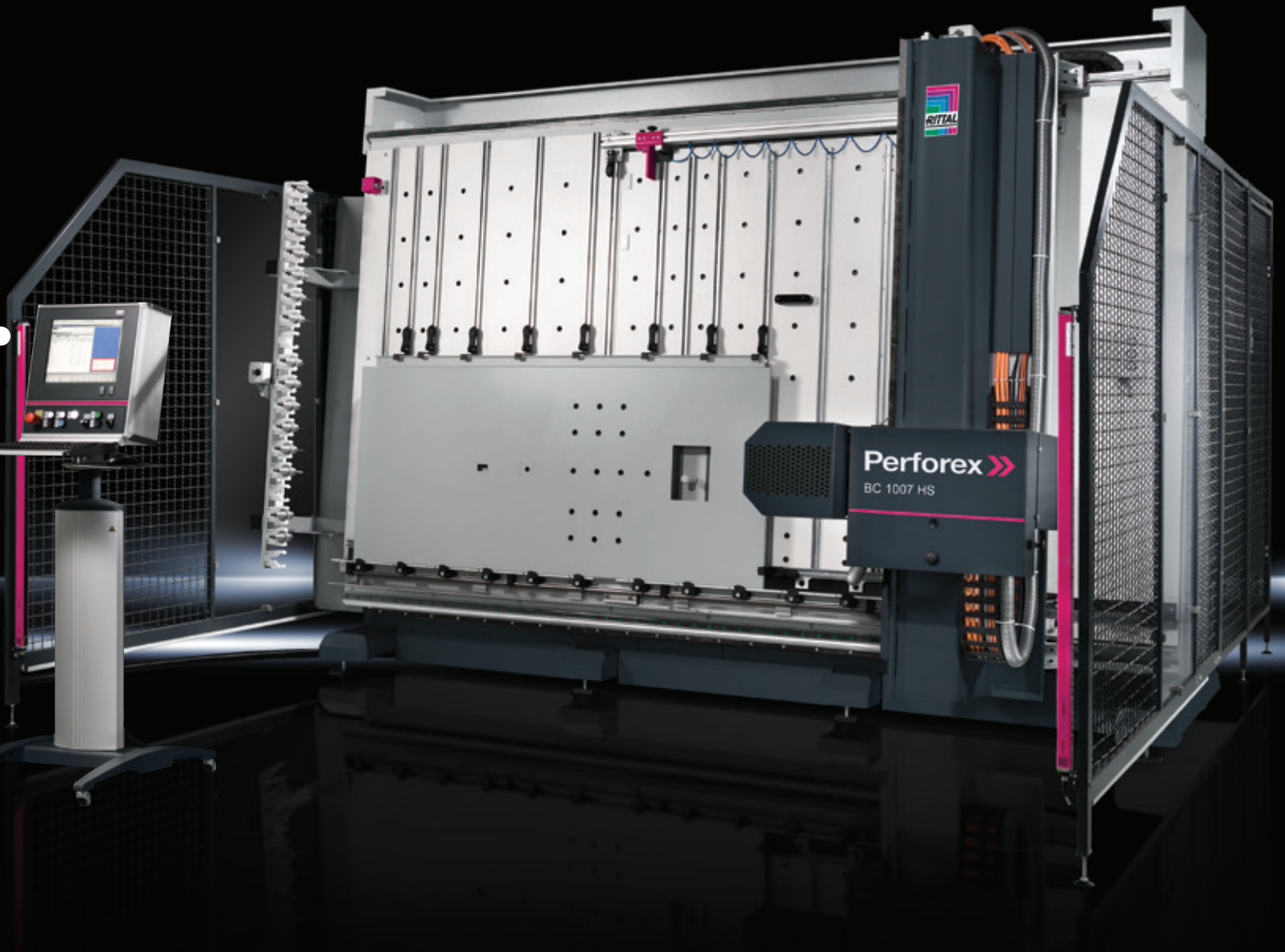
The manual modification of this door would typically take about 1.5 hours due to the following steps:

- Measuring and Component Layout
- Taping of surface to reduce scratching
- Marking of hole/cutout locations
- Center-punching holes
- Drilling and tapping of holes
- Hole die punching
- Cutting large openings
- Deburring and cleanup
- Repeat for every enclosure being modified

The same modifications would take only 10 minutes on the Perforex machine from start to finish.

