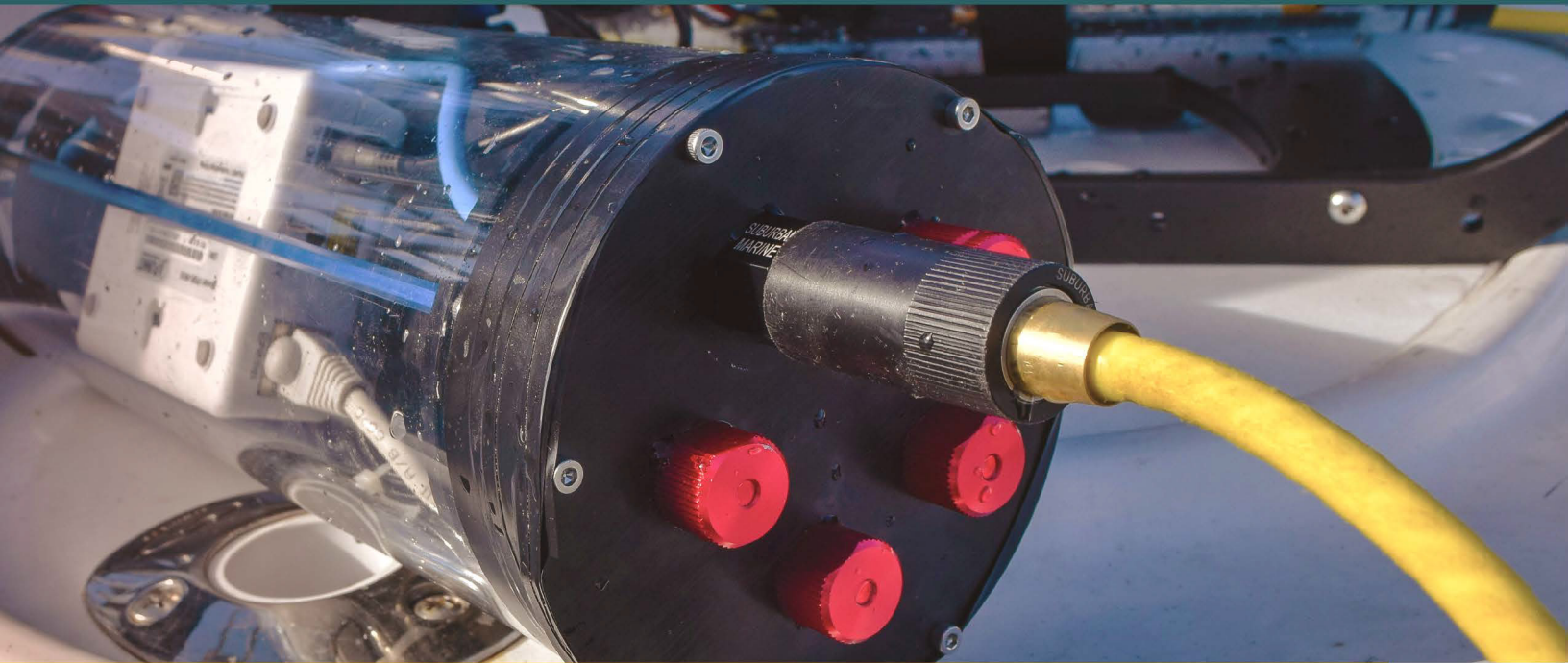


# the Baromax Connector Family



THE BEST SOLUTION  
for all underwater industry needs

User configurable assemblies  
provide limitless configurations  
with one connector face.



Suburban  
Marine

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# 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

### Connector Face

Description	Part Number	Material
Male 8-pin Connector	BM-A-8-M	Neoprene body, brass contact with 30u" gold plating, solder cup
Female 8-pin Connector	BM-A-8-F	Neoprene body, brass contact with 30u" gold plating, solder cup
Male 3-pin Connector	BM-A-3-M	Neoprene body, brass contact with 30u" gold plating, solder cup
Female 3-pin Connector	BM-A-3-F	Neoprene body, brass contact with 30u" gold plating, solder cup

### Bulkhead backshell

Description	Part Number	Material	Kit Contents
Bulkhead Backshell, 7/16-20 thread	BM-A-BH-A-A-1	CA360 Brass	BM-OR-A, O-ring 014
Bulkhead Backshell, 7/16-20 thread	BM-A-BH-A-B-1	316 Stainless Steel	BM-OR-A, O-ring 014
Bulkhead Backshell, 7/16-20 thread	BM-A-BH-A-C-1	6061T6 Anodized Aluminum	BM-OR-A, O-ring 014
Bulkhead Backshell, M10 thread	BM-A-BH-B-B-1	316 Stainless Steel	BM-OR-A, O-ring 014
Bulkhead Backshell, M10 thread	BM-A-BH-B-C-1	6061T6 Anodized Aluminum	BM-OR-A, O-ring 014
Bulkhead Backshell, Low Profile, M10 thread	BM-A-BH-C-C-1	6061T6 Anodized Aluminum	BM-OR-A, O-ring 014 BM-A-N-C-C, M10 Nut Aluminum

## Inline backshell

Description	Part Number	Material	Kit Contents
Inline Backshell	BM-A-IL-A-A-1	CA360 Brass	BM-SR-130, Snap Ring 13mm
Inline Backshell	BM-A-IL-A-B-1	316 Stainless Steel	BM-SR-130, Snap Ring 13mm
Inline Backshell	BM-A-IL-A-C-1	6061T6 Anodized Aluminum	BM-SR-130, Snap Ring 13mm

## Locking Rings

Description	Part Number	Material / Desc	Kit Contents
Standard Locking Ring, Female	BM-A-LR-F-A-B-1	POM	BM-SR-160, Snap Ring 16mm
Standard Locking Ring, Female	BM-A-LR-F-A-C-1	316 Stainless Steel	BM-SR-160, Snap Ring 16mm
Standard Locking Ring, Male	BM-A-LR-M-A-B-1	POM	BM-SR-160, Snap Ring 16mm
Low-profile Locking Ring, Female	BM-A-LR-F-B-B-1	POM	BM-SR-160, Snap Ring 16mm

## Plugs (aka Dummy Plugs)

Description	Part Number	Material / Desc
Female Plug, 8-pin	BM-A-8-F-D	Neoprene
Male Plug, 8-pin	BM-A-8-M-D	POM
Female Plug, 3-pin	BM-A-3-F-D	Neoprene
Male Plug, 3-pin	BM-A-3-M-D	POM

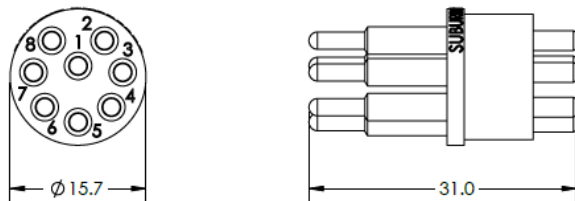
## Epoxy

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	2:1 Plunger

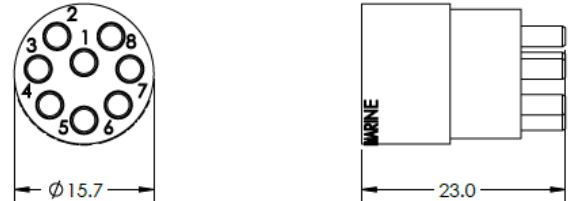
## Part Overview

For reference only. See detailed part drawings.

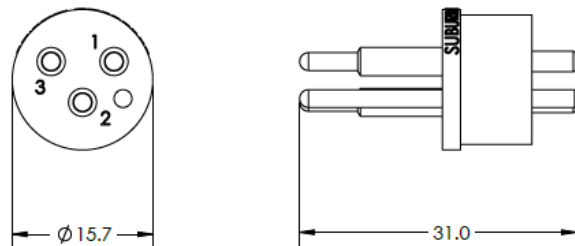
### Male 8-pin Connector



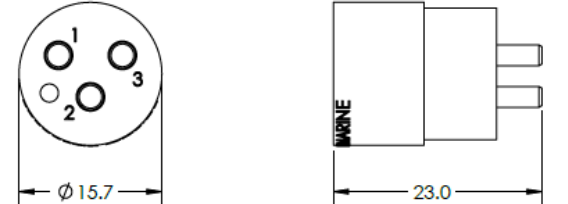
### Female 8-pin Connector



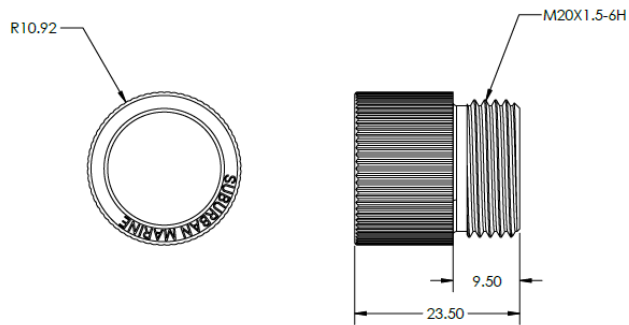
### Male 3-pin Connector



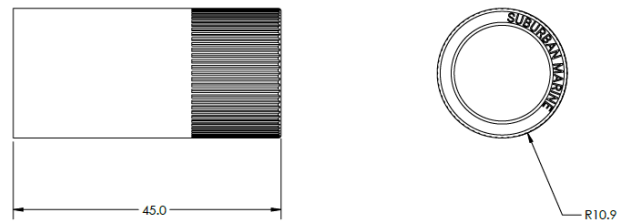
### Female 3-pin Connector



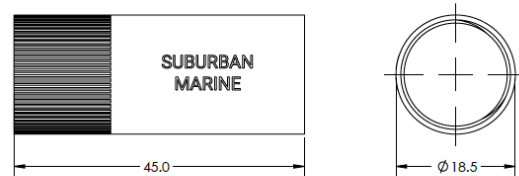
## Male Locking Ring



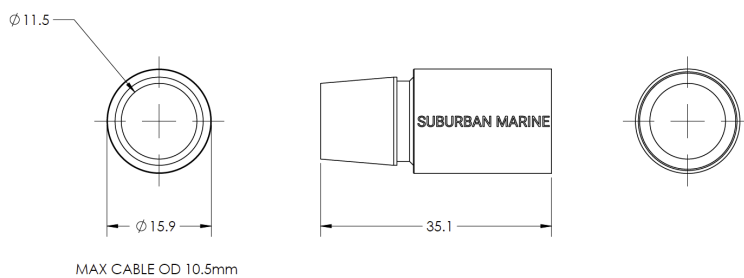
## Female Locking Ring



## Female Locking Ring Low Profile

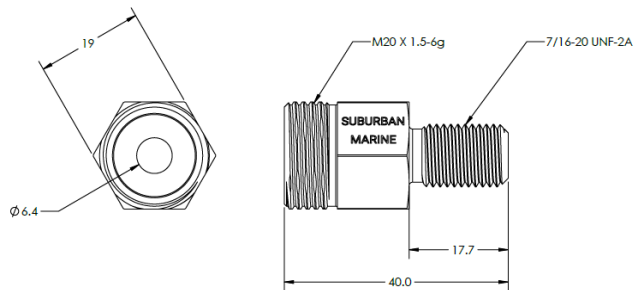


## Inline Backshell

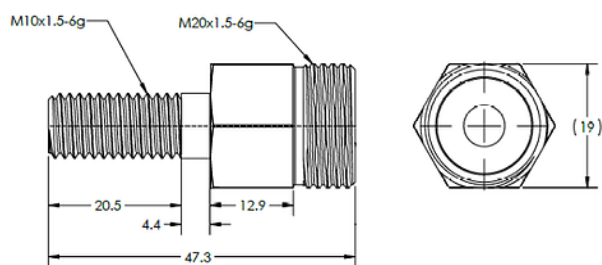


## Bulkhead Backshell

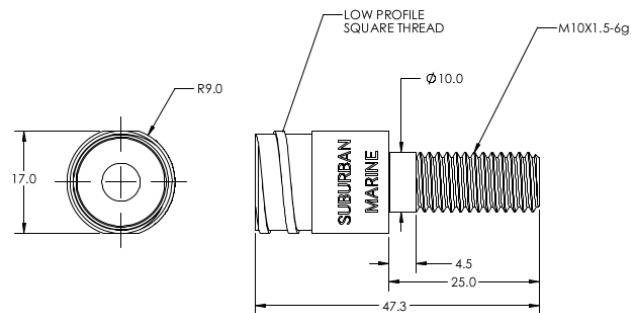
### Standard thread option



### 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

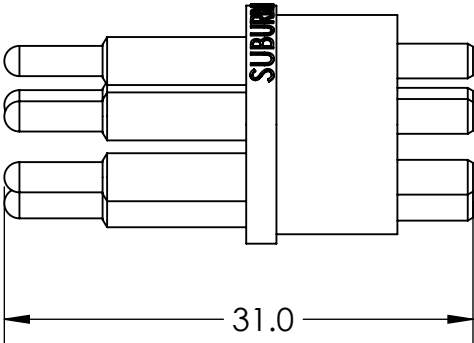
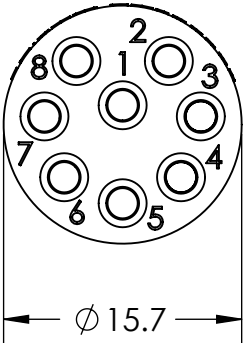
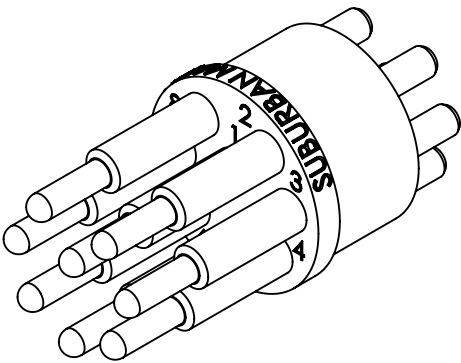
Wire Size Range	AWG 24 to 18
Contact Termination Method	Hand solder
Max. Cable Diameter (Standard backshells)	0.40 inches
Operating Temperature Air (degC)	-40 - 60
Operating Temperature Water (degC)	-4 - 60
Mating Cycles	500
Typical Mating / Unmating Force	-
Max ambient pressure (psi)	10,000

## 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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CHECKED  
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APPROVED

THIRD ANGLE  
PROJECTION:

DO NOT SCALE DRAWING

NAME  
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DATE  
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TITLE:  
8-PIN MALE CONNECTOR

SIZE  
B

DWG. NO.  
BM-A-8-M-WEB

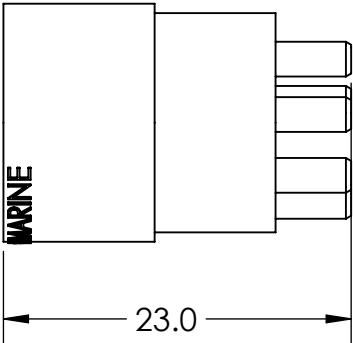
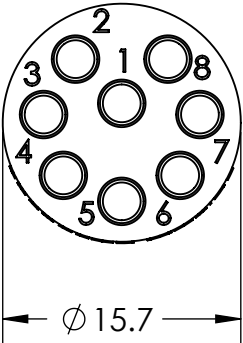
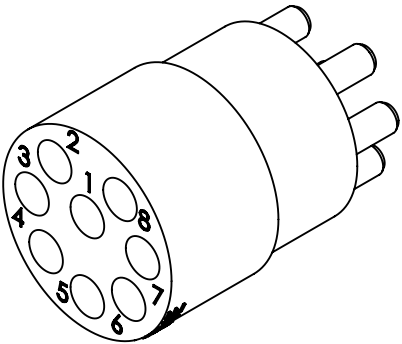
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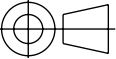
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8-PIN FEMALE CONNECTOR


SIZE  
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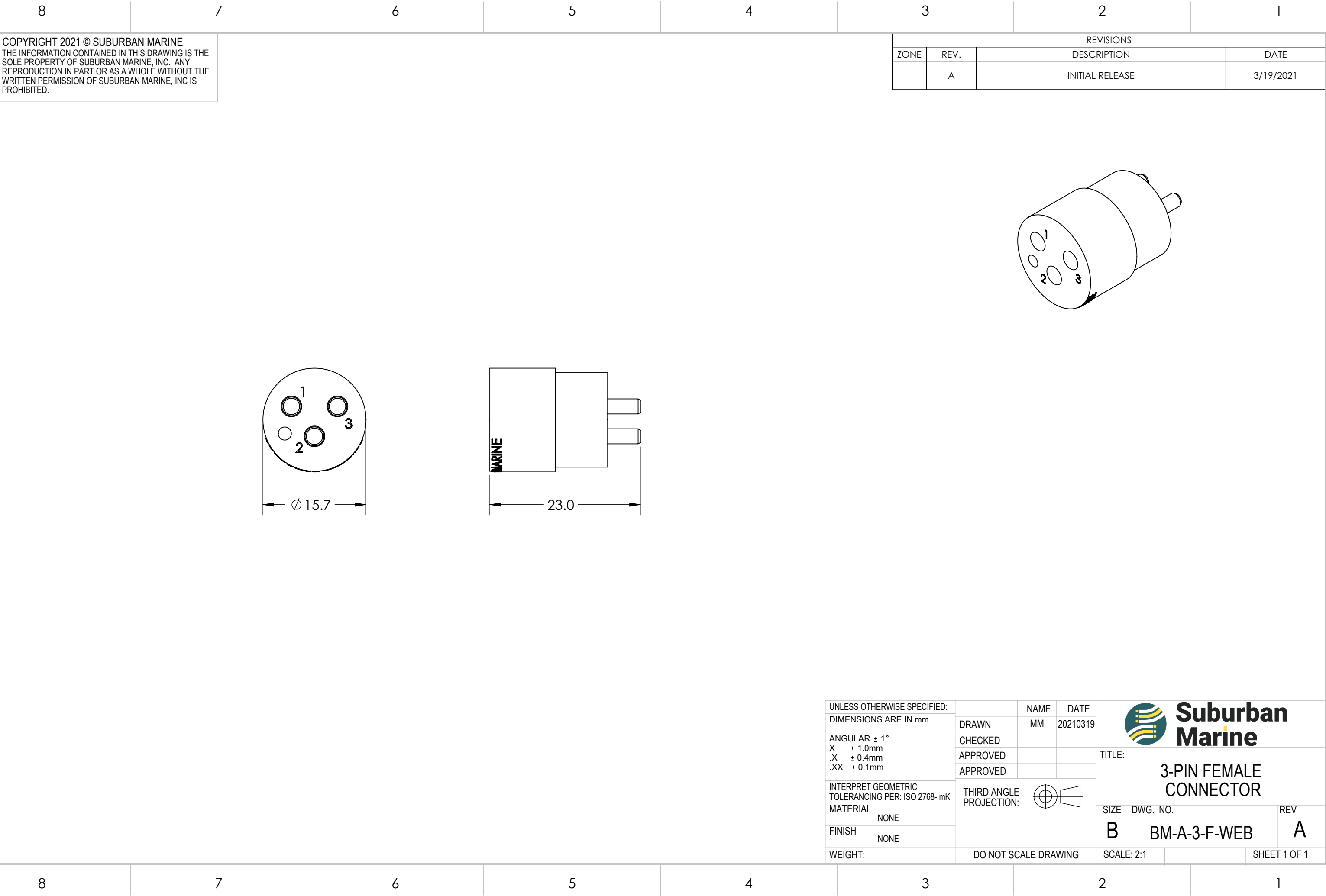
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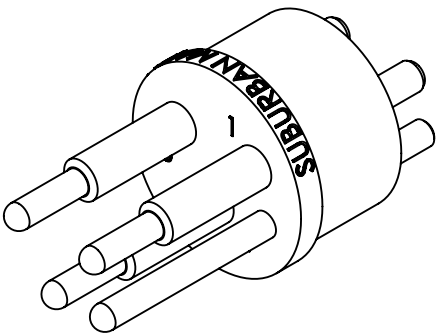
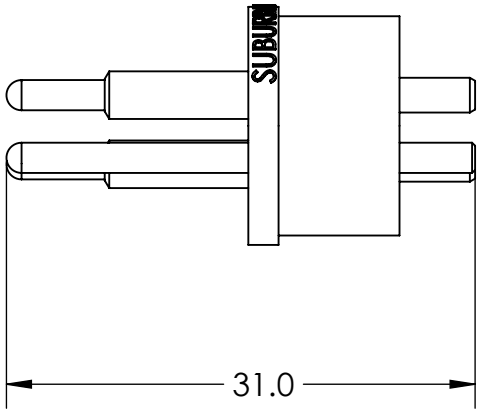
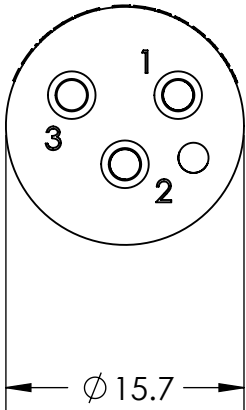
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APPROVED

THIRD ANGLE  
PROJECTION:

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NAME  
MM

DATE  
20210319

TITLE:  
BAROMAX 3-PIN MALE

SIZE  
B

DWG. NO.  
BM-A-3-WEB

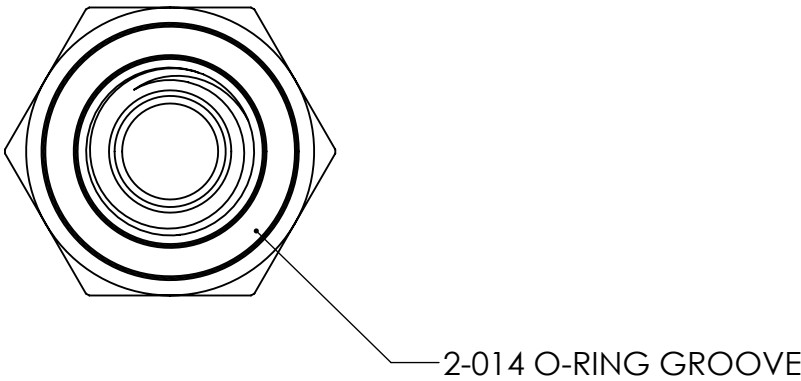
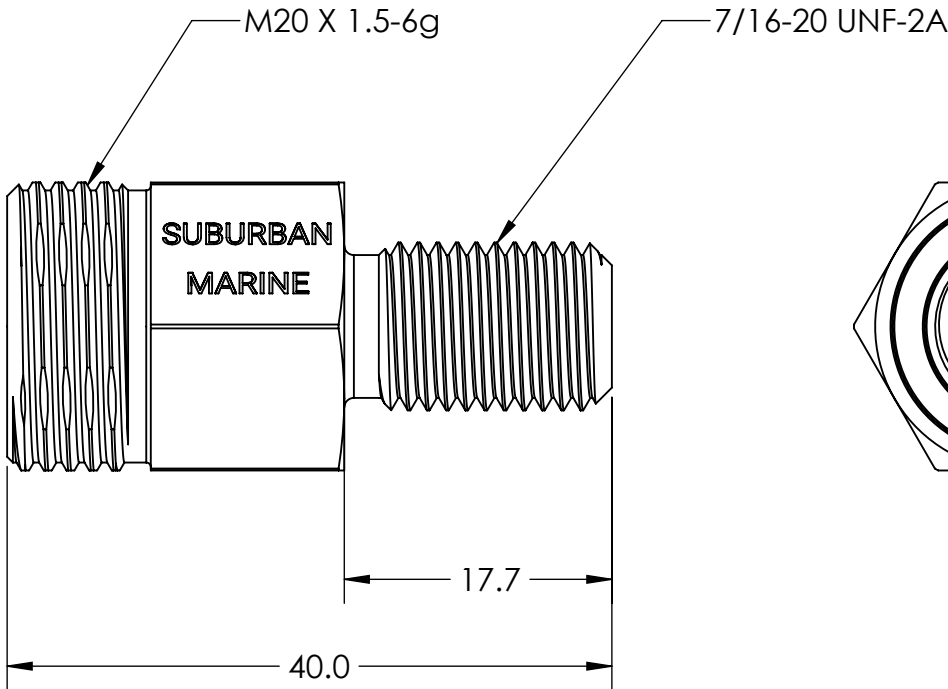
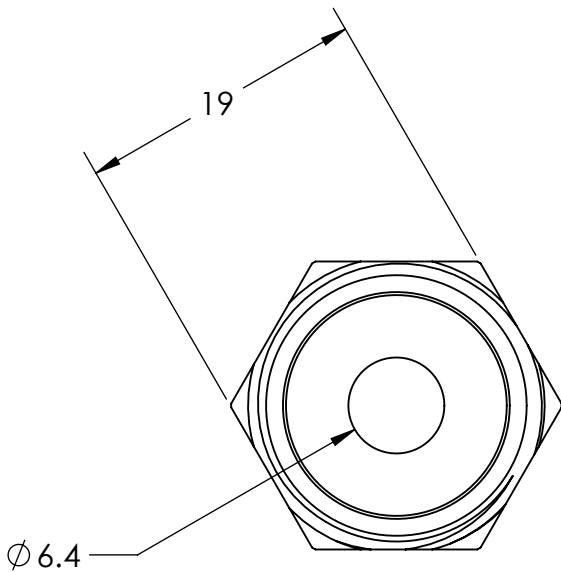
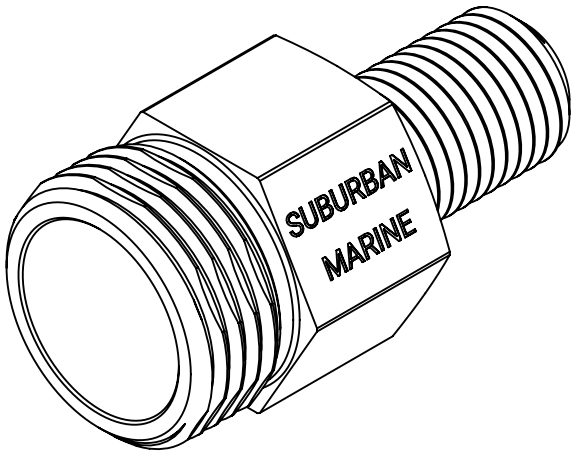
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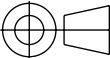
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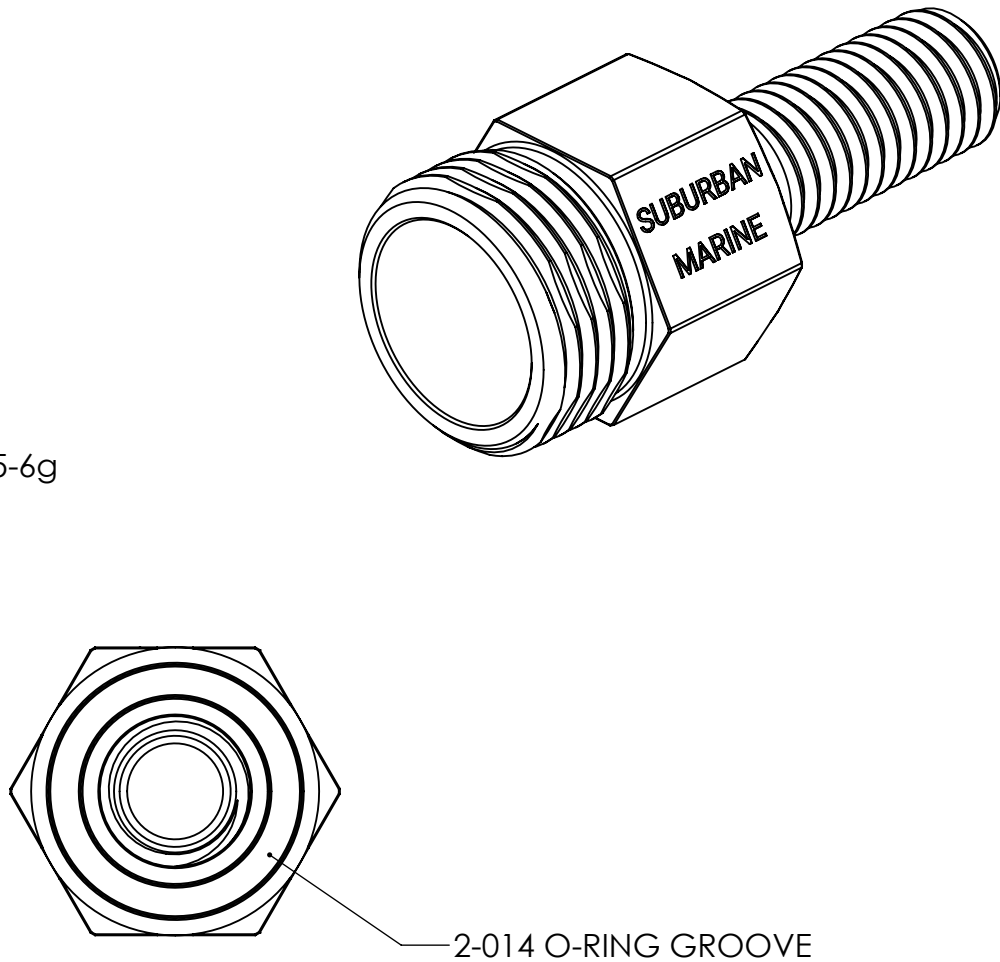
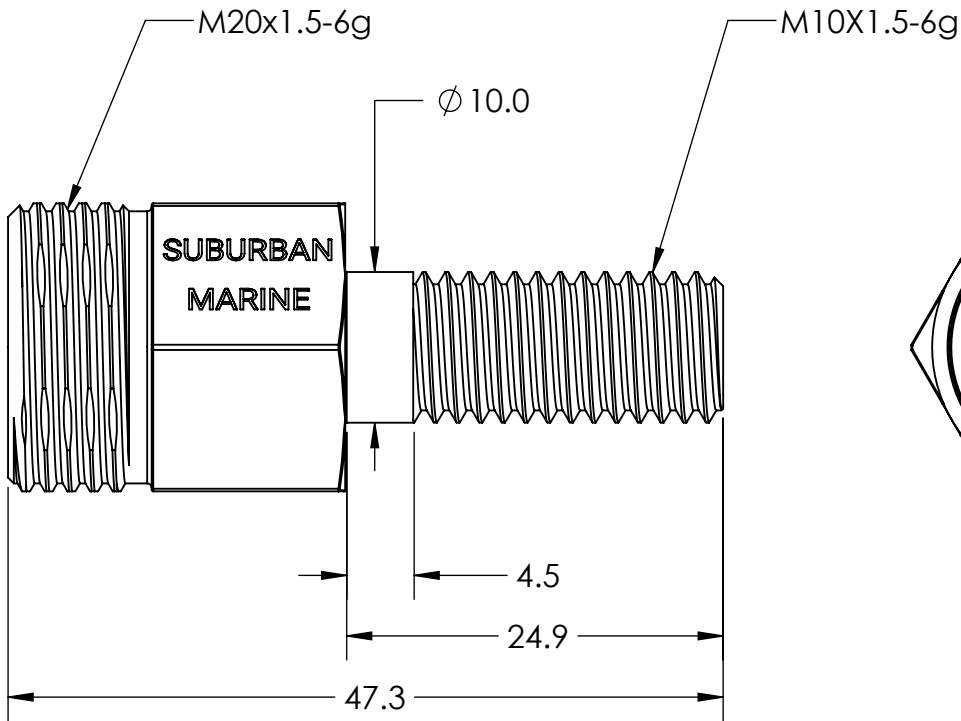
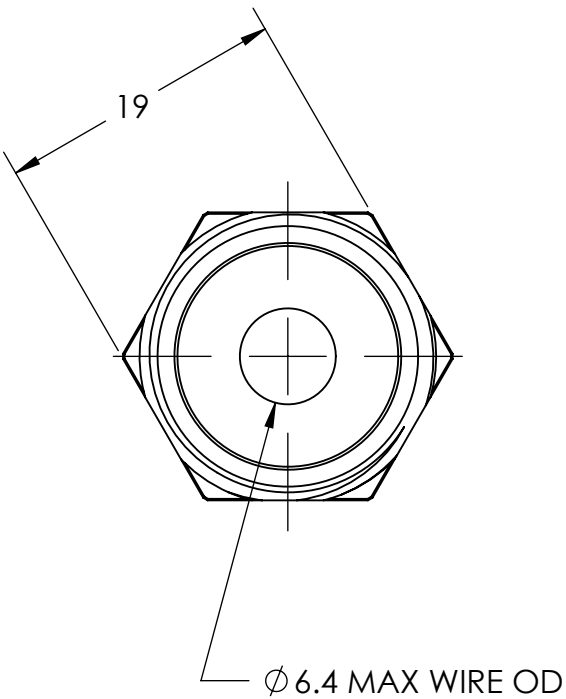
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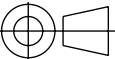


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FINISH						
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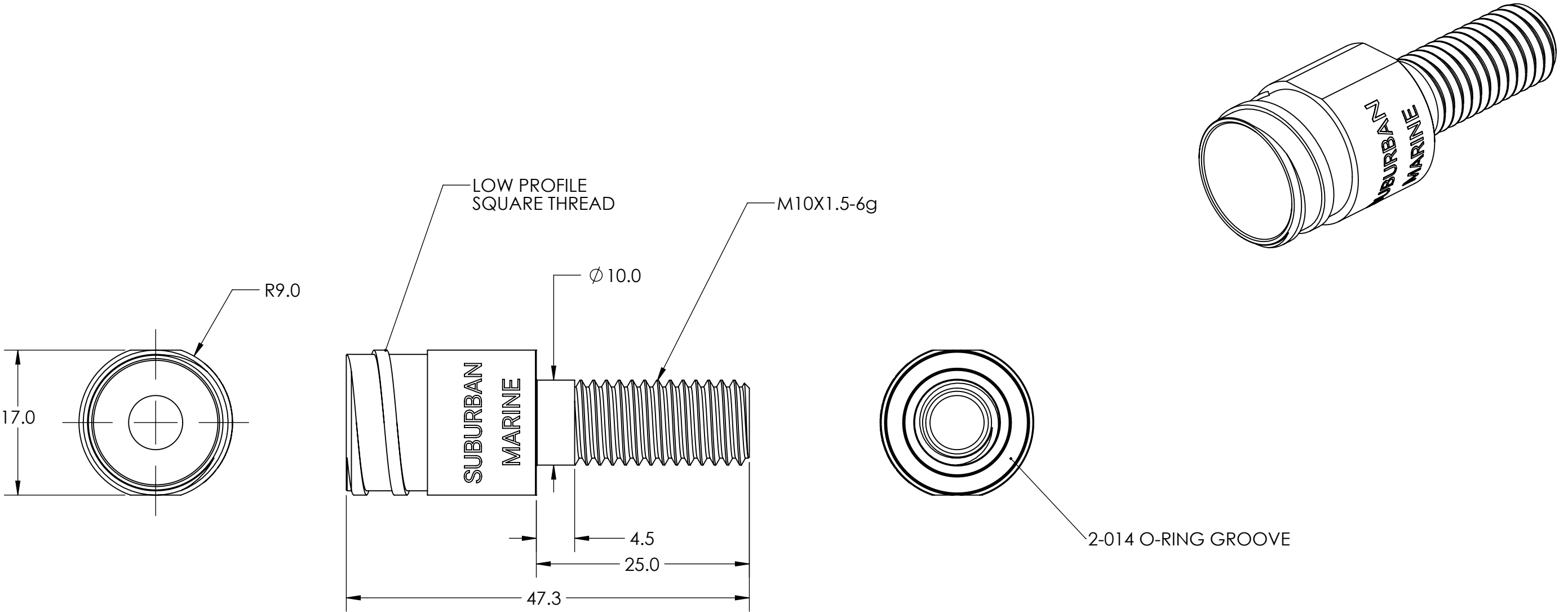



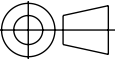
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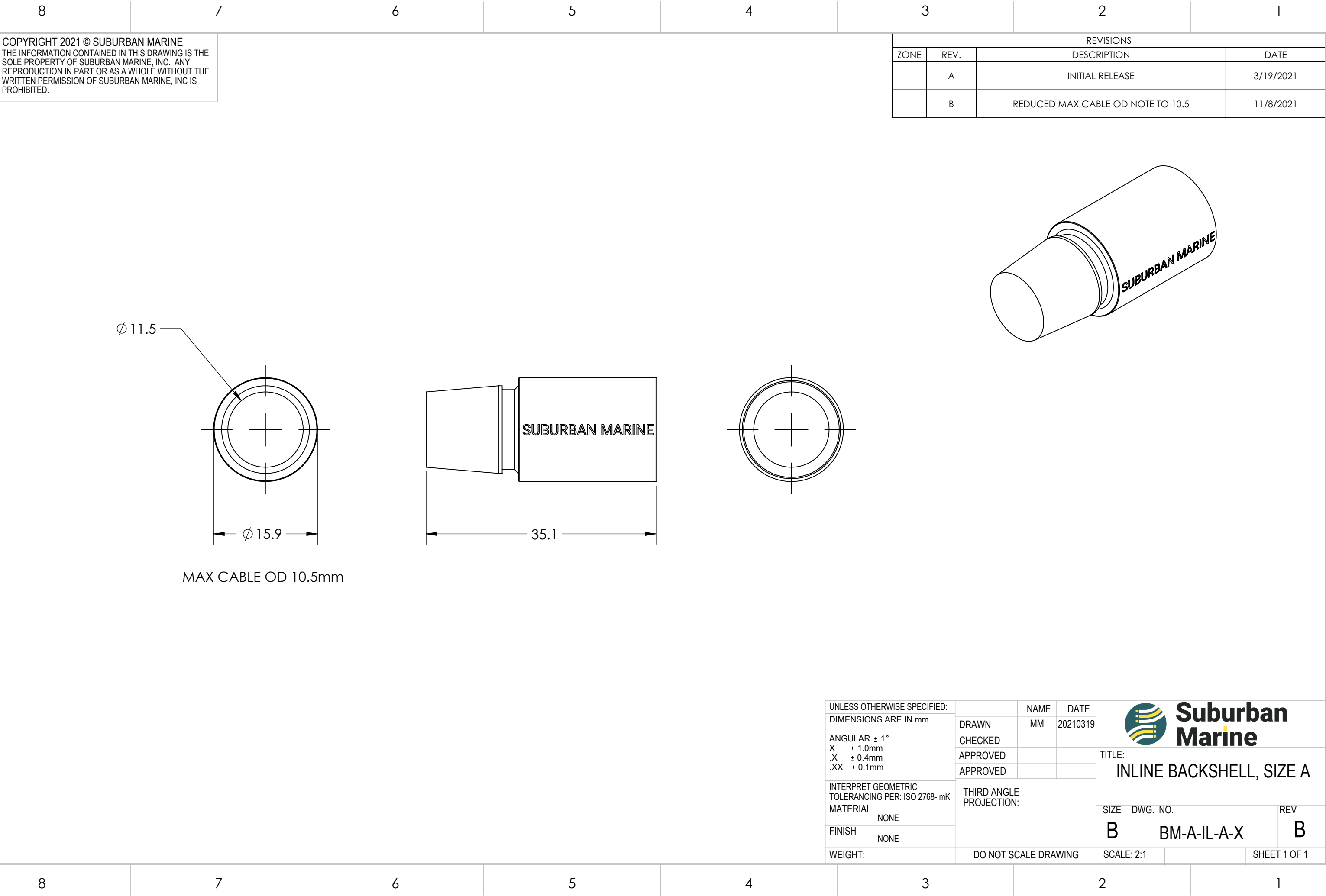


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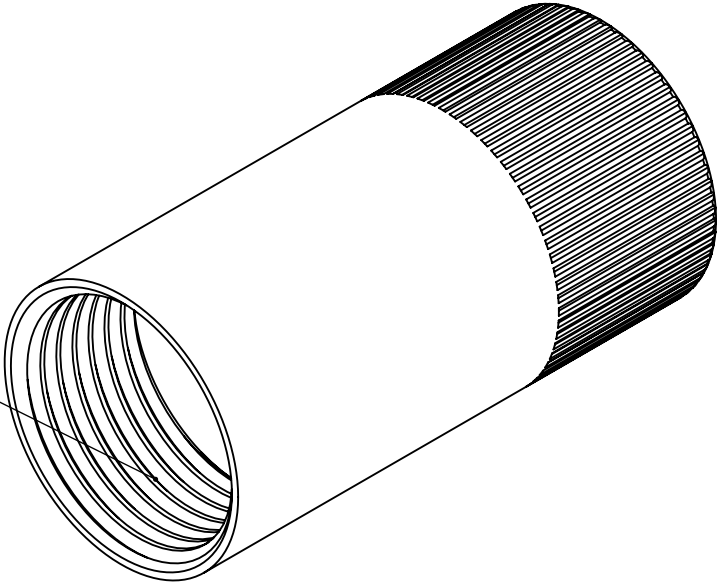
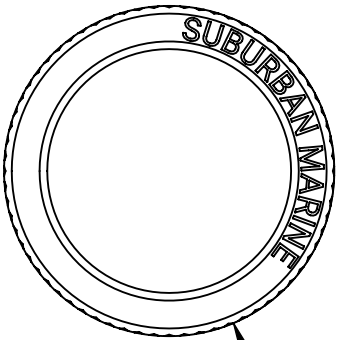
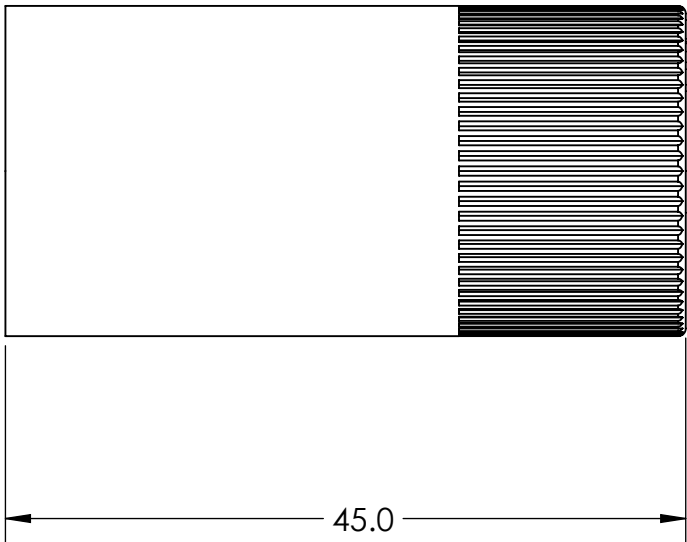


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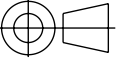


M20X1.5-6H

R10.9

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CHECKED  
APPROVED  
APPROVED

THIRD ANGLE  
PROJECTION:  


DO NOT SCALE DRAWING

NAME  
MM

DATE  
20210319



**Suburban  
Marine**

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

SIZE  
**B**

DWG. NO.  
**BM-A-LR-F-A-X**

REV  
**A**

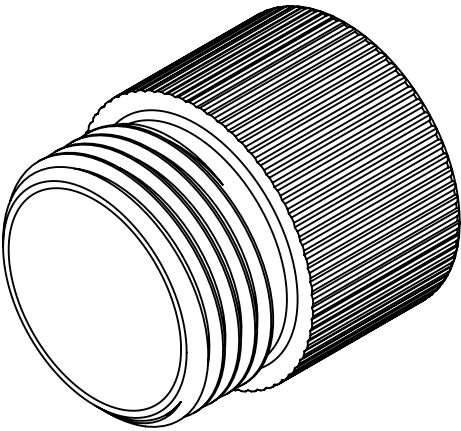
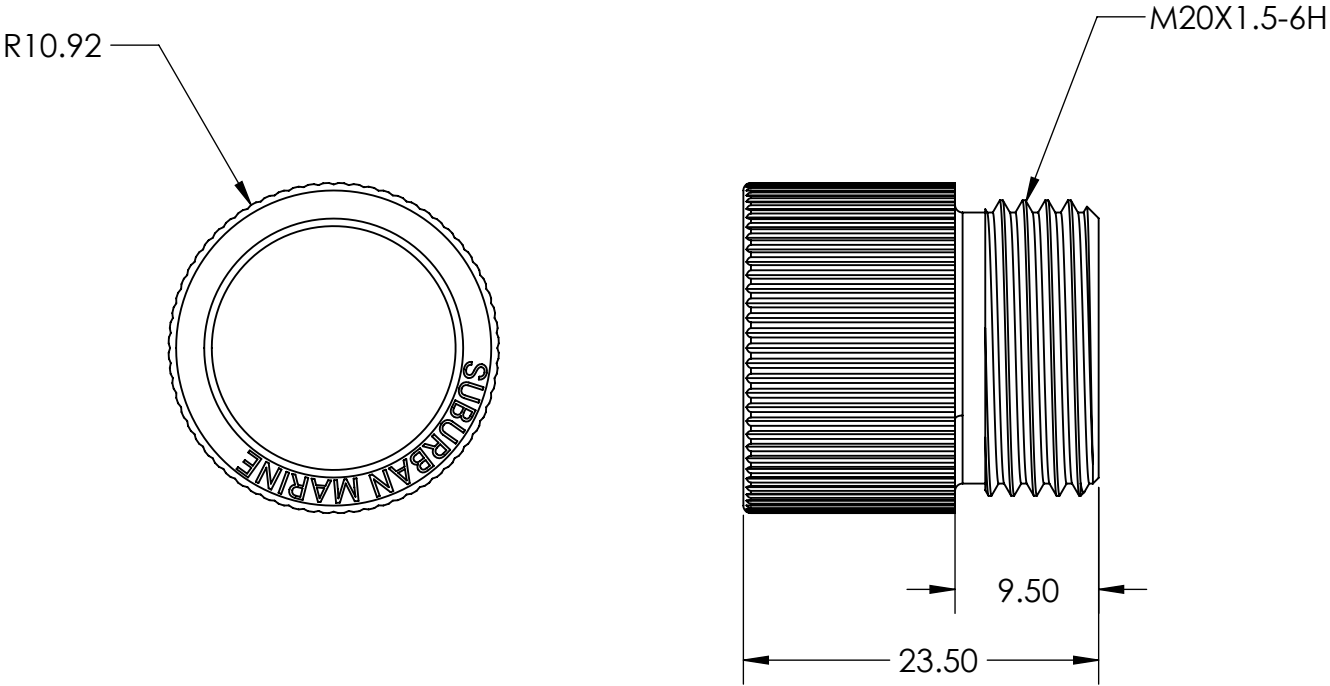
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SHEET 1 OF 1

87654321

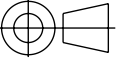
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ZONE	REV.	DESCRIPTION	DATE
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UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN mm  
  
ANGULAR ± 1°  
X ± 1.0mm  
.X ± 0.4mm  
.XX ± 0.1mm  
  
INTERPRET GEOMETRIC  
TOLERANCING PER: ISO 2768- mK  
MATERIAL  
    NONE  
FINISH  
    NONE  
WEIGHT:


DRAWN  
CHECKED  
APPROVED  
APPROVED

THIRD ANGLE  
PROJECTION:  


DO NOT SCALE DRAWING

NAME  
MM

DATE  
20210319



**Suburban  
Marine**

TITLE:  
**LOCKING RING, MALE,  
STANDARD**

SIZE  
**B**

DWG. NO.  
**BM-A-LR-M-A-X**

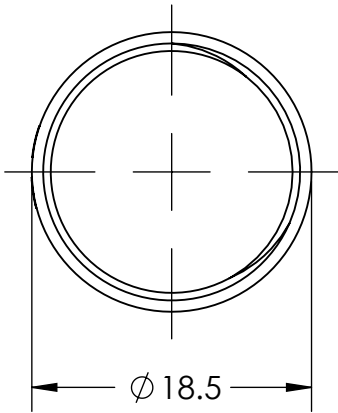
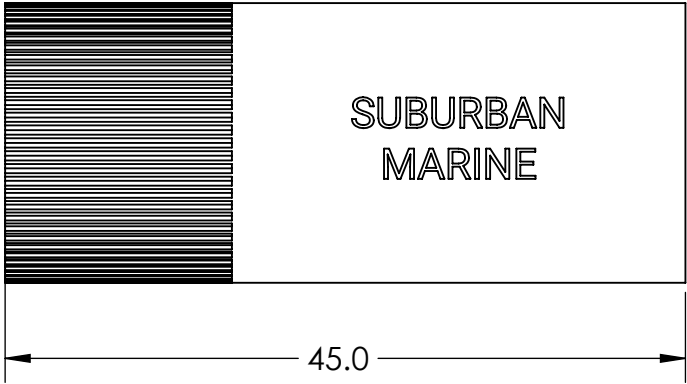
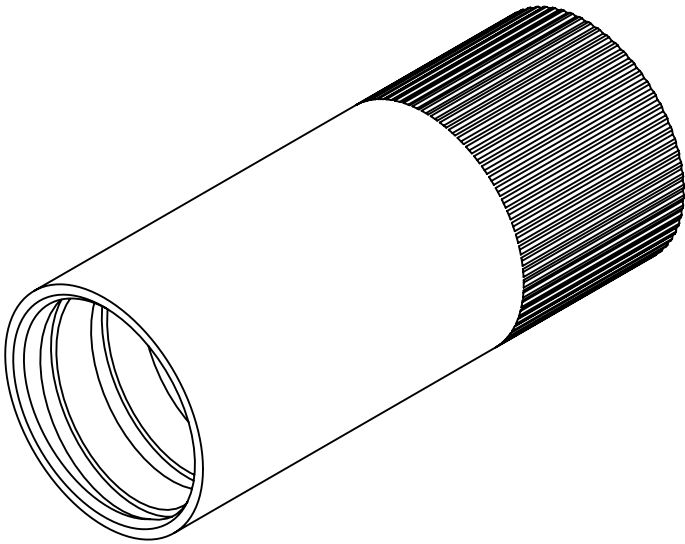
REV  
**A**

SCALE: 2:1

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ANGULAR ± 1°  
X ± 1.0mm  
.X ± 0.4mm  
.XX ± 0.1mm  
  
INTERPRET GEOMETRIC  
TOLERANCING PER: ISO 2768- mK  
MATERIAL  
    NONE  
FINISH  
    NONE  
WEIGHT:


DRAWN  
CHECKED  
APPROVED  
APPROVED

THIRD ANGLE  
PROJECTION:

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NAME  
MM

DATE  
20210319



**Suburban  
Marine**

TITLE:  
**LOCKING RING, FEMALE, LOW  
PROFILE**

SIZE  
**B**

DWG. NO.  
**BM-A-LR-F-B-X**

REV  
**A**

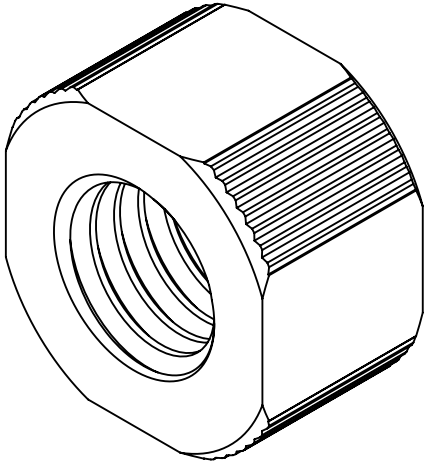
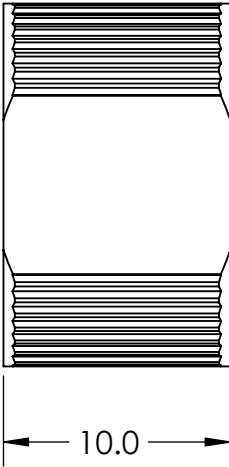
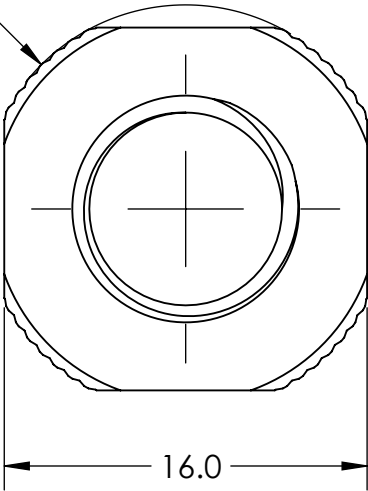
SCALE: 2:1

SHEET 1 OF 1

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DIMENSIONS ARE IN mm  
  
ANGULAR ± 1°  
X ± 1.0mm  
.X ± 0.4mm  
.XX ± 0.1mm  
  
INTERPRET GEOMETRIC  
TOLERANCING PER: ISO 2768- mK  
MATERIAL  
FINISH  
WEIGHT:

NONE  
NONE


DRAWN  
CHECKED  
APPROVED  
APPROVED

THIRD ANGLE  
PROJECTION:

DO NOT SCALE DRAWING

NAME  
MM

DATE  
20210319



Suburban  
Marine

TITLE:  
NUT, M10 THREAD

SIZE  
B

DWG. NO.  
BM-A-N-C-X

REV  
A

SCALE: 5:1

SHEET 1 OF 1

