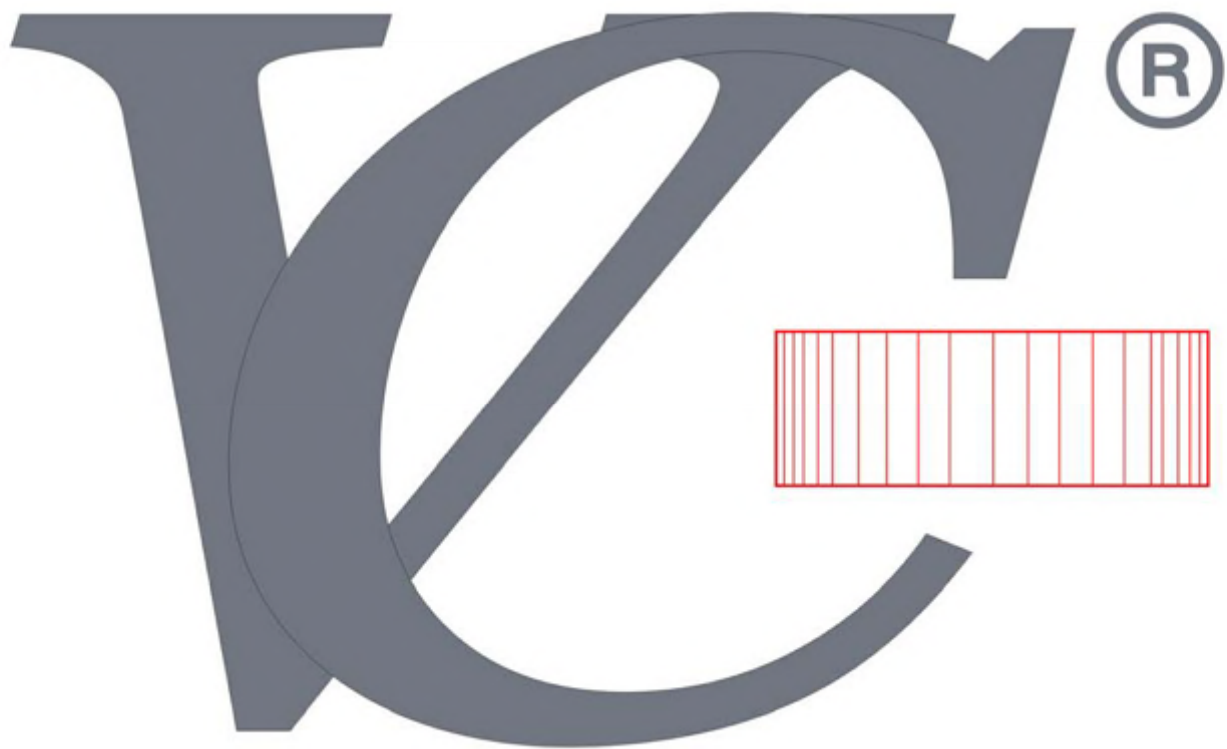


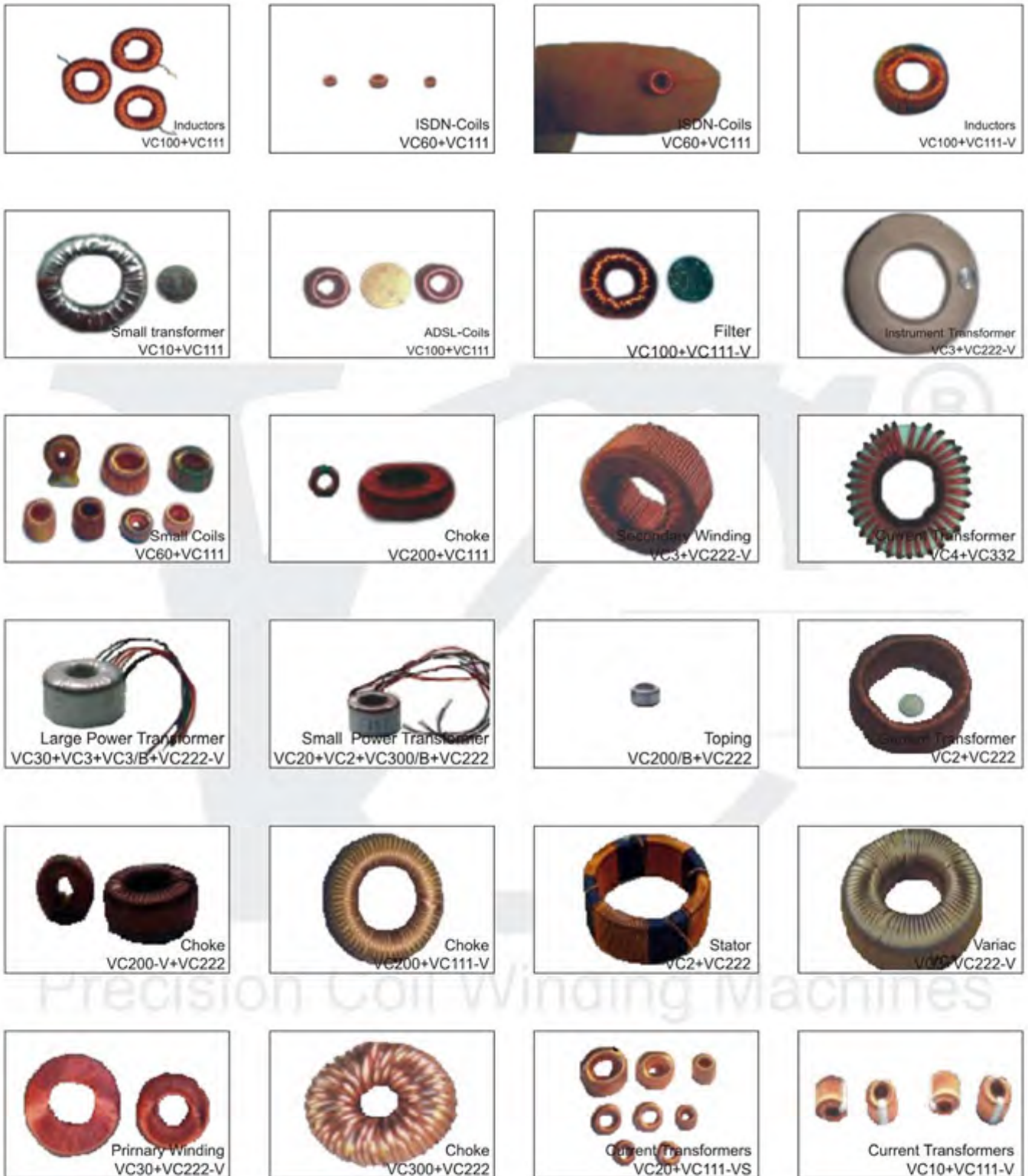
V&C GmbH



# Precision Toroidal Winding Machines



# PRODUCT EXAMPLES OVERVIEW



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Edition: April, 2012



# INTRODUCTION



We are specialised company with design and production in Germany .  
Our company has more than 25 years experience .

Our PC machine series are made with top servo motors and PLC controls from Jetter-Germany. Who is the leading supplier of controls and drives for coil winding machines. Our LCD machine series are made with first class servo motors and controls from Panasonic. All the other components are the best we could find on the world market .

We have our sights set on the future, for the benefit of our customers.

Louis Steven Veress  
Managing Director

Our group of companies offer you:

World Class Toroid Winders...

Complete range of Machines...

Interchangeable Heads, Tables and Magazines...

Ultimate flexibility in your Production...

Over 25 years of experience...

Worldwide after sales network...

Quality+Competitive prices+Good Service...

For more information please visit our website;  
[www.vc-machinery.com](http://www.vc-machinery.com)

## LCD Machine Series



## PC Machine Series



## DH Machine Series







# BENCH MACHINES: CORE OD' S & WIRE SIZES

Precision Coil Winding Machines



VC-MINI

PRODUCTION	mm	Inch/AWG
Single wire size	0,05 - 1,00	44 - 18
Bifilar wire size	2 x 0,8	2 x 20
Finished Core O.D.	5,0 - 70,0	0,2 - 2,75
Finished Core I.D.	From 1,5	From 0,06
Finished Core Height	Up to 25,4	Up to 1,0
Tape Size	4 - 10	0,157 - 0,394

ROLLER TABLE	CORE OD	
VC111-MINI	5-30 mm	0,2-1,18 Inch
VC111-V-MINI	16-51 mm	0,4-1,98 Inch
VC111-VS-MINI	20-70 mm	1,60-2,75 Inch
SLIDER HEADS	WIRE SIZE	
VC10-MINI	0,05-0,30 mm	44-28,5 AWG
VC20-MINI	0,07-0,70 mm	40-21 AWG
BELT HEADS	WIRE SIZE	
VC60-MINI	0,06-0,60 mm	42,5-26 AWG
VC100-MINI	0,07-0,9 mm	41-21 AWG
VC200-MINI	0,30-1,60 mm	28,5-14 AWG



VC-STANDARD  
VC-STANDARD-PC

PRODUCTION	mm	Inch/AWG
Single wire size	0,05 - 2,5	44 - 10 <sub>0</sub>
Bifilar wire size	2 x 1,8	2 x 13 <sub>0</sub>
Finished Core O.D.	5,0 - 300	0,2 - 12
Finished Core I.D.	From 1,5	From 0,06
Finished Core Height	Up to 150	Up to 5,9
Tape Size	4 - 30	0,05 - 1,18

ROLLER TABLE	CORE OD	
VC111	5-30 mm	0,2-1,18 Inch
VC111-V	16-51 mm	0,43-2,00 Inch
VC112	20-70 mm	0,787-2,75 Inch
VC222	25-150 mm	1,040 Inch
VC222-V	40-150 mm	1,57-6,0 Inch
VC332	60-300 mm	2,36-12 Inch
VC333-V	80-500mm	3,15-20 Inch

SLIDER HEADS	WIRE SIZE	
VC10	0,05-0,30 mm	44-28,5 AWG
VC20	0,07-0,70 mm	40-21 AWG
VC30	0,10-1,00 mm	38-18 AWG

GEAR HEADS	WIRE SIZE	
VC0	0,1-0,6 mm	38-23 AWG
VC1	0,20-1,0 mm	32-18 AWG
VC2	0,20-1,60 mm	30-15,5 AWG
VC3	0,40-2,36 mm	26-11 AWG
VC3,5	0,40-3,0 mm	26-9 AWG
VC4	0,40-3,5 mm	26-7,5 AWG

BELT HEADS	WIRE SIZE	
VC60	0,06-0,60 mm	42,5-26 AWG
VC100	0,07-0,9 mm	41-21 AWG
VC200-V	0,30-1,60 mm	25-14 AWG
VC250	0,25-1,8 mm	26-11,5 AWG
VC300	0,30-1,8 mm	26-14 AWG

TAPING HEADS	TAPE SIZE	
VC200/B	4-10 mm	0,157-0,394 Inch
VC300/B	6-17 mm	0,238-0,40 Inch
VC0/B and 1/B	4-13 mm	0,237-0,512 Inch
VC2/B and 3/B	9-30 mm	0,238-1,18 Inch
VC4/B	10-30 mm	0,394-1,18 Inch



VC-HEAVY  
VC-HEAVY-PC

PRODUCTION	mm	Inch/AWG
Single wire size	0,05 - 3,55	44 - 7 <sub>0</sub>
Bifilar wire size	2 x 2,00	2 x 12 <sub>0</sub>
Finished Core O.D.	5,0 - 500	0,2 - 20
Finished Core I.D.	From 1,5	From 0,06
Finished Core Height	Up to 150	Up to 5,9
Tape Size	4 - 30	0,05 - 1,18

ROLLER TABLE	CORE OD	
VC111	5-30 mm	0,2-1,18 Inch
VC111-V	16-51 mm	0,63-2,00 Inch
VC112	20-70 mm	0,787-2,75 Inch
VC222	25-150 mm	1,0-6,0 Inch
VC222-V	40-150 mm	1,57-6,0 Inch
VC332	60-300 mm	2,36-12 Inch
VC333-V	80-500mm	3,15-20 Inch

SLIDER HEADS	WIRE SIZE	
VC10	0,05-0,30 mm	44-28,5 AWG
VC20	0,07-0,70 mm	40-21 AWG
VC30	0,10-1,00 mm	38-18 AWG

GEAR HEADS	WIRE SIZE	
VC0	0,1-0,6 mm	38-23 AWG
VC1	0,20-1,0 mm	32-18 AWG
VC2	0,20-1,60 mm	32-15,5 AWG
VC3	0,40-2,36 mm	26-11 AWG
VC4	0,40-3,5 mm	26-7,5 AWG

BELT HEADS	WIRE SIZE	
VC60	0,06-0,60 mm	42,5-26 AWG
VC100	0,07-0,9 mm	41-21 AWG
VC200-V	0,30-1,60 mm	25-14 AWG
VC250	0,25-1,8 mm	26-11,5 AWG
VC300	0,30-1,8 mm	26-14 AWG

TAPING HEADS	TAPE SIZE	
VC200/B	4-10 mm	0,157-0,394 Inch
VC300/B	6-17 mm	0,238-0,40 Inch
VC0/B and 1/B	4-13 mm	0,237-0,512 Inch
VC2/B and 3/B	9-30 mm	0,238-1,18 Inch
VC4/B	10-30 mm	0,394-1,18 Inch



# FLOOR MACHINES: CORE OD' S & WIRE SIZES



VC-FLOOR  
VC-FLOOR-PC



VC-FLOOR-SLIDE  
VC-FLOOR-SLIDE-PC



VC55  
VC55-PC

PRODUCTION	mm	Inch/AWG
Single wire size	0,40 - 4,50	26 - 5
Bifilar wire size	2 x 3,5	2 x 7
Finished Core O.D.	85 - 1200	2,55 - 40
Finished Core I.D.	From 25	From 1,0
Finished Core Height	Up to 250	Up to 9,84
Tape Size	9 - 25	0,35 - 1,0

ROLLER TABLE	CORE OD	
VC333-V	80-500 mm	3,15-20 Inch
VC333-VS1	110-500 mm	4,33-20 Inch
VC333-VS2	250-1000 mm	9,84-39,57 Inch
VC444	100-800 mm	3,94-31,50 Inch
VC444-EP	200-1200 mm	7,87-47,25 Inch

WINDING HEADS	WIRE SIZE	
VC44	0,4-3,55 mm	26-7 AWG
VC45-V	0,4-4,50 mm	26-5 AWG

TAPING HEADS	TAPE SIZE	
VC44/B	9-25 mm	0,35-1,0 Inch
VC45/B	9-25 mm	0,35-1,0 Inch

PRODUCTION	mm	Inch/AWG
Single wire size	0,40 - 4,50	26 - 5
Bifilar wire size	2 x 3,5	2 x 7
Finished Core O.D.	85 - 1200	2,55 - 40
Finished Core I.D.	From 25	From 1,0
Finished Core Height	Up to 250	Up to 9,84
Tape Size	9 - 25	0,35 - 1,0

ROLLER TABLE	CORE OD	
VC333-V	80-500 mm	3,15-20 Inch
VC333-VS1	110-500 mm	4,33-20 Inch
VC333-VS2	250-1000 mm	9,84-39,57 Inch
VC444	100-800 mm	3,94-31,50 Inch
VC444-EP	200-1200 mm	7,87-47,25 Inch

WINDING HEADS	WIRE SIZE	
VC44	0,4-3,55 mm	26-7 AWG
VC45-V	0,4-4,50 mm	26-5 AWG

TAPING HEADS	TAPE SIZE	
VC44/B	9-25 mm	0,35-1,0 Inch
VC45/B	9-25 mm	0,35-1,0 Inch

PRODUCTION	mm	Inch/AWG
Single wire size	0,80 - 7,50	20 - 1
Bifilar wire size	2 x 4,5	2 x 5
Finished Core O.D.	100 - 800	3,94 - 31,5
Finished Core I.D.	From 60	From 2,36
Finished Core Height	Up to 300	Up to 11,8
Tape Size	15 - 30	0,6 - 1,18

ROLLER TABLE	CORE OD	
VC555	100-800 mm	3,94-32 Inch

WINDING HEADS	WIRE SIZE	
VC55	0,8-7,5 mm	20-1 AWG

TAPING HEADS	TAPE SIZE	
VC55/B	15-30 mm	0,6-1,18 Inch

Precision Coil Winding Machines

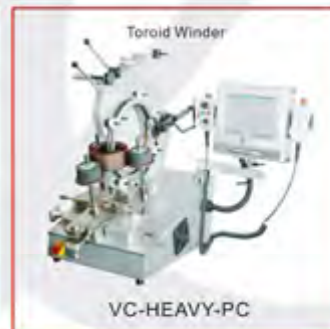
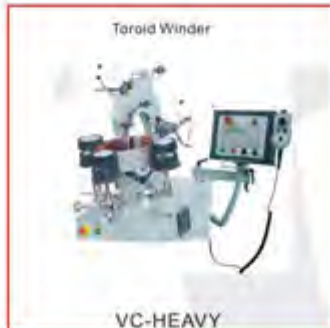




## LCD Machine Series


First class Technology and Components:

- **Servo motors and Controls**, from Panasonic
- **VC-Quick-Programming-System** with 6 parameters in less than 1 minute
- **VC-Teach-In-System** with auto save of adjusted values and quick programming knob for immediate change of any parameter
- **Set up in very short time**-new operators can handle the machine immediately with clearly positioned buttons and switches



