

From the Desk of Captain Dean O. Trytten

Steam Trap History

Over 35 years ago, the US Navy had investigated steam trapping techniques in order to cut down on their steam trap operation and maintenance costs. After EIGHT YEARS (8) of testing, it was reasoned and determined by the US Navy, the non-mechanical trap produced the least steam loss over all other conventional steam traps tested. In fact, steam losses with the non-mechanical trap was minute. Reliability, and efficiency being of prime importance, they wanted equipment that will function reliably while deployed at sea. There was unquestionable evidence of the large energy savings. The researchers included in their testing of the non-mechanical trap in the following industries: Petrochemical Paper Steel Manufacturing Pharmaceutical Textile Industries Heating & Air Conditioning of Buildings

The US Navy was so extremely impressed with the researchers' work with the non-mechanical trap, they outfitted their ENTIRE FOSSIL FUEL FLEET of OVER 300 SHIPS, at the time. The FLEET expeditiously moved to buy material to install orifices FLEET WIDE. Testing was done on the following SHIPS:

USS SARATOGA

USS CONSTELLATION

USS AMERICA

USS KENNEDY

USS INTREPID

It is not too hard to understand the skepticism with regards to the non-mechanical trap's performance. It appears too simple and "TOO GOOD TO BE TRUE". It is relatively simple, but with the advanced technology, new materials, engineering and a better understanding of steam systems, it has made the non-mechanical trap effective. There is substantial data accumulated regarding the performance of non-mechanical trap in condensate removal systems.

Reference:

STEAM TRAP USERS' GUIDE by King and Sneed, Navy Civil Engineering Laboratory, Port Hueneme, CA

The Steam Trap Handbook by James F. McCauley, P.E.