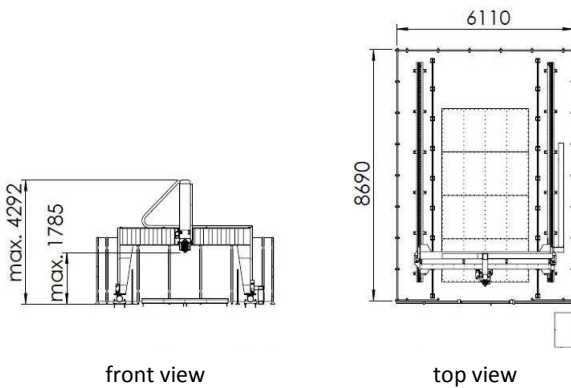




picture not showing front  
and lateral CE safety wall

## Portal milling machine

# BORNEMANN Trias



front view

top view



### Application fields

- for fast, precise, and reliable **suction-milling** of foamed plastics
- extremely diverse manufacturing applications including large-volume models (foundry models, design models), packaging, loading aids, sculptures, decorations and many more
- travel distances X=6000mm, Y=3000mm, Z=1250mm
- milling spindle 4 kW

### Milling materials

Hard, brittle, expanded plastics:

- Polystyrene (PS) up to 50 kg/m<sup>3</sup>
- Polyurethane (PU) up to 120 kg/m<sup>3</sup>
- and others

Semi-hard to viscous expanded plastics:

- Polyethylene (PE)
- Polypropylene (PPE / EPP)
- Polyurethane (PU)
- and others

Soft (flexible) foam materials

- Polyurethane (PU)
- Polyethylene (PE)
- and others

## Portal milling machine **BORNEMANN Trias**

### Advantages

- functional and innovative machine concept
- highly dynamic
- always reliable
- good resale value
- attractive design
- moving portal – workpiece stationary
- stable, vibration-free machine modules
- portal with gantry synchronous drive
- drive motors are digitally controlled
- X- and Y-axis with rack and pinion drives
- Z-axis with play-free ball-type linear guide
- supply cables are tidily integrated
- optimum interaction with the suction machine Bornemann 960 and hollow cutters
- short installation/commissioning time at the site
- operation is easy to learn
- low maintenance expenses

### Equipment

- 3 NC-axes (linear axes)
- milling spindle: milling motor with hollow shaft, 4 kW, 6000 min<sup>-1</sup>, with tool holder for hollow cutters and collet chucks
- milling table: clamping plate made of laminated wood, 6000x3000x180mm
- ricochet walls for the working area
- CNC control Heidenhain TNC 620
- touch panel integrated to the switch cabinet
- electronic hand-wheel
- central lubricating system
- CE protective wall system:  
1 front wall including door and 1 side wall, for corner installation
- switch cabinet  
painting in RAL 7036 (platinum grey)/RAL 3000 (flame red)
- technical documentation including operating instructions, wiring diagram, maintenance plan and spare parts list

### Options

- milling table: clamping plate made of special cast iron, 6000x3000x280 mm, with 12 T-grooves 22 H12 mm wide each, dual spacing 250 mm
- vacuum pump set for clamping plate made of laminated wood or special cast iron
- extension for CE protective wall system:  
1 side wall and/or 1 rear wall
- CE full housing including the ceiling
- radio hand-wheel
- painting in up to two RAL colour shades according to the customer requirements

### Technical data

working ranges	
X-axis	6000 mm
Y-axis	3000 mm
Z-axis	1250 mm

feed rate	
X-axis	20 m/min
Y-axis	20 m/min
Z-axis	20 m/min

required space	
length	8690 mm
width	6110 mm
height	4292 mm

machine weight	7900 kg
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