## PC Machine Series

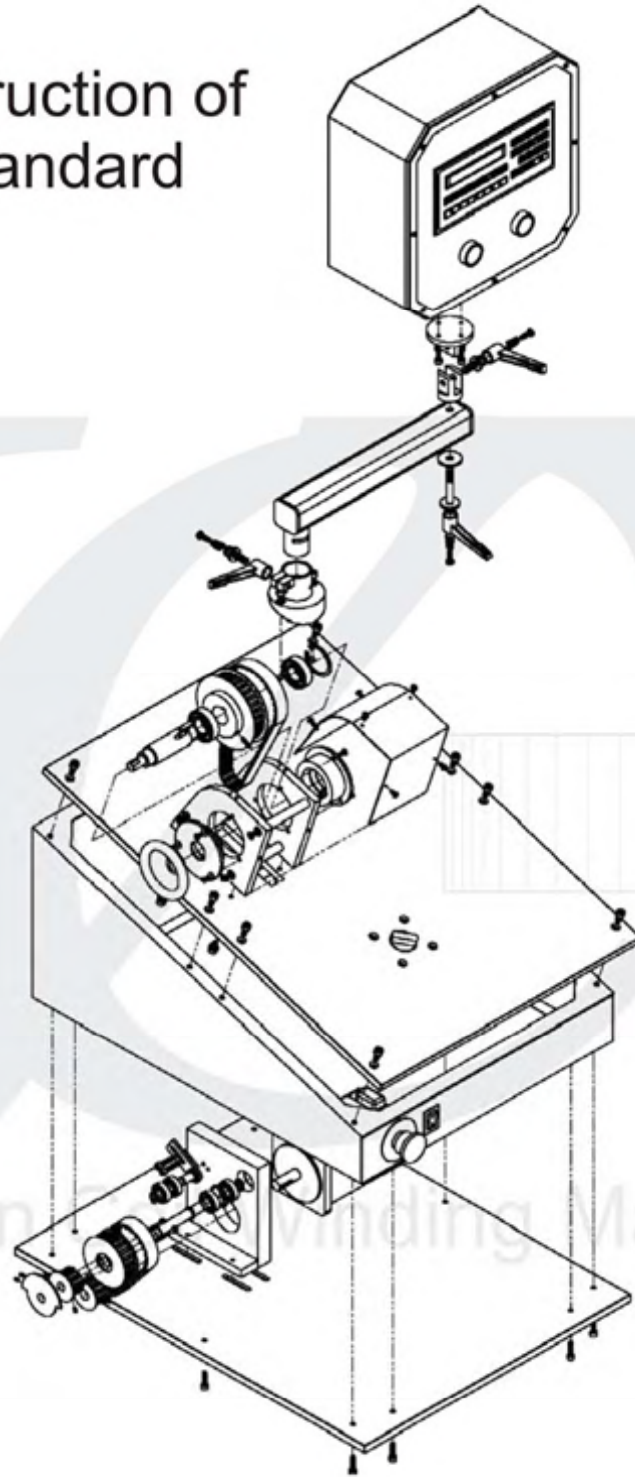
High-End Technology from Jetter-Germany:

- Jet-PLC Control  Extensible Product Support, fast, flexible, future orientated
- Jet-Move-Servo Control Better coil positioning and wire placing, faster speed, more torque
- PC With Large Touch Screen and XP Win-XP, Network, USB, Ethernet, W-LAN, automatic winding program calculation, self-learning and much more

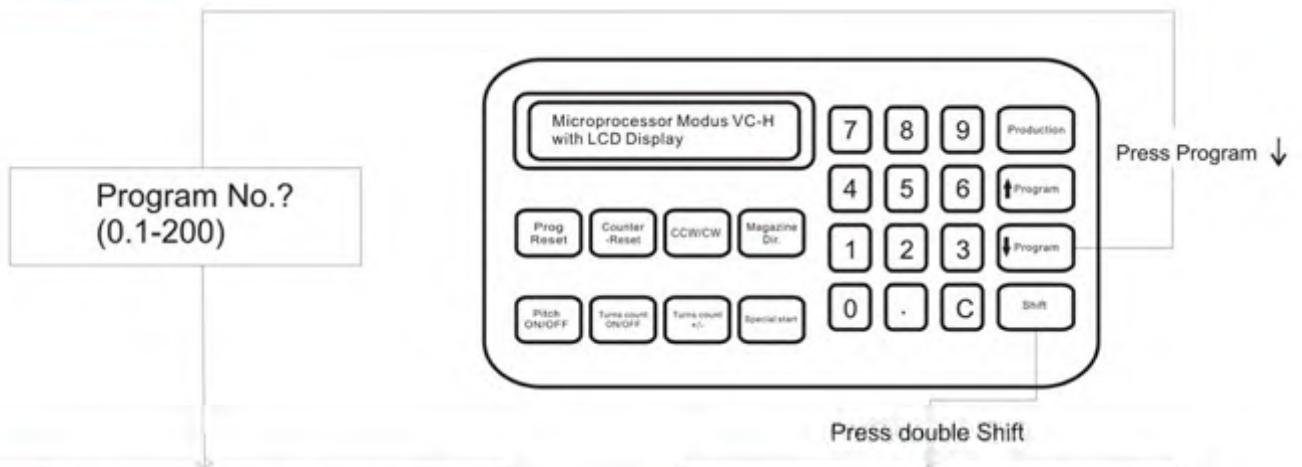
World Class Quality  
Made in Germany



## Construction of VC-Standard







Coil Winding Program	Operator Instruction
Prog no? (01-200) 1	Press PRODUCTION button. Enter the program No.
Load? (Yes, No=Shift) Yes S01/01	Select whether loading functions needed. Use shift button to select.
Load turns? (1-9999) 20 S01/02	Enter the loading turns.
Wind turns? (0-9999) 200 S01/03	Enter the winding turns.
Pitch per turn? (0-3 STEPS) 0.1 S01/04	Enter the pitch step per turn.
Wind CW turns? (0-9999) 100 S01/05	Enter the CW winding turns.
Wind CCW turns? (0-9999) 100 S01/06	Enter the CCW winding turns.
Load accel? (1-100%) 10% S01/07	Enter the loading acceleration.
Load top speed? (1-100%) 50% S01/08	Enter the top speed for loading.
Load slow turns? (0-200) 3 S01/09	Enter the slow turns for deceleration at the end of loading.
Load decel? (1-100%) 95% S01/10	Enter the loading deceleration.
Load finish speed? (1-100%) 10% S01/11	Enter the loading finish speed.
Wind accel? (1-100%) 10% S01/12	Enter the winding acceleration.
Winding top speed? (1-100%) 60% S01/13	Enter the top speed for winding.
Wind slow turns? (0-200) 2 S01/14	Enter the slow turns for deceleration at the end of winding.
Wind decel? (1-100%) 95% S01/15	Enter the winding deceleration.
Winding fin speed? (1-100%) 10% S01/16	Enter the winding finish speed.
Core start dir? (CW,CCW=Shift) CCW S01/17	Enter the winding start direction.
Stop after wind? (Yes, No=Shift) Yes S01/18	Select stop or not after winding.
Core Index? (CW,CCW, No-Shift) CCW S01/19	Select core index or not after winding.
Teach Distance index? 0.200 JS+C+JS+SHIFT S01/20	1) Move core JS to start POS 2) Press "C" for counter reset 3) Move core JS to end pos and watch display counting distance 4) Press Shift-Short for save
Stop after index? (Yes, No=Shift) Yes S01/21	Select stop after index.
Next sequence? (Yes, No=Shift) Yes S01/22	Select whether next sequence is needed.

Machine Set up Program	Operator Instruction
Head type? (Belt, Tape=Shift) Belt (1)	Select the winding head.
Table type? (Stop, Rev... =Shift) Top (2)	Select the roller table
Mag. joystick speed? (1-100%) 100 (3)	Enter the magazine joystick speed.
Mag. joystick accel? (1-100%) 1 (4)	Enter the magazine joystick accel.
Core joystick speed? (STOP MODE) (1-100%) 100 (5)	Enter the core joystick speed in stop mode.
Core joystick accel? (1-100%) 1 (6)	Enter the core joystick accel.
Index speed? (1-100%) 100 (7)	Enter the index speed.
Cut action delay? (0.5-10.0Sec) 8.9 (8)	Enter the cut signal output keeping time (Tape head only).
Batch quantity? (Pos) 5 (9)	Display the finish product quantity.
Machine Usage? (hours) 55h (10)	Display the controller using time.
Reset counter? (Yes/No=Shift) Yes (11)	Select the counting mode (cumulated to next sequence Yes/No)
IN:00000000 00000000 OUT:0000000000 0/000 (12)	For testing all machine functions, buttons & Sensors
Ver: SFL2AAB5-14 Date: 2011/04/15 (13)	Display the version NO and the date of the software
Machine NO. ? Send or Rec Data to PC 0	
Over turns count: (Yes/No) Yes (14)	Select if counting for over turns
Motor 1 ALARM mode: (Pass (N.C., Pass=Shift) Pass (15)	Select the signal mode when changing the servo motor supplier 3 options: N.C. / N.O. / PASS
Core Joystick Speed (RUN MODE) (1-100) 50 (16)	Enter the speed for core index when using joystick in Run Mode
Auto Lock -379923 (17)	Auto lock delay
Language English (18)	Select language
Special ST step (1-22) 2	Enter the special step where you want to change.
Special ST turns (1-9999) 20	Enter the special turns you want to change.

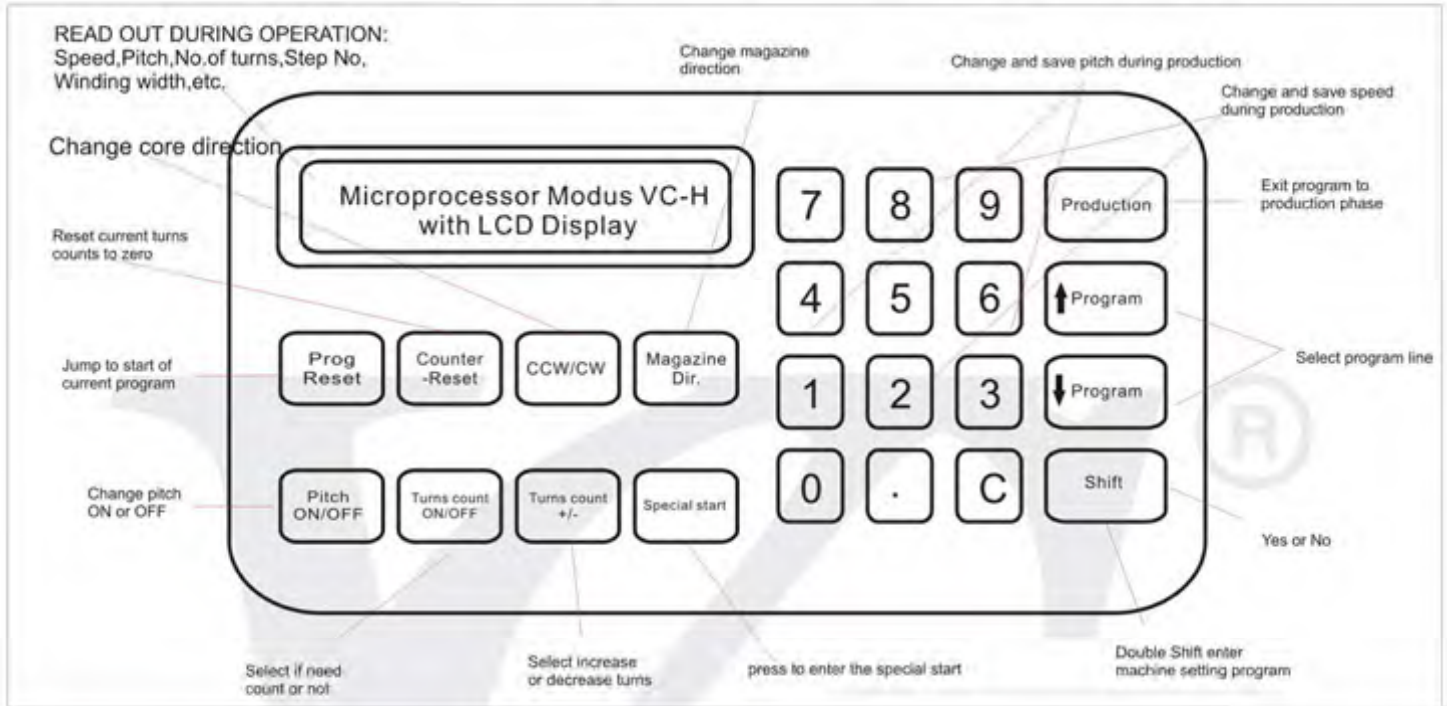




# OPERATING OVERVIEW LCD CONTROLLER



Microprocessor with LCD display and easy programming with user friendly text commands:



## PLUG AND PLAY

**Programming in less than 1 minute** with the new V&C Quick Programming System that needs the programming of major functions only (Load turns, Wind turns, Pitch) while retaining all programmable functions known today in the toroid winding industry.

**Perfect machine control** with 3 standard speed control options: Foot-pedal, Hand-control or Start automatic for selection of the most suitable control system for your application.

**Machine set up in less than 1 minute** with the V&C Teach-in System that enables pitch and speed adjustment during winding with automatic saving of the improved value.

**Change Program** with the new Quick programming knob you have immediate access to all parameters.

## PERFECT PRODUCTION CONTROL



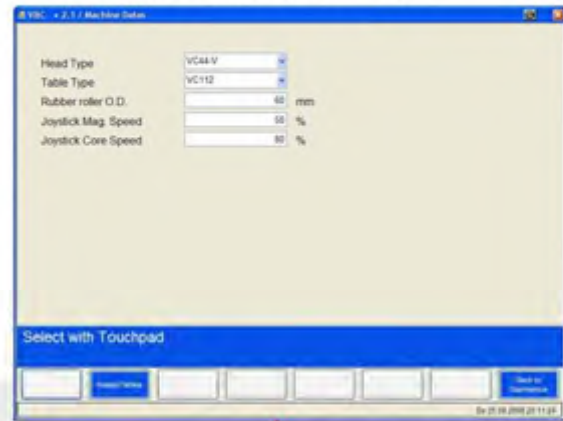


# PROGRAMMING OVERVIEW PC-CONTROLLER

Precision Coil Winding Machines



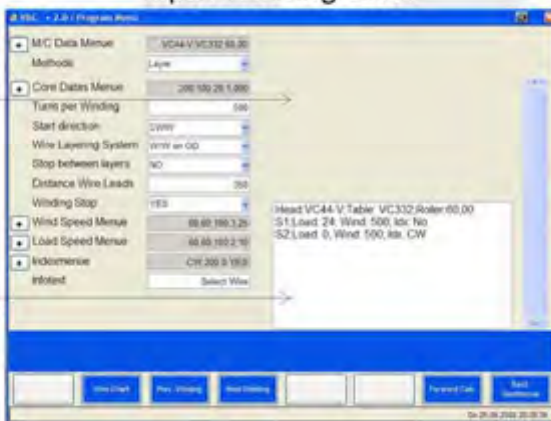
## Input Machine Data



## Input Winding Data

Window for graphical display of functions

Window for overview of programmed sequences



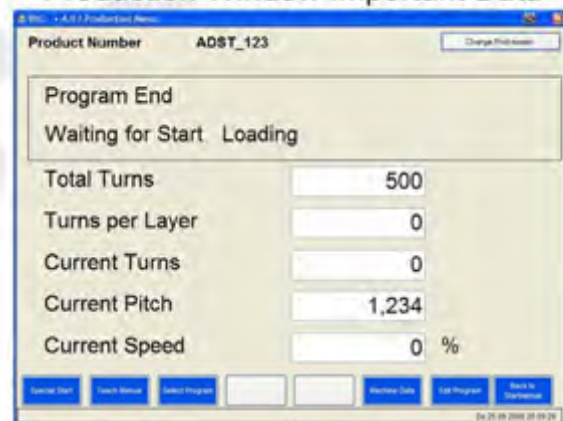
## Calculated Winding Program



## Production Window All Data



## Production Window Important Data



PERFECT PRODUCTION CONTROL





# OPERATING OVERVIEW PC-CONTROLLER

## Technical Details:

- \*Touch Screen 12,1
- \*RAM Memory: 1 GB
- \*Front Access: 1 x USB 2,0



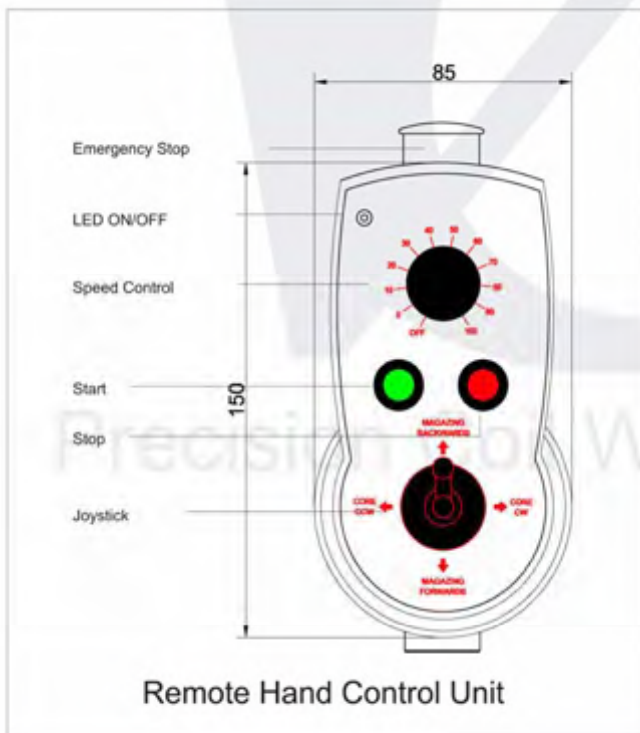
- \*Rear Access:  
1 x Ethernet 10/100 Mbps



## Advantages:

- VC Machine Software runs on all standard XP PCs
- WIN-XP, Network, USB, Ethernet, W-LAN
- Automatic Winding Program Calculation
- Multi Language Selection
- Self learning by VC Teach-In system
- User-friendly Help-Screens
- Graphical explanations
- Large Touch Screen
- Production LOG-File

Operator Touch Screen



## EXAMPLES OF MACHINE COMBINATIONS

VC-MINI Machine Series				
	Winding Head:	VC10-MINI	VC20-MINI	VC60-MINI
	Table:	VC111-MINI	VC111V-MINI	VC111-MINI
	Application:	Special Variac	Stator	Inductor



VC-MINI Machine Series				
	Winding Head:	VC60-MINI	VC100-MINI	VC200-MINI
	Table:	VC111-MINI	VC111-V-MINI	VC111-V-MINI
	Application:	Inductor	Choke	Choke





# VC-MINI

The VC-MINI is a Hi-Tech bench machine with easy to see LCD display and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed with modern components, microprocessor control and precision servo motor for core drive, servo motor for head drive. Typical jobs for the VC-MINI are all general and sophisticated winding applications with small coils.

