



KRAISSL QUARTERLY

Published By

THE KRAISSL COMPANY

INCORPORATED

PUMPS-SEPARATORS-ENGINEERING EQUIPMENT

HACKENSACK, NEW JERSEY



Volume 11

APRIL 1968

Number 2

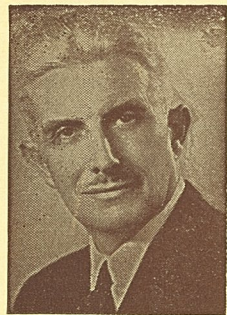
CAN INDUSTRY PROVIDE THE KEY TO THE REQUIREMENTS OF A CHANGING SOCIETY?

FREDERICK KRAISSL, JR., P. E.

President

THE KRAISSL COMPANY, INC.

It has been stated by many of our learned predecessors, that the only thing we can be sure of is change. This is probably true of everything except human nature.



Consulting Engineer
Kraissl Associates

The Scriptures provide the guidance for human activities if we will only take it. When Moses came down from the mountain with the Ten Commandments, he found the children of Israel dancing around the golden calf. Figuratively speaking, the human race is still doing it. Solomon, although accepted as the wisest human being of his era ran an expensive court. The people paid for it in heavy taxes. Rehoboam his son, was requested to reduce them. His comment was to the effect "My father whipped you with whips but I will whip you with scorpions". His arrogance did not pay off. Two tribes could not enslave ten tribes and the United Kingdom of Israel broke up. So then as now, the people were confronted with the problems of money and taxes. I think that the lesson to be learned is that people are more important than things and that the first real enlightenment in social progress came when our country was founded under our present constitution, supplemented by the amendments that comprise our Bill of Rights. We must never go backward by ignoring the rights of people which includes equal opportunity to succeed but not the right of shirkers to be carried on the backs of workers.

As a minor rugged individualist I believe in private enterprise, that initiative, competence and productivity should be rewarded by the enjoyment of the prestige and fruits of this activity, if honestly achieved and that in a free society, laws can be administered that make this possible.

But I also see machines replacing individuals to justifiably cut costs of production with full realization that lower prices of needed and desired products react to the advantage of all of us as well as creating new jobs, but not necessarily for the people whose employment has been terminated.

I see candidates for election to governing offices promoting so-called anti-poverty programs teaching individuals the erroneous philosophy that they are entitled to a minimum income so they may enjoy life whether or not they are an asset to their fellow man. We talk of the law of the jungle with our lips curled in a sneer but the jungle does not tolerate free loaders and only hunts for self-preservation.

Our ancestors migrated to this country to be free of despotism and regimentation but insisted on freedom of conscience and the right to succeed or fail based on their relative competence to meet the challenges of daily life. It was a big uncrowded country with plenty of room in which to venture.

The country has contracted. As viewed from the air, the whole east coast can be considered a megalopolis and as large cities spread to the suburbs, the vacant territory vanishes. The ability to go out and shoot a turkey for Thanksgiving must be relegated to the memory of our ancestors, for most of us. We see our food as frozen packages and to procure it, we need a means of exchange.

The demand of people needing food, lodging and inspiration for a happy future in a free society, will not be denied. We believe in emancipation, not slavery under rulers, no matter how benevolent. But more than any other secular requirement, people need jobs by which their objectives can be accomplished. They need jobs to meet the challenge of work well done for character development. Character is the sum of our past experiences and it is my belief that it is the only thing we take with us when we leave this world, so it is essential that these experiences be constructive.

If we look at our corporate statements it will be evident that with large successful organizations more than half of the earnings are commandeered by taxes. Would it not seem logical that the captains of industry capable of

such achievements would insist on having a voice in how the money is spent?

Would it not seem logical when a cotton picking machine is developed that displaces human labor, a productive activity be organized to replace it, which can use the services of individuals who would otherwise be surplus?

Let us stop and realize that in its largest sense all wealth producing activities are industrial. The four basic subsections are the agricultural industry, the fishing industry, the mining industry and the manufacturing and construction industry. All other human activities are non-productive and at their best are justified to keep the producer well, competent and happy to maintain maximum productivity.

Diversification in industry makes possible a great variety of enterprises under a centralized control. As one parameter of productivity, could not the needs of the individual producer, collectively considered, be plugged into an industrial expansion plan? Could not an efficient organization study the economic needs of the country much as the mining engineer studies potential oil and mineral deposits, and present plans for setting up productive job creating enterprises to meet the needs of each community or area?

