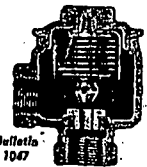


How to Keep Equipment FULL of Live Steam



Prompt and full drainage of condensate and venting of air and non-condensable gases are among the most important factors in maintaining maximum heat in coils, kettles, etc.

Two reasons why Nicholson thermostatic traps prove superior in test after test: (1) operate on lowest temperature differential, 5° to 15°, depending on trap size and steam pressure. (2) 2 to 6 times average drainage capacity. We'll gladly send one for testing.

5 TYPES FOR EVERY APPLICATION—power, heat, process; size 1/2" to 2"; pressure to 225 lb. Bull. 1047 or see Sweet's.

5 Features of Nicholson Cylinder Control Valves

(1) Special seats, don't cut out. (2) Fast, positive action. (3) Stuffing box easily replaced. (4) Heavy-bodied, withstand abuse. (5) Mount, installed in any position. For all medium; press. to 5000 lb.

W. H. NICHOLSON & CO. 125 OREGON STREET WILKES-BARRE, PA.



MERCOID

The Only 100% Mercury Switch Equipped Controls FOR HEATING, AIR CONDITIONING, REFRIGERATION AND VARIOUS INDUSTRIAL APPLICATIONS

Mercury switches are the most advanced means for making and breaking an electrical circuit. They are not affected by dust, dirt or corrosion.

See catalog No. 600 for description of complete line.

DA PRESSURE CONTROLS

Industries' first choice for dependable control performance. The outside adjustment and visible dial eliminates all guesswork when setting the operating range.

LIQUID LEVEL CONTROLS

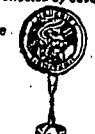
Available for gasoline, oil, ammonia or other low specific gravity liquids. Also for liquids at high pressures.

MERCURY SWITCHES

Merco brand switches are noted for their superior operating qualities. Various types available.

TEMPERATURE CONTROLS

Used on a variety of industrial temperature applications. Have same adjustment features described above.



FLOAT CONTROLS

Used for maintaining fluid levels in tanks or for control of pump pumps, etc. Two types, the counter-balance type and plunger type available.

THE MERCOID CORPORATION, 4703 W. BELMONT AVE., CHICAGO 93, ILL.

ward Sals has been named manager of Midwest branch. Charles W. Young becomes plant manager.

Brown Instrument Co. has opened a district office at 922 Derron Bldg., Memphis, Tenn.

General Controls Co. announces appointment of E. B. Mair as sales manager following branch offices: Boston, Philadelphia, Pittsburgh, Birmingham, New York, Detroit, Cleveland and Chicago.

R. A. Lundbeck Co., 1900 University Ave., Paul, Minn., has been formed to take representation of Allen-Bradley line of motor controls formerly handled by Sage-Citron Co. of the same city.

U. S. Electrical Motors, Inc. announces appointment of Frank M. Mason as vice president in charge of Atlantic plant. Headquarters will be at Millard, Conn.

Lincoln Electric Co. has named C. F. Clapham assistant to president. H. E. Cable has been made district manager of Pittsburgh office. J. S. Roscoe has become district manager of Chicago office.

Garlen Morse and Frederick W. Fulle have been appointed merchandising managers of lamp div. and fixture div., respectively, of Sylvania Electric Products Inc.

Union Carbide and Carbon Corp. announces election of William J. Priestley as a director.

Walter A. Coogan has joined John C. Dolph Co. as executive vice-president and director.

Signall & Keeler Machine Works, Edwardsville, Ill., has been sold to John Ramming Machine Co., 4591 Melite, St. Louis, by N. O. Nelson Co. George L. Moore, general manager of B & K, will continue in that capacity, and other personnel are expected to remain with the company.

Board of directors of Worthington Pump and Machinery Corp. elected Frank J. Whelan a vice-president, with headquarters at Harrison, N. J. Alvin F. Welch succeeds Whelan as manager of reciprocating pump div.

