

**PLA**  
*BOMBAS DE ENGRANAJES*  
*GEAR PUMPS*



**Roquet**  
*making moves*

|                                                                                                                                             |    |
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**HISTORIA** Más de medio siglo de trayectoria especializada en oleodinámica. 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, contruidos 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.

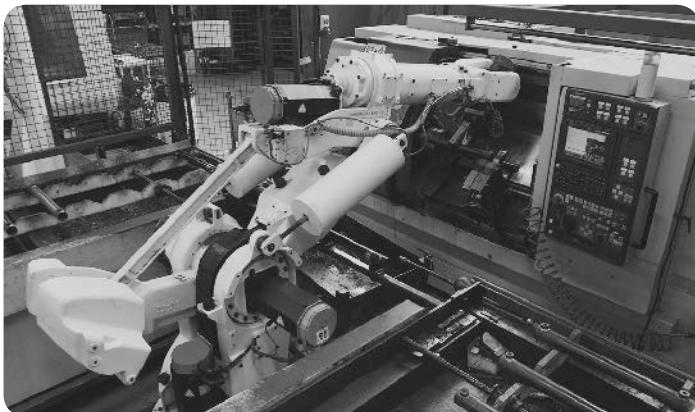
**CAPACIDAD** 400 profesionales en plantilla. Cinco plantas de producción con una superficie cubierta de 40.000 m<sup>2</sup>. Producción actual: 180.000 bombas, 300.000 cuerpos de distribuidor y 500.000 cilindros. Una red comercial de distribución extendida por más de 35 países de los 5 continentes.

**HISTORY** Over fifty years experience in fluid power. Supplier to international manufactures 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 40.000m<sup>2</sup> 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 cuadruples, 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.**

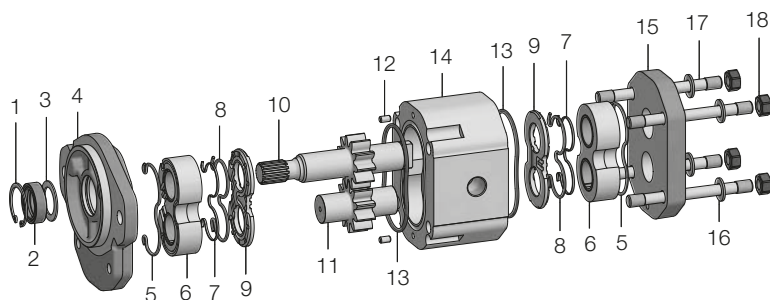
This Catalogue shows the product in the most standard configuration; customized or special designs are also available, please contact to ROQUETHYDRAULICS, S.L.

The specifications and data in this catalogue are not open to any interpretation, please contact with ROQUETHYDRAULICS, S.L. in case of doubt.

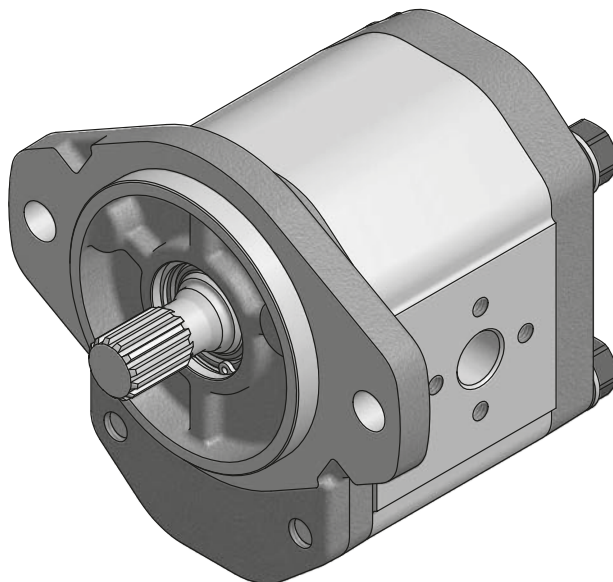
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ROQUETHYDRAULICS, S.L. is not responsible for any damage caused by an incorrect use of the product.

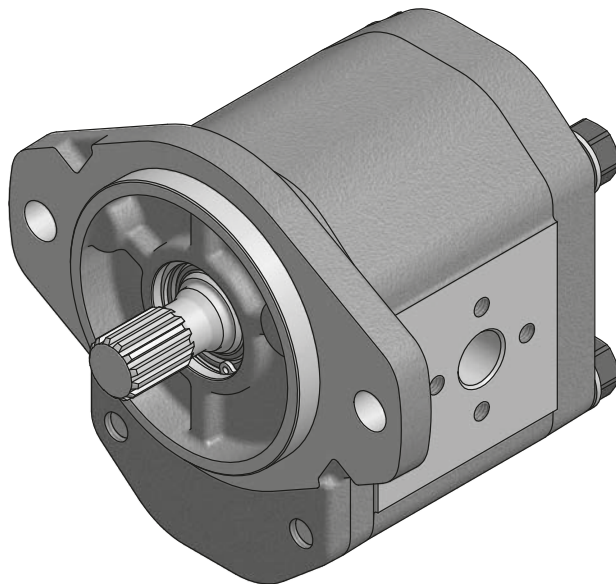
### Partes de una bomba / Pump parts



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



|                                                                              |                                          |                                  |              |              |               |               |               |               |
|------------------------------------------------------------------------------|------------------------------------------|----------------------------------|--------------|--------------|---------------|---------------|---------------|---------------|
| <b>Caudal bomba</b><br><i>Pump flow rate</i>                                 | L/min. 1500 R.P.M.<br>(US. GPM 1500 RPM) | 27<br>(7,1)                      | 36<br>(9,5)  | 45<br>(11,9) | 54<br>(14,3)  | 66<br>(17,4)  | 75<br>(19,8)  | 84<br>(22,2)  |
| <b>Cilindrada</b><br><i>Displacement</i>                                     | cm³/v - cc/rev<br>(in³/rev)              | 18<br>(1,1)                      | 24<br>(1,46) | 30<br>(1,83) | 36<br>(2,2)   | 44<br>(2,69)  | 50<br>(3,05)  | 56<br>(3,42)  |
| <b>Presión máx. continua en</b><br><i>Cont. max. pressure</i>                | bar<br>(PSI)                             | 250<br>(3625)                    |              |              | 225<br>(3265) | 200<br>(2900) | 185<br>(2685) | 175<br>(2540) |
| <b>Presión máx. inter 5 seg. max.</b><br><i>Intermittent max. pressure</i>   | bar<br>(PSI)                             | 275<br>(3990)                    |              |              | 250<br>(3625) | 225<br>(3265) | 210<br>(3045) | 200<br>(2900) |
| <b>R.P.M. a presión continua</b><br><i>R.P.M. at cont. pressure</i>          |                                          | 2500                             |              |              | 2300          |               | 2200          |               |
| <b>R.P.M. máximas</b><br><i>Max. R.P.M.</i>                                  |                                          | 3000                             |              |              | 2800          |               | 2600          |               |
| <b>Mínimas R.P.M. según presión</b><br><i>Min. R.P.M. at given pressures</i> | 100 bar<br>(1450 PSI)                    | 500                              |              |              |               |               |               |               |
|                                                                              | 175 bar<br>(2540 PSI)                    | 800                              |              |              | 700           |               | 600           |               |
|                                                                              | 250 bar<br>(3625 PSI)                    | 1500                             |              |              | 900           | -             | -             |               |
| <b>Aceite recomendado</b><br><i>Fluid to be used</i>                         |                                          | ISO 6743 tipo HM, HV ó HG        |              |              |               |               |               |               |
| <b>Viscosidad</b><br><i>Viscosity range</i>                                  |                                          | ISO 3448 cat. VG32-VG46          |              |              |               |               |               |               |
| <b>Grado de limpieza del aceite</b><br><i>Recommended fluid cleanliness</i>  |                                          | 19/16 s/. ISO 4406 ó RP70H       |              |              |               |               |               |               |
| <b>Temperatura de trabajo del aceite</b><br><i>Oil temperature</i>           |                                          | -20°C... +80°C<br>-4°F... +176°F |              |              |               |               |               |               |
| <b>Depresión máximo en aspiración</b><br><i>Max. suction depression</i>      |                                          | < 0,3 bar                        |              |              |               |               |               |               |



|                                                                              |                                          |                                  |              |              |               |               |               |               |
|------------------------------------------------------------------------------|------------------------------------------|----------------------------------|--------------|--------------|---------------|---------------|---------------|---------------|
| <b>Caudal bomba</b><br><i>Pump flow rate</i>                                 | L/min. 1500 R.P.M.<br>(US. GPM 1500 RPM) | 27<br>(7,1)                      | 36<br>(9,5)  | 45<br>(11,9) | 54<br>(14,3)  | 66<br>(17,4)  | 75<br>(19,8)  | 84<br>(22,2)  |
| <b>Cilindrada</b><br><i>Displacement</i>                                     | cm³/v - cc/rev<br>(in³/rev)              | 18<br>(1,1)                      | 24<br>(1,46) | 30<br>(1,83) | 36<br>(2,2)   | 44<br>(2,69)  | 50<br>(3,05)  | 56<br>(3,42)  |
| <b>Presión máx. continua en</b><br><i>Cont. max. pressure</i>                | bar<br>(PSI)                             | 300<br>(4350)                    |              |              | 275<br>(3990) | 250<br>(3625) | 230<br>(3335) | 215<br>(3120) |
| <b>Presión máx. inter 5 seg. max.</b><br><i>Intermittent max. pressure</i>   | bar<br>(PSI)                             | 325<br>(4715)                    |              |              | 300<br>(4350) | 275<br>(3990) | 255<br>(3700) | 240<br>(3480) |
| <b>R.P.M. a presión continua</b><br><i>R.P.M. at cont. pressure</i>          |                                          | 2500                             |              |              | 2300          |               | 2200          |               |
| <b>R.P.M. máximas</b><br><i>Max. R.P.M.</i>                                  |                                          | 3000                             |              |              | 2800          |               | 2600          |               |
| <b>Mínimas R.P.M. según presión</b><br><i>Min. R.P.M. at given pressures</i> | 100 bar<br>(1450 PSI)                    | 500                              |              |              |               |               |               |               |
|                                                                              | 175 bar<br>(2540 PSI)                    | 800                              |              |              | 700           |               | 600           |               |
|                                                                              | 250 bar<br>(3625 PSI)                    | 1500                             |              |              | 900           | -             | -             |               |
| <b>Aceite recomendado</b><br><i>Fluid to be used</i>                         |                                          | ISO 6743 tipo HM, HV ó HG        |              |              |               |               |               |               |
| <b>Viscosidad</b><br><i>Viscosity range</i>                                  |                                          | ISO 3448 cat. VG32-VG46          |              |              |               |               |               |               |
| <b>Grado de limpieza del aceite</b><br><i>Recommended fluid cleanliness</i>  |                                          | 19/16 s/. ISO 4406 ó RP70H       |              |              |               |               |               |               |
| <b>Temperatura de trabajo del aceite</b><br><i>Oil temperature</i>           |                                          | -20°C... +80°C<br>-4°F... +176°F |              |              |               |               |               |               |
| <b>Depresión máximo en aspiración</b><br><i>Max. suction depression</i>      |                                          | < 0,3 bar                        |              |              |               |               |               |               |

### CONEXIONES TIPO R

ROQUETHYDRAULICS, S.L. recomienda utilizar implantaciones roscadas cilíndricas: con cierre por arista de estanqueidad, junta plana o junta tórica. (Ver normas: DIN 3852, ISO1179, ISO 9974 y ISO 6149). No se recomienda utilizar otras implantaciones tipo cónicas, etc. A continuación se detallan los pares de apriete para implantaciones roscadas cilíndricas.

### CONNECTION TYPES R

ROQUETHYDRAULICS, S.L. recommends to use threaded fittings with parallel threads: with sealing face, with flat seal or with o-ring seal (Standards: DIN 3852, ISO1179, ISO 9974 y ISO6149). It is not recommended to use conic type fittings, etc. Guide for tightening torques for threaded fittings with parallel threads.

