



2015 OEM BOATBUILDER PRODUCTS



ELECTRICAL

SHIELDS HOSE

FUEL SYSTEMS



SHIELDS EXHAUST HOSE RECEIVES LLOYD'S APPROVAL

Three marine exhaust hoses from Shields Marine Hose have qualified for Lloyd's Register Type Approval. This certification provides unbiased, third party confirmation worldwide that these Shields exhaust hoses meet the highest standards of production quality. Certification ensures the proper level of product safety and inspires user confidence.

APPROVED HOSES:

Shieldsflex II Marine Exhaust/Water Hose (with wire) – **Series No. 250**

Shields' Marine Exhaust/Water Hose (no wire) – **Series No. 200**

Shieldsaust-C Hose – **Series No. 252.**



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SHIELDS HOSE

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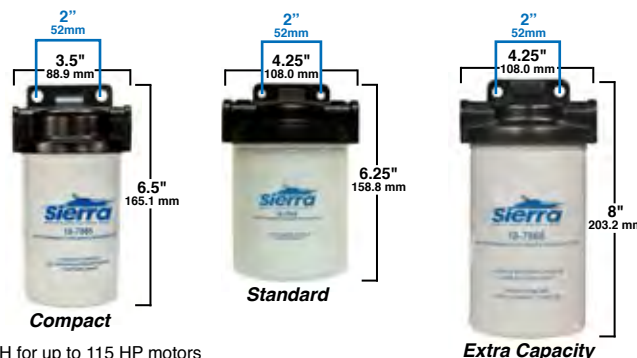
FUEL WATER SEPARATORS

Ethanol blended fuel absorbs more water and loosens more particulants than regular fuels. Proper filtration is required for every horsepower engine. Sierra fuel water separators remove over 98.8% of emulsified water from your gasoline. Sierra's 10 micron filters are over 90% efficient at removing particles as small as 10 micron. All filters flow at 90 GPH to feed even the hungriest motor. Sierra 10 micron filters are recommended to prevent damage to sensitive inboard and outboard fuel injection systems.

FILTERS

PART #	DESCRIPTION	RATING
18-7866	Extra Capacity - 6"	10 Micron
18-7944	Short - 3.88"	10 Micron
18-7945	Long - 4.35"	10 Micron
18-7845	Long - 4.35"	21 Micron
18-7865	Compact Filter	10 Micron

Available in standard packs of 12.



KITS

PART #	DESCRIPTION	CONTAINS:
FWSKIT14AL10	Complete Kit - 1/4" AL HD 4 1/2" 10 micron filter	(1) SUB-187852-1, (1) 18-7945, (2) 5153R
FWSKIT38AL10	Complete Kit - 3/8" AL HD 4 1/2" 10 micron filter	(1) N-187775, (1) 18-7945, (2) N-184264
FWSKIT38SS10	Complete Kit - 3/8" SS HD 4 1/2" 10 micron filter	(1) N-187776-1, (1) 18-7945, (2) N-184264
118-7852-1KIT	Bulk Pack 48 Kits 1/4" Alum 1/4" 10 micron	(48) SUB-187852-1, (48) 18-7945, (96) 5153R
118-7986-1B-KIT	Bulk Pack 48 kits 1/4" Alum 10 micron w/ fittings	(48) SUB-187852-1, (48) 18-7945, (96) 5153R , (96) 118-500-3814

BRACKETS

Sierra brackets are precision machined powder coated aluminum or marine grade stainless steel. They are available with 3/8" or 1/4" inlets.



PART # BULK	PART # BOXED	DESCRIPTION	STANDARD PACK
N-187776-1	18-7776	3/8" Thread Stainless Steel	14
N-187777-1	18-7777	1/4" Thread Stainless Steel	14
N-187775	18-7775	3/8" Thread Aluminum	48
SUB-187852-1	18-7853-1	1/4" Thread Aluminum	48
N-187774S	18-7774	1/4" Thread Aluminum (Compact)	60
N-184264	18-4264	3/8" Pipe Plugs	—
5153R	18-4256	1/4" Pipe Plugs	—

PRIMER BULBS

Sierra is a leading supplier of primer bulbs to the marine aftermarket. Our bulbs are molded in house. We use double check valves with viton balls and stainless steel springs.



PART #	DESCRIPTION
SUB-188002EP-1	Primer bulb for 1/4" hose
SUB-188004EP-1	Primer bulb for 5/16" hose
SUB-188005EP-1	Primer bulb for 3/8" hose

CUSTOM FUEL LINE ASSEMBLIES

- Sierra can fabricate custom assemblies for OEM applications.
- Any combination of hose and fittings is possible.
- Use type A hose to the splash well and type B hose to the engine.
- Customizable length.
- Inlet can be 3/8" with 5/16" outlet.
- Numerous OEM connectors available.



CLAMPS



18-9145

OETIKER CLAMP KIT

Replaces: Yamaha YB-6AW04-A

Fits: All F115-F350 and HPDI Models.

Kit includes:

PART #	MM
N-189146	19.8 mm
N-189133	15.7 mm
18-9141	Pincers

Package of 10, available individually.



18-9125

OETIKER CLAMP KIT

Replaces: Johnson Evinrude 787133, 787145

Kit includes:

PART #	MM
N-189126	9.5 mm
N-189127	10.5 mm
N-189128	11.3 mm
N-189129	13.3 mm
N-189130	13.8 mm
N-189131	14.0 mm
N-189132	14.5 mm
N-189133	15.7 mm

PART #	MM
N-189134	17.0 mm
N-189135	21.0 mm
N-189136	25.6 mm
N-189137	30.1 mm
N-189138	31.6 mm
N-189139	41.0 mm
N-189140	18.5 mm
18-9141	Pincers



PART #	JOHNSON EVINRUDE #	OETIKER #	NOMINAL OD	
			INCHES	MM
N-189132	346785	16700013	9/16"	14.5
N-189133	346786	16700016	5/8"	15.7
PART #	YAMAHA #	OETIKER #	INCHES	MM
N-189133	YB-6AW04-A	16700016	5/8"	15.7
N-189146	YB-6AW04-3	16702498	3/4"	19.8

Note: T-bolt Clamps can be found on Page 62

SHUT OFF VALVES



N-181650

SHUT OFF VALVE

3 way 1/4" FNPT Valve



N-181651

SHUT OFF VALVE

2 way 1/4" FNPT Male/Male
Shut off Valve



N-181652

SHUT OFF VALVE

2 way 1/4" FNPT Male/Female
Shut off Valve



N-181653

SHUT OFF VALVE

2 way 1/4" FNPT Female/
Female Shut off Valve



N-181655

SHUT OFF VALVE

3 way 1/4" FNPT Valve w/ Detent



N-181656

SHUT OFF VALVE

3 way 3/8" FNPT Valve w/ Detent

IGNITION SWITCHES

Sierra offers the most complete selection of high quality polyester and brass ignition switches for the marine industry.

Marine grade glass-filled polyester switches

- Maximum corrosion protection – eliminates oxidation
- Inner seal between cylinder lock and contact plate
- Non-conductive housing eliminates potential shorts
- 20 Amp rating
- 2, 3 and 4 position switches
- Switches for magneto and conventional ignitions

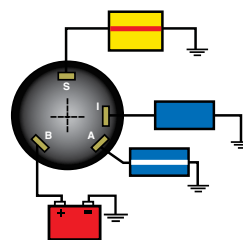
Brass ignition switches

- Corrosion resistant construction
- Up to 15 Amp rating
- 2, 3 and 4 position switches
- Switches for magneto and conventional ignitions

4 POSITION CONVENTIONAL - ACCESSORY - OFF - RUN - START

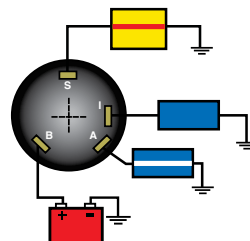
MP39802 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	4 Blade
Back Up Nut	Brass
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



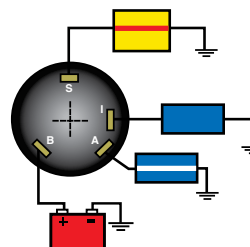
MP41042 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	4 Screw Tab
Back Up Nut	Brass
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



MP39072 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Brass
Length	Long: 1" maximum panel thickness
Terminal Type	4 Screw Tab
Back Up Nut	Brass
Face Nut	Knurled black chrome w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



MP39702-1 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	4 Color Code Wires
Back Up Nut	Brass
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



WIRE & DIAGRAM COLOR CODES

Red - Battery

Black - Magneto Ground

Yellow w/ Red Stripe - Solenoid
Black w/ Yellow Stripe - Magneto

Purple - Ignition

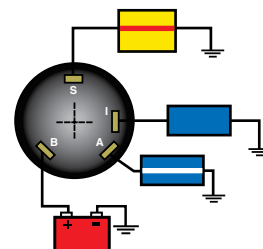
Yellow w/ Black Stripe - Choke

Purple w/ White Stripe - Accessory

4 POSITION CONVENTIONAL - ACCESSORY - OFF - RUN - START (CONTINUED)

MP41022 – BULK 100 PCS/CTN

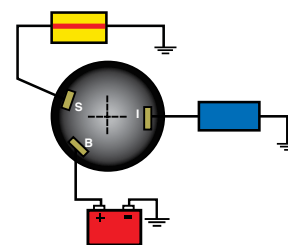
DESCRIPTION	
Material	Brass
Length	Long: 1" maximum panel thickness
Terminal Type	4 Screw Tab
Back Up Nut	Brass
Face Nut	Hex Chrome Face Nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



3 POSITION CONVENTIONAL - OFF - RUN - START

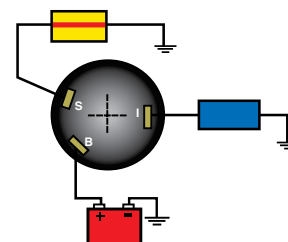
MP39062-1 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Brass
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	3 Screw Tab
Back Up Nut	Brass
Face Nut	Hex Chrome Face Nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC



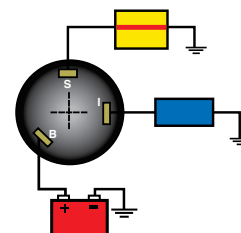
MP39082-1 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Brass
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	3 Screw Tab
Back Up Nut	Brass
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC



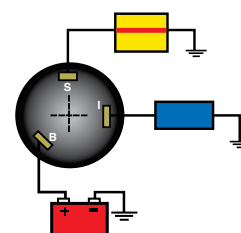
MP39122 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	3 Screw Tab
Back Up Nut	Brass
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC



MP39782 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	3 Screw Tab
Back Up Nut	Brass
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC



WIRE & DIAGRAM COLOR CODES

Red - Battery

Black - Magneto Ground

Yellow w/ Red Stripe - Solenoid

Black w/ Yellow Stripe - Magneto

Purple - Ignition

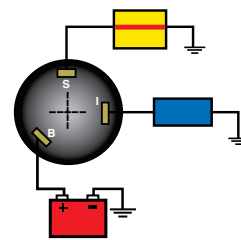
Yellow w/ Black Stripe - Choke

Purple w/ White Stripe - Accessory

3 POSITION CONVENTIONAL - OFF - RUN - START (CONTINUED)

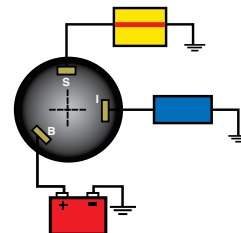
MP39202 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	3 Screw Tab
Back Up Nut	Brass
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC



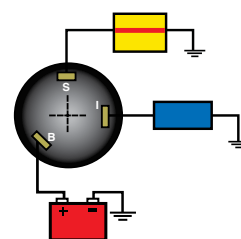
MP39772 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	3 Blade
Back Up Nut	Brass
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC



MP41032 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	3 Screw Tab
Back Up Nut	Brass
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC

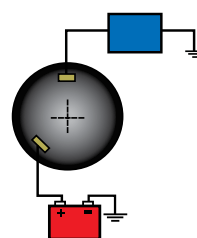


2 POSITION CONVENTIONAL - OFF - RUN - START

USE WITH SEPARATE STARTER BUTTON

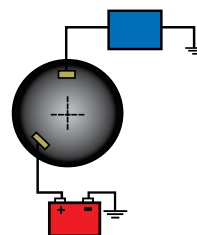
MP39012 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Brass
Length	Short: 5/8" maximum panel thickness
Terminal Type	2 Screw Tab
Back Up Nut	Brass
Face Nut	Hex Chrome Face Nut
Hole Size	3/4"
Rated	
Ignition	5 Amp @ 12v DC



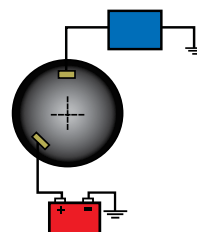
MP39022 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Brass
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	2 Screw Terminal
Back Up Nut	Brass
Face Nut	Hex Chrome Face Nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC



MP39822-1 – BULK 100 PCS/CTN

DESCRIPTION	
Material	Brass
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	2 Screw Terminal
Back Up Nut	Brass
Face Nut	Knurled Chrome Plated w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC



WIRE & DIAGRAM COLOR CODES

Red - Battery
Black - Magneto Ground

Yellow w/ Red Stripe - Solenoid
Black w/ Yellow Stripe - Magneto

Purple - Ignition
Yellow w/ Black Stripe - Choke

Purple w/ White Stripe - Accessory

4 POSITION MAGNETO - ACCESSORY - OFF - RUN - START

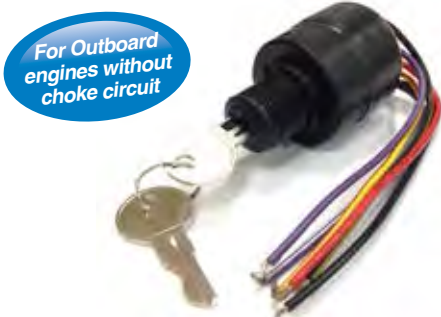
MP39712-1 - BULK 100 PCS/CTN PUSH TO CHOKE

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	7 Color Code Wires
Back Up Nut	Brass
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Accessory	15 Amp @ 12v DC
Choke	7 Amp @ 12v DC



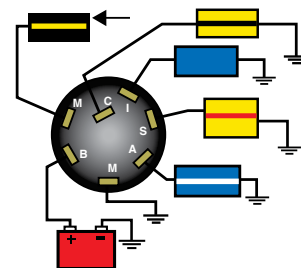
MP39722-1 - BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	6 Color Code Wires
Back Up Nut	Brass
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



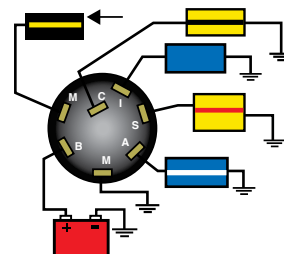
MP41012 - BULK 100 PCS/CTN PUSH TO CHOKE

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	7 Screw Tab
Back Up Nut	Brass
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Choke	7 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



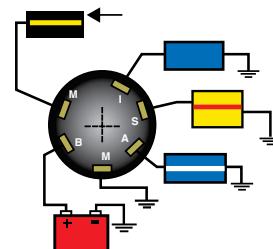
MP41082 - BULK 100 PCS/CTN PUSH TO CHOKE

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	6 Screw Tab, 1 Boss Screw
Back Up Nut	Plastic
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Choke	7 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



MP39732 - BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	7 Screw Tab
Back Up Nut	Brass
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Choke	7 Amp @ 12v DC
Accessory	15 Amp @ 12v DC



WIRE & DIAGRAM COLOR CODES

Red - Battery

Black - Magneto Ground

Yellow w/ Red Stripe - Solenoid

Black w/ Yellow Stripe - Magneto

Purple - Ignition

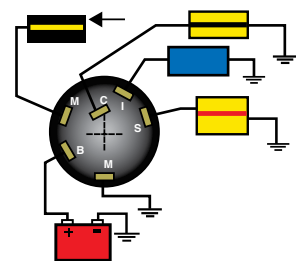
Yellow w/ Black Stripe - Choke

Purple w/ White Stripe - Accessory

3 POSITION MAGNETO - OFF - RUN - START

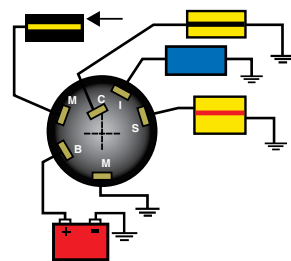
MP39762 - BULK 100 PCS/CTN PUSH TO CHOKE

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	5 Screw Tab, 1 Boss Screw
Back Up Nut	Plastic
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Choke	7 Amp @ 12v DC



MP41002 - BULK 100 PCS/CTN PUSH TO CHOKE

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	6 Screw Tab
Back Up Nut	Brass
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Choke	7 Amp @ 12v DC



MP39742-1 - BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	5 Color Code Wires
Back Up Nut	Plastic
Face Nut	Knurled black plastic w/rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Accessory	15 Amp @ 12v DC

For Outboard engines without choke circuit



MP41072-2 - BULK 100 PCS/CTN PUSH TO CHOKE / MERCURY CONTROL BOX APPLICATIONS

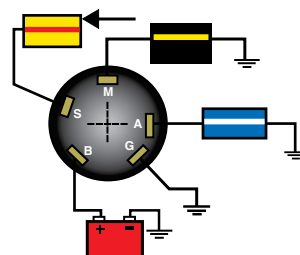
(Colors on switch wires match factory color codes.)

DESCRIPTION	
Material	Polyester
Length	Short: 5/8" maximum panel thickness
Terminal Type	6 Color Coded Wire Leads/Potted
Back Up Nut	Not Required
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Choke	7 Amp @ 12v DC



MP39042 - BULK 100 PCS/CTN PUSH TO CHOKE

DESCRIPTION	
Material	Brass
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	5 Screw Tab
Back Up Nut	Brass
Face Nut	Hex Chrome Face Nut
Hole Size	7/8"
Rated	
Ignition	10 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC



WIRE & DIAGRAM COLOR CODES

Red - Battery
Black - Magneto Ground

Yellow w/ Red Stripe - Solenoid
Black w/ Yellow Stripe - Magneto

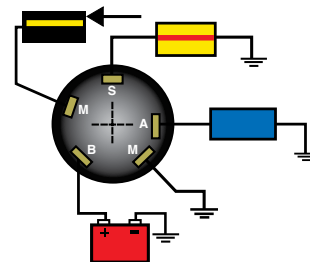
Purple - Ignition
Yellow w/ Black Stripe - Choke

Purple w/ White Stripe - Accessory

3 POSITION MAGNETO - OFF - RUN - START (CONTINUED)

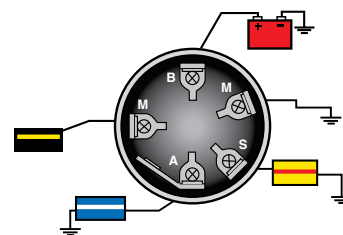
MP39102 - BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	5 Screw Tab
Back Up Nut	Brass
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC



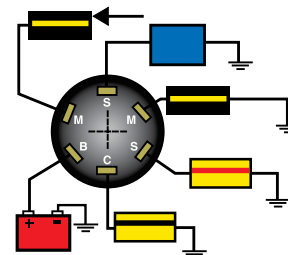
MP39832 - BULK 100 PCS/CTN

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	6 Screw Tab
Back Up Nut	Brass
Face Nut	Hex black plastic face nut
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Choke	7 Amp @ 12v DC



MP39092 - BULK 100 PCS/CTN PUSH TO CHOKE

DESCRIPTION	
Material	Polyester
Length	Long: 1 1/8" maximum panel thickness
Terminal Type	6 Screw Tab
Back Up Nut	Anodized steel
Face Nut	Hex plastic face nut w/snap on rubber cap
Hole Size	7/8"
Rated	
Ignition	15 Amp @ 12v DC
Solenoid	30 Amp @ 12v DC
Choke	7 Amp @ 12v DC



WIRE & DIAGRAM COLOR CODES

Red - Battery
Black - Magneto Ground

Yellow w/ Red Stripe - Solenoid
Black w/ Yellow Stripe - Magneto

Purple - Ignition
Yellow w/ Black Stripe - Choke

Purple w/ White Stripe - Accessory

EMERGENCY ENGINE CUT-OFF SWITCHES

- Kills ignition when lanyard is pulled
- For use with conventional or magneto ignitions
- Unique design of MP40972-1 keeps plunger down when lanyard connected
- Seals out moisture
- Makes reconnection easier
- Panel thickness up to 1/4"



MP40972-1*
SWITCH AND LANYARD
Will provide a "normally open" or
"normally closed" circuit.



MP28872*
SWITCH AND LANYARD
Replaces: OMC 585134
Closed position w/ lanyard off.



