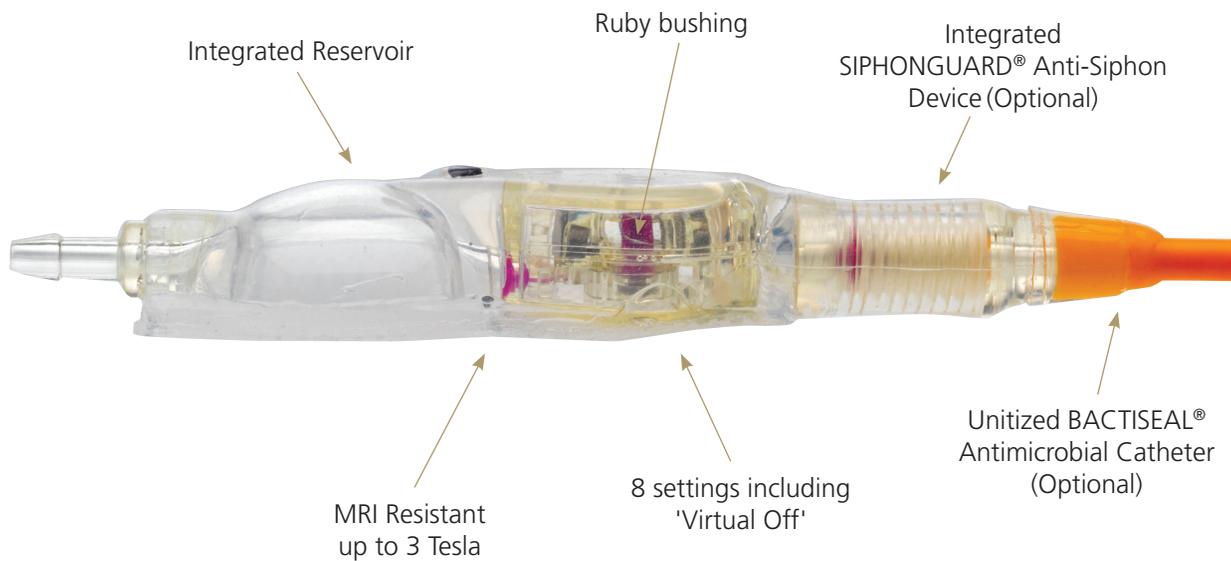


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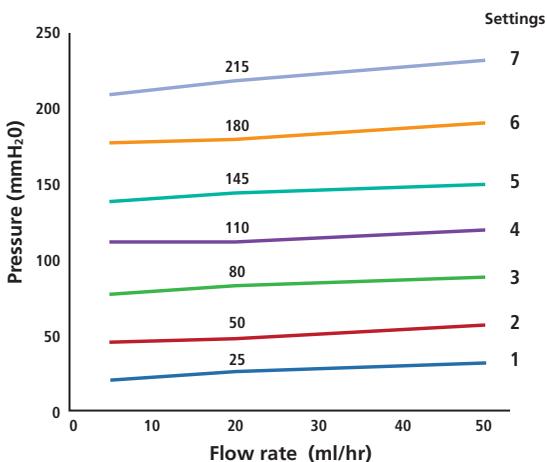
CODMAN CERTAS® Plus Programmable Valve

A flexible solution for patients
with hydrocephalus.



8 Settings including 'Virtual Off'

- 'Virtual Off' setting (Performance Setting 8)
- Other 7 discrete Performance Settings cover a broad range of operating pressures to optimize the shunt performance to meet the needs of the hydrocephalus patient



MRI Resistant

- The valve is designed to withstand unintended pressure setting changes due to external magnetic influences, including MRI up to 3 Tesla¹

Available with integrated SIPHONGUARD® Anti-Siphon Device and/or Unitized BACTISEAL® Antimicrobial Catheters

- SIPHONGUARD® Anti-Siphon Device reduces the risk of siphoning and is position independent, allowing maximum treatment flexibility for the patient².
- BACTISEAL® Catheters have been shown in laboratory studies to reduce the colonization of gram-positive bacteria on all catheter surfaces for 28 days³.



