COTES ALL-ROUND

THE C65 RANGE

COTES
THE RIGHT WAY TO DRY

MORE THAN JUST A SHINY BOX ...

IDEAL FOR USE IN

- Food industry processing
- Pharmaceutical production
- Cold stores/freezer facilities
- Waterworks
- General humidity management in all kinds of indoor spaces

ADVANTAGES

- Accurate, software-driven monitoring and control
- Exceptionally low energy consumption
- Low-noise operation
- Better monitoring of service intervals
- Standardized heating and cooling modules
- Exceptional build quality
- Complies with ErP Directive 2015

BENEFITS

- More cost-effective management of air humidity
- Accurate control of all aspects of ingoing and outgoing air flows
- Low operating costs
- Long service life and low maintenance /repair costs
- Easy, rapid servicing
- Easy to clean and keep clean
- Can be placed even in highly visible public places
- Easy to install in small spaces and crowded locations

OPTIONAL EQUIPMENT

- Post-heating module
- Pre-cooling and post-cooling modules
- Additional ways to heat the regeneration air including, Steam heating or EW (a combination of Electrical and Hot Water)
- Extra insulation of the cabinet
- Additional temperature and humidity sensors
- Software upgrade to unlock the Deep Drying feature.

ESTABLISHING THE RIGHT DRY-AIR STRATEGY

FLEXIBILITY AND ENERGY EFFICIENCY

Cotes All-Round C65 is an innovative range of elegant, versatile dehumidifiers, with moisture removal capacities of 7–19 kg per hour

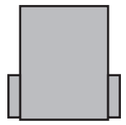
Modular confgurations
The sleek stainless steel cabinet, featuring the best of modern industrial design, makes Cotes All-Round dehumidifiers ideal for installation even in highly visible public locations. The C65 dehumidifier uses standardized modular configurations so you can easily select the needed capacity, heating source, cooling systems, sensors, and control set-up you need for your particular operating circumstances. Cotes All-Round units also feature built-in electronic monitoring and control capabilities that make it easy to customise the dehumidifier to your exact operating requirements and priorities.

Where they're used
Cotes All-Round C65 units are ideal for controlling air conditions where either temperature and air flow are crucial, or where the focus is on temperature, air flow and relative humidity. They are approved for use in facilities with stringent hygiene requirements, including food processing and pharmaceutical production.

Choice of dehumidification priorities
Cotes All-Round dehumidifiers are designed for three main types of use. C65C (Coldstore) units are specifically designed for humidity management in low temperature cold store spaces. C65E units are specially configured for effective humidity management in enclosed spaces, and where the main focus is on keeping energy consumption to the minimum. An optional software upgrade is available for C65E PLC units to unlock the Deep Drying feature with particular focus on high ΔX values (the driest air possible). This mode is often used in industrial processes where it is essential to keep the levels of moisture in the air under stringent control.

MODULAR EQUIPMENT CONFIGURATIONS

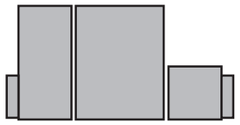
You simply decide which equipment combinations you want for the exact specifications you need. Contact Cotes experts for details or alternative options.



C65

PRE/POST MODULE + C65

C65 + EW MODULE



PRE/POST MODULE + C65 + EW MODULE

AVAILABLE CONFIGURATIONS TABLE

		ELECTRICAL				ALT. HEATING		PRE/POST MODULE		
		BASIC	PLC B	PLC C	PLC D	STEAM	EW	PRE-COOL	POST-COOL	POST-HEAT
						PLC-C/D	PLC-C/D	PLC-B/C/D	PLC-B/C/D	PLC-B/C/D
400V 3PH+N+PE C65E	8	X	X	X	X	X	X	X	X	X
400V 3PH+N+PE C65E	11	X	X	X	X	X	X	X	X	X
400V 3PH+N+PE C65E	15	X	X	X	X	X	X	X	X	X
400V 3PH+N+PE C65E	19	X	X	X	X	X	X	X	X	X
400V 3PH+N+PE C65C	1	X								
400V 3PH+N+PE C65C	3	X								
230V 3PH+PE C65E	8		X					X	X	X
230V 3PH+PE C65E	15		X					X	X	X
230V 3PH+PE C65E	19		X					X	X	X
230V 3PH+PE C65D	7		X					X	X	X

THE RIGHT CONTROL CONFIGURATION FOR YOU

A comprehensive range of software-based monitoring and control capabilities are available. You simply decide which configuration you need to have, and order accordingly.

