BATCH CHARGERS

- FULLY ELECTRONIC
- 3-POSITION
3-POSITION

- 3 different charging positions
- Minimum manual operations
- From the control panel it is possible to set the number of pulses of the pusher in one direction
- Less manual setup
- Pusher stroke: easy setup from control panel

GLASS LEVEL E.A.G.Le. 2.0 EVO

The electronics is fully contained in the process camera
- **Working Principle:** E.A.G.Le allows measuring the glass level through the optical reflection of a fixed pointer mounted out of contact with glass
- **How it is made:** It is composed of a fixed steel pointer (water-cooled probe) in INCONEL and a video camera (water-cooled) placed in a rigid industrial casing.
- **How it works:** It acquires and processes the images through the video camera using advanced algorithms managed by an Artificial Vision software running in the microprocessor control unit. The real and virtual pointer reflected images are acquired at high frequency enabling thus to establish the actual level of the glass with absolute precision.

- **NO CONTACT WITH GLASS**
- **NOTHING IN MOVEMENT**
- **ABSOLUTE LEVEL MEASURE**
- **EASY TO INSTALL**
- **MAINTENANCE-FREE**
- **SELF-CALIBRATING**
- **VIBRATION-PROOF**

**Technical Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Field</td>
<td>from -15 to +15 mm</td>
</tr>
<tr>
<td>Resolution</td>
<td>higher than ± 0.05 mm</td>
</tr>
<tr>
<td>Image Elaboration</td>
<td>30 frames/sec.</td>
</tr>
<tr>
<td>Pointer and Camera Cooling</td>
<td>demineralized water</td>
</tr>
</tbody>
</table>
FULLY ELECTRONIC

- Getting-over of all the mechanical limits
- Servo motor pusher driven
- Rotation **angle** and rotation **sequence** setting by keyboard

- It rests on the palisade block of the doghouse
- Prevention of parasitic air from entering into the melting tank
- Internal pressure totally under control
- Effective dusting reduction in doghouse area
- Total doghouse sealing
- Reduction of energy consumption
- Low NO\textsubscript{x} emissions

For each rotating turret position it is possible to choose:

- Batch quantity
- The shape of the pile
- The opening of the bin
- The pusher impulse
• For double doghouse furnaces, each machine can be set separately and synchronized with combustion reversal, in order to feed more or less batch depending on the combustion side.

• The pusher opening angle and the stroke velocity may be set independently for each turret position.
• The batch quantity can be controlled by pusher velocity, as usual, and also by pusher stroke length.
• The setup of the pusher and the turret rotation may be operated by the control panel.
• Stop Positions: the turret can be set in many different positions.

Model
Size

- GTBC-TR1 up to 80 TPD
- GTBC-TR2 up to 160 TPD
- GTBC-TR3 up to 250 TPD
- GTBC-TR4 up to 380 TPD
- GTBC-TR5 up to 550 TPD

Technical Features

<table>
<thead>
<tr>
<th>Furnaces Applications</th>
<th>regenerative end- &amp; cross-fired recuperative oxy-fuel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass Types</td>
<td>container tableware pharmaceutical fiber borosilicate sodium dillicate</td>
</tr>
<tr>
<td>Doghouse Type</td>
<td>standard trapezoidal doghouse</td>
</tr>
<tr>
<td>Batch Humidity</td>
<td>up to 5%</td>
</tr>
<tr>
<td>Oscillating Angle</td>
<td>34° - 44°</td>
</tr>
<tr>
<td>Feed Systems</td>
<td>vibrating channel</td>
</tr>
<tr>
<td>Cooling</td>
<td>demineralized water</td>
</tr>
<tr>
<td>Cullet</td>
<td>up to 85% - 90%</td>
</tr>
<tr>
<td>Max Cullet Size</td>
<td>50 - 60 mm</td>
</tr>
</tbody>
</table>
All electronic devices are integrated in a single control panel located in the control room or in the doghouse area.

PLC and HMI touch screen are installed in the control cabinet. Operator interface can easy control:
- Oscillating position
- Angle
- Residence time
- Number of strokes
- Rotation sequence

Pusher:
- Zero point
- Stroke
- Velocity

**Alarm**

All functions are surveyed and they are optically and acoustically indicated should any failure occur.

If required, basic control module is available with std. batch charger.