



ADSORPTION DEHUMIDIFIER

QUALITY AND EXPERIENCE

Over 30 years of history, innovation and challenge, to offer the right humidity for every environment, with three production sites today we are an industrial company known and appreciated all over the world. Our company is in fast and constant development, and very competitive on the market thanks to the big range of products for every dehumidification sector. Due to the constant research, our regard for the environment and the wish to join high performance and low energy consumption, we produce versatile, functional and easy to use dehumidifiers. Besides the technical competence, we guarantee for each one of our products the highest reliability and experience, and a particular care for quality and aesthetics.

- › ITALIAN QUALITY
- › HIGH PERFORMANCE
- › CONSTANT INNOVATION
- › ENVIRONMENT - FRIENDLY
- › AESTHETICS AND DESIGN
- › RELIABILITY AND PERFORMANCE

MISSION

FRAL is a point of reference in the industry: thanks to its team of highly skilled, creative and attentive professionals, it is able to boost customer loyalty by understanding their needs and offering appropriate and innovative product solutions, all supported by quality service and driven by the shared goal of daily growth

VISION

To be Italy's leading company in the global market for dehumidification and special air-conditioning systems. To be universally appreciated for its characteristic style which improves people's behaviour, encouraging them to pursue excellence



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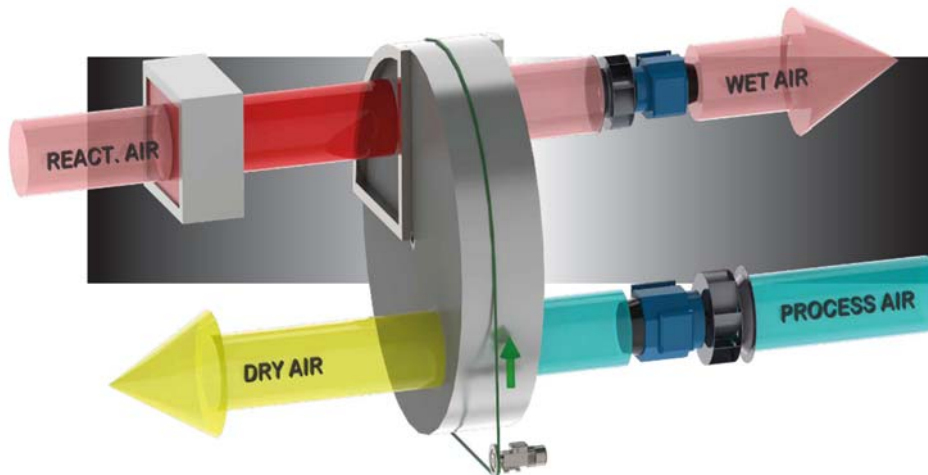


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ADSORPTION DEHUMIDIFIERS



Adsorption dehumidification technology is based on the use of naturally occurring desiccant materials (i.e. with a high level of chemical/physical affinity with water vapour), such as silica gel.

This technology makes FRAL dehumidifiers suitable for use in environments where constant humidity values are required, even temperatures below 0°C, and for very low dew-point values down to -60°C dpt.

FRAL has developed the FR models to satisfy all needs for dehumidification across a broad range of conditions. Highly efficient energy recovery solutions can also be integrated throughout all our product ranges.



| DATA | | FR 150 | FR 300 |
|---|------------|-----------------|-----------------|
| Dehumidification Capacity at 20°C - 60% | Kg/h | 0,57 | 1,1 |
| Process air flow | m3/h | 150 | 300 |
| Process Static pressure | Pa | 100 | 150 |
| Regeneration air flow | m3/h | 50 | 100 |
| Regeneration Static pressure | Pa | 100 | 150 |
| Regeneration type | | Electric | Electric |
| Power supply | Volt/Ph/Hz | 230/1+N/50 ±5% | 230/1+N/50 ±5% |
| Maximum absorbed power | KW | 0,76 | 1,51 |
| Maximum absorbed current | A | 4 | 7 |
| L x W x H | mm | 345 x 330 x 365 | 425 x 380 x 445 |
| Empty weight | Kg | 12 | 16 |
| Process and regeneration air inlet | mm | 130 x 130 | 130 x 130 |
| Dry air outlet | mm | ∅ 100 | ∅ 160 |
| Wet air outlet | mm | ∅ 63 | ∅ 80 |



