TEI 103: How Karcher developed a new product that captured the market
Host: Chad McAllister, PhD
Guest: Bill Ott

CHAD: Hi, this is Chad, your host, and this is the home for product managers that are becoming product masters. Each week I provide training to product managers through this podcast, but it doesn't stop here. Check out how to become a product master by getting the Product Mastery Roadmap at the same place where you'll find the show notes for this episode—that's www.theeverydayinnovator.com/103. A couple weeks ago I offered my "Stand back, I'm innovating" coffee cup to the first ten listeners who requested them. Those cups have been mailed. If I get any pictures back of the cups from the new owners, I'll let you know about them in a future episode.

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CHAD: This interview is a great discussion about a product story, from how the product concept was developed all the way through launch, including industry awards the product received. My guest is Bill Ott. He's the executive vice president of the product development organization Karcher. They are the world's leading manufacturer of cleaning equipment. Bill is a hands-on executive with global experience in private, Fortune 500, and startup environments within the consumer, commercial and industrial sectors. Bill started his career as a design engineer and progressed from an individual contributor to management roles while he was working for IBM, Thompson's Consumer Electronics, and also Phillips Electronics. In just a few places, the audio is a bit distorted but I'm sure you'll find listening to the discussion to be really valuable. I know I did. I hope you enjoy it.

CHAD: Bill, thank you for being part of the Everyday Innovator podcast.

BILL: Thanks, Chad. I enjoy and look forward to speaking with you today.

CHAD: I think you have a fascinating product development story at Karcher you can tell us more about. We met a few years ago, through PDMA, the Product Development Management Association, and then I recently saw you talk about this product development story at a meetup group in Denver, Colorado. So, anyone in the Denver area, that's the Colorado Product Meetup group, and this kind of for me, embodies product development in the sense of starting with a need, selecting different ideas that could be pursued, going into the field and doing customer research to understand what's really needed, and I thought it was such a good story of how that all happens. Set the stage for us here, about Karcher, and kind of where the story begins.

BILL: Yeah, sure. I'm responsible for the product development function here at Karcher North America, and we're actually part of a larger organization that's headquartered out of Germany. The company's been around about 75 years or so, and ultimately, we're the world's largest manufacturer of cleaning equipment, anywhere from retail-based products that you can find at Home Depot and Lowe's, to large industrial equipment that can be utilized for cleaning parking lots and parking garages, warehouses. We do a lot of business in the institutional cleaning, the office buildings and so forth, anywhere from carpeting to hard floor cleaning to disinfecting, and this particular product is a category that Karcher North America has actually been the market leader for here, in what we call carpet extraction, which is essentially carpet cleaning using a wet process. If anybody's ever rented a Rug Doctor or anything at your local hardware store or shopping center, that type of equipment would actually put down a cleaning solution then the carpet gets agitated and then the dirty water gets sucked back into the machine and that's really the category we're looking at.

TEI 103: How Karcher developed a new product that captured the market
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[4:00]

BILL: So we have several current products today that have been around for quite a while. We've done some innovation in this space in the past, around using a dry chemical where it actually encapsulates the dirt and then you come back with a vacuum cleaner and you vacuum up the dirt after the fact. We've continued to have innovation over the years, but the core line has been around for roughly 15 years. The market itself is fairly flat, although in the last few years with the economy kicking back up again and construction, we are seeing new starts that are continuing to add carpeting into their spaces. But there is, in general, an evolution to more hard floor type products, but we still see a huge need in this category and thought it was time to put some investment into it. We started this in 2014 with the idea of replacing our current line of extractors with a new line. So the initial requirements that were created were just really to come out with some upgraded features, making it more efficient, and really one of the big drivers in this category, and cleaning in general, is productivity. The largest cost for cleaning is around the users and the operators of the cleaning equipment. Our goal is to get where it takes less labor and in some cases it allows the labor person to do the job much faster, so they can get more done in their hours that they're on the job. That was one of the primary goals, was to look at how can we reduce labor content and ultimately save money for our customer, who are typically the cleaning companies that come into buildings and do the work. So, with that, we put together our initial requirements document, which we call a concept definition package. The product management team puts that together based on their knowledge of the market, what the features and functions have to be delivered and ultimately one of my big drivers in the requirements are what are our differentiators? Our USPs that we want to go after. Those were really critical in terms of making sure that we are driving value. One of them is productivity. Our goal was to try to improve by at least 30%. The other aspect of this job, too, if anybody's ever done it, is it is very laborious. Typically, with the machines, you push them forward and then the cleaning process actually works when you are pulling backwards on the equipment. You're dealing with 6-10 gallons of water that you're dragging across the carpet and having a brush clean the carpet. So it, after a few hours of this, your upper body is starting to feel it. It's not a job that everybody wants to do every day.

