



Sanitary Hose & Fittings

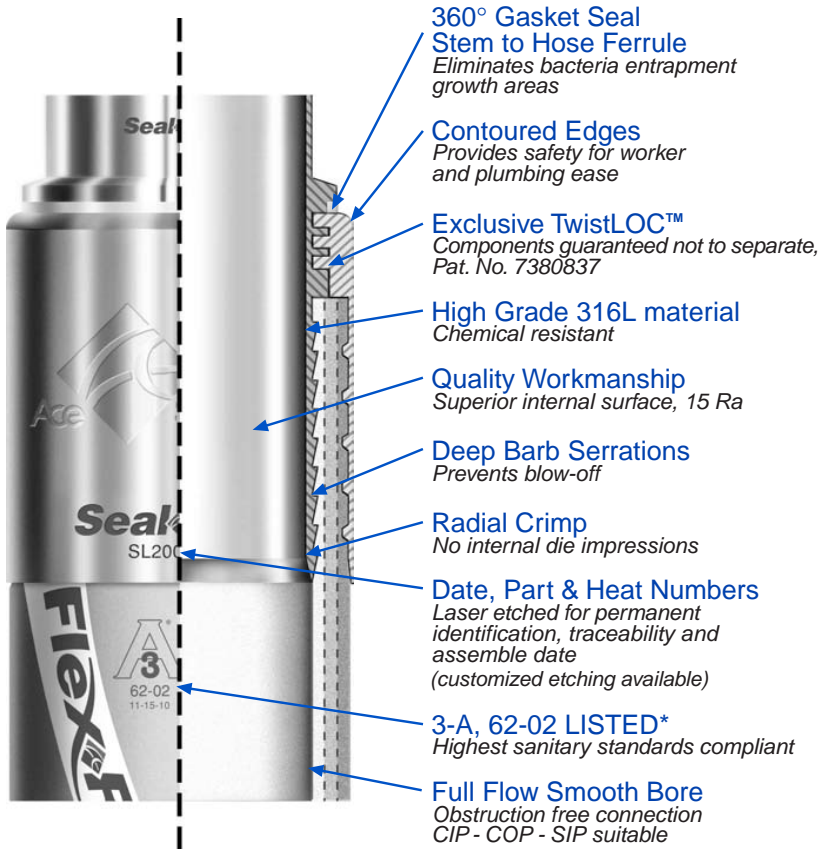


Designed for use in
High-Purity and Sanitary
Environments



Ace Manufacturing Company formed in 1969 and has evolved over the years into a precision machining facility. We are dedicated to providing High Quality Standards to our customer base and look forward to developing new business partnerships. To this end, in 2004 we started the Flex-Rite™ and Seal-Rite™ lines of hose products and hose fittings. These product lines are now part of our Ace Sanitary division. We work hard to know your business, assist you in problem solving, provide you with quality products and over 100 years of experience.





Seal-Rite™ radial crimp couplers are the purest unitized assemblies available today. Our external crimp design provides a 360° fixed seal at the coupler stem to hose junction point that eliminates the possibility of product wicking between the hose and coupler. Unlike internal expansion which can deform metal and yield die impressions, radial crimp technology will not interfere with the internal surface of the coupling stem. A full flow smooth bore transition is created after fabrication that excludes ledges or crevices that can collect bacteria.

TwistLOC™ components become a single unit that resist separation under severe applications. Internal surface finishes exceed 15 Ra. Each coupling stem is manufactured from 316L grade stainless steel and stamped with a material traceability number which is our commitment to quality. Seal-Rite radial crimped couplers are available for attachment on Flex-Rite hoses. A wide range of end styles, sizes 1/2" through 6" are available.

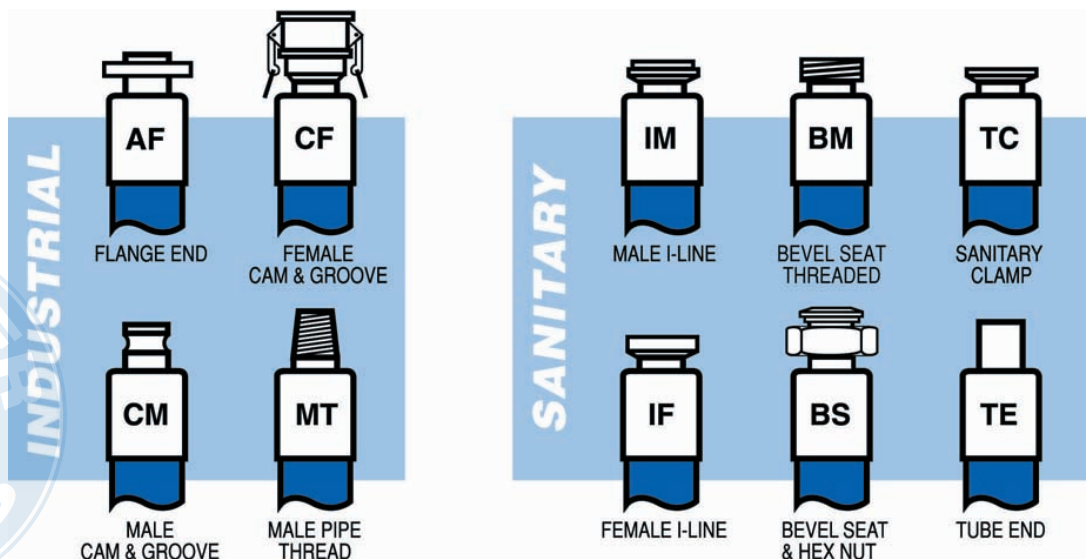
ISO 9001: 2008 REGISTERED

ACCEPTED BY: USDA Dairy

COMPLIANCE: FDA Grade "A" Pasteurized Milk Ordinance

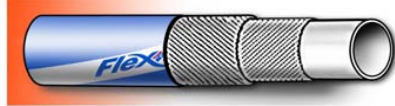
Popular End Connector Styles

See page 11 for complete listing.



*The 3-A 62-02 standard applies only to assemblies of 3/4" diameter and larger.
© Ace Manufacturing Co., 604

RDC Discharge



This **ultra-light** discharge hose provides extra flexibility and smooth handling. (Meets 3-A* 1800 standards, USDA requirements and is FDA compliant). Designed to be chemically resistant to mild caustic solutions. This discharge hose is well suited for **overhead CIP** wash units and capable of handling pressures up to 250 PSI.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
RDC150	1 ¹ / ₂ "	2.07"	250 PSI	-	.88 lbs.	-
RDC200	2"	2.59"	250 PSI	-	1.13 lbs.	-
RDC250	2 ¹ / ₂ "	3.11"	250 PSI	-	1.40 lbs.	-

TUBE: White FDA, 3-A*, Chlorobutyl
REINFORCEMENT: Spiral-plied synthetic fabric
RECOMMENDED CLEANING: CIP, COP

COVER: Blue EPDM w/white stripe
TEMP. RANGE: -40 to 225° F

RBT Beverage Transfer



A **heavy-duty** discharge hose with **suction capability** is ideal for the highly demanding service of transferring liquid products in breweries, wineries and dairies. **Bounce back design** resists damage from kinking or flattening in high traffic areas.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
RBT100	1"	1.69"	250 PSI	4.0"	0.81 lbs.	20"
RBT150	1 ¹ / ₂ "	2.23"	250 PSI	5.5"	1.20 lbs.	20"
RBT200	2"	2.92"	250 PSI	6.5"	1.86 lbs.	20"
RBT300	3"	4.09"	250 PSI	10.0"	3.57 lbs.	20"