| DATA | | FR150 | FR300 | FR450 | FR600 |
|---|------------|-----------------|-----------------|-----------------|-----------------|
| Dehumidification Capacity at 20°C - 60% | Kg/h | 0,65 | 1,4 | 2,5 | 3,4 |
| Process air flow | m3/h | 150 | 300 | 450 | 600 |
| Process Static pressure | Pa | 100 | 120 | 150 | 120 |
| Regeneration air flow | m3/h | 50 | 100 | 150 | 200 |
| Regeneration Static pressure | Pa | 100 | 100 | 150 | 100 |
| Regeneration type | | Electric | Electric | Electric | Electric |
| Power supply | Volt/Ph/Hz | 230/1/50 ±5% | 230/1/50 ±5% | 230/1/50 ±5% | 400/3+N/50 ±5% |
| Maximum absorbed power | KW | 1,54 | 2,24 | 4,51 | 6,31 |
| Maximum absorbed current | A | 6,9 | 9,9 | 19,8 | 9,8 |
| L x W x H | mm | 335 x 375 x 420 | 415 x 415 x 500 | 570 x 510 x 510 | 570 x 510 x 480 |
| Empty weight | Kg | 17 | 23 | 32 | 36 |
| Process air inlet | mm | ∅ 125 | ∅ 160 | ∅ 160 | ∅ 200 |
| Dry air outlet | mm | ∅ 100 | ∅ 160 | ∅ 160 | ∅ 200 |
| Regeneration air inlet | mm | ∅ 100 | ∅ 125 | ∅ 125 | ∅ 160 |
| Wet air outlet | mm | ∅ 80 | ∅ 100 | ∅ 100 | ∅ 125 |



| MODEL | FR | FR800-1100 | | FR 1000-3100 | |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | FR800 | FR1100T | FR1000 | FR3100T |
| Dehumidification Capacity at 20°C - 60% | Kg/h | 4,8 | 5,0 | 8,8 | 11,5 |
| Process air flow | m ³ /h | 800 | 1100 | 1000 | 3100 |
| Process Static pressure | Pa | 200 | 300 | 300 | 250 |
| Regeneration air flow | m ³ /h | 250 | 250 | 350 | 450 |
| Regeneration Static pressure | Pa | 180 | 180 | 180 | 250 |
| Regeneration type | | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam |
| Power supply | Volt/Ph/Hz | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% |
| Maximum absorbed power | KW | 7,0 | 7,1 | 12,6 | 29,0 |
| Maximum absorbed current | A | 11,2 | 11,6 | 18,4 | 42,5 |
| L x W x H | mm | 1000 x 600 x 1000 | 1000 x 600 x 1000 | 1285 x 845 x 1255 | 1285 x 845 x 1255 |
| Empty weight | Kg | 145 | 150 | 205 | 230 |
| Process air inlet | mm | ∅ 250 | ∅ 250 | 420 x 615 | 420 x 615 |
| Dry air outlet | mm | ∅ 200 | ∅ 200 | 420 x 615 | 420 x 615 |
| Regeneration air inlet | mm | ∅ 160 | ∅ 160 | 220 x 350 | 220 x 350 |
| Wet air outlet | mm | ∅ 160 | ∅ 160 | ∅ 250 | ∅ 250 |

| MODEL | FR | 1000 | 1500 | 2000 | 2500 | 3100T |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Dehumidification Capacity at 20°C - 60% | Kg/h | 8,8 | 12,7 | 15,8 | 18,9 | 11,5 |
| Process air flow | m ³ /h | 1000 | 1500 | 2000 | 2500 | 3100 |
| Process Static pressure | Pa | 300 | 200 | 250 | 300 | 250 |
| Regeneration air flow | m ³ /h | 350 | 500 | 680 | 820 | 450 |
| Regeneration Static pressure | Pa | 180 | 250 | 180 | 250 | 250 |
| Regeneration type | | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam |
| Power supply | Volt/Ph/Hz | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% |
| Maximum absorbed power | KW | 12,6 | 18,9 | 23,9 | 29,0 | 16,6 |
| Maximum absorbed current | A | 18,4 | 27,5 | 34,8 | 42,5 | 24,3 |
| L x W x H | mm | 1285 x 845 x 1255 | 1285 x 845 x 1255 | 1285 x 845 x 1255 | 1285 x 845 x 1255 | 1285 x 845 x 1255 |
| Empty weight | Kg | 205 | 210 | 215 | 220 | 230 |
| Process air inlet | mm | 420 x 615 | 420 x 615 | 420 x 615 | 420 x 615 | 420 x 615 |
| Dry air outlet | mm | 420 x 615 | 420 x 615 | 420 x 615 | 420 x 615 | 420 x 615 |
| Regeneration air inlet | mm | 220 x 350 | 220 x 350 | 220 x 350 | 220 x 350 | 220 x 350 |
| Wet air outlet | mm | ∅ 250 | ∅ 250 | ∅ 250 | ∅ 250 | ∅ 250 |



