ies *innovative energy solution*

RANGE OF SCREW COMPRESSORS 7,5-250 Kw iCD

DIRECT TRANSMISSION, VARIABLE SPEED
WITH PERMANENT MAGNET MOTOR

ies
AIR COMPRESSOR

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AIR COMPRESSOR

SKILLS AND STRATEGIES FOR THE FUTURE

ies
AIR COMPRESSOR

I.E.S (Innovative Energy Solutions)

Twenty years of experience acquired in the field of compressed air have allowed IES to plan a complete range of systems for supplying compressed air: plants for production, treatment and distribution, particularly innovative and elegant, which combine the merits of quality and reliability with a particular attention to the user's requirements.

As well as offering a complete range of technological solutions for compressed air production, IES is committed to understanding your sector, your requirements and your production and service needs, to ensure you of the best solutions for achieving your business.

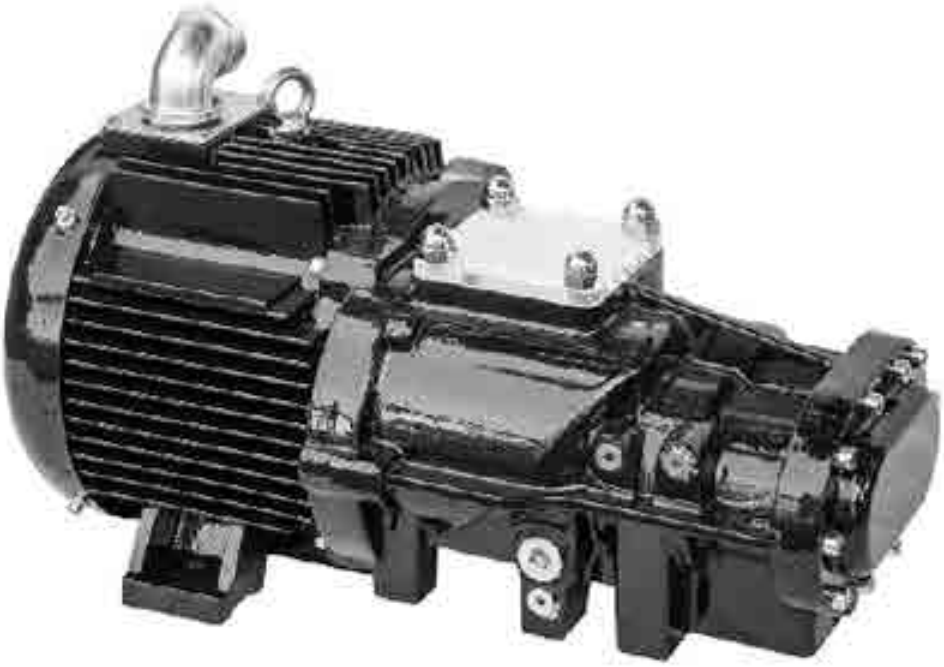
Energy saving is the inspiring principle of our design: **IES** innovative products are based on sustainability, creating an opportunity to guarantee new solutions for long-term business strategies.

MADE
IN
ITALY

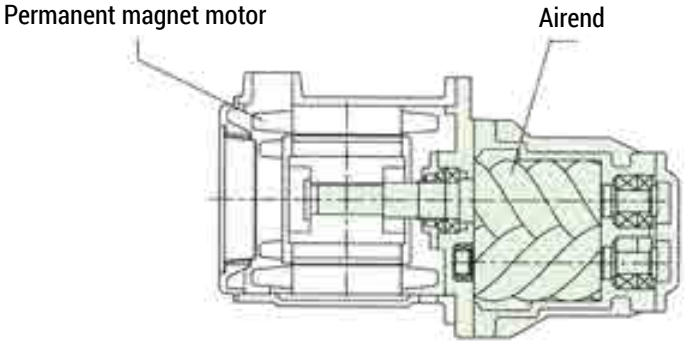
The new iCD range of innovative screw compressors opens a new generation in the compressed air sector.

Complete with frequency converter for operation at variable speed and equipped with a motor with permanent magnet technology, it allows energy saving of as much as **50%** while maintaining great reliability and excellent performance in extremely harsh environmental conditions.

