

# T50

T50 is suitable for:

Sheets

B2/50x70 cm



# T50

# T50 – The all-purpose solution for the half-size format

The T50 is MBO's answer to wide-ranging customer requirements in the 50 x 70 cm half-size format. Equipped with the latest generation M1 machine control, it can be optimally configured for every application. The T50 offers more than simply the tried and trusted MBO standards such as the belt drive and the slitter shafts with plug bearings. Many of the high-end features of its "big

brothers" are also available as options. With a Vivas vacuum system, slitter shaft cassette and comprehensive automation options, it can be optimally tailored to any job requirements. It features a valuable equipment level as standard, including an intuitive operation touchscreen and marking-free sheet alignment via high-speed guides in the second folding unit.



Automated T50 with continuous feeder and folding unit II.

## Even greater variability with the X-folding unit

The X50 mobile X-folding unit expands the folding type range of the T50 and allows additional crossfolds and special folding types to be produced. The knife is pneumatically driven and features particularly low wear-off. The X-folding unit is height adjustable and can therefore be used as a second or third folding unit. Rear slitter shafts incorporated as standard are positioned parallel to the folding knife and open up further application options. Gatefold brushes available as optional equipment can be used to produce closed gatefolds. To achieve this, the X-folding unit is used as a third folding unit.



X-folding unit X50

# Features

## Machine control

### Standard feature:

- Machine control M1 Basic with touchscreen

### Additional features with machine control M1 Basic:

- RAS Remote Access Software
- Datamanager 4.0 with limited functionality (only available in conjunction with RAS Remote Access Software)

### Alternative feature:

- Machine control M1 Advanced with touchscreen and RAS Remote Access Software

### Additional feature with machine control M1 Advanced:

- Datamanager 4.0

## Feeder

### Standard features:

- Pile feeder
- Sheet infeed and sheet alignment with suction wheel and ball rail

### Alternative features:

- Continuous feeder
- Vivas (Vacubelt and Vacutable)

### Additional features:

- Feeder head Vacustar in the pile feeder
- FLS feeder loading system in the pile feeder
- Small format device in the pile feeder

## Folding unit I

### Standard features:

- 4 buckle plates
- 1<sup>st</sup> buckle plate with swing deflector and continuous sheet stop
- 2<sup>nd</sup>-4<sup>th</sup> buckle plate with swing deflector
- Spiral fold rollers with hard PU
- Single rear slitter shafts
- Perforating-, scoring- and cutting devices for standard jobs
- Transfer table
- Maintenance and noise-free belt drive
- Two-part sound insulation unit

### Alternative features:

- 6 buckle plates
- 2<sup>nd</sup>-4<sup>th</sup> (optionally up to 6<sup>th</sup>) buckle plate as combination buckle plates
- Virotec fold rollers

### Additional features:

- Gatefold plate
- Slitter shaft cassette for single rear slitter shafts
- Various slitter shaft accessories, for example gully cut device, edge trim device, punch perforating device, multiple perforation device, etc.
- Glue fold device

## Folding unit II

### Standard features:

- 4 buckle plates
- 1<sup>st</sup> buckle plate with swing deflector and continuous sheet stop
- 2<sup>nd</sup>-4<sup>th</sup> buckle plate with swing deflector
- Spiral fold rollers with hard PU
- Single rear slitter shafts
- Perforating-, scoring- and cutting devices for standard jobs
- High-Speed-Guide
- Transfer table
- Maintenance and noise-free belt drive
- Two-part sound insulation unit

### Alternative features:

- 6 buckle plates
- 2<sup>nd</sup>-4<sup>th</sup> (optionally up to 6<sup>th</sup>) buckle plate as combination buckle plates
- Virotec fold rollers

### Additional features:

- Gatefold plate (only with machine control M1 Advanced)
- Various slitter shaft accessories, for example gully cut device, edge trim device, punch perforating device, multiple perforation device, etc.

## X-folding unit

### Standard features:

- X-folding unit with pneumatic knife
- Spiral fold rollers with hard PU
- Single rear slitter shafts
- Perforating-, scoring- and cutting devices for standard jobs

### Additional features:

- Lateral fine adjustment of the entire knife unit
- Gatefold brushes for producing a closed gatefold (can only be used when the X-folding unit is used as folding unit III)
- Edge trim device

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## Optional automation with machine control M1 Advanced

- Buckle plates, sheet deflectors and fold rollers in folding unit I and II
- Slitter shaft settings in folding unit I and II (only possible if no slitter shaft cassette is present)



### Machine control M1 Basic with touchscreen

#### Standard feature

The first folding unit of the T50 with machine control M1 Basic is equipped with a touchscreen. The screen diagonal is 10.1". In addition, the first folding unit is equipped with sheet monitoring by means of optical sensors. Basic functions such as "Start," "Stop" and "Production" can be carried out at the subsequent folding units with machine control M1 Basic. The speed of the folding units is set manually.

