



EXTENSO

equipment and services



Type SP90 Loss in Weight Feeder

static weighing better than 0.1%

proportioning accuracy better than 0.3%

simple installation, calibration and commissioning

separate data storage for each material characteristic

50 different materials

fast response, continuous control

The SP90 loss in weight system is a dust-proof weighing and control system for continuous proportioning of bulk materials. The system gives consistent feeding and high accuracy, even with difficult materials.

The compact design offers high reliability and simple maintenance.

Higher capacity units are shown on the SP95 data sheet.

technical specification sheet

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OPERATION

The weighing controller adjusts the speed of the output feeder to proportion the quantity according to the set value. The speed of the output feeder is calculated according to the volumetric proportioning characteristics of the feeder and the weigh hopper contents level.

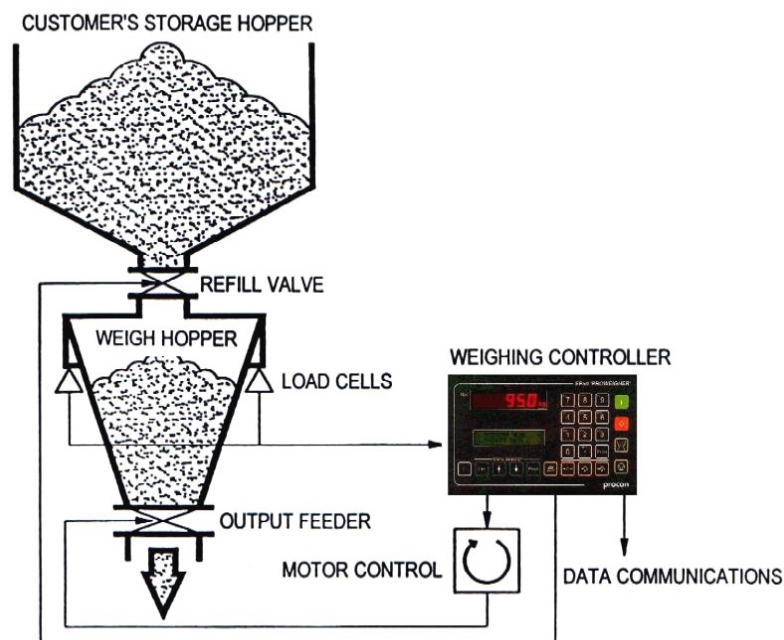
The hopper is slowly emptied (normally 3 to 30 minutes between refills) and the loss of weight per time intervals is used by the controller to update the volumetric information and to compensate for changes in material flow and head pressure as the hopper is emptied and refilled. This profiling of the feed characteristic ensures that the output feeder can be adjusted even during the refill cycle.

The weigh controller has advanced software providing the following:

- **Fast response.** The system quickly adjusts to changes of setpoint, without process delays or overshoots.
- **Batch weighing.** The system will compensate for material in-flight and give the correct batch size, even if the batch target is reached during the refill cycle.
- **Continuous control.** Changes of setpoint can be made even during the refill cycle, and is ideal for proportional and cascade control systems.
- **Material Logistics.** The system can cater for up to 50 different materials through a single feeder with separate data storage areas for each material characteristic.

The Weighing controller is equipped for comprehensive communication with both operator and peripheral plant equipment.

- Menu controlled text display for simple, user friendly operator interface
- Full system calibration from the instrument keyboard with password access to restricted parameters.
- Setpoint from keyboard entry or externally using controller serial or analogue interface.
- System outputs for serial communication and for external quantity counter.
- Sturdy and reliable construction
- Large LED display for process values.



Examples of materials handled by this system:

- Soot and fines with bridge building characteristics
- Coarse and fine dressed ore, ore and rock materials
- Cement, bentonite, lime and plaster
- Polymers, ferro chloride, lignosulphonates and powders.
- Abrasive materials like fine and coarse anthracite.
- Dust from electro bag filters in the cement, aluminium and metals industries.
- Dusty and hazardous chemicals in process plants.

technical specification sheet

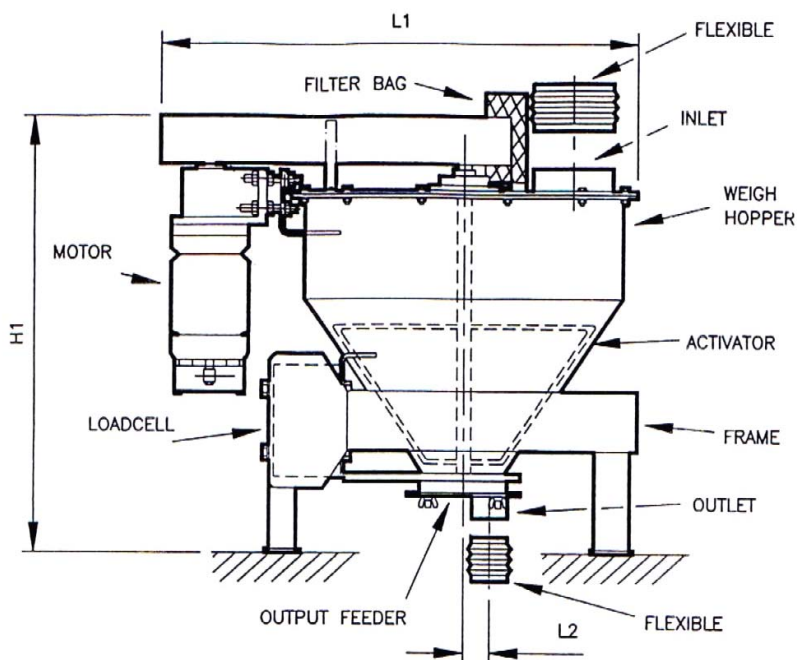
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OUTLINE DIMENSIONS

Two models are available. Each can be equipped with large or small weigh hopper according to the bulk density and capacity of the material to be handled.

The construction is fabricated from steel or acid proof stainless steel. The general configuration provides a simple and compact unit which demands little extra space compared to the capacity.

- The base frame is delivered with mounted load cell, weigh hopper and optional connection flexibles. This ensures exact installation and high weighing accuracy.
- Venting of the weigh hopper through filter bag, or by return to storage hopper or plant dust extraction system.
- The output feeder is easily accessed via an inspection hatch.
- The arch breaker / material activator in the weigh hopper is driven by the same motor as the cell feeder and gives sufficient activation at high capacity throughputs, without over activation at low rates of feed.
- The motor and gearbox assembly uses a simple drive chain transmission running at low speed and requires minimal maintenance.



DIMENSIONS	SP90-51	SP90-52
H1, Small hopper	540	800
H1, Large hopper	779	1100
L1	675	972
L2	37	63

SPECIFICATION	SP90-51	SP90-52
Max capacity dm ³ /h (litres/h)	270	1070
Volume small hopper dm ³ (litres)	30	125
Volume Large hopper dm ³ (litres)	60	250
Weight kg With small hopper	60	125
Weight kg With large hopper	85	150

Extenso's policy is one of continuous product enhancement. We therefore reserve the right to incorporate technical modifications without prior notification.

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