



Success Story

U.S. Based Tire Manufacturer Tests TTI's **POWERGUARD™** Element Head-to-Head with the Competition and Makes the Switch; Saving Time and Money.



In early 2022, TTI was given the opportunity to talk with maintenance professionals at a tire manufacturing plant in the southern part of the United States. Though the maintenance professionals seemed content with their current filter element and desiccant breather supplier, they had a few complaints centered around lead times, specifically with their particulate filter elements inside their vacuum dehydrator. They had to wait over six weeks for their filter elements to ship from their supplier at that time, potentially disrupting maintenance schedules. With this opportunity, TTI asked if the tire manufacturer would be interested in evaluating one of our filter elements in place of the competition, keeping in mind that our lead times are ten days or less, and they agreed.



TTI TT107-36-IRV POWERGUARD™ Element

With a TT107-36-IRV PowerGuard™ filter element in hand, the maintenance professionals were ready to conduct their testing to ensure TTI's filter element met their expectations. Their method included using a portable oil analysis machine installed on a vacuum dehydrator to report ISO fluid cleanliness codes and other data points such as viscosity, temperature, and moisture. The maintenance team selected two identical, equally contaminated systems for head-to-head evaluation on the same maintenance

schedule. First, they installed a new competitor filter element into their vacuum dehydrator. They ran it until they removed the necessary amount of dissolved water, monitoring particle counts during the process and live printing test results as reported. The next day the maintenance team drained the vacuum dehydrator and installed the TTI filter element. The machine was then moved to the next system, repeating the same procedure the day prior.

Testing showed that the competitor filter element had cleaned the oil to an ISO cleanliness code of **20/15/09**. In contrast, TTI's filter element in the same time frame resulted in an ISO code of **12/05/00**. This difference is an improvement of **99.5% or better** in particulate capture in the 4µm, 6µm, and 14µm ISO cleanliness codes than the competitor's filter element. These results distinguish the media technologies used in both filter elements. TTI's Dual Phase Microglass media has a built-in pre-filter layer that reduces pressure drop while increasing dirt-holding capacity without compromising efficiency. You, too, can expect results like these.

With the testing concluded, the tire manufacturer readily switched to TTI's filter elements for use inside their vacuum dehydrators. Within the first month of use, the tire manufacturer reported that the TTI element had cleaned their system up in a **third of the time** of the competitor's filter element while maintaining **better-than-required ISO cleanliness codes** for their hydraulic system. Thoroughly impressed with the results, the tire manufacturer's maintenance professionals decided to also install TT107-36-6V filter elements on their bank of duplex housings which clean a six-thousand-gallon reservoir that feeds many hydraulic presses.

The switch to TTI **saved this tire manufacturer money, extended their uptime, and increased their revenue** since they don't have to waste time replacing filter elements nearly as often while keeping their system cleaner and more productive. TTI continues to bring value to this tire manufacturer.

If you, or your customers, are looking to upgrade your filter elements, then TTI would like the opportunity for you to put our products to the test against your current manufacturer. Then you can see for yourself why it's time to make the switch to TTI today!

TTI ISO Code Reference Chart		
ISO Code	More than	Up to and Including
	(p/ml)	(p/ml)
24	80,000	160,000
23	40,000	80,000
22	20,000	40,000
21	10,000	20,000
20	5,000	10,000
19	2,500	5,000
18	1,300	2,500
17	640	1,300
16	320	640
15	160	320
14	80	160
13	40	80
12	20	40
11	10	20
10	5	10
9	2.5	5
8	1.3	2.5
7	0.64	1.3
6	0.32	0.64

Click here for system component specific suggested ISO codes.