Corali S.p.A. is a family enterprise which has been dealing with machines to produce pallets, wood boxes, wood baskets and cable drum flanges since 1957 when Mr. Bruno Corali laid the foundation of this group of companies with his well-known technology and machines to stitch wood with wire.

Since 1965 Corali has begun to produce programmable nailing machines for pallets and boxes and today, it delivers high-flexibility machines and complete production plants in the whole world.

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Corali-USA

Corali, based in Bergamo, Italy, has been a premier manufacturer of wood pallet, wood box and wood cable drum equipment. Corali-USA is now bringing these highly flexible, complete production lines to the U.S./Canadian markets.

European manufactured, Cincinnati based.

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CABLE DRUM FLANGES

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AUTOMATIC CABLE DRUM FLANGE NAILING MACHINE M385 Vr. 1, FOR FLANGES DIAMETER 1,250 mm (49.2 in.)

Automatic nailing machine with 22 nails to assemble cable drum flanges, consisting of:

- Frame with max. passage of 1935 mm (76.2 in.).
- Nailing traverse beam controlled by self-braking motor activated by inverter, with mechanical system to control the position of the chuck bearing bars.
- 22 chucks placed on a max. space of 5 circumferences, controlled by an “open” nailing traverse beam to allow the positioning on line up to 4 chucks. Such chucks are compact to allow nailings in a closer circumference (diameter changes of 120 mm (4.72 in.).

- Nail hoppers (2 of 12 nails each) controlled by hydraulic cylinder.
- Nail extraction control by self-braking motor.
- 2 hydraulically controlled riveting sets with linear movement (ruled plates).
- Locking group of boards in the nailing area and their rotation in the different nailing positions. This group is composed of 4 pneumatic chucks (2 for each board layer) and a brushless motor for the whole group rotation on a fifth wheel. An additional gearmotor group lifts and lowers the locking and rotation group, to allow the board input and the cross flange output.
- 1 alternate movement carriage with 3 working stations: 2 for loading and 1 for nailing with movable dragging elements (dogs) set at a 3150 mm (124 in.) distance, going down the sliding plan in phase of return.
- Devices for quick adjustment by gearmotor both for loading table height level and guide width.
- 1 electronic programmer for rotation device control, complete with equipment to determine the number of nailings to be done and “nail-jump” device on the two internal circumferences.
- 1 chain conveyor placed at machine exit to convey flanges towards the finishing line part, which lifts at position needed for transport only during flange conveyance phase (when at rest it remains below the working table).
- Centralized lubrication
- Gangway for checking nail load with the relevant ladder
- Nail box platform

Ø flanges mm		**600/1.250**		**23.6/49.2**
Machine width	mm	1.935	in.	76.18
Nailing elements	No	22		
Nails dimension nr.12	mm	35-90	in.	1.378
nr. 2	mm		in.	3.543
Flanges diameter min	mm	600	in.	23.6
Flanges diameter max	mm	1.250	in.	49.2
Boards’ min thickness	mm	15+15	in.	.59 + .59
Boards’ max thickness 1st and 2nd layer	mm	35+35	in.	1.378 + 1.378
Support-boards’ thickness 3rd layer	mm		in.	
Nr. of possible Nailing circumference	No	5		
Min. diameter of nailing with riveting	mm	230	in.	9.06
Max diameter of nailing	mm	1.180	in.	46.457
Height of working table	mm	900	in.	35.433
Total installed power	kW	15		
Compressed air consumption	Nlt/1	200		

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AUTOMATIC CABLE DRUM FLANGE NAILING MACHINE M385 Vr. 2, FOR FLANGES DIAMETER 2,500 mm (98.4 in.)

