# 396-5298Y1



# QuickDraw Replacement Parts Guide

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## Replacement Parts by Valve P/N

Valve Assembly	103-2101Y1	1" KZ Valve Assembly - CAN Control
Actuator	104-3614Y1	QuickDraw Replacement CAN Actuator for 1" Valve
Valve Body	104-C2F-001	1" QD Product Valve Body Only For 103-2101Y1
Valve Assembly	103-4775Y1	1-1/2" KZ Valve Assembly - CAN Control
Actuator	104-4844Y1	QuickDraw Replacement CAN Actuator for 1.5" Valve
Valve Body	104-T2H22	1.5" KZ Valve Only (Replacement for 1.5" QD Product Valve)
Valve Assembly	103-2102Y1	2" Valve for KZ QD Valve Assembly - CAN Control
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2", 3" & 4" (butterfly) Valve
Valve Body	104-M2I22	Replacement 220 Flange KZ Valve Body Only
Valve Assembly	103-2415Y1	QuickDraw Rinse Valve, 200 Flange, 1" Thru Ball, WP Shroud
Actuator	104-10DY0-1F1	Replacement Actuator for KZ NH3 Shut-Off Valves (1" thru 1 1/2")
Valve Body	104-C2F33	Replacement Valve Body for 103-2415Y1 and 103-3325Y1 - 200 Flange, 1" Thru Ball
	•	
Valve Assembly	103-2416Y1	QuickDraw Venturi Valve, 220 Flange, 2" Thru Ball, WP Shroud
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2", 3" & 4" (butterfly) Valve
Valve Body	104-M2I22	Replacement 220 Flange KZ Valve for 103-2416Y1
	1	
Valve Assembly	103-2417Y1	QuickDraw Valve, 300 Flange, 3" Thru Ball, WP Shroud
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2", 3" & 4" (butterfly) Valve
Valve Body	104-M2K22	3" QD Valve Only
	1	<u> </u>
Valve Assembly	103-3325Y1	1" CAN Actuated Valve, 2-Way, 2" Standard Port Flange
Actuator	104-3614Y1	QuickDraw Replacement CAN Actuator for 1" Valve
Valve Body	104-C2F33	Replacement Valve Body for 103-2415Y1 and 103-3325Y1 - 200 Flange, 1" Thru Ball
	•	
Valve Assembly	103-3366Y1	3" KZ Valve Assembly - CAN Control
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2", 3" & 4" (butterfly) Valve
Valve Body	104-M2K22	3" QD Valve Only
Valve Assembly	103-4944Y1	3" CAN Actuated Butterfly Valve
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2", 3" & 4" (butterfly) Valve
Valve Body		
Valve Assembly	103-4516Y1	4" CAN Actuated Butterfly Valve
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2", 3" & 4" (butterfly) Valve
Valve Body		

## Replacement Parts by Valve Category

Valve Assembly			
Item Number	Item Description		
103-2101Y1	1" KZ Valve Assembly - CAN Control (QuickDraw Product Valve Stack Only)		
103-4775Y1	1-1/2" KZ Valve Assembly - CAN Control		
103-2102Y1	2" Valve for KZ QD Valve Assembly - CAN Control		
103-2415Y1	QuickDraw Rinse Valve, 200 Flange, 1" Thru Ball, WP Shroud		
103-2416Y1	QuickDraw Venturi Valve, 220 Flange, 2" Thru Ball, WP Shroud		
103-2417Y1	QuickDraw Valve, 300 Flange, 3" Thru Ball, WP Shroud		
103-3366Y1	3" CAN Actuated KZ Valve Assembly		
103-3325Y1	1" CAN Actuated Valve, 200 Standard Port Flange Adapter		
103-4944Y1	3" CAN Actuated Butterfly Valve		
103-4516Y1	4" CAN Actuated Butterfly Valve		

<sup>\*</sup>All CAN valves have 4-pin Deutsch connector

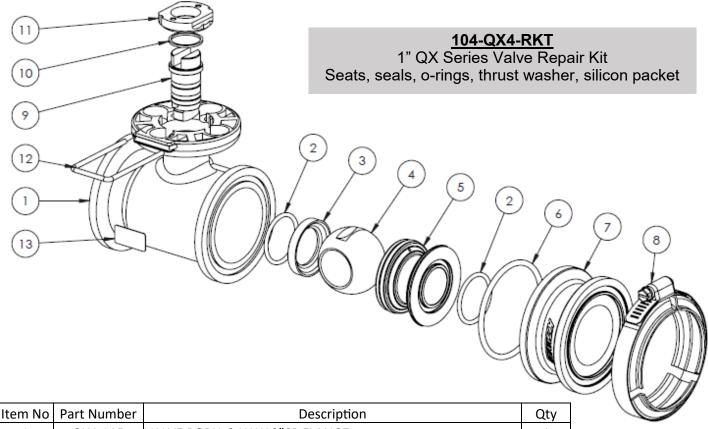
Actuator Only			
Item Number	Item Description		
104-3614Y1	QuickDraw Replacement CAN Actuator for 1" Valve		
104-3636Y1	QuickDraw Replacement CAN Actuator for 2", 3" & 4" (butterfly) Valve		
104-4844Y1	QuickDraw Replacement CAN Actuator for 1.5" Valve		
104-10DW0-1F1	QuickDraw Replacement CAN Actuator for 103-2416Y1 & 2417Y1		
104-10DY0-1F1	Replacement On-Off Actuator for KZ Valves (1" thru 1 1/2")		