TUBE: White FDA, 3-A*, Chlorobutyl
REINFORCEMENT: Spiral-plied synthetic fabric 4 plies 1.5" - 6 plies 2" & over
RECOMMENDED CLEANING: CIP, COP

COVER: Purple EPDM w/white stripe
TEMP. RANGE: -40 to 225° F

RES Premium Suction & Discharge



This premium quality hose withstands rough handling and **high temperatures** and **harsher chemical** environments. A suction and discharge hose that is and will not impart taste or odor to products being transferred. Typical use includes: Milk, Dairy, Food and Beverage, Cosmetics, Pharmaceutical and CIP Applications. Meets 3-A* standards, USDA requirements and is FDA compliant.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
RES050	1/2"	.93"	150 PSI	2.5"	.23 lbs.	29"
RES075	3/4"	1.18"	150 PSI	3.75"	.31 lbs.	29"
RES100	1"	1.50"	150 PSI	4.0"	.39 lbs.	29"
RES150	1 ¹ / ₂ "	2.09"	150 PSI	5.0"	.80 lbs.	29"
RES200	2"	2.60"	150 PSI	6.0"	1.16 lbs.	29"
RES250	2 ¹ / ₂ "	3.17"	150 PSI	7.0"	1.70 lbs.	29"
RES300	3"	3.72"	150 PSI	7.0"	1.96 lbs.	29"

TUBE: White FDA, 3-A*, EPDM
REINFORCEMENT: Two polyester spirals with dual helix wire
RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: Light Blue, EPDM Synthetic Rubber
TEMP. RANGE: -40 to 300° F

RWD Premium Washdown



Designed for **cleanup duties** in dairies, creameries, breweries, food, beverage, meat and poultry processing plants. This premium quality hose is capable of handling hot water up to **300° F**. A chemically resistant hose, with a wrapped cover construction designed to provide excellent resistance to cuts and abrasion while providing handling stability.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
RWD075	3/4"	1.250"	350 PSI	-	.41 lbs.	-

TUBE: White FDA, 3-A*, EPDM
REINFORCEMENT: Spiral-plied synthetic fabric 4 plies
RECOMMENDED CLEANING: CIP, COP, SIP

COVER: White EPDM, Wrapped Finish
TEMP. RANGE: -40 to 300° F

ALL R-Series hose products meet/comply: USDA Class III requirements, FDA CFR Title 21 177.2600, 3-A 18-03

*The 3-A 62-02, standard applies only to assemblies of 3/4" diameter and larger.

WARNING: Working pressure ratings for all Flex-Rite™ brand hoses are based on 70° F (ambient temperature). Working pressure and vacuum ratings will decrease as temperatures increase. For "R" series applications that exceed 200° F contact manufacturer for suggestions.

RSD Suction & Discharge



1 1/2" - 2" - 3"
Now available in
Red & Blue

Versatility makes this hose our most popular choice for **product** transfer and **CIP** applications. (Meets 3-A* standards, USDA requirements and is FDA compliant). Rated for full suction and discharge use up to 150 PSI. The specially compounded tube is engineered to handle high temperatures, will not impart taste or odor and is highly resistant to common CIP solutions. A dual wire helix makes the RSD **extremely flexible** and easy to handle.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
RSD050*	1/2"	1.0"	150 PSI	2.0"	.32 lbs.	29"
RSD075*	3/4"	1.25"	150 PSI	2.0"	.57 lbs.	29"
RSD100	1"	1.50"	150 PSI	3.0"	.91 lbs.	29"
RSD150	1 1/2"	2.06"	150 PSI	4.0"	1.03 lbs.	29"
RSD200	2"	2.57"	150 PSI	4.5"	1.32 lbs.	29"
RSD250	2 1/2"	3.12"	150 PSI	5.5"	1.84 lbs.	29"
RSD300	3"	3.74"	150 PSI	7.0"	2.55 lbs.	29"
RSD400	4"	4.77"	150 PSI	10.0"	3.51 lbs.	29"
RSD600	6"	6.75"	150 PSI	22.0"	5.42 lbs.	29"

TUBE: White, FDA, 3-A*, Chlorobutyl
REINFORCEMENT: Spiral-plied synthetic fabric with dual wire helix
RECOMMENDED CLEANING: CIP, COP

COVER: Gray, Red & Blue EPDM w/white stripe
TEMP. RANGE: -40 to 225° F
COLORS AVAILABLE: Consult Factory

RCT Comestible Transfer



Excellent choice for edible **oils**, and **personal care products** as well as most dairy applications. (Meets 3-A* standards, USDA requirements and is FDA compliant). Rated for full transfer use up to 150 PSI, Nitrile hose is engineered to handle high temperatures and maintain product color, taste and aroma. A dual wire helix makes the RCT extremely flexible and easy to handle.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
RCT100	1"	1.50"	150 PSI	3.5"	.95 lbs.	29"
RCT150	1 1/2"	2.13"	150 PSI	4.0"	1.10 lbs.	29"
RCT200	2"	2.64"	150 PSI	4.5"	1.45 lbs.	29"
RCT250	2 1/2"	3.19"	150 PSI	6.0"	1.90 lbs.	29"
RCT300	3"	3.76"	150 PSI	7.0"	2.68 lbs.	29"
RCT400	4"	4.77"	150 PSI	10.5"	3.54 lbs.	29"

TUBE: White, FDA, 3-A*, Nitrile/PVC Blend
REINFORCEMENT: Spiral-plied synthetic fabric with dual wire helix
RECOMMENDED CLEANING: CIP, COP

COVER: White Nitrile w/white stripe
TEMP. RANGE: -25 to 250° F

RCR Crush Resistant



Consistent flow is maintained by this **crush resistant** hose whether kinked, twisted or run over it is designed to spring back to its original shape. (Meets 3-A* standards, USDA requirements and is FDA compliant). Excellent for **high traffic areas**, the RCR delivers generous flow rates for wine, beer and other sanitary liquid food stuffs. Bacteria resistant construction delivers taste and odor free flow.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
RCR150	1 1/2"	2.11"	250 PSI	4.0"	.98 lbs.	27"
RCR200	2"	2.68"	250 PSI	7.0"	1.38 lbs.	27"
RCR250	2 1/2"	3.21"	250 PSI	10.0"	1.78 lbs.	27"
RCR300	3"	3.85"	250 PSI	12.0"	2.59 lbs.	27"
RCR400	4 inch coming soon - consult factory for information					

TUBE: White, FDA, 3-A*, Chlorobutyl
REINFORCEMENT: Spiral-plied synthetic fabric with monofilament helix
RECOMMENDED CLEANING: CIP, COP

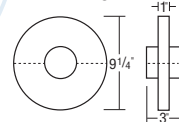
COVER: Orange EPDM w/white stripe
TEMP. RANGE: -30 to 225° F

Seal-Rite™ Hose Support



For use with:
RSD, RDC, RES,
RCR, RCT
in sizes:

1 1/2" - 2" - 3" - 4"



The Seal-Rite hose support provides additional protection for your transfer hoses. In environments where abnormal cover wear can occur, you can lift up and extend the life of your hose. The two halves easily attach with two recessed locking screws. The lightweight design, wide outer edges and an even wider collar provides stability which eliminates kinking. Our supports are ideal for use in receiving bays to eliminate damming or pooling water.

