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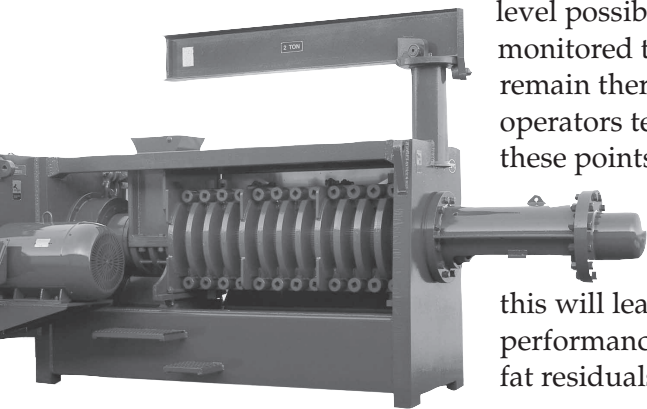
VOLUME 18, NUMBER 2

PUBLISHED IN THE INTEREST OF GREATER INDUSTRY PROFITS THROUGH IMPROVED PROCESSING EFFICIENCY

How to get the top Pressor[®] performance that today's fat market demands.

Recently, the value of fats from rendering operations have been worth up to four times that of meal. With this kind of pricing, it's more important than ever to keep your Pressor running at peak efficiency. Here are some tips how:

Maximize Pressor feed. Pressors always perform better at the maximum feed rate. The motor amperage set points should be set at the highest level possible and monitored to assure they remain there. Many operators tend to set these points in a "comfort zone"—in most cases, this will lead to reduced performance and higher fat residuals.



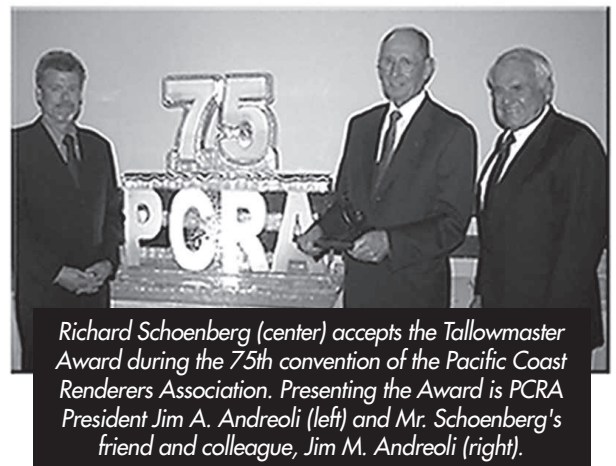
Monitor choke pressure. Make sure choke pressure is always adjusted to give maximum cake dryness. Unless the material feed to the Pressor is very consistent, several pressure changes by the operator per shift could be required to compensate for the type of material being processed.

Maintain the cage. As the cage knife bars wear, the clearance between the knife bar edge and the leading edge of the flight can become excessive and performance will decrease. Replace the worn knife bars and re-install the cages; check the knife bars every 500 hours and replace as needed. Replacing just the knife bars does not require a complete cage and shaft rebuild.

NEW!
Fishmeal Processing Systems
See inside.

Richard Schoenberg receives Tallowmaster Award.

Mr. Richard Schoenberg, a long-time associate of the Dupps Company, was recently awarded the prestigious Tallowmaster Award by the Pacific Coast Renderers Association at their 75th annual convention. Often referred to as "rendering's version of the Oscar", the Tallowmaster Award was established by the PCRA in 1977 as a means to single out individuals for their sustained, distinguished service and outstanding contributions to the American rendering industry. Receiving the Tallowmaster Award is a rare and special honor; Mr. Schoenberg is only its ninth recipient in the past 30 years.



Richard Schoenberg (center) accepts the Tallowmaster Award during the 75th convention of the Pacific Coast Renderers Association. Presenting the Award is PCRA President Jim A. Andreoli (left) and Mr. Schoenberg's friend and colleague, Jim M. Andreoli (right).

Dupps rendering technology expands to a new product line – Fishmeal Processing Systems.

For over 70 years, Dupps has been known worldwide for serving the red meat and poultry rendering industry. Now, we've just announced an important new addition to our protein co-products equipment capability — fishmeal processing systems. Dupps now provides this growing segment of the industry with complete, turnkey installations specifically engineered for fishmeal processing requirements.

While somewhat similar to other rendering systems in overall concept, Dupps fishmeal processing systems feature significant differences both in principle processing phases and in equipment design.

