

# FILL & DISPENSE KITS

## Fill-Rite® PUMP WITH FILL BOX

### SINGLE WALL VERTICAL TANKS

## INSTALLATION GUIDE

This instruction applies to the following kits available from TrueNorth Steel:

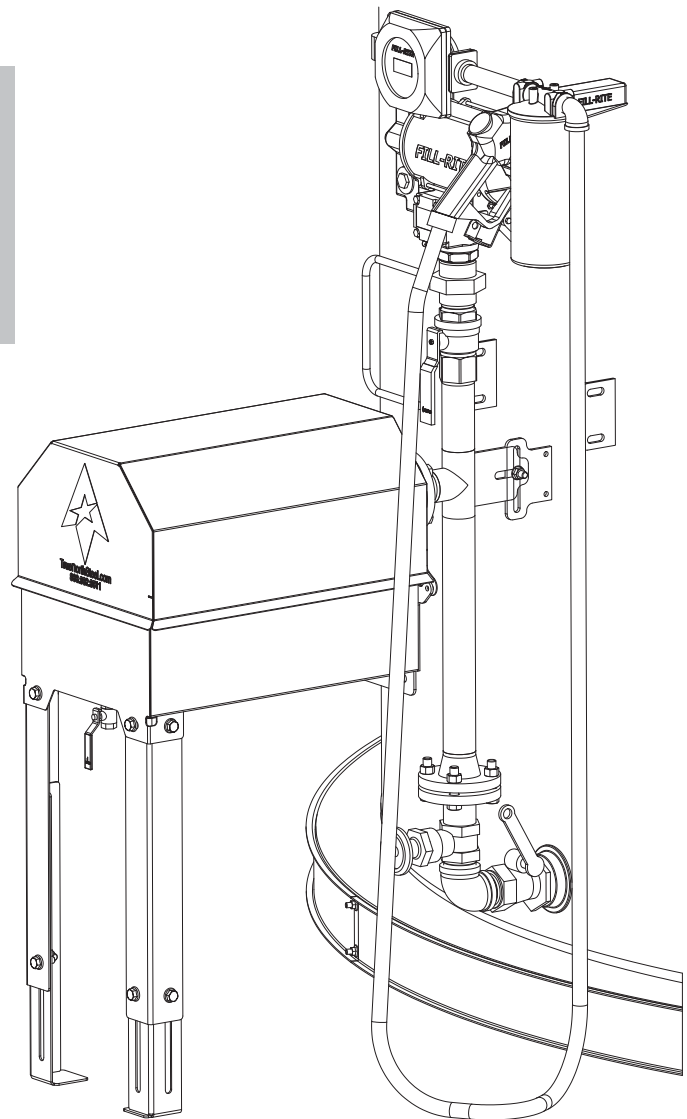
- 1505-0042** Fill/dispense kit with 2" pipe size, fill box
- 1505-0043** Fill/dispense kit with 3" pipe size, fill box
- 1505-0068** Fill/dispense kit with 2" pipe size, remotely located fill box

### DISPENSE KIT CONTENTS

1. Fire, check, gate, and ball valves
2. Pipe column assembly
3. Flange assemblies
4. Pressure relief valve and hose
5. Fill box assembly and hardware
6. Pipe fittings

