AFFETTI

Pumps for corrosive liquids

series CGO CMO

Pompe centrifughe orizzontali con tenuta meccanica

Horizontal centrifugal pumps with mechanical seal

CGO

1 Lanterna di robusta concezione realizzata in termoplastico.
2 Corpo-pompa in PP, PVDF, di elevato spessore, il pezzo viene stampato ad iniezione.
3 Girante centrifuga in PP, PVDF, versione semi-aperta per liquidi carichi e chiusa per il pompaggio di soluzioni con temperature elevate. Autobilanciamento assiale garantito da contropalettature posteriori, inserto centrale metallico protetto
4 Camicia in PP, PVDF, riveste interamente, nella parte a contatto con il liquido pompato, l'albero in acciaio e viene realizzata in un unico pezzo. Ruota solidale con la girante ma ne è indipendente
6 Tenuta meccanica standardizzata, selezionata a seconda dei liquidi pompati, delle temperature e delle ore di lavoro sopportate dalla macchina. Possono essere montati sulle pompe CGO i tipi B6E, B6EDF, J5G, J5H ,TLE e TLF.
7 Supporto albero realizzato in fusione d'alluminio è composto da tre pezzi.
8 Cuscinetto anteriore a sfere radiale rigido, adatto soprattutto a resistere ai carichi radiali causati durante il funzionamento della macchina .
9 Albero bilanciato in acciaio inossidabile AISI 420, strutturato per sopportare agevolmente forze torsionali e radiali. Ricavato completamente da barra piena tramite lavorazione meccanica
10 Cassastoppa in PP, PVDF, montata all'interno del coperchio e completamente indipendente, di facile sostituzione
11 Coperchio interamente in PP, PVDF, contenuto tra il corpo la flangia della lanterna
12 Flange libere in PP caricato vetro rinforzate internamente da un'anima in acciaio.
14 Cuscinetto posteriore a sfere a doppi contatti obliqui, capace di sopportare le spinte assiali generate dal liquido durante l'esercizio . Ai modelli che montano i motori taglia 71-80-90, in questa posizione, vengono assemblati cuscinetti a sfere radiali rigidi.

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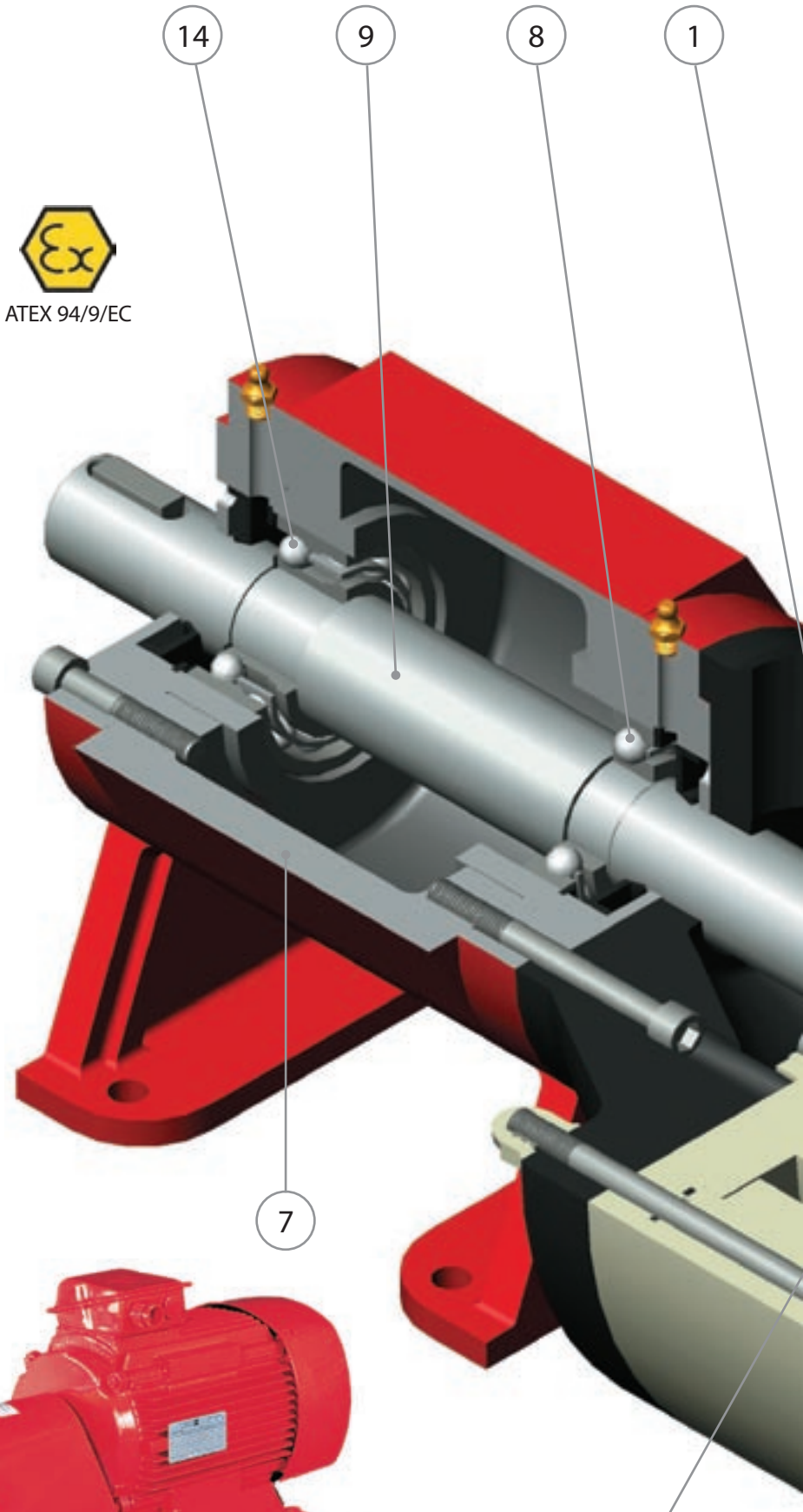
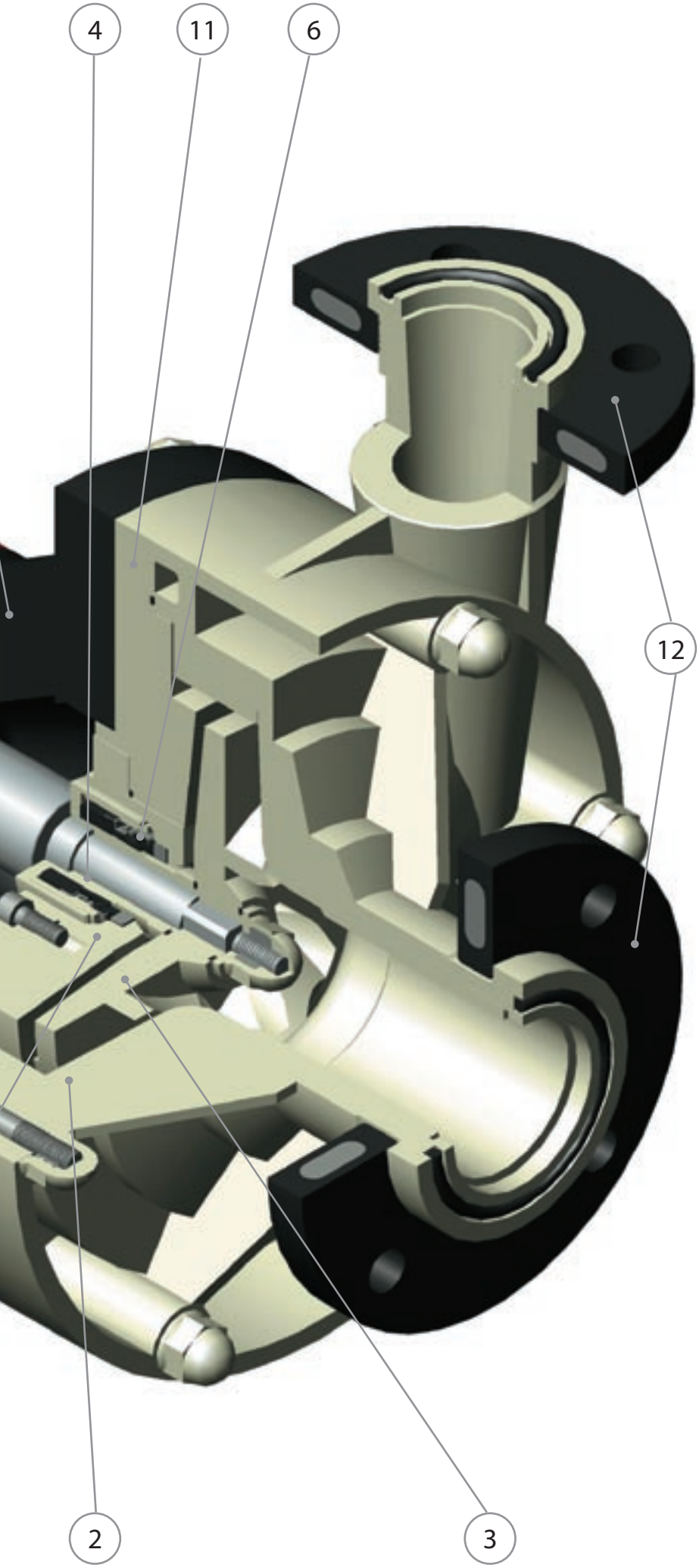




