

PennTech Newsletter

NL# 714

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Quote of the Week:

"A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity"

....Sir Winston Churchill

Next Week's Topic:

- Restricted Access Barrier Systems...RABS -

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PennTech machines are primarily used in the area of aseptic production and as such must comply with strict cGMP material guidelines. The materials of construction are chosen based on durability as well as ease of cleaning and sterilization. Surfaces that are easily cleaned and composed of a material such as 316L stainless steel show a higher imperviousness to scratches, which provide a good hiding spot for microbes.



For example, each of the three models of vial washer (RW-500/RW-800/RW-1150) are manufactured using AISI-316L for all WFI (Water For Injection) and sterile (clean) air contact parts. All of these contact parts are then passivated or electro-polished (see Newsletters No. 710 and No. 711 re-

spectively for process specific information). AISI-316L is a molybdenum-bearing austenitic stainless steel, which is more resistant to general corrosion and pitting/crevice corrosion than conventional chromium-nickel austenitic stainless steels such as AISI-304. AISI-316L is a low carbon version of AISI-316. The L (Low carbon) is an important consideration within welding. The low carbon "L" series prevents carbide precipitation in the heat affected zone around the weld.

PennTech also uses plastics within its entire range of machines. These plastics are used for container guides, transport areas, change parts, etc. The use of these plastics is also to minimize stainless steel to glass contact so to prevent or eliminate surface scratching. PennTech utilizes two plastics, both are FDA approved and autoclavable: Delrin and Techaform, (acetal copolymers). Each exhibits excellent wear resistance, offers very good stiffness (for machinability) and excellent heat resistance.