MP40977TB-1*
SWITCH AND LANYARD
Cut-off Switch w/ Coiled Lanyard - potted



MP55332*
SWITCH AND LANYARD
Cut-off Switch w/ Coiled Lanyard - no float no tag

ROTARY SWITCHES

- Unique ergonomic design, styling and performance
- 20 AMP @ 12 Volts DC
- Durable cam design for long life
- UV stabilized thermoplastic housing
- Knob acts as umbrella - Silicone lip seal mates with stalk
- Separate light modules optional
- Replaces toggle or rocker switches with minimal panel alterations
- 1/2" hole size



RotoSwitch® provides illumination with different colors providing immediate visual information of switch position.

	BULK ① NUMBER	NUMBER OF BATTERY FEEDS	45° COUNTER CLOCKWISE	CIRCUITS "ON"		
				12 O'CLOCK	45° CLOCKWISE	90° CLOCKWISE
	MP78712 *MP59012	1	—	OFF	#	—
	MP78722	1	—	OFF	#1(M)	—
	MP78732 *MP59032	1	#1	OFF	#2	—
	MP59042	1	#1(M)	OFF	#2(M)	—
	MP59062	1	#1	—	#2	—
	MP78802 *MP59102	2	#1	OFF	#2	—
	MP78822 *MP59122	1	#2	OFF	#1&2	—
	*MP59132	1	—	OFF	#2	#1&2
	*MP59162	1	OFF	#1	#2	#1&2

① Bulk - 100 pieces per carton.

* Switch Only - No Knob

(M)=MOMENTARY

REPLACEMENT KNOBS

All include rubber umbrella seal. Original Ergotech design knob.



***MP79732**
Tan knob with light tube. Use with illumination module.



***MP79742**
Black knob with black indicator.



***MP79762**
Black knob with light tube. Use with illumination module.



***MP78372**
Black knob with light tube for use with light module.

Mounting
Accessories
for RotoSwitch®.



***MP78962**
Anti-rotation collar. Use when installing non-illuminated RotoSwitches in very thin dash panels. This adapter prevents the switch from "slipping" if excessive force is used to actuate the switch.

ILLUMINATION MODULE

Add flexibility and function to any installation of RotoSwitch® rotary switches. By using a variety of colored lenses, the status of each switch – "Off", "On-1", "On-2" – can instantly be determined.

C = Clear G = Green
R = Red B = Black



***MP78872**



***MP78882**



***MP78912**



***MP78942**



***MP78952**



***MPL78972**

* BULK - 100 PIECES PER CARTON

HEAVY DUTY 25 AMP TOGGLE SWITCHES



- Nickel Plated Brass Mounting Stem and Hardware
- Handle 11/16" (17.46mm) long
- Mounting Stem 15/32"-32 thread, 15/32" (11.81mm) long
- Fits panels up to 1/4" (6.35 mm) thick
- Rated: 25 Amp @ 12v DC



***TG22002**
ON-OFF SPST



***TG22012**
ON-OFF-ON SPDT



***TG22022**
ON-OFF-ON DPDT



***TG22032**
MOM ON-OFF SPST



***TG22042**
MOM ON-OFF-MOM
ON SPDT

WEATHER RESISTANT TOGGLE SWITCHES



- Plasticized coating seals out moisture and dirt
- Nickel plated brass handle, mounting stem and hardware
- 10" L 16 gauge wire leads
- Handle 11/16" (17.46 mm) long
- Mounting stem 15/32"-32, 13/32" (10.31mm) long
- Fits panel up to 3/16" (4.76 mm) thick
- Includes MP39030 weather proof boot nut
- Rated: 15 amps @ 12v DC
- Plasticized coating seals out moisture and dirt
- Nickel plated brass handle, mounting stem and hardware
- 10" L 16 gauge wire leads
- Handle 11/16" (17.46 mm) long



***TG19562-1**
OFF-ON SPST

***TG19542-1**
OFF-MOM ON SPST

***TG19552-1**
ON-OFF-ON SPDT

WEATHER RESISTANT PUSH PULL SWITCHES

*MP39382

OFF-ON SPST

- Solid brass construction
- Gasket sealed case
- 3/8" mounting bushing
- 2 screw terminals
- 3/4" chrome plated brass knob
- For panels up to 1" thick
- Rated: 15 amp @ 12v DC



*MP39392

OFF-ON SPST
with chrome plated plastic knob

*MP39392B

OFF-ON SPST
with chrome plated
brass knob

- Solid brass construction
- Vinyl coated body to resist moisture
- Two 18 gauge x 12" wire leads
- 3/8" mounting bushing
- For panels up to 1" thick
- Rated: 15 amp @ 12v DC



HEAVY DUTY MARINE PUSH PULL SWITCHES

*MP39512

OFF-ON SPST

- Pull for ON
- Solid brass construction
- 3/8" mounting bushing
- 2 screw terminals
- For panels up to 1" thick
- Cream plastic knob
- Rated: 15 amp @ 12v DC



*MP39522

OFF-ON SPST

- Pull for ON
- Solid brass construction
- 3/8" mounting bushing
- 2 screw terminals
- For panels up to 1" thick
- Chrome plated plastic knob
- Rated: 15 amp @ 12v DC



*MP39532

OFF-ON SPST

- Pull for ON
- Solid brass construction
- 3/8" mounting bushing
- 2 screw terminals
- For panels up to 1" thick
- Chrome plated solid brass knob
- Rated: 15 amp @ 12v DC



*MP39542

OFF-ON SPST

- Pull for ON
- Solid brass construction
- 3/8" mounting bushing
- 2 blade terminals
- For panels up to 1" thick
- Chrome finish plastic knob
- Rated: 15 amp @ 12v DC



*MP39572

OFF-ON(1)-ON(1&2) SPDT

- First pull energizes #1
- Second pull energizes both circuits
- Solid brass construction
- 3/8" mounting bushing
- 3 screw terminals
- For panels up to 1" thick
- Chrome finish plastic knob
- Rated: 15 amp @ 12v DC



*MP39612

OFF-ON(1)-ON(2&3) SPDT

- First pull energizes #1
- Second pull energizes two separate circuits
- For anchor/running lights or similar function
- Solid brass construction
- 3/8" mounting bushing
- 4 screw terminals
- For panels up to 1" thick
- Chrome finish plastic knob
- Rated: 15 amp @ 12v DC



HEAVY DUTY MARINE PUSH PULL SWITCHES (CONTINUED)

*MP39602

OFF-ON (1 & 2) SPST

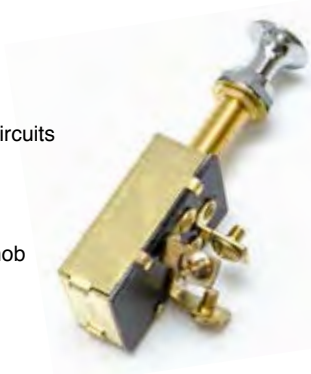
- Pull for ON - turns on two separate circuits
- Solid brass construction
- 3/8" mounting bushing
- 3 screw terminals
- For panels up to 1" thick
- Chrome plated solid brass knob
- Rated: 15 amp @ 12v DC



*MP39582

OFF-ON(1)-ON(1&2) SPDT

- First pull energizes #1
- Second pull energizes both circuits
- Solid brass construction
- 3/8" mounting bushing
- 3 screw terminals
- For panels up to 1" thick
- Chrome plated solid brass knob
- Rated: 15 amp @ 12v DC



*MP39592

OFF-ON(1)-ON(1&2) SPDT

- First pull energizes #1
- Second pull energizes both circuits
- Solid brass construction
- 3/8" mounting bushing
- 3 blade terminals
- For panels up to 1" thick
- Chrome finish plastic knob
- Rated: 15 amp @ 12v DC



*MP39402

ON-ON SPST

- Used to control same circuit fr two locations
- Solid brass construction
- 3/8" mounting bushing
- 3 screw terminals
- For panels up to 1" thick
- Chrome plated solid brass knob
- Rated: 15 amp @ 12v DC



*MP39622

OFF-ON(1)-ON(2&3) SPDT

- First pull energizes #1
- Second pull energizes two separate circuits
- For anchor/running lights or similar function
- Solid brass construction
- 3/8" mounting bushing
- 4 screw terminals
- For panels up to 1" thick
- Chrome plated solid brass knob
- Rated: 15 amp @ 12v DC



*MP39642

OFF-ON(1)-ON(2) SPDT

- First pull energizes #1
- Second pull energizes circuit 2
- Solid brass construction
- 3/8" mounting bushing
- 3 screw terminals
- For panels up to 1" thick
- Chrome plated solid brass knob
- Rated: 15 amp @ 12v DC



* BULK - 100 PIECES PER CARTON

BRASS PUSH BUTTON SWITCHES

- Solid brass construction
- For starter, horn or other functions
- 1 1/4"L x 5/8" mounting stem
- 2 screw terminals (except MP39340)
- Rated: 20 amp @ 12v DC



***MP39312**
MOM ON - OFF SPST
with chrome plated brass
face nut and button



***MP39322**
MOM ON - OFF SPST
with rubber boot nut



***MP39342**
MOM ON - OFF SPS
with rubber boot nut
blade terminals

PUSH BUTTON SWITCHES

- Contoured plastic button
- Chrome plated brass mounting stem
- 1/2" Mounting hole
- 2 brass blade terminals
- Rated 15 amp @ 12v DC



***MP39682**
MOM ON - OFF SPST
Black Button

***MP39692**
MOM ON - OFF SPST
Red Button

***MP39672**
MOM ON - OFF SPST
White Button



***MP39302**
MOM ON - OFF SPST
• Large black plastic button
• Chrome plated brass housing
• For fog horns or sirens
• Overall width 2 5/8"

- *MP39352**
PUSH BUTTON SWITCH
MOM ON - OFF SPST
- Solid brass construction
 - Weather resistant plasticized coating
 - Rubber boot nut
 - Two 12" L 18 gauge wire leads
 - Mounting bushing 15/16" L X 5/8"-32
 - Rated: 10 amps @ 12v DC



MAXI™ FUSE BLOCK

*FS81082

- Black Reinforced Polycarbonate
- For Maxi™ fuses 30-80 A
- Snap-on cover insulates conductive parts - meets ABYC & USCG requirements
- Accepts 18-4 AWG wire from sides or bottom
- Maximum voltage - 32v DC
- Meets SAE J1171



GROUND BUS BAR FOR ATO/ATC FUSE BLOCKS



*FS40732

- Replacement bus bar for Sierra ATO/ATC fuse blocks
- 14 - 1/4" tin plated copper tab terminals

ATO/ATC STYLE FUSE BLOCKS

- For ATO/ATC fuses
- Interlocking modules snap together
- 1/4" tin plated copper tab terminals
- Flame resistant reinforced polyester base
- Rated 30 Amps per circuit, 160 Amp total for block



WITH GROUND BUS BAR

PART #	# OF GANGS
*FS40422	6
*FS40432	4
*FS40442	14
*FS40452	8
*FS40742	10
*FS40752	10

WITHOUT GROUND BUS BAR

PART #	# OF GANGS
*FS40412	14
*FS56242	4
*FS56232	6
*FS56252	10

HIGH AMPERAGE CIRCUIT BREAKERS

* Perfect for rigging trolling motors, windless, and other high amp electrical equipment

CB60002

- Ignition Protected
- Waterproof
- Can be used as switch and circuit breaker
- Replaces Minnkota MKR-19
- Rated - 60 A
- Maximum voltage 42v DC



CORROSION RESISTANT COMMON BUS BARS

- Use as common hot feed or common ground block
- Tin plated copper bus
- Stainless steel studs & screws
- Large diameter nuts provide large electrical contact area
- Stainless steel screws with lock washers

150 AMP COMMON BUS



***FS46102**

- 5 - 8-32 Screw Terminals
 - 2 - 10-24 Stud Terminals
- Overall size - 4.13"L x .75"W x 1.44"H**



***FS46152**

- 4 - 10-24 Stud Terminals
- Overall size - 4.13"L x .75"W x 1.44"H**



***FS46202**

- 10 - 8-32 Screw Terminals
 - 2 - 1/4"-20 Stud Terminals
- Overall size - 6"L x 1.25"W x 1.44"H**



***FS46252**

- 4 - 1/4"-20 Stud Terminals
- Overall size - 6"L x 1.25"W x 1.44"H**



***FS46402**

- 20 - 8-32 Screw Terminals
 - 2 - 1/4"-20 Stud Terminals
- Overall size - 9 1/4"L x 1.25"W x 1.44"H**



***FS46452**

- 6 - 1/4"-20 Stud Terminals
- Overall size - 9 1/4"L x 1.25"W x 1.44"H**

250 AMP COMMON BUS



***FS46302**

- 12 - 8-32 Screw Terminals
 - 2 - 1/4"-20 Stud Terminals
- Overall size - 7.88"L x 1.5"W x 1.75"H**



***FS46352**

- 4 - 1/4"-20 Stud Terminals
- Overall size - 7.88"L x 1.5"W x 1.75"H**

600 AMP COMMON BUS



***FS46552**

- 4 x 3/8-16 Stud Terminals
- Overall size - 7.00"L x 2"W x 2"H**



***FS46562**

- 8 x 3/8-16 Stud Terminals
- Overall size - 11.375"L x 2"W x 2"H**

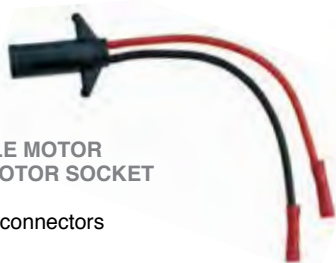
TROLLING MOTOR PLUGS

60 AMP



***WH10602**

V-GROOVE FEMALE MOTOR
SIDE TROLLING MOTOR SOCKET
12 Volt
6" - 8 gauge w/ butt connectors
Use with WH10612



***WH10612**

V-GROOVE MALE BOAT SIDE
TROLLING MOTOR PLUG
12 Volt
6" - 8 gauge w/ butt connectors
Use with WH10602



N-181052

MALE BOAT SIDE
TROLLING MOTOR PLUG
12 Volt
6" - 8 gauge w/ butt connectors
Use with N-181053 (WH10530)



N-181053

FEMALE MOTOR SIDE
TROLLING MOTOR SOCKET
12 Volt
6" - 8 gauge w/ butt connectors
Use with N-181052 (WH10520)



N-181054

MALE BOAT SIDE
TROLLING MOTOR PLUG
24 Volt
6" - 8 gauge w/ butt connectors
Use with N-181055 (WH10550)



N-181055

FEMALE MOTOR SIDE
TROLLING MOTOR SOCKET
24 Volt
6" - 8 gauge w/ butt connectors
Use with N-181054 (WH10540)



N-181047

FEMALE BOAT SIDE
TROLLING MOTOR SOCKET
12 Volt
6" - 10 gauge w/ butt connectors
Use with N-181048 (WH10480)



N-181048

MALE MOTOR SIDE
TROLLING MOTOR PLUG
12 Volt
6" - 10 gauge w/ butt connectors
Use With N-181047 (WH10470)



N-181049

FEMALE BOAT SIDE
TROLLING MOTOR SOCKET
24 Volt
6" - 10 gauge w/ butt connectors
Use with N-181050 (WH10500)



N-181050

MALE MOTOR SIDE
TROLLING MOTOR PLUG
24 Volt
6" - 10 gauge w/ butt connectors
Use with N-181049 (WH10490)



* BULK - 100 PIECES PER CARTON

BATTERY ACCESSORIES



BATTERY CABLES

Gauge cable with soldered lug terminals on each end to accept a 3/8" stud.

PART #	SIZE	COLOR	GAUGE
N-188852	2'	RED	4
N-188853	2'	BLACK	4
N-188854	4'	RED	2
N-188855	4'	BLACK	2
N-188856	6'	RED	2
N-188857	6'	BLACK	2
N-188858	8'	RED	1
N-188859	8'	BLACK	1



N-186850

BATTERY DISCONNECT RELAY

Fits: Universal

BATTERY ISOLATORS



18-6851



18-6852



18-6853

PART NO.	DIMENSIONS	BATTERIES	ALTERNATORS	TERMINALS	MAX. OUTPUT
18-6851*	6 1/2" w x 4 1/2" d x 3 1/2" h	2	1	4	130 Amp
18-6852	8" w x 4 1/2" d x 3 1/2" h	2	1	3	165 Amp
18-6853	11" w x 4 1/2" d x 3 1/2" h	2	1	4	200 Amp
18-6854	8" w x 4 1/2" d x 3 1/2" h	3	1	4	160 Amp
18-6855*	3 1/4" w x 4 1/2" d x 3 1/2" h	2	1	4	75 Amp
18-6856	15" w x 4 1/2" d x 3 1/2" h	2	1	4	270 Amp

*Will not work with Delco "CS" style alternators • All battery isolators have Universal fit



18-6854



18-6855



18-6856

LOCKS & LATCHES



***MP49412**

- Turn to open mechanism – no finger pull
- Can be locked or left in latch only position
- Totally corrosion resistant
- Black glass reinforced polyester
- Supplied with 2 keys
- 1" hole size



***MP49432**

- Turn to open mechanism - no finger pull
- Non-Locking version
- Totally corrosion resistant
- Black glass reinforced polyester
- 1" hole size



***MP50562**

- Black sculpted knob
- Turn to open mechanism – no finger pull
- Can be locked or left in latch only position
- Totally corrosion resistant
- Black glass reinforced polyester
- Supplied with 2 keys
- 1" hole size



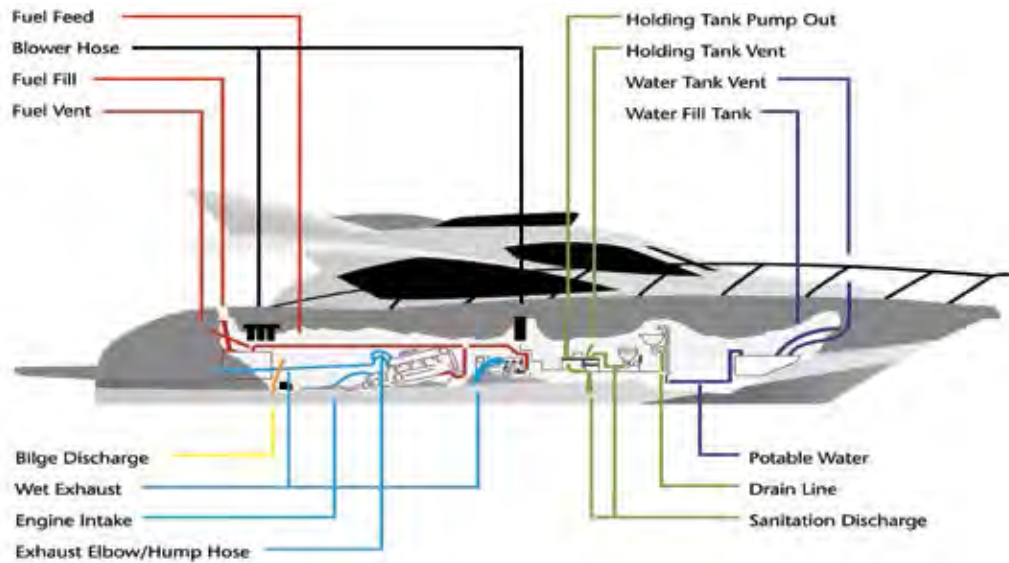
PERFORMANCE MOLDED CUSTOM KEYS



CUSTOMIZE YOUR BOAT!


- Available on most ignition switches from Sierra.
- Available blank. Use your drip molder or have us install the logo at the factory.

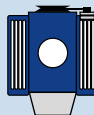
***Your single source for performance
molded custom keys!***




PRODUCT APPLICATION GUIDE KEY


- | | |
|---|---|
| EX — Designed to give excellent service | NA — Not available in size range |
| G — Designed to give good service in normal applications | 1 — Can easily be bent into tight radius |
| C — Product can give good service with proper installation, may not be suitable in all applications. | 2 — Can be bent into gradual radius |
| X — Not recommended | 3 — May kink in applications requiring bend radius |


SERIES NO.	NAME	PG. NO.	SIZE RANGE	APPLICATION								
	BILGE/LIVEWELL			Submersible Bilge Pump	Remote Bilge Pump	Hand Bilge Pump	Livewell Inlet	Livewell Drain Above Water Line	Livewell Drain Below Water Line	Flexibility		
		Series 120	Shields Bilgeflex	26	5/8" - 1 1/2"	G	X	C	X	X	X	1
		Series 123	Shields Bilgevac	26	3/4" - 1 1/8"	EX	G	EX	X	C	X	1
		Series 140	Shields Vac Std.	27	1 1/4" - 1 1/2"	EX	EX	EX	G	G	C	1
		Series 141	Shields Multiflex	28	5/8" - 3"	EX	G	EX	X	G	X	1
		Series 142	Shields Vac Cuffs	27	1 1/4" - 1 1/2"							
		Series 146	Shields Vac Extra Heavy Duty/Commercial Grade	28	5/8" - 3"	EX	EX	EX	EX	EX	EX	2
		Series 147	Shields Vac H.D. Cuffs	27	1 1/2"							
		Series 148	Shields Vac Extra Heavy Duty	29	5/8" - 1 1/2"	EX	EX	EX	EX	EX	EX	2
		Series 149	Shields Livewell Hose	29	5/8" - 1 1/2"	EX	EX	EX	EX	EX	EX	1


SERIES NO.	NAME	PG. NO.	SIZE RANGE	APPLICATION					
	ENGINE			Engine Intake		Engine Coolant Hose Straight or Limited Bend		Exhaust Water Injection	
Series 130	Shields #1300 Heater Hose	30	1/2" - 3/4"	X	X	G	X	X	3
Series 135	Shields #1350 H.D. Water Hose	30	1/2" - 1"	X	C	G	X	G	3
Series 160	Shields #1600 Water Hose	30	3/8" - 1 1/4"	X	G	EX	X	G	2
Series 200	Shields Marine Exhaust	31	1/2" - 14"	X	C	EX	X	G	3
Series 202	Shields Nautiflex Silicone Exhaust Hose	32	1" - 14"	X	X	EX	X	C	3
Series 250	Shieldsflex II	33	1/2" - 8"	EX	EX	EX	EX	EX	2
Series 252	Shieldsaust - C	34	3/4" - 8"	EX	EX	EX	EX	EX	1
Series 262	Shields Corrugated Nautiflex								
	Silicone Exhaust Hose	35	3/4" - 10"	EX	EX	EX	EX	EX	1
Series 321	Shields Complex All in One Hose	36	5/8" - 2"	EX	EX	EX	EX	EX	2

PRODUCT APPLICATION GUIDE (CONT.)


