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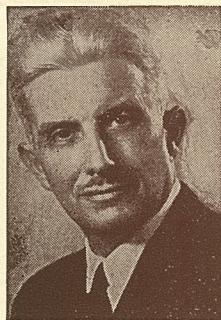
Number 2

LET US NOT BE DOMINATED BY EMOTIONALISM

FREDERICK KRAISSL, JR., P. E.
President
THE KRAISSL COMPANY, INC.

Some matters are self-evident while others may need to be debated so that a consensus can be obtained.

Perhaps the premise can be accepted as fact that the more primitive the individual, the more the behavior pattern is dominated by emotion and likewise the more mature and self-disciplined, the more the behavior pattern is dominated by logic.



Consulting Engineer
Kraissl Associates

Homo sapiens, supposedly the knowing or reasoning zenith of the animal kingdom has still a far way to go collectively. It has always been a fact that individual responsibility can be lost by becoming a part of mass action. Usually accountable and responsible individuals may crack the veneer of civilization by becoming elements in a riot or lynching party.

This is just as true in the psychological as in the physical sense. No one of us could deplore more the horrible sequence of events during the tragedy of the assassination of our late President. The fear of many of us who have watched our national reaction is that in a spurt of imagined atonement, legislation that should not pass and programs which should not have and had little chance of enactment during the lifetime of our late President, may be put into effect.

Whether we agreed with him or not, all will concur that the late President fought for what he believed was right for our country. However, many of us believe he was not always right and it is the obligation of those with such beliefs to fight just as hard for them. This is a country governed by checks and counter-balances and it is the mandatory obligation of all to take an active part in attempting to achieve the best for our country as we see it. The right of dissent when considerably and tactfully expressed must be insisted upon as an essential duty when it re-

presents the honest opinion and belief of the dissenter.

Let us not have programs and legislation ridden through that should not be enacted just because they were pet projects of our late President.

THE RIGHT NICHE

by
ALICE L. KRAISSL

It is the opinion of the writer that each individual has within himself the ability to do some one thing well, though this ability may be submerged past the point of easy recognition.



Consultant
Kraissl Associates

Vocational ambitions vary as widely as any other consideration that is a matter of personal choice. One person's ambition may be to become a professional golfer while another strives for achievement in the realm of science and still another desires recognition in the field of art. It is quite likely that financial necessity is often a great obstacle in one's path, resulting in the need for the individual to accept employment out of the chosen field in order to obtain a livelihood which, since it is at a tangent to his primary objective, he does not enjoy.

To really do a thing well the entire heart and soul must be in the work. When this happens "work" is no longer drudgery but is a motivating influence in life which gives purpose and pleasure to existence. It is a true inspiration to meet a person who revels in his work as that is proof of the fact that he has found the activity he is best fitted to pursue.

No person can definitely advise another the vocation he should seek as his life's purpose. Various vocational guidance and testing procedures point a way in some cases, but are at best only a vague sort of map which may be of limited aid in finding a starting point. The individual alone can determine the vocation he should follow.

Each should face squarely facts and preferences in a sort of personal inventory, and attempt to suitably reconcile them. There is always a way for the clear thinking fact-facer to

move in his chosen direction if he has a pre-determined fixed goal.

Encourage young people to crystallize their aims in life at as early an age as possible. Far too many of today's youth are drifting — substituting years of general academic training, "liberal arts", for years that can never be replaced in terms of striving for training or accomplishment in the field of final choice. Not being encouraged to settle on one goal, the tendency is to try a little of everything — and end up doing nothing well, a deplorable situation and a waste of precious human endeavor.

There can be no greater reward for a soul-searching session than to find one's self — to anticipate, labor for, and achieve a purpose in life.

KRAISSL ISLAND

Kraissl Island is now a reality and after the external confusion and upheaval, characteristic of new highway construction, have abated, we will have a location accessible to all by current methods of transportation. When we were travelling the Illinois, Indiana and Ohio area this last fall, as we visited many sales representatives territory, we made use of completed sections of Route 80 which will shortly pass close to our door.

With streets on all sides of us there is usually parking space for most requirements and with Jackson Park only a block away, any unusual parking situation can be easily accommodated on the marginal roads.

