SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

AZIONAMENTO IDRAULICO
HYDRAULIC DRIVEN
HYDRAULISCHER ANTRIEB

HY009

BONDIOLI & PAVESI
FIRA

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INHALTSVERZEICHNIS

L'AZIENDA

La FIRA è stata fondata nel 1967 come azienda per la produzione di radiatori da impiegarsi su veicoli industriali, agricoli ed automobilistici prodotti nell'area Emiliana.
In seguito, per soddisfare le esigenze tecniche sempre crescenti della clientela si è stata sviluppata anche la produzione di scambiatori di calore per olio richiesti dagli impianti presenti sulle macchine.
Nel 1987 la FIRA è entrata a far parte della Bondioli & Pavesi, un importante gruppo leader nel settore della trasmissione di potenza. Questo ha garantito all'Azienda una presenza sui mercati internazionali e ha dato la possibilità di affrontare e risolvere problematiche per la clientela di tutto il mondo.
Nella conseguente fase di investimenti atti a sviluppare nuove soluzioni produttive, la FIRA si è evoluta tecnologicamente con particolare attenzione alla qualità dei prodotti forniti.

PRODOTTI

La FIRA propone una gamma di prodotti che si sviluppa su tre linee:
• Radiatori acqua aria destinati a vari settori di utilizzo quali trattori agricoli, piccole auto e in genere forniture al primo impianto.
• Scambiatori di calore standard olio aria in alluminio completi di elettroventole a 12, 24 ,220 o 380 volt oppure completi di motore idraulico e ventola destinati a tutte le applicazioni oleodinamiche.
• Radiatori combinati acqua olio e intercooler destinati a macchine industriali mobili quali pale, escavatori, terne, gru semoventi, portacontainers, macchine edili e stradali ecc.

THE COMPANY

FIRA was founded in 1967 as a manufacturer of radiators for industrial, agricultural and automotive vehicles made in Emilia, northern Italy.
In response to growing user demands, the firm's area of specialisation was soon extended to embrace a production programme of oil to air heat exchangers for vehicle hydraulic systems.
In 1987 FIRA was incorporated by Bondioli & Pavesi, a major international group in the power transmission sector. This guaranteed the firm outlets on international markets and gave it access to the resources needed to solve clients' problems all over the world.
During subsequent investments to support new production solutions, FIRA concentrated on developing its technological resources, placing considerable emphasis on end-product quality.

PRODUCTS

FIRA's production programme is articulated in three basic lines:
• Air to water radiators for various application sectors including agricultural tractors, 'city cars' and small vehicles and supplies to original equipment manufacturers in general.
• Standard oil to air heat exchangers made of aluminium complete with 12, 24, 220 and 380 volt electric fan units or with hydraulic motors and fans designed for use with the broadest possible range of hydraulic systems.
• Combined water to oil radiators and intercoolers for moving industrial machines including excavators, backhoes, self-propelled cranes, container handlers and building construction / road construction machinery.

UNTERNEHMENSENTWICKLUNG

Das Unternehmen FIRA wurde 1967 gegründet und fertigt seither Kühler für industriell und landwirtschaftlich genutzte Fahrzeuge sowie Automobile, die in der italienischen Region Emilia produziert werden.
Um den kontinuierlich steigenden technischen Anforderungen der Kundschaft gerecht zu werden, wurde anschließend die Produktion auf Wärmetauscher für Öl der in Maschinen und Fahrzeugen installierten Anlagen ausgeweitet.
Im Jahr 1987 schloß sich FIRA der Firma Bondioli & Pavesi, einer großen, im Sektor Kraftübertragung führenden Firmengruppe an, wodurch dem Unternehmen der Weg zu internationalen Märkten geöffnet und die Möglichkeit gegeben wurde, Lösungen für Problemstellungen von Kunden aus aller Welt auszuarbeiten.
In den folgenden Jahren, die sich durch umfassende Investitionen für neue Lösungen in der Produktion auszeichnen, hat FIRA technologisch einen großen Fortschritt erfahren, wobei insbesondere der Produktqualität ein besonderer Stellenwert zugemessen wurde.

PRODUKTPALETTE

Die FIRA-Produktpalette läßt sich folgendermaßen unterteilen:
• Wasser-Luft-Kühler für verschiedene Sektoren wie landwirtschaftlich genutzte Traktoren, Kleinwagen, auch als Zulieferteile für Originalanlagen im allgemeinen.
• Standard-Öl-Luft-Wärmetauscher aus Aluminium mit Elektrolüftern von 12, 24, 220 oder 380 Volt bzw. komplett mit Hydraulikmotor und Lüfter für sämtliche hydraulische Anwendungen.
• Kombinierte Wasser-Öl-Kühler und Intercooler für unterschiedliche Nutzfahrzeuge wie Schaufellader, Bagger, kombinierte Traktoren-Bagger, Selbstfahrkräne, Containerfahrzeuge, Fahrzeuge für Hoch- und Tiefbau etc.

INTRODUZIONE
INTRODUCTION
EINLEITUNG

PERSONALIZZAZIONE
Alla FIRA ogni cliente ed ogni esigenza sono considerate nella loro unicità. Per questo in primo luogo valutiamo attentamente ogni richiesta e poi ne delineamo le possibili soluzioni. E' con questa metodologia affermata giorno dopo giorno nella realizzazione di prodotti mirati alle necessità della clientela, che l'Azienda ha formato i propri collaboratori creando un forte patrimonio tecnologico.

ISTRUZIONI GENERALI DI IMPIEGO
Gli scambiatori di calore FIRA sono costruiti in lega di alluminio e saldobrasati, un processo produttivo moderno che garantisce un prodotto di grande affidabilità.
Le geometrie delle alette a contatto con l'aria e le geometrie dei passaggi interni dell'olio sono studiate per garantire la massima efficienza del sistema. Inoltre l'attenta scelta delle elettrovalvole o delle ventole azionate da motore idraulico e dei convogliatori in ABS garantiscono un insieme che consente grandi rese pur tenendo in massima considerazione i parametri di sicurezza e di rumorosità.

INSTALLAZIONE
Per una corretta installazione si consiglia di adottare dei supporti elastici e di montare lo scambiatore in una zona con ridotte vibrazioni ed urti. Inoltre il posizionamento deve consentire all'aria libera circolazione sia in aspirazione che in scarico (Fig.1). Evitare che l'aria sia riscaldata da componenti esterni tipo marmitte motori o altro.
Si raccomanda di evitare brusche variazioni di portata e di non superare la pressione di esercizio statica massima ammissibile che è di 15 bar ad una temperatura di 130°C.
Per la sicurezza dello scambiatore si suggerisce l'installazione di una valvola di bypass, questo consentirà di ridurre i rischi in avviamento dell'impianto a freddo (Fig.2).
Il sistema By-Pass integrato nella massa radiante, è disponibile a richiesta su tutti i modelli.

PERSONALIZATION
FIRA considers the unique needs of each client and each application. That's why each request is carefully evaluated before we propose suitable design solutions. This is the method applied on a day to day basis as we develop fully tailored products, and it has formed the ideal training environment for our personnel, supporting the accumulation of an impressive store of technological know-how.

CONSTRUCTION FEATURES
FIRA heat exchangers are built in brazed aluminium alloy in a thoroughly modern process that guarantees top quality totally reliable results.
The geometry of the tube fins in the air stream and the inside of the oil-ways is designed to support the maximum efficiency of the system. The same meticulous attention is applied to selecting electric fan units or hydraulically driven fans and ABS shrouds, to assure a finished product that guarantees maximum efficiency and exemplary safety and noise levels.

INSTALLATION
For correct installation use flexible supports and install the heat exchanger in a place that is protected from vibration and impact. The unit must also be mounted so as to ensure unrestricted intake and exhaust air flows (Fig.1). All possible measures must taken to prevent the heat exchanger from drawing in warm air heated by external components such as engine exhaust systems.
We also recommend avoiding sudden changes of flow rate and ensuring that the maximum permissible static working pressure of 15 bar at 130°C is not exceeded.
For increased safety of the unit, clients are advised to install a bypass valve to reduce start up risks when the system is cold (Fig.2).
Integreted By-Pass sistem is available on request on all models.

PERSONALISIERUNG
Jeder Kunde und jede Anfrage erfährt bei FIRA eine den jeweiligen Anforderungen entsprechende Behandlung. Die Anfragen werden zunächst sorgfältig ausgewertet, anschließend erfolgt die Ausarbeitung möglicher Lösungen. Mit dieser Vorgehensweise, die sich für die Umsetzung kundenseitiger Wünsche täglich neu bestätigt, hat das Unternehmen die Ausbildung der eigenen Mitarbeiter optimiert und sich ein umfassendes technisches Know-how zugelegt.

ALLGEMEINE GEBRAUCHSANLEITUNG
Die FIRA-Wärmetauscher sind aus Aluminiumlegierung mit Schweißlötung gefertigt, ein modernes Produktionsverfahren, das eine hohe Zuverlässigkeit der Produkte gewährleistet.
Form und Größe der Kühlrippen mit Luftkontakt und der innenliegenden Öldurchläufe sind so projektiert, daß die maximale Leistungsabgabe des Systems sichergestellt wird. Die sorgfältig ausgewählten Elektrolüfter, Lüfter mit Hydraulikmotorantrieb und Fördervorrichtungen in ABS werden höchsten Ansprüchen gerecht und weisen optimierte Eigenschaften bezüglich Sicherheit und Geräuschemissionen auf.

INSTALLATION
Zur korrekten Installation empfiehlt sich die Verwendung von schwingungsdämpfenden Halterungen; die Montage des Wärmetauschers ist zudem in Bereichen vorzunehmen, in denen Vibrationen oder Stöße nur in reduziertem Maße zu erwarten sind und eine freie Luftzirkulation sowohl für die Ansaugung als auch für den Auslaß sichergestellt ist (Abb. 1).
Bei der Positionierung ist ferner zu beachten, daß die Luft nicht durch außenliegende Teile, z.B. Auspuff oder dergleichen, erwärmt wird.
Beim Betrieb ist darauf zu achten, daß plötzliche Änderungen der Durchflußmenge vermieden werden und der maximal zugelassene statische Druck von 15 bar bei einer Temperatur von 130°C nicht überschritten wird.
Zur Sicherheit des Wärmetauschers ist die Installation eines Bypass-Ventils vorzusehen, welches die Risiken bei einem Kaltstart der Anlage reduziert (Abb. 2).
Das integrierte By-Pass-System im Strahlungskörper ist auf Anfrage für alle Modelle lieferbar.