► Rittal Automation Systems

Do more, improve quality and increase revenue with Perforex machining centers.



Perforex machining centers are designed specifically for control panel manufacturers. Through automating the traditionally expensive and manual tasks involved in modifying enclosures and back panels, customers realize savings up to 90%. Perforex machining centers can be easily programmed to drill holes, tap threads and cut required openings in the workpiece.

Automated, fast, precise and repeatable machining of mounting panels; modular doors, roof plates and side panels or any surface on a uni-body enclosure.



Program once.
Modify with precision.
Repeat as needed.

The user friendly Perforex workshop programming is a stand-alone layout software which has a database architecture allowing for pick and place design. Machine-ready layout programs can be created without any prior CAD experience. The Perforex Workshop Programming interfaces with all standard CAD systems via DXF import plus direct transfer of machining data from Eplan ProPanel. This allows engineers to design in a virtual environment, run simulations and ensure design competence without wasting time and material.



Perforex Machining Centers

Item name	Perforex BC 1001 HS	Perforex BC 1007 HS	Perforex BC 1008 HS	Perforex BC 2007 HS	Perforex BC 2014 HS
Maximum panel size H x W mm (H x W in.)	1500 x 2500 mm (59.05 x 98.4 in.)	1700 x 2450 mm (66.9 x 96.4 in.)	1500 x 2300 mm (59.05 x 90.5 in.)	1700 x 3600 mm (66.9 x 141.7 in.)	2300 x 3600 mm (90.5 x 141.7 in.)
Maximum machinable area for enclosure panels H x W mm (H x W in.)	1500 x 2230 mm (59.05 x 87.7 in.)	1700 x 2200 mm (66.9 x 86.6 in.)	1727 x 2300 mm (67.9 x 90.05 in.)	1700 x 3400 mm (66.9 x 133.8 in.)	2300 x 3400 mm (90.05 x 133.8 in.)
Maximum enclosure size H x W x D mm (H x W x D in.)	1400 x 1200 x 1200 mm (55.1 x 47.2 x 47.2 in.)	1600 x 1400 x 1600 mm (62.9 x 55.1 x 62.9 in.)	1600 x 2300 x 2200 mm (62.9 x 90.5 x 86.6 in.)	1600 x 1600 x 1600 mm (62.9 x 62.9 x 62.9 in.)	2300 x 1400 x 2200 mm (90.5 x 55.1 x 86.6 in.)
Maximum with optional table configuration H x W x D mm (H x W x D in.)	–	1600 x 1400 x 2000 mm (62.9 x 55.1 x 78.7 in.)	–	1600 x 1600 x 2000 mm (62.9 x 62.9 x 78.7 in.)	–
Maximum machinable area for enclosures H x W mm (H x W in.)	1400 x 720 mm (55.1 x 28.3 in.)	1600 x 1200 mm (62.9 x 47.2 in.)	2300 x 1600 mm (90.05 x 62.9 in.)	1600 x 1200 mm (62.9 x 47.2 in.)	2300 x 1400 mm (90.5 x 55.1 in.)
Two-door option: Maximum machinable area for enclosures H x W mm (H x W in.)	–	–	–	–	2300 x 2800 mm (90.5 x 110.2 in.)
Model No.	4050.101	4050.107	4050.108	4050.207	4050.230

Item name	Options	BC 1001 HS	BC 1007 HS	BC 1008 HS	BC 2007 HS	BC 2014 HS
Performance package		4050.041	4050.042	4050.044	4050.046	4050.045
Enclosure machining	For machining fully welded enclosures (door)	4050.010	Standard	Standard	Standard	Standard
Motorized depth adjuster 1600 mm (62.9 in.)	Electric depth adjustment of the end stop in enclosure machining	–	4050.020	–	Standard	Standard
Depth adjuster extension 2000 mm (78.7 in.)	Motorized depth adjuster extension	–	4050.022	Standard	4050.022	–
Circular thread milling tool		4050.050	4050.050	4050.050	4050.050	4050.050
Aluminum and plastic machining		4050.051	4050.051	4050.051	4050.051	4050.051
Tool changing station		4050.030	4050.030	4050.030	4050.030	4050.030
Magnetic wand for metal filings		4050.067	4050.067	4050.067	4050.067	4050.067
Swivel stops for multiple machining		4050.066	4050.066	4050.066	4050.066	4050.066
Clamping height extension 1730 mm (68.1 in.)		–	–	4050.035	–	–



