



LENNERTS
& PARTNER GmbH

LABELMASTER

Description

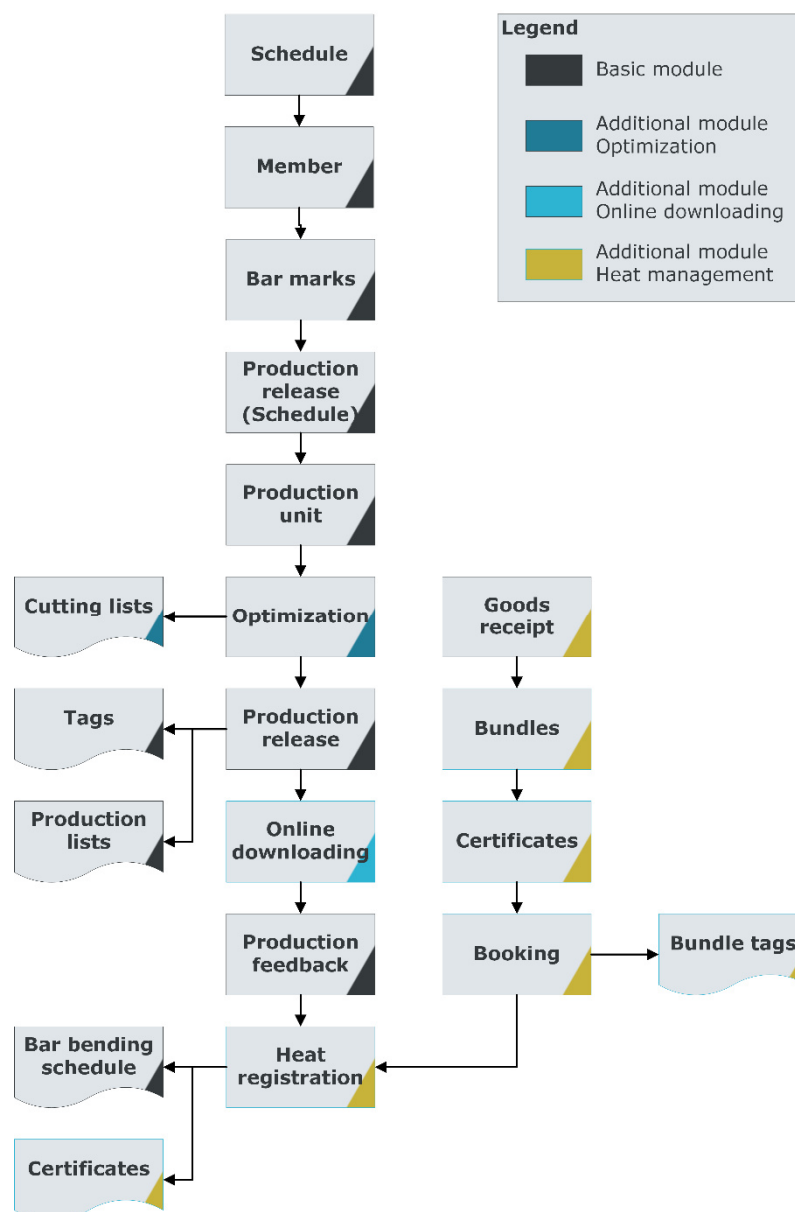
LABELMASTER

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DESCRIPTION

LabelMaster is a program for the planning, management and control of working processes in rebar shops and precast company. It enables the management of master data of the reinforcement industry as well as the creation of schedules and steel lists. On the basis of master data new schedules can be created respectively existing schedules can be processed. Steel lists, tags and possibly cutting lists can be printed for the schedules. Then the entered bar marks can be transferred directly to the machines.

