



KRAISSL QUARTERLY

Published By

THE KRAISSL COMPANY

INCORPORATED

PUMPS-SEPARATORS-ENGINEERING EQUIPMENT

HACKENSACK, NEW JERSEY



Volume 8

JULY 1965

Number 3

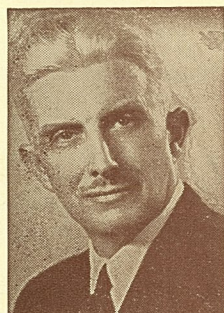
WHY TRUST A SALES ENGINEER?

FREDERICK KRAISSL, JR., P.E.

President

THE KRAISSL COMPANY, INC.

The direct answer to this question is "Because he is trained in his profession and guided by a code of ethics".



Consulting Engineer
Kraissl Associates

This is as it should be as related to technical equipment proposed or used in any form of engineering enterprise, system or application. The professional engineers' law in most states requires that the practice of engineering be limited to licensed Professional Engineers.

And then we come to the matter of a definition of the practice of engineering. Since my legal residence is in New Jersey I will quote the New Jersey law, although most of the other state laws cover this subject in much the same manner.

"The terms 'practice of engineering' or 'professional engineering' within the meaning and intent of this chapter shall mean any professional service or creative work requiring engineering education, training, and experience and the application of special knowledge of the mathematical, physical and engineering sciences to such professional services or creative work as consultation, investigation, evaluation, planning, design or general supervision of construction or operation for the purpose of assuring compliance with plans, specification and design in connection with any public or private engineering or industrial project" . . . "A person shall be construed to practice or offer to practice engineering, within the meaning and intent of this chapter, who practices any branch of the profession of engineering; or who, by verbal claim, sign, advertisement, letterhead, card, or in any other way represents himself to be a professional engineer, or through the use of some other title implies that he is a professional engineer; or who represents himself as

able to perform, or who does perform any engineering service or work or any other professional service recognized by the professional engineer or by educational authorities as professional engineering".

So it seems clear that an individual cannot offer his services to the public while presenting himself in the status of any kind of an engineer without violating this or a similar state law, unless he or she is a licensed Professional Engineer. In passing, it is important to emphasize that if an individual introduces himself by means of offering a visiting card indicating that he is a sales engineer, when calling on prospective clients or customers he is certainly offering his services. To clear this matter without chance of misunderstanding, I have insisted on the use of the letters P.E. after my name and those of qualified associates.

This returns us to a more detailed answer to our posed question. The code of ethics would preclude an engineer from knowingly suggesting the employment of a device, system or installation that was not suited to the application. Likewise his trained professional status should make him technically qualified to know what his product can do and minimize misapplication.

But just one point of caution. If he is a full time employee of a manufacturing or supply company, his professional ethics would also preclude him from designing an installation or investigating all factors involved with equipment supplied by others in selecting the component he is offering.

This would involve unfair competition with brother Professional Engineers who earn their livelihood providing this professional service. There is even a name for it. It is termed "free engineering" when extended beyond the proper application of the component, system or installation that he is proposing to supply.

Why trust a sales engineer? Because he is a trained and specialized professional who has elected as a career to supply or suggest equipment which is best suited to the requirements of each application.

VACATION PERIOD July 2 to July 18 Inclusive

This publication is normally planned to reach our circulation list several weeks before the first of July so this should serve as a reminder that we plan to shut down our operations for the vacation period.

To preclude inconvenience to our customers, we have sent out vacation notices far in advance on separate forms to eliminate any possibility of this information not being received in time for appropriate action.

The complete shut down was decided upon after utilizing in the past, the following procedures:

1. Staggered vacations. This produced a condition where we never had a full team together during the summer months. While we have made provision for take over of duties by individuals who can perform the functions of another, each of us knows best our basic activities and performance of these functions by others is never the best service we can provide.

2. The platoon system. This presumes that an organization can be divided into two parts, each of which can perform all functions on a basis of 50% efficiency. This was found to be a false assumption with a closely knit organization. We were always missing the specialized knowledge of the individual who is on vacation.

3. The platoon system with augmented summer help. This theoretically increases the production capacity but does not meet the problem of missing the specialized knowledge of individuals on vacation.

