



KRAISSL QUARTERLY

Published By
THE KRAISSL COMPANY
INCORPORATED
PUMPS-SEPARATORS-ENGINEERING EQUIPMENT
HACKENSACK, NEW JERSEY



Volume 29

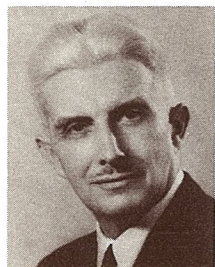
July 1984

No. 3

FREEDOM INSURANCE

*FREDERICK KRAISSL JR., Ph.D., P.E.
Chairman and Chief Executive*

Our defense appropriations should be regarded as Freedom Insurance if properly handled. The insurance business is probably the best patronized of all business activities and I have not heard any loud wail because we



*CONSULTING
ENGINEER
KRAISSL ASSOCIATES*

have not had to make use of its commitments to us. Insurance is purely defensive. We do not want the calamities to happen, but if they do there is a foundation on which rebuilding

can commence. That is the basic difference between all other insurance and Freedom Insurance. History indicates we better not lose a war.

Those of who so glibly sell insurance may have never asked themselves who is insuring the insurance companies. The answer, of course, is our military with our industrial back up. Sometimes it seems like living under the cloud of a volcano. The excavations of Pompei and Herculaneum seem to indicate the people involved did not know what was coming.

At least we are continuously warned by events and motivation. Why citizens of this country should be willing to let our defenses drop below a safe level as considered by our military will always be a mystery to me except that it is reported that the ostrich will bury its head in the sand so it cannot see approaching danger.

There is nothing freedom loving about conquerors. Their whole approach is domination and the effect on their subjects reduces them to slavery. Freedom carries the right to succeed in each endeavor and also the right to fail if one is too indolent to devote the necessary time and effort and does not automatically provide big brothers in the wings who will spend our money

from taxes to come to the rescue of the indolent who usually have families to feed and care for. This, of course, refers to healthy people and does not include those who are sick or incapacitated.

Right thinking freedom lovers know that this precious asset must be defended. That is why it is so important the civilian components of the military must predominate. As long as civilian components identified as National Guard and Organized reserve predominate, it is difficult to believe that military leaders could use this force against patriotic civilians, because make no mistake there is always an urge among some military leaders to be dictators.

All three of the founding communist leaders espoused the doctrine that an over-throw would be impossible unless the civilian population was disarmed. That is why freedom loving individuals should never accept arms control even if they only use their guns to keep them from getting rusty. So watch carefully the behavior of those preaching gun control. It has not worked in suppressing crime. It might work in suppressing freedom.

Among a group of escapees from a communist country was a professor who stated only 5% of those dominated were communists. Asked how this small percentage could dominate the rest, the answer was frightening. "They have all the guns".

VACATION NOTICE

The last week of July and first week of August have been set aside for our vacation period. This does not mean that we cannot help you during this period as we plan to maintain a skeleton staff for this purpose and a cadre in the machine shop for emergency requirements. However, we will be grateful if you will place any orders with which we may be favored in advance, reserving the time allotted to the vacation period for true emergency matters.

EDITORIALS

We want this publication to be available when you are able to invite us to exchange current ideas, information and technical data without intrusion.

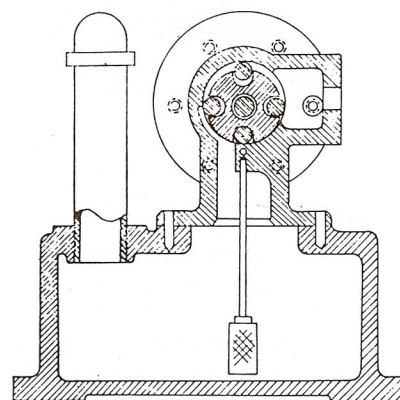
POSITIVE DISPLACEMENT PUMPS

Our Kraissl Quarterly is designed to bring you news concerning all products on which we have standardized or which we could supply if you need them. We have bulletins on most of the illustrated lines which go more into detail. Please request any that may be of interest, and bear in mind that our purpose is to make available the best design for each purpose and explains our diversification.

Two issues in the recent past have given information on our transfer valves and our separators, one issue devoted to each. This issue is devoted to displacement mechanisms or pumps for different services.

