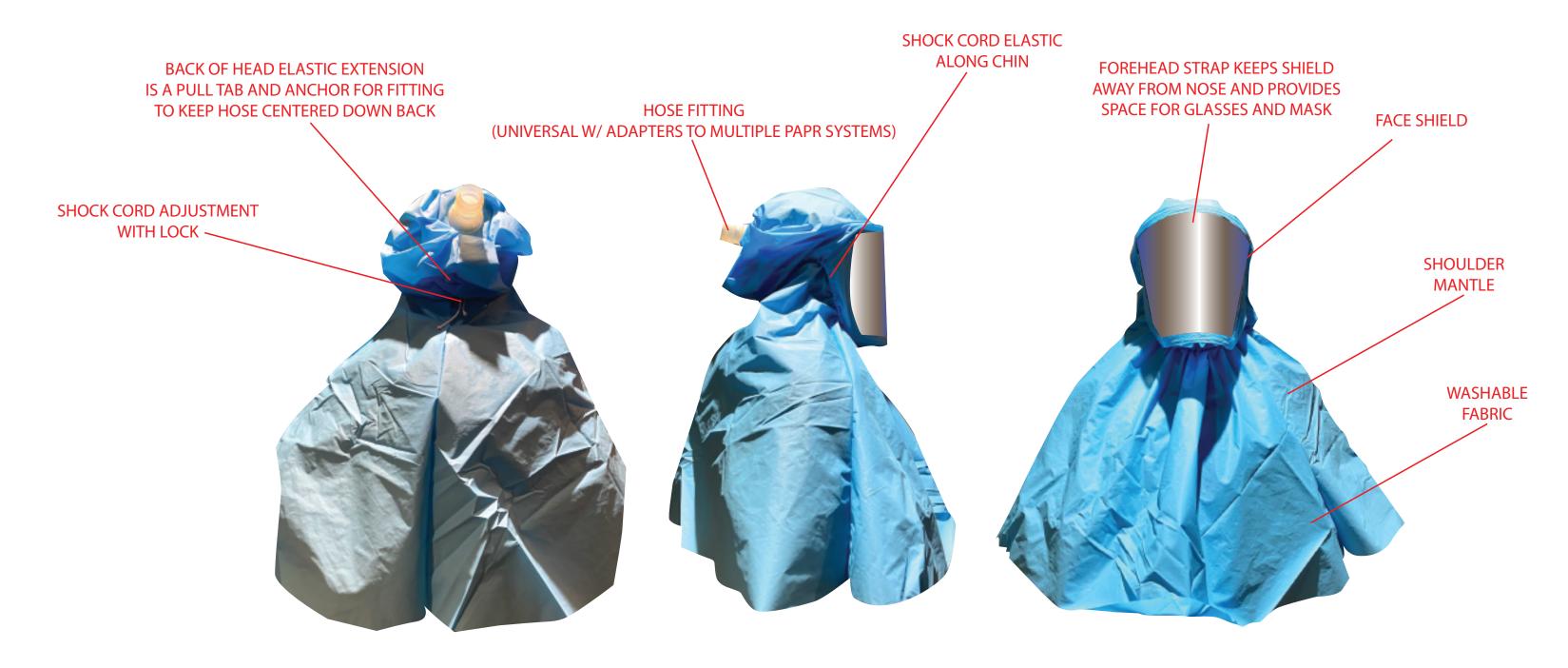
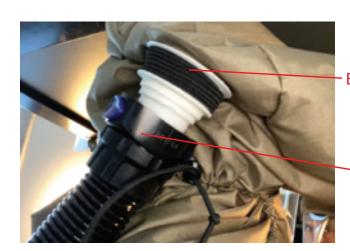
OVERVIEW AND FEATURES





ELASTIC LOOP ANCHORING THE FITTING AND HOSE

BLOWER HOSE ATTACHED TO FITTING

LEGAL DISCLAIMER

This product design and specifications are being provided by the University of Wisconsin-Madison College of Engineering as a free service to the community during this public health emergency.

REGULATORY NOTICE

LIABILITY NOTICE

This product has not been cleared for medical use by the U.S. Food and Drug Administration. The product should only be used during the declared COVID-19 public health emergency if FDA cleared or approved products are unavailable. This product has not been evaluated for the prevention of specific diseases or infections, the filtering of surgical smoke or plumes, the filtering of specific amounts of viruses or bacteria, or the killing or reduction of the amount of viruses, bacteria or fungi. Not recommended for use in a surgical setting where exposure to liquid, bodily or other hazardous fluids may be expected or for use in a clinical setting where infection risk level through inhalation exposure is high. Not recommended for use in the presence of a high intensity heat source or flammable gas. [This product is intended for one-time use by a single user.]

By using this product, the end user assumes all risks associated with its use, including the voiding of manufacturers' warranties of devices with which the product is used, and agrees to hold harmless and waive any claims against the Board of Regents of the University of Wisconsin System, its officers, employees and agents, and other persons or companies which may have contributed to the design and specifications. EXCEPT WHERE SPECIFICALLY PROHIBITED BY LAW, NO WARRANTIES OF ANY KIND ARE OFFERED FOR THE PRODUCT DESIGN AND SPECIFICATIONS, INCLUDING WARRANTIES OF NON-INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE.

