

I TWEEL

HORN
GLASS INDUSTRIES

innovation
ENGINEERED IN GERMANY

TWEEL

The tweel is one of the most important control instruments within a float glass production plant. It adjusts the flow of the glass melt from the furnace into the tin bath. The tweel can also be used to completely shut-off the glass flow.

The HORN® tweel type TW is distinguished by its highly robust mechanical design. With the HORN® tweel, a glass plant is fully prepared for any situation.

The tweel consists of the following components:

- Control tweel damper, made of fused silica material
- Emergency tweel damper, made of fused silica material or stainless steel
- Tweel mechanism, which effects the vertical movement of the two tweels

Even in the highly unlikely case of control tweel failure, production can continue with the emergency tweel. In case of power or control system failure, the tweel height can still be adjusted by hand wheels. The height adjustment is effected via a lift cylinder with electric drive, which allows for a positioning accuracy of 0.1 mm.

HORN® can provide two different types of tweels. The floor based tweel, which is installed as standard on the working floor. This tweel type is installed on base plates welded onto the steel structure. Elongated holes in the plates facilitate exact positioning of the tweels in the spout after heat-up of the melting furnace and the tin bath.

The second type is the suspended tweel. This tweel is installed on the tin bath support steel structure. The robust and highly innovative design of the suspended tweel ensures a stable and smooth operation providing all the benefits of a freely accessible spout area. Additional air cooling protects the electrical and mechanical parts from the high temperatures.

At both types of tweels the control tweel damper is positioned at the front in glass flow direction, the emergency tweel damper is positioned behind it. The tweel can be operated locally via a panel or remotely from the control room.

BENEFITS

- High positioning accuracy of 0.1 mm
- Fast installation due to compact design
- Emergency tweel can be made of refractory material or stainless steel at choice
- Manual adjustment option in case of failure of power supply of control system
- Completely free access to spout area with the suspended tweel type

