

MR Series – Filter Less Mist Collector



Our evolved filterless mist collector is here! Equipped with a self-drain system and inverter control, its performance duration is greatly extended. A new standard of mist collectors is here for an ever-evolving society!



Filter Less



Water soluble oil mist



Max. airflow



Premium efficiency
motor

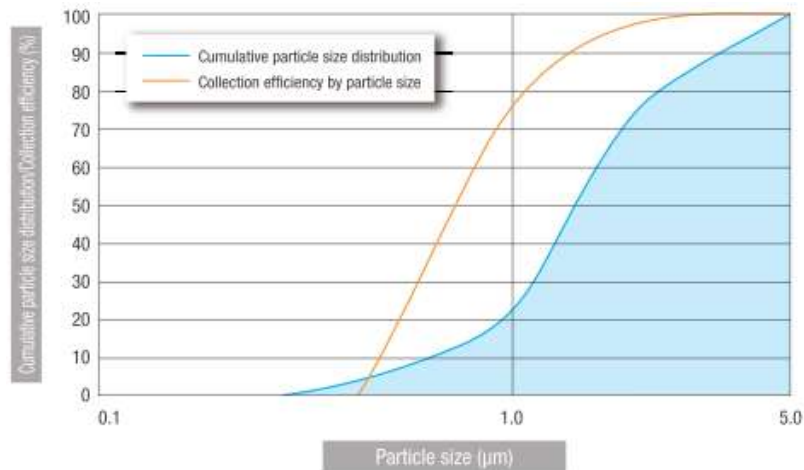
Features:

Revolutionary filterless mist collector

- No filter replacement is needed.
- Cyclone and trapping disk provide long-term suction intake and trapping performance.
- Two drain ports.
- Cyclone separates out dust and cutting chips.



Collection efficiency 99.9%



When absorbing mist particles of 5 μm

While it has a self-draining system that does not use any filters, it has the same collection performance of conventional models. It can also collect 0.3 μm particles by installing an after-filter (option).

Comparison of Collection Disk Clogging (vs Conventional Models)

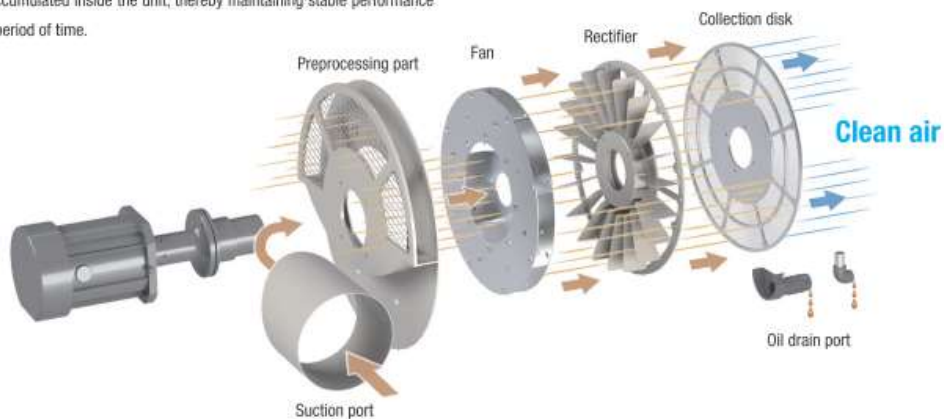
This is the comparison of disk clogging in a test under the same load conditions.



