

DUALTOP

THE HELICAL CONDENSING SPLIT HEATING SYSTEM

ABOUT US

...technological innovation since 1986



OUR MISSION

Founded in 1986 as a manufacturer of industrial ovens, the **Comex Group** has built its history on a fundamental value: technological innovation.

Many years of experience in the heating and air-conditioning sectors, combined with the continuous acquisition of know-how on new technologies and applications, enables the company to bring solutions always up-to-date with heat pump systems, solar cooling, heat recovery, thermal power stations and lately air sanitation.

Research and innovation have distinguished the company in the heating and air conditioning sector with important advantages for **Comex Group** customers in the areas of energy saving, safety and environmental protection.

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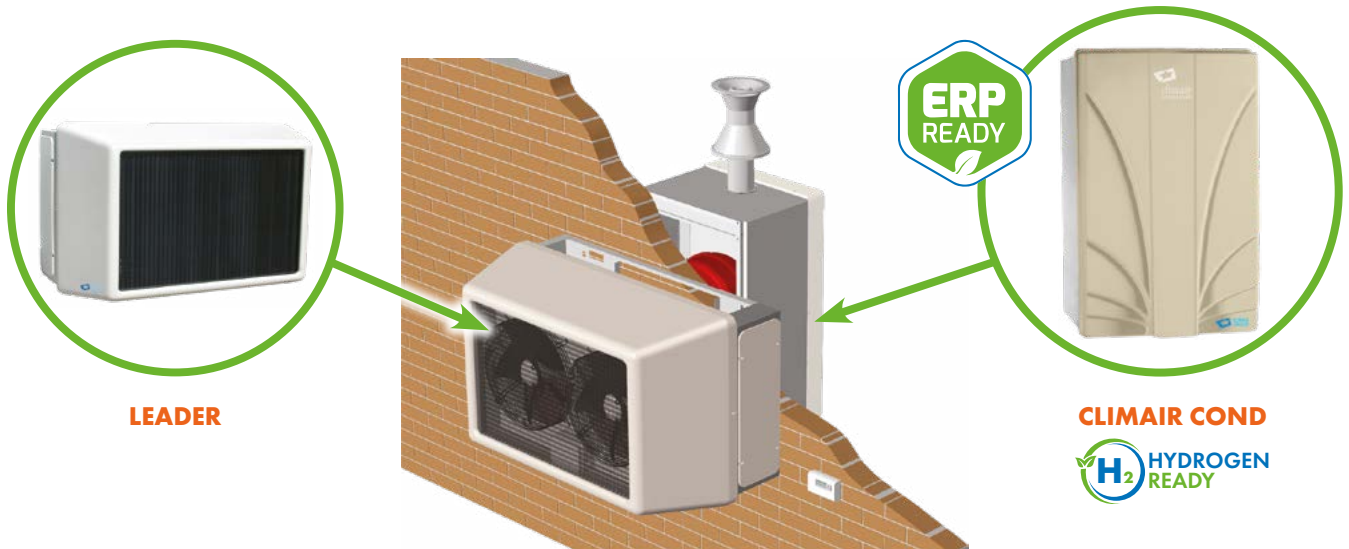
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DUALTOP

The helical condensing split heating system

The **DUALTOP** system is designed for heating any industrial and commercial space. Its meticulous design allows it to be installed even in prestigious settings.

DUALTOP essentially consists of the combination of: **CLIMAIR COND** + **LEADER**



DUALTOP is available with the following heating outputs: **32 kW, 45 kW, 70 kW, 95 kW, 115 and 150 kW** offering high average seasonal efficiency.

The wall-mounted condensing boiler has an IPX5D protection rating, and the fan heater has an IP54 rating.

The load-bearing structure, with an ABS and steel casing for the fan heater and ABS and stainless steel for the external boiler, both ensure robustness and durability.

The condensing boiler is equipped with a Class 6 low-NOx premix burner. An electronic control unit manages automatic heat load modulation and variable-speed ventilation with high air flow rates.

Why is **DUALTOP** an ideal solution?

1 BECAUSE IT ENABLES WELL-BEING AND ENERGY SAVING

2 BECAUSE IT HEATS VERY QUICKLY

3 BECAUSE IT RESPECTS THE ENVIRONMENT AND REDUCES CO₂ EMISSIONS

DUALTOP - Main features



The DUALTOP split system consists of a high-efficiency "CLIMAIR COND" wall-mounted condensing boiler for outdoor installation, combined with one or more "LEADER" fan heaters to be installed in the room to be heated.