1 Strong intermediate adaptor; in thermoplastic for
2 Casing made of extra-thick PP, PVDF, the part is injection moulded.
3 Centrifugal impeller in PP, PVDF ; semi-open version for particle-loaded fluids or closed for pumping solutions at high-temperatures. Axial self-balancing is guaranteed by the rear counterblades; protected central metal insert.
4 Shaft sleeve in PP, PVDF, fully covering the part of the steel shaft in contact with the fluid pumped and manufactured as a one-piece component. It rotates integrally with the impeller but is independent from it.
6 Standardised mechanical seal, selected according to the fluid pumped and the working temperatures and hours supported by the machine. CGO pumps can be fitted with the B6E, B6EDF, J5G, J5H, TLE and TLF systems.
7 The shaft support is a 3-piece construction in cast aluminium.
8 Front rigid radial ball bearing, designed above all to resist radial loads during operation of the machine.
9 Balanced shaft made of AISI 420 stainless steel, structured to easily support torsional and radial forces. Mechanically machined exclusively from solid bar stock.
10 Stuffing box in PP, PVDF, fitted inside the closure, it is fully independent and easy to replace.
11 The closure, entirely manufactured in PP, PVDF, is contained between the casing and the intermediate adaptor flange
12 Loose flanges in glass-reinforced PP, strengthened internally with a steel core.
14 Rear double row angular contact ball bearing, designed to withstand axial thrusts generated by the fluid during operation. Rigid radial ball bearings are fitted in this position for models equipped with size 71-80-90 motors.

Legenda

PP	*polipropilene*
PVDF	*floruro di polivinilidene*
EPDM	*etilenpropilene*
FPM	*fluoroelastomero*
FFKM	*perfluoroelastomero*
SiCca	*rburo di silicio*
Al2O3	*allumina*

Legend

PP	*polypropylene*
PVDF	*polyvinylidene fluoride*
EPDM	*ethyl propylene diene monomer*
FPM	*fluoroelastomer*
FFKM	*perfluoroelastomer*
SiC	*silicon carbide*
Al2O3	*alumina*

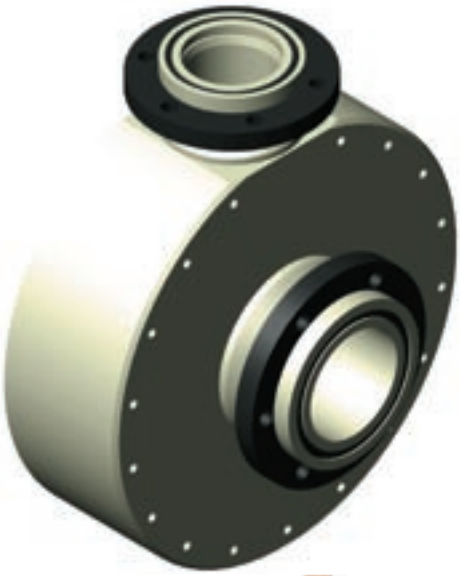
CGO

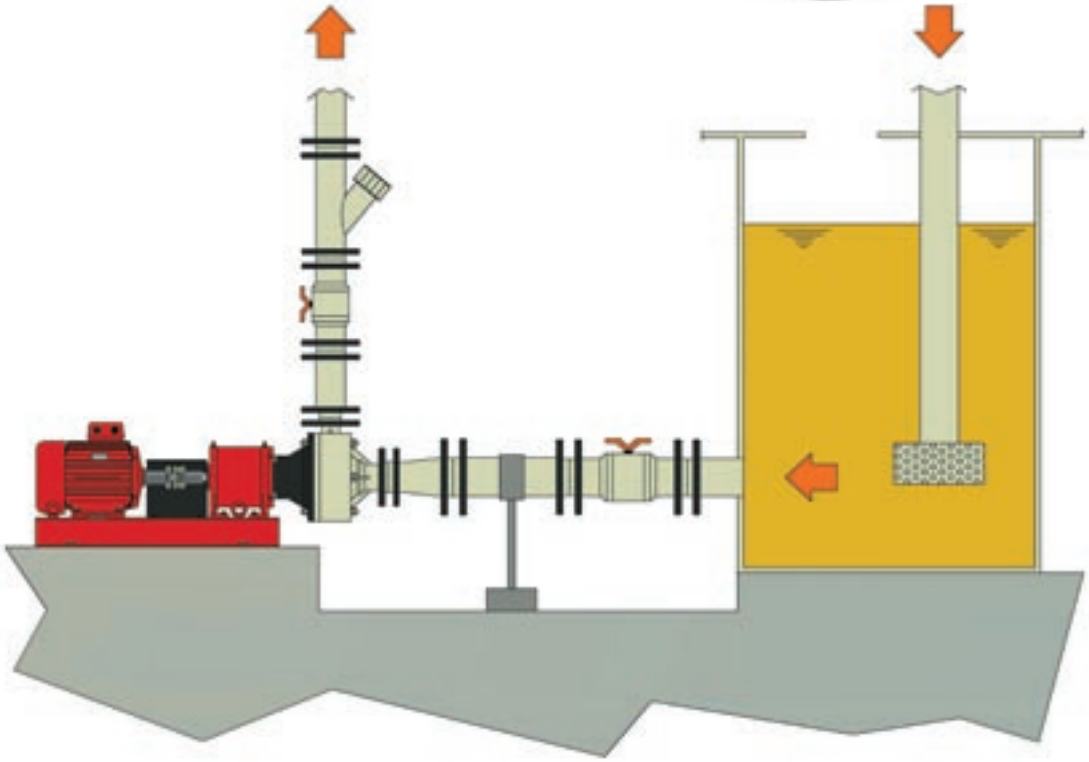
Caratteristiche generali
- Adatta al pompaggio di liquidi corrosivi
- Costruzione solida
- Montata su base in acciaio e collegata al motore tramite giunto elastico
- Facile manutenzione
- Tenute meccaniche standardizzate
- Verniciatura: primer epossidico 50/80 µm più strato poliuretanico 70/80 µm rosso RAL 3001