All R-Series hose products meet/comply: USDA Class III requirements, FDA CFR Title 21 177.2600, 3-A 18-03

*The 3-A 62-02, standard applies only to assemblies of 3/4" diameter and larger.

WARNING: Working pressure ratings for all Flex-Rite™ brand hoses are based on 70° F (ambient temperature). Working pressure and vacuum ratings will decrease as temperatures increase. For "R" series applications that exceed 200° F contact manufacturer for suggestions.

Pharmaceutical grade, USP Class VI silicone with full traceability to produce seamless, extruded, platinum cured tubes, manufactured in clean room environment

SMW

Multi-ply Wire Reinforced



A flexible, stainless steel wire-reinforced silicone hose. Specially designed for bulk transfer, high-pressure, and vacuum process applications. (Meets 3A*, USDA, FDA and USP Class VI standards). Additionally, this hose is manufactured in a Class 1000 clean room and contains medical-grade platinum-cured silicone throughout.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	VACUUM IN HG.	LENGTH
SMW050	1/2"	.82"	200 PSI	3.0"	29"	24'
SMW075	3/4"	1.11"	200 PSI	5.0"	29"	24'
SMW100	1"	1.36"	175 PSI	7.0"	29"	24'
SMW150	1 1/2"	1.86"	175 PSI	9.0"	29"	24'
SMW200	2"	2.36"	150 PSI	11.0"	29"	24'
SMW250	2 1/2"	2.86"	110 PSI	12.0"	29"	15'
SMW300	3"	3.36"	110 PSI	15.0"	29"	12'
SMW400	4"	4.36"	90 PSI	18.0"	29"	12'

TUBE: FDA, 3-A, USP Class VI silicone - Platinum cured

REINFORCEMENT: Four ply, polyester braid with stainless steel wire helix

RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: White translucent

TEMP. RANGE: -100 to 375° F

SMD

Multi-ply Discharge



A 4-ply, fabric reinforced hose designed for higher pressure applications. The inner diameter is a continuous extruded bore to ensure maximum smoothness and purity. Available in standard polyester. (Meets 3A*, USDA, FDA and USP Class VI standards).

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	VACUUM IN HG.	LENGTH
SMD050	1/2"	.81"	150 PSI	8.0"	27"	24'
SMD075	3/4"	1.10"	150 PSI	10.0"	24"	24'
SMD100	1"	1.35"	150 PSI	12.0"	20"	24'
SMD150	1 1/2"	1.85"	150 PSI	-	17"	24'
SMD200	2"	2.35"	125 PSI	-	14"	24'
SMD250	2 1/2"	2.85"	125 PSI	-	9"	15'
SMD300	3"	3.35"	125 PSI	-	6"	12'

TUBE: FDA, 3-A, USP Class VI silicone - Platinum cured

REINFORCEMENT: Four ply, polyester braid

RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: White translucent

TEMP. RANGE: -100 to 375° F

SSD

Single Braid Discharge



A braid reinforced silicone hose, processed with pharmaceutical grade elastomer, designed for mid-range pressures. Manufactured using standard polyester or Nomex braid. (Meets 3A*, USDA, FDA and USP Class VI standards). Resist weathering & temperature extremes.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	VACUUM IN HG.	LENGTH
SSD025	1/4"	.52"	155 PSI	1.5"	-	50'
SSD037	3/8"	.66"	125 PSI	2.0"	-	50'
SSD050	1/2"	.80"	120 PSI	2.0"	-	50'
SSD062	5/8"	.97"	100 PSI	2.5"	-	50'
SSD075	3/4"	1.10"	90 PSI	-	-	50'
SSD100	1"	1.36"	70 PSI	-	-	50'

TUBE: FDA, 3-A, USP Class VI silicone - Platinum cured

REINFORCEMENT: Single ply, polyester or nomex braid

RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: White translucent

TEMP. RANGE: -100 to 395° F

SDB

Double Braided Discharge



This high-pressure, silicone, double braided, non-metallic hose can be autoclaved, irradiated or sterilized by ethylene oxide gas. Designed to resist weathering and temperature extremes. (Meets 3A*, USDA, FDA and USP Class VI standards).

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	VACUUM IN HG.	LENGTH
SDB050	1/2"	.94"	225 PSI	2.5"	-	50'
SDB075	3/4"	1.25"	200 PSI	3.0"	-	50'
SDB100	1"	1.47"	130 PSI	3.5"	-	50'

TUBE: FDA, 3-A, USP Class VI silicone - Platinum cured (clear)

REINFORCEMENT: Double ply, polyester braid

RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: Solid white

TEMP. RANGE: -100 to 395° F

ALL S-Series hose products meet/comply: USDA, USP Class VI requirements, FDA CFR Title 21 177.2600, 3-A 18-03

*The 3-A 62-02, standard applies only to assemblies of 3/4" diameter and larger.

WARNING: Working pressure ratings for all Flex-Rite™ brand hoses are based on 70° F (ambient temperature). Working pressure and vacuum ratings will decrease as temperatures increase. For "S" series applications that exceed 250° F contact manufacturer for suggestions.

SHF

HI-FLEX Wire Reinforced



This **highly flexible** hose is extremely easy to handle. Reinforced with stainless steel wire ensures a balance between strength and lightness. Designed for bulk transfer, high-pressure, and vacuum process applications. (Meets 3A*, USDA, FDA and USP Class VI standards). Short lengths are ideal for proportioning and load cells.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	VACUUM IN HG.	LENGTH
SHF050	1/2"	.94"	150 PSI	1.50"	28"	13'
SHF075	3/4"	1.18"	150 PSI	2.00"	28"	13'
SHF100	1"	1.42"	150 PSI	2.50"	28"	20'
SHF150	1 1/2"	1.93"	125 PSI	4.50"	28"	20'
SHF200	2"	2.44"	105 PSI	5.50"	28"	20'
SHF250	2 1/2"	2.91"	75 PSI	7.00"	28"	13'
SHF300	3"	3.46"	70 PSI	9.00"	28"	13'
SHF400	4"	4.49"	50 PSI	14.50"	28"	13'

TUBE: FDA, 3-A*, USP Class VI silicone - Platinum cured

REINFORCEMENT: Four ply, polyester braid with stainless steel wire helix

RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: White translucent (colors available)

TEMP. RANGE: -76 to 395° F

Traceability Solution...

for Silicone or Silicone covered hoses.

- Permanently Attached, No Product Contact
- Completely Sealed, Easy to Read Text
- Autoclavable, CIP & SIP Compatible
- Label Contains Part Number, Date & Serial No.
- Quick Turn-around with Customized Text Available

SML Molded Labels



AVAILABLE COLORS



Reusable Sanitary Fitting



PART NUMBER	HOSE SIZE	CLAMP SIZE	O.D.	I.D.
SR050-TC	.50"	.50" MINI TC	.986"	.370"
SR075-TC	.75"	.75" MINI TC	.986"	.620"
SR100-TC	1.00"	1.00" MINI TC	1.984"	.870"
SR150-TC	1.50"	1.50" TC	1.984"	1.370"
SR200-TC	2.00"	2.00" TC	2.516"	1.870"

STEP UP SIZES AND OTHER END STYLES AVAILABLE

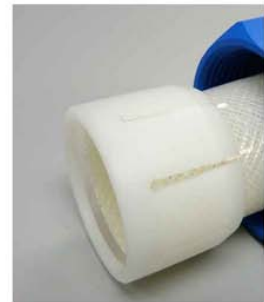


Field Attachable

Easy to assemble 3 pc reusable fittings with full traceability designed specifically for most Flex-Rite S & P-Series hose.