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RECOMMENDED CLEANING AND DISINFECTING OF HOOD MATERIALS DURING COVID-19 PANDEMIC

The hood is designed for multiple use, but single exposure. If contaminated with toxic chemicals or blood/body fluids, dispose immediately in accordance with governing requirements. Non-contaminated fabrics being used during the COVID-19 pandemic for security, health assessments and triage of patients and other individuals can be cleaned with a soft bristle brush using a mild solution of soap and warm water, rinsed and hung to air dry. Disinfect fabric between brief patient exposures with hydrogen peroxide or non-chlorine bleach based wipes. No bleach or bleaching agents should ever be used on the materials.

Chargeurs and/or Badger Shield cannot guarantee the effectiveness of the process regarding killing or removal of the virus.

REVISIONS

V7 INITIAL PROTOTYPE RELEASE FOR PRODUCTION FEEDBACK. V7 REFERS TO THE SEVENTH RAPID PROTOTYPE HOOD CREATED FROM MARCH 24-30, 2020. FABRIC PATTERN AND PROTOTYPING BY CORIN FROST OF DELVE, FITTING BY JESSE DARLEY AND RANDY KOPLIN OF DELVE. DESIGN BY LENNON RODGERS AND KARL WILLIAMSON OF UW, BRIAN ELLISON OF MIDWEST PROTOTYPING, BRIAN'S MOM AND SCOTT SPRINGMAN OF UW HEALTH.

REV A

INITIAL PRODUCTION VERSION. UPDATED 10 APRIL 2020 BY JESSE DARLEY. CHANGES INCLUDE PATTERN REVISIONS FOR SIMPLIFIED SEWING AND TWO ADDITIONAL FITTING ADAPTERS (MILLER ELECTRIC AND FEMALE RBP.

REV B

ADDED SEPARATE ASSEMBLY PAGE WITH NEW INSTRUCTIONS. FITTING IMAGES UPDATED.

REV CENLARGED HOLE FOR FITTING. MOVED FOREHEAD STRAP DRAWING TO MATERIAL SHEET.

REV D

ADJUSTED SUSPENSION SYSTEM CUT LENGTHS, WIDENED SHOCK CORD CASING BY 3/8", UPDATED ASSEMBLY INSTRUCTIONS

REV E

ADDED SUSPENSION SYSTEM IMAGES. ADDED TABS TO FACE SHIELD

REV F

MOVED SEWING ORDER. REMOVED "PAPR" FROM DESCRIPTION. UPDATED MATERIAL LIST. UPDATED LEGAL DISCLAIMER



UNIVERSAL BADGER HOOD - REV F

COMPONENTS AND BOM ITEM 5: CORD LOCK $r - R15\frac{7}{8}$ " 1TEM 13: UNIVERSAL FITTING COLLAR FITTING ASSEMBLY 3M ADAPTER —ITEM 12: UNIVERSAL FITTING MALE (DYED RED) RPB ADAPTER -MILLER ADAPTER -3M ADAPTER — **FACE SHIELD 1:1 ARTWORK** MILLER ADAPTER (DYED BLUE) ITEM 2: BACK OF HEAD ELASTIC (20"LONG, INCLUDING 4" OF FITTING SUPPORT PROTRUDING OUT REAR OF HOOD) RPB ADAPTER (DYED GREEN) ITEM 3: CROWN ELASTIC (13.5"LONG)

ITEM 4: SHOCK CORD (36"LONG)

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	MATERIAL	TOTAL YIELD
1	1	FACE SHIELD	0.015" THICK PET OR PETG WITH ANTI-FOG COATING	N/A
2	1	BACK OF HEAD ELASTIC	1" WIDE, BLACK, NON-LATEX ELASTIC, 140% ELONGATION OR GREATER	33 1/2" FOR ITEMS 2 & 3
3	1	CROWN ELASTIC	SEE ITEM 2	-
4	1	SHOCK CORD	1/8" DIAMETER GENERAL PURPOSE SHOCK CORD, BLACK	36"
5	1	CORD LOCK	SPRING-LOADED SHOCK CORD TOGGLE LOCK - WWW.APLUSPRODUCTS.NET - P/N WH-DCL-2 BK	N/A
	1	HOOD	WHITE MG100 BARRIER FABRIC OR EQUIVALENT (BASE TYPE: SATURATE NON-WOVEN WITH TPU	
6			LAMINATE, FILM TYPE: POLYURETHANE FILM)	1.7 SQ YDS FOR ITEMS 6-11
7	2	FITTING FACING	SEE ITEM 6	-
8	1	SHOCK CORD CASING	SEE ITEM 6	-
9	1	MANTLE FRONT	SEE ITEM 6	-
10	2	MANTLE SIDE	SEE ITEM 6	-
11	1	BROW STRAP	SEE ITEM 6	-
12	1	UNIVERSAL FITTING MALE	SMOOTHED LASER SINTERED NYLON - WHITE	N/A
13	1	UNIVERSAL FITTING COLLAR	SMOOTHED LASER SINTERED NYLON - WHITE	N/A
14	1	ADAPTER TO YOUR BLOWER	SMOOTHED LASER SINTERED NYLON - DYED FOR QUICK IDENTIFICATION	N/A