Materiali
- Parti a contatto con il liquido pompato in PP – PVDF
- O-rings e guarnizioni in EPDM – FPM – FFKM
- Supporto albero in alluminio
- Albero in acciaio inossidabile AISI 420 rivestito in termoplastico
- Base e coprigiunto in acciaio al carbonio S235JR-EN1025

Temperature d'esercizio
- PP 0° C + 90° C
- PVDF -20° C +110° C

Accessori
- Drenaggio corpo
- Barilotto pressurizzato per flussaggio tenute meccaniche
- Barilotto per autoadescamento
- Protettore di marcia a secco





General characteristics
- Suitable for pumping corrosive fluids
- Solid construction
- Assembled on steel base plate and connected to the motor with an elastic coupling
- Easy to maintain
- Standardised mechanical seals
- Painting: 50/80 µm epoxy primer plus 70/80 µm coat of polyurethane RAL 3001 red

Materials
- Parts in contact with the fluid pumped in PP – PVDF
- O-rings and seals in EPDM – FPM – FFKM
- Shaft support in aluminium
- Shaft in thermoplastic-coated stainless steel 420
- Base plate and coupling guard in S235JR-EN1025 carbon steel

Working temperatures
- PP 0° C + 90° C
- PVDF -20° C +110° C

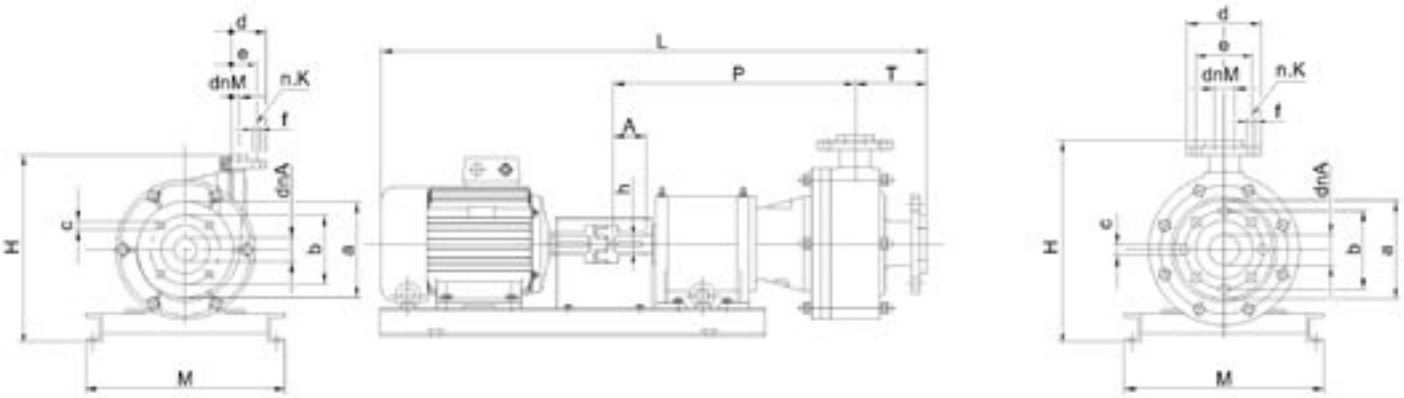
Accessories
- Casing drain
- Pressurised tank for mechanical seal fluxing
- Self-priming tank
- Dry-run protector

CGO

Dimensioni d'ingombro Overall dimensions

Le bocche di aspirazione e mandata sono realizzate di serie con flange ISO (a richiesta ANSI o JIS). I motori montati sono asincroni trifase e selezionati in base alle prestazioni richieste e rispondono alle normative IEC (a richiesta NEMA). Le frequenze disponibili sono 50 e 60 Hz.

The suction and discharge outlets are supplied with ISO flanges (ANSI or JIS flanges are available on request). Three-phase asynchronous motors manufactured in accordance with the IEC standard (NEMA available on request), fitted and selected according to the performance required. 50 and 60 Hz frequencies are available.



Type	Motor min/max	L	H	M	dnA	dnM	ØA	ØM	a	b	c	d	e	f
25-100	71	437	215	198	40	25	1½ "	1 "	150	110	18	100	85	14
	90	487	234	247										
25-125	80	470	244	237	40	25	1½ "	1 "	150	110	18	100	85	14
	90	490	254	247										
32-125	80	500	304	237	50	32			165	125	18	140	100	18
	112	590	326	304										
40-130	80	509	315	237	50	32			165	125	18	150	110	18
	132	721	362	346										
40-160	90	510	356	237	65	40			185	145	18	150	110	18
	160	743	378	346										
50-160	90	512	365	237	65	50			185	145	18	165	125	18
	160	842	415	396										
65-125	90	630	458	247	100	65			220	180	18	185	145	18
	160	921	468	396										
65-160	90	590	423	247	100	65			220	180	18	185	145	18
	180	855		396										

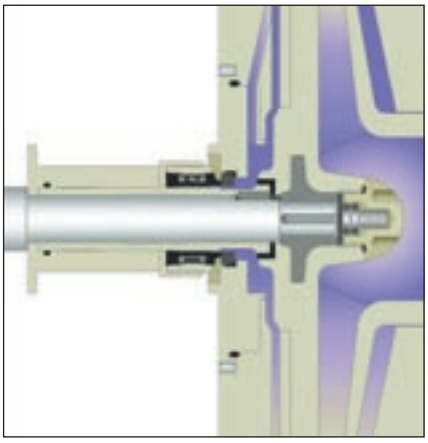
CGO - CMO

Tenute meccaniche Mechanical seals

B6E

Tenuta meccanica singola esterna per liquidi corrosivi, puliti e non eccessivamente caldi. Anello statico e rotante in SiC-SiC, molla e armatura in AISI 316 non a contatto con il liquido pompato,soffietto in elastomero EPDM o FPM

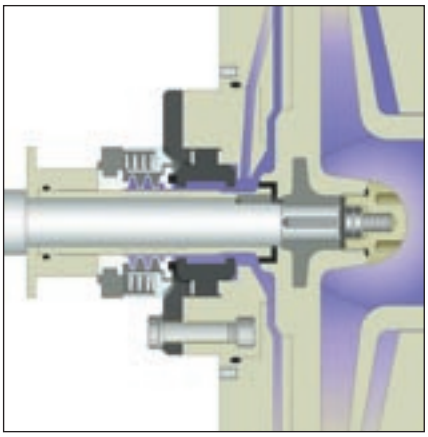
External single mechanical seal for corrosive, clean and not excessively hot fluids. Static and rotating ring in SiC-SiC, spring and metal armour in AISI 316 not in contact with the fluid pumped, bellows in EPDM or FPM elastomer.