SERIES NO.	NAME	PG. NO.	SIZE RANGE	APPLICATION							
	FRESH WATER SYSTEM/POTABLE			Non-Pressurized Supply	Pressurized Supply		Water Tank Fill	Drain Lines Below Water Line	Drain Lines To Sump or Above Water Line	Water Tank Vent	Flexibility
					Hot	Cold					
				C	X	X	EX	X	EX	C	1
				N/A	X	X	EX	EX	EX	EX	2
				X	X	X	X	EX	EX	C	2
				G	X	X	C	X	G	G	3
				EX	EX	EX	G	G	G	G	2
Series 141	Shields Multiflex	37	5/8" - 3"	C	X	X	EX	X	EX	C	1
Series 148	Shields Vac Extra Heavy Duty	37	5/8" - 1 1/2"	N/A	X	X	EX	EX	EX	EX	2
Series 149	Shields Livewell Hose	38	5/8" - 1 1/2"	X	X	X	X	EX	EX	C	2
Series 150	Shields PVC Tubing — Clear	38	3/16" - 1 1/2"	G	X	X	C	X	G	G	3
Series 162	Shields All Clear Reinforced PVC — Red Tracer	39	3/8" - 1 1/2"	EX	EX	EX	G	G	G	G	2
Series 163	Shields Braided Wash Down Hose	39	5/8"								
Series 164	Shields Clear White Reinforced PVC — Blue Tracer	40	1/2" - 3/4"	EX	G	EX	N/A	G	G	G	3
Series 168	Shields Heavy Duty Reinforced PVC Tubing	40	1/4" - 1 1/2"	EX	EX	EX	G	EX	EX	EX	2

SERIES NO.	NAME	PG. NO.	SIZE RANGE	APPLICATION						
	FUEL SYSTEM			Oil Tank Fill	Fuel Tank Fill	Fuel Feed Inboard/Outdrive	Fuel Feed Outboard	Fuel Tank Vent Inboard	Fuel Tank Vent Outboard	Flexibility
				EX	X	N/A	N/A	N/A	N/A	1
				N/A	N/A	X	EX	C	EX	2
				EX	EX	C	X	EX	X	1
				N/A	N/A	X	EX	N/A	N/A	1
				EX	EX	N/A	N/A	N/A	N/A	1
				EX	EX	N/A	N/A	N/A	N/A	1
				EX	EX	N/A	N/A	N/A	N/A	1
				N/A	N/A	EX	EX	N/A	N/A	1
				N/A	N/A	EX	EX	N/A	N/A	1
				N/A	N/A	X	X	EX	EX	1

SERIES NO.	NAME	PG. NO.	SIZE RANGE	APPLICATION					
	SANITATION SYSTEM			Toilet to Holding Tank	Holding Tank Pump Out	Holding Tank to Overboard Discharge	Toilet Water Inlet	Holding Tank Vent	Flexibility
				EX	EX	EX	N/A	N/A	1
				EX	EX	EX	N/A	N/A	1
				EX	EX	EX	N/A	N/A	2
				G	EX	G	EX	EX	2
				G/EX	EX	EX	EX	EX	2
				G	G	G	EX	EX	2

SERIES NO.	NAME	PG. NO.	SIZE RANGE	APPLICATION				
	VENTILATION/AC DUCT				A/C Duct			
				EX	X	X		
				EX	X	X		
				EX	X	G		
				EX	G	EX		
Series 400	Shields Vinylvent	50	3" - 4"	EX	X	X		
Series 402	Shields Vinylvent	50	3" - 4"	EX	X	X		
Series 420	Shields Extra Heavy Duty Vinylvent	50	3" - 4"	EX	X	G		
Series 450	Shields Fibervent	51	3" - 6"	EX	G	EX		
Series 460	Shields AC Ducting Hose	51	3" - 7"	EX	EX	EX		

PRODUCT APPLICATION GUIDE (CONT.)

SERIES NO.	NAME	PG. NO.	SIZE RANGE	APPLICATION					
	WET EXHAUST SYSTEM			Straight Pipe Connector Less than 4 x I.D. of Hose	Straight Pipe Connector More than 4 x I.D. of Hose	Require Moderate Bend	Severe Bend	Flexibility	
	Series 200	Shields Marine Exhaust	52	1/2" - 14"	EX	C	X	X	3
	Series 202	Nautiflex Silicone Exhaust Hose	53	1" - 14"	EX	C	X	X	3
	Series 250	Shieldsflex II	54	1/2" - 8"	EX	EX	EX	C	2
	Series 252	Shieldsaust - C	55	3/4" - 8"	EX	EX	EX	EX	1
	Series 262	Corrugated Nautiflex							
		Silicone Exhaust Hose	56	3/4" - 16"	EX	EX	EX	EX	1
	Series 321	Shields Complex All in One Hose	57	5/8" - 2"	EX	EX	EX	C	2
	Various	Hump Hose & Elbows	58-61	2"- 10"	See our selection for straight or angled connections				

SERIES NO.	NAME	PG. NO.	SIZE RANGE	APPLICATION
	MISCELLANEOUS			
	Exhaust Protector Valves	62	4" - 6"	Prevents water from entering exhaust system
	Exhaust Hose Clamps - T-Bolt Band Clamps	62	1" - 14"	Designed to fit Shields Series: 200, 201, 210, 250, 252
	Ferrule Vise / Dies	63	1/4" - 1/2"	For making fuel line assemblies without clamps
Series 128	Flame Retardant Split Wire Conduit	64	1/4" - 2"	Provides chafing protection for wiring systems
Series 126	Shields Sternflex	64	2"	Provides protection for outboard rigging cables & hose
	Neoprene Sheet rubber	65	1/8" - 1/4"	Used under fuel tanks to comply with USCG requirements
Series 151	Speedometer Pitot Tubing	65	1/8" - 4mm	Connection from pitot to speedometer



SHIELDS BILGEFLEX



Shields Bilgeflex Hose is a single layer corrugated polyethylene hose. It is resistant to mild chemicals and salt water and there is a clamping cuff every foot. It is available in black or white (add B or W to suffix to specify color). This hose is primarily used for bilge pump discharge.

Do not attach to thru hull fitting below the water line.



I.D.	MM	RADIUS	MM	RATING	"C"	CODE # *	BULK PACK	M
5/8"	15.9	1/2"	12.7	20	5	16-120-0580	600'	182.9
3/4"	19.1	3/4"	19.1	20	6	16-120-0340	500'	152.4
1 1/8"	28.6	1"	25.4	20	7	16-120-1180	300'	91.4
1 1/4"	31.8	1 1/2"	38.1	20	10	16-120-1140	200'	61.0
1 1/2"	38.1	2"	50.8	20	13	16-120-1120	150'	45.7

* Add B or W suffix to specify black or white

SHIELDS BILGEVAC



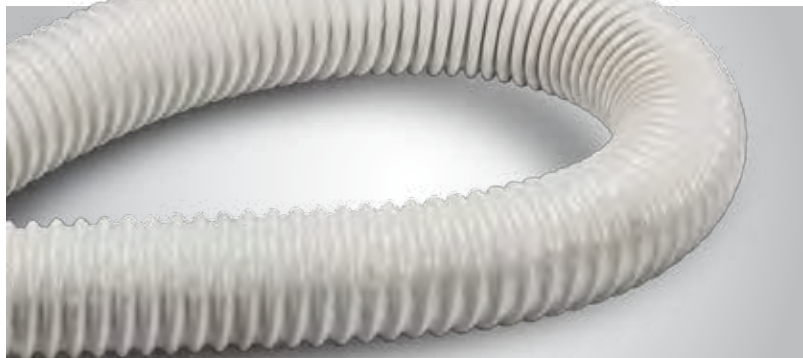
Shields Bilgevac Hose is a black PVC hose with a flexible vinyl helix. It is very flexible, abrasion resistant and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump discharge and drains (sinks, shower, scupper, and livewell).

Do not attach to thru hull fitting below the water line.

I.D.	MM	BEND RADIUS	MM	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
3/4"	19.1	3/4"	50.8	8	16-123-0340
1 1/8"	28.6	1"	76.2	16	16-123-1180



SHIELDS VAC STANDARD



Shields Vac Standard Hose is PVC supported by vinyl covered steel wire and is very flexible. It is Nylon reinforced (1 1/4" and 1 1/2" only) and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump intake and discharge, diaphragm style hand operated bilge pump intake and discharge and drains (sinks, shower, and scupper). This hose uses 142 left hand thread cuffs.

Do not attach to thru hull fitting below the water line.

I.D.	mm	Bend Radius	mm	Vac Rating	Wt. "C"	Bulk Pack Code #
1 1/4"	31.8	3/4"	19.1	28	19	16-140-1140 ①
1 1/2"	38.1	3/4"	19.1	28	23	16-140-1120 ①

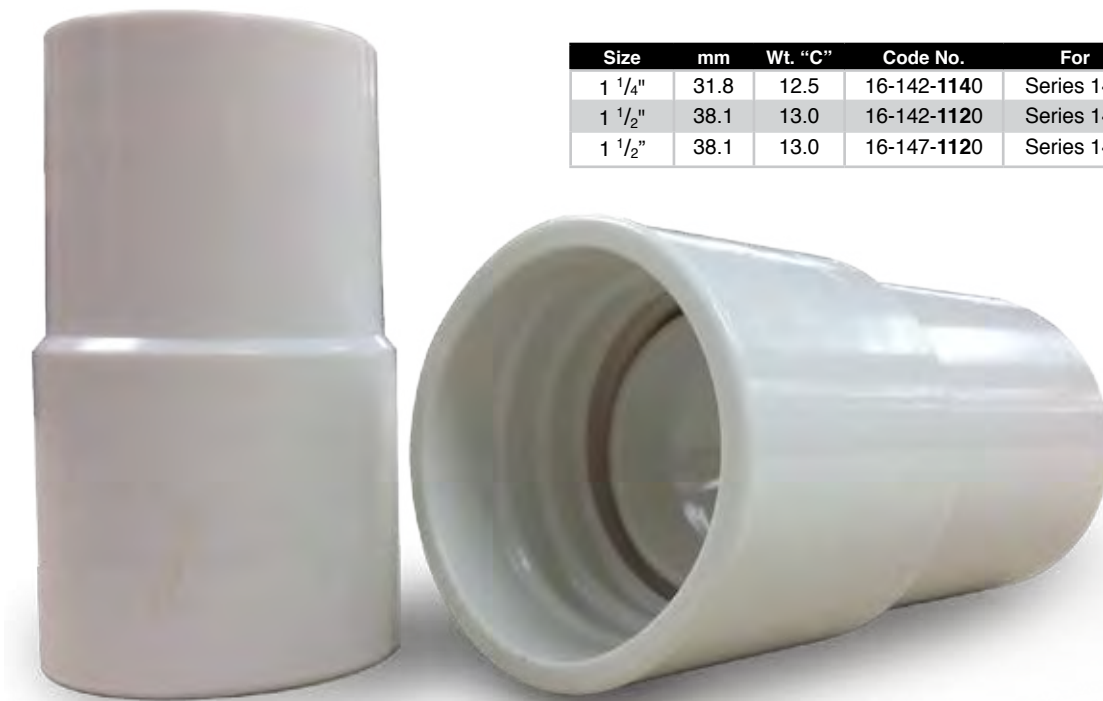
① 2 x 50' per box



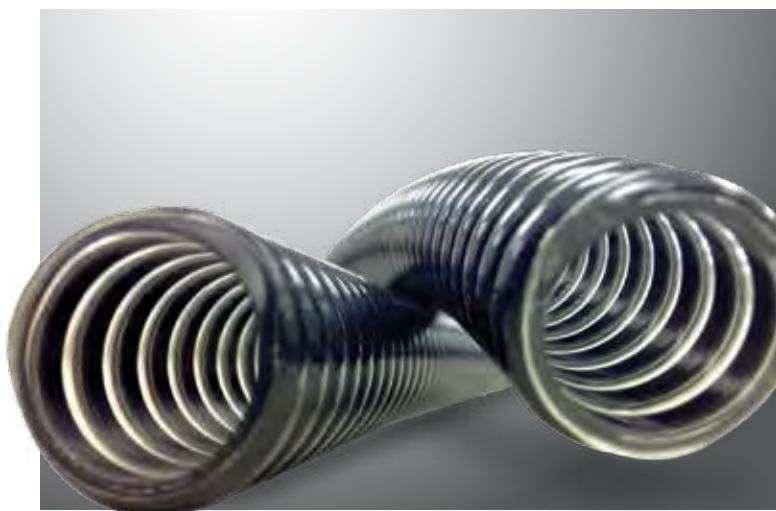
SHIELDS VAC CUFFS

Shields Vac Cuffs provide added clamping protection for Shields Vac Hose. For watertight seal apply with sealing compound. Use with Series 140 & 141. Glue using PVC cement.

Size	mm	Wt. "C"	Code No.	For	Thread
1 1/4"	31.8	12.5	16-142-1140	Series 140	Left Hand
1 1/2"	38.1	13.0	16-142-1120	Series 140	Left Hand
1 1/2"	38.1	13.0	16-147-1120	Series 141	Right Hand



SHIELDS MULTIFLEX



Shields Multiflex Hose has a clear FDA formula PVC with black vinyl helix. It is abrasion resistant, flexible and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump discharge, potable water tank fill and drains (sinks, shower, livewell and scupper). This hose uses 147 right hand thread cuffs.

Do not attach thru hull fitting below the water line. Do not use ethylene glycol based antifreeze in hose.

I.D.	MM	BEND RADIUS	MM	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	1/2"	12.7	8	16-141-0580B
3/4"	19.1	3/4"	19.1	10	16-141-0340B
1"	25.4	7/8"	22.2	13	16-141-1000B
1 1/8"	28.6	1"	25.4	16	16-141-1180B
1 1/4"	31.8	1 1/2"	38.1	19	16-141-1140B
1 1/2"	38.1	2"	50.8	24	16-141-1120B
2"	50.8	5"	127.0	34	16-141-2000B
1 1/2"	38.1	2"	50.8	24	16-141-1120W

SHIELDS VAC EXTRA HEAVY DUTY - INDUSTRIAL GRADE

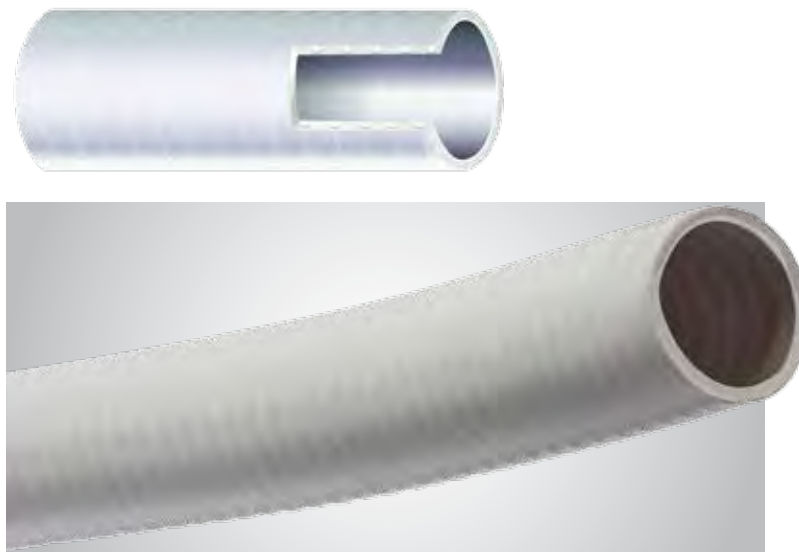


Shields Vac Extra Heavy Duty/Commercial Grade Hose has a smooth cover and clear FDA formula PVC with a white vinyl helix. It is rated for full vacuum and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump intake and discharge, potable water tank fill, drains (sinks, shower, and scupper), livewell intake and drain, and sanitation (intake, vent and pump out). This hose is utilized for below the waterline connections.

Do not use ethylene glycol based antifreeze in hose. Do not use in pressurized water systems.

I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	3	76.2	28	15	16-146-0580
3/4"	19.1	3	76.2	28	16	16-146-0340
1"	25.4	3	76.2	28	27	16-146-1000
1 1/8"	28.6	4	101.6	28	25	16-146-1180
1 1/4"	31.8	3	76.2	28	30	16-146-1140
1 1/2"	38.1	4	101.6	28	40	16-146-1120
2"	50.8	5	127.0	28	57	16-146-2000
2 1/2"	63.5	7	177.8	28	74	16-146-2120
3"	76.2	9	228.6	28	94	16-146-3000

SHIELDS VAC EXTRA HEAVY DUTY/FDA



Shields Vac Extra Heavy Duty/FDA Hose has a smooth white FDA grade PVC with vinyl helix. It is rated for full vacuum and is resistant to mild chemicals, permeation, and saltwater. This hose is primarily used for bilge pump intake and discharge, drains (sinks, shower, and scupper), livewell intake and drain, potable water tank fill, and sanitation (toilet to holding tank, intake, self draining lines vent and pump out). This hose is resistant to odor permeation.

Do not use ethylene glycol based antifreeze in hose. Do not use in pressurized water systems.

I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	3	76.2	28	15	16-148-0580W
3/4"	19.1	3	76.2	28	20	16-148-0340W
1"	25.4	3	76.2	28	27	16-148-1000W
1 1/8"	28.6	4	101.6	28	29	16-148-1180W
1 1/4"	31.8	4	101.6	28	31	16-148-1140W
1 1/2"	38.1	5	127.0	28	40	16-148-1120W

WARNING: Lines containing raw sewage should be plumbed to be self-draining.

SHIELDS LIVEWELL HOSE



Shields Livewell Hose has a black smooth cover with vinyl helix. It is rated for full vacuum and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump intake and discharge, drains (sinks, shower, and scupper), livewell intake and drain, and sanitation (intake and vent). This hose is utilized for below the waterline connections.

Do not use ethylene glycol based antifreeze in hose.

I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	3	76.2	28	15	16-149-0580
3/4"	19.1	3	76.2	28	16	16-149-0340
1"	25.4	3	76.2	28	24	16-149-1000
1 1/8"	28.6	4	101.6	28	25	16-149-1180
1 1/4"	31.8	4	101.6	28	28	16-149-1140
1 1/2"	38.1	5	127.0	28	39	16-149-1120

SHIELDS 1300/1350 WATER/HEATER HOSE



Shields 1300/1350 Water / Heater Hose is fabric reinforced and has an EPDM tube and cover. This hose is primarily used for engine heater hose, heat exchanger, A/C circulation, and drain lines (sink, icebox, shower and livewell). It is resistant to mild chemicals, heat, cold, ozone and saltwater. The temperature ranges from -40°F to 212°F.

