

# Cypress Adaptive



*The Valve People™*

An Extension of Yourself

## **Aria™** Universal Mini Valve

Compact, Low Profile Auto-Expulsion Valve for Upper and Lower Limb Applications

**Part Nr./Ref: CA100-MV**





## INSTALLATION INSTRUCTIONS

The Aria Universal Mini Valve features auto-expulsion function with push button release. It can be used for a variety of suction socket applications. Its small diameter and profile make it ideal for adult, pediatric, lower limb and upper limb applications. The insert can be removed from the housing to facilitate the assessment of limb position inside the socket and pull in donning if required. The Aria Universal Mini Valve is designed for installation into all socket materials.

### INSTALLATION INTO THERMOPLASTIC MATERIALS

1. Determine desired location of valve and flatten that area of cast model using Surform tool. It is important that the molding dummy sits flush on cast model.
2. Drill a 1/8" hole for screw that will affix dummy to cast model.
3. Drill an adjacent vacuum hole approximately 1/2" away from the hole drilled for the dummy screw. The vacuum hole should extend through the bottom of the cast model to ensure a good pull under vacuum.
4. Mount the molding dummy using the screw provided, over the vacuum and screw holes. The 2 smaller holes in the dummy should be positioned north and south, following the direction that the plastic will be pulled. Once dummy is screwed securely in place, put enclosed self adhesive foam disc over the screw head.
5. Under vacuum, blister or drape mold thermoplastic material over cast. Be sure to guide plastic around all contours of the dummy to ensure good conformation of the plastic to the dummy shape.
6. Once Plastic has cooled, use a disc sander over the area of the dummy to expose the self adhesive disc so that the self adhesive disc and screw can be removed. Continue to sand with disc sander until the white face of the dummy is slightly scuffed and the plastic is flush to the face of the dummy. DO NOT OVER SAND the plastic and dummy.
7. Remove socket from cast model. Make sure sanded area is smooth an level. Insert valve housing into the socket (with "O" ring seated in groove of housing) making sure it fits securely and sits flush with the inside of the socket once in place.
8. Secure the housing in place by screwing on the metal nut. Hand tighten nut firmly.
9. Screw in the valve insert until secure.

### INSTALLATION INTO LAMINATED SOCKETS

1. Determine desired location of valve and flatten that area of cast model using Surform tool. It is important that the molding dummy sits flush on cast model.
2. Place a separation layer of fabric and the first PVA bag over the cast model.
3. Mark the location where the center hole of the molding dummy will sit and reinforce that area of the PVA bag so that it does not tear.
4. Using the screw provided, screw molding dummy down onto the cast over the PVA bag. Place self adhesive foam disc provided over the screw head.
5. Place fabric reinforcing layers and second PVA bag over the dummy and cast model.
6. Mix resin and pour resin under vacuum
7. After socket has cured, use a disc sander over the area of the dummy to expose the self adhesive disc so that the self adhesive disc and screw can be removed. Continue to sand with disc sander until the white face of the dummy is slightly scuffed and the socket material is flush to the face of the dummy. DO NOT OVER SAND.
8. Remove socket from cast model. Make sure sanded area is smooth an level. Insert valve housing into the socket (with "O" ring seated in groove of housing) making sure it fits securely and sits flush with the inside of the socket once in place.
9. Secure the housing in place by screwing on the metal nut. Hand tighten nut firmly.
10. Screw in the valve insert until secure.

### DISASSEMBLY / REASSEMBLY

#### Disassemble for thorough cleaning:

1. Remove the entire valve insert from the housing by unscrewing it using finger tips or the Aria Universal Mini Valve Insert Key (Part No. CA100-MVK).
2. Using finger tips, simply unscrew the scalloped valve cap from the insert body to reveal spring, rubber diaphragm and vent spool.
3. Once disassembled, there should be 5 separate pieces of the insert (Scalloped Valve cap, spring, rubber diaphragm, vent spool assembly and threaded base of the valve insert).
4. Clean parts with gentle soap and warm water and/or used compressed air to remove debris. Dry parts thoroughly before reassembling.

#### To Reassemble:

1. Take threaded base of valve insert and drop vent spool into center circular depression.
2. Drop in rubber diaphragm with plastic side up
3. Center spring over diaphragm
4. Screw on scalloped cap in a clockwise direction, slightly compressing the spring until cap is secure. Hand tighten cap only.
5. Screw entire valve insert into valve housing.



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Rev: 202108-AMV-ENG