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Assembly Frames

When it comes to the automation and rationalization of processes throughout every stage of machining, assembly, wiring and testing of enclosures, we have the right ergonomic solution for you. Our assembly frames are mobile, tiltable and (depending on the version) height-adjustable for mounting plates and enclosures. All types offer simple, variable fixing of mounting plates using quick-release fasteners, are battery operated so there are no power cords for optimal mobility, and take up minimal space when not in use. For easier handling of enclosure panels, we also offer the storage and transport trolley LT 1000.



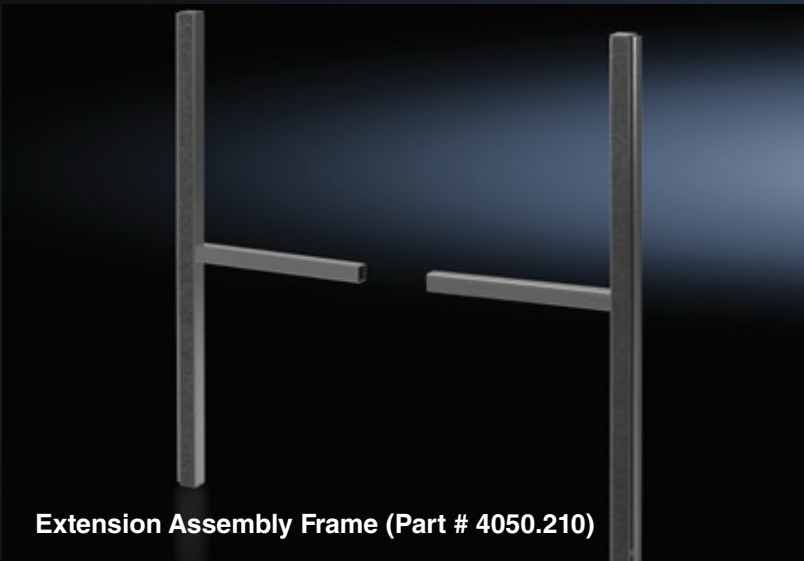
Item name	Assembly Frame 150MN	Assembly Frame 200 EN	Assembly Frame 300 ENH
Adjustment range	Infinitely adjustable from the vertical to the horizontal using a crank handle	Infinitely adjustable tilt angle using a battery-powered electric motor	Infinitely adjustable tilt angle using a battery-powered electric motor
Working height m (in.)	1 m (39.3 in.)	0.90 m (35.4 in.)	0.80 – 1.10 m (31.4 – 43.3 in.)
Tilt adjustment	Approx. 0–80°	Approx. 0–80°	Approx. 0–80°
Maximum support load kg (lbs.)	150 kg (330.6 lbs.)	200 kg (440.9 lbs.)	300 kg (661.3 lbs.)
Model No.	4050.150	4050.200	4050.300

Assembly Frames and Accessories

	Part No.	Part No.	Part No.
Table	4050.150	4050.200	4050.300
Extension Assembly Frame	4050.210	4050.210	4050.210
Clamping Set	4050.211	4050.211	4050.211
Wire Guide	4050.212	4050.212	4050.212
Clamping Unit Top	–	–	4050.213
Clamping Unit Bottom	–	–	4050.214
Wire Spool Holder	–	4050.216	4050.216
Spare Battery	–	4050.217	4050.217
Plug for USA	–	4050.219	4050.219
Roller Conveyor F/Push in Panels	–	–	4050.220



Roller Conveyor F/Push in Panels (Part # 4050.220)



Extension Assembly Frame (Part # 4050.210)



Clamping Set
(Part # 4050.211)



Spare Battery
(Part # 4050.217)



Wire Spool Holder
(Part #4050.216)



Wire Guide
(Part # 4050.212)



Clamping Unit Top
(Part # 4050.213)



Clamping Unit Bottom
(Part # 4050.214)

Secarex AC 15 cutting center

No lengthy times spent on measuring and cutting, and no complicated handling – the Secarex cutting center is convenient to use and cuts wiring ducts, cable duct covers and DIN rails to length quickly, precisely and reliably. The cutting center delivers improved quality, an optimization of cutting waste, lower costs and an accelerated overall process.



