



Ceramic Withdrawable Elements

for liquids and gases

Ceramic withdrawable elements are used for heating of gas or liquid and also for melting of solids such as wax and lead.

The ceramic element is inserted into a pipe which is mounted into the container to be heated. The advantage of this heating method is that elements can be removed from the pipe without having to drain the container. This is of particular relevance when substances are frozen in the unheated state (e.g. wax).

By carefully selecting a suitable pipe material and thickness, a very durable heating system is obtained.

Notes



The dimensions of the pipe must be such that there is a 1—2mm tolerance between pipe inner diameter and ceramic element outer diameter, allowing easy removal. An excessive tolerance will hinder heat transfer. The pipe material is preferably a heat resistant stainless steel.

Elements are usually mounted horizontally. For vertical mounting, elements must be specially constructed to prevent sagging of the heating spiral inside the element grooves.

It is good practice to allow access to the pipe from both ends, facilitating removal of debris when elements are replaced.

horizontally mounted element (segments in line)

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NB: Specify mounting method when ordering Elements designed for horizontal mounting may not be installed vertically



Standard diameters

Standard stock items				
Diameter (mm)	Mounting	Recommended Pipe (Stainless Steel	Comments	
17.3	horizontal	NW20 (ID=20)	closed former	
19.5	horizontal	NB20 Sched40 (ID=20.93)	closed former	
22.5	horizontal		closed former	
29.0	horizontal	NW32 (ID=32)	open former	
33.0	horizontal	NB32 Sched40 (ID=35.04)	open former	
36.0	horizontal & vertical	NW40 (ID=37.00)	open former	
37.5	horizontal		open former	
45.0	horizontal		open former	
46.0	horizontal		open former	
47.5	horizontal	NB50 Sched80 (ID=49.25)	open former	
48.0	horizontal		open former	
53.0	horizontal & vertical	NB50 Sched10 (ID=54.79)	open former	
57.0	horizontal	NB65 Sched80 (ID=59.01)	open former	



- Specify when ordering: diameter (D)
 - total length (L)
 - length of cold end (CE)
 - power
 - supply voltage
 - single or three phase
 - horizontal or vertical mounting

