DATA SHEET

ORDERING CODE

VC20 F 1 P 11 S 1 C 8 H L

PUMP MODEL
VC10
VC20

COVER
Omit - Standard Cover
F - Flow & pressure control cover

Mounting
1 - 2 - Bolt Flange

Inlet Port Connection

	VC10	VC20
S	1 5/16" Str.thd	1 5/8"-12 Str.thd
P	1" NPT	1 1/4" NPT
B	1" BSP	1 1/4" BSP

DELIVERY
USgpm at 1200 rpm

VC10	1, 2, 3, 4, 5, 6, 7
VC20	5, 6, 7, 8, 9, 10, 11, 12, 13

SHAFT ROTATION
Omit - clockwise
L - Counterclockwise
Viewed from shaft end of pump

PRESSURE SETTING
BAR (PSI)

A - 17 (250)	F - 103 (1500)
B - 34 (500)	G - 121 (1750)
C - 52 (750)	H - 138 (2000)
D - 69 (1000)	J - 155 (2200)
E - 86 (1250)	K - 172 (2500)

FLOW RATE SETTING
L/MIN (USGPM)

2 - 7.6 (2)	6 - 22.7 (6)
3 - 11.4 (3)	7 - 26.5 (7)
4 - 15.2 (4)	8 - 30.3 (8)
5 - 19.0 (5)	

OUTLET PORT POSITION

A: 180° from inlet.
B - 90° counterclockwise from inlet. 90° counterclockwise from inlet.
C - Inline with inlet
D: 90° Clockwise from inlet.
Viewed from cover end

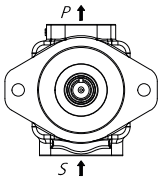
OUTLET PORT CONNECTION

	VC10F	VC20F
S	-	¾"-16 Str.thd. outlet 1 1/16"-12 Str. thd. tank port
P	¾"-16 Str.thd. outlet ½" NPT tank port	¾"-16 Str.thd. outlet ½" NPT tank port
T	¾"-16 Str.thd. outlet tank port	¾"-16 Str.thd. outlet ¾"-16 Str.thd. tank port

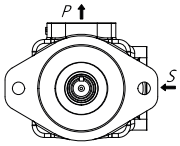
SHAFT
1 - Straight keyed
3 - Threaded with woodruff key
6 - Woodruff key stub
(VC20 / VC20F only)
11 - Splined 11 - Splined
12 -Splined
(VC10 / VC10F only)
15 - Splined
(VC20 / VC20F only)
38 - Splined
123 - Threaded with woodruff key

PORTING COMBINATION

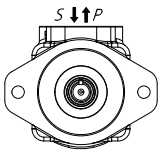
A



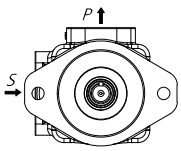
B



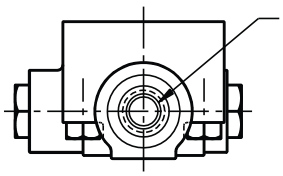
C



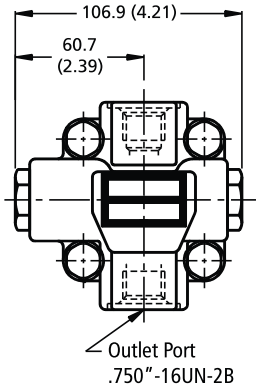
D

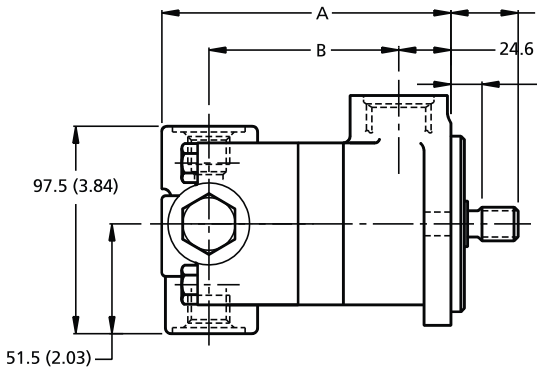


VC10F INSTALLATION DIMENSIONS



Delivery @ 1200 RPM & 7 Bar (100 psi)	DIMENSION	
	A	B
1, 2, 3	130 5.12	84,8 3.34
4, 5	136,4 5.37	91,2 3.59
6, 7	141,5 5.57	96,3 3.79



