Computer Marking System

Engraving System CMS-GRAV

Description

The CMS-GRAV 32 is based on a three-axis coordinate table with stepping motors and a ball screw free from play. The multiprocessor-based control drives the three axes and the tool changer.
The transparent safety cover allows optimum viewing of the work area from all sides. This is one of the most important elements of the comprehensive safety features.
The CMS-GRAV 32 has a processing area (x,y,z) of 500 x 500 x 75 mm and a maximum clamping range (x,y,z) of 850 x 750 x 150 mm.
The FF (fast frequency) spindle used has a capacity of 170 W and a max. torque of 60,000 rev/min. The special clamping pliers of the spindle are designed for processing tools with a shaft diameter of 3 mm.
A special tracing sleeve with the highly precise, spring-loaded spindle block permits mechanical surface scanning when slightly uneven workpieces are engraved. This ensures a constant engraving depth. The spring is automatically clamped during boring and milling work.
During metalworking, the tools are cooled with the coolant spraying device. Any chips that arise during the processing of plastics are removed with the suction device. This can be connected to a commercially available industrial vacuum cleaner.
The tool magazine with its 10 tool holders makes the CMS-GRAV 32 a fully automatic processing center which can be used to produce even complicated workpieces economically.
The precision end switch integrated in the tool magazine permits the tool change to be monitored and the length compensation data of the processing tools to be transferred.
When surface scanning is used, the depth of the engraving chisels is set with the adjusting device included in delivery.
The scope of supply includes the serial connection cable.

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Computer Marking System
Software CMS-MARK-WIN

Description

Professional labeling of systems and control cabinets is becoming increasingly important. CMS-MARK-WIN 2.0 was developed specially for this task.
Use is made of the advantages of the powerful Windows NT and Windows 95/98 operating systems.
The marking materials for terminal blocks, conductors, cables and electrical equipment are labeled with the labeling module. It is thus possible within just a brief period, to import and then further process the ASCII-format labeling as laid down in the CAD/CAE system during project planning.
For entering data by hand, there are a host of convenient functions, such as:
– enumeration,
– copy and duplication functions,
– input via variables.
The different marking materials to be labeled can be changed or added to as desired. Special symbols for electrical engineering are included as a standard and can also be altered and added to.
CMS-MARK-WIN 2.0 also includes a comprehensive graphics module. Using this CAD interface, all kinds of two-dimensional graphics can be created. For example to create:
– nameplates,
– frontplates,
– mimic diagrams,
– marker engraving.
The individual objects and steps are generated as graphics with the aid of a host of graphic functions.
Further special functions are also available:
– barcode,
– linear and circular scaling,
– marking panels on machines,
– circular inscription function,
– path correction with closed elements,
– symmetrical drilling patterns,
– import of graphics.
The entered drawings and graphics are displayed on the screen in WYSIWYG real graphic form. This makes a test print unnecessary.
CMS-MARK-WIN 2.0 allows labels to be printed, plotted, cut, milled and drilled. The choice of devices for the output of the projects is varied:
– CMS thermal transfer printer,
– Laser printer,
– Matrix printer,
– CMS plotter,
– CMS engraving machines.

All installed output devices are addressed parallel. It is possible to change to other Windows applications at any time.

CMS-GRAV...

Engraving / Milling system

2. Technical Data

Engraving/milling system CMS-GRAV 32

2.1 Description

	Type	Order No.	Pcs. Pkt.
Engraving/milling system, incl. FF spindle, tool magazine, coolant spray device, suction device and accessories	**CMS-GRAV 32**	**50 67 42 0**	1

2.2 Description accessories

	Type	Order No.	Pcs. Pkt.
Fixing rings, for pre-adjustment of the processing tools	**CMS-GRAV-WZ/ER**	**50 66 25 6**	50
Tool magazine insert, spare tool holder for the tool magazine	**CMS-GRAV-WZ-ME/32**	**50 67 43 3**	1
Spare clamping pliers, for tools with 3 mm shaft diameter	**CMS-GRAV-SZ 3/32**	**50 67 44 6**	1
Tracing sleeves, for mechanical surface scanning	**CMS-GRAV-ZNH 15/32**	**50 67 45 9**	1

2.3 General Data

Clamping area (X,Y,Z): 850 x 750 x 150 mm,
Processing range (X,Y,Z): 500 x 500 x 75 mm,
Operating voltage: 120/230 V AC 50/60 Hz, nominal current: 6 A/3 A

