buhrs®
PACKAGING TECHNOLOGY

Buhrs 4000

Poly & Paper Wrapping System

In developing the **4000 series of Poly & Paper Wrapping Systems**, Buhrs has produced a perfect combination of a low and ergonomic gathering section with mobile feeders, and a servo-driven wrapping module in combination with the Buhrs Data Controller (BDC).

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Buhrs 4000

With the **Buhrs 4000** series it is not necessary to stop the system between two different jobs, thereby increasing productivity enormously! Three main features make this possible. The feeders are synchronised automatically (AFS) with the gathering chain of the system, and will be engaged automatically based on information from the database (BDC). By measuring the length of the product just before the wrapping section, the Automatic Wrapping Set-up function (AWS) enables the wrapping unit to automatically set itself and adjust the seal position on the fly when necessary. It is, of course, possible to use Poly wrapping in combination with BuhrsWrap, which guarantees tightly wrapped products without any overlap.

Buhrs 4000 series (optional) features include:
• Automatic Feeder Synchronisation (AFS)
• Automatic Wrap Set-up (AWS)
• Buhrs Data Controller (BDC) with a database link
• Buhrs mobile feeders for left, right and in-line feeding

Automatic Feeder Synchronisation (AFS)
• The size of the documents is detected automatically by sensors mounted in the product guides
• The feeder is synchronised for correct positioning of the document in the gathering chain
• AFS is embedded in the feeder control and operates autonomously without the enclosure dimension information from the customer database

Automatic Wrap Set-up (AWS)
The AWS function automatically sets several machine adjustments and parameters "on the fly" such as:
• The Product Positioning Unit
• Wrapping length
• Seal stroke and separation position

Buhrs Data Controller (BDC)
• The Buhrs Data Controller is a database controller developed specially for Buhrs Systems and is fully integrated with the Buhrs System Controller
• Production Monitoring (feeder/title report, 24h report, uptime report)
• The production database from the customer is processed and all production and machine related information during production is collected and stored
• VPN Connection via Ethernet
• Management Information System (MIS) and reporting (job report, operator report, lifetime report)
• The software platform runs under Microsoft Windows
• Inkjet and camera systems are available as an option

Well-known features
The systems within the Buhrs 4000 series are equipped as standard with the following well-known features:
• Mobile servo-driven feeders
• Lowered gathering section for easier loading and improved ergonomics
• Safety lug (spring loaded)
• The patented Product Positioning Unit (PPU)
• Touch screen operator panel with information and storable job settings
• On-line diagnostics via VPN connection
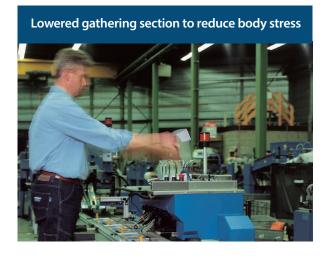

Buhrs mobile feeders
The mobile feeders are designed according to the best ergonomic principles. The mobile feeder can be easily placed in several positions such as left, right and in-line in the gathering section. The feeder position can be changed within one minute.

The systems within the Buhrs 4000 series can be equipped with a dedicated operator panel for each feeder (located above each feeder). On the operator panel information is displayed concerning the actual enclosure and the next enclosure, with the location of the pallet containing the enclosure in the warehouse.

Product loading from 3-sides

Lowered gathering section
Safe and ergonomic systems enable you to improve the confidence of operators, without limiting your system's net output. With the lowered gathering section it is much easier to load the feeders.

Lowered gathering section to reduce body stress

Safety lug (spring loaded)

Go-Green: the environmental friendly BuhrsWrap (optional)

BuhrsWrap is made possible by our stretch control principle. In combination with the use of servo-motors, this enables you to control and monitor the unwinding and stretching process of the poly in such a way that the products can be very tightly wrapped without limiting the net output of the system. After the poly has been stretched over the magazine, it resumes its old shape. Cost savings are realised because no additional energy is required and less quantity of poly is used.

Touch screen panel

Overview

The Buhrs 4000-series consists of the following dedicated solutions:
• Buhrs 4000 Poly & Paper Wrapping System for direct mail, magazines, catalogues, etc.
• Buhrs 4200 Wide-body Poly Wrapping System for newspapers
• Buhrs 4500 Co-mailing System
• Buhrs 4700 Poly Wrapping System for retail brochures and other addressed and non-addressed mail

Many options are available for the Buhrs 4000 series such as Gimmick feeders, Friction feeders, Buhrs HF4 feeders, autoloaders, stackers and side streets.

