

# RACOR

## 40 YEARS

Of Very Fine Fuel Filtration

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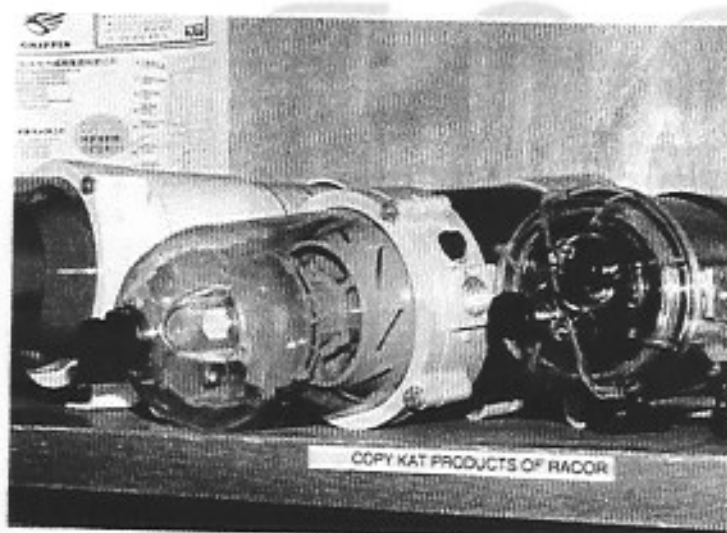
While I've visited many boatbuilders, boatyards, and marine industry manufacturing facilities in my career as a technical journalist, I knew my factory tour of Parker Hannifin's Racor Division would be different. For me, it was pilgrimage of sorts. The name "Racor" is synonymous with fuel filtration, and it is a brand that virtually every cruising boat owner recognizes and identifies with. This was a visit I had planned on making for years—although perhaps under more agreeable weather conditions.

I enjoy northern California's climate and the intoxicating crispness of the clean Pacific air. However, based on the reports I was hearing as I approached my destination of Modesto, it seemed the typical crispness would be punctuated by conditions I hadn't anticipated. Granted, it was December, but this was California, after all. After missing my connection in Salt Lake City because of—you guessed it—a weather delay, I found myself descending through snow just before landing in Oakland. Over the next few days, I would experience hail, lightning, thunder, and more, but it really didn't matter. Short of a wildfire or earthquake, neither of which is ever off the table in California, I was determined to fulfill a desire that had burned within me for many years.

I was on a mission to visit the factory of Racor, whose significance to the marine industry—and other industries, as well—is nearly inestimable. It is from Racor's northern California plant that all Turbine series fuel filters and their matching elements emanate. I had read the Modesto, California, address on countless Racor filter cartridge boxes and had wondered so many times just where that was. I was about to find out.

I met my host and longtime Racor contact, Gary Garcia, manager of Racor's product engineering group, in the facility's lobby. Like numerous other employees I met during my visit, Gary has worked for Racor for many years—he's currently celebrating his 25th anniversary with the company. Employee retention, always a good sign for a business, is a trademark of Racor.

Our initial stop on the tour was the "museum," where product samples of two types are displayed. First, there are the examples of the many filters that put Racor on the map over the last 40 years, including the Filtral, the very first filter marketed by the company, before it was called Racor (more on that later). While Gary and I discussed the collection, I picked up a filter body that looked like a Racor Turbine;



Top left: The Racor "museum" includes a variety of copycat products, some of which are virtually indistinguishable from the real thing. Above left: Two examples of the same filter—the original 1970s design and the current version. Both are still manufactured by Racor. Above right: An example of the Rogers Filtral, the predecessor of today's Racor Turbine series filters.

it had the familiar beige-and-gold housing, but the name on the blue marine label was unfamiliar. It was then that I discovered what makes up the second part of the museum's collection: knockoffs of Racor products. To the untrained eye, many of these products are indistinguishable from the real thing. If imitation is the sincerest form of flattery, Racor is lauded regularly by others.

### PRIMARY FUEL FILTRATION

While fuel filtration is discussed on a regular basis in the pages of *PMM*, it's helpful to revisit this vitally important subject in order to fully appreciate Racor's contribution to the field.

Fuel and its filtration are hot topics when talk turns to diesel engine maintenance. And they should be, because they're often the source of engine trouble. In fact, taking

into account statistics and anecdotal evidence I've gleaned from years of working as a diesel mechanic, boatyard manager, and systems consultant, I would say that fuel problems—either an inadequate supply of fuel to the engine or contaminated fuel—account for more engine trouble than any other single source.

The average diesel engine's fuel injection system must, by necessity, possess mind-bogglingly minute tolerances that are measured in thousandths or even ten-thousandths of an inch. These exceptionally fine tolerances are necessary in order to achieve the extremely high pressure—sometimes up to 30,000psi, particularly for common-rail engines—that these systems require to function. Even if you own an older engine that has a conventional mechanical design, proper tolerances are still crucial to the health of your engine; it can be