



KENT V2000™ VACUUM GAS FEEDER

WALLACE & TIERNAN® GAS FEED SYSTEMS

The Kent V2000™ feed system is the proven gas feed technology for capacities up to 60 kg/h combining a standardised flexible design with user-selectable configurations. Kent V2000 gas feeders operate according to the indirect procedure, i.e. operating under a vacuum that is produced at the injector where the metered gas (e.g. chlorine gas) is dissolved in the operating water and the resultant solution is discharged to the point of application. Gas flow control is achieved by the proven Wallace & Tiernan® V-notch orifice ensuring industry proven accuracy and repeatability.

Features

- Large, 10" scale rotameter with high resolution and easy readability in 3 capacities up to 60 kg/h
- Operating range for automatic control mode 1 : 20
- Differential regulating valve for precise feed rate control at low vacuum levels and economical injector operation
- Vacuum gauge for visual operation monitoring

General

Kent V2000 gas feed systems operate under a vacuum that is produced at the injector and transmitted through the control unit to the pressure/vacuum regulating valve on the gas supply source. This diaphragm-operated valve is opened by the vacuum and allows the gas to flow to the control unit where it passes through the rotameter and the V-notch orifice. On the rotameter the gas flow rate is measured and indicated. Downstream from the V-notch orifice the gas passes the differential regulating valve which maintains a consistent feed rate regardless of changes in the operating vacuum. At the injector, the metered gas is dissolved in the operating water stream and discharged as solution to the point of application.

Key Benefits

- Proven technology, excellent reliability and long service life
- Proven V-notch flow control technology providing accuracy and repeatability
- Easy readability due to large, 10" scale rotameter
- Serviceability - components easily accessible
- Optional fully automatic control by process controller or with actuator control 4 - 20 mA
- 4 - 20 mA non-inferential output option

The remote vacuum principle (vacuum from the gas supply containers up to the injector) is the basic technology of this design. There are no gas lines under pressure. If any part after the supply container gets broken, no gas can leak out, but air will leak in. Therefore the remote vacuum technology stands for the highest safety level in gas feed systems.

For automatic control, the V-notch plug is moved depending on the application requirements:

- Manual override is achieved by simply pulling the knob to disengage the drive motor
- 3 sets of volt-free contacts for system control manual override, MAX position, MIN position
- Feedback potentiometer for precise operation with the SFC SC or SFC PC controllers

4 - 20 mA actuator control (optional)

- Simple ratio control
- Feed rate adjustment by means of a dosing factor
- Connection to SPS control systems

Vacuum switch (optional) for monitoring high/low operating vacuum

TECHNICAL DATA

Feed ranges (Cl₂/SO₂):
up to 20, 40 or 60 kg/h

Operating range:
1 : 20 for any rotameter

Accuracy:
± 4 % of indicated flow

Operating temperature:
+10 °C to +50 °C

Operating pressure:
-40 to -200 mbar

Control:
4 - 20 mA actuator control (option)

Measurement inputs:

- 1 x 4 - 20 mA
- 1 x servo motor position feedback
- 1 x external dosing factor

Relais outputs:
2 x non-isolated

Power supply:
15/230 V AC, 50 - 60 Hz

Fusing:
0.25 A bei 230 V AC, 0,50 A bei 115 V AC

Weight:
13 kg (complete, manual system)

Electric positioner

Operating voltages	230 V	115 V
Current	19 mA	46 mA
Time approx.	80 s	66 s
Potentiometer	1 kOhm ± 10 %	
Enclosure	IP 67	



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