

## GraviSys-g/m

### Weight-per-meter control for blown film lines

#### Product information



### Features

#### Individual system components

- Weigh hopper with loss in weight controller
- Siemens PLC with 7" touch screen , TFT colour
- Line speed measurement with rotary encoder

#### Control of extruder and take-off unit

- Output: 0-10Vdc, up&down, PROFINET
- Optional: Output to motorized potentiometer
- Ramp function for extruder or synchronous ramp function for both drives

#### Production control - MES (Manufacturing Execution System)

- Order management
- Bar graph of work in progress
- Reporting: product length, material consumption, production time
- Trend charts of process values
- Quality evaluation with characteristic values
- Network link to host system

### Functions

Weight-per-meter control is a key process feature in extrusion lines for high-quality blown film manufacturing. The control is effected using screw RPM as the control feedback. This configuration is made possible by the fact that changes in thickness are caused by throughput fluctuations, not film width and line speed which remain constant.

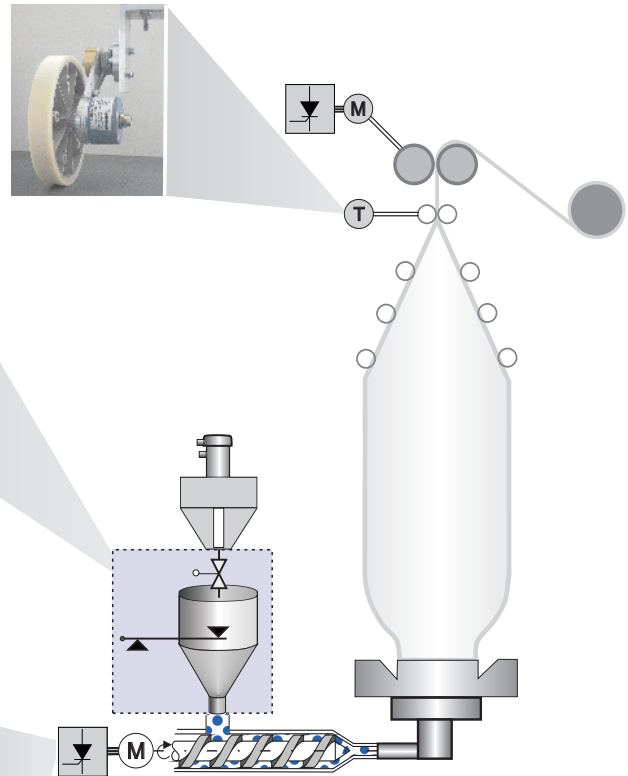
The weight per meter length is calculated from extruder throughput and line speed. Throughput values are provided by the GP2408 loss-in-weight controller. Line speed is monitored by a contact wheel equipped with a rotary encoder. The Simatic S7-1200 PLC control system collects all process values and operator settings and uses them to control the extruder and take-off drive.

The GraviSys-g/m system meets highest standards for quality and production efficiency. The system pays for itself in a few months from material savings alone.

## Weigh hopper and throughput controller



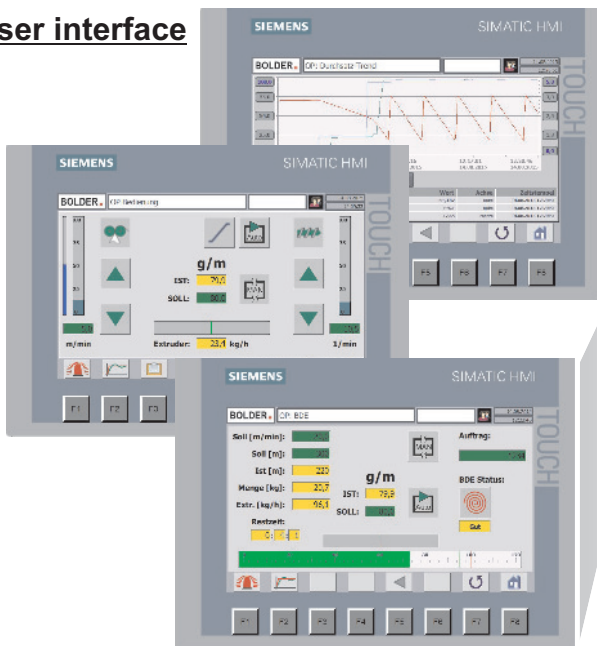
## Line speed measurement



## Weigh hopper / features

- Base-mounted scale
- High overload protection
- Rugged design
- GP2408 for monitoring, control and diagnostics
- Calibration done directly at weigh hopper

## User interface



## Process control / features

- User-friendly operating menu
- Setpoint input by numerical entry or keys
- Operating modes: Manual, Ramp, Auto
- MES with entry of order information
- Manual input of quality appraisal: good/ bad
- Bar graph for order in progress
- Trend chart for process evaluation
- Alarm overviews and logs
- Personalized alarm configuration
- Host computer or internet connectivity
- Language selectable
- Personalized functions, evaluation routines and HMI

## Optional production overview

- Order overview for all lines
- Operating mode
- Material consumption
- Length produced
- Remaining time for order
- Current throughput
- Current speed
- Current weight per meter

Übersicht										BOLDER		
Nr.	Auftragsnummer	Status	Reifezeit	PPF	Soll [kg]	Ist [kg]	Verbrauch	Restzeit	Uänge	Materialverbr.	Aktuelle Durchlauf	Planwert
		Plan/Stop	Aus/Reif	Ge/Soll			Produkt II [kg] - 127%	h/h	h/h	kg/h	h/h	h/h
1	1514482	●	●	●	1930	2862	■	15:46:41	96288	76,0	16,0	22,0
5	8310623	●	●	●	96288	166792	■	05:14:38:44	166792	16,0	16,0	17,5
3	7322883	●	●	●	1730	3022	■	07:22:13	18118	82,5	62,5	11,0
4	8310662	●	●	●	4200	4119	■	0:14:49	94300	125,0	120,1	47,2
5	7052369	●	●	●	7450	8365	■	0:0:0	83379	105,0	102,4	76,0
6	203341	●	●	●	1230	2578	■	02:07:12	71289	55,0	52,0	22,0
7	8310641	●	●	●	4750	32318	■	05:42:05	697196	64,0	64,0	18,0
8	7032256	●	●	●	3180	8387	■	1:02:36	88758	90,0	90,4	33,0
10	863017	●	●	●	1240	182	■	0:01:41	1315	10,0	10,0	21,0

