STAPER EUROPE GMBH

Die cutting and creasing machine with hot foil stamping and stripping device

model Brausse 1050SEF Hybrid

Pictures might be slightly different from reality

Highlights of all Brausse machines

- Extremely smoothly running due to the unique index box drive of the main chain
- All electrical components are off the shelf brand names such as Omron and Siemens
- All PLC controls are from Mitsubishi
- Foil unwinding and advancing system are driven and controlled by high tech Mitsubishi or Bosch Rexroth servo motor and driver
- All operating software in the local language
- **This machine is a hybrid machine, so can be operated as a hot foil stamping machine and as a normal die cutting and stripping machine**

Standard equipment

General

- Each gripper bar can be individually shimmed to ensure very accurate and smooth sheet transport in case of uneven chain stretching after years of production
- Gripper bar locking levers can be adjusted by micro adjustment screws
- Alloy gripper bars with a hard chrome surface made by special process
- Automatic main chain greasing system
- Radiator cooling for recycling toggle drive lubrication system
- Catwalk with safety rail
- Drawer for spare parts
- Complete lost sheets control throughout the entire machine
- Self diagnostic system with indication on a colour LCD screen
- Modem with telephone connection for online assistance by problems with electronics (customer must take care for a dedicated telephone line)
- CE certified
- CE standard safety systems for safe operation
- Emergency stop at arm length
- Centre line system
- Machine is standard elevated 200 mm

Feeder

- Suction head with several adjustment possibilities to handle different kind of materials
- Patent turbo spiral air blower pressing foot at feeder head
- Four pick up and four forward suck heads with angle adjustment
- Motorized side adjustment of pallet table. Pile adjustment during production
- Electrical double sheet control
- Fine air blast at lead edge for smooth thin paper transport
- Sheet slow down device of feeder belts to assure accurate position of the sheet to the front lays (electro-pneumatically adjustable)
- Synchronizing device to adjust the sheet positioning to the front lay by hand during production
- Bullet catcher on the feeder entrance
- Side lays on both sides adjustable for push and pull and for paper and carton
- Electronic side lay controls
- Four individually adjustable front lays with dial read out at the operation side of the machine
- Four electronic front lay controls by means of Omron Glasfiber Optik, adjustable two by two
- Frontmark control with adjustable density
- Blowing device for continuous cleaning of the fibre optic heads of the front marks

- Photo sensor safety barrier at pallet table floor level touching point

Die section

- Precision worm gear crank toggle driving system to ensure smooth and dynamic lower platen movement
- Precision stationery upper platen
- Pneumatic push button die chase locking mechanism to ensure safe and operator friendly changing of the die
- Pneumatic clutch/brake for main drive system
- Motorized pressure control (by servo motor)
- Digital die cutting pressure tonnage display with adjustable pressure limit protection
- Seven high precision alloy gripper bar
- High quality pre-stretched gripper bar drive chain
- State-of-art 3 cam index gripper bar drive system to ensure smooth and precise gripper bar intermittent movement
- Torque limit safety clutch to protect the index drive system in case of gripper bar crash
- Double cam driven gripper opener and front lay swing frame for smooth and accurate sheet register
- Air blasting nozzle bar for stretching the thin paper before die cutting

Stripping section

- Triple action movement of the upper and lower stripping frames with lower spring loaded stripping pins
- Motorized upper frame suspending hoister and can be switched on and off electrically
- Upper and lower stripping tool mounting frame can be pulled out for job set up and make ready
- Remote control operation panel for jogging the upper frame up and down, easy and safe stripping tool set up and alignment
- Mechanical disconnecting of lower stripping frame when it is not in use
- Complete set of stripping tools, such as upper and lower stripping pins
- 1 upper drawer chase
- 1 lower drawer chase

Delivery section

- Automatic delivery with nonstop curtain. This curtain moves into the delivery to catch the arriving sheets during the pile exchange
- Five section brush brake – brake force individually adjustable
- Adjustable air blow bars to slow down the sheets
- Rear and side joggers with easy position adjustment
- Tape inserter with counter
- Photo sensor safety barrier at pallet table floor level touching point

