

# Baromax Connector Family

The Baromax Connector series is the smallest high power density underwater connector rated for continuous submersion up to 10,000psi. Wire sizes up to #18 AWG offers power capabilities up to 15 amps per contact. User configurable assemblies provide limitless configurations with one connector face.

## Features

### High Power Density

Up to 40 amps per connector in a compact footprint

### Wire-to-bulkhead & Wire-to-Wire Configuration

Connector faces are interchangeable

Locking rings for secure mate and quick disconnection

### Gigabit Ethernet Ready

Minimize un-twisted cable length for high speed differential signals

## Applications

### Data

- 10/100/1000Base-T Ethernet
- VDSL2
- RS232 / RS485
- CAN bus
- Analog
- Digital GPIO

### Power

- ROV thruster
- ROV tether
- Camera tether
- Light/strobe power
- Wet area quick disconnect
- Power over Ethernet
  - 802.3af, 802.3at, 802.3bt
- Relay, burn wire

## Ordering Information

### Evaluation Kit

Description	Part Number	Kit Contents
Evaluation kit	BM-EVAL-A	1x BM-A-8-M 1x BM-A-8-F 1x BM-BH-A-A-1 1x BM-IL-A-A-1 1x BM-A-LR-F-A-B-1 1x BM-A-LR-M-A-B-1 1x BM-EPOXY-KIT

### Connector Face

Description	Part Number	Material / Desc	Kit Contents
Male 8-pin Connector	BM-A-8-M	Neoprene body, brass contact with 30u" gold plating, solder cup	N/A
Female 8-pin Connector	BM-A-8-F	Neoprene body, brass contact with 30u" gold plating, solder cup	N/A

### Bulkhead backshell

Part Number	Material / Desc	Kit Contents
BM-BH-A-A-1	Brass	O-ring
BM-BH-A-B-1	SS316	O-ring
BM-BH-A-C-1	AL 6061T6	O-ring
BM-BH-B-C-1	AL 6061T6, M10 rear thread, standard front thread	O-ring
BM-BH-C-C-1	AL 6061T6, M10 rear thread,	O-ring

	low-profile front thread	
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### Inline backshell

Part Number	Material / Desc	Kit Contents
BM-IL-A-A-1	Brass	Snap ring
BM-IL-A-B-1	SS316	Snap ring
BM-IL-A-C-1	AL 6061T6	Snap ring

### Accessories

Description	Part Number	Material / Desc	Kit Contents
Locking Ring, female	BM-A-LR-F-A-B-1	Standard locking ring, female	Snap ring
Locking Ring, male	BM-A-LR-M-A-B-1	Standard locking ring, male	Snap ring
Locking Ring, female	BM-A-LR-F-B-B-1	Low-profile locking ring, female	Snap ring

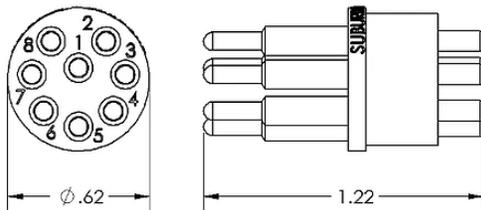
### Accessories

Item	Part Number	Description	Kit Contents
Epoxy Cartridge	BM-EPOXY-A	Recommended potting compound for Baromax	N/A
Epoxy Kit	BM-EPOXY-KIT	Epoxy and consumable mixing nozzles and needle tips	1x BM-EPOXY-A 5x 20 element luer lock mixing nozzle 5x 1.5" 14ga needle tip
Epoxy gun	BM-DISPENSER-A	Dispensing gun for 2:1 cartridge	

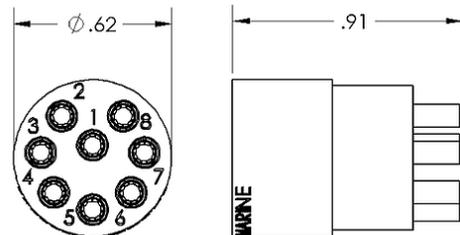
## Part Overview

For reference only. See detailed part drawings.

