



Smart & Simple Compressed Air Solutions with Outstanding Value

MSS 4 - 75 KW OIL-INJECTED SCREW COMPRESSORS

MLF 9 - 490 LINE FILTERS

MDS 10 - 260 REFRIGERANT DRYERS



MARK

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 mounted design
- Simple controller
- Belt drive
- Offers a simple plug-and-play solution
- Easy installation
- No special foundation needed

Easy Serviceability

- Easy access from front side
- Vertical cooler for easy cleaning
- Service and cleaning is a one person job
- Spin on spin o filters

Safety

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

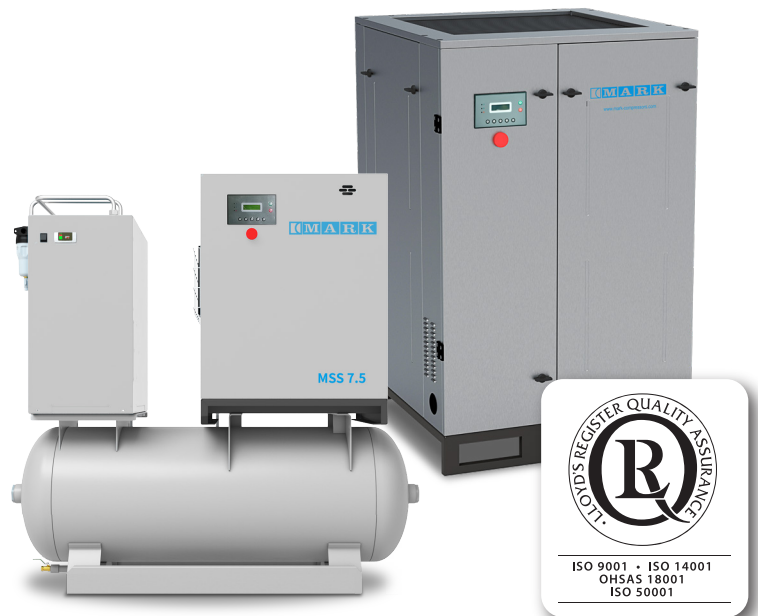
MARK History

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.



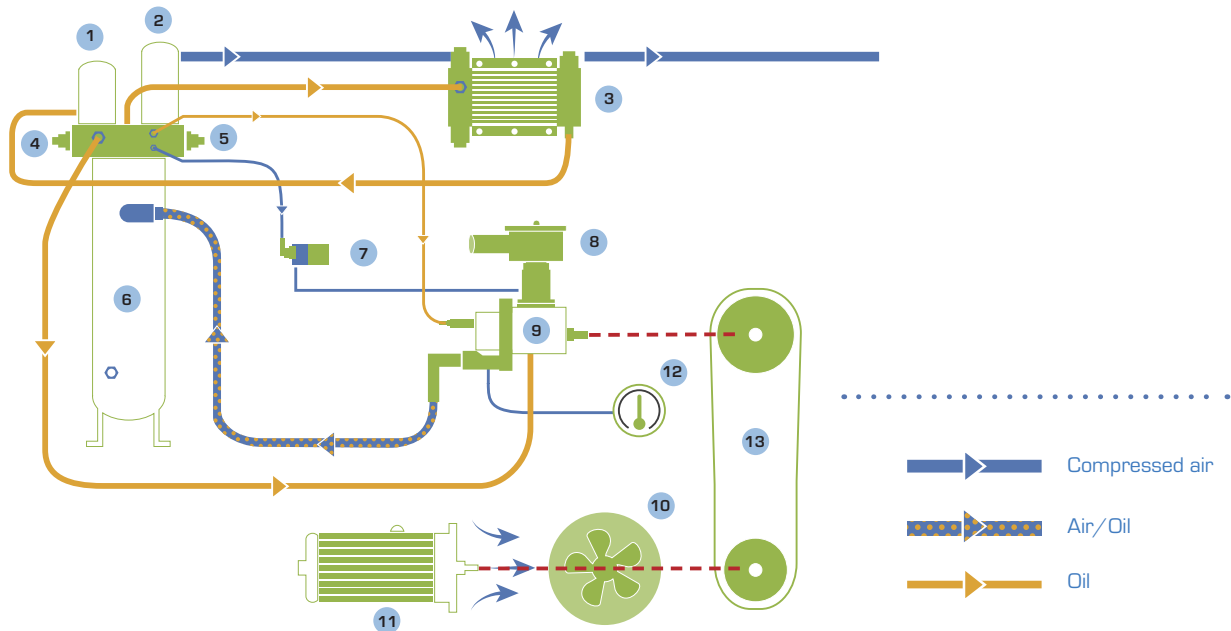
Oil injected screw compressors
and refrigerant dryers plant: Pan-Asia, Wuxi



