

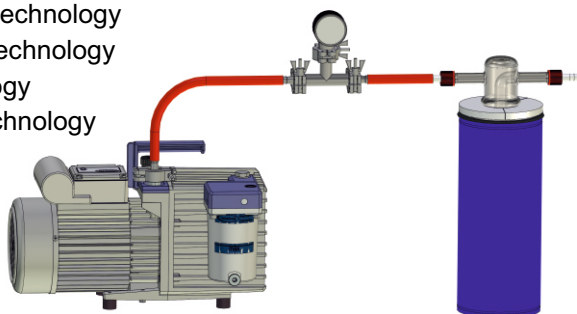


Technical data sheet for cold traps / coldfinger type S29 with dewar flask made of glass

Area of application

For condensing water, solvents or gases in connection with a vacuum pump

- laboratory technology
- medicinal technology
- biotechnology
- vacuum technology



Cold trap / Coldfinger
Type KF 29-GL

Characteristics

- reliable and easy handling
- no stand material for holding the cold trap necessary
- Dewar flasks according to DIN 12492
- glass material according to ISO 3585 (DURAN)
- protective casing of Dewar flask made of blue coated metal or aluminum
- for liquid cooling agents, e.g. LN₂ (-196°C)
- for solid cooling agents CO₂ (-77°C) with solvent (CO₂-wire basket necessary)
- pressure-free coolant sphere inside the Dewar flask



Cold trap / Coldfinger
Type KF 29-NW16

Description of complete cold trap with Dewar flask

Types and accessories

- C = blue-coated protective casing out of metal
- CAL = structured aluminium casing
- plastic ring = polyethylene (PE), white, two-parted
- connections for cold trap = flange KF NW, G18 / olive, spherical joint S29 with and without o ring seal

Temperature ranges for the Dewar flasks and the plastic ring

- glass refill from - 196°C to + 150°C
- plastic ring to + 100°C

Pressure range in the cold trap

- up to 1 bar excess pressure
- vacuum up to 5x10⁻⁵ mbar

Description of the glass for the cold trap and the Dewar flask

Material

- borosilicate glass 3.3 ISO 3585

Chemical characteristics

- hydrolytic resistance: according to ISO 719 (98°C)
- hydrolytic resistance: according to ISO 720 (121°C)
- acid resistance: according to ISO 1776
- alkaline resistance: according to ISO 695-A2

Physical characteristics

- linear expansion coefficient: 3,3 x 10⁻⁶ 1/K (in between 20-300°C)
- density: 2,23 g/cm³
- specific thermal capacity: 910 J/kg K
- transformation temperature: 525°C

KGW - ISOTHERM

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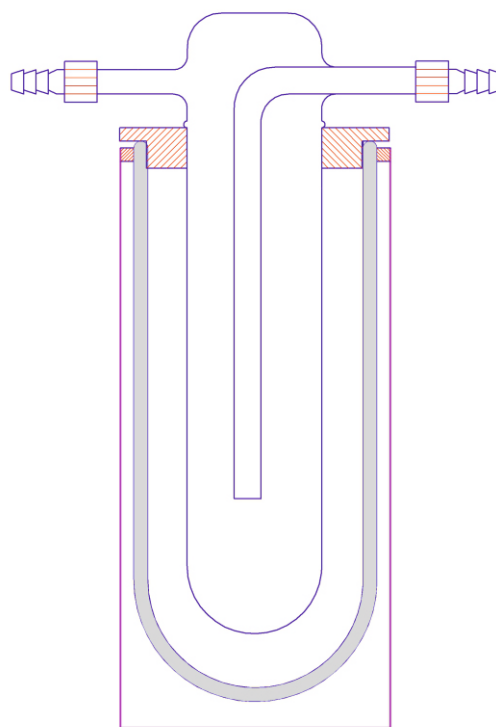
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Vacuum connections for the cold trap

- glass threads with screw-on cap and PTFE-olive, e.g. GL18
- vacuum glass flanges, e.g. KF NW 16
- plane flanges, e.g. DN 25
- conical ground joints NS 29/32
- spherical ground joints S 29
- spherical ground joints Rotulex S 29 with O-ring seal

Safety advises and regulations

- always wear protective glasses and protective gloves
- national regulations for laboratories
- company-internal regulations
- safety regulations for handling with liquid gases
- Pressure calculation according to "AD Merkblätter"



