

# SALES AND ENGINEERING DATA

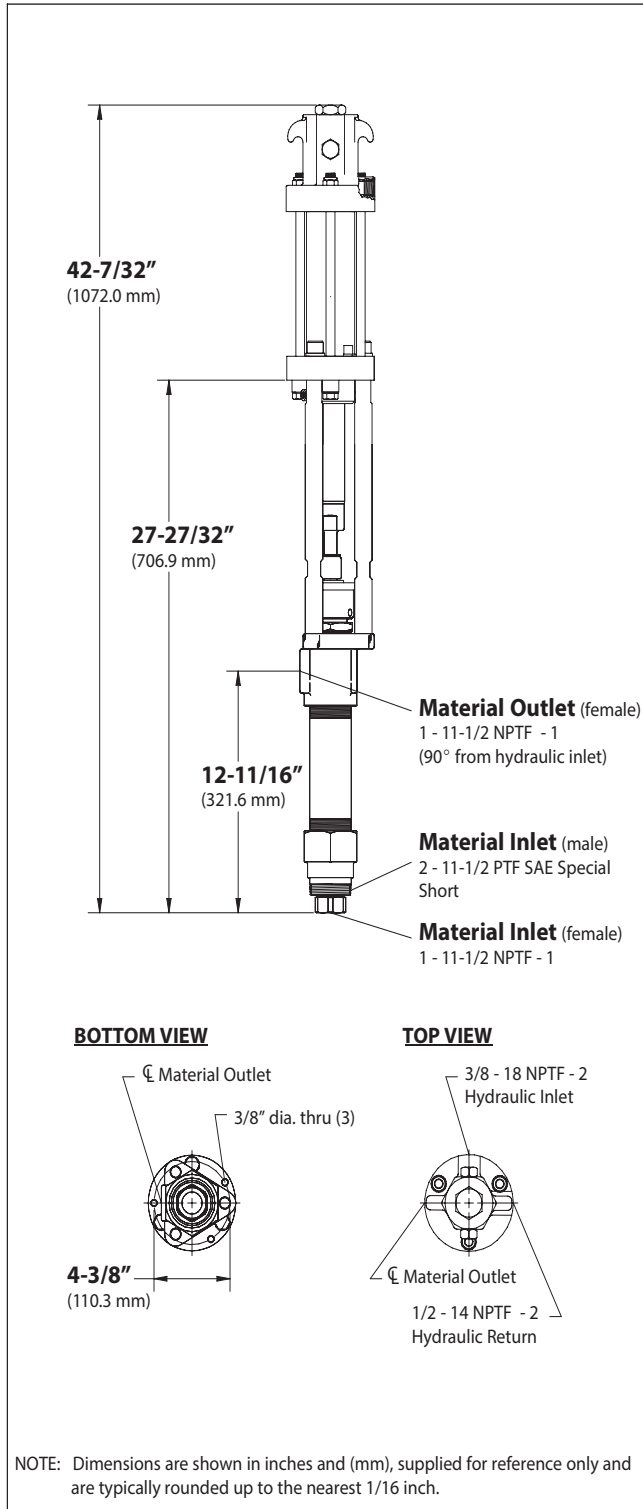
RATIO: **3.3:1**  
SERIES:

FLUID PSIG: **165 - 3960**  
RANGE:

## 650944-XXX-B TWO - BALL PUMP

RELEASED: 9-20-01  
REVISED: 8-18-17  
(REV: G) S-1248

### DIMENSIONAL DATA



### SPECIFICATIONS

#### CONSTRUCTION

<b>Model Series</b> (refer to option chart)	650944-XXX-B
<b>Pump Type</b>	Hydraulic Operated, Two - Ball, Double Acting Pump
<b>Ratio</b>	3.3:1
<b>Hydraulic Motor</b>	67147-B
<b>Motor Repair Kit</b>	637449
<b>Motor Size</b>	2.062 sq." (13.3 sq. cm)
<b>Stroke</b>	6" (15.2 cm)
<b>Hydraulic Inlet (female)</b>	3/8 - 18 NPTF - 2
<b>Hydraulic Return (female)</b>	1/2 - 14 NPTF - 2
<b>Lower Pump End Series</b>	66301-XXX
<b>Lower Pump Repair Kit</b>	637306-X43

#### Packing Options:

3 - Glass filled PTFE  
C - UHMW-PE  
G - UHMW-PE / Leather staggered  
P - UHMW-PE / Glass filled PTFE staggered upper • UHMW-PE lower  
R - Glass filled PTFE / UHMW-PE staggered upper • Glass filled PTFE lower