It seems clear that local Chambers of Commerce, governmental bodies and educational institutions would cooperate with facts that would make correct decisions most frequent. Uneconomic enterprises would be wasteful and doomed to failure, but highest possible profit motive could be secondary to providing an employing industry to an area that needs it.

Would it not be a better approach to eliminate the need for an anti-poverty program than paying the huge tax bite that these collective socialistic programs impose? Would it not be better to encourage workers to own stock in the employing enterprises with the knowledge that there is a market for it, if funds are needed for other purposes. This would make every employee a capitalist and a participant in the company's growth and progress.

Some pruning of our social procedures would be necessary, such as getting rid of unemployment free loaders who could easily be producers but prefer to be parasites.

Following the normal pattern, the company would be run for the benefit of the stockholders, many of whom could be the employees. Leadership would be based, as always, on elective competence as a result of demonstrated ability on the part of executives to produce. It would be hard for demagogues to upset a sound economic unit and it is probable owner employees would not want to have their investments depreciated by voting for civil administrators inimical to their interests.

Best of all, we would be insisting that individuals earn their keep and progress based on competence, but in a highly organized society it seems we need a **planning activity** as an integral part of each large diversified company **to produce jobs**, just as the safety director reduces hazards. This gigantic step forward has been based on the philosophy that individuals are not expendable. The same theory should be applied to economic job production.

The crux of the matter is whether diversified industries will accept the challenge of economic job production and provide an exploration department as an organizational component with this function as its exclusive mission or whether this requirement of our society will be ignored and be permitted to become a political football. Those of us who believe in the private enterprise system consider that most essential activities in the economic field can be better and more efficiently accomplished by private enterprises than by any form of state controlled agency.

Is this a dream or a practical plan for the future?

PLANT CLOSURE FOR

VACATION PERIOD

Starting July 13th

Reopening July 29th

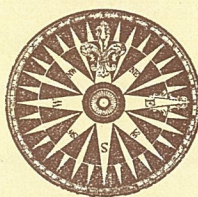
As the vacation period approaches the more we need the cooperation of our customers in anticipating their needs.

Earlier vacation periods have not been as satisfactory as the period chosen and our production personnel have literally been working night and day to meet your requirements.

During the vacation period there will be a skeleton staff on duty with emergency shipping facilities that will only be able to handle orders for stock items. Please help us make this an enjoyable vacation period. Most of us need the chance to relax, without the worry that any customer has not been accommodated.



INDUSTRIAL AND MARINE FIELD

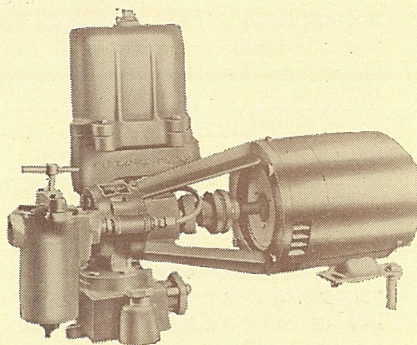


AIR POLLUTION CONTROL AND KRAISSL PUMPS



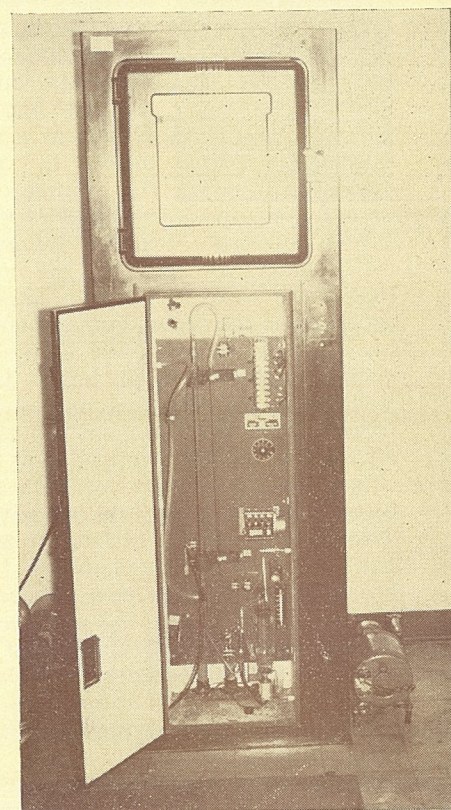
In our last issue we commented on the contribution of Kraissl oil pumps in air pollution abatement. In this issue we are glad to emphasize the contribution of Kraissl air pumps in the field of air pollution control. To control a situation it is necessary to have accurate information and it is in this area that Kraissl pumps make their contribution.

