

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SINCLAIR PHARMA LIMITED, SINCLAIR PHARMA US, INC., VIORA,
INC., EMA AESTHETICS, LTD., AND AESTHETIC MANAGEMENT
PARTNERS, LLC AND AESTHETIC MANAGEMENT PARTNERS, INC.,
Petitioner,

v.

HYDRAFACIAL LLC,
Patent Owner.

Case No. IPR2025-00145
Patent No. 11,865,287

DECLARATION OF DR. FOLKERS E. ROJAS

I, Folkers E. Rojas, declare:

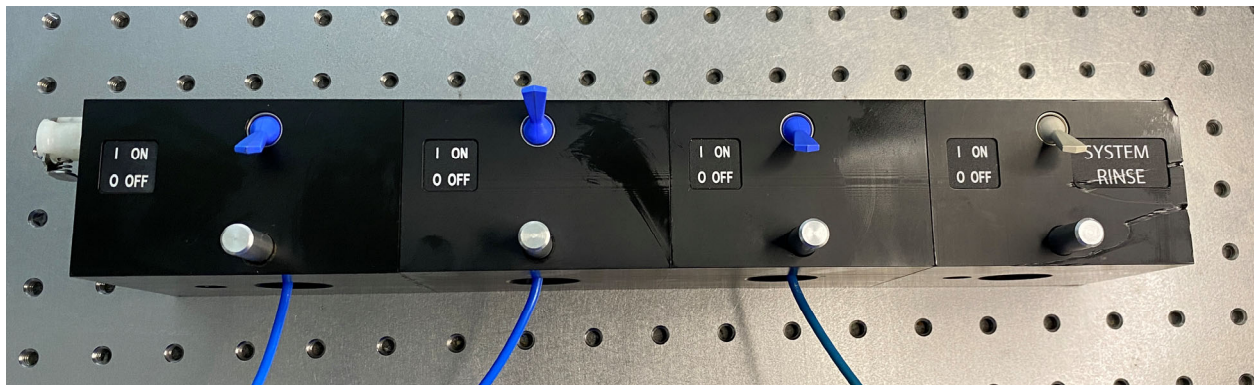
1. I am a Professional Engineer licensed in Texas, New Hampshire, Arizona, and Indiana.
2. I received two Bachelor of Science degrees (in Nuclear Science and Engineering, and in Mechanical Engineering) from the Massachusetts Institute of Technology (MIT) in 2009. I received a Master of Science degree in Mechanical Engineering from MIT in 2011. I received a PhD in Mechanical Engineering from MIT in 2014.
3. I have worked as an instructor at MIT on a part-time basis since 2019, helping teach Fundamentals of Engineering and assisting students with design, analysis and fabrication of critical machine elements.
4. I provide technical consulting and legal consulting through my company, Millie Rojas Engineering Corporation.
5. A copy of my CV, which includes a list of my publications for at least the past 10 years, is included as Exhibit 1043.
6. I have been engaged by Wolf Greenfield to provide consulting to the Petitioners in this inter partes review.
7. I am being compensated for my work at my standard hourly rate of \$500 per hour. My compensation does not depend on the content of my testimony or the outcome of this matter.

8. In the past four years I have testified by deposition in the following three cases:

- *Persawvere, Inc. v. Milwaukee Electric Tool Corp.*, 1:21-cv-00400 (District of Delaware);
- *Nelson v. Forest River, Inc.*, 4:22-cv-00049 (District of Montana); and
- *MPL Brands NV, Inc. v. BuzzBallz, LLC*, PGR2024-00035.

9. Counsel provided me with a modular black manifold from a HydraFacial console, and asked me to measure the diameter of the lumen inside the manifold and the diameters of the blue tubes through which serum is extracted from serum bottles that connect to the manifold.

