

PRIMA SIMULTANEOUS PUMP OPERATION

Duty Required

P2_2010

	DISCHARGE PRESS.	FLOWRATE	LIFT	M
LOW PRESSURE=	10 BAR (1)	2000 L/MIN (2)	4.5	(3)
HIGH PRESSURE=	40 BAR (4)	250 L/MIN (5)		
TOTAL FLOWRATE =		2250 L/MIN (6)		

P2_2010
LP curve

P2_3010
LP curve

P2_4010
LP curve

P2_6010
LP curve

Low Pressure Performance

(6) TOTAL FLOWRATE (L.P.)= 2250 L/MIN @ 10 BAR (1)
 (7) SPEED REQUIRED= 3050 RPM
 (8) (LP) POWER REQUIRED= 77 kW

High Pressure Performance

(7) @ SPEED= 3050 RPM & HP FLOWRATE = 250 L/MIN (5)
 (9) (HP) NET PRESSURE= 34 BAR (HP) NET POWER= 52 Kw (10)

Simultaneous Performance

P2 Net HP
curve

		SPEED = 3050 RPM			
TOTAL POWER	=	LP POWER	+	(HP) NET POWER	
	=	77 kW (8)	+	52 kW (10)	= 129 kW
TOTAL HP	=	LOW PRESSURE	+	(HP) NET PRESSURE	
	=	10 BAR (1)	+	34 BAR (9)	= 44 BAR
LP FLOWRATE	=	2000 L/MIN (2)		HP FLOWRATE (5)	= 250 L/MIN

simultaneous performance achieved is as follows:

2000 l/m at 10 bar at 4.5 M lift
 and 250 l/m at 44 bar
 pump absorbs 129 kW at 3050 r.p.m.

IF DUTY REQUIREMENTS ARE NOT FULFILLED, ADJUST SPEED AND RECALCULATE