

# GX5



GX5 LFP120



GX5 LFP160

| PUMP MODEL | DIAPHRAGMS | MAX FLOW (GPM) | MAX GPA ON<br>40' @ 5 MPH | MAX GPA ON<br>60' @ 5 MPH |
|------------|------------|----------------|---------------------------|---------------------------|
| GX5 LFP80  | 3          | 18             | 45                        | 30                        |
| GX5 LFP120 | 3          | 28             | 70                        | 47                        |
| GX5 LFP160 | 4          | 35             | 87                        | 58                        |
| GX5 D250   | 6          | 55             | 135                       | 90                        |

**S/N STICKER**



**NOTE:** This is only a guide! Please consult your OEM dealer for detailed instructions or troubleshooting!



### LFP SPECIALTY PUMP FEATURES:

- Low Maintenance
- Long lasting BlueFlex diaphragms for resistance to applying chemicals and aggressive liquid fertilizers.
- Minimal Hydraulic Oil Usage
- High Pressure Capabilities
- Stainless Steel Components
- All parts in contact with fertilizers are polypropylene & stainless steel for high flow and better corrosion resistance.
- The 3+ cylinder design will allow the pump to prime faster with less vibration during use.
- Range of 0.5 - 18 GPM low rate BlueFlex Technology for long life diaphragms, resistance to applying chemicals and aggressive fertilizers.

# GX5



**AGXCEL'S PWM**

Utilizing AgXcel's proprietary PWM Hyd Valve for unmatched Hydraulic management & system performance.

- Our GX5 Hydraulic systems use low pressure diaphragm pumps that can apply a wide variety of chemicals with different viscosities, from .5 GPM to 55 GPM.
- Our GX5 low pressure diaphragm hydraulic pump systems are simultaneously exquisitely sophisticated in terms of precision application of liquid fertilizer, perfectly in line with the need to protect the environment of today and tomorrow.
- Designed for a wide range of professional agricultural application environments:
  - **Planting**
  - **Drilling**
  - **Side Dressing**
  - **Strip-Tilling**
  - **Pre-Bedding for Potatoes**
  - **Custom Applications**



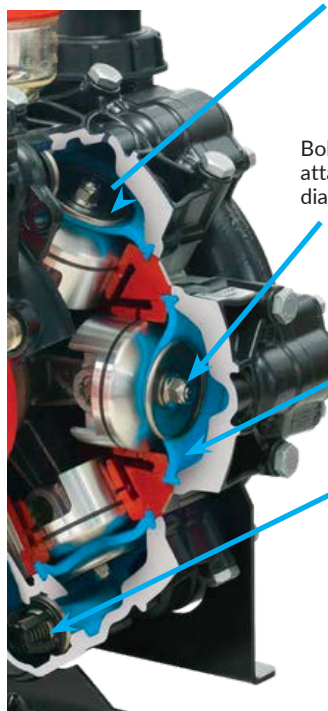
N°2 High Quality needle bearings under the connecting rods to reduce friction



Pump head in Nylon for aggressive chemicals.



For all those especially demanding jobs go with the BLUEFLEX diaphragms that are a step ahead. Go beyond your expectations!



Large valves in AISI 316 for best hydraulic efficiency and better resistance to chemical agents.

Bolts and nuts for attaching the diaphragm in AISI 316.



BlueFlex Diaphragm

Long-life BlueFlex® diaphragms for resistance to spraying chemicals and aggressive liquid fertilizers.

Seals in Viton on our LFP Pumps.



GX5 LFP 80

The GX5 LFP45 is a great pump to use with vApplyHD. Minimal to Zero pulsation for steady, consistent flow. Low maintenance enhanced with Blueflex Technology.



### QUICK REFERENCE GX5 KITS

# GX5



| DIAPHRAGM KITS | PN#   | DESCRIPTION                        |
|----------------|-------|------------------------------------|
|                | 55564 | LFP45/BP45 BLUE FLEX DIAPHRAGM KIT |
|                | 55568 | LFP 45 VITON DIAPHRAGM KIT         |
|                | 55570 | LFP 80 BLUE FLEX DIAPHRAGM KIT     |
|                | 55569 | LFP 80 VITON DIAPHRAGM KIT         |
|                | 37703 | D70 BLUE FLEX DIAPHRAGM KIT        |
|                | 37708 | D115 BLUE FLEX DIAPHRAGM KIT       |
|                | 55572 | LFP120 BLUE FLEX DIAPHRAGM KIT     |
|                | 55574 | LFP120 VITON DIAPHRAGM KIT         |
|                | 37730 | D160 BLUE FLEX DIAPHRAGM KIT       |
|                | 37732 | D250 BLUE FLEX DIAPHRAGM KIT       |



| VALVE KITS | PN#   | DESCRIPTION            |
|------------|-------|------------------------|
|            | 55565 | BP45 VALVE KIT         |
|            | 55566 | LFP 45 VITON VALVE KIT |
|            | 55576 | BP 80 VALVE KIT        |
|            | 55575 | LFP 80 VITON VALVE KIT |
|            | 29934 | D70 VALVE KIT          |
|            | 29936 | D115 VALVE KIT         |
|            | 55575 | LFP120 VITON VALVE KIT |
|            | 29937 | D160 VALVE KIT         |
|            | 29930 | D250 VALVE KIT         |



| O'RING KITS | PN#   | DESCRIPTION             |
|-------------|-------|-------------------------|
|             | 37760 | BP45 O'RING KIT         |
|             | 37735 | LFP 45 VITON O'RING KIT |
|             | 37772 | BP 80 O'RING KIT        |
|             | 37761 | LFP 80 VITON O'RING KIT |
|             | 29935 | D70 O'RING KIT          |
|             | 29922 | D115 O'RING KIT         |
|             | 34739 | LFP120 VITON O'RING KIT |
|             | 29905 | D160 O'RING KIT         |
|             | 29903 | D250 O'RING KIT         |

|       |                            |
|-------|----------------------------|
| 37720 | D70 DAMPER DIAPHRAGM       |
| 55197 | D70 DAMPER DIAPHRAGM CLAMP |

|       |           |
|-------|-----------|
| 57489 | OIL QUART |
|-------|-----------|



## AgXcel Fertilizer Application System Overview

Thank you for purchasing an AgXcel Precision Liquid Fertilizer Application System (FAS) for your liquid placement requirements. The AgXcel FAS system can be integrated into the following OEM controllers:

- AgLeader
- Case
- John Deere
- Trimble
- Raven
- Top Con
- Outback

This integration into these displays will require each of the OEM's Liquid Control Module which will need to be purchased from your local OEM dealer. The rate controller will provide the data required to manage the speed of the AgXcel electric or hydraulic pumps based on the flow response of the flow meter and the vehicle speed. The FAS system is also capable of managing section controls, also referred to as swath control, to minimize overlap areas with optional section control valves.

## INITIAL INSTALLATION STEPS

- Install the OEM display and Liquid Control Module per OEM instructions.
- Open the AgXcel GX packages. Layout and familiarize yourself with the components.
- Mount the GX5 system on your equipment.
- Plumb the tank to the GX5. Pump kit includes a 30 mesh filter.
- Install the manifold system. This is a GX1 chassis base bracket that have floating ball indicators. These will mount on the tool bar. Check valves should be mounted according to the mounting instructions provided and plumbing to each row unit delivery point from the floating ball indicators.
- Attach the flow meter outlet to section valve or manifold inlet. If using section valves, attach section valve outlets to the corresponding floating ball indicator inlets.
- Attach harnesses to the appropriate OEM liquid rate controller.
- Setup OEM controller to manage. An AgXcel quick start is provided according to integration provided.
- Fill system with water and conduct initial operation and tests to ensure all setting and calibrations are correct.
- Winterize system with RV antifreeze if freezing temperatures are expected.

### AGXCEL MAGNETIC FLOWMETER OPTION

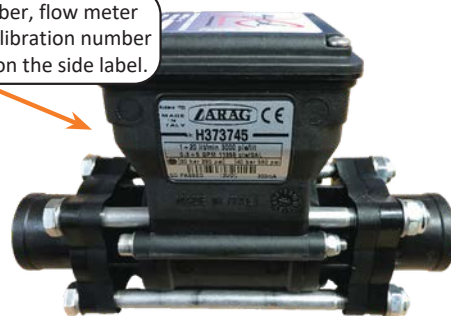
(Read Instructions Completely before Beginning Installation)

#### AGXCEL ORION 2+ FLOWMETERS

The AgXcel Mag Flowmeter is a magnetic flowmeter, also known as an electromagnetic flowmeter. A magnetic field is applied to the metering tube, which results in a potential difference proportional to the flow velocity perpendicular to the flux lines. The physical principle at work is electromagnetic induction. The Mag Meter is superior to other flowmeters since there are no moving parts to replace or maintain when dirty or fertilizer with particles is present. Also given that the Mag Meter detects the flow of ions in the liquid, it can therefore accommodate for viscosity or liquid density changes. Given the superior features of the Magnetic Flowmeter, a quick catch test is always recommended to ensure precision application.

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Serial number, flow meter range and calibration number are all listed on the side label.



The new style Magnetic Flow Meters have a black body casing with an integrated AMP Super seal connector.



When using a magnetic flow meter one of the harnesses below must be used for the OEM controller to be able to calculate the flow. See chart below.

#### Orion 2+ Magnetic Flowmeters:

- 0.053 - 5.3 GPM.....11355
- 0.53 - 53 GPM.....1135
- 2.11 - 211 GPM.....284

A controller that requires a DB8 harness is due to the fact that when inputting the flow meter cal number, some controllers can only input 4 digits. A DB8 harness will take the pulses per gallon and divide it by 8. Giving you a 4 digit cal number.

**NOTE:** To get the cal numbers for Micro-Trak controllers the formula is - Divide by 8, multiply by 2.

STANDARD ADAPTER HARNESS.  
P/N - 53671



DIVIDE BY 8 HARNESS  
P/N - 38228

#### AGXCEL TURBINE FLOW METERS

FM750 Reg  
Micro-Trak Cal Number - 145 (SprayMate, Auto-X)  
Pulses Per Gallon - 72.50 (JD, AGL, Trimble)  
Pulses Per 10 Gallon - 725 (Raven)

FM750 LF  
Micro-Trak Cal Number - 466 (Spraymate, Auto-X)  
Pulses Per Gallon - 233 (JD, AGL, Trimble)  
Pulses Per 10 Gallon - 2330 (Raven)



### AGXCEL TURBINE FLOWMETER OPTION

(Read Instructions Completely before Beginning Installation)

#### AGXCEL TURBINE FLOWMETER

AgXcel flowmeterkits consist of the flowmeter, sensor, mounting bracket and hose barb fittings. The FM750 GFN turbine flowmeter requires a minimum of 24" of hose, with a gentle curve, should be used after the flowmeter outlet before any fittings are inserted. The FM750 GFN is bidirectional so it works with flow in either direction. The FM750 calibration number is stamped on a metal tag attached to the flowmeter.

The FM750 GFN may need to be disassembled for cleaning or to remove an obstruction.

**\*\* WARNING!!** If disassembled for cleaning be extremely careful not to damage or alter the turbine or casing for this will VOID your warranty\*\*

The diagram below shows the components and proper location of each. If necessary use a mild detergent and brush to clean the flowmeter. The turbine should spin freely in the housing. After disassembly, re-calibration of the flowmeter is recommended as it's flow characteristics may change.

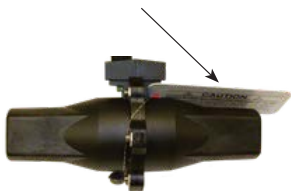
**\*\* The FM750 LF (low flow) flowmeter is identical externally, however, its maximum flow is 12 GPM and it is not recommended with the GX5. it can be identified by: an orange Zip Tie and a Flowmeter Calibration number on metal tag between 400-550.**

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**NOTE:** Flowmeter calibration number may vary. Please check tag on flowmeter for correct calibration.

Calibration/serial number Tag



FM SENSOR CABLE -ONLY-  
PN#53552

| TURBINE FLOW METER |                                                                                                                         | FLOW METER ONLY |
|--------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------|
| KIT PN#            | DESCRIPTION                                                                                                             | PN#             |
| 54870              | AGXCEL LF FLOW METER, FM SENSOR CABLE WITH BRACKETING. GFN FLOW METER KIT .5-12 GPM (1.9-45LPM) 150 PSI, 3/4 FLOW METER | 20309           |
| 54871              | AGXCEL REG FLOW METER, FM SENSOR CABLE WITH BRACKETING. 2-40 GPM (6-150 LPM) 150 PSI, 3/4 FLOW METER                    | 38310           |

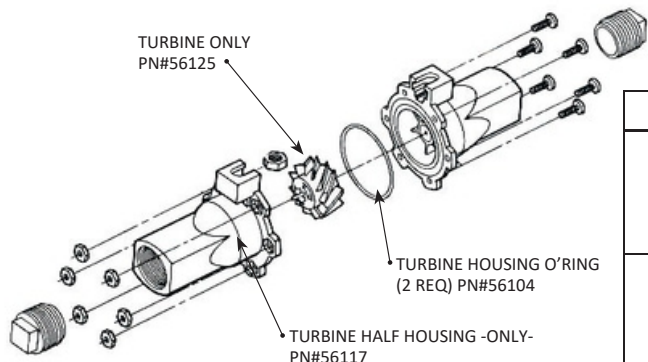
TURBINE HALF HOUSING -ONLY-  
PN#56117 (SPECIAL ORDER)

TURBINE HOUSING O'RING (2 REQ)  
PN#56104 (SPECIAL ORDER)

TURBINE ONLY PN#56125  
(SPECIAL ORDER)



Removing metal tag from Turbine flow meters or altering casing or turbine will void warranty. Any returns or warranty issues will require original documentation (flow meter serial number/calibration tag).



#### AGXCEL TURBINE FLOW METERS

##### FM750 Reg

Micro-Trak Cal Number - 145 (SprayMate, Auto-X)  
Pulses Per Gallon - 72.50 (JD, AGL, Trimble)  
Pulses Per 10 Gallon - 725 (Raven)

##### FM750 LF

Micro-Trak Cal Number - 466 (Spraymate, Auto-X)  
Pulses Per Gallon - 233 (JD, AGL, Trimble)  
Pulses Per 10 Gallon - 2330 (Raven)

**\*\* WARNING!!** If you disassemble the Turbine flow meter for cleaning be EXTREMELY CAREFUL not to damage or alter the turbine or casing for this will VOID your warranty\*\*

### AGXCEL MAGNETIC CALIBRATION CHART

| FLOW RANGE (GPM)<br>DIVIDE BY 8<br>REQUIRED | PULSES PER GAL-LON | JOHN DEERE GS2/GS3 |      | AG LEADER |       | TRIMBLE   |       | MICROTRAK |       |
|---------------------------------------------|--------------------|--------------------|------|-----------|-------|-----------|-------|-----------|-------|
|                                             |                    | DB8 CABLE          | CAL# | DB8 CABLE | CAL#  | DB8 CABLE | CAL#  | DB8 CABLE | CAL#  |
| 0.08 - 1.6                                  | 22710              | YES                | 2839 | NO        | 22710 | NO        | 22710 | NO        | 45420 |
| 0.13 - 2.6                                  | 22710              | YES                | 2839 | NO        | 22710 | NO        | 22710 | NO        | 45420 |
| 0.3 - 5                                     | 11355              | YES                | 1419 | NO        | 11355 | NO        | 11355 | NO        | 22710 |
| 0.6 - 13                                    | 4542               | NO                 | 4542 | NO        | 4542  | NO        | 4542  | NO        | 9084  |
| 1.3 - 26                                    | 2271               | NO                 | 2271 | NO        | 2271  | NO        | 2271  | NO        | 4542  |
| 2.6 - 53                                    | 1135               | NO                 | 1135 | NO        | 1135  | NO        | 1135  | NO        | 2270  |

| GX ORION MAGNETIC FLOW METER KITS                                                                    |                                                                                             | FLOW METER ONLY |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------|
| KIT PN#                                                                                              | DESCRIPTION                                                                                 | PN#             |
| 54877                                                                                                | GXORION KIT - (0.08 TO 1.6 GPM) W/BACKET & MOUNTING HARDWARE                                | 54250           |
| 54876                                                                                                | GXORION KIT - (0.13 TO 2.6 GPM) W/BACKET & MOUNTING HARDWARE                                | 34412           |
| 54875                                                                                                | GXORION KIT - (0.3 TO 5 GPM) W/BACKET & MOUNTING HARDWARE                                   | 34415           |
| 54872                                                                                                | GXORION KIT - (0.6 TO 13 GPM) W/BACKET & MOUNTING HARDWARE                                  | 53615           |
| 54874                                                                                                | GXORION KIT - (1.3 TO 26 GPM) W/BACKET & MOUNTING HARDWARE                                  | 53636           |
| 54873                                                                                                | GXORION KIT - (2.6 TO 53 GPM) W/BACKET & MOUNTING HARDWARE ( 1" FPT )                       | 37613           |
| 55647                                                                                                | GXORION KIT - (2.6 TO 53 GPM) T5M W/BACKET. MOUNTING HARDWARE & T5 FITTINGS ( 1 1/2" BARBS) | 55689           |
| ** Check graph above to see if magnetic flow meter requires standard or Divide by 8 Harness (DB8).** |                                                                                             |                 |

| WOLF LOW FLOW                      |       |
|------------------------------------|-------|
| INTEGRATION                        | CAL # |
| Micro-Trak (SprayMate, AutoX)      | 7680  |
| Pulses Per Gallon (JD/AGL/Trimble) | 3840  |
| Pulses Per Gallon (Raven)          | 38400 |

| WOLF REG FLOW                      |       |
|------------------------------------|-------|
| INTEGRATION                        | CAL # |
| Micro-Trak (SprayMate, AutoX)      | 1890  |
| Pulses Per Gallon (JD/AGL/Trimble) | 945   |
| Pulses Per Gallon (Raven)          | 9450  |



REQUIRES WOLF ADAPTER CABLE PN#55908

| **NEW** WOLF TURBINE FLOW METER |                                                                                                                                        | FLOW METER ONLY |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| KIT PN#                         | DESCRIPTION                                                                                                                            | PN#             |
| 55909                           | WOLF FLOW METER 2.5/50 LT FL. (.7-13GPM) T5 F/M ENDS, WOLF HARNESS ADAPTER, BRACKETING AND 3/4" BARB T5 FITTINGS)                      | 55864           |
| 55911                           | WOLF FLOW METER 10/200 LT FL. (2.6 - 53 GPM) T5 F/M ENDS, WOLF HARNESS ADAPTER BRACKETING AND T5 FITTINGS (OPTIONS OF 3/4" OR 1" BARB) | 55910           |

### GXORION3 FLOWMETERS

Diagnostic LED allows for quick identification of flow and signal issues



See parts catalog layout of kit fittings with options for inlet and outlet. Only the DN17 will need a T3 fitting for direct adaption.

|  |                  |                                                                                            |
|--|------------------|--------------------------------------------------------------------------------------------|
|  | OFF              | The flowmeter is not powered.                                                              |
|  | GREEN FLASHER    | The flowmeter is waiting to acquire an address on the CAN line to which it is connected.   |
|  | GREEN STEADY ON  | Presence of <b>STILL</b> liquid inside the flowmeter.                                      |
|  | BLUE STEADY ON   | The flowmeter is reading the passage of the liquid inside.                                 |
|  | VIOLET STEADY ON | No liquid has been detected inside the flowmeter.                                          |
|  | WHITE STEADY ON  | Cleaning of the reading electrodes in progress.                                            |
|  | RED FLASHER      | The error codes are indicated through blinks, which are described in the table on page 10. |
|  | RED STEADY ON    | <b>SEVERE ERROR:</b> contact a service center.                                             |
|  | ORANGE BLINKING  | Device in bootloader mode for firmware upgrade.                                            |
|  | ORANGE STEADY ON | Device in bootloader mode.                                                                 |

The status indicates the operating status of the device. At startup, during the first 5 seconds, Orion 3 displays its configuration regardless of the presence of an alarm (Green LED Flashing). Each type of blinking (flashing) corresponds to signal as indicated in the table above.

Serial number, flow meter range (DN#) and calibration number are all listed on the side label.

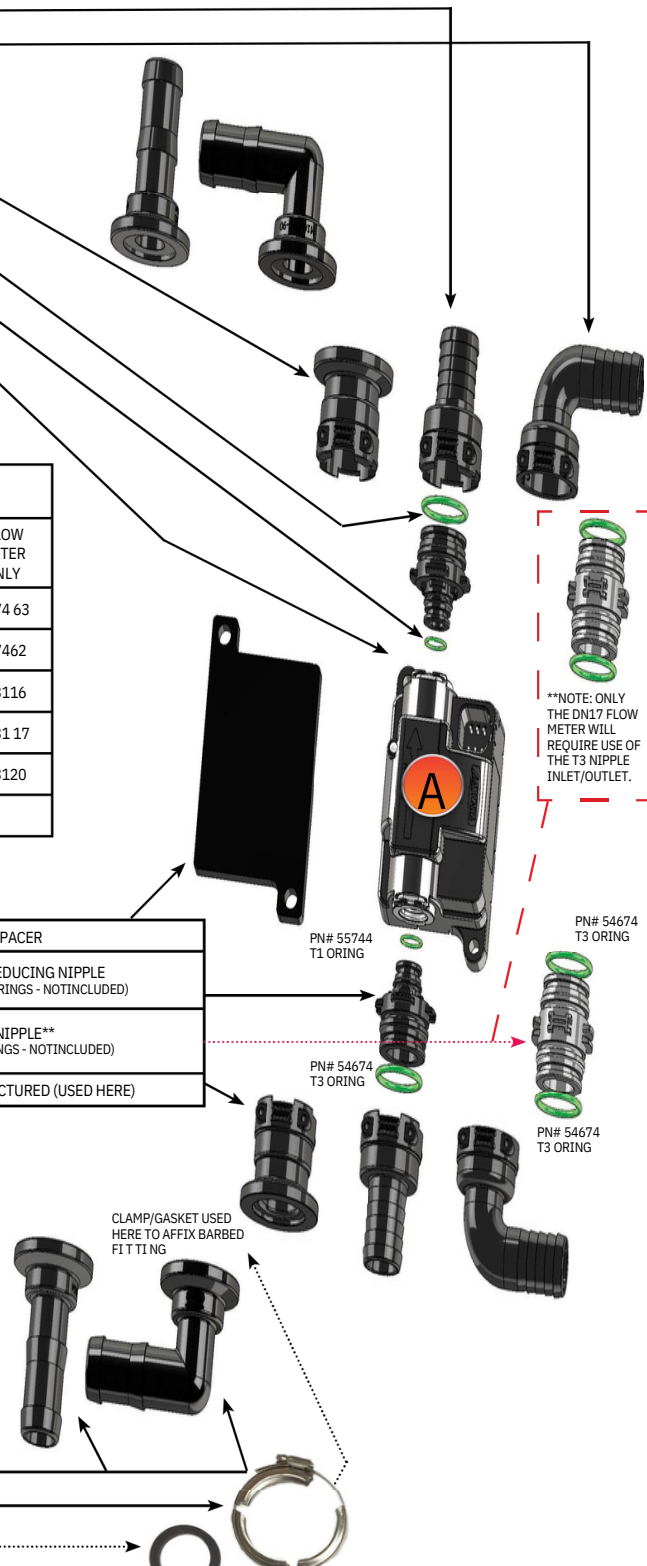
| GXORION3 FLOW CHART                                                                                                                         |                   |                            |      |              |                                     |           |       |                      |       |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------|------|--------------|-------------------------------------|-----------|-------|----------------------|-------|
| FLOW RANGE (GPM)                                                                                                                            | PULSES PER GALLON | JOHN DEERE GS2/GS3 2K LRCM |      | AG LEADER L1 |                                     | TRIMBLE   |       | AUTOX SPRAYMATE PLUS |       |
|                                                                                                                                             |                   | DB8 CABLE                  | CAL# | DB8 CABLE    | CAL#                                | DB8 CABLE | CAL#  | DB8 CABLE            | CAL#  |
| .04 - 1.6 (DN3)                                                                                                                             | 75708             | YES                        | 9464 | YES          | 9464                                | NO        | 75708 | YES                  | 9464  |
| .08 - 3.17 (DN4)                                                                                                                            | 37854             |                            | 4731 |              | 4731                                |           | 37854 |                      | 4731  |
| .26 - 10.5 (DN7)                                                                                                                            | 11356             |                            | 1419 |              | 11356                               |           | 11356 |                      | 22710 |
| .52 - 21 (DN10)                                                                                                                             | 4542              | NO                         | 4542 | NO           | 4542                                | NO        | 4542  | NO                   | 9084  |
| 1.45 - 58 (DN)                                                                                                                              | 2063              |                            | 2063 |              | 2063                                |           | 2063  |                      | 4126  |
| FLOW RANGE (GPM)                                                                                                                            | PULSES PER GALLON | RAVEN RCM                  |      | AG LEADER L2 |                                     | MUELLER   |       | GX8                  |       |
|                                                                                                                                             |                   | DB8 CABLE                  | CAL# | DB8 CABLE    | CAL#                                | DB8 CABLE | CAL#  | DB8 CABLE            | CAL#  |
| .04 - 1.6 (DN3)                                                                                                                             | 75708             | YES                        | 9464 | YES          | 9464                                | NO        | 75708 | YES                  | 9464  |
| .08 - 3.17 (DN4)                                                                                                                            | 37854             |                            | 4731 |              | 4731                                |           | 37854 |                      | 4731  |
| .26 - 10.5 (DN7)                                                                                                                            | 11356             |                            | 1419 |              | 11356                               |           | 11356 |                      | 22710 |
| .52 - 21 (DN10)                                                                                                                             | 4542              | NO                         | 4542 | NO           | 4542                                | NO        | 4542  | NO                   | 9084  |
| 1.45 - 58 (DN17)                                                                                                                            | 2063              |                            | 2063 |              | 2063                                |           | 2063  |                      | 4126  |
| WHEN USING A ORION3 FLOW METER ONE OF THE HARNESSES BELOW MUST BE USED FOR THE OEM CONTROLLER TO BE ABLE TO CALCULATE FLOW. SEE CHART ABOVE |                   |                            |      |              |                                     |           |       |                      |       |
| GXORION3 ADAPTER HARNESS PN#13135                                                                                                           |                   |                            |      |              | GXORION3 DIVIDE BY 8 (DB8) PN#13134 |           |       |                      |       |

| PN#            | DESCRIPTION                                                 |
|----------------|-------------------------------------------------------------|
| 5 46 57        | T3 3/4" HOSE BARB                                           |
| 5 46 62        | T3 3/4" HOSE BARB ELBOW                                     |
| 5 46 58        | T3 1" HOSE BARB                                             |
| 5 46 61        | T3 1" HOSE BARB ELBOW                                       |
| 1 31 19        | 1" FLANGE TO T3F FITTING<br>(SEE CHART FOR FLANGE FITTINGS) |
| 5 46 74<br>574 | T3 GASKET VITON<br>T3 GASKET BUNA                           |
| 5 57 44<br>571 | T1 GASKET VITON<br>T3 GASKET BUNA                           |
| 5 57 52        | T1 FORK - NOT PICTURED                                      |

| GXORION FLOW METERS                                                 |                               |                       |
|---------------------------------------------------------------------|-------------------------------|-----------------------|
| KIT<br>PN#                                                          | DESCRIPTION                   | FLOW<br>METER<br>ONLY |
| 1 31 21                                                             | GXORION3 0.04 - 1.6 GPM DN3   | 5 74 63               |
| 1 31 22                                                             | GXORION3 0.08 - 3.17 GPM DN4  | 5 74 62               |
| 1 31 23                                                             | GXORION3 0.26 - 10.5 GPM DN7  | 1 31 16               |
| 1 31 24                                                             | GXORION3 0.52 - 21 GPM DN10   | 1 31 17               |
| 1 31 25                                                             | GXORION3 1.45 - 58 GPM DN17** | 1 31 20               |
| KIT INCLUDES THE INLET/OUTLET ADAPTER FITTINGS AND MOUNTING SPACER. |                               |                       |

|         |                                                                         |
|---------|-------------------------------------------------------------------------|
| 1 31 26 | SPACER                                                                  |
| 1 31 18 | T1 TO T3 REDUCING NIPPLE<br>(NEED 1EA OF T1 & T3 ORINGS - NOT INCLUDED) |
| 5 52 14 | T3 NIPPLE**<br>(NEED 2 - T3 ORINGS - NOT INCLUDED)                      |
| 5 46 77 | T3 FORK - NOT PICTURED (USED HERE)                                      |

| PN#     | DESCRIPTION                                                             | REQUIRES<br>CLAMP &<br>GASKET         |
|---------|-------------------------------------------------------------------------|---------------------------------------|
| 5 13 12 | 1" FLANGE TO 3/4" HOSE BARB                                             | CLAMP = PN#33132<br>GASKET = PN#50016 |
| 3 82 54 | 1" FLANGE TO 3/4" HOSE BARB ELBOW                                       |                                       |
| 5 13 26 | 1" FLANGE TO 1" HOSE BARB                                               |                                       |
| 5 13 28 | 1" FLANGE TO 1" HOSE BARB ELBOW                                         |                                       |
| 5 13 20 | 1" FLANGE TO 1 1/4" HOSE BARB                                           |                                       |
| 5 13 21 | 1" FLANGE TO 1 1/4" HOSE BARB ELBOW                                     |                                       |
| 5 13 24 | 1" FLANGE TO 1 1/2" HOSE BARB ELBOW<br>(NOT AVAILABLE IN A STRAIGHT HB) |                                       |



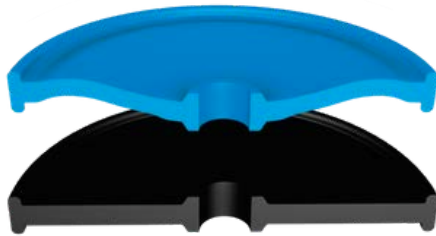
# NEW

# GX5

### HEAVY DUTY & LONGER LIFE DIAPHRAGM

#### SPECIAL SHAPE

The special shape and thickness of the diaphragms has been carefully optimized to reduce mechanical stresses during the working cycle of the pump even under the most difficult working conditions.



#### BLUEFLEX SYSTEM

The combination of the new BlueFlex diaphragms when used with the new patented diaphragm plate is known as the “BlueFlex System”. This translates into heavy duty and long diaphragm life.

