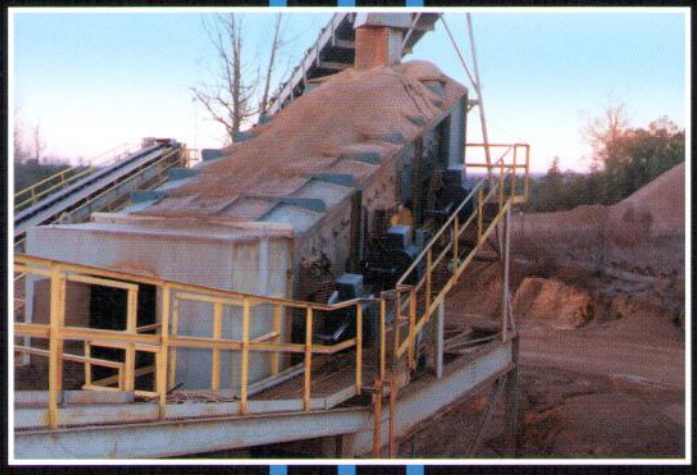
HANCO

FLUX-POWER SCREEN HEATING SYSTEMS



Increases Capacity
Eliminates Downtime
Lowers Operating Costs
Higher Profits
Improved Product

Eliminates Screen Blinding

The History of Electrical Screen Heating

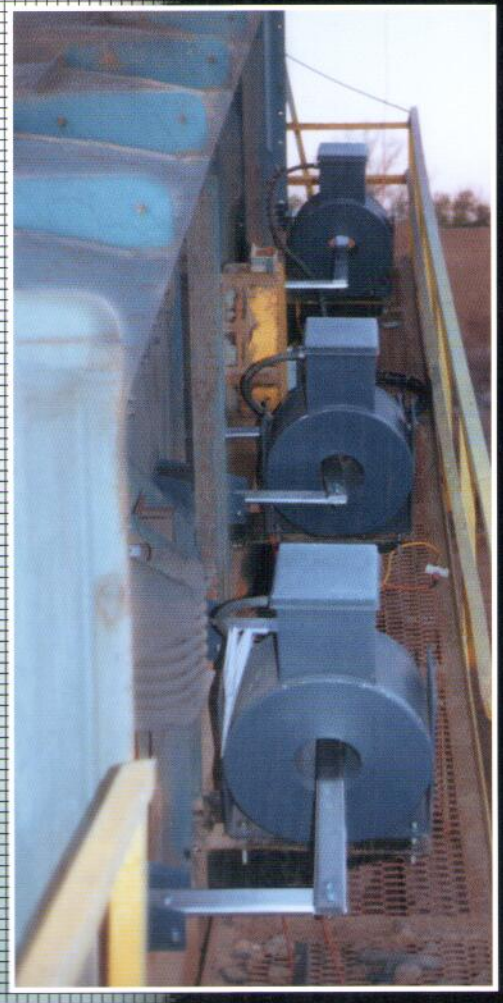
Applications:

- Brick, ceramic, and clay industries
- Mineral and aggregate mining
- Coal slurries
- Fertilizer and dry chemical manufacturing

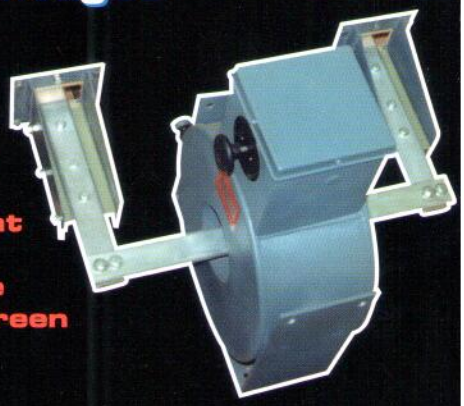
The history of screening dates back to the early days of the Egyptians when a series of equal sized openings were assembled into a mesh for particle separation of basic materials. The idea of electrically heating the wire cloth to eliminate screen cloth blinding was tried as early as 1924. Many installations were attempted but few were successful. Following the second World War, the boom in residential, commercial and industrial building, as well as highway and bridge construction, put increasingly heavy demands for greater production on the basic mineral industries. As a result of this demand for added capacity, more accurate sizing and lower material handling costs, the need for electrically heated screen cloths was born. Hanco, with 50 years of service to the mining industry, was called upon by its customers to solve the problem.

In 1947, Hanco developed the first completely acceptable electric screen heating system. The success of the first applications in the clay industry soon led to vastly broader industrial applications.