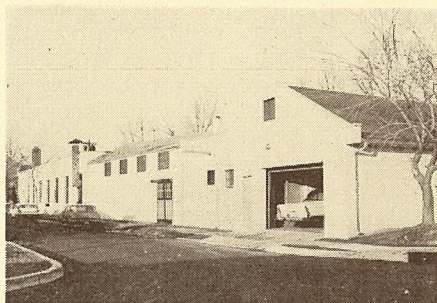
The photographs should help to give an idea of our general arrangement.

The Kraissl Main Building to the north accommodates all Kraissl Company administrative personnel on the first and mezzanine floors of the front section.

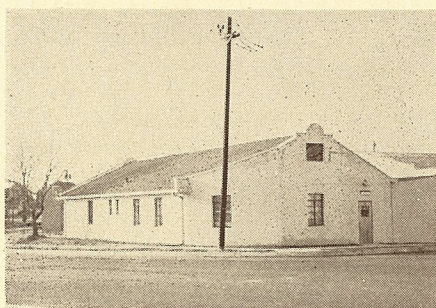


MAIN BUILDING
Looking South

The main part of the building is the basic manufacturing area where fine machining operations are performed. Building No. 2 provides the assembly and parts stocking facilities. Building No. 3, houses production test area, grinding facilities and on the eastern end adjacent to the warehouse, is our shipping and receiving department. Building No. 5 is mostly warehouse with new vertical stacking procedures and a separator test area in the northern end. Building No. 4 is the Kraissl Associates Building and includes the consulting offices of this organization complete with design facilities, hydraulic and mechanical laboratories, and with mineral displays of interest to its clients.



Buildings 2 and 3 shown between Kraissl Associates building and Main Building looking North



Kraissl Associates Building

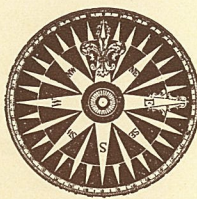


Kraissl Island looking North. Building 5, Warehouse is between Kraissl Associates building and Main Building.

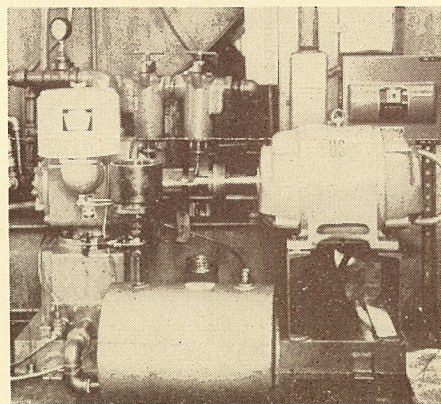
We are centrally located, strategically situated, and anxious to serve you. We thank you for bearing with us during the construction period and believe most of our customers have observed the increase in delivery efficiency as our building problems have lessened.



INDUSTRIAL AND MARINE FIELDS



AIR PRESSURE FOR OIL BURNERS



Those of us who have been identified with the oil burner industry for many years have watched changes in trends and have attempted to supply equipment to meet these needs.

Our pumps and separators including strainers and filters for both high and low pressure applications have been in use from early days and are continuously meeting around the clock service requirements as an integral part of power plants and heating installations both throughout this country and abroad.

When it was suggested that we undertake a new development, we considered this a priority project.

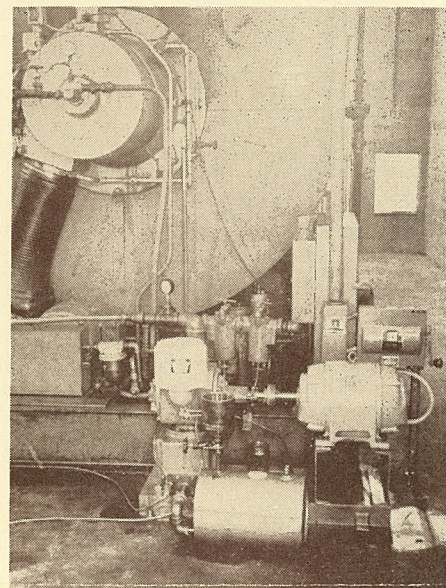
The requirement was set up for a continuously running air pump to operate at stated pressures of atomization without shut down except for the addition of lubricant at acceptable service periods. We have had experience with continuously running air pumps which has been made possible by our patented system of force feed lubrication together with oil recovery systems and separators.

