

## Presentazione Introduction Vorstellung

Con il presente catalogo la "OIL SYSTEM componenti" presenta alla propria clientela le unità di potenza serie "ZL".

Il catalogo illustra le varie combinazioni del gruppo unità di potenza. Il susseguirsi dei sottogruppi permette di formulare il codice di ordinazione.

Caratteristiche principali unità serie "ZL":

- Motori a corrente alternata fino a 7 KW;
- Pompe a ingranaggi con cilindrata da 1.1 cc a 27.9 cc;
- Serbatoi olio in lamiera da 1 a 60 litri;
- Vastissima scelta di blocchi modulari per la realizzazione di qualsiasi circuito.

### APPLICAZIONI ED IMPIEGHI

L'impiego classico di questa unità è per servizi ausiliari di piccola potenza ad azionamento oleoidraulico. Esempi tipici sono: gru per autocarro, sponde di caricamento, piattaforme, cestelli aerei, pale spazzaneve, pianali ribaltabili, carrelli elevatori, presse, macchine utensili, ecc.

### ISTRUZIONI DI IMPIEGO

#### SCelta DEL GRUPPO:

In base alle caratteristiche di impianto richieste (portata-p pressione-servizio) la scelta del gruppo motore-pompa-serbatoio deve avvenire consultando i diagrammi e i dati contenuti nel presente catalogo. I nostri uffici tecnico e commerciale sono a Vostra completa disposizione per ulteriori chiarimenti.

#### INSTALLAZIONE:

Non esistono limitazioni di posizione: sono da evitare solo installazioni che possano compromettere l'aspirazione della pompa. È consigliabile interporre tasselli anti-vibranti nei punti di fissaggio in caso di installazioni su strutture soggette a vibrazioni.

#### SERBATOIO OLIO E TEMPERATURA:

La dimensione del serbatoio deve essere tale da non creare problemi di aspirazione e di riscaldamento dell'olio oltre i 60°C. Le guarnizioni impiegate consentono un corretto funzionamento tra -15°C e 80°. Dopo il primo avviamento dell'impianto, occorre ripristinare il livello dell'olio. Il fluido impiegato deve essere olio per impianti oleoidraulici con le seguenti caratteristiche: viscosità min. 15 cst max. 68 cst. Viscosità consigliata 25-40 cst (3.5°E-5.5°E). Scegliere le diverse gradazioni secondo la temperatura ambiente e quella raggiungibile in funzionamento.

#### PULIZIA E MANUTENZIONE:

Occorre una accurata pulizia di tutti gli elementi che compongono l'impianto in quanto il gruppo prevede solamente un filtro in aspirazione. Nel caso di diminuita efficienza controllare:

- livello e stato dell'olio;
- efficienza della pompa;
- taratura delle valvole;
- efficienza dell'impianto elettrico.

Sostituire l'olio dopo le prime 100 ore di servizio e poi ogni 3000 ore (o comunque almeno una volta all'anno).

#### COLLEGAMENTO ELETTRICO ED AVVIAMENTO:

I collegamenti elettrici debbono essere dimensionati in modo adeguato agli assorbimenti delle utenze.

L'AVVIAMENTO DEVE ASSICURARE IL GIUSTO SENSO DI ROTAZIONE DELLA POMPA.

È ASSOLUTAMENTE VIETATO INVERTIRE IL SENSO DI ROTAZIONE.

By this catalogue "OIL SYSTEM componenti" intends to introduce the main version of the "ZL power pack" units. The catalogue shows you the different possible combinations of the power pack units. The sequence of the subgroups allow to enter the ordering code. The main characteristics of the "ZL power pack" units are:

- A/C motors with 7KW maximum power;
- Gear pumps with displacement from 1.1 cc up to 27.9 cc;
- Tanks from 1 up to 60 lt. capacity;
- Wide range of modular blocks for any kind of circuit.

### APPLICATIONS AND USES

This unit is normally used (both with A/C and D/C) as a low power hydraulic operated ancillary equipment. Some typical examples are: tailgates, platforms, lifts, snow plough blades, tilting flatcar, lift trucks, presses, machine tools, small lubrication plants and so on...

### DIRECTION FOR USE

#### CHOICE OF THE UNIT:

The choice of the group motor-pump-tank has to be effected on the base of the characteristic of the system required (flow-pressure-duty) and consulting the schemes and all the data of the catalogue. Our commercial and technical department are at your disposal for any information.

#### INSTALLATION:

As to position, there are no limits: just avoid any installation that could compromise the pump function. When the unit is to be fitted on structures liable to vibrations, it is better to place vibration-damping blocks in the fixing points.

#### OIL TANK AND TEMPERATURE:

The tank size must always have such a size as to assure proper pump suction and advised maximum working temperature of 60°C. The gaskets of these units allow a correct working between -15°C and +80°C. After the first setting in motion of the unit it is necessary to rest the oil level. You must use oil for hydraulic units having the following characteristics: viscosity 15 cst - 68 cst. Suggested viscosity between 25-40 cst (3.5°E - 5.5°E). The different oil grades must be chosen according to the ambient temperature and to the one which can be reached during the unit activity.

#### CLEANING AND MAINTAINANCE:

The set must be cleaned in each part because the group has only one suction filter.

In case of defective work, check:

- Oil level and conditions;
  - Pump efficiency;
  - Valves calibrations;
  - Battery and electric equipment efficiency.
- You have to substitute the oil after the first 100 hours of duty and after 3000 hours (always once then year).

#### WIRING AND STARTING:

The wiring between batteries and electric control panel must be chosen according to the electrical inputs indicated in diagrams. THE STARTING MUST ASSURE PROPER PUMP DIRECTION OF ROTATION. IT IS STRICTLY FORBIDDEN TO INVERT THE DIRECTION OF ROTATION.

Mit diesem Katalog präsentiert die "OIL SYSTEM componenti" ihrer Kundschaft die Einheit des oelhydraulischen Aggregates aus der Serie "ZL". Die aufeinanderfolgenden Untergruppen ergeben die Zusammenstellung des Auftragscodes.

Hauptmerkmale der "ZL" Serie sind :

- Wechselstrommotor bis 7 KW;
- Raedergetriebepumpe mit einem Hubraumvolumen von 1.1 cc bis 27.9 cc;
- Aus Blech hergestellter Oeltank von 1 bis 60 Liter;
- Grosse Auswahl von Modulblöcken, die jede gewünschte Kreislaufkombination ermöglichen.

### NUTZUNG UND ANWENDUNG

Die klassische Nutzung dieser Einheit ist die Bedienung bei niedriger Staerke mit Oelhydraulischem Antrieb. Typische Beispiele sind: Autohebekeane, Hubtische, Schneeraeumfahrzeuge, Kippvorrichtungen, Hebewerke, Pressen, Werkzeugmaschinen im Baubereich, etc.

### GEBRAUCHSANWEISUNG

#### AUSWAHL DER GRUPPE:

Anhand der Charakteristiken der gewünschten Anlage (Staerke, Druck, Bedienungsfunktionen) erfolgt die Auswahl der Gruppen Motor-Pumpe-Tank aufgrund der jeweiligen Schaubilder, Skizzen und technischen Daten des Kataloges.

#### EINBAU:

Begrenzungen in der Moeglichkeit der Positionsanordnungen bestehen nicht. Aber es sollten Installationen vermieden werden, welche den Einsaugmechanismus der Pumpe schwierig gestalten. Ausserdem raten wir unseren Kunden dazu, im Falle des Einbaus auf vibrierenden Gerateaen, auf den Befestigungspunkten Antivibrationseinsatzstuecke dazwischen zu legen.

