



**"THIS LUBRICANT
INCREASED
BEARING LIFE
FROM 2 WEEKS
TO 2 YEARS"**

—says THE GLOBE COMPANY

"Animal acids and moisture, most harmful to ball and roller bearings prevails in the entire meat packing industry. With conventional lubricants, some of the bearings in our Roto-Cut machines did not last two weeks. Since using Ball Bearing Lubriplate in machines operating continuously 24 hours a day for over two years, we have not had a single bearing replacement."

For nearest LUBRIPLATE distributor, see Classified Telephone Directory. Send for free 66-page "LUBRIPLATE DATA BOOK" . . . a valuable treatise on lubrication. Write LUBRIPLATE Division, Flake Brothers Refining Co., Newark 5, N. J. or Toledo 5, Ohio.

**REGARDLESS OF THE SIZE
AND TYPE OF YOUR MACHIN-
ERY, LUBRIPLATE
LUBRICANTS WILL IMPROVE
ITS OPERATION AND REDUCE
MAINTENANCE COSTS.**



More TECHNICAL BRIEFS

Begin on page 150

all cost picture must be examined critically on an economic basis, and decisions must be governed largely by such results. Present day cycles tend toward higher operating pressures and temperatures, some around 2000 psi and 1050 F, and with low makeup requirements, frequently 1% or less.

Some published material dealing generally with the process of demineralization have led the authors to a general observation that, in many instances, a greater importance appears to be given to some factors than is warranted. For example, a study may show a distinct advantage for demineralization by employing a water having a composition particularly well suited for this process. Or, a detailed study of demineralization chemical operating costs may entirely ignore other cost factors which likewise may have even greater significance. Likewise, a general impression appears to exist that the intangible merits of the demineralization process should be a major deciding factor.

Where the design engineer is confronted with a new b-p unit installation or new plant, his decision as to makeup production by evaporation or demineralization should be based fundamentally on the economics. The intangible merits and disadvantages of each process should be recognized as such and their effect on guiding a decision be placed in proper perspective.

This paper attempts to classify and define the basic economic factors and to show their relative importance, by employing a specific case as an example. All discussions have two basic premises:

1. That the effluent of a demineralizer and the vapor from an evaporator are of equal purity or the difference is so slight that no significant effect on makeup requirements due to boiler blowdown is evident.

2. That straight-forward two-bed or single-bed demineralization will be employed without the complication of modified arrangements that may be desirable with certain waters to achieve desired results.

Without acceptance of these basic considerations as well, as others the authors bring out later, any economic study for a projected plant could become so involved with minor considerations as to make a reasonable comparison difficult. Once the economics of the study direct the engineer to a decision, the required details of minor financial significance may then be developed without their obscuring the main picture.

A stepwise economic study covering a specific case has been presented to

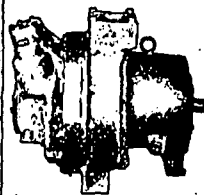
**For
QUALITY**

Specify

PYLE-NATIONAL

Turbines

1/4 to 120 h.p.



The Pyle-National line of highly efficient impulse type turbines is ideal for dependable mechanical drive of small machinery such as pumps, fans, blowers, stokers, abrasive wheels, agitators and generators particularly where the exhaust steam can be used for heating and other purposes.

Since 1897 Pyle-National has manufactured their turbines entirely within their own plant . . . thus assuring positive control of quality and workmanship through all stages of production . . . from raw material to the final testing.

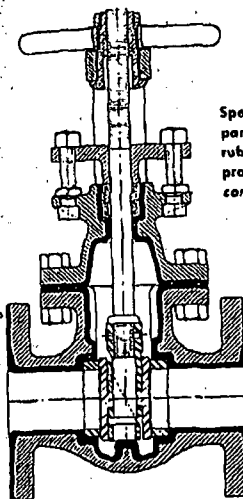
SEND NOW FOR BULLETIN containing complete information on these small and medium capacity turbines.

TURBO-GENERATORS Also available is bulletin on Pyle-National turbo-generators (500 to 15000 watts).

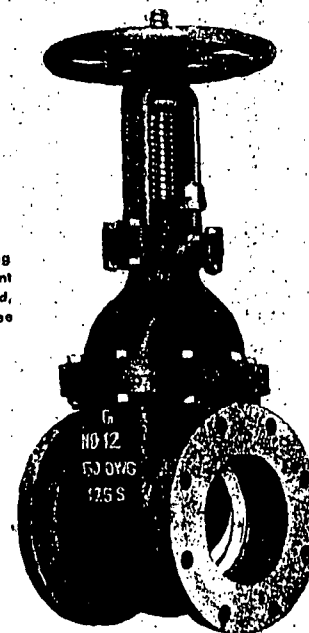
**THE
PYLE-NATIONAL
COMPANY**

1387 N. KOSTNER AVE. • CHICAGO 11, ILL.
District Offices and Representatives in Principal
Cities of the United States
FLOODLIGHTS • PYLE CONDUIT FITTINGS

**DARLING
VALVES**



Special alloy working parts, and permanent rubber-to-metal bond, provide trouble-free corrosive service.



**Meeting the "Acid Test" the low-cost way
with DARLING rubber lined iron body valves!**

YOU can save dollars by installing Darling rubber lined, iron body gate valves for corrosive services up to 150°F. These Darling gate valves are giving outstanding service in job after job.

You Get This Plus Value Too!
The fully revolving double disc, parallel seat principle compensates automatically for valve body distortion. Tight closure is assured every time. And wear on working parts is uniform.

In plant after plant Darling rubber lined, revolving disc, parallel seat gate valves are setting records of efficiency and economy. These unique rubber lined valves are made in rising stem, cylinder, motor-operated, or quick-opening types.

Ask for the special Darling rubber lined gate and check valve bulletin.

VALVES FOR EVERY NEED

Darling also offers gate valves in a wide range of sizes, types and construction for all kinds of normal and unusual service . . . and for pressures up to 1500 pounds.

DARLING VALVE & MANUFACTURING CO.

Williamsport 8, Pa.

Manufactured in Canada by Sandilands Valve Manufacturing Co., Ltd., Galt, 19, Ontario