The package includes:

- Wall-mounted condensing boiler from the Climair Cond range
- On-site flue gas exhaust kit
- Internal fan heater(s) from the Leader range
- External sensor for climate compensation
- Room thermostat kit with dual speed

DUALTOP - Technical specifications

A wide range of configurations are possible with 6 types of boilers and 5 types of fan-coil units

The DUALTOP split system heats up quickly thanks to the low thermal inertia of the condensing boiler's heat exchanger

- Outdoor WALL-MOUNTED condensing boiler
- On-site flue gas discharge kit (standard)
- Room thermostat kit with dual-speed control (standard)
- Outdoor sensor (standard)
- Climair Cond casing in ABS and stainless steel
- High efficiency ★★★★★
- Fitted with I.N.A.I.L. devices (for models 45, 70, 100, 115, 150) excluding the V.I.C. valve
- Anti-freeze protection
- Climair Cond protection rating IPX5D
- Leader casing in ABS and galvanised steel
- Leader designed for wall or ceiling installation

- Vertical airflow direction
- Two-speed fan with variable airflow at minimum speed
- Leader protection rating IP54

Optional extras

- Bidirectional airflow direction
- Filter for removing airborne dust
- Flexible connection kits for boiler-to-heating fan unit
- Electrical expansion panel for controlling multiple Leader units

For further information on usage, system design, etc., please contact the Comex Group technical department.

DUALTOP 30 - Range



DUALTOP 30 - Technical data

DUALTOP MODEL			30 1x30	30 2x15	30 1x45	30 2x25
RATED HEAT CAPACITY [Hi]	Max	kW	32,0	32,0	32,0	32,0
	Min	kW	3,4	3,4	3,4	3,4
TOTAL HEAT OUTPUT	Max speed	kW	31,1	31,1	31,1	31,1
	Min speed	kW	26,3	25	31,1	31,1
AIR FLOW	Max speed	m ³ /h	3.800	3.800	5.500	5.500
	Min speed	m ³ /h	1.900	1.900	4.300	4.300
AIR TEMPERATURE	In	°C	16	16	16	16
	Out	°C	40	39	33	33
AIR THROW	Max speed	m	16	16	20	20
	Min speed	m	12	12	17	17
HYDRAULIC CONNECTIONS						
CIRCULATION WATER FLOW RATE		l/h	1.200	1.200	1.200	1.200
PLANT AVAILABLE HEAD		m.w.c	3,2	2,5	2,1	2,5
CLIMAIR COND HYDRAULIC CONNECTIONS	Gas	"M	3/4"	3/4"	3/4"	3/4"
	In/Out	"M	3/4"	3/4"	3/4"	3/4"
LEADER HYDRAULIC CONNECTIONS	In/Out	"M	3/4"	3/4"	3/4"	3/4"
ELECTRICAL SPECIFICATIONS - DIMENSIONS						
SUPPLY VOLTAGE		V/Hz	230/50	230/50	230/50	230/50
ELECTRICAL POWER CONSUMPTION	Max	W	320	320	460	460
PROTECTION DEGREE	Climair	IP	IPX5D	IPX5D	IPX5D	IPX5D
	Leader	IP	IP44	IP44	IP44	IP44
CLIMAIR COND DIMENSIONS	WxHxD	mm	560x940x340	560x940x340	560x940x340	560x940x340
CLIMAIR COND WEIGHT		kg	40	40	40	40
LEADER DIMENSIONS	WxHxD	mm	1.148x736x618	748x736x618	1.148x736x618	748x736x618
LEADER WEIGHT		kg	64	40	64	54
NOISE LEVEL	Max speed	dB(A)	50	48	54	52
	Min speed	dB(A)	47	45	51	49

DUALTOP 50 - Range

DUALTOP 50 1x45



DUALTOP 50 2x25



DUALTOP 50 3x15



DUALTOP 50 - Technical data

DUALTOP MODEL			50 1x45	50 2x25	50 3x15
RATED HEAT CAPACITY [Hi]	Max	kW	45	45	45
	Min	kW	5	5	5
TOTAL HEAT OUTPUT	Max speed	kW	43,8	43,8	43,8
	Min speed	kW	43,8	41	36
AIR FLOW	Max speed	m ³ /h	5.500	5.500	5.700
	Min speed	m ³ /h	4.300	4.300	2.850
AIR TEMPERATURE	In	°C	16	16	16
	Out	°C	39	39	38
AIR THROW	Max speed	m	20	20	16
	Min speed	m	17	17	12
HYDRAULIC CONNECTIONS					
CIRCULATION WATER FLOW RATE		l/h	1900	1.900	1.900
PLANT AVAILABLE HEAD		m.w.c	2,3	3,1	3,2
CLIMAIR COND HYDRAULIC CONNECTIONS	Gas	"M	1.¼"	1.¼"	1.¼"
	In/Out	"M	1.¼"	1.¼"	1.¼"
LEADER HYDRAULIC CONNECTIONS	In/Out	"M	¾"	¾"	¾"
ELECTRICAL SPECIFICATIONS - DIMENSIONS					
SUPPLY VOLTAGE		V/Hz	230/50	230/50	230/50
ELECTRICAL POWER CONSUMPTION	Max	W	480	480	450
PROTECTION DEGREE	Climair	IP	IPX5D	IPX5D	IPX5D
	Leader	IP	IP44	IP44	IP44
CLIMAIR COND DIMENSIONS	WxHxD	mm	815x1.074x744	815x1.074x744	815x1.074x744
CLIMAIR COND WEIGHT		kg	80	80	80
LEADER DIMENSIONS	WxHxD	mm	1.148x736x618	748x736x618	748x736x618
LEADER WEIGHT		kg	64	40	40
NOISE LEVEL	Max speed	dB(A)	54	52	48
	Min speed	dB(A)	51	49	45