#### OELTANK UND TEMPERATUR:

Das Ausmass des Oeltanks darf keine Probleme der Einsaugung und der Erhitzung des Oeles ueber 60°C schaffen. Die Dichtungsringe erlauben das korrekte Funktionieren von -15°C bis 80°C. Nach der ersten Inbetriebsetzung der Anlage ist es unbedingt ratsam, den vorherigen Oelstand wiederherzustellen. Die zur Nutzung vorgesehene Fluessigkeit muss Oel fuer oelhydraulische Anlagen mit den folgenden Merkmalen sein: Zaehfluessigkeit mindestens 15 cst - maximal 68 cst. Die empfohlene Viskositaet sollte zwischen 25 - 40 cst (3.5°E - 5.5°E) betragen. Die verschiedenen Abstufungen sollten nach der Umgebungstemperatur und der erreichbaren Betriebstemperatur gewaehlt werden.

#### PFLEGE UND WARTUNG:

Im Falle verminderter Leistungsfahigkeit sollte unbedingt folgendes kontrolliert werden:

- Oelstand und Zustand des Oeles;
- Die Leistungsfahigkeit der Pumpe;
- Die Eichung der Ventile;
- Die Leistungsfahigkeit der elektrischen Anlage.

Das Hinzufuegen von Oel nach den ersten 100 Stunden der Inbetriebnahme und danach jeweils nach 3000 Stunden (oder mindestens einmal im Jahr) wird empfohlen.

#### ELEKTRISCHE ANSCHLUESSE UND DAS ANLASSEN:

Die elektrischen Anschluesse sollten angemessen im Verhaeltnis zur Aufnahme der Benutzung stehen. BEIM STARTEN SOLLTE MAN SICH UMBEDINGT VERGEWISSERN, DASS DIE PUMPE IN DER RICHTIGEN RICHTUNG LAEUFT. DAS UMKEHREN DER ROTATIONSRICHTUNG IST NICHT ERLAUBT!

**ZL**

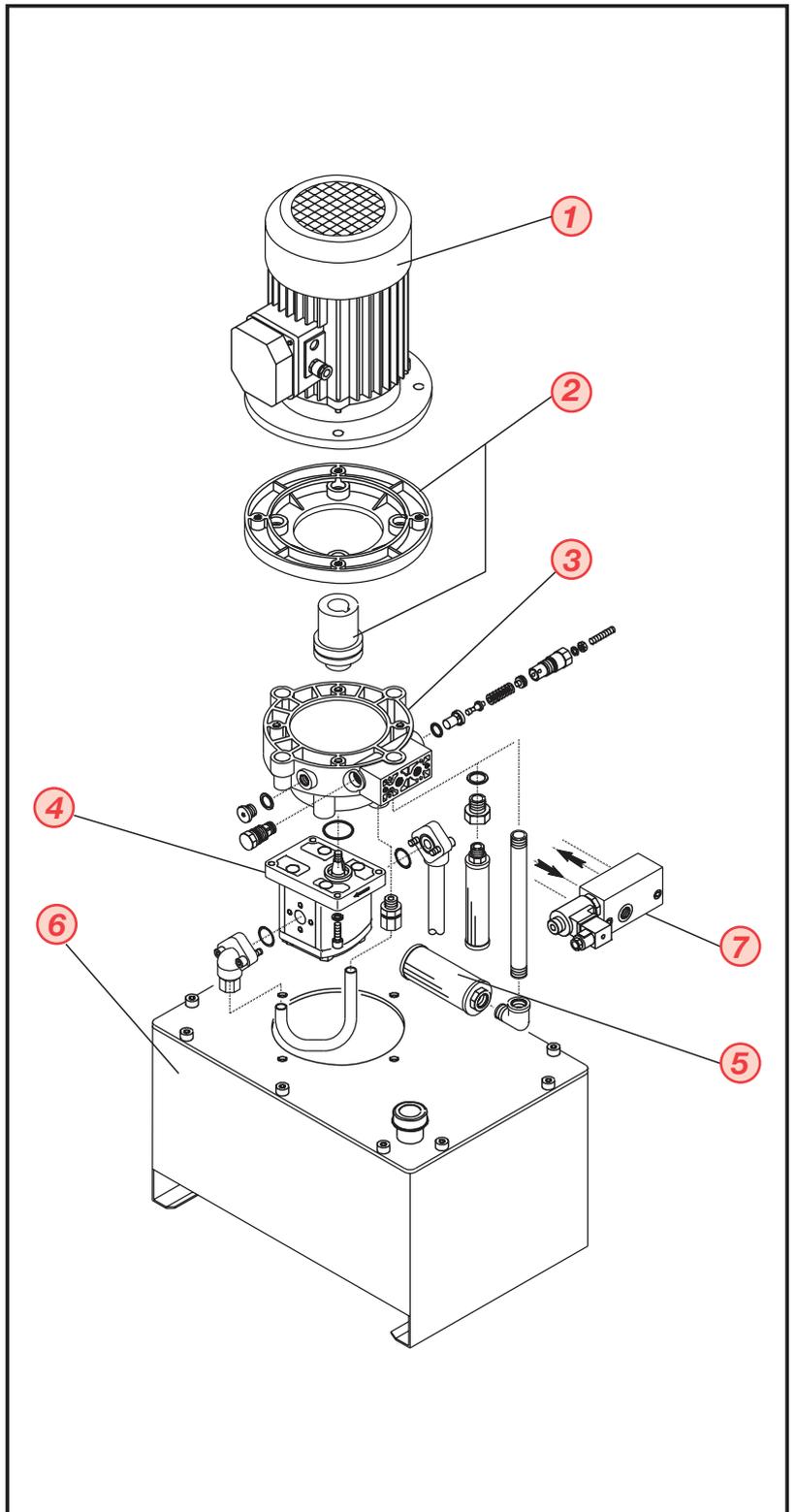


<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	
Sigla unità. Unit symbol. Serie.	<b>Motore elettrico.</b> Electric motor type. Elektromotor.	<b>Elementi di connessione.</b> Junction element. Flansch Kupplung.	<b>Collettore centrale, taratura valvola max.</b> Central manifold, relief valve. Zentralfansch-Eingebauten, Druckbegrenzungventile.	<b>Pompa.</b> Pump. Pumpen.	<b>Filtro.</b> Filter. Filter.	<b>Serbatoio olio.</b> Oil tank. Oeltank.	<b>Elementi sovrapposti.</b> Modular elements. Ueberlagerte Elemente Kreislaufschema.

**Il catalogo illustra le varie combinazioni del gruppo unità di potenza. Il susseguirsi dei sottogruppi permette di formulare il codice di ordinazione.**  
The catalogue shows you the different possible combinations of the power pack units. The sequence of the subgroups allow to enter the ordering code.  
*Die aufeinanderfolgenden Untergruppen ergeben die Zusammenstellung des Auftragcodes.*

**Indice dei codici**  
Code index - Kodierten Index

<b>1</b>	<b>Motore elettrico.</b> Electric motor type. Elektromotor. ....	<b>p. 2</b>
<b>2</b>	<b>Elementi di connessione.</b> Junction element. Flansch Kupplung. ....	<b>p. 2</b>
<b>3</b>	<b>Collettore centrale, taratura valvola max.</b> Central manifold, relief valve. Zentralfansch-Eingebauten, Druckbegrenzungventile. ....	<b>p. 3</b>
<b>4</b>	<b>Pompa.</b> Pump. Pumpen. ....	<b>p. 4</b>
<b>5</b>	<b>Filtro.</b> Filter. Filter. ....	<b>p. 5</b>
<b>6</b>	<b>Serbatoio olio.</b> Oil tank. Oeltank. ....	<b>p. 8</b>
<b>7</b>	<b>Elementi sovrapposti.</b> Modular elements. Ueberlagerte Elemente Kreislaufschema. ....	<b>p. 11</b>