SHIELDS 1300 Water/Heater Hose

I.D.	MM	O.D.	MM	WORKING PRESSURE	WT. "C"	BULK PACK CODE #	M
1/2"	12.7	3/4"	18.69	62 PSI	17	16-130-0120 (500' reel)	152.4
5/8"	15.9	7/8"	22.3	62 PSI	21	16-130-0580 (500' reel)	152.4
3/4"	19.1	1"	25.48	50 PSI	26	16-130-0340 (500' reel)	152.4

SHIELDS 1350 HEAVY DUTY Water/Heater Hose

I.D.	MM	O.D.	MM	WORKING PRESSURE	WT. "C"	BULK PACK CODE #	M
1/2"	12.7	13/16"	20.6	200 PSI	19	16-135-0120B (550' reel)	167.6
5/8"	15.9	31/32"	24.59	200 PSI	26	16-135-0580B (450' reel)	137.2
3/4"	19.1	1 1/64"	28.4	200 PSI	33	16-135-0340B (400' reel)	121.9
1"	25.4	1 3/64"	36.6	150 PSI	52	16-135-1000B (300' reel)	91.4

SHIELDS 1600 WATER/HEATER HOSE

Shields 1600 Water/Heater Hose has a good bend radius, is fabric reinforced, and has an EPDM tube and cover. This hose is primarily used for critical water connections, heat exchanger, toilet intake, small engine intake, bilge pump intake/discharge, and below water line drains and scuppers. It is resistant to mild chemicals, heat, cold, ozone and saltwater. The temperature ranges from -40°F to 190°F



I.D.	MM	O.D.	MM	WORKING PRESSURE	WT. "C"	BULK PACK CODE #	M
3/8"	9.5	45/64"	17.8	250 PSI	17	16-160-0380B (500' reel)	152.4
1/2"	12.7	27/32"	21.3	250 PSI	22	16-160-0120B (450' reel)	137.2
5/8"	15.9	1"	25.4	250 PSI	28	16-160-0580B (400' reel)	121.9
3/4"	19.1	1 9/64"	28.8	250 PSI	34	16-160-0340B (300' reel)	91.4
1"	25.4	1 29/64"	36.8	200 PSI	52	16-160-1000B (250' reel)	76.2
1 1/4"	31.8	1 3/4"	44.5	200 PSI	62	16-160-1140B (200' reel)	61.0

SHIELDS MARINE EXHAUST/WATER HOSE (NO WIRE)



Shields Marine Exhaust / Water Hose is reinforced with 2 or 4 plies of synthetic cord and is made of black, heavy-walled synthetic rubber. This hose is primarily used for straight connections in wet exhaust systems and engine water circulation lines. It is resistant to engine heat, exhaust fumes, ozone, mild chemicals, antifreeze

and saltwater. This hose also has double the ozone resistance required by SAEJ2006. The temperature ranges from -20°F to 200°F continuous, +250°F intermittent. The hose meets SAE J2006 Type R1 standards.



This certification provides unbiased, third party confirmation worldwide that these Shields hoses meet the highest standards of production quality. Certification ensures the proper level of product safety and inspires user confidence.

I.D.	MM	O.D.	PLY	WT. "C"	50' COIL CODE #	12 1/2' LENGTH CODE #
1/2"	13	7/8"	2	24	16-200-0120	16-200-0124
5/8"	16	1 1/32"	2	33	16-200-0580	16-200-0584
3/4"	19	1 9/64"	2	37	16-200-0340	16-200-0344
7/8"	22	1 17/64"	2	42	16-200-0780	16-200-0784
1"	25	1 3/8"	2	48	16-200-1000	16-200-1004
1 1/8"	28	1 1/2"	2	52	16-200-1180	16-200-1184
1 1/4"	32	1 45/64"	2	60	16-200-1140	16-200-1144
1 5/16"	33	1 47/64"	2	62	16-200-1560	16-200-1564
1 3/8"	35	1 13/16"	2	66	16-200-1380	16-200-1384
1 1/2"	38	1 15/16"	2	70	16-200-1120	16-200-1124
1 5/8"	42	2 3/32"	2	77	16-200-1580	16-200-1584
1 3/4"	45	2 13/64"	2	82	16-200-1340	16-200-1344
1 7/8"	48	2 23/64"	2	96	16-200-1780	16-200-1784
2"	51	2 31/64"	2	102	16-200-2000	16-200-2004
2 1/8"	54	2 19/32"	2	107	16-200-2180	16-200-2184
2 1/4"	58	2 3/4"	2	114	16-200-2140	16-200-2144
2 3/8"	60	2 7/8"	2	132	16-200-2380	16-200-2384
2 1/2"	63	3"	2	136	16-200-2120	16-200-2124
2 5/8"	67	3 3/32"	2	147	—	16-200-2584
2 3/4"	70	3 17/64"	2	152	—	16-200-2344
2 7/8"	73	3 7/16"	2	174	16-200-2780	16-200-2784
3"	76	3 9/16"	2	182	16-200-3000	16-200-3004
3 1/8"	80	3 45/64"	2	190	—	16-200-3184
3 1/2"	90	4 3/32"	2	198	—	16-200-3124
3 3/4"	95	4 9/32"	2	221	—	16-200-3344
4"	102	4 17/32"	4	229	—	16-200-4004
4 1/2"	114	5 1/8"	2	300	—	16-200-4124
5"	127	5 5/8"	2	332	—	16-200-5004
5 1/2"	140	6 3/16"	2	396	—	16-200-5124
6"	152	6 11/16"	2	427	—	16-200-6004
8"	203	8 25/32"	4	670	—	16-200-8004
10"	254	10 7/8"	4	934	—	16-200-10004
12"	305	12 7/8"	4	1095	—	16-200-12004
14"	350	14 7/8"	4	1430	—	16-200-14004*

* Special Order

SHIELDS NAUTIFLEX SILICONE EXHAUST HOSE



Wet Exhaust Hose SAE J2006 Type R1

Shields Nautiflex Silicone Exhaust Hose has a blue silicone cover with a smooth finish for easy clean up. This hose is flexible, easy to install and has four plies of synthetic fabric. It also remains stable at elevated temperatures. This hose is primarily used for straight connections in the wet exhaust system and engine water circulation lines. The temperature ranges from – 20°F to 350°F. The hose meets SAE J2006 Type R1 and ISO 13363:2004 – Type 2 – Class B standards.

I.D.	MM	O.D.	WT. "C"	3' (.9M) LENGTH CODE NO.	6' (1.8M) LENGTH CODE NO.	12' (3.7M) LENGTH CODE NO.
1"	25	1 ³ / ₈ "	33.1	16-202-1000-36	16-202-1001	16-202-1004
1 ¹ / ₈ "	28	1 ¹ / ₂ "	37.2	16-202-1180-36	16-202-1181	—
1 ¹ / ₄ "	32	1 ⁵ / ₈ "	41.3	16-202-1140-36	16-202-1141	16-202-1144
1 ³ / ₈ "	35	1 ³ / ₄ "	45.4	16-202-1380-36	16-202-1381	—
1 ¹ / ₂ "	38	1 ⁷ / ₈ "	49.6	16-202-1120-36	16-202-1121	16-202-1124
1 ³ / ₄ "	45	2 ¹ / ₈ "	57.8	16-202-1340-36	16-202-1341	—
2"	51	2 ³ / ₈ "	66.1	16-202-2000-36	16-202-2001	16-202-2004
2 ³ / ₈ "	60	2 ³ / ₄ "	78.5	16-202-2380-36	16-202-2381	16-202-2384
2 ¹ / ₂ "	63	2 ⁷ / ₈ "	82.6	16-202-2120-36	16-202-2121	16-202-2124
2 ⁵ / ₈ "	67	2 ⁶³ / ₆₄ "	86.8	16-202-2580-36	16-202-2581	16-202-2584
2 ³ / ₄ "	70	3 ¹ / ₈ "	90.9	16-202-2340-36	16-202-2341	—
2 ⁷ / ₈ "	73	3 ¹ / ₄ "	94.1	16-202-2780-36	16-202-2781	—
3"	76	3 ³ / ₈ "	99.2	16-202-3000-36	16-202-3001	16-202-3004
3 ¹ / ₄ "	82	3 ¹ / ₂ "	103.4	16-202-3140-36	16-202-3141	16-202-3144
3 ¹ / ₂ "	90	3 ⁷ / ₈ "	115.7	16-202-3120-36	16-202-3121	16-202-3124
4"	102	4 ³ / ₈ "	132	16-202-4000-36	16-202-4001	16-202-4004
5"	127	5 ³ / ₈ "	165	16-202-5000-36	16-202-5001	16-202-5004
5 ¹ / ₂ "	140	5 ⁷ / ₈ "	181.5	16-202-5120-36	—	—
6"	152	6 ³ / ₈ "	198	16-202-6000-36	16-202-6001	16-202-6004
8"	203	8 ³ / ₈ "	264	16-202-8000-36	16-202-8001	16-202-8004
10"	254	10 ³ / ₈ "	330	16-202-10000-36	—	—
12"	305	12 ³ / ₈ "	396	16-202-12000-36	16-202-12001	16-202-12004
14"	350	14 ⁵ / ₈ "	462	16-202-14000-36	—	—



SHIELDSFLEX II MARINE WATER/EXHAUST HOSE (W/ WIRE)



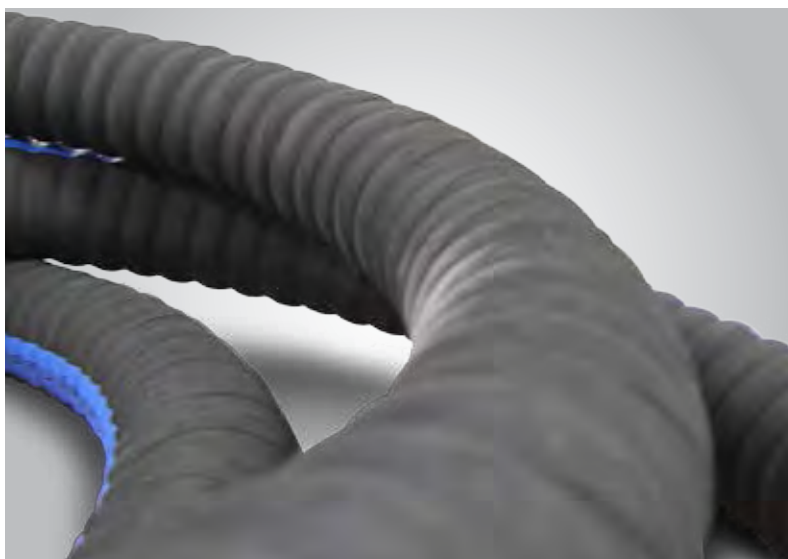
Now double the ozone resistance required by SAEJ2006

I.D.	MM	O.D.	PLY	WT. "C"	50' (15.2M) COIL CODE #	12 1/2' (3.8M) LENGTH CODE #
1/2"	13	27/32"	2	24	16-250-0120	16-250-0124
5/8"	16	61/64"	2	28	16-250-0580	16-250-0584
3/4"	19	1 1/16"	2	32	16-250-0340	16-250-0344
7/8"	22	1 3/16"	2	36	16-250-0780	16-250-0784
1"	25	1 5/16"	2	40	16-250-1000	16-250-1004
1 1/8"	28	1 7/16"	2	44	16-250-1180	16-250-1184
1 1/4"	32	1 19/32"	2	50	16-250-1140	16-250-1144
1 5/16"	33	1 5/8"	2	51	16-250-1560	16-250-1564
1 3/8"	35	1 23/32"	2	58	16-250-1380	16-250-1384
1 1/2"	38	1 53/64"	2	62	16-250-1120	16-250-1124
1 5/8"	42	2"	2	80	16-250-1580	16-250-1584
1 3/4"	45	2 1/8"	2	88	16-250-1340	16-250-1344
1 7/8"	48	2 19/64"	2	93	16-250-1780	16-250-1784
2"	51	2 13/32"	2	99	16-250-2000	16-250-2004
2 1/8"	54	2 17/32"	2	107	16-250-2180	16-250-2184
2 1/4"	58	2 11/16"	2	127	16-250-2140	16-250-2144
2 3/8"	60	2 3/4"	2	132	16-250-2380	16-250-2384
2 1/2"	63	2 7/8"	2	137	16-250-2120	16-250-2124
2 5/8"	67	3 1/16"	2	147	—	16-250-2584
2 3/4"	70	3 3/16"	2	164	16-250-2340	16-250-2344
2 7/8"	73	3 5/16"	2	170	16-250-2780	16-250-2784
3"	76	3 7/16"	2	177	16-250-3000	16-250-3004
3 1/8"	80	3 5/8"	2	200	16-250-3180	16-250-3184
3 1/2"	90	4"	2	223	16-250-3120	16-250-3124
4"	102	4 5/8"	2	269	16-250-4000	16-250-4004
4 1/2"	114	5 3/32"	2	319	16-250-4120	16-250-4124
5"	127	5 5/8"	2	398	16-250-5000	16-250-5004
6"	152	6 21/32"	2	482	—	16-250-6004
8"	203	8 25/32"	2	780	—	16-250-8004

Shieldsflex II Marine Water/Exhaust Hose has a black synthetic rubber tube and cover. It is reinforced with wire helix imbedded between plies of HD synthetic cord. It is resistant to exhaust fumes, ozone, mild chemicals, antifreeze and saltwater. This hose is abrasion and odor permeation resistant. It now has double the ozone resistance required by the SAEJ2006. Shieldsflex II is primarily used for engine intake, wet exhaust connections (use where bends or long lengths are required), bilge pump intake/discharge, scupper lines, toilet intake/discharge, and holding tank vent/pump out. The temperature ranges from -20°F to 200°F continuous, 250°F intermittent. The hose meets SAE J2006 Type R2 standards. Bend Radius = 5 x I.D.



This certification provides unbiased, third party confirmation worldwide that these Shields hoses meet the highest standards of production quality. Certification ensures the proper level of product safety and inspires user confidence.

SHIELDSAUST-C

Now double the ozone resistance required by SAEJ2006

Shieldsaust – C Hose has a black synthetic rubber tube and cover. It is reinforced with double wire helix imbedded between plies of synthetic cord and is abrasion resistant. It is resistant to exhaust fumes, ozone, mild chemicals, antifreeze, and saltwater. This hose is primarily used for wet exhaust connections with significant bends, engine intake and scupper lines. The temperature ranges from -20°F to 200°F continuous, 250°F intermittent. The hose now has double the ozone resistance required by SAEJ2006. This hose meets SAE J2006 Type R2 standards. Bend Radius = 4 x I.D.



I.D.	MM	O.D.	PLY	WT. "C"	50' (15.2M) COIL CODE #	12 1/2' (3.8M) LENGTH CODE #
3/4"	19	1 1/8"	2	27	16-252-0340	16-252-0344
1"	25	1 11/32"	2	33	16-252-1000	16-252-1004
1 1/4"	32	1 39/64"	2	45	16-252-1140	16-252-1144
1 1/2"	38	1 15/16"	2	70	16-252-1120	16-252-1124
1 5/8"	42	2 3/32"	2	80	16-252-1580	16-252-1584
1 3/4"	45	2 7/32"	2	85	16-252-1340	16-252-1344
1 7/8"	48	2 21/64"	2	91	16-252-1780	16-252-1784
2"	51	2 7/16"	2	95	16-252-2000	16-252-2004
2 1/8"	54	2 9/16"	2	100	—	16-252-2184
2 1/4"	58	2 23/32"	2	107	16-252-2140	16-252-2144
2 3/8"	60	2 51/64"	2	110	16-252-2380	16-252-2384
2 1/2"	63	2 59/64"	2	115	16-252-2120	16-252-2124
2 3/4"	70	3 3/16"	2	126	16-252-2340	16-252-2344
2 7/8"	73	3 5/16"	2	137	16-252-2780	16-252-2784
3"	76	3 7/16"	2	143	16-252-3000	16-252-3004
3 1/8"	80	3 19/32"	2	150	16-252-3180	16-252-3184
3 1/2"	90	4 1/16"	2	200	16-252-3120	16-252-3124
4"	102	4 9/16"	2	231	16-252-4000	16-252-4004
4 1/8"	105	4 11/16"	2	238	—	16-252-4184
4 1/2"	114	5 1/8"	2	278	—	16-252-4124
5"	127	5 9/16"	2	300	16-252-5000	16-252-5004
6"	152	6 9/16"	2	394	16-252-6000	16-252-6004
8"	203	8 11/16"	2	607	—	16-252-8004



This certification provides unbiased, third party confirmation worldwide that these Shields hoses meet the highest standards of production quality. Certification ensures the proper level of product safety and inspires user confidence.

SHIELDS NAUTIFLEX - CORRUGATED SILICONE EXHAUST HOSE



Shields Nautiflex Corrugated Silicone Exhaust Hose has a blue silicone tube and cover with a smooth finish for easy cleaning. The hose is wire reinforced and will not collapse under suction or in a bend. The corrugated cover allows the hose to

bend for easy installation. The Nautiflex, two ply construction, has wire captured between fabric plies. This hose is primarily used for main engine exhaust, generator exhaust, engine coolant circulation, engine intake and generator intake. It is resistant to exhaust fumes, ozone, mild chemicals, antifreeze and saltwater. The hose remains stable at elevated temperatures. The temperatures ranges from -20°F to 350°F. This hose meets SAEJ2006 Type R2 and ISO 13362:2004 – Type 1 – Class B standards. Bend Radius = 4 x I.D.

ID	MM	OD	WT "C"	10' (3.1M) LENGTH CODE NO.	12 1/2' (3.8M) LENGTH CODE NO.	50' (15.2M) COIL CODE NO.
3/4"	19	1 3/8"	34	16-262-0343	16-262-0344	16-262-0340
1"	25	1 27/64"	42	16-262-1003	16-262-1004	16-262-1000
1 1/8"	28	1 1/2"	46	16-262-1183	16-262-1184	16-262-1180
1 1/4"	32	1 45/64"	52	16-262-1143	16-262-1144	16-262-1140
1 3/8"	35	1 55/64"	60	16-262-1383	16-262-1384	16-262-1380
1 1/2"	38	2"	71	16-262-1123	16-262-1124	16-262-1120
1 5/8"	42	2 11/64"	74	16-262-1583	16-262-1584	16-262-1580
1 3/4"	45	2 19/64"	78	16-262-1343	16-262-1344	16-262-1340
1 7/8"	48	2 13/32"	82	16-262-1783	16-262-1784	16-262-1780
2"	51	2 17/32"	87	16-262-2003	16-262-2004	16-262-2000
2 1/8"	54	2 5/8"	94	16-262-2183	16-262-2184	—
2 3/8"	60	2 7/8"	101	16-262-2383	16-262-2384	16-262-2380
2 1/2"	63	3 3/64"	113	16-262-2123	16-262-2124	16-262-2120
2 7/8"	73	3 7/16"	134	16-262-2783	16-262-2784	16-262-2780
3"	76	3 35/64"	139	16-262-3003	16-262-3004	16-262-3000
3 1/2"	90	4 19/64"	227	16-262-3123	16-262-3124	16-262-3120
4"	102	4 49/64"	255	16-262-4003	16-262-4004	16-262-4000
5"	127	5 3/4"	310	16-262-5003	—	16-262-5000
6"	152	6 15/16"	484	16-262-6003	—	—
8"	203	9 7/64"	768	16-262-8003	—	—
10"	254	11 17/64"	1136	16-262-10003	—	—

SHIELDS COMPLEX - ALL IN ONE HOSE FOR INSPECTED VESSELS

Shields Complex is a versatile wire reinforced hose specially designed for inspected vessels. Complex is rated for fuel, vital water and non-vital water systems on boats requiring SAE J1942 hoses. Applications include bilge, coolant, oil and fuel systems using gasoline, gasohol, diesel, bio-diesel, wet exhaust systems, non-potable water systems, engine intake, toilet and holding tank connections.



Tube: Black Nitrile

Reinforcement: 2 textile plies w/ dual wire helix

Cover: Black Chlorprene

Temp. Range: -20F to 121F

Specifications - SAE J1942 Code F, VW, NVW;
SAE J1527 A1; SAE J2006 R2; SAE 20R2 B;
SAE J20R4 B; SAE 20R5 B, SAE 30R5,
ISO 7840 A1

Additional sizes available. 150' minimum order.

I.D.	MM	O.D.	PLY	WT. "C"	BEND RADIUS	WP	50' COIL CODE #	12 1/2' (3.8M) LENGTH CODE #
5/8"	15.9	1"	2	33	1.5	75	16-321-0580	16-321-0584
3/4"	19.1	1.19"	2	39	1.5	75	16-321-0340	16-321-0344
1"	25.4	1.41"	2	53	2	75	16-321-1000	16-321-1004
1 1/8"	28.6	1.56"	2	62	3	75	16-321-1180	16-321-1184
1 1/4"	31.8	1.66"	2	64	3	75	16-321-1140	16-321-1144
1 1/2"	38.1	1.91"	2	78	3	50	16-321-1120	16-321-1124
2"	50.8	2.48"	2	118	5	50	16-321-2000	16-321-2004

SHIELDS MULTIFLEX

SHIELDS HOSE

Fresh Water / Potable



I.D.	MM	BEND RADIUS	MM	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	1 1/2"	12.7	8	16-141-0580B
3/4"	19.1	3/4"	19.1	10	16-141-0340B
1"	25.4	7/8"	22.2	13	16-141-1000B
1 1/8"	28.6	1"	25.4	16	16-141-1180B
1 1/4"	31.8	1 1/2"	38.1	19	16-141-1140B
1 1/2"	38.1	2"	50.8	24	16-141-1120B
2"	50.8	5"	127.0	34	16-141-2000B
1 1/2"	38.1	2"	50.8	24	16-141-1120W

Shields Multiflex Hose has a clear FDA formula PVC with black vinyl helix. It is abrasion resistant, flexible and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump discharge, potable water tank fill and drains (sinks, shower, livewell and scupper). This hose uses 147 right hand thread cuffs.

