

POMPE CENTRIFUGHE DI PROCESSO, MONOSTADIO, A NORME ISO 2858 /DIN 24256 PER L'INDUSTRIA CHIMICA E LIQUIDI VARI

CENTRIFUGAL MONOSTAGE PROCESS PUMPS ACCORDING TO ISO 2858 /DIN 24256 FOR CHEMICALS AND VARIOUS LIQUIDS

POMPES PROCESS CENTRIFUGES MONOCELLULAIRES NORMALISÉES ISO 2858 /DIN 24256 POUR INDUSTRIE CHIMIQUE ET LIQUIDES VARIÉS

SERIE/TYPE
ALFA

Esecuzione standard : ORIZZONTALE
Standard construction : HORIZONTAL
Exécution standard : HORIZONTALE

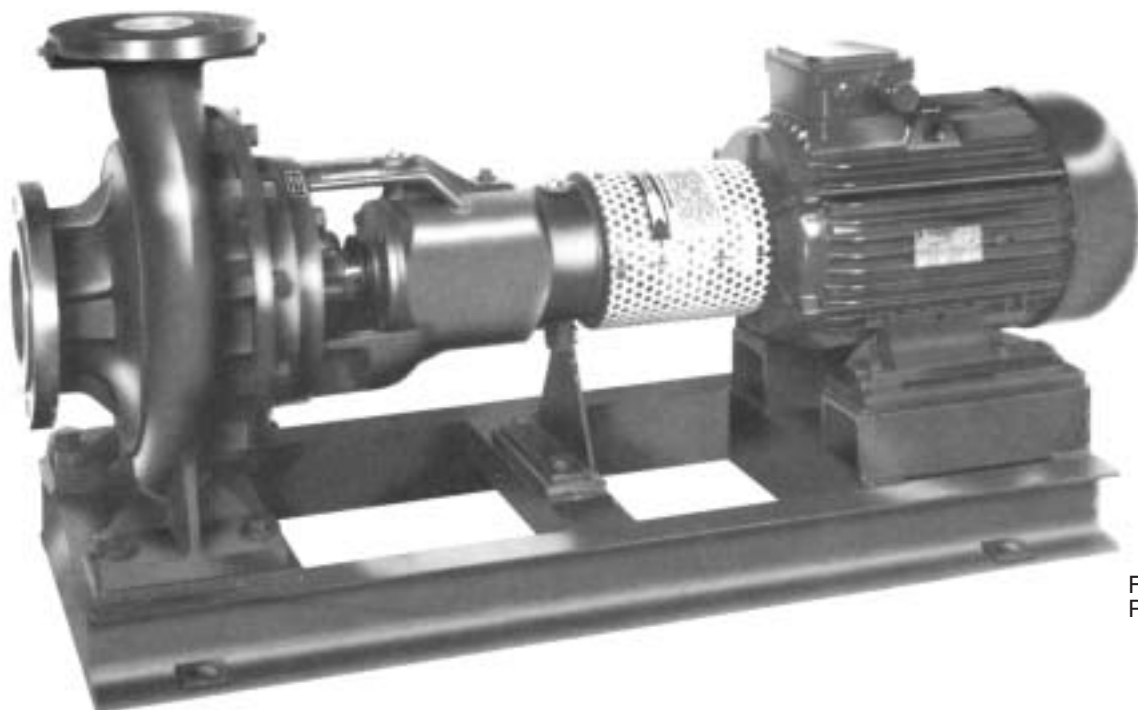


Fig. 1
Pic. 1

"ALFA"

QUALITÀ E VANTAGGI DELLA SERIE NORMALIZZATA:

Quality and advantages of normalized series:

Qualité et avantages de la serie normalisées:

- **FUNZIONAMENTO CONTINUO**
24 ore su 24, ADATTO AL SERVIZIO DI PROCESSO
Continuous operation 24h/24 suitable for PROCESS SERVICE
Fonctionnement continu 24 heures sur 24, apte au SERVICE PROCESS
- **ALBERO DI GRANDE Ø :**
RIDUZIONE DI FLESSIONI e VIBRAZIONI
Large ø shaft: reduction of deflections and vibrations
Arbre de forte ø : reduction de fleches et vibrations
- **CUSCINETTI LARGAMENTE DIMENSIONATI**
Generously sized ball bearings
Roulements largement dimensionnés
- **QUANTITÀ LIMITATA DI PEZZI NELLA SERIE**
Limited number of part in the range
Nombre limité des pieces dans la gamme

GIRI al 1' RPM - t/min.	=	2900	1450
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Q m ³ /h	=	da 2 a 480 from to de à	da 2 a 3000 from to de à
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H m.c.l.	=	fino a 150 up to jusqu'à	fino a 90 up to jusqu'à
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PRESSIONE d'esercizio Running pressure BarMAX Pression de fonctionnement.	STANDARD:	16	SPECIAL: fino a up to jusqu'à 64(100)
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TEMPERATURA Temperature °CMAX Temperature	=	-25+140°	-70+400°
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GIRI al 1' RPM - t/min.	MAX =	3500
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FABBRICA ITALIANA POMPE

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TELEX n° 310677 ASLOMB-I CODE 103

LISTINO
LIST n° 1
Catalogue

DATA : 01 - 01 - 2006
Date

POMPE TIPO: ALFA - DIAGRAMMI: Campo di prestazioni - n = 2900 GIRI/1'

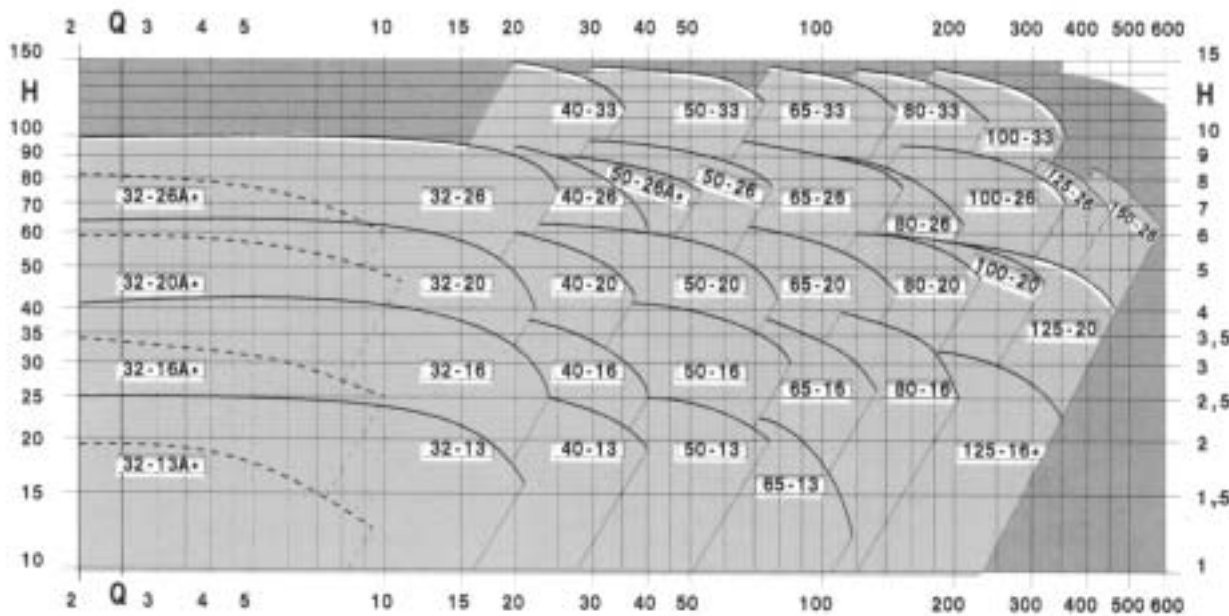
Pumps type:
Pompes type:

Curves: Range chart
Courbes: Domaine de performance

RPM
t/min.

Q = PORTATA / CAPACITY / Débit (m³/h)

H = PREVALENZA totale / Total dynamic head / Hauteur totale (m)



H = PREVALENZA totale / Total dynamic head / Hauteur totale (Bar)

Q = PORTATA / CAPACITY / Débit (m³/h)

POMPE TIPO: ALFA - DIAGRAMMI: Campo di prestazioni - n = 1450 GIRI/1'

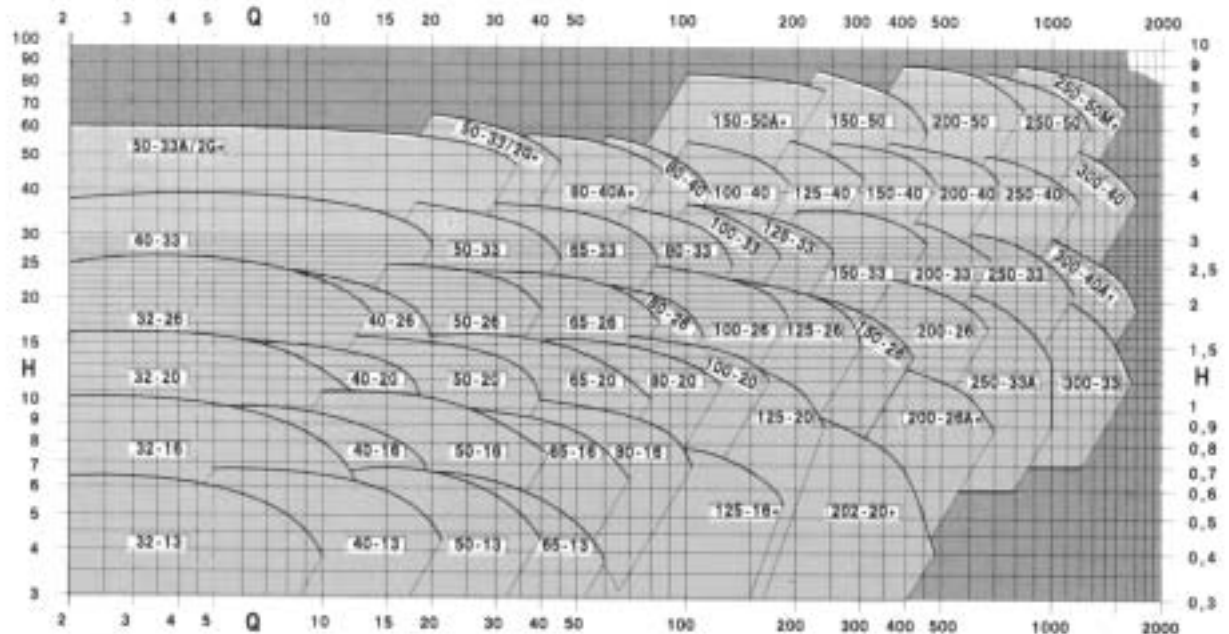
Pumps type:
Pompes type:

Curves: Range chart
Courbes: Domaine de performance

RPM
t/min.

Q = PORTATA / CAPACITY / Débit (m³/h)

H = PREVALENZA totale / Total dynamic head / Hauteur totale (m)



H = PREVALENZA totale / Total dynamic head / Hauteur totale (Bar)

Q = PORTATA / CAPACITY / Débit (m³/h)

■ Campo coperto da n°2 pompe installate in SERIE o in PARALLELO
= Operating chart covered by 2 pumps in SERIES or PARALLEL
Domaine de performance convert par 2 pompes en SERIE ou PARALLELE

(*) ns. GRANDEZZE complementari
= our complementary sizes
nos GRANDEURES complémentaires

- Dati di funzionamento per H₂O a 18°C - Y = 1
Viscosità = 1,5°E - Tolleranze d'uso: ± 5%
- Prevalenza e potenza variano in rapporto al peso specifico del liquido da sollevare
- L'altezza di aspirazione e la portata diminuiscono per i liquidi densi e volatili.

- Working data H₂O at 18°C - Y = 1 - Viscosity = 1,5°E - Use tolerances: ± 5%
- Head and power vary according to specific weight of the liquid to be risen
- The suction height and the flow decrease for thick and volatile liquids.

- Données de marche pour H₂O à 18°C - Y = 1
Viscosité = 1,5°E - Tolérances: ± 5%
- Hauteur d'élevation et puissance changent à mesure du poids spécifique du liquide à élever
- L'hauteur d'aspiration et le débit diminuent pour des liquides denses et volatils.

NPSHr = PER SICUREZZA AUMENTARE DI 0,5 m. i VALORI INDICATI

NPSHr = VALUE MUST BE INCREASED OF 0,5 m. FOR SAFETY

NPSHr = POUR SÉCURITÉ ON DOIT AUGMENTER LES VALEURS DE 0,5 m.

DENOMINAZIONE DELLE POMPE Esempio:	DEFINITION OF PUMPS Example:	DENOMINATION DES POMPES Exemple:
POMPA TIPO - Type pump - pompe		ALFA 32 - 26 A
GRANDEZZA Size - Grandeur	Ø BOCCA PREM. - Disc. nozzle - Goulotte ref. Ø NOMINALE GIRANTE - Rated impeller - Nominale roue GIRANTE - Impeller - roue: TIPO - Type	

CAMPO D'IMPIEGO

- Per liquidi puliti o sporchi - freddi o surriscaldati - corrosivi o abrasivi.
- Materiale ed accorgimenti costruttivi adeguati per ogni esigenza.
- Adatte per: industrie CHIMICHE - FARMACEUTICHE - ALIMENTARI - ACCIAIERIE - CARTIERE - ZUCCHERIFICI - PETROLIFERE - CALDAIE A VAPORE - ACQUEDOTTI.
- Per impianti di: CONDIZIONAMENTO - RISCALDAMENTO - LAVAGGI INDUSTRIALI - IMBOTTIGLIAMENTO - DEPURAZIONE ACQUA - VERNICIATURA - ANTINCENDIO - ecc.

COSTRUZIONE STANDARD

- Le pompe sono costruite secondo lo schema delle pompe di processo "BACK PULL-OUT" con cassa a spirale e piedi di sostegno, avente aspirazione assiale e mandata radiale verso l'alto. Girante equilibrata idraulicamente.
- La TENUTA MECCANICA è del tipo unificato VDMA 24960, senza raffreddamento per $T \leq 140^\circ\text{C}$, con flussaggio a ricircolo interno secondo lo schema API PLAN 01.
- A richiesta: premistoppa con BADERNE appropriate, con RAFFREDDAMENTO per $T \geq 110^\circ\text{C}$.
- BASE: in Acciaio al carbonio.

MATERIALI

CORPI POMPA: in ghisa G. 25 (UNI 5007)
GIRANTE ed ANELLI usura: in ghisa G. 25
ALBERO: INOX AISI 420
CAMICIA d'albero (Baderne): acciaio antiusura
GUARNIZIONE piana: tipo Noman.

SOPPORTAZIONE

Sopperto in ghisa e staffa d'appoggio in acciaio con n°2 cuscinetti radiali a sfere, lubrificati a:

a richiesta	Standard
GRASSO ($T = -25^\circ + 220^\circ$)	OLIO con oliatore a livello costante ($T = -70 + 400^\circ$) C.S. e RAFFREDD. ad acqua ($\geq 220 \leq 400^\circ$)
T = °C del liquido pompato	

USES

- FOR CLEAN OR DIRTY, COOL OR OVERHEATED, CORROSIVE OR ABRASIVE, LIQUIDS
- MATERIALS AND CONSTRUCTIVE ARTIFICE FOR ANY REQUIREMENT.
- FIT FOR INDUSTRIES: CHEMICAL - PHARMACEUTICAL - FOODSTUFFS - STEEL FACTORIES - PAPER FACTORIES - SUGAR MILLS - PETROLEUM REFINERY - BOILER - ACQUEDUCTS.
- FOR PLANTS OF: CONDITIONING - HEATING - INDUSTRIAL WASHING - LIQUID BOTTLING - WATER TREATMENT - PAINTING - ANTIFIRE - ETC.

STANDARD CONSTRUCTION

- These pumps "back pull-out" have a standard process type design: single stage, single volute foot casing with axial suction and upward radial discharge. Hydraulically balanced impeller. MECH. SEAL is in accordance with VDMA 24960 for $T \leq 140^\circ\text{C}$, no cooling, with internal recirculation (API PLAN 01) - ON request: fit gland packing, with cooling for $T \geq 110^\circ\text{C}$.
- BASE PLATE: in Carbon Steel.