**Motore elettrico.**  
Electric motor.  
Elektromotor.

A	CODICE CODE KODE	0	1	2	3
	TIPO TYPE TYP	Senza motore Without motor Ohne Motor	Motore corrente continua Direct current motor Gleichstrommotor	Motore CA trifase AC threephase motor Wechselstrommotor Drehstrom	Motore CA monofase AC singlephase motor Wechselstrommotor Einphase

Motori C.A. / A.C. Motor / W.S. Motor								
B	TRIFASI THREEPHASE DREHSTROM	CODICE CODE KODE	Gr.	4P Kw	A mm	ØB mm	C mm	D mm
		456	90	1.1	252	176	200	129
		457		1.5	276	176	200	129
		458	90	2.2	306	195	250	140
		459	100	3	306	195	250	140
		460	112	4	325	220	250	160
		461	132	5.5	369	258	300	177
	462	7.5		407	258	300	177	
	MONOFASI SINGLEPHASE EINPHASEN	456	90	1.1	252	176	200	129
		457		1.5	276	176	200	129
		458	100	2.2	306	195	250	140

4 poli 1500 rpm

Motore C.A. trifasi 230-400 V 50 Hz forma costruttiva B5.  
Motore C.A. monofasi 220 V 50 Hz forma costruttiva B5.  
A.C. threephase motors 230-400 V 50 Hz construction shape B5.  
A.C. singlephase motors 220 V 50 Hz construction shape B5.  
W.S. Drehstrom Asynchronmotor 230-400 V 50 Hz Bauformen B5.  
W.S. Einphasen Asynchronmotor 220 V 50 Hz Bauformen B5.

Per applicazioni con motori in corrente continua rivolgersi all'ufficio vendite.  
For D.C. applications please get in touch with our export sales department.



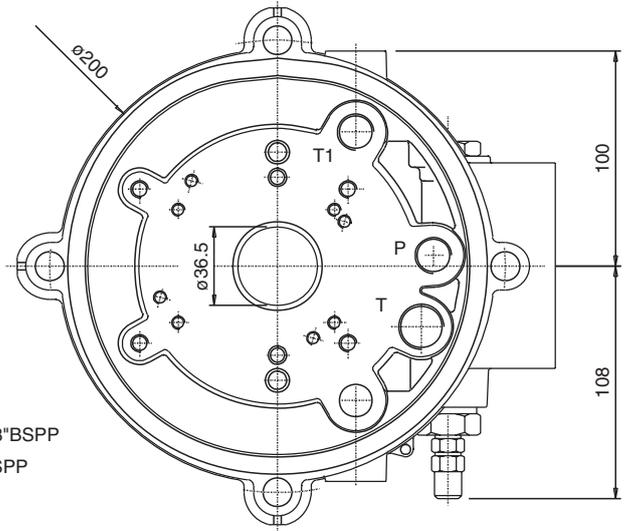
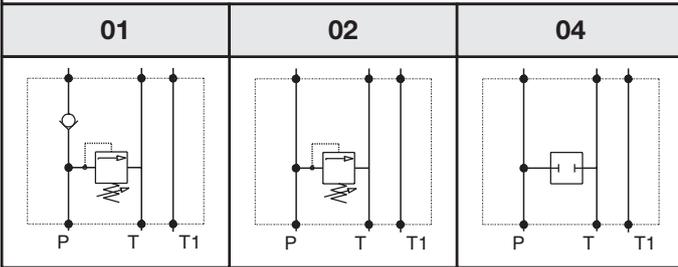
**Elementi di connessione.**  
Junction elements.  
Flansch.

Motore / Motor / Motor MEC 90 (cod. 456-457-458)	Motore / Motor / Motor MEC 110-112 (cod. 459-460)	Motore / Motor / Motor MEC 132 (cod. 461-462)			
CODICE CODE KODE	Pompa gruppo Pump Pumpen	CODICE CODE KODE	Pompa gruppo Pump Pumpen	CODICE CODE KODE	Pompa gruppo Pump Pumpen
F76	1P	F77	1P	-	-
F65	2 - 2 RO	F66	2 - 2 RO	F67	2 - 2 RO
<p><b>Motore flangiato direttamente su collettore centrale</b> Motor flanged directly on the central manifold. E-Motor direkt am Zentralflansch montiert</p>					



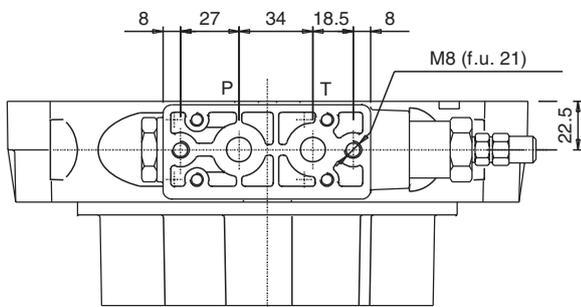
**Collettore centrale - taratura valvola di massima.**  
 Central manifold - relief valve pressure range.  
 Zentralfansch - eingebaute druckbegrenzventile.

CODICE / CODE / KODE



P-T1 = 3/8"BSPP  
 T = 1/2"BSPP

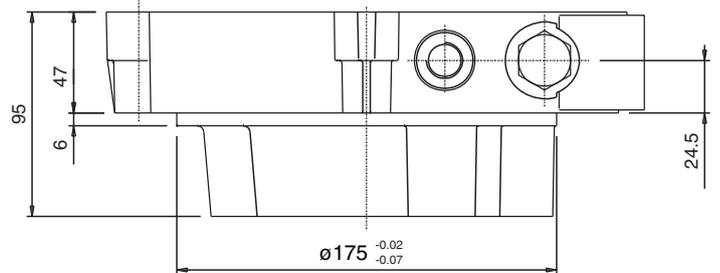
P-T=Ø11.5



Scarico supplementare T1 3/8"  
 Additional oil drainage T1 3/8"  
 Zusätzliche Rücklaufleitung T1 3/8"

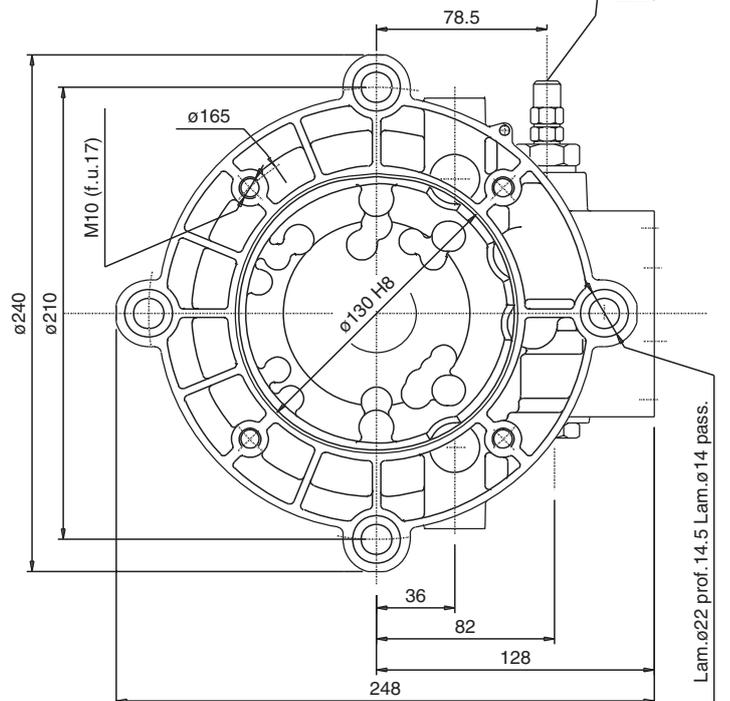
Valvola di ritegno  
 Check valve  
 Rueckschlagsventile

VU8



Valvola di max  
 Relief valve  
 Druckbegrenzventile

ZL5



**Codici collettori completi di valvola di massima, valvola di ritegno, guarnizione serbatoio OR 8700 e guarnizione pompa OR 3143.**

Codes of the manifolds comprehensive of relief valve, check valve, tank's O-RING : OR 8700 and pump's O-RING : OR 3143.

