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HYDRAULIC COMPONENTS
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HT 42 / A / 350 / 0207 / IE

Water-Oil Heat Exchangers

Scambiatori di calore Acqua-Olio

Serie MG



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INFORMAZIONI GENERALI**Scambiatori Acqua-Olio - Serie MG****INTRODUZIONE**

Gli scambiatori di calore acqua-olio sono impiegati per il raffreddamento di circuiti oleodinamici usando, come fluido raffreddante acqua a temperatura ambiente e sono inseriti di norma sulla linea di ritorno al serbatoio. La gamma comprende una vasta scelta di modelli caratterizzati da una elevata efficienza.

La scelta di materiali di prima qualità, lavorati con macchinario di precisione, consente di ottenere un prodotto altamente affidabile.

Gli scambiatori della serie MG hanno il circuito dell'acqua ispezionabile a 1, 2, 4 passaggi e possono essere forniti con valvola termostatica (vedi catalogo accessori) che consente un notevole risparmio sul consumo di acqua.

DATI TECNICI**• Fluidi compatibili**

- OLI MINERALI, HL, HLP
- EMULSIONI ACQUA-OLIO
- ACQUA-GLICOLE
- ACQUA / ACQUA INDUSTRIALE
- Per altri fluidi consultare il nostro ufficio tecnico

• Specifiche tecniche

- Versioni Standard - Acqua marina - AISI -
- Pressione d'esercizio: 12 bar
- Pressione di collaudo: 18 bar
- Temperatura max d'esercizio: 120°C
- Per particolari atmosfere aggressive consultare il nostro ufficio tecnico.

• Installazione

In figura 1 è indicata la corretta posizione di entrata / uscita dei due fluidi, che debbono circolare in controcorrente per ottenere il massimo rendimento.

Il posizionamento sulla macchina deve essere fatto con l'ausilio di appositi supporti elastici ed il collegamento al circuito oleodinamico ed alla rete idrica con tubi flessibili.

In impianti operanti in ambienti con notevole escursione termica è consigliabile prevedere l'installazione di una valvola di by-pass (vedi figura 2) fra l'ingresso e l'uscita dell'olio.

Negli impieghi che prevedono una temperatura ambiente molto bassa (< 0°C), con impianto fermo sarà opportuno mantenere l'acqua in continua circolazione allo scopo di evitare rotture alle tubazioni, oppure svuotare lo scambiatore utilizzando il tappo di scarico.

GENERAL INFORMATIONS**Water- Oil Heat exchangers - MG Series****DESCRIPTION**

The MG Water-oil heat exchangers are normally used for cooling oil in the hydraulic systems and are installed on the return line.

The range comprises a large choice of applicable models, highly efficient.

The range of high quality materials working with precision machinery, all produce an extremely reliable product.

The MG Water-oil heat exchangers have a water system of 1, 2 or 4 circuits and they can be supplied with thermostatic valves (see accessories catalogue) which greatly assist in the reduction of water consumption.

TECHNICAL DATA**• Compatible fluids**

- MINERAL OILS, HL, HLP.
- WATER-OIL EMULSION.
- WATER-GLYCOL ACID.
- WATER / INDUSTRIAL WATER.
- Consults our Tech. Dpt. for other fluids

• Technical specifications

- Versions : Fresh water, Sea water, AISI
- Operating pressure: 12 bar.
- Test pressure: 18 bar.
- Max. operating temperature: 120°C
- For specially "aggressive" atmospheres contact our Tech. Dpt.

• Installation

The correct position of inlet / outlet of the two fluids is indicated in fig 1.

They should circulate in opposite direction, in order to obtain the maximum heat exchange.

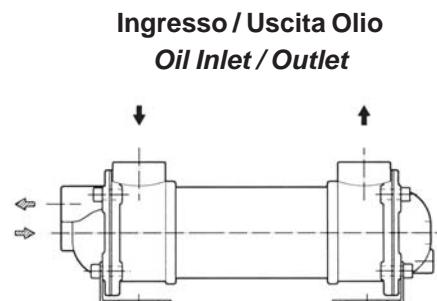
The installation of the heat exchanger on the machine should be carried out using flexible supports and all those in connection with hydraulic or power plant, through flexible hoses.

It is advisable, to preserve the heat exchanger, that a by-pass valve is installed (see fig 2)

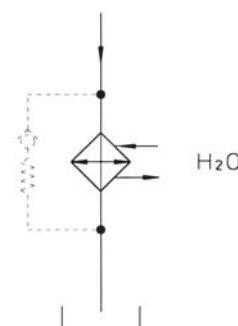
At very low ambient temperatures (< 0°C), it is advisable to keep the water in constant circulation, to prevent harmful fractures, otherwise emptying the exchanger by use of the discharge plug.

DATI TECNICI (continua)**TECHNICAL DATA (continued)**

Ingresso / Uscita Acqua
Water Inlet / Outlet



(fig.1)



(fig.2)

Manutenzione**Pulizia lato acqua**

È buona norma effettuare periodicamente una ispezione del circuito dell'acqua al fine di eliminare eventuali tracce di calcare o altre impurità che si siano eventualmente depositate all'interno dei tubi ed evitare così una diminuzione della efficienza termica.
Questa operazione si compie agevolmente togliendo il fondello e procedendo allo scovolamento del fascio tubiero.

Pulizia lato olio

La pulizia lato olio viene effettuata mediante flussaggio con perclorietilene fatto circolare controcorrente per circa 30 minuti.
Procedere quindi alla eliminazione dei residui tramite flussaggio con acqua calda

Maintenance**Water side cleaning**

*To guarantee the maximum efficiency in exchange, an inspection of the water circuit is advisable, to eliminate all trace of lime or any other impurities, which be deposited inside the tubes.
This operation will be easily accomplished by removing the headers and flushing out the tubes.*

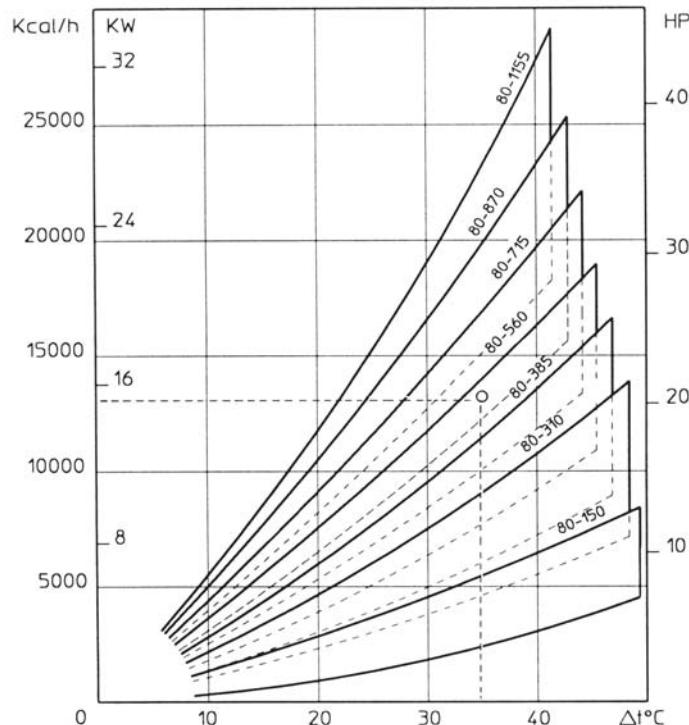
Oil side cleaning

*Cleaning on the oil side can be done through the circulation of perchloride in the opposite direction of the normal flow for about 30 minutes.
This help to eliminate any traces of impurity by flushing out with hot water.*

DATI TECNICI (continua)
• Esempio di scelta di uno scambiatore
DATI

Portata olio	: 60 lt / min.
Peso specifico	: 0,88 kg / dm ³
Calore specifico	: 0,49 kcal / kg°C
Viscosità olio	: 32 cst
Temperatura olio entrata	: 55 °C
Temperatura acqua entrata	: 20 °C
Potenza da dissipare	: 15 kW (20 HP)

Conoscendo la portata dell'olio, la potenza da dissipare e stabilito il ΔT , ovvero la differenza fra la temperatura di ingresso olio e la temperatura di ingresso acqua, si può ricercare sui diagrammi di ogni singolo scambiatore il modello idoneo allo scopo.


TECHNICAL DATA (continued)
• Heat exchanger selection
DATA

Oil flow	: 60 lt / min.
Specific weight	: 0,88 kg / dm ³
Specific heat	: 0,49 kcal / kg°C
Oil Viscosity	: 32 cst
Inlet oil temperature	: 55 °C
Inlet water temperature	: 20 °C
Cooling power	: 15 kW (20 HP)

Knowing the fluid viscosity, flow rate, cooling power and ΔT (In running difference of oil - water temperature) you can adjust these calculation in the specific exchanger diagram given in the catalogue.

TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H ₂ O-20°C
MG 80-150-..	25-75	4-8
MG 80-310-..	25-80	7-14
MG 80-365-..	25-80	9-17
MG 80-560-..	25-80	12-20
MG 80-715-..	35-120	15-24
MG 80-870-..	40-130	18-29
MG 80-1155-..	40-130	22-36

Lo scambiatore selezionato risulta essere il modello MG 80-715-4.

La dissipazione indicata dal diagramma di rendimento espressa in kW (HP) è ottenuta con olio avente viscosità 32 cst e portata di acqua come indicato nella tabella A della pagina seguente.

Selected exchanger results in the model MG-80-715-4.

The marked dissipation on the exchange diagram expressed in kW (HP) will be arrived with viscosity of 32 cst and water flow as indicated in our following table A.

DATI TECNICI (continua)**TECHNICAL DATA (continued)****• Esempio di scelta di uno scambiatore****• Heat exchanger selection****Tab A - Portata acqua x HP da dissipare****Tab A - Water flow x HP to be dissipated**

n° di passaggi lato acqua n° of water circuits	lt / min x HP da dissipare lt / min x HP to be dissipated
1	3
2	2
4	1

In caso di variazioni di temperatura e portata dell'acqua considerare i coefficienti di correzione delle seguenti tabelle B e C .

In the case where there are substantial variations in temperature or / and flow of water, consider the coefficient of the following tab. B and C .

Fattori di correzione scambio termico**Cooling power correction factor****Tab B - Portata acqua****Tab B - Water flow**

Portata acqua Water flow	Portata indicata in tab. A Flow expressed in tab. A	Portata tab. A x 2 Flow tab. A x 2	Portata tab. A x 3 Flow tab. A x 3
Fattore di correzione Correction factor	1	1,2	1,4

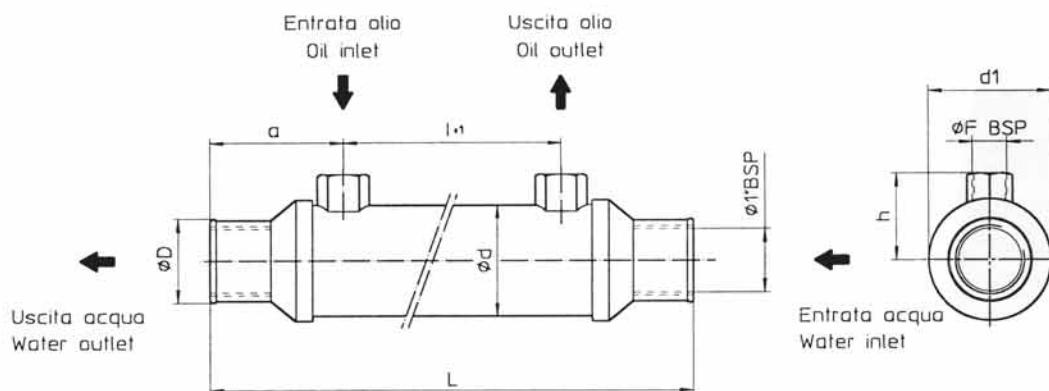
Tab B - Temperatura acqua**Tab B - Water temperature**

Temperatura Acqua Water Temperature	20°C	25°C	30°C	35°C
Fattore di correzione Correction factor	1	0,85	0,7	0,6

In caso di dati non conosciuti consultare il nostro Ufficio Tecnico.

In case of doubt any of this data please contact our Tech.Dpt

**Scambiatori di calore Acqua - Olio serie
 Water-Oil heat exchanger series**
MG 54

 Con circuito ad acqua ad un passaggio - *With one way water circuit*


Le dimensioni e le caratteristiche tecniche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL
SEA WATER	CuNi10Mn1Fe	CuZn37	CuZn37	CuZn40	CuZn37

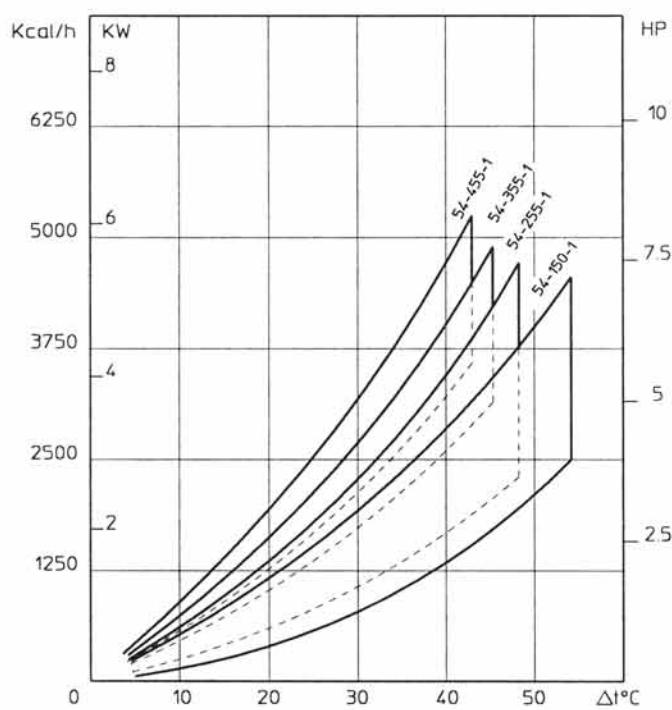
TIPO TYPE	PORTATA OLIO OIL FLOW (lit/min)	HP DISSIPATI CON OLIO -55°C H2O-20°C	CAPACITA' CONTENTS (lit)	Kg	Dimensioni - Overall dimension							
					1 Pass							
MG 54-150-1	10-40	1.5-4	0.26	1.3	38.5	3/8"	150	280	65	54	58	42
MG 54-255-1	10-50	2-4.5	0.4	1.8	38.5	3/8"	255	385	65	54	58	42
MG 54-355-1	10-50	3.5-5.5	0.5	2.3	38.5	3/8"	355	485	65	54	58	42
MG 54-455-1	10-50	4-6.5	0.6	2.7	38.5	3/8"	455	585	65	54	58	42

DIAGRAMMA RENDIMENTO

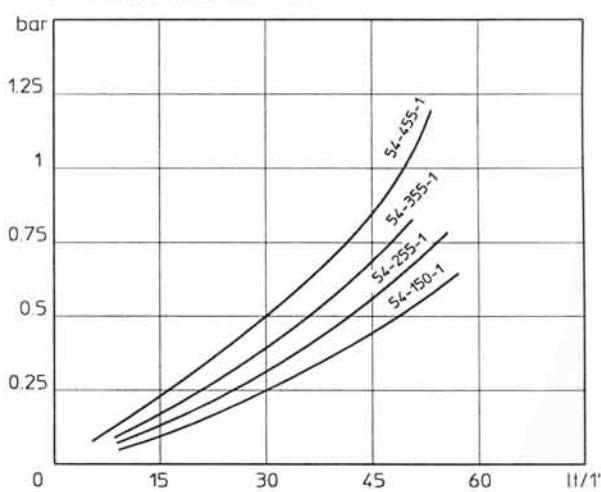
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

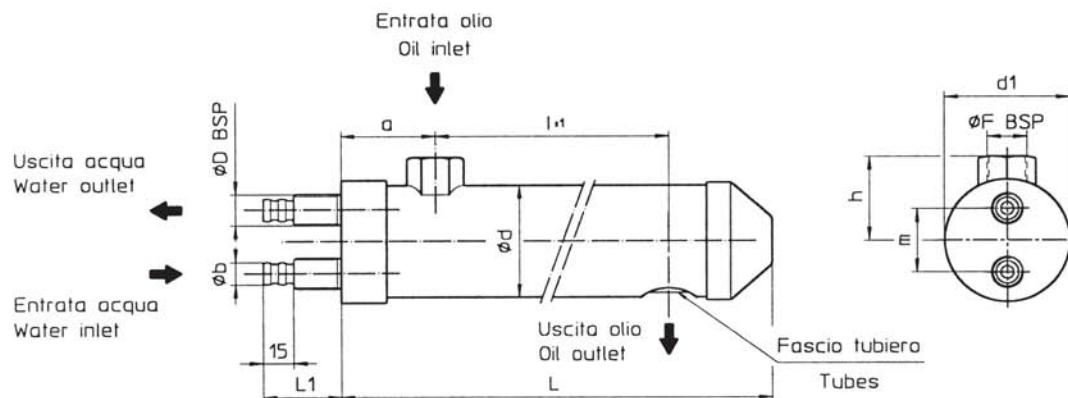
At the maximum and minimum flow stated in schedule

