

ZEUS HYDRATECH LTD
Global Suppliers of Premium Hydraulic Components

UK Distributor for Emmegi Cooler Solutions

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DICHIARAZIONE DI INCORPORAZIONE
DECLARATION OF INCORPORATION
 2006/42/CE (Annex. II ,part 1, sect. B)

Noi / We : EMMEGI S.P.A.
 Via Newton Zona Industriale
 20062 Cassano d'Adda (MI)

dichiaro sotto la ns. responsabilità che i prodotti :
 declare under our responsibility that the product :

GRUPPI DI RAFFREDDAMENTO AUTONOMI
SILENT EVO 2
 SILENT EVO 2 SERIES COOLING SYSTEM UNIT

Sono idonei per l' installazione in macchina/e
 Are provided for installation in machines

Non è consentito mettere in funzione i sopracitati prodotti finchè la macchina sulla quale vengono installati non sia in conformità con le seguenti direttive :
 It is not allowed to put the above mentioned product in operation, until the machine into wich above mentioned products are installed is in conformity with the following directive :

2006/42/CE

In qualità di produttore di una quasi macchina ai sensi della citata direttiva Noi EMMEGI SPA inoltre dichiariamo:
 As a manufacturer of a partly completed machinery according to the mentioned directive We EMMEGI SPA declare:

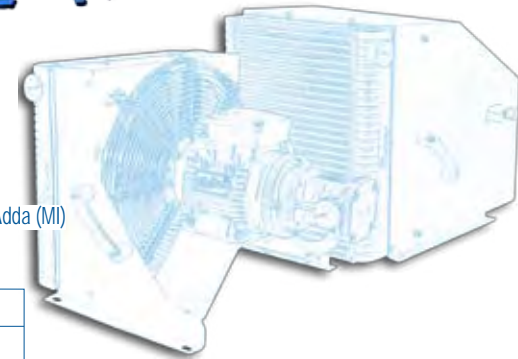
- che le unità oggetto di questa dichiarazione soddisfano i requisiti essenziali della direttiva 2006/42/CE e la documentazione tecnica rilevante è stata compilata in conformità all' allegato VII B utilizzando le seguenti norme armonizzate EN ISO 14121 - 1 : 2007; EN ISO 12100 - 1 : 2009 ; EN ISO 12100 - 2 : 2009
- the items reported in this declaration fulfill the 2006/42/EC essential requirements and the relevant technical documentation has been issued in accordance to Annex VII B and the following harmonized standards have been used: EN ISO 14121 - 1:2007 ; EN ISO 12100 - 1:2009 ; EN ISO 12100 - 2:2009
- che la persona autorizzata all' emissione della documentazione tecnica rilevante è identificata nel Sig. Giuseppe Laborante - c/o EMMEGI SPA Via Newton 52 Zona Industriale 20062 Cassano d'Adda (MI)
- the authorized person for issuing relevant technical documentation has been identified as Mr Giuseppe Laborante - c/o EMMEGI SPA Via Newton 52 Zona Industriale 20062 Cassano d'Adda (MI)
- che in risposta ad una richiesta adeguatamente motivata da parte delle autorità nazionali, nella tutela dei diritti di proprietà intellettuale, verranno consegnate in formato elettronico le informazioni pertinenti sulle quasi macchine oggetto di questa dichiarazione.
- in response to reasoned requests by national authorities without prejudice to the intellectual property rights the relevant technical information about the partly completed machinery object of this declaration will be transmitted on electronic device

Cassano d'Adda 23 Febbraio 2010



(Massimo Lavezzari - Managing Director)

SILENT EVO 2



EMMEGI S.p.A. Via Newton 52, 20062 Cassano d'Adda (MI)
 Tel. 0363-360236 Fax 0363-360230