REFERENCES

1. The clinician should confirm the valve setting after a magnetic resonance imaging (MRI) procedure
2. Using the Codman HAKIM Programmable Valve with SiphonGuard Hashimoto, Mukai and Tsukada. *The Neurosurgery Bulletin*, Sept. 2004
3. Bayston R, Ashraf W, Bhundia C. Mode of action of an antimicrobial biomaterial for use in hydrocephalus shunts. *J. Antimicrobial Chemotherapy*. 2004; 53:778-782.

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CODMAN CERTAS®
Tool Kit

CODMAN CERTAS® Tool Kit

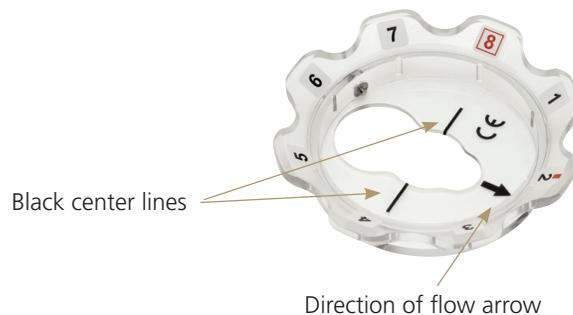
A versatile Tool Kit to verify and adjust the CODMAN CERTAS® Plus Programmable Valve.

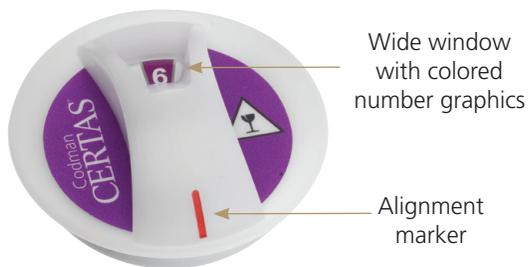
2 Locator Tools

The **Adjustable Height Locator Tool** provides freedom to select the optimal height so that the skin is just below the valve cut-out. This allows the Indicator and Adjustment Tools to sit as closely to the valve mechanism as possible without touching the skin, facilitating correct indication and adjustment. This Locator Tool is also used to program the valve in the package.



The **Low Profile Locator Tool** is for use when tissue thickness above the valve is greater than 10mm or when edema is present. This tool has a flat bottom so it can sit flush against the skin.





Wide window with colored number graphics
Alignment marker

Indicator Tool

Provides rapid reading of the valve's performance setting. The position of the number in the window helps confirm that the tools are properly aligned with the valve.

Adjustment Tool

Changes the valve's performance setting. It provides an audible click and tactile response as you turn to each setting. It also features a safety stop between settings 1 and 8.



X-Ray Overlay Tool

Use this tool when viewing the x-ray film or screen to confirm the valve setting.



Please refer to the instructions for use (in pocket of carrying case) for step-by-step instructions of pre- and post-implantation procedures for indicating and programming the CODMAN CERTAS® Plus Programmable Valve.



IFU enclosed in rear pocket

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SIPHONGUARD® Anti-Siphon Device

SIPHONGUARD® Anti-Siphon Device

Providing the added safety of a pathway that remains open

- The only dual pathway, ball-and-spring anti-siphon device
- During normal flow of CSF, both the primary and secondary pathways are open
- The primary pathway closes when excessive flow is detected, while the secondary pathway remains open to decrease the drainage rate

Preventing exposure to the failures caused by encapsulation

- The rigid, polyethersulfone shell allows the SIPHONGUARD® Anti-Siphon Device to be impervious to conditions that routinely cause silicone diaphragm device failure¹
- Its flow-sensing performance and durability are unaffected by scar tissue encapsulation or external pressures¹
- Not location dependent, SIPHONGUARD Anti-Siphon Device may be placed in any orientation or location distal to any valve²