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP


CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

**PERDITE DI CARICO (32 cst)
 PRESSURE DROP (32 cst)**


**Scambiatori di calore Acqua - Olio serie
 Water-Oil heat exchanger series**
MGC 60 - 80

 Con circuito ad acqua a due passaggi - *With two way water circuit*


Le dimensioni e le caratteristiche tecniche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	CuZn37

TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H2O-20°C	CAPACITA CONTENTS (lt)	Kg	Dimensioni - Over all dimension											
					ΦD	ΦF	I	L	L1	a	Φb	Φd	d1	h	m	
MGC 60-90-2	5-30	1-2.5	0.3	1.5	3/8"	1/2"	90	190	40	48	13	60	65	45	38	
MGC 60-190-2	7.5-40	2.5-5	0.4	2	3/8"	1/2"	190	290	40	48	13	60	65	45	38	
MGC 80-80-2	25-60	3.5-6.5	0.5	2.3	1/2"	3/4"	80	190	40	50	16	80	85	65	45	
MGC 80-180-2	30-80	5.5-10	0.7	3.5	1/2"	3/4"	180	290	40	50	16	80	85	65	45	

DIAGRAMMA RENDIMENTO

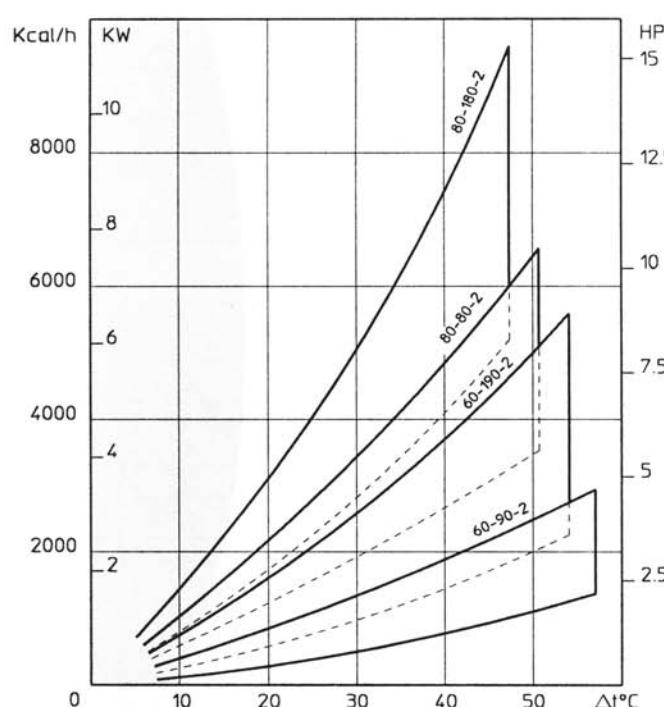
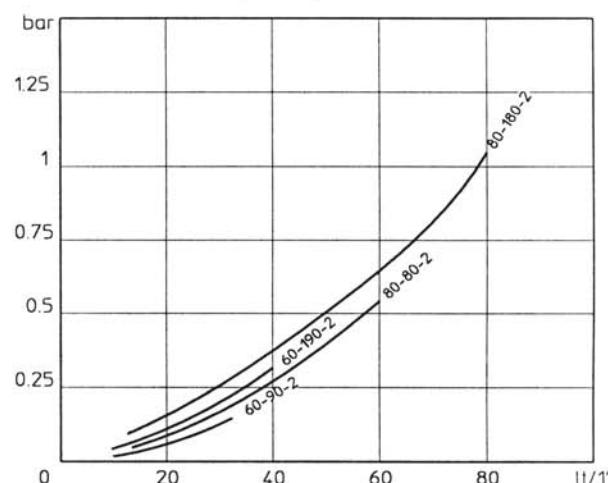
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

At the maximum and minimum flow stated in schedule

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

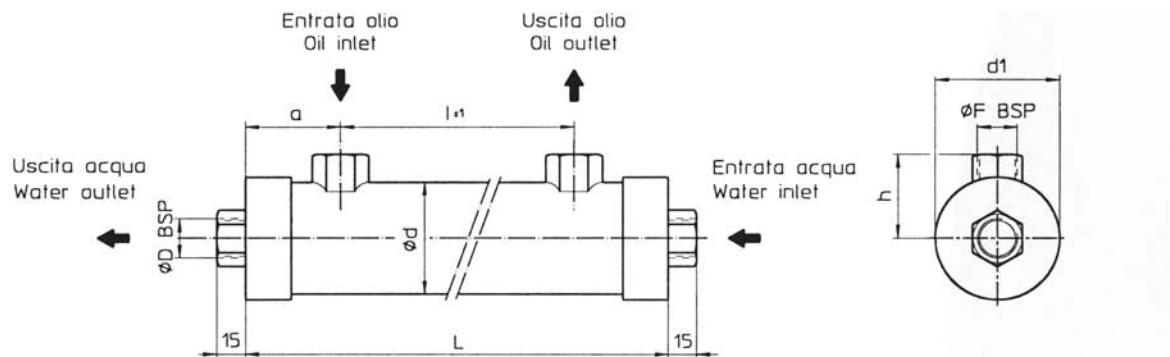

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio
 Water-Oil heat exchanger

serie
 series

MGE 60 - 80-1

Con circuito ad acqua ad un passaggio - With one way water circuit



Le dimensioni e le caratteristiche tecniche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	CuZn37

TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H2O=20°	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension								
					Dimensioni - Over all dimension	1 Pass	φD	φF	I	L	a	φd	d1
MGE 60-140-1	5-30	1.5-4.5	0.4	1.8	1.8	140	240	50	60	65	45		
MGE 60-260-1	7.5-40	3.5-6.5	0.6	3	2.6	260	360	50	60	65	45		
MGE 60-440-1	10-50	6-9	0.9	5	4.4	440	540	50	60	65	45		
MGE 80-120-1	20-50	4-7.5	0.6	3	8	120	240	60	80	85	65		
MGE 80-280-1	25-60	8-12.5	1	4.4	12	280	400	60	80	85	65		
MGE 80-530-1	30-80	11-16	1.8	6.8	16	530	650	60	80	85	65		

DIAGRAMMA RENDIMENTO

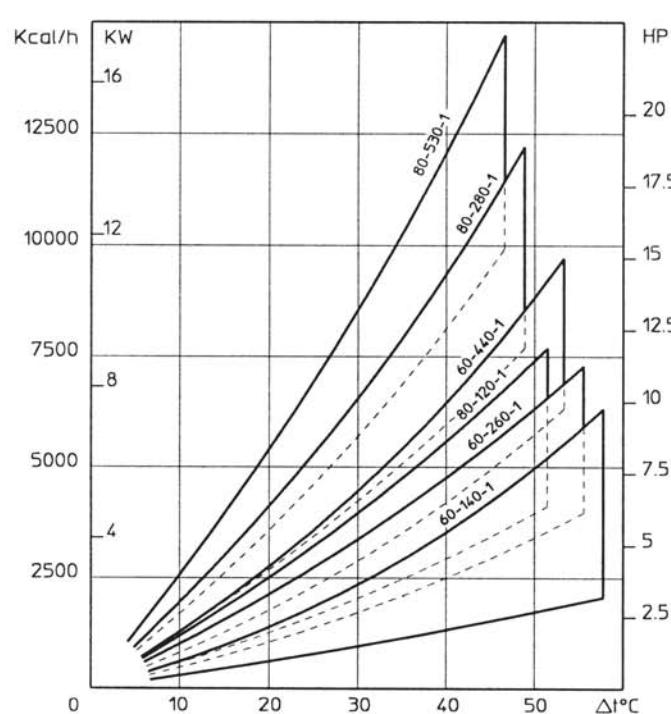
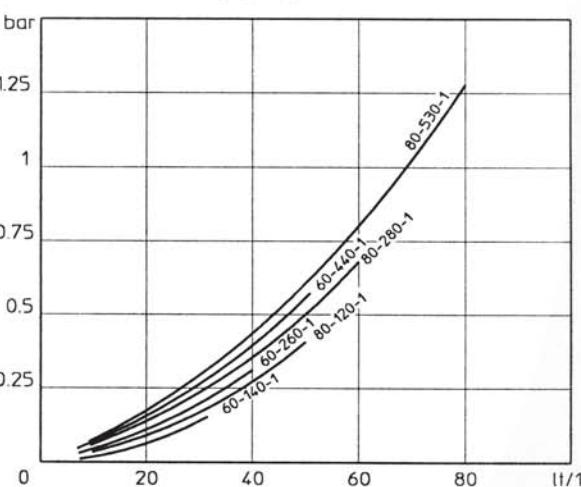
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

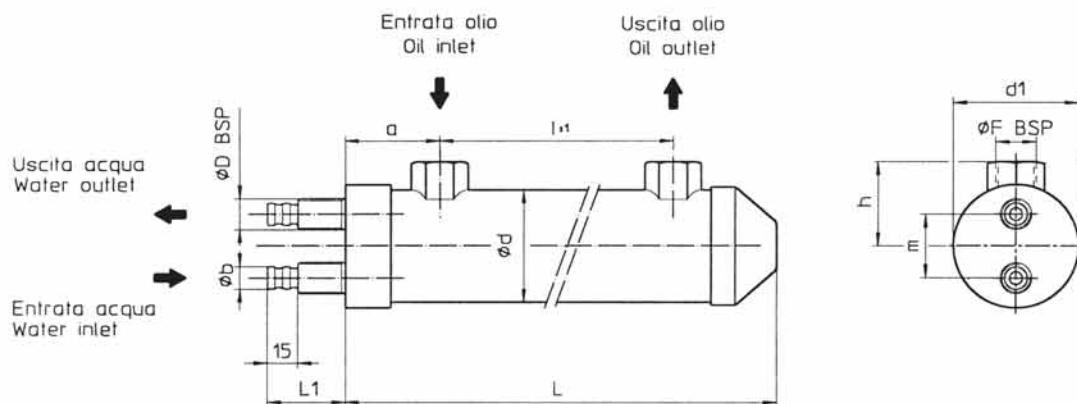
At the maximum and minimum flow stated in schedule

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3


**PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)**


**Scambiatori di calore Acqua - Olio serie
Water-Oil heat exchanger series**
MGE 60 - 80-2

 Con circuito ad acqua a due passaggi - *With two way water circuit*


Le dimensioni e le caratteristiche tecniche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	CuZn37

TIPO TYPE	PORTATA OLIO OIL FLOW (lit/min)	HP DISPERSI CON OLIO -55°C H2O-20°C	CAPACITA' CONTENTS (lit)	Kg	Dimensioni - Over all dimension										
					ΦD	ΦF	I	L	L1	a	Φb	Φd	d1	h	m
MGE 60-140-2	5-30	1-4	0.4	18	3/8"	1/2"	140	245	40	50	13	60	65	45	38
MGE 60-260-2	7.5-40	3-6	0.6	3	3/8"	1/2"	260	365	40	50	13	60	65	45	38
MGE 60-440-2	10-50	5-5.8	0.9	5	3/8"	1/2"	440	545	40	50	13	60	65	45	38
MGE 80-120-2	20-50	3.5-8	0.6	3	1/2"	3/4"	120	255	40	60	16	80	85	65	45
MGE 80-280-2	25-60	7-11.5	1	4.4	1/2"	3/4"	280	415	40	60	16	80	85	65	45
MGE 80-530-2	30-80	10-15	6.8	6.8	1/2"	3/4"	530	665	40	60	16	80	85	65	45

DIAGRAMMA RENDIMENTO

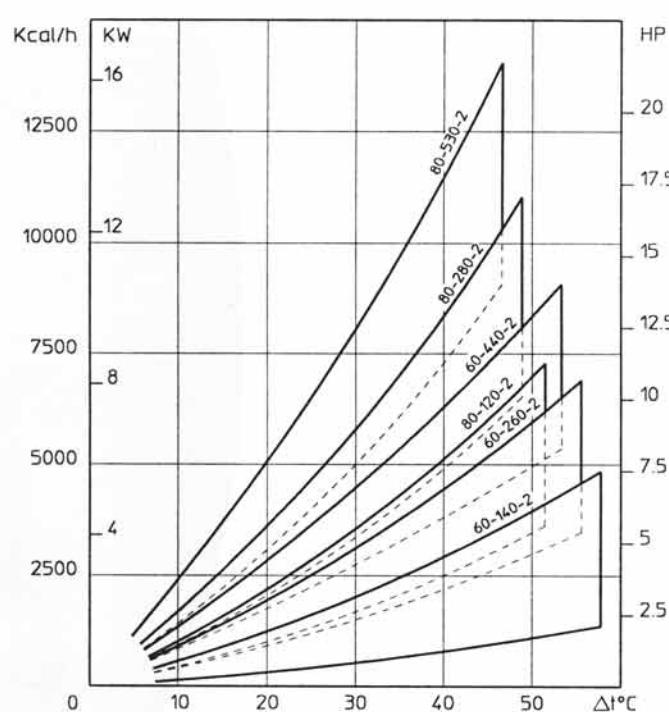
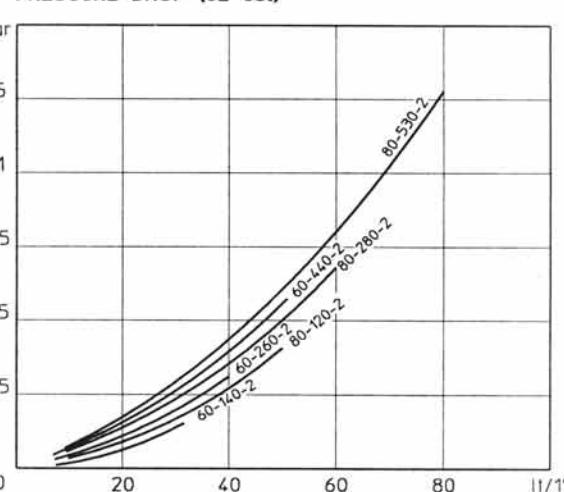
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

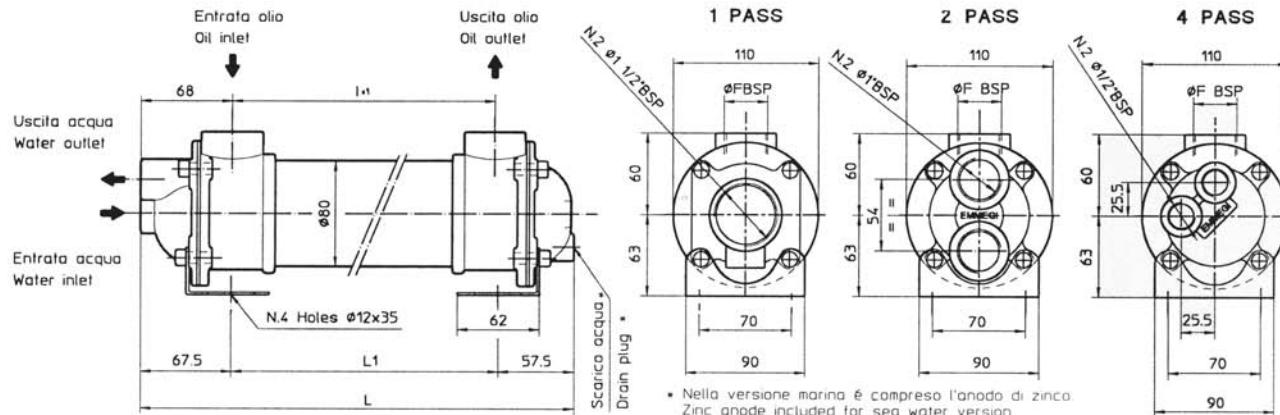
At the maximum and minimum flow stated in schedule

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3


PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MG 80

Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectionable water circuit*


Le dimensioni e le caratteristiche tecniche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEAL
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork
SEA WATER	CuNi10Mn1Fe	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork

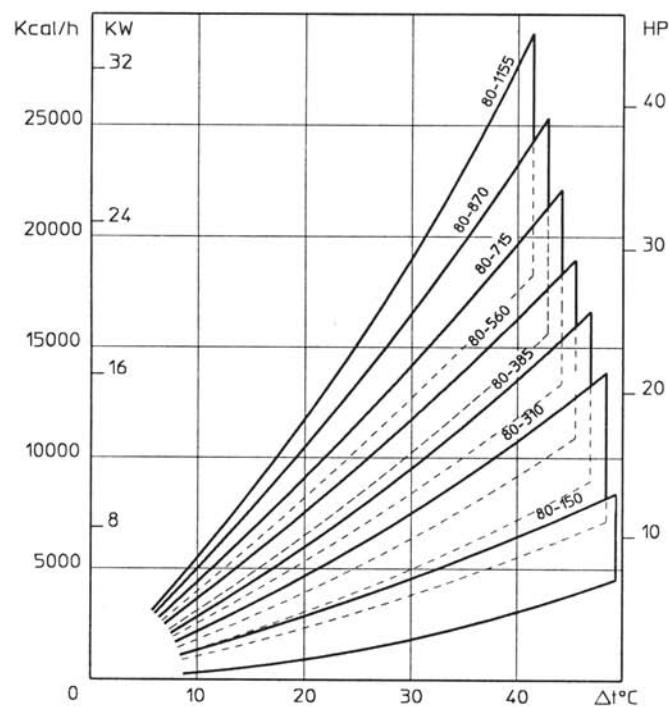
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H20-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension							
					1 Pass				2 Pass			
ØF	I	L	L1	ØF	I	L	L1	ØF	I	L	L1	
MG 80-150-..	25-75	4-8	0.65	4.5	1"	150	320	148	1"	150	275	148
MG 80-310-..	25-80	7-14	1.1	5.7	1"	310	480	308	1"	310	435	308
MG 80-385-..	25-80	9-17	1.3	6	1"	385	555	383	1"	385	510	383
MG 80-560-..	25-80	12-20	1.9	7.5	1"	560	730	558	1"	560	785	558
MG 80-715-..	35-120	15-24	2.3	8	1"	715	885	713	1"	715	840	713
MG 80-870-..	40-130	18-29	2.8	10	1"	870	1040	868	1"	870	995	868
MG 80-1155-..	40-130	22-36	3.7	13.5	1"	1155	1325	1153	1"	1155	1280	1153

DIAGRAMMA RENDIMENTO

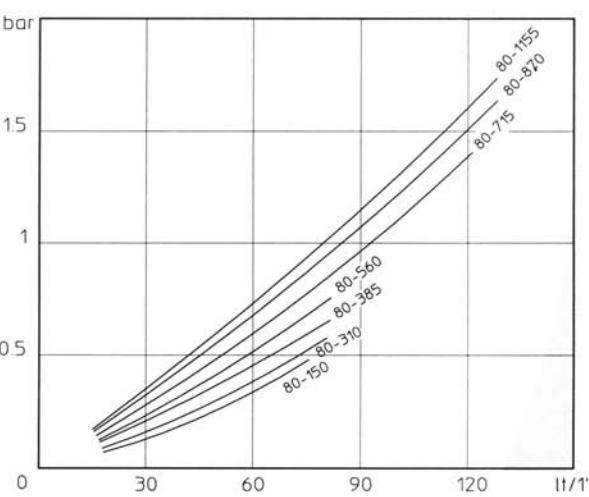
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

At the maximum and minimum flow stated in schedule

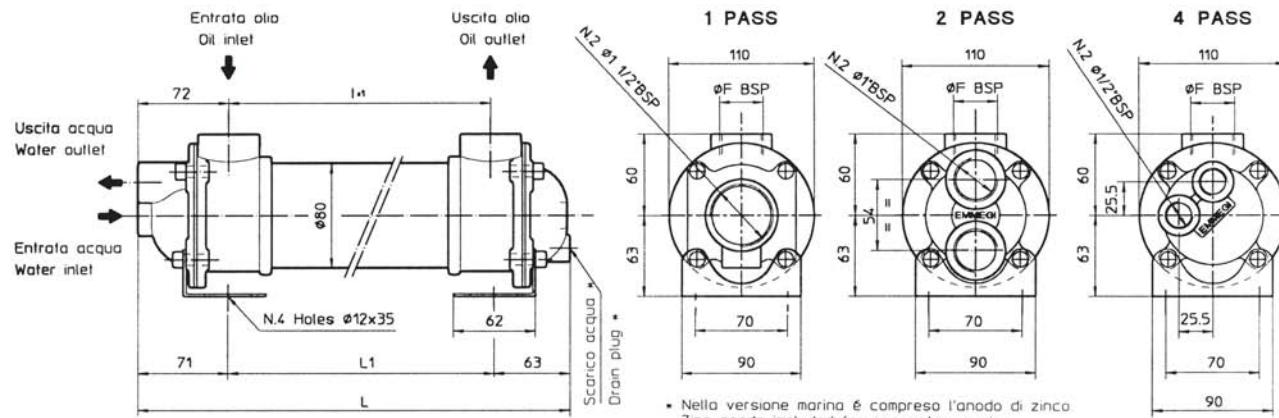
FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP


CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


**Scambiatori di calore Acqua - Olio serie
Water-Oil heat exchanger series**
MG 81

Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectionable water circuit*



Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork
SEA WATER	CuNi10Mn1Fe	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork

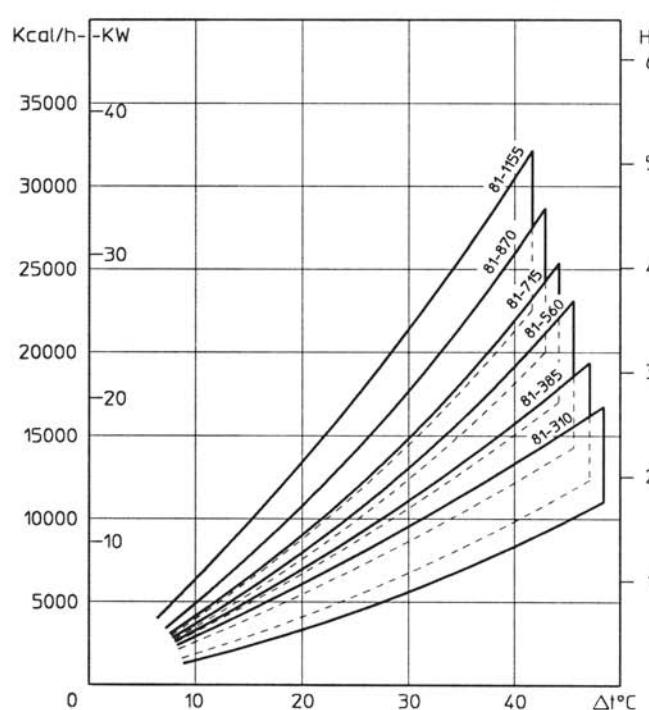
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO =55°C H2O=20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension							
					1 Pass				2 Pass			
ØF	I	L	L1	ØF	I	L	L1	ØF	I	L	L1	
MG 81-310-..	50-120	11-18	1.2	5.7	1 1/2"	310	509	308	1 1/2"	310	448	308
MG 81-385-..	50-120	13-21	1.4	6	1 1/2"	385	584	383	1 1/2"	385	523	383
MG 81-560-..	60-150	16-25	2	7.5	1 1/2"	560	759	558	1 1/2"	560	698	558
MG 81-715-..	75-180	20-29	2.4	8	1 1/2"	715	914	713	1 1/2"	715	853	713
MG 81-870-..	75-180	24-34	2.9	10	1 1/2"	870	1069	868	1 1/2"	870	1008	868
MG 81-1155-..	75-180	29-40	3.8	13.5	1 1/2"	1155	1354	1153	1 1/2"	1155	1293	1153
					1 1/2"	310	442	308	1 1/2"	385	517	383
					1 1/2"	560	692	558	1 1/2"	715	847	713
					1 1/2"	870	1002	868	1 1/2"	870	1002	868
					1 1/2"	1155	1287	1153	1 1/2"	1155	1287	1153

DIAGRAMMA RENDIMENTO

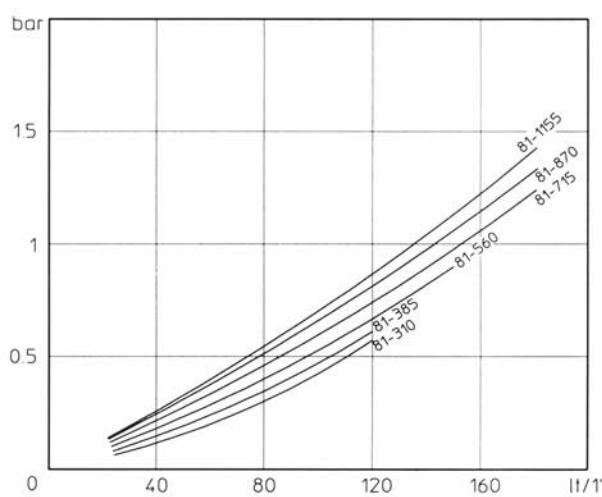
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

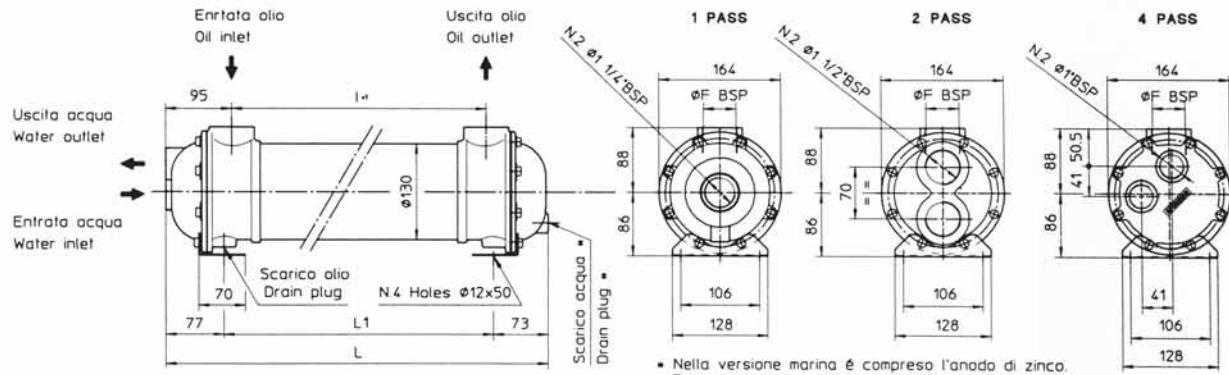
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MG 130

 Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork
SEA WATER	CuNi10Mn1Fe	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork

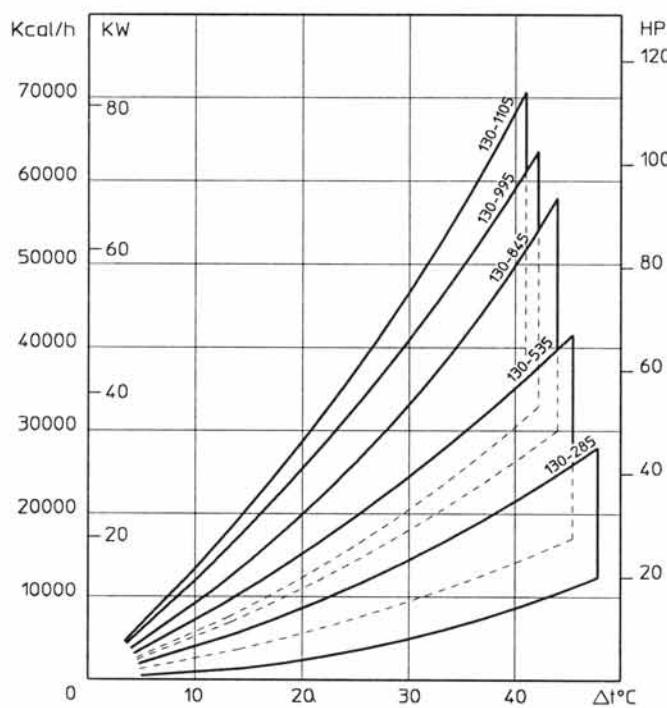
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension											
					1 Pass				2 Pass				4 Pass			
					ØF	I	L	L1	ØF	I	L	L1	ØF	I	L	L1
MG 130-285-..	60-160	12-30	3	16	1 1/2"	285	473	300	1 1/2"	285	449	305	1 1/2"	285	450	300
MG 130-535-..	80-200	18-48	5.2	22	1 1/2"	535	723	550	1 1/2"	535	699	555	1 1/2"	535	700	550
MG 130-845-..	120-280	35-68	7.9	28	1 1/2"	845	1033	860	1 1/2"	845	1009	865	1 1/2"	845	1010	860
MG 130-995-..	120-280	41-78	9.2	32	1 1/2"	995	1159	1010	1 1/2"	995	1159	1005	1 1/2"	995	1160	1010
MG 130-1105-..	120-280	50-90	10	35	1 1/2"	1105	1293	1120	1 1/2"	1105	1269	1115	1 1/2"	1105	1270	1120

DIAGRAMMA RENDIMENTO

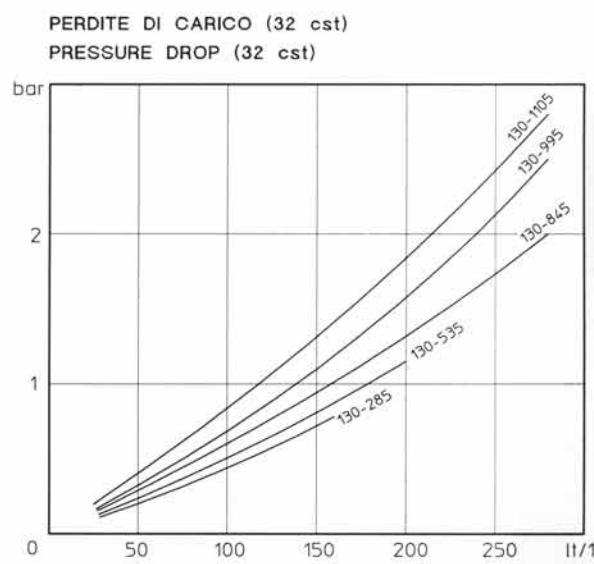
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

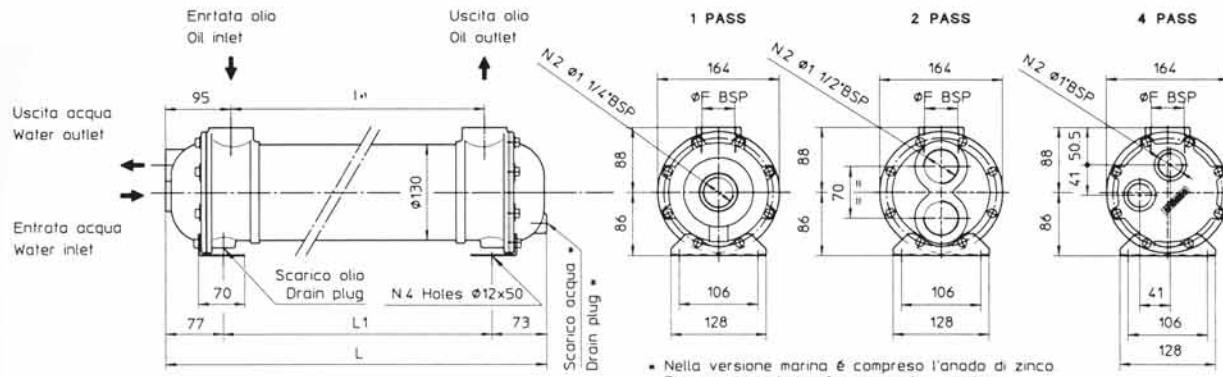
CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3



Scambiatori di calore Acqua - Olio *Water-Oil heat exchanger*

MG 131

Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectionable water circuit*



Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork
SEA WATER	CuNi10Mn1Fe	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork

TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension											
					1 Pass				2 Pass				4 Pass			
					ØF	I	L	L1	ØF	I	L	L1	ØF	I	L	L1
MG 131-285..	50-140	17-38	2.7	17	1 1/2"	285	473	300	1 1/2"	285	449	305	1 1/2"	285	460	310
MG 131-535..	80-200	24-63	4.5	23	1 1/2"	535	723	550	1 1/2"	535	699	555	1 1/2"	535	685	555
MG 131-521..	120-280	40-82	4.6	23	2"	521	726	553	2"	521	685	541	2"	521	690	546
MG 131-845..	100-250	56-96	6.9	29	1 1/2"	845	1033	860	1 1/2"	845	1009	865	1 1/2"	845	1020	870
MG 131-831..	160-400	77-120	7	29	2"	831	1036	863	2"	831	995	851	2"	831	1006	856
MG 131-1145..	120-280	85-132	8	36	1 1/2"	1145	1333	1160	1 1/2"	1145	1309	1165	1 1/2"	1145	1327	1170
MG 131-1131..	160-420	102-153	8.1	36	2"	1131	1336	1163	2"	1131	1295	1151	2"	1131	1313	1156

