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Nikka Ram is seasoned valuation professional with a background in mechanical Engineering with over 30 yrs of experience in the Hydro Power PSU from Engineer to Chief Engineer, transitioned into the field of valuation, insurance surveying and loss assessment. He is Professional Engineer (IEI), registered valuer P&M under the companies act 2013 and holds approvals under the wealth act 1957. He also holds certification as Energy Auditor (BEE), bringing deep technical and valuation expertise to his work.

PLANT AND MACHINERY VALUATION

Plant and Machinery valuation is the specialized process of determining fair market value of a company's physical industrial assets. This is determination of true and realizable value of Industrial Assets. This information enables making decisions regarding Equipment utilization, sale or replacement. It also supports financial planning investment and insurance purposes and legal requirements. Unlike real estate, these assets are often mobile and subject to rapid technological obsolescence, making their appraisal a special field that requires technical expertise. IBBI valuation is a critical process mandated under IBC and conducted by registered valuers certified by Insolvency and Bankruptcy (IBBI) Board of India. It involves finding out both the fair and Liquidation values of Assets, which is essential for informed decision making by stakeholders such as the committee of creditors (COC) and insolvency professionals.

Type of Assets Valued: The IBBI currently conducts valuers' registration only for three main asset classes.

- **Securities or Financial assets:** This includes equity share, bonds and other financial instruments
- **Land and Buildings:** Valuations of real estate assets residential, commercial and industrial properties
- **Plant and Machinery:** Valuation of Industrial Plants and moveable assets like machinery and equipment

Factors influencing Plant and machinery Valuations:

• **Age and condition:** Age and condition of the Assets play a crucial role in determining their value. Newer equipment generally holds higher value due to its efficiency and advanced features and longer life span. Maintenance records and overall condition also impact valuation.

• **Market Supply and Demand:** The demand and supply dynamics of the market for specific industrial Assets effect their valuations for a particular type of machinery. Just because something exist does not mean it will sell. For example: Textile looms in Surat have a local market but may worthless in Jharkhand due to logistics.

• **Technological advancement:** Technological advancements can render older machinery obsolete or less valuable. The valuation takes into account the level of technological sophistication and the potential impact on productivity and efficiency.

• **Replacement cost:** The cost of replacing the Asset with a newer one of similar capacity, Functionality and specification is critical factor in valuation. This helps determine the Depreciation and residual value.

·**Profitability:** The revenue generating potential of the asset is also key factor in the valuation of the Assets.

·**Operational Context:** Value can differ based on whether the machinery is valued "In situ" (Installed and operational) or for removal (where disassembly) and transport costs reduce the net value)

·**Maintenance & Usage:** Continuous high usage machinery deteriorates faster than standby equipment. Rigorous maintenance, however, can extend useful life and increase value.

·**Location and accessibility:** Location and accessibility influence value. Proximity to resources or transportation networks can raise value. Environmental factors (coastal, high pollution) can accelerate corrosion and lower value.

Methods of Valuation: various methods are used to determine the value of Plant and Machinery. The choice of methods depends on the specific industrial sector, asset type and specific circumstances. Here are few commonly used valuation approaches:

·**Market Approaches:** This method involves comparing the Assets value with similar Assets recently sold in the used market. It considers factor like age, condition and market demand to arrive at an estimated value. This is most effective for common machinery (like forklifts or CNC machines) where data from machinery auction is available.

·**Income Approach:** This approach focusses on cash flow generated by the Asset over its life span. It involves projecting future cash flows and discounting them to determine the present value. This method is used for high value assets that generate significant revenue.

·**Cost Approach:** The cost approach determines the value based on the cost of replacing the Asset. It considers the original cost price, depreciation, maintenance cost and any necessary upgrade or modifications. It is best for specialized or custom-built machinery with no active secondary market.

·**Engineering Approach:** In this approach, an engineer or expert assess the assets condition, remaining useful life, potential for upgrade or improvement. This method is often used for complex or unique Assets.

Challenges (practical difficulties) in valuation:

- **Going concern vs Liquidation condition:** While fair value assumes a functioning business, Liquidation value reflects distressed sale condition. Valuers sometimes fail to distinguish clearly between the two, leading to disagreements. supreme court in Swiss ribbon pvt. ltd vs Union of India (2019) highlighted that Liquidation is meant only as a last resort, but LV still plays a key role in protecting creditor interest. Liquidation is not part of the preamble of the IBC. The main aim of the IBC is to ensure that the company gets revived. The difference between the going concern value of a company and its liquidation value is known as goodwill. Goodwill consists of intangible assets, such as company brand names, trademarks, patents and customer loyalty. Typically the going concern value will be the greater than the liquidation value.
- **Distressed Asset condition:** Companies entering insolvency generally have absolute or idle assets, making liquidation value/estimation inherently uncertain.
- **Market Volatility:** Sectors such as real estate, steel and telecom are highly cyclical. In simple words, volatility in financial market refers to rapid and extreme price swings.
- **Incomplete records encumbrances:** Distressed firms often maintain incomplete or unreliable Assets records. Titles disputes and regulatory approvals e.g. environmental clearances further complicate valuation.

