Horizon

VAC-100

High Speed
Multi-Modular Air-Suction Collator

Quality Performance with High Speed Production.

The VAC-100 sets the new standard in vertical suction collating systems.

The VAC-100 is the suction collator.
The VAC-100 vertical suction collator is quality engineered for commercial printers, in-plant printers, and trade binders who produce the highest quality finished books. The VAC-100 combines simplicity, efficiency, and speed to maximize your productivity and profits.

A Perfect Finishing Solution from Horizon.
Horizon introduces the innovative VAC-100 modular vertical suction-feed collator. The VAC-100 is a 10-bin suction feed collator expandable up to 6 towers, forming 60 feed bins in the minimum amount of floor space.

From 10 bins or 60 bins the VAC-100 is not only the most reliable Suction Feed System on the market, it's also the most productive. For example 10 sheets can be collated into sets at over 9,900 per hour. Horizon's unique Suction Rotor Feeding System lets you collate a wide variety of paper stocks, ranging from 52 gsm tissue paper to 208 gsm cardboard. The paper size can range from 120* x 148 mm / 4.8"* x 5.9" to 350 x 500 mm / 13.7" x 19.6". The VAC-100 can be combined with the Horizon SPF/FC series stitching, folding, and fore-edge trimming units to form an ultra-reliable bookletmaking system. *120 mm (4.8") width sheet requires optional support guide.

ST-20+VAC-100a+VAC-100c+PJ-77R

System Expansion Options

Horizon offers high quality, heavy duty, precision-engineered finishing accessories.

The Horizon SPF/FC series bookletmaking systems are especially designed to streamline a series of in-line operations for efficient booklet production. Collating, stitching, folding, and fore-edge trimming are completed in one continuous, high-speed run.

Stitching and Folding Unit
Model SPF-20 series
The SPF-20 series Bookletmaker performs four basic operations:
- Stitching and Folding
- Top Stitching
- Corner Stitching
- Fold Only

Simply press a button on the operator's panel to change the operating mode. This reduces make-ready time to an absolute minimum.

Fore-edge Trimming Unit
Model FC-20 series
By adding the FC-20 series, booklets can be fore-edge trimmed in-line for a truly professional finish.

As soon as the trimming process is completed, booklets are ready for packing and shipment.

FC-20A+SPF-20A+HOF-30+VAC-100a+VAC-100m

Wide Variety of System Expansion

- The VAC-100 can be expanded up to a 6-tower collating system (10, 20, 30, 40, 50, and 60 bins).
- A range of existing and new Horizon finishing accessories can be connected to the VAC to form a variety of finishing solutions. (SPF-11/FC-11, SPF-20/FC-20, and SPF-20A/FC-20A Bookletmaking Systems; SP-10 Side Stitching Unit; SP-1 Corner Stitching Unit)
- For straight collating, the VAC-100 works with three different receiving trays: the ST-20 Descending Stacker, the CCR 90-degree Criss-Cross Stacker, and the PJ-75 / PJ-77 Vibrating Joggers.

Advanced Programming Features

The VAC-100 is equipped with advanced programming functions that are extremely powerful and very easy to use. These functions allow you to achieve truly continuous production.

Double Cycle - This mode divides the VAC-100 system into two sections. The first section is loaded, production is started, and then the second section is loaded. When any bin in the first section empties, the VAC-100 feeding immediately switches over to the second section and continues collating. The operator can then reload the bins in the first section, without interrupting the run.

Dual Cover Feed - The dual cover feeding lets you use the top two bins as cover sheet feeding bins, and those two bins alternate for continuous operation. When using a heavy-weight cover, the cover bin will always empty first. In Dual Cover Feed mode, the top two bins are prepared for feeding covers. When one cover bin empties, the VAC-100 automatically switches over to the other cover bin. This eliminates the need to halt production to reload covers while ample supplies of text stock are still available.

Combine Mode - The Double Cycle and Dual Cover Feed programs can be operated together to achieve absolutely maximum productivity and efficiency.

Left and Right Side Delivery

The VAC-100 system towers can be divided in any combination to deliver collated sheets to the right or left side of the system. For example, a three tower system can be divided as follows:
- three towers left delivery
- three towers right delivery
- two-towers left delivery and one-tower right (with simultaneous operation)
- one-tower left delivery and two-tower right (with simultaneous operation)

The operator can run sets into the bookletmaking system at the left side, while at the same time collating straight sets into the receiving tray on the right side of the system. Also, the right side delivery is useful for collating reverse-numbering jobs because the sheets are turned over during transport.
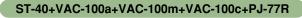
ST-60+VAC-100a+VAC-100m+VAC-100m+VAC-100m+VAC-100m+VAC-100c+PJ-77R

ST-20+VAC-100a+CTK-100+PJ-77R

ST-40+VAC-100a+VAC-100m+VAC-100c+PJ-77R

User-Friendly Touch-Screen Control Console and Remote Control

- The VAC-100 is equipped with a touch-screen display panel that is very easy to use. The graphical user interface allows anyone in your production area to operate the VAC-100 collator, without any special skills or training.
- All operating errors or jams are graphically illustrated on the screen for easy identification and quick resolution. Multiple feed error indicators allow you to pinpoint the problem bin and the type of error.
- All important operating functions are centralized on the remote control for operator convenience. The remote allows the operator to monitor system operations while loading or unloading the system.