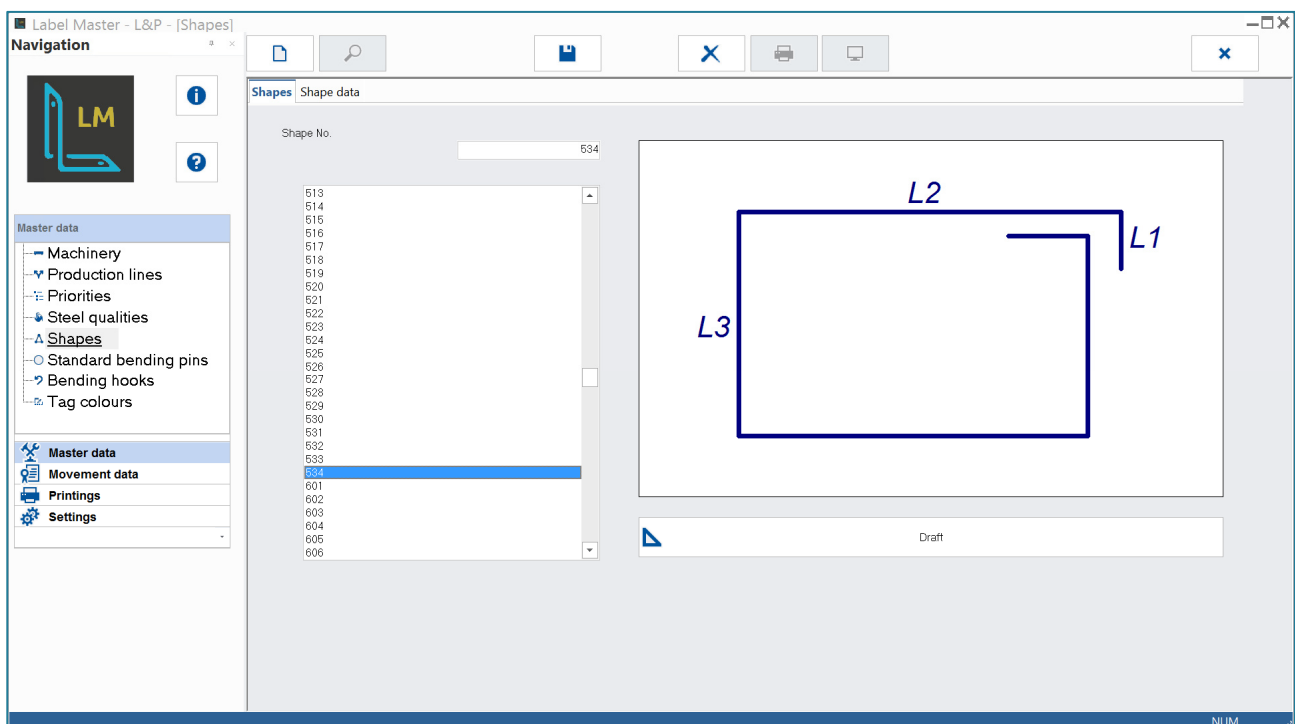


The programme is structured modularly and thus an optimal adaption to customer's requirements is possible.

FEATURES

MAINTAINING MASTER DATA

Inside the program LabelMaster you have the possibility to create and process shape codes. This includes also a simple graphical entry of the shape codes which are freely definable. Reduced lengths for the corresponding shape codes are calculated automatically by the program. An extensive shape code catalogue is already integrated to the program when it is installed.



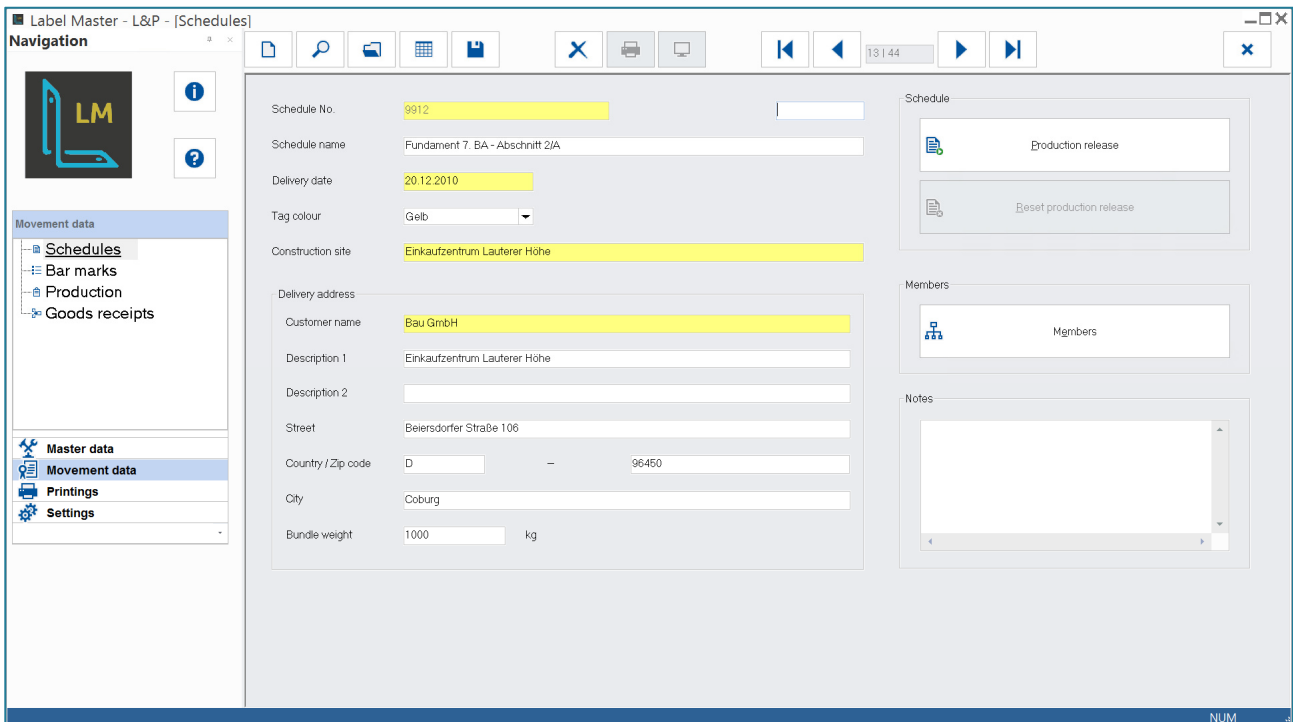
LabelMaster is able to manage steel grades easily. For each steel grade the available diameters can be entered and one steel grade can be defined as standard steel grade.