SIPHONGUARD®
Anti-Siphon Device

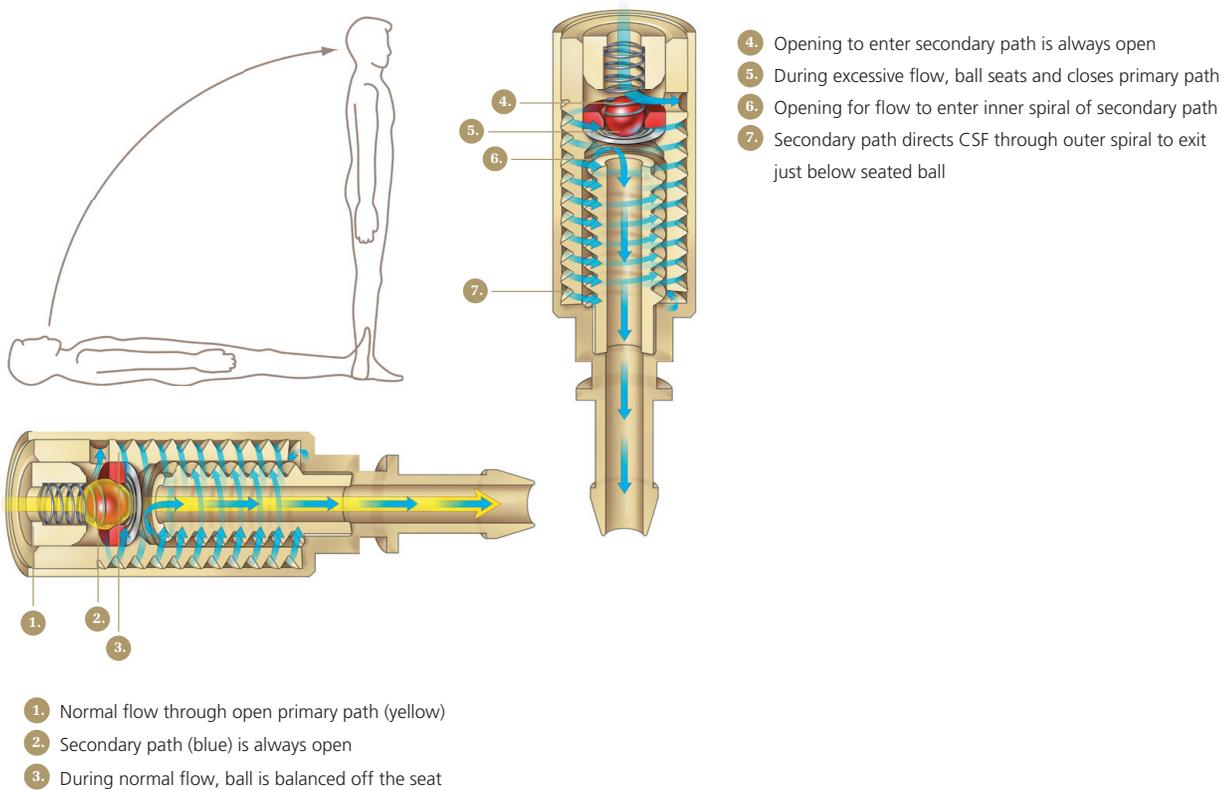


Consistency and durability with a clinically proven mechanical design

- SIPHONGUARD Anti-Siphon Device is designed to be unaffected by encapsulation, external pressure or deteriorating pliability¹
- Its protected ball-and-spring design remains sensitive to differences between normal and excessive CSF flow¹

Available in an integrated or stand-alone configuration

- Available as an integral component of the CODMAN CERTAS® Plus Programmable Valve
- The standalone device can be placed anywhere distal to any valve, while maintaining all the safety, mechanical and durability design advantages



REFERENCES

1. IKurtom K, Magram G. Siphon Regulatory Devices: Their Role in the Treatment of Hydrocephalus. *Neurosurg Focus.* 2007; 22(4):E5.
2. Using the Codman HAKIM Programmable Valve with SiphonGuard Hashimoto, Mukai and Tsukada. *The Neurosurgery Bulletin*, Sept. 2004

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CODMAN CERTAS® Plus Programmable Valve with unitized BACTISEAL® Antimicrobial Catheter

Combines the ease of using a unitized catheter, with the antimicrobial properties of the BACTISEAL Antibiotic Impregnated Silicone Matrix.

