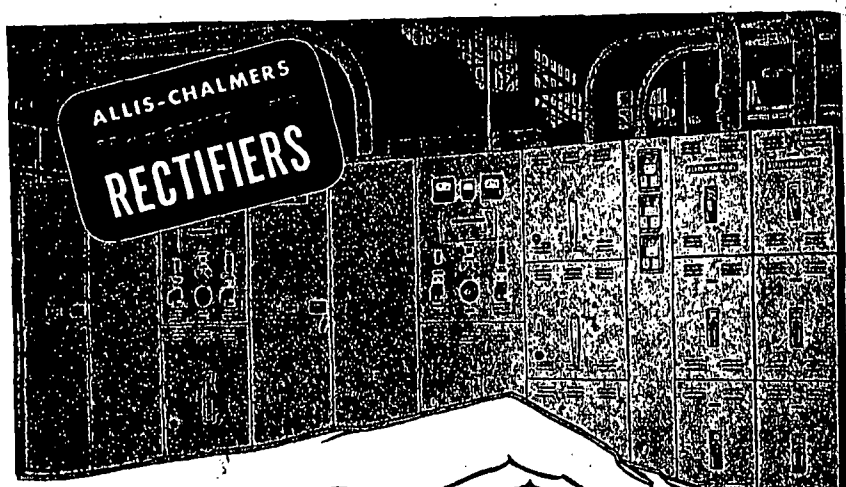
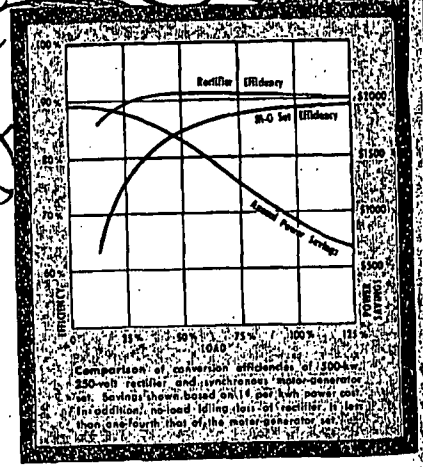


HERE'S PROOF of Low-Loss Conversion



Comparison of conversion efficiencies of 1,500-kw, 250-volt rectifier and synchronous motor-generator set. Savings shown based on 1¢ per kwh power cost. In addition, no-load idling loss of rectifier is less than one-fourth that of the motor-generator set.

TO OBTAIN economical dc power for arc furnace and blooming mill auxiliaries, West Virginia Steel & Manufacturing Company recently installed mercury arc rectifiers.

The factory-packaged Allis-Chalmers unit includes duplicate 500-kw, 250-volt rectifiers, with tube, breaker, control, and metering compartments, plus dc and ac plant feeder breakers. Since transformers could be installed outdoors, the assembly departs from the usual double-ended arrangement.

Rectifiers were chosen for their high conversion efficiencies plus simplified foundation needs, easy installation and minimum maintenance. And Allis-Chalmers units incorporate continuous excitation, grid phase control, internal cooling and enameled anode seals.

Use A-C's Engineering Experience

By calling your A-C representative, you can put A-C's quarter century of rectifier application experience to work on your power conversion problems. Allis-Chalmers, Milwaukee 1, Wisconsin. A-3909

ALLIS-CHALMERS

Our Engineers Introduced Mercury Arc Rectifiers to U. S. Industry

Power

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HYDRO PROJECTS often involve unusual construction problems, and this is true of *Austria's big Glockner-Kaprun* development pictured on our cover. But the real interest for power men lies elsewhere. Pumped storage is what makes this project tick. With it, and high heads, a little river does a terrific peak-load power job.

As you'll see from the story on pp 101-104, Glockner-Kaprun also abounds in impressive statistics. It's the world's largest pumped-storage project, and in using over 4100-ft head from reservoirs 6700 ft above sea level it will have two of the most powerful *pelton turbines* and highest powered pumps. Its 450,000-hp capacity will supply more than 800 million kwhr per yr, over 10% of Austria's total power use.

Next month...

- Big June feature is a 20-p special report on compressing air. Starting with fundamentals of air, it covers all types of compressors and necessories. Then comes practical dope on controls, selecting units, planning an air system. Tips on operation wind up what promises to be an unusually helpful handbook.

- We said we'd start the new series by Don Swift—on getting a new plant built and operating—in this issue. But we ran into some delays, so watch for the kickoff next month.

- Does air conditioning pay? Read what the president of a machine-tool company has to say in a June article comparing gains in quantity and quality of production with costs of conditioning.

- Many of us find keeping track of maintenance is harder than doing the job. To see what can be done to simplify and speed the paper work, look for a blow-by-blow story of how a big eastern industrial plant does it.

...and future months

- Two important features will be combined, and a new one added in our Modern Plant Handbook issue, scheduled for Mid-Sept. Familiar features are the survey of new plants and additions, and the buyers' guide. New one is a "renovation roundup"—practical pointers on modernization.