

Program overview

WhirlWind

1.5 - 1,200 kW

7.60

DUNGS®
Combustion Controls

Just the right mix!



Technical Description

Integrated gas-air system with high power density based on DUNGS zero pressure multiple actuator GB-ND 055/057 D01 to EN 126 or MBC to EN 161 for modulating or multi-stage mode:

- Pneumatic integrated system comprising zero pressure mode and integrated signal gain possible
- Inlet pressure
 - GB-WND 055/057: p_{\max} 65 mbar (6.5 kPa)
 - MBC-WND: p_{\max} 100 mbar (10 kPa)
- Modulation range up to 1:10
- Breaks up flow pattern and reduces resonances
- Offset correction of gas/air ratio at servo regulator

- Limits maximum flow by a low hysteresis flow restrictor, injector requires no replacement for different gas families
- Implemented by adapting system components and optimising to specific application and design requirements.

Application

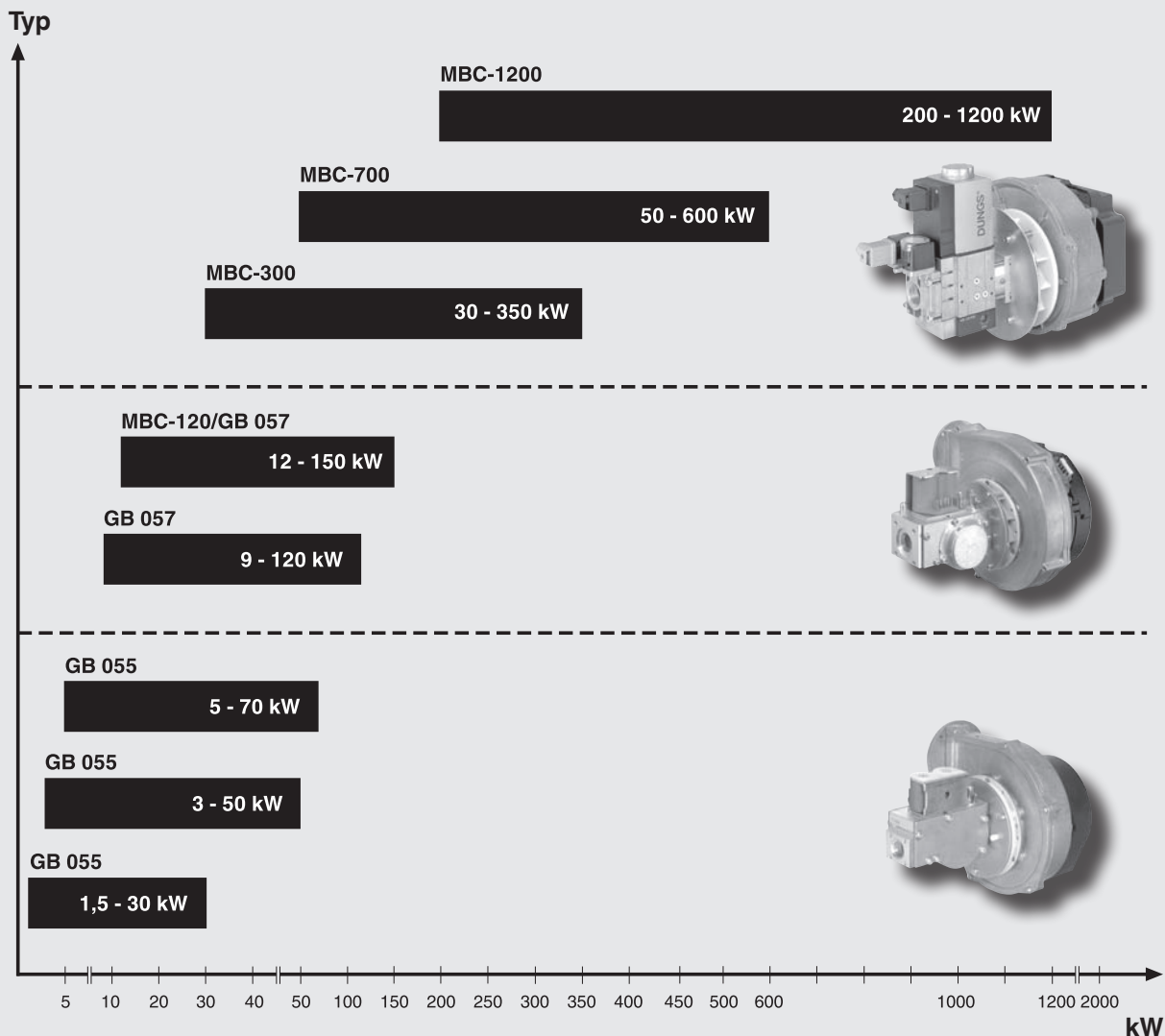
For pre-mix burners and forced-draft burners.

