

Explosion-proof refrigeration Ready-to-ship explosion-proof CO₂ / Propane cascade refrigeration system

**Explosion-proof cascade refrigeration system
with refrigerants R744 (CO₂) and R1270
(Propylene) for use in solvent synthesis.**

When constructing explosion-proof systems, the experience of ARCTOS Industriekälte AG pays off double: not only do you save time in planning and procurement, but also additional work during the approval process.



By selecting the right materials and components, subsequent corrections to the system are avoided.

By correctly preparing application documents, time-consuming revisions of planning and documentation are saved.

Both of these measures also help avoid additional costs during the construction and operation of the system, as well as delays in the issuance of the ATEX conformity certificate and additional modification work.

ARCTOS has extensive experience in the explosion protection field and maintains close contact with certification bodies regarding this matter.

Container Refrigeration System in ATEX Design with CO₂ and Propene as Refrigerants

An ATEX project was implemented, for example, in the chemical industry. Here, a CO₂ / Propene cascade refrigeration system is used for cooling during the synthesis of organic solvents.

To circumvent the high safety requirements during assembly in the explosion hazard area, the system was integrated into a container. This was completed in the workshop and installed as a unit at the customer's site. This approach minimized operational downtime.

Electrical and Mechanical Explosion Protection according to ATEX

In the chemical and petrochemical industries, as well as in other sectors, production facilities are often located in explosion-hazard areas.

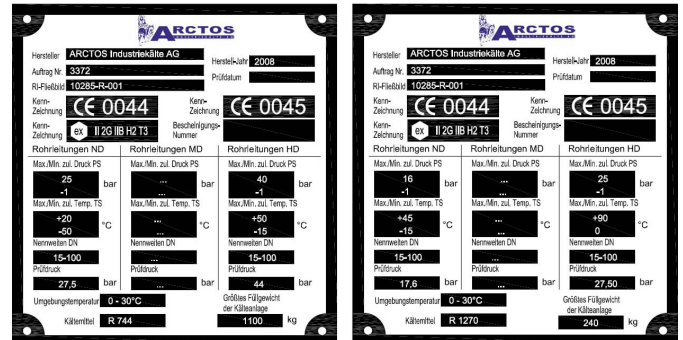
ARCTOS Industriekälte AG supplies refrigeration systems where electrical and mechanical explosion protection is implemented according to the ATEX Directive 2014/34/EU.

ATEX Specification

- Equipment category: II 2 G (Zone 1, Gas)
- Explosion group: II B H2
- Temperature class: T3
- Surface temperature: 200°C



Ready-to-ship explosion-proof CO2 / Propane cascade refrigeration system



Nameplates for the two refrigeration circuits of the CO2 / Propene Cascade Refrigeration System

Do you have any questions or comments? We are happy to assist you:

Location Flensburg / Sörup
 ARCTOS Industriekälte AG
[Schulstraße 33](https://www.arctos-ag.com) | D-24966 Sörup

Telefon: [+49 \(0\)4635 - 292 82-0](tel:+4904635292820)
 E-Mail: arctos@arctos-ag.com
 Internet: www.arctos-ag.com

Location Hamburg / Braak
 ARCTOS Industriekälte AG
[Bergkoppel 2](https://www.arctos-ag.com) | D-24966 Braak

Telefon: [+49 \(0\)40 - 309 978 7-0](tel:+4904030997870)
 E-Mail: arctos@arctos-ag.com
 Internet: www.arctos-ag.com