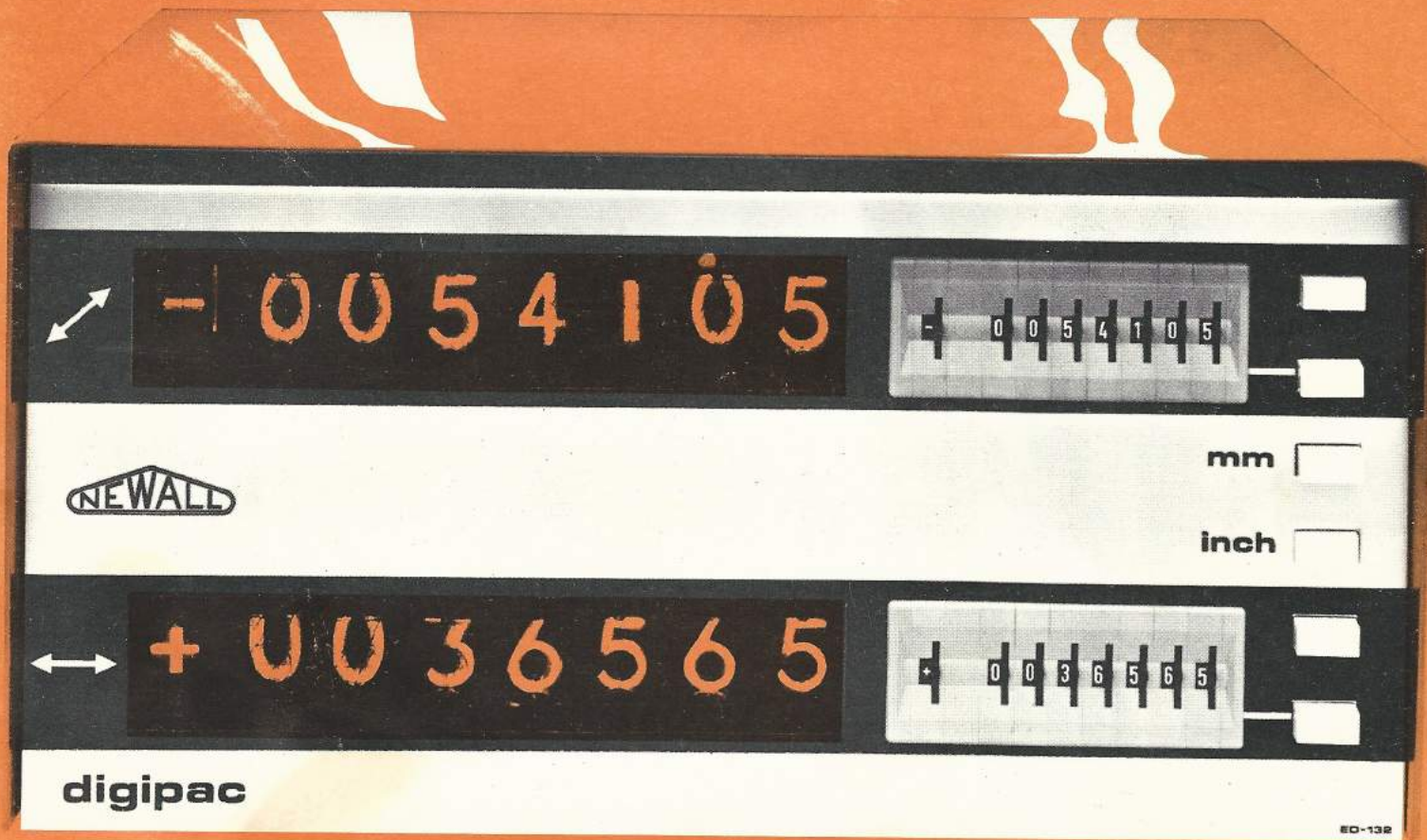
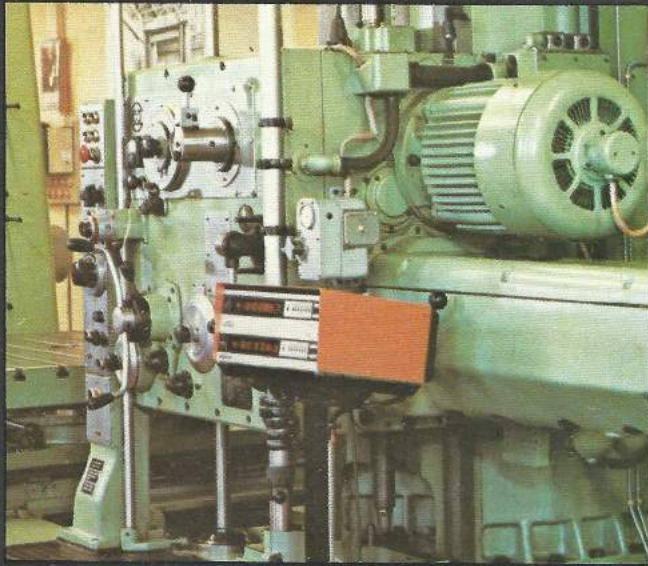