FR3000-6500 / FR7000-25000

| MODEL | FR | 3000 | 3500 | 4500T | 4000 | 5000 | 6500T |
|---|-------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|
| Dehumidification Capacity at 20°C - 60% | Kg/h | 23 | 27,3 | 21,1 | 31,7 | 37,2 | 27,1 |
| Process air flow | m ³ /h | 3000 | 3500 | 4500 | 4000 | 5000 | 6500 |
| Process Static pressure | Pa | 400 | 350 | 300 | 400 | 400 | 400 |
| Regeneration air flow | m ³ /h | 900 | 1100 | 900 | 1350 | 1600 | 1100 |
| Regeneration Static pressure | Pa | 200 | 300 | 300 | 400 | 350 | 400 |
| Regeneration type | | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam |
| Power supply | Volt/Ph/Hz | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% |
| Maximum absorbed power | KW | 32,3 | 38,5 | 30,3 | 48,1 | 57,5 | 40,9 |
| Maximum absorbed current | A | 46,7 | 55,8 | 43,7 | 69,5 | 83,1 | 60,8 |
| L x W x H | mm | 1500 x 1020 x 1395 | 1500 x 1020 x 1395 | 1500 x 1020 x 1395 | 1895x 1115 x 1500 | 1895 x 1115 x 1500 | 1895 x 1115 x 1500 |
| Empty weight | Kg | 350 | 360 | 360 | 490 | 530 | 545 |
| Process air inlet | mm | 825 x 500 | 825 x 500 | 825 x 500 | 800 x 520 | 800 x 520 | 800 x 520 |
| Dry air outlet | mm | 825 x 500 | 825 x 500 | 825 x 500 | 800 x 520 | 800 x 520 | 800 x 520 |
| Regeneration air inlet | mm | 355 x 290 | 355 x 290 | 355 x 290 | 415 x 350 | 415 x 350 | 415 x 350 |
| Wet air outlet | mm | ø 280 | ø 280 | ø 280 | ø 315 | ø 315 | ø 315 |

| MODEL | FR | 7000 | 9000 | 11000 | 13000 | 19000 | 25000 |
|---|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Dehumidification Capacity at 20°C - 60% | Kg/h | 52,9 | 63,7 | 81,8 | 92,0 | 131,1 | 162,0 |
| Process air flow | m ³ /h | 7000 | 9000 | 11000 | 13000 | 19000 | 25000 |
| Process Static pressure | Pa | 400 | 400 | 400 | 400 | 400 | 400 |
| Regeneration air flow | m ³ /h | 2300 | 2700 | 3670 | 4300 | 5500 | 7900 |
| Regeneration Static pressure | Pa | 400 | 400 | 400 | 400 | 400 | 400 |
| Regeneration type | | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam | Electric/Steam |
| Power supply | Volt/Ph/Hz | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% |
| Maximum absorbed power | KW | 81,4 | 98,7 | 130,7 | 154,7 | 195,2 | 272,7 |
| Maximum absorbed current | A | 123,5 | 158,6 | 204,3 | 240,8 | 303,2 | 424,5 |
| L x W x H | mm | 2350 x 1350 x 1750 | 2350 x 1350 x 1750 | 3050 x 1600 x 1850 | 3050 x 1600 x 1850 | 3850 x 1950 x 2150 | 3850 x 1950 x 2150 |
| Empty weight | Kg | 680 | 700 | 1350 | 1390 | 1980 | 2150 |
| Process air inlet | mm | 1155 x 560 | 1155 x 560 | 1250 x 600 | 1250 x 600 | 1500 x 800 | 1500 x 900 |
| Dry air outlet | mm | 1155 x 560 | 1155 x 560 | 1250 x 600 | 1250 x 600 | 1500 x 800 | 1500 x 900 |
| Regeneration air inlet | mm | 560 x 460 | 560 x 460 | 600 x 600 | 600 x 600 | 800 x 800 | 800 x 800 |
| Wet air outlet | mm | ø 350 | ø 350 | ø 400 | ø 400 | ø 500 | ø 630 |