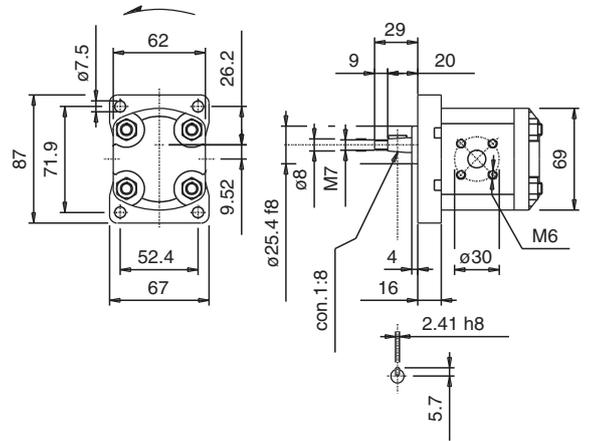
Bestellkode fuer Zentralfansch komplett von DBV, RV, Dichtung fuer Tank OR 8700 und Dichtung fuer Pumpe OR 3143.

Molla / Spring / Feder

B	CODICE / CODE / KODE	X	W	Y	Z
	Taratura / Pressure range / Einstellbereich	5 - 40 bar	20 - 80 bar	50 - 220 bar	180 - 350 bar



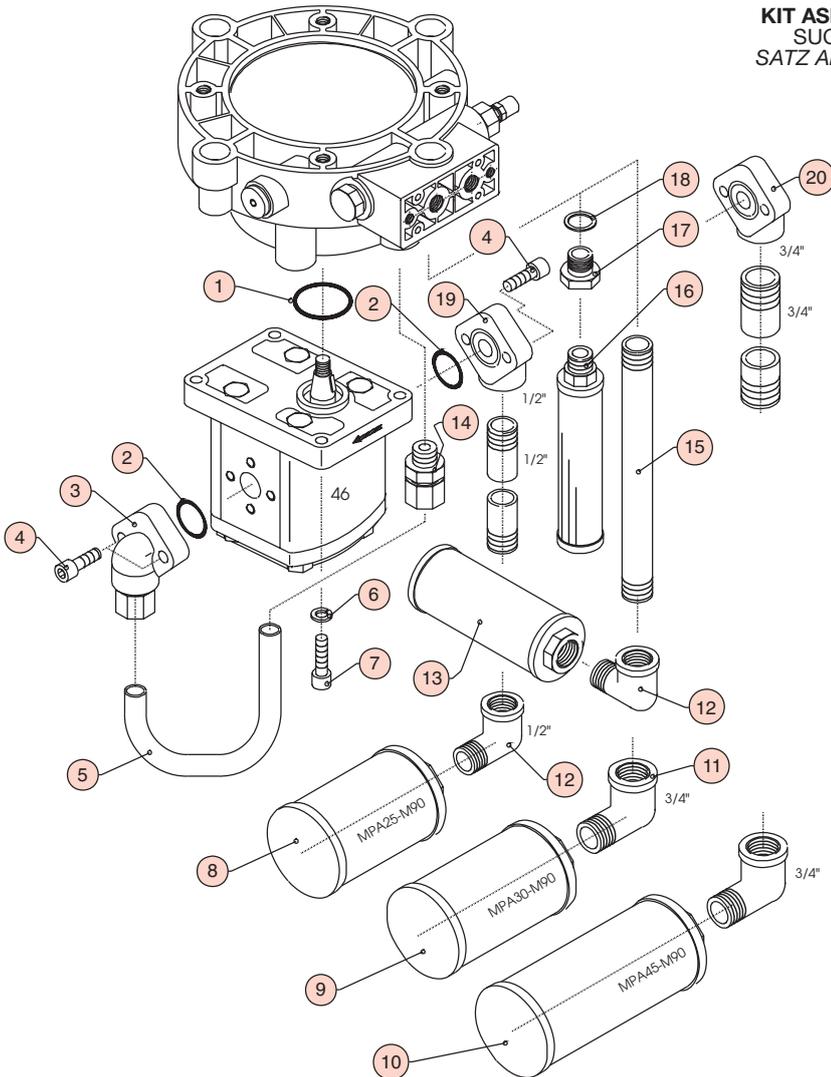
<b>Pompe ad ingranaggi gruppo 1P rotazione destra</b> Group 1P gear pumps right rotation Zahnradpumpe Gruppe 1P, Rechtslauf				
<b>CODICE</b> CODE KODE	<b>Cilindrata</b> Displacement Foerderleistung (cc/r.p.m.)	<b>Litri/min.</b> Litres/min. Liter/min. (1500 r.p.m.)	<b>Pressione di esercizio max</b> Max operating pressure Max. Betriebsdruck 1500 r.p.m. (bar)	<b>Pressione di punta max</b> Max peak pressure Max. Zulaessiger Spitzenruck 1500 r.p.m. (bar)
<b>1P11</b>	1.10	1.60	210	250
<b>1P12</b>	1.60	2.40	210	250
<b>1P13</b>	2.10	3.20	210	250
<b>1P14</b>	2.60	3.90	210	250
<b>1P15</b>	3.20	4.80	200	240
<b>1P16</b>	3.70	5.50	200	240
<b>1P17</b>	4.20	6.30	180	220
<b>1P18</b>	4.80	7.10	180	220
<b>1P19</b>	5.80	8.70	170	210
<b>1P20</b>	7.90	11.9	150	190





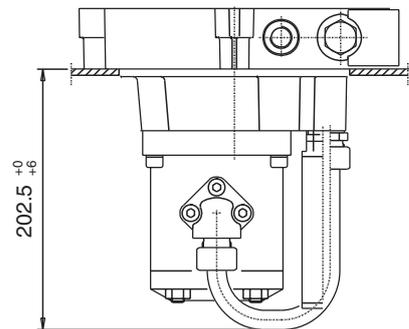
**Descrizione sistema di aspirazione e mandata.**  
 Description of the suction and delivery system.  
 Beschreibung der ansaug und druckleitung.