MATERIALS: GH

PUMP CASING: Cast iron G.25 (UNI 5007).
IMPELLER and WEAR RINGS: G.25
SHAFT: inox AISI 420
SHAFT SLEEVE packed pump: anti-wear steel
FACE GASKET: type Nonam.

SUPPORT

Cast iron support and steel foot with n°2 radial ball bearings, lubricated:

FLANGE

PN 16 (UNI 2237/2240)
A richiesta: PN 40 (UNI 2242) - PN 64 (UNI 2243)
Foratura o Flangiatura ANSI 150-300-600
In casi speciali: PN 100 (UNI 2244) - ANSI 900.

SENSO DI ROTAZIONE

ORARIO visto lato comando.

AZIONAMENTO

- Motori elettrici Unel Mec - B3 - 2/4 Poli - 50 Hz - C.V.E. - IP55 - Cl. F - (V. 220/380/3: fino a 5,5 kW) (V. 380/660/3: oltre) (B5 o V1: se pompe Verticali).
- GIUNTO ELASTICO: con COPRIGIUNTO
- Per grand. mot. >132: si consiglia il GIUNTO SPAZIATORE.

A richiesta:

- VOLT/Hz/Cl./IP./n°Poli, differenti - Tropicalizzati o declassati
- Motori EExd - Motori multintensione, secondo DIN IEC 38
- Motori a SCOPPIO/DIESEL - TURBINA - ecc.
- Giunto metallico a lamelle (SEMPRE CON SPAZIATORE) e ANTISCINTILLA se necessario - GIUNTO PERIFLEX - ecc.
- Interposizione di un RIDUTTORE / MOLTIPLICATORE.

VERNICIATURA

- blu RAL 5002
- (Con $T > 140^\circ\text{C}$: bianco alluminio RAL 9006)
- COPRIGIUNTO : giallo RAL 1004

TOLLERANZE di COLLAUDO e TEST POMPE

- NORME ISO 2548-cl. C-p.to B (standard)
- UNI ISO 3555-cl. B (a richiesta)

MOTORI ELETTRICI

NORME C.E.I.

On request	Standard
GREASE ($T = -25^\circ + 220^\circ$)	OIL with constant level oiler ($T = -70 + 400^\circ$) As above and COOLING with water ($\geq 220 \leq 400^\circ$)
T = °C of the pumped liquid	

FLANGES: NP16 (UNI 2237/2240)

On request: NP40 (UNI 2242) NP 64 (UNI 2243)
Drilling or Flanging ANSI 150-300-600
In special cases: NP 100 (UNI 2244) - ANSI 900

DIRECTION OF ROTATION: Clockwise rotation seen from the control side.

DRIVE: Electrical Unel Mec motors - B3-2/4 poles-50Hz - Enclosed construction and external ventilation - (B5 or V1: when vertical pumps) - IP55 - Cl. F - (V. 220/380/3: up to 5,5 kW) (V. 380/660/3: over).

- FLEXIBLE COUPLING: with C. guard.
- Motor SIZE > 132: we suggest SPACER COUPLING.

On request: Volt/Hz/Cl./IP./n° Poles, differents - Tropicalized or declassified.

- Expl. proof Motors EExd - Multi voltage motors, in according: DIN IEC 38.
- Motors, spark IGNITION/DIESEL - TURBINE - etc.
- Flexible all metall coupling (ALWAYS SPACER TYPE) and NON-SPARKING if necessary - PERIFLEX coupling - etc.
- With GEAR REDUCTION / OVER UNIT.

PAINTING

- : blue RAL 5002
- (With $T > 140^\circ$: withe aluminium RAL 9006)
- C. GUARD : yellow RAL 1004

TOLERANCES and TEST PUMPS:

- ISO 2548-class. C-annex B (standard)
- UNI ISO 3555-cl. B (on request)

ELECTRICAL MOTORS: According to C.E.I. standards.

EMPLOIES

- Pour des liquides propres ou sales, froids ou surchauffés, corrosifs ou abrasifs.
- Matériels et artifices de construction aptes pour chaque exigence.
- Aptes pour industries: chimiques - pharmaceutiques - alimentaires - aciéries - papeteries - sucreries - pétrolierie - chaudières - aqueducs.
- Pour des installations de: conditionnement - chauffage - lavage industriel - embouteillage de liquides - dépuración et traitement d'eau - vernissage - service contre les incendies - etc.

CONSTRUCTION STANDARD

- Les pompes sont projetées suivant le schéma des pompes de procès "back pull-out" avec le corps à volute et béquilles, ayant aspiration axiale et refoulement radial vers en haut. ROUE équilibrée hydrauliquement.
- GARNIT. MECAN. c'est du type unifié VDMA 24960 pour T≤140°C, sans refroidissement, avec recirculation intérieure (API PLAN 01) - Sur demande: apte garniture de presse - étoupe, avec REFROIDISSEMENT pour T110≥C:
- PLAQUE DE BASE: en Acier au carbone.

METALLURGIE

CORPS POMPE: Fonte G.25 (UNI 5007)
 ROUE et BAGUE D'USURE: G.25
 ARBRE: inox AISI 420
 CHEMISE D'ARBRE (pour ganiture de presse - étoupe): acier anti-usure
 JOINT PLAT: type Nonam

SOUTÈNEMENT

Soutènement en fonte et piece d'appui en acier avec n°2 roulement à billes, lubrifiés à la graisse:

sur demande	Standard
GREASE (T=-25°+220°)	HUILE avec graisseur à niveau constant (T=-70+400°)
	ci-dessus et refroidissement avec eau (≥220≤400°)
T = °C du liquide pompé	

JOUES:

PN16 (UNI 2237/2240)
 Sur demande: PN40 (UNI 2242) PN 64 (UNI 2243)
 Perçage ou bridage ANSI 150-300-600
 En cas specials: PN100 (UNI 2244) - ANSI 900

SENS DE ROTATION:

Horaire vu du côté des commandes.

COMMANDE:

Moteurs electriques Unel Mec -B3-2/4 pôles-50Hz - Construction fermée et à ventilation externe - **(B5 ou V1: si pompes verticales)** - IP55-Cl. F - (V. 220/380/3: jusqu'à 5,5 kW) (V. 380/660/3: au dessus)
 ACCOUPLEMENT ELASTIQUE: avec COUVRE-joint
 Pour grandeur >132: on conseil ACCOUPLEMENT à piece d'espacement.

Sur demande:

Volt/Hz/Cl./IP./n° pôles différentes - Tropicalizè ou **declassé**.
 Moteurs EExd antidéflagrant - Moteurs multi voltages, normalisées DIN IEC 38
 Moteurs à Explosion/Diesel - TURBINE - etc.
 Accouplement métallique à lamelles (TOUJOURS A PIECE d'ESPACEMENT) et ANTI-ETINCELLE si nécessaire -
 Accouplement PERIFLEX - etc.
 Avec REDUCTEUR / MULTIPLICATEUR à engrenages.

VERNISSAGE

: blu RAL 5002
 (Avec T>140°C : blanc aluminium RAL 9006)
 COUVRE- joint : jaune RAL 1004

TOLERANCES et TEST POMPES:

ISO 2548 type C - annexe B (standard)
 UNI ISO 3555-type B (sur demande)

MOTEURS ELECTRIQUES:

Normes C.E.I.

VARIANTI ALLA COSTRUZIONE STANDARD: SU RICHIESTA

• Alcune parti interne con materiali diversi o su specifica del Cliente:

GX = G.25 con:			
{	Girante	=	inox aisi 316
	Albero	=	" 420
	Camicia Alb.	=	" 303

- Girante: APERTA - CANALI - WORTEX con INDUCER.
- Flussaggi e lavaggi vari - Raffreddamento o Riscaldamento al Premistoppa, Corpi pompa, Sopperto.
- TEN. MECC./BADERNE PREMISTOPPA di vario tipo e marca.
- Flangiatura e raccordi particolari, ecc.

OPTIONAL STANDARD CONSTRUCTION: ON REQUEST

• Some inner parts with various materials or on specification of customer:

GX = G.25 con:			
{	Impeller	=	inox aisi 316
	Shaft	=	" 420
	Shaft sleeve	=	" 303

- IMPELLER: OPEN - CHANNEL - WORTEX with INDUCER.
- Different circulations and washings -Cooling or Heating of stuffing box, pump casings, Bearing housing.
- Different type and make MECHAN. SEALS/GLAND PACKING.
- Particular Flanges and unions, etc.

VARIATIONS DE LA CONSTRUCTION STANDARD ET OPTIONALS: SUR DEMANDE

• Des parties intérieures avec matériaux divers ou sur prescription du client:

GX = G.25 con:			
{	Rove	=	inox aisi 316
	Arbre	=	" 420
	Chemise arbre	=	" 303

- ROUE: OUVERT - CANNAUX - WORTEX avec INDUCER.
- Plusieurs Fluxages et Lavages - Refroidissement ou chauffage du couvercles, corps pompe, Ensembles paliers.
- GARNIT. MECAN./PRESSE - ETOUPE de différent type et marque.
- Flanges et raccords particulières, etc.

PARTICOLARE Part Parties	COSTRUZIONI SPECIALI / SPECIAL CONSTRUCTIONS / CONSTRUCTIONS SPECIALES				
	MATERIALI / MATERIALS / METALLURGIES				
	GS (400-12) G. sferoidale Nodular cast iron Fonte sferoidale (NO: "13")	AQ (Fe G 520) Acciaio al carbonio Carbon steel-WCB Acier au carbone	X6 (AISI 316) (CF-8M) Acciaio inox Steinless steel Acier inox	L6-D6-C6-C2-U6-HC Superleghe INOX S.S. super - alloys, Inox de alliages superieures	BR - BM - BA Leghe di Bronzo BRONZE alloys Alliages de Bronze
CORPO POMPA e SCUDO - Pump casing and cower - Corp de pompe et couvercle	GS	AQ	"	"	"
ANELLI USURA - Wear rings - Bagues d'usure	GH (X6)	GH (X6)	"	" a simile or similar ou similaire	X6 (")
GIRANTE - Impeller - Roue	GH	GH	"	"	"
ALBERO - Shaft - Arbre	AISI 420	AISI 420	"	"	X6
CAMICIA ALB. - Shaft sleeve - Chemise de protection arbre	AISI 303 (X6 + colm.6)	AISI 303 (X6 + colm.6)	(X6 + colm.6)	"	AISI 303 (X6 + colm.6)

NB: Per PRESTAZIONI superiori o condizioni di esercizio particolari Vi preghiamo interpellare il ns. Ufficio Tecnico Commerciale.






NOTE: When higher PERFORMANCES or particular operating conditions are required, please contact our technical commercial department.

Remarque: Pour PERFORMANCES supérieures ou conditions de fonctionnement particulières veuillez contacter notre service technique commercial.

INTERCAMBIALITA' DEI DIVERSI ASSIEMI

INTERCHANGEABILITY OF THE VARIOUS SUB-ASSEMBLIES
INTERCHANGEABILITÉ DES DIVERSES ENSEMBLES

ISO 2858 / DIN 24256

n°	DESCRIZIONE - Description	n°	DESCRIZIONE - Description
48	 CORPI POMPA <i>Pump casings</i> Corps pompe	5	 SOPPORTI <i>Bearing housings</i> Soutenements
58	 GIRANTI standard <i>Impellers</i> Roues	6	 ALBERI <i>Shafts</i> Arbres
7	 GRANDEZZE SCUDO <i>Sizes cover</i> Grandeures couvercle	6* 6**	GRANDEZZE TEN. MECC. <i>Sizes Mechan. Seal</i> Grandeures Garnit. Mécan.

* (Standard) = SU ALBERO - on shaft - sur l'arbre

** (a richiesta/on request /sur demande) = SU CAMICIA d'alb. -on sleeve - sur la chemise d'arbre

ESTENSIONE
E LIMITI
DI FORNITURA

TABELLE IN AGGIORNAMENTO DISPONIBILI SOLO SU RICHIESTA
: Previo accordi, alcune saranno a pagamento sec. Tariffe A.N.I.M.A. in
vigore - Sempre a ns. giudizio insindacabile: tempi/modi/fattibilità.

- 1) QUOTE INGOMBRO: Gruppi Elettropompe con Motori Unel Mec o di altro tipo.
- 2) DISEGNI IN SEZIONE: con nomenclatura della parti dettagliate.
- 3) Intercambiabilità "DETTAGLIATA" delle parti comuni.
- 4) Le pompe ALFA sono dimensionate in modo da sopportare FORZE e MOMENTI in conformità ad ISO 5199.
- 5) Cicli di VERNICIATURA, diverso da standard.
- 6) Regole ed osservazioni sull'uso delle CURVE con formule per il calcolo del η% e kW. ass. - Max vel. perif. in + al Ø GIR. e materiale - ecc.
- 7) Limiti d'impiego dei SOPPORTI:
 - a) Freccia statica albero con Ø max della girante - Coppia max (Cm) in Kg.m.: $\frac{Cm.n/1'}{974} = \text{max Kw trasmessi} - \text{Velocità critica (giri/min.)}$
 - b) Tipo cuscinetti e quantità OLIO necess. per la lubrificazione.
 - c) Q in m³/h necess. per: RAFFREDD. OLIO Supporto - RAFFREDD./RISCALD. premistoppa.
 - d) Diagramma della max Press. per i CORPI in + °C e materiali impiegati.
- 8) Peso rotore - PD² - Velocità max giri/min - Min. spessore Corpi in mm.
- 9) GIRANTI:
 - a) Luce min. passaggio.
 - b) Giochi diametrali tra collare ed anello, per esecuzione G - inox.
- 10) n° e n° anelli Baderne, Ø TEN. MECC. in + al Ø ALB. con / senza Bussola.
- 11) COLLAUDI, sec. NORME UNI/ISO scelte, per: Q-H-KW ASS. - TEST idrostatico - (NPSH: ove possibile)
- 12) Ns. documentazione interna per:
 - a) ANALISI materiali - LIQ. penetranti - VIBRAZIONI - RUMOROSITA' - MAGNAFLUX ecc.
 - b) Collaudi particolari: R.I.N.A. - Bureau Veritas - Lloyds Register - Det Norske Veritas - ecc.
 - c) Certificazioni: Conformità alla direttiva macchine 89/392/CEE - QUALITA' PRODOTTO - DICHIARAZIONE collaudo - BOLLETTINI collaudo Pompe/Motori - Certific. C.E.S.I.

NB.: SIAMO CERTIFICATI ISO 9001:2000

POMPE CENTRIFUGHE PER L'INDUSTRIA CHIMICA
CENTRIFUGAL PUMPS FOR CHEMICALS / POMPES CENTRIFUGES POUR INDUSTRIE CHIMIQUE

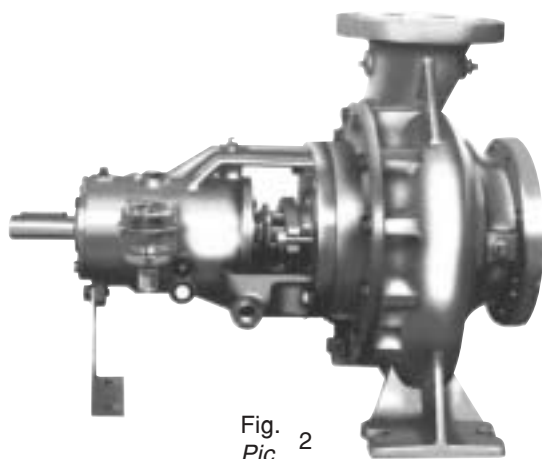


Fig. 2
Pic.

Pompe ALFA con
camicia di
riscaldamento

ALFA
JACKETED
PUMP

Pompe ALFA
avec chemise
de réchauffage

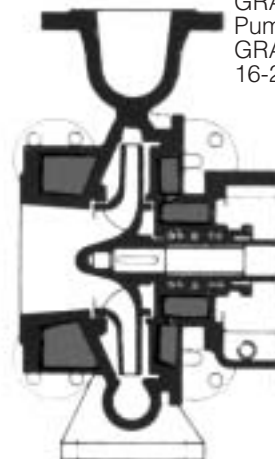


Fig. 3
Pic.

