

High-Speed Homogenizer Manufacturing



Richard Yacko - CEO

About PRO Scientific Inc.

PRO Scientific Inc. is a global leader in the manufacturing and distribution of high quality homogenizing, mixing, shaking, stirring and centrifuging equipment.

Located in Oxford Connecticut, our woman-owned, company was founded and incorporated in 1992 with its initial product line of high-speed homogenizing equipment by leaders who already possessed business, manufacturing and engineering experience with another North American homogenizing company. It was our founders' dedication to responding to their customer's demands and providing a higher precision homogenizing product that led to the incorporation of PRO Scientific. From sub-cellular analysis to high volume applications, PRO Scientific homogenizers have been the industry leader for over two decades. Through its network of national sales representatives and distributors, PRO Scientific has been able to keep in touch with the demands of the homogenizer market and respond to such needs.

Interview conducted by: Lynn Fosse, Senior Editor, CEOCFO Magazine

CEOCFO: Mr. Yacko, what is PRO Scientific?

Mr. Yacko: PRO Scientific is a manufacturer of laboratory equipment, with its main emphasis on high-speed homogenizers.

CEOCFO: Who is using the type of equipment that you produce?

Mr. Yacko: We sell to colleges, universities, government agencies, paint, cosmetic, and the pharmaceutical industry, as well as the bioresearch and fuel industries. Anybody looking to breakdown their lab samples for sample preparation.

CEOCFO: That sounds like everyone!

Mr. Yacko: Yes, however when we think we have heard all the possible usages, there is somebody new who is creating something different that they want to homogenize.

CEOCFO: Would you give us an example?

Mr. Yacko: We have homogenized whole rats looking for possible cancers within the rat as well as homogenizing fruits and vegetables looking for pesticides trapped within them. Our homogenizers are used in the oil industries for homogenizing crude oil looking for water content, as well as in the pharmaceutical and cosmetic industries for lotions and creams. A good example would be if you go to the drug store and you were to buy yourself a bottle of a liquid or lotion. You are not going to pick something off the shelf that if you look at it you can see what has settled in the bottom. The idea is to homogenize everything to a level small enough to stay in what we call suspension. If the particles are small enough, they will stay suspended within the media. Our homogenizers are also heavily used in bioresearch for homogenizing of plant, animal and human tissue.

CEOCFO: You manufacture as well as distribute?

Mr. Yacko: Yes. We are the manufacturer of all our PRO branded products.

CEOCFO: Where do you manufacture?

Mr. Yacko: We manufacturer in our own facility right here in Oxford, Connecticut.

CEOCFO: *For people who say you cannot do it in the US, how are you manufacturing successfully for so many years?*

Mr. Yacko: It is very difficult. Many typical components that we go and buy such as switches, connectors, and some motors come from offshore. It is very difficult for us to manufacture and be competitive when there are people offshore that are trying to copy our product and bring it into the states. The thing that we pride ourselves in is our quality. PRO Scientific has been in business since 1992 and we have a name as a quality product. That is what keeps us above everybody else. You can go out and buy the cheaper model, and with the old saying “you only get what you pay for”, that is exactly it. Recently many of our competitors have introduced cheaper model items, we do not get into that game. We maintain our product as a quality product, we stand behind our product and everything we make has a two-year warranty. That is how we are able to compete with what is offshore and how we are able to build here in the United States. I believe that quality makes the difference between our competitors and us. A good quality product will continue to sell.

CEOCFO: *Do you find there are some industries that understand the need for quality more than others?*

Mr. Yacko: Yes. I would say that it is probably more so in the cosmetic and pharmaceutical industries. We have a customer that we sell a specific custom product to and we have been selling to them for the past 10 years. Their typical production run is valued at one million dollars so they cannot afford to use a piece of equipment that could possibly fail or does not produce what it is supposed to. I believe that most people are looking for and expect a quality product.

“I believe that quality makes the difference between us and our competitors. A good quality product will continue to sell.” - Richard Yacko

CEOCFO: *Do you do much custom work?*

Mr. Yacko: Yes we do. I would say that probably 20 percent of our business would be what we call custom work.