[7:11]

CHAD: That's right. If you're doing this as a homeowner, you want to make sure you have time in your schedule afterwards just to recover.

BILL: Yeah, exactly.

CHAD: I remember these units. Just to paint the picture for everyone, we're talking, in general the kinds of product that you sell to the commercial customers are larger, more industrial types of machines, right? Some of these are even self-driven, I think.

BILL: Yeah, a lot of these are again, large, the one you'd get from a retail store are again, much smaller versions. With a commercial space, you're dealing with thousands and thousands of square feet of carpeting, so the machine size and width are much larger than what you currently would rent, and the current line, though, is not self-propelled in any way. It's still all manual.

CHAD: You just lug it and pull it to get it to do its work.

TEI 103: How Karcher developed a new product that captured the market
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BILL: Yeah, it really is. It's just some brute force. So that was our other primary goal, was to reduce the effort and the fatigue that people have, and then the third one was agility. So, allowing this new line to work in spaces like hotel rooms and dorm rooms and around slot machines in casinos, so making it more maneuverable as well. Those are the three primary differentiators that we set up early in the project. From there, we go into our concept group that's made up of a small team that includes the product manager, includes an industrial designer, it includes an engineer and a project manager. They have the responsibility of developing the concept we ultimately go into development with. This small team, in this particular case, we felt that it was important for us to really understand the current usage of the equipment. We spent a lot of energy doing VOC with several of our customers that use our current products as well as some competitors' products. The team spent several days on the road going visiting universities, Kansas City was an example.

CHAD: Bill, let me ask you about the VOC. So this is Voice of the Customer research and it sounds like you're describing an ethnographic approach: first-person user observations.

BILL: Exactly. We have a really good skilled group of ethnographic researchers. We do interviews as well, but a lot of the times it's actually going down and watching the operators use the equipment and visually observing reactions, how they go about doing their job, where the pain points are, and ultimately what we did in all these cases, too, is we actually mapped out the process. Carpet extracting isn't just about dragging out this one piece of equipment. They have to go and do a pre-vacuum to pick up any loose dirt and any debris. They usually come through with a spot-cleaning process, where it's usually a bottle of something and they will pre-treat any stains. They also in many cases, will get furniture moved out of the way, or other items that may be covering the floor. They have to move that out of the way. Then one of the big challenges with this equipment is that it does have water in it, so you have to fill it up somewhere.

[10:50]

BILL: A lot of these spaces, you have to drag a machine over to some cleaning closet where there's a hose and a sink, and fill the machine with fresh water. So in all these VOC areas, part of the ethnographic research is to watch the process and understand what they're doing. It's a little different depending on each one, but our goal is to really, when we looked at the productivity, was to improve how long it took through the whole process, from the point of actually starting the job to when the end customer can actually get access back to their room again. One of the challenges with this process is it makes the carpet wet. We don't want the end customer getting back on the carpet until it's fully dry. It's a safety issue and also potentially is contaminating the carpet again with dirt. We actually looked at the end-to-end process and really focused on the whole thing, so that was part of our understanding of the process. We do also interview all of the individuals who are cleaning but also the decision-makers, because usually in this process it isn't the end user that's making the decision to purchase the equipment. It's somebody up in an office that has a purchasing title on their door and in some cases, they might not be fully aware of the fatigue factor and other things that are seen by the operators. They look at the cost structure and the productivity and that's a big driver for them as well. If we can show certainly that they're going to be able to maintain employee satisfaction and keeping employees on the job and minimizing any kind of on-the-job accidents or injuries, again, that's hitting the bottom line. One of the big challenges they have in this industry, of course, is just turnover. It's a fairly low-paid

profession, and the individuals that are in this field are not extremely reliable and there's a lot of turnover so you have to train people, which is a costly event as well. If we can make the products easier to use, less fatiguing, then these individuals will actually come to work more often, we believe. So, from the VOC, as I mentioned, we went to several different locations, spent days with them and put together kind of an observational list.

