

HEATBATH[®]

C O R P O R A T I O N



**CLEANING & COATING
TECHNOLOGIES**
FOR METAL FORMING APPLICATIONS

ISO 9001 Certified

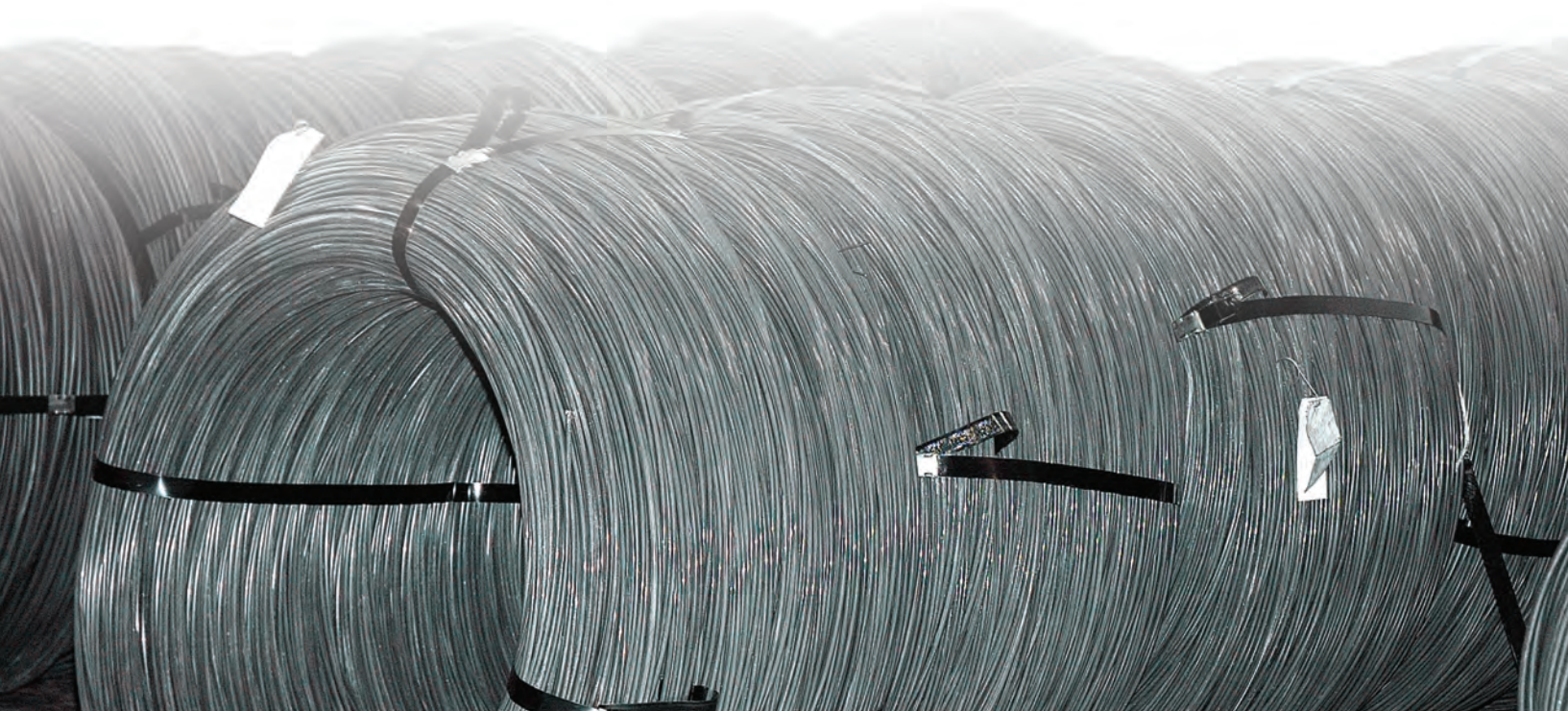
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Specialized Products, Expert Service...

Diversity and versatility are the keys to success in today's wire and tube industries. Heatbath Corporation formulates, manufactures and markets a comprehensive line of custom products to meet the varying demands placed on your cleaning and coating processes. Technical expertise combined with real life production experience insures sound product recommendations, resulting in higher quality coatings and increased product performance. For a reliable supply of specialized products blended to the highest quality standards you can count on Heatbath Corporation.

This brochure is an overview of just a few of the choices offered by our innovative line of products for the metal forming industry. For additional information or assistance please do not hesitate to contact our Technical Center at (413) 452-2000 or info@heatbath.com.



ALKALINE CLEANERS

Used for effective removal of lubricating topcoats on processing pins and reworked material. Keeps acid tubs free of lube and polymer residues, which can cause spotty coatings.

Uni Kleen®1705 is a highly alkaline liquid cleaner that can be used by either spray or immersion on ferrous metals. This cleaner has excellent tolerance for build up of stearates and can be used to strip residual zinc phosphate coatings after drawing or forming.

SCALE CONDITIONERS

Permic and Permic XP are used to convert acid insoluble oxides to a soluble form. Especially useful for alloys containing nickel and chromium. These balanced formulas are easier to charge, maintain and control than conventional caustic/permanganate mixes. A buffer is incorporated into the formula for longer bath life and less sludge.

