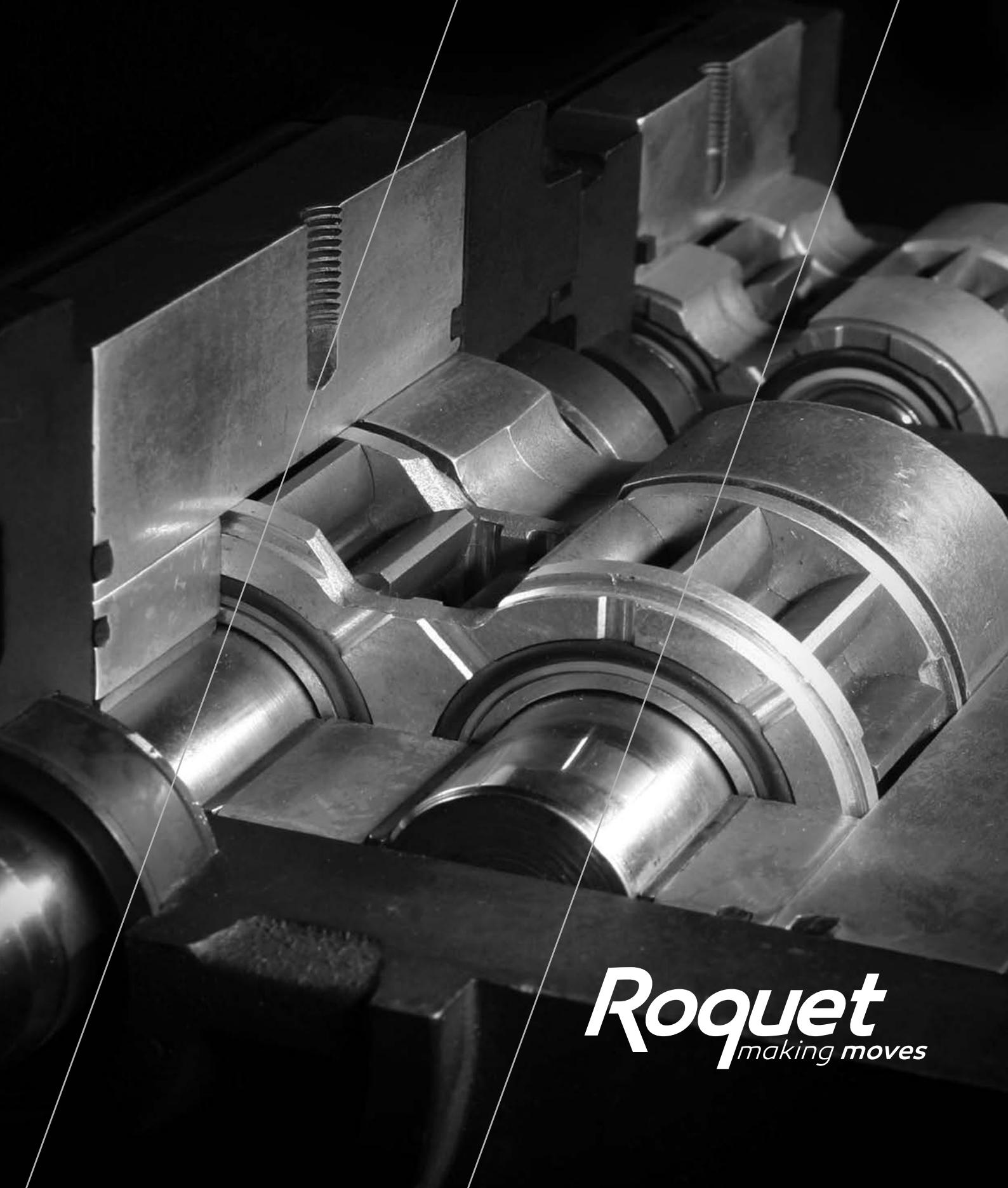


PLC
BOMBAS DE ENGRANAJES
GEAR PUMPS



Roquet
making moves

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HISTORIA Más de medio siglo de trayectoria especializada en óleo-dinámica. Roquet es proveedor internacional en los sectores agrícola, naval, manutención, máquina-herramienta, automoción pesada, maquinaria de obras públicas, minería, eólica, alimentación, etc. Marca líder en España y una referencia importante en el ámbito internacional.

TECNOLOGÍA Roquet dispone de un importante departamento de diseño y desarrollo, con bancos de prueba de fatiga, nivel sonoro, resistencia a la corrosión, etc, apoyados por un avanzado laboratorio metalográfico. Se realizan grandes inversiones en centros de mecanizado de última generación para mantener una óptima calidad-productividad. La mayoría de piezas críticas (correderas, piezas de fundición, ejes de bomba, etc) se fabrican íntegramente en la propia empresa.

FIABILIDAD Una extensa gama de productos robustos y resistentes. Diseñados para rendir, construidos para durar. Todas las gamas de productos se someten a pruebas de vida en condiciones de trabajo realistas durante el diseño y desarrollo del producto. De esta forma se asegura su perfecta adaptación a las diversas aplicaciones finales tales como tractores, carretillas elevadoras, palas cargadoras, excavadoras, grúas, volquetes, muelles de carga... Se prueba el 100% de las unidades producidas, según procedimientos internos de prueba, antes de la expedición.

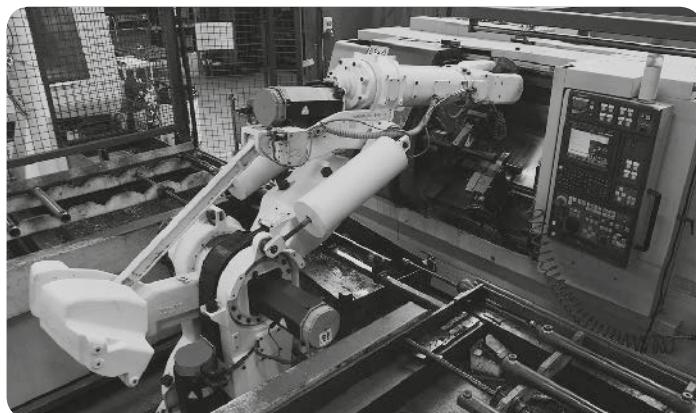
CAPACIDAD 400 profesionales en plantilla. Cinco plantas de producción con una superficie cubierta de 40.000 m². Producción actual: 180.000 bombas, 300.000 cuerpos de distribuidor y 500.000 cilindros. Una red comercial de distribución extendida por más de 35 países de los 5 continentes.

HISTORY Over fifty years experience in fluid power. Supplier to international manufacturers of agricultural, construction, mining, mechanical handling, machine-tool and food machinery. Main supplier to the Spanish market with rapidly increasing presence in European and world markets.

TECHNOLOGY Roquet has a large design and development department with substantial fatigue, noise, corrosion-resistance, cleanliness and testing facilities, backed by a well-equipped metallurgical laboratory.

RELIABILITY A broad range of robust products: designed to perform, built to last. All products ranges life-tested under realistic conditions during development to ensure their suitability for use in applications such as tractors, fork-lift trucks, loaders, excavators, cranes, dumpers, dock-levellers... Each and every product tested to a stringent test specification prior to shipment.

CAPABILITY 400 well trained employees. Five factories with a total floor area of 40.000m² Current production 180.000 pumps, 300.000 control valve bodies and 500.000 cylinders. Distribution network in over 35 countries.



Nuestras bombas están equilibradas hidrostáticamente y provistas de reajuste lateral automático.

Se recomienda el empleo de aceite para instalaciones oleodinámicas con aditivos antiespumantes y de extrema presión.

Para obtener una larga vida, tanto del aceite como de la bomba es preciso trabajar entre una viscosidad de 20 - 80 cSt, según presiones de trabajo a una temperatura de 50°C.

Gama de temperaturas del fluido hidráulico +5°C - +80°C.

El apartado de filtraje es muy importante, ya que la mayoría de averías son debidas a la suciedad del aceite. Ver datos técnicos.

La mejor forma de accionamiento es de conexión directa por medio de un acoplamiento elástico, que permite un movimiento mínimo radial y axial de 0,3 a 0,4 mm, por lo que de esta forma quedarán absorbidas todas las vibraciones del motor que tanto perjudican la buena marcha de la bomba. Los conductos de aspiración serán lo suficientemente dimensionados para que la depresión no exceda de 0,3 bars. Conexión por bridas S.A.E. o rosca G.

Sentido de giro derecha o izquierda, mirando la bomba por el lado del eje. Antes de poner por primera vez la bomba en marcha, asegurarse que el sentido de giro es el correcto.

Presentamos en el apartado de bombas dobles, varios tipos de fijación con sus ejes más normales. No obstante se podrán construir bombas dobles con las mismas fijaciones que las simples y sus ejes correspondientes.

Estas consideraciones también son validas para bombas triples y cuádruples, que podemos fabricar.

NOTA IMPORTANTE: En versión estándar la conexión es de rosca G.

Este catálogo muestra los productos en su configuración más estándar. Para diseños personalizados o especiales, deberá ponerse en contacto con ROQUETHYDRAULICS, S.L.

Las especificaciones y los datos de este catálogo no son susceptibles de interpretación. En caso de dudas, póngase en contacto con ROQUETHYDRAULICS, S.L.

ROQUETHYDRAULICS, S.L. se reserva el derecho de realizar modificaciones, actualizaciones o revisiones de este catálogo sin previo aviso.

ROQUETHYDRAULICS, S.L. no es responsable de ningún daño provocado por un uso incorrecto del producto.

Our pumps are hydrostatically balanced and have automatic lateral adjustment.

We recommend the use of the oil for oil-dynamic installations with antifoaming additives and for extreme pressure.

To obtain extended pump life it is necessary to work with oil viscosities between 20 - 80 cSt, relating to working pressure and at a temperature of 50°C.

Oil temperature range +5°C - +80°C.

Filtration is extremely important since most problems are due to oil contamination.

The most efficient drive method is by means of axial flexible coupling, with minimum 0,3 - 0,4 mm. radial and axial movement, thus reducing the effects of vibration and maintaining maximum efficiency of the pump.

The suction pipes should be large enough to ensure that cavitation does not exceed 0,3 Bar. Connection by SAE flange or threaded G.

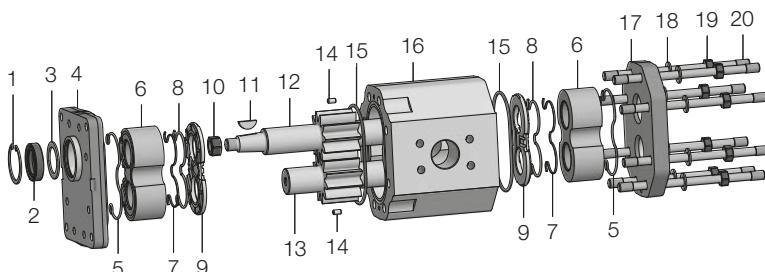
Rotation direction: Clockwise or anti-clockwise when facing the shaft end.

Before starting the pump, make sure the direction of rotation is correct.

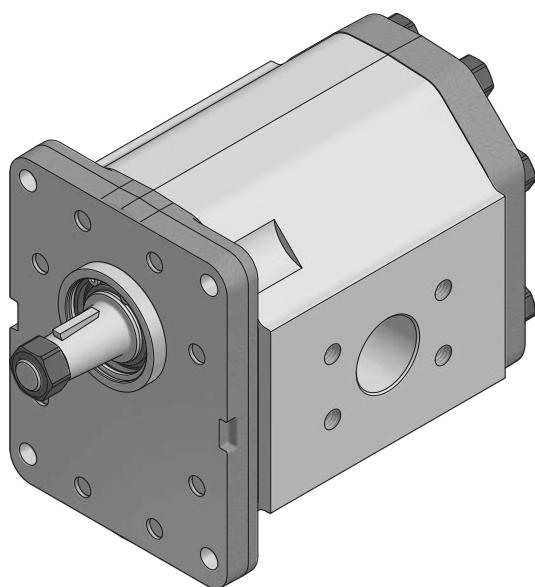
Double and multiple pumps are available with all shafts and flanges shown for single pumps.

IMPORTANT NOTE: Side ports threaded G are available as standard version.