In the master data also your machinery can be entered and managed. Here you have the possibility to create machines and then to make free parameterization in case of a shearline. So for example cutting tolerances for straight and bent bars, details for head cut and the filling of the conveyor respectively the bins can be fixed. For the shearlines also a bin system can be created. With information of the number of channels as well as the bins therein the actual conveyor system for each shearline can be entered. There are information regarding channel and bin lengths, minimum and maximum length of bars and the use of channels where it can be divided according to straight and bent bars. The user has also the possibility to define the maximum number of bars which can be loaded at the same time. A flexible definition of the stock lengths, enabling the entry of particular lengths for the respective diameters in dependency of existing real stock lengths, completes the machinery. Following the existing machines can be pooled to production lines to meet the actual material flow during production.

DATA ENTRY

Input of schedules

Based on the master data then schedules can be entered and processed. The creation of a schedule includes the entry of schedule number and schedule description, delivery date, description of the construction site, the customer name and the dispatch address. Heavy bar marks can be separated automatically by entering a bundle weight. Following you will see the schedule dialogue.



For existing schedules then the bar marks can be created. These will be entered with bar mark number, quantity, steel grade and diameter as well as shape code number and the desired machine where the bar mark shall be produced. When creating priorities the allocation of machine can also be made automatically. The creation of the shape code dimensions is made by an easy graphical input.

Printing of the BBS

As an easy control of created bar marks the bar bending schedule (BBS) can be printed. This one gives you a list containing all bar marks of a schedule and also a graphical display of the shape code with the corresponding shape dimensions. Following you will see the printing of a BBS.

Following you will see the printing of BBS:

BEG_110001
Block B, Aufzugs-FT-Wände
 06.11.2009

Rot

LABELMASTER
 LabelMaster

Seite 13.03.2018
 1 / 1

Baustelle1
 Baustelle1

1 x
 06.11.2009

Rot

Pos.Nr	Stück	Stahlsorte	Durchmes	Länge	Gesamtlänge	Gewicht	Maschine	Biegeform
1		66 IV S	8	1,370	90,420	35,716	SB 1	622
2		4 IV S	12	3,260	13,040	11,580	SB 1	203
3		4 IV S	10	3,260	13,040	8,046	SB 1	203
4		8 IV S	12	2,250	18,000	15,984	SL 3	00
5		190 IV S	8	0,990	188,100	74,300	SB 1	203
6		128 IV S	6	0,990	126,720	28,132	SB 1	203
7		24 IV S	12	3,380	81,120	72,035	SL 3	00
8		16 IV S	10	3,850	61,600	38,007	SL 3	00
9		16 IV S	10	2,750	44,000	27,148	SL 3	00
10		130 IV S	8	1,100	143,000	56,485	SB 1	204
11		8 IV S	12	3,660	29,280	26,001	SB 1	203
12		100 IV S	8	0,550	55,000	21,725	SB 1	203