**KIT ASPIRAZIONE E MANDATA POMPA GRUPPO 2 - 2-RO**  
 SUCTION AND DELIVERY KIT PUMP GROUP 2 - 2-RO  
 SATZ ANSAUG UND DRUCKLEITUNG FUER PUMPE 2 - 2-RO



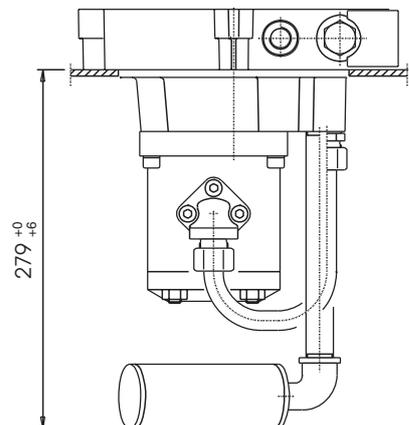
**Dimensioni di ingombro centralina montata per dimensionamento serbatoi**  
 Dimensions of the complete power-pack for tank sizing  
 Aggregataussenmassen fuer die Bemessung des Tanks

**Centrale con filtro in scarico 15 l/min**  
 Power-pack with return filter 15 l/min  
 Aggregat mit Ruecklauffilter 15 l/min



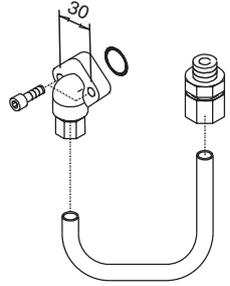
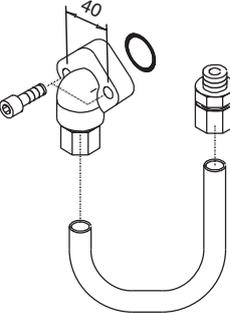
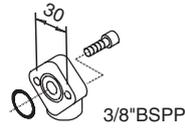
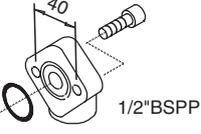
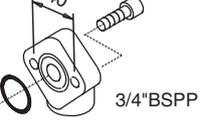
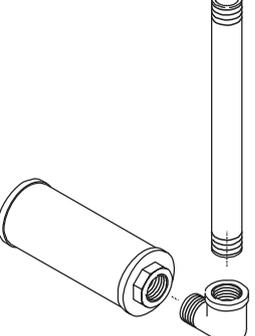
Kit filtro scarico Z2.501.S1.066

**Centrale con filtro in scarico 40 l/min**  
 Power-pack with return filter 40 l/min  
 Aggregat mit Ruecklauffilter 40 l/min

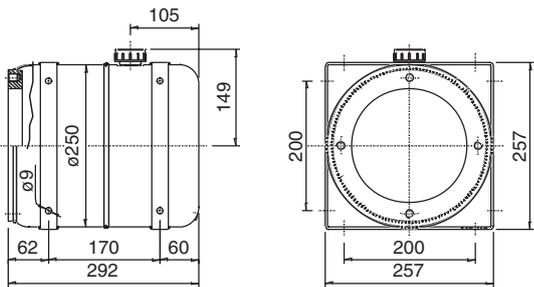


Kit filtro scarico Z2.501.S1.046

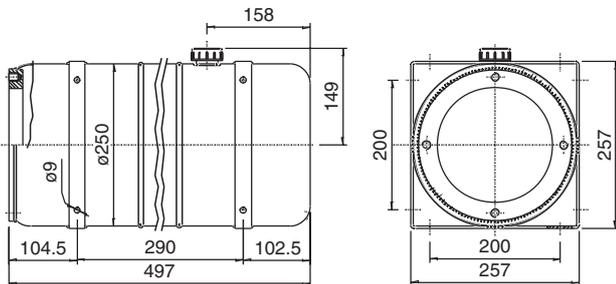
POS.	CODICE	DESTINAZIONE	N. PEZZI	CARATTERISTICHE
20	C1.615.RG.008	Flangetta 2RG3/4"-40	1	
19	C1.615.RG.007	Flangetta 2RG1/2"-40	1	
18	C0.128.11.000	Rondella Al 1/2"	1	
17	C0.152.02.000	Riduzione M1/2"-F3/8"	1	
16	K2.255.05.000	Filtro scarico	1	portata max 15 l/min
15	C0.112.13.000	Tubo scarico 1/2"	1	L=200
14	C0.141.05.000	Racc.dir.3/8"tuboø15	1	
13	Z2.255.23.000	Filtro scarico	1	portata max 40 l/min
12	C0.142.03.000	Curva 1/2"	1	
11	C0.142.04.000	Curva 3/4"	1	
10	00.400.40.021	Filtro MPA45-M90	1	Portata 45 l/min
9	00.400.40.020	Filtro MPA30-M90	1	Portata 30 l/min
8	00.400.40.019	Filtro MPA25-M90	1	Portata 25 l/min
7	C0.100.37.000	Vite TCEI M8*30	4	
6	C0.125.06.000	Rondella Headtman ø8	4	
5	Z2.340.81.000	Tubo mandata ø15	1	
4	C0.100.36.000	Vite TCEI M8*25	4	
3	C1.615.RG.041	Flang.2RG40 tubo ø15	1	
2	C0.001.49.000	Guarnizione OR 132	2	23.81*2.62
1	C0.001.57.000	Guarnizione OR 3143	1	36.14*2.62

<p><b>Kit mandata per pompe gruppo 2 flangetta interasse 30 mm (cod.40-41)</b>          Pressure line kit for pumps group 2 with flange axle base 30 mm (code 40-41)          Satz Druckleitung fuer pumpen mit Bohrungsabstand 30 mm (Kode 40-41)</p>	<p style="text-align: right;"><b>Z2.501.S1.043</b></p> 
<p><b>Kit mandata per pompe gruppo 2 flangetta interasse 40 mm (da cod.42 a cod.51)</b>          Pressure line kit for pumps group 2 with flange axle base 40 mm (code 42-51)          Satz Druckleitung fuer pumpen mit Bohrungsabstand 40 mm (Kode 42-51)</p>	<p style="text-align: right;"><b>Z2.501.S1.042</b></p> 
<p><b>Kit aspirazione per pompe gruppo 2 flangetta interasse 30 mm (cod.40-41)</b>          Suction kit for pumps group 2 with flange axle base 30 mm (code 40 - 41)          Satz Ansaugleitung fuer pumpen mit Bohrungsabstand 30 mm (Kode 40-41)</p>	<p style="text-align: right;"><b>Z2.501.S1.068</b></p> 
<p><b>Kit aspirazione per pompe gruppo 2 flangetta interasse 40 mm (cod.42-45)</b>          Suction kit for pumps group 2 with flange axle base 40 mm (code 42-45)          Satz Ansaugleitung fuer pumpen mit Bohrungsabstand 40 mm (Kode 42-45)</p>	<p style="text-align: right;"><b>Z2.501.S1.069</b></p> 
<p><b>Kit mandata per pompe gruppo 2 flangetta interasse 40 mm (cod.46-51)</b>          Pressure line kit for pumps group 2 with flange axle base 40 mm (code 46-51)          Satz Druckleitung fuer pumpen mit Bohrungsabstand 40 mm (Kode 46-51)</p>	<p style="text-align: right;"><b>Z2.501.S1.070</b></p> 
<p><b>Kit filtro scarico 90 micron portata massima 15 l/min (pompe 41-44)</b>          Kit return filter 90 micron max flow 15 l/min (pump 41-44)          Satz Ruecklauffilter mit max Durchflussmenge 15 l/min (Pumpen 41-44)</p>	<p style="text-align: right;"><b>Z2.501.S1.066</b></p> 
<p><b>Kit filtro scarico 90 micron portata massima 40 l/min (pompe 45-50)</b>          Kit return filter 90 micron max flow 40 l/min (pump 45-50)          Satz Ruecklauffilter mit max Durchflussmenge 40 l/min (Pumpen 45-50)</p>	<p style="text-align: right;"><b>Z2.501.S1.046</b></p> 