Buhrs 4000-series features

AFS
- Automatic synchronisation of feeders with the gathering chain of the system
- Setting up and engaging feeders while running
  • Reduced set-up times
  • Feeder optimisation

AWS *
- The wrapping unit sets and adjusts itself automatically
  • Less rejects
  • Less 'sausages'
  • Higher net outputs

Servo-driven seal mechanism *
- Low noise level (normally 75dB, maximum 82 dB)
- High sealing quality
- Lower maintenance costs because of less parts

Motorised adjustments and automatic settings
- Short make-ready times because of reproducibility

Operator-friendly touch screen panels
- Short make-ready times
- Short learning curve because of menu control and pictograms
- Storable job settings (up to 100 jobs)

Pneumatic shafts *
- Fast changeover of poly reels (less than 60 seconds)
- Better positioning of reel because of absolute adjustments

BuhrsWrap *
- Tightly wrapped products without any overlap (certain restrictions apply)

Buhrs mobile feeders
- Flexible feeder positioning
- Change of feeder position within one minute
- Ergonomically designed, loading from 3 sides

Optionally: each feeder has an individual operator panel where information is displayed concerning the actual enclosure and the next enclosure, including the location in the warehouse of the pallet containing the particular enclosure.

On-line diagnostics
- Remote monitoring, diagnostics, trouble-shooting and software upgrades minimise the system's downtime, and reduce service and maintenance costs to an absolute minimum

* Not applicable to Buhrs 4500

Technical specifications

Product dimensions (l x w)	Buhrs 4000	Buhrs 4200	Buhrs 4500	Buhrs 4700
Maximum	420 x 300 mm / 16.5″ x 11.8″	420 x 380 mm / 16.5″ x 15″	320 x 370 mm / 12.6″ x 14.5″	320 x 370 mm / 12.6″ x 14.5″
Minimum	160 x 100 mm / 6.3″ x 3.9″	180 x 200 mm / 7″ x 7.9″	180 x 200 mm / 7″ x 7.9″	180 x 200 mm / 7″ x 7.9″
Product thickness				
Maximum	35 mm / 1.4″ (Optional 60 mm / 2.4″)	35 mm / 1.4″ (Optional 60 mm / 2.4″)	35 mm / 1.4″	35 mm / 1.4″ (Optional 60 mm / 2.4″)
Minimum	Single sheet (60 - 80 g/m^2)	Single sheet (60 - 80 g/m^2)	Single sheet (60 - 80 g/m^2)	Single sheet (60 - 80 g/m^2)
Product thickness variation			20 mm / 3/4″	
Poly	4 mm / 1/8″ (Optional 20 mm / 3/4″)	4 mm / 1/8″ (Optional 20 mm / 3/4″)	Not applicable	4 mm / 1/8″ (Optional 20 mm / 3/4″)
Paper	1 mm	1 mm	Not applicable	1 mm
Mechanical speed (maximum)	18,000 c/h	15,000 c/h	21,000 c/h	16,500 c/h
Approved standards	CE, EMC UL approved	CE, EMC UL approved	CE, EMC UL approved	CE, EMC UL approved
Wrapping materials				
Poly	12 - 80 µm (PE, PP, others tested on request)	12 - 80 µm (PE, PP, others tested on request)	Not applicable	12 - 80 µm (PE, PP, others tested on request)
Paper	70 - 130 g/m^2	70 - 130 g/m^2	Not applicable	70 - 130 g/m^2
	With or without window, coated and recycled	With or without window, coated and recycled		With or without window, coated and recycled
Power requirements	Supply: 400V ± 5%, 50/60 Hz, 3ph + 0 + ground	Supply: 400V ± 5%, 50/60 Hz, 3ph + 0 + ground	Supply: 400V ± 5%, 50/60 Hz, 3ph + 0 + ground	Supply: 400V ± 5%, 50/60 Hz, 3ph + 0 + ground
	Compressed air: 6 bar	Compressed air: 6 bar	Compressed air: 6 bar	Compressed air: 6 bar
	Consumption is depending on the system configuration	Consumption is depending on the system configuration	Consumption is depending on the system configuration	Consumption is depending on the system configuration

Specifications are subject to change without notice. Requirements exceeding above mentioned specifications available on request above mentioned specifications available on request

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