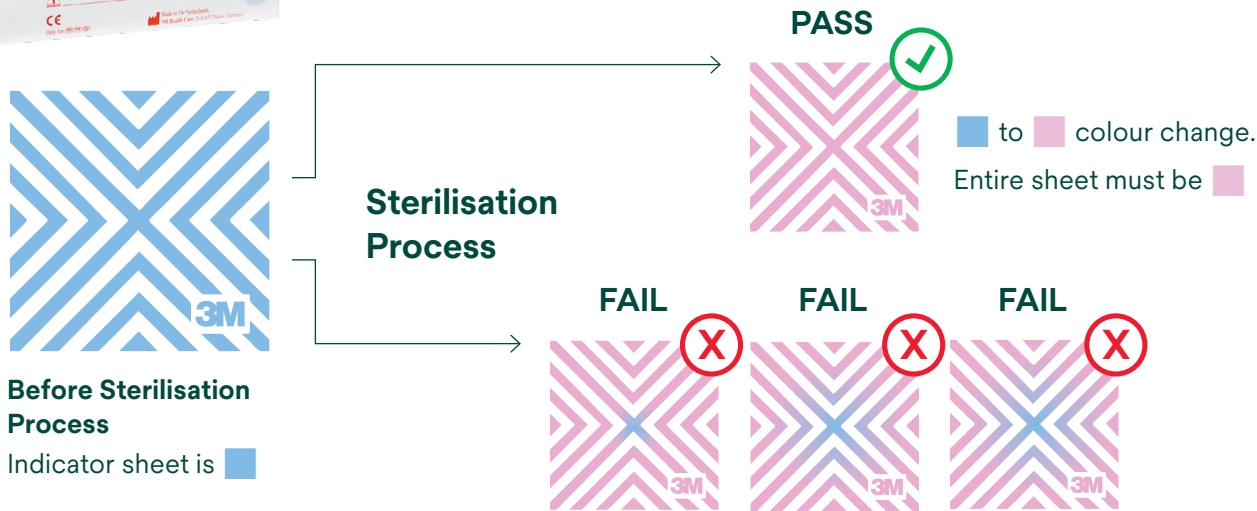


3M™ Comply™ Bowie-Dick Test Reference Chart

1301 Version



AS5369:2023 Standard States (8.7.4): A daily air removal and steam penetration test (e.g. Bowie and Dick type test) shall be performed on steam sterilisers that utilise a vacuum for air removal in the pre-sterilisation stage of the process cycle.



Any evidence of blue colour on the indicator sheet means Bowie Dick Test Failure

Most Common Possible Reasons for Bowie Dick Test Failures	
NCGs (Non Condensible Gas)	<div>1. The source of NCGs is usually at the point of steam generation.</div> <div>2. If the content of NCG in the steam is large enough it will cause Bowie Dick Test Failures. (EN 285:1996 limit=3.5%v/v).</div> <div>3. Softened water from water of high natural hardness contain high levels of bicarbonate which degrades to carbon dioxide (an NCG) on heating.</div> <div>4. Cold water contains high levels of dissolved atmospheric gasses (O2/N2). These gases are driven off into the steam when heated in the boiler.</div>
Leak	<div>Cause:</div> <div>1. A leak in the sensor ports attached to the chamber or chamber door seal due to wear or damage.</div> <div>2. A high pressure leak from a pneumatic valve into the steam supply to the chamber (see also NCG's).</div> <div>3. A venturi leak through pipework where steam is passing at high velocity.</div>
Inadequate Vacuum	<div>Cause:</div> <div>1. A faulty vacuum pump.</div> <div>2. The water supply temperature to the vacuum pump is too high preventing a good vacuum in the chamber.</div> <div>3. A faulty pressure switch/sensor giving an incorrect reading.</div>
Unused Sheet	<div>Cause:</div> <div>1. The test pack has not been exposed to a steam sterilisation process.</div> <div>2. The test pack has not been exposed to a satisfactory time temperature process (e.g. 134°C/3.5 min).</div>