Automatic nailing machine with 32 nails to assemble cable drum flanges, consisting of:

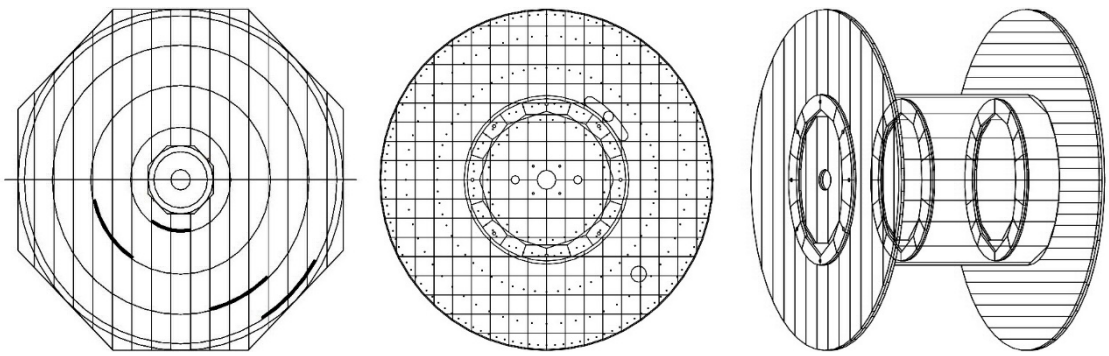
- Frame with max. passage of 3.200 mm (125.9 in.).
- Nailing traverse beam controlled by self-braking motor activated by inverter, equipped with mechanical system to control the position of the chuck bearing bars.
- 28 chucks (14+14) placed on a max. space of 7 circumferences, controlled by an “open” nailing traverse beam to allow the positioning on line up to 4 chucks. Such chucks are compact to allow nailings in a closer circumference (diameter changes of 120 mm (4.72 in.).

- Nail hoppers (2 of 16 nails each) controlled by hydraulic cylinder.
- Nail extraction control by self-braking motor.
- 2 hydraulically controlled riveting sets with linear movement (ruled plates).
- Group to lock the boards in the nailing area and rotate them in the different nailing positions. Composed by 4 pneumatic chucks (2 for each board layer) and a brushless motor for the whole group rotation on a fifth wheel. An additional gearmotor group lifts and lowers locking and rotation groups for board infeed and cross flange outfeed.
- 1 alternate movement carriage with 3 working stations: 2 for loading and 1 for nailing with movable dragging elements (dogs) set at a 3.150 mm (124 in.) distance, which go down the sliding plan in phase of return.
- Devices for quick adjustment by gearmotor both for loading table height level and guide width.
- 1 electronic programmer for rotation device control, complete with equipment to determine the number of nailings to be done, and “nail-jump” device on the two internal circumferences.
- 1 chain conveyor placed at machine exit to convey flanges towards the finishing line part, which lifts at position needed for transport only during flange conveyance phase (when at rest it remains below the working table).
- Electric cabinet with relevant electric/electronic equipment.
- Centralized lubrication
- Gangway for checking nail load with the relevant ladder

Ø flanges mm		**800/2.500**		**31.5/98.4**
Machine width	mm	3.200	in.	125.98
Nailing elements	No	28		
Nails dimension nr.12	mm	35-90	in.	1.378-3.543
nr. 2	mm	70-120	in.	2.756-4.724
Flanges diameter min	mm	1.000	in.	39.37
Flanges diameter max	mm	2.500	in.	98.43
Boards’min thickness	mm	15+15	in.	.59 + .59
Boards’ max thickness 1st and 2nd layer	mm	50+50	in.	1.969 + 1.969
Support-boards’ thickness 3rd layer	mm	34	in.	1.38
Nr. of possible nailing circumference	No	7		
Min. diameter of nailing with riveting	mm	250	in.	9.843
Max diameter of nailing	mm	2.400	in.	94.49
Height of working table	mm	900	in.	35.433
Total installed power	kW	20		
Compressed air consumption	Nlt/1	200		

TERMINAL FOR CABLE DRUM FLANGES

M.386



M.386 VR.1 DIAMETER MIN. 600 – MAX. 1250 MM
M.386 VR.2 DIAMETER MIN. 800 – MAX. 2500 MM
TERMINAL M386 FOR AUTOMATIC LINE FOR CABLE DRUM FLANGES