### PAR DE APRIETE / ASSEMBLY TORQUE

| Rosca (ISO 228-1)<br>Thread Size (ISO 228-1) | Par de apriete min. (Nm)<br>Assembly Torque min. (Nm) | Par de apriete máx. (Nm)<br>Assembly Torque max. (Nm) |
|----------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| 1/8" G                                       | 20                                                    | 25                                                    |
| 1/4" G                                       | 50                                                    | 55                                                    |
| 3/8" G                                       | 80                                                    | 90                                                    |
| 1/2" G                                       | 100                                                   | 100                                                   |
| 3/4" G                                       | 200                                                   | 220                                                   |
| 1" G                                         | 380                                                   | 420                                                   |

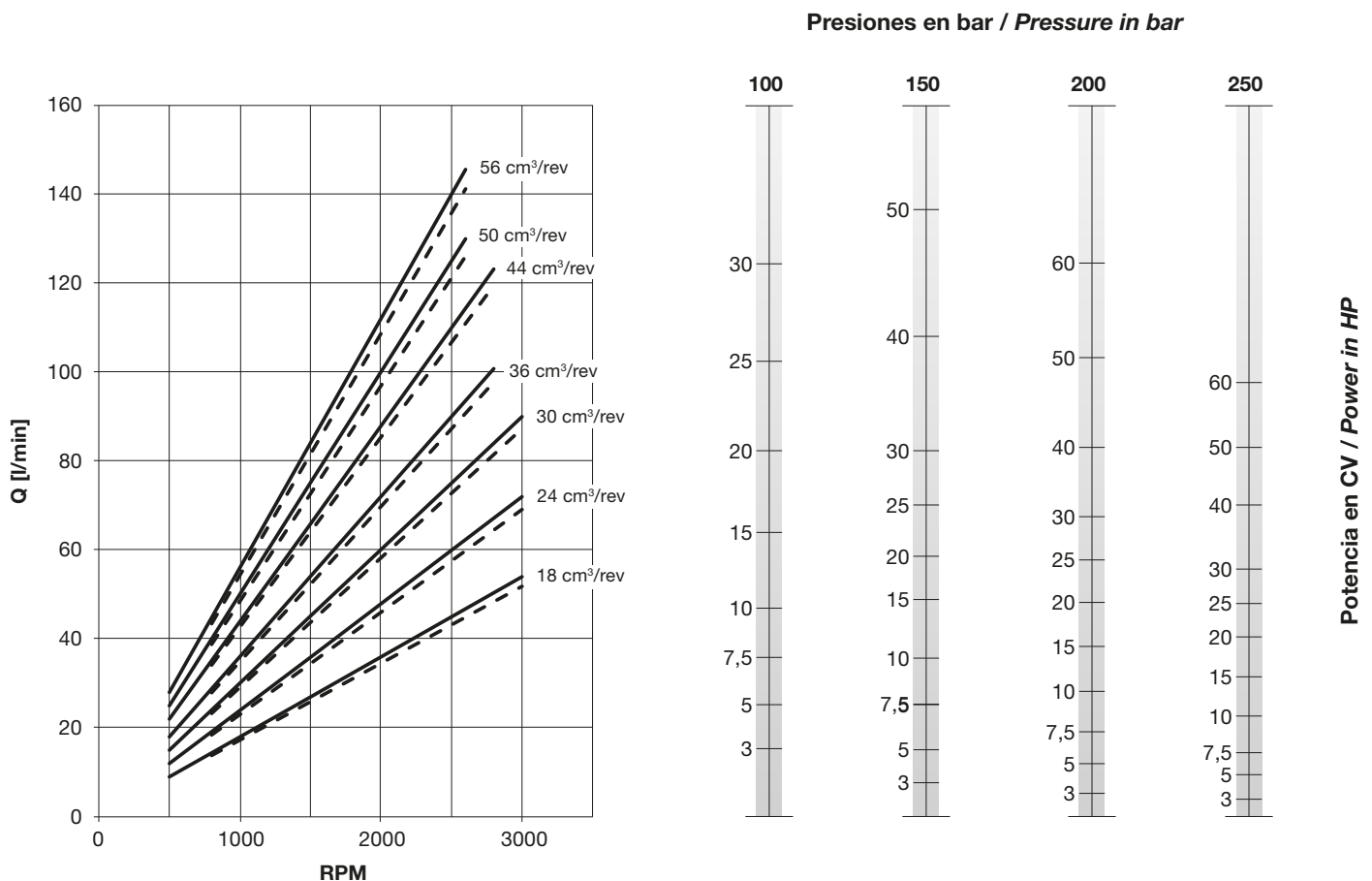
### ACCIONAMIENTO DE LAS BOMBAS

Deben utilizarse acoplamiento 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 útil.

### 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



**NOTA:** Estos diagramas han sido obtenidos con un aceite de calidad ISO VG 46 y una temperatura de 50° C.

**NOTE:** The values shown in the above diagrams have been obtained using ISO VG 46 oil at 50° C.

|                         |  |   |     |    |   |   |    |   |   |   |    |      |      |               |
|-------------------------|--|---|-----|----|---|---|----|---|---|---|----|------|------|---------------|
| Sistema de codificación |  | 1 | PLA | 36 | D | E | 10 | R | / | V | 42 | T*** | -*** | Coding system |
|-------------------------|--|---|-----|----|---|---|----|---|---|---|----|------|------|---------------|

| Tipo / Type |                                                                                         | Código / Code |
|-------------|-----------------------------------------------------------------------------------------|---------------|
| 1           | Sin polea / Without pulley                                                              |               |
| 2           | Con polea / With pulley                                                                 |               |
| 6           | Bomba con eje estriado para montaje en ZF / Pump with spline shaft for mounting onto ZF |               |

| Modelo / Model |                                                     |
|----------------|-----------------------------------------------------|
| PLA            | Simple – Cuerpo aluminio / Simple – Aluminium body  |
| PLAN           | Simple – Cuerpo fundición / Simple – Cast iron body |
| PLL            | Múltiple / Multiple PLA+PLA                         |
| PLLN           | Múltiple / Multiple PLAN+PLAN                       |
| PLD            | Múltiple / Multiple PLA+L                           |
| PLDN           | Múltiple / Multiple PLAN+L                          |
| PLT            | Múltiple / Multiple PLA+L0                          |
| PLTN           | Múltiple / Multiple PLAN+L0                         |

|                                                                        |  |
|------------------------------------------------------------------------|--|
| Caudal bomba a 1500 rpm y 0 bar / Pump flow rate at 1500 rpm and 0 bar |  |
| Ver hoja técnica / See technical data                                  |  |

| Sentido de giro / Rotation direction |                              |
|--------------------------------------|------------------------------|
| D                                    | Derecha / Clockwise          |
| I                                    | Izquierda / Counterclockwise |
| R                                    | Reversible / Reversible      |

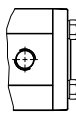
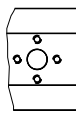
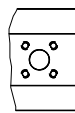
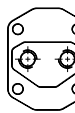
  

| Forma eje motriz / Drive shaft form |  |
|-------------------------------------|--|
| A-B-C-D-E-G-H-I-J-X-W               |  |

| Tipo polea / Pulley type |  |
|--------------------------|--|
| P-S-T                    |  |

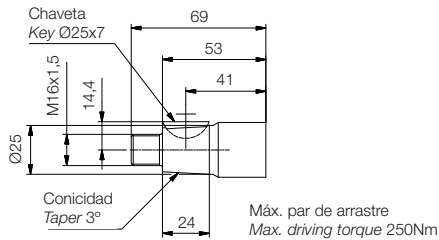
| Variantes con válvulas / Alternatives with valves                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Válvula limitadora para baja presión / Low pressure relief valve                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                       |
| VBPT**                                                                                                                                                                                                                                                                                                                              | <p>Los caracteres ** se deben sustituir por la presión de taraje (2 dígitos). Ver presión mínima de taraje (página 27).<br/>The signs ** have to be replaced by the set pressure (2 numbers). See minimum set pressure curve (page 27).<br/>Ejemplo / Example: 1PLA36DE10R/VBPT12</p> |
| Válvula limitadora / Relief valve                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                       |
| Modelo precintable y taraje estándar / Tamper-proof sealable model and standard set pressure                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                     | Rango de taraje / Pressure range                                                                                                                                                                                                                                                      |
| V11                                                                                                                                                                                                                                                                                                                                 | Tarada a / Set at 80 bar (5-80 bar)                                                                                                                                                                                                                                                   |
| V12                                                                                                                                                                                                                                                                                                                                 | Tarada a / Set at 160 bar (85-175 bar)                                                                                                                                                                                                                                                |
| V13                                                                                                                                                                                                                                                                                                                                 | Tarada a / Set at 200 bar (180-250 bar)                                                                                                                                                                                                                                               |
| Modelo con precinto y taraje específico / Tamper-proof sealed model and specific set pressure                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                     | Rango de taraje / Pressure range                                                                                                                                                                                                                                                      |
| V41T***                                                                                                                                                                                                                                                                                                                             | 5-80 bar                                                                                                                                                                                                                                                                              |
| V42T***                                                                                                                                                                                                                                                                                                                             | 85-175 bar                                                                                                                                                                                                                                                                            |
| V43T***                                                                                                                                                                                                                                                                                                                             | 180-250 bar                                                                                                                                                                                                                                                                           |
| <p>Los caracteres *** se deben sustituir por la presión de taraje (3 dígitos). Ver presión mínima de taraje (página 27).<br/>The signs *** have to be replaced by the set pressure (3 numbers). See minimum set pressure curve (page 27).<br/>Ejemplo / Example 1: 1PLA66DE10R/V41T060<br/>Ejemplo / Example 2: 1PLA45DE10R/V12</p> |                                                                                                                                                                                                                                                                                       |
| Formas conexión tomas / Port connection forms                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                  |                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                |                                                                                                                                                                                                  |
| R                                                                                                                                                                                                                                                                                                                                   | B                                                                                                                                                                                                                                                                                     |
| F                                                                                                                                                                                                                                                                                                                                   | T                                                                                                                                                                                                                                                                                     |
| Tipo de tapa / Fixing flange                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                       |
| 01-09-10-19-23-50                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                       |

### Tipos de eje motriz disponibles / Available drive shaft forms

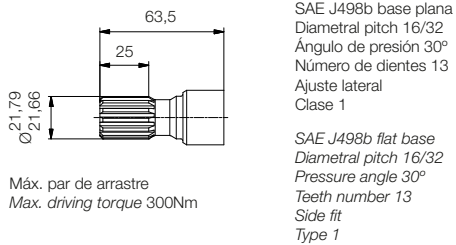
**NOTA:** Las longitudes de los ejes se dan respecto la cara A de las tapas (ver página 10).

