

Proper Transportation of Flexible Endoscopes

Mary Ann Drosnock, MS, CIC, CFER, RM (NRCM), FAPIC

Transportation of flexible endoscopes should occur using a closed container to avoid environmental contamination and to prevent potential spills and exposure of biohazardous material to patients and staff.

According to AAMI ST91, the endoscope should be isolated and transported with its components in a closed system to the reprocessing area. OSHA regulations stipulate that the container should meet the requirements for transporting hazardous items. Therefore, the container should be puncture resistant, labelled biohazardous, and have leak proof sides and bottom. The endoscope should be laid in the basin by allowing it to naturally coil in large loops. AORN Endoscope Reprocessing Guidelines #IV states that the endoscope should be transported in a closed container meeting those characteristics mentioned above. The Healthmark 20" Round Endo Bin allows flexible endoscopes to be safely coiled for transportation.

Per Olympus IFU, it is recommended to not coil the scope in a diameter of less than 12cm. This equates to 4.72 inches. For colonoscopes, gastroscopes, duodenoscopes, bronchoscopes, ultrasound scopes, enteroscopes, and dual channel scopes, the recommendations is the same. For general use and transport and in order to prevent damage, do not coil the insertion tube or the universal cord of the endoscope with a diameter less than 12 cm (4.72 inches). The endoscope can be damaged if coiled too tightly. This diameter recommendation applies to general use and especially for transportation. For ultrasound scopes, although the diameter of 12cm is still recommended, there is an additional caveat that the ultrasonic image may not be normal if it has been coiled too tightly.

There is a separate recommendation for coiling diameter for when the endoscope is being reprocessed. This is the larger diameter that is commonly referenced and known. For reprocessing and especially brushing of the endoscopes, the IFUs reference the minimum size of the sink so that the scope can coil in a large enough diameter to allow for proper brushing that won't damage the scope. Per those IFUs, the recommendation for the sink/basin for brushing during reprocessing is: 40 (W) x 40 (H) x 25 (D) cm or more), which equates to ~15.7 x 15.7 x 10 inches. The IFUs state to not coil the insertion section or the universal cord in a diameter of less than 40 cm. If the diameter is less than 40 cm, then it may be difficult to pass the brush through the channels. This is also the general recommendation for diameter to perform leak testing, manual cleaning, rinsing and disinfection steps.

Therefore, transportation of the endoscope in the Healthmark Round 20 inch Endo bin #2220 is acceptable for transportation of all of these types of scopes, since the diameter in which it should coil is greater than 12cm (4.72 inches). For brushing the scopes during reprocessing, the diameter of scope in the basin should be at least 40cm (15.75 inches). Since, the Round Endo bin has a diameter of 20 inches, this meets those specifications outlined by the endoscope manufacturer.

-  Minimum diameter required for coiling
-  Diameter of 2220 Healthmark Endo Bin
-  Minimum diameter required for brushing



2220 Endo Bin



SST Liner/Coiled Scope



Biohazard Transport

References:

1. ANSI/AAMI ST91:2015, "Flexible and semi-rigid endoscope processing in health care facilities."
2. AORN GUIDELINE FOR PROCESSING FLEXIBLE ENDOSCOPES, Revised February 2016 for publication in Guidelines for Perioperative Practice, 2016 edition.
3. Olympus Endoscope Reprocessing Manuals: referenced on 2/17/2017 online