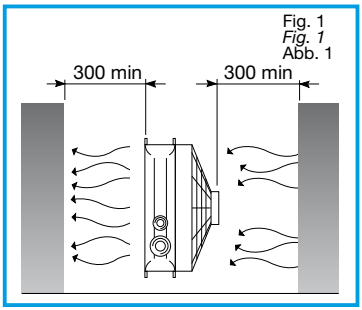


Fig. 1
Fig. 1
Abb. 1

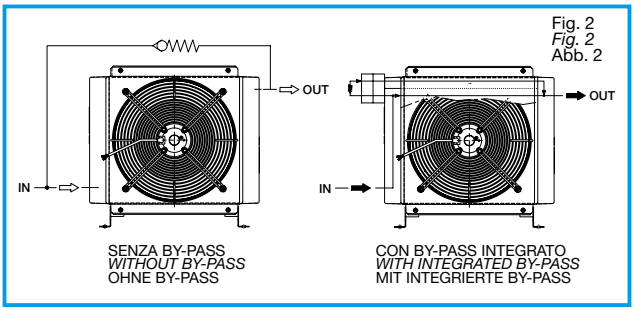


Fig. 2
Fig. 2
Abb. 2

A causa delle svariate condizioni di montaggio e delle differenti sollecitazioni alle quali risultano sottoposti gli scambiatori di calore, riteniamo sia utile ed importante chiedere la collaborazione della nostra organizzazione tecnica al momento della progettazione dell'impianto.
Ogni scambiatore di calore è dotato di un libretto di istruzioni che contiene alcune fondamentali indicazioni per un montaggio corretto.

SICUREZZA
Nell'utilizzo delle scambiatore di calore occorre attenersi ad alcune importanti avvertenze.
• non togliere le protezioni dalle ventole.
• far eseguire i collegamenti elettrici a personale specializzato seguendo gli schemi allegati.
• le superfici esterne dello scambiatore potrebbero avere temperature molto elevate bisogna quindi prevedere nel montaggio adeguate protezioni, o posizionamenti poco accessibili.
• non intervenire sul motore idraulico senza prima avere scollegato i tubi.

Because of the differing installation conditions and the various type of stress to which the units may be subjected, we advise clients to consult our Engineering Department during their system design phase.
Each heat exchanger is supplied with a comprehensive instruction booklet that contains important recommendations for correct installation.

SAFETY
During operation of our heat exchangers observe the following instructions:
• do not remove the fan grilles
• electrical connections must be made by skilled electricians in accordance with the attached electrical diagrams
• exterior surfaces of the heat exchanger may reach high temperatures so adequate guards must be installed or the unit must be mounted in an inaccessible position.
• do not perform work on the hydraulic motor until the hydraulic pipelines have been disconnected.

Aufgrund der unterschiedlichen Montagebedingungen und der verschiedenen Belastungen, denen die Wärmetaüscher ausgesetzt sein können, empfiehlt sich bei der Projektierung der Anlage die Zusammenarbeit mit unserer technischen Abteilung.
Zum Lieferumfang jedes Wärmetauschers zählt eine entsprechende Gebrauchsanleitung mit den wesentlichen Hinweisen für eine korrekte Montage.

SICHERHEIT
Beim Gebrauch des Wärmetauschers sind folgende wichtige Hinweise zu beachten:
• Schutzvorrichtungen an den Lüftern auf keinen Fall abnehmen;
• elektrische Anschlüsse von Fachpersonal und gemäß den beiliegenden Plänen ausführen lassen;
• die Außenoberflächen des Wärmetauschers können beim Betrieb sehr hohe Temperaturen aufweisen; bei der Montage sind demnach entsprechende Schutzvorrichtungen vorzusehen oder schwer erreichbare Positionen auszuwählen;
• Eingriffe am Hydraulikmotor nur nach Abnahme der Leitungen vornehmen.

ISTRUZIONI PER L'ORDINAZIONE
ORDERING INSTRUCTIONS
BESTELLANLEITUNG

SCM A46 — **IA** — **PRED** — **GR2** — **_**

PRODOTTO
PRODUCT
PRODUKT

SCM A20 - SCM A22
SCM A26 - SCM A31
SCM A35 - SCM A46
SCM A48 - SCM A50
SCM A56 - SCM A60
SCM A65 - SCM A70
SCM A75 - SCM A80
SCM A83 - SCM A86
SCM A106

VERSIONE
VERSION
AUSFÜHRUNG

IA - IDRAULICO ASPIRANTE
HYDRAULIC ASPIRATING
HYDRAULISCH, SAUGEND

IS - IDRAULICO SOFFIANTE
HYDRAULIC BLOWING
HYDRAULISCH, BLASEND

CONFIGURAZIONE
FAN UNIT TYPE
LÜFTERTYP

PRED. - CON SUPPORTO TIROCINGHIA
WITH BELT-PULLEY SUPPORT
MIT LAGER FÜR RIEMENANTRIEB

MOT. IDR. - CON MOTORE CON SUPPORTO INTEGRATO
WITH MOTOR WITH INTEGRATED BELT-PULLEY SUPPORT
MIT ÖLMOTOR MIT INTEGRIERTEM LAGER

GRUPPO
GROUP
BAUGRÖSSE

OPZIONI
OPTIONS
OPTIONEN

P - CON PIEDINI
WITH FEET
MIT FÜSSEN

S - FILETTATURE A NORME UNF
UNF THREADED
ÖFFNUNGEN MIT STANDARD UNF GEWINDE

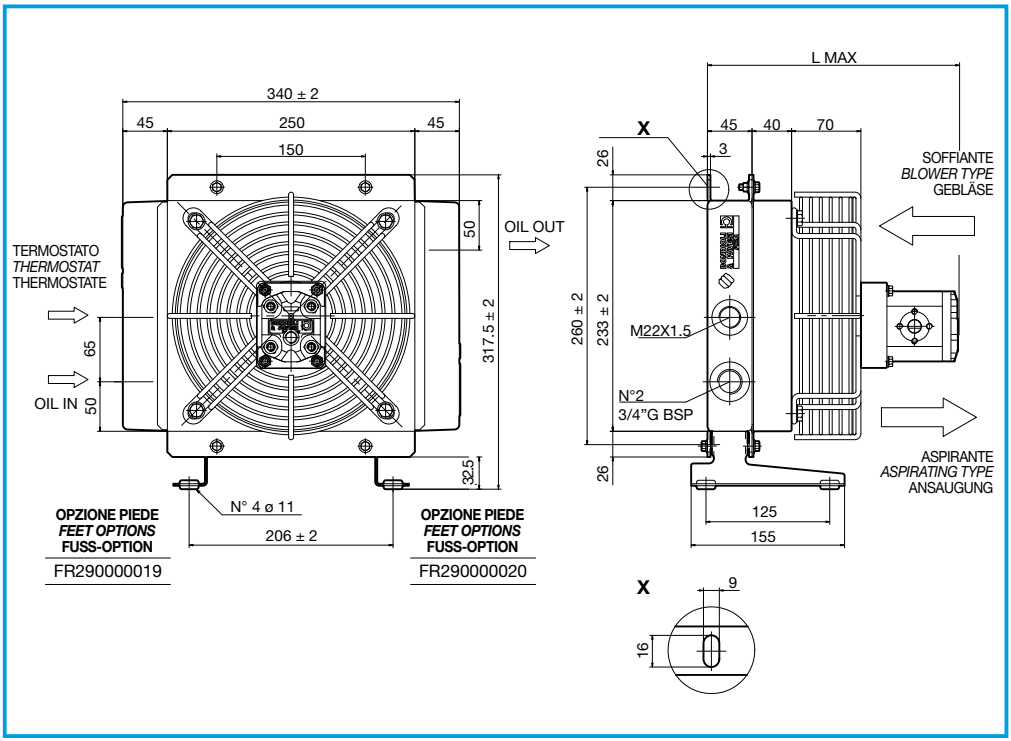
NOTA:
Lo scambiatore non prevede di serie il termostato e i piedini. Vedere per i piedini ogni singolo modello. Riferirsi a pag. 24 per informazioni sugli accessori, le possibilità di scelta e le istruzioni di ordinazione.

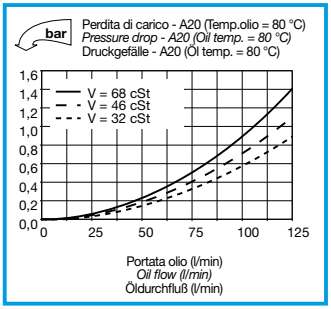
NOTE:
Heat exchangers are not equipped with thermostat and feet as a standard. Please refer to each model to have your heat exchanger supplied with feet, and to page 24 for accessories and for a description of available range and ordering instructions.

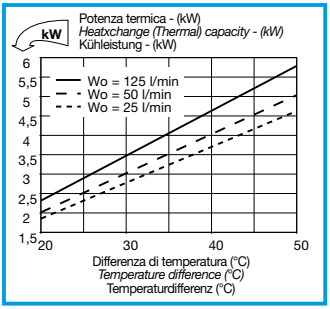
ANMERKUNG:
Der Wärmetauscher wird serienmässig ohne Füsse und Thermostat geliefert. Die Füsse sind bei jedem Modell ersichtlich. Auf Seite 24 sind Infos ueber Zubehör, Auswahlmöglichkeiten und Bestellnummern fu finden.

