

Portacel[®] Disinfection Systems

Thames Gas Feed System up to 250kg

Introduction

The Portacel[®] Thames Gas Dosing Unit doses a disinfecting gas into a water supply. This can be up to 250 kg/hr (13,200ppd) of chlorine or sulphur dioxide or 100 kg/hr (5,280ppd) of ammonia. When used in conjunction with a chlorine residual analyser the Thames system will automatically dose a gas under precise control.

The unit can be wall or floor mounted and is compact, easily maintained and an integral part of a Siemens Water Technologies manufactured Portacel[®] system for water treatment.

The Portacel[®] system Auto Valve Positioner (AVP2) is used for automatic control. Manual versions are also available.

Features

The Thames gas feeder operates under a vacuum. The gas is drawn from a vacuum regulator and enters the lower meter tube block, passing through the variable area flow meter to the control valve block. The control valve, operated either automatically or manually, meters the flow of gas through the chlorinator.

An optional differential regulator can be used to stabilize the incoming vacuum if required. A vacuum relief valve or vacuum alarm switch are also available.

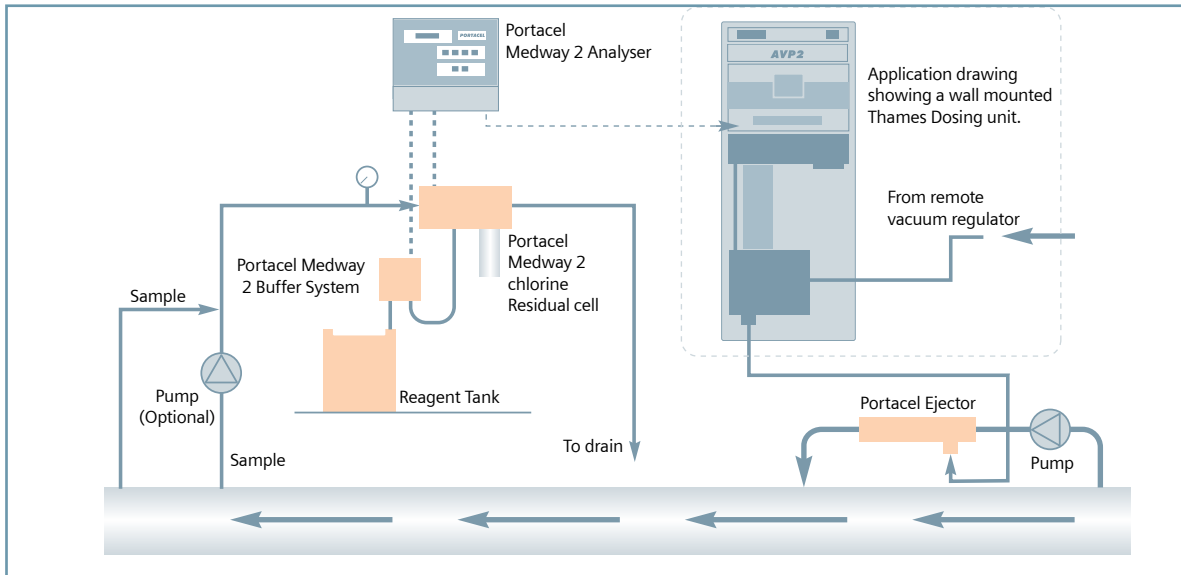
Key Benefits

- Wide dosing range - up to 250 kg/hr
- Suitable for a range of disinfecting gases
- Linear control valve - gives precise gas control
- Safe operation - system works under vacuum
- Modular construction - wall or floor mounting
- Front access to unit ensures economic use of space and ease of maintenance
- Proven materials ensure reliability and durability
- Low part count - reduced maintenance



Wall-mounted model

Product Sheet



Specification

The chlorinator will be a Thames model manufactured by Siemens Water Technologies. The chlorinator shall be vacuum operated by means of a Portacel® system ejector. The chlorinator will be wall or floor mounted and provide a predetermined gas flow. The equipment shall be coupled together using O-ring joints and shall be accessible from the front to allow easy cleaning and maintenance.

A Portacel® system vacuum regulator shall be provided to feed gas to the bottom meter tube block and then via the variable area flow meter to the control valve.

A Portacel® system vacuum relief valve can be provided as an option to protect the system should the vacuum become excessive.

To monitor the chlorinator, an optional vacuum alarm switch and visual button shall be provided to indicate high or low vacuum status.



Options

Vacuum alarm switch

An adjustable vacuum alarm switch uses optoelectronics to monitor the vacuum status within the doser. The switch provides local visual indication and alarm contacts for remote monitoring of high and low vacuum status. A separate wall-mounted power supply is required for manual versions.

Vacuum relief valve

A vacuum relief valve can be provided to protect the system should the vacuum become excessive. A filter is incorporated to prevent ingress of foreign material, recommended for units of capacity greater than 20 kg/hr (1,056ppd).

