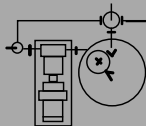


MARTAGAN ASSOCIATES



Servicing virtually all Markets and Industries since 1988.

P.O. BOX 56
FAIRPORT, NY 14450
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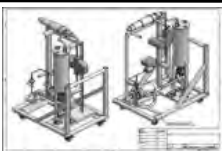
Equipment, Instrumentation & Services
for Process and Laboratory Applications

Since 1988, Martagan Associates and our diverse partnerships of manufacturers, engineers and fabricators have provided quality equipment and process solutions for efficient, cost-effective system design and integration.

Below is a partial list of our valued partnerships.



Advanced Process & Integration



System Design, Integration & Solutions

- *Design & fabrication of custom automated skid systems, CIP, SIP, pump drive assemblies and more.
- *Project management from conception to completion.
- *Technical support & training w/processing solutions



Servicing industry since 1974, supplying high quality **Volumetric and Gravimetric Feed Systems**. Patented the first closed loop, resonant frequency vibratory feeder. *Feeders, conveyors, spreaders & applicators, controllers & controller systems, platform scales, etc.



Providing a full line of automated equipment, conveyor systems and accumulators designed to integrate into a functioning packaging system. Servicing sanitary and industrial markets. Container Cleaning: Pur-Rinse waterless rinsing, Conventional water rinsing, Full container washers and Container Dryers.



High purity & industrial filter housings and elements. We offer a complete line of pre and final cartridge filters ranging from 100 micron nominal to .03 absolute membranes. Also available in our state of the art disposable capsule line. Our products are offered in a range of medias to meet your applications.



Heinkel: Bolz-Summix, Comber, Jongia & Pennwalt brands Equipment & Systems for Separating Solids from Liquids. Over 130 years of experience providing vacuum dryers, Nutsche filter dryers, centrifuges, decanters, classifiers, hose pumps. Sampling, tank discharge & charging valves.



Highest Shear Homogenizers for smallest possible particles. Fully scalable, from laboratory to production. *Provides unrivaled results in uniform particle size reduction and repeatability from 1ml - thousands of liters with unparalleled pressures & features.



CP Continuous Processor: A twin shaft, co-rotating mixer, for mixing one or more dry and liquid materials on a continuous basis, producing a homogeneous product. **SC Processor:** Continuous Devolatilization & Drying of material, creating a dry powder or high viscosity slurry. **CBM** for powder blending.



Since 1949, Schold has continued to provide custom engineered solutions and equipment for dispersing, mixing, milling and packaging processes. Offering a full line of products from high speed dispersers, to multi-shaft mixers, vertical or horizontal mills and press-out units.



ANALYTICAL INSTRUMENTATION



Nametre - ViscoSite



AccuSeries



Monitek



Liquid & Gas Process Analyzers providing highly reliable, rugged, low-maintenance solutions for consistent and precise field-proven performance. **Viscosite:** viscometers; **AccuSeries:** wet chemistry; **Monitek Turbidity:** suspended solids, color; **Monitek Ultrasonic** oil-in-water & TSS



designed for scientists

Innovative equipment for R&D: Mixing, heating, distilling, crushing, magnetic stirrers, mixers, overhead stirrers, shakers, homogenizers, mills, rotary evaporators, colorimeters, laboratory reactors, circulators, baths, chillers & more.



Equipment, service and support for a unique family of analytical instrumentation. The companies we represent design and manufacture industry-leading on-line analytical technology to detect and measure contaminants and biological activity in water and wastewater.



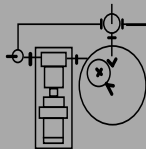
Sympatec GmbH
System | Partikel | Technik

Particle sizing instruments for better particles

Innovative, reliable instruments for wet & dry particle size and shape analysis in laboratory and process applications. **Laser Diffraction** - Size and distribution, **Dynamic Image Analysis** - Size & shape, **Ultrasonic Extinction** - Size & concentration, **Dynamic Light Scattering** - Size and stability.



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PRODUCT LISTING

Analytical Instrumentation
Bin Blenders
Blenders, Liquid & Powder
Capsule Conveyors
CBD Extraction Systems
Centrifuges
Chemical Analyzers
Colorimeters
Containment

Continuous Processors - Mixers
Cyclones
Dispersers
Dry Disconnects - Liquid & Powder
Feeders: LIW, Volumetric & Gravimetric
Filters & Filter Housings
Homogenizers (Lab, Pilot & Production)
Hose Assemblies
Laboratory Equipment & Instrumentation

Lab Testing Services
Liquid Monitoring Equipment
Lump Breakers
Media Mills, Horizontal & Vertical
Particle Size, Shape & Classification
Powder Flow Control Systems
Powder Handling Equipment, IBC's
Press-Outs, Portable & Stationary
Pumps, Valves & Fittings

