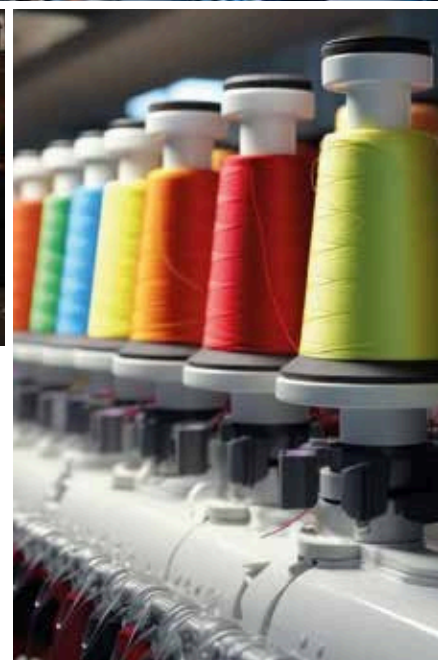




Smart and Simple Compressed Air Solutions

MSS 4 - 75 kW Oil-injected Screw Compressors

MSS 7.5 kW - 75 kW Variable Speed Screw Compressors

MDS 35 CFM - 1000 CFM Refrigerated Dryers

G-C-V 45 CFM - 1500 CFM Compressed Air Filters

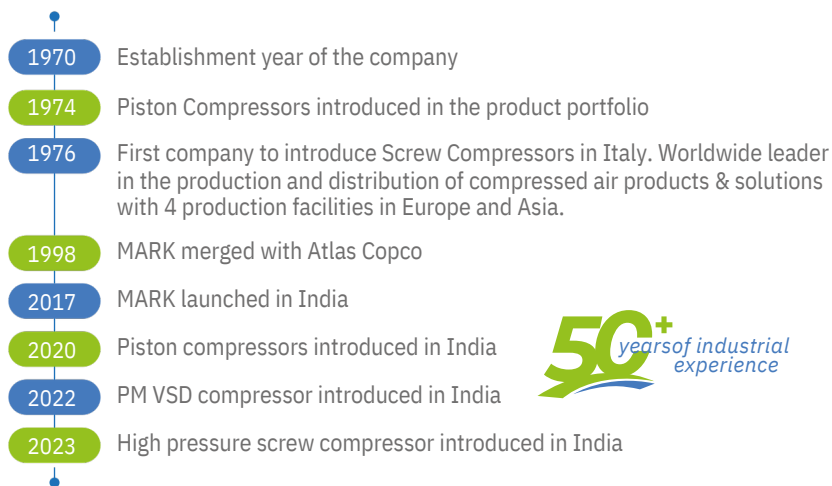


MARK History

MARK, established in 1970, embarked on its journey to foreign markets by introducing piston compressors four years later. This foray into international sales proved highly successful, catalyzing the company's rapid growth. By 1988, the company had achieved the remarkable milestone of having over 10,000 screw compressors in operation throughout Europe, with 100,000 deployed worldwide.

Presently, MARK boasts a global clientele, facilitated by the presence of local customer centers across the globe. MARK's air compressors are meticulously tailored to cater to the specific requirements of light industries and assembly line production.

Our commitment to innovation remains unwavering as we continually design and produce new products that not only meet your current demands but also anticipate and fulfill your future needs.



User Benefits

Reliability

- Mark brand
- Worldwide reputation of over 50 years
- Reliable components
- Quiet and trouble-free operation
- Independent cooling fan
- Asymmetric profile rotors

Uncompromised Quality

- ISO 9001· ISO 14001 quality assurance
- OHSAS 18001 quality assurance
- World renowned screw element
- Industry proven electric motor
- Vertical separator tank

Simplicity

- Base and Tank mounted design
- Simple controller
- Gear drive and Flexible drive
- Simple plug-and-play solution
- Easy installation
- No special foundation needed

