



DAYMAX[®] DISPERSER

Ultra High-Speed
Liquid Phase Mixer

Littleford Day
Where Processing Ideas Become Reality

A UNIQUE HIGH-SHEAR PROCESSOR FOR DISPERSION, DISSOLVING AND EMULSIFICATION

Ultra High-Speed Liquid Phase Mixer For:

*Adhesives
Varnishes
Inks
Coatings
Pigments
Pharmaceuticals
Food Products
Chemicals
and Many Other
Diversified
Products*



The DAYMAX Dispenser is a state-of-the-art cavitation style processor suitable for a wide range of industrial applications.

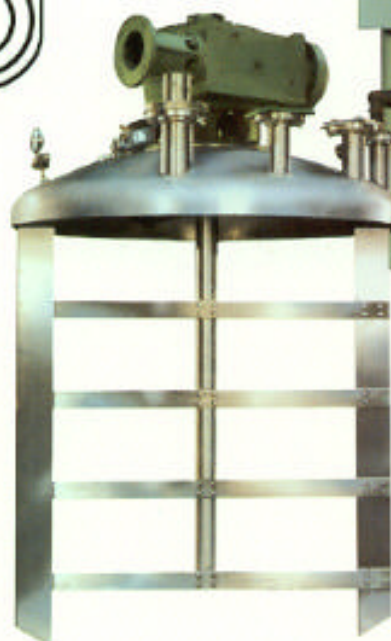
- Cavitation flow allows for complete dispersion of all particles.
- Blade tip speed of 9,000 feet/minute is nearly twice as fast as standard "sawtooth" dispersers.
- Units can process at only 30% of rated capacity and maintain quality and fast tank turnover.
- All sizes available with either a standard 14.9 psig non-coded jacket or any ASME coded jacket required.
- All designs are available with full vacuum and/or internal pressure capability for deaeration and product blanketing.
- The "closed tank design" allows for improved safety when charging or discharging. All units equipped per OSHA regulations.
- The tank's interior design allows for quick and easy clean out, even after solvations.



*1,000 gallon capacity
DAYMAX Dispenser
specifically engineered
for the high volume
production of adhesives.*



*Top driven anchor
wipe assembly
provides additional
product agitation.*



UNEXCELLED PRODUCTIVITY AND QUALITY FOR LARGE VOLUMES OF VARNISH

*Pigment Dispersions For Inks, Paints, Coatings And
Colorants For Textiles*

The quick tank turnover achieved by the DAYMAX Disperser is ideally suited for the manufacture of quality inks, paints and varnishes.

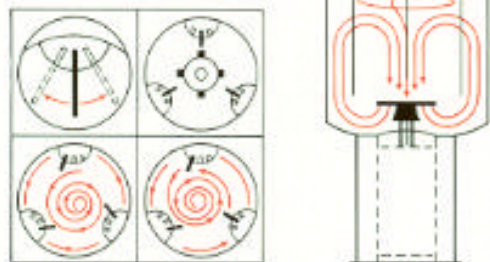
The DAYMAX Disperser is unsurpassed in varnish manufacture. Cold cutting of varnish process time can be reduced as much as 50-75% over the standard open kettle type units. Due to the design of the direct drive, all the blade's input goes directly into the batch. This allows for a quick rise in batch temperature yielding a vastly improved cycle time. Gel varnishes are also made in the same way in the DAYMAX Disperser.

Closed System Contains Solvents

The DAYMAX Disperser can be provided with a totally enclosed tank. Many processors use the DAYMAX Disperser as both a vacuum tank as well as a pressure tank.

The vessels can be manufactured for full vacuum at 30" service as well as for internal pressure up to 200 psig.

When fitted with a condenser system, various "low-boiler" type solvents are safely and easily reclaimed during operation.



WELL SUITED TO TOUGH APPLICATIONS IN THE FOOD, PHARMACEUTICAL, DRUG AND COSMETIC INDUSTRIES

Highly Sanitary Design...Easy To Clean

Littleford Day offers the DAYMAX Disperser in a variety of interior finishes, including sanitary construction for the food and pharmaceutical industries. The inherent design of the mixing tank allows for easy batch-to-batch clean out.

Gelatin Capsules/Manufacturing - Due to the DAYMAX Dispersers ability to disperse fine colorants, gelatin capsules can be manufactured in various colors at high rates to meet production requirements.

Gelatin Capsules/TiO₂ and Colorants - Through rapid dispersion, the DAYMAX Disperser can integrate both TiO₂ and various colorants into gelatin capsule formulations. This allows for high speed gelatin capsule manufacture with optimum color quality.