So we have concluded that small industry can be better likened to a team than an army. Large industry has many parallels with army organizations. Its overhead allocation is large enough to support many individuals doing the same type of work. It operates on a standardized basis and the products are generally standardized so that its production can be planned on statistics. When operations can be standardized, production techniques including production personnel management can be also planned on a controlled basis.

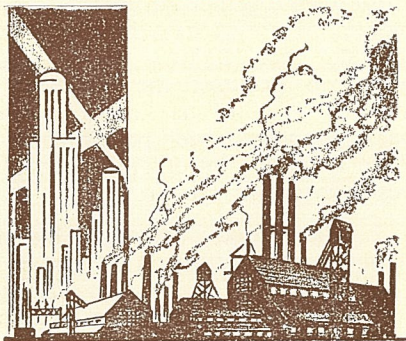
Small business with particular reference to the team concept is a much more personalized line of endeavor. Unless a team is composed of members who are used to playing together, they are not liable to emerge as league champions. Small business with the problem of rising costs and resistance of customers to increased prices does not have the necessary margin to support the overhead for an adequate "bench" or group of fully qualified substitutes.

So we have ruefully come to the conclusion that the best procedure for small industry is the complete shutdown.

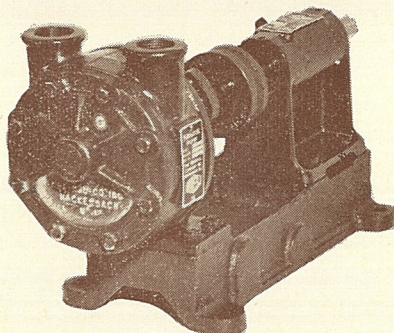
We will try to fill all orders for standard items in advance of plant closure and ask that orders for special items be placed with sufficient lead time so that they can be completed before the vacation period or after we re-open.

We are anxious to serve you and are grateful for this privilege. We know most of you so very well that we believe you will agree we need the pick up of a vacation and will co-operate with us toward making our program fit in with your requirements.

INDUSTRIAL FIELD



CLASS 60 ESA ASSEMBLIES



It has been our firm conviction for many years that we owe the longevity of our Class 60 series reduction drive pump units to the ball bearing drive that is loose coupled to the pump.

The pump and bearing assembly are mounted on a sub-base. With our S type base plate the sub-base is cast integrally with the cast iron base plate

to save assembly costs for a wide variety of applications involving continuous service with standardized motors. There are other applications where motors in frames within the range of our S type base plate cannot be accommodated, so provision has been made for sub-base assemblies which can be mounted on master bed plates or used as an individual unit.

Class 60 ESA assemblies provide a complete answer to the requirement that much power should not be transmitted to a pump of this type except through a loose coupling. The extended shaft of the ESA units can accommodate various types of reduction drives but we prefer the V belt for many reasons.

The ESA units eliminate side pull from the pump shaft and precludes shaft deflection from this cause. The two undesirable effects of shaft deflection are first to cause the rotor to chew into the face plate until it jams and concurrently a deflected shaft runs in an elliptical orbit under which circumstances it is impossible to effect a tight closure with either packing or a mechanical seal.

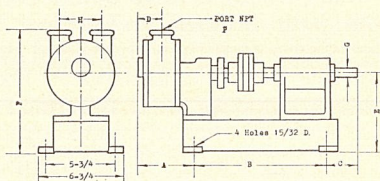
Our ball bearing drive units preclude misalignment which is a common fault of pillow blocks. The bearing support units are machined in an operation that keeps the ball bearings parallel and concentric. They are sealed type and face inwards to a large reservoir of grease lubricant. Once a year inspection is sufficient for most services although this should be checked for each application. The savings in maintenance time alone justifies the investment in this type of construction.

The prices of Class 60 ESA assemblies pictured above for the five most popular iron pump sizes are as follows:

60-3ESA	— \$109.50
60-5ESA	— \$129.50
60-7ESA	— \$150.50
60-9ESA	— \$253.75
60-11ESA	— \$262.75

Price of bronze ESA pumps can be quoted on request with whatever displacement elements will best meet the requirements.