MIDDLE HOLE STATION

- 2-chain conveyor with fixed speed
- Motorized adjustment of chains and guides
- Pneumatic stop with motorized adjustment to stop the flange in the right work position
- 2 pneumatic blocking cylinders, high and low
- Electrotools for middle hole and faceplate holes from below, rise by hydraulic control

MODELLING STATION

- 2-chain conveyor with fixed speed
- Motorized adjustment of chains
- Pneumatic stop with motorized adjustment to stop the flange in the right work position
- 2 round saws
- Saw movement for the search of diameter by brushless motor
- Saw movement for the search of the central axis by gearmotor and inverter
- Upper gearmotor with plate for the flange rotation
- Hydraulic cylinder for the descent of the rotation control
- Hydraulic cylinder with centering cone coming from below and lifting the flange from the chains to allow its rotation

TIE-ROD HOLES STATION

- 2-chain conveyor with fixed speed
- Motorized adjustment of chains and guides
- Pneumatic stop with motorized adjustment to stop the flange in the right work position
- 4 electrospindels for the tie-rod holes with rise from below with hydraulic control
- Pneumatic cylinders for flange block

STARTER HOLE STATION

- 2-chain conveyor with fixed speed
- Motorized adjustment of chains and guides
- Pneumatic stop with motorized adjustment to stop the flange in the right work position
- Upper gearmotor with plate for the flange rotation
- Hydraulic cylinder for the descent of the rotation control
- Hydraulic cylinder with centering cone coming from below and lifting the flange from the chains to allow its rotation
- 2 electrospindels, one above and the other below to drill the starter hole
- These electrospindels can be bent to drill the sloped hole
- Chamfering group for label recess with motorized adjustment

MILLING AND RECESS FOR BARREL STATION

- 2-chain conveyor with fixed speed
- Motorized adjustment of chains and guides
- Pneumatic stop with motorized adjustment to stop the flange in the right work position
- Upper gearmotor with plate for the flange rotation
- Hydraulic cylinder for the descent of the rotation control
- Hydraulic cylinder with centering cone coming from below and lifting the flange from the chains to allow its rotation
- 2 electrospindels, one above and the other below to cut the flange edges, fitted with automatic copier, adjustment by gearmotor.
- 1 electrospindel to chamfer the recess for barrel, adjustable by gearmotor
- Brush to clean the flanges

MIDDLE BUSH RIVETING STATION

- 2-chain conveyor with fixed speed
- Motorized adjustment of chains and guides
- Pneumatic stop with motorized adjustment to stop the flange in the right work position
- Hydraulic control for chain descent
- Hydraulic cylinder for pressing the bushes
- Pneumatic clamp for holding center of flange
- Pneumatic cylinders to block the flange
- Feeding conveyor for bushes
- Clamp fpr bushes
- Transport and placement of the bush by two axis, controlled by brushless motors

INK-JET PRINT AND CONTROL STATION

- 2-chain conveyor with fixed speed
- Motorized adjustment of chains and guides
- Made of three working stations: the first two with fixed stops by cylinder, the third with a pneumatic control stop, adjustable by gearmotor according to the change of flange diameter
- Two ink-jet printing heads on the first station and two on the second station for the ink branding of the flanges
- On the third station there is a pneumatic lifting of te flange to allow the manual finishing

STACKER

- Chain conveyor with fixed speed
- Motorized adjustment of chains and guides
- Pneumatic stop with motorized adjustment
- Hydraulic control for to lift and stack the flanges and to open the clamps
- Maximum capacity 35 qls

STACK CONVEYOR

- 5,5 m. chan conveyor
- Maximum possible stock of three flanges, with two fork lift clamp stations.
- 3 gearmotor couples to control the chains.

The line has been photographed without any protection to better view the details; it comes delivered complete with all protection in accordance with the CEE standards.