



Consultants in Material Handling Logistics

Operations Design for Warehousing, Manufacturing and Distribution

PROCESSING PLANTS PARTS WAREHOUSE DESIGN – ORE MINING OPERATION FOR A MAJOR STEEL MANUFACTURER

CLIENT:

The taconite ore mining operation for a major steel manufacturer needed to design a new parts warehouse to support its processing plants.

DESCRIPTION OF OPERATION:

The client has about 25,000 stock keeping units (SKUs). The main parts warehouse was about 43,000 square feet and held about 22,000 units of inventory including roughly 10,000 SKUs. In addition to the main warehouse, parts were stored throughout the 37,000 acre complex. Storage requirements included climate control (both heated and cold) and security controls.

OBJECTIVE:

The objective was to determine the total space required for consolidating parts inventories and implementing inventory consolidation.

CONSULTING SCOPE OF WORK:

1. Analyze current conditions and operations for the parts storage and handling operations and identify opportunities to improve process efficiencies and control
2. Develop a process to consolidate inventory into the central warehouse
3. Quantify the design criteria for SKUs, inventory and throughput requirements based on data and projections to be provided for the parts distribution operation
4. Re-design the warehouse to increase capacity to meet projected requirements
5. Evaluate quantitative and qualitative aspects of the alternative operating scenarios including remaining decentralized and the risks and benefits of off site sourcing.

RESULTS:

The client has implemented Gross & Associates recommendations including having their vendors ship parts with bar coded labels.