

features

- LOW INITIAL COST
- EASE OF OPERATION
- INTEGRAL WELDER
- HIGH RELIABILITY
- FAST JOB CHANGE OVER
- HIGH SPEED OPERATION
- PLC SYSTEM CONTROL
- LOW OPERATING COSTS: TOOLING AND MAINTENANCE

KT 2000

HIGH SPEED FULLY AUTOMATIC WINDING MACHINE AND PDC600 POWERED STRIP DE-COILER

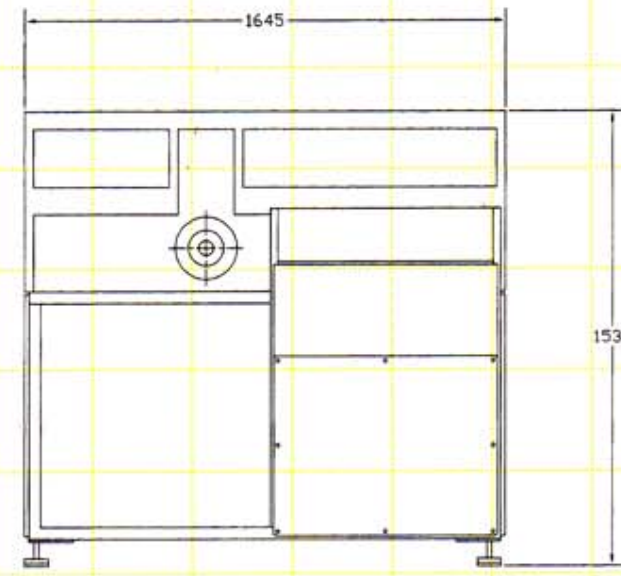
for the production of Toroidal Cores

from CORTECH

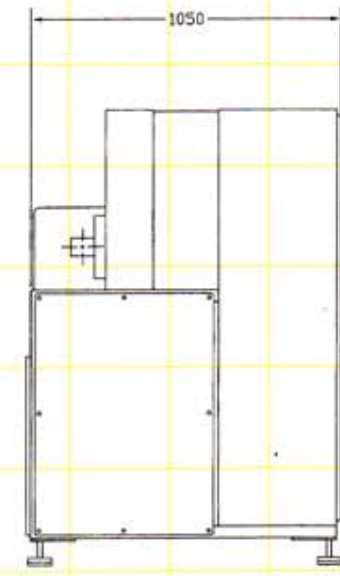


C O R T E C H
CORE PRODUCTION EQUIPMENT

KT 2000 Winding Machine

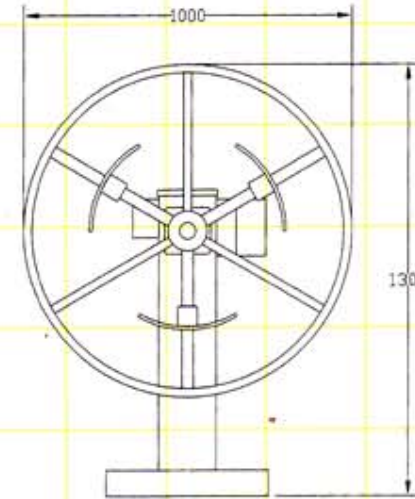


Front Elevation

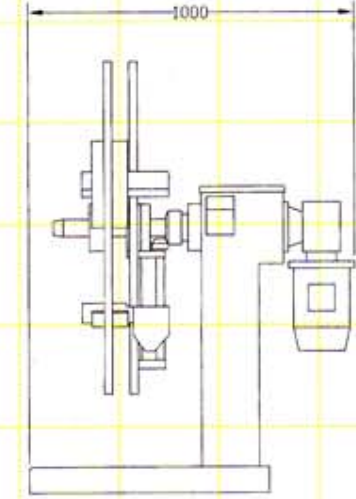


Side Elevation

PDC600 De-coiler



Front Elevation



Side Elevation

SERVICE REQUIREMENTS

Electrical: 380/415 3 phase 50Hz, plus neutral and earth (ground) rated at 20 amps per phase.

* PDC600 De-coiler is supplied by KT2000 winding machine.

Air: Clean dry compressed air 120 psi (8 bar), volume 10 cfm.

