Compact Indexation Desk and Desk Suite

PRODUCT PROFILE

The compact indexation desk is an officelike furniture at which an operator enters by means of a keyboard the routing information read from letters.

- It serves to index up to 5.400 letters per hour with a line bar code and a pitch adjustable between bars to be chosen between 1.65 and 3 mm.

- It is designed for operator paced operation.

- It handles all letter sizes, ranging from a minimum of 90 mm x 140 mm (3 9/16 in x 5 1/2 in) up to a maximum of 162 mm x 255 mm (6 3/8 in x 10 in).

- It can be used in many configurations with various feed and presorting facilities, e.g. as a stand-alone desk with several outputs or as a desk of a suite with common evacuation.

- It meets exactly indexing and presorting requirements, made possible by the built-in microprocessor and monobit printer.

Installation and moving are easy; the desk is caster mounted and does not require to be built in an airconditioned room.

HIGHLIGHTS

The compact desk makes letter indexing economical, even in small Post Offices, as:

- It increases the overall efficiency of mechanization by increasing the machineable volume.

- It saves time by introducing more mail already indexed into the mechanized sorting offices.

- It eliminates the need to sort letters locally, the facility being available of allowing a basic presort to be made, e.g. own city, outgoing indexed, foreign and not to be indexed.

- It enables the use of any local ,,trap time''.

- It improves the bundle composition, sack filling and transport utilization by forwarding letters indexed in small offices to a large sorting office for sorting.

- It permits the decentralization of the indexation work, hence providing personnel with work in their home locality.

- It occupies no more floorspace than a normal manual sorting case.

For medium or large Post Offices:

- It is particularly suited when the high throughput of high performance desks cannot be fully exploited due to specific reasons, e.g. a lengthy or no postal code.

- It provides a means to cater to small increases required in indexation power in large sorting offices in order to economize on the need for additional high throughput indexation desk system.

The use of the small, highly reliable and low maintenance Bell monobit printer, of well proven circuits and of simple mechanics guarantees troublefree operation, which is particularly important for small offices.

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The ink ribbon can be mounted on any commercially available spool with the appropriate hub adaptor. The ribbon cost and consumption are reduced to the minimum. The use of a commercial width (13 mm) ink ribbon enables in most cases local sourcing to be found. The material used in the composition of the ink ribbon is completely harmless to human health.

The installation time is minimal due to packing and transport of assembled and in-plant tested modules.

MAIN FEATURES

- The operation of the desk, the Bell monobit printer and the stacker outputs are under control of a microprocessor.

- Microprocessor programme changes can be made on site by simply plugging in PROM (Programmed Read Only Memory) memory chips. The PROM memory chips can be programmed either on site, using a portable programming device, or in a maintenance center.

- A register mounted inside the desk keeps track of the ribbon consumption.

  The operator can easily change over or replace the ink ribbon and reset the register in order to restart the desk.

HUMAN ENGINEERING FEATURES

- All functions can be performed by the seated operator (letter pick-up, singling, coding and removal of letters from stackers).

- The keyboard is cable-connected; its position can easily be adjusted by the operator.

- The desk is provided with an adjustable armrest to avoid operator fatigue.

- The desk is suited for either right or left handed operators, by simply moving the keyboard and the armrest.

- The desk is provided with an ashtray and a recess for personal belongings.

POSTAL FEATURES

- The compact desk can print any line (uniform bar) index pattern, the total length of the index being limited only by the length of the shortest letter format.

- The compact desk can be used to print more than one index field, either in one pass or more through the desk (outgoing - incoming index).

- The built-in microprocessor can generate the index to be printed from the information received from the keyboard and can also be used for the selection of the output into which the letter is to be directed.

- In addition to the routing information, data such as: the desk or operator identification, the number or postal code of the originating office, the shift number, the date, etc., can be printed on the letter. Fixed data can be preprogrammed, while variable data can be introduced via the operator keyboard.

DESCRIPTION OF THE OPERATION

The desk is switched on into a stand-by status by means of one Yale key; on operating the cancel and restart key of the operator keyboard. all motors are started and the desk is ready for operation.

The desk is fed from a primary letter source (tray, trolley or reservoir stacker) from which the letters are placed and aligned into the presentation device.

The operator takes one letter at a time from the presentation device, reads the address or postal code, keys in the required information on the keyboard and drops the letter into the desk input slot. When the last information key or when the motorbar is operated, the letter is conveyed to the monobit printer where the letter is indexed (if required) while in continued motion.

The keying-in of the following letter can be performed during the print cycle of the previous one.

The transparent window checking position allows the operator to see the item and permits him to cancel already introduced information until last key or motorbar is operated.

