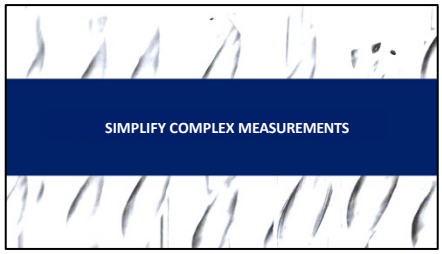
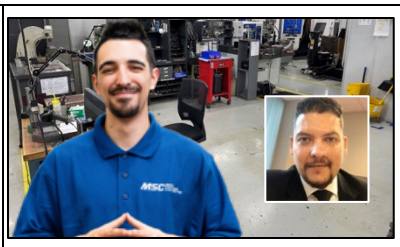
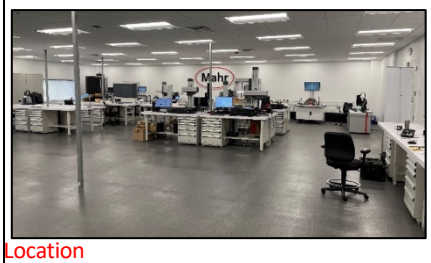
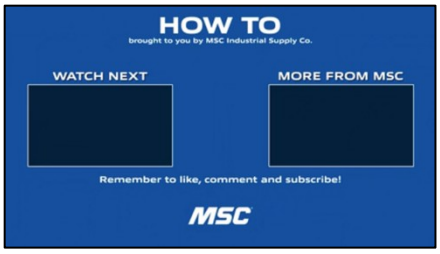
Brand: MSC Industrial Supply
Series: "How To" S2_EP. 5 / Mahr
Title: "How To: Simplify Complex Measurements" (*working title*) - 9:00 v3
Record Date: 5/30/24

SEGMENT	VIDEO	AUDIO
1 Episode Cold Open / Industry Challenge Introduction	 Location • Exterior Mahr Inc, Providence, RI Action • Jacob walks into frame • lower Third – **Jacob Sanchez, Host** • transition into logo Scene Shot List • branding/signage drone shot of area (surrounding community)	*High energy music & machine shop sound effects* **Jacob Sanchez:** There are thousands of suppliers out there with millions of products. But there are no guarantees that you can get exactly what you need off the shelf. Why? Because every project and part are unique, requiring a custom solution. Everything needs to be precise, even more so in the world of metrology. In the 1940s, the invention of air gaging took metrology to another level. What is air gaging you ask? Well, it's used when tight tolerances are needed, usually less than 0.003"… Across a variety of configurations and applications, items can be measured with exceptional accuracy and minimal operator influence using air gaging. But how does air gaging work? What are some good use cases, when is the right time to turn to a custom-built air gage? I asked all these questions to the leadership team at Mahr (a heavyweight in metrology) and they invited the "How To" team to get answers at one of their facilities. So,I'm here at Mahr Inc. in Providence, Rhode Island to visit the pro duction process of their air gages, and together, we'll learn **HOW TO: SIMPLIFY COMPLEX MEASUREMENTS** *(aprx. :60)*
2 Episode Open		*Music up full*