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 | 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 | | |

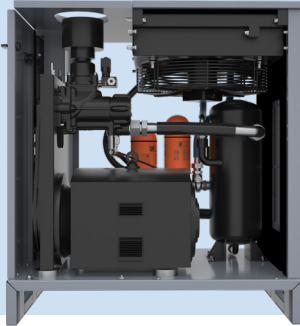


Spare parts distribution center: Belgium and Shanghai



Oil and water injected screw compressors plant: Belgium

Smart technical advantages



Asymmetric profile rotors mounted on high quality ball and roller bearings
High degree of sealing and the fine tolerances guarantees

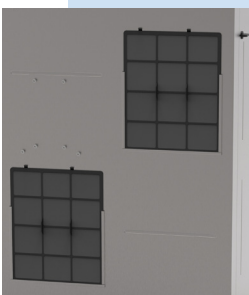
- Greater yield
- High efficiency
- Long life & reliability
- Lasting performance

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

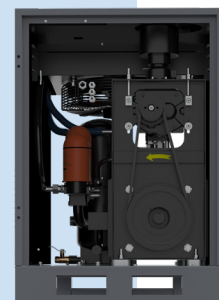


Fast service pre-filtration






- 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



Technical data

Model	Working pressure	Motor power		Capacity			Noise level	Weight	Connection	Dimensions
										
	Mpa	HP	kW	l/s	CFM	m ³ /min	dB(A)	KG		L x W x H (mm)
MSS 4	0.8	5.5	4	9	18	0.51	66	130	G1/2"	650 x 650 x 890
	1.0			8	16	0.46				
MSS 5.5	0.8	7.5	5.5	13	28	0.8	66	160	G1/2"	650 x 650 x 890
	1.0			11	23	0.65				
MSS 7.5	0.8	10	7.5	18	37	1.05	66	167	G1/2"	650 x 650 x 890
	1.0			14	30	0.85				
MSS 11	0.8	15	11	27	58	1.6	72	230	G3/4"	850 x 650 x 930
	1.0			23	48	1.4				
MSS 15	0.8	20	15	33	70	2.0	73	230	G3/4"	850 x 650 x 930
	1.0			31	65	1.8				
MSS 18.5	0.8	25	18.5	49	103	2.9	72	330	G1"	710x740x1275
	1.0			41	87	2.5				
MSS 22	0.8	30	22	55	117	3.3	72	345	G1"	710 x 740 x 1275 (380V)
	1.0			46	98	2.8				710 x 840 x 1275 (400V)
MSS 30	0.7	40	30	82	174	4.9	79	564	G1.5"	860 x 850 x 1345
	0.8			78	166	4.7				
	1.0			63	132	4.1				
MSS 37	0.7	50	37	97	204	5.8	79	584	G1.5"	860 x 850 x 1345
	0.8			95	201	5.7				
	1.0			83	176	5.2				
MSS 45	0.7	60	45	118	250	7.1	78	580	R1.5" (M)	1248 x 1025 x 1405
	0.8			117	247	7.0				
	1.0			100	211	6.0				
MSS 55	0.7	75	55	158	336	9.5	77	937	G2"	1475 x 1100 x 1650
	0.8			150	318	9.0				
	1.0			127	268	7.6				
MSS 75	0.7	100	75	213	451	12.8	78	967	G2"	1475 x 1100 x 1650
	0.8			195	414	11.7				
	1.0			175	371	10.5				

