



CAPITAL CONTROLS®

Gas Feed, Instrumentation and Scrubber Solutions

DE NORA

**The most complete and comprehensive
gas portfolio**



De Nora Makes Gas Feed, Instrumentation and Scrubber Systems Easy



We Are De Nora

De Nora Water Technologies is a leading provider of water and wastewater treatment technologies. Our company brings together numerous proven, established and market leading technologies and brands specifically designed for the treatment of municipal and industrial water and wastewater.

The Capital Controls portfolio for gas feed disinfection and safety by De Nora is the broadest in the market and includes:

- Gas Feed Systems for Chlorine, Sulfur Dioxide, Ammonia and Carbon Dioxide
- Chemical Induction Systems
- Water Quality Monitors
- Controllers
- Gas Detectors and Emergency Shut-off Systems
- Wet and Dry Emergency Gas Scrubbers

Gas Feeders and Control Valves

Series 480

- Economical and robust
- Capacities to 100 lb/d, 2 kg/h
- For Chlorine
- 3 year warranty



Series 200

- Capacities to 500 lb/d, 10 kg/h
- Four Gases: Chlorine, Sulfur Dioxide, Ammonia, Carbon Dioxide
- 3 year warranty



Model 611 Direct Gas (Pressure)

- Capacities to 100 lb/d, 2 kg/h
- For Chlorine
- For use in remote locations where no power or booster pump is available.



NEW!

Series VR300 Vacuum Regulator

- Capacities to 3000 lb/d, 60 kg/h
- Patented Design
- Four Gases: Chlorine, Sulfur Dioxide, Ammonia, Carbon Dioxide
- New standby-running front indicator
- 3 year warranty



Gas Feeders and Control Valves

NEW!

Series 450CV Control Valve

- Single Input Controller
- 11 point calibration
- NEMA 4X Enclosure
- Capacities to 3000 lb/d, 60 kg/h
- Four Gases: Chlorine, Sulfur Dioxide, Ammonia, Carbon Dioxide
- Sonic Operation



Gas Feeders - Wall Mounted

NEW!

Series 450WP

- Single input control
- Capacities to 3000 lb/d, 60 kg/h
- Sonic Operation
- Optional vacuum alarm switches



Series WM2110 Pressure Feed Ammoniator

- Eliminates hard water precipitation
- Capacities to 2000 lb/d, 40 kg/h
- Back Pressures to 25 psig
- Manual or automatic control



Series 1420/1520 Chlor-A-Vac® Chemical Induction Unit

- Gas or Liquid Feed
- Capacities to 6000 lb/d, 120 kg/h Gas and 188 lpm Liquid
- Superior mixing technology which replaces conventional booster pumps, diffusers and mechanical mixers.



Gas Feeders - Floor Cabinets

Series 4100B

- Compact Cabinet
- Sonic Operation
- Manual or automatic control
- Capacities to 3000 lb/d, 60 kg/h
- Four Gases: Chlorine, Sulfur Dioxide, Ammonia, Carbon Dioxide
- Floor cabinet features with reduced footprint



Series 4200B

- Compact Cabinet
- Manual or automatic control
- Capacities to 8000lb/d, 150 kg/h
- For Chlorine, Sulfur Dioxide and Carbon Dioxide
- Floor cabinet features with reduced footprint



Series 5200B

- Full Size Floor cabinet
- Manual or automatic control
- Capacities to 10000 lb/d, 200 kg/h
- Four Gases: Chlorine, Sulfur Dioxide, Ammonia, Carbon Dioxide



Gas Feeders - Floor Cabinets

Series 6200B Pressure Feed Ammoniator

- Full Size Floor Cabinet
- Manual or automatic control
- Capacities to 2000 lb/d, 40 kg/h
- Eliminates hard water problems in vacuum ammonia systems



Vaporizer - Floor Cabinet

Series 71V3B

- Liquid vaporizer for Chlorine, Sulfur Dioxide and Ammonia
- Capacities to 10000 lb/d, 227 kg/h Cl_2
- Robust design provides superior gas superheat without water circulation pump
- ASME Section 8 and Lethal Gas Certified



Instruments

MicroChem®

- Panel mounted or modular design allows simple configuration for different applications
- Color Touch Screen Display allows easy navigation through software
- Built in data logger
- Built in PID controller
- 6 language capability
- NEMA 4X, CE, CSA
- Can measure up to three of the following parameters:
 - Free/Total Chlorine
 - Chlorine Dioxide
 - pH
 - ORP



KC4 Cell

- Free Chlorine or Chlorine Dioxide
- Drinking/Clean Water
- 2 Electrode, Bufferless Measurements



870 Cell

- Free/Total Chlorine
- Waste/Drinking/Process Water
- 2 Electrode, Buffered Measurement for use with elevated or unstable pH levels



CL4 Cell

- Free Chlorine
- Drinking/Clean Water
- 3 Electrode, Bufferless Measurements



CL1 Cell

- Free/Total Chlorine
- Waste/Drinking/Process Water
- 3 Electrode, Buffered Measurements



Instruments

MicroChem® 450 Gas Feed Controller

- PID Control
- Touch Screen Display
- Display in 6 languages
- Nema 4X Enclosure
- CE, CSA6 language capability



Series 1041B Changeover Controller

- Manual Override
- Programmable Logic Controller
- Graphic "Mimic" Panel
- Field Configurable
- NEMA 4X Enclosure



Model 1017B Changeover Controller

- Changeover Controller for Vacuum or Pressure Systems
- Provides duty/standby/fail system status
- Manual override mode: Overrides automatic control allowing individual control of system valves.