MONITORING AND CONTROL SETUPS	A BASIC	B	C	D
Hour counter to monitor running time	X	X	X	X
Overheating alarm	X	X	X	X
Manually adjustable process fan	X	X	X	X
Manually adjustable regeneration air fan	X	X	X	X
External humidity sensor (R/H)	X	X	X	X
Service indicator to monitor maintenance requirements		X	X	X
Datalogging for tracking conditions		X	X	X
Service alarm monitoring		X	X	X
5.7-inch touch display		X	X	X
Filter and rotor service alarm		X	X	X
Control of regeneration air fan from the PLC interface		X	X	X
Measurement and control after dew point (option)		X	X	X
Timer, day/night timer and cycle timer		X	X	X
Network connectivity (optional)		X	X	X
Monitoring and control via smartphone app (optional)		X	X	X
Monitoring and control by cotes service center (optional)		X	X	X
Datalogging for tracking c Capacity control / modulating heat control onditions		X	X	X
Extra external humidity sensor (R/H and dew point) up to two external Humidity sensors can be connected (single sensor included)			X	X
Monitoring and automatic adjustment of air flows			X	X
Quiet program			X	X
Custom program			X	X
Energy-saving program			X	X
Energy+ saving program (for process applications)				X
Continuous measurement of moisture removal				X
Capacity alarm				X
Specific humidity (g/kg) program				X

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Choice of control configurations
Four different levels of electronic control configurations are available for Cotes All-Round units, so you can have the dehumidifier to your practical requirements and operating priorities.

With control configurations B, C, an easy-to-read 5.7-inch touch panel is fitted as standard to give you easy access to your chosen level of performance data, operating alarms and service interval monitoring. You can choose to activate completely standardized settings – where you just turn the unit on and forget about it – or to opt for varying degrees of control over air flow specifications. You decide on the level of control access you need or want, via smartphones, web-based remote control, etc.

Choice of heating source
With C65 dehumidifiers, you can choose between Electrical, Steam, or EW (a combination of electrical and hot water) heating, to heat the flow of regeneration air.

Post-heating
Cotes All-Round C65 dehumidifiers can be fitted with post-heating units after the adsorption rotor, as optional equipment, in order to ensure 100% control of both relative humidity and temperature.

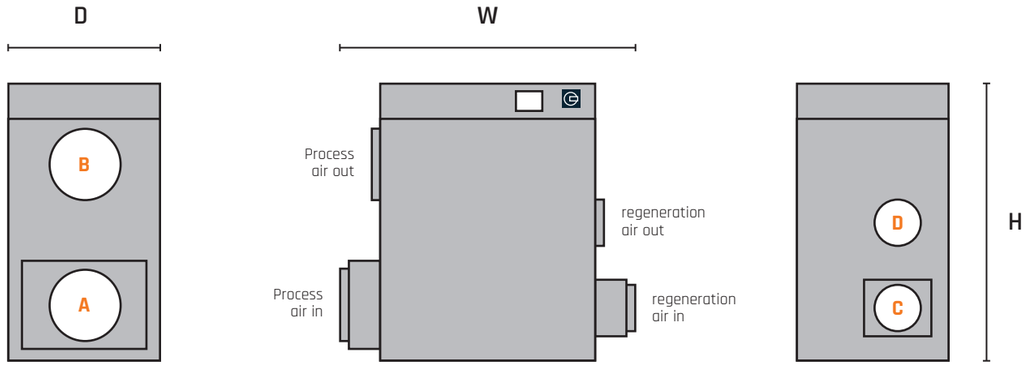
Pre-cooling and post-cooling
Cotes All-Round dehumidifiers can be fitted with a special cooling unit to reduce and / or control the temperature / humidity of the dry air entering and leaving the dehumidifier, A cooling unit fitted before the adsorption rotor is particularly beneficial if the incoming process air is particularly hot and humid. In such cases, some of the water in the air condenses, thus increasing the efficiency of the adsorption rotor. A cooling unit fitted after the adsorption rotor is also available, thus making it possible to control process outlet temperature.

Maximum flexibility
Cotes All-Round dehumidifiers provide users with an exceptional degree of control over airflow humidity and temperature specifications, via factory-installed control settings.

Standardized, modular configurations are also available for easy integration of a range of heating units, cooling systems, fans, filters, sensors, control setups, etc.

