PIAM 3D

Pakistan Institute of Additive Manufacturing has introduced Pakistan's first metal Additive Manufacturing facility. PIAM 3D is a complete solution provider in metal Additive Manufacturing with its state of the art in house capabilities. Leading the way to leap into 4th industrial revolution that would help shorten the product development cycle.

We offer complete solution i-e, starting from 3D scanning to design work to 3D printed product.

Our services include:

- **Product development**
- **Rapid prototyping**
- **Functional prototyping**
- **Spare parts production**
- **Product replication**
- **Consultancy**

"From concept to reality"

METAL ADDITIVE MANUFACTURING - 3D PRINTER

We offer metal Additive Manufacturing service on Laser powder bed fusion to produce parts complementing conventionally machined parts and forms part of a manufacturing system including heat treatment, surface finishing that directly contribute to reduced lead times, tooling costs and material waste.

- Shorten development timescales - be first to market
- Reduce waste product and cost - build only what you need
- Enjoy increased design freedom - create complex structures and hidden features
- Exceptional surface finish and resolution at scale

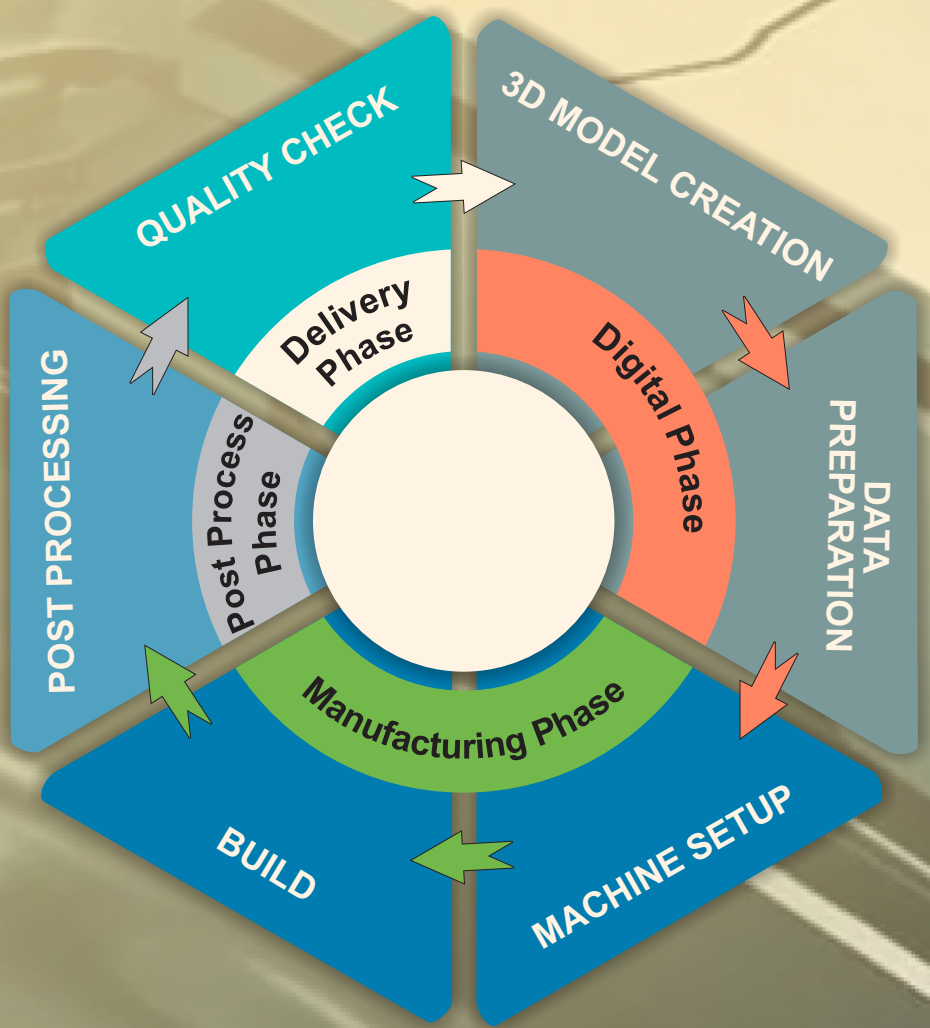
Gain Competitive Advantage

OEMs leveraging metal 3D printing to remain competitive can reduce weight, part counts through consolidation, and improve component strength. Metal AM enables engineers to design components with complex geometries that are unable to be manufactured by traditional methods.

