

# Inline Carbonation

# Automatic Unit

For instant beverage carbonation

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



# Application

 $CO_2$  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  $CO_2$  content also influences beer foam structure and its stability. Therefore, consistent and accurate  $CO_2$  is one of the main quality factors in the production of beer and soft drinks. Designed for fast and accurate injection and dissolution of  $CO_2$ , Bucher Denwel provides a fully automated solution for continuous carbonation.

## Principle

 $CO_2$  is injected into the beverage through Bucher Denwel Injector, which splits the gas into micro bubbles. Most efficient and instant dissolution of  $CO_2$  is achieved with only a minimal pressure drop, no gas loss and a fully hygienic design. No static mixer, sinter candles or recirculationtanks are needed.

The system is PLC controlled and has automatic modes for continuous carbonation and CIP. The selective inline  $CO_2$ analyzer continuously monitors the  $CO_2$  concentration. The output signal is processed by the PLC to control the  $CO_2$ dosing. A high precision control valve accurately adjusts the  $CO_2$  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  $CO_2$  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 1,9m, 6,2'; Width 2,0m, 6,5'; Depth 0,6m, 2'			
Weight:	from 200kg, 440 lb			
Material:	Stainless Steel 304, EPDM, PSU, PP			
Dimensions:	from Height 1,6m, 63"; Width 0,7m, 47"; Depth 0,6m, 24"			
Weight:	from 550 lb, 250 kg			
Material:	Stainless Steel 304, EPDM, PE, PSU, PP			
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### Models:

DCS050A	DN 40	11⁄2″	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	21⁄2″	60 to 150 hl/h	27 to 66 gpm	52 to 127 bbls/h
DCS200A	DN 65	21⁄2″	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

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#### Products

We develop and produce a wide range of specialized equipment and provide engineering solutions dedicated to help brewers to optimize their processes.

Combining experience and innovation we build safe and reliable Cold Blocks, supply brewing equipment such as Filtration, Beer recovery systems, Yeast plants, Water Deaeration, Blending, Carbonation, Dosing, Hard Seltzer units, Flash Pasteurization and CIP.

#### Services

We have a global presence. Our sales and service network is always available for you to provide consultancy, technical support and after sales service.