The **iCD** range offers numerous innovative characteristics that allow low working costs thanks to the combination of synchronous motors with permanent magnets and frequency converters, the most innovative technology today in variable-speed electrical controls.



The permanent magnet motor that directly drives the compressor does not have any bearings, flexible couplings or sealing gaskets for the motor shaft, thus eliminating all parts subject to wear, leakage and replacement.

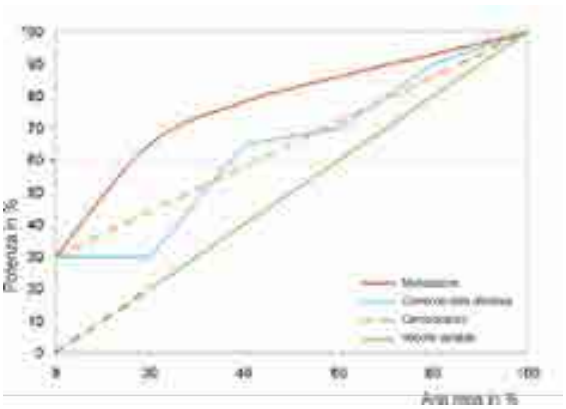


IES variable speed adjustment, together with the use of the permanent magnet motor with direct transmission, allows energy saving and a substantial reduction of compressor maintenance expenses, cutting costs by 50% .

Variable Speed Adjustment

The use of a frequency converter allows:

- Variation of the motor and of the compressor speed, adapting to the demand for compressed air;
- Variation of the air pressure selection value between 6 and 10 BAR;



- Constant variation of compressed air production between 20 and 100% of the compressor capacity, allowing a variation of energy consumption proportional to the compressor air delivery;
- Elimination of problems linked to surge currents when starting;
- Elimination of pressure drops during normal operation.

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EASY ACCESS QUALITY

1. **Suction filter** able to remove the smallest particles of dust, the large surface ensures a long life and minimum pressure loss.

2. **Single screw-motor element** with permanent magnets produced for maximum efficiency and excellent reliability.

3. Low-speed **radial fan** able to generate a high flow of cooling air while maintaining low noise.

4. **Air/oil radiator** abundantly sized to ensure optimum working temperatures in any environmental condition, easy to clean.

5. **Air/oil separator filter** able to ensure an impurity residue of 2 ppm, reducing maintenance times.

6. **Air/oil separator tank,** the exclusive cyclone technology guarantees a pre-separation efficiency of more than 99.9%. Provided with optional oil heater..

7. Vector type **speed varying inverter** with exceptional features for energy saving

- Cooling by two centrifugal fans: oil side and air side
- Low power consumption
- Optimal cooling flow
- Extremely quiet high-pressure centrifugal fans

- High efficiency new series
- Suitable for temperatures up to 50°C
- Ongoing monitoring of the level achieved in reducing consumption

- Integrated condensate separator in the whole range
- Up to 90% reduction in condensation
- Energy recovery (optional)

Electronic controller iSTATION 4.0

- Clear and rational touch display;
- Setting and control of the main operating parameters;
- Complete menu in 20 languages;
- Daily or weekly start-up schedule;
- ISC system allowing simultaneous connection of up to 8 different compressors (fixed or variable speed) with “master slave” logic via a dedicated module.

Remote control and preventive maintenance with monitoring of correct compressor operation and maintenance timing is possible via LAN connection and optional IOT device.

On-line verification of:

- Compressor status;
- Display of temperature, pressure, power consumption parameters with daily and weekly graph;
- Monitoring of events and alarms;
- Predictive maintenance monitoring;
- Energy costs.

AIRSTATION is the brain that is locally installed and digitally connected via cloud or LAN.

It can handle a large number of compressors, even of other brands, with fixed and variable speed.

AIRSTATION responds to feedback in real time and automatically adjusts settings and performance levels, 24 hours a day, 365 days a year.

Saving with energy recovery

Rising energy costs and the depletion of traditional energy sources are leading more and more companies to significantly reduce their overall energy consumption with innovative energy-saving solutions.

A considerable part of the energy spent on compressing air is converted into heat and is generally lost through coolers.

