

CAPITOLO | CHAPTER

CAPITOLO 03

ASPIRAZIONE E SCARICO

suction and return

ITALIAN QUALITY SINCE 1989

03



CAPITOLO 03

Aspirazione e scarico

suction and return

Tubi di aspirazione e di scarico in EPD e kit di aspirazione completi, orizzontali e verticali, studiati per ogni serie di serbatoi Gazzera. A fine capitolo le indicazioni su pulizia dell'impianto e filtrazione.

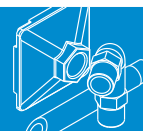
EPD suction and return pipes and complete suction kits, horizontal and vertical, designed for every series of Gazzera tanks. At the end of the chapter, notes on system cleaning and filtration.

IN QUESTO CAPITOLO *in this chapter*

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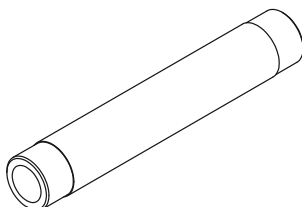
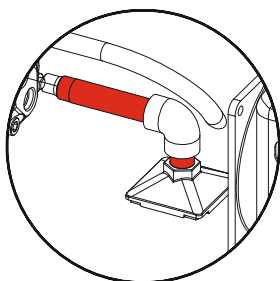
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Aspirazione e scarico suction and return



EPD60R 3/8

Serie tubi di aspirazione G3/8" in EPD
Series of EPD G3/8" suction hoses

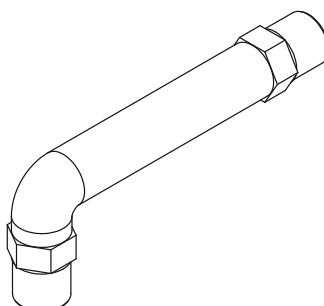
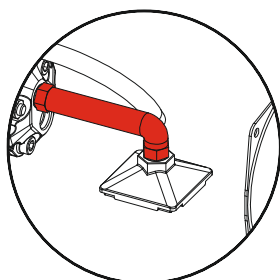


Lunghezze disponibili available lengths		
30	40	60
80	100	120
140	160	180
185	200	225
250	350	385

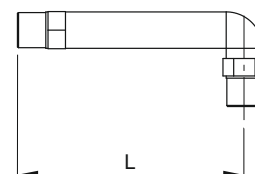


EPD60R3/890FCF

Tubi G3/8" 90° per aspirazione in EPD
G3/8" 90° suction hoses of EPD

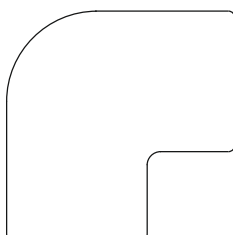
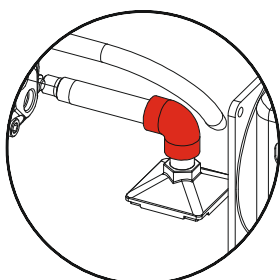


Lunghezze disponibili available lengths	
50	104



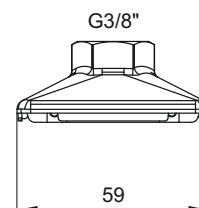
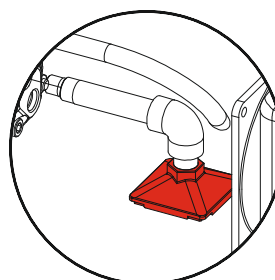
E602

Raccordo G3/8" in PVC 90° per kit aspirazione orizzontale
90° G3/8" PVC fitting for horizontal suction kit

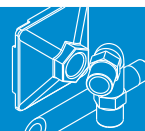


FT180

Elemento filtrante 180μ Reps FeZN 15 lt/min ΔP 0,1 b
Filtering element 180μ Reps FeZN 15 lt/min ΔP 0,1 bar



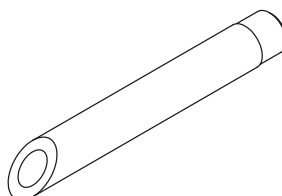
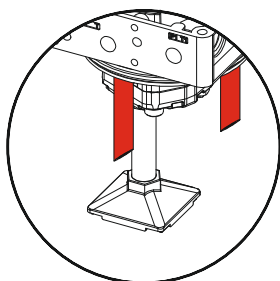
Aspirazione e scarico suction and return



