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T 1420 Perfection

The ultimate benchmark in large format



T 1420 P4/4/4 with MABEG palletised feeder, NAVIGATOR Control, folding unit III with RFE sheet return unit, delivery SBAP82ME

Tailor-made folding solution

Buckle folding machines by MBO convince with their universal application range and unique bandwidth of folding types.

All models of the Perfection series basically stand for the highest possible folding performance and maximum output. MBO folding machines and features are orientated on the users – both regarding practical requirements and the variety of the paper medium. Convenience plays a major role. The simpler the processes and workflows, the more efficient becomes production. With their high performance and excellent quality, the T 1420 Perfection provides the ideal preconditions for highest productivity.

A broad range of folding types guarantee that the Perfection models live up to their names.

The equipment features of our folding machines have been especially designed for the purpose of their application. We never rest on our well-proven product development achievements but always try to recognise new requirements as early as possible. Ideally soon enough to offer you a solution before you even face the problem. Some of these special solutions can be found on the T 1420 Perfection.

Unique handling comfort in large format

MULTIPLATE buckle folds

All setting elements like the folding length, position and pretensioning of the lower plate lip, inner width and clamping of the buckle plates are installed on the operator side, thus ensuring both ergonomic and efficient handling for the operator. In order to be able to quickly and comfortably swing the deflectors, the T1420 Perfection

is equipped with pneumatic cylinders which automatically regulate the retraction and extension movements. Therefore, "winding out" the buckle folds is a thing of the past. The through sheet stop ensures that the sheet lies exactly against the stop and is not deformed.



Slitter shaft cassette MWK

The slitter shaft cassette of the Perfection series can be drawn out and reduces changeover times of one of the most time-consuming working steps, the positioning of the knives, to a minimum, thus ensuring clearly faster availability. In an ergonomically favourable height, the cassette can be easily and quickly drawn out on the operator side. In this position, the slitter shafts can be easily charged or a prepared pair of slitter shafts can be conveniently inserted – without the dangerous reaching into the machine on combination folding machines, without to circle around the machine a couple of times, without shifting the subsequent folding unit on buckle folding machines. The scale on the cassette allows the precise adjustment and positioning of the knives. Ideally suited for repeat jobs since the position of the knife can be reproduced.



As convincing as the performance features: The folding results



Top quality at top speed

MBO Perfection models are the only buckle folding machines worldwide operating without the "ball" transport system which is very susceptible to markings. In order to reliably avoid markings even for high throughput speeds, MBO applies the innovative vacuum infeed and alignment system VIVAS, as well as patented HIGH-SPEED-GUIDE conical rollers.

Impressive standard equipment and effective extensions

The Perfection series features unique MBO systems, many years of experience of developing and optimising folding processes and the typical user-friendliness MBO is renowned for. With its excellent basic design and a large variety of extension options, the Perfection series is open for any solution.

Whether it is a higher output due to the double stream device, the increase of capacity by means of special deliveries, more convenience for the operator because of the NAVIGATOR Control or the RFE sheet return device patented by MBO which reduces the distance between the feeder and the delivery by 80% compared to standard production lines.

Versions and technical data

Machine / Unit	T 1420 - MABEG		T 1420 - MABEG		Folding unit II 1121		Folding unit III 821	
	M 6/1650		M 6/2050					
Feeder	cm	inch	cm	inch	cm	inch	cm	inch
Infeed width	min	60,00	23 5/8	60,00	23 5/8	–	–	–
	max	142,00	55 7/8	142,00	55 7/8	110,00	43 1/4	80,00
Infeed length	min	50,00	19 5/8	90,00	35 3/8	–	–	–
	max	165,00	65	205,00	80 3/4	–	–	–
Folding length	min	10,00	3 7/8	10,00	3 7/8	7,00	2 3/4	6,00
NIRO buckle plates								
Buckle plate 1	max	94,00	37	94,00	37	–	–	–
Buckle plate 2	max	64,00	25 1/4	64,00	25 1/4	–	–	–
Buckle plate 3	max	64,00	25 1/4	64,00	25 1/4	–	–	–
Other buckle plates	max	64,00	25 1/4	64,00	25 1/4	–	–	–
Combiplates								
Buckle plate 1	max	–	–	–	–	85,00	33 1/2	45,00
Buckle plate 2	max	–	–	–	–	66,00	26	45,00
Buckle plate 3	max	–	–	–	–	45,00	17 3/4	45,00
Other buckle plates	max	–	–	–	–	45,00	17 3/4	45,00
Number of buckle plates	min	4		4		4		2
	max	4		4		6		4
	mm	inch	mm	inch	mm	inch	mm	inch
Fold roller diameter	max	58,00	2 1/4	58,00	2 1/4	49,50	2	43,70
Slitter shaft diameter	max	60,00	2 3/8	60,00	2 3/8	60,00	2 3/8	35,00
Product thickness at exit (thicker on request)	max	2,00	1/8	2,00	1/8	2,00	1/8	2,00
		m/min	inch/min	m/min	inch/min	m/min	inch/min	m/min
Speed	min	30	1181	30	1181	30	1181	30
	max	160	6299	160	6299	130	5118	160
Control	NAVIGATOR Control, electronically adjustable							