Do not attach to thru hull fitting below the water line. Do not use ethylene glycol based antifreeze in hose.

SHIELDS VAC EXTRA HEAVY DUTY/FDA



I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	3	76.2	28	15	16-148-0580W
3/4"	19.1	3	76.2	28	20	16-148-0340W
1"	25.4	3	76.2	28	27	16-148-1000W
1 1/8"	28.6	4	101.6	28	29	16-148-1180W
1 1/4"	31.8	4	101.6	28	31	16-148-1140W
1 1/2"	38.1	5	127.0	28	40	16-148-1120W

Shields Vac Extra Heavy Duty/FDA Hose has a smooth white FDA grade PVC with vinyl helix. It is rated for full vacuum and is resistant to mild chemicals, permeation, and saltwater. This hose is primarily used for bilge pump intake and discharge, drains (sinks, shower, and scupper), livewell intake and drain, potable water tank fill, and sanitation (toilet to holding tank, intake, self draining lines vent and pump out). This hose is resistant to odor permeation.

Do not use ethylene glycol based antifreeze in hose. Do not use in pressurized water systems.

SHIELDS LIVEWELL HOSE



Shields Livewell Hose has a black smooth cover with vinyl helix. It is rated for full vacuum and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump intake and discharge, drains (sinks, shower, and scupper), livewell intake and drain, and sanitation (intake and vent). This hose is utilized for below the waterline connections.

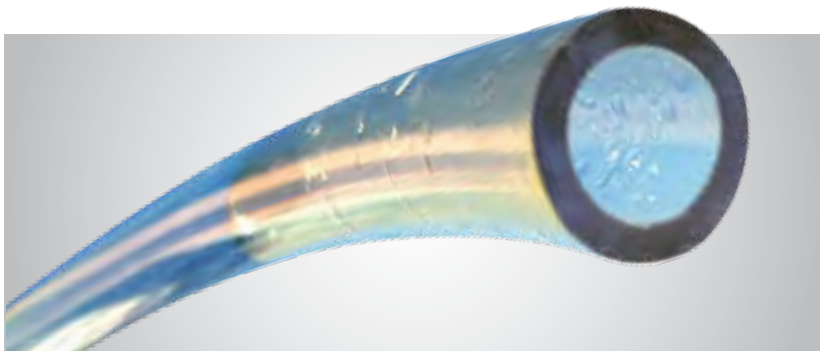
Do not use ethylene glycol based antifreeze in hose. Not for potable water.

I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	3	76.2	28	15	16-149-0580
3/4"	19.1	3	76.2	28	16	16-149-0340
1"	25.4	3	76.2	28	24	16-149-1000
1 1/8"	28.6	4	101.6	28	25	16-149-1180
1 1/4"	31.8	4	101.6	28	28	16-149-1140
1 1/2"	38.1	5	127.0	28	39	16-149-1120

SHIELDS PVC TUBING - CLEAR



Shields Clear PVC Tubing has a single layer FDA formula vinyl. This hose is primarily used for non-pressurized potable water system supply and drain lines (sink, shower, icebox). This hose is NOT for use in hot water or pressurized water systems.



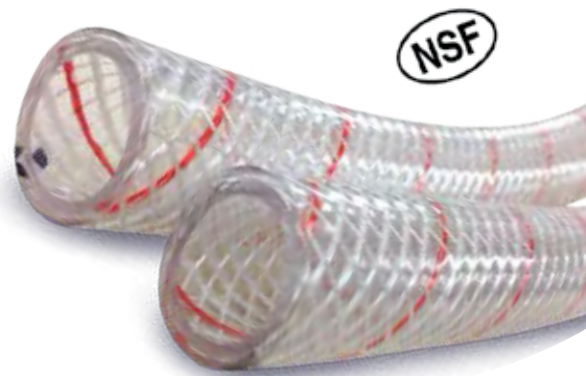
I.D.	MM	WALL	MM	BURST PRESSURE 70°	WT. "C"	CODE #	BULK PACK	M
3/16"	4.8	.062	1.6	65#	3	16-150-0360	750'	228.6
1/4"	6.4	.078	2.0	60#	4	16-150-0140	500'	152.4
5/16"	7.9	.093	2.4	55#	5	16-150-0560	200'	61.0
3/8"	9.5	.094	2.4	55#	6	16-150-0380	200'	61.0
1/2"	12.7	.11	2.8	45#	12	16-150-0120	200'	61.0
5/8"	15.9	.11	2.8	40#	15	16-150-0580	200'	61.0
3/4"	19.1	.11	2.8	35#	19	16-150-0340	200'	61.0
1"	25.4	.125	3.2	20#	27	16-150-1000	100'	30.5
1 1/8"	28.6	.125	3.2	20#	29	16-150-1180	100'	30.5
1 1/4"	31.8	.125	3.2	20#	31	16-150-1140	100'	30.5
1 1/2"	38.1	.125	3.2	20#	34	16-150-1120	50'	15.2

SHIELDS ALL CLEAR PVC TUBING POLYESTER REINFORCED (RED-TRACER)

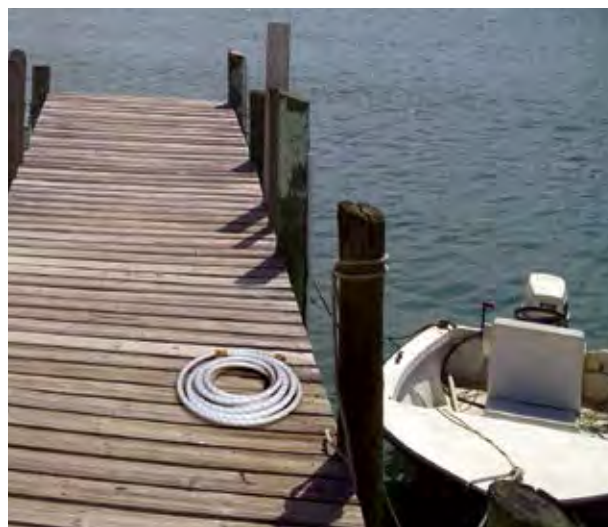


Shields Clear Polyester Reinforced Red Tracer PVC Tubing has a clear heavy wall FDA formula vinyl. It has a polyester braid reinforcement and 250 PSI burst pressure. This hose is primarily used for pressurized water system supply (hot or cold), drain lines (sink, shower, icebox), wash down pump connections and head intake.

I.D.	MM	O.D.	MM	BURST PRESSURE	WT. "C"	BULK PACK 250' (76.2M) COIL CODE #	
3/8"	9.5	9/16"	14.3	250#	7	16-162-0380	
1/2"	12.7	23/32"	18.3	250#	11	16-162-0120	
5/8"	15.9	27/32"	21.4	250#	14	16-162-0580	
3/4"	19.1	31/32"	24.6	250#	17	16-162-0340	
1"	25.4	1 5/16"	33.3	250#	24	16-162-1000	
1 1/8"	28.6	1 3/8"	34.9	250#	32	16-162-1180	①
1 1/4"	31.8	1 5/8"	41.3	250#	44	16-162-1140	①
1 1/2"	38.1	1 15/16"	49.2	250#	67	16-162-1120	①
① 100' roll							



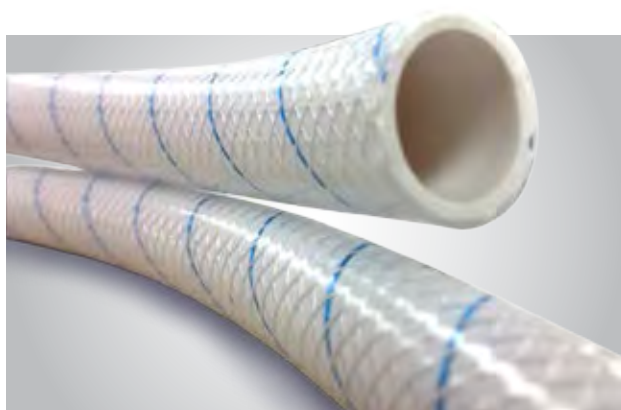
SHIELDS BRAIDED WASH DOWN HOSE



I.D.	MM	LENGTH	MM	BULK PACK	WT.	CODE NO.
5/8"	15.9	25'	7.6	5	3.25	16-163-0585
5/8"	15.9	50'	15.2	5	6.50	16-163-0586
5/8"	15.9	75'	22.9	5	9.75	16-163-0588
5/8"	15.9	100'	30.5	5	13.00	16-163-0587

Shields Braided Wash Down Hose has a white FDA formula vinyl tube and clear vinyl cover. It has a polyester braid reinforcement and a 250 PSI burst pressure. This hose has brass ends, is lightweight and easy to handle. This hose is primarily used for dockside wash down and is safe for potable water.

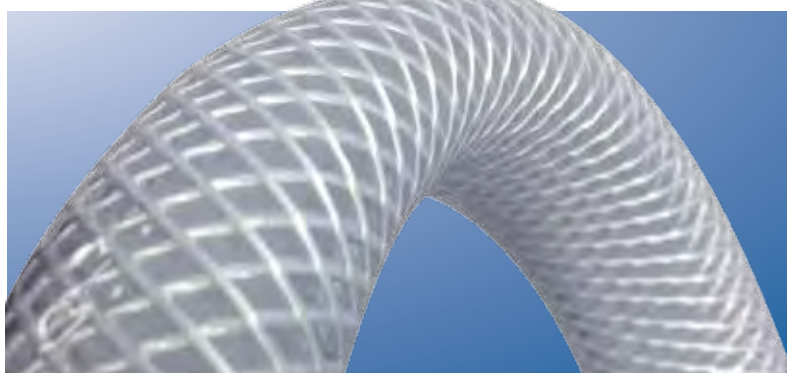
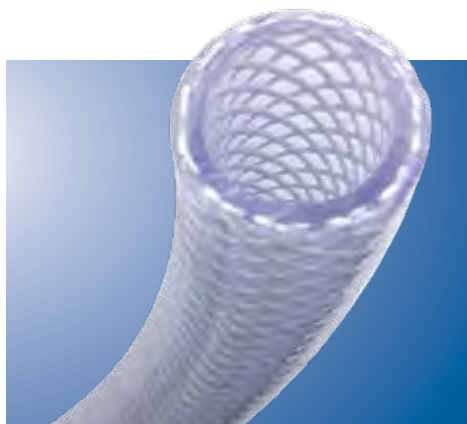
SHIELDS CLEAR WHITE PVC TUBING POLYESTER REINFORCED (BLUE-TRACER)



Clear White Blue Tracer PVC Tubing has a white FDA formula vinyl tube. It has a clear vinyl cover, polyester braid reinforcement and 250 PSI burst pressure. This hose is primarily used for pressurized water system supply (hot or cold), drain lines (sink, shower, icebox), wash down pump connections and head intake.

I.D.	MM	O.D.	MM	BURST PRESSURE	WT. "C"	BULK PACK 250' (76.2M) COIL CODE #
1/2"	12.7	1 1/16"	17.5	250#	10	16-164-0120
5/8"	15.9	1 3/16"	20.6	250#	13	16-164-0580
3/4"	19.1	1 5/16"	23.8	250#	17	16-164-0340

SHIELDS HEAVY DUTY POLYESTER REINFORCED PVC TUBING



Shields Heavy-Duty Polyester Reinforced PVC Tubing has a clear extra heavy wall FDA formula vinyl. It has superior kink resistance and a polyester braid reinforcement. This hose is primarily used for pressurized water system supply (hot or cold), wash down pump connections and head intake.

I.D.	MM	O.D.	MM	BURST PRESSURE	WT. "C"	CODE #	BULK PACK	M
1/4"	6.4	7/16"	11.1	750#	5.6	16-168-0140	300'	91.44
3/8"	9.5	19/32"	15.1	750#	9.2	16-168-0380	300'	91.44
1/2"	12.7	3/4"	19.1	600#	13.5	16-168-0120	300'	91.44
5/8"	15.9	7/8"	22.2	600#	16.2	16-168-0580	300'	91.44
3/4"	19.1	1 1/64"	25.8	450#	21.1	16-168-0340	300'	91.44
1"	25.4	1 5/16"	33.3	325#	31.2	16-168-1000	200'	60.96
1 1/4"	31.8	1 21/32"	42.1	300#	51	16-168-1140	100'	30.48
1 1/2"	38.1	1 15/16"	49.2	300#	65	16-168-1120	100'	30.48

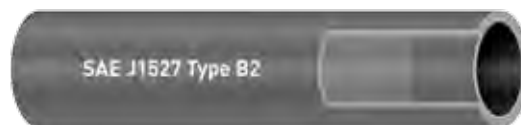
SHIELDS OIL TANK FILL HOSE



Shields Oil Tank Fill Hose has a nitrile/PVC blend for excellent oil resistance. It has a flexible corrugated design, smooth bore and a vinyl helix to prevent collapse. It also resists ozone and cold temperature cracking. This hose is primarily used for 2-cycle oil tank fill.

I.D.	MM	BEND RADIUS	MM	WT "C"	BULK PACK 100' (30.5M) COILS CODE #
1 1/2"	38.1	4"	101.6	22	16-309-1120

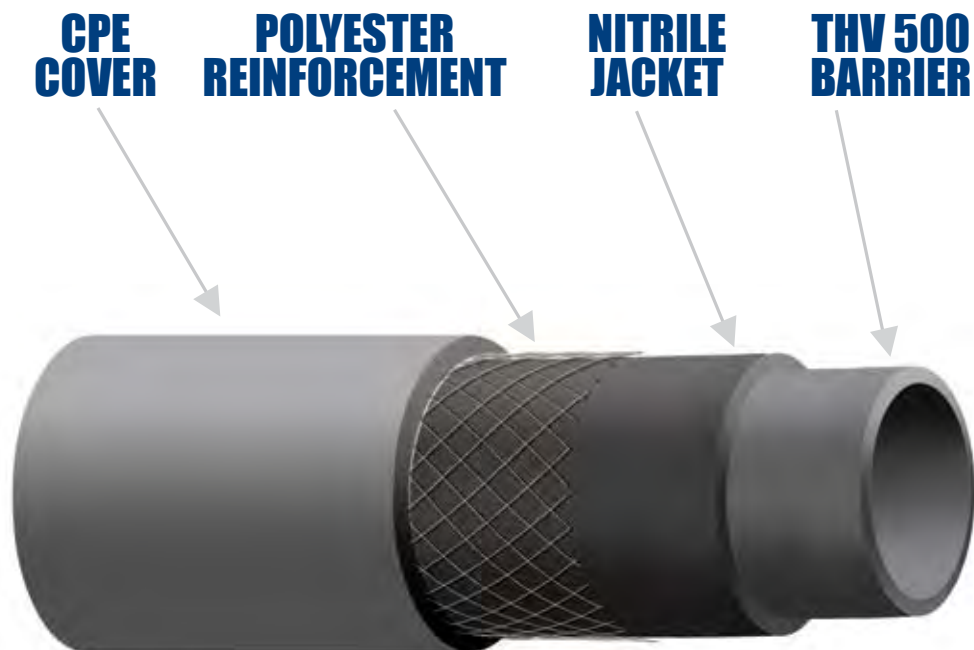
SHIELDS SILVERADO 2000 FUEL VENT LINE



Silverado 2000 Fuel Vent Line is primarily used for fuel tank vent (outside the engine compartment) and is for pleasure boats only. The Temperature range is -5 F to 180 F. It meets SAE J1527 Type A2 standards.

I.D.	MM	O.D.	MM	PLY	BURST PRESSURE	WT. "C"	BULK PACK CODE #
5/8"	15.9	29 3/32"	23.0	2	175#	24.0	16-315-0580 (250' reel)

SHIELDS SILVERADO 4000 OUTBOARD FUEL LINE



CONSTRUCTION

The series 337 fuel lines (Silverado 4000) is the best B1 fuel line in the market place. Utilizing a complex construction technique involving a THV500 barrier layer, a Nitrile jacket, Polyester reinforcement and a CPE cover; we are able to offer a hose that outperforms all competitors. The Silverado 4000 hose has a small O.D., is extremely flexible and easy to clamp. Not only does the Silverado 4000 meet all requirements it has become the only fuel line worthy to be utilized in Sierra's fuel line assemblies.



Silverado 4000 Outboard Fuel Line is resistant to ethanol blended fuels. This hose is EPA and CARB compliant. Silverado 4000 has a THV barrier layer to prevent permeation, polyester reinforcement for strength and a weather and UV resistant CPE cover. The gray color keeps hose cooler and helps prevent vapor lock. This hose is for above deck primer bulb applications, and is not fire retardant.



Meets SAE J1527 Type B1-15
Meets ISO 8469 B1

I.D.	MM	O.D.	MM	WT. "C"	BULK PACK CODE #
5/16"	7.9	1/2"	12.75	7	16-337-0560
5/16"	7.9	1/2"	12.75	7	16-337-0566
3/8"	9.5	35/64"	13.72	7.65	16-337-0380
3/8"	9.5	35/64"	13.72	7.65	16-337-0386

SHIELDS FIRE-ACOL FUEL FILL HOSE

Shields Fire – Acol – Fuel Fill Hose resists gasoline/alcohol blends and is compounded for low permeation. Special compound resists cover deterioration due to alcohol fuel resting in hose. It is abrasion resistant and it is reinforced with wire helix imbedded between plies of HD synthetic cord. This imported hose is primarily used for fuel fill (gas or diesel) and is for pleasure boats only. The temperature range is -5°F to 180°F. It meets SAE J1527 Type A2 and ISO 7840 Type A2 NMMA/CE Type Accepted standards.



I.D.	MM	O.D.	MM	PLY	BURST PRESSURE	WT. "C"	50' (15.2M) COILS CODE #	12 1/2' (3.8M) LENGTH CODE #
1 1/2"	38	1 57/64"	48	2	90	77	16-350-1120	16-350-1124
1 5/8"	41.3	2 3/64"	52.0	2	90#	89	16-350-1580	16-350-1584
1 7/8"	47.6	2 9/32"	58.0	2	90#	114	16-350-1780	16-350-1784
2"	50.8	2 31/64"	63.1	2	90#	121	16-350-2000	16-350-2004
2 3/8"	60.3	2 27/32"	72.2	2	90#	137	16-350-2380	16-350-2384

SHIELDS FIRE-ACOL "C" FUEL FILL HOSE



Shields Fire – Acol – “C” Fuel Fill Hose resists gasoline/alcohol blends and has a corrugated cover for extra flexibility. This hose is compounded for low permeation and is reinforced with a wire helix imbedded between plies of HD synthetic cord. It is also abrasion resistant. This hose is primarily used for extra flexible fuel fill (gas or diesel) and is for pleasure boats only. The temperature range is -5°F to 180°F. It meets SAE J1527 type A2 and NMMA Type Accepted standards.



I.D.	MM	O.D.	MM	PLY	BURST PRESSURE	WT. "C"	BULK PACK 50' (15.2M) COILS	12 1/2' (3.8M) LENGTH
1 1/2"	38.1	1 57/64"	48.0	2	90#	77	16-351-1120	16-351-1124

SHIELDS FUEL FILL HOSE



Shields Fire – Acol – Fuel Fill Hose resists gasoline/alcohol blends and is compounded for low permeation. It is abrasion resistant and it is reinforced with wire helix imbedded between piles of HD synthetic cord. This imported hose is primarily used for fuel fill (gas or diesel) and is for pleasure boats only. It meets SAE J1527 Type A2 and ISO 7840 Type A2 NMMA/CE Type Accepted standards.



I.D.	MM	O.D.	MM	PLY	BURST PRESSURE	WT. "C"	50' (15.2M) COILS CODE #	12 1/2' (3.8M) LENGTH CODE #
1 1/2"	38.1	1 57/64"	48.0	2	90#	77	16-355-1120	16-355-1124
2"	51	2 31/64"	63.1	2	90#	111	16-355-2000	16-355-2004

SHIELDS FIRE-ACOL 15 LOW PERMEATION FUEL HOSE

Shields Fire-Acol 15 – Low Permeation Fuel Hose has a special design NBR tube with an embedded plastic barrier layer to prevent permeation. The design of this hose provides easy coupling insertion and the NBR/PVC cover is weather and UV resistant. The hose is also polyester reinforced and fire-resistant. This hose is primarily used for fuel feed (gasoline up to 85% ethanol blended fuels/diesel/bio-diesel all blends). The temperature range is -20°F to 212°F.