Dimensions and article numbers of standard cold traps

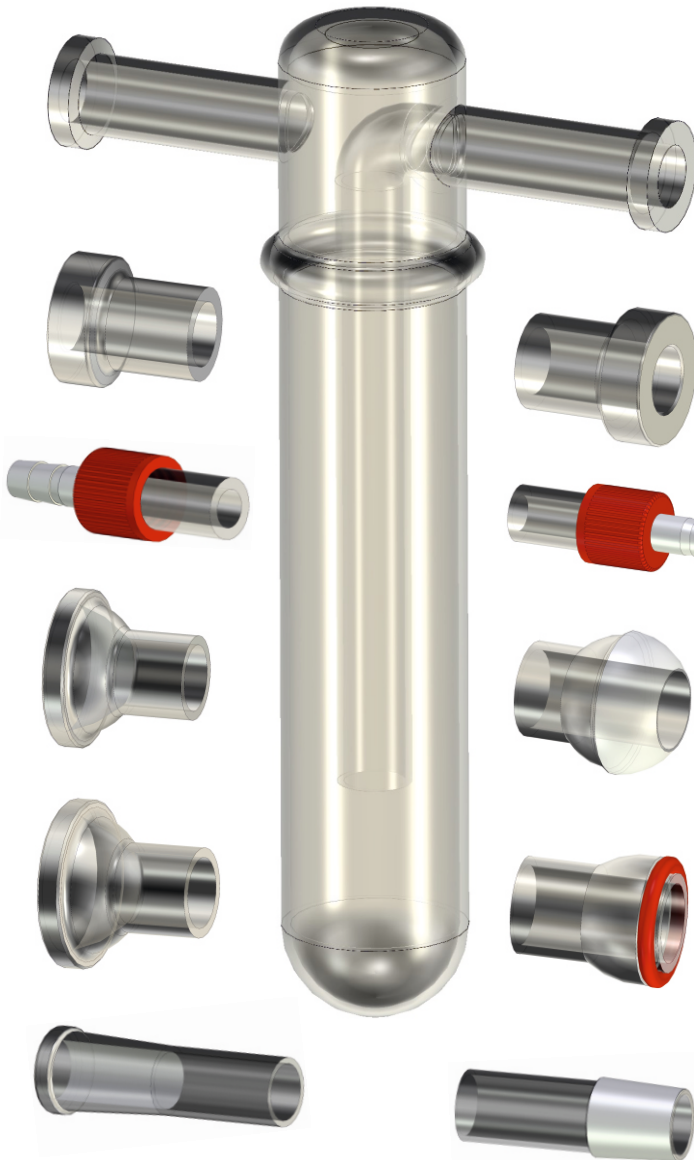
cold trap completely	condensate	coolant	dewar	cold trap	Art. No.	spare coldfinger	Art. No.
Type	theoret.Vol.	theoret.Vol.	Type	connection			
Type KF 29-K	150 ml	1000 ml	12 C	S 29	1731	coldfinger S 29	1732
Type KF 29-OK	150 ml	1000 ml	12 C	O 29	1735	coldfinger S 29 O	1736
Type KF 29-GL	150 ml	1000 ml	12 C	GL 18	1740	coldfinger S 29 GL	1741
Type KF 29-NW16	150 ml	1000 ml	12 C	NW16	1731-NW16	coldfinger S 29 NW16	1732-NW16
Type KF 29-NW25	150 ml	1000 ml	12 C	NW25	1731-NW25	coldfinger S 29 NW25	1732-NW25
Type KFL 29-K	250 ml	2000 ml	18 C	S 29	17360	coldfinger SL 29	17365
Type KFL 29-OK	250 ml	2000 ml	18 C	O 29	17361	coldfinger SL 29 O	17366
Type KFL 29-GL	250 ml	2000 ml	18 C	GL 18	17362	coldfinger SL 29 GL	17367
Type KFL 29-NW16	250 ml	2000 ml	18 C	NW16	17360-NW16	coldfinger SL 29 NW16	17365-NW16
Type KFL 29-NW25	250 ml	2000 ml	18 C	NW25	17360-NW25	coldfinger SL 29 NW25	17365-NW25

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Connection variants cold traps