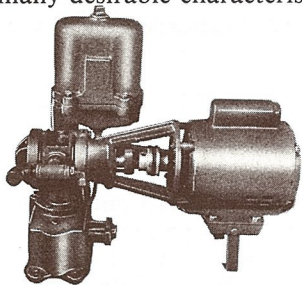
Air Pumps

Many people do not appreciate that a Rotary Air Pump can be a vacuum pump or a compressor depending on which is the working port. We have two basic designs, the roller displacement mechanism designated our Class 21 series and a blade mechanism designated our Class 25 series.



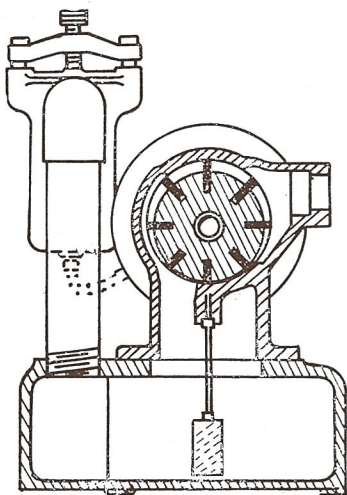
Class 21-Series - Is a mechanism that is hard to wear out. It is ideal for handling corrosive gases or vapors that clog up or gum up other mechanisms. It is and has been used to pull gases from recording apparatus, actuate.

vacuum filling machines and all around suction applications. It's limitation is the one line seal of the roller which makes its upper limit approximately 25" of mercury vacuum and corresponding lower pressure. If you operate in a lower vacuum range this mechanism could be of interest as it has many desirable characteristics.



Class 25 Series - The blade mechanism produces a better seal than the roller design and has a more universal application. Both use our force feed system of lubrication from an underneath oil reservoir like an automobile but in combination the blade mechanism produces a higher vacuum and corresponding pressure. Standard units can be supplied for 28" of mercury vacuum and in the vicinity of 50 psig pressure depending upon service and cooling conditions. If there is a quantity application for higher vacuum or pressure, it may be in the area of our Class 17 or 19 Design.

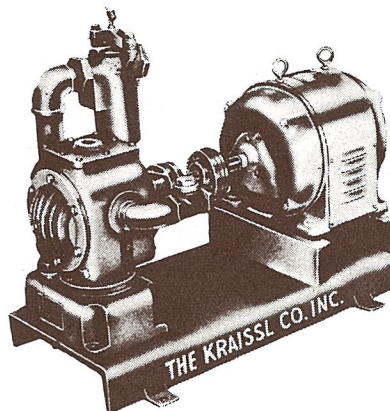
CLASS 25 MECHANISM



Just to let those interested individuals know that this is not all theory, we were privileged to supply our Kraissl air pumps to several systems installed by the Globe Automatic Sprinkler Company. We do not, nor should we have expected to have the addresses of where these air pumps were installed, but to the best of our memory these were before World War II, and we have every reason to believe that if our units had worn out or needed repair parts we would have been contacted. The longevity of Kraissl air pumps is due to our forced

feed system of sealing and lubrication from the built in oil reservoir which is an integral part of the pumps.

Automatic sprinkler companies may find it to their advantage to contact us.

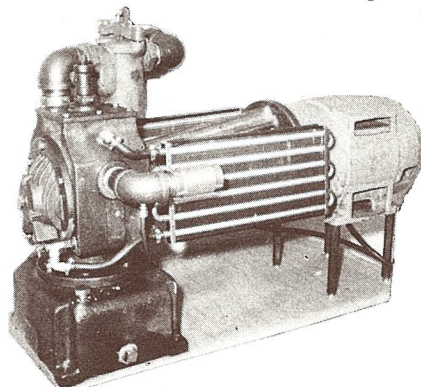


our latest development is our Class 25WJAC assembly which was made available for ejector service where water cooling is not available.

The design illustrated, shows how this has been done. The pump is motor mounted and the heat exchangers are attached to the motor mount. The liquid coolant operates on thermo syphon action and a bird cage type fan keeps the air in circulation so the ambient temperature is the basis for heat exchange.

While we consider this an improvement over direct fan cooled pumps, it is emphasized that water cooling from a water circulation source is the most efficient as water circulation can continue over a period when the pump is idle but it does provide many of the advantages of liquid cooling including the addition of anti-freeze solutions where this is climatically necessary.

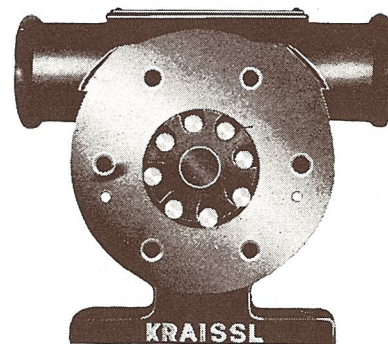
With the expense of new patterns skyrocketing, we only propose to be guided by customers who desire this equipment and have initiated this model in sizes most used in the past.



