HOW CAN AST PRODUCE THE LARGEST DIAMETER COPVS ON THE MARKET?

1. **Manufacture Tubes to Create the Liner**
   - Roll forged blanks from extruded tubes in a single pass.
   - Diameters up to 36 inches are possible.

2. **Build the liner**
   - Spin the inner and outer diameters into a seamless liner.

3. **Spinning the Liner**
   - Spin the inner and outer diameters into a seamless liner.

4. **Heat treat the liner**
   - Spin the inner and outer diameters into a seamless liner.

5. **Machine the Neck**
   - Machine the neck and threads needed for valve and cylinder installation.

6. **Wrap the Liner**
   - Wrap the finished liner in a carbon fiber/resin composite and cure the resin.

7. **Testing**
   - Test the liner to ensure it meets all specifications before shipment.

**Benefits of this process include:**
- Larger diameters than most flowforming facilities
- Ability to make the exact, custom diameter per customer needs
- Not constrained by availability and size of extruded tubes

**Type 3 COPVs use 6061 aluminum liners in most cases, because they are:**
- An easy alloy to forge and flowform
- Do a great job of containing gases
- Very well suited to space applications such as helium storage, for example.