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EPD60R1/4FDS

Tubo rigido per linee di scarico G1/4" in EPD
EPD G1/4" rigid pipes for return lines

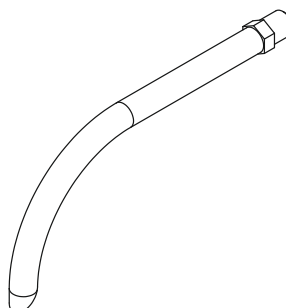
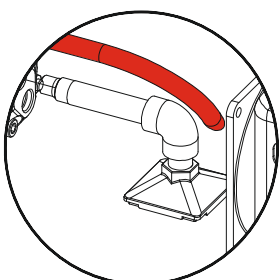


Lunghezze disponibili available lengths		
80	90	100
150	170	180
210	280	315

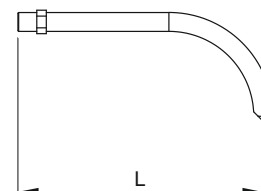


EPD60R1/490FCS

Tubi 90° 1/4"BSPT per linee di scarico
90° 1/4"BSPT rigid pipes for return lines

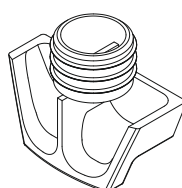
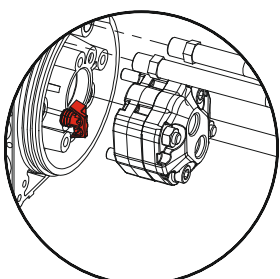


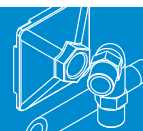
Lunghezze disponibili available lengths		
124	139	169
209	239	289



DFL14

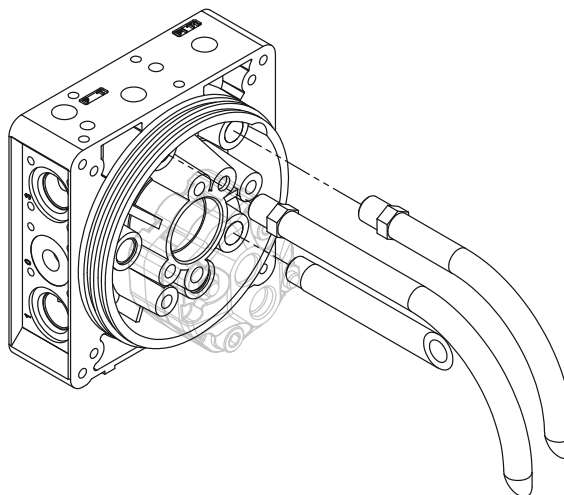
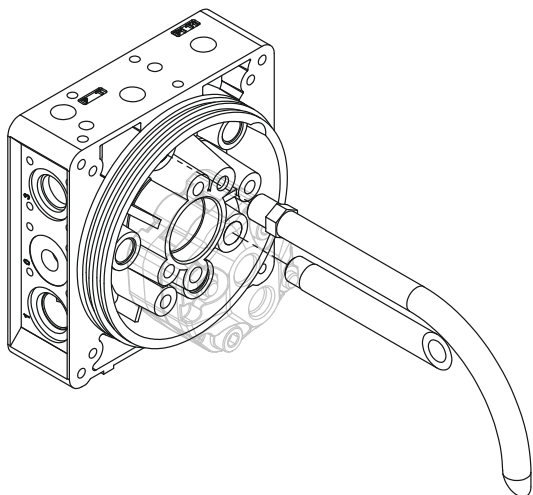
Deflettore
Oil deflector





