

## **Localization & built-in equipment**

Localization is the process of empowering domestic knowledge-based and manufacturer companies to achieve and create technology in order to manufacture materials, parts and equipment of steel companies for obtaining sustainable economic and qualitative supply.

Localization is gained by sharing knowledge, experiences, achievements and scientific & technical capabilities of steel companies with knowledge-based and productive companies.

Based on this, the main goals of localization and the priorities of domestic manufacturing of steel industry equipment are as **follows**:

### **Localization of technology**

**Ability to optimize and redesign equipment and parts**

**Creating areas for motivating the growth and development of steel industry through empowering domestic manufacturers**

**Prioritizing the expansion of R&D activities in the steel industry**

**Creating and increasing domestic employment.**

**Prevent outflow of foreign currency & reduce foreign exchange costs**

**Reducing the purchase price**

**Fast access to the vendors for ordering and easy access to after-sales services**

**Accelerate the purchase process, reduce delivery time**

**Reduce the number of purchases**

**Delivering the quality of steel products to international standards**

## **Duties of the Localization Unit of Companies**

The localization section of steel companies is responsible for monitoring and preparing purchase requests with the approach of localization and built-in production of these requests.

Requests that from the beginning go through the built-in construction path are monitored from the point of view of the completeness of technical information and eventually after determining the field of activity, they are directed to the purchase of the built-in construction.

Requests that for various reasons have already been purchased from abroad or have not been successful in domestic production, are provided through the process of localization in the country and finally the next purchases of these materials, parts and equipment are provided through the empowerment created from the country.

## **The most important equipment and localized items of DRI units**

Catalyst as a strategic and important material of DRI units in the country and reformer tubes are among the most important localized items by domestic knowledge-based companies and caused annually notable foreign savings have been made in the field of steel industry of the country.

At present, various types of control valves, MV motors, main fans of the main air blower and ejector stack fan, and many parts and equipment used in DRI units are being localized by domestic companies, so significant amounts of foreign currency were prevented from outflowing.

Domestic production and localization of gas analyzers of DRI units is under investigation by local knowledge-based companies.

## **Summary of Localization of Steel's Subsidiary Projects (7 Provincial Projects including Azarbaijan Steel company)**

The total number of equipment / parts localized or manufactured by subsidiary units of National Iranian Steel Company including (Miyaneh Steel Complex, Qhaenat , Sepiddasht Steel Company, Pars Foulad Sabzevar, Shadegan Steel Industry, Ghadir Neyriz , ehyaye Steel Baft and Rolling Unit of Azarbaijan Steel, from the beginning of its launch in 2017 to the end of 2022, are about 383 parts/equipment and the total foreign exchange savings results by localization is about \$ 37,282,029.

The most foreign exchange saving is related to Sepiddasht Steel by 3,250,000 euros. Then Pars Foolad Sabzevar and Shadegan Steel Industry are next in the categories.

In the first quarter of Iranian calendar 1402, the total foreign exchange savings from localization and domestic equipment manufacturing of subsidiary projects of National Iranian Steel Company is \$ 1,050,717, the most of which is related to Shadegan Steel Industry Co. with \$ 558,900 and ehyae steel baft companies and Sepiddasht Steel Company are next in the ranks.

## **Localization Goals of National Iranian Steel Company in Iranian calendar 1402**

In line with the memorandum signed between the National Iranian Steel Company and four DRI projects by Pered method (Miane, Neyriz, Shadegan and Baft) in February 1401 (Iranian calendar ) in Shadegan Steel Industry Company regarding the localization and manufacturing of centrifugal compressors of Pered direct reduction units, manufacturing a set of process compressors and one set of cooling compressors with the amount of about 4.5 million euros are in the localization program of National Iranian Steel Company.

In this regard, several meetings were held with domestic manufacturers of compressors and with the presence of representatives of sponge iron units of Pered projects. The technical proposal and description of the manufacturing services of centrifugal compressors were reviewed in research , production empowerment and localization management of National Iranian Steel Company and

were finalized and the necessary measures are underway to hold tender documents for supplying compressors.

### **The challenges of in-house construction & localization**

At present, some parts and equipment of direct reduction units such as compressor and lobe gearbox of processing compressors, clarifier gearbox, Screw Seal Gas compressor and some instrumentation equipment such as temperature and pressure transducers exist that due to the complexities of gearbox design due to special load conditions, selection of suitable material for gearbox parts, high cost of design and manufacturing, casting and high level of technology, are being imported And they have a limit in being manufactured inside the country.

Considering that the main activities in the field of localization of parts are in the field of mechanical equipment, the localization of electronic equipment and instrumentation of steel units should also be considered.