



*Latest technological solutions for
high productivity flexible blown film
lines capable to process different
type of materials*

April, 20th 2021



► Headquarter and main factory



Macchi Facilities

► Secondary factory



MACCHI TODAY

- ❑ 160 employees
- ❑ In-house Engineering & Manufacturing
- ❑ All lines installed and tested before shipment
- ❑ Export share > 87%
- ❑ Serving 80 countries
- ❑ Branches and agencies all over the world



Macchi Today



Area 1 for line assembling and test



POD FLEX[®] 7

*Evolution of our multilayer technology, specifically designed for specialty films,
reduced thickness, perfect sealing and excellent optical properties*





.... *At a glance*

- Fully automatic and integrated continuous type gravimetric system, ensuring rapid material changes and drastic reduction in production waste
- New design of extruders and wide range of screws to allow great flexibility in the processing of different materials; superior extrusion capacity, thanks to the innovative PVD technology
- New TE572 co-extrusion head series specifically designed to manage polyolefin and barrier film formulations; PVD treatment available
- New fully automatic air cooling rings able to guarantee perfect recipes repeatability, minimizing set-up times during job changes





.... At a glance

- Different thickness control systems suitable for different film types, barrier and not barrier
- New ST426R take off unit series with innovative compact design; safer operating and maintenance activities; more efficient cooling units for better film stabilisation
- Evolution of BO Plus winding system, complete with reel unloading and handling units. Thanks to new structure and excellent controls allows perfect winding up to 1.200 mm diameter and working speed up to 240 m/min





.... *At a glance*

- New Macchi 4.0 software release for complete integration on customer's management system to generate complete data set as recipes, consumption, production and set points
- «Complete digitalization» of the line to guarantee the cleanliness of data exchange signals between the various components, avoiding possible interference
- New Macchi VR 7.5 Service, the new solution for Total Remote Assistance supported by the Augmented Reality





Typical configuration

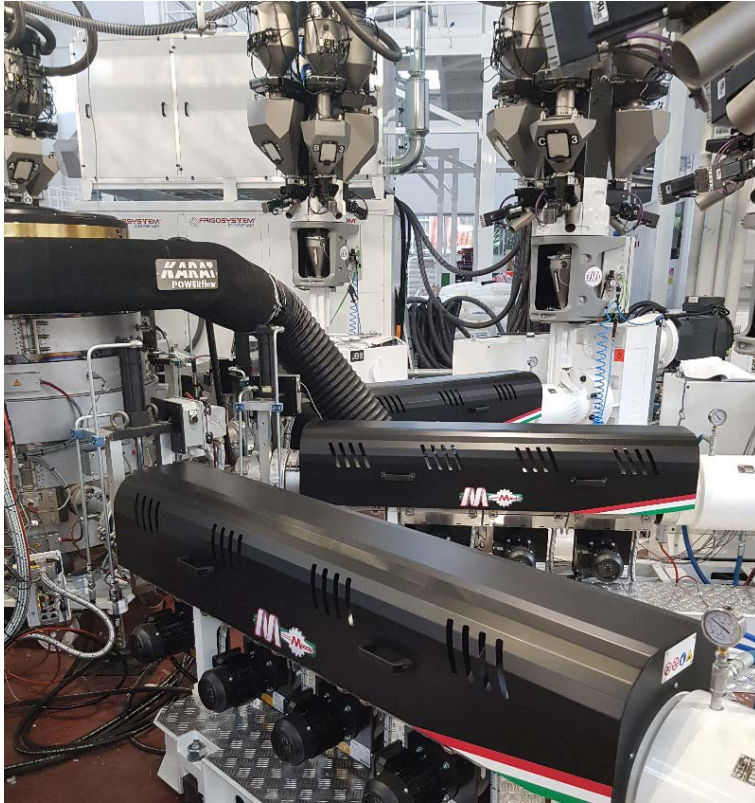
General typical features

- Thickness: 16-200 micron
- Widths: 1.600 – 3.200 mm
- Production capacity: up to 1.100 Kg/hr
- Coextrusion head with specifically designed flow channels
- Different layer distributions to fit customer needs



Gravimetric system

- Completely integrated in line control
- Batch or Continuous type solutions
- Different and upgradable configurations
- Integrated centralised vacuum loading system
- Fully integrated CAC system
- Automatic cleaning and emptying system



