



**ENERGY TRANSFER**  
DURAFIN® TUBES

# WILL YOUR FIN TUBE SUPPLIER DELIVER?

7 QUESTIONS YOU NEED TO ANSWER

## Overview:

A fin tube is a contemporary stovepipe of thermodynamic efficiency. At its core, fin tubing achieves two things. First, it provides a barrier between two gases or fluids so heat energy can be exchanged. Second, it applies the principles of thermodynamics to optimize limited space, substantially expanding surface area within sharply confined dimension. As a result, fin tubes deliver superior efficiency critical to heat exchanger performance.



Today's fin tube market is surging, driven by a supercharged economy and a keen need for efficiency. This spiked demand has unleashed a deluge of tube manufacturers. *Yet many are new contenders who only recently entered the market.*

At the same time, there are very few quality standards in the fin tube industry to set the bar of excellence. **As a result, the fin tube ecosystem is driven by players across the spectrum, from the ingenious to the inept.**

The few standards that do guide the manufacturing of finned tubes are based on criteria laid out by each specific industry that uses a particular tube. *Yet at the end of those metrics is a very sharp cliff, and you're Wile E. Coyote — don't look down.*

“Where those standards stop, it’s the manufacturer that’s left to fill in the blanks,” says Kenny Barkan, CEO of Energy Transfer. “Some of the more established manufacturers have dedicated teams trained to ensure a high level of quality, but many of the smaller companies don’t.

“Today’s fin tube market [is very much like the Wild West](#),” Barkan adds. “There are very few laws, so you have to tread carefully.”

**And the stakes couldn’t be higher. At the end of the day, a fin tube’s performance absolutely comes down to the quality of the manufacturer that builds it.** It’s important to be sure they actually know what they’re talking about, that they have the skills and resources to deliver a quality tube you can rely on.

What do you have riding on that fin tube? Who’s depending on it?

- Do you run a factory that’s reliant on keeping systems online to maintain production?
- Are you an owner of luxury hotels whose entire business premise depends on keeping guests comfortable and calamity free?
- Do you oversee a hospital that’s legally required to maintain heat and energy faculties 24/7, a responsibility that’s quite literally a question of life and death?



**With a poorly made fin tube, it’s very easy to run off the proverbial cliff.** Look down — you suddenly realize there’s *nothing under your feet but bottomless canyon and a quintessential echo:*

*“Beep-Beep.”*

## Problem:

If you want a successful project, you need a quality fin tube. And if you want a quality fin tube, you need a quality provider.

The problem is in today's market, that's easier said than done. You not only need to read the fine print, but actually meet the manufacturer face to face. Shake their hand; tour their facility, kick the tires.

And then you need to shake them down for every piece of information they know. **It's impossible to overstate how much is on the line in achieving a reliable fin tube.**

## ASME or ACME? Understand the Difference



Whose standards are they going to satisfy: *industry leading ASME or roadrunner chasing ACME? The difference is acute yet elemental.*

Not only can a fin tube malfunction result in efficiency loss, but critical leaks can potentially result in catastrophic meltdowns and production derailment. A loose component could damage not only the cooler but whatever equipment it's cooling. Failures to downstream infrastructure can ruin extremely valuable equipment, grinding a facility and its manufacturing processes to a halt.

**And that's when dollars on the stopwatch really start to race.** The costs can easily hit millions of dollars in a mad dash of spiked expense. When you think about it, fin tubing does so much more than just provide an efficient barrier between two gases or fluids — *it sustains virtual protection against exponential disaster.*

That's why it's so critical that your fin tube manufacturer appreciate the critical responsibility they bear. And if they should earn your trust, that supplier needs to be able to deliver a tube that performs wonderfully. It consistently optimizes every opportunity of efficiency, delivers superior performance with steadfast dependability.



After all, you'll trust that fin tube with the sustainability of your entire manufacturing line.