The VC-MINI is supplied with operator lamp and wire dereeler.



Illustration: VC-MINI, VC111-V-MINI, VC20-MINI

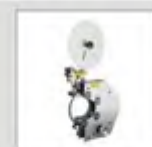
## TECHNICAL DATA

- CONTROLLER:**  
MICROPROCESSOR CONTROLLER
- DISPLAY:**  
LCD-DISPLAY WITH BACKGROUND ILLUMINATION:  
CONTINUOUS READ OUT OF OPERATION DETAILS
- PROGRAM CAPACITY:**  
THE CAPACITY IS VARIABLE, I.E. :  
8000 PROGRAMS WITH 1 SEQUENCE  
200 PROGRAMS WITH 40 SEQUENCES  
1 PROGRAMS WITH 8000 SEQUENCES
- PROGRAMMING:**  
USER FRIENDLY TEXT COMMANDS
- DATA MEMORY AND OUTPUT:**  
INTERFACE FOR PC  
INTERFACE FOR SOFTWARE UPDATES
- WINDING SPEED:**  
UP TO 1800 RPM  
SEPARATELY PROGRAMMABLE LOAD SPEEDS  
SEPARATELY PROGRAMMABLE WIND SPEEDS
- CORE DRIVE:**  
SERVO MOTOR 0,20 KW.
- WIRE PITCH CONTROL:**  
FULLY AUTOMATIC PITCH CHANGE,  
PROGRAMMABLE IN STEPS OF 0,001MM
- CORE INDEX & REVERSE CONTROL:**  
FULLY AUTOMATIC
- ACCELERATION & DECELERATION:**  
FULLY AUTOMATIC
- STOPS FOR TAPS:**  
AUTOMATIC
- SECTOR & BANK WINDING CONTROL:**  
FULLY AUTOMATIC
- WINDING HEAD DRIVE:**  
SERVO MOTOR 0.40 KW
- TAPING OPERATION:**  
FULLY AUTOMATIC
- SUPPLY VOLTAGES:**  
230 (110 AND 240) VOLT, 50 HZ AC
- MACHINE SIZE AND WEIGHT:**  
700x600 MM ,80 KG NET, 110 KG GROSS

COMBINATIONS
5 interchangeable heads
2 Slicer heads: VC10-MINI, VC20-MINI
3 Belt heads: VC40-MINI, VC100-MINI, VC200-MINI
3 Roller tables: VC111-MINI, VC111-V-MINI, VC111-VS-MINI

PRODUCTION	mm	inch/AWG
Single wire size	0,05 - 1,00	44 - 18
Bifilar wire size	2 x 0,8	2 x 20
Finished Core O.D.	5,0 - 70,0	0,2 - 2,75
Finished Core I.D.	From 1,5	From 0,06
Finished Core Height	Up to 25,4	Up to 1,0
Tape Size	4 - 10	0,157 - 0,394

Small coils, winding and taping





Precision Coil Winding Machines

## OPERATING OVERVIEW VC-STANDARD



Precision Coil Winding Machines





# VC-STANDARD



The VC-STANDARD is a Hi-Tech bench machine with LCD display modul with 2 text lines and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed with modern components: microprocessor control, servo motor for head drive and precision servo motor for core drive. The user friendly software guides the operator thru the programming with clear text commands. Typical jobs for the VC-STANDARD are general taping and winding jobs as well as sophisticated applications.



Illustration: VC-STANDARD, VC222-V, VC3

## TECHNICAL DATA

### CONTROLLER:

MICROPROCESSOR CONTROLLER

### DISPLAY:

LCD-DISPLAY WITH BACKGROUND ILLUMINATION:  
CONTINUOUS READ OUT OF OPERATION DETAILS

### PROGRAM CAPACITY:

THE CAPACITY IS VARIABLE, I.E. :  
8000 PROGRAMS WITH 1 SEQUENCE  
200 PROGRAMS WITH 40 SEQUENCES  
1 PROGRAMS WITH 8000 SEQUENCES

### PROGRAMMING:

USER FRIENDLY TEXT COMMANDS  
SEPARATE MENU FOR BASIC SET UP

### DATA MEMORY AND OUTPUT:

INTERFACE FOR PC  
INTERFACE FOR SOFTWARE UPDATES

### WINDING SPEED:

UP TO 1800 RPM  
SEPARATELY PROGRAMMABLE LOAD SPEEDS  
SEPARATELY PROGRAMMABLE WIND SPEEDS

### CORE DRIVE:

SERVO MOTOR 0,30 KW.

### WIRE PITCH CONTROL:

FULLY AUTOMATIC PITCH CHANGE  
PROGRAMMABLE IN STEPS OF 0.001MM

### CORE INDEX & REVERSE CONTROL:

FULLY AUTOMATIC

### ACCELERATION & DECELERATION:

FULLY AUTOMATIC

### STOPS FOR TAPS:

AUTOMATIC

### SECTOR & BANK WINDING CONTROL:

FULLY AUTOMATIC

### TAPING OPERATION:

FULLY AUTOMATIC

### WINDING HEAD DRIVE:

SERVO MOTOR 0.8KW

### SUPPLY VOLTAGES:

230 (110 AND 240) VOLT, 50 HZ AC

COMBINATIONS
23 Interchangeable heads
4 Slider heads VC10, VC20, VC30, VC40
6 Gear rack heads VC0, VC1, VC2, VC3, VC3.5, VC4
5 Belt heads VC60, VC100, VC200, VC200-V, VC250-V, VC300
7 Taping heads VC0/B, VC1/B, VC2/B, VC3/B, VC4/B, VC200/B, VC300/B
6 Roller tables VC111, VC111-V, VC112, VC222, VC222-V, VC332

PRODUCTION	mm	Inch/AWG
Single wire size	0,05 - 2,5	44 - 11
Bifilar wire size	2 x 1,8	2 x 13 <sub>0</sub>
Finished Core O.D.	5,0 - 300	0,2 - 12
Finished Core I.D.	From 1,5	From 0,06
Finished Core Height	Up to 150	Up to 5,9
Tape Size	4 - 30	0,05 - 1,18

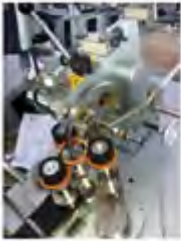



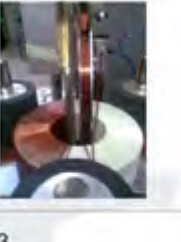











Starter Pack for Transformers

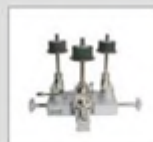




Precision Coil Winding Machines

## EXAMPLES OF MACHINE COMBINATIONS

VC-STANDARD Machine Series				
Winding Head:	VC20	VC0	VC2	VC3
Table:	VC222	VC222	VC222-V	VC332
Application:	Current transformer	CT	Transformer	Special Variac
VC-STANDARD Machine Series				
Winding Head:	VC3	VC3	VC30	VC300-B
Table:	VC222-V	VC222-V	VC222-V	VC222-V
Application:	Secondary Winding	Secondary Winding	Primary Winding	Primary Taping
VC-STANDARD Machine Series				
Winding Head:	VC200-V	VC3	VC3	VC3
Table:	VC112	Segment Holder	VC222-V	Flat Coil Table
Application:	Choke Winding	Segmental Coil	Variable Auto Transformer with Guide Plates	Rectangular Current Transformer
VC-STANDARD Machine Series				
Winding Head:	VC3-B	VC2	VC3	VC3-B
Table:	Large Transport Table	Parallel Winding Table	Segment Holder	Large Transport Table





# VC-STANDARD-PC



The VC-STANDARD-PC is a Hi-Tech bench machine with PLC control and PC with touch screen and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed with servo motor for head drive and servo motor for core drive. The user friendly software guides the operator thru the programming with clear graphical commands. Typical jobs for the VC-STANDARD-PC are general taping and winding jobs as well as sophisticated applications.



Illustration: VC-STANDARD-PC, VC222-V, VC30

## TECHNICAL DATA

### CONTROLLER:

PLC CONTROL

### DISPLAY:

TOUCH SCREEN 12.1",MULTI LANGUAGES

### PROGRAM CAPACITY:

UNLIMITED

OPERATION SYSTEM WINDOWS XP

### PROGRAMMING:

AUTOMATIC CALCULATION OF COIL PROGRAM

USER FRIENDLY GRAPHICAL SCREENS

### DATA MEMORY AND OUTPUT:

USB, CABLE NETWORK , W-LAN, ETHERNET

### WINDING SPEED:

UP TO 1800 RPM

### CORE DRIVE:

JET-MOVE-SERVO MOTOR 0,40 KW/0,95Nm.

### WIRE PITCH CONTROL:

FULLY AUTOMATIC PITCH CHANGE

PROGRAMMABLE IN STEPS OF 0.001MM

### CORE INDEX & REVERSE CONTROL:

FULLY AUTOMATIC

### ACCELERATION & DECELERATION:

FULLY AUTOMATIC

### STOPS FOR TAPS:

AUTOMATIC

### SECTOR& BANK WINDING CONTROL:

FULLY AUTOMATIC

### TAPING OPERATION:

FULLY AUTOMATIC

### WINDING HEAD DRIVE:

SERVO MOTOR 0.8KW/3,3Nm

### SUPPLY VOLTAGES:

230 (110 AND 240) VOLT, 50 HZ AC

### MACHINE SIZE AND WEIGHT:

800700 MM ; 100 KG NET, 130 KG GROSS

COMBINATIONS
23 Interchangeable heads
4 Slider heads VC10,VC20, VC30, VC40
6 Gear rack heads VC0, VC1, VC2, VC3, VC3,5, VC4
6 Bell heads VC60,VC100,VC200, VC200-V,VC250-V,VC300
7 Taping heads VC0/B, VC1/B, VC2/B, VC3/B, VC4/B, VC200/B,VC300/B
6 Roller tables VC111,VC111-V,VC112,VC222,VC222-V,VC332

PRODUCTION	mm	Inch/AWG
Single wire size	0,05 - 2,5	44 - 10 <sub>12</sub>
Bifilar wire size	2 x 1,8	2 x 13 <sub>12</sub>
Finished Core O.D.	5,0 - 300	0,2 - 12
Finished Core I.D.	From 1,5	From 0,06
Finished Core Height	Up to 150	Up to 5,9
Tape Size	4 - 30	0,05 - 1,18

Starter Pack for Transformers





Precision Coil Winding Machines

Heavy  
Duty  
Applications





# VC-HEAVY

The VC-HEAVY is a Hi-Tech bench machine with easy to read LCD display and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed with modern components: microprocessor control, servo motor for head drive and servo motor for core drive. The user friendly software guides the operator thru the programming with clear text commands. Typical jobs for the VC-HEAVY are general and heavy duty applications. The machine is very strong and heavy and it has a powerful SERVO MOTOR with 1,5 KW for the head drive, therefore, it can handle thick wires at high speed.



Illustration: VC-HEAVY, VC333-V, VC4

## TECHNICAL DATA

### CONTROLLER:

MICROPROCESSOR CONTROLLER

### DISPLAY:

LCD-DISPLAY WITH BACKGROUND ILLUMINATION:  
CONTINUOUS READ OUT OF OPERATION DETAILS

### PROGRAM CAPACITY:

THE CAPACITY IS VARIABLE, I.E. :  
8000 PROGRAMS WITH 1 SEQUENCE  
200 PROGRAMS WITH 40 SEQUENCES  
1 PROGRAM WITH 8000 SEQUENCES

### PROGRAMMING:

USER FRIENDLY TEXT COMMANDS

### DATA MEMORY AND OUTPUT:

INTERFACE FOR PC  
INTERFACE FOR SOFTWARE UPDATES

### WINDING SPEED:

UP TO 1500 RPM  
SEPARATELY PROGRAMMABLE LOAD SPEEDS  
SEPARATELY PROGRAMMABLE WIND SPEEDS

### CORE DRIVE:

SERVO MOTOR 0,40 KW.

### WIRE PITCH CONTROL:

FULLY AUTOMATIC PITCH CHANGE

### CORE INDEX & REVERSE CONTROL:

FULLY AUTOMATIC

### ACCELERATION & DECELERATION:

FULLY AUTOMATIC

### STOPS FOR TAPS:

AUTOMATIC

### SECTOR & BANK WINDING CONTROL:

FULLY AUTOMATIC

### WINDING HEAD DRIVE:

SERVO MOTOR 1.5 KW

### SUPPLY VOLTAGES:

230 (110 AND 240) VOLT, 50 HZ AC

### MACHINE SIZE AND WEIGHT:

800X700 MM ;150 KG NET, 200 KG GROSS

COMBINATIONS
18 Interchangeable heads
3 Slider head VC20, VC30, VC40
4 Gear Rack Heads VC2, VC3, VC3.5, VC4
4 Belt Head, VC200, VC200-V, VC250-V, VC300
7 Taping heads VC0/B, VC1/B, VC2/B, VC3/B, VC4/B, VC200/B, VC300/B
4 Roller tables VC222, VC222-V, VC332, VC333-V

PRODUCTION	mm	Inch/AWG
Single wire size	0,05 - 3,55	44 - 7 <sub>1/2</sub>
Bifilar wire size	2 x 2,00	2 x 12 <sub>1/2</sub>
Finished Core O.D.	5,0 - 500	0,2 - 20
Finished Core I.D.	From 1,5	From 0,06
Finished Core Height	Up to 150	Up to 5,9
Tape Size	4 - 30	0,05 - 1,18

Heavy Duty Jobs





## EXAMPLES OF MACHINE COMBINATIONS

VC-HEAVY Machine Series			
Winding Head:	VC2	VC3	VC4
Table:	VC222-V	VC222-V	VC333-V
Application:	CT with wire 2x1,0mm	Litzwire 30x0,50mm	Choke heavy wire 2,5mm
VC-HEAVY Machine Series			
Winding Head:	VC200	VC200V	VC200V
Table:	VC112V	VC112	VC112
Application:	Choke heavy wire 1,5mm	Choke heavy wire 1,6mm	Current compensated Choke heavy wire
VC-HEAVY Machine Series			
Winding Head:	VC4	VC4	VC4/B
Table:	VC333-V	VC333-V	VC333-V
Application:	Current Transformer	Distribution Transformer	Bare Core Taping
VC-HEAVY Machine Series			
Winding Head:	VC4/B	VC4	VC4
Table:	VC333-V	VC444-V	VC333-V
Application:	Primary Taping	Instrument Transformer	Instrument Transformer

Heavy  
Duty  
Applications





# VC-HEAVY-PC



The VC-HEAVY-PC is a Hi-Tech bench machine with PLC control and PC with touch screen and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed with servo motor for head drive and servo motor for core drive. The user friendly software guides the operator thru the programming with clear graphical screens. Typical jobs for the VC-HEAVY-PC are general and heavy duty applications. The machine is very strong and heavy and it has a powerful SERVO MOTOR with 1,5 KW for the head drive, therefore, it can handle thick wires at high speed.