UNIVERSAL BADGER HOOD - REV F

SEWING AND ASSEMBLY INSTRUCTIONS

NOTES

- 1. All pieces include seam allowance of 1/4 inch minimum
- 2. All straight-stitch EXCEPT bar-tacks use zig-zag
- 3. Lens is larger than hood hole for more surface area at the top corners for affixing head strap system

SEWING

- 1. Lay out cut pieces to review
- 2. Sew MANTLE seams together
- 3. Place long length of shock cord on top of the ELASTIC CASING
- 4. Fold ELASTIC CASING in half with shock cord contained within and sew closed
- 5. Secure shock cord with toggle to prevent cord from sliding out and tie ends of cord
- 6. Pin ELASTIC CASING between MANTLE and HOOD (right-sides in, all edges aligned) and sew
- 7. Sew darts closed on HOOD to create the edge to attach the FITTING FACING
- 8. Sew the back seam closed while tacking 5" of the BACK OF HEAD ELASTIC into the back seam of the hood between the marked notches (outside loop should finish at 2.5")
- 9. Sew in the 2-ply FITTING FACINGS into the back of the hood

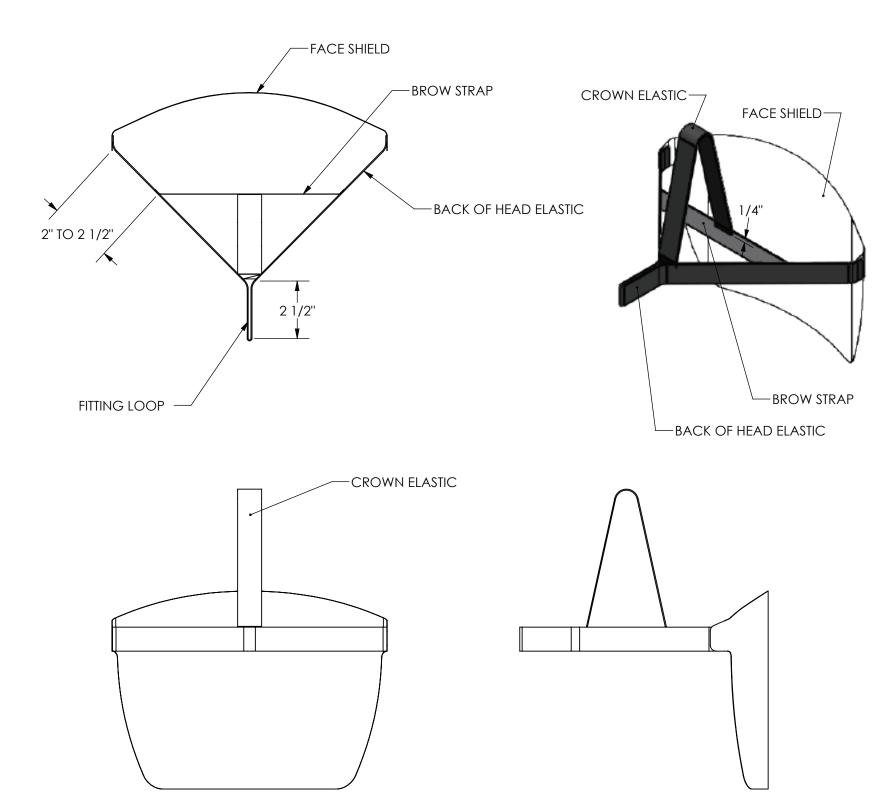
SUSPENSION SYSTEM AND FACE SHIELD

- 1. Fold the BROW BAND (wrong side out) and serge along along edge
- 2. Sew SHIELD on inside of hood by starting at top corner with 3/8" seam allowance and working your way around slowly. Use inside edge of presser foot as guide, lining up with edge of shield. Pull fabric into place as you sew along.
- 3. Bar-tack BACK OF HEAD ELASTIC to shield tabs on both sides (edges facing forward)
- 4. Bar-tack BROW BAND to sides of the BACK OF HEAD ELASTIC about 2" from the FACE SHIELD tabs with edges facing foward
- 5. Find center of BROW BAND and attach one end of the CROWN ELASTIC
- 6. Attach opposite end of CROWN ELASTIC to back of HOOD, inside the location of the 5" FITTING loop from the BACK OF HEAD ELASTIC
- 7. Dart/tuck the top of seam A under the elastic and sew down

FINAL ASSEMBLY

- 1. Insert UNIVERSAL FITTING into fitting hole from inside
- 2. Pop requested FITTING ADAPTER onto UNIVERSAL COLLAR and screw assembly from outside until tight
- 3. Stretch ELASTIC LOOP over UNIVERSAL COLLAR to help keep the fitting centered under tension from PAPR blower hose

SUSPENSION SYSTEM





UNIVERSAL BADGER HOOD - REV F

