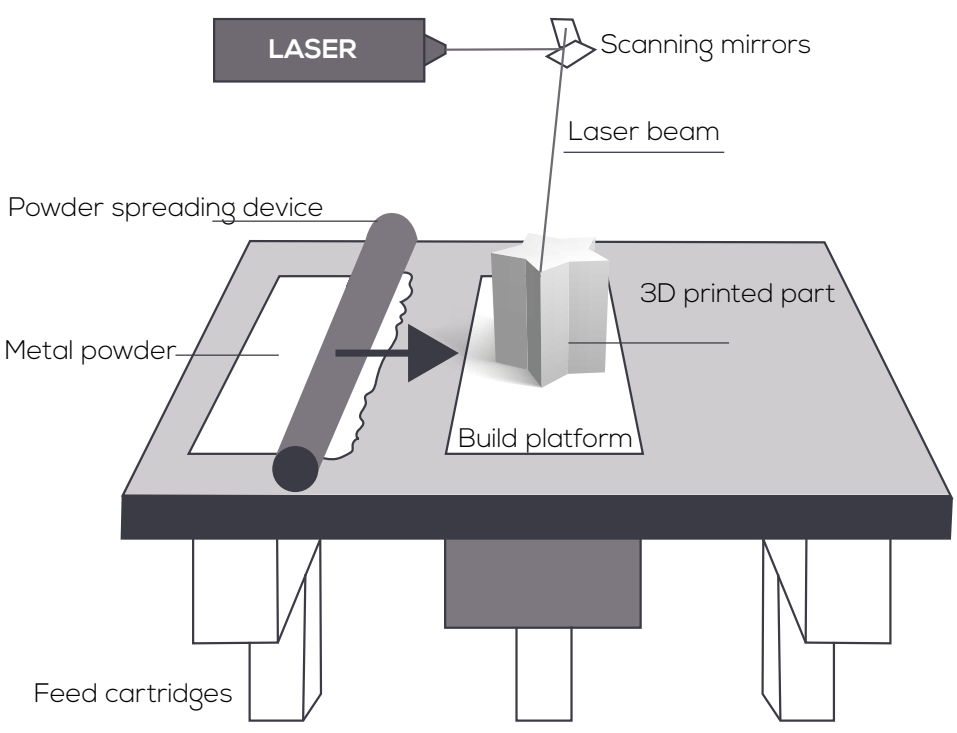
AddUp
GLOBAL ADDITIVE SOLUTIONS

METAL ADDITIVE MANUFACTURING TECHNOLOGY

POWDER BED FUSION

HOW DOES PBF (laser) WORK?

1 The 3D model of the part is sliced in thin layers,
2 A layer of metal powder is spread on the build platform,
3 An energy source (laser or electron beam) melts the metal where necessary,
4 A new layer of metal powder is spread,
5 The cycle continues until the part is completed.

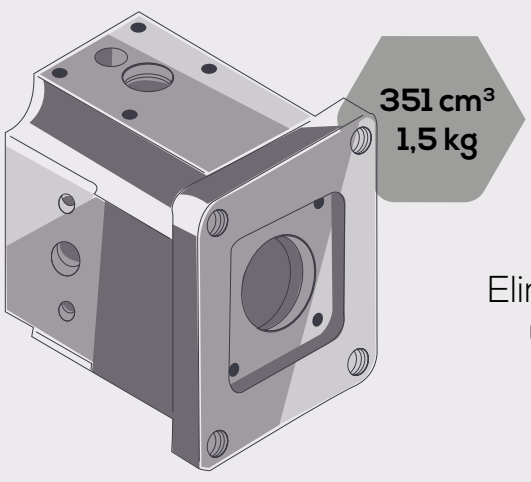


LASER:
- Multiple laser system500 W Yb fiber lasers
- Laser spot size: 70 µm
- High precision 3 axis scanning system

POWDER:
Ability to use metal powders from any supplier Compatible with thin particules (5-25 µm) and large particules (20-63 µm).

RECOATER:
- Multiple spreading devices available: roller for best surface finish and low angles,
- Blade or brush for productivity

WHAT CAN PBF DO FOR YOU?



HYDRAULIC MANIFOLD

UNLEASH YOUR CREATIVITY
Complex geometries, customization.

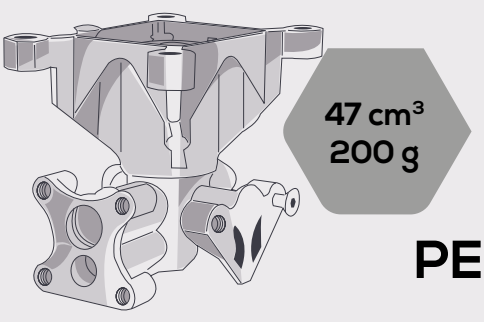
LIGHTEN YOUR PART
Eliminate mechanically unstressed material volumes.
Metal saving.

ADD FUNCTIONS
Create internal & curved channels.

FROM THE ORIGINAL MACHINED PART
TO THE METAL ADDITIVE PART

LESS MACHINING
Parts can be 3D printed without support (thin powder)
Near to shape.

3D PRINT ONCE, IN ONE BLOCK
Gain of time & production.
Numerous parts on one plate for series.



OPTIMIZE THE PART PERFORMANCE

RESULTS: 304 CM3 VOLUME REDUCTION, 1.3 KG WEIGHT REDUCTION

MULTI-MATERIAL & MOST USED

CATEGORIES	PROPERTIES	INDUSTRIES
STAINLESS STEEL	Corrosion resistance Good mechanical properties	Automotive Chemical industry Medical
TOOL STEEL	High hardness High wear resistance Good machinability	Molds production Medical (implants)
CHROME, COBALT ALLOY	High hardness High wear resistance Corrosion resistance	High temperature applications Medical
NICKEL ALLOY, INCONEL	High corrosion resistance High mechanical resistance in high temperature Good weldability	Aerospace Energy industry Chemical industry
TITANIUM	Corrosion resistance Good mechanical properties Good weldability	Medical industry Aerospace Jewellery
ALUMINIUM	Light alloy Good mechanical properties	Automotive Aerospace Aeronautics Motorsport

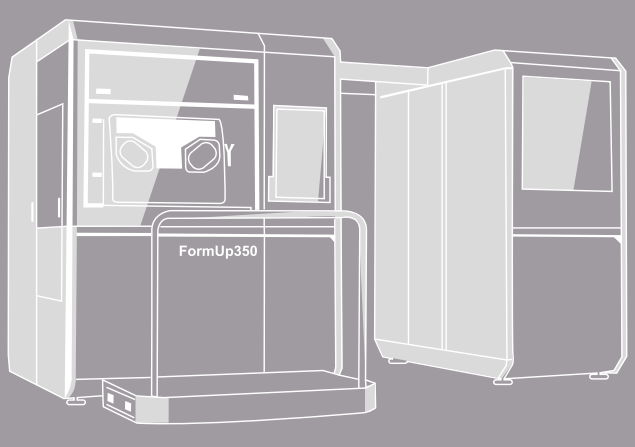
LB-PBF REPRESENTS

85%

OF TO-DAY ADDITIVE MARKET

Laser Beam Powder Bed Fusion is the most widely used AM technology nowadays

ADDUP PBF CAPABILITIES



34 MULTI OEM POWDER BED FUSION **MACHINES**

From 1 to 4 lasers - from 400W to 1000W