\*Fill-Rite® pump ordered separately

Document #4000-0016

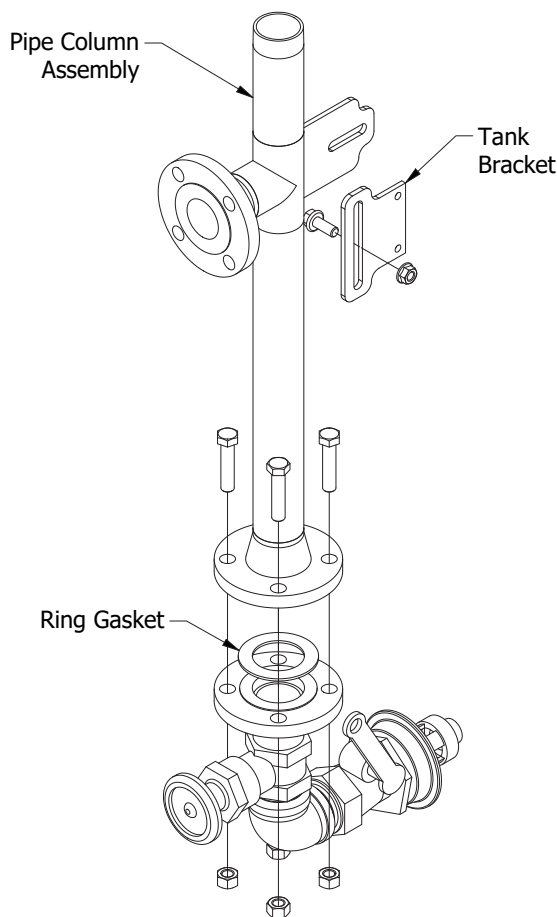
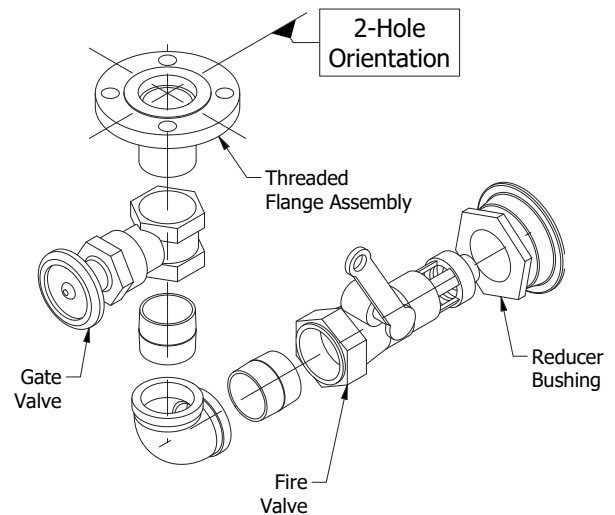


## INSTALLATION STEPS

Note: Use thread sealant supplied with kit on all threaded joints.

### INSTALLATION OF PIPE FITTINGS ONTO TANK

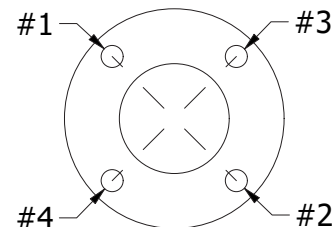
1. If installing 3" pipe size kit, remove reducer bushing from tank fitting
2. Connect fire valve to tank fitting, orient handle upward
3. Connect elbow using a close-length pipe nipple, orient elbow upward
4. Connect gate valve to elbow using a close-length pipe nipple
5. Attach threaded flange assembly to gate valve, align flange in a 2-hole orientation



### INSTALLATION OF PIPE COLUMN ASSEMBLY

1. Connect pipe column assembly to top of flange using bolt and ring gasket kit provided
2. Torque nuts to 122 ft. lbs. in these steps:
  - Step 1: 37 ft. lbs. in numerical sequence
  - Step 2: 86 ft. lbs. in numerical sequence
  - Step 3: 122 ft. lbs. in numerical sequence
  - Step 4: 122 ft. lbs. in final torque in a circular pass

