

Wiped film Evaporator - glass lined

Application: corrosive products



evaporator type:	glass lined Wiped film Evaporator Type VDE 500-200
evaporator surface:	2m ²
wiper system:	roller wiper
operating pressure range:	-1 to 6 barg.
operating temperature range:	-20 to 200°C
heating medium:	thermal oil

Process wetted surfaces are an enamel of a high quality complex glass composition. Chemically it is a Boro-Aluminium-Silicate.

The most important characteristic is its very high resistance against nearly all organic and inorganic substances. The only exceptions are hydrofluoric acid, compounds separating HF and highly concentrated acid at high temperature.

Glass lined wiped film evaporators are used for distillation of highly corrosive compounds and for distillation of heat sensitive and highly corrosive products. Glass lined evaporators are also used for applications where sterility is important or where contact with metals will cause catalytic decomposition or other chemical reactions.

Materials of Construction:
 Enamel type 808/R6 by R&M Tycon
 ceramic, SiC and graphite
 PTFE with or without glass reinforcement

Shaft Seal:

double mechanical seal
 material of faces: SiC/SiC // SiC/graphite

Maintenance or replacement of mechanical seals is accomplished without disassembly of rotor



Rotor coupling



vapor heat

standard design data:

max. operating temperature (process side)

-20 until +200°C

max. operating pressure (process side)

-1 until +2 barg.

max. temperature of heating jacket

-20 until +200°C

max. operating pressure of heating jacket

-1 until +6 barg.

heating with steam or thermal oil

option for special design requirements

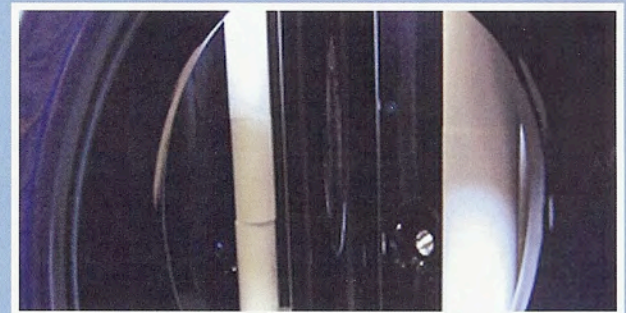
wiper system: roller wiper

rollers made of PTFE (glass reinforced) are positioned on vertical rods. They are turned on the liquid film at the evaporator surface and create a turbulent film.

No bottom bearing required

The most important detail is the rolling movement of the wiper elements. Different from other systems (which abrade the surface) there is no wear or tear of the elements or risk of damage for the evaporator surface.

Standard sizes for VTA evaporators:



top view of evaporator

type	A [m ²]	H [mm]	d _i [mm]
VDE 125-20	0.20	1,800	125
VDE 260-60	0.60	2,000	260
VDE 350-100	1.00	2,200	350
VDE 500-200	2.00	4,000	500
VDE 630-400	4.00	4,250	630
VDE 800-600	6.00	4,850	800
VDE 1000-1000	10.00	5,300	1,000
VDE 1250-1500	15.00	6,990	1,250

