

Finger Jointing Line HK 600



The TORWEGGE-Finger Jointing Line

Technical Data

Strip Sizes before Finger Jointing Process

- Lengths:	min. 200 mm
	max. 1.080 mm
- Thickn.:	min. 10 mm
	max. 60 mm
- Widths:	min. 40 mm
	max. 120 mm

Other dimensions upon request

System of Finger Joints

Finger cutting or tongue and groove cutting at flat workpieces: fingers or tongue and groove connections visible at vertical edges

Finger Jointing Profile

Mini-fingers or tongue and groove

Depth of fingers

approx. 10 mm

Length of Strips after Finger Jointing Process

Min.: 1.000 mm
Max.: according to size of pressing- and cut-off stations

Components of HK 600

Double Sided Profiling Machine HZ 604

- manual or automatic feed from right hand or left hand side
- continuous through-feed of individual workpieces
- cutting and profiling of random-length material
- automatic cross-transport of workpieces
- long rail-type dogs over entire working width
- stepless adjustable feed
- working stations: scoring, cut-to-length, double profiling and glue application
- noise reduction cabins (option)

Basic machine

- flat guides to accept right and left hand machine parts
- non-driven special top tracks
- hold-down shoes at top tracks
- chain tracks with automatic lubrication for transport chains and chain pads
- mechanic feed gear, stepless adjustable 6-28 m/min.
- Electrics: with automatic starting sequence
PLC-control, Siemens SP5

3 Roller tables

Drive motor 1.1 kW, transport speed 25-130 m/min., frequency-controlled adjustment

Top tracks

with special hold-down belts, running on roller chains. Height adjustment with digital read-out

Transport chains

Chain tracks with special guides. High-precision chain pads 80 mm wide with steel insert

Outfeed Conveyor

- drive motor 1.1 kW
- feed speed 80-160 m/min.
- 2 motor-driven alignment belts

Accumulating Section

- with transport belt and roller section to accumulate the workpieces before final pressing
- feed speed 50-150 m/min.
- alignment rail left and right hand
- top hold-down device, vertically and horizontally adjustable

Pre-Pressing Station

- stepless adjustable electric drive
- feed speed 75-150 m/min.
- driven infeed and pre-pressing rollers
- pneumatically adjustable pressure shoe for pre-pressing of profiles
- stepless adjustment of infeed- and pre-pressing rollers acc. to widths and thicknesses

Final Pressing Station with Cut-Off Saw

- speed regulation by pre-pressing station
- cut-off saw with adjustable cut-to-length device and outpusher
- electronic length measuring
- final pressing process lengthwise: hydraulic
cross and top: pneumatic
- driven outfeed, speed 13 m/min.