Suitable for gases to EN 437 and other gaseous inert media.

WhirlWind Family from 1.5 kW up to 1,200 kW

Product	kW	Swirlplate	Accessories	Burner Manager & Accessories	Valve class	EU design CE	US design CSA		
GB-WND 055	24	blue	Air and gas pressure switch LGW, GW	MPA 10xx	2 x B	✓	✓		
	28	black 01				✓	✓		
	30	white				✓	✓		
	50	red				✓	✓		
	70	grey				✓	✓		
90	2 x A / 2 x B				✓	✓			
GB-WND 057		120			black 01	✓	✓		
		150				✓	✓		
MBC-120-WND	90	grey			Air and gas pressure switch LGW, GW	MPA 51 & Display & Steppermotor Air/Start	2 x A	✓	—
	150	black 02						✓	—
MBC-300-WND	200		✓	✓					
	350		✓	✓					
MBC-700-WND	600		black 03	Valve proving system VPS				✓	✓
	1,200						✓	✓	
MBC-1200-WND	1,200			✓			✓		

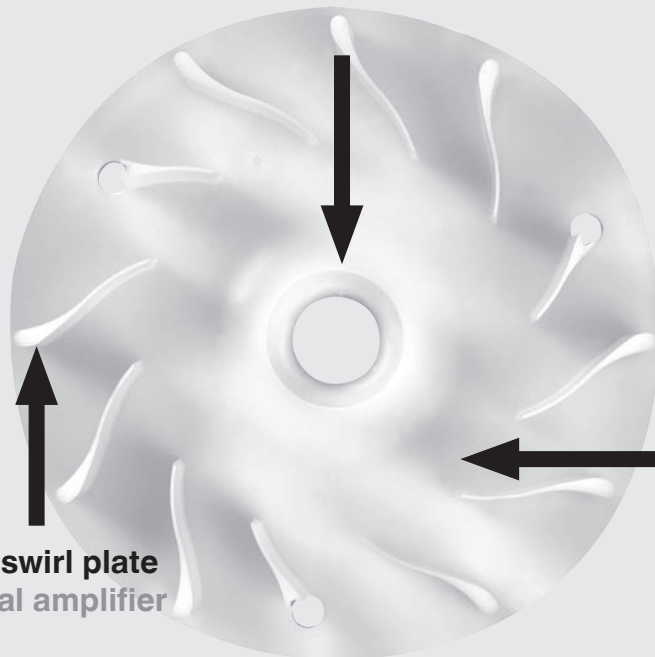
Power ranges



Swirlplate - The heart of the WhirlWind system



Integrated Venturi 2. Signal amplifier



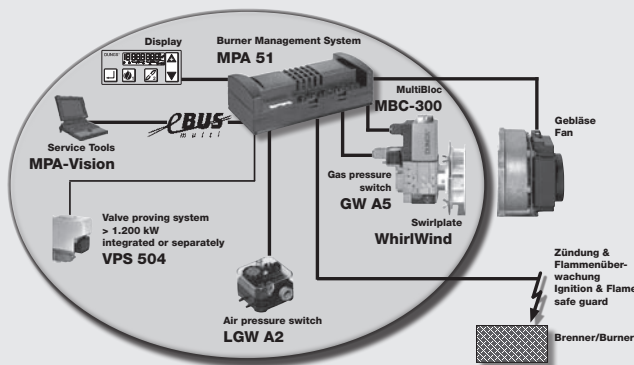
Spiral swirl plate 1. Signal amplifier

Swirlplate

- + Patented
- + Two stage cascaded signal amplification
- + Breaks up uniform flow pattern and reduces resonances

Silencer pocket

MPA 51 system



MPA 51

Microprocessor controlled automatic burner control for intermittent operation to control and monitor pneumatic modulating gas blower burners.

