PLASTICOLOR

THROUGHPUT MEASUREMENT SYSTEMS
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PLASTICOLOR measuring and control equipment is used in all areas of the plastic processing industry, for example:

- Cable manufacturing
- Blown film extrusion
- Pipe extrusion
- Die cast extrusion
- Profile extrusion
- Blow moulding

Gravimetric analysis and the measuring and control equipment associated with it, offer a wide spectrum of possibilities. They are used to improve the quality of products, save materials and ensure an ideal layer thickness ratio in co-extrusion processes.

A number of control strategies are available, for example:

- quantity control
- meter-weight control
- G.S.M. (Gramme per square metre control)
- ramp-up and ramp-down control.

PLASTICOLOR weigh hoppers and the PPM controller can be connected to master control systems via all popular field bus systems. The systems can be easily integrated into older/existing extrusion systems which, in effect, upgrades your system to the newest generation of measuring and control technology. Existing dosing systems (PLASTICOLOR or other brands) can also be integrated.
A PLASTICOLOR throughput measurement system consists of the following:
1. Weigh hopper (4)
2. Neckpiece tube with quick discharge at the side (3)
3. Adapter that matches the machine feed (2)

It is possible to mount a PLASTICOLOR hopper loader (6) on the storage hopper of the throughput measurement. In connection with a suitable personal computer, it is possible to record, display, evaluate and print all relevant data.

The throughput measurement can be combined easily with an existing PLASTICOLOR mixing station. Can also be connected via field Bus systems (Modbus, Profibus etc.).
PLASTICOLOR weigh hoppers are used on extrusion lines as well as on dosing units (single unit, batch dosing unit or in gravimetric mixing stations).

To determine the mass flow rate, the reduction of weight is recorded for each time unit. The values measured via the “loss-in-weight” procedure will be used as reference points for correcting the RPM of the extruder/haul-off or the dosing unit. One of the advantages of the “loss-in-weight” system is the fast responding times.

<table>
<thead>
<tr>
<th>Output</th>
<th>Volume</th>
<th>Valve cross-section</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 l/h</td>
<td>8 l</td>
<td>80 mm</td>
</tr>
<tr>
<td>600 l/h</td>
<td>17 l</td>
<td>80 mm</td>
</tr>
<tr>
<td>1100 l/h</td>
<td>29 l</td>
<td>80 mm</td>
</tr>
<tr>
<td>1100 l/h</td>
<td>29 l</td>
<td>120 mm</td>
</tr>
<tr>
<td>1800 l/h</td>
<td>46 l</td>
<td>80 mm</td>
</tr>
<tr>
<td>1800 l/h</td>
<td>46 l</td>
<td>120 mm</td>
</tr>
<tr>
<td>2800 l/h</td>
<td>69 l</td>
<td>120 mm</td>
</tr>
</tbody>
</table>
CONTROLLING A DOSING UNIT OR EXTRUDER

Selectable options for entering target values / displaying actual values

Connection to all standard Bus-Systems possible

PPM

M T

PPM
105.2 kg/h

IF

PC

IF

SPS
CONTROLLING AN EXTRUDER AND/OR HAUL-OFF

Selectable options for entering target values / displaying actual values

Connection to all standard Bus-Systems possible
CONTROLLING 1...N CO-EXTRUDERS AND A HAUL-OFF
CONTROLLING 1...N MIXING STATIONS WITH 2 TO 8 COMPONENTS
PLASTICOLOR THROUGHPUT MEASUREMENT SYSTEM - EXAMPLES