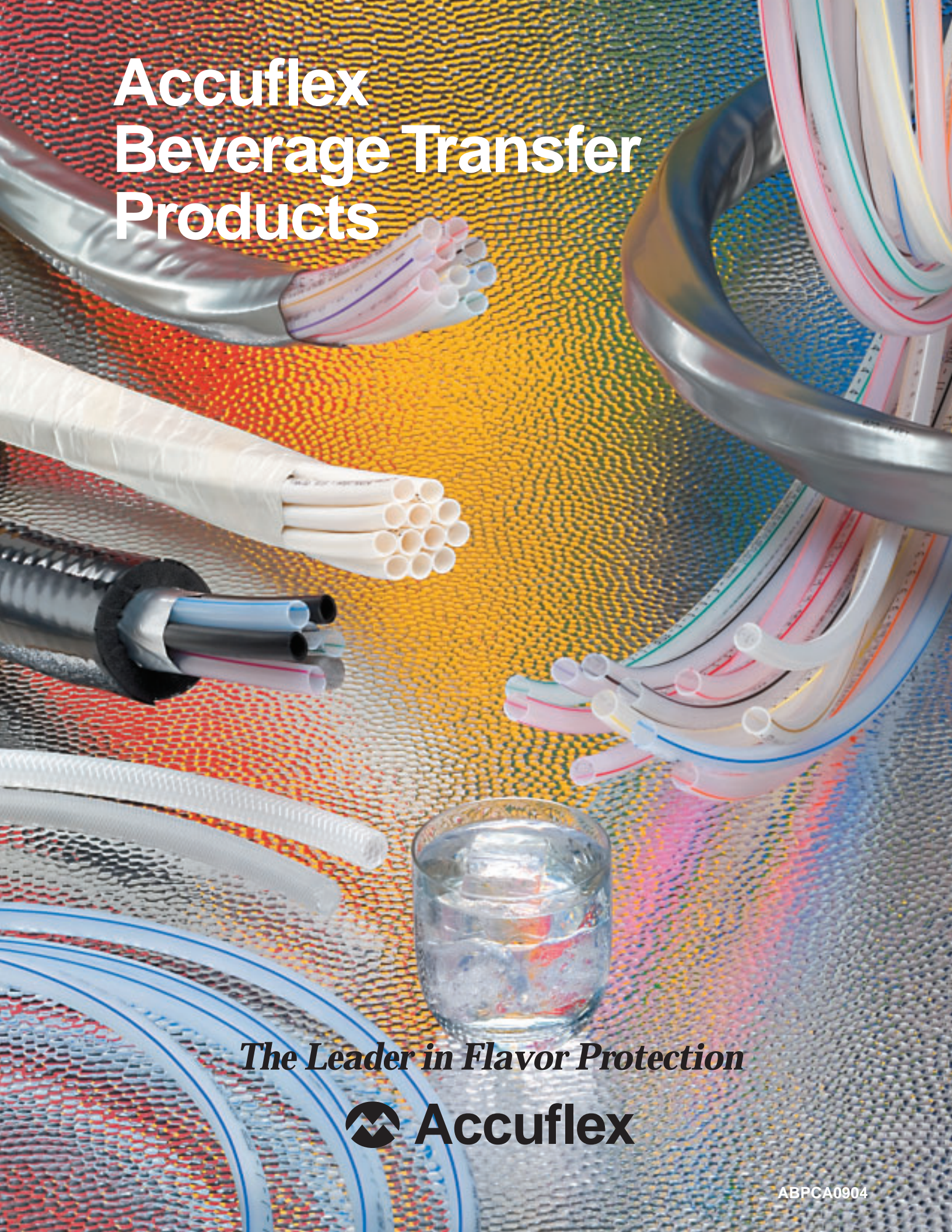


# Accuflex Beverage Transfer Products



*The Leader in Flavor Protection*



# Accuflex Beverage Transfer Products

## Accuflex — The Recognized Leader in Beverage Transfer Products

**GOOD**

● **Bevlex®**  
Your *Value* Choice



**ISO 9001-2000**

Accuflex NSF-listed hose, tubing and cabled bundle products for beverage dispensing are the most trusted

**BETTER**

● **Bev-Flex®**  
Your *Flexible* Choice

**BEST**

● **Bev-Seal Ultra®**  
Your *Barrier* Choice

names in the industry because they provide consistent, dependable, economical performance. They help maintain the highest drink quality, while reducing costly service calls. They are very easy to install, reliable and provide great customer satisfaction with fewer call-backs. Small wonder these fine products have set the standard for the industry and have become the most-specified beverage dispensing products by quality-conscious customers.

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Because we continually examine ways to improve our products, we reserve the right to alter specifications without notice.



# Accuflex Beverage Transfer Products

## **Bev-Seal Ultra<sup>®</sup>** hose and tubing

This unique multi-layer design combines the flushability and taste-free characteristics of the **Glas-Flex™** liner with the overall permeation-resistance of the original **Bev-Seal<sup>®</sup>** product line. Whenever flushability, taste-free performance, or protection against taste-transfer or flavor contamination is a concern, choose **Bev-Seal Ultra<sup>®</sup>** products.

## **Bev-Seal Ultra<sup>®</sup>** cabled beverage bundles

The exclusive **Bev-Seal Ultra<sup>®</sup>** cabled bundle construction provides the first truly installer-friendly *barrier* tubing bundle. Compact, light weight and incredibly flexible, it bends and stays in place, and rolls out straight while eliminating loops and twists for the ultimate ease of installation and labor savings. The multi-layer construction provides layer-upon-layer of protection, from the inside out and from the outside in.

## **Bev-Steel<sup>®</sup> Ultra** Series 178 wire-reinforced barrier hose

Another innovative product, **Bev-Steel<sup>®</sup> Ultra** hose combines the flushability and taste-free characteristics of the **Glas-Flex™** liner and the permeation-resistance of the original **Bev-Seal<sup>®</sup>** hose with the physical protection of a stainless steel wire mesh reinforcement layer. Rodents are first attracted to objects by smell. Traditional wire braided hoses offer some physical protection from direct rodent attack, but they do not address the original cause of the attraction. **Bev-Steel<sup>®</sup> Ultra** keeps the beverage's aroma safely inside the hose.

## **BEVLEX<sup>®</sup>** Non-Barrier hose, tubing and bundles

Economical polyethylene-based products incorporating a special linear low density polyethylene tube material that offers the best combination of low taste and odor, along with resistance to stress-cracking. These reliable products continue to satisfy the basic needs of the beverage industry.

## **BEV-FLEX<sup>®</sup>** Series 172 — the flexible beverage hose

This revolutionary product adds the flexibility that you need to the protection provided by the same liner used in all our quality **Bevlex<sup>®</sup>** beverage products. **Bev-Flex<sup>®</sup>** hose is extremely flexible, kink-resistant, and allows a very tight bend radius for those "hard to install" locations.

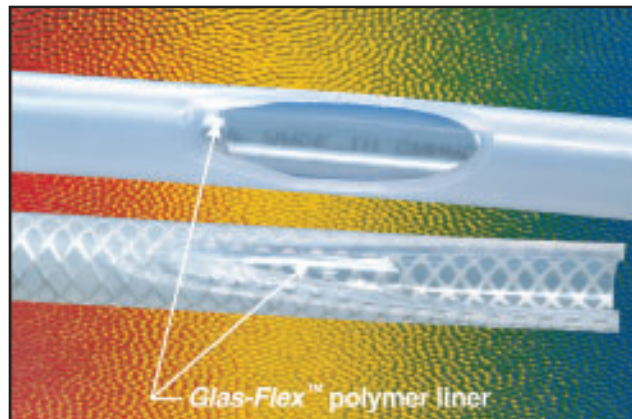
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# Accuflex Beverage Transfer Products

## The Flavor Delivery Choice!

The **Bev-Seal Ultra**® flushable Dual-Barrier system, exclusive to Accuflex, combines two barrier layers to protect your beverages from cross-tastes and other off-tastes. The Dual-Barrier system, with an ultra smooth inner surface, provides permeation resistance far superior to products with single barrier liners. This system gives you a flushable flavor control package that not only allows the true flavor of your beverages to be enjoyed, but also allows for flavor changes when needed. Patent applications are pending in the USA and in the UK on the use of the **Glas-Flex**™ liner and the Dual-Barrier construction.



## Bev-Seal Ultra® with Glas-Flex™ Inner Liner — The Flushable Dual-Barrier System!

**Bev-Seal Ultra**® beverage hose, tubing and bundles feature our exclusive **Glas-Flex**™ inner layer, creating a truly flushable Dual-Barrier product that allows quick flavor changes, including pungent flavors.

Our **Glas-Flex**™ inner liner is:

- Non-porous
- Non-absorbent
- Flushable
- Taste-Free
- FDA-Sanctioned
- NSF-51/NSF-61 Accepted

The **Glas-Flex**™ polymer liner offers permeation resistance to flavors and gases, **Bev-Seal Ultra**® products still utilize our proprietary barrier layer in the wall of the tube to give optimum permeation resistance for organic flavors and gases such as oxygen and carbon dioxide. This dual-barrier construction makes **Bev-Seal Ultra**® products ideal for conveying and dispensing soft drinks for which flavor cross-over protection for pungent flavors is needed, and for juices and beer for which oxygen protection is critical.



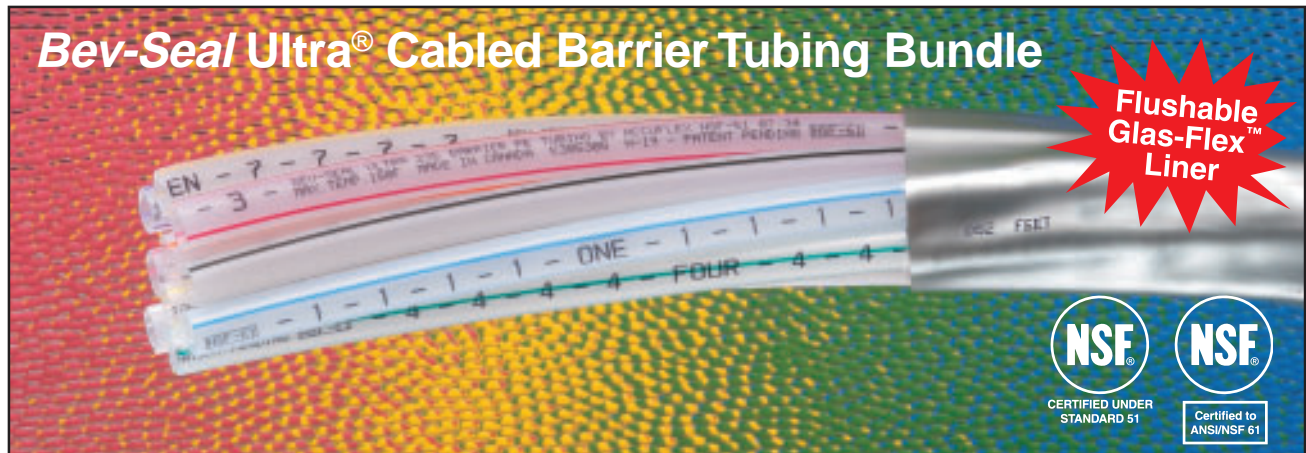
Extensive laboratory testing, using both analytical and sensory techniques, has demonstrated that **Bev-Seal Ultra**® products are the best in the industry to assure that the great original flavor of beverages is not altered or compromised by the hose or tubing, even over extended lengths. **Bev-Seal Ultra**® can transport and hold both alcoholic and non-alcoholic beverages, while retaining their properties for hours, days, and even weeks.

As part of our comprehensive field testing program in actual commercial installations, we confirmed that a highly flavored cranberry concentrate and a colorless carbonated beverage could be exchanged in the **Bev-Seal Ultra**® lines through a normal sanitizing protocol without evidence of any residual flavor left in the lines. Now, even pungent flavors can be switched without the need to remove and replace the tubing lines.

Because we continually examine ways to improve our products, we reserve the right to alter specifications without notice.



# Accuflex Beverage Transfer Products



## Bev-Seal Ultra® Series 974 Cabled Barrier Tubing Bundle

**Construction:** Flushable **Bev-Seal Ultra®** Series 235 tubes (see page 11), each color coded, individually numbered and branded with NSF-51 and NSF-61 listings and date codes for traceability. Special film wrap over cabled tubes offers excellent flexibility and tight bend capabilities. Silver-gray extruded jacket, with slip agent to minimize friction, is branded with product identification, NSF listing marks, and sequential footage markings for ease of measurement. Other jacket colors available (some limitations may apply).

Part Number	Standard Package	Description & Configuration Film Wrapped — Silver-Gray Extruded Jacket	Max. Bundle OD	Weight per Pkg lbs. kgs.	Min. Bend Radius (In.)	Clamp Size (mm)
974-07010-01	100' Coil	7 – .265 x .375 <b>Bev-Seal Ultra®</b> Tubes	1.5"	39	5	12.3
974-07010-02	200' Reel	1 – .380 x .500 <b>Bev-Seal Ultra®</b> Tube		87		
974-07010-05	500' Reel			207		
974-08020-01	100' Coil	8 – .265 x .375 <b>Bev-Seal Ultra®</b> Tubes	1.7"	48	6	12.3
974-08020-02	200' Reel	2 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes		105		
974-08020-05	500' Reel			240		
974-08040-01	100' Coil	8 – .265 x .375 <b>Bev-Seal Ultra®</b> Tubes	2.0"	51	7	12.3
974-08040-02	200' Reel	4 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes		116		
974-08040-05	500' Reel			268		
974-10020-01	100' Coil	10 – .265 x .375 <b>Bev-Seal Ultra®</b> Tubes	2.0"	57	7	12.3
974-10020-02	200' Reel	2 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes		130		
974-10020-05	500' Reel			301		
974-10040-01	100' Coil	10 – .265 x .375 <b>Bev-Seal Ultra®</b> Tubes	2.2"	62	8	12.3
974-10040-02	200' Reel	4 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes		139		
974-10040-05	500' Reel			323		
974-00080-01	100' Coil	8 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes	2.0"	53	8	14.0
974-00080-02	200' Reel			121		
974-00080-05	500' Reel			273		
974-00100-01	100' Coil	10 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes	2.2"	58	9	14.0
974-00100-02	200' Reel			139		
974-00100-05	500' Reel			341		
974-00120-01	100' Coil	12 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes	2.2"	67	9	14.0
974-00120-02	200' Reel			147		
974-00120-05	500' Reel			385		
974-00140-01	100' Coil	14 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes	2.6"	75	10	14.0
974-00140-02	200' Reel			176		
974-00140-05	500' Reel			429		
974-00160-01	100' Coil	16 – .380 x .500 <b>Bev-Seal Ultra®</b> Tubes	3.0"	83	12	14.0
974-00160-02	200' Reel			198		
974-00160-05	500' Reel			473		

Series 975 **Bev-Seal Ultra®** bundles containing reinforced Series 175 hoses (see page 8) are available on special order.

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# Accuflex Beverage Transfer Products

## Bev-Seal Ultra® Fire Resistant Cabled Bundle

Flushable  
Glas-Flex™  
Liner



### Bev-Seal Ultra® Series 974FR Fire Resistant Cabled Bundle

**Construction:** Flushable **Bev-Seal Ultra®** Series 235FR fire resistant tubes, individually numbered and branded with NSF-51 and NSF-61 listings, and date codes for traceability. Each tube incorporates an extruded outer jacket of fire resistant non-halogen polyolefin compound.

Special metallized film wrap over the tubes, plus an outer wrap of white fiberglass tape offer the excep-

tional flame spread and smoke generation ratings of 0/0, when tested in accordance with ASTM E84/UL 723 Test for Surface Burning Characteristics of Building Materials.

The cabled non-insulated construction provides a compact and flexible product for ease of installation in a plenum.

Part Number	Standard Package	Configuration	Max. Bundle OD	Weight per Package		Min. Bend Radius (In.)	Clamp Size (mm)
				lbs.	Kgs.		
974FR-00120-01	100' Coil	12 – 3/8" X .500 <b>Bev-Seal Ultra®</b> tubes	2.1"	79	36	14	14.0
974FR-00120-02	200' Reel			174	79		
974FR-00120-05	500' Reel			411	187		

**Related Products:** **Bev-Seal Ultra®** Series 975FR is similar to Series 974FR in flame resistance, but contains **Bev-Seal Ultra®** Series 175FR reinforced hoses instead of tubes.

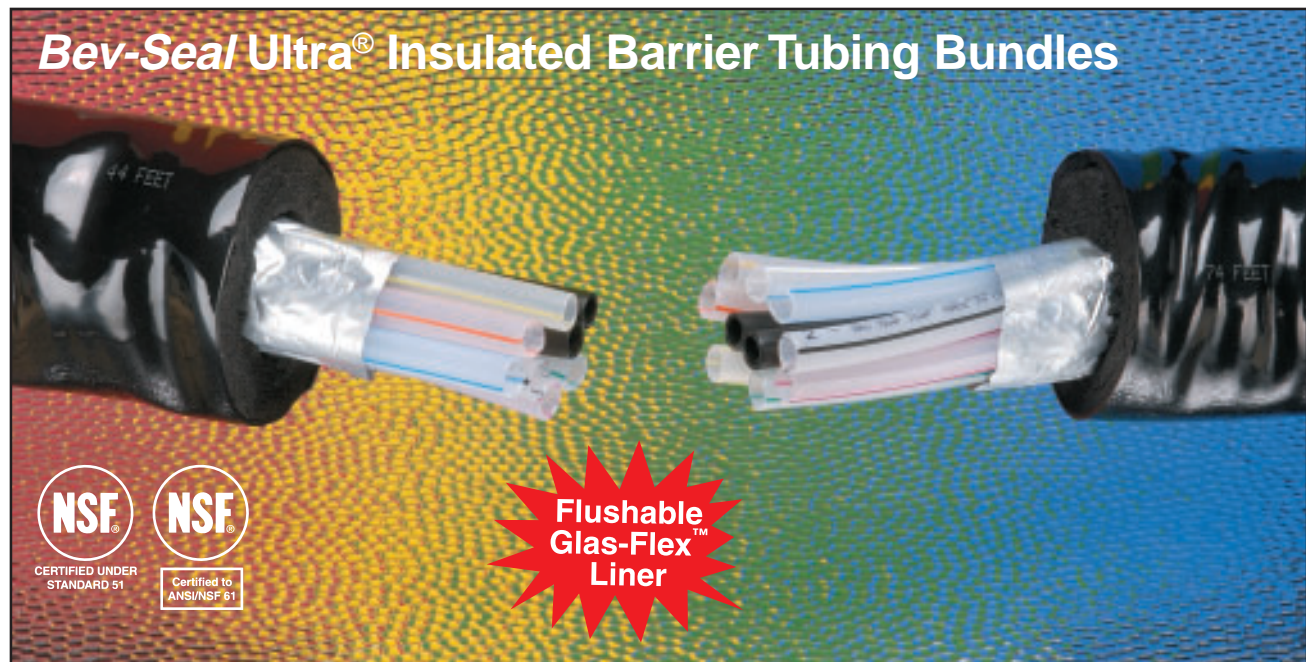
The individual single line components — Series 235FR tubes and Series 175FR hoses — are also available, and carry the NSF-51 and NSF-61 listings. Both products are self-extinguishing and did not exhibit any flame spread when tested in accordance with UL 94HB – Test for Flammability of Plastics Materials.

#### Notes:

- 1) Series 974FR and 975FR beverage bundles are available on special order. The configuration shown above is for illustrative purposes.
- 2) All testing was carried out on finished products rather than material components only. A full report as issued by UL Canada is available upon request.

Because we continually examine ways to improve our products, we reserve the right to alter specifications without notice.

# Accuflex Beverage Transfer Products



## Bev-Seal Ultra® Series 971/973 Insulated Barrier Tubing Bundles

**Construction:** *Bev-Seal Ultra*® Series 971 non-cabled and Series 973 cabled insulated bundles are comprised of flushable *Bev-Seal Ultra*® Series 235 tubes (see page 11), each color coded and individually numbered, and black-colored Series 221 LLDPE coolant tubes strategically placed and designed to provide optimum cooling. A tear-resistant aluminized film wrap over the group of tubes further enhances the insulating properties of the 3/4" thick tubular foam sleeve. A black extruded jacket with slip agent to minimize friction is branded with product identification, NSF listing marks, and footage counter marks. Other jacket colors available (some limitations may apply).

Part Number	Standard Package	Description & Configuration Foam Insulation • Film Wrapped Black Extruded Jacket	Max. Bundle OD	Weight per Pkg lbs. kgs.		Min. Bend Radius (In.)	Clamp Size (mm)
971-0004002X250	250' Reel	4 – .380 x .500 <i>Bev-Seal Ultra</i> ® Tubes 2 – .380 x .500 Black LLDPE Tubes	3.0"	176	80	12	14.0
971-0006002X250	250' Reel	6 – .380 x .500 <i>Bev-Seal Ultra</i> ® Tubes 2 – .380 x .500 Black LLDPE Tubes	3.4"	231	105	14	14.0
973-0008002X250	250' Reel	8 – .380 x .500 <i>Bev-Seal Ultra</i> ® Tubes 2 – .380 x .500 Black LLDPE Tubes	3.5"	250	114	8	14.0
973-0010004X250	250' Reel	10 – .380 x .500 <i>Bev-Seal Ultra</i> ® Tubes 4 – .380 x .500 Black LLDPE Tubes	3.8"	275	125	12	14.0
973-0012004X250	250' Reel	12 – .380 x .500 <i>Bev-Seal Ultra</i> ® Tubes 4 – .380 x .500 Black LLDPE Tubes	4.0"	297	135	12	14.0

Note: *Bev-Seal Ultra*® Series 175 hose components are also available on special order as Series 978 non-cabled insulated bundles and Series 976 cabled insulated bundles. Other configurations can be made in any of the above series. Call for quotation . . . minimums will apply.

Because we continually examine ways to improve our products, we reserve the right to alter specifications without notice.

# Accuflex Beverage Transfer Products



## Bev-Seal Ultra® Series 175 Barrier Hose

Oxygen and flavor barrier properties combined with flushability in a yarn-reinforced hose.

- **Flushable Glas-Flex™ liner** — allows changeovers from even the most pungent flavors with simple flushing procedures.
- **NSF-Certified products** — certified under standard NSF-51 for food equipment and NSF-61 for drinking water systems.
- **Dual-Barrier construction** — flushable Glas-Flex™ inner liner surrounded by a seamless extruded barrier layer in a polyolefin core tube, reinforced with polyester yarn and protected by a smooth EVA cover.

Part Number	Standard Package	Nominal		Working Pressure		Weight per Pkg		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
175-04500-XX	500' Boxed Spool	.265	.420	300	150	20.0	9.1	1.75	11.3
175-06300-XX	300' Boxed Spool	.375	.535	300	150	17.2	7.8	3.00	14.5
175-08300-XX	300' Wrapped Coil	.510	.675	250	125	18.7	8.5	4.50	18.5

Individually numbered hoses are available for easy identification of multiple lines on special order. A typical Part Number is 175-04500-XX for a 500 ft. spool of 1/4" size hose, where "XX" indicates the number to be imprinted (use "00" for unnumbered hose).

## Bev-Steel® Ultra Series 178 Wire-Reinforced Barrier Hose

All of the features of the Series 175 hose plus the superior protection and physical strength of a stainless steel wire mesh reinforcement layer. The wire

mesh provides protection against rodent attack, while the Dual-Barrier construction prevents permeation of aromas that would attract rodents and other pests.

Part Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
178-04100	100' Boxed Coil	.265	.517	250	150	8.6	3.9	1.25	14.0
178-04300	300' Boxed Spool	.265	.517	250	150	26.0	11.8	1.25	14.0
178-06100	100' Boxed Coil	.380	.635	200	125	10.4	4.7	2.00	17.0
178-06300	300' Boxed Spool	.380	.635	200	125	32.0	14.5	2.00	17.0

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# Accuflex Beverage Transfer Products

## Bev-Flex® Series 172 Polyester-Reinforced Polyethylene Beverage Hose



- **Proprietary core tube construction** — provides low odor and taste, excellent stress crack resistance and exceptional flexibility . . . makes fitting installation easier.
- **Food-grade materials** — Bev-Flex® Series 172 beverage hose is NSF-51/61 certified. Polyethylene material complies with FDA Regulation 21 CFR 177.1520 (c) 3.1 b for food contact under conditions of use D through H in Table 2 of 21 CFR 176.170 (c).
- **Polyester reinforcement** — provides pressure performance and kink-resistance exceeding that of simple tubing.
- **Smooth EVA (ethylene vinyl acetate) cover** — provides increased flexibility.

Part † Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
▲ 172-041X4	100' Boxed Coil	.250	.385	250	125	3.0	1.4	1.25	10.5
▲ 172-048X4	800' Boxed Spool	.250	.385	250	125	26.0	11.8	1.25	10.5
* 172-041X3	100' Boxed Coil	.265	.420	250	125	5.2	2.3	1.25	11.3
172-045X3	500' Boxed Spool	.265	.420	250	125	21.0	9.5	1.25	11.3
* 172-041X2	100' Boxed Coil	.265	.457	250	125	6.2	2.8	1.10	12.3
172-045X2	500' Boxed Spool	.265	.457	250	125	25.1	11.4	1.10	12.3
* 172-061X3	100' Boxed Coil	.380	.537	200	100	6.2	2.8	2.00	14.5
172-063X3	300' Boxed Spool	.380	.537	200	100	17.0	7.7	2.00	14.5
* 172-061X0	100' Boxed Coil	.380	.593	200	100	8.2	3.7	1.75	15.7
172-063X0	300' Boxed Spool	.380	.593	200	100	22.9	10.4	1.75	15.7
* 172-081X0	100' Boxed Coil	.510	.740	200	100	10.2	4.8	3.00	19.8
172-083X0	300' Wrapped Coil	.510	.740	200	100	26.9	12.2	3.00	19.8

\* 100' one-piece coils may be available — ideal for kits and bag-in-box racks.

† Tracer yarn color coding — substitute for "X": 0 – White; 1 – Red; 2 – Blue.

▲ New lighter weight hose available on special production run only.

## Bevlex® Series 170 Polyester-Reinforced Polyethylene Beverage Hose



- **LLDPE core tube construction** — provides excellent resistance to stress cracking.
- **Food-grade materials** — Bevlex® Series 170 beverage hose is NSF-51/61 certified. Polyethylene material complies with FDA Regulation 21 CFR 177.1520 (c) 3.1 b for food contact under conditions of use D through H in Table 2 of 21 CFR 176.170 (c).
- **Polyester reinforcement** — provides pressure performance and kink-resistance exceeding that of simple tubing.
- **Bonded abrasion-resistant copolymer jacket** — will not separate or ripple in tight bends or during installation in conduits.

Part † Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
* 170-041X2	100' Boxed Coil	.265	.457	300	150	6.2	2.8	1.10	13.3
170-045X2	500' Boxed Spool	.265	.457	300	150	25.1	11.4	1.10	13.3
170-045X6	500' Boxed Spool	.265	.517	300	150	34.3	15.6	1.10	14.0
170-063X0	300' Boxed Spool	.380	.593	300	150	22.9	10.4	1.75	15.7
170-065X0	500' Reel	.380	.593	300	150	40.4	18.3	1.75	15.7
170-061X0	100' Boxed Coil	.380	.635	300	150	15.0	6.8	1.75	17.0
170-063X1	300' Boxed Spool	.380	.635	300	150	45.1	20.5	1.75	17.0
170-083X0	300' Wrapped Coil	.510	.740	250	125	26.9	12.2	3.00	19.8
170-085X0	500' Reel	.510	.740	250	125	49.1	22.3	3.00	19.8

\* 100' one-piece coils may be available — ideal for kits and bag-in-box racks.

NOTE: 100' lengths may be available for other sizes listed above. Check for availability.

† Tracer yarn color coding — substitute for "X": 0 – White; 1 – Red; 2 – Blue.

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# Accuflex Beverage Transfer Products

## CLEARBRAID® Series K3150 Reinforced PVC Beverage Hose



- **Blue-tinted crystal clear PVC construction** — ideal for use as flexible water or juice lines.
- **Food-grade materials** — CLEARBRAID® Series K3150 beverage hose is NSF-51 listed. Materials are NSF-61 listed and comply with FDA Regulation 21CFR parts 170 to 199. Accepted by the USDA for use in meat and poultry processing plants. Complies with 3-A Sanitary Standards for use in dairy applications.
- **Spiraled polyester yarn reinforcement with multiple longitudinal polyester yarn** — provides pressure performance and kink-resistance while reducing elongation under pressure . . . orange tracer yarn provides easy identification.
- **Glass smooth interior** — stays clean and reduces pressure loss.

Part Number	Standard Package	Nominal		Working Pressure		Approximate Weight				Min. Bend Radius (In.)
		ID	OD	70° F	122° F	Cut Length lbs.	lbs.	Full Coil lbs.	kgs.	
K3150-03	100'/300' Coil	3/16"	.375"	250	150	4	1.8	13	5.9	1.75
K3150-04	100'/300' Coil	1/4"	.438"	250	150	6	2.7	17	7.7	2.0
K3150-05	100'/300' Coil	5/16"	.531"	250	135	8	3.6	24	10.9	2.5
K3150-06	100'/300' Coil	3/8"	.594"	225	125	9	4.1	27	12.3	3.0
K3150-08	100'/300' Coil	1/2"	.750"	200	100	13	5.9	40	18.1	4.0
K3150-10	100'/200' Coil	5/8"	.891"	200	100	18	8.2	35	15.9	5.0
K3150-12	100'/200' Coil	3/4"	1.031"	150	85	22	10.0	43	19.5	6.0
K3150-16	100'/200' Coil	1"	1.300"	125	75	30	13.6	59	26.8	8.0
K3150-20	50'/100' Coil	1 1/4"	1.620"	100	55	23	10.4	45	20.4	10.0
K3150-24	50'/100' Coil	1 1/2"	1.938"	100	50	32	14.5	64	29.0	12.0
K3150-32	50'/100' Coil	2"	2.490"	75	35	47	21.3	94	42.6	16.0

NOTE: Working pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

## POLYSPRING® Series K7160 Reinforced PVC Vacuum & Transfer Hose



- **Crystal clear PVC construction with embedded steel spring reinforcement** — provides flexibility and resistance to kinking, crushing and collapsing.
- **Food-grade materials** — POLYSPRING® Series K7160 beverage hose is NSF-51 listed. Core tube material is NSF-61 listed and complies with FDA Regulation 21CFR parts 170 to 199. Accepted by the USDA for use in meat and poultry processing plants. Complies with 3-A Sanitary Standards for use in dairy applications.
- **Glass smooth interior** — stays clean and reduces pressure loss.
- **Suggested applications** — collapse- and crush-resistant drain lines; bag-in-box applications.

Part Number	Standard Package	Nominal		Working Pressure		Approximate Weight		Min. Bend Radius (In.)
		ID	OD	70° F	122° F	lbs.	kgs.	
K7160-04	100' Coil	1/4"	.447"	150	70	7	3.3	1"
K7160-06	100' Coil	3/8"	.600"	100	70	11	5.0	1 1/2"
K7160-08	100' Coil	1/2"	.736"	100	70	15	6.9	2"
K7160-10	100' Coil	5/8"	.861"	100	50	19	8.8	2 1/2"
K7160-12	100' Coil	3/4"	1.028"	70	50	25	11.3	3"
K7160-16	100' Coil	1"	1.290"	70	35	33	15.0	4"
K7160-20	50' Coil	1 1/4"	1.604"	70	35	25	11.4	5"
K7160-24	50' Coil	1 1/2"	1.854"	50	30	29	13.1	6"
K7160-32	50' Coil	2"	2.394"	50	30	42	19.1	8"
K7160-36	50' Coil	2 1/4"	2.750"	50	30	59	26.8	9"
K7160-40	50' Coil	2 1/2"	3.000"	50	30	70	31.7	10"
K7160-48	50' Coil	3"	3.500"	50	30	82	37.2	12"

NOTE: Working pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures.

CAUTION: This product is designed to dissipate static electricity when the metal wire is properly connected to ground, through the coupling and/or other means.

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# Accuflex Beverage Transfer Products



## Bev-Seal Ultra® Series 235 Tubing

Unsurpassed oxygen and flavor protection combined with flushability in a coextruded tube.

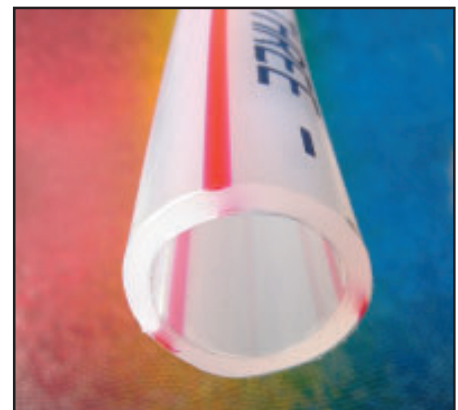
- **Flushable *Glas-Flex™* liner** — allows changeovers from even the most pungent flavors with simple flushing procedures.
- **Dual-Barrier construction** — flushable *Glas-Flex™* inner liner surrounded by a seamless extruded barrier layer in a coextruded polyolefin tube.
- **NSF-Certified products** — certified under standard NSF-51 for food equipment and NSF-61 for drinking water systems.

Part Number	Standard Package	Nominal		Working Pressure		Weight per Pkg		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
235-05620-XX	500' Spool	.190	.313	150	50	11.0	5.0	1.00	8.7
235-06620-XX	500' Spool	.265	.375	125	45	13.2	6.0	1.25	10.0
235-08620-XX	500' Spool	.380	.500	100	40	19.0	8.6	2.25	14.0
235-10620-XX	500' Wrapped Coil	.510	.625	75	30	20.7	9.4	10.00	17.0
235-11830-XX	500' Wrapped Coil	.510	.675	100	40	30.9	14.0	3.50	17.5

Individually numbered and color-coded tubing is available in the standard packaging as well as long-length bulk reels. A typical Part Number is 235-08620-XX for a 500 ft. spool of 3/8" size tubing, where "XX" indicates the number to be imprinted (use "00" for unnumbered tubing). The color coding is in the form of 3 colored strips 120° apart (see photo at right), and number and color coding is as follows:

XX = 01 – Blue; 02 – Black; 03 – Red; 04 – Green; 05 – Yellow; 06 – Orange; 07 – Brown; 08 – White; 09 – Pink; 10 – Purple; 11 – Blue; 12 – Black; 13 – Red; 14 – Green; etc.

Note: The "standard packages" are those listed above.



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# Accuflex Beverage Transfer Products



## Bevlex® Series 222/224 — Linear low density non-barrier polyethylene tubing

- **Polyethylene construction** — taste-free tube lets the true taste come through. NSF-51/61 certified. Tubing complies with FDA Regulation 21 CFR 177.1520 (c) 3.1 b for food contact under conditions of use D through H in Table 2 of 21 CFR 176.170 (c).
- **Numbered (Series 224)** — promotes proper line connections in multiple tube applications.
- **Suggested applications** — syrup transfer, liquor service.

Part Number	Standard Package	Nominal ID	Nominal OD	Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
				70° F	122° F	lbs.	kgs.		
222-0440X2K	2000' Boxed Spool	.170	.250	125	50	24.5	11.1	1.00	7.0
222-0440X500	500' Boxed Spool	.170	.250	125	50	7.1	3.2	1.00	7.0
222-0662X500	500' Boxed Spool	.265	.375	125	50	14.7	6.7	1.25	10.0
222-0862X500	500' Boxed Spool	.380	.500	100	35	20.2	9.2	2.00	14.0
222-1062X500	500' Wrapped Coil	.510	.625	75	25	24.2	11.0	6.00	17.0
†224-06620-XX	500' Boxed Spool	.265	.375	125	50	14.7	6.7	1.25	10.0
†224-08620-XX	500' Boxed Spool	.380	.500	100	35	20.2	9.2	2.00	14.0
†224-10620-XX	500' Wrapped Coil	.510	.625	75	25	24.2	11.0	6.00	17.0

Note: Series 222 solid color NSF-51 listed versions are available on special order . . . Minimum quantities will apply.

† Number coded 1 – 12

## Klearon™ Series K010 Clear Food-Grade PVC Tubing

- **Flexible blue-tinted food-grade PVC construction** — 75 Shore A -rating . . . provides flexibility and kink-resistance.
- **Food-grade materials** — Material is NSF-51 and NSF-61 listed and complies with FDA CFR Title 21 parts 170 to 199 and 3-A sanitary standard No. 20-15. Accepted by the USDA for use in meat and poultry processing plants. Material is ozone-resistant and self-extinguishing.
- **Crystal clarity** — enables easy monitoring of flow.
- **Glass smooth interior** — provides minimal flow resistance.
- **Available in several wall thicknesses** — to suit specific needs.
- **Tight dimensional tolerances** — make it easy to get consistent fitting retention with standard fittings.

Part Number	Standard Package	Nominal ID	Nominal OD	Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
				70° F	122° F	lbs.	kgs.		
K010-0406	100' Payout Carton	1/4	3/8	55	20	3.4	1.5	3.5	10.0
K010-0509	100' Payout Carton	5/16	9/16	60	25	9.4	4.3	3.7	15.7
K010-0609	100' Payout Carton	3/8	9/16	45	12	4.7	2.1	5.0	15.7
K010-0610	100' Payout Carton	3/8	5/8	55	20	10.7	4.9	4.5	17.0
K010-0810	100' Payout Carton	1/2	5/8	30	7	6.0	2.7	7.5	17.0
K010-0811	100' Payout Carton	1/2	11/16	40	10	9.5	4.3	7.0	19.8
K010-0812	100' Payout Carton	1/2	3/4	45	12	13.4	6.1	6.0	19.8
K010-1014	100' Boxed Coil	5/8	7/8	40	10	16.1	7.3	8.0	22.6
K010-1216	100' Boxed Coil	3/4	1	35	8	18.8	8.5	10.5	27.1
K010-1620	100' Wrapped Coil	1	1 1/4	25	5	24.1	11.0	12.0	33.1

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# Accuflex Beverage Transfer Products



## Bevlex® Series 200 Clear PVC tubing for bag-in-box soft drink applications and draft beer transfer

Food Grade materials comply with FDA CFR Title 21 Parts 170 to 199 . . . NSF-51 Listed. Special dual durometer construction combines a low extraction inner contact surface with a flexible outer layer for excellent kink resistance and taste protection properties.

Part Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
200-0307	100' Payout Carton	3/16	7/16	80	26	6.7	3.0	2.0	12.3
200-0408	100' Payout Carton	1/4	1/2	70	23	8.0	3.6	3.0	13.3
200-0509	100' Payout Carton	5/16	9/16	60	20	9.4	4.3	3.7	15.7
200-0609	100' Payout Carton	3/8	9/16	40	13	7.7	3.5	5.0	15.7
200-0610	100' Payout Carton	3/8	5/8	50	16	10.7	4.9	4.5	17.0

## Bevlex® Series 203 BLACK PVC BEER TUBING for carbon dioxide supply lines

Clear Food Grade liner materials free from colorants comply with FDA CFR Title 21 Parts 170 to 199 . . . NSF-51 Listed.

Part Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
203-0307	100' Payout Carton	3/16	7/16	80	26	6.7	3.0	2.0	12.3
203-0610	100' Payout Carton	3/8	5/8	50	16	10.7	4.9	4.5	17.0

## Bevlex® Series 204 RED PVC BEER TUBING for air supply lines

Clear Food Grade liner materials free from colorants comply with FDA CFR Title 21 Parts 170 to 199 . . . NSF-51 Listed.

Part Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
204-0509	100' Payout Carton	5/16	9/16	60	20	9.4	4.3	3.7	15.7
204-0610	100' Payout Carton	3/8	5/8	50	16	10.7	4.9	4.5	17.0

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# Accuflex Beverage Transfer Products



## Sani-Clean AM™ Series 218 Drain Tubing — Added confidence in drain hygiene

**Construction:** Special proprietary compound incorporating an EPA-listed anti-microbial additive which discourages the development of fungal growth on the inner and outer tubing surfaces. The tubing's unique translucent metallic gray color gives it a sanitary appearance, while still allowing a visual inspection of the line while in service.

Part Number	Standard Package	Nominal ID	Nominal OD	Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
				70° F	122° F	lbs.	kgs.		
218-0507	100' Payout Carton	5/16	7/16	50	15	4.0	1.8	5.0	12.3
218-0610	100' Payout Carton	3/8	5/8	55	20	10.7	4.9	4.5	17.0
218-0812	100' Payout Carton	1/2	3/4	45	12	13.4	6.1	6.0	19.8
218-1014	100' Boxed Coil	5/8	7/8	40	10	16.1	7.3	8.0	22.6
218-1216	100' Boxed Coil	3/4	1	39	8	18.8	8.5	9.0	27.1
218-1418	100' Boxed Coil	7/8	1 1/8	30	6	21.4	9.7	10.5	28.6
218-1620	100' Wrapped Coil	1	1 1/4	25	5	24.1	11.0	12.0	33.1

## Anti-microbial drain line tubing inhibits growth of

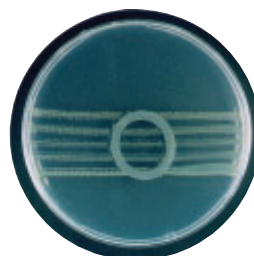
- Gram positive bacteria
- Gram negative bacteria
- Fungi, mold and yeast

## Drain lines for

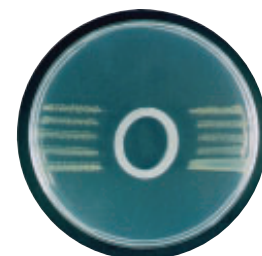
- Ice machines
- Dispensing equipment
- Condensate drains
- Wherever protection from microorganisms is needed!!!

## Demonstration of the Effectiveness of Sani-Clean AM™ Tubing

The photos below illustrate the effectiveness of the antimicrobial ingredients present in **Sani-Clean AM™** tubing. Using test AATCC Method 147-1998, a small cross-section each of regular PVC drain tubing and **Sani-Clean AM™** tubing were placed on agar in petri dishes, after bacteria had been deposited in stripes over the agar. Traces of the antimicrobial in parts per million diffuse into the agar creating the clear growth-free zone around the tubing. The area of the growth-free zone illustrates the effectiveness of the antimicrobial.



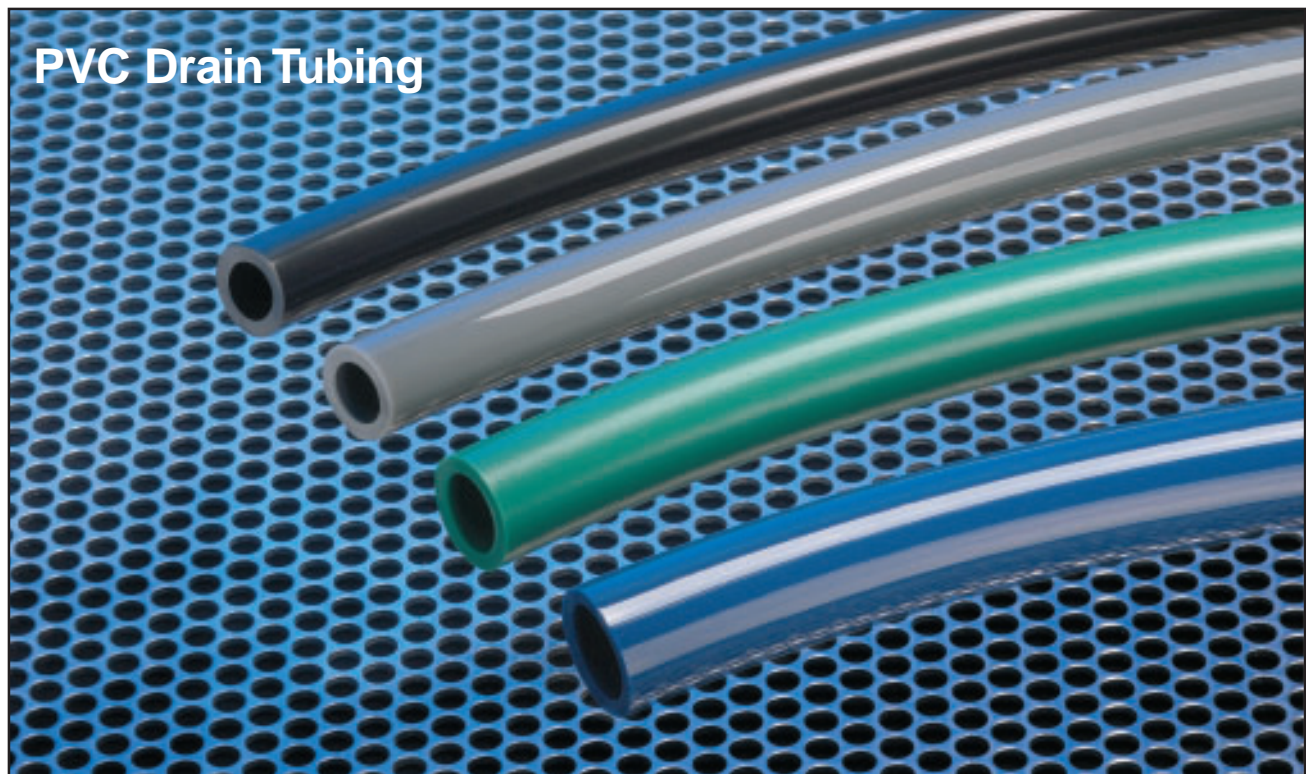
Regular PVC Drain Tubing



Sani-Clean AM™

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# Accuflex Beverage Transfer Products



Industrial grade PVC tube construction providing lightweight flexibility, kink-resistance and economy. Two basic colors are black and gray, with selected sizes available in blue and green as well.

## Series 213 Black PVC Drain Tubing

Part Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
213-0812	100' Payout Carton	1/2	3/4	45	12	13.4	6.1	6.0	19.8
213-1014	100' Boxed Coil	5/8	7/8	40	10	16.1	7.3	8.0	22.6
213-1216	100' Boxed Coil	3/4	1	39	8	18.8	8.5	10.5	27.1
213-1620	100' Wrapped Coil	1	1 1/4	25	5	24.1	11.0	12.0	33.1

## Series 215 Gray PVC Drain Tubing

Part Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
215-0812	100' Payout Carton	1/2	3/4	45	12	13.4	6.1	6.0	19.8
215-1014	100' Boxed Coil	5/8	7/8	40	10	16.1	7.3	8.0	22.6
215-1216	100' Boxed Coil	3/4	1	39	8	18.8	8.5	10.5	27.1
215-1418	100' Boxed Coil	7/8	1 1/8	30	6	21.4	9.7	10.5	28.6
† 215-1620	100' Wrapped Coil	1	1 1/4	25	5	24.1	11.0	12.0	33.1

† Semi-stock item, may require minimum run of 25,000 feet.

## Special Color Coded PVC Drain Tubing

Part Number	Standard Package	Nominal		Working Pressure		Weight		Min. Bend Radius (In.)	Clamp Size (mm)
		ID	OD	70° F	122° F	lbs.	kgs.		
<b>Green</b>									
213G-1014	100' Boxed Coil	5/8	7/8	40	10	16.1	7.3	8.0	22.6
<b>Blue</b>									
213B-1216	100' Boxed Coil	3/4	1	39	8	18.8	8.5	10.5	27.1

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# Accuflex Beverage Transfer Products

## Best Practices — Installation of *Bev-Seal Ultra*® Lined hose, tubing & bundles

**Cable  
Puller**

**Sharp  
Tools**

**Hot  
Water  
Rinse**

**Sanitize**

Recently, there has been a major change in the hose and tubing used in beverage dispensing applications.

At the request of the major beverage manufacturers, a flushable design and construction for hose and tubing was developed, tested and approved. Unlike conventional polyethylene hose and tubing, the new product has a liner that eliminates permeation and is flushable. Not just "good enough," but truly flushable.

Used in both *Bev-Seal Ultra*® Series 175 hose and Series 235 tubing, this liner is made from a relatively hard resin. This introduces some different handling requirements.

**Installation of bundles** — When pulling a bundle through a chase, the use of a cable puller is highly recommended. This makes the process easier and minimizes the chance of stretching a single line, damaging the liner or reducing the flow rates.

**Cutting** — Sharp tools are necessary, not just for ease of cutting but to better slice through the liner. It is also recommended that, after installing a bundle, the individual ends be trimmed prior to the installation of fittings.

**Fitting installation** — When installing fittings, use of a water spray as a lubricant will ease the job.

**Hot water rinse** — After installation, a 10-minute hot water rinse applied to hose, tubes and bundles is recommended to rinse out any debris and relieve stress in the liner(s).

**Sanitizing** — The use of standard sanitizers is encouraged, but care should be taken not to exceed the recommended concentration, particularly with strongly alkaline solutions. It is essential that all sanitizers be flushed out thoroughly with a 5 to 10 minute hot water flush.

**Pinching off the ends of a hose or tube** — Although we recognize that there are some situations that may arise that require this practice, such as during the repair and maintenance of equipment, it is not generally recommended that hose or tubing be pinched off. Doing so, unless followed by a hot water rinse, creates stress in the liner which may lead to premature failure.

**Flavor changes** — *Bev-Seal Ultra*® hose and tubing products allow changes from pungent flavors to non-pungent flavors with a relatively simple flushing procedure. It is suggested that the tube or hose carrying the pungent flavor be rinsed out with water until the water runs clear, then be flushed with a mild sanitizer for 10 minutes. The sanitizer can then be flushed out with hot water for 10 to 15 minutes before introducing the new flavor. This procedure is effective with even the most pungent beverages, including fruit flavors.

## Accu-Cutter Tubing, Hose and Bundle Cutters

**Bundle Cutter**  
Part No. 954-01

**Hose Cutter**  
Part No. 958-01

**Replacement Blades**  
Part No. 954-03

**Replacement Blades**  
Part No. 958-03

**Tubing Cutter**  
Part No. 959-01

**Replacement Blades**  
Part No. 959-03

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# Accuflex Beverage Transfer Products

## Frequently Used Terms

- **Barrier** — A special layer applied to hose or tubing that is designed to prevent permeation or contamination. Advantages: Flavor protection, longer service life. Disadvantage: Stiffer.
- **Non-Barrier** — Hose or tubing which does not contain the special barrier layer. Advantages: Costs less. Disadvantages: No flavor protection, shorter service life.
- **Flushable** — The ability to rinse out a previous flavor from a hose or tube. Advantages: Can change flavors without danger of flavor contamination. Disadvantage: Costs more.
- **Non-Flushable** — The inability to rinse out previous flavors from a hose or tube without the danger of flavor contamination. Advantage: Costs less. Disadvantage: May have to replace the hose or tube in order to safely change flavor.
- **Permeation** — The movement of molecules from an area of high concentration to one of low concentration until equilibrium is obtained. Advantage: Rids smoke. Disadvantage: Makes it necessary to use barriers.
- **Tubing** — Cylindrical shape, sometimes called a core tube, no reinforcement. Advantages: Less bulky, lighter weight. Disadvantage: Lower working pressure.
- **Hose** — Multi-layered cylindrical shape; has core tube, reinforcement and cover. Advantage: Higher working pressure. Disadvantages: Bulkier and heavier.
- **Bundle** — Multiple tubes and/or hoses wrapped together closely to form a compact unit. Advantages: Easy to install, saves labor. Disadvantage: Lines need barrier protection.
- **Cabled bundle** — Twisted bundle construction to increase overall flexibility. Advantage: Easier to install. Disadvantage: Costs more to produce.
- **Insulated bundle** — Bundle with insulation, used in recirc and beer installations. Advantage: Helps keep beverages cold. Disadvantages: Costs more, bulkier.
- **Uninsulated bundle** — Bundle with no insulation, used for room temperature runs. Advantages: Less costly, less bulky. Disadvantage: No thermal protection.

## Frequently Asked Questions

**Q:** What is the difference between tubing and hose?

**A:** Tubing has a simple single wall, and a lower pressure rating. Hose has several layers and is reinforced for higher pressures and, while it is slightly stiffer, it usually has a smaller bend radius.

**Q:** What does "Barrier" and "Non-Barrier" mean?

**A:** A "Barrier" is a layer in the hose or tube that prevents flavors from permeating through the wall and contaminating other flavors, for example, root beer flavor penetrating into a tube carrying a lemon-lime beverage and contaminating its flavor. A hose or tube that is a "Non-Barrier" product has no such protection from permeation and flavor contamination.

**Q:** What does the term "flushable" refer to?

**A:** The term "flushable" refers to the ability of a hose or tube to have a flavor rinsed out completely and then begin carrying a new flavor with no taste carryover.

**Q:** What is the difference between cabled bundles and non-cabled bundles?

**A:** Cabled bundles are twisted during assembly to give them greater flexibility. Non-cabled bundles are simply hoses and/or tubes grouped together in parallel bundles. They are fine for short runs, but are fairly stiff and hard to bend.

**Q:** What do you mean when you talk about permeation?

**A:** All plastics permeate. This means that molecules of flavor penetrate into the plastic core tubes and, in many cases, they can get all the way through a hose or tube and even get into an adjacent hose or tube. This causes flavor mixing and flavor contamination. Accuflex's dual barrier hoses and tubes are 500+ times less permeable than most plastic hoses and tubes.

**Q:** What is flavor ingress or cross-tasting, and what precautions can be taken to prevent it?

**A:** Organic liquids and vapors can permeate through essentially all plastic and rubber materials to some extent. The rate of permeation is determined by the chemical nature of the organic substance and of the polymeric material. Although polyethylene is a very inert material, containing few extractable components and having excellent resistance to water absorption, it has relatively low resistance to permeation by organic hydrocarbons and oily substances. When a flavor or contaminant permeates from the surrounding environment through the hose or tubing into the contained beverage, flavor ingress or cross-tasting is said to have occurred.

Plastics that display excellent resistance to permeation are considered to be "barrier resins." A layer of these barrier resins can be incorporated into a hose or tube as an overlapping layer or as a seamless co-extrusion. Although very thin

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# Accuflex Beverage Transfer Products

## Frequently Asked Questions (continued)

when compared to the rest of the hose or tubing wall, the barrier layers offer effective protection against flavor ingress-ion.

When hose or tubing is exposed to cleaning fluids or environmental contaminants, or when the lines are confined in close proximity to each other, as in a bundle or conduit, the flavors of beverages inside the hose or tubing can be affected by flavor ingress-ion or cross-tasting. We recommend that barrier-style hoses, tubing, or bundles be used in these situations.

**Q:** Do some flavors cross-taste more than others?

**A:** Most non-barrier hoses and tubes use polyethylene as the primary material. Polyethylene allows most organic hydrocarbons to permeate relatively quickly without causing any physical change in the polyethylene itself. The rate of permeation is approximately the same for each flavor, but the level at which a given flavor can be detected may vary greatly. Pungent flavors such as root beer, cherry, or strawberry are very strong, and can be detected at very low levels, as compared to non-pungent flavors. Therefore, a pungent flavor will be detected as a contaminant in a non-pungent flavor relatively easily. Furthermore, fruit flavors based on limonene are readily absorbed and held by polyethylene, which releases it slowly to the atmosphere or the beverage contained inside the tube. The high absorption level and slow release are the reasons why fruit flavors are so difficult to flush out of polyethylene hose or tubing.

**Q:** Water, syrup or CO<sub>2</sub> . . . which hose or tube is best for what?

**A:** The main criteria in choosing the proper hose or tube are the physical conditions such as pressure, temperature, and environment. Particular attention must be paid to pressurized lines such as CO<sub>2</sub> transfer lines in which higher pressures may require the use of hose instead of tubing, keeping in mind that pressure ratings are reduced at higher temperatures.

Secondly, the environment must be considered to determine if there is a need for barrier protection, such as installations in a floor chase or individual lines in a bundle carrying pungent flavors. Water lines in particular must be protected from contamination, whether run inside a bundle or alongside it.

**Q:** What size and type of clamp should be used?

**A:** To obtain uniform compression around the tube or hose, we recommend the use of a stepless ear-type clamp. The clamp must be sized so that it will still slide over the tube after the barbed fitting is inserted, and exert sufficient compression on the materials before the clamp is fully closed. When soft materials are involved, it must be recognized that the clamp will sink into the materials somewhat, perhaps necessitating a smaller sized clamp. When properly sized, the sides of the ear should not be touching each other when the clamp is installed.

**Q:** How tightly can beverage lines be bent in a permanent installation?

**A:** The minimum bend radius values shown in this catalog represent the smallest curvature to which a product should be exposed in an positive pressure installation at room temperature, as measured in the inside of the curve. Minimum bend radius depends upon diameter, wall thickness, material hardness and elasticity, and application conditions. If negative pressures or elevated temperatures are involved, larger values should be considered. As a general rule of thumb, a minimum bend radius for a hose or tube is 10 times the OD of the product. This is a conservative value and should apply to most products, unless very thin walled hoses or tubes are involved.