**Here are 7 questions you need to ask your manufacturer — and ask yourself if they can critically deliver — in order to be able to deliver spectacular results.** Follow this guided inquiry to separate the true fin tube competitors *from mere ACME wannabes that only pretend to know what they're doing.*

## A Guided Questionnaire: How Does YOUR Manufacturer Compare?

A truly viable fin tube manufacturer listens to the market and delivers effective solutions. They are an extension of the customer — molded to your manufacturing demands and methods, not vice-versa. And most importantly, they *satisfy a need with the best approach, not necessarily the status quo.*

“So many people in this industry just answer the phone, write down the part number and how many feet you need,” says Russell Kleiner, Manager of Sales and Business Development at Energy Transfer. “But it’s important to really understand the problem and work one-on-one with the customer to develop a solution that’s truly revolutionary.”

### 1. Do they understand fin tube?

What’s the primary litmus test to tell if a finned tube supplier is viable? Experience. *It’s practically water-soluble when it comes to predicting the performance acidity of a fin tube resource.*

As a fin tube customer, you may not necessarily know a lot about finned tubes. And that’s okay — *so long as you work with a fin tube manufacturer that does.* By having extensive experience in fin tubing, a supplier will better understand the application your tube is designed to address. They’ll therefore be able to identify issues and suggest innovative approaches that might not otherwise be considered.



**It’s that experience that can prove so valuable.** “Once when we were working with a customer of a large government agency, we noticed a potential problem,” Kleiner remembers. “We threw a flag and were honest with them. It ended up saving them millions. Now we are working with not only that client, but their end customer because they know the tubes are going to work. It’s that level of trust that drives a successful project.”

Plus, when a company’s been around a while, you can be reasonably assured it will be there tomorrow when it comes time to order another tube. **Working with a legacy company insures the longevity of the tube itself when it comes to repair, reorders, or Next Gen innovation.**

## 2. Do they care enough to invest in your success?

How much is the supplier willing to invest in the manufacturing of your fin tube?



We're not just talking machinery, parts or components. Though nuts and bolts are critical, *don't overlook less tangible value* like customer service, software and technology investment, creative approaches **and the innovative drive to pull off your engineering vision.**

And while we're at it, let's not forget heart and soul, blood and spirit, sacrifice and commitment. True, those factors may be harder to quantify, but they're often the difference between mediocrity and a beautifully performing fin tube. **In the end, a company needs to care about the success of your project.**

"On any new project, it's important to invest in every element of the customer's need," Barkan said. "A great fin tube manufacturer is willing to invest in management and development, be willing to take risks, go above and beyond the status quo to achieve excellence. *It requires a philosophy of generous investment.*"

**A well invested manufacturer will also build the entire tube in-house, manufactured and tooled from the ground up.** This can be critical to accountability. You don't want too many cooks in the kitchen, so to speak. In-house manufacturing also makes it that much easier when you need to order the exact same tube the next time. It's an efficient way to streamline uniformity.

### 3. Do they plan for what you'll need tomorrow — yesterday?

Don't just be on the ball. **Be ahead of the ball.** That's what keeps you from being under the ball, *not to mention the stampede of feet* that inevitably follows as the market chases the ball.

Seems pretty obvious, right? **But you'd be surprised by how many fin tube suppliers fly by the seat of their pants.**

"It's super critical to be proactive in the pre-planning stage," Kleiner says. "That way there are fewer issues. When problems do happen, you can respond swiftly with a solution because you already saw it coming. *Timing is everything.*"



[Are they aware of potential supply issues](#) that could be affected by the market? Does the company ask about key details that might be critical to planning? Will the manufacturer strategize inventory so you're not left empty-handed or gouged by fluctuations in market price?

#### Is your fin tube supplier asking the right questions?

- What are your structure limitations?
- How will the tube be applied?
- What is it going to be used for?
- How many builds of each fin tube will you need?
- Which materials do you require and when do you need them?
- What design specialties are needed?
- Is corrosion a factor?
- What sort of considerations need to be made for high temperature?



#### **Remember 1st period English class when you hadn't read *War and Peace*?**

The teacher calls your name — *so you nod, smile and somehow bluff your way through a thousand words of Tolstoy.* **These guys will play the same game.**

**They bluff until they're blue in the face.** Be wary of a company that's too agreeable and eager to make up a quote for you to just *sign on the dotted line.*

"We always ask lots of questions," Kleiner says. "Sometimes the customer might feel we're placing obstacles in their way because other companies will just give them the green light. But we're being honest and straightforward about what a build will require, critical issues that need to be considered so we'll be well-prepared."

