

# ProFlex® C100

## Loss In Weight feeder for laboratory and small scale plants

- Flexible feed hopper with external Multi-Point Agitation
- Integrated plug-on gearbox with total range of 1:5 in 6 increments
- Quick change hopper
- Asymmetric geometry
- Interchangeable drive side



### Properties

The loss in weight feeder ProFlex® C100 rounds off the existing feed system ProFlex® C, that is established in the compound- and master batch industry already, to smaller feed rates (~0.1 – 100 l/h).

The ProFlex® C100 continues embodying the features of the existing feed system ProFlex® C:

- Flexible feed hopper with external 8-point agitation
- Easy dismantling of components for feed rate adoption or cleaning with just one tool
- Possibility to interchange drive and discharge side
- Asymmetric geometry for space efficient arrangement
- Feed rate adoption by rich scope of helixes and screws in two different discharge lengths
- Integrated gravimetric isolation with optional pressure compensation
- Cover with ferrules manual refill available
- Reduction of pulsation at low rpm by special discharge geometry
- Easy-to-use shipping bracket
- Hidden cabling to minimize the risk for shunt forces

### Special features

#### Quick change-hopper

Depending on the recipe, additives, color pigments and pre-mixes are often fed at low feed rates and require frequent change over. Dismantling of the product contact parts in the process environment is time consuming, increases the pollution and the down time of the system.

The quick-change hopper of the ProFlex® C100 allows to pull out all components, that require cleaning (even with residual product), from the process and to replace with a pre-configured unit.

The cleaning and pre-configuration of the quick-change hopper may take place at a more convenient location while the process is up again.

#### Quick-change plug-on gearbox

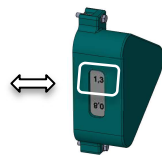
The integrated quick-change plug-on gearbox between drive and helix shaft provides 6 different reduction ratios at a total turn down ration of 1:5.

Just a few handles can change the ratio between motor frequency and helix rpm or between helix rpm and the agitation speed.

This provides more options to adopt the feeder to various feed rate requirements and material characteristics with just a few handles and nothing but the existing components.

| Technical Data - Overview                         | new size                               | existing sizes |             |               |
|---|--|----------------|-------------|---------------|
| Series  | C100                                   | C500           | C3000       | C6000         |
| Volumetric feed rate [dm <sup>3</sup> ]           | 0,1 – 100                              | 1 ... 500      | 10 ... 3000 | 100 ... 6000  |
| Single helix, single screw Diameter [mm]          | 10/13/19/25                            | 19/25/35/44    | 35/44/57/76 | 57/ 76/89/102 |
| Centerline distance of discharge [mm]             | 250 / 400                              | 350 / 500      | 450 / 650   | 600 / 800     |
| Extension hopper volume [dm <sup>3</sup> ]        | 20                                     | 50             | 100 / 150   | 200 / 400     |
| Feed hopper [material / volume [dm <sup>3</sup> ] | PUR / 10                               | EPDM / 20      | PUR / 60    | PUR / 100     |
| Dear weight [kg]                                  | ~ 45                                   | ~ 70           | ~ 170       | ~ 220         |
| Helix drive (AC-motor) [kW]                       | 0,18                                   | 0,25           | 0,75        | 0,75          |
| Agitation drive (AC-motor) [kW]                   |  | 0,12           | 0,37        | 0,37          |
| Ambient temperature                               | -10 °C ... +50 °C (ATEX: +40 °C)       |                |             |               |
| Material temperature                              | -10 °C ... +50 °C                      |                |             |               |
| Bulk density                                      | 0,1 to 1.2 kg/dm <sup>3</sup>          |                |             |               |
| Particle size [mm]                                | < 2                                    | < 5            |             |               |
| Flow properties                                   | good to moderate flowing, not flushing |                |             |               |
| Product contact parts                             | 1.4301/PUR                             |                |             |               |

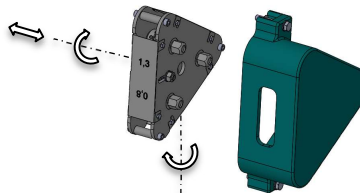
| Technical data – plug-on gearbox |           |     |     |     |     |     |     |
|----------------------------------|-----------|-----|-----|-----|-----|-----|-----|
| Hz                               | n [1/min] | 0,4 | 0,6 | 0,8 | 1,3 | 1,8 | 2,3 |
| 5                                | 6         | 13  | 10  | 7   | 4   | 3   | 2   |
| 10                               | 11        | 26  | 20  | 15  | 9   | 6   | 5   |
| 20                               | 22        | 52  | 40  | 29  | 17  | 13  | 10  |
| 30                               | 34        | 77  | 59  | 44  | 26  | 19  | 15  |
| 40                               | 45        | 103 | 79  | 58  | 34  | 25  | 19  |
| 50                               | 56        | 129 | 99  | 73  | 43  | 32  | 24  |
| 60                               | 67        | 155 | 119 | 87  | 52  | 38  | 29  |
| 70                               | 78        | 180 | 139 | 102 | 60  | 44  | 34  |
| 80                               | 90        | 206 | 159 | 116 | 69  | 51  | 39  |
| 90                               | 101       | 232 | 178 | 131 | 78  | 57  | 44  |
| 100                              | 112       | 258 | 198 | 146 | 86  | 63  | 49  |



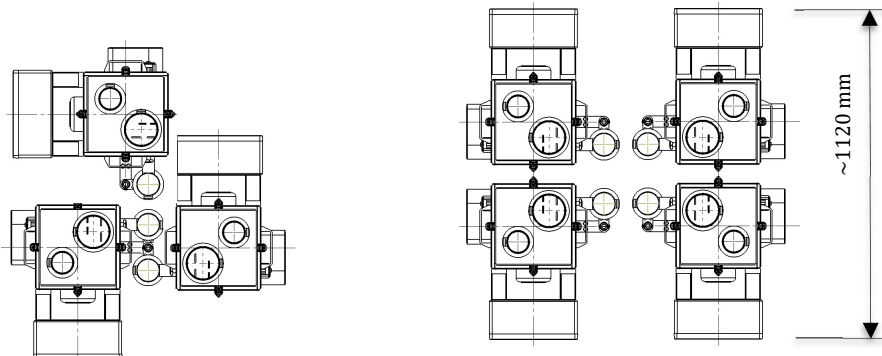
Change of reduction ratio executed within minutes by re-arranging the plug-on gearbox.

The chosen ratio can be inspected from outside at any time.

No additional parts, such as gear sets, required.



**Arrangement options (examples)**



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