Data di emissione	Codice
04-10-2013	866630

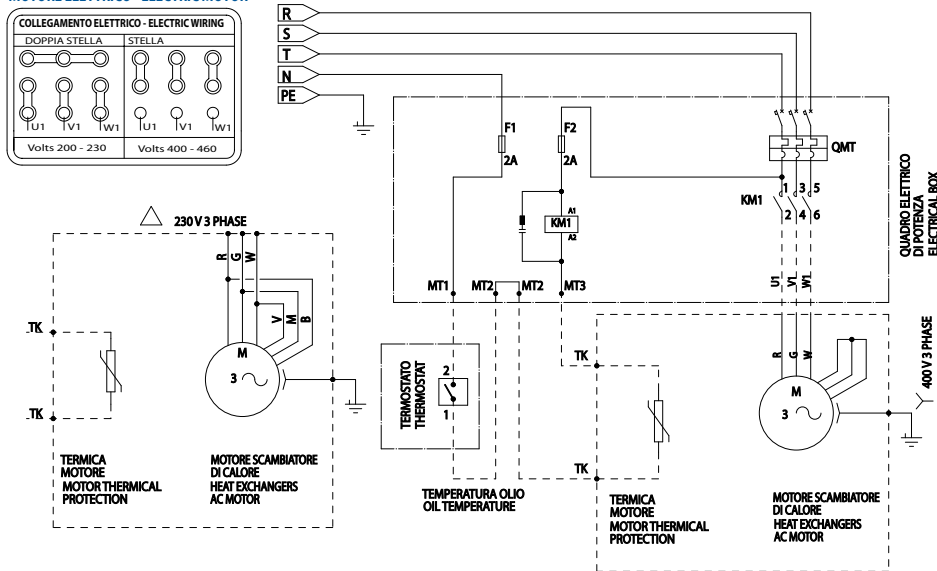
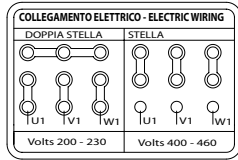
SILENT EVO 2 Series

Serie SILENT EVO 2

COLLEGAMENTO ELETTRICO

ELECTRIC WIRING

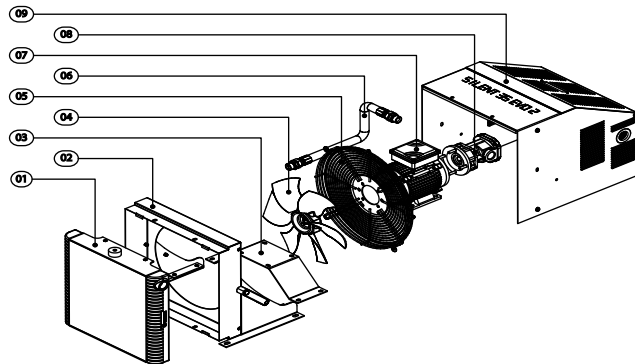
MOTORE ELETTRICO - ELECTRIC MOTOR



Per quanto concerne il colore dei fili attenersi scrupolosamente alla targhetta riportata sul motore elettrico.
Regarding wires color you must follow how indicated on electric motor label.

PARTI DI RICAMBIO PER SILENT EVO 2 15-25-35-45-55-65-75

SPARE PARTS FOR SILENT EVO 2



POS.	DESCRIZIONE	DESCRIPTION
01	MASSA RADIANTE	COOLER ELEMENT
02	STRUTTURA	STRUCTURE
03	LAMIERA PORTAMOTORE	MOTOR SUPPORT PLATE
04	VENTOLA	FAN
05	GRIGLIA	FAN GRATE
06	TUBO	PIPING
07	MOTORE ELETTRICO	ELECTRIC MOTOR
08	POMPA	PUMP
09	CARENA (OPTIONAL)	COVER (OPTIONAL)



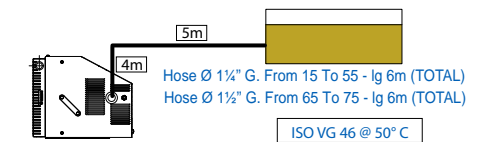
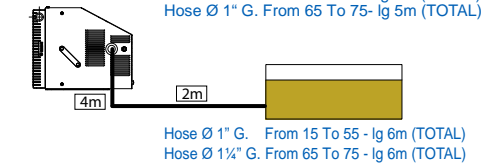
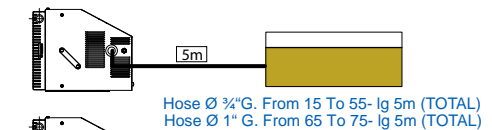
SAFETY WARNINGS

- The off line cooling unit is designed to be incorporated in one or more machines in order to work as specified in this document.
- Mechanical installation and electrical cabling must be done only by trained person supervised by technical responsible.
- The installation and cabling operations must be done considering the informations stated in the catalogue, the following instructions and the data tagged on the unit.
- The manufactures installing the unit in a machine must evaluate whether additional protective devices are necessary to avoid human contact with high temperature surfaces.
- The handling and transport operations must be done by using lifting devices right to size, weight of the units and to the type of installations. Units without a base must be moved fastening in to identified points of cooler.
- All installation and maintenance operations must be done without electrical live parts.
- The maintenance operations must be done after disconnecting the units from installations and flushing the oil out of the circuit.
- INSTALLATION**
The SILENT EVO 2 off line cooling systems must be connected to the tank by means of flexible tubing. In the normal functioning of this area, where the SILENT EVO 2 functions, there must be sufficient air circulation to prevent that the air becomes of thermal exchange in the heat exchanger. The SILENT EVO 2 should be installed in such a way that the flow of air will not be obstructed in either in/out conduits of the exchanger body. It is essential that the in - and out-let tubes are of a dimension equal to or greater than those in the existing system, to avoid cavitation which is very noisy and might cause vibration and thus fracture the pump. The heat exchangers must be stress free and supported by rubbers to avoid tensions and vibrations.