IV S	6	28,132
IV S	8	188,225
IV S	10	73,201
IV S	12	125,599
IV S		415,157

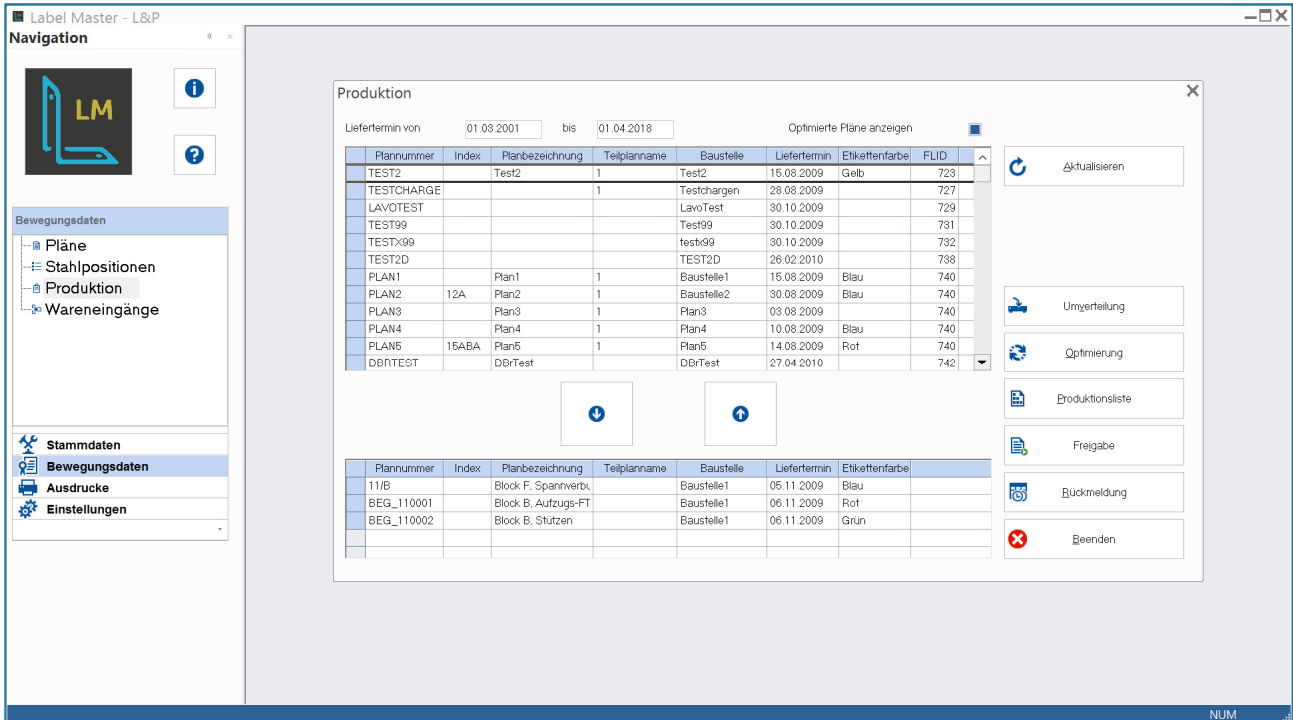
Anzahl Positionen: 12 Gesamtgewicht: 415,157

Verwendete Chargen: C13401

Furthermore there is a possibility to export the bar marks of a schedule to a spreadsheet application.

PRODUCTION

After the schedules has been released for production, they can be combined to production units. Furthermore a manual reallocation is available. Here the machine allocation for bar marks can be changed manually. For each involved machine a production list can be printed.



The screenshot displays the 'Label Master - L&P' software interface. On the left is a 'Navigation' sidebar with a tree view containing 'Pläne', 'Stahlpositionen', 'Produktion' (highlighted), and 'Wareneingänge'. Below this are sections for 'Bewegungsdaten', 'Stammdaten', 'Ausdrucke', and 'Einstellungen'. The main window is titled 'Produktion' and features a date range filter (01.03.2001 to 01.04.2018) and a checkbox for 'Optimierte Pläne anzeigen'. It contains two data tables and a list of action buttons on the right.

Table 1: Production Data

Plannummer	Index	Planbezeichnung	Teilplanname	Baustelle	Liefertermin	Etikettenfarbe	FLID
TEST2		Test2	1	Test2	15.08.2009	Gelb	723
TESTCHARGE				Testchargen	28.08.2009		727
LAVOTEST				LavoTest	30.10.2009		729
TEST99				Test99	30.10.2009		731
TESTX99				testx99	30.10.2009		732
TEST2D				TEST2D	26.02.2010		738
PLAN1		Plan1	1	Baustelle1	15.08.2009	Blau	740
PLAN2	12A	Plan2	1	Baustelle2	30.08.2009	Blau	740
PLAN3		Plan3	1	Plan3	03.08.2009		740
PLAN4		Plan4	1	Plan4	10.08.2009	Blau	740
PLAN5	15ABA	Plan5	1	Plan5	14.08.2009	Rot	740
DBRTEST		DBRTest		DBRTest	27.04.2010		742

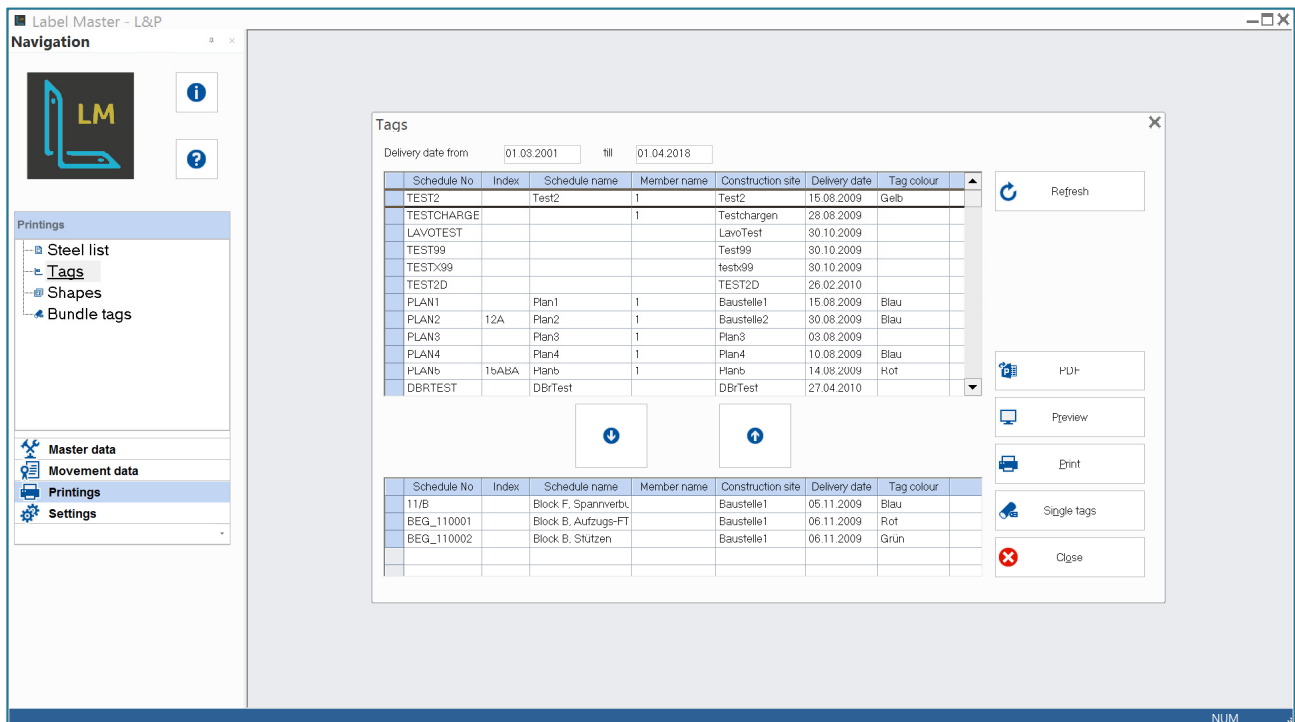
Table 2: Production List

Plannummer	Index	Planbezeichnung	Teilplanname	Baustelle	Liefertermin	Etikettenfarbe
11/B		Block F. Spannverbu		Baustelle1	05.11.2009	Blau
BEG_110001		Block B. Aufzugs-FT		Baustelle1	06.11.2009	Rot
BEG_110002		Block B. Stützen		Baustelle1	06.11.2009	Grün

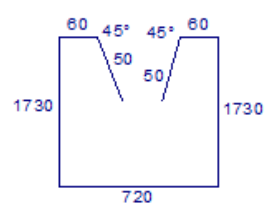

Action Buttons: Aktualisieren, Umverteilung, Optimierung, Produktionsliste, Freigabe, Rückmeldung, Beenden.

Tags

For the production of the bar marks in a schedule tags can be printed for the corresponding schedule. There the graphical display of the shape code with its dimensions is included. In addition it is also possible to print a PDF-barcode on the tag enabling an offline downloading of the machines. By means of reading the barcode there are no entry times on the machine and possible entry errors do not arise.



Following you will see the printing of tags:

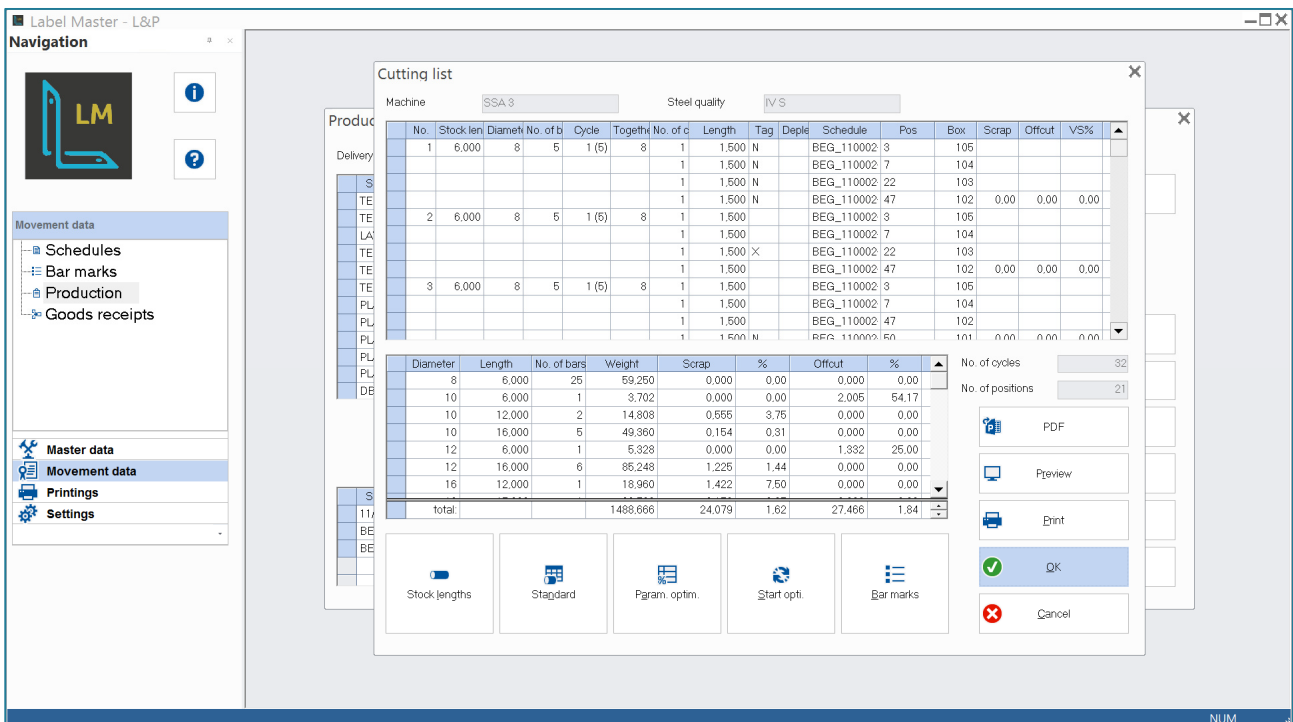
Site: Baustelle1 Schedule: 11/B		Weight: 16.914 kg Shed: 11/B	
No: 10 Ø: 8 mm Steel: Betonstahl Len.: 4.400 m DD: 05.11.2009 2 of 92		dBr: 80 mm Mark: 22 Mbr: Mark: 22 Bundle: 1 / 1	
		DD: 05.11.2009 Len.: 4.282 m Steel: Betonstahl 500 S	
Block F, Spannverbund		 SB 1 Bundle: 1 / 1	

Optimization

With the technical module you have the possibility to use a bar cutting optimization. When using the optimization the personnel expenditure on the machine can be reduced so that for the same working expenditure higher machine utilization and thus higher productivity will be reached. Another advantage of the optimization is the reduction of scrap and offcuts resulting in lower material cost. The optimization can be made schedule or diameter related. A schedule related optimization enables the fast production of a schedule whereas a diameter related optimization of several schedules enables minimum scrap and offcuts.








Cutting list

The result of the optimization is a cutting list with a PDF-barcode. With this PDF-barcode the data for each cutting cycle can be transferred to the machine. On the cutting list also a summary of the used stock lengths will be shown where you can see how many of the corresponding stock lengths have been used and what is about scrap and offcuts of each stock length.



The screenshot shows the 'Label Master - L&P' software interface. The 'Cutting list' window is open, displaying a table of cutting cycles. The table has columns: No., Stock len, Diameter, No. of b, Cycle, Together, No. of c, Length, Tag, Deple, Schedule, Pos, Box, Scrap, Offcut, and VS%. The data shows three cycles with different stock lengths (6,000, 12,000, 16,000) and diameters (8, 10, 12, 16). Below the table is a summary table with columns: Diameter, Length, No. of bars, Weight, Scrap, %, Offcut, and %. The summary table shows the total for each diameter and length combination. The interface also includes a navigation pane on the left with options like Schedules, Bar marks, Production, Goods receipts, Master data, Movement data, Printings, and Settings. At the bottom of the Cutting list window are buttons for Stock lengths, Standard, Param. optim., Start opti., Bar marks, PDF, Preview, Print, OK, and Cancel.