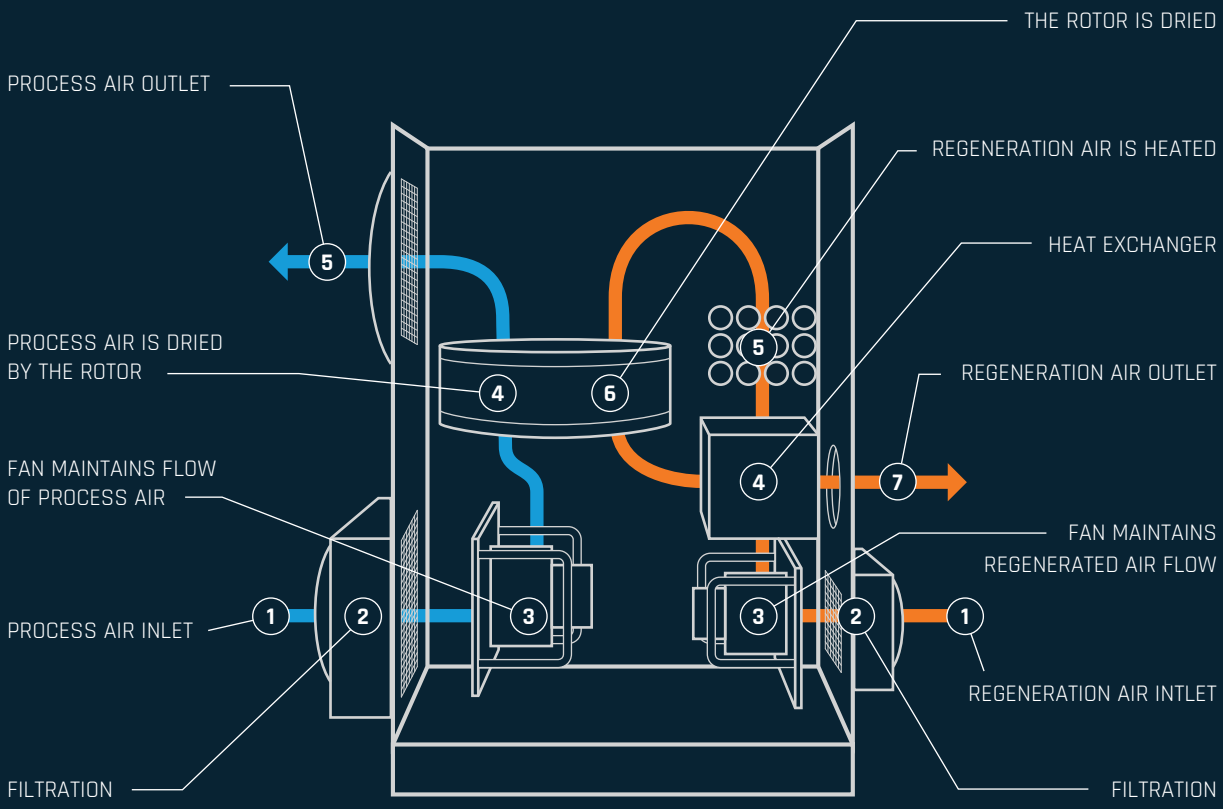
Exceptional build quality
Like all Cotes dehumidifiers, All-Round C65 units are built of robust, high-quality components and materials that ensure maximum reliability, long service life and rapid return on investment.

TECHNICAL DATA



THE C65 RANGE		C65E				C65C	
		8	11	15	19	1	3
TECHNICAL DATA							
DRY AIR NOMINAL	m^3/hour	1900	2600	3700	3700	1900	3700
REGENERATION AIR NOMINAL	m^3/hour	340	460	670	940	340	340
VOLTAGE/PHASES	V/Ph	400/3PH+N+PE	400/3PH+N+PE	400/3PH+N+PE	400/3PH+N+PE	400/3PH+N+PE	400/3PH+N+PE
REGENERATION AIR HEATER	kW	10.2	14.4	20.4	28.8	5.1	7.2
CONNECTED LOAD	kW	11.4	17.8	23.8	33.8	8	11
NOMINAL CURRENT CONSUMPTION	A	16.4	25.7	34.4	48.8	10.5	15.9
EXTERNAL FUSES	A	63	63	63	63	20	20
EXT. PRESSURE PROCESS AIR	Po	400	400	400	400	400	400
EXT. PRESSURE REGENERATION AIR	Po	400	400	400	400	400	400
CAPACITY AT 20C, 60%RH	kg/hour	7.8	11.1	15.4	19.1	1.5	3
SOUND LEVEL (Preliminary data)	dB	<66	<73	<73	<75	<73	<73
DIMENSIONS AND WEIGHT							
W	WIDTH	mm	1635	1635	1635	1635	1635	1635
D	DEPTH	mm	816	816	816	816	816	816
H	HEIGHT	mm	1718	1718	1718	1718	1718	1718
	WEIGHT (ELECTRICAL)	kg	295	320	325	330	295	315
	WEIGHT (STEAM)	kg	320	365	365	370		
DUCT CONNECTIONS							
A	PROCESS AIR INLET	mm	Ø400	Ø400	Ø400	Ø400	Ø400	Ø400
B	PROCESS AIR OUTLET	mm	Ø400	Ø400	Ø400	Ø400	Ø400	Ø400
C	REGENERATION AIR INLET	mm	Ø250	Ø250	Ø250	Ø250	Ø250	Ø250
D	REGENERATION AIR OUTLET	mm	Ø250	Ø250	Ø250	Ø250	Ø250	Ø250

HOW IT WORKS



HORIZONTAL ROTOR
The horizontally mounted silica gel-coated rotor has the important advantage, that airflows enter and exit on the same side.

This means that the process air enters and leaves on the same side of the casing, while regeneration air enters and leaves on the opposite side.

BUILT IN HEAT EXCHANGER
The updated C65 now includes a built-in heat exchanger to drastically reduce power consumption. By reusing excess heat from the regeneration air, electrical heating power is reduced by as much as 20%. The adjustments are done automatically by the heating control unit. The heat exchanger is removable for the rare circumstances where it is necessary.