

# XPi series

## the *intelligent* pump

fixed displacement bent axis design



The compact size envelope of XPi pumps, together with their technology, means they can be installed in environments with little space available, and be used at relatively high rotating speeds.

### ADVANTAGES

- ▶ Pump automatically sets to required direction of rotation
- ▶ Mounting and start-up, easier than ever !

### CHARACTERISTICS

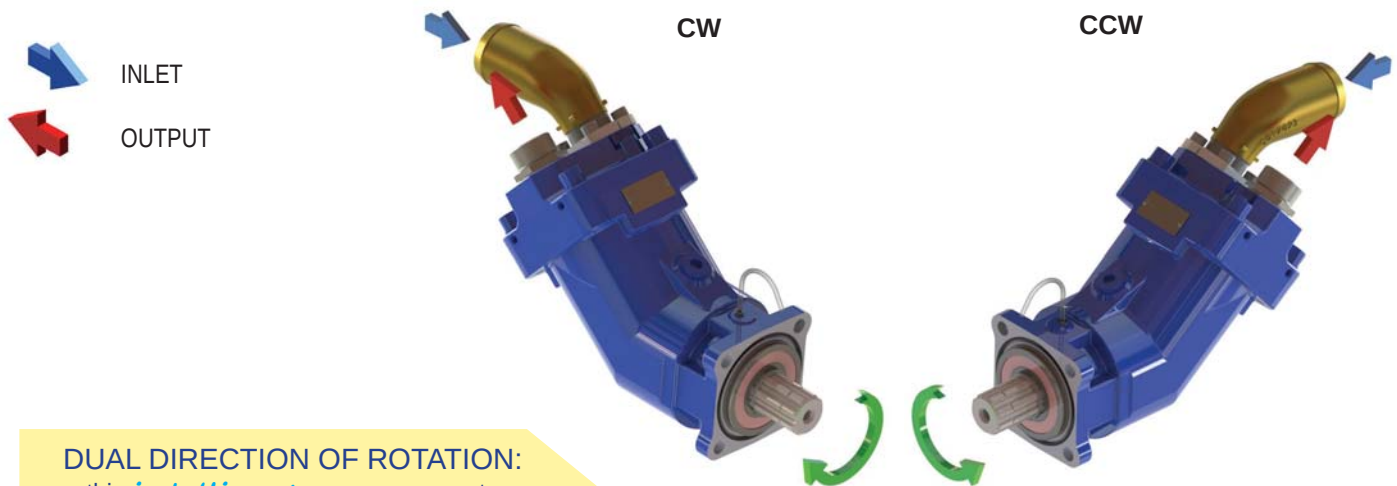
- 7 pistons
- original idea for plate - barrel synchronisation
- use of materials with high mechanical resistance
- reinforced sealing



#### ■ 10 models :

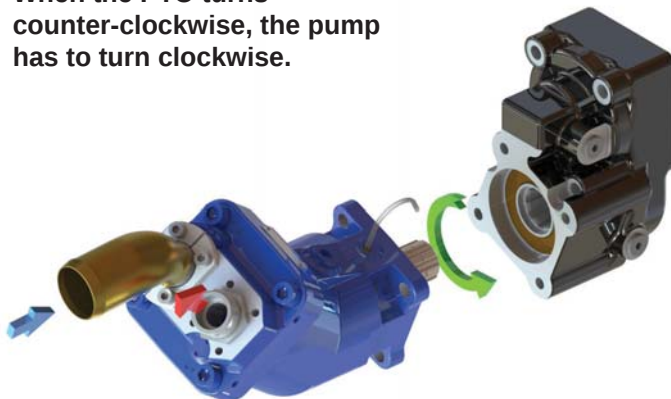
- from 12 to 130 cc/rev
- 380 bar continuous working pressure
- 420 bar peak pressure
- max. speed from 1750 to 3150 rpm

| Pump reference  | Displac.<br>(cc/rev) | Maximum continuous pressure<br>(bar) | Maximum intermittent peak pressure < 5 seconds<br>(bar) | Maximum rotating speed at absolute pressure 1 bar with inlet line 2"<br>(rpm) | Max. torque absorbed at 380 bar<br>(N.m) | Weight                        |                            | Overhang torque                |                             |
|-----------------|----------------------|--------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------|-------------------------------|----------------------------|--------------------------------|-----------------------------|
|                 |                      |                                      |                                                         |                                                                               |                                          | without inlet fitting<br>(kg) | with inlet fitting<br>(kg) | without inlet fitting<br>(N.m) | with inlet fitting<br>(N.m) |
| XPi 12 0523820  | 12                   | 380                                  | 420                                                     | 3150                                                                          | 76                                       | 9.2                           | 9.65                       | 8.74                           | 9.17                        |
| XPi 18 0523810  | 18                   | 380                                  | 420                                                     | 2900                                                                          | 114                                      | 9.25                          | 9.7                        | 8.79                           | 9.21                        |
| XPi 25 0523800  | 25                   | 380                                  | 420                                                     | 2750                                                                          | 159                                      | 9.3                           | 9.75                       | 8.84                           | 9.26                        |
| XPi 32 0523790  | 32                   | 380                                  | 420                                                     | 2700                                                                          | 204                                      | 11.1                          | 11.55                      | 11.1                           | 11.55                       |
| XPi 41 0523780  | 41                   | 380                                  | 420                                                     | 2550                                                                          | 261                                      | 11.15                         | 11.6                       | 11.15                          | 11.6                        |
| XPi 50 0523770  | 50.3                 | 380                                  | 420                                                     | 2450                                                                          | 318                                      | 11.2                          | 11.65                      | 11.76                          | 12.23                       |
| XPi 63 0523760  | 63                   | 380                                  | 420                                                     | 2300                                                                          | 401                                      | 11.25                         | 11.7                       | 11.81                          | 12.28                       |
| XPi 80 0523640  | 80.4                 | 380                                  | 420                                                     | 2150                                                                          | 509                                      | 14.85                         | 15.3                       | 17.82                          | 18.36                       |
| XPi 108 0523750 | 108.3                | 380                                  | 420                                                     | 1900                                                                          | 687                                      | 14.95                         | 15.4                       | 17.94                          | 18.48                       |
| XPi 130 0523730 | 129.8                | 380                                  | 420                                                     | 1750                                                                          | 827                                      | 15.35                         | 15.8                       | 18.73                          | 19.28                       |

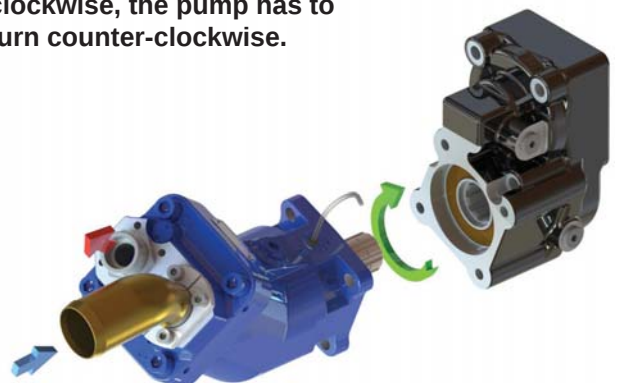


Fit the inlet fitting on required side, depending on the direction of rotation of the PTO, and the pump will set itself accordingly.

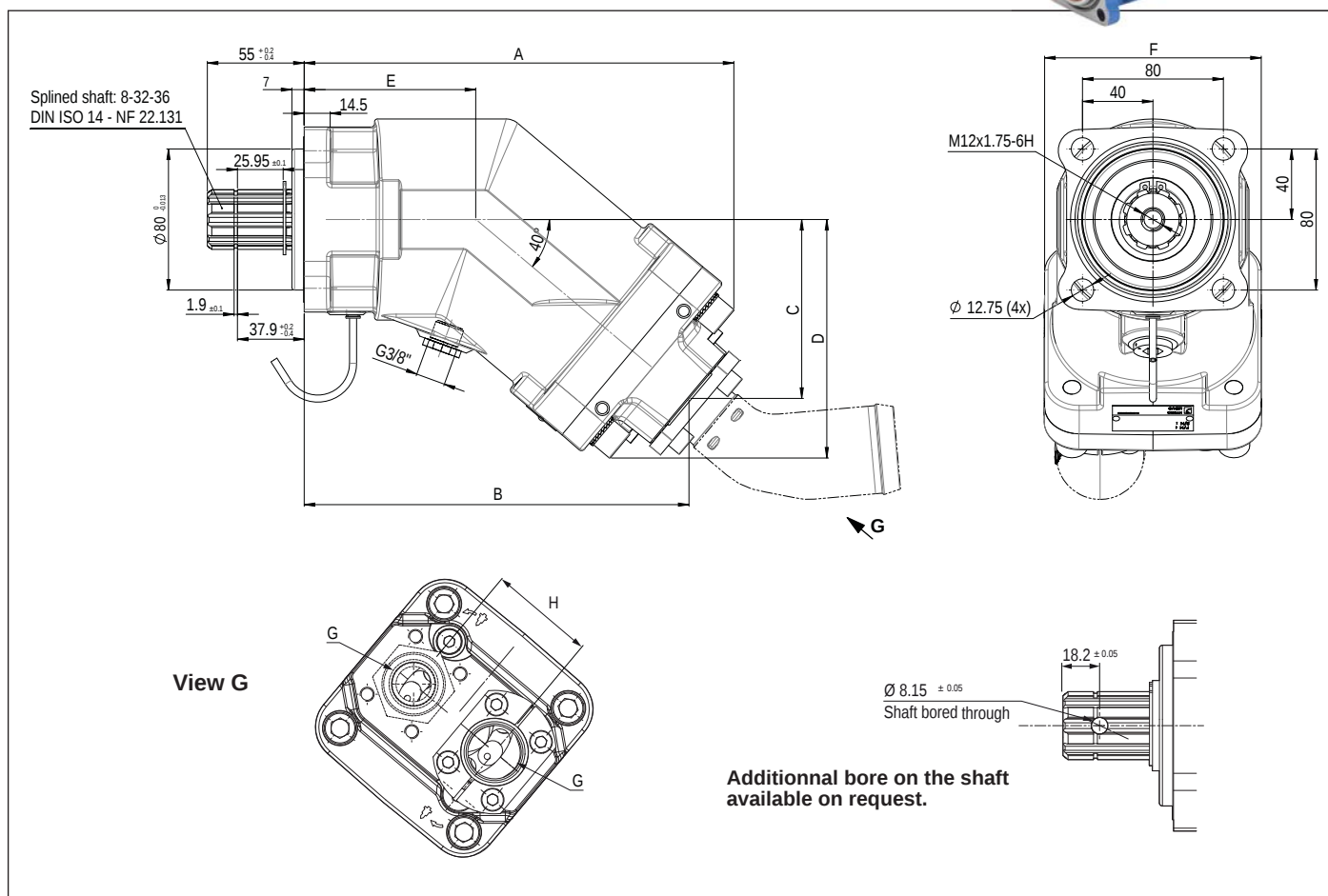
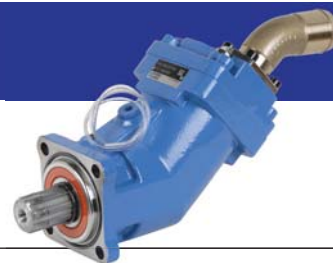
**When the PTO turns counter-clockwise, the pump has to turn clockwise.**



**When the PTO turns clockwise, the pump has to turn counter-clockwise.**



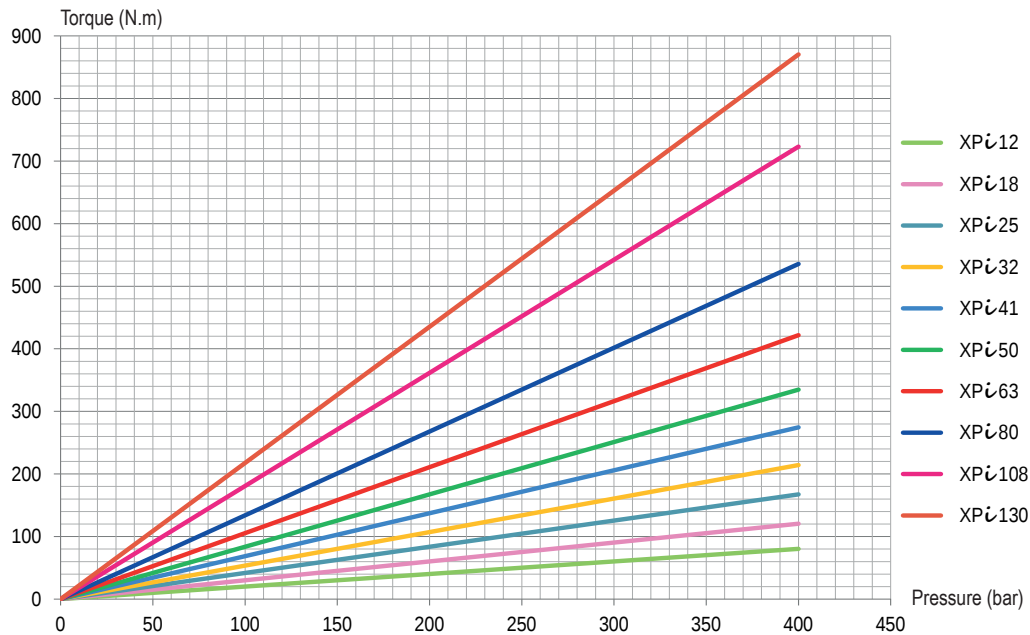
# XPi - Dimensions



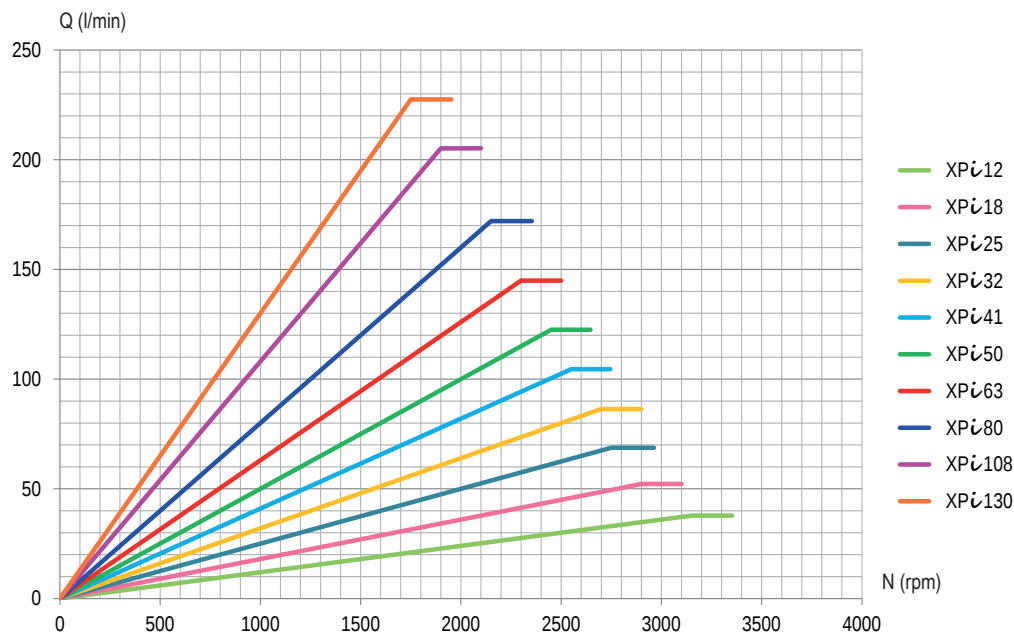
| Pump reference  | A     | B     | C     | D     | E    | F   | G      | H  |
|-----------------|-------|-------|-------|-------|------|-----|--------|----|
| XPi 12 0523820  | 196.7 | 177.8 | 77.1  | 103.9 | 85.7 | 108 | G 3/4" | 54 |
| XPi 18 0523810  | 196.7 | 177.8 | 77.1  | 103.9 | 85.7 | 108 | G 3/4" | 54 |
| XPi 25 0523800  | 196.7 | 177.8 | 77.1  | 103.9 | 85.7 | 108 | G 3/4" | 54 |
| XPi 32 0523790  | 202.8 | 184   | 82.3  | 109.1 | 85.7 | 108 | G 3/4" | 54 |
| XPi 41 0523780  | 202.8 | 184   | 82.3  | 109.1 | 85.7 | 108 | G 3/4" | 54 |
| XPi 50 0523770  | 214.4 | 195.6 | 92    | 118.9 | 85.7 | 108 | G 3/4" | 54 |
| XPi 63 0523760  | 214.4 | 195.6 | 92    | 118.9 | 85.7 | 108 | G 3/4" | 54 |
| XPi 80 0523640  | 241.7 | 220.9 | 103.5 | 133.3 | 97.4 | 123 | G 1"   | 60 |
| XPi 108 0523750 | 241.7 | 222.5 | 104.8 | 133.3 | 97.4 | 123 | G 1"   | 60 |
| XPi 130 0523730 | 244   | 224.8 | 106.7 | 135.2 | 97.4 | 123 | G 1"   | 60 |

Dimensions in mm.

## ► Torque absorbed as a function of pump output pressure

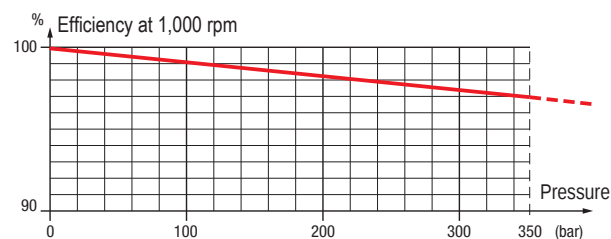


## ► Flow as a function of rotating speed



## ► Volumetric efficiency

These graphs are the results of testwork done in HL R&D laboratory, on a specific test bench, with an ISO 46 fluid at 77°F/25°C (100 cSt), the pump is fitted with a 2" inner diameter HL inlet fitting, and tank situated slightly above pump.

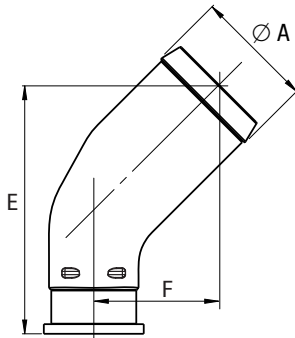




## INLET FITTINGS FOR XPi PUMPS

All XPi pumps are supplied with their inlet fitting.  
Please specify required fitting from the choice below when ordering.

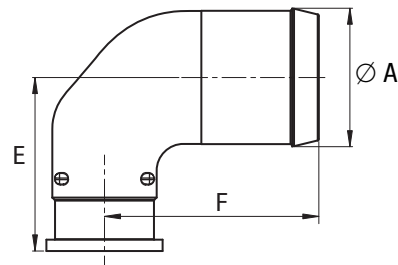
### 45° elbow fittings



| Reference | Ø hose | Ø A  | E     | F    |
|-----------|--------|------|-------|------|
| 0517894   | 1 1/2" | 39.1 | 91.7  | 46.7 |
| 0517896   | 42     | 43   | 91.7  | 46.7 |
| 0517897   | 1 3/4" | 46   | 91.7  | 46.7 |
| 0517893   | 2"     | 51.8 | 108.4 | 54.4 |
| 0517892   | 2 1/2" | 64.5 | 125.2 | 62.2 |

Dimensions in mm.

### 90° elbow fittings



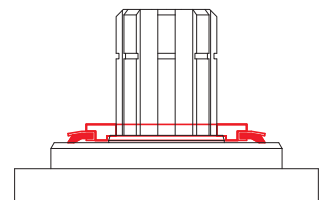
| Reference | Ø hose | Ø A  | E    | F    |
|-----------|--------|------|------|------|
| 0517947   | 1 1/2" | 39.1 | 58.6 | 79.5 |
| 0517946   | 2"     | 51.8 | 64.9 | 80.2 |
| 0517945   | 2 1/2" | 64.5 | 71.3 | 87.5 |

Dimensions in mm.

## DEFLECTOR TO PROTECT SHAFT SEALS

This deflector ensures the protection of the pump shaft seals.  
In particular, it protects the pump from projections of dirt from the road in cardan drive installations.

Reference: **DEF 054111**



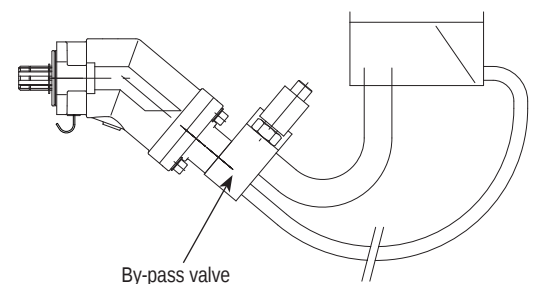
## BY-PASS VALVE FOR XPi PUMPS

For XPi pump applications where the pump is driven by a continuous running PTO (PTO which cannot be disengaged),  
HYDRO LEDUC offers a by-pass valve which is fitted onto the back of the pump.

This solution allows the continuous running of the pump:

- without creating problems of fluid overheating;
- without affecting pump service life;
- with no modifications necessary to the hydraulic circuit of the equipment.

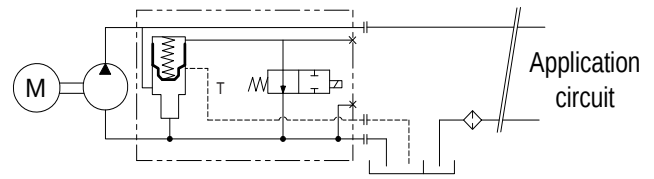
| LEDUC part number | 12 Volts     | 24 Volts     |
|-------------------|--------------|--------------|
| XPi 12 to XPi 63  | BP63 0521180 | BP63 0517931 |
| XPi 80 to XPi 130 | BP80 0522235 | BP80 0522140 |



## ► How does it work ?

The by-pass valve is a 12 or 24 Volts solenoid valve.

When not activated, it enables pump output to link up to pump inlet.  
When it is activated, the pump operates normally (output flow).



## ► XPi overhang torque with by-pass

| Pump reference | Weight                     |                         | Overhang torque             |                          |
|----------------|----------------------------|-------------------------|-----------------------------|--------------------------|
|                | without inlet fitting (kg) | with inlet fitting (kg) | without inlet fitting (N.m) | with inlet fitting (N.m) |
| XPi 12         | 12.8                       | 13.25                   | 16.32                       | 16.90                    |
| XPi 18         | 12.85                      | 13.3                    | 16.39                       | 16.96                    |
| XPi 25         | 12.9                       | 13.35                   | 16.44                       | 17.02                    |
| XPi 32         | 14.7                       | 15.15                   | 18.98                       | 19.56                    |
| XPi 41         | 14.75                      | 15.2                    | 19.04                       | 19.62                    |
| XPi 50         | 14.8                       | 15.25                   | 20.05                       | 20.67                    |
| XPi 63         | 14.85                      | 15.3                    | 20.12                       | 20.73                    |
| XPi 80         | 18.45                      | 18.9                    | 27.16                       | 27.82                    |
| XPi 108        | 18.55                      | 19                      | 27.31                       | 27.97                    |
| XPi 130        | 18.95                      | 19.4                    | 28.16                       | 28.93                    |

## ► Dimensions with by-pass valve

| Pump reference   | A      | B      | C      | D      | E      | F     | G    | H  | J     |
|------------------|--------|--------|--------|--------|--------|-------|------|----|-------|
| XPi 12 / 18 / 25 | 289.35 | 223.04 | 202.19 | 132.20 | 114.72 | 97.58 | 3/4" | 54 | 108   |
| XPi 32 / 41      | 295.5  | 229    | 208.3  | 137.3  | 120.1  | 102.7 | 3/4" | 54 | 108   |
| XPi 50 / 63      | 307.1  | 240.4  | 220    | 147.1  | 129.7  | 112.5 | 3/4" | 54 | 108   |
| XPi 80 / 108     | 334    | 269    | 246.7  | 157.8  | 143.9  | 124.8 | 1"   | 60 | 123   |
| XPi 130          | 336.3  | 271.3  | 249    | 159.7  | 145.8  | 126.7 | 1"   | 60 | 123.5 |

Dimensions in mm.