Flux-Power Screen Heating Provides Major Advantages



If screening of materials is part of your business and your screens are blinding and clogging, then Hanco can end your aggravation with flux-power. Flux-power will heat your screen cloth, keeping materials from sticking to the mesh, thereby making your screen more productive.



What is Flux-Power?

Hanco Flux-Power is a unique method of transmitting electrical current from a fixed power source to moving screen without any mechanical connections or physical ties.

- It provides greater flexibility of motion.. completely eliminates distortion of motion resulting from ties to stationary devices.
- Flux-Power eliminates the need for any flexible conductor between transforming device and screen box... reduces maintenance and parts replacements.
- Provides dual voltage primary for increased flexibility in heating... maximum heat selection.
- Flux-Power transfers higher currents providing higher heats to heavier cloths for greater efficiency and at lower operating costs.
- Flux-Power completely prevents the burnup of the primary winding as a result of a short circuit in the secondary-a very common failure of earlier units.
- Water and dust tight with a virtually indestructible encapsulated design.
- More even heat from patented high capacity conducting rails.
- More heat with less KVA...no conductivity loss.
- Unlimited secondary current capacity.
- Fewer connections... simpler design... new freedom from maintenance.

A Story of Hanco Leadership

HANCO RESEARCH AND DEVELOPMENT LEADS THE WAY

– As applications broadened, Hanco leadership provided new and better methods of tensioning and making contact with the screen cloth...the fully extruded aluminum tensioning rail... the formed steel tensioning rail with a wedge shaped copper conductor bar...the development of flexible braided cable... and the improvements led to the use of heated screens in almost every primary mineral processing industry.

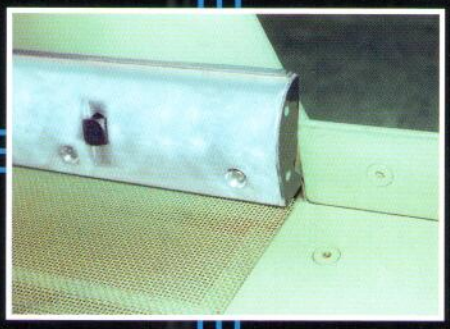
HANCO LEADERSHIP DEVELOPS FLUX-POWER HEATING,

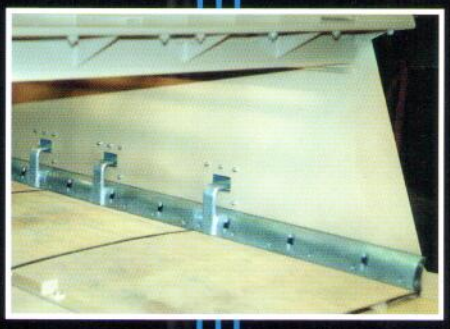
a complete departure from conventional screen heating design. The revolutionary Hanco Flux-Power Heating System, developed by Hanco in 1961, provides new freedom and flexibility in design and establishes new standards of efficiency. It is used today by almost every major screen manufacturer in the world.

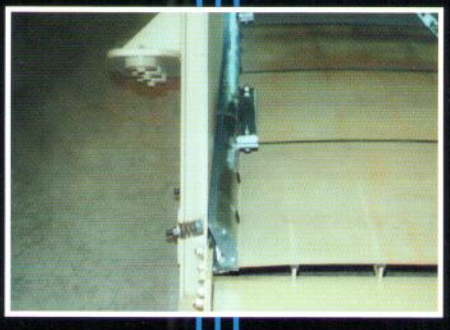
Along with these improvements, aluminum Flux-Power feeder bars and improved silicone bonded fiberglass insulating material have led to the use of heated screens in almost every primary mineral processing industry.

Flux-Power and Wedge-Grip technology...Hanco engineers have developed the ultimate in an electrically and mechanically coordinated screen heating package.

Hanco engineers work in close cooperation with screen manufacturers to provide the end user with the ultimate in an electrically and mechanically co-ordinated screen heating package.







Tensioning rails matched to your application requirements

The best heating systems are worthless if the heat fails to reach your screen. Hanco has virtually eliminated that possibility with the combination of Flux-Power transformers and specialized tensioning rails.

STANDARD ALUMINUM RAIL

The industry standard is a fully extruded aluminum tensioning rail. It is better matched to those applications where the screen limits the size of the tensioning rail.