FR2000-9500 / FR2001-9501

| MODEL | FR | 2000 | 3500 | 5000 | 6500 | 8000 | 9500 |
|---|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Dehumidification Capacity at 20°C - 60% | Kg/h | 18,6 | 31,1 | 42,5 | 55,9 | 66,0 | 77,1 |
| Process air flow | m ³ /h | 2000 | 3500 | 5000 | 6500 | 8000 | 9500 |
| Process Static pressure | Pa | 400 | 400 | 400 | 400 | 400 | 400 |
| Regeneration air flow | m ³ /h | 700 | 1200 | 1700 | 2200 | 2600 | 3100 |
| Regeneration Static pressure | Pa | 400 | 400 | 400 | 400 | 350 | 350 |
| Regeneration type | | Electric/Steam/Gas | Electric/Steam/Gas | Electric/Steam/Gas | Electric/Steam/Gas | Electric/Steam/Gas | Electric/Steam/Gas |
| Power supply | Volt/Ph/Hz | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% |
| Maximum absorbed power | KW | 27,4 | 41,9 | 59,4 | 78,1 | 92,8 | 108,7 |
| Maximum absorbed current | A | 43,9 | 66,8 | 93,9 | 121,8 | 145,7 | 172,3 |
| L x W x H | mm | 1610 x 1000 x 1875 | 1710 x 1100 x 1975 | 1710 x 1100 x 1975 | 1810 x 1200 x 2075 | 1810 x 1200 x 2075 | 1810 x 1200 x 2075 |
| Empty weight | Kg | 490 | 550 | 590 | 690 | 710 | 730 |
| Process air inlet | mm | 850 x 500 | 950 x 600 | 950 x 600 | 1000 x 600 | 1000 x 600 | 1000 x 600 |
| Dry air outlet | mm | 850 x 500 | 950 x 600 | 950 x 600 | 1000 x 600 | 1000 x 600 | 1000 x 600 |
| Regeneration air inlet | mm | 600 x 400 | 600 x 400 | 600 x 400 | 600 x 400 | 600 x 400 | 600 x 400 |
| Wet air outlet | mm | 370 x 200 | 370 x 200 | 370 x 200 | 370 x 200 | 370 x 200 | 370 x 200 |

| MODEL | FR | 2001 | 3501 | 5001 | 6501 | 8001 | 9501 |
|---|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Dehumidification Capacity at 20°C - 60% | Kg/h | 16,0 | 28,7 | 38,2 | 50,7 | 58,8 | 66,9 |
| Process air flow | m ³ /h | 2000 | 3500 | 5000 | 6500 | 8000 | 9500 |
| Process Static pressure | Pa | 400 | 400 | 400 | 400 | 400 | 400 |
| Regeneration air flow | m ³ /h | 700 | 1200 | 1700 | 2200 | 2600 | 3100 |
| Regeneration Static pressure | Pa | 400 | 400 | 400 | 400 | 400 | 400 |
| Regeneration type | | Electric/Steam/Gas | Electric/Steam/Gas | Electric/Steam/Gas | Electric/Steam/Gas | Electric/Steam/Gas | Electric/Steam/Gas |
| Power supply | Volt/Ph/Hz | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% | 400/3/50 ±5% |
| Maximum absorbed power | KW | 25,9 | 45 | 64,1 | 77,1 | 97 | 114,7 |
| Maximum absorbed current | A | 38,7 | 71,4 | 94,4 | 113,4 | 142,5 | 169,4 |
| L x W x H | mm | 1650 x 1000 x 1875 | 1750 x 1150 x 1975 | 1750 x 1150 x 1975 | 1850 x 1250 x 2075 | 1850 x 1250 x 2075 | 1850 x 1250 x 2075 |
| Empty weight | Kg | 470 | 530 | 570 | 670 | 690 | 710 |
| Process air inlet | mm | 850 x 500 | 950 x 600 | 950 x 600 | 1000 x 600 | 1000 x 600 | 1000 x 600 |
| Dry air outlet | mm | 850 x 500 | 950 x 600 | 950 x 600 | 1000 x 600 | 1000 x 600 | 1000 x 600 |
| Regeneration air inlet | mm | 600 x 400 | 600 x 400 | 600 x 400 | 600 x 400 | 600 x 400 | 600 x 400 |
| Wet air outlet | mm | 370 x 200 | 370 x 200 | 370 x 200 | 370 x 200 | 370 x 200 | 370 x 200 |



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