

Part number:

HYDROMA

HYDRAULICKÉ SYSTÉMY

**HIDROMA
SYSTEMS**

UKLADY HYDRAULICZNE

HYDROMA

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

POMPE A PISTONI AD ASSE INCLINATO DOPPIA MANDATA

DOUBLE DELIVERY BENT AXIS PISTON PUMPS

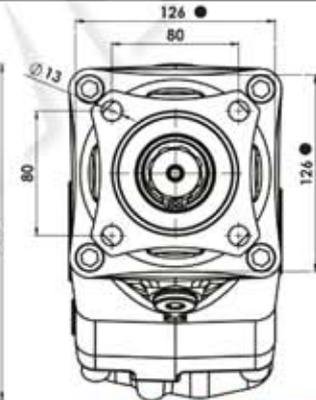
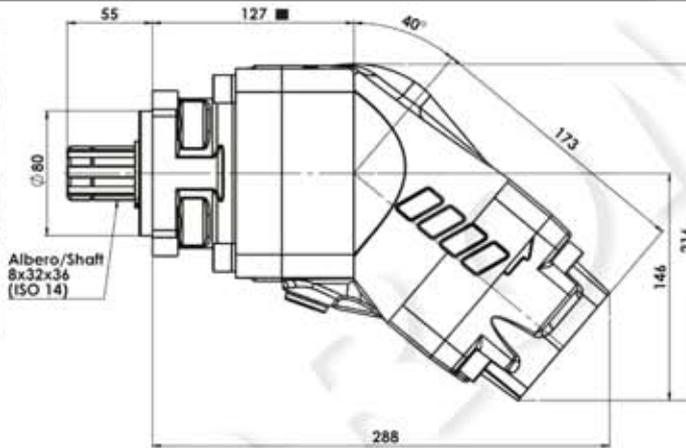
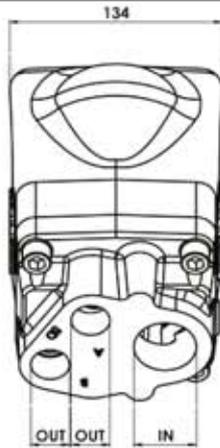
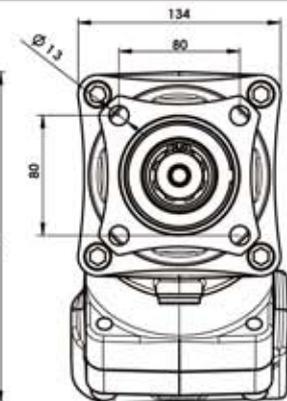
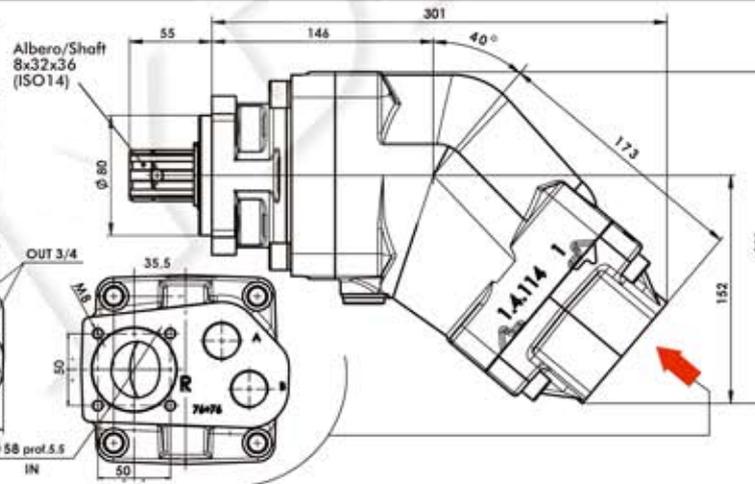
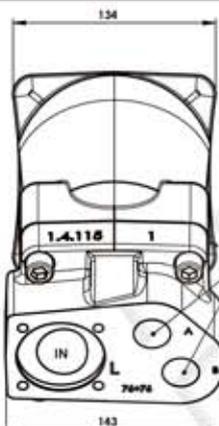
CODICE FAMIGLIA
FAMILY CODE

604001
"TWIN FLOW"

 Flangia/Flange
Albero/Shaft
Cilin./Displ.

