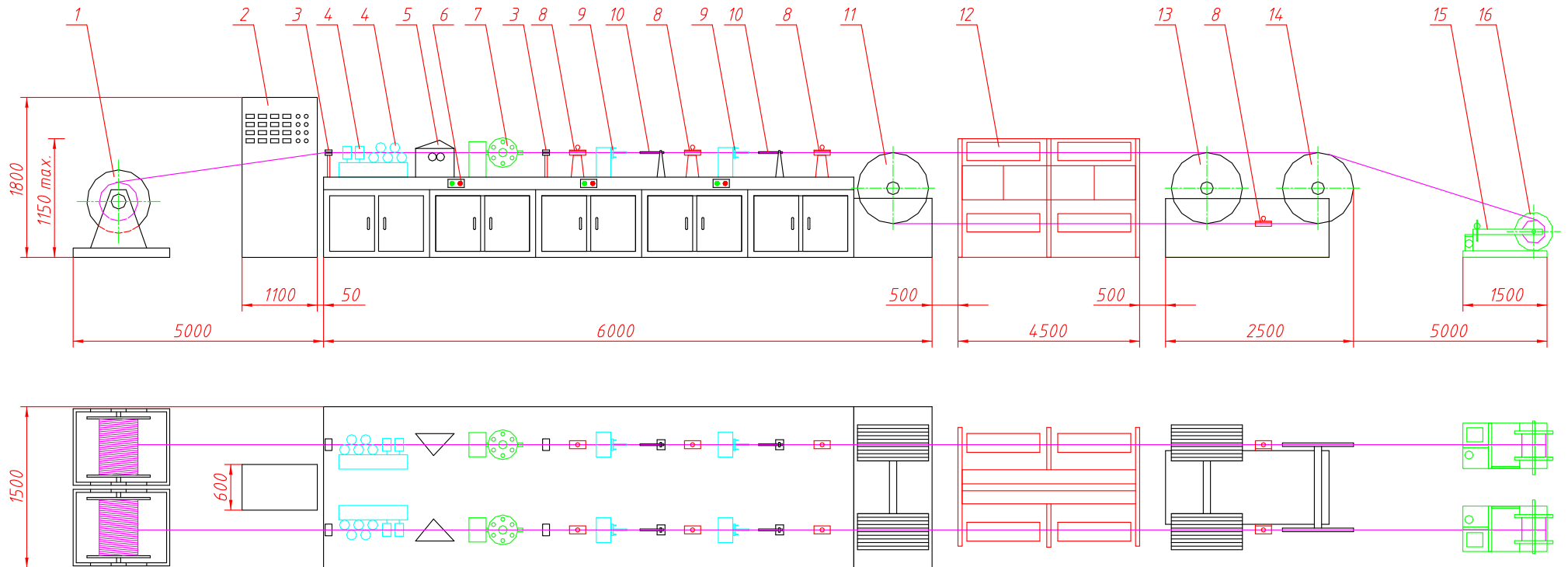
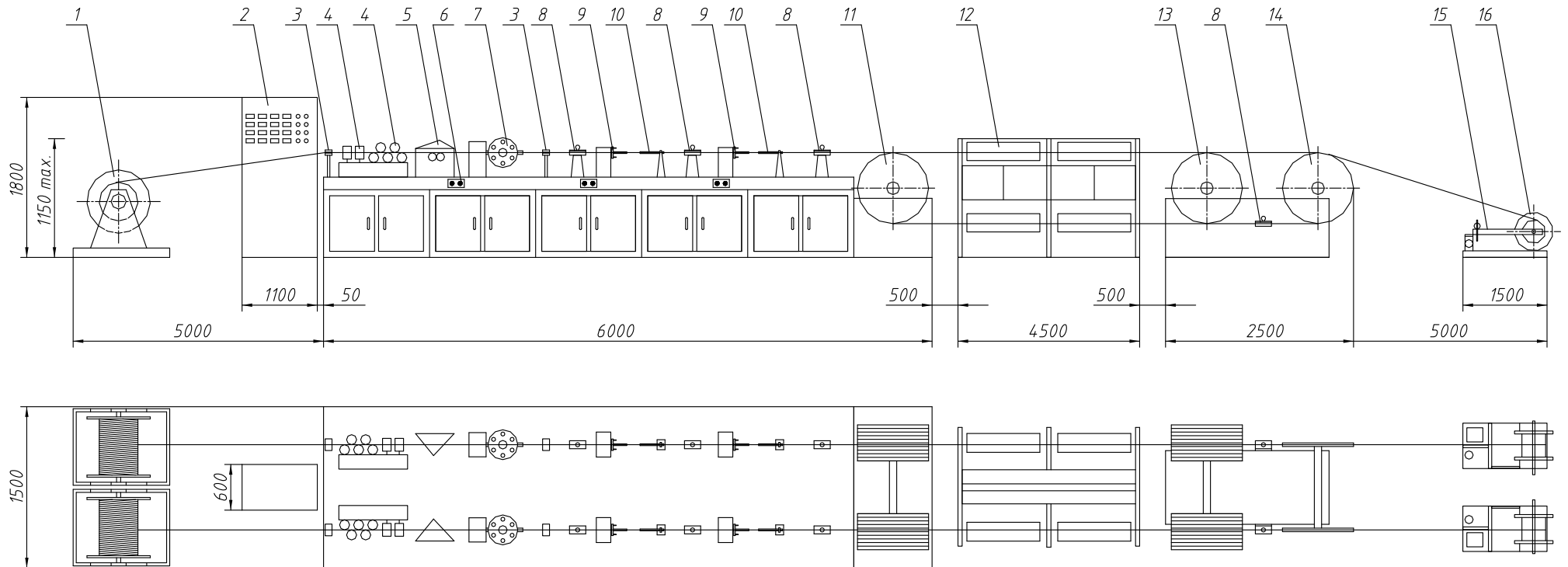


