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MBO
KOMORI Group

Combi Folder For
B1 Sheets (70 x 100 cm)

# K8RS

# K8RS – THE FASTEST FOLDING MACHINE IN THE WORLD

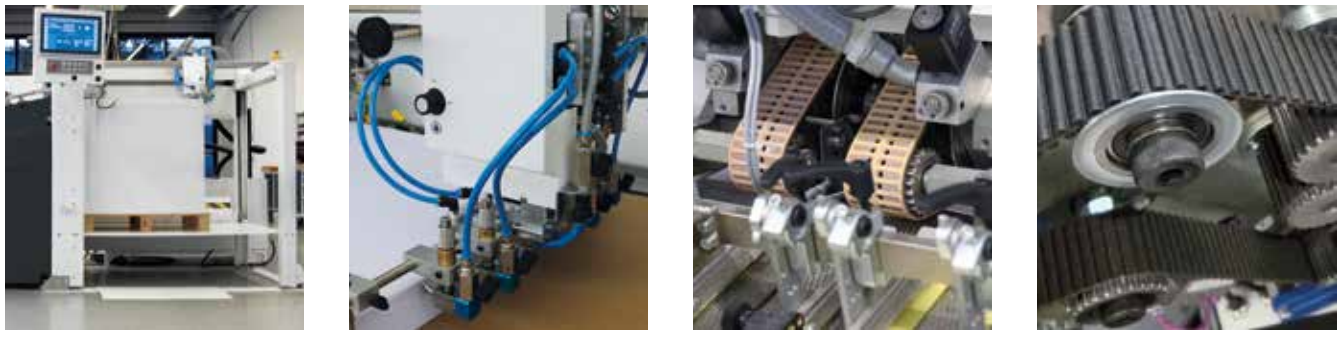
The K8RS is the frontrunner among the MBO combi folding machines. Based on the high-performance K8, the K8RS is trimmed for peak productivity. In addition, it features valuable, performance-optimising enhancements which not only allow the outstanding production speed of the folding machine but also guarantee the highest production quality and stability.

The K8RS shares all the advantages of the K8. The slitter shaft cassette, swinging up cross fold area and extendible three-fold area ensure ideal convenience of operation and extremely short set-up times. Wide-ranging automation options and a knife folding area which can be configured as required round off the possibilities offered by the K8RS. These features make the K8RS the perfect solution for the widely varying requirements of large and medium-sized print runs. With high-performance peripheral units such as the CoBo-Stack stacking robot, MBO also offers equipment for the entire delivery area after the folding process.

Automated K8RS with closed (left) and open (right) knife fold area.

**The RS makes the difference**

The valuable upgrades which are provided as standard and increase productivity and production stability are what distinguish the K8RS. The palletized feeder of the K8RS can process pile heights of up to 130 cm (51 1/4") – 10 cm (4") more than the feeder of the K8 and K80. The sheets are separated from the paper stack by the newly developed Vacujet RS feeder head. The sheets are then transferred to the double vacubelt sheet infeed system, which has two parallel suction belts and accelerates the sheets to production speed within a very short time. Heavy-duty timing belts and particularly powerful motors allow the K8RS to achieve speeds of up to 275 metres per minute (902 fpm).



Some of the standard features of the K8RS, from left to right: Palletized feeder, feeder head Vacujet RS, double vacubelt and timing belt drive in the parallel fold.

# K8RS IN COMPARISON

In addition to the K8RS, the MBO range includes three further combi folding machines for the B1 / 70 x 100 cm format range: the K70, the K80 and the K8.

### K70

The K70 is the entry-level model from MBO. It is slightly slower than the other three models. The K70 is available as a manual machine and scores points with its very good price/performance ratio.

### K80

The K80 machine offers extreme ease of operation. It has a comprehensive standard configuration and several automation options. It is just as fast as the K8.