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Standard accessories

- One operation platform
- One 5 mm hardened die cutting plate (HRC 45)
- One sandwich plate (one 3,5 mm base plate plus one 1,5 mm thin plate – hardened HRC 45)
- One honey comb
- One die chase with quick locking system
- Two waste bins on wheels
- One set of stripping tools including spring loaded stripping pins etc.
- One set of stamping die locking toggle
- One trolley with rails for loading and removing the foil unwinding unit

Hot foil stamping unit

- Two servo motor driven foil advancing shafts each individually programmable for short and long foil stepping (optional 3)
- 99 programmable short pull per shaft
- Free standing operation console with industrial pc, touch screen for foil advancing step setting and 12 temperature controllers for the heating with pre-heating timer
- Calculation program for optimal foil consumption
- Automatic temperature lowering system (adjustable pro zone)
- Device for easy foil leading trough the machine
- Free standing waste foil rewinder with 6 torque motor driven rewinding shafts and 6 dancers for persistent tension control
- 45^{o} turning bars for transporting the rest foil out of the machine
- Foil splitting blade for cutting the rest foil into several strokes
- Foil break detection at the platen entrance
- Automatic foil consume registration system with “end of foil” warning system
- Oil cooled foil tension shaft for optimal foil web control
- Thin paper stretching air blower with adjustment of air volume, strength per zone and start and stop timing
- Foil separating system with adjustment of air volume, strength per zone and start and stop timing

Specifications

Power / air

• Power voltage	400 V / 50 Hz
• Power supply for main motor	11 kW
• Power supply for additional motors	9 kW
• Power supply for heating	24 kW
• Power supply for additional motors and drives	16 kW
• Total power supply including heating	60 kW
• Air supply / consumption	6 bar / 1200 l per min

The compressed air quality must be according to ISO 8573/1

• Filtration on solid parts	class 4
• Filtration on oil	class 4
• Dry air	class 4

General specifications

- Pile height feeder, maximum 1530 mm (incl. pallet)
- Pile height feeder with non-stop operation, maximum 1130 mm (incl. pallet)
- Pile height delivery, maximum 1300 mm (incl. pallet)
- Pile height over non-stop curtain maximum 80 mm
- Total length (incl. preloading rails) 7060 mm
- Total width (incl. operation platform) 4730-5530 mm
- Total height (incl. raise 200 mm) 2225 mm
- Total net weight 17 t

The lowest drive-through height between loading area and the machine installation place:

without elevation	2450 mm
with 100 mm elevation	2550 mm

The smallest width in the distance between loading area and machine installation place:

without elevation	2200 mm
with 100 mm elevation	2200 mm

Specifications material

- Maximum sheet size 1050 x 750 mm
- Minimum sheet size 400 x 360 mm
- Processable materials
    1. Paper (depending on quality), min. 80-90 g/m²
    2. Carton (depending on quality), up to (*) 1600 g/m²
    3. Corrugated board (fine), up to (*) 4 mm
    4. Plastic materials, like PP PE 0,6 mm

  (*) admissible undulation: 4% of the sheet width
- Minimal gripper edge 9,5 mm

Specifications for die cutting

- Maximum die cutting size 1040 x 720 mm
- Inner size of chase 1080 x 745 mm
- Dimensions die cutting plate 1080 x 736 mm
- Maximum die cutting pressure 300 t
- Maximum mechanical speed 7500 sheets/h

Specifications hot foil stamping unit

• Foil advancing shaft		2 (3rd optional)
• Maximum capacity foil diameter		Ø 200 mm (shaft 2) Ø 240 mm (shaft 1 and 3)
• Foil core diameter		1″ or 3″
• Number of rewind shafts		6
• Number of dancing rollers		6
• Maximum rewinding diameter		Ø 400 mm
• Maximum foil and stamping size		730 x 1020 mm
• Maximum foil stamping speed (subject to paper, foil and stamping die quality as well as operator's skills)		
Foil pull length ≤ 200 mm	Foil width ≥ 100 mm	6000 sheets/h
Foil pull length ≤ 300 mm	Foil width ≥ 100 mm	5000 sheets/h
Foil pull length ≤ 600 mm	Foil width = 150 mm	4000 sheets/h
Foil pull length 600-700 mm	Foil width = 150 mm	3500 sheets/h
• The max. mechanical speed		7500 cycles/h
• Register tolerance in running and cross direction		≤ 0,2 mm
• Minimum foil width		45 mm
• Number of heated zones		12
• Temperature range		0-200°C
• Power for heating		24 kW

The Brausse 1050SEF Hybrid machine is delivered with the European safety certificate CE.