## TECHNICAL DATA

**CONTROLLER:**  
PLC CONTROL

**DISPLAY:**  
TOUCH SCREEN 12.1",MULTI LANGUAGES

**PRESETS:**  
UNLIMITED  
OPERATION SYSTEM WINDOWS XP

**PROGRAMMING:**  
AUTOMATIC CALCULATION OF COIL PROGRAM  
USER FRIENDLY GRAPHICAL SCREENS

**DATA MEMORY AND OUTPUT:**  
USB, CABLE NETWORK ,W-LAN,ETHERNET

**WINDING SPEED:**  
UP TO 1800 RPM

**CORE DRIVE:**  
JET-MOVE-SERVO MOTOR 0,40 KW/0,95Nm.

**WIRE PITCH CONTROL:**  
FULLY AUTOMATIC PITCH CHANGE  
PROGRAM PARAMETER IS STEPS OF 0,001MM

**CORE INDEX & REVERSE CONTROL:**  
FULLY AUTOMATIC

**ACCELERATION & DECELERATION:**  
FULLY AUTOMATIC

**STOPS FOR TAPS:**  
AUTOMATIC

**SECTOR & BANK WINDING CONTROL:**  
FULLY AUTOMATIC

**WINDING HEAD DRIVE:**  
SERVO MOTOR 1,5 KW/6,3Nm

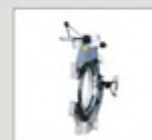
**SUPPLY VOLTAGES:**  
230 (110 AND 240) VOLT, 50 HZ AC

**MACHINE SIZE AND WEIGHT:**  
800x700 MM 150 KG NET, 200 KG GROSS

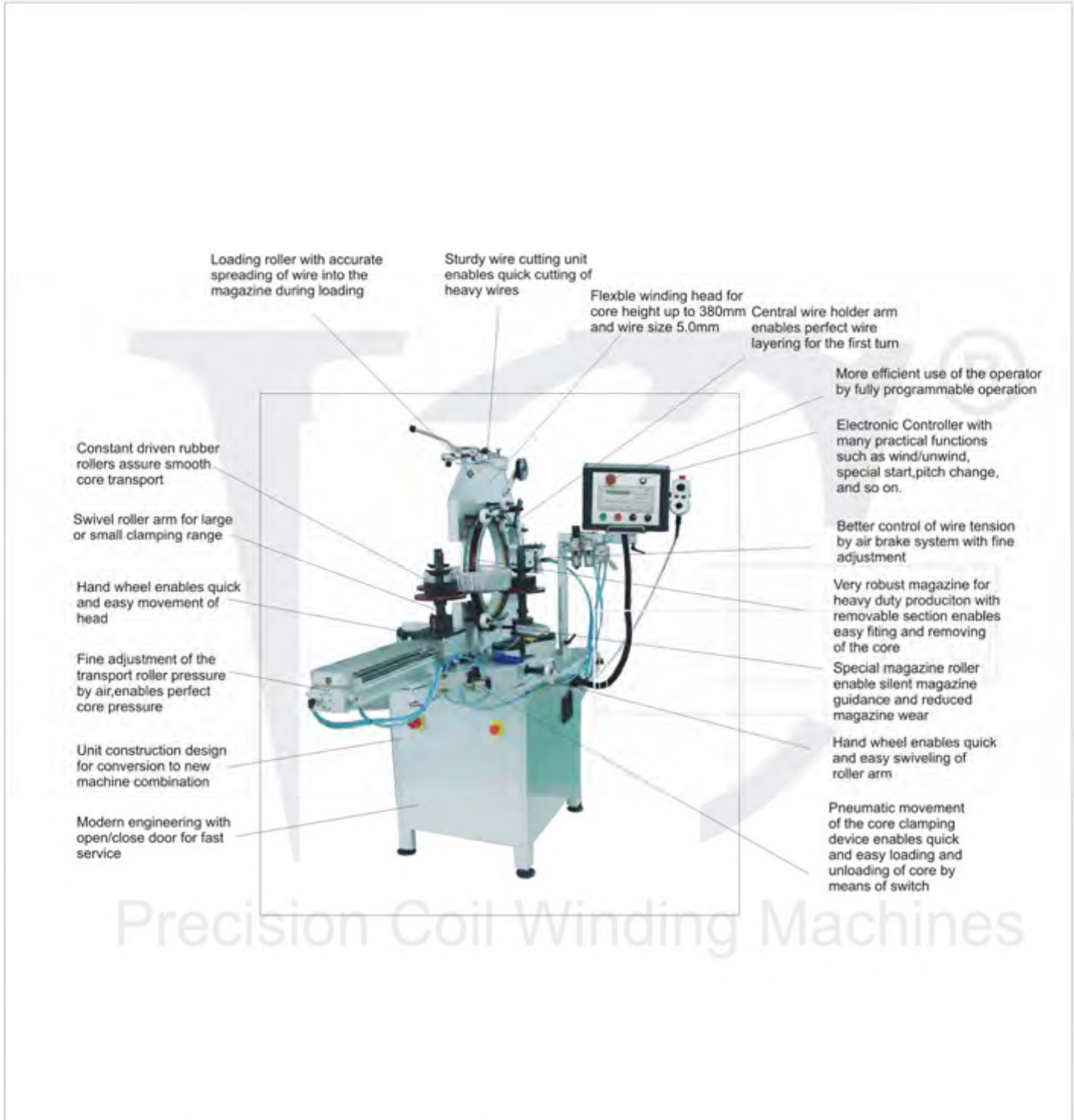
Illustration: VC-HEAVY-PC, VC332, VC4

COMBINATIONS	PRODUCTION	mm	Inch/AWG
23 Interchangeable heads	Single wire size	0,05 - 3,55	44 - 7 <sub>1/2</sub>
4 Slider heads VC10,VC20, VC30, VC40	Bifilar wire size	2 x 2,00	2 x 12 <sub>10</sub>
6 Gear rack heads VC0, VC1, VC2, VC3, VC3.5, VC4	Finished Core O.D.	5,0 - 500	0,2 - 20
6 Bell heads VC60, VC100,VC200, VC200-V,VC250-V,VC300	Finished Core I.D.	From 1,5	From 0,06
7 Taping heads VC0/B, VC1/B, VC2/B, VC3/B, VC4/B, VC200/B,VC300/B	Finished Core Height	Up to 150	Up to 5,9
6 Roller tables VC111,VC111-V,VC112,VC222, VC222-V,VC332,VC333-V	Tape Size	4 - 30	0,05 - 1,18

Heavy  
Duty  
Jobs



# OPERATING OVERVIEW VC-FLOOR



Heavy Duty Applications





The VC-FLOOR is a Hi-Tech machine with easy to read LCD display and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed for very heavy applications and built with strong and modern components: microprocessor control, heavy SERVO motor for head drive and strong servo motor for core drive. The software guides the operator thru the programming with clear text commands. The user friendly programming and the clearly positioned control knobs make the VC-FLOOR extremely fast to set up and very easy to use. Typical applications for the VC-FLOOR are general jobs with large cores or winding applications with heavy round or flat wires.



## TECHNICAL DATA

**CONTROLLER:**  
MICROPROCESSOR CONTROLLER

**DISPLAY:**  
LCD-DISPLAY WITH BACKGROUND ILLUMINATION: CONTINUOUS READ OUT OF OPERATION DETAILS

**PROGRAM CAPACITY:**  
THE CAPACITY IS VARIABLE, I.E. :  
8000 PROGRAMS WITH 1 SEQUENCE  
200 PROGRAMS WITH 40 SEQUENCES  
1 PROGRAM WITH 8000 SEQUENCES

**PROGRAMMING:**  
USER FRIENDLY WITH TEXT COMMANDS  
SEPARATE MENU FOR BASIC SET UP

**DATA MEMORY AND OUTPUT:**  
INTERFACE FOR PC  
INTERFACE FOR SOFTWARE UPDATES

**WINDING SPEED:**  
UP TO 160 RPM  
SEPARATELY PROGRAMMABLE LOAD SPEEDS  
SEPARATELY PROGRAMMABLE WIND SPEEDS

**CORE DRIVE:**  
SERVO MOTOR 1.5KW

**WIRE PITCH CONTROL:**  
FULLY AUTOMATIC PITCH CHANGE,  
PROGRAMMABLE IN STEPS OF 0,001MM

**CORE INDEX & REVERSE CONTROL:**  
FULLY AUTOMATIC

**ACCELERATION & DECELERATION:**  
FULLY AUTOMATIC

**STOPS FOR TAPS:**  
AUTOMATIC

**SECTOR & BANK WINDING CONTROL:**  
FULLY AUTOMATIC

**TAPING OPERATIONS:**  
FULLY AUTOMATIC

**WINDING HEAD DRIVE:**  
SERVO MOTOR 2, 0 KW

**SUPPLY VOLTAGES:**  
230 (110 AND 240) VOLT, 50 HZ AC







**MACHINE SIZE AND WEIGHT:**  
1100 x 1100 MM, 600 KG NET, 700 KG GROSS

COMBINATIONS	PRODUCTION	mm	Inch/AWG
4 Interchangeable heads	Single wire size	0,40 - 4,50	26 - 5
1 Gear Rack Winding Head VC44	Bifilar wire size	2 x 2,80	2 x 9 <sub>0</sub>
1 Gear Rack Winding Head VC45-V	Finished Core O.D.	65 - 1200	2,55 - 40
1 Gear Rack Taping Head VC44/B	Finished Core I.D.	From 25	From 1,0
1 Gear Rack Taping Head VC45/B	Finished Core Height	Up to 380	Up to 14,96
5 Roller tables VC333-V, VC333-VS1, VC333-VS2, VC444, VC444-EP	Tape Size	9 - 25	0,35 - 1,0



Precision Coil Winding Machines

## EXAMPLE OF MACHINE COMBINATIONS AND OVERVIEW MACHINE COMPONENTS VC-FLOOR-PC

<b>VC-FLOOR-PC Machine Series</b>			
Winding Head:	VC45-B	VC45-BU2	VC45-BU2
Table:	VC333-VS1	VC333-VS1	VC333-VS1
Application:	Secondary Winding	Tape Dispensers	Tape Dispensers
<b>VC-FLOOR-PC Machine Series</b>			
Winding Head:	VC45-V	VC45-V	VC45-V
Table:	VC333-VS1	VC444-EP	VC333-VS1
Application:	Choke	Current Transformer	Instrument Transformer
<b>VC-FLOOR-PC Machine Series</b>			
Winding Head:	VC44-B	VC44-B	VC44BU2
Table:	VC444	VC444	VC444
Application:	Current Transformer taping	Instrument Transformer taping	Instrument Transformer taping
<b>VC-FLOOR-PC Machine Series</b>			
Machine Component	Open machine base right side view	VC-Floor-PC with open door	Air pressure break
<b>VC-FLOOR-PC Machine Series</b>			
Machine Component	Drive Motors	Pulled out Electro-Station	Touch Screen

Heavy Duty Applications





# VC-FLOOR-PC



The VC-FLOOR-PC is a Hi-Tech machine with PLC control and PC with touch screen and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed for very heavy applications and built with strong heavy SERVO motors for head drive and for core drive. The software guides the operator thru the programming with clear graphical commands. The user friendly remote hand control system and remote switch control system make the VC-FLOOR-PC extremely fast to set up and very easy to use. Typical applications for the VC-FLOOR-PC are general and sophisticated jobs with large cores or winding applications with heavy round or flat wires.



## TECHNICAL DATA

**CONTROLLER:**  
PLC CONTROL

**DISPLAY:**  
TOUCH SCREEN 12.1",MULTI LANGUAGES

**PROGRAM CAPACITY:**  
UNLIMITED  
OPERATION SYSTEM WINDOWS XP

**PROGRAMMING:**  
USER FRIENDLY WITH GRAPHICAL SCREENS  
AUTOMATIC CALCULATION OF COIL PROGRAM

**DATA MEMORY AND OUTPUT:**  
USB,CABLE NETWORK, W-LAN,ETHERNET

**WINDING SPEED:**  
UP TO 160 RPM

**CORE DRIVE:**  
SERVO MOTOR 0,8KW/3,3Nm

**WIRE PITCH CONTROL:**  
FULLY AUTOMATIC PITCH CHANGE,  
PROGRAMMABLE IN STEPS OF 0,001MM

**CORE INDEX & REVERSE CONTROL:**  
FULLY AUTOMATIC

**ACCELERATION & DECELERATION:**  
FULLY AUTOMATIC

**STOPS FOR TAPS:**  
AUTOMATIC

**SECTOR & BANK WINDING CONTROL:**  
FULLY AUTOMATIC

**TAPING OPERATIONS:**  
FULLY AUTOMATIC

**WINDING HEAD DRIVE:**  
SERVO MOTOR 2,0 KW/8,6Nm

**SUPPLY VOLTAGES:**  
230 (110 AND 240) VOLT, 50 HZ AC

**MACHINE SIZE AND WEIGHT:**  
1100 x 1100 MM,600 KG NET, 700 KG GROSS

Illustration: VC-FLOOR-PC, VC45-V, VC444

COMBINATIONS	PRODUCTION	mm	Inch/AWG
4 Interchangeable heads	Single wire size	0,40 - 4,50	26 - 5
1 Gear Rack Winding Head VC44	Bifilar wire size	2 x 2,80	2 x 9 <sub>1/2</sub>
1 Gear Rack Winding Head VC45-V	Finished Core O.D.	65 - 1200	2,55 - 40
1 Gear Rack Taping Head VC44/B	Finished Core I.D.	From 25	From 1,0
1 Gear Rack Taping Head VC45/B	Finished Core Height	Up to 380	Up to 14,96
3 Roller tables VC333-V,VC333-VS1,VC333-VS2,VC444,VC444-EP	Tape Size	9 - 25	0,35 - 1,0

# OPERATING OVERVIEW VC-FLOOR-SLIDE



Heavy Duty Applications





# VC-FLOOR-SLIDE



The VC-FLOOR-SLIDE is a Hi-Tech machine with easy to read LCD display and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed for very heavy applications and built with strong and modern components: microprocessor control, heavy SERVO motor for head drive and strong servo motor for core drive. The software guides the operator thru the programming with clear text commands. The user friendly programming and the clearly positioned control knobs make the VC-FLOOR-SLIDE extremely fast to set up and very easy to use. Typical applications for the VC-FLOOR-SLIDE are general jobs with large cores or winding applications with heavy round or flat wires.



Illustration: VC-FLOOR-SLIDE, VC45-V, VC444-EP

## TECHNICAL DATA

**CONTROLLER:**  
MICROPROCESSOR CONTROLLER

**DISPLAY:**  
LCD-DISPLAY WITH BACKGROUND ILLUMINATION: CONTINUOUS READ OUT OF OPERATION DETAILS

**PROGRAM CAPACITY:**  
THE CAPACITY IS VARIABLE, I.E. :  
8000 PROGRAMS WITH 1 SEQUENCE  
200 PROGRAMS WITH 40 SEQUENCES  
1 PROGRAM WITH 8000 SEQUENCES

**PROGRAMMING:**  
USER FRIENDLY WITH TEXT COMMANDS  
SEPARATE MENU FOR BASIC SET UP

**DATA MEMORY AND OUTPUT:**  
INTERFACE FOR PC  
INTERFACE FOR SOFTWARE UPDATES

**WINDING SPEED:**  
UP TO 160 RPM  
SEPARATELY PROGRAMMABLE LOAD SPEEDS  
SEPARATELY PROGRAMMABLE WIND SPEEDS

**CORE DRIVE:**  
SERVO MOTOR 1.5KW

**WIRE PITCH CONTROL:**  
FULLY AUTOMATIC PITCH CHANGE,  
PROGRAMMABLE IN STEPS OF 0,001MM

**CORE INDEX & REVERSE CONTROL:**  
FULLY AUTOMATIC

**ACCELERATION & DECELERATION:**  
FULLY AUTOMATIC

**STOPS FOR TAPS:**  
AUTOMATIC

**SECTOR & BANK WINDING CONTROL:**  
FULLY AUTOMATIC

**TAPING OPERATIONS:**  
FULLY AUTOMATIC

**WINDING HEAD DRIVE:**  
SERVO MOTOR 2, 0 KW

**SUPPLY VOLTAGES:**  
230 (110 AND 240) VOLT, 50 HZ AC

**MACHINE SIZE AND WEIGHT:**  
1100 x 1100 MM, 600 KG NET, 900 KG GROSS

COMBINATIONS
4 Interchangeable heads
1 Gear Rack Winding Head VC44
1 Gear Rack Winding Head VC45-V
1 Gear Rack Taping Head VC44/B
1 Gear Rack Taping Head VC45/B
3 Roller tables VC333-VVC333-VS1, VC333-VS2, VC444, VC444-EP

PRODUCTION	mm	Inch/AWG
Single wire size	0,40 - 4,50	26 - 5
Bifilar wire size	2 x 2,80	2 x 9 <sub>10</sub>
Finished Core O.D.	65 - 1200	2,55 - 40
Finished Core I.D.	From 25	From 1,0
Finished Core Height	Up to 380	Up to 14,96
Tape Size	9 - 25	0,35 - 1,0

# OPERATING OVERVIEW VC-FLOOR-SLIDE-PC

Loading roller with accurate spreading of wire into the magazine during loading

Sturdy wire cutting unit enables quick cutting of heavy wires

Flexible winding head for core height up to 380mm and wire size 5.0mm

Central wire holder arm enables perfect wire layering for the first turn

Swivel roller arm for large or small clamping range

Hand wheel enables quick and easy movement of head

Fine adjustment of the transport roller pressure by air, enables perfect core pressure

Unit construction design for conversion to new machine combination

Modern engineering with open/close door for fast service



Very robust magazine for heavy duty production with removable section enables easy fitting and removing of the core

Special magazine roller enable silent magazine guidance and reduced magazine wear

Hand wheel enables quick and easy swiveling of roller arm

Pneumatic movement of the core clamping device enables quick and easy loading and unloading of core by means of switch

Precision Coil Winding Machi



# VC-FLOOR-SLIDE-PC



The VC-FLOOR-SLIDE-PC is a Hi-Tech machine with PLC control and PC with touch screen and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed for very heavy applications. The head can be moved IN and OUT by means of slide tracks therefore, the heavy core can be lifted out by a crane. The software guides the operator thru the programming with clear graphical commands. The user friendly remote hand control system and remote switch control system make the VC-FLOOR-SLIDE-PC extremely fast to set up and very easy to use. Typical applications for the VC-FLOOR-SLIDE-PC are general and sophisticated jobs with large cores or winding applications with heavy round or flat wires.



