Speaker 1 00:00:05 Welcome to the Clear Impact Podcast brought to you by PGTI University. Thanks for joining us today. My name is Sherri Connor, and I am your host.

Speaker 2 00:00:19 You know, Albert Einstein says that if I were given one hour to solve a problem, I'm going to take 59 minutes to define the problem and one minute to solve it. So, yeah, I mean, clearly defining the problem statement is extremely important.

Speaker 1 00:00:34 Running a Successful Business means that you keep an eye on quality, which is our topic on today's Clear Impact Podcast. We are chatting with Sadhir Rao, our Senior Quality Manager. We cover a range of topics from how to establish standards for quality, pride in our work, root cause analysis. And we even talk about just being nice. We hope you enjoy today's episode.

Welcome to the Clear Impact Podcast. Today we are in the series, Running a Successful Business. And one of the things that I know most people strive for is having high quality. And so our guest today is Sudhir Rao. Is that how I say your name? You got it right. Sudhir Rao, and Sudhir is our Senior Quality Manager. So welcome to the show, Sudhir. Thank you. It's so good to have you here. Why don't you tell folks a little bit about your background and your history and maybe how you landed here at PGT Innovations?

Speaker 2 00:01:29 Yeah, sure. I've uh, worked in quality all my life after around 20 years in manufacturing and quality. I lived in Texas for a long time and moved to Florida two and a half years ago. So this is my first venture into Florida, and in the construction industry. My background is mostly automotive and oil and gas, you know, but I do live and breathe quality. I went to NC State, North Carolina State University. So I'm a Wolfpack, I'm a member of ASQ, American Society for Quality. So, you know, a Certified Quality Engineer, Certified Quality Manager, Certified Six Sigma black belt. Bottom line, you know, I enjoy problem solving. I enjoy listening to customers. I enjoy taking customer feedback and working with operations, working with our suppliers to drive product and process improvements. So that's my background.

Speaker 1 00:02:17 That's awesome. And you don't even have the slightest Texas accent. I'm so surprised. Really? You do say y'all though, right? I mean, that's kind of a thing.

Speaker 2 00:02:26 Yeah, of course. Of course I do. So my joke is I have an Amish accent.

Speaker 1 00:02:30 You have an Amish accident, so here's, here's a question to know if you really did live in Texas, do you know what the plural of y'all is?

Speaker 2 00:02:38 Y'alls?

Speaker 1 00:02:42 All y'all is the plural of y'all. I didn't know that. Yeah. So I know that obviously everybody wants to have quality workmanship quality products. It's been said that anything worth doing is worth doing right the first time. And that can be challenging for a lot of reasons. So how can a dealer keep pushing for excellence, for having quality product and service, in the face of obstacles?

Speaker 2 00:03:03 Yeah, I think the key thing here is you know, it's important for us to always challenge the status quo, right? I mean, strongly believe in continuous improvement and here in manufacturing, right? We talk about LEAN. We talk about Six Sigma, right? And when you talk about LEAN, you're talking about focusing on what is adding value for your customer, right? That's where we should be focusing on. And when we focus on value, you're giving the customer exactly what he or she

wants, on time. So both delivery and quality is extremely important for our customer. And if we can focus on these two things, it's as good as doing it right the first time. And I say this to my team all the time, to our operations team, when you get a product, it's important for you to look at the product, you know, just make sure that it is meeting fit, form, and function before you pass it on to the next stage.

Speaker 2 00:04:00 So a common phrase, you know, I use is, don't accept a defect from your previous process and when you get something, look at it, make sure it's good and don't pass it on if it is bad. The key thing to remember here is don't accept a defect. Don't make a defect. And for heaven's sake, don't pass on the defect to the next process, which could be your customer. The key thing here is, is through focus on continuous improvement and all these things should be done by being nice. Right? The, the phrase I tell my team here is, it's nice to be important, but it's even more important to be, to be nice. And there is no need to have conflicts. There is no need to lose your cool, all these things can be done through constructive dialogue and with the end user, which is our customer, in mind.

Speaker 1 00:04:49 And that can be tricky because, you know, how do you know if it's, if it's right or wrong? Like, how do you evaluate quality? Is, is there a standard to measure everything against and maybe how that's communicated so that everyone's on the same page with what is, and what isn't, acceptable? Is it subjective or is it objective? Like, how do you determine quality?