Partes de una bomba / Pump parts



| | | | |
|----|---|----|--|
| 1 | Anillo elástico <i>Circlip</i> | 11 | Chaveta <i>Key</i> |
| 2 | Retén aceite <i>Oil seal</i> | 12 | Rueda motriz <i>Drive shaft</i> |
| 3 | Anillo tope retén <i>Shaft seal end ring</i> | 13 | Rueda conducida <i>Driven shaft</i> |
| 4 | Tapa frontal <i>Front flange</i> | 14 | Pasador <i>Pin</i> |
| 5 | Junta apoyo cojinete <i>O-ring</i> | 15 | Junta de tope <i>Housing gasket</i> |
| 6 | Conjunto cojinete apoyo <i>Bearing assembly</i> | 16 | Cuerpo bomba <i>Pump housing</i> |
| 7 | Junta antiextrusión <i>Anti-extrusion gasket</i> | 17 | Tapa posterior <i>Back cover</i> |
| 8 | Junta de compensación <i>Compensation gasket</i> | 18 | Arandelas <i>Washers</i> |
| 9 | Plaqueta de compensación <i>Thrust plate</i> | 19 | Tuercas <i>Nuts</i> |
| 10 | Tuerca <i>Nut</i> | 20 | Espárragos <i>Threaded rods</i> |



| | | | | | | | | |
|--|---|----------------|----------------|----------------------------------|---------------|-----------------|-----------------|---------------|
| Caudal bomba Pump flow rate | L/min. 1500 R.P.M. (U.S. GPM 1500 RPM) | 80 (21) | 100 (26) | 125 (33) | 150 (40) | 175 (46) | 200 (53) | 225 (59) |
| Cilindrada Displacement | cm ³ /v - cc/rev (in ³ /rev) | 53,3 (3,25) | 66,6 (4,06) | 83,3 (5,08) | 100 (6,10) | 116,6 (7,12) | 133,3 (8,13) | 150 (9,15) |
| Presión máx. continua en Cont. max. pressure | bar (PSI) | | | 225 (3265) | | | 200 (2900) | 175 (2540) |
| Presión máx. inter 5 seg. max. Intermittent max. pressure | bar (PSI) | | | 250 (3625) | | | 225 (3265) | 200 (2900) |
| R.P.M. máximas Max. R.P.M. | | | 3.000 | | 2.500 | 2.000 | 1.750 | |
| Mínimas R.P.M. según presión Min. R.P.M. at given pressures | 100 bar (1450 PSI) | | 400 | | | 350 | | |
| | 175 bar (2540 PSI) | | 450 | | | 400 | | |
| | 250 bar (3625 PSI) | | 550 | | - | - | - | |
| Aceite recomendado Fluid to be used | | | | ISO 6743 tipo HM, HV ó HG | | | | |
| Viscosidad Viscosity range | | | | ISO 3448 cat. VG32-VG46 | | | | |
| Grado de limpieza del aceite Recommended fluid cleanliness | | | | 19/16 s/. ISO 4406 ó RP70H | | | | |
| Temperatura de trabajo del aceite Oil temperature | | | | -20°C... +80°C -4°F... +176°F | | | | |
| Depresión máximo en aspiración Max. suction depresion | | | | < 0,3 bar | | | | |

CONEXIONES TIPO M

ROQUET HYDRAULICS, S.L. utiliza conexiones tipo SAE J518 para el modelo de bomba tipo PLC.

ACCIONAMIENTO DE LAS BOMBAS

Deben utilizarse acoplamientos entre bomba y accionamiento que eviten la transmisión de esfuerzos tanto axiales como laterales. Las bombas en su configuración estandar no admiten este tipo de esfuerzos, causando una disminución rápida de su vida util.

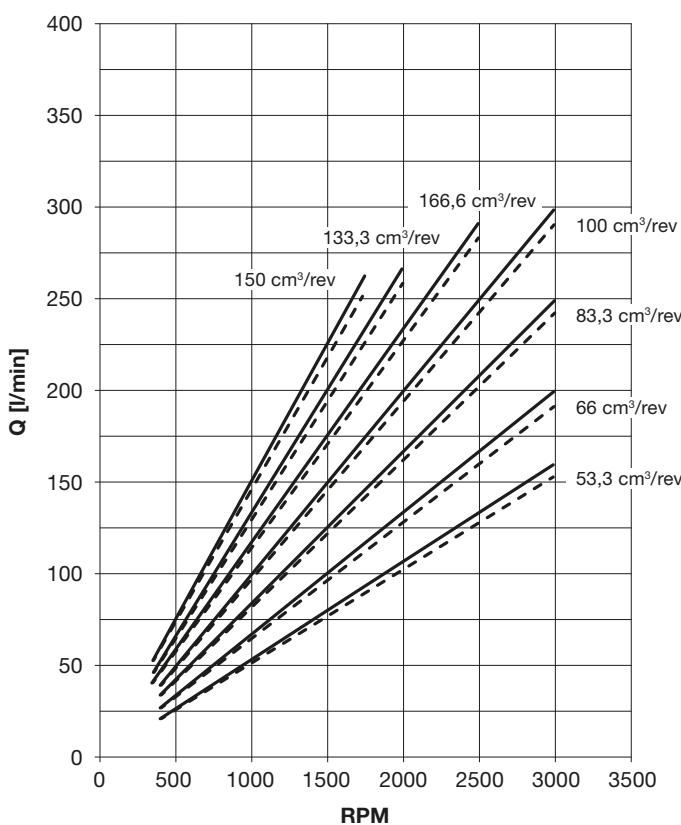
CONNECTION TYPE M

ROQUET HYDRAULICS, S.L. uses connections type SAE J518 for the PLC gear pump model.

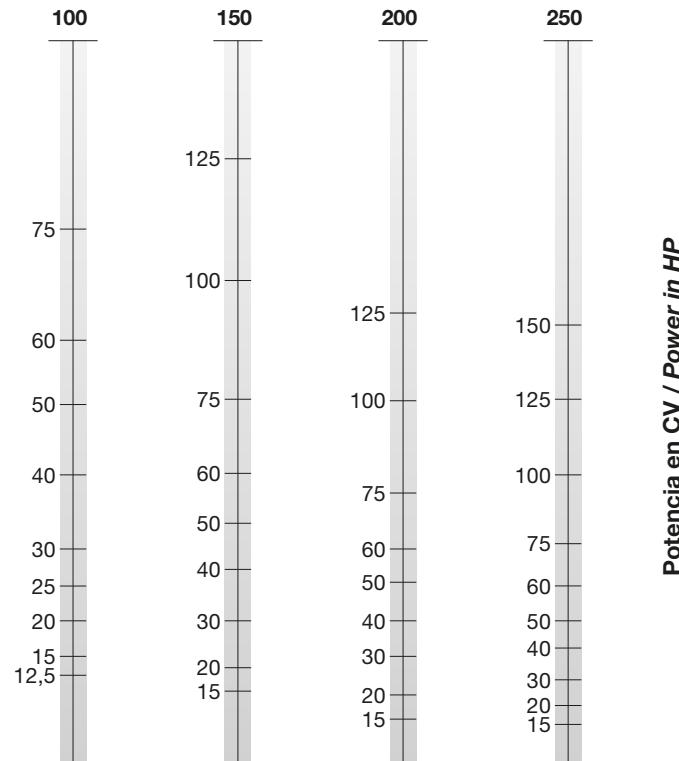
PUMP DRIVING DEVICES

It must be used a driving device to avoid the transmission of axial and radial loads to the axis of the pump. Standard flanges and pumps are not designed to handle this loads and this causes a reduction of its working life.

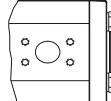
Gráfico de caudales, rendimientos y potencias según cilindrada
Flow, performance and power chart according to displacement



Presiones en bar / Pressure in bar

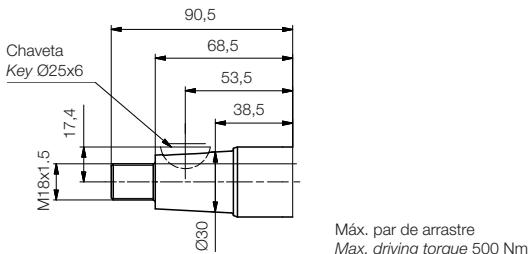


NOTA: Estos diagramas han sido obtenidos con un aceite de 4,5°E (37 cSt) de viscosidad y una temperatura de 50°C.
NOTE: These results have been obtained with 4,5°E (37 cSt) viscosity oil and at 50 deg. C (122°F).

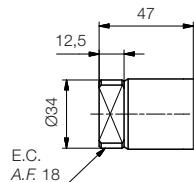
| Sistema de codificación | | 1 | PLC | 125 | D | E | 10 | M | -*** | Coding system | | | | | |
|---|---|---|-----|-----|-------------------------------------|---|----|---|------|---------------|--|--|--|--|--|
| | | | | | | | | | | | | | | | |
| Tipo / Type | | | | | Código / Code | | | | | | | | | | |
| 1 | Sin polea / Without pulley | | | | | | | | | | | | | | |
| 13 | SAE C (2 taladros) con cojinete de apoyo <i>SAE C (2 holes) with support bearing</i> | | | | | Formas conexión tomas <i>Port connection forms</i> | | | | | | | | | |
| 14 | SAE C (2 taladros) con dos retenes <i>SAE C (2 holes) with two oil seals</i> | | | | |  M | | | | | | | | | |
| Modelo / Model | | | | | Tipo de tapa / Fixing flange | | | | | | | | | | |
| PLC | Simple / Simple | | | | | 01-09-10-23 | | | | | | | | | |
| PLJ | Múltiple / Multiple PLC+PLC | | | | | | | | | | | | | | |
| PLK | Múltiple / Multiple PLC+PLA | | | | | | | | | | | | | | |
| PLH | Múltiple / Multiple PLC+L | | | | | | | | | | | | | | |
| PLZ | Múltiple / Multiple PLC+L0 | | | | | Forma eje motriz / Drive shaft form | | | | | | | | | |
| | | | | | A-B-C-E-G-H-J | | | | | | | | | | |
| Caudal bomba a 1500 rpm y 0 bar <i>Pump flow rate at 1500 rpm and 0 bar</i> | | | | | | | | | | | | | | | |
| Ver hoja técnica / See technical data | | | | | | | | | | | | | | | |
| Sentido de giro / Rotation direction | | | | | | | | | | | | | | | |
| D | Derecha / Clockwise | | | | | | | | | | | | | | |
| I | Izquierda / Counterclockwise | | | | | | | | | | | | | | |
| R | Reversible / Reversible | | | | | | | | | | | | | | |

Tipos de eje motriz disponibles / Available drive shaft forms

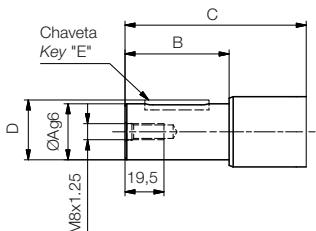
Eje forma A / Shaft form A



Eje forma B / Shaft form B



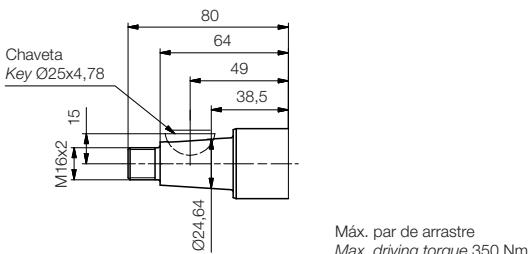
Eje forma C / Shaft form C



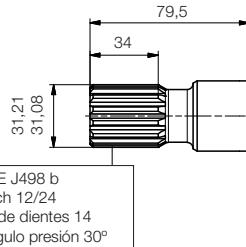
Caudal / Displacement [l/min at 1500 rpm]

| | A | B | C | D | E |
|---------------|----|----|-------|------|--------|
| 80-150 l/min | 28 | 52 | 139,5 | 29,9 | 5x8x32 |
| 175-225 l/min | 30 | 70 | 157,5 | 31,9 | 5x8x50 |