Illustration: VC-FLOOR-SLIDE-PC, VC45-V, VC444

## TECHNICAL DATA

**CONTROLLER:**  
PLC CONTROL

**DISPLAY:**  
TOUCH SCREEN 12.1",MULTI LANGUAGES

**PROGRAM CAPACITY:**  
UNLIMITED  
OPERATION SYSTEM WINDOWS XP

**PROGRAMMING:**  
USER FRIENDLY WITH GRAPHICAL SCREENS  
AUTOMATIC CALCULATION OF COIL PROGRAM

**DATA MEMORY AND OUTPUT:**  
USB ,CABLE NETWORK, W-LAN,ETHERNET

**WINDING SPEED:**  
UP TO 160 RPM

**CORE DRIVE:**  
SERVO MOTOR 0,8KW/3,3Nm

**WIRE PITCH CONTROL:**  
FULLY AUTOMATIC PITCH CHANGE,  
PROGRAMMABLE IN STEPS OF 0,001MM

**CORE INDEX & REVERSE CONTROL:**  
FULLY AUTOMATIC

**ACCELERATION & DECELERATION:**  
FULLY AUTOMATIC

**STOPS FOR TAPS:**  
AUTOMATIC

**SECTOR & BANK WINDING CONTROL:**  
FULLY AUTOMATIC

**TAPING OPERATIONS:**  
FULLY AUTOMATIC

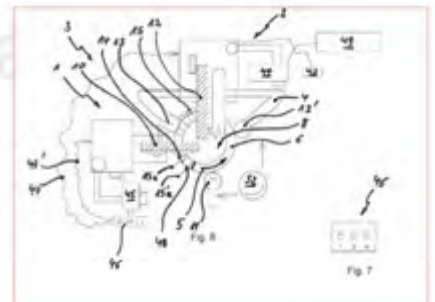
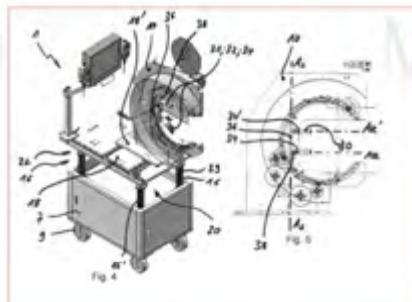
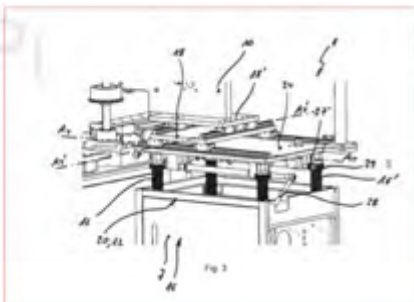
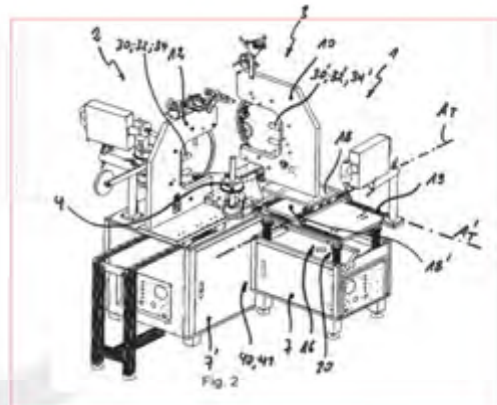
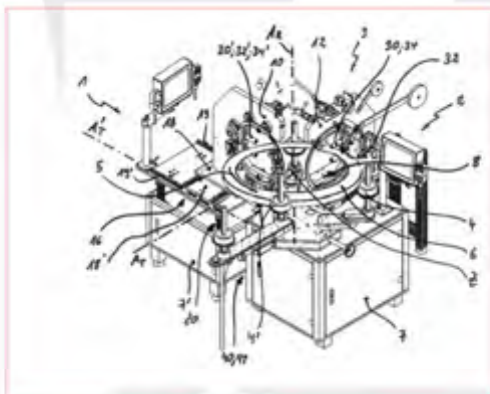
**WINDING HEAD DRIVE:**  
SERVO MOTOR 2, 0 KW/8,6Nm

**SUPPLY VOLTAGES:**  
230 (110 AND 240) VOLT, 50 HZ AC

**MACHINE SIZE AND WEIGHT:**  
2000 x 1100 MM;1200 KG NET, 1400 KG GROSS

COMBINATIONS
4 Interchangeable heads
1 Gear Rack Winding Head VC44
1 Gear Rack Winding Head VC45-V
1 Gear Rack Taping Head VC44/B
1 Gear Rack Taping Head VC45/B
6 Roller tables VC333-V,VC333-VS1,VC333-VS2,VC444,VC444-EP

PRODUCTION	mm	Inch/AWG
Single wire size	0,40 - 4,50	26 - 5
Bifilar wire size	2 x 2,80	2 x 9 <sub>1/2</sub>
Finished Core O.D.	65 - 1200	2,55 - 40
Finished Core I.D.	From 25	From 1,0
Finished Core Height	Up to 380	Up to 14,96
Tape Size	9 - 25	0,35 - 1,0





**We have designed a new Coil Production Machine for Transformers used in the Energy Industry:**

▪ **Product**

We have used our 25 years of experience and have developed special production machines for the simultaneous Winding and Taping of Toroidal Transformers, such as current transformers and instrument transformers.

▪ **Market**

A large demand for these transformers are in the Energy Industry, because many power networks and substations are old and need to be modernized. Moreover, more and more networks are needed in order to meet the worldwide growing demand of energy, even during economic crises.

▪ **Concept**

We have developed and patented a new machine concept which allows to produce these transformers in a more efficient and economic way. The new ISONET Technology enables to control both machines with only one HAND CONTROL UNIT, therefore any operator can easily and quickly control both production machines.

▪ **Result**

The result is a perfect precision wound transformer product, both in prototypes or in mass production. This makes the production cycle quicker, uncomplicated and more efficient for transformer producers.

▪ **Resolution**

The conventional manufacturing systems with hand taping or non- efficient machines can be drastically rationalized with this new technology.

Louis Steven Veress  
Managing Director

## LCD Series



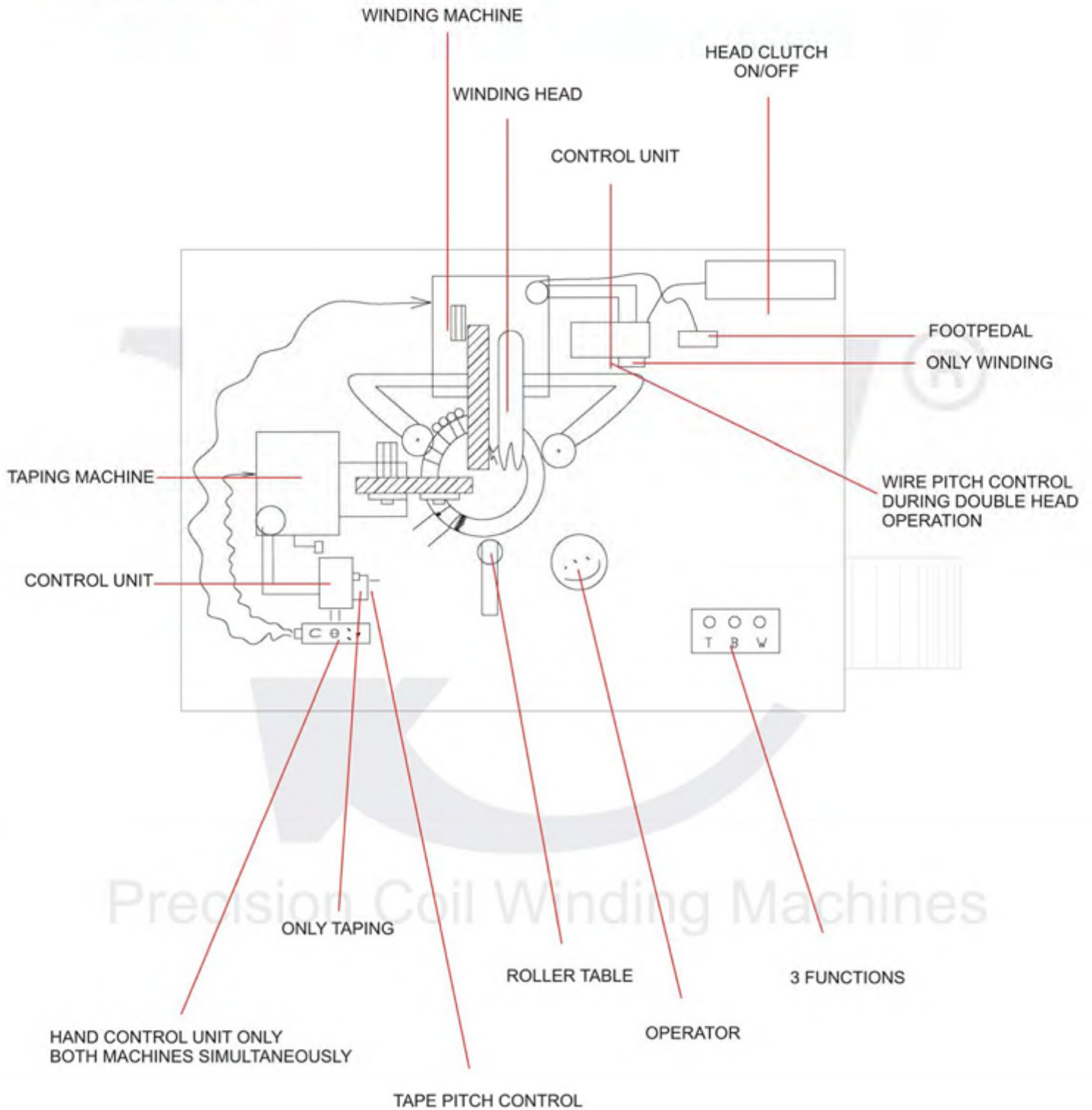
## PC Series



- **VC-Quick-Programming-System** with 6 parameters in less than 1 minute
- **Set up in very short time** new operators can handle the machine immediately with clearly positioned buttons and switches

- **The patented PC Machine Software** calculates the coil winding programme by itself: the wire length, wire pitch per layer and wire and position are then automatically controlled by the machine.
- **Easy control of both machines** by using a new technique with a Hand Control Unit .

# GENERAL OPERATING OVERVIEW DOUBLE HEAD MACHINE



Precision Coil Winding Machines



# DOUBLE HEAD LCD MACHINE SERIES



Precision Coil Winding Machines

The VC-FLOOR is a Hi-Tech machine with easy to read LCD display and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed for very heavy applications and built with strong and modern components: microprocessor control, heavy SERVO motor for head drive and strong servo motor for core drive. The software guides the operator thru the programming with clear text commands. The user friendly programming and the clearly positioned control knobs make the VC-FLOOR extremely fast to set up and very easy to use. Typical applications for the VC-FLOOR are general jobs with large cores or winding applications with heavy round or flat wires.



## TECHNICAL DATA:

### CONTROLLER:

MICROPROCESSOR CONTROLLER

### DISPLAY:

LCD-DISPLAY WITH BACKGROUND ILLUMINATION  
CONTINUOUS READ OUT OF OPERATION DETAILS

### PROGRAM CAPACITY:

THE CAPACITY IS VARIABLE, I.E.:  
8000 PROGRAMS WITH 1 SEQUENCE  
200 PROGRAMS WITH 40 SEQUENCES  
1 PROGRAM WITH 8000 SEQUENCES

### PROGRAMMING:

USER FRIENDLY TEXT COMMANDS  
SEPARATE MENU FOR MACHINE SET UP

### DATA MEMORY:

INTERFACE FOR PC  
INTERFACE FOR SOFTWARE UPDATES

### WINDING SPEED:

UP TO 1800 RPM  
SEPARATELY PROGRAMMABLE LOAD SPEEDS  
SEPARATELY PROGRAMMABLE WIND SPEEDS

### CORE DRIVE:

SERVO MOTOR 1,5 KW

### WIRE PITCH CONTROL:

FULLY AUTOMATIC PITCH CHANGE  
PROGRAMMABLE IN STEPS OF 0,001 MM

### CORE INDEX & REVERSE CONTROL:

FULLY AUTOMATIC

### ACCELERATION & DECELERATION:

FULLY AUTOMATIC

### STOPS FOR TAPS:

FULLY AUTOMATIC

### SECTOR & BANK WINDING CONTROL:

FULLY AUTOMATIC

### TAPING OPERATION:

FULLY AUTOMATIC

### WINDING HEAD DRIVE:

SERVO MOTOR 2,0 KW/6,8 NM

### SUPPLY VOLTAGES:

230 (110 AND 240) VOLT, 50 HZ AC

### MACHINE SIZE AND WEIGHT:

2000 X 1100 MM, 1200 KG NET, 1400 KG GROSS

### Taping Machine Unit:

VC-TAPE  
Taping Head VC45-BU2L  
Slide for head IN/OUT

### Winding Machine Unit:

VC-FLOOR-SLIDE  
Roller Table VC 444-EP  
Winding Head VC45-V

COMBINATIONS
4 Interchangeable heads
1 Gear Rack Winding Head VC44
1 Gear Rack Winding Head VC45-V
1 Gear Rack Taping Head VC44/BU2-L
1 Gear Rack Taping Head VC45/BU2-L
VC333-VS2, VC444, VC444-EP

PRODUCTION	mm	Inch/AWG
Wire Size	0,40-4,5	26-5
Tape Size	9-30	0,35-1,1811
Finished Core O.D. (Larger O.D. on request)	110-2500	4,33-9,84
Finished Core I.D. (with smallest Winding and Taping magazine)	100	3,937
Finished Core Height	250	9,84





# EXAMPLES OF MACHINE COMBINATIONS DOUBLE HEAD MACHINE

Precision Coil Winding Machines



Taping head VC45/BU2L  
with 2 tape dispenses  
Winding head VC45-V



Taping head VC45/BL  
with tapping magazine  
Winding head VC45-V



Taping head VC45/380/BU2L  
Winding head VC45-V/380



Taping head VC45/BU2L  
Winding head VC45-V



Taping head VC45/BU2L  
Winding head VC45-V



Taping Magazine and  
Winding Magazine  
TOP VIEW



Complete Double head  
Machine in operation



Small core  
Taping head VC44/BU2L  
Winding head VC45-V



Big core  
Taping head VC45/BU2L  
Winding head VC45-V



Complete Double head  
Machine with table  
up to 2500mm OD



Loading the  
Core into machine



Core transport on  
the core ID



# DOUBLE HEAD-PC MACHINE SERIES



The VC-FLOOR-SLIDE-PC is a Hi-Tech machine with PLC control and PC with touch screen and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed for very heavy applications. The head can be moved IN and OUT by means of slide tracks therefore, the heavy core can be lifted out by a crane. The software guides the operator thru the programming with clear graphical commands. The user friendly remote hand control system and remote switch control system make the VC-FLOOR-SLIDE-PC extremely fast to set up and very easy to use. Typical applications for the VC-FLOOR-SLIDE-PC are general and sophisticated jobs with large cores or winding applications with heavy round or flat wires.