- **Lack of benchmark data:** India lacks a comprehensive data base of Liquidation recoveries. This forces valuers to rely heavily on assumptions which introduces subjectivity.
- **ESG and AI Impact:** Modern valuations are increasingly considering Environmental, Social and Governance (ESG) factors, while AI is helping with more in-depth data analysis.
- **Depreciated value Vs. Market Value:** The book value (depreciated) rarely matches the actual market value.
- **Subjectivity:** Different valuers may arrive at varying valuations due to methodology and judgement.
- **Technological obsolescence:** Rapid advancements may render equipment outdated.

Things to know about Plant and Machinery valuation: In today's fast paced industrial environment, knowing the true value of your assets is not just a financial necessity-it is a smart business. Whether a manufacturing Plant or managing industrial machinery, Plant and Machinery valuation helps you stay ahead with facts, figures and foresight.

What is Plant & Machinery valuation, really: At its core, it is the process of finding out what your Industrial equipment is actually worth-today. This includes machines from food processing and pharma to mining, manufacturing, and hospitals. Valuation is not just about price-it is about understanding utility, condition, market demand, and future viability of each asset you own.

Broader Picture of what counts as a plant & machinery: It is not the machines doing the heavy lifting. Valuation includes service system (like HVACs and Pipelines), Power set setups, transport vehicles, stage units, raw materials and even those tools or furniture. Everything that contributes to your Plant's production efficiency is part of the assessment.

Why Businesses Require valuations: Valuation is not only about the present, it plays a crucial role in strategic planning for the future. Investors can use valuation insights to develop growth strategies, anticipate challenges, and align their investment goals with the long-term prospects of a business. Modern business needs have evolved Plant and Machinery valuation is now required for:

Merger & Acquisition: Transaction and Negotiating fair prices.

IPOs & Fund raising: To determine a fair ask, defend valuations in investor meetings and support due diligence.

Insurance and Risk Management: Establishing the replacement cost to ensure adequate coverage and prevent underinsurance.

Lending & Financial: Using machinery as collateral for securing loans.

Financial Reporting: For balance sheets and impairment testing under GAAP or IFRS standards.

Equipment leasing & resale: Equipment leasing is a financial arrangement allowing businesses to use machinery or tools by making regular payments to lessor who retains ownership.

Taxation & Compliance: To evaluate fair market value and support documentation for tax compliance.

Litigation & support: Accurate valuations are necessary for tax reporting, estate planning and in situation shareholder lawsuits.

Asset Restructuring or Bankruptcy

And yes, even for sustainability assessment with eco friendly machinery becoming a big valuation influencer. In insolvency and Bankruptcy cases valuation is requirement for finding out true realizable value.

Know your Accounting Valuation standards: IVS establishes various valuation principles in order to harmonies the diverse practices and it lays down a framework for the valuer to ensure uniformity in approach and quality of the valuation report. Valuation today is essential aspect and to to comply with global and Indian accounting norms. The detail of some are provided below:

Ind AS 113-For fair value measurement

Ind AS16-For reporting Physical Assets

IVS 101-Definitionsaccounting standards

IVS 102- Valuation Bases

IVS 103-Valuation Approaches and methods

IVS 201-Scope of work. Analysis and evaluation

IVS 202-Reporting and documentation

IVS 301-Business Valuation

IVS 302-Intangible Assets

IVS 303-Financial Instruments

IVS 300- Plant and Equipment

Important tips on valuations:

- **Physical inspection is mandatory:** A professional valuer must physically inspect assets and take photographic evidence to verify their existence and condition.
- **Accuracy depends on data:** The quality of valuation report relies heavily on the availability of asset registers, invoices and operating logs.
- **Valuation method selection:** Based on the gathered information and purpose of the valuation, the valuer selects the most appropriate valuation method (cost, income or market approach)
- **Calculation and Analysis:** using the chosen valuation method, the valuer calculated the estimated value of the plant and machinery, This is often involves complex financial analysis.
- **Report Generation:** Valuer compiles all the findings into a comprehensive report that includes the methodology used, assumptions made and the final arrived values of the assets.

Components-wise Vs Unit wise: While individual machines are valued, the, value of an entire Plant as a working unit (Going Concern) is higher than the sum of its parts.

Conclusions: Equipment valuation plays a pivotal role in various industries, enabling accurate financial reporting, strategic decision making and effective asset management. By employing appropriate valuation methods and considering factors like depreciation and equipment life cycle, businesses can accurately determine the worth of their plant and Machinery. Machinery auctions provide opportunities for acquiring and disposing of equipment efficiently while rental equipment valuation assist in optimizing rental businesses operations. To maximize the benefits, services of an expert professional in the field is necessary.

Plant and Machinery valuation in India is more than just statutory obligation. It is a strategic lever that empowers businesses. Accurate valuation fosters investors trust, improve operational performance and strengthens financial foundation. Companies that integrate robust valuation practices position themselves to thrive in India's competitive industrial landscape, driving sustainable growth and market leadership.

References: Contents are of general nature arranged from internet and IBBI website and also from CEP sessions.