Perhaps it is pardonable to comment favorably if not braggingly about progress made by one's state of residence, but New Jersey through its Department of Health took early initiative in providing mobile laboratories to go to a location and determine the extent and kind of air pollution being experienced. It was recognized that constant sampling over long intervals required the use of a vacuum pump to draw the air containing suspected component pollutants through gas analyzing equipment. It was appreciated that this called for a pump designed for the most exacting continuous service and we were glad to participate in making suggestions.



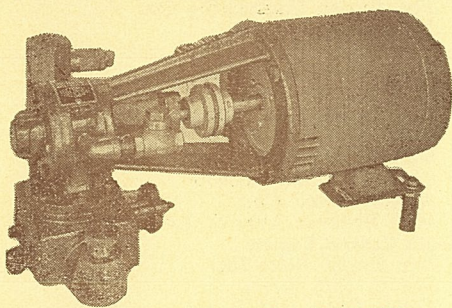
WITH INTEGRAL AIR FILTER

We had previous experience dating back over the past forty years in handling air with entrained impurities and suggested consideration of our Class 21 series design. This is our roller pump mechanism in combination with our patented system of force feed lubrication and oil separation. This supplies oil lubrication and sealing under pressure to all parts where required, in sufficient quantities to furnish a flushing action. Excess oil in the discharged air is separated by our patented two stage integral air filter and the filtered salvaged oil is returned to the lubricating system. The displacement mechanism is comprised of rollers which emerge from the recesses of the rotary piston by centrifugal force and follow the inside periphery of the housing. This is somewhat the same anti-friction action as the rollers in a roller bearing. There are four displacements per revolution and at the normal operating speed of a standard 1800 rpm motor, this results in 7,200 displacements per minute which produces stream line flow without appreciable pulsation, for all practical purposes.



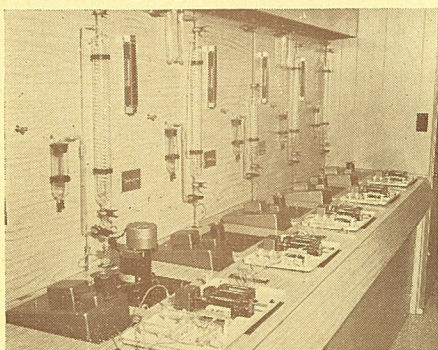
ANALYZING APPARATUS
REQUIREMENTS SERVED BY
KRAISSL 21 - 3 AMD PUMP

We made available one of our Class 21-3 AMD units which permitted tests to be conducted over the period of approximately a year. The small size AMD unit uses so little oil that it was initially supplied without our air filter, but it was later decided that the inclusion of the air filter was desirable to salvage oil that would otherwise be lost. The sight glass of the AMD unit permits instant observation of the oil

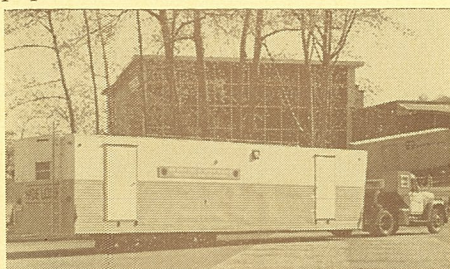


WITHOUT INTEGRAL AIR FILTER

level and these pumps have demonstrated their capability of running over very long periods of time without attention as long as there is sufficient oil in the reservoir, but with servicing of the air filter, dependent upon the pollutants being separated.

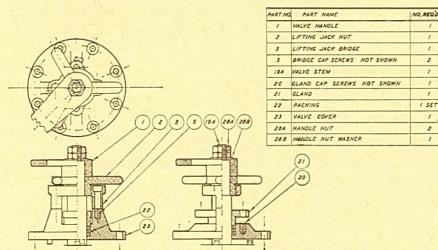


While New Jersey may have initiated the development and use of a mobile air pollution laboratory for air pollution control, it did not take long for a foremost manufacturer of equipment of this type to make mobile laboratories available commercially so that any state or organization interested could have the necessary equipment to deal with this problem. We are proud that The Technicon Corporation of Ardsley, N. Y. also selected our Class 21 series design to be a component of their mobile laboratories. The accompanying photographs show the development of these mobile laboratories from the early ones initiated by the State of New Jersey complete with panel installations up to and including the latest models now available through the Technicon Corporation. We believe that with this equipment, states and cities can make a determination of the local situation in each area and without hysteria or political pressure make a decision of what steps must be taken on both a short and long range basis to meet air pollution threats to our population.



LATEST MOBILE LABORATORY
BY TECHNICON CORP.

