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	Comparison of the sensitivity of the three GKE Bowie-Dick-Simulation (BDS) Tests	Created	01.01.2002	UK
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GKE produces three different Bowie-Dick-Simulation (BDS) Tests for monitoring of steam sterilization processes.

1. European BDS-Test

GKE Steri-Record® Bowie-Dick-Simulation test purple (art. no. 211-121, C-S-BDS-EU-RCPCD)

This BDS test is validated according to the European Bowie-Dick cotton pack of 7 kg according EN 285 using the test method according to EN ISO 11140-4. This BDS test corresponds to the European cotton pack in terms of its sensitivity, but differs because porous goods, like textile packs. They have a simpler air removal characteristic than hollow devices. Further details can be found in our publication ^[1]. The title of this test method according to EN ISO 11140-4 is called 'Steam Penetration Test'.

2. American BDS-Test

GKE Steri-Record® Bowie-Dick-Simulation test light-blue (art. no. 211-131, C-S-BDS-USA-RCPCD)

This Bowie-Dick-Simulation test has been validated according to the US AAMI 4 kg cotton pack, which has much lower penetration requirements than the European pack. The associated test method is described in ISO 11140-5 and is called 'Air Removal Test'.

3. European BDS-Test combined with the Helix-Test

GKE Steri-Record® Bowie-Dick-Simulation test blue (art. no. 211-151, C-S-BDS-EUH-RCPCD)

Since the amended European standard EN 285 requires the use of the Helix-Test according to EN ISO 11140-6 as a type test in addition to the 7 kg BD cotton pack, in order to secure the sterilisation of hollow devices, GKE provides a combination PCD. It secures that porous and hollow instruments can be safely sterilized and has higher requirements for air removal and steam penetration than the simple porous test with the 7 kg cotton pack.

For sterilisers that comply with the European standard EN 285, the BDS test (3) should be used, which requires much more higher air removal requirements than the US test, which has to be used for sterilizers according to US standards.

[1] „Air removal from Porous and Hollow Goods using Different Steam Sterilisation Processes“ from J. Gömann, U. Kaiser und R. Menzel, in: Zentralsterilisation 2001; 9 (3), 177-186