Installation Manual

Model 442C

55 Gallon Preservative Applicator

HARVEST TEC *Equipment and Products for Quality Hay.™*

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Introduction

Thank you for purchasing a Harvest Tec Model 442C Hay Preservative Applicator. Please read this manual carefully to ensure correct steps are followed to attach the applicator to the baler. This applicator is designed to apply Harvest Tec buffered acid. The model 442C Kit includes the following parts: tank, frame, pump, gauge, hose, electronic control box, and miscellaneous hardware. If you are unsure about your kit, contact your local dealer for specifications. For your convenience parts break downs are included in the back of this manual.

Left and Right sides are determined by facing in the direction of forward travel.

Tools Needed

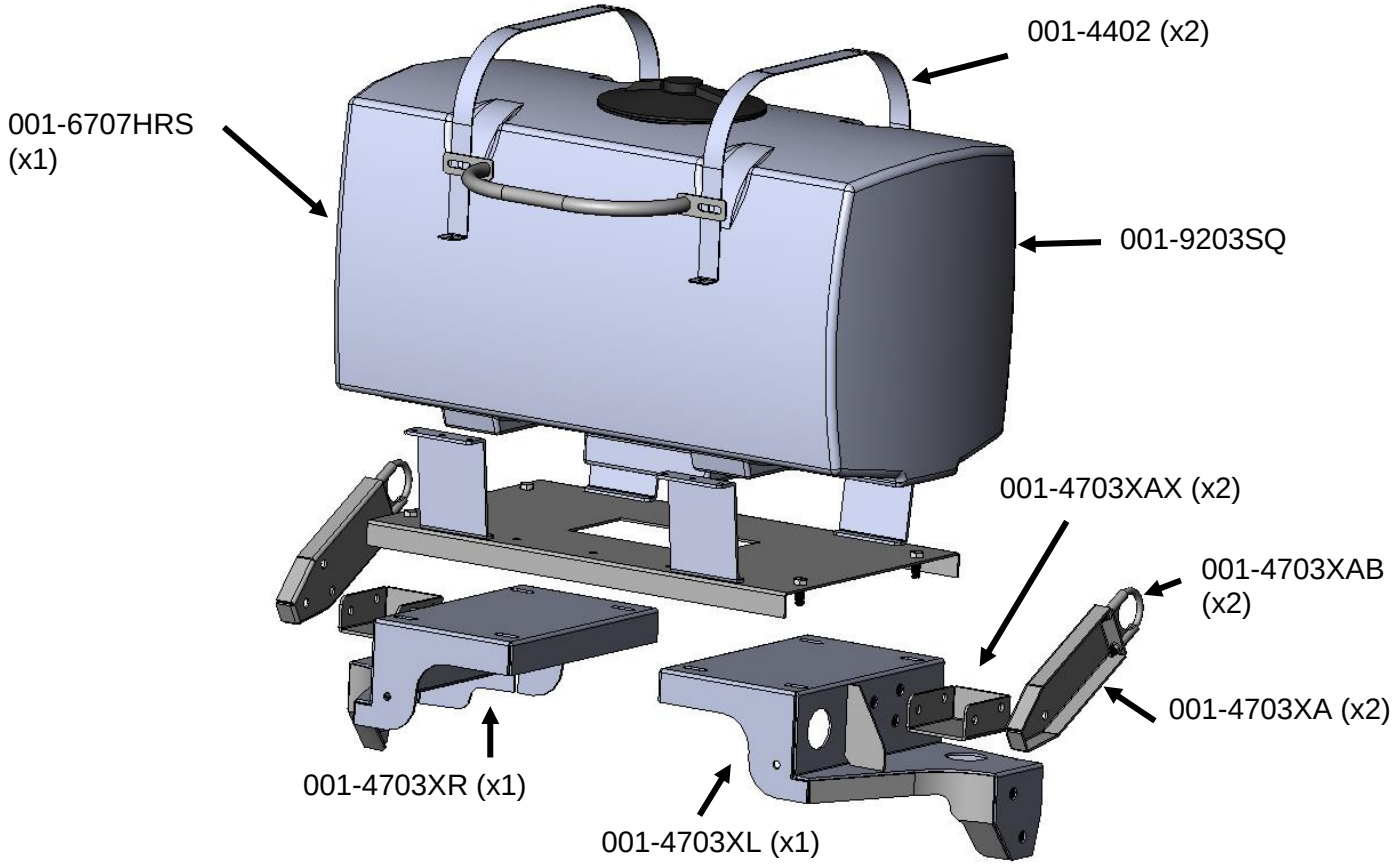
SAE wrench set	Metric socket set	SAE socket set
Standard screw driver	Hose cutter	Drill bit set
Crescent wrench	Hammer	Center punch
Side cutter	Measuring tape	

