

LEAD INDUSTRIES ASSOCIATION

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LEAD IN CHEMICAL CONSTRUCTIONS

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Recently we received an order for a lead lined tank. Receiving this order is important, but the story behind this order is even more important if we intend to hold our place in the Chemical Industry.

Preliminary to receiving the order I have just mentioned, I called on a design engineer and spent about an hour and a half with him. He showed me the drawing for this particular vessel. It called for a plastic lining. I asked him why he wasn't using a lead lining in this tank since lead was a much better material for this service and I knew the price would be competitive. His answer was "I haven't any information that would indicate lead would be suitable in this service." Fortunately, we have made similar installations so I was able to give him the information he needed and an estimate of the cost. The outcome of this one call resulted in us having the chance to quote on the job and we now have their order for the lead lined tank.

It is essential that we get the information to all concerned regarding the use of lead and its corrosion resistance qualities; information concerning where it should and should not be used.

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In some cases we know that lead is equal to but no better than some of its competitive products. This is where the really big selling job has to be done. At the present time, we are able to offer better service, but this will not always be the case.

Our prices are still in line with most of our competitive products and even cheaper than some. In this case our biggest selling point is the low maintenance cost and the salvage value of the lead. We have a tank in our shop that we are relining. This tank was originally lined in 1946 and has been in continuous service ever since. The original lining was 8# lead - that is 1/8" thick. The original cost of this lining was \$2000 completely installed. The cost of the relining job is \$2700 but we will salvage \$720 worth of lead from this vessel. The customer will be given credit for this amount, and the reline job will actually cost him \$20 less than the original lining.

I would like to tell you of an unusual case. Several years ago when the price of lead was advancing rather rapidly we built a new acid plant for a customer. We purchased the sheet lead and pipe for 12¢ lb. The installation required about 100 tons of lead. When the new plant was completed the old plant was torn down. This old lead had been in service for about 30 years and the original cost of the lead was 7¢ lb. There was approximately 100 tons of lead salvaged and it sold for ^{much more than its original cost.} This points out the fact that while the initial cost of lead equipment may be equal to or slightly higher than competitive products the overall cost is much lower.

While calling on engineers I find literature concerning all of competitive products. They have information on how it should be used and are familiar with the fabulous claims made by some of them. Of course, some of these engineers know as much about lead and its corrosion resistant qualities as we do, and I have learned much from them. However, far too many know little or nothing about

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lead. It is up to us to see that they have up-to-date information on lead such as lead linings used in conjunction with acid proof brick when the service is too severe for the unprotected lead because of high temperatures or abrasion and information on homogeneously bonded vessels when necessary to withstand vacuum or excessive vibration.

I have been in the lead burning business most of my life. My father and grandfather were in the same business. So, I believe I am qualified in saying that there are very few lead salesmen. There are lots of "order takers." If the customer decides to use lead we all try to get his order but how many of us ever sell the customer on the idea of using lead or help him with his problems. Our competitors such as the manufacturers of stainless steel, monel, rubber linings and plastic coatings do a very good selling job. They work with the engineers and maintenance men to help solve their corrosion problems. These competitive products have their place in the chemical industry the same as lead but it is our job to make sure that they do not replace lead where lead should be used.

The use of lead in the Chemical Industry has been steadily increasing since 1940. This is due largely to the tremendous expansion of the Chemical Industry and the very good work being done by the Lead Industries Association. However, we cannot leave it up to chance and the work of one organization. It is going to take the concerted efforts of all of us who are interested in seeing the use of lead continue to expand in the Chemical Industry.

I would like to repeat once more the things we must do:

1. Make available information and case histories on where lead should be used and where it should not be used.
2. When lead is equal to but no better than the competitive products - stress the low cost of maintenance and the high salvage value of lead.