Vacuum flange
KF NW16 - NW40
for external centering
ring with Viton O-ring

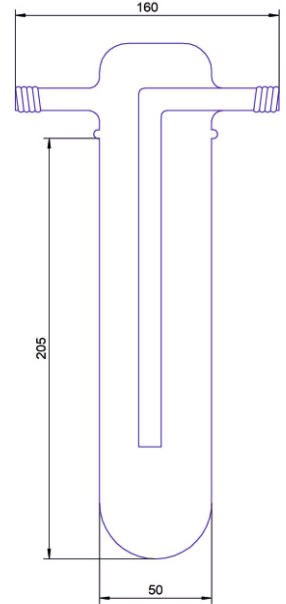
Plan flange
DN15-DN25

Glass threads
with olive
GL14-GL25

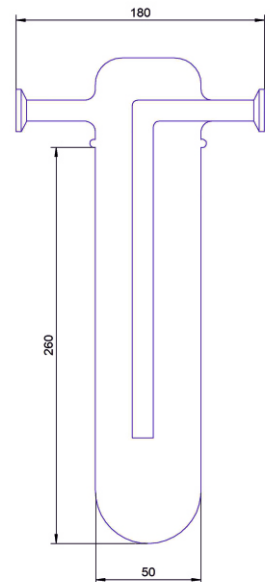
Spherical ground
joints S13 - S40

Spherical ground
joints S29-S35 with
O-rig seal Typ Rotulex

Conical ground joints
NS14/23 - NS45/40



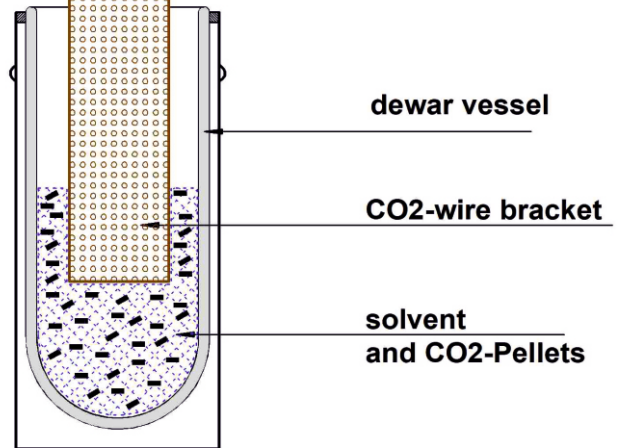
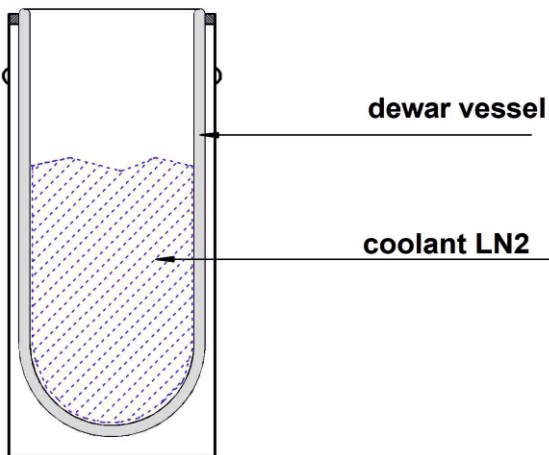
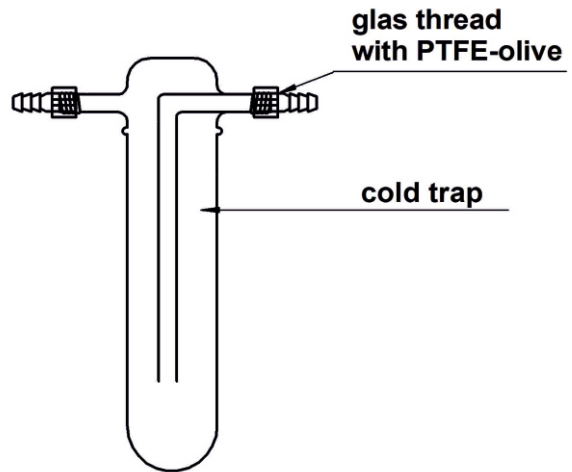
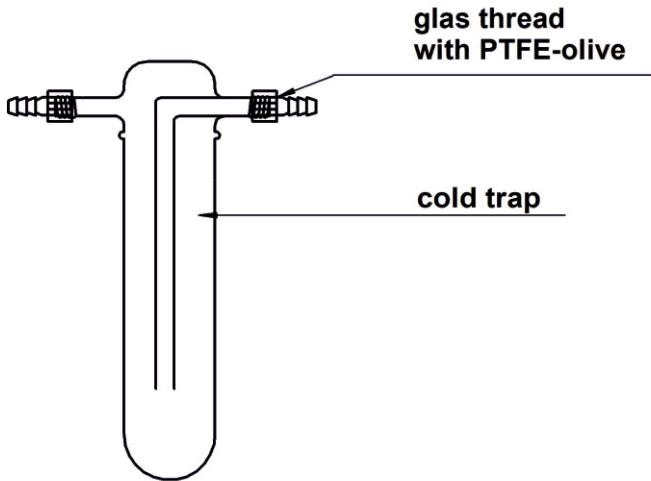
Cold trap / Coldfinger
Type S 29-GL18



Cold trap / Coldfinger
Type SL 29-NW16



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Order example:

Cold trap type KF 29 - GL, Article No. 1740
with a CO2 wire bracket, Article No. 17570

Article No. 1740 + 17570

CO2-wire bracket for	
dewar vessel Type	Article No.
12 C	17570
18 C	17571