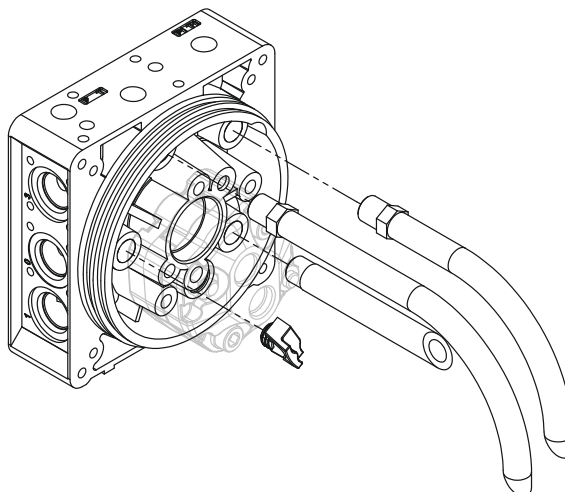
KR

Kit di scarico per serbatoi orizzontali
Return kit for horizontal tanks



G0 collettore G02 - G02 manifold

G1 collettore G12 - G12 manifold



G3 collettore G32 - G32 manifold

In caso di serbatoi CS010 e CS020 o collettori reversibili (G40), per il kit di scarico contattare l'ufficio tecnico
in case of CS010 and CS020 tanks or reversible manifold (G40), for the return kit, contact our technical department

Codici ordinazione - ordering codes

K	R	G	3
1	2		

1 Kit scarico - return kit
KR

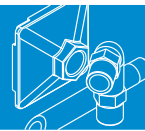
2 Collettore - manifold

G0 = EPD60R1/4FDS100 + EPD60R1/490FCS169

G1 = EPD60R1/4FDS100 + EPD60R1/490FCS169 + EPD60R1/490FCS124

G3 = EPD60R1/4FDS100 + EPD60R1/490FCS169 + EPD60R1/490FCS124 + DFL14

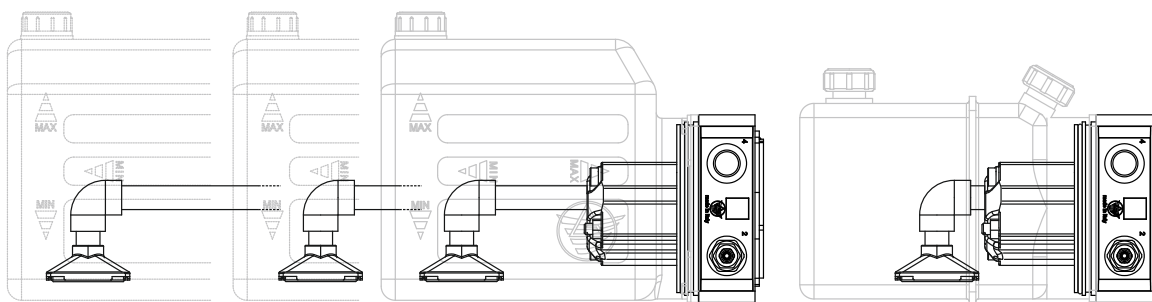
Aspirazione e scarico suction and return



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KOPE

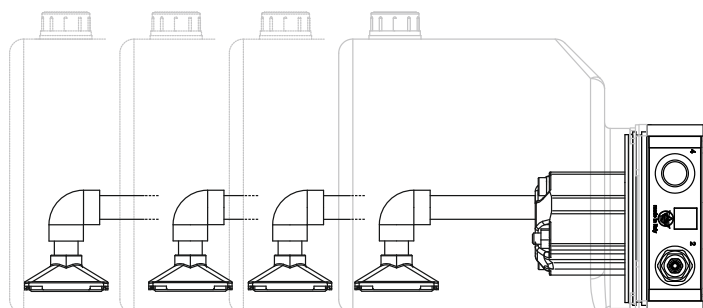
Kit aspirazione orizzontale per serbatoi PE
Suction horizontal kit for PE tanks



PE12O	12 lt.	PE08O	8 lt.	PE05O	5 lt.	PE02O	2 lt.
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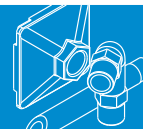
KOPC

