

# HYVA PISTON PUMPS



## BENT AXIS TYPE

Hyva

piston pump type : piston pump 053L/053L-RH-4H-BH-3/4-1 1/4

part number :

145 69 230

Page 1 / 2

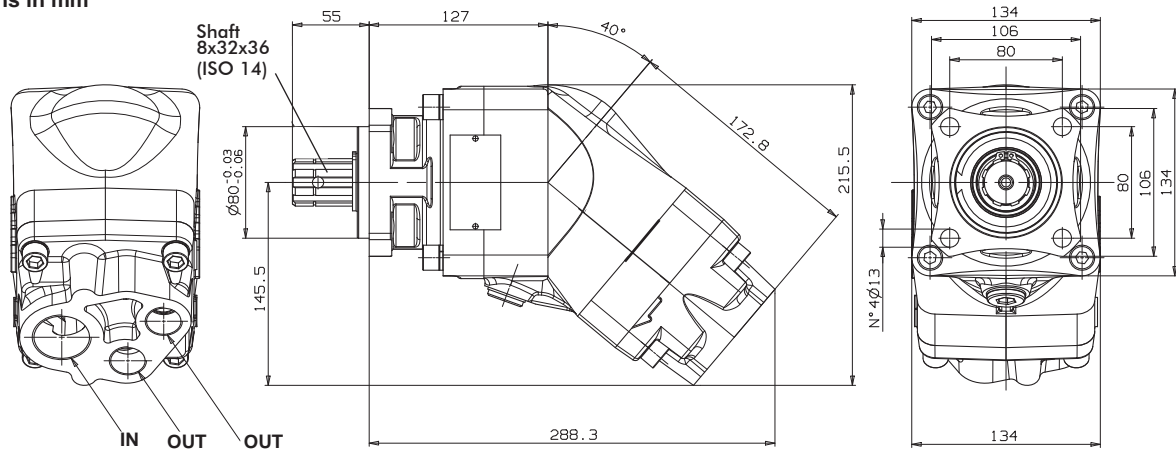
rotation :

clock wise seen from front side of pump



Fluid	Mineral or synthetic compatible with the following seals: FKM, FPM, HNBR				
Kinematic viscosity suggested	Average ambient temp. (°C)	< -40	-40+10	10+35	> 35
	VG (cSt = mm²/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 < 200 bar: 25 µm		
Inlet pressure			0,85 + 2 bar absolut		
Pump rotation			Right		
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 ISO 228	OUT ISO 228	WEIGHT
053L/053L-RH-4H-BH-3/4-1 1/4	G 1-1/4	G 3/4	21,7 Kg

### 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".

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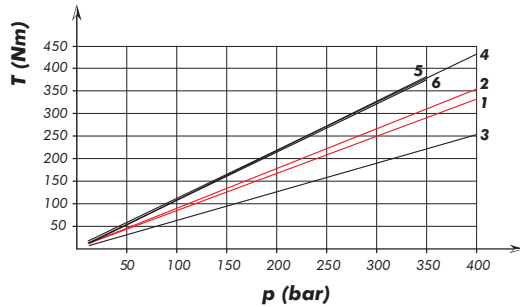
145 69 230

Page 2 / 2

rotation :

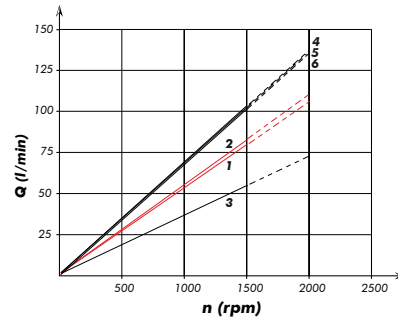
clock wise seen from front side of pump

## 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 ]

## HOW TO CHOOSE THE SUCTION PIPE SIZE

FLOW l/min	MIN PIPE DIAM. inch	FLOW SPEED (m/s)
30	1,25"	0,62
40		0,83
50	1,5"	0,74
60		0,88
80	1,75"	0,84
90		0,94
100	2"	0,85
110		0,93

To ensure the proper suction pipe size the flow speed should not exceed 1mt/sec.

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