ISO
ISO14 8x32x36
see table


| Fluido idraulico / Fluid | | Minerale o sintetico compatibile con guarnizioni: Mineral or synthetic compatible with the following seals: FKM, FPM, HNBR | | | |
|--|---|---|--------|-------|------|
| Viscosità cinematica consigliata Kinematic viscosity suggested | T media ambiente (°C) Average ambient temp. (°C) | < -40 | -40+10 | 10+35 | > 35 |
| | VG (cSt = mm ² /s) | 16 | 22 | 32 | 46 |
| Viscosità cinematica ottimale di esercizio Optimale kinematic viscosity | | VG = 10 cSt + 100 cSt | | | |
| Viscosità cinematica max consentita all'avviamento Max kinematic viscosity suggested at the start-up | | VG = 750 cSt | | | |
| Indice di viscosità consigliato / Viscosity index suggested VI > 100 | | Temperatura di esercizio / Working temperature -40°C + 140°C | | | |
| Grado di filtrazione / Oil filtering | | > 200 bar: 10 µm / < 200 bar: 25 µm | | | |
| Pres. di aspirazione / Inlet pressure | | 0,85 + 2 bar assoluti/absolut | | | |
| Senso di rotazione / Pump rotation | | Unidirezionale / Unidirectional | | | |
| Verificare che la pompa sia posizionata almeno 100 mm sotto il livello minimo del serbatoio olio. Prima di avviare la pompa effettuare spurgo aria. Verify that pump is, at least, 100 mm under the minimum level of the tank. Before starting the pump bleed the air. | | | | | |

