



FD SWIMMING POOL DEHUMIDIFIER

FD 360 - 520

FD SERIES

The Fral industrial dehumidifiers of the series FD are suitable for humidity control in commercial and industrial spaces. Particularly sturdy and durable, they can be easily installed and are easy to maintain. They can also be placed in environments for the preservation of food products or in industrial processes where humidity control is necessary. They feature a washable air filter and must be connected to a fixed drain. They are equipped with an onboard mechanical dehumidostat. Is it possible to connect a remote digital dehumidostat. The Fral fixed dehumidifiers of the series FD can be equipped with an optional HOT GAS defrosting system, with electronic and thermostatic control, and can work with temperatures close to 0 °C. FD series suitable for outdoor installation with ambient temperatures max. 50°C.

FEATURES

FRAME

MODELS FD360 - FD520

Structure with aluminium profiles and panels in sturdy galvanised sheet, painted with epoxy powder ensuring high resistance to atmospheric agents and aggressive environments.

COMPRESSOR

Scroll FD360 – FD520, mounted on vibration dampers. Provided with resistance on the housing and thermal safety.

CATAPHORESIS TREATMENT (optional)

Surface treatment capable of giving the evaporator a considerable resistance to corrosion.

REFRIGERANT CIRCUIT

Evaporator and condenser: the coil is made of copper pipes and aluminium fins. Drying filter, Shrader valves, minimum and maximum pressure switch. Defrosting thermostat and solenoid valve in version S.

MICROPROCESSOR

Controls the defrosting cycles, the compressor timer and the alarm card. The dehumidifier is equipped with step sequence control.

CONDENSATE COLLECTION TANK

MODELS FD360 - FD520

The tank is in non-corrosive stainless steel, the dehumidifier should be connected to a fixed drain, preventing the formation of double siphons. Attach a tube with ¾" F coupling to the welded fitting of the tank.

CONDENSATE LIFTING PUMP (optional)

Pump on request.

FAN

Centrifugal double suction fan, built with sturdy blades in galvanized sheet, statically and dynamically balanced. Protection degree: Three-speed fan.

IP

Standard IP21. On request IP44 (optional).

HOT GAS DEFROST

Enables to use the dehumidifier in environments with temperature up to 3 °C. It is a special hot gas injection system to accelerate the defrosting of the ice formed in the evaporator.

AIR SUPPLY

The air supply is supplied as standard on the side opposite to the air inlet, but you may require the dehumidifier in TOP version (with delivery on the top side of the machine).

AIR FILTER

The air filter, supplied as standard with the unit, is washable and easily replaceable. It is in Polyurethane and High-efficiency filter.

CONTROL PANEL AND ELECTRICAL CONTROL PANEL

Located in the side area of the machine. IP protection degree. Made in compliance with the European standards 73/23 and 89/336.

TESTING

Tests are performed to check the tightness of the refrigeration circuit. Electrical discharge tests and functional tests are performed as well.

TECHNICAL STANDARDS

This dehumidifier meets the essential requirements included in the Directives of the European Community 2006/95/EC of 12 December 2006 on the safety of electrical products for use in Low Voltage; 2004/108/EC of 15 December 2004 in the field of electromagnetic compatibility; 2006/42/EC of 17 May 2006 in the fields of machinery safety.

The conformity is declared with reference to the following harmonized technical standards:

CEI-EN 60335-2-40, CEI-EN 55014-1, CEI-EN 55014-2.

We also declare that the product is manufactured in compliance with the RoHS Directive in force, that is 2002/95/EC, transposed with the Legislative Decree of 25 July 2005 no. 151 (article 5).

TECHNICAL SPECIFICATIONS

	FD 360	FD 520
Rated Average Power Consumption (26,7 °C - 60% R.H.)	4,5 kW	5,7 kW
Maximum power consumption (35 °C - 95% R.H.)	6,2 kW	7,7 kW
Max. Current Consumption (35 °C - 95% R.H.) F.L.A.	15 A	17,9 A
Start up current L.R.A.	63,0 A	63,0 A
Sound Pressure Level (at 3 mts in free field)	61 db (A)	65 db (A)
Refrigerant	R410a	R410a
Fitting on the machine for condensate drain	3/4" M	3/4" M
Operating range (temperatures)	7÷35 °C	7÷35 °C
Temperature operating range with optional hot gas defrosting system	0,5÷35 °C	0,5÷35 °C
Temperature operating range with optional under 0°C defrost system	-0,5÷35 °C	-0,5÷35 °C
Operating range %	45÷99%	45÷99%
Rated Average Power Consumption (20°C, 60% R.H.) with 4 kW resistances	8,5 kW	9,7 kW
Hot water coil heating capacity (environment 27°C, water 60/70 °C)	9,0 kW	12,0 kW
Available voltage	400/3~/60 230/3~/60	400/3~/60 230/3~/60

