



The Burgess-Manning Guide to Better Process & Gas/Liquid/Solid Separation

Burgess line and process separators are built in standard and custom configurations to meet a variety of industrial process applications. Burgess has provided products and services to industry since the 1920's. Thousands of installations throughout the world attest to the quality and performance of these products. Today, Burgess manufactures a wide range of products for industrial noise control, pulsation and vibration control, and line separators for air/gas/steam flows. This guide is an overview of Burgess-Manning process and line separators. For performance dimensional data, pricing and delivery schedules, contact us directly or through our local representatives. See our complete contact information at www.burgess-manning.com.

PERFORMANCE GUIDE

TYPICAL PERFORMANCE					
Separator type	Series	Slugs	Solids	Liquids	Effluent
Multicyclone Scrubbers	3000	Yes	100% ≥ 8μ 99% ≥ 5-8μ	100% ≥ 5μ	<.10Gal/MMSCF
Vertical Gas Separator	3100	Yes	No*	100% ≥ 8μ	<.10Gal/MMSCF
In-Line Vane	3200	No	No*	100% ≥ 8μ	<.10Gal/MMSCF
Axial Flow Cyclones	4800	Yes	No*	100% ≥ 8μ	<.10Gal/MMSCF
Centrifugal Tuyere	3300	Yes	98% ≥ 10μ	99% ≥ 10μ	<.10Gal/MMSCF
Filter Separators	3400	Yes	100% ≥ 3μ 99.5% ≥ 0.5-3μ	100% ≥ 3μ	<.01Gal/MMSCF
Dry Gas Filters	3500	No	100% ≥ 3μ 99.5% ≥ 0.5-3μ	NA	NA
Receivers	3600	Yes	99% ≥ 10μ	99% ≥ 10μ	<.10Gal/MMSCF
Internal Purifiers	3700	No	95% ≥ 10μ	95% ≥ 10μ	NA
Ultrasep Coalescing Separator	3900	Yes	99.98% ≥ 0.3μ	99.98% ≥ 0.3μ	<.01Gal/MMSCF
Cyclosep	4000	Yes	98% ≥ 10μ	98% ≥ 10μ	<.10Gal/MMSCF

*Will remove solids suspended in liquids; consult factory for performance data.

Separator performance is influenced by the vapor and entrainment characteristics, such as density, entrainment concentration and particle size distribution. In the case of liquid particles, surface tension and viscosity play a major roll in establishing the particle size that can be effectively removed by a particular separator. This guide shows typical performance of various Burgess-Manning separators.

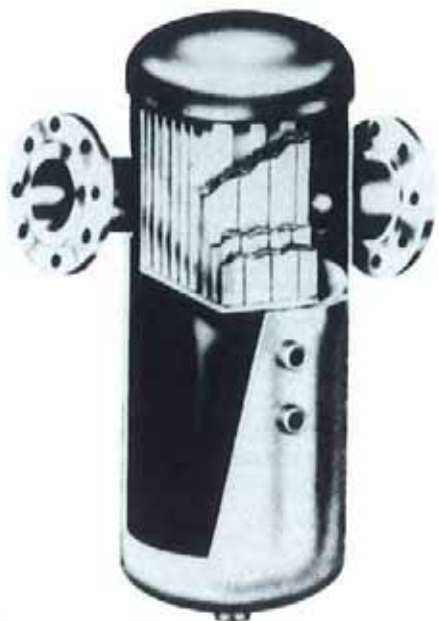
SELECTION GUIDE

APPLICATION	Pulsation Snubber- Separator	SEPARATOR TYPE							
		Centrifugal Tuyere	Vane	Cyclone	Multi- Cyclone	Filter	Filter Sep.	Internals	
								Vane	Cent.
Gas Transmission									
Station Scrubbers					X		X		
Fuel Gas						X	X		
City Gates/Metering						X	X		
Pressure Reduction		X	X				X		
Compressor Station	X		X		X				
Refinery/Process									
Gas Dehydrators			X	X				X	
MEA Contactors			X	X				X	
Compressors	X		X		X		X		
Gathering				X					
Well Head				X					
Proc. Tower Outlet		X	X	X				X	
Pressure Reduction		X	X				X		
Gas Injection Withdrawal			X	X	X		X		
Chemical Plants									
Product Separation			X						
Sprayers		X	X	X	X				
Heat Exch/Coolers			X	X					
Compressors	X		X						
Steam/Steam Drains		X	X						
Evaporators			X						
Wet Scrubbers									
Power Plants									
Compressor Interstage	X		X	X				X	
Steam Drums		X	X					X	X
Fuel Gas						X	X		
Flush Tanks		X	X					X	X
Air Reduction:									
Coolers			X		X		X		
Chillers			X		X		X		
Cryogenics									
Cold Box			X		X				
Heat Exchangers			X		X				
Production			X	X	X			X	X



