AGU3.8

our new gas-air mixing unit.

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AGU3.8 – Efficient premixing for compact boilers with modulating burner

The new Venturi mixing unit AGU3.8 was specially developed for use in compact boilers with modulating premix burners and enables a homogeneous mixture of gas and air in combination with the double gas valves VGD2 and VGD4.

The mixing unit operates in negative pressure with a fan on the downstream side and covers a power range from 350 kW to 3000 kW.

The maximum gas flow rate can be precisely adjusted using the VKA40 adjusting damper. It can be mounted directly on the VGD2 valve or on the VGD4 valve with the AGF10.65 connecting flange.

Different sizes and compatibility with common fans allow flexible integration into boiler systems.

The approval for natural gas-hydrogen mixtures and pure hydrogen makes the system future-proof for alternative fuels.

HIGHLIGHTS

- For use with gases of families I...III, air and hydrogen
- Modulation range 1:6 (typical)
- Temperature range 0 ... 70° C
- Designed for use with the Siemens VGD/SKP portfolio
- Application with zero pressure regu-lator, ideal for low supply pressure
- Continuously variable control via PWM modulation with LME75/76, LMV26 and LMV3x
- Compact and cost-effective solution

Type overview

Types	Maximum nominal output	Size
AGU3.80350S	350 kW	small
AGU3.80700S	700 kW	medium
AGU3.81000S	1000 kW	medium
AGU3.81400S	1400 kW	medium
AGU3.82000S	2000 kW	large
AGU3.83000S	3000 kW	large

AGU3.8 – quick and easy installation

Combinable gas-air mixer	Adjusting damper	Adjustable opening range in percent (%)	Combinable fan (EBM brand)	Mounting diameter (D) [mm]
AGU3.80350S	VKA40.025S	60...100%	G1G170-AB53-01	140
AGU3.80700S	VKA40.050S	60...100%	G3G250-GN1-01	220
AGU3.81000S	VKA40.050S	60...100%	G3G250-MW50-01	220
AGU3.81400S	VKA40.050S	60...100%	G3G250-MW50-01	220
AGU3.82000S	VKA40.050HS	60...100%	G3G315-M3G150FF	294
AGU3.83000S	VKA40.050HS	60...100%	G3G315-M3G150FF	294

Table: Accessories for the mixer types

Figure 1: Standard configuration with AGU3.81400S, VKA40.050S, VGD20.5011 and SKP25.3/SKP15

Refer to figure 1:

- The figure shows the AGU3.8 application in combination with VKA40, VGD2, SKP15 and SKP25 as zero pressure regulator
- A fan connected to the suction side of the AGU3.8 creates a vacuum. This leads to a gas flow, resulting in a homogeneous gas-air mixture in the AGU3.8.

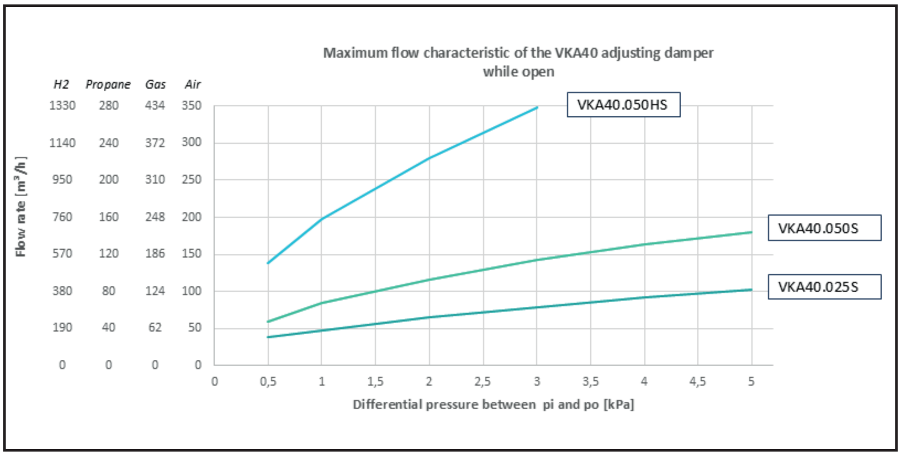

Figure 2: Ratio of flow rate to differential pressure

Refer to figure 2:

- The maximum flow rate (measured with air) depending on the differential pressure.
- The differential pressure results from the inlet pressure and the varying negative pressure.
- Conventional fans generate a maximum negative pressure of 3 to 5 kPa.

Approvals (extract)

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