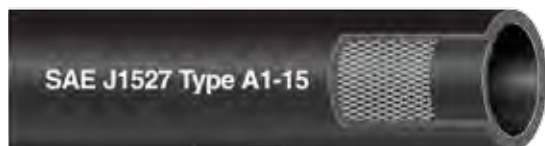


I.D.	MM	O.D.	MM	MAX WP	WT. C	BULK PACK 250' REEL CODE #
3/8"	9.5	49/64"	19.3	100	22	16-365-0380
1/2"	12.7	29/32"	22.86	100	27	16-365-0120



This hose complies with EPA and CARB very low permeation requirements. It meets USCG Type A1-15 requirements for pleasure boats, SAE J1527 Type A1-15, ISO 7840 Type A1, and NMMA/CE Type accepted standards

SHIELDS LOW PERMEATION MARINE FUEL HOSE



Shields Low Permeation Marine Fuel Hose has a plastic barrier veneer with an NBR outer layer tube to prevent permeation. This polyester reinforced hose complies with EPA and CARB very low permeation requirements and is weather/UV resistant. This hose is primarily used for fuel feed (gasoline up to 85% ethanol blended fuels/diesel/all bio-diesel blends). It meets USCG Type A1 – 15 requirements for pleasure boats and meets SAE J1527 Type A1-15, ISO 7840 Type A1, and NMMA/CE type accepted standards. The temperature ranges from -20°F to 212°F.



I.D.	MM	O.D.	MM	MAX WP	WT. C	BULK PACK 250' REEL CODE #
1/4"	6.4	35/64"	13.72	100	11	16-368-0140
5/16"	7.9	5/8"	15.49	100	13	16-368-0560
3/8"	9.5	11/16"	17.27	100	16	16-368-0380
1/2"	12.7	13/16"	20.83	100	20	16-368-0120

SHIELDS FIRE-ACOL FUEL VENT



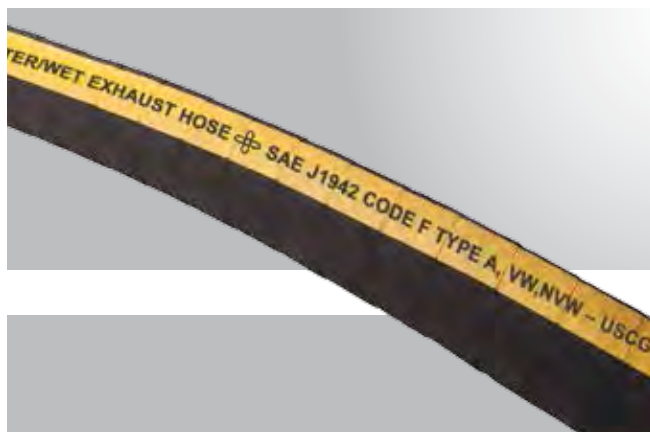
Shields Fire-Acol Fuel Vent hose resists gasoline/ alcohol blended fuel and is fire resistant. It features a weather/UV resistant NBR/PVC cover. This hose is primarily used for fuel vent lines (gasoline up to 85% ethanol blended fuels/diesel fuels). It meets USCG Type A2 requirements for pleasure boats and meets SAE J1527 Type A2, ISO 7840 Type A2 and NMMA/CE Type accepted standards. The temperature ranges from -20°F to 160°F.



I.D.	MM	O.D.	MM	MAX WP	WT. C	BULK PACK 250' REEL CODE #
5/8"	15.9	31/32"	24.38	50	25	16-369-0580

SHIELDS COMPLEX - ALL IN ONE HOSE FOR INSPECTED VESSELS

Shields Complex is a versatile wire reinforced hose specially designed for inspected vessels. Complex is rated for fuel, vital water and non-vital water systems on boats requiring SAE J1942 hoses. Applications include bilge, coolant, oil and fuel systems using gasoline, gasohol, diesel, bio-diesel, wet exhaust systems, non-potable water systems, engine intake, toilet and holding tank connections.



Tube: Black Nitrile

Reinforcement: 2 textile plies w/ dual wire helix

Cover: Black Chlorprene

Temp. Range: -20F to 212F

Specifications - SAE J1942 Code F, VW, NVW;
SAE J1527 A1; SAE J2006 R2; SAE 20R2 B;
SAE J20R4 B; SAE 20R5 B, SAE 30R5,
ISO 7840 A1

Additional sizes available. 200' minimum order.

I.D.	MM	O.D.	PLY	WT. "C"	BEND RADIUS	WP	50' COIL CODE#	12 1/2' (3.8M) LENGTH CODE #
5/8"	15.9	1"	2	33	1.5	75	16-321-0580	16-321-0584
3/4"	19.1	1.19"	2	39	1.5	75	16-321-0340	16-321-0344
1"	25.4	1.41"	2	53	2	75	16-321-1000	16-321-1004
1 1/8"	28.6	1.56"	2	62	3	75	16-321-1180	16-321-1184
1 1/4"	31.8	1.66"	2	64	3	75	16-321-1140	16-321-1144
1 1/2"	38.1	1.91"	2	78	3	50	16-321-1120	16-321-1124
2"	50.8	2.48"	2	118	5	50	16-321-2000	16-321-2004

SHIELDS SANITATION HOSE

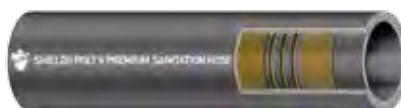
Shields Sanitation Hose is kink resistant and flexible. It has an EPDM tube and cover, it is wire reinforced and has two fabric plies. This sanitation hose is resistant to toilet chemicals, odor permeation, ozone, salt water and heat. This hose is primarily used for toilet to holding tank, holding tank pump out, and maximum resistance to odor permeation.

Bend Radius = 5 x I.D.



I.D.	MM	O.D.	PLY	PRESSURE	BURST "C"	WT. COIL CODE #	BULK PACK 50' (15.2M) LENGTH CODE #
1"	25	1 5/16"	2	200#	38	16-101-1000	16-101-1004
1 1/2"	38	1 55/64"	2	150#	55	16-101-1120	16-101-1124

SHIELDS POLY X SANITATION HOSE



Shields Poly X Sanitation Hose has a lifetime warranty against odor permeation. This ultimate sanitation hose combines

the flexibility of a rubber hose with the permeation resistance of polyurethane. Poly X can easily be slipped over most fittings and the polyurethane cover is extremely abrasion resistant. This hose has a glossy cover for easy clean up. This hose is primarily used for head to holding tank and holding tank pump out.

The tube is made of smooth, white NBR and is chemical and detergent resistant. The cover is comprised of smooth polyurethane and has a glossy cover. It is heat, weather, ozone and abrasion resistant. Bend Radius = 5 x I.D.

I.D.	MM	O.D.	MM	PLY	VAC RATING	WT "C"	50' (15.2M) CODE #	12 1/2' (3.8M) CODE #
3/4"	19	1 7/16"		2		38	16-105-0340	16-105-0344
1"	25	1 21/64"	33.7	2	28	46	16-105-1000	16-105-1004
1 1/2"	38	1 27/32"	46.8	2	28	66	16-105-1120	16-105-1124

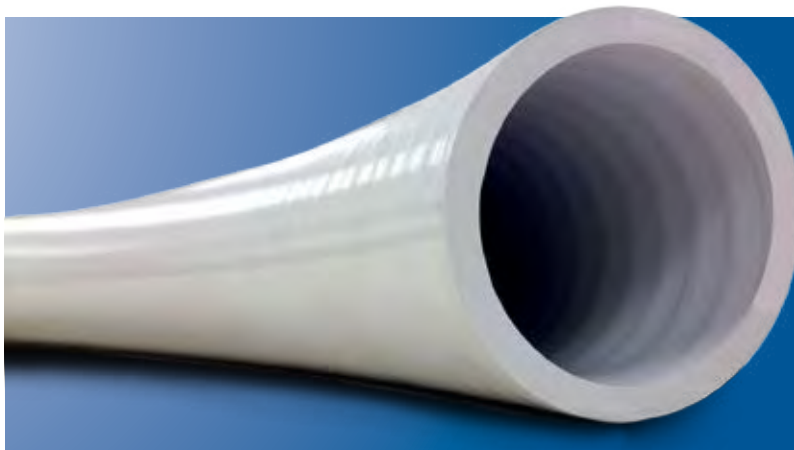
SHIELDS SANITATION HOSE FITTINGS

Fiberglass reinforced nylon fittings designed to fit Series 101, Series 105 and Series 144 and 148 hoses without heating or special tools. For use in sanitation systems, deck drain systems and water tank fill. Fittings are durable, chemical and fuel resistant, will not rust or cause electrolysis.

STYLE	BULK CODE #	BLISTER PACK CODE #	HOSE I.D.	MM	THREAD
Straight Male	N800-0340	—	3/4"	19.1	3/4" MP
Straight Male	N800-1000	—	1"	25.4	1" MP
Straight Male	N800-1180	—	1 1/8"	28.6	1" MP
Straight Male	N800-1140	—	1 1/4"	31.8	1 1/4" MP
Straight Male	N800-1120B	18-800-1120	1 1/2"	38.1	1 1/2" MP
Straight Female	N801-1120	18-801-1120	1 1/2"	38.1	1 1/2" FP
90 Degree Male	N802-1120	18-802-1120	1 1/2"	38.1	1 1/2" MP
90 Degree Female	N803-1120	18-803-1120	1 1/2"	38.1	1 1/2" FP
Hose Tee	N806-1120	18-806-1120	1 1/2"	38.1	N/A



SHIELDS SUPER PVC SANITATION HOSE



Shields Super PVC Sanitation Hose is smooth off white PVC with a vinyl helix. It contains an anti-fungus /bacterial agent to inhibit odor causing growth. It is resistant to mild chemicals, saltwater, and permeation. This hose is primarily used for toilet to holding tank (self draining lines) and holding tank pump out. It has a five year limited warranty.

Do not use ethylene glycol based anti-freeze in hose. CAUTION - Do not use for potable water.

I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
1"	25.4	3	76.2	28	27	16-144-1000
1 1/2"	38.1	5	127.3	28	40	16-144-1120

WARNING: Lines containing raw sewage should be plumbed to be self-draining.

SHIELDS VAC EXTRA HEAVY DUTY - INDUSTRIAL GRADE



Shields Vac Extra Heavy Duty/Commercial Grade Hose has a smooth cover and clear FDA formula PVC with a white vinyl helix. It is rated for full vacuum and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump intake and discharge, potable water tank fill, drains (sinks, shower, and scupper), livewell intake and drain, and sanitation (intake, vent and pump out). This hose is utilized for below the waterline connections.

Do not use ethylene glycol based antifreeze in hose. Do not use in pressurized water systems.

I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	3	76.2	28	15	16-146-0580
3/4"	19.1	3	76.2	28	16	16-146-0340
1"	25.4	3	76.2	28	27	16-146-1000
1 1/8"	28.6	4	101.6	28	25	16-146-1180
1 1/4"	31.8	3	76.2	28	30	16-146-1140
1 1/2"	38.1	4	101.6	28	40	16-146-1120
2"	50.8	5	127.0	28	57	16-146-2000
2 1/2"	63.5	7	177.8	28	74	16-146-2120
3"	76.2	9	228.6	28	94	16-146-3000

SHIELDS VAC EXTRA HEAVY DUTY/FDA



Shields Vac Extra Heavy Duty/FDA Hose has a smooth white FDA grade PVC with vinyl helix. It is rated for full vacuum and is resistant to mild chemicals, permeation, and saltwater. This hose is primarily used for bilge pump intake and discharge, drains (sinks, shower, and scupper), livewell intake and drain, potable water tank fill, and sanitation (toilet to holding tank, intake, self draining lines vent and pump out). This hose is resistant to odor permeation.

Do not use ethylene glycol based antifreeze in hose. Do not use in pressurized water systems.

I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	3	76.2	28	15	16-148-0580W
3/4"	19.1	3	76.2	28	20	16-148-0340W
1"	25.4	3	76.2	28	27	16-148-1000W
1 1/8"	28.6	4	101.6	28	29	16-148-1180W
1 1/4"	31.8	4	101.6	28	31	16-148-1140W
1 1/2"	38.1	5	127.0	28	40	16-148-1120W

WARNING: Lines containing raw sewage should be plumbed to be self-draining.

SHIELDS LIVEWELL HOSE



Shields Livewell Hose has a black smooth cover with vinyl helix. It is rated for full vacuum and is resistant to mild chemicals and saltwater. This hose is primarily used for bilge pump intake and discharge, drains (sinks, shower, and scupper), livewell intake and drain, and sanitation (intake and vent). This hose is utilized for below the waterline connections.

Do not use ethylene glycol based antifreeze in hose. Not for potable water.

I.D.	MM	BEND RADIUS	MM	VAC RATING	WT. "C"	BULK PACK 100' (30.5M) COIL CODE #
5/8"	15.9	3	76.2	28	15	16-149-0580
3/4"	19.1	3	76.2	28	16	16-149-0340
1"	25.4	3	76.2	28	24	16-149-1000
1 1/8"	28.6	4	101.6	28	25	16-149-1180
1 1/4"	31.8	4	101.6	28	28	16-149-1140
1 1/2"	38.1	5	127.0	28	39	16-149-1120

SHIELDS 400/402 VINYLVENT



Shields Vinylvent Ducting Hose is PVC supported by anodized wire helix. It is resistant to UV and the ozone. This hose is primarily used for venting of bilge fumes.

					BULK PACK 50' (76.2M) LENGTH CODE # WHITE
I.D.	MM	O.D.	MM	WT/ "C"	
3"	76.2	3 1/8"	79.4	8	16-400-3000W
4"	101.6	4 1/8"	104.8	10	16-400-4000W
3"	76.2	3 1/8"	79.4	8	16-402-3000
4"	101.6	4 1/8"	104.8	10	16-402-4000



SHIELDS EXTRA HEAVY DUTY VINYLVENT



Shields Extra Heavy Duty Vinylvent has an extra heavy PVC wall. It is supported by vinyl coated helical wire and is resistant to ozone, UV, and corrosion. It is flame resistant and meets the UL 94V standard. This hose is primarily used for venting of bilge fumes.



I.D.	MM	O.D.	MM	WT. "C"	CODE NO.
3"	76	3 1/8"	79.4	17	16-420-3000
4"	102	4 1/8"	104.8	25	16-420-4000
Bulk Pack: 3" 6 x 50 4" 4 x 50					

SHIELDS FIBERVENT



Shields Fibervent is vinyl coated, woven fiberglass hose. It is supported by vinyl coated helical wire and is resistant to ozone, UV, and corrosion. The hose is flame resistant and meets the UL 181 Class 1 standard. This hose is primarily used for venting of bilge fumes and A/C ducting hose. The temperature ranges from -20° F to 250° F.



BULK	M	I.D.	MM	O.D.	MM	RATING	VAC WT. "C"	CODE NO.
6 x 25'	1.8x7.6	3"	76.2	3 1/4"	82.6	20	13	16-450-3000G
8 x 25'	2.4x7.6	4"	101.6	4 1/4"	108	20	15	16-450-4000G
8 x 25'	2.4x7.6	5"	127	5 1/4"	133.4	20	17	16-450-5000G
4 x 25'	1.2x7.6	6"	152.4	6 1/4"	158.8	20	19	16-450-6000G

SHIELDS AIR CONDITIONER DUCTING HOSE



Shields Air Conditioner Ducting Hose has a smooth tube for maximum airflow. This is a vinyl coated, woven fiberglass hose and is supported by vinyl coated helical wire. It is resistant to ozone, UV, and corrosion. The hose is flame resistant and meets the UL 94-V-0 standard. This hose is primarily used for venting of bilge fumes and A/C ducting hose. The temperature ranges from -20° to 200°F



BULK	M	I.D.	MM	O.D.	MM	WT. "C"	CODE NO.
5 x 25'	1.5x7.6	3"	76	3 1/4"	82.5	22	16-460-3000G
6 x 25'	1.8x7.6	4"	102	4 1/4"	108	24	16-460-4000G
6 x 25'	1.8x7.6	4"	102	4 1/4"	108	24	16-460-4000B
5 x 25'	1.5x7.6	5"	127	5 1/4"	133.4	32	16-460-5000G
5 x 25'	1.5x7.6	5"	127	5 1/4"	133.4	32	16-460-5000B
4 x 25'	1.2x7.6	6"	152	6 1/4"	158.8	36	16-460-6000G
2 x 25'	.6x7.6	7"	178	7 1/4"	184.2	44	16-460-7000G
2 x 25'	.6x7.6	7"	178	7 1/4"	184.2	44	16-460-7000B

SHIELDS MARINE EXHAUST/WATER HOSE (NO WIRE)



Shields Marine Exhaust / Water Hose is reinforced with 2 or 4 plies of synthetic cord and is made of black, heavy-walled synthetic rubber. This hose is primarily used for straight connections in wet exhaust systems and engine water circulation lines. It is resistant to engine heat, exhaust fumes, ozone, mild chemicals, antifreeze

and saltwater. This hose also has double the ozone resistance required by SAEJ2006. The temperature ranges from -20°F to 200°F continuous, 250°F intermittent. The hose meets SAE J2006 Type R1 standards.



I.D.	MM	O.D.	PLY	WT. "C"	50' COIL CODE #	12 1/2' LENGTH CODE #
1/2"	13	7/8"	2	24	16-200-0120	16-200-0124
5/8"	16	1 1/32"	2	33	16-200-0580	16-200-0584
3/4"	19	1 9/64"	2	37	16-200-0340	16-200-0344
7/8"	22	1 17/64"	2	42	16-200-0780	16-200-0784
1"	25	1 3/8"	2	48	16-200-1000	16-200-1004
1 1/8"	28	1 1/2"	2	52	16-200-1180	16-200-1184
1 1/4"	32	1 45/64"	2	60	16-200-1140	16-200-1144
1 5/16"	33	1 47/64"	2	62	16-200-1560	16-200-1564
1 3/8"	35	1 13/16"	2	66	16-200-1380	16-200-1384
1 1/2"	38	1 15/16"	2	70	16-200-1120	16-200-1124
1 5/8"	42	2 3/32"	2	77	16-200-1580	16-200-1584
1 3/4"	45	2 13/64"	2	82	16-200-1340	16-200-1344
1 7/8"	48	2 23/64"	2	96	16-200-1780	16-200-1784
2"	51	2 31/64"	2	102	16-200-2000	16-200-2004
2 1/8"	54	2 19/32"	2	107	16-200-2180	16-200-2184
2 1/4"	58	2 3/4"	2	114	16-200-2140	16-200-2144
2 3/8"	60	2 7/8"	2	132	16-200-2380	16-200-2384
2 1/2"	63	3"	2	136	16-200-2120	16-200-2124
2 5/8"	67	3 3/32"	2	147	—	16-200-2584
2 3/4"	70	3 17/64"	2	152	—	16-200-2344
2 7/8"	73	3 7/16"	2	174	16-200-2780	16-200-2784
3"	76	3 9/16"	2	182	16-200-3000	16-200-3004
3 1/8"	80	3 45/64"	2	190	—	16-200-3184
3 1/2"	90	4 3/32"	2	198	—	16-200-3124
3 3/4"	95	4 9/32"	2	221	—	16-200-3344
4"	102	4 17/32"	4	229	—	16-200-4004
4 1/2"	114	5 1/8"	2	300	—	16-200-4124
5"	127	5 5/8"	2	332	—	16-200-5004
5 1/2"	140	6 3/16"	2	396	—	16-200-5124
6"	152	6 11/16"	2	427	—	16-200-6004
8"	203	8 25/32"	4	670	—	16-200-8004
10"	254	10 7/8"	4	934	—	16-200-10004
12"	305	12 7/8"	4	1095	—	16-200-12004
14"	350	14 7/8"	4	1430	—	16-200-14004*

* Special Order

This certification provides unbiased, third party confirmation worldwide that these Shields hoses meet the highest standards of production quality. Certification ensures the proper level of product safety and inspires user confidence.

SHIELDS NAUTIFLEX SILICONE EXHAUST HOSE



Shields Nautiflex Silicone Exhaust Hose has a blue silicone cover with a smooth finish for easy clean up. This hose is flexible, easy to install and has four plies of synthetic fabric. It also remains stable at elevated temperatures. This hose is primarily used for straight connections in the wet exhaust system and engine water circulation lines. The temperature ranges from – 20°F to 350°F. The hose meets SAE J2006 Type R1 and ISO 13363:2004 – Type 2 – Class B standards.