**NOTE:** The lengths of the shafts are given from the side A of the covers (see page 10).

#### Eje forma A / Shaft form A

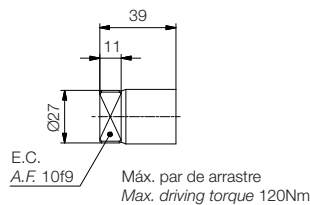


#### Eje forma G / Shaft form G

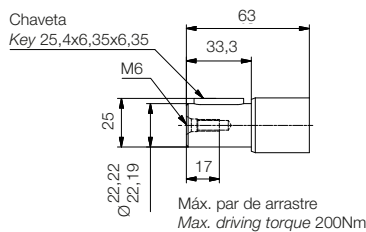


Estriado SAE B / SAE B Spline

#### Eje forma B / Shaft form B

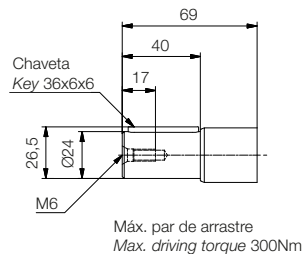


#### Eje forma H / Shaft form H

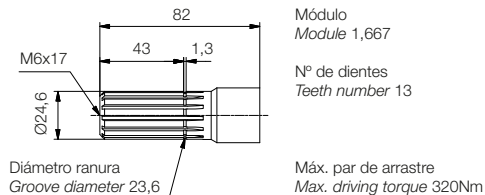


Cilíndrico SAE B / SAE B Straight

#### Eje forma C / Shaft form C

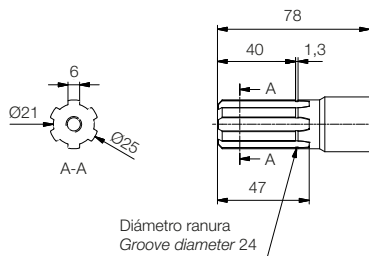


#### Eje forma I / Shaft form I

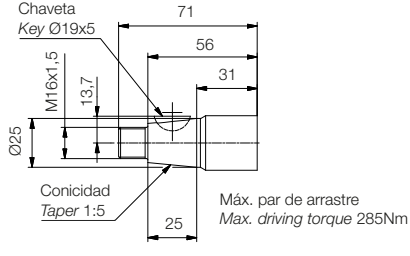


Estriado NF E22-141 / NF E22-141 Spline

#### Eje forma D / Shaft form D

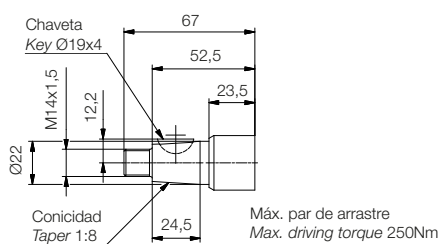


#### Eje forma J / Shaft form J



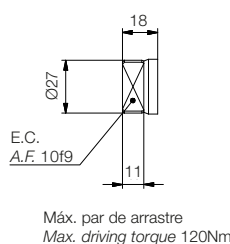
Cónico alemán / German tapered

#### Eje forma E / Shaft form E



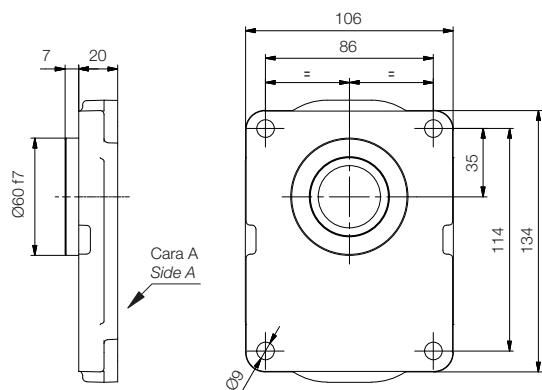
Cónico europeo / European tapered

#### Eje forma W / Shaft form W

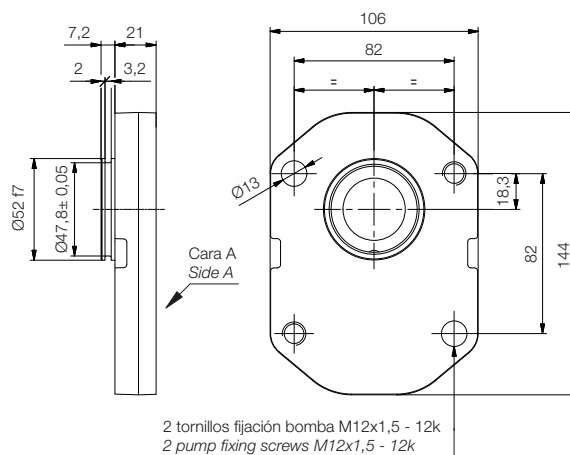


### Tipos de tapas frontales disponibles / Available front flanges types

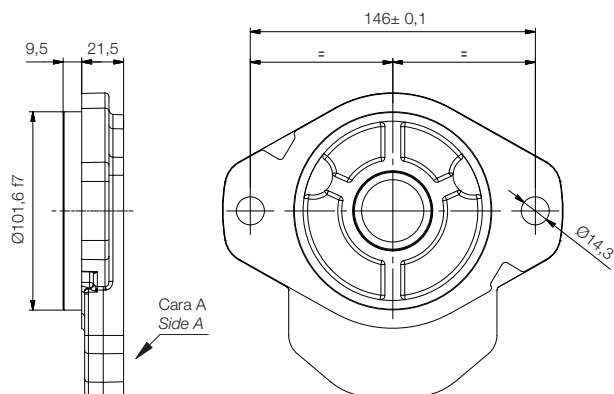
Tapa tipo 01 / Front flange type 01



Tapa tipo 19 / Front flange type 19

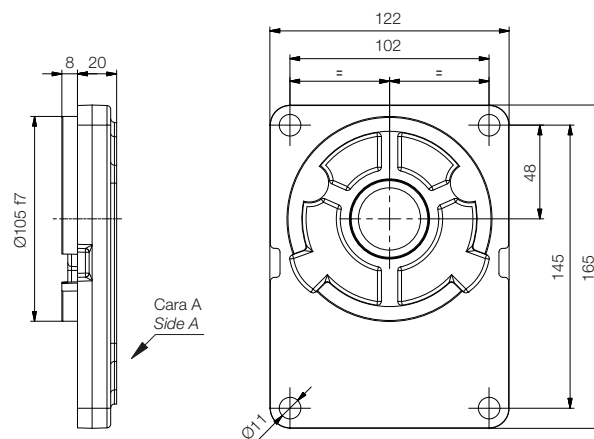


Tapa tipo 09 / Front flange type 09



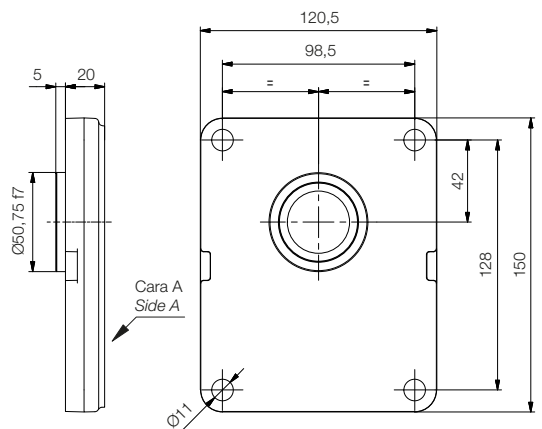
SAE B 2 tornillos / SAE B 2 bolts

Tapa tipo 23 / Front flange type 23



Alemana / German

Tapa tipo 10 / Front flange type 10



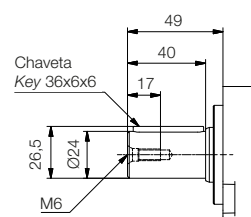
Europea / European

**NOTA:** la longitud útil 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.

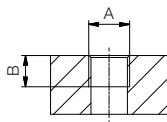
**EJEMPLO:** combinación de un eje tipo C con una tapa tipo 10.

**EXAMPLE:** combination of a C type shaft with a 10 type front flange.

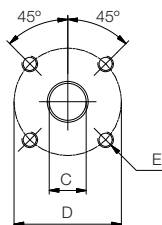


### Formas de conexión de tomas disponibles / Available port connection forms

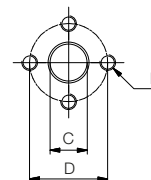
Toma forma R / Port form R



Toma forma F / Port form F



Toma forma B / Port form B



### 1 SENTIDO DE ROTACION / 1 ROTATION DIRECTION

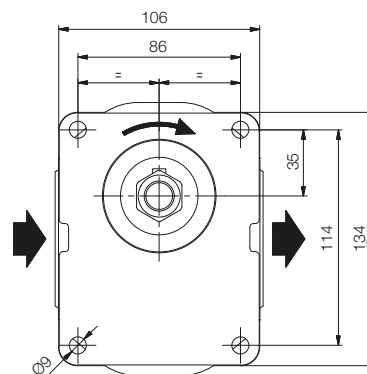
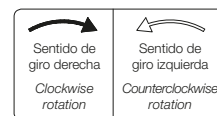
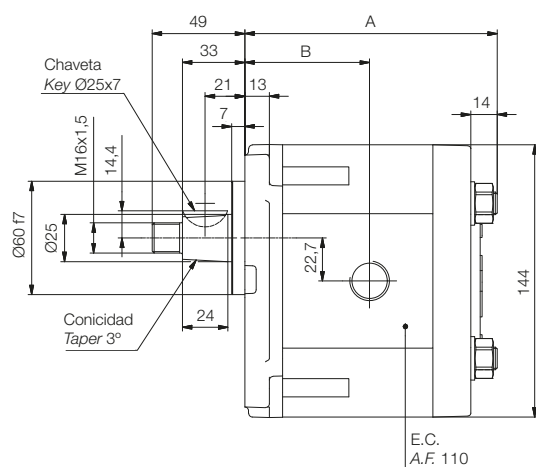
| Tipo de toma / Port type              |    |                      | Tipo / Type R |      | Tipo / Type F |    |       | Tipo / Type B |    |        |
|---------------------------------------|----|----------------------|---------------|------|---------------|----|-------|---------------|----|--------|
| Dimensiones / Dimensions              |    |                      | A             | B    | C             | D  | E     | C             | D  | E      |
| Cilindrada bomba<br>Pump displacement | 18 | Aspiración / Suction | 3/4" BSP      | 18   | 26            | 55 | M8x13 | 19            | 40 | M8x13  |
|                                       |    | Presión / Pressure   | 1/2" BSP      | 16   | 19            | 55 | M8x13 | 19            | 40 | M8x13  |
|                                       | 24 | Aspiración / Suction | 3/4" BSP      | 18   | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       |    | Presión / Pressure   | 1/2" BSP      | 16   | 19            | 55 | M8x13 | 19            | 40 | M8x13  |
|                                       | 30 | Aspiración / Suction | 3/4" BSP      | 18   | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       |    | Presión / Pressure   | 1/2" BSP      | 16   | 19            | 55 | M8x13 | 19            | 40 | M8x13  |
|                                       | 36 | Aspiración / Suction | 3/4" BSP      | 18   | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       |    | Presión / Pressure   | 1/2" BSP      | 16   | 19            | 55 | M8x13 | 19            | 40 | M8x13  |
|                                       | 44 | Aspiración / Suction | 1" BSP        | 18,5 | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       |    | Presión / Pressure   | 3/4" BSP      | 18   | 19            | 55 | M8x13 | 19            | 40 | M8x13  |
|                                       | 50 | Aspiración / Suction | 1" BSP        | 18,5 | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       |    | Presión / Pressure   | 3/4" BSP      | 18   | 19            | 55 | M8x13 | 19            | 40 | M8x13  |
|                                       | 56 | Aspiración / Suction | 1" BSP        | 18,5 | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       |    | Presión / Pressure   | 3/4" BSP      | 18   | 19            | 55 | M8x13 | 19            | 40 | M8x13  |

### REVERSIBLE / BIDIRECTIONAL

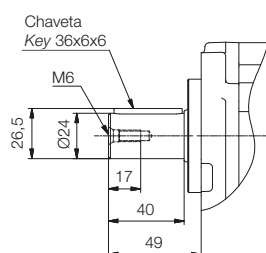
| Tipo de toma / Port type              |    |                                              | Tipo / Type R |      | Tipo / Type F |    |       | Tipo / Type B |    |        |
|---------------------------------------|----|----------------------------------------------|---------------|------|---------------|----|-------|---------------|----|--------|
| Dimensiones / Dimensions              |    |                                              | A             | B    | C             | D  | E     | C             | D  | E      |
| Cilindrada bomba<br>Pump displacement | 18 | Aspiración y presión<br>Suction and Pressure | 3/4" BSP      | 18   | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       | 24 | Aspiración y presión<br>Suction and Pressure | 3/4" BSP      | 18   | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       | 30 | Aspiración y presión<br>Suction and Pressure | 3/4" BSP      | 18   | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       | 36 | Aspiración y presión<br>Suction and Pressure | 3/4" BSP      | 18   | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       | 44 | Aspiración y presión<br>Suction and Pressure | 1" BSP        | 18,5 | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       | 50 | Aspiración y presión<br>Suction and Pressure | 1" BSP        | 18,5 | 26            | 55 | M8x13 | 26            | 51 | M10x13 |
|                                       | 56 | Aspiración y presión<br>Suction and Pressure | 1" BSP        | 18,5 | 26            | 55 | M8x13 | 26            | 51 | M10x13 |