Storage Conveyor

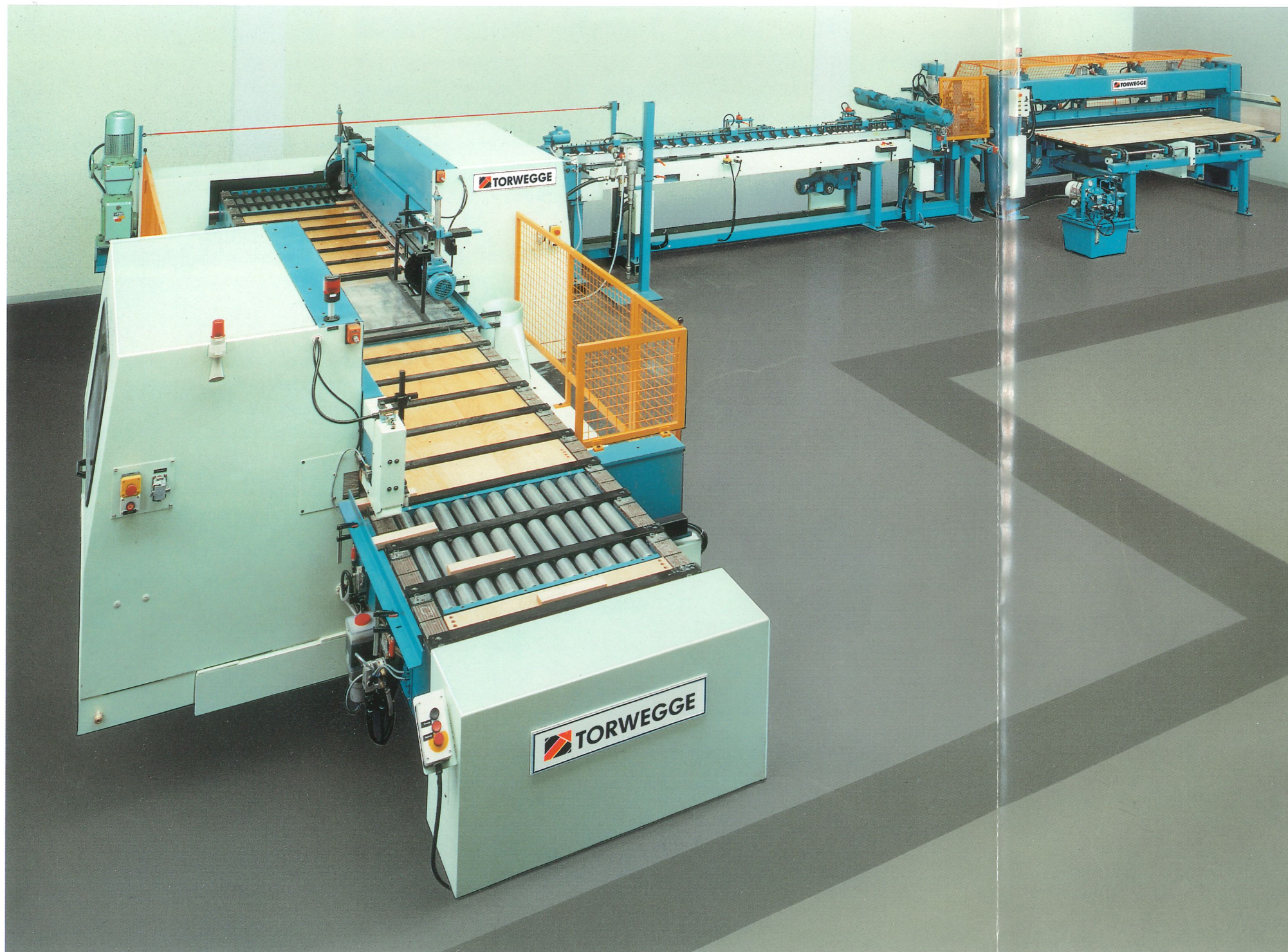
to allow some setting-time for the glue connections of the finger-jointed strips. Driven transport chains, drive motor 1.1 kW. Feed speed 9 m/min., step-by-step movement in combination with outfeed device. Standard length 4.000 mm; other lengths available to meet setting times of glue used.