Using the process flow chart as a guide, here are the important steps in converting raw fish feedstock into high quality fishmeal and fish oil:

A Cooking, the first major step in fishmeal processing, coagulates soft gelatin-like fish proteins into more solid, structured material better suited for the process stages that follow. It's perhaps the most critical step as well—proper cooking is vital for efficient downstream draining, pressing, drying and oil separation. Operating at lower temperatures than other rendering cookers, the Dupps Fishmeal Cooker™ assures thorough, consistent heating of raw material with important design features:

- An indirect steam heated shell and hollow flight screw design

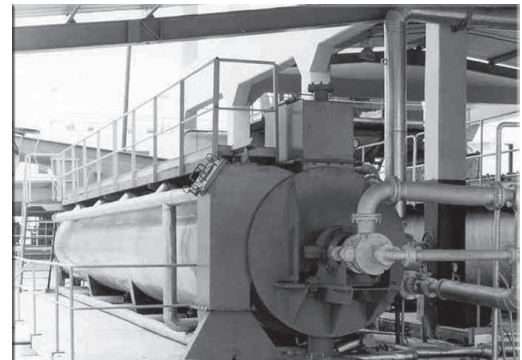
provide homogeneous heating, maximizing downstream equipment performance.

- A heavy duty steam heated shaft that doesn't require intermediate support, improving material flow.
- Heat jackets along the shell are sectioned to allow independent steam control at multiple points.

Other features contribute to efficient operation as well—the TEFC electric motor is ideal for shaft speed control, and hinged inspection covers are positioned at the top of the shell for easy inspection and shaft cleaning.

B Screening and Pressing

allows free water and oil to drain from the coagulated fish solids prior to entering the pressing stage. Dupps Liquid Screens feature stainless or carbon steel construction; drainer screw conveyors or vibratory screen designs are available. The Dupps Twin Screw Press separates the liquid that remains in the coagulated material after free liquid has been removed during screening, producing "dry press



*Cooker in a typical fishmeal processing system.
For illustration only. Actual Dupps configuration may vary.*

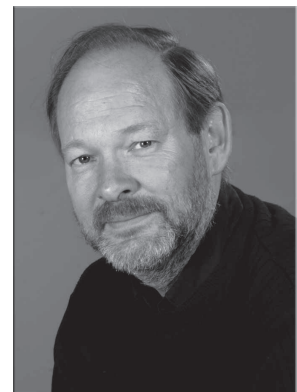
cake." Further reducing oil content in the material at this stage provides higher protein content in the finished fishmeal, higher fish oil yield and reduced fuel usage in subsequent process stages. Designed specifically for fishmeal applications, the Dupps Twin Screw Press design features durability and performance proven in installations worldwide.

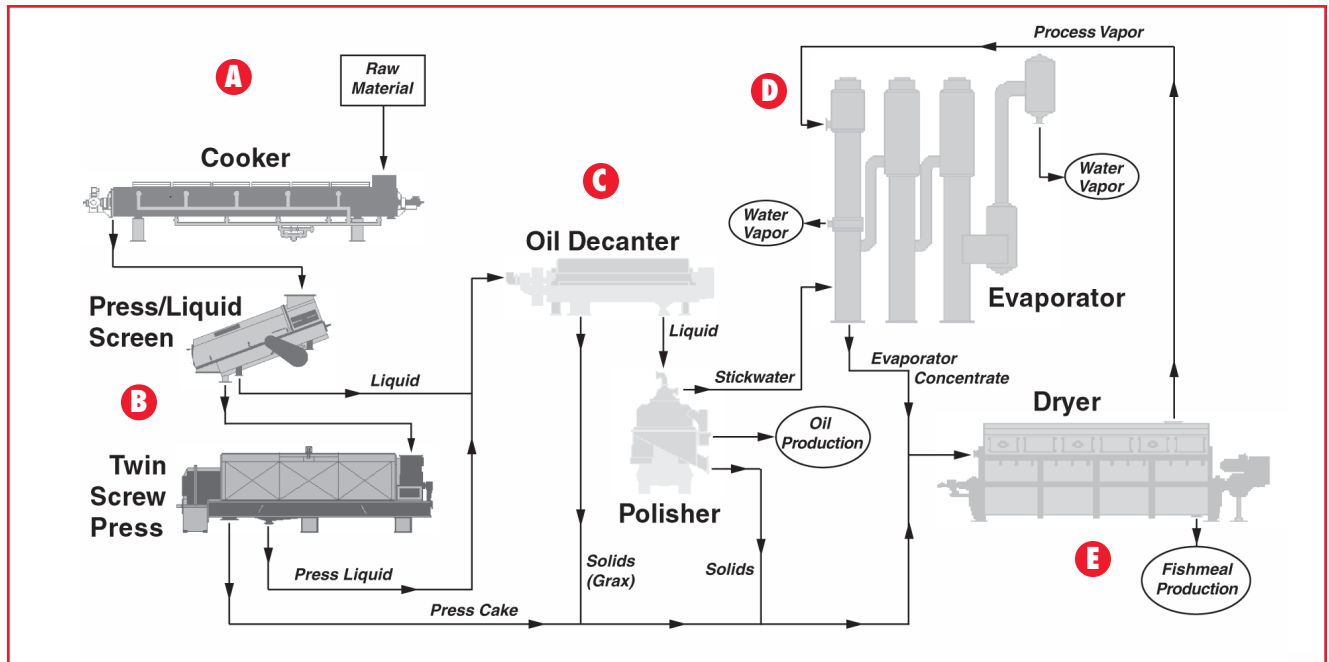
C Decanting and Polishing

begins at the Decanter, which separates solids from the press liquid. These solids go to the dryer along with the press cake. The liquid portion is separated in the Polisher into stickwater, which goes to the evaporator

