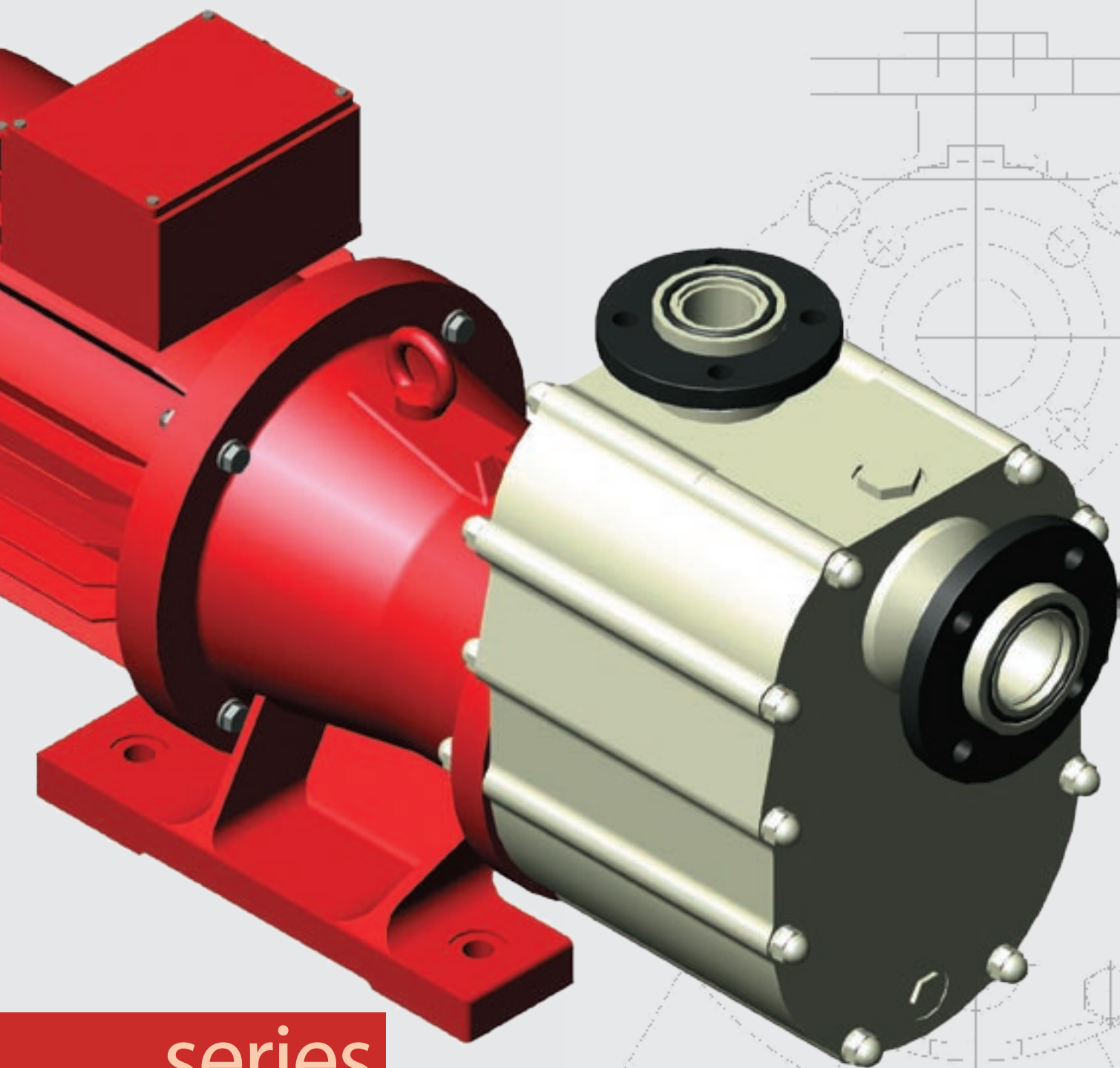




AFFETTI

Pumps for corrosive liquids



series
MSP

Pompe centrifughe
autoadescanti

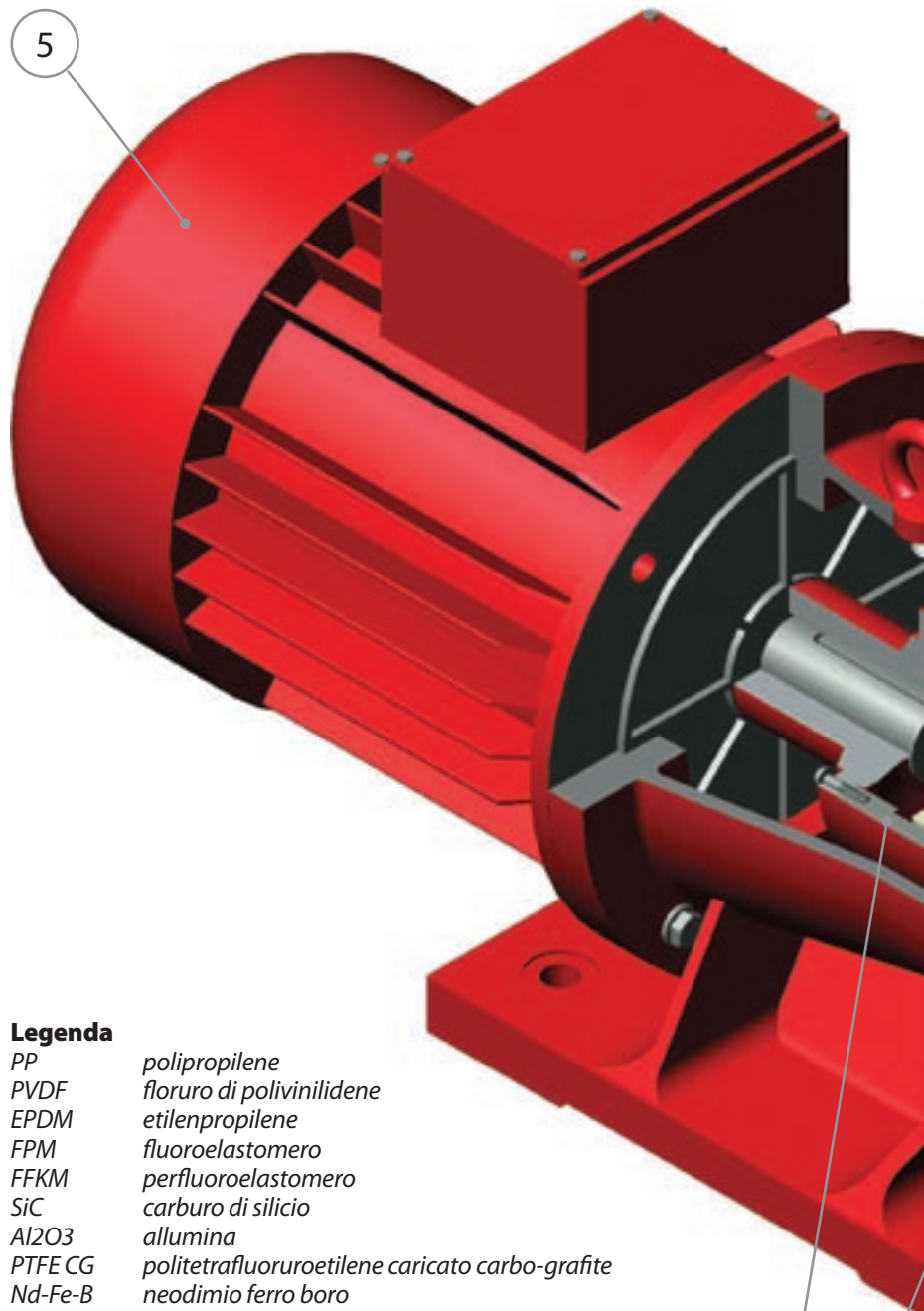
Centrifugal
self-priming pumps

MSP-N

- 1** Lanterna di robusta concezione in ghisa grigia G25 munita di piedi di sostegno.
- 2** Corpo-pompa in PP, PVDF, composto da tre elementi. Di elevato spessore, ricavato interamente da lavorazione meccanica.
- 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 contropaletture posteriori
- 4** Bussole di guida statiche in Al2O3 (su richiesta in SiC)
- 5** Motore elettrico asincrono trifase secondo la normativa IEC (a richiesta NEMA).
- 6** Bussole di guida rotanti in PTFE CG (su richiesta in SiC), ruotano solidali con il rotore.
- 7** Nucleo magnetico esterno dotato di barrette magnetiche in Nd-Fe-B ruotando solidale con il motore, trasmette il movimento al rotore
- 9** Flange libere in PP caricato vetro rinforzate internamente da un'anima in acciaio
- 10** Rotore in PP o PVDF con foro centrale per la lubrificazione delle bussole di guida posteriori e la bilanciatura della girante. Il nucleo magnetico interno, composto da un supporto in acciaio al carbonio e da barrette magnetiche in Nd-Fe-B, viene incapsulato interamente e protetto dal rotore in termoplastico



ATEX 94/9/EC



- 1** Intermediate adaptor of a strong design in grey cast iron equipped with support feet.
- 2** Casing in PP or PVDF, composed of three parts. Extra-thick material, manufactured using mechanical machining processes.
- 3** Centrifugal impeller made of PP or PVDF; semi-open model for particle-loaded fluids and closed for pumping high-temperature solutions. Axial self-balancing guaranteed by rear counterblades.
- 4** Static guide bushings in Al2O3 (SiC available on request).
- 5** Three-phase asynchronous electric motor, in compliance with IEC (NEMA available on request).
- 6** Revolving guide bushings in PTFE CG (SiC available on request), rotate integrally with the rotor.
- 7** External magnetic core with magnetic bars in Nd-Fe-B rotating integrally with the motor, transmits the movement to the rotor.
- 9** Loose flanges in glass-reinforced PP, strengthened internally with a steel core.
- 10** Rotor in PP or PVDF with a central hole for lubricating the rear guide bushings and impeller balancing. The internal magnetic core, composed of a carbon steel support and magnetic bars in Nd-Fe-B, is fully encapsulated in thermoplastic material to protect it from the rotor.