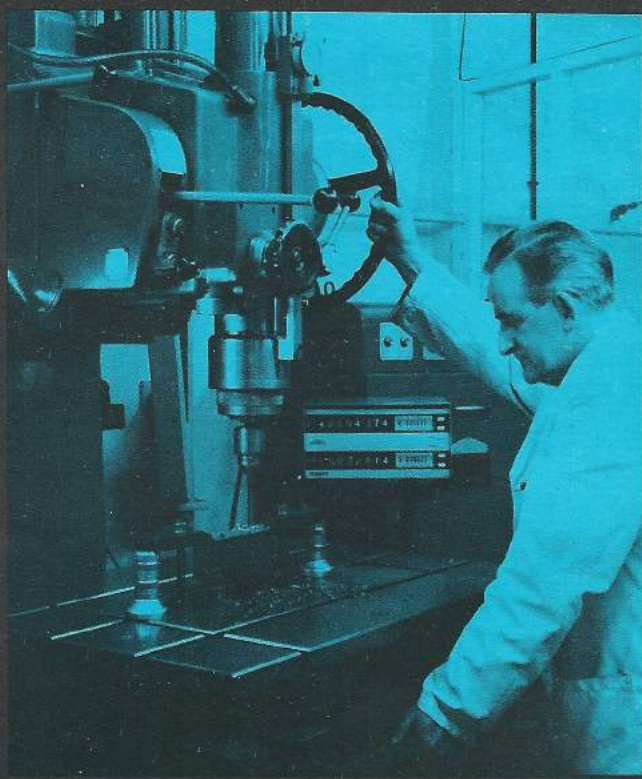
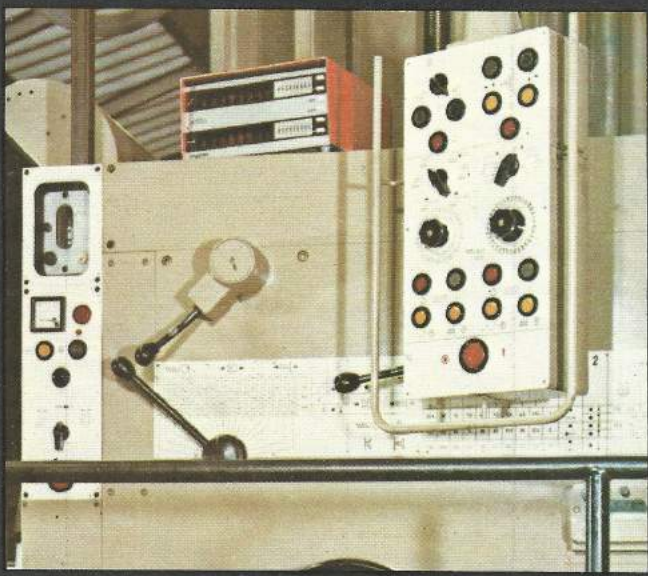