CHAD: On those locations, how did you chose them? Was it convenience, were they representative of key customers, challenging areas?

BILL: A little bit of that. One of the biggest challenges we have is to get willing partners who allow us to do this visual research. So we do leverage our current customers in many cases. It may not be something that's using our particular piece of equipment but they have purchased equipment, maybe to do other things. That was the case. We do have relationships with a building service contractor in Kansas City, so they allowed us to have access to three of their locations that we went to. Again, we do look at things from what we call target groups, target markets, use cases, and in this particular case we felt that key target groups for this product category are universities, schools, casinos, airports, places with large expanses of carpeting that people want to go clean. And office buildings as well. So there is a little bit of a fine tuning of that list, based on the target groups and then ultimately then we leverage our customers that we have who allow us to have access to the spaces. I've found through my experiences that with B2B, it's a lot more difficult to do qualitative-type research to find the appropriate individuals that can actually help you. It's a little more challenging than a consumer product category. So that really helps us out quite a bit. But it's actually one of our more time-consuming activities on our projects is to get willing participants in the qualitative side.

[15:14]

CHAD: I'm curious about the casinos. When you mentioned casinos, casinos tend to, at least on the floor, gambling floor, they tend to not close.

BILL: That's correct. So we do, we actually had to go there in the middle of the night when there's less traffic. They do close down some areas when they're doing this and most casinos cut down on the noise and to get people where they're happy to sit there all night is they have very lush, very expensive carpeting. A lot of times they'll use wool carpeting with a very soft pad, so it actually makes it more challenging in the cleaning operation, because the load on the brush is actually higher. So we have to make sure we … so that's actually, we use casinos quite a bit for our testing, to make sure, if our products work in casinos, then usually they'll work in most applications. So I see that as a real big driver. I've used the analogy, and I mentioned this at the products meeting, is that the end customer on this is the casino owner and if they don't have people sitting there and putting money in the slots, they're losing a lot of money. So our goal was to get in there, clean the carpet, and get off and allow it to dry very quickly so they can get money-making, people sitting at the chairs. Carpeting in these areas gets pretty dirty. There's a lot of traffic plus many casinos still allow smoking so you do get the smoke, dirt there as well, so they do a lot of carpet extraction in casinos.

CHAD: So you did the VOC research in those three areas to emphasize: universities, airports, and casinos. So now you have a clear understanding of what the problems are and what some of the inefficiencies are, what happens next then?

TEI 103: How Karcher developed a new product that captured the market
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BILL: We have a whole list. We have a large list and part of the activity it to try to narrow that down. We kind of go on this divergent path for a while on needs, but we have to start narrowing it down but really understand the true value. So, what we end up doing from that point is we utilize some of the techniques out of the lean startup methodology called Build, Measure, Learn. With this concepting group that we do have, which is made up of what we believe is our most conceptual people, we have them take those needs and turn them into features and concepts and usually we'll start with graphical representations, renderings, and that's where the industrial designer gets real creative in the brainstorming session. We'll use affinity diagramming and post ideas around potential ways to solve the problems. We'll narrow those down to those we feel have the highest potential and then the team actually goes into our prototyping lab and we do a build day. They basically carve things up out of whatever material they have available—cardboard, foam, old product that we can steal parts from. They actually make samples. In some cases, they're functional. In many cases they're just form and fit, but we will create several dozens of these things that become our visuals that we look at internally; we'll actually narrow them down. But then we actually do a measure and this will be with some customers. In this case, it's more convenient for us to find local participants, so we'll actually get individuals that we've talked to before, or customers, and we'll bring them into our lab and allow them to take a look at the ideas and provide their feedback.

[18:57]

BILL: One of the things we did in our lab to kind of simulate their world is we created simulated hotel rooms and a simulated office space with cubicles and we allowed them to actually leverage the concepts in those spaces as much as they can. Again, some of these didn't physically work, so it was more of a role play, but we're able to, from that, the observational and interviewing of these individuals, get feedback on the concepts. Then we'll go through another round of Build, Measure, Learn. We'll take the output and learn from it. We'll say, "These are the areas that we had good feedback on, these are the areas at risk." And then we'll do another round of Build, where in some cases we'll do a super-concept where we'll take ideas from several of the concepts and put them in together into one product idea. Then again have individuals come back in and try out this next concept. On this product, I think we did three Build, Measure, Learn cycles to kind of narrow down the architecture and the approach we were going to go about doing. In this particular case, the overwhelming favorite idea was the idea of carpet extracting moving forward versus moving backwards.