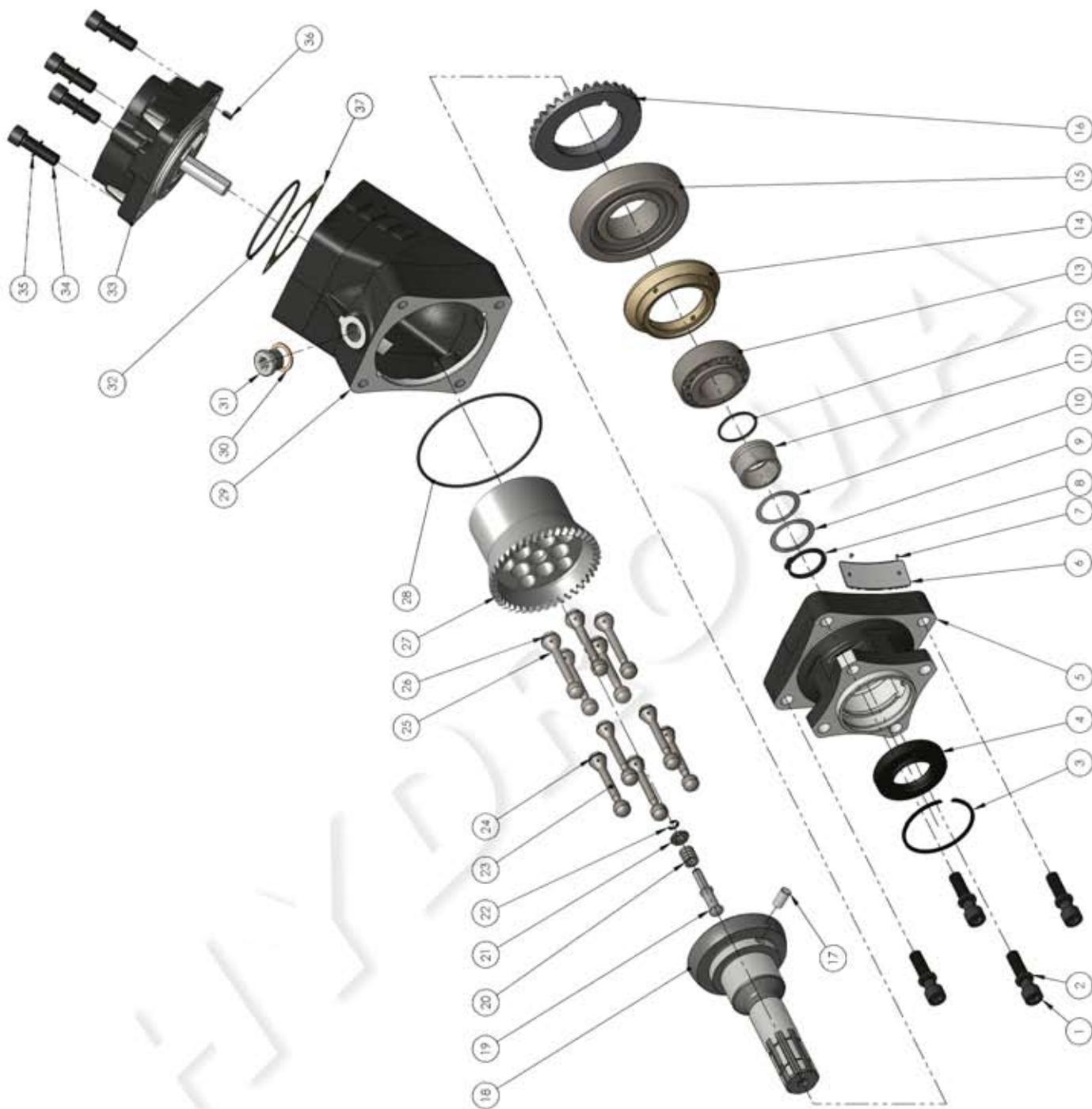

INGOMBRO/ DIMENSIONS
53+53 70+35
70+53

INGOMBRO/ DIMENSIONS
76+76

| Tipo pompa / Pump type | Rotazione Rotation | Codice / Code | Corpo posteriore* Rear cover* | IN ISO 228 | OUT ISO 228 | Peso Weight | | |
|------------------------|-----------------------|---------------|----------------------------------|---------------|----------------|----------------|---------|---------|
| TWIN FLOW 53+53 | Destra / Right | 60400115053 | 50002995307 | G 1 1/4" | G 3/4" | 21,5 kg | | |
| | Sinistra / Left | 60400115059 | 50002995405 | | | | | |
| TWIN FLOW 70+35 | Destra / Right | 60400117033 | 50002997001 | G 1 1/4" | | G 3/4" | 21,5 kg | |
| | Sinistra / Left | 60400117039 | 50002997109 | | | | | |
| TWIN FLOW 70+53 | Destra / Right | 60400117053 | 50002997403 | G 1 1/2" | | | G 3/4" | 21,7 kg |
| | Sinistra / Left | 60400117059 | 50002997501 | | | | | |
| TWIN FLOW 76+76 | Destra / Right | 60400117673 | 50002997618 | Ø58 * | G 3/4" | | | 21,5 kg |
| | Sinistra / Left | 60400117679 | 50002997609 | | | | | |

* Per modificare il senso di rotazione della pompa, da rotazione DESTRA IN SINISTRA, O VICEVERSA, è necessario sostituire il corpo posteriore.

* To change the pump rotation, the rear body must be replaced.