Electronic Line Control

for milling motors and glue nozzle

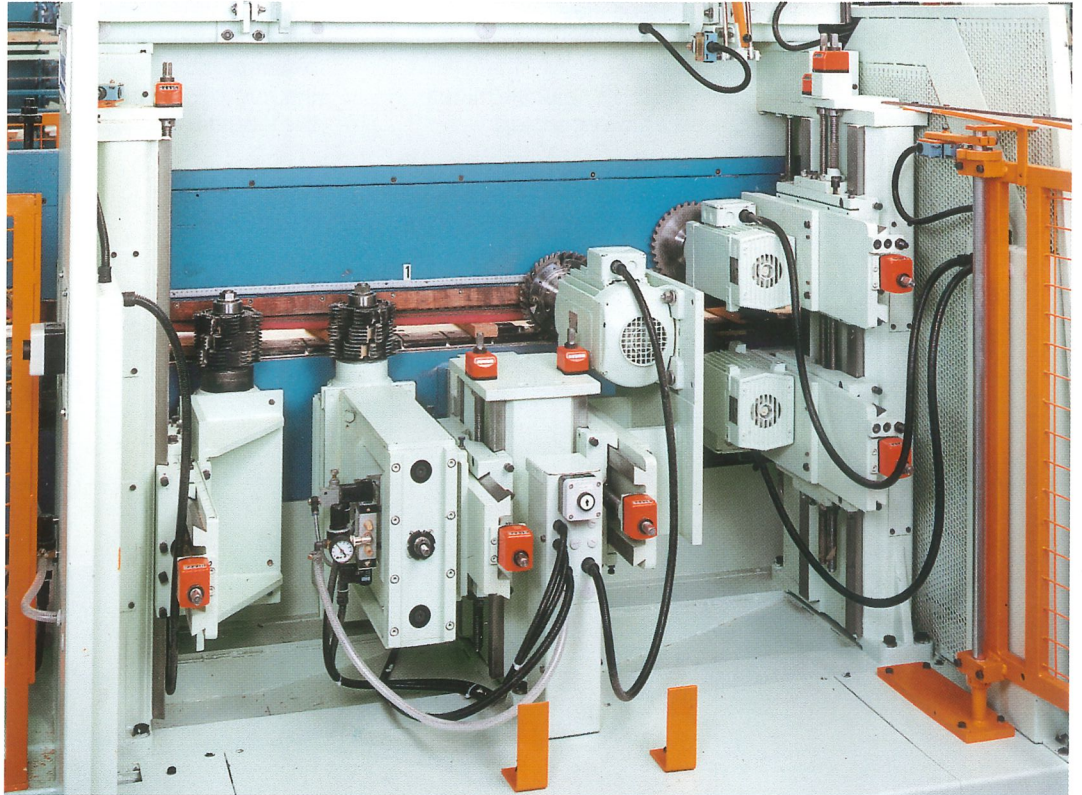
Electronic Length Measuring Device

for the cut-off saw of the final pressing station.



**Double Sided
Profiling Machine
HZ 604**

- top scoring saw
- bottom scoring saw
- cut-off motor
- 1st profiling motor,
pneumatically controlled
- 2nd profiling motor
- glue application
(not shown)

