



OPTIMAL FLOW

Magcat Catalysts produce up to 15% more syngas through the steam reforming process.

Magma form their own catalyst carrier utilizing polymer ceramic technology rather than the traditional pressure method, providing higher intrinsic strength, greater geometric surface area and surface texture.

The “Golf Ball” shape and texturing creates a 30% improvement in active surface area. That combined with enlarged near surface porosity and ENHANCER™ Nickel crystal promoter, delivers three times more available nickel for reaction.

The “Golf ball” texturing generates turbulent flow around the catalyst, reducing drag coefficient and pulling reactant gases around the pellet, seeing all sides evenly.

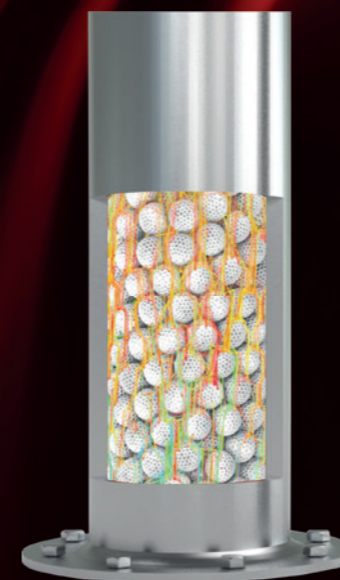
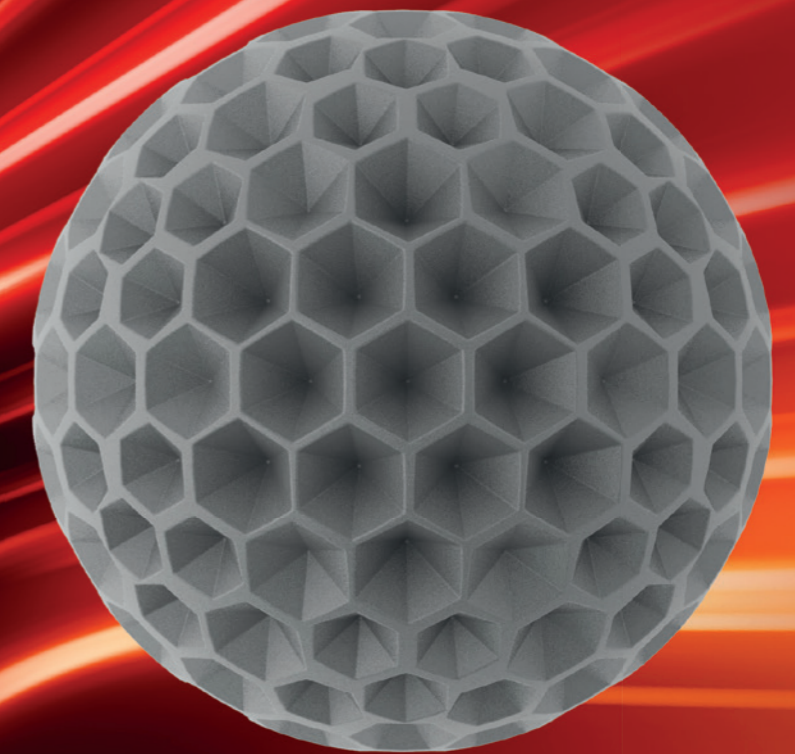
The spherical shape packs in a uniform manner in the reformer tube allowing for optimal gas flow and improved catalyst to gas contact, and minimising pressure drop. Traditional cylindrical shaped catalysts however pack in a random chaotic manner, creating large void space and uneven gas flow.

Traditionally when hot tubes expand and cool (contract) catalysts reorder, and the catalyst levels drop causing increases in pressure drop. Magcat spheres respond differently, as those in the central core barely move from the original position.

A stable catalyst core and uniform packing means large voids will NOT be present to cause a cascade of pellets down the bed or significant rearrangements from initial loading.

Magcat’s ideal gas flow patterns increase heat transfer rates from the tube wall, which in turn increases reforming capability, and reduces tube wall temperatures. The average reduction in tube wall temperature is 10°C, which in turn can deliver a 40% increase in tube life.

Magcat spheres produce a more uniform gas flow, maintaining good gas-to-catalyst contact



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