



# IMMERSION CHILLERS FOR CUTTING FLUIDS



**FLUID  
COOLERS**  
FOR MACHINE  
MANUFACTURERS

ISO 9001:2015  
certified Quality  
Management System

MADE IN ITALY



**ECI is the new Euro Cold series for cutting fluids. The immersion technology makes them extremely easy to fit and service.**

The skills and the experience gained by Euro Cold during its over 30 years of experience in the field are at your disposal. Our power is our ability to respond to the needs of mechanical and industrial systems' manufacturers which are rapidly and constantly changing.

Do not hesitate to contact us in order that we may provide you with the most adequate solution to your specific temperature control needs.

## MAIN FEATURES

- Available models for emulsions cooling up to 8% and oil cooling with viscosity grade up to 22 centistokes at +40°C. Maximum acceptable viscosity: 22 centistok at 40°C. For higher viscosities, please contact our Technical Department.
- Agitator of the fluid applied on all oil models; optional on emulsion models.
- High performance rotary vane or scroll compressors with low energy consumption.
- **NEW!!!** Fixed or differential set temperature control (standard supply of the kit ambient probe).
- Chiller malfunction signal display (optional in all single-phase models).
- Low-noise axial fans.
- Remote malfunction signal of the chiller.
- Protective metal frame made of S235 steel painted with epoxy powder and with a semi-gloss textured effect.
- Eco-friendly refrigerant gas (HFC).

## ACCESSORIES

- Metal washable air filters for condenser protection.
- Electric connectors upon client's request.
- Special power supply voltages.
- Configuration for an ambient temperature up to +55°C.
- Configuration for an ambient temperature down to -15°C.
- Frame available upon request in every type of RAL finish.



## TECHNICAL DATA

		ECIE EMULSION / ECIO NEAT OIL						
MODEL		12	25	45	60	95	160	200
Nominal cooling capacity <b>W</b>		1920	3460	5300	8150	12440	20250	24880
Power supply		230V / 1ph / 50Hz		400V / 3ph / 50Hz				
Compressor (Max. absorbed power) <b>W</b>		780	1360	1740	3040	5302	6886	8140
Agitator (Max. absorbed power) (*) <b>W</b>		220		240				
Fan	Air flow <b>mc/h</b>	1360	1690	2550	4660			6400
	Max. absorbed power <b>W</b>	70	85	120	220			450
Condenser		Air condenser (copper/aluminium)						
Evaporator		Submerged type Inox or Inox/Copper						
Electronic thermoregulator		Setting range from +15 to +30 °C						
Refrigerant gas HFC		R407C - R410A				R407C		
Noise level (at 1 m distance) <b>db (A)</b>		55	64		70			
Frame colour		RAL 7035						
Frame type (**)		ECI 12	ECI 25	ECI 45	ECI 60	ECI 95	ECI 160	ECI 200
WEIGHT & DIMENSIONS								
Empty weight (approx.) <b>kg</b>		50	60	80	100	160	180	190
Packaging weight (approx.) <b>kg</b>		60	70	90	110	170	190	200
Dimensions (W x D x H) <b>mm</b>		445 x 455 x 820	510 x 500 x 960	610x640x1140	630 x 690 x 1340	780 x 810 x 1425	780 x 810 x 1575	780 x 810 x 1445

## NOTES

Reference values: fluid temperature +30°C, ambient temperature +32°C.

(\*) Agitator of the fluid applied on all models; optional on emulsion models.

Absorbed power data refer to the standard agitator. In case of special agitator the values may differ.

(\*\*) Technical drawings available in the DOWNLOAD area of our Web site.

Cooling capacity data is based on graphs supplied by the compressor manufacturers.

Maximum and minimum ambient temperature: from +10 to +42°C.

For ambient temperature above +42°C please contact our Technical Department.

Minimum and maximum ambient relative humidity (without condensation): from 10 to 85%.

Maximum ambient altitude: 2000 m.

Minimum and maximum stocking temperature: from +5 to +50°C.

All measures on technical drawings are in millimetres unless otherwise specified.

**EURO COLD reserves the right to carry out modifications without prior notice.**

**Cooling capacity correction factor based on cutting fluid temperature in the tank and on ambient temperature: Kcf**

Inlet temperature	30°C	25°C	20°C	15°C
Kcf	1	0,91	0,83	0,76
Ambient temperature	32°C	37°C	40°C	42°C
Kcf	1	0,95	0,9	0,87

The result of the K application is approximate.

If a precise value is required, please contact our Technical Sales Department.

## MASTER-SLAVE ECI: THE POWER OF IMMERSION CHILLERS DOUBLES

Thanks to the new Master-Slave solution, there is the possibility of combining two immersion chillers to achieve higher capacities of up to 50 kW.

The chillers can be installed in different positions, depending on the available space, and can be installed very easily; each chiller is equipped with a Harting connector and pre-wired cable for connection.

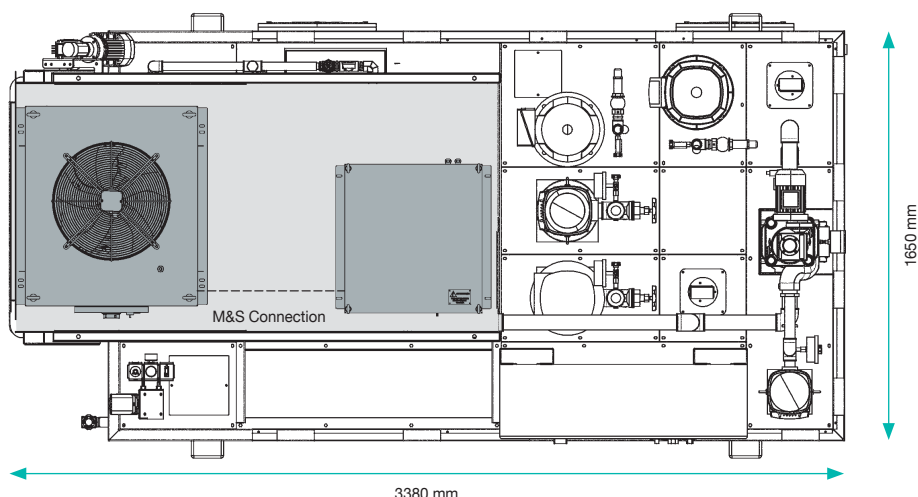
Lastly, the **Master-Slave** solution guarantees redundancy; if one chiller shuts down, the other keeps operating, avoiding potential downtime.

		ECIE EMULSION / ECIO NEAT OIL				
MODEL		45	60	95	160	200
	*	5300	8150	12440	20250	24880
45	5300	10600	13450	17740	25550	30180
60	8150	13450	16300	20590	28400	33030
95	12440	17740	20590	24880	32690	37320
160	20250	25550	28400	32690	40500	45130
200	24880	30180	33030	37320	45130	49760

\* Nominal cooling capacity W

1

Depending on the available space, it is possible to combine two chillers of different sizes and power ratings.



2

The compactness of the ECI chillers allows installation of high capacities in small spaces. The M&S system allows the combination of two chillers only at the same time.