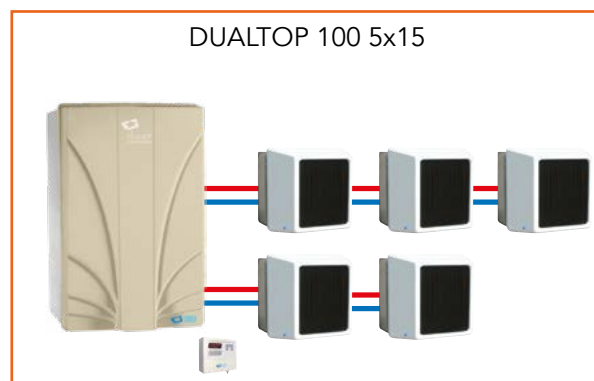
DUALTOP 70 - Range



DUALTOP 70 - Technical data

DUALTOP MODEL			70 1x70	70 2x45	70 2x35	70 3x25	70 4x15
RATED HEAT CAPACITY [Hi]	Max	kW	69,9	69,9	69,9	69,9	69,9
	Min	kW	7,7	7,7	7,7	7,7	7,7
TOTAL HEAT OUTPUT	Max speed	kW	68	68	68	66	68
	Min speed	kW	62,3	68	53	40	53
AIR FLOW	Max speed	m³/h	11.500	11.000	7.600	8.250	7.600
	Min speed	m³/h	8.500	8.600	3.800	6.450	3.800
AIR TEMPERATURE	In	°C	16	16	16	16	16
	Out	°C	34,8	35	42	39	42
AIR THROW	Max speed	m	25	20	16	20	16
	Min speed	m	17	17	12	17	12
HYDRAULIC CONNECTIONS							
CIRCULATION WATER FLOW RATE		l/h	2.500	2.500	2.500	2.500	2.500
PLANT AVAILABLE HEAD		m.w.c	2,2	2,3	2,3	2,6	2,7
CLIMAIR COND HYDRAULIC CONNECTIONS	Gas	"M	1.¼"	1.¼"	1.¼"	1.¼"	1.¼"
	In/Out	"M	1.¼"	1.¼"	1.¼"	1.¼"	1.¼"
LEADER HYDRAULIC CONNECTIONS	In/Out	"M	1"	¾"	¾"	¾"	¾"
ELECTRICAL SPECIFICATIONS - DIMENSIONS							
SUPPLY VOLTAGE		V/Hz	230/50	230/50	230/50	230/50	230/50
ELECTRICAL POWER CONSUMPTION	Max	W	730	950	770	840	740
PROTECTION DEGREE	Climair	IP	IPX5D	IPX5D	IPX5D	IPX5D	IPX5D
	Leader	IP	IP54	IP44	IP44	IP44	IP44
CLIMAIR COND DIMENSIONS	WxHxD	mm	815x1.074x774	815x1.074x774	815x1.074x774	815x1.074x774	815x1.074x774
CLIMAIR COND WEIGHT		kg	90	90	90	90	90
LEADER DIMENSIONS	WxHxD	mm	1.650x820x700	1.148x736x618	1.148x736x618	748x736x618	748x736x618
LEADER WEIGHT		kg	93	64	64	40	40
NOISE LEVEL	Max speed	dB(A)	73	54	50	52	48
	Min speed	dB(A)	65	51	47	49	45