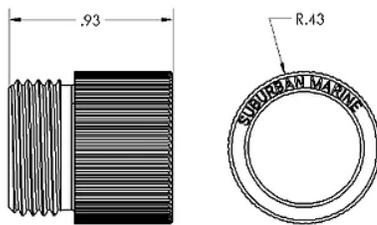
### Male Connector



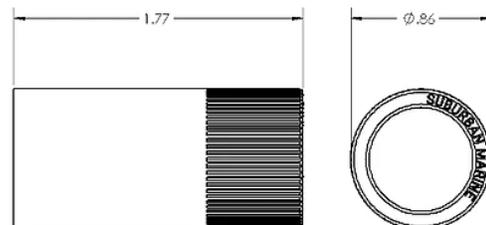
### Female Connector



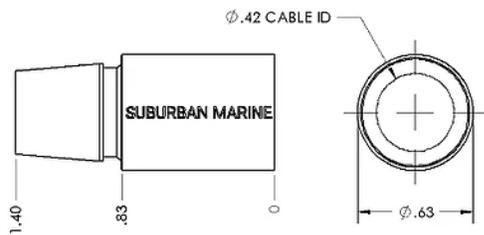
### Male Locking Ring



### Female Locking Ring

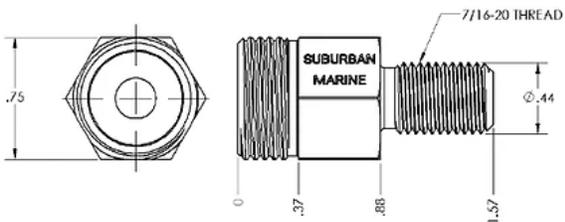


## Inline Backshell

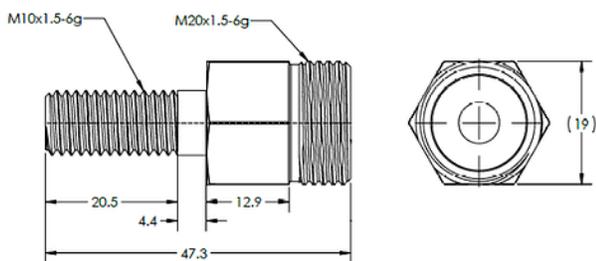


## Bulkhead Backshell

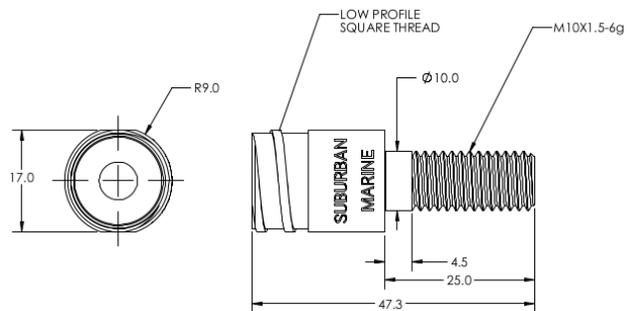
### Standard thread option



### M10 rear thread option



### M10 rear thread low-profile option



## Specifications

### Electrical

Current Rating, per contact (Amperes)	15
Current Rating, per connector (Amperes)	40
Voltage Rating, operating (VDC / peak VAC)	400
Dielectric Withstanding Voltage (VDC/ peak VAC)	500
Typical Contact Resistance (mOhm)	< 1.0
Hot Plug	Not rated for hot plug or live circuit interruption.

### Materials

Connector Body	Neoprene
Connector Contacts	Brass, 30u" gold plated

### Mechanical

Wire Size Range	AWG 24 to 18
Contact Termination Method	Hand solder
Max. Cable Diameter (Standard backshells)	0.40 inches
Operating Temperature Air (degC)	-40 - 60
Operating Temperature Water (degC)	-4 - 60
Mating Cycles	500
Typical Mating / Unmating Force	-
Max ambient pressure (psi)	10,000

## Warranty

Suburban Marine, Inc.'s products are subject to a limited warranty. Suburban Marine, Inc. warrants Baromax connectors will meet the specifications listed in their respective datasheets and be free of defects in material and workmanship for a period of 1 year. This limited warranty does not cover damage resulting from misuse, abuse, accidents, alterations, or improper installation/assembly. This warranty extends to the original purchaser or ultimate consignee and is not transferable. The exclusive remedy under this limited warranty will be at Suburban Marine's option to replace or refund the purchased items. Under no circumstances will Suburban Marine, Inc. be liable for any indirect, special, incidental, or consequential damages or loss caused by the failure of an item covered under this warranty. Under no circumstances will Suburban Marine, Inc.'s liability under this warranty exceed the purchase price paid for the products. Suburban Marine, Inc.'s products are not designed for use in medical, life-saving, life sustaining applications, or applications where the failure of a Suburban Marine Inc product could result in personal injury or death. Customers using products in such applications do so at their own risk and agree to indemnify Suburban Marine, Inc. from any damages resulting from such improper use.