Power supply: 380V & 400V. Please contact local sales team if any inquiry

Unit performance measured according to ISO1217. Annex C. latest edition and ISO 2151

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

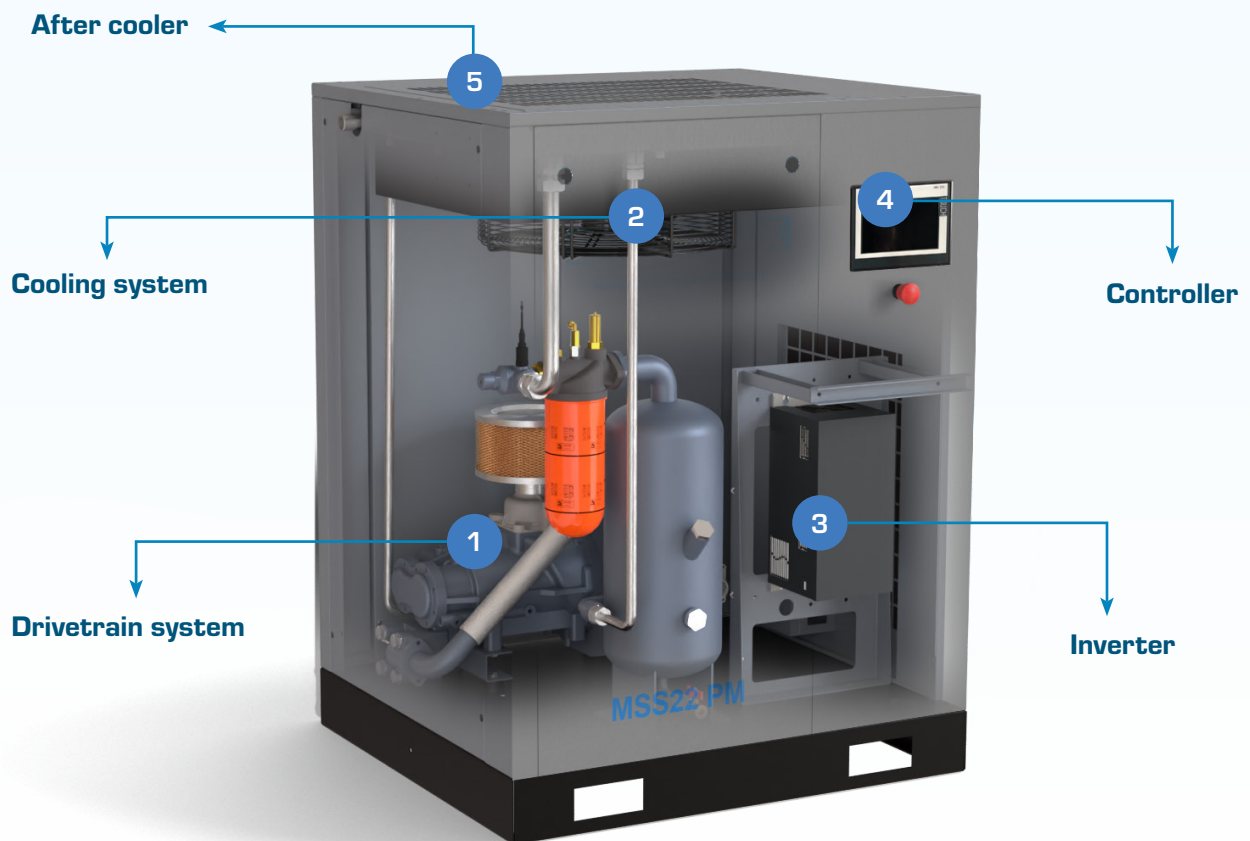
- Strict selection based on the verification from market industry applications
- Smart inverter detect the compressor air needs in real time
- Quick response to the regulation system for perfect match every working peak