CEOCFO: *When someone comes to you, do they know what you need or do they have in mind how they want it built and just ask you to build it?*

Mr. Yacko: Most people come to us and tell us what they want to do and ask what we have that will do it for them. We give them their options, and that usually gets the discussion going. They take the information from our initial discussion then come back and they may have additional requirements and or restrictions. You never seem to get from anybody the full picture at the beginning. Only after you get into additional discussions with them do you find out what they really need. We are dealing with motors that can run upwards of 30,000 RPMs and everybody thinks that the faster they can run, the better off they are. That is not necessarily true. In the field of homogenizing, you are only as good as the homogenizing that you are doing. If you are running too fast, you are not homogenizing as efficiently as you should be. You have to slow the unit down to control the homogenization just like if you are going to make a cake mix, you pour everything into a bowl, turn your mixer on and if you run your mixer at full speed you are going to throw the batter all over the place. The idea is to slow the mixer down and move it or the container around. Once you have everything moving smoothly then you can increase your speed until what you are doing is total work – you are not sitting there idle waiting for batter to come back down to your beater blades. It is the same thing in homogenization. It is important to talk with the end user so we can help get them into the right equipment. Many times they will ask if they can send a sample in for us to homogenize so we can tell them what to do.

CEOCFO: *Are there many competitors?*

Mr. Yacko: There are probably four major players. When I say major players, those are ones that if their names were mentioned people would say they have heard them. There may be four or five what we call sub-players. There are the ones that are handling the smaller, cheaper equipment that we do not get involved with.

CEOCFO: *Do you reach out to prospective customers or is it at the point where people know you and come to you?*

Mr. Yacko: PRO Scientific has been around for about 23 years and we typically do two to three major US trade shows as well as advertise in the major publications. We have people come up to us at the trade shows and say that they have our equipment and we will also have some people say that they never heard of us, and they will ask what we do. If you go online on Google and type in homogenizers, guess who comes up in the top three or four spots all the time – PRO Scientific Inc.

CEO CFO: *Do you need to maintain much inventory?*

Mr. Yacko: That is an issue that we are trying to address, and reduce. We are trying to streamline our product line where we do not have so many variations to offer. When I say variations, you have a probe that mounts on the end of a motor, and we have too many variables as far as the length of those probes. They may have come about in some cases because somebody is homogenizing within a container that is longer than somebody else's, so you end up with longer probes in your stock when you really only sell it a few people. We are trying to streamline our product line so that we have come up with something that will suffice for a majority of the people. Anything above and beyond that is going to be treated as what we call custom equipment. Somebody comes to me and says they need a probe that is 340 mm long, that is not our standard, but we can make it. Everybody's concern nowadays is that they do not want all their money sitting on a shelf. We try to minimize inventory but still be able to ship to a customer on a standard product within one to two days.

CEO CFO: *How is business these days?*

Mr. Yacko: In general, it is slow. I think many people are still sitting back afraid to spend money. It is no different from you or I in the private sector; we are not spending money as we used to spend money. The same thing holds true in many instances as far as the industry is concerned. However, pharmaceutical sales as well as our export sales to the Asian countries is up. I would like to see our sales as a whole up a lot more, but we are getting by. We have not had to lay anybody off, we have held on to all our people.

CEO CFO: *Why pay attention to PRO Scientific?*

Mr. Yacko: I believe that PRO Scientific is a company that is established and known for its quality and expertise. It is a company that is venturing into new areas specifically more into the automation. Everybody is facing the problem of saving money, and automated equipment, even though it is expensive, is allowing the end user to eliminate the amount of time and people involved to do a process. We have developed two automated pieces of equipment that allows somebody to do in one day what would normally take over a week to do. Automation is the area that we feel our business has to grow in, so we are taking the lead in the field of automating homogenization.

CEO CFO: *Are companies receptive to and looking for new ideas and technologies like your automated homogenization systems?*

Mr. Yacko: I think people are receptive. As I said, everybody is looking to save a dollar one way or another. Most people realize that at times you have to spend money to be able to save money and as long as they are able to recoup their spending in a fixed period of time it is worthwhile doing. It is not for everybody. Not everybody is saying they want automation. Some customers do not do enough homogenizing to warrant the expense of automation, but hopefully they will be interested in our standard equipment.



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