GRAND. Pompe
Pump SIZE:
GRANDEUR pompe
16-20-26-33-40-50

ESTRAZIONE DEL ROTORE CON SOPPORTO, DOPO SMONTAGGIO DEL GIUNTO SPAZIATORE, SENZA LA RIMOZIONE DEL CORPO POMPA O DEL MOTORE.

Where the pumping group is equipped with a spacer type coupling, the complete rotor can be removed from pump casing without disturbing piping and driver.

Sa structure permet la revision complète de toutes les parties tournantes et internes, sans nécessité de séparer le corps de la pompe des tuyauteries d'aspiration et refoulement. Il n'est nécessaire de déplacer égelement le moteur, à condition qu'il soit muni d'un manchon d'accouplement avec pièce d'espacement.

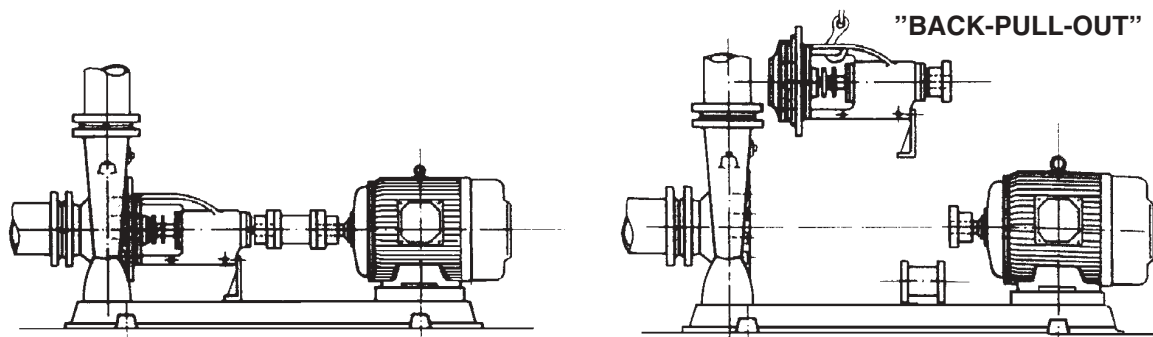


Fig. 4
Pic.

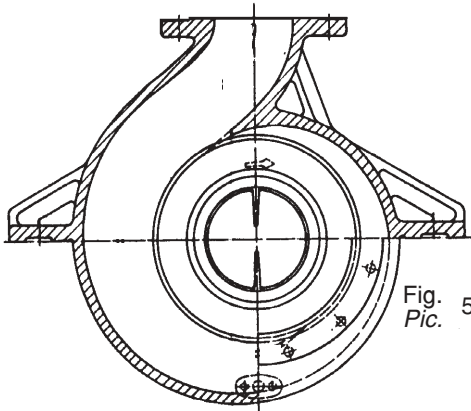


Fig. 5
Pic.

PIEDI IN MEZZERIA: allineamento perfetto - libera dilatazione e contrazione della pompa - sollecitazioni delle tubazioni trasmesse direttamente alle fondazioni.

Feet are located on the center line: correct alignment - the pump is allowed to expand or contract freely - pipe stresses are directly transmitted to the baseplate.

Pieds de la pompe dans la partie moyenne: alignment parfait - libre dilatation et contraction de la pompe - contraintes des tuyauteries envoyées directement aux fondations.

T°C	SIZE	DN PREM.	SIZE	Dn PREM.
≥220÷350°	33	≥125	40-50	all
>350÷450°	16÷50	all	(NO : SIZE "13")	

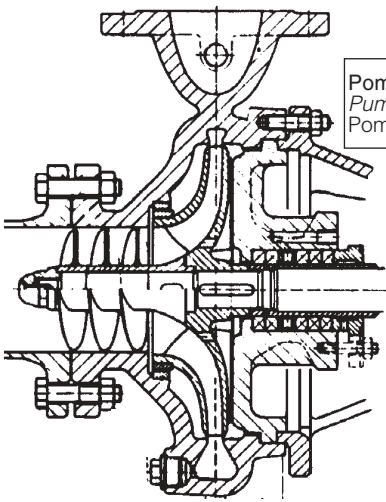


Fig. 6
Pic.

Pompa con
Pump with:
Pompe over

INDUCER

ASPIR. Ø
Suct. = DN. 65
Asp. min.

Elevate caratteristiche ANTICAVITANTI.

Superior ANTICAVITATION characteristics.

Supérieures caractéristiques anti-cavitation.

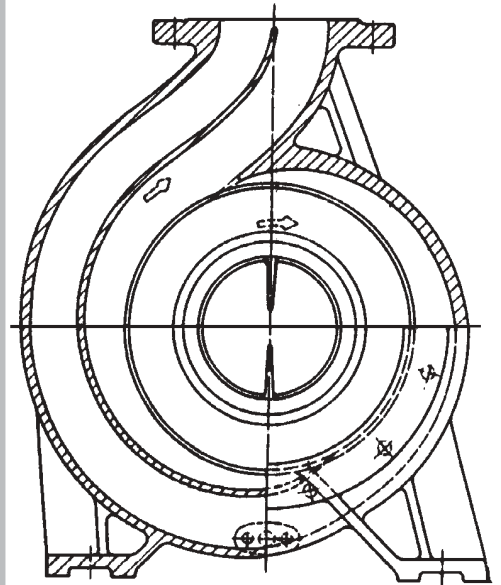


Fig. 7
Pic.

Corpo pompa a **DOPPIA VOLUTA:** per la riduzione della **SPINTA RADIALE** - solo per tipo **ALFA: 200-50/250-50 e 50M.**

*Pump casing with **DOUBLE VOLUTE:** for reduction of the radial thrust - Only for type **ALFA: (comsofare)***

*CORPS DE POMPE A **DOUBLE VOLUTE:** pour la réduction de la poussée radiale - Seulement pour des types **ALFA: (comsofare).***

TIPI DI GIRANTI PER POMPE SERIE "ALFA"

**TYPES OF IMPELLERS FOR "ALFA" PUMPS
TYPES DE ROUES POUR POMPES SERIE "ALFA"**

NORMALI
NORMAL
NORMALES



Fig. 8
Pic.

GIRANTE CENTRIFUGA

CENTRIFUGAL
IMPELLER
ROUE
CENTRIFUGE



Fig. 9
Pic.

GIRANTE ELICOCENTRIFUGA

HELICOCENTRIFUGAL
IMPELLER
ROUE
HELICOCENTRIFUGE



Fig. 10
Pic.



Fig. 11
Pic.



Fig. 12
Pic.



SPECIALI A RICHIESTA
SPECIAL TYPES ON REQUEST
TYPES SPECIALS SUR DEMANDE

GIRANTE A PALE APERTE :RPM
OPEN PADDLES IMPELLERS
ROUE LES VOILETS OUVERTS

Per liquidi: sporchi - fanghi incrostanti .
(Solo per alcuni modelli particolari: interpellare il Costruttore)

*For dirty liquids: - pulps - fluid slushes - muds.
(Only for special modelc: ask the Manufacturer).*

Pour des liquides: sales - trouble - boues fluides - crotte entartrée. (Seulement pour des types particuliers: demandez le Constructeur).

GIRANTE A CANALI (da 2 a 3)
CHANNEL IMPELLER (from 2 to 3)
ROUE A CANNAUX (de 2 à 3)

Per liquidi: con particelle e scaglie in sospensione - abrasivi leggermente densi o viscosi - borlande ecc.
(Solo per alcuni modelli particolari: interpellare il costruttore)

*For liquids: with suspending particles ad scales - abrasive lightly thick or viscous - ecc.
(Only for special modelc: ask the Manufacturer).*

Pour liquides: avec particules et écailles flottanets - abrasifs un peu dense ou visqueux - ecc. - (Seulement pour des types particuliers: demandez le Constructeur).

GIRANTE A WORTEX (arretrata)
WORTEX IMPELLER
ROUE WORTOX EN ARRIERE

Per liquidi fortemente caricati e con corpi o masse filamentoze in sospensione **FUNZIONAMENTO SOTTO BATTENTE** (possibilmente).
(Solo per alcuni modelli particolari: interpellare il costruttore)

*For liquids considerably thick and with suspending matters. **WORKING UNDER HEAD** (possibly).
(Only for special modelc: ask the Manufacturer).*

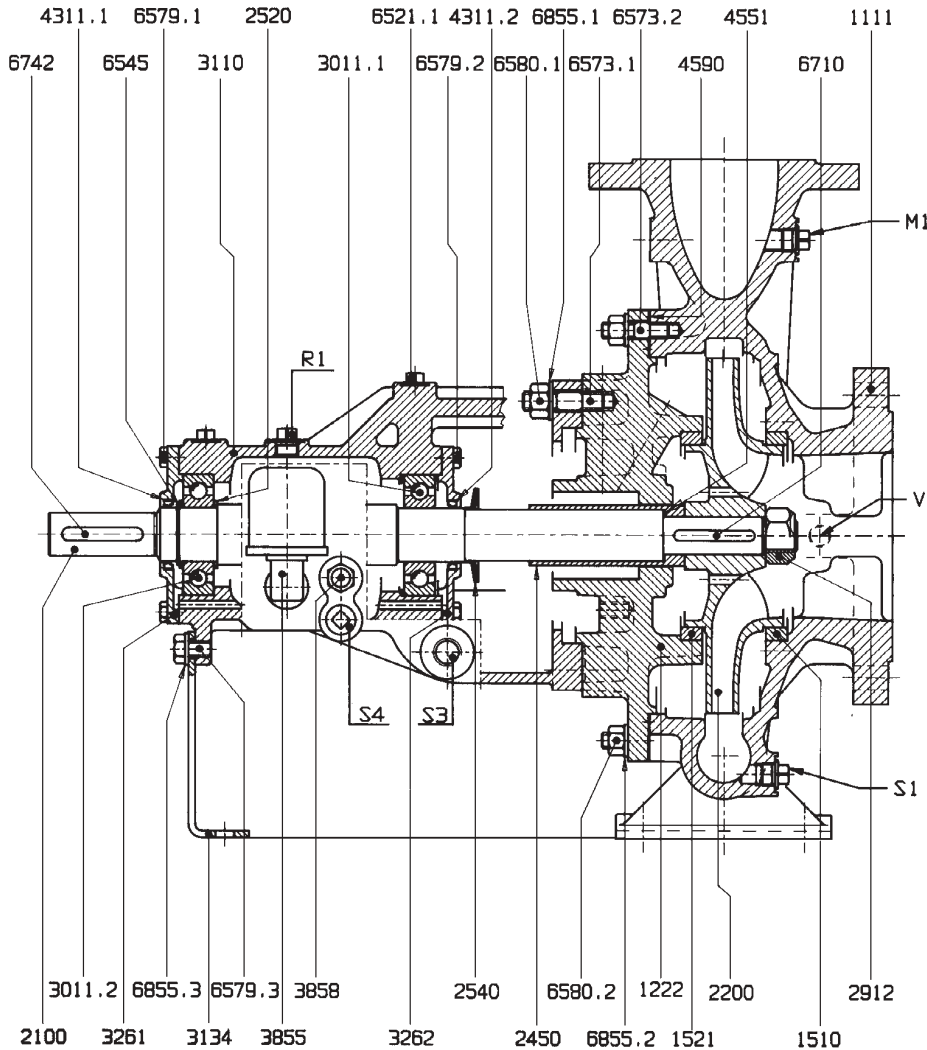
Pour des liquides très denses et avec corps ou masses filamenteuses flottants. **MARCHE SOUS BATTANT** (si possible).
(Seulement pour des types particuliers: demandez le Constructeur).

Hz.50	Hz. 60
730 ÷ 870	
960 ÷ 1150	
1450 ÷ 1750 max	

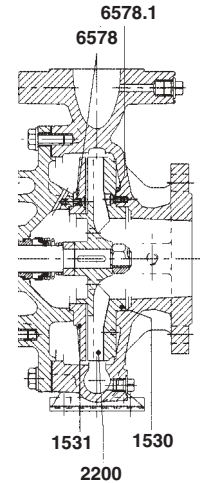
VERSIONE BASE: SEZIONE E NOMENCLATURA
Standard execution: sectional drawing and nomenclature
Exécution standard: dessin en coupe et description

LUBRIFICAZIONE CUSCINETTI: ad OLIO
Lubrication ball bearings: with OIL
 Lubrification des roulements a billes: avec HUILE

RAFFREDDAMENTO DELL'OLIO: a richiesta
Oil cooling: on request
 Refroidissement de l'huile: sur demande
 (Necess. °C LIQ. POMP. = T>220°<400°C)



- | | |
|------|------------------------------------------|
| S1 - | TAPPO SCARICO POMPA |
| S3 - | SCARICO PERDITA TEN. MECC. O PREMISTOPPA |
| S4 - | TAPPO SCARICO OLIO |
| M1 - | ATTACCO MANOMETRO |
| V1 - | ATTACCO VUOTOMETRO |
| R1 - | RIEMPIMENTO OLIO |
-
- | | |
|------|-----------------------------------|
| S1 - | CONNECTION DRAIN PLUG PUMP |
| S3 - | MECH. SEAL OR GLAND PACKING DRAIN |
| S4 - | CONNECTION DRAIN PLUG OIL |
| M1 - | CONNECTION PRESSURE GAUGE |
| V1 - | CONNECTION VACUUM GAUGE |
| R1 - | OIL FILLING |
-
- | | |
|------|-----------------------------------------------------|
| S1 - | CONNEXION DU BOUCHON DE VIDANGE POMPE |
| S3 - | VIDANGE PERTE DE LA GARNIT. MECAN. OU PRESSE-ETOUPE |
| S4 - | CONNEXION DU BOUCHON DE VIDANGE HUILE |
| M1 - | CONNEXION DU MANOMETRE |
| V1 - | CONNEXION DISPOSITIF VACUUM |
| R1 - | REMPLISSAGE HUILE |



VERSIONE: con GIRANTE APERTA
with OPEN IMPELLER
 Execution : avec ROUE OUVERTE

6855.3	1	RONDELLA
6855.2	*	RONDELLA
6855.1	*	RONDELLA
6742	1	LINGUETTA PER GIUNTO
6710	1	LINGUETTA PER GIRANTE
6580.2	*	DADO
6580.1	*	DADO
6579.3	1	VITE T.E.
6579.2	4	VITE T.E.
6579.1	4	VITE T.E.
6573.2	*	PRIGIONIERO
6573.1	*	PRIGIONIERO
6545	1	ANELLO DI FERMO PER ALBERO
6521.1	1+1	TAPPO
4590	1	GUARNIZIONE PIANA
4551	1	GUARNIZ. DELLA CAMICIA PROTEZ. ALBERO
4311.2	1	ANELLO DI TENUTA
4311.1	1	ANELLO DI TENUTA
3858	1	SPIA DELL'OLIO
3855	1	OLIATORE A LIVELLO COSTANTE
3262	1	COPERCHIETTO DEL SOPP. LATO POMPA
3261	1	COPERCHIETTO DEL SOPP. LATO COMANDO
3134	1	PIEDE DEL SOPPORTO
3110	1	SOPPORTO
3011.2	1	CUSCINETTO A SFERE LATO COMANDO
3011.1	1	CUSCINETTO A SFERE LATO POMPA
2912	1	DADO BLOCC. GIRANTE
2540	1	ANELLO PARASPRUZZI
2520	1+1	ANELLO DI SPALLAMENTO
2450	1	CAMICIA PROTEZ. ALBERO
2200	1	GIRANTE
2100	1	ALBERO
1521	1	ANELLO DI USURA LATO POSTERIORE
1510	1	ANELLO DI USURA LATO ANTERIORE
1222	1	COPERCHIO
1111	1	CORPO POMPA