Lightweight, versatile, works with most hose types and wall thickness. Patent Pending and 3-A* Approved.

Suitable for use with Biotech, High Purity Water, Pharmaceutical, Food & Beverage, Personal Care, Electronics and Potable Water.



Internal Finish: 15 RA or Better, Electropolishing standard. **Material:** Type 316L Stainless Steel Insert with Delrin nut and sleeve

Options: Custom Size Variations, Styles, Colors Available. **Note:** Step up Sizes Available

* Compliant with standards for Replacement Part Certification 62-02

All "T-Series" hose meet USP Class VI & FDA Criteria - ALL liners are extra thick to provide better flex life and less permeation. Anti-static tube option available.

TRS EPDM Rubber Covered Smooth Bore



A steel wire is helically wound through the carcass which provides crush, kink and vacuum resistance. Ideal where external abrasion resistance is required.

TSB Braided Smooth Bore



Excellent for fixed applications where minimal abuse, handling or flexing exist. Available for "Flaired Through" applications.

HOSE COVER OPTIONS AVAILABLE

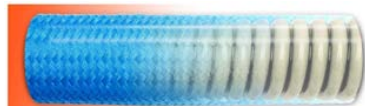
TCB Steel Braided Convuluted



Crush resistant hose that is easy to flex and has a tighter bend radii than smooth bore. Open-pitched, seamless, helical convolutions provide for easy cleaning and transport of pharmaceuticals, chemicals, food and beverages.

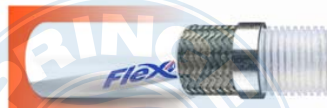
HOSE COVER OPTIONS AVAILABLE

TCP Poly Braided Convuluted



Better abrasion resistance than metal braids, easy to flex and has a tighter bend radii than smooth bore. Crush resistant with open-pitched, seamless, helical convolutions that provide for easy cleaning and transport of pharmaceuticals, chemicals, food and beverages.

TSC Silicone Covered Smooth Bore



TSC-C - optional
This is a black, FDA, static conductive tube. Sizes up to 1" in stock, up to 2" special order.

This silicone covered, PTFE lined hose with exterior convolutions and a smooth, undulating bore provides **extreme** flexibility. Exceptional for High Purity use in Pharmaceutical, Biotech and Foodstuffs industries. This hose will not impart taste or odor to products being transferred and provides cleaning ease both inside and out. TSC is excellent for use in hot oil or low velocity steam transfer applications.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
TRS050	1/2"	.97"	300 PSI	1.5"	.32 lbs.	30"
TRS075	3/4"	1.27"	300 PSI	2.5"	.48 lbs.	30"
TRS100	1"	1.48"	300 PSI	3.0"	.57 lbs.	30"
TRS150	1 1/2"	2.04"	300 PSI	4.5"	.89 lbs.	30"
TRS200	2"	2.54"	300 PSI	7.0"	1.22 lbs.	30"
TRS250	2 1/2"	3.07"	200 PSI	10.0"	1.64 lbs.	30"
TRS300	3"	3.82"	200 PSI	14.0"	2.68 lbs.	30"

TUBE: FEP white, USP Class VI & FDA Criteria

REINFORCEMENT: Steel wire, helically wound

OPTIONAL HEAVY DUTY: Available upon request

RECOMMENDED CLEANING: CIP, SIP - Steam shouldn't exceed 25 psi/250°

COVER: Green EPDM w/white stripe

TEMP. RANGE: -20 to 300° F

3-A LISTED: 1" I.D. and over

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
TSB050	1/2"	.63"	1425 PSI	6.5"	.16 lbs.	30"
TSB075	3/4"	.86"	1000 PSI	8.2"	.20 lbs.	30"
TSB100	1"	1.19"	1000 PSI	12.0"	.53 lbs.	30"
TSB150	1 1/2"	1.76"	1000 PSI	18.0"	.70 lbs.	30"

TUBE: PTFE unpigmented, USP Class VI & FDA Criteria

REINFORCEMENT: 1" & 1-1/2" double braided

RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: Stainless Steel Braid

TEMP. RANGE: -20 to 425° F

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
TCB050	1/2"	.75"	1425 PSI	2.0"	.19 lbs.	29"
TCB075	3/4"	1.05"	1300 PSI	2.7"	.29 lbs.	29"
TCB100	1"	1.35"	1100 PSI	4.0"	.51 lbs.	29"
TCB150	1 1/2"	2.03"	700 PSI	6.0"	.81 lbs.	29"
TCB200	2"	2.46"	525 PSI	7.5"	1.00 lbs.	29"
TCB300	3"	3.70"	350 PSI	14.0"	-	29"
TCB400	4"	5.00"	275 PSI	16.0"	-	29"

TUBE: PTFE unpigmented, USP Class VI & FDA Criteria

RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: 316 Stainless Steel Braid

TEMP. RANGE: -20 to 425° F

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
TCP050	1/2"	.86"	475 PSI	2.0"	.12 lbs.	29"
TCP075	3/4"	1.16"	425 PSI	2.7"	.18 lbs.	29"
TCP100	1"	1.44"	375 PSI	4.0"	.26 lbs.	29"
TCP150	1 1/2"	2.16"	325 PSI	6.0"	.47 lbs.	29"
TCP200	2"	2.56"	275 PSI	7.5"	.54 lbs.	29"
TCP300	3"	3.92"	225 PSI	14.0"	-	29"
TCP400	4"	5.22"	100 PSI	16.0"	-	29"

TUBE: PTFE unpigmented, USP Class VI & FDA Criteria

RECOMMENDED CLEANING: CIP, SIP

COVER: Blue polypropylene

TEMP. RANGE: -20 to 250° F

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
TSC050	1/2"	.77"	1000 PSI	1.5"	.25 lbs.	29"
TSC075	3/4"	1.07"	900 PSI	2.5"	.42 lbs.	29"
TSC100	1"	1.37"	750 PSI	4.0"	.57 lbs.	29"
TSC150	1 1/2"	2.03"	550 PSI	7.0"	1.14 lbs.	29"
TSC200	2"	2.56"	400 PSI	8.5"	1.58 lbs.	29"

TUBE: PTFE unpigmented, USP Class VI & FDA, (anti-static opt. avail.)

REINFORCEMENT: Stainless steel braid

RECOMMENDED CLEANING: CIP, SIP, Autoclave

COVER: White, Platinum Silicone Rubber

TEMP. RANGE: -80° to +400° F

3-A LISTED: 3/4" I.D. and over

WARNING: Working pressure ratings for all Flex-Rite™ brand hoses are based on 70° F (ambient temperature). Working pressure and vacuum ratings will decrease as temperatures increase. For "T" series applications that exceed 250° F contact manufacturer for suggestions.

