



INTRODUCTION


We are excited to announce the addition of a turn-key chemical batch mixing system to the Dura Products lineup. This solution is designed to elevate your chemical transfer operations with unmatched accuracy and efficiency. Streamline your chemical batching with pinpoint accuracy and automated operation. The FastBatch™ Venturi takes the guesswork out of measurement, ensuring precision and reducing mixing and filling times by up to 50% in every application.

SAFETY INFORMATION

In accordance with safety regulations and best practices for handling agricultural chemicals, all personnel must adhere to the following PPE requirements:

 **Eye Protection:** Wear safety goggles or face shields to protect against chemical splashes and irritants.

 **Skin Protection:** Long-sleeved clothing, gloves (chemical-resistant), and pants should be worn to minimize skin exposure. Ensure that gloves fit properly and are approved for the chemicals being used.

 **Respiratory Protection:** When handling or applying chemicals that may produce vapors or aerosols, use a respirator that is appropriate for the level of exposure, as specified on the chemical label or safety data sheet (SDS).

 **Foot Protection:** Wear waterproof boots that cover the ankles to protect feet from chemical exposure.

Additional Equipment: Depending on the specific agricultural chemical and application methods, additional PPE such as aprons or full-body suits may be necessary. Always refer to the product label for specific PPE recommendations.

It is essential for all personnel to receive training on the safe handling of agricultural chemicals and the proper use of PPE. Regular inspections of PPE for damage and proper maintenance are also required to ensure maximum protection.

For any questions or clarifications regarding PPE use and safety while handling agricultural chemicals, please consult the SDS for the specific chemical.

PRODUCT OVERVIEW

Features

The FastBatch Venturi comes with everything you need to make fast and accurate chemical batches.

- Dura 1" Electric Valves
- 40 Gallon Con Tank with chem knife and rinse
- Auto-Batch™ High-Flow Carrier System and Chemical Batch Meters
- Dry Poppet Calibration Connections

The system seamlessly integrates the high-quality products you’ve come to trust from Dura Products. Each meter and valve are a standard product and can be replaced with conventional dealer stock should the need arise.

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Specifications

Technical specifications (dimensions, weight, power requirements, etc.).

- Overall dimensions 58" x 35"
- System weight 437 lbs. no transfer pump, 640 lbs. with a typical 3" cast iron, wet seal pump.
- Power 12VDC nominal (11-14 VDC operating) by way of lead acid or AGM automotive battery.

PART NUMBER TAXONOMY INFORMATION		
DPFB-VENT3V4-12	DIGIT OPTION	DESCRIPTION
DPFB-VENT X	2	2" Plumbing
	3	3" Plumbing
DPFB-VENT3 X	V	Viton®
	E	EPDM
DPFB-VENT3V X	2	2 input version
	4	4 input version
DPFB-VENT3V4- XX	12	12 volt DC
	110	110 volt AC
DPFB-VENT3V4-12- XX	Add TP at end	Transfer Input with Honda® Engine and Silicon Carbide seal
	Add WSTP at end	John Blue® Transfer Input with Honda® Engine and Wet Seal

ORDERING INFORMATION	
PRODUCT #	DESCRIPTION
DPFB-VENT2V4-12	2" 12VDC 4-Input Fastbatch Venturi System Viton® No Pump
DPFB-VENT3V4-12	3" 12VDC 4-Input Fastbatch Venturi System Viton® No Pump

INSTALLATION INSTRUCTIONS

What Is Needed to Begin

- FastBatch Venturi Skid Assembly
- Transfer Pump (if not purchased with unit)
- 12V Automotive Battery (recommend 750 CCA), alternator or charging method also required
- If static installation is required, additional use of a battery charger is needed.
Dura recommends the NOCO, GenPro 10X1 if not purchased with the system.
- Chemical Totes, any additional chemical jugs and/or powders
- Hose to make water supply connection, note, less restriction means faster loading

Site Requirements, Equipment Setup, Plumbing Connections - General

The FastBatch Venturi is designed to withstand the conditions seen in typical outdoor use. It does not require additional protection from the elements. Like any equipment, storage under cover, while not in use, will extend the longevity of system components as well as preserve the original appearance.

