

DRI 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.

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.

Formed **HONEYCOMB**
CHEMICAL FILTER (Patent Pending)

The **Future** of **GAS PHASE FILTRATION** is **HERE**

History

Granular

• 80 fpm

Extruded Carbon Filter

• 125 fpm

Future

Formed Honeycomb

• 500 fpm

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

Ideal for:

- Petrochemical Refineries
- Paper and Pulp Industry
- Waste Water Treatment
- Data Centers and Mission Critical Facilities
- Process Industry
- Server Rooms
- Research Labs
- Electronic and Semi Conductor Industry
- Food Processing Industry
- Fertilizers Industry
- Corrosion Protection
- Achieving G1 Conditions

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
- Large monolith can be available in size 24" x 24" from 1" to 12" deep
- Air Flow range is 400 to 600 FPM
- 100 % efficiency
- Tested by most respectable RTI Lab of USA
- Longer Life (Low 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
- Honeycomb monolith media available in 1" to 12" media depths in standard and custom filter sizes