# PRI Raising the Bar!

It took us an evolution to move from bronze to iron to steel age. A similar breakthrough took us ahead from Granular to Extruded Carbon to Formed Honeycomb Media in Gas Phase Filtration technology.

This next-generation revolutionary new medium is a building block of the future of Gas Phase Filtration and is applicable in both industrial and commercial environments. It brings with itself the advantage of 100% efficiency.

## It is a **Game Changer**

## Formed v/s Extruded Honeycomb

Extruded Honeycomb Chemical Filters are mainly limited to active carbon and are fragile. They are limited in size, and also in the amount of impregnates that can be added to the carbon honeycomb, and further limited to the impregnates that can be put onto the honeycomb e.g. carbon honeycombs cannot be impregnated with permanganates. On the other hand, DRI macro-porous desiccant formed honeycomb matrix has a high bulk density, very high structural strength and adsorption capacity, and it can be impregnated with permanganates, hydroxides, phosphoric acid, Thiosulphate and Bycarbonate, and many more and those impregnates are often 3 to 5 times of what can be put on an extruded carbon honeycomb. Further, the DRI Chemical honeycomb filter can be run from 400 to 600 FPM with limited pressure drop. All of above providing a very high capacity chemical filter with a much longer mean time between replacement (MTBR) of an equivalent size extruded carbon honeycomb.

#### The DRI Chemical Honeycomb Filter comprises of

macro-porous desiccant based honeycomb matrix impregnated with a choice of oxidizing agents, alkaline solutions and is also made bactericidal by treating the same with antibacterial agents. This new honeycomb matrix technology not only reduces the size of chemical filtration equipment, but also increases its efficiency and life while lowering energy bills. It allows sizing the chemical filter from 400 to 600 FPM face velocity, shrinking dramatically the size of the housing/unit footprint.

# Formed HONEYCOMB CHEMICAL FILTER (Patent Pending) The Future of GAS PHASE FILTRATION is HERE



## Future Formed Honeycomb

## **DRI Honeycomb Combinations**

	Desiccant +	Impregnates	
Alone or Any Combo	Metal Silicate Carbon +	K/Na Permanganate Na Thiosulphate, K/Na Hydroxide Phosphoric acid Na/K Carbonate ++	Alone or Any Combo

## **DRI Desiccant Formed Honeycomb Chemical Filter Fits All Applications**

This new technology can be used both in commercial and industrial applications and is ideal for human and hardware health. It removes contaminants and eliminates odor and downtime by removing toxic/corrosive gases through the process of adsorption and chemisorption.

## Limitations of Granular/Extruded **Carbon Honeycomb Filters**

- Highly Fragile Powdering/Dusting/Attrition (Granular)
- Limited Size
- Very Large Non Active Clay Component
- Low Percentage (%) of Impregnate(s) Loading
- Limited Bulk Density
- Operating Range 125 to 250 FPM max
- Requires Final Dusting Filters & Added Pressure Drop
- Requires High Pressure Fans and Motors
- Requires Special Filter Housings

### Why DRI Formed Honeycomb Filters?

- Bulk Density > 40 Lb / cu ft
- Honeycomb Monolith Media Available in 1" to 12" Depths in Standard and Custom Filter Sizes
- Air Flow Range is 400 to 600 FPM
- 100 % Efficiency
- Tested by Most Respectable RTI Lab of USA
- Longer Life (High MTBR)
- Tested in Accordance to ASHRAE 145.2P and ISO 11155-2
- Only Honeycomb Filter with Permanganate
- Very High Capacity
- Very Low Pressure Drop
- Available in Combination with Various Impregnates
- Backed by DRI's Cutting Edge State-of-the-Art R&D and Testing Facilities

#### Ideal for :

Fresh Air intake which are situated near :

- Sewage line
- Sewage treatment Plant
- Dence Trafic
- Landfill Sites
- Sea Shores (Creeks) Dump Yards
- Lab/Factory exhausting Harmful Gases