SF1-III NOMEX / GLASS YARN COVERING MACHINE



No.	Name	No.	Name
1	Pay-off unit	9	Taping head for covering Nomex / Glass yarn
2	Electric control cabinet	10	Guiding pipe
3	Press plate	11	Traction wheels
4	Straightening unit	12	Bake oven
5	Buffing unit	13	Driven aluminium wheel with eight separate slice wheels
6	Buttons for switch on and switch off	14	Guiding aluminium wheel
7	Taping head with 2 trays for covering polyester film	15	Take-up unit
8	Impregnating varnish tank	16	Spool drum

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Technical Descriptions

1. Producing Range

(1) Parameter of conductor

Width: 5~18mm

Thickness: 2~5mm

Cross sectional area: 10~40mm²

(2) Insulating material

Glass yarn, polyester yarn and film band insulating material.

(3) Number of insulating material tiers

Two tiers of glass yarn and two tiers of film.

(4) Way of covering

Cross covering with glass yarn and cross lapping with film.

(5) Pitch of covering heads

Pitch of film: 5mm~18mm

Pitch of glass yarn: 2.5mm~5mm

2. Equipment Constitution

Equipment constitution: pay-off unit, bare wire straightener, polisher, film covering unit, glass yarn covering unit, traction wheels, bake oven, bridge, cooling unit, take-up unit.

Each covering head is with a safety shield.

(1) Pay-off unit

2 set of motor-driven pay-off unit which have shaft type constructure.

Utilize brake assembly and brake ribbon to control tension.

Pay off at even speed.

Automatically stop when the conductor wire breaks or looses.

The maximum length allowed: $\Phi 800 \times 600$ mm.

(2) Bare wire treatment

Straighten conductor via horizontal and vertical wheels.

Sweep conductor with felt clamp.

Has 4-station polishing unit.

Has industrial cleaner.

(3) Film covering head

- ① Each film covering head can install 2 tapes and each tape is of mechanical constant tension. Use film winded in discs. Both covering heads and discs winding film are made of aluminium alloy.
- ② Maximum external diameter of disc is $\Phi 220\text{mm}$, diameter of disc hub is $\Phi 38\text{mm}$, width of film is 10~30mm.
- ③ Automatically stop when complete covering or film breaks.
- ④ disc clamps, frame of covering heads, film guiding rods are made of aluminium alloy with oxidation treatment on surface. Connecting rods of covering head and guide rods at the end are made of chromium-clad steel. Other steel are black coating treated.
- ⑤ Install protection shield (organic glass) over covering unit.
- ⑥ You can adjust the constant tension of covering heads manually.

(4) Yarn covering

The covering way is concentric covering. Each yarn covering head is driven by a servo motor via synchronous belt and automatically stop if the yarn breaks.

(5) Paint tank

There are 3 paint tanks on main engine and 2 are at bridge. The material of paint tanks are stainless steel while the paint boxes are made of iron sheet.

(6) Traction wheels

Main traction wheel is of all-in-one type and made of cast iron. Vice-traction wheel is of single piece type and made of aluminium casting material. Traction wheels control the pitch of glass yarn covering and film covering as well as conductor's travelling speed.

(7) Bake oven

It has 8 bake ovens (each is of length of 1.5m).

Electrical heated tube of stainless steel.

Installed automatically opening unit if yarn breaks.

Utilize intelligence temperature controller of an adjustable range of 0~400°C.

Each side of bake oven is installed with gear rack and limit unit to ensure the oven travels on a straight line.

(8) Cooling unit

The wire traveled through a bake oven will be very hot, cool it down with a fan before take up can protect the finished product.

(9) Take-up unit

① Size of take-up drum: $\Phi 600\text{mm}$, external width 300mm

② Structure and function:

The take-up machine is of stationary type and take up with polished rod. You can adjust the pitch manually. Take-up drum is lifted by motor drive.

③ Take-up tension is controlled by torque motor.

3. Equipment Performance

Rated speed of covering head: 800r/min

4. Speed Requirement

Producing Speed: 0~4m/min

5. Designing Description

- (1) Film covering heads and yarn covering heads are driven by independent servo motors via synchronous belt. One machine has 8 servo motors in all.
- (2) Driving traction wheel is driven by a sole servo motor via a speed reducer.
- (3) Electrical equipment controlling program of the whole machine is controlled by PLC and weak current electrical equipment.
- (4) You can operate controlling program with the main interface on touch screen and intelligence protection interface.
- (5) Advantages of using servo motor: No pitch drifting, smooth covering. Achieve the requirement of all limit thickness of thin insulation.
- (6) Each bake oven has a temperature control instrument and a temperature rise record viewing device.

P.S.

Special technical requirements, kindly please contact with us by email

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