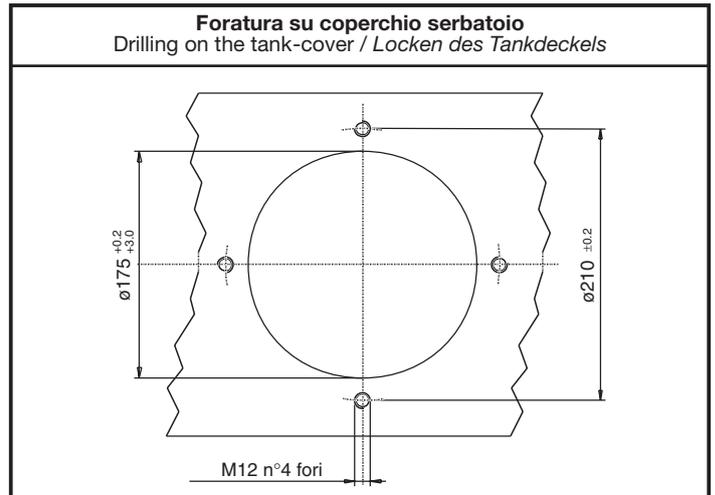
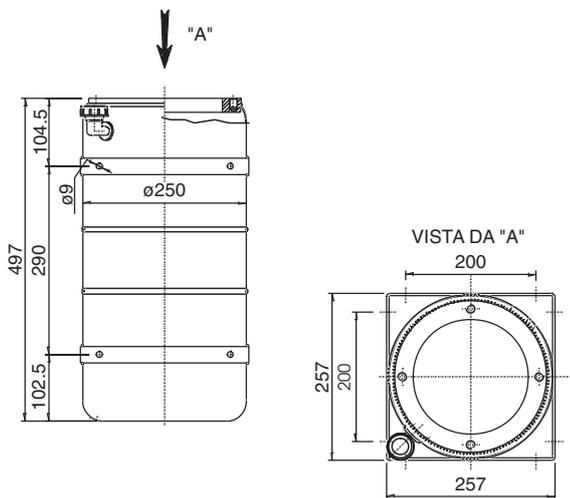
Seratoio in lamiera / Steel tank / Stahltank		
CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S118</b>	12	10



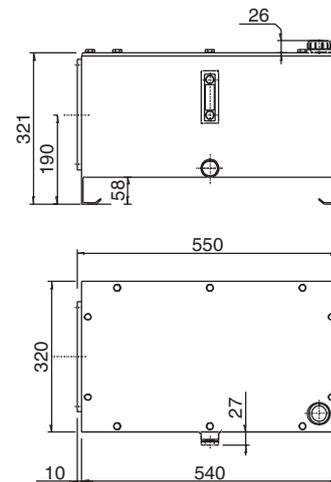
CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S119</b>	23	18



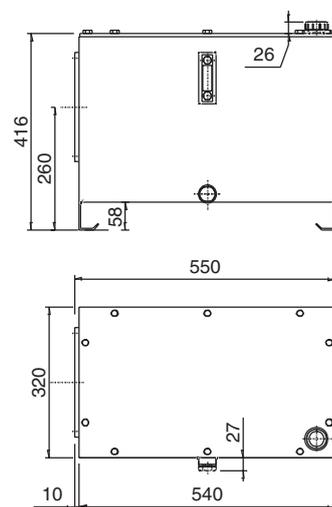
CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S259</b>	23	18



CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S116</b>	45	32

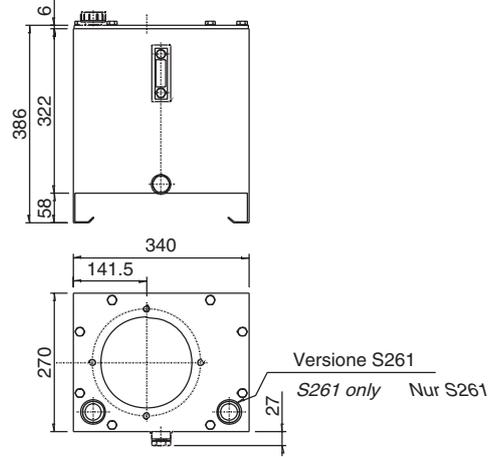
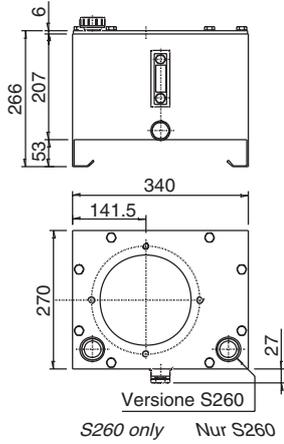


CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S117</b>	60	44

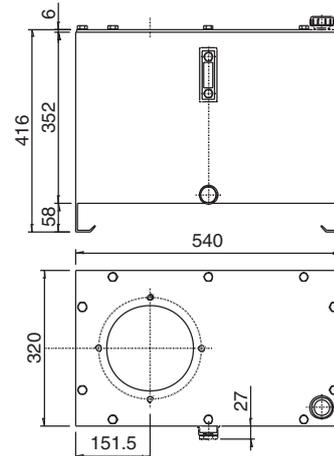
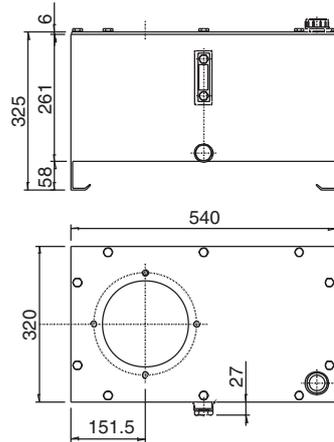


**Serbatoio in lamiera / Steel tank / Stahltank**

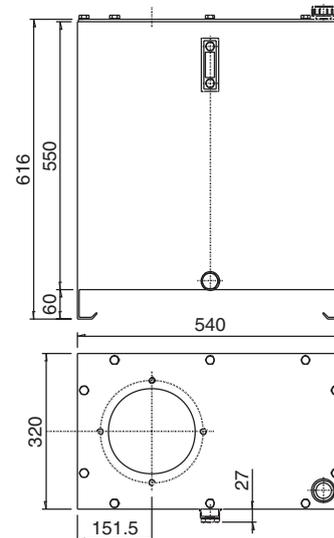
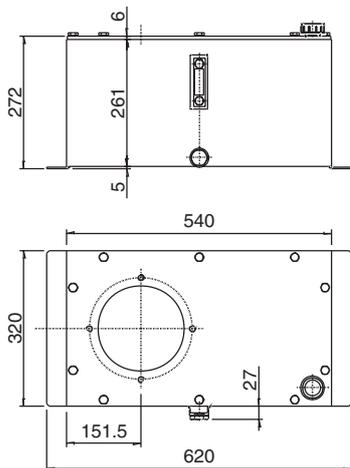
CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)	CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S112</b>	20	12	<b>S113</b>	30	22
<b>S260</b>	20	12	<b>S261</b>	30	22



CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)	CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S114</b>	45	30	<b>S115</b>	60	42

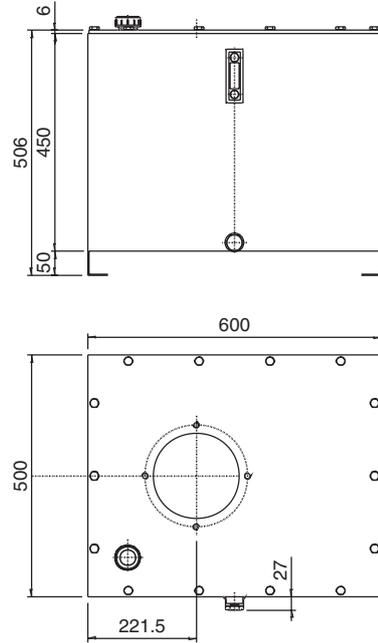
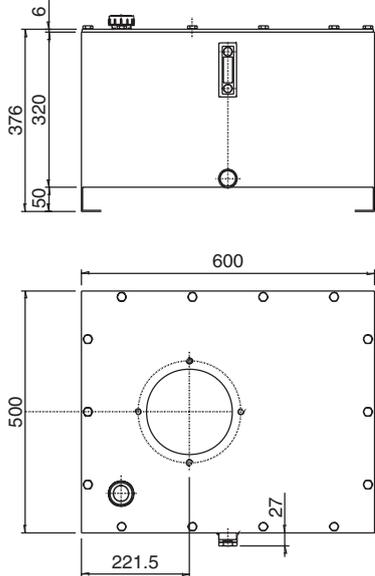


CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)	CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S168</b>	45	30	<b>S176</b>	90	75



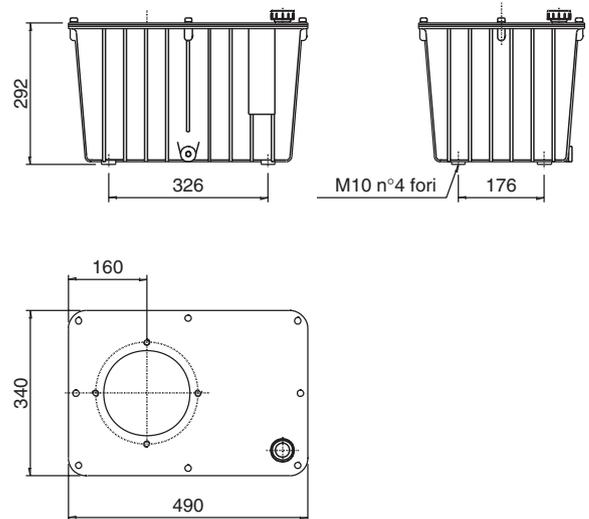
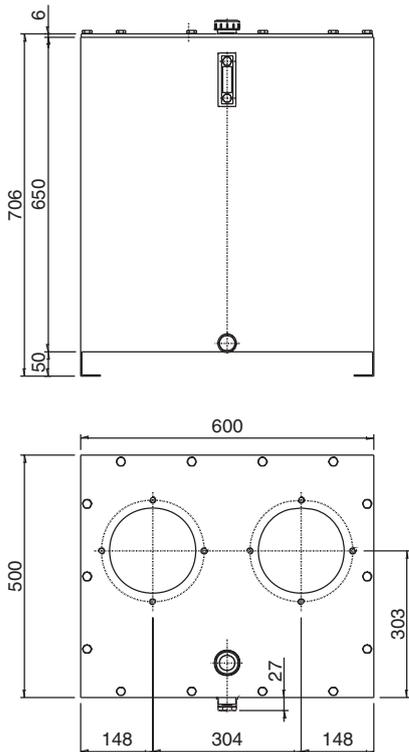
**Serbatoio in lamiera / Steel tank / Stahltank**

CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)	CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S186</b>	80	60	<b>S187</b>	120	100



**Serbatoio in Alluminio / Aluminium tank / Alutank**

CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)	CODICE CODE KODE	Volume nominale Tank capacity (litri)	Volume utile Useable capacity (litri)
<b>S225</b>	180	150	<b>S120</b>	35	25





**Per mancanza di spazio non possiamo proporre tutti i blocchi compresi nel nostro sistema modulare.**  
**Pertanto per ulteriori informazioni Vi invitiamo a consultare il catalogo generale al paragrafo "2".**  
 Due to space problems we cannot show all the blocks and the possibilities offered by our modular sistem.  
 For more details on it, please consult the general catalogue, paragraph "2".  
 Da wir Platzprobleme haben, sind wir nicht in der Lage alle Bloেকে, die in unserem Modulsystem sind, herzustellen.  
 Fuer weitere Informationen, sehen Sie bitte unseren Katalog (Paragraph "2").

CODICE CODE KODE	Descrizione Description Bezeichnung	Schema Diagram Diagramm	Disegno Drawing Zeichnung
A	<b>N96</b> <b>Modulo con attacchi 3/8"BSPP</b> Element with ports 3/8"BSPP Modul mit Anschluß 3/8"BSPP		
	<b>N191</b> <b>Modulo con attacco 3/8"BSPP e attacco manometro</b> Element with port 3/8"BSPP - 1/4"BSPP Modul mit Anschluß 3/8"BSPP - 1/4"BSPP		
	<b>N163</b> <b>Modulo con attacchi 1/2"BSPP</b> Element with ports 1/2"BSPP Modul mit Anschluß 1/2"BSPP		
	<b>N201</b> <b>Modulo distanziale H=27 mm per motore ø300</b> Spacing element H=27 mm for motor ø300 Distanzmodul H=27 mm fuer Motor ø300		
	<b>N03</b> <b>Modulo per elettrovalvola CETOP 2143 (luce ø6) collegamento in parallelo</b> Element for solenoid valves CETOP 2143 parallel connection Modul fuer Ventil CETOP 2143 Parallelschaltung		
	<b>N11</b> <b>Modulo per elettrovalvola CETOP 2143 (luce ø6) collegamento in serie</b> Element for solenoid valves CETOP 2143 series connection Modul fuer Ventil CETOP 2143 Serienschaltung		

CODICE CODE KODE	Descrizione Description Bezeichnung	Schema Diagram Diagramm	Disegno Drawing Zeichnung
N12	<b>Modulo per elettrovalvola CETOP 2143 (luce ø6) con valvola unidirezionale pilotata su A e B</b> Element for solenoid valves CETOP 2143 with pilot operated check valve on A and B Modul für Ventil CETOP 2143 mit hydraulisch entsperbaren Rueckschlagsventilen in A und B		<p style="text-align: center;">A-B = 3/8"BSPP</p> <p style="text-align: right;">Q max= 20 l/min</p>
N13	<b>Modulo per elettrovalvola CETOP 2143 (luce ø6) con valvola unidirezionale pilotata su B</b> Element for solenoid valves CETOP 2143 with pilot operated check valve on B Modul für Ventil CETOP 2143 mit hydraulisch entsperbare Rueckschlagsventil in B		<p style="text-align: center;">A-B = 3/8"BSPP</p> <p style="text-align: right;">Q max= 20 l/min</p>
N14	<b>Modulo per elettrovalvola CETOP 2143 (luce ø6) con valvola unidirezionale pilotata su A</b> Element for solenoid valves CETOP 2143 with pilot operated check valve on A Modul für Ventil CETOP 2143 mit hydraulisch entsperbare Rueckschlagsventil in A		<p style="text-align: center;">A-B = 3/8"BSPP</p> <p style="text-align: right;">Q max= 20 l/min</p>
N37	<b>Modulo per elettrovalvola CETOP 2145 (luce ø10) collegamento in parallelo</b> Element for solenoid valves CETOP 2145 parallel connection Modul für Ventil CETOP 2145 Parallelschaltung		<p style="text-align: right;">A-B 1/2"BSPP</p> <p style="text-align: right;">Q max= 60 l/min</p>
N38	<b>Modulo per elettrovalvola CETOP 2145 (luce ø10) collegamento in serie</b> Element for solenoid valves CETOP 2145 series connection Modul für Ventil CETOP 2145 Serienschaltung		<p style="text-align: right;">A-B 1/2"BSPP</p> <p style="text-align: right;">Q max= 60 l/min</p>
N102	<b>Modulo CETOP 2143 con VM25 su A e B</b> Element CETOP 2143 with VM25 on A and B Modul mit Druckbegrenzungsventilen VM25 in A und B		<p style="text-align: right;">Q max= 20 l/min</p>
N101	<b>Modulo CETOP 2143 con VM25 su B</b> Element CETOP 2143 with VM25 on B Modul mit Druckbegrenzungsventil VM25 in B		<p style="text-align: right;">Q max= 20 l/min</p>
N100	<b>Modulo CETOP 2143 con VM25 su A</b> Element CETOP 2143 with VM25 on A Modul mit Druckbegrenzungsventil VM25 in A		<p style="text-align: right;">Q max= 20 l/min</p>
N78	<b>Modulo CETOP 2143 con SVU6 su A e B</b> Element CETOP 2143 with SVU6 on A and B Modul mit Drossel SVU6 in A und B		<p style="text-align: right;">Q max= 30 l/min</p>
N105	<b>Modulo CETOP 2143 con SVU6 su A</b> Element CETOP 2143 with SVU6 on A Modul mit Drossel SVU6 in A		<p style="text-align: right;">Q max= 30 l/min</p>
N106	<b>Modulo CETOP 2143 con SVU6 su B</b> Element CETOP 2143 with SVU6 on B Modul mit Drossel SVU6 in B		<p style="text-align: right;">Q max= 30 l/min</p>