Kit aspirazione orizzontale per serbatoi PC
Suction horizontal kit for PC tanks



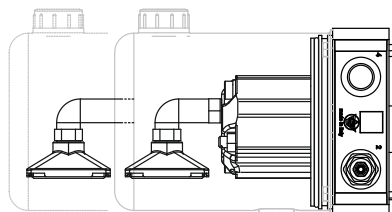
PC11O	11 lt.	PC09O	9 lt.	PC07O	7 lt.	PC05O	5 lt.
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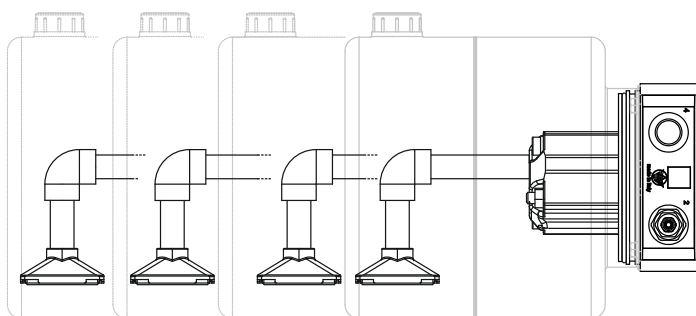


KOCS

Kit aspirazione orizzontale per serbatoi CS
Suction horizontal kit for CS tanks



CS020 2,5 lt. CS010 1,5 lt.



CS120 12 lt. CS100 10 lt. CS080 8 lt. CS050 5 lt.

NB: I kit aspirazione sono validi per tutti i tipi di collettori e pompe, esclusi il G40 (collettore reversibile) e PA180-PA198 (pompe 8cc/rev e 9,8cc/rev). In caso di impiego di questi componenti, rivolgersi al nostro ufficio tecnico.
Note: Suction kits are valid for all type of manifolds and pumps, except G40 (reversible manifold) and PA180-PA198 (8cc/rev and 9,8cc/rev pumps). When using these components, please contact our technical department.

Codici ordinazione - ordering codes

K	O	P	E	0	8
1	2	3			

1 Kit orizzontale - horizontal kit

KO (2xEPD60R3/8 + E602 + FT180)
o (EPD60R3/890FCF + FT180)

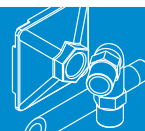
2 Serie serbatoio - tank series

PE
PC
CS

3 Volume serbatoio - tank volume

PE	PC	CS
02 = 2,5 lt	05 = 5,0 lt	01 = 1,5 lt
05 = 5,0 lt	07 = 7,0 lt	02 = 2,5 lt
08 = 8,0 lt	09 = 9,0 lt	05 = 5,0 lt
12 = 12,0 lt	11 = 11,0 lt	08 = 8,0 lt
		10 = 10,0 lt
		12 = 12,0 lt

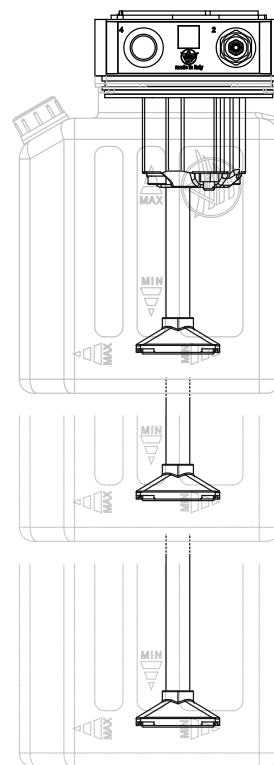
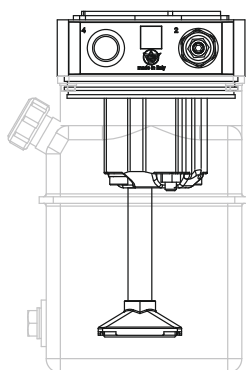
Aspirazione e scarico suction and return



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KVPE

Kit aspirazione verticale per serbatoi PE
Suction vertical kit for PE tanks

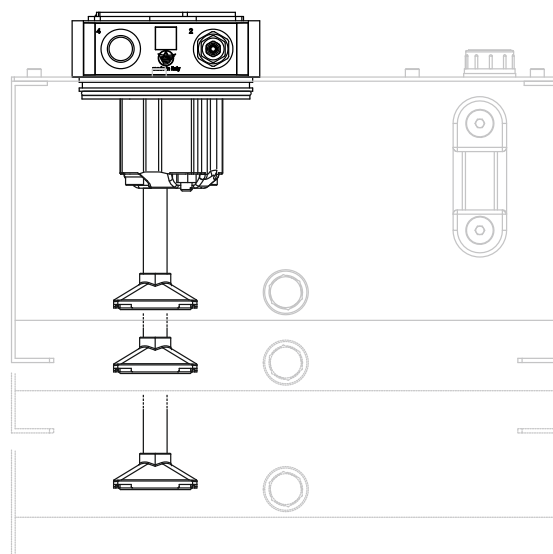
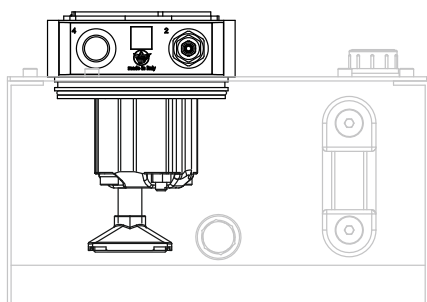