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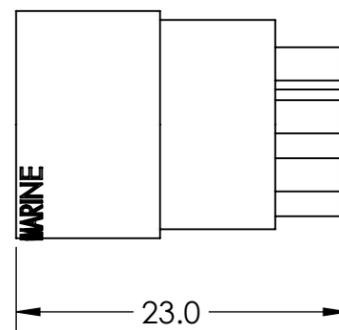
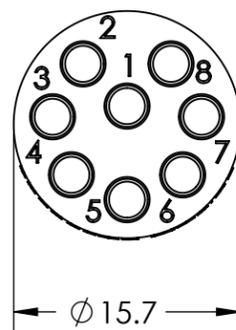
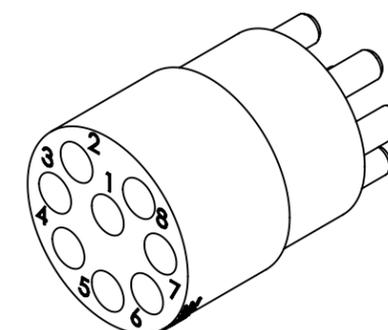
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.XX ± 0.1mm		
INTERPRET GEOMETRIC TOLERANCING PER: ISO 2768- mK	THIRD ANGLE PROJECTION:	
MATERIAL NONE		
FINISH NONE		
WEIGHT:	DO NOT SCALE DRAWING	