CLASS 72 SEPARATOR PLUG RAISING DEVICE FOR MARINE SERVICE



PART NO.	PART NAME	QTY.
1	PLUG HANDLE	1
2	LIFTING JACK BODY	1
3	LIFTING JACK BRIDGE	1
4	BRIDGE CAP SCREWS NOT SHOWN	2
10A	ISLAND STEM	1
10B	ISLAND CAP SCREWS NOT SHOWN	1
11	ISLAND	1
12	PACKING	1 SET
13	VALVE COVER	1
14	HANDLE NUT	2
15	HANDLE NUT WASHER	1

As most of our customers know, our separators are designed with a sufficiently large anti-wedging plug angle so that lifting jacks are not needed for most service applications.

The need for this type of device can be considered when the following conditions obtain **which usually is only applicable to our larger sizes:**

1. When the pressure drop across the plug cannot be balanced by a balancing valve assembly. This occurs when the differential pressure drop is not caused by the need for cleaning the separator element, which can be handled by the balancing valve, but when the pressure drop is caused by unusually high flow velocities. This forces the plug against the seat opposite to the line of flow with sufficient friction to cause difficulty in turning the valve.

2. When corrosion occurs between seat and valve plug, and the material is non-lubricating. Due to the increasingly high cost of bronze, there is beginning a tendency to use separators with cast iron housings for sea water service and bronze plugs to avoid corroding together. There are precedents for cast iron applications, as many sea-chests on raw water intakes are of iron construction. The corrosion effect can be minimized by specifying and using electrolytic inhibitors screwed into the port provided under the valve plug but the original machined surface of the valve seat cannot be relied upon for low friction characteristics and a plug lifting device is very economical compared with the cost of all bronze construction where cast iron can be otherwise logically substituted.

3. Where dissimilar metals are used that will gall or score each other when operated in contact with each other. There are others, but stainless steel plug against stainless steel seat are classic examples.

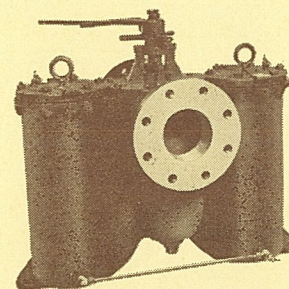
The use of the lifting device can be minimized by specifying a Teflon coating for the plug. In a test set up at our plant we operated a 1½" assembly 10,000 times until the Teflon coating was worn down to the point where the metal of the plug was exposed. Even then there was no malfunctioning but the test was stopped at that point.

Where any of the above conditions could be present, the specifying of the lifting device should be considered, because even if not normally needed, it is a good feature to have available. This is particularly true with our design as the lifting is accomplished by a rotary movement, somewhat like a wheel puller. Consequently the plug raising can be accomplished by most minute fractions of an inch that need not involve a gushing effect from a higher pressure causing a quick interchange of liquids before and after having gone through the separator elements.

Basically, plug lifting devices of our design should not cause immediately foreseeable problems on intake cooling water applications above the water line. They should not be needed on the smaller sizes of bronze construction. They should not be needed with iron or steel construction for most oil applications and they should be outlawed for small and medium lubricating oil applications under normal flow conditions for each size.

The disadvantages of the use of lifting devices when unneeded even of a design, where back flow gushing can be controlled, is that when the plug is lifted from the seat, clean oil can be contaminated with dirty oil and particles of extraneous matter left on the seat, can gall or score either the plug or the seat, when the plug is returned to its proper position and turned to either right or left, in normal functioning. There is also the possibility that extraneous matter remaining on the seat can preclude the return of plug to its seat, resulting in leakage.

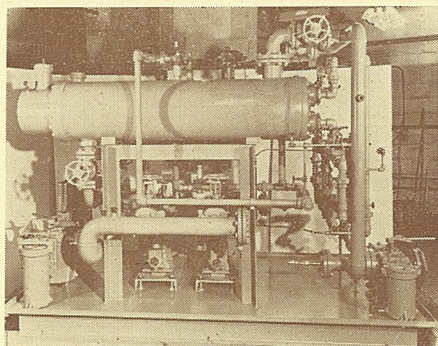
Please bear in mind that probably the tightest known valve is the plug valve as it can be lapped to a perfect fit and due to the taper design, takes up its own wear. To prove this claim, glass plug valves are used with laboratory high vacuum apparatus for the highest possible degree of vacuum obtained with mercury vapor pumps. The plug valve is a device with very great latitude of application and with certain additions and accessories the applications can be almost unlimited.