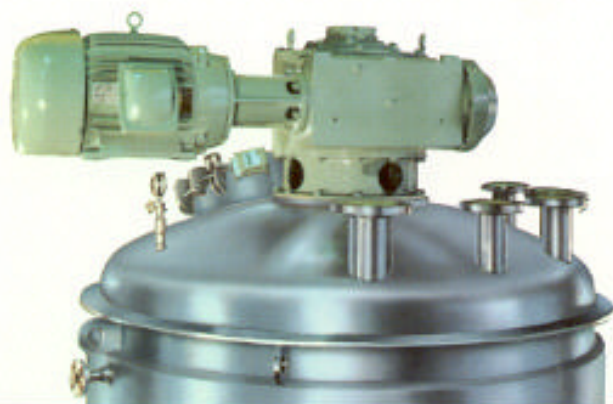
Ultra heavy-duty offset design DAYMAX Disperser rated at 1,000 gallons capacity, with 150 horsepower two-speed motor drive.

IDEALLY APPLIED ON ALL TYPES OF ADHESIVES, SEALANTS

From Hot Melts To High Density Cements

The DAYMAX Disperser equipped with top driven anchor wipe assembly is capable of processing adhesives in the 100-200,000 cps range and above.

When the top driven anchor wipe is used in tandem with a variable frequency main drive the DAYMAX Disperser becomes an unequalled and versatile adhesive processor capable of producing a wide range of adhesives and high density sealants.



DAYMAX® DISPERSER

Imparts Shear Force

The unique impeller's tip speed is approximately 9,000 feet/minute. This is several times greater than the shear force generated by the "sawtooth" overhead design dispersers used in liquid phase applications.

Its ultra-high tip speed combined with the unique double-curved tank bottom allows for extreme product 'cavitation' during processing. The result is high quality dispersions and/or slurries in a very short cycle time.

Heavy-Duty DAYMAX Disperser Provides Greater Horsepower Capabilities For Heavier Loads

The Offset, or Heavy Duty, custom design DAYMAX Disperser offers maximum horsepower for those applications where extreme operating conditions are known to exist. Large production units are capable of 300 HP operation.

Top Driven Wipe Assembly Permits More Precise Processing Control; Internal Flow Control Aids Vortexing Action

Our top driven anchor wipe, or Internal Flow Control, allows this mixer to process materials in the 100-200,000 cps range. When so equipped, the DAYMAX Disperser becomes an extremely versatile processor. The Internal Flow Control actually aids in the vortex formation during heavy viscosity phases. It acts as a continuous feed mechanism to the bottom entering impeller blade. This action ensures all material is being introduced to the blade during processing.

OPTIONS, MODIFICATIONS AND ACCESSORIES PROVIDE EVEN MORE PROCESSING VERSATILITY

Littleford Day has the broad experience and the knowledge to provide the necessary engineered special features and options as required by its customers. Littleford Day can provide all these unique custom features on all sizes of DAYMAX Dispersers:

- ASME Code jackets
- Certified internal pressure rated tank to 200 psig
- Variable frequency drives
- Sanitary tank design
- Full vacuum operation at 30"
- Clean-in-place features
- Instrumentation controls
- Custom design tank openings
- Custom seal arrangements for abrasive and/or high temperature applications
- Others as may be needed for specific applications

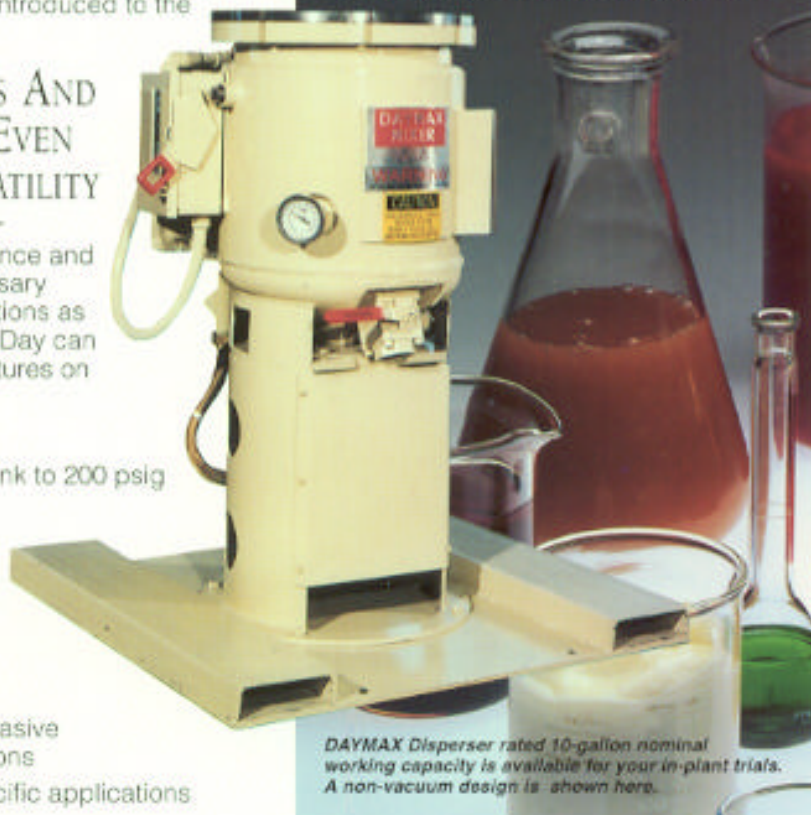
Rental DAYMAX Dispersers Allow You To Conduct Tests In Your Plant

Littleford Day offers the DAYMAX Disperser for in-plant testing.