DIAGRAMMA RENDIMENTO

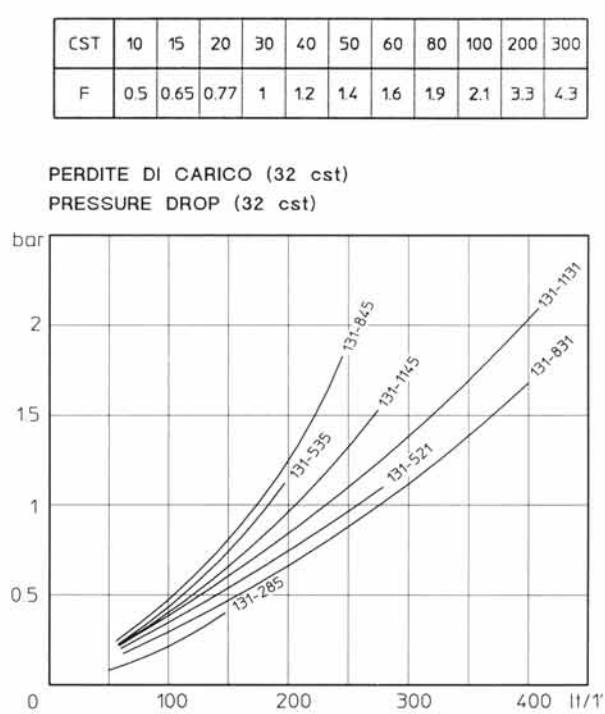
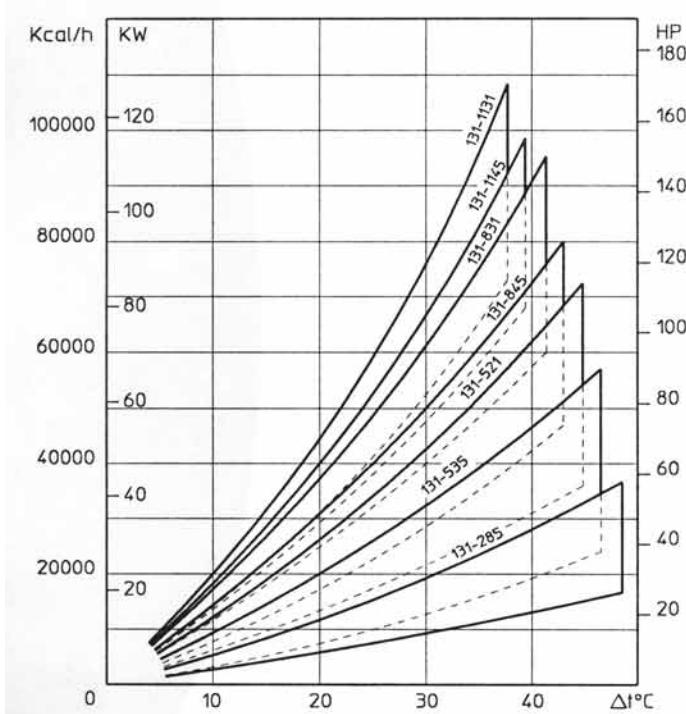
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

At the maximum and minimum flow stated in schedule

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO

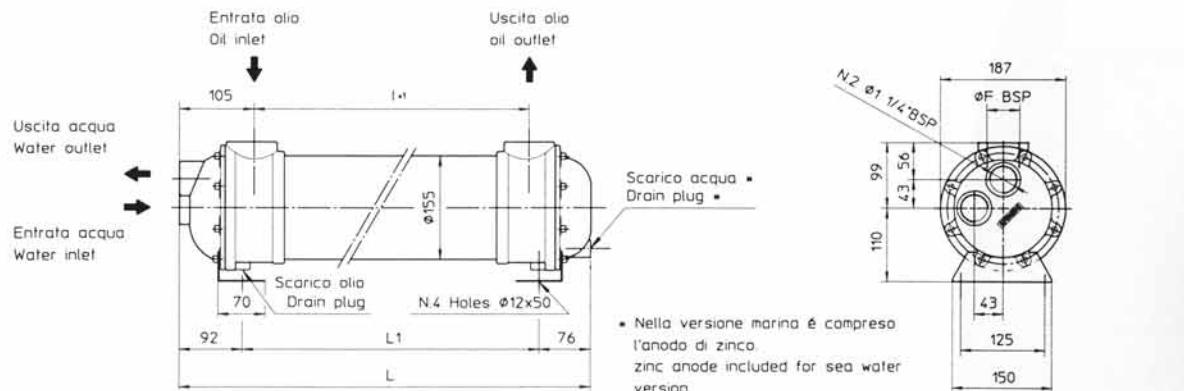
CORRECTION FACTOR (F)-PRESSURE DROP



Scambiatori di calore Acqua - Olio serie Water-Oil heat exchanger series

MG 155

Con circuito ad acqua ispezionabile a quattro passaggi - *With four way inspectionable water circuit*



Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork
SEA WATER	CuNi10Mn1Fe	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork

TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension			
					4 Pass			
					ØF	I	L	L1
MG 155-520-4	120-300	55-120	6.4	35	2"	520	722	554
MG 155-830-4	140-380	95-155	9.6	43	2"	830	1032	864
MG 155-1130-4	160-420	115-185	12.8	51	2"	1130	1332	1164
MG 155-1435-4	180-450	135-235	16	58	2"	1435	1637	1469
MG 155-1730-4	180-450	160-250	19	66	2"	1730	1932	1764

DIAGRAMMA RENDIMENTO

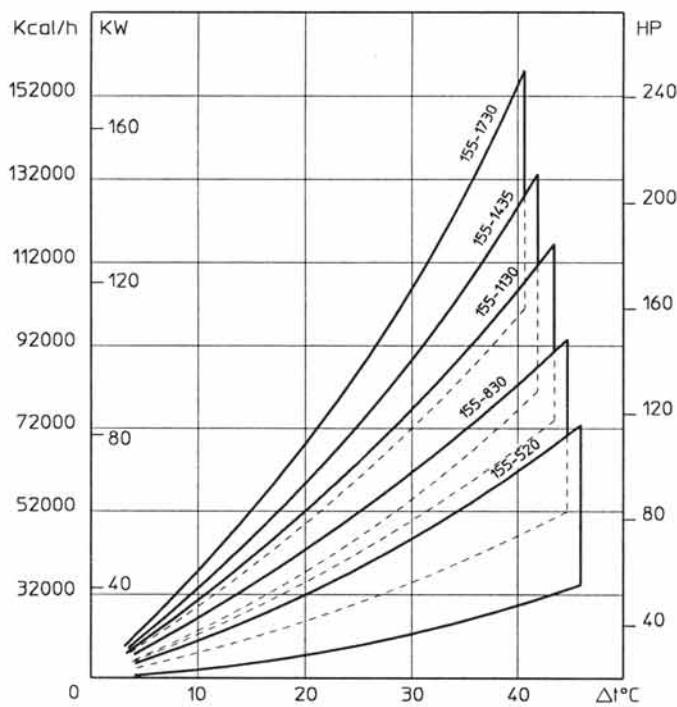
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

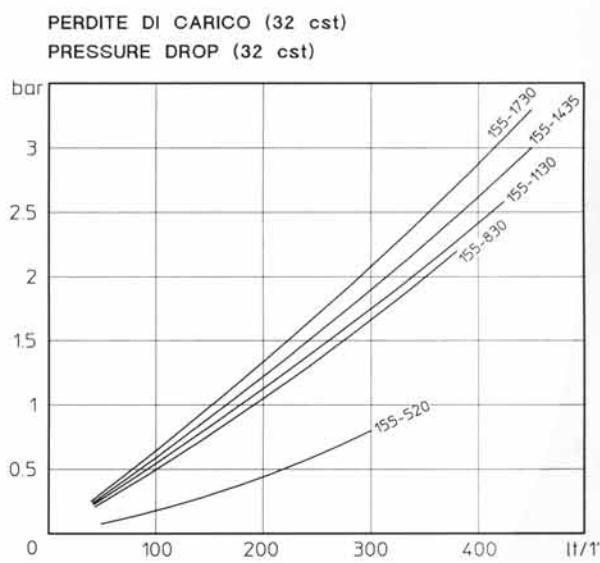
At the maximum and minimum flow stated in schedule

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO

CORRECTION FACTOR (F)-PRESSURE DROP



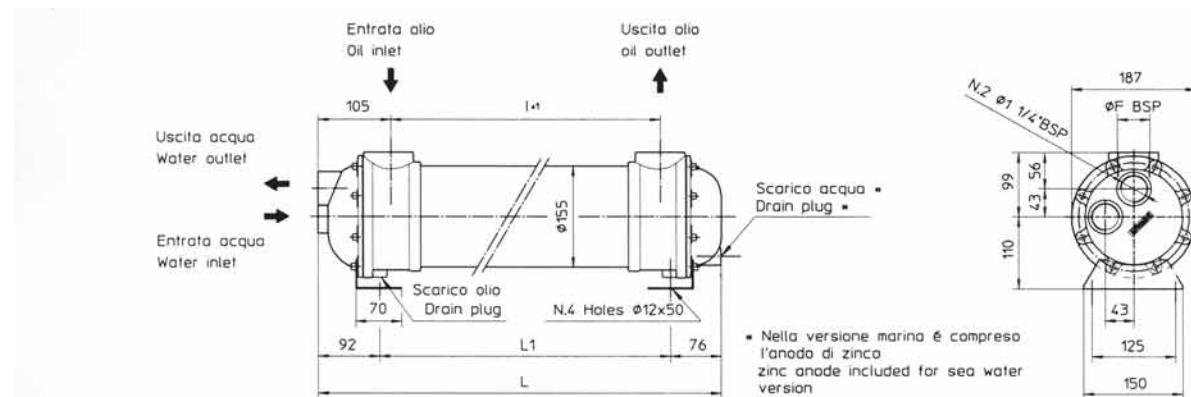
CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3



Scambiatori di calore Acqua - Olio serie Water-Oil heat exchanger series

MG 157

Con circuito ad acqua ispezionabile a quattro passaggi - *With four way inspectionable water circuit*



Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNUZIONI SEALS
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork
SEA WATER	CuNi30Mn1Fe	CuZn40	CuZn37	CuZn40	Fe510.2	Rubber-cork

TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H20-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension			
					4 Pass			
					ØF	I	L	L1
MG 157-520-4	120-300	35-92	5.5	40	2*	520	722	554
MG 157-830-4	140-380	54-166	8.4	50	2*	830	1032	864
MG 157-1130-4	160-420	110-215	11.3	59	2*	1130	1332	1164
MG 157-1435-4	180-450	140-280	14.1	66	2*	1435	1637	1469
MG 157-1730-4	180-450	155-315	17	76	2*	1730	1932	1764

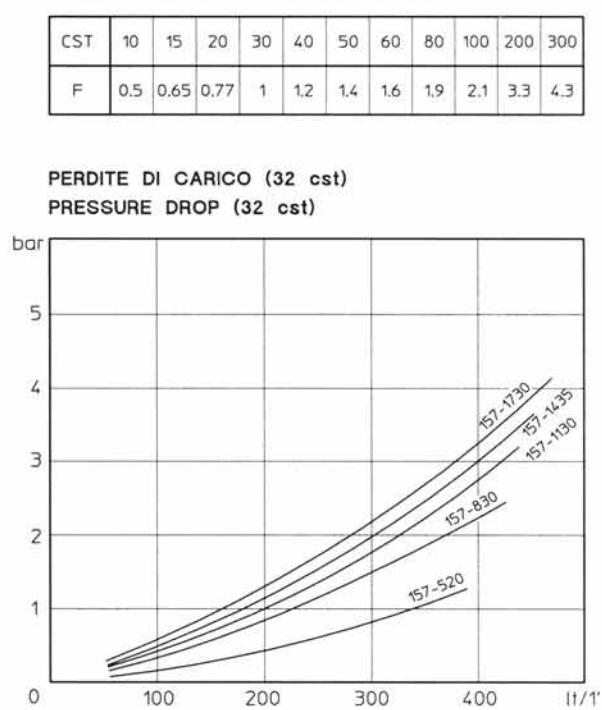
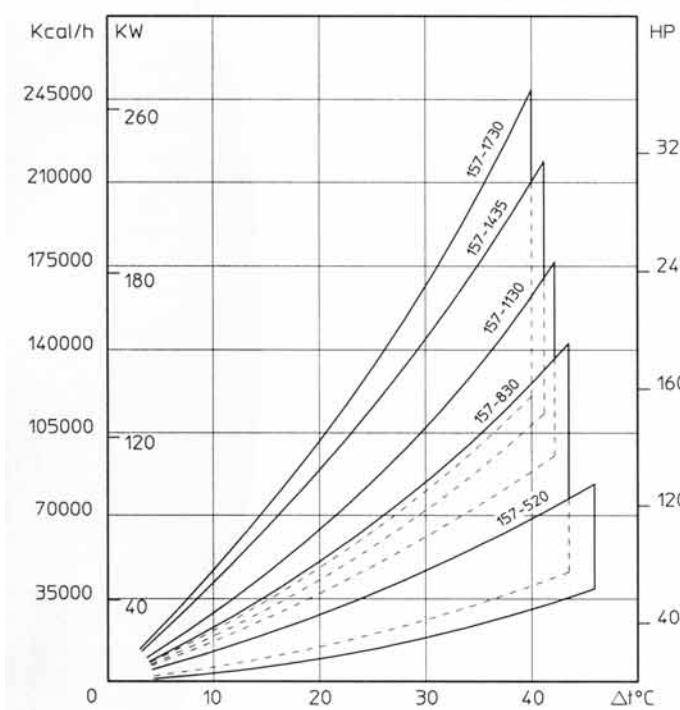
DIAGRAMMA RENDIMENTO

DIAGRAMMA RENDIMENTO

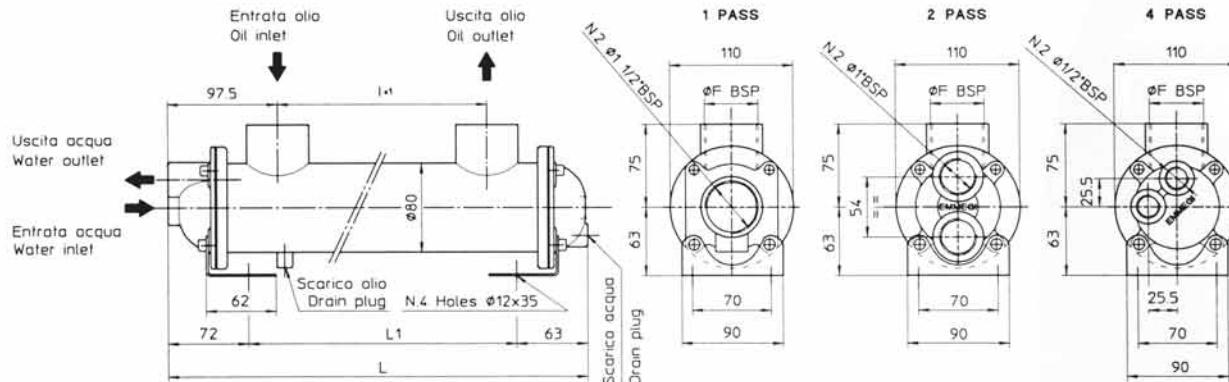
ANNUAL PERIODIC STATEMENT

PERFORMANCE DIAGRAM

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP



**Scambiatori di calore Acqua - Olio serie
Water-Oil heat exchanger series**
MGB 80

 Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEAL
STANDARD	CuDHP	C40	CuZn37	CuZn40	Fe5102	Rubber-cork
AlSi	AlSi 304	AlSi 304	AlSi 304	CuZn40	AlSi 304	Graphite-kevlar

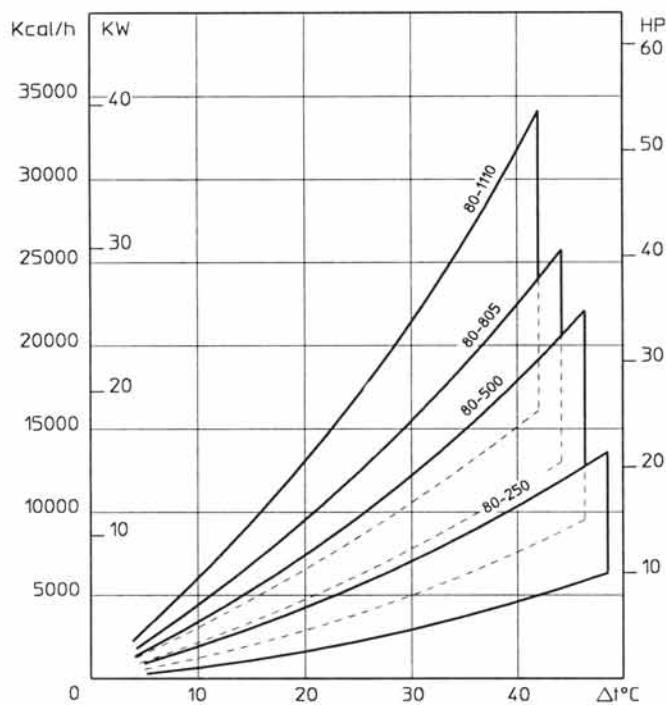
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL +55°C H2O+20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension											
					1 Pass			2 Pass			4 Pass					
					ØF	I	L	ØF	I	L	L1	ØF	I	L	L1	
MGB 80-250-	30-160	6-14	11	6	1 1/2"	250	516	325	1 1/2"	250	464	325	1 1/2"	250	464	325
MGB 80-500-	40-180	10-24	2	9	1 1/2"	500	766	575	1 1/2"	500	714	575	1 1/2"	500	714	575
MGB 80-805-	40-180	15-30	3	12	1 1/2"	805	1071	880	1 1/2"	805	1019	880	1 1/2"	805	1019	880
MGB 80-1110-	50-200	20-42	4	15	1 1/2"	1110	1376	1185	1 1/2"	1110	1324	1185	1 1/2"	1110	1324	1185