ACCESSORIES

■ STANDARD
 □ OPTIONAL
 ☒ NOT AVAILABLE

Hot gas defrost	□	□
Under 0°C defrost	□	□
Mechanical humidistat	■	■
Hot water coil with three-way valve	□	□
Electric resistances	□	□
Condensate lifting pump	□	□
Digital dehumidostat	□	□
Digital thermostat	□	□
Evaporator cataporesis treatment	□	□
Stainless steel AISI 316 version	□	□

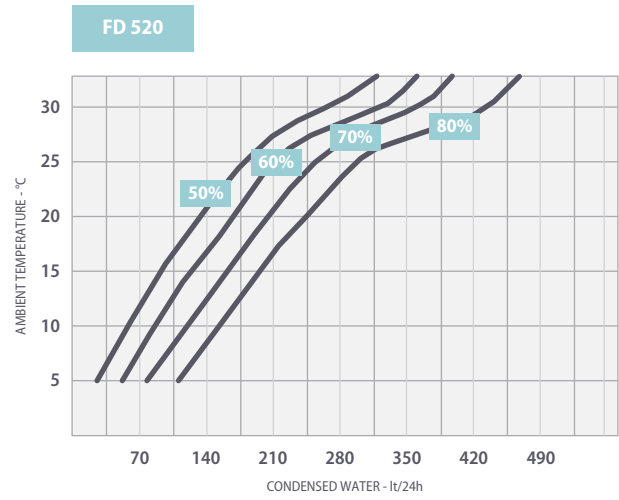
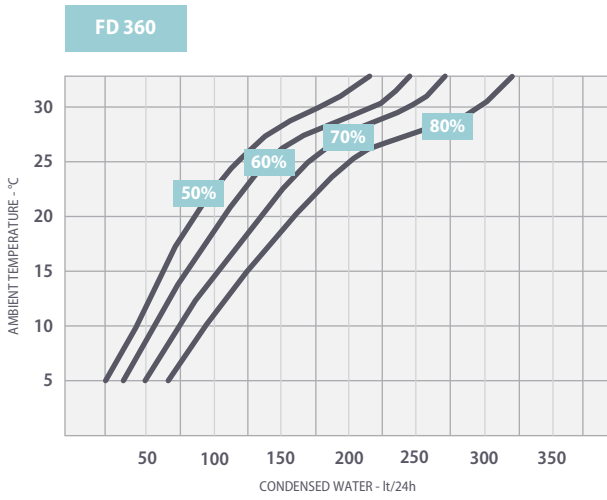
WEIGHTS

Weight	150 kg	170 kg
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DIMENSIONS AND WEIGHTS WITH PACKING

Width	1,220 mm	1,220 mm
Height	950 mm	950 mm
Depth	800 mm	800 mm
Weight	152.0 kg	170.0 kg

CONDENSED WATER AT DIFFERENT AMBIENT TEMPERATURE AND HUMIDITY CONDITIONS (lt/24h)



	10 °C 60%	10 °C 80%	15 °C 60%	15 °C 80%	20 °C 60%	20 °C 80%	25 °C 60%	25 °C 80%	27 °C 60%	27 °C 80%	30 °C 80%	32 °C 90%
FD 360	55	95	80	125	140	160	145	200	170	230	300	360
FD 520	80	145	115	200	170	250	210	290	250	340	440	520

AIR FLOW AT DIFFERENT BACK PRESSURES (mc/h)

	0 Pa	25 Pa	50 Pa	75 Pa	100 Pa	125 Pa	150 Pa
FD 360	3,500	3,400	3,300	3,100	3,000	3,000	-
FD 520	4,600	4,500	4,400	4,300	4,300	4,000	3,800

OPTIONAL ACCESSORIES

HOT WATER COIL (optional)

Post-heating coil, which can be connected through a three-way valve to a hot water circuit. The valve is operated by a relay connected to the thermostat. The heating function can also be operated in the absence of a request on the part of the humidistat.

ELECTRIC RESISTANCE (optional)

The post heating electric resistances are operated by a relay connected to the thermostat. The post heating function can also be operated in the absence of a request on the part of the dehumidostat.

REMOTE DIGITAL HUMIDISTAT (optional)

Device that can be installed in an environment equipped for humidity control, which can be easily connected to the electrical system of the dehumidifier.

