



**F.S. SPERRY**  
REFRACTORIES EXPERTISE SINCE 1946

## How to Choose a Refractory Contractor

### 7 STEPS TO MINIMIZE YOUR RISK

On the surface, refractory products don't seem very complex; they're just products that maintain their strength at high temperatures. We use them in linings for furnaces, incinerators, boilers, kilns and other processing and manufacturing equipment.

But upon deeper inspection, there are many variables that determine which type of refractory to use in a specific installation or application. There are refractories based on chemical composition, refractories based on method of manufacturing, refractories based on shape and size, and refractories based on process application. Refractories are not a commodity, and refractory selection is not a "one size fits all" process.

Selecting and installing refractories is typically the lowest priority for maintenance managers or for manufacturing and plant engineers — refractories end up being the last thing on the Gantt chart or "To Do" list. But that doesn't mean that they're the least important.

It's not uncommon for significant challenges to appear during a typical refractory installation project. These challenges can cause extended plant downtime, which can cost millions in lost production, and worse, safety issues.

### CHOOSING A REFRACTORY CONTRACTOR BASED SOLELY ON INITIAL PRICE CAN LEAD TO HIGHER TOTAL COSTS

Before selecting a refractory contractor, consider the following 7 points to evaluate the balance between quality, initial job quote and total potential job costs:

#### [1] Track Record

Does your contractor have a quality track record? While the refractory contracting industry boasts a number of reputable players, it also is flooded with inexperienced newcomers and part-timers from other industries who jump into the business without proper resources or experience. Beware of the "taillight guarantee" — when support ends as the truck leaves your lot. The next time you call, these contractors may no longer be in business. Ask for a list of verifiable completed jobs across a number of different industries.

#### [2] Service and Support

What type of service and support will your contractor provide? Ask about technical/engineering support, research and development efforts, and other behind-the-scenes capabilities. Get a customer reference list with names and numbers and make some calls; there is no better gauge of a contractor's worth than satisfied or disgruntled customers. >>

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### [3] Guarantees

Does your contractor stand behind his service and materials? With an eye on their own bottom lines, many less-reputable contractors buy the cheapest available materials. Refractory products should be matched carefully to the application, dependent on the type of furnace or processing unit, operating temperatures, exposure to abrasion, and a range of other variables. Some companies may not use what is necessarily the best for the job. On the other hand, manufacturer representatives who provide turnkey installations eliminate frustrating back-and-forth finger-pointing. As a general rule, the fewer people you have to deal with, the better.

### [4] On-Time Completion

Will the job get done on time? Whether refractory work occurs during planned or unplanned downtime, the person in charge of overseeing the project must ensure that operations are not interrupted for an extended period of time. Management and production personnel count on lining repair or replacement being completed in a timely fashion. Make sure your contractor has the resources, in both staff and installation techniques, to handle your project without disrupting your schedule.

### [5] Safety Record

Does your contractor expose you to unknown liabilities? Just as some contractors cut bottom-line costs with low-grade materials, some may sacrifice safety for profits. This poses a threat to employees of both the contractor and the customer company, either through unsafe installation practices or exposure to hazardous materials. Review your contractor's safety program. This should include comprehensive training for all employees, proper safety equipment, and knowledge of and strict adherence to environmental and safety regulations.

### [6] Technical Expertise

Does your contractor know what is best for you? Refractories are not one-size-fits-all. What works for a furnace door jamb may not be the best material for the rotary kiln. Because plant engineers and maintenance personnel cannot be expected to keep pace with all refractory technologies, choose a contractor who is experienced and up-to-date on new products and the latest installation methods. These include hot-spot grouting, plastic refractory gunning, and castable pumping. For example, let's say you begin experiencing numerous hot spots on a boiler or furnace wall but absolutely can't afford to stop production for the length of time needed to make the necessary repairs. Can your contractor suggest temporary repair and sealing? Technology now exists that can detect and repair hot-spots online with refractories that are injected through the wall. The material quickly hardens into an air-tight seal. While this process is temporary, such repair work can give old walls several extra months of efficient, cost-effective service until your company is able to conveniently schedule downtime for permanent rebuilding work.

### [7] Total Lifetime Job Cost

Can you afford downtime later if the job isn't done correctly now? Refractory repair and replacement does not end when your operation is online and running again. It must last. Regardless of initial material and service price savings, recurring problems will invariably cost more than a premium job done right the first time. Again, the sure-fire test of a contractor's mettle are the endorsements of past and present customers.

## ABOUT F. S. SPERRY

*We value honesty and integrity, and are transparent with our clients and prospects. If we're not the right fit for your job, we'll tell you, and recommend the company that is the best fit. That's our promise to you — sharing our technical expertise to provide you with safe, fast, effective and economical refractory products and contracting services.*

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