DIAGRAMMA RENDIMENTO

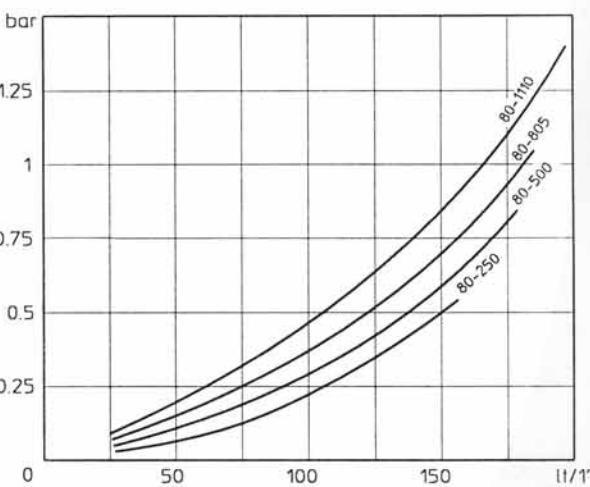
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

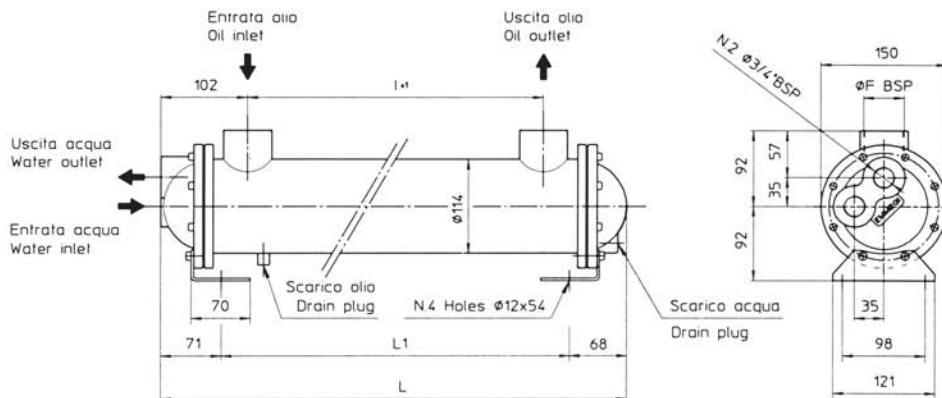
CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio
 Water-Oil heat exchanger

 serie
 series

MGB 114

 Con circuito ad acqua ispezionabile a quattro passaggi - *With four way inspectable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	C40	CuZn37	G25	Fe510.2	OR 4437
AISI	AISI 304	AISI 304	AISI 304	G25	AISI 304	OR 4437

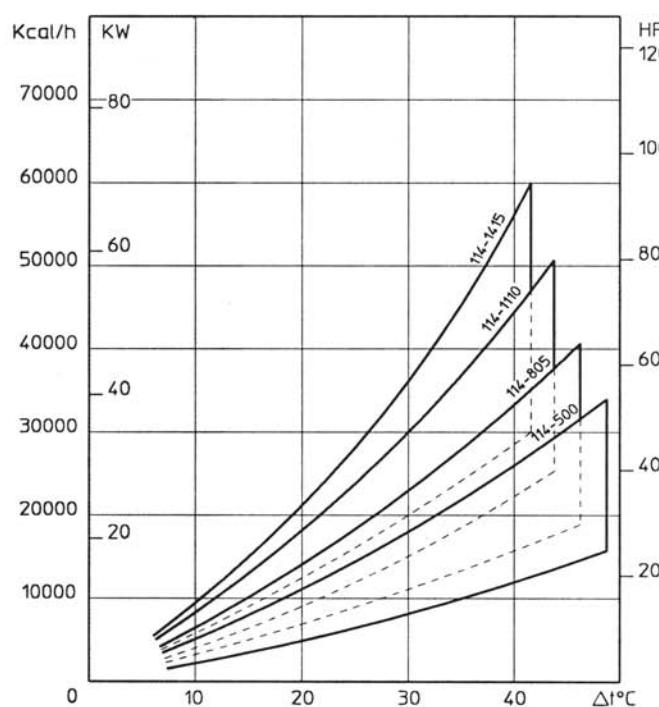
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL +55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension			
					4 Pass			
					ØF	I	L	L1
MGB 114-500-4	50-220	16-35	3.5	17	1 1/2"	500	731	603
MGB 114-805-4	60-250	23-45	5	21	1 1/2"	805	1036	908
MGB 114-1110-4	60-250	30-60	6.7	25	1 1/2"	1110	1341	1213
MGB 114-1415-4	80-280	38-76	8.2	29	1 1/2"	1415	1646	1518

DIAGRAMMA RENDIMENTO

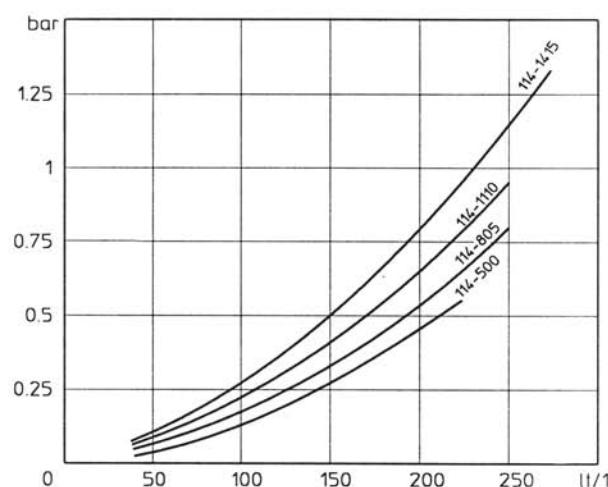
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

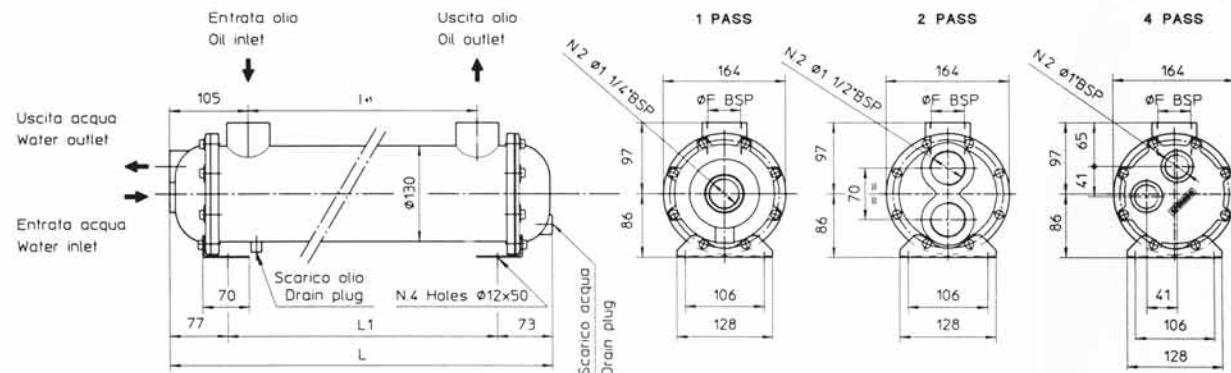
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MGB 130

Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	C40	CuZn37	CuZn40	Fe510.2	Rubber-cork
AiSi	AiSi 304	AiSi 304	AiSi 304	CuZn40	AiSi 304	Graphite-kevlar

TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Overall dimension											
					1 Pass			2 Pass			4 Pass					
ØF	I	L	ØF	I	L	ØF	I	L	L1	ØF	I	L	L1			
MGB130-285-	60-160	12-30	3	16	1 1/2"	285	563	377	1 1/2"	285	532	373	1 1/2"	285	529	371
MGB130-535-	80-200	18-48	5.2	22	1 1/2"	535	808	622	1 1/2"	535	777	618	1 1/2"	535	774	616
MGB130-845-	120-280	35-68	7.9	28	1 1/2"	845	1108	922	1 1/2"	845	1077	918	1 1/2"	845	1074	916
MGB130-995-	120-280	41-78	9.2	32	1 1/2"	995	1239	1087	1 1/2"	995	1242	1083	1 1/2"	995	1239	1081
MGB130-1105-	120-280	50-90	10	35	1 1/2"	1105	1383	1197	1 1/2"	1105	1352	1193	1 1/2"	1105	1349	1191

DIAGRAMMA RENDIMENTO

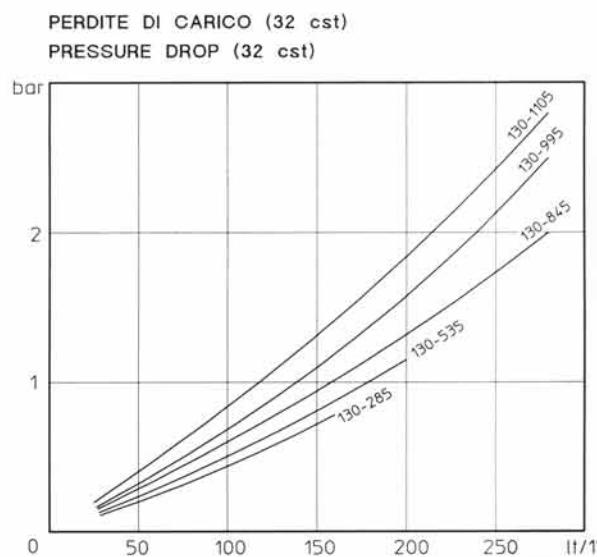
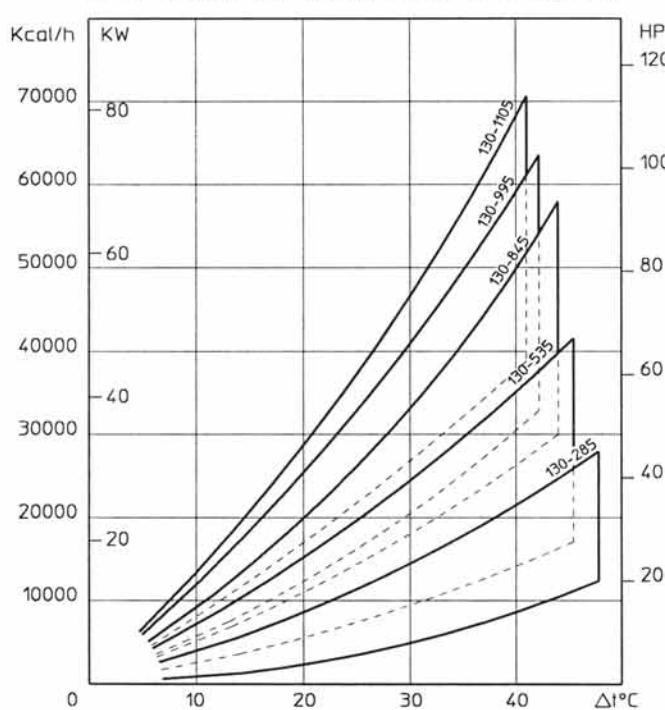
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

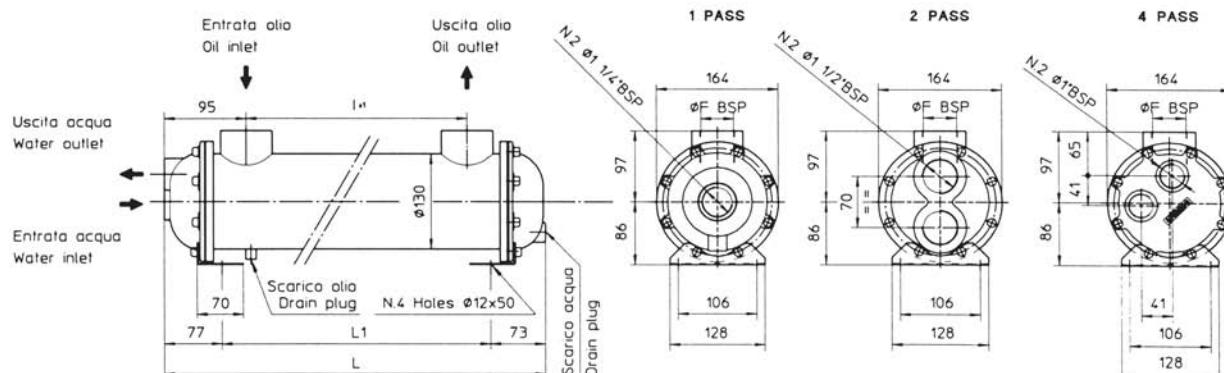
At the maximum and minimum flow stated in schedule

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3



Scambiatori di calore Acqua - Olio **serie**
Water-Oil heat exchanger **series**
MGB 131

 Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	C40	CuZn37	CuZn40	Fe510.2	Rubber-cork
AlSi	AlSi 304	AlSi 304	AlSi 304	CuZn40	AlSi 304	Graphite-kevlar

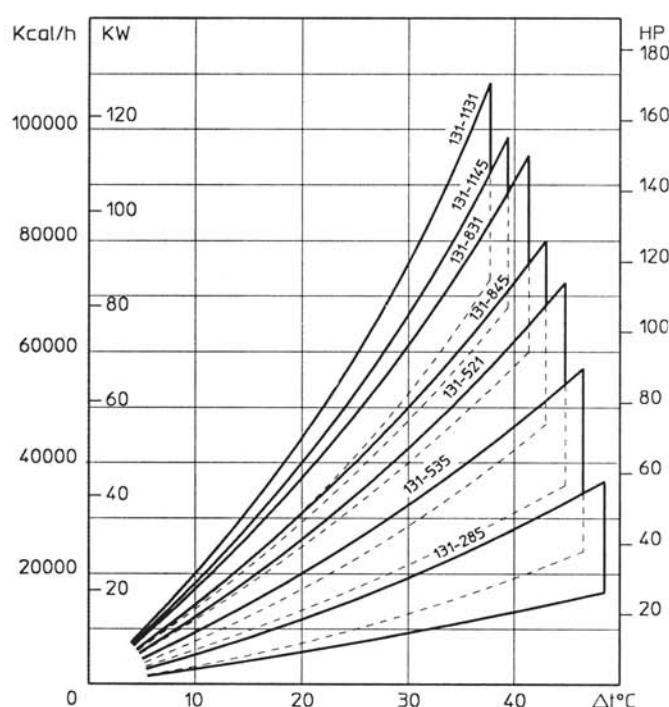
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL =55°C H2O=20°C	CAPACITA' CONTENTS	Kg	Dimensioni - Over all dimension							
					1 Pass				2 Pass			
ØF	I	L	L1	ØF	I	L	L1	ØF	I	L	L1	
MGB131-285-	50-140	17-38	2.7	17	1 1/2"	285	563	377	1 1/2"	285	532	373
MGB131-535-	80-200	24-63	4.5	23	1 1/2"	535	808	622	1 1/2"	535	777	618
MGB131-521-	120-280	40-82	4.6	23	2"	521	808	622	2"	521	777	618
MGB131-845-	100-250	56-96	6.9	29	1 1/2"	845	1108	922	1 1/2"	845	1077	918
MGB131-831-	160-400	77-120	7	29	2"	831	1108	922	2"	831	1077	918
MGB131-1145-	120-280	85-132	8	36	1 1/2"	1145	1423	1237	1 1/2"	1145	1392	1233
MGB131-1131-	160-420	102-153	8.1	36	2"	1131	1419	1233	2"	1131	1388	1229

DIAGRAMMA RENDIMENTO

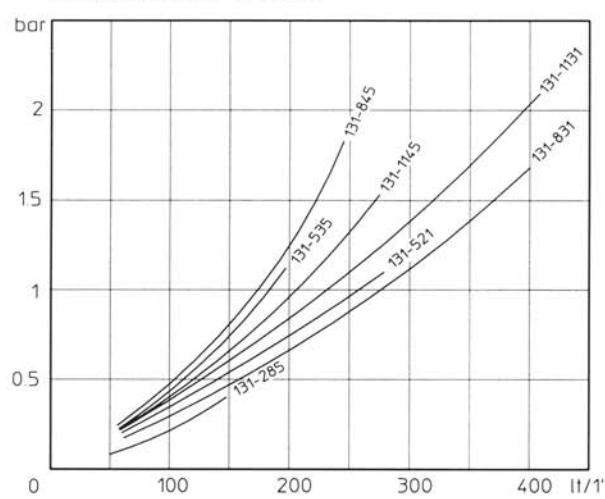
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

