**Standard Operating Procedure: Toothbrush Holder Assembly**

**1. Purpose** This Standard Operating Procedure (SOP) outlines the systematic process for assembling the Model P-650-WTH-BKM Toothbrush Holder. Adherence to this SOP ensures consistent product quality, safety, and efficiency in the assembly process.

**2. Scope** This SOP applies to all assembly personnel involved in the manufacturing of the Model P-650-WTH-BKM Toothbrush Holder at this facility.

**3. Responsibilities**

* **Assembly Personnel:** Responsible for understanding and strictly following this SOP during the assembly process. Responsible for maintaining a clean workspace and reporting any tool/material issues to the supervisor.
* **Supervisor:** Responsible for ensuring that all assembly personnel are trained on this SOP, have access to the necessary materials and tools, and comply with the procedures outlined. Responsible for quality control checks and addressing any deviations from the SOP.

**4. Materials Required**

* 1/2" Flange (1)
* 1/2" 90-degree Elbow (1)
* 1/2" 3" NIP (Pipe Nipple) (1)
* 1/2" Bushing (1)
* Toothbrush Holder Tray (1)
* Liquid Pipe Thread Sealant / Glue

**5. Tools & Equipment Required**

* Glue applicator (if glue is not self-applying)
* Work Gloves
* Safety Glasses

**6. Safety Precautions**

* Always wear safety glasses during the assembly process to protect eyes from potential debris or glue splashes.
* Wear work gloves as indicated to protect hands, especially when handling components and applying glue.
* Ensure adequate ventilation in the workspace when using glue/sealant.
* Read and understand the Material Safety Data Sheet (MSDS) for the glue/sealant used.
* Keep the work area clean and free of clutter to prevent accidents.

**7. Procedure**

| **Step #** | **Title** | **Description** |
| --- | --- | --- |
| 1 | Unpack components | Carefully unpack all components from the box. Verify the presence of: 1/2" flange, 1/2" 90-degree elbow, 1/2" 3" NIP, 1/2" bushing, and a toothbrush holder tray. Lay them out on a clean work surface. |
| 2 | Apply glue to flange | Pick up the 1/2" flange and the glue. Apply a small, even amount of glue to the inner threaded rim of the 1/2" flange where the 3" NIP pipe will be inserted. Ensure the glue is evenly distributed around the threads. |
| 3 | Insert pipe into flange | Take the 1/2" 3" NIP pipe. Firmly insert and screw one end of the NIP pipe into the glued flange. Twist slightly as you insert to ensure a secure, tight, and even fit. |
| 4 | Apply glue to elbow | Pick up the 1/2" 90-degree elbow. Apply glue to the inner threaded rim of the elbow on the side that will connect to the free end of the 3" NIP pipe. |
| 5 | Attach elbow to pipe | Attach the glued 1/2" elbow joint to the free end of the 3" NIP (which is already connected to the flange). Twist slightly as you screw it on to ensure a snug and secure fit. The assembly should now be Flange-NIP-Elbow. |
| 6 | Put on gloves | Put on work gloves to protect hands during the subsequent assembly steps involving the bushing and tray. |
| 7 | Prepare bushing & apply glue for tray | 7a. Take the 1/2" 90-degree elbow (now part of the main assembly). Apply glue to the inner threads of its open end. Securely screw the 1/2" bushing into this glued end of the elbow.  7b. With the bushing now attached to the elbow, apply a small amount of glue to the exposed outer threads of the 1/2" bushing where the toothbrush holder tray will be attached. |
| 8 | Attach tray to elbow assembly | Take the toothbrush holder tray. Align it with the glued 1/2" bushing (which is connected to the elbow). Firmly press the tray onto the glued bushing, ensuring it is level, properly aligned, and securely seated. Wipe off any excess glue. |

**8. Quality Control Checks**

* Ensure all threaded connections are tight and secure.
* Verify that the toothbrush holder tray is level and firmly attached.
* Check for any excess glue and clean if necessary, ensuring a neat finish.
* Confirm all components are used as per the materials list.

**9. Documentation**

* Record the completion of each assembled unit as per facility-specific tracking procedures.
* Report any rejected units or assembly issues to the supervisor, noting the reason for rejection.

**10. Revision History**

| **Version** | **Date** | **Author** | **Changes Made** |
| --- | --- | --- | --- |
| 1.0 | 2023-10-27 | AI Assistant | Initial Document Creation |
| 1.1 | (Date) | (Name) | (Details of changes if any future revisions) |