PRODUCTION LINE FOR 3-LAYER FOIL

DIING KUEN Plastic Machinery, model: TKHTRL 1700-3C-2

I. Description: LDPE / LLDPE / HDPE 3-layer film production line with horizontal oscillating haul-off, double back to back winder, balloon air exchange system (IBC). Equipped with a central management system for the extruder through a touch panel.

II. Specification: Film width: 900-1600mm Film thickness: 0.025-0.2mm Max. efficiency: 350kg / h

Extruder: 3 augers: 55mm, L / D: 30: 1 65mm, L / D: 30: 1 BI-METALIZED (reinforced, prepared for working on regranulates) 55mm, L / D: 30: 1

Motor: AC 20HP controlled by inverter x 2 pcs. AC 30HP controlled by inverter x 1 pcs

Cooling fan on the sleeve: 1 / 4HP x 7 pcs

Gear reduction: 6: 1 Bearings on the gear: # 29422, # 29422, # 6218, # 6314, # 22212

LDPE head: 200-250mm (gap: 2mm) without uncontrolled cooling ring Equipped with a lift

Control: via a digital display

Extraction: Horizontal type Metal roller Ø 190mm x 1700mm x 1pc

Bearings: UCF 209 x 2 pcs

Rubber roller Ø 190mm x 1700mm x 1 pcs Bearings: UCT 207 x 2 pcs

Motor: AC 5HP x 1 pc, controlled by inverter

Reduction 1:15

Speed: 10-50m / min

Aluminum rollers: Ø102mm x 1700mm x 3pcs # 6006Z x 6pcs Ø50mm x 1700mm x 32pcs Ø50mm x 1300mm x 6pcs

Bearings: # 6004Z x 76 pcs

Bookmark device: max. width 375mm each side

Winding system: "back to back" type, with automatic shut-off and change of bobbins

Working width: 1500mm

Diameter of wound roll: 900mm

Motor: AC 3HP, controlled by inverter x 2 pcs (SIEMENS) Reduction: 25: 1

Film tension: with 2 units controlled by an AC 2HP motor with inverter

Bearings: UCP 205 x 4 pcs

Rubber roller: Ø300mm x 1650mm x 2 pcs

Expansion rollers: 4 pcs, max. lifting capacity: 600kg

Horizontal knives: "L" 2 pcs

Longitudinal cutting knives: x 3 on each winder

Pneumatic lowering of the wound roll

III. Machine dimensions: length: 11,585 x width: 4,116 x height: 9,500m

IV. Equipment:

1. Manual screen changer x 3 pcs.

2. Film web guiding

3. Film tension sensors x 2 sets

4. Expansion rollers x 4 pcs

5. A device for winding film fragments at the edge

6. Control panel for P.O.D. machine operation

7. Control panel for P.O.D. x 2 pcs

8. IBC air exchange system, prod. Italian QNEX

- 1 transformer
- 1 valve 150V
- Control panel with SIEMENS liquid crystal display
- 3 sensors S35
- QNEX software
- 7.5HP motor with inverter

9. Radiator, model YT1020F with double chilled air outlet (for IBC and cooling ring), power: 17, 3kW (setting: max. 3m from the machine)

10. Ionizer (activation for printing) 1600mm wide with ozone removal, 25mm segments

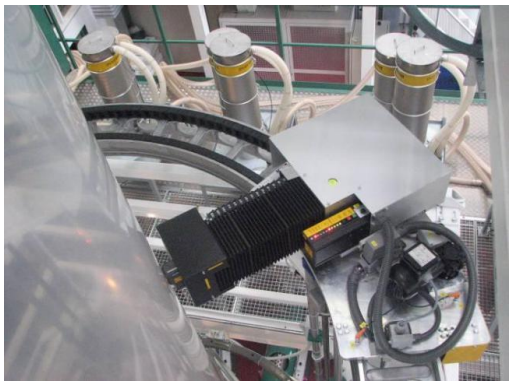
V. Features of the device:

- Motors and inverters: prod. SIEMENS
- Electrical and electronic parts: man. Telemequanicue, prod. Japanese, Taiwanese
- Power supply: 400V Installed power: 262kW (consumption of approx. 75% of installed power)
- Guaranteed performance: for LDPE film with a width of 900mm x 60my: 200kg / h for LDPE film with a width of 1500mm x 60my: 300kg / h
- Machine prepared for assembly by crane from above
- Color: white-blue The machine meets European Union directives in the field of work safety (CE) Machinery Directive 2006/42 / EC
- Machine prepared for work with peripheral devices (cooling ring with measuring system and correction of film thickness during blowing, gravimetric system, feeding, dosing and mixing of raw materials)
- Height of the transition between the winders: 1937mm, width of the transition between the winders: 0.8m, height of the protective barriers: 1.1m Commands on the touch screen (POD) in language Polish

Additional devices configured and adapted for mounting on the above-described extruder:

1. Devices for gravimetric dosing of raw materials by means of mixing, weighing, dosing raw materials for each extruder with control via a touch electronic panel. It allows dosing 4 types of raw material for one extruder in the percentage distribution of 40% -40% -10% -10%. The total capacity of 3 devices is 500kg / h

2. A device measuring the profile of the foil, scanning the thickness of the foil around the perimeter of the balloon in a continuous motion. Measurement using a non-contact capacitive sensor mounted on a guide ring. The system allows you to measure all kinds of films, including stretch films and other, easily adhering.



3. A special cooling ring with a thickness correction insert around the perimeter of the balloon using 48 air solenoid valves. The system allows obtaining optimal thickness parameters with deviations of about 3%. The ring is electrically raised up and down, it has a precise regulation of the blowing force, and in connection with the air cooler also the cooling temperature. This allows for a significant increase in machine efficiency and trouble-free operation during periods of elevated ambient temperature. If the machine is equipped with an additional head / insert, the cooling ring must be retrofitted.

4. The control panel of the above devices, together with an advanced program supervising the operation of the extruder and additional devices together with information on production parameters.