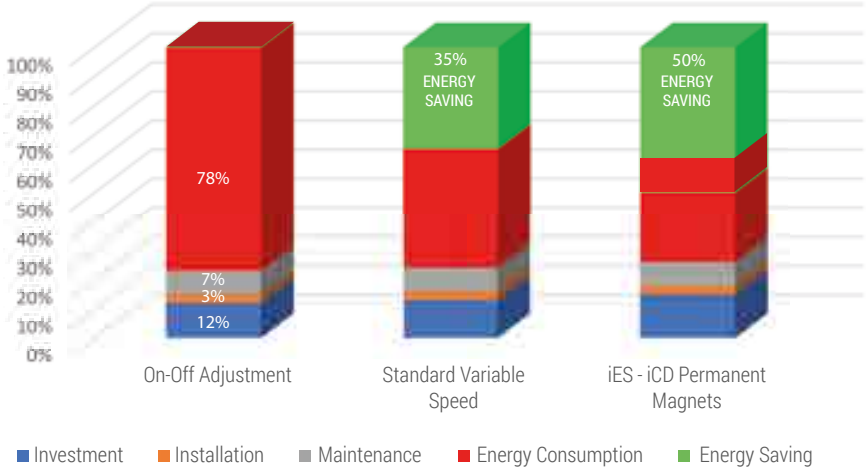
The exchange systems designed by IES allow most of this heat to be recovered in the form of 80-85°C hot water with a module integrated in the compressor.

The investment is relatively modest and the financial payback time is usually very short.

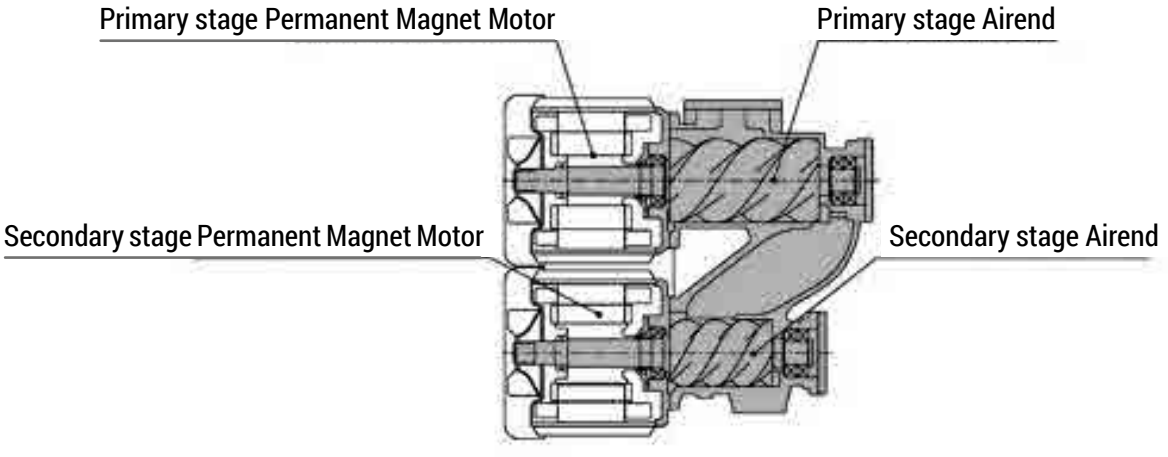
Horizontal type two-stage compression with two permanent magnet gearless motors

- **High efficiency permanent magnet motors**
- **100% transmission efficiency**
- **Constant pressure between the two stages**

- **No gear problems**
- **No engine-screw coupling problems**
- **No problem with motor bearings**

