In scientific procedures, nothing should be left to chance. Factors such as functionality, efficiency and cost-effectiveness in laboratories can be affected by apparently simple elements such as bottle caps and connection systems.

**DURAN®** offers a comprehensive product range of precision closure systems, starting with high-quality standard caps suitable for numerous scientific applications.

Our range also includes identification aids, special closures for sterilization processes, caps made of high performance materials for demanding applications, connection systems, security caps and transportation accessories. **DURAN®** caps and connection systems fit most DIN standard laboratory bottles made by other manufacturers.

Find out more:
www.duran-bottle-system.com
THE EVOLUTION OF THE DURAN® BOTTLE SYSTEM

Starting with the ORIGINAL in 1972, the DURAN® laboratory bottles have continued to evolve to meet the diverse needs and applications of scientists and researchers around the world. The borosilicate glass 3.3 bottles are now available in the most comprehensive range of volumes and formats.

FOR ALL YOUR NEEDS

DURAN® BOTTLE ACCESSORIES

A range of dedicated accessories that work perfectly with the DURAN® laboratory bottles. DURAN® accessories enable practical color coding, product labelling and identification. Most are reusable and long lasting just like the DURAN® bottles.

DURAN® GL 45 BOTTLE CARRYING SYSTEM

Click and Carry! Our latest innovation – a modular bottle carrying system that focuses on the safety and convenience of users in the laboratory. Find out more on page 10
SELECT THE BEST COMPONENTS FOR YOUR NEEDS

STANDARD
These reliable components are made of food-grade polypropylene (PP) and are suitable for many laboratory applications. Our screw caps and pouring rings are fully compatible with DIN GL bottle threads.

HIGH PERFORMANCE
For more demanding processing conditions, or when the product requires a higher level of protection from the environment or contamination. Ideal for demanding applications in the pharmaceutical industry.

STEAM STERILIZATION
Membrane caps are recommended when sterilizing media. These components improve the safety and ease-of-use of the laboratory bottles during autoclaving or hot-air sterilization, and protect the contents from contamination.

CONNECTION
The robust and durable DURAN® tubing connection systems allow the easy transfer of liquids under controlled conditions, reducing the risk of contamination. Connector elements are also available for probes and stirrers.

SECURITY AND TRANSPORTATION
When extra protection is required to ensure the safety of the contents and users during storage or transport. For example, by blocking ultraviolet light, ensuring contents aren’t tampered with or making transport easier and safer.

IDENTIFICATION
The accurate identification of samples and reagents is integral to the scientific process. These components provide simple color coding or labelling of laboratory bottles.
The GL 25 Multiport Connector Caps fit the smaller DURAN® bottles and are ideal for adding or sampling liquids. Constructed from food contact safe materials.
## NECK SIZE

### GL 45

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>HIGH PERFORMANCE</th>
<th>STEAM STERILIZATION</th>
<th>CONNECTION</th>
<th>SECURITY AND TRANSPORTATION</th>
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</thead>
<tbody>
<tr>
<td>Original GL Screw Cap&lt;br&gt;Blue, PP, Linerless</td>
<td>Original Pouring Ring&lt;br&gt;Blue, PP</td>
<td>YOUTILITY® Screw Cap&lt;br&gt;Cyan, PP, Linerless</td>
<td>YOUTILITY® Pouring Ring&lt;br&gt;Cyan, PP</td>
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<tr>
<td>High Temperature Screw Cap&lt;br&gt;Red, PBT, Cap liner</td>
<td>Pouring Ring&lt;br&gt;Red, ETFE</td>
<td>Aperture Screw Cap&lt;br&gt;Red, PBT</td>
<td>Premium Cap&lt;br&gt;Colorless, PFA, Cap liner</td>
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<tr>
<td>Screw Cap Membrane Vented&lt;br&gt;Blue, PP</td>
<td>YOUTILITY® Screw Cap Membrane Vented&lt;br&gt;Cyan, PP</td>
<td>Multiport Connector Cap&lt;br&gt;1-port, Stainless Steel</td>
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<tr>
<td>Multiport Connector Cap&lt;br&gt;2- or 3-ports, Stainless Steel</td>
<td>Multiport Connector Cap&lt;br&gt;4-ports, Stainless Steel</td>
<td>Screw Cap&lt;br&gt;2 Hose Connectors&lt;br&gt;Blue, PP</td>
<td>Multiport Connector Cap&lt;br&gt;2- or 3-ports, Blue, PP</td>
<td>Multiport Connector Cap&lt;br&gt;HPLC 3-port&lt;br&gt;Blue, PTFE</td>
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<tr>
<td>Tamper Evident Screw Caps&lt;br&gt;Yellow or Red, PP, Linerless or Cap liner</td>
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</tbody>
</table>

**DURAN® GL 45 BOTTLE CARRYING SYSTEM**

Find out more on page 10

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**PP = Polypropylene  PBT = Polybutylene terephthalate  ETFE = Ethylene-tetrafluoroethylene copolymer  PTFE = Polytetrafluoroethylene  PFA = Perfluoroalkoxy polymers  PS = Polyester**
The DURAN® bromobutyl rubber stopper provides a gas tight seal for all GL 45 laboratory bottles. Bromobutyl rubber is essentially impermeable to most gases, and provides a controlled environment inside the glass bottle for oxygen sensitive materials.