WASHER
WASHER
WASHER
KEY FOR COUPLING
KEY FOR IMPELLER
NUT
NUT
SCREW
SCREW
SCREW
GLAND STUD.
GLAND STUD.
CIRCLIP FOR SHAFT
PLUG
GASKET
SHAFT SLEEVE GASKET
RADIAL SHAFT SEAL AT BEARING
RADIAL SHAFT SEAL AT BEARING
OIL LEVEL SIGHT GLASS
CONSTANT LEVEL OILER
BEARING COVER PUMP SIDE
BEARING COVER DRIVE SIDE
SUPPORT FOOT
BEARING HOUSING
RADIAL BALL BEARING DRIVE SIDE
RADIAL BALL BEARING PUMP SIDE
IMPELLER NUT
THROWER
SHOULDER RING
SHAFT PROTECTION SLEEVE
IMPELLER
SHAFT
WEAR RING IN CASING COVER
WEAR RING SUCTION SIDE
COVER
PUMP CASING

RONDELLA
RONDELLA
RONDELLA
CLAVETTE DE DEMI-ACCOPLEMENT
CLAVETTE DE LA ROUE
EGROU
EGROU
VIS
VIS
VIS
GOUJON
GOUJON
CIRCLIPS EXTÉRIEUR
BOUCHON
JOINT PLAT
JOINT DE LA CHEMISE D'ARBRE
BAGUE D'ÉTANCHEITÉ DE PALIER
BAGUE D'ÉTANCHEITÉ DE PALIER
VOYANT DE NIVEAU D'HUILE
GRAISSEUR A NIVEAU CONSTANT
COUVERCLE DE PALIER CÔTÉ POMPE
COUVERCLE DE PALIER CÔTÉ COMMANDE
BEQUILLE
SUPPORT
ROULEMENT A BILLES CÔTÉ COMMANDE
ROULEMENT A BILLES CÔTÉ POMPE
EGROU DE ROUE
DEFLECTEUR
BAGUE DE SPALLATION
CHEMISE DE PROTECTION DU ARBRE
ROUE
ARBRE
BAGUE D'USURE DU FOND
BAGUE D'USURE CÔTÉ OUIE
COUVERCLE
CORPS DE POMPE

Pos.	Q.tà	DESCRIZIONE
	Q.ty	
	Q.té	
6578.1	*	VITE T.S.E.I.
6578	*	VITE T.S.E.I.
2200	1	GIRANTE APERTA
1531	1	DISCO LATO POSTERIORE
1530	1	DISCO LATO ANTERIORE

DESCRIPTION
SCREW
SCREW
OPEN IMPELLER
WEAR RING PLATE IN CASING COVER
WEAR RING SUCTION SIDE

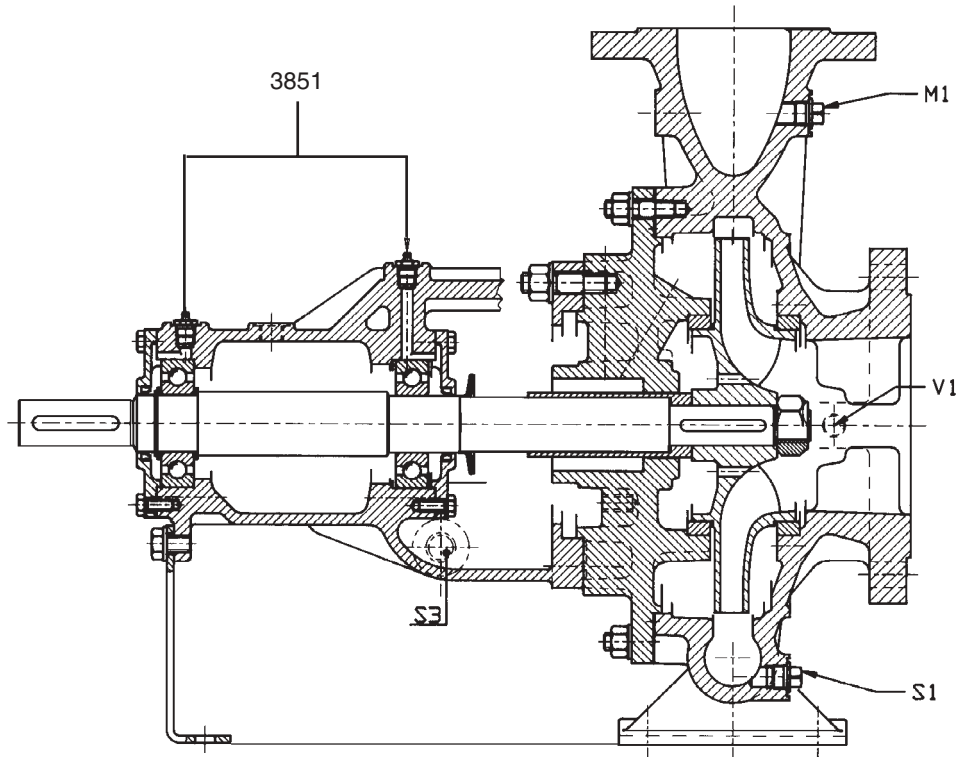
DESCRIPTION
VIS
VIS
ROUE OUVERTE
PLAQUE D'USURE DU FOND
PLAQUE D'USURE CÔTÉ OUIE

*** QUANTITA' VARIABILE**
Variable quantity
 Quantité variable

LUBRIFICAZIONE CUSCINETTI: A GRASSO

Lubrication ball bearings: with GREASE

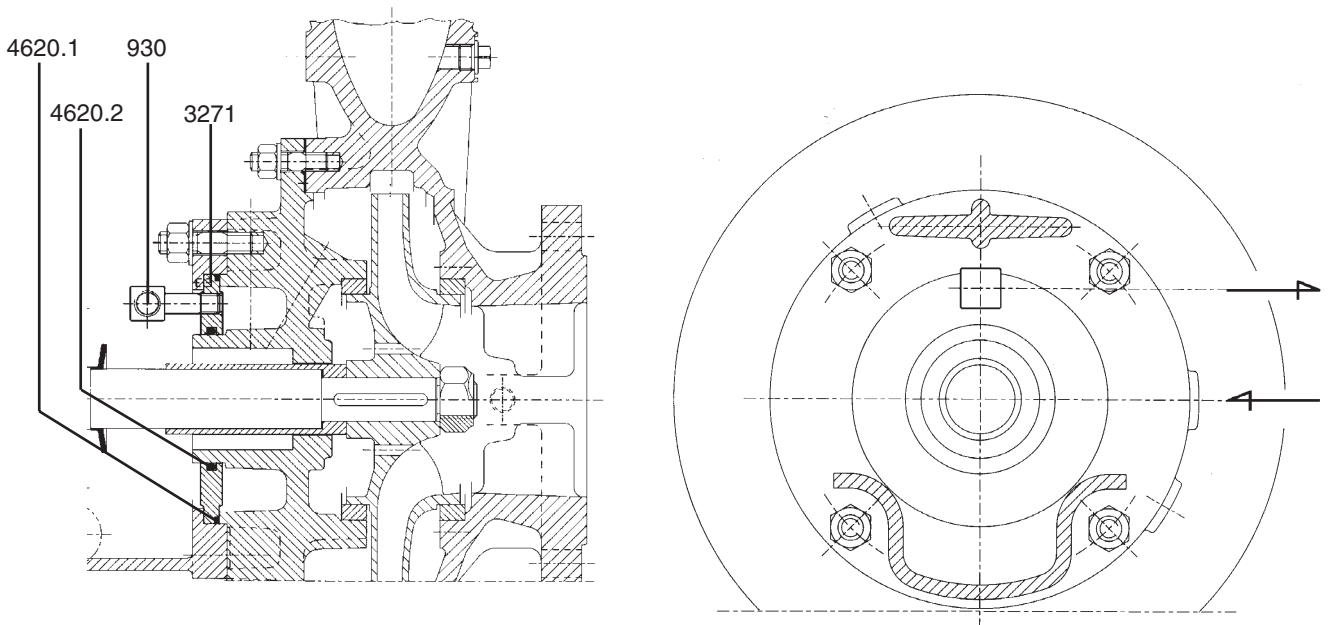
Lubrification des roulements a billes: avec de la GRAISSE



COPERCHIO TEN. MECC. o BADERNE CON: Raffreddamento/Riscaldamento

MECH. SEAL or PACKING COVER WITH: cooling/heating

COUVERCLE GARNIT. MECAN. OU PRESSE-ETOUPE AVEC: refroidissement/chauffage



3851	1+1	INGRASSATORE	GREASE CUP	GRAISSEUR
4620.2	1	ANELLO DI TENUTA	O-RING GASKET	BAGUE O-RING
4620.1	1	ANELLO DI TENUTA	O-RING GASKET	BAGUE O-RING
3271	1	FLANGIA RAFFREDD.	COOLING FLANGE	BRIDE REFROIDISSEMENT
930	1	RACCORDO A GOMITO	ELBOW UNION	RACCORD COUDE
4200	1	TEN. MECC.	MECH. SEAL	GARNIT. MECAN.
2520	1	ANELLO DI SPALLAMEN- TO	SHOULDER RING	BAGUE DE SPALLATION

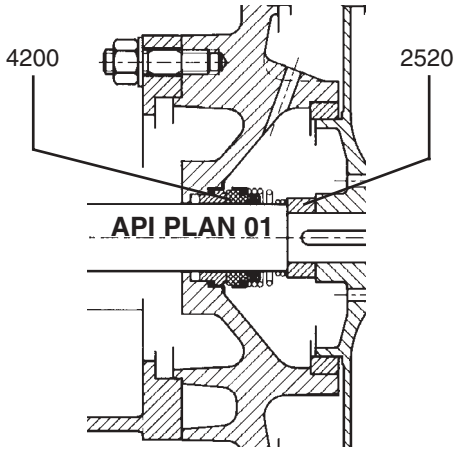
Pos. Q.tà
Q.ty DESCRIZIONE

DESCRIPTION

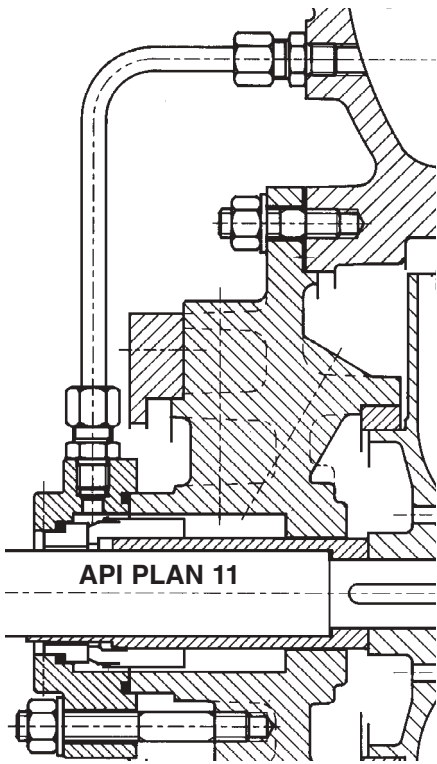
DESCRIPTION

TENUTE MECCANICHE: VARIE VERSIONI (SEZIONI)
MECHANICAL SEALS: DIFFERENT FEASIBILITIES (SECTIONS)
GARNITURE MECANIKES: PLUSIEURS VERSIONS (SECTIONS)

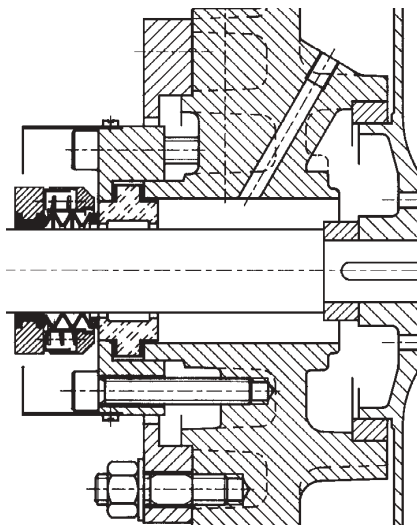
Semplice, NON bilanciata: con ricircolo INTERNO
 (Single, Unbalanced)



Semplice, BILANCIATA: con ricircolo dalla MANDATA
 (Single, balanced)
Su camicia d'albero : standard
Su camicia prolungata : a richiesta



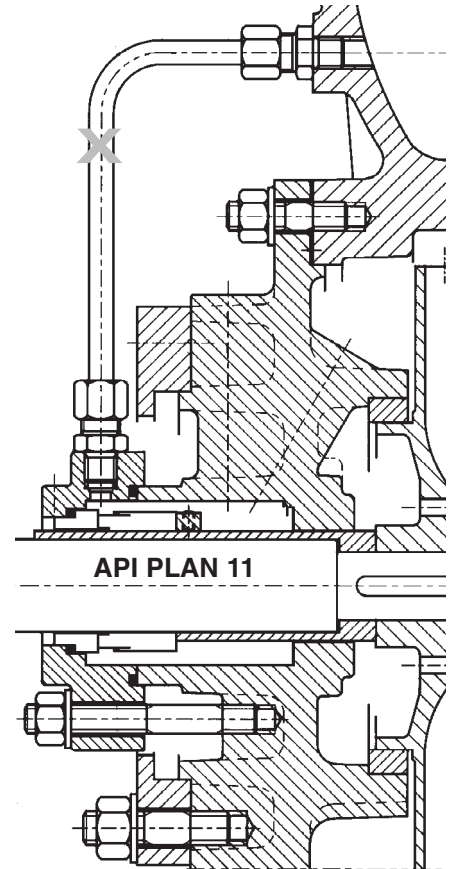
ESTERNA
 (External)



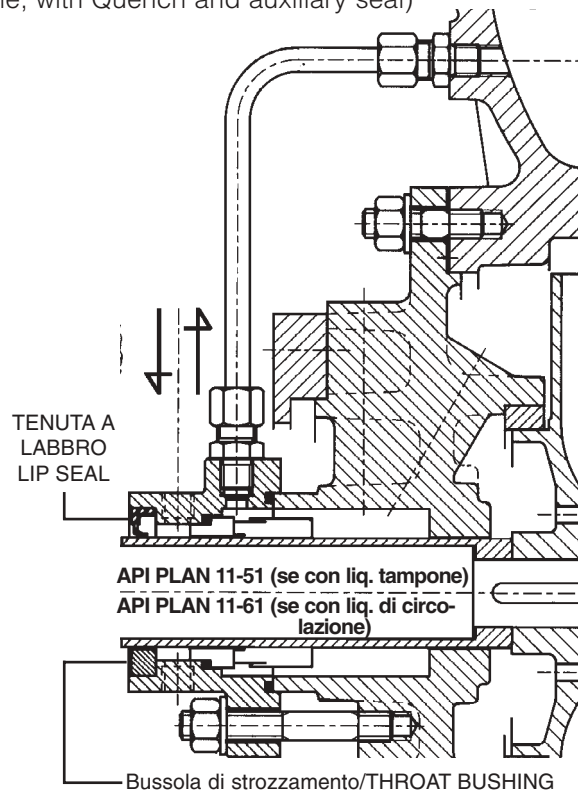
Semplice, NON bilanciata: con ricircolo dalla MANDATA (*)
 (Single, Unbalanced)
Su albero : standard
Su camicia d'albero : a richiesta
 * = con possibilità, se molto sporco, di passarlo preventivamente attraverso un CICLONE SEPARATORE

X = E' possibile anche API PLAN 02 (cassa tenuta "dead-end" senza circolazione di fluido di flussaggio - camera di raffredd. e busso- la di strozzamento sono richieste, salvo diversamente specificato).

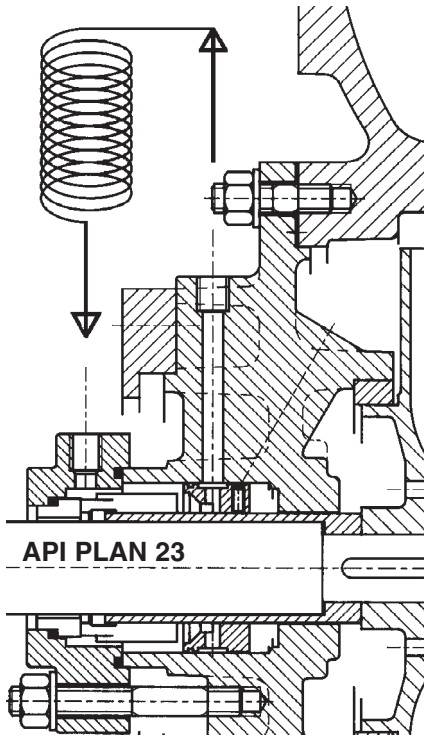
It is also possible API PLAN 02 (dead-ended seal box with no circulation of flush fluid. Water-cooled box jacket and throat bushing required, unless otherwise specified).