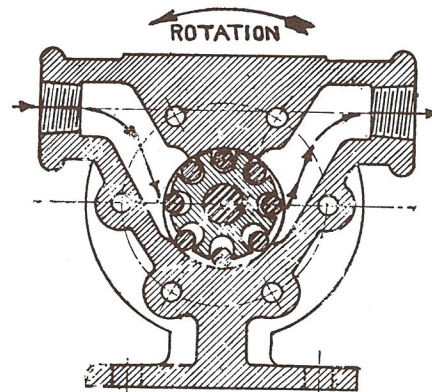
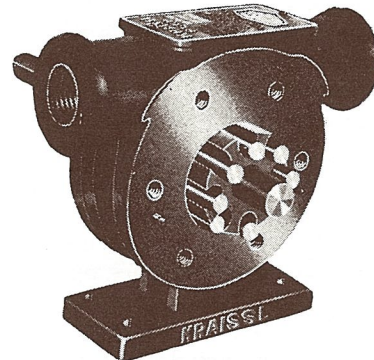
Liquid Pumps

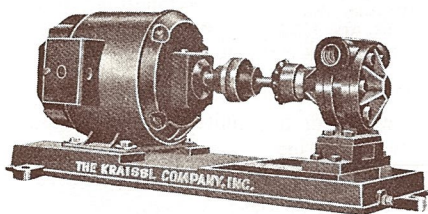
Because of the preponderance of centrifugal pumps on the market, we have limited our manufacture to positive displacement designs or special centrifugals for which there are few standardized units.

Class 50 Design - Is our roller pump converted to liquid service with appropriate design changes. it is an ideal dirty oil pump. The lack of close clearances combining both the characteristics of positive displacement and centrifugal designs make it desirable for many applications where iron and steel materials of construction are satisfactory. Ask for Bulletin Number A-1330.



It is not planned to offer the Class 50 design on a single lot basis. Where a quantity of pumps are needed to handle products with some lubricity, the Class 50 series should be considered. We have brochures telling their characteristics and will be glad to send one on request.

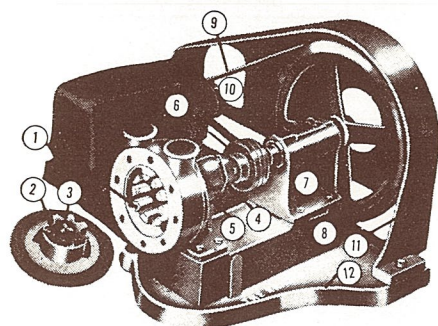
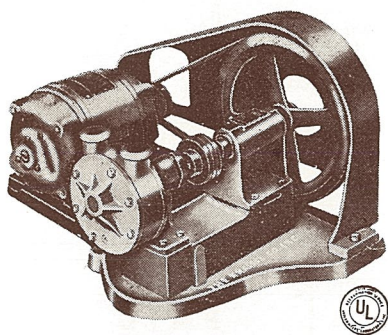




Best of all we believe it can still be manufactured at 10% less than the equivalent capacity of our Class 60 design where direct connected pumps can be used.

Does this not justify consideration?

Class 60 Design - This is the work horse of fuel oil burning systems. It has high suction characteristics. The V Belt is carried on separate ball bearing lubricated transmission support directly connected to pump by loose coupling precludes side pull on the pump shaft minimizing pump bearing and packing distortion. Return seal stuffing box minimizes leakage. By changing pulleys usually available at most hardware stores best speed for various viscosity oils can be obtained. Usually supplied with pulleys for 400 RPM use on heavy oils. Should be considered for coal slurries with minimum abrasion characteristics. Listed by Underwriters Laboratories and New York Board of Standards and Appeals-Ask for Bulletin No. A-1193.



FEATURES

1. Internal gear design provides high suction lift characteristics.
2. Hardened idler insures minimum wear.

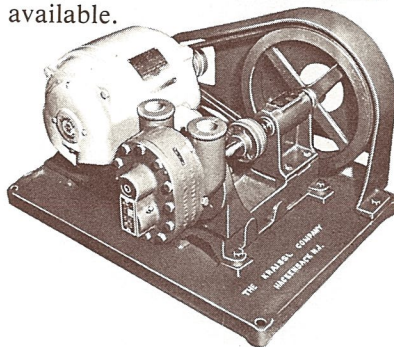
3. Integral bearing and idler assembly.