CODICE CODE KODE	Descrizione Description Bezeichnung	Schema Diagram Diagramm	Disegno Drawing Zeichnung
A N22	<b>Modulo pompa a mano semplice effetto</b> Single acting hand operated pump element <i>Modul für einfachwirkende Handpumpe</i>		

Elettrovalvole serie CETOP 2143 (luce $\varnothing 6$ ) / Solenoid valves series CETOP 2143 / Elektromagnetventil nach CETOP 2143				
CODICE CODE KODE	Schema Diagram Diagramm	CODICE CODE KODE	Schema Diagram Diagramm	Disegno Drawing Zeichnung
E02		E06		<p>Max working pressure 250 bar Max flow rate 30 l/min</p>
E11		E07		
E03		E08		
E04		E10		
E05		E20		
E13				
E14				
E15				

Elettrovalvole serie CETOP 2145 (luce $\varnothing 10$ ) / Solenoid valves series CETOP 2145 / Elektromagnetventil nach CETOP 2145				
CODICE CODE KODE	Schema Diagram Diagramm	CODICE CODE KODE	Schema Diagram Diagramm	Disegno Drawing Zeichnung
E32		E39		
E33		E40		
E34		E41		
E35		E42		
E36		E44		
E37		E47		
E38				

Moduli con valvole a comando elettrico / Element with cartridge solenoid valves / Modul fuer Ventilpatrone			
CODICE CODE KODE	Descrizione Description Bezeichnung	Schema Diagram Diagramm	Disegno Drawing Zeichnung
V04	<b>Modulo con valvola elettrica CE1-NC normalmente chiusa e STF14</b> Element for CE1-NC solenoid valves normally closed Modul fuer 2/2-Wege-Ventil CE1-NC normal geschlossen		
V191	<b>Modulo con valvola elettrica CE1-NC normalmente chiusa e STF38</b> Element for CE1-NC solenoid valves normally closed Modul fuer 2/2-Wege-Ventil CE1-NC normal geschlossen		
V05	<b>Modulo con valvola elettrica CE1-NA normalmente aperta</b> Element for CE1-NA solenoid valves normally open Modul fuer 2/2-Wege-Ventil CE1-NA normal geoeffnet		
V10	<b>Modulo con valvola elettrica CE6-NC normalmente chiusa</b> Element for CE6-NC solenoid valves normally closed Modul fuer 2/2-Wege-Ventil CE6-NC normal geschlossen		
V11	<b>Modulo con valvola elettrica CEI6-NA normalmente aperta</b> Element for CEI6-NA solenoid valves normally open Modul fuer 2/2-Wege-Ventil CEI6-NA normal geoeffnet		
V07	<b>Modulo con 2 valvole CE1-NC-VU per circuito semplice effetto</b> Element with 2 CE1-NC-VU solenoid valves for single acting circuit Modul 2/2-Wege-Ventil CE1-NC-VU einfach wirkend		
V08	<b>Modulo con 2 valvole CE1-NC-VU per circuito doppio effetto (rigenerativo)</b> Element with 2 CE1-NC-VU solenoid valves for double acting circuit (regenerating) Modul 2/2-Wege-Ventil CE1-NC-VU doppelt wirkend		
V30	<b>Modulo con 2 valvole CE1-NC-VU e strozzatore per circuito semplice effetto</b> Element with 2 CE1-NC-VU solenoid valves and flow regulator for single acting circuit Modul 2/2-Wege-Ventil CE1-NC-VU mit Drossel einfach wirkend		

CODICE CODE KODE	Descrizione Description Bezeichnung	Schema Diagram Diagramm	Disegno Drawing Zeichnung
<b>A</b>	<b>V52</b> <b>Modulo con valvola elettrica CEI10-NC normalmente chiusa</b> Element for CEI10-NC solenoid valves normally closed <i>Modul fuer 2/2-Wege-Ventil CEI10-NC normal geschlossen</i>		
	<b>V73</b> <b>Modulo con valvola elettrica CEI10-NA normalmente aperta</b> Element for CEI10-NA solenoid valves normally open <i>Modul fuer 2/2-Wege-Ventil CEI10-NA normal geoeffnet</i>		
	<b>V79</b> <b>Modulo con valvola elettrica CEI10-NC normalmente chiusa</b> Element for CEI10-NC solenoid valves normally closed <i>Modul fuer 2/2-Wege-Ventil CEI10-NC normal geschlossen</i>		
	<b>V90</b> <b>Modulo con valvola elettrica CEI10-NA normalmente aperta</b> Element for CEI10-NA solenoid valves normally open <i>Modul fuer 2/2-Wege-Ventil CEI10-NA normal geoeffnet</i>		

Comandi / Controls / Steuerungen					
<b>B</b>	Elettrici Electric controls Elektrisch Steuerungen	CODICE CODE KODE	Solenoide Solenoid Magnet	CODICE CODE KODE	Solenoide Solenoid Magnet
		<b>OO</b>	Senza / Without / Ohne	<b>OP</b>	24V 60Hz ca ( AC / WS )
		<b>OB</b>	12V cc ( DC / GS )	<b>OR</b>	110V 60Hz ca ( AC / WS )
		<b>OC</b>	24V cc ( DC / GS )	<b>OS</b>	220V 60Hz ca ( AC / WS )
		<b>OD</b>	48V cc ( DC / GS )	<b>OV</b>	24V RAC
		<b>OH</b>	24V 50Hz ca ( AC / WS )	<b>OW</b>	110V RAC
		<b>OM</b>	110V 50 Hz ca ( AC / WS )	<b>OZ</b>	220V RAC
		<b>ON</b>	220V 50Hz ca ( AC / WS )		

Attacchi / Ports / Anschluß		
CODICE CODE KODE	Filettatura Threads Gewinde	
<b>C</b>	<b>1</b>	1/4" BSPP
	<b>2</b>	3/8" BSPP
	<b>3</b>	1/2" BSPP

**Accessori.**  
Accessories.  
Zubehortell.

Manometri + Esclusori	Descrizione Description / Bezeichnung	CODICE CODE / KODE
 Esclusore a 90° Esclusore Diritto	<b>MANOMETRO SCALA 0-60 BAR</b>	<b>C1.630.16.000</b>
	<b>MANOMETRO SCALA 0-100 BAR</b>	<b>C1.630.17.000</b>
	<b>MANOMETRO SCALA 0-160 BAR</b>	<b>C1.630.18.000</b>
	<b>MANOMETRO SCALA 0-250 BAR</b>	<b>C1.630.19.000</b>
	<b>MANOMETRO SCALA 0-315 BAR</b>	<b>C1.630.20.000</b>
	<b>ESCLUSORE A 90°</b>	<b>C1.605.04.000</b>
	<b>ESCLUSORE DIRITTO</b>	<b>C1.605.03.000</b>