

Federal Circuit Draws Tight Boundaries Around Functional Claiming

By Daniel H. Shulman and Monika J. Malek

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For many technologies, what the innovation “does” is more important, and easier to describe, than what it “is.” When an innovation can be embodied in something tangible with measurable properties, it’s usually easier to define and protect. For example, a new polymer might be claimed based on its density or flexibility. A pharmaceutical compound can be defined by its half-life or biological effect. A filter design may be described by its particular rate of filtration. These types of claims allow patentees to obtain protection for demonstrable performance that aligns with how the invention operates in practice and how its value may be recognized in the marketplace.

In [*Brita LP v. International Trade Commission*](#) (No. 24-1098), decided October 15, 2025, the U.S. Court of Appeals for the Federal Circuit identified tight boundaries around the type of disclosure necessary to take advantage of such functional claims. The Federal Circuit’s decision counsels great care in utilizing a functional claiming strategy without a robust disclosure of the breadth of the technology capable of that functionality.

In *Brita*, the Federal Circuit affirmed the International Trade Commission’s (ITC) finding that Brita’s U.S. Patent No. 8,167,141, directed to gravity-fed water filters, was invalid for lack of written description and lack of enablement. The decision serves as an important reminder that functional claims, which define an invention by its function or performance rather than by its structure, must be supported by sufficient examples or technical detail demonstrating that the inventor possessed the full scope of the claimed result.

Instead of claiming a particular filter design, Brita’s patent relied on a mathematical Filter Rate and Performance (FRAP) factor devised by Brita to quantify filter efficiency based on interdependent variables (volume, flow rate, lifetime, and lead concentration). The patent claimed *any* gravity-fed filter having activated carbon and a lead scavenger that achieved a FRAP value of 350 or less, essentially covering any filter media formulation of activated carbon and a lead scavenger that met this performance metric.

The ITC noted, however, that every example described in the patent that achieved the required FRAP factor used a particular kind of activated carbon medium, namely, carbon-block filters, and not any other type of filter media. The patent had no working examples or guidance for other media types such as mixed media, membranes, non-wovens, depth media, nanoparticles and nanofibers, and ligands, all of which were listed as embodiments. The record also showed that small changes in one variable could lead to unpredictable changes in other variables and that the specification failed to offer guidance for how non-carbon-block filters could meet the required FRAP. The specification also expressly stated that no mixed-media filters tested met the claimed FRAP factor due to their inability to remove particulate lead.

Brita’s own data and inventor testimony compounded the issue. Co-inventor, Dr. Elizabeth Knipmeyer, testified that the team had to change technology from granular media to carbon-block to reach the desired FRAP. She further conceded that the inventors never developed any non-carbon-block filters that met the FRAP factor and that achieving such performance metrics would require “new technology.”

Because Brita disclosed only one species (carbon blocks) that met the FRAP factor, but claimed an entire genus (any activated carbon filter media achieving a FRAP of 350 or less), the ITC held that the patent did not demonstrate possession

of the broader category and “the asserted claims are invalid for lack of written description as to any filter media meeting the claimed FRAP factor other than carbon-block filters.” (Slip op. at 7.)

The Federal Circuit affirmed. Citing *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1349-50 (Fed. Cir. 2010) (en banc), the Court reiterated that a patentee must show possession of “a representative number of species falling within the scope of the genus or structural features common to the members of the genus so that one of skill in the art can visualize or recognize the members of the genus.” Brita’s patent identified neither. All of its working examples and figures involved carbon-block filters and it failed to disclose any other structure or species capable of meeting the required FRAP factor.

The Court also rejected Brita’s arguments that original claim language provided written description. Citing to *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 23 F.3d 956, 968–69 (Fed. Cir. 2002), the Court noted that it is not enough to merely recite components of the invention in the claims or specification. (Slip op. at 13 (“If a purported description of an invention does not meet the requirements of the statute, the fact that it appears as an original claim or in the specification does not save it.”)).

Relying on *Rivera v. ITC*, 857 F.3d 1315, 1322 (Fed. Cir. 2017), the Court also rejected Brita’s arguments that a skilled artisan would know how to configure filters to achieve the desired results, emphasizing that patentees cannot use the knowledge of skilled artisans to make up for the specifications lack of disclosure. (Slip op. at 16 (“The knowledge of ordinary artisans may be used to inform what is actually in the specification, but not to teach limitations that are not in the specification, even if those limitations would be rendered obvious by the disclosure in the specification.”)) (cleaned up).

The same reasoning supported the Court’s non-enablement finding. Invoking *Amgen v. Sanofi* and *In Re Wands*, the Court reiterated that to enable a genus claim, a specification must allow skilled artisans to make and use the full claimed scope without undue experimentation. Here, the Court, noted that the FRAP system was unpredictable and even a skilled artisan would face undue experimentation trying to achieve the claimed FRAP value with other materials, given the interdependence of the formula’s variables and the lack of teaching on how to adjust them to non-carbon-block filters. Citing the decision in *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1366 (Fed. Cir. 1997), the Court emphasized that “it is the specification, not the knowledge of one skilled in the art, that must supply the novel aspects of an invention in order to constitute adequate enablement.” (Slip op. at 21.) The inventor’s testimony that non-carbon-block embodiments would require “new technology” severely undercut Brita’s reliance on the level of skill in the art because if an artisan must invent something new to practice the claim, the claim is by nature not enabled. (*Id.*)

The Federal Circuit’s approach to functional claiming in *Brita* is far-reaching. Notably, the Federal Circuit characterized the ITC’s written description decision narrowly, saying the claims were invalid for written description “as to any filter media meeting the claimed FRAP factor *other than carbon-block filters*.” (Slip op. at 7 (emphasis added).) In other words (and not surprisingly), the ITC seems to have concluded that *if* the claims were construed to cover filters “other than carbon-block filters,” the claims would be broader than the description and therefore invalid. The Federal Circuit’s decision made no mention of that qualifier, however, and simply declared the claims invalid because they *could have encompassed* broader embodiments.

The case is important because the Federal Circuit seems to have dispensed with an essential first step in any validity analysis, namely, to construe the claims. There is no indication in the Federal Circuit’s decision as to whether the accused products use carbon-block filters (presumably they did not). But, one can imagine that they did, and that neither party therefore sought to limit the construction of the claimed “filter media including at least activated carbon and a lead scavenger.” According to the Federal Circuit’s reasoning, the claims would *still* be indefinite because the claims *could include a broader genus before any attempt at claim construction*. In fact, the same arguments for indefiniteness—that the patent disclosed a single embodiment (carbon-blocks) and seemed to exclude others—would have been the very arguments one would expect to make to limit the construction of the relevant claim limitation to just carbon-blocks. The Federal Circuit’s reasoning, however, stands independent of *any* claim construction, and seems to suggest that a functional claim that, *pre-construction*, facially encompasses an undisclosed genus, is invalid as indefinite, without qualification.

While *Brita v. ITC* does not ban functional claiming, it does represent a potentially significant tightening of its permitted use. Patentees who want to claim a material or apparatus based on what it does need take great care that the specification describes as many possible species within a genus as possible and describes how to achieve the claimed function across

embodiments. When that disclosure is present, functional claiming can still remain a valuable tool for securing broad patent protection.

If you have any questions about this article, please contact **Daniel H. Shulman** at dshulman@vedderprice.com, **Monika J. Malek** at mmalek@vedderprice.com or any other Vedder Price attorney with whom you have worked.

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