# **TSG 650** Hot Wheel Coater

Best for foam fabrication and other coating operations



### Wheel legth 600mm

The hot wheel coater is fitted with two flanges at the end of the desk. By drawing the object over the desk across the flat surface of the coating wheel, a thin hot melt film is applied on one side of the object.



Control Box for Hot Wheel Roll Coater without Backup Roll



#### Technical dates

- Application speed 8.5m/min
- Coating wheel ø80 x 600mm
- Glue pot capacity: Content 4 liters of hot melt adhesive.
- Heating power 2.2 kW
- Programmable Temperature Regulator
- Ready to use in 60 min
- Power requirement 400V/230V50Hz 6A

#### Coating wheel

- Adjustable scrapper for glue thickness 0,1-0,5mm
- Separator plate between the glue pot and the coating wheel
- Glue pot cover
- Molded aluminum tank with heating
- Wheel rotating and application sense



### Different Views of the Hot Wheel Roll Coater with length 200mm









# TSG 650 Hot Wheel Roll Coater

Different Wheel lengths - customized lengths possible



Hot Wheel Roll Coater with Wheel lengts 600, 700 and 800mm



Electric Control Box for Hot Wheel Roll Coaters with motorized Backup Roll



## Hot wheel coater for Hotmelt

#### 1. Operation mode

The hot wheel coater is conceived to melt Hotmelt glue in the shape of stick, cube and granule for industrial applications.

The roller turns in the liquid glue and by the wheel it assignes a thin film onto the working pieces. The thickness of glue is adjustable by a wiper of 0,1 to 1,5mm. A squirrel cage worm gear motor drives the hot wheel coater. The speed of the roller is normally fix and about 8,5m per minute.

#### 2. Installation of the hot wheel coater

The hot wheel coater is fitted at the end of the table. The work piece is slipped by hand over the table plate in the direction of the hot wheel coater roller. The glue coated part of the work piece leaves in free air and won't touch some obstacles involuntarily. The hot wheel coater must be bolted well to the fortificated T-square with the screws according the thickness of the table plate. The electric control box for the heating and the motor is connected with the hot wheel coater by an electric cable with a multiple plug. The electric control box should be mounted so that the worker has a free view on the temperature display and the elements of control.

#### 3. Commissioning of the hot wheel coater

First clean the reservoir against possible pollutions. The clean reservoir is to be filled with sticks or Hotmelt granulates.

Then start the heating of the hot wheel coater and adjusts the necessary work temperature. - See description of the temperature regulator in appendix.

After a short time, glue begins to liquefy. The heating time averages 30 minutes and depends on the trademark of glue and its final temperature.

The level of the melted glue must be at least 1cm above the soil of the reservoir and not higher than 2,5 cm below the upper side of the reservoir.

At the moment where the temperature reaches the indicated value, a temporized relay with delay of 15 minutes is in function to start the worm gear motor. This additional delay prevents the motor to be started in the cold and strong condition of glue.



For the first start-up of the motor, the rotating direction may be inverse. In this case it is necessary to reverse the two phases of the motor wiring, so that it turns in the correct direction.



#### 4. Adjusting of the glue thickness

The thickness of glue used depends on one hand on the viscosity of the melted glue, that can be taken by the rotary roller, (maximum quantity of glue), besides the wiper's position toward the roller (minimal glue quantity),

2 screws can adjust the wiper. The wiper's regulating results by eye or with a space plate bet in the gap of the roller and the wiper during the tightening - loosen of the two screws. The gap is adjustable about 0,1-1,5mm.



Once the gap is correctly ajusted and you will increase or diminue the glue thickness ist evident to ajuste both screws in same direction cw or ccw.

Start ajustment with only 1/4 turn of each screws cw or ccw.

360° turn of the screws move the wipper for 1mm.

#### 5. <u>Roller drive</u>

The drive of the hot wheel coater results by a squirrel cage worm gear motor. For security against overload, destruction in the cold condition or by outside influences, a friction disk protects the worm gear reducer. The motor is protected by a thermo motor relay or optional by the Frequency Inverter. In this case, Speed is regulable between 17 to 35 rpm

#### 7. Motorized Backup Roll

The motorized spring loaded Backup Roll is driven by a DC Gear Motor and synchronized with the Glue Wheel.

For the Gap adjustment loose the knurled Nuts and mouve the roll in working position, then fit the knurled Nuts again. Working position for the Gap is the foam thickness minus 0.5 - 1mm depend of the hardness of foam. Watch the milimeters with the lower flat part of the black Insert.

#### 8. Electric Control Box

The electric control box is functionally the drive for the worm gear motor and the thermostat for the heating of the reservoir. The motor only starts after the temperature reaches the indicated value.

#### 9. Insulation of heat of the hot wheel coater

For heat protection the molded aluminum reservoir is sheltered with a stainless steel case protection. This protection reduces the heat radiating of the reservoir on one hand and prevent the danger of incineration of it, makes it to touch the hot wheel coater.



## **Option: Backup Roll**

The Backup Roll warranties a continuous and regular Hot Melt film application onto the foam. All Hot Wheel coaters can be delivered with free driven Back-up Roll or with motorized Back up Roll.

Free driven Back up Roll is perfect for soft foam. The Gap between the application Roll and the Back-up Roll should be around 85-90% of foam thickness. The spring loaded Back-up Roll compensate the manufacturing tolerances in thickness of the foam plates.

The motorized Back-up Roll is designed for medium and hard foam. The Gap between the Glue application roll and the Backup-Roll should be 1-2mm less of foam thickness. Also the motorized spring loaded Backup Roll compensates the manufacturing tolerances +/-2mm in thickness of the foam plates.

The motorization of the Back-up Roll is made by 40W DC speed regulated gear motor. If the speed of the Hot Wheel coater is regulated by frequency inverter, the Back-up Roll is synchronised in speed with the Glue Wheel.