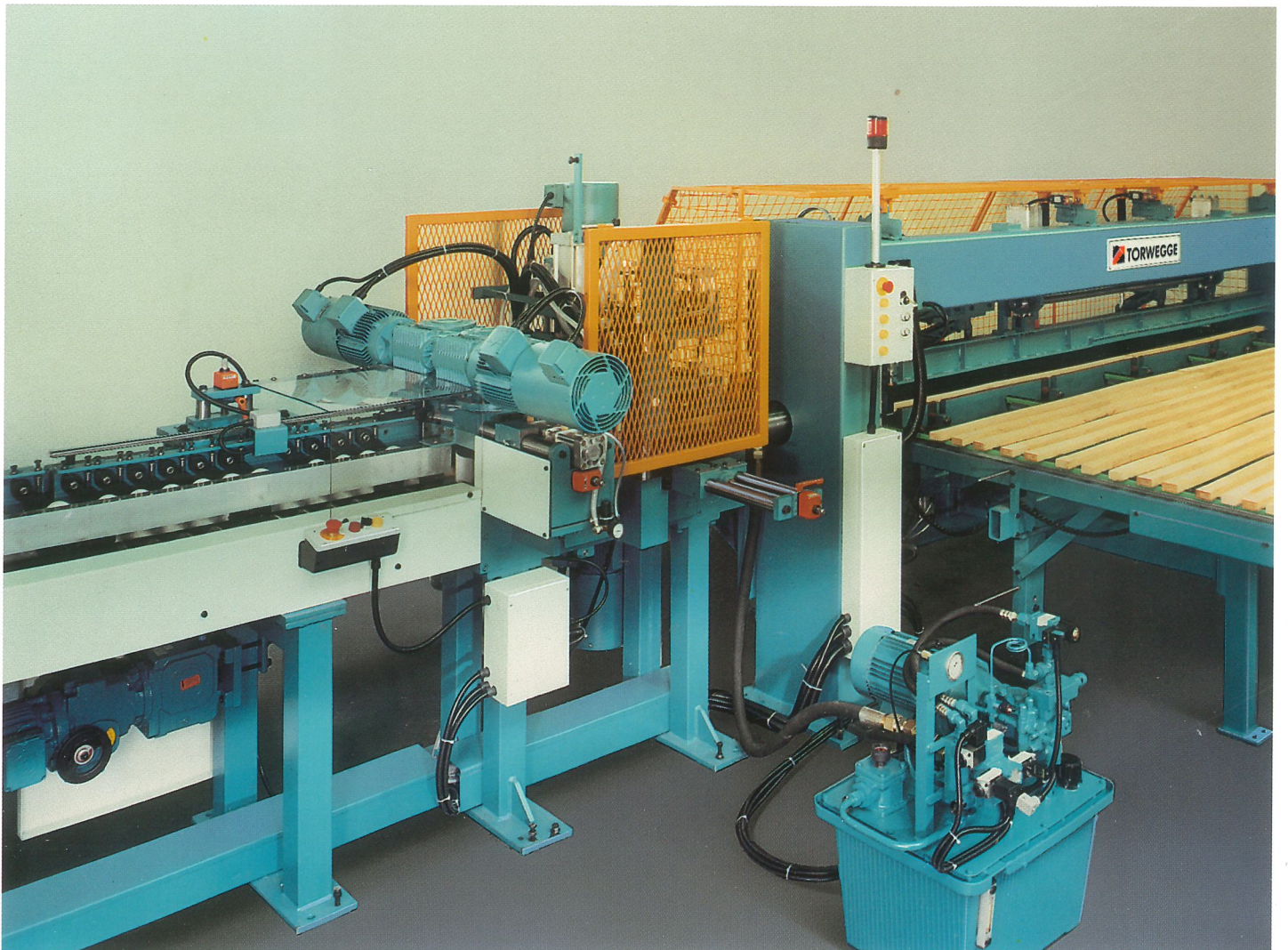


Accumulating Section

for gapless transport of parts
to pre-pressing station

Pre-Pressing Station

with hydraulically driven
infeed- and pre-pressing
rollers



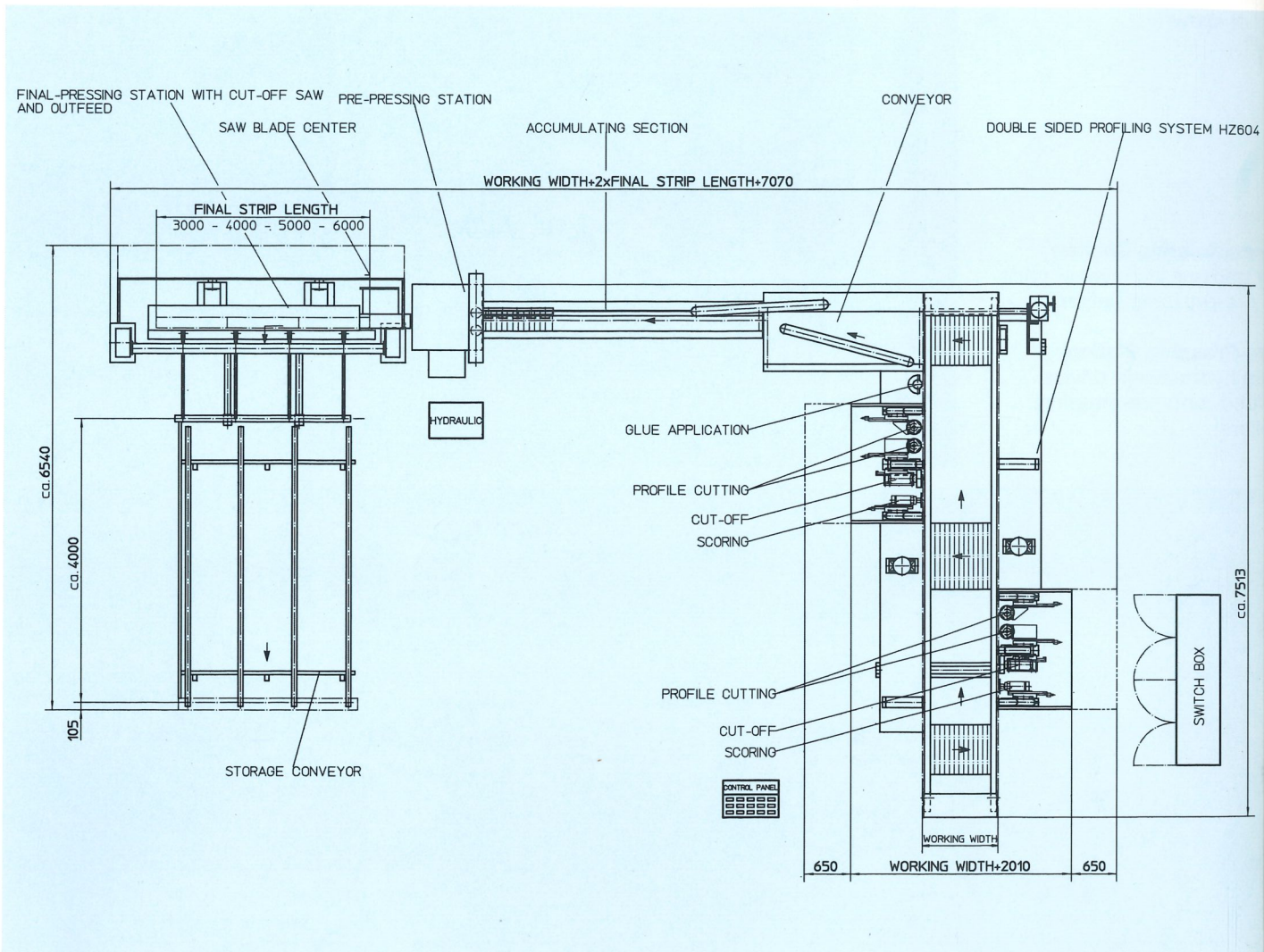
Capacity

a) *Infeed side of Profiling Machine:*

max. 120 pieces/minute can be accepted.

b) *The capacity of finished strip material after pressing depends on*

- the number of strips fed-in and
- the length of the finished strips



Operation Process

Finger Cutting and Glue Application

- manual or automatic infeed of pieces in front of the rail-type dogs of the chain tracks
- alignment of workpieces against fences to achieve square-cuts
- right hand working stations:

top scoring	2.4 kW
bottom scoring	2.4 kW
cut-off motor	5.2 kW
1st profiling	6.3 kW
pneumatically controlled	
2nd profiling	6.3 kW
- transportation of workpieces to left hand working stations

- left hand working stations: motors same as right hand side
- glue application into the profile by glue nozzle for PVAc-glue
- glue pump for direct flow of glue from container to nozzle
- onward transportation of profiled workpieces

Angular Belt Conveyor serving as transfer from profiling-section to accumulating conveyor.

Accumulating Section to compensate the different cycle-times of profiling- and pressing-sections

Pre-Pressing of Workpieces by driven pressure rollers. The profiled and glued workpieces are pressed together to an endless line