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

Model	Working pressure	Motor power		Capacity			Noise level		Weight	Connection	Dimensions
											
	Mpa	HP	kW	l/s	CFM	m³/min	dB(A)		KG	R	L x W x H (mm)
MSS7.5 PM	0.7	10	7.5	4.6-17.6	10-37	0.28-1.06	68	69	150	3/4"	905x740x1000
	1			4.8-14.7	10-31	0.29-0.88					
MSS11 PM	0.7	15	11	7.5-25.8	16-55	0.45-1.55	69	70	210	3/4"	905x740x1000
	1			5.3-21.5	11-46	0.32-1.29					
MSS15 PM	0.7	20	15	10.4-34.8	22-74	0.6-2.1	70	71	210	3/4"	905x740x1000
	1			10.0-27.7	21-59	0.6-1.7					
MSS18.5 PM	0.7	25	18.5	17.0-53.0	36-112	1.0-3.2	70	71	280	1"	1005x895x1268
	1			16.5-42.8	35-91	1.0-2.6					
MSS22 PM	0.7	30	22	17.0-60.7	36-129	1.0-3.6	70	71	290	1"	1005x895x1268
	1			16.5-51.7	35-110	1.0-3.1					
MSS30 PM	0.7	40	30	20.2-82.0	43-174	1.2-4.9	72	73	320	1 1/2"	1235x1025x1405
	1			17.2-70.0	36-148	1.0-4.2					
MSS37 PM	0.7	50	37	30.2-105.5	64-224	1.8-6.3	71	72	390	1 1/2"	1235x1025x1405
	1			29.5-89.7	63-190	1.8-5.4			400		
MSS45 PM	0.7	60	45	30.0-121.3	64-257	1.8-7.3	73	74	410	1 1/2"	1235x1025x1405
	1			29.5-107.5	63-228	1.8-6.5					

Power supply: 400V. Please contact local sales team if any inquiry

Unit performance measured according to ISO1217. Annex C. latest edition and ISO 2151

Mark TMDD features

1 station total solution advantage

1 Total solution installation

- Screw compressor, refrigerant dryer, 500L air receiver combination design for convenience the 1 station installation

2 Professional compressed air flow

- Compressed air from screw compressor through to air receiver for 1st step condensation removal, well reduce the burden on refrigerant dryer for ensuring compressed air dryness supply to end instrument



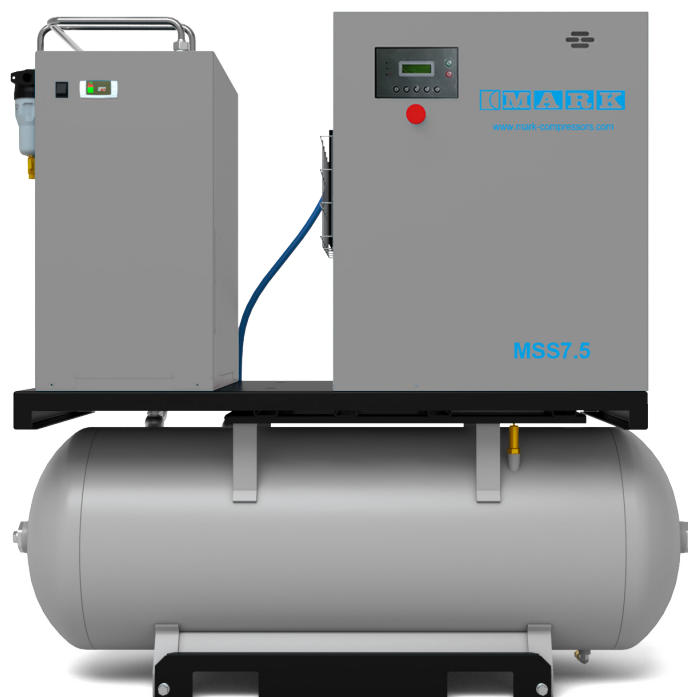
3 Compact layout

- Minimum foot-print design satisfy limit operation space installation

4 Simple operation

- Plug and play
- Friendly operation and quick service
- Quick technical support standby





