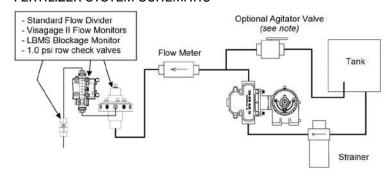
# THE COMPLETE FERTILIZER PACKAGE

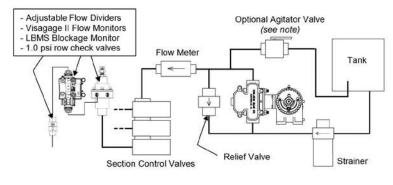


## THE MOST RELIABLE LIQUID FERTILIZER SYSTEM ON THE MARKET TODAY IS **SIMPLE**.

#### FERTILIZER SYSTEM SCHEMATIC



#### FERTILIZER SYSTEM SCHEMATIC WITH SECTION CONTROL



Typical schematic for a hydraulically driven system. Flow meters are only necessary with a hydraulically driven system and are not necessary or typically used for a ground driven system.

- A great system starts with a Next Generation Piston Pump.
- Choose to drive your system with a Variable Rate Hydraulic Drive (VRH) or a Ground Drive System (DRV).
- If needed, add a Pulsation Dampener for smooth application delivery for low-flow applications.
- Choose a divisional system for equal distribution and accuracy.
- Add the VisaGage II to monitor your flow or couple the VisaGage II to the Liquid Blockage Monitor System (LBMS). With LBMS you will know the flow from your tractor cab.
- Add in-line check valves to stop unwanted dripping at the application point.
- Set the fertilizer rates and get the iob done.

# THE JOHN BLUE **COMPLETE SYSTEM**

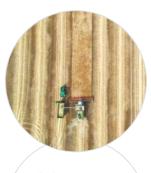
## THE JOHN BLUE COMPLETE SYSTEM IS:

Accurate: Application rates DO NOT change due to temperature fluctuations.

Precise: A John Blue Piston Pump can pull product from your tanks for even application rates.

Flexible: Available with either a Variable Rate Hydraulic or Ground Drive Kit.

Reliable: Built to last, engineered for performance.



#### HOW TO SELECT A COMPLETE FERTILIZER PACKAGE:

- How many rows do you have?
- What is your swath width (row spacing distance multiplied by # of rows)?
- What application rate do you want to achieve?



#### SELECT THE PISTON PUMP THAT BEST FITS YOUR NEEDS.

(see charts under each pump series description pages 10-18).



## CHOOSE TO DRIVE YOUR SYSTEM WITH A VARIABLE RATE HYDRAULIC DRIVE (VRH) OR A GROUND DRIVE SYSTEM (DRV):

#### **DRV KITS: (PAGES 19-20)**

- DRV-3300 Complete Ground Drive System, including pump mount and drive. It automatically adjusts for your terrain.
- DRV-3200 Universal Mount that uses the existing shaft from your planter.
- DRV-3100 Gauge Wheel only.
- DRV-3000 is ideal for fixed height. Includes pump mount and drive.



#### VRH KITS: (PAGES 21-23)

Bar mount and direct drive kits to fit common electronic packages:

- JD series fits John Deere® CANbus Planters using GreenStar™ GS2 and GS3
- PWM (pulse width modulation) series is for Raven®, Ag Leader®, Dickey-john® and others. Used for variable rate and sectional shut-off.
- MAN (manual) series uses your tractor's hydraulics for a simple hydraulically driven system.

#### LOW-FLOW APPLICATION THAT NEEDS VERY SLOW PUMP RPM? (PAGE 21)

THE COMPLETE FERTILIZER PACKAGE Selecting Your System

- Our Pulsation Dampener allows the piston pump to be turned slower for low application rates, delivering fertilizer smoothly across your field.
- It conveniently threads directly into the outlet port of your piston pump or plumbed remotely into your discharge line.
- Constructed of robust schedule 80 PVC pipe, it forms an air cushion in the 1 ½" pipe body making the flow extremely smooth.



