

## INTISARI

### DESAIN STRUKTUR PADA SISTEM PORTAL *CLEAR SPAN* MENGGUNAKAN KONSEP *PRE-ENGINEERED BUILDING*

Dewi

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Baja merupakan salah satu material yang sering digunakan. Jika ditinjau dari segi kekuatannya, baja unggul dalam segi kekuatan, kekakuan, daktilitasnya tetapi harga baja relatif mahal.

Bangunan konstruksi baja pada umumnya menggunakan sistem konstruksi baja konvensional. Seiring berkembangnya teknologi dan inovasi dibidang konstruksi, muncullah suatu pemikiran untuk mengoptimasikan penggunaan material baja pada komponen utama struktur tersebut. Konsep tersebut dikenal dengan istilah *Pre-Engineered Building*.

Konsep *Pre-Engineered Building* merupakan perencanaan pada komponen utama bangunan berdasarkan kebutuhan distribusi momen hingga membentuk batang non-prismatis atau biasa dikenal dengan istilah *tapered*. Jika ditinjau dari segi waktu dan biaya, konsep *Pre-Engineered Building* lebih ekonomis dibanding konsep baja pada umumnya. Pada konsep *Pre-Engineered Building* pun, jarak bentang dapat dipasang lebih besar.

Kata kunci : material baja, *Pre-Engineered Building*, *tapered*, *clear span*

**ABSTRACT**

*DESIGN STRUCTURE IN FRAMING SYSTEM CLEAR SPAN USES THE  
CONCEPT OF PRE-ENGINEERED BUILDING*

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*Steel is one of the materials that are commonly used. If in terms of strength, steel is superior in terms of strength, stiffness, and ductility but the steel prices is relative expensive.*

*In generally, building steel construction using a conventional steel construction system. Along with the development of technology and innovation in the field of construction, came a thought for optimize use of steel material on major components of the structure. The concept known as the pre-Engineered Building. The concept of the pre-Engineered Building is the main building on the component of planning based on the needs of the distribution of the moment to establish a non-stem prismatis or commonly known as the tapered. If in terms of time and cost, the concept of pre-Engineered Building more economical than steel concept in General. On the concept of pre-Engineered Building, however, the distance of the landscape can be mounted.*

*Key words: steel material, pre-Engineered Building, tapered, clear span*