

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

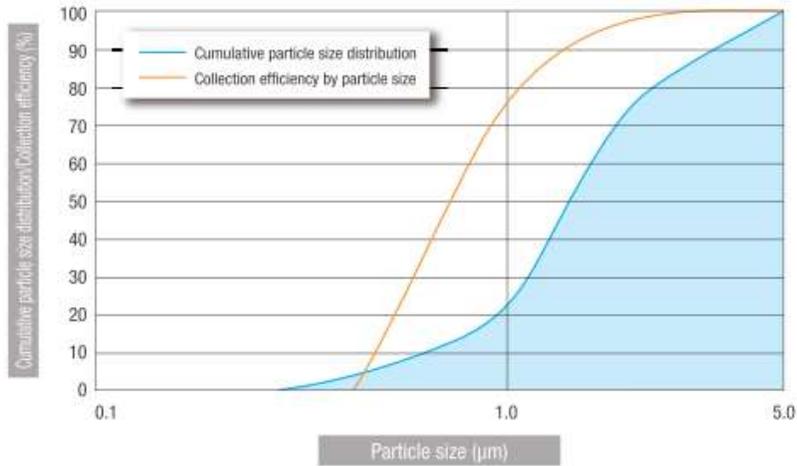
Features:

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)

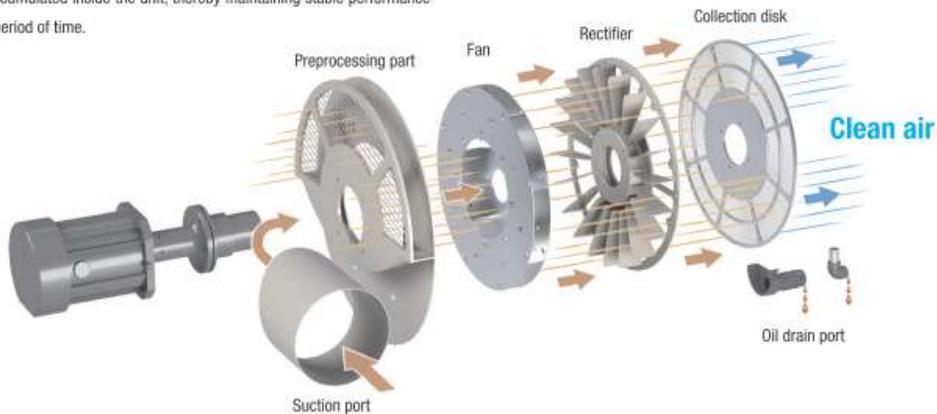
This is the comparison of disk clogging in a test under the same load conditions.



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

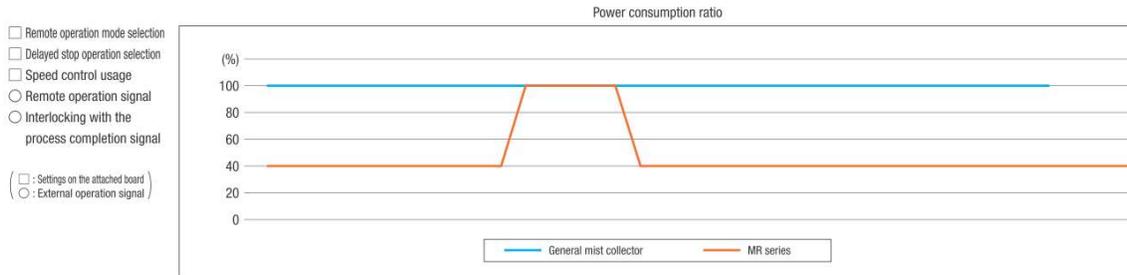
■ Operation at optimum airflow

Insufficient airflow	Excess airflow	Adjusted to the optimum airflow
Mist control: ✗	Mist control: ○ Energy efficiency: △ Collection disk load: △	Mist control: ○ Energy efficiency: ○ Collection disk load: ○

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)	