Valve Body Only			
Item Number	Item Description		
104-C2F-001	Replacement Valve Body - 1" KZ Valve (For 103-2101Y1)		
104-M2I22	Replacement Valve Body - 2" Full Port, 220 Flange KZ Valve (103-2102Y1, 103-2416Y1)		
104-M2K22	Replacement Valve Body - 3" KZ Valve		
104-T2H22	Replacement Valve Body - 1.5" KZ Valve (103-4775Y1)		
104-C2F33	Replacement Valve Body - 2" Standard Port, 200 Adapter Flange, 1" Ball (103-2415Y1 and 103-3325Y1)		

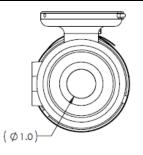
Valve Seat Repair Kits			
Item Number	Item Description		
104-QX4-RKT	1" QX Series Valve Repair Kit - Seats, seals, o-rings, thrust washer, silicon packet		
104-210-0024	1-1/2" MX Series Valve Repair Kit - Seats, seals, silicon packet		
104-210-0025	2" MX Series Valve Repair Kit - Seats, seals, silicon packet		
104-210-0026	3" MX Series Valve Repair Kit - Seats, seals, silicon packet		

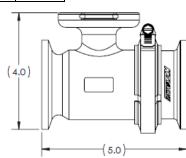
# Valve Repair Parts





Item No	Part Number	Description	Qty
1	QX4-115	VALVE BODY, 2-WAY 2"SP FLANGE	1
2	QX4-161	O-RING, #123 QX4 SEAT BACKING	2
3	QX4-119	SEAT, QX4 VPTFE	1
4	QX4-130	BALL, 1" PORT 2-WAY M/Q SERIES SOLID INLINE	1
5	800477	SEAT DONUT ASSY, QX4-118 W/ QX4-119	1
6	QC3-134	O-RING, END CAP, #229 EPDM	1
7	211-0049	FITTING, M200 X M200, STRAIGHT, POLY_PROPYLENE_30_GF	1
8	QX4-200	CLAMP, BAND M200 TYPE V, WORM DRIVE	1
9	800460	STEM ASSY, QX/MX, INLINE, TAPPED	1
10	QC3-170	WASHER, THRUST	1
11	QX4-121-3	STEM RETAINER BUSHING	1
12	QX-103	HAIR PIN, STEM RETAINER	1
13	500-0004	LABEL, 0.50" X 1.0" THERMAL TRANSFER, WHITE	1

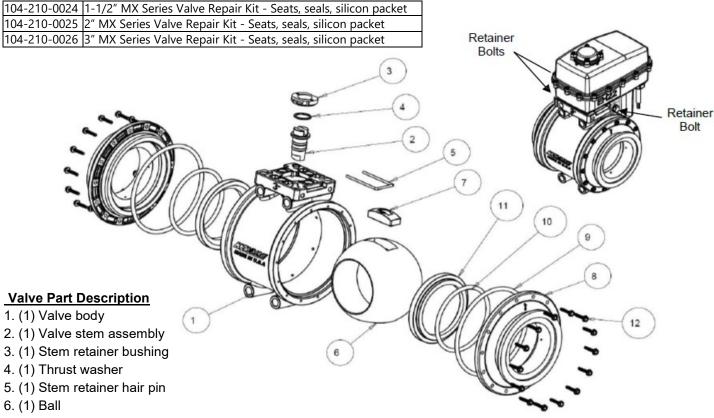




## Valve Repair Parts



#### Tru-Torg (MX) Ball Valve Repair Kit



- 7. (1) Ball / stem engagement shoe
- 8. (2) Valve end cap
- 9. (2) Body seal o-ring
- 10. (2) Seat backing o-ring
- 11. (2) Valve seat
- 12. (28) End cap screw

NOTE: Prior to removing the valve from the plumbing system, rinse the system. Cycle the valve (open, half open, and closed) a couple times during the rinse. **CAUTION!** Some fluid may be trapped between the ball and valve body.

#### Disassembling the valve to prepare for the valve seat and o-ring repair kit installation:

- Rinse off the actuator and valve using appropriate cleaning solutions. Disconnect the valve actuator from the power supply.
- 2. Remove the valve actuator from the valve by removing the 3 retainer bolts.
- 3. Position the valve ball in the closed position.
- 4. Remove one of the valve end caps (Part #8) by removing the end cap screws (Part #12). Save all the end cap and end cap screws.
- 5. Remove the body seal o-ring (Part #9).
- 6. Remove the valve seat (Part #11) and seat backing o-ring (Part #10).
- 7. Remove the ball (Part #6) and ball / stem engagement shoe (Part #7).
- 8. Repeat steps 2, 3, and 4 to remove the other valve end cap.
- 9. Remove the stem retainer hair pin (Part #5).
- 10. Remove the valve stem assembly (Part #2) by reaching into the valve body and push the valve stem up. The valve stem, stem retainer bushing (Part #3), and thrust washer (Part #4) will come out of the top of the valve body.