CHAD: Meaning that, as you described in the beginning, that the units today, like the ones I rent from the grocery store or Home Depot, pull them backwards for them to operate, because they're spraying water into the carpet and then they suck it out as you pull back. So changing that to actually be able to see where you're going…I know my struggle has been keeping track of that silly cord. The cord is always in the wrong place when you're pulling it backwards.

BILL: Yeah, and that was certainly a challenge for us. We evaluated looking at battery power and that would have been an ideal situation technically, but the power required to create the suction motor that we needed is just overwhelming right now for a battery system. I guess I'll put it in a way that it's technically feasible but nobody would buy it at this moment, because the cost would be pretty extravagant. So we did decide to make it an AC powered system. As you mentioned, the cord is definitely a problem, and usually when you're pulling it backwards, you do have a thing kind of wrapped

around your neck and you're always pulling it out of the way, so going forward allowed us to minimize that issue. We did create a cord collection device on the product that lifted the cord up off the ground a little bit and then we recommended that the user just kind of drape it over their shoulder as they're moving forward. It's the large expanses of space that the training that we provide subsequently is that you start at one side of the room way from where the actual plug is and you work towards the other side of the room. That pretty much eliminates the cord interference. You do get in situations still, where, you know, you're in this tight space like a hotel room and you have to deal with it, but it's much, much improved. I think the key driver that we did as well, with our narrowing down of ideas, is we took the process information from the field that we learned and we held value stream mapping events. One of the individuals that worked for me is a lean master and he conducted a session with a team and they mapped out the complete process from the point in time that the operator showed up to them putting the unit back in the closet and the customer was getting back in their space.

[22:49]

BILL: We identified several areas of waste and a big highlight was put around the function of pulling the machine backwards and then when you move forward, essentially there's no cleaning being done, so its a tremendous amount of waste. So, that's what kind of drove the idea of moving forward. With moving forward, we also included a steering wheel, so you can actually steer the unit as it's going forward to make it more maneuverable to meet our expectation of the value drivers that we came up with earlier around making it easier to use. So both going forward and making it maneuverable, we believe we met those requirements.

CHAD: Yeah. You want to make it more agile for those tighter hotel rooms and the like. I wanted to ask you about the Build, Measure, Learn iterations. You said on this project you went through three of those cycles. The first cycle, are these pretty rough prototypes just made out of foam and the like?

BILL: Yeah, they are.

CHAD: I was wondering where you try to get functional prototypes in front of customers.

BILL: As we go through the process, they become more functional, so by the time we do the last iteration, we did have units that for the most part simulated the carpet cleaning. I don't remember if they all had water and everything like that, but they did simulate the impact They had a motor in them, they actually had things getting sucked up and brushes spinning, but the earlier ones, that wasn't necessarily the case. We were fortunate in one case, we have our product for hard floor that has similar approach to the final design we went with, so we were able to steal some parts off of that and make something that was closer to usable at the time, but most of these are cardboard, wood, we use a lot of wood, and they were not necessarily functional, just form and fit. But typically as we get through the process we will actually have something that's more functional. It all depends. We do use, again, similar to the lean startup as the minimal viable product, so that's our goal there, is not to over-design the product until we really understand the full needs and the direction we're going to go down. So that's why we do things in low-fidelity methodology, because you can actually iterate much, much faster by using the minimal viable product approach. That's something that we do utilize, on this project and subsequent projects, and it really works well for us to go through the iterations much, much faster.

CHAD: That's exactly what we want to do as product managers, and doing this kind of iterations with the customer, even putting in front of them a very rough, non-functional prototype. Maybe it's just the mock-up of what this physically might look like, the size of it, done out of foam. You can start getting some good ideas from customers and some things that they might identify that might be problems in this sort of design, and the whole objective there is quick and inexpensive. Do the experiments, get the feedback, and then move on as you learn.

