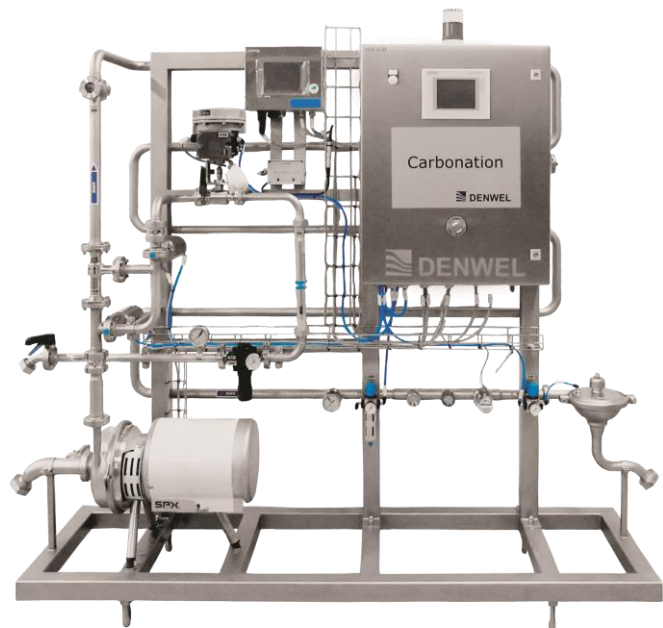


# INLINE CARBONATION

## Automatic Unit

- Micro bubble size
- Instant saturation
- Precise CO<sub>2</sub> injection
- CO<sub>2</sub> analyzer controlled



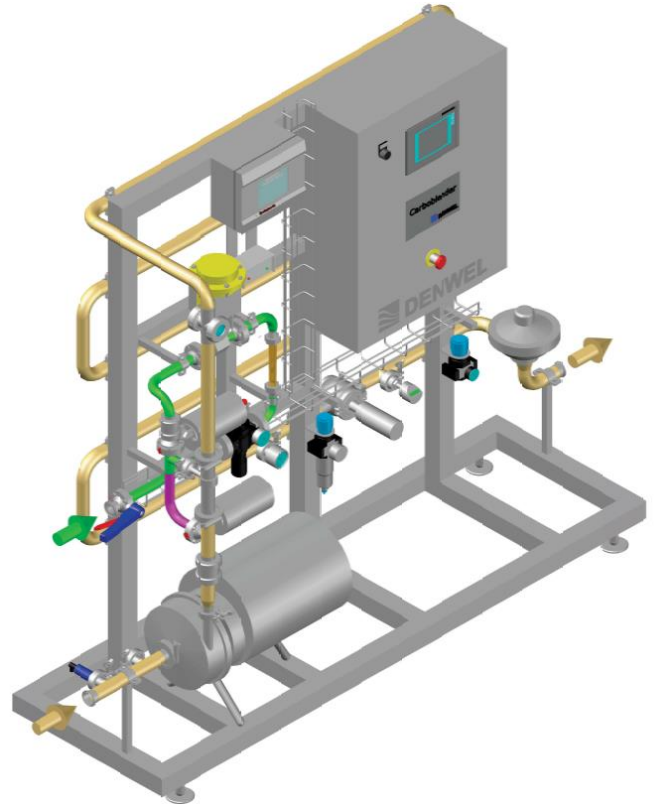
CO<sub>2</sub> is an essential ingredient of carbonated beverages. It enhances flavor and body of the product and the effect of effervescence characterizes the refreshing taste of the beverage. The CO<sub>2</sub> content also influences beer foam structure and its stability. Therefore, consistent and accurate CO<sub>2</sub> is one of the main quality factors in the production of beer and soft drinks. Designed for fast and accurate injection and dissolution of CO<sub>2</sub>, DENWEL provides a fully automated solution for continuous carbonation.

# I N L I N E C A R B O N A T I O N

## Principle

CO<sub>2</sub> is injected into the beverage through DENWEL Injector, which splits the gas into micro bubbles. Most efficient and instant dissolution of CO<sub>2</sub> is achieved with only a minimal pressure drop, no gas loss and a fully hygienic design. No static mixer, sinter candles or recirculation-tanks are needed.

The system is PLC controlled and has automatic modes for continuous carbonation and CIP. The selective inline CO<sub>2</sub> analyzer continuously monitors the CO<sub>2</sub> concentration. The output signal is processed by the PLC to control the CO<sub>2</sub> dosing. A high precision control valve accurately adjusts the CO<sub>2</sub> injection, avoiding any over or under carbonation. The back pressure valve maintains constant pressure in the system despite any changes in flow. Constant system pressure ensures fast and accurate control of CO<sub>2</sub> dosing.



## Technical data

Carbonation:	up to 6 g/l, 3 V/V (P & T dependent)				
Pressure:	operating 2 to 5 barg, 30 to 72 psig				
Temperature:	operating 0 to 5 °C, 32 to 40 °F				
CIP:	2 to 5 barg, 30 to 72 psig; max. 90 °C, 200 °F				
Connection:	Tri-clamp; other connections upon request				
Dimensions:	from Height 1,9 m, 6,2'; Width 2,0 m, 6,5'; Depth 0,6 m, 2'				
Weight:	from 200 kg, 440 lb				
Material:	Stainless Steel 304, EPDM, PSU, PP				
Models:					

DCS050A	DN 40	1½"	20 to 50 hl/h	9 to 22 gpm	18 to 42 bbls/h
DCS075A	DN 40	1½"	30 to 75 hl/h	14 to 33 gpm	26 to 63 bbls/h
DCS100A	DN 50	2"	40 to 100 hl/h	18 to 44 gpm	35 to 85 bbls/h
DCS150A	DN 65	2½"	60 to 150 hl/h	27 to 66 gpm	52 to 127 bbls/h
DCS200A	DN 65	2½"	80 to 200 hl/h	36 to 88 gpm	69 to 170 bbls/h
DCS300A	DN 80	3"	120 to 300 hl/h	53 to 132 gpm	103 to 225 bbls/h
DCS500A	DN 100	4"	200 to 500 hl/h	88 to 220 gpm	171 to 426 bbls/h
DCS750A	DN 125	5"	300 to 750 hl/h	132 to 330 gpm	256 to 639 bbls/h
DCSA00A	DN 150	6"	400 to 1000 hl/h	176 to 440 gpm	341 to 852 bbls/h