### K8

In comparison with the K80, the K8 has further integrated features which boost both the performance and convenience of operation of the machine.

| | | K70 | K80 | K8 | K8RS |
|---|---|---|---|---|---|
| **Feeders** | Pile feeder | ✓ | – | – | – |
| | Palletized feeder | ✓ | ✓ | ✓ | ✓ |
| | Continuous feeder | ✓ | ✓ | ✓ | – |
| **Parallel fold** | 4 buckle plates | ✓ | ✓ | ✓ | ✓ |
| | 6 buckle plates | ✓ | ✓ | ✓ | ✓ |
| | Slitter shaft cassette | – | ✓ | ✓ | ✓ |
| **Cross fold / three-fold** | KL configuration | ✓ | – | – | – |
| | Super-KTL configuration | ✓ | ✓ | ✓ | ✓ |
| | Super-KTLT configuration | – | – | ✓ | ✓ |
| | Super-KTZ configuration | – | – | ✓ | ✓ |
| | Sheet stop in the cross fold as sheet ejection | – | – | ✓ | ✓ |
| **Optional automation** | Buckle plate, sheet deflector and fold roller settings | – | ✓ | ✓ | ✓ |
| | Slitter shaft settings in the cross fold and three-fold | – | ✓ | ✓ | ✓ |
| | Cross fold knife length adjustment | – | – | ✓ | ✓ |
| | Sheet stop adjustments in the cross fold and three-fold | – | – | ✓ | ✓ |
| **Production speed** | | 210 m/min (689 fpm) | 230 m/min (755 fpm) | 230 m/min (755 fpm) | 275 m/min (902 fpm) |

Watch video:

Automated K80 with palletized feeder.

Automated K8 with palletized feeder.

# FEATURES

## MACHINE CONTROL

**Standard features:**
+ M1 Advanced machine control with touchscreen
+ RAS Remote Access Software

**Additional feature:**
+ Datamanager 4.0

## FEEDER

**Standard features:**
+ Palletized feeder with feeder head Vacujet RS
+ Vivas (Double Vacubelt and Vacutable)

**Additional feature:**
+ Small format device in the palletized feeder

## PARALLEL FOLD

**Standard features:**
+ 4 buckle plates
+ 1st buckle plate with swing deflector and continuous sheet stop
+ 2nd–4th buckle plate with swing deflector
+ Virotec fold rollers
+ Slitter shaft cassette for single rear slitter shafts
+ Perforating-, scoring- and cutting devices for standard jobs
+ Maintenance and noise-free timing belt drive
+ Noise damping and safety device

**Alternative features:**
+ 6 buckle plates
+ 2nd–4th (optionally up to 6th) buckle plate as combination buckle plates

**Additional features:**
+ Gatefold plate
+ Various slitter shaft accessories, for example gully cut device, edge trim device, punch perforating device, multiple perforation device, etc.

## CROSS FOLD / THREE-FOLD

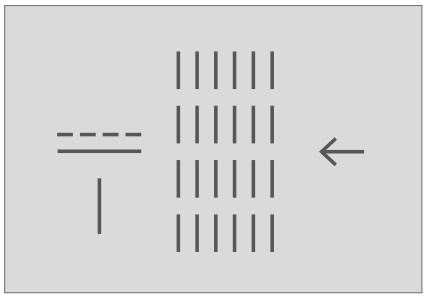
**Standard features:**
+ Vacuknife cross fold knife with adjustable length
+ Super-KTL configuration
+ 1 buckle plate with swing deflector
+ Vacuknife three-fold knife
+ Spiral fold rollers with hard PU
+ Slitter shafts in the cross fold and three-fold
+ Swing-up cross fold area
+ Slide-out three-fold area
+ Cross fold sheet stop for ejection of waste paper, including ultrasonic double sheet detector
+ Perforating-, scoring- and cutting devices for standard jobs
+ Maintenance and noise-free belt drive

**Alternative features:**
+ Super-KTLT configuration
+ Super-KTZ configuration
+ 1 combination buckle plate (with Super-KTLT configuration up to 2 combination buckle plates)
+ Virotec fold rollers

**Additional feature:**
+ Various slitter shaft accessories, for example gully cut device, edge trim device, punch perforating device, multiple perforation device, etc.

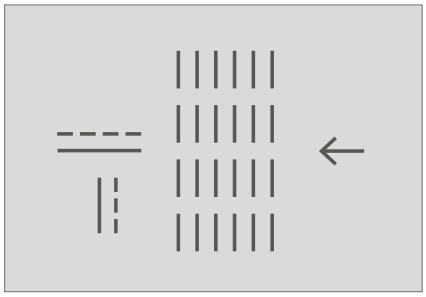
## OPTIONAL AUTOMATION

+ Buckle plate, sheet deflector and fold roller settings in the parallel fold / cross fold / three-fold
+ Slitter shaft settings in the cross fold / three-fold
+ Cross fold knife length adjustment and sheet stop adjustments in the cross fold / three-fold