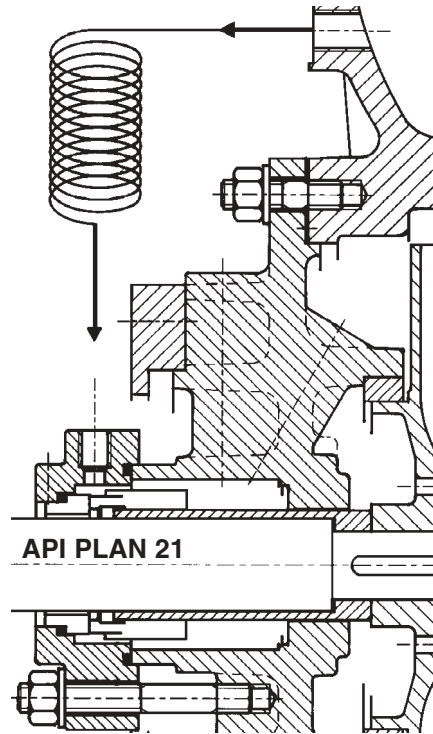
Semplice, con Quench dalla MANDATA e tenuta ausiliaria
 (Single, with Quench and auxiliary seal)



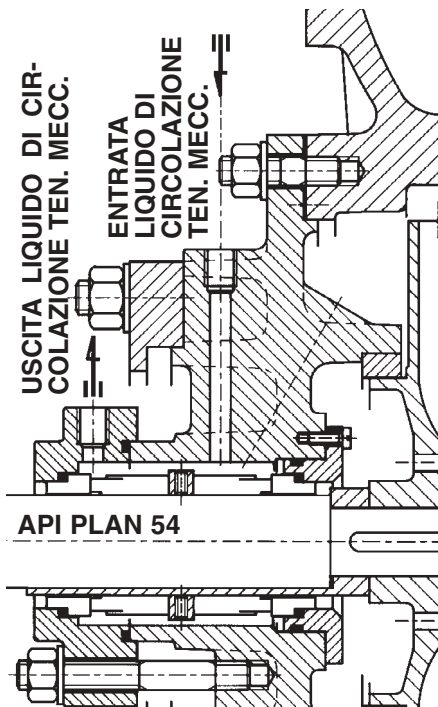
Per liq. Surriscaldati con SCAMBIATORE di calore e anello pompante (Standard)
 (Recirculation from seal with pumping ring thru cooler and back to seal: standard)



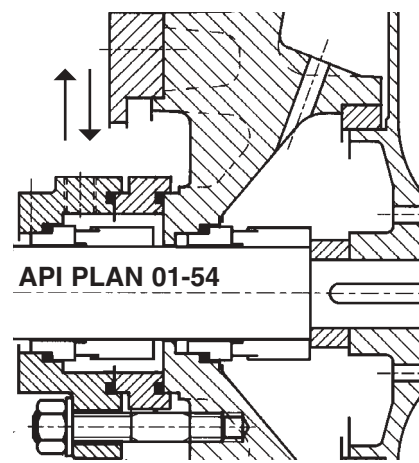
Per liq. Surriscaldati con ricircolazione della MAN-DATA alla T.M. attraverso lo SCAMBIATORE (a richiesta)
 (Recirculation from pump case thru orifice and cooler to seal: on request)



DOPPIA con circolazione
 (Double with circulation)
Su albero : standard
Su camicia d'albero: a richiesta

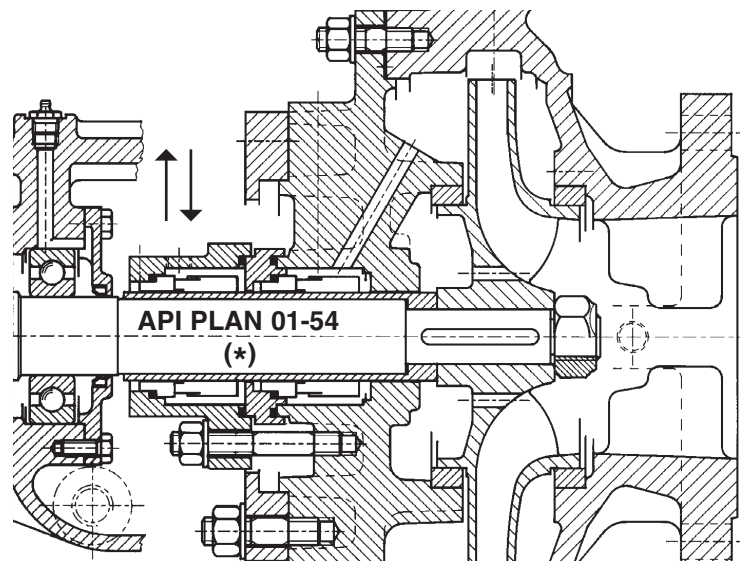


DOPPIA in tandem, su albero: standard
 (Double in tandem, on the shaft: standard)



(con COPERCHIO/with COUER : ALFABLOC)

Doppia in tandem, su camicia d'albero: (a richiesta)
 (Double in tandem, on the sleeve: on request)



(*)

E' POSSIBILE ANCHE "su ALBERO" e API PLAN 11 - 54

IT IS ALSO POSSIBLE "on the shaft" and API PLAN 11 - 54

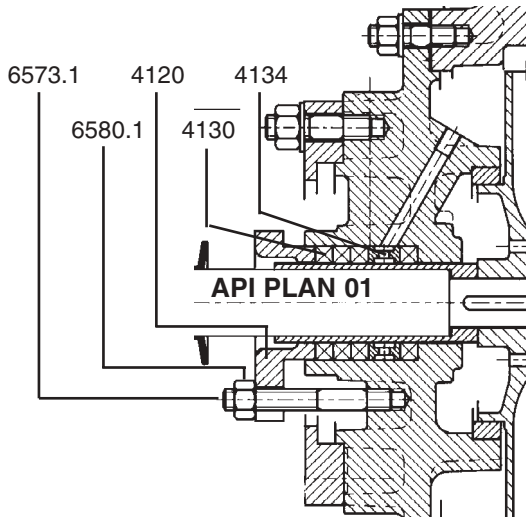
PREMISTOPPA A BADERNE: VARIE VERSIONI (SEZIONI)
STUFFING BOX PACKING: DIFFERENT FEASIBILITIES (SECTIONS)
GARNITURE DE PRESSE ETOUPE: PLUSIEURES VERSIONS (SECTIONS)

STANDARD: per liquidi puliti o leggermente torbidi
 (Standard PACKING: for clean liquides or slightly turbid)

Se battente POSITIVO = iniezione di LIQ. pompato nel labirinto: dall'interno
 (> 0,05 ÷ 0,1 Bar ~)

Se battente NEGATIVO = c.s.: dalla MANDATA (PLAN 11)
 (≤ 0,2 Bar ~)

Se battente NEGATIVO = c.s.: dalla MANDATA o da fonte ESTERNA, con una pressione minima ≥1,1 Bar.
 (> 0,2 Bar ~) **(PLAN 11)** **(PLAN 32)**



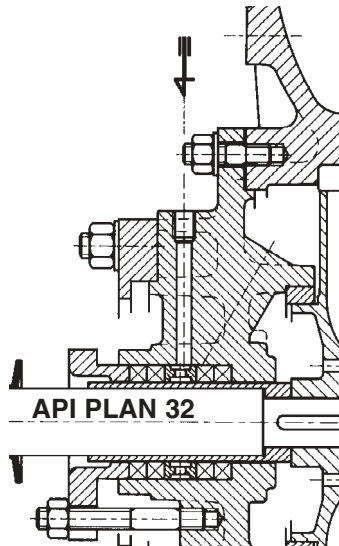
6580.1	1+1	DADO	NUT	ECROU
6573.1	1+1	PRIGIONIERO	GLAND STUD	GOUJON
4134	1	ANELLO LANTERNA	LANTERN RING	LANterne D'ARROSAGE
4130	1	ANELLI BADERNA	PACKING RINGS	GARNIT. DE PRESSE-ETOUPE
4120	1	FLANGIA PREMIRECCIA	PACKING GLAND	FOULOIR

POS. Q.tà Q.ty DESCRIZIONE DESCRIPTION DESCRIPTION

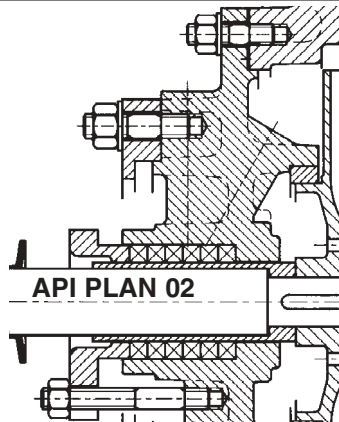
CON LAVAGGIO (*): per liquidi sporchi

(With WASHING PACKING: for dirty liquids)

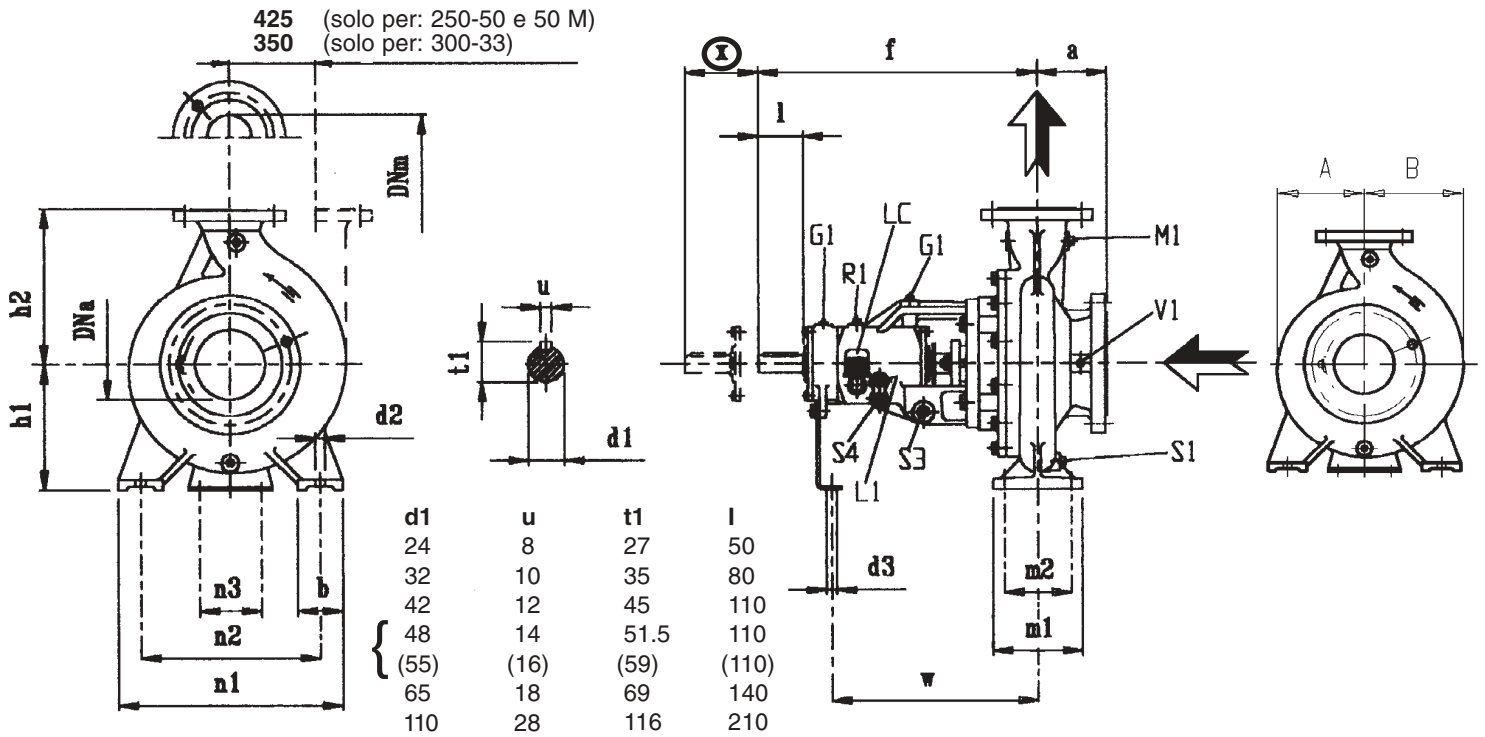
(* da fonte esterna con LIQ. pulito e compatibile, con pressione di 2 ÷ 3 Bar)



PER FOR NPSHd > 5 Bar -BATTENTE O PRESSIONI ELEVATE
FOR SUCTION HEAD OR HIGH PRESSURES



- A RICHIESTA: POSSIBILITA' DI ALTRE VERSIONI, IN ACCORDO ALLA CODIFICAZIONE API / ISO 5199
 - On request: Other features, in accordance with the API/ISO coding
 - Sur demande: autres versions en accord avec les codifications API/ISO



M1 **ATTACCO MANOMETRO**
CONNECTION PRESSURE
GAUGE
CONNEXION DU
MANOMETRE

S1 **TAPPO SCARICO POMPA**
CONNECTION DRAIN PLUG
PUMP
CONNEXION DU BOUCHON
DE VIDANGE POMPE

S3 **SCARICO GOCCIOLAM.**
TENUTA
SEAL DRAIN 1/2"

V1 **ATTACCO VUOTOMETRO**
CONNECTION VACUUM
GAUGE
CONNEXION DISPOSITIF
VACUUM

G1 **LUBRIFIC. A GRASSO:**
GREASE LUBRICATION
LUBRIFICATION AVEC DE
LA GRAISSE 1/4"

G1 **INGRASSATORE**
GREASE CUP
GRAISSEUR 1/4"

R1 **LUBRIFICAZ. AD OLIO:**
OIL LUBRICATION
LUBRIFICATION A HUILE 1/4"

R1 **RIEMPIMENTO OLIO**
OIL FILLING
REMPLISSAGE HUILE 1/4"

S4 **SCARICO OLIO**
OIL DRAIN
VIDANGE HUILE 1/4"

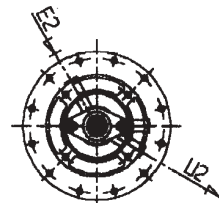
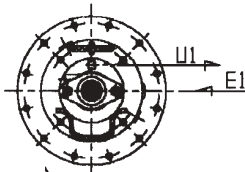
L1 **LIVELLO - LEVEL - NIVEAU**

LC **OLIATORE A LIVELLO**
COSTANTE
CONSTANT LEVEL OILER
GRAISSEUR A NIVEAU
CONSTANT

PREMISTOPPA A BADERNA O
TEN. MECC. CON RAFFREDDA-
MENTO.

PACKING OR MECHAN. SEAL
WITH COOLING.

PRESSE-ETOUPE OU GARNIT.
MECAN. AVEC REFRROIDISSE-
MENT



TENUTA A BADERNA
Lavaggio con liquido esterno
recuperato.

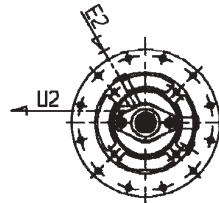
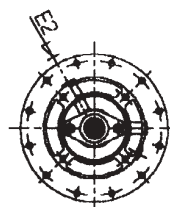
PACKING - Washing with external
liquid and recovery.

PRESSE-ETOUPE - Lavage
avec liquid extérieur et
récupéré.

TENUTA A BADERNA
Lavaggio con liquido esterno.

PACKING - Washing with external
liquid.

PRESSE-ETOUPE - Lavage
avec liquid extérieur.

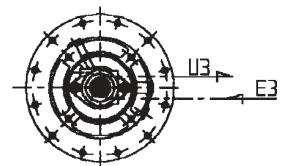


TEN. MECC. DOPPIA
Lavaggio con liquido esterno.

DOUBLE MECHAN SEAL
Washing with external liquid.

DOUBLE GARNIT. MECAN.
Lavage avec liquid extérieur.