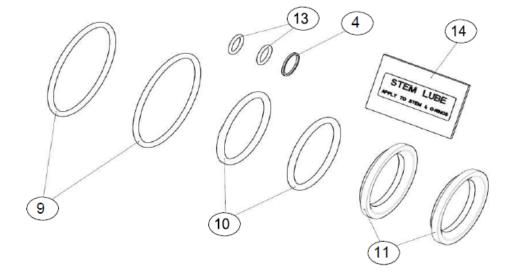
## Valve Repair Parts



#### Tru-Torq (MX) Ball Valve Seat and O-ring Repair Kit

#### **Repair Kit Part Description**

- 4. (1) Thrust washer
- 9. (2) Body seal o-ring
- 10. (2) Seat backing o-ring
- 11. (2) Valve seat
- 13. (2) Valve stem o-ring
- 14. (1) Stem lube



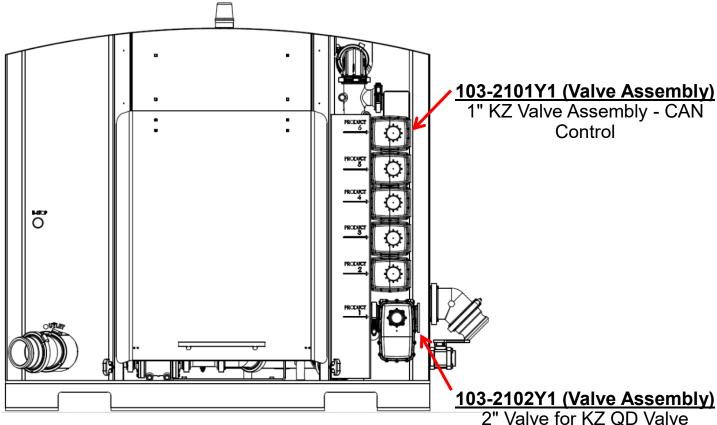
#### Installing the valve seat repair kit and assembling the ball valve

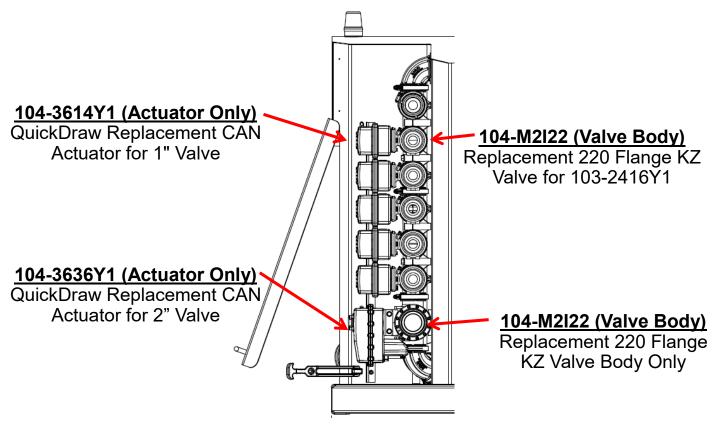
- 1. Remove the old valve stem o-rings from the valve stem. Take caution not to scratch the o-ring lands or the valve stem. Then wipe the valve stem clean.
- 2. Apply some stem lube (Part #14) to the o-ring lands on the valve stem. Install the new valve stem o-rings (Part #13) on to the valve stem. Take care to not damage the new valve stem o-rings when sliding them on to the valve stem.
- 3. Apply a coating of stem lube (Part #14) to the valve stem assembly. The lower portion of the valve stem assembly including the valve stem o-rings should be coated with stem lube.
- 4. Install the valve stem assembly (Part #2) into the valve body (Part #1). Pay attention to the slot in the top of the valve stem assembly. The slot in the top of the valve stem assembly should be set in the closed position.
- 5. Install the new thrust washer (Part #4)
- 6. Install the stem retainer bushing (Part #3)
- 7. Install the stem retainer hair pin (Part #5)
- 8. Apply a small amount of stem lube on a new body seal o-ring. Install the new body seal o-ring (Part #9) on to one of the valve end caps (Part #9)
- Install one valve end cap on to the valve body. Install the end cap screws (Part #12). <u>ATTENTION!</u> Do not over tighten the end cap screws. The end cap screws should be torqued to 10 inch pounds. Use caution when using power tools.
- 10. Place the valve on a table with the end cap down toward the table.
- 11. Install a new seat backing o-ring (Part #10) on to a new valve seat (Par #11). Install the new valve seat with the new seat backing o-ring into the end cap that is attached to the valve body. Pay attention to the seat backing o-ring. The seat backing o-ring should be between the valve seat and valve end cap.
- 12. Install the ball (Part #6) with the ball / stem engagement shoe (Part #7) into the valve body. The valve stem needs to fit inside the cutout in the ball / stem engagement shoe.
- 13. Apply a small amount of stem lube on a new body seal o-ring. Install the new body seal o-ring (Part #9) on to the second valve end cap (Part #9).
- 14. Install a new seat backing o-ring (Part #10) on to a new valve seat (Par #11). Install the new valve seat with the new seat backing o-ring into the second end cap. Pay attention to the seat backing o-ring. The seat backing o- ring should be between the valve seat and valve end cap.
- 15. Install the second valve end cap on to the valve body. Repeat step 9.
- 16. Test the functioning of the valve prior to connecting the valve to the valve actuator. Rotate the valve two complete turns in one direction, returning to the closed position. The operation of the valve should be smooth.