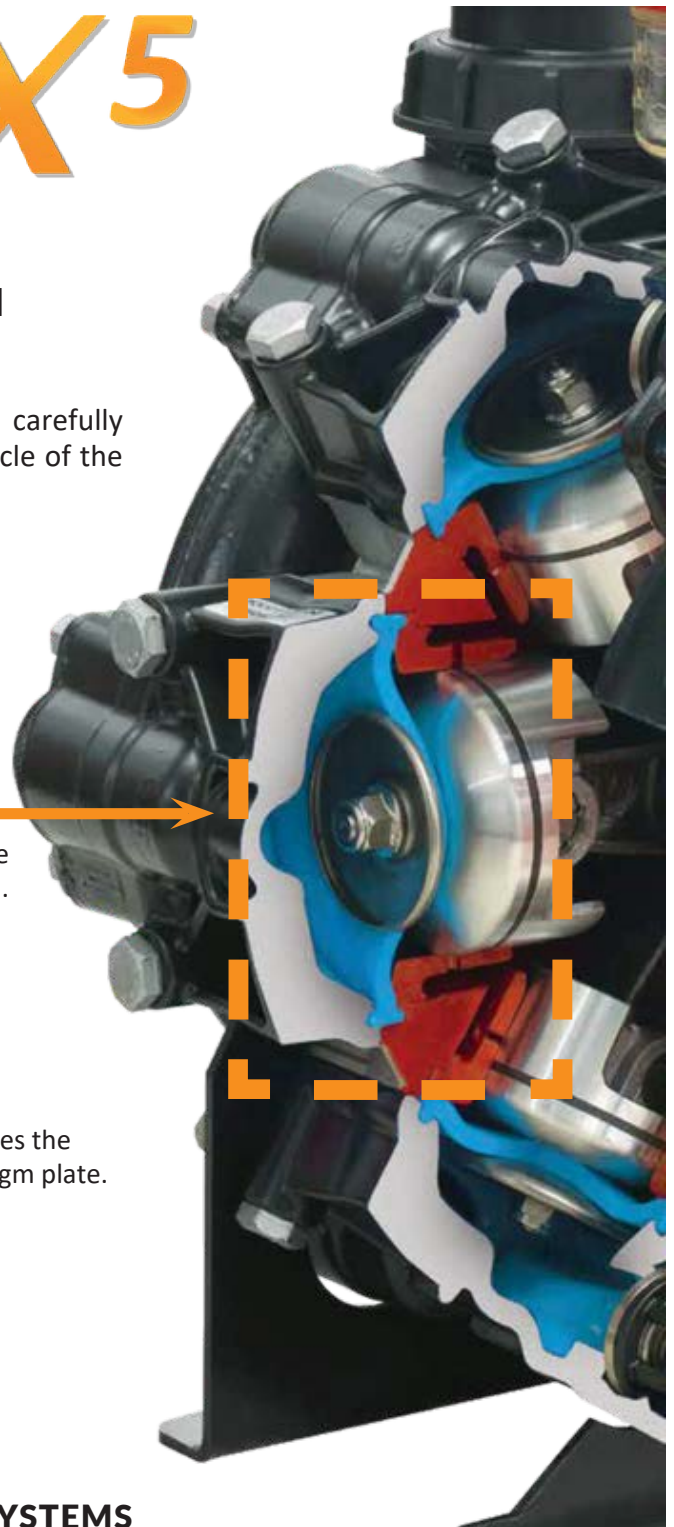
#### PATENTED DIAPHRAGM PLATE FOR BLUEFLEX DIAPHRAGMS

The new patented diaphragm retaining plate has a shape that minimizes the possibility that the diaphragm can get caught or nicked by the diaphragm plate.



### STANDARD FEATURE ON ALL GX5 HYDRAULIC SYSTEMS

*Give us a call to find out which GX5 with BlueFlex is best suited for your needs!*



### GX5 ACCESSORY - PRESSURE SENSOR AND GAUGE

#### MOUNT ON SECTION VALVES

The AgXcel OEM integration harness is capable of implementing a pressure transducer into the system so that system pressure may be displayed on the console in the cab of the tractor. Now even though the in-cab pressure is for informational purposes only, it can be very useful for managing the system.

#### MOUNT ON GX5 OUTLET - LFP 45/ LFP 80 & LFP120



Install the section valve with a 2" end cap and a 1/4" FPT port on the end. This is where the pressure transducer will be installed. The pressure transducer harness will connect to the AgXcel integration harness.

#### MOUNT ON GX5 OUTLET - LFP160 AND D250



PRESSURE  
TRANSDUCER  
KIT PN# 53491

AgXcel has many different pressure gauge mounts and most all AgXcel systems have a visual pressure gauge mounted on the GX5 system



160 PSI - HYDRAULIC PUMP  
GAUGE KIT PN# 53770

### AGXCEL GXTANKTOPUMPKIT

(Read Instructions Completely before Beginning Installation)

#### PN# 53845 (GX5 TANK TO PUMP KIT)

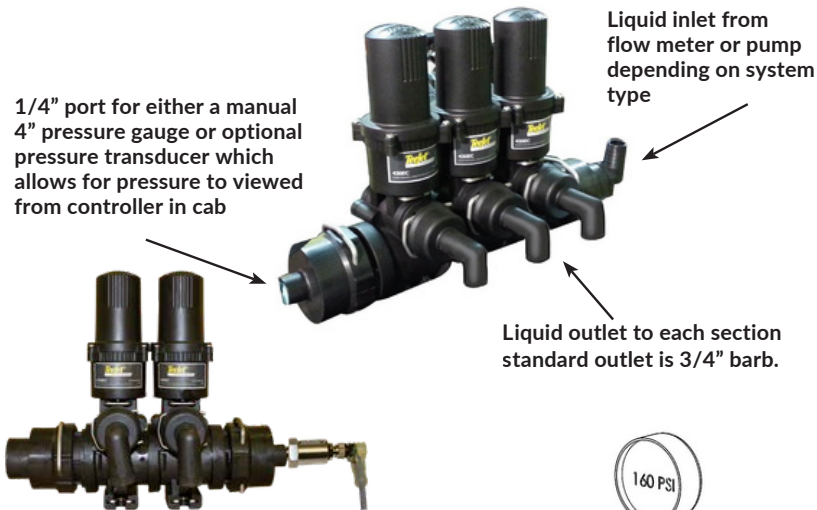


#### GX5 TANK TO PUMP KIT PN# 53845

| PN#   | ITEM             | QTY |
|-------|------------------|-----|
| 51381 | BARB             | 2   |
| 38269 | GASKET           | 3   |
| 51766 | STRAINER 30 MESH | 1   |
| 51383 | 90-BARB          | 1   |
| 38267 | CLAMP            | 3   |

### SECTION VALVES - HOW THEY WORK

Section valves can be assembled into groups with a common inlet to control flow to each section. Common assemblies use up to 5-6 valves, however, more can be used where practical. Many alternate fittings can be used to accommodate different hose sizes and configurations. The valves have a 3 pin weather pack electrical connector. This has a power, ground, and switched wire. The power measured to ground should have 12 volts when the controller is on. The switched wire will have 12 volts to turn the valve on, and 0 volts to turn the valve off.



PRESSURE TRANSDUCER KIT  
PN# 53491

\*\*OPTIONAL PRESSURE TRANSDUCER KIT  
(PN#53491) AVAILABLE FOR PURCHASE  
IN PLACE OF THE GAUGE \*\*



AgXcel has many different pressure gauge mounts and most all AgXcel systems have a visual pressure gauge mounted on the GX5 system

160 PSI - HYDRAULIC PUMP  
GAUGE KIT PN# 53770

| PLUMBING |                                  |
|----------|----------------------------------|
| 17614    | 3/8 BLK HOSE                     |
| 17649    | SST #6 CLAMPS                    |
| 37619    | 1/2 BLK HOSE                     |
| 308      | 3/4 BLK HOSE<br>(PRECUT IN 50FT) |
| 19646    | SST #12 CLAMPS                   |

| MISC HARNESS |                                                  |
|--------------|--------------------------------------------------|
| 53594        | 6 SECTION BOOM HARNESS                           |
| 53800        | 12 SECTION BOOM HARNESS                          |
| 20031        | TRANSDUCER/SECTION<br>EXTENSION (SOLD BY THE FT) |

| GX SECTION KITS                                                                                       |                                                                                                                            | VALVES ONLY |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------|
| KIT PN#                                                                                               | DESCRIPTION                                                                                                                | PN#         |
| 54833                                                                                                 | 1 SECTION VALVE SWATH KIT - INCLUDES MOUNTING BRACKET, POLY FITTINGS, HARDWARE, STAINLESS HOSE CLAMPS AND 50' OF 3/4 HOSE  | 54002       |
| 54834                                                                                                 | 2 SECTION VALVE SWATH KIT - INCLUDES MOUNTING BRACKET, POLY FITTINGS, HARDWARE, STAINLESS HOSE CLAMPS AND 50' OF 3/4 HOSE  | 40406       |
| 54835                                                                                                 | 3 SECTION VALVE SWATH KIT - INCLUDES MOUNTING BRACKET, POLY FITTINGS, HARDWARE, STAINLESS HOSE CLAMPS AND 100' OF 3/4 HOSE | 40412       |
| 54836                                                                                                 | 4 SECTION VALVE SWATH KIT - INCLUDES MOUNTING BRACKET, POLY FITTINGS, HARDWARE, STAINLESS HOSE CLAMPS AND 150' OF 3/4 HOSE | 40418       |
| 54837                                                                                                 | 5 SECTION VALVE SWATH KIT - INCLUDES MOUNTING BRACKET, POLY FITTINGS, HARDWARE, STAINLESS HOSE CLAMPS AND 150' OF 3/4 HOSE | 40421       |
| 54838                                                                                                 | 6 SECTION VALVE SWATH KIT - INCLUDES MOUNTING BRACKET, POLY FITTINGS, HARDWARE, STAINLESS HOSE CLAMPS AND 200' OF 3/4 HOSE | 40427       |
| ** Depending on section mounting location, extensions not included in kits above may be necessary. ** |                                                                                                                            |             |



\*\*Optional ways to mount the sections.



| MISC HARNESS |                                               |
|--------------|-----------------------------------------------|
| 53594        | 6 SECTION BOOM HARNESS                        |
| 53800        | 12 SECTION BOOM HARNESS                       |
| 20031        | TRANSDUCER/SECTION EXTENSION (SOLD BY THE FT) |



\*\* OPTIONAL PRESSURE TRANSDUCER KIT (PN#53491) AVAILABLE FOR PURCHASE IN PLACE OF THE GAUGE \*\*



# GX5 Hydraulic Fertilizer System Manual

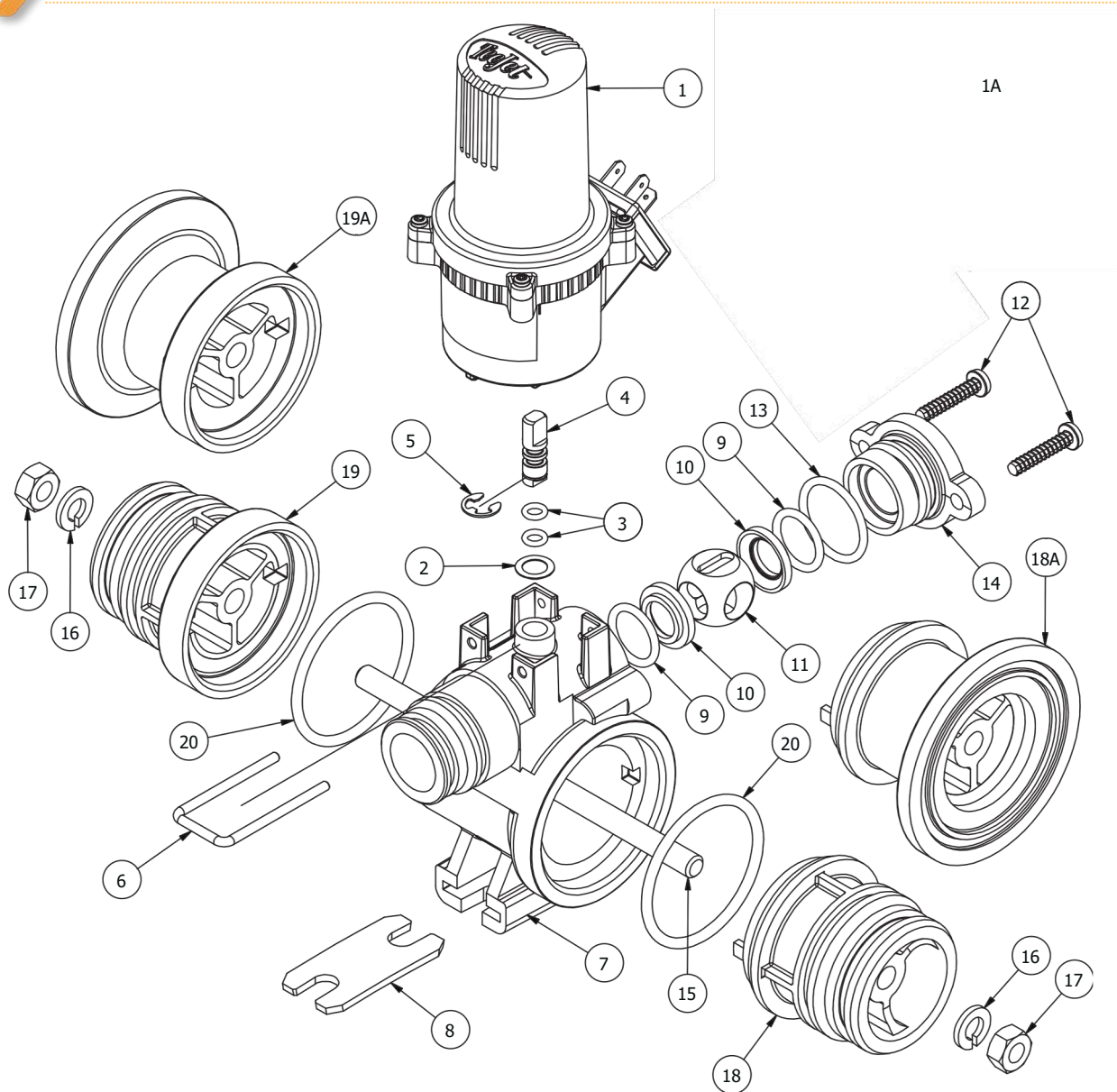
## Extended Version

2106 F Avenue / Kearney, NE 68847

### GX SECTION BREAK OUT

| PN#    | DESCRIPTION                                                                                                          | ITEM#       |
|--------|----------------------------------------------------------------------------------------------------------------------|-------------|
| 41722  | 430 EC REPLACEMENT MOTOR                                                                                             | 1           |
| 46087  | FLAT WASHER, 302SS                                                                                                   | 2           |
| 46562  | O RING, VITON (2 REQ'D)                                                                                              | 3           |
| 47843  | STEM, 303 STAINLESS STEEL                                                                                            | 4           |
| 46114  | E-CLIP RETAINING RING, 17PH STAINLESS STEEL                                                                          | 5           |
| 46091  | 430 MOTOR RETAINING CLIP, 302 STAINLESS STEEL                                                                        | 6           |
| 46083  | 430 VALVE BODY, PP, FOR 430 POLY (BLACK)                                                                             | 7           |
| 45826  | MOUNTING PLATE, FOR USE ON 430 EC MOTORS                                                                             | 8           |
| 46491  | "O" RING VITON (2 REQ'D)                                                                                             | 9           |
| 46086  | SEAL, TEFLON(2 REQ'D)                                                                                                | 10          |
| 46085  | 2-WAY BALL, 303SS, FOR USE ON 430EC VALVES                                                                           | 11          |
| 51313  | SCREW, 302 STAINLESS STEEL (2 REQ'D)                                                                                 | 12          |
| 46498  | O-RING,VITON                                                                                                         | 13          |
| 46084  | 430 2WAY END CAP POLY (BLACK)                                                                                        | 14          |
| 46105  | 1 SECTION MANIFOLD CONNECTING ROD, 303 STAINLESS STEEL                                                               | 15          |
| 46106  | 2 SECTION MANIFOLD CONNECTING ROD, 303 STAINLESS STEEL                                                               |             |
| 46107  | 3 SECTION MANIFOLD CONNECTING ROD, 303 STAINLESS STEEL                                                               |             |
| 46108  | 4 SECTION MANIFOLD CONNECTING ROD, 303 STAINLESS STEEL                                                               |             |
| 46109  | 5 SECTION MANIFOLD CONNECTING ROD, 303 STAINLESS STEEL                                                               |             |
| 46110  | 6 SECTION MANIFOLD CONNECTING ROD, 303 STAINLESS STEEL                                                               |             |
| *CALL* | ** SPECIAL ORDER ITEMS -- 7 UP TO 15 SECTION MANIFOLD CONNECTING ROD,<br>303 STAINLESS STEEL<br>M8 SPLIT LOCK WASHER |             |
| 46123  | M8X1.25 HEX NUT                                                                                                      | 16          |
| 45589  | 430 MALE INLET ADAPTER FOR SECTION VALVE POLY (BLACK)                                                                | 17          |
| 46088  | 75 FLANGE MALE INLET NYLON (BLACK)                                                                                   | 18          |
| 46782  | 430 FEMALE INLET ADAPTER                                                                                             | 18A         |
| 46089  | 75 FLANGE FEMALE INLET NYLON (BLACK)                                                                                 | 19          |
| 46781  | O-RING, VITON (2 REQ'D)                                                                                              | 19A         |
| 46542  | TWO WAY SUB ASSEMBLY                                                                                                 | 20          |
| 41735  | 430 2-WAY SUB ASSY, TEE JET SECTION VALVE BODY SUB ASSEMBLY, INCLUDES ITEMS 2-5, 7-14 ON EXPLODED VIEW.              | 2-5<br>7-14 |
| 41761  | 3WR 1.5M MINI-DIN                                                                                                    | NOT SHOWN   |

\*\* For section kits or valves only see chart on pg. 11 \*\*



| SECTION MISC |       |                             |
|--------------|-------|-----------------------------|
|              | PN#   | DESCRIPTION                 |
| A            | 40869 | 3/4" X 90 HOSE BARB OUTLET  |
| B            | 32305 | 1" X 3/4 POLY ELBOW         |
| C            | 41725 | 1" X LQC END CAP KIT        |
| D            | 41729 | 1/4 X LQC END CAP KIT       |
| E*           | 32361 | 1/4" HEX PLUG               |
|              | 52142 | 1/4" POLY ELBOW (FOR GAUGE) |
| NOT SHOWN    | 53463 | SECTION MOUNTING BRACKET    |

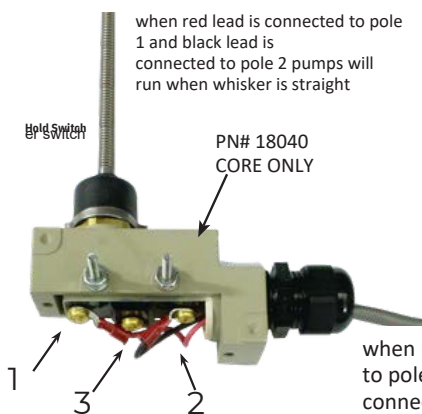
### RUN/HOLD KIT (PN#53824)

(JD DEERE2-PINPN#53982)

KIT INCLUDES:

- 1-15FT Extension (John Deere or 3pin connector)
- 1-Implement Switch with 15FT Lead (PN# 17921)
- 1-Magnet Mount (PN# 17960)

1. Run/Hold optional connection (If not using be sure to use provided loop to close circuit)
  - For use with a N.O. (normally open) whisker switch, cut the looped wire in the dummy plug and connect to your switch wires. A smaller gauge wire (18 AWG minimum) may be used for this low current circuit.
  - For use with a hall-effect sensor, remove the dummy plug and attach the plug from your sensor.



when red lead is connected to pole 1 and black lead is connected to pole 2 pumps will run when whisker is straight

#### HOW IT WORKS:

Place the whisker switch on a 3 point arm or wheel frame that changes angle as the implement is raised and lowered. When the whisker arm is bent up (against the tool bar), the switch is open placing the MANX in HOLD, not applying fertilizer.

When the whisker arm is straight (not touching the toolbar), the switch will be closed. The MANX will be in RUN, applying fertilizer.

when red lead is connected to pole 1 and black lead is connected to pole 3 pumps will run when whisker is bent

\*The Whisker switch will work with many other controllers. However, the polarity might be reversed from the positions described above.

### MERCURY SWITCH KIT (PN#54066)

(JD DEERE2-PINPN#54112)

Run/Hold optional connection (If not using be sure to use provided loop to close circuit)

KIT INCLUDES:

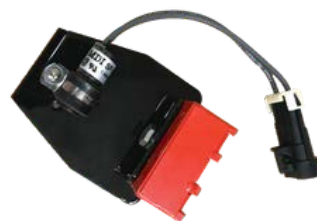
- 2-15FT Extension(s) (John Deere or 3pin connector)
- 1-Mercury Switch (PN# 54024 - Switch only)
- 1-Magnet Mount (PN# 17960)

#### HOW TO ADJUST:

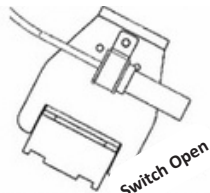
If your controller is turning off product application before or after you want, tilt the switch. If it turns off when you want when lifting the implement, tip more to the HOLD position. If product application should begin sooner when you lower the implement, tip more to the RUN position.

#### HOW TO TEST:

To test the run/hold mercury switch you will need a volt meter. Set the meter to test continuity (or ohms). With the wires down, you should have continuity between the two pins in the connector. With the wires up, the switch should be open (no continuity).



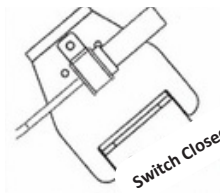
| EXTENSIONS AVAILABLE                                                                |       |              |
|-------------------------------------------------------------------------------------|-------|--------------|
| 3PIN                                                                                | 2PIN  | DESCRIPTION  |
| 17924                                                                               | 55917 | GXH_EXT 15FT |
| 54073                                                                               | 55415 | GXH_EXT 30FT |
| *Custom extension lengths can be special ordered - contact SALES for a price quote* |       |              |



**HOLD** Position with Wires UP

#### MOUNT THE SWITCH ON:

- 3point arm in use
- Planter wheel frame that changes angle
- Drill opener frame if openers are pivoted to raise out of ground.



**RUN** Position with Wires DOWN

### GX5 INSTALLATION MOUNTING

Shown below is the AgXcel GX5 LFP80 3 diaphragm pump system. AgXcel carries 5 different pump sizes to meet various rate requirements and will have a slightly different mounting setup. However, all functions of the AgXcel PWM valve remain the same despite the pump system or size.

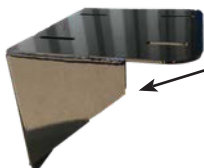
Mount pump in your preferred location. The GX5 pump has excellent suction and priming ability, so it can be mounted away from or above fertilizer tanks.

For JD1770NT 12, 16 & 24 row planters, AgXcel offers an over the tire pump mount that fits all GX5 models. This mounts the pump over the center tires.



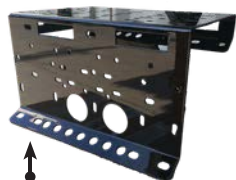
PN#53678 GX5 BRACKET FOR JD PLANTER  
FRONT FOLD FOR 12 & 16 ROW PLANTERS  
\*WILL NOT FIT DB MODELS

For JD1720 CCS planters, AgXcel offers a mounting bracket to the large circular plate on the CCS support arms.



PN#54397 GX5 BRACKET FOR JD 1720 CCS  
(MOUNTED TO CIRCULAR PLATE ON LIFT  
ASSIST FRAME)

AgXcel has U-bolts and universal mounting brackets that allow for the mounting of the GX5 system on various bar setups.



PN#53968 GX5  
BRACKET FOR ON  
THE REAR LIFT ASSIST  
WHEELS ON JD 1790  
PLANTER

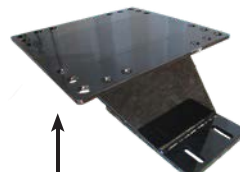
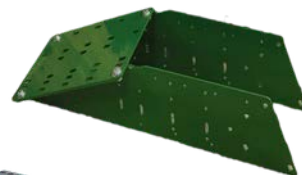


PN#54898 UNIVERSAL MOUNTING BRACKET



OPTIONAL  
MOUNTING GX5  
MOUNTING  
BRACKETS

PN#53957 GX5 BRACKET ASSEMBLY FOR  
JD 1770 NT FRONT FOLD PLANTER FOR  
24 ROW PLANTERS \*WILL NOT FIT DB  
MODELS



PN#54586 CASE IH DRAW BAR  
BRACKET TO MOUNT GX5 ON  
THE DRAW BAR (CAN FIT  
ANYWHERE FROM 8" TO 10"  
WIDE DRAW BAR) GX5  
BRACKET

### GX5 RE-CIRCULATION FEATURE - LFP45 / LFP 80 & LFP 120

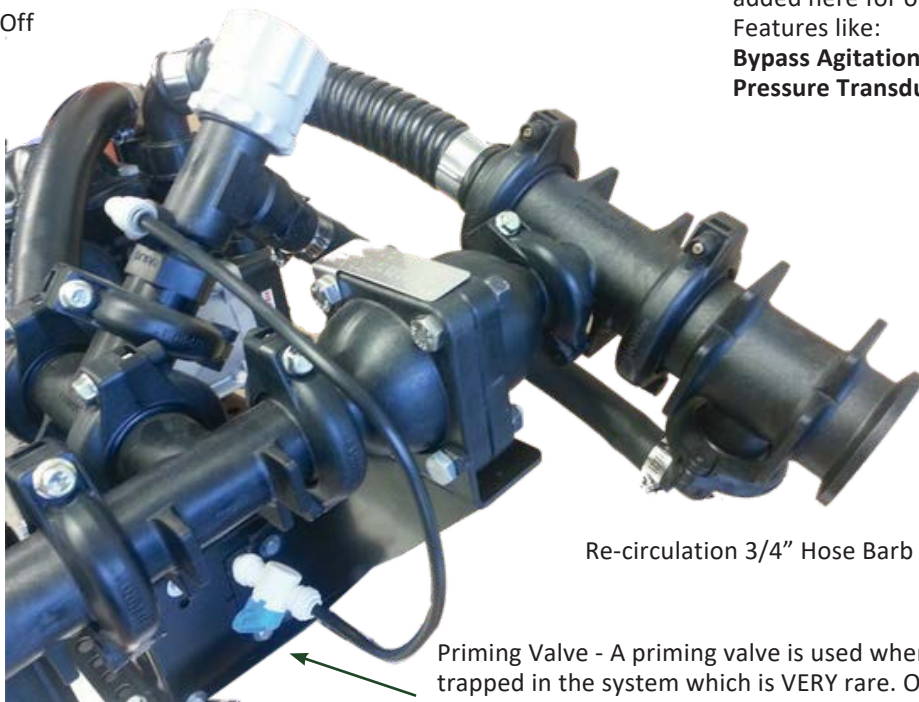
Re-circulation Regulation valve

Re-circulation On/Off

An optional CROSS fitting may be added here for other AgXcel Optional Features like:

**Bypass Agitation Kit** - PN#335

**Pressure Transducer Kit** - PN# 53491



Re-circulation 3/4" Hose Barb

Priming Valve - A priming valve is used when the GX5 has air trapped in the system which is VERY rare. Open the valve to allow the air to release and then ensure that it is closed when GX5 is in operational mode.

### APPLICATIONS

1. Recirculation flow is required for product agitation.
2. IF a low flow rate is required, that would require pump to run less than 10-20% of maximum capacity. This kit will allow the pump to turn faster, while only applying a low rate of product. This makes the pump performance more stable under these circumstances. Make sure the flowmeter minimum flow is capable of metering the flow rate you wish to apply to the ground.

### HOW IT WORKS

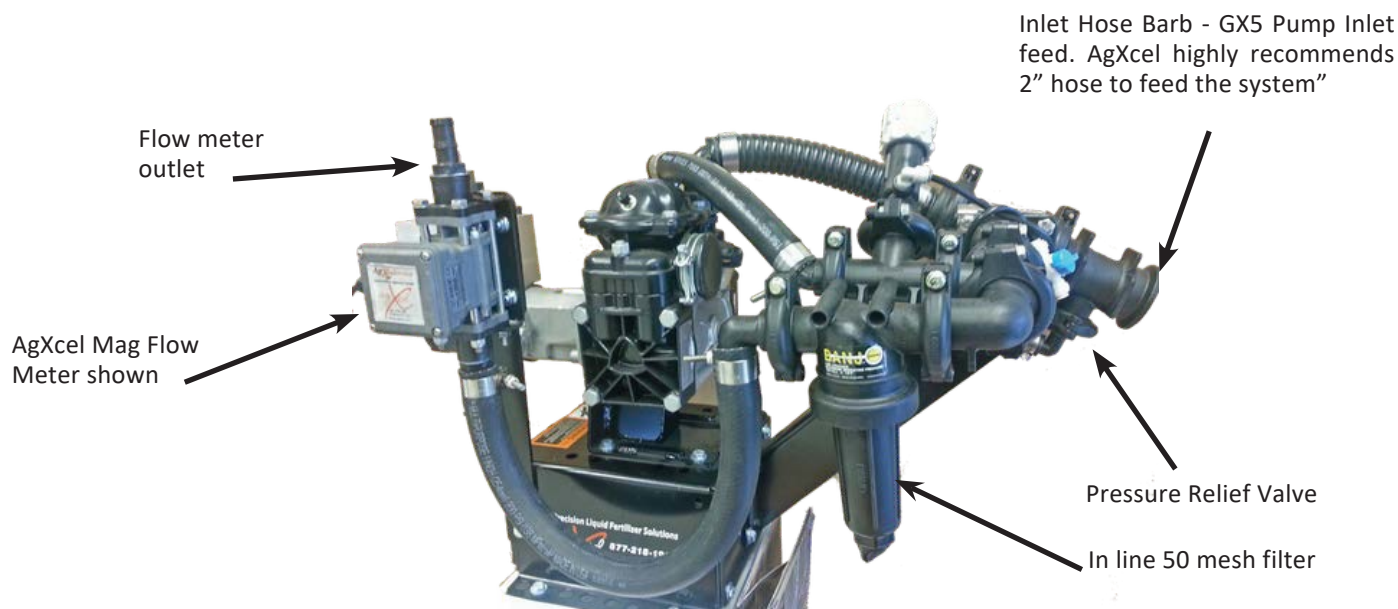
The recirculation valve diverts some pump flow before the flowmeter. The application rate is still measured by the flowmeter and everything that passes through the flowmeter is applied to the ground. Adjust the regulation valve to set the required recirculation.

**USE OF THIS KIT LOWERS THE MAXIMUM RATE THAT CAN BE APPLIED**

### GX5 ACCESSORY - RECIRCULATION KIT - LFP160 & D250

Same function as above, slightly different attachment to pump.