DIMENSIONS CLASS 60 ESA ASSEMBLIES



Model	Displ. gal/100 rev.	Approx. net weight lbs.	Port size in.	DIMENSIONS INCHES									
				A	B	C	D	E	F	G	H	I	J
60-3	.550	25	1/2	3-3/16	11	3-1/8	1-1/2	6-7/16	7-7/16	3/4	2-3/4		
60-5	1.04	35	3/4	4-1/16	11	3-1/4	1-31/32	6-7/16	8-3/16	3/4	3-1/2		
60-7	2.05	40	1	4-3/8	11	3-1/4	2-5/16	6-7/16	8-3/16	3/4	3-3/4		
60-9	3.45	70	1 1/2	5-7/16	11	3-7/16	3-1/4	6-1/2	11-11/16	1	4-3/4		
60-11	4.78	74	1 1/2	5-15/16	11	3-7/16	3-1/2	6-1/2	11-11/16	1	4-3/4		

Large Size Print Available

THE CHALLENGE OF INFLATION

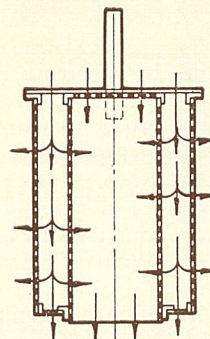
We recently received a notification that due to the increase in costs in fabricating their line of original equipment, this manufacturer was conducting a campaign to reduce the costs of purchased items to offset.

This is not quite as impossible as it sounds even on the assumption that the products previously purchased were not over-priced and that the quality supplied was not being reduced.

It has been said that necessity is the mother of invention and this precept has stood us in good stead. We have not waited for this to catch up with us but have taken the initiative in cost reduction where this is possible.

Two outstanding developments have been made available.

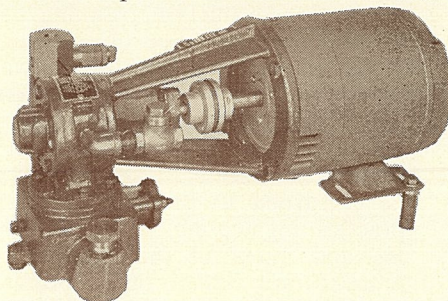
1. By the use of multi-element baskets we have been able to effect an increase in the separating area of elements of the same dimensions between 30 and 50%. This means that the size of the body of a separator can be reduced from 30 to 50% without decreasing the separating efficiency.



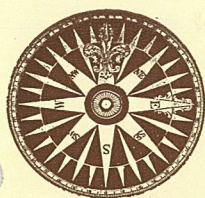
A reduction in body size saves weight which means dollars especially when dealing with high cost metals. There are other advantages of multi-element baskets but these can be considered as extra dividends.

Our separators cover such a wide line of applications that many customers are at present making use of the savings that can be effected.

2. Kraissl Class 21 and 25 series air and gas pumps have been supplied with our patented system of force feed lubrication and excess oil recovery system for many years. However, past construction has required base plate assemblies, which are expensive in both weight and labor costs. Our new motorized units eliminate base plates and we expect to hold the line on costs.

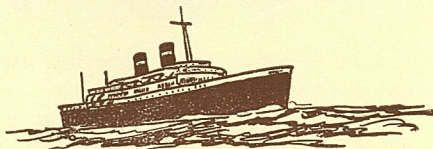


Even if you have no application for our equipment, we hope you will credit us for our method of meeting the inflation challenge.



MARINE FIELD

SHIPBUILDING INDUSTRY



LIFTING JACKS CAN CAUSE TROUBLE !

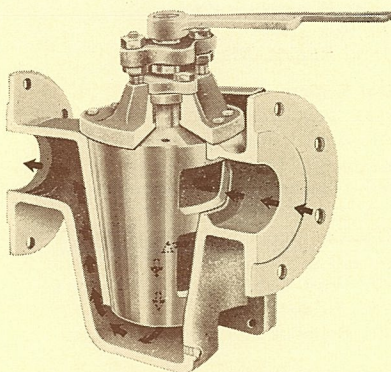
Possibly some of our readers are familiar with the BUSHIPS Instructions 9480.64 of 29 October 1963 issued by the U. S. Navy citing situations where lifting jacks were contributory to serious accidents where loss of life and property damage was involved.

Manufacturers of separators where lifting jacks are specified are helpless to avert these tragedies as naval architects take the responsibility of specifying when these devices will be applied and in many cases approving or disapproving the designs which are offered.

From the tragedies cited it will be apparent that the elimination of the use of lifting devices should be given greatest consideration where hazardous liquids are involved although specifying them for other purposes should be limited to applications where they are really needed.