Specifications are subject to change without notice

Independent of the fact whether the machine is placed on ground level or above a cellar, or on a floor, the own oscillation of the carrying floor, including the weight of the machine, must be over 25 Hz. Only a structural engineer is capable to judge whether the floor is in accordance with the needed values, as stated in our floor plan. Only he can be responsible for this.

Advisable options:

Quick lock drawer in stripping for the fixed upper stripping die

Quick locking system for stripping die

Quick change table die chase or honey comb

Extra honeycomb

Extra pull shaft complete with motor and servo control (up to 3)

Foil presetting table including one set of shafts and disks

More available options:

Paper device (for higher speed)

- Two extra blowers in the front of the feeder pile
- Two extra side blowers of the feeder pile
- Simco antistatic device with 2 blowers and 1 bar at feeder entrance
- Mink brushes on the feeder table
- Thin paper stretching air blaster at stripping
- Software change
- Wider front stoppers, left and right

Cross Foil

Extra set of locking toggles, 4 sizes, each 20 pcs. US made

Extra set of locking toggles, 4 sizes, each 20 pcs. China made

10 inch touch screen with movable arm

Modified gripper bar locks for a register tolerance in running
and cross direction ≤ 0,1 mm

Extra die chase with quick locking system

Second rewinder, so 12 webs can be rewinded

Extra brush system for waste foil

Hardened sandwich plate (HRC 48) consisting of 2 plates: 3,5 mm and 1,5 mm

- Hardened change plate 1,5 mm (HRC 48)
- Hardened base cutting plate 3,5 mm (HRC 48)

Hardened die cutting plate 5 mm (HRC 48)

Die cutting plate with 1 mm quick change system

- 1 x 5 mm steel plate with micro adjustment
- 10 extra 1 mm plates HRC 31-33

1 mm plate hardness HRC 31-33 (minimum 10 each order)

Job saver system, consisting of

- 1 x 21,5 mm steel plate with micro positioning pins
- 1 x 6,5 mm plate

6,5 mm plate for job saver system

Thin paper stretching air blaster at stripping

Elevation 100 mm extra

Simco antistatic device with 2 blowers and 1 bar at feeder entrance

Simco antistatic device for the new foil at platen outlet, so foil entrance

Stripping pre-make ready table
(including upper and lower stripping frame and stripping tools)