## QuickDraw<sub>MAX</sub> Gen2

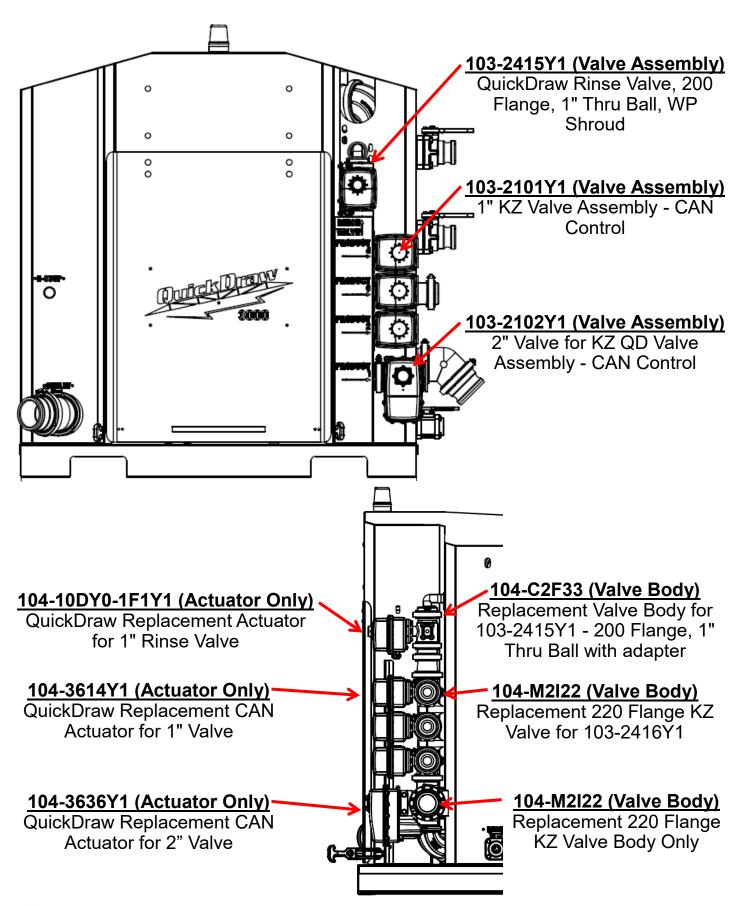




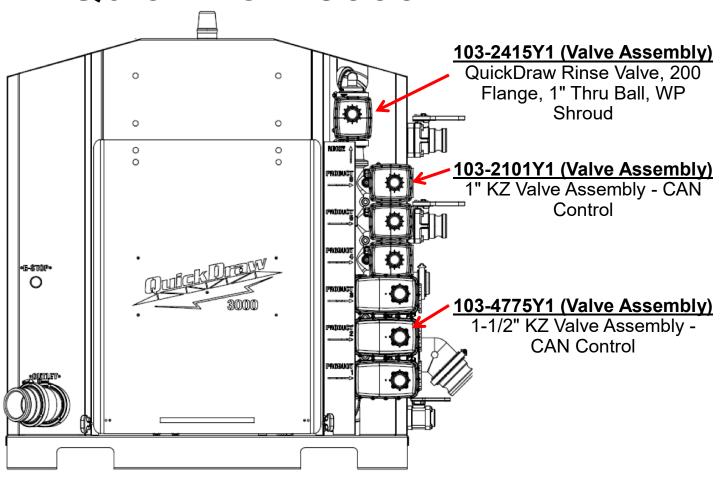


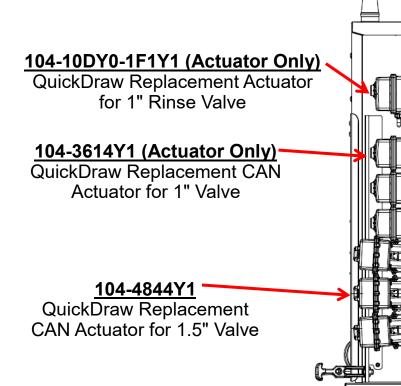
Assembly - CAN Control

## QuickDraw 3000 MY2020



## QuickDraw 3000 MY21 - 22





### 104-C2F33 (Valve Body)

Replacement Valve Body for 103-2415Y1 - 200 Flange, 1" Thru Ball with adapter

## 104-M2I22 (Valve Body)

Replacement 220 Flange KZ Valve for 103-2416Y1

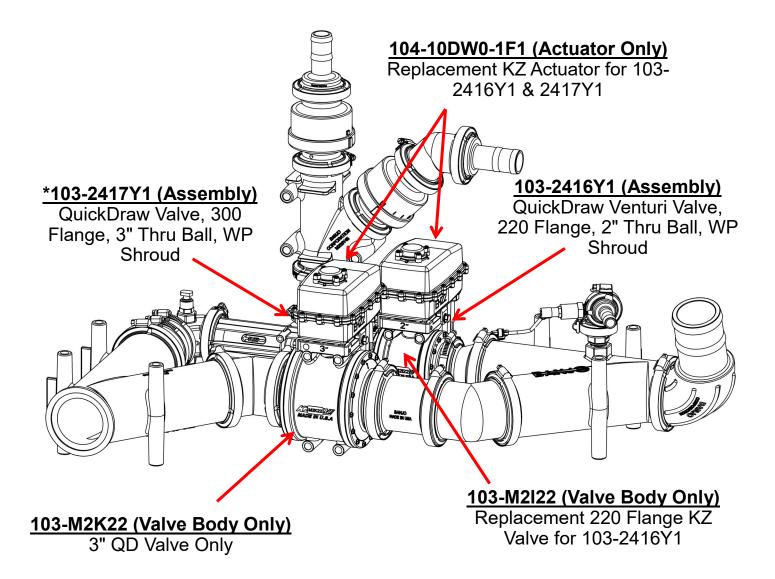
#### 103-T2H22

1.5" KZ Valve Only (Replacement for 1.5" QD Product Valve)

## QuickDraw 3000



## Main Plumbing Assembly Valves



\*3" CAN Valve used in QuickDraw Suction Applications

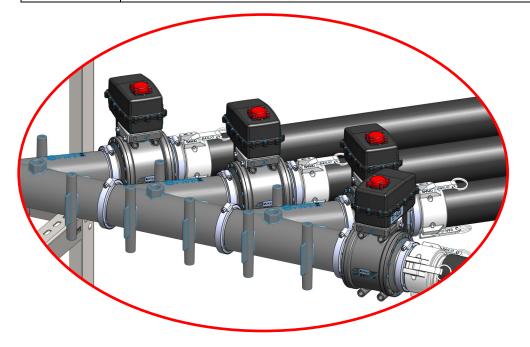
103-3366Y (Valve Assembly)
3" KZ Valve Assembly - CAN Control

104-3636Y1 (Actuator Only)
QuickDraw Replacement CAN Actuator for 2", 3" & 4" (Butterfly) Valve

## Carrier Blending Valve Assembly



Item Number	Item Description
396-4851Y1	Carrier Blending Instruction Sheet
606-04-150200	2 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-150300	3 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-150400	4 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-175200	2 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)