	 Action • logo animation • episode title animation	*(aprx. :05)*

3 Product Solution (interior)	 Action • Walk and talk conversation inside Mahr • lower Third – **Farzad Azimi, Director, Channel Sales – Mahr** • Scene Shot List • Macro shot of tools, equipment, etc. in the immediate area Location • Interior Mahr Inc, Providence, RI	**Jacob Sanchez:** I'm joined by Mahr's air gaging Product Manager, Farzad Azimi, Thanks for meeting me here in Providence, Farzad! *(Farzad and Jacob exchange pleasantries)* **Jacob Sanchez:** Farzad, I got to admit, I know air gaging has been around for 80 years, but I was unaware of the technology till' I met the Mahr team. Can you give the audience and I a quick beginner course on air gaging? **Farzad Azimi:** *(Outlines the science behind air gaging - uses the laws of fluid dynamics to determine dimensional variation. – Mahr builds this technology directly for air tooling. Takes Jacob through the process, then talks about the various industries they serve- auto, military, aerospace, medical, machine tooling, and some examples of how air gaging is used in those verticals)* **Jacob Sanchez:** Am I hearing this right, Mahr designs a custom air gages per the customer's specs? That's got to mean that Mahr has built hundreds of thousands of custom units for a variety of industries, right? **Farzad Azimi:** *(responds, and talks about customization required in air gaging.)* **Jacob Sanchez:** I asked some of your colleagues to set up a little demo station in the facility, so we can check out air gaging in action, let's go take a look… *(Jacob and Farzad walk off camera for transition)* *(aprx. 2:00)*
4 Transition	 Location • Interior Mahr Inc, Providence, RI • b-roll of the facility interior	*High energy music & machine shop sound effects up full* *(Transition between locations)* *(aprx. :05)*

5 The Details	 Location • **– Area 1: Honing Department**  Location **Area 2: Grinding Department** Scene Shot List Shots of two different areas – 1) measuring the ID size of a bore, and grinding, where an air Probe to measure the flatness of a plate.  Location **Area 3: Demo Room**	**Jacob Sanchez:** We've made our way over to a production line for indicator racks, that utilizes own air gaging tooling. This part of the process is managed by Jon Dodd, the Production Manager at Mahr Inc., nice to meet you Jon! *(Jacob, Farzad, and Jon exchange pleasantries)* **Jacob Sanchez:** So Jon, take us through the process if you would, how does air gaging help you get the precise measurement you need to deliver a quality part? **Jon Dodd:** *(Outlines how he uses the air gaging products they have at Providence factory. The fact that traditional "GO-NO GO" measurement doesn't reveal the size of the bore. Measuring a hole or diameter of a shaft using air as the measuring medium -back pressure change of the air flow, etc)* **Jacob Sanchez:** Seeing this really helps me understand all that is possible when using Mahr products for air gaging measurement. But I still have questions on the process of building custom air gages. I'd like to go over to a different area of the shop and follow a hypothetical scenario, where a high-volume of parts need to be built, and so a unique Mahr solution is in order… literally. **Farzad Azimi:** *(Agrees to show Jacob and the audience best practices for determining if air gaging is right for the volume of delivery, and the process for designing the perfect air jet for the application.)* *(Jacob, Farzad, and Jon head over to a different area of the facility Demo Room, where we will show some more custom applications.* *(aprx. 3:30)*
6 Transition	 Scene Shot List • b-roll of the facility interior • "How To" signage • close ups of equipment	*High energy music & machine shop sound effects up full* *(Transition between locations)* *(aprx. :05)*

7 Summary	 Action	**Jacob Sanchez:** Alright Farzad, let's suppose that a customer was just awarded a big contract, and they called you up because the volume of the order requires a customized solution from Mahr, what are the next steps? **Farzad Azimi & Jon Dodd:** *(Since there isn't an 'off the shelf option', the group has an open conversation of what the process might be, challenges that might arise, and the benefits that the manufacturing community might be able to realize with air gaging and Mahr's technology.)* **Jacob Sanchez:** *(Summarizes the episodes)* So, let me make sure I've got this straight… • Using the law of fluid dynamics, air gaging was invented. • Basically, checking a dimension using air as the measuring medium, which makes the technology ideal for bores, , and other complicated geometries. • The checking process itself is simple, easily handled, leaving little room for operator influence. • There is no off the shelf product to buy, Mahr customizes each air jet to every application. • Mahr is working with some of the biggest companies in the world across the automobile, aerospace, medical, and machine tooling industries. And now, the community knows…**HOW TO: SIMPLIFY COMPLEX MEASUREMENTS** See you soon next time on "How To"! *(aprx. 2:00)*
8 Series Close – Subscribe CTA	 Action • end card animation	**Announcer VO:** For more metalworking tips and industry best practices, stay tuned for the next **HOW TO** episode, and subscribe to the MSC Industrial Supply Youtube channel, a source of original manufacturing content, built to make you better. *(aprx. :15)*