<b>Material Inlet (female)</b>	1 - 11-1/2 NPTF - 1
(male)	2 - 11-1/2 PTF SAE spec. short
<b>Material Outlet (female)</b>	1 - 11-1/2 NPTF - 1

#### MATERIALS OF CONSTRUCTION

<b>Outlet Body</b>	CF-8M Stainless Steel
<b>Cylinder (650944-XX3-B)</b>	316 SS, Hard Chrome
(650944-XXB-B)	316 SS, Ceramic coated
<b>Plunger (650944-XX3-B)</b>	17-4 SS, Hard Chrome
(650944-XXB-B)	17-4 SS, Ceramic coated
<b>Upper Ball</b>	Tungsten Carbide
<b>Upper Seat</b>	Tungsten Carbide
<b>Lower Ball (650944-X4X-B)</b>	316 Stainless Steel
(650944-X7X-B)	440 Stainless Steel
<b>Lower Seat</b>	Tungsten Carbide
<b>Inlet Body</b>	CF-8M Stainless Steel
<b>Weight</b>	41.3 lbs (18.7 kgs)

#### PERFORMANCE

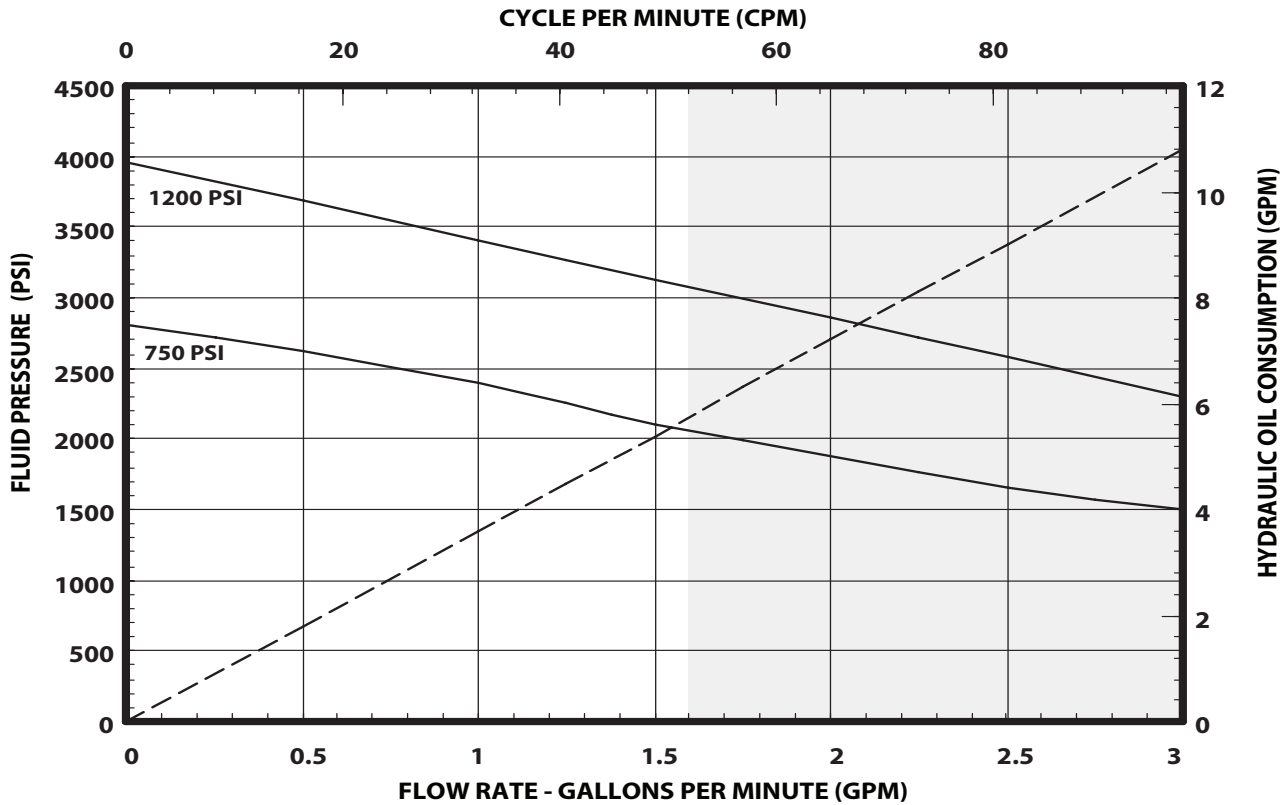
<b>Hydraulic Inlet Pressure Range</b>	50 - 1200 psig (3.4 - 82.8 bar)
<b>Fluid Pressure Range</b>	165 - 3960 psig (11.4 - 273.1 bar)
<b>Required H-power @ 50 cpm</b>	3.2 @ 1200 psig (82.8 bar)
<b>Hydraulic flow required @ 50 cpm</b>	4.9 gpm (18.5 lpm)
<b>Maximum Rec'd Cycles / Minute</b>	50
<b>Displacement Per Cycle</b>	7.434 In <sup>3</sup> (121 cc)
<b>Cycles Per Gallon</b>	31.1
<b>Flow @ 50 Cycles / Minute</b>	1.6 gpm (6.1 lpm)
<b>Noise Level</b>	N / A
<b>Maximum Temperature Limit</b>	130° F (54° C)