JRS JTP JRA

(solo per CMO dalla 32-200 alla 125-250)
Tenuta meccanica singola esterna per liquidi fortemente corrosivi ad alta concentrazione e con temperature elevate. Anello rotante e statico in tre diverse combinazioni (SiC-SiCSiC-Al2O3Al2O3-PTFE-C), soffietto in PTFE , molla e armatura in AISI 316 non a contatto con il liquido pompato, guarnizioni in PTFE

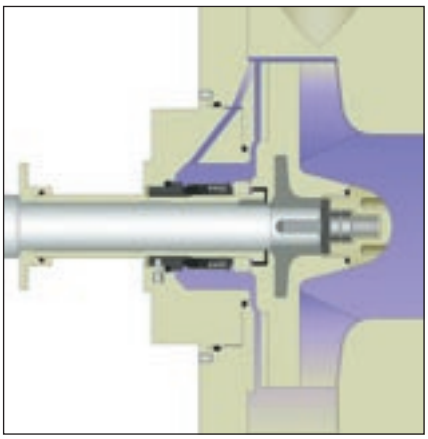
(only for CMO pumps from model 32-200 to model 125-250) Single external mechanical seal for high concentrations of highly corrosive fluids at high temperatures. Static and rotating ring in three different combinations (SiC-SiC SiC-Al2O3 Al2O3-PTFE-C), bellows in PTFE, spring and metal armour in AISI 316 not in contact with the fluid pumped, PTFE seals.



J5G J5H

Tenuta meccanica singola interna per liquidi moderatamente corrosivi, puliti e non eccessivamente caldi. Anello rotante e statico in due diverse combinazioni (SiC-Carbografite SiC-SiC), molla in hastelloy e armatura in monel, oppure in AISI 316, o-rings in elastomero EPDM o FPM

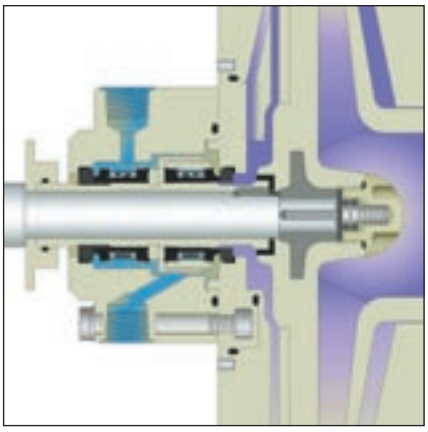
Internal single mechanical seal for moderately corrosive, clean and not excessively hot fluids. Static and rotating ring in two different combinations (SiC-Carbon graphite SiC-SiC), spring in hastelloy and metal armour in monel, or in AISI 316, O-rings in EPDM or FPM elastomer.



B6EDF

(non applicabile alle macchine dalla 25-100 alla 65-160 della serie CMO)
Tenuta esterna doppia flussata per liquidi corrosivi, leggermente carichi e non eccessivamente caldi. Anello statico e rotante in SiC-SiC, molla e armatura in AISI 316 non a contatto con il liquido pompato, soffietto in elastomero EPDM o FPM

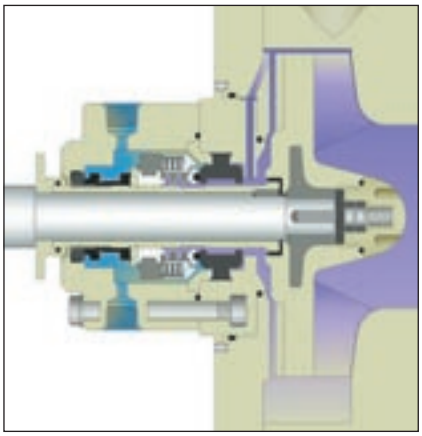
(not compatible with CMO pumps from model 25-100 to model 65-160) External double flux seal for corrosive, moderately loaded and not excessively hot fluids.
Static and rotating ring in SiC-SiC, spring and metal armour in AISI 316 not in contact with the fluid pumped, bellows in EPDM or FPM elastomer.



CGO - CMO

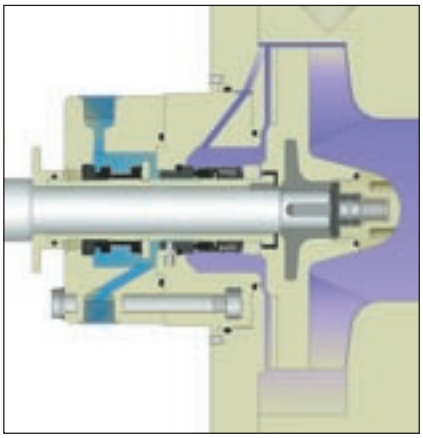
JR2A JR2S JT2P
(solo per CMO dalla 32-200 alla 125-250)
Tenuta esterna doppia flussata per liquidi fortemente corrosivi ad alta concentrazione con temperature elevate contenenti particelle di solidi in sospensione. Anello rotante e statico tenuta lato girante in tre diverse combinazioni (SiC-SiCSiC-Al2O3Al2O3-PTFE-C), soffietto in PTFE , molla e armatura esterni in AISI 316, guarnizioni in elastomero EPDM, FPM o in PTFE. Tenuta lato motore, anelli a contatto in SiC, soffietto in EPDM o FPM, molla e armatura in AISI 316

(only for CMO pumps from model 32-200 to model 125-250)
External double flux seal for highly corrosive fluids at a high concentration and high temperatures containing a suspension of solid particles. Static and rotating ring for impeller side seal in three different combinations (SiC-SiC SiC-Al2O3 Al2O3-PTFE-C), bellows in PTFE, external spring and metal armour in AISI 316, seals in EPDM, FPM or PTFE elastomer. Motor side seal, rings in contact with the fluid in SiC, bellows in EPDM or FPM, spring and metal armour in AISI 316.



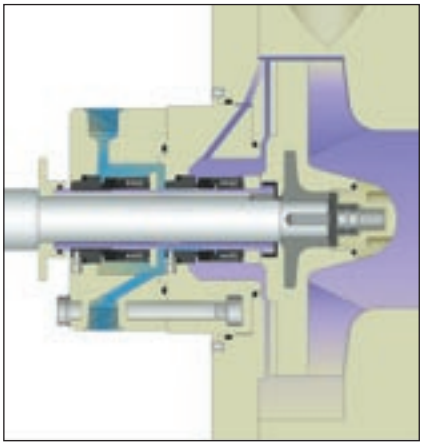
J52G J52S
(non applicabile alle macchine dalla 25-100 alla 65-160 della serie CMO)
Tenuta interna doppia flussata per liquidi moderatamente corrosivi, leggermente carichi e non eccessivamente caldi. Anello rotante e statico tenuta lato girante in due diverse combinazioni (SiC-Carbografite SiC-SiC), molla in hastelloy e armatura in monel, oppure in AISI 316, o-rings in elastomero EPDM o FPM. Tenuta lato motore, anelli a contatto in SiC, soffietto in EPDM o FPM , molla in AISI 316

(not compatible with CMO pumps from model 25-100 to model 65-160)
Internal double flux seal for moderately corrosive, slightly loaded and not excessively hot fluids. Static and rotating ring for impeller side seal in two different combinations (SiC- Carbon graphite SiC-SiC), spring in hastelloy and metal armour in monel, or in AISI 316, O-rings in EPDM or FPM elastomer. Motor side seal, rings in contact with fluid in SiC, bellows in EPDM or FPM, spring in AISI 316.



