

COLINES®

O N E S T E P A H E A D



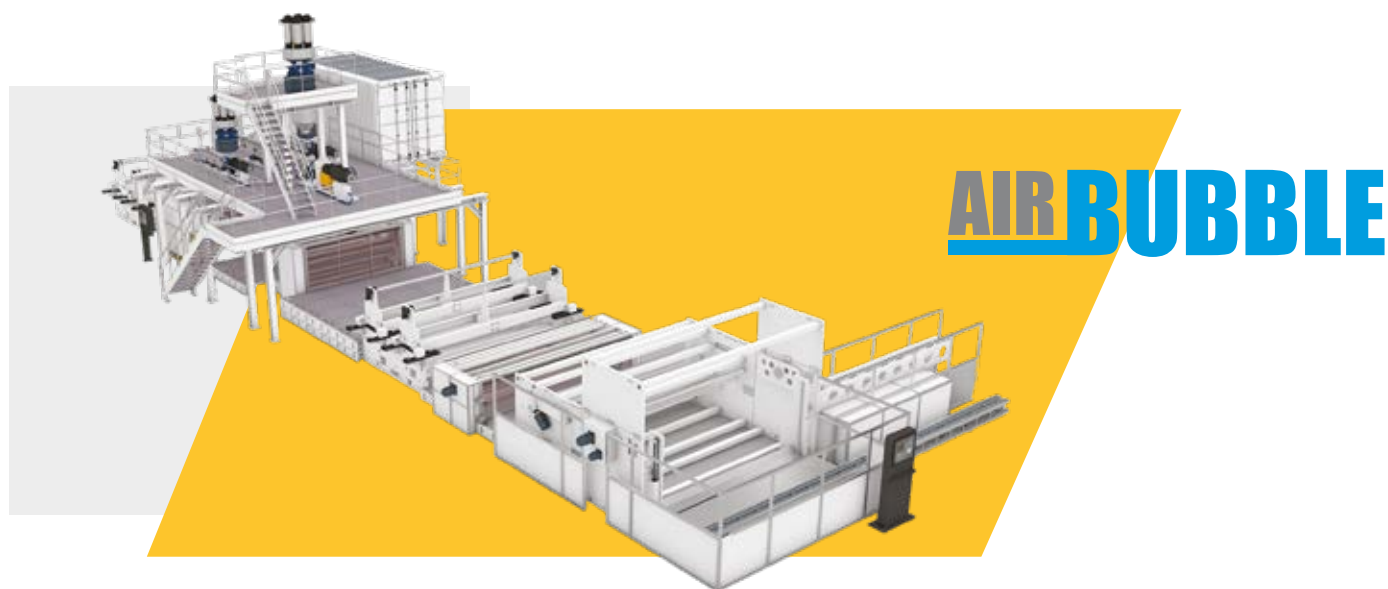
EXTRUSION LINES FOR
BUBBLE WRAP

W W W . C O L I N E S . I T

AIRBUBBLE
by Colines®

BUBBLE WRAP LINES

LEADER AND PIONEER OF THE MARKET WITH MORE THAN 200 INSTALLATIONS



UNLIMITED RANGE OF CONFIGURATIONS AND CUSTOMIZATIONS UP TO 14 LAYERS... BEWARE OF IMITATIONS!

Comprehensive expertise coming from more than 40 years of experience on the strength of our unique process of verticalization (engineering and manufacturing of the lines + film production). Our lines can be used for producing:

- Protective packaging
- Special applications for green houses, swimming pools, mail envelopes, thermal and sound-proof insulation, furniture
- In-line lamination for bottom and top with metallized, printed, coated paper, coated aluminum, PE foam films



Both layouts and equipment components are purely indicative and are to be customized to suit customer requirements.