Meet Rasmus Gundersen

Spearheading Dupps' fishmeal systems development is Rasmus Gundersen, recognized as one of the world's foremost authorities on fishmeal processing and fishmeal plant system design and engineering. Under Mr. Gundersen's direction, Dupps fishmeal processing systems are designed to provide unsurpassed economy and durability, with equipment tailored to your feed stock, handling, control, energy requirements and production goals.





stage, and finished fish oil product.

D The evaporation stage removes as much water as possible from the "stickwater" produced during fish oil polishing. Stickwater contains between 88% and 94% water—reclaiming the 6% to 12% remaining solids and fat represents a significant portion of finished product production and revenue. In addition, because environmental regulations often prevent untreated stickwater discharge, the same evaporation process allows for more efficient and cost-effective waste water treatment. The Dupps Stickwater Evaporator utilizes a multiple effect, falling film design that can use steam or waste vapor from the fishmeal dryer as a heat source. Its unique liquid distribution system dramatically reduces tube fouling and subsequent cleaning to minimize downtime and lowering maintenance costs.

E Drying is the final stage for the press cake, decanter solids and evaporator concentrate. In

the dryer these combined streams are dehydrated to 6% and 8% final moisture content to produce finished fishmeal. The dryer may be either a steam heated disc-type unit or an indirect hot air dryer, or a combination of both.

As with all Dupps systems, each fishmeal processing installation begins with thorough consultations with our staff of experienced applications engineers. They'll translate your needs into specific plans for everything from turnkey rendering plants to individual pieces of equipment designed to improve your current operation. Dupps' experience with all the various components used in fishmeal processing allows engineering flexibility, so you won't have to conform to an "off-the-rack" system that can be inefficient and costly to operate. And with Dupps you get single-source responsibility; we handle everything from shipping to equipment installation to trial testing for full operation according to specification.

Customers are supported by a worldwide team of experienced field technicians expert in every aspect of Dupps equipment. They stand ready to keep your system operating at peak efficiency, and are backed by a full inventory of maintenance and repair parts for the fastest possible response, often within 24 hours of a call.

You can learn more by calling (937) 855-6555 or visiting www.dupps.com/fishmeal.html.

Warning signage is available from Dupps at no charge.

A safe workplace is always job one — that's why regulations mandate that all plant equipment properly display appropriate warning signage. To help users of Dupps equipment maintain safe operation and comply with safety requirements, the signage shown in the chart below is free of charge from Dupps. Each of these signs, such as the example #124787 shown, is made of metal to withstand harsh operating conditions, and is intended to be permanently attached to the appropriate machine or piece of equipment. To find out how to obtain these or other warning and caution signs, call (937) 855-6555 today.



Part Number	Signal Word	Size (inches)	Hazard/Graphic
124786	WARNING	4 x 6	Cutting hazard — foot/leg. Conveyor screw.
124787	WARNING	4 x 6	Cutting hazard — hand/arm. Conveyor screw.
124788	WARNING	4 x 6	Cutting hazard — hand/arm. Rotating element.
122860	WARNING	4 x 6	Cutting hazard — foot/leg. Agitator shaft.
124785	WARNING	4 x 6	Large volume of mat'l could discharge from bin, tank, chute, etc.
134346	WARNING	4 x 6	Material discharge hazard.
119862	CAUTION	4 x 6	Equipment damage caused by reverse operation.
129385	WARNING	4 x 6	Cutting hazard — fingers. Rotating element.
131347	WARNING	4 x 6	Entanglement — fingers. Belt drive nip point.
131348	WARNING	4 x 6	Chain drive nip point.
131800	WARNING	4 x 6	Burn hazard — exposed steam vent.
133534	WARNING	4 x 6	Burn hazard — when cover is open.
141750	WARNING	6 x8	Burn hazard — Hydrozozor feed chute (SS).
142420	WARNING	4 x 6	Burn hazard — hot surface.
151081	WARNING	4 x 6	H ₂ S / Deadly gases.
152947	WARNING	4 x 6	Rotating coupling.
153974	WARNING	4 x 6	Rotating - Coast down.

CONTACT US TODAY FOR ANSWERS TO ALL YOUR QUESTIONS



Won't Let You Down

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Visit www.dupps.com to find in-depth descriptions of the world's leading protein recycling systems, equipment and service. Plus twenty pages of rendering processing data and links to all major rendering association web sites.