Easy Serviceability

- Easy access from front side
- Horizontal cooler brings high efficiency and easy cleaning
- Service and cleaning is a one person job
- Spin on filters
- Service indication on electronic controller

Safety

- Emergency stop
- General alarm
- Fault shut down & alarm function
- Reverse rotation protection
- Maintenance alarm
- Motor overload protection



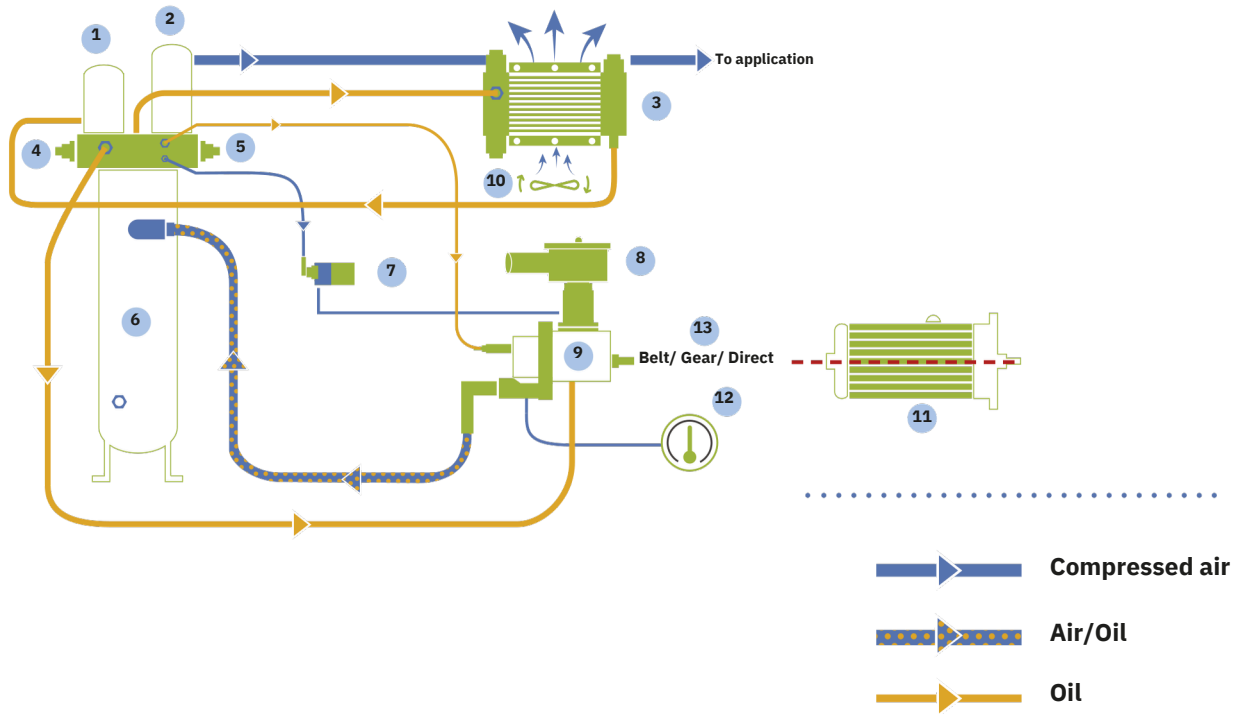
Oil injected screw compressors and Refrigerated Dryer plant: Pan-Asia, Wuxi



Oil injected screw compressors and Refrigerated Dryer plant: Pan-Asia, Wuxi

Flow Diagram of MSS Screw Compressor

The flow diagram below illustrates the operating process which makes the MSS range into a compact and efficient compressor.