### Tapa tipo 01 / Front flange type 01

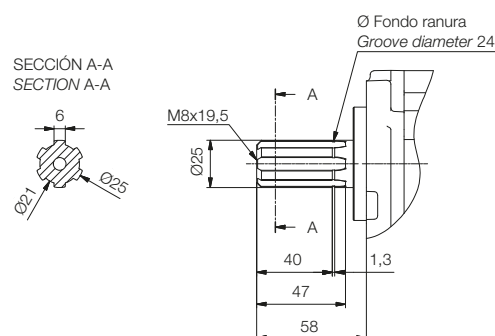
#### Eje forma A / Shaft form A



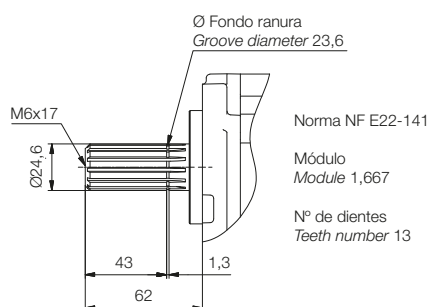
#### Eje forma C / Shaft form C



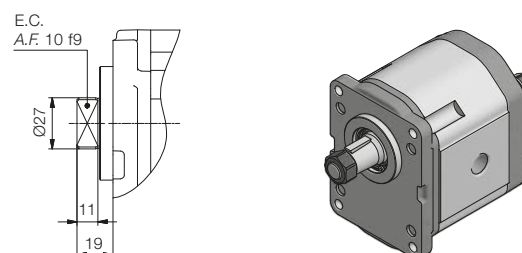
#### Eje forma D / Shaft form D



#### Eje forma I / Shaft form I



#### Eje forma B / Shaft form B



| Referencia<br>Reference | Cilindrada cm³/rev<br>Displacement cm³/rev | A     | B  | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|--------------------------------------------|-------|----|----------------------------------|------------------------------------|
| 1*27D▲01R               | 18                                         | 128,5 | 66 | 7,8                              | 10,7                               |
| 1*36D▲01R               | 24                                         | 133,5 |    | 8,1                              | 11,1                               |
| 1*45D▲01R               | 30                                         | 138,5 |    | 8,3                              | 11,5                               |
| 1*54D▲01R               | 36                                         | 143,5 |    | 8,6                              | 11,9                               |
| 1*66D▲01R               | 44                                         | 150,0 | 71 | 8,9                              | 12,5                               |
| 1*75D▲01R               | 50                                         | 154,5 |    | 9,2                              | 12,9                               |
| 1*84D▲01R               | 56                                         | 159,5 |    | 9,4                              | 13,3                               |

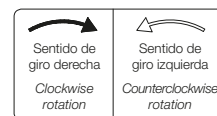
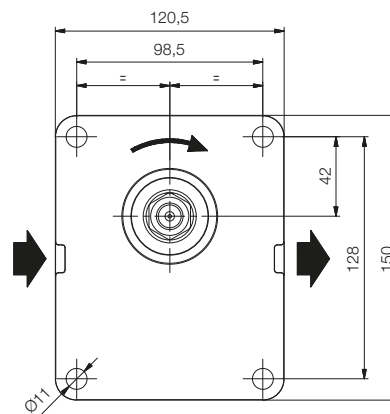
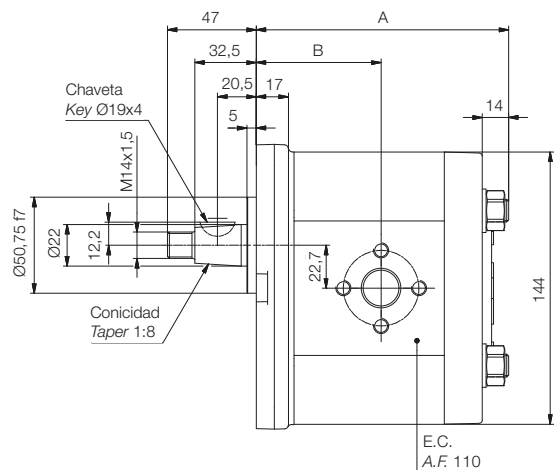
\* PLA Cuerpo de aluminio / Aluminium body. PLAN Cuerpo de fundición / Cast iron body. ▲ Forma de eje / Shaft form.

**NOTA:** Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 11.  
**NOTE:** For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 11.

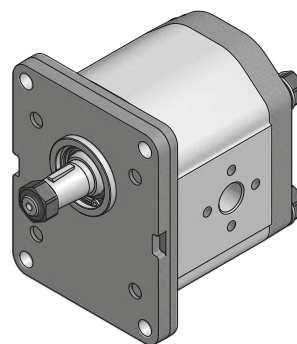
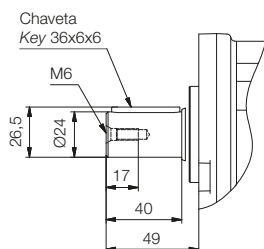
**Tapa tipo 10 / Front flange type 10**



**Eje forma E / Shaft form E**



**Eje forma C / Shaft form C**



| Referencia<br>Reference | Cilindrada cm³/rev<br>Displacement cm³/rev | A     | B  | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|--------------------------------------------|-------|----|----------------------------------|------------------------------------|
| 1*27D▲10B               | 18                                         | 128,5 | 58 | 8,1                              | 11,0                               |
| 1*36D▲10B               | 24                                         | 133,5 | 66 | 8,4                              | 11,4                               |
| 1*45D▲10B               | 30                                         | 138,5 | 71 | 8,6                              | 11,8                               |
| 1*54D▲10B               | 36                                         | 143,5 |    | 8,9                              | 12,3                               |
| 1*66D▲10B               | 44                                         | 150,0 |    | 9,2                              | 12,8                               |
| 1*75D▲10B               | 50                                         | 154,5 |    | 9,5                              | 13,2                               |
| 1*84D▲10B               | 56                                         | 159,5 |    | 9,8                              | 13,6                               |

\* **PLA** Cuerpo de aluminio / *Aluminium body*. **PLAN** Cuerpo de fundición / *Cast iron body*. ▲ Forma de eje / *Shaft form*.

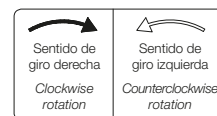
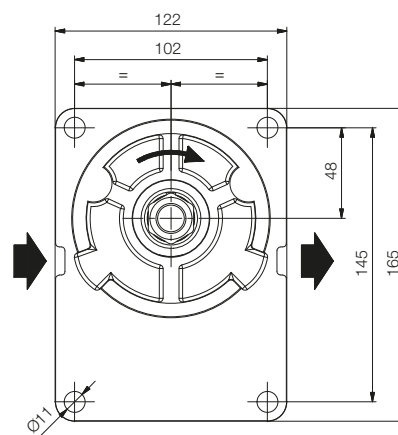
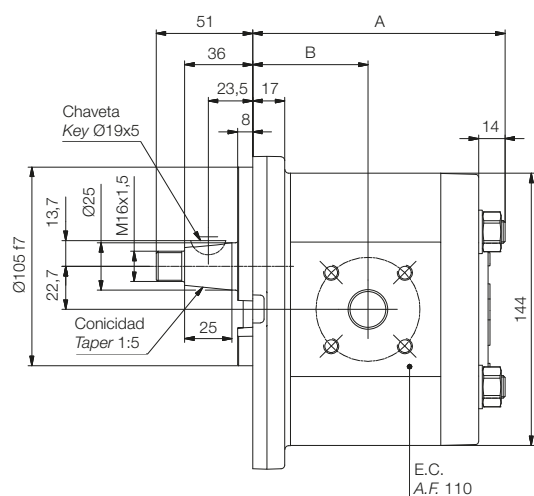
**NOTA:** Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 11.

**NOTE:** For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 11.

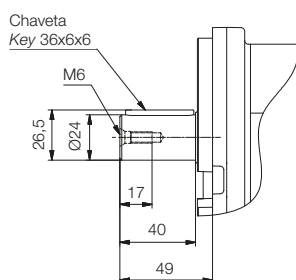
**Tapa tipo 23 / Front flange type 23**



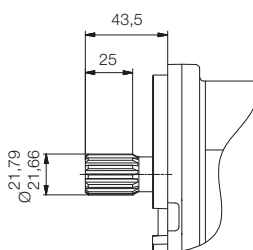
### Eje forma J / Shaft form J



**Eje forma C / Shaft form C**

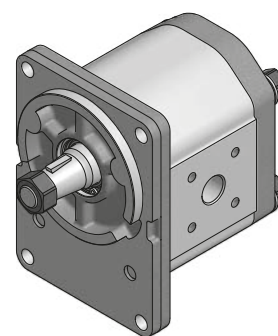


**Eje forma G / Shaft form G**



SAE J498b base plana  
Diametral pitch 16/32  
Ángulo de presión 30°  
Número de dientes 13  
Ajuste lateral  
Clase 1

SAE J498b flat base  
Diametral pitch 16/32  
Pressure angle 30°  
Teeth number 13  
Side fit  
Type 1



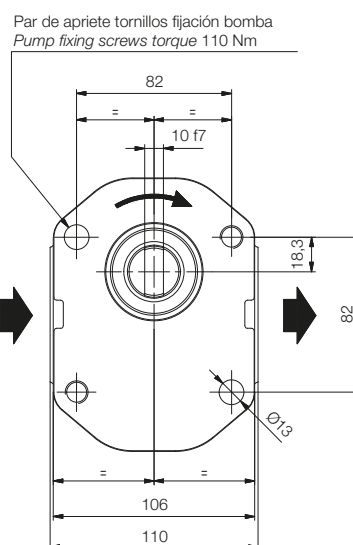
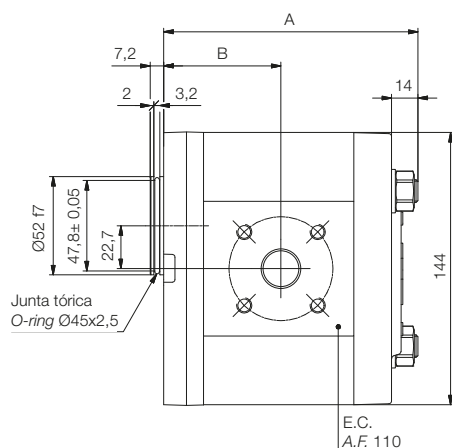
| Referencia<br>Reference | Cilindrada cm³/rev<br>Displacement cm³/rev | A     | B    | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|--------------------------------------------|-------|------|----------------------------------|------------------------------------|
| 1*27D▲23F               | 18                                         | 128,5 | 61   | 8,4                              | 11,3                               |
| 1*36D▲23F               | 24                                         | 133,5 |      | 8,7                              | 11,7                               |
| 1*45D▲23F               | 30                                         | 138,5 | 64,5 | 9,0                              | 12,1                               |
| 1*54D▲23F               | 36                                         | 143,5 | 66,5 | 9,2                              | 12,6                               |
| 1*66D▲23F               | 44                                         | 150,0 | 69,5 | 9,6                              | 13,2                               |
| 1*75D▲23F               | 50                                         | 154,5 | 73   | 9,8                              | 13,6                               |
| 1*84D▲23F               | 56                                         | 159,5 | 77   | 10,1                             | 13,9                               |

\* **PLA** Cuerpo de aluminio / *Aluminium body*. **PLAN** Cuerpo de fundición / *Cast iron body*. ▲ Forma de eje / *Shaft form*.

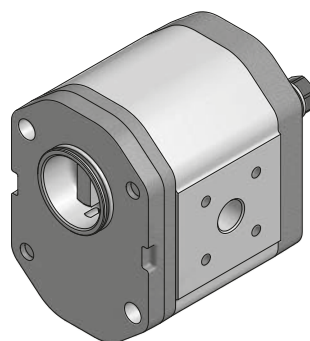
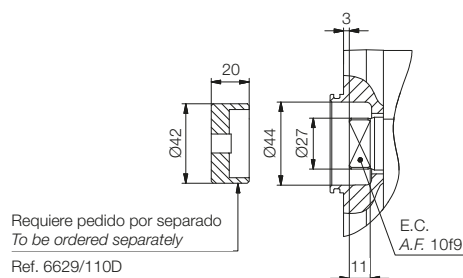
**NOTA:** Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 11.