ESPLOSO/ SPARE PARTS
53+53 70+35
70+53



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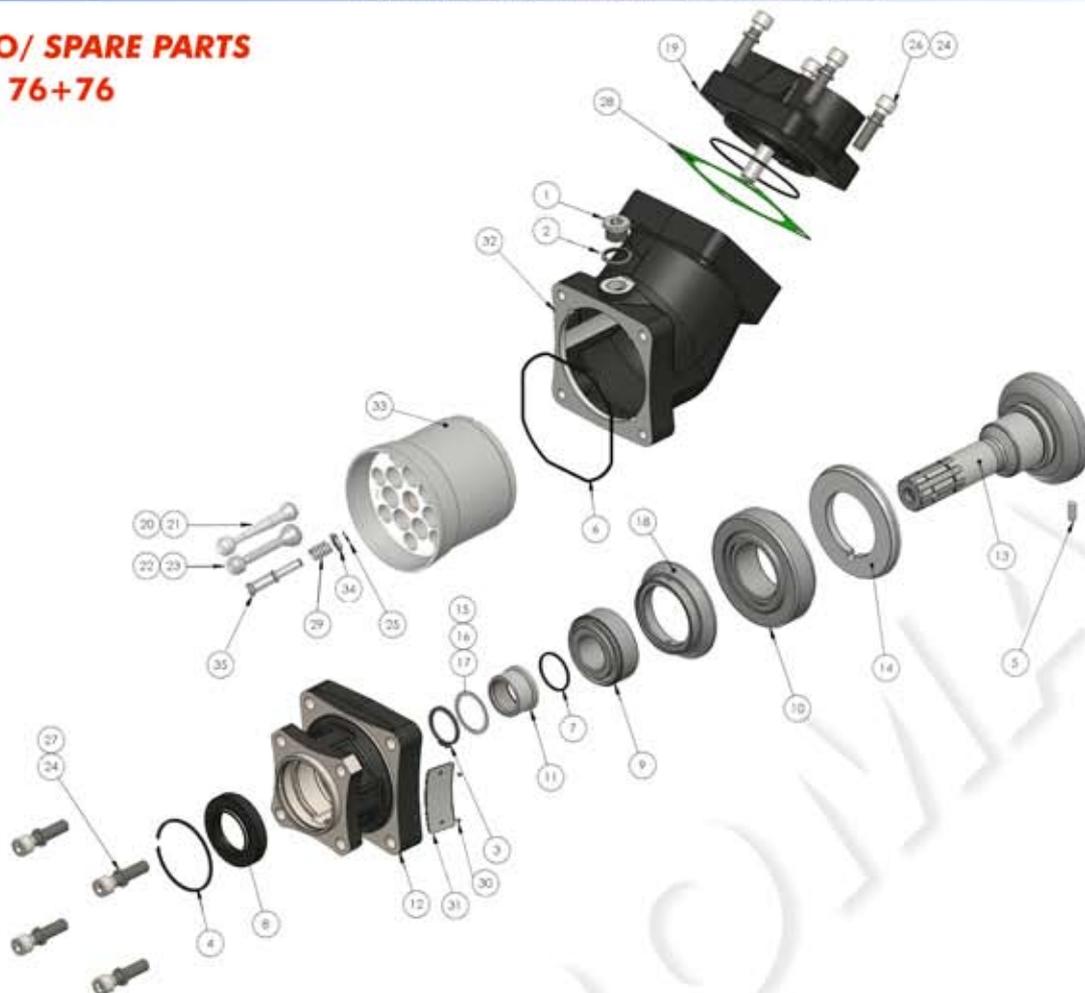
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| N° | TWIN FLOW 53+53 | TWIN FLOW 70+35 | TWIN FLOW 70+53 | Codice P. Number | Descrizione Description | Q. |
|----|--------------------|--------------------|--------------------|---------------------|--|----|
| 1 | * | * | * | 50200500582 | Vite TCE M. 12x50 UNI 5931 | 4 |
| 2 | * | * | * | 50100800063 | Rosetta elastica x M12 DIN 7980 | 4 |
| 3 | * | * | * | 50100002729 | Anello elastico E-SB 72x2 | 1 |
| 4 | * | * | * | 50600024272 | Paraolio HNBR | 1 |
| 5 | * | * | * | 51700201047 | Corpo anteriore | 1 |
| 6 | * | * | * | 513 | Targhetta completa | 1 |
| 7 | * | * | * | 51300000011 | Chiodino fissaggio targhetta | 2 |
| 8 | * | * | * | 50100001355 | Anello seeger rinforzato AS 35x2.5 E UNI 7436 | 1 |
| 9 | * | * | * | 52900700217 | Rondella 45X35X0.1 | 1 |
| 10 | * | * | * | 52900700226 | Rondella 45X35X0.2 | 1 |
| 11 | * | * | * | 51100200200 | Bussola Ø: 35 | 1 |
| 12 | * | * | * | 50600013137 | Guarnizione OR 3137 HNBR | 1 |
| 13 | * | * | * | 51000200364 | Cuscinetto a rulli conici 35x72x28 EUR 33207 | 1 |
| 14 | * | * | * | 53000400271 | Anello distanziale cuscinetti | 1 |
| 15 | * | * | * | 51000255115 | Cuscinetto a rulli conici 55x115x34 EUR. T7FC055 | 1 |
| 16 | * | * | * | 52501100291 | Corona dentata | 1 |
| 17 | * | * | * | 50100308202 | Spina UNI 6364-A Ø8x20 | 1 |
| 18 | * | * | * | 52200500571 | Albero | 1 |
| 19 | * | * | * | 52200500599 | | |
| 20 | * | * | * | 52200500580 | | |