Components

- | | | |
|----------------------|------------------------------|---------------------------------|
| 1 Oil filter | 6 Oil vessel | 10 Independent fan |
| 2 Air-oil separator | 7 Air suction solenoid valve | 11 Electric motor |
| 3 Oil-air cooler | 8 Air suction filter | 12 Temperature probe/thermostat |
| 4 Thermostatic valve | 9 Screw compressor | 13 Transmission unit |
| 5 Safety valve | | |



Spare parts distribution center: Belgium and Shanghai



Oil and water injected screw compressors plant: Belgium

Features and Benefits of Screw Compressor



Asymmetric Screw Profile with High Quality Ball and Roller Bearings for Maximising Output at Lowest Power

- Greater yield
- High efficiency
- Long life & reliability
- Lasting performance



Simple User Friendly Controller with Outstanding Functions

- Color coded on/off buttons
- LCD display
- Service warnings
- Fault indication & re-set function
- Protection from reverse rotation



Horizontal mounting of coolers ensures high efficiency at minimal cooling power



Pre-filter Panel

- Smart slot design for easy replacement
- Suitable for manual or air cleaning



MARK Compressors Available in Every Drive System That Offers

- Easy maintenance
- Simple installation
- User-friendly low noise operation
- The standard in the industry



Gear Drive Advantages

- Efficient gear drive transmission
- Higher output at lowest power
- Integrated highly efficient cooling system
- Rigid internal connection pipelines (stainless steel pipe)
- Silent operation

Technical Data - Flexible Drive

Model												
	Max. Pressure	Motor		Capacity			Noise	Weight	Connection	Dimension		
	Bar (G)	kW	hp	l/s	CFM	m³/min	dB(A) ±2	kg	G	Length (mm)	Width (mm)	Height (mm)
MSS 4 TM	10	4	5	8.05	18	0.51	66	130	½"	650	650	890
MSS 5.5 TM	10	5.5	7.5	11.3	24	0.68	66	160	½"	650	650	890
MSS 7.5	8	7.5	10	18.9	40	1.13	66	167	½"	650	650	890
	10			14.6	31	0.88						
MSS 11	8	11	15	28.3	60	1.70	72	230	¾"	850	650	930
	10			24.1	51	1.44						
MSS 15	8	15	20	34.5	73	2.07	72	230	¾"	850	650	930
	10			30.7	65	1.84						
MSS 18.5	8	18.5	25	51.4	109	3.09	72	330	1"	710	740	1275
	10			42.9	91	2.58						
MSS 22	8	22	30	57.6	122	3.45	72	345	1"	710	740	1275
	10			48.1	102	2.89						
MSS 30	7	30	40	85.9	182	5.15	75	564	1½"	860	850	1345
	10			66.1	140	3.96						
MSS 37	7	37	50	99.1	210	5.95	75	584	1½"	860	850	1345
	10			87.3	185	5.24						
MSS 45	7	45	60	121.8	258	7.31	75	580	1 ½"	1248	1025	1405
	10			101.5	215	6.09						

Technical Data - Gear Drive

Model												
	Max. Pressure	Motor		Capacity			Noise	Weight	Connection	Dimension		
	Bar (G)	kW	hp	l/s	CFM	m³/min	dB(A) ±2	kg	G	Length (mm)	Width (mm)	Height (mm)
MSS 55	7	55	75	162	345	9.76	77	937	2"	1475	1100	1650
	10			129	275	7.78						
MSS 75	7	75	100	217	460	13.0	77	967	2"	1475	1100	1650
	10			179	380	10.76						

iPM VSD Direct Drive Compressors

Why Energy Efficiency?

Energy costs represent about 70% of the total operating cost of your compressor over a 5-year period.

That is why efficiency, reducing the energy consumption of your compressed air installation should be a major focus.

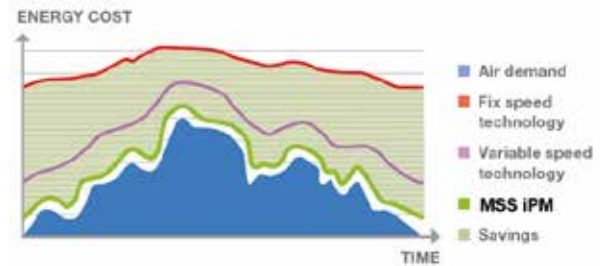
Why Variable Speed?