### GX5 LIQUID PLUMBING CONNECTIONS



**INLET:** All GX5's are shipped with 2" inlet flange feed. Attach this to the hose from your supply tank. A tank to pump kit can be purchased for extra filtration with a 30 mesh strainer placed between supply tank and pump entry. Our complete system kits is plumbed with a 50 mesh strainer, situated before pump,

**OUTLET:** The outlet is plumbed directly to the flow meter. As shown above, the flow meter will be mounted directly to the GX5 pump. The flow meter outlet hose should be a minimum of 24" long with a gentle curve prior to any fittings for optimum flow meter performance. The flow meter outlet will attach to your manifold(s) or section valves. LFP45, LFP80 , D115 and LFP120 have 3/4" flow meter outlet. LFP160 & D250 have 1 1/2" flowmeter outlet.

**PRESSURE RELIEF VALVE (PRV):** The PRV is a 100 psi relief. If there is a restriction that creates over 100 psi in the system, the PRV will open allowing the excess flow to pass back to the inlet side of the pump. This protects the pump and fertilizer system from damage. The PRV will sound like an impact wrench in use if it is activating. DO NOT operate the system with PRV continually activating. The vibrations will cause damage. Possibly switch to larger orifices to lower system pressure.



### GX5 HYDRAULIC VALVE AND MOTOR - 4.9 CID MOTOR WITH PWM VALVE HOW IT WORKS:

#### 4.9 CID MOTOR WITH PWM VALVE - HOW IT WORKS:

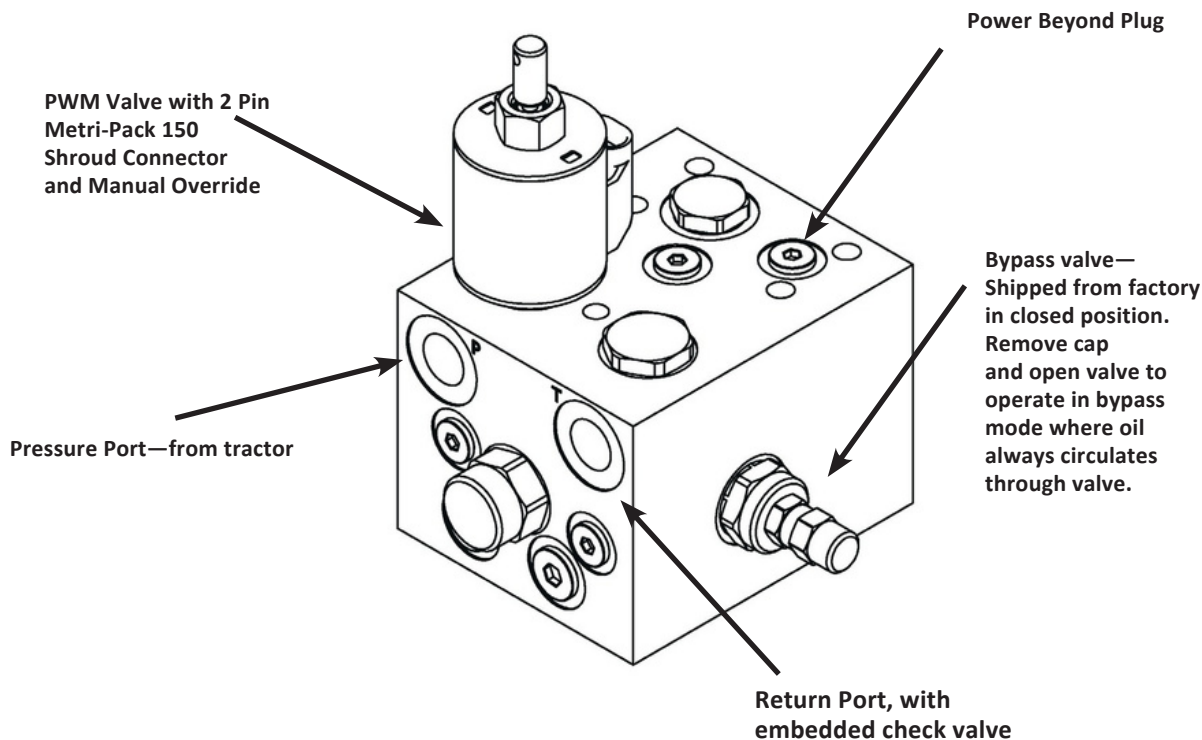
The AgXcel proprietary PWM valve has a solenoid that receives a variable signal from the OEM liquid rate controller. This signal is used to open the pressure compensating valve to allow the correct amount of hydraulic fluid through the valve to rotate the diaphragm pump appropriately to apply the correct GPM. When 0 volts are present then the valve closes and the motor stops.

With the bypass closed only the oil that passes through the PWM valve itself will flow to and from the valve. When the PWM valve is closed, no oil will flow. With the bypass open, the total oil flow from the tractor will always flow through the valve. The PWM valve will divert the oil it needs to rotate the motor at the proper speed.

This valve can be used with Power Beyond hydraulics instead of using a standard tractor hydraulic valve. Uncap the LS port and plumb this back to the tractor load sense connector. The LS port has an internal check valve necessary in power beyond installations.

Port Sizes on valve:  
Hydraulic Hose Fittings:  
Motor Mounting Hardware:  
Shaft Size:

-8 SAE O-Ring (LS is -6 SAE O-Ring)  
-8 SAE O-Ring  
Two 1/2" diameter bolts  
1" with Woodruff Key

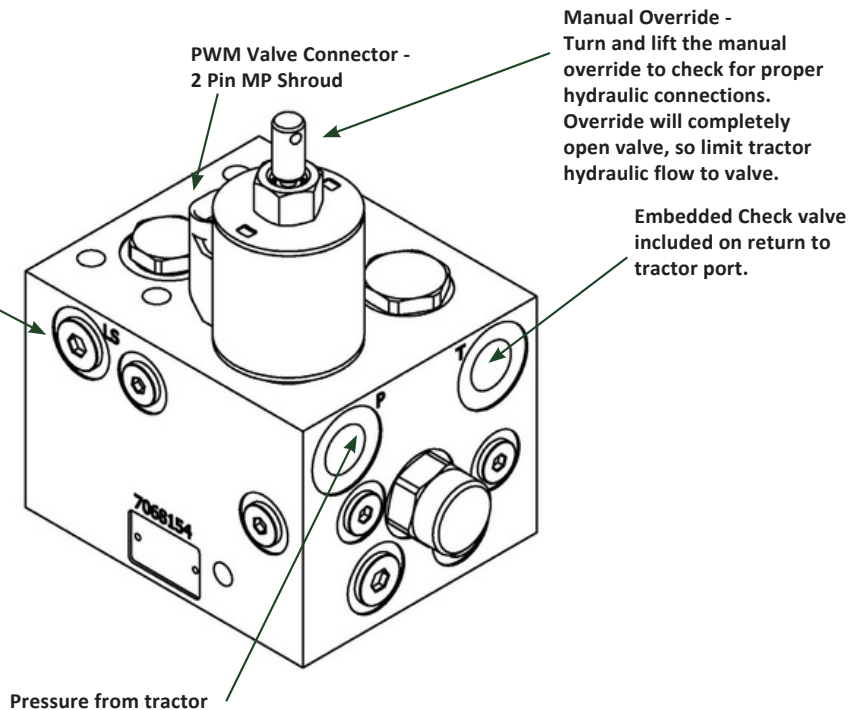


### GX5 HYDRAULIC CONNECTIONS

(Read Instructions Completely before Beginning Installation)

### HYDRAULIC CONNECTIONS

Load Sense Port —For power beyond hydraulic use only.



Manual Override - Turn and lift the manual override to check for proper hydraulic connections. Override will completely open valve, so limit tractor hydraulic flow to valve.

Embedded Check valve included on return to tractor port.

Pressure from tractor

### PUMP ROTATION CHECK VALVE

A check valve is included on the outlet port of the hydraulic valve. This prevents the pump from running in the wrong direction. If ran in the wrong direction, liquid will be pumped, however the hydraulic valve will not be able to control the flow. The check valve can be identified by the Part Number 1108R stamped on it and a flow direction arrow.

### HOW IT WORKS WITH POWER BEYOND HYDRAULICS

This valve is designed to work with power beyond hydraulics. This configuration will not require a standard tractor remote hydraulic valve. First, remove the load sense plug and install a #6 male boss x #6 JIC adapter fitting. Then run a 3/8" or 1/4" hydraulic hose back to the tractor. This hose will connect to the load sense port on the tractor. **The bypass valve must be closed to use power beyond hydraulics.** The load sense line will signal the tractor hydraulic system to supply the flow needed by the pump to meet your application rate. The AgXcel valve has an internal load sense check valve, which is required for power beyond hydraulics.

- **Pressure compensated tractor hook-up**

The P port on the manifold connects to pressure on the power beyond  
The T port on the manifold connects to the return on the power beyond  
Fully close NV on manifold

- **Pressure flow compensated tractor hook-up**

The P port on the manifold connects to pressure on the power beyond  
The T port on the manifold connects to the return on the power beyond  
The LS port on the manifold connects to the load sense on the power beyond  
The LS port on the power beyond may need a bleed off orifice (check with tractor dealer for details)  
Fully close NV on manifold

- **Open center tractor hook-up**

The P port on the manifold connects to pressure on the power beyond  
The T port on the manifold connects to the return on the power beyond  
Fully open NV on manifold



### **GX5 HYDRAULIC CONNECTIONS - HYDRAULIC HOSE**

(Read Instructions Completely before Beginning Installation)

#### **HYDRAULIC HOSE**

The pump inlet and outlet hydraulic hose must be purchased by the end user.

Recommends using 1/2" hydraulic hose with #8 swivel fittings.

#### **BEST OPTION - DEDICATED CIRCUIT (PREFERRED METHOD)**

If you have a tractor remote available, attach the tractor remote valve directly to the pressure and return ports. DO NOT try to avoid this method simply to save another set of hydraulic hoses running to the tractor. Operating the hydraulic pump system on it's own circuit is the simplest for installation and operation. It guarantees the system won't negatively affect any other hydraulic components on your equipment.

#### **ALTERNATE OPTION - PARALLEL BEFORE CCS BLOWER FAN**

If you do not have a tractor remote valve available, this may be your best method. You can plumb AgXcel's GX5 hydraulic pump by "T"ing off the pressure line and return line before the CCS blower fan. If using this method, the PWM valve will remain closed (default position). AgXcel's GX5 LFP series will only use very minimal amount of hydraulic oil that will not affect the CCS fan (Averaging 2-4 GPM, 10 GPM oil necessary for maximum flow). AgXcel DOES NOT recommend plumbing the hydraulic pump system in series with a vacuum fan. The vacuum fan uses just a few GPM of oil. Also, problems will be caused by excessive pressure at the vacuum fan motor.

Example of hydraulic plumbing "T" style with CCS fans



#### **TWO HYDRAULIC PUMP SYSTEMS**

The preferred method is to plumb the two pumps in parallel. DO NOT plumb two pumps after the CCS fan. Excessive pressures may damage the CCS fan motor. If you connect the two pumps in series, then run the pressure line from the tractor to first pump inlet. Plumb from the outlet of Pump 1 to the inlet of Pump 2, then from Pump 2 outlet back to the tractor. Open the bypass needle valve on both pumps so each valve controls motor speed independently. Run the flow setting procedure on the next page to minimize the hydraulic flow based on the pump that requires more hydraulic motor flow.

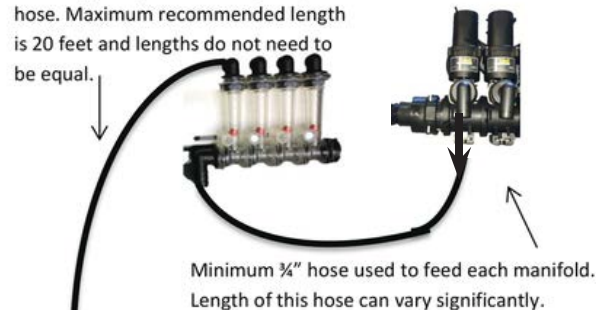
### FLEXIBLE CONFIGURATIONS

(Read Instructions Completely before Beginning Installation)

Floating ball manifolds are extremely flexible and can be mounted in many different configurations on various types of liquid implements. The following illustrations will provide some general concepts on how to configure your implement.

#### Plumbing Overview

This is typically 1/4" OD tubing or 3/8" hose. Maximum recommended length is 20 feet and lengths do not need to be equal.



Check valve is mounted near each row. 1/4" turn cap is always check valve outlet. Colored disc orifice can be placed under cap.

Fertilizer Opener, Seed Firmer, SS Tube, etc.

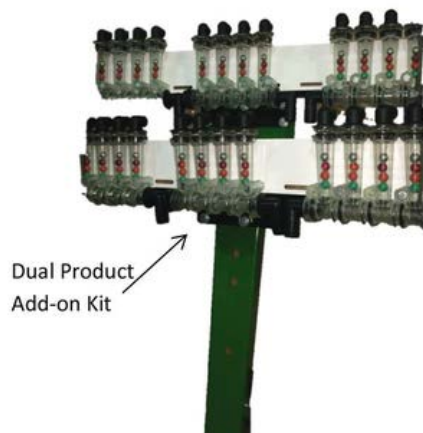
This is usually 1/4" OD tubing or 3/8" hose. Typical length is 1-4' with check valves placed on each row that distance from ground.

#### 12 Row Dual Product

##### Product 1 Split 4--4--4/Product 2 Split 4--4--4

Shown here is a 12 row with four 3 row sections controlled by four section valves. Note each 6 row T-Bracket can hold two separate 3 row manifolds. A 4 section 24 row could be similar with four 6 row manifolds on two large T-Brackets.

Product 1 on Top



#### 12 Row

##### Split 3--3--3--3

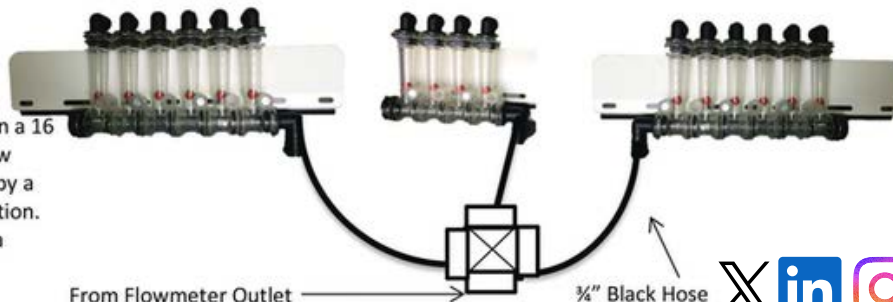
Shown here is a 12 row with four 3 row sections controlled by four section valves. Note each 6 row T-Bracket can hold two separate 3 row manifolds. A 4 section 24 row could be similar with four 6 row manifolds on two large T-Brackets.



#### 16 Row

##### Split 6--4--6

This configuration works well on a 16 row front fold planter. Each flow indicator manifold is shown fed by a cross in a single section installation. Each manifold could be fed by a section valve if desired.



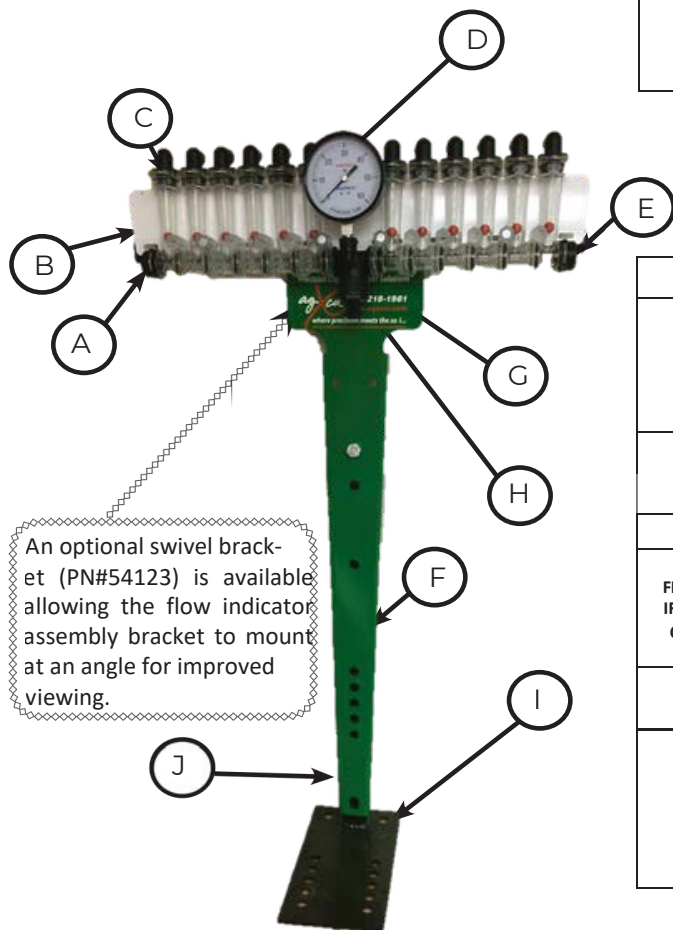
| SIGHT COLUMN BRACKETS                                                                                |             |                               |
|------------------------------------------------------------------------------------------------------|-------------|-------------------------------|
| PN#                                                                                                  | DESCRIPTION |                               |
| A                                                                                                    | 406         | UP TO 6R WHT BACKDROP         |
|                                                                                                      | 414         | UP TO 8R WHT BACKDROP         |
|                                                                                                      | 20106       | UP TO 12R WHT BACKDROP        |
| B                                                                                                    | 18082       | MOUNTING BRACKET FOR PN#406   |
|                                                                                                      | 18088       | MOUNTING BRACKET FOR PN#414   |
|                                                                                                      | 18083       | MOUNTING BRACKET FOR PN#20106 |
| SIGHT COLUMN HARDWARE KIT - PN#38324<br>ONE KIT USED FOR MOUNTING UP TO 12R ONTO GX1 CHASSIS BRACKET |             |                               |

**NEW**

### O-ring Upgrade: FKM

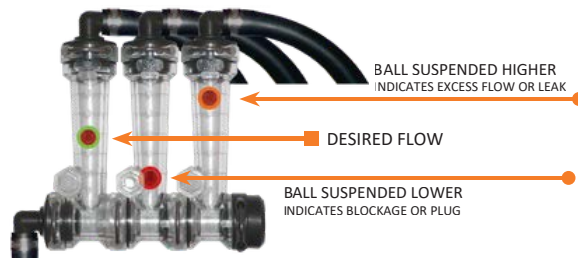
All Wilger parts are transitioning to being manufactured with FKM O-rings & seals. The fluoroelastomer (FKM) o-ring provides superior chemical resistance and durability over Buna o-rings.  
\*\* Premium Viton o-rings, seals and assemblies will continue to be available \*\*

|   |                                        |                          |
|---|----------------------------------------|--------------------------|
| C | 25709                                  | 1/4" PTC TOPS            |
|   | 18033                                  | 3/8" BARB TOPS           |
|   | 17655                                  | 3/8" PTC TOPS            |
| D | 33812                                  | 160 PSI GAUGE            |
|   | 33816                                  | 60 PSI GAUGE             |
|   | 53769                                  | 60 PSI REMOTE GAUGE KIT  |
|   | 53770                                  | 160 PSI REMOTE GAUGE KIT |
|   | *ONLY ONE GAUGE OPTION INCLUDED IN KIT |                          |



|                                      |       |                                                             |
|--------------------------------------|-------|-------------------------------------------------------------|
| E                                    | 18039 | COLUMN END CAP & CLIP                                       |
| F                                    | 38260 | GX1 CHASSIS (TOMAHAWK ONLY)                                 |
|                                      | 54123 | GXSWIVEL KIT (NO TOMAHAWK)                                  |
|                                      | 428   | GXCHASSIS SWIVEL KIT (COMPLETE)                             |
| G                                    | 18037 | CENTER FEED                                                 |
|                                      | 32239 | 3/4" HOSE SHANK INLET                                       |
| H                                    | 52142 | 1/4" GAUGE ELBOW                                            |
| FEED OPTIONS IF NOT USING CENTER TEE | 18034 | 3/4" HOSE SHANK - ELBOW                                     |
|                                      | 18032 | 3/4" HOSE SHANK                                             |
|                                      | 25682 | LOCK U-CLIP                                                 |
| I                                    | 53961 | GX1 MOUNT AVAILABLE TO RAISE OR MANOEUVRE A CROWDED TOOLBAR |
| COMMON UBOLT(S)                      | 53578 | GXUBOLT 7 X 8 1/2" (CASE/JD)                                |
|                                      | 20329 | GXUBOLT 5 X 7 X 1/2"                                        |
|                                      | 17585 | GXUBOLT 5 X 8 X 1/2" (KINZIE)                               |
|                                      | 38446 | GXUBOLT 7 X 5 X 1/2"                                        |

The recommended check valve for most GX5 Installations is the 10 lb check valves with 3/8" hose barbs. This works with 3/8" rubber hose which Agxcel recommends for most applications over 10 GPA on 30" rows. The recommended minimum system operating pressure for this check is 20 psi, to ensure all checks open fully. For available check valves see pg.25



| SIGHT COLUMNS                                                                                               |              |                                                                             |
|-------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------|
| PN#                                                                                                         | DESCRIPTION  |                                                                             |
| <b>STANDARD FLOW</b>                                                                                        | <b>55153</b> | Wilger Standard Flow Column Only                                            |
|                                                                                                             | <b>20985</b> | Wilger Standard Flow Column W/balls, clip, retainer (No Top)                |
|                                                                                                             | <b>37637</b> | Wilger Std Flow Complete Column(s) 4 pack w/ End cap, clips & 3/8 barb Tops |
|                                                                                                             | <b>37724</b> | Wilger Std Flow Complete Column(s) - 4 pack w/End cap, clips & 3/8QC Tops   |
| BALL SELECTION FOR 30" ROWS - STD FLOW                                                                      |              |                                                                             |
| <b>3-6 GPA</b>                                                                                              | <b>18077</b> | Green Plastic* Ball                                                         |
| <b>3-10 GPA</b>                                                                                             | <b>18078</b> | Red Plastic* Ball                                                           |
| <b>10-20 GPA</b>                                                                                            | <b>18079</b> | Maroon Glass Ball                                                           |
| <b>13-70 GPA</b>                                                                                            | <b>18080</b> | Stainless Steel Ball                                                        |
| *These balls may float to the top with heavier fertilizers, such as 10-34-0. Use Maroon glass in this case. |              |                                                                             |

| MISC COMPONENTS |                                             |
|-----------------|---------------------------------------------|
| PN#             | DESCRIPTION                                 |
| <b>25682</b>    | LOCK U-CLIP                                 |
| <b>428</b>      | GXCHASSIS SWIVEL KIT (Complete)             |
| <b>54123</b>    | GXSWIVEL KIT (No Tomahawk)                  |
| <b>54839</b>    | GXEXTENDER BRACKET                          |
| PLUMBING        |                                             |
| <b>308</b>      | 3/4" BLACK HOSE (Use #12 CLAMPS - PN#19646) |
| <b>19920</b>    | 1/4" BLACK TUBING                           |
| <b>54121</b>    | 3/8" BLACK TUBING                           |
| <b>17614</b>    | 3/8" BLACK HOSE (Use #6 CLAMPS - PN#17649)  |

| SIGHT COLUMNS                                                                                               |              |                                                                            |
|-------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------|
| PN#                                                                                                         | DESCRIPTION  |                                                                            |
| <b>LOW FLOW</b>                                                                                             | <b>25689</b> | Wilger Low Flow Column Only                                                |
|                                                                                                             | <b>25687</b> | Wilger Low Flow Column W/balls, clip, retainer (No Top)                    |
|                                                                                                             | <b>37617</b> | Wilger Low Flow Complete Column(s) - 4 pack w/ End cap, clips & 1/4QC Tops |
|                                                                                                             | <b>37723</b> | Wilger Low Flow Complete Column(s) - 4 pack w/End cap, clips & 3/8QC Tops  |
| BALL SELECTION FOR 30" ROWS                                                                                 |              |                                                                            |
| <b>1-3 GPA</b>                                                                                              | <b>18077</b> | Green Plastic* Ball                                                        |
| <b>2-4 GPA</b>                                                                                              | <b>18078</b> | Red Plastic* Ball                                                          |
| <b>3-6 GPA</b>                                                                                              | <b>18079</b> | Maroon Glass Ball                                                          |
| <b>5-10 GPA</b>                                                                                             | <b>18080</b> | Stainless Steel Ball                                                       |
| *These balls may float to the top with heavier fertilizers, such as 10-34-0. Use Maroon glass in this case. |              |                                                                            |

**AgXcel**

**CALCULATOR**

*Our easy to use, orifice and metering tube calculator is available FREE now on the App Store.*



This is a reference guide of our most common components and replacement parts for ease of ordering. If you do not see the component used in your kit, please contact our office for assistance.

**OLD**

Two piece Diaphragm & pressure pad o-ring

PN# 25803  
Viton Only

PN# 25686  
Viton Only



**NEW**

One piece Integrated Diaphragm/o-ring

PN# 26410  
FKM Only



NOTE: Old style will be available until current stock is exhausted.

\*\* Premium Viton o-rings, seals and assemblies will continue to be available \*\*

**CAP ASSEMBLY:**

Snap in Strainer & Seal adapter (PN# 25953)

O-ring seal - FKM (PN# 25951)  
O-ring seal - Viton (PN# 25952)

3/8 Hose barb cap (SHOWN)



| ORIFICES             |              |                                |
|----------------------|--------------|--------------------------------|
| PN#                  | DESCRIPTION  |                                |
| <b>SPECIAL ORDER</b> | <b>17975</b> | DC-BLANK                       |
|                      | <b>18203</b> | 30-DC010 GREY LF               |
|                      | <b>19967</b> | 30-DC014 - ROYAL BLUE LF       |
|                      | <b>17591</b> | 30-DC018 TERRACOTA             |
|                      | <b>54523</b> | 30-DC020 BLACK LF              |
|                      | <b>17964</b> | 30 DC 023 PINK                 |
|                      | <b>17965</b> | 30-DC028 GREY                  |
|                      | <b>17966</b> | 30-DC015 - BLACK               |
|                      | <b>17967</b> | 30-DC-02 BROWN                 |
|                      | <b>17968</b> | 30-DC-03 ORANGE                |
|                      | <b>53501</b> | 30-DC-035 MAROON               |
|                      | <b>17969</b> | 30-DC-04 RED                   |
|                      | <b>17970</b> | 30-DC-05 BLUE                  |
|                      | <b>17971</b> | 30-DC-06 YELLOW                |
|                      | <b>17972</b> | 30-DC-07 EMERALD GREEN         |
|                      | <b>17973</b> | 30-DC-08 WHITE                 |
|                      | <b>17974</b> | 30-DC-10 LIME (IMPERIAL) GREEN |
|                      | <b>19962</b> | 30-DC-12 ROYAL BLUE            |

| CHECK VALVE COMPONENTS |                                 |
|------------------------|---------------------------------|
| PN#                    | DESCRIPTION                     |
| <b>26321</b>           | CR DIAPH MOD ASY 10 PSI BLK CAP |
| <b>41716</b>           | CR DIAPH MOD ASY 4 PSI BLUE CAP |
| <b>54538</b>           | O'RING VITON - PRESSURE PAD     |
| <b>25712</b>           | WILGER 1/4" COLLET              |
| <b>25718</b>           | WILGER 3/8" COLLET              |
| <b>25803</b>           | VITON DIAPHRAGM                 |
| <b>25799</b>           | BUNA DIAPHRAGM (OLD STYLE)      |
| <b>25951</b>           | RADIAL LOCK CAP OUTER O-RING    |
| <b>26410</b>           | NEW STYLE FKM DIAPHRAGM         |
| <b>25953</b>           | COMBO-JET SEAL/STRAINER ADAPTER |

| METERING TUBES |                   |
|----------------|-------------------|
| PN#            | DESCRIPTION       |
| <b>38233</b>   | GX6MT - PINK      |
| <b>38241</b>   | GX6MT - YELLOW    |
| <b>38237</b>   | GX6MT - GREY      |
| <b>38242</b>   | GX6MT - NAVY BLUE |
| <b>38243</b>   | GX6MT - BROWN     |
| <b>38250</b>   | GX6MT - SKY BLUE  |
| <b>38251</b>   | GX6MT - GREEN     |
| <b>38245</b>   | GX6MT - PURPLE    |
| <b>38246</b>   | GX6MT - ORANGE    |
| <b>38247</b>   | GX6MT - RED       |
| <b>38248</b>   | GX6MT - BLACK     |

**NEW**

### O-ring Upgrade: FKM

All Wilger parts are transitioning to being manufactured with FKM O-rings & seals. The fluoroelastomer (FKM) o-ring provides superior chemical resistance and durability over Buna o-rings.

\*\* Premium Viton o-rings, seals and assemblies will continue to be available \*\*

**OLD**

PN# 25803  
Viton Only



PN# 54538  
Viton Only

**NEW**

One piece Integrated  
Diaphragm/o-ring



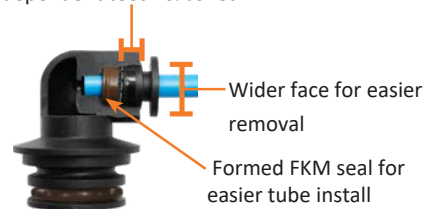
PN# 26410  
FKM Only

\*\* Premium Viton o-rings, seals and assemblies will continue to be available \*\*

**NEW**

Independent teeth & collet

The 1/4" & 3/8"  
Push-in tube outlets  
have received a full  
redesign for heavier  
duty sealing and  
easier release.



\*\* This redesign also applies to the ptc radial lock caps on check valves \*\*

**AgXcel**

**CALCULATOR**

Our easy to use, orifice and metering  
tube calculator is available FREE now  
on the App Store.



| CHECK VALVES |      |                                                                |                                                                                                                                      |
|--------------|------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|              | KIT# | ASSEMBLED PN#                                                  | DESCRIPTION                                                                                                                          |
| 4#           | 310  | 38169 = BODY<br>38171 = 1/4 PTC CAP                            | 4# CHECK VALVE WITH 1/4" PTC INLET/OUTLET         |
|              | 305  | 28549 = BODY<br>54260 = 3/8 PTC CAP<br>19884 = 3/8 PTC INLET   | 4# CHECK VALVE WITH 3/8" PTC INLET/OUTLET         |
|              | 316  | 28549 = BODY<br>32253 = 3/8 BARB INLET<br>53465 = 3/8 BARB CAP | 4# CHECK VALVE WITH 3/8" HOSE BARB INLET/OUTLET   |
| 10#          | 313  | 26315 = BODY<br>32253 = 3/8 BARB INLET<br>53465 = 3/8 BARB CAP | 10# CHECK VALVE WITH 3/8" HOSE BARB INLET/OUTLET  |
|              | 307  | 26315 = BODY<br>54260 = 3/8 PTC CAP<br>19884 = 3/8 PTC INLET   | 10# CHECK VALVE WITH 3/8" PTC INLET/OUTLET       |

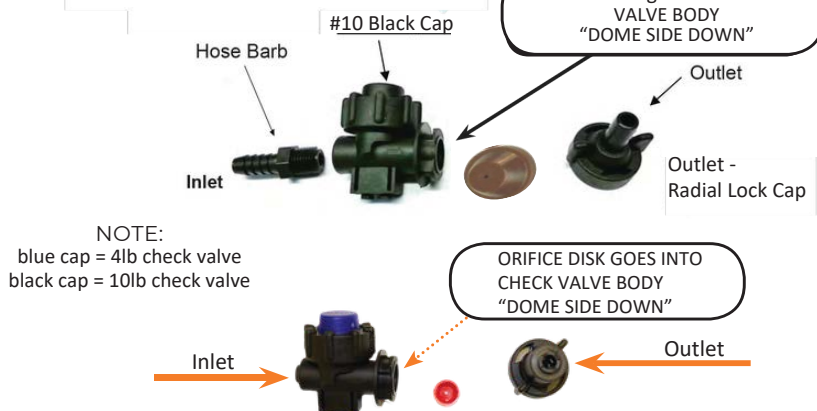


The preferred placement of the Agxcel check valve is as close to the row unit as possible, without sacrificing the security of the check valve. Approximately 30" from the bottom of the furrow (on every row, equal lengths) where liquid is being placed is ideal.