10. Following is a photograph of the manifold that was provided to me:



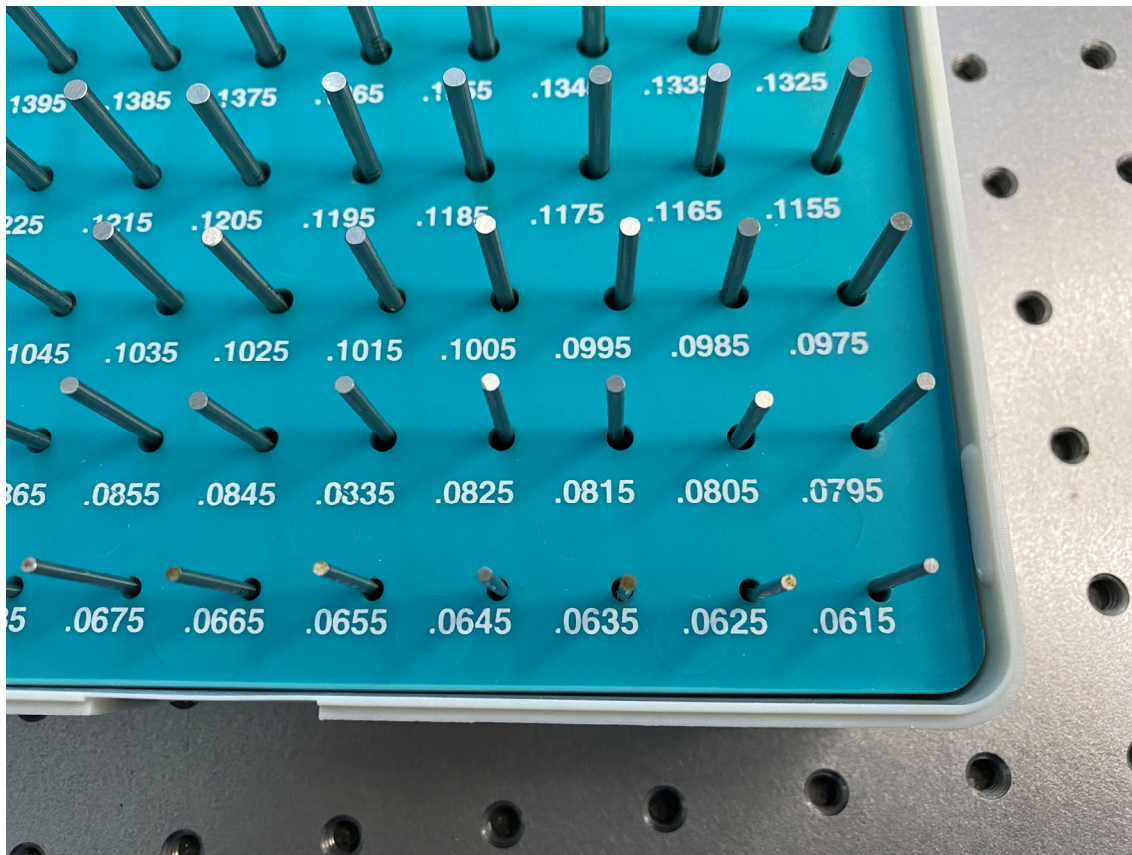
11. Based on comparison of this manifold to a HydraFacial Tower shown on HydraFacial's web site (<https://www.hydrafacial.com/pages/patents>), the manifold provided to me appears to be from a HydraFacial Tower console. The Tower manifold from HydraFacial's web site is excerpted below for comparison.



12. I own a set of gage pins from the Meyer Gage Company that I use in my engineering practice to check the inner diameters of hardware components/features such as the lumen in the HydraFacial manifold and the blue tubes. Following is a picture of my gage pin set:



13. Following is a close-up picture of part of my gage pin set:



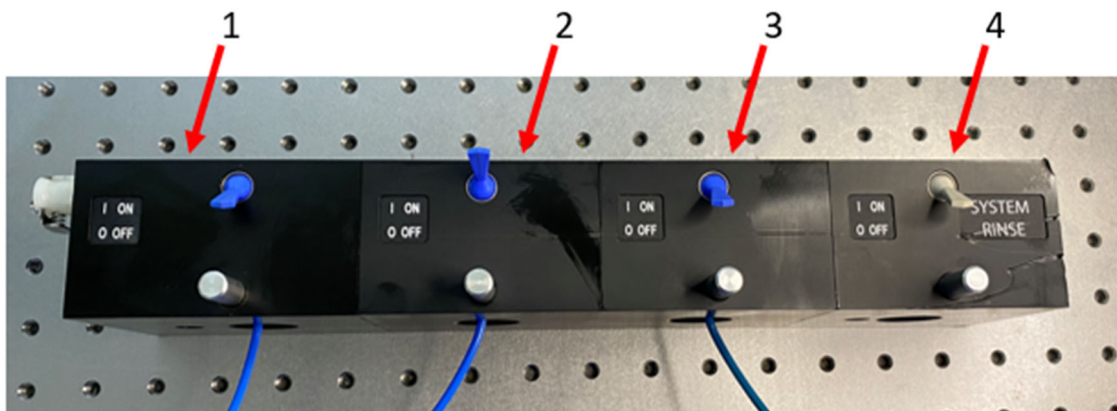
14. The number beneath each gage pin is the nominal diameter of that pin in inches. My set is a class Z “minus” gage pin set. In a “minus” gage pin set, each gage pin diameter is ground slightly under the nominal diameter. The “class” refers to the tolerance class. In a class Z set, the amount by which each pin is ground under its nominal diameter is 0.0001 inch. Thus, for example, a class Z minus gage pin with a nominal diameter of 0.0625 inch is certified to have a diameter of 0.0624 inch, such that a gage pin with a nominal diameter of 0.0625 inch will slide into a hole with a diameter of exactly 0.0625 inch. I measured the 0.0625 inch gage pin with a micrometer, and it indeed measures 0.0624 inch.