Machine / Unit	Folding unit III 821 RFE		Folding unit III 781		Folding unit III 781 RFE		Folding unit IV 561	
	cm	inch	cm	inch	cm	inch	cm	inch
Infeed width	min	–	–	–	–	–	–	–
	max	80,00	31 1/2	76,00	29 7/8	76,00	29 7/8	54,00
Infeed length	min	–	–	–	–	–	–	–
	max	–	–	–	–	–	–	–
Folding length	min	6,00	2 3/8	6,00	2 3/8	6,00	2 3/8	6,00
NIRO buckle plates								
Buckle plate 1	max	–	–	–	–	–	–	–
Buckle plate 2	max	–	–	–	–	–	–	–
Buckle plate 3	max	–	–	–	–	–	–	–
Other buckle plates	max	–	–	–	–	–	–	–
Combiplates								
Buckle plate 1	max	45,00	17 3/4	43,00	16 7/8	43,00	16 7/8	31,00
Buckle plate 2	max	31,00	12 1/4	43,00	16 7/8	31,00	12 1/4	26,00
Buckle plate 3	max	45,00	17 3/4	43,00	16 7/8	43,00	16 7/8	–
Other buckle plates	max	26,00	10 1/4	31,00	12 1/4	21,00	8 1/4	–
Number of buckle plates	min	2		2		2		2
	max	4		4		4		2
	mm	inch	mm	inch	mm	inch	mm	inch
Fold roller diameter	max	43,70	1 3/4	43,70	1 3/4	43,70	1 3/4	43,70
Slitter shaft diameter	max	35,00	1 3/8	35,00	1 3/8	35,00	1 3/8	35,00
Product thickness at exit (thicker on request)	max	2,00	1/8	2,00	1/8	2,00	1/8	2,00
		m/min	inch/min	m/min	inch/min	m/min	inch/min	m/min
Speed	min	30	1181	30	1181	30	1181	30
	max	160	6299	160	6299	160	6299	160
Control	NAVIGATOR Control, electronically adjustable							

Standard equipment and options

Equipment:

- NAVIGATOR Control with TOUCHSCREEN
- MABEG palletised feeder M6/1650
- AIRSTREAM double alignment table
- Sheet alignment by Vacutable
- 4 MULTIPLATE folding buckles with swing deflectors (folding unit I)
- COMBIPLATE combination folding buckles
- Low maintenance and low noise belt drive
- Ring folding rollers with Soft PU-roller coating (folding unit I)
- Scoring, perforating and cutting devices for standard operations
- Slitter shaft cassette MWK for single rear slitter shafts with plug bearings
- Transfer table with double sheet and misfolded sheet ejection
- HIGH-SPEED-GUIDE

Alternative/Additional Equipment:

- DATA MANAGER
- MABEG palletised feeder M6/2050
- MBO ramp
- Slitter shaft cassette MWK (folding unit II and III)
- Noise insulation unit
- HIGH-GRIP spiral fold rollers
- Strip cutting device
- Special and edge trimming device
- Multiple perforation unit
- Punch perforation unit
- Divided hard metal slitters (punching and V perforation), emptying and recharging of the slitter shafts no longer required
- Double stream unit with upwards folding conveyor table
- Three-directional stream unit (folding unit II)
- Sheet return unit RFE (folding unit III)
- Pre-slitter shafts (folding unit II)
- Various peripheral units
- Various deliveries
- Automation RAPIDSET
 - Sidelay
 - Buckle plates and deflectors