#### Torque Sequence



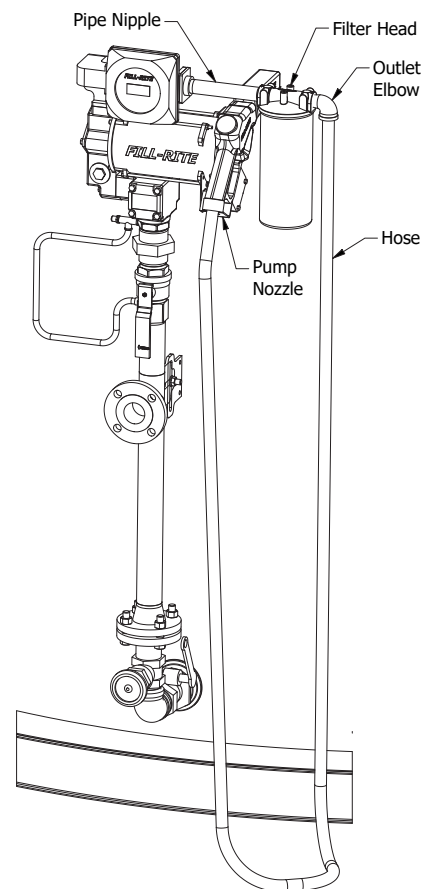
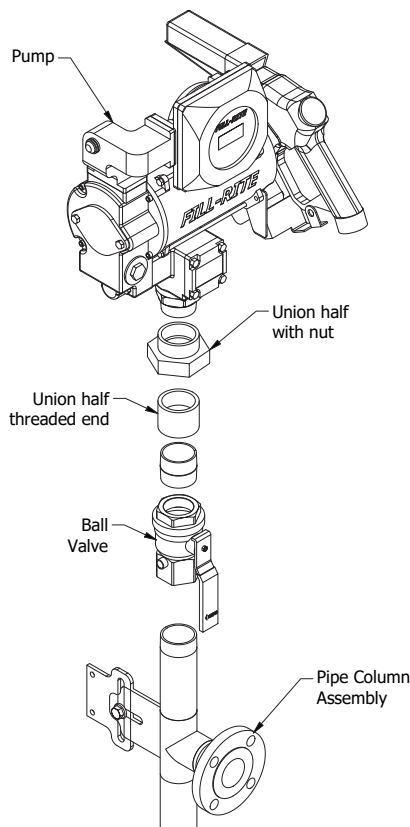
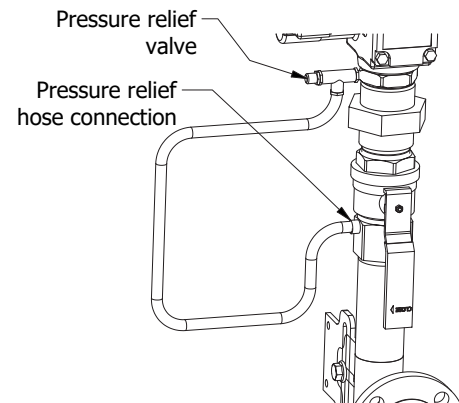
3. Secure pipe column assembly to tank bracket with 1 bolt and nut

# INSTALLATION STEPS

Note: Use thread sealant supplied with kit on all threaded joints.

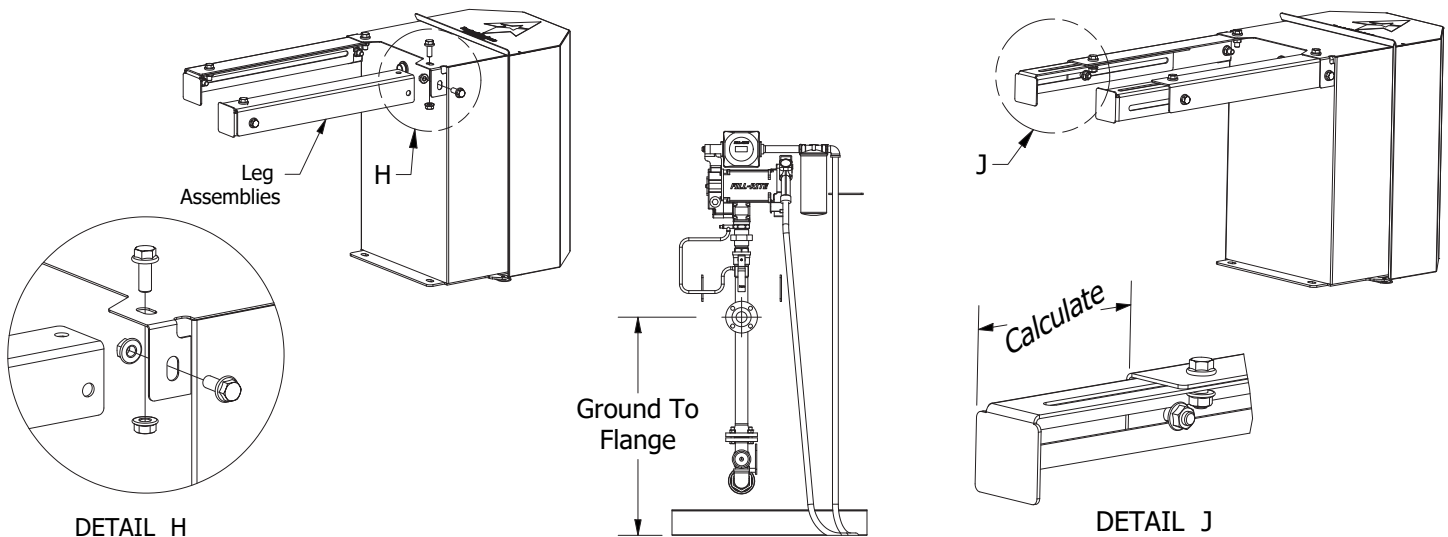
## INSTALLATION OF PUMP TO PIPE COLUMN

1. Attach ball valve to top end of pipe column assembly, orient handle down in open position
2. Attach threaded half of union fitting to ball valve using a close-length pipe nipple
3. Attach half of union with nut to bottom of Fill-Rite® pump
4. Attach pump to pipe column, connecting union fitting
5. Attach pressure relief valve to port at base of Fill-Rite® pump
6. Attach hose from pressure relief valve to port on ball valve
7. Replace outlet elbow on pump with pipe nipple
8. Attach filter head to pipe nipple and re-attach outlet elbow from pump to filter head
9. Attach hose to elbow and connect pump nozzle



## INSTALLATION STEPS

Note: 2 people are recommended for installation of fill box.

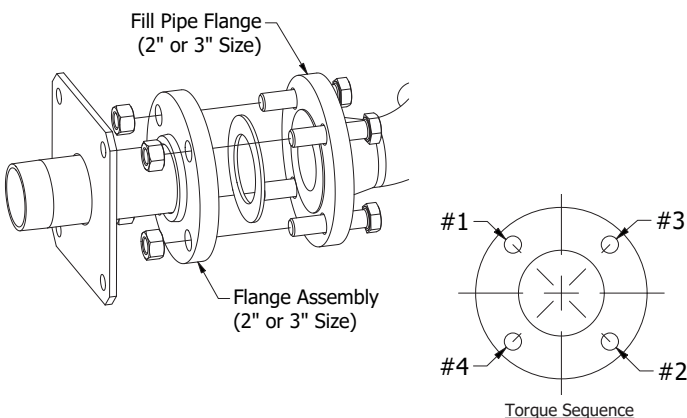


### FILL BOX PRE-ASSEMBLY

1. Tip box on end with corner leg brackets up
2. Attach 2 leg assemblies with 2 bolts and nuts (leg assembly goes on inside of corner brackets)
3. Measure height to the center of fill pipe flange connection
4. Extend legs by calculated distance, loosening assembly bolts and sliding feet

To calculate appropriate amount of extension, measure height from the ground to the center of the fill pipe flange connection and subtract 42 1/2"

Example: 48 1/2" measured height - 42 1/2 = 6" of extension needed



### ATTACHED FLANGE ASSEMBLY TO FILL PIPE FLANGE CONNECTION

1. Insert bolts provided in gasket kit into fill pipe flange
2. Place ring gasket inside the bolt pattern against the face of the tank flange
3. Attach flange assembly to tank flange using nuts provided in gasket kit
4. Torque nuts to 122 ft. lbs. in the following sequence:

**Step 1:** 37 ft. lbs. in numerical sequence

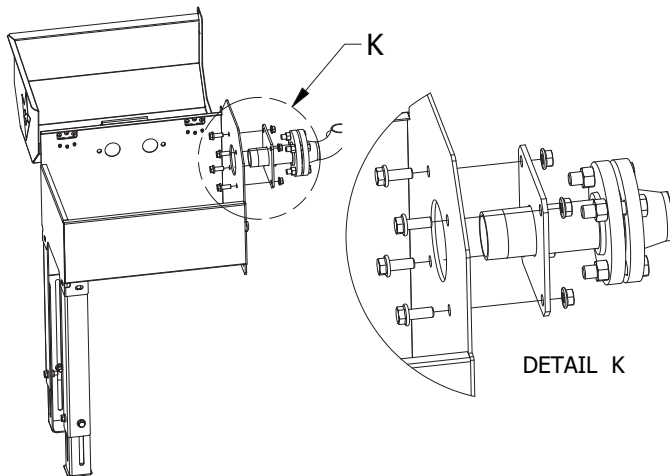
**Step 2:** 86 ft. lbs. in numerical sequence

**Step 3:** 122 ft. lbs. in numerical sequence

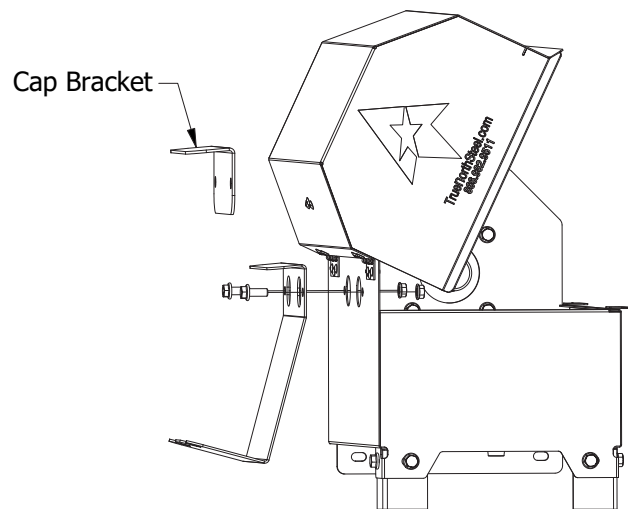
**Step 4:** 122 ft. lbs. in final torque in a circular pass

## INSTALLATION STEPS

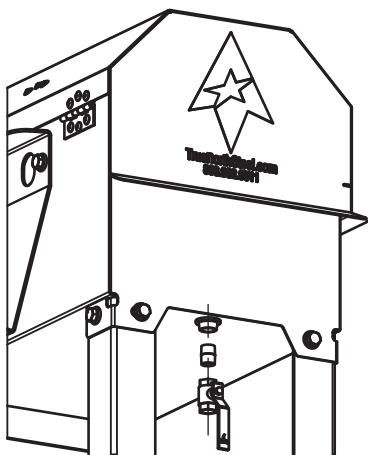
Attaching fill box and remaining components



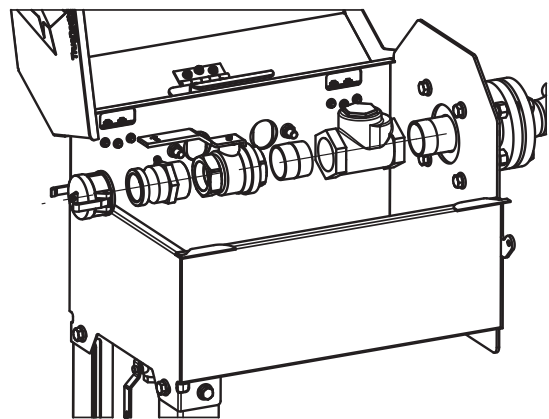
1. Stand and hold fill box upright on 2 legs
2. Position back of box around flange assembly pipe against plate, aligning bolt holes
3. Secure with four 3/4" bolts and nuts
4. If box is sagging, lift on end with legs, loosen leg assembly nuts, let feet drop to the ground, and re-tighten



5. Install nozzle bracket or cap bracket on left side of fill box (whichever is desired)
6. With cover partially open, connect bracket to box with two 3/4" bolts and nuts through holes
7. Large holes align for inserting nozzle end into fill box when stowed



8. Install 1/2" ball valve into flange on bottom of fill box using provided pipe nipple
9. Connect hose for draining if desired (not supplied in kit)



10. Connect swing check valve to flange assembly pipe
11. Connect ball valve to valve using pipe nipple
12. Connect quick coupler to ball valve using pipe nipple
13. Insert dust cap onto quick coupler using quick coupler clamps

# INSTALLATION STEPS

Use thread sealant supplied with kit on all threaded joints

## INSTALLATION OF REMOTELY LOCATED FILL BOX

1. If installing the standard fill & dispense kit with 4' flex pipe connection, position support pedestal 64" out from tank shell
2. If applying other non-standard piping per site plans, lay out piping to determine approximate location of pedestal as needed
3. Pedestal may be oriented straight in line with tank fitting as shown or turned 90 degrees to the left or right as desired for site requirements  
**Note: Do not anchor pedestal to concrete pad until piping is completely installed to ensure it is located where needed**
4. Attach fill box to top of pedestal with bolts through each end
5. Fill box leg assemblies are included and may be used for additional support and stability (as determined to be needed by installer)
6. Install fire valve, 6" pipe nipple, gate valve, and flex pipe into tank fitting
7. Attach pipe column assembly to fill box as shown on previous pages of this document
8. Attach flange fitting, pipe elbow to bottom of pipe column assembly
9. Attach pipe column to flex pipe with pipe union connection
10. For non-standard layouts, connect piping as needed per site plans from gate valve to pipe column
11. After all piping is satisfactorily in place, anchor pedestal to concrete pad using 4 anchors through base plate