Uses Exhaust Pressure to Forcibly Drain the Mist

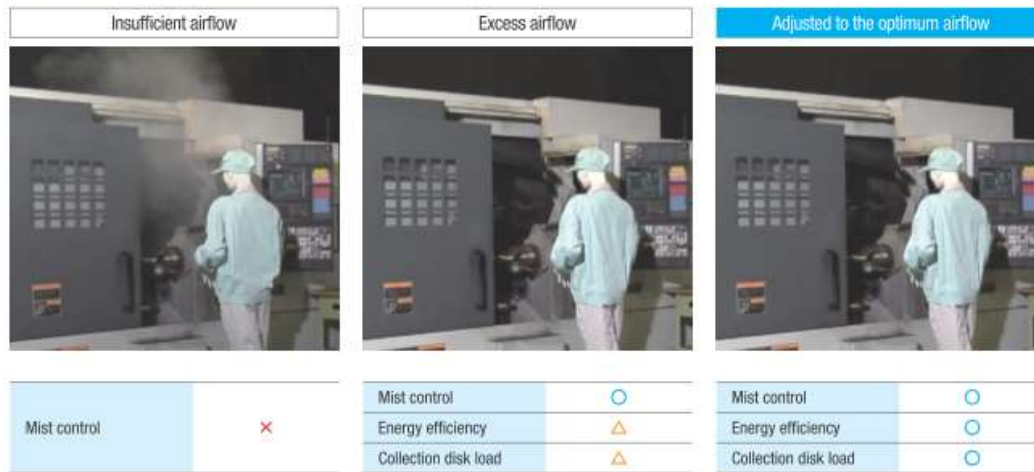
Suction port → Preprocessing part → Fan → Collection disk → Exhaust

Oil does not get accumulated inside the unit, thereby maintaining stable performance over an extended period of time.



Operation at optimum airflow: Models with function: MR-10, 15, 25

■ Operation at optimum airflow

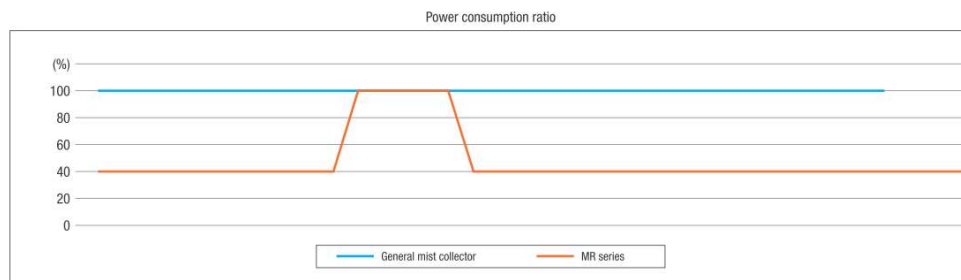


Example of energy-saving operation by using the product with the machine tools: MR-10, 15, 25

■ Example of energy-saving operation by using the product with the machine tools

| | Door close | Start of process | Processing | End of process | Door open | Work set | Door close | Start of process | Processing | End of process | Completion of work |
|-------------------------------------|------------|---|------------|---|---|----------|------------|------------------|------------|---|--------------------|
| Remote operation command | | ON | | | | | | | | | |
| Process completion signal | | | | ON | | | | | | | |
| General mist collector | | 100% mode | | | | | | | | | |
| Filterless Mist Collector MR Series | | Optimum airflow operation during the process 65% to 100% (any settings) | | Mist spread prevention operation 100% (Fixed) | Optimum airflow operation during the process 65% to 100% (any settings) | | | | | Delayed stop operation 65% to 100% (any settings) | |

- ☐ Remote operation mode selection
 - ☐ Delayed stop operation selection
 - ☐ Speed control usage
 - ☐ Remote operation signal
 - ☐ Interlocking with the process completion signal
- (☐ : Settings on the attached board
☐ : External operation signal)