| 21 | * | * | * | 54200100304 | Perno guida molla | 1 |
| 22 | * | * | * | 51200500812 | Molla di carico corpo cilindri | 1 |
| 23 | * | * | * | 54200100171 | Anello guida molla | 1 |
| 24 | * | * | * | 50101500028 | Anello seeger RS 6 DIN6799 | 1 |
| 25 | * | * | * | 53200500123 | Pistone sferico | 5 |
| 26 | * | * | * | 53200500258 | | |
| 27 | * | * | * | 53200500132 | | |
| 28 | * | * | * | 53200500123 | | |
| 29 | * | * | * | 53200500034 | | |
| 30 | * | * | * | 50102300019 | Fasce elastiche | 15 |
| 31 | * | * | * | 50102300037 | | |
| 32 | * | * | * | 50102300126 | | |
| 33 | * | * | * | 50002916505 | Gruppo cilindri sede pistoni | 1 |
| 34 | * | * | * | 50002916703 | | |
| 35 | * | * | * | 50002916705 | | |
| 36 | * | * | * | 50600012425 | Guarnizione ORM 1240-25 HNBR | 1 |
| 37 | * | * | * | 51700201930 | Corpo intermedio | 1 |
| 38 | * | * | * | 11600910129 | Rondella acciaio/gomma 1/2" | 1 |
| 39 | * | * | * | 11500600135 | Tappo cieco 1/2" DIN 908 | 1 |
| 40 | * | * | * | 50600018525 | Guarnizione ORM 850-25 HNBR | 1 |
| 41 | * | * | * | 50002995307 DX (R) | | |
| 42 | * | * | * | 50002995405 SX (L) | | |
| 43 | * | * | * | 50002997001 DX (R) | | |
| 44 | * | * | * | 50002997109 SX (L) | | |
| 45 | * | * | * | 50002997403 DX (R) | | |
| 46 | * | * | * | 50002997501 SX (L) | | |
| 47 | * | * | * | 50200500573 | Gruppo corpo posteriore | 1 |
| 48 | * | * | * | 50100800063 | Vite TCE M. 12x45 UNI 5931 | 4 |
| 49 | * | * | * | 50100480123 | Rosetta elastica x M12 DIN 7980 | 4 |
| 50 | * | * | * | 50700000283 | Spina Ø 5X10 UNI 6873 | 1 |
| 51 | * | * | * | 50700000407 | Guarnizione piastra | 1 |
| 52 | * | * | * | | Gasket | 1 |