Technical data

Model	Working pressure	Motor power		Capacity			Noise level	Weight	Connection	Dimensions
	Mpa	HP	KW	l/s	CFM	m ³ /min	dB(A)	KG	G	L x W x H (mm)
MSS7.5 TMDD	0.8	10	7.5	18	37	1.05	66	358	1/2"	1547x650x1473
	1.0			14	30	0.85				
MSS11 TMDD	0.8	15	11	27	58	1.6	72	430	1"	1537x650x1430
	1.0			23	48	1.4				
MSS15 TMDD	0.8	20	15	33	70	2.0	73	430	1"	1537x650x1430
	1.0			31	65	1.8				
MSS7.5 PM TMDD	0.7	10	7.5	4.6-17.6	10-37	0.28-1.06	68	355	1"	1883x740x1769
	1			4.8-14.7	10-31	0.29-0.88				
MSS11 PM TMDD	0.7	15	11	7.5-25.8	16-55	0.45-1.55	69	415	1"	1883x740x1769
	1			5.3-21.5	11-46	0.32-1.29				
MSS15 PM TMDD	0.7	20	15	10.4-34.8	22-74	0.6-2.1	70	415	1"	1883x740x1769
	1			10.0-27.7	21-59	0.6-1.7				

Power supply: 380V & 400V. Please contact local sales team if any inquiry

Unit performance measured according to ISO1217. Annex C. latest edition and ISO 2151

User benefits

Reliability

- Mark brand
- Worldwide reputation over 45 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:

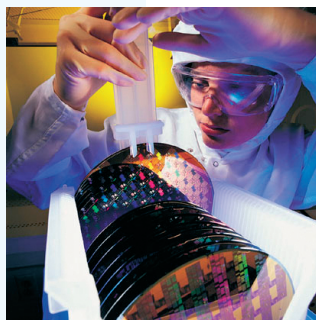
Technical details:

- 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.



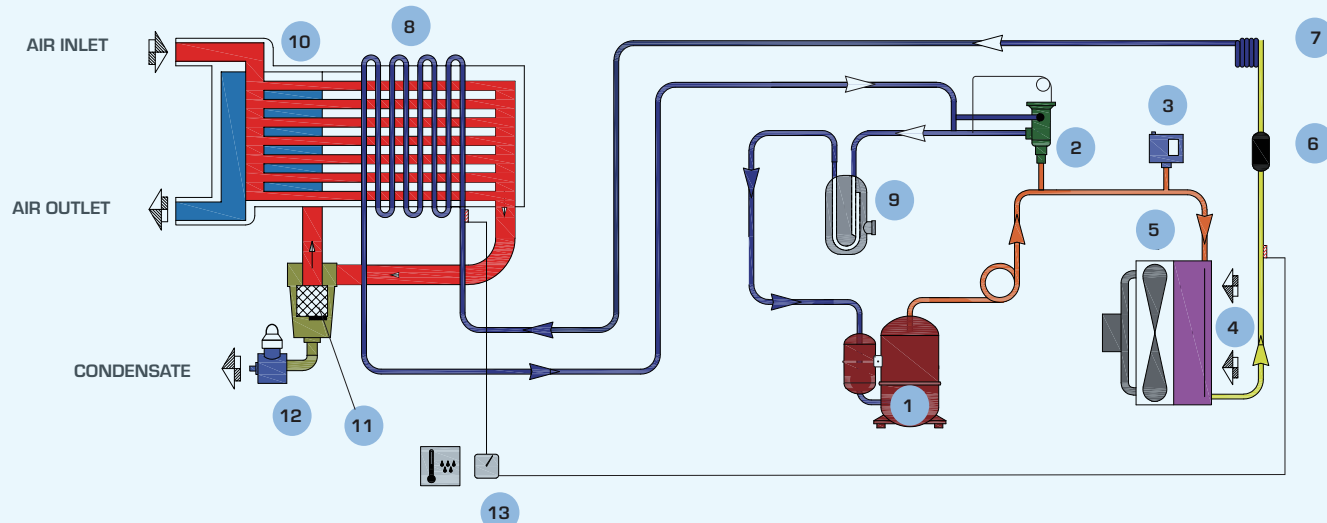
How does MDS dryer work?