Let us start by questioning the justification for their introduction. If a tapered plug is fitted in a tapered seat and the plug and seat are manufactured from materials that do not gall or score each other, one can be rotated over the surface of the other, if one element acts as a bearing for the other. This is the principle of the plug valve and it is believed that a survey of the market will indicate that the majority sold do not offer built in means for lifting the plug from the seat.

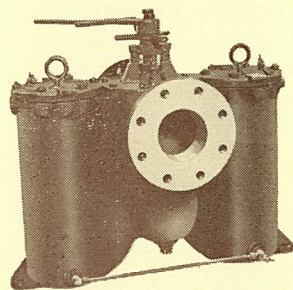
Those of us who have spent the greater part of a lifetime designing plug valves have determined that the use of the proper plug angle can compromise anti-wedging action with reasonable size without restricting the ports through the valve to be less than the area of the pipe size for which each valve is designed. This means that without any exterior devices the rotor or plug floats on its seat without wedging unless an exterior force is applied, such as standing on the separator shifting lever to reach overhead valves.



**FLANGED VALVE
INDICATING AMPLE PLUG
AND SEAT BEARING SURFACES**

When the plug valve in a duplex separator is the barrier between high pressure and opening or atmospheric access pressure, the load between the bearing surface and the seat can be considerable in the larger sizes. While the same bearing principle applies, it seems needless to accept this wear and tear, when all that is necessary is to supply a simple means of balancing pressure. We have made available a simple pressure tubing hook up with needle valve so that pressures can be equalized with minimum liquid exchange and WITHOUT lifting the plug from its seat. It is our belief that one of the reasons for the tragedies cited is the uncontrolled and comparatively unlimited flow between the side of the separator under pressure and the side that could be opened for cleaning when a plug is removed from its seat by the lifting jack.

**SHOWING PRESSURE BALANCE DEVICE
ON INTEGRAL
DUPLEX SEPARATOR**

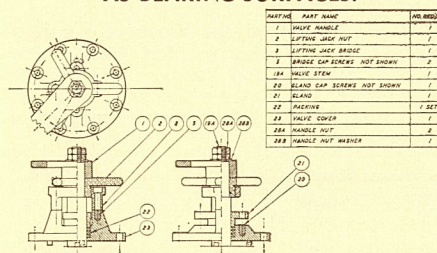


ON BOARD THE SS JAMES LYKES

If hazardous liquids can gush from the pressure zone to the open area, it should be obvious that the hazard is greater than if only a slight ooze could occur through a slightly opened needle valve, if both are neglected and not operated as intended.

It was with this idea in mind that when we designed our plug lifting device, it was raised by a rotary motion where the plug can be raised by only a controlled slight amount at a time rather than all at once, but even so the liquid passage could be greater than with a needle valve as part of the by-pass assembly.

LIFTING DEVICE FOR METALS THAT CANNOT FUNCTION TOGETHER AS BEARING SURFACES.



To sum this up the uses of lifting devices should not be made mandatory but discretionary if and when needed, as follows:

1. If the service is one where lifting devices would not be mandatory on regular plug valves the same principle should apply when the plug valve is part of a duplex separator. This should permit the elimination of lifting devices for such applications, where the lubricating film of the liquid handled is adequate to permit the bearing relationship between plug and seat.

2. Where the pressure differential between the high pressure side and the side to be opened is sufficient to cause the bearing loads to break down the liquid film between plug and seat, tending to gall and score the metals involved, the needle valve controlled by-pass should be encouraged, permitting balancing pressure before valve is turned.

3. Where materials of construction such as stainless steel must be used that gall and score each other regardless of the lubricating film of the liquid handled, it should be recognized that lifting devices are mandatory and special procedures instituted to set up necessary safety measures. If this procedure is followed it should be realized that the great majority of installations will not require plug lifting devices and overall hazards will be greatly reduced.

Safety only has been discussed but there is an additional advantage when plug lifting devices are eliminated. The justification for separators is to eliminate undesired debris from circulating liquids. Some of this may be abrasive or of a hardness greater than the material of construction of either plug or seat of the separator. Such extraneous matter can be trapped between the plug and the seat when the plug is returned to the seat by the lifting device. If the plug is then rotated, it can gall or score either the plug or the seat, opening up a permanent by-pass.