As a majority of customers have a variable demand for compressed air, a variable speed compressor is superior vs. a fixed speed compressor in terms of energy savings by perfectly matching air supply to air demand and avoiding unload losses.



Why MARK iPM?

The MARK iPM range combines our Imperium variable speed technology with our new and highly efficient drive train with iPM motor technology and evolved the energy efficiency of variable speed compressors to a new level, resulting in energy savings of up to 45%.



iPM Technology Can Save upto 45% of Energy If Chosen Wisely

MARK iPM Product Features

Innovative Technology Advantages

1 Drivetrain System

- Innovative technology air cooled permanent magnet motor
- 1:1 direct drive ensures minimum transmission loss
- IE4 and IE5 Class ensure high efficiency

2 Cooling System

- Designed for high ambient temperatures
- Adequate cooling capacity
- High cooling efficiency through optimal ventilation

3 Inverter

- Designed to suit every industrial application
- Perfectly matches with real-time air demand
- Eliminates unloading power loss

4 Controller

- 7 inch color display screen
- Touch control
- Simple and easy operation
- User-friendly interface

5 After Cooler

- Knocks down moisture in compressed air
- Eliminates rust and corrosion, thereby saving process equipment



Technical Data - iPM Direct Drive

Model															
	Max. Pressure	Motor		Capacity						Noise	Weight	Connection	Dimension		
	Bar (G)	kW	hp	l/s		CFM		m³/min		dB(A) ±2	kg	G	Length (mm)	Width (mm)	Height (mm)
MSS7.5 PM	7	7.5	10	4.7	18.8	10	40	0.3	1.1	68	150	¾"	905	740	1000
	10			4.7	15.5	10	33	0.3	0.9						
MSS11 PM	7	11	15	7.5	28.3	16	60	0.5	1.6	69	210	¾"	905	740	1000
	10			5.1	23.5	11	50	0.3	1.4						
MSS15 PM	7	15	20	10.4	37.7	22	80	0.6	2.2	70	210	¾"	905	740	1000
	10			9.9	29.7	21	63	0.6	1.8						
MSS18.5 PM	7	18.5	25	16.9	54.2	36	115	1.0	3.2	70	280	1"	1005	895	1268
	10			16.5	44.8	35	95	1.0	2.6						
MSS22 PM	7	22	30	16.9	62.7	36	133	1.0	3.7	70	290	1"	1005	895	1268
	10			16.5	53.8	35	114	1.0	3.2						
MSS30 PM	7	30	40	20.2	87.3	43	185	1.2	5.2	71	320	1½"	1235	1025	1405
	10			16.9	71.7	36	152	1.0	4.3						
MSS37 PM	7	37	50	30.2	108.5	64	230	1.8	6.5	71	390	1½"	1235	1025	1405
	10			29.5	92.0	63	195	1.8	5.5						
MSS45 PM	7	45	60	30.0	125.0	64	265	1.8	7.5	72	410	1 ½"	1235	1025	1405
	10			29.5	110.9	63	235	1.8	6.6						

Refrigerated Dryer

User Benefits

Reliability

- Markbrand
- Worldwide reputation of over 50 years
- Reliable components
- Largest air dryer manufacturer
- Fault alarm function

Simplicity

- Compact design
- Simple technology
- Easy maintenance
- Simple controller
- Simple timer solenoid drain
- On-off switch

Uncompromised Quality

- ISO9001/ISO 14001 quality assurance
- OHSAS 18001 quality assurance
- World renowned refrigerant compressor
- Industry proven fan motor
- In-house engineered condenser and evaporator
- International standard refrigeration gases

Easy Installation & Serviceability

- Inlet-outlet from the top
- Flexible placement allowed backside to the wall
- Easily serviceable
- Easy setting of drain intervals
- Easily removable side panels

PDP Indicator

The operation of the MDS dryer is monitored by an electronic controller indicating all relevant information:

Technical Details:

- Status of the refrigerant dryer
- Status of the fan
- Dewpoint indication

Simple Timer Operated Drain Discharge

The refrigerant dryer range is equipped with a simple timer operated condensate drain discharge. Easy to set and adjust the condensate drain interval and drain operating period. Highest quality brand in Industry, reliable and efficient.