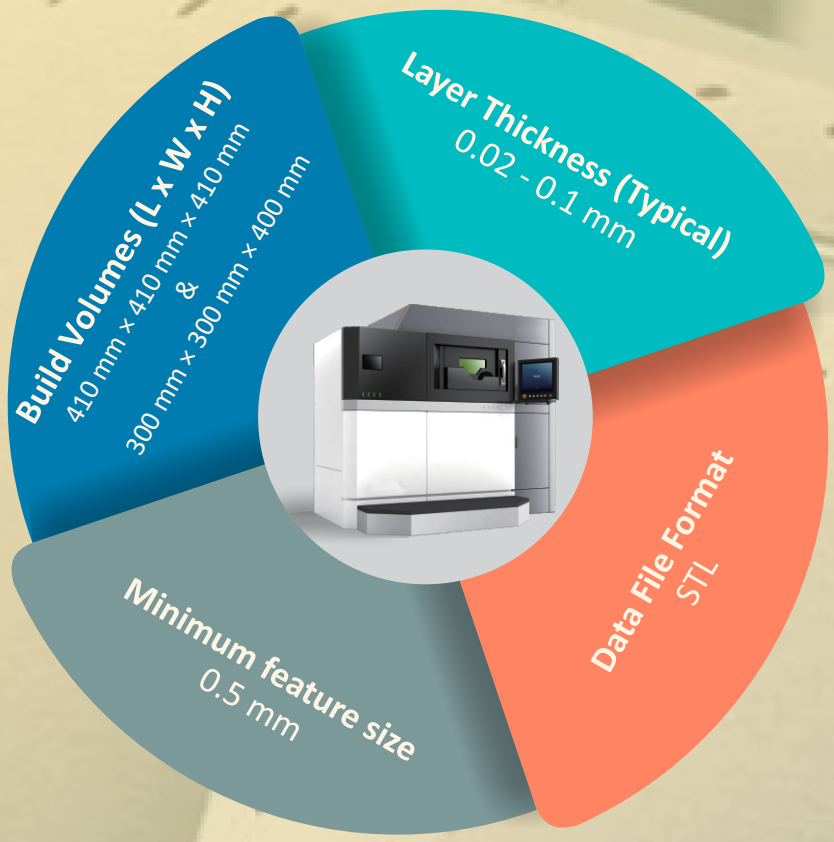
Application Areas

End use printed products can be utilized in Aerospace, Automotive, Manufacturing tooling, Medical, health care, and Academics sectors.

Additive Manufacturing Cycle



Specifications



Print Materials

Materials Capabilities	SS 316, SS 420, AlSi10Mg, Ti6Al4V, IN718, SS 17-4PH, SS 18Ni300*, CoCrMoW* CoCrMo*, In625*, Gh3536*, CuSn10*

* **On demand**

BENEFITS

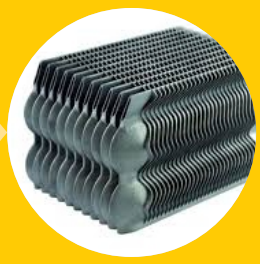
	Standard Process	Standard Delivery	AM Delivery
Thin Elements / Structures	Stamping / Bending	8 weeks	2 weeks
Housing	Casting	6 weeks	3 weeks
Pipes	Hydro Forming / Welding	8 weeks	2 weeks
Fixtures / Brackets	Machining	4 - 6 weeks	2 weeks
Hydraulic Components	Fine Casting	12 weeks	3 weeks
Transmission Parts	Machining	6 weeks	3 weeks

POTENTIAL MARKETS

1

Industrial Engineering

Shear blades, needle valves, molds, tooling, valves, pivots, precision machinery, guides, parts for chemical plants, spindles, plastic mold, pumper plunger, Injection mold, dies and die holders, machine components and production tools, turbo pump stator, tooling inserts, oil sealing rings, conformal cooling die casting tool



2

Automotive

Valves, gears, spare parts, heat exchanger, housings, ductwork, engine parts, production tools and molds, both for prototyping and manufacturing purposes, exhaust manifold

3

Medical Services

Medical instruments and wearables, implants and prosthesis, rib cages, knee replacement, hip joint, skull implant, mandibular replacement, hip cup and Joint replacement

4

Aerospace

Turbines and engine parts such as compressor casings, discs and fan blades, Flame tubes, fuel injection nozzles, wind tunnel models, combustion chamber, Inducer, heat exchanger, combustor mixers, bearing housings, frames, exhaust case etc.

5

Power

Gas turbine components such as burners, swirler, nozzle, filter, mixer, blades and vanes

Contact us

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