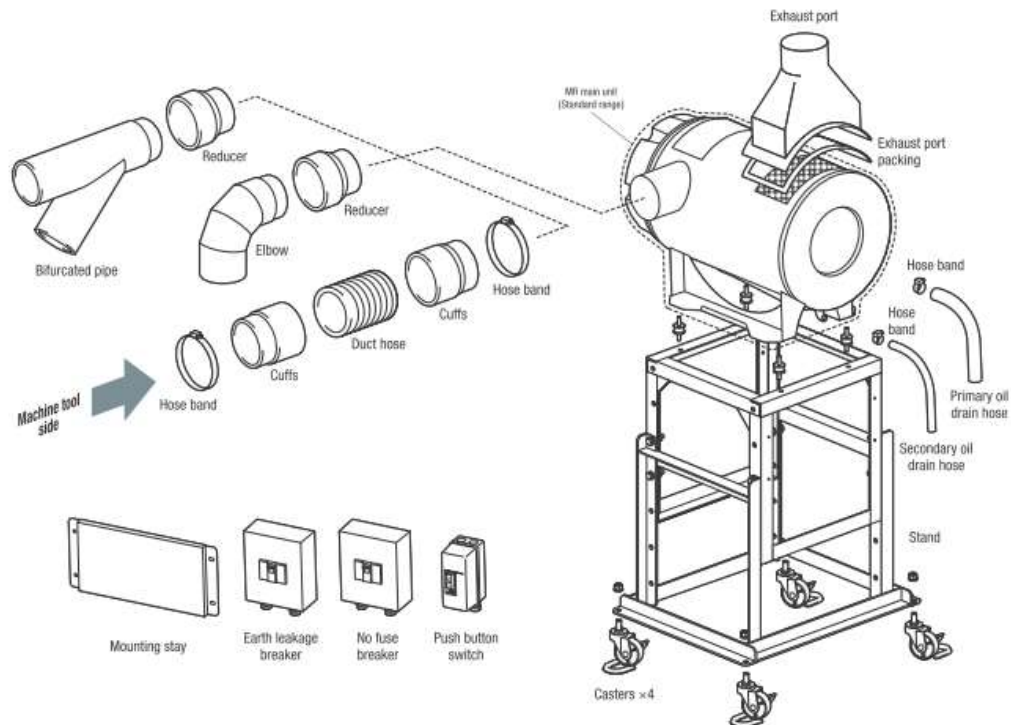


*1 MR-10: Power consumption reduction rate at 70% rpm setting. Approximately 49% (Estimated at a processing interval of 6 minutes)

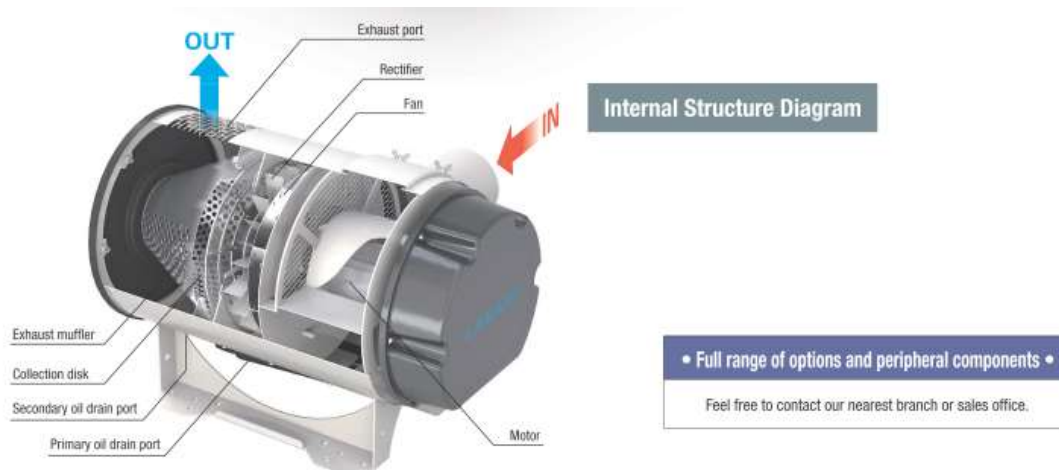
Provides an 8-stage Airflow Switching Function (Fixed Motor Rotation Operation)

| Operation mode | MR-10 | MR-15 | MR-25 |
|----------------|------------------|-------|-------|
| | Airflow [m³/min] | | |
| 100% | 9.5 | 15 | 22 |
| 95% | 9 | 14.25 | 20.5 |
| 90% | 8.5 | 13.5 | 19.5 |
| 85% | 8 | 12.75 | 18.5 |
| 80% | 7.5 | 12 | 17.5 |
| 75% | 7 | 11.25 | 16.5 |
| 70% | 6.5 | 10.5 | 15.5 |
| 65% | 6 | 9.75 | 14.5 |