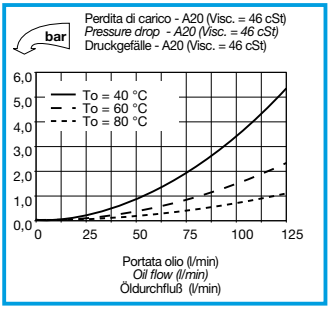
A20

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER



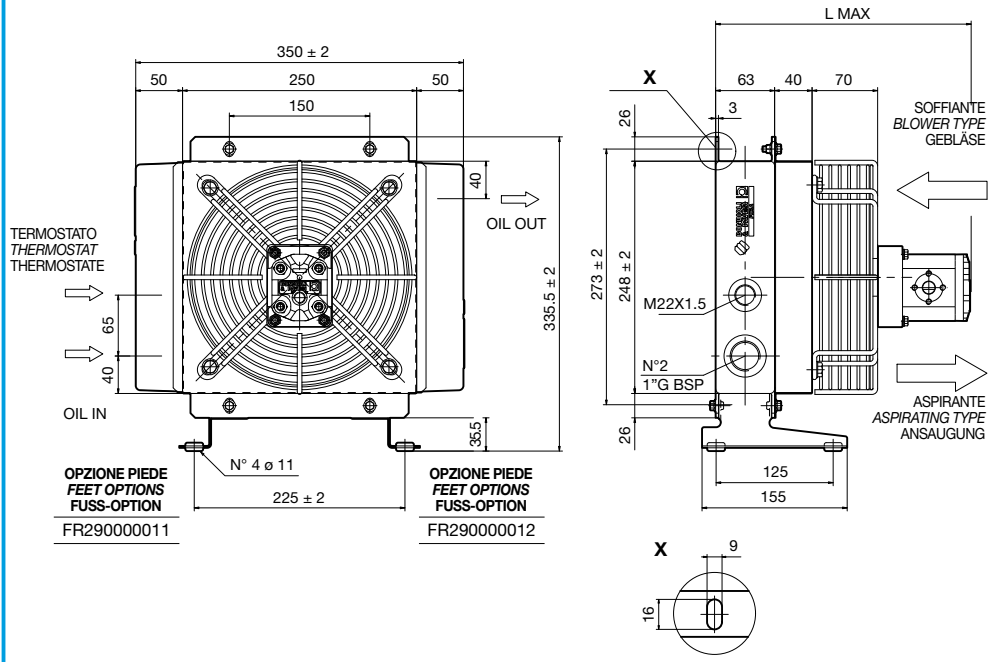


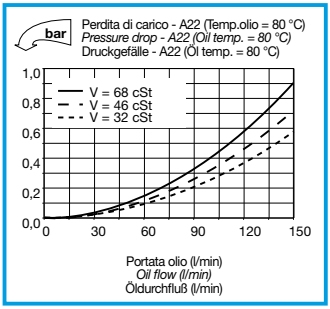


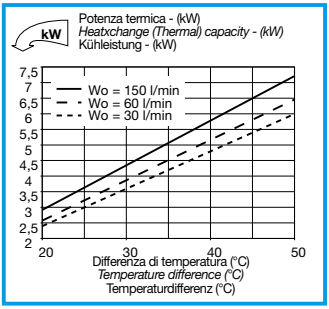


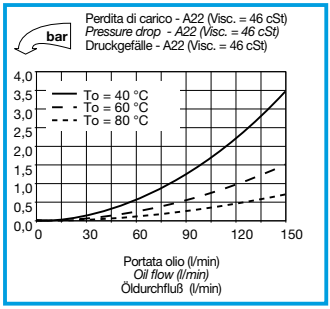
CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634030011	SCM A20 IA PRED. GR1	220	—	195	6	1,45
FR634030012	SCM A20 IS PRED. GR1	220	—	195	6	1,45
FR634030013	SCM A20 IA MOT. IDR. GR1	220	6	255	7	1,45
FR634030014	SCM A20 IS MOT. IDR. GR1	220	6	255	7	1,45

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER









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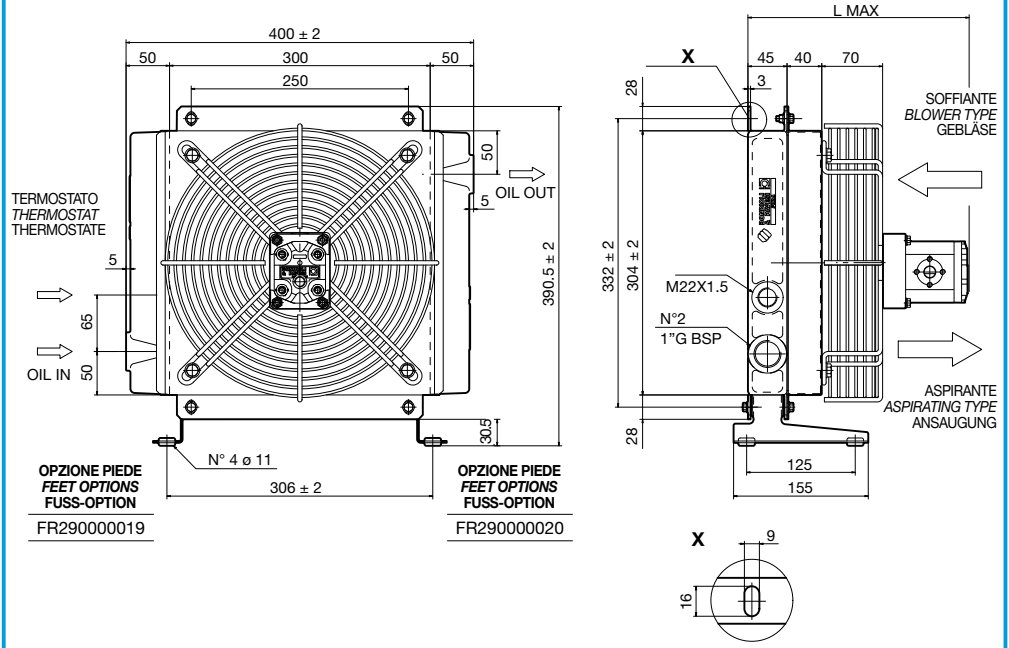
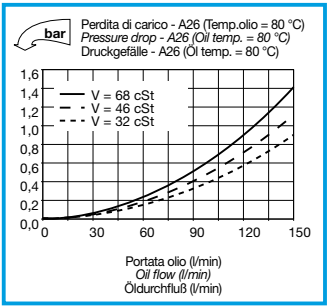
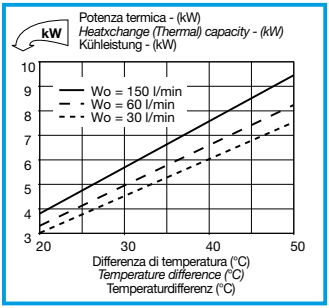
FR634110011	SCM A22 IA PRED. GR1	220	—	215	8	1,7
FR634110012	SCM A22 IS PRED. GR1	220	—	215	8	1,7
FR634110013	SCM A22 IA MOT. IDR. GR1	220	6	275	9	1,7
FR634110014	SCM A22 IS MOT. IDR. GR1	220	6	275	9	1,7

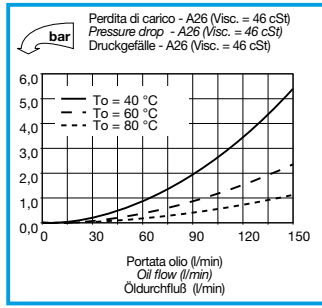
A26

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER









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FR634130011	SCM A26 IA PRED. GR1	290	—	195	9	2,3
FR634130012	SCM A26 IS PRED. GR1	290	—	195	9	2,3
FR634130013	SCM A26 IA MOT. IDR. GR1	290	6	255	10	2,3
FR634130014	SCM A26 IS MOT. IDR. GR1	290	6	255	10	2,3

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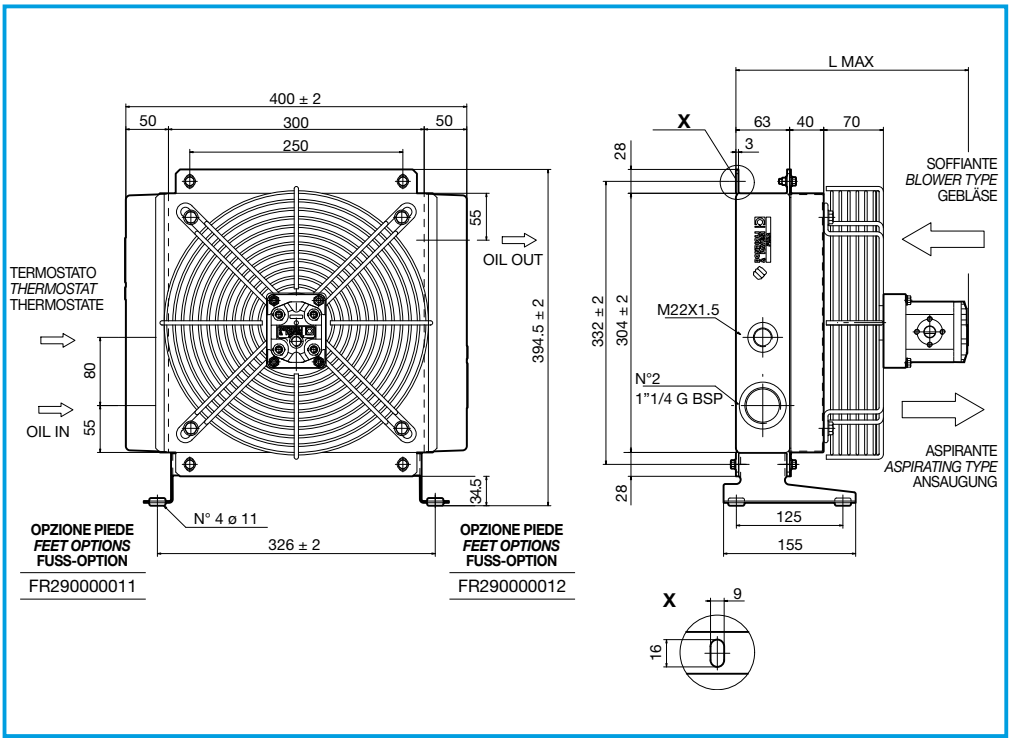

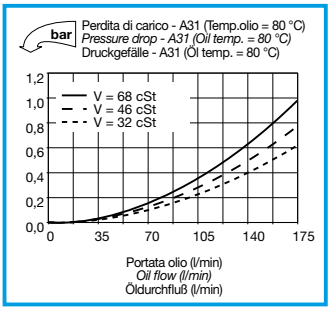

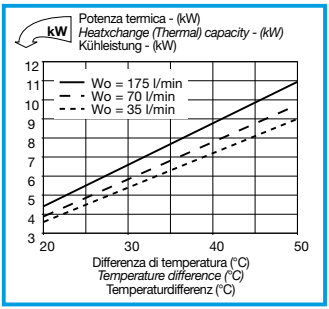

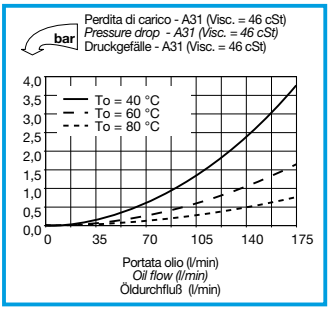

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FR634170011	SCM A31 IA PRED. GR1	290	—	215	13	3,2
FR634170012	SCM A31 IS PRED. GR1	290	—	215	13	3,2
FR634170013	SCM A31 IA MOT. IDR. GR1	290	6	275	14	3,2
FR634170014	SCM A31 IS MOT. IDR. GR1	290	6	275	14	3,2