Installation of Applicator

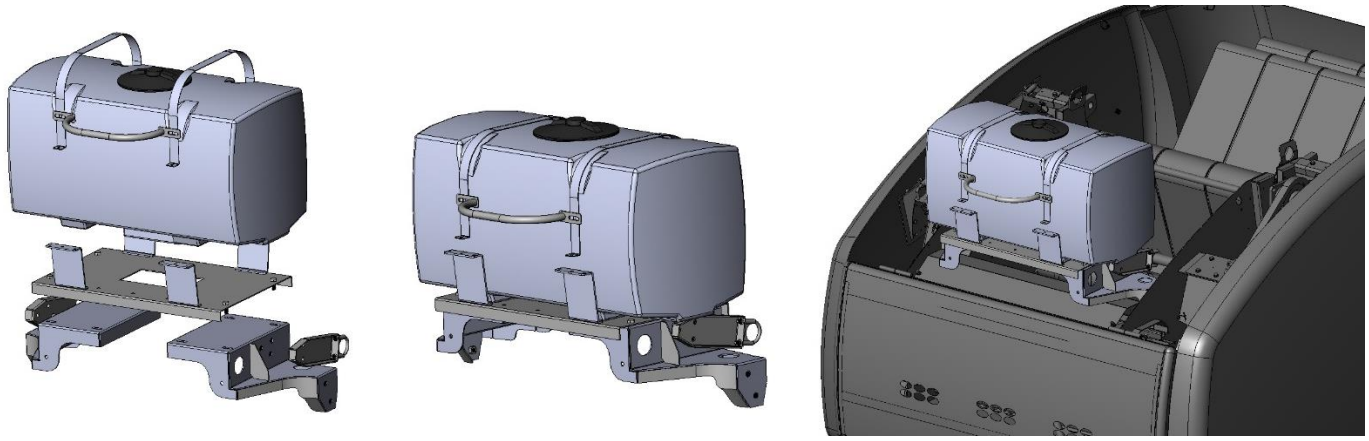
Tank and Saddle Installation

1. Locate the left saddle leg, 001-4703XL, and mount to left side sheet of baler using two 1/2"x 1-1/2” hex bolts, 1/2" lock washers, and 1/2" flat washers. Do not fully tighten.
2. Locate the right saddle leg, 001-4703XR, and mount to right side sheet of baler using two 1/2"x 1-1/2” hex bolts, 1/2" lock washers, and 1/2" flat washers. Do not fully tighten.
3. ***Roll Belt 460 / 560 and RB465 Installation only!*** Locate the two anchor extension brackets, 001-4703XAX, and attach one extension bracket to the outside of each leg with two 1/2"x 1-1/2” hex bolts, 1/2" lock washers, and 1/2" flat washers.
4. Locate the anchor bracket, 001-4703XA, and attach to the side of the extension bracket, 001-4703XAX for 4 X 6 balers (or 001-4703XR and 001-4703XL for other balers) using two 1/2"x 1-1/2” hex bolts, 1/2" flat washers, 1/2" lock washers, and 1/2" hex nuts. Do not fully tighten. Note that 001-4703XA should be positioned so it is angled toward the round pipe that runs across the width of the baler behind the legs. Repeat procedure for the opposite side.
5. Locate the u-bolts, 001-4703XAB, and attach the 001-4703XA brackets to the round pipe running across the baler. Tighten the u-bolts evenly. **Due to minimal clearance between the anchor bracket and the side sheet, use a deep socket and long extension on a ratchet to tighten u-bolts.*
6. With the u-bolts, 001-4703XAB, securely tightened around the round pipe, tighten the bolts connecting the anchor brackets, 001-4703XA, to the saddle legs, 001-4703XL & 001-4703XR.
7. Tighten the hardware attaching the saddle legs, 001-4703XL & 001-4703XR, to side sheets of the baler.
8. Install the tank assembly (tanks, straps, handrail, and saddle pan) on the legs. Secure the saddle pan, 001-4703X, to the saddle legs with 1/2" flat washer, 1/2" lock washer, and 1/2" hex nut from the bottom side in four locations. Tighten hardware.

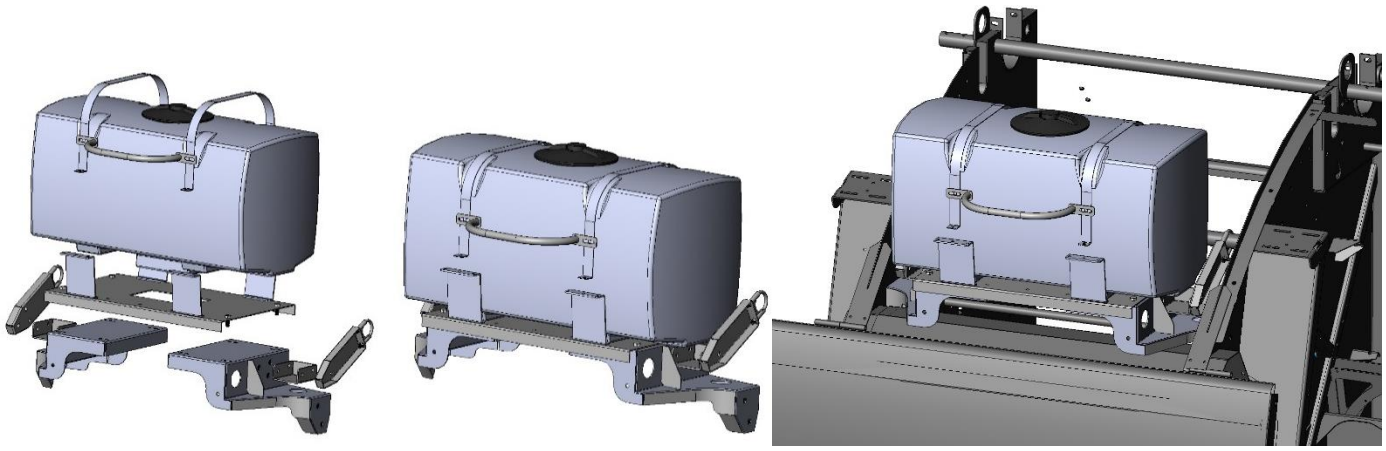
*****001-4703XAX (x2) are <u>ONLY</u> used on 4x6 models***