Reliable Suction Rotor Feeding System

- A new, totally mark-less suction rotor feeding system can feed the paper weight ranging from 52 gsm tissue paper to 208 gsm cardboard.
- An optional extra air blower permits the VAC-100 to feed stock up to 230 gsm or more (depending on paper condition and quality).
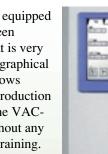
Superior Feed Error Detection

- Mis-feeding, double feeding, or jamming are detected by opacity sensors on each bin; collation stops immediately in the event of an error.
- Any feed error can be monitored on the screen. The operator can see the type and location of the feed error at a glance.
- Four different error detection sensitivity settings let you maximize performance for different paper thickness and quality.

Memorize Frequent Job Settings

The VAC-100 can memorize up to 9 different jobs that are run frequently. For example, collating speed, type of program used, number of bins used, and sensor sensitivity settings are stored in the system memory for quick restart of a regular job.

Receiving Trays

CCR-DX / CCR
- Criss-Cross Receiving Tray -

This criss-cross receiving tray swings 90 degree at each collating interval, clearly separating collated sets. This simplifies post-collating processes.

ST-20 (ST-20R)
- Stacker Receiving Tray -

The stacker receiving tray shifts each collated set laterally, separating collated sets. A stack of collated sets can be unloaded on a wheeled pallet. The collating operation is started automatically when the stacker is raised to its home position.

PJ-77 (PJ-77R) / PJ-75
- Paper Jogger -

Driven by an independent motor, the paper jogger vibrates collated sheets into perfect alignment; even NCR paper can be well jogged. The jogger tray lowers automatically in sync with the collating speed.

Stitching Units

SPF-20A/FC-20A (SPF-20/FC20)
- Stitching and Folding Unit / Fore-edge Trimmer -

The SPF-20/FC-20 series is a high speed, heavy-duty bookletmaking system which also accepts wider sheets (350 x 500 mm / 13.7" x 19.6"). The SPF-20 series is equipped with two Hohner stitching heads for further system reliability and efficiency. This unit is best suited for short, to medium, and even longer run lengths.

LC-20

LC-20

The LC-20 is an extended conveyor for quantity production, providing sufficient time for packing of booklets.

PK-20

After a preset number of booklets exit the bookletmaking system, the PK-20 skews one booklet to identify a batch for easy packaging.
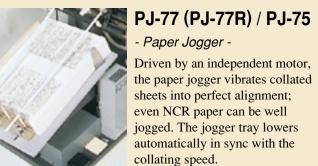
PK-20

PN-20

The PN-20 is a retrofit kit that allows precise insertion of single sheets in the middle of a folded booklet.

SPF-11/FC-11
- Stitching and Folding Unit / Fore-edge Trimmer -

The best-selling SPF-11/FC-11 bookletmaker has become established as an industry standard. The SPF-11 is equipped with two Magnatec stitching heads (maximum 4 heads). This unit is best suited for short to medium run lengths.

SP-10
- Stitching Unit -

The SP-10 performs side, top, and corner stitching with two Magnatec stitching heads. This unit is basically the same construction as the SPF-11 and features the same reliability and efficiency.

SP-1
- Corner Stitching Unit -

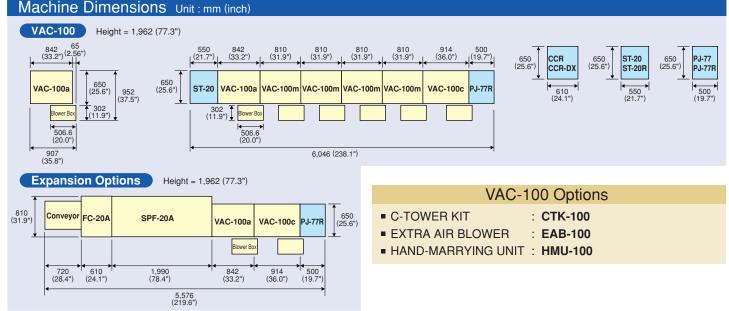The SP-1 is a single corner stitching device that features one Magnatec stitching head.