The DAYMAX Disperser is available in a 10-gallon capacity pilot plant configuration for those customers who wish to conduct a variety of tests in their own plant or lab atmosphere.

The units are fully explosion-proof and totally self contained.

Arrangements can be made directly through your Littleford Day Sales Engineer.



DAYMAX Disperser rated 10-gallon nominal working capacity is available for your in-plant trials. A non-vacuum design is shown here.

APPLIED SUCCESSFULLY IN A BROAD RANGE OF INDUSTRIES AND PROCESSES

Adhesives

Pressure Sensitive
Hot Melt
Latex
Epoxy
Rubber Cements
Rubber Solvations for
Neoprene & Krayton
Sealing Compounds

Chemicals

Disperse Welding Flux
Fumed Silica Dispersions
Zinc & Iron Oxide Dispersions
Polyester Resin Manufacture
Urethane Resin Manufacture
Textile Binders
PVA Dispersions
Chemical Pigments

Food & Beverages

Candy Solvation & Reclaiming
Soya Protein Slurry
Vegetable Oil Slurry
Synthetic Food Mix
Milk By-Product Mix
Egg Protein Mix
Tomato Purees

Rubber & Plastics

Bulk Molding Pre-Mix
Sheet Molding Pre-Mix
Vinyl Solutions
Organisols
Polymer Solutions
Rubber Solutions

Paints, Pigments, Varnishes & Inks

Cold Cutting of Varnishes
Wet Out Presscakes
Magnetic Tape Coatings
Blending of Temptra & Alpha Colors
Carbon Black Dispersions
Flexo Inks
Latex Emulsions
Dye Slurries
Ink Modifiers
Pigment Slurries
Plastisols
Enamels
Lacquers
Varnishes
Paints
Stains
Industrial Coatings
Pigment Dispersions
Textile Colorants

Pulp & Paper

Clay Slurries
Paper Coatings
Paper Pulping

Pharmaceuticals & Cosmetics

Hard Capsule Processing w/ Gelatin
Pigment Dispersion for Capsules
Dye Stuff Dispersions
Compounding Lotions
Dental Molding Compounds
Biologicals
Cosmetic Ointments
Toothpastes

Other

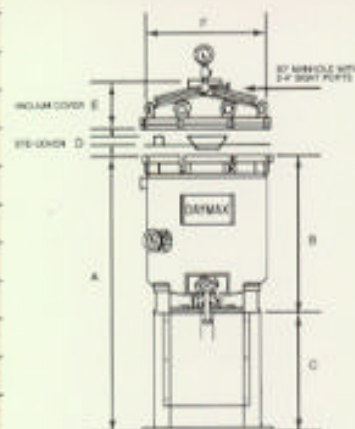
Clay Casting Slips
Cutting Oils
Delusterants
Emulsions
Gel Coats
Gum Solutions (intractable)
Lubricants
Wire Coatings
Wire Drawing Compounds



DAYMAX® DISPERSER PRODUCT RANGE AND SPECIFICATIONS

DAYMAX Disperser – Specifications

Model	10	50	100	150	250	550	1000
Working Capacity (gallons)	10	50	100	150	250	550	1000
Full Capacity (gallons)	15	60	125	200	330	660	1200
Nominal Horsepower	10	20	30	40	60	100	150
Discharge Valve	2"	2"	2"	2"	3"	3"	3"
Speed (RPM)	3600	3600	3600	3600	1800	1800	1800
A (inches)	42 ⁷ / ₁₆	55 ¹ / ₂	78	99	110	129	131
B (inches)	24 ⁵ / ₁₆	30 ¹ / ₂	40	54	65	77	79
C (inches)	18	25	38	45	45	52	52
D (inches)	4 ¹ / ₄	4 ¹ / ₄	4 ⁵ / ₁₆	4 ⁵ / ₁₆	4 ⁷ / ₁₆	4 ⁷ / ₁₆	4 ⁷ / ₁₆
E (inches)	9	10 ³ / ₄	12 ¹ / ₂	15 ¹ / ₄	15 ¹ / ₂	16 ³ / ₄	19 ¹ / ₂
F (inches)	18	24	36	42	48	60	72
Approx. Weight (pounds)	800	1500	2000	3000	6000	7000	9000



DAYMAX Dispersers are being built and sold under special licensing agreement with TEMEC S.A.R.L. Paris, France. U.S.A. Patent.

OTHER LITTLEFORD DAY PRODUCTS

Littleford Day offers a broad range of Mixing, Drying, Reacting and Size Reduction equipment to the process industry.

We are ready to work with you by assisting in the analysis of your process and aiding in the development of required process equipment. Availability of rental equipment and/or testing at the Littleford Day Technical Center in Florence, Kentucky can be arranged by contacting your Littleford Day Sales Engineer.

Littleford Day

Where Processing Ideas Become Reality

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