Clinically proven impregnated antimicrobial shunt catheter system

- Protects your patients from gram-positive bacteria on all catheter surfaces¹
- May reduce the average total treatment costs per patient²

Creates

an effective barrier in reducing gram-positive bacterial colonization on all catheter surfaces¹

Eliminates

100% (total time to kill¹) of all adhered bacteria in < 52 hours

Protects

for up to 28 days with two, slow-release antibiotics, Rifampin and Clindamycin¹



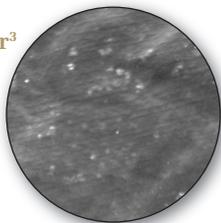
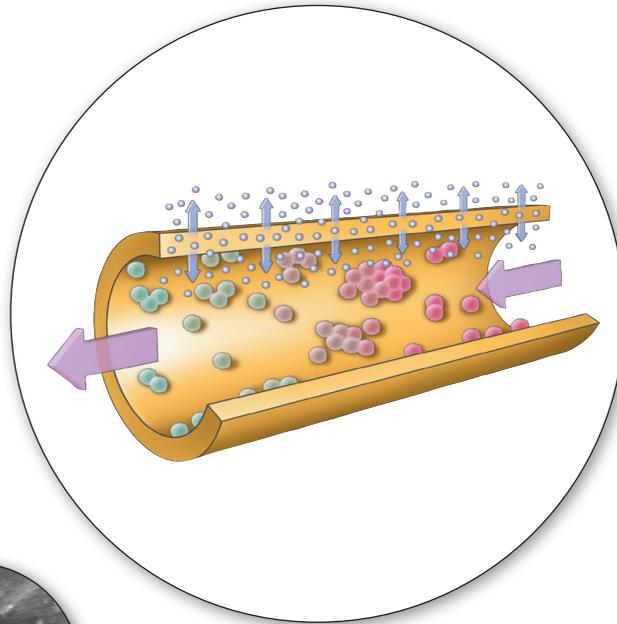
BACTISEAL® Antimicrobial Catheters. An effective added precaution in the battle against shunt bacterial colonization.

BACTISEAL Catheters: Confidence by Design

- Creates an effective barrier to gram-positive bacterial colonization on all catheter surfaces¹
- Maintains the critical first month shunt implant vigil with two, slow-release antibiotics¹
- Reduces the potential for gram-positive bacteria colonization both in the catheter lumen and on its outer surface¹



Control catheter³
Coagulase-negative staphylococci on the surface of the lumen of an untreated control catheter in the in vitro model.



BACTISEAL Catheter³
Lumen surface of a BACTISEAL Catheter following two 14-day challenges in the in vitro model. No live bacteria are observed.

The BACTISEAL Catheter Pledge:

When you purchase a CODMAN CERTAS® Plus Programmable Valve with a BACTISEAL® Antimicrobial Impregnated Catheter System and any part of the system requires revision, for any reason within one year of purchase, Codman Neuro will replace those components free of charge.

REFERENCES

1. Bayston R, Ashraf W, Bhundia C. Mode of action of an antimicrobial biomaterial for use in hydrocephalus shunts. *J. Antimicrobial Chemotherapy*. 2004; 53:778-782.
2. Parker et al. Cerebrospinal shunt infection in patients receiving antibiotic-impregnated versus standard shunts. *Journal of Neurosurgery: Pediatrics / Vol. 8, No.3: 259-265 / Sept. 2011*
3. Codman in house testing reports, TR2213 and PVER99-133 Addendum.

For product information, please contact your Codman Sales Representative.

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