Perflex Corp., Milwaukee, has announced appointment of Allen A. Pott as Eastern sales representative for controls div. and Alfred B. Meeg as manager of industrial controls div.

Daniel S. Dinamon has been named director of development for American Potash & Chemical Corp.

Formation of an industrial and utility section of Borg-Warner International Corp. is announced. The new div. with headquarters at 321 W. Lafayette Ave., Detroit, will be headed by Claude Pitta.

Hagan Corp. opened a branch office at 2018 Blake St., Denver, Colo. Maintenance Engng. Corp., which represents Hagan in a large area of the Southwest and in Mexico, extends its sales and service coverage to

Welding the Piping for an Extraction Plant

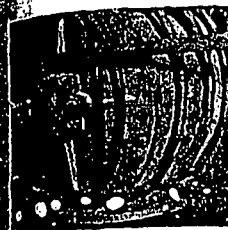


Fig. 1. Steam jacket made of small pipe.

By H. E. Wetzell, President Smith & Oby Co., Piping Contractors Cleveland, Ohio

PROBLEMS which could be solved easily with arc welding were encountered in practically every foot of the special process piping which we fabricated and installed in the Sherwin-Williams Company's new extraction plant in Cleveland. This is the pilot plant for a new process of making linseed and castor oils.

Fig. 1 shows a large valve surrounded by a jacket of small diameter steam pipe. Located on the bottom of a castor bean cooker, this clean-out valve has a steam jacket to increase fluidity of the oily material. The jacket was welded in two sections which were screwed together with collars. Pipe is mild steel, 1/4" inside diameter. Joints were beveled

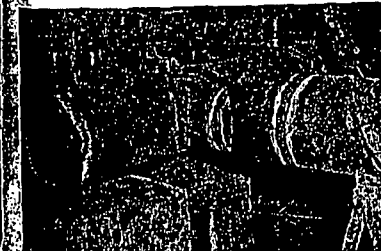


Fig. 2. "T" section of vapor line, with inside pipe and steam jacket both visible.

30° and welded with 1/8" diameter "Fleetweld 5" electrode in three passes. A sheet metal casing will be added to retain the heat.

Another interesting part of the job was vapor lines which were completely encased with steam jackets. Fig. 2 shows a partially-assembled "T" section of the vapor line, with both 6"-diameter main pipe and the 8" steam jackets visible. Spiral steel pipe, 16 gauge, was used for both. The pipe was centered in the jacket for welding by inserting 1" steel spacers which were shaken out after welding. Two passes of 1/8" "Fleetweld 5" were used to make all welds.

Fig. 3 is a view of part of the vapor line system. The frequent shut-off valves in the main pipe separated the jackets into sections, each of which had to be fed individually by steam lines. Note the



Fig. 4. Welding flange to 3" pipe.



Fig. 5. Welded taper, from 4" to 1 1/2" diameter.

clean-out ports near each elbow and connection in the jackets.

A great number of bolted flange connections were used so any part of the plant could be easily dismantled. The flanges were arc welded to the pipe to avoid interior unevenness which might slow down the flow of some of the materials. Fig. 4 shows how flanges were welded to pipe, using an angle for easy turning. The flange and pipe are first set upright and tackwelded together. This 3" diameter was welded with two passes of 1/8" "Fleetweld 5."

A fabricated reduction from 4" to 1 1/2" diameter pipe is shown in Fig. 5. It was made by coping out triangular sections with a torch, hammering and tackwelding the sides together, and welding with three passes of 1/8" "Fleetweld 5."



Fig. 3. Part of vapor line installation. 16 gauge spiral pipe used.

The above is published by LINCOLN ELECTRIC in the interests of progress. Properties and procedures of "Fleetweld 5" electrode are given in Bul. 403. Write The Lincoln Electric Company, Dept. 251, Cleveland 1, Ohio.