15. The tolerance (i.e., possible variation in manufacturing) of each gage pin is certified by the manufacturer as ± 0.0001 inch for a class Z set. Thus, a 0.0625 inch gage pin (which, in the case of a “minus” set like mine is ground to a diameter of 0.0624 in as noted previously) is certified to have a diameter between 0.0623 inch and 0.0625 inch.

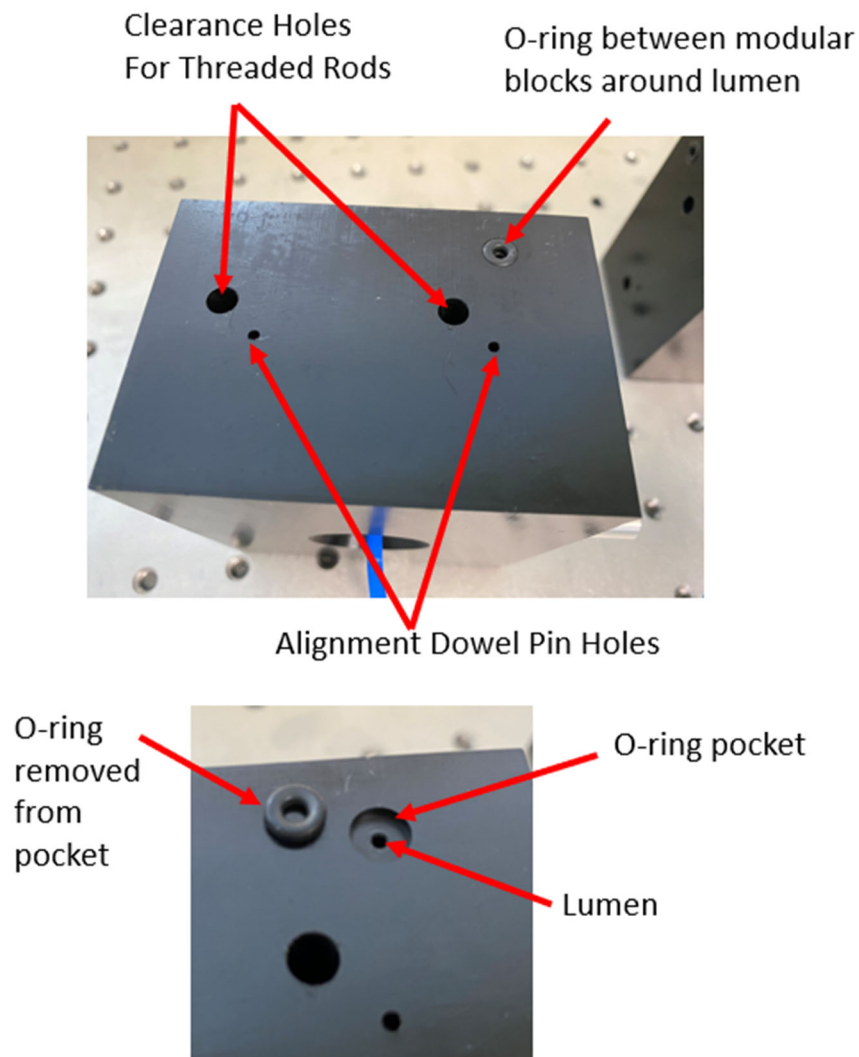
16. One use of gage pins is to measure the inner diameter of a hole feature (such as a lumen or a tube) by inserting gage pins into the feature to determine the largest gage pin that will fit inside it. A light oil is recommended for lubrication. I used WD-40 to lubricate each gage pin prior to each insertion test.

17. I used a standard caliper to measure the blue tubes’ outer diameters.

18. I understand that the HydraFacial manifold provided to me was from a Tower device. I disassembled the HydraFacial manifold so that I could check the inner diameter of the lumen in each module of the manifold. The HydraFacial modular manifold includes four modules. In the following photograph I show how I numbered the four modules of the manifold to track my diameter measurements.