#### 4. Do they prioritize conformity for fin tube efficiency?

One of the primary measures of a fin tube's quality is its standard to conformity, especially in regard to heat exchangers. By optimizing the physics of the tubing to get the best performance from a heat exchanger, *accuracy ensures fin efficiency*.

**Conformity needs to meet the standards of your industry as well as the physics of your design.** Goods need to be sourced and tracked to ensure accuracy in raw materials. The tube and components need to meet exact specifications to precisely actualize your design.



“If you can't trust the quality of a tube to maintain dimensional tolerances, then the heat exchanger won't perform as designed,” says Pete Ishimaru, Manager of Quality Assurance at Energy Transfer. “When you start adding fins and enhancements to tubing, dimension becomes absolutely critical.”



**Because at the end of the day, a manufacturer should deliver quality structure from the raw architecture of your blueprints.** You supply the recipe; *they sauce the broth*.

## 5. Do they test for accuracy and repeatability in means that can be quantified?

To assess accuracy, the best test is a supplier assessment and inspection that's quantifiable. This measures the accuracy of the finished tube against the submitted design. It's a verifiable way to quantify the manufacturing process for quality assurance.



An effective assessment typically includes:

- Rigorous inspection frequency.
- Strict inspection guidelines, including processes, metrics, and material characteristics to be tested.
- Guidelines for acceptable non-conformance.
- Strategies to address non-conformance.

“It’s critical you have a company that is capable of tightly maintaining industry best practice standards for dimensional tolerancing,” Ishimaru insists. *“That’s the only way to guarantee it will fulfill customer requirements repeatedly.”*

Ask your supplier if they test for dimensional tolerancing through quantifiable measures. Then ask to see results of previous builds. If their response is a stunned blank look — *they haven’t read the book*. **Find a better manufacturer who has.**

## 6. Will the tube arrive in one piece after shipping?

*Break it, you buy it* — even if the manufacturer just threw your unwrapped fin tube loose in a cardboard shipping box *and kissed it for good luck*.

Nope, this isn't Amazon. **Don't assume the manufacturer will refund your money if the fin tube arrives in bits & pieces.** Though it can vary by supplier, they might not actually be liable for any delivery damages, even if the tube was shipped in shoddy packaging or mishandled along the way.

"Customers have sent me some pretty awful pictures of what they've seen shipped in this industry," Kleiner says. "We're talking soft copper tubes, aluminum fins just shipped on loose skids. Some of our competitors, even the larger players, *actually assume a 10 to 15 percent fail rate* on shipping because their packaging is so atrocious. **And often those costs gets squeezed out of the customer.**"

With some tubes costing 10s of thousands of dollars, it is critical that a manufacturer strictly adhere to best practices in their shipping. **In fact, they really should provide customized packaging.** Specially designed shipping boxes can accommodate the unique dimensions of a tube and ensure it arrives in the customer's hands safely intact.

Custom packaging actually makes perfect sense, *considering how much design, work and investment goes into each tube.*

Because on top of the cost of a damaged tube or missing components, botched shipping can also critically impact the core production of a business. *What's it going to cost your company if you need to wait six to eight weeks for another tube?*

Kleiner has actually *had customers shake his hand* on the floors of trade shows to thank him for their custom shipping box. It's surprising how overlooked shipping issues can be in this industry, he says.

"There's so much infrastructure invested in each tube, yet many suppliers just ship them on a bare skid with hardly any packaging," Kleiner muses. *"It's crazy."*



## 7. How can you test your fin tube manufacturer on quality control?



So how do you test the knowledge and abilities of your fin tube provider? Here's how to [separate the shysters](#) from the craftsmen.

**First, do a quality audit on their facilities and processes** to assess their manufacturing system. Ask them about inspection frequency, gauge calibration, how they identify and address non-conformance issues.

**Next, tour their facility.** A simple tour can be one of the most obvious ways to separate the good from the bad. Many suppliers *don't have "from the ground up" manufacturing capabilities and cannot verify the quality of their tubes.* Little more than assembly houses, they instead bundle together tube configurations from components purchased from third parties.