A router for the RAS Remote Access Software is optionally available. This is a prerequisite for the optional Datamanager 4.0. In connection with the machine control M1 Basic, the Datamanager 4.0 has limited functions.



### Machine control M1 Advanced with touchscreen

#### Alternative feature

The machine control M1 Advanced can be operated from any folding unit. The screen diagonal of the adjustable touchscreen on folding unit I is 15.6" and on folding unit II 10.1".

The operator is optimally supported when setting up a new job. Common standard folding impositions are preconfigured in "Quick Mode". Every technically possible and sensible variant can be put together in "Expert Mode". In addition, optimal sheet gaps and speeds are automatically calculated and set in all folding units. In addition, the machine control M1 Advanced features sheet monitoring across all folding units. This includes sheet length control and sheet-monitoring using sensors.

The control includes a router for RAS Remote Access Software. The machine control M1 Advanced is also compatible with the Datamanager 4.0, a software package for production planning and analysis. Among other things, Datamanager 4.0 contains a folding imposition catalogue which supports the user during set-up.



### **Vivas (Vacubelt and Vacutable)**

Alternative feature

Vivas ensures reliable flat sheet infeed and optimum sheet run with high throughput capacity. The Vivas vacuum system replaces the standard suction wheel and the ball rails. Vivas also guarantees no marks, even with delicate and freshly printed products. The vacuum of the suction belt can be adjusted infinitely for the corresponding paper quality during ongoing production and saved (with machine control M1 Advanced).



### **Feeder head Vacustar in the pile feeder**

Additional feature

The Vacustar feeder head offers exceptional ease of operation. Based on the suction principle, it ensures reliable separation of the sheets. The height of the feeder head is adjusted automatically. The Vacustar is ideal for medium-sized formats and small print runs achieving a frequency of up to 60,000 cycles per hour.



### **Virotec fold rollers**

Alternative feature

The Virotec fold rollers are the MBO "all-rounders". They consist of alternating metal and special PU segments that are offset against one another. Virotec fold rollers permit very good fold quality – even with challenging materials, such as recycled or thin printing papers, and at high folding speeds.



### **Slitter shaft cassette for single rear slitter shafts**

Additional feature in folding unit I

The slitter shaft cassette is removable. At the ergonomically ideal height, all tools and strippers can be adjusted quickly and precisely, outside the machine. This means the operator does not have to lean inside the machine and can work in ergonomic comfort. The slitter shaft cassette also contributes to a reduction in set-up time of up to 60%, for example in multi-up production.