4. Adjustable stuffing box fitted with return seal and soft packing keeps shaft wear and chance of leakage to a minimum.
 5. Interchangeable return seal design allows change of rotation in field.
 6. Flexible coupling isolates pump bearings from pulley loads.
 7. Rugged ball bearing unit insures bearing alignment and large grease reservoir with provision for re-lubrication minimizes maintenance.
 8. Bearing unit support cast integral with bed plate reduces vulnerability to distortion.
 9. Adjustable V belt drive absorbs shock loads and provides quiet operation with low replacement cost.
 10. Varied pulley combinations for proper viscosity speed relationship.
 11. Cast metal belt guard protects personnel from exposed moving parts and eliminates chance of bending, denting or sharp edges.
 12. Cast metal bed plate with drip collecting bead around edge insures rigid support and minimum chance of bed plate bending or distortion.
13. Pumps are individually tested in accordance with Underwriters' requirements.
14. Approved by the Board of Standards and Appeals for use in New York City under Cal. No. 517-53-S.A.

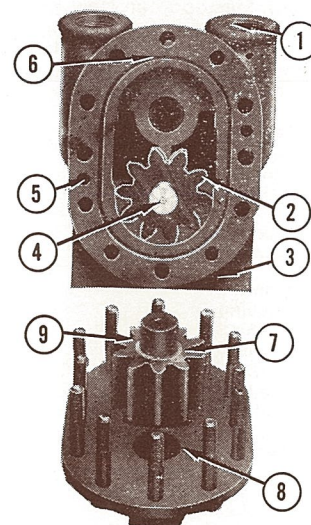
Class 60H Design - This is a look alike pump that usually cannot be identified except by name plate but internal bearing construction is different permitting operating pressures of fifty percent increase. It can replace many applications that formerly used our Class 66 design.

Class 66 Design - This is an external gear pump that is now limited to the smallest three sizes as the larger sizes are in most cases replaced by our 60H series. Ask for Bulletin A-1847

Originally designed for supplying oil to mechanical atomizing oil burners, these pumps are not limited to this application. In actual tests at our plant a Class 66 Pump outlasted four other pumps on the same application for which we had used a competitive design before the 66 Series was available.



MECHANISM

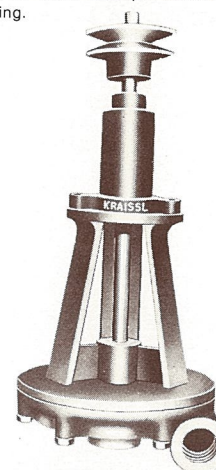


FEATURES

1. Ports in end plate provide easy access to pump interior and parts replacement without piping disassembly.
2. Pyramid tooth form provides maximum gear strength.
3. Interchangeable mounting with corresponding division or size Class 60 Series pump head.
4. Integrated Rotor and shaft provides strong assembly with no weakening due to internal keys or pins.
5. Dowel pin alignment facilitates accurate assembly with proper working clearances.
6. Grooves vented to pump suction eliminate gaskets and insure face and end plate sealing.
7. Bearings are assembled close to load to minimize shaft deflection. Provision is made for renewal of lubricant.
8. Bearing seals divert extraneous matter from main bearings.
9. Hardened idler increases pump life.
10. Interchangeable return seal vents stuffing box to pump suction to minimize chance of shaft leakage while also providing simple means for change of rotation in the field.

SPECIAL CENTRIFUGAL PUMPS

For original equipment applications where standard units cannot be used. Example vertical drive pump for sump mounting.



Bulletin
A-1344

SALES REPRESENTATION

HOME OFFICE

We have reserved the areas of Connecticut, Metropolitan New York, including the Hudson Valley, Long Island, New Jersey and Eastern Pennsylvania less Philadelphia District for coverage by Kraissl Company personnel.