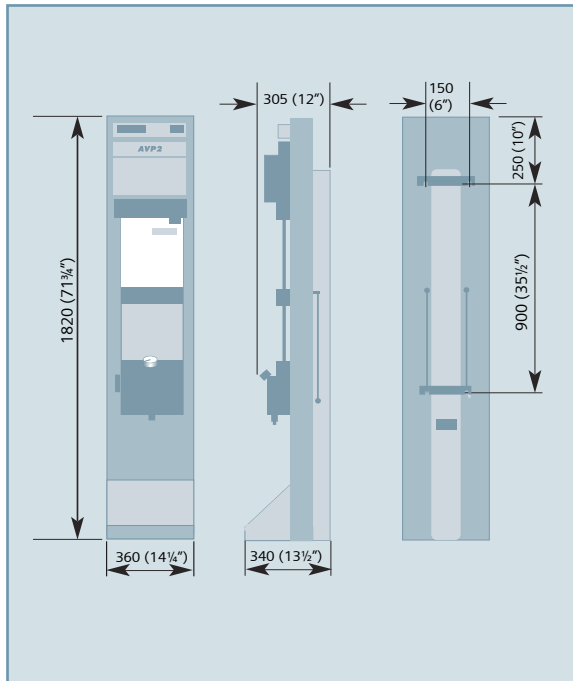
Technical Data

Range:	Thames 12	Thames 80	Thames 250
CL ₂	0.05-12kg/hr (3-634ppd)	15-80kg/hr (792-4221ppd)	100-250kg/hr (5,280-13,200ppd)
SO ₂	0.05-12kg/hr (3-634ppd)	15-80kg/hr (792-4221ppd)	100-250kg/hr (5,280- 13,200ppd)
NH ₃	0.025-6kg/hr (1.5-317ppd)	7.5-40kg/hr (396-2112ppd)	50-100kg/hr (2,640-5280ppd)
Max Weight: Wall Mounted Floor Mounted	12kg (26.5lbs) 25kg (55lbs)	12kg (26.5lbs) 25kg (55lbs)	30kg (66lbs) 35kg (77lbs)
Meter tube length:	150mm (6")	300mm (12")	420mm (16 1/2")
Vacuum connection:	3/4" UPVC	3/4" UPVC	2" UPVC
Dimensions: Wall mounted mm (inches) (Option1)*	840 x 300 x 205 (33" x 11 3/4" x 8")	840 x 300 x 205 (33" x 11 3/4" x 8")	
Wall mounted mm (inches) (Option 2)	1240 x 360 x 305 (48 3/4" x 14 1/1" x 12")	1240 x 360 x 305 (48 3/4" x 14 1/1" x 12")	1240 x 360 x 345 (48 3/4" x 14 1/4" x 13 3/4")
Floor Mounted:	1820mm x 360mm x 340mm (71 1/2" x 11 3/4" x 13 1/2")		
Operation:	Automatic (AVP2) or Manual		
Mounting:	Wall or Floor		
Differential regulator:	Option (up to 40kg/hr (2,117ppd))		
Vacuum alarm switch:	Option		
Vacuum relief valve:	Option (recommended for capacities greater than 20kg/hr (1,056ppd))		
Operating temperature:	0 - 50° C (32° F - 122° F)		
Turndown:	20:1		
Accuracy: Electronics Flow tube	+/-0.1% +/- 4% FSD		
Enclosure protection:	IP54 (Automatic version only)		
Power consumption:	16 Watts (Automatic version only)		
Voltage:	84-264V, 50-60 Hz (Automatic version only)		
Operating vacuum: Automatic Manual	Minimum 120 mm (4 3/4") Mercury (65IWG) Minimum 65mm (2 1/2") mercury (35 IWG)		
Service interval:	One year		
Construction materials: Panel AVP2 Inlet Seats Diaphragms Springs O' Rings Screws Lubricant	GRP Polycarbonate UPVC PTFE FEP/FPM/EDPM (As appropriate) Tantalloy/ Hastelloy® FPM (Cl ₂ & SO ₂), EPDM (NH ₃) Stainless Steel Chlorofluorocarbon grease		
Gas flow indicator	Variable are borosilicate glass flow meter with black roasting ball or float and graduated scale, dual calibrated in kg/hr and Lbs/day		
Vacuum guage	1-800 mbar 63mm (2 1/2") diameter		

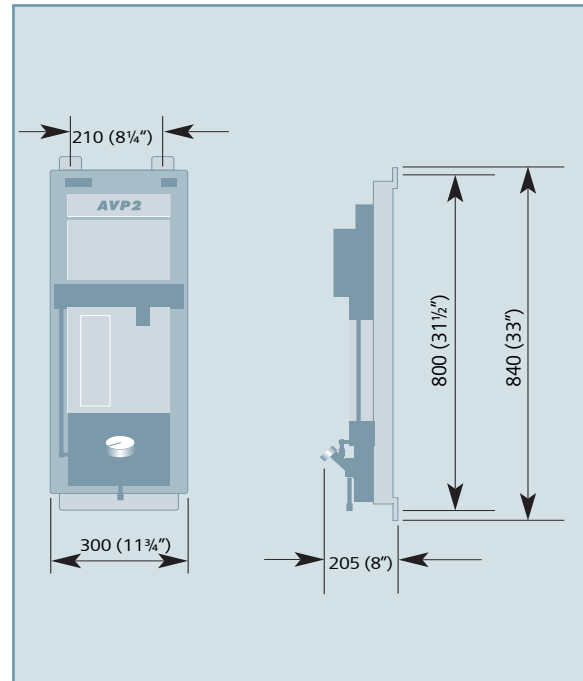
* Call factory for further details

Technical Data (continued)

Dimensions



Floor Mounted Dosing Unit
All dimensions in mm - not to scale



Wall Mounted Thames System
All dimensions in mm - not to scale

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