

INLINE NITROGENATION

Automatic Unit

- Efficient, hygienic Injector
- Micro bubble size
- Instant N₂ dissolution
- PLC controlled



When added to beer, nitrogen creates creamy and fine foam head with small bubble size; it improves the foam stability and softens the beer on the palate. While traditionally nitrogenation was applied in ales and stouts, the same process is nowadays successfully used for the classical lagers treating. Nitrogen increases beer foam stability of lagers up to 30 seconds. Due to its low solubility, nitrogen consumption is very low. Consistent and accurate nitrogenation will determine the appearance and quality of the final beverage.

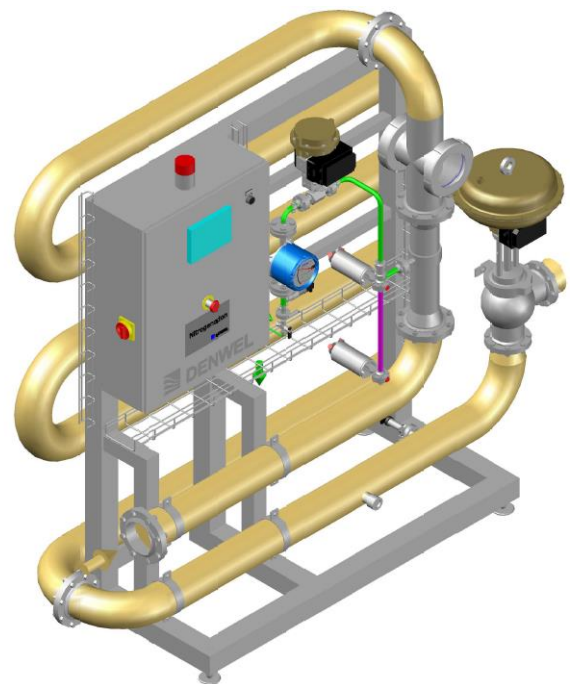
IN LINE NITROGENATION

Principle

N₂ is injected into the beverage through DENWEL Injector, which splits the gas into micro bubbles. Most efficient and instant dissolution of N₂ is achieved with only a minimal pressure drop, no gas loss and a fully hygienic design. No static mixer, sinter candle or recirculation-tank is needed.

The system is PLC controlled and has automatic modes for continuous nitrogenation and CIP. The selective inline N₂ analyzer continuously monitors the nitrogen concentration. The output signal is processed by the PLC to control the N₂ dosing. A high precision control valve accurately adjusts the Nitrogen injection, avoiding any over or under carbonation.

The unit has an uncompromising sanitary design and is fully CIP cleanable. It comes assembled on a compact frame and is tested to be rapidly put into operation. The modular layout allows for easy integration into production and efficient combination with other process units.



Technical data

Nitrogenation:	up to 20 ppm (P & T dependent)
Pressure:	operating 3 to 5 barg, 44 to 72 psig
Temperature:	operating 0 to 5 °C, 32 to 40 °F
CIP:	3 to 5 barg, 44 to 72 psig; max. 90 °C, 200 °F
Connection:	Tri-clamp; other connections upon request
Dimensions:	from Height 0,8 m, 31,5"; Width 0,5 m, 19,7"; Depth 0,2 m, 6,5"
Weight:	from 25 kg, 55 lb
Material:	Stainless Steel 304, EPDM, PSU, PP
Models:	

DNS050A	DN 40	1½"	20 to 50 hl/h	9 to 22 gpm	18 to 42 bbls/h
DNS075A	DN 40	1½"	30 to 75 hl/h	14 to 33 gpm	26 to 63 bbls/h
DNS100A	DN 50	2"	40 to 100 hl/h	18 to 44 gpm	35 to 85 bbls/h
DNS150A	DN 65	2½"	60 to 150 hl/h	27 to 66 gpm	52 to 127 bbls/h
DNS200A	DN 65	2½"	80 to 200 hl/h	36 to 88 gpm	69 to 170 bbls/h
DNS300A	DN 80	3"	120 to 300 hl/h	53 to 132 gpm	103 to 225 bbls/h
DNS500A	DN 100	4"	200 to 500 hl/h	88 to 220 gpm	171 to 426 bbls/h
DNS750A	DN 125	5"	300 to 750 hl/h	132 to 330 gpm	256 to 639 bbls/h
DNSA00A	DN 150	6"	400 to 1000 hl/h	176 to 440 gpm	341 to 852 bbls/h