

**FILM EXTRUSION**

Three-Layer ABA Film Blowing Machine — 1200 mm

Three-layer ABA blown film for LDPE, HDPE and LLDPE — up to 150 kg/h, film 300 – 1,200 mm wide; single or double rewinder.

**150 kg/h**

MAX. OUTPUT

300 – 1,200 mm

FILM WIDTH

0.01 – 0.10 mm

FILM THICKNESS

55 kW

AVERAGE POWER

The 1200 mm machine is built on the same three-layer ABA platform as the 800 mm line, with the same nitrided alloy steel barrel and screw, the same plasticizing screw design and the same brand specification throughout. The wider die and air ring take the film width to 300 – 1,200 mm at up to 150 kg/h, so a single line covers roll widths that would otherwise require two narrower machines.

It can be supplied with a double rewinder, allowing two finished rolls to be wound at the same time, or one roll to be changed while the second continues running, so the line does not stop for a roll change.

The ABA three-layer configuration allows recycled material to be run in the central (B) layer while the outer (A) layers remain virgin resin, reducing raw material cost without any loss of surface finish or seal strength.

TECHNICAL PARAMETERS

Model	SJ-60/ABA1200
Film width	300 – 1,200 mm
Film thickness	0.01 – 0.10 mm
Max. extrusion output	150 kg/h
Screw diameter	60 / 55 mm
Screw length (L/D)	30 : 1
Die size	120 / 250 mm
Driving motor	22 kW / 18.5 kW
Temperature control zones	3 / 4
Cylinder cooling	0.13 kW × 2
Take-up motor	1.5 kW

Average power consumption	55 kW
Energy per kg at max. output	0.37 kWh/kg
Winding speed	10 – 80 m/min
Rewinder	Single as standard; double rewinder available
Machine weight	3,500 kg
Overall dimensions (L×W×H)	4.6 × 3.6 × 6.5 m

SCREW & BARREL — TAIWAN QUALITY

Material	38CrMoAlA nitrided alloy steel (screw and barrel)
Element analysis	C 0.35–0.42 · Si 0.20–0.45 · Mn 0.30–0.60 · S ≤0.035 · P ≤0.035 · Cr 1.35–1.65 · Al 0.70–1.10 · Ni ≤0.030 · Cu ≤0.030 · Mo 0.15–0.25
Hardness of tempering	HB 260 – 290
Depth of nitriding	0.4 – 0.7 mm
Hardness of surface	HV 900 – 1050
Roughness of surface	Ra 0.32
Linearity of screw	0.015 mm/m
Bimetal screw	Bimetal layer on screw thread — tungsten carbide
Bimetal layer hardness	HRC 58 – 62
Bimetal layer depth	2 – 3 mm
Bimetal layer elements	Fe, Ni, WC, B, C, Cu

MAIN COMPONENTS

- | | |
|---|----------------------------------|
| 1. Siemens motor | 5. Embossing roller |
| 2. Blower 3 kW, inverter controlled | 6. Rewinder, inverter controlled |
| 3. Fixed die head | 7. Ceramic band heaters |
| 4. Double-lip air ring, inverter controlled | 8. Pneumatic traction tower |

KEY FEATURES

- Main motor — Siemens brand, 1400 rpm, 380 V 3-phase, service life in excess of 10 years. Motor power can be changed to suit the customer's supply.
- Gearbox — hard-surface high quality gears, 10:1 reduction, oil lubricated, low noise and long life.
- Stainless steel extruder cover, separated for better heater control and lower power consumption, with the blower mounted separately on the cover.
- Fixed die head — Taiwan design high-speed head in #45 steel, surface treated for improved film clarity, oversized to increase machine output.
- Fast screen changer — no material leakage, quick filter change, reduces labour and downtime.
- Ceramic heaters — heat faster than stainless heaters, retain heat longer for lower power consumption, with approximately 5 years longer service life.
- Double vent air ring — two lips cool the film faster than a single lip, raising output; suitable for both HDPE and LDPE film.
- Omron digital temperature controller, accurate to 3 °C, with CHINT brand switches and breakers.
- LG inverter control on all motors — reduces power consumption and protects the motors; service life in excess of 10 years.
- Gusset traction parts to Taiwan design, easy to adjust; traction motor 1.5 kW at 1400 rpm with 7.5:1 gearbox under LG inverter control.
- Embossing roller with air-cylinder control — no manual adjustment; dot pitch 2 mm, and can be specified by the customer.
- Aluminium roller in place of banana roller — latest Taiwan technique for more even film.

- Rewinder with automatic tension control, matching traction speed automatically under LG inverter control — single, or double for non-stop roll changes.

OPTIONAL

- Auto loader
- Corona treater
- Air compressor
- Thickness controller
- Rotary die head
- Fast screen changer
- Double rewinder — two rolls wound at once, or one changed while the other runs

PHOTOGRAPHS



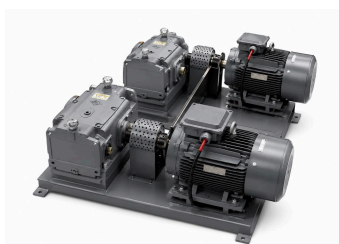
Twin extruders and die head



Die head and double-lip air ring



Extruder with ceramic heaters



Siemens main motors and gearboxes



Rewinder with automatic tension control



Electrical control cabinet



Nitrided alloy steel screw

WARRANTY & AFTER-SALES SERVICE

Every machine carries a warranty of one (1) year from the date of commissioning, covering the repair or replacement of parts in case of manufacturing defects. It does not cover malfunctions resulting from misuse, neglect or external factors such as unstable power, accidents, tampering or force majeure, nor wearing parts consumed in normal operation — sealing knives and cutting blades, Teflon tape, heaters, filters and screens.

Installation, commissioning and operator training are arranged by Miroplastic, and an operating manual is supplied with each machine. Technical support is available by telephone and email during the warranty period and thereafter. Spare parts and consumables are available from Miroplastic.

Photographs are for reference only. Miroplastic reserves the right to improve the specification of its machines without prior notice. Actual output depends on the material, width and thickness run.

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