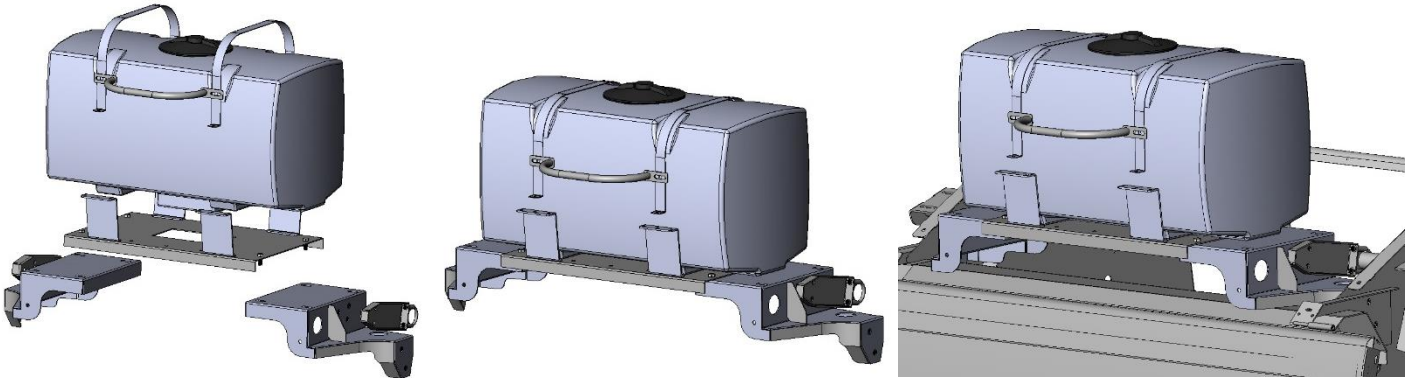
4x5 Baler Expanded



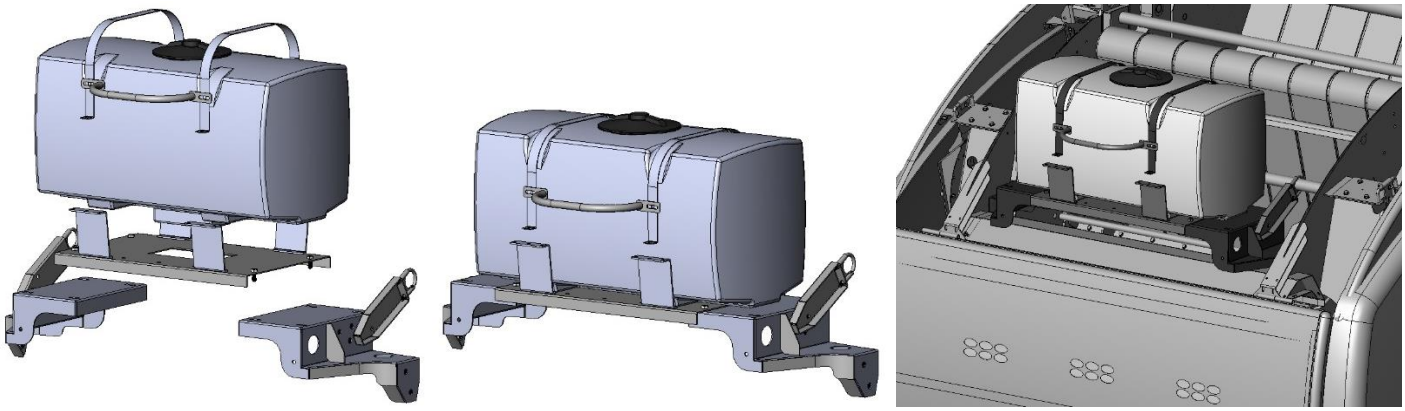
4x6 Baler Expanded



5x5 Baler Expanded

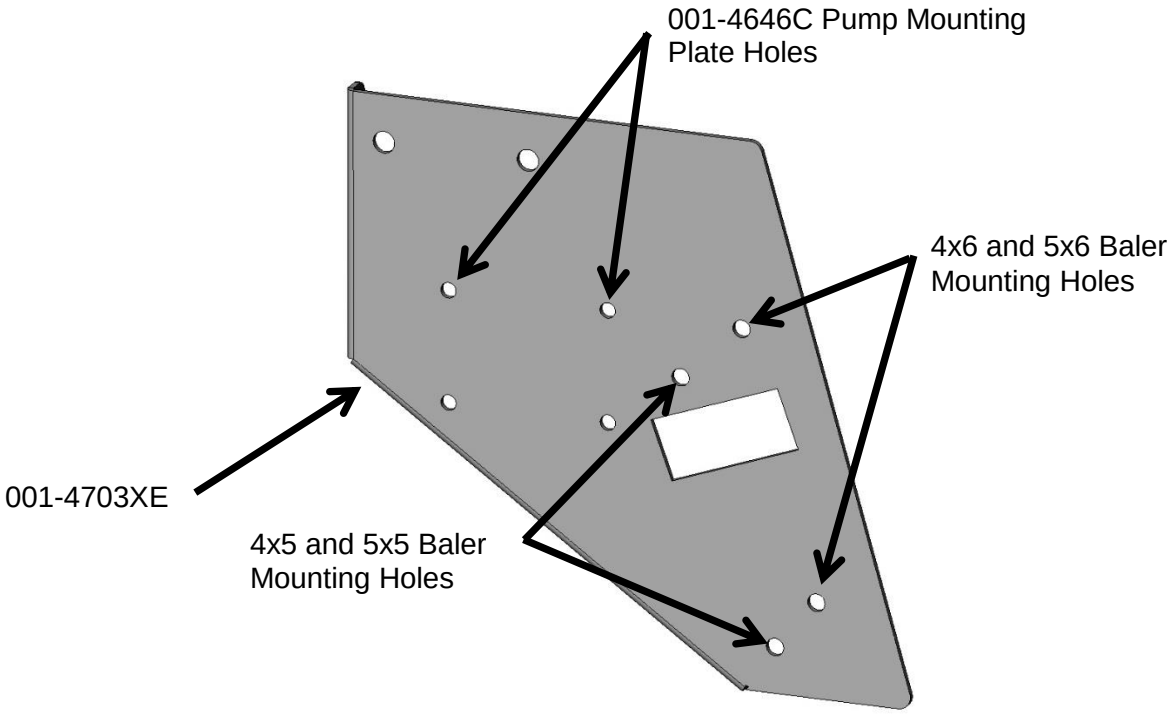


5x6 Baler Expanded



Installation of Pump Manifold

Mounting Front Pump Plate Support



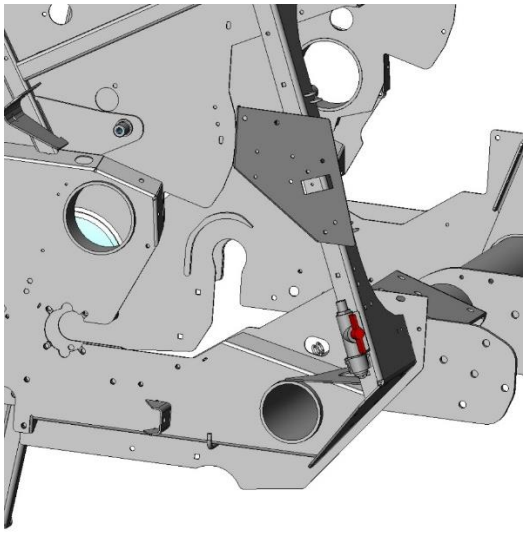
A. Mount the Pump Mounting Bracket (001-4703XE) to the angled support tube with two M8 x 25mm carriage bolts and flanged nuts. Use the specified mounting holes as shown on the next page.

B. Locate the two holes near the bottom of the angled support on the mounting bracket that the drain/fill bracket lines up with and attaches to. Remove the existing nuts and install the drain/fill bracket. Reinstall the original nuts or those supplied with this kit to secure the drain/fill bracket to the baler.

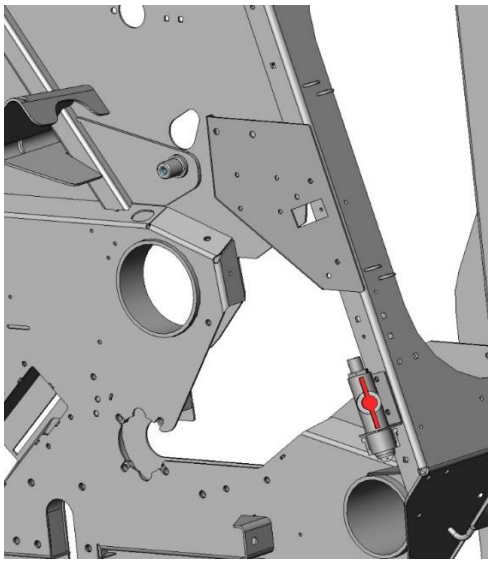
C. Locate parts bag 1. Thread 3/4” elbow fitting into the end of the tank (003-EL3434). Run 3/4" hose from the elbow down the frame to the bottom of the baler. Connect valve assembly to the other end of hose. Place hose clamps on both ends and secure with zip ties.

Mounting Front Pump Plate Support (continued)

