

ADVANTAGES OF ACME SCRAPER STRAINERS OVER BACKWASH-DESIGN UNITS

	Acme scraper-type	Backwash-type
Screen resistance to fouling and clogging	Scraper brushes get into wedgewire slots and dislodge resistant solids, assuring a complete cleaning. Works very well against biofouling.	Backwash often ineffective against stubborn solids which remain in screen openings and reduce performance.
Vessel fabrication and materials of construction	Custom vessel fabrication in CS, SS and alloys to minimize piping modifications in the field. All Acme vessels are fabricated and are cost competitive against most cast vessel pricing.	Usually cast vessels with pre-determined connection locations and orientations. Fabricated vessels on custom orders only, resulting in substantially higher prices.
Water use on blowdown	Blowdown occurs only at the end of the intermittent scraping cycle. Valve is opened for a few seconds to remove solids from collector area. Liquid loss is well below 1% of total flow.	Backwash must be flowing in order to clean the screen. As screen becomes clogged with resistant solids, backwash intervals increase. Water loss is typically 5% of total flow.
Speed of screen cleaning	Acme's 4 scrapers rotate at 8 RPM, resulting in a cleaning rate of 32 times per minute.	Backwash arms usually rotate at 3-4 RPM, resulting in longer backwash times to clean screen.
Ratio of screen net open area to pipe area	Strainers are typically designed with a minimum screen to pipe ratio of 4:1. For finer screens, the vessel height is increased to accommodate a taller screen to increase the effective filtration area.	Strainers are typically designed with a screen to pipe ratio of 3:1 using a 1/16" screen slot. If the standard cast vessel is used and a smaller slot size is specified, the net open area decreases resulting in a lower flow rate or a higher pressure drop.
Control packages	Acme can use a wide variety of PLCs and can also control associated equipment such as pumps and valves.	Limited standard packages are offered, custom panels result in much higher pricing.