"A lot of companies we compete against work with *little more than a construction trailer outside a barn,*" Barkan says. "**There's a lot of low end competition in this market that build tubes that don't compare in quality.** We always encourage our customers to visit our shop, audit our documentation and processes, and see for themselves what goes into the development and tooling of their tubes."

**Next, ask the company about similar builds.** Ask to see examples, especially if you can take their 25 cent tour.

**And finally, test them on their own knowledge of the industry.** Take a hard look at their consistency in the quoting process. *Test the knowledge of their salespeople,* especially when it comes to application, conformity, and assessment of metrics.

Ask them:

- In what other similar use cases have you seen this product applied?
- Which finned tube would work best in this situation and why?
- What alternative approaches can you suggest?
- How long have you been making this type of product?

**If they provide generic info, they probably don't know what they're talking about. Find someone who does.**

## What to Expect:

As we've discussed, there are *plenty of low-end players in the fin tube market that have led to a wide discrepancy in price*. And while some smaller suppliers may cut corners, the quality's often not the same. "Just because you have a building and a few machines doesn't mean you're a world-class manufacturer," Barkan summarizes.



**Finding the right manufacturer can make all the difference between ASME or ACME when it comes to verifiable quality.** Do you want something that's mechanically compliant *or better suited to chasing cartoon roadrunners across the desert?*

That's why it's so critical to separate out the weaker players. By working with a quality manufacturer, supply issues are mediated — tolerances are perfected — competency is accomplished. In the end, you should be able *to achieve a fin tube that delivers exceptional efficiency, performs as designed, and avoids meltdown.*

## What to Do Next:

First, figure out what you need from the fin tube:

- What's it going to be used for?
- What dimensional requirements will the tube need?
- What material demands will it have?
- What unique engineering challenges will the manufacturer need to address?



**Second, educate yourself on the industry.** Read the various blogs, literature, and whitepapers related to fin tubing. Watch online educational videos. *Dig into the nitty gritty* and become as familiarized as you can with the issues, physics, and considerations of finned tubes.

**Third, research the market.** Take a look at the materials different fin tube providers have online. *Call them up and pick the brains of their salespeople.* Ask them about fin tube builds they've done in the past. Explain your own situation and get their feedback. In just a 20-minute conversation, *you can tell pretty quickly who's spinning gold thread or spider webs.*

Finally, ask yourself where your manufacturer stands on these 7 questions. It's the only way you'll find a fin manufacturer to truly deliver — *or fall head-first off a cliff chasing cartoon roadrunners.* **Trust us. The wrong supplier can end in comic disaster.**

*"Beep-beep!"*

## Energy Transfer: In-house Experience, Proven Success



Wherever standardization stops in the fin tube industry, we have an experienced and dedicated team to fill in the blanks. Quality assurance is more than just a philosophy at Energy Transfer. It's a well-staffed department.

"We're dedicated to fulfilling and following all customer requirements, including customized requests," says Pete Ishimaru, Manager of Quality Assurance at Energy Transfer. "It begins from the very first conversation we have with a customer. Because of our expertise in fin tubing, we have a distinct ability to identify quality requirements and deliver results."

Because in the world of fin tubing, there's no substitute for quality. At Energy Transfer, we set high standards for ourselves and measure our success via spreadsheet. We know what we're doing and have the math to prove it.



One of the largest supplier of finned tube products in the United States, Energy Transfer has led this business for over 25 years. We supply the broadest selection of enhanced surface finned tubing and heat exchanger performance equipment on the market.

## A Standard of Excellence

At Energy Transfer, we have fully staffed engineering departments that are focused on nothing but fin tube. And they work one on one with our sales departments to ensure quantifiable perfection. These two arms band together with our quality assurance department to ensure results that are unprecedented in this industry.

“We’re an organization that steadfastly believes in going above and beyond the standard,” says Kenny Barkan, CEO of Energy Transfer. “First and foremost, the product has to be dependable, it has to endure. That very commitment is what has inspired the name of our DuraFin line, a branded fin tube product made entirely in the United States.”

Quality isn’t just a goal. It’s a standard and a core foundation of our values. We believe that no tube is complete until it absolutely defies expectation.

Want the best fin tubing in North America? Contact us for a free consultation.