This application presented special problems since both economics as well as technical matters were involved. Possibly the most difficult was the limitation of oil addition to what has been considered to be extended periods. An automobile running at 60 miles per hour on a throughway would cover 1440 miles in 24 hours and undoubtedly there would be stops resulting

in mechanical cool down, opportunity for service and probably a complete oil change involving five to six quarts of oil if the instructions of most engine manufacturers are followed. As an example of comparable operating conditions, one of the requirements introduced was the uninterrupted run of two days or 48 hours so that week ends could be accommodated without the necessity of adding lubricant.

The development tests made in our mechanical laboratory were only considered as preliminary to field applications. These presented new problems. It was found that temperatures encountered in the summertime did not reconcile with assumed boiler room temperatures in the winter time and adjustments and changes were made to reconcile.

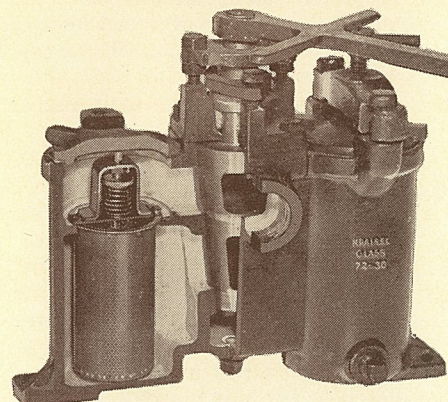
It can be reported at this stage of operation that all requirements have been met under unusually adverse conditions and that we can offer to the oil burning industry the air pump it said it wanted.



Oil Burner being operated by compressor assembly

KRAISSL CLASS 72P SEPARATORS WITH ADJUSTABLE PRESSURE SEATED SEPARATOR ELEMENTS

U. S. PATENT No. 2,982,413



This series of separators makes use of our new patented adjustable pressure seated separator elements and provides a number of advantages for various types of applications which will be discussed. Filter elements perform their service by separating particles larger than the pores or micro openings in the filter media. Since they are larger they frequently cover these pores or openings and reduce the separating area. When the separating area is materially reduced the term clogging is applied. This may happen instantaneously or over a considerable period of time. When it occurs, flow is reduced or entirely stopped. If the fluid flow is to lubricate bearings or some other important circulating system which if interrupted would spell disaster, it is obviously more important to supply possibly slightly contaminated oil than no oil at all on the theory that perhaps most of the impurities have already been taken out in a recycling circulatory system.

There is also the possibility that a surge could build up an impact pressure on a partially clogged element, greater than the collapsing resistance of a well designed unit.

The build up pressure could be indicated by a tell-tale and the relief of pressure could save the filter element from damage, which should instantaneously reseal after the surge and function until serviced.

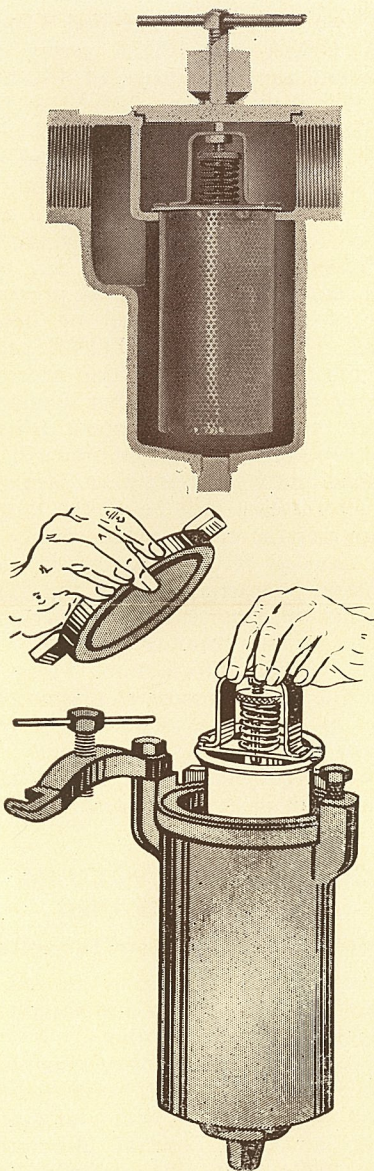
A positive, adjustable pressure seated element that can be quickly removed for inspection, cleaning or servicing gives greater control than is now possible with the seating of most filter elements.