**NOTE:** For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 11.

### Tapa tipo 19 / Front flange type 19



### Eje forma W / Shaft form W



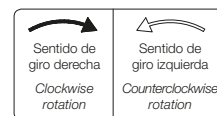
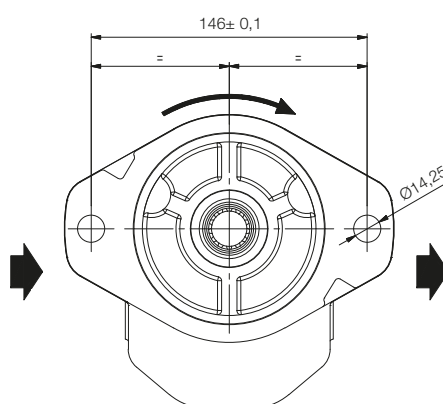
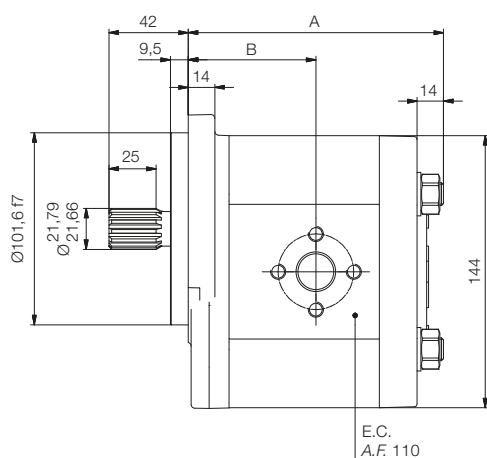
| Referencia<br>Reference | Cilindrada cm <sup>3</sup> /rev<br>Displacement cm <sup>3</sup> /rev | A     | B    | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|----------------------------------------------------------------------|-------|------|----------------------------------|------------------------------------|
| 1*27DW19F               | 18                                                                   | 129,5 | 62   | 7,5                              | 10,4                               |
| 1*36DW19F               | 24                                                                   | 134,5 |      | 7,7                              | 10,7                               |
| 1*45DW19F               | 30                                                                   | 139,5 | 65,5 | 8,0                              | 11,2                               |
| 1*54DW19F               | 36                                                                   | 144,5 | 67,5 | 8,3                              | 11,6                               |
| 1*66DW19F               | 44                                                                   | 151,0 | 70,5 | 8,6                              | 12,2                               |
| 1*75DW19F               | 50                                                                   | 155,5 | 74   | 8,9                              | 12,6                               |
| 1*84DW19F               | 56                                                                   | 160,5 | 78   | 9,1                              | 13,0                               |

\* PLA Cuerpo de aluminio / Aluminium body. PLAN Cuerpo de fundición / Cast iron body.

**NOTA:** Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 11.  
**NOTE:** For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 11.

### Tapa tipo 09 / Front flange type 09

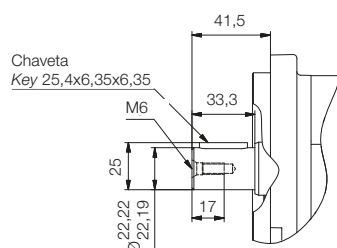
#### Eje forma G / Shaft form G



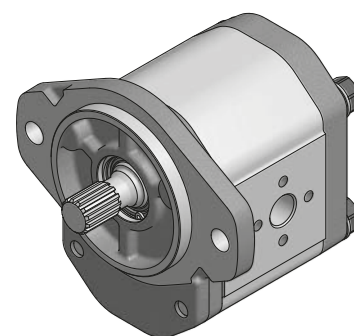
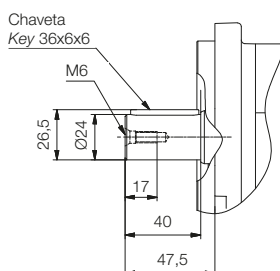
SAE J498b base plana  
Diametral pitch 16/32  
Ángulo de presión 30°  
Número de dientes 13  
Ajuste lateral  
Clase 1

SAE J498b flat base  
Diametral pitch 16/32  
Pressure angle 30°  
Teeth number 13  
Side fit  
Type 1

#### Eje forma H / Shaft form H



#### Eje forma C / Shaft form C

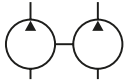


| Referencia<br>Reference | Cilindrada cm³/rev<br>Displacement cm³/rev | A     | B    | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|--------------------------------------------|-------|------|----------------------------------|------------------------------------|
| 1*27D▲09B               | 18                                         | 130,0 | 59,5 | 8,2                              | 11,1                               |
| 1*36D▲09B               | 24                                         | 135,0 | 67,5 | 8,5                              | 11,5                               |
| 1*45D▲09B               | 30                                         | 140,0 | 72,5 | 8,7                              | 11,9                               |
| 1*54D▲09B               | 36                                         | 145,0 |      | 9,0                              | 12,3                               |
| 1*66D▲09B               | 44                                         | 151,5 |      | 9,3                              | 12,9                               |
| 1*75D▲09B               | 50                                         | 156,0 |      | 9,6                              | 13,3                               |
| 1*84D▲09B               | 56                                         | 161,0 |      | 9,9                              | 13,7                               |

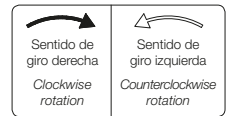
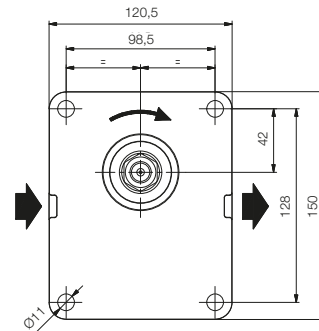
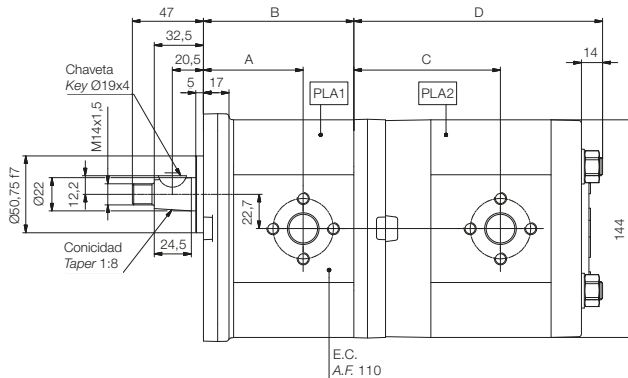
\* PLA Cuerpo de aluminio / Aluminium body. PLAN Cuerpo de fundición / Cast iron body. ▲ Forma de eje / Shaft form.

**NOTA:** Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 11.  
**NOTE:** For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 11.

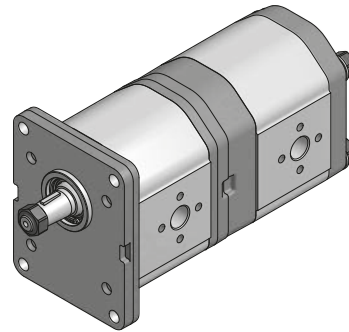
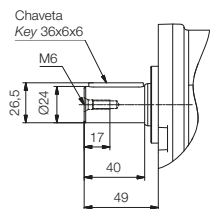
**Tapa tipo 10 / Front flange type 10**



**Eje forma E / Shaft form E**



### Eje forma C / Shaft form C



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 (PLA1) de la bomba múltiple PLL.  
The following table refers to the front stage (PLA1) of the PLL multiple pump.

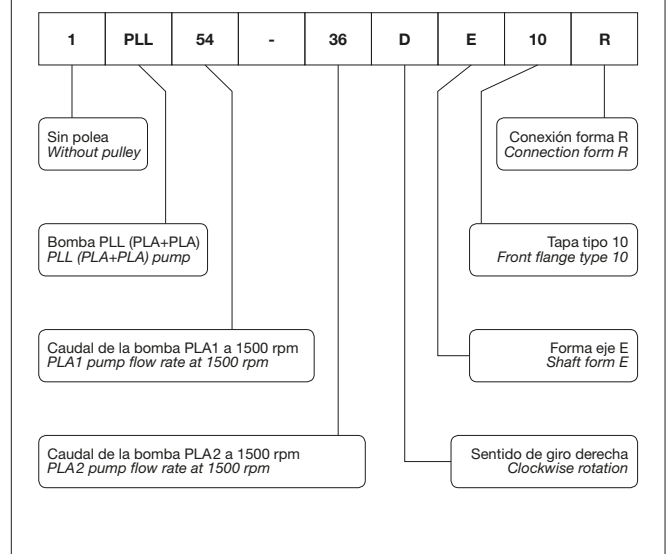
| Referencia<br>Reference | Cilindrada<br>Displacement<br>cm³/rev | A  | B     | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|---------------------------------------|----|-------|----------------------------------|------------------------------------|
| 1*27-■D▲10B             | 18                                    | 58 | 94,5  | 8,3                              | 11,2                               |
| 1*36-■D▲10B             | 24                                    | 66 | 99,5  | 8,6                              | 11,6                               |
| 1*45-■D▲10B             | 30                                    | 71 | 104,5 | 8,9                              | 12,0                               |
| 1*54-■D▲10B             | 36                                    | 71 | 109,5 | 9,1                              | 12,5                               |
| 1*66-■D▲10B             | 44                                    | 71 | 116,0 | 9,5                              | 13,1                               |
| 1*75-■D▲10B             | 50                                    | 71 | 121,0 | 9,7                              | 13,4                               |
| 1*84-■D▲10B             | 56                                    | 71 | 126,0 | 10,0                             | 13,8                               |

\* **PLL** Cuerpo de aluminio / *Aluminium body*. **PLLN** Cuerpo de fundición / *Cast iron body*.  
 ■ Caudal etapa posterior (PLA2). Ver tabla / *Rear stage flow (PLA2). See table.*  
 ▲ Forma de eje / *Shaft form.*

La tabla siguiente hace referencia a la etapa posterior (PLA2) de la bomba múltiple PLL.  
The following table refers to the rear stage (PLA2) of the PLL multiple pump.

| ■  | Cilindrada<br>Displacement<br>cm <sup>3</sup> /rev | C     | D     | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|----|----------------------------------------------------|-------|-------|----------------------------------|------------------------------------|
| 27 | 18                                                 | 108,9 | 159,4 | 8,3                              | 11,2                               |
| 36 | 24                                                 | 116,9 | 164,4 | 8,6                              | 11,6                               |
| 45 | 30                                                 | 121,9 | 169,4 | 8,9                              | 12,0                               |
| 54 | 36                                                 | 121,9 | 174,4 | 9,1                              | 12,5                               |
| 66 | 44                                                 | 121,9 | 180,9 | 9,5                              | 13,1                               |
| 75 | 50                                                 | 121,9 | 185,9 | 9,7                              | 13,4                               |
| 84 | 56                                                 | 121,9 | 190,9 | 10,0                             | 13,8                               |

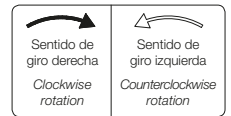
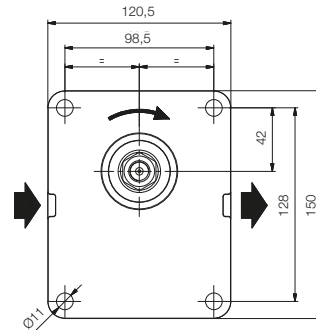
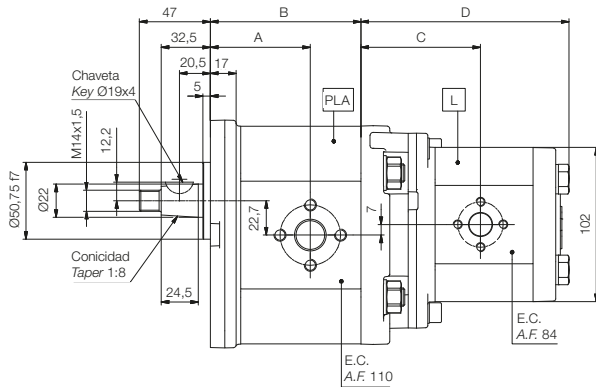
**Ejemplo referencia comercial bomba PLL**  
*Part number example PLL pump*



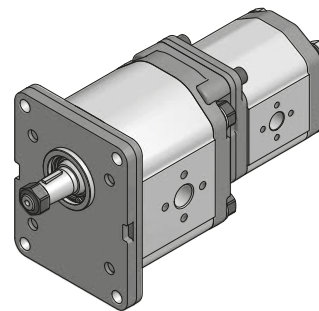
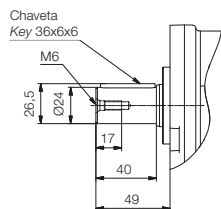
**NOTA:** Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 11.  
**NOTE:** For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 11.

