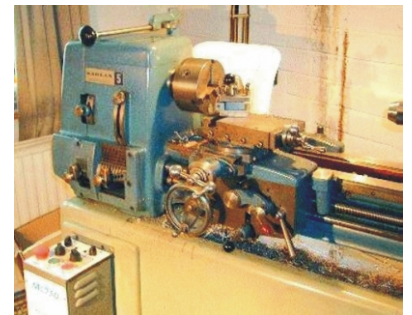
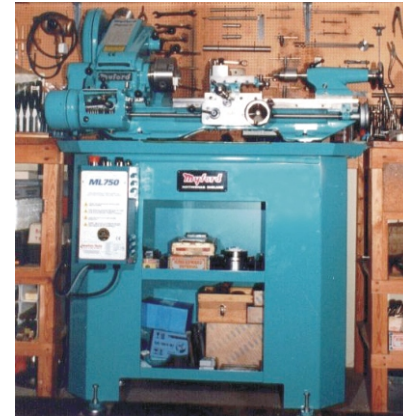


ML SERIES SPEED CONTROLLERS

An easily fitted high performance, variable speed control for your lathe or miller



ML RANGE KEY FEATURES

- Comprehensive package with controller and matched motor.
- All pre-wired with plug-in connections.
- Smooth control across entire speed range, giving chatter free machining and excellent finish.
- Quiet operation.
- High torque down to lowest speed.
- Powered from domestic mains.
- Automatically maintains shaft speed once set, compensating for cutting load.
- Complete electronic motor protection.
- Simplifies screw-cutting, tapping blind holes from the tailstock, parting/facing off large diameter bars, drilling operations from the tailstock, reaming operations and setup/centering of 4 jaw chucks.

For any machining job there is a cutting speed that is just right, and with full speed control you can always find the speed that gives the ultimate machining performance. With a Newton Tesla ML range controller, the full potential of your lathe or machine tool can be finally unleashed.

With a proven track record of over 500 units sold worldwide, the ML range controllers are perfect companions for Myford type lathes, although they are suitable for virtually all machines. They exhibit excellent starting characteristics, giving up to 300% full load motor torque at 3Hz, through using flux vector control technology.

All controllers are supplied complete with a new, high torque, variable speed motor that fits directly onto Myford and other lathes of up to 1HP. These motors are to the Imperial "56 frame" and have a 0.625" diameter shaft, although metric motors can be supplied, on request, for other machines.

The Newton Tesla system is based on technologically advanced Mitsubishi single-to-three phase inverters. All

Some of the machines used with Newton Tesla ML Series Controllers.

Metalworking

Myford ML7, Super 7 and Super 7 Plus
Colchester
Tom Senior
Bridgeport
Drummond
Adcock-Shipley
Raglan
Viceroy
Chester
...and many others.

Woodworking

Harrison
Union 'Graduate'
Viceroy
Myford
...and many others

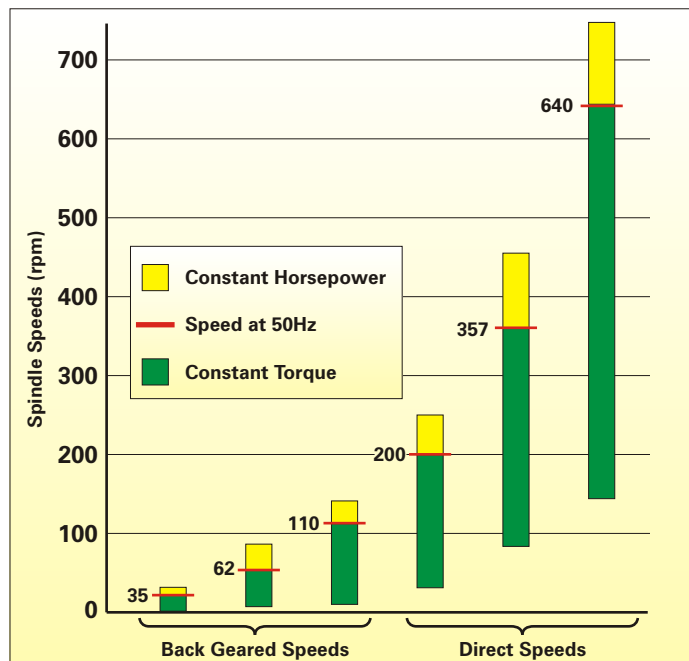
systems are provided complete with a matched 3-phase motor ready to mount, plug in and go. All are designed to work from single phase 220/240V, 50/60 Hz domestic mains supplies.

In addition to smooth control, giving chatter-free operation, the controller ensures that once you have set the motor speed, it automatically compensates for the cutting load, giving high torque even at low speed. The system also incorporates complete electronic motor protection.

Typical Installation Performance

A typical Myford ML7 lathe has six fixed spindle speeds, three back geared and three direct. By converting to variable speed control, each of these fixed speeds can be varied over a 10:1 speed range with full torque available at the motor. Furthermore, within the ML7 original design specification, up to 20% over speed is possible (60Hz) at "constant horsepower". As all the speed ranges overlap each other, any spindle speed can be achieved from 3.5 to 785 RPM with no gaps whatsoever.

The chart below shows the typical speed ranges possible on a standard Myford ML7 fitted with a Newton Tesla controller and motor, and with the original 1 7/8" diameter



motor pulley fitted.

About Newton Tesla

Established in 1987 by George Newton, the company is a major supplier of AC and DC variable speed drives to industry, handling power ratings of up to 750KW and 11,000V. Newton Tesla engineers travel throughout Europe, troubleshooting in factory automation and speed

Call us now for more information and friendly advice on 01925 444773 or visit www.newton-tesla.com



Newton Tesla (Electric Drives) Ltd, Unit G18, Warrington Business Park, Long Lane, Warrington, Cheshire WA2 8TX, UK
Tel: 01925 444773 Fax: 01925 241477 E-mail: info@newton-tesla.com Web: www.newton-tesla.com

SPECIFICATIONS

CONTROLLER

Input Supply	200-240V AC, single phase mains
Output Voltage	200-240V AC, three phase (suitable only for motor supplied)
Inverter	Unit comprising Mitsubishi Electric inverter - pre programmed and 'auto' tuned to the actual motor supplied.
Control functions	Start / Stop push buttons Forward / Reverse direction switch Jog / Normal select switch Preset and variable speed controls Emergency Stop push button
LED indication	Power ON & 'Stall' LED indications
Controller dimensions	150mm x 300mm x 160mm (WxHxD)
Enclosure	Powder coated mild steel enclosure. Multi-pin plug / socket on base of unit for fast and easy connection to motor. Available in machine tool mid-grey or light green

MOTOR

Speed Range	0 - 1760 rev/min
Motor voltage	0 - 220V AC
Number of phases	3
Number of poles	4
Frequency range	0 - 50Hz (constant motor torque) 50 - 60Hz (constant motor power)