In the same way, the suction tube should not permit too much loss of pressure and it must not be twisted or have restricted diameters. The position of the unit, in relation to the tank must be as stated in the paragraph "HOSES LENGTH AND DIAMETER"

To start up, it is imperative to control that the electric motor in the pump with a fan, operated in the direction indicated like the arrow. The start up of the unit has to take place when the oil temperature is higher than 30°C. The electrical motors type asynchronous three phase with class F winding and protection index IP55, have a thermal protection and they must be connected to the electrical box as shown in the electric wiring. Cooler installation in circuit protected against in to identified points of cooler.

HOSES LENGHT AND DIAMETER



We would recommend to fulfill the hoses when the unit is installed higher than the tank level.

MAINTENANCE

Air side cleaning:

Can be done through means of compressed air or water, with the direction of the jet moving parallel to the channels.

More thorough cleaning can be carried out using detergent.

If the accumulations of dirt is caused by oil or grease, then it can be carried out with a jet of steam or hot water, always paying attention to the direction of the jet.

During the cleaning operation, the electric motor must be disconnected and properly protected.

Oil side cleaning:

To carry out this type of cleaning, the heat exchanger must be dismantled and flushed out with a counter-current of perchloride for a period of 10/20 minutes.

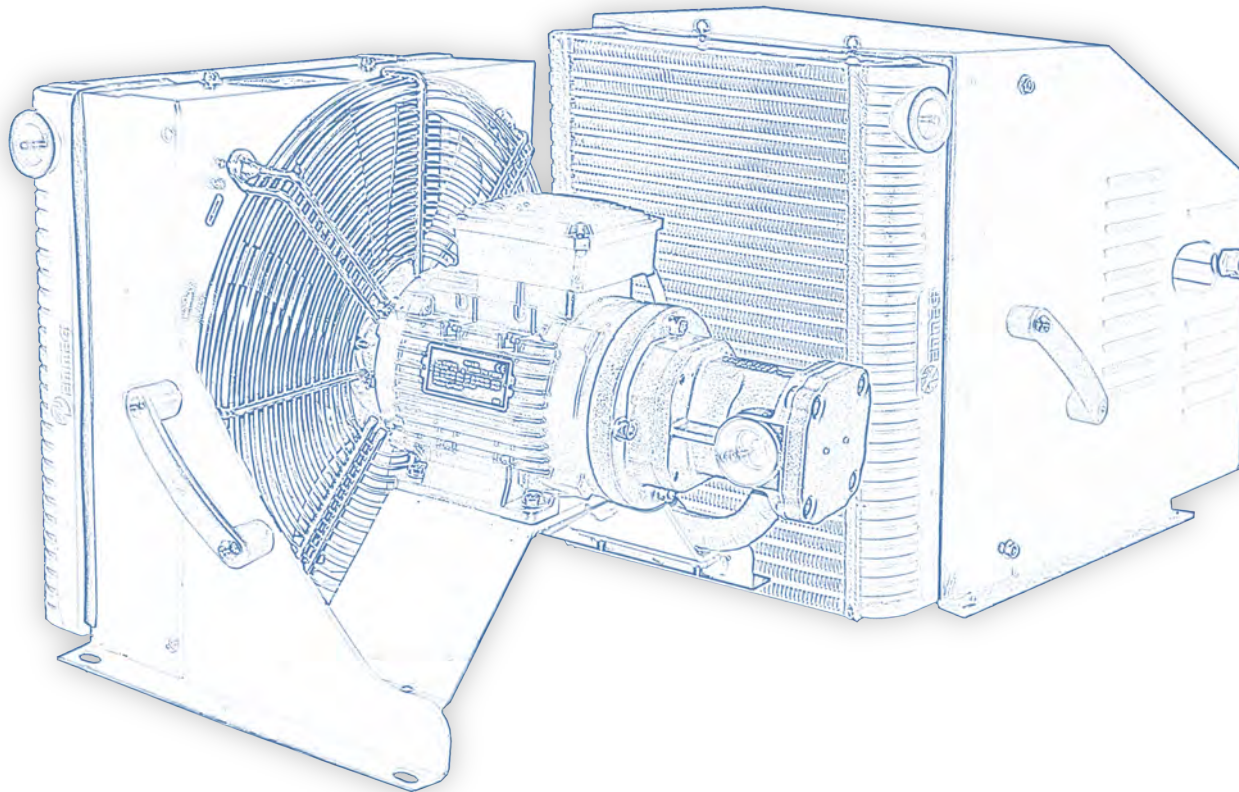
Then flush out the system with compressed air, paying particular attention to the pressure not more than the maximum allowed for the heat exchanger.

