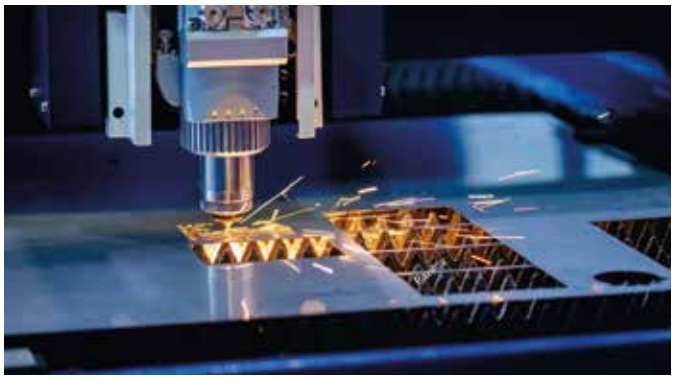


Smart and Simple Compressed Air Solutions.

MSS 4 - 75 kW Oil-injected Screw Compressors
MSS 7.5 kW - 75 kW Variables Speed Screw Compressor
MDS 35 CFM - 1000 CFM Refrigerant Dryers
G-C-V 45 CFM - 1500 CFM Compressed Air Filters

www.mark-compressors.com/en-in

MARK History

MARK was established in 1970, and 4 years later, it started to sell piston compressor to foreign countries. The export business was proved to be very successful and promoted the rapid development of the company. By 1988, over 10,000 screw compressors had been in operation in Europe, and 100,000 worldwide.

Today, MARK has a global customer base, with local customer centers around the world.

MARK air compressors are tailored to the needs of the light industry and assembly production.

Every day we develop and manufacture new products that are meant to meet your demands not only today, but tomorrow as well.

1970 Establishment year of the company

1974 Piston Compressors introduced in the product portfolio

1976 First company to introduce Screw Compressors in Italy. Worldwide leader in the production and distribution of compressed air products & solutions with 4 production facilities in Europe and Asia.

1998 MARK merged with Atlas Copco

2017 MARK launched in India

50+ years of industrial experience

LRQA CERTIFIED

UKAS MANAGEMENT SYSTEMS

User Benefits

Reliability
- Mark brand
- Worldwide reputation 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
- Oers a simple plug-and-play solution
- Easy installation
- No special foundation needed

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

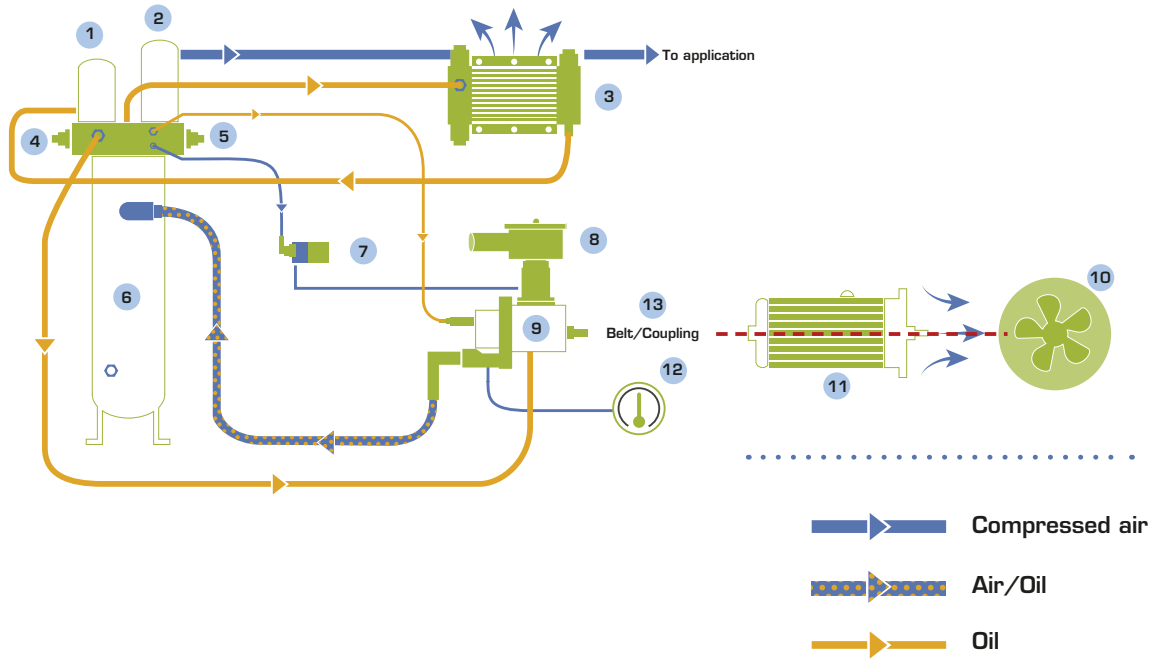
Safety
- Emergency stop
- General alarm
- Fault shut down & alarm function
- Reverse rotation protection
- Maintenance alarm
- Motor overload protection