#### Follow these steps for successful placement:

- Find a secure location, on top of the row unit where debris (like in no-till conditions) will not catch the check valve or tubing and rip it out of place.
- Ensure that the install location allows for a tie strap to securely mount the check valve in place.
- The check valve works best when approximately 30" from where liquid is being placed.
- Ensure that the mounting location allows for ease of access to the orifice, in case the orifice size needs to be changed.

#### CHECK VALVE EXAMPLES



NOTE:  
blue cap = 4lb check valve  
black cap = 10lb check valve

#### CAP ASSEMBLY

Snap in Strainer & Seal adapter (PN# 25953)

O-ring seal - FKM (PN# 25951)  
O-ring seal - Viton (PN# 25952)

3/8 Hose barb cap (SHOWN)



\*\* Be sure orifices are placed inside check valve body facing the correct way. The dome shape allows for debris to be pushed aside, regulating flow and producing a straight stream. They are precision molded in polyacetal for reliable performance.

### VISUAL PARTS INDEX

| SIGHT COLUMN COMPONENTS                                                             |       |                                                                       |
|-------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------|
|                                                                                     | PN#   | DESCRIPTION                                                           |
|    | 25709 | Wilger Top cap 1/4" QC                                                |
|                                                                                     | 25712 | Tube guide for 1/4" QC                                                |
|    | 18033 | 3/8" Hose Shank Inlet - 90 degree                                     |
|    | 17655 | Wilger Top Cap 3/8" QC                                                |
|                                                                                     | 25718 | Collet for 3/8" QC (not pictured)                                     |
|    | 38260 | GX Chassis (Tomahawk)<br>Approx. 32.5" Tall                           |
|   | 19992 | FKM "O" ring for use between flow columns & on wilger tops            |
|                                                                                     | 25686 | Viton "O" ring for use between flow columns & on wilger tops          |
|  | 32239 | 3/4" Hose Shank Inlet<br>(used with center fed tee PN# 18037)         |
|  | 52142 | 1/4" Poly Elbow<br>(used with center fed tee PN# 18037 tee for gauge) |
|  | 262   | QC3 - 1/4" QC TO 1/4" QC                                              |
|                                                                                     | 20407 | QC15 - 3/8" QC TO 3/8" QC (not pictured)                              |
|  | 38240 | QC7 - 1/4" QC TO 3/8" QC                                              |

#### OLD

Two piece Diaphragm & pressure pad o-ring

PN# 25803  
Viton Only

PN# 25686  
Viton Only



#### NEW

One piece Integrated Diaphragm/o-ring

PN# 26410  
FKM Only



\*\* Premium Viton o-rings, seals and assemblies will continue to be available \*\*

### VISUAL PARTS INDEX

NOTE: For our check valves, please see pg.27 for the fully assembled PN#'s as well as the component parts within the assembled kits.

| SIGHT COLUMN COMPONENTS                                                             |       |                                                                                                    |
|-------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------|
|                                                                                     | PN#   | DESCRIPTION                                                                                        |
|    | 18032 | 3/4" Hose Shank Inlet                                                                              |
|    | 18034 | 3/4" Hose Shank Inlet - 90 degree                                                                  |
|    | 18039 | Column End cap & Clip                                                                              |
|                                                                                     | 25682 | Clip Only                                                                                          |
|    | 18082 | Mounting Bracket for PN#406                                                                        |
|                                                                                     | 18088 | Mounting Bracket for PN#414                                                                        |
|                                                                                     | 18083 | Mounting Bracket for PN#20106                                                                      |
|  | 406   | up to 6R Flow Column Backdrop (white)                                                              |
|                                                                                     | 414   | up to 8R Flow Column Backdrop (white)                                                              |
|                                                                                     | 20106 | 7-12R Flow Column Backdrop (white)                                                                 |
|  | 25687 | Wilger Low Flow Column w/balls,clip, retainer (no top)                                             |
|                                                                                     | 20985 | Wilger Standard Column w/balls,clip, retainer (no top)                                             |
|  | 37617 | Wilger Low Flow Column Complete - 4 pack w/end cap                                                 |
|                                                                                     | 37637 | Wilger Standard Column Complete - 4 pack w/end cap                                                 |
|  | 18037 | Wilger center fed tee<br>(will need PN# 32239 1" MNPT X 3/4"HB to connect inlet hose - see pg. 26) |
|  | 25681 | Flow column ball retainer                                                                          |

| GX5 LFP45/BP45 COMPONENTS |             |                                    |
|---------------------------|-------------|------------------------------------|
| PN#                       | DESCRIPTION |                                    |
| A                         | 53692       | GX5BASEMOUNT                       |
|                           | 53693       | GX5BASEBOXPLATE (2 REQ'D)          |
|                           | 18169       | GX5SPIKEVALVEEXTDBKT               |
| B                         | 38387       | GX5 EATON ORBIT (MOTOR ONLY)       |
|                           | 53930       | GX5PWMHYDVALVE 10 (PWM ONLY)       |
|                           | 53931       | GX5 PWMHYD VALVE W/ STD MOTOR KIT  |
| C                         | 38380       | GX5 LFP 45 PUMP ONLY .5 - 11 GPM   |
|                           | 55559       | GX5 BP 45 PUMP ONLY .5 - 11 GPM    |
| D                         | 55586       | HYD FLANGE KIT FOR BOTH LFP45/BP45 |
| E                         | 51842       | 1"IN LINE T-STRAINER-50 MESH       |
| F                         | 33132       | 1" WORM SCREW CLAMP (10 REQ'D)     |
|                           | 50016       | 3/4" EPDM GASKET (10 REQ'D)        |
| G                         | 51328       | 1" MANIFOLD X 90 DEGREE BARB       |
| H                         | 51333       | 1" FLANGED ELBOW                   |
| I                         | 51344       | 1" PLUG WITH 1/4" FPT              |
|                           | 32361       | 1/4" HEX PLUG                      |
|                           | 52142       | 1/4" POLY ELBOW FOR GAUGE          |
| J                         | 51334       | 1" FLANGED CROSS                   |
| K                         | 51366       | 2" PORT x 1" FLANGED TEE           |
| L                         | 53629       | 100 PSI PRESSURE RELIEF VALVE      |

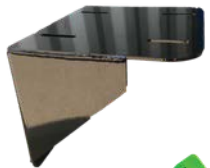
| PN#        | DESCRIPTION |                              |
|------------|-------------|------------------------------|
| M          | 38267       | 2" WORM SCREW CLAMP          |
|            | 38269       | 2" FLANGE GASKET             |
| N          | 52195       | 1-1/2 T-BOLT CLAMP (2 REQ'D) |
|            | 53580       | 1-1/4 SPIRAL HOSE (@ 1 FT)   |
| O          | 53502       | 1" BLACK HOSE                |
|            | 52194       | 1-1/4 T-BOLT CLAMP           |
| P          | 51347       | 1" MANIFOLD FLANGED TEE      |
| Q          | 39456       | 3/4" RELIEF VALVE            |
| R<br>"OUT" | 55771       | 1" ELBOW                     |
|            | 55770       | RING NUT                     |
|            | 55920       | O RING VITON FOR LFP45       |
|            | 55919       | O RING FOR BP 45             |
| S<br>"IN"  | 55577       | 1 1/4" ELBOW                 |
|            | 55761       | RING NUT                     |
|            | 55915       | O RING VITON FOR LFP45       |
|            | 29232       | O RING FOR BP 45             |



In order to prevent debris and chemical deposits from clogging or logging into your hydraulic system, Agxcel recommends a minimum of 30 mesh filter in line between tank and system inlet. Even the smallest debris can block diaphragms from closing properly affecting rates and pump performance.



PN#54898 UNIVERSAL MT BRACKET



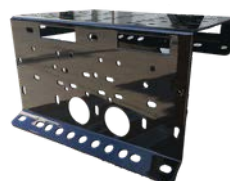
PN#54397 GX5 BRACKET FOR JD 1720 CCS (MOUNTED TO CIRCULAR PLATE ON LIFT ASSIST FRAME)

PN#53678 GX5 BRACKET FOR JD PLANTER FRONT FOLD FOR 12 & 16 ROW PLANTERS - WILL NOT FIT DB MODELS

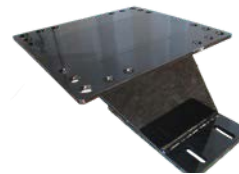


### OPTIONAL MOUNTING GX5 MOUNTING BRACKETS

PN#53957 GX5 BRACKET ASSEMBLY FOR JD 1770 NT FRONT FOLD PLANTER FOR 24 ROW PLANTERS - WILL NOT FIT DB MODELS

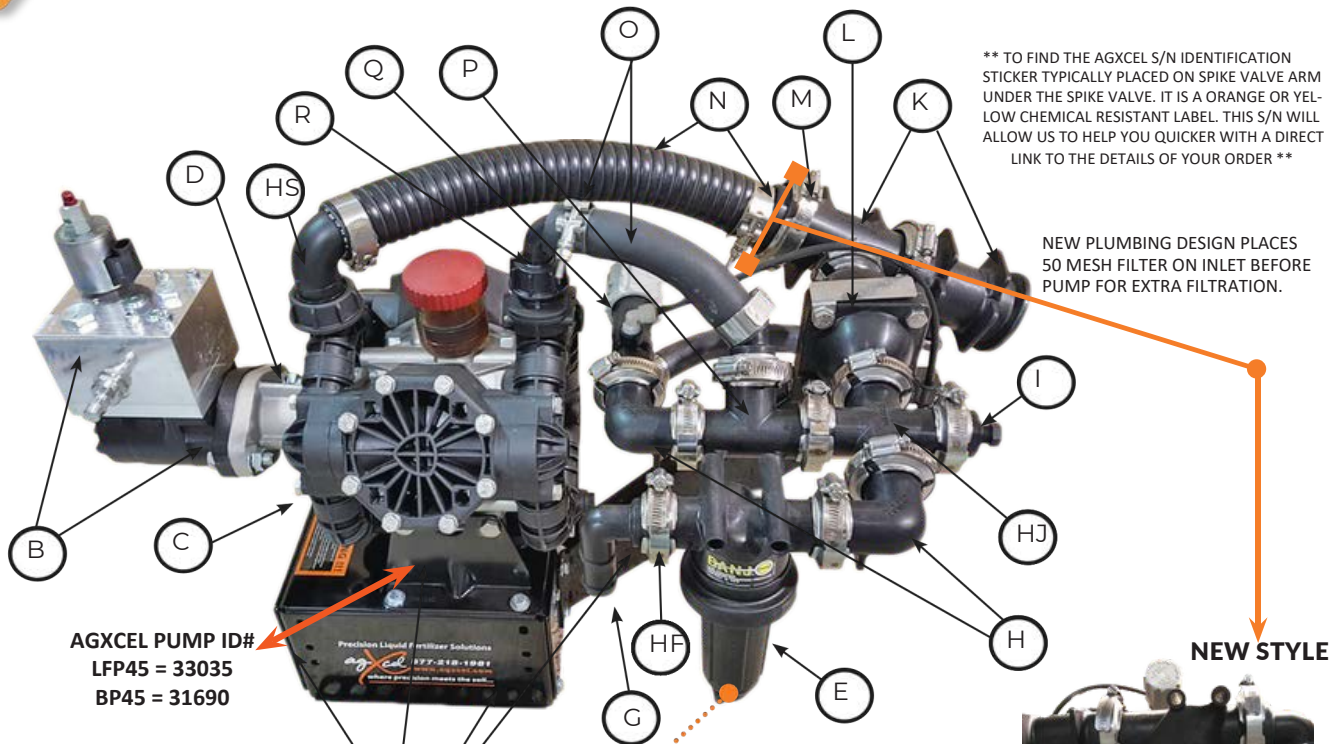


PN#53968 GX5 BRACKET FOR ON THE REAR LIFT ASSIST WHEELS ON JD 1790 PLANTER



PN#54586 CASE IH DRAW BAR BRACKET TO MOUNT GX5 ON THE DRAW BAR (CAN FIT ANYWHERE FROM 8" TO 10" WIDE DRAW BAR) GX5 BRACKET





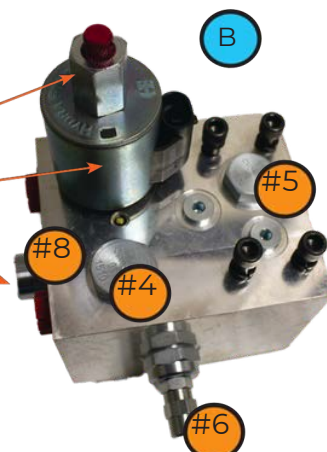
### PUMP INLET FILTER OPTION

|       |                            |
|-------|----------------------------|
| 51365 | 1 1/4" COUPLER 1" FLANGE   |
| 38269 | 2" FLANGE GASKET (1 REQ'D) |
| 38267 | 2" FLANGE CLAMP (1 REQ'D)  |
| 50016 | GASKET                     |
| 33132 | 1" FLANGE CLAMP            |
| 51321 | 1" FLANGE 1 1/4" BARB      |
| 51842 | T-STRAINER FILTER 50 MESH  |
| 19920 | 1/4" TUBING                |
| 19848 | 1/4" SHUT OFF              |

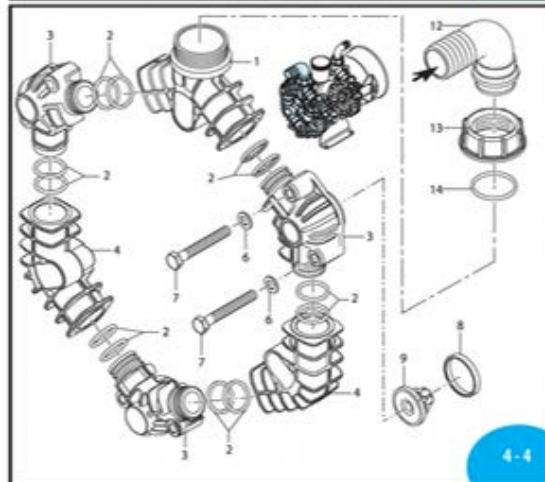
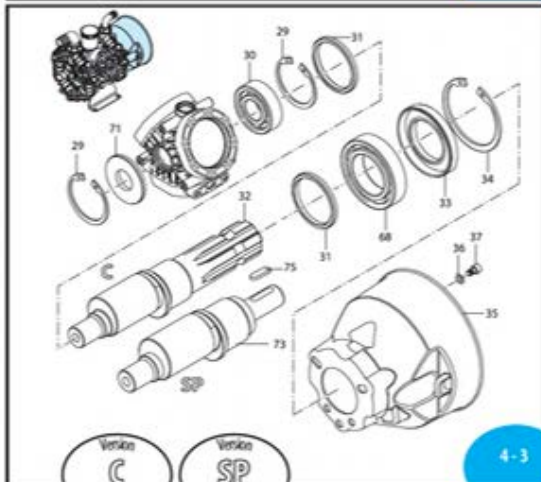
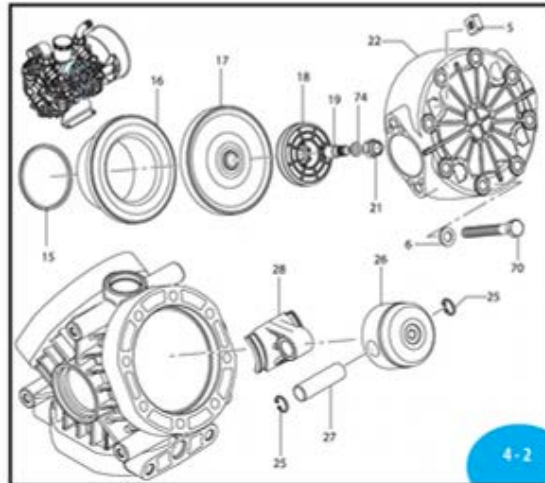
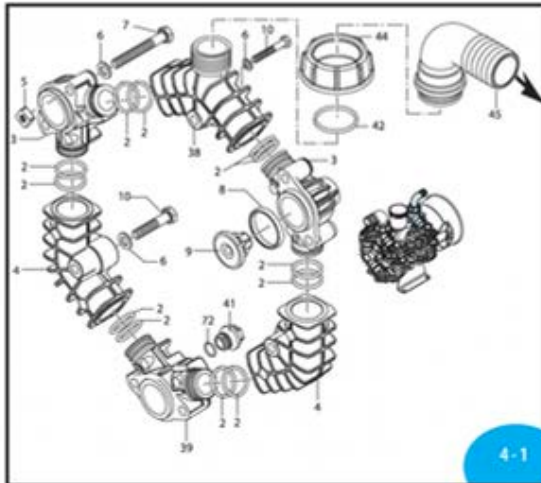
### BOTTOM OF FILTER

|       |                      |
|-------|----------------------|
| 32426 | 1/2" REDUCER 1/4"    |
| 263   | 1/4" QC TO 1/4 M NPT |

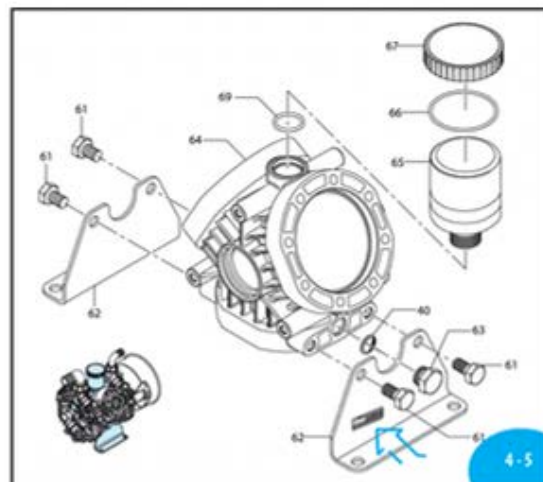
| PN#   | DESCRIPTION                       |
|-------|-----------------------------------|
| 55493 | GX5MANUALOVERRIDEVALVE            |
| 55165 | GX5PWMSOLENOID                    |
| 54472 | 160 PSI HYD CARTRIDGE             |
| 54490 | CARTRIDGE SEAL KIT FOR GX5 PWM #8 |
| 54488 | CARTRIDGE SEAL KIT FOR GX5 PWM #5 |
| 54487 | CARTRIDGE SEAL KIT FOR GX5 PWM #4 |
| 54489 | CARTRIDGE SEAL KIT FOR GX5 PWM #6 |
| 55095 | MOTOR SEAL KIT                    |



### GX5 LFP45 & BP45 PUMP BREAK DOWN



| LFP 45/BP45 - 3 DIAPHRAGMS |                          |
|----------------------------|--------------------------|
| FERTILIZER FLOW (GPM)      | HYDRAULIC OIL FLOW (GPM) |
| 3                          | .9                       |
| 7                          | 2.0                      |
| 10                         | 2.8                      |
| BASED ON A 30FT TOOL BAR.  |                          |



### AR 45LFP / AR 45 bp

| Pos | Code    | Description                  | Qty | Note              |
|-----|---------|------------------------------|-----|-------------------|
| 1   | 3120410 | Manifold suction             | 1   |                   |
| 2   | 720030  | O-ring Ø 22.22x2.62          | 24  | AR45bp            |
| 3   | 720011  | O-ring Ø 22.22x2.62          | 24  | Viton AR45LFP     |
| 4   | 3120050 | Manifold                     | 5   |                   |
| 5   | 3120060 | Manifold                     | 4   |                   |
| 6   | 3120510 | Nut M8                       | 12  | SS                |
| 7   | 3120761 | Washer                       | 42  | Z/B AR45bp        |
| 8   | 3120760 | Washer                       | 42  | SS AR45LFP        |
| 9   | 3120251 | Screw TE M8x60               | 12  | T90° AR45bp       |
| 10  | 3120250 | Screw TE M8x60               | 12  | SS T90° AR45LFP   |
| 11  | 3120230 | Gasket                       | 6   | AR45bp            |
| 12  | 3120680 | Gasket                       | 6   | Viton AR45LFP     |
| 13  | 3120951 | Complete valve               | 6   | AR45LFP           |
| 14  | 3120950 | Complete valve               | 6   | AR45bp            |
| 15  | 621782  | Screw TE M8x40               | 6   | SS T90° AR45LFP   |
| 16  | 621780  | Screw TE M8x40               | 6   | T90° AR45bp       |
| 17  | 7512000 | Elbow 1 1/4"                 | 1   |                   |
| 18  | 750670  | Ring nut 1 1/2" G            | 1   |                   |
| 19  | 1880460 | O-ring Ø 29x3                | 1   | Viton AR45LFP     |
| 20  | 390290  | O-ring Ø 29x3                | 1   | AR45bp            |
| 21  | 3120130 | Piston ring                  | 3   |                   |
| 22  | 3120090 | Sleeve                       | 3   |                   |
| 23  | 3120080 | Diaphragm                    | 3   | NBR AR45bp        |
| 24  | 3120082 | Diaphragm                    | 3   | BlueFlex™ AR45LFP |
| 25  | 3120081 | Diaphragm                    | 3   | Viton             |
| 26  | 3120085 | Diaphragm                    | 3   | Desmopan          |
| 27  | 3120120 | Plate                        | 3   |                   |
| 28  | 3120101 | Hub pin AISI 316L            | 3   | T220° (a) AR45LFP |
| 29  | 3120100 | Hub pin AISI 316L            | 3   | T220° (a) AR45bp  |
| 30  | 3120790 | Nut M8 AISI 304              | 3   | T180° (a) AR45LFP |
| 31  | 3120110 | Nut M8 AISI 304              | 3   | SS T180° AR45bp   |
| 32  | 3120020 | Head                         | 3   |                   |
| 33  | 1880450 | Ring circlip Ø 14            | 6   |                   |
| 34  | 3120070 | Piston Ø 54                  | 3   |                   |
| 35  | 380300  | Pin                          | 3   |                   |
| 36  | 3120180 | Connecting rod               | 3   |                   |
| 37  | 1460490 | Ring circlip Ø 47            | 2   |                   |
| 38  | 380230  | Bearing                      | 1   |                   |
| 39  | 1300120 | connecting rod               | 2   |                   |
| 40  | 3120500 | Shaft marked DO              | 1   | AR45bp/LFP C      |
| 41  | 3120160 | Ring seal                    | 1   |                   |
| 42  | 961790  | Ring circlip Ø 68            | 1   |                   |
| 43  | 3240290 | Shield                       | 1   |                   |
| 44  | 320620  | Washer                       | 4   | AR45bp            |
| 45  | 820670  | Screw TCEI M10x16            | 4   | T90° AR45bp       |
| 46  | 3120380 | Manifold                     | 1   |                   |
| 47  | 3120330 | Manifold for GS25 Controller | 1   | Not Shown         |
| 48  | 3120051 | Line                         | 1   |                   |

| Pos | Code    | Description                 | Qty | Note                 |
|-----|---------|-----------------------------|-----|----------------------|
| 40  | 740290  | O-ring Ø 14x1.78            | 1   |                      |
| 41  | 3120090 | Plug                        | 1   | T15°                 |
| 42  | 1140450 | O-ring Ø 20.24x2.62         | 1   | AR45bp               |
| 43  | 1140451 | O-ring Ø 20.24x2.62         | 1   | Viton AR45LFP        |
| 44  | 3120440 | Ring nut 1" G               | 1   |                      |
| 45  | 3120460 | Elbow 1"                    | 1   |                      |
| 46  | 620342  | Screw TE M10x20             | 4   | SS T265° AR45LFP     |
| 47  | 620340  | Screw TE M10x20             | 4   | T265° AR45bp         |
| 48  | 3120140 | Foot                        | 2   |                      |
| 49  | 880530  | Plug 3/8" G                 | 1   | T180°                |
| 50  | 3120010 | Pump body                   | 1   |                      |
| 51  | 3120140 | Tank                        | 1   | T180°                |
| 52  | 650920  | O-ring Ø 53.65x2.62         | 1   |                      |
| 53  | 1040320 | Plug red                    | 1   |                      |
| 54  | 961780  | Bearing                     | 1   |                      |
| 55  | 720030  | O-ring Ø 22.22x2.62         | 1   |                      |
| 56  | 3120271 | Screw TE M8x65              | 24  | SS T90° AR45LFP      |
| 57  | 3120270 | Screw TE M8x65              | 24  | T90° AR45bp          |
| 58  | 3120640 | Ring seal                   | 1   |                      |
| 59  | 2840891 | O-ring Ø 14x2               | 1   | Viton AR45LFP        |
| 60  | 2840890 | O-ring Ø 14x2               | 1   | AR45bp               |
| 61  | 3120170 | Shaft marked DL             | 1   | AR45bp/LFP SP        |
| 62  | 3120760 | Washer                      | 3   | SS                   |
| 63  | 2280950 | Key                         | 1   | (d)                  |
| 64  | 3129013 | Complete Discharge manifold | 1   | AR45bp-SP            |
| 65  | 3129015 | Complete inlet manifold     | 1   | AR45bp               |
| 66  | 3129000 | Piston ConRod assembly      | 3   | Not shown            |
| 67  | 43883   | Complete Discharge manifold | 1   | AR45LFP-GC Not shown |
| 68  | 43821   | Controller Assembly         | 1   | AR45LFP-GC Not shown |

(a) Screw with Loctite 83-21 thread lock STRONG  
(d) Supplied in kit applications.

\* Torque: in-lbs +/- 10%



|       |                                    |
|-------|------------------------------------|
| 55564 | LFP45/BP45 BLUE FLEX DIAPHRAGM KIT |
| 55568 | LFP 45 VITON DIAPHRAGM KIT         |

|       |                        |
|-------|------------------------|
| 55566 | LFP 45 VITON VALVE KIT |
| 55565 | BP 45 VALVE KIT        |



|       |                   |
|-------|-------------------|
| 37735 | LFP 45 O-RING KIT |
| 37760 | BP 45 O-RING KIT  |

|       |           |
|-------|-----------|
| 31326 | OIL QUART |
|-------|-----------|

CRANKCASE OIL CAPACITY 13 OZ.