Speaker 2 00:05:10 Well, uh, I absolutely feel and believe that quality is quantifiable. It can be argued that, you know, common customer complaints we tend to see is scratches on glass, right? People say it's very subjective, but there are tools available to quantify those customer complaints or defects, right? There's a reason why we have, we have NFRC, right? National Fenestration Ratings Council. And the intent behind NFRC is to drive continuous improvement, right? It's focused on doors and windows and the intent behind those gold labels, right? Those AAMA labels that we put on our product, is to ensure that we make the highest quality product for our customers, right? Almost transfer, you know, American Architectural Manufacturers Association, right? Those labels express value. I've heard a couple of customers say, some of your products don't have labels. And then it's just that it was missing when the customer received it for some reason.

Speaker 2 00:06:12 So I know our customers understand the importance of having these labels because they add value to the product that we are building. Right. And likewise, we also have several ASTMs specifications, you know, American Standards for Testing Materials. When we build, say an assembly, when we mill some components. So there are some standards that we need to follow. There are ASTM specifications for glass, there's an ASTM specification for the aluminum extrusion. There is an ASTM specification for vinyl products. And it's important for us to follow those specifications because there are standards that we're supposed to enforce, right? So the main thing here is to enforce quality, to drive quality, we need to have standards and that's the classic definition of a problem, right? What is a problem? A problem is a deviation from the standard. And many times we tend to have issues because of three reasons.

Speaker 2 00:07:07 Either we don't have a standard. Number two, we don't follow the standard. We have standards, but we don't follow it. Or number three, the standards are inadequate. As long as we can ensure that the standards are being followed and we follow the right process, we should be able to evaluate qualities. I don't think quality is, is subjective. There's definitely science. There's definitely math behind quality. And, uh, I want to touch a little bit on workmanship pride? It's important, right? I mean, a lot of people come into work and they just mechanically perform their activities. And then they leave

for the day. A little bit of workmanship pride, you know, making sure that we are assembling it or building it with our customers in mind will go a long way to dramatically improve the quality of our products. You know, uh, there's a common phrase out there, right? A bad system or a bad process will beat a good person all the time. And this is a phrase that was said many, many, many decades ago by a quality thinker. His name is Deming. He's considered to be one of the gurus in the world of quality. And I think it still holds true today. So just to summarize, you know, following standards, making sure that we have some workmanship pride. These two things will dramatically help improve the quality, no matter what industry you work for.

Speaker 1 00:08:26 Right. Because I know I've heard, it said, you can have price, you can have speed, or you can have quality, but you can't have all three. And so it's usually pick two, if you want it, if you want it cheap and you want it fast, it's not going to be great. If you want it great and you want it fast, it's not going to be cheap. I don't think you have to choose only two of those three. I think if you do have the right systems and everybody is on the same page in terms of what the goals are, I think you can achieve all three. I think it's miraculous when you do achieve all three. And I think that's really what separates one player in a space from their competition, is if you can nail all three of those quality and speed and price.

Speaker 2 00:09:09 Absolutely. I think all three are equally important, right?

Speaker 1 00:09:14 Be sure to tune in for upcoming episodes to help you understand the fenestration industry, what you need to know when buying windows and doors and other related topics, you can find out more about us at pgtiuniversity.com. You can also find us on Facebook and LinkedIn.

Speaker 2 00:09:32 I mean, if you look at our visual boards here on the production floor, we use the term P S Q D C, right? The focus should be on the people, people first. And then the second thing should be on safety, right? Safety is a high priority for us. And then you focus on quality, after that it's delivery and cost. So if you can focus on these five key words, right?

Speaker 1 00:09:54 People, safety, quality, delivery, cost.

Speaker 2 00:09:59 Everything else is gonna follow after that. Right? So these, these five things are extremely important, whether it is manufacturing, you know, it can be a manufacturing windows. You're building a car, you know, you're working on an oil rig, you're building a, you know, a laptop. These five things are very fundamental to quality.

Speaker 1 00:10:15 That's excellent. I don't know that I ever really paid attention to what those things were. I don't go on the floor. I just walk the mezzanine where it's safe. I don't have to wear special shoes on the mezzanine.

