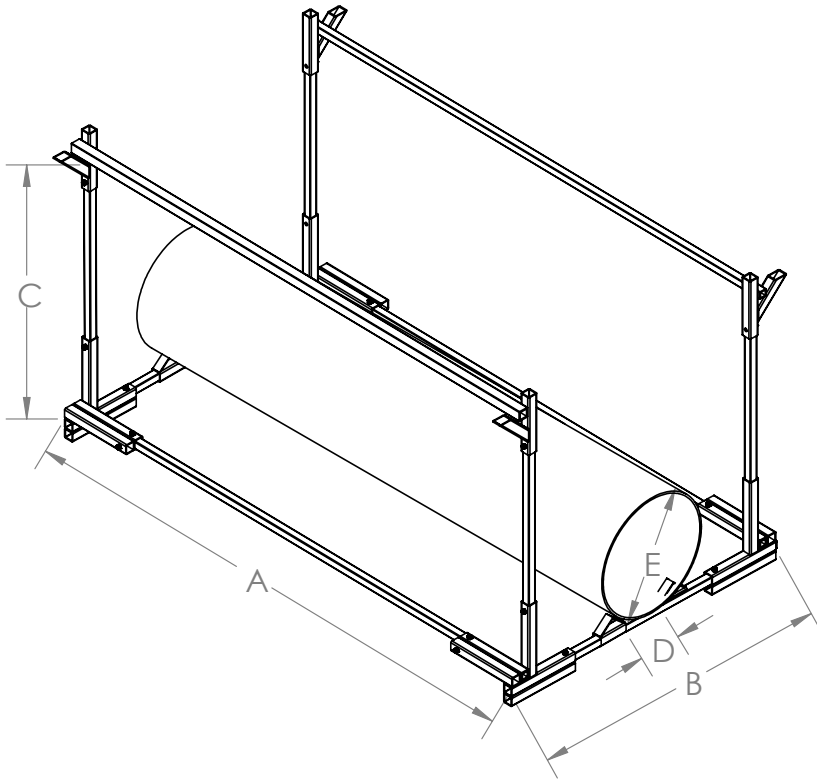




PipeSak® Pipeline Products



Notes:

- 1) Type of steel used is HSS or structural tubing
- 2) Outside diameter of tubing - 2"/2.5"
- 3) Wall thickness of tubing - 0.238"/0.25"
- 4) Dimensions are approximations.

Detailed filling steps continues on the reverse page.

PipeSak QF Frame Dimensions:

| QF PipeSak Model | (A) (P6/P9) | (B) (P7) | (C) (P8) | (D) | (E) (P10) |
|------------------|----------------|-------------|-------------|-----|--------------|
| QF6 PipeSak | 45" | 25" | 25" | 5" | 6.625" |
| QF8 PipeSak | 45" | 25" | 25" | 5" | 8.625" |
| QF10 PipeSak | 60" | 28" | 33" | 8" | 10.75" |
| QF12 PipeSak | 60" | 28" | 33" | 8" | 12.75" |
| QF16 PipeSak | 70" | 40" | 44" | 10" | 16" |
| QF20-24 PipeSak | 95" | 56" | 40" | 12" | 20-24" |
| QF30 PipeSak | 110" | 80" | 48" | 16" | 30" |
| QF36 PipeSak | 110" | 83" | 58" | 20" | 36" |
| QF42-48 PipeSak | 110" | 89" | 68" | 24" | 42-48" |

Technical Notes

Quick-Fill Assembly

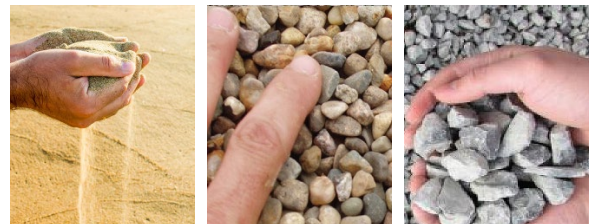


GENERAL

PipeSak® QF (Quick-Fill) weights are designed to use local, natural aggregate as ballast – utilizing a specially developed quick-fill frame (a PipeSak® Pipeline Product Inc. tool available with your PipeSak® order). Filling can take place anywhere a few loads of gravel can be dropped off. For large quantities, it is recommended PipeSak® weights are filled locally, close to the pipeline, using a PipeSak® filling crew (i.e. contractor's yard or local gravel pit).

TYPE OF BALLAST

PipeSak® QF weight is designed to hold a specific volume of gravel ballast, based on a dry bulk density of at least 100 lbs/cu.m. (1,602 kg/ cu.m.) to achieve their design weight. The type of ballast used can vary from clean sand to a screened stone (1/8 in to 3/4 in). During freezing conditions, a clear, natural stone is recommended – free of silt and clay that may promote freezing.



Bill of Materials:

| Part | Name | Description | QTY |
|------|----------------------|------------------------------------|-----|
| P1 | Corner Brace A | 2.5" x 2.5" x 0.238" Square Tubing | 2 |
| P2 | Corner Brace B | 2.5" x 2.5" x 0.238" Square Tubing | 2 |
| P3 | Center Brace* | 2.5" x 2.5" x 0.238" Square Tubing | 2 |
| P4 | Spreader Bar Support | 2.5" x 2.5" x 0.238" Square Tubing | 6 |
| P5 | Pipe Chalk | 2.5" x 2.5" x 0.238" Square Tubing | 4 |
| P6 | Length Tubing | 2.0" x 2.0" x 0.25" Square Tubing | 2 |
| P7 | Width Tubing | 2.0" x 2.0" x 0.25" Square Tubing | 3 |
| P8 | Height Tubing | 2.0" x 2.0" x 0.25" Square Tubing | 6 |
| P9 | Spread Bar | 2.0" x 2.0" x 0.25" Square Tubing | 2 |
| P10 | Pipe Joint | Equivalent to QF size | 1 |
| P11 | Nuts and Bolts | 3/4" Nut and matching bolt | 32 |

*Center Brace is only used when filling QF30 and above
Contact PipeSak for further drawing information

Filling Instruction



Unfold, stretch bag to the frame.



Tie four corner loops.



Thread the two retaining rods.



Bag is centered along the rods.



Evenly fill with ballast.



Cut all white loops.



Close the duffel.



Attach all four yellow straps.



Lifted higher to clear the frame.



Transport to stockpile.

FILLING

It is strongly recommended that filling be carried out by trained PipeSak® personnel.

Step 1: Unfold an empty PipeSak QF weight and make a quick visual inspection to ensure there are no obvious manufacturing defects.

Stretch open the bag and pull out all four lift straps (orange webbing) to the outside of the bag – two per side. Inner compartments should be pulled opened prior to setting in the fill frame.

Step 2: Place PipeSak QF over the 7' pipe of the diameter needed centered in the filling frame. Small corner loops (white webbing loops on inside of weight) should be pulled over the four corner posts of fill frame thereby securing the QF to the frame.

Thread the two retaining rods through the remaining loops – two to three per side. Resting each rod on the brackets located on the top of the corner posts. To promote proper and even filling ALL retaining loops should be evenly centered along the retaining rods.

Step 3: With approved ballast, slowly add material until the bag touches the ground then EVENLY fill the QF weight to the top. Depending on material density this should achieve +/- 5% the designed weight.

Step 4: Once filling is complete, cut all white loops from retaining rods and frame, releasing the weight from the frame.

Remove both retaining rods.

To prevent spillage, close the duffel top prior to lifting the PipeSak QF out of the frame. To securely and easily close the top, it is recommended the duffel rope be looped over the bucket of the filling equipment (skid steer or excavator) and lift – making sure not to break.

Secure the duffel top with a knot.

Step 5: Attach ALL four lifting straps (two outside and two inner, slip straps) to lifting device. Carefully remove filled QF bag from the frame. To limit damage and ensure worker and machinery safety, the QF bag must be lifted high to clear frame support stands.

Step 6: Transport filled PipeSak QF to stockpile location. When stacking, ensure both legs are supported.