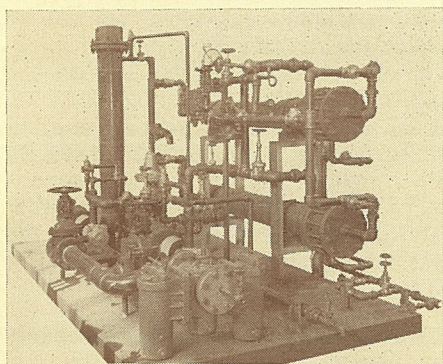
LARGE CLASS 72 SERIES SEPARATOR
WITH PLUG RAISING DEVICE

KRAISSL SEPARATORS AS INTEGRAL PARTS OF PUMP AND HEATER SETS

In line with our policy of advertising customers who use our products as an integral part of their equipment, we are happy to show photographs of pump and heater sets where our separators are used as standard equipment. It will be noted that a large size separator is used on the incoming or suction line to accommodate the cold heavy oil and that a smaller size unit with perforation selection to protect the burner orifices is used on the discharge side after the oil has been preheated.



NATIONAL AIROIL BURNER CO.



PEABODY ENGINEERING CORP.

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

Filtration Unlimited
373 Hertel Avenue
Buffalo, New York 14207
Williams Bros., Inc., 70 Commercial St.,
Portland, Me. 04181

Eastern Region

Boston-Cooper Corp.
95 Holland Street
Somerville, Mass. 02143
Valley Equipment Company
404 Frick Bldg.,
Pittsburgh, Pa. 15219
J. W. Pearson Co., Box 282
Hatboro, Penn. 19040
Jobe & Co., Inc., 2857 Greenmount Ave.
Baltimore, Md. 21218

Southeast Region

Power Equipment Co.
1307 West Main St.
Richmond, Va. 23201
Dillon Supply Company—Main Office
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, Inc.
490 Craighead Street
Nashville, Tenn. 37204
1628 Island Home Avenue
Knoxville, Tenn. 37920
Applied Engineering Co., Inc.
P.O. Box 506, Orangeburg, S. C. 29115
Spotswood Parker & Co.
313 Techwood Drive, Atlanta, Ga. 30313
Florida Filters, Inc.
5570 N.E. 4th Ave., Miami, Fla. 33137

North Central Region

Charles R. Davis
2970 W. Grand Boulevard
Detroit, Mich. 48202
Hetler Equipment Co.
P.O. Box 1904
Grand Rapids, Mich. 49501

Central Region

W. G. Taylor Co.
1900 Euclid Building
Cleveland, Ohio 44115

The Jordan Engineering Co.
7401 Shewango Way
Cincinnati, Ohio 45243
T. A. Heidenreich Co., Inc.
2525 E. 54th Street
Indianapolis, Ind. 46220
Tobra Engineering Co.
6422 S. Marshfield Ave.
Chicago, Illinois 60636
A. K. Howell Co.
1001 Bellevue Ave., St. Louis, Mo. 63117

South Central Region

Ace Engrg. Sales Inc.
246 E. 15th Street
Tulsa, Okla. 74119
Creole Engineering Co.
2627 Banks Street
New Orleans, La. 70119
Albert Sterling & Assoc., Inc.
2611 Crocker St.
Houston, Texas 77006
Walter A. Lamb Co.
3228 West 6th Street
Fort Worth, Texas 76107

Northwest Region

Baxter-Rutherford, Inc.
1932 First Avenue S.
Seattle, Washington 98134

Western Region

Jay Besore & Associates
380 Bayshore Blvd.
San Francisco, Cal. 94124
Power Engineering Co.
1806 South State Street
Salt Lake City, Utah 84115
Vernon Hines
1400 So. Lipan Street
Denver, Colorado 80209

Southwest Region

Wagner Hydraulic Equip. Co.
10814 Santa Monica Blvd.
Los Angeles, California 90025
Engineered Sales Co.
4146 E. Washington St.
Phoenix, Arizona 85002

Canada—Ontario and Quebec Provinces

Kirk Equipment Ltd.
375 Victoria Ave.
Montreal, Quebec, Canada

Canada—British Columbia Province

Fred McMeans & Co.
1608 West 5th Avenue
Vancouver, B. C., Canada

Hawaii

Foster Equipment Co.
719 Ahua St.
Honolulu, Hawaii 96803

Mexico

Ingenieria Termo Industrial SA
Puebla 326-2
Mexico 7, D.F. Mexico

THE KRAISSL COMPANY

INCORPORATED

HACKENSACK, NEW JERSEY

RETURN POSTAGE GUARANTEED



YOUR
COPY
OF

**KRAISSL
QUARTERLY**

BULK RATE

U. S. POSTAGE

PAID

Permit No. 1268

Hackensack, N. J.