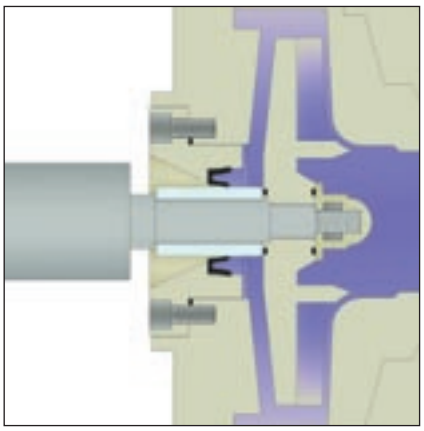
J55S
(non applicabile alle macchine dalla 25-100 alla 65-160 della serie CMO)
Tenuta interna doppia flussata per liquidi moderatamente corrosivi, leggermente carichi e non eccessivamente caldi. Anello rotante e statico tenuta lato girante e lato motore in SiC-SiC, molla in hastelloy e armatura in monel, o-rings e soffietto in elastomero EPDM o FPM

(not compatible with CMO pumps from model 25-100 to model 65-160)
Internal double flux seal for moderately corrosive, slightly loaded and not excessively hot fluids. Static and rotating ring, impeller side and motor side seals in SiC-SiC, spring in hastelloy and metal armour in monel, O-rings and bellows in EPDM or FPM elastomer.



TLE TLF
(non applicabile alle macchine dalla 32-200 alla 125-250 della serie CMO)
Tenuta a labbro in elastomero EPDM o FPM, montata per pompare soluzioni debolmente corrosive e non incrostanti

T(not compatible with CMO pumps from model 32-200 to model 125-250)
Lip seal in EPDM or FPM elastomer, used to pump weakly corrosive and non-encrusting solutions.



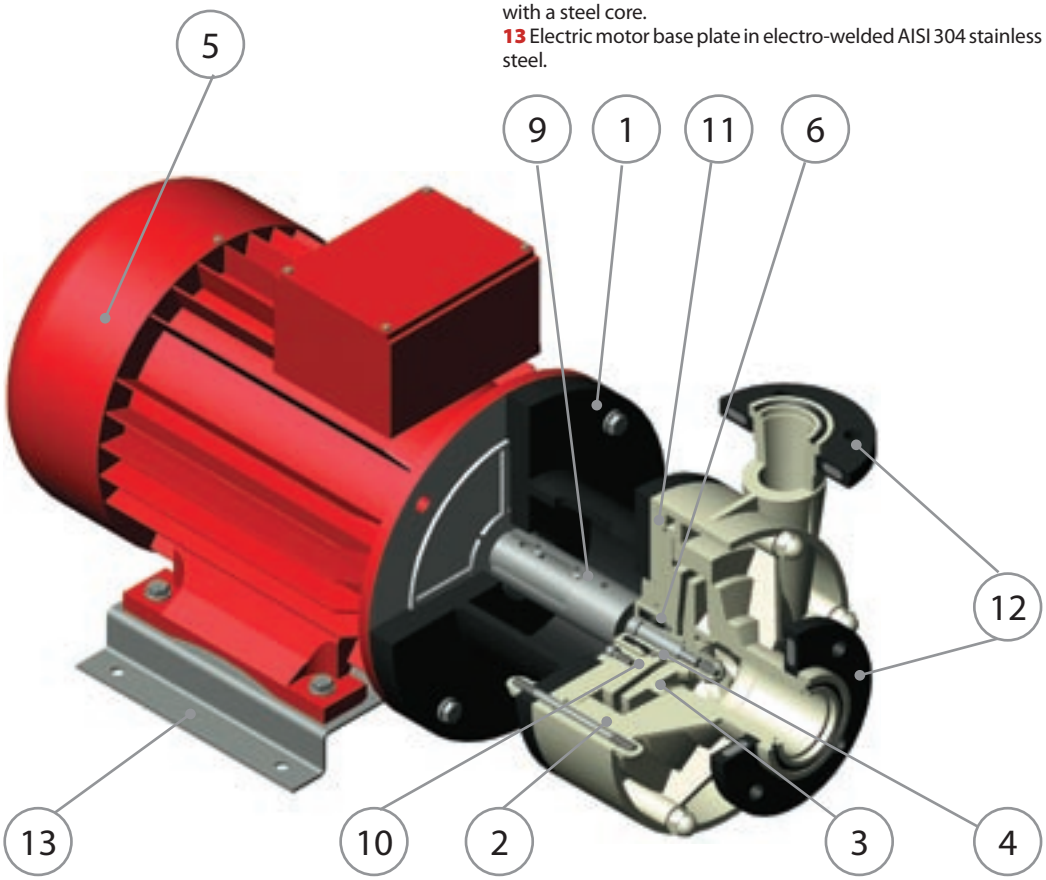
CMO

1 Lanterna di robusta concezione; in termoplastico per le pompe dalla 25-100 alla 65-160, in metallo dalla 32-200 alla 125-250.
2 Corpo-pompa in PP, PVDF, PEHD, PVC di elevato spessore, ricavato interamente da lavorazione meccanica. Per le macchine 25-125, 32-125, 40-130, 40-160, 50-160, il pezzo viene stampato ad iniezione.
3 Girante centrifuga in PP, PVDF, PE-UHMW , PVC (per le macchine 25-100, 25-125, 32-125, 40-130, 40-160, 50-160, il pezzo è realizzato solo in PP e PVDF) ; versione semi-aperta per liquidi carichi e chiusa per il pompaggio di soluzioni con temperature elevate. Autobilanciamento assiale garantito da contropalettature posteriori, inserto centrale metallico protetto
4 Camicia in PP, PVDF, PE-UHMW, PVC, (per le macchine 25-100, 25-125, 32-125, 40-130, 40-160, 50-160, il pezzo è realizzato solo in PP e PVDF) riveste interamente, nella parte a contatto con il liquido pompato, l'albero in acciaio e viene realizzata in un unico pezzo. Ruota solidale con la girante ma ne è indipendente
5 Motore elettrico asincrono trifase secondo la normativa IEC (a richiesta NEMA).
6 Tenuta meccanica standardizzata, selezionata a seconda dei liquidi pompati, delle temperature e delle ore di lavoro sopportate dalla macchina. Sulle macchine dalla 25-100 alla 65-160 si possono montare i sistemi B6E, J5G, J5H, TLE e TLF.
9 Albero bilanciato in acciaio al carbonio 39NiCrMo3,o AISI 420 strutturato per sopportare agevolmente forze torsionali e radiali. Ricavato completamente da barra piena tramite lavorazione meccanica
10 Cassastoppa in PP, PVDF, PE-UHMW, PVC, (per le macchine 25-100, 25-125, 32-125, 40-130, 40-160, 50-160, il pezzo è realizzato solo in PP e PVDF), montata all'interno del coperchio e completamente indipendente, di facile sostituzione
11 Coperchio interamente in PP, PVDF, PEHD, PVC, (per le macchine 25-100, 25-125, 32-125, 40-130, 40-160, 50-160, il pezzo è realizzato solo in PP e PVDF) contenuto tra il corpo la flangia della lanterna
12 Flange libere in PP caricato vetro rinforzate internamente da un'anima in acciaio.
13 Base del motore elettrico in acciaio inox AISI 304 elettrosaldato