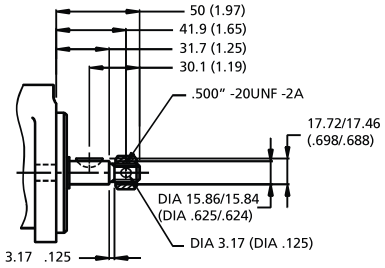


N°11 Shaft

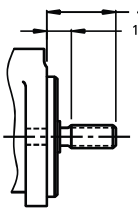
Splined Shaft
9 Teeth-14.29 (.5625) P.D.
30 Degree Press. Angle
Pitch 16/32
Major Diameter
15.82/15.80 (.623/.622)
Minor 12.28/12.00
(.4835/.4725)
Flat Root
Major Diameter Fit

SHAFT OPTIONS

VC10 / VC10F



N°3 Shaft Threaded with #6 Woodruff Key

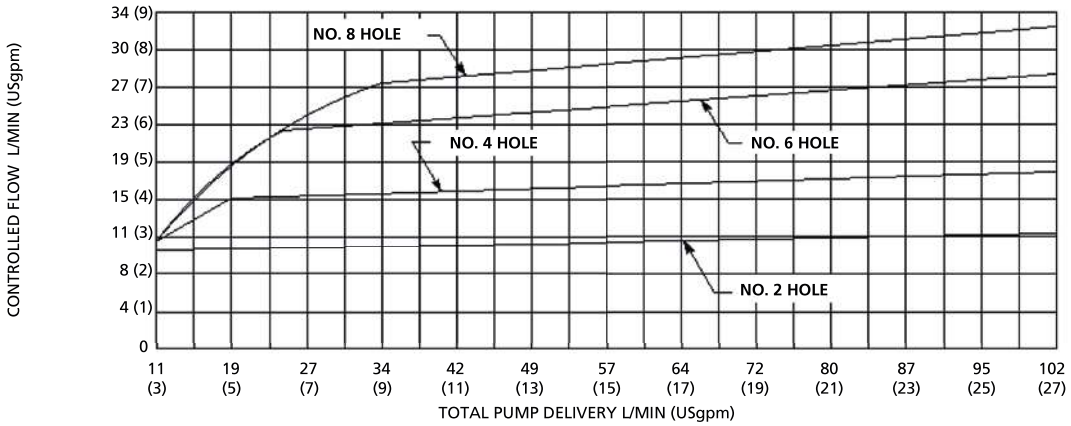


N°12 Shaft Splined Shaft 13 Teeth

13 Teeth-20.64 (.8125) P.D.
30 Degree Press. Angle
Pitch 16/32
Major Diameter: 22.17/22.15 (.873/.872)
Minor Diameter: 18.63/18.35 (.7335/.7225)
Flat Root
Major Diameter Fit

PERFORMANCE CHARACTERISTICS

VC10F / VC20F SINGLE PUMPS



Based on viscosity 32 cSt (150 SSU) oil at 49°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)

Theoretical Flow (0 Bar)

To calculate the real flow at a given operating pressure, substract the internal leakage value for this pressure (see diagram below) from the theoretical flow. (See diagram above).

Theoretical Input Power at 300 Bar

To calculate the theoretical input power at other pressures and speeds, use the formula:

$$P(Kw) \quad \frac{Q(L/min.) \times P(Bar)}{600}$$

Where Q is the theoretical flow (upper left diagram) and P the operating pressure.

To calculate the real input power, add to the theoretical power the hydromechanical power losses (see diagram below).

Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50 % of theoretical flow