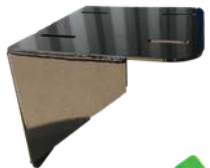
| GX5 LFP80/BP80 COMPONENTS |       |                                  |
|---------------------------|-------|----------------------------------|
| PN#                       |       | DESCRIPTION                      |
| A                         | 53692 | GX5BASEMOUNT                     |
|                           | 53693 | GX5BASEBOXPLATE (2 REQ'D)        |
|                           | 18169 | GX5SPIKEVALVEEXTDBKT             |
| B                         | 38387 | GX5 EATON ORBIT (MOTOR ONLY)     |
|                           | 53930 | GX5PWMHYDVALVE 10 (PWM ONLY)     |
|                           | 53931 | GX5 PWM HYD VALVE W/ MOTOR KIT   |
| C                         | 38461 | GX5 LFP 80 PUMP ONLY .5 - 20 GPM |
|                           | 55560 | GX5 BP 80 PUMP ONLY .5 - 20 GPM  |
| D                         | 55586 | HYD FLANGE KIT                   |
| E                         | 51842 | 1"IN LINE T-STRAINER-50 MESH     |
| F                         | 33132 | 1" WORM SCREW CLAMP (10 REQ'D)   |
|                           | 50016 | 3/4" EPDM GASKET (10 REQ'D)      |
| G                         | 51328 | 1" MANIFOLD X 90 DEGREE BARB     |
| H                         | 51333 | 1" FLANGED ELBOW                 |
| I                         | 51344 | 1" PLUG WITH 1/4" FPT            |
|                           | 32361 | 1/4" HEX PLUG                    |
|                           | 52142 | 1/4" POLY ELBOW FOR GAUGE        |
| J                         | 51334 | 1" FLANGED CROSS                 |
| K                         | 51366 | 2" PORT x 1" FLANGED TEE         |
| L                         | 53629 | 100 PSI PRESSURE RELIEF VALVE    |

| PN#        |       | DESCRIPTION                  |
|------------|-------|------------------------------|
| M          | 38267 | 2" WORM SCREW CLAMP          |
|            | 38269 | 2" FLANGE GASKET             |
| N          | 52195 | 1-1/2 T-BOLT CLAMP (2 REQ'D) |
|            | 53480 | 1-1/2 SPIRAL HOSE (@ 1 FT)   |
| O          | 53502 | 1" BLACK HOSE                |
|            | 52194 | 1-1/4 T-BOLT CLAMP           |
| P          | 51347 | 1" MANIFOLD FLANGED TEE      |
| Q          | 39456 | 3/4" RELIEF VALVE            |
| R<br>"OUT" | 55771 | 1" ELBOW                     |
|            | 55770 | RING NUT                     |
|            | 55920 | O RING VITON FOR LFP80       |
|            | 55919 | O RING FOR BP 80             |
| S<br>"IN"  | 55559 | 1 1/2" ELBOW                 |
|            | 55761 | RING NUT                     |
|            | 55915 | O RING VITON FOR LFP80       |
|            | 29232 | O RING FOR BP 80             |

| LFP80/BP80 - 3 DIAPHRAGMS |                          |
|---------------------------|--------------------------|
| FERTILIZER FLOW (GPM)     | HYDRAULIC OIL FLOW (GPM) |
| 5                         | 1.4                      |
| 10                        | 2.8                      |
| 15                        | 4.3                      |
| 20                        | 5.7                      |
| BASED ON A 30FT TOOL BAR  |                          |



PN#54898 UNIVERSAL MT BRACKET



PN#54397 GX5 BRACKET FOR JD 1720 CCS (MOUNTED TO CIRCULAR PLATE ON LIFT ASSIST FRAME)

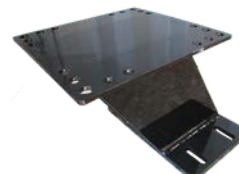
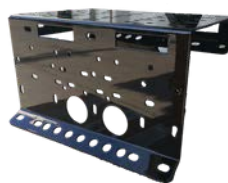
PN#53678 GX5 BRACKET FOR JD PLANTER FRONT FOLD FOR 12 & 16 ROW PLANTERS - WILL NOT FIT DB MODELS



PN#53957 GX5 BRACKET ASSEMBLY FOR JD 1770 NT FRONT FOLD PLANTER FOR 24 ROW PLANTERS - WILL NOT FIT DB MODELS

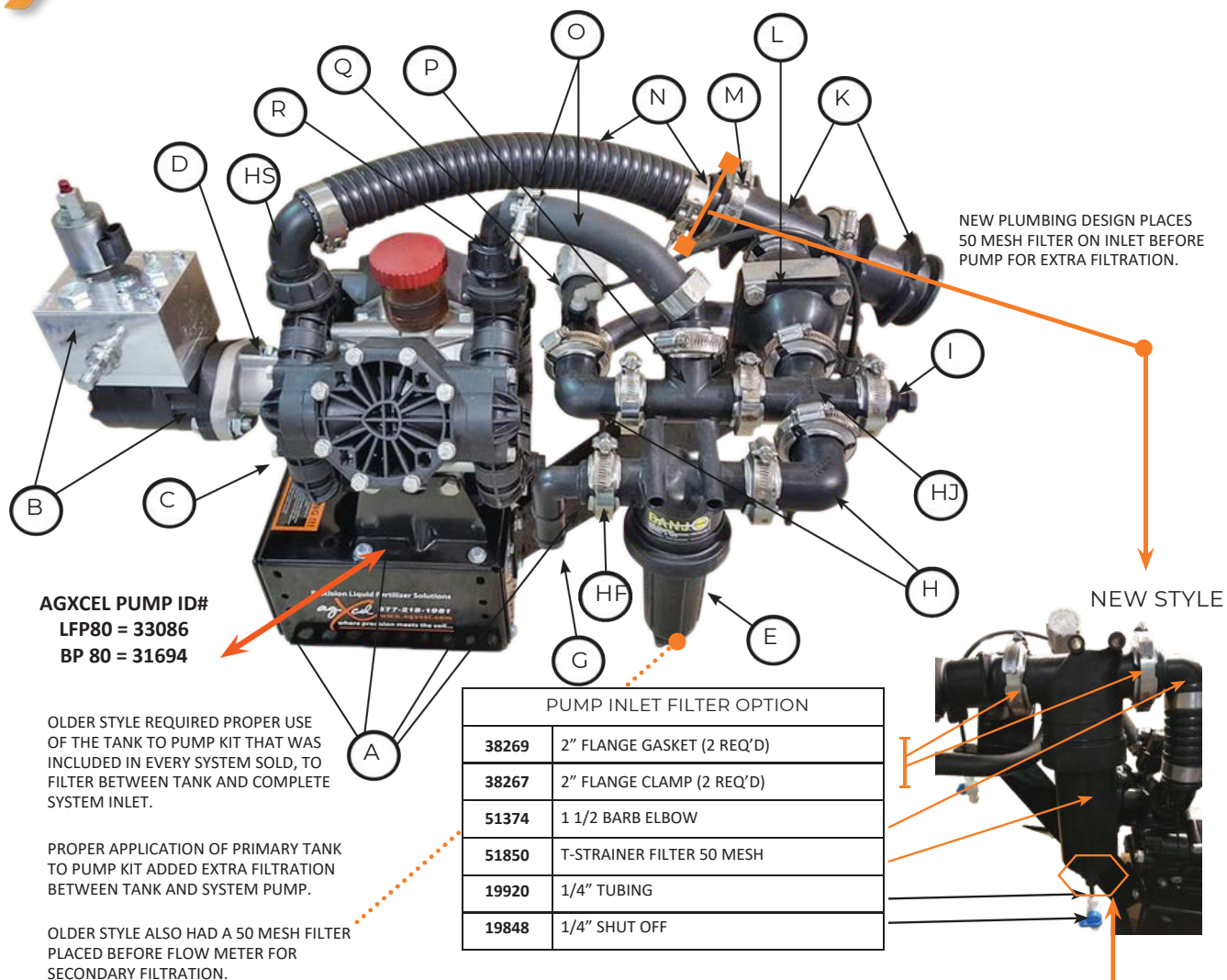
### OPTIONAL MOUNTING GX5 MOUNTING BRACKETS

PN#53968 GX5 BRACKET FOR ON THE REAR LIFT ASSIST WHEELS ON JD 1790 PLANTER



PN#54586 CASE IH DRAW BAR BRACKET TO MOUNT GX5 ON THE DRAW BAR (CAN FIT ANYWHERE FROM 8" TO 10" WIDE DRAW BAR) GX5 BRACKET

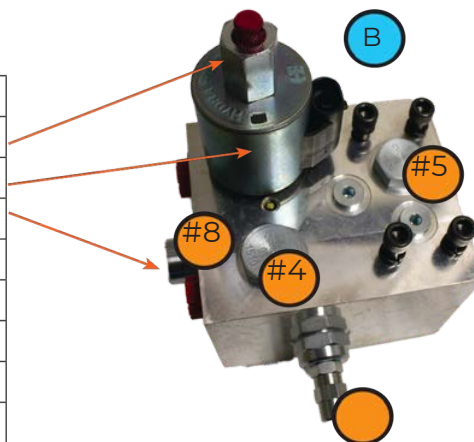




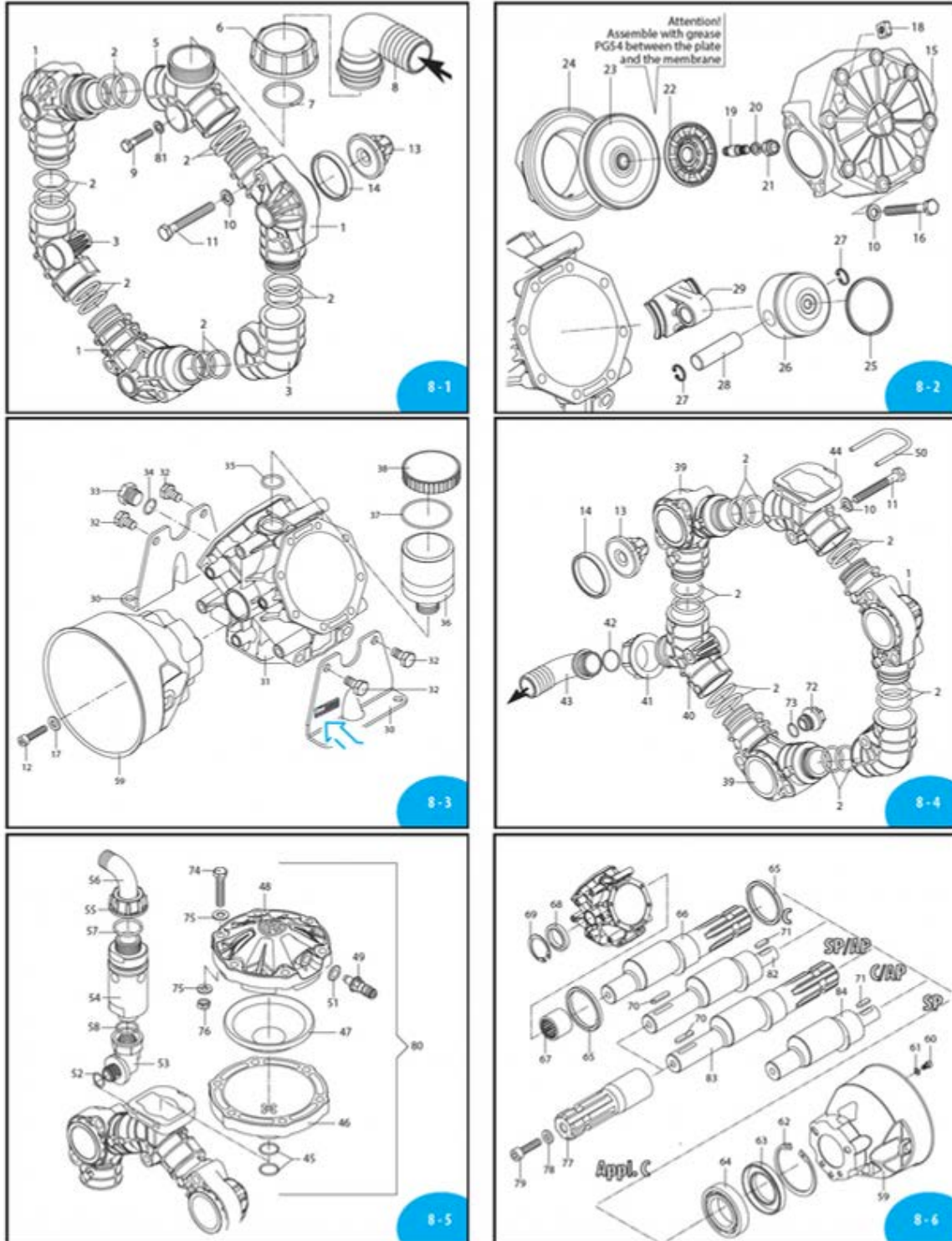
| PUMP INLET FILTER OPTION |                            |
|--------------------------|----------------------------|
| 38269                    | 2" FLANGE GASKET (2 REQ'D) |
| 38267                    | 2" FLANGE CLAMP (2 REQ'D)  |
| 51374                    | 1 1/2 BARB ELBOW           |
| 51850                    | T-STRAINER FILTER 50 MESH  |
| 19920                    | 1/4" TUBING                |
| 19848                    | 1/4" SHUT OFF              |

| BOTTOM OF FILTER |                      |
|------------------|----------------------|
| 32423            | 1" REDUCER 1/2"      |
| 32426            | 1/2" REDUCER 1/4"    |
| 263              | 1/4" QC TO 1/4 M NPT |

| PN#   | DESCRIPTION                       |
|-------|-----------------------------------|
| 55493 | GX5MANUALOVERRIDEVALVE            |
| 55165 | GX5PWMSOLENOID                    |
| 54472 | 160 PSI HYD CARTRIDGE             |
| 54490 | CARTRIDGE SEAL KIT FOR GX5 PWM #8 |
| 54488 | CARTRIDGE SEAL KIT FOR GX5 PWM #5 |
| 54487 | CARTRIDGE SEAL KIT FOR GX5 PWM #4 |
| 54489 | CARTRIDGE SEAL KIT FOR GX5 PWM #6 |
| 55095 | MOTOR SEAL KIT                    |



### GX5 LFP80/BP80 PUMP BREAK DOWN



| Pos | Code    | Discription         | Qty | Note          |
|-----|---------|---------------------|-----|---------------|
| 1   | 3240030 | Line valve closed   | 4   |               |
| 2   | 390291  | O-ring Ø 28.25x2.62 | 24  |               |
|     | 390292  | O-ring Ø 28.25x2.62 | 24  | Viton LFP     |
| 3   | 3240040 | Manifold            | 3   |               |
| 5   | 3240050 | Line asp. threaded  | 1   |               |
| 6   | 750670  | Ring nut 1 1/2" G   | 1   |               |
| 7   | 390290  | O-ring Ø 29x3       | 1   |               |
|     | 1880460 | O-ring Ø 29x3       | 1   | Viton LFP     |
| 8   | 50267   | Elbow 1 1/2"        | 1   |               |
| 9   | 3240280 | Screw TE M8x55      | 6   | SST105*       |
| 10  | 3120760 | Washer              | 36  | SS            |
| 11  | 380211  | Screw TE M8x75      | 12  | SST90*        |
| 12  | 820672  | Screw TCEI M10x16   | 4   | SS            |
| 13  | 2429050 | Valve               | 6   |               |
|     | 2429051 | Valve AISI 316L     | 6   | LFP           |
| 14  | 3460240 | Gasket              | 6   |               |
|     | 3460380 | Gasket              | 6   | Viton LFP     |
| 15  | 3240020 | Head                | 3   |               |
| 16  | 621771  | Screw TE M8x80      | 24  | SST125*       |
| 17  | 395870  | Washer              | 4   | SS            |
| 18  | 3120510 | Nut M8              | 12  | SS            |
| 19  | 3240100 | Hub pin AISI 303    | 3   | T265* (a)     |
|     | 3240101 | Hub pin AISI 316L   | 3   | LFP T265* (a) |
| 20  | 320622  | Washer              | 3   | SS            |
| 21  | 2240110 | Nut M10 AISI 304    | 3   | T220*         |
|     | 2240670 | Nut M10 AISI 316L   | 3   | LFP T220*     |
| 22  | 3240110 | Plate               | 3   |               |
|     | 1040081 | Diaphragm           | 3   | NBR           |
|     | 1040083 | Diaphragm           | 3   | BlueFlex™     |
|     | 1040080 | Diaphragm           | 3   | Desmopan      |
|     | 1040082 | Diaphragm           | 3   | Viton         |
| 24  | 3240130 | Sleeve              | 3   |               |
| 25  | 650190  | Piston ring         | 1   |               |
| 26  | 1040120 | Piston Ø 63         | 3   |               |
| 27  | 1040270 | Ring circlip Ø 15   | 2   |               |
| 28  | 1040070 | Pin                 | 3   |               |
| 29  | 3240120 | Connecting-rod      | 3   |               |
| 30  | 3240090 | Foot                | 2   |               |
| 31  | 3240010 | Pump body           | 1   |               |
| 32  | 620342  | Screw TE M10x20     | 4   | SST265*       |
| 33  | 880530  | Plug 3/8" G         | 1   | T180*         |
| 34  | 740290  | O-ring Ø 14x1.78    | 1   |               |
| 35  | 720030  | O-ring Ø 22.22x2.62 | 1   |               |
| 36  | 3120240 | Tank                | 1   | T180*         |
| 37  | 650920  | O-ring Ø 53.65x2.62 | 1   |               |
| 38  | 1040324 | Plug rosso          | 1   |               |
| 39  | 3240031 | Line                | 2   |               |
| 40  | 3240060 | Line                | 1   |               |
| 41  | 3120440 | Ring nut 1" G       | 1   |               |
| 42  | 1140450 | O-ring Ø 20.24x2.62 | 1   |               |
|     | 1140451 | O-ring Ø 20.24x2.62 | 1   | Viton         |
| 43  | 3120460 | Elbow 1"            | 1   |               |
| 44  | 3240070 | Line                | 1   |               |

| Pos | Code    | Discription                 | Qty | Note                |
|-----|---------|-----------------------------|-----|---------------------|
| 45  | 550040  | O-ring Ø 26.65x2.62         | 2   |                     |
|     | 880311  | O-ring Ø 26.65x2.62         | 2   | Viton LFP           |
| 46  | 3460180 | Semi air chamber lower      | 1   | Nylon               |
|     | 800190  | Diaphragm air chamber       | 1   | NBR                 |
| 47  | 800192  | Diaphragm air chamber       | 1   | BlueFlex™           |
| 48  | 3460190 | Semi air chamber upper      | 1   | Nylon               |
| 49  | 180020  | Air valve                   | 1   | T15*.5              |
| 50  | 3460210 | Fork                        | 1   |                     |
| 51  | 650542  | Gasket                      | 1   |                     |
| 52  | 2440230 | O-ring                      | 1   |                     |
| 53  | 3460330 | Fitting 3/8" (M) - 1/2" (F) | 1   | activator           |
| 54  | 1609000 | Safety valve                | 1   | 290 PSI + activator |
| 55  | 550450  | Ring nut 3/4" G             | 1   |                     |
| 56  | 550460  | Elbow Ø 18                  | 1   |                     |
| 57  | 880831  | O-ring Ø 15.54x2.62         | 1   | Viton               |
| 58  | 180101  | O-ring Ø 17.5x2             | 1   |                     |
| 59  | 180102  | O-ring Ø 17.5x2             | 1   | Viton               |
| 59  | 3240290 | Shield                      | 2   |                     |
| 60  | 820672  | Screw TCEI M10x16           | 4   | SST90*              |
| 61  | 395870  | Washer                      | 4   | SS                  |
| 62  | 961790  | Ring circlip Ø 68           | 1   |                     |
| 63  | 3120160 | Ring seal                   | 1   |                     |
| 64  | 961780  | Bearing                     | 1   |                     |
| 65  | 3240320 | Ring connecting rod         | 2   |                     |
| 66  | 3240150 | Shaft C marked EE           | 1   |                     |
| 67  | 3460110 | Bearing                     | 1   |                     |
| 68  | 1300230 | Ring seal                   | 1   |                     |
| 69  | 480900  | Ring circlip Ø 35           | 1   |                     |
| 70  | 650250  | Key                         | 1   | (d)                 |
| 71  | 2280950 | Key                         | 1   | (d)                 |
| 72  | 3120690 | Plug 3/8" G                 | 1   |                     |
| 73  | 2840890 | O-ring Ø 14x2               | 1   |                     |
|     | 2840591 | O-ring Ø 14x2               | 1   | Viton LFP           |
| 74  | 621782  | Screw TE M8x40              | 6   | SST180*             |
| 75  | 390315  | Washer                      | 12  | SS                  |
| 76  | 3120260 | Nut M8                      | 6   | SST180*             |
| 77  | 650300  | Coupling                    | 1   |                     |
| 78  | 961340  | Washer                      | 1   |                     |
| 79  | 680350  | Screw TCEI M8x35            | 1   | T180*               |
| 80  | 1506    | Air chamber NBR             | 1   |                     |
|     | 43065   | Air chamber BlueFlex™       | 1   |                     |
|     | 43067   | Air chamber BlueFlex™       | 1   | LFP                 |
| 81  | 390315  | Washer                      | 6   | SS                  |
| 82  | 3240170 | Shaft SP/AP marked DM       | 1   | AR80                |
| 83  | 3240160 | Shaft C/AP marked EF        | 1   | AR80                |
| 84  | 3240190 | Shaft SP marked EB          | 1   | AR80                |
| 85  | 3249001 | Complete Discharge assembly | 1   | AR80bp              |
| 86  | 3240180 | Shaft SP                    | 1   | AR60                |
| 87  | 3249006 | Complete Controller         | 1   | Not shown           |

(a) Screw with Loxal 83-21 thread lock STRONG.

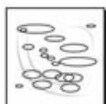
(d) Supplied in kit applications.

\* Torque: in-lbs +/- 10%



|       |                                |
|-------|--------------------------------|
| 55570 | LFP 80 BLUE FLEX DIAPHRAGM KIT |
| 55569 | LFP 80 VITON DIAPHRAGM KIT     |

|       |                               |
|-------|-------------------------------|
| 55575 | LFP 80 VALVE KIT (VITON ONLY) |
| 55576 | BP 80 VALVE KIT               |



|       |                                |
|-------|--------------------------------|
| 37761 | LFP 80 O-RING KIT (VITON ONLY) |
| 37772 | BP 80 O-RING KIT               |

|       |           |
|-------|-----------|
| 31326 | OIL QUART |
|-------|-----------|

CRANKCASE OIL CAPACITY 24 OZ.

| GX5 D115 COMPONENTS |             |                                |
|---------------------|-------------|--------------------------------|
| PN#                 | DESCRIPTION |                                |
| A                   | 53692       | GX5BASEMOUNT                   |
|                     | 53693       | GX5BASEBOXPLATE (2 REQ'D)      |
|                     | 38386       | GX5SPIKEVALVEBKT (D115 ONLY)   |
|                     | 37632       | PUMP MOUNT BRACKET (D115 ONLY) |
| B                   | 38387       | GX5 EATON ORBIT (MOTOR ONLY)   |
|                     | 53930       | GX5PWMHYDVALVE 10 (PWM ONLY)   |
|                     | 53931       | GX5 PWM HYD VALVE W/ MOTOR KIT |
| C                   | 27479       | GX5 D115 PUMP ONLY 1 - 25 GPM  |
|                     | 38465       | HYD FLANGE KIT FOR D115        |
| E                   | 51842       | 1" IN LINE T-STRAINER-50 MESH  |
| F                   | 33132       | 1" WORM SCREW CLAMP (10 REQ'D) |
|                     | 50016       | 3/4" EPDM GASKET (10 REQ'D)    |
| G                   | 51328       | 1" MANIFOLD X 90 DEGREE BARB   |
| H                   | 51333       | 1" FLANGED ELBOW               |
| I                   | 51344       | 1" PLUG WITH 1/4" FPT          |
|                     | 32361       | 1/4" HEX PLUG                  |
|                     | 52142       | 1/4" POLY ELBOW FOR GAUGE      |
| J                   | 51334       | 1" FLANGED CROSS               |
| K                   | 51366       | 2" PORT x 1" FLANGED TEE       |
| L                   | 53629       | 100 PSI PRESSURE RELIEF VALVE  |

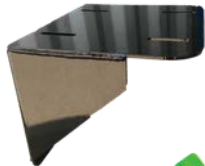
| PN#        | DESCRIPTION |                              |
|------------|-------------|------------------------------|
| M          | 38267       | 2" WORM SCREW CLAMP          |
|            | 38269       | 2" FLANGE GASKET             |
| N          | 52195       | 1-1/2 T-BOLT CLAMP (2 REQ'D) |
|            | 53580       | 1-1/4 SPIRAL HOSE (@ 1 FT)   |
| O          | 53502       | 1" BLACK HOSE                |
|            | 52194       | 1-1/4 T-BOLT CLAMP           |
| P          | 51347       | 1" MANIFOLD FLANGED TEE      |
| Q          | 39456       | 3/4" RELIEF VALVE            |
| R<br>"OUT" | 29416       | 1" ELBOW                     |
|            | 29404       | RING NUT                     |
|            | 29415       | O RING FOR D115              |
| S<br>"IN"  | 29376       | 1 1/2" ELBOW                 |
|            | 29375       | RING NUT                     |
|            | 29124       | O RING FOR D115              |



In order to prevent debris and chemical deposits from clogging or logging into your hydraulic system, Agxcel recommends a minimum of 30 mesh filter in line between tank and system inlet. Even the smallest debris can block diaphragms from closing properly affecting rates and pump performance.



PN#54898 UNIVERSAL MT BRACKET



PN#54397 GX5 BRACKET FOR JD 1720 CCS (MOUNTED TO CIRCULAR PLATE ON LIFT ASSIST FRAME)

PN#53678 GX5 BRACKET FOR JD PLANTER FRONT FOLD FOR 12 & 16 ROW PLANTERS - WILL NOT FIT DB MODELS

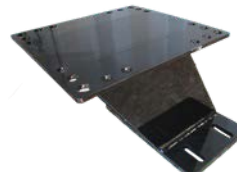
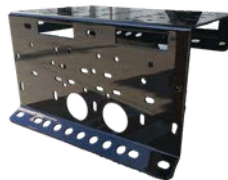


### OPTIONAL MOUNTING GX5 MOUNTING BRACKETS



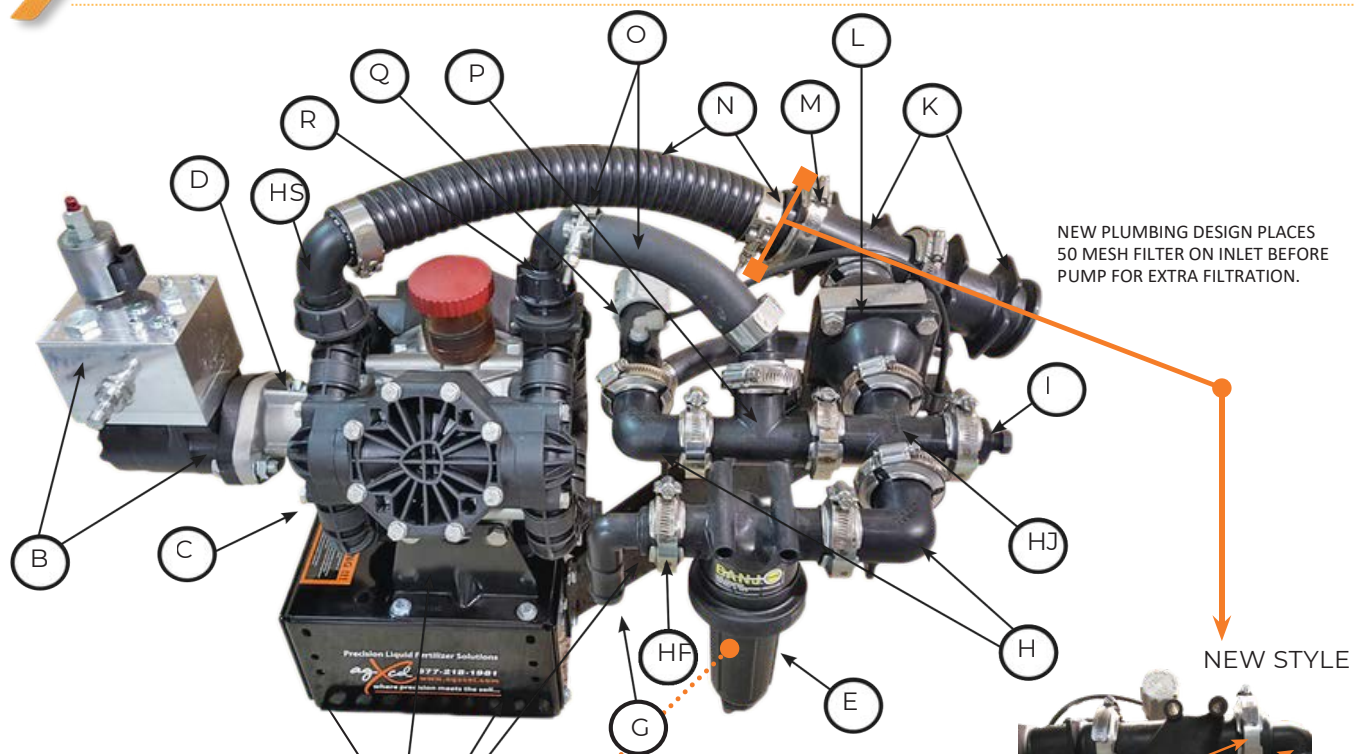
PN#53957 GX5 BRACKET ASSEMBLY FOR JD 1770 NT FRONT FOLD PLANTER FOR 24 ROW PLANTERS - WILL NOT FIT DB MODELS

PN#53968 GX5 BRACKET FOR ON THE REAR LIFT ASSIST WHEELS ON JD 1790 PLANTER



PN#54586 CASE IH DRAW BAR BRACKET TO MOUNT GX5 ON THE DRAW BAR (CAN FIT ANYWHERE FROM 8" TO 10" WIDE DRAW BAR) GX5 BRACKET





OLDER STYLE REQUIRED PROPER USE OF THE TANK TO PUMP KIT THAT WAS INCLUDED IN EVERY SYSTEM SOLD, TO FILTER BETWEEN TANK AND COMPLETE SYSTEM INLET.

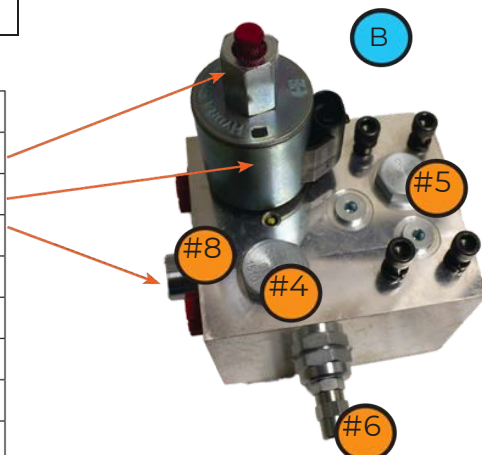
PROPER APPLICATION OF PRIMARY TANK TO PUMP KIT ADDED EXTRA FILTRATION BETWEEN TANK AND SYSTEM PUMP.

OLDER STYLE ALSO HAD A 50 MESH FILTER PLACED BEFORE FLOW METER FOR SECONDARY FILTRATION.