### Tapa tipo 10 / Front flange type 10

### Eje forma E / Shaft form E



### Eje forma C / Shaft form C



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 (PLA) de la bomba múltiple PLD.  
The following table refers to the front stage (PLA) of the PLD multiple pump.

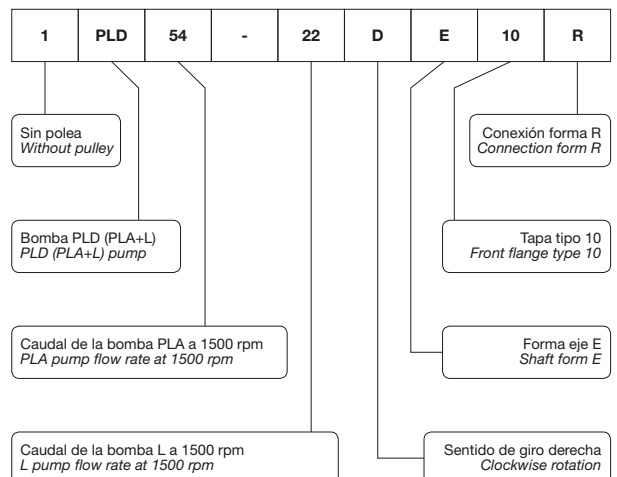
| Referencia<br>Reference | Cilindrada<br>Displacement<br>cm <sup>3</sup> /rev | A  | B     | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|----------------------------------------------------|----|-------|----------------------------------|------------------------------------|
| 1*27-■D▲10B             | 18                                                 | 58 | 94,5  | 8,3                              | 11,2                               |
| 1*36-■D▲10B             | 24                                                 | 66 | 99,5  | 8,6                              | 11,6                               |
| 1*45-■D▲10B             | 30                                                 | 71 | 104,5 | 8,9                              | 12,0                               |
| 1*54-■D▲10B             | 36                                                 | 71 | 109,5 | 9,1                              | 12,5                               |
| 1*66-■D▲10B             | 44                                                 | 71 | 116,0 | 9,5                              | 13,1                               |
| 1*75-■D▲10B             | 50                                                 | 71 | 121,0 | 9,7                              | 13,4                               |
| 1*84-■D▲10B             | 56                                                 | 71 | 126,0 | 10,0                             | 13,8                               |

\* PLD Cuerpo de aluminio / Aluminium body. PLDN Cuerpo de fundición / Cast iron body.  
■ Caudal etapa posterior (L). Ver tabla / Rear stage flow (L). See table.  
▲ Forma de eje / Shaft form.

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

| ■  | Cilindrada<br>Displacement<br>cm <sup>3</sup> /rev | C    | D     | L - Peso kg<br>L - Weight kg |
|----|----------------------------------------------------|------|-------|------------------------------|
| 6  | 4                                                  | 72,5 | 119,6 | 3,2                          |
| 9  | 6                                                  | 72,5 | 124,1 | 3,3                          |
| 12 | 8                                                  | 74,6 | 127,3 | 3,4                          |
| 16 | 10,6                                               | 79,0 | 131,8 | 3,5                          |
| 18 | 12                                                 | 79,0 | 133,3 | 3,6                          |
| 22 | 14,6                                               | 79,0 | 137,6 | 3,7                          |
| 24 | 16                                                 | 79,0 | 139,8 | 3,8                          |
| 27 | 18                                                 | 79,0 | 142,3 | 3,9                          |
| 35 | 23,3                                               | 86,5 | 151,3 | 4,1                          |
| 40 | 26,6                                               | 94,0 | 155,3 | 4,3                          |

### Ejemplo referencia comercial bomba PLD Part number example PLD pump



### NOTAS

- Bomba PLA: para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 11.
- Bomba L: para dimensiones y tipos de tomas disponibles consultar catálogo L.

### NOTES

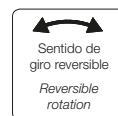
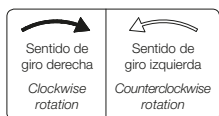
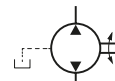
- PLA pump: for dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 11.
- L pump: for dimensions and port types see L catalog.



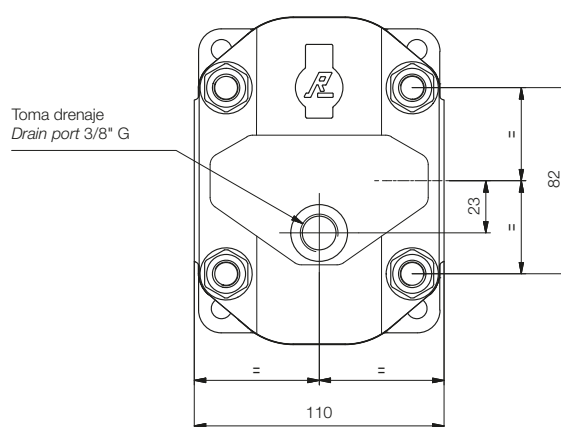
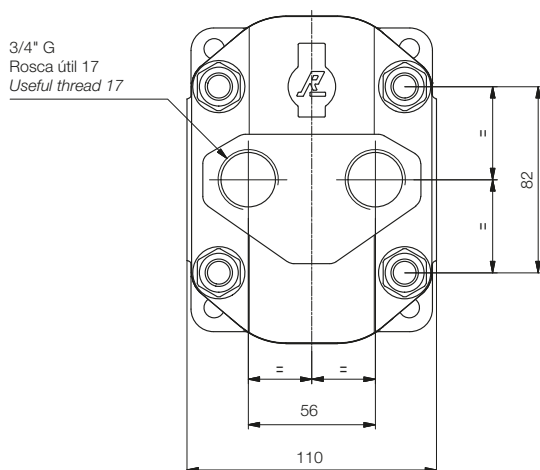
### Conexión con tomas T Port connection form T



### Tapa trasera para bombas reversibles Back cover for reversible pumps



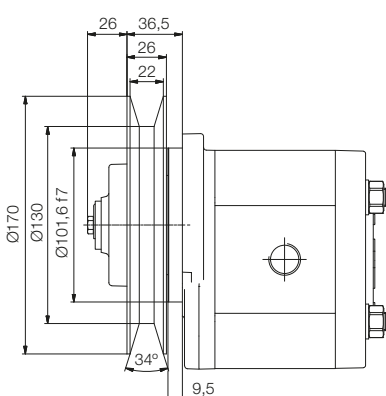
Tapa posterior para bombas con tomas traseras  
Back cover with rear ports



### Tipos de polea / Types of pulley

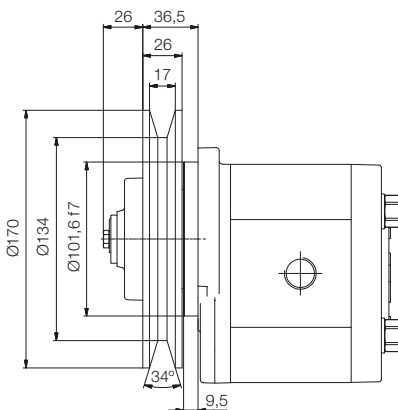
#### Tipo P / Type P

Correa tipo C  
Belt type C



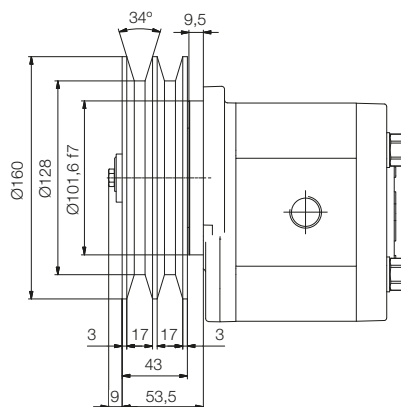
#### Tipo S / Type S

Correa tipo B  
Belt type B



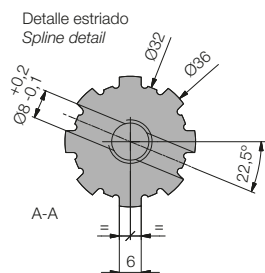
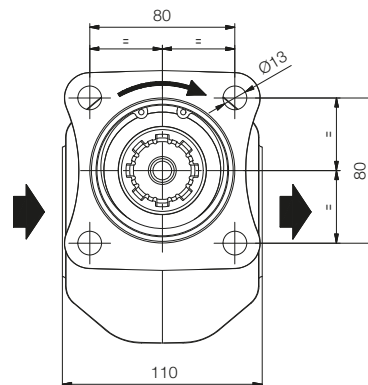
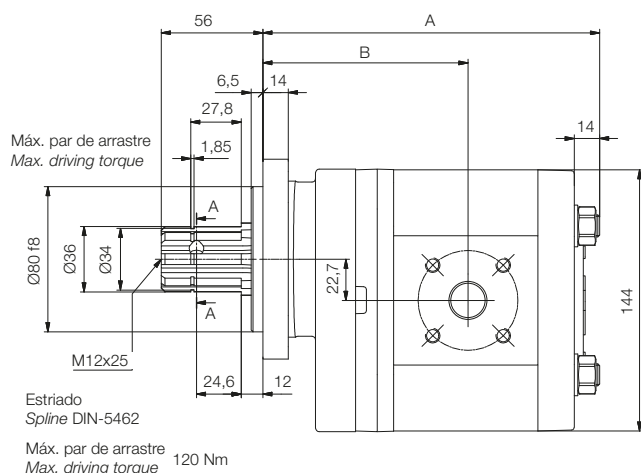
#### Tipo T / Type T

Correa tipo B  
Belt type B



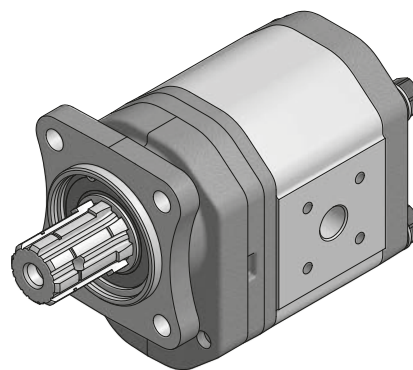
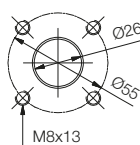
**NOTA:** Opción solo disponible con tapa tipo 09. Para medidas de fijación bomba ver página 10.  
**NOTE:** Option only available with flange type 09. For pump fixing dimensions see page 10.