PCT Clear Non-reinforced Tubing



FDA PVC transparent tubing is a clear extrusion that is compliant with 3A, USDA and FDA standards.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
PCT050*	1/2"	.75"	45 PSI	-	.13 lbs.	-
PCT075*	3/4"	1.12"	40 PSI	-	.30 lbs.	-
PCT100	1"	1.37"	35 PSI	-	.38 lbs.	-
PCT150	1 1/2"	1.87"	35 PSI	-	.54 lbs.	-
PCT200	2"	2.50"	35 PSI	-	.96 lbs.	-

TUBE: FDA, 3-A*, PVC

REINFORCEMENT: Clear extrusion no reinforcement

COVER: Transparent

TEMP. RANGE: 25 to 150° F

PBT Braid Reinforced Tubing



A flexible clear tubing with multiple polyester braids provides dependable reinforcement for all suitable applications and is compliant with 3A, USDA and FDA standards.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
PBT050*	1/2"	.81"	200 PSI	-	.13 lbs.	-
PBT075*	3/4"	1.12"	150 PSI	-	.22 lbs.	-
PBT100	1"	1.30"	125 PSI	-	.30 lbs.	-
PBT150	1 1/2"	1.94"	100 PSI	-	.64 lbs.	-
PBT200	2"	2.49"	75 PSI	-	.94 lbs.	-

TUBE: FDA, 3-A*, PVC

REINFORCEMENT: Clear extrusion with polyester textile inner braid

COVER: Transparent

TEMP. RANGE: 25 to 150° F

PWT Wire Reinforced Tubing



A heavy-duty hose with steel wire helix rod reinforcement, suitable for milk handling and food processing. It is compliant with 3A, USDA and FDA standards and provides high suction even in higher temperatures.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
PWT050*	1/2"	.81"	100 PSI	2.0"	.15 lbs.	29"
PWT075*	3/4"	1.12"	70 PSI	3.0"	.24 lbs.	29"
PWT100	1"	1.30"	70 PSI	4.0"	.33 lbs.	29"
PWT150	1 1/2"	1.86"	50 PSI	6.0"	.58 lbs.	29"
PWT200	2"	2.39"	50 PSI	8.0"	.84 lbs.	29"
PWT250	2 1/2"	3.00"	50 PSI	10.0"	1.38 lbs.	29"
PWT300	3"	3.50"	50 PSI	12.0"	1.64 lbs.	29"

TUBE: FDA, 3-A*, PVC

REINFORCEMENT: Clear extrusion with steel wire helix

COVER: Transparent

TEMP. RANGE: 25 to 150° F

PBW Suction/Transfer Hose



This hose combines polyester braids with steel wire of the PBT & PWT hoses to provide the benefits of both.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
PBW100	1"	1.45"	225 PSI	3.5"	.53 lbs.	29"
PBW150	1 1/2"	2.03"	175 PSI	5.5"	.80 lbs.	29"
PBW200	2"	2.60"	150 PSI	7.0"	1.28 lbs.	29"

TUBE: FDA, 3-A*, PVC

REINFORCEMENT: Clear extrusion with steel wire helix polyester textile inner braid

COVER: Transparent

TEMP. RANGE: +15 to 150° F

PHH Suction/Transport Hose



LOW Temperature Compound

A clear hose, reinforced with white helix rod is compliant with 3A, USDA and FDA standards. It provides extreme low temperature flexibility, ideal for use in milk hauling.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
PHH150	1 1/2"	1.79"	75 PSI	4.0"	.45 lbs.	28"
PHH200	2"	2.33"	75 PSI	5.0"	.65 lbs.	28"
PHH250	2 1/2"	2.87"	55 PSI	8.0"	.84 lbs.	28"
PHH300	3"	3.42"	55 PSI	11.0"	1.18 lbs.	28"

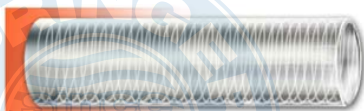
TUBE: FDA, 3-A*, UHMW-PVC

REINFORCEMENT: Clear extrusion with white helix

COVER: Transparent

TEMP. RANGE: -40 to 150° F

PHC Suction/Transfer Hose



A clear hose, reinforced with clear helix rod is compliant with 3A, USDA and FDA standards. Suited for in-plant environments, its low temperature flexibility is perfect for all liquid dairy or dry product transfers.

MODEL	I.D.	O.D.	WORKING PRESSURE	MIN. BEND RADIUS	WEIGHT PER FT.	VACUUM IN HG.
PHC100	1"	1.28"	100 PSI	3.0"	.24 lbs.	29"
PHC150	1 1/2"	1.80"	85 PSI	6.0"	.50 lbs.	29"
PHC200	2"	2.36"	85 PSI	8.0"	.71 lbs.	29"
PHC250	2 1/2"	2.88"	65 PSI	10.0"	.94 lbs.	29"
PHC300	3"	3.42"	55 PSI	11.0"	1.14 lbs.	29"

TUBE: FDA, 3-A*, PVC

REINFORCEMENT: Clear extrusion with clear helix

COVER: Transparent

TEMP. RANGE: -4 to 150° F

ALL P-Series hose products meet/comply: USDA, NSF requirements, FDA CFR Title 21 177.2600, 3-A 20-00

*The 3-A 62-02, standard applies only to assemblies of 3/4" diameter and larger.

WARNING: Working pressure ratings for all Flex-Rite™ brand hoses are based on 70° F (ambient temperature). Working pressure and vacuum ratings will decrease as temperatures increase. For "P" series applications that exceed 120° F contact manufacturer for suggestions.

IWD

Washdown



Designed for cleanup duties in dairies, creameries, breweries, food, beverage, meat and poultry processing plants. This is an economical, high quality hose capable of handling hot water up to 200° F. The spiral construction provides for excellent handling and flexibility. Abrasion resistant, non-marking cover maintains its sanitary appearance.

MODEL	I.D.	O.D.	WORKING PRESSURE	WEIGHT PER FT.
IWD075	3/4"	1.17"	300 PSI	.40 lbs.

TUBE: Black Nitrile

REINFORCEMENT: Two synthetic textile spiral cords

COVER: White Nitrile/PVC blend

TEMP. RANGE: -20 to +200° F

ISH

Steam



A rugged, abrasive and blister resistant hose for cleaning pumps, valves, tubing and equipment suitable for steam. Stands up to the harshest of environments with a specially formulated tube and cover that will not harden or crack during normal service. The steel wire reinforcement provides for safe use with steam pressures up to 250 PSI at 430° F.

MODEL	I.D.	O.D.	WORKING PRESSURE	WEIGHT PER FT.
ISH075	3/4"	1.25"	250 PSI	.48 lbs.

TUBE: Black Chlorobutyl

REINFORCEMENT: Steel braid

COVER: Red EPDM

TEMP. RANGE: -40 to +430° F

Steam Hose Safety Facts

Working with steam can be very hazardous. Safety precautions should be observed when handling to minimize or eliminate personal injury or property damage.

Selection and use of steam hoses

- Make sure steam hose is identified as a steam hose. It should be identified, stating working pressure and temperature rating.
- Make sure working pressure and temperature is not exceeded.
- Do not allow hose to remain under pressure when not in use.
- Avoid excess bending or flexing of hose near the coupling. Straight line operation is preferred. If bends are necessary as part of operation, spring guards may help.
- Be sure to use recommended steam hose couplings and clamps on hose.

