

2.03 OPERATOR EXTENSION SHAFT

- A. Operator extension shafts shall be designed and furnished by the valve manufacturer and shall each be complete with coupling, standard AWWA 2-inch square operating nut with skirt, shear pins and centering-identification plate, for connection to the valve operator (or input) shaft as specified herein below.
- B. All operator components between the operating nut and the adjustable stops shall be designed to withstand, without damage, an input torque of 300 ft.lbs. The extension shaft shall be a one-piece shaft and shall be furnished with an AWWA 2-inch square operating nut with skirt, mounted and pinned to the top of the shaft. A coupling shall be provided for the bottom of the shaft to connect the extension to the valve operator (or input) shaft. The coupling will be connected to the extension shaft after the exact required length of the shaft has been determined by the field measurement during the valve installation.
- C. The coupling shall be designed for welding to the extension shaft, and mounting and pinning to the valve operator (or input) shaft. The pin through the coupling and valve operator (or input) shaft shall be of a larger diameter than the pin through the top nut and extension shaft, so that if torques exceed the designed limits, the pin through the nut will shear first. The extension shaft shall also be equipped with a combination centering-identification plate as specified below.
- D. Valves 30-inches and larger shall be installed complete with manholes. No extension shafts are required.

2.04 TORQUE LIMITING DEVICE

Each valve shall be provided with a torque limiting device designed to protect the actuator and valve parts. The device shall consist of an overtorque protection mechanism enclosed in a hermetically sealed cast iron housing. The mechanism shall be permanently lubricated and factory set to trip between 200 and 220 ft.lbs. of applied torque. The housing shall have integrally cast, 2-inch AWWA operating nut and matching socket to operate and to fit over the actuator or extension shaft nuts, respectively. The socket shall be provided with a set screw to fit the device. The direction of rotation shall be permanently shown with word and arrow next to the operating nut. The entire device shall be coated inside and out with a 2-part epoxy. The torque limiting device shall be as manufactured by Annspace Controls Company of St. Louis, Missouri, or approved equal.

2.05 (NOT USED)

2.06 FINISHES

- A. Interior Coating
 - 1. The interior coating of the valve bodies shall be a two-part epoxy specially formulated for potable water service and applied according to the coating manufacturer's recommendations.
 - 2. All interior coating products must meet the approval of the United States Environmental Protection Agency for contact with potable water. The coating shall conform to ANSI/AWWA C550-90, "Protective Epoxy Interior Coatings for Valves and Hydrants",