19. The following photographs show one of the modules in the manifold. It has clearance holes for threaded rods that hold the modules together, holes for dowel pins that align the modules, and a lumen through which serum flows when the device is in use. The side of the module that abuts the side of another module has a pocket for an O-ring, around the lumen, that helps avoid leakage of serum from the lumen between the modules.



20. For modules 2 and 3, which are located in the interior of the manifold, I measured the inner diameter of the lumen twice – once on each side of the module. For modules 1 and 4, which are located at the ends of the manifold, I measured the inner diameter of the lumen once. For module 1, I measured the inner diameter of the lumen facing module 2, and for module 4, I measured the inner diameter of the lumen facing module 3.

21. Following are the results of those measurements.

Module Lumens		
		Inner Diameter
Module 1	Lumen Facing Module 2	0.0615 in – sliding 0.0625 in – no entry
Module 2	Lumen Facing Module 1	0.0625 in – sliding 0.0635 in – no entry
	Lumen Facing Module 3	0.0625 in – sliding 0.0635 in – no entry
Module 3	Lumen Facing Module 2	0.0625 in – sliding 0.0635 in – no entry
	Lumen Facing Module 4	0.0625 in – sliding 0.0635 in – no entry
Module 4	Lumen Facing Module 3	0.0615 in – sliding 0.0625 in – no entry

22. “Sliding” means that the gage pin was able to enter the lumen in a sliding fashion, without applying significant insertion force. “No entry” means the gage pin was too large to enter the lumen.

23. In my gage pin set, the diameters of the gages increase in increments of one thousandth of an inch (0.001 inch). The lumen measurements were carried out with gage pins that have nominal diameters of 0.0615, 0.0625 and 0.0635 inch because I always identified the largest gage pin that would fit inside the lumen by confirming that the next larger size gage pin would not fit inside the lumen.

24. My physical measurements show that the inner diameter of the lumen in the HydraFacial manifold is consistently either one sixteenth of an inch (i.e., 0.0625 inch) or slightly less than that in the case of the lumens in modules 1 and 4. Various practical manufacturing issues could account for the slightly smaller measurements in modules 1 and 4. In my opinion, the lumen in the HydraFacial manifold is accurately described, for practical purposes, as having an inner diameter of one sixteenth of an inch.

25. With respect to the blue tubes, through which serum is extracted from serum bottles that connect to the manifold, I measured the outer diameter of each tube with a standard caliper device, repeating the measurement multiple times to confirm its accuracy.

26. I measured the inner diameter of each blue tube using my gage pins in the same way documented above with respect to the lumen in the manifold modules. My measurements are set forth in the following table.

Blue Tubing		
	Outer Diameter	Inner Diameter
Module 1 Blue Tube	0.1285 in	0.0645 in – sliding 0.0655 in – tight
Module 2 Blue Tube	0.1235 in	0.0625 in – sliding 0.0635 in – tight
Module 3 Blue Tube	0.1235 in	0.0635 in – sliding 0.0645 in – tight

27. The outer diameters of the three blue tubes ranged from 0.1235 to 0.1285 inches. The average of these three measurements is 0.1252 inches, which is almost exactly one eighth of an inch (i.e., 0.125 inch).

28. Because the blue tubes are more flexible than the metal of the modules in the manifold, I noted when a gage pin was “tight” inside the tube rather than “no entry.”

29. Accounting for all of the measurements of the blue tubes’ inner diameters (both the gage pins that were able to slide into the blue tubes and those that entered only with force because the fit was tight) the range of inner diameters of the blue tubes is from 0.0625 inch to 0.0655 inch.

30. This shows that the inner diameter of the blue tubes is one sixteenth of an inch (0.0625 inch) or just slightly larger – on the order of up to three thousandths of an inch larger – which would be approximately 5% larger than one sixteenth of an inch.

31. Manufacturing tolerances for flexible tubes like this are approximately ± 0.005 inch. This means one can expect a tube advertised as having an inner diameter of 0.0625 inch to have an actual inner diameter between 0.0575 inch and 0.0675 inch. All of my measurements were well within this range. Thus, it is my opinion that the blue tubes from the HydraFacial device are standard flexible tubes with an inner diameter of one sixteenth of an inch (and, as noted above, an outer diameter of one eighth of an inch).

I declare that all statements made herein of my own knowledge are true, that all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

I declare under penalty of perjury that the foregoing is true and correct.

Dated: December 11, 2025



Dr. Folkers E Rojas