USCITA Outlet Sortie	U1	U2	U3
ENTRATA Inlet Entrée	E1	E2	E3
FORI Holes Trous	3/8"	1/4"	1/4"



SBARRAMENTO CON LIQUI-
DO TAMPONE - Dopo la Ten.
Mecc. (quench).

DEAD ENDED BLANKET
Behind the mechan. seal
(quench).

BARRAGE AVEC LIQUID TAM-
PON - Derrière la Garnit. Mecan.
(quench).

DIMENSIONI FLANGE - DIMENSIONS FLANGES - ENCOMBREMENTS BRIDES

R1 **LUBRIFICAZ. AD OLIO:**
OIL LUBRICATION
LUBRIFICATION A HUILE 1/4"

R1 **RIEMPIMENTO OLIO**
OIL FILLING
REMPLISSAGE HUILE 1/4"

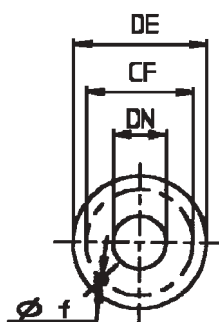
S4 **SCARICO OLIO**
OIL DRAIN
VIDANGE HUILE 1/4"

L1 **LIVELLO - LEVEL - NIVEAU**

LC **OLIATORE A LIVELLO**
COSTANTE
CONSTANT LEVEL OILER
GRAISSEUR A NIVEAU
CONSTANT

PN/NP 16

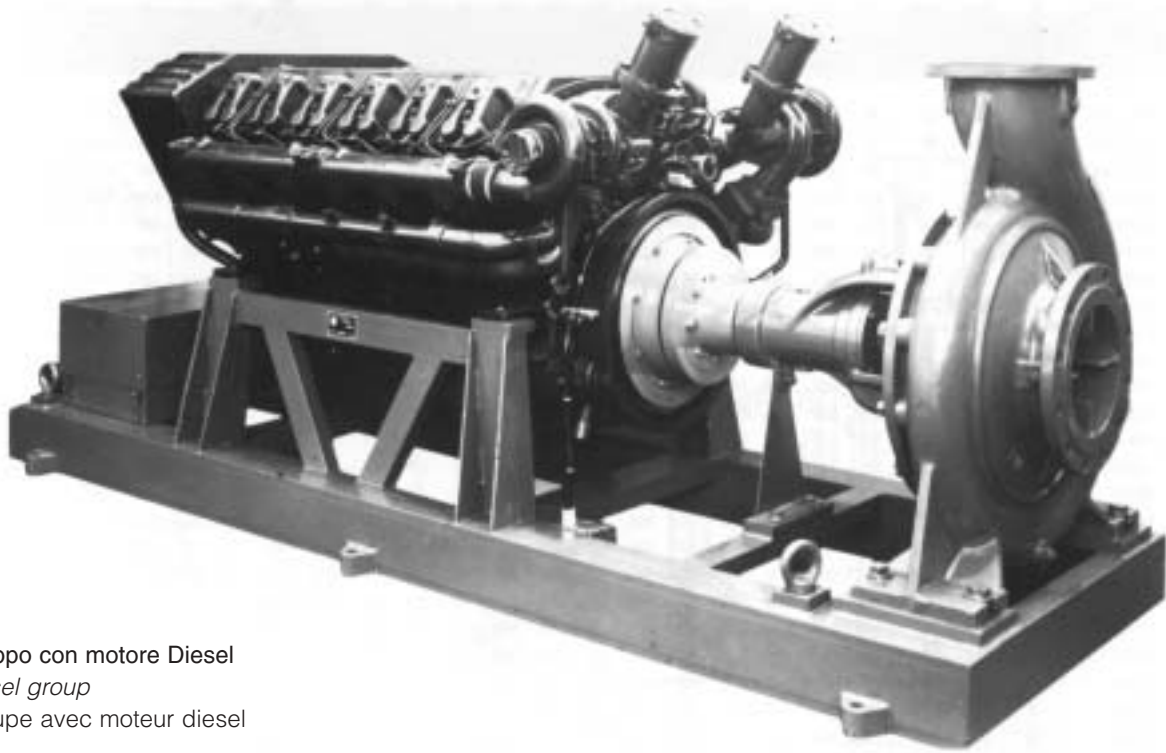
DN	DE	CF	N°	f
32	140	100	4	18
40	150	110	4	18
50	165	125	4	18
65	185	145	4	18
80	200	160	8	18
100	220	180	8	18
125	250	210	8	18
150	285	240	8	22
200	340	295	12	22
250	405	355	12	25
300	460	410	12	25
350	520	470	16	25
400	580	525	16	29



N. FORI - holes - trous

PN/NP 40

DN	DE	CF	N°	f
32	140	100	4	18
40	150	110	4	18
50	165	125	4	18
65	185	145	8	18
80	200	160	8	18
100	235	190	8	22
125	270	220	8	25
150	300	250	8	25
200	375	320	12	29
250	450	385	12	33
300	515	450	16	33
350	580	510	16	36
400	660	585	16	39



Gruppo con motore Diesel
Diesel group
 Groupe avec moteur diesel

Fig. 13
 Pic.

Gruppo pompa centrifuga
 con turbina a vapore.

*Centrifugal pump group
 with steam turbine.*

Groupe pompe centrifugeuse
 avec turbine à vapeur.

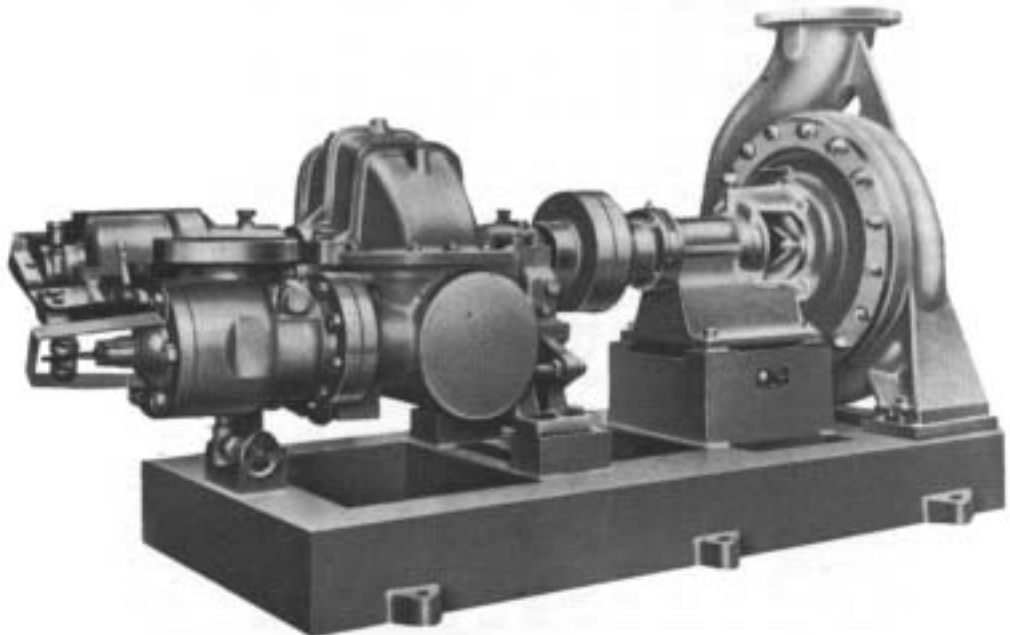
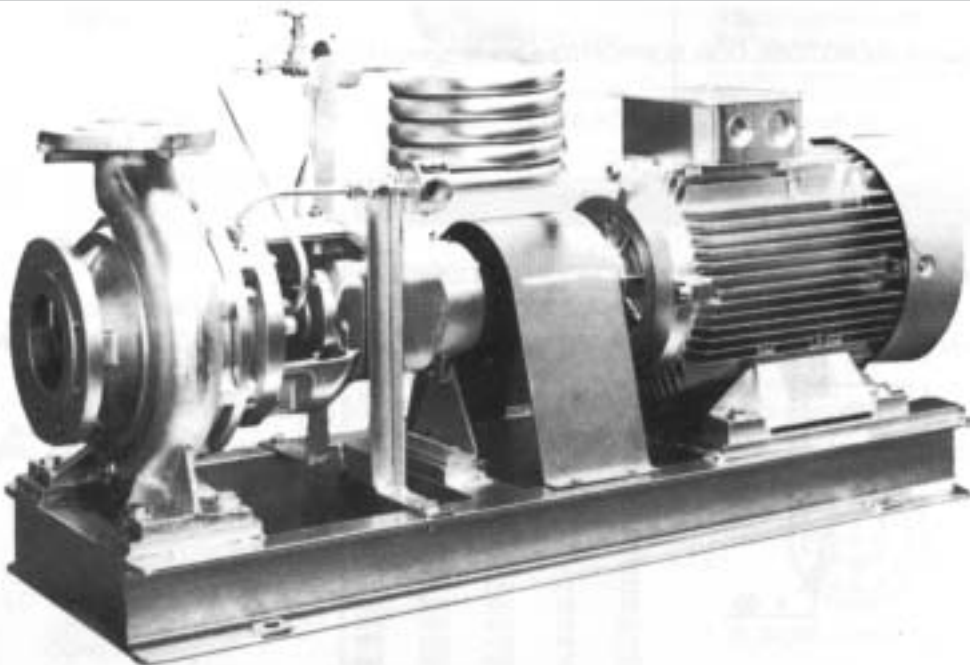


Fig. 14
 Pic.



Pompa in Acciaio per acqua
 surriscaldata con tenuta me-
 canica raffreddata e scambiatore
 di calore.

*Steel pump for overheated
 water with cooled mechanical
 seal and HEAT DISSIPATER.*

Pompe en Acier pour eau sur-
 chauffé avec GARNITURE
 MECANIQUE et échangeur de
 température.

T = 245°C max

Fig. 15
 Pic.

Pompa ALFA per fluidi DIATERMICI

ALFA pump for DIATHERMIC fluids

Pompe ALFA pour DIATHERMIQUES fluides

T = 400°C max

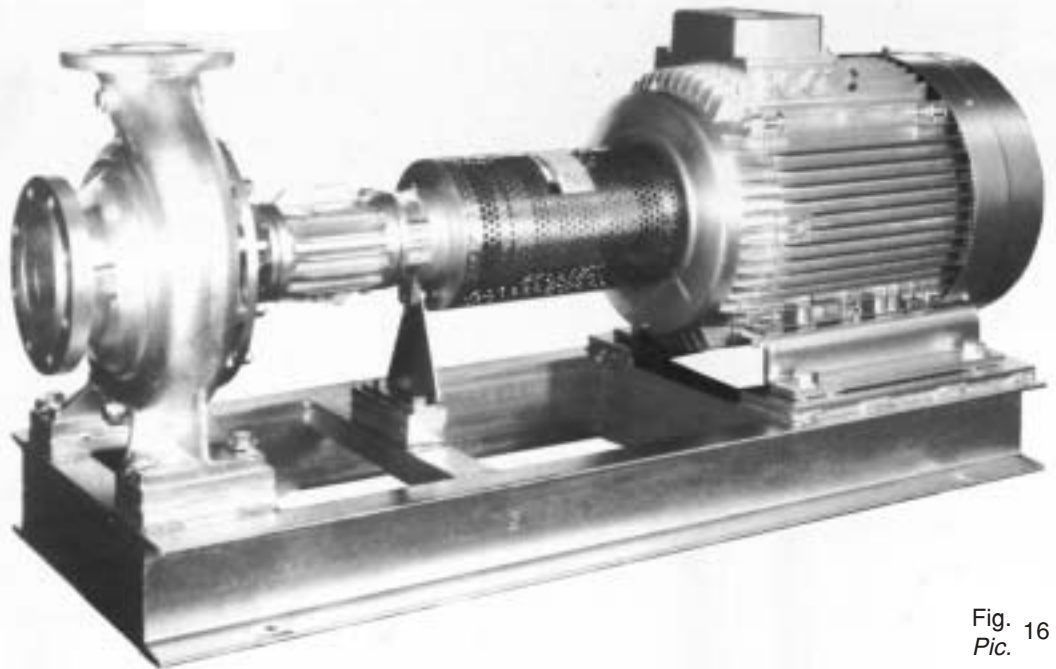


Fig. 16
Pic.

POMPA ALFA CON CAMICIA DI RISCALDAMENTO - Liquido pompato: ANIDRIDE FTALICA a 300°C.

*ALFA JACKETED PUMP
pumped fluid:
PHTHALIC ANHYDRIDE at
300°C.*

POMPE ALFA AVEC CHEMISE DE RECHAUFFAGE - liquide pompé: ANHYDRIDE PHTHALIQUE à 300°C.

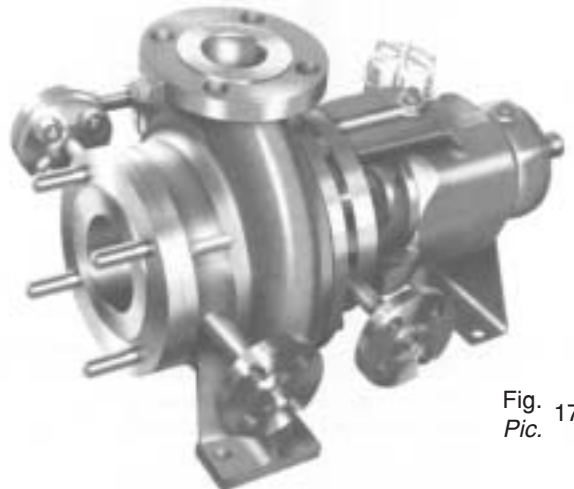
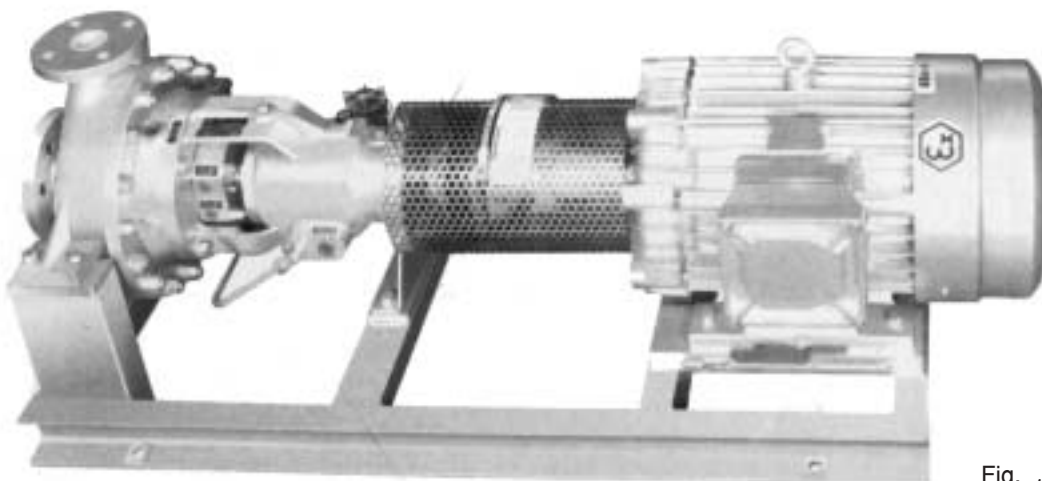


Fig. 17
Pic.



Pompa ALFA in acciaio INOX AISI 316 - PIEDI IN MEZZERIA-liquido pompato: DOETHERM A 385°C.

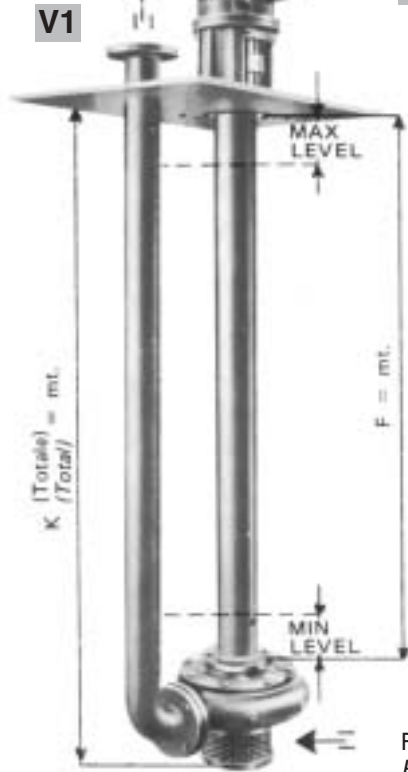
*S.S. 316 ALFA pump-
FOOT IS LOCATED ON
THE CENTER LINE-pumped
fluid: DOWTHERM AT
385°C.*

Pompe ALFA en acier INOX 316 - PIEDS DE LA POMPE DANS LA PARTIE MOYENNE - liquide pompé: DOWTHERM A 385°C.