CYCLONE SCRUBBERS

3000 Series dry gas scrubbers offer an economical way to remove dust, dirt, iron oxide and liquids from the air/gas stream. Scrubber is a high-capacity unit that operates with low pressure drop; is self-cleaning; does not require scrubbing liquid; can handle relatively large quantities of entrainment; needs only periodic blow down for removal of collected material. 3000 Series scrubbers are designed to ASME Code, and are available in a range of standard sizes, pressures, temperatures and materials.



VANE

3200 Series in-line vane separators remove fine mist from gaseous systems at the highest levels of efficiency with low pressure drop. This series is ideal for removal of corrosive solutions. 3200 Series separators offer 100% removal of particles down to 8 microns; are built to ASME Code, and are available in a variety of standard sizes, inlet and outlet configurations, pressures and materials.



VERTICAL GAS SEPARATOR

3100 Series separators offer 100% removal of mist down to 8 microns, and are designed for large air/gas/liquid flow applications. The separator will remove liquids having a low surface tension; and has a very high liquid capacity. Entrainment is guaranteed to be less than 0.1 gal/MMSCF. 3100 Series separators are designed to ASME Code and are available in a range of standard sizes and materials. This series is ideal for dehydration, product recovery, product gathering, containment of slugging, elimination of corrosive liquids and protection of compressors and related equipment.



CENTRIFUGAL

3300 Series line separators use a patented "Helicoid Tuyere" separator element to offer high efficiency and low pressure drop over a wide range of air/gas flows. This series removes water, oil, hydrocarbons, liquids from air, gas and steam systems, and can also remove solids, thereby affording protection to turbines, compressors and related equipment. 3300 Series separators are built to ASME Code, and are available in a wide range of standard sizes, pressures and materials.



RECEIVERS

3600 Series receivers are designed for high liquid-to-gas ratio process systems where slugging is likely, or where process or safety requirements call for a liquid reservoir. For steam service where high quality steam is required, the receiver offers multi-stage separation and is adaptable to any piping configuration. 3600 Series receivers are designed to ASME Unfired or Boiler Codes, and are available in a variety of standard sizes, configurations, pressures and materials.



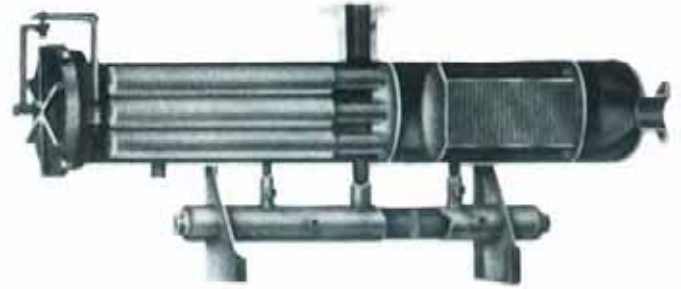
INTERNAL PURIFIERS

3700 Series centrifugal internal purifiers offer an economical way to achieve high efficiency in a process stream where liquid carry-over is a problem. Purifiers are ideal for evaporator, flashtank, concentrator, knockout drum, distillation tower and related applications. Units are available in a variety of configurations and materials, and can be delivered in sections (modules) to pass thru existing openings.



COMBINATION SNUBBER/SEPARATOR

The Burgess combination snubber/separator combines pulsation control and mist/liquid/solid particle separation in a single unit. Minimum space is required, and a simplified piping system can be used. Snubbing chambers attenuate the complex wave at all frequencies generated by the compression system. At the same time, mist liquid and solid particles are removed by the "helicoid tuyere" in the separation section.



FILTER SEPARATORS

3400 Series filter separator is a highly efficient combination filter and separator unit that will remove 100% of liquids and solids down to 3 microns, and 99% of particles from 0.5 to 3 microns. The filter separator is specially suited for removal of lubricating oil prior to process make-up, refrigeration systems, desiccant beds. 3400 Series vessels are designed to ASME Code, and are available in a range of standard sizes, capacities, pressures and materials.



DRY GAS FILTERS

3500 Series dry gas filters offer efficient and effective removal of dust and other solids from air/gas flows with a relatively low pressure drop. Efficiency ranges from 97% to 99% for particles from 1 to 3 microns. These filters can be used to protect meters, regulators, valves and other related in-line equipment. Filters are built to ASME Code and are offered in a range of standard sizes, and materials.



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