

**Gardner**  
**Denver**

# Next Generation BM Series High-Speed MagLev Blower



# Customer Value

## BM series Goes Beyond High Efficiency

Gardner Denver has developed the next generation BM series high-speed MagLev blower. Based on the philosophy of efficiency, reliability and safety it provides a low pressure air supply solution you can trust.

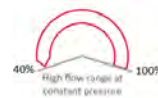
# Customer Value

**Higher Efficiency:** with intelligent design of the whole process from filtration of the air intake to final discharge, the BM series blowers not only achieve outstanding energy efficiency at the design point, but maintain more efficient, quiet, energy saving operation throughout the entire flow range.



1

**Wider Flow Regulation Range:** to match flow demand under widely varying load conditions, the BM series are optimized for a flow regulation range, which reduces energy consumption by meeting high and low flow demand, without blow off, thus satisfying the requirement for a wide process flow range and low energy requirement.



2

**Small Footprint:** the compact design allows installation where space is at a premium, while still providing good access for service and maintenance.



3

**IIoT module:** integrated as standard. This allows remote & mobile access to information such as current operating status, energy consumption analysis and reminders for time remaining before maintenance etc.



5

**Large Bright HMI:** gives simple access to control modes and information with the touch of a finger.



7

**CE:** the BM range satisfies all the relevant requirements of the CE Marking Directives.



8



**Complete System Protection:** multiple levels of protection are designed to prevent any abnormal operation of the blowers due to power outage, dirty filters, incorrect external system valve operation etc. so as to ensure the blowers run reliably and efficiently.

4

**Quiet:** the intelligent design employs multiple noise-reducing measures to guarantee a more comfortable operating environment with an overall noise level less than 80dBA.



6





**Ease of Maintenance**

**Comprehensive Energy  
Efficiency Upgrade**

**Wider Flow Regulation Range**

**Large 10" Bright HMI**

**Smaller Footprint**



# Application Across Various Industry Markets



# Configuration

- **Inlet filter element:** special gallery solution makes filter element longer service time and maintenance more convenient.
- **HMI human-computer interface with 10" inch high-definition touch screen** has more intuitive, high-definition operator interface and intelligent application functions, so that the control process has become more efficient than ever before. The operation is also more accessible to the heart, as much as possible to master the details.



- **Air release valve:** More responsive to protect the host from surges.



- **High-speed permanent magnet (PM) synchronous motor + MagLev bearings:** active magnetic suspension eliminates friction, even during start up is maintained during the entire speed and pressure range.



- High-efficiency, backward curved 3D flow impellers in a series of optimized air end designs maintain the high efficiency of the blower throughout the entire flow regulation range.



- **Intelligent high-speed VSD:** the drive output voltage and current are measured thousands of times per second and at each point an accurate electrical model of the motor and load is used to adjust the output. The result is stable operation with fluctuating loads with excellent control of torque throughout the speed range.



# Specifications

	BM-50	BM-75	BM-100	BM-150	BM-200	BM-250	BM-300	BM-350	BM-400
Max. Capacity <sup>(1)</sup> (m <sup>3</sup> /min)	60	83	90	120	185	220	260	280	380
Max. pressure <sup>(2)</sup> (kPa (g))	130	130	130	130	130	130	130	130	130
Voltage <sup>(3)</sup> (V)	380/460	380/460	380/460	380/460	380/460	380/460	380/460	380/460	380/460
Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Motor Rating (kW)	50	75	100	150	200	250	300	350	400
Noise <sup>(4)</sup> (dBA)	≤75	≤75	≤75	≤75	≤80	≤80	≤80	≤80	≤80
Total weight (kg)	1200	1250	1500	1600	1950	2050	2150	2400	2500
Cooling Method	AC	AC	AC	AC	AC	AC <sup>(5)</sup>	AC <sup>(5)</sup>	AC <sup>(5)</sup>	AC <sup>(5)</sup>

Model	L(mm)	W(mm)	H(mm)
BM-50/75	2050	1520	1680
BM-100/150	2130	1630	1880
BM-200	2300	1750	1880
BM-250/300/350/400	2250	1750	1950

- (1) Gas state: 1.013 bar, 20°C, 70% RH.  
 (2) g is manometer pressure at 1.013bar.  
 (3) Voltage: 380V is standard, 460V is optional.  
 (4) Noise is the sound pressure level at 1m of the enclosure according to ISO3744.  
 (5) Air-cooled closed type refrigerant cooling.



# Project Case References



100,000 tons Wastewater Zero Carbon Emission Project in Inner Mongolia, China



Water Treatment Plant in Yunan, China



Water Treatment Plant in Jiangsu, China



Water Treatment Plant in Jiangsu, China

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by continuously improving all business processes  
with a focus on innovation and velocity

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