1 Strong intermediate adaptor; in thermoplastic for pumps from model 25-100 to model 65-160, in metal from model 32-200 to model 125-250.
2 Casing made of extra-thick PP, PVDF, PEHD, PVC, manufactured using mechanical machining processes. For pump models 25-125, 32-125, 40-130, 40-160 and 50-160, the part is injection moulded.
3 Centrifugal impeller in PP, PVDF, PE-UHMW, PVC (the part is only available in PP or PVDF for pump models 25-100, 25-125, 32-125, 40-130, 40-160 and 50-160); semi-open version for particle-loaded fluids or closed for pumping solutions at high-temperatures. Axial self-balancing is guaranteed by the rear counterblades; protected central metal insert.
4 Shaft sleeve in PP, PVDF, PE-UHMW, PVC (the part is only available in PP or PVDF for the pump models 25-100, 25-125, 32-125, 40-130, 40-160 and 50-160) fully covering the part of the steel shaft in contact with the fluid pumped and manufactured as a one-piece component. It rotates integrally with the impeller but is independent from it.
5 Three-phase asynchronous electric motor, in compliance with IEC (NEMA available on request).
6 Standardised mechanical seal, selected according to the fluid pumped and the working temperatures and hours supported by the machine. CMO pumps from model 25-100 to model 65-160 can be fitted with the B6E, J5G, J5H, TLE and TLF systems; the remaining models in the same series can be fitted with any of the sealing systems listed in this catalogue with the exception of the TLE and TLF systems.
9 Balanced shaft made of AISI 420 stainless steel, structured to easily support torsional and radial forces. Mechanically machined exclusively from solid bar stock.
10 Stuffing box in PP, PVDF, PE-UHMW, PVC (the part is only available in PP or PVDF for the pump models 25-100, 25-125, 32-125, 40-130, 40-160 and 50-160), fitted inside the closure, it is fully independent and easy to replace.
11 The closure, entirely manufactured in PP, PVDF, PEHD, PVC (the part is only available in PP or PVDF for the pump models 25-100, 25-125, 32-125, 40-130, 40-160 and 50-160), is contained between the body and the intermediate adaptor flange
12 Loose flanges in glass-reinforced PP, strengthened internally with a steel core.
13 Electric motor base plate in electro-welded AISI 304 stainless steel.

Legenda
PP
polipropilene
PVDF
floruro di polivinilidene
PEHD
polietilene alto
peso molecolare
PE-UHMW
polietilene ultra alto
peso molecolare
PVC
cloruro di polivinile
EPDM
etilenpropilene
FPM
fluoroelastomero
FFKM
perfluoroelastomero
SiC
carburo di silicio
Al2O3
allumina

Legend
PP
polypropylene
PVDF
polyvinylidene fluoride
PEHD
polietilene alto peso
molecolare
PE-UHMW
polietilene ultra alto peso
molecolare
PVC
polyvinyl chloride
EPDM
ethyl propylene diene
monomer
FPM
fluoroelastomer
FFKM
perfluoroelastomer
SiC
silicon carbide
Al2O3
alumina



ATEX 94/9/EC

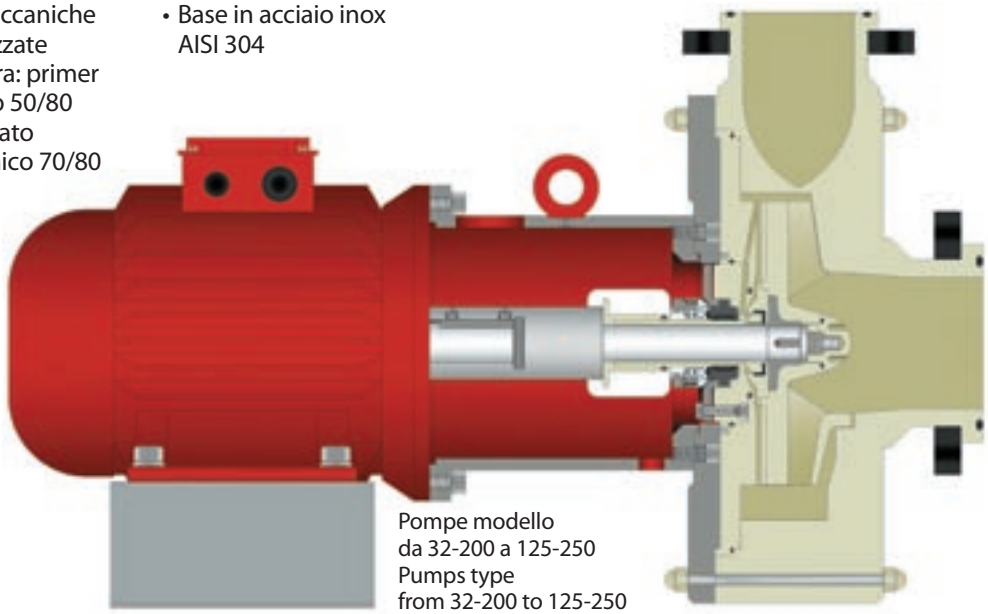
CMO

Caratteristiche generali
- Adatta al pompaggio di liquidi corrosivi
- Costruzione solida
- Corpo ricavato da massello (dal modello 65-125 al 125-250)
- Soluzione compatta
- Albero fissato direttamente al motore
- Facile manutenzione
- Tenute meccaniche standardizzate
- Verniciatura: primer epossidico 50/80 µm più strato poliuretanico 70/80 µm rosso RAL 3001