Eje forma E / Shaft form E

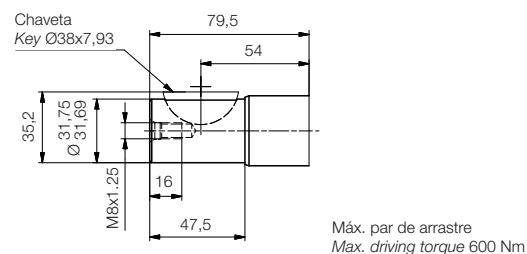


Eje forma G / Shaft form G

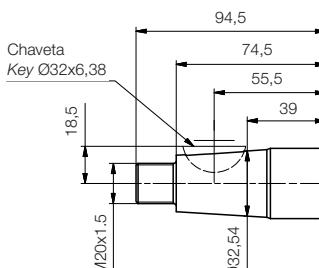


Máx. par de arrastre
Max. driving torque 900 Nm

Eje forma H / Shaft form H



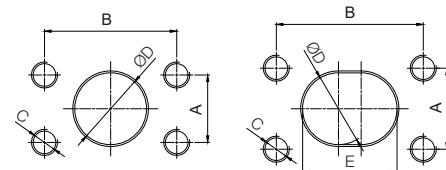
Eje forma J / Shaft form J



Formas de conexión de tomas disponibles / Available port connection forms

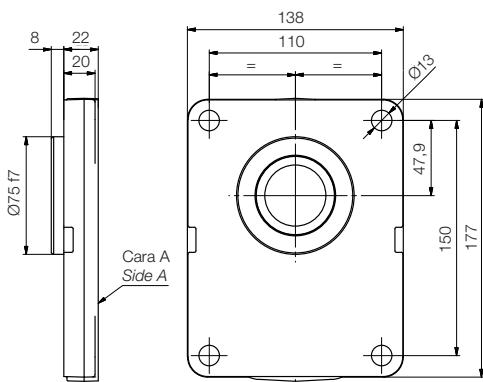
| Tomas M / M Ports | 1 sentido de rotación / 1 rotation direction | | | | |
|--------------------------|--|------|-----|----|------|
| Caudal / Flow (1500 rpm) | Aspiración / Suction | | | | |
| | A | B | C | D | E |
| 80 l/min ... 125 l/min | 35,7 | 69,9 | M12 | 38 | - |
| 150 l/min ... 225 l/min | 42,9 | 77,8 | M12 | 38 | 50 |
| | 30,2 | 58,7 | M10 | 32 | 35,7 |
| | 35,7 | 69,9 | M12 | 38 | 69,9 |
| | | | | | M10 |
| | | | | | M12 |
| | | | | | 32 |
| | | | | | 38 |

| Tomas M / M Ports | Reversible | | | | |
|-------------------|--------------------------|------|------|-----|----|
| | Caudal / Flow (1500 rpm) | A | B | C | D |
| | | 30,2 | 58,7 | M10 | 32 |
| | 80 l/min ... 125 l/min | 35,7 | 69,9 | M12 | 38 |
| | 150 l/min ... 225 l/min | 35,7 | 69,9 | M12 | 38 |

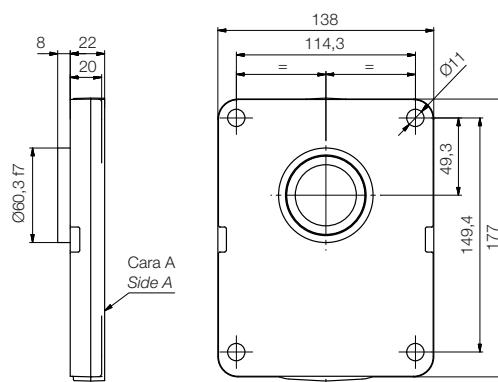


Tipos de tapas frontales disponibles / Available front flanges types

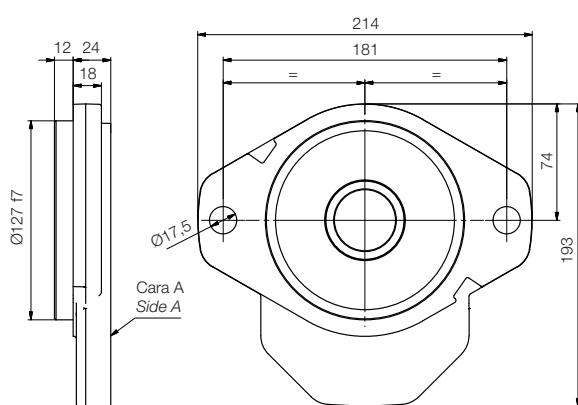
Tapa tipo 01 / Front flange type 01



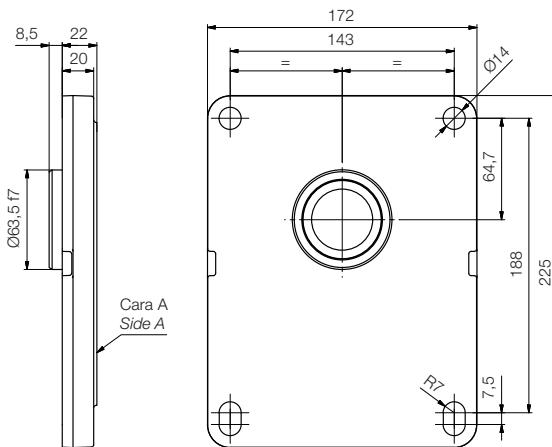
Tapa tipo 10 / Front flange type 10



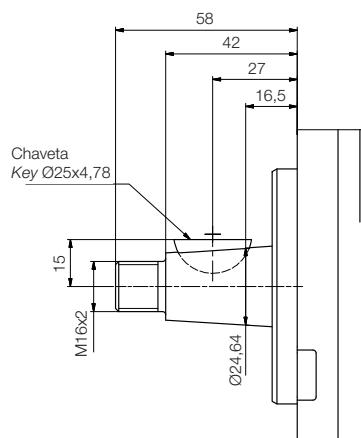
Tapa tipo 09 / Front flange type 09



Tapa tipo 23 / Front flange type 23



Ejemplo: Combinación de un eje tipo E y una tapa tipo 01
Example: Combination of a E type shaft with a 01 type front flange

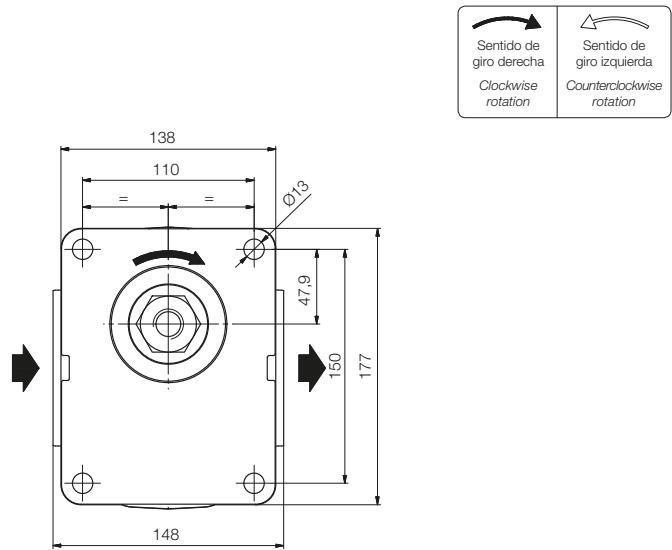
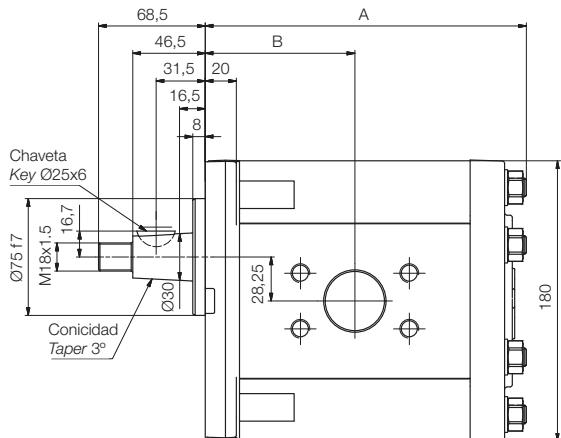


NOTA: La longitud del eje motriz varía en función del grosor de la tapa frontal.
NOTE: The useful length of the drive shaft varies depending on the front flange thickness.

Tapa tipo 01 / Front flange type 01

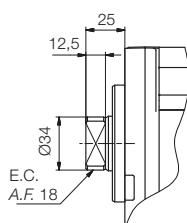


Eje forma A / Shaft form A

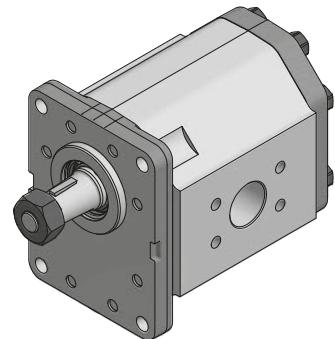
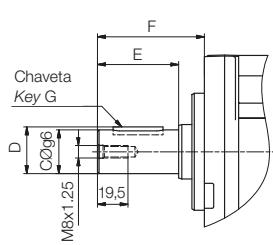


Sentido de giro izquierda
Counterclockwise rotation

Eje forma B / Shaft form B



Eje forma C / Shaft form C



| Caudal / Displacement [l/min at 1500 rpm] | C | D | E | F | G |
|--|----|------|----|------|--------|
| 80-150 l/min | 28 | 29,9 | 52 | 68,5 | 5x8x32 |
| 175-250 l/min | 30 | 31,9 | 70 | 86,5 | 5x8x50 |

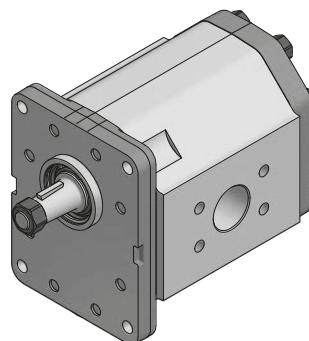
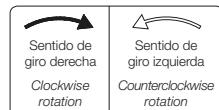
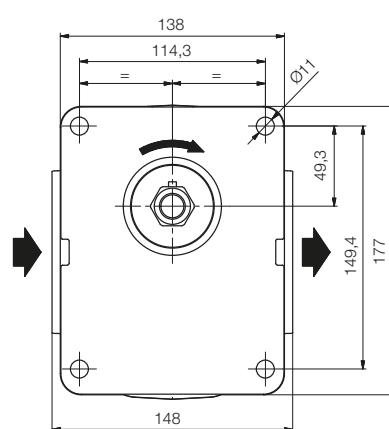
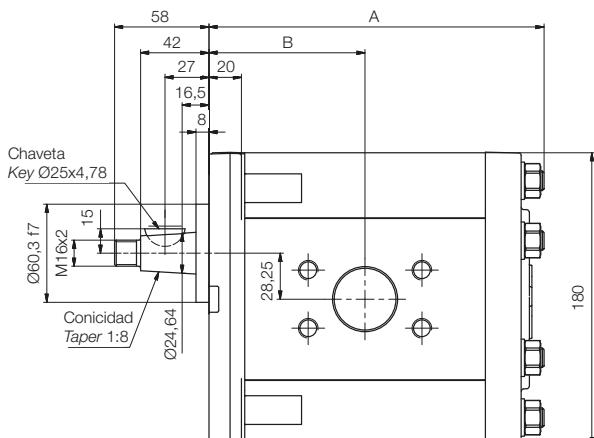
| Referencia Reference | Cilindrada cm³/rev Displacement cm³/rev | A | B | Peso kg Weight kg |
|---------------------------------|--|----------|----------|------------------------------|
| 1PLC80D▲01M | 53,3 | 183 | 87,0 | 17,4 |
| 1PLC100D▲01M | 66,6 | 190 | 87,0 | 17,9 |
| 1PLC125D▲01M | 83,3 | 198 | 92,0 | 18,4 |
| 1PLC150D▲01M | 100 | 206 | 96,0 | 19,0 |
| 1PLC175D▲01M | 116,6 | 214 | 100,0 | 19,8 |
| 1PLC200D▲01M | 133,3 | 223 | 104,0 | 20,6 |
| 1PLC225D▲01M | 150 | 231 | 108,0 | 21,3 |

▲ Forma de eje / Shaft form.

NOTA: Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 8.
NOTE: For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.