### CHOOSE A DIVISIONAL SYSTEM FOR EQUAL DISTRIBUTION:

#### FLOW DIVIDERS: LOW PRESSURE, SELF-ADJUSTING DIVISION (PAGE 24)

How many outlets do you need?

For 6 outlets or sectional shutoff select the FD-0610.

For 12 outlets or less select the FD-1210.

For 20 outlets or less select the FD-2010.

#### OR ORIFICE SELECTOR: HIGH PRESSURE, FIXED DIVISION (PAGE 26)

- 1. Turn your John Blue Visagage II into a self-contained orifice changing system
- 2. Simply select from one of four orifice settings on each disc. Four discs provide for sixteen different options.
- 3. Adjustment is guick no need to travel to each row unit and work with plumbing near the ground



## KNOW YOUR FLOW™ WITH VISAGAGE FLOW MONITORS AND THE LIQUID BLOCKAGE MONITOR SYSTEM: (PAGES 26-32)

- Determine the number of outlets you need.
- Bank together single columns, sets of four, or any combination you choose. Clasp them together with the stainless steel clips and Viton® o-rings and its ready to go.
- Couple it to LBMS and see both low-flow and no-flow from your tractor cab with the Premium Wireless System, Standard Control Wired Panel, or ISOBUS system.

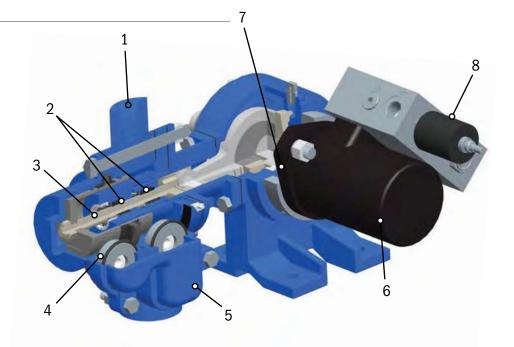
LONGTIME AG CUSTOMER... LOVE YOUR PUMPS!!

- THOMAS

# **NGP PISTON PUMPS**

#### NGP-6055-HY

All John Blue Ag Piston Pumps have been designed, engineered, and extensively field tested to set the standard for liquid metering pumps.



#### **NEXT GENERATION PISTON PUMP FEATURES:**



- 1. Inlet and Outlet Flanges make it easier to plumb your system and eliminate leaks with flange fittings. (Add -F after model number).
- 2. Double piston rod seals work in unison to offer multiple stage protection between the wet end and crankcase.
- 3. Outboard cylinder plunger packing can be inspected or replaced in the field without removing the hoses.
- 4. Check Valves are designed for positive seal, easy priming and long life.
- 5. Single Valve Cap provides easy access to check valves without removing the hoses. Simple to service in the field.

- 6. Common or Independent Manifolds are available on the double pumps. Independent manifolds allow for dual flow divider usage or half-width application.
- 7. Main Shaft Seals incorporate a dual wiper that is enclosed in a grease cavity to flush out contamination. This helps to extend the life of the pump.
- 8. Direct Hydraulic Drive Piston Pumps are available along with standard Ground Drive (DRV) and Variable Rate Hydraulic Drive Kits (VRH).

Note: All standard Piston Pumps are cast iron and manufactured with Viton® Piston Packings and Buna O-rings and rod packings. Most commonly used with liquid fertilizers that have pH greater than 5 and standard herbicides that are compatible with Buna and Viton®.

## NGP-4055-F SERIES

Single Piston - Double Acting	Rated Speed - 450 RPM
Stroke - Variable	Inlet - 1" Inlet, 200 series flanges standard
Rated Flow - 10.2 GPM	Outlet - 1" Inlet, 200 series flanges standard
Rated Pressure - 120 PSI	Clutch - No Clutch

NEXT-GENERATION Piston Pumps (NGP)



## NGP-4055-HYF (HYDRAULIC DRIVE PISTON PUMP)

Single Piston – Double Acting	Rated Speed - 550 RPM
Stroke - Fixed	Inlet/Outlet -1" inlet, 200 series flanges standard
Rated Flow - 10.2 GPM	Rated Pressure - 120 PSI
Accepts SAE A 2-bolt hydraulic mo	otor with 1" shaft

