Machine type: Compact-Score Model: 716B

Compact "Score" mod. 716B is an integrated system for the production of traditional cored toilet rolls. In a single unit it features an unwind stand, a rewinder, a tail sealer, a log saw, and a rubber to steel embossing unit.

Product characteristics

Finished product diameter ranges between 90mm and 130mm (3.5"- 5.1") and the sheet count can be varied by increments of one. The perforation length is fixed and, at the time of order, can be chosen in the range between 114mm and 140mm (4.5"- 5.5"). Cut-off length, which can vary from 95mm to 115 mm (3.7"-4.5"), is set from the control panel.

Structure

The elements comprising this system are mounted on a single structure comprised by a pair of side frames connected by means of spacers. The unwind stand can accept parent reels having a maximum diameter of 1500mm (59.1") and a weight not exceeding 800 kilos. The reels are supported by an expandable shaft and unwound by means of two independently tensioned peripheral draw belts. Loading and unloading of the reel is accomplished through two motorized chains. The locking of the shaft is manual, semi-automatic.

Perforation and embossing

Following the web path, after the unwind stand we reach the area where the rubber to steel embossing unit is located. The rubber roll has a diameter of 270mm (10.6") and is supported by two pneumatically activated arms. The engraved steel roll has a diameter of 238,5mm (9.4") The maximum embossing pressure exertable amounts to 14 kg/cm.

Below the embossing station, there is the perforation unit. This unit performs parallel, equidistant perforated lines on the running web, which will eventually allow the enduser to easily tear a single sheet off the finished product. Such perforated lines are obtained through the combined action of a rotating roll which carries four blades arranged in helix fashion and a stationary roll which carries a straight blade.

Rewinding section

The rewinding unit, developed within the proven Perini surface winding technology, is comprised of a system of three rotating rolls, two of which stay in a fixed position. The third roll, known as rider roll, moves to follow the diameter growth of the log being wound.

The upper winding roll feeds the paper to the rewinding section. The lower winding roll instead is appropriately motorized so as to allow, in conjunction with the upper one, the advancement of the core at its initial stages of winding along the groove formed by the two rolls. Again, the lower winding roll, combining its effects with the rider roll, causes the finished log to be expelled from the winding section.

The end-of-cycle web separation is accomplished through a web separating unit. This unit interacts with a specific portion of the upper winding roll placed immediately below the perforation line along which the web break is required.

At transfer, the maximum operating speed of 350mpm (1150 fpm) automatically decreases to 20 mpm (66 fpm) and then resumes normal operating speed.

Tail sealing
The machine is registered so as to eject the log in such a way that its tail is positioned to receive a line of glue. Sealing is caused by the log rolling further along the log exit tray.
Machine phasing is such that the roll exits already positioned for the sealing of the final tail. An exctractable blade type tail sealer delivers the glue directly while the log rotates on the exit tray.

Cut-off and trim removal
At the end of the exit tray, the sealed log meets the log saw infeed channel.

In the case of the **Compact "Score" mod. 716B** model this is a two-lane machine, operating at fixed speed. It also features a mechanical trim eliminating device.

Although very simple in design, this log saw allows for the cut-off length value and the blade sharpening frequency to be set from panel. Blade wear compensation is manual. The iron clamps can cover a range of 10mm (0.39") of diameters with the pushers, the clamps are designed to be easily and quickly replaced. The maximum speed of this saw is 180 rolls per minute.

FABIO PERINI | ECHO Prima | Technical Characteristics

Machine type	Compact-Score	Model	716B

Main Features	
• Pneumatic system	Min. pressure required 6 atm; needed 400 L/min.
• Main drive	DC motor + timing belts
• Operator interface	PanelMate VCP 1000
• Lubrication system	Localized with greasers
• Programmable controller	PLC
• Web thread	Manual
• Max reel weight	1200 Kg.
• Machine weight	9000 Kg. approx

Other Features				
• Unwinder	With peripheral draw unwinding belts			
• Reel blocking	Manual			
• Min. reel inside core Ø	(mm)	70	(inch)	2.76"
• Unwind belt tension	Pneumatic			
• Reel load/unload	Mechanical			
• Reel support	With mechanical expandible shaft for inner Ø from70to76 mm or pneumatic up to 300 mm			
• Rewinder	Surface rewinding with breaking element for transfer at low speed			
• Diatrol	In counterpressure			
• Winding Rolls	Abrasive tape stripes			
• Rider roll	With grip tape			
• Max winding speed	(mpm)	350	(fpm)	1148
• Perforation	Fixed perforator with smooth blade; rotating perforator with serrated blades in hellix fashion			
• Bowed shaft	Fixed			
• Tail sealer	Through extractible blade			
• Glueing system	Overflow with manual loading			
• Log saw	2 lanes start/stop, fixed speed, controlled log adv.,mech. trimex			
• Knife	Ø 610 mm			
• Grinding wheel approach	By panel			
• Clamps	Dedicated, 10mm on log diameter			
• Pushers	Quickly replaceable			
• Main drive	AC motor for knife rotation; brushless motor for pusher mov.			
• Knife lubrication	Follows blade, programmable through panel			

• Knife wear compensation	Manual; min. usable diameter 480 mm.
• Safety device for erroneous diameter	Manually adjustable

Product Specification

• Sheet count	1 by 1, no limits, tiff max. Ø is reached
• Cut-off length	From 95 to 115 mm. with decimal variation and tol. ± 0,7mm.
• Perforation length	Fixed as requested from 114 to 140mm (+/- 1 mm)
• Tail length	Adiustable with ± 5 mm, tolerance on log length
• Min. core consistency	2 strips 200 g/m²

Technical Characteristics

• Formats		(mm)	(inch)		(mm)	(inch)
	Min.	2700	106.30"	Max.	2700	106.30"
	Paper width from 1800mm to 2750mm (from 70,9" to 108,3")					
• Max production capacity (Rolls per minute according to product specifications)	(with core)	6 logs per min.				
	(solid)	/				
• Max. Speed	350 mpm (1150 fpm)					
		(mm)	(inch)		(mm)	(inch)
• Log diameter	Min.	90	3.54"	Max.	130	5.12"
		(mm)	(inch)		(mm)	(inch)
• Core diameter	Min.	36	1.42"	Max.	50	1.97"
		(mm)			(inch)	
• Max reel diameter		1500			59.06"	
• Max installed power (Reel weight 900 kg)	KW	67		HP	89,3	