A = alternative

ESPLOSO/ SPARE PARTS

76+76



| TWIN FLOW 76+76 | | | | |
|-----------------|--------------------|--|---|----|
| N° | Codice / P. Number | Descrizione / Description | Q. | |
| 1 | 11500600135 | Tappo cieco 1/2" DIN 908 | Blank plug 1/2" DIN 908 | 1 |
| 2 | 11600910129 | Rondella acciaio/gomma 1/2" | Copper washer 1/2" | 1 |
| 3 | 50100001355 | Anello seeger rinforzato AS 35x2.5 E.UNI 7436 | Retaining ring AS 35x2.5 E.UNI 7436 | 1 |
| 4 | 50100002729 | Anello elastico E-SB 72x2 | Circlip E-SB 72x2 | 1 |
| 5 | 50100308202 | Spina UNI 6364-A Ø8x20 | Pin UNI 6364-A Ø8x20 | 1 |
| 6 | 50600012425 | Guarnizione ORM 1240-25 HNBR | OR M 1240-25 HNBR | 1 |
| 7 | 50600013137 | Guarnizione OR 3137 HNBR | O-Ring 3137 HNBR | 1 |
| 8 | 50600024272 | Paraolio HNBR | Oil seal HNBR | 1 |
| 9 | 51000200364 | Cuscinetto a rulli conici 35x72x28 EUR 33207 | Tapered roller bearing 35x72x28 EUR 33207 | 1 |
| 10 | 51000255115 | Cuscinetto a rulli conici 55x115x34 EUR. T7FC055 | Tapered roller bearing 55x115x34 EUR. T7FC055 | 1 |
| 11 | 51100200200 | Bussola Øi 35 | Bushing Øi 35 | 1 |
| 12 | 51700201047 | Corpo anteriore | Front housing | 1 |
| 13 | 52200500839 | Albero | Shaft | 1 |
| 14 | 52501100291 | Corona dentata | Crown | 1 |
| 15 | 52900700217 | Rondella 45X35X0.1 | Washer 45X35X0.1 | 1 |
| 16 | 52900700226 | Rondella 45X35X0.2 | Washer 45X35X0.2 | 1 |
| 17 | 52900701449 | Rondella speciale | Special washer | 1 |
| 18 | 53000400271 | Anello distanziale cuscinetti | Bearing spacer ring | 1 |
| 19 | 50002997609 | Gruppo posteriore BENT AXIS SX. TWINFLOW | LEFT Piston barrel assembly | 1 |
| | 50002997618 | Gruppo posteriore BENT AXIS DX. TWINFLOW | RIGHT Piston barrel assembly | |
| 20 | 50102300037 | Fasce elastiche | Spring rings | 21 |
| 21 | 53200500132 | Pistone sferico Ø19 | Piston | 7 |
| 22 | 50102300046 | Fasce elastiche | Spring rings | 21 |
| 23 | 53200500310 | Pistone sferico Ø15,5 | Piston | 7 |
| 24 | 50100800063 | Rosetta elastica x M12 DIN 7980 | Washer x M12 DIN 7980 | 8 |
| 25 | 50101500028 | Anello seeger RS 6 DIN6799 | Retaining ring RS 6 DIN6799 | 1 |
| 26 | 50200500573 | Vite TCE M 12x45 UNI 5931 | Socket head capscrew M12x45 UNI 5931 | 4 |
| 27 | 50200500582 | Vite TCE M 12x50 UNI 5931 | Socket head capscrew M12x50 UNI 5931 | 4 |
| 28 | 50700000612 | Guarnizione corpo | Gasket | 1 |
| 29 | 51200500812 | Molla di carico corpo cilindri | Spring | 1 |
| 30 | 51300000011 | Chiodino fissaggio targhetta | Plate nail | 2 |
| 31 | 513 | Targhetta completa | Plate | 1 |
| 32 | 51700201958 | Corpo intermedio | Int. housing | 1 |
| 33 | 50002916767 | Gruppo cilindri sede pistoni | Piston barrel assembly | 1 |
| 34 | 54200100171 | Anello guida molla | Spring guide ring | 1 |
| 35 | 54200100304 | Perno guida molla | Shaft guide pin | 1 |

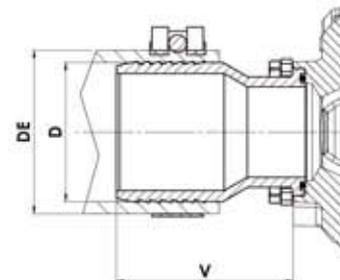
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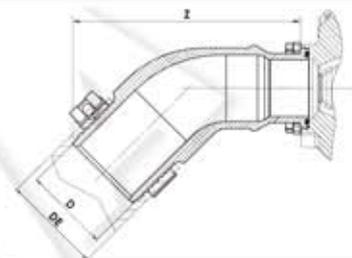
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Raccordi validi **SOLO** per TWINFLOW 76+76 / Fittings suitable for TWINFLOW 76+76 **ONLY**

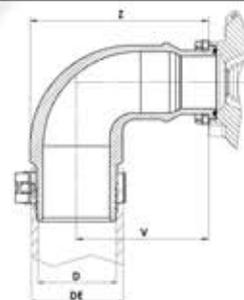
| Codice Code | D | DE | V | Peso Weight |
|-------------|----|-------|----|-------------|
| | mm | mm | mm | Kg |
| 15511200507 | 50 | 60-63 | 59 | 0,59 |
| 15511200516 | 50 | 64-67 | 59 | 0,6 |
| 15511200605 | 60 | 68-73 | 79 | 0,77 |
| 15511200632 | 63 | 74-79 | 79 | 0,8 |
| 15511200767 | 76 | 86-91 | 94 | 1 |



| Codice Code | D | DE | Z | Peso Weight |
|-------------|----|-------|-----|-------------|
| | mm | mm | mm | Kg |
| 15511245639 | 63 | 74-79 | 163 | 1,75 |
| 15511245764 | 76 | 86-91 | 167 | 2,1 |