The Smart Choice for High Reliability

Components

1 Refrigerant Compressor

Driven by an electric motor, cooled using refrigerant fluid and protected against thermal overload

2 HGB Valve

Bypass the extra capacity in low condition, sufficiently avoid ice block

3 3-in-1 Aluminum Heat Exchanger

With integrated air-to-air heat exchanger, air to refrigerant evaporator, and water separator. High efficient heat transfer & high efficient water separate, low pressure drop

4 Refrigerant Condenser

Air-cooled and with a large exchange surface for efficient thermal exchange

5 Motor-driven Fan

For the condenser cooling air flow

6 Automatic Discharge of Condensate

- User adjustable
- Timer solenoid drain
- Reliable
- Proven design

7 On/Off Switch

Reliable simple on/off switch to turn on and off the dryer

8 Control Panel

Indicating all relevant information



Technical Data - Refrigerated Air Dryer

Model	Max Working pressure	Air Treatment Capacity			Nominal Power	Electrical	Connection	Dimension	Weight	Refrigerant
										
	Bar	l/s	CFM	m ³ /hr	kW	V/Ph/Hz	G	L×W×H (mm)	kg	Gas
MDS 10	13	17	35	60	0.22	230/1/50	G3/4"	430x354x463	30	R 134a
MDS 13	13	22	46	78	0.36	230/1/50	G3/4"	548x400x615	36	R 134a
MDS 21	13	35	74	126	0.37	230/1/50	G3/4"	548x400x615	38	R 134a
MDS 40	13	67	141	240	0.7	230/1/50	G1"	600x520x750	56	R 410A
MDS 66	13	110	233	396	1.05	230/1/50	G1.5"	600x520x750	58	R 410A
MDS 85	13	142	300	510	1.1	230/1/50	G1.5"	650x650x875	75	R 410A
MDS 105	13	175	371	630	1.15	230/1/50	G2"	650x650x875	79	R 410A
MDS 140	13	233	494	840	1.4	230/1/50	G2"	752x745x960	102	R 410A
MDS 175	13	292	618	1050	1.65	230/1/50	G2"	752x800x1020	119	R 410A
MDS 220	13	367	777	1320	2.65	230/1/50	G2.5"	927x795x1126	168	R 410A
MDS 260	13	433	918	1560	2.9	230/1/50	G2.5"	927x795x1126	174	R 410A

Environmental Friendly Refrigerant Gases

A key objective in the design of the MDS dryer was to deliver a product that offers performance, reliability and safety with the lowest possible environmental impact.

Environmental friendly thanks to the use of R134a and R410A gas

- No impact on the ozone layer
- R410A gas has exceptional properties:
 - Very low global warming potential (GWP)
 - Energy saving by use of rotary refrigerant compressor



Only original parts extend your compressor's lifetime, reduce maintenance costs and maximize efficiency.



Quality Filtration for High Reliability



MARK Online Filters Guarantee Technically Oil-free Air:

- Pre-filter removes dust particles and improves air quality
- Fine coalescence filter removes oil particles from compressed air
- Activated carbon filter absorbs oil vapour ensuring 100% technically oil-free air
- Filter cartridges are easily removable resulting in quick maintenance

Principles of Filtration

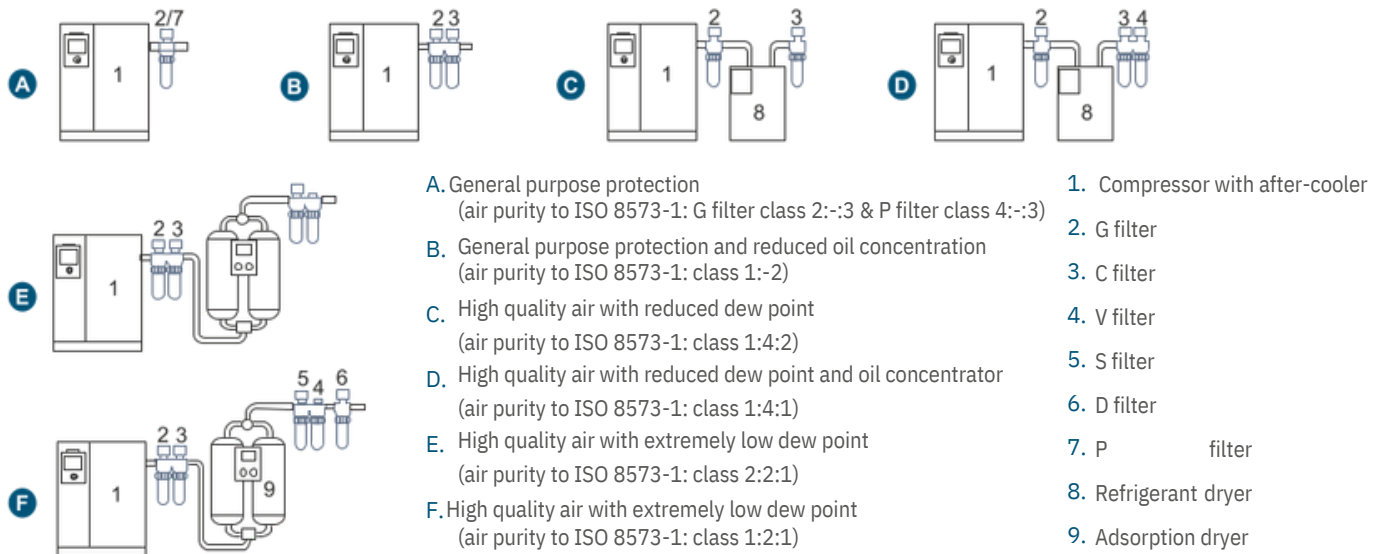
Different Types of Contamination Require Different Types of Filters

	Contaminant	State of matters	Filter	Filter medium	Filtration mechanisms
	Dust	Solid	Pre-filter, Dust filter	Glass fibers	Capture
	Oil aerosol	Liquid	Coalescence filter, High efficiency coalescence filter	Glass fibers	Capture + coalescing+drain
	Oil vapor	Gas	Porous activated carbon	Porous activated carbon	Adsorption

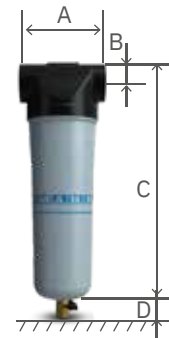
Degree of Purity of Air by ISO 8573.1

DEGREE OF PURITY OF AIR					
ISO 8573-1 Class	OIL Concentration	DUST		WATER	
		Dimension	Concentration	Dew point	Water content
1	0,01 mg/m ³	0,1 µm	0,1 mg/m ³	- 70 °C	0,003 g/m ³
2	0,1 mg/m ³	1 µm	1 mg/m ³	- 40 °C	0,11 g/m ³
3	1,0 mg/m ³	5 µm	5 mg/m ³	- 20 °C	0,88 g/m ³
4	5 mg/m ³	15 µm	8 mg/m ³	+ 3 °C	6,0 g/m ³
5	25 mg/m ³	40 µm	10 mg/m ³	+ 7 °C	7,8 g/m ³
6	-			+ 10 °C	9,4 g/m ³

Typical Installations



Model	L/min m³/hr		CFM	BAR	PSI	G	A	B	C	D	kg
FILTER 7	720	43	25	16	232	3/4"		90 19	237	32	0.76 237
FILTER 15	1500	90	53	16	232	3/4"		90 19	32	0.77	292 32
FILTER 21	2100	126	74	16	232	3/4"		90 19	0.89		305 32
FILTER 30	3000	180	106	16	232	1"		110 25	1.39		360 32
FILTER 48	4800	288	170	16	232	1 1/2"		126 38	1.67		465 32
FILTER 84	8400	504	297	16	232	2"		155 51	3.28		500 32
FILTER 114	11400	684	403	16	232	2"		155 51	3.63		545 32
FILTER 156	15600	936	551	16	232	2"		155 51	3.85		617 32
FILTER 216	21600	1296	763	16	232	2 1/2"		193 64	6.11		720 32
FILTER 315	31500	1890	1112	16	232	3"		210 76	8.75		890 32
FILTER 405	40500	2430	1430	16	232	3"		210 76	10.30		



G FILTER RANGE

Coalescing filters for general purpose protection, removing solid particles, liquid water and oil aerosol.

Total Mass Efficiency: 99%.

For optimum filtration, a G filter should be preceded by a water separator

C FILTER RANGE

High-efficiency coalescing filters, removing solid particles, liquid water and oil aerosol.

Total Mass Efficiency 99.9%.

For optimum filtration, a C filter should be preceded by a G filter at all times.

V FILTER RANGE

Activated carbon filter for removal of oil vapour and hydrocarbon odors with a maximum remaining oil content of (0.003mg/m³). 1000 hour lifetime.

COMPONENTS



① Double O-rings guarantee proper sealing to reduce leakage risks and increase energy savings.

② Increased user friendliness and reliability via push-on element.

③ Protection paper avoids direct contact between filter media and stainless steel filter core.

④ Enhanced glass fiber media ensure high filter efficiency, low pressure drop and guaranteed lifetime performance. For oil coalescence filters, multiple layers are wrapped around each other to avoid the risk of early oil breakthrough.

⑤ Enhanced high-performance stainless steel filter cores ensure ultimate strength and low risk of explosion.

⑥ Oil coalescence filters: Double drainage layer (outer protection paper and foam) has a large drainage capacity which is ideal for variable speed compressors. Moreover, the poly-urethane foam avoids oil re-entrainment. Dust filters: Open foam acts as a pre-filter for the largest dust particles, which prolongs the filter lifetime.

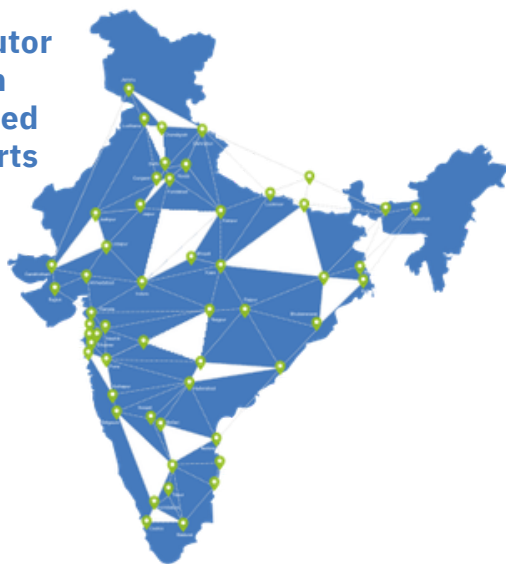
⑦ Epoxy sealed caps for reliable filtration.

⑧ Internal ribs support the element and facilitate the route of oil droplets.

Unparalleled Expertise

- Availability
- Reliability
- Partnership
- Safety
- Serviceability
- Simplicity
- Quality
- More Savings

Wide Distributor
Network with
Factory-trained
Service Experts



Care. Trust. Efficiency.



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Contact your local sales representative now!