## TECHNICAL DATA

**CONTROLLER:**  
PLC CONTROL

**DISPLAY:**  
TOUCH SCREEN 12.1",MULTI LANGUAGES

**PROGRAM CAPACITY:**  
UNLIMITED  
OPERATION SYSTEM WINDOWS XP

**PROGRAMMING:**  
USER FRIENDLY WITH GRAPHICAL SCREENS  
AUTOMATIC CALCULATION OF COIL PROGRAM

**DATA MEMORY AND OUTPUT:**  
USB ,CABLE NETWORK, W-LAN,ETHERNET

**WINDING SPEED:**  
UP TO 160 RPM

**CORE DRIVE:**  
SERVO MOTOR 0,8KW/3,3Nm

**WIRE PITCH CONTROL:**  
FULLY AUTOMATIC PITCH CHANGE,  
PROGRAMMABLE IN STEPS OF 0,001MM

**CORE INDEX & REVERSE CONTROL:**  
FULLY AUTOMATIC

**ACCELERATION & DECELERATION:**  
FULLY AUTOMATIC

**STOPS FOR TAPS:**  
AUTOMATIC

**SECTOR & BANK WINDING CONTROL:**  
FULLY AUTOMATIC

**TAPING OPERATIONS:**  
FULLY AUTOMATIC

**WINDING HEAD DRIVE:**  
SERVO MOTOR 2, 0 KW/8,6Nm

**SUPPLY VOLTAGES:**  
230 (110 AND 240) VOLT, 50 HZ AC

**MACHINE SIZE AND WEIGHT:**  
2000 x 1100 MM;1200 KG NET, 1400 KG GROSS

COMBINATIONS
4 Interchangeable heads
1 Gear Rack Winding Head VC44
1 Gear Rack Winding Head VC45-V
1 Gear Rack Taping Head VC44/BU2-L
1 Gear Rack Taping Head VC45/BU2-L
VC03-VS2,VC04,VC44-EP

PRODUCTION	mm	Inch/AWG
Wire Size	0,40-4,5	26-5
Tape Size	9-30	0,35-1,1811
Finished Core O.D. (Larger O.D. on request)	110-2500	4,33-9,84
Finished Core I.D. (with smallest Winding and Taping magzine)	100	3,937
Finished Core Height	250	9,84

## VC-TAPE-PC WITH DOUBLE HEAD MACHINE COMBINATION



<b>PRODUCTION DATA:</b>	mm	Inch	mm	Inch
Magazine system for small cores:	VC44/B-L		VC45/B-L	
Tape material	Mylar, Melinex, Hostaphan, Cotton, PVC, (no sticky tapes)			
Tape width	9 to 25	0,354 to 0,984	9 to 25	0,354 to 0,984
Magazine diameter	340	13,39	490	19,2
FID with two heads and smallest tape	approx. 150	approx. 5,906	approx. 150	approx. 5,906
Tape Dispenser for large cores:	VC44BU2-L		VC45BU2-L	
Tape material	Any tape material (Mylar, Melinex, Hostaphan, Cotton, PVC, also sticky)			
Tape width	Any width suitable upto 50 mm, however usual is 25 mm			
Roller dispenser OD	150	5,906	150	5,906
Roller dispenser ID	25	0,984	25	0,984
Finished Core OD with both systems:				
with roller table VC333-VS1	200 to 500	5,906 to 19,70	250 to 500	4,330 to 19,70
with roller table VC333-VS2	250 to 1000	9,847 to 39,37	250 to 1000	9,847 to 39,37
with roller table VC444	250 to 800	5,906 to 31,51	250 to 800	5,906 to 31,51
with roller table VC444-EP	250 to 1500	7,871 to 47,25	250 to 1500	7,871 to 47,25
Final core heights with two heads	150	5,906	250	9,842



# VC-TAPE-PC

The VC-TAPE-PC is a taping machine, which can be placed next to toroidal winding floor machines and then enables to tape the transformers during the winding process. It is therefore most flexible and economic. Typical applications are the production of instrument transformers, whereas the wound coil requires interlayer taping insulation. The taping head is mounted on a slide plate, which easily moves the head IN/OUT of the core for perfect horizontal of the head a table lifting system moves the head UP/DOWN for per feet vertical positioning of the head . V&C offers a range of interchangeable taping heads that can be mounted onto the slide plate.



VC-TAPE-PC

VERSION WITH  
TABLE LIFTER

#### TECHNICAL DATA:

##### OPERATION:

ONLY IN CONJUNCTION WITH THE WINDING MACHINE UNIT

##### CONTROLLER:

JETTER PLC CONTROLLER

##### DISPLAY:

LCD-DISPLAY WITH BACKGROUND ILLUMINATION  
CONTINUOUS READ OUT OF OPERATION DETAILS

##### CONTROL-BUTTONS:

SELECTING SWITCH FOR SINGLE TAPING HEAD OPERATION OR DOUBLE HEAD OPERATION  
CONTROL KNOB FOR ADJUSTMENTS OF SPEED AND PITCH  
START AND STOP BUTTONS  
EMERGENCY STOP BUTTON

##### PROGRAM CAPACITY:

UNLIMITED  
OPERATION SYSTEM WINDOWS XP

##### PROGRAMMING:

USER FRIENDLY TEXT COMMANDS  
NO. OF MAGAZINE LOADING TURNS AND NO. OF TAPING TURNS

##### TAPING SPEED:

UP TO 140 RPM

##### TAPE OVERLAPPING:

CONTROLLED BY OPERATOR PITCH KNOB

##### STOPS FOR RELOAD MAGAZINE:

FULLY AUTOMATIC, ACCORDING TO TAPING PROGRAM

##### ACCELERATION & DECELERATION:

FULLY AUTOMATIC

##### CORE DRIVE:

CONTROLLED BY WINDING MACHINE

##### HEAD DRIVE:

THREE PHASE MOTOR 1.1KW

##### SUPPLY VOLTAGES:



# OVERVIEW OF MACHINE COMPONENTS VC-55-PC

VC-55-PC			
Machine Components	Touch Screen	Switch Control Unit	Hand Control Unit
VC-55-PC			
Machine Components	Break Cylinder	Jet Move Motors and Gear Box	Jet Move Servo Drivers
VC-55-PC			
Machine Components	Electro Station	Wire Connections	Electrical Components
VC-55-PC			
Machine Components	Electrical Components	Power Supply	Cable Connections

Standard Magazine Type	Loading Space AxB 	Average Magazine Diameter 	Final Hole 	Wire Length in Meter						
				Wire 1.0 mm	Wire 2.0 mm	Wire 3.0 mm	Wire 4.0 mm	Wire 5.0 mm	Wire 6.0 mm	Wire 7.5 mm
55/65-SN	6x18mm	620mm	60mm	184	48	22	12.4	6		
55/70-SN	12x28mm	608mm	70mm	502	146	66	37.8	20	15	8
55/90-SN	15x28mm	608mm	90mm	703	182	82	47	29	16	11.4
55/120-SN	23x35mm	599mm	120mm	1.184	345	155	89	52	37	22.4
55/140-SN	50x50mm	573mm	140mm	3.523	1.026	463	265	180	145	64.8
55/150-SN	42x65mm	573mm	150mm	4.309	1.12	506	289	190	124	72
55/200-SN	54x93mm	541mm	200mm	7.487	1.946	879	503	336	230	142.8

Floor Duty Applications





# VC-55-PC

The VC-55-PC is a Hi-Tech machine with PLC control and PC with touch screen and incorporates VC's flexible system with interchangeable heads and roller tables. It is designed for very heavy applications and built with strong and heavy SERVO motors for head drive and for core drive. The software guides the operator thru the programming with clear graphical commands. The user friendly remote hand control system and remote switch control system make the VC-55-PC extremely fast to set up and very easy to use. Typical applications for the VC-55-PC are general and sophisticated jobs with large cores or winding applications with heavy round or flat wires.



## TECHNICAL DATA

**CONTROLLER:**  
PLC CONTROL

**DISPLAY:**  
TOUCH SCREEN 12.1",MULTI LANGUAGES

**PROGRAM CAPACITY:**  
UNLIMITED  
OPERATION SYSTEM WINDOWS XP

**PROGRAMMING:**  
USER FRIENDLY WITH GRAPHICAL SCREENS  
AUTOMATIC CALCULATION OF COIL PROGRAM

**DATA MEMORY AND OUTPUT:**  
USB,CABLE NETWORK, W-LAN,ETHERNET

**WINDING SPEED:**  
UP TO 120 RPM

**CORE DRIVE:**  
SERVO MOTOR 0,8KW/3,3Nm

**WIRE PITCH CONTROL:**  
FULLY AUTOMATIC PITCH CHANGE,  
PROGRAMMABLE IN STEPS OF 0,001MM

**CORE INDEX & REVERSE CONTROL:**  
FULLY AUTOMATIC

**ACCELERATION & DECELERATION:**  
FULLY AUTOMATIC

**STOPS FOR TAPS:**  
AUTOMATIC

**SECTOR & BANK WINDING CONTROL:**  
FULLY AUTOMATIC

**TAPING OPERATIONS:**  
FULLY AUTOMATIC

**WINDING HEAD DRIVE:**  
SERVO MOTOR 2,5 KW/11,6Nm

**SUPPLY VOLTAGES:**  
230 (110 AND 240) VOLT, 50 HZ AC

**MACHINE SIZE AND WEIGHT:**  
1300 x 1300 MM  
600 KG NET, 750 KG GROSS



COMBINATIONS
1 Interchangeable heads
1 Gear Rack Winding Head VC55
1 Gear Rack Taping Head VC55/B
1 Roller tables VC555

PRODUCTION	mm	Inch/AWG
Single wire size	0,80 - 7,50	20 - 1
Bifilar wire size	2 x 4,5	2 x 5
Finished Core O.D.	100 - 800	3,94 - 31,5
Finished Core I.D.	From 60	From 2,38
Finished Core Height	Up to 300	Up to 11,8
Tape Size	15 - 30	0,6 - 1,18



Precision Coil Winding Machines

# ROUND AND FLAT BELT WINDING HEADS

The round and flat belt winding heads are designed for winding fine wires into small cores. They incorporate two winding systems on one head, this gives you the best winding solution possible for each specific application. Typical applications are the production of small inductors, ISDN coils and small chokes. The winding heads are designed for quick change over from one system to another and feature a range of flat and round belts.



WINDING HEAD VC 60 & VC 60-MINI



WINDING HEAD VC 100 & VC 100-MINI

WINDING HEAD DATA	Round Belt System VC60 & VC60-MINI		Flat Belt System VC60 & VC60-MINI		Round Belt System VC100 & VC100-MINI		Flat Belt System VC100 & VC100-MINI	
	mm	Inch/AWG	mm	Inch/AWG	mm	Inch/AWG	mm	Inch/AWG
WIRE RANGE	0,06 - 0,15	42 <sup>1/2</sup> - 34 <sup>1/2</sup>	0,15 - 0,6	34 - 26 <sup>1/2</sup>	0,07 - 0,5	41 - 25	0,15 - 0,90	34 <sup>1/2</sup> - 21
MAGAZINE DIAMETER	60	2,4	60	0,4	97	3,8	97	3,8
FINISHED CORE OD	5 - 30	0,2 - 1,18	5 - 30	0,2 - 1,18	5 - 50	0,2 - 1,58	5 - 50	0,2 - 1,58
FINISHED CORE ID	1,5	0,06	2,1	0,082	2,2	0,087	3,0	0,087
FINISHED CORE HEIGHT	10	0,39	10	0,39	15	0,59	15	0,59
MAX. WINDING SPEED RPM	1800		1800		1800		1800	
COMPATIBLE ROLLER TABLES	VC111 (5 - 30)		VC111 (5 - 30)		VC111 (5 - 30)		VC111 (5 - 30)	
COMPATIBLE M/C BASE	VC60-MINI+VC100-MINI=VC-MINI VC60+VC100=VC-STANDARD+VC-HEAVY							

## MAGAZINE LIST & WIRE LENGTH & FINAL COIL ID

Magazine type	Final hole		0,05	0,06	0,071	0,08	0,09	0,1	0,112	0,125	0,132	0,15	0,18	0,20	0,25	0,3	0,355	0,4	0,5	0,6	0,71	0,80	0,90	1,0	mm	Ø		
	mm	Inch	44	42 <sup>1/2</sup>	41	40	39	38	37	36	35 <sup>1/2</sup>	34 <sup>1/2</sup>	33	32	30	28 <sup>1/2</sup>	27	26	24	22 <sup>1/2</sup>	21	20	19	18	AWG	A	B	
VC60/1,2	1,5	0,060		4,8	3,3	2,7	2,1	1,7	1,4	1,1	0,9	0,7														0,4	0,5	
1,4	1,8	0,070		6,3	4,4	3,6	2,7	2,3	1,8	1,5	1,3	1,0															0,4	0,7
1,6	2,0	0,078		11,2	7,9	6,3	5,0	4,1	3,4	2,7	2,4	1,8	1,3	1,1													0,5	0,9
1,8	2,2	0,086		19,2	13,5	10,9	8,7	7,2	5,8	4,7	4,2	3,3	2,4	1,9	1,2	0,9											0,6	1,2
2,0	2,4	0,094		25,8	18,2	14,7	11,7	9,6	7,8	6,3	5,7	4,5	3,2	2,6	1,7	1,2	0,9	0,7									0,8	1,3
2,5	2,89	0,114		50,5	35,7	28,8	22,8	18,9	15,3	12,4	11,2	8,8	6,3	5,2	3,4	2,4	1,7	1,3	0,9	0,6							1,1	1,7
2,8	3,2	0,125		75	52	42	33	28	22	17	15	12	9	7,5	5	3,5	2,3	2,0	1,3	0,9							1,1	2,2
VC100/1,8	2,2	0,087			27	21	17	14	11	9	8	6															0,75	1,25
2	2,5	0,098			42	34	25	19	18	14	13	10	7,2	6	4	2,9											0,9	1,4
2,25	2,75	0,108			44	35	26	20	19	15	14	9,4	6,8	5,7	3,6	2,7	2,0	1,5									1	1,65
2,5	3	0,118			70	57	45	37	30	24	22	17	12	10	6,8	4,8	3,5	2,6									1,2	1,8
3	3,5	0,138				80	63	52	42	34	31	24	17	14,5	9,5	6,8	4,9	3,94	2,5								1,4	2,2
3,5	4,5	0,177				120	95	77	63	51	46	36	25	21	14	10	7,2	6	4	2,6	1,3						1,8	2,6
4	5	0,197				156	123	102	83	67	60	47	34	28	18	13	9,6	8	5	3,5	2,5	2,4	1,9	1,4			2	3
4,5	5,5	0,217				185	148	122	99	80	72	57	41	37	22	18	11	10	7	5	3	2,8	2,5	1,9			2,3	3
5	6	0,236				243	193	159	130	105	95	74	53	46	29	22	15	13	9	6	4,5	3,4	2,7	1,0			2,6	3,5
5,5	7,5	0,3				333	255	222	185	148	135	100	72	60	38	29	20	17	11	8	5,5	4,8	3,8	2,0			3	4,3
6	8	0,51				400	310	270	220	180	163	120	90	77	46	33	24	21	14	10	7	6,0	4,8	3,3			3,4	4
7	9	0,36				680	542	472	385	315	285	210	157	134	80	57	42	36	24	17	12	10	8	5			4,2	5,5

The winding head VC60 and VC100 are available in the following systems:



Small wires  
small IDs



ISDN-Coils  
VC60+VC111



ADSL-Coils  
VC100+VC111



Current Transformers  
VC10+VC111-V



# FLAT BELT WINDING HEADS



Precision Coil Winding Machines



The flat belt winding heads are designed for winding thick wires into small internal core diameters without the use of gear racks or side sliders. Typical applications are the production of chokes, filters and small transformers. The winding heads work with a belt that drives the magazine. All of the belt winding heads feature magazines together with VC's quick opening device.

WINDING HEAD DATA	VC200-MINI		VC200-V		VC250		VC300	
	mm	inch/AWG	mm	inch/AWG	mm	inch/AWG	mm	inch/AWG
WIRE RANGE	0,30 - 1,00	32 1/2 - 18	0,25 - 1,60	30 1/2 - 15	0,25 - 1,8	26 - 15	0,30 - 1,80	28 - 14
MAGAZINE DIAMETER	145	5,7	145	5,7	175	6,86	210	8,27
FINISHED CORE OD	16 - 150	0,63 - 6,0	16 - 150	0,63 - 6,0	16 - 150	0,63 - 6,0	35 - 150	1,38 - 6,0
FINISHED CORE ID	5	0,197	6	0,236	7,5	0,294	8	0,315
FINISHED CORE HEIGHT	25	0,98	25	0,98	35	1,372	60	2,36
MAX. WINDING SPEED RPM	1000		1000		1000		700	
COMPATIBLE ROLLER TABLES	VC111-V (16 - 51) VC111-VS + VC112 (20 - 70)		VC111-V (16 - 51) VC112 (20 - 70) VC222 (20 - 150)		VC111-V (16 - 51) VC112 (20 - 70) VC222 (20 - 150) VC222-V (40 - 180)		VC222 (25 - 150) VC222-V (40 - 150) VC332 (60 - 300)	
COMPATIBLE M/C BASE	VC-MINI		VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY	