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SCAMBIATORI DI CALORE IN ALLUMINIO
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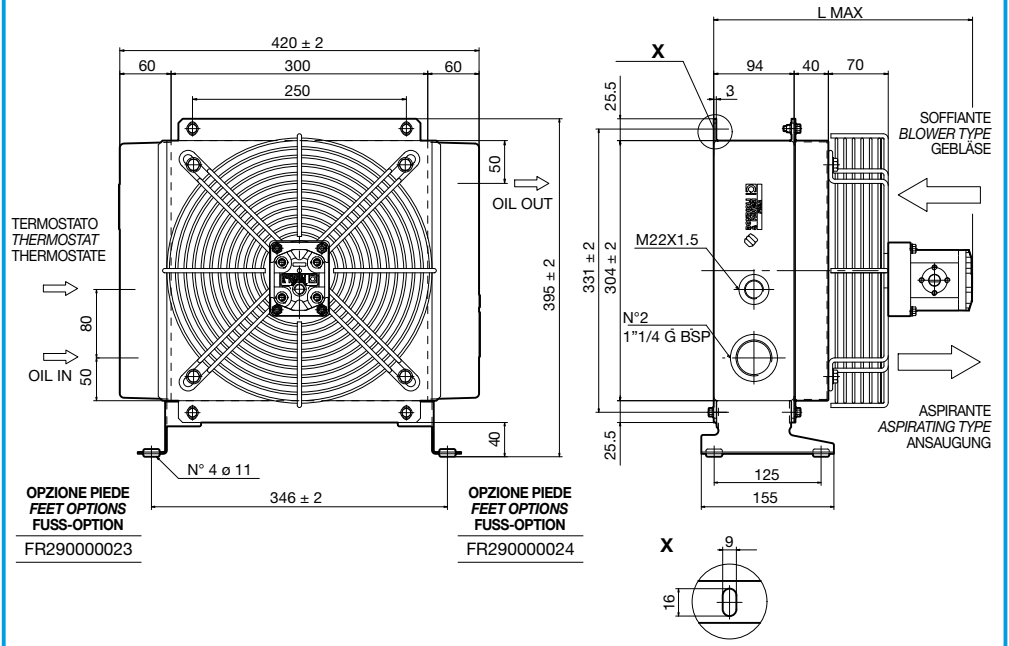
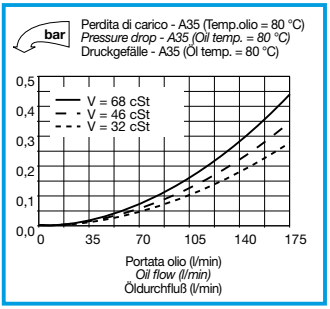
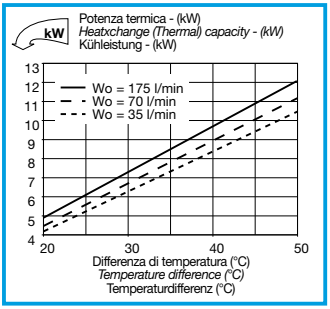
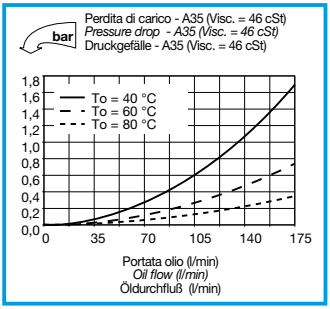
ALUMINIUM WÄRMETAUSCHER



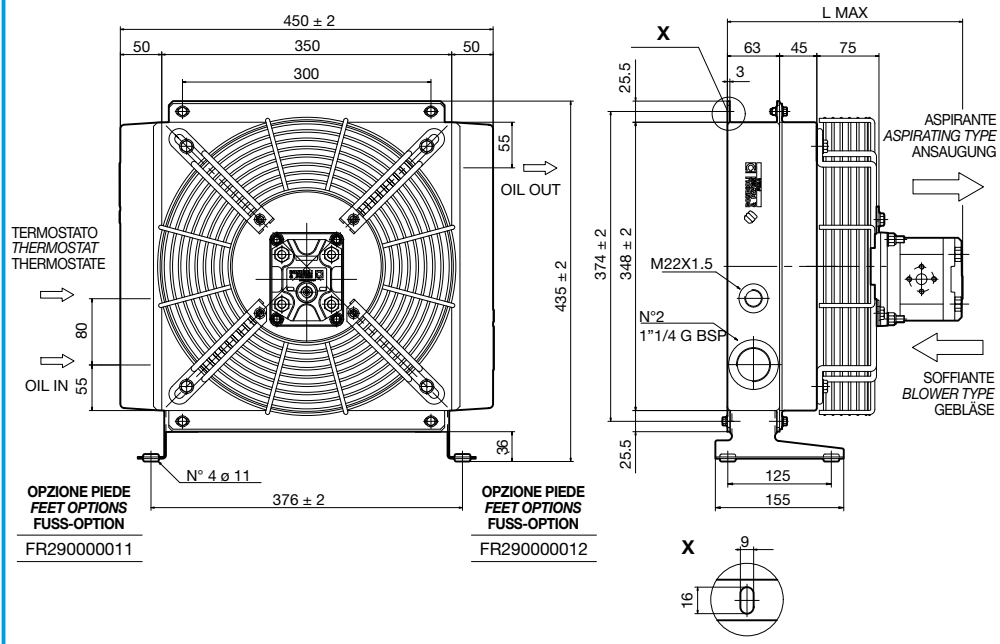


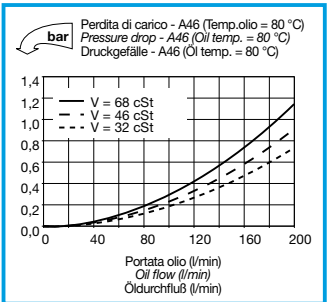


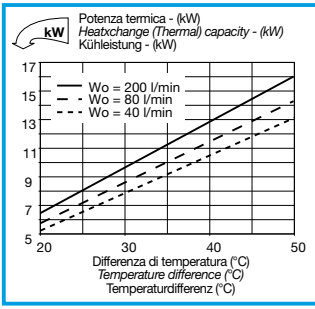


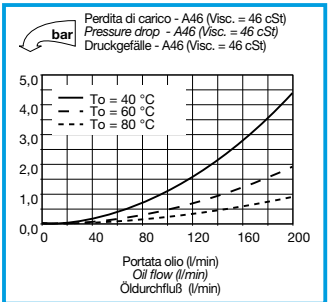
CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634060011	SCM A35 IA PRED. GR1	290	—	250	17	4,8
FR634060012	SCM A35 IS PRED. GR1	290	—	250	17	4,8
FR634060013	SCM A35 IA MOT. IDR. GR1	290	6	305	18	4,8
FR634060014	SCM A35 IS MOT. IDR. GR1	290	6	305	18	4,8

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER



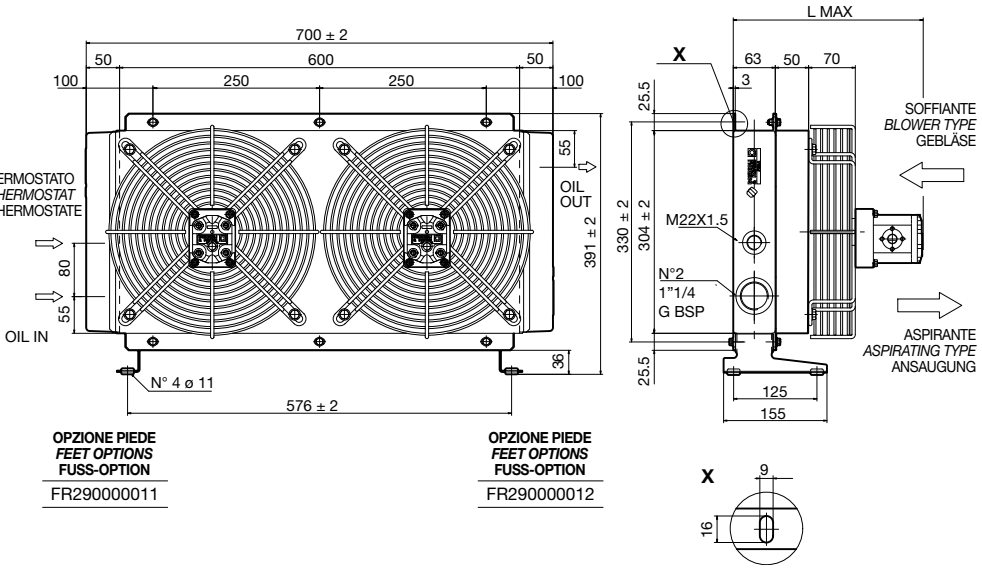






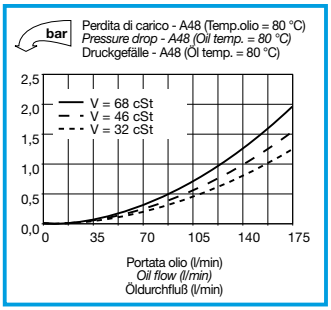
CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634200001	SCM A46 IA PRED. GR2	340	—	225	14	4
FR634200002	SCM A46 IS PRED. GR2	340	—	225	14	4
FR634200003	SCM A46 IA MOT. IDR. GR2	340	6	285	15	4
FR634200004	SCM A46 IS MOT. IDR. GR2	340	6	285	15	4

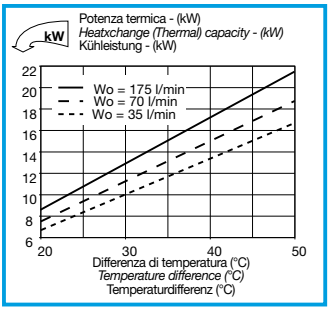
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