4x5 & 5x5 Balers



4x6 & 5x6 Balers



Installation of Electronic Pump Assembly

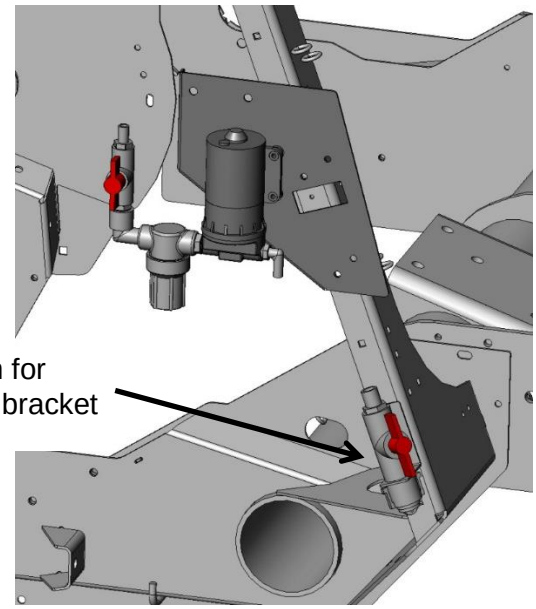
Install the electronic pump assembly by placing the four pump bolts through 001-4703XE and securing on the backside with 1/4” nuts (x4).

Installation of Drain / Fill Kit

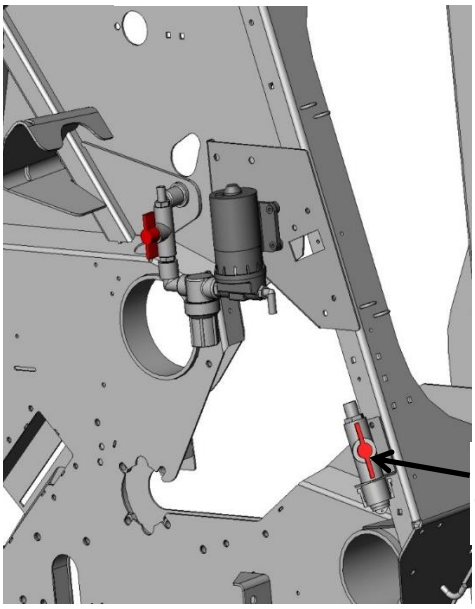
Locate parts bag 1. Thread 3/4" elbow fitting (003-EL3434) into end of tank. Run 3/4" hose from the elbow down the frame to the bottom of the baler. Locate the two holes on the baler’s angled support bracket that line up with the holes in the valve bracket and attach using two 5/16” x1” self-tapping screws and secure with two 5/16” flange nuts. Connect valve assembly to other end of hose. Place hose clamps on both ends. Install supplied safety decals (DCL-8001 & DCL-8005) next to the ball valve assembly.

***Secure hose to frame using cable locks.**

4x5 & 5x5 Balers



4x6 & 5x6 Balers



Installation of Gauge and Hose Manifold

A. Drill two 3/8” holes and mount pressure gauge to sheet metal above baler gauge. Bend the gauge bracket to adjust the angle.
B. Secure with two 5/16” x 1” flange bolts and flange nuts.