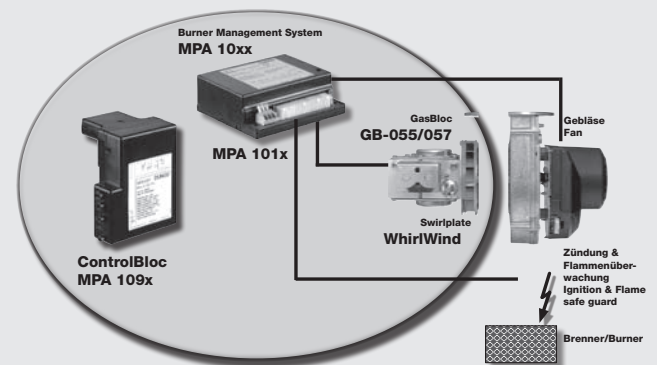
By a PWM signal the rotation speed of a direct current blower can be controlled.

Heater regulators can be attached to the output controller entrance or to the integrated eBus interface.

The operating and display unit shows the working condition of the burner control and allows the adjustment and inquiry of service and user parameters.

The MPA vision software MV 2000 enables the setting and the diagnose of the MPA via PC or Laptop.

MPA 10xx system



MPA 101x & MPA 109x

Microprocessor-controlled multiple burner control unit for the ignition and monitoring of force-draught or non-force-draught gas burners.

The units have been tested for intermittent operation according to EN 298.

Depending on the requirements, versions with several start-up attempts, automatic recycling, internal or external ignition are available.

Flame monitoring takes place by the ionisation principle.

MPA 109x models can be mounted directly to the DUNGS multiple actuator units GB 055 and GB 057.

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Specifications	GB-WND 055	GB-WND 057	MBC-120-WND	MBC-300-WND	MBC-700-WND	MBC-1200-WND
P_{max.}	65 mbar (6.5 kPa)		100 mbar (10 kPa)			
Nominal diameter Rp	Rp ½, G ¾	Rp ¾	Rp ¾	Rp ½, ¾, 1, 1 ¼	Rp 1, 1 ¼, 1 ½, 2	Rp 2
Nominal diameter NPT	NPT ½	NPT ¾	—	NPT ½, ¾, 1, 1 ¼	NPT 1, 1 ¼, 1 ½, 2	NPT 2
Electrical connection	Molex System connection coil or Option: Connection box with integrated cable		Plug-in connection as per DIN EN 175301-803			
Installation position	Solenoid at any position between vertical and horizontal axis		Vertical with upright solenoid			
Ambient temperature	-15 °C to +70 °C 0 °C to +70 °C (LPG)					
Voltage	~(AC) 50 - 60 Hz 24 V +10 % / -15 % ~(AC) 50 - 60 Hz 230 V +10 % / -15 % ~(AC) 50 - 60 Hz 110 V +10 % / -15 % = (DC) 12 V = (DC) 24 V					~(AC) 230 V ~(AC) 110 V = (DC) 24 V
Approvals	CE, CSA					

For further information, refer to Datasheets

- 3.04 GB-WND 055
- 3.13 GB-WND 057
- 7.01 MBC-...-SE/N
- 7.10 MBC-65/120-...

We reserve the right to make any changes in the interest of technical progress.

Head Offices and Factory
Karl Dungs GmbH & Co. KG
Siemensstraße 6-10
D-73660 Urbach, Germany
Telefon +49 (0)7181-804-0
Telefax +49 (0)7181-804-166

Postal address
Karl Dungs GmbH & Co. KG
Postfach 12 29
D-73602 Schorndorf, Germany
e-mail info@dungs.com
Internet www.dungs.com