Extra set of stripping tools

Compressor set

- Compressor with integrated air dryer 8 bar 1200 l/m
- Connection air hose

Preloading device mounted at the front of the feeder

Non-stop feeder with automatic pile lift

Gripper edge stripping and removing system with conveyor belt

Paper inserter delivery

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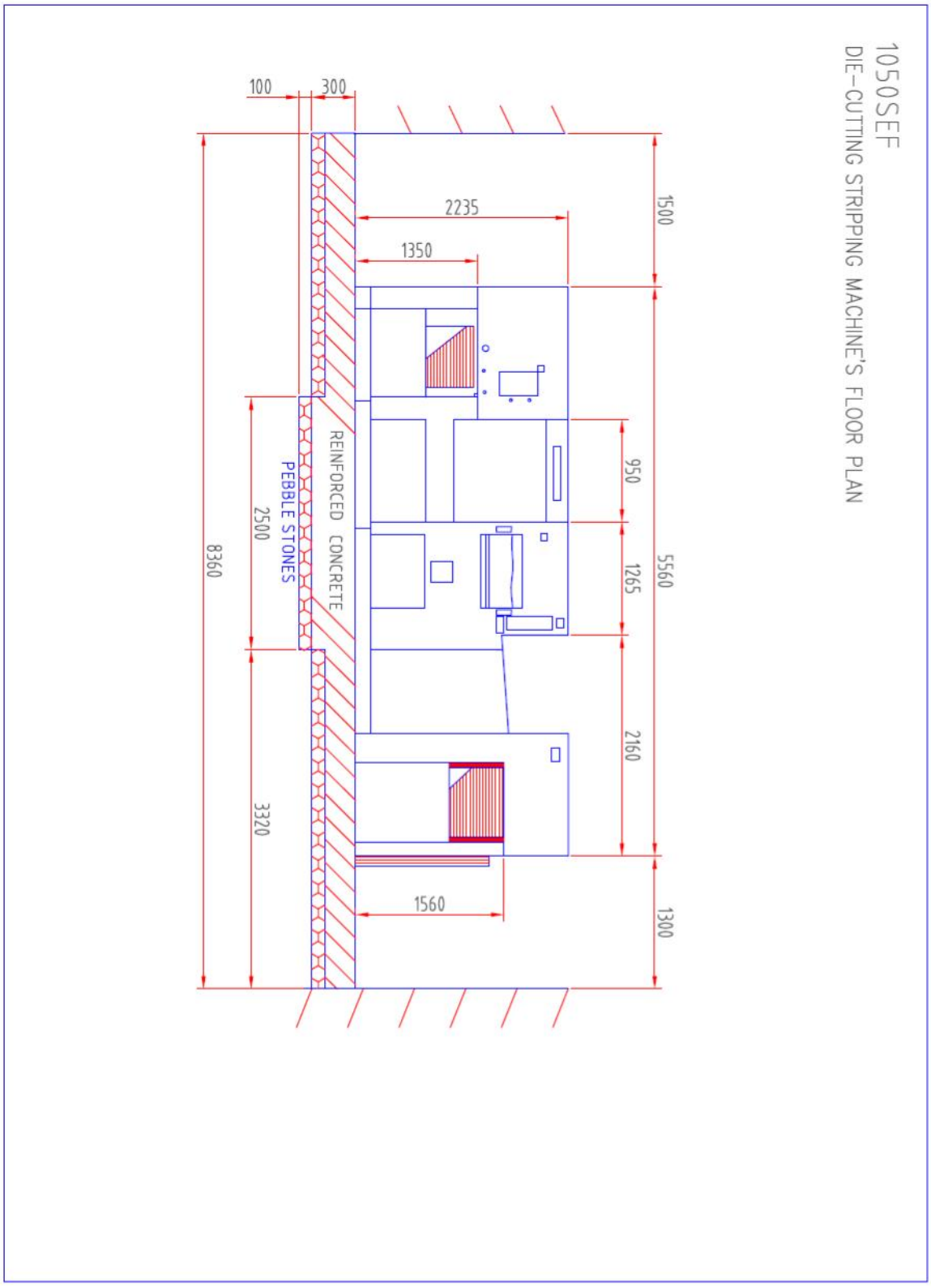
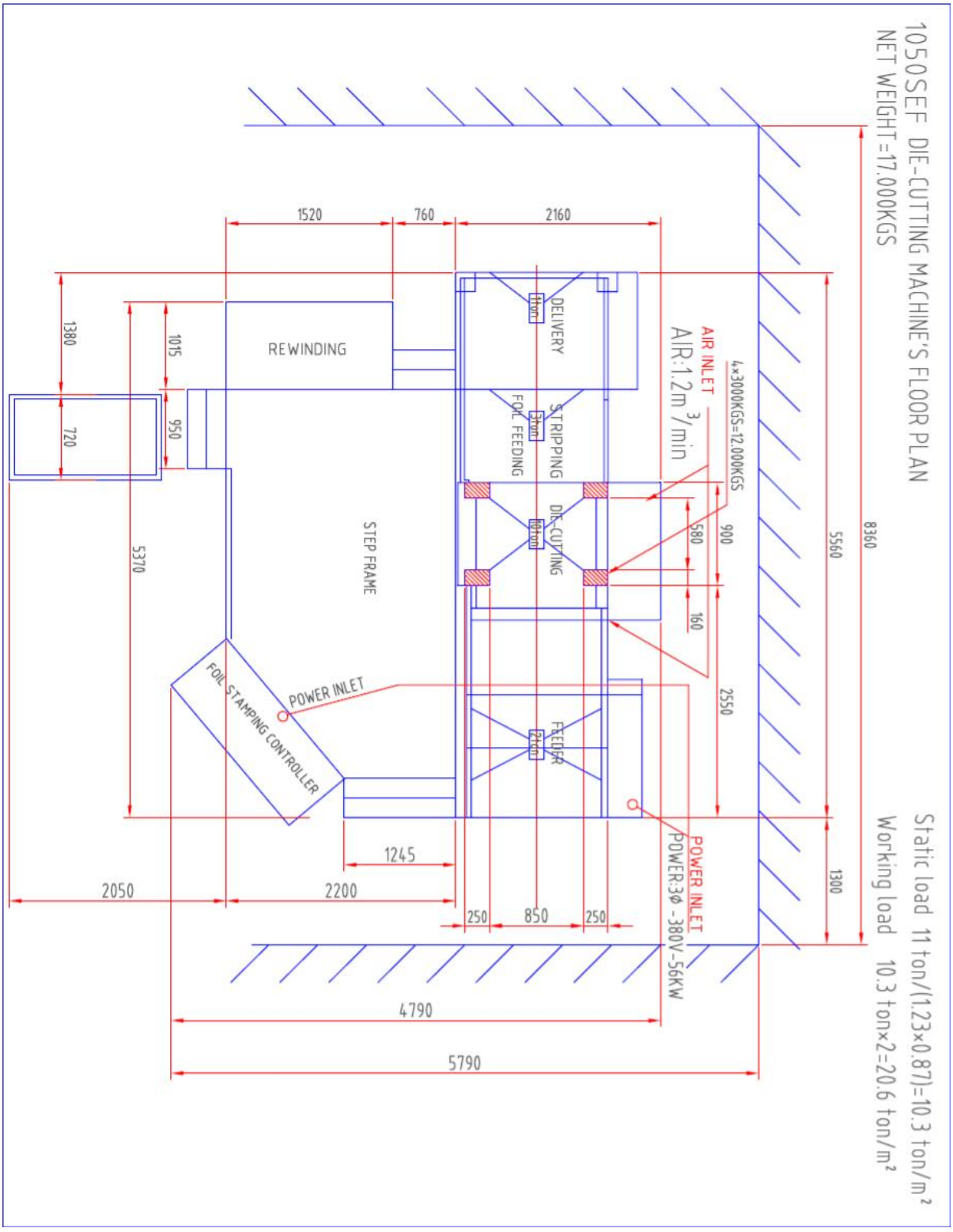
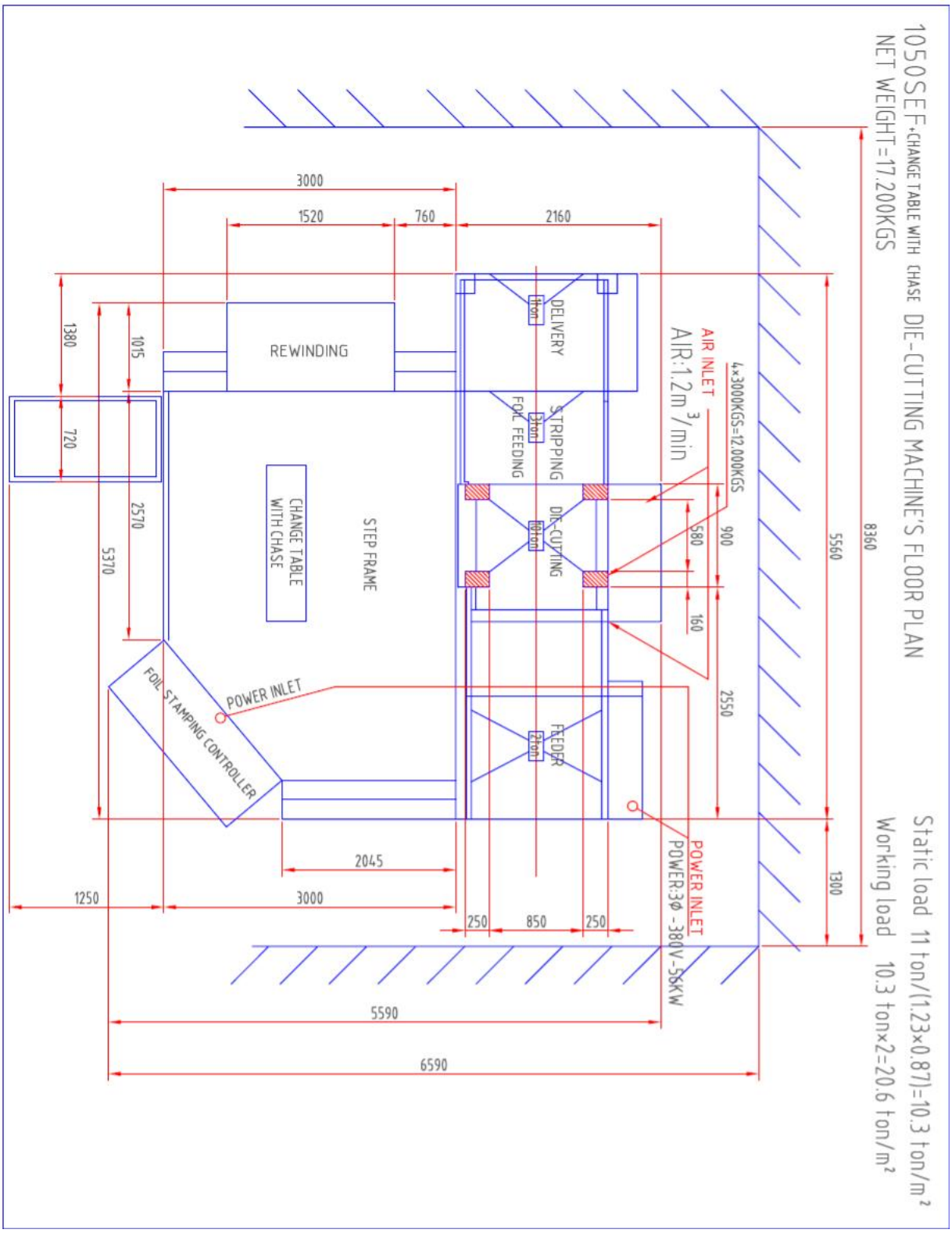