CMS-MARK-WIN

Labeling / Engraving Software

3. Technical Data

Labeling / Engraving Software

3.1 Description

Type	Order No.	Pcs. / Pkt.
CMS-MARK-WIN software, Version: German / English / Italian / French, for marking terminal blocks, conductors, cables and electrical equipment on the plotter, printer and engraving machine, including manual on CD	**CMS-MARK- WIN**	**50 67 64 0**	1

3.2 Description, Accessories

Type	Order No.	Pcs. / Pkt.
CMS-MARK-WIN-Demo software, of the CMS-MARK-WIN labeling software	**CMS-MARK-WIN-DEMO**	**50 67 97 0**	1
CMS-MARK-WIN software license, to authorize CMS-MARK-WIN-DEMO	**CMS-MARK-WIN-SW-LIZENZ**	**50 67 67 9**	1
CMS-MARK-WIN manual, for the CMS-MARK-WIN labeling software, in German and English	**CMS-MARK-WIN-UM**	**50 67 63 7**	1
CMS fonts, for CMS-MARK-WIN software, incl. description	**CMS-FONTS/WIN**	**50 67 70 5**	1

3.3 General Data

Functionality	
Input / storage of labeling data	yes / yes
Output of data (demo / full version)	no / yes
Import of data from CAD/CAE systems	yes
Material generator / special character generator	yes / yes
Minimum hardware requirements	
CPU	min. Pentium 75
Main memory	min. 16 MB / NT 4.0: min. 32 MB
Hard disk memory	min. 20 MB free
Interfaces	one per connected output device
CD-ROM drive / floppy drive	yes / yes, IBM-compatible 1,44 MB
Monitor	min. VGA with 640 x 480 resolution
Operating equipment	keyboard, mouse recommended
Operating systems	MS-Windows® 95 / 98, MS-Windows® NT

CMS Processing Tools

The CMS processing tools are designed for light engraving, milling and boring work. They are made of fully hardened metal and have an excellent tool life with consistently clean processing results. The shaft diameter is 3 mm.
All tools cut to the right and have a spiral groove.

Milling cutter, CMS-GTM
The two cutting edges have a specially shaped cut at the front. The milling cutters are suitable for processing aluminum, printed circuit boards and plastics.

Drills, CMS-GTD
The drills are designed for processing printed circuit boards, aluminum and non-ferrous metals.

Chisels, CMS-GTG
Because of their specially shaped cut, the chisels are especially suited to engraving plastics, printed circuit boards and aluminum.

CMS-GT...

Milling Cutter, Drills, Chisels

4. Technical Data

CMS Processing Tools

4.1 Description		Type	Order No.	Pcs. / Pkt.
Fully hardened steel cutter, 2 cutting edges,	milling width 0.4 mm	**CMS-GTM 0,4**	**50 66 74 8**	10
	milling width 1.0 mm	**CMS-GTM 1,0**	**50 66 75 1**	10
	milling width 2.0 mm	**CMS-GTM 2,0**	**50 61 66 2**	10
	milling width 3.0 mm	**CMS-GTM 3,0**	**50 66 77 7**	10
Milling cutter assortment, consists of 2 x CMS-GTM 0,4 to CMS-GTM 3,0		**CMS-GTM-SORTI**	**50 68 03 4**	1
Fully hardened steel drill,	drill diameter 0.6 mm	**CMS-GTD 0,6**	**50 66 78 0**	10
	drill diameter 0.8 mm	**CMS-GTD 0,8**	**08 03 79 9**	10
	drill diameter 0.9 mm	**CMS-GTD 0,9**	**50 66 80 3**	10
	drill diameter 1.0 mm	**CMS-GTD 1,0**	**50 66 81 6**	10
	drill diameter 1.3 mm	**CMS-GTD 1,3**	**50 66 72 2**	10
	drill diameter 1.4 mm	**CMS-GTD 1,4**	**50 66 83 2**	10
	drill diameter 2.0 mm	**CMS-GTD 2,0**	**50 66 84 5**	10
	drill diameter 3.0 mm	**CMS-GTD 3,0**	**50 66 85 8**	10
Drill assortment, consists of 1 x CMS-GTD 0,6 to CMS-GTD 3,0		**CMS-GTD-SORTI**	**50 66 86 1**	1
Fully hardened steel chisel, 1 cutting edge,	cutting width 0.1 mm	**CMS-GTG 0,1**	**50 66 53 1**	10
	cutting width 0.3 mm	**CMS-GTG 0,3**	**50 61 86 6**	10
	cutting width 0.5 mm	**CMS-GTG 0,5**	**50 66 54 4**	10
	cutting width 0.75 mm	**CMS-GTG 0,75**	**50 66 55 7**	10
	cutting width 1.0 mm	**CMS-GTG 1,0**	**50 61 87 9**	10
	cutting width 1.5 mm	**CMS-GTG 1,5**	**50 61 88 2**	10
	cutting width 3.0 mm	**CMS-GTG 3,0**	**50 66 56 0**	10
Chisel assortment, consists of 1 x CMS-GTG 0,1 to CMS-GTG 3,0		**CMS-GTG-SORTI**	**50 66 87 4**	1

CMS-GT...