606-04-175300	3 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)
606-04-175400	4 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)



Valve Assembly	103-3366Y1	3" KZ Valve Assembly - CAN Control	
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2", 3" & 4" (butterfly) Valve	
Valve Body	104-M2K22	3" QD Valve Only	

## **Coriolis Mass Meter - Power Conditioner**

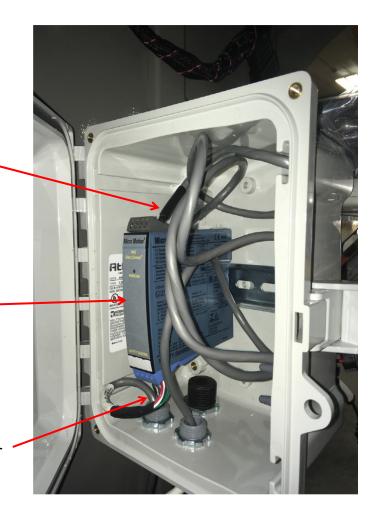
208-05-2643Y1

QuickDraw Harness to Coriolis Power Conditioner

208-05-2981Y1
QuickDraw Power Conditioner

#### 208-05-2733Y1

QuickDraw Coriolis to Power Conditioner Harness



#### **Troubleshooting:**

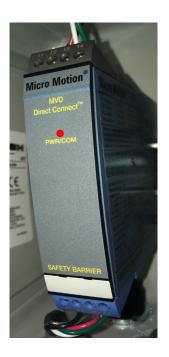
Front Red light should be ON.

#### Top (gray) terminal block:

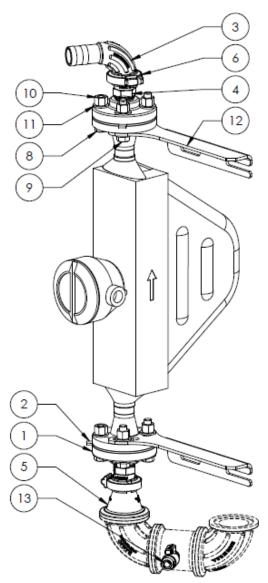
- Power from QD Controller
- Red to Black 24 volts

#### Bottom (blue) terminal block:

- Power to the Mass Meter
- Red to Black 14 to 15 volts



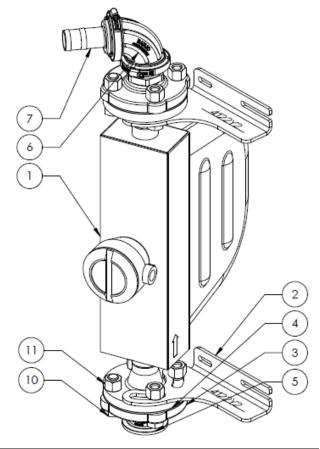
## QuickDraw<sub>MAX</sub> All Models 1" Mass Meter