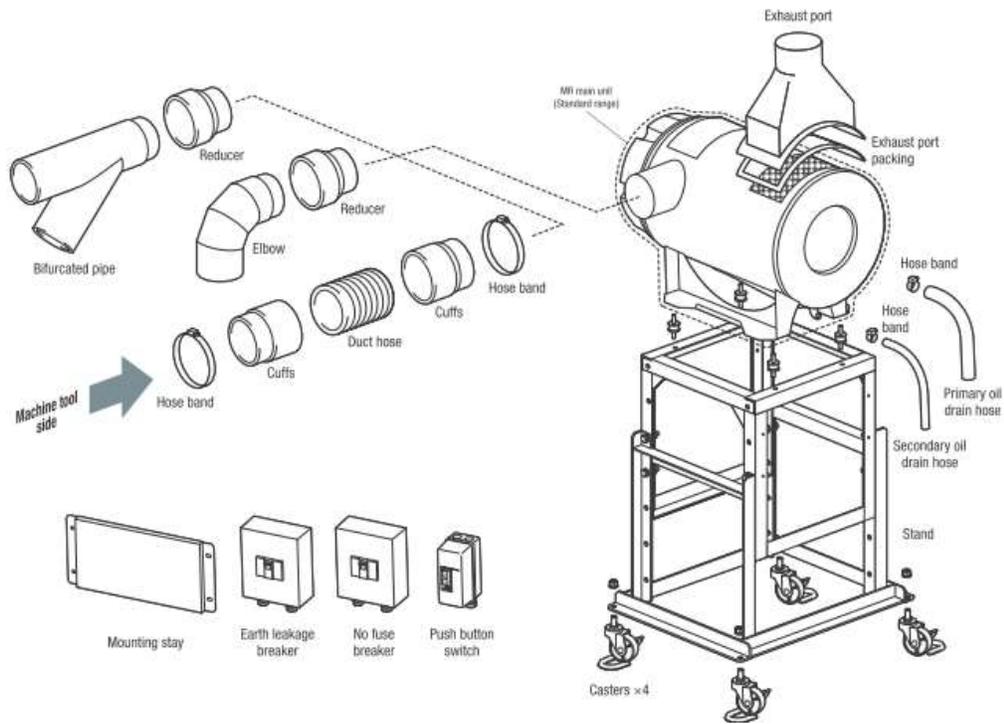


*1 MR-10: Power consumption reduction rate at 70% rpm setting. Approximately 49% (Estimated at a processing interval of 6 minutes)

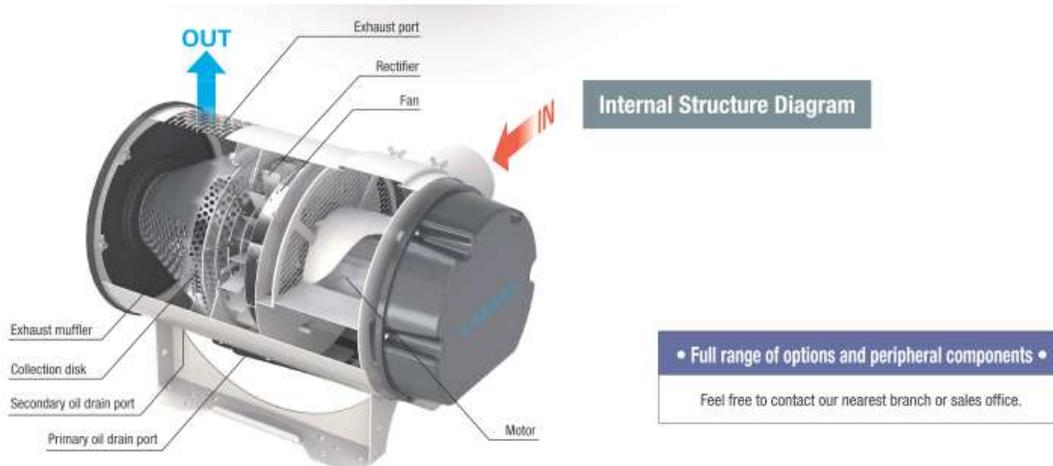
Provides an 8-stage Airflow Switching Function (Fixed Motor Rotation Operation)

Operation mode	MR-10	MR-15	MR-25
	Airflow [m ³ /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