Speaker 2 00:10:24 I think it's a great practice for everybody. You know, whether it's the customer or whoever it is, to walk the floor, because the Japanese term for walking the floor is called Gemba Walks, right? So Gemba means you go and see. Whenever there's a problem, the first thing you need to do is go to the scene of crime. You go see exactly where the problem is. Many instances, what happens is, you know, customer says broken glass, or customer says damaged frame. That's not good enough for us to solve a problem. It's important for us to get additional details. And then what better way to understand the details other than simply going on the floor and looking at it firsthand. You always tend to understand a lot by walking onto the floor and looking at the actual events unfolding in front of you.

Speaker 1 00:11:08 That's excellent. What can a dealer do to elevate their quality if that's needed, or, you know, maybe their quality is great. Maybe things are just singing along and they're not having any problems. They're not having any issues or they're very small, very minor. How can they, how can they make sure it stays like that? What are some things that they can do to ensure that their quality remains high?

Speaker 2 00:11:30 Quality is in the eye of the beholder. Right? Some people love their Hyundai's. Some people, you know, I personally like my Toyotas, right? My wife, she's a big Ford fan. She loves her Ford, so it really depends on what the customer wants. I want to bring the brand BMW as well, because I don't want to humiliate the BMW fans out there. So yeah, it really depends on what exactly the customer wants. And even a butterfly, it looks pretty from far away. But when you hold a magnifying lens close to it, you know, it has its unique drawbacks. Right? So really it depends on what the customer wants. That's the key thing here. And you know, I go back to my, the thing I said before, our job is to enforce standards. No problem is basically a deviation from the standard.

Speaker 1 00:12:15 That sounds like calculus or statistics. When you deviate from the standard.

Speaker 2 00:12:19 The standard scan be, you know, I'll give you a simple example, right? I mean, you're supposed to go up to 70 miles per hour. That's your standard. Yes, granted, some people go at 75 miles per hour, but if you are deviating from that, then there is a problem, you may get pulled over, right? You have a stop sign. You're supposed to stop, not go. You're not supposed to be a rollover stop. Right? It's a standard, you're supposed to follow the standards. You obey the traffic laws. You're as good as following the standards. So if you don't follow the traffic rules, we have a problem, right? So the standards need not necessarily mean, you know, a number. It can be something that is visual to you as well. Right? So standards are everywhere and it did not necessarily be numbers. The key thing to remember here is we need to follow standards.

Speaker 2 00:13:05 And if you don't follow standards, it's going to be a problem. And when there's a problem, our customers are not happy. Right. That's the key thing to remember here. Right? And I also want to touch a little bit on workmanship pride, no matter how trivial the task, how easy the job is, it's important for us to do it with pride. Right? My boss sometimes comes to me and says, Hey, I want you to put this report together for me. It's a simple report, I understand that, but it's important for me to do it, do it right. Right. So doing it right the first time it's like you said before is important as well. And all these things can be done, if you have a good problem statement, right? A problem statement should be, you know, I say this quite a bit. It should be a positive statement that describes the customer's pain points. Right. Okay. So a common way to define the problem statement is to use the four W's and the two H's. So it's who defined the problem? What is the problem? When did the problem occur and where did the problem occur? Right? That's the four W's and then you have your two H's, how did the problem occur and how many, so every problem statement should have these six things.

Speaker 1 00:14:12 Okay. So it's the who, what, where, when, how, and how many, okay.

Speaker 2 00:14:20 Have these six things, your problem statement is very obvious to everybody. And once you know the problem statement, root cause analysis becomes that much easier. You know, Albert Einstein, he said that if I was given one hour to solve a problem, I'm going to take 59 minutes to define the problem and one minute to solve it. So yeah. I mean, clearly defining the problem statement is extremely important because that's going to help you with your root cause analysis.

Speaker 1 00:14:46 That's awesome. I know I'm solving all the world's problems through education.

Speaker 2 00:14:51 Education is important too, right? I mean, Patrick Jameson is doing a fantastic job with all the dealer education and training is, you know, once you have standards, the next step is to train everybody to follow those standards. Right. Right. It's not possible to train anybody, if you don't have standards.

Speaker 1 00:15:06 Right. It's also not possible to train people if they already think they know what they're doing.