Oil injected screw compressors and refrigerant dryers plant: Pan-Asia, Wuxi

Oil injected screw compressors and refrigerant dryers plant: Pan-Asia, Wuxi

Optimised Operating Flow

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



Components

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

Spare parts distribution center: Belgium and Shanghai

Oil and water injected screw compressors plant: Belgium

Smart Technical Advantages

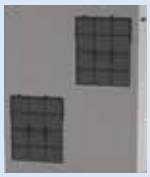
Asymmetric Profile Rotors Mounted on High Quality Ball and Roller Bearings High Degree of Sealing and The Fine Tolerances Guarantees

- 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
- Reverse rotation protection

Horizontal Design Bring High Efficiency Internally Cooling



Fast Service Pre-filtration

- Smart slot design make quick service
- Easy clean with washing or air blowing

Mark Compressors Have An In-house Designed Belt Drive System That Offers

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

Gear Drive 75 kW Advantages

Integrated highly efficient cooling system
Rigid internal connection pipelines (Stainless steel Pipe)
Gear drive system

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	9.04	19	0.53	66	130	½"	650	650	890
MSS 5.5 TM	10	5.5	7.5	11.4	24	0.67	66	160	½"	650	650	890
MSS 7.5	8	7.5	10	19	40	1.13	66	167	½"	650	650	890
	10			15	32	0.90						
MSS 11	8	11	15	28	60	1.69	72	230	¾"	850	650	930
	10			23	50	1.41						
MSS 15	8	15	20	34.5	75	2.12	72	230	¾"	850	650	930
	10			30.6	65	1.84						
MSS 18.5	8	18.5	25	52	110	3.11	72	330	1"	710	740	1275
	10			44	95	2.69						
MSS 22	8	22	30	58.1	125	3.53	72	345	1"	710	740	1275
	10			49	105	2.97						
MSS 30	7	30	40	87	185	5.23	75	564	1½"	860	850	1345
	10			67	144	4.10						
MSS 37	7	37	50	98	208	5.88	75	584	1½"	860	850	1345
	10			89	190	5.38						
MSS 45	7	45	60	121	258	7.30	75	580	R 1 ½" (M)	1248	1025	1405
	10			101	215	6.00						

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						

Why Energy Efficiency?

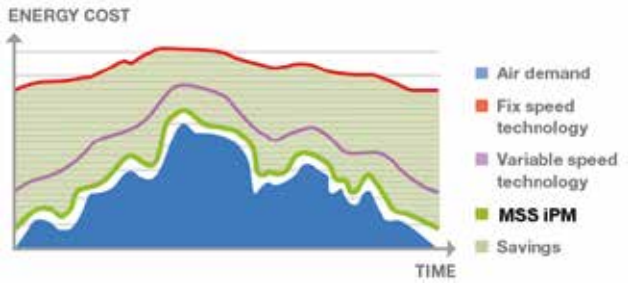
Energy costs represent about 70% of the total operating cost of your compressor over a 5-year period.
That is why efficiency reducing the energy consumption of your compressed air installation should be a major focus.

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



iPM Technology can Save
45% of Energy If Chosen Wisely

MARK PM Product Features

Innovative Technology Advantages

1

Drivetrain System

- Innovation technology air cooled permanent magnet motor
- 1:1 directly drive to the airend design, enhance minimum transmission chemical loss
- IE4 and IE5 motor contribute to reduce energy consumption

2

Cooling System

- Design for operation at ambient temperature maximum 46°C
- Large aluminium material cooling capacity
- Professional exhausting flow bring high cooling efficiency

3

Inverter

- Strict selection based on the verification from market industry applications
- Smart inverter detect the compressor air needs in real time
- Quick respondence to the regulation system for perfect match every working peak

4

Controller

- 7 inches color display screen
- Touch control
- Simply and easy operation
- Friendly human interaction