Options and Peripheral Components

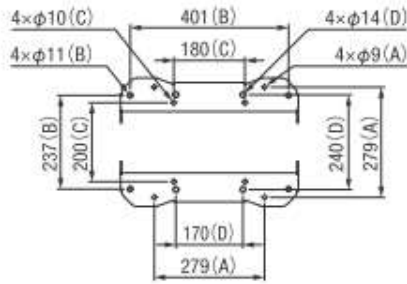


Internal Structure

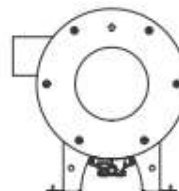
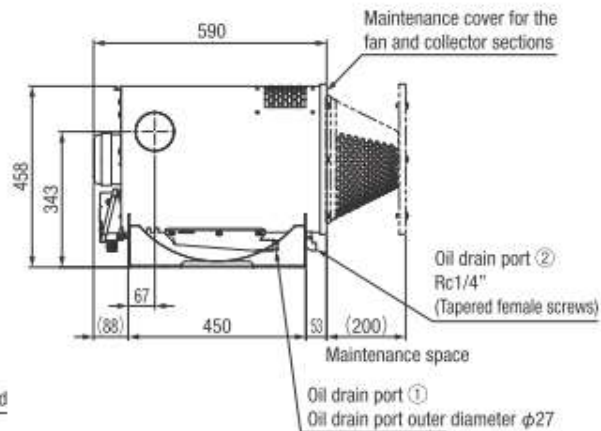
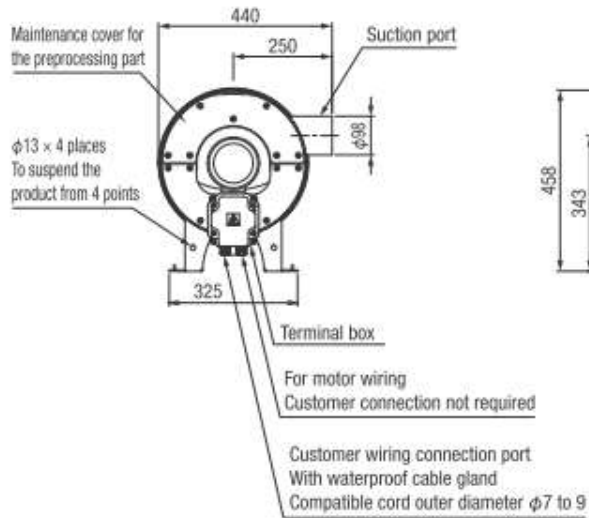
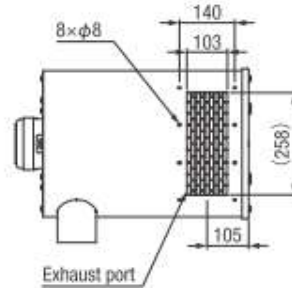


External View

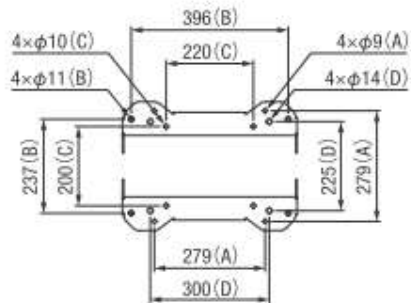
MR-5 (0.4kW)