Choose a suitable location in your shop or on a tender trailer for your FastBatch Venturi. Ensure it is fastened securely, stable and accessible. The use of 3/8" lag screws or bolts is recommended.

Considerations should be taken to keep the system as level as possible, as well as reducing movement and vibration during use and transport.

Additionally, adequate space should be provided to work in and around the system, keeping hoses tidy and eliminating trip hazards when possible.

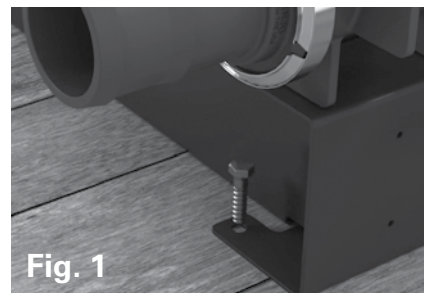
It is recommended that the main hose connections in and out of the system be double clamped for added security.

A 2" or 3" cam lock fitting is included for the inlet to the high flow carrier meter, likewise use of cam lock fittings is recommended where applicable for simpler rinsing and winterization. Other connection types may be placed on the inlet, however straight fittings are required for proper meter performance.

SETUP INSTRUCTIONS

Secure the FastBatch Venturi

Choose a suitable location in your shop or on a tender trailer for your FastBatch Venturi. Ensure it is fastened securely, stable and accessible. We have provided mounting screw holes in the frame (See Fig.1).



Mount the Transfer Pump (if not purchased together)

Attach the transfer pump to the skid using the existing holes in the frame and included rubber isolation mounts. Ensure it is securely fastened.

Connect the Battery

Place your 12V automotive battery in the tray provided (See Fig.2). Use the supplied alligator clips to connect the battery; Red to Positive, Black to Negative. Secure battery to tray.

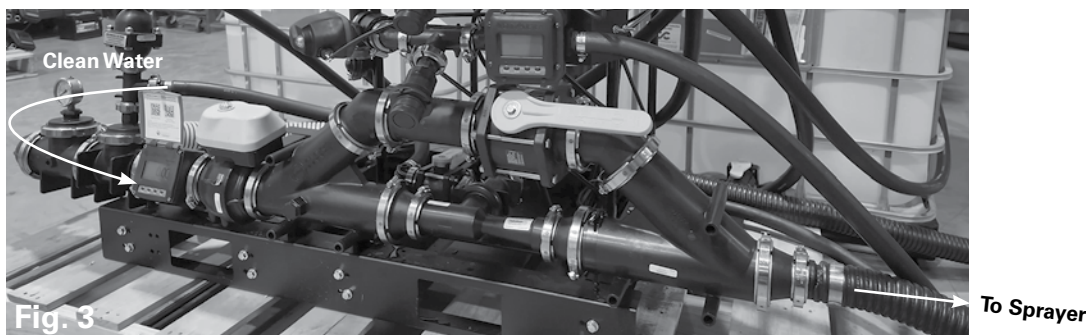


Connect Chemical Totes

Connect your chemical totes to the injection system. Use the supplied 11' hoses with cam locks to connect at the tote's bottom valve. It's okay for the totes to be elevated above the system. The included Dura EV actuated valves will prevent leakage and eliminate the need for additional check valves. Ensure all chemical and water connections are secure. Verify that all clamps are snug and cam-locks are closed. Ensure chemical totes are vented by cracking the caps to avoid slowing injection.

Connect Water Supply

Make water connections at the end of the carrier manifold before the high flow meter (See Fig.3). This ensures the longest, trouble-free life for these components. Remember to keep plumbing as short and secure as possible, without tight turns or restrictions. Do not reduce 3" plumbing down to 2".



Important Plumbing Setup – Bypass

Before operating the FastBatch Venturi, plumb a bypass hose back to the carrier supply/tank using Dura's custom pressure relief valve (See Fig.4). The minimum recommended hose size is 1".

The pressure relief bypass valve is located after the Auto-Batch™ High-Flow meter, on a tee, just before the 2" or 3" Electric Valve.



OPERATING INSTRUCTIONS

Calibrate Meters

Calibrate the carrier water Auto-Batch™ High-Flow meter.