VAC-100 Major Specifications

Module Configuration	VAC-100a / VAC-100m / VAC-100c					
Number of Bin	10 bins	20 bins	30 bins	40 bins	50 bins	60 bins
Sheet Feeding System	Suction Rotor Feeding System					
Sheet Size	Max. 350(W) x 500(L) mm (13.77" x 19.68")					
	Min. 148(W) x 148(L) mm (5.83" x 5.83")					
	Optional support guide is capable of handling the 120 mm (4.73") width sheet at minimum.					
Sheet Weight Range	52 gsm to 208 gsm					
Bin Pile Height	Max. 55 mm (2.2")					
Sheet Overlap	4 Steps					
Collating Interval	Automatic Setting and Variable Setting					
Production Speed *	Max. 9,900 sets/hr. (A5LEF, Straight Receiving)	Max. 6,900 sets/hr. (A4LEF, Straight Receiving)	Max. 6,400 sets/hr. (A4LEF, Straight Receiving)	Max. 5,000 sets/hr. (A4LEF, Straight Receiving)	Max. 4,500 sets/hr. (A4LEF, Straight Receiving)	Max. 4,000 sets/hr. (A4LEF, Straight Receiving)
	Max. 8,900 sets/hr. (A4LEF, Straight Receiving)					
Receiving Tray	Criss-Cross : CCR-DX / CCR, Stacker : ST-60, ST-40, ST-20/20R, Jogger : PJ-77/77R					
Receiving Tray Capacity	Criss-Cross CCR-DX / CCR : A5-A4 170 mm / A4-A3 100 mm					
	Stacker ST-60 : Tray A (R) 360 mm / Tray A (L) 580 mm, ST-40 : 360 mm, ST-20/20R : 320 mm					
	Jogger PJ-77/77R : 90 mm					
Program Collation	Double Cycle / Dual Cover Feed / Preset Tabbing					
Voltage / Frequency	Single Phase 200 V, 50 / 60 Hz Single Phase 220 / 230 / 240 V, 50 Hz					
Rated Current — 200 V, 50 / 60 Hz	9.9 A	19.8 A	29.7 A	39.6 A	49.5 A	59.4 A
Rated Current — 220 / 230 V, 50 Hz	10.4 A	20.8 A	31.2 A	41.6 A	52.0 A	62.4 A
Rated Current — 240 V, 50 Hz	10.5 A	21.0 A	31.5 A	42.0 A	52.5 A	63.0 A
Power Consumption — 200 V, 50 / 60 Hz	1.4 / 1.5 kW	2.8 / 3.0 kW	4.2 / 4.5 kW	5.6 / 6.0 kW	7.0 / 7.5 kW	8.4 / 9.0 kW
Power Consumption — 220 V, 50 Hz	1.7 kW	3.4 kW	5.1 kW	6.8 kW	8.5 kW	10.2 kW
Power Consumption — 230 V, 50 Hz	1.8 kW	3.6 kW	5.4 kW	7.2 kW	9.0 kW	10.8 kW
Power Consumption — 240 V, 50 Hz	1.9 kW	3.8 kW	5.7 kW	7.6 kW	9.5 kW	11.4 kW
Heat Output — 200 V	1,350 kJ (323 kcal)	2,620 kJ (646 kcal)	4,050 kJ (969 kcal)	5,400 kJ (1,292 kcal)	6,750 kJ (1,615 kcal)	8,100 kJ (1,938 kcal)
Heat Output — 220 V	1,530 kJ (366 kcal)	3,060 kJ (732 kcal)	4,590 kJ (1,098 kcal)	6,120 kJ (1,464 kcal)	7,650 kJ (1,830 kcal)	9,180 kJ (2,196 kcal)
Heat Output — 230 V	1,620 kJ (387 kcal)	3,240 kJ (774 kcal)	4,850 kJ (1,161 kcal)	6,470 kJ (1,548 kcal)	8,088 kJ (1,935 kcal)	9,700 kJ (2,322 kcal)
Heat Output — 240 V	1,800 kJ (430 kcal)	3,590 kJ (860 kcal)	5,390 kJ (1,290 kcal)	7,190 kJ (1,720 kcal)	8,990 kJ (2,150 kcal)	10,780 kJ (2,580 kcal)
Motors	1.2 kW x 1	1.2 kW x 2	1.2 kW x 3	1.2 kW x 4	1.2 kW x 5	1.2 kW x 6
	0.4 kW x 1	0.4 kW x 2	0.4 kW x 3	0.4 kW x 4	0.4 kW x 5	0.4 kW x 6
	0.2 kW x 1	0.2 kW x 2	0.2 kW x 3	0.2 kW x 4	0.2 kW x 5	0.2 kW x 6
	0.1 kW x 1	0.1 kW x 2	0.1 kW x 3	0.1 kW x 4	0.1 kW x 5	0.1 kW x 6
	60 W x 1	60 W x 2	60 W x 2	60 W x 2	60 W x 2	60 W x 2
Noise Level	LA peak : 79.3 dB / LAeq : 77.3 dB					
Machine Weight — Main Body	290 kg (639.5 lbs.)	580 kg (1,278.9 lbs.)	870 kg (1,918.4 lbs.)	1,160 kg (2,557.8 lbs.)	1,450 kg (3,197.3 lbs.)	1,740 kg (3,836.7 lbs.)
Machine Weight — Blower Box	17 kg (37.5 lbs.)	34 kg (75 lbs.)	51 kg (112.5 lbs.)	68 kg (150 lbs.)	85 kg (187.4 lbs.)	102 kg (224.9 lbs.)