Series 610 Gas Detector

- Smart sensor technology ensures easy set up, installation and operation for the detection of gases
- For Chlorine, Chlorine Dioxide, Sulfur Dioxide, Ammonia, Ozone



ECS* (Emergency Container Shut-off System)

- Electric or Pneumatic options
- Uses the most compact, lightweight and intelligent drives on the market
- Low running and maintenance costs
- Can replace the need for scrubbers and containment devices in certain circumstances



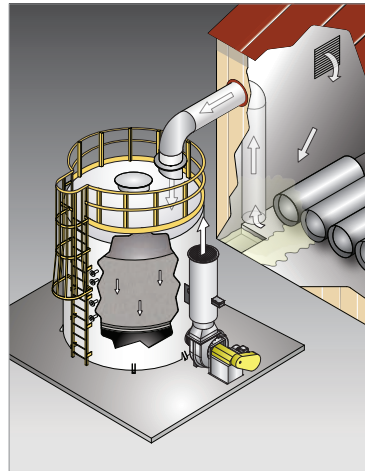
* Sold as Capital Controls in the USA and Canada only

Capital Controls

Emergency Gas Scrubbers

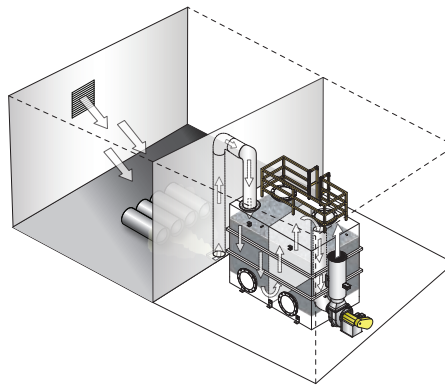
Type DES 3000 Dry Emergency Scrubber

- For One-Ton Containers
- Uses Media, no caustic management issues
- One moving part - Fan



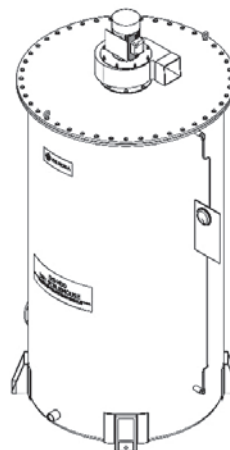
Type DES-LP Dry Low Profile Emergency Scrubber

- For One-Ton Containers
- Uses Media, no caustic management issues
- One moving part - Fan



Type DES400 Dry Emergency Scrubber

- For 150-Pound Cylinders
- Uses Media, no caustic management issues
- One moving part - Fan

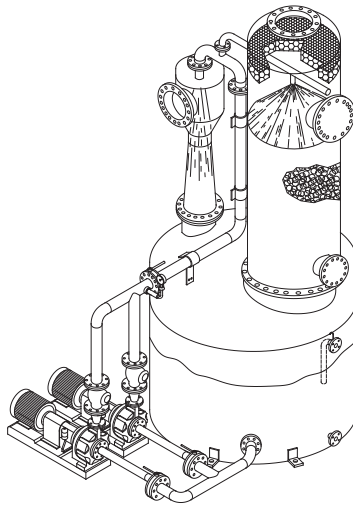


Capital Controls

Emergency Gas Scrubbers

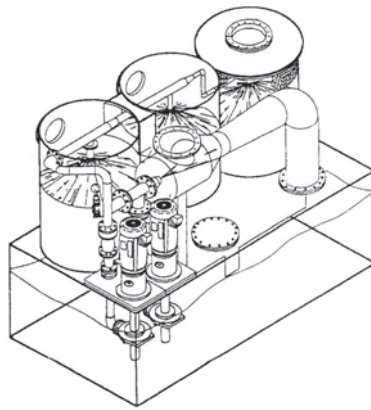
Type EPT **Ejector Packed Tower**

- True Emergency Scrubber
- 2-stage scrubbing in Venturi and Packed Tower
- Sized for cylinders and ton containers
- No blower required



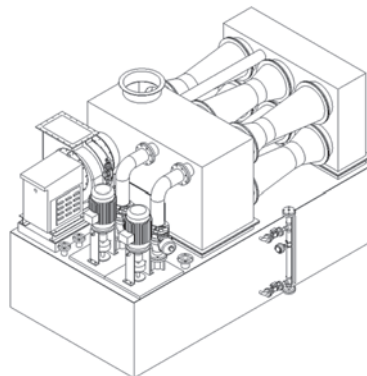
Type SWS **Sidewinder Low Profile** **Ejector Packed Tower**

- True Emergency Scrubber
- 2-stage scrubbing in Venturi and Packed Tower
- No blower required
- Sizes for 2-8 tons



MVP Series **Multi Venturi Packless**

- No packed tower
- Multiple Venturi Scrubbing
- Low profile





About De Nora

Backed by 100 years of experience, you can be confident in the reliability and safety of De Nora solutions. We are the partner-of-choice for communities and companies around the globe. In fact, more than 500 million people around the world use water treated by De Nora products every single day.

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