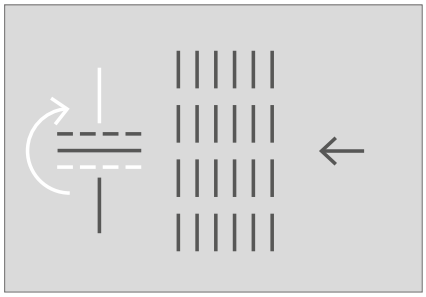
**Super-KTL configuration** Standard feature

In the Super-KTL configuration, you can get a wider range of folding types out of your machine. This configuration has a buckle plate downstream of the cross fold knife (first knife). This allows an additional fold to be realised parallel to the knife fold. Depending on the format, this can be a roll fold or a zig-zag fold. In addition, the sheet runs through a full pair of slitter shafts after the buckle plate.



**Super-KTLT configuration** Alternative feature

In the Super-KTLT configuration there is also an additional buckle plate after the three-fold knife (second knife) for the application of even more folding styles. The Super-KTLT configuration replaces a cost-intensive buckle folding unit with a large space requirement when folding 32 pages in double-up production. And of course, there is also a full pair of rear slitter shafts after the buckle plate in the three-fold area.



**Super-KTZ configuration** Alternative feature

The Super-KTZ configuration combines the configurations KZ and Super-KTL and, therefore, the folding style ranges of two machines in one. The complete cross fold and three-fold section (except for the cross fold knife) can be swivelled a full 180 degrees from left to right without much effort and with least expenditure of time.

**M1 Advanced machine control with touchscreen** Standard feature

The M1 Advanced machine control can be operated from any folding unit. The screen diagonal of the adjustable touchscreen is 15.6". 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 the entire machine. The M1 Advanced machine control also features sheet monitoring across all folding units. This includes sheet length control and sheet-monitoring using sensors.

The control includes a router for the RAS remote maintenance software. The M1 Advanced machine control 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.

**Palletized feeder** Standard feature

The new palletized feeder is equipped with improved air routing, which means increased productivity. Thanks to the regulated, high-performance pressure vacuum pump, energy consumption is lower than that of previous models. The new pump also has a ventilated noise insulation device. The palletized feeder is suitable for processing pallets directly from the printing press. It is ideal for processing large runs with one-person operation.

**Feeder head Vacujet RS in the palletized feeder** Standard feature

The newly developed feeder head Vacujet RS offers exceptional ease of operation. It achieves a frequency of up to 25,000 cycles per hour. The Vacujet RS is also equipped with a new high-performance pressure-vacuum pump which regulates the air supply not continuously, but as required. This environmentally friendly solution consumes less than 50% of the energy compared to conventional pumps.

**Vivas (Double Vacubelt and Vacutable)** Standard feature

Vivas ensures reliable flat sheet infeed and optimum sheet run with high throughput capacity. It also guarantees no marks, even with delicate and freshly printed products. The new Double Vacubelt is equipped with four valves, which means increased suction power. The vacuum of the suction belt can be adjusted infinitely for the corresponding paper quality during ongoing production.

**Maintenance and noise-free timing belt drive and belt drive** Standard feature

The tried and trusted MBO belt drive guarantees exceptionally quiet running and is virtually maintenance-free. Self-tensioning elements make testing and readjustment unnecessary. The functionality is monitored via the machine control. Low ongoing and operating costs make the MBO belt drive an exceptionally efficient long-term solution. The timing belt which drives the parallel fold of the K8RS guarantees slip-free running even at maximum speeds.

**Slitter shaft cassette for single rear slitter shafts** Standard feature

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 therefore permits a one-person operation. It also contributes to a reduction in set-up time of up to 60 %, for example in multi-up production.

**Vacuknife** Standard feature

The pneumatic drive allows a frequency of 40,000 cycles/h for the Vacuknife. The knife is led double-sided across the complete knife width and is driven linearly – therefore, the sheet is permanently led until it is delivered to the fold rollers and folded exactly at the specified spot. Moreover, the cross fold knife can be moved horizontally. Therefore, small formats with small sheet gaps can also be processed. The result: A higher output.

**Cross fold sheet stop for ejection of waste paper** Standard feature

The sheet stop in the cross fold can be used as a waste paper ejector. Double or heavily misfolded sheets are ejected during production without interruption of the production flow. Immediately after the ejection the waste paper ejector closes again and the production is continued without any disturbance. Track-keeping tooth belts ensure optimal transportation of sheets.

