hobré instruments

Gas stabilisation system

Creates a constant furnace atmosphere by stabilisation of the Wobbe Index of fuel gas by using compressed air

An open fire furnace requires a constant Wobbe Index in order to produce a constant furnace atmosphere. Fluctuations in composition of the fuel gas require a system for the stabilisation of the Wobbe Index.

$$\text{Wobbe Index} = \frac{HV}{\sqrt{SG}}$$

Features:

- Rugged and compact design
- Fast response
- Insensitive to ambient temperature fluctuations
- Controlled injection of air, LPG, nitrogen or natural gas
- Deals with rapid changes of Wobbe Index
- Turndown ratio stabilised gas flow 1:50!
- Integrated Wobbe analyser measures blended gas quality

User benefits:

- Eliminates the need for individual burner control
- Provides a stable oven atmosphere
- Improved product quality; prevents off-spec production
- Low cost of ownership

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Specifications

Ranges	:	0-3000 Nm3/hr (consult factory for other ranges)
Piping material	:	Painted steel

Utility requirements

Power supply	:	120/230VAC 50/60Hz
Power consumption	:	400 VA max.
Injection air	:	Compressed air Pressure: 3 - 8 barg Dewpoint: 5°C Oil and dust free
Sample flow to analyser	:	1 NL/min Pressure > 1.5 barg

Installation requirements

Location	:	In-line with fuel gas pipe
Mounting	:	Free standing SS 304 frame
Dimensions	:	Approx. 2000 x 1850 x 1250 (H x W x D)
Weight	:	±350Kg
Ambient temperature	:	10-40°C as a standard

Options

High temperature version	:	Up to 60°C ambient temperature
Hazardous area version	:	Zone 1 IIC T3 (only in combination with WIM 9900 analyser) Zone 2 IIC T3
Low pressure version	:	Sample pressure < 1.5 barg
Alternative injection gas	:	Propane, LPG, natural gas, nitrogen