Function

After cutting, the machine stop retracts automatically to release the cut parts for simple removal. Pneumatic cutting to size of cable ducts and DIN rails.

Item Name	Model No.
Secarex AC 15 cutting center	4050.400



Benefits

- Touchscreen terminal with user-friendly interface
- Reduced costs of material waste due to the optimization of the cutting process
- Significant time savings compared to manual cutting
- Clean cuts with high-performance tools
- DIN rail cutter with 5 standard templates for all popular DIN rails without changing the template
- Optical and acoustic display for material changes
- Label printer included

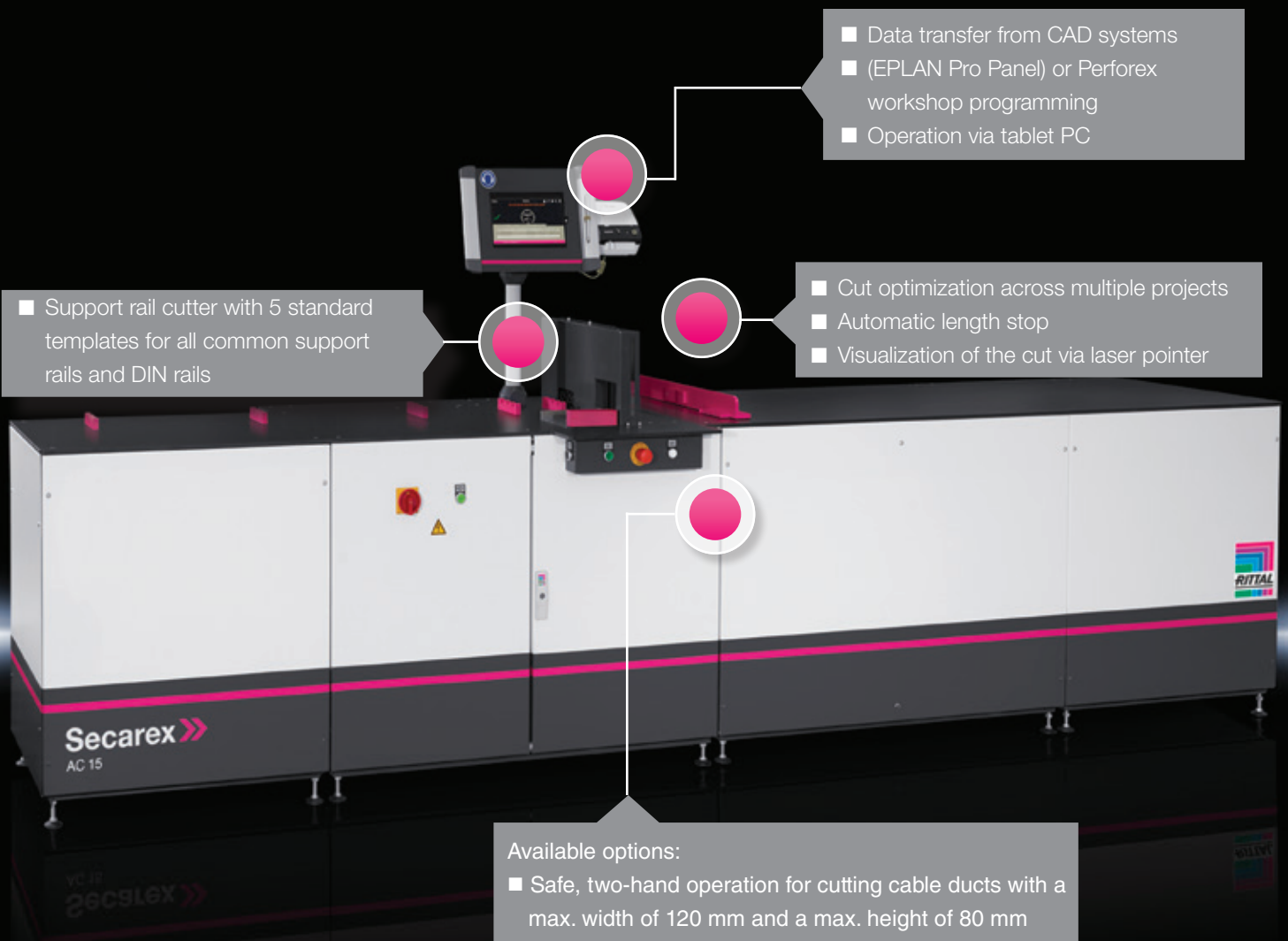
- Data transfer from CAD systems
- (EPLAN Pro Panel) or Perforex workshop programming
- Operation via tablet PC