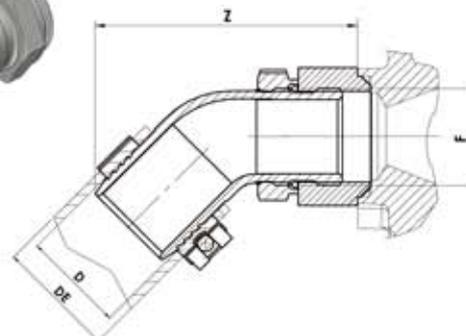
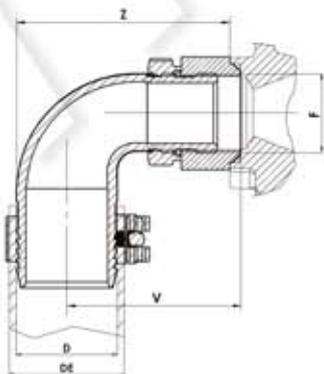


| Codice Code | D | DE | V | Z | Peso Weight |
|-------------|----|-------|-----|-----|-------------|
| | mm | mm | mm | mm | Kg |
| 15511290634 | 63 | 74-79 | 103 | 139 | 1,9 |
| 15511290769 | 76 | 86-91 | 103 | 140 | 2,3 |



15511300408

Kit flangia foro filettato G1-1/2, per montaggio raccordi GOLD.
Flange kit G1-1/2 threaded hole, for mounting GOLD fittings.



| Codice Code | F | D | DE | V | Z | Peso Weight |
|-------------|---------|----|-------|----|-----|-------------|
| | ISO 228 | mm | mm | mm | mm | Kg |
| 15510000592 | G1-1/2 | 50 | 60-63 | 85 | 114 | 0,99 |
| 15510000609 | | | 64-67 | | | 1 |
| 15510000654 | | 60 | 68-73 | 88 | 123 | 1,06 |

| Codice Code | F | D | DE | Z | Peso Weight |
|-------------|---------|----|-------|-----|-------------|
| | ISO 228 | mm | mm | mm | Kg |
| 15509000540 | G1-1/2 | 50 | 60-63 | 133 | 0,79 |
| 15509000559 | | | 64-67 | | 0,82 |
| 15509000611 | | 60 | 68-73 | 153 | 1 |

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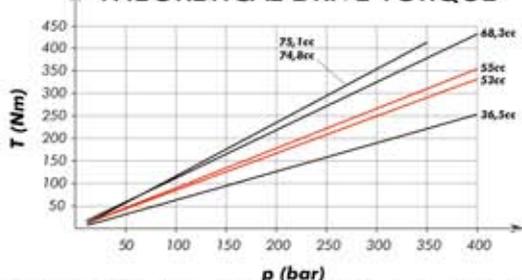
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| CARATTERISTICHE TECNICHE FUNZIONAMENTO TECHNICAL FEATURES | 53+53 | 70+35 | 70+53 | 76+76 |
|--|-------|-------|-------|-------|
| Cilindrata A / Displacement (cc/rev) | 53 | 36.5 | 53 | 75.1 |
| Cilindrata B / Displacement (cc/rev) | 55 | 68.3 | 66.2 | 74.8 |
| Pressione massima continua / Max. continuous pressure (bar) | 350 | 350 | 300 | 300 |
| Pressione massima picco / Max. peak pressure (bar) | 400 | 400 | 350 | 350 |
| Velocità massima a vuoto / Max. speed without load (rpm) | 2550 | 2550 | 2550 | 2550 |
| Velocità massima con uscita A e B in press. Max. speed with load on A and B outputs (*) | 1800 | 1800 | 1650 | 1500 |
| Velocità massima con 1 porta in press. Max. speed with load on 1 output only (*) | 2100 | 2100 | 2100 | 2100 |
| Potenza massima continua / Max. continuous power (kW) | 111 | 108 | 98 | 110 |
| Potenza massima intermittente / Max. intermittent power (kW) | 127 | 123 | 114 | 129 |

Pressione massima continua / Max. continuous pressure (100%)
Pressione massima di punta / Max. peak pressure (6 sec.max)

(*) Velocità con tubo diam. interno 63mm (2"1/2) minimo.
Speed with pipe internal diameter 63mm (2"1/2) minimum.