Item			
No.	Part Number	Description	Qty
1	100-200AF	2" FPT x ANSI Flange	2
2	100-200AFG	2" FPT x ANSI Flange Gasket	2
	105-		
3	100125BRBSWP90	1" Manifold x 1 1/4" HB - 90 Degree Sweep	1
4	105-100MPT	1" Manifold x 1" MPT	2
		2" Full Port Manifold x 1" Manifold - Reducer	
5	105-220100CPG	Coupling	1
6	105-FC100	1" Manifold Clamp	2
7	204-01-R200S	QuickDraw 2" Coriolis Mass Meter	1
8	300-080200-5	1/2" x 2" Hex Head Bolt - G5	4
9	300-080208-5	1/2" x 2-1/2" Hex Head Bolt - G5	4
10	321-08	1/2" Nylock Nut	16
11	330-08	1/2" Flat Washer	16
		QuickDraw 3000 Coriolis Flowmeter Support	
12	475-2670Y3-SS	Bracket	2
13*	113-52-038038	Valve - 3/8" QC x 3/8" MPT	1

## Coriolis Mass Meter Assembly

## QuickDraw<sub>MAX</sub> 3000 2" Mass Meter

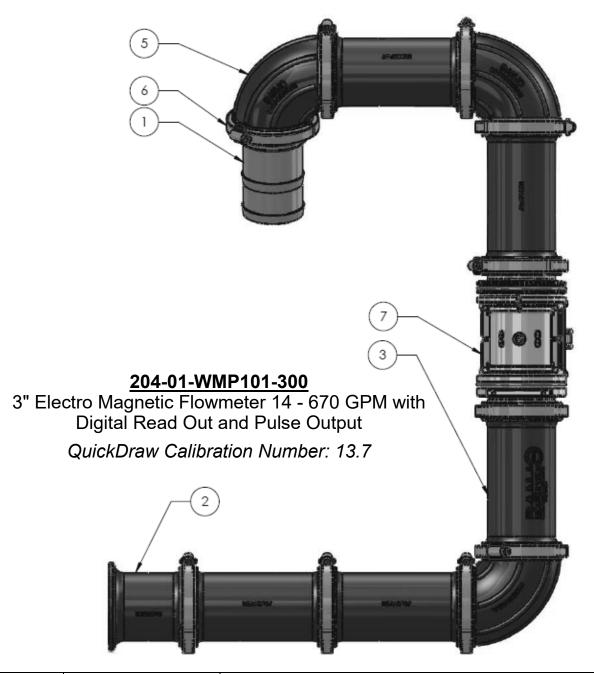


Item			
No.	Part Number	Description	Qty
1	100-200AF	2" FPT x ANSI Flange	2
2	100-200AFG	2" FPT x ANSI Flange Gasket	2
		2" EPDM Manifold Gasket for 220 Series	
3	105-200G-H	Manifold Fittings	2
4	105-220MPT	2" Full Port Manifold x 2" MPT	2
5	105-220SWP90	2" Full Port Manifold Sweep - 90 Degree	1
6	105-220150BRB	2" Full Port Manifold x 1-1/2" HB	1
7	105-FC220	2" Full Port Manifold Clamp	2
8	300-120208-5	3/4" x 2-1/2" Hex Head Bolt - G5	8
9	321-12	3/4" Nylock Nut	8
10	204-01-R200S	QuickDraw 2" Coriolis Mass Meter	1
11	475-4122Y2-SS	R200 Mass Meter Mounting Brackets	2

## **Water Flowmeter**







Item No.	Part Number	Description	Qty
1	100-300BRB	3" Manifold x 3" HB	1
2	105-300CPG	3" Manifold Coupling	1
3	105-300CPG7	3" Manifold Coupling - 7"	5
4	105-300G-H	3" EPDM Manifold Gasket	10
5	105-300SWP90	3" Manifold Sweep - 90 Degree	3
6	105-FC300	3" Manifold Clamp	10
7	204-01-WMP101-300	3" Water Flowmeter (Seametrics)	1

## **Water Flowmeter**

## QuickDraw<sub>MAX</sub> 3000

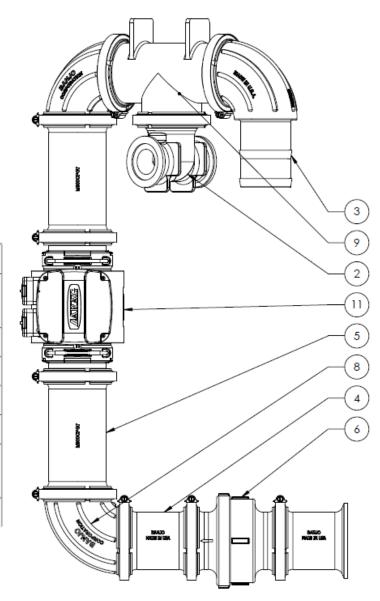


204-01-46299A91 3" Arag E-Mag Flowmeter (16-660 GPM)

#### QuickDraw Calibration: 91 pulses/gallon

	OFF	The flowmeter is not powered.
	GREEN BLINKING	The flowmeter is waiting to acquire an address on the CAN line to which it is connected.
	GREEN STEADY ON	Presence of STILL 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.
0	WHITE STEADY ON	Cleaning of the reading electrodes in progress.
*	RED BLINKING	RED: Error. The error codes are indicated through blinks, which are described in the table below.
	RED STEADY ON	SEVERE ERROR: Contact a service center.