Refrigerant circuit

The refrigerant circuit compresses and expands the refrigerant medium in a circular system in order to efficiently transfer heat from the wet compressed air to the atmosphere. The MDS dryer's refrigerant circuit is designed as a whole and only uses components of high and reliable quality, supplied by globally recognized manufacturers.

Air circuit

Wet compressed air flows directly through the MDS dryer's internal 3-in-1 heat exchanger, wherein the 3 key dryer functions are combined. Firstly the wet compressed air is cooled down to condensate the moisture, secondly this condensed moisture will be collected and drained out. Finally the dried compressed air is re-heated before it enters the factory's pipework.



- | | |
|--|--|
| <ul style="list-style-type: none"> A Air inlet 1 Compressor 2 Hot gas valve (on MDS13-260) 3 High pressure switch (on MDS40-260) 4 Air condenser 5 Fan motor 6 Filter dryer | <ul style="list-style-type: none"> B Air outlet 7 Expansion valve (on MDS10)
Expansion capillary (on MDS13-260) 8 Evaporator 9 Liquid separator (on MDS140-260) 10 Air-air exchanger 11 Separator 12 Drain valve 13 Digital controller |
|--|--|

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

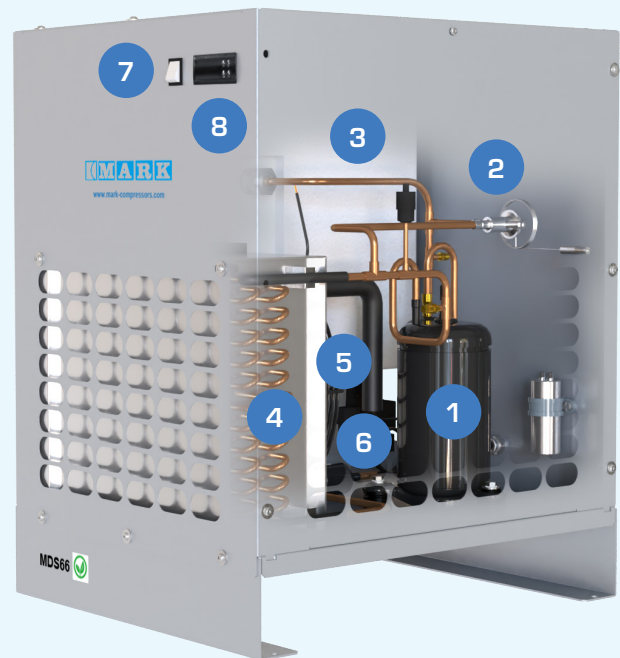
- User adjustable
- Timer solenoid drain
- Reliable and time
- Proven design

7 On/Off switch

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

8 Control panel

Indicating all relevant information



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



Technical table

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	LxWxH (mm)	KG	
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	0.70	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	1.10	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	1.40	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	2.90	230/1/50	G2.5"	927x795x1126	174	R 410A

Correction factor for condition differing from the project K = AxBxC

Ambient temperature (A)					
Ambient Temperature (°C)	25	30	35	40	45
Multiplication Factor	1	0.91	0.81	0.72	0.62

Inlet temperature (B)								
Inlet Temperature (°C)	25	30	35	40	45	50	55	60
Multiplication Factor	1	1	1	0.82	0.69	0.58	0.45	0.41

Inlet pressure (C)									
Pressure (bar)	5	6	7	8	9	10	11	12	13
Multiplication Factor	0.9	0.97	1	1.03	1.06	1.08	1.10	1.12	1.13

- MDS design working condition: environment temperature 25°C, intake temperature 35°C
- The maximum pressure drop: less than 0.3 bar
- The new ow rate value can be obtained by dividing the current or real ow rate by the correction factor related to the real operation conditions.