These combined advantages are inherent in our new Class 72P series design which will relieve pressure when this exceeds the adjustable setting. Where flow can be intermittent and stopped for cleaning of filter, single units can be used. Where the flow should be uninterrupted, the duplex units are suggested so that one side can be serviced while the other is functioning.

The pressure seated elements are designed to fit interchangeably in most Kraissl Class 72 series housings with the instruction that the flow is reversed. The inlet port becomes the outlet and vice versa. Consequently, current assembly dimensions apply.

The accompanying photographs show both the single and duplex assemblies and the ease with which the elements can be removed for cleaning.

Filter elements initially offered are of fine mesh wire screen but these pressure seated elements will not be limited to this media, and investigation of many filter materials is in progress.

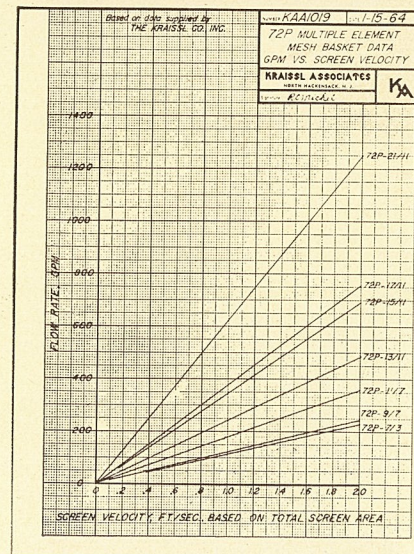
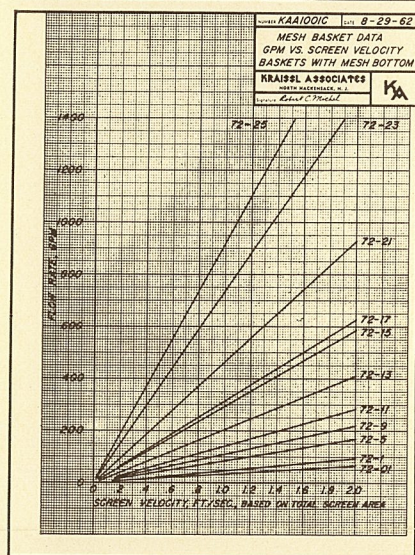
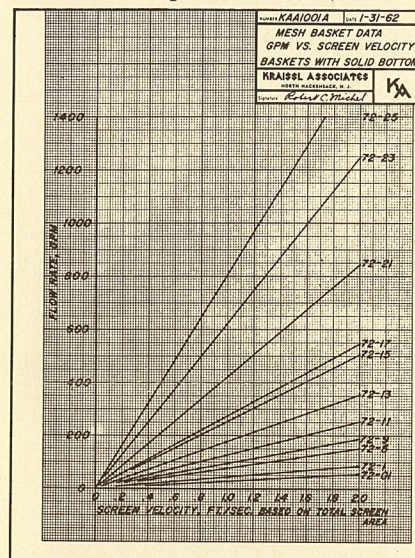


PRESSURE DROP INFORMATION

It is expected that this will be a never ending requirement as it will be related to the type of separating medium, including retention characteristics, rate of flow and viscosity of liquid involved. We have purposely ignored the rate of clogage as the assumption must be made that we are dealing with clean liquids in supplying pressure drop data. The rate of clogage is a function of the amount and type of impurity that will be involved. To cite an example, a slime will clog more quickly than granular impurities of many types, in fact we have had experience indicating some granular impurities build up into a secondary filter cake that increases filtration efficiency without adding proportionally to the pressure drop.