I.D.	MM	O.D.	WT. "C"	3' (.9M) LENGTH CODE NO.	6' (1.8M) LENGTH CODE NO.	12' (3.7M) LENGTH CODE NO.
1"	25	1 3/8"	33.1	16-202-1000-36	16-202-1001	16-202-1004
1 1/8"	28	1 1/2"	37.2	16-202-1180-36	16-202-1181	—
1 1/4"	32	1 5/8"	41.3	16-202-1140-36	16-202-1141	16-202-1144
1 3/8"	35	1 3/4"	45.4	16-202-1380-36	16-202-1381	—
1 1/2"	38	1 7/8"	49.6	16-202-1120-36	16-202-1121	16-202-1124
1 3/4"	45	2 1/8"	57.8	16-202-1340-36	16-202-1341	—
2"	51	2 3/8"	66.1	16-202-2000-36	16-202-2001	16-202-2004
2 3/8"	60	2 3/4"	78.5	16-202-2380-36	16-202-2381	16-202-2384
2 1/2"	63	2 7/8"	82.6	16-202-2120-36	16-202-2121	16-202-2124
2 5/8"	67	2 63/64"	86.8	16-202-2580-36	16-202-2581	16-202-2584
2 3/4"	70	3 1/8"	90.9	16-202-2340-36	16-202-2341	—
2 7/8"	73	3 1/4"	94.1	16-202-2780-36	16-202-2781	—
3"	76	3 3/8"	99.2	16-202-3000-36	16-202-3001	16-202-3004
3 1/4"	82	3 1/2"	103.4	16-202-3140-36	16-202-3141	16-202-3144
3 1/2"	90	3 7/8"	115.7	16-202-3120-36	16-202-3121	16-202-3124
4"	102	4 3/8"	132	16-202-4000-36	16-202-4001	16-202-4004
5"	127	5 3/8"	165	16-202-5000-36	16-202-5001	16-202-5004
5 1/2"	140	5 7/8"	181.5	16-202-5120-36	—	—
6"	152	6 3/8"	198	16-202-6000-36	16-202-6001	16-202-6004
8"	203	8 3/8"	264	16-202-8000-36	16-202-8001	16-202-8004
10"	254	10 3/8"	330	16-202-10000-36	—	—
12"	305	12 3/8"	396	16-202-12000-36	16-202-12001	16-202-12004
14"	350	14 5/8"	462	16-202-14000-36	—	—



SHIELDSFLEX II MARINE WATER/EXHAUST HOSE (W/ WIRE)



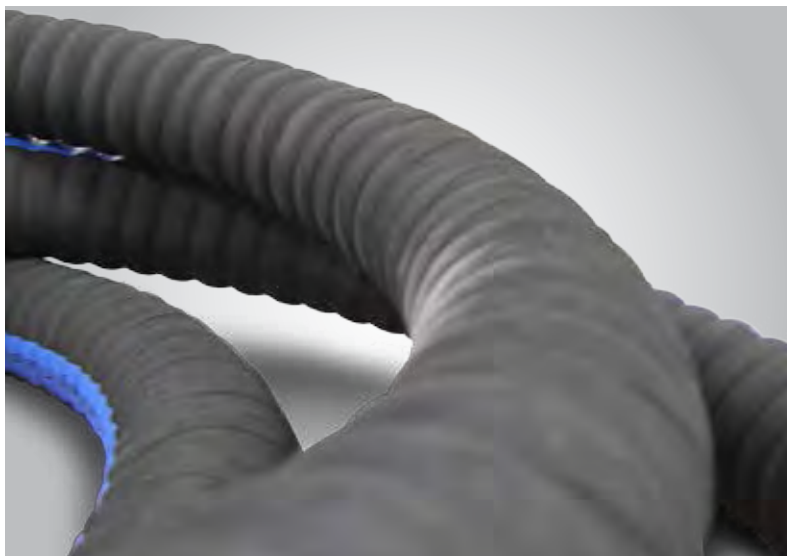
Now double the ozone resistance required by SAEJ2006

I.D.	MM	O.D.	PLY	WT. "C"	50' (15.2M) COIL CODE #	12 1/2' (3.8M) LENGTH CODE #
1/2"	13	27/32"	2	24	16-250-0120	16-250-0124
5/8"	16	61/64"	2	28	16-250-0580	16-250-0584
3/4"	19	1 1/16"	2	32	16-250-0340	16-250-0344
7/8"	22	1 3/16"	2	36	16-250-0780	16-250-0784
1"	25	1 5/16"	2	40	16-250-1000	16-250-1004
1 1/8"	28	1 7/16"	2	44	16-250-1180	16-250-1184
1 1/4"	32	1 19/32"	2	50	16-250-1140	16-250-1144
1 5/16"	33	1 5/8"	2	51	16-250-1560	16-250-1564
1 3/8"	35	1 23/32"	2	58	16-250-1380	16-250-1384
1 1/2"	38	1 53/64"	2	62	16-250-1120	16-250-1124
1 5/8"	42	2"	2	80	16-250-1580	16-250-1584
1 3/4"	45	2 1/8"	2	88	16-250-1340	16-250-1344
1 7/8"	48	2 19/64"	2	93	16-250-1780	16-250-1784
2"	51	2 13/32"	2	99	16-250-2000	16-250-2004
2 1/8"	54	2 17/32"	2	107	16-250-2180	16-250-2184
2 1/4"	58	2 11/16"	2	127	16-250-2140	16-250-2144
2 3/8"	60	2 3/4"	2	132	16-250-2380	16-250-2384
2 1/2"	63	2 7/8"	2	137	16-250-2120	16-250-2124
2 5/8"	67	3 1/16"	2	147	—	16-250-2584
2 3/4"	70	3 3/16"	2	164	16-250-2340	16-250-2344
2 7/8"	73	3 5/16"	2	170	16-250-2780	16-250-2784
3"	76	3 7/16"	2	177	16-250-3000	16-250-3004
3 1/8"	80	3 5/8"	2	200	16-250-3180	16-250-3184
3 1/2"	90	4"	2	223	16-250-3120	16-250-3124
4"	102	4 5/8"	2	269	16-250-4000	16-250-4004
4 1/2"	114	5 3/32"	2	319	16-250-4120	16-250-4124
5"	127	5 5/8"	2	398	16-250-5000	16-250-5004
6"	152	6 21/32"	2	482	—	16-250-6004
8"	203	8 25/32"	2	780	—	16-250-8004

Shieldsflex II Marine Water/Exhaust Hose has a black synthetic rubber tube and cover. It is reinforced with wire helix imbedded between plies of HD synthetic cord. It is resistant to exhaust fumes, ozone, mild chemicals, antifreeze and saltwater. This hose is abrasion and odor permeation resistant. It now has double the ozone resistance required by the SAEJ2006. Shieldsflex II is primarily used for engine intake, wet exhaust connections (use where bends or long lengths are required), bilge pump intake/discharge, scupper lines, toilet intake/discharge, and holding tank vent/pump out. The temperature ranges from -20° F to 200°F continuous, 250°F intermittent. The hose meets SAE J2006 Type R2 standards. Bend Radius = 5 x I.D.



This certification provides unbiased, third party confirmation worldwide that these Shields hoses meet the highest standards of production quality. Certification ensures the proper level of product safety and inspires user confidence.



Now double the ozone resistance required by SAEJ2006

Shieldsaust – C Hose has a black synthetic rubber tube and cover. It is reinforced with double wire helix imbedded between plies of synthetic cord and is abrasion resistant. It is resistant to exhaust fumes, ozone, mild chemicals, antifreeze, and saltwater. This hose is primarily used for wet exhaust connections with significant bends, engine intake and scupper lines. The temperature ranges from -20°F to 200°F continuous, 250°F intermittent. The hose now has double the ozone resistance required by SAEJ2006. This hose meets SAE J2006 Type R2 standards. Bend Radius = 4 x I.D.



I.D.	MM	O.D.	PLY	WT. "C"	50' (15.2M) COIL CODE #	12 1/2' (3.8M) LENGTH CODE #
3/4"	19	1 1/8"	2	27	16-252-0340	16-252-0344
1"	25	1 11/32"	2	33	16-252-1000	16-252-1004
1 1/4"	32	1 39/64"	2	45	16-252-1140	16-252-1144
1 1/2"	38	1 15/16"	2	70	16-252-1120	16-252-1124
1 5/8"	42	2 3/32"	2	80	16-252-1580	16-252-1584
1 3/4"	45	2 7/32"	2	85	16-252-1340	16-252-1344
1 7/8"	48	2 21/64"	2	91	16-252-1780	16-252-1784
2"	51	2 7/16"	2	95	16-252-2000	16-252-2004
2 1/8"	54	2 9/16"	2	100	—	16-252-2184
2 1/4"	58	2 23/32"	2	107	16-252-2140	16-252-2144
2 3/8"	60	2 51/64"	2	110	16-252-2380	16-252-2384
2 1/2"	63	2 59/64"	2	115	16-252-2120	16-252-2124
2 3/4"	70	3 3/16"	2	126	16-252-2340	16-252-2344
2 7/8"	73	3 5/16"	2	137	16-252-2780	16-252-2784
3"	76	3 7/16"	2	143	16-252-3000	16-252-3004
3 1/8"	80	3 19/32"	2	150	16-252-3180	16-252-3184
3 1/2"	90	4 1/16"	2	200	16-252-3120	16-252-3124
4"	102	4 9/16"	2	231	16-252-4000	16-252-4004
4 1/8"	105	4 11/16"	2	238	—	16-252-4184
4 1/2"	114	5 1/8"	2	278	—	16-252-4124
5"	127	5 9/16"	2	300	16-252-5000	16-252-5004
6"	152	6 9/16"	2	394	16-252-6000	16-252-6004
8"	203	8 11/16"	2	607	—	16-252-8004



This certification provides unbiased, third party confirmation worldwide that these Shields hoses meet the highest standards of production quality. Certification ensures the proper level of product safety and inspires user confidence.

SHIELDS NAUTIFLEX - CORRUGATED SILICONE EXHAUST HOSE



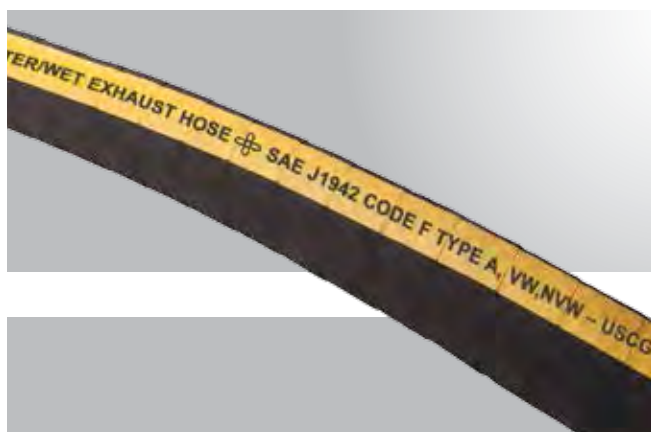
Shields Nautiflex Corrugated Silicone Exhaust Hose has a blue silicone tube and cover with a smooth finish for easy cleaning. The hose is wire reinforced and will not collapse under suction or in a bend. The corrugated cover allows the hose to

bend for easy installation. The Nautiflex, two ply construction, has wire captured between fabric plies. This hose is primarily used for main engine exhaust, generator exhaust, engine coolant circulation, engine intake and generator intake. It is resistant to exhaust fumes, ozone, mild chemicals, antifreeze and saltwater. The hose remains stable at elevated temperatures. The temperatures ranges from -20°F to 350°F. This hose meets SAEJ2006 Type R2 and ISO 13362:2004 – Type 1 – Class B standards. Bend Radius = 4 x I.D.

ID	MM	OD	WT "C"	10' (3.1M) LENGTH CODE NO.	12 1/2' (3.8M) LENGTH CODE NO.	50' (15.2M) COIL CODE NO.
3/4"	19	1 3/8"	34	16-262-0343	16-262-0344	16-262-0340
1"	25	1 27/64"	42	16-262-1003	16-262-1004	16-262-1000
1 1/8"	28	1 1/2"	46	16-262-1183	16-262-1184	16-262-1180
1 1/4"	32	1 45/64"	52	16-262-1143	16-262-1144	16-262-1140
1 3/8"	35	1 55/64"	60	16-262-1383	16-262-1384	16-262-1380
1 1/2"	38	2"	71	16-262-1123	16-262-1124	16-262-1120
1 5/8"	42	2 11/64"	74	16-262-1583	16-262-1584	16-262-1580
1 3/4"	45	2 19/64"	78	16-262-1343	16-262-1344	16-262-1340
1 7/8"	48	2 13/32"	82	16-262-1783	16-262-1784	16-262-1780
2"	51	2 17/32"	87	16-262-2003	16-262-2004	16-262-2000
2 1/8"	54	2 5/8"	94	16-262-2183	16-262-2184	—
2 3/8"	60	2 7/8"	101	16-262-2383	16-262-2384	16-262-2380
2 1/2"	63	3 3/64"	113	16-262-2123	16-262-2124	16-262-2120
2 7/8"	73	3 7/16"	134	16-262-2783	16-262-2784	16-262-2780
3"	76	3 35/64"	139	16-262-3003	16-262-3004	16-262-3000
3 1/2"	90	4 19/64"	227	16-262-3123	16-262-3124	16-262-3120
4"	102	4 49/64"	255	16-262-4003	16-262-4004	16-262-4000
5"	127	5 3/4"	310	16-262-5003	—	16-262-5000
6"	152	6 15/16"	484	16-262-6003	—	—
8"	203	9 7/64"	768	16-262-8003	—	—
10"	254	11 17/64"	1136	16-262-10003	—	—

SHIELDS COMPLEX - ALL IN ONE HOSE FOR INSPECTED VESSELS

Shields Complex is a versatile wire reinforced hose specially designed for inspected vessels. Complex is rated for fuel, vital water and non-vital water systems on boats requiring SAE J1942 hoses. Applications include bilge, coolant, oil and fuel systems using gasoline, gasohol, diesel, bio-diesel, wet exhaust systems, non-potable water systems, engine intake, toilet and holding tank connections.



Tube: Black Nitrile

Reinforcement: 2 textile plies w/ dual wire helix

Cover: Black Chlorprene

Temp. Range: -20F to 212F

Specifications - SAE J1942 Code F, VW, NVW;
SAE J1527 A1; SAE J2006 R2; SAE 20R2 B;
SAE J20R4 B; SAE 20R5 B, SAE 30R5,
ISO 7840 A1

Additional sizes available. 150' minimum order.

I.D.	MM	O.D.	PLY	WT. "C"	BEND RADIUS	WP	50' COIL CODE#	12 1/2' (3.8M) LENGTH CODE #
5/8"	15.9	1"	2	33	1.5	75	16-321-0580	16-321-0584
3/4"	19.1	1.19"	2	39	1.5	75	16-321-0340	16-321-0344
1"	25.4	1.41"	2	53	2	75	16-321-1000	16-321-1004
1 1/8"	28.6	1.56"	2	62	3	75	16-321-1180	16-321-1184
1 1/4"	31.8	1.66"	2	64	3	75	16-321-1140	16-321-1144
1 1/2"	38.1	1.91"	2	78	3	50	16-321-1120	16-321-1124
2"	50.8	2.48"	2	118	5	50	16-321-2000	16-321-2004

SHIELDS SILICONE COUPLERS

- SINGLE & DOUBLE HUMP W/ REINFORCED FABRIC



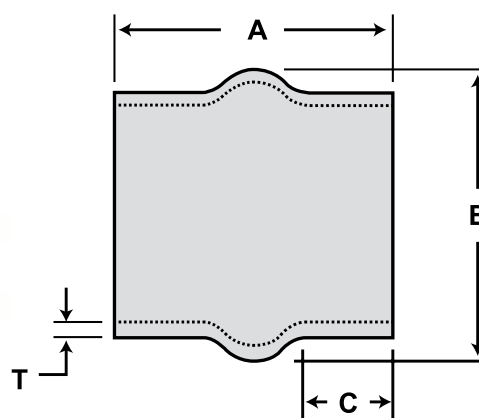
SINGLE HUMP

DOUBLE HUMP

	I.D.	MM	LENGTH	MM	WT. EA. (LBS)	CODE NO.
SINGLE	4"	102	6"	152	2	16-272-4000
	5"	127	6"	152	2	16-272-5000
	6"	152	8"	203	2	16-272-6000
	8"	203	8"	203	3	16-272-8000
	10"	254	12"	305	4	16-272-10000
DOUBLE	6"	152.4	14"	356	3	16-274-6000
	8"	203.2	14"	356	3	16-274-8000
	10"	254	14"	356	4	16-274-10000

Shields Single and Double Hump Couplers have a blue silicone cover with a smooth finish for easy clean up and are fabric reinforced. The couplers remain stable at elevated temperatures and provide angular and longitudinal vibration absorption in wet exhaust systems. Shields couplers correct slight offsets in pipes. They are resistant to exhaust fumes, ozone, mild chemicals, antifreeze and saltwater. The temperature range is -20°F to 350°F. It meets SAE J2006 Type R1 standards.

SHIELDS SILICONE COUPLERS - SINGLE HUMP

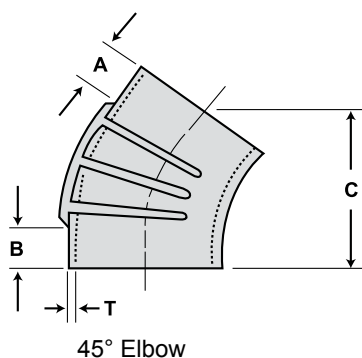


Hump Hose

Shields Silicone Single and Double Hump Couplers are very high temperature silicone exhaust connectors. The maximum operating temperature is 450°F (232°C). It meets SAE J2006 Type R1 standards.

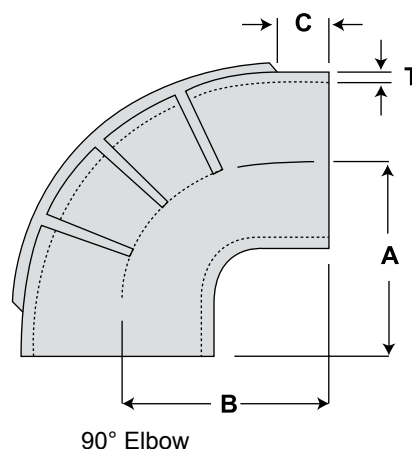
PART NUMBER	A	MM	B	MM	C	MM	T	MM
16-220S4000	5.25	133	5.50	140	2.00	51	.25	6
16-220S5000	6.00	152	6.50	165	2.25	57	.25	6
16-220S6000	7.00	178	7.50	190	2.75	70	.25	6

SHIELDS SILICONE ELBOWS - 45°



PART NUMBER	A	MM	B	MM	C	MM	T	MM
16-245S3000	1.50	38	1.50	38	5.50	140	.25	6
16-245S4000	1.50	38	1.50	38	5.50	140	.25	6
16-245S5000	1.62	41	1.62	41	5.25	133	.25	6
16-245S6000	2.00	51	2.00	51	6.50	165	.25	6

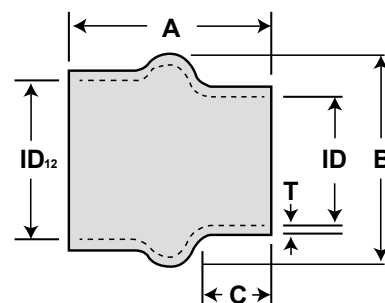
SHIELDS SILICONE ELBOWS - 90°



PART NUMBER	A	MM	B	MM	C	MM	T	MM
16-290S2000	4.25	108	5.25	133	2.75	70	.20	5
16-290S3000	5.25	133	5.25	133	1.50	38	.25	6
16-290S4000	5.75	146	5.75	146	1.50	38	.25	6
16-290S5000	6.00	152	6.00	152	1.62	41	.25	6
16-290S6000	7.00	178	7.00	178	2.25	57	.25	6
16-290S8000	8.50	216	8.50	216	2.00	51	.37	9

SHIELDS EPDM COUPLERS - SINGLE HUMP

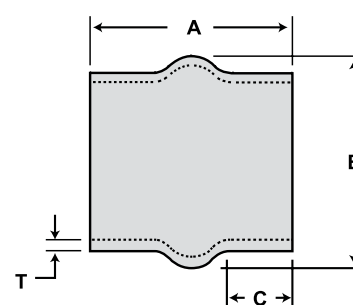
100% High temperature EPDM rubber. Maximum operating temperature 250° F (120° C).