See QuickDraw Manual 396-4412Y1 for full troubleshooting and error codes

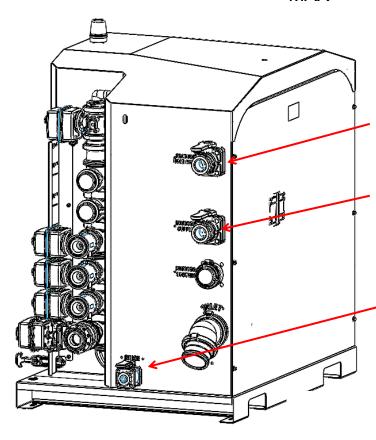


Item No.	Part Number	Description	Qty
1	100-075PLUG	3/4" Pipe Plug	1
2	105-300200200-075	3" x 2" x 2" Manifold Tee with 3/4" Tap	1
3	105-300BRBSWP90	3" Manifold x 3" HB - 90 Degree Sweep	1
4	105-300CPG	3" Manifold Coupling	2
5	105-300CPG7	3" Manifold Coupling - 7"	2
6	105-300CV	3" Manifold Check Valve	1
7	105-300G-H	3" EPDM Manifold Gasket	10
8	105-300SWP90	3" Manifold Sweep - 90 Degree	2
9	105-300TEE	3" Manifold Tee	1
10	105-FC300	3" Manifold Clamp	10
11	204-01-46299A91	3" Water Flowmeter (16-660 GPM)	1

## **Manual Valves**

QuickDraw<sub>MAX</sub> 3000





<u>102-200VSFCF - 2" Male Camlock Valve</u> Product Hose Rinse (QuickDraw<sub>MAX</sub> 3000)

102-200VSFCF - 2" Male Camlock Valve Eductor Supply (QuickDraw<sub>MAX</sub> 3000)

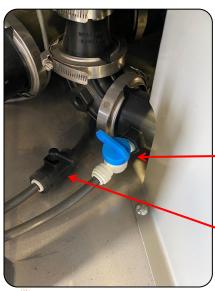
102-075VFP - 3/4" FPT Full Port Poly Valve
Aux Rinse Valve (All QuickDraw Models)

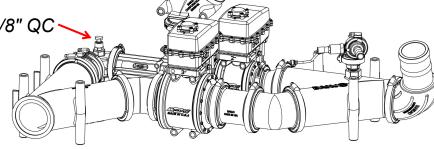
## 105-220CV

2" Full Port Manifold Check Valve

#### 757-2048N11

QD Check Valve - 1/4" MPT x 3/8" QC (For Air Purge)





#### 113-52-038038

Valve - 3/8" QC x 3/8" MPT (Mass Meter Drain Valve)

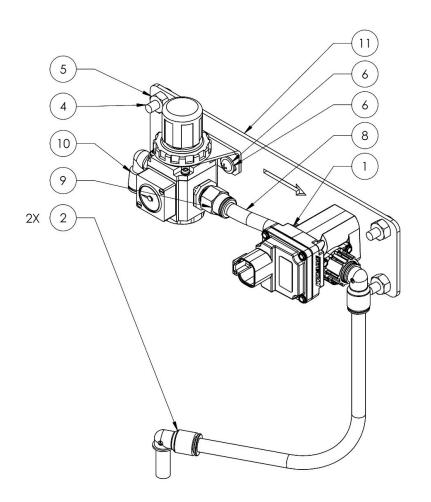
#### 113-50-038038-V

Viton - Valve - 3/8" QC x 3/8" QC (3" Flowmeter Drain Valve)