- Support rail cutter with 5 standard templates for all common support rails and DIN rails

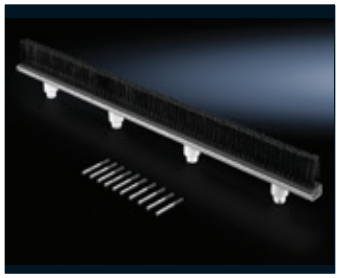
- Cut optimization across multiple projects
- Automatic length stop
- Visualization of the cut via laser pointer

Available options:

- Safe, two-hand operation for cutting cable ducts with a max. width of 120 mm and a max. height of 80 mm



Consumables



Performance Packages

For optimized workpiece machining on the Perforex machining center.

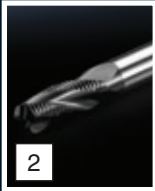
Supply Includes:

- Brush strips
- Performance milling tool 6 mm

Benefits:

- Reduced vibration
- Higher cutting speeds
- Lower noise emissions
- Extended tool life
- Optimized handling with workpiece clamping

Perforex	Brush strips	Performance milling tool	Packs of	Model No.
BC 1001	12	10	1 pc(s).	4050.041
BC 1007	22	10	1 pc(s).	4050.042
BC 1008	24	10	1 pc(s).	4050.044
BC 2014	51	10	1 pc(s).	4050.045
BC 2007	30	10	1 pc(s).	4050.046



Mill Cutter

Milling bit for Perforex machining center.

Thread:

- Metric

		Material	Diameter mm (in.)	Packs of	Model No.
1	Circular screw mill tool	Sheet steel, stainless steel, aluminum	–	1 pc(s).	4050.050
2	Standard mill cutter	Sheet steel, stainless steel	6 (.23 in.)	10 pc(s).	4050.818
3	End mill	Aluminum, plastic	6 (.23 in.)	5 pc(s).	4050.819
4	End mill		4 (.15 in.)	5 pc(s).	4050.820
5	Performance mill tool	Sheet steel, stainless steel	6 (.23 in.)	5 pc(s).	4050.891

Drill Bits

Drill bits for Perforex machining center.

Diameter mm (in.)	Packs of	Model No.
2.6 (.10 in.)	10 pc(s).	4050.801
3.3 (.12 in.)	10 pc(s).	4050.802
4.2 (.16 in.)	10 pc(s).	4050.803
5 (.19 in.)	10 pc(s).	4050.804
6 (.23 in.)	10 pc(s).	4050.805
6.8 (.26 in.)	10 pc(s).	4050.806
8.5 (.33 in.)	10 pc(s).	4050.807



Consumables

Machine Thread Tap

Machine thread tap for Perforex machining centers.

Version	Packs of	Model No.
M3	10 pc(s).	4050.811
M4	10 pc(s).	4050.812
M5	10 pc(s).	4050.813
M6	10 pc(s).	4050.814
M8	10 pc(s).	4050.815



Support Pegs/Spacers

Support pegs for Perforex machining centers.

Length mm (in.)	Packs of	Model No.
90 (3.54 in.)	10 pc(s).	4050.841
78 (3.07 in.)	10 pc(s).	4050.842
54 (2.12 in.)	10 pc(s).	4050.847
66 (2.59 in.)	10 pc(s).	4050.848



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- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

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