TWIN-SCREW EXTRUDER

Instead of the main single-screw extruder, the machine can be equipped with a co-rotating twin-screw extruder that brings to the following main advantages:

- Production costs reduction thanks to less expensive raw materials that can be used (types, quality and grade), including 100% recycled materials
- Lower energy consumption thanks to the more efficient kW/kg extrusion ratio
- Higher production flexibility thanks to the wide range of raw materials that can be blended together with PE like calcium carbonate, talc, barium sulfate and other charged and reinforced materials

SAVING ON ENERGY CONSUMPTION



- Infrared (IR) heaters installed on **PERFORM-EX®** extruders. **Energy saving up to 22%** versus conventional ceramic heaters
- Insulating jackets on extruders melt pipes. **Energy saving up to 32%** versus conventional melt pipes without insulating
- **BIGMOUTH®** in-line cold edge trims recovery system. **Lowest energy consumption** at maximum production if compared to conventional refeeding systems

COEX BUBBLE

HIGH-SPEED/HIGH-OUTPUT, IN-LINE COEXTRUSION

The world's largest packing corporations use the COEX BUBBLE (up to 14) as it represents the most advanced technology for in-line production of Air Bubble films containing an integrated air retention barrier. The COEX BUBBLE line is a cast co-extrusion system with up to 4 extruders. It processes PP, LDPE, TIE and Nylon PA6 pellets to produce high-performance, symmetrically structured (ABCDCBA+ABCDCBA), multilayer Air Bubble film.

The 14-layer structure allows for integration of an air-tight, Nylon-PA6 barrier for longer bubble-air retention, thus improving the film's cushioning and protective properties, even at reduced thickness. Especially suitable for technical packaging and envelopes, the COEX BUBBLE line series is fully automatic and includes touch screen controls for custom configuration of production recipes thanks to our HMI system. Thanks to an on-board network connection, machine function can be remotely monitored via Modem Service. The modular configuration of COEX BUBBLE line offers many useful options, such as a third and fourth layer lamination unit, perforation unit, etc.



TECHNICAL DATA

RAW MATERIAL

PP, LDPE, TIE and Nylon PA6 pellets

PRODUCTION SPEED

Over 100 m/min

WEB WIDTH

From 1.25 to 4 m

FINISHED AIR BUBBLE

Min. 25 g/m² - max. 450 g/m²

FORMING CYLINDER DIAMETER

Ø 450 mm - Ø 576 mm

CAST DIE

Two separate dies and feed-block

STANDARD NET PRODUCTION

600 kg/h (75 g/m²)

Available also in version with net production 1000 Kg/h

STANDARD PRODUCTION SIZE

13500 m²/h (35 g/m²)

OPTIONAL EQUIPMENT

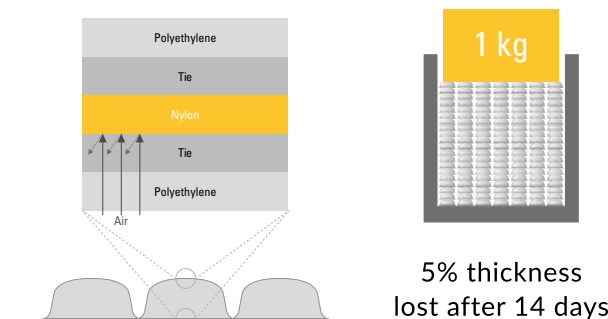
- Twin-screw extruder
- Third layer diathermic oil lamination unit
- Third layer extrusion lamination unit
- Fourth layer unwinder
- Perforation unit
- Forming cylinders

CASE STUDY

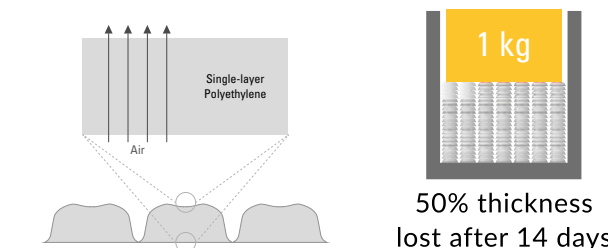
WHY COEX BUBBLE (UP TO 14)

Better film performance ensured with less material means an unbeatable competitive edge in the film market!

