

**Manufacture of DMR-1700 Steel forgings, forged feedstock and mill forms (sheets and plates)
for Defence Applications through ingot route**

DMR-1700 steel is the result of a comprehensive and fundamental study undertaken at DMRL, Hyderabad over a period of nearly two decades to develop a low cost alternative to 250 grade maraging steel (total alloy content ~ 30-35 %) for defence applications. Extensive research led to the optimization of alloy design and understanding of physical metallurgy of the steel to achieve an excellent combination of ultra high strength and high fracture toughness at room temperature.

The industrial production of steel plates through ingot metallurgical route showed promising defence applications. The steel was produced into forgings, forged feedstock and mill (sheet and plate) forms through ingot route followed by hot forging, hot rolling and heat treatment. The steel plates of higher thicknesses were quenched and tempered whereas low thicknesses (< 10 mm) plates can be air hardenable. The forgings and forged feedstock was used for successful subsequent manufacturing processes to realize some of the components being used for defence applications. All the plates showed mechanical properties meeting the specified values for various defence applications.

Interested Industries are requested to forward their Expression of Interest (EoI) to Director DMRL, Hyderabad with a copy to Director DIITM, DRDO HQ on following address:-

To,

**Director
Defence Metallurgical Research Laboratory
Kanchanbagh P.O.,
Hyderabad-500058
Phone: 040-24340681
Fax: 040-24340683**

Email ID: **director[dot]dmrl[at]gov[dot]in**

Copy to

**Director
Directorate of Industry Interface & technology Management (DIITM)
Room No. 447, DRDO Bhawan, DRDO HQrs, Rajaji Marg, New Delhi-110011
Phone: 011-23013209/23015291
Fax: 011-23793008**

Email: **diitm[dot]hqr[at]gov[dot]in**

Industries are requested to enclose supporting document in EoI as per Appendix 'D' of DRDO Policy and Procedure for ToT available at **<https://www.drdo.gov.in/sites/default/files/inline-files/drdo%20Policy%20%26%20Procedure%20%20for%20ToT.pdf>**