Speaker 2 00:15:11 So it's a good point. If you look at the problem statement, right, a good problem statement does not include the why. Why is part of root cause analysis. A good problem statement only includes the four W's and the two H's. Gotcha. Okay. And then once we have the problem statement, then the next step is for us to do a comprehensive root cause analysis, right? The root cause analysis is focused on why did this problem escape from our building? And then why did this problem occur? Right. It's more focused on trying to eliminate the disease, the root, or the crux of the issue here, right.

Speaker 1 00:15:47 Instead of just treating the symptom or putting a bandaid on it, to find out why did that happen in the first place? Um, so let's talk a little bit about root cause analysis. What is an example that you could give us of that?

Speaker 2 00:15:58 There are many examples. Of course there are, there are several, uh, industry specific examples as well. But the one example that I think is probably going to stand out is we all know about the Jefferson Memorial, right? In Washington, DC. This is a classic example. The Jefferson Memorial was disintegrating, and the team decided to perform a 5 Why analysis, which is one of the most common tools for root cause analysis.

Speaker 1 00:16:24 So you ask why five times. So like a two-year-old? Pretty much. Okay. Okay. I have one of those, he is a grandson, but I have a two-year-old. So you ask why five times.

Speaker 2 00:16:36 And in fact, you can use the 5 Why process to solve any problem, whether it is at work or even at home.

Speaker 1 00:16:43 Oh, I'm going to try that. So, so how did that apply in the Jefferson Memorial? What was happening?

Speaker 2 00:16:48 Yeah, so the Jefferson Memorial was disintegrating. So the first question you ask is why was it disintegrating? Right? The answer is they were using harsh chemicals. So why were they using harsh chemicals? They were using harsh chemicals to clean pigeon poop. Okay. So why were there so many pigeons? Because they were eating spiders and there was a lot of spiders in the monument. So the next thing is, why are there so many spiders? Right? Well, because spiders love gnats, flies. There's a lot of flies around there. So then why so many flies, because the flies are attracted to light, at dusk in the evening, right? So the solution here in this case was, you know, they decided to delay turning on the spotlight by one hour after sunset. And what this did was the gnat population went down by 90% and the population went down by 90%, the food chain was broken.

Speaker 2 00:17:43 There's less spiders, less spiders, less pigeon poop, less pigeon poop, less washings, less washings, less chemicals. So that'd basically solved the problem. Less disintegration. Exactly. Yes. So usually what happens is, you know, when people think the Jefferson Memorial is

disintegrating, usually they focus on just the symptoms. Something is going wrong. So use the chemicals and they start cleaning it up. So when you do the 5 Why analysis, what this does is, this forces you to go deeper and try to identify the true root cause, which in this case was excessive flies getting attracted to light. So if you had not done the 5 Whys, if you had not asked why five times, you would have probably continued to use harsh chemicals and the Memorial would have continued to disintegrate. So asking 5 Why's I think is very important, and they're subjective. You know, I mean, your 5 Why's may be different than mine. And I think it is okay. You know, it's possible for us to reach different conclusions through our 5 Why analysis. The goal here is to look at every root cause that we identify and then put actions in place to correct it. So those problems don't occur again. Right? That's so smart. But you know, the key thing here is you just need to keep, keep chugging along, right? I mean, it's the actions that matter. You keep following the process, keep implementing the process, keep performing your actions. Results will automatically follow. That should be the motto.

Speaker 1 00:19:13 I believe that wholeheartedly. I appreciate your time today. Sudhir thank you for joining us today and giving us some tools that we can use when we're evaluating quality and how to dig down and find out why things aren't working when they aren't. Have an awesome afternoon. Thank you very much.

Speaker 2 00:19:30 Take care.

Speaker 1 00:19:31 PGTI University is the customer education team for an entire family of brands. We began with the original Eze-breeze porch enclosure line, then became PGT, America's leading brand of impact resistant windows and doors. We then added CGI, CGIC, WinDoor, Western Windows, New South Windows, and Eco Windows and Doors. We create products built to withstand major storms, keeping people safe, secure, and prepared. Our exceptional brands give you the protection you need without compromising design or functionality. PGTI University is here to educate you, our listener, so that you can be a more informed consumer of window and door products.