Even if it does not gall or score, the extraneous matter can keep the plug from properly seating, providing a by-pass that will continue until the debris is removed.

Let us eliminate specifications requiring the lifting of a plug valve from its seat unless absolutely necessary.

SALES REPRESENTATION

HOME OFFICE

We have reserved the areas of Connecticut, Delaware, 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

John S. Stone
P.O. Box 247, Holcomb, N. Y.
Williams Bros., Inc., 70 Commercial St., Portland 3, Me.

Eastern Region

Boston-Cooper Company
95 Holland Street
Somerville, Mass.
Valley Equipment Company
201 Penn Center Blvd.
Pittsburgh, Pa.
J. W. Pearson Co., Box 282
Hatboro, Penn.
Shanklin Company
410 East 25th St., Baltimore, Md.

Southeast Region

Power Equipment Co.
1307 West Main St., Richmond, Va.
Dillon Supply Company—Main Office
Raleigh, N. C.
Dillon Supply Company
Durham, No. Carolina
Dillon Supply Company
Rocky Mt., No. Carolina
Dillon Supply Company
Goldsboro, North Carolina
Dillon Supply Company
Charlotte, No. Carolina
Boiler Supply Company, Inc.
490 Craighead Street, Nashville, Tenn.
1628 Island Home Ave., Knoxville, Tenn.
Applied Engineering Co., Inc.
P.O. Box 506, Orangeburg, S. C.
Spotswood Parker & Co.
313 Techwood Drive, Atlanta, Ga.
T. W. McCuiston
540 S. W. 69th Ave., Miami, Fla.

North Central Region

Charles R. Davis
2970 W. Grand Blvd., Detroit, Mich.

Hetler Equipment Co.
P.O. Box 1904
Grand Rapids, Mich.

Central Region

W. G. Taylor Co.
1900 Euclid Bldg., Cleveland, Ohio
The Jordan Engineering Co.
7401 Shewango Way, Cincinnati 43, Ohio
T. A. Heidenreich Co., Inc.
5250 Keystone Ct., Indianapolis 20, Ind.
Lowden & Comany
1909 West Grand Ave., Chicago, Ill.
A. K. Howell Co.
1001 Bellevue Ave., St. Louis, Mo.

South Central Region

Creole Engineering Co.
2627 Banks Street, New Orleans, La.
Albert Sterling & Assoc., Inc.
2611 Crocker St.
Houston, Texas
I. P. Newby & Assoc.
4431 Maple Ave.
Dallas 9, Texas

Northwest Region

Bruce P. Rutherford Co.
1932 First Avenue South, Seattle, Wash.

Western Region

A. C. Cope Co.
435 Bryant Street, San Francisco, Cal.
Power Engineering Co.
1806 South State St., Salt Lake City, Utah
Vernon Hines
4980 Monroe St.
Denver 23, Colorado

Southwest Region

Wagner Hydraulic Equip. Co.
10814 Santa Monica Blvd.
Los Angeles, California

Canada—Ontario and Quebec Provinces

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

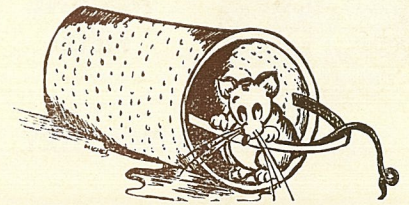
Canada—British Columbia Province

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

Hawaii

Foster Equipment Co.
719 Ahua St.
Honolulu, Hawaii

FOUND IN THE STRAINER BASKET



A man descended from the bus and seeing a small boy said,

"Son I want to go to the Hackensack Trust Company. I will give you a dollar if you can direct me to it."

The boy grinned and said "Why certainly, it is right up this way," and escorted the man to the building a block away.

The man paid the amount offered but remarked "That was a dollar easily earned."

"Yes" responded the boy, "But us bank directors are well paid in this area".



"Somehow your barbecue seasoning makes me feel warm way down inside"

THE KRAISSL COMPANY

HACKENSACK, NEW JERSEY

RETURN POSTAGE GUARANTEED



YOUR
COPY
OF

**KRAISSL
QUARTERLY**

BULK RATE

U. S. POSTAGE

PAID

Permit No. 1268

Hackensack, N. J.