

## Description

DI-SUGAR-H™ is a continuously working dissolving unit for the production of sugar solutions from granulated sugar and water based on the hot dissolving procedure.

After the start of the process, water is conveyed 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) is adapted by a variable frequency drive.

At the same time water is carried through the cooler into the dissolving tank in the desired ratio.

Combines with a special mixing nozzle, the pump generates heavy turbulences in the dissolving tank, thus enabling a quick dissolution of the sugar crystals in the water.

A part of the circulated solution gets through the exchanger to the heater where it is heated up to the pasteurizing temperature and then filtered. The pressure drop at the filter can be monitored by a manometer before and after the filter. The Brix value of the solution is determined after the filter and automatically set to the desired Brix value by the aid of the fine dosing process. The sugar solution is then cooled down in the exchanger and in the cooler.

The heat retention zone is designed so that the desired heat retention time can be obtained.

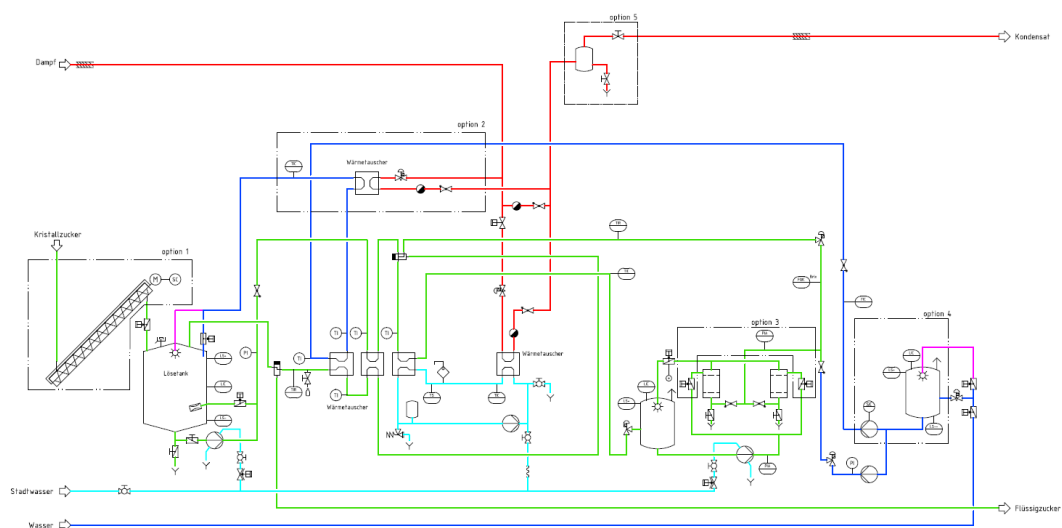
Unless the setpoints for Brix value and temperature are within the admissible deviations, the unit will be automatically switched to circulation until the setpoints will have been reached again.

The unit can be automatically controlled via the level in the target tank.

## Features

- Fully automatic, self-optimizing process
- Highly effective dissolving procedure
- Low operation costs
- High-quality, low-maintenance components
- Factory-tested unit
- Flow rates from 5,000 up to 30,000 l/h (higher flow rate on request)

## Flow diagram (example)



## DI-SUGAR-H™ is available with the following options:

1. Frequency-controlled conveyor for granulated sugar
2. Heating equipment for dissolving water
3. Automatic filter control
4. Water supply unit
5. Condensate return pipe

## Technical data

Materials	1.4301/EPDM other materials on request						
Dimensions	<b>Qmax.</b>	<b>Length*</b>	<b>Width*</b>	<b>Height*</b>		<b>Installed power*</b>	<b>Weight approx.*</b>
	<b>l/h</b>	<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>DN</b>	<b>kW</b>	<b>kg</b>
	5,000	4,000	2,200	2,200	40	22 KW	4,000
	10,000	4,500	3,000	2,200	50	28 KW	4,600
	15,000	5,000	3,000	2,200	65	32 KW	5,200
	20,000	5,000	3,000	2,200	65	37 KW	5,800
	30,000	5,500	3,200	2,200	80	45 KW	6,800
	*without options						
Granulated sugar	Refined sugar EC I/II	Screw conveyor, variable			Option 1		
		Rotary dosing valve, variable			Option 1		
Nominal flow rate	5,000 l/h....30,000 l/h	Flow range 50-100% of the nominal flow rate					
Concentration	60° Brix up to 65° Brix	± 0.1°Brix					
Water	Beverage water quality	Temperature t> 20° - 35°C* *depending on flow rate and concentration			Option 2		
		Pressure 2- 5 bar, fluctuation range ± 0.5 bar			Option 4		
Sugar solution	Output	Temperature t> 18° - 32°C* *depending on flow rate and concentration			Option 3		
		Pressure 1 bar			Option 5		

**Example: DI-SUGAR-H™**

**Flow rate 15,000 l/h at 65°Brix**

