Semi-solid Metal Processing Technology (SSM)

SM technology based on billet route thixocasting and slurry-on-demand new rheocasting has been established to produce net shape high pressure die cast (HPDC) components for defence & aerospace applications.

SALIENT FEATURES

- > High quality diecast components upto 2 kg weight
- Pressure tight components
- > Near net shape components with excellent surface finish
- Suitable for high volume manufacturing at lower cost as compared to forged parts



HPDC set-up at NMRL





Thick & Thin walled A356 Al-Si Alloy HPDC components by SSM Technology

AREA OF APPLICATION

- > Marine Component: Propellers, Brackets, Pistons
- ➤ Hydraulic & Pneumatic Cylinders : Actuators and Valve Bodies
- > Strategic components : Anti submarine weaponary, Missiles, Gun Systems & aerospace components

STATUS

Technology available for transfer