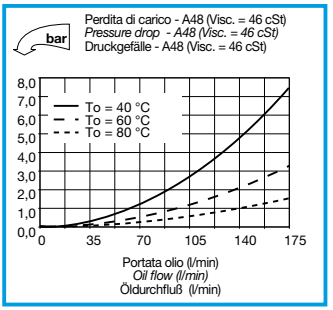


OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION
FR290000011

OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION
FR290000012





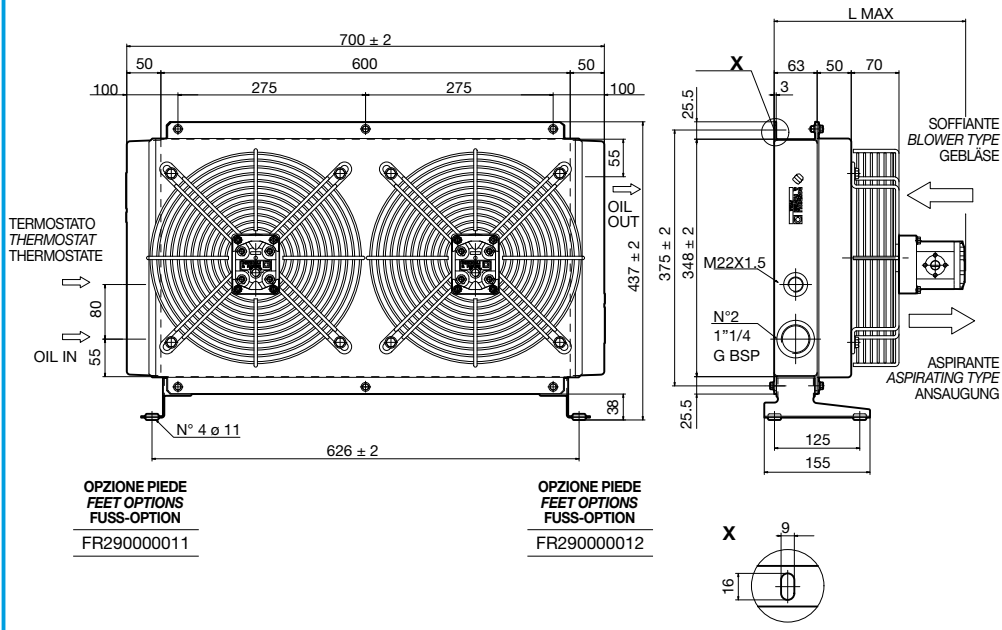


CODICE ***CODE*** **BEST.-NR.**	**TIPO** ***TYPE*** **TYP**	**DIAMETRO VENTOLA** ***FAN DIAMETER*** **LÜFTERS-DURCHMESSER** mm	**CILINDRATA MOTORE** ***DISPLACEMENT MOTORS*** **FÖRDERVOLUMEN MOTOR** cm³/h	**L** MAX mm	**MASSA** ***WEIGHT*** **GEWICHT** kg	**CAPACITÀ** ***CAPACITY*** **KAPAZITÄT** lt
FR634210001	SCM A48 IA PRED. GR1	2X290	—	230	18	3,2
FR634210002	SCM A48 IS PRED. GR1	2X290	—	230	18	3,2
FR634210003	SCM A48 IA MOT. IDR. GR1	2X290	6	285	19	3,2
FR634210004	SCM A48 IS MOT. IDR. GR1	2X290	6	285	19	3,2

A50

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

BONDIOLI & PAVESI FIRA

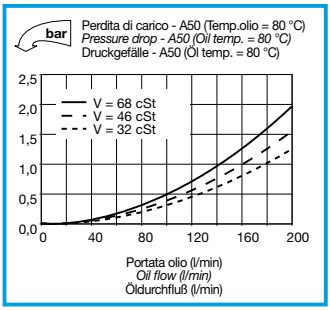


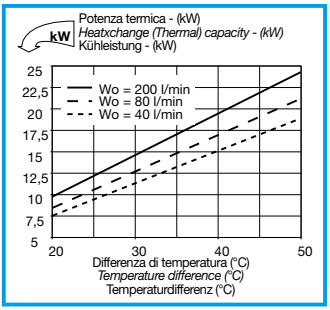
OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION

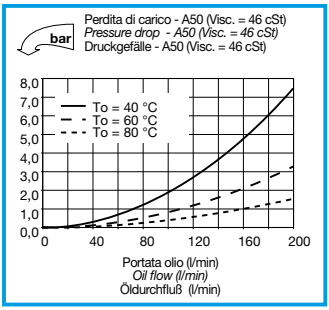
FR290000011

OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION

FR290000012



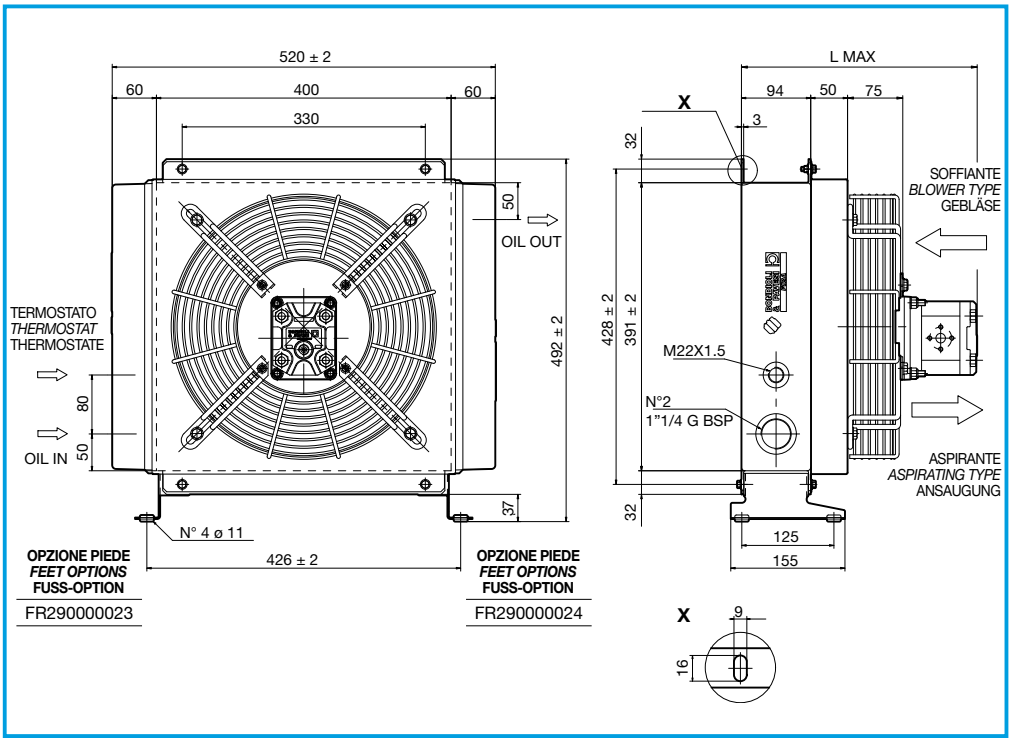


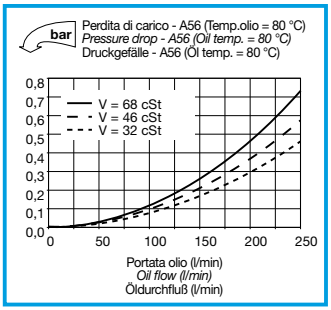


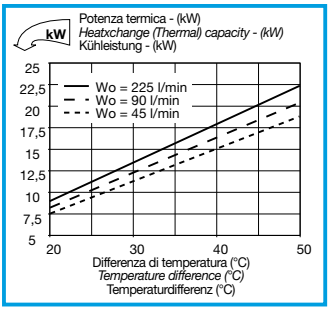
CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634100011	SCM A50 IA PRED. GR1	2X290	—	230	20	3,4
FR634100012	SCM A50 IS PRED. GR1	2X290	—	230	20	3,4
FR634100013	SCM A50 IA MOT. IDR. GR1	2X290	6	285	21	3,4
FR634100014	SCM A50 IS MOT. IDR. GR1	2X290	6	285	21	3,4

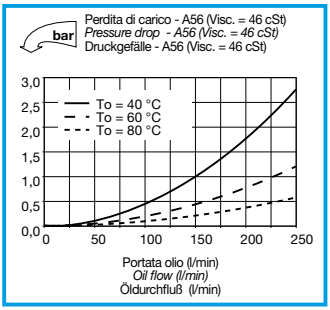
A56

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER



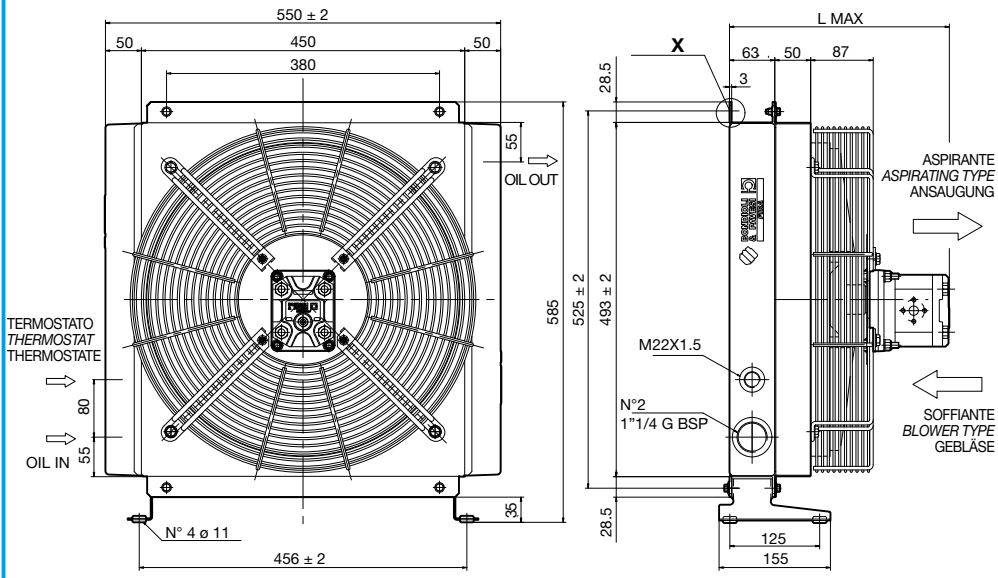






CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634220001	SCM A56 IA PRED. GR2	340	—	260	18	7,5
FR634220002	SCM A56 IS PRED. GR2	340	—	260	18	7,5
FR634220003	SCM A56 IA MOT. IDR. GR2	340	6	320	19	7,5
FR634220004	SCM A56 IS MOT. IDR. GR2	340	6	320	19	7,5

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

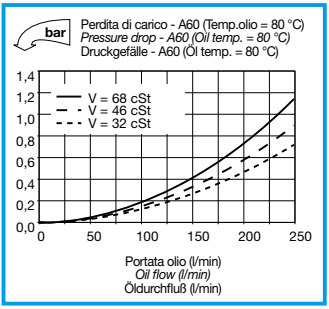


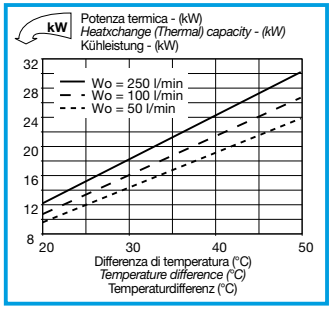
OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION

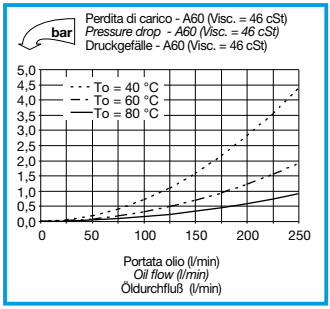
FR290000011

OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION

FR290000012



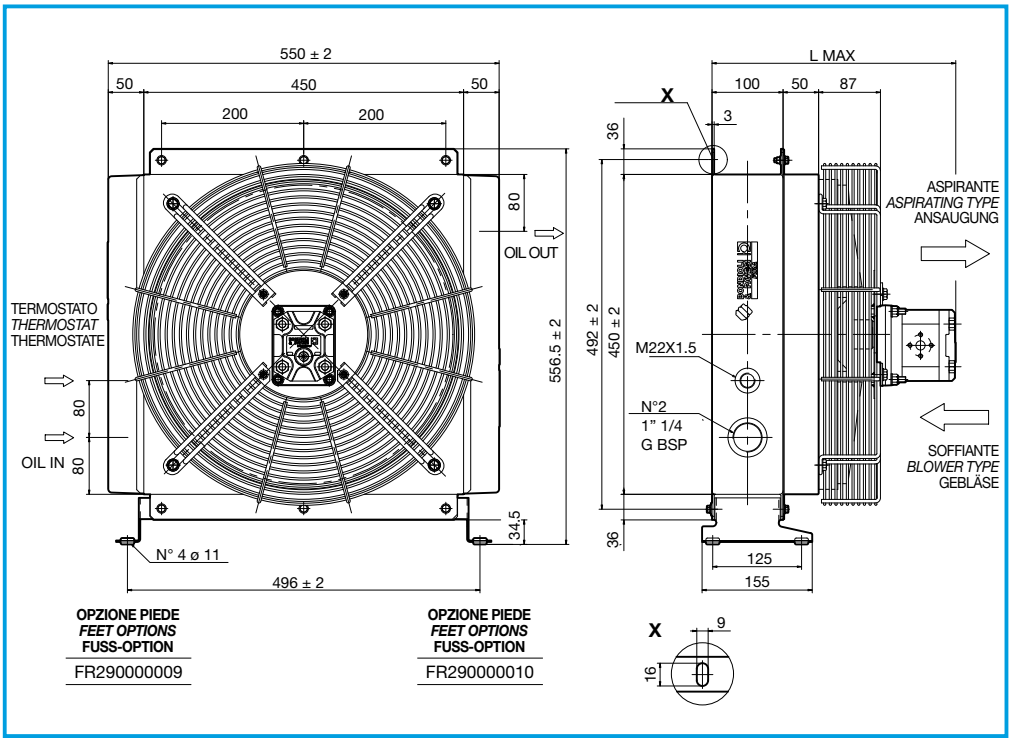




CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634090011	SCM A60 IA PRED. GR2	420	—	250	20	5,7
FR634090012	SCM A60 IS PRED. GR2	420	—	250	20	5,7
FR634090013	SCM A60 IA MOT. IDR. GR2	420	6	310	21	5,7
FR634090014	SCM A60 IS MOT. IDR. GR2	420	6	310	21	5,7

A65

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER



OPZIONE PIEDE
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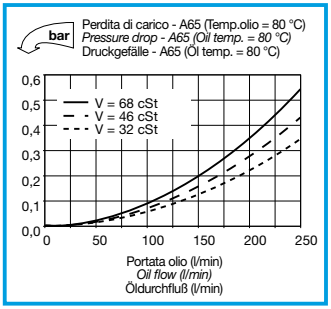
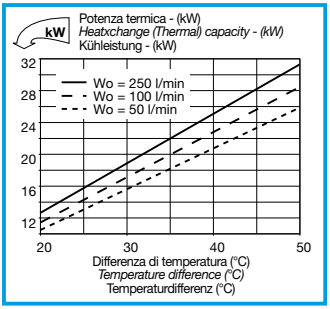
FUSS-OPTION

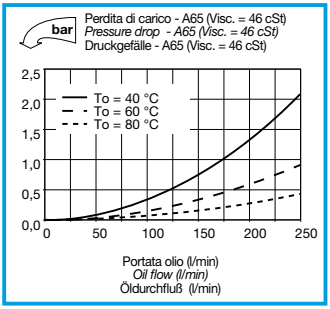
FR290000009

OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION

FR290000010





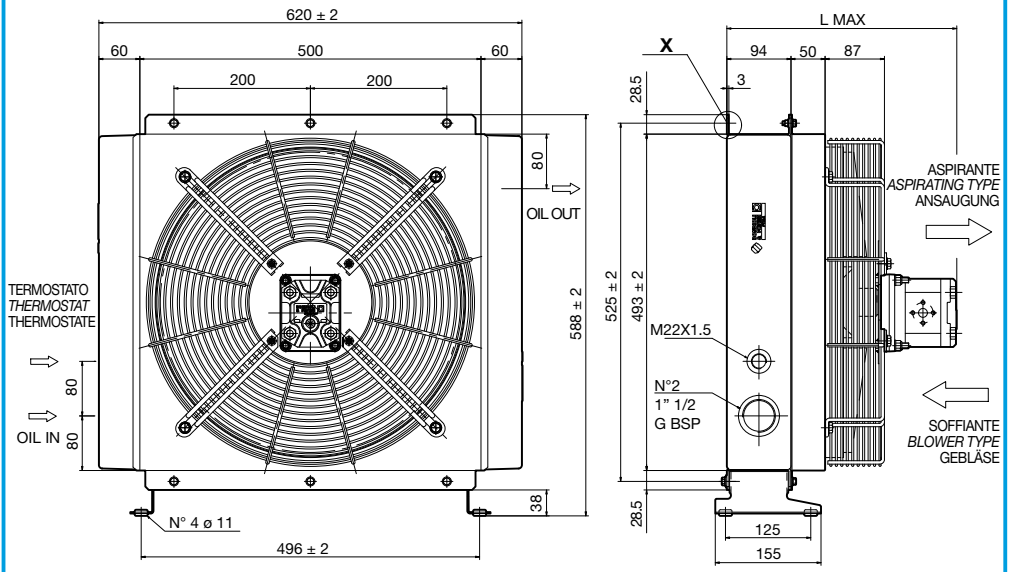


CODICE ***CODE*** **BEST.-NR.**	**TIPO** ***TYPE*** **TYP**	**DIAMETRO VENTOLA** ***FAN DIAMETER*** **LÜFTERS-DURCHMESSER** mm	**CILINDRATA MOTORE** ***DISPLACEMENT MOTORS*** **FÖRDERVOLUMEN MOTOR** cm³/h	**L** MAX mm	**MASSA** ***WEIGHT*** **GEWICHT** kg	**CAPACITÀ** ***CAPACITY*** **KAPAZITÄT** lt
FR634120004	SCM A65 IA PRED. GR2	420	—	285	23	8,5
FR634120006	SCM A65 IS PRED. GR2	420	—	285	23	8,5
FR634120013	SCM A65 IA MOT. IDR. GR2	420	6	345	24	8,5
FR634120014	SCM A65 IS MOT. IDR. GR2	420	6	345	24	8,5

A70

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

BONDIOLI & PAVESI FIRA



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FUSS-OPTION

FR290000023

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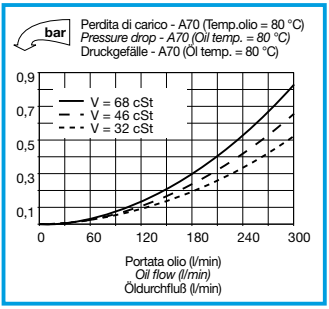
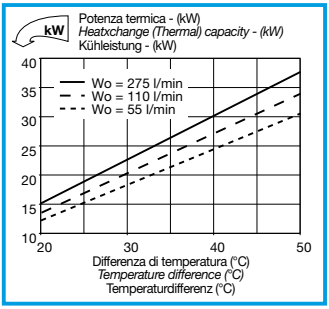
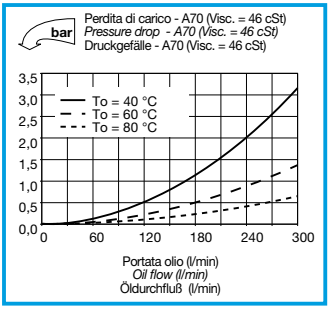
FEET OPTIONS
FUSS-OPTION

FR290000024



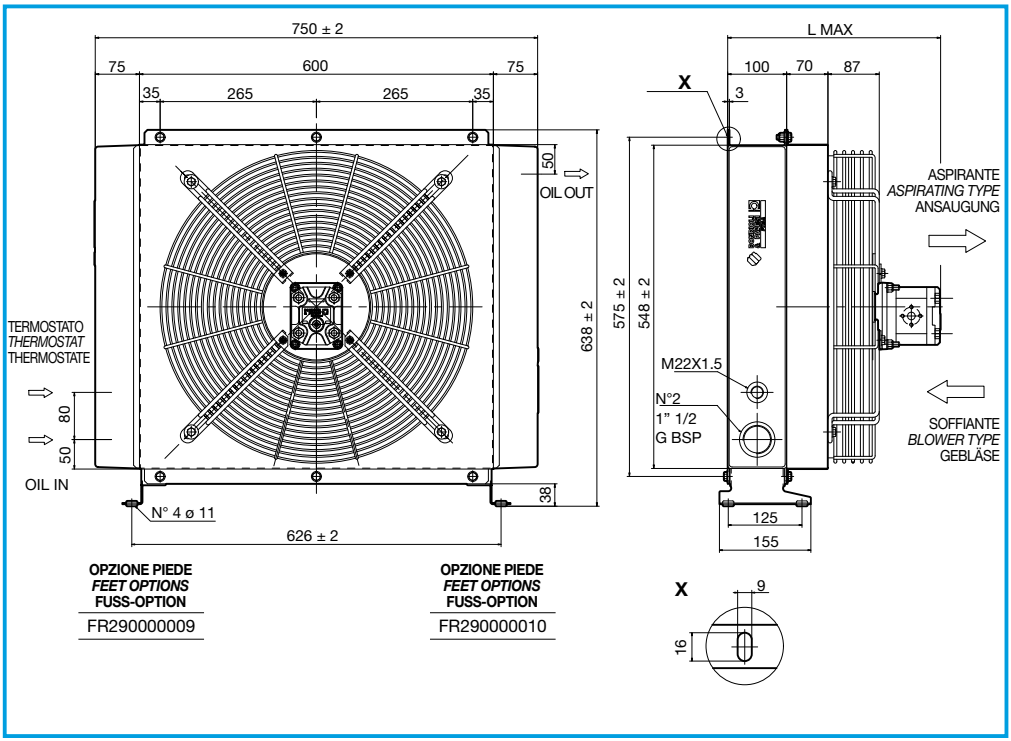




CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634230001	SCM A70 IA PRED. GR2	440	—	280	25	10,5
FR634230002	SCM A70 IS PRED. GR2	440	—	280	25	10,5
FR634230003	SCM A70 IA MOT. IDR. GR2	440	6	340	26	10,5
FR634230004	SCM A70 IS MOT. IDR. GR2	440	6	340	26	10,5