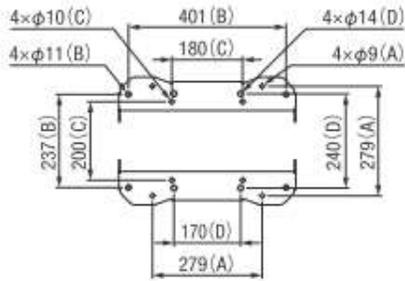


Internal Structure

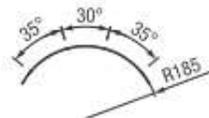
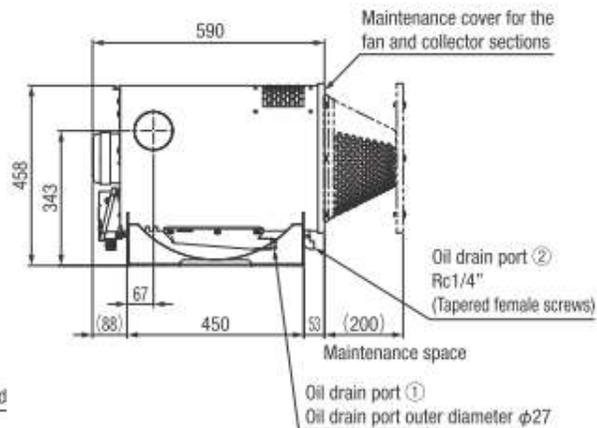
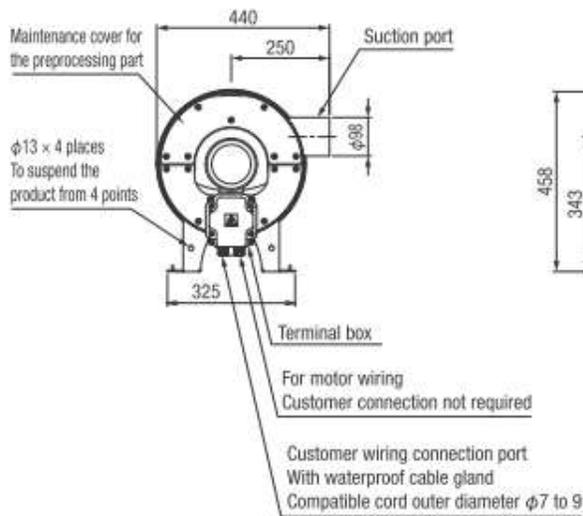
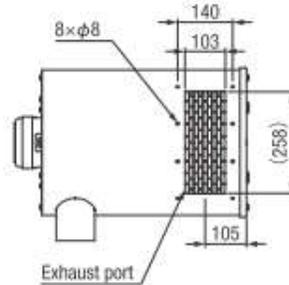


External View

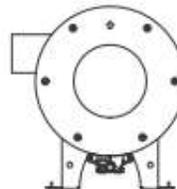
MR-5 (0.4kW)



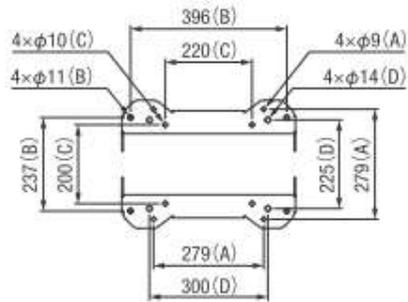
Product mounting hole pitch 4 patterns



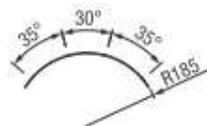
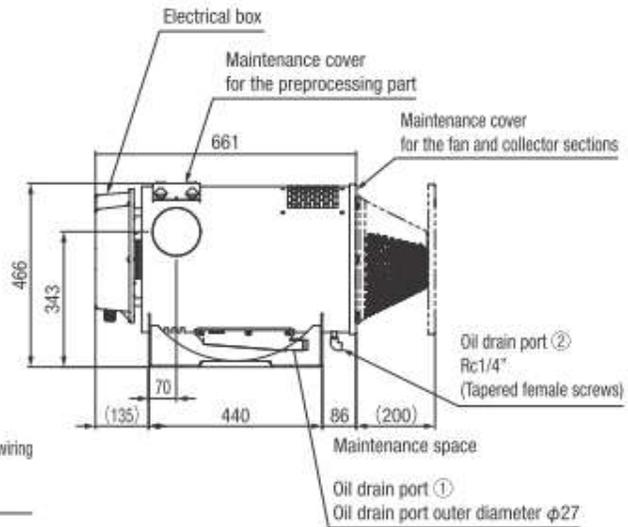
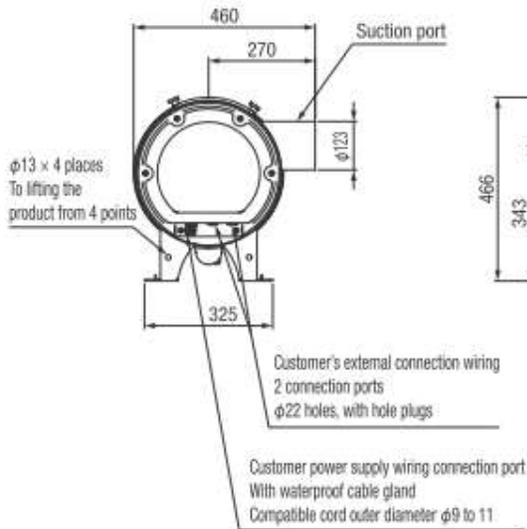
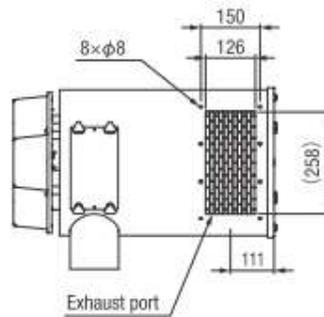
Exhaust port φ8 hole pitch