Fig. 18
Pic.

MISURE DI SERIE	Production measures	Measures de serie
(1450 giri al 1' - RPM - t/mn)	(2900 giri al 1' - RPM - t/mn)	
per/for/pour F+F ₁ +F ₂ +F ₃ +F ₄ = mt. (0,25)-0,5-(0,75)-1-1,5	per/for/pour F+F ₁ +F ₂ +F ₃ +F ₄ = mt. (0,25)-0,5-0,75-1	
fino a / up to / jusqu'à = mt. 6 MAX.	fino a / up to / jusqu'à = mt. 4 MAX.	

Esecuzione
Performance
Exécution



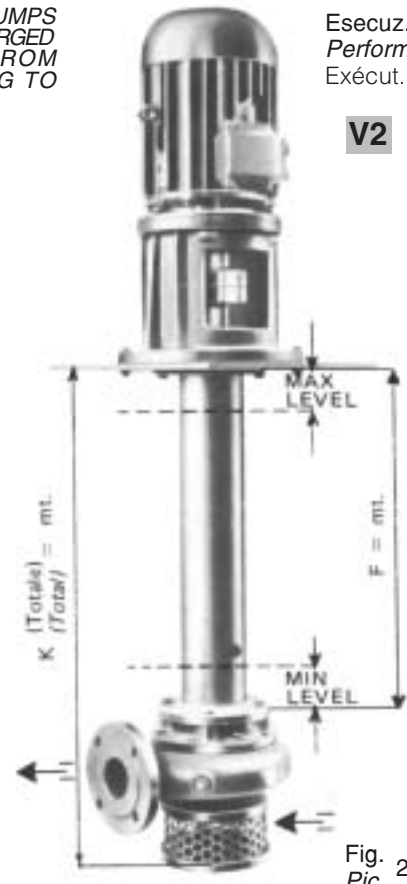
POMPE CENTRIF. VERTIC. A LINEA D'ASSE CON CORPO IMMERSO DERIVATE DALLA SERIE A NORME ISO 2858 - DIN 24256

CENTRIF. VERTICAL PUMPS LINE SHAFT WITH SUBMERGED CASING DERIVED FROM TYPE IN ACCORDING TO ISO 2858 - DIN 24256

Esecuz.
Perform.
Exécut.

POMPES CENTRIF. VERTICALS A LIGNE D'AXE AVEC CORPS IMMERGEE DERIVE DE LA SERIE REPONDANT AUX NORMES ISO 2858 - DIN 24256

P. Bar max = 16		
T. °C max = -25+140° (-70+400°)		
n/1' RPM :		2900
Ø	Q m³/h	H max m.
32÷125	1,5÷450	95
n/1' RPM :		1450
Ø	Q m³/h	H max m.
32÷300	1,5÷1650	90
Ø	PREM. corpo pompa	
	DISCH. pump casing	
	REFOUL. corps de pompe	
Lubrificazione = GRASSO/GREASE/GRAISSE		
Lubrification = GRASSO/GREASE/GRAISSE		
Lubrification = GRASSO/GREASE/GRAISSE		



Le suindicate esecuzioni (V1 - V2) possono essere variate nel seguente modo:

NB. The performances above mentioned (V1 - V2) can be changed as follows:
Les susdites exécutions (V1 - V2) peuvent être modifiées comme ça:

Esecuzione: **V3** (per F > mt. 1,5 a 1450 giri al 1') ÷ (per F > mt. 0,75 ÷ a 2900 giri al 1') (adozione di tubi ed alberi in più pezzi con misure di serie - Giunti rigidi di accoppiamento con F > mt. 3 - Bronzine o cuscinetti appropriati).

Esecuzione: **V4** (con prolunga di tubo aspirante in misure di serie Z = mt. 0,25 - 0,5 - 0,75 - 1)

MIN. livello per avvia. pompa
* MIN. level for starting pump
Niveau MINIMUM pour le départ de la pompe

Performance: **V4** (With suction pipe extension in production measures Z = mt. 0,25 - 0,5 - 0,75 - 1)

Performance: **V3** (for F > mt. 1,5 at 1450 RPM) ÷ (for F > mt. 0,75 ÷ 1 at 2900 RPM) (pipes and shaft in more pieces in production measures - Stiff couplings - With F > mt. 3 - Suitable bushings or bearings).

Exécution: **V4** (avec prolongement du tuyau d'aspiration en mesure de série: Z = mt. 0,25 - 0,5 - 0,75 - 1)

Exécution: **V3** (pour F > mt. 1,5 à 1450 t/mn) ÷ (pour F > mt. 0,75 ÷ 1 à 2900 t/mn) (utilisation de tuyaux et arbres en plusieurs pièces avec mesures de série - joints raides de couplage avec F > mt. 3 - coussinets ou roulement aptes).

MIN. livello che si può raggiungere con la pompa adescata.
* * MIN. level reached we primed pump.
Niveau MINIMUM qui peut être atteint avec la pompe amorcée.

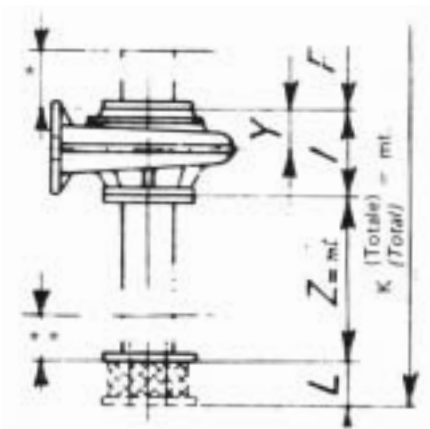


Fig. 21
Pic.

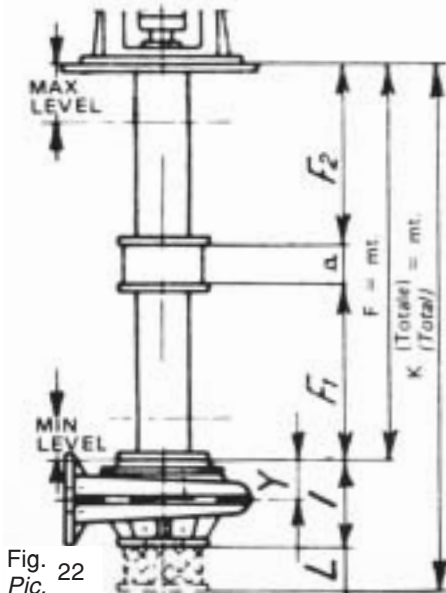
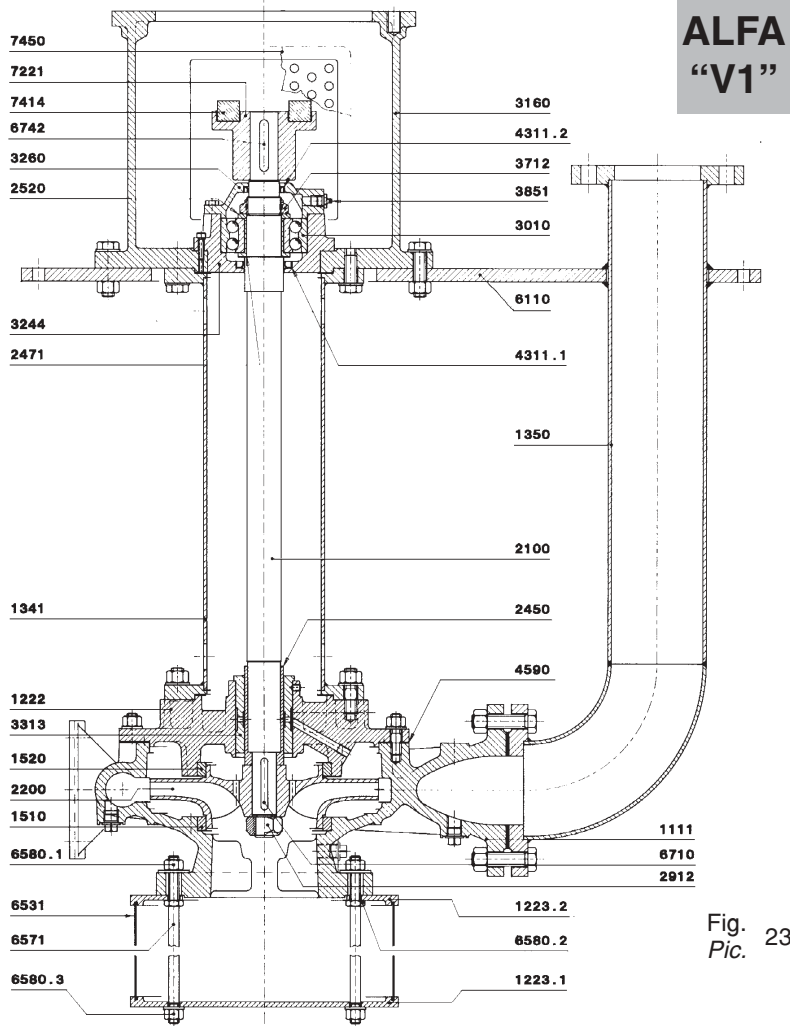


Fig. 22
Pic.

NB. I LIVELLI MIN. e MAX. variano di volta in volta secondo i tipi di pompa e verranno sempre indicati dal Costruttore. Il livello MAX. NON DEVE MAI essere superato per evitare di bagnare, nonostante la protez. esistente, i cuscinetti a sfere. NON SI DEVE MAI OLTREPASSARE IL LIVELLO MIN.: la bronzina funzionando A SECCO sarà causa di pericolosi grippaggi e pregiudicherà inevitabilmente la pompa.

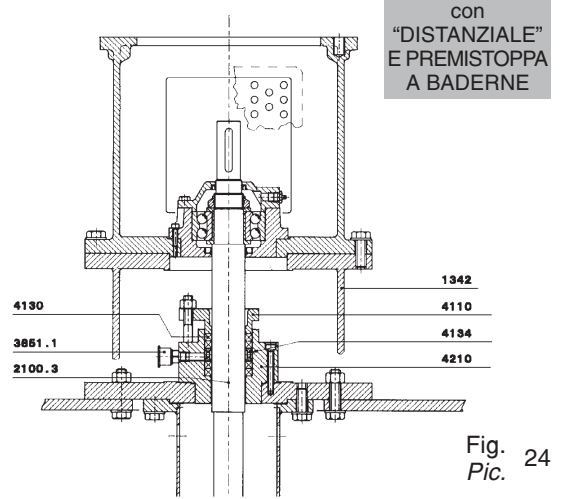
NB. MIN. and MAX. LEVELS change every time according to the types of pumps and will be always stated by the Manufacturer. The MAX. LEVEL SHALL BE NEVER exceeded to avoid to wet, in spite of the protection, the ball bearings. THE MIN. LEVEL SHALL BE NEVER EXCEEDED: the bushing DRY working, will cause danger ous seizures and damaged the pump.

Les niveaux minimum et maximum changent de temps en temps selon les types de pompe et ils seront toujours indiqués par le constructeur. Le niveau MAX NE DOIT JAMAIS être surmonté de façon à ne pas mouiller les roulements à billes, malgré la protection. ON NE DOIT JAMAIS DÉPASSER LE NIVEAU MINIMUM: si le coussinet marche à sec on peut causer de dangereux grippages et la pompe peut être endommagée.



ALFA
"V1"

Fig. 23
Pic.

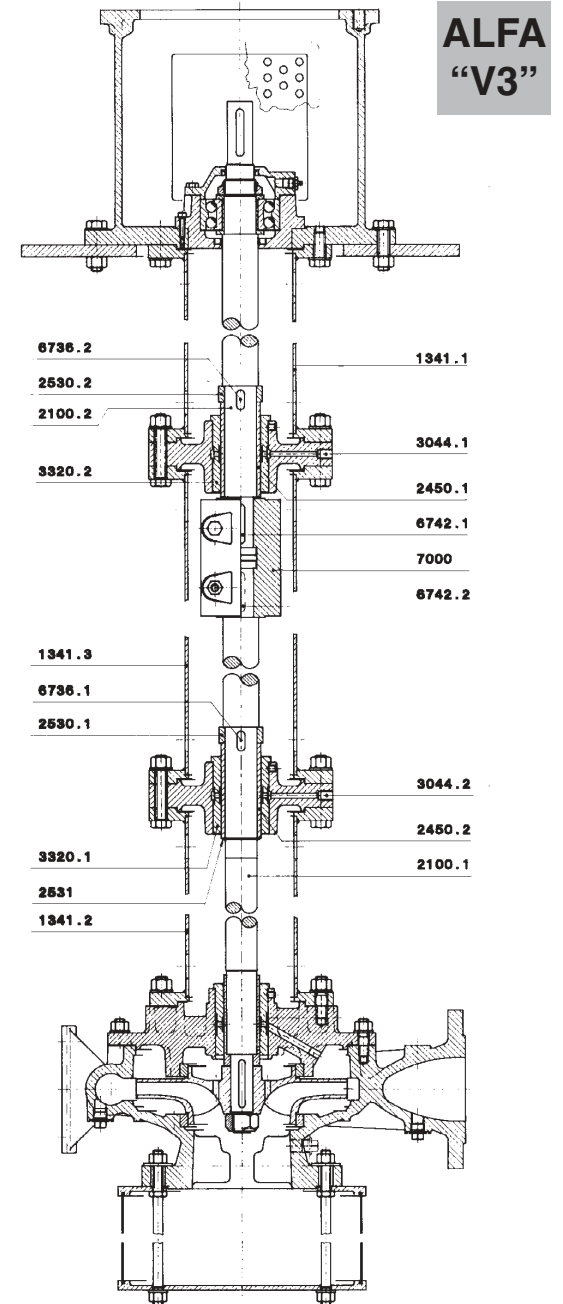


con
"DISTANZIALE"
E PREMISTOPPA
A BADERNE

Fig. 24
Pic.

with "INTERMEDIATE
LANTERN"-STUFFING
BOX PACKING.

avec "INTERMEDIAIRE
SUPPORT"-GARNIT.
DE PRESSE ETOUPE



ALFA
"V3"

Fig. 25
Pic.

