



Subject to modifications.

GEA DISUGAR-C Sugar Dissolving System

Technical data

GEA DISUGAR-C is a continuously working unit for the production of sugar solutions based on the cold dissolving procedure. The unique selling point is the water fine dosing feature, which ensures highest brix accuracy at all time and self-adjustment of the crystal sugar conveying devices.

After the start of the process, pre-heated water is dosed into the dissolving tank.

As soon as the preset water quantity is reached, granulated sugar starts being conveyed into the dissolving tank.

The capacity of the conveyor (e.g. screw conveyor, rotary valve) is adapted by a variable frequency drive. The sugar can be fed directly into the dissolving tank, or via circulation loop and injection nozzle.

Combined with a special mixing nozzle inside the dissolving tank, the centrifugal pump generates high turbulences in the dissolving tank, thus enabling a quick dissolution of the sugar crystals in the water. The sugar solution will leave the dissolving process via the separating screen.

At the outlet of the unit the density is measured, the Brix-value is calculated (alternatively direct measurement of Brix) and the desired Brix-value is set by the addition of finely dosed water.

If after all the setpoint cannot be reached, the system will change automatically to circulation and the Brix-value will be corrected. So, it is made sure that only sugar solution according to the specification will leave the unit.

Technical data | GEA DISUGAR-C

Features

- Fully automatic, self-optimizing process with water fine dosing
- Low-maintenance cost
- Flow rates from 5,000 up to 30,000 l/h (higher flow rate on request)
- Syrup cooler

The GEA DISUGAR-C system is available with the following options:

1. Buffer vessel for dissolving water
2. Cooler for liquid sugar
3. Water fine dosing
4. Monitoring of positive pressure drop
5. Sugar supply with slurry loop and jet pump
6. Consumption measurement for media and power supply
7. LoTo valves
8. Mass flow meter replacing magnetic flow meter for liquid sugar

Dimensions	Qmax. [l/h]	Design size [DN]	Length* [mm]	Width* [mm]	Height* [mm]	Max. weight approx. [kg]*	Installed power [kW]
	6,500	40	3,600	1,600	2,600	900	9
	12,000	50	3,800	1,750	2,700	1,200	15
	20,000	65	4,200	1,900	2,700	1,300	20
	30,000	80	4,400	2,200	2,900	1,800	32
	*without options						
Material	AISI 316L/EPDM other materials available on request only						
Granulated sugar	Refined sugar EG2, media						
Nominal flow rate	5,000 l/h.....30,000 l/h		Flow range 80 - 100% of the nominal flow rate				
Concentration	50° Brix up to 65° Brix		+/- 0.1° Brix at cont. operation			Option 3	

GEA Liquid Technologies Germany GmbH

Voss-Str. 11/13
31157 Sarstedt, Germany
Tel +49 5066 9900

Am Industriepark 2-10
21514 Buechen, Germany
Tel +49 4155 490

gea.com/contact