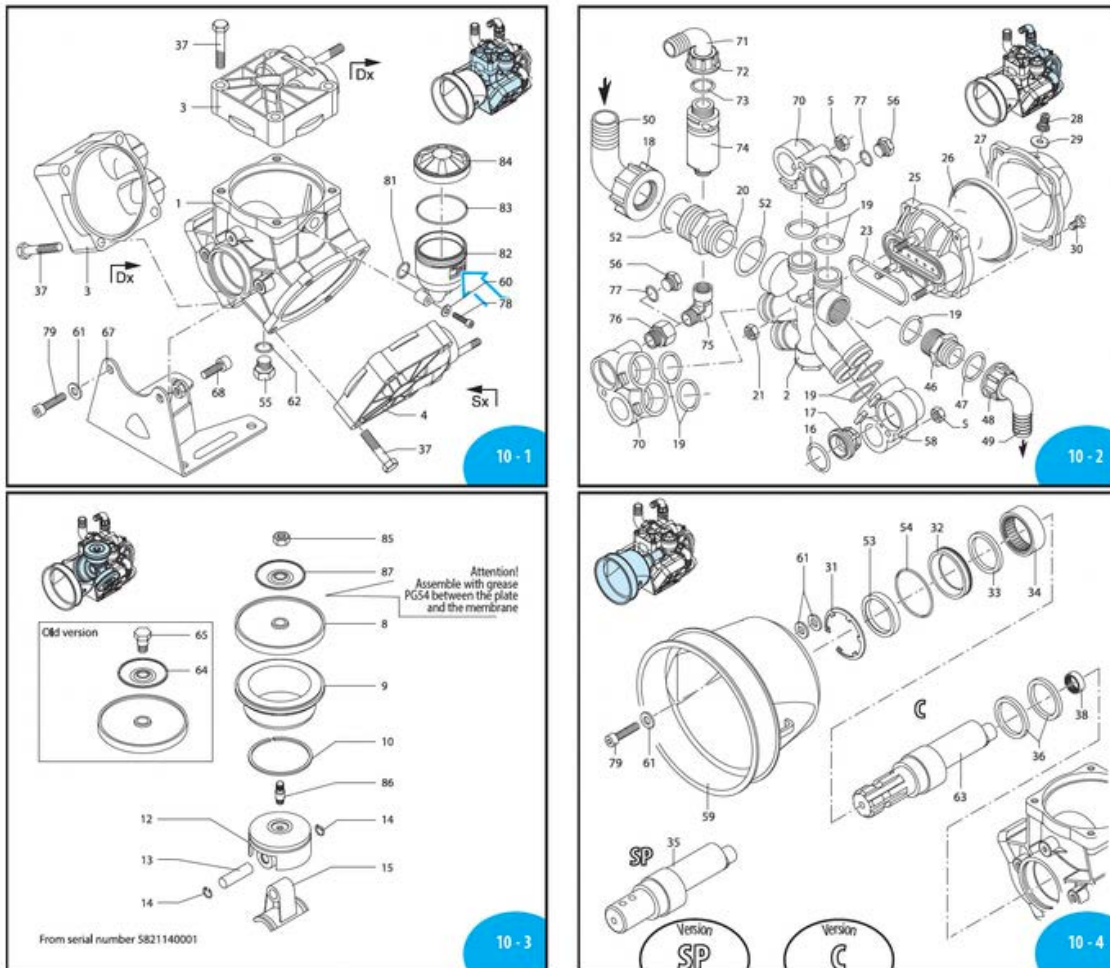
| PUMP INLET FILTER OPTION |                            |
|--------------------------|----------------------------|
| 38269                    | 2" FLANGE GASKET (2 REQ'D) |
| 38267                    | 2" FLANGE CLAMP (2 REQ'D)  |
| 51374                    | 1 1/2 BARB ELBOW           |
| 51850                    | T-STRAINER FILTER 50 MESH  |
| 19920                    | 1/4" TUBING                |
| 19848                    | 1/4" SHUT OFF              |

| BOTTOM OF FILTER |                      |
|------------------|----------------------|
| 32423            | 1" REDUCER 1/2"      |
| 32426            | 1/2" REDUCER 1/4"    |
| 263              | 1/4" QC TO 1/4 M NPT |

| PN#   | DESCRIPTION                       |
|-------|-----------------------------------|
| 55493 | GX5MANUALOVERRIDEVALVE            |
| 55165 | GX5PWMSOLENOID                    |
| 54472 | 160 PSI HYD CARTRIDGE             |
| 54490 | CARTRIDGE SEAL KIT FOR GX5 PWM #8 |
| 54488 | CARTRIDGE SEAL KIT FOR GX5 PWM #5 |
| 54487 | CARTRIDGE SEAL KIT FOR GX5 PWM #4 |
| 54489 | CARTRIDGE SEAL KIT FOR GX5 PWM #6 |
| 55095 | MOTOR SEAL KIT                    |



### GX5 D115 PUMP BREAK DOWN



37708 D115 BLUE FLEX DIAPHRAGM KIT



29936 D115 VALVE KIT

29922 D115 O RING KIT

31326 OIL QUART



CRANKCASE OIL CAPACITY 32 OZ.

| Pos                                                                                 | Code   | Discription              | Qty | Note            |
|-------------------------------------------------------------------------------------|--------|--------------------------|-----|-----------------|
| 1                                                                                   | 580013 | Pump body                | 1   |                 |
| 2                                                                                   | 580150 | Manifold                 | 1   |                 |
| 3                                                                                   | 550101 | Head marked dx           | 2   |                 |
| 4                                                                                   | 550102 | Head marked sx           | 1   |                 |
| 5                                                                                   | 180152 | Nut M10                  | 3   | Geomet T355*    |
|    | 550081 | Diaphragm                | 3   | BlueFlex™       |
|                                                                                     | 550080 | Diaphragm                | 3   | NBR             |
|                                                                                     | 550084 | Diaphragm                | 3   | Viton           |
|                                                                                     | 550086 | Diaphragm                | 3   | HPDS            |
|    | 580110 | Sleeve                   | 3   | AR115bp         |
|                                                                                     | 580350 | Sleeve                   | 3   | AR135bp         |
|                                                                                     | 580112 | Sleeve                   | 3   | AR115bp/1000    |
| 10                                                                                  | 500260 | Piston ring              | 3   |                 |
| 12                                                                                  | 580120 | Piston Ø 80              | 3   |                 |
| 13                                                                                  | 380300 | Pin                      | 3   |                 |
| 14                                                                                  | 380080 | Ring circlip Øi 14       | 6   |                 |
| 15                                                                                  | 580140 | Connecting-rod           | 3   |                 |
| 16                                                                                  | 320030 | O-ring Ø 31.5x4.5        | 6   | 90Sh            |
|    | 759051 | Valve                    | 6   | AR115bp AR135bp |
|                                                                                     | 589050 | Valve                    | 6   | AR115bp/1000    |
| 18                                                                                  | 540541 | Ring nut 1" 3/4 G        | 1   |                 |
| 19                                                                                  | 390291 | O-ring Ø 28.25x2.62      | 7   |                 |
| 20                                                                                  | 540530 | Fitting 1"1/4G-1"3/4GM-M | 1   |                 |
| 21                                                                                  | 390271 | Nut M8                   | 3   | Geomet T180*    |
| 23                                                                                  | 580050 | Gasket                   | 1   |                 |
| 25                                                                                  | 580180 | Semi air chamber lower   | 1   | Black           |
|   | 550194 | Diaphragm air chamber    | 1   | Blueflex™       |
|                                                                                     | 550190 | Diaphragm air chamber    | 1   | NBR             |
|                                                                                     | 550192 | Diaphragm air chamber    | 1   | Viton           |
|                                                                                     | 550193 | Diaphragm air chamber    | 1   | HPDS            |
| 27                                                                                  | 550233 | Semi air chamber upper   | 1   | Black           |
| 28                                                                                  | 550300 | Air valve                | 1   | T25*            |
| 29                                                                                  | 650542 | Gasket                   | 1   |                 |
| 30                                                                                  | 550680 | Screw TE M8x20           | 4   | Geomet T180*    |
| 31                                                                                  | 200391 | Ring circlip Øi 62       | 1   |                 |
| 32                                                                                  | 550470 | Bushing seal ring        | 1   |                 |
| 33                                                                                  | 550070 | Washer                   | 1   |                 |
| 34                                                                                  | 550060 | Bushing                  | 1   |                 |
|  | 550170 | Shaft marked AL          | 1   | AR115bp SP      |
|                                                                                     | 580380 | Shaft marked AT          | 1   | AR135bp SP      |
| 36                                                                                  | 580470 | Ring connecting rod      | 2   |                 |
| 37                                                                                  | 551040 | Screw TE M10x55          | 12  | Geomet          |
| 38                                                                                  | 550310 | Bushing                  | 1   |                 |
| 46                                                                                  | 550340 | Fitting 1" G M-M         | 1   |                 |
| 47                                                                                  | 550350 | O-ring Ø 23.81x2.62      | 1   |                 |
| 48                                                                                  | 550242 | Ring nut 1" G            | 1   |                 |
| 49                                                                                  | 550370 | Elbow 1"                 | 1   |                 |
| 50                                                                                  | 540550 | Elbow 1 1/2"             | 1   |                 |
| 52                                                                                  | 250310 | O-ring Ø 36.14x2.62      | 2   |                 |

| Pos                                                                                 | Code    | Discription                | Qty | Note            |
|-------------------------------------------------------------------------------------|---------|----------------------------|-----|-----------------|
| 53                                                                                  | 550491  | Ring seal                  | 1   |                 |
| 54                                                                                  | 650920  | O-ring Ø 53.65x2.62        | 1   |                 |
| 55                                                                                  | 880530  | Plug 3/8" G                | 1   | T180*           |
| 56                                                                                  | 330173  | Plug 1/2" G                | 1   | Geomet T180*    |
| 58                                                                                  | 580072  | Fitting                    | 1   |                 |
| 59                                                                                  | 1500350 | Shield                     | 1   |                 |
| 60                                                                                  | 550332  | Washer                     | 2   | Geomet          |
| 61                                                                                  | 320621  | Washer                     | 5   | Geomet          |
| 62                                                                                  | 740290  | O-ring Ø 14x1.78           | 1   |                 |
|    | 550173  | Shaft marked AM            | 1   | AR115bp C       |
|                                                                                     | 580330  | Shaft marked AS            | 1   | AR135bp C       |
|                                                                                     | 550176  | Shaft marked AP            | 1   | AR115bp/1000    |
|                                                                                     | 580370  | Retaining washer hole Ø 14 | 3   | (b)             |
| 64                                                                                  | 580360  | Hub pin                    | 3   | (b) T180*       |
|    | 580080  | Foot                       | 1   | AR115bp AR135bp |
|                                                                                     | 580082  | Foot                       | 1   | AR115bp/1000    |
| 68                                                                                  | 540301  | Screw TCEI M10x30          | 1   | Geomet T355*    |
| 70                                                                                  | 580400  | Fitting                    | 2   |                 |
| 71                                                                                  | 550460  | Elbow Ø 18                 | 1   |                 |
| 72                                                                                  | 550450  | Ring nut 3/4" G            | 1   |                 |
| 73                                                                                  | 880831  | O-ring Ø 15.54x2.62        | 1   | Viton           |
| 74                                                                                  | 1609000 | Safety valve               | 1   | 290 PSI         |
| 75                                                                                  | 881560  | Fitting 1/2" G M-F         | 1   |                 |
| 76                                                                                  | 580421  | Fitting M-F 1/2"           | 1   | T180*           |
| 77                                                                                  | 180101  | O-ring Ø 17.5x2            | 1   |                 |
| 78                                                                                  | 850851  | Screw TCEI M6x30           | 2   | Geomet T90*     |
| 79                                                                                  | 620472  | Screw TCEI M10x20          | 3   | Geomet T90*     |
| 81                                                                                  | 390180  | O-ring Ø 18.72x2.62        | 1   |                 |
| 82                                                                                  | 1040310 | Tank                       | 1   |                 |
| 83                                                                                  | 650920  | O-ring Ø 53.65x2.62        | 1   |                 |
|  | 1040326 | Plug black                 | 1   | AR115bp         |
|                                                                                     | 1040324 | Plug red                   | 1   | AR135bp         |
|                                                                                     | 1040325 | Plug green                 | 1   | AR115bp/1000    |
| 85                                                                                  | 2240110 | Nut M10                    | 3   | (a) T265*       |
| 86                                                                                  | 2240100 | Hub pin                    | 3   | (a) T265*       |
| 87                                                                                  | 580371  | Retaining washer hole Ø 10 | 3   | (a)             |

(a) From serial number 5821140001.  
(b) Up to serial number 5820149999.

\* Torque: in-lbs +/- 10%

| D115 - 3 DIAPHRAGMS      |                          |
|--------------------------|--------------------------|
| FERTILIZER FLOW (GPM)    | HYDRAULIC OIL FLOW (GPM) |
| 5                        | 2.1                      |
| 10                       | 4.2                      |
| 15                       | 6.3                      |
| 20                       | 8.4                      |
| 25                       | 10.5                     |
| BASED ON A 30FT TOOL BAR |                          |

| GX5 LFP120 COMPONENTS |             |                                |
|-----------------------|-------------|--------------------------------|
| PN#                   | DESCRIPTION |                                |
| A                     | 53692       | GX5BASEMOUNT                   |
|                       | 53693       | GX5BASEBOXPLATE (2 REQ'D)      |
|                       | 38386       | GX5SPIKEVALVEBKT (D115 ONLY)   |
|                       | 37632       | PUMP MOUNT BRACKET (D115 ONLY) |
| B                     | 38387       | GX5 EATON ORBIT (MOTOR ONLY)   |
|                       | 53930       | GX5PWMHYDVALVE 10 (PWM ONLY)   |
|                       | 53931       | GX5 PWM HYD VALVE W/ MOTOR KIT |
| C                     | 55530       | GX5 LFP120                     |
| D                     | 55585       | HYD FLANGE KIT FOR LFP120      |
| E                     | 51842       | 1" IN LINE T-STRAINER 50 MESH  |
| F                     | 33123       | 1" WORM SCREW CLAMP            |
|                       | 50016       | 3/4" EPDM GASKET               |
| G                     | 51328       | 1" MANIFOLD X 90 DEGREE BARB   |
| H                     | 51333       | 1" FLANGED ELBOW               |
| I                     | 51344       | 1" PLUG WITH 1/4" FPT          |
|                       | 32361       | 1/4" HEX PLUG                  |
|                       | 52142       | 1/4" POLY ELBOW FOR GAUGE      |
| J                     | 51334       | 1" FLANGED CROSS               |
| K                     | 51366       | 2" PORT x 1" FLANGED TEE       |
| L                     | 53629       | 100 PSI PRESSURE RELIEF VALVE  |

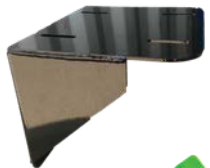
| PN#        |       | DESCRIPTION                  |
|------------|-------|------------------------------|
| M          | 38267 | 2" WORM SCREW CLAMP          |
|            | 38269 | 2" FLANGE GASKET             |
| N          | 52195 | 1-1/2 T-BOLT CLAMP (2 REQ'D) |
|            | 53580 | 1-1/4 SPIRAL HOSE (@ 1 FT)   |
| O          | 53502 | 1" BLACK HOSE                |
|            | 52194 | 1-1/4 T-BOLT CLAMP           |
| P          | 51347 | 1" MANIFOLD FLANGED TEE      |
| Q          | 39456 | 3/4" RELIEF VALVE            |
| R<br>"OUT" | 56141 | 1" ELBOW                     |
|            | 56142 | RING NUT                     |
|            | 56140 | O RING FOR LFP120            |
| S<br>"IN"  | 56139 | 1 1/2" ELBOW                 |
|            | 55761 | RING NUT                     |
|            | 55915 | O RING FOR LFP120            |



In order to prevent debris and chemical deposits from clogging or logging into your hydraulic system, Agxcel recommends a minimum of 30 mesh filter in line between tank and system inlet. Even the smallest debris can block diaphragms from closing properly affecting rates and pump performance.



PN#54898 UNIVERSAL MT BRACKET



PN#54397 GX5 BRACKET FOR JD 1720 CCS (MOUNTED TO CIRCULAR PLATE ON LIFT ASSIST FRAME)

PN#53678 GX5 BRACKET FOR JD PLANTER FRONT FOLD FOR 12 & 16 ROW PLANTERS - WILL NOT FIT DB MODELS

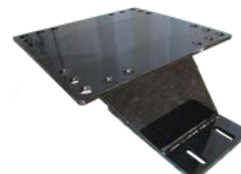


### OPTIONAL MOUNTING GX5 MOUNTING BRACKETS



PN#53957 GX5 BRACKET ASSEMBLY FOR JD 1770 NT FRONT FOLD PLANTER FOR 24 ROW PLANTERS - WILL NOT FIT DB MODELS

PN#53968 GX5 BRACKET FOR ON THE REAR LIFT ASSIST WHEELS ON JD 1790 PLANTER



PN#54586 CASE IH DRAW BAR BRACKET TO MOUNT GX5 ON THE DRAW BAR (CAN FIT ANYWHERE FROM 8" TO 10" WIDE DRAW BAR) GX5 BRACKET



| GX5 LFP120 COMPONENTS |       |                                |
|-----------------------|-------|--------------------------------|
| PN#                   |       | DESCRIPTION                    |
| A                     | 53692 | GX5BASEMOUNT                   |
|                       | 53693 | GX5BASEBOXPLATE (2 REQ'D)      |
|                       | 38386 | GX5SPIKEVALVEBKT (D115 ONLY)   |
|                       | 37632 | PUMP MOUNT BRACKET (D115 ONLY) |
| B                     | 38387 | GX5 EATON ORBIT (MOTOR ONLY)   |
|                       | 53930 | GX5PWMHYDVALVE 10 (PWM ONLY)   |
|                       | 53931 | GX5 PWM HYD VALVE W/ MOTOR KIT |
| C                     | 55530 | GX5 LFP120                     |
| D                     | 55585 | HYD FLANGE KIT FOR LFP120      |
| E                     | 51842 | 1" IN LINE T-STRAINER 50 MESH  |
| F                     | 33123 | 1" WORM SCREW CLAMP            |
|                       | 50016 | 3/4" EPDM GASKET               |
| G                     | 51328 | 1" MANIFOLD X 90 DEGREE BARB   |
| H                     | 51333 | 1" FLANGED ELBOW               |
| I                     | 51344 | 1" PLUG WITH 1/4" FPT          |
|                       | 32361 | 1/4" HEX PLUG                  |
|                       | 52142 | 1/4" POLY ELBOW FOR GAUGE      |
| J                     | 51334 | 1" FLANGED CROSS               |
| K                     | 51366 | 2" PORT x 1" FLANGED TEE       |
| L                     | 53629 | 100 PSI PRESSURE RELIEF VALVE  |

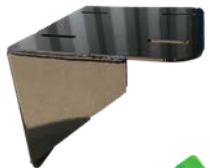
| PN#        |       | DESCRIPTION                  |
|------------|-------|------------------------------|
| M          | 38267 | 2" WORM SCREW CLAMP          |
|            | 38269 | 2" FLANGE GASKET             |
| N          | 52195 | 1-1/2 T-BOLT CLAMP (2 REQ'D) |
|            | 53580 | 1-1/4 SPIRAL HOSE (@ 1 FT)   |
| O          | 53502 | 1" BLACK HOSE                |
|            | 52194 | 1-1/4 T-BOLT CLAMP           |
| P          | 51347 | 1" MANIFOLD FLANGED TEE      |
| Q          | 39456 | 3/4" RELIEF VALVE            |
| R<br>"OUT" | 56141 | 1" ELBOW                     |
|            | 56142 | RING NUT                     |
|            | 56140 | O RING FOR LFP120            |
| S<br>"IN"  | 56139 | 1 1/2" ELBOW                 |
|            | 55761 | RING NUT                     |
|            | 55915 | O RING FOR LFP120            |



In order to prevent debris and chemical deposits from clogging or logging into your hydraulic system, Agxcel recommends a minimum of 30 mesh filter in line between tank and system inlet. Even the smallest debris can block diaphragms from closing properly affecting rates and pump performance.



PN#54898 UNIVERSAL MT BRACKET



PN#54397 GX5 BRACKET FOR JD 1720 CCS (MOUNTED TO CIRCULAR PLATE ON LIFT ASSIST FRAME)

PN#53678 GX5 BRACKET FOR JD PLANTER FRONT FOLD FOR 12 & 16 ROW PLANTERS - WILL NOT FIT DB MODELS

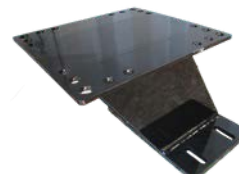
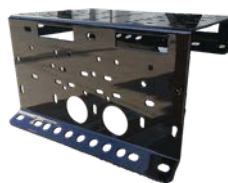


### OPTIONAL MOUNTING GX5 MOUNTING BRACKETS



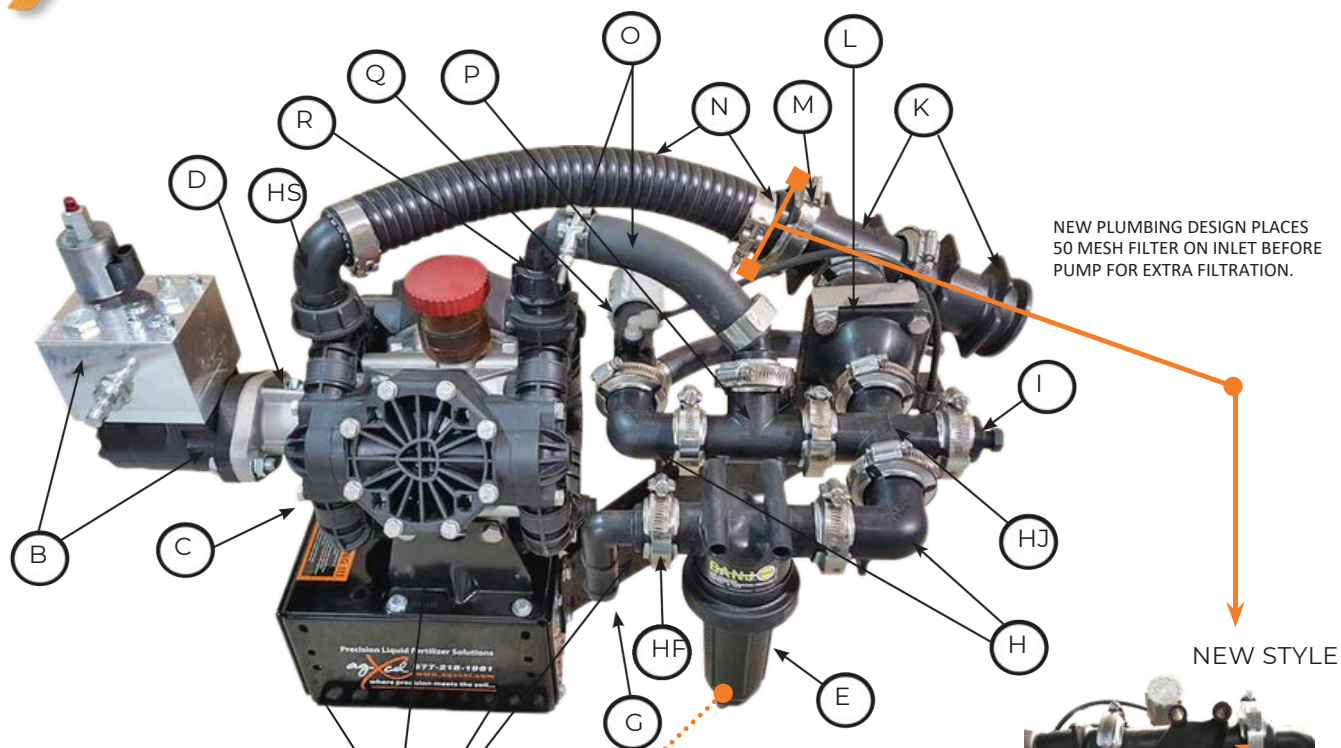
PN#53957 GX5 BRACKET ASSEMBLY FOR JD 1770 NT FRONT FOLD PLANTER FOR 24 ROW PLANTERS - WILL NOT FIT DB MODELS

PN#53968 GX5 BRACKET FOR ON THE REAR LIFT ASSIST WHEELS ON JD 1790 PLANTER



PN#54586 CASE IH DRAW BAR BRACKET TO MOUNT GX5 ON THE DRAW BAR (CAN FIT ANYWHERE FROM 8" TO 10" WIDE DRAW BAR) GX5 BRACKET





OLDER STYLE REQUIRED PROPER USE OF THE TANK TO PUMP KIT THAT WAS INCLUDED IN EVERY SYSTEM SOLD, TO FILTER BETWEEN TANK AND COMPLETE SYSTEM INLET.

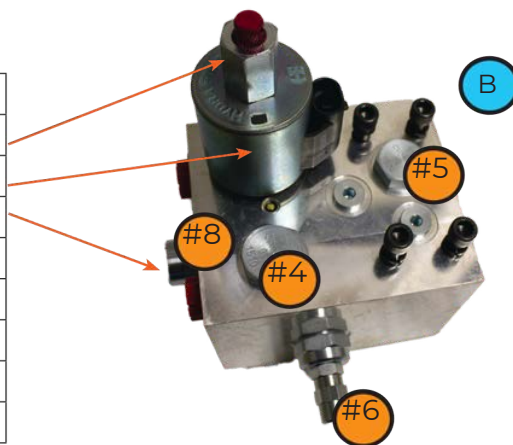
PROPER APPLICATION OF PRIMARY TANK TO PUMP KIT ADDED EXTRA FILTRATION BETWEEN TANK AND SYSTEM PUMP.

OLDER STYLE ALSO HAD A 50 MESH FILTER PLACED BEFORE FLOW METER FOR SECONDARY FILTRATION.

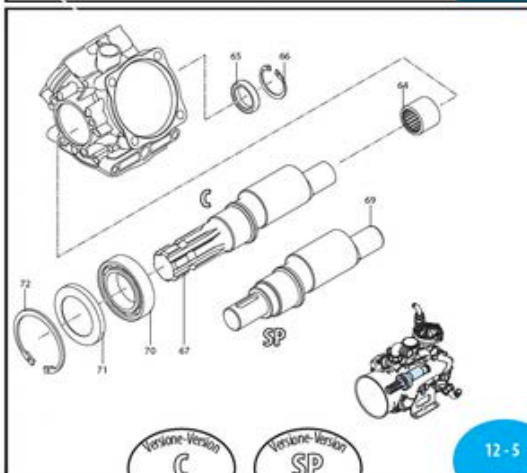
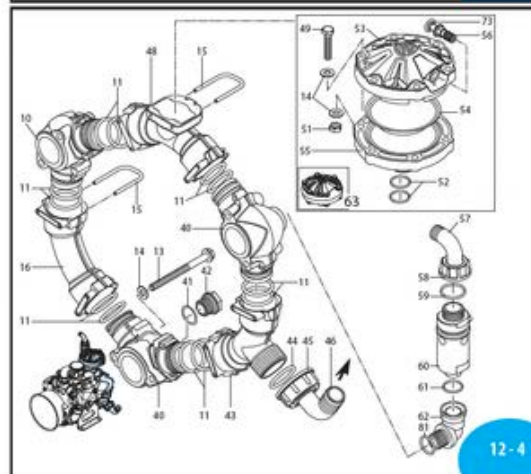
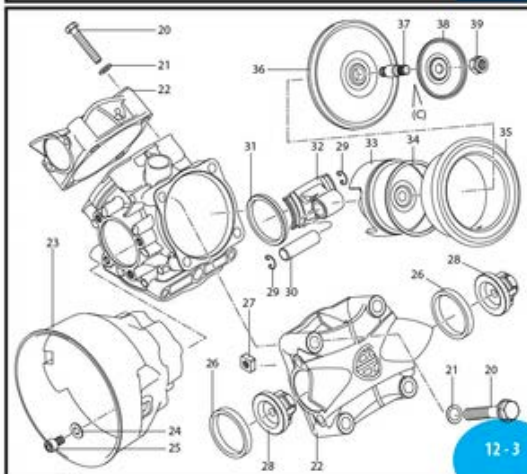
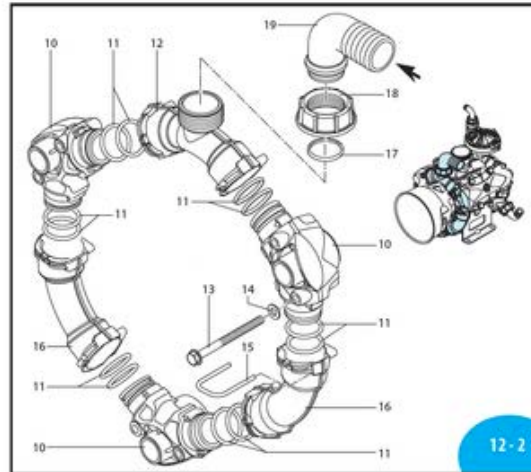
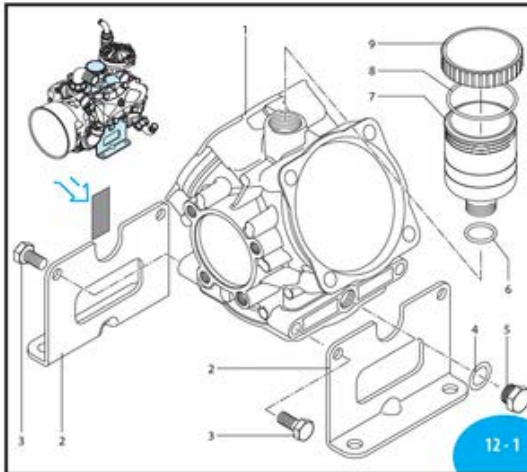
| PUMP INLET FILTER OPTION |                            |
|--------------------------|----------------------------|
| 38269                    | 2" FLANGE GASKET (2 REQ'D) |
| 38267                    | 2" FLANGE CLAMP (2 REQ'D)  |
| 51374                    | 1 1/2 BARB ELBOW           |
| 51850                    | T-STRAINER FILTER 50 MESH  |
| 19920                    | 1/4" TUBING                |
| 19848                    | 1/4" SHUT OFF              |

| BOTTOM OF FILTER |                      |
|------------------|----------------------|
| 32423            | 1" REDUCER 1/2"      |
| 32426            | 1/2" REDUCER 1/4"    |
| 263              | 1/4" QC TO 1/4 M NPT |

| PN#   | DESCRIPTION                       |
|-------|-----------------------------------|
| 55493 | GX5MANUALOVERRIDEVALVE            |
| 55165 | GX5PWMSOLENOID                    |
| 54472 | 160 PSI HYD CARTRIDGE             |
| 54490 | CARTRIDGE SEAL KIT FOR GX5 PWM #8 |
| 54488 | CARTRIDGE SEAL KIT FOR GX5 PWM #5 |
| 54487 | CARTRIDGE SEAL KIT FOR GX5 PWM #4 |
| 54489 | CARTRIDGE SEAL KIT FOR GX5 PWM #6 |
| 55095 | MOTOR SEAL KIT                    |