Maintenance Procedures

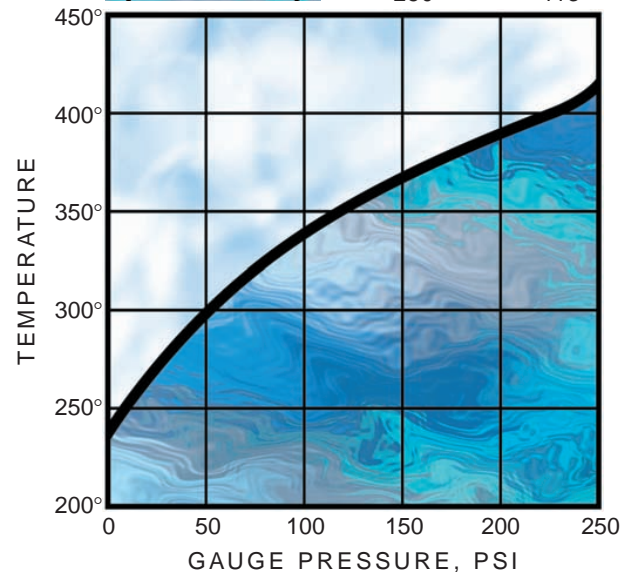
- Periodic inspection of hose should include looking for cover blisters and lumps.
- Check for kinked areas that could damage hose.
- Drain hose after each use to avoid tube damage before hose is put back in operation, to avoid "pop corning" of the tube.
- Check tightness of clamp bolts after each use.
- Check to see if clamp halves are touching. If they are, recouple hose with smaller clamps to insure proper tightness or grip around hose.
- Do not store hose over hooks.
- Steam hose lying on metal racks or installed around steel piping will dry out the hose, causing tube and cover cracking.
- For service in sub-zero applications, use only T331 Chlorobutyl hose.

Steam Hose Chart

Represented is water when subjected to heat and pressure. Use only hoses specifically designed for each application.



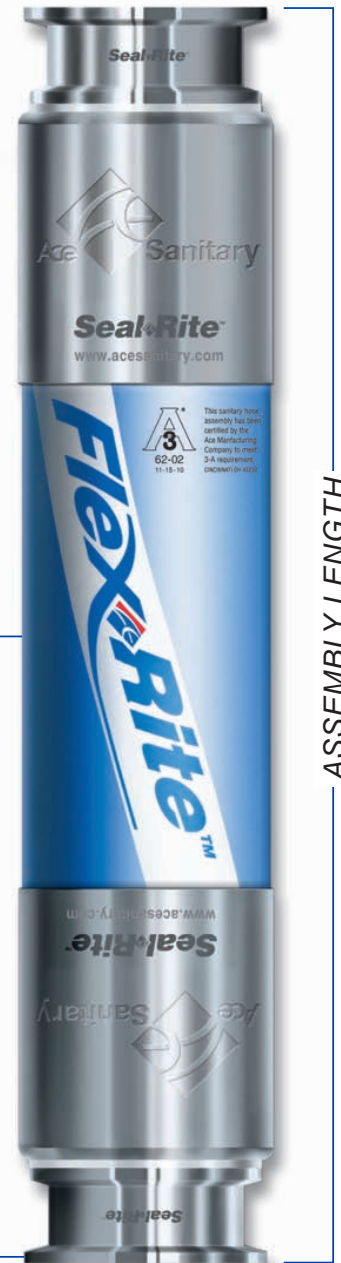
SATURATED STEAM Gauge Pressure (PSI)	Temperature of Saturated Steam(°F)
10	239
25	257
50	298
75	320
100	338
125	353
150	366
175	377
200	385
225	400
250	413



Assembly Part Number (Example)

RSD **050** **TC** **050** **TC** **050** **288**
Hose **I.D. Size** **Style / Size 1st End** **Style / Size 2nd End** **Assembly Length (INCHES)**

Hose	I.D. Size	End Style
RSD	025 = 1/4"	TC = Sanitary Clamp (<i>stepup available</i>)
RCT	037 = 3/8"	TE = Butt Weld - Tube
RDC	050 = 1/2"	BS = Bevel Seat - Plain w/nut
RCR	062 = 5/8"	BM = Bevel Seat - Threaded
RBT	075 = 3/4"	IF = I-Line - Female
RWD	100 = 1"	IM = I-Line - Male
SMD	150 = 1 1/2"	JM = John Perry - Threaded
SSD	200 = 2"	JF = John Perry - Plain w/nut
SMW	250 = 2 1/2"	QM = Q-Line
SHF	300 = 3"	CF = Cam - Female
PCT	400 = 4"	CM = Cam - Male
PBT	600 = 6"	MT = Male - NPT Pipe Thread
PWT		FT = Female - NPT Pipe Thread
PHH		AF = Flange End
PHC		SF = SMS - Plain w/nut
TRS		SM = SMS - Threaded
TBS		DF = DIN - Plain w/nut
TCB		DN = DIN - Threaded
TCP		
TSC		



CONSULT FACTORY FOR ADDITIONAL CHOICES

Please send request for quotes and purchase orders to:
sales@acesanitary.com

Overall length tolerances for assemblies are:

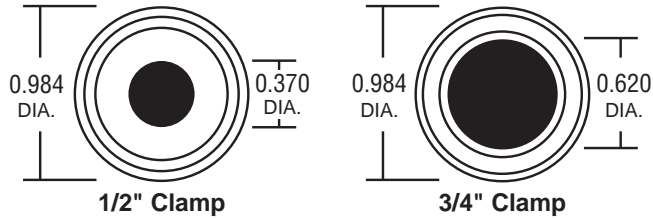
- 1/4" on assemblies to 24"
- 1/2" on assemblies 25" to 60"
- 1% on assemblies over 60"



WARRANTY:

