

Operating Instructions / Handling

Before using, read carefully and store in a safe location



QC-System Container Closure Standard and Conductive Series "DT1 * DT2 * DT3"



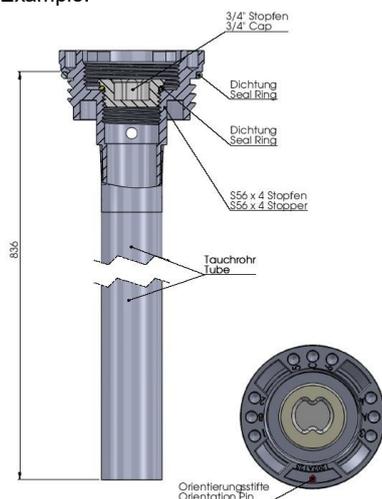
DT standard



DT conductive

The DT1, DT2 and DT3 Quick Connect container closures of the DK/RK/JK/AK/DRK/AA/PK/S series are used together with the QC-System dispense connection element to ensure the error-free filling and dispensing of liquid chemicals from containers, for example drum-shaped transport containers. The container closure is used to prevent contamination from external influences that negatively impact the purity of liquid special chemicals, such as high-purity chemicals for electronic component production. In its standard design, it is intended for the clean and safe dispensing / filling of inorganic chemicals; in its conductive version, it is intended for the clean and safe dispensing / filling of organic chemicals. The conductive version is electrostatically safe in accordance with Cenelec Technical Report TR 50404:2003 and can thus be used in zones 1 and 2 for liquids of the entire IIA explosion group.

Example:



Scope of delivery:

Container closures are welded in PE bag "free of contaminants" and delivered in an outer package made of carton.

Designations:

Label on PE bag: "article number, order number, date and number of pieces"

Document pocket in carton: Product-relevant specification document

Conditioning:

Free of contaminants.

Installation/commissioning

The container closure is inserted in a container opening that can accept a plug head in such a way that it can be replaced. Connected to the plug head is a riser tube (also referred to as a dip tube), which is mounted in the container opening and generally extends to the bottom of the container. After removing the conventional container closure, the dip tube removed from the PE bag is inserted in the open plug head of the container. The plug head of the container is equipped with an internal thread with which the external thread of the plug head can engage. With the help of an optionally available drum wrench and a torque wrench, the Quick Connect container closure is tightened with the correct torque so that it can be reliably connected to the container in a leak-proof manner. Before inserting the dip tube in the container, perform any necessary chemical or customer-specific special cleaning of the container closure. Using the coding recesses arranged around the perimeter of the plug head, a congruent dispensing connection element (dispense / filling head) shaped in the mirror image of the plug head can now be attached.



Safety precautions for dip tubes:

The maximum period of use of Quick Connect dip tubes should not exceed two years. Particularly when using with hydrogen peroxide, one year is not to be exceeded; for nitric acid and nitric acid mixtures, it is six months.

For flammable liquids, only container closures of the "CDP" version may be used. Grounding of the dip tube is to be ensured with suitable means. With respect to design type approval of packagings and IBCs for the transport of dangerous goods, please inquire with the respective manufacturer.

The filler or shipper of chemicals is responsible for safe transport. For the proper closing of containers with QC container closures, plug heads or connection elements, we recommend the tightening torques listed below. For binding torque values, contact the container manufacturer.

1.) Tightening torques for steel/plastic:

Packaging type	Steel-plastic combination
Package code UN	1A1 / 6HA1
Thread (BCS)	56x4
Tightening torques (Nm)	25 +5

2.) Tightening torques for PE tight-head drums

Packaging type	PE tight-head drums		
Package code UN	1H1		
Thread (BCS)	56x4	62x5	70x6
Tightening torques (Nm)	20 +5	30 +5	35 +5

3.) Tightening torques for composite IBCs

Packaging type	Composite IBCs		
Package code UN	31HA1 / 31HH1		
Thread (BCS)	56x4	62x5	70x6
Tightening torques (Nm)	20 +5	30 +5	35 +5



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4.) Tightening torques for dip tube closures



Maintenance:

The container closure is to be visually inspected at regular intervals - at least 1x per month - for damages and discolourations.



To check the container closure for secure seating and tightness in the container, it should be readjusted after no more than one year with a lower torque than is specified in the "Tightening torques" table. (not applicable for hydrogen peroxide and nitric acid). For this purpose, set the torque of your tool to **"20 Nm"** and perform the test. Under no circumstances may the container closure be unscrewed prior to the test if it will be used further, as the O-ring seated in the external thread of the plug head will no longer ensure reliable sealing. When unscrewing the plug head from the container, it is mandatory that the O-ring seal be replaced.

Coding:

The container closure can optionally be operated with a pin/hole coding system. To use, please refer to the list of *chemical codes*.

For chemicals not listed here, please contact the chemical manufacturer.

Technical details:

Riser tube material: PE, PP, CDP conductive

Connection thread on container:
56PP, 70PP, 70x5PE, 62PE, S64 (2" buttress), G2", KS60PE, FL150

Options:

Other threads on request.

Serial number:

Engraving on the upper edge of the plug head

Example:



Immersion depths:

Any desired length, increments in millimetres, container-specific according to example list.

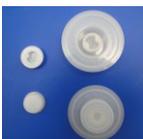
Seals:

Standard PE-LD,
Deviating from standard: FPM, POE

Security and closure systems:

For the seal on the open container closure, "sealing plugs" can be fitted in the internal thread section that reliably seal the plug head. Containers can either be provided with a conventional closure or may already be equipped with such a plug head that includes the "sealing plugs" for sealing on delivery.

Sealing plug:



S = 3/4" /
T = 42x2
closed



V = 3/4" /
W = 42x2
vented

Tamper-evident closures:



O-S-S reusable



S62 disposable
Sealing cap

The O-S-S reusable tamper-evident closure includes two seals of different colours that provide information on the condition of the container with respect to contents.

Blue = container full, closed
Red = container empty, open

The S62 disposable sealing cap can only be used with the plug head of size S62.

After pulling out the plug head, the cap can no longer be used and must be replaced if necessary.

Flexible bellows:

The riser tube that is connected to the plug head and which extends into the interior of the container is provided with a "flexible bellows section" on account of its construction. The flexible bellows ensure the required length adjustment of the distance between the container bottom and the screwed-in plug head and thereby guarantees reliable, almost complete emptying of the liquid from the container.

Flexible bellows versions:



B = flexible bellows, top

F = flexible bellows, bottom

Liability:

AS Strömungstechnik GmbH can accept no liability for errors or damages that result from improper handling of the QC container closures. Improper handling includes, in particular, failure to observe the operating instructions. Testing the chemical resistance of the dip tubes and their operational life is the responsibility of the customer. In the interest of the further development of AS products, we reserve the right to make design changes.

Accessories:

Drum wrench

For opening / closing the container closures and sealing plugs.

Order no. RDH 79003 PE (QC-2)
Order no. RDH 79005 PVDF (QC-2)
Order no. RDH 79007 PE (QC-3)

Coding control gauge

For checking the corresponding coding on the plug head

Order no. RDH 89701-02 (QC-2)
Order no. RDH 89701-03 (QC-3)