REMOTE DIGITAL THERMOSTAT (optional)

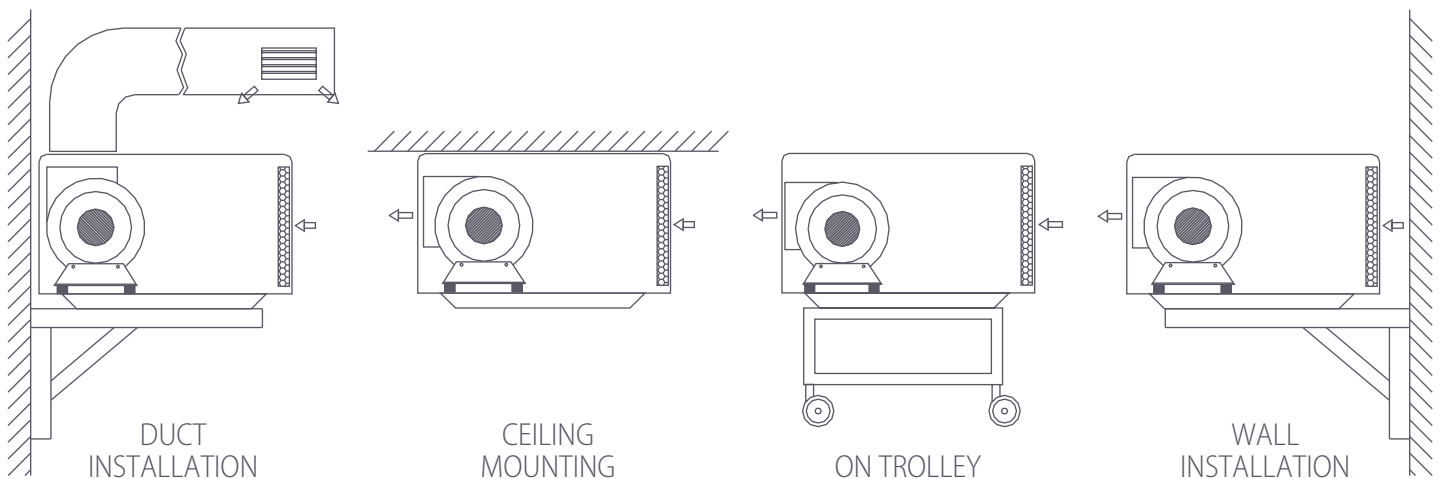
Device that can be installed in an environment for temperature control. It controls the power resistances (OPZ) or the 3-way valve that allows the passage of the hot water inside the post heating coil.

UNDER 0°C DEFROST

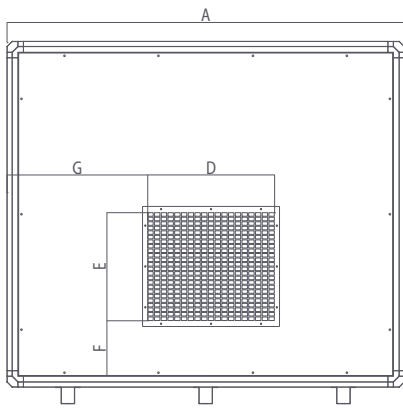
Kit that allows the dehumidifier to be installed in particularly cold environments, such as refrigerating rooms, with temperatures of up to 0 °C.

AVAILABLE STATIC PRESSURE INCREASE STAINLESS STEEL AISI VERSION

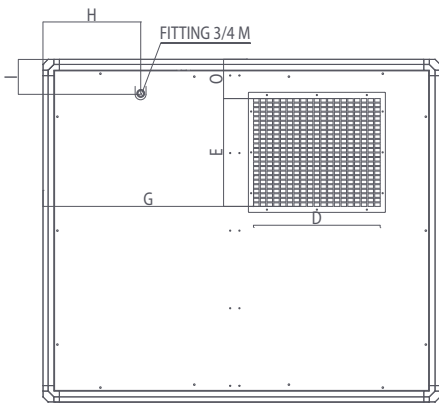
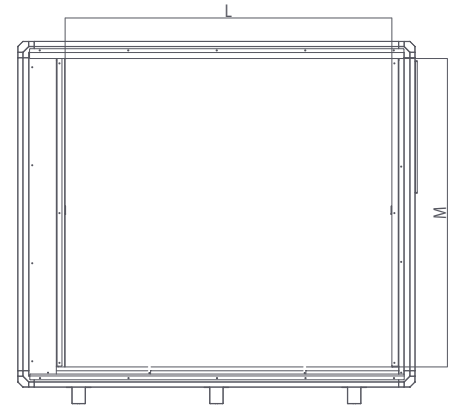
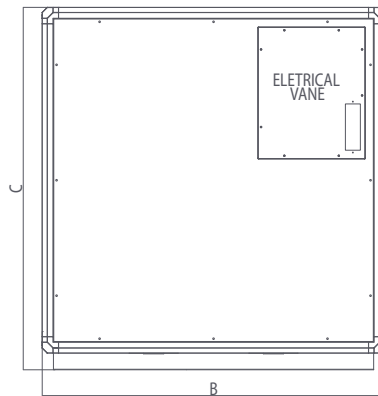
INSTALLATION EXAMPLES



DIMENSIONAL DATA (mm) - MODELS 360/520



IN LINE VERSION



TOP SUPPLY VERSION

	A	B	C	D	E	F	G	H	I	L	M	O
FD 360	1,180	900	920	392	330	68	228	324	171	101	822	-
FD 520	1,180	900	1120	392	330	105	290	324	171	101	822	-
FD 360/520 TOP VERSION	1,180	900	1120	392	330	160	-	324	171	101	822	68