And all our passion for folding



Your benefits at a glance:

- Unique MBO features make the handling of large formats easier and faster, allowing the machine to be operated by one person only
- Double stream, RFE and automation allow shorter set-up times and a more efficient production, thus making you considerably more productive and competitive when working with the T 1420 Perfection



■ Double stream



■ Slitter shaft cassette MWK



■ MULTIPLATE

MBO Features



Ejection device

The ultra-sonic and sheet monitoring sensors detect double and misfolded sheets during production and eject them after the first folding unit. The deflector opens, ejects the faulty sheets and closes again – automatically and without interrupting the production process. A less trouble-free kind of folding is simply not possible.



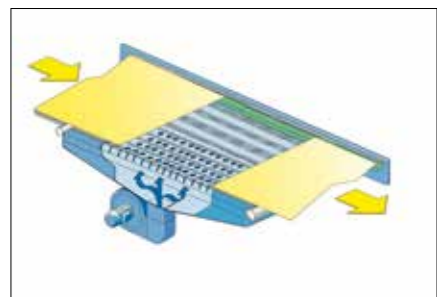
HIGH-SPEED-GUIDE

HIGH-SPEED-GUIDE for all mobile buckle folding units of the Perfection series ensure the absolutely safe transportation of sheets – even for high speeds – thanks to their motor-driven cone-shaped rollers. Due to the non-slip drive of the folding products markings can be ruled out, even if sensitive products are processed.



MABEG palletised feeder

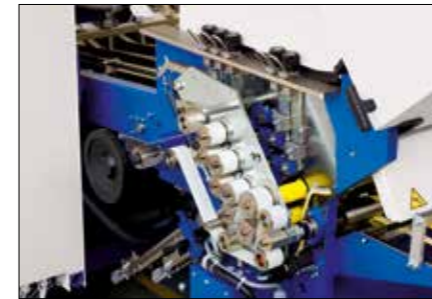
Thanks to its fuse holders and retractable pile platform it allows the even in-feed with a pallet jack. Alternatively, a ramp may be used. Another essential advantage is the sheet infeed with the option to feed the sheets individually. Thus, the sheets in a stream delivery do not overlap anymore, marks on the sheet underneath are therefore avoided. For both sizes of the MABEG palletised feeder an automation option is now available (motor-driven height and longitudinal adjustment of the feeder head and motor-driven lateral adjustment).



AIRSTREAM alignment table

The long register table with two alignment rulers arranged in line allow a high degree of exactness of large and long sheets. Vacuum belts convey the sheets without leaving marks. The combination with the lattice-type alignment table ensures that no static condition occurs. The air table forwards the sheet on its total width, with the smoothers avoiding the fluttering of the sheets.

MBO Features



Belt drive

The proven MBO belt drive guarantees extremely quiet operation and long maintenance-free periods. Thanks to the auto-tensioning elements, controlling and readjusting is no longer necessary. The functionality is monitored by the machine controller. Low follow-up and operational costs make the MBO belt drive an especially efficient long-term solution.



Noise insulation device

The mandatory equipment when it comes to safety at work. The noise insulation device by MBO corresponds to the European noise insulation regulations. Apart from a maximum noise insulation and the protection of the operator, comfort and accessibility play a major role for MBO. The two-piece construction for buckle folding machines ensures free access and easiest handling.



RFE Sheet return unit

The sheet return unit is optionally available for the mobile buckle folding units (folding unit III) on MBO Perfection machines. It offers more convenience for the operator by reducing the distance between the feeder and the delivery by approximately 80 %, thus making it possible that even buckle folding machines may be operated by one operator only. This results in a higher effective output, lower staff cost and a considerable reduction of required space.



NAVIGATOR Control

The NAVIGATOR Control is a digital micro processor control which evaluates and adjusts the regulation of optimal sheet gaps and speeds in all folding units automatically. The sheet monitoring and sheet length control is carried out by sensors in all folding units, even across all folding units. Malfunctions and error locations are displayed as text messages. Operation is possible from every unit.