Legenda

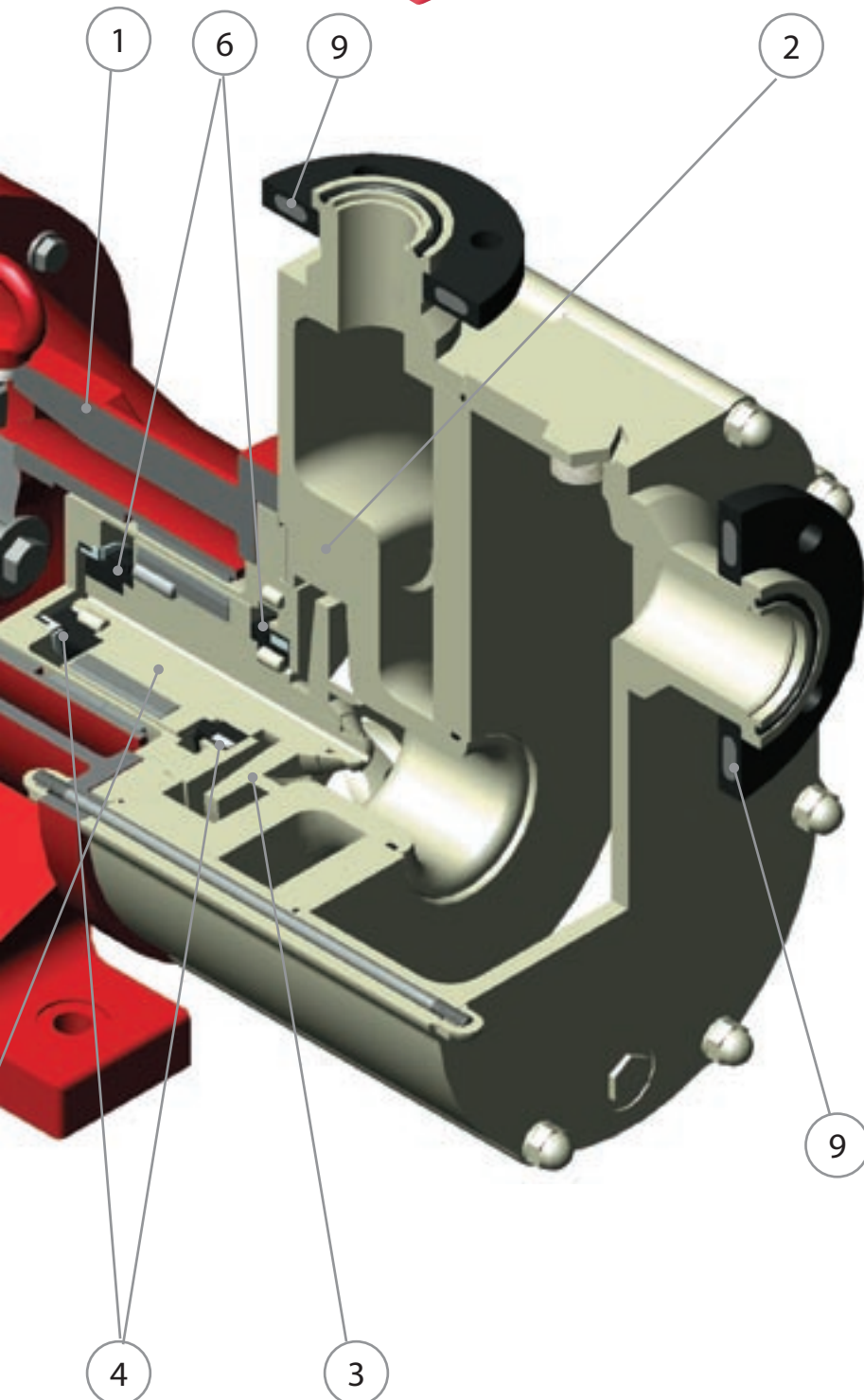
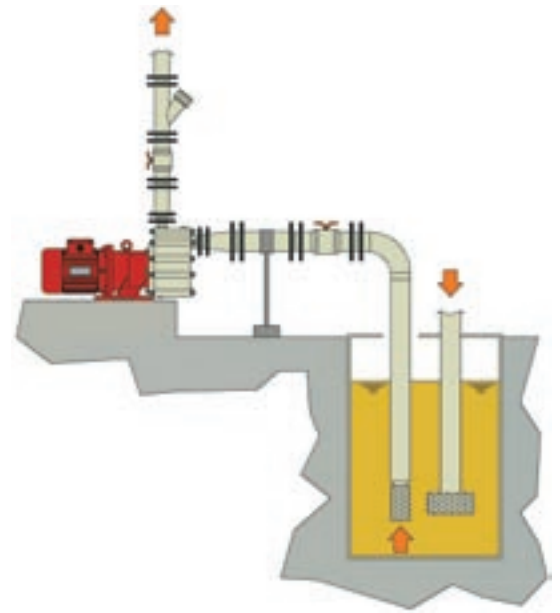
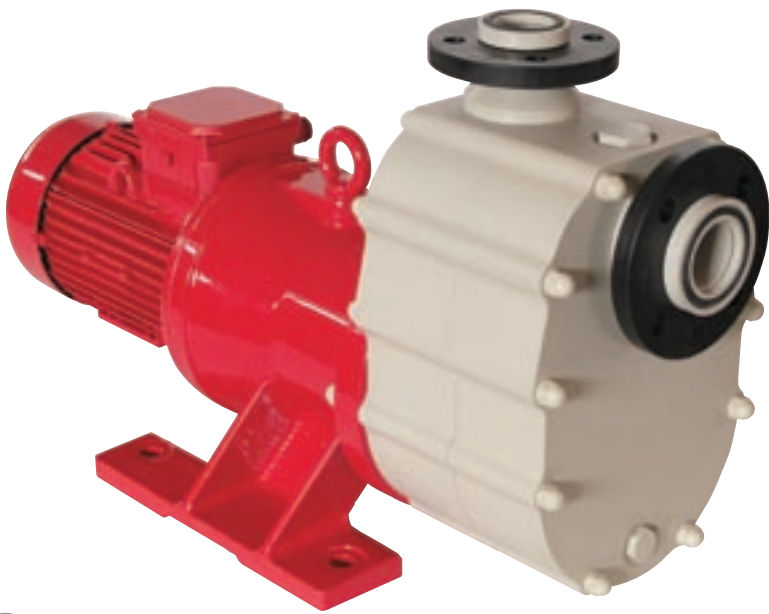
| | |
|---------|---|
| PP | polipropilene |
| PVDF | floruro di polivinilidene |
| EPDM | etilenpropilene |
| FPM | fluoroelastomero |
| FFKM | perfluoroelastomero |
| SiC | carburo di silicio |
| Al2O3 | allumina |
| PTFE CG | politetrafluoroetilene caricato carbo-grafite |
| Nd-Fe-B | neodimio ferro boro |

