

CP300 Instrument Features



The RIMIK CP300 is a mid level instrument capable of accurate and easy collection of cone-index data. The RIMIK CP300 is an essential tool for more intensive soil studies involving compaction, trafficability and moisture distribution.

The CP300 incorporates many of the features of the CP40II, but is limited to a 2 line non-graphical display, a 500 insertion memory and does not have GPS capability.

What it DOES offer is ultrasonic depth sensing, NiMh rechargeable batteries, internal logging and USB connectivity all in a small lightweight enclosure with stainless steel shaft and cone set. The shaft is the same two piece unit included in all current penetrometer models. The CP300 is stored in an easy to carry, durable fitted case.



The CP300 cone penetrometer is used to measure soil density and hardness where a research level study of the data is required. It measures and records cone index values up to 9800KPa based on the load required to force a cone through the soil. The instrument will record profile data to a maximum depth of 750mm at increments of 10 - 25mm. The instrument conforms to ASAE S313.3 feb99.

Up to 500 full depth insertions may be recorded and stored in memory. Profile results can be viewed on the LCD screen or downloaded to a computer or laptop via the serial port and with the use of RIMIK Penetrometer Reader Software.



This instrument can be user configured to operate in metric or imperial mode. The menu structure also allows the user to preselect any of four (4) depth intervals and to preselect any of six (6) cone sizes. Data can also be "Grouped" by nominating a group size (up to 500) prior to taking any set of insertions. The groups can be individually named.

Full profile data is output following each insertion via the USB port. With a wired connection to a device (e.g. laptop), the user can observe each insertion immediately in graphical format via a "Listen" function within the RIMIK Penetrometer Reader Software.

This instrument is designed for agronomists, soil scientists, engineers and research institutions and may be purchased with either or both the ASAE or EURO cone kits.

CP300 Software and Specifications:

- Windows 7® and above operating systems.
- Retrieve data from the instrument, saving in PDS format or export as a CSV or SHP file.
- Display a number of graphs of grouped inserts with average and other defined lines.
- Manipulate graphical axes, scale and type as well as print the displayed information.
- Alter metadata and instrument parameters via the software.

Assembled Weight:	2.65kg	Resolution:	0.25kg (~20KPa)
Packed Weight including case:	4.4kg	Shaft size (diameter):	9.53mm
Assembled Dimensions:	431x1063x85mm	Maximum Insertion Depth:	750mm
Case Dimensions:	448x362x110mm	Interval Spacing:	10, 15, 20 or 25mm
Max 130mm ² ASAE Cone Index:	7500kPa, 100kg	Memory Capacity:	500 insertions
Max 100mm ² EURO Cone Index:	9800kPa, 100kg	Operating Temperature:	10 to 75°C
Cone Kit ASAE:	130 & 323mm ²	Baud Rate/Download Speed:	9600bps
	@ 30° Face Angle	Screen resolution (characters):	2 x 16
Cone Kit EURO:	100, 200, 330 & 500mm ²	Battery Life:	2800mAh
	@ 60° Face Angle		

Cone Penetrometer Feature Comparison (Export)



FEATURE	CP300	CP40II
Metric or Imperial Units	M & I	M
Maximum Depth	750	750
Battery Voltage	3.0V	6.0V
Battery Capacity	2400mAH	3000mAH
Memory (# of insertions)	500	2046
Insertion Grouping Capability	✓	✓
Maximum Group Size	255	10
Site Name	Fixed	User Set
Pressure Accuracy	0.50%	0.25%
Depth Accuracy	+/- 5mm	+/- 2mm
Depth Increments (Metric)	10/15/20/25	10/15/20/25
Depth Increments (Imperial)	0.5"/0.75"/1"	x
Load Cell	100kg	50/75/100kg
Cone Selection	ASAE Set and EURO Set	ASAE Set and EURO Set
LCD Screen (2 line x 16 charater)	✓	x
Full Graphic Screen	x	✓
GPS Kit - Optional	x	✓
Wired In-field Insertion Output	✓	✓

Cone Penetrometer Kit Comparison (Export)



COMPONENT	CP300-ASAE	CP300-Euro	CP40II-ASAE	CP40II-Euro
Fitted Case	✓	✓	✓	✓
Instrument with fitted load cell	✓	✓	✓	✓
Handles - 2 off	✓	✓	✓	✓
Shaft - 2 piece	✓	✓	✓	✓
Target	✓	✓	✓	✓
Cone - 130mm ² @ 30°- ASAE	✓	x	✓	x
Cone - 323mm ² @ 30°- ASAE	✓	x	✓	x
Cone - 100mm ² @ 60°- Euro	x	✓	x	✓
Cone - 200mm ² @ 60°- Euro	x	✓	x	✓
Cone - 330mm ² @ 60°- Euro	x	✓	x	✓
Cone - 500mm ² @ 60°- Euro	x	✓	x	✓
Wear Guide - ASAE	✓	x	✓	x
Wear Guide - Euro 100/500	x	✓	x	✓
Wear Guide - Euro 200/330	x	✓	x	✓
8mm Spanner - 2 off	✓	✓	✓	✓
13mm Spanner - 1 off	✓	✓	✓	✓
GPS Kit	x	x	✓	✓
GPS Retaining Knobs	x	x	✓	✓
Calibration Bolt	✓	✓	✓	✓
USB Cable	✓	✓	x	x
Serial Cable	x	x	✓	✓
Serial to USB converter cable	x	x	✓	✓
Rimik Penetrometer Reader Software	✓	✓	✓	✓
Software Manual	✓	✓	✓	✓
Instruction Manual	✓	✓	✓	✓