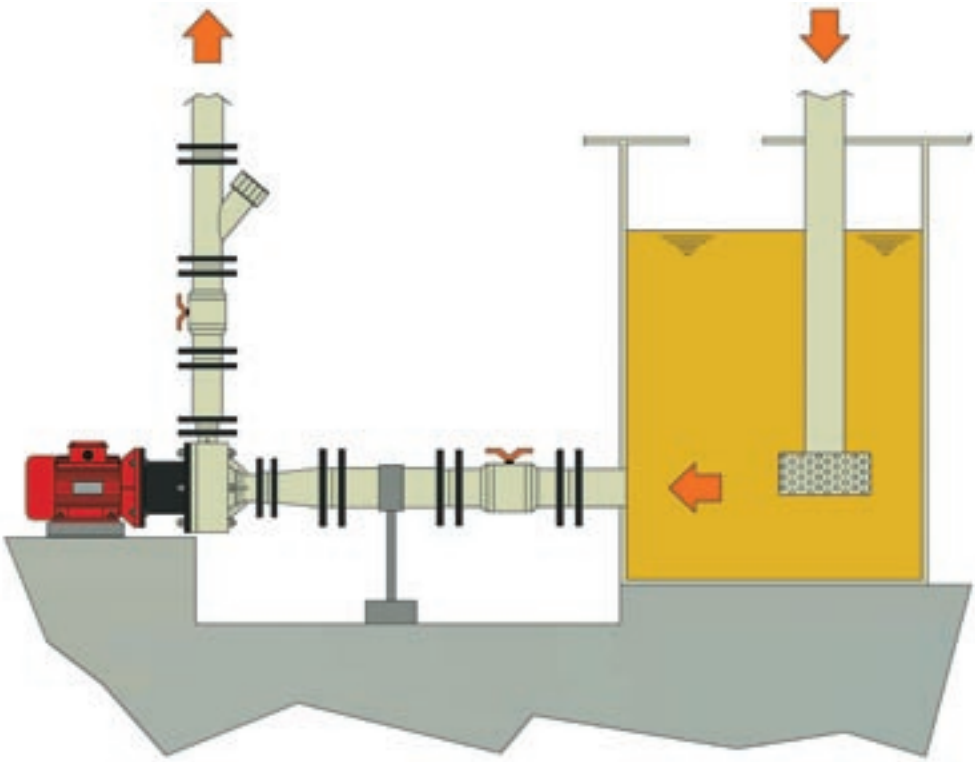
Materiali
- Parti a contatto con il liquido pompato in PP – PVDF (PEHD – PE-UHMW
- PVC per le macchine dalla 65-125 alla 125-250)
- O-rings e guarnizioni in EPDM – FPM – FFKM
- Albero in acciaio 39NiCrMo3 rivestito in termoplastico
- Base in acciaio inox AISI 304

Temperature d'esercizio
- PP 0° C + 90° C
- PVDF -20° C +110° C
- PEHD -15° C + 80° C
- PVC 0° C + 60° C

Accessori
- Drenaggio corpo
- Barilotto pressurizzato per flussaggio tenute meccaniche
- Barilotto per autoadescamento
- Protettore di marcia a secco
- Base in acciaio



Pompe modello
da 32-200 a 125-250
Pumps type
from 32-200 to 125-250



General characteristics
- Suitable for pumping corrosive fluids
- Solid construction
- Body made from solid thermoplastic material (from model 65-125 to 125-250)
- Compact solution
- Shaft attached directly to the motor
- Easy to maintain
- Standardised mechanical seals
- Painting: 50/80 µm epoxy primer plus 70/80 µm coat of polyurethane RAL 3001 red

Materials
- Parts in contact with the fluid pumped in PP – PVDF (PEHD – PE-UHMW
  PVC for pumps from model 65-125 to model 125-250)
- O-rings and seals in EPDM – FPM – FFKM
- Shaft in thermoplastic-coated 39NiCrMo3 steel
- AISI 304 stainless steel base plate

Working temperatures
- PP 0° C + 90° C
- PVDF -20° C +110° C
- PEHD -15° C + 80° C
- PVC 0° C + 60° C

Accessories
- Casing drain
- Pressurised tank for mechanical seal fluxing
- Self-priming tank
- Dry-run protector
- Steel base plate

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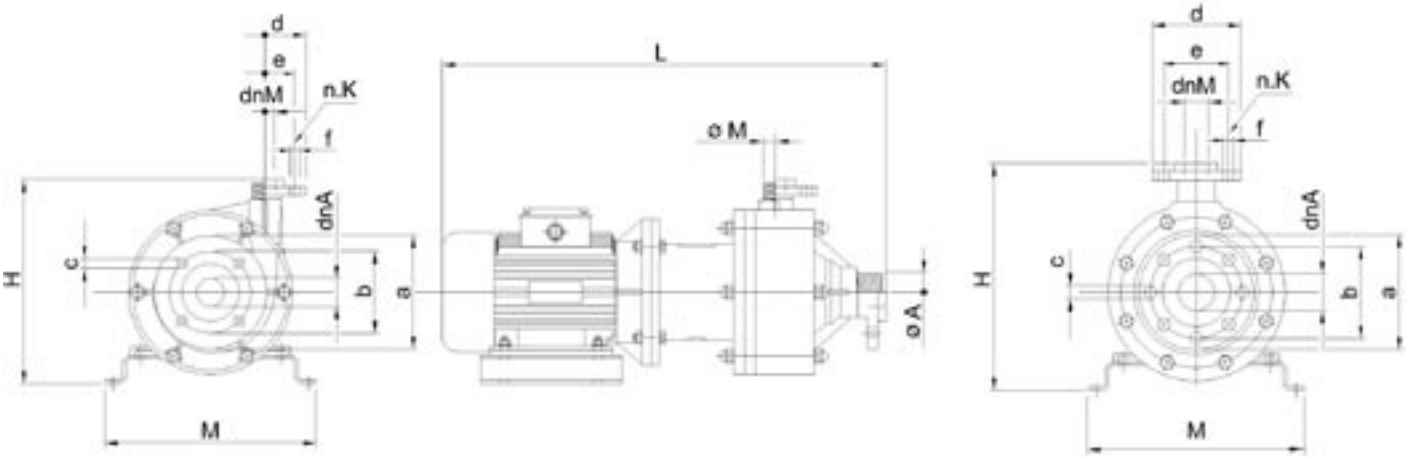
Dimensioni d'ingombro Overall dimensions

Le bocche di aspirazione e mandata sono realizzate di serie con flange ISO (a richiesta ANSI o JIS). I motori montati sono asincroni trifase e selezionati in base alle prestazioni richieste e rispondono alle normative IEC (a richiesta NEMA). Le frequenze disponibili sono 50 e 60 Hz.

The suction and discharge outlets are supplied with ISO flanges (ANSI or JIS flanges are available on request). Three-phase asynchronous motors manufactured in accordance with the IEC standard (NEMA available on request), fitted and selected according to the performance required. 50 and 60 Hz frequencies are available.

Type	Motor min/max	L	H	M	dnA	dnM	ØA	ØM	a	b	c	d	e	f
25-100	71	437	215	198	40	25	1½ "	1 "	150	110	18	100	85	14
	90	487	234	247										
25-125	80	470	244	237	40	25	1½ "	1 "	150	110	18	100	85	14
	90	490	254	247										
32-125	80	500	304	237	50	32			165	125	18	140	100	18
	112	590	326	304										
32-160	90	705	385	330	50	32			165	125	18	140	100	18
	160	975	430	410										
32-200	90	705	420	330	50	32			165	125	18	150	110	18
	160	975	440	410										
40-130	80	509	315	237	50	32			165	125	18	150	110	18
	132	721	362	346										
40-160	90	510	356	237	65	40			185	145	18	150	110	18
	160	743	378	346										
40-200	90	705	420	355	65	40			185	145	18	150	110	18
	160	975	440	410										
40-250	100	851	480	410	65	40			185	145	18	150	110	18
	200	1186	515	485										
50-160	90	512	365	237	65	50			185	145	18	165	125	18
	160	842	415	396										
50-200	90	705	420	355	80	50			200	160	18	165	125	18
	180	1005	460	445										
50-250	100	851	480	410	80	50			200	160	18	165	125	18
	200	1186	515	485										
65-125	90	630	458	247	100	65			220	180	18	185	145	18
	160	921	468	396										
65-160	90	590	423	247	100	65			220	180	18	185	145	18
	180	855		396										
65-200	90	796	475	410	100	65			220	180	18	185	145	18
	200	1166	510	485										
65-250	112	851	480	450	100	65			220	180	18	185	145	18
	225	1216	540	525										
80-200	100	851	475	435	125	80			250	210	18	200	160	18
	225	1231	535	525										
80-250	100	866	560	490	125	80			250	210	18	200	160	18
	180	1421	560	640										
100-200	100	851	480	450	125	100			250	210	18	220	180	18
	180	1231	495	525										
100-250	100	866	560	490	125	100			250	210	18	220	180	18
	200	1231	560	525										
125-250	132	951	670	490	150	125			285	240	22	250	210	18
	250	1331	705	580										



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Curve caratteristiche

Tutte le macchine prodotte sono sottoposte, una per una, a tests idromeccanici con acqua a temperatura di 18°C e sono garantite fino a PN10.