<table>
<thead>
<tr>
<th>Product</th>
<th>Material/Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium Pouring Ring</td>
<td>Colorless, PFA</td>
</tr>
<tr>
<td>PURE Premium Screw Cap</td>
<td>Colorless, PFA, Cap liner</td>
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<tr>
<td>PURE Premium Lip Seal Cap</td>
<td>Colorless, PFA, Linerless</td>
</tr>
<tr>
<td>Stopper</td>
<td>Grey, Bromobutyl rubber</td>
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<tr>
<td>Septum</td>
<td>Colorless, PTFE coated Silicone</td>
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<tr>
<td>Multiport Connector Cap</td>
<td>HPLC 4-port</td>
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<tr>
<td>Screw Cap for pH Sensor</td>
<td>Red, PBT</td>
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<tr>
<td>Replacement Cap Liner</td>
<td>PTFE coated Silicone</td>
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<tr>
<td>Septum</td>
<td>Colorless, Silicone</td>
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<tr>
<td>Stirred Reactor</td>
<td></td>
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<tr>
<td>Screw Cap with Temperature Probe Gland</td>
<td>Blue, PP</td>
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<tr>
<td>Screw Cap with Temperature Probe Holder</td>
<td>Blue, PP</td>
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</tbody>
</table>
The DURAN® TILT silicone sleeve blocks damaging ultraviolet (UV) light, protects the glass surface from damage, and facilitates safer handling.
The DURAN® Stirred Reactor is ideal for the widest possible range of mixing processes in laboratories, e.g. mixing liquids or dissolving solids. The variable stirring shaft can be used for 500 ml, 1000 ml and 2000 ml DURAN® GSL 80® laboratory bottles and can be driven with standard magnetic stirrers.

NECK SIZE

GLS 80®

In addition to the benefits of a larger mouth, such as hassle-free filling, emptying, and cleaning, the GLS 80® caps have a special fast closing thread.
DURAN® GL 45
BOTTLE CARRYING SYSTEM

The new modular Bottle Carrying System fits standard laboratory bottles that have a GL 45 neck finish and is compatible with four bottle sizes: 2, 5, 10 and 20 litres. It is ergonomically designed, and offers health & safety benefits to the user and allows easy and safe transport of bottles around the laboratory or production facility. It makes pouring liquids from the larger bottles more comfortable and safer. All materials are fully autoclavable.

**Carrying Handle**
- Carrying handle is suitable for bare or gloved hands
- Handle strap is flexible enough to allow pouring

**GL 45 Bottle Collar**
- The collar is securely attached by pushing down over the GL 45 thread with 4 teeth that lock under transfer ring.
- The collar is only removable by cutting – so attachment is 100% secure in use
- A cut line indicator for removal of collar when required

**Tightening Strap**
- With indicator arrow
- End modified to prevent unthreading

**Pouring Handle**
- Ergonomically shaped
- Anti-slip grip

**Silicone Support Base**
- Structural support for base of larger 5, 10 and 20 litre bottles
- Protection of glass bottle base from impact during lifting or handling
- Acts as a spacer to protect glass from contact with Metal Dolly
- Moulded-in holes minimize liquid traps and allow maximum steam penetration during autoclaving

**Horizontal Straps**
- Durable stitched construction
- Made from “anti-slip” material

**Lot Specific Retrace Code**
for traceability and certification

**Optional Extra: Metal Dolly**
- Stainless steel dolly for 10 or 20 litre bottles (2 sizes only)
- Fully compatible with carrying system
- Easy to clean, crevice-free construction
- Optional handle is available for easier handling
FOR EASY AND SAFE CARRYING & POURING

Fast and secure tightening of the polypropylene straps with two side strap adjusters for the larger 5, 10 and 20 litre bottles

4 sizes available: 2 L / 5 L / 10 L / 20 L

Safe and controlled pouring using handle
- Safer pouring of liquids using a second lower “Pouring Handle” located on the side strap (Available on the 5 litre carriers only)

Easy and safe carrying using handle
- Handle attaches at the neck and fully supports the base

Find out more: www.duran-bottle-system.com