## Metal 3ロ Printed



## STAINLESS STEEL AMES VALVES

HD3-AMES are metal 3D printed directional control valves with innovative stainless steel 316L body and solenoid actuators with subplate mounting interface according to ISO 4401, DIN 24340 (CETOP 03).

The valve body is made with Laser Powder Bed Fusion (LPBF) technology. Internal design is improved for better flow path thanks to additive manufacturing design.

Paired with plastic encapsulated coils this valve is proven to be corrosion resistant even in the harshest environments.

by


## Main characteristics:

- Feasibility of geometric forms impossible with conventional manufacturing
- Improved internals chambers flow path
- Lightweight design with increased stifness with external reinforcements

from
Traditional production
$0,8 \mathrm{Kg}$

to
Metal 3D printing
$0,3 \mathrm{Kg}$


## Metal 3ロ Printed



## STAINLESS STEEL AMES BANKABLE VALVES

HDF-AMES are metal 3D printed bankable directional control valves. The body is made in Stainless Steel 316L. Internal flow path is optimized thanks to the Additive Manufacturing technology and allows a strong reduction in pressure drops among with a never seen before weight and volume reduction.

Both body and actuation are made with stainless steel, suitable for the harshest environments. The system can also be printed as a whole part avoiding

by assembly problems or eventual leaks between working sections.

A wide range of optional elements are available and can be integrated within the system. Working sections are available with ON/OFF or proportional control and with parallel or series circuit.


Main characteristics:

- Flow rate up to $60 \mathrm{l} / \mathrm{min}$ and 350 bar
- Weight reduction up to 55\%
- Wide variety of spools, including asymmetrical proportional spools
- Optional modules can be assembled with the system or directly integrated in the printing
- Bodies can be custom made integrating any specific customer's functions


Traditional production

to
Metal 3D printing

