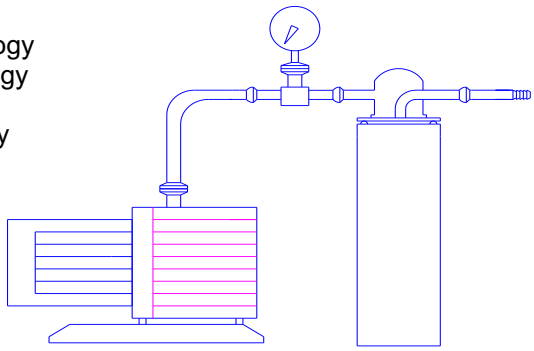
Technical data sheet for cold traps with Dewar flasks out of glass

Area of application

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

- laboratory technology
- medicinal technology
- biotechnology
- vacuum technology



Cold trap Type KF 29-GL- A

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

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, GI18 / 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

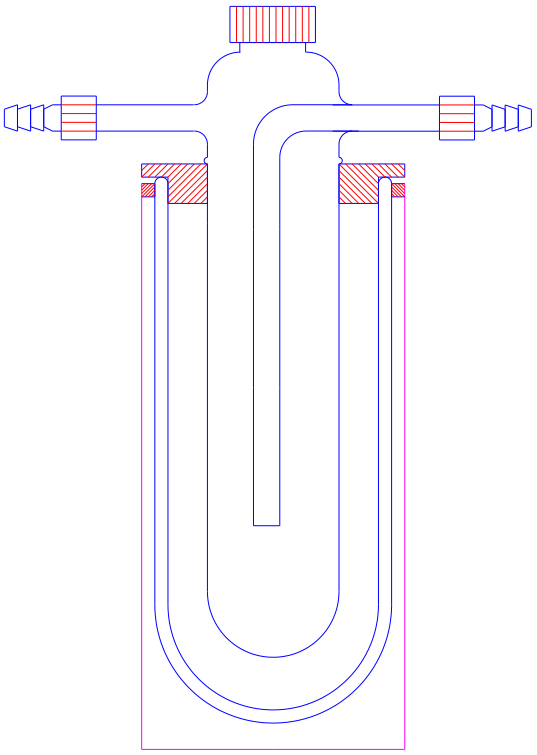
- linear expansion coefficient: 3,3 x 10^{-6} 1/K (in between 20-300°C)
- density: 2,23 g/cm^3
- specific thermal capacity: 910 J/kg K
- transformation temperature: 525°C

KGW - ISOTHERM
Karlsruher Glastechnisches Werk
76185 Karlsruhe Gablonzerstraße 6
Tel: 0721 95897-0 Fax: 0721 95897-77
E-Mail: info@KGW-ISOTHERM.COM
Internet: www.KGW-ISOTHERM.COM

Technical data sheet for cold traps with Dewar flasks out of glass

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”

Technical and order data for cold traps

Cold traps complete	Condensate	Coolant	Dewar	Cold trap	Art. No.		Spare parts	Art. No.
Type	theoret.cap.	theoret.cap.	Type	joints			Cold trap	Art. No.
Type KF 29-K	150 ml	1000 ml	12 C	S 29	1731		Cold trap S 29	1732
Type KF 29-OK	150 ml	1000 ml	12 C	O 29	1735		Cold trap S 29 O	1736
Type KF 29-GL	150 ml	1000 ml	12 C	GL 18	1740		Cold trap S 29 GL	1741
Type KFL 29-K	250 ml	2000 ml	18 C	S 29	17360		Cold trap SL 29	17365
Type KFL 29-OK	250 ml	2000 ml	18 C	O 29	17361		Cold trap SL 29 O	17366
Type KFL 29-GL	250 ml	2000 ml	18 C	GL 18	17362		Cold trap SL 29 GL	17367
Type KF 29-K-A	150 ml	1000 ml	12 C	S 29	17370		Cold trap S 29-A	17375
Type KF 29-OK-A	150 ml	1000 ml	12 C	O 29	17371		Cold trap S 29 O-A	17376
Type KF 29-GL-A	150 ml	1000 ml	12 C	GL 18	17372		Cold trap S 29 GL-A	17377
Type KFL 29-K-A	250 ml	2000 ml	18 C	S 29	17380		Cold trap SL 29-A	17385
Type KFL 29-OK-A	250 ml	2000 ml	18 C	O 29	17381		Cold trap SL 29 O-A	17386
Type KFL 29-GL-A	250 ml	2000 ml	18 C	GL 18	17382		Cold trap SL 29 GL-A	17387

S 29 = Spherical joints S29

GL 18 = Glass screw threads with 10mm-PTFE olive

O 29 = Spherical joints S29 with O-ring seal

Cold traps complete = cold trap with Dewar and plastic ring / theoret.cap. = theoretical capacity

KGW - ISOTHERM
Karlsruher Glastechnisches Werk
76185 Karlsruhe Gablonzerstraße 6
Tel: 0721 95897-0 Fax: 0721 95897-77
E-Mail: info@KGW-ISOTHERM.COM
Internet: www.KGW-ISOTHERM.COM