Nei circuiti oleodinamici parte dell' energia idraulica e meccanica si trasforma in calore che come è noto, innalza la temperatura del fluido di tutto il sistema idraulico.

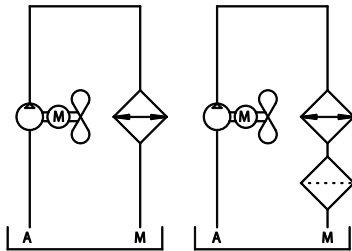
Nasce pertanto l' esigenza di dissipare questo calore mediante l' utilizzo di uno scambiatore di calore.

In molti casi, per la presenza nel circuito di colpi d' ariete e d' elevate portate differenziali, non è possibile collegare lo scambiatore direttamente a scarico.

EMMEGI ha realizzato dei gruppi di raffreddamento autonomo aria-olio di basso livello sonoro, che utilizzando il principio del riciclo, autoaspirando l' olio dal serbatoio, raffreddandolo e riportandolo in serbatoio. I gruppi di raffreddamento autonomo EMMEGI s' avvalgono di una pompa a vite, azionata da un motore elettrico che alimenta uno scambiatore di calore aria/olio ad elevata efficienza.



SCHEMA IDRAULICO



Tutti i modelli collegati e collaudati idraulicamente, possono essere racchiusi in un contenitore metallico di comodo accesso che preserva i vari componenti da danni. La semplice modalità d' installazione permette con estrema facilità la risoluzione di problemi termici e di filtrazione su impianti esistenti.

FLUIDI COMPATIBILI

- Oli minerali, HL HLP
- Per l' utilizzo con fluidi diversi dall' olio minerale consultare EMMEGI.

SPECIFICHE TECNICHE

- **PRESSIONE DI ESERCIZIO:** 6 bar.
- **TEMPERATURA MINIMA FLUIDO:** 20°C
- **TEMPERATURA MAX FLUIDO:** +93°C
- **CAMPO DI VISCOSITÀ:**

min	max
20 cst	320 cst

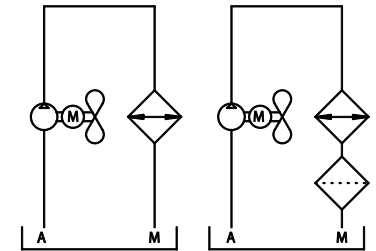
With the oil hydraulic systems, some of the hydraulic and mechanical energy transforms itself into heat, which alters the fluid temperature throughout the whole hydraulic system.

The need therefore arises to dissipate the heat by use of the heat exchanger.

In many cases, due to the presence in the circuit of hammering and variable oil flows, it is not possible to connect directly the heat exchanger to the oil return circuit.

EMMEGI has developed these off line air/oil cooling units with a low noise level, which use the principal recycling, automatically taking the oil in circulation, cooling it and returning it to circulation. The off line EMMEGI cooling systems incorporate a screw pump system, which is activated by an electric motor, which operates on air/oil heat exchangers with greater efficiency.

HYDRAULIC CIRCUIT



All models composed and controlled hydraulically are housed in a metal housing, fully accessible for servicing and parts exchange.

The simplicity of installation allows heat and filtration problems to be carried out easily.

COMPATIBLE FLUIDS

- Mineral oils, HL HLP
- For other fluids contact EMMEGI.

TECHNICAL SPECIFICATIONS

- **WORKING PRESSURE:** 6 bar.
- **MINIMUM FLUID TEMPERATURE:** 20°C
- **MAXIMUM FLUID TEMPERATURE:** +93°C
- **VISCOSITY RANGE:**

min	max
20 cst	320 cst



Our international sales network covers every jurisdiction. Our global shipping partners mean you can be sure we're on hand whenever you need us.

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