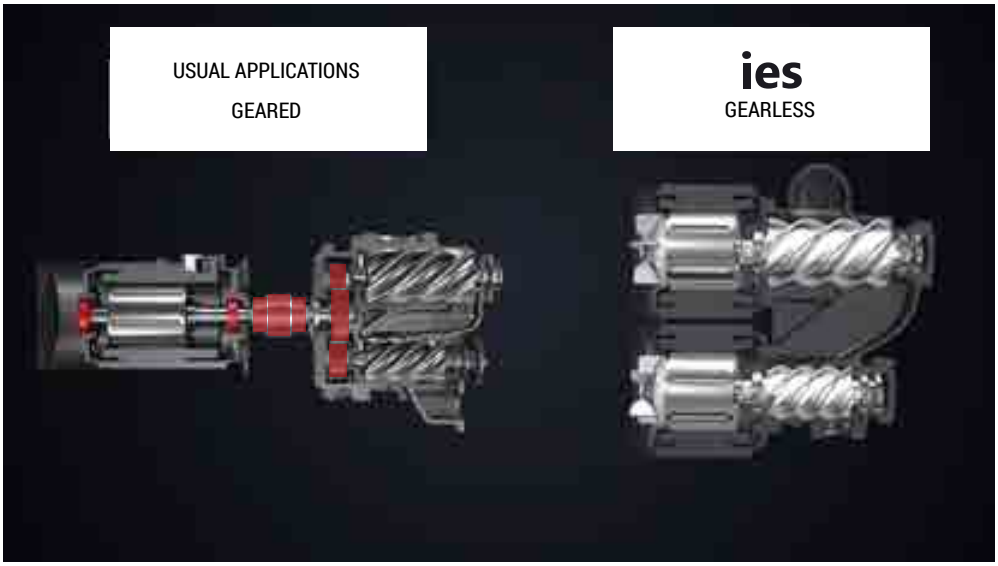


Thanks to the efficiency of permanent magnet motors and variable speed we can achieve an energy saving of up to 50% compared to a fixed-speed compressor.



Easy to use thanks to the user-friendly touch screen.

Maximum ease of intervention, complete and easy access to all internal components.



DIMENSIONS 7,5 - 132

Model	Dimensions (cm)	Weight (Kg)
iCD7,5	653 x 564 x 855	145
iCD7,5/D	863 x 564 x 855	165
iCD15	753 x 604 x 955	225
iCD15/D	1013 x 604 x 955	275
iCD15/270	1213 x 606 x 1574	300
iCD15/470	1950 x 606 x 1574	345
iCD15/270/D	1213 x 606 x 1574	350
iCD15/470/D	1950 x 606 x 1574	395
iCD18	1489 x 712 x 1126	410
iCD18/D	1489 x 712 x 1126	460
iCD22	1489 x 712 x 1126	460
iCD22/D	1489 x 712 x 1126	510
iCD30	1570 x 868 x 1450	570
iCD30/D	1570 x 868 x 1450	630
iCD37	1570 x 868 x 1450	600
iCD37/D	1570 x 868 x 1450	660
iCD45	1700 x 1000 x 1650	940
iCD45/D	1700 x 1000 x 1650	155
iCD55	1700 x 1000 x 1650	1050
iCD55/D	1700 x 1000 x 1650	1165
iCD75	2000 x 1150 x 1800	1260
iCD75/D	2000 x 1150 x 1800	1380
iCD90	2000 x 1150 x 1800	1460
iCD90/D	2000 x 1150 x 1800	1560
iCD110	2510 x 1500 x 2140	2400
iCD132	2510 x 1500 x 2140	2900