TITLE:  
**8-PIN FEMALE CONNECTOR**

SIZE	DWG. NO.	REV
<b>B</b>	<b>BM-A-8-F-WEB</b>	<b>A</b>
SCALE: 2:1		SHEET 1 OF 1

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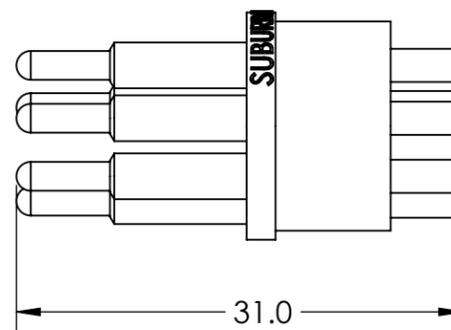
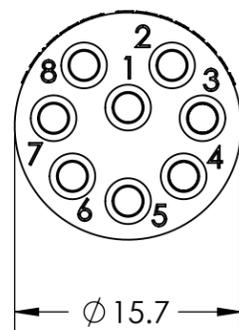
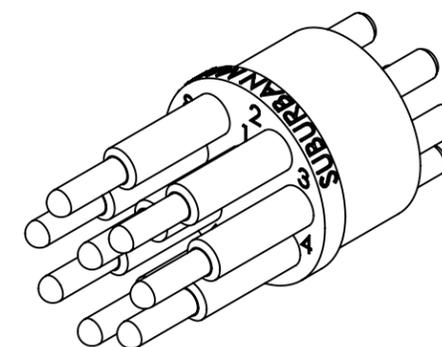