### Tapa tipo 50 / Front flange type 50



Lado aspiración  
Suction side

Conexión tipo F  
Connection type F



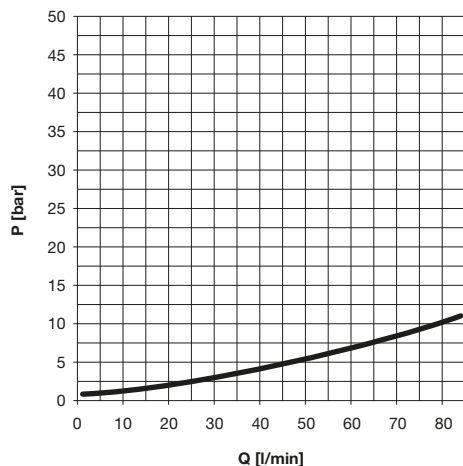
| Referencia<br>Reference | Cilindrada cm <sup>3</sup> /rev<br>Displacement cm <sup>3</sup> /rev | A     | B     | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|----------------------------------------------------------------------|-------|-------|----------------------------------|------------------------------------|
| 6*27DX50F               | 18                                                                   | 180,5 | 113   | 11,5                             | 14,3                               |
| 6*36DX50F               | 24                                                                   | 185,5 |       | 11,7                             | 14,7                               |
| 6*45DX50F               | 30                                                                   | 190,5 | 116,5 | 12,0                             | 15,2                               |
| 6*54DX50F               | 36                                                                   | 195,5 | 118,5 | 12,3                             | 15,6                               |
| 6*66DX50F               | 44                                                                   | 202,0 | 121,5 | 12,6                             | 16,2                               |
| 6*75DX50F               | 50                                                                   | 206,5 | 125   | 12,9                             | 16,6                               |
| 6*84DX50F               | 56                                                                   | 211,5 | 129   | 13,1                             | 17,0                               |

\* **PLA** Cuerpo de aluminio / Aluminium body. **PLAN** Cuerpo de fundición / Cast iron body.

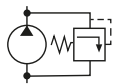
**NOTA:** Para dimensiones y tipos de tomas disponibles de bombas de giro derecha (D), izquierda (I) o reversible (R), consultar página 11.  
**NOTE:** For dimensions and available port types of clockwise (D), counterclockwise (I) or reversible (R) rotation pumps, see page 11.

### VBP- Válvula limitadora para baja presión Low pressure relief valve

Curva presión mínima taraje /  
Minimum setting pressure curve

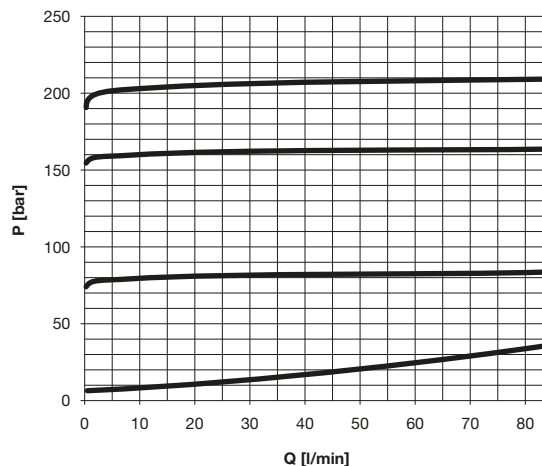


Presión máxima  
de taraje: 20 bar.  
Maximum set  
pressure: 20 bar.



### V- Válvula limitadora Relief valve

Diagrama presión-caudal válvula limitadora según rango de taraje /  
Relief valve pressure-flow diagram depending on pressure range

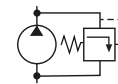


V13 - V43 (180-250 bar)  
Tarada a / Set at 200 bar

V12 - V42 (85-175 bar)  
Tarada a / Set at 160 bar

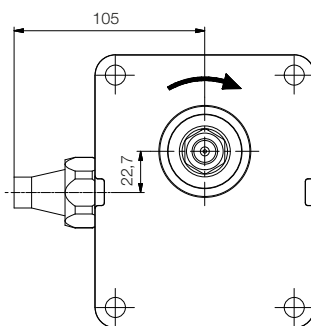
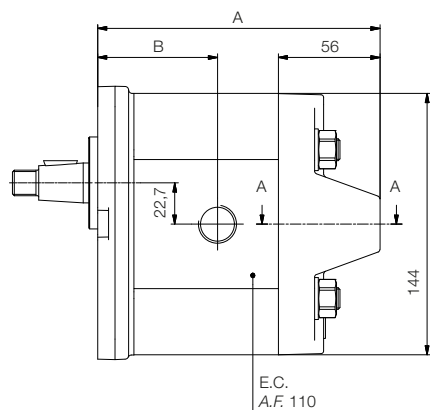
V11 - V41 (5-80 bar)  
Tarada a / Set at 80 bar

Curva presión mínima  
Minimal pressure curve

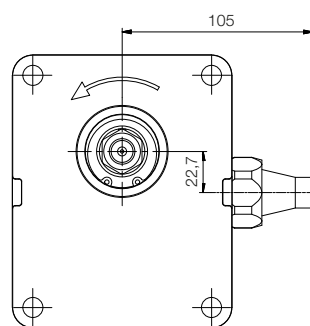


**NOTA:** Estos diagramas han sido obtenidos con un aceite de viscosidad cinemática de 32 cSt / **NOTE:** The values shown in the above diagram have been obtained using a 32 cSt kinematic viscosity oil.

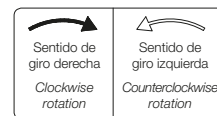
### Tapa tipo 10 / Front flange type 10



Bomba giro derecha  
Clockwise rotation pump



Bomba giro izquierda  
Counterclockwise rotation pump

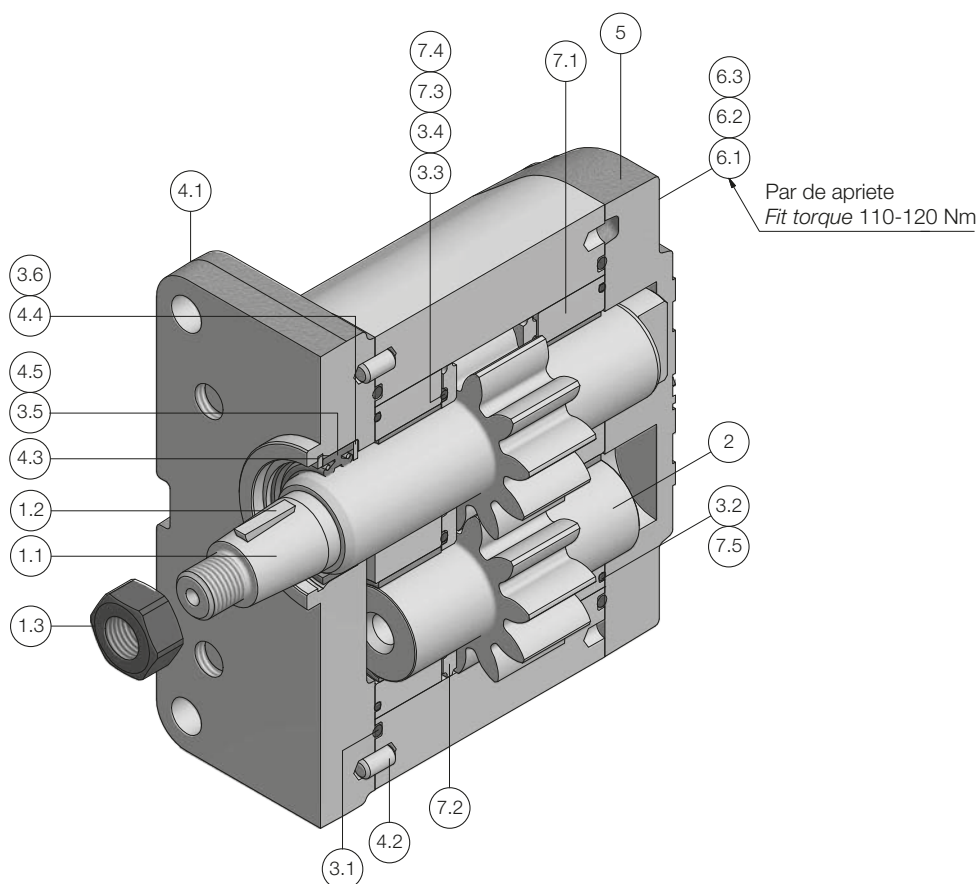


| Referencia<br>Reference | Cilindrada cm <sup>3</sup> /rev<br>Displacement cm <sup>3</sup> /rev | A     | B  | PLA - Peso kg<br>PLA - Weight kg | PLAN - Peso kg<br>PLAN - Weight kg |
|-------------------------|----------------------------------------------------------------------|-------|----|----------------------------------|------------------------------------|
| 1*27DE10R/V■            | 18                                                                   | 150,5 | 66 | 9,2                              | 12,0                               |
| 1*36DE10R/V■            | 24                                                                   | 155,5 |    | 9,4                              | 12,4                               |
| 1*45DE10R/V■            | 30                                                                   | 160,5 | 71 | 9,7                              | 12,8                               |
| 1*54DE10R/V■            | 36                                                                   | 165,5 |    | 9,9                              | 13,3                               |
| 1*66DE10R/V■            | 44                                                                   | 172   |    | 10,3                             | 13,9                               |
| 1*75DE10R/V■            | 50                                                                   | 176,5 |    | 10,6                             | 14,3                               |
| 1*84DE10R/V■            | 56                                                                   | 181,5 |    | 10,8                             | 14,7                               |

\* PLA Cuerpo de aluminio / Aluminium body. PLAN Cuerpo de fundición / Cast iron body. ■ Modelo de válvula limitadora (ver página 8) / Relief valve model (see page 8).

**NOTA:** Esta bomba con válvula limitadora está disponible con cualquiera de las tapas y ejes que se representan en este catálogo, pero solo con cuerpos con tomas R. Consultar con el departamento comercial para otras opciones.

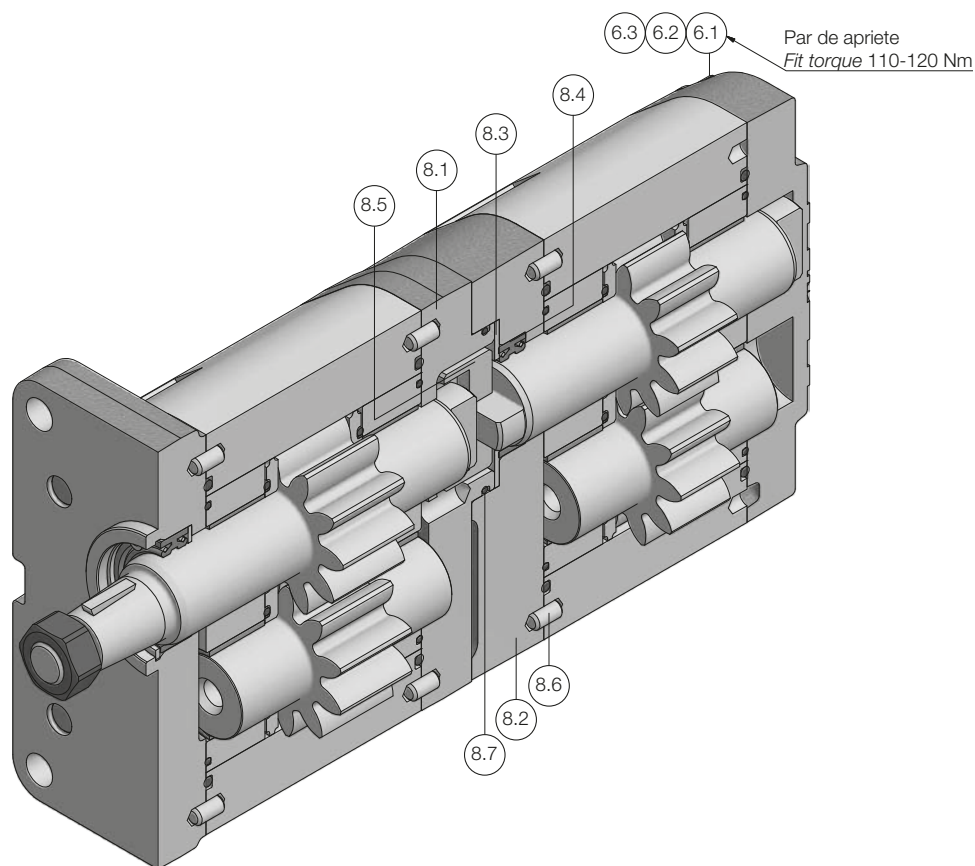
**NOTE:** This pump with relief valve is available with any fixing flange and shaft form shown in this catalogue, but only with pump housings with R ports. For other options, contact the sales department.



