

7 KEY ELEMENTS THAT ADDRESS ELIMINATION OF WASTE^{AIGPE}

JUST-IN-TIME PRODUCTION

**JUST-IN-TIME MEANS PRODUCING WHAT IS NEEDED
ANYTHING OVER THE MINIMUM BECOMES A WASTE**

JUST-IN-TIME:

- **IS ALSO KNOWN AS LEAN OR STOCKLESS PRODUCTION**
- **IMPROVES PROFITS & ROI BY REDUCING INVENTORY**
- **IMPROVES PRODUCT QUALITY**
- **REDUCES PRODUCTION AND DELIVERY LEAD TIMES**
- **ALSO REDUCES OTHER COSTS (SUCH AS THOSE ASSOCIATED WITH MACHINE SETUP AND EQUIPMENT BREAKDOWN)**

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UNIFORM PLANT LOADING

SMOOTHENING THE PRODUCTION FLOW TO DAMPEN THE REACTION WAVES THAT NORMALLY OCCUR IN RESPONSE TO SCHEDULE VARIATIONS IS TERMED AS UNIFORM PLANT LOADING

WHEN A CHANGE IS MADE IN THE FINAL ASSEMBLY, THE CHANGES ARE MAGNIFIED THROUGHOUT THE LINE AND THE SUPPLY CHAIN

THE ONLY WAY TO ELIMINATE THE PROBLEM IS TO MAKE ADJUSTMENTS AS SMALL AS POSSIBLE

THIS CAN BE DONE BY SETTING A FIRM MONTHLY PRODUCTION PLAN FOR WHICH THE OUTPUT RATE IS FROZEN

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KANBAN PRODUCTION CONTROL SYSTEM

A KANBAN CONTROL SYSTEM USES A SIGNALING DEVICE TO REGULATE JIT FLOWS

KANBAN MEANS “SIGN” IN JAPANESE

THE AUTHORITY TO PRODUCE OR STOP COMES FROM DOWNSTREAM OPERATIONS

A KANBAN SYSTEM IS A PULL-SYSTEM,

KANBAN IS USED TO PULL PARTS TO THE NEXT PRODUCTION STAGE WHEN THEY ARE NEEDED

THIS REDUCES WASTES AS ONLY WHAT THE IMMEDIATE CUSTOMER DEMANDS IS PRODUCED

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MINIMIZED SETUP TIMES

BECAUSE SMALL LOT SIZES ARE THE NORM, MACHINE SETUP TIMES MUST BE QUICKLY ACCOMPLISHED

JIT AIMS FOR SINGLE DIGIT SETUP TIMES (LESS THAN 10 MINUTES) OR 'ONE-TOUCH' SETUP

IT CAN BE DONE THROUGH BETTER PLANNING, PROCESS REDESIGN AND PRODUCT REDESIGN

THIS REDUCES THE IDLE TIME OF BOTH MACHINES AND WORKERS