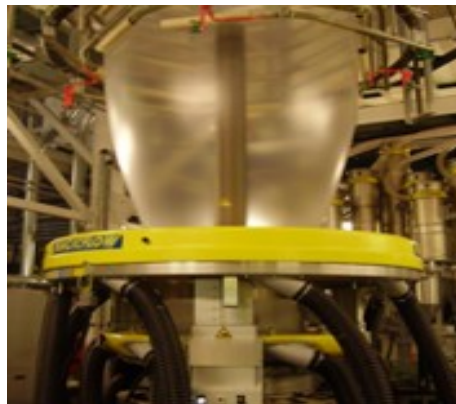
Extruders

- Wide range of available sizes
- AC air / water cooled motors
- Oil lubricated gearbox, built-in heat exchanger for cooling
- Water cooled feeding zone (PLC controlled) with independent and dedicated cooling units
- Different screw profiles made of stainless steel CrMoV, PVD surface treatment with chromium nitride
- «Easy screw replacement»
- Hydraulic screen changers



Die heads

- Innovative channels and flow design for very low resident time, perfect pressure and temperature distributions to allow optimum distribution of the thickness of each layer and granting superior optical and mechanical properties to the film
- Different models completely designed and manufactured in house, up to 2600 mm head diameter
- PVD treatment for die body and die insert
- Internal lip heating and possibility for the external one



Integrated automatic cooling rings

Different configurations dedicated to various applications:

- Alu or carbon fiber
- COM2 or COM3
- single or double version
- Multiple or single air inlet

Possibility of

- Power Flow version with air propeller system to eliminate air turbulence
- Motorised lip adjustment and possibility to memorise it on the recipe data



Width and IBC systems

- Non contact width measuring unit with 4 ultrasonic sensors located on top of the calibration basket
- Non contact ultrasonic IBC control
- Fully integrated, automatic quick format change system to control cooling ring blower, basket diameter and position



BO PLUS winder

- Fully automatic version up to 4.000 mm
- Standard max working speed up to 150 m/min, upgradable up to 240 m/min
- Torque motors controlled by digital inverters for perfect speed control
- Load cells tension control
- Possibility of rubber winding drum, available chromed or satin-chromed
- Contact / Gap / Axial / Mix winding





BO PLUS winder solutions





Smart integrated systems

Different integrated solutions for

- shaft loading
- shaft unloading
- reels unloading through motorised chart
- reel weighing
- label printing





Easy Control Plus

- 22" touch screen
- UPS unit
- User-friendly supervision for all line parameter and functions
- 4.0 Package through SQL server installed on the line for data exchange
 - Material database
 - Recipes



Macchi 4.0 Package



The DataBase includes:

- Material type, brand, density
- Recipes including production order, customer code and name, kg/h set, width, thickness, etc.
- Head & extruders temperature set up
- Line set up (IBC, air inlet/outlet, cooling ring, basket width, take off speed tension controls, motors %)



“The new solution for remote assistance”

Direct connection with Macchi Service

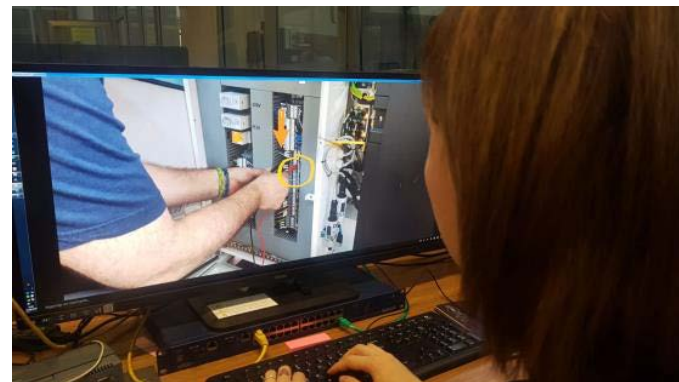
Dedicated Internet call and chat

Real-time view through the operator's "eyes" using Macchi VR Smart Glasses

Exchange in real time of drawings, diagrams, photos and videos direct visualisation on the virtual screen thanks to the augmented reality

Multilanguage real time translation

..... and more





Thank you!