Newall Electronics Digipac



...measures up to the job



Some typical examples of Newall Digipac Retro-fit installations

Newall Digipac, electronic digital measuring instrument

Machine tools earn money cutting metal. Digipac boosts turnover by cutting down idle time, for the following reasons:

NEWALL DIGIPAC - developed within and specifically for the machine tool industry.

NEWALL DIGIPAC - instant inch/metric measurement at the flick of a switch.

NEWALL DIGIPAC - no stopping the machine to measure. direct slide indication.

NEWALL DIGIPAC - no backlash. Only slide movement shown.

NEWALL DIGIPAC - no calculations. Slides are set instantly and accurately by matching Digipac's display to dimension required.

NEWALL DIGIPAC - Datum set anywhere;

NEWALL DIGIPAC - incredible resolutions. Up to .0001" and .002mm. It depends how good the machine is! For lesser accuracies, simpler Digipacs are available.

NEWALL DIGIPAC - can be fitted to all machines.

Rotary movements can also be measured with single or multi-axis installations.

NEWALL DIGIPAC - updates older machines. Fitting is a straight forward D.I.Y. job. Newall's expert advice and help is yours for the asking.

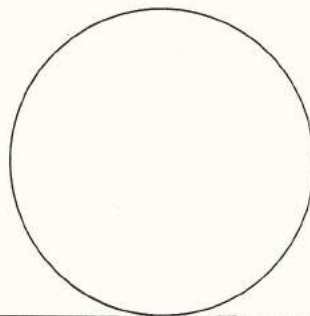
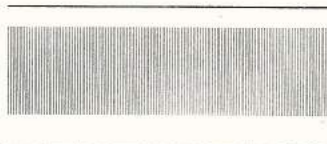
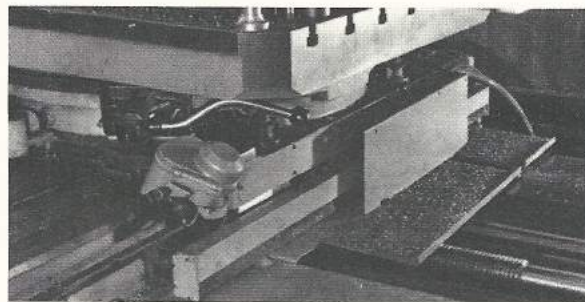
NEWALL DIGIPAC - is built to last. Integrated circuits and MSI elements combine with inbuilt protection against oil, dirt, vibration. Instant service is available - with overnight change units and rent-a-spare facilities.

NEWALL DIGIPAC - gives faster floor to floor times, less scrap, reduced operator fatigue.

Digipac is well proven. Hundreds of machines have been equipped and Digipac is backed by the same quality and service which has made Newall jig borers world renowned.

Digipac comprises two basic elements, the transducer and measuring element which is fitted to the machine, and the read-out that converts the transducer's electrical signals to a digital display. The Digipac system encompasses one read-out unit and four measuring elements. In combination, all measuring requirements are covered from simple length setting on a sawing machine, to precision cross slide positioning on lathes, milling machines, and jig borers through to complex, multi-axis inspection machines with print out and computer terminal link up facilities.

**ONLY NEWALL'S MACHINE TOOL EXPERIENCE COULD
PRODUCE AN INSTRUMENT LIKE DIGIPAC**



Measuring systems

Tape inductosyn

The measuring element is a tensioned steel tape with a copper pattern etched on one side. Installation is simple. Only two machined pads at the extremes of the bed need be prepared. A pre-set spring unit automatically tensions the tape. The transducer head has a dovetail slot to guide the tape past the reader. The tape is read over a long reading face whose averaging effect accounts for Inductosyn's accuracy and resolution of either 0.01mm and 0.0005" or 0.002mm and 0.0001".

Diffraction gratings

Digipac gratings are manufactured by Optical Measuring Tools, a wholly owned Newall subsidiary. The gratings produce a resolution of 0.001mm and 0.00005 ins. for the linear grating and one second of arc for the rotary.

It is not recommended that diffraction gratings are used for retrofitting to existing machine tools due to the fact that they are extremely fragile and need protection from swarf and coolant.

Friction roller

An inexpensive system of measurement, the Friction Roller is particularly suitable for longitudinal measurement of a lathe bed or for the measurement of machine axes where the sophistication of the other systems is not required.

The standard readout box with inch/metric switching facilities is used.

Lathpac push rod

The 'Lathpac', specifically designed for measurement on centre lathes, consists of a sealed plunger transducer for the cross slide with longitudinal measurement being by means either of a friction roller device or an inductosyn scale.

The maximum stroke for the system is 381mm (15 in). Output is indicated in true diameters i.e. twice the linear movement.

The standard readout box with inch/metric switching facilities is used.

Resolutions to 0.01mm (0.0005 in).

NEWALL ELECTRONICS

An extremely high degree of accuracy is synonymous with machine tools built by the Newall Engineering Company Limited. To develop a matching system of electronic measuring devices, Newall Electronics was formed with the Newall Group.