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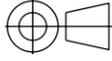
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	APPROVED				
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			<b>B</b>	<b>BM-A-8-M-WEB</b>	<b>A</b>
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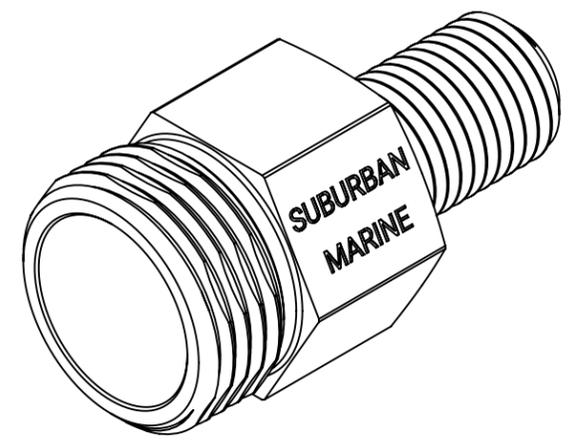
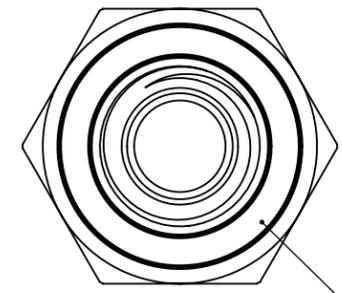
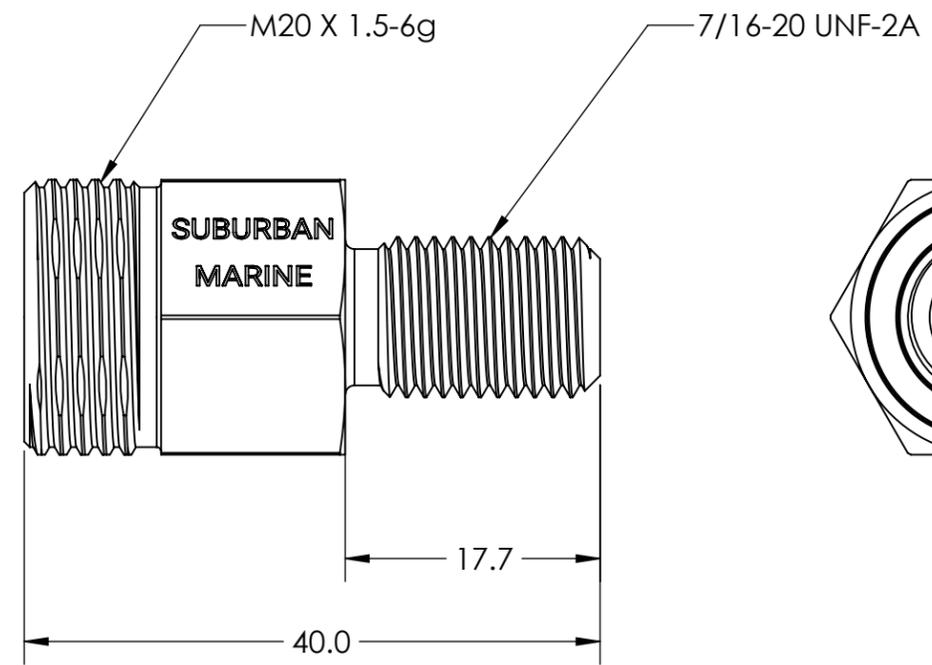
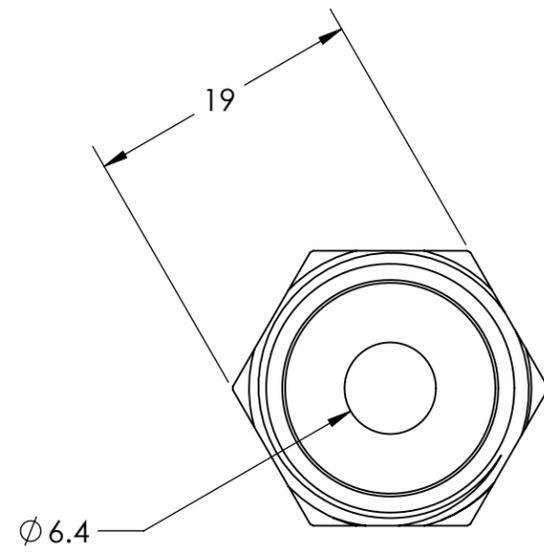
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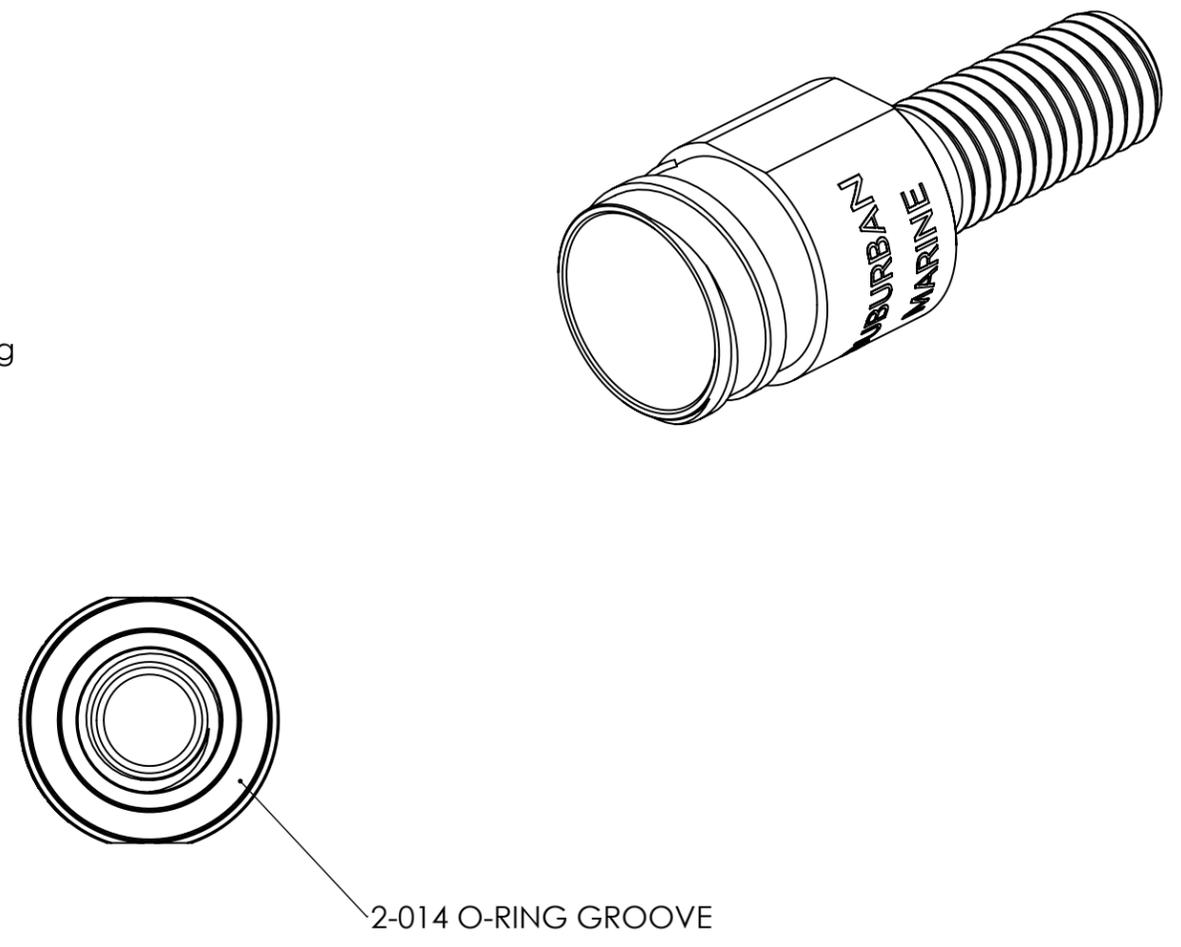
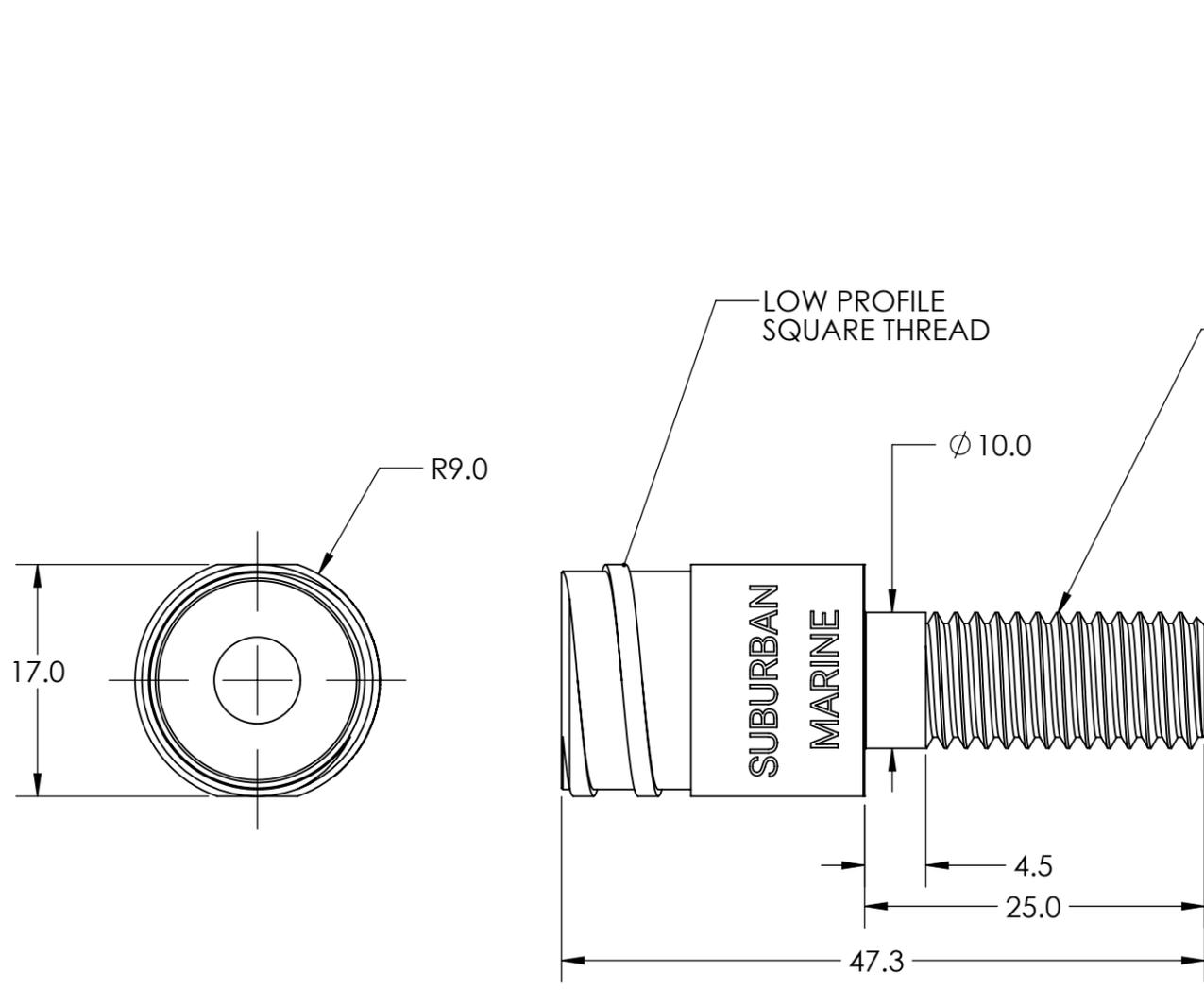