* Production speed is limited by the type of finisher or sheet size.

SPF-20A Major Specifications

Sheet Size	Max. 350(W) x 500(L) mm (13.7" x 19.6")
	Min. 120(W) x 180(L) mm (4.8" x 7.1")
Finish Size	Max. 250(W) x 350(L) mm (9.8" x 13.7")
	Min. 90(W) x 120(L) mm (3.6" x 4.8")
Stitching Thickness	Max. 4 mm (0.15") (only for side stitch)
Stitching & Folding Thickness	Max. 2 mm (0.07") 24 sheets of 60 gsm
Stitch Distance	73 to 160 mm (2.9" to 6.2") Adjustable
Stitching Wire	Standard : No.25 (0.52 mm / 0.020")
	Option : No.27 (0.40 mm / 0.016")
Production Speed	Max. 3,660 booklets/hr. (A4-Finish) / Max. 4,050 booklets/hr. (A5-Finish)
Voltage / Frequency	Single Phase 200 / 220 / 230 V, 50 / 60 Hz
Rated Current	Single Phase 200 V, 50 Hz, 3.3 A / 60 Hz, 3.2 A
	Single Phase 220 V, 50 Hz, 2.9 A / 60 Hz, 2.8 A
	Single Phase 230 V, 50 Hz, 3.0 A / 60 Hz, 2.7 A
Power Consumption	Single Phase 200 V, 50 Hz, 450 W / 60 Hz, 440 W
	Single Phase 220 V, 50 Hz, 480 W / 60 Hz, 500 W
	Single Phase 230 V, 50 Hz, 490 W / 60 Hz, 470 W
Heat Output	1,170 kJ (280 kcal)
Motors	200 W x 1 / 100 W x 1 / 60 W x 1 / 15 W x 1
Noise Level	LA peak : 79.4 dB / LAeq : 72.8 dB
Machine Weight	490 kg (1,080.5 lbs.)

FC-20A Major Specifications

Book Size (Before Trim)	Max. 250(W) x 350(L) mm (9.8" x 13.7")
	Min. 90(W) x 120(L) mm (3.6" x 4.8")
Finish Size	Max. 250(W) x 350(L) mm (9.8" x 13.7")
	Min. 85(W) x 120(L) mm (3.4" x 4.8")
Trimming Length	Max. 20 mm (0.78")
Trimming Thickness	Max. 4 mm (0.15")
Production Speed	Max. 3,660 booklets/hr. (A4-Finish) / Max. 4,050 booklets/hr. (A5-Finish)
Voltage / Frequency	Single Phase 200 / 220 / 230 V, 50 / 60 Hz
Rated Current	Single Phase 200 V, 50 Hz, 1.5 A / 60 Hz, 1.6 A
	Single Phase 220 V, 50 Hz, 1.4 A / 60 Hz, 1.0 A
	Single Phase 230 V, 50 Hz, 1.3 A / 60 Hz, 1.4 A
Power Consumption	Single Phase 200 V, 50 / 60 Hz, 290 W
	Single Phase 220 V, 50 Hz, 280 W / 60 Hz, 220 W
	Single Phase 230 V, 50 Hz, 270 W / 60 Hz, 300 W
Heat Output	690 kJ (160 kcal)
Motors	400 W x 1 / 60 W x 1 / 25 W x 1
Noise Level	LA peak : 79.4 dB / LAeq : 72.8 dB
Machine Weight	240 kg (529.2 lbs.)

Machine Dimensions Unit : mm (inch)

VAC-100 Height = 1,962 (77.3")

Expansion Options Height = 1,962 (77.3")

VAC-100 Options

- C-TOWER KIT : CTK-100
- EXTRA AIR BLOWER : EAB-100
- HAND-MARRYING UNIT : HMU-100

The machine design and specifications are subject to change without any notice.