

Press Release

Jindal Stainless (Hisar) Limited forays into Defence sector

- *Becomes the first company in India to commercially produce High Nitrogen Steel for defence sector*
- *High Nitrogen Steel, a ballistic and blast protection material, to significantly reduce weight and costs of armed forces vehicles*
- *Transfer of Technology, a major milestone for Indian Defence sector in public-private partnership*

New Delhi, 1st March, 2017: Jindal Stainless (Hisar) Limited, country's largest integrated stainless steel producer today announced its entry into the defence sector by signing the License agreement with Defence Research & Development Organisation (DRDO), Ministry of Defence which entails transfer of technology for manufacturing High Nitrogen Steel (HNS) for Armour applications. The agreement was signed in the presence of Hon'ble Union Minister of State for Defence, Dr. Subhash Bhamre, and Mr. Abhyuday Jindal, Vice Chairman, Jindal Stainless (Hisar) Limited. With this, Jindal Stainless (Hisar) Limited (JSHL) now becomes India's first company to commercially manufacture High Nitrogen Steel for the defence sector. The use of HNS will replace the existing import of Rolled Homogenous Armour (RHA), thereby resulting in improved cost efficiency in material acquisition for armour applications by 50%.

It is a comprehensive joint effort, and almost a decade of R&D by JSHL and Defence Metallurgical Research Laboratory (DMRL) to develop HNS. This major development will not only accelerate the indigenization process of Indian defence arsenal in line with government's 'Make in India' drive but will also help in easy availability of best material for manufacturing lighter armour vehicles, as import procurement often delays the manufacturing process. High Nitrogen Steel is corrosion resistant and provides exceptional ballistic/blast protection than the existing material at a much reduced thickness along with longevity which increases the fuel and mass efficiency. HNS exhibits higher energy absorption level, enhances crashworthiness to the entire artillery system and has significantly higher impact values (> 200 Joules at room temperature and > 150 Joules at -40C) as compared to RHA which make HNS a far superior material for blast protection. HNS has passed multiple levels of ballistic tests in different calibers with 8-10 times higher impact/blast protection.

HNS has potential application in all armoured vehicles including Infantry Combat Vehicle (ICV), Light Specialty Vehicle (LSV), Light Armoured Multipurpose Vehicle (LAMV), Futuristic Infantry Combat Vehicle (FICV), Main Battle Tank (MBT), Future Ready Combat Vehicle (FRCV), Aviation and Naval systems. JSHL is also working to produce additional variants of HNS with enhanced blast and ballistic protection to cater to niche requirements of the Indian Defence sector.

Commenting on the occasion, **Mr. Abhyuday Jindal, Vice Chairman, Jindal Stainless (Hisar) Limited** said, *"We are extremely pleased with this development and we believe HNS will immensely benefit the Indian Defence sector, going forward. The hard-work and perseverance of 10 years of JSHL with Ministry of Defence has culminated in a fantastic result for the country in line with PM's vision of MAKE in India. This development reaffirms our endeavor to achieve higher benchmarks. We look forward to collaborate with Ministry of Defence to achieve greater efficacy of Indian armed forces and then take forward our capabilities."*

HNS is manufactured at JSHL's state-of-the-art facility at Hisar with triplex refining route and manufacturing process has already been optimized for industry scale production to cater to stringent and niche requirements of Indian Defence and Paramilitary forces. JSHL and DMRL together have developed the Quality Assurance Plan for the High Nitrogen Steel to ensure consistent quality in production to meet the future demand of HNS.

About JINDAL STAINLESS (Hisar) LIMITED

Jindal Stainless (Hisar) Limited (JSHL) is India's first stainless steel manufacturing unit. JSHL has its operations integrated, both backward and forward, starting from melting, casting, hot rolling to cold rolling and other value additions. JSHL has a melt capacity of 8,00,000 TPA, one of the largest in India. It is also the world's largest producer of Stainless Steel strips for razor blades and India's largest producer of coin blanks, serving the needs of Indian and International mints. The product range includes Slabs & Blooms, Hot Rolled Coils, Strips, Plates, Coin Blanks, Precision Strips and Cold Rolled Coils.