POS.	DESCRIZIONE	DESCRIPTION	DESCRIPTION
1111	CORPO POMPA	PUMP CASING	CORPS DE POMPE
1222	COPECHIO	COVER	COUVERCLE
1223.1	DISCO BLOCCAGGIO FILTRO	FILTER STOP NUT	DISQUE BLOCAGE DU FILTRE
1223.2	DISCO BLOCCAGGIO FILTRO	FILTER STOP NUT	DISQUE BLOCAGE DU FILTRE
1341	TUBO DI SOSTEGNO	SUPPORT PIPE	TUYAU DE SOUTÈNEMENT
1341.1	TUBO DI SOSTEGNO	SUPPORT PIPE	TUYAU DE SOUTÈNEMENT
1341.2	TUBO DI SOSTEGNO	SUPPORT PIPE	TUYAU DE SOUTÈNEMENT
1341.3	TUBO DI SOSTEGNO	SUPPORT PIPE	TUYAU DE SOUTÈNEMENT
1342	INCASTELLATURA INTERMEDIA	INTERMEDIATE LANTERN	SUPPORT INTERMEDIAIRE
1350	TUBO DI MANDATA	DISCHARGE PIPE	TUYAU DE REFOULEMENT
1510	ANELLO USURA ANTERIORE	WEAR RING SUCTION SIDE	BAGUE D'USURE CÔTÈ OVIE
1520	ANELLO USURA POSTERIORE	WEAR RING IN CASING COVER	BAGUE D'USURE DU FOND
2100	ALBERO	SHAFT	ARBRE
2100.1	ALBERO LATO POMPA	SHAFT PUMP SIDE	ARBRE CÔTÈ POMPE
2100.2	ALBERO LATO GIUNTO	SHAFT COUPLING SIDE	ARBRE CÔTÈ COMMANDE
2100.3	ALBERO	SHAFT	ARBRE
2200	GIRANTE	IMPELLER	ROUE
2450	CAMICIA ALBERO	SHAFT SLEEVE	CHEMISE DE PROTECTION ARBRE
2450.1	CAMICIA INTERMEDIA	INTERMEDIATE SLEEVE	CHEMISE INTERMEDIAIRE
2450.2	CAMICIA INTERMEDIA	INTERMEDIATE SLEEVE	CHEMISE INTERMEDIAIRE
2471	BUSSOLA PORTACUSCINETTO	BEARING HOLDER SLEEVE	DOUILLE PORTEROULEMENT
2520	ANELLO DI SPALLAMENTO	SHOULDER RING	BAGUE DE SPALLATION
2530.1	ANELLO DI BLOCCAGGIO	STOP RING	BAGUE DE BLOCAGE
2530.2	ANELLO DI BLOCCAGGIO	STOP RING	BAGUE DE BLOCAGE
2531	ANELLO D'ARRESTO	CLIP	ECROU DE ROUE
2912	DADO BLOCCAGGIO GIRANTE	IMPELLER NUT	ECROU DE ROUE
3010	CUSCINETTO	BALL BEARING	ROULEMENT A BILLES
3044.1	FLANGIA INTERMEDIA	INTERMEDIATE FLANGE	BRIDE INTERMEDIAIRE
3044.2	FLANGIA INTERMEDIA	INTERMEDIATE FLANGE	BRIDE INTERMEDIAIRE
3160	LANTERNA DEL MOTORE	MOTOR LANTERN	SUPPORT DU MOTEUR
3244	MOZZO PORTACUSCINETTO	COVER FOR BEARING HOLDER	COUVERC. POUR PORTE ROULEM.
3260	COPECHIEFFETTO	COVER	COUVERCLE
3313	BRONZINA	BUSHING	COUSSINET
3320.1	BRONZINA INTERMEDIA	INTERMEDIATE BUSHING	COUSSINET INTERMEDIAIRE
3320.2	BRONZINA INTERMEDIA	INTERMEDIATE BUSHING	COUSSINET INTERMEDIAIRE
3712	GHIRERA DEL CUSCINETTO	BEARING NUT	EMBOUT POUR LES ROULEMENTS
3851	INGRASSATORE	GREASE CUP	GRAISSEUR
3851.1	INGRASSATORE	GREASE CUP	GRAISSEUR
4110	FLANGETTA	FLANGE FOR STUFFING BOX	JOUË OVALE DU PRES.-ETOUPE
4130	PACCO BADERNE	RINGS PACKING	ANNEAUX BADERNE
4134	ANELLO LANTERNA	SEAL CAGE	LANTERNE D'ARROSAJE
4210	MOZZO PORTAPREMISTOPPA	STUFFING BOX HUB	MOYEU PORTE PRESSE-ETOUPE
4311.1	ANELLO DI TENUTA	RADIAL SHAFT SEAL AT BEARING	BAGUE D'ETANCHEITE DE PALIER
4311.2	ANELLO DI TENUTA	RADIAL SHAFT SEAL AT BEARING	BAGUE D'ETANCHEITE DE PALIER
4590	GUARNIZIONE PIANA	GASKET	JOINT PLAT
6110	PIASTRA DI BASE	BASE PLATE	PLAQUE SUPPORT
6531	FILTRE	FILTER	FILTRE
6571	TIRANTE	TIE BOLT	TIRANT D'ASSEMBLAGE
6580.1	DADO	NUT	ECROU
6580.2	DADO	NUT	ECROU
6580.3	DADO	NUT	ECROU
6710	LINGUETTA	KEY	CLAVETTE
6736.1	LINGUETTA	KEY	CLAVETTE
6736.2	LINGUETTA	KEY	CLAVETTE
6742	LINGUETTA	KEY	CLAVETTE
6742.1	LINGUETTA	KEY	CLAVETTE
6742.2	LINGUETTA	KEY	CLAVETTE
7000	GIUNTO RIGIDO	COUPLING RIGID	ACCOUPLÈMENT RIGIDE
7221	SEMIGIUNTO ELASTICO	SEMI-COUPLEMENT	DEMI-JOINT POMPE
7414	ELEMENTO ELASTICO DEL GIUNTO	FLEXIBLE ELEMENT	ELEMENT ELASTIQUE
7450	PROTEZIONE GIUNTO	COUPLING GUARD	COUVRE JOINT

VARIANTE POSSIBILE - POSSIBLE VARIANTS - VARIANT POSSIBLE:
 ROTONDA CON GUARNIZIONE A TENUTA STAGNA
 ROUND WITH WATER TIGHT GASKET
 RONDE AVEC JOINT PLAT ETANCHE

*

Pompe con "ALBERO a SBALZO" verticali speciali, SENZA bronzina. Per liquidi: ABRASIVI-AGGRESSIVI.

"CANTILEVER PUMP" vertical special, without bushing. For liquides: ABRASIVES-AGGRESSIVES.

Pompes "ARBRE en porte-à-faux" verticales speciales sans coussinet. Pour liquides: ABRASIFS/CORROSIFS.

con doppia supportazione

ALFA
TYPE

"V2-C"

with double support

avec double soutènement

giri/1' - RPM - t/mn	= 2900	1450
Q m ³ /h ~	= 3 ÷ 350	3 ÷ 900
H m. ~	= 65 ÷ 70	55 ÷ 60
F mm.	= (500) - 750	(500) - 750 (1000) - 1250

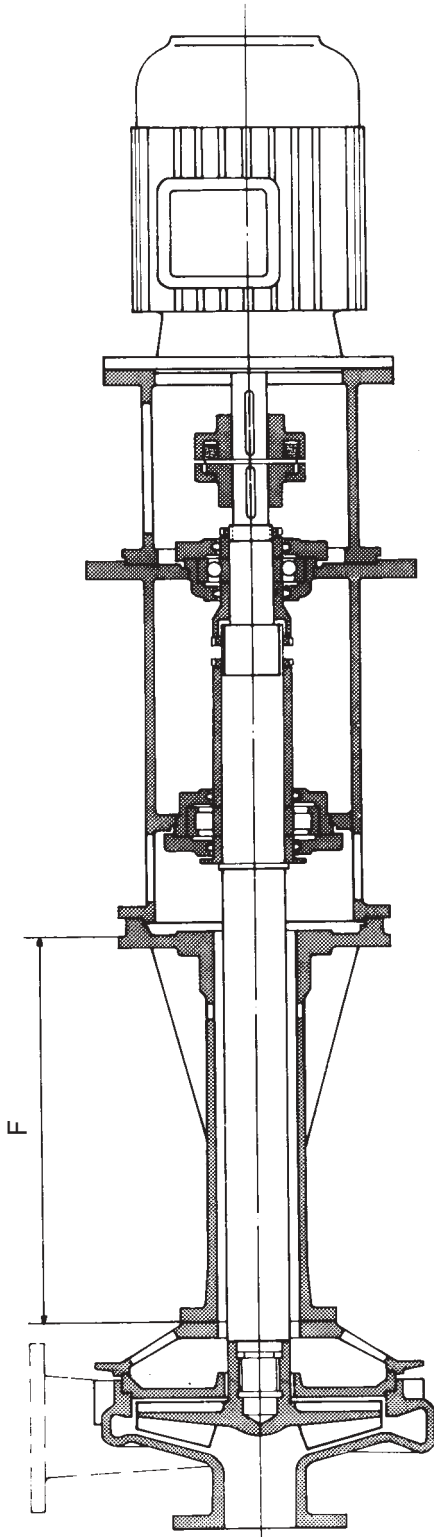


Fig. 26
Pic.

Verticale monoblocco con calettatura autocentrante

ALFA
TYPE

"V1-CM"

Vertical enbloc with self-centering Keyng

Verticale monobloc avec joint à auto-centrage

giri/1' - RPM - t/mn	= 2900	1450
Q m ³ /h ~	= 3 ÷ 300	3 ÷ 270
H m. max	= 45 / 50	40 / 45

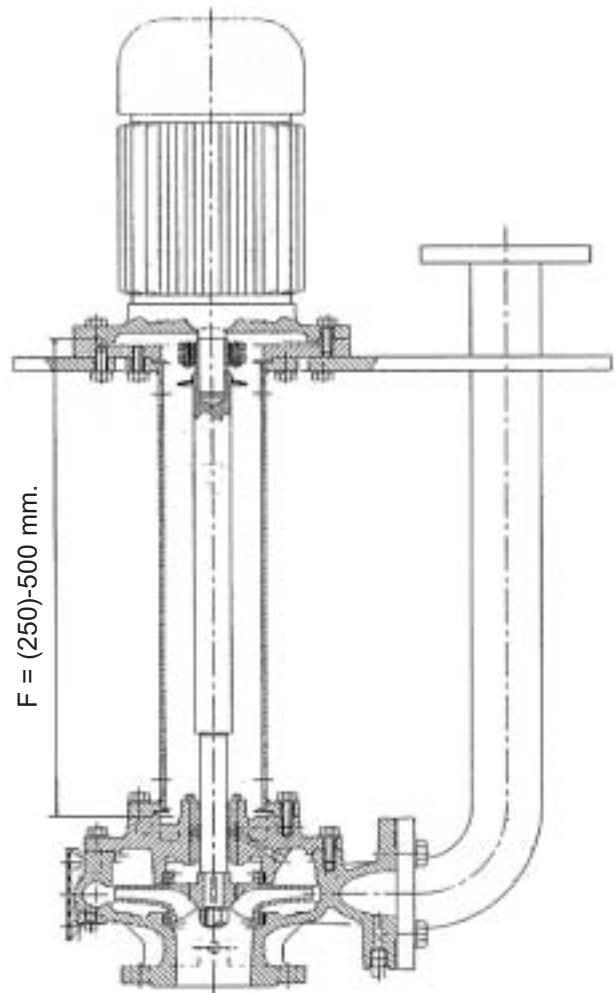


Fig. 27
Pic.

POMPE SERIE ALFA: IN ESECCUZIONE VERTICALE
ALFA PUMPS: VERTICAL PERFORMANCCE
POMPES SERIE ALFA: EN EXECUTION VERTICALE

"V1 V3"

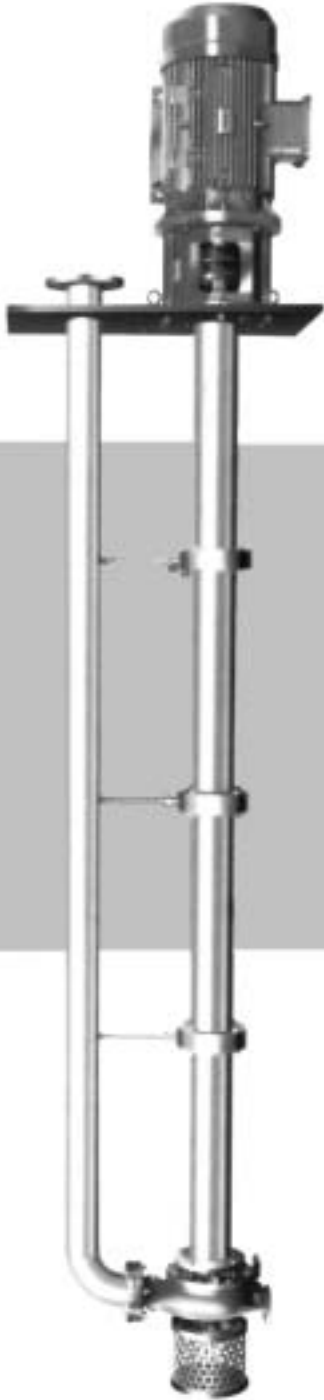


Fig. 28
Pic.

"V2 V3"



Fig. 29
Pic.

Pompe centrifughe VERTICALI
derivate della serie a NORME
ISO 2858 - DIN 24256

Centrifugal VERTICAL pumps
derived from type in according
to ISO 2858 - DIN 24256

"ALFA VE"
(Vertical in-line)

Pompes centrifuges VERTICALES
dérivé de la série répondant aux
NORMES ISO 2858 - DIN 24256

"VE,,



Fig. 30
Pic.

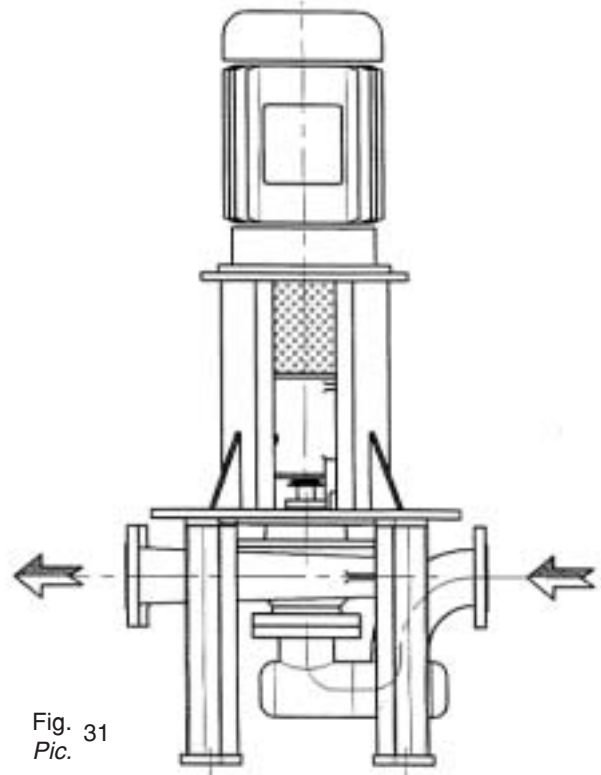


Fig. 31
Pic.

Lubrificazione a grasso
Grease lubrication
Lubrification avec de la graisse

Solo con Ten. Mecc.
Only with Mech. Seal
Seulement avec Garnit. Mecan.

P Bar max = 16 ÷ 40 (64) T °C max = -25 +220°			
n/1' RPM Hz. 50/60	PREM. Ø Disch. Refoul.	Q m³/h	H max m.
2900	32÷125	1,5÷450	95
1450	32÷300	1,5÷1650	90

INTERPELLATECI: per pompe di maggior portata e prevalenza o per particolari Vs. esigenze.

ASK US: for pumps of major capacity and head and for your special requirements.

DEMANDEZ NOUS: pour des pompes à majeure débit et hauteur d'élevation ou pour Vos exigences particulières.

PROGRAMMA DI PRODUZIONE:

OUR PRODUCTION:

PROGRAMME DE PRODUCTION:

POMPE CENTRIFUGHE MONOSTADIO ISO 2858 e MULTISTADIO: orizzontali - verticali - monoblocco - bassa/alta pressione (100 Bar)
Materiali: GHISA - ACC. INOX - SUPERLEGHE.

CENTRIFUGAL PUMPS SINGLESTAGE ISO 2858 and MULTISTAGES: horizontal - vertical - close coupled - low/high pressure (100 Bar)
Material: CAST IRON - S.S. - SUPERALLOYS.

POMPES CENTRIFUGES MONOCELLULAIRES ISO 2858 et MULTICELLULAIRES: horizontales - verticales - monobloc - basse/haute pression (100 Bar)
Materiaux: FONTE - acier INOX et Super-alliages.

**POMPE AUTOADESCANTI
POMPE VOLUMETRICHE AD INGRANAGGI**

**SELF PRIMING PUMP
GEAR PUMP**

**POMPES AUTOAMORÇANTES
POMPES A ENGRÉNAGES**

* Per l'evoluzione tecnologica ci riserviamo il diritto di modificare la costruzione o le prestazioni idrauliche, senza preavviso.

* In consideration of technical evolution we reserve the right to change construction or hydraulic performance, without any advice.

* A cause de l'évolution technologique nous réservons le droit de modifier la construction ou les prestations hydrauliques, sans préavis.