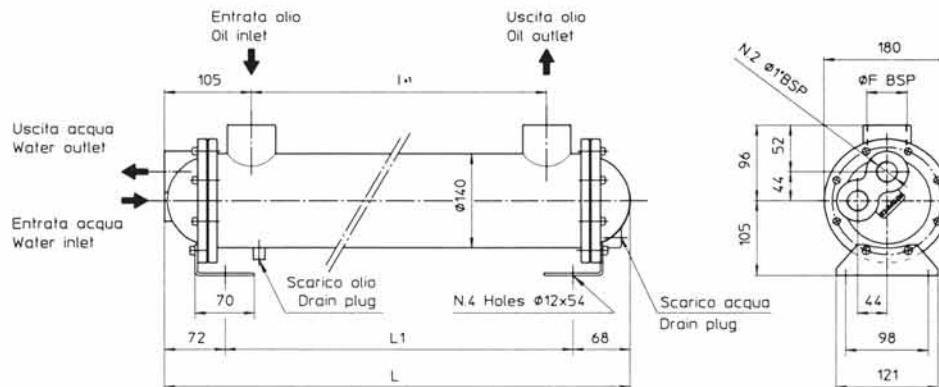
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MGB 140

 Con circuito ad acqua ispezionabile a quattro passaggi - *With four way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Over-all dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	C40	CuZn37	G25	Fe510 2	Rubber-cork
AiSi	AiSi 304	AiSi 304	AiSi 304	G25	AiSi 304	Graphite-kevlar

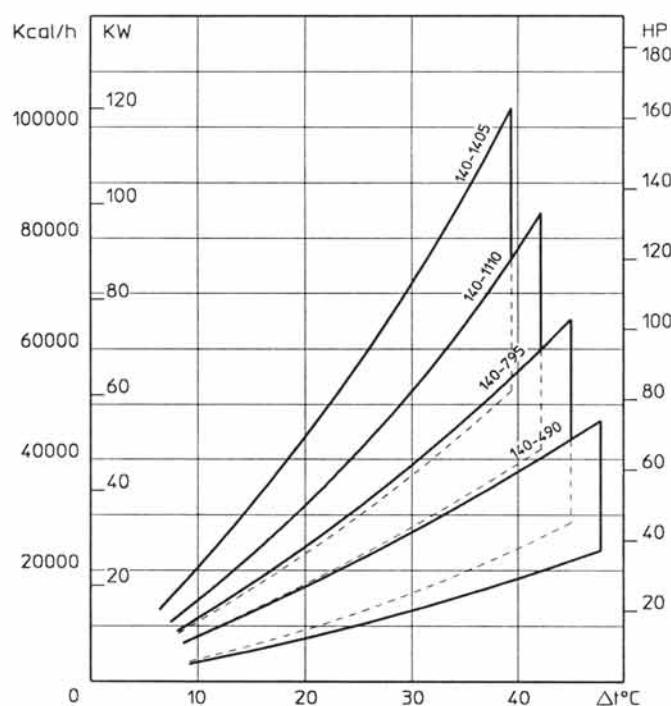
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H20-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Overall dimension			
					4 Pass			
					φF	I	L	L1
MGB 140-490-4	50-220	25-50	6.4	26	1 1/2"	490	733	591
MGB 140-795-4	60-250	35-75	9.5	32	1 1/2"	795	1038	896
MGB 140-1110-4	60-250	52-105	12.5	38	1 1/2"	1110	1353	1211
MGB 140-1405-4	80-280	68-138	15.5	44	1 1/2"	1405	1648	1506

DIAGRAMMA RENDIMENTO

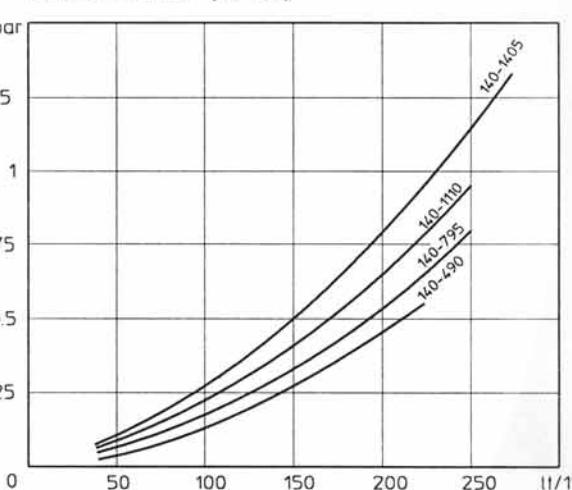
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

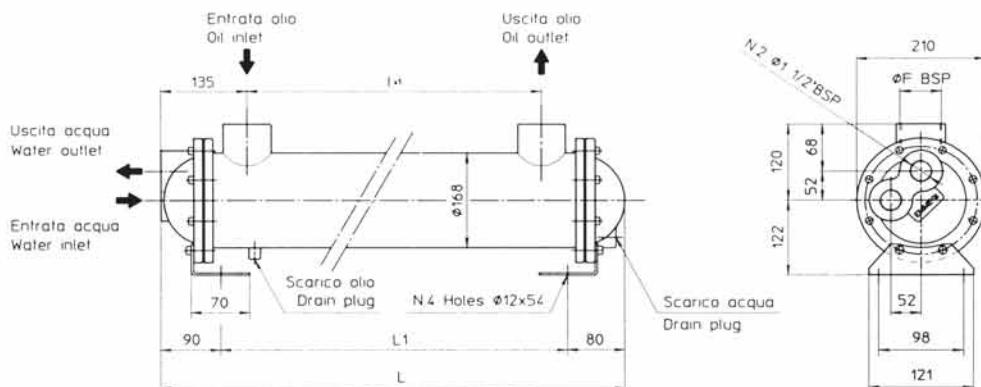
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

**PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)**


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MGB 168

Con circuito ad acqua ispezionabile a quattro passaggi - *With four way inspectable water circuit*


Le dimensioni e le caratteristiche non sono impegnative Over-all dimension and technical characteristics are not binding

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEAL
STANDARD	CuDHP	C40	CuZN37	G 25	Fe510.2	Rubber-cork
AlSi	AlSi 304	AlSi 304	AlSi 304	G 25	AlSi 304	Graphite-kevlar

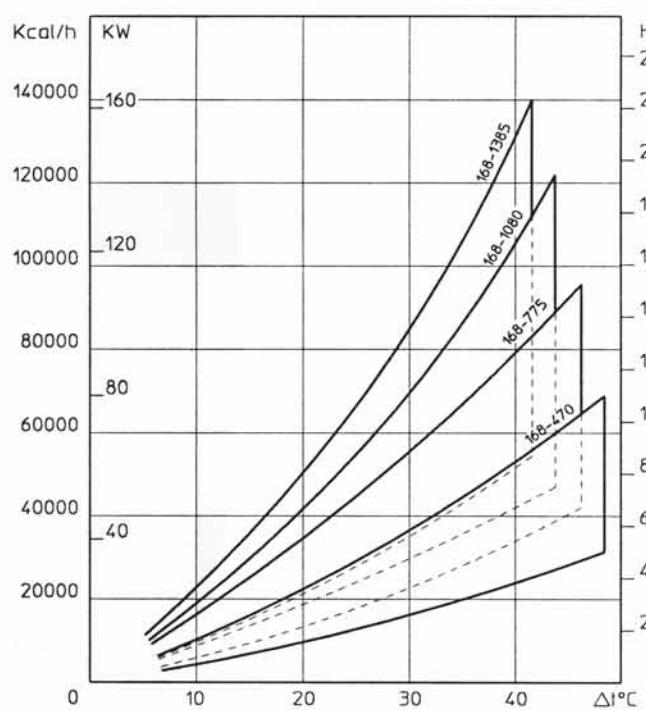
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension			
					4 Pass			
					ØF	I	L	L1
MGB 168-470-4	100-450	32-72	8.3	35	2*	470	758	578
MGB 168-775-4	120-500	45-105	12.5	43	2*	775	1063	883
MGB 168-1080-4	150-550	55-142	16.7	50	2*	1080	1368	1188
MGB 168-1385-4	150-550	70-172	21	57	2*	1385	1673	1493

DIAGRAMMA RENDIMENTO

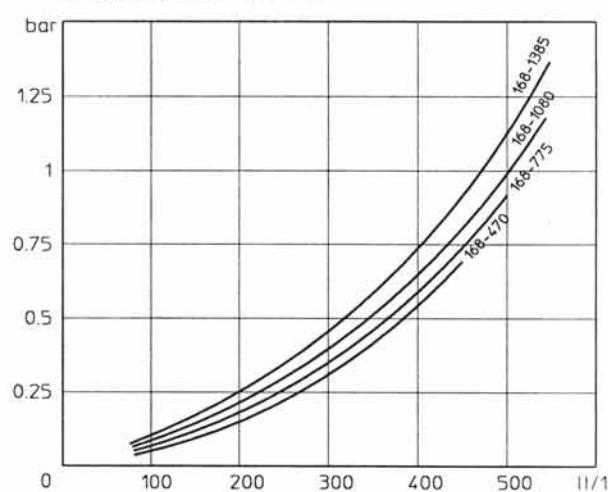
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

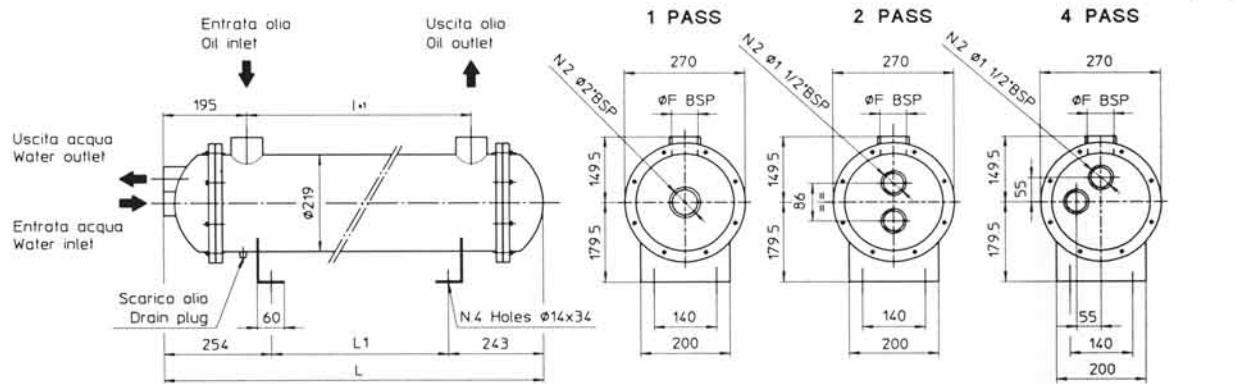
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

**PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)**


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MGB 219

 Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative Over-all dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEAL
STANDARD	CuDHP	C40	CuZn37	Fe 510.2	Fe 510.2	OR 4900
AISI	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	OR 4900

TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension											
					1 Pass					2 Pass						
					ØF	I	L	L1	ØF	I	L	L1	ØF	I	L	
MGB219-435-	80-800	50-120	12.7	36	2 1/2"	435	839	330	2 1/2"	435	827	330	2 1/2"	435	827	330
MGB219-740-	100-800	75-180	19.2	44	2 1/2"	740	1144	635	2 1/2"	740	1132	635	2 1/2"	740	1132	635
MGB219-1045-	100-800	100-250	25.7	53	2 1/2"	1045	1449	940	2 1/2"	1045	1437	940	2 1/2"	1045	1437	940
MGB219-1350-	100-800	125-320	32.3	59	2 1/2"	1350	1754	1245	2 1/2"	1350	1742	1245	2 1/2"	1350	1742	1245
MGB219-1660-	100-800	150-390	39	64	2 1/2"	1660	2062	1555	2 1/2"	1660	2050	1555	2 1/2"	1660	2050	1555

DIAGRAMMA RENDIMENTO

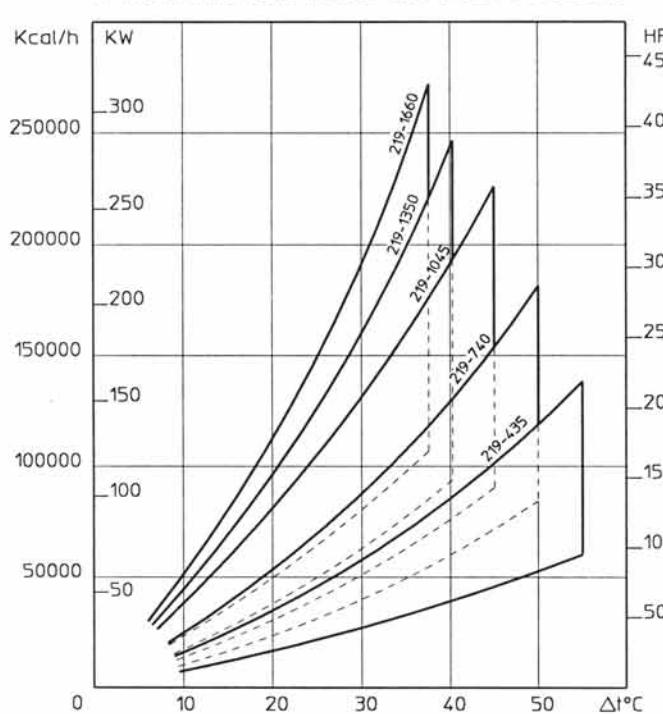
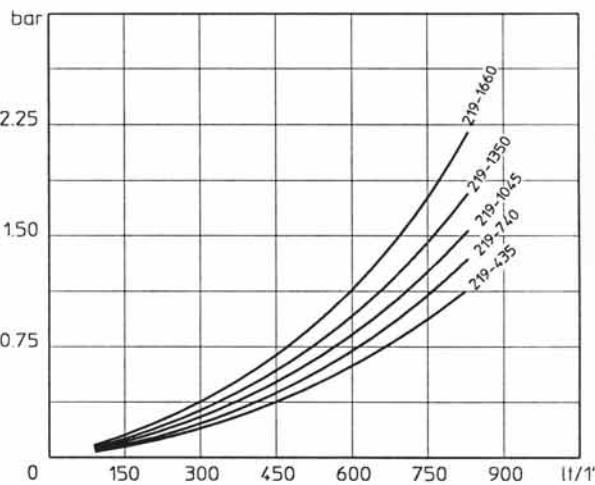
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

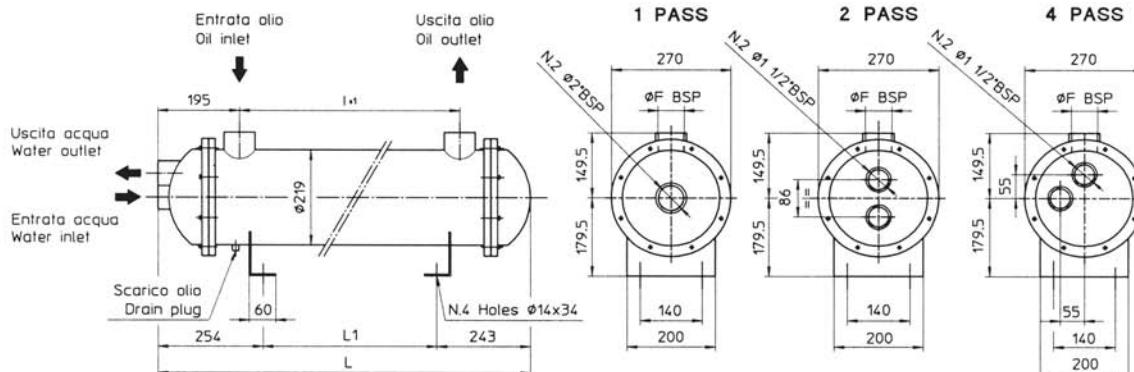
At the maximum and minimum flow stated in schedule

FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3


PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MGB 220

Con circuito ad acqua ispezionabile a uno - due - quattro passaggi - *With one-two-four way inspectable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Over-all dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEAL
STANDARD	CuDHP	C40	CuZn37	Fe 510.2	Fe510.2	OR 4900
AISI	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304	OR 4900