Legend

| | |
|---------|--|
| PP | polypropylene |
| PVDF | polyvinylidene fluoride |
| EPDM | ethyl propylene diene monomer |
| FPM | fluoroelastomer |
| FFKM | perfluoroelastomer |
| SiC | silicon carbide |
| Al2O3 | alumina |
| PTFE CG | carbon-graphite reinforced polytetrafluoroethylene |
| Nd-Fe-B | neodymium iron boron |

7

10



Caratteristiche generali

- Adatta al pompaggio di liquidi molto aggressivi non contenenti solidi
- Girante azionata per induzione magnetica
- Autoadescante fino a 4 mt
- Costruzione solida
- Montata su lanterna in ghisa munita di piedi di sostegno
- Certificabile ATEX 94/9/EC
- Facile manutenzione
- Verniciatura: primer epossidico 50/80 µm più strato poliuretano 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
- Lanterna in ghisa grigia
- Bussole di guida del rotore in Al₂O₃ e PTFE CG (su richiesta in SiC)
- Giunto magnetico in Nd-Fe-B

Temperature d'esercizio

- PP 0° C + 80° C
- PVDF -10° C +100° C

Accessori

- Carrello

General characteristics

- Suitable for pumping very aggressive fluids free from solid particles
- Impeller driven by magnetic induction
- Self-priming up to 4 metres
- Solid construction
- Assembled on a cast iron intermediate adaptor equipped with support feet
- Can be certified to ATEX 94/9/EC
- Easy to maintain
- 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
- Intermediate adaptor in grey cast iron
- Rotor guide bushings in Al₂O₃ and PTFE CG (SiC available on request)
- Magnetic coupling in Nd-Fe-B

Working temperatures

- PP 0° C + 80° C
- PVDF -10° C +100° C

Accessories

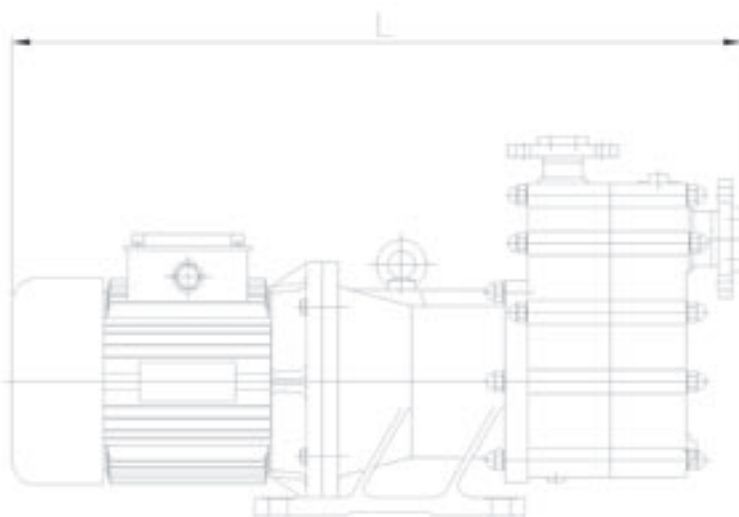
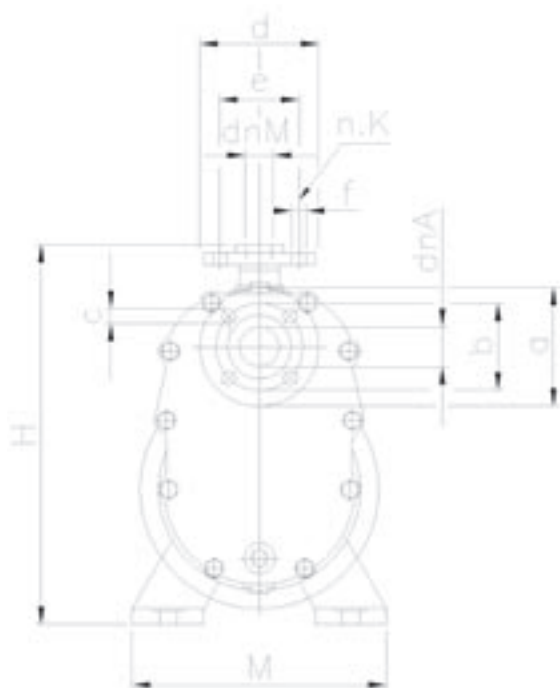
- Trolley