BILL: Yeah, and we've learned through other channels and other product categories that we struggle with this a little bit with the users because they can't see past the quality of the prototype. We have to explain to them what we're trying to accomplish and really get them to trust that this is a worthwhile effort for them to actually go through. For the most part we get the individuals to participate by their feedback but we do run into, once in a while, some, especially through the dealer community, some challenges with them to participate when it's not something that's fully been fleshed out. But it works really well.

CHAD: I personally find prototypes that intentionally look rough, they intentionally look like they're not near completion, are better, because then people are more willing to give you feedback.

[26:57]

BILL: Yeah, and that's exactly true. So we've set up our prototyping lab to really have capabilities around that low-fidelity, all the way through to capable products, so we do have wood-working equipment and we do some level of 3D high-speed machining when we do finally get some CAD models, we have 3D printers and things like that, but those are usually utilized a little bit later in the process, because at this point in time, we're not in CAD yet. It's hand sketches and carving of prototypes, so we don't want to spend a lot of energy putting things into our systems until we're really sure what we want to do.

CHAD: Very good. So you went through the three cycles and at the end of that, now you have the prototype and the design, really, that you intend on launching to the marketplace, right?

BILL: Yeah. What we did with the third cycle, again, it was actually very, very positive in this case and at the products council I did show some of the pictures that we were able to extract from the videos we took of individuals when they first got their hands on this piece of equipment that moved forward. It was very interesting the emotional reaction they had with the product. People that do this on a daily basis, they had big smiles on their faces, knowing that their life is going to be a little easier if we're successful getting this product to market and their company actually buys it, to get where the fatigue goes down, the productivity goes up. That was really the final decision-maker was the emotional reaction we saw with that particular piece of equipment. So, that's what we decided upon. We do have internal reviews with stakeholders and others to help finalize decisions, but we do try to run pretty lean here, from the standpoint of executive oversight. My role, certainly I'm involved pretty heavily, but I do let the teams pretty much run these types of sessions on their own and provide directional feedback and oversight and then we do have some review meetings where we help support the final decisions on things. I find in many, many cases that the team has already had it down pat that it is the right decision and ultimately the one we go with. From that perspective it's been fairly easy, but we'll go through a financial review as well, so part of our concept phase is delivering a few main deliverables and it's the concept itself, which can be provided in either a mock-up or renderings. We do a technical requirements

document that provides the technical specifications for the development team, we do a project plan, which is the overall schedule to get to production and market launch and then also the financials, looking at the ROI, making sure that what we're going to propose is going to ultimately return on our investment for us.

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BILL: That's the reason we're in business. So the team actually develops that along the way and then when we do have these deliverables done, we do a review of that, and again, we're doing it at what we call our market development team level. It's kind of an internal business management group where it's a cross-functional group that provides oversight to the organization to look out for a particular channel, in some cases a particular product category. We make decisions around that. So the team presents that information at that forum. It's not at that point in time, it does not include our CEO or CFO, and we will then set up the actual development team. In our case, we use a different group of people for doing concepting than we do for developments. The reason we do that is we find that, especially on the engineering side, you have different personalities and different ways in corporate levels for people in doing certain things. Everybody in the organization has gone through something called the Emergenetics process. That is a personality profile, in some way, where it actually looks at where your tendencies are in terms of conceptual versus detail versus social. There's many cases where individuals are not very comfortable in conceptual, so they actually fail. They don't know what to do, they like having constraints on them, they like having boundary conditions. What we've done is we took that information and that's how we selected our people for our concept team versus our development team, depending on how they're able to accept the unknown and how conceptual can they be. At that point in time, we transition to the detail group that is very comfortable with that kind of thing, doing software, doing hardware development, doing mechanical design, doing CAD and drawings and build material creation. The group that was doing the concept, they go pull the next project off the pile from the standpoint of concepting. They kind of just continue to work in that unknown area. What I've found, too, over the last couple of years since we've been doing this is that they get very good at this. They understand the process. One of the challenges we had a few years ago was the fact that, in some of our cases, our product development cycle is pretty long, two years. By the time we get back to the next project with that group, they've sort of forgotten how to do concepting and we've been able to really hone down this process with a small group of people that have become extremely capable of doing this concept work and delivered a lot of great ideas.

[33:28]

CHAD: It sounds like that's an intact team that that's their focus, right? They do the concepts.

