

# HYVA PISTON PUMPS



## BENT AXIS TYPE

Hyva

piston pump type :

piston pump 053L/053L-LH-4H-BH

part number :

145 69 235

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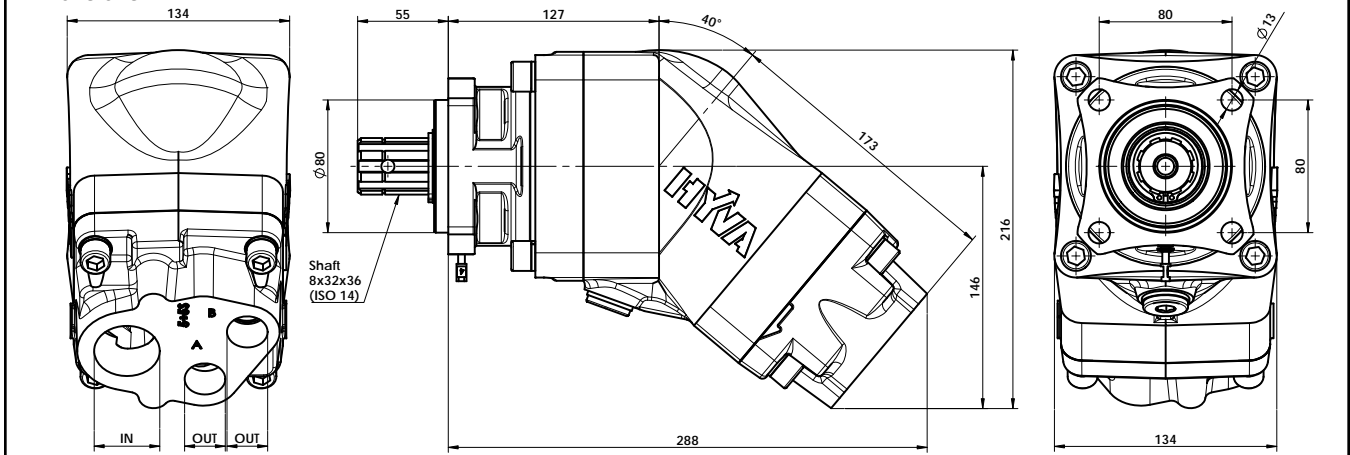
rotation :

anti clock wise seen from front side of pump



|  |   |                     |                                      |               |      |
|--|---|---------------------|--------------------------------------|---------------|------|
| Fluid  | Mineral or synthetic compatible with the following seals:<br>FKM, FPM, HNBR |                     |                                      |               |      |
| Kinematic viscosity suggested  | Average ambient temp. (°C)  | < -40               | -40+10                               | 10+35         | > 35 |
|  | VG (cSt = mm <sup>2</sup> /s)   | 16                  | 22                                   | 32            | 46   |
| Optimale kinematic viscosity   |   |                     | VG= 10 cSt + 100 cSt                 |               |      |
| Max kinematic viscosity suggested at the start-up  |   |                     | VG= 750 cSt                          |               |      |
| Viscosity index suggested  | VI > 100  | Working temperature |                                      | -40°C + 140°C |      |
| Oil filtering  |   |                     | > 200 bar: 10 µm<br>< 200 bar: 25 µm |               |      |
| Inlet pressure   |   |                     | 0,85 ± 2 bar<br>absolut              |               |      |
| Pump rotation  |   |                     | Left                                 |               |      |
| Verify that pump is, at least, 100 mm under the minimum level of the tank. Before starting the pump bleed the air. |   |                     |                                      |               |      |

### Dimensions in mm



| PUMP TYPE                    | IN<br>ISO 228 | OUT<br>ISO 228 | WEIGHT  |
|------------------------------|---------------|----------------|---------|
| 053L/053L-RH-4H-BH-3/4-1 1/4 | G 1-1/4       | G 3/4          | 21,5 Kg |

| SEAL KIT |          |
|----------|----------|
| Part.no  | 02410030 |

| TECHNICAL FEATURES                      |          |            |
|---|----------|------------|
| Displacement A                          | (cc/rev) | 53 curve 1 |
| Displacement B                          | (cc/rev) | 55 curve 2 |
| Max. continuous pressure                | (bar)    | 350        |
| Max. peak pressure                      | (bar)    | 400        |
| Max. speed without load                 | (rpm)    | 2550       |
| Max. speed with load on A and B outputs | (*)      | 1800       |
| Max. speed with load on 1 output only   | (*)      | 2100       |
| Max. continuous power                   | (kW)     | 111        |
| Max. intermittent power                 | (kW)     | 127        |

Max. continuous pressure (100%)  
Max. peak pressure (6 sec.max)

(\*) Speed with pipe internal diameter 2,5" minimum.

Pump 53+53 and 70+35: with pipe internal diameter 2"  
max. speed 1200rpm.

Pump 70+70: only with pipe internal diameter 2,5".



**WARNING: if oil leaks through the transparent tube the pump should be replaced immediately to avoid gearbox damage.**

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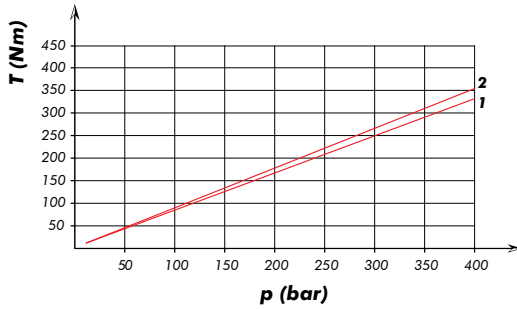
145 69 235

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rotation :

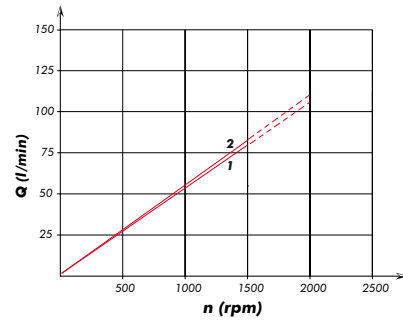
anti clock wise seen from front side of pump

## THEORETICAL DRIVE TORQUE



The total torque absorbed by the pump is given by the sum of the torques necessary to give pressure to the pressure ports.

## THEORETICAL FLOW



The total pump flow is given by the sum of the flow of each pressure port.

## THEORETICAL POWER INPUT

The total power absorbed by the pump is given by the sum of the power required by the two pressure ports.

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

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

## MASS MOMENT $M_{amm.} = s \times G$ (Nm)