**COPPIA TEORICA ASSORBITA
THEORETICAL DRIVE TORQUE**

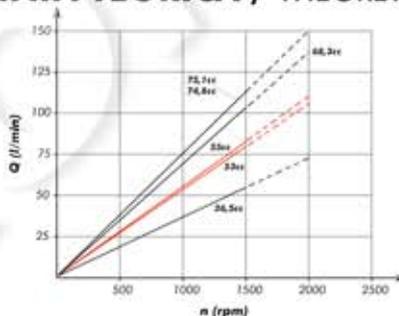


La coppia assorbita dalla pompa deve essere calcolata come somma delle coppie necessarie per mandare in pressione le 2 mandate.
The total torque absorbed by the pump is given by the sum of the torques necessary to give pressure to the pressure ports.

Pompa 53+53 e 70+35: con tubo diam. interno 50mm (2") velocità max. 1200rpm.
Pump 53+53 and 70+35: with pipe internal diameter 50mm (2") max. speed 1200rpm.

Pompa 70+53: solo con tubo diam. interno 63mm (2"1/2).
Pump 70+53: only with pipe internal diameter 63mm (2"1/2).

PORTATA TEORICA / THEORETICAL FLOW



La portata della pompa è pari alla somma delle portate delle 2 mandate.
The total pump flow is given by the sum of the flow of each pressure port.

**POTENZA TEORICA ASSORBITA
THEORETICAL POWER INPUT**

La potenza totale è pari alla somma delle potenze richieste dai singoli utilizzi sulle 2 mandate.
The total power absorbed by the pump is given by the sum of the power required by the two pressure ports.

$$P_{TOT} = P_A + P_B = \frac{(p_A \cdot Q_A + p_B \cdot Q_B)}{612}$$

P [kW]
Q [l/min]
p [bar]

**SCelta DEL TUBO DI ASPIRAZIONE
HOW TO CHOOSE THE SUCTION PIPE SIZE**

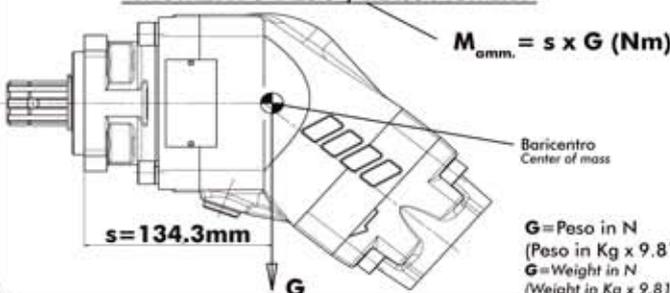
| Q Portata Flow l/min | Ø interno min. tubo Min pipe diam. | | Velocità flusso Flow speed (m/s) |
|----------------------|------------------------------------|---------|----------------------------------|
| 30 | 32 | 1" 1/4 | 0,62 |
| 40 | 32 | | 0,83 |
| 50 | 38 | 1" 1/2 | 0,74 |
| 60 | 38 | | 0,88 |
| 70 | 40 | 1" 9/16 | 0,93 |
| 80 | 45 | 1" 3/4 | 0,84 |
| 90 | 45 | | 0,94 |
| 100 | 50 | 2" | 0,85 |
| 110 | 50 | | 0,93 |
| 120 | 60 | 2" 3/8 | 0,71 |
| 130 | 60 | | 0,77 |
| 140 | 60 | 2" 1/2 | 0,83 |
| 160 | 63 | | 0,86 |
| 170 | 63 | 2" 1/2 | 0,91 |
| 180 | 63 | | 0,96 |

Per garantire corrette condizioni di aspirazione la velocità del flusso non deve superare 1 m/sec.
To ensure the proper suction pipe size the flow speed should not exceed 1m/sec.

Kit guarnizioni / Seal Kit
10890353533



MOMENTO PESO / MASS MOMENT



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