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

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

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

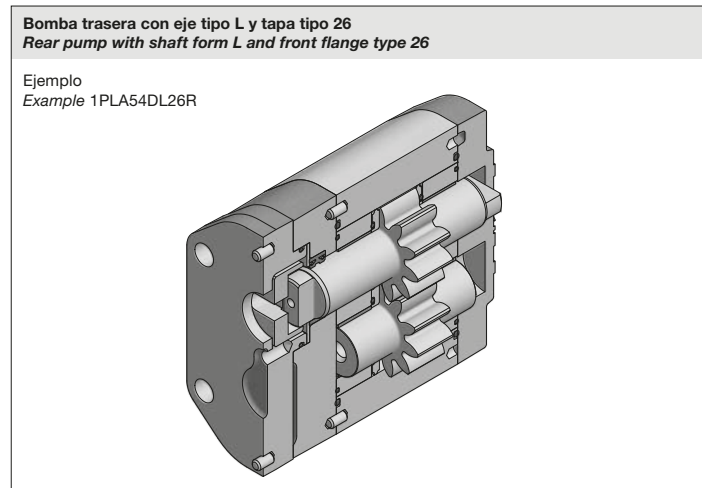
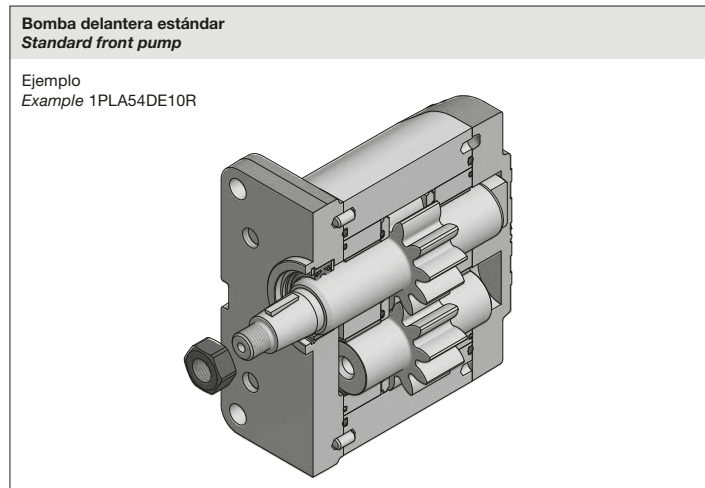


| Nº de kit<br>Kit number | Descripción<br>Description                  | Piezas<br>Parts |
|-------------------------|---------------------------------------------|-----------------|
| 6                       | Kit tornillos fijación<br>Fixing screws kit |                 |

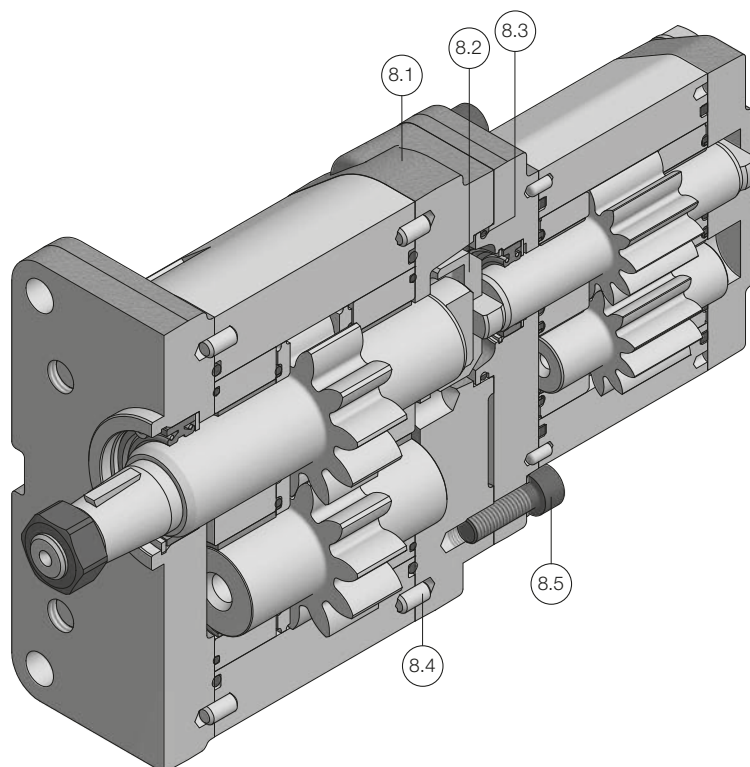
| Nº de kit<br>Kit number | Descripción<br>Description                        | Piezas<br>Parts |
|-------------------------|---------------------------------------------------|-----------------|
| 8                       | Kit tapas intermedias<br>Intermediate flanges kit |                 |

**NOTA:** Se puede crear una bomba doble PLL 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 PLL 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.



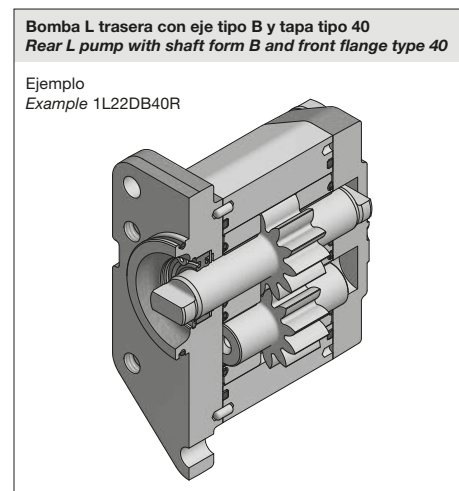
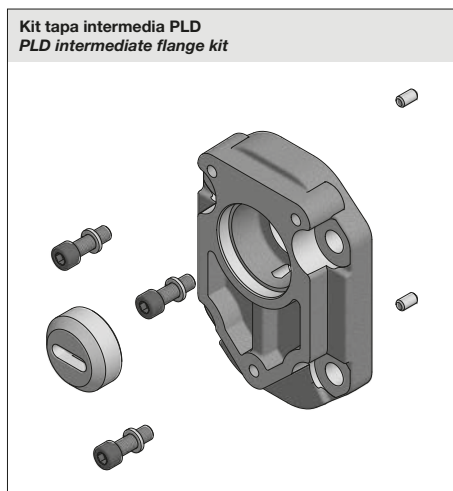
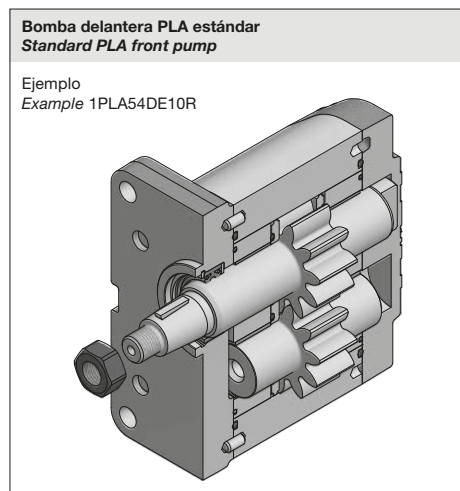
**NOTA:** Consultar las referencias disponibles con el departamento comercial. / **NOTE:** For available references contact the sales department.



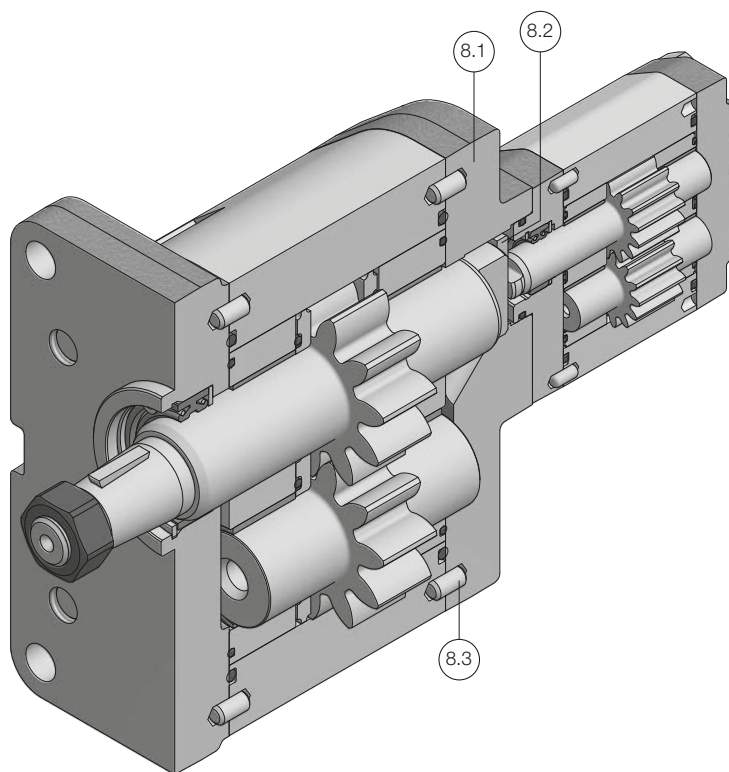
| Nº de kit<br>Kit number | Descripción<br>Description                     | Piezas<br>Parts |
|-------------------------|------------------------------------------------|-----------------|
| 8                       | Kit tapa intermedia<br>Intermediate flange kit |                 |

**NOTA:** Se puede crear una bomba doble PLD uniendo una bomba PLA estándar, un kit de tapa intermedia y una bomba L estándar con eje tipo B y tapa frontal tipo 40.

**NOTE:** A PLD double pump can be assembled from a standard PLA pump, an intermediate flange kit and a standard L pump with shaft form B and front flange type 40.



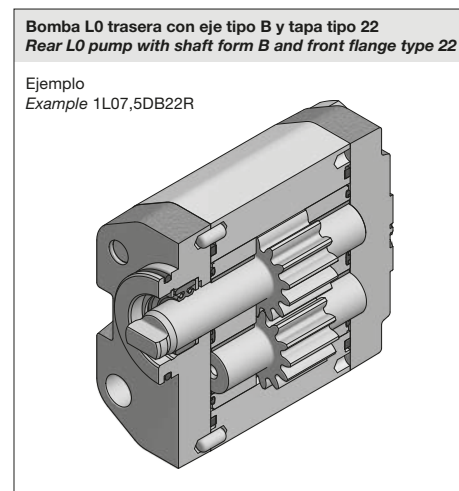
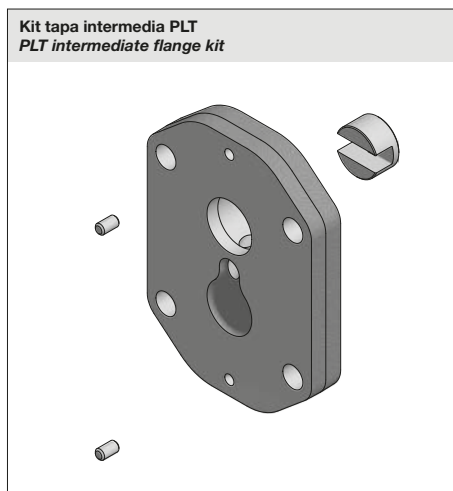
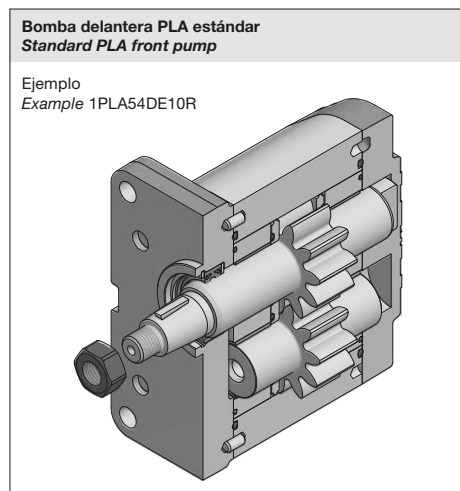
**NOTA:** Consultar las referencias disponibles con el departamento comercial. / **NOTE:** For available references contact the sales department.



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

**NOTA:** Se puede crear una bomba doble PLT uniendo una bomba PLA 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 PLT double pump can be assembled from a standard PLA 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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