


DEVICE NAME	MANUF.	YEARS ON MARKET	ONB 510(K) CLEARANCE	DIFFERENTIATION	PROS	NEEDLE-FREE VS. NEEDLE-SAFE	CONNECTION MECHANISM
OnGuard® 	B. Braun	12	Yes	Every component creates an audible "click" sound when attached correctly.	Can use with any standard Luer-lock syringe.	Needle-safe (needle within system).	Click-to-lock
PhaSeal® 	BD	20	Yes	First CSTD cleared under ONB product code. First completely sealed drug delivery system. Mechanically prohibits the escape of hazardous drug, vapor, or aerosols. Ensures leakproof drug transfer thanks to elastomeric, double membranes; has a sealed expansion chamber that captures and retains hazardous drugs.	Published worldwide. Meets both the NIOSH and ISOPP definitions of a CSTD. Leakproof and airtight. Can use with any standard Luer-lock syringe. Helps improve turnaround time of hazardous drug preparation and has integrated sets.	Needle-safe (needle within system and vial spike).	Push-turn-push
Texium® 	BD	13	No	For Alaris™ pump customers, the Texium system components can be integrated into the administration sets to aid in workflow and prevent accidental disconnections to the infusion line.	Utilizes mechanical valve technology to protect healthcare workers and patients. It features a needle-free Luer-lock connection on all vial adapters, the option for bonded syringes and the SmartSite™ needle-free connector for nursing. When paired with SmartSite™, they provide a leak-free, drip-free connection and disconnection.	Needle-free	Luer-lock
Halo® 	Corvida Medical	3.5	Yes	Only CSTD without an internal or external vent, valve, or filter, which maximizes drug extraction using six simple pieces. Designed especially to protect the healthcare worker.	Up to 14 connections. Air-tight and leak-proof. Single center puncture Vial Adapter. Ergonomic design to reduce repetitive stress injuries. Secured connections.	Needle-safe	Push together, pull apart. Larger ergonomic touch points.
Equashield II® 	Equashield	9	Yes	Fully encapsulated syringe barrel serving as a pressure equalization chamber, preventing plunger rod contamination and preventing accidental removal of plunger from the back of the syringe.	Needle-safe, easy to connect (push), fully encapsulated system to prevent spills; plastic spike for device to vial.	Needle-safe (dual syringe component that pierces vial with each connection).	Red to red alignment and click-to-lock in nursing.
ChemoClave® 	ICU Medical	11	Yes	Needle-free and easy-to-use. Requires no assembly of components at the bedside and includes bonded and locking mechanisms that ensure compliance. For example the secondary administration sets incorporate the CSTD bonded to the set to create a non-removable connection to prevent accidental disconnect.	System offers vial spikes with the barrier containment and air-cleansing/vented containment and bag spikes that allow pharmacy to safely prepare hazardous drugs without priming lines.	Needle-free	Luer-lock
ChemoLock® 	ICU Medical	5	Yes	First needle-free CSTD to receive FDA clearance. A system with a wider fluid path that requires less push-pull forces than needle CSTD systems. Does not increase the risk of repetitive stress injuries.	Offers both barrier technology and air-cleansing technology. Has a single-motion click-to-lock design that requires no lining up and is easy-to-use.	Needle-free	Click-to-lock, that requires no lining up.
Arisure® 	Yukon Medical	1	No	Features an intravenous dry spike that helps provide closed access to an IV bag for addition and removal of a drug or solution. No need to inject air into the vial.	Uses a physical barrier for containment. Low attachment force eases strain during vial insertion. High flow rate allows for easy drug extraction.	Needle-free	Luer-lock