Tapa tipo 10 / Front flange type 10

Eje forma E / Shaft form E

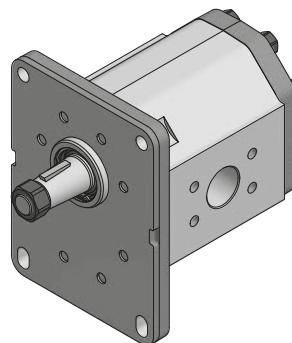
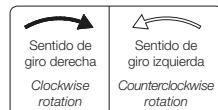
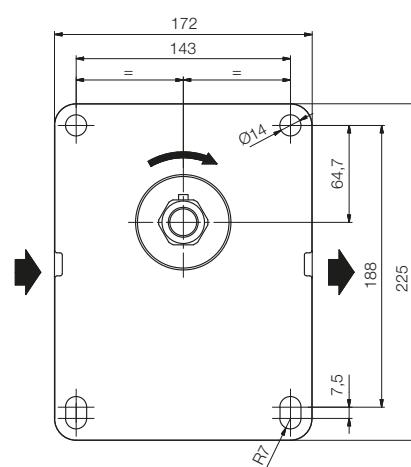
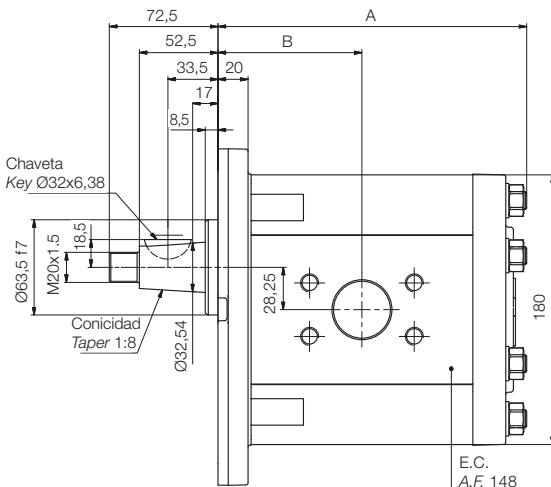


| Referencia Reference | Cilindrada cm³/rev Displacement cm³/rev | A | B | Peso kg Weight kg |
|-------------------------|--|-----|-------|----------------------|
| 1PLC80DE10M | 53,3 | 183 | 87,0 | 17,5 |
| 1PLC100DE10M | 66,6 | 190 | 87,0 | 18,0 |
| 1PLC125DE10M | 83,3 | 198 | 92,0 | 18,5 |
| 1PLC150DE10M | 100 | 206 | 96,0 | 19,1 |
| 1PLC175DE10M | 116,6 | 214 | 100,0 | 19,9 |
| 1PLC200DE10M | 133,3 | 223 | 104,0 | 20,7 |
| 1PLC225DE10M | 150 | 231 | 108,0 | 21,4 |

NOTA: Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 8.
NOTE: For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.

Tapa tipo 23 / Front flange type 23

Eje forma J / Shaft form J



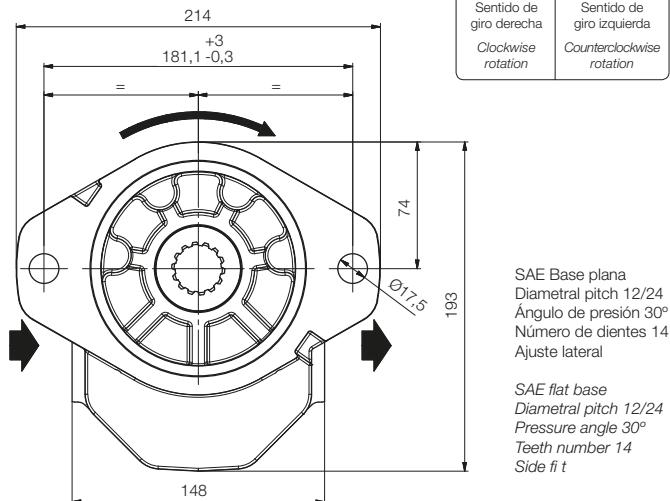
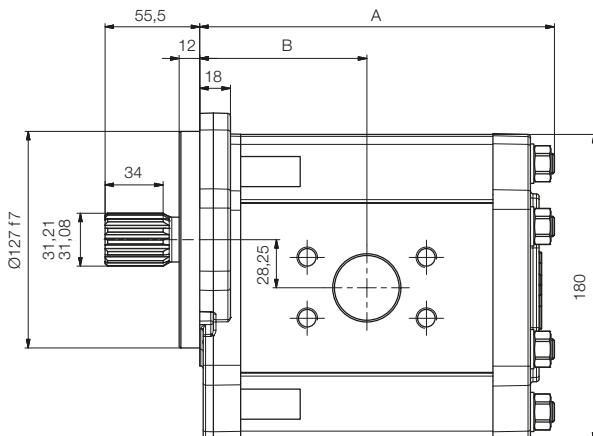
| Referencia Reference | Cilindrada cm³/rev Displacement cm³/rev | A | B | Peso kg Weight kg |
|-------------------------|--|-----|-------|----------------------|
| 1PLC80DJ23M | 53,3 | 183 | 87,0 | 17,7 |
| 1PLC100DJ23M | 66,6 | 190 | 87,0 | 18,2 |
| 1PLC125DJ23M | 83,3 | 198 | 92,0 | 18,7 |
| 1PLC150DJ23M | 100 | 206 | 96,0 | 19,3 |
| 1PLC175DJ23M | 116,6 | 214 | 100,0 | 20,1 |
| 1PLC200DJ23M | 133,3 | 223 | 104,0 | 20,9 |
| 1PLC225DJ23M | 150 | 231 | 108,0 | 21,6 |

NOTA: Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 8.
NOTE: For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.

Tapa tipo 09 / Front flange type 09



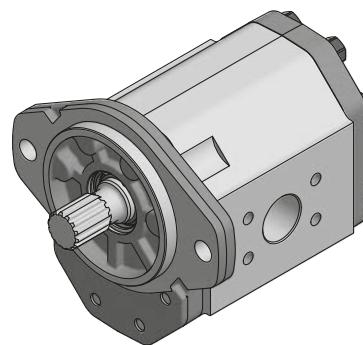
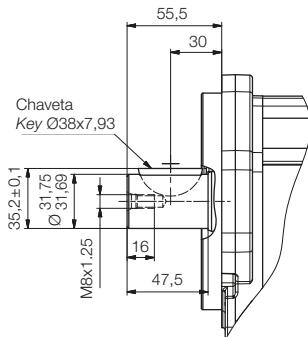
Eje forma G / Shaft form G



SAE Base plana
Diametral pitch 12/24
Ángulo de presión 30°
Número de dientes 14
Ajuste lateral

SAE flat base
Diametral pitch 12/24
Pressure angle 30°
Teeth number 14
Side fit

Eje forma H / Shaft form H

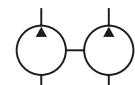


| Referencia Reference | Cilindrada cm³/rev Displacement cm³/rev | A | B | Peso kg Weight kg |
|-------------------------|--|-----|-------|----------------------|
| 1PLC80D▲09M | 53,3 | 185 | 89,0 | 17,6 |
| 1PLC100D▲09M | 66,6 | 192 | 89,0 | 18,1 |
| 1PLC125D▲09M | 83,3 | 200 | 94,0 | 18,6 |
| 1PLC150D▲09M | 100 | 208 | 98,0 | 19,2 |
| 1PLC175D▲09M | 116,6 | 216 | 102,0 | 20,0 |
| 1PLC200D▲09M | 133,3 | 225 | 106,0 | 20,8 |
| 1PLC225D▲09M | 150 | 233 | 110,0 | 21,5 |

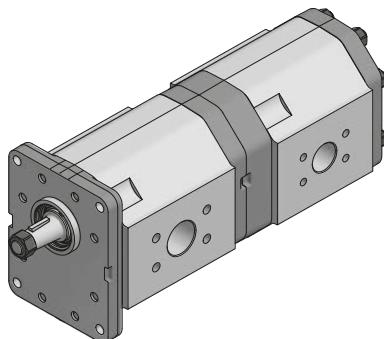
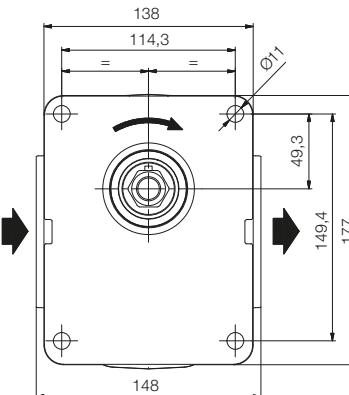
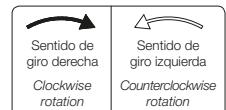
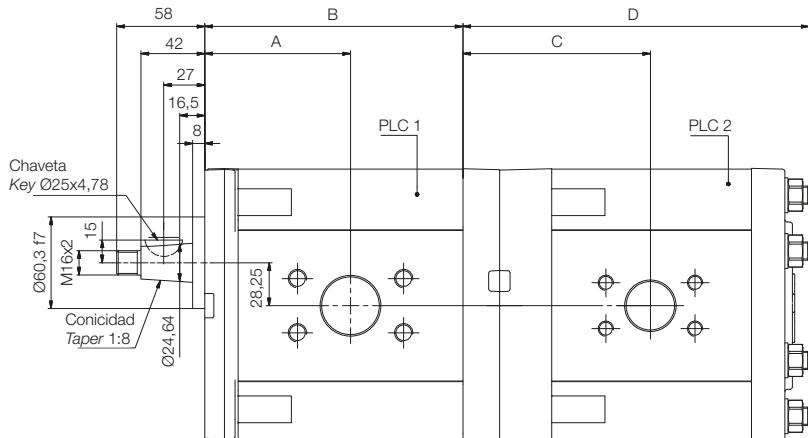
▲ Forma de eje / Shaft form.

NOTA: Para dimensiones y tipos de tomas disponibles de bombas de giro derecho (D), izquierdo (I) o reversible (R), consultar página 8.
NOTE: For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.

Tapa tipo 10 / Front flange type 10



Eje forma E / Shaft form E



Para montajes de bombas de más de dos etapas, consultar con el departamento comercial. Máximo par de arrastre entre bombas 260 Nm.
For more than two stages pump assemblies, contact the sales department. Maximum driving torque between stages 260 Nm.

La tabla siguiente hace referencia a la etapa frontal (PLC1) de la bomba múltiple PLJ.
The following table refers to the front stage (PLC1) of the PLJ multiple pump.

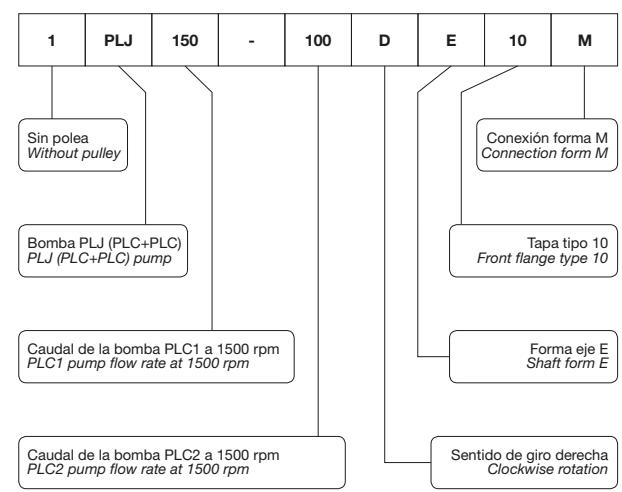
| Referencia Reference | Cilindrada Displacement cm³/rev | A | B | PLC1 - Peso kg PLC1 - Weight kg |
|-------------------------|---------------------------------------|------|-------|------------------------------------|
| 1PLJ80-■DE10M | 53,3 | 87,0 | 147,0 | 17,7 |
| 1PLJ100-■DE10M | 66,6 | 87,0 | 153,5 | 18,2 |
| 1PLJ125-■DE10M | 83,3 | 87,0 | 161,5 | 18,7 |
| 1PLJ150-■DE10M | 100 | 96,0 | 170,0 | 19,3 |
| 1PLJ175-■DE10M | 116,6 | 96,0 | 178,0 | 20,1 |
| 1PLJ200-■DE10M | 133,3 | 96,0 | 186,5 | 20,9 |
| 1PLJ225-■DE10M | 150 | 96,0 | 194,5 | 21,6 |

■ Caudal etapa posterior (PLC2). Ver tabla / Rear stage flow (PLC2). See table.

La tabla siguiente hace referencia a la etapa posterior (PLC2) de la bomba múltiple PLJ.
The following table refers to the rear stage (PLC2) of the PLJ multiple pump.