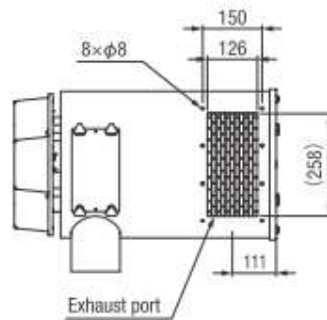
Product mounting hole pitch 4patterns



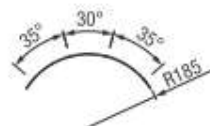
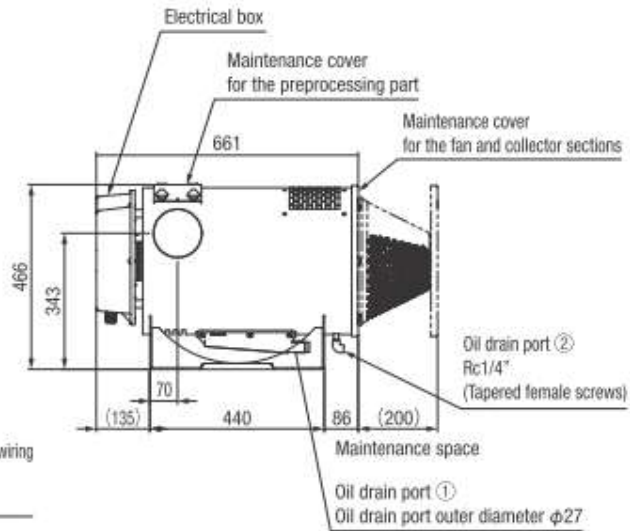
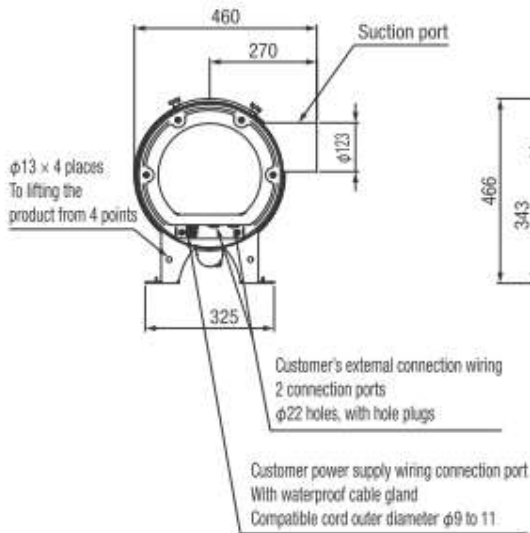
MR-10 (0.75kW)