## **QuickDraw Air Purge**



QuickDraw<sub>MAX</sub> 3000

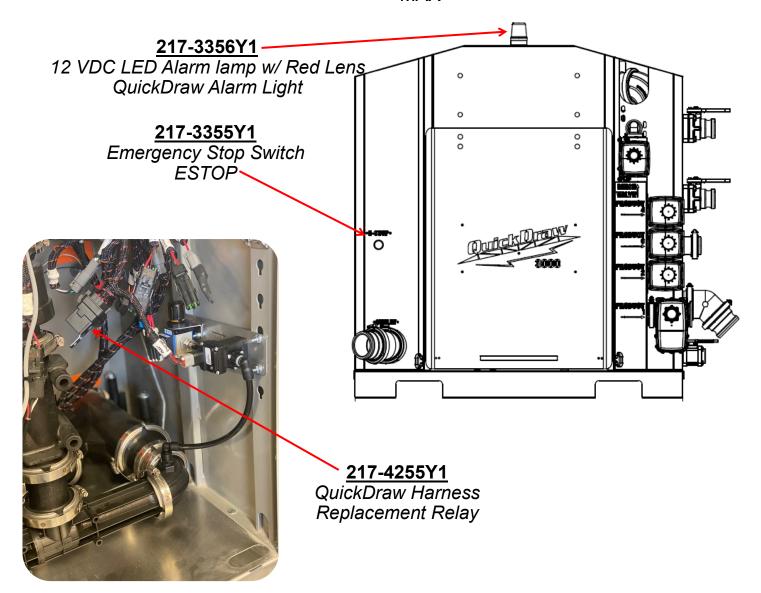


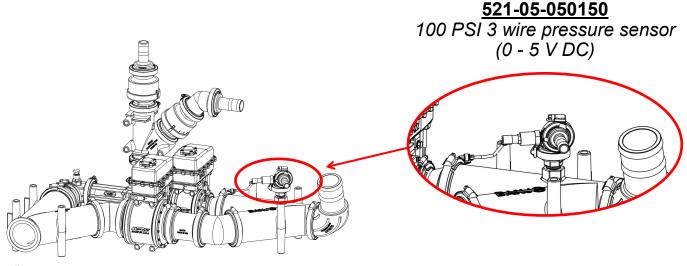


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	103-4496Y1	Zip Valve 1/4" Nylon, 2-way, SS Ball, 3/8" Push to Connect	1
2	113-12-038038	Stem Elbow - 3/8" Stem x 3/8" QC	2
3	137-MGR200-08L	Air Pressure Regulator w/ 60 psi Gauge – 1/4" NPT Inlet/Outlet	1
4	304-040012-5	Carriage Bolt - 1/4" x 3/4" G5	4
5	323-04	1/4" Flange Nut	4
6	330-1024	Size 10 Flat Washer	2
7	340-100012	Machine Screw - Size 10 x 3/4"	2
8	385-043-AP1	Bulk 3/8" Tubing	1
9	385-50-038025-CZ	3/8" Tube to 1/4 NPT Straight - Pneumatic Fitting	1
10	385-51-038025-CZ	3/8" Tube to 1/4 NPT 90 Elbow - Pnuematic Fitting (Not Used)	1
11	475-4852Y1	QuickDraw Air Purge Regulator/Valve Mounting Bracket	1
12	757-97349A200	Size 6 Thread Forming Screw for Plastic - SS	3
*13	208-05-4863Y1	QuickDraw Adapter Aux Output to Air Purge	1
*14	105-220SWPG90	2" Manifold Sweep with 1/4" Gauge Port - 90 Degree	1
*15	757-2048N11	QD Check Valve - 1/4" MPT x 3/8" QC	1

## **Electronic Components**

QuickDraw<sub>MAX</sub> 3000

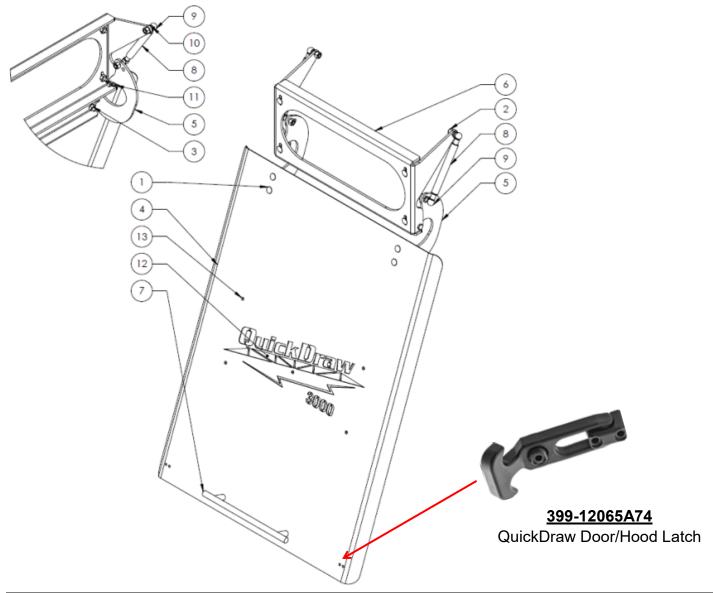




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## **QuickDraw Door Components**

## Gen2 / QuickDraw<sub>MAX</sub> 3000



Item No	Part Number	Description	Quantity
1	304-040012-5	Carriage Bolt - 1/4" x 3/4" G5	8
2	321-05	5/16" Nylock Nut	4
3	323-04	1/4" Flange Nut	8
4	475-2331Y3-GY	QuickDraw Cabinet Door	1
5	475-2332Y1-BK	QuickDraw Hinge	1
6	475-2333Y1-BK	QuickDraw Hinge/Gas Spring Mount	1
7	757-1325A24	QuickDraw Door Handle	1
8	757-9416K12	QuickDraw Gas Spring 50lb.Force	2
9	757-9416K74	QuickDraw 10 mm Steel Ball Socket x M6 Thread	4
10	757-9512K73	QuickDraw Ball Mounting Hardware, Ball Stud 10mm	4
11	757-97245A673	QuickDraw 3/8" Steel Clevis Pin	2