10 LAYER CO-EXTRUSION BUBBLE WRAP FILM



MONO-EXTRUSION WRAP BUBBLE FILM



POWER BUBBLE

HIGH-SPEED/HIGH-OUTPUT, IN-LINE MONO-EXTRUSION

TECHNICAL DATA

RAW MATERIAL

LDPE pellets

WEB WIDTH

From 1.25 to 4 m

FINISHED AIR BUBBLE

FOIL WEIGHT

Min. 25 g/m² - max. 450 g/m²

PRODUCTION SPEED

Over 80 m/min

FORMING CYLINDER DIAMETER

Ø 450 mm - Ø 576 mm

CAST DIE

Two separate dies

Thanks to its power and flexibility, the line produces a wide range of bubble wrap films. Starting from an appropriate formulation of LDPE pellets blended with HDPE, PP, LLDPE and mLLDPE, the universal single-screw extruder produces high-performance, low thickness materials. A single operator can fully control the entire line manufacturing process with the system's fully integrated touch screen control. Using its on-board network connection, the machine's operation can be remotely monitored via Modem Service. The modular configuration of the system is adjustable for any production output and lends itself to many useful upgrades, such as a third layer lamination unit, a perforation unit, etc.

OPTIONAL EQUIPMENT

- Twin-screw extruder
- Third layer diathermic oil lamination unit
- Third layer extrusion lamination unit
- Fourth layer unwinder
- Perforation unit
- Forming cylinders

MAC BUBBLE

HIGH-SPEED/HIGH-OUTPUT, OFF-LINE PROCESSING



MAC BUBBLE is a traditional off-line system with processed LDPE rolls for high-output Air Bubble film production. A thermoforming process laminates two individual films using Teflon-coated cylinders heated by a diathermic oil circuit connected to electric heating units.

MAC BUBBLE system also has an on-board network connection which allows machine function to be remotely monitored via Modem Service and the modular configuration of the system lends itself to many useful upgrades, such as a third layer lamination unit, a perforation unit, etc.

TECHNICAL DATA

THERMOFORMING PROCESS

By diathermic oil cylinders

WEB WIDTH

From 1.25 to 3 m

FINISHED AIR BUBBLE FOIL WEIGHT

Min. 35 g/m² - max. 300 g/m²

MAX. PRODUCTION SPEED

Up to 65 m/min

FORMING CYLINDER DIAMETER

Ø 450 mm

OPTIONAL EQUIPMENT

- Third layer diathermic oil lamination unit
- Fourth layer unwinder
- Perforation unit
- Forming cylinders

RP & RP PLUS

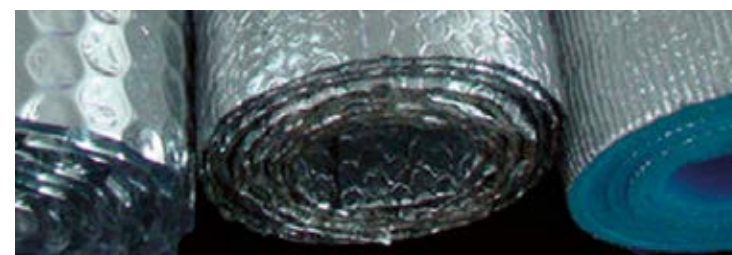
CORELESS REWINDER

Can rewind:

- Air Bubble film
- PE foam
- Air Bubble film laminated with PE foam
- Air Bubble film laminated with LDPE film
- Air Bubble film laminated with HDPE film
- Air Bubble film laminated with coated kraft paper
- Air Bubble film laminated with coated aluminium foil
- Air Bubble film laminated with MPET film
- Air Bubble film laminated with printed film
- Air Bubble film laminated with non-woven

The RP machine is a fully automatic rewinder that produces coreless mini-reels, (max. diameter up to 60 mm) of plastic film (Air Bubble film, PE-foam, EPS, corrugated paper, etc.).

Once the starting reel is inserted, the RP rewinder automatically begins producing the small diameter reels. The machine can also split the starting jumbo reel to produce 2 or more narrower rolls at the same time. The RP rewinder is the perfect choice for entering retail markets wrap (hardware stores, superstores, DIY, etc.) in shorter lengths from 3 to 30 meters. Avoiding the use of an internal cardboard core is crucial in this specific market, as its cost is excessively high in relation to the end product being sold, a compelling reason to choose the RP Coreless Rewinder.



RP TECHNICAL DATA

RAW MATERIAL

Two-layer or laminated reels of Air Bubble film; PE-foam reels, laminated and non-laminated; other similar plastic films; corrugated paper

WEB WIDTH

From 1.25 to 1.6 m

PRODUCTION LENGTH

From 5 to 40 m (max. Ø 350 mm)

MAX. STARTING REEL DIAMETER

Ø 2000 mm

AVERAGE POWER CONSUMPTION

3 kW/h

RP PLUS TECHNICAL DATA

RAW MATERIAL

Two-layer or laminated reels of Air Bubble film; PE-foam reels, laminated and non-laminated; other similar plastic films; corrugated paper

WEB WIDTH

From 1.25 to 1.6 m

PRODUCTION LENGTH

From 5 to 100 m (max. Ø 600 mm)

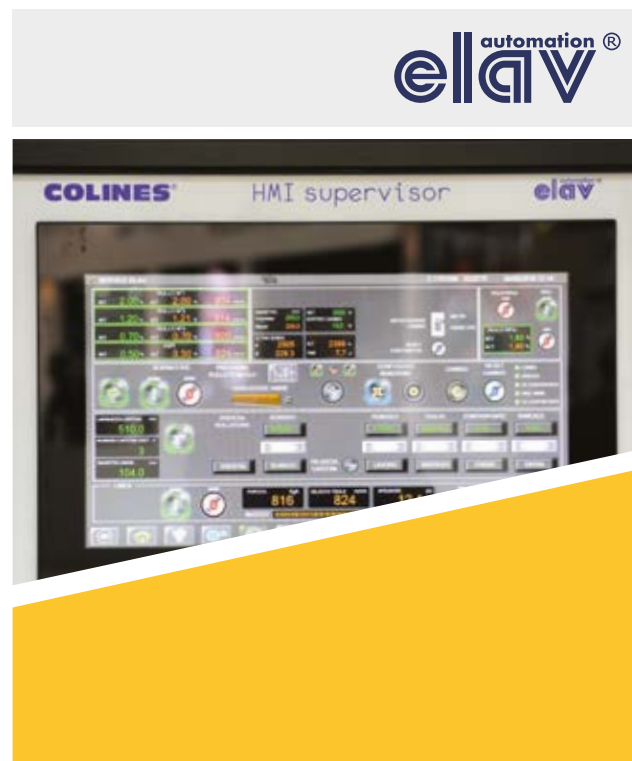
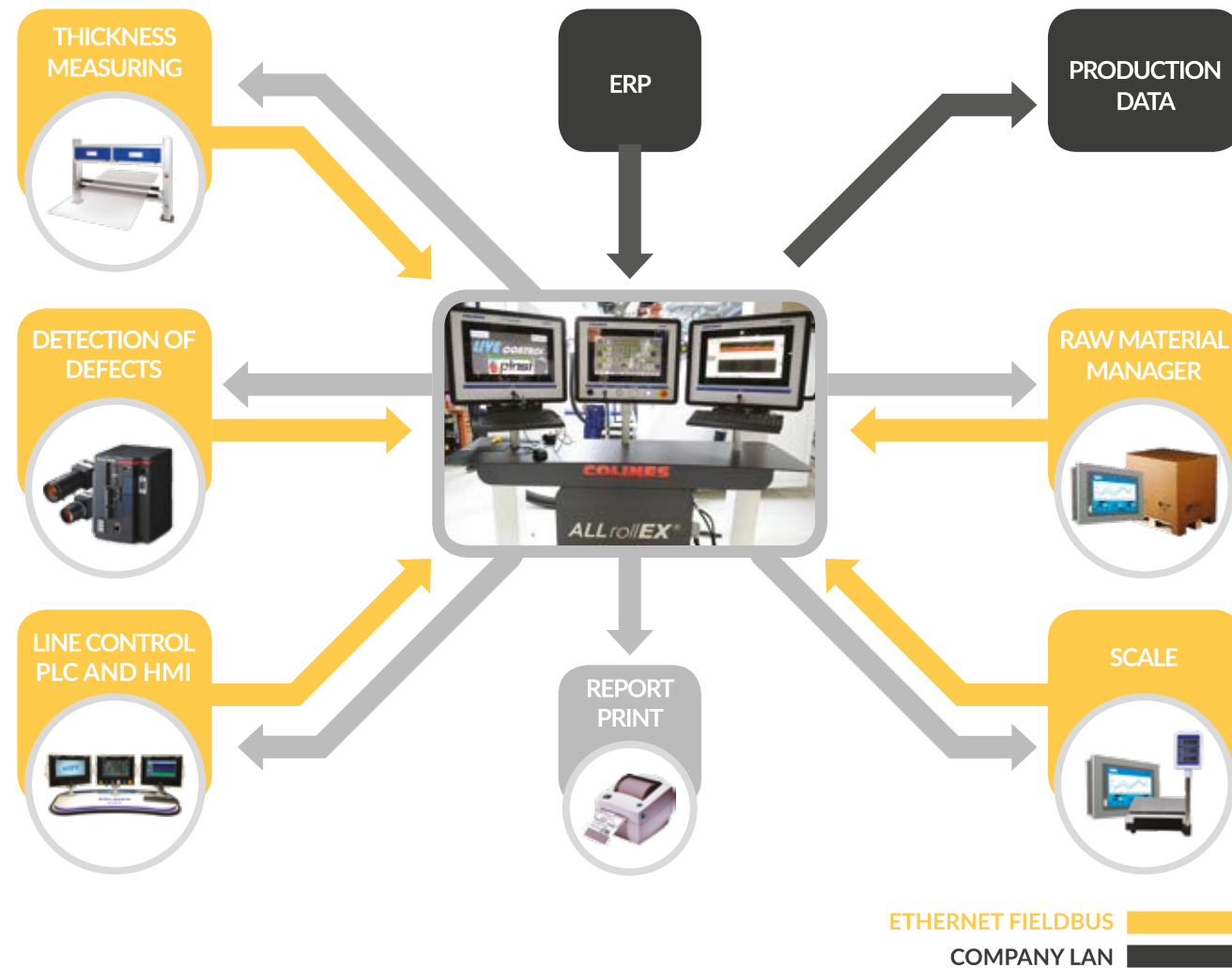
MAX. STARTING REEL DIAMETER

Ø 2000 mm

AVERAGE POWER CONSUMPTION

4.5 kW/h

ANCILLARY EQUIPMENT LIVE CONTROL INDUSTRY 4.0



LIVE CONTROL is a multitask management system that supports and simplifies production planning while helping to optimize waste reduction. The system is fully customizable and represents a focal feature of the 4.0 industry.

KEY FEATURES

- Client-Server web based architecture
- Real time analysis of the KPI's: a quick overview of the performances and productivity of the line (available in table and graphic format)
- Historical analysis of key values of the line: all data stored in the data base allow the complete traceability of the process parameters
- Reporting capabilities: report per reel, shift or job, including trends

MAX ONE

CONVERTING MACHINE

BAG-MAKING AND SHEETER MACHINE WITH NEEDLE STAKING



TECHNICAL DATA

RAW MATERIAL

Two-layer or laminated rolls of Air Bubble film; PE-foam reels, laminated and non-laminated; other similar plastic films

WEB WIDTH

From 1.6 to 2 m

MAX. STARTING REEL DIAMETER

1200 mm (max. weight of 70 kg) on 3" cores

FILM FEED SPEED

Max. 120 m/min

NUMBER OF LONGITUDINAL BARS

1, 3 or 5

NUMBER OF TRANSVERSE BARS

2

NUMBER OF LONGITUDINAL KNIVES

6 or more

NUMBER OF TRANSVERSE BARS

Min. 100/max. 1300 mm in automatic mode; for larger sizes the machine can also run in semi-automatic mode

AVERAGE POWER CONSUMPTION

12 kW/h

For:

- Air Bubble film
- PE foam
- Air Bubble film laminated with PE-foam
- Air Bubble film laminated with LDPE film
- Air Bubble film laminated with HDPE film
- Air Bubble film laminated with coated kraft paper
- Air Bubble film laminated with coated aluminium foil
- Air Bubble film laminated with MPET film
- Air Bubble film laminated with printed film
- Air Bubble film laminated with non-woven

The MAX ONE machine produces various sizes and types of envelopes, bags, sheets, tubulars and sleeves, starting from reels of Air Bubble (even laminated) film and PE-foam.

The entire process is controlled by the main touch screen where hundreds of recipes can be saved and/or loaded. The needles are mounted on a pneumatic unit which collects and stacks envelopes or formats into bundles.

The palletizing system can stack several bundles at the same time, thus eliminating the need for one or more operators to perform this task that is especially convenient when producing envelopes or large-dimension formats.

This process is completely automatic. After pre-cutting, bags can be wound into reels on a downstream winder.

W W W . C O L I N E S . I T

I N F O @ C O L I N E S . I T

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