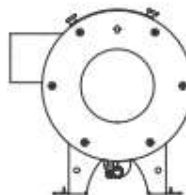
Product mounting hole pitch 4 patterns



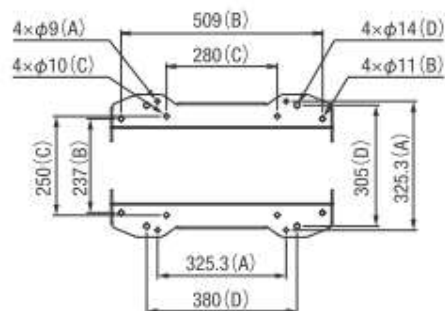
Exhaust port



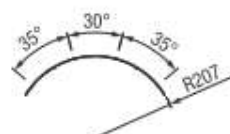
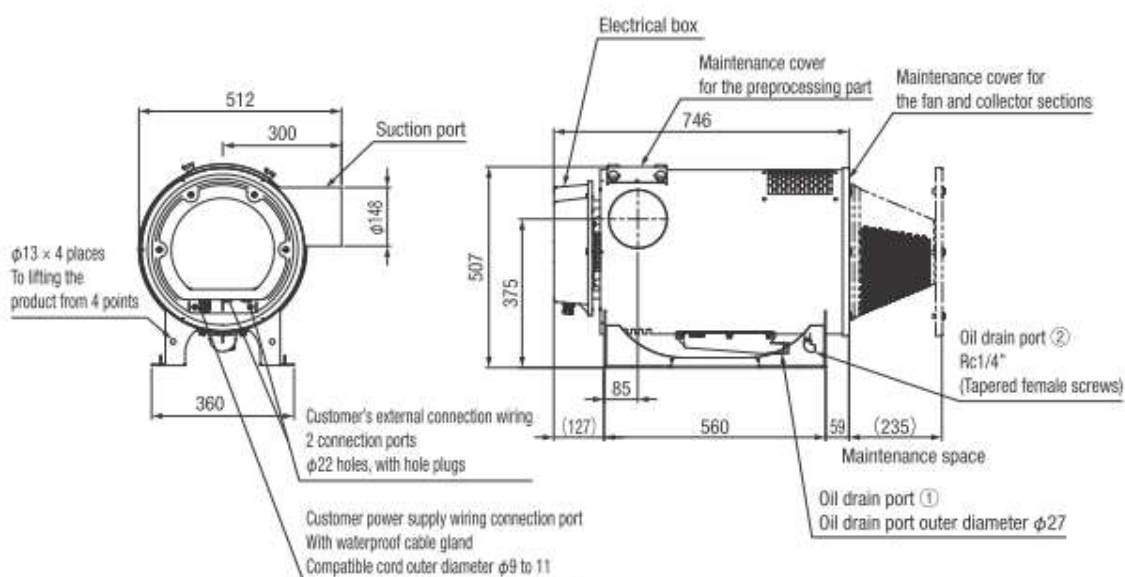
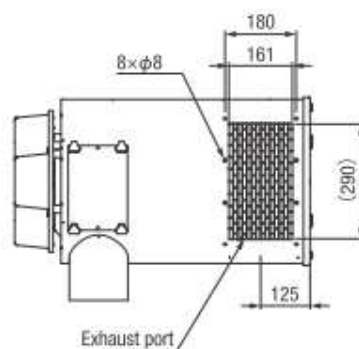
Exhaust port φ8 hole pitch



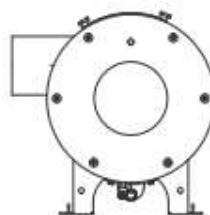
MR-15 (1.5kW)