Calibrate each of the Auto-Batch chemical meters with the associated chemicals intended to be mixed. ***Before starting the calibration process, make sure the 1" Dura electric valves are closed with the red indicator illuminated. Disconnect the associated Dura electric valve at its' Deutsch direct plug connection (See Fig. 5). This is imperative to prevent concentrated chemical from entering the injection manifold.***

For the venturi system it is recommended to use a separate pump for calibration, ensuring adequate product flow. For more information refer to the Dura Meter calibration guide and the meter calibration supplement at the end of this guide.

Set Batch Sizes

Set your desired carrier water batch size on the Auto-Batch High-Flow 2" or 3" Meter at the water inlet (see Fig. 6).

Remember it's always a good idea to keep your recipe total at least 50 gallons less than your sprayer capacity.

Configure each chemical amount per batch on the respective Auto-Batch Meters (See Fig.7).

Start Mixing

You are now ready to start making a hot load!

Open the induction bypass valve (See Fig. 8).

Start your carrier water batch with the 2" or 3" Auto-Batch High Flow Meter (see Fig. 9). The corresponding electric valve will open.

Open the water supply to the transfer pump. Make sure the pump housing fills. You may need to briefly open the outlet connection of the pump to achieve a complete prime.

Make sure the valve at the bottom of the metered chemical manifold is open and the valve at the base of the tank is closed (See Fig.10).

Start your transfer pump.

Confirm there is full water flow. The venturi will function best with the bypass valve throttled down most of the way or closed completely (See Fig,11). Return the bypass to full open once induction is complete to expedite the balance of carrier water.

Start your first chemical meter batch (See Fig.12).

After the batch is complete and the isolation valve has closed, turn the 3-way rinse valve from the off(middle), or hand nozzle(left) selection, to rinse the chemical manifold(right) selection. Rinse for a few seconds and return the valve to hand nozzle or off positions.

The balance of the chemical batches can be run individually, using the same steps.

Induce liquid or powdered chemical at the cone tank.



Fig. 5



Fig. 6



Fig. 7

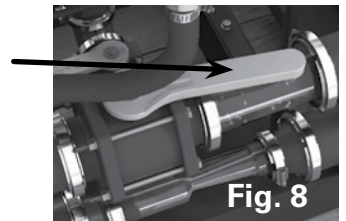


Fig. 8



Fig. 9

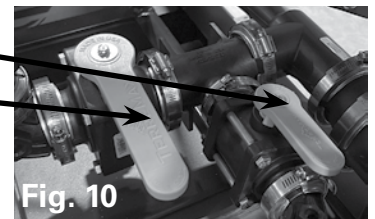


Fig. 10

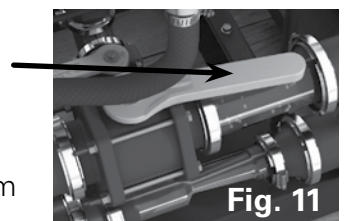


Fig. 11



Fig. 12

Open the valve at the base of the tank and close the valve at the bottom of the chemical manifold (See Fig.13).

The jug rinse is on the left side of the cone tank (See Fig. 14).
See Chemblade user manual for safe operation and further details.

Be sure to run the swirl rinse on the right side of the cone tank after each chemical (See Fig. 15).

When the carrier batch is completed and closes the carrier valve, shut down your transfer pump.

Your hot load is now complete.

Additional Tips

Refer to detailed user manuals for troubleshooting and advanced settings.

Always follow safety guidelines when handling chemicals.

Enjoy your efficient mixing experience with the FastBatch Venturi!

MAINTENANCE

Routine Checks and Cleaning

Always be sure to rinse lines and system with clean water before extended storage or when changing chemicals.

At the end of each season be sure to winterize the system with RV antifreeze. Cycle each meter, pump, and valve to ensure a complete purge of water.

The FastBatch is a weatherproof system that can be rinsed down with mild detergents or clean water. If a pressure washer is used, keep the nozzle at least 3 feet from all components to prevent damage.

