



# C-LAB-TWYN

## Twin screw feeding unit for low throughputs

C-LAB-TWYN is a twin screw feeding unit engineered in different sizes in order to feed powders, granules, pellets, flakes and fibers at very low feedrate and is available in volumetric or gravimetric versions. In the loss-in-weight modules, an analogue load cell is installed to guarantee a high weighing accuracy.

The C-LAB-TWYN series is ideal for laboratory lines where small quantities of product need to be continuously fed at very low throughputs.

### PRINCIPLE OF OPERATION

One single motor through an integrated gear box, drives the feeding screw and the horizontal agitator which avoids bridging and keeps a constant material flow. Different screw configurations allows the user to feed any kind of product with any kind of throughput accurately and with consistency.



### MAIN FEATURES

#### EASY AND FAST CLEANING

Both the front and back feeder covers can be completely disassembled for cleaning operations

#### HIGH PERFORMANCE

C-LAB-TWYN can guarantee a high accuracy in feeding (+/- 0.5%) in a range of 1:20

#### MODULAR DESIGN

The design allows the possibility to change material and feed-rate by simply changing the screw and discharge outlet.

#### MODULAR HOPPERS

The various sizes of hopper can be easily replaced or disassembled for cleaning operations.

#### WEIGHING SYSTEM

C-LAB-TWYN gravimetric units can be installed on a platform scale which guarantees high accuracy.

#### INSTALLATIONS

C-LAB-TWYN is always supplied prewired with junction boxes to permit an easy and fast installation.

C-LAB-TWYN feeders can be installed in a standalone frame or in a modular multi component dosing station frame C-MULTY which is available in various configurations: DS-4, DS-6 and DS-8, from 2 to 8 feeding units.

#### CONTROL SYSTEM & INDUSTRY 4.0

Feeder control system can manage from a single feeder up to several feeders. The PLC is supplied with OPC-UA protocol embedded, which makes each machine modular and ready for industry 4.0.

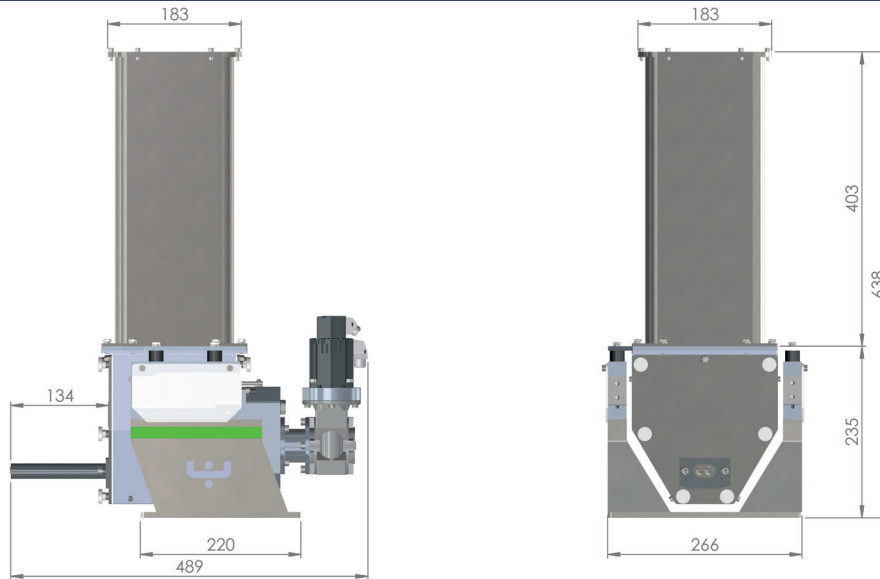
#### HMI

The feeding control system is equipped with a user friendly HMI touch screen (7"-9"-15").

#### OPTIONS AVAILABLE

As an option, C-LAB-TWYN can be designed for high temperatures, ATEX compliant and/or FDA compliant.

## TECHNICAL DATA



### Configuration

- Vertical Hopper 28 lt
- Conical Hopper 60 lt
- Asymmetric Hopper 90lt
- Hopper extension 25/50/100 lt
- Single feeder
- Multi feeder

### Option

- Vertical Agitator for conical, asymmetric Hoppers
- Screw extension (min Ø20, max Ø50)
- Agitator for powder
- Agitator for flakes or granules
- Agitator for fiber

### Configuration

- AC motor
- DC motor
- Single motorization
- Double motorization

### Technical Data

#### Brushless Motor - Drive

- Motor Size 0.4 kW
- Voltage 230 V
- Maximum Speed 3000 rpm
- Motor Class IP55
- Speed Reducers 7:1 / 14:1 / 30:1

#### AC Motor - Drive (Option)

- Motor Size 0.37 kW
- Voltage 230-460/3/50-60Hz
- Maximum Speed 1400 rpm
- Motor Class IP55
- Speed Reducers 7:1 / 14:1 / 30:1

### C-TWYN DLT-12

Gear (AC motor)	rpm (screw)	DOUBLE CONCAVE	AUGER	SPIRAL
		Ø 13 x 11	Ø 12 x 5	Ø 14 x 10
		dmc/h	dmc/h	dmc/h
30:1	2-83	0,12-5	0,06-2	0,3-10
15:1	3,5-120	0,3-8	0,1-3	0,5-18
7:1	17-700	0,62-25	0,32-13	1,6-62
Gear (Brushless motor)	rpm (screw)	Ø 14 x 15	Ø 14 x 20	Ø 14 x 20
		dmc/h	dmc/h	dmc/h
30:1	2-83	0,25-9	0,5-4,5	0,75-27
15:1	3,5-120	0,3-15	0,06-28	1-45
7:1	17-700	1,3-50	2,6-100	3,9-150

### C-LAB-DLT-20

Gear (AC motor)	rpm (screw)	SPIRAL				AUGER			
		Ø 17 x 17	Ø 20 x 20	Ø 30 x 16	Ø 30 x 32	Ø 15 x 10	Ø 25 x 25	Ø 30 x 16	Ø 30 x 32
		dmc/h	dmc/h	dmc/h	dmc/h	dmc/h	dmc/h	dmc/h	dmc/h
30:1	18 - 86	262 - 1255	4,5 - 21	7 - 34	11 - 53	0,8 - 3,8	8,5 - 40	7 - 33	13 - 64
15:1	40 - 185	584 - 2700	9,3 - 43	15 - 69	23 - 107	1,6 - 8,5	18 - 81	14 - 65	28 - 130
7:1	80 - 370	1168 - 5400	20 - 92	32 - 148	50 - 231	4 - 19	38 - 174	30 - 140	60 - 278
Gear (Brushless motor)	rpm (screw)	Ø 17 x 17	Ø 20 x 20	Ø 30 x 16	Ø 30 x 32	Ø 15 x 10	Ø 25 x 25	Ø 30 x 16	Ø 30 x 32
		dmc/h	dmc/h	dmc/h	dmc/h	dmc/h	dmc/h	dmc/h	dmc/h
30:1	4,6 - 93	0,4 - 8	1,15 - 23	1,8 - 36	2,8 - 56	0,2 - 4	2 - 43	1,7 - 35	3,5 - 70
15:1	9,3 - 186	0,8 - 16	2,3 - 46	3,7 - 74	5,8 - 116	0,4 - 9	4 - 88	3,5 - 71	7 - 140
7:1	20 - 400	1,8 - 36	5 - 100	8 - 160	12,5 - 250	1 - 20	9 - 188	7,6 - 152	15 - 300