THE "WEDGE-GRIP" RAIL

In 50 years of screen heating technology, two revolutionary developments have come from Hanco's engineering staff. First, the Flux-Power Transformer and the most recent, the patented "Wedge-Grip" tensioning rail. Made of fully extruded, heavy duty aluminum, the patented "Wedge-Grip" rail is the perfect answer to problems with poor screen efficiency and high maintenance cost. It is a high efficiency, high capacity conductor of great mechanical strength.

Locking bolts hold a vise-like grip on your screen without nuts or other mechanical connections to vibrate loose. That same strip is tapped to receive locking bolts. The screen cloth remains held securely, even when maintenance is neglected.

Because of better screen contact, there exists better electrical current transmission and more uniform and efficient heating throughout the entire screen cloth, eliminating screen blinding and loss of valuable production time. Operational life of the screen is therefore greatly increased.

Technical Data Flux-Power Systems

The Hanco Flux-Power unit converts plant voltage to a safe usable low voltage. Then by means of a flux generated in the eye of the unit, it transmits this low voltage- coupled with high current-to the cloth of the vibrating screen. The flux flows form the eye across an air gap to the feeder bar, then to the tension rail and finally to the wire cloth. This unique power transmission system-from Flux-Power Unit to high capacity feeder bar to the patented high-conductivity tensioning rail-provides maximum efficiency and eliminates the power and heat losses experienced with other types of heating equipment.

Output voltages of the Flux-Power Unit range from 1.5 to 15 volts. Operating currents from 0 to 6,000 amperes are available. Units may be base mounted, or suspended by cable, in any position.

How Flux-PowerWorks

The metal screen cloth acts as a resistance to the flow of flux, causing a temperature rise in the screen. This in turn removes the surface tension from the material being screened, thus eliminating cloth blinding.

16 Steps Of Heat

Standard units feature an 8-position selector switch, plus a dual connection in the terminal box, thus providing a total of 16 different heat settings. The Flux-Power Transformers have dual voltage primaries and can be operated on most normal plant voltages. On screens requiring units of 60 KVA or larger, Flux-Power Units can be coupled together to form an open delta, 3-phase connected primary or a balanced 3-phase system.

Flux-Power

The electrical winding and core of Flux-Power Transformers are insulated with Class H silicone fiberglass materials and completely impregnated with epoxy resin. The unit is enclosed in an ABS case to completely protect it from water, dust and contaminating atmospheres.

Heating System Accessories

The Hanco Flux-Power Heating System includes a feeder bar, suitable tensioning rails, screen box and screen cloth insulating materials, as well as all fastening devices required for installation.

The Tension Rail

The rail is designed to provide good mechanical tension on the wire cloth, good electrical contact and the ultimate in current carrying capacity.

Where the design of the screen dictates the use of a heavy-duty accessory package, Hanco provides the extruded aluminum patented "Wedge-Grip" rail.

Feeder Bar and Feeder Bar Supports

These are designed and matched to the screen to which the system is to be applied.

Hanco Insulation

To complete the heating package, silicone bonded glass fibre plate is furnished for insulation of the entire screen box. Where applicable, extruded rubber members are supplied for separation of the cloth sections.

We recommend that the entire screen box be insulated to assure the ultimate in efficient, maintenance-free operation. The practice of insulating only one-half of the screen box often results in excessive down-time and premature replacement.

Hanco Gives You Greater Efficiency

plus peace of mind, fewer electrical connections, fewer components and greater flexibility. For peak performance and lower operating costs, specify HANCO-FLUX POWER SCREEN HEATING SYSTEMS.

Applications

Flux-Power Heating Systems are ideal whenever damp or moist materials cause screen blinding. While their most common usage is in the processing of basic mineral deposits, units are very effective in the screening of fertilizers, foods and chemicals. Special units constructed of materials that are compatible with the product to be screened can be furnished. Many units are in service in the fertilizer field handling phosphoric, potash and sulphate rock as well as cured and uncured fertilizer compounds.

Electrically heated screens permit finer separation; more accurate aggregate sizing; and, by assuring that the screen remains open at all times, higher productivity.

Other Flux-Power Applications

Flux-Power systems have been created for the electric heating of steel billets, iron plates and other metallic and non-metallic surfaces as well as for other applications not related to the screen industry.

If you have a problem that might be solved by the use of electric heat, write or call Hanco. Our engineers will be happy to assist you with your application requirements. Our system can be installed on your unit in the field!

Hanco International
Division of The Hannon Company

1605 Waynesburg Drive S.E.
Canton, Ohio USA 44707-2196
Phone (330)456-4728
Fax (330)456-3323