CPC makes IVD connections easier, more efficient and safer

cpcworldwide.com/IVD

Reagent bottles are used on all IVD instruments and analytical instrumentation. The bottles used vary in size and are application specific. The capacity of the bottles range from 10mL to 20L, with various bottle neck sizes and finishes.

How to Determine the Correct Cap Closure Required for Bottles

To properly seal a bottle it is important to match the cap and the neck finish of the bottle you are trying to seal. The neck finish holds the cap, stopper, or closure with protruding threads.

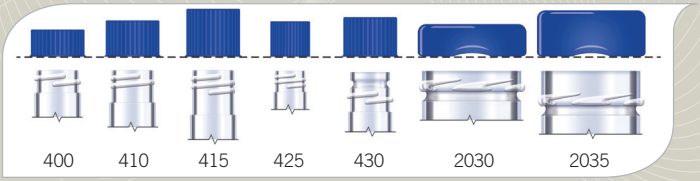
The Glass Packaging Institute (GPI) and Society of the Plastics Industry (SPI) are responsible for establishing uniform standards for glass and plastic container neck finishes. Screw thread or continuous thread closure sizes are expressed with two numbers separated by a hyphen (i.e. 24-400). The first number is the size (in mm) across the inside of the cap's opening, or the outside of the bottle threads. The second number refers to the thread style (GPI or SPI finish).

How to Determine the Cap Diameter and Bottle Neck Finish

To find a cap's diameter, either measure from one side of the inner wall to the opposite side of the cap, or the outside diameter of the outermost threads on the bottle.

Next determine how many times the threads pass each other and determine the finish based on the GPI/SPI standards (see below).

Common GPI / SPI Neck Finishes



- 400: 1 thread turn
- 410: 1.5 thread turns
- 415: 2 thread turns, tall "H" dimension
- 425: 2 thread turns, narrow threads
- 430: Buttress finish – thick threads & top bead (better seal, more application torque)
- 2030: Lug finish – non continuous threads
- 2035: Lug finish – non continuous threads, tall "H" dimension

Finding a CPC Cap Closure

Now that you know the cap size and neck finish required for your bottle type, look to see if CPC has a standard product that works with your application by visiting cpcworldwide.com/IVD. CPC offers caps for bottles with diameters; 38mm, 40mm, 45mm, and 60mm.

Adding Quick Disconnects to Your Bottle

It is easy to add many different quick disconnects to caps that you are already purchasing. Simply look for any panel-mounted quick disconnect and refer to the illustrations below:

- Determine the flow size required for the connection
- Find a panel-mounted quick disconnect product

1 Drill hole in bottle cap to match panel mount specification

2 Add sealing o-ring or gasket

3 Thread quick disconnect though hole in cap

4 Secure quick disconnect to cap using panel mount nut. Note: for some products alternate polypropylene nuts are available.

About CPC

In vitro diagnostic (IVD) instrument manufacturers around the world rely on CPC's quick disconnect couplings and fittings to quickly and securely connect and disconnect tubing used on a wide variety of equipment. Our connectors offer drip-free disconnections, are reliable even with repeated use and can prevent accidental mis-connections for greater user safety. We offer a wide range of sizes, materials and configurations, plus our unique hybrid connectors simplify equipment connections by transferring electrical signals, liquid and air in one easy step. We also custom-engineer solutions for any fluid or air handling application.

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Smart fluid handling to take you forward, faster.

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