

## Frequently Asked Questions – Filter Launch

<p>How does the Element Replacement Indicator work?</p>	<p><u>Phase 1</u> – When the batteries are installed the ERI will blink rapidly for a few seconds to let the user know that the device is working.</p> <p><u>Phase 2</u> – For (6) months the ERI will not illuminate at all.</p> <p><u>Phase 3</u> – After (6) months the ERI will flash for 72 hours.</p> <p><u>Phase 4</u> – After 72 hours, the ERI will illuminate continuously (no flashing) for 4-5 weeks until the batteries die.</p>
<p>What about Activated Carbon type filters?</p>	<p>An “A” type filter has a recommended change out time of 650 hours. For “A” type filters, the ERI begins flashing after 650 hours instead of (6) months.</p>
<p>Why is the New Element limited to (6) months operation?</p>	<p>The new Ingersoll Rand filter has been designed with a focus on minimizing pressure drop across the filter which is the largest cost contributor for air filtration. With coalescing type filters, the differential pressure drop starts out at approx. 1-2psi when the element is clean &amp; new, then it gradually increases up to 3-4psi at which time a significant amount of the filter surface area has become clogged. At this point the pressure drop starts to ramp up exponentially until the element becomes completely clogged. On average we have found that the point where the pressure drop begins to rise exponentially is (6) months.</p>
<p>Are drains included?</p>	<p>Yes. The General Purpose &amp; High Efficiency Coalescing type filters come with an automatic float drain. The Activated Carbon &amp; Dust Particle type filters come std with a manual drain/plug.</p>
<p>Is the ERI suitable for outdoor/wet environments</p>	<p>Yes. The ERI has a NEMA4/IP55 rating.</p>
<p>Why did we change from a DP indicator to the new ERI?</p>	<p>(3) main reasons for this switch:</p> <ol style="list-style-type: none"> <li>1. The ERI provides an easily visible indication to the user that its time to replace the element.</li> <li>2. The fact that the ERI is time based allows the customer to easily setup the filter element change out as part</li> </ol>

	<p>of a routine maintenance schedule.</p> <p>3. Improved reliability &amp; accuracy. The ERI is a very simple &amp; reliable device (Nema 4 rating) where the Pressure Indicator has been plagued with reliability/accuracy issues.</p>
What is No-Touch change out?	The Ingersoll Rand filter has a very unique method for attaching the element to the filter head. The user never has to touch the old element!
How does No-Touch work?	<p>To replace the element:</p> <ol style="list-style-type: none"> <li>1. simply turn the bowl (bottom half of the filter) 360 degrees</li> <li>2. This will disengage the element from the Filter Head (top half).</li> <li>3. The element will fall into the bowl</li> <li>4. The user can simply dump the element out of the bowl and dispose of properly.</li> </ol>
What is zero clearance?	Because the element disengages from the filter head and falls into the bowl, the bowl & element can be slide directly out without having to have several inches of clearance below the filter.
Does the new Ingersoll Rand Filter cover all the flow ranges up through 17000 scfm?	No! The new Ingersoll Rand Filter only covers up to 1400 scfm for G.D, & A type filters & 1250 scfm for the H type. Above 1400 scfm, we will continue to provide the larger fabricated filters that we have in the past.
Will the larger fabricated filters be updated?	Not immediately. A project is underway to update these filters but this will come at a later date (6-12 months).
Is the new filters compatible with Ultra Coolant?	Yes!
Why does this filter provide lower pressure drop?	<p>(5) reasons:</p> <ol style="list-style-type: none"> <li>1. ERI gives an easily visible reminder to change the element</li> <li>2. ERI recommends changing the element before the pressure drop starts to ramp up exponentially.</li> <li>3. Smoothed angles in the filter housing that reduces turbulence &amp; pressure loss.</li> <li>4. Deep pleated media that provides greater filtration surface area</li> </ol>

	5. (4) unique features built into each filter to improve moisture removal from the filter media.
What are the (4) features for moisture removal?	<ol style="list-style-type: none"> <li>1. New High Efficiency Drainage Layer that wraps around the outside of the media</li> <li>2. New low profile end cap.</li> <li>3. Surface tension breakers at the bottom of the end cap. Prevents the liquid from sticking/collecting at the bottom of the media.</li> <li>4. Drainage ribs cast into the bottom of the filter bowl.</li> </ol>
Any improvement to the chore of element change out?	<p>Yes (2) major improvements:</p> <ol style="list-style-type: none"> <li>1. The “no-touch element replace” eliminates the daunting task of: grasping old dirty element &amp; simultaneously squeezing the holding tabs &amp; then pulling downward to remove the element. The element simply drops into the bowl.</li> <li>2. Easily visible ERI</li> </ol>
Any improvements to the Automatic Float drain	Yes. Larger dimensions and improved geometry.
What type of batteries is used in the ERI?	(2) standard double A batteries
Do we provide the batteries?	Yes. New batteries come with every new filter element.
Can I still get the F2000 product?	F2000 production has stopped and we are quickly running out of F2000 inventory. Most of the current inventory resides in the Customer Centers. Please contact your Marketing Manager for any special circumstances.
Will the TAS packages have the new filter?	Yes, the new filter will be used as current inventory is depleted.
Will the West Chester HL dryer have the new filter?	Yes, West Chester has started to use the new filter on HL dryers.
What are the ISO Class ratings of the new filters?	<p>A series is ISO Class 1 for Oil (when preceded by an H filter)</p> <p>G is ISO Class 3 for Particulate and 3 for Oil</p> <p>H is ISO Class 2 for Particulate and 2 for Oil</p> <p>D is ISO Class 3 for Particulate</p>

What should we do for customers with lightly loaded systems – hence they do not run compressors all of the time.	The timer cannot be adjusted. If the ERI comes on and it is agreed that the filters have not seen a regular load, you can elect to reset the timer by removing and reinstalling the battery.
With a time based system, how will I know if the filter becomes either clogged or ruptured before the ERI goes on?	It can be debated that most DP indicators will not help in these situations either – especially the ruptured element scenario. If this is a concern, the customer can install pressure gauges in the system piping.
How will this approach tie into our Package Care offering.	The time based element replacement philosophy is not aligned with our Package Care business. We are developing a retrofit solution to use these filters in Package Care applications. This will involve a DP gauge.
Are the filters CRN approved?	Yes.
Why the new nomenclature?	Several years ago we developed standardized nomenclature for all new products. We realize this will take some time to get used to. We used m <sup>3</sup> /hr as our Global standard for flow measurement.
Is this filter going to be branded for ZEKs?	No, we have no plans to sell this product through our ZEKs channel.
Have the connection sizes been changed to align with our dryer and compressor products?	With the multitude of dryer and compressor products, this is a daunting task. Some connections sizes have been made larger to improve the ease of installation.
Why is there only an H filter available for 1250 and no H for the 1400 cfm.	In order to pass the stringent ISO tests, we were forced to limit the H at 1250 cfm. We are working on improving the capacity of our H model.
Are there fixing clamps available?	Yes, they are available through Services.