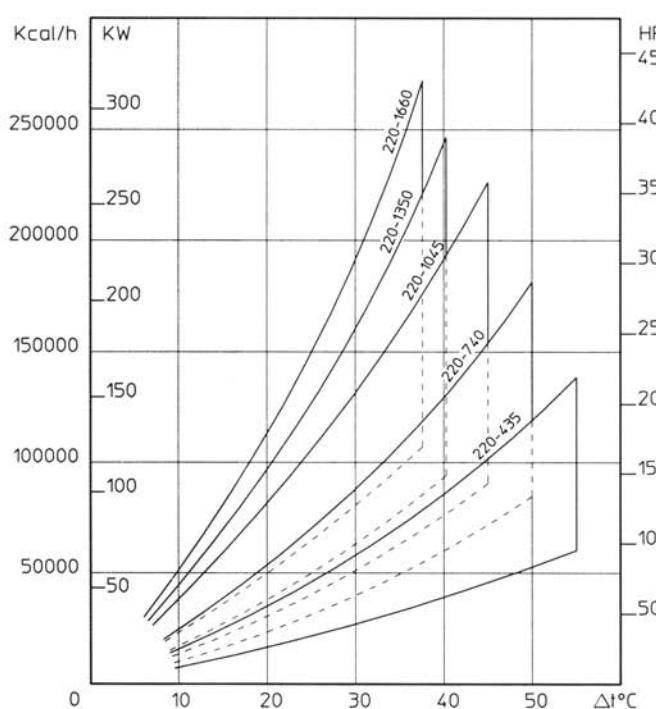
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension							
					1 Pass				2 Pass			
φF	I	L	L1	φF	I	L	L1	φF	I	L	L1	φF
MGB220-435-..	80-800	50-120	11	48	2 1/2"	435	839	330	2 1/2"	435	827	330
MGB220-740-..	100-800	75-180	16.8	82	2 1/2"	740	1144	635	2 1/2"	740	1132	635
MGB220-1045-..	100-800	100-250	22.2	110	2 1/2"	1045	1449	940	2 1/2"	1045	1437	940
MGB220-1350-..	100-800	125-320	27.9	120	2 1/2"	1350	1754	1245	2 1/2"	1350	1742	1245
MGB220-1660-..	100-800	150-390	33.6	145	2 1/2"	1660	2062	1555	2 1/2"	1660	2050	1555

DIAGRAMMA RENDIMENTO

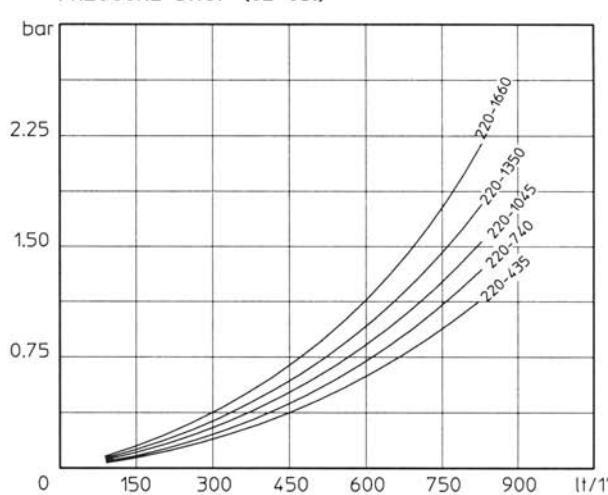
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

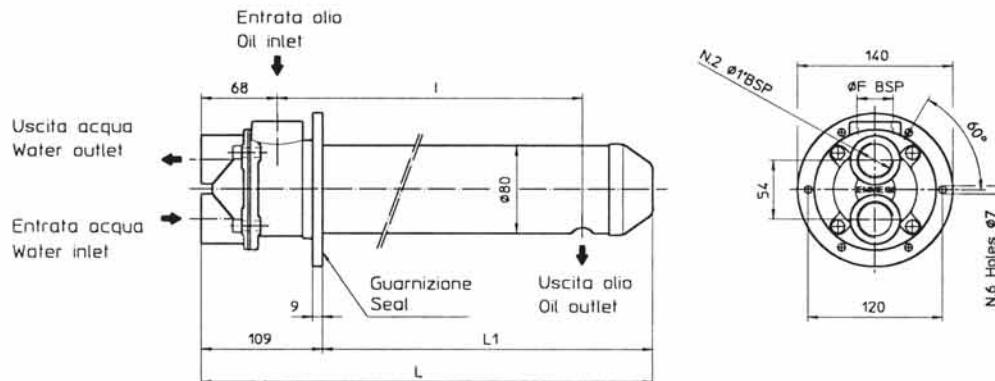
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)–PERDITE DI CARICO
CORRECTION FACTOR (F)–PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


**Scambiatori di calore Acqua - Olio serie
 Water-Oil heat exchanger series**
MGF 80

 Con circuito ad acqua ispezionabile a due passaggi - *With two way inspectable water circuit*


Le dimensioni e le caratteristiche tecniche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEAL
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	CuZn37	Rubber-cork

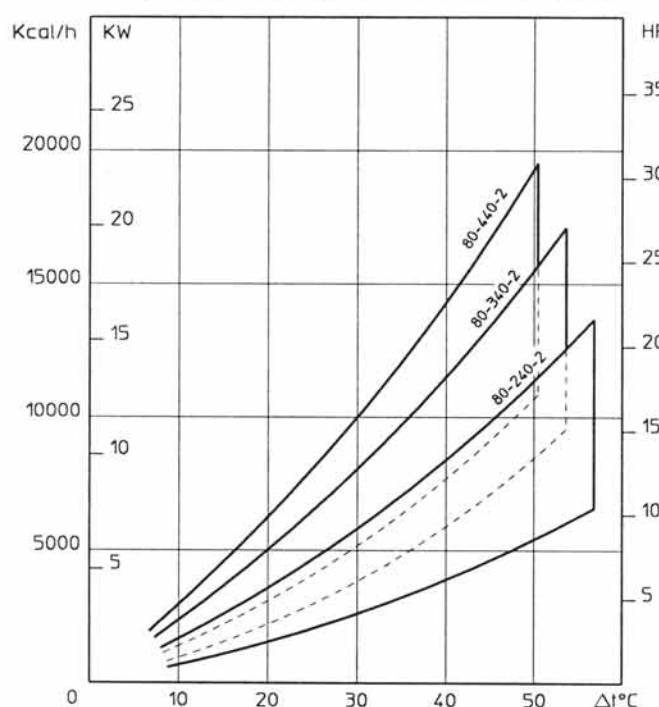
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H20-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension			
					2 Pass			
					ØF	I	L	L1
MGF 80-240-2	20-60	3-6	0.9	5	Ø1"	240	369	260
MGF 80-340-2	30-70	6-9	1.2	5.7	Ø1"	340	469	360
MGF 80-440-2	40-80	9-12	1.5	6.4	Ø1"	440	569	460

DIAGRAMMA RENDIMENTO

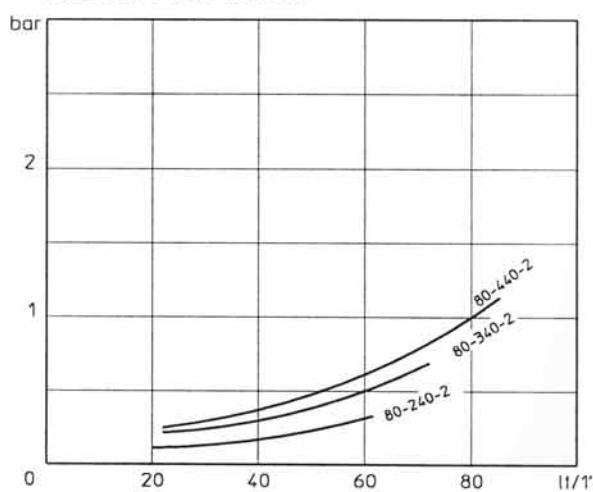
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

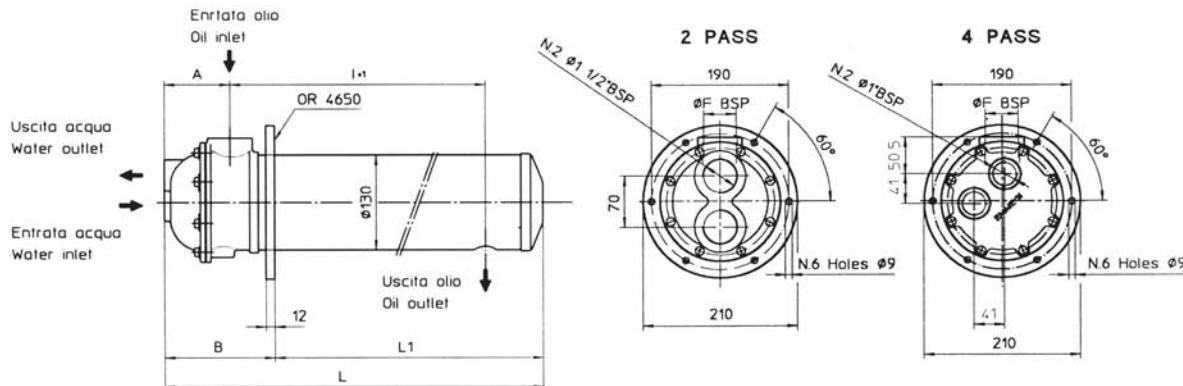
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)–PERDITE DI CARICO
CORRECTION FACTOR (F)–PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

**PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)**


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MGF 131

Con circuito ad acqua ispezionabile a due - quattro passaggi - *With two-four way inspectable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	CuZn40	CuZn37	CuZn40	CuZn37	Rubber-cork

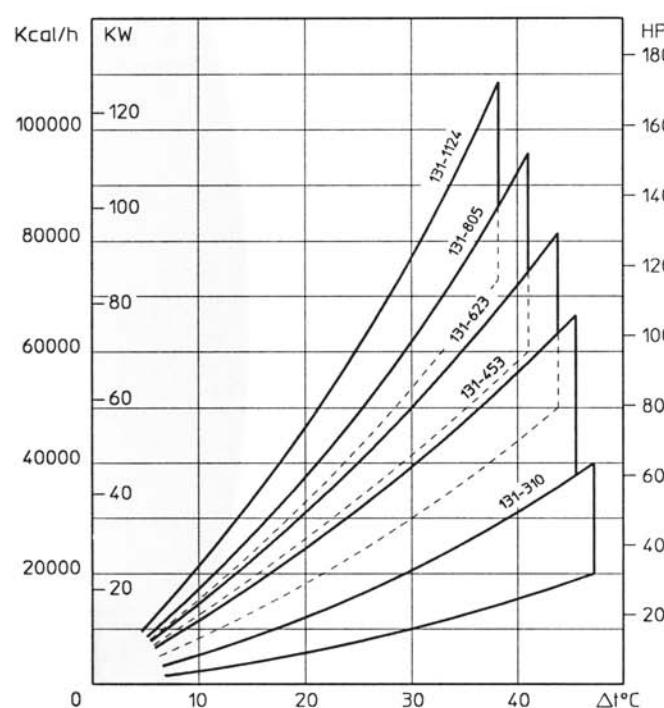
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H20-20°C	CAPACITA' CONTENTS (lt)	Kg	A	B	Dimensioni - Over all dimension							
							2 Pass				4 Pass			
							ØF	I	L	L1	ØF	I	L	L1
MGF 131-310-..	50-150	20-40	3.2	16	88	148	1 1/2"	310	462	314	1 1/2"	310	462	314
MGF 131-453-..	100-150	40-75	4.3	22	88	148	1 1/2"	453	613	465	1 1/2"	453	613	465
MGF 131-623-..	150-300	58-96	5.7	28	95	160	2"	623	795	635	2"	623	795	635
MGF 131-805-..	150-350	78-118	7.1	32	95	160	2"	805	977	817	2"	805	977	817
MGF 131-1124-..	200-400	105-150	9.6	35	95	160	2"	1124	1296	1136	2"	1124	1296	1136

DIAGRAMMA RENDIMENTO

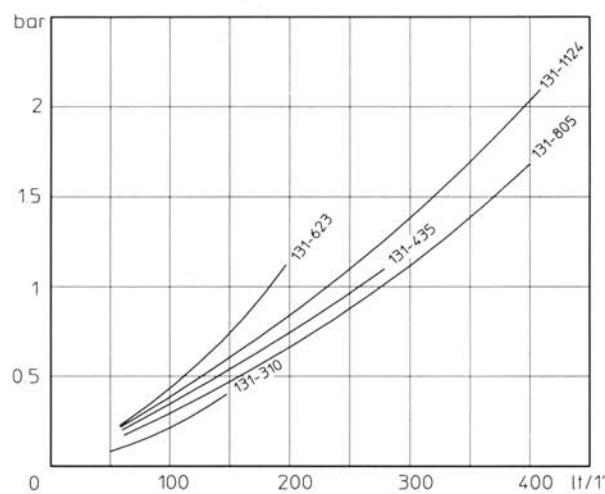
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

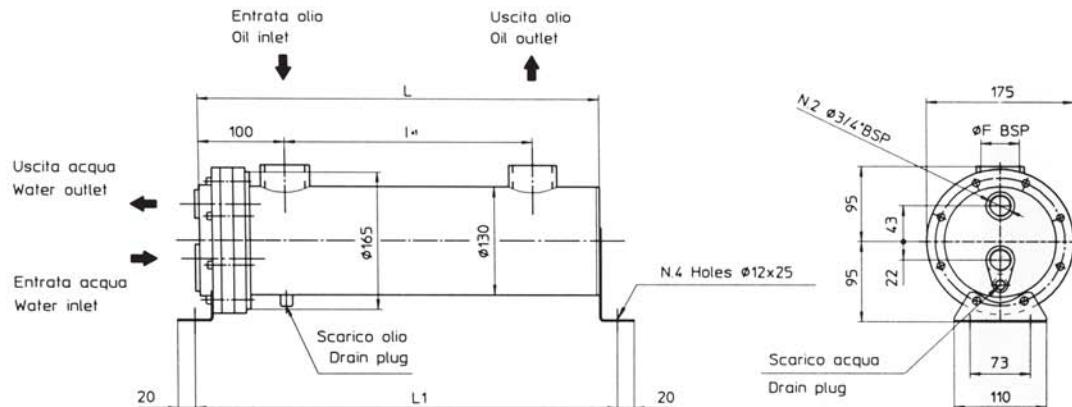
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F) - PERDITE DI CARICO
CORRECTION FACTOR (F) - PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

**PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)**


**Scambiatori di calore Acqua - Olio serie
 Water-Oil heat exchanger series**
MGW 130

 Con circuito ad acqua ispezionabile a due passaggi - *With two way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	Fe37	CuZn37	CuZn40	Fe510.2	OR 4512

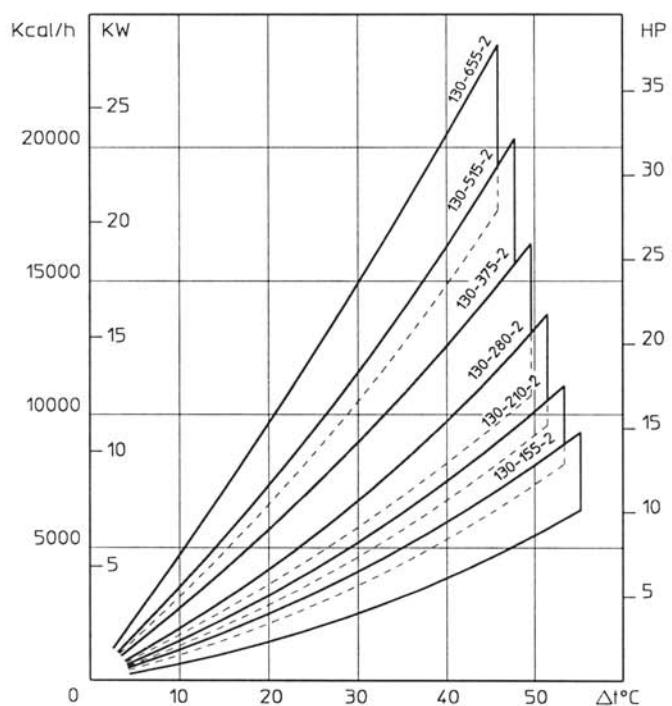
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H20-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Overall dimension			
					2 Pass			
					ØF	I	L	L1
MGW 130-155-2	30-150	5-8	2.3	15	1 1/2"	155	313	369
MGW 130-210-2	50-180	7-10	2.7	15.5	1 1/2"	210	368	423
MGW 130-280-2	60-180	9-13	3.2	16	1 1/2"	280	438	493
MGW 130-375-2	60-200	11-17	4.1	19	1 1/2"	375	533	589
MGW 130-515-2	90-200	17-22	5.2	22	1 1/2"	515	673	729
MGW 130-655-2	90-220	20-28	6.4	26	1 1/2"	655	813	869

DIAGRAMMA RENDIMENTO

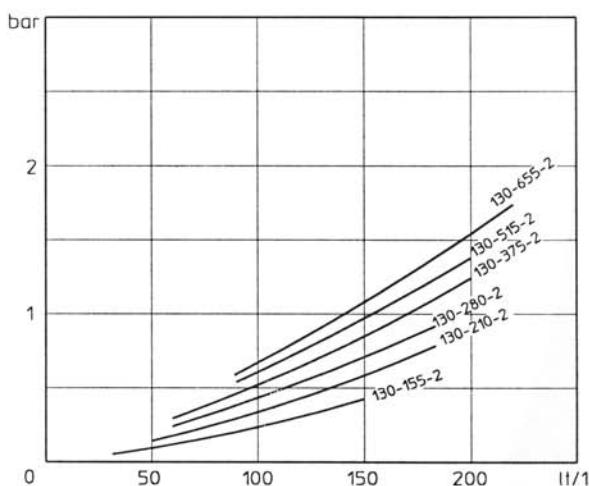
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