Northeast Region

Boston-Cooper Corp.
Manor Parkway
Salem Ind. Pkwy, Salem, N.H. 03079
Capt. C. V. Watson
Maiden Cove Lane
Cape Elizabeth, Maine 04107

Eastern Region

Filtration Unlimited
Buffalo & John Streets
Akron, N. Y. 14001
Jobe & Co., Inc.
1815 Edison Hwy.
Baltimore, Md. 21213
Daily Associates
8 E. Mt. Vernon Ave.
Haddonfield, N. J. 08033
Fluid Conditioning Equip. Co.
28 Van Tassel Lane
Ballston Spa, N. Y. 12020
R. C. White, Div. Weldment Corp.
P.O. Box 267
Bethel Park, Pa. 15102

Southeast Region

Power Equipment Co.
1307 West Main Main St.
Richmond, Va. 23201
Dillon Supply Company—Main Office
Box 1111, S. West Street
Raleigh, N. C. 27602
Dillon Supply Company
Durham, No. Carolina 27702
Dillon Supply Company
Rocky Mt., No. Carolina 27801
Dillon Supply Company
Goldsboro, No. Carolina 27530
Dillon Supply Company
Charlotte, No. Carolina 28201



Boiler Supply Company
P.O. Box 40225
Nashville, Tenn. 37204
601 Van St., N.W.
Knoxville, Tenn. 37921
Applied Engineering Co., Inc.
P.O. Box 1327
Orangeburg, S.C. 29115
W. T. Meyer Co.
5800 Coach Gate Wynde
Louisville, KY. 40207
Spotswood Parker & Co.
721 Miami Cir. NE, Atlanta, Ga. 30324
Proctor-Himic Co., Inc.
P. O. Box 36279
Birmingham, Alabama 35226
R.A. Litkenhaus & Assoc., Inc.
P.O. Box 16323
7825 Baymeadows Way, Suite 106B
Jacksonville, Florida 32216
Phone: (904) 373-3536
Florida Filters, Inc.
P.O. Box 370985
Buena Vista Station
Miami, Florida 33137
Florida Filters, Inc.
223 S. 13th St.
Tampa, Florida 33602

North Central Region

Comb & Groves, Inc.
336 W. Eight Mile Rd.
Ferndale, Mich. 48220
Gillhespy Sales and Service, Inc.
532 Grandville Ave. S.W.
Grand Rapids, Mich. 49503
Phone (616) 459-0125

Central Region

M. Huffman Sales Co.
3404 Upton Ave.
Toledo, Ohio 43613
The Jordan Engineering Co.
P. O. Box 30017
Cincinnati, Ohio 45230
T. A. Heidenreich Co., Inc.
2525 E. 54th Street
Indianapolis, Ind. 46220
Tobra Engineering Co.
5438 Milwaukee Ave.
Chicago, Illinois 60630
A. K. Howell Co.
7603 Forsythe Ave.
St. Louis, Mo. 63105
Filtr Tech Systems
8535 Duluth St.
Golden Valley, MN 55427

South Central Region

Creole Engineering Co.
P.O. Box 23159, Harahan, La. 70183
Creole Engineering Co.
11724 Industriplex Blvd.
Baton Rouge, La. 70809

Jack Tyler Engineering Co.
6112 Patterson Ave.
Little Rock, Ark. 72209
Albert Sterling & Assoc., Inc.
1513 Winsome Lane
Houston, Texas 77057

Northwest Region

Baxter-Rutherford Inc.
P.O. Box 24324
911 South Homer Street
Seattle, Washington 98134

Western Region

Jay Besore & Assoc.
1690 Plymouth St.
Mountain View, Cal. 94043
Power Engineering Co.
P. O. Box 1777
Salt Lake City, Utah 84110
Killam Gas Burner Co.
1240 S. Bannock St.
Denver, Colorado 80223

Southwest Region

Wagner Hydraulic Equip. Co.
2089 Westwood Blvd.
Los Angeles, California 90025
Engineered Sales Company
5150 N. 16th Suite C-156
Phoenix, Arizona 85016
Phil-Lin Associates, Inc.
13344 Camino Del Norte
Albuquerque, New Mexico 87123

Canada—Ontario and Quebec Provinces

Kirk Equipment Ltd.
7435 Chester Ave., Suite 2
Montreal, Quebec, Canada H4V1M4
Kirk Equipment, Ltd.
1885 Wilson Ave., Suite 206
Weston, Toronto, Ontario, Canada M3H 1T9

Canada—British Columbia Province

Les Hall Filter Service Ltd.
346 E. Esplanade
North Vancouver, B.C. V7L 1A4

Canada—Alberta Province

H.F. Clarke Limited
5220-1A Street S. E.
Calgary, Alberta, Canada T2H 1J1

Hawaii

Foster Equipment Co.
P. O. Box 30188
Honolulu, Hawaii 96820

Mexico

Ingenieria Termo Industrial, S.A.
Iztaccihuatl No. 63, Col. FI
Delegacion A. Obregon
Mexico, D. F. Mexico 01030

THE KRAISSL COMPANY

INCORPORATED

HACKENSACK, NEW JERSEY 07601

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