



Revolutionary patented new low cost manufacturing process for forming metals focused on lightening components & products

Greenville SC, November 11, 2014: Thermo-Pur Technologies announces the issuance of a system and method patent, USA No. 8,869,398, for its new revolutionary low cost metal forming manufacturing process. Thermo-Pur Technologies creates exponential change in manufacturing and reduces environmental impact through a low cost, high speed laser welding and superplastic forming process for high tensile strength foil ranging from higher strength carbon steels, stainless and nickel to titanium in thicknesses of 20 to 300 microns (0.02 - 0.3mm).

Metals like titanium, nickel, stainless steel, carbon steels, etc. can now be engineered for cost effective feature enhancements to products and parts when utilizing this disruptive manufacturing technology. The process shatters long-held obstacles in the elongation of high tensile strength foil and opens many mature industries to new low cost manufacturing methods, materials and designs previously considered impractical or economically infeasible. Applications include automotive, aerospace, power generation, railroad, construction, shipping containers and consumer products. Initial metal utilization, type 304 stainless steel, will disrupt mature/legacy product applications incorporating aluminum and/or copper. Engineers can now provide alternative product solutions for business development teams.

Initially developed for lower cost heat exchangers, a \$30billion market, this automated forming process applies to an endless range of product applications employing high tensile strength foil. Applications examples include reducing manufacturing costs and light weighting; automotive engineered steel stampings and assemblies, aerospace honeycomb structures, fuel cell interconnects, reducing energy density of electric batteries, cold plates for lasers, heat exchangers and cell phone frame assembly. Lightening includes use of corrugated patterns for strength enhancement, similar to a corrugated box, for automotive applications like A-Pillar and B-Pillar. Unique Thermo-Pur low cost manufacturing equipment, low energy consumption, absence of hazards to environment, small manufacturing space requirement and automation allow reduction in product cost close to the cost of consumed metal.

Headquartered in Greenville, SC, Thermo-Pur Technologies is a development phase company ready to establish its initial production capability and is actively engaged with licensing partners in all Industry and product segments. The company formed in July 2010. Company leadership includes significant industrial sales, automotive manufacturing, engineering, operations and technology transfer/commercialization experience.

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