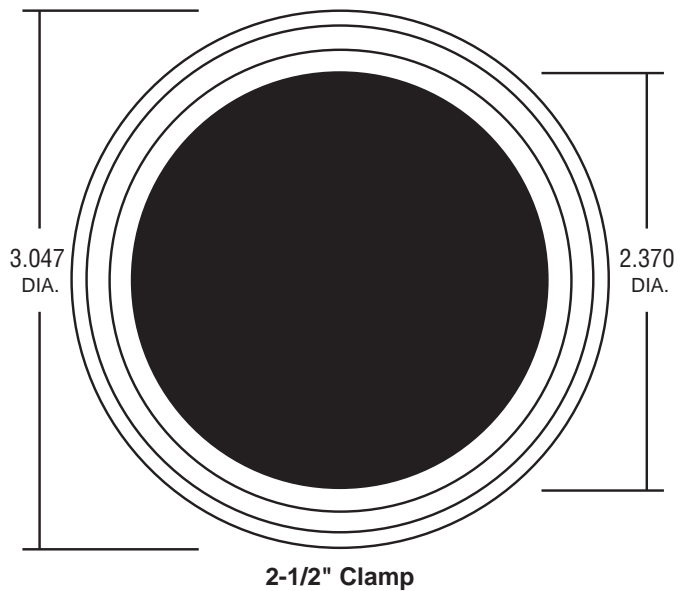
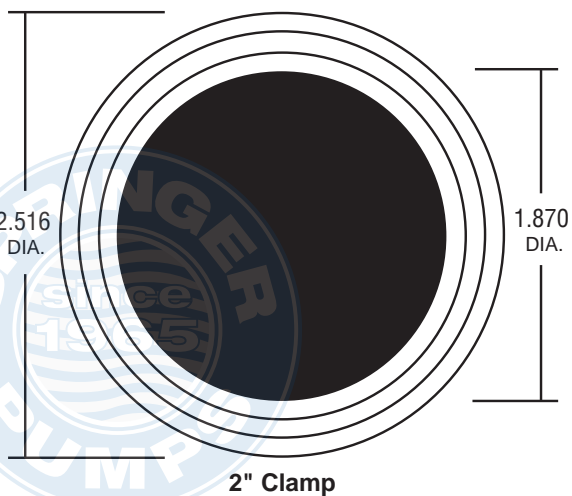
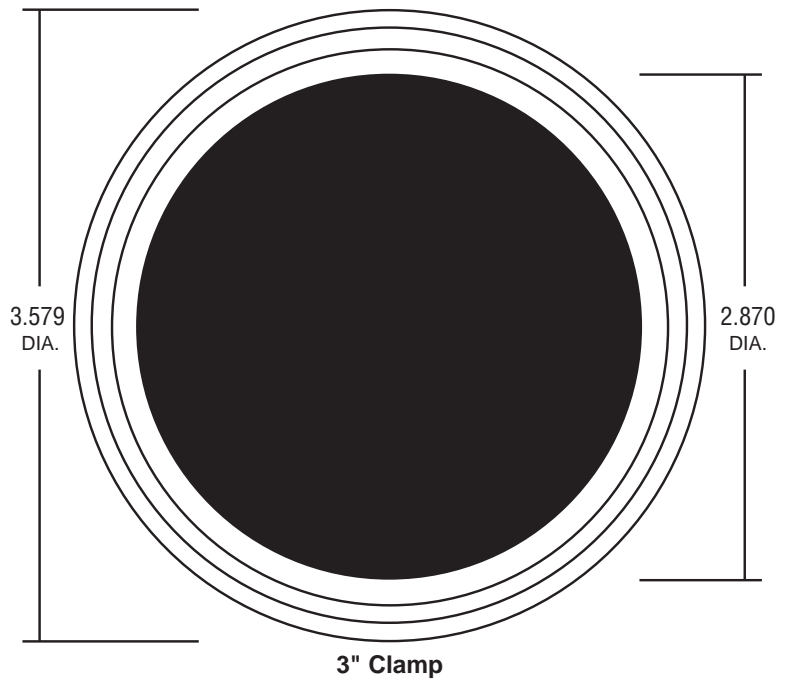
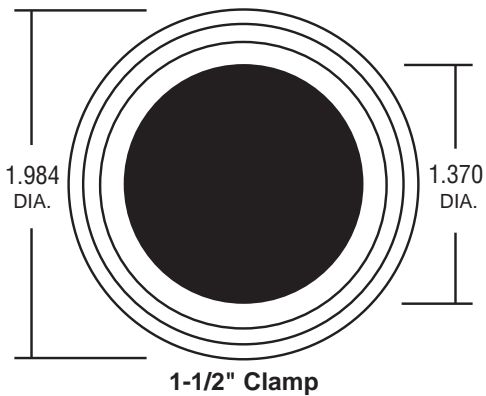
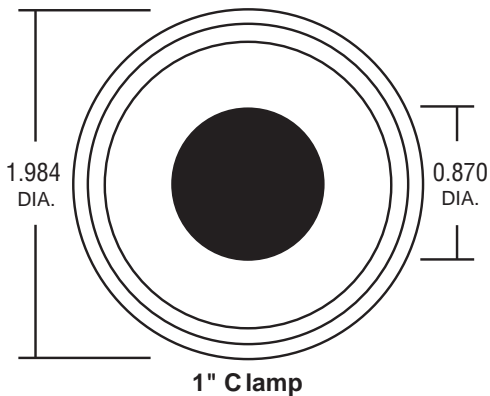
Products are warranted for a period of 180 days from the date of delivery to purchaser to be free from defects of material and workmanship when used in a normal manner, and excludes all implied warranties, including those of merchantability and providing periodic inspection is conducted to maintain Good Manufacturing Practices. The liability of the Warrantor hereunder excludes consequential damage to persons or property of all types and is limited, at warrantor's option, to replace, repair or refund as applicable. Purchaser should make written claim to warrantor to commence warranty adjustment procedures. Upon warrantor's receipt of written notice from purchaser, within the warranty period that claim is being made, pursuant hereto, together and substantiating purchase documentation, warrantor shall have reasonable opportunity to inspect all assembly components.

Sanitary Clamp Fitting



These actual-size drawings are provided for your convenience and ordering accuracy when specifying sanitary fittings.

- 0.984" O.D. is the same for 1/2", 3/4" I.D. styles.
- 1.984" O.D. is the same for 1" and 1-1/2" I.D. styles.
- Varying O.D. for the 2", 2-1/2" and 3" I.D. styles



Installation Information

USING THIS ACRONYM "STAMPED" WILL ASSIST YOU IN ORDERING THE APPROPRIATE HOSE.

- S = SIZE**
- T = TEMPERATURE** (WORKING & CLEANING)
- A = APPLICATION**
- M = MEDIA** (MATERIAL BEING TRANSFERED)
- P = PRESSURE** (WORKING & CLEANING)
- E = END STYLE** (TYPE & ALIGNMENT)
- D = DELIVERY** (SPECIAL PACKAGING)

STAMPED

Chemical Charts are located on our website

Prior to Installation

Inspect hose completely for signs of obvious damage. Possible damage may include cuts to cover, kinking, broken braids and crushing. This damage can reduce hose life and pressure rating.

Do Not Use any damaged hose.

Hose should be application specific. Review materials, pressures, chemical compatibility, temperature and environment to ensure proper selection of hose.

- Restrict hose movement to a single plane (Fig. 1) to minimize resultant twisting or torque. Within the bending plane is where flexing should occur. Stress fatigue increases with excessive bending of hose.
- Axial or twisting movement (Fig. 2) should be eliminated. The likelihood of leakage or failure increases for hoses that are twisted (torqued) during assembly. Floating flanges or swivel-type fittings (i.e., JIC) can eliminate improper twisting.
- Avoid stretching or compressing the hose (Fig. 3) along its longitudinal axis with in-line installation.
- Failure of hose will occur when hose is bent (Fig. 4) beyond minimum bend radius. Bend radii are given for individual products and sizes. The bend radius values must be observed (measure to inside radius of fluoropolymer-lined hose and centerline for stainless steel metal hose) for hoses to be installed properly. Occasionally, vacuum and pressure ratings are based on not to exceed 2% minimum bend radius. The manufacturer should be contacted for specific hose ratings and data.

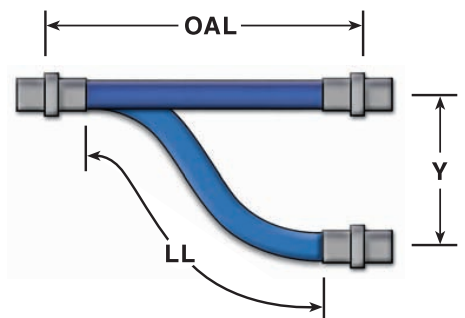
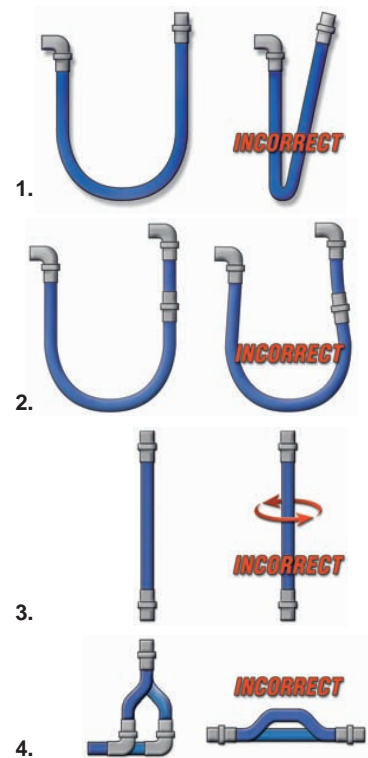
Motion Calculations

Axial Motion: Motion that occurs when a hose is compressed along its longitudinal axis. Axial motion is only applicable in very short lengths of annular hose only. Fluoropolymer lined hose should not be subjected to axial motion.