Should the operator key in more information than required (keyboard overflow), a signal is given on the LED display; the operator then cancels the introduced information and simply introduces the correct information.

After leaving the monobit printer. the letter is conveyed into the appropriate stacker output.

When no more letters have to be indexed, the desk is switched off by means of one key.

In the event that a jam should occur in the print position. all motors are switched off and a signal is displayed on the LED display. The operator can, if required, open the appropriate cover of the desk to clear the jam. After closing the cover, the reset key will restart the desk.

CONFIGURATIONS

The compact desk configurations are built up from two standard building blocks of the compact desk. One of the blocks is used as stand-alone version, the other block can be combined with different standard inputs and outputs to offer a wide range of configurations.

Fig. 1
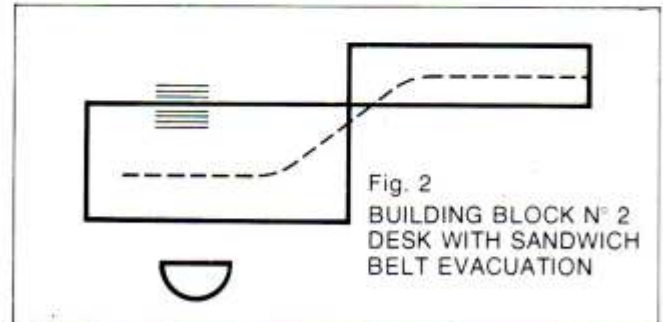BUILDING BLOCK N° 1
STAND ALONE DESK
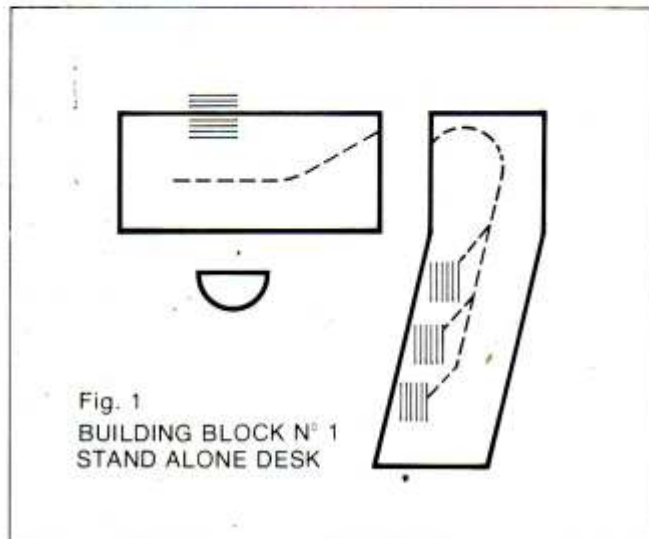
This building block is provided with a presentation device with 60 mm stacking capacity used as input by the operator.

The output module is provided with 3 output stackers of 90 mm each.

The desk operator performs the indexing function and also feeds the input stacker and sweeps the output stackers from and to the trays.

The stand-alone solution makes it possible to index the letters during the "trap time" in a small Post Office before their dispatch to a mechanized sorting office for further processing.

Fig. 2
BUILDING BLOCK N° 2
DESK WITH SANDWICH
BELT EVACUATION

This building block consists of one desk and a sandwich belt for evacuation.

Several desks can be arranged in a suite with synchronized common evacuation.

With synchronized evacuation the letters leave the sandwich belt singled.

A suite with synchronized evacuation (see figure 3) is an economical solution for centers with an indexing requirement of up to 15.000 letters/hour.

With this arrangement singled letters evacuation can be used directly for presorting in output stackers.