BILL: Exactly. That's all they're doing. We've even done it where, because our organization is actually in five different locations across the US and we've done it where, again, the concept team that had never even touched a pressure washer, for instance, is actually working on pressure washers. They're developing concepts for pressure washers they've never touched before, and the great thing about it is they have no constraints. They haven't been doing it for 20 years, and like, "Wait a minute, you can't do that." Why not? "Well because you can't, or we tried that 20 years ago and it didn't work." So it allows

them to really be open and some of the things we have going on in that part of our business I believe are going to be tremendously impactful in terms of how they hit the marketplace.

CHAD: I would also expect with that that you see performance improving over time just because the team is left intact.

BILL: Exactly.

CHAD: There's efficiencies in matrix organizations, but when you can leave a team that is focused on that work, in this case, the concept work, and move them from project to project and leaving the team intact, they just get better and better because they get more experience working together.

BILL: Exactly. And they really have gotten down the Build, Measure, Learn process, the minimal viable product process. We've continued to educate ourselves around that. My head of industrial design, the product manager just had a workshop with his team on that and they really wanted to make sure they standardized across any of the teams that we may have in that area, so that we're approaching it from the same way and looking at it from a risk perspective, really trying to drive down risk as we go forward. Another product we're working on is in the pressure washer side and we have a lot of concerns with the market acceptance on that, so we're actually doing Build, Measure, Learn cycles to get them experience with our new ideas, to get them to buy into them. We're doing a very similar thing. We told them here's our biggest risk item and we created, in this case, a working machine. Everything was very generic except for this one new feature that we're going to use in the product and then again they pushed back quite a bit, but we said, "Look, our goal is for you to test out this new feature and give us feedback on it." So they've been using them for several months now and it's actually been going very well. We're starting to see them say, "You know, this isn't as bad as I thought it was going to be."

[36:01]

BILL: So it can be used for purposes other than just going through the concepting like I talked about with the carpet extractor. It was a very good process for that as well. When we get into the detail phase, we still do a little bit of Build, Measure, Learn. Our spreads are longer, because now we're going to be dealing with fully functional machines that the prototyping process, to get the minimal viable product, are much longer. We do iterations of the design that we go through validation on and this will start getting into more of a formal product testing internally to our requirements document, where we've created…the product needs to, in this particular case, draw up so much water per minute and extract up so much water per minute. We'll actually build the machines that are used in the testing area to validate if we've met that. In some cases, we're able to achieve first turn, but many times you don't meet the specs initially and we go through an iteration of the design to ultimately achieve the goals. Again, keeping in mind the three primary differentiators are non-negotiable in the delivery of the product. There are several things that, as you go through a project, the product manager will be like, "Not a big deal, these were like-to-haves, we'll concede on these, knowing that to fix this problem may take too long or be too expensive." But we want to make sure we do not concede at all on the primary differentiators that we identified earlier. But again, this project we were fortunate we didn't have to. We were able to hit the specifications and the performance on the product and also get to where we were meeting several industry standards regarding carpet cleaning that are actually set up by an external company on how effective the extraction process is. We're able to get … on their standard.

That was one of our like-to-haves and we were able to actually achieve it. Throughout the project we had our eye on the launch. There's a show that occurs in this industry where we typically do our product launches at, so this was set up for basically October of 2015, where we were going to launch it at a show. The development team worked pretty hard. We ran into some challenges as you always do in projects, where we couldn't find a motor that would actually work properly. We decided along the way, since there were some similarities of this product to a hard floor cleaning system that's developed in Germany, that we were going to try to reuse some of their parts. We could minimize the tooling expense and time to market, so forth.

[39:09]