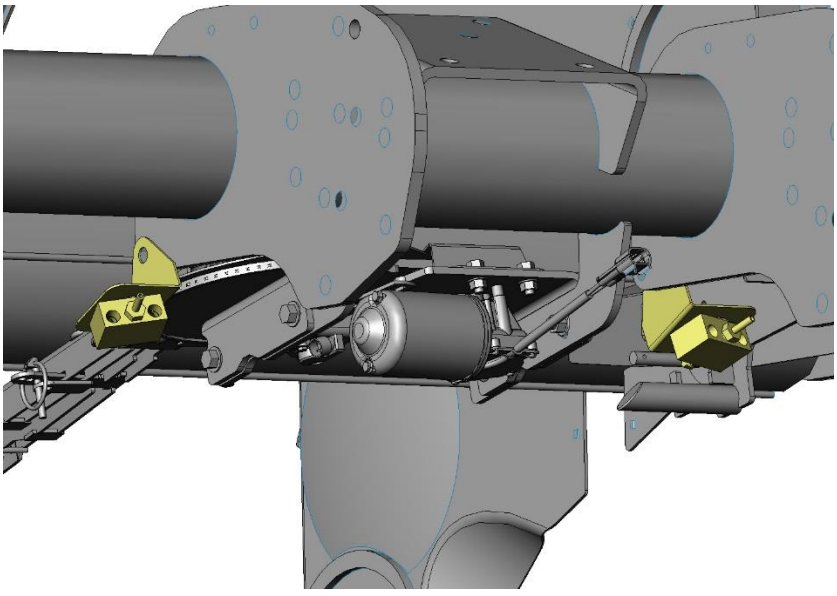
Placement of Spray Nozzle Assembly

A. Locate nozzle block hanger assemblies with tips pre-installed.

B. The assembly with the check valve will be mounted to the left hitch support plate when standing next to the PTO just in front of and under the large round cross support tube. Use 1/2” x 1 1/4” bolt, flat washer, lock washer, and nut to secure to baler. Repeat for the other assembly on the other side.

C. Loosen Philip screw on nozzle block and turn them slightly in toward each other.

D. Measure distance between hose barb fittings and cut 1/2” hose to that length. Attach them to the nozzle assemblies and secure them with hose clamps.



Installation of Plumbing

A. Tank to Pump

1. Thread elbow (003-EL3412) into the bottom of the tank.
2. Route 1/2” hose from bottom of tank through gap in sheet metal surrounding the baler gauge down to valve on pump intake.
3. Secure with hose clamps.

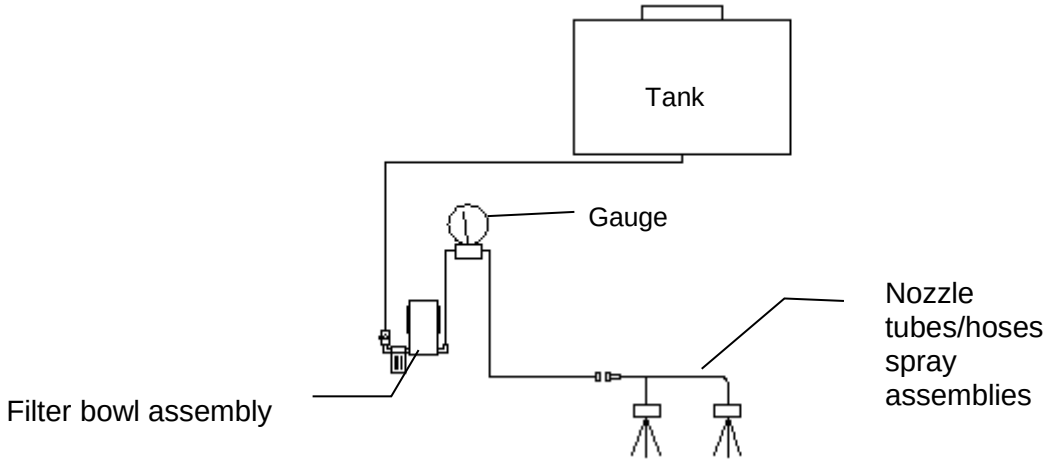
B. Pump Gauge

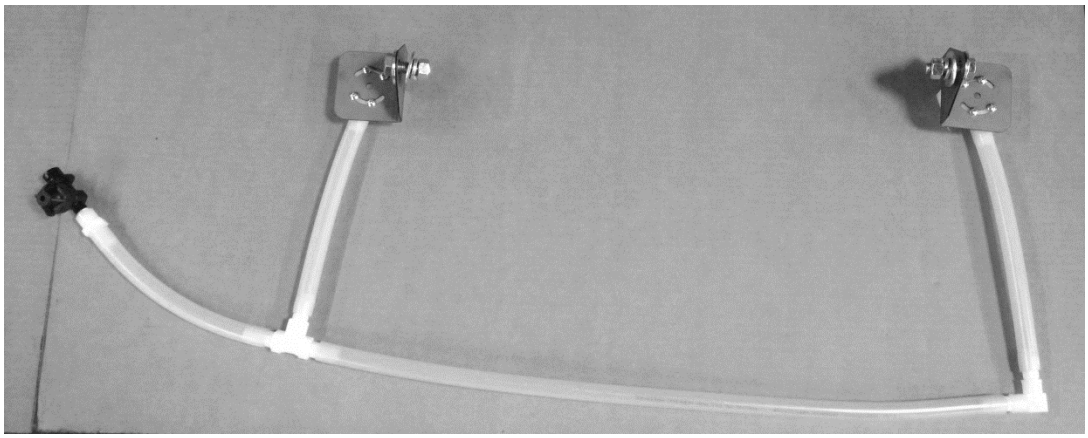
1. Attach 1/2” hose to pump discharge and route up to gauge. Secure with hose clamps.