Reducing Hump Hose

Hump Hoses

PART NUMBER	ID	MM	A	MM	B	MM	C	MM	T	MM
16-220-3000	3.00	76.2	5.25	133.35	4.50	114.3	2.00	50.8	0.25	6.35
16-220-3120	3.50	88.9	5.25	133.35	5.00	127	2.00	50.8	0.25	6.35
16-220-4000	4.00	101.6	5.25	133.35	5.50	139.7	2.00	50.8	0.25	6.35
16-220-4120	4.50	114.3	5.25	133.35	6.00	152.4	1.75	44.45	0.25	6.35
16-220-5000	5.00	127	6.00	152.4	6.50	165.1	2.25	57.15	0.25	6.35
16-220-6000	6.00	152.4	7.00	177.8	7.50	190.5	2.75	69.85	0.25	6.35
16-220-8000	8.00	203.2	5.00	127	9.50	241.3	1.50	38.1	0.25	6.35
16-220-10000	10.00	254	6.00	152.4	11.50	292.1	2.00	50.8	0.25	6.35

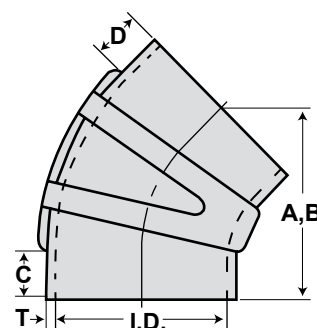


Hump Hose

Reducing Hump Hoses

PART NUMBER	ID1	MM	ID2	MM	A	MM	B	MM	C	MM	T	MM
16-221-400x300	4.00	101.6	3.00	76.2	5.25	133.6	5.50	139.7	1.50	38.1	0.25	6.35
16-221-500x400	5.00	127	4.00	101.6	5.50	139.7	6.50	165.1	1.50	38.1	0.25	6.35
16-221-600x500	6.00	152.4	5.00	127	6.00	152.4	7.50	190.5	2.12	53.85	0.25	6.35
16-221-800x600	8.00	203.2	6.00	152.4	6.00	152.4	9.50	241.3	1.38	35.05	0.25	6.35
16-221-1000x800	10.00	254	8.00	203.2	6.00	152.4	11.50	292.1	1.75	44.45	0.25	6.35

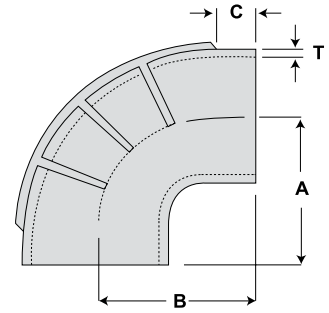
SHIELDS EPDM ELBOWS - 45°



45° Elbow

PART NUMBER	ID	MM	A	MM	B	MM	C	MM	T	MM
16-245-3000	3.00	76.2	1.50	38.1	1.50	38.1	5.50	139.7	0.25	6.35
16-245-3120	3.50	88.9	1.50	38.1	1.50	38.1	5.50	139.7	0.25	6.35
16-245-4000	4.00	101.6	1.50	38.1	1.50	38.1	5.50	139.7	0.25	6.35
16-245-5000	5.00	127	1.62	41.15	1.62	41.15	5.25	133.35	0.25	6.35
16-245-6000	6.00	152.4	2.00	50.8	2.00	50.8	6.50	165.1	0.25	6.35
16-245-8000	8.00	203.2	2.25	57.15	2.25	57.15	8.25	209.6	0.37	9.40
16-245-10000	10.00	254	2.25	57.15	2.25	57.15	10.50	266.7	0.37	9.40

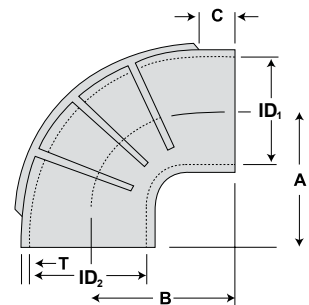
SHIELDS EPDM ELBOWS - 90°



90° Elbow

PART NUMBER	ID	MM	A	MM	B	MM	C	MM	T	MM
16-290-2000	2.00	50.8	4.25	107.95	5.25	133.35	2.75	69.85	0.20	5.08
16-290-2120	2.50	63.5	4.25	107.95	4.25	107.95	1.50	38.1	0.20	5.08
16-290-3000	3.00	76.2	5.25	133.35	5.25	133.35	1.50	38.1	0.25	6.35
16-290-3120	3.50	88.9	5.50	139.7	5.50	139.7	1.75	44.45	0.25	6.35
16-290-4000	4.00	101.6	5.75	146.05	5.75	146.05	1.50	38.1	0.25	6.35
16-290-4120	4.50	114.3	6.00	152.4	6.00	152.4	1.50	38.1	0.25	6.35
16-290-5000	5.00	127	6.00	152.4	6.00	152.4	1.62	41.15	0.25	6.35
16-290-6000	6.00	152.4	7.00	177.8	7.00	177.8	2.25	57.15	0.25	6.35
16-290-8000	8.00	203.2	8.50	215.9	8.50	215.9	2.00	50.8	0.37	9.40

SHIELDS EPDM ELBOWS - 90° REDUCING ELBOW



90° Reducing Elbow

PART NUMBER	ID1	MM	ID2	MM	A	MM	B	MM	C	MM	T	MM
16-291-500x400	4.00	101.6	5.00	127	5.75	146	6.00	152.4	1.75	44.45	0.25	6.35

Also available with series 720 T-bolt clamps. Order part number with "Kit" Suffix.

SHIELDS EXHAUST PROTECTOR VALVES

Specially compounded rubber flapper valves designed to prevent water from entering the exhaust system in following seas or when backing down. Made with weather resistant EPDM with U/V stabilizer.

CODE #	PIPE SIZE	MM	O.E.M.	O.E. #
18-4456*	3"	76.2	Mercury	34765A1
18-4457*	4"	101.6	Mercury	12644A1
18-4458*	5" or 6"	127 or 152.4	—	—
N-184456	3"	76.2	—	—
N-184457	4"	101.6	—	—
N-184458	5" or 6"	127 or 152.4	—	—

* Display Packaged

Must be cut to fit 5" pipe

18-#'s include stainless steel hose clamp.

N-#'s are bulk flappers only



SHIELDS EXHAUST HOSE CLAMPS T-BOLT BAND CLAMPS



These exhaust hose clamps are designed to fit Shields series 200, 250, and are perfect for any application below the water line. The band is 316 stainless steel and is .025 thick by .75 wide. Other hardware includes an extra long 1/4" bolt and a nylon inset locknut. The bolt, nut and trunion are 18-8 (304) stainless steel. Maximum torque of 75 inch pounds.

RANGE	MM	I.D.	MM	WT. "C"	CODE NO.
1.18 - 1.47	30.0 - 37.3	1"	25.4	9.4	18-720-1000 ②
1.70 - 2.03	43.2 - 51.6	1 1/2"	38.1	12.5	18-720-1120 ②
1.48"-1.62"	37.59-41.15	1 1/4"	31.75	11	18-720-1140
2.27 - 2.67	57.7 - 67.8	2"	50.8	12.8	18-720-2000
2.68 - 3.34	68.1 - 84.8	2 1/2"	63.5	15.6	18-720-2120
3.10 - 3.76	78.7 - 95.5	3"	76.2	15.8	18-720-3000
3.59 - 4.25	91.2 - 108	3 1/2"	88.9	17.2	18-720-3120
4.18 - 4.84	106.2 - 122.9	4"	101.6	18.8	18-720-4000
4.25 - 4.91	108.0 - 124.7	4 1/8"	104.8	18.9	18-720-4180
4.75 - 5.41	120.7 - 137.4	4 1/2"	114.3	20	18-720-4120
4.68 - 5.34	118.9 - 135.6	4 1/2"	114.3	20	18-720-4120S *
5.30 - 5.96	134.6 - 151.4	5"	127.0	22	18-720-5000
5.18 - 5.84	131.6 - 148.3	5"	127.0	22	18-720-5000S *
5.75 - 6.41	146.1 - 162.8	5 1/2"	139.7	25	18-720-5120
5.68 - 6.34	144.3 - 161.0	5 1/2"	139.7	25	18-720-5120S *
6.38 - 7.04	162.1 - 178.8	6"	152.4	27	18-720-6000
6.18 - 6.84	157.0 - 173.7	6"	152.4	27	18-720-6000S *
8.42 - 9.08	213.9 - 230.6	8"	203.2	29	18-720-8000
8.18 - 8.84	207.8 - 224.5	8"	203.2	29	18-720-8000S *
10.45 - 11.11	265.4 - 282.2	10"	254.0	31	18-720-10000
10.18 - 10.84	258.6 - 275.3	10"	254.0	31	18-720-10000S *
12.38 - 13.04	314.5 - 331.2	12"	304.8	33	18-720-12000
12.18 - 12.84	309.4 - 326.1	12"	304.8	33	18-720-12000S *
14.50 - 15.16	368.3 - 385.1	14"	355.6	41.1	18-720-14000
14.30 - 14.96	363.2 - 380.0	14"	355.6	41.1	18-720-14000S *

② Clamps for 1" and 1 1/2" are 5/8" wide

* Designed to fit Series 202 silicone exhaust hose

FERRULE VISE/DIES

Hand operated vise for making fuel line assemblies without clamps. Vise uses ordinary barbed fittings with series 700 solid brass ferrules. Makes professional looking leak proof fuel lines. Furnished with removable handle. Dies must be ordered separately. When ordering dies, please consult chart under brass ferrules to determine proper size.



PART NO.	DESCRIPTION
No. 18-J-662-xxx	Dies give longitudinal crimp.
No. 18-J-664-xxx	Dies give circular and longitudinal crimp.
No. 18-J-VISE	Vise (w/o dies)

* Special Order Only

45° SAE FEMALE SWIVEL



CODE NO.	HOSE I.D.	TUBE	THREAD
18-502-1476	1/4"	1/4"	7/16-20
18-502-1412	1/4"	5/16"	1/2-20
18-502-5612	5/16"	5/16"	1/2-20
18-502-5658	5/16"	3/8"	5/8-18
18-502-3858	3/8"	3/8"	5/8-18
18-502-3834	3/8"	1/2"	3/4-16
18-502-1234	1/2"	1/2"	3/4-16
18-502-1278	1/2"	5/8"	7/8-14

Standard Package: 100 pieces

ADAPTER — MALE PIPE TO SAE 45° FLARE



CODE NO.	TUBE	PIPE
18-600-1418	1/4"	1/8"
18-600-1414	1/4"	1/4"
18-600-5618	5/16"	1/8"
18-600-5614	5/16"	1/4"
18-600-3818	3/8"	1/8"
18-600-3814	3/8"	1/4"
18-600-3838	3/8"	3/8"
18-600-1212	1/2"	1/2"
18-600-5812	5/8"	1/2"

Standard Package: 100 pieces

ADAPTER — MALE PIPE TO SAE 45° FLARE 90°



CODE NO.	TUBE	PIPE
18-601-3814	3/8"	1/4"

MALE PIPE



BULK PACK CODE NO.	HOSE BARB SIERRA NO.	HOSE I.D.	THREAD
18-500-1418	18-8043	1/4"	1/8"
18-500-1414	18-8042	1/4"	1/4"
18-500-5618	18-8054	5/16"	1/8"
18-500-5614	18-8055	5/16"	1/4"
18-500-3812	—	3/8"	1/2"
18-500-3818	18-8073	3/8"	1/8"
18-500-3814	18-8074	3/8"	1/4"
18-500-3838	18-8108	3/8"	3/8"
18-500-1238	—	1/2"	3/8"
18-500-1212	—	1/2"	1/2"
18-500-5838	18-8041	5/8"	3/8"

STD. PKG. 100

STD. CTN. 12
(1 PER CARD)

SOLID BRASS FERRULES



CODE NO.	HOSE TYPE	DIE SET	WT. "M"
18-700-5500	16-368-0140	550	—
18-700-6250	16-368-0560	625	—
18-700-6500	—	—	—
18-700-6750	—	675	—
18-700-7000	16-368-0380	700	—
18-700-7250	—	725	—
18-700-7500	—	—	—
18-700-7750	16-365-0380	775	—
18-700-8000	—	775	—
18-700-8250	16-368-0120	825	—
18-700-8500	—	—	—
18-700-9250	—	900	—
18-700-1025	—	1025	39.5

SHIELDS FLAME RETARDANT SPLIT WIRE CONDUIT

Flame retardant polypropylene is black with a blue stripe. It provides chafing protection for wiring systems and is split longitudinally for easy access to harness. It has a temperature range of 275°F. It meets ABYC standard 8.15.19. and UL 94 V2.



I.D.	MM	WT. "C"	CODE #	PACK	M	100' (30.1M) R/O CTN. CODE #	50' (15.2M) R/O CTN. CODE #	50' (15.2M) BOX CODE #
1/4"	6.4	1.26	16-128-0140B	3200'	975	16-128-0147B	16-128-0146B	16-128-0146B-1
3/8"	9.5	1.58	16-128-0380B	1800'	549	16-128-0387B	16-128-0386B	16-128-0386B-1
1/2"	12.7	2.31	16-128-0120B	1100'	335	16-128-0127B	16-128-0126B	16-128-0126B-1
5/8"	15.9	2.94	16-128-0580B	750'	229	16-128-0587B	16-128-0586B	16-128-0586B-1
3/4"	19.1	3.47	16-128-0340B	450'	137	16-128-0347B	16-128-0346B	16-128-0346B-1
1"	25.4	5.78	16-128-1000B	300'	91	16-128-1007B	16-128-1006B	16-128-1006B-1
1 1/4"	31.8	9.24	16-128-1140B	200'	61	16-128-1147B	16-128-1146B	—
1 1/2"	38.1	15.23	16-128-1120B	100'	31	—	16-128-1126B	—
1 1/2"	38.1	15.23	16-128-1120B-U	100'	31	—	—	—
2"	50.8	21.00	16-128-2000B	100'	31	—	—	—

SHIELDS STERNFLEX



Shields Sternflex has a polyethylene co-polymer wall with an integral polyethylene helix. It is resistant to abrasion, crushing and UV. This hose is primarily used as a cover for the harness and for the hoses on the bracket mounted on outboard engines.



I.D.	MM	BEND RADIUS	MM	WT. "C"	BULK PACK 50' (15.2M) LENGTH CODE NO.
2"	50.8	3	76.2	39	16-126-2000B

RIGGING FLANGE



18-9761 - Part No.
N-189761 - Bulk Part No.

- U/V stabilized black plastic flange
- Use with Shields 2" Sternflex P/N 16-126-2000B

RIGGING HOSE KIT



18-9883 - Part No.

- Hides all engine cables and hoses
- Can be added to any style outboard
- Contains:
 - (1) U/V stabilized flange
 - 5' 2" Black Sternflex

SHIELDS NEOPRENE SHEET RUBBER



Solid Neoprene sheet rubber is designed for use under fuel tanks to comply with USCG requirements for air space. Also for gaskets, component padding and under wire straps. It can be custom cut to a variety of strips and shapes. It is offered in bulk rolls 36" wide x 10' long.

BULK SHEET

THICKNESS	MM	WIDTH	MM	LENGTH	M	CODE NO.
1/8"	3.2	36"	914.4	10'	3.1	N18NEO60
3/16"	4.8	36"	914.4	10'	3.1	N316NEO60
1/4"	6.4	36"	914.4	10'	3.1	N14NEO60
3/8"	9.5	36"	914.4	10'	3.1	N38NEO60

SHIELDS SPEEDOMETER PITOT TUBING

This black vinyl tubing is HW reinforced with a polyester braid and provides a tight connection between your speedometer pickup (Pitot) and your speedometer.



NOMINAL I.D.	MM	BRAID	"C"	WT. CODE #	PACK	BULK MM
1/8" (.125")	3.2	0	2.2	16-151-0180	1500'	457.2
1/8" (.125")	3.2	0	2.2	16-151-0180500	500'	457.2
4 mm (.157")	4.0	1	4.3	16-151-0180HW	300'	91.4



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FWSKIT14AL10	2

SIERRA FUEL SYSTEM	
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SIERRA CUSTOMER SATISFACTION WARRANTY

Limited Warranty:

SIERRA INTERNATIONAL INC. ("SIERRA") warrants its products to be free of defects in workmanship and materials for the useful life of the product (the "Warranty"). If a SIERRA product fails to comply with the Warranty, SIERRA will repair or replace the defective product free of charge. The Warranty is subject to the additional terms, conditions and limitations set forth below.

Warranty Claims for Professionally Installed Products:

For any SIERRA product that was originally installed on a vessel by a dealer or other professional installer that fails to comply with the Warranty, in addition to repairing or replacing the product free of charge, SIERRA will also reimburse the customer for reasonable labor charges incurred to replace the product, and reasonable towing and other similar incidental expenses incurred as a result of the failure of the product to comply with the Warranty. Labor will be calculated based on the installer's posted shop rate that is competitive with their local market rates. The original work order along with the original invoice and a copy of the new re-work order must be provided to SIERRA to file a claim for reimbursement of labor expenses. Towing charges will also be paid based on reasonable and customary rates in the local trading area. A copy of the original invoice for the towing service must be provided to SIERRA to file a claim for reimbursement of towing expenses.

ALL PROFESSIONAL INSTALLER WARRANTY CLAIMS MUST BE SUBMITTED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:

WITHOUT LABOR CLAIM – The dealer must return any allegedly defective SIERRA product to the distributor from whom it was purchased for analysis. The product shall be tagged with the SIERRA part number, date of purchase and the alleged cause of failure. The distributor will then forward the product to SIERRA with a request for credit. If SIERRA determines that the part failed to comply with the Warranty and otherwise qualifies for Warranty coverage under the terms hereof, SIERRA will issue credit for the product to the distributor. The distributor will reimburse the dealer. SIERRA will not issue credit for any products that are not returned to SIERRA. Products not manufactured or distributed by SIERRA will be held for disposition for 30 days.

WITH LABOR CLAIM – All warranty claims for which reimbursement of labor and/or towing expenses is sought are subject to prior authorization. Please call 217-324-9428 to discuss any such claim with a SIERRA representative. In order to process all claims quickly and efficiently, the following must be shipped directly to SIERRA via a traceable and insurable method (i.e. UPS, Federal Express, Registered U.S. Mail, etc.):

1. The allegedly defective product and any related damaged parts.
2. A written estimate detailing the following information:
 - a. A complete list, including part numbers of all products required for the warranty repair.
 - b. The shop labor rate and a breakdown of the time required for the repair.
 - c. The year, model and serial number of the warranted engine or drive.
 - d. The name and address of the distributor the products were purchased from.
 - e. The name, address and phone number of the customer.
3. The original work order or receipt detailing the initial installation of the allegedly defective product.
4. Any receipts detailing additional expenses.

Failure to provide required documentation and information may void all or part of the Warranty coverage.

Proof of delivery will be required on all lost shipments.

NOTE: Concerning labor claims on older products that cannot be rectified due to the unavailability of OEM replacement parts; SIERRA reserves the right to extend only the market value of the OEM product.

Send claims to:
TECHNICAL SERVICE
SIERRA INTERNATIONAL INC.
1 Sierra Place
Litchfield, IL 62056-3029
(217) 324-9428

Limitations:

THE EXPRESS WARRANTY SET FORTH ABOVE IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SIERRA does not warrant against, and the Warranty shall be void with respect to, damages or defects arising out of any of the following:

- improper or abnormal use or handling of SIERRA's products;
- installation or use of a SIERRA product in a manner that is inconsistent with SIERRA's application information, guidelines, instructions and/or specifications;
- defects in products or components not manufactured by SIERRA;
- non-SIERRA made products or components;
- SIERRA products transferred from a vessel on which they were originally installed;
- SIERRA products transferred from the engine on which they were originally installed;
- failure to maintain SIERRA products in accordance with SIERRA's application information, guidelines, instructions and/or specifications;
- ordinary wear and tear resulting from the operation and/or use of the SIERRA product.

This warranty also does not apply to products which have been altered or upon which repairs have been affected or attempted by persons other than pursuant to written authorization by SIERRA. In addition, this warranty is only valid with respect to products purchased from Sierra and its authorized dealers and resellers and is not transferable.

THIS STATEMENT OF LIMITED WARRANTY IS NOT A STATEMENT OF THE USEFUL LIFE OF ANY SIERRA PRODUCT. WHEN SIERRA WARRANTS ITS PRODUCTS FOR THE USEFUL LIFE OF THE PRODUCT, THIS DOES NOT GUARANTEE THAT THE PRODUCT WILL LAST FOREVER OR FOR THE LIFE OF THE VESSEL. THE LENGTH OF THE USEFUL LIFE OF SIERRA'S PRODUCTS WILL VARY DEPENDING ON THE TYPE OF PRODUCT, AS SPECIFIED IN SIERRA'S APPLICATION INFORMATION, GUIDELINES, INSTRUCTIONS AND SPECIFICATIONS FOR EACH PARTICULAR PRODUCT. PLEASE REFER TO THE INFORMATION PROVIDED WITH YOUR SIERRA PRODUCT IN ORDER TO DETERMINE THE USEFUL LIFE OF THAT PRODUCT.

The sole and exclusive obligation of SIERRA shall be to repair or replace the defective products in the manner set forth above. SIERRA shall not have any other obligation with respect to the products or any part thereof, whether based on contract, tort, strict liability or otherwise. Under no circumstances, whether based on this Warranty or otherwise, shall SIERRA be liable for any special, punitive or consequential damages.

SIERRA's employees or representatives' ORAL OR OTHER WRITTEN STATEMENTS DO NOT CONSTITUTE WARRANTIES, shall not be relied upon by customer, and are not a part of the warranty stated herein.

If any part of this Limited Warranty is determined to be void or illegal, the remainder shall remain in full force and effect.

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BACKED BY THE **BEST** WARRANTY IN THE MARINE INDUSTRY



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