PICKLING ACID ADDITIVES

A complete line of additives for acid tubs, including inhibitors, extenders and foam blankets:

Acid Inhibitor SL is a combination of organic ingredients supplied in liquid form used to inhibit non-oxidizing acids, such as Hydrochloric and Sulfuric Acid. Prevents "burning" of rod and minimizes the amount of smut that results from over-pickling.

Acidall 1607 is effective at increasing the activity of Sulfuric Acid pickle tubs as the iron content builds. Allows for longer tub life and reduced acid consumption.

Wetaid®1521 is a liquid foaming agent used in non-oxidizing acids to produce a stable, creamy foam layer to retard acid fumes and decrease acid drag out.

GRAIN REFINERS

Phosphate Conditioner 4 is a titanium based grain refiner used for the production of a smoother more uniform phosphate coating. Has proven most beneficial in both shaped wire and cold heading applications for extended die life and increased speeds.

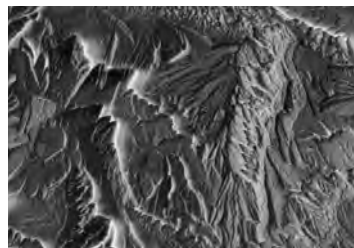


NEUTRALIZERS

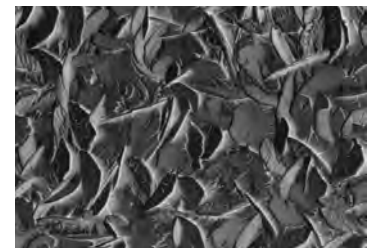
A variety of Neutralizer formulas are available based on varying positions within the cleaning line.

Phosphate Neutralizer 12 is the product of choice for use after the phosphating step prior to either lube or polymer topcoats. This chemistry is highly compatible with both stearate and polymer baths and greatly extends the life of these costly topcoats. Containing rust inhibiting ingredients, the Phosphate Neutralizer 12 provides corrosion protection during shipping and storage.

SEM of Phos Dip 38



WITHOUT
Phosphate
Conditioner 4



WITH
Phosphate
Conditioner 4

(500X magnification)

ZINC PHOSPHATES

Heatbath Corporation offers a variety of zinc phosphate products, many formulated based on specific customer requirements. Realizing that each cleaning house is unique with grades of steel processed, loading capacity, line layout and subsequent drawing and forming applications, Heatbath custom formulates, allowing you to maintain stable baths and consistent coating quality...regardless of the application.



Phos Dip® 38 has been developed to withstand the deepest draws and the most severe deformation. With a unique nitrate/phosphate ratio and increased metal catalyst, Phos Dip 38 produces the most uniform, tight-grained phosphate coating. Coating weights are typically 10-15% higher than other nitrite accelerated phosphates.

A great choice for shaped wire and all cold heading applications.

Phos Dip® 47XD an economical product preferred for tube drawing, stamping, forming and extruding operations. Specifically formulated for high production facilities. Reduces die wear and affords faster drawing speeds. A dependable bath used for consistent, high quality phosphate coatings.

Phos Dip® 10B is a single component zinc phosphate with built in iron control. This bath is easy to control and an ideal product for round hole reductions. Advantages include lower concentrations and shorter immersion times.

IMMERSION COPPER COATINGS

Cuprakote® 20 produces an immersion copper coating on steel with superior brightness and adhesion. High iron tolerance in the working bath results in extended bath life. This two-component system allows for optimum control of coating weights, brightness and leveling.

OXALATE COATINGS

Oxicoat® produces an oxalate conversion coating on stainless steel and chrome iron alloys to retain lubricants as an aid in forming and drawing. Bath operating parameters can be adjusted for optimum results based on the grade of stainless being run.

LUBRICANTS

Heatbath provides many choices for reactive and non-reactive lubricants for cleaning line application.

Drylube 2000 is a reactive stearate lubricant for use over zinc phosphate and oxalate coatings. Excellent film strength will withstand even the most severe drawing and heading operations.

The Drylube 1500 Series of non-reactive lubricants provide different amounts of stearate blended into varying carrier chemistry. These coatings reduce build up in dies, provide corrosion protection and aid in coil compaction. Whatever your requirement, your Heatbath Technical Sales Representative can assist you in choosing the right product to meet your specific needs.



HEATBATH'S SYSTEM APPROACH INCREASES PRODUCT QUALITY AND LOWERS COSTS

HEATBATH OFFERS "TOTAL LINE RESPONSIBILITY" WITH THE FOLLOWING SERVICES:

- A full line of products to meet all of your cleaning and coating requirements.
- On site training for process control, maintenance and safety.
- Line specific operating parameters written for your tank sizes and optimum operating ranges.
- Routine line audits to assist in process control and direct line maintenance.
- Complete bath analyses performed in our state-of-the-art Technical Center.
- Monitoring of pickling efficiency through acid inhibition testing.
- Coating weight determinations to quantify phosphate, oxalate or lubricant coatings.
- Analysis of rinsing efficiency to minimize cross contamination of working baths.
- ISO 9001 Certification to ensure quality product in compliance with your standards and ours.



SHIPPING

The just-in-time nature of our manufacturing operation enables us to custom blend products to your order from stock maintained at each of our manufacturing centers:

- Indian Orchard, Massachusetts
- Chicago, Illinois
- Detroit, Michigan

We normally ship within 72 hours after receipt of your order.





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