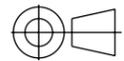
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**BULKHEAD BACKSHELL, SIZE A, 7/16-20 THREAD**

SIZE	DWG. NO.	REV
<b>B</b>	<b>BM-A-BH-A-X</b>	<b>A</b>
SCALE: 2:1	SHEET 1 OF 1	

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.XX ± 0.1mm				<b>BULKHEAD BACKSHELL, M10 THREAD, LOW PROFILE</b>
INTERPRET GEOMETRIC TOLERANCING PER: ISO 2768- mK		THIRD ANGLE PROJECTION:		SIZE DWG. NO. REV
MATERIAL NONE				<b>B BM-A-BH-C-X A</b>
FINISH NONE				SCALE: 2:1 SHEET 1 OF 1
WEIGHT:		DO NOT SCALE DRAWING		

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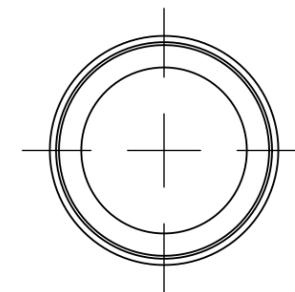
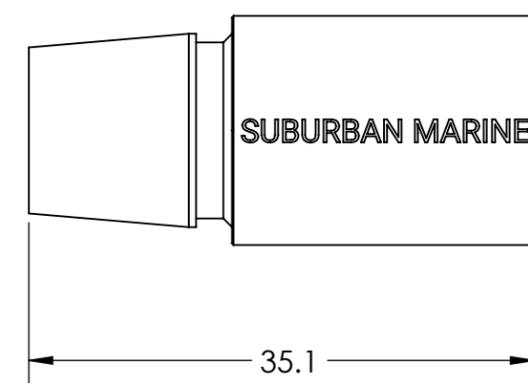
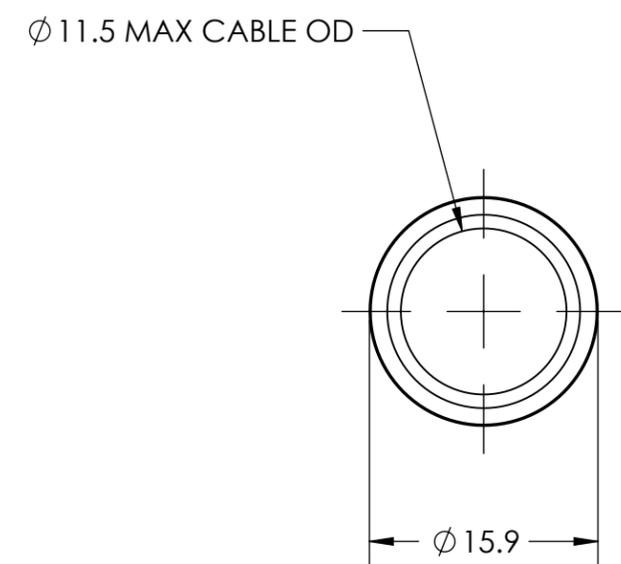
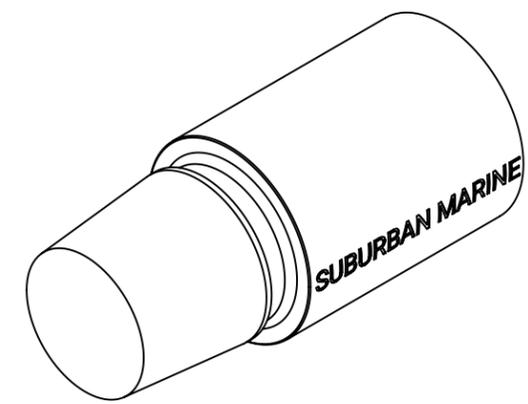
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MATERIAL NONE		
FINISH NONE		
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TITLE:  
**INLINE BACKSHELL, SIZE A**

SIZE	DWG. NO.	REV
<b>B</b>	<b>BM-A-IL-A-X</b>	<b>A</b>

SCALE: 2:1 SHEET 1 OF 1

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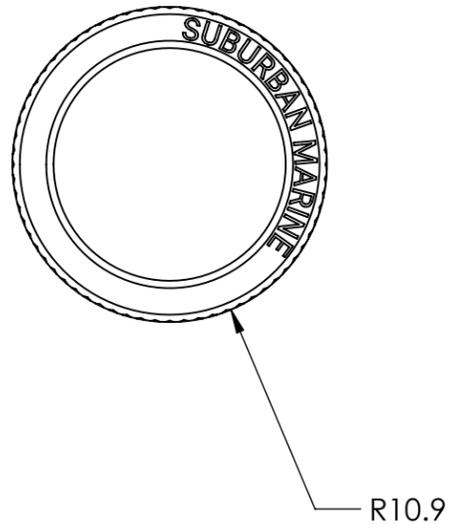
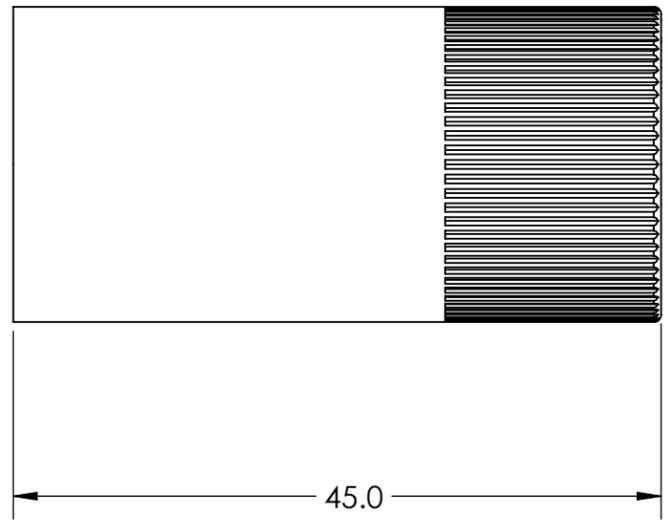
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TITLE:  
**LOCKING RING, FEMALE,  
 STANDARD**

SIZE	DWG. NO.	REV
<b>B</b>	<b>BM-A-LR-F-A-X</b>	<b>A</b>
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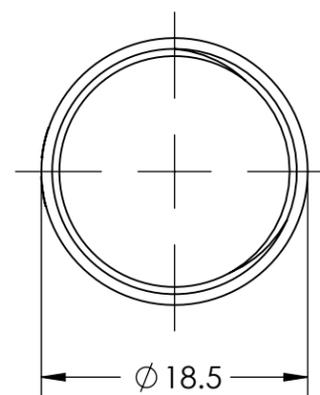
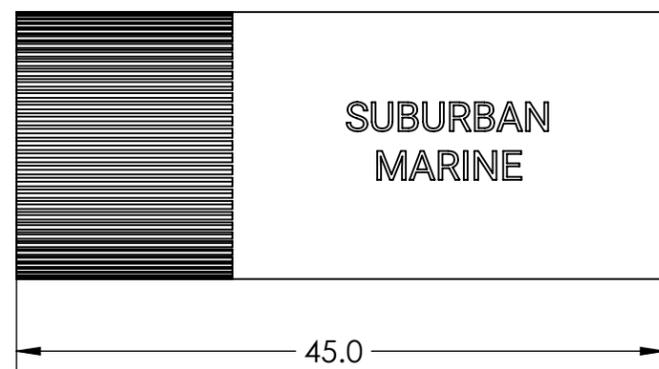
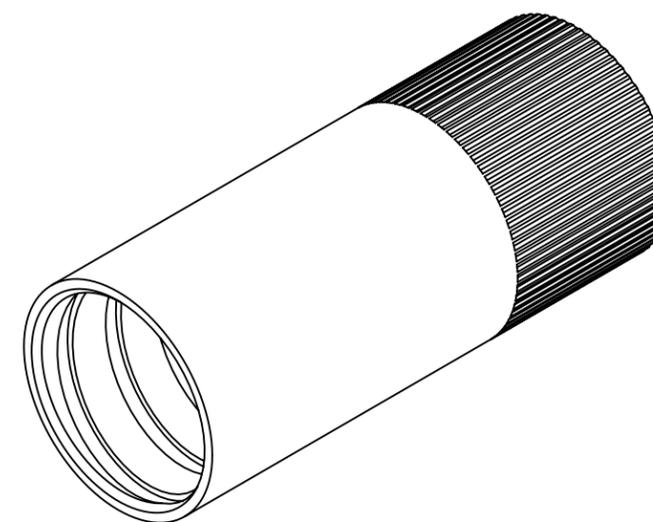
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MATERIAL NONE				<b>B</b> <b>BM-A-LR-F-B-X</b> <b>A</b>
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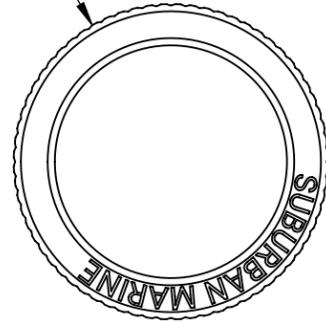
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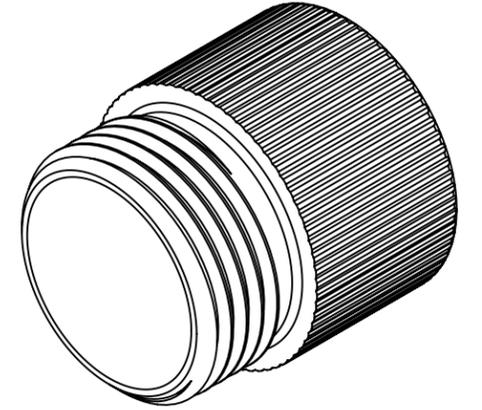
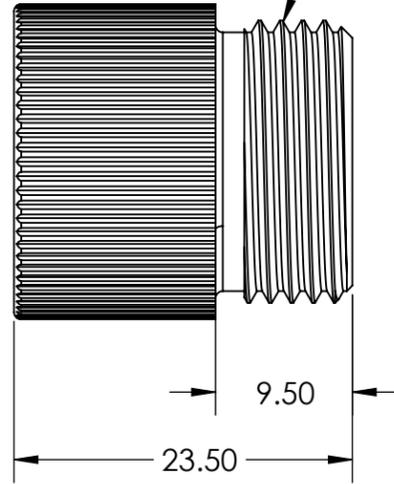
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