A75

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER

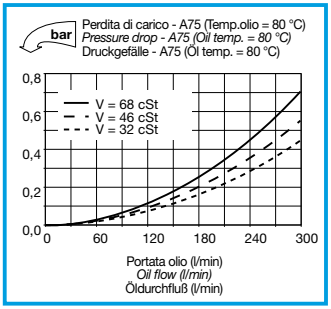


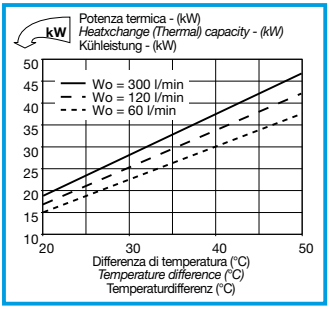
OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION

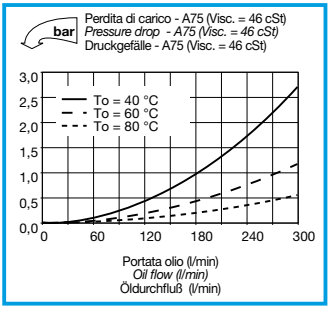
FR290000009

OPZIONE PIEDE
FEET OPTIONS
FUSS-OPTION

FR290000010

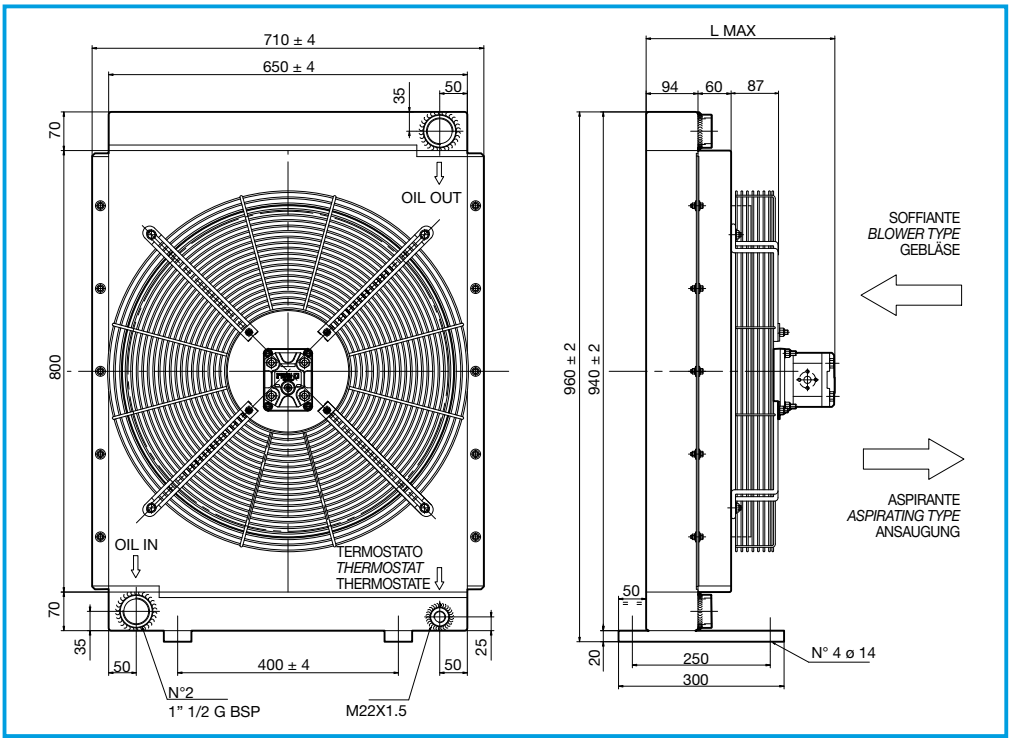


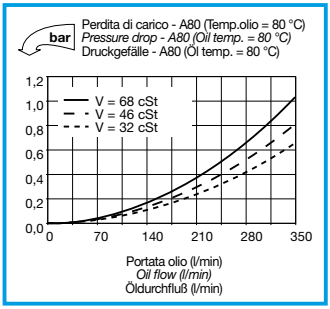


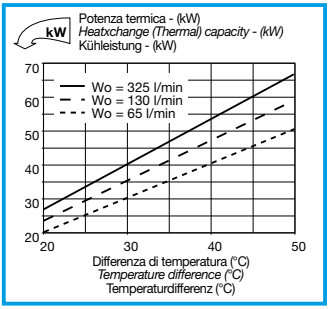


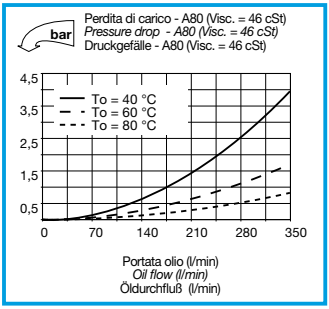
CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634140003	SCM A75 IA PRED. GR2	500	—	305	26	14
FR634140004	SCM A75 IS PRED. GR2	500	—	305	26	14
FR634140013	SCM A75 IA MOT. IDR. GR2	500	11	365	27	14
FR634140014	SCM A75 IS MOT. IDR. GR2	500	11	365	27	14

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER





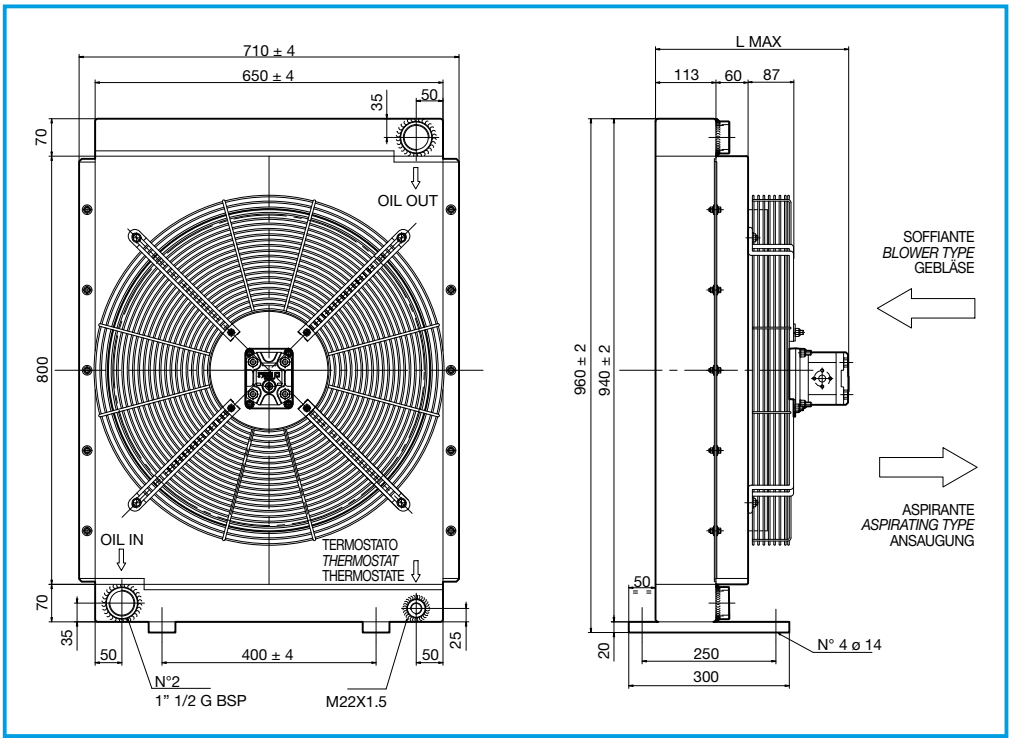


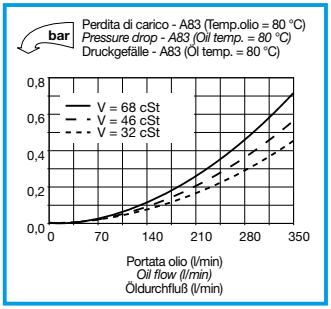


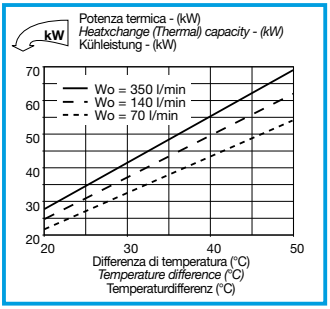
CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634150003	SCM A80 IA PRED. GR2	580	—	280	46	18
FR634150004	SCM A80 IS PRED. GR2	580	—	280	46	18
FR634150013	SCM A80 IA MOT. IDR. GR2	580	11	340	47	18
FR634150014	SCM A80 IS MOT. IDR. GR2	580	11	340	47	18