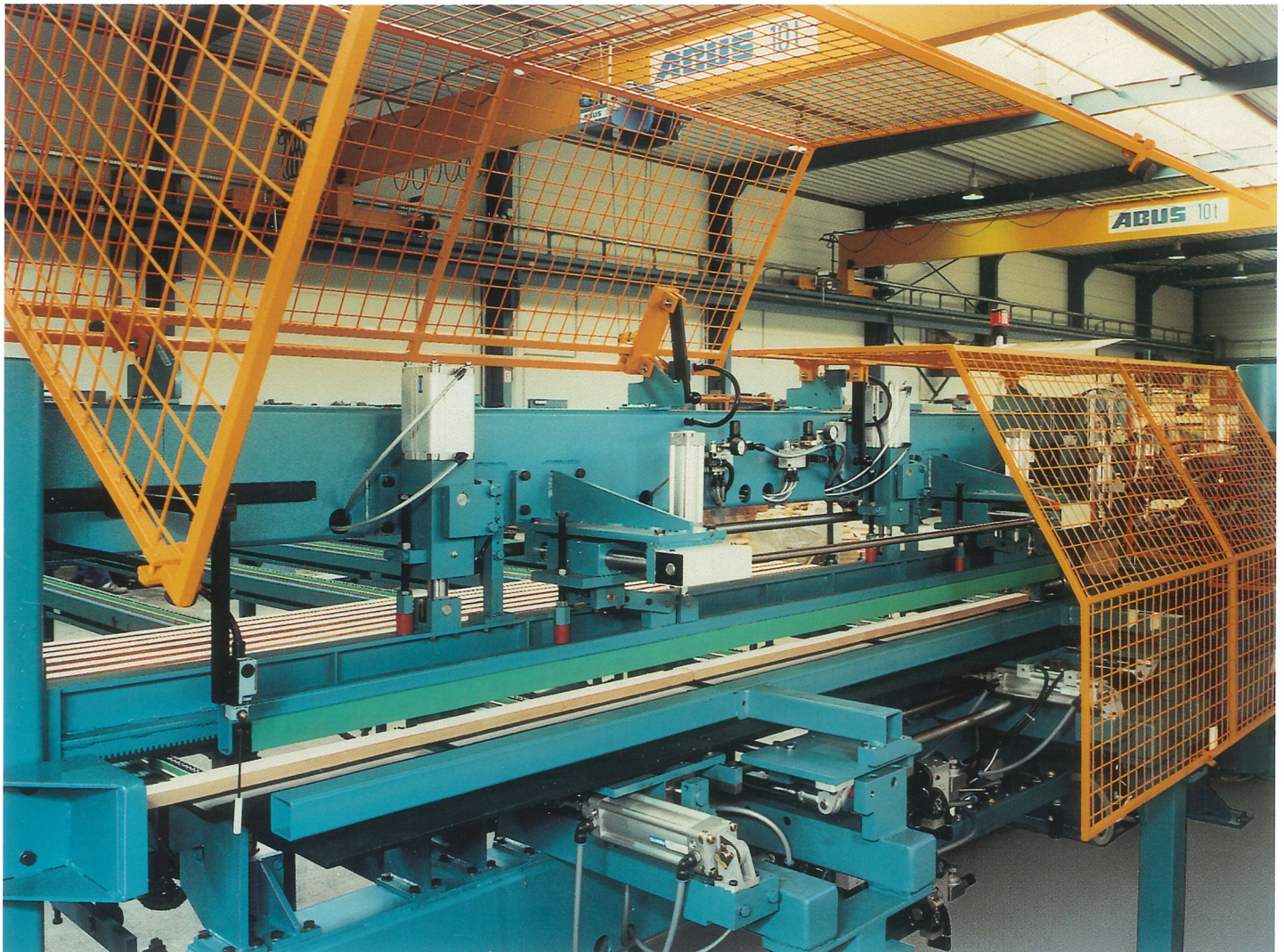
Cut-to-Length of Strips by pneumatically controlled cut-off saw

Lateral Alignment of strips after cutting and Final Pressing by Hydraulic Cylinder

Storage of finished strips on chain conveyor to allow setting of glue connections (option)

Final Pressing Station
by hydraulic power

Cut-Off Saw
with electronically adjustable
cut-to-length device and
outpusher.
Multi-cut control



All details subject to change
without notice.

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