WHAT IS THE FILTER JUDGE SUPPOSED TO DO?

The Filter Judge is a tool for taking vertical core samples of media (sand, anthracite, garnet, etc.) from a filter. It requires no special training and is very simple to use.

HOW DOES THE FILTER JUDGE WORK?

The Filter Judge is inserted into the media while it is slightly fluidized during mild backwash. After full insertion into the media, a slotted inner tube is rotated inside of a slotted outer tube to capture a representative sample of the media. The inner tube is then rotated such that the slots are opposed to each other, thus capturing the sample. The tool is then removed from the filter. Water then drains from the annular space between the two tubes. The Filter Judge can be laid horizontally and the tubes rotated to expose the captured media sample. The sample can then be measured against the integral ruler to determine the depth of each layer, the depth of any interface zone between layers, and the extent of contamination (i.e.—mudball formation). The sample can also be removed from the tool for further testing (i.e.—sieve analysis, chemical composition, acid solubility, effective size, uniformity coefficient, etc.).

SEE A VIDEO OF THE FILTER JUDGE IN ACTION AT www.usabluebook.com

HOW CAN THE FILTER JUDGE BENEFIT ME?

The Filter Judge benefits facility operators which use gravity filter media for the filtration of liquids. Operators can quickly take accurate samples of the media during a backwash cycle without taking the filter out of operation. There is no need to send a worker down into the filter to dig a hole in the media. Downtime is reduced, and the hazards of sending a worker into the filter (confined space) followed by full disinfection are eliminated. Furthermore, multiple samples can be taken in a very short period of time.
IS THE FILTER JUDGE ACCURATE?

Yes! The best method to test for yourself is to probe the bottom of the media and measure the distance from the bottom of the media to a known point (such as the top of the filter wall). Then measure the distance from the top of the media to that same known reference point. The difference in these two measurements will tell you the full depth of media at that location. Next, take a core sample of media with the Filter Judge. The measured media thickness will correspond closely to the thickness determined by the Filter Judge.

DOES THE USE OF THE FILTER JUDGE CREATE A VOID / HOLE IN THE MEDIA WHERE THE CORE SAMPLE IS PULLED?

No, the Filter Judge is intended to be used in the backwash process only. Therefore, the media will immediately fill the void after the Filter Judge is removed.

WHAT IS THE FILTER JUDGE MADE FROM?

It is made from polypropylene and NSF-approved PVC. It is lightweight, non-corrosive, and non-conductive.

CAN I EASILY TRANSPORT THE FILTER JUDGE?

Certainly. After use it can be disassembled into 4 foot sections. It is designed with threaded connections for the inner tube and cam-lever type couplings for the outer tubes. A carrying/storage case is provided with the Filter Judge.

WHAT IS THE LENGTH OF THE FILTER JUDGE?

The basic assembled unit is approximately 8 feet long, and is comprised of the bottom sampling section and the upper section. A center 4’L extension section is included. Additional 4’ and 8’L extension pieces are available, if necessary. A basic rule of thumb for determining the total necessary length is to measure from the bottom of the media to the operator’s shoulder, then select the next greater increment of four feet. To ensure operator safety as well as to comply with regulations, it is best to make sure the handles of the Filter Judge extend above the height of any guard rails around the filter bed. Many regulations require that operators do not lean through or under any guard rails.
I HAVE MORE MEDIA THAN WHAT THE STANDARD TOOL CAPTURES (39”). DO YOU HAVE A TOOL THAT WILL SAMPLE GREATER DEPTHS OF MEDIA?

Yes! A nominal 6’ bottom sampling section is available, which captures up to 66” of media (stock # 60856). Custom sizes can be quoted upon request. The longest bottom section built to date is 10’L.

WHO CAN BENEFIT FROM USING THE FILTER JUDGE?

The Filter Judge was designed with the municipal water industry in mind, but it can be used by many other operators of similar gravity filter units. This includes paper mills, petrochemical, manufacturers, power plants, and many others, including select pressure filters.

WHAT IS THE WARRANTY OF FILTER JUDGE?

One year replacement when operated in accordance with the assembly and operating instructions.

ARE THERE SIMILAR PRODUCTS WHICH DETERMINE MEDIA EXPANSION?

Yes! Visit www.usabluebook.com to see the Expansion Judge™, stock # 60897. It can be used on its own or as an attachment to the Filter Judge.