Offset Motion: Motion that occurs when one end of the hose is deflected in a plane perpendicular to its longitudinal axis with the ends remaining parallel. In offset applications where motion is repeated, the offset should never exceed 25% of the minimum bend radius. To calculate the required live length to achieve a desired offset, use the following calculations:

$$LL = \sqrt{6YR + Y^2}$$

LL = Hose live length, inches
 R = Min. Bend Radius, inches
 Y = Offset, inches
 OAL = LL + Fitting Length + (2x nominal hose diameter)



Note: Where offset motion "Y" occurs on both sides of hose centerline, the hose live length should be based on total travel, or 2Y. The modified calculation will be:

$$LL = \sqrt{12YR + (2Y)^2}$$



Cautionary Statement

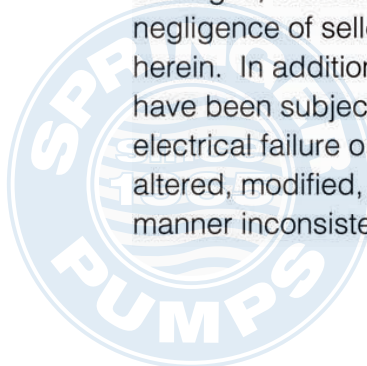
All products are in the nature of commodities and they are sold by published specifications and not for particular purposes, uses or applications. Purchaser shall first determine their suitability for the intended purposes, uses or applications and shall either conduct its own engineering studies or 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.

Purchaser shall follow all instructions contained in seller's catalogs, brochures, technical bulletins and other documents regarding the product. 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 merchandise or 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 to the purchase price of any products proving defective, or, at seller's option, to the replacement of such products 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 warranty 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.



Bend Radius (fluoropolymer hose and all rubber hose)

- The radius of a bent section of hose measured to the innermost surface of the curved portion (R1).

Bend Radius (metal hose)

- The radius of a bent section of hose measured to the hose centerline (R2).

Minimum Bend Radius

- The smallest radius at which a hose can be used.

Force to Bend

- The amount of stress required to induce bending around a specified radius - a measure of stiffness.

Maximum Rated Working Pressure

- The maximum pressure hoses should be subjected to on a continuous basis.

Maximum Rated Test Pressure

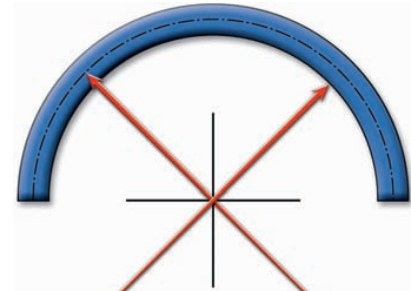
- The maximum rated pressure is multiplied by 150%.

Nominal Rated Burst Pressure

- The average pressure at which the core or braid will rupture at ambient temperature.

Pressure / Temperature Correction

- Hose pressure capabilities decrease as the temperature increases. Consult factory to determine pressure rating at elevated temperatures.



R1
Bend Radius All
(Except Metal Hose)
Measure to inside
radius

R2
Bend Radius for
Metal hose
Measure to
centerline
radius

Flexibility / Bend Radius

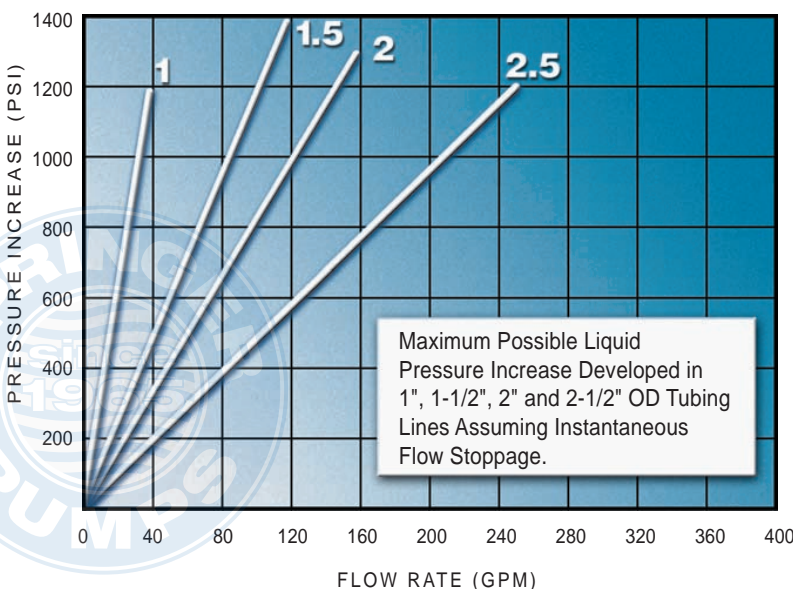
Reprinted from RMA Hose Handbook IP-2 Fourth Edition

Flexibility and minimum bend radius are important factors in hose design and selection if it is known that the hose will be subjected to sharp curvatures in normal use. When bent at too sharp an angle, hose may kink or flatten in the cross-section. The reinforcement may also be unduly stressed or distorted and the hose life thereby shortened.

Adequate flexibility means the hose should be able to conform to the smallest anticipated bend radius without over stress. The minimum bend radius is generally specified for each hose in this catalog. This is the radius to which the hose can be bent in service without damage or appreciably shortening its life. The radius is measured to the inside of the curvature.

Hydraulic Shock...

Due To Instantaneous Pressure Increase



Formula to determine minimum hose length given bend radius and degree of bend required:

$$L = \frac{A}{360^\circ} \times 2\pi B$$

L = Minimum length of hose to make bend
(bend must be made equally along this portion of hose length)

A = Angle of bend

B = Given bend radius of hose

π = 3.14

Example: To make a 60° bend at the hose's rated minimum bend radius of 15 cm

$$L = \frac{60}{360^\circ} \times 2 \times 3.14 \times 15 \approx 16 \text{ cm}$$

Thus, the bend must be made over approximately 16 cm of hose length. The bend radius used must be equal to or greater than the rated minimum bend radius. Bending the hose to a smaller bend radius than minimum may kink the hose and the result in damage and early failure.

Flex-Crimp™

Flex-Crimp™ brand of crimpers is a powerful machine capable of crimping a variety of sanitary, hydraulic, composite and industrial hoses. All Flex-Crimp models come standard with a quick change tool for quick and easy die changes. The touch screen crimp controller takes the guess work out of crimping with easy machine calculations.

The Flex-Crimp system consistently crimps to within .005" everytime. The Flex-Crimp line of products offers the most consistent crimp in the market today and comes with a one year manufacturer's warranty.



Precision CNC Machining

Ace Manufacturing Co. can provide the solution to your most demanding production problems by combining today's technology with over 100 years of manufacturing experience. We serve many industries in producing a diverse range of parts from a variety of materials, from cold rolled steel to exotic alloys. Our computer generated programs minimize turnaround time, enabling us to produce your parts on time. We operate in compliance with ISO standards to ensure that the parts we produce are to specification. Our experience and full service commitment make us a vital member of your manufacturing team.

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