

# Humidification Units



## BUBBLER, ELECTRICAL AND THERMAL EVAPORATORS

EBZ offers a broad variety of gas humidification solutions. EBZ bubbler and membrane humidifier guarantee a reliable and steady gas humidification. For applications requiring higher humidification rates (e.g. reformation of hydrocarbons) EBZ developed sophisticated evaporators. EBZ electric and thermal evaporators cover a steam generation range from 10 g/h up to 10 kg/h. EBZ evaporators are optimized regarding a highly homogeneous steam generation in a wide modulation range.

### KEY FEATURES

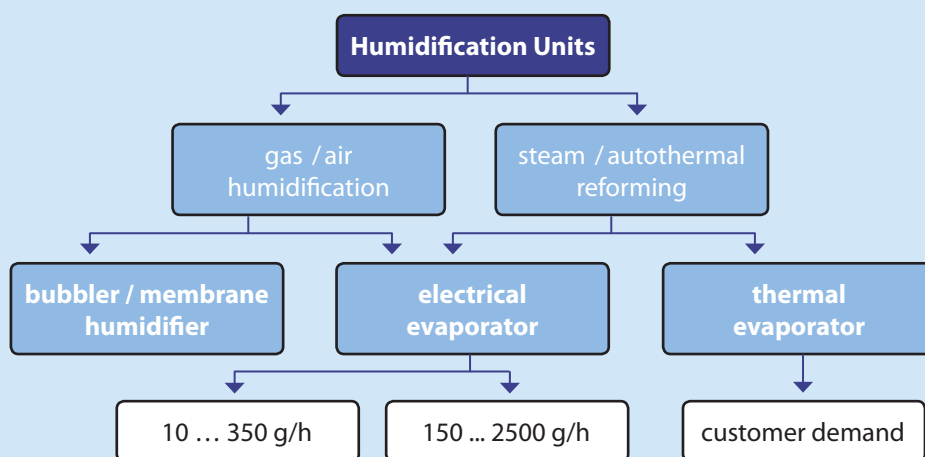
- various performance classes
- compact design
- homogenous steam generation
- low fluctuations in cell OCV
- special design for low flow rates
- standard units as well as customised solutions

### OPTIONAL

- **EBZ Heater Control and Safety Unit**  
(design variant especially for evaporators)
- water metering and treatment equipment
- other fluids and sizes on request
- integration with other EBZ modules



EBZ electrical evaporator type EE-DU2500 with single component case



EBZ type / property	bubbler unheated	bubbler electrically heated	membrane humidifier	electrical evaporator	thermal evaporator
humidification in vol.-%	ca. 3	≤ 15	≤ 30	up to 100	up to 100
volume flow gas in l <sub>N,STP</sub> / min	≤ 30	≤ 30	-	-	-
mass flow boundary in g/h	-	-	-	4.500	10.000

**OVERVIEW ABOUT THE STANDARD EBZ BUBBLERS AND EVAPORATORS**

	max. mass flow water in g/h (gas flow gas in I <sub>N,STP</sub> /min)	nominal input rating in W	steam (gas) outlet temperature in °C
<b>bubbler BU-70C</b>	(20)	500	(30)
<b>electrical evaporator EE-MZ100</b>	100	150	200 - 350
<b>electrical evaporator EE-MV250</b>	250	400	200 - 350
<b>electrical evaporator EE-MV500</b>	500	750	200 - 350
<b>electrical evaporator EE-DR2000</b>	2.000	3.000	200 - 300
<b>thermal evaporator ET-PZ600</b>	600	630	200 - 400
<b>thermal evaporator ET-PZ1500</b>	1.500	1.575	200 - 400

**PLEASE, MARK THE APPLYING AND FILL SUITABLE FIELDS**

gas/air humidification

steam/autothermal reforming

bubbler

electrical evaporator

membrane humidifier

thermal evaporator

others

humidification (in vol.%)

mass flow water (in g/h)

max. pressure drop (in mbar)

steam temperature (in °C)

volume flow gas (in I<sub>N,STP</sub>/min)

gas temperature (in °C)

remarks

We offer you assistance to choose the right humidification for your application. Please contact us!