

TechnipFMC Introduces:

FluoSolids[®] Iron Carbide Systems

TechnipFMC is proud to announce our exclusive license agreement with International Iron Carbide (IIC) to provide complete Iron Carbide production plants using FluoSolids[®] technology for the iron and steel industry.

Through our exclusive license agreement with IIC*, TechnipFMC brings together the Iron Carbide Process with our proprietary Dorr-Oliver FluoSolids[®] technology, proprietary Hydrogen and Syngas technology, and our world-class project execution capabilities in a new offering to the global iron and steel industry.

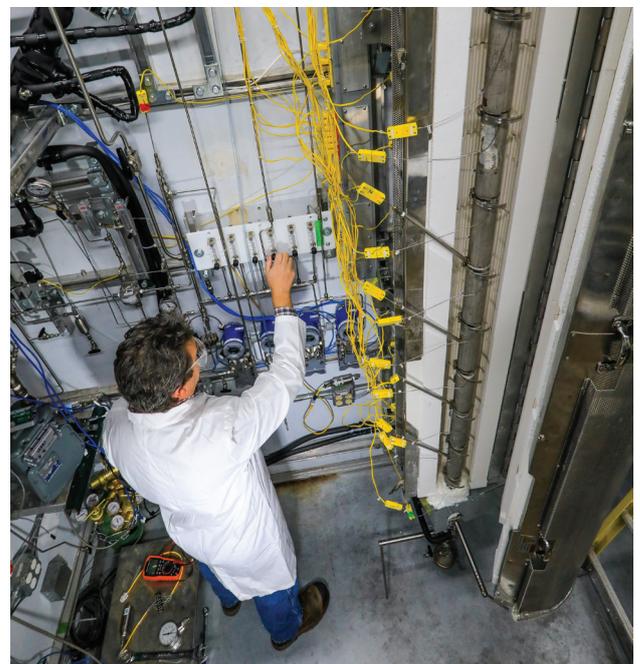
Compared to conventional DRI, Iron Carbide provides:

- ▶ Improved furnace efficiency for energy transition to cleaner solutions
- ▶ Superior melting performance
- ▶ Lowest CO₂ emissions and carbon footprint enhances sustainability
- ▶ Lower production cost and improved margins
- ▶ Safer handling and transport

The time is right for Iron Carbide systems using FluoSolids[®] technology. Unprecedented low natural gas prices combined with the processing, economic and lower carbon footprint advantages over conventional DRI processes create a perfect environment for Iron Carbide production.

Iron Carbide Basics

Iron carbide is a premium feedstock for Electric Arc Furnace (EAF) steelmaking, providing clean iron units while improving economic margins and environmental sustainability. The Iron Carbide Process produces iron carbide as a granular product directly from iron ore fines. The product comes in the chemical form of Fe₃C, a highly stable compound that is not pyrophoric like conventional metallized DRI. The granular nature of iron carbide allows easily controlled, continuous



feed to an EAF. Iron carbide dissolves instantly in hot metal, and the carbon contained in the crystal structure of iron carbide represents chemical energy input into the EAF. These features reduce EAF power consumption and lower the carbon footprint to provide cleaner, more sustainable steelmaking solutions for our energy transition.

The Iron Carbide Process is the most environmentally friendly DRI process. Steel produced using iron carbide emits the lowest amount of carbon dioxide (CO₂) per ton of steel produced. Additionally, the CO₂ that is produced is highly concentrated and potentially suitable for collection and beneficial re-use, which lowers overall EAF carbon footprint.



Dorr-Oliver FluoSolids Technology

With over 1,000 references, TechnipFMC's proprietary Dorr-Oliver FluoSolids® Technology has been at the forefront of fluidized bed reactor technology in the mining, metallurgical, energy and environmental industry for over 70 years. That

history includes a long list of first of a kind fluidized bed processes, most recently including two successful nickel laterite reduction reactors feeding DC furnaces to produce ferronickel and a copper concentrate dead roaster to remove organic carbon and sulfur to increase production. We are excited to combine our fluidized bed design experience and expertise with the Iron Carbide Process.

The FluoSolids® technology is based in TechnipFMC's Claremont, California office. Claremont is also the technology center for TechnipFMC's proprietary SMR technology for Hydrogen and SynGas production, another key element in Iron Carbide and DRI production.

TechnipFMC has recently constructed and commissioned our own laboratory fluidized bed test unit dedicated to process development test work

for the Iron Carbide Process at our laboratory in Weymouth, Massachusetts.

TechnipFMC brings together the right technologies, expertise and resources to deliver successful projects and sustainable solutions. The Iron Carbide Process, with its low carbon footprint and energy savings, is perfectly positioned for our global energy transition.

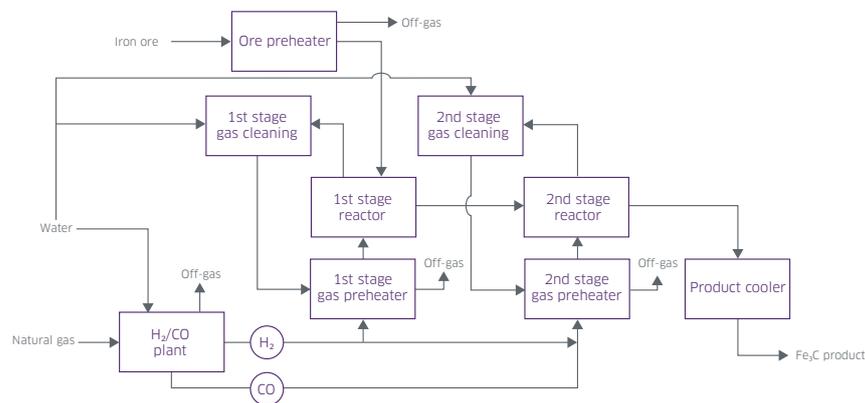
TechnipFMC

TechnipFMC mining and metals team covers the entire project lifecycle, from conceptual studies to EPCM or EPC LSTK services. We bring together the scope, knowhow and determination to transform our clients' project economics.

*International Iron Carbide

International Iron Carbide, LLC (IIC) is the sole licensor of the Iron Carbide Process, the only commercialized process for production of Iron Carbide directly from iron ore fines. Over the years, the technology development included laboratory, demonstration-scale, and two commercial-scale industrial iron carbide plants. The latest generation, two-stage iron carbide process is a culmination of over 40 years of R&D and industrial know-how. In today's market, where climate change and environmental performance must combine with the competitive project economics, Iron Carbide is poised to transform the global iron and steel industry.

FluoSolids Iron Carbide system process diagram



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