



Bulk CO₂ Systems

Technical Service Bulletin

Component Change

TSB-BEV-1029

Date: March 27, 2020

Subject: New vent line as well as a newly designed Fill Box/Assemblies and updated vent line connections (Update to TSB-BEV-1009).

Products Affected: All vent lines 3/8" and 1/2" have changed from the 376 series to the new 176 series vent line. The Chart Beverage System CO₂ fill boxes have been redesigned, replacing the compression fitting style vent line connection, used with the 376 line, to a barb fitting used with the new 376 vent line. There are no changes to fill line or fill line connections.

Description: The stainless steel fill box is a major component of a stationary bulk CO₂ fill and vent circuit. It includes the liquid CO₂ fill fitting and vent line termination fitting which safely vents excess CO₂ gas outdoors. National and International Fire codes require materials used in vent and fill lines be rated for exposure to a low temperature of -109°F. Both the new 176 series and current 376 series vent lines meet the low temperature requirement. The new 176 series vent line must be used with a barb style fitting and Oetiker style clamps. The current 376 series is still an approved vent line, but can only be used with a compression style fitting, as found on the current Chart fill box.

The fill box design has changed to accommodate a barbed fitting so that the vent hose (See chart for vent hose kit part numbers) can be securely connected. The fill box depth dimension has changed to accommodate the new barb fitting.



Current Surface Mount Fill Box



New Surface Mount fill Box



New Flush Mount



New Surface Mount

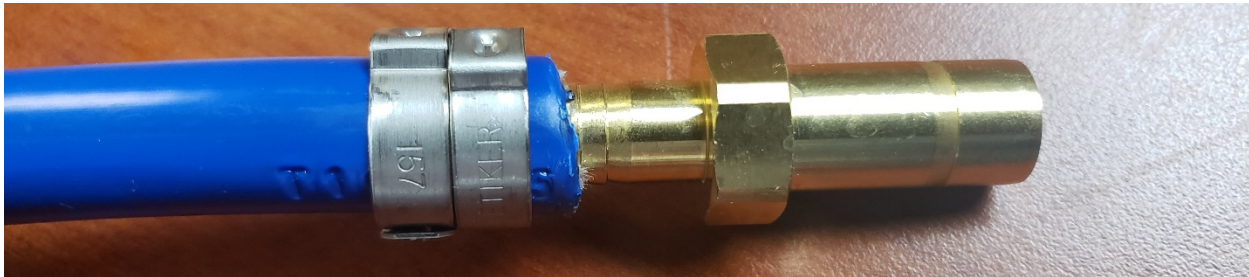
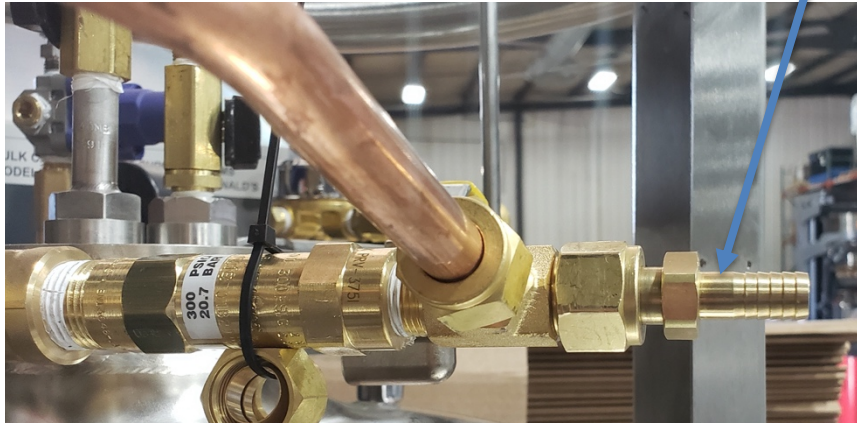
The fill boxes come in two sizes. One with a 3/8" barb fitting for all Carbo series tanks, except the Carbo-Max® 1000. The second model uses a 1/2" barb fitting for the Carbo-Max® 1000.

Fill Boxes Assemblies		
21430874	Flush Mount Fill Box with 3/8" Barb	All other tanks
21430873	Surface Mount Fill Box with 3/8" Barb	
21430876	Flush Mount Fill Box with 1/2" Barb	Carbo-Max 1000
21430875	Surface Mount Fill Box with 1/2" Barb	
21458366	Plate Vent 3/8 Barb	Retro fit Plates
21458367	Plate Vent 1/2 Barb	

Vent Line Hose Barb Adapter:

The new 176 series vent line works best with a barb connection when fastening it to the tank and fill box. The vent line hose barb adapter listed in the table below can be used to make the tank vent line connection. Also shown below is the recommended way to install the vent hose onto the vent line barb adapter. Going forward all vent and fill hose kits will include the appropriately sized hose barb adapter.

Vent Line Hose Barb Adapter



Vent Line Hose Barb Adapters	
21546839	3/8" Vent Line Hose Barb
21546840	1/2" Vent Line Hose Barb

Q&A:

1. Question - Can the current 376 series vent hose be used on the new barb fitting?
Answer - No, because the old hose is more rigid and is not designed to work on a barb fitting.
2. Question – Can the series N (white nylon) vent line used prior to the series 376 line be used on the new barb fitting fill box?
Answer – No, the series N vent line can be used with a barb fitting. However, it does not meet the -109°F low temperature code requirement.
3. Question – Can the new 176 series vent line be used with the pass through compression fitting on the current fill box?
Answer- No, the new 176 series vent line must not be used with a compression style fitting. However, an adapter plate shown above (PN 21458366 & PN 21458367) that is equipped with a barb fitting can be ordered to retrofit the older fill boxes to work with the new vent line.

In some cases the vent & fill lines passing through an exterior wall may need to be enclosed in conduit. If a conduit is used to enclose the vent and fill lines you can easily source a 3 inch diameter PVC pipe, 4 inch to 3 inch PVC reducer, and a standard 4 inch PVC flange from plumbing supply stores. The flange mounts directly onto the back of the flush mount fill box.



**Current hose kits NOT to be used
with barbs**

Part Number	Description
20956979	3/8 Kit Fill/Vent 5'
20956980	3/8 Kit Fill/Vent 10'
20956981	3/8 Kit Fill/Vent 15'
20956982	3/8 Kit Fill/Vent 25'
20956983	3/8 Kit Fill/Vent 30'
20956984	3/8 Kit Fill/Vent 50'
20956765	3/8 Vent Hose 5'
20956766	3/8 Vent Hose 10'
20956767	3/8 Vent Hose 15'
20956768	3/8 Vent Hose 25'
20956769	3/8 Vent Hose 30'
20956770	3/8 Vent Hose 50'
20956973	1/2 Kit Fill/Vent 5'
20956974	1/2 Kit Fill/Vent 10'
20956975	1/2 Kit Fill/Vent 15'
20956976	1/2 Kit Fill/Vent 25'
20956977	1/2 Kit Fill/Vent 30'

20956978	1/2 Kit Fill/Vent 50'
20956756	1/2 Vent Hose 5'
20956758	1/2 Vent Hose 10'
20956759	1/2 Vent Hose 15'
20956760	1/2 Vent Hose 25'
20956762	1/2 Vent Hose 30'
20956764	1/2 Vent Hose 50'

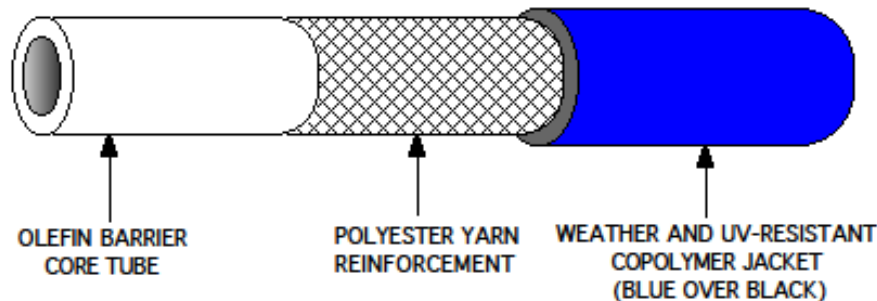
Contact: If you have concerns or questions relative to this action, please contact your Chart Technical Service Representative at 1-800-247-4446. Thank you for depending on Chart for high product quality and service.

<u>New hose kits for use on barb fill boxes</u>	
Part Number	Description
21432028	3/8 KIT HOSE CO2 FILL/VENT 5 FT
21432029	3/8 KIT HOSE CO2 FILL/VENT 10 FT
21432030	3/8 KIT HOSE CO2 FILL/VENT 15 FT
21432031	3/8 KIT HOSE CO2 FILL/VENT 25 FT
21432032	3/8 KIT HOSE CO2 FILL/VENT 30 FT
21432033	3/8 KIT HOSE CO2 FILL/VENT 50 FT
21432036	3/8 VENT HOSE 5' CO2 BLUE
21432038	3/8 VENT HOSE 10' CO2 BLUE
21432039	3/8 VENT HOSE 15' CO2 BLUE
21432040	3/8 VENT HOSE 25' CO2 BLUE
21432041	3/8 VENT HOSE 30' CO2 BLUE
21432043	3/8 VENT HOSE 50' CO2 BLUE
21432045	½ KIT HOSE CO2 FILL/VENT 5 FT
21432046	½ KIT HOSE CO2 FILL/VENT 10 FT
21432047	½ KIT HOSE CO2 FILL/VENT 15 FT
21432048	½ KIT HOSE CO2 FILL/VENT 25 FT
21432049	½ KIT HOSE CO2 FILL/VENT 30 FT
21432050	½ KIT HOSE CO2 FILL/VENT 50 FT
21432051	½ VENT HOSE 5' CO2 BLUE
21432052	½ VENT HOSE 10' CO2 BLUE
21432053	½ VENT HOSE 15' CO2 BLUE
21432054	½ VENT HOSE 25' CO2 BLUE
21432055	½ VENT HOSE 30' CO2 BLUE
21432056	½ VENT HOSE 50' CO2 BLUE

C02 VENT HOSE

ACCUFLEX SERIES 176V

"A FLEXIBLE LOW TEMPERATURE HOSE, DESIGNED FOR USE WITH BARBED INSERTS AND STEPLESS PINCH CLAMPS TO VENT EXCESS CARBON DIOXIDE GAS FROM ADEQUATELY REGULATED RELIEF VALVE ON BULK STORAGE SYSTEMS"



Dimensions: I.D. = 0.375" +/- 0.010"
O.D. = 0.588" +/- 0.010"

Pressure Capabilities: - MAX. 300 PSIG WP @ 70F
- MIN. 1200 PSIG BURST @ 70F


Packaging: 300 Foot Cardboard Spools/Boxed

Material Performance: SEE PRODUCT STANDARD

Service Temperature Range: -109.3°F (-78°C) to +140°F (+60°C)

Branding: Black ink / 1" spacing between finish & start of next print line

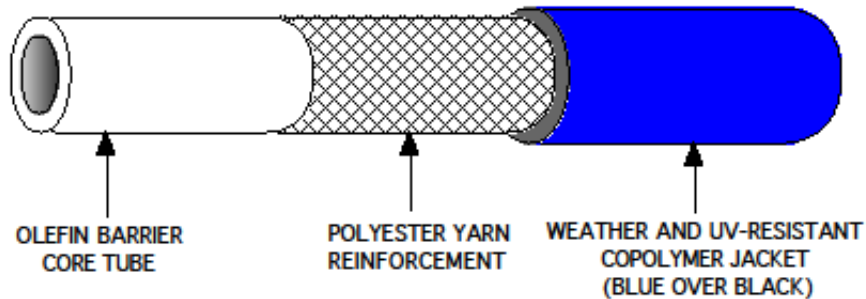
ACCUFLEX 176V-06 3/8" ID 300 PSI MAX. W.P. / 4:1 S.F. TEMP RANGE -109°F TO +140°F MADE IN CANADA date/line code
HOSE DESIGNED FOR THE OPEN ENDED VENTING OF PRESSURE REGULATED CO2 GAS

 ACCUFLEX INDUSTRIAL HOSE LTD. MANUFACTURERS OF HOSE AND TUBING	
DRAWN BY: K. DUNLOP	DRAWING SERIES:
DATE: APR. 13, 2018	176V

1/2" CO2 VENT HOSE

ACCUFLEX SERIES 176V

"A LOW TEMPERATURE HOSE, DESIGNED FOR USE WITH BARBED INSERTS AND STEPLESS PINCH CLAMPS TO VENT EXCESS CARBON DIOXIDE GAS FROM ADEQUATELY REGULATED RELIEF VALVE ON BULK STORAGE SYSTEMS"



Dimensions: I.D. = 0.500" +/- 0.010"
O.D. = 0.730" +/- 0.010"

Pressure Capabilities: - MAX. 300 PSIG WP @ 70F
- MIN. 1200 PSIG BURST @ 70F

Packaging: 300 Foot Coils/Wrapped

Material Performance: SEE PRODUCT STANDARD

Service Temperature Range: -109.3°F (-78°C) to +140°F (+60°C)

NOTE: 1/2" size requires two 19.8 Oetiker Clamps

Branding: Black ink / 1" spacing between finish & start of next print line

ACCUFLEX 176V-08 1/2" ID 300 PSI MAX. W.P. / 4:1 S.F. TEMP RANGE -109°F TO +140°F MADE IN CANADA date/time code
HOSE DESIGNED FOR THE OPEN ENDED VENTING OF PRESSURE REGULATED CO2 GAS



ACCUFLEX INDUSTRIAL HOSE LTD.
MANUFACTURERS OF HOSE AND TUBING

DRAWN BY: K. DUNLOP

DRAWING SERIES:

DATE: JUNE 18, 2019

176V-08