D = DRYER

MODEL	MINIMUM PRESSURE		F.A.D.		MOTOR		NOISE LEVEL
	bar	Psi	m^3/min	c.f.m.	kW	hp	dB(A)
iCD7,5	8	116	0,22 - 1,00	7,76 - 35,30	7,5	10	64
iCD7,5	10	145	0,26 - 0,90	9,20 - 31,80	7,5	10	64
iCD15	8	116	0,42 - 2,80	14,80 - 98,90	15	20	65
iCD15	10	145	0,54 - 2,30	19,10 - 81,20	15	20	65
iCD18	8	116	0,58 - 3,30	20,50 - 116,50	18	25	69
iCD18	10	145	0,74 - 2,70	26,10 - 95,30	18	25	69
iCD22	8	116	0,90 - 4,30	31,80 - 151,90	22	30	69
iCD22	10	145	1,10 - 3,20	38,80 - 113,00	22	30	69
iCD30	8	116	0,70 - 6,00	60,00 - 211,90	30	40	70
iCD30	10	145	2,20 - 4,90	77,70 - 173,00	30	40	70
iCD37	8	116	1,80 - 7,30	63,60 - 257,80	37	50	70
iCD37	10	145	2,00 - 6,00	70,60 - 211,90	37	50	70
iCD45	8	116	2,60 - 8,90	91,80 - 314,30	45	60	72
iCD45	10	145	2,50 - 8,50	88,30 - 300,20	45	60	72
iCD55	8	116	2,60 - 11,00	91,80 - 388,50	55	75	72
iCD55	10	145	4,40 - 9,90	155,40 - 349,60	55	75	72
iCD75	8	116	3,60 - 14,40	127,10 - 508,50	75	100	72
iCD75	10	145	4,40 - 12,30	155,40 - 434,40	75	100	72
iCD90	8	116	4,20 - 18,00	148,30 - 635,70	90	125	72
iCD90	10	145	4,90 - 15,20	173,00 - 536,80	90	125	72
iCD110	8	116	5,10 - 21,80	180,10 - 770,00	110	150	73
iCD110	10	145	5,30 - 19,50	187,20 - 688,50	110	150	73
iCD132	8	116	5,20 - 25,20	183,60 - 890,00	132	180	73
iCD132	10	145	5,20 - 20,80	183,60 - 734,50	132	180	73

THE AIR FLOW RATES HAVE BEEN MEASURED AT THE FOLLOWING WORKING PRESSURES: 7,5 BAR FOR MOD. 8 BAR - 9,5 BAR FOR MOD. 10 BAR.
THE DATA AND PERFORMANCES WERE RECORDED IN ACCORDANCE WITH STANDARD ISO 1217. NOISE LEVEL MEASURED ACCORDING TO PNEUROP/CAGI.

DIMENSIONS 90+ - 250+ DOUBLE STAGE

Model	Dimensions (cm)	Weight (Kg)
iCD90+	2400 x 1300 x 2000	1873,90
iCD110+	2400 x 1300 x 2000	2451,00
iCD132+	2510 x 1500 x 2140	2949,00
iCD160+	2510 x 1500 x 2140	2981,00
iCD200+	2810 x 1800 x 2140	3970,50
iCD250+	2810 x 1800 x 2140	4192,50

MODEL	MINIMUM PRESSURE		F.A.D.		MOTOR		NOISE LEVEL
	bar	Psi	m^3/min	c.f.m.	kW	hp	dB(A)
iCD90+	8	116	3,60 - 20,40	127,10 - 720,40	90	125	73
iCD90+	10	145	4,20 - 18,60	148,30 - 656,90	90	125	73
iCD110+	8	116	5,10 - 24,70	180,10 - 872,30	110	150	73
iCD110+	10	145	5,30 - 20,90	187,20 - 738,10	110	150	73
iCD132+	8	116	5,20 - 27,60	183,60 - 974,70	132	180	73
iCD132+	10	145	5,60 - 24,50	197,80 - 865,20	132	180	73
iCD160+	8	116	5,60 - 33,80	197,70 - 1193,50	160	220	73
iCD160+	10	145	5,80 - 30,60	204,80 - 1080,50	160	220	73
iCD200+	8	116	6,20 - 40,00	219,00 - 1412,40	200	280	74
iCD200+	10	145	6,50 - 34,50	229,50 - 1218,20	200	280	74
iCD250+	8	116	8,00 - 51,70	282,50 - 1825,80	250	340	74
iCD250+	10	145	8,50 - 44,90	300,20 - 1585,60	250	340	74

THE AIR FLOW RATES HAVE BEEN MEASURED AT THE FOLLOWING WORKING PRESSURES: 7,5 BAR FOR MOD. 8 BAR - 9,5 BAR FOR MOD. 10 BAR.
THE DATA AND PERFORMANCES WERE RECORDED IN ACCORDANCE WITH STANDARD ISO 1217. NOISE LEVEL MEASURED ACCORDING TO PNEUROP/CAGI.

IES original kits and spare parts ensure a long lifetime for your investment.

INNOVATIVE ENERGY SOLUTIONS

MADE IN ITALY

AUTHORIZED DEALER

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AIR COMPRESSOR

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