MSP-N

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 | a | b | c | d | e | f | k |
|--------|---------------|------|-----|-----|-----|-----|-----|-----|----|-----|-----|----|---|
| 40-130 | 90 | 817 | 499 | 320 | 50 | 40 | 165 | 125 | 18 | 150 | 85 | 18 | 4 |
| | 132 | 959 | | | | | | | | | | | |
| 50-160 | 90 | 1019 | 540 | 320 | 65 | 50 | 185 | 145 | 18 | 150 | 125 | 18 | 4 |
| | 160 | 1068 | | | | | | | | | | | |

MSP-E MSP-T

1 Lanterna di robusta concezione realizzata in termoplastico.

2 Corpo-pompa in PP, PVDF, composto da tre elementi. Di elevato spessore, ricavato interamente da lavorazione meccanica.

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 contropaletture posteriori

4 Bussole di guida statiche in Al2O3 (su richiesta in SiC)

5 Motore elettrico asincrono trifase secondo la normativa IEC (a richiesta NEMA).

6 Bussole di guida rotanti in PTFECG (su richiesta in SiC), ruotano solidali con il rotore.

7 Nucleo magnetico esterno dotato di barrette magnetiche in Nd-Fe-B ruotando solidale con il motore, trasmette il movimento al rotore

8 Base del motore elettrico in acciaio inox AISI 304 elettrosaldato

9 Flange libere in PP caricato vetro rinforzate internamente da un'anima in acciaio

10 Rotore in PP o PVDF con foro centrale per la lubrificazione delle bussole di guida posteriori e la bilanciatura della girante. Il nucleo magnetico interno, composto da un supporto in acciaio al carbonio e da barrette magnetiche in Nd-Fe-B, viene incapsulato interamente e protetto dal rotore in termoplastico

11 Coperchio costruito interamente in PP, PVDF contenuto tra il corpo la flangia della lanterna

12 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

13 Tenuta meccanica standardizzata di tipo B6E in SiC-SiC-EPDM/FPM, selezionata a seconda dei liquidi pompati, delle temperature e delle ore di lavoro sopportate dalla macchina.

14 Cassastoppa in PP, PVDF, montata all'interno del coperchio e completamente indipendente, di facile sostituzione

15 Albero bilanciato in acciaio inossidabile AISI 420, strutturato per sopportare agevolmente forze torsionali e radiali. Ricavato completamente da barra piena tramite lavorazione meccanica

MSP-T

La versione MSP-T è stata ideata per pompare liquidi corrosivi contenenti una limitata quantità di particelle solide in sospensione.

La girante viene azionata da un albero in acciaio fissato rigidamente al motore. La tenuta meccanica montata esternamente è singola tipo B6E con anelli in SiC e soffietto in elastomero; è previsto anche un sistema di lavaggio con acqua o liquido pulito compatibile con quello pompato.

1 Intermediate adaptor of a strong design in thermoplastic

2 Casing in PP or PVDF, composed of three parts. Extra-thick material, manufactured using mechanical machining processes.

3 Centrifugal impeller made of PP or PVDF; semi-open model for particle-loaded fluids and closed for pumping high-temperature solutions. Axial self-balancing guaranteed by rear counterblades.

4 Static guide bushings in Al2O3 (SiC available on request).

5 Three-phase asynchronous electric motor, in compliance with IEC (NEMA available on request).

6 Revolving guide bushings in PTFE CG (SiC available on request), rotate integrally with the rotor.

7 External magnetic core with magnetic bars in Nd-Fe-B rotating integrally with the motor,

transmits the movement to the rotor.

8 Electric motor base plate in electro-welded AISI 304 stainless steel.

9 Loose flanges in glass-reinforced PP, strengthened internally with a steel core.

10 Rotor in PP or PVDF with a central hole for lubricating the rear guide bushings and impeller balancing. The internal magnetic core, composed of a carbon steel support and magnetic bars in Nd-Fe-B, is fully encapsulated in thermoplastic material to protect it from the rotor.

11 Closure made entirely from PP or PVDF, contained between the body and the intermediate adaptor flange.

12 Shaft sleeve in PP or 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.

13 Standardised mechanical seal type B6E in SiC-SiC-EPDM/FPM, selected according to the fluid pumped and the working temperatures and hours supported by the machine.