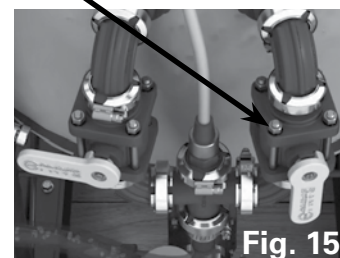
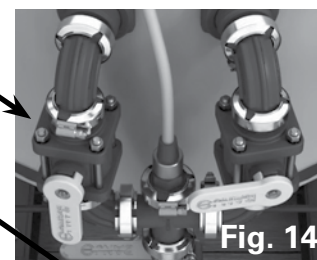
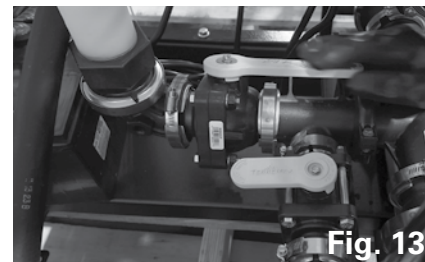
WARRANTY

2-year comprehensive pump/meter warranty program, second to none in the industry.

- Warrants that all Dura Products equipment shall be free from defects in material and workmanship
- Equipment that falls under warranty period and parameters will be repaired or replaced and returned at no cost to the customer

RETURN GOODS AUTHORIZATION (RGA/MRGA)

- Call (317)984-4003 or email customerservice@duraproducts.com to request a Return Goods Authorization (RGA/MRGA) number
- Complete and sign RGA/MRGA form ensuring all contact details/return address are correct
- Follow shipping instructions per RGA/MRGA form
- SHIPTO: Dura Products
Warranty Department
504 Demoss Avenue
Arcadia, Indiana 46030



Meter Calibration – Supplemental Information

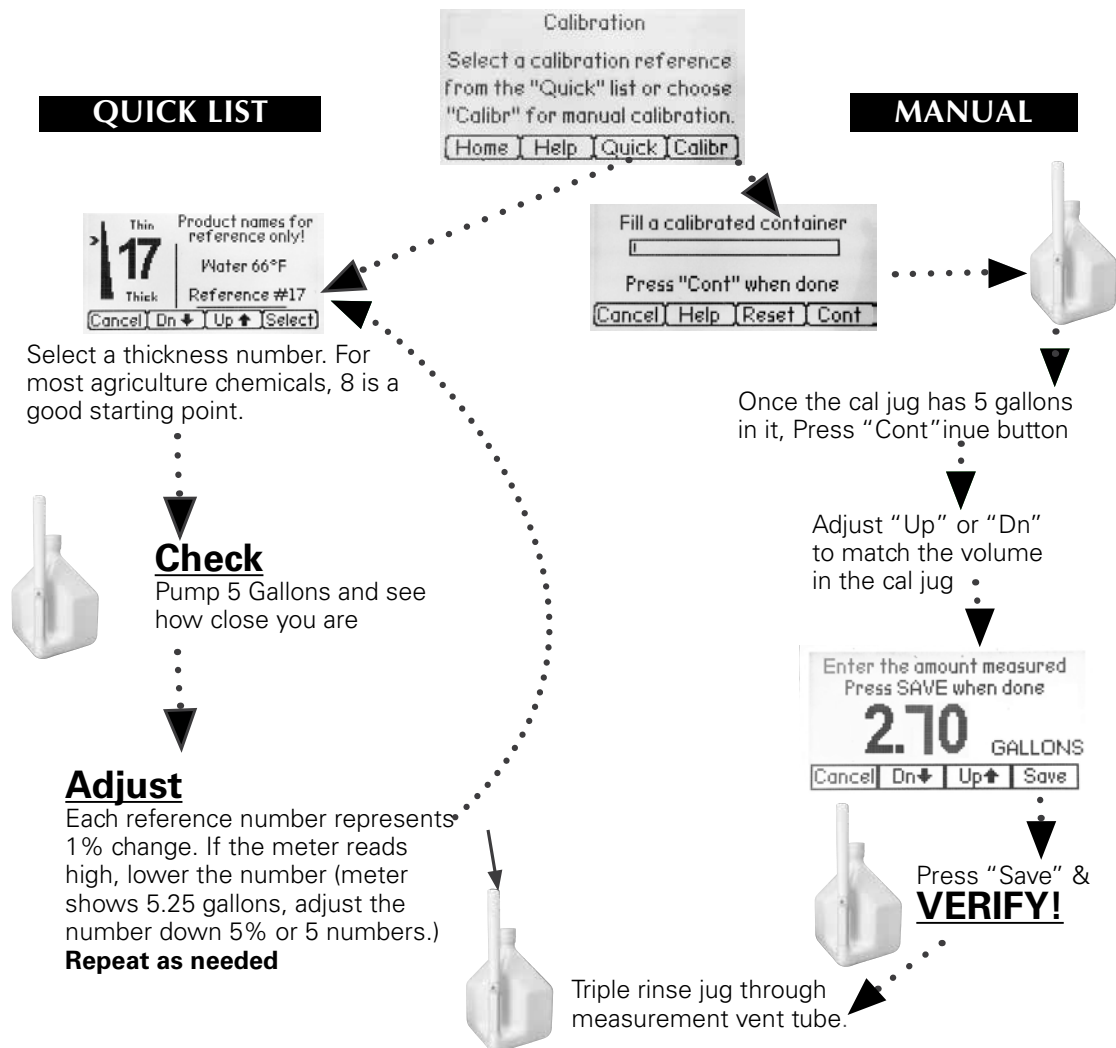
Meter calibration is critical for accurate fluid measurement. Variations in fluid characteristics, viscosity shift due to temperature changes, plumbing differences, and varying flowrates can affect the accuracy. An accurate measurement jug or scale is important to facilitate the verification and calibration process. The Dura Products calibration jug provides an accurate, economical calibration measure for water-based fluids in small volumes. For carrier water flow, fill a tote or other large container with at least 150 gallons, using weight to determine the amount measured. Your calibration will only be as accurate as your measuring method. Another factor in accurate calibration is system prime. Both the chemical and carrier meters will read air, as well as chemicals and water. Removing all the air from the system by priming before calibration will help ensure accuracy.