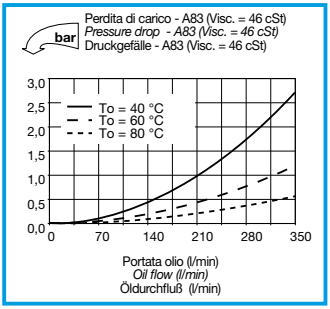
A83

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER



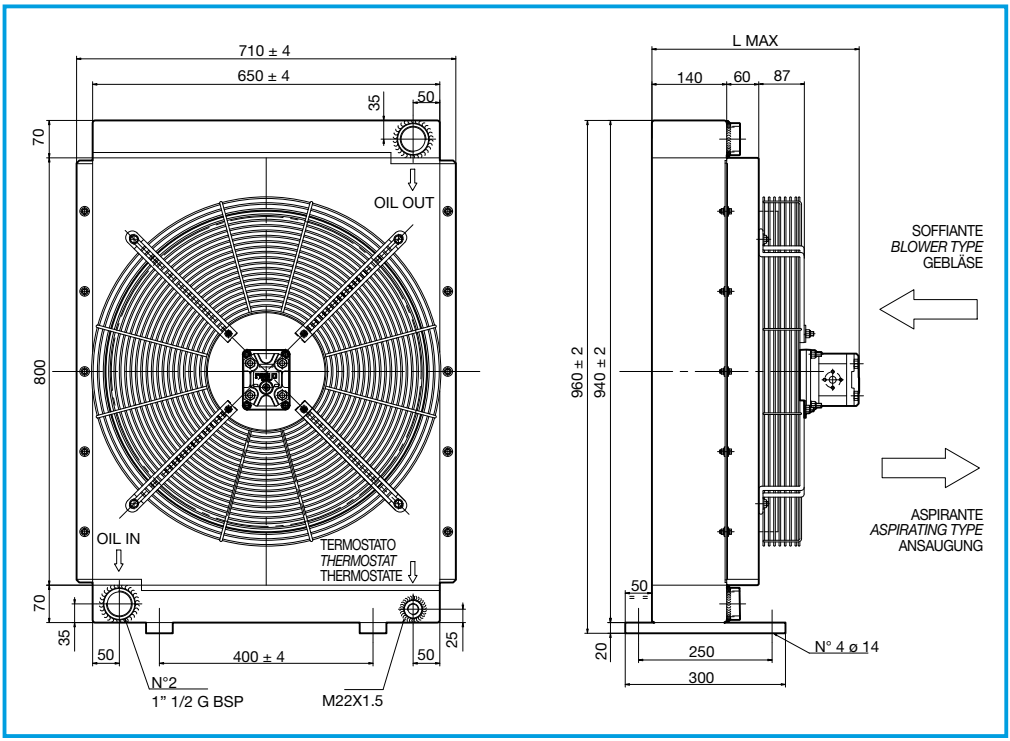


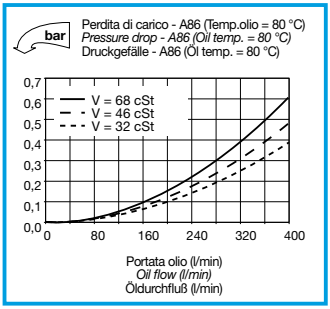


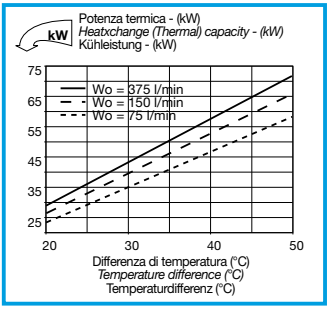


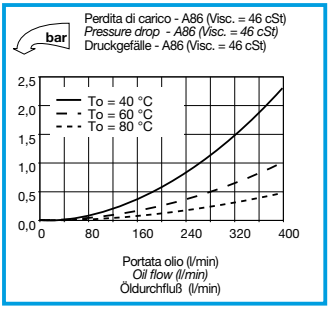
CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634240001	SCM A83 IA PRED. GR2	580	—	300	53	23
FR634240002	SCM A83 IS PRED. GR2	580	—	300	53	23
FR634240013	SCM A83 IA MOT. IDR. GR2	580	11	360	54	23
FR634240014	SCM A83 IS MOT. IDR. GR2	580	11	360	54	23

SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER









CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634260003	SCM A86 IA PRED. GR2	580	—	330	58	28
FR634260004	SCM A86 IS PRED. GR2	580	—	330	58	28
FR634260013	SCM A86 IA MOT. IDR. GR2	580	11	390	59	28
FR634260014	SCM A86 IS MOT. IDR. GR2	580	11	390	59	28

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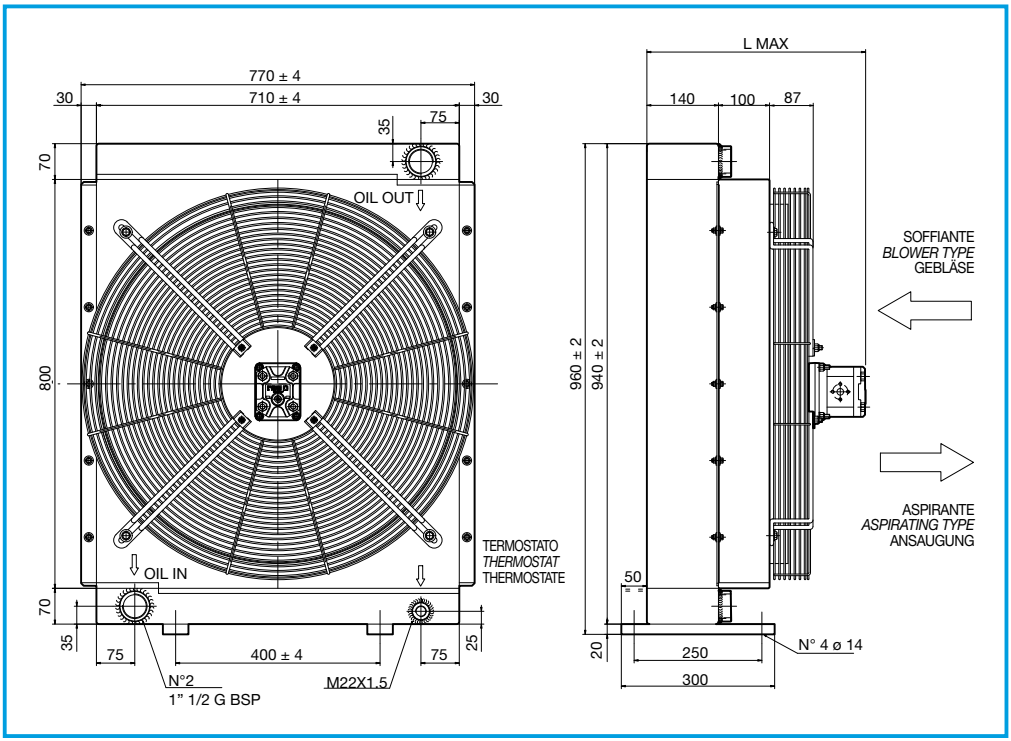
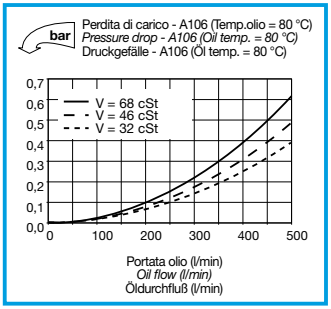
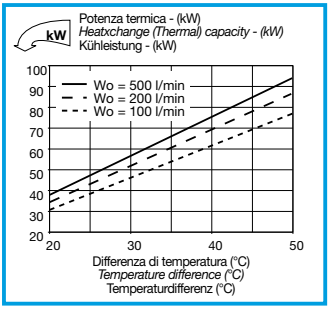
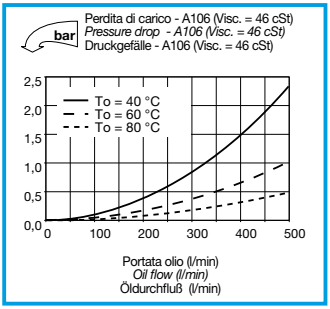
SCAMBIATORI DI CALORE IN ALLUMINIO
ALUMINIUM HEAT EXCHANGERS
ALUMINIUM WÄRMETAUSCHER



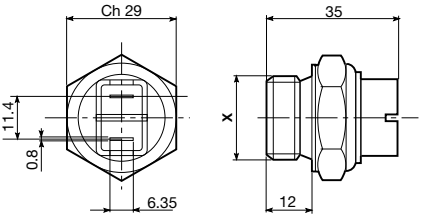






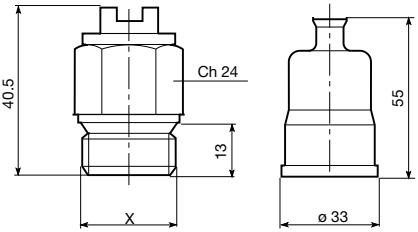
CODICE *CODE* BEST.-NR.	TIPO *TYPE* TYP	DIAMETRO VENTOLA *FAN DIAMETER* LÜFTERS-DURCHMESSER mm	CILINDRATA MOTORE *DISPLACEMENT MOTORS* FÖRDERVOLUMEN MOTOR cm³/h	L MAX mm	MASSA *WEIGHT* GEWICHT kg	CAPACITÀ *CAPACITY* KAPAZITÄT lt
FR634270003	SCM A106 IA PRED. GR2	690	—	370	80	32
FR634270004	SCM A106 IS PRED. GR2	690	—	370	80	32
FR634270013	SCM A106 IA MOT. IDR. GR2	690	11	430	81	32
FR634270014	SCM A106 IS MOT. IDR. GR2	690	11	430	81	32

TERMOSTATI
THERMOSTATS
THERMOSTATE



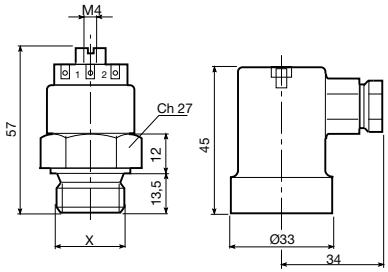
TEMPERATURE DI INTERVENTO (C°) *TRIGGER TEMPERATURE (C°)* SCHALTTEMPERATUR (C°)		CODICE *CODE* BEST. - NR.
45 - 35	M22x1,5	FR 361104535
60 - 50	M22x1,5	FR 361106050
80 - 70	M22x1,5	FR 361108070
82 - 68	M22x1,5	FR 361108268
85 - 76	M22x1,5	FR 361108576

TERMOSTATI PROTETTI IP54
IP54 PROTECTED THERMAL SWITCH
GESCHUTZTE THERMOSTATE IP 54



TEMPERATURE DI INTERVENTO (C°) *TRIGGER TEMPERATURE (C°)* SCHALTTEMPERATUR (C°)		CODICE *CODE* BEST. - NR.
45 - 35	M22x1,5	FR 361124535
50 - 40	M22x1,5	FR 361125040
60 - 50	M22x1,5	FR 361126050
70 - 60	M22x1,5	FR 361127060
80 - 70	M22x1,5	FR 361128070

TERMOSTATI PROTETTI IP65
IP65 PROTECTED THERMAL SWITCH
GESCHUTZTE THERMOSTATE IP 65



TEMPERATURE DI INTERVENTO (C°) *TRIGGER TEMPERATURE (C°)* SCHALTTEMPERATUR (C°)		CODICE *CODE* BEST. - NR.
45 - 35	M22x1,5	FR 361154535
47 - 36	M22x1,5	FR 361155040
60 - 50	M22x1,5	FR 361156050
60 - 50	1/2” G	FR 361146050
70 - 60	1/2” G	FR 361147060
80 - 70	M22x1,5	FR 361158070