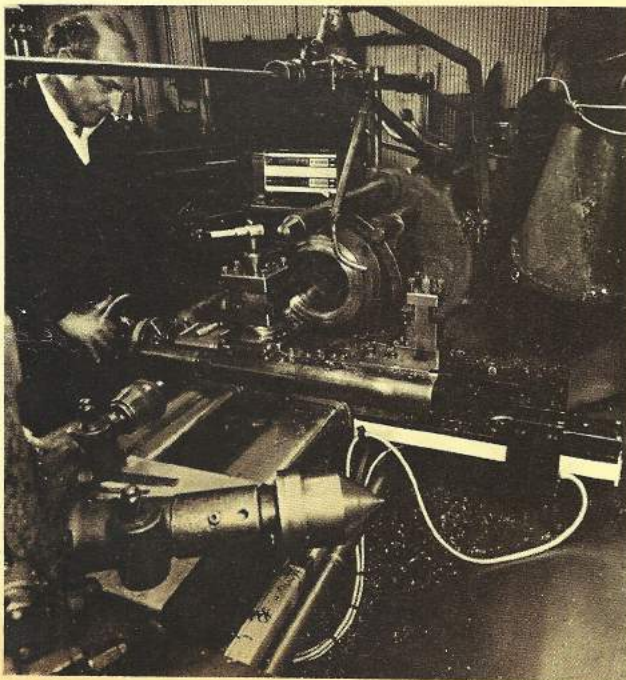
In particular, the Digipac range was built for Newall's own highly sophisticated jig borers - and from those beginnings Digipac was extended to a range of electronic units available for all types of machine and accuracy performance.

Development and proving has been carried out within and for the machine tool industry. Today, Newall Electronics' Digipac systems represent the widest range and most competitive priced units available.

Newall Electronics also build inspection machine measurement systems, including sophisticated types using mini-computer control and analysis.

Other products include cam inspection machines and a variety of controls for automating the production process.

Newall Electronics - space age accuracy for down-to-earth industry.



Technical data

Metric/Imperial readout.
No. of Decades 7 + Overflow.

Dimensions.

Single Axis Unit 110 mm high x 320 mm wide x 375 mm deep.

Two Axis Unit 160 mm x 320 mm x 375 mm

Three Axis Unit 251 mm x 320 mm x 375 mm

Weight.

Single Axis Unit 7.7 kg (17 lb).

Two Axis Unit 10.2 kg (22½ lb).

Maximum operating temperature.
45°C.

Power.

Maximum (Two Axis) 150 VA.

Mains Voltage.

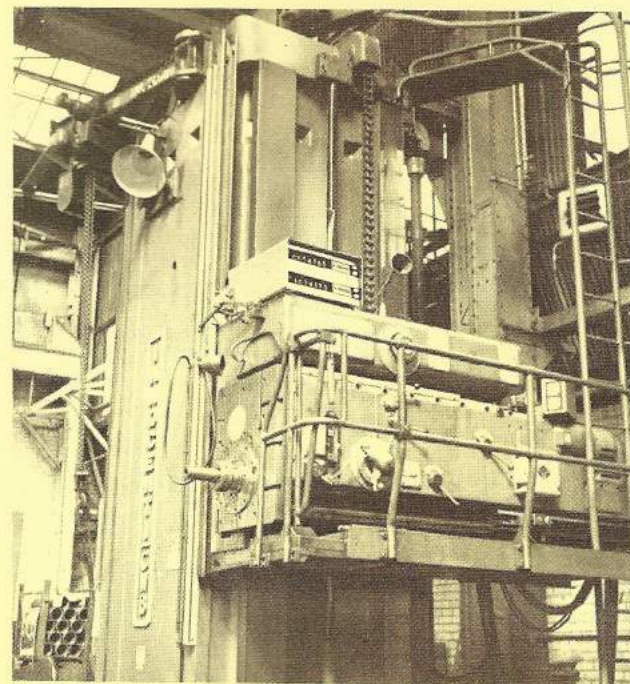
110,220/240 v.

Readout is available in one two or three axis modules which can be coupled to give more complex systems.

Other measuring systems can be provided for special applications.

After sales service

An efficient After Sales Service is available, both in the United Kingdom and abroad, from the Newall Service Organisation.



NEWALL ELECTRONICS

Control systems for the machine tool and other industries

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Telephone (Peterborough) 0733 262581