C. Gauge to Nozzles

1. Attach 1/2” hose to open port of gauge and route hose down to check valve of spray nozzle assembly.
2. Attach quick disconnect (003-A1412 and 004-1207H).
3. Secure with hose clamps.

D. Secure loose hoses to baler with supplied Jiffy clips. Use existing hardware to attach to baler.





Installation of Controls and Routing the Wire Harnesses

A. Locate the control in an area that allows operation for adjusting or turning the controls while operating the baler.

B. Route the wire to the starter solenoid on all 12V tractors. Connect the green lead marked **+** to the hot terminal on the starter. Connect the black lead to a good ground. **Do not reverse the leads.** Be sure to use a voltmeter to verify that you do have 12 volts running to the box.

Note: For tractors with 24v starters, connect the power leads to the tractor's right hand battery. Do not connect the leads to the starter. Connect the lead marked + to the positive battery terminal and the lead marked- to the negative on the battery. Wiring connections to the battery normally results in corrosion; terminal coating is recommended.

C. Attach the wire from the pump to the battery

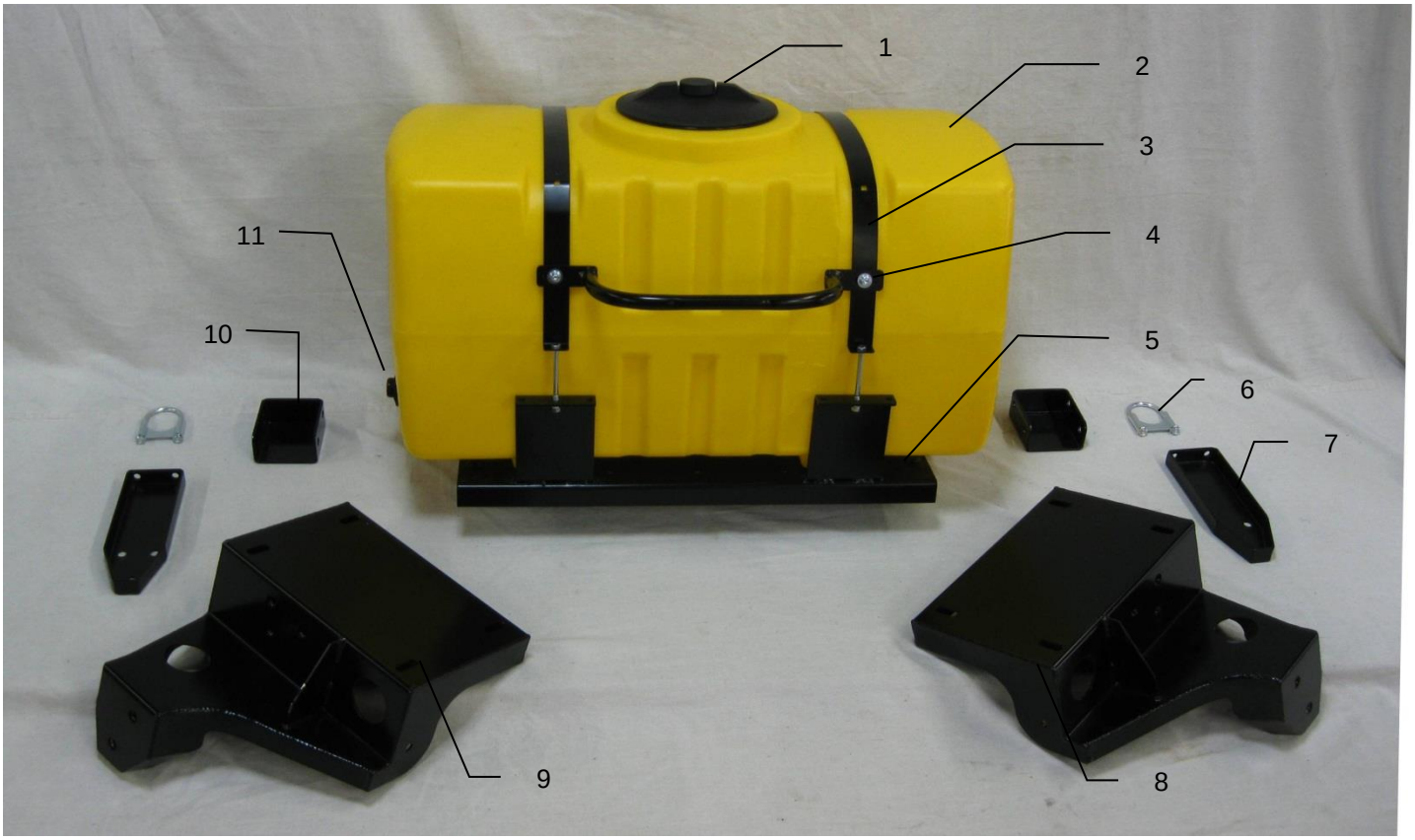
D. Run wire with molded black plug to back of tractor

E. Run wire from pump up drawbar and connect it to the mating plug from the control box. Secure wire to baler with supplied cable ties.