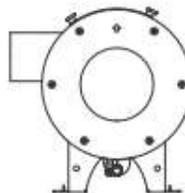
MR-10 (0.75kW)



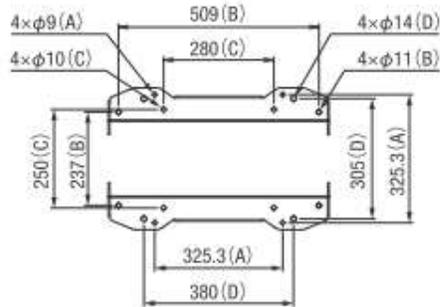
Product mounting hole pitch 4patterns



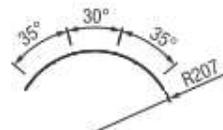
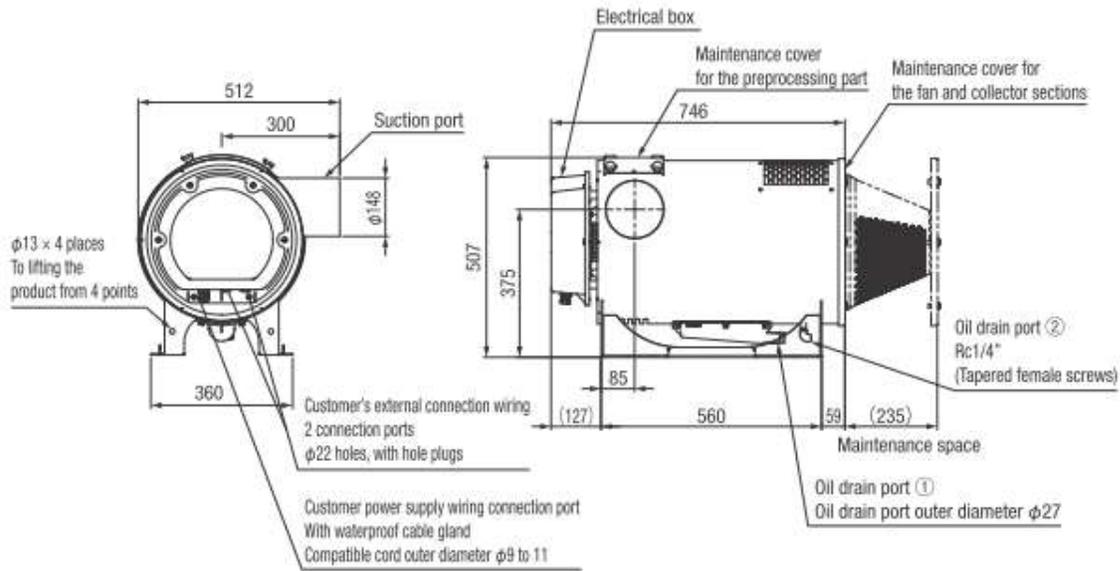
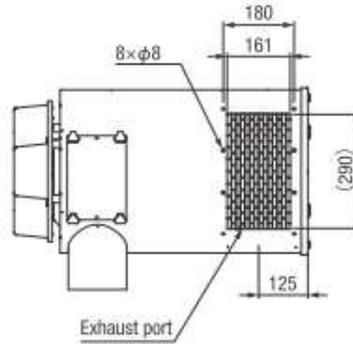
Exhaust port φ8 hole pitch



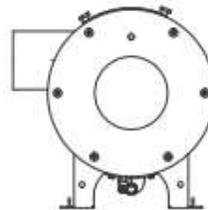
MR-15 (1.5kW)