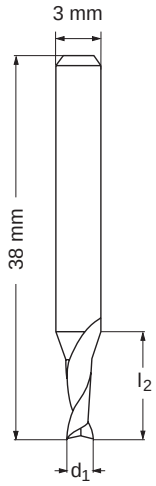
Milling Cutter, Drills, Chisels

4. Technical Data

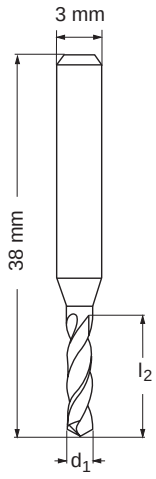
CMS Processing Tools

4.2 General Data

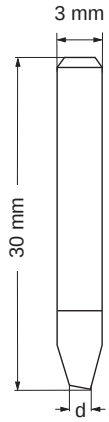
Dimensions		
Length	[mm]	38 (30 mm CMS-GTG)
Shaft diameter	[mm]	3
Material		hardened steel



Typ	d_1 [mm]	l_2 [mm]
CMS-GTM 0,4	0.4	3.0
CMS-GTM 1,0	1.0	5.0
CMS-GTM 2,0	2.0	9.0
CMS-GTM 3,0	3.0	12.0



Type	d_1 [mm]	l_2 [mm]
CMS-GTD 0,6	0.6	7.0
CMS-GTD 0,8	0.8	8.0
CMS-GTD 0,9	0.9	9.0
CMS-GTD 1,0	1.0	10.5
CMS-GTD 1,3	1.3	10.5
CMS-GTD 1,4	1.4	10.5
CMS-GTD 2,0	2.0	10.5
CMS-GTD 3,0	3.0	10.5



Type	d [mm]
CMS-GTG 0,1	0.1
CMS-GTG 0,3	0.3
CMS-GTG 0,5	0.5
CMS-GTG 0,75	0.75
CMS-GTG 1,0	1.0
CMS-GTG 1,5	1.5
CMS-GTG 3,0	3.0

CMS Vacuum Plates

The vacuum plates are used to fasten markers and plates of all processing sizes onto the engraving/milling machine reliably and quickly.
Rubber mats are used to achieve an absolutely rigid attachment of the engraving material to be processed.
The vacuum plate itself is fastened onto the engraving/milling machine with three quick-change clamps. Three fittings on the side allow the engraving material to be aligned at a right angle.

CMS-VAC...

Vacuum Plates

5. Technical Data

CMS Vacuum Plates

5.1 Description

Type	Order No.	Pcs. / Pkt.
Vacuum unit, incl. rubber mat, clamping area: 250 x 150 x 28 mm	**CMS-VAC-PL 1**	**50 61 80 8**	1
Vacuum unit, incl. rubber mat, as above, however, clamping area: 280 x 300 x 28 mm	**CMS-VAC-PL 2**	**50 61 81 1**	1
Vacuum unit, incl. rubber mat, as above, however, clamping area: 500 x 500 x 28 mm	**CMS-VAC-PL 3**	**50 66 52 8**	1
Rubber mat, for vacuum plate CMS-VAC-PL 1	**CMS-VAC-GHM 1**	**50 66 02 3**	1
Rubber mat, for vacuum plate CMS-VAC-PL 2	**CMS-VAC-GHM 2**	**50 66 01 0**	1
Rubber mat, for vacuum plate CMS-VAC-PL 3	**CMS-VAC-GHM 3**	**50 66 57 3**	1
Self-adhesive film, for vacuum plate CMS-VAC-PL 1 for vacuum plate CMS-VAC-PL 2	**CMS-VAC-F1** **CMS-VAC-F2**	**50 66 05 2** **50 66 06 5**	10 10

CMS Vacuum Aggregate

CMS-VAC-W5

Vacuum Aggregate

6. Technical Data

CMS Vacuum Aggregate

6.1 Description

Type	Order No.	Pcs. / Pkt.
Vacuum aggregate, intake capacity: 7.4 m^3/h, motor capacity: 0.37 kW, operating voltage: 230 V AC/50Hz	**CMS-VAC-W5**	**50 66 61 2**	1

Double Layer Engraving Material

The engraving material, GPK is a special double layer plastic for interior use. It has excellent engraving properties.
The material has a matt, non-reflecting surface with an extremely thin upper layer. This gives it the following advantages with regard to engraving:
– short processing time,
– higher tool life.
The plates are available in a variety of thicknesses and colors. The GPK/SK plates are finished with a high-grade adhesive foil which guarantees good adhesive properties on almost all surfaces.

GPK...

Engraving material

7. Technical Data

Double Layer Engraving Material

7.1 Description

Engraving plates,	L x W x H [mm]	Surface	Engraving
Material thickn. 0.8 mm	300 x 280 x 0.8		as required
Engraving plates,	L x W x H [mm]	Surface	Engraving
Material thickn. 1.5 mm	300 x 280 x 1.5	white	black
	300 x 280 x 1.5		as required
Engraving plates,	L x W x H [mm]	Surface	Engraving
Material thickn. 1.5 mm	610 x 610 x 1.5	white	black
	610 x 610 x 1.5		as required

Type	Order No.	Pcs. / Pkt.
GPK 300 x 280 x 0,8 ...	**08 06 06 8**	10
GPK 300 x 280 x 1,5 WH/BK	**50 31 91 9**	10
GPK 300 x 280 x 1,5 ...	**08 06 12 3**	10
GPK 610 x 610 x 1,5 WH/BK	**08 06 35 6**	10
GPK 610 x 610 x 1,5 ...	**08 06 42 4**	10

Ordering example: Engraving plates GPK

For 30 GPK 610 x 610 x 1,5... in white / red color (WH/RD), the order data is as follows:

Pcs.	Order No.	Designation
30	08 06 42 4	GPK 610 x 610 x 1,5 WH/RD

GPK/SK...

Engraving Material, self-adhesive

7. Technical Data

Double Layer Engraving Material, self-adhesive

7.2 Description

Engraving plates,	L x W x H [mm]	Surface	Engraving	**Type**	**Order No.**	Pcs. / Pkt.
Material thickn. 0.8 mm self-adhesive	300 x 280 x 0.8	silver	black	**GPK/SK 300 x 280 x 0,8 SR/BK**	**08 03 84 1**	10
	300 x 280 x 0.8	white	black	**GPK/SK 300 x 280 x 0,8 WH/BK**	**08 03 85 4**	10
	300 x 280 x 0.8	yellow	black	**GPK/SK 300 x 280 x 0,8 YE/BK**	**08 06 17 8**	10
	300 x 280 x 0.8		as required	**GPK/SK 300 x 280 x 0,8 ...**	**08 06 19 4**	10
Engraving plates,	L x W x H [mm]	Surface	Engraving			
Material thickn. 1.5 mm	300 x 280 x 1.5		as required	**GPK/SK 300 x 280 x 1,5 ...**	**08 06 28 8**	10
Engraving plates,	L x W x H [mm]	Surface	Engraving			
Material thickn. 0.8 mm self-adhesive	610 x 610 x 0.8	silver	black	**GPK/SK 610 x 610 x 0,8 SR/BK**	**08 06 48 2**	10
	610 x 610 x 0.8	white	black	**GPK/SK 610 x 610 x 0,8 WH/BK**	**08 06 43 7**	10
	610 x 610 x 0.8		as required	**GPK/SK 610 x 610 x 0,8 ...**	**08 06 50 5**	10
Engraving plates,	L x W x H [mm]	Surface	Engraving			
Material thickn. 1.5 mm self-adhesive	610 x 610 x 1.5	silver	black	**GPK/SK 610 x 610 x 1,5 SR/BK**	**08 06 56 3**	10
	610 x 610 x 1.5	white	black	**GPK/SK 610 x 610 x 1,5 WH/BK**	**08 06 51 8**	10
	610 x 610 x 1.5		as required	**GPK/SK 610 x 610 x 1,5 ...**	**08 06 58 9**	10

Ordering example: Engraving plates GPK / SK

For 50 GPK / SK 610 x 610 x 0,8... in blue / white color (BU/WH), the order data is as follows:

Pcs.	Order No.	Designation
50	08 06 50 5	GPK/SK 610 x 610 x 0,8 BU/WH

GPK... / GPK/SK...

Engraving Material

7. Technical Data

Double Layer Engraving Material

7.3 General Data

Material		**ABS**
Temperatur range	[°C]	– 20 to + 85
Color		see description

OCEAN CHIPS
Океан Электроники
Поставка электронных компонентов

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AVIC JONHON

«JONHON» (основан в 1970 г.)

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FORSTAR®

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