Caution: Do not run a pump or use an electronic control box directly off a battery charger. For stationary use, the applicator can be connected to a new battery and the battery connected to a charge

Parts Breakdown for the Tank and Saddle

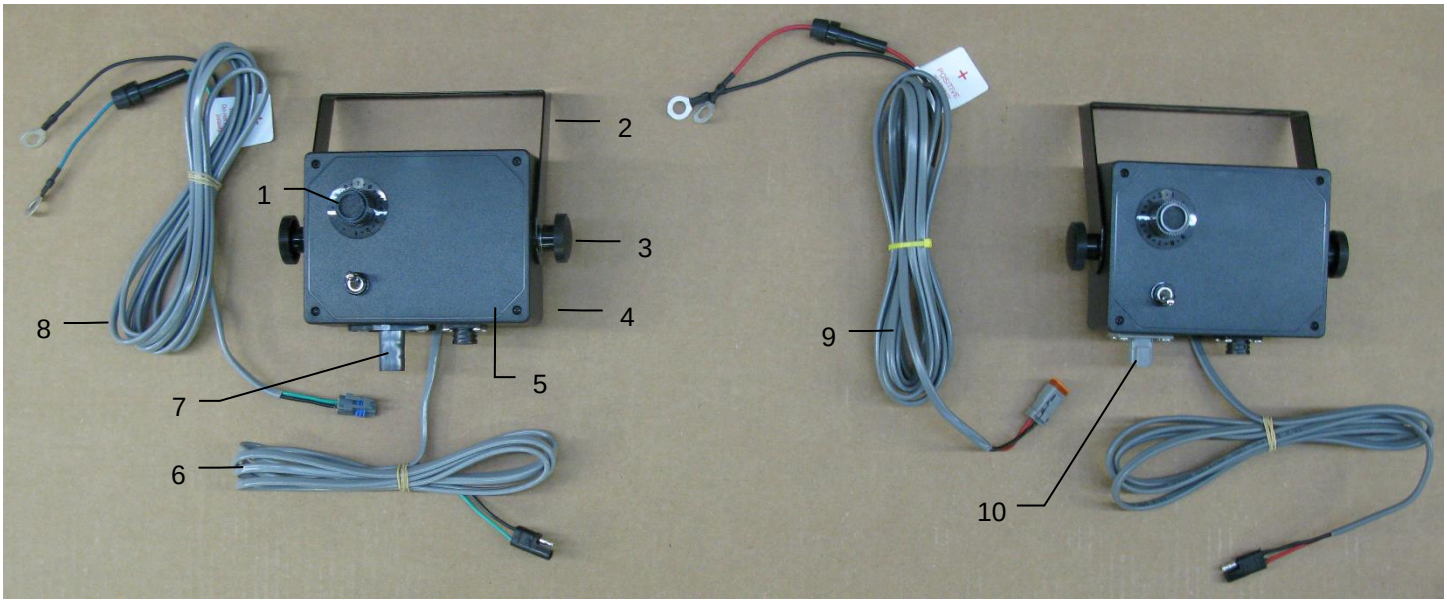
Harvest Tec Model 442C Base Kit



Ref #	Description	Part #	Qty
1	Tank lid	005-9022H	1
2	55 Gallon tank	005-9203SQ	1
3	Tank strap	001-4402	2
4	Hand Rail	001-6707HRS	1
5	Tank Saddle	001-4703X	1
6	U-Bolt Rollbelt	001-4703XAB	2
7	Anchor Bracket	001-4703XA	2
8	Left Leg Rollbelt	001-4703XL	1
9	Right Leg Rollbelt	001-4703XR	1
10	Anchor Bracket Ext.	001-4703XAX	2
11	Tank Fitting	005-9100	1
	Tank Kit Assembly	030-0447C-TK (Includes Ref# 1-11)	

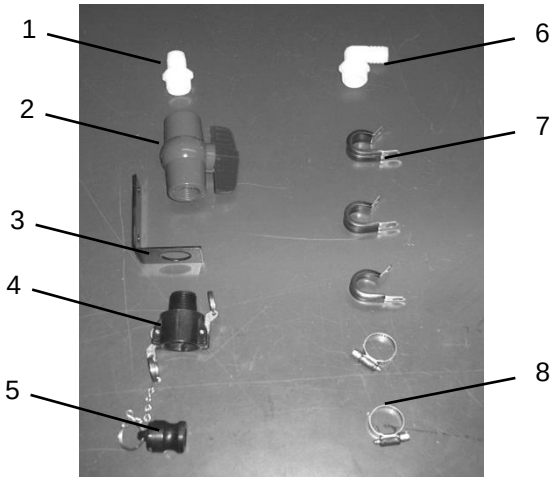
Parts Breakdown for Control Box and Drain Fill Kit

Model 457 Control Box



Ref	Description	Part #	Qty
1	Speed dial	006-2022A	1
2	U-bracket	001-2012E	1
3	Control box knob	008-0923	2
4	Control box enclosure	006-2015A	1
5	Control box cover	006-2015B	1
6	Pump lead	006-4583	1
7	Box Plug Pre-Serial # 4549	006-4581	
8	Power lead Pre-Serial # 4549	006-4580C	1
9	Power lead After Serial # 4550	006-4580M	1
10	Box Plug After Serial # 4550	006-4581M	1