As shown in figure 3. suites may be built up to 5 desks in line. With a configuration of up to 5 desks. possible waiting times for the operators will be reduced to an unnoticeable level, even when each operator should reach an output of 3.000 letters/hour. If waiting time should occur, the print position will be used as waiting position.
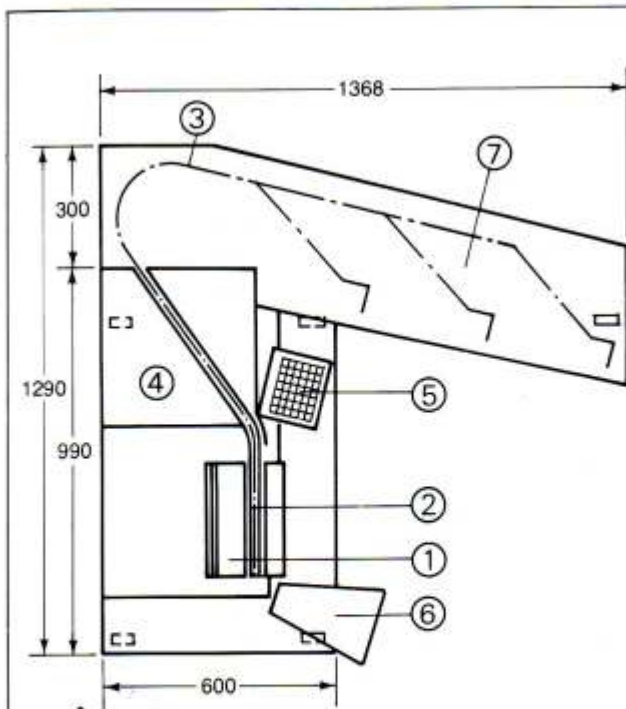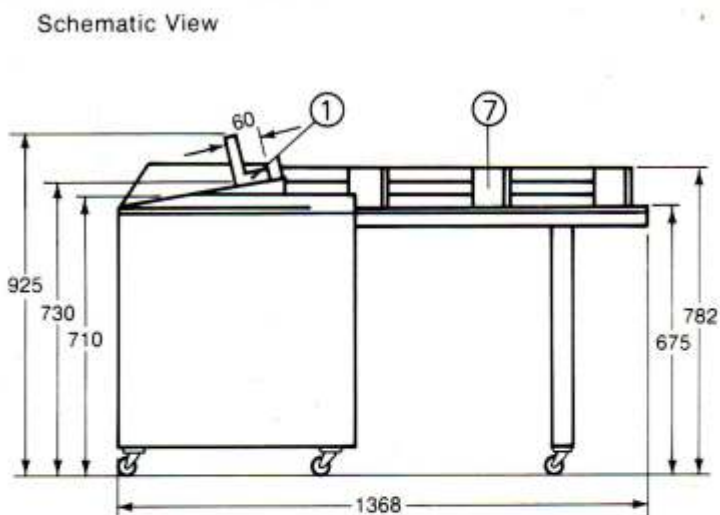

Fig. 3   SANDWICH BELT
SYNCHRONIZED EVACUATION
UP TO 5 DESKS

Schematic View
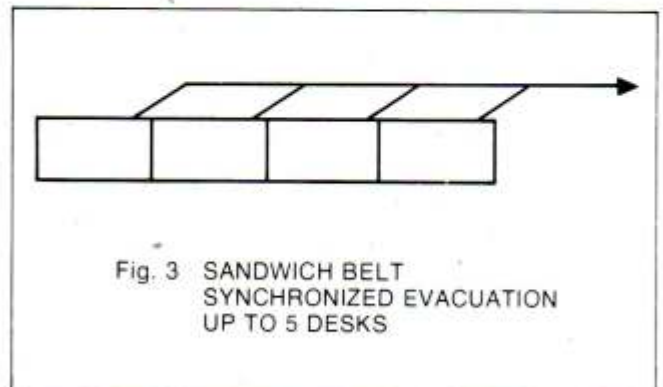
Fig. 4

Fig. 5

1 Letter Presentation Device
2 Letter Slot
3 Transport Channel
4 Monobit Printer
5 Operator Keyboard
6 Armrest
7 Stackers

PHYSICAL DATA

Length:

desk module and stacker output module:	1.290 m	(4 ft 2 25/32 in)
desk module:	0.99 m	(3 ft 3 in)
stacker output module (3 x 90 mm):	0.3 m	(11 13/16 in)

Width:

desk:	0.60 m	(1 ft 11 5/8 in)
stacker output module (3 x 90 mm):	1.368 m	(4 ft 5 1/8 in)

Height:

table top:	0.71 m	(2 ft 3 15/16 in)
keyboard (center):	0.73 m	(2 ft 4 3/4 in)
stacker output module (top) (3 x 90 mm):	0.782 m	(2 ft 6 13/16 in)
stacker letter travel:	0.675 m	(2 ft 2 9/16 in)

Weight:

desk module:	100 kg	(220 lbs)
stacker output module (3 x 90 mm):	50 kg	(110 lbs)

Power requirements

Voltage and frequency:	127 V or 220 V, 50 cycles per second 120 V or 208 V, 60 cycles per second
Voltage tolerance:	+10% —15%
Frequency stability:	±2%
Power factor:	$\cos \varphi \geqslant 0.8$
Consumption (average): - desk module plus stacker output module (3 x 90 mm)	425 W

Environmental conditions

Temperature: - operation:	from 10 tot 35°C (50 to 95°F)
- standstill:	from —40 to +70°C (—40 to 158°F)
Relative humidity: - operation:	from 10 to 90%
- standstill:	from 10 to 93%

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