### **High-Speed-Guide**

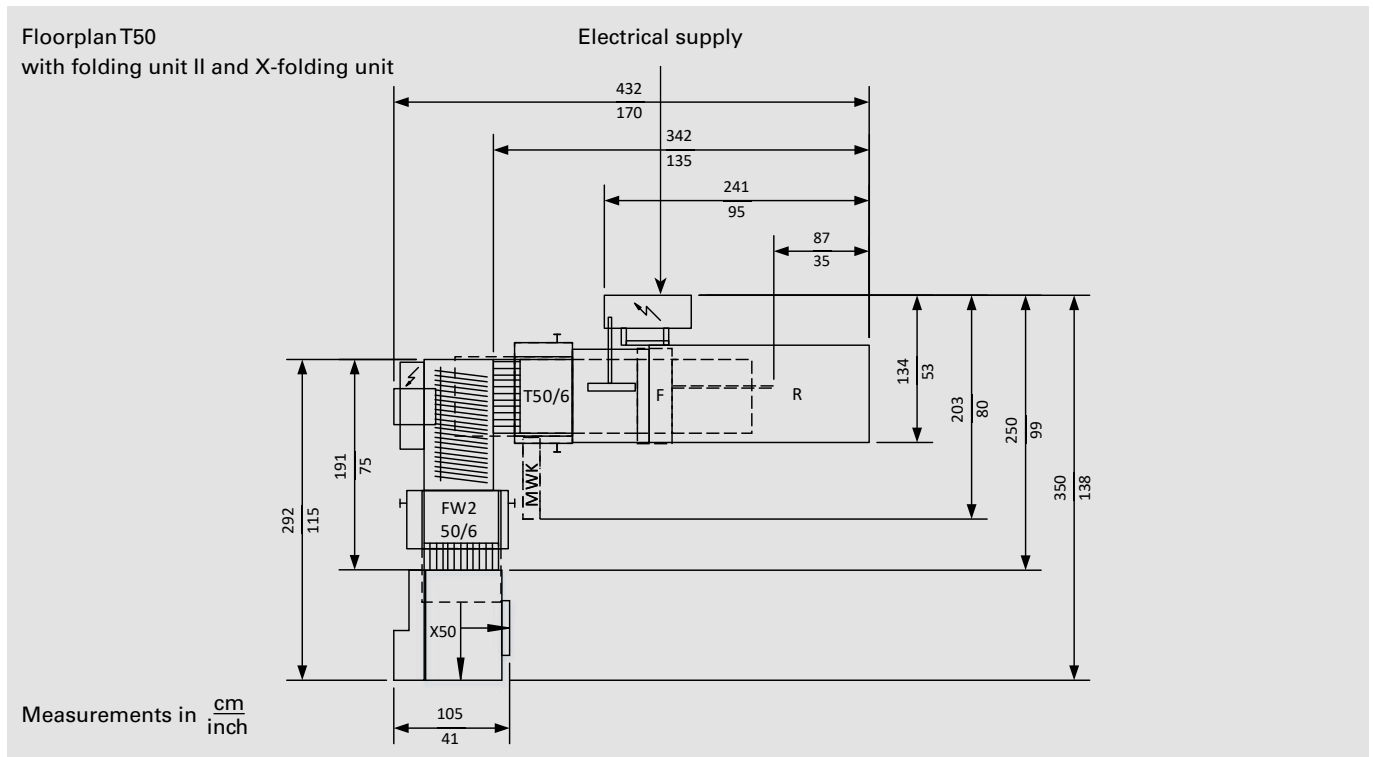
Standard feature in folding unit II

Thanks to the conical rollers, the High-Speed-Guide guarantees absolutely safe sheet transport, even at high speeds. Due to the non-slip drive of the folding products markings can be ruled out, even if sensitive products are processed.

# Technical specifications

|   |   | T50 – F<br>(Pile feeder)  |                         | T50 – R<br>(Continuous feeder) |               | Folding unit II 50   |        | X-folding unit X50   |        |
|---|---|---------------------------|-------------------------|--------------------------------|---------------|----------------------|--------|----------------------|--------|
|   |   | cm                        | inch                    | cm                             | inch          | cm                   | inch   | cm                   | inch   |
| <b>Pile height</b>  | max.  | 65.0                      | 25 5/8                  | –                              | –             | –                    | –      | –                    | –      |
| <b>Infeed width</b>                                       | min.  | 15.0 (10.5 <sup>1</sup> ) | 6 (4 1/8 <sup>1</sup> ) | 15.0                           | 6             | –                    | –      | 15.0                 | 6      |
|   | max.  | 53.0                      | 20 7/8                  | 53.0                           | 20 7/8        | 51.0                 | 20 1/8 | 57.0                 | 22 3/8 |
| <b>Infeed length</b>                                      | min.  | 15.0 (10.5 <sup>1</sup> ) | 6 (4 1/8 <sup>1</sup> ) | 18.0                           | 7             | –                    | –      | 10.0                 | 4      |
|   | max.  | 84.0                      | 33 1/8                  | 84.0 (100.0)                   | 33 1/8 (40.0) | –                    | –      | 41.0                 | 16 1/8 |
| <b>Folding length</b>                                     | min.  | 3.6                       | 1 3/8                   | 3.6                            | 1 3/8         | 3.6                  | 1 3/8  | –                    | –      |
| <b>Number of buckle plates</b>                            |   | 4 or 6                    |                         | 4 or 6                         |               | 4 or 6               |        | –                    |        |
| <b>Fold roller diameter</b>                               |   | mm                        | inch                    | mm                             | inch          | mm                   | inch   | mm                   | inch   |
|   |   | 39.7                      | 1 1/2                   | 39.7                           | 1 1/2         | 39.7                 | 1 1/2  | 40.0                 | 1 1/2  |
| <b>Slitter shaft diameter</b>                             |   | 30.0                      | 1 1/8                   | 30.0                           | 1 1/8         | 30.0                 | 1 1/8  | 30.0                 | 1 1/8  |
| <b>Product thickness at exit<br/>(thicker on request)</b> | max.  | 1.5                       | 1/16                    | 1.5                            | 1/16          | 1.8                  | 1/16   | 2.5                  | 1/16   |
| <b>Speed</b>  | min.  | 30 m/min (98 fpm)         |                         |                                |               |                      |        |                      |        |
|   | max.  | 230 m/min (755 fpm)       |                         |                                |               | 205 m/min (670 fpm)  |        | 180 m/min (590 fpm)  |        |
| <b>Electrical supply</b>                                  | M1 Basic<br>(3x400V 50/60 Hz<br>3x220V 50/60 Hz)    | 4.7 kVA<br>max. 63 A      |                         | 4.5 kVA<br>max. 63 A           |               | 0.9 kVA<br>max. 32 A |        | 0.9 kVA<br>max. 32 A |        |
|   | M1 Advanced<br>(3x400V 50/60 Hz<br>3x220V 50/60 Hz) | 4.7 kVA<br>max. 63 A      |                         | 4.5 kVA<br>max. 63 A           |               | 0.9 kVA<br>max. 32 A |        | –                    |        |

<sup>1</sup>With small format device; for machines without feeder head Vacustar this is the standard minimum format



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