## MAGAZINE LIST & WIRE LENGTH & FINAL COIL ID

Magazine type	Final hole		Wire Length (mm)																	Final Coil ID (mm)		
	mm	inch	0,20	0,30	0,40	0,50	0,60	0,71	0,80	0,90	1,0	1,12	1,25	1,32	1,4	1,5	1,6	1,7	1,8	1,9	A	B
VC200/3	5	0,197	32	28,12	26	24	22,12	21	20	19	18	17	16,5	16	16	15	15	14	14	AWG	A	B
3,5	5,5	0,217		11	6,5																1,4	2,3
4	6	0,236		15	8,5	5,5															1,5	2,8
4,5	6,5	0,256		20	12	8															1,7	3,3
5	7	0,276		30	17	11	8														2,1	3,5
5,5	7,5	0,295		36	21	14	10	7	5	4	3,3										2,4	4
6	8	0,315		47	27	18	12	9	7	6	5										2,9	4,5
6,5	8,5	0,335		58	33	22	15	11	9	7	6										3,2	4,8
7	9	0,355		75	42	28	19	14	11,9	9	8										3,6	5,5
7,5	10,5	0,413		87	60	33	23	17	13	11	9										4	6
8	11	0,433		115	66	43	30	22	17,5	14	11										4,5	6,5
VC200-V/4,2	8	0,236		149	81	53	37	27	21	17	14										4,75	7,4
4,7	7	0,276			8	5,3	3,7	2,7	2,1	1,7	1,4	1	0,9	0,8							1,5	2,0
5,1	7,5	0,295			11,0	7,2	5,0	3,7	2,9	2,3	1,9	1,5	1,4	1,2							1,7	3,4
5,8	8,5	0,335			14,6	9,5	6,7	4,8	3,8	3,0	2,5	2,1	1,8	1,6	1,4	1,3	1,1				2,1	3,7
6,3	9,0	0,355			19,5	12,7	8,9	6,5	5,1	4,0	3,35	2,7	2,15	1,95							2,4	4,1
6,6	9,5	0,374			25	16,2	11,4	8,3	6,6	5,2	4,2	3,4	2,78	2,5	2,2	1,9	1,7				2,9	4,6
7	10,0	0,394			32,8	21,3	15,0	10,9	8,6	6,8	5,6	4,5	3,65	3,28	2,9	2,5	2,2				3,2	5,1
7,4	11,0	0,433			39	25,8	18,0	13,0	10,4	8,2	6,7	5,4	4,38	3,9	3,5	3	2,7				3,6	5,6
7,8	11,5	0,453			48	31,5	22,1	16,0	12,7	10	8,3	6,6	5,4	4,8	4,3	3,7	3,3				4	6
8,3	12	0,473			65,5	42,6	29,9	21,7	17,2	13,6	11,2	9	7,3	6,5	5,1	4,5	3,4	2,5	2,9		4,4	6,7
8,6	12,5	0,493			73,1	47,5	33,4	24,2	19,2	15,2	12,5	10	8,1	7,3	6,5	5,7	5	3,8	3,8	2,2	4,9	7,2
VC250/4,5	7	0,276			91,8	59,7	41,9	30,5	24,2	19,2	15,7	12,6	10,2	9,1	8,2	7,1	6,3	4,8	3,6	3,2	5,6	7,8
5	8	0,315				15,6	10,5	6,8	4,9	3,7	3,0	2,6									1,75	4,52
6	9	0,355				19,5	12,5	9,0	6,5	5,0	4	3,1									2,0	3,9
7	10	0,394				24	16,5	12,6	9,3	7,6	6,1	5,9									2,5	4,5
8	11	0,433				32,4	21,3	15,8	12,9	9,6	7,8	6,6									3,0	4,5
9	12	0,472				38	27,1	20	15,1	12,4	10,9	7,9	6,5	4							4,0	5,5
10	13	0,512				47	32,5	24	18	14,8	12	8,9	7,2	6,2	4,8	4					5,0	6,5
11	14	0,551				70	52	41	30	20	15	13	11	10	8,8	6,8	6	5	4		6,0	7,5
12	15	0,591				110	80	60	50	41	29	18	15	13	11	9	7	6	5	4	7,0	9,5
13-S	17	0,669				153	125	85	64	51	42	30	20	16	12	10	8	7	6	5,2	8,0	9,0
16-S	20	0,788				201	168	135	95	74	60	49	39	28	20	15	10	8	7	6	9,0	10,3
VC300/5	8	0,315				257	200	153	135	90	70	60	39	32	28	20	14	10	8	7	10,0	12,5
6	9	0,355																			2,5	3
7	10	0,394																			3	4
8	11	0,433																			3,5	4,5
9	12	0,472																			4	5,5
10	13	0,512																			5	6,5
11	14	0,551																			5,5	7,5
12	15	0,591																			6	7,5
13-S	17	0,669																			6,5	8,5
16-S	20	0,788																			7	8,5
20-S	22	0,867																			7,5	9,5
30-S	24	0,945																			8	10
40-S	30	1,182																			8,5	10



THICK WIRES  
SMALL  
IDS





Precision Coil Winding Machines

# SLIDER WINDING HEADS

The slider winding heads are designed for winding wires with high a number of turns. Typical applications are the production of transformer primary windings. The winding heads work with friction rollers which drive the magazine. The slider winding heads feature a range of robust split magazines with the VC's quick opening device.



WINDING HEAD DATA	VC 10 & VC 10-MINI		VC 20 & VC 20-MINI		VC 25&VC 25-MINI		VC 30	
	mm	Inch/AWG	mm	Inch/AWG	mm	Inch/AWG	mm	Inch/AWG
WIRE RANGE	0,950 - 0,309	44 - 28 1/2	0,07 - 0,78	40 - 21	0,08-1,0	40-16	0,1 - 1,00	38 - 18
MAGAZINE DIAMETER	100	4	150	6	185	7,25	210	8,26
FINISHED CORE OD	5 - 30	0,2 - 1,18	5 - 150	0,2 - 8,0	20-150	0,78-8,0	25 - 150	1,0 - 6,0
FINISHED CORE ID	2,5	0,098	7	0,276	10	0,394	10	0,394
FINISHED CORE HEIGHT	15	0,59	55	2,18	65	2,56	80	3,15
MAX. WINDING SPEED RPM	1800		1800		1600		1200	
COMPATIBLE ROLLER TABLES	VC 111 (5 - 30)		VC 111 (5 - 30) VC 222 (25 - 150) VC 111-V (16 - 51) VC 111-VS (20 - 70) VC 112 (20 - 78)		VC 112 (20 - 70) VC 222 (25 - 150) VC 222-V (40 - 150)		VC 222 (25 - 150) VC 222-V (40 - 150)	
COMPATIBLE M/C BASE	VC 10-MINI+VC 20-MINI+VC-MINI, VC 10+VC 20+VC 30+VC-STANDARD+VC-HEAVY							

## MAGAZINE LIST & WIRE LENGTH & FINAL COIL ID

Magazine Type	Final hole diameter		Wire Diameter																Coil ID		
	mm	inch	0,05	0,08	0,10	0,15	0,20	0,25	0,30	0,40	0,50	0,6	0,71	0,8	0,9	1,0	mm	A	B		
VC 10/2	2,5	0,098	60	25																	
2,5	3	0,118	100	40	28	13															
3,0	3,5	0,138	140	60	40	19		11	7												
3,5	4	0,157	190	80	50	25		15	10	7								1,9	2,1		
4,0	4,5	0,177	280	120	75	35		22	14	10								2,4	2,75		
4,5	5	0,200	138	53	35	18		10	6,5	4,5								1	2,2		
5,0	5,5	0,236	106	66	43	20		12	7,9	5,8								2,5	3,35		
5,5	6	0,276	211	84	55	25		15	10	7								1,3	3		
6,0	7,0	0,295	260	110	80	35		22	15	10								3,5	3,35		
7,0	8	0,315	368	150	100	48		28	18	13											
8,0	9	0,354	500	200	130	63		37	24	17											
9,0	10	0,394	700	280	182	88		51	33	23								3,5	3,5		
10,0	11	0,433	1120	448	291	141		82	54	38								3,5	5		
11,0	12	0,473	1512	604	393	190		111	72	51								4,4	5,5		
12,0	13	0,512	2192	878	570	278		162	105	75								5,3	6		
VC 20/3	4	0,158		72	48	23		13	8									1	2,4		
5	5	0,197		90	60	25		15	10									1,2	2,4		
6	6	0,236		100	65	30		18	12									1,2	2,6		
7	7	0,276		115	77	36		21	14												
8	10	0,394		280	190	85		50	34	24	14										
10	12	0,472		440	300	140		80	54	38	22	15	10								
12	14	0,551		650	430	200		120	80	56	33	22	15					2,5	7,9		
14	16	0,623		1300	860	400		240	160	110	65	43	30	23				5	8,2		
16	22	0,896		1950	1300	600		360	240	167	98	65	46	35				8	8,2		
20 (-S)	25	0,984		3650	2430	1140		670	450	313	183	122	85	65				8,65	11,5		
25 (-S)	30	1,181		4250	2840	1330		780	520	364	213	142	100	75				8,65	13,4		
30 (-S)	35	1,378		8000	4000	1870		1100	730	514	300	200	140								
40 (-S)	40	1,575		8800	5000	2740		1600	1080	750	440	295	205								
VC 25/8	10	0,394		347	235	105		62	42	30	17							1,8	5,1		
10	12	0,472		945	372	175		99	66	47	27	18	12					3,2	6,7		
12	14	0,551		808	531	248		148	99	69	40	27	18	12				3	8		
14	16	0,623		1612	5088	498		287	198	136	80	53	37	28	22			5	8		
16	20	0,787		2418	1812	744		446	297	207	121	80	57	43	38	29		8	8		
20 (-S)	25	1		4526	3013	1413		830	558	388	226	151	105	80	55	48		8	13		
25 (-S)	30	1,181		5279	3672	1849		967	644	451	264	176	124	93	70	58		9,5	12		
30 (-S)	35	1,378		7448	4860	2318		1384	905	637	372	248	173	132	78	66		11	12		
40 (-S)	40	1,575		10900	7318	3397		1984	1339	930	545	365	264	183	98	82		13	17,3		
VC 30/8	10	0,394			280	120		72	48	34	20	13	10								
10	12	0,472			410	190		113	75	53	30	20	14								
12	14	0,551			600	280		165	110	77	45	30	21								
14	16	0,623			1280	580		330	220	164	90	60	42	33	25	21		5	8		
16	20	0,787			1900	890		520	350	245	140	95	68	53	42	33	27	8	8		
20	25	0,984			3150	1470		865	578	405	235	158	110	84	63	53	45	8	10		
25	30	1,181			3895	2875		1110	726	521	300	200	140	100	80	66	54	9,5	12,2		
30 (-S)	35	1,378			4530	2120		1245	830	580	340	225	158	121	90	75	63	11	12		
40 (-S)	40	1,575			5650	2640		1550	1035	725	425	280	198	152	112	100	78				
50 (-S)	50	1,969			8190	3940		2332	1527	1096	631	416	294	225	165	148	115				

Small wires, high No. of turns



Primary Winding VC30+VC222-V



Current Transformers VC20+VC111-VS



# GEAR RACK WINDING HEADS



Precision Coil Winding Machines



The gear rack winding heads are designed for precision layer winding with low wire build up factors. Typical applications are the production of variable transformers, potentiometers and transformer secondary windings. All the winding heads work with a robust gear rack and drive train gear system, this allows the winding head to generate a large amount of torque which makes it suitable for large wire sizes.

WINDING HEAD DATA	VC0		VC1		VC2		VC3		VC4	
	mm	Inch/AWG	mm	Inch/AWG	mm	Inch/AWG	mm	Inch/AWG	mm	Inch/AWG
WIRE RANGE(W. VC-HEAVY)	0,1-0,6	23-38	0,2-1,0	32-18	0,2 - 1,6	32 - 15 <sub>10</sub>	0,4 - 2,36	26 - 12	0,4 - 3,5	24 - 9
MAGAZINE DIAMETER	72	2,83	130	5,11	210	8,65	220	8,65	340	13,39
FINISHED CORE OD	25-150	1,0-6,0	25-150	1,0-6,0	25 - 254	1,0-10,0	25 - 300	1 - 12	25 - 500	2 - 20
FINISHED CORE ID	11	0,433	13	0,51	17	0,7	25	1,0	25	1,0
FINISHED CORE HEIGHT	35	1,37	50	1,96	80	3,15	100	3,93	150	5,9
MAX. WINDING SPEED RPM	230		250		240		200		140	
COMPATIBLE ROLLER TABLES	VC222(25-150)		VC222 (25 - 150) VC222-V (40- 150)		VC222 (25 - 150) VC222-V (40 - 150)		VC222 (25 - 150) VC222-V (40 - 150)			
COMPATIBLE MC BASE	VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY	

## MAGAZINE LIST & WIRE LENGTH & FINAL COIL ID

Magazines type	Final coil diameter		Final coil by biggest height																					A		B	
	mm	Inch	mm	Inch	38	32	28	26	24	23	21	20	19	18	17	16	15	14	14	13	12	11	11	A	B		
VC210	11	0,433	16	0,63	90	36	12	7	4,6																		
11	12	0,472	16	0,708	128	36	17	9	6,4																		
12	13	0,511	16	0,748	140	40	19	11	7,1																		
16	18	0,708	22	0,866	326	96	45	26	17	12																	
18	20	0,787	25	0,984	390	111	52	30	20	14																	
22	24	0,945	29	1,142	601	168	86,5	51	33,8	23,8																	
VC170	13	0,511	16	0,708	178	51	24	14	9	6,4																	
11	15	0,59	20	0,787	240	66	32	18	12	8,6	6,2																
12	16	0,63	23	0,906	337	96	45	29	17	12	8,8	7	6,7														
15	20	0,787	25	0,984	624	176	83	48	31	22	16	13	10														
18	22	0,866	28	1,102	894	254	120	69	45	32	23	18	15														
22	26	1,023	33	1,30	1482	416	195	112	74	52	38	30	24														
30	31	1,22	37	1,456	2297	604	307	177	116	82	60	47	39														
37	37	1,456	41	1,614	3043	865	427	234	154	109	79	62	51														
VC212	17	0,669	24	0,945		186	67	30	33	23	17	13	11	9,1													
15	18	0,708	26	1,023		237	111	54	42	30	21	17	14	11	9,6	8	7	6	5,0								
18	21	0,827	28	1,142		306	145	107	70	60	36	29	23	19	14	14	11,5	10	8,5								
21	24	0,945	31	1,22		584	296	147	97	88	50	39	32	26	22	19	15,6	14	11,5								
24	28	1,102	35	1,376		807	380	216	144	100	74	58	48	40	33	29	23	20	17								
33	34	1,338	40	1,575		1100	518	300	200	140	100	80	66	54	44	40	32	28	24								
40	40	1,575	40	1,575		1722	800	466	307	217	158	125	100	85	69	61	49	44	37								
60	60	2,362	75	2,953		3199	1393	858	558	392	285	226	179	147	116	95	85	76	64								
VC320	25	0,984	35	1,376		564	106	66	46	35	26	22	18	14	12												
25	28	1,102	38	1,496		714	161	118	83	60	47	38	31	25	22												
30	31	1,22	40	1,575		880	203	130	90	66	52	42	35	30	27	20	18	14									
35	33	1,30	46	1,809		629	284	191	134	100	77	61	50	40	36	30	26	23	20	18,5	16	14,5	13	11			
37	37	1,456	52	2,047		719	434	273	199	140	111	91	75	62	56	44	39	33	28	26	20	18	16	14			
45	40	1,575	53	2,087		790	439	286	200	146	115	92	76	63	57	45	39,5	34	30	27	24	21	19	17			
50	46	1,811	55	2,185		1077	622	405	294	206	164	130	108	89	76	62	55	48	42	38	34	30	27	24			
60	48	1,89	57	2,244		1277	703	457	321	233	185	147	120	96	88	70	62	54	48	43	38	34	31	27			
70	56	2,165	65	2,559		1482	844	549	385	280	222	176	144	116	104	84	75	65	58	51	46	41	37	33			
80	66	2,56	75	2,95		1983	1152	749	526	382	303	240	197	158	143	115	102	89	80	70	63	58	51	46			
90	77	3,031	80	3,149		2737	1589	1029	723	525	417	330	271	216	194	167	141	123	109	97	86	78	70,4	63			
100	100	3,937	100	3,937		4036	2330	1500	1060	774	615	490	400	320	263	233	203	181	163	148	135	121	107	98			
VC430	26	0,984	40	1,575		98	69	50	40	31	26	20	16	15	13	11,5	10	9	8	7	6,4						
30	28	1,102	45	1,772		170	120	87	69	55	45	36	29	26	23	20	18	16	14	13	11						
35	30	1,181	50	1,969		190	133	97	77	61	50	40	36	29	26	23	20	17,5	16	14,5	13						
40	35	1,378	60	2,363		263	200	144	115	90	74	60	51	43	38	34	30	26	23	21	19	17					
45	40	1,575	60	2,363		430	332	220	175	138	113	90	77	67	59	51	45	40	36	32	29	25	22	20			
50	45	1,772	62	2,441		554	389	282	224	176	145	118	101	86	76	66	58	52	46	42	37	33	30	27			
60	56	2,165	98	2,676		665	481	350	277	220	180	145	117	106	94	82	73	64	57	52	47	42	37	34			
65	60	2,363	73	2,875		826	600	437	347	274	225	180	148	131	117	102	90	80	72	65	58	52	47	42			
70	66	2,560	78	3,071		969	680	494	394	312	255	206	166	150	133	116	103	91	79	73	66	60	53	48			
80	75	2,953	90	3,544		1350	972	706	560	446	365	290	230	213	190	166	147	130	117	105	95	85	76	69			
90	85	3,347	98	3,859		1647	1158	843	668	530	434	348	282	253	226	198	174	155	139	125	112	101	90	81			
100	110	4,331	130	5,119		2180	1530	1100	886	700	575	466	393	340	300	260	230	206	184	166	150	133	120	108			
120	115	4,53	135	5,321		3006	2112	1534	1218	966	790	635	514	462	412	360	318	283	253	228	205	184	165	148			



PRECISION  
LAYER  
WINDING



## GEAR RACK TAPING HEADS

Gear rack taping heads work with a gear drive system. The tape is first loaded onto the taping magazine and at the same time it is also taped onto the core. A flat leather belt which sits on the outside of the taping magazine controls the tape tension. The tape automatically is cut when the needed length of tape is loaded.



TAPING HEAD VC0/B

TAPING HEAD VC1/B

TAPING HEAD VC2/B

TAPING HEAD VC3/B

TAPING HEAD VC4/B

TAPING HEAD DATA	VC0/B		VC1/B		VC2/B		VC3/B		VC4/B	
	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch
TAPE WIDTH	4 - 10	0,157 - 0,394	4 - 10	0,237 - 0,512	6 - 30	0,354 - 0,984	9 - 25	0,354 - 0,984	10 - 30	0,394 - 1,16
BUILD UP FACTOR	+11	+0,433	+13	+0,512	+17	0,787	+20	0,787	+21	0,827
MAGAZINE DIAMETER	86	3,386	139	5,472	221	9,488	241	9,488	347	13,39
FINISHED CORE OD	16 - 150	0,71 - 6	25 - 150	1 - 6	25 - 500	1,0 - 10	25 - 254	1,0 - 10	60 - 500	24 - 20
FINAL ID WITH SMALLEST TAPE	15	0,59	21	0,83	26	1,14	29	1,14	30	1,181
FINISHED CORE HEIGHT	35	1,38	50		80	3,94	100	3,94	150	5,9
MAX. TAPING SPEED RPM	230		250		240		200		140	
COMPATIBLE ROLLER TABLES	VC222(25 - 150)		VC222 (25 - 150) VC222-V (40 - 150)		VC222 (25 - 150) VC222-V (40 - 150) VC332 (60 - 300) VC333-V (80 - 500)		VC222 (25 - 150) VC222-V (40 - 150) VC332 (60 - 300) VC333-V (80 - 500)		VC332 (60 - 300) VC333-V (80 - 500)	
COMPATIBLE M/C BASE	VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY	

Tight Insulations





# HIGH SPEED TAPING HEADS

High speed taping heads work with a belt drive system which enables them to work without gear racks: this enables the speed taping heads to tape into small internal diameters at a high speed. The VC quick opening and closing system reduces handling time. The loading and taping operation is fully automatic.