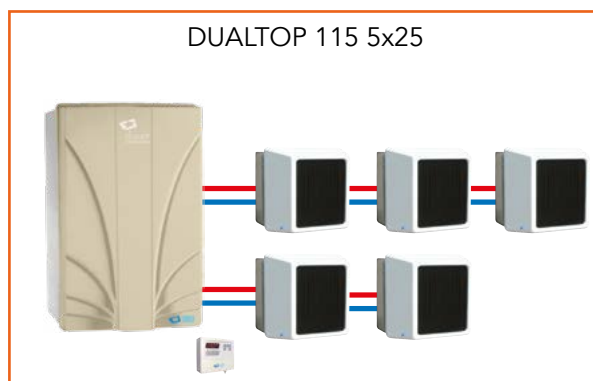
DUALTOP 100 - Range



DUALTOP 100 - Technical data

DUALTOP MODEL			100 2x45	100 3x35	100 4x25	100 5x15
RATED HEAT CAPACITY [Hi]	Max	kW	95	95	95	95
	Min	kW	10,5	10,5	10,5	10,5
TOTAL HEAT OUTPUT	Max speed	kW	92,9	92,9	92,9	92,9
	Min speed	kW	88,6	80,4	80	65
AIR FLOW	Max speed	m³/h	11.000	11.400	11.000	9.500
	Min speed	m³/h	8.600	5.700	8.600	4.750
AIR TEMPERATURE	In	°C	16	16	16	16
	Out	°C	40	39	40	44
AIR THROW	Max speed	m	20	16	20	16
	Min speed	m	17	12	17	12
HYDRAULIC CONNECTIONS						
CIRCULATION WATER FLOW RATE		l/h	4.000	4.000	4.000	4.000
PLANT AVAILABLE HEAD		m.w.c	1,3	2,3	2,4	2,8
CLIMAIR COND HYDRAULIC CON- NECTIONS	Gas	"M	1.¼"	1.¼"	1.¼"	1.¼"
	In/Out	"M	1.¼"	1.¼"	1.¼"	1.¼"
LEADER HYDRAULIC CONNECTIONS		In/Out	"M	¾"	¾"	¾"
ELECTRICAL SPECIFICATIONS - DIMENSIONS						
SUPPLY VOLTAGE		V/Hz	230/50	230/50	230/50	230/50
ELECTRICAL POWER CONSUMPTION	Max	W	1.020	960	1.020	850
	Climair	IP	IPX5D	IPX5D	IPX5D	IPX5D
PROTECTION DEGREE	Leader	IP	IP44	IP44	IP44	IP44
CLIMAIR COND DIMENSIONS		WxHxD	mm	815x1.074x744	815x1.074x744	815x1.074x744
CLIMAIR COND WEIGHT		kg	105	105	105	105
LEADER DIMENSIONS		WxHxD	mm	1.148x736x618	1.148x736x618	748x736x618
LEADER WEIGHT		kg	64	64	40	40
NOISE LEVEL	Max speed	dB(A)	54	50	52	48
	Min speed	dB(A)	51	47	49	45

DUALTOP 115 - Range



DUALTOP 115 - Technical data

DUALTOP MODEL			115 3x45	115 4x35	115 5x25
RATED HEAT CAPACITY [Hi]	Max	kW	115	115	115
	Min	kW	20	20	20
TOTAL HEAT OUTPUT	Max speed	kW	112	112	112
	Min speed	kW	112	104	102,5
AIR FLOW	Max speed	m³/h	16.500	15.200	13.750
	Min speed	m³/h	12.900	7.600	10.750
AIR TEMPERATURE	In	°C	16	16	16
	Out	°C	35,7	37,6	40,3
AIR THROW	Max speed	m	20	16	20
	Min speed	m	17	12	17
HYDRAULIC CONNECTIONS					
CIRCULATION WATER FLOW RATE		l/h	4.800	4.800	4.800
PLANT AVAILABLE HEAD		m.c.a	6,8	7,1	7,4
CLIMAIR COND HYDRAULIC CONNECTIONS	Gas	"M	1.¼"	1.¼"	1.¼"
	In/Out	"M	1.¼"	1.¼"	1.¼"
LEADER HYDRAULIC CONNECTIONS	In/Out	"M	¾	¾	¾
ELECTRICAL SPECIFICATIONS - DIMENSIONS					
SUPPLY VOLTAGE		V/Hz	230/50	230/50	230/50
ELECTRICAL POWER CONSUMPTION	Max	W	1.360	1.160	1.180
PROTECTION DEGREE	Climair	IP	IPX5D	IPX5D	IPX5D
	Leader	IP	IP44	IP44	IP44
CLIMAIR COND DIMENSIONS	WxHxD	mm	815x1.074x744	815x1.074x744	815x1.074x744
CLIMAIR COND WEIGHT		kg	125	125	125
LEADER DIMENSIONS	WxHxD	mm	1.148x736x618	1.148x736x618	748x736x618
LEADER WEIGHT		kg	64	64	40
NOISE LEVEL	Max speed	dB(A)	54	50	48
	Min speed	dB(A)	51	47	45

For applications involving DUALTOP 150, please contact the Comex Group technical department.

Some applications

DUALTOP INSTALLATIONS



NOTES

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FRIO: DIRECT EXPANSION HEAT PUMP SPLIT SYSTEMS



AEROTERMO LT fan coil ultra-low temperature



GENIUS: LITHIUM BROMIDE ABSORBERS



IESI: HEAT RECOVERY



INDUSTRIAL OVENS Standard – Electric – Hybrid



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