BILL: Well, once we decided to do that, we actually ran into some challenges on a motor to actually drive the brushes that the team unfortunately didn't anticipate. One of them was when you're actually spinning a brush cleaning a hard floor, the load is much lower than if you're trying to spin a brush into carpeting. So we had to use a bigger motor, but unfortunately the design and the parts we used had a fixed space that we could fit the motor into. So we actually combed the globe and found basically two options that would work. One of them unfortunately ruled out pretty quick so we were down to really one motor supplier, on motor option. If this didn't work, we were looking at a pretty lengthy delay in the project. Fortunately enough, the first prototypes came in and actually worked pretty good and we were able to include those into the show prototypes that we sent out to Las Vegas and we got our first motors in December of that time and did our final pilot builds and did our final validation testing and they actually worked pretty satisfactorily. We had to do a little bit of software changes to compensate, but it all ended up working pretty well. Then we started our production in January of 2016. The show went really well, a ton of interest, we had several pre-orders in place, going into product production time, and everything was all set. We did run into some challenges, though. We got our first molded parts in for production volumes and we started having some issues with them. We had to basically pull together the development team into kind of a kind of a tiger team and they were managing the production line for probably the first three months of production, because of issues we were having with incoming parts. We had to do a lot of sorting. Ultimately, we had to make some tool changes with the supplier to fix some of these issues to get where, you know, these products were being built without a lot of engineering oversight. There's always things that come up in projects. Throughout my career, I always said, I'm still striving for a perfect project. This had some really perfect things in there, but we still had some challenges and it was one of those things that you have to plan for, to some extent, but something's going to happen we didn't anticipate and you've just got to get committed people and focus on it. The good news is we were able to, for the most part, keep our production line going. We had a few incidences where we ran out of parts, but we were able to deliver and actually exceed production expectations for the first nine months of the development. Our sister company or our ownership in Germany entered the product into a show in June of this year in Amsterdam and it actually won one of the innovation awards for the equipment category.

[42:27]

CHAD: Very nice.

BILL: So from that perspective, the team here, unfortunately wasn't there, but they got a lot of satisfaction out of winning that award and we're actually working on the product now that it's going to be launched globally next January. It will have all the additional requirements for the different motor voltages and issues that we have with all the regulatory needs across the globe. We're still on track to get those out the beginning of next year.

CHAD: It's a great product story, Bill. I appreciate you sharing the highlights of it, the steps you went through and how you learned about the problem in detail and what your concept team has been doing to learn the Build, Measure, Learn steps, to really refine that understanding and the prototype work and getting to a functional product, which went into manufacturing. Congratulations on the awards along the way, that it's doing so well in the marketplace.

BILL: I appreciate it.

CHAD: As listeners know, I always like to get an innovation quote from guests. What's a quote you brought, and why did you chose that one?

BILL: Okay. I am a big fan of Steve Jobs and I think he's brought some very interesting things into the product development process and innovation. One of the quotes that he's used before is, "Innovation distinguishes between a leader and a follower." I think that quote parallels this project quite a bit because we were a leader in this industry, we lost some of that lead over time due to really not focusing on it, somewhat taking the category for granted. But then, being that we were a leader we felt that it was up to us to leapfrog and come up with something that really knocks the industry a little bit on its side, and in a fairly commoditized category. And to believe that you can still do that with the proper process, the proper thinking, the willingness to be open to new ideas and new methodologies, and ultimately we were able to get to a point where we're driving the leadership position again.

CHAD: Absolutely. I was wondering about this space, if it was a commoditized kind of market.

BILL: Yeah, it's definitely gotten to that point, of course.

CHAD: I love the story even more then, that even in that market, there are people like your group that rush into that to try to find a way, how do we create differentiation here? And added value. And it really identifies the key differences that create value for the customers. Thanks for sharing the quote and thanks for talking us through this story. I think listeners will find it certainly very interesting, the steps you went through, there's a lot of good meat there. If people want to find out more about you and the company, what do you want to share?

[45:11]

BILL: Yeah, I think, certainly, myself, I'm on LinkedIn, under William Ott and Karcher North America. Certainly you can see a little more about the company, www.karcherna.com. You'll see as a company we have a very broad product portfolio and we also have products under a lot of different brands, so Karcher may be new to you but we do have a lot of brands that are a little more well known in the commercial space and certainly look at that. We do have very broad product offering.

CHAD: Great. Bill, thanks so much for your time.

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Host: Chad McAllister, PhD
Guest: Bill Ott

BILL: Thanks, Chad. I appreciate it.

CHAD: Wow, that was great. Thanks for listening. Please tell other product managers and innovators about this podcast. You can do that by going to the show notes for the summary of the discussion with Bill. That's at www.theeverydayinnovator.com/103. At the top of the page, you'll see buttons to share the interview, also from the same page you can download the Product Mastery Roadmap that shows you how to go from product manager to product master. Again, that's at www.theeverydayinnovator.com/103. Keep innovating!