#### ACCESSORIES:

67069 Wall Mount Bracket

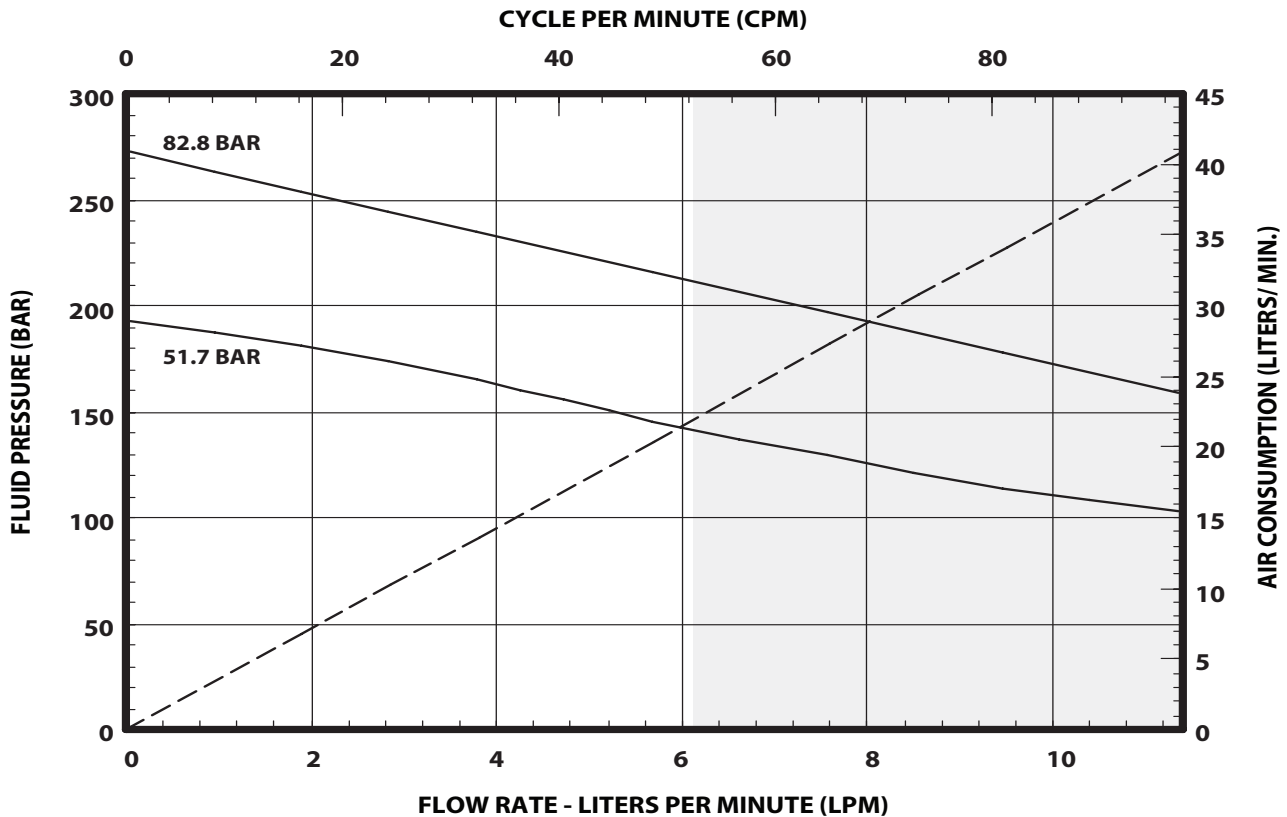
# PERFORMANCE CURVES

## PERFORMANCE BASED ON 30wt. OIL (100cSt) AT 40°C TEMPERATURE



NOTE: NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE

## PERFORMANCE BASED ON 30wt. OIL (100cSt) AT 40°C TEMPERATURE



NOTE: NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE