Determines optimal master sheet sizes

**Features**

- Determines optimal master sheet sizes
- Shows trade-off between scrap loss and number of master sheet sizes
- Displays solution results on-screen
- Operates in the popular Microsoft Windows environment
- Imports data easily

**Benefits**

- Reduces scrap loss and improves material yield
- Reduces number of master sheet sizes
- Minimizes planning time for determining optimal master sheet sizes
- Reduces master sheet inventory and carrying costs
- Makes your company more competitive
- Typical Return on Investment of 1-4 months

Wolf Consulting, Inc.
**Overview**

COMPASS II — It’s like having a full-time optimization expert at your side

COMPASS II material optimization software is designed for companies that purchase master sheets to produce part blanks. The software is used in the planning process to determine optimal master sheet sizes (widths and lengths).

COMPASS II analyzes forecasted production requirements, manufacturing constraints, and material and manufacturing costs. It determines the best master sheet sizes that minimize scrap loss and manufacturing costs. Reports indicate the total weight required for each sheet size, as well as the trade-off between scrap loss and the number of different sheet sizes.

COMPASS II allows companies to quickly and easily make sound decisions regarding the purchase and use of master sheets. The software’s ability to perform sensitivity or “what if” studies can also help evaluate new equipment purchases, and changes in manufacturing or material costs.

An Optimization Study is Easy to Perform

The user starts a COMPASS II optimization study by providing part and constraint information for the material type to be optimized. The part information may be quickly and easily entered in the spreadsheet-like Parts Window. Part information may also be imported from other systems.

Once the part data is ready, the user starts the first stage of the optimization routine by simply clicking the Stage-1 button. The software automatically determines the optimal master sheet sizes — typically within 5 to 10 minutes.

When the stage-1 optimization routine completes, the Master Sheets Window is displayed. The user can continue with the optimal master sheet sizes, or other sizes may be directly entered to facilitate “what-if” studies.

The second stage of the optimization routine is then started by clicking the Stage-2 button. The software optimally assigns the parts to the sheet sizes.

When the stage-2 optimization routine completes, the Print Results Window is displayed. The user can then view or print a report which shows total cost and scrap loss for different numbers of master sheet sizes. Once the number of master sheet sizes to be used is selected, the user can view or print reports containing information for planning and production.

A Long Term Investment

COMPASS II will pay for itself in 1 to 4 months. In all succeeding months and years, the savings will be greater, since the software was paid-in-full the first year. Because operating and material costs tend to increase over time, savings will increase also.

Since the software will be used as long as your company purchases master sheets, funds spent on COMPASS II are a long term investment — just like shears.

Reduces Scrap and Number of Sheet Sizes

COMPASS II’s powerful optimization routines can consider all of the possible master sheet sizes that can be used — a lot more than could be considered manually. This means the optimal sheet sizes are found, thus reducing scrap loss and the number of different sheet sizes.

By using computers and specialized optimization algorithms, the extremely time-consuming process of manually selecting sheet sizes is dramatically reduced.

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Wolf Consulting, Inc. is the industry leader in the development, sale, and support of PC-based material optimization software.
Parts Window

The Parts Window is where information for parts is specified for a given material specification. It is an easy to use spreadsheet-like interface.

Part information includes: part number, width, length, forecasted demand, weight and rotatability. Either the demand or weight of each part can be automatically calculated.

The information may be directly entered by the user, or imported from other systems. COMPASS II provides a configurable import module for user’s to specify the data layout within an ASCII file.

Information may also be inserted by copying and pasting data from other software applications.

Constraints Window

The Constraints Window is where information for equipment limits, material costs and manufacturing costs is specified.

Among others, equipment constraints include: maximum and minimum sheet widths, maximum and minimum sheet lengths, and edge-trim allowance.

Using a material cost table, the user can specify the purchase price for varying ranges of sheet widths and lengths, along with the scrap rebate.

Manufacturing costs for material handling and shearing labor can also be specified. Or, the manufacturing costs can be set to zero to optimize based only on material cost.

Constraint information is typically setup once for various material specifications and does not require modification for each optimization study.

Master Sheets Window

The Master Sheets Window is where information for master sheet sizes is specified for a given material specification. It is an easy to use spreadsheet-like interface.

Master sheet information includes: width, length, and material cost.

The sheets can either be the sizes recommended by the optimization routine, standard available sizes, or other “what-if” sizes provided by the user.

The sheet information may be generated by the optimization routine, directly entered by the user, or inserted by copying and pasting data from other software applications.

Print Results Window and Cost vs. Sizes Bar Chart

The Print Results Window and Cost vs. Sizes Bar Chart are displayed when the stage-2 optimization routine is complete.

The Print Results Window allows the user to view or print reports containing information for planning and production.

The Cost versus Sizes Bar Chart graphically illustrates the trade-off between scrap loss and the number of different master sheet sizes. The user can view or print the bar chart.
## Easy to Read and Understand Reports

COMPASS II provides easy to read and understand reports that contain information for administrative functions, planning and production.

The **Summary Report** provides important optimization summary information such as total scrap, total cost, and total weight, for solutions containing different numbers of master sheet sizes. The solution containing the best number of sheet sizes to use is easy to spot!

The **Part Assignment Report** shows which parts are assigned to which master sheet sizes for a specific solution, and the corresponding number of pieces cut across the sheet width and length.

## General Information

- A typical optimization study completes within 5 to 10 minutes.
- Each software license includes: installation software, a user’s manual, and technical support with software updates for an initial time period.
- Ongoing technical support and software updates are available.
- On-site installation and training is available.

## Quick to Evaluate and Easy to Implement

COMPASS II optimization software can be quickly evaluated and justified by taking advantage of our free sample optimization case study offer.

We will provide you with the results of an actual COMPASS II optimization study — using a sample set of your own data. The reports will help you understand how to utilize the optimization results within your operation. The case study will quickly convey the savings potential, and help justify the software purchase.

After one day of initial training, the user(s) will be able to run the software effectively and independently.

Since you won’t have to change your existing computer systems or business procedures, the implementation will be smooth and easy.

**Call now for more information or to request a free sample optimization case study.**

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### COST & SCRAP SUMMARY REPORT

**Part Information**

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### SOLUTION STATISTICS

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