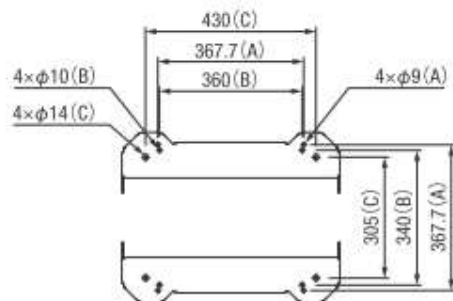
Product mounting hole pitch 4 patterns



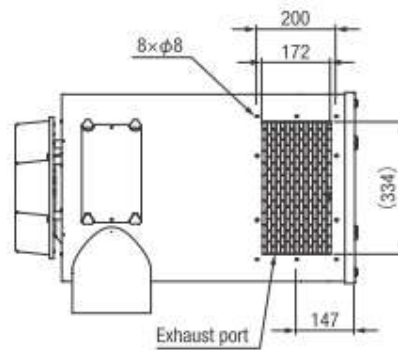
Exhaust port φ8 hole pitch



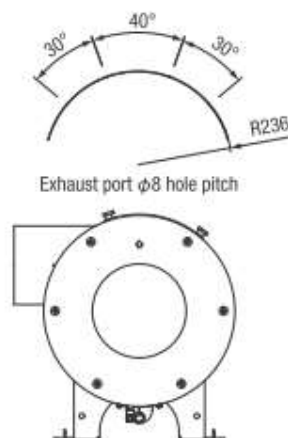
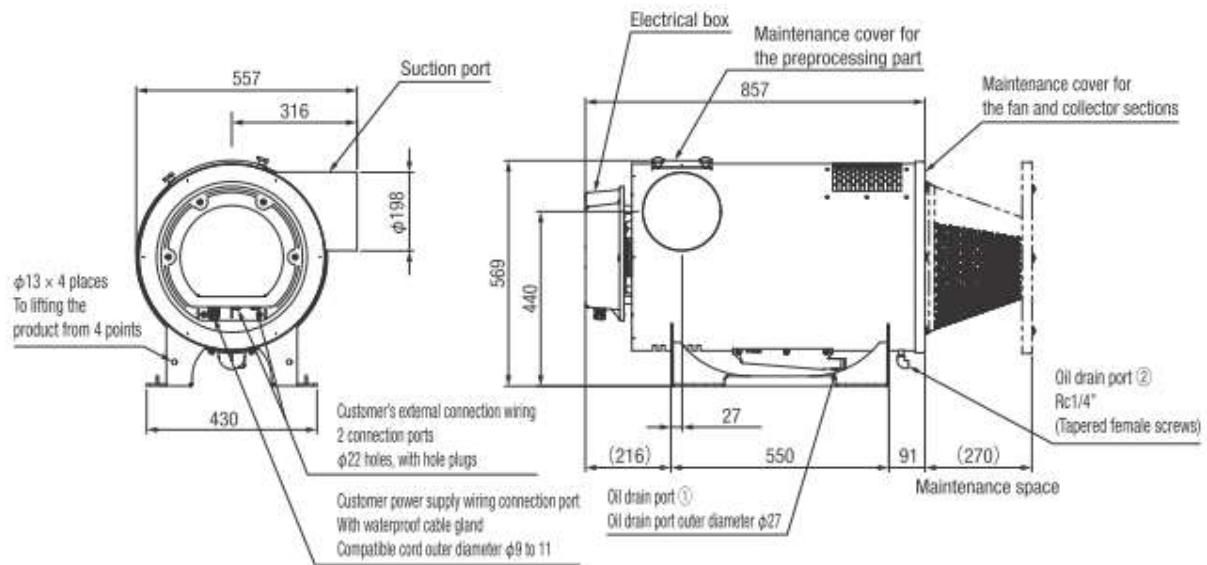
MR-25 (2.2kW)



Product mounting hole pitch 3 patterns

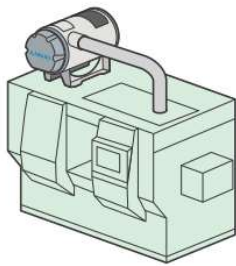


Exhaust port

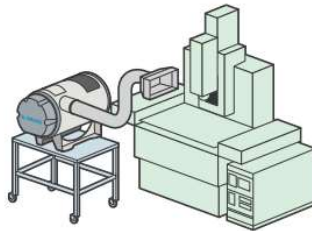


Exhaust port φ8 hole pitch

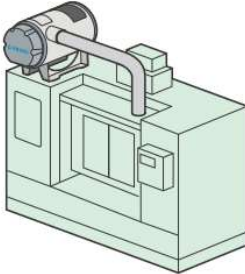
Application



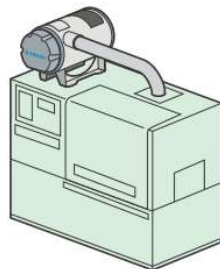
■ Machining center



■ Grinder



■ NC lathe



■ General-purpose lathe

SPECIFICATION

| Particular | Unit | MR-5 | MR-10 | MR-15 |
|----------------------|--------|-------------|-------------|-------------|
| Power Supply | Volt | 220 | 220 | 220 |
| Frequency | Hz | 60 | 60 | 60 |
| Phase | | 3P | 3P | 3P |
| Output | kw/hp | 0.4 | 0.75 | 1.5 |
| Max Airflow | m³/min | 5.5 | 9.5 | 15.016.0 |
| Max. Static Pressure | kPa | 1.2 | 1.3 | 1.3 |
| Suction Port Ø | mm | 98.0 | 123.0 | 148.0 |
| Dimension (W x H) | mm | 400x590x460 | 460x660x466 | 512x746x507 |
| Weight | kg | 45 | 35 | 50 |

| Particular | Unit | MR-25 |
|----------------------|--------|-------------|
| Power Supply | Volt | 220 |
| Frequency | Hz | 60 |
| Phase | | 3P |
| Output | kw | 2.2 |
| Max Airflow | m³/min | 22.0 |
| Max. Static Pressure | kPa | 1.3 |
| Suction Port Ø | mm | 198.0 |
| Dimension (W x H) | mm | 557x857x569 |
| Weight | kg | 65 |