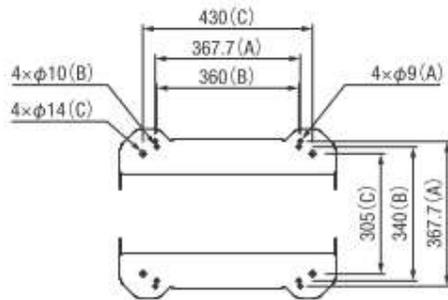
Product mounting hole pitch 4 patterns



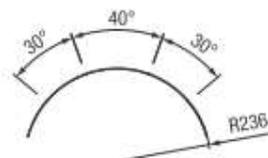
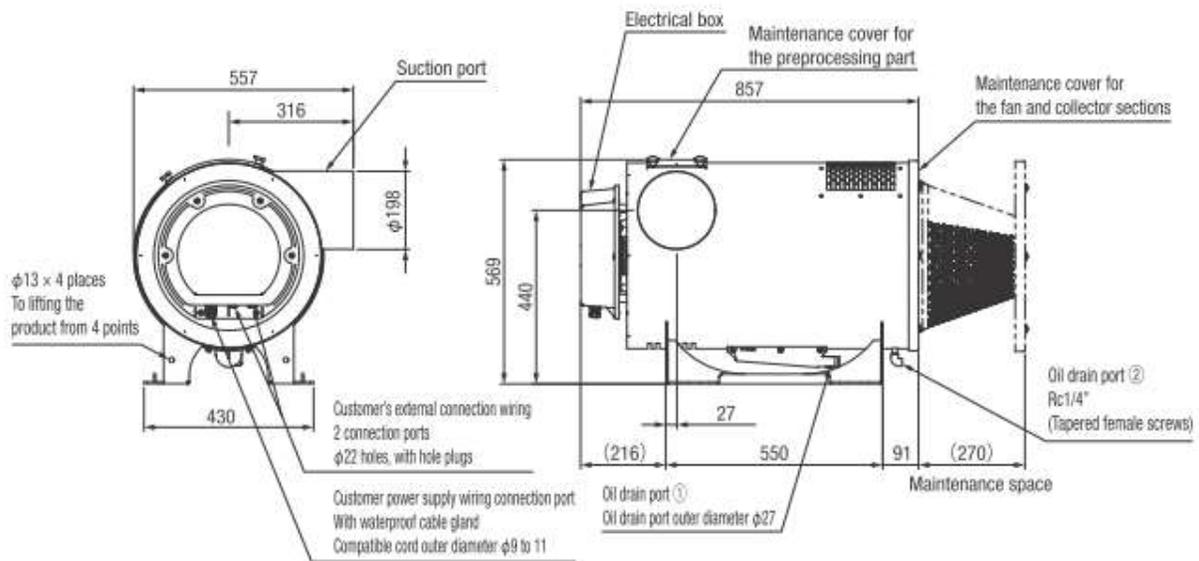
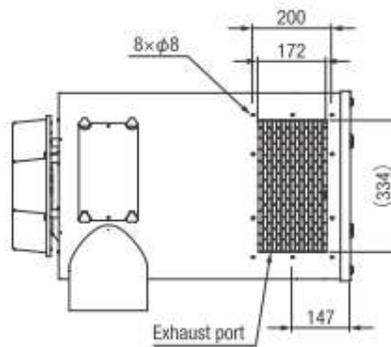
Exhaust port φ8 hole pitch



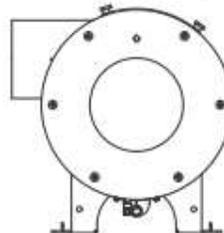
MR-25 (2.2kW)



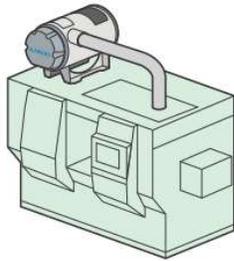
Product mounting hole pitch 3 patterns



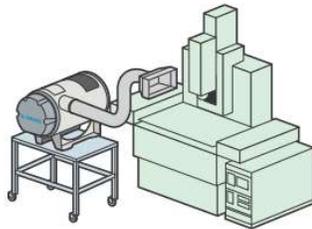
Exhaust port φ8 hole pitch



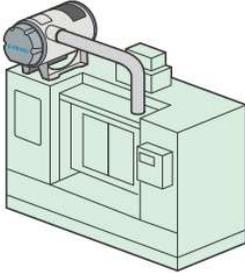
Application



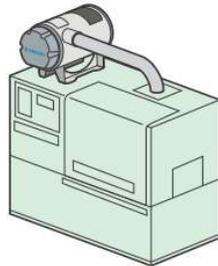
■ Machining center



■ 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	m ³ /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	m ³ /min	22.0
Max. Static Pressure	kPa	1.3
Suction Port Ø	mm	198.0
Dimension (W x H)	mm	557x857x569
Weight	kg	65