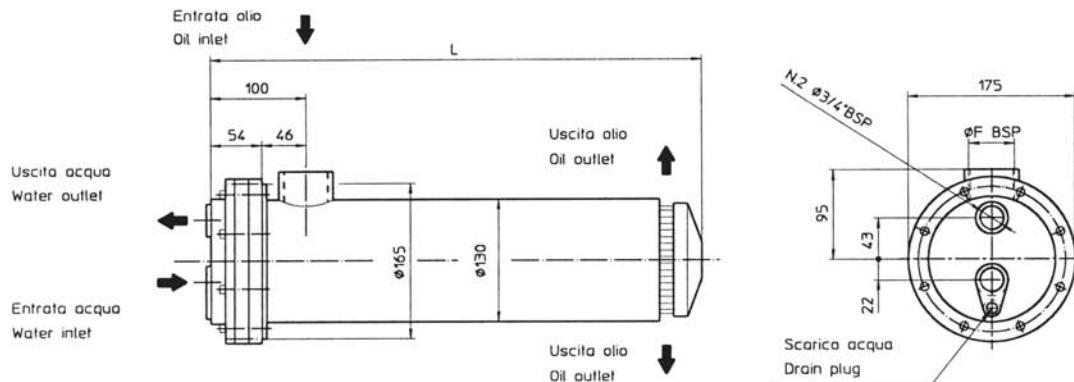
At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio
Water-Oil heat exchanger
serie
series
MGW 135

 Con circuito ad acqua ispezionabile a due passaggi - *With two way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	Fe37	CuZn37	CuZn40	Fe510.2	OR 4512

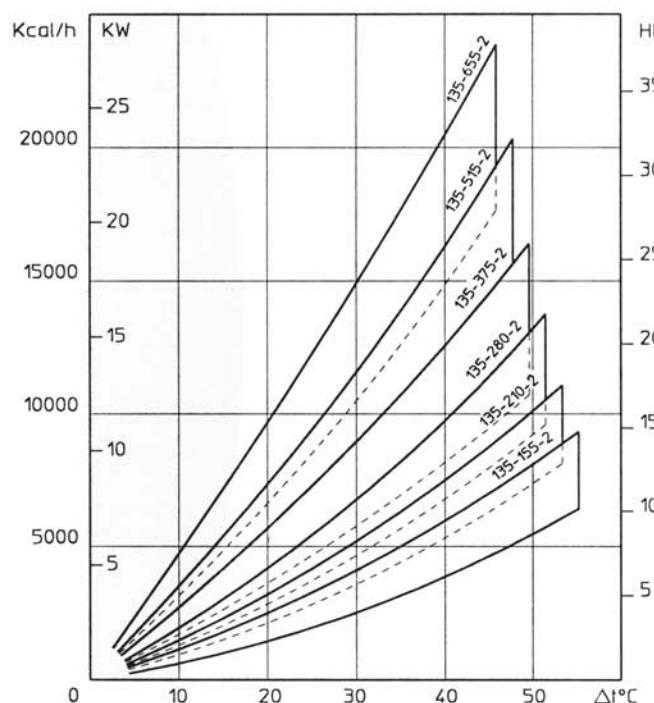
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension	
					ØF	L
MGW 135-155-2	30-150	5-8	2.3	15	1 1/2"	318
MGW 135-210-2	50-180	7-10	2.7	15.5	1 1/2"	373
MGW 135-280-2	60-180	9-13	3.2	16	1 1/2"	443
MGW 135-375-2	60-200	11-17	4.1	19	1 1/2"	538
MGW 135-515-2	90-200	17-22	5.2	22	1 1/2"	678
MGW 135-655-2	90-220	20-28	6.4	26	1 1/2"	818

DIAGRAMMA RENDIMENTO

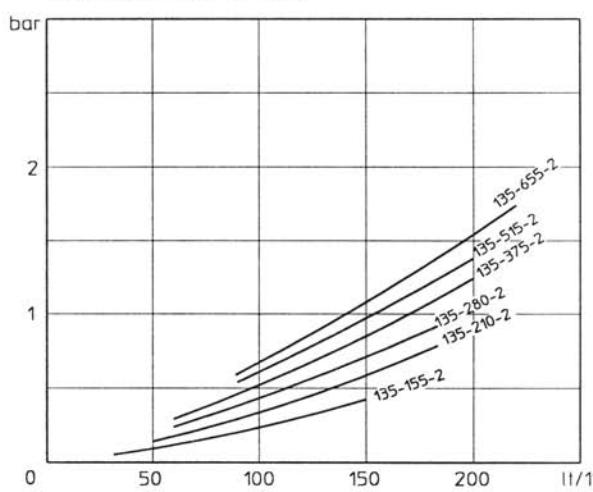
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

At the maximum and minimum flow stated in schedule

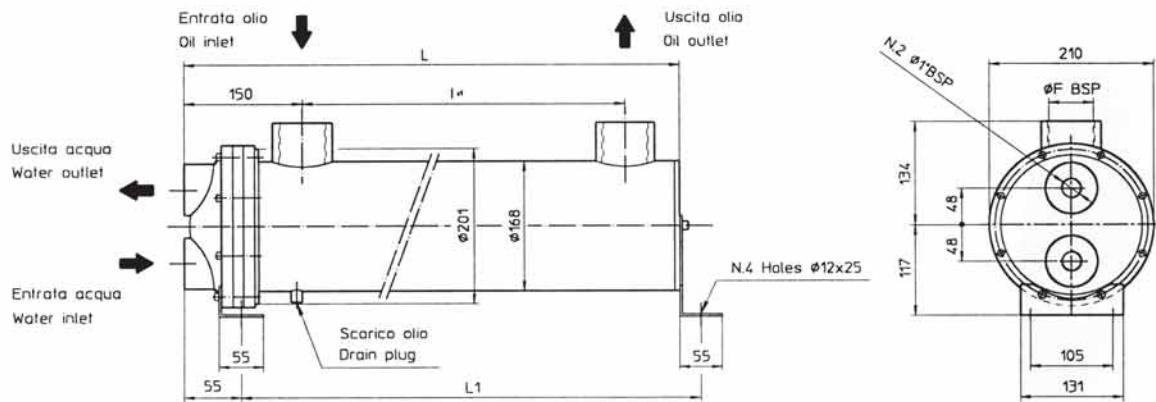

FATTORE DI CORREZIONE (F)–PERDITE DI CARICO
CORRECTION FACTOR (F)–PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Scambiatori di calore Acqua - Olio serie
Water-Oil heat exchanger series

MGW 168

 Con circuito ad acqua ispezionabile a due passaggi - *With two way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	Fe37	CuZn37	CuZn40	Fe510.2	Rubber-cork

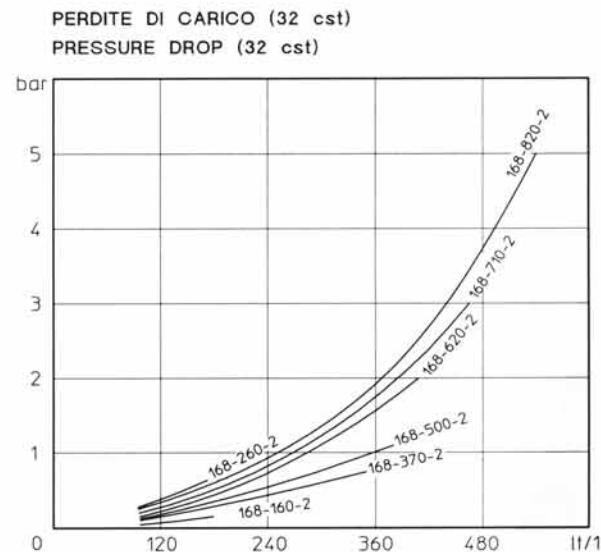
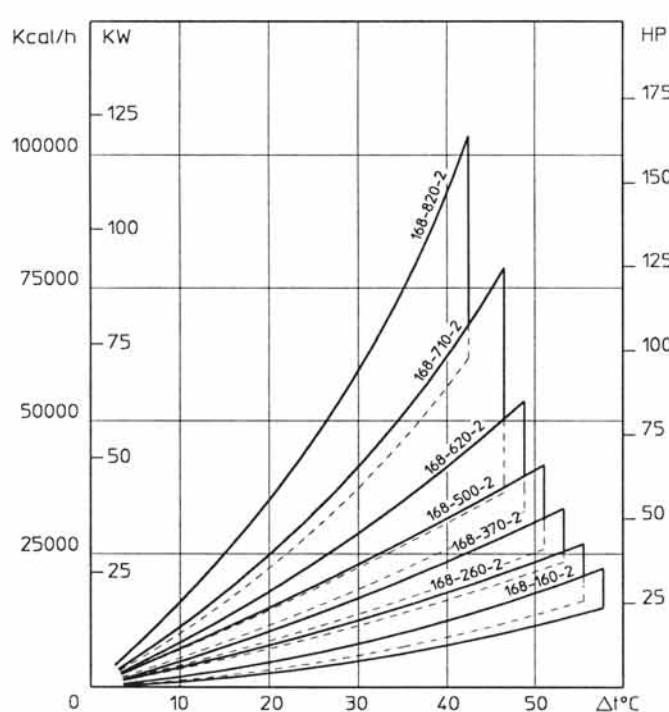
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO HP DISSIPATED WITH OIL -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension			
					2 Pass			
					φF	I	L	L1
MGW 168-160-2	90-180	10-16	4.3	18	2"	160	395	355
MGW 168-260-2	100-180	12-24	5.8	23	2"	260	495	455
MGW 168-370-2	200-350	22-32	7.6	28	2"	370	605	565
MGW 168-500-2	210-380	26-43	9.7	36	2"	500	735	695
MGW 168-620-2	230-400	35-55	115	39	2"	620	855	815
MGW 168-710-2	260-450	42-81	12.9	43	2"	710	945	905
MGW 168-820-2	320-550	73-120	14.6	47	2"	820	1055	1015

DIAGRAMMA RENDIMENTO

 Alla portata massima e minima indicata in tabella
PERFORMANCE DIAGRAM
 At the maximum and minimum flow stated in schedule

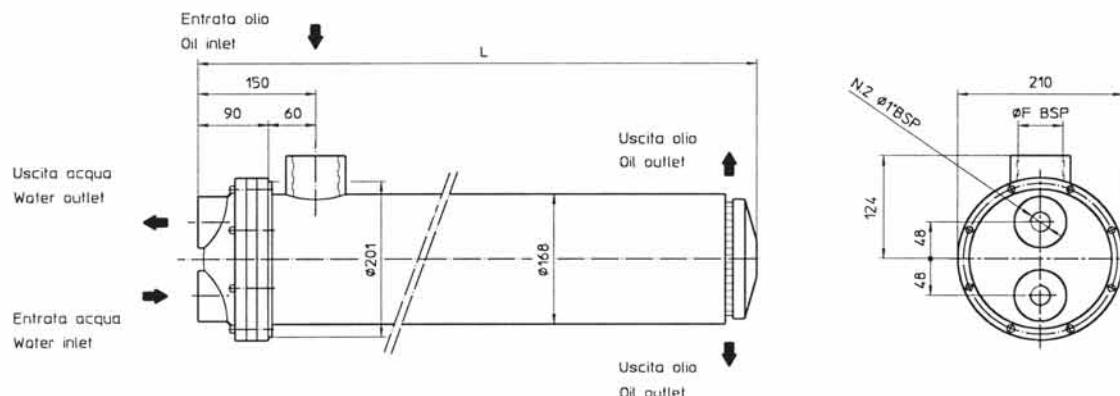
FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3



Scambiatori di calore Acqua - Olio serie
Water-Oil heat exchanger series

MGW 170

 Con circuito ad acqua ispezionabile a due passaggi - *With two way inspectionable water circuit*


Le dimensioni e le caratteristiche non sono impegnative. Overall dimension and technical characteristics are not binding.

TIPO TYPE	TUBI TUBES	PIASTRA TUBIERA TUBES SHEET	DEFLETTORI BAFFLES	FONDI COVERS	MANTELLO SHELL	GUARNIZIONI SEALS
STANDARD	CuDHP	Fe37	CuZn37	CuZn40	Fe510 2	Rubber-cork

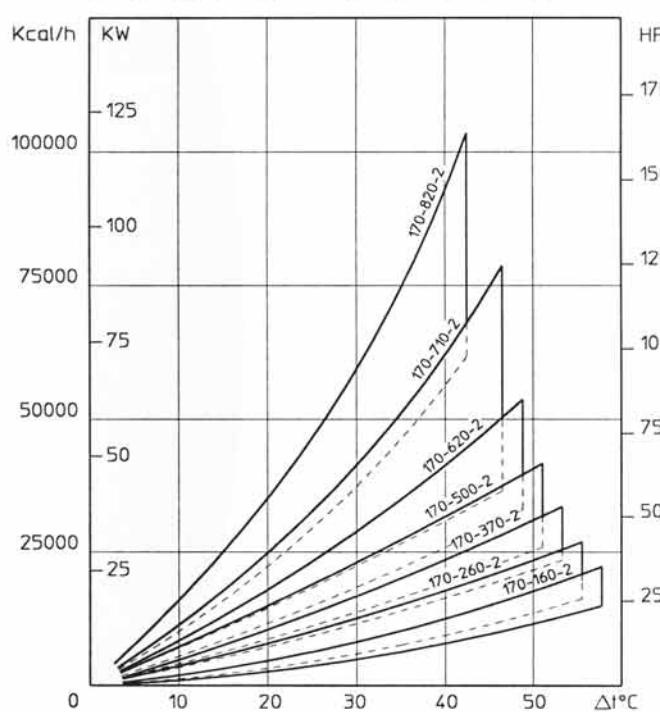
TIPO TYPE	PORTATA OLIO OIL FLOW (lt/min)	HP DISPERSI CON OLIO -55°C H2O-20°C	CAPACITA' CONTENTS (lt)	Kg	Dimensioni - Over all dimension	
					2 Pass	
					ØF	L
MGW 170-160-2	90-180	10-12	4.3	18	2*	371
MGW 170-260-2	100-180	12-18	5.8	23	2*	471
MGW 170-370-2	200-350	22-26	7.6	28	2*	581
MGW 170-500-2	210-380	26-33	9.7	36	2*	711
MGW 170-620-2	230-400	35-44	11.5	39	2*	831
MGW 170-710-2	260-450	42-100	12.9	43	2*	921
MGW 170-820-2	320-550	100-150	14.6	47	2*	1031

DIAGRAMMA RENDIMENTO

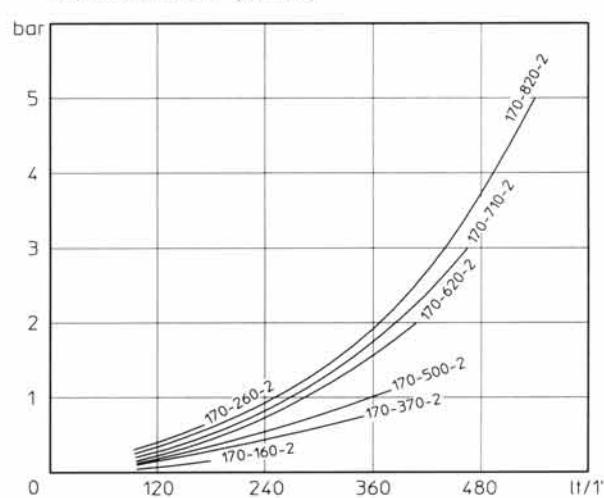
Alla portata massima e minima indicata in tabella

PERFORMANCE DIAGRAM

At the maximum and minimum flow stated in schedule


FATTORE DI CORREZIONE (F)-PERDITE DI CARICO
CORRECTION FACTOR (F)-PRESSURE DROP

CST	10	15	20	30	40	50	60	80	100	200	300
F	0.5	0.65	0.77	1	1.2	1.4	1.6	1.9	2.1	3.3	4.3

PERDITE DI CARICO (32 cst)
PRESSURE DROP (32 cst)


Poichè HANSA-TMP offre una gamma di prodotti molto estesa ed alcuni di questi vengono impiegati per più tipi di applicazioni, le informazioni riportate possono riferirsi solo a determinate situazioni.

Se nel catalogo non sono riportati tutti i dati necessari, si prega di contattare HANSA-TMP.

Al fine di poter fornire una risposta esauriente potrà rendersi necessaria la richiesta di dati specifici riguardanti l'applicazione in questione.

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If the catalogue does not supply all the information required, please contact HANSA-TMP.

In order to provide a comprehensive reply to queries we may require specific data regarding the proposed application.

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