**Easily accessible cross fold and three-fold areas** Standard feature

The cross fold area can be swung up and the three-fold area can be extended. This allows free access to the fold-rollers and slitter shafts, facilitating setting and cleaning as well as the removal of paper.

**CoBo-Stack**

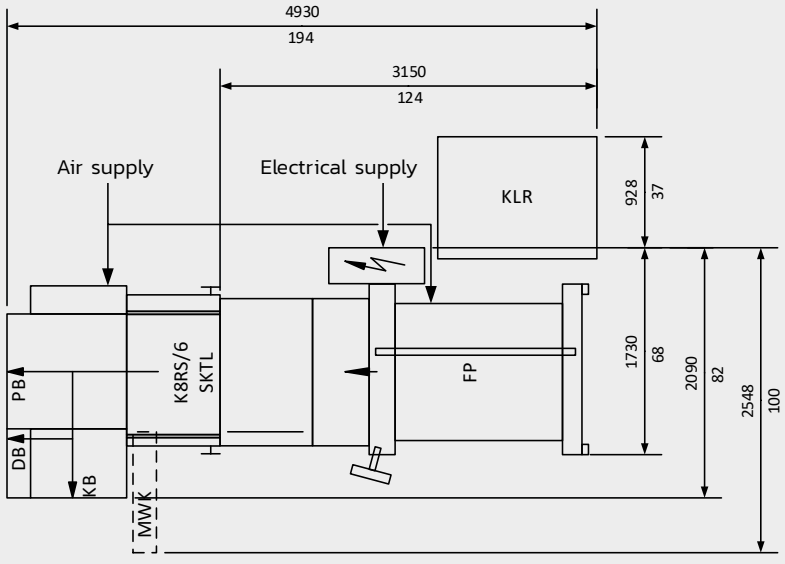
The K8RS is significantly upgraded with the CoBo-Stack collaborative stacking robot. The robot sets down folded signature stacks from the delivery onto the pallet. This relieves the operator of physical strain and allows him to take care of administrative tasks such as quality control or preparation for the next job. With the CoBo-Stack the performance of the folding machine can be utilised to the full and is no longer limited by the human factor. The CoBo-Stack is retrofittable to existing deliveries of type MBO A500, A700 and A80.

# TECHNICAL SPECIFICATIONS

| | | K8RS – FP (Palletized feeder) | | Cross fold | | Three-fold | |
|---|---|---|---|---|---|---|---|
| | | mm | inch | mm | inch | mm | inch |
| **Pile height** | **max.** | 1,300 | 51 1/4 | – | – | – | – |
| **Infeed width** | **min.** | 250 | 9 7/8 | 150 | 6 | 150 | 6 |
| | **max.** | 780 | 30 11/16 | 780 | 30 11/16 | 530 | 20 6/7 |
| **Infeed length** | **min.** | 250 (170[1]) | 9 7/8 (6 11/16[1]) | 100 | 4 | 100 | 4 |
| | **max.** | 1,200 | 47 1/4 | 530 | 20 6/7 | 390 | 15 1/4 |
| **Folding length** | **min.** | 60 | 2 3/8 | – | – | – | – |
| **Anzahl Falztaschen** | | 4 or 6 | | 1 | | 0 or 1 | |
| **Fold roller diameter** | | 43.7 | 1 3/4 | 43.7 | 1 3/4 | 43.7 | 1 3/4 |
| **Slitter shaft diameter** | | 35.0 | 1 3/8 | 35.0 | 1 3/8 | 35.0 | 1 3/8 |
| **Product thickness at exit (thicker on request)** | **max.** | 2.0 | 1/16 | 2.8 | 3/32 | 3.0v | 1/8 |
| **Speed** | **min.** | 30 m/min (98 fpm) | | | | | |
| | **max.** | 275 m/min (902 fpm) | | | | | |
| **Electrical supply** | **M1 Advanced (3 x 400 V 50/60 Hz 3 x 220 V 50/60 Hz)** | 9.3 kVA max. 63 A | | – | | – | |
| **Compressed air supply** | | 16 m³/h 6 bar | | | | | |

[1] With small format device

Floorplan K8RS with
Super-KTL configuration




Measurements in $\frac{\text{mm}}{\text{inch}}$

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