Before each use, make sure the container is clean, and with a calibration jug, that the scale-reading area is clear for best visibility of the fluid level. Place the container on a flat level surface. Recommended fill for a calibration jug is from the 3 to 5-gallon marker on the scale. Allow for any foaming action that may occur.

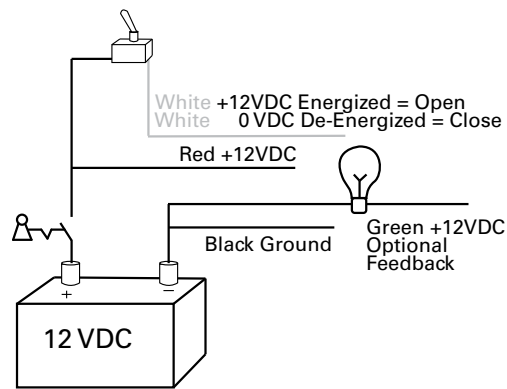
After filling the container with fluid to the desired mark, check the meter reading. The meter reading should match the dispensed units in the calibration container. If it does not, make adjustments per the instruction diagram below.

For the high flow meter, dispense no less than 150 gallons into a container, suitable to be weighed. Take the filled container weight, minus the empty weight in pounds, multiply this by 8.34 to determine the number of gallons dispensed. Recalibrate the meter if the error margin between the meter reading and the container scale is not satisfactory.

