# HASLER

exconnation

Heavy duty weigh belt feeder for powdery bulk materials



Powdrit

Weigh belt feeder



- Accuracy ± 0,25 %
- Feed rates from 0,4 m³/h up to 200 m³/h (7064 ft³/h)
- Used in all heavy industries
- Digital load cell SFT™
- Modular length and belt width
- Customised service
- High performances





# **Application**

he POWDRIT weigh belt feeder is used for the continuous, gravimetric feeding of powdery bulk materials. Depending on the material to be handled, the infeed to the POWDRIT is controlled by a suitable prefeeder, i.e. rotary star feeder, feeding gate, etc.

The electronic controller works as an independent unit or integrated in a multi component system. It also controls the prefeeder, depending on the application, by an independent PID control loop as a function of the settling chamber filling level or in a classical double regulation loop, based on the beltload. The electronic controller can be linked to a supervisory process control system via an optional interface module.

# SFT load cell and SWS Module, a Hasler exclusivity

- Virtually deflection free weight measurement by the digital SFT load cell with very high resolution (1:1'000'000).
- Factory calibrated, no calibration weight needed.
- Intelligent data acquisition unit SWS in standard.
- Local processing of all weigh belt feeder signals.
- DC low voltage power supply for SWS.
- 100 % digital connection
- Modular feeder design for length and width.
- Inlet settling chamber with triple skirt preventing material leakage between chamber and belt.
- Engineered for high rigidity.
- Patented belt tensioning and auto centring system.
- High quality conveyor belt with integrated index, cleaned inside and outside by scraper elements.
- Lateral belt replacement.
- Standard discharge hood for total dust free operation.
- Material enclosure between inlet settling chamber and discharge hood as option.



SFT the intelligent weighing technology!

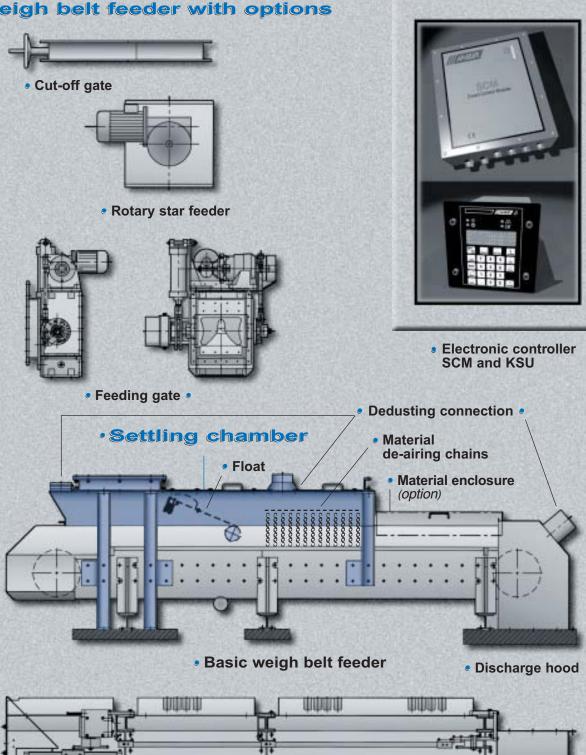
♦ Drive motor (AC, DC) left or right hand side

# Settling chamber

- For the de-airing and stabilisation of fluidised bulk materials before being conveyed over the weighbridge.
- Equipped with a set of chain curtains and retention plates; the position of these elements is optimised during start-up as a function of the materialflow behaviour.
- To be connected to the plant dedusting installation for the elimination of the air from the fluidised bulk material.
- Can be fitted with a "float" level measuring system to control the prefeeder via a dedicated 3-point control loop so as to maintain a preset settling chamber filling level. With this control concept the material is extracted from the settling chamber with a material bed height given by the shear gate setting.



# Weigh belt feeder with options



Spillage conveyor





## Flow rate

Material density Typical materials	[kg/dm3] Typical flow	0,40 Pulverised Coal	<b>0,60</b> Pulverised Coal Fly ash	0,80 Raw meal	1,00 Cement	<b>1,20</b> Gypsum	Size Standard	Maximum
POWDRIT 650	Min. min. [t/h]	0.25	0.3	0.3	0.3	0.3	650 x 2700	650 x 4700
	Max. max.[t/h]	5	7	10	12	14		
POWDRIT 800	Min. min. [t/h]	0.9	0.9	0.9	0.9	0.9	800 x 2700	800 x 4700
	Max. max.[t/h]	20	25	50	60	70		
POWDRIT 1000	Min. min. [t/h]	1	2	2	2	2	1000 x 3100	1000 x 4700
	Max. max.[t/h]	35	50	90	110	135		
POWDRIT 1200	Min. min. [t/h]	2	3	3	3	3	1200 x 3100	1200 x 4700
	Max. max.[t/h]	50	75	130	160	175		
POWDRIT 1400	Min. min. [t/h]	3	5	5	5	5	1400 x 3500	1400 x 4700
	Max. max.[t/h]	65	100	170	210	250		

Standard regulation ratio: 1:10

Belt width X Distance "material inlet - outlet"

# **Technical Specifications**

Feeding accuracy: +/- 0,25 %

Motor

• Motor: AC (DC option)

Protection class: IP 55Rating: 0,55 - 4 kW

Geared unit: Hollow Shaft Helical Bevel Gear

• Transmission: direct, on head drum

Force transducer: SFT type; 100 % digital

Working temperature range: -10°C to +60°C

Overload limit: +1'000 kg

**Speed sensor**: Inductive, integrated in geared motor

Standard materials used

Girders and hoods:
 Mild steel

Conveyer belt: Rubber: endless vulcanized standard: resistant up to 70°C high temperature: resistant up to 120°C

Load cell: Aluminium casing / anodized

Standard colour: RAL 5000, blue

80 µm thickness

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