Tutte le macchine prodotte sono sottoposte, una per una, a tests idromeccanici con acqua a temperatura di 18°C e sono garantite fino a PN10.

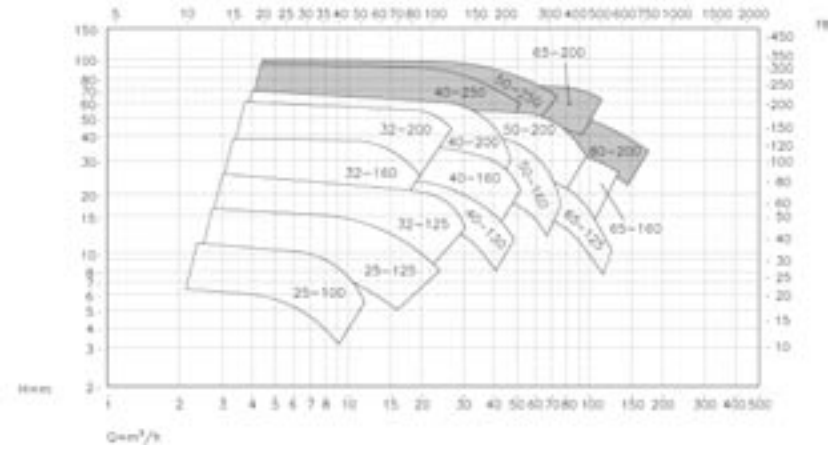
Characteristic curves

All of the machines manufactured are subjected to hydro-mechanical tests, one by one, with water at a temperature of 18°C and are guaranteed up to PN10.

The data contained in this catalogue is indicative but not binding and may be subject to change without any prior warning.

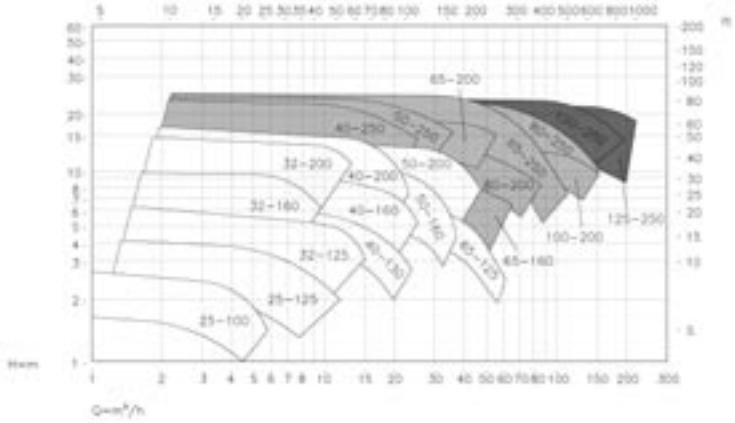
2900 RPM/50 Hz

US gpm



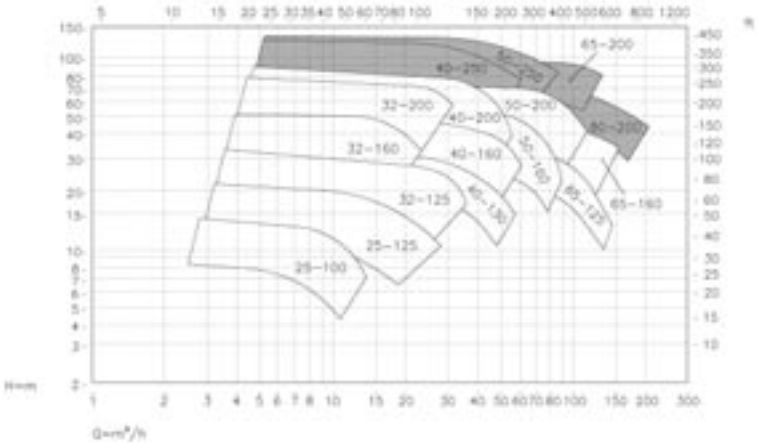
1450 RPM/50 Hz

US gpm



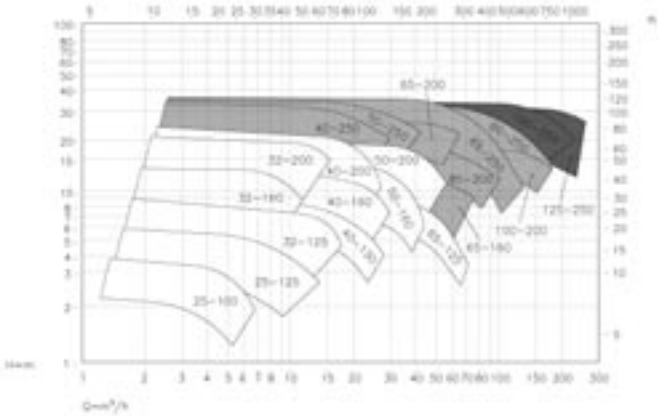
3450 RPM/60 Hz

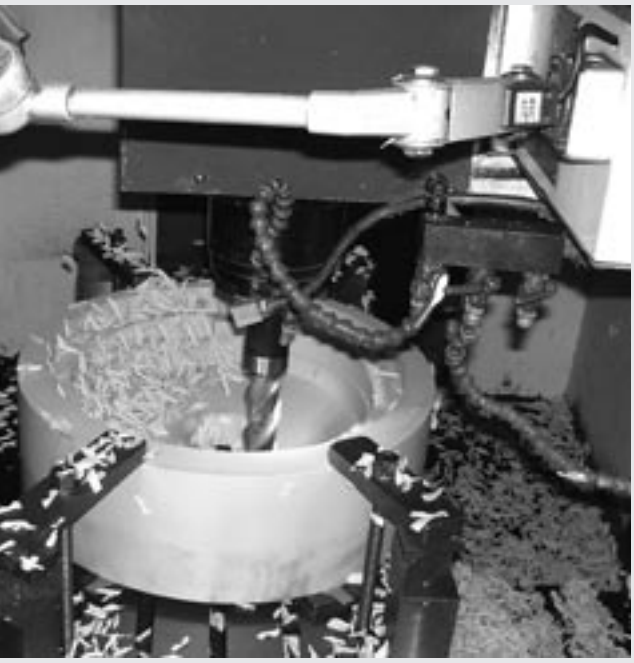
US gpm



1750 RPM/60 Hz

US gpm





AFFETTI
Pumps for corrosive liquids

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