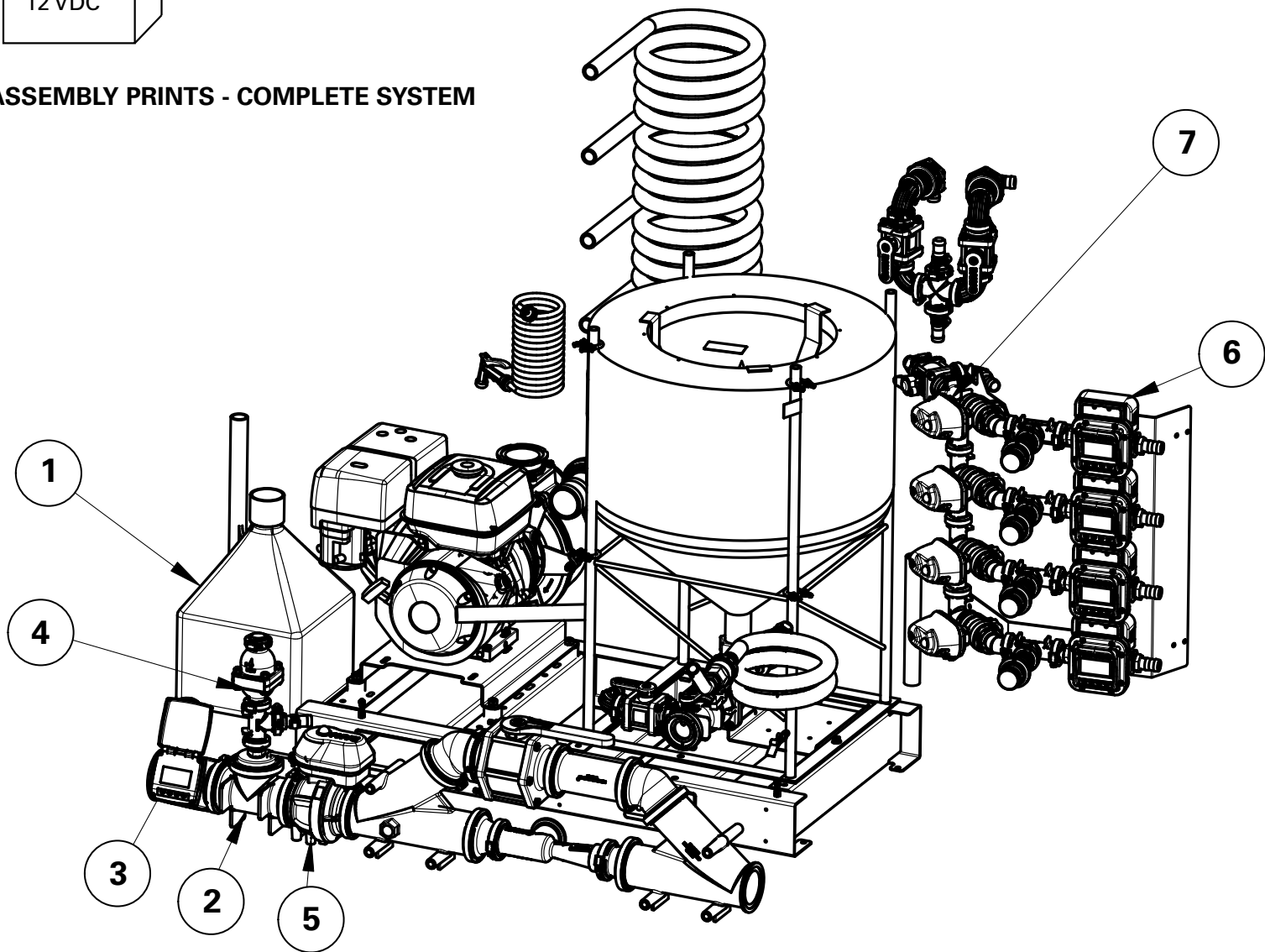
See the diagram below for jug calibration of the 1" Dura chemical meter.



DIAGRAMS - EV1 WIRING



ASSEMBLY PRINTS - COMPLETE SYSTEM



ORDERING INFORMATION			
ITEM	QTY	PRODUCT #	DESCRIPTION
1	1	DP-CALJUG	DURA 5 GALLON CALIBRATION JUG
2	1	DPAB-HFM2KITV / DPAB-HFM3KITV	2" OR 3" VITON® AUTO-BATCH™ HIGH-FLOW KIT
3	1	DPAB-HFM2V / DPAB-HFM3V	2" OR 3" VITON® AUTO-BATCH™ HIGH-FLOW METER
4	1	DPAB-HFM2PRV / DPAB-HFM3PRV	2" OR 3" HIGH-FLOW RELIEF VALVE PLUMBING KIT
5	1	MEVX220-DP / MEVX300-DP	2" OR 3" FULL PORT BANJO® EVX VALVE W/CONNECTOR
6	1	DURA-ABV-B	DURA AUTO-BATCH™ CONTROL VALVE METER W/CONNECTOR
7	1	DPEV-100	1" DURA ELECTRIC VALVE, 12VDC, 0.8 SEC, ON/OFF

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Technology with Lasting Value
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