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 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



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

MLF filter Fineness Classification

- Nominal pressure: 7bar
- Max. pressure: 16bar
- Nominal temperature: 40°C
- MLF is equipped with manual drain valve

MARK	Nominal Capacity*			Maximum Pressure		Connection (D)	Dimension			Weight
	l/min	m³/h	cfm	bar	psi		A (For Disassembling)	B	C	
						G	mm	mm	mm	Kg
MLF 9	720	43	25	16	232	3/4"	312	237	90	0.76
MLF 18	1500	90	53	16	232	3/4"	312	237	90	0.77
MLF 25	2100	126	74	16	232	3/4"	367	292	90	0.89
MLF 35	3000	180	106	16	232	1"	380	305	110	1.39
MLF 60	4800	288	170	16	232	1.5"	435	360	126	1.67
MLF 105	8400	504	297	16	232	2"	565	465	155	3.29
MLF 140	11400	684	403	16	232	2"	600	500	155	3.63
MLF 175	15600	936	551	16	232	2"	645	545	155	3.86
MLF 260	21600	1296	763	16	232	2.5"	767	617	193	6.12
MLF 380	31500	1890	1112	16	232	3"	920	720	210	8.76
MLF 490	40500	2430	1430	16	232	3"	1090	890	210	10.3

Filter Correction Factor Under Different Pressures													
Working Pressure	1	2	3	4	5	6	7	8	10	12	14	16	
Correction Factor	0.38	0.53	0.65	0.75	0.83	0.92	1	1.06	1.2	1.31	1.41	1.5	

MLF Filter Fineness Classification

Labelsures	Filter Type	Oil Content	Test Method	Initial Pressure-Drop (bar)	Max Ambient Temperature (°C)
G	Standard fine filter	0.1ppm	ISO 12500-1 ISO 8573-2	0.12	66
C	Super-fine filter	0.01ppm	ISO 12500-1 ISO 8573-2	0.14	66
V	Active carbon filter	0.003ppm	ISO 8573-5	0.16	35

* Reference condition: pressure 7bar (102psi). Maximum operating temperature of 66°C and 35°C, only for V series. Minimum operating temperature of 1°C.



Condensate Removal & Treatment

Automatic Drains

Model	Inlet	Outlet	Max Pressure	Min Temp	Max Temp	Nominal Discharge	Capacity
MFD 85	1/2"	6mm	16bar	1.5°C	85°C	22ml	84L/Hr
MZD 800	1/2"	1/2"	16bar	1.5°C	85°C	92ml	800L/Hr

Model	Inlet	Outlet	Max Pressure	Min Temp	Max Temp	Voltage
MED 320	1/2"	6mm	15bar	1.5°C	55°C	230V/1P/50-60Hz
Supply with 1.2 meter lead						



MFD 85



MZD 800



MZD 320

Oil Water Separators

Model	Nominal Flow			Inlet	Outlet	Dimension
	l/min	m³/h	cfm	R	mm	LxWxH(mm)
OSD 20	2000	120	71	1/4"	10	140x140x240
OSD 35	3500	210	124	1/2"	20	215x257x500
OSD 105	10500	630	371	1/2"	20	345x282x654
OSD 255	25500	1530	901	1/2"	20	432x495x989
OSD 365	36500	2190	1289	1/2"	20	432x495x989
OSD 510	51000	3060	1801	1/2"	20	990x520x989
OSD 710	71000	4260	2507	1/2"	20	990x520x989



Complete Compressor Room Solutions





Contact your local representative:

www.mark-compressors.com



CARE

Care is what service is all about: professional service by knowledgeable people, using high-quality original parts.

TRUST

Trust is earned by delivering on our promises of reliable, uninterrupted performance and long equipment lifetime.

EFFICIENCY

Equipment efficiency is ensured by regular maintenance. Efficiency of the service organization is how Original Parts and Service make the difference.