**Q:** What fire regulations must be considered when installing beverage lines?

**A:** All beverage lines must be installed in accordance with all applicable regulations and building codes. The most common questions involve the use of lines in ceilings, and, in particular, in plenums. A plenum is an area from which air can be drawn into the living space in a building through the heating or air conditioning systems. A plenum may be a specific air duct, or could be an entire attic area. In the event of a fire, it is important that the materials inside a plenum not generate any significant level of toxic smoke. Halogenated materials such as PVC are of concern in such areas, and should be enclosed in a fire resistant chase.

All materials used in a plenum must be “non-combustible” as defined by standards such as ASTM E-84 in the USA or CAN/ULC S102.2 in Canada. In both of these standards, the maximum values for flame spread and smoke generation are 25 and 50 respectively. Since the primary concerns in the design of beverage hose and tubing are taste integrity and health safety, flame retardant additives cannot be added directly to any components that may be exposed to the beverage. Therefore, the products must contain barrier layers to ensure that no flame retardants migrate to the contact surface. Accuflex's *Bev-Seal Ultra*® Series 235FR, 175FR, and 974FR Fire Resistant tubing, hose and bundles satisfy these requirements with a 0/0 rating.

**Q:** What is the difference between standards NSF-51 and NSF-61?

**A:** The National Sanitation Foundation has issued two standards that can relate directly to beverage applications. Standard NSF-51 covers Food Equipment and Related Products, Components and Materials, and includes dispensers and other equipment involved in the preparation, storage or transfer of foods and beverages (including alcoholic beverages). The criteria relate somewhat to FDA regulations. Standard NSF-61 covers Drinking Water System Component – Health Effects, and includes all equipment that comes in contact with drinking water. These criteria are based on EPA guidelines. Many of our hose and tubing products carry both NSF-51 and NSF-61 listings, so that they can be used with both drinking water and prepared beverages.

Because we continually examine ways to improve our products, we reserve the right to alter specifications without notice.

# Accuflex Beverage Transfer Products

## Care and storage



## Storage Precautions

To assure satisfactory performance when installed on beverage equipment, it is important that hose, tubing and bundles be stored properly prior to installation. It is necessary to guard against conditions which could create odors within the hose or tubing and/or conditions which could lead to degradation or physical damage. Conditions to avoid:

**Excessive heat** — Storage conditions above 90° F. will cause some odor buildup inside the hose which will necessitate more flushing prior to placing the hose in service.

**Moisture** — Excessive humidity can have an effect on cardboard boxes and spools, reducing their strength and, under extreme conditions, causing mildew and unpleasant odors which could affect the hose.

**Sunlight and weathering** — Although sunlight alone will not adversely affect hose that is still in its original carton, direct prolonged exposure of the product to sunlight could cause some yellowing of

the EVA and polyethylene and heat buildup in coils and spools. Avoid outdoor storage of spools or coils.

**Contaminating odors** — Make sure the product is not stored near contaminating odors such as solvent fumes, automobile exhaust fumes, rubber goods, etc. The ambient air could enter the tubing and leave an odor inside.

**Rodent or insect attack** — Avoid storing hose and tubing in areas where rodents or insects could damage or enter the product.

**Crushing due to excessive weight** — Hose & tubing bundles: When stacking several coils of bundle product on a pallet, avoid overhangs which could create excessive localized pressure on the coil at the edge of the pallet. Hose and tubing: Pallets may be stacked two high for brief periods of time, provided the top layer of cartons on the lower pallet is suitably protected from damage by the wooden skid of the top pallet. Avoid long term storage of stacks exceeding twelve boxes high or an overall height of eight feet.

## Handling Precautions

When installing barbed fittings, ensure that there are no burrs or nicks on the fitting that could damage the tube surface or cause leaks.

If a hose is inadvertently kinked during installation, ensure that the hose or tube is not subjected to any bend at that point that could lead to future kinking.

Once kinked, a hose or tube will be susceptible to future kinking at the same spot.

Hose, tubing and bundle products must always be cut with sharp tools, in order to leave a smooth cut surface. Never use a saw, since it will create contaminating particles that could enter the tubing.

Because we continually examine ways to improve our products, we reserve the right to alter specifications without notice.

# Accuflex Beverage Transfer Products

## Cautionary Statement

All Products sold and distributed by Accuflex Industrial Hose, Ltd. are in the nature of commodities and they are sold by published specifications and not for particular purposes, uses or applications. Purchaser shall first determine their suitability for the intended purposes, uses or applications and shall either conduct its own engineering studies or tests, or retain qualified engineers, consultants or testing laboratories and consult with them before determining the proper use, suitability or propriety of the merchandise or Products for the intended purposes, uses or applications.

Accuflex Industrial Hose, Ltd. ("Seller") does not recommend the Products for any particular purpose, use or application, and the Purchaser or user thereof shall assume full responsibility for the suitability, propriety, use and application of the Products. Purchaser shall follow all instructions contained in Seller's catalogs, brochures, technical bulletins and other documents regarding the Products. The Products, including but not limited to, hose, tubing or couplings, may fail due to the use or conveyance of substances at elevated or lowered temperatures or at excessive pressure, the conveyance of abrasive, injurious, flammable, explosive or damaging substances.

Hose or tubing used in bent configurations will be subjected to increased abrasion. Hose clamps or couplings may loosen after initial installation and all sections of hose and tubing including connections, couplings, clamps, conductivity and bonding should be inspected frequently, regularly and consistently, and should be replaced, adjusted or re-tightened for the avoidance of leakage, for the prevention of injuries or damages, and for general safety purposes. Except as indicated in its Limited Warranty, Seller shall not be liable or responsible for direct or indirect injuries or damages caused by or attributed to the failure or malfunction of any Products sold or distributed by it.

Purchasers or users of the Products should frequently and consistently undertake inspections and protective measures with respect to the use and application of Products, which should include the examination of tube and cover, conditions of the hose or tubing, and the identification, repair or replacement of sections showing cracking, blistering, separations, internal and external abrasions, leaking or slipped couplings or connections and make proper proof tests.

## Limited Warranty

The Products sold or distributed by Seller are warranted to its customers to be free from defects in material and workmanship at the time of shipment by us, subject to the following provisions.

ALL WARRANTY CLAIMS SHALL BE MADE WITHIN SIX (6) MONTHS AFTER SELLER SHIPPED THE PRODUCTS. SELLER'S LIABILITY HEREUNDER IS LIMITED AT SELLER'S EXCLUSIVE DISCRETION, TO 1) THE PURCHASE PRICE OF ANY PRODUCTS PROVING DEFECTIVE; 2) REPAIR OF ANY DEFECTIVE PRODUCT OR PART THEREOF; OR 3) REPLACEMENT OF ANY DEFECTIVE PRODUCT OR PART UPON ITS AUTHORIZED RETURN TO SELLER.

THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE CREATED UNDER APPLICABLE LAW INCLUDING, BUT NOT LIMITED TO, THE WAR-

RANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL SELLER OR THE MANUFACTURER OF THE PRODUCT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF PROFITS, WHETHER OR NOT CAUSED BY OR RESULTING FROM THE NEGLIGENCE OF SELLER AND/OR THE MANUFACTURER OF THE PRODUCT, UNLESS SPECIFICALLY PROVIDED HEREIN. IN ADDITION, THIS WARRANTY SHALL NOT APPLY TO ANY PRODUCTS OR PORTIONS THEREOF WHICH HAVE BEEN SUBJECTED TO ABUSE, MISUSE, IMPROPER INSTALLATION, MAINTENANCE, OR OPERATION, ELECTRICAL FAILURE OR ABNORMAL CONDITIONS, AND TO PRODUCTS WHICH HAVE BEEN TAMPERED WITH, ALTERED, MODIFIED, REPAIRED, REWORKED BY ANYONE NOT APPROVED BY SELLER, OR USED IN ANY MANNER INCONSISTENT WITH THE PROVISIONS OF THE "CAUTIONARY STATEMENT" ABOVE OR ANY INSTRUCTIONS OR SPECIFICATIONS PROVIDED WITH OR FOR THE PRODUCT.

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