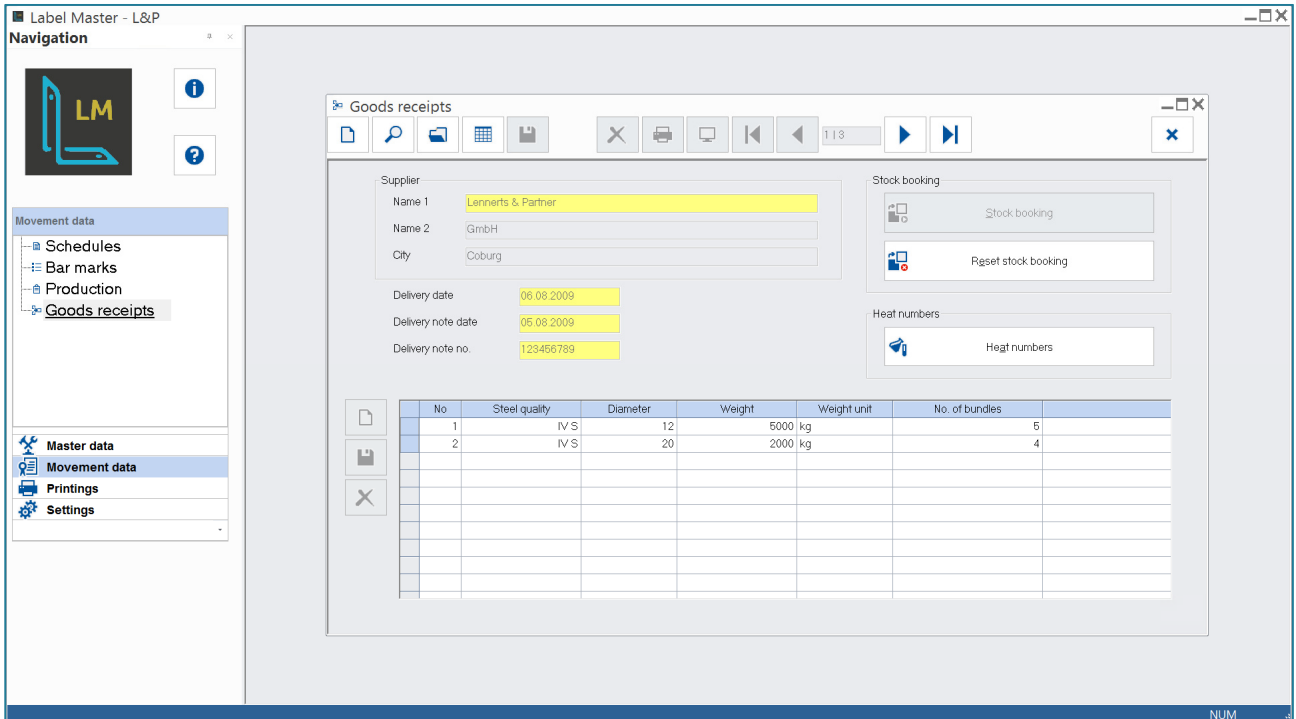
Following you will see the printing of a cutting list:

Cutting list														
Machine: Steel: IV											14.03.18	11:41	Page: 1 / 2	
Cycle	Bar	Diam	No	Pieces	Length	Cuts	Box	Tag	Deload	Order	Schedule	Bar mark	Result %	
1	14,00	12	5	5	5,110	1	101	N		22	PLAN1-1	4		
1			5	20	2,160	4	103	N/X		22	PLAN1-1	10	1,79	
														
2	16,00	12	2	6	5,110	3	101			22	PLAN1-1	4	4,19	
														
3	6,00	12	1	1	5,110	1	101	X	X	22	PLAN1-1	4	14,83	
														
4	6,00	16	20	20	2,215	1	401	N/X		22	PLAN1-1	1		
4			20	20	2,215	1	402	N/X		25	PLAN4-1	1		
4			20	40	0,754	2	403	N		22	PLAN1-1	2	1,03	
														
5	6,00	16	4	8	0,754	2	403	X		22	PLAN1-1	2		
5			4	8	2,215	2	404	N		25	PLAN4-1	2	1,03	
														
6	18,00	16	1	8	2,215	8	404			25	PLAN4-1	2	1,56	
														
7	6,00	16	2	4	2,215	2	404	X	X	25	PLAN4-1	2	26,17	
														
Bars				Scrap				Offcut						
12	6,00		1	5,328	0,790			14,83 %						
12	14,00		5	62,160	1,110			1,79 %						
12	16,00		2	28,416	1,190			4,19 %						
16	6,00		26	246,480	2,351			0,69 %	4,961	8,72 %				
16	18,00		1	28,440	0,442			1,56 %						
total:				370,824	5,884			1,59 %	4,961	1,34 %				

In addition to downloading of the machine via PDF barcode it is also possible to make downloading of the machines directly via cable. Here the machines can also resend feedback to the programme when a bar mark is produced.

Goods receipts

For material tracing and to verify the material certain bar marks are produced from, incoming material can be registered in the programme and allocated to the produced bar marks also during and after production.

