

Title of Technology to be offered	Beneficiation of Low grade iron ores Ores
Type of Technology	Process development through in-house R&D
Area of Technology	Mineral Processing & non-ferrous metallurgy
Details of Collaborating Agency	Steel Authority of India Ltd, MECON Ltd, Tata Steel Limited, Essar Steel, MSPL,
Uses	The technology developed is for beneficiating low grade iron ores and the calibrated lumps, fines & concentrate so produced are used for iron & steel making.
Salient Features	The process so developed basically involves crushing, classification, processing of lumps, fines and slimes separately to produce concentrate suitable for lump, sinter fines and pellet making. The quality is essentially defined as Fe contents, Level of SiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> contamination. The process aims at maximising Fe recovery by subjected the rejects/tailings generated from coarser size processing to fine size reduction and subsequent processing to recover iron values.
Scale of Development	Pilot Scale
Major Raw Materials	Low grade iron ores
Major Plant Equipment/Machinery	Crushing, screening, scrubbing, classification, gravity separation, magnetice saparation & flotation
Details of specification application	Each process development is case specific and material specific
Status of Development	The technology has been studied in pilot scale operation for several samples and need to be fine tuned for specific sample. Since each original sample is unique, the process need to be studied in our Laboratory fine tuning parameters in relation to its mineralogical properties.
Ecological/Environmental Impact (if any, specify briefly)	The process is environment friendly. No toxic/hazardous waste is discharged
Patenting details	Not filed
Commercialisation Status	The technology is sample specific . commercialisation Process is on for SAIL Mines at Gua & Bolani
Techno-Economics	The techno-economic was worked out by MECON keeping in view the iron & steel manufacturer's requirement and raw material available quality
Key words	Iron ore, Hematite, magnetite, beneficiation