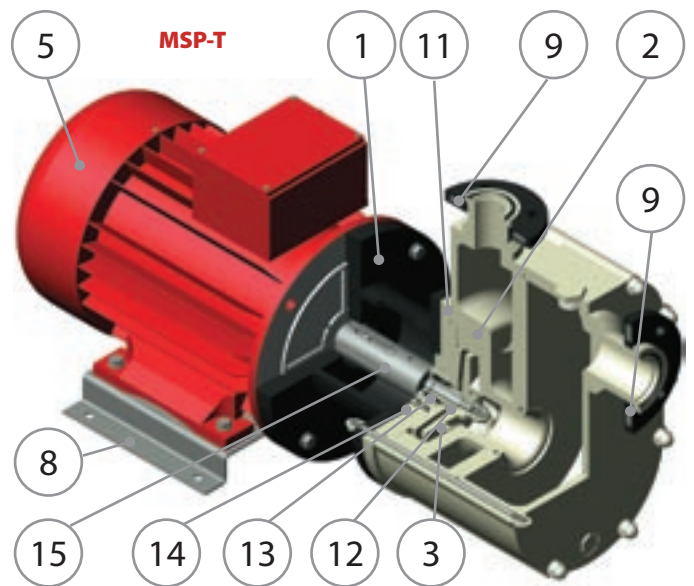
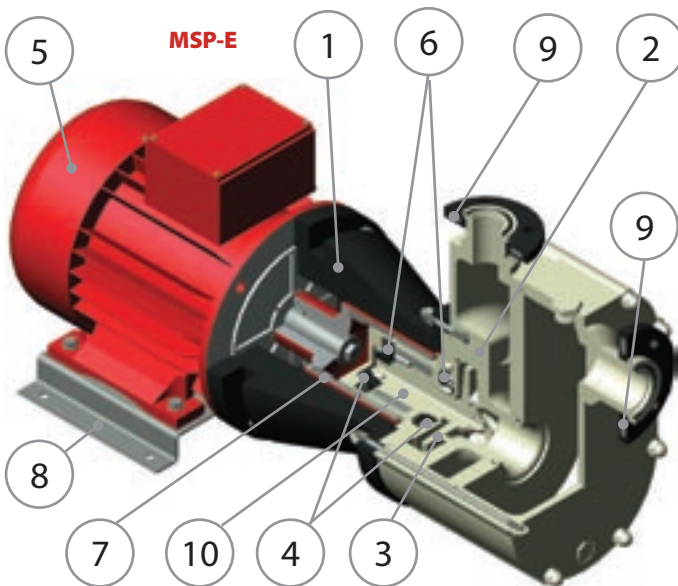
14 Stuffing box in PP or PVDF, fitted inside the closure, fully independent and easy to replace.

15 Balanced shaft made of AISI 420 in stainless steel, structured to easily support torsional and radial forces. Mechanically machined exclusively from solid bar stock.

MSP-T

The MSP-T version is designed to pump corrosive fluids containing a limited quantity of suspended solid particles.

The impeller is driven by a steel shaft fixed rigidly to the motor. The externally fitted mechanical seal is the single, B6E system with rings in SiC and elastomer bellows; it is also equipped with a washing system using water or clean fluid compatible with the fluid pumped.



Legenda

| | |
|---------|---|
| PP | polipropilene |
| PVDF | floruro di polivinilidene |
| EPDM | etilenpropilene |
| FPM | fluoroelastomero |
| FFKM | perfluoroelastomero |
| SiC | carburo di silicio |
| Al2O3 | allumina |
| PTFE CG | politetrafluoroetilene caricato carbo-grafite |
| Nd-Fe-B | neodimio ferro boro |

Legend

| | |
|---------|--|
| PP | polypropylene |
| PVDF | polyvinylidene fluoride |
| EPDM | ethyl propylene diene monomer |
| FPM | fluoroelastomer |
| FFKM | perfluoroelastomer |
| SiC | silicon carbide |
| Al2O3 | alumina |
| PTFE CG | carbon-graphite reinforced polytetrafluoroethylene |
| Nd-Fe-B | neodymium iron boron |



ATEX 94/9/EC

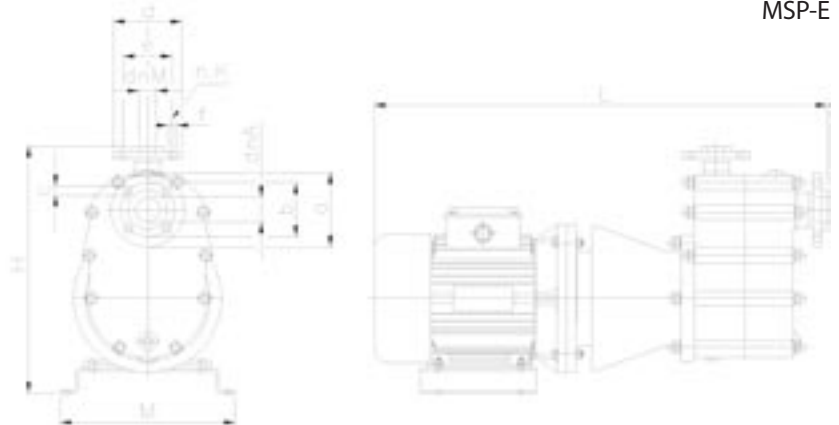
MSP-E MSP-T

Dimensioni d'ingombro Overall dimensions

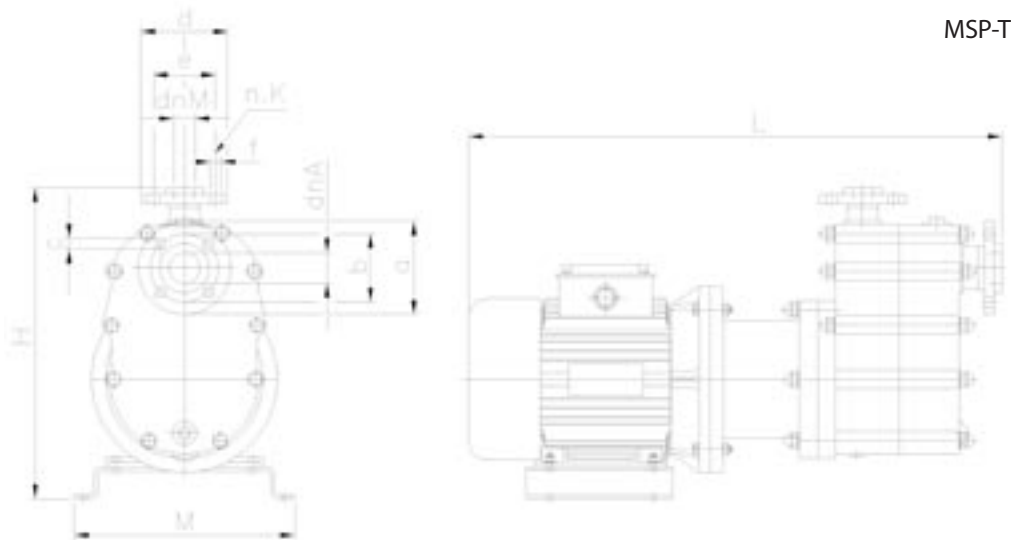
Le bocche di aspirazione e mandata sono realizzate di serie con flange ISO (a richiesta ANSI o JIS). I motori montati sono asincroni trifase e selezionati in base alle prestazioni richieste e rispondono alle normative IEC (a richiesta NEMA). Le frequenze disponibili sono 50 e 60 Hz.

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.

MSP-E



MSP-T



MSP-E

| Type | Motor min/max | L | H | M | dnA | dnM | a | b | c | d | e | f | k |
|--------|---------------|------|-----|-----|-----|-----|-----|-----|----|-----|-----|----|---|
| 25-125 | 80 | 617 | 390 | 237 | 40 | 25 | 150 | 110 | 18 | 100 | 85 | 14 | 4 |
| | 90 | 659 | 400 | 247 | | | | | | | | | |
| 40-130 | 90 | 715 | 449 | 247 | 50 | 40 | 165 | 125 | 18 | 150 | 85 | 18 | 4 |
| | 132 | 951 | 491 | 346 | | | | | | | | | |
| 50-160 | 90 | 790 | 490 | 247 | 65 | 50 | 185 | 145 | 18 | 150 | 125 | 18 | 4 |
| | 160 | 1210 | 560 | 396 | | | | | | | | | |

MSP-T

| Type | Motor min/max | L | H | M | dnA | dnM | a | b | c | d | e | f | k |
|--------|---------------|------|-----|-----|-----|-----|-----|-----|----|-----|-----|----|---|
| 25-125 | 80 | 621 | 390 | 237 | 40 | 25 | 150 | 110 | 18 | 100 | 85 | 14 | 4 |
| | 90 | 666 | 400 | 247 | | | | | | | | | |
| 40-130 | 90 | 681 | 449 | 247 | 50 | 40 | 165 | 125 | 18 | 150 | 85 | 18 | 4 |
| | 132 | 864 | 491 | 346 | | | | | | | | | |
| 50-160 | 90 | 750 | 490 | 247 | 65 | 50 | 185 | 145 | 18 | 150 | 125 | 18 | 4 |
| | 160 | 1102 | 560 | 396 | | | | | | | | | |

MSP

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.

I dati di questo catalogo sono indicativi ma non impegnativi e possono subire delle variazioni senza alcun preavviso.

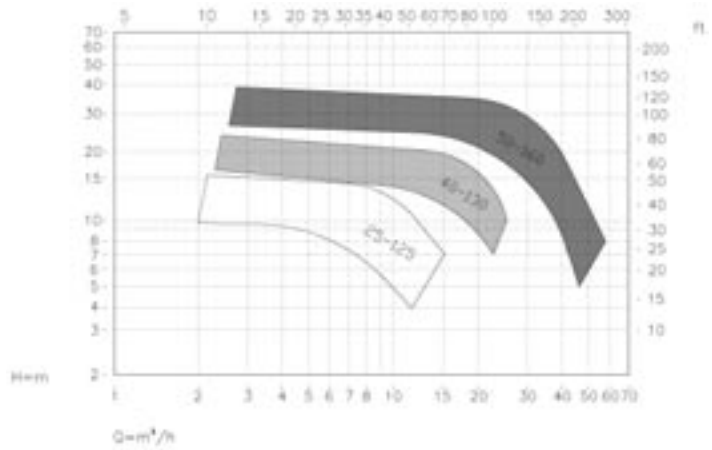
Characteristic curves

All of the pumps 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.

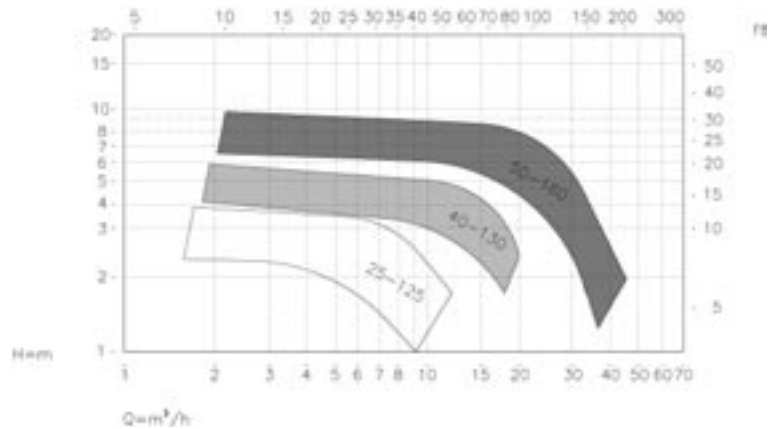
2900 RPM/50 Hz

US gpm



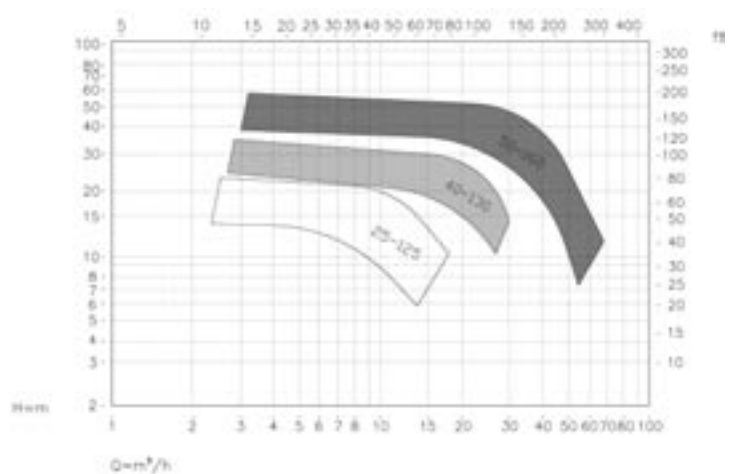
1450 RPM/50 Hz

US gpm



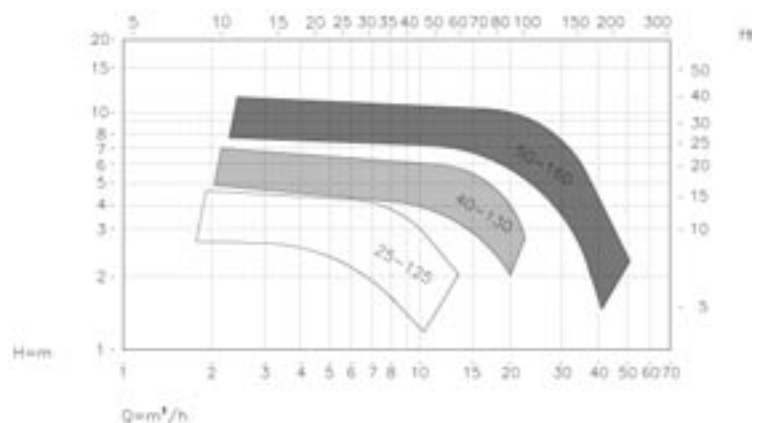
3450 RPM/60 Hz

US gpm

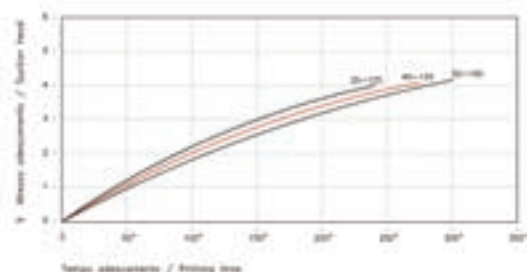


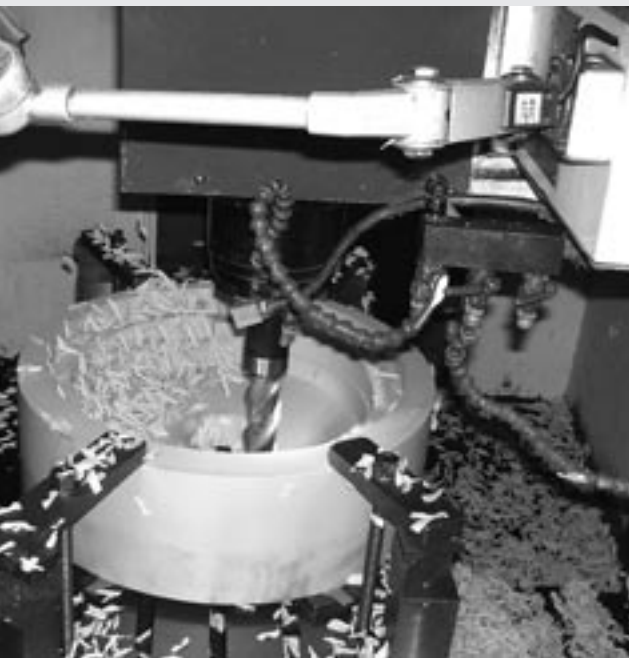
1750 RPM/60 Hz

US gpm



Tempo adescamento
Priming time 2900 RPM 50 Hz





AFFETTI
Pumps for corrosive liquids

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