TAPING HEAD VC200/B



TAPING HEAD VC300/B

TAPING HEAD DATA	VC200/B		VC300/B	
	mm	Inch/AWG	mm	Inch/AWG
TAPE WIDTH	4 - 10	0,157 - 0,394	6 - 17	0,238 - 0,40
BUILD UP FACTOR	+9	+0,354	+11	0,433
MAGAZINE DIAMETER	154	5,9	215	8,46
FINISHED CORE OD	16 - 150	0,63 - 5,90	25-150	1,00 - 5,90
FINAL ID WITH SMALLEST TAPE	13 WITH 4mm TAPE	0,512 WITH 0,517mm TAPE	19 WITH 8mm TAPE	0,748 WITH 0,315mm TAPE
FINISHED CORE HEIGHT	50	1,97	80	3,15
MAX. TAPING SPEED RPM	300		300	
COMPATIBLE ROLLER TABLES			VC222 (25 - 150) VC222-V (40 - 150) VC332 (60 - 300)	
COMPATIBLE M/C BASE	VC-STANDARD VC-HEAVY		VC-STANDARD VC-HEAVY	







# GEAR RACK TAPING HEADS FOR VC -FLOOR

Gear rack taping heads work with a gear drive system. The tape is first loaded onto the taping magazine and at the same time it is also taped onto the core. A flat leather belt which sits on the outside of the taping magazine controls the tape tension. The tape automatically is cut when the needed length of tape is loaded.

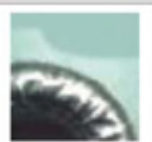


TAPING HEAD VC44/B



TAPING HEAD VC45/B

TAPING HEAD DATA	VC44/B		VC45/B	
	mm	Inch	mm	Inch
TAPE WIDTH	9 - 25	0,354 - 0,984	9 - 25	0,354 - 0,984
BUILD UP FACTOR	+25	+0,984	+25	0,984
MAGAZINE DIAMETER	340	13,39	490	19,201
FINISHED CORE OD	60 - 1000	2,36 - 39	80 - 1000	3,14 - 39
FINAL ID WITH SMALLEST TAPE	34	1,34	34	1,34
FINISHED CORE HEIGHT	150	5,9	250	9,842
MAX TAPING SPEED RPM	120		100	
COMPATIBLE ROLLER TABLES	VC332 (60 - 300)		VC333-V (80 - 500)	
	VC333-V (80 - 500)		VC333-VS1 (110 - 500)	
	VC333-VS1 (110 - 500)		VC333-VS2(250 - 1000)	
	VC333-VS2(250 - 1000)		VC444(100 - 800)	
COMPATIBLE M/C BASE	VC-FLOOR		VC-FLOOR	



Tight insulation

## FLAT WINDING TABLES



Flat winding table with back plate

### Flat winding table with back plate

Application: rectangular and square coils  
Coil movement: manually by hand

The Flat winding table with back plate is usually used for winding coils on the long legs but can also be used for winding coils around its circumference; especially coils with outlets are suitable for this table. The coil is pushed to the back plates; the winding pitch is controlled by hand movement.



Machine example



Application example



Flat winding table with transport rollers

### Flat winding table with transport rollers

Application: Field coils  
Coil movement: Manually by hand

The Flat winding table with transport rollers is usually used for taping field coils around its circumference. The coil is held by hand and pushed to the back transport rollers; the winding pitch is controlled by the transport rollers



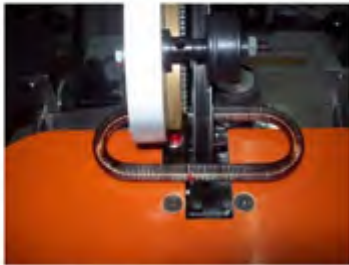
Machine example



Application example



# OVAL+SQUARE WINDING TABLES



Oval winding table

## Oval winding table

Application: oval coils  
Coil movement: automatic

The Oval winding table is usually used for winding oval coils on the complete circumference. A transport belt is used to hold the coil around its shape. The winding pitch is controlled by 2 transport rollers. The most sold model is VC-222V-OVT, which can be converted back to normal roller table VC222-V.



Machine example



Application example



Square winding table

## Square winding table

Application: square & rectangular coils  
Coil movement: automatic

The Square winding table is usually used for winding square & rectangular coils on the complete circumference. A transport belt is used to hold the coil around its shape. The winding pitch is controlled by 2 transport rollers. The most sold model is VC-222V-SWT, which can be converted back to normal roller table VC222-V.

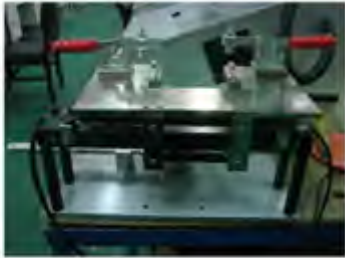


Machine example



Application example

# PARALLEL WINDING TABLES

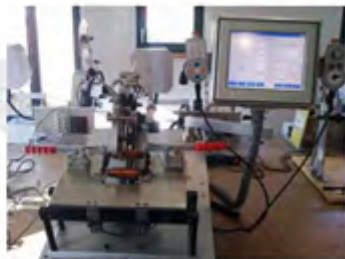


Parallel winding table

## Parallel winding table

Application: rectangular and square coils  
Coil movement: automatic

The Parallel winding table VC-PAR is usually used for winding coils on the long legs. Two limit switches can be programmed for switch off or reverse winding. When changing the coil size then simply change the position of the switches in order to set the winding distance on the leg. Coil holding jigs can be easily removed and fixed with fixing screws for setting new coil sizes. The coil is clamped by two quick action clamping levers. The winding pitch is controlled by a transmission gear. By lifting a bar the table can be disconnected and repositioned from the transmission gear.



Machine example



Application example



Adjustable limit switch



Adjustable coil holding jigs



Transmission gear and lifting bar



Clamping levers



# SEGMENT HOLDERS



Precision Coil Winding Machines

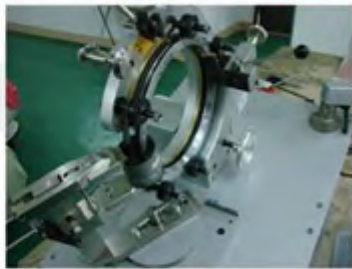


Small segment holder

## Segment holder

Application: round coils  
Coil movement: automatic

The Segment holder VC-SEG is usually used for coils with outlets or segmental windings. The coil is clamped by a quick action clamping device. The clamping jaws are made to suit the core shape and can be change to suit several core shapes. Two limit switches can be programmed for switch off or reverse winding. When changing the core size then simply change the position of the switches in order to set the required winding distance on the core. The winding pitch is controlled by direct transmission from the drive motor.



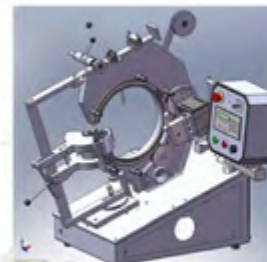
Medium segment holder



Large segment holder



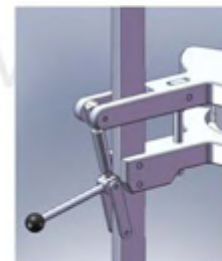
Application example



Machine example



Clamping jaw with coil



Quick action clamping device

## ROLLER TABLES

VC roller tables are interchangeable in very short time. The purpose of the roller tables is to transport the core when winding or taping operations are carried out. Three rubber rollers can be



<p>Roller Table VC333-VS1</p>	<p>Roller Table VC444</p>
 <p>Core OD 110-500mm</p>	 <p>Core OD VC444 100-800mm Core OD VC444-L 100-1200mm Core OD VC-444XL 250-2000mm Core OD VC-444XXL 250-2600mm</p>
<p>Roller Table VC333-VS2</p>	<p>Roller Table VC444-EP</p>
 <p>Core OD 250-1000mm</p>	<p>(Pneumatic Slide)</p>  <p>VC444-EP 100-800mm VC-444-EP-L 100-1200mm VC-444-EP-XL 200-2000mm</p>



# OVERVIEW OF COMBINATION POSSIBILITIES



## COMBINATION POSSIBILITIES BETWEEN ROLLER TABLES AND WINDING HEADS

### BENCH MACHINES

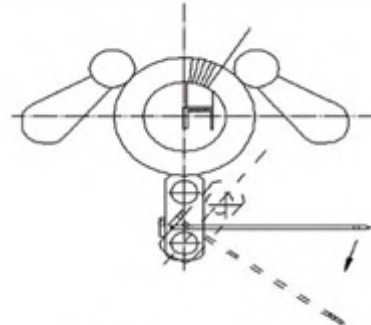
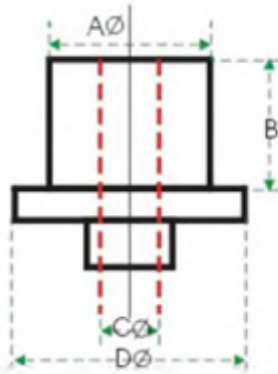
COIL OD	Head	VC0	VC1	VC2	VC3	VC4	VC10	VC20	VC30	VC60	VC100	VC200	VC200-V	VC-280	VC300	VC9/B	VC1/B	VC2/B	VC3/B	VC4/B	VC200/B	VC300/B	
0.20-1,18 VC111 5-30	Inch						0.20-1,18	0.30-1,18		0.20-1,18	0.20-1,18												
	mm						5-30	8-30		5-30	5-30												
0,63-2,01 VC111-V 16-51	Inch							0,63-2,01			0,63-2,01	0,63-2,01	0,63-2,01	0,63-2,01		0,63-2,01						0,63-2,01	
	mm							16-51			16-51	16-51	16-51	16-51		16-51						16-51	
0.79-2.76 VC112 20-70	Inch							0.79-2.76				0.79-2.76	0.79-2.76	0.79-2.76		0.79-2.76						0.79-2.76	
	mm							20-70				20-70	20-70	20-70		20-70						20-70	
1.0-6.0 VC222 25-150	Inch	1.0-6.0	1.0-6.0	1.0-6.0	1.0-6.0			1.0-6.0	1.0-6.0					1.0-6.0	1.0-6.0	1.38-6.0	1.0-6.0	1.0-6.0	1.0-6.0	1.0-6.0		1.0-6.0	1.0-6.0
	mm	25-150	25-150	25-150	25-150			25-150	25-150					25-150	25-150	35-150	25-150	25-150	25-150	25-150		25-150	35-150
1.57-6.0 VC222-V 40-150	Inch		1.5-6	1.5-6.0	1.5-6.0				1.5-6.0						1.57-6.0	1.5-6.0		1.5-6.0	1.5-6.0	1.5-6.0			1.5-6.0
	mm		40-150	40-150	40-150				40-150						40-150	40-150		40-150	40-150	40-150			40-150
2.4-12 VC332 60-300	Inch			2.4-12	2.4-12	2.4-12														2.4-12	2.4-12		3.5-12
	mm			60-300	60-300	60-300														60-300	60-300		90-300
3.15-20 VC333-V 80-500	Inch				3.15-20	3.15-20															3.15-20		
	mm				80-500	80-500															80-500		

### FLOOR MACHINES

COIL OD	Head	VC44	VC45-V	VC45-380	VC44/B	VC45/B	VC55	VC55/B														
4.33-19,7 VC333-VS1 110-500	Inch	4.33-19,7	4.33-19,7	4.33-19.7	4.33-19,7	4.33-19,7																
	mm	110-500	110-500	110-500	110-500	110-500																
9.84-39,37 VC333-VS2 250-1000	Inch	9.84-39,37	9.84-39,37	9.84-39.37	9.84-39,37	9.84-39,37																
	mm	250-1000	250-1000	250-1000	250-1000	250-1000																
3.94-31,5 VC444 100-800	Inch	3.94-31,5	3.94-31,5	3.94-31.5	3.94-31,5	3.94-31,5																
	mm	100-800	100-800	100-800	100-800	100-800																
7.87-47,25 VC444-EP 200-1200	Inch	7.87-47,25	7.87-47,25	7.87-47,25	7.87-47,25	7.87-47,25																
	mm	200-1200	200-1200	200-1200	200-1200	200-1200																
VC555	Inch							3.94-31,5														
	mm							100-800														

Precision Coil Winding Machines

## CORE TRANSPORT ROLLERS



Correcting setting of roller table

Roller table type	Part No.	A×B×C×D	OD Range	Typical size
VC111	VC111-054A	6×4×3×9	5-30mm	Small cores flat
VC111	VC111-054B	8×5×3×11	8-30mm	Standard transport rollers for roller table VC 111
VC111	VC111-054C	8×10×3×12	12-30mm	Small cores high
VC111	VC111-054D	9×20×3×18	15-30mm	Small cores very high
VC111-V(VS)	VC111V-088E	17×10×6×18	10-50mm (-70)	Small cores flat
VC111-V(VS)	VC111V-088C	17×15×6×20	13-50mm (-70)	Standard transport rollers for roller table VC 111-V(VS)
VC111-V(VS)	VC111V-088A	17×15×6×23	15-50mm (-70)	Medium cores high
VC111-V(VS)	VC111V-088B	23×15×6×28	18-50mm (-70)	Medium cores
VC112	VC112-064	35×20×8×43	20-70mm	Standard transport roller for VC112
VC222	VC222-093A	35×20×12×43	25-150mm	Medium cores flat
VC222	VC222-093	45×20×12×55	30-150mm	Medium cores flat
VC222	VC222-093B	45×40×12×55	35-150mm	Standard transport rollers for roller table VC 222
VC222	VC222-093C	75×20×12×85	40-150mm	Large cores flat
VC222	VC222-093D	75×40×12×85	45-150mm	Large cores high
VC222	VC222-093F	90×25×12×100	35-150mm	Special transport rollers for small cores with VC 300
VC222-V	VC222V-012	65×40×17×80	40-150mm	Medium cores
VC222-V	VC222V-012A	65×60×17×80	45-150mm	High cores
VC222-V	VC222V-012B	75×40×17×85	45-150mm	Standard transport rollers for roller table VC 222-V
VC222-V	VC222V-012C	75×40×17×100	50-150mm	Large support plate for heavy cores.
VC222-V	VC222V-012D	90×20×17×100	55-150mm	Special transport rollers for small cores flat with VC 300
VC222-V	VC222V-12E	90×40×17×100	55-150mm	Special transport rollers for small cores high with VC 300
VC332	VC333-062	75×40×22×100	60-254mm	Small cores
VC332	VC333-062A	90×40×22×100	60-254mm	Standard transport rollers for roller table VC332
VC332	VC333-062B	120×50×22×160	70-254mm	Large support plate for heavy cores.
VC332	VC333-062C	140×50×22×160	75-254mm	Large support plate for heavy cores.
VC333V	VC333V-062	120×50×30×160	80-500 mm	Standard transport roller for VC333V
VC333-VS1	VC333V-062B	120×50×30×200	110-500 mm	Standard transport roller for VC333-V S1
VC333-VS2	VC333V-062A	140×50×30×160	250-1000 mm	Standard transport roller for VC333-VS2
VC444	VC444-048	140×50×35×160	100-800 mm	Standard transport roller for VC444
VC444-EP	VC444-049	140×50×35×160	250-1200 mm	Standard transport roller for VC444-EP



# QUESTIONNAIRE

Fax to +49 (0) 8092-232020-4



Precision Coil Winding Machines

Please fill in the following points and send this questionnaire to V&C.

<b>1 Company</b>	
<b>2 Product type</b> (i.e. PT CT IT Choke Variac)	
<b>3 Core dimensions before winding</b>	<b>OD:                      ID:                      H:</b>
<b>4 Wire diameter</b>	
<b>5 No.of turns</b>	
<b>6 Winding sector in degrees</b>	

## CALCULATION

The following points will be calculated by V&C.  
Then this calculation will be sent to you together with your quotation.

7 Core dimensions after winding	OD:	ID:	H:
8 Wire length			
9 No. of layers			
10 Wire layering method			
11 Winding speed			
12 Total winding time			
13 Machine base			
14 Winding head			
15 Magazine type			
16 Roller table			
17 Core transport roller type			
18 Slider Head: Slider type 1 tail, 2 tails, 3 tails, 4 tails?			
19 Gear Rack Head: Wire guide roller type 6 or 10 or 15 mm			
20 Belt Head: Flat belt type, Round belt diameter			
21 Taping Head: Brake belt type			
22 Comments			

OR ONLINE:  
[www.vc-machinery.com/question.asp](http://www.vc-machinery.com/question.asp)