

**GENERAL DESCRIPTION**

The Dart test consists of a clear plastic enclosure which contains insulator material and a paper strip printed on one side with six bars of chemical indicator ink. The enclosure has a hole in one end to allow air removal and steam penetration.

The Dart test is functionally equivalent to the Bowie-Dick type test recommended by the Association for the Advancement of Medical Instrumentation (AAMI) in determining the air removing efficiency of prevacuum steam sterilizers. The Dart test also conforms to European Standard EN 867-4.

**APPLICATION**

Dart Daily Air Removal Test is a pre-assembled test to evaluate the effectiveness of air removal from the sterilizer chamber during a prevacuum steam sterilizer cycle. The Dart test is designed for use in a 132-134°C (270-274°F) prevacuum cycle with an exposure time of 3-1/2 to 4 minutes. Following a prevacuum cycle, the chemical bars of the Dart indicator strip change to a uniform black color, indicating that residual air has been sufficiently removed from the Dart test to allow complete steam penetration. If air is trapped in the Dart test during the exposure phase of the cycle, all of the chemical bars on the Dart indicator strip are not uniformly black. Thus, the Dart test can provide an immediate indication of inadequate removal of air during a steam sterilization cycle. The Dart indicator strip may be easily removed from the Dart enclosure. The indicator strip may be labeled and kept as a permanent record after the cycle.

**FEATURES**

- Dart test functions as an AAMI Bowie-Dick type test
- Dart test is preassembled
- Dart test is lightweight and compact
- Cycle information can be recorded on the back of the indicator strip
- Dart indicator strip is retained as a permanent record after the cycle
- Dart record forms are included in each box
- Lot number is printed on each Dart test and Dart storage box

**BENEFITS**

- A non-uniform color change provides an immediate indication of inadequate air removal from the sterilizer chamber during the cycle
- Consistent quality is maintained, and no material or labor resources are required to prepare the test device at the point of use
- Eliminates the need for bulky towels and wrappers
- Facilitates recording of the sterilizer number, date and operator
- Valuable documentation
- Dart indicator strips may be conveniently stored on the record forms
- Traceable results and valuable documentation

**TECHNICAL PROPERTIES**

|                                                 |                                                                                                              |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Dart Daily Air Removal Test                     | preassembled test device to evaluate the effectiveness of air removal from the chamber of a steam sterilizer |
| Operating parameters                            | prevacuum cycle, temperature range 132-134°C (270-273°F), and exposure time of 3-1/2 to 4 minutes            |
| Dart test dimensions                            | approximately 8 x 1-1/4" (200 x 30 mm)                                                                       |
| Dart test expiration date format (on the label) | year/month/day                                                                                               |

## DIRECTIONS FOR USE

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The Dart test should be used each day of the sterilizer use. If the sterilizer jacket has not reached its normal operating temperature, run a preliminary non-processing cycle at 132-134°C (270-274°F). Place or hang the Dart test so it is oriented as low as possible directly over the drain opening in an otherwise empty chamber. (A beaded tie is provided in the Dart dispenser box to facilitate suspension of the Dart test in the sterilizer chamber.) Operate a standard prevacuum cycle using the following parameters: exposure temperature 132°C (270°F) and exposure time 3-1/2 to 4 minutes. For best results, the exposure times should not exceed four minutes; drying times do not affect results. After the cycle, remove the Dart test from the sterilizer chamber and place the Dart indicator window on a flat surface so the tube section overhangs the edge of the surface. Vertically flex the tube portion so the window cracks at the break-away point. Remove the indicator strip from the window. Discard the empty window and tube. Dart test results are acceptable if the chemical bars on the indicator strip have changed to a uniform black color. If air was trapped in the Dart test during the exposure phase of the cycle, the color response is other than black. If some or all of the bars on the Dart indicator strip are dark brown, light brown or the original yellow, the Dart test results are unacceptable. Thus, the Dart test can provide an immediate indication of inadequate removal of air during a steam sterilization cycle. After interpreting the result, enter the date, sterilizer number and operator ID on the back of the strip and attach it to the Dart Record Form or other appropriate record. The Dart indicator strip may be kept as a permanent record after the cycle. See the instructions enclosed in the Dart test box for detailed use directions.

## STORAGE CONDITIONS

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Dart test should be stored between 2-24°C (36-75°F) and between 30-80% relative humidity (RH).

## SERVICE

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### Sales

Service is one of the most important ways to verify consistent quality of the facility's performance and operation. A tailored service program by STERIS provides effective, trouble-free operations.

### Technical

STERIS is pleased to provide a completely staffed and equipped technical service laboratory capable of performing needed tests and providing both telephone and on-site assistance when needed. More details on how this service can benefit a facility's particular situation can be provided upon request.

## ORDERING INFORMATION

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| Description                                                    | Quantity Per Box | Reorder Number |
|----------------------------------------------------------------|------------------|----------------|
| Dart Daily Air Removal Test<br>for Prevacuum Steam Sterilizers | 50               | NB113          |
| Dart Daily Air Removal Test<br>for Prevacuum Steam Sterilizers | 10               | NB215          |
| Dart Record Forms                                              | 100              | RK001          |

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### For further information, please contact:

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