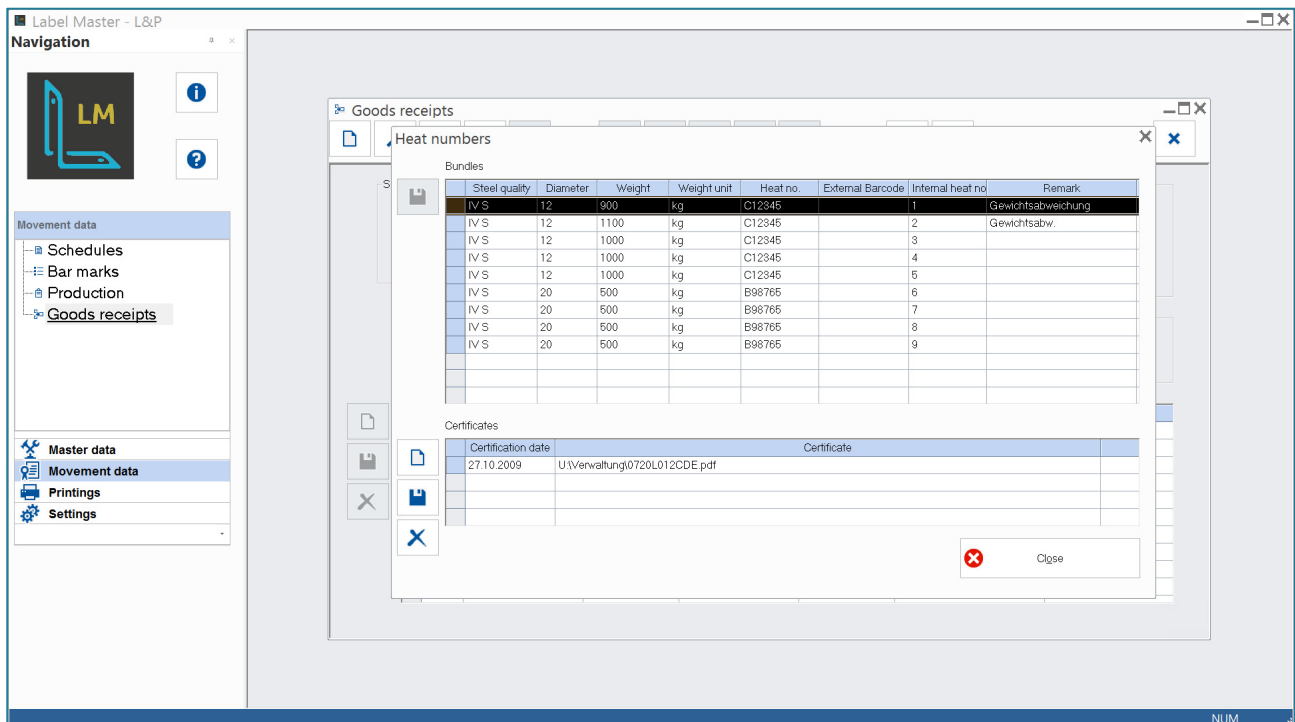


The screenshot shows the 'Goods receipts' window in the Label Master - L&P software. The window is divided into several sections:

- Navigation:** A sidebar on the left with a tree view containing 'Schedules', 'Bar marks', 'Production', and 'Goods receipts' (selected). Below this are buttons for 'Master data', 'Movement data', 'Printings', and 'Settings'.
- Supplier:** Fields for 'Name 1' (Lennerts & Partner), 'Name 2' (GmbH), and 'City' (Coburg).
- Delivery date:** 06.08.2009
- Delivery note date:** 05.08.2009
- Delivery note no.:** 123456789
- Stock booking:** Fields for 'Stock booking' and 'Reset stock booking'.
- Heat numbers:** A field for 'Heat numbers'.
- Table:** A table with 7 columns: No., Steel quality, Diameter, Weight, Weight unit, No. of bundles, and an empty column. It contains two rows of data.

No.	Steel quality	Diameter	Weight	Weight unit	No. of bundles	
1	IV S	12	5000	kg	5	
2	IV S	20	2000	kg	4	


Also linked and scanned certificates can be printed automatically when steel list will be printed.



If the bundle tags of the received material do not contain a barcode, it is possible to print bundle tags with barcode directly from the program.

Name 1: Lennerts & Partner	Delivery date: 06.08.2009
Name 2: GmbH	Delivery note date: 05.08.2009
City: Coburg	Delivery note no.: 123456789

Steel: IV S	Ø: 12	Weight: 900 kg
Heat no.: C12345	Internal Heat no.: 1	
Remark: Gewichtsabweichung		



40006000000219

Schedule import

It is not only possible to enter schedules and bar marks directly in the programme, but there is also the possibility to enter the schedules and bar marks in a pro-configured Excel-file and then to import these to the programme.

EXPANDABILITY AND INDIVIDUAL ADAPTATION

Already before installation the program LabelMaster can be provided with master data. Furthermore an individual adaptation of the printings is possible. The expandability of the program is given by updates to be installed easily.

SYSTEM REQUIREMENTS

Processor	Intel Dual-Core (Intel Core i5 recommended)
Memory (RAM)	4 GB RAM (8 GB recommended)
Memory (Hard disk)	3 GB free disk space (10 GB free disk space recommended)
Operating system	Microsoft Windows 7 Microsoft Windows 8 / 8.1 Microsoft Windows 10 Microsoft Server 2008 Microsoft Server 2012 Microsoft Server 2016
Printer	Laser printer including compatible driver

INFORMATIONEN

For questions concerning use of the software modules, please contact the LENNERTS & PARTNER GmbH.

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