#### **HYDRAULIC MOTOR/PWM MANIFOLD KITS AVAILABLE:**

**116205-91:** Flow-thru style manifold **116205-91D:** Dead-head style manifold

Rows	Swath in Inches		NGP-4055-F Application Range in GPA at 5 MPH			
			30 Inch	Spacing	36 Inch	spacing
	30	36	Min	Max	Min	Max
4	120	144	4.5	101.0	3.7	84.2
8	240	288	2.2	50.5	1.9	42.1
12	360	432	1.5	33.7	1.2	28.1
16	480	576	1.1	25.2	0.9	21.0
24	720	864	0.7	16.8	0.6	14.0
36	1080	1296	0.5	11.2	0.4	9.4

 ${\it All \ calculations \ based \ on \ ground \ speed \ of \ 5 \ MPH. \ Rated \ Flow \ Based \ on \ 12 \ lbs. \ per \ gallon \ fertilizer.}$ 



## NGP-5055-DRF SERIES

Double Piston - Double Acting	Rated Speed - 450 RPM
Stroke - Variable	Inlet - 1" Inlet, 200 series flanges standard
Rated Flow - 20.4 GPM	Outlet - 1" Inlet, 200 series flanges standard
Rated Pressure - 120 PSI	Clutch - No Clutch

Rows	Swath in Inches		NGP-5055-DRF Application Range in GPA at 5 MPH			
			30 Inch Spacing		36 Inch Spacing	
	30	36	Min	Max	Min	Max
4	120	144	9.2	207.9	7.7	173.3
8	240	288	4.6	104.0	3.9	86.6
12	360	432	3.1	69.3	2.6	57.8
16	480	576	2.3	52.0	1.9	43.3
24	720	864	1.5	34.7	1.3	28.9
36	1080	1296	1.0	23.1	0.9	19.3

 $All\ calculations\ based\ on\ ground\ speed\ of\ 5\ MPH.\ Rated\ Flow\ Based\ on\ 12\ lbs.\ per\ gallon\ fertilizer.$ 

# NEXT-GENERATION Piston Pumps (NGP)



## NGP-5655-ARF SERIES

Double Piston - Double Acting	Rated Speed - 450 RPM
Stroke - Variable	Clutch - No Clutch
Rated Pressure - 120 PSI	
Rated Flow: 31.2 GPM total; 10.2	2 GPM small side; 21 GPM large side
Inlet/Outlet small cylinder head -	· 1" FPT 200 series flanges
Inlet /Outlet large cylinder head -	1 1/2" FPT 220 series flanges

- » Apply two products at two rates with one pump
- » Max ratio 10 to 1, min ratio 2 to 1

Rows	Swath in Inches		NGP-5	5655-ARF Applicati (small sid	on Range in GPA at e of pump)	5 MPH
			30 Inch	Spacing	36 Inch	Spacing
	30	36	Min	Max	Min	Max
4	120	144	4.6	104.0	3.9	86.7
8	240	288	2.3	52.0	2.0	43.3
12	360	432	1.6	34.7	1.3	28.9
16	480	576	1.2	26.0	1.0	21.7
24	720	864	0.8	17.4	0.7	14.5
36	1080	1296	0.5	11.6	0.5	9.7

The chart above is for the small side of the pump. Calculate first the small side and then calculate the large side with the chart below All calculations based on ground speed of 5 MPH. Rated Flow Based on 12 lbs. per gallon fertilizer.

Rows	Swath in Inches		NGP-		on Range in GPA at e of pump)	: 5 MPH
			30 Inch	Spacing	36 Inch	Spacing
	30	36	Min	Max	Min	Max
4	120	144	9.2	207.9	7.7	173.3
8	240	288	4.6	104.0	3.9	86.6
12	360	432	3.1	69.3	2.6	57.8
16	480	576	2.3	52.0	1.9	43.3
24	720	864	1.5	34.7	1.3	28.9
36	1080	1296	1.0	23.1	0.9	19.3

The chart above is for the large side of the pump.

All calculations based on ground speed of 5 MPH. Rated Flow Based on 12 lbs. per gallon fertilizer.

