



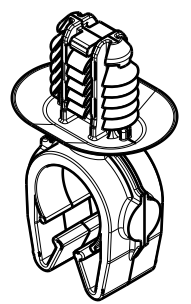
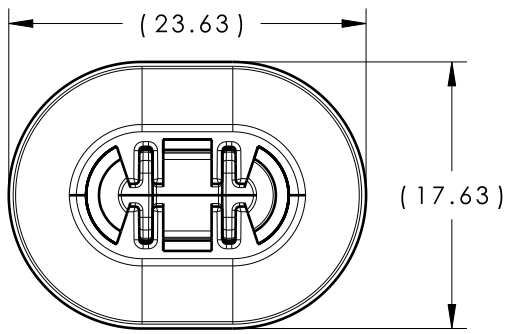
Revision Level			Revision Record	Changed	Date	Approved	Date
Drawing	State	Part					
02.1	Design Release	-	SEE ECN# 015482	NHK	10/16/19	EJF	10/16/19

REFERENCE:

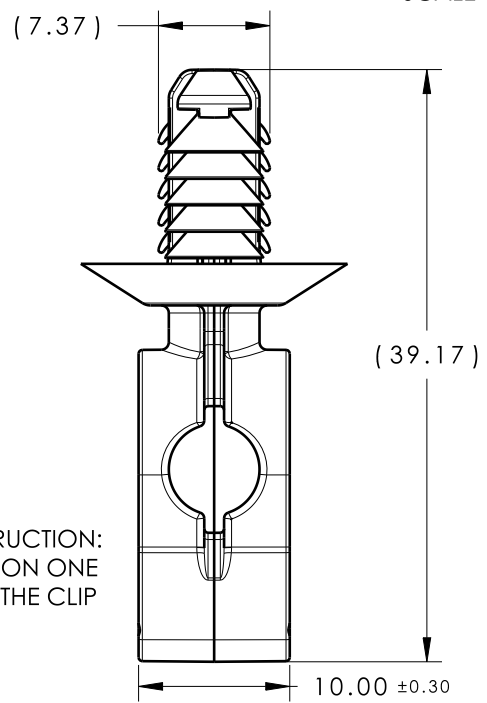
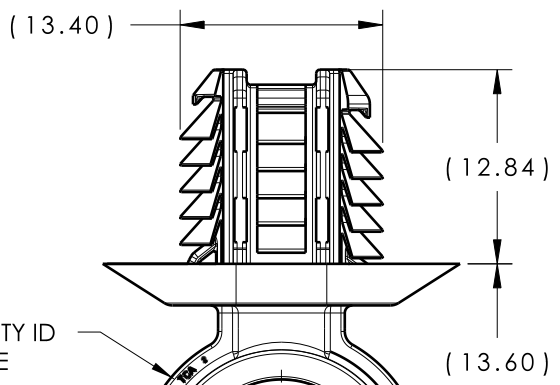
- PERFORMANCE REQUIREMENTS AT DRY AS MOLDED:
1. FIR TREE PUSH IN FORCE: 45 NEWTONS (10 LBS) MAX IN EACH APPLICABLE OVAL HOLE SIZE AND A PLATE THICKNESS OF 1.8mm.
 2. FIR TREE PULL OUT FORCE: 110 NEWTONS (25 LBS) MIN IN EACH APPLICABLE OVAL HOLE SIZE AND A PLATE THICKNESS OF 1.8mm.
 3. SHEET METAL THICKNESS RANGE: 0.60mm - 6.75mm
 4. APPLICABLE OVAL HOLE SIZES:
 - A. 6.2 X 12.2mm
 - B. 6.5 X 12.5mm
 - C. 6.5 X 13.0mm
 - D. 7.0 X 12.0mm

- NOTES:
1. MAXIMUM PERCENT REGRIND PERMISSIBLE: 25%
 2. MAX ALLOWABLE FLASH TO BE: 0.25mm
 3. MAX ALLOWABLE MISMATCH TO BE: 0.1mm

Patents: US D822,476 S, EU 003864313, CN 304373914 S



ISOMETRIC VIEW
SCALE 1:1



PART DIAMETER, 'TCA', AND CAVITY ID TO BE LOCATED ON THIS SURFACE

Ø 11.90 ±0.20

02.1
ALTERNATE CONSTRUCTION:
BOSS MAY APPEAR ON ONE
OR BOTH SIDES OF THE CLIP

DIAMETER RANGE		
HARNESS	HOSE	HARD PIPE/TUBE
11.5MM-13.0MM	10.5MM-13.0MM	12.0MM-13.8MM

GLOBAL PART DESCRIPTION	MATERIAL	COLOR
MOC12FTOVAL-PA66HRISHUV-BK	PA66HIRHSUV	BLACK

Material
SEE CHART
COLOR: SEE CHART

Units millimeters
Tolerance defined on each dimension

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Drawn CRB 08/04/16
Approved EJH 09/27/16

HellermannTyton

North America
Email: corp@htamericas.com
Web: www.hellermann.tyton.com

Article/Type-No MOC12FTOVAL
Title 12MM (1/2") MOC WITH 6.5 X 12.5MM OVAL FIR TREE
Drawing-No PRODUCTION : Phase
16-0319-010-CSU

Scale 2:1
Project Number 16-0319
Format AH
Sheet 1/1