



DESCRIPTION

The **DSL75G is a gravimetric screw feeder**. It is the most versatile solution for handling both free-flowing, fine-grained bulk materials and difficult, cohesive products prone to bridging and rat-holing. The unit can operate in either continuous or batch mode.

The feeder consists of a main metering chamber, a hopper and a high-precision weighing system. Material flow is generated by the metering element — depending on the product, either a full-flighted screw or a helical spiral (auger). During operation, the loss in weight of the product is measured continuously, allowing the feed rate to be controlled (via the rotational speed of the metering element) by a closed-loop control system. Material flow is assisted by a horizontal agitator, driven by a separate electric motor and running at a constant speed. In batch mode, a fast-acting shut-off valve cleanly cuts the material stream once the target weight has been reached.

All product-contact parts are manufactured from stainless steel 1.4301 (AISI 304) or 1.4404 (AISI 316L); non-contact components are powder-coated. For customers in the food and pharmaceutical industries, internal surfaces and welds can additionally be ground and polished in accordance with EHEDG guidelines.



FEED ELEMENTS

Full auger screw – with centre shaft
Spiral screw - without centre shaft

ø(outer diameter x pitch)

- ø35 x 17,5 [mm]
- ø35 x 35 [mm]
- ø44 x 22 [mm]
- ø44 x 44 [mm]
- ø57 x 28,5 [mm]
- ø57 x 57 [mm]
- ø74 x 37 [mm]
- ø74 x 74 [mm]



HOPPER

At least one hopper wall is vertical, ensuring reliable material flow.
 Total hopper volumes:

- 100 [l]
- 200 [l]
- 300 [l]

Manual refill– hinged lid with handle, or bag dump station

Automatic refill– inlet spigot and venting port



ADDITIONAL OPTIONS

- Hygienic execution — continuous internal and external welds, internal surfaces and welds ground and polished ($R_a < 0.8 \mu\text{m}$)
- Shut-off valve for batch feeding
- EX-rated execution for hazardous areas
- Round-section hopper with additional vertical agitator (for highly cohesive materials)



CONTROL SYSTEMS

For feeders operating in continuous mode:

- FLEX 2100/FLEX
- ALPHA

For feeders operating in batch mode:

- 1020
- SGM800
- FLEX 2100/FLEX

Communication: EtherNet/IP, Modbus TCP, PROFIBUS, PROFINET.

The control system is mounted either directly on the feeder frame or as a separate, wall-mounted unit.



FEED RATE RANGE

Nominal turndown ratio:
 min: max = **1:10**

Maximum feeding accuracy:
±0,5% of set point

Minimum feed rate : **7 [l/h]**
 (full auger screw 35x17,5 [mm], 10 rpm)

Maximum feed rate: **5000 [l/h]** (spiral screw 74x74 [mm], 250 rpm)



DRIVE SYSTEM

- 3-phase AC motors **3 x 400 [V]**, with SEW worm gearbox
- Optional **3 x 500 [V] AC** supply or aseptic drive version available
- Feeding tool drive controlled via a variable frequency inverter