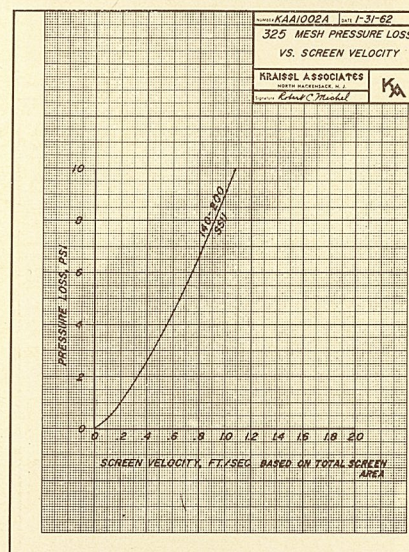
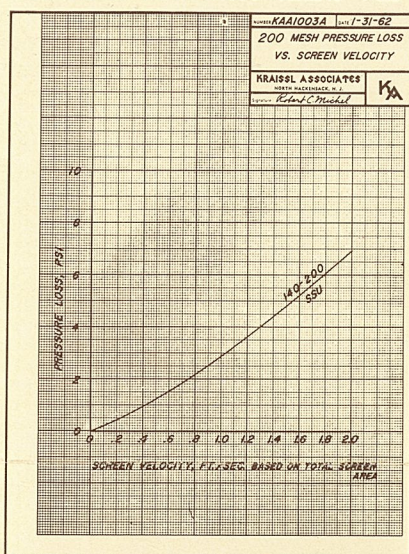
In dealing with this whole matter, we decided that the most simple presentation would be to rate filter elements in terms of screen velocity as related to flow. Charts KAA-1001A, 1001C and KAA-1019 give this data for filter

elements with solid bottoms, mesh bottoms and double element construction. Not all of these designs may be in production in all potential materials of construction at the time of issuance of this circular, but the designs have been worked out and many prototypes tested so it is planned to make them



available if required, as each has a greater separating area than the former but the cost of each construction is also greater.

To show how these charts will be



used, we have also included Charts KAA 1003A and 1002A giving approximate pressure drops of 140-200 SSU Oils thru 200 and 325 Mesh Filter elements in terms of screen velocity. When the screen velocity is read off the chart indicating Solid Bottom, Mesh Bottom or Double Element and applied to the Screen Velocity related to Pressure Drop Chart for any one mesh screen and viscosity, the pressure drop of this element can be determined. This is an ADDITIVE value and must be added to the pressure drop of the separator either single or duplex without filter element. Means for estimating this information will be supplied and when tests have been run this information will be given. It can be appreciated that a wide variety of flow rates as related to viscosity and retention characteristics of the filter elements will probably make necessary a considerable number of charts to supply needed information. Many of these are in the process of preparation for us by Kraissl Associates from data we are supplying to them. This is a continuing project and we suggest that you contact us for the latest information available.

COMBINATION VACUUM AND PRESSURE UNIT

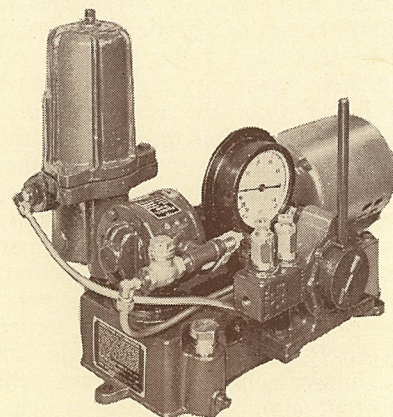
Needed by Every Chemical Laboratory

This is an outfit that is needed in almost every laboratory and should be welcomed as long over due.

In combination it offers one of a series of sizes of Class 25 series radiant cooled air pumps with integrated motor, air filter, special alternating valve with adjustable vacuum and pressure relief valve components.

It permits, by the movement of the selector arm, the use of either vacuum

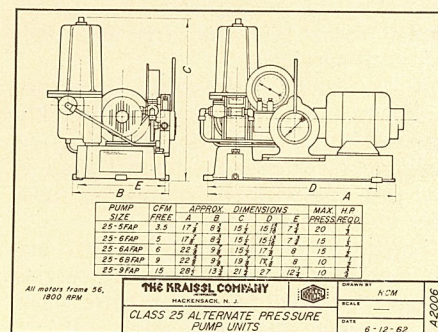
or pressure at the adjustable presetting of either vacuum or pressure valve within the range of the unit.



Our Class 25 series air pumps are designed for rigorous continuous service and for commercial vacuums and pressures. The vacuum service range is for vacuum filtration to distillation where vacuums in excess of 28" of mercury are not required.

The unit is powered for air pressures up to 15 pounds per square inch making it useful for pressure burners and similar application.

Laboratory supply dealers should find this a welcome item as much needed as it is unique.



THE KRAISSL COMPANY

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