

PennTech Newsletter

NL# 718

Date: November 16, 2007

Quote of the Week:

*"If you want to be a writer - stop talking about it and sit down and write! That applies to anything in life."
....Jackie Collins*

Next Week's Topic:

- *Recent Advances:
PennTech Vial Washers -*

PennTech Machinery Corp.
103 Steamwhistle Drive
Ivyland, PA 18974
USA
Phone: 215.396.2200
Fax: 215.396.6774
info@penntech-corp.com



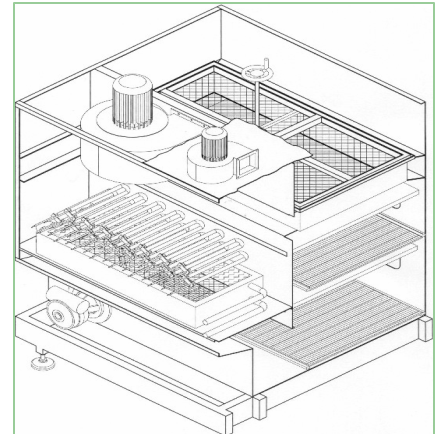
Author: Vincent Smit
vsmit@penntech-corp.com

Depyrogenation Tunnel with Sterilizable Cooling Chamber

- Heating elements are installed in the cooling chamber (pictured below) for sterilizing the cooling chamber by means of dry heat;
- The cooling chamber is equipped with an insulation to provide protection at temperatures up to 230°C;
- An airtight insulated door (pictured at lower right) at the tunnel exit (equipped with high temperature inflatable gasket), protects the isolator during the cooling chamber sterilization and enables the isolator to be sterilized without any leak of VHP into the tunnel;

The cooling chamber sterilization cycle is executed when the tunnel is not in production. The cooling chamber is sterilized by means of HEPA filtered hot air at a temperature of approximately 200°C. The cycle time is defined during the pre-testing phase at PennTech, and calculated in order to ensure that the coldest point inside the chamber is sterilized when the cycle has been completed.

The minimum surface temperature anywhere in the cooling chamber on any material should be above 170°C. The coldest point shall stay at a temperature of 170°C as long as necessary to achieve bacterial reduction of 6 log.



The sequencing of the cooling chamber sterilization cycle is automatically carried out by the tunnel's PLC once the operator starts the cycle:

- The airtight door closes and the insulated gaskets inflate
- The cooling water circuit drains
- All tunnel heaters start
- The cooling chamber temperature raises up to the predefined set point, and is maintained for the predefined sterilization time
- When the elapsed time is equal to the set time, the heaters switch off and the temperature decreases slowly
- At 90°C the cooling water circuit is refilled
- When the cooling chamber has completed the cool down cycle, the tunnel is again ready for production



Sterilizable cooling chambers are optional on all PennTech depyrogenation tunnels.