### GX5 LFP120 PUMP BREAK DOWN



| LFP120 - 3 DIAPHRAGMS    |                          |
|--------------------------|--------------------------|
| FERTILIZER FLOW (GPM)    | HYDRAULIC OIL FLOW (GPM) |
| 10                       | 3.0                      |
| 15                       | 4.5                      |
| 20                       | 6.1                      |
| 25                       | 7.6                      |
| BASED ON A 30FT TOOL BAR |                          |

| Pos | Code    | Description             | Qty | Note           |
|-----|---------|-------------------------|-----|----------------|
| 1   | 3460010 | Pump body               | 1   |                |
| 2   | 3460100 | Foot                    | 2   | Cataphoresis   |
| 3   | 360672  | Screw                   | 4   | Geomet T265*   |
| 3   | 360673  | Screw                   | 4   | SS T265* LFP   |
| 4   | 280290  | O-ring                  | 1   | Ø 14x1.78      |
| 5   | 880530  | Plug                    | 1   | 1/8" G         |
| 6   | 720010  | O-ring                  | 1   | Ø 22.22x2.62   |
| 7   | 3120240 | Tank                    | 1   | T180*          |
| 8   | 650920  | O-ring                  | 1   | Ø 53.65x2.62   |
| 9   | 1040126 | Plug                    | 1   | AR 120bp       |
| 9   | 1040124 | Plug                    | 1   | red            |
| 10  | 3460030 | Line                    | 4   |                |
| 11  | 2680140 | O-ring                  | 24  | Ø 32.93x3.53   |
| 11  | 2680141 | O-ring                  | 24  | Ø 32.93x3.53   |
| 12  | 3460050 | Line                    | 1   | section        |
| 13  | 3460200 | Screw                   | 12  | Geomet T305*   |
| 13  | 3460201 | Screw                   | 12  | SS T305* LFP   |
| 14  | 390314  | Washer                  | 24  | Geomet         |
| 14  | 390315  | Washer                  | 24  | SS LFP         |
| 15  | 3460270 | Fork                    | 13  |                |
| 16  | 3460040 | Line                    | 3   |                |
| 17  | 390290  | O-ring                  | 1   | Ø 29x3         |
| 17  | 1880460 | O-ring                  | 1   | Ø 29x3         |
| 18  | 750670  | Ring nut                | 1   | 1 1/2" G       |
| 19  | 50267   | Elbow                   | 1   | 1 1/2"         |
| 20  | 750071  | Screw                   | 12  | Geomet T330*   |
| 20  | 750072  | Screw                   | 12  | SS T330* LFP   |
| 21  | 390090  | Washer                  | 12  | Geomet         |
| 21  | 390092  | Washer                  | 12  | SS LFP         |
| 22  | 3460020 | Head                    | 3   |                |
| 23  | 3240290 | Shield                  | 2   |                |
| 24  | 320621  | Washer                  | 4   | Geomet         |
| 24  | 320622  | Washer                  | 4   | SS LFP         |
| 25  | 820673  | Screw                   | 4   | Geomet T90*    |
| 25  | 820672  | Screw                   | 4   | SS T90* LFP    |
| 26  | 3460240 | Gasket                  | 6   | Viton LFP      |
| 27  | 3120511 | Nut                     | 12  | MB             |
| 27  | 3120510 | Nut                     | 12  | SS LFP         |
| 28  | 2429050 | Valve                   | 6   |                |
| 28  | 2429051 | Valve                   | 6   | AR 120bp       |
| 29  | 380080  | Ring                    | 6   | circclip Ø 14  |
| 30  | 380300  | Pin                     | 3   |                |
| 31  | 3460090 | Ring                    | 2   | connecting rod |
| 32  | 3460080 | Connecting rod          | 3   |                |
| 33  | 580120  | Piston                  | 3   | Ø 80           |
| 34  | 500260  | Piston ring             | 3   |                |
| 35  | 750117  | Sleeve                  | 3   | AR 120bp       |
| 35  | 750110  | Sleeve                  | 3   | AR 140bp       |
| 36  | 550080  | Diaphragm               | 3   | NBR            |
| 36  | 550081  | Diaphragm               | 3   | BlueFlex       |
| 36  | 550084  | Diaphragm               | 3   | Viton          |
| 36  | 550085  | Diaphragm               | 3   | Desmopan       |
| 36  | 550086  | Diaphragm               | 3   | HDOS           |
| 37  | 2240100 | Hub pin                 | 3   | T265* Gail     |
| 37  | 2240101 | Hub pin                 | 3   | T265* LFP      |
| 38  | 580090  | Wobble plate            | 3   |                |
| 39  | 2240110 | Nut                     | 3   | T220*          |
| 39  | 2240670 | Nut                     | 3   | T220* LFP      |
| 40  | 3460031 | Line                    | 2   |                |
| 41  | 1140450 | O-ring                  | 1   | Ø 20.24x2.62   |
| 41  | 1140451 | O-ring                  | 1   | Ø 20.24x2.62   |
| 42  | 3460220 | Plug                    | 1   | 1/2" G         |
| 43  | 3460060 | Line                    | 1   | manifold       |
| 44  | 550040  | O-ring                  | 1   | Ø 26.62x2.62   |
| 44  | 880311  | O-ring                  | 1   | Ø 26.62x2.62   |
| 45  | 651700  | Ring nut                | 1   | 1" 1/4 G       |
| 46  | 651440  | Elbow                   | 1   | 1"             |
| 48  | 3460070 | Line                    | 1   |                |
| 49  | 621781  | Screw                   | 6   | Geomet T180*   |
| 49  | 621782  | Screw                   | 6   | SS T180* LFP   |
| 51  | 380242  | Nut                     | 6   | Geomet T180*   |
| 51  | 3120260 | Nut                     | 6   | SS T180* LFP   |
| 52  | 550040  | O-ring                  | 2   | Ø 26.62x2.62   |
| 52  | 880311  | O-ring                  | 2   | Ø 26.62x2.62   |
| 53  | 3460190 | Semi air chamber        | 1   | upper          |
| 54  | 800190  | Diaphragm               | 1   | NBR            |
| 54  | 800192  | Diaphragm               | 1   | BlueFlex       |
| 55  | 3460180 | Semi air chamber        | 1   | lower          |
| 56  | 180020  | Air valve               | 1   | T220*          |
| 57  | 550460  | Elbow                   | 1   | Ø 18           |
| 58  | 550450  | Ring nut                | 1   | 3/4" G         |
| 59  | 880831  | O-ring                  | 1   | Ø 15.54x2.62   |
| 60  | 1609000 | Safety valve            | 1   | 290 PSI (b)    |
| 61  | 180101  | O-ring                  | 1   | Ø 17.5x2       |
| 61  | 180102  | O-ring                  | 1   | Ø 17.5x2       |
| 62  | 3460120 | Fitting                 | 1   | 1/2" G M-F     |
| 63  | 1505    | Air chamber             | 1   | NBR            |
| 63  | 43067   | Air chamber             | 1   | BlueFlex       |
| 64  | 3460110 | Bearing                 | 1   |                |
| 65  | 1306230 | Ring                    | 1   | seal           |
| 66  | 480900  | Ring                    | 1   | circclip Ø 35  |
| 67  | 3460160 | Shaft                   | 1   | marked D1      |
| 67  | 3460170 | Shaft                   | 1   | marked DQ      |
| 67  | 3460250 | Shaft                   | 1   | marked DU      |
| 67  | 3460260 | Shaft                   | 1   | marked DV      |
| 70  | 961781  | Bearing                 | 1   |                |
| 71  | 3120160 | Ring                    | 1   | seal           |
| 72  | 961790  | Ring                    | 1   | circclip Ø 68  |
| 73  | 650542  | Gasket                  | 1   |                |
| 74  | 650250  | Key                     | 1   |                |
| 75  | 650100  | Coupling                | 1   |                |
| 76  | 961340  | Washer                  | 1   |                |
| 77  | 680350  | Screw                   | 1   | TCEI M8x35     |
| 78  | 1200521 | Spacer                  | 3   |                |
| 79  | 380241  | Washer                  | 3   |                |
| 79  | 392110  | Washer                  | 3   | SS LFP         |
| 80  | 680350  | Screw                   | 3   | TCEI M8x35     |
| 80  | 680351  | Screw                   | 3   | SS T90* LFP    |
| 81  | 651350  | Gasket                  | 1   |                |
| 82  | 3469002 | Complete Inlet assembly | 1   | AR 120bp       |

(a) Screw Shank piston side with Loctite 82-21 Strong Threadlock (Green) and lubricate the Shank side plate with Molykote grease 1000.  
(b) Screw the valve until it bottoms on the elbow.  
(c) Attention! Assemble with grease PGSA between the plate and the membrane.  
\* Torque in lbs +/- 10%



|       |                                |
|-------|--------------------------------|
| 55572 | LFP120 BLUE FLEX DIAPHRAGM KIT |
| 55574 | LFP120 VITON DIAPHRAGM KIT     |

|       |                  |
|-------|------------------|
| 55575 | LFP120 VALVE KIT |
|-------|------------------|



|       |                   |
|-------|-------------------|
| 34739 | LFP120 O RING KIT |
|-------|-------------------|

|       |           |
|-------|-----------|
| 31326 | OIL QUART |
|-------|-----------|

CRANKCASE OIL CAPACITY 28 OZ.

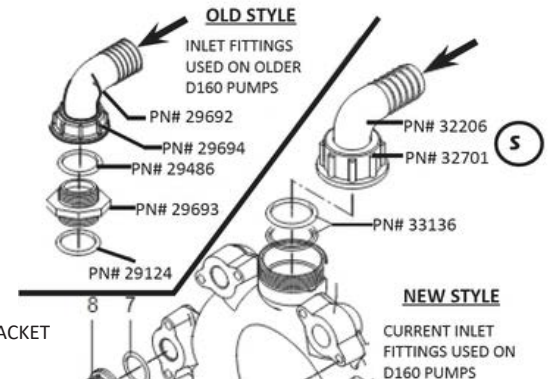
### GX5 D160/ LFP160 COMPONENTS

| PN# | DESCRIPTION                          |
|-----|--------------------------------------|
| A   | 53692 GX5BASEMOUNT                   |
|     | 53693 GX5BASEBOXPLATE                |
|     | 56181 GX5BASEBOX SLOTTED PLATE       |
|     | 56299 GX5SPIKEVALVEEXTDBKT           |
| B   | 38387 GX5 EATON ORBIT (MOTOR ONLY)   |
|     | 53930 GX5PWMHYDVALVE 10 (PWM ONLY)   |
|     | 53931 GX5 PWM HYD VALVE W/ MOTOR KIT |
| C   | 37707 LFP160 PUMP ONLY (5 -35 GPM)   |
|     | 27486 D160 PUMP ONLY (5 -35 GPM)     |
| D   | 31287 HYD FLANGE KIT FOR D160/D250   |
| E   | 19848 1/4 BLEEDER VALVE              |
| F   | 33132 1" WORM SCREW CLAMP (7 REQ'D)  |
|     | 50016 3/4" EPDM GASKET (7 REQ'D)     |
| G   | 51383 2" MANIFOLD X 90 DEGREE BARB   |
| H   | 51333 1" FLANGED ELBOW               |
| I   | 51344 1" PLUG WITH 1/4" FPT          |
|     | 32361 1/4" HEX PLUG                  |
| J   | 51347 1" FLANGED TEE                 |
| K   | 51366 2" PORT x 1" FLANGED TEE       |
| L   | 53629 100 PSI PRESSURE RELIEF VALVE  |

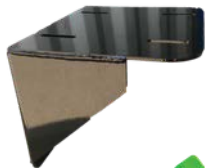
| PN#        | DESCRIPTION                      |
|------------|----------------------------------|
| M          | 38267 2" WORM SCREW CLAMP        |
|            | 38269 2" FLANGE GASKET           |
| N          | 30230 2" T-BOLT CLAMP (2 REQ'D)  |
|            | 38424 2" SPIRAL HOSE (@ 1 FT)    |
| O          | 55730 1 1/2" HIGH PRESSURE HOSE  |
|            | 52198 1 1/2" PRESSURE SEAL CLAMP |
| P          | 51347 1" MANIFOLD FLANGED TEE    |
| Q          | 39456 3/4" RELIEF VALVE          |
| R<br>"OUT" | 55795 ELBOW 1 1/2"               |
|            | 55761 RING NUT                   |
|            | 29232 O RING FOR D160            |
| S<br>"IN"  | 32206 ELBOW 2"                   |
|            | 32701 RING NUT                   |
|            | 33136 O RING FOR D160 (2 REQ'D)  |



**INLET STYLE ONLY:** MANUFACTURER HAD CHANGED THE INLET STYLE A FEW YEARS AGO. PLEASE TAKE NOTE WHICH STYLE YOU HAVE WHEN ORDERING REPLACEMENT PARTS.



PN#54898 UNIVERSAL MT BRACKET



PN#54397 GX5 BRACKET FOR JD 1720 CCS (MOUNTED TO CIRCULAR PLATE ON LIFT ASSIST FRAME)

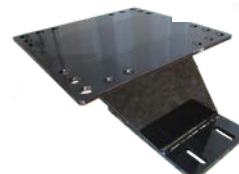
PN#53678 GX5 BRACKET FOR JD PLANTER FRONT FOLD FOR 12 & 16 ROW PLANTERS - WILL NOT FIT DB MODELS



PN#53957 GX5 BRACKET ASSEMBLY FOR JD 1770 NT FRONT FOLD PLANTER FOR 24 ROW PLANTERS - WILL NOT FIT DB MODELS

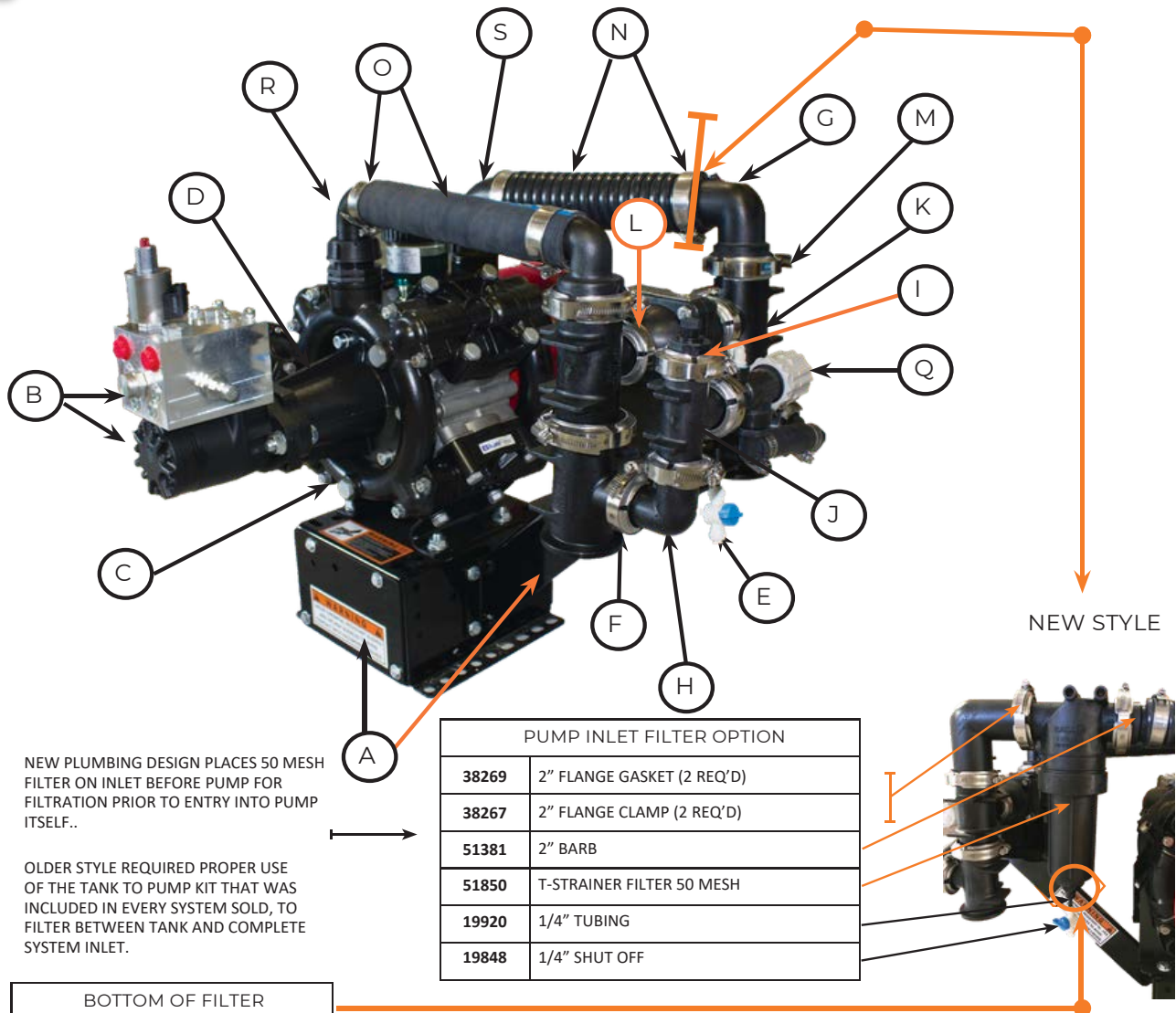
### OPTIONAL MOUNTING GX5 MOUNTING BRACKETS

PN#53968 GX5 BRACKET FOR ON THE REAR LIFT ASSIST WHEELS ON JD 1790 PLANTER

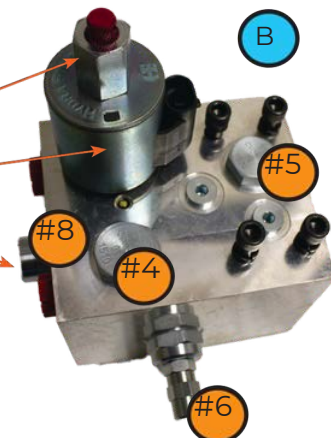


PN#54586 CASE IH DRAW BAR BRACKET TO MOUNT GX5 ON THE DRAW BAR (CAN FIT ANYWHERE FROM 8" TO 10" WIDE DRAW BAR) GX5 BRACKET

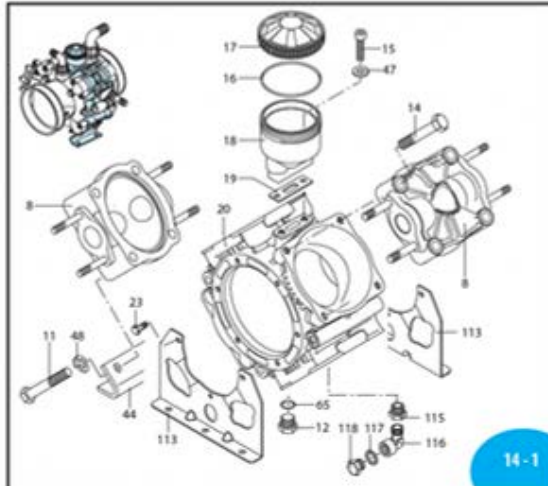




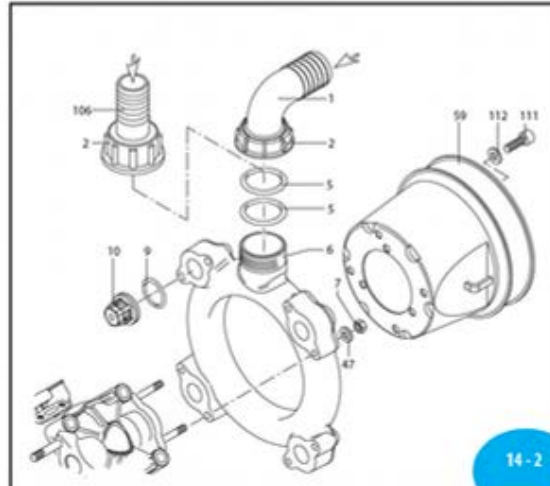
| PN#   | DESCRIPTION                       |
|-------|-----------------------------------|
| 55493 | GX5MANUALOVERRIDEVALVE            |
| 55165 | GX5PWMSOLENOID                    |
| 54472 | 160 PSI HYD CARTRIDGE             |
| 54490 | CARTRIDGE SEAL KIT FOR GX5 PWM #8 |
| 54488 | CARTRIDGE SEAL KIT FOR GX5 PWM #5 |
| 54487 | CARTRIDGE SEAL KIT FOR GX5 PWM #4 |
| 54489 | CARTRIDGE SEAL KIT FOR GX5 PWM #6 |
| 55095 | MOTOR SEAL KIT                    |



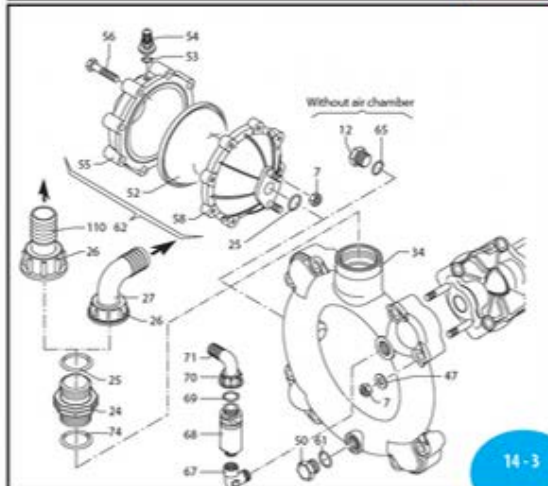
### GX5 LFP160 PUMP BREAK DOWN



14 - 1



14 - 2



| Pos | Code    | Description            | Qty | Note          |
|-----|---------|------------------------|-----|---------------|
| 1   | 3040430 | Elbow 1 1/2"           | 1   | AR 160 bp     |
|     | 3040440 | Elbow 2"               | 1   | AR 185 bp     |
| 2   | 3040450 | Ring nut 2" G          | 1   |               |
| 5   | 3040470 | O-ring Ø 39.3x2.6      | 2   |               |
| 6   | 760750  | Line suction           | 1   |               |
| 7   | 380242  | Nut M8                 | 18  | Geomet T180*  |
| 8   | 751350  | Head black plasticized | 4   |               |
| 9   | 680070  | O-ring Ø 31.5x4.25     | 8   |               |
| 10  | 759051  | Valve                  | 8   |               |
| 11  | 750071  | Screw TE M12x70        | 4   | Geomet T445*  |
| 12  | 880530  | Plug 3/8" G            | 2   | T180*         |
| 13  | 750110  | Sleeve                 | 4   | AR 160 bp     |
|     | 750115  | Sleeve                 | 4   | AR 185 bp     |
| 14  | 750061  | Screw TE M12x65        | 16  | Geomet T445*  |
| 15  | 680150  | Screw TCEI M8x35       | 2   | T90*          |
| 16  | 1040060 | O-ring Ø 72.69x2.62    | 1   |               |
| 17  | 1800060 | Plug black             | 1   | AR 160 bp     |
|     | 750050  | Plug red               | 1   | AR 185 bp     |
| 18  | 750030  | Tank                   | 1   |               |
| 19  | 750040  | Gasket                 | 1   |               |
| 20  | 761010  | Pump body              | 1   |               |
| 21  | 851360  | O-ring Ø 120.32x2.62   | 1   |               |
| 22  | 680020  | Support                | 1   |               |
| 23  | 160672  | Screw TE M10x25        | 6   | Geomet T310*  |
| 24  | 751130  | Fitting 1" 1/2 G M-M   | 1   |               |
| 25  | 390290  | O-ring Ø 29x3          | 2   |               |
| 26  | 750670  | Ring nut 1 1/2" G      | 1   |               |
| 27  | 760930  | Elbow 1"               | 1   | AR 160 bp     |
|     | 751200  | Elbow 1 1/4"           | 1   | AR 185 bp     |
| 28  | 2420181 | Support                | 1   |               |
| 29  | 650640  | Screw TCEI M10x25      | 6   | Geomet T310*  |
|     | 550081  | Diaphragm              | 4   | BlueFlex      |
|     | 550080  | Diaphragm              | 4   | NBR           |
|     | 550084  | Diaphragm              | 4   | Viton         |
|     | 550085  | Diaphragm              | 4   | Desmopan      |
|     | 550086  | Diaphragm              | 4   | HPDS          |
| 32  | 500260  | Piston ring            | 4   |               |
| 33  | 750122  | Piston Ø 80            | 4   |               |
| 34  | 760760  | Line manifold          | 1   |               |
| 35  | 160700  | Pin                    | 4   |               |
| 36  | 160691  | Ring circlip Ø 18      | 8   |               |
| 37  | 760140  | Connecting rod         | 4   |               |
| 38  | 750090  | Bearing                | 2   |               |
| 39  | 750130  | Ring connecting rod    | 2   |               |
| 40  | 540040  | Plate                  | 2   |               |
| 41  | 230350  | Bearing                | 2   |               |
| 42  | 160740  | Ring seal              | 2   |               |
| 43  | 200390  | Ring circlip Ø 62      | 2   |               |
| 44  | 760201  | Foot                   | 2   |               |
| 45  | 750170  | Shaft marked AII       | 1   | AR 160 bp C/C |
|     | 750174  | Shaft marked AIV       | 1   | AR 185 bp C/C |
| 47  | 380243  | Washer                 | 18  | Geomet        |

| Pos | Code    | Description            | Qty | Note               |
|-----|---------|------------------------|-----|--------------------|
| 48  | 250143  | Washer                 | 4   | Geomet             |
| 50  | 330173  | Plug 1/2" G            | 1   | Geomet T180*       |
|     | 550194  | Diaphragm air chamber  | 1   | Blueflex           |
|     | 550190  | Diaphragm air chamber  | 1   | NBR                |
|     | 550191  | Diaphragm air chamber  | 1   | Saturflon          |
|     | 550192  | Diaphragm air chamber  | 1   | Viton              |
|     | 550193  | Diaphragm air chamber  | 1   | HPDS               |
| 53  | 650542  | Gasket                 | 1   |                    |
| 54  | 180020  | Air valve              | 1   | T25*               |
| 55  | 620232  | Semi air chamber upper | 1   | Black              |
| 56  | 621781  | Screw TE M8x40         | 8   | Geomet T180*       |
| 58  | 680180  | Semi air chamber lower | 1   |                    |
| 59  | 1500470 | Shield                 | 2   |                    |
| 60  | 850251  | Screw TCEI M8x12       | 3   | Geomet T180*       |
| 61  | 180101  | O-ring Ø 17.5x2        | 1   |                    |
| 62  | 629230  | Air chamber Blueflex™  | 1   |                    |
|     | 629216  | Air chamber NBR        | 1   |                    |
| 65  | 740290  | O-ring Ø 14x1.78       | 2   |                    |
| 67  | 881560  | Fitting 1/2" G M-F     | 1   |                    |
| 68  | 1609000 | Safety valve           | 1   | 290 PSI            |
| 69  | 880831  | O-ring Ø 15.54x2.62    | 1   | Viton              |
| 70  | 550450  | Ring nut 3/4" G        | 1   |                    |
| 71  | 550460  | Elbow Ø 18             | 1   |                    |
| 72  | 390314  | Washer                 | 3   | Geomet             |
| 74  | 751140  | O-ring Ø 47.22x3.53    | 1   |                    |
| 78  | 620330  | Ring circlip Ø 65      | 1   |                    |
| 79  | 1800090 | Ring seal              | 1   |                    |
| 80  | 230310  | Bearing                | 1   |                    |
| 81  | 760510  | Plate                  | 1   |                    |
| 103 | 2240100 | Hub pin                | 4   | T265*              |
| 104 | 2240110 | Nut M10 SS             | 4   | T220*              |
| 105 | 751250  | Wobble plate           | 4   |                    |
| 106 | 760950  | Hose tail Ø 40         | 1   | Optional AR 160 bp |
|     | 760570  | Hose tail Ø 50         | 1   | Optional AR 185 bp |
| 110 | 760920  | Hose tail Ø 25         | 1   | Optional AR 160 bp |
|     | 760940  | Hose tail Ø 35         | 1   | Optional AR 185 bp |
| 111 | 820673  | Screw TCEI M10x16      | 3   | Geomet             |
| 112 | 320621  | Washer                 | 3   | Geomet             |
| 113 | 761031  | Foot                   | 2   |                    |
| 115 | 1040491 | Fitting 3/8" G M-F     | 1   |                    |
| 116 | 900210  | Fitting 3/8" G M-F     | 1   |                    |
| 117 | 2260200 | Washer                 | 1   |                    |
| 118 | 2281270 | Plug 3/8" G            | 1   | T180*              |
| 119 | 1300280 | Spacer                 | 3   |                    |
| 120 | 760360  | Guard                  | 1   |                    |
| 121 | 320621  | Washer                 | 3   | Geomet             |
| 122 | 650640  | Screw TCEI M10x25      | 3   | Geomet T90*        |

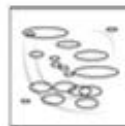
\* Torque: in-lbs +/- 10%



37730 LFP/D160 BLUE FLEX DIAPHRAGM KIT

29937 D160 VALVE KIT

56154 LFP160 VALVE KIT



29905 D160 O RING KIT

56155 LFP160 O RING KIT

31326 OIL QUART

CRANKCASE OIL CAPACITY 56 OZ.

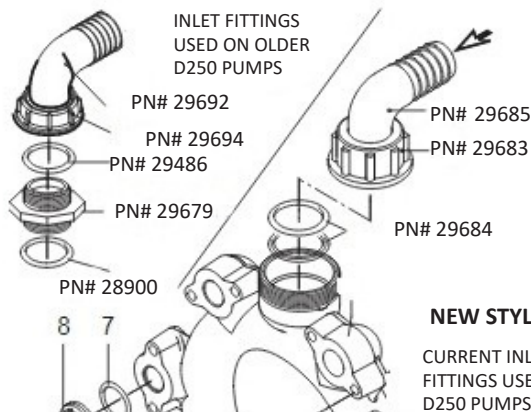
| GX5 D250 COMPONENTS |             |                                |
|---------------------|-------------|--------------------------------|
| PN#                 | DESCRIPTION |                                |
| A                   | 53692       | GX5BASEMOUNT                   |
|                     | 53693       | GX5BASEBOXPLATE                |
|                     | 56181       | GX5BASEBOX SLOTTED PLATE       |
|                     | 56299       | GX5SPIKEVALVEEXTDBKT           |
| B                   | 38387       | GX5 EATON ORBIT (MOTOR ONLY)   |
|                     | 53930       | GX5PWMHYDVALVE 10 (PWM ONLY)   |
|                     | 53931       | GX5 PWM HYD VALVE W/ MOTOR KIT |
| C                   | 27487       | D250 PUMP ONLY (5 -55 GPM)     |
| D                   | 31287       | HYD FLANGE KIT FOR D160/D250   |
| E                   | 19848       | 1/4 BLEEDER VALVE              |
| F                   | 33132       | 1" WORM SCREW CLAMP (7 REQ'D)  |
|                     | 50016       | 3/4" EPDM GASKET ( 7 REQ'D)    |
| G                   | 51383       | 2" MANIFOLD X 90 DEGREE BARB   |
| H                   | 51333       | 1" FLANGED ELBOW               |
| I                   | 51344       | 1" PLUG WITH 1/4" FPT          |
|                     | 32361       | 1/4" HEX PLUG                  |
| J                   | 51347       | 1" FLANGED TEE                 |
| K                   | 51366       | 2" PORT x 1" FLANGED TEE       |
| L                   | 53629       | 100 PSI PRESSURE RELIEF VALVE  |

| PN#        | DESCRIPTION |                           |
|------------|-------------|---------------------------|
| M          | 38267       | 2" WORM SCREW CLAMP       |
|            | 38269       | 2" FLANGE GASKET          |
| N          | 30230       | 2" T-BOLT CLAMP (2 REQ'D) |
|            | 38424       | 2" SPIRAL HOSE (@ 1 FT)   |
| O          | 55730       | 1 1/2" HIGH PRESSURE HOSE |
|            | 52198       | 1 1/2 PRESSURE SEAL CLAMP |
| P          | 51347       | 1" MANIFOLD FLANGED TEE   |
| Q          | 39456       | 3/4" RELIEF VALVE         |
| R<br>"OUT" | 55795       | ELBOW 1 1/2               |
|            | 55761       | RING NUT                  |
|            | 29232       | O RING FOR D250           |
| S<br>"IN"  | 29685       | ELBOW 2"                  |
|            | 29683       | RING NUT                  |
|            | 29684       | O RING FOR D250 (2 REQ'D) |



**INLET STYLE ONLY:** MANUFACTURER HAD CHANGED THE INLET STYLE A FEW YEARS AGO. PLEASE TAKE NOTE WHICH STYLE YOU HAVE WHEN ORDERING REPLACEMENT PARTS.

