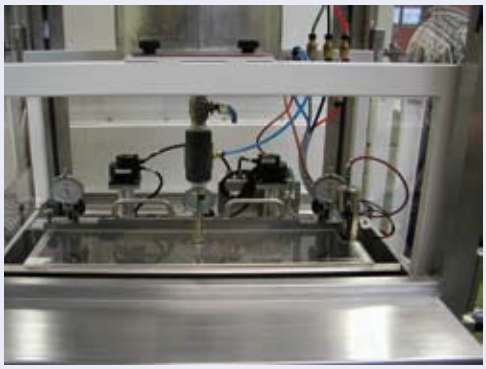
Tape Casting Plant Type FGA

Technical Information

machine front with casting station

- **Process:**

The slip is supplied from the conditioning-tank to the casting station controlled by level sensor. From this precisely adjustable slip dosing tank



the homogenously prepared and deaerated slip is flowing as a continuous curtain onto the casting base on which the carrier tape is moved with constant speed and shock-free. This submitted casting strip is drawn out to a entirely plane slip layer from a highly precise squeegee (Doctor-Blade), exactly adjustable via micrometer screws. Afterwards the still humid tape passes through the drying channel that is split up into three sections. By means of counterflow air guidance the tape is dried so far such that it slightly becomes detached from the carrier tape after having left the drying tunnel.

- **Component Parts:**

- Slip conditioning-tank with stirrer and dosing valve.
- Casting station with temperature control and Doctor-Blade, which is fixed to a precision ground hard stone plate (planeness +/- 2 μm).
- Winding and unwinding device for carrier tapes with precisely adjustable speed.
- Drying channel separated in three drying sections with metal transport casting station with el. height adjustment belt.
- Three separately adjustable radiators for heating the drying air.
- Three temperature regulating units for exact temperature adjustment.
- Three supply air and exhaust air fans with throttle flaps for regulation of air quantities, inverter controlled.

exit of the drying channel

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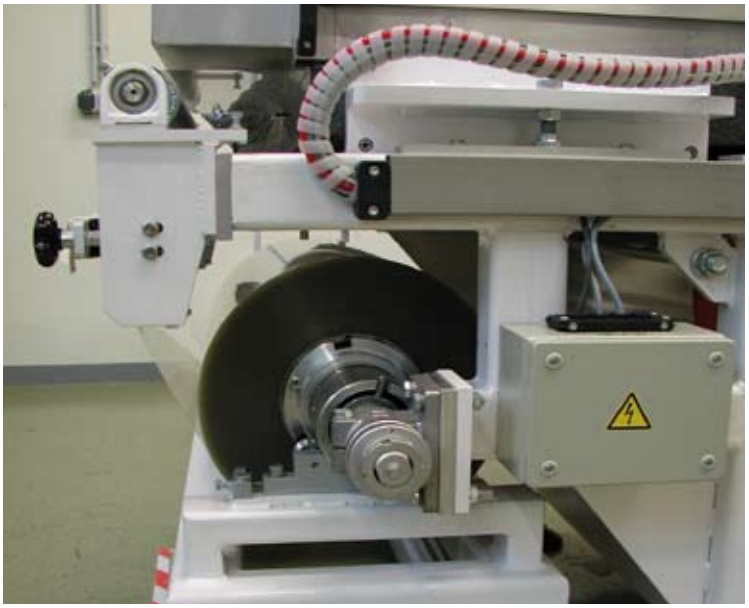
• Optional Equipment:

- Laser thickness measuring directly after casting or at any position during drying
- El. adjustment of the casting height (Doctor blade)
- Control circuit for casting height in connection with thickness measuring unit
- edge cutting device
- automated winding device
- sheet cutting devise (longitudal and cross)
- transfer unit with stacking device
- additional casting station for the quick change-over of different casting bodies
- casing of casting station for constant temperature



scrolling of carrier foil

separation from ceramic tape and re-winding of the carrier tape

el. heating unit for the drying section

TECHNICAL DATA - FGA 500

max. capacity, approx.	6 m^2/h*
min./max. casting speed	20/200 mm/min.
Drying time with min./max. speed	500/50 min.
Total length of the drying channel	10 m
Length of one drying section, approx.	3.3 m
min./max. casting thickness	0.08/4 mm
Precision casting thickness	+/- 5 μm
Useful width of tape	500 mm
Width of Doctor Blade	540 mm
Width of carrier tape	600 mm
Width of transport belt	650 mm
Conditioning tank volume, approx.	5 l
Casting tank volume, approx.	3 l
max. evaporation capacity (H20), approx.	5 kg/h
Installed heating power of convection drying	50 kW
El. connection	220/400 V/50 cps
Dimensions (length/width), approx.	12000/1300 mm
Height (top edge drying channel), approx.	1100 mm

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