Tanks & Reactors
Turbidity Monitors
Sack Tip Stations
Silicone Dust Caps & Sleeves
Skid Systems
Stainless Steel Drums
System Design & Integration
Vacuum Conveyors
Viscometers



Process Solutions



Pumps, Valves, Fittings & Specialties



Mixing Solutions

CONVERSION TABLE

FLOW

Lbs. Of water/Hr x .002	=Gal Min
Gal/Min x 500	=Lbs of Water/Hr
Lbs of Fluid/Hr x .022	=Gal Min
Specific Gravity	
Liters/Min x .264	=Gal/Min (US)
GPM x 3.785	=Liters/Min
Cu Meters/Hr x 4.4	=Gal/Min (US)
Gal/Min x .227	=Cu Meters/Hr
Kg of Water/Min x .264	=Gal/Min (US)
Gal/Min x 3.8	=Kg of Water/Min

VOLUME

Lbs Water x .119	=Gal
Gal (Imperial)	=Gal (US) x 1.2
Gal x 128	=Fluid Ounces
Cubic Ft x 7.48	=Gal
Cubic In. x .00433	=Gal
Gal x 3.784	=Liters
Liter x .264	=Gal
Cubic Meters x 264.2	=Cubic Centimeters
Meter x 1000	=Cubic Centimeters
Centimeters x .0338	=Fluid Ounces
Ounces x 29.57	=Cubic Centimeters

PRESSURE

Ft of Water x .433	= PSI
PSI x 2.31	= Ft of Water
Inches Hg x .491	= PSI
Inches Hg x 1.133	= Ft of Water
ATM x 14.7	= PSI
ATM x 33.9	= Ft of Water
Kg/Sq cm x 14.22	= PSI
Meters of Water x 1.42	= PSI
ATM x 760	= mm Hg
mm Hg x .039	= Inches Hg
Bar x 14.5	= PSI
New ton/Meter 2 x 1	= Pascal
Psi x 6.9	= kPa (Kilopascal)
kPa x .145	= PSI

POWER

HP = $\frac{T (Ft Lb) \times RPM}{5250}$	= $\frac{T (in Lb) \times RPM}{63025}$
HP = $\frac{Disp (Gals) \times RPM \times PSI}{1714 \times EFF}$	
Horsepower x .746	= Kilowatts
Horsepower x 42.44	= BTU/Min
Metric Horsepower x .9863	= Horsepower

METRIC PREFIXES

Mega	= 1,000,000
Kilo	= 1000
Hecto	= 100
Deca	= 10
Deci	= 0.1
Ceti	= 0.01
Milli	= 0.001
Micro	= .000,001

LENGTH

Mils x .001	= Inches
Meters x 3.281	= Feet
Centimeters x .394	= Inches
Millimeters x .0394	= Inches
Microns x .0000394	= Inches

MASS

Gal of Water x 8.336	= Lbs
Cubic Ft of Water x .624	= Lbs
Ounces x .0625	= Lbs
Kilograms x 2.2	= Lbs
Lbs x .454	= Kilograms
Metric Ton x 2205	= Lbs

VISCOSITY CONVERSION TABLE

SAYBOLT UNIVERSAL SSU	STOKES	CENTI STOKES	POISES*	CENTI POISES*	ENGLER SECONDS	REDWOOD NO. 1 SECONDS	TYPICAL LIQUIDS AT 70 F
31	.010	1.00	.008	.8	54	29	WATER
35	.025	2.56	.020	2.05	59	32.1	KEROSENE
50	.074	7.40	.059	5.92	80	44.3	NO. 2 FUEL OIL
80	.157	15.7	.126	12.6	125	69.2	NO. 4 FUEL OIL
100	.202	20.2	.162	16.2	150	85.6	TRANSFORMER OIL
200	.432	43.2	.346	34.6	295	170	HYDRAULIC OIL
300	.654	65.4	.522	52.2	470	254	SAE 10W OIL
500	1.10	110	.88	88.0	760	423	SAE 10 OIL
1,000	2.16	220	1.73	173	1,500	896	SAE 20 OIL
2,000	4.40	440	3.52	352	3,000	1,690	SAE 30 OIL
5,000	10.8	1,080	8.80	880	7,500	4,230	SAE 50 OIL
10,000	21.6	2,160	17.3	1,760	15,000	8,460	SAE60-70 OIL
50,000	108	10,800	88	8,800	75,000	43,660	MOLASSES B
100,000	216	21,600	173	17,300	150,000	88,160	MOLASSES C

* Poises and centipoises are given for oil of .8 specific gravity. Relationship: centistokes x specific gravity = centipoise

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