1050SEF DIE-CUTTING MACHINE'S FLOOR PLAN
NET WEIGHT=17.000KGS
Static load 11 ton/(1.23×0.87)=10.3 ton/m²
Working load 10.3 ton×2=20.6 ton/m²
1520
760
2160
1380
1015
720
950
REWINDING
DELIVERY
STRIPPING
FOIL FEEDING
DIE-CUTTING
FEEDER
STEP FRAME
AIR INLET
AIR:1.2m³/min
4×3000KGS=12.000KGS
580
900
160
2550
5560
8360
1300
5370
FOIL STAMPING CONTROLLER
POWER INLET
POWER INLET
POWER:3Ø -380V-56KW
1245
2050
2200
250
850
250
4790
5790


1050SEF-CHANGE TABLE WITH CHASE DIE-CUTTING MACHINE'S FLOOR PLAN
NET WEIGHT=17.200KGS
Static load 11 ton/(1.23×0.87)=10.3 ton/m²
Working load 10.3 ton×2=20.6 ton/m²
3000
1520
760
2160
8360
5560
1300
1380
1015
720
2570
5370
REWINDING
CHANGE TABLE WITH CHASE
STEP FRAME
DELIVERY
STRIPPING
FOIL FEEDING
DIE-CUTTING
FEEDER
1ton
2ton
AIR INLET
AIR:1.2m³/min
4×3000KGS=12.000KGS
580
900
160
2550
POWER INLET
POWER:3ø -380V-55KW
FOIL STAMPING CONTROLLER
POWER INLET
2045
1250
3000
250
850
250
5590
6590