Gas: Welding gas, standard high purity (99.995%) argon gas (Ar).

C O R T E C H
CORE PRODUCTION EQUIPMENT

Toroidal Technology Limited

Unit five, Cherrytree Farm, Blackmore End Road,

Sible Hedingham, Essex CO9 3LZ, England.

Tel: (44) 01 787 461 888 Fax: (44) 01 787 462 444

T.T.L. reserve the right to change without notice the design, dimensions, weight and specification of any of its equipment at any time.



KT2000 HIGH SPEED FULLY AUTOMATIC CORE WINDING MACHINE

The KT2000 is a high-speed fully-automatic toroidal core winding machine which incorporates many advanced design features and which can produce precision wound cores of up to 140 per hour.

The machine is automated through the use of a Mitsubishi Programmable Logic Controller or PLC and includes an integral Argon arc welder.

Manufactured from the highest quality components and materials, and through the application of an advanced design philosophy, very significant economies are provided in low running costs, high-speed operation and low maintenance.

A unique operating combination of the winding system and the TIG welder allows steel-strip to be joined during a 'core-wind'. This allows short lengths or previous wound cores to be re-used, providing great economy in the cost of basic strip steel material.

Requiring only semi-skilled operating techniques, the KT2000 allows 'job-changing' to be performed in only a few minutes, reducing down time, and providing great flexibility in being able to switch between high and low volume production runs.

WIDE RANGE OF CORES AND STEEL QUALITIES

The KT2000 will operate with a wide range of steel qualities, producing outside core diameters ranging from 30mm to 200mm with a maximum strip width of 80mm. The machine will strictly adhere to the core winding specification as it is manufactured to highest engineering parameters activating advanced electronics in logic control sequences.

Core Details		
	Min.	Max.
I/D	30	120
O/D	35	200
S/W	15	80

CORE PRODUCTION SPEED AND PRECISION

The KT2000 produces high-quality wound cores at high speed and ensures constant repetition of quality and specification.

The combined engineering advances in the way in which the strip is cut, shaped to lie flat and are welded ensures that high-speed production and quality is combined with trouble-free operation.

CORE OUTPUT

Note: Production output will be dependent on various factors, ie. the size of the main donor coil and the speed at which the new coils are loaded on to the de-coiler. However as a typical guide outputs should be as follows:

Outside Diameter	Cores per hour
50-80mm	140
80-105mm	110
105-135mm	80
135-170mm	60

THE PDC600 POWERED STRIP DE-COILER

The PDC600 De-coiler sets new standards in controlled feed of GOSS strip to its associated KT2000 winding machine. Using a vertical head of 250kg capacity it is ruggedly built on a robust floor stand. The unit features a three-jaw coil holding head mounted on a horizontal shaft, an integral self-centring facility and an easily removed outer guard ring.

Driving power to the head is supplied by a powerful 2.2kw variable speed a.c. geared motor directly mounted on the main shaft. The rate of delivery of the steel strip is governed by the use of highly sensitive yet robust 'dancer' arm which precisely controls the speed of the motor via a frequency controller.



INTEGRAL TIG WELDER

The integral welder is also under full automatic control of the PLC and is brought into operation at the beginning and end of the core winding cycle. The unit is manufactured to the highest standards, produces minimal HF interference, uses high-purity Argon gas and requires only the minimum of maintenance. The welding plant is heavily screened, and has been selected to complement the associated engineering standards of the KT2000 to



OPERATOR CONTROL PANELS

Fast and efficient setting of the KT2000 is carried out through the two control consoles. Each selected operation is plainly shown by the illumination of clear indicator lamps, enabling the operator be in on doubt of the machine state. These consoles also features a batch-counter, a pressure gauge showing strip tension, a counter for the strip cutter and a timer for the welder. The layout and order of the controls and indicators have been arranged so that new operators need only the minimum of time in machine familiarisation before quickly attaining high efficiency in production.



The speed and precision at which the cores are formed centres on the way they are wound.

The beginning and end of the strip are automatically cut to form a 'V' with the spot-weld being placed at the 'point' of the 'V', both inside and outside of the core. This method only requires one spot-weld regardless of strip width and gives a superb finish with no lifting at the edges.