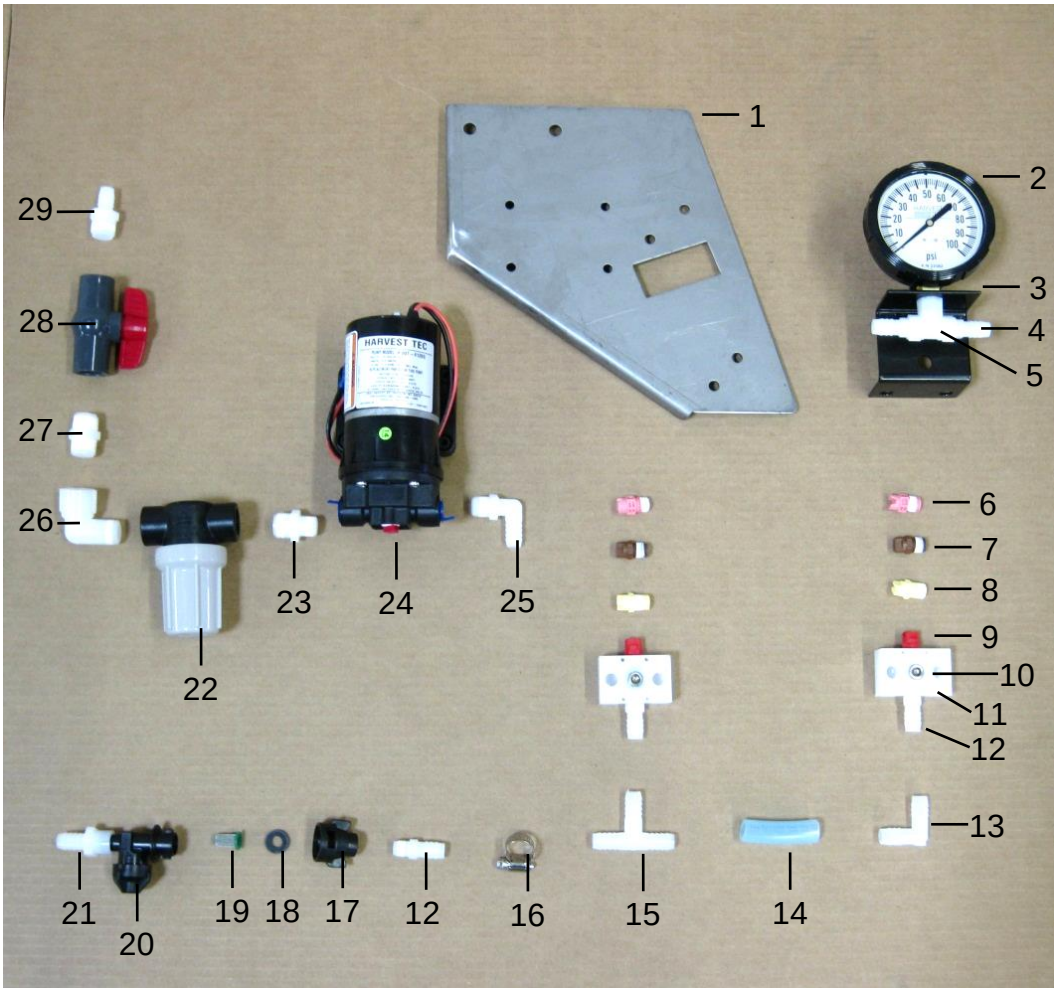
Parts Breakdown for Drain Fill (Model 442C)



Ref	Description	Part #	Qty
1	Straight fitting	003-A3434	1
2	Ball valve	002-2200	1
3	Valve holder	001-6702H	1
4	Female coupler	002-2204A	1
5	Male coupler	002-2205G	1
6	Elbow	003-EL3434	1
7	Jiffy clip	008-9010	3
8	Hose clamp	003-9004	2
NP	3/4” Hose	002-9002	10ft

Parts Breakdown Model Specific Installation Kits

Harvest Tec Model 442C Installation Kit



Ref #	Description	Part #	Qty	Ref #	Description	Part #	Qty
1	Valve Mount	001-4703XE	1	17	Female Disconnect 1/4"	004-1207H	1
2	Gauge-4”	002-2208Z	1	18	Washer	004-1207W	1
3	Gauge Holder	001-4717	1	19	Tip Strainer	004-1203-100	1
4	Fitting 1/4" x 1/2"	003-EL1412	2	20	Diaphragm Check Valve	004-1207V	1
5	Tee 1/4"	003-TT14	1	21	Fitting	003-A1412F	1
6	Tip-Pink	004-T8001-PT	2	22	Filter Bowl Assembly	002-4315	1
7	Tip-Brown	004-T80015-PT	2	23	Nipple	003-M1238	1
8	Tip-Yellow	004-T8005-PT	2	24	Pump 12V	007-4120SE	1
9	Tip-Red	004-T8003-PT	2	25	Elbow	003-EL3812	1
10	Plug Allen	003-F14A	2	26	Elbow	003-SE12	1
11	Manifold Block	001-4435NSB	2	27	Fitting	003-M1212	1
12	Fitting 1/4" x 1/2"	003-A1412	2	28	Ball Valve	002-2212	1
13	1/2" HB Elbow	003-EL12	1	29	Fitting	003-A1212	1
14	EVA Tubing 1/2"	002-9002	26ft	NP	Spray Block Holder	001-4703XD	2
15	Barb Tee 1/2"	003-T1212	1				
16	Hose Clamps	003-9003	14		Shield Only Assembly	030-0442C-SO	
						(Includes Ref # 6-21, NP)	

Harvest Tec Inc. Warranty and Liability Agreement

Harvest Tec, Inc. will repair or replace components that are found to be defective within 12 months from the date of manufacture. Under no circumstances does this warranty cover any components which in the opinion of Harvest Tec, Inc. have been subjected to negligent use, misuse, alteration, accident, or if repairs have been made with parts other than those manufactured and obtainable from Harvest Tec, Inc.

Our obligation under this warranty is limited to repairing or replacing free of charge to the original purchaser any part that in our judgment shows evidence of defective or improper workmanship, provided the part is returned to Harvest Tec, Inc. within 30 days of the failure. If it is determined that a non-Harvest Tec branded hay preservative has been used inside the Harvest Tec applicator system where the failure occurred, then Harvest Tec reserves the right to deny the warranty request at their discretion. Parts must be returned through the selling dealer and distributor, transportation charges prepaid.

This warranty shall not be interpreted to render Harvest Tec, Inc. liable for injury or damages of any kind, direct, consequential, or contingent, to persons or property. Furthermore, this warranty does not extend to loss of crop, losses caused by delays or any expense prospective profits or for any other reason. Harvest Tec, Inc. shall not be liable for any recovery greater in amount than the cost or repair of defects in workmanship.

There are no warranties, either expressed or implied, of merchantability or fitness for particular purpose intended or fitness for any other reason.

This warranty cannot guarantee that existing conditions beyond the control of Harvest Tec, Inc. will not affect our ability to obtain materials or manufacture necessary replacement parts.

Harvest Tec, Inc. reserves the right to make design changes, improve design, or change specifications, at any time without any contingent obligation to purchasers of machines and parts previously sold.

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