### OLD STYLE



### NEW STYLE

CURRENT INLET FITTINGS USED ON D250 PUMPS

PN#54586 CASE IH DRAW BAR BRACKET TO MOUNT GX5 ON THE DRAW BAR (CAN FIT ANYWHERE FROM 8" TO 10" WIDE DRAW BAR) GX5 BRACKET

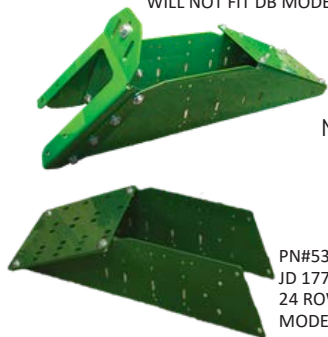


PN#54397 GX5 BRACKET FOR JD 1720 CCS (MOUNTED TO CIRCULAR PLATE ON LIFT ASSIST FRAME)



PN#54898U nUivNerIsValE mRoSunAtiLn gM brOacUkeNt TING BRACKET

PN#53678 GX5 BRACKET FOR JD PLANTER FRONT FOLD FOR 12 & 16 ROW PLANTERS - WILL NOT FIT DB MODELS

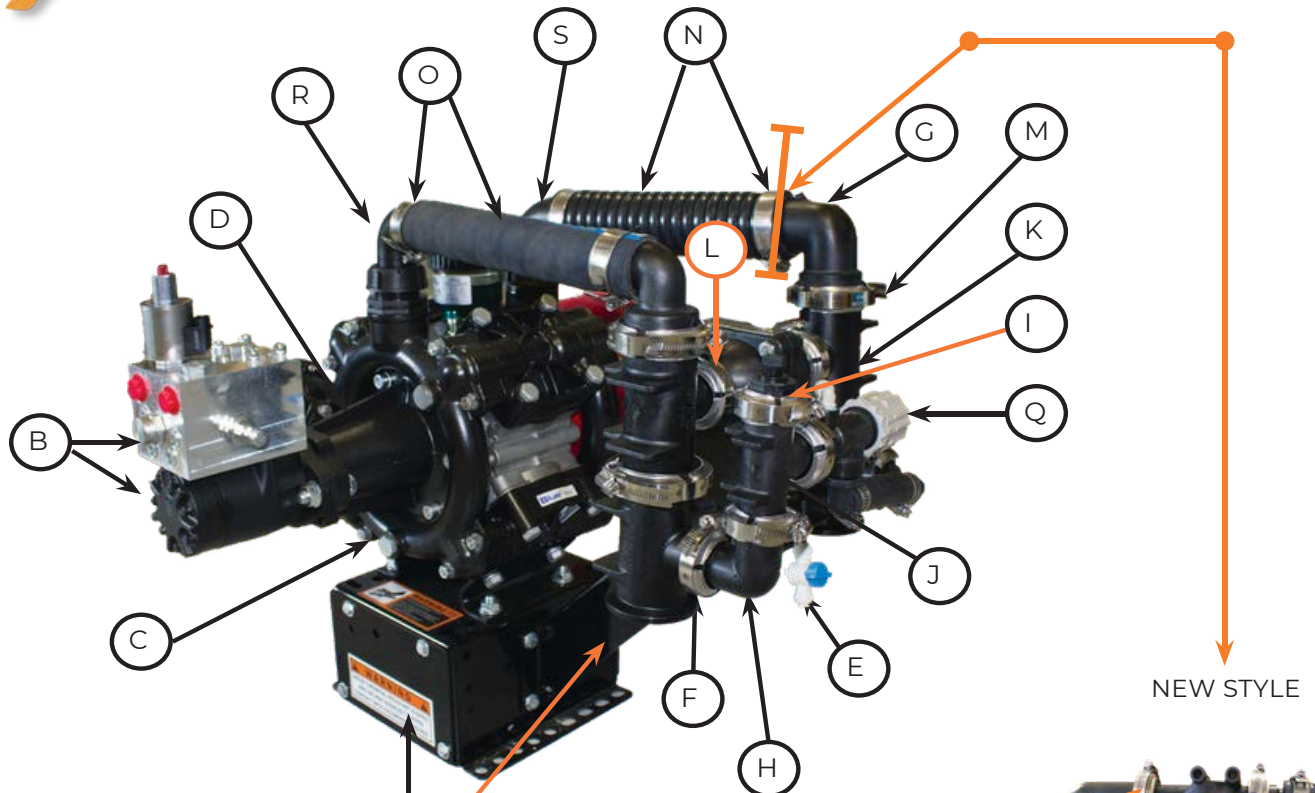


OPTIONAL MOUNTING GX5 MOUNTING BRACKETS

PN#53957 GX5 BRACKET ASSEMBLY FOR JD 1770 NT FRONT FOLD PLANTER FOR 24 ROW PLANTERS - WILL NOT FIT DB MODELS

PN#53968 GX5 BRACKET FOR ON THE REAR LIFT ASSIST WHEELS ON JD 1790 PLANTER





NEW PLUMBING DESIGN PLACES 50 MESH FILTER ON INLET BEFORE PUMP FOR FILTRATION PRIOR TO ENTRY INTO PUMP ITSELF..

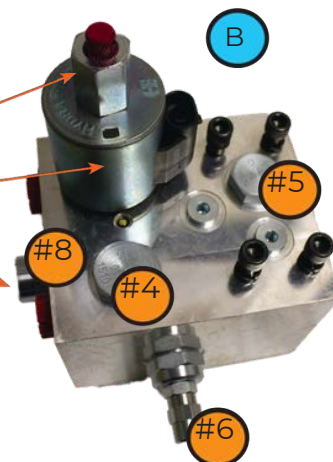
OLDER STYLE REQUIRED PROPER USE OF THE TANK TO PUMP KIT THAT WAS INCLUDED IN EVERY SYSTEM SOLD, TO FILTER BETWEEN TANK AND COMPLETE SYSTEM INLET.

### PUMP INLET FILTER OPTION

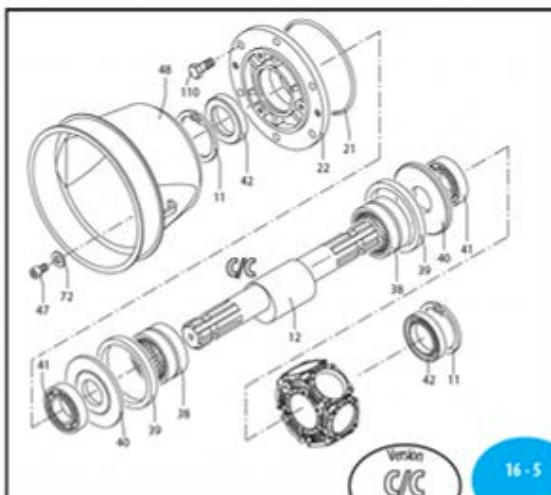
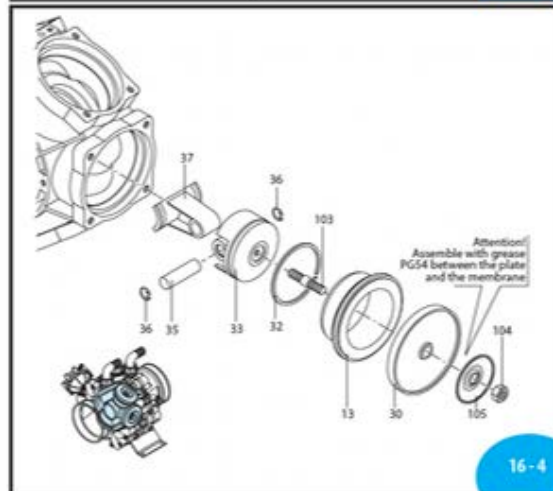
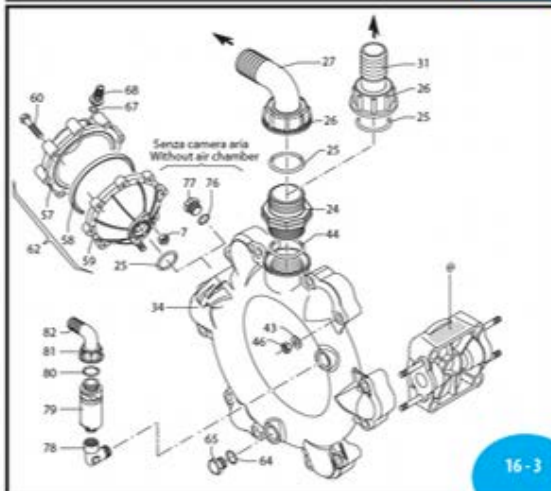
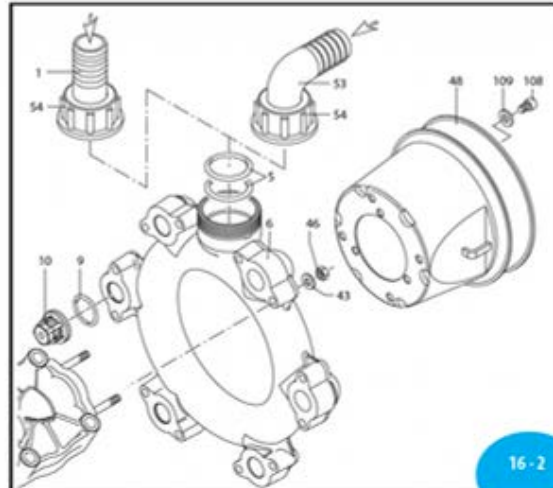
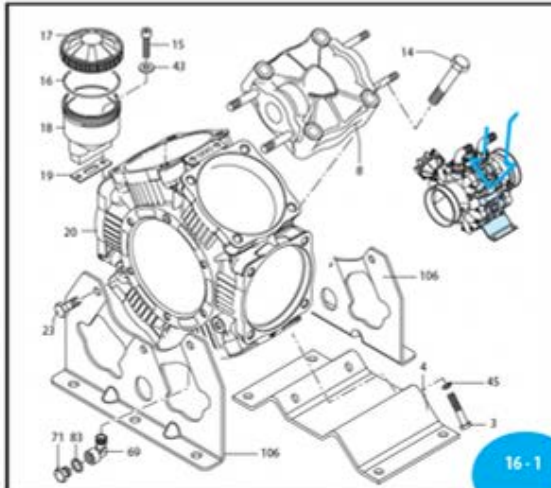
|       |                            |
|-------|----------------------------|
| 38269 | 2" FLANGE GASKET (2 REQ'D) |
| 38267 | 2" FLANGE CLAMP (2 REQ'D)  |
| 51381 | 2" BARB                    |
| 51850 | T-STRAINER FILTER 50 MESH  |
| 19920 | 1/4" TUBING                |
| 19848 | 1/4" SHUT OFF              |

| BOTTOM OF FILTER |                      |
|------------------|----------------------|
| 32423            | 1" REDUCER 1/2"      |
| 32426            | 1/2" REDUCER 1/4"    |
| 263              | 1/4" QC TO 1/4 M NPT |

| PN#   | DESCRIPTION                       |
|-------|-----------------------------------|
| 55493 | GX5MANUALOVERRIDEVALVE            |
| 55165 | GX5PWMSOLENOID                    |
| 54472 | 160 PSI HYD CARTRIDGE             |
| 54490 | CARTRIDGE SEAL KIT FOR GX5 PWM #8 |
| 54488 | CARTRIDGE SEAL KIT FOR GX5 PWM #5 |
| 54487 | CARTRIDGE SEAL KIT FOR GX5 PWM #4 |
| 54489 | CARTRIDGE SEAL KIT FOR GX5 PWM #6 |
| 55095 | MOTOR SEAL KIT                    |



### GX5 D250 PUMP BREAK DOWN



| D250 - 6 DIAPHRAGMS      |                          |
|--------------------------|--------------------------|
| FERTILIZER FLOW (GPM)    | HYDRAULIC OIL FLOW (GPM) |
| 20                       | 3.8                      |
| 30                       | 5.7                      |
| 40                       | 7.7                      |
| 50                       | 9.6                      |
| 55                       | 10.5                     |
| BASED ON A 30FT TOOL BAR |                          |

| Pos | Code    | Description            | Qty | Note          |
|-----|---------|------------------------|-----|---------------|
| 1   | 750870  | Hose tail 2"           | 1   | Optional      |
|     | 750730  | Hose tail Ø 60         | 1   | Optional      |
| 3   | 750071  | Screw TE M12x70        | 4   | Geomet T445*  |
| 4   | 750200  | Foot                   | 1   |               |
| 5   | 750740  | O-ring Ø 56.74x3.53    | 2   |               |
| 6   | 751070  | Line suction           | 1   |               |
| 7   | 380242  | Nut M8                 | 2   | Geomet T220*  |
| 8   | 751350  | Head black plasticized | 6   |               |
| 9   | 680070  | O-ring Ø 31.5x4.25     | 12  |               |
| 10  | 759051  | Valve                  | 12  |               |
| 11  | 200390  | Ring circlip Ø 62      | 2   |               |
|     | 750176  | Shaft marked AZ        | 1   | AR 215 bp C/C |
|     | 750170  | Shaft marked AU        | 1   | AR 250 bp C/C |
|     | 750174  | Shaft marked AV        | 1   | AR 280 bp C/C |
|     | 750117  | Sleeve                 | 6   | AR 215 bp C/C |
|     | 750110  | Sleeve                 | 6   | AR 250 bp C/C |
|     | 750115  | Sleeve                 | 6   | AR 280 bp C/C |
| 14  | 750061  | Screw TE M12x65        | 24  | Geomet T445*  |
| 15  | 680350  | Screw TCEI M8x35       | 2   | T90*          |
| 16  | 1040060 | O-ring Ø 72.69x2.62    | 1   |               |
|     | 750051  | Plug green             | 1   | AR 215 bp     |
|     | 1800060 | Plug black             | 1   | AR 250 bp     |
|     | 750050  | Plug red               | 1   | AR 280 bp     |
| 18  | 750030  | Tank                   | 1   |               |
| 19  | 750040  | Gasket                 | 1   |               |
| 20  | 751300  | Pump body              | 1   |               |
| 21  | 851360  | O-ring Ø 120.32x2.62   | 1   |               |
| 22  | 680020  | Support                | 1   |               |
| 23  | 160672  | Screw TE M10x25        | 6   | Geomet T355*  |
| 24  | 751130  | Fitting 1" 1/2 G M-M   | 1   | T90*          |
| 25  | 390290  | O-ring Ø 29x3          | 2   |               |
| 26  | 750670  | Ring nut 1 1/2" G      | 1   |               |
| 27  | 750660  | Elbow 1 1/2"           | 1   |               |
| 28  | 2420181 | Support                | 1   |               |
| 29  | 650640  | Screw TCEI M10x25      | 6   | Geomet T310*  |
|     | 550081  | Diaphragm              | 6   | Blueflex      |
|     | 550080  | Diaphragm              | 6   | NBR           |
|     | 550084  | Diaphragm              | 6   | Viton         |
|     | 550085  | Diaphragm              | 6   | Desmopan      |
|     | 550086  | Diaphragm              | 6   | HPDS          |
| 31  | 760940  | Hose tail Ø 35         | 1   |               |
| 32  | 500260  | Piston ring            | 6   |               |
| 33  | 750122  | Piston Ø 80            | 6   |               |
| 34  | 751080  | Line manifold          | 1   |               |
| 35  | 160700  | Pin                    | 6   |               |
| 36  | 160691  | Ring circlip Ø 18      | 12  |               |
| 37  | 750140  | Connecting rod         | 6   |               |
| 38  | 750090  | Bearing                | 2   |               |
| 39  | 750130  | Ring connecting rod    | 2   |               |
| 40  | 540040  | Plate                  | 2   |               |
| 41  | 751280  | Bearing                | 2   |               |
| 42  | 160740  | Ring seal              | 2   |               |

| Pos | Code    | Description            | Qty | Note                |
|-----|---------|------------------------|-----|---------------------|
| 43  | 380243  | Washer                 | 26  | Geomet              |
| 44  | 751140  | O-ring Ø 47.22x3.53    | 1   |                     |
| 45  | 250143  | Washer                 | 4   | Geomet              |
| 46  | 380242  | Nut M8                 | 24  | Geomet T180*        |
| 47  | 850251  | Screw TCEI M8x12       | 3   | Geomet T90*         |
| 48  | 1500470 | Shield                 | 1   |                     |
|     | 750850  | Elbow 2"               | 1   | AR 215 bp-AR 250 bp |
|     | 750720  | Elbow Ø 60             | 1   | AR 280 bp           |
| 54  | 750710  | Ring nut 2" 1/2 G      | 1   |                     |
| 57  | 620232  | Semi air chamber upper | 1   | Black               |
|     | 550194  | Diaphragm air chamber  | 1   | Blueflex            |
|     | 550190  | Diaphragm air chamber  | 1   | NBR                 |
|     | 550192  | Diaphragm air chamber  | 1   | Viton               |
|     | 550193  | Diaphragm air chamber  | 1   | HPDS                |
| 59  | 680180  | Semi air chamber lower | 1   |                     |
| 60  | 621781  | Screw TE M8x40         | 8   | Geomet T220*        |
|     | 629230  | Air chamber Blueflex*  | 1   |                     |
|     | 629216  | Air chamber NBR        | 1   |                     |
| 64  | 180101  | O-ring Ø 17.5x2        | 1   |                     |
| 65  | 330173  | Plug 1/2" G            | 1   | Geomet T180*        |
| 67  | 650542  | Gasket                 | 1   |                     |
| 68  | 180020  | Air valve              | 1   | T25*                |
| 69  | 750370  | Fitting 1/4" G M-F     | 1   |                     |
| 71  | 880581  | Plug 1/4" G            | 1   | T180*               |
| 72  | 390314  | Washer                 | 3   | Geomet              |
| 76  | 740290  | O-ring Ø 14x1.78       | 1   |                     |
| 77  | 880530  | Plug 3/8" G            | 1   | T180*               |
| 78  | 881560  | Fitting 1/2" G M-F     | 1   |                     |
| 79  | 1609090 | Safety valve           | 1   | 290 PSI             |
| 80  | 880831  | O-ring Ø 15.54x2.62    | 1   | Viton               |
| 81  | 550450  | Ring nut 3/4" G        | 1   |                     |
| 82  | 550460  | Elbow Ø 18             | 1   |                     |
| 83  | 880820  | Washer                 | 1   |                     |
| 84  | 620330  | Ring circlip Ø 65      | 1   |                     |
| 85  | 1800090 | Ring seal              | 1   |                     |
| 86  | 230310  | Bearing                | 1   |                     |
| 87  | 760510  | Plate                  | 1   |                     |
| 103 | 2240100 | Hub pin                | 6   | T265*               |
| 104 | 2240110 | Nut M10 SS             | 6   | SS T220*            |
| 105 | 751250  | Wobble plate           | 6   |                     |
| 106 | 751291  | Foot                   | 2   |                     |
| 108 | 820673  | Screw TCEI M10x16      | 3   | Geomet T90*         |
| 109 | 320621  | Washer                 | 3   | Geomet              |
| 110 | 160672  | Screw TE M10x25        | 6   | Geomet T310*        |
| 111 | 1300280 | Spacer                 | 3   |                     |
| 112 | 760360  | Guard                  | 1   |                     |
| 113 | 320621  | Washer                 | 3   | Geomet              |
| 114 | 650640  | Screw TCEI M10x25      | 3   | Geomet T90*         |

\* Torque: in-lbs +/- 10%



37732 D250 BLUE FLEX DIAPHRAGM KIT



29903 D250 O RING KIT



29930 D250 VALVE KIT

31326 OIL QUART

### RECOMMENDED CARE AND MAINTENANCE

(Read Instructions Completely before Beginning Installation)

#### WINTERIZATION

AgXcel recommends flushing your fertilizer pump and complete system with adequate amounts of water first. Next, use RV anti-freeze to winterize your system by pumping an adequate amount through all components.

#### CHANGE PUMP OIL ANNUALLY (GX5 HYDRAULIC SYSTEMS ONLY)

GX5 pumps use an internal oil lubricated crankshaft and connecting rod design. The oil is held in an external reservoir with level indicators. Hypro oil is recommended for the pump. This is a non-detergent SAE30 weight oil. If not available, hydraulic jack oils are a similar non-detergent formulation. Annual oil changes are recommended. To fill or drain the pump completely, the pump shaft must be turned slowly by hand. The hydraulic motor will have to be removed to do this. On some pump models, the pump will have to be removed from the mounting bracket and lifted slightly to allow access to the oil plug. When refilling the pump with oil, the shaft will again have to be rotated to fill the pump to its required oil volume.

#### DIAPHRAGM & VALVE REPLACEMENT

GX5 pumps are designed to allow very simple replacement of the two main pumping components; the diaphragms and the inlet & outlet valves. It is a good practice to replace these annually. It is a small job that helps ensure reliable operation during the busy season.

#### TESTING THE SYSTEM

Agxcel recommends testing your system with water first. Water testing will help determine if the plumbing and hardware is secure.

#### CALLING FOR TECH SUPPORT

Before calling for tech support, please check our troubleshooting section. Also check the Integration Quick start guide for further troubleshooting involving integration. If system was ordered through an Agxcel Authorized Dealer, please contact them for initial troubleshooting. If your problem remains un-resolved please have your serial number handy so our technicians can easily look up your order. Serial numbers can be located on the chassis of the pump systems, or on the front page on the installation guide.

### TROUBLESHOOTING

(Read Instructions Completely before Beginning Installation)

#### HYDRAULICS PROBLEM

- Leave the manual override open on the valve.
- Check hose routing. The "P" port on the valve should hook to pressure. The "T" port is the return that should flow back to the tractor.
- Try hoses in a different hydraulic remote. Inspect hydraulic connectors for damage or restrictions.



### TROUBLESHOOTING

#### APPLICATION RATE FLUCTUATES

First you will need to determine if the fluctuation is caused by the controller sending sporadic signals to the valve or because of something else.

- inspect and clean pump filters. Also check the plumbing from the supply tank to the pump. Strange flow rate fluctuating are often due to an obstruction to the pump inlet.

OR

- Go to Section Test as shown in Initial Operation.
- Turn the system to watch the flow in GPM on the 1,2,3 screen.
- Is the flow steady within a very small range? For example, a fluctuation from 2.3 to 2.5 GPM would be considered normal.
- A fluctuation from 2 to 3 GPM is a problem. If only a small fluctuation is seen, skip to steps 4-7 and proceed to "Application Rate fluctuates in field" pg.55.
- If there is a large fluctuation observe the system flow. Is the discharge a steady stream? Are the flow indicators floating steady?
- If visually the flow is steady but the display reports a fluctuation in GPM, inspect the flow meter.
- If visually the flow is unsteady the flowmeter is working correctly reporting a flow problem. Is the pump turning steady or surging?
- Look for any type of obstruction in the pump inlet. Clean the strainer. If continually plugging the strainer investigate fertilizer quality and necessary strainer size.

#### ELECTRIC/ELECTRONIC PROBLEM

##### PWM SIGNAL DIAGNOSTIC TEST

- Confirm that your manual override button is set to close (push the red button on GX5 PWM hydraulic block down and turn clock- wise)
- Verify your hydraulics to the GX5 hydraulic pump is on
- On your controller, run a simulated nozzle flow test.
- While doing the nozzle flow check, your controller should be sending out voltage to the PWM solenoid.
- Take a metal object (like a screwdriver) and hold it next to the solenoid coil. If the controller was properly sending out this signal voltage, the PWM solenoid should create a magnetic pull which you would be able to feel by putting the metal object close to it.
- If no magnetic force is felt, disconnect the 2 pin PWM connection and check for voltage. You will need 6-12 volts to get the hydraulic valve to open.
- If 6-12 volts is not present, check harnesses and review control valve type set up.
- Go back to the OEM connector at the Liquid Rate Control Module (LRCM). Check for voltage. Refer to owner's manual for pinouts of the harnesses to test.
- If you do not get a voltage reading, ensure all connections for power and communication to the LRCM are properly connected and not damaged.
- If the problem still occurs, contact your OEM dealer for further assistance.

#### HYDRAULIC SYSTEM WON'T TURN ON..:

Make sure that your planter is DOWN

- Make sure that you have enough Hydraulic Fluid going to the Silver PWM Cylinder. Our PWM will only use as much Hydraulic Fluid as it needs.

• While you are running a NOZZLE FLOW CHECK, you can push down and turn the red knob on the PWM block counter clockwise. This will put the pump into MANUAL MODE. If your Hydraulic Pump kicks on, then you might not be getting enough hydraulic flow to your pump system.

Turn hydraulics off, go to the AgXcel PWM valve and use the manual override on top of the electric coil to manually open the valve (Manual Override UP = valve fully open, see image on bottom of page). Turn hydraulics on at a LOW FLOW ONLY as the valve is 100% open. Try hydraulic lever in opposite direction. Does the pump turn? If it turns the problem is electric/electronics. If the pump does not turn then the problem is hydraulics.



When the RED knob is pushed down, your pump system will be controlled by your controller.



When the RED knob is up, your pump system is in manual mode.

### TROUBLESHOOTING

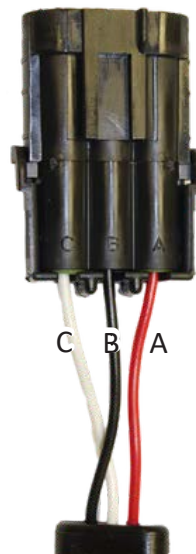
#### SECTION VALVE(S) WILL NOT MOVE

1. **Go to Diagnostics**, Section Test to investigate this issue.
2. **In Section Test**, check and un-check the boxes. With the box checked the valve should turn on. The valve should be off with the box not checked.
3. **Do you have a problem** with 1 valve or all valves.
4. **If working with the 7-12 section harness**, identify if section 1-6 or section 7-12-

| PIN | FUNCTION       |
|-----|----------------|
| A   | +12 V Constant |
| B   | GND            |
| c   | +12 V Signal   |

#### ONE VALVE DOESN'T WORK

- **Check the harness connection** to that valve. It is a 3 Pin Weather Pack connector. See image to the right.
- Check voltage pin A to Pin B. Must be 12 volts, if not, go back to OEM connector and check voltage. See quick start guides for wiring diagrams, based on integration purchased.
- If no voltage, contact your OEM dealer for assistance.
- If voltage is present on pins A&B of 3 pin connection to valve, then check pin C to Pin B. This should be 12 volts when the valve is commanded on or open, this should be zero volts when valve is off or closed.
- If signal voltage is not present to open valve, use diagrams in quick start to check pins.
- If constant voltage (Pins A&B) and switched voltage (Pins C&B) are present, inspect, repair or replace the valve.



#### ALL OR MULTIPLE VALVE(S) DON'T WORK

1. Generally, follow the same steps as for a single valve. However, concentrate on checking for constant voltage.
2. This problem could also be related to controller configuration. Review Implement Setup to make sure sections are correct in controller.



### TROUBLESHOOTING

#### HYDRAULIC SYSTEM IS SURGING...

- Try raising and/or lowering your GPA/MPH
- Double check that your PWM SETTINGS are correct
- Check to see how many sections you have open/closed. You may not be able to close as many sections as you desire with the rates you are running at.
- Make sure that your filters are completely clean.
- If problem appears after a tank refill, debris from tank may have gotten into pump not allowing diaphragms to close properly.

#### HYDRAULIC SYSTEM IS LEAKING...

- Check for hydraulic flow overload. Be sure the hydraulic flow to motor is not more than necessary. Once you achieve your highest rate slowly throttle down hydraulic flow to pump slightly lower than highest rate then slowly increase to lock in high-est rate with least amount of hydraulic flow to pump. see pg. 19 for further details.
- If your Hydraulic Pump is 3 years old or older, you may need to put in new diaphragms
  - If your diaphragms are cracked, oil or fertilizer may escape through that crack causing leaks and lower performances.
  - You can also tell if fertilizer is out of your system by looking at your oil sight glass on the top of your pump system and seeing if it looks milky.

Your Hydraulic Pump System does come with a spare diaphragm kit. If you cannot find, AgXcel stocks a variety of diaphragm kits, o'ring kits and replacement oil. The diaphragms are under the black caps on your hydraulic system. Before calling count the number of diaphragms so the correct kit needed can be determined.



|       |                                     |
|-------|-------------------------------------|
| 55564 | LFP45/BP45 BLUE FLEX DIAPHRAGM KIT  |
| 55568 | LFP 45 VITON DIAPHRAGM KIT          |
| 37703 | D70 BLUE FLEX DIAPHRAGM KIT         |
| 37720 | D70 DAMPER DIAPHRAGM BLUE FLEX      |
| 55570 | LFP 80/BP80 BLUE FLEX DIAPHRAGM KIT |
| 55569 | LFP 80 VITON DIAPHRAGM KIT          |
| 37708 | D115 BLUE FLEX DIAPHRAGM KIT        |
| 55572 | LFP120 BLUE FLEX DIAPHRAGM KIT      |
| 55574 | LFP120 VITON DIAPHRAGM KIT          |
| 37730 | LFP160 BLUE FLEX DIAPHRAGM KIT      |
| 37732 | D250 BLUE FLEX DIAPHRAGM KIT        |
| 31326 | OIL QUART                           |

#### APPLICATION RATES FLUCTUATES IN THE FIELD BUT FLOW IN SECTION TEST

This problem indicates the valve calibration needs changed. The system is surging

1. **Go to Setup** - System - PWM Setup.
2. **Change the Valve Calibration** by reducing the valve speed (first two digits). For ex-ample reduce the number for 4012 to 3012, which changes valve speed from 40 to 30.



# **GX5 Hydraulic Fertilizer System Manual**

## **Extended Version**

2106 F Avenue / Kearney, NE 68847

### **Limited Warranty on AgXcel Agricultural Pumps & Accessories**

AgXcel agricultural products are warranted to be free of defects in material and workmanship under normal use for the time periods listed below, with proof of purchase.

- Pumps: one (1) year to the original purchaser from the date of manufacture, or one (1) year of use. This limited warranty will not exceed two (2) years, in any event.
- Accessories: ninety (90) days of use.

This limited warranty covers manufacturing defects or workmanship; that may develop under normal use and service in a manner up to the directions and usage recommended by the manufacturer.

Warranty does not apply to misuse or when pump or accessory is altered or used in excess of recommended speeds, pressures, temperatures, or handling fluids not suitable for pump or accessory material construction. Warranty does not apply to normal wear (such as but not limited to: seals/packings, valves, plungers and sealing o-rings), freight damage, freezing damage or damage caused by parts or accessories not supplied by AgXcel. All warranty considerations are governed by AgXcel's written return policy.

Liability of manufacturer for warranty is limited to repair or replacement of parts only at the option of the manufacturer when such products are found to be of original defect or workmanship at the time it was shipped from factory. This warranty is in lieu of all other warranties, expressed or implied, including any warranty of merchantability and of any and all other obligations or liabilities on the part of the manufacturers or equipment.

AgXcel's obligation under this limited warranty policy is limited to the repair or replacement of the product. All returns will be tested per AgXcel's factory criteria. Products found not defective (under the terms of this limited warranty) are subject to charges paid by the returnee for the testing and packaging of "tested good" non-warranty returns. No credit or labor allowances will be given for products returned as defective. Warranty replacement will be shipped on a freight allowed basis. AgXcel reserves the right to choose the method of transportation.

This limited warranty is in lieu of all other warranties, expressed or implied, and no other person is authorized to give any other warranty or assume obligation or liability on AgXcel's behalf. AgXcel shall not be liable for any labor, damage or other expense, nor shall AgXcel be liable for any indirect, incidental or consequential damages of any kind incurred by the reason of the use or sale of any defective product. This limited warranty covers agricultural products distributed within the United States of America. Other world market areas should consult with the actual distributor for any deviation from this document.



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