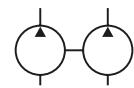
| ■ | Cilindrada Displacement cm³/rev | C | D | PLC2 - Peso kg PLC2 - Weight kg |
|-----|---------------------------------------|-------|-------|------------------------------------|
| 80 | 53,3 | 123,5 | 219,5 | 17,7 |
| 100 | 66,6 | 123,5 | 226,0 | 18,2 |
| 125 | 83,3 | 123,5 | 234,0 | 18,7 |
| 150 | 100 | 132,5 | 242,5 | 19,3 |
| 175 | 116,6 | 132,5 | 250,5 | 20,1 |
| 200 | 133,3 | 132,5 | 259,0 | 20,9 |
| 225 | 150 | 132,5 | 267,0 | 21,6 |

Ejemplo referencia comercial bomba PLJ
Part number example PLJ pump

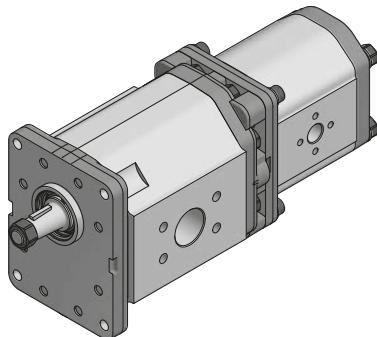
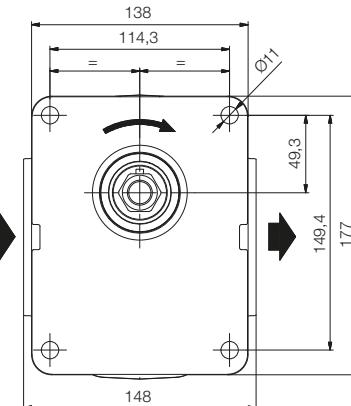
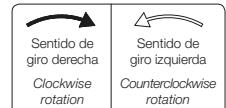
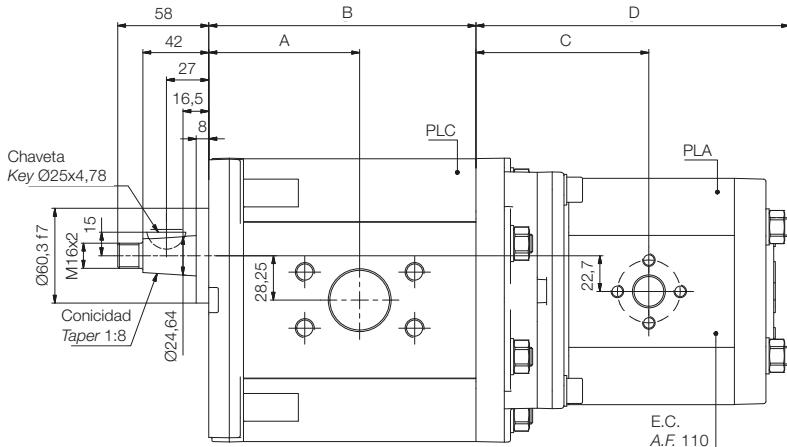


NOTA: Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 8.
NOTE: For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.

Tapa tipo 10 / Front flange type 10



Eje forma E / Shaft form E



Para montajes de bombas de más de dos etapas, consultar con el departamento comercial. Máximo par de arrastre entre bombas 120 Nm.
For more than two stages pump assemblies, contact the sales department. Maximum driving torque between stages 120 Nm.

La tabla siguiente hace referencia a la etapa frontal (PLC) de la bomba múltiple PLK.
The following table refers to the front stage (PLC) of the PLK multiple pump.

| Referencia Reference | Cilindrada Displacement cm³/rev | A | B | PLC - Peso kg PLC - Weight kg |
|-------------------------|---------------------------------------|------|-------|----------------------------------|
| 1PLK80-■DE10MB | 53,3 | 87,0 | 147,0 | 17,7 |
| 1PLK100-■DE10MB | 66,6 | 87,0 | 153,5 | 18,2 |
| 1PLK125-■DE10MB | 83,3 | 87,0 | 161,5 | 18,7 |
| 1PLK150-■DE10MB | 100 | 96,0 | 170,0 | 19,3 |
| 1PLK175-■DE10MB | 116,6 | 96,0 | 178,0 | 20,1 |
| 1PLK200-■DE10MB | 133,3 | 96,0 | 186,5 | 20,9 |
| 1PLK225-■DE10MB | 150 | 96,0 | 194,5 | 21,6 |

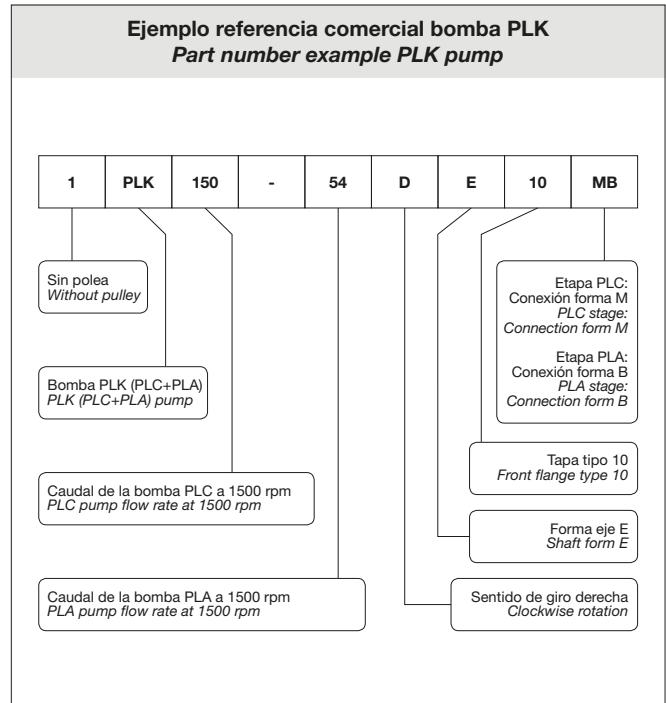
■ Caudal etapa posterior (PLA). Ver tabla / Rear stage flow (PLA). See table.

La tabla siguiente hace referencia a la etapa posterior (PLA) de la bomba múltiple PLK.
The following table refers to the rear stage (PLA) of the PLK multiple pump.

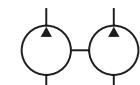
| ■ | Cilindrada Displacement cm³/rev | C | D | PLA - Peso kg PLA - Weight kg |
|----|---------------------------------------|-------|-------|----------------------------------|
| 27 | 18 | 108,9 | 168,0 | 8,3 |
| 36 | 24 | 116,9 | 173,0 | 8,6 |
| 45 | 30 | 121,9 | 178,0 | 8,9 |
| 54 | 36 | 121,9 | 183,0 | 9,1 |
| 66 | 44 | 121,9 | 189,5 | 9,5 |
| 75 | 50 | 121,9 | 194,5 | 9,7 |
| 84 | 56 | 121,9 | 199,6 | 10,0 |

NOTAS: Bomba PLC: para dimensiones y tipos de tomas disponibles de bombas de giro derecho (D), izquierda (I) o reversible (R), consultar página 8.
Bomba PLA: para dimensiones y tipos de toma disponibles consultar catálogo PLA.

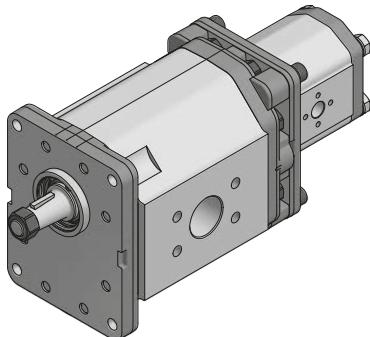
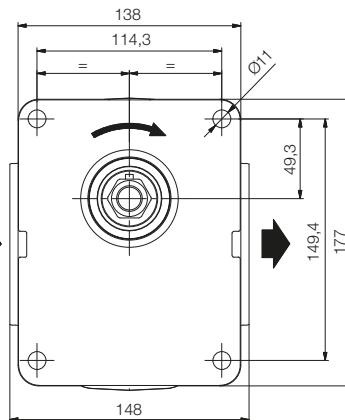
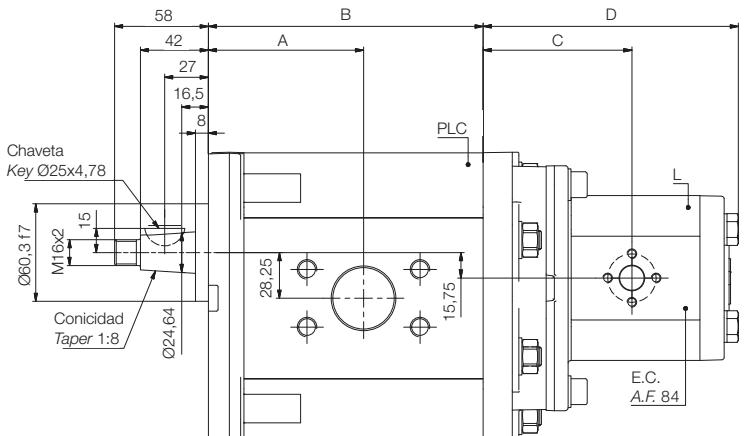
NOTES: PLC pump: for dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.
PLA pump: for dimensions and port types see PLA catalog.



Tapa tipo 10 / Front flange type 10



Eje forma E / Shaft form E



Para montajes de bombas de más de dos etapas, consultar con el departamento comercial. Máximo par de arrastre entre bombas 65 Nm.
For more than two stages pump assemblies, contact the sales department. Maximum driving torque between stages 65 Nm.

La tabla siguiente hace referencia a la etapa frontal (PLC) de la bomba múltiple PLH.
The following table refers to the front stage (PLC) of the PLH multiple pump.

| Referencia Reference | Cilindrada Displacement cm³/rev | A | B | PLC - Peso kg PLC - Weight kg |
|-------------------------|---------------------------------------|------|-------|----------------------------------|
| 1PLH80-■DE10MB | 53,3 | 87,0 | 147,0 | 17,7 |
| 1PLH100-■DE10MB | 66,6 | 87,0 | 153,5 | 18,2 |
| 1PLH125-■DE10MB | 83,3 | 87,0 | 161,5 | 18,7 |
| 1PLH150-■DE10MB | 100 | 96,0 | 170,0 | 19,3 |
| 1PLH175-■DE10MB | 116,6 | 96,0 | 178,0 | 20,1 |
| 1PLH200-■DE10MB | 133,3 | 96,0 | 186,5 | 20,9 |
| 1PLH225-■DE10MB | 150 | 96,0 | 194,5 | 21,6 |

■ Caudal etapa posterior (L). Ver tabla / Rear stage flow (L). See table.

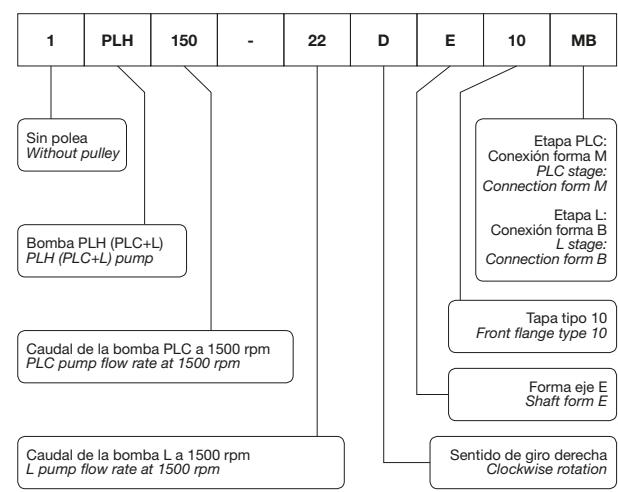
La tabla siguiente hace referencia a la etapa posterior (L) de la bomba múltiple PLH.
The following table refers to the rear stage (L) of the PLH multiple pump.

| ■ | Cilindrada Displacement cm³/rev | C | D | L - Peso kg L - Weight kg |
|----|---------------------------------------|------|-------|------------------------------|
| 6 | 4 | 78,0 | 126,1 | 3,2 |
| 9 | 6 | 78,0 | 130,6 | 3,3 |
| 12 | 8 | 80,1 | 133,5 | 3,4 |
| 16 | 10,6 | 84,5 | 138,2 | 3,5 |
| 18 | 12 | 84,5 | 139,8 | 3,6 |
| 22 | 14,6 | 84,5 | 144,1 | 3,7 |
| 24 | 16 | 84,5 | 146,3 | 3,8 |
| 27 | 18 | 84,5 | 148,8 | 3,9 |
| 35 | 23,3 | 92,0 | 157,8 | 4,1 |
| 40 | 26,6 | 99,5 | 161,8 | 4,3 |

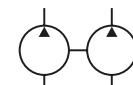
NOTAS: Bomba PLC: para dimensiones y tipos de tomas disponibles de bombas de giro derecho (D), izquierda (I) o reversible (R), consultar página 8.
Bomba L: para dimensiones y tipos de toma disponibles consultar catálogo L.

NOTES: PLC pump: for dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.
L pump: for dimensions and port types see L catalog.

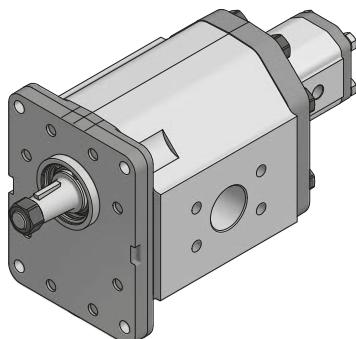
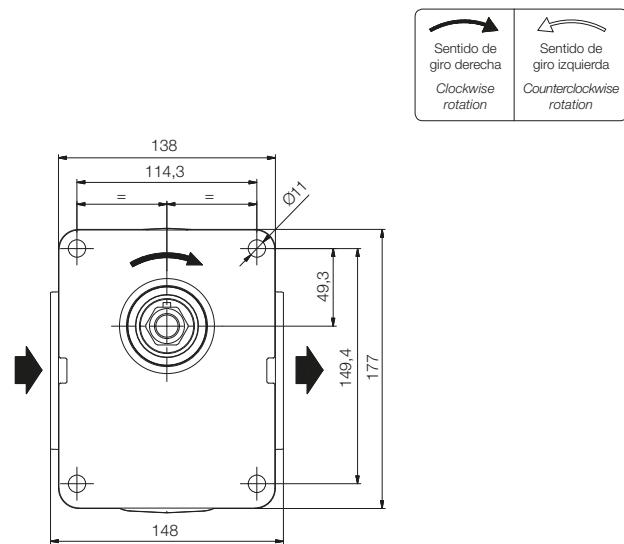
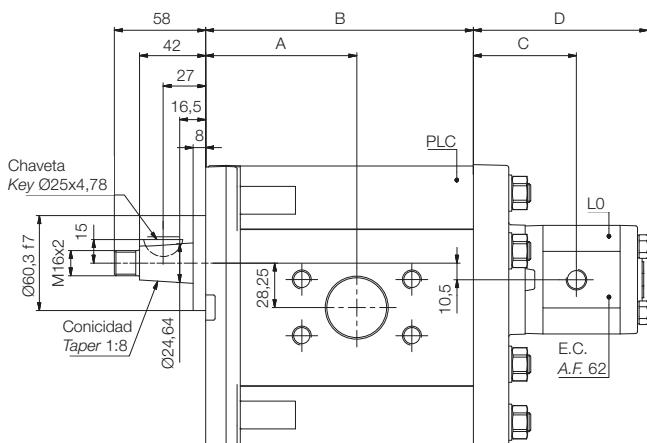
Ejemplo referencia comercial bomba PLH
Part number example PLH pump



Tapa tipo 10 / Front flange type 10



Eje forma E / Shaft form E



Para montajes de bombas de más de dos etapas, consultar con el departamento comercial. Máximo par de arrastre entre bombas 25 Nm.
For more than two stages pump assemblies, contact the sales department. Maximum driving torque between stages 25 Nm.

La tabla siguiente hace referencia a la etapa frontal (PLC) de la bomba múltiple PLZ.
The following table refers to the front stage (PLC) of the PLZ multiple pump.

| Referencia Reference | Cilindrada Displacement cm³/rev | A | B | PLC - Peso kg PLC - Weight kg |
|-------------------------|---------------------------------------|------|-------|----------------------------------|
| 1PLZ80-■DE10MR | 53,3 | 87,0 | 147,0 | 17,7 |
| 1PLZ100-■DE10MR | 66,6 | 87,0 | 153,5 | 18,2 |
| 1PLZ125-■DE10MR | 83,3 | 87,0 | 161,5 | 18,7 |
| 1PLZ150-■DE10MR | 100 | 96,0 | 170,0 | 19,3 |
| 1PLZ175-■DE10MR | 116,6 | 96,0 | 178,0 | 20,1 |
| 1PLZ200-■DE10MR | 133,3 | 96,0 | 186,5 | 20,9 |
| 1PLZ225-■DE10MR | 150 | 96,0 | 194,5 | 21,6 |

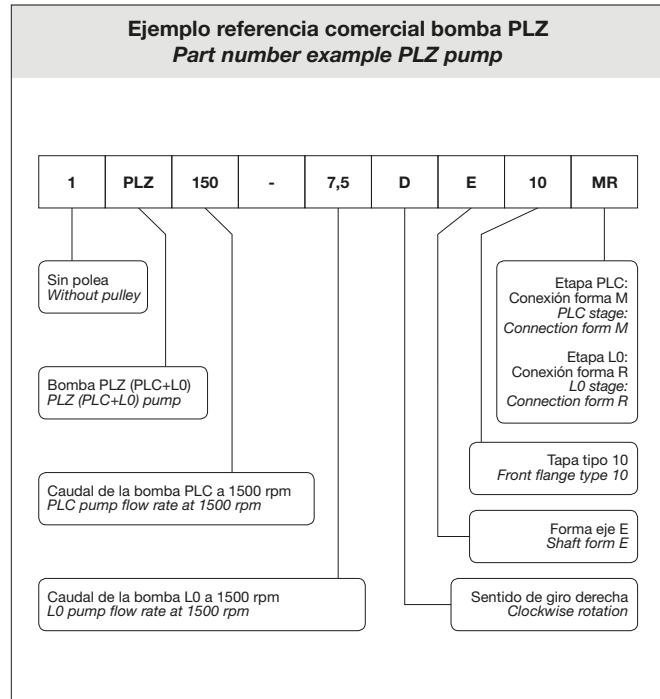
■ Caudal etapa posterior (L0). Ver tabla / Rear stage flow (L0). See table.

La tabla siguiente hace referencia a la etapa posterior (L0) de la bomba múltiple PLZ.
The following table refers to the rear stage (L0) of the PLZ multiple pump.

| ■ | Cilindrada Displacement cm³/rev | C | D | L - Peso kg L - Weight kg |
|-----|---------------------------------------|------|-------|------------------------------|
| 1,5 | 1 | 62,0 | 98,8 | 1,2 |
| 3 | 2 | 62,0 | 103,8 | 1,3 |
| 5 | 3,3 | 65,5 | 110,8 | 1,4 |
| 7,5 | 5 | 68,5 | 118,3 | 1,5 |
| 10 | 6,6 | 73,8 | 127,8 | 1,6 |

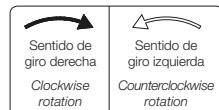
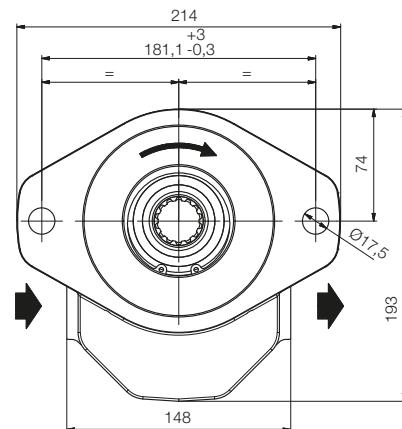
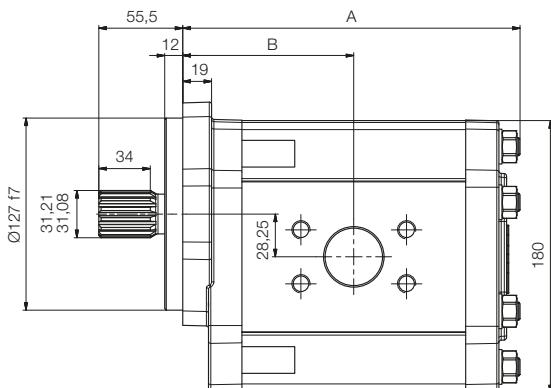
NOTAS: Bomba PLC: para dimensiones y tipos de tomas disponibles de bombas de giro derecho (D), izquierda (I) o reversible (R), consultar página 8.
Bomba L0: para dimensiones y tipos de toma disponibles consultar catálogo L0.

NOTES: PLC pump: for dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.
L0 pump: for dimensions and port types see L0 catalog.

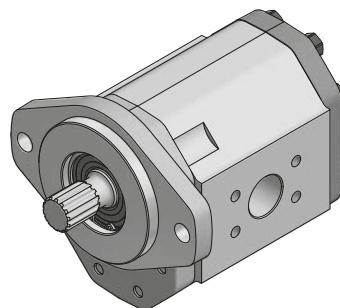
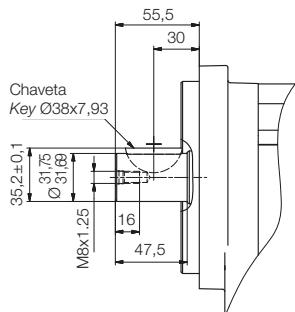


13 PLC y 14 PLC - Tapa tipo 09 / 13 PLC & 14 PLC - Front flange type 09

Eje forma G / Shaft form G



Eje forma H / Shaft form H



| Referencia Reference | Cilindrada cm ³ /rev Displacement cm ³ /rev | A | B | Peso kg Weight kg |
|-------------------------|--|-----|-----|----------------------|
| ■PLC80D▲09M | 53,3 | 200 | 104 | 15,6 |
| ■PLC100D▲09M | 66,6 | 207 | 104 | 16,1 |
| ■PLC125D▲09M | 83,3 | 215 | 109 | 16,6 |
| ■PLC150D▲09M | 100 | 223 | 113 | 17,2 |
| ■PLC175D▲09M | 116,6 | 231 | 117 | 18,0 |
| ■PLC200D▲09M | 133,3 | 240 | 121 | 18,8 |
| ■PLC225D▲09M | 150 | 248 | 125 | 19,5 |

■ 13 Retén y cojinete / Oil seal and bearing.

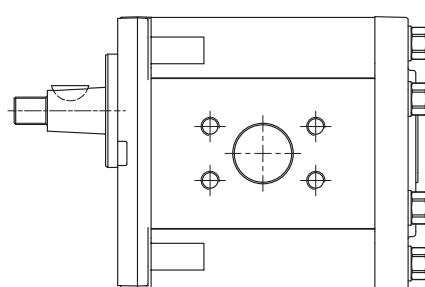
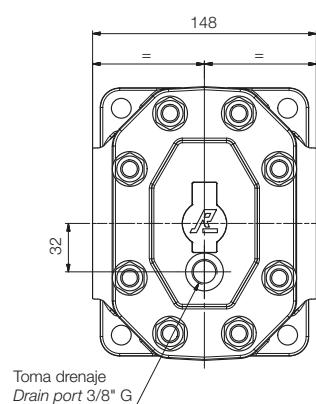
14 Dos retenes / Two oil seals.

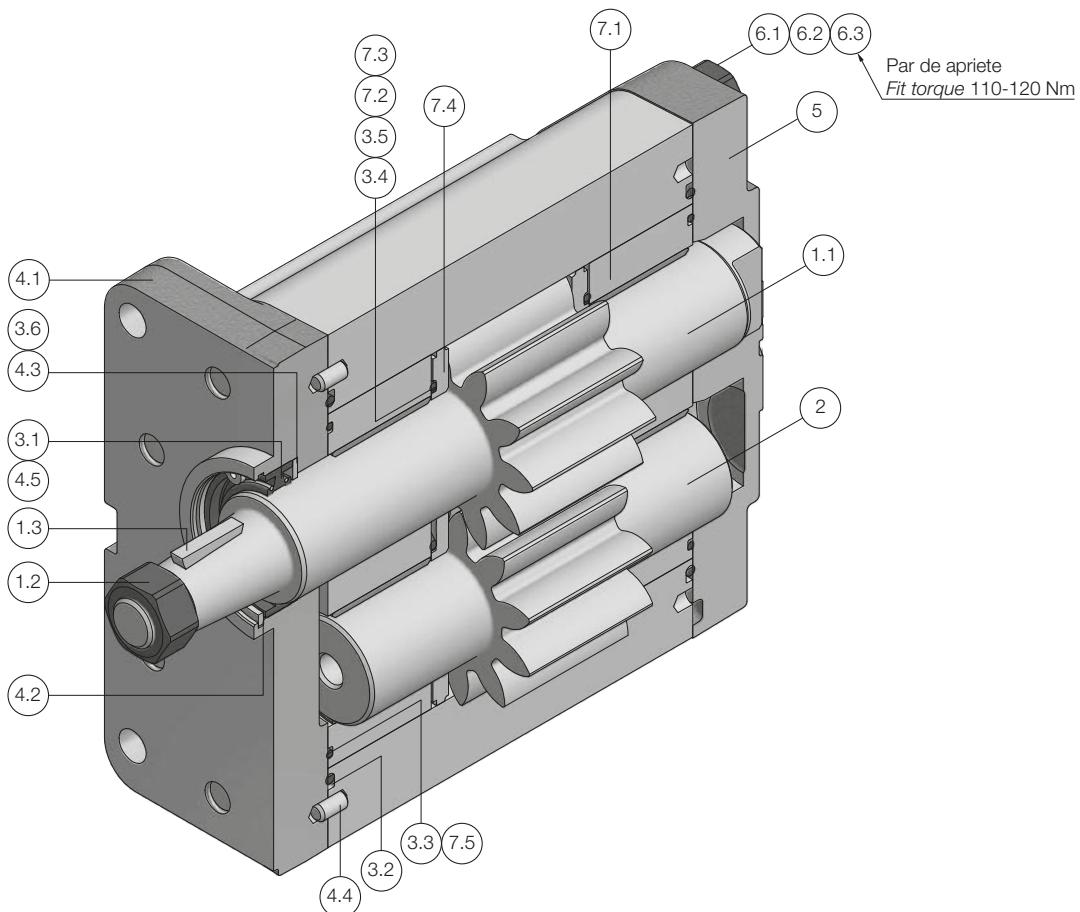
▲ Forma de eje / Shaft form.

NOTA: Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 8.

NOTE: For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 8.

Tapa trasera para bombas reversibles Back cover for reversible pumps



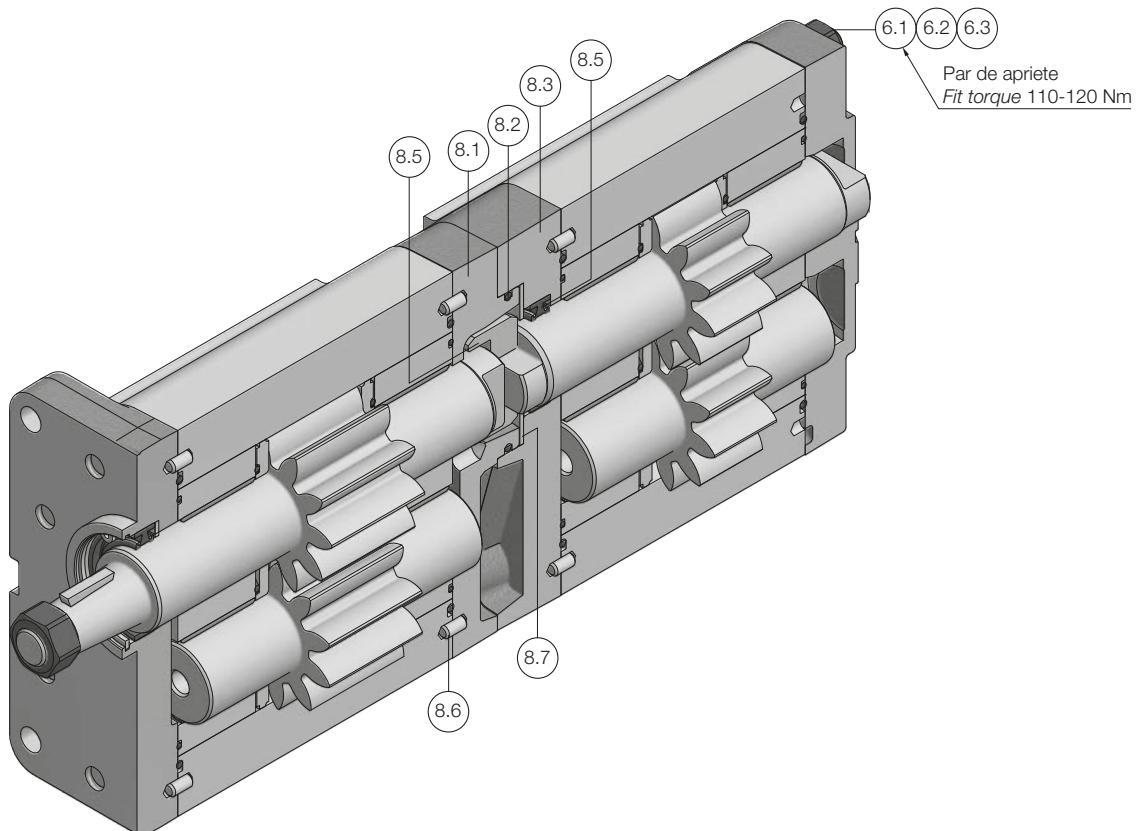


| Nº de kit Kit number | Descripción Description | Piezas Parts |
|-------------------------|---|-----------------|
| 1 | Kit eje motriz <i>Drive shaft kit</i> | |
| 2 | Eje conducido <i>Driven shaft</i> | |
| 3 | Kit juntas <i>Seals kit</i> | |
| 4 | Kit tapa delantera <i>Front flange kit</i> | |

| Nº de kit Kit number | Descripción Description | Piezas Parts |
|-------------------------|--|-----------------|
| 5 | Tapa posterior <i>Back cover</i> | |
| 6 | Kit tornillos fijación <i>Fixing screws kit</i> | |
| 7 | Kit cojinetes apoyo <i>Bearing assemblies kit</i> | |

NOTA: Consultar las referencias disponibles con el departamento comercial.

NOTE: For available references contact the sales department.

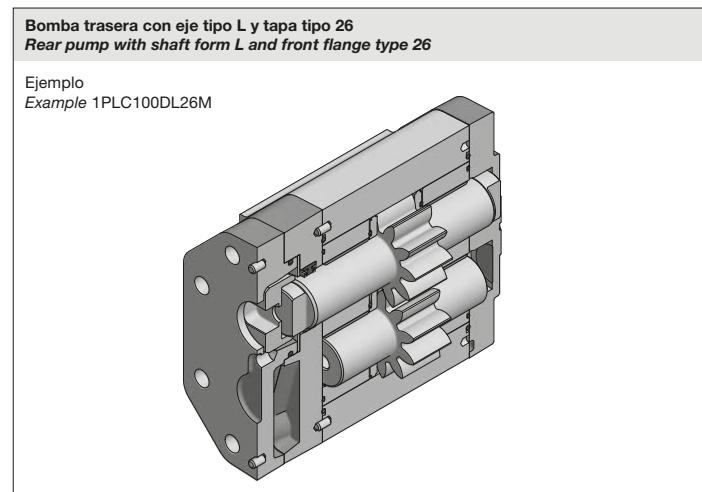
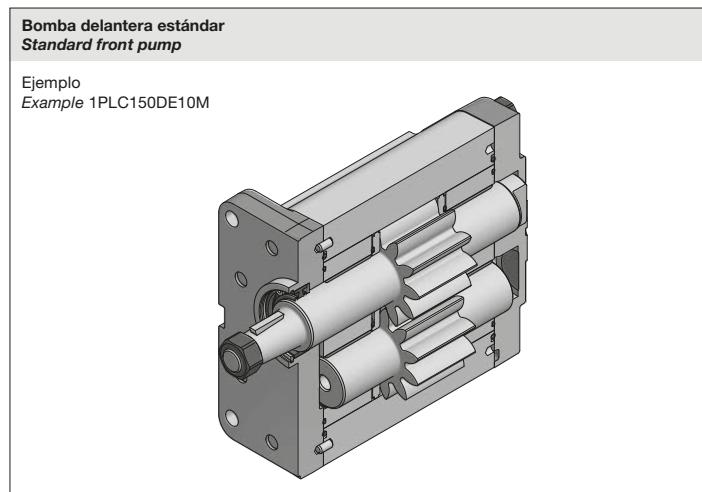


| Nº de kit <i>Kit number</i> | Descripción <i>Description</i> | Piezas <i>Parts</i> |
|--------------------------------|--|------------------------|
| 6 | Kit tornillos fijación <i>Fixing screws kit</i> | |

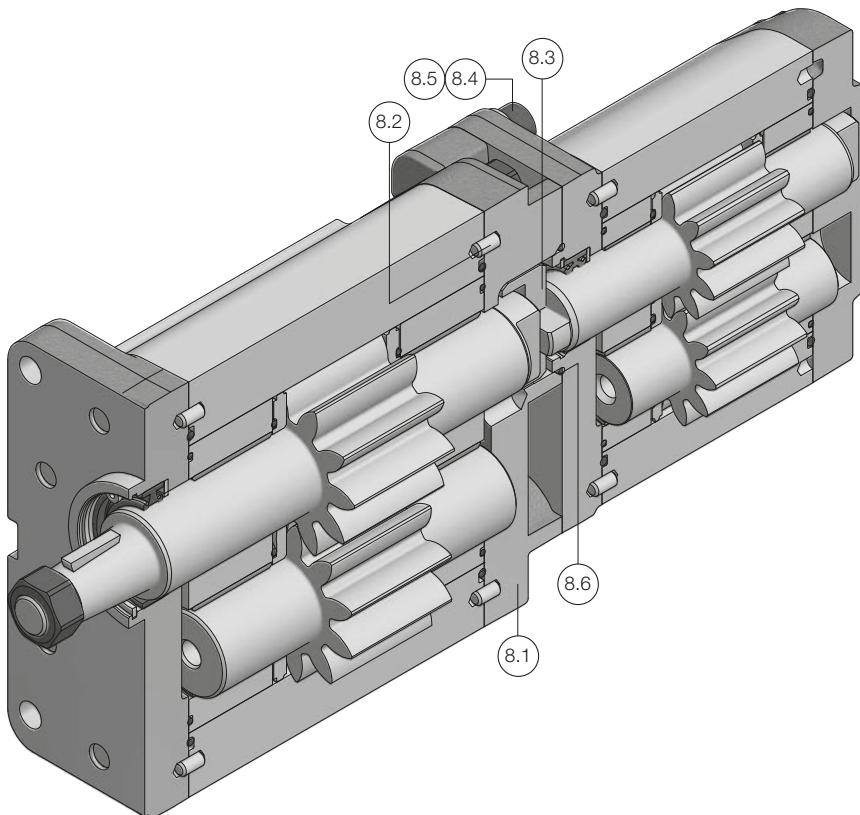
| Nº de kit <i>Kit number</i> | Descripción <i>Description</i> | Piezas <i>Parts</i> |
|--------------------------------|--|------------------------|
| 8 | Kit tapas intermedias <i>Intermediate flanges kit</i> | |

NOTA: Se puede crear una bomba doble PLJ uniendo una bomba de referencia estándar y una bomba estándar con eje tipo L y tapa frontal tipo 26. Se ofrece el kit de tapas intermedias y el kit del eje tipo L para poder transformar la bomba.

NOTE: A PLJ double pump can be assembled from a pump with standard reference and a pump with shaft form L and front flange type 26. The intermediate flanges kit and the L shaft kit are offered in order to transform the pump.



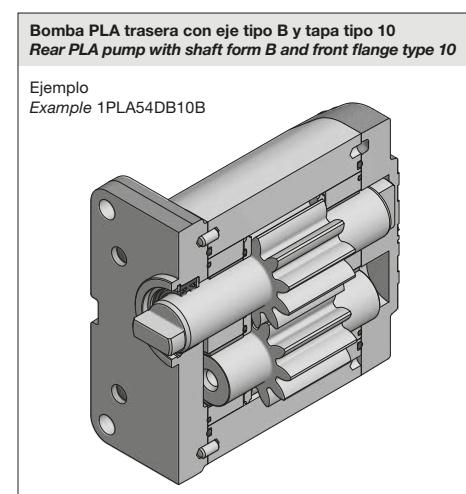
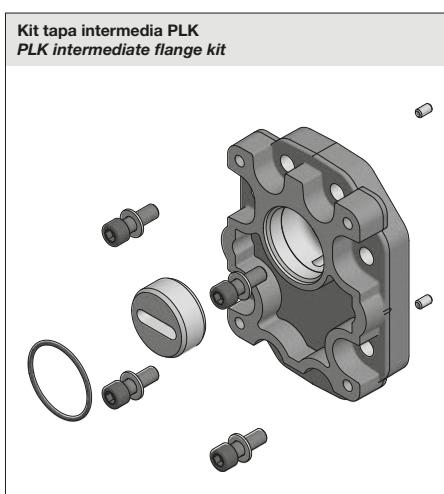
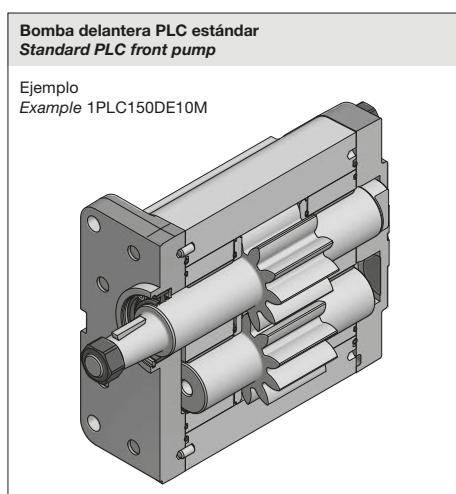
NOTA: Consultar las referencias disponibles con el departamento comercial. / **NOTE:** For available references contact the sales department.



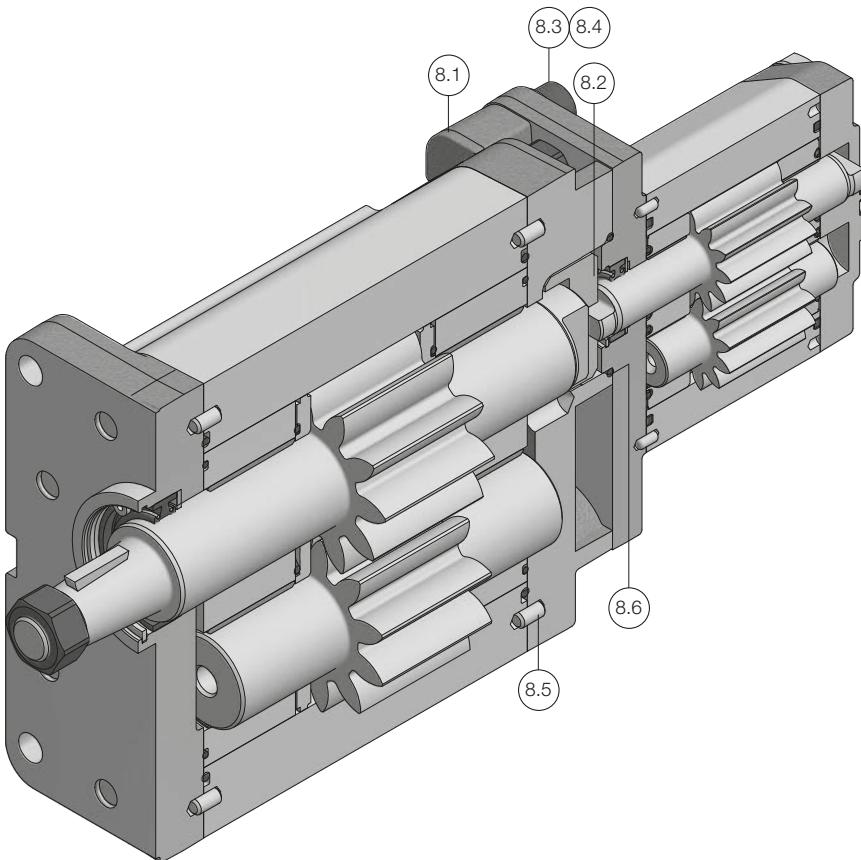
| Nº de kit <i>Kit number</i> | Descripción <i>Description</i> | Piezas <i>Parts</i> |
|--------------------------------|--|------------------------|
| 8 | Kit tapas intermedias <i>Intermediate flanges kit</i> | |

NOTA: Se puede crear una bomba doble PLK uniendo una bomba PLC estándar, un kit de tapa intermedia y una bomba PLA estándar con eje tipo B y tapa frontal tipo 10.

NOTE: A PLK double pump can be assembled from a standard PLC pump, an intermediate flange kit and a standard PLA pump with shaft form B and front flange type 10.



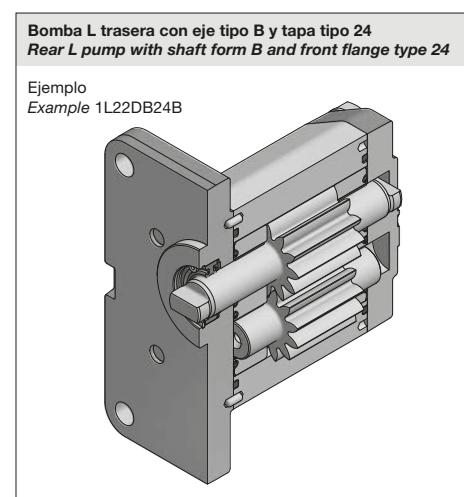
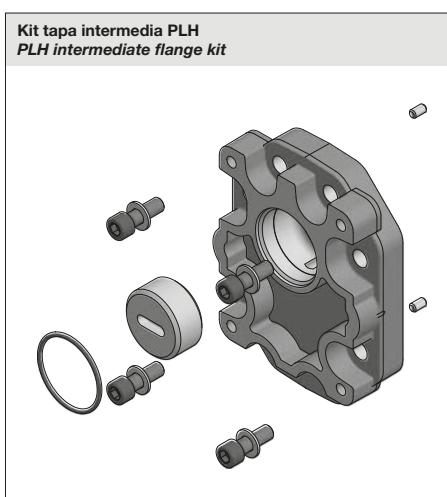
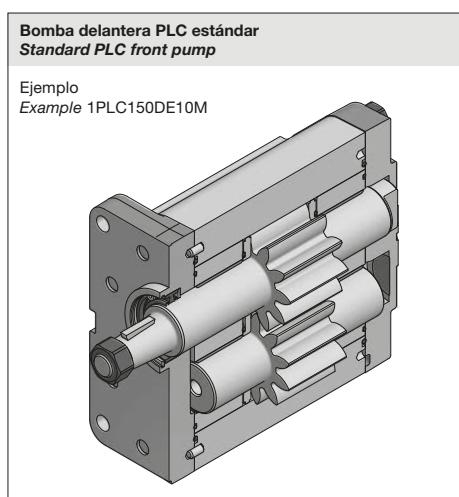
NOTA: Consultar las referencias disponibles con el departamento comercial. / **NOTE:** For available references contact the sales department.



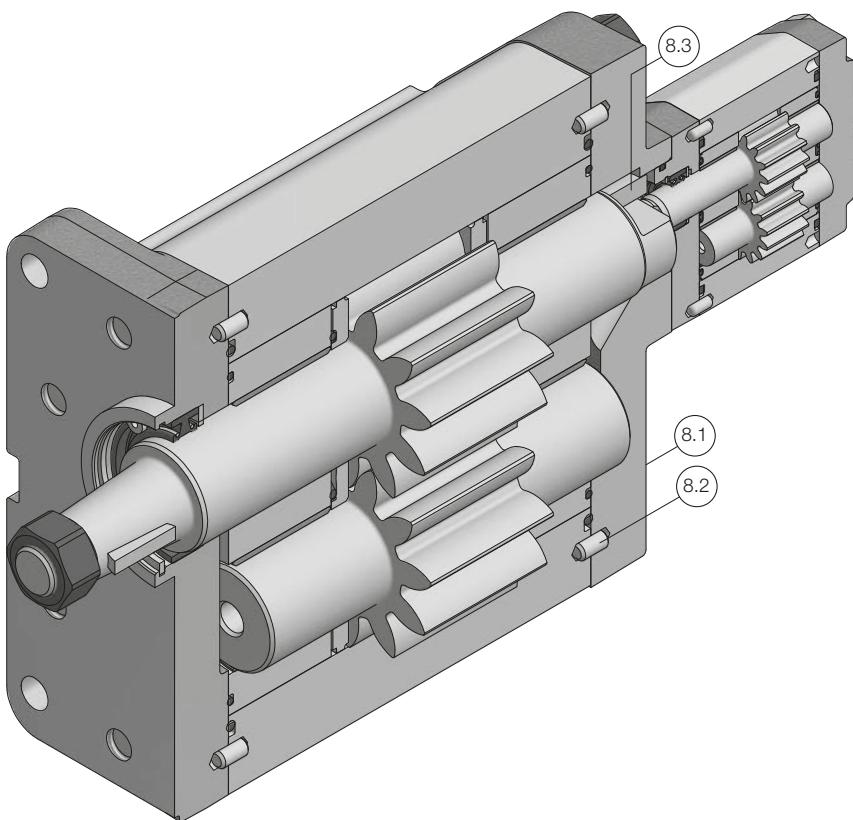
| Nº de kit <i>Kit number</i> | Descripción <i>Description</i> | Piezas <i>Parts</i> |
|--------------------------------|---|------------------------|
| 8 | Kit tapa intermedia <i>Intermediate flange kit</i> | |

NOTA: Se puede crear una bomba doble PLH uniendo una bomba PLC estándar, un kit de tapa intermedia y una bomba L estándar con eje tipo B y tapa frontal tipo 24.

NOTE: A PLH double pump can be assembled from a standard PLC pump, an intermediate flange kit and a standard L pump with shaft form B and front flange type 24.



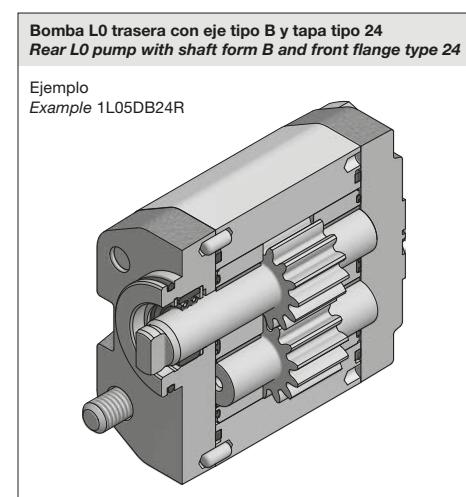
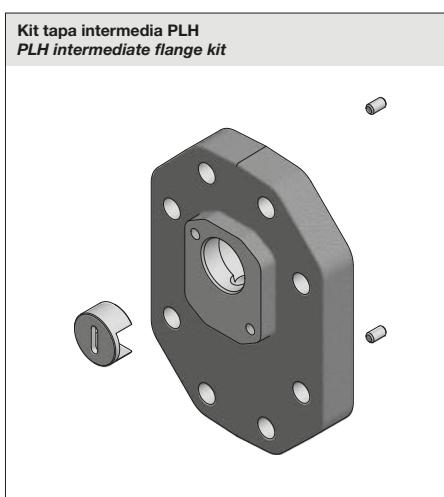
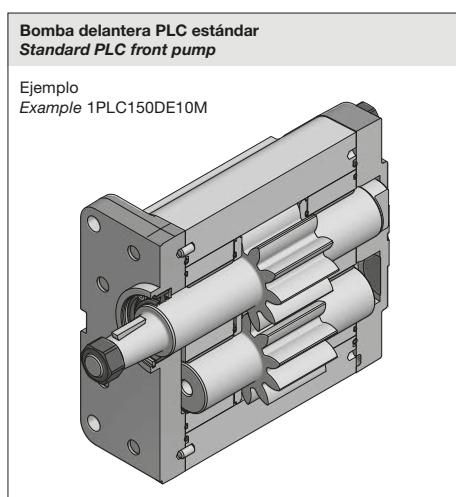
NOTA: Consultar las referencias disponibles con el departamento comercial. / **NOTE:** For available references contact the sales department.



| Nº de kit <i>Kit number</i> | Descripción <i>Description</i> | Piezas <i>Parts</i> |
|--------------------------------|---|------------------------|
| 8 | Kit tapa intermedia <i>Intermediate flange kit</i> | |

NOTA: Se puede crear una bomba doble PLZ uniendo una bomba PLC estándar, un kit de tapa intermedia y una bomba L0 estándar con eje tipo B y tapa frontal tipo 24 (tapa tipo 22 + tornillos de fijación bomba posterior).

NOTE: A PLZ double pump can be assembled from a standard PLC pump, an intermediate flange kit and a standard L0 pump with shaft form B and front flange type 24 (front flange type 22 + rear pump fixing screws).



NOTA: Consultar las referencias disponibles con el departamento comercial. / **NOTE:** For available references contact the sales department.

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