

# **PENGENDALIAN PERSEDIAAN BAHAN BAKU COOLER DAN TOTAL BIAYA PERSEDIAAN DI DEPO KRL DEPOK**

**Gigih Alan Bijaya**

## **Abstrak**

Setiap perusahaan yang bergerak di bidang manufaktur pasti menjaga persediaan tetap ada, agar keberlangsungan kegiatan operasi perusahaan dapat tetap berjalan dengan lancar dan efisien tentunya. PT. Kereta Api Indonesia adalah badan usaha milik Negara Indonesia yang menyelenggarakan jasa angkutan kereta api. PT. KAI Commuter Jabodetabek (KCJ), yang fokus pada pengoperasian jalur kereta listrik di wilayah Daerah Operasional (DAOP) 1 Jabotabek, yang saat itu memiliki 37 rute kereta yang melayani wilayah Jakarta Raya dan memiliki divisi Boogie dan roda, divisi *pneumatic*, divisi *body*, divisi laboratorium, divisi traksi motor KRL, divisi instalasi *control propulsi dan auxiliary* dan divisi AC. Pada divisi AC berdasarkan observasi awal ternyata persediaan material dan komponen *cooler* pada Depo KRL Depok belum direncanakan dengan baik sehingga pengendalian persediaan material dan komponen yang dilakukan masih belum mencapai hasil yang optimal. Sehingga perlu dilakukan perhitungan perencanaan persediaan material atau komponen, penentuan *lot sizing* material atau komponen dan menghitung total biaya *cooler* guna untuk mencapai hasil yang optimal. Untuk perhitungan *lot sizing* menggunakan metode *Material Requierement Planning* (MRP) dengan teknik *Lot For Lot* (L4L), *Economic Order Quantity* (EOQ), *Period Order Quantity* (POQ). Dari hasil pengolahan data dengan metode MRP didapatkan teknik yang berbeda untuk setiap perencanaan nya teknik POQ untuk *frame cooler* dengan jumlah lot 24 unit dengan total biaya RP 12.306.000 .

Kata kunci : Pengendalian Persediaan, Bahan Baku, *Cooler*, Total Biaya, MRP

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## **Abstract**

Every company engaged in the manufacturing must keep the inventory is still there, for the sustainability of the company's operations can still run smoothly and efficiently. PT. Kereta Api Indonesia is a State Owned Enterprise of Indonesia that conducts rail transportation services. PT. KAI Commuter Jabodetabek (KCJ), which focuses on the operation of the electric train line in the area of Operational Area (DAOP) 1 Jabodetabek, which currently has 37 rail routes serving the Greater Jakarta area and has a division of Boogie and wheels, pneumatic division, body division, laboratory, KRL motor traction division, propulsion control installation and auxiliary division, and air conditioning division. In the AC division, based on preliminary observation, it turns out that the supply of materials and cooler components at Depo KRL Depok has not been well planned so that the inventory control of the material and the components performed has not yet achieved optimal results. Therefore, it is necessary to calculate the inventory planning of materials or components, the determination of lot sizing material or components and calculate the total cost of cooler in order to achieve optimal results. For lot sizing calculation using Material Requirement Planning (MRP) method with Lot for Lot (L4L) technique, Economic Order Quantity (EOQ), Period Order Quantity (POQ). From result of data processing by MRP method got different technique for every planning technique POQ for frame cooler with lot, 24 unit with total cost IDR 12.306.000.

Key word :Inventory control, Raw material, Cooler,Total cost, MRP