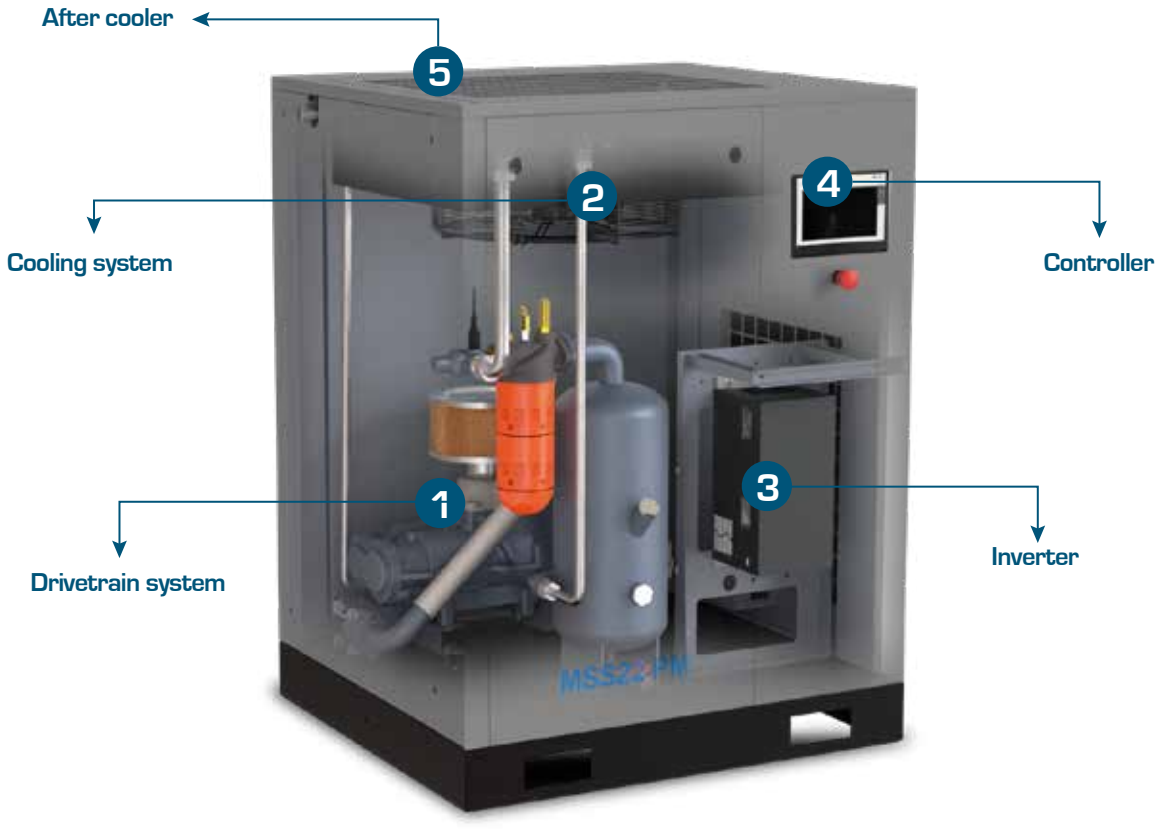
5

After Cooler

- Considerable aftercooler in standard to limit the moisture content in compressed air
- Protect piping system and end side equipments from rusty and possible failure caused by condensation

Technical Data - iPM Direct Drive

Model	Max. Pressure	Motor		Capacity						Noise	Weight	Connection	Dimension		
	Bar (G)	KW	HP	l/s		CFM		m^3/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						



User Benefits

Reliability
- Mark brand
- Worldwide reputation 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
- ISO 9001· 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

MDS Refrigeration Air Dryers

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 and time
- 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 - Refrigeration Air Dryer

Model	Max Working pressure	Air Treatment Capacity			Nominal Power	Electrical	Connection	Dimension	Weight	Refrigerant
	Bar	l/s	CFM	m3/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.

Environmentally freindly 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

ORIGINAL PART

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

Quality Filtration for High Reliability

The High Quality Air to Meet The Demand of Downstream Devices and Processes:

- Clean air extends the lifetime of terminal air consumption devices, and bring higher air quality
- Protect the devices against rust by eliminating the impurities in the air
- The high-efficiency instruments extend the unit lifetime, reduce maintenance cost, and improve the production process
- The filter integrity is static, while the filter is removable, it brings easy installation and maintenance

Principles of Filtration

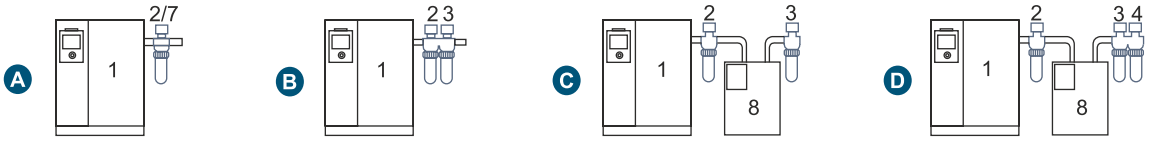
Different Types of Contamination Required Different Types of Filters