## NGP-6050 SERIES

Single Piston - Double Acting	Rated Speed - 450 RPM
Stroke - Variable	Inlet - 1 ½" FPT
Rated Flow - 21.0 GPM	Outlet - 1 ½" FPT
Rated Pressure - 120 PSI	Clutch - Various Options

NEXT-GENERATION Piston Pumps (NGP)

#### **MODELS AVAILABLE:**

NGP-6050	Rope Control Clutch			
NGP-6055	Without Clutch			
NGP-6058	Electric Control Clutch			
NGP-6059	Hydraulic Control Clutch			



## NGP-6055-HYF (HYDRAULIC DRIVE PISTON PUMP)

Single Piston - Double Acting	Rated Speed - 550 RPM
Stroke - Fixed	Inlet/Outlet-1 ½" inlet, 220 series flanges optional
Rated Flow - 21.0 GPM	Rated Pressure - 120 PSI
Accepts SAE A 2-bolt hydraulic m	otor with 1" shaft

Use with a John Blue Hydraulic Motor/PWM Manifold Kit.

#### **MODELS AVAILABLE:**

NGP-6055-HYF Includes flange NGP-6055-HY Without flange



#### **HYDRAULIC MOTOR/PWM MANIFOLD KITS:**

Flow-thru style manifold (shown) 116205-91D: Dead-head style manifold

Rows	Swath i	n Inches	NGP-6055 Application Range in GPA at 5 MPH			
			30 Inch Spacing		36 Inch Spacing	
	30	36	Min	Max	Min	Max
4	120	144	9.2	207.9	7.7	173.3
8	240	288	4.6	104.0	3.9	86.6
12	360	432	3.1	69.3	2.6	57.8
16	480	576	2.3	52.0	1.9	43.3
24	720	864	1.5	34.7	1.3	28.9
36	1080	1296	1.0	23.1	0.9	19.3

All calculations based on ground speed of 5 MPH. Rated Flow Based on 12 lbs. per gallon fertilizer. 316 SS available on wet end casting.

## NEXT-GENERATION Piston Pumps (NGP)



## NGP-7050 SERIES

Single Piston - Double Acting	Rated Speed - 450 RPM
Stroke - Variable	Inlet - 1 ½" FPT
Rated Flow - 34.2 GPM	Outlet - 1 ½" FPT
Rated Pressure - 120 PSI	Clutch - Various Options

#### **MODELS AVAILABLE:**

NGP-7050 **Rope Control Clutch** NGP-7055 Without Clutch NGP-7058 **Electric Control Clutch** NGP-7059 **Hydraulic Control Clutch** 

Additional model options, including flanges, on page 18



## NGP-7055-HY (HYDRAULIC DRIVE PISTON PUMP)

Single Piston - Double Acting	Rated Speed - 550 RPM			
Stroke - Fixed	Inlet/Outlet-1 ½" inlet, 220 series flanges optional			
Rated Flow - 34.2 GPM	Rated Pressure - 120 PSI			
Accepts SAE A 2-bolt hydraulic motor with 1" shaft				

Use with a John Blue Hydraulic Motor/PWM Manifold Kit.

#### **MODELS AVAILABLE:**

NGP-7055-HYF Includes flange



#### **HYDRAULIC MOTOR/PWM MANIFOLD KITS:**

116205-91: Flow-thru style manifold (shown) 116205-91D: Dead-head style manifold

Rows	Swath i	in Inches	NGP-7050 Application Range in GPA at 5 MPH			
			30 Inch		36 Inch Spacing	
	30	36	Min	Max	Min	Max
4	120	144	15.0	338.6	12.5	282.2
8	240	288	7.5	169.3	6.3	141.1
12	360	432	5.0	112.9	4.2	94.1
16	480	576	3.8	84.6	3.1	70.5
24	720	864	2.5	56.4	2.1	47.0
36	1080	1296	1.7	37.6	1.4	31.4

All calculations based on ground speed of 5 MPH. Rated Flow Based on 12 lbs. per gallon fertilizer. 316 SS available on wet end casting.