PE02V 2,5 lt.

PE05V 5 lt. PE08V 8 lt. PE12V 12 lt.

KVLM

Kit aspirazione per serbatoi LM
Suction kit for LM tanks



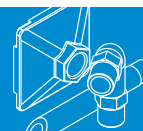
LM07 7 lt.

LM15 15 lt. LM20 20 lt. LM30 30 lt.



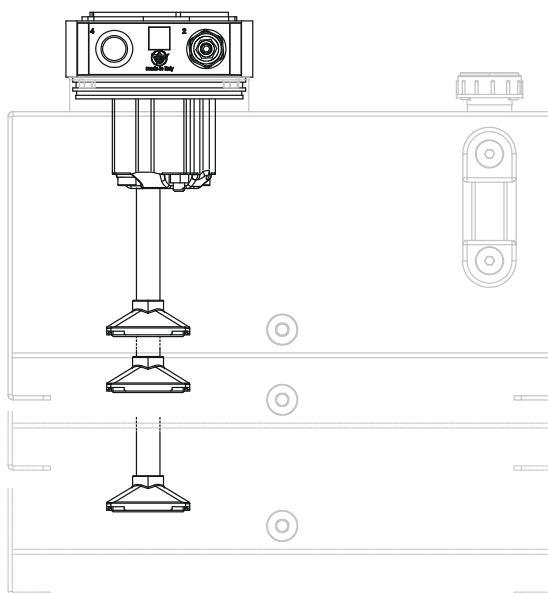
03

Aspirazione e scarico suction and return



KVLS

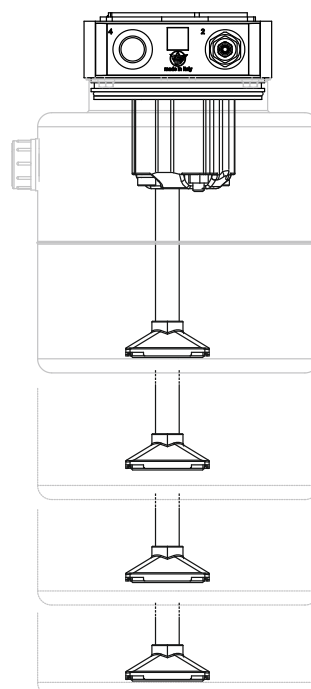
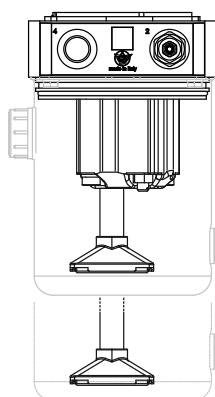
Kit aspirazione per serbatoi LMS
Suction kit for LMS tanks



LMS15	15 lt.	LMS20	20 lt.	LMS30	30 lt.
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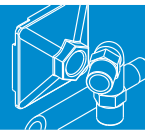
KVCS

Kit aspirazione verticale per serbatoi CS
Suction vertical kit for CS tanks



CS01V	1,5 lt.	CS02V	2,5 lt.	CS05V	5 lt.	CS08V	8 lt.	CS10V	10 lt.	CS12V	12 lt.
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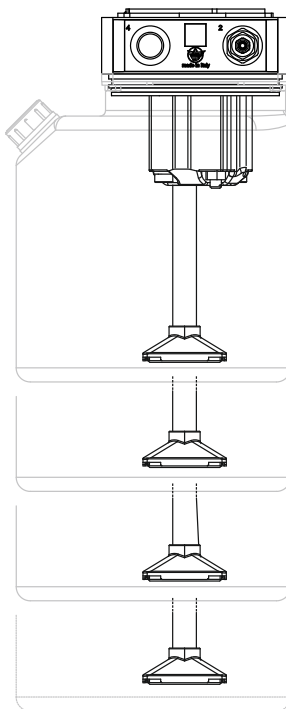
Aspirazione e scarico suction and return



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KVPC

Kit aspirazione verticale per serbatoi PC
Suction vertical kit for PC tanks



PC05V	5 lt.	PC07V	7 lt.	PC09V	9 lt.	PC11V	11 lt.
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NB: I kit aspirazione sono validi per tutti i tipi di collettori e pompe, esclusi il G40 (collettore reversibile) e PA180 (pompa 8cc/rev). In caso di impiego di questi componenti, rivolgersi al nostro ufficio tecnico.
Note: Suction kits are valid for all type of manifolds and pumps, except G40 (reversible manifold) and PA180 (8cc/rev pump). When using these components, please contact our technical department.

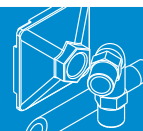
Codici ordinazione - ordering codes

K	V	C	S	1	0
1	2	3			

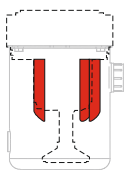
1 Kit verticale - vertical kit	2 Serie - series	3 Volume serbatoio - tank volume				
KV (EPD60R3/8 + FT180)	PE	PE	LM	LS	CS	PC
	PC	02 = 2,5 lt	07 = 7,0 lt	15 = 15,0 lt	01 = 1,5 lt	05 = 5,0 lt
	CS	05 = 5,0 lt	15 = 15,0 lt	20 = 20,0 lt	02 = 2,5 lt	07 = 7,0 lt
	LM	08 = 8,0 lt	20 = 20,0 lt	30 = 30,0 lt	05 = 5,0 lt	09 = 9,0 lt
	LS (LMS)	12 = 12,0 lt	30 = 30,0 lt		08 = 8,0 lt	11 = 11,0 lt
					10 = 10,0 lt	
					12 = 12,0 lt	



Aspirazione e scarico suction and return

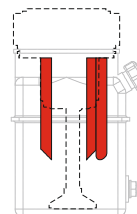
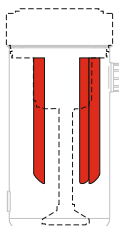


1,5 lt



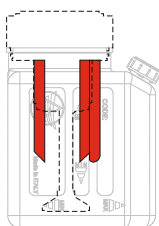
Serbatoi - tanks
CS01
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS100

2,5 lt



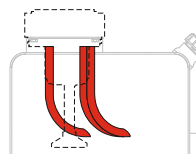
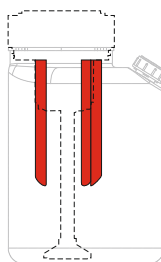
Serbatoi - tanks
CS02, PE02
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS150
EPD60R1/4FDS180

5 lt



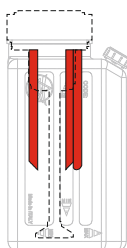
Serbatoi - tanks
CS05, PE05, PC05
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS150

7 lt



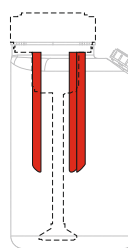
Serbatoi - tanks
PC07, LM07, LM07TF
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS180
EPD60R1/490FCS124
EPD60R1/490FCS169

8 lt



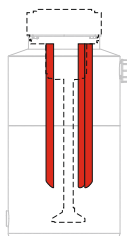
Serbatoi - tanks
CS08, PE08
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS210

9 lt



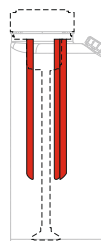
Serbatoi - tanks
PC09
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS210

10 lt



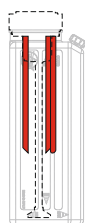
Serbatoi - tanks
CS10
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS280

11 lt



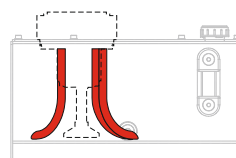
Serbatoi - tanks
PC11
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS315

12 lt



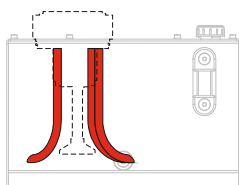
Serbatoi - tanks
CS12, PE12
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/4FDS210

15 lt



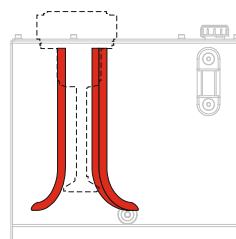
Serbatoi - tanks
LM15, LMS15
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/490FCS169

20 lt



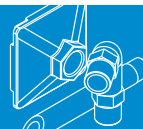
Serbatoi - tanks
LM20, LMS20
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/490FCS209

30 lt



Serbatoi - tanks
LM30, LMS30
Tubi scarico verticale
vertical exhaust pipes
EPD60R1/490FCS289

Aspirazione e scarico suction and return



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Note

Pulizia dell'impianto e filtrazione *Cleaning and filtering the system*

È ormai universalmente riconosciuto che la maggior parte dei prematuri cali di prestazioni delle pompe è dovuta ad un loro funzionamento con fluidi contaminati; l'estrema riduzione delle tolleranze che contraddistinguono i componenti delle pompe e il loro conseguente funzionamento con giochi ridotti, possono essere irrimediabilmente compromessi se non si pone estrema cura nel mantenere il fluido pulito.

It is widely known that most pumps early failures are due to contaminated fluids. The extreme reduction of the tolerances required in the design of the pumps and therefore their operation with minimum clearances, are heavily influenced by a fluid that is not perfectly clean.

È comunemente accertato che le particelle circolanti continuamente nel fluido agiscono come agente abrasivo danneggiando le superfici con cui vengono a contatto e contribuendo alla formazione di ulteriore contaminante.

It is proved that particles circulating in the fluid act as abrasive agents, damaging the surfaces they touch and increasing the quantity of contaminant.

Per questo raccomandiamo di porre molta attenzione alla pulizia in fase di avviamento e al mantenimento della stessa nell'impianto. Gli interventi necessari per controllare e limitare il grado di contaminazione devono essere effettuati in maniera preventiva e correttiva.

For this reason, ensure that system is perfectly clean during startup and keep it clean for its whole operating life. Necessary interventions to check and limit contamination should be performed in a preventive and corrective way.

Le azioni preventive comprendono l'accurata pulizia dell'impianto durante la fase di montaggio, la conseguente eliminazione delle bave residue, delle scorie delle saldature ecc., ed il trattamento del fluido prima del riempimento; prevedere una adeguata filtrazione anche al momento del riempimento dell'impianto e comunque ad ogni rabbocco. Dimensionare adeguatamente il serbatoio facendo in modo che abbia una capacità proporzionata al volume del fluido spostato dalla pompa in un minuto di funzionamento.

Preventive actions include: proper cleaning of the system during assembly, deburring, eliminating the welding scum and fluid filtering before filling up. Always pre-filter the fluid when filling up or topping up the system. Fit a proper tank; its capacity should be proportional to the volume displaced by the pump in one working minute.

Il controllo e la correzione dei livelli di contaminazione del fluido durante il funzionamento si ottiene attraverso l'installazione di filtri aventi la funzione di trattenere le particelle trasportate dal fluido. Due sono i parametri che determinano la buona scelta del filtro: il potere assoluto di filtrazione e il rapporto di filtrazione β . Bassi valori di potere assoluto di filtrazione e alti valori del rapporto di filtrazione β per particelle di piccole dimensioni concorrono a garantire buone caratteristiche di filtrazione. È pertanto molto importante limitare, oltre alle dimensioni massime, anche il numero delle particelle di più piccole dimensioni che oltrepassano il filtro. Risulta pertanto evidente che, all'aumentare della pressione di esercizio e al grado di sofisticazione dell'impianto, la filtrazione deve diventare sempre più efficace.

Fluid contamination level check and correction during operation can be obtained through filters that retain the particles in the fluid. Two parameters tell which filter is most suitable: absolute filtering power and β filtering ratio. Low absolute filtering power and high β filtering ratio for small particles help ensuring good filtration. It is then very important to limit not only max. dimensions, but also the number of smaller particles that pass through the filter. It goes without saying that with an operating pressure increase and according to the system sophistication degree, filtering should become more and more efficient.