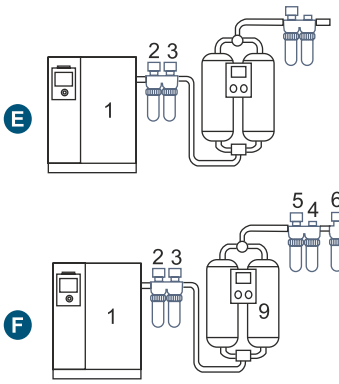
	Contaminant	State of matters	Filter	Filter medium	Filteration mechanisms
	Dust	Solid	Pre-filter, Dust filter	Glass fibers	Capture
	Oil aerosol	Liquid	Coalescence filter, High efficiency coalescence filer	Glass fibers	Capture + coalescing+drain
	Oil vapor	Gas	Porous activated carbon	Porous activated carbon	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 ^{0}C	0,003 g/m^3
2	0,1 mg/m^3	1 µm	1 mg/m^3	- 40 ^{0}C	0,11 g/m^3
3	1,0 mg/m^3	5 µm	5 mg/m^3	- 20 ^{0}C	0,88 g/m^3
4	5 mg/m^3	15 µm	8 mg/m^3	+ 3 ^{0}C	6,0 g/m^3
5	25 mg/m^3	40 µm	10 mg/m^3	+ 7 ^{0}C	7,8 g/m^3
6	-			+ 10 ^{0}C	9,4 g/m^3

Typical Installations





A. General purpose protection
(air purity to ISO 8573-1: G filter class 2:-:3 & P filter class 4:-:3)

B. General purpose protection and reduced oil concentration
(air purity to ISO 8573-1: class 1:-:2)

C. High quality air with reduced dew point
(air purity to ISO 8573-1: class 1:4:2)

D. High quality air with reduced dew point and oil concentrator
(air purity to ISO 8573-1: class 1:4:1)

E. High quality air with extremely low dew point
(air purity to ISO 8573-1: class 2:2:1)

F. High quality air with extremely low dew point
(air purity to ISO 8573-1: class 1:2:1)

1. Compressor with after-cooler

2. G filter

3. C filter

4. V filter

5. S filter

6. D filter

7. P filter

8. Refrigerant dryer

9. Adsorption dryer

Model	L/min	M3/h	CFM	BAR	PSI	G	mm	mm	mm	mm	kg
FILTER 7	720	43	25	16	232	3/8"	90	21	228	75	1
FILTER 15	1500	90	53	16	232	1/2"	90	21	228	75	1.1
FILTER 21	2100	126	74	16	232	1/2"	90	21	283	75	1.3
FILTER 30	3000	180	106	16	232	3/4"	110	27.5	303	75	1.9
FILTER 48	4800	288	170	16	232	1"	110	27.5	343	75	2.1
FILTER 84	8400	504	297	16	232	1 1/2"	140	34	449	100	4.2
FILTER 114	11400	684	403	16	232	1 1/2"	140	34	532	100	4.5
FILTER 156	15600	936	551	16	232	1 1/2"	140	34	532	100	4.6
FILTER 216	21600	1296	763	16	232	2"	179	50	618	150	6.9
FILTER 315	31500	1890	1112	16	232	3"	210	57	720	200	11
FILTER 405	40500	2430	1430	16	232	3"	210	57	890	200	12.6

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 coalesching 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.

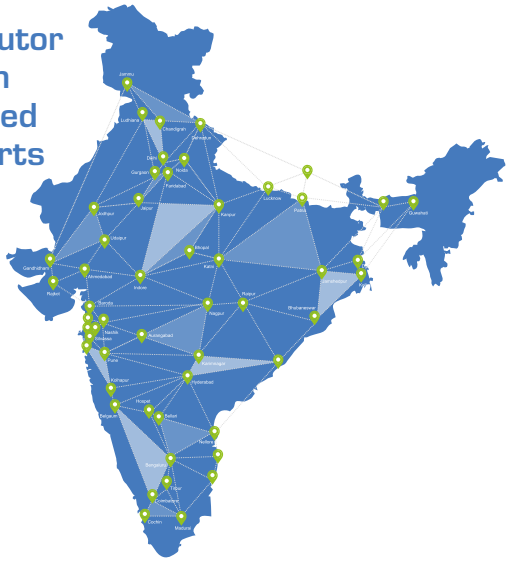
COMPONENTS

1. Double O-rings gaurantee proper sealing to reduce leakage risks and increase energy savings.
2. Increased user freindliness 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 gauranteed 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 ofimplosion.
6. Oil coalescence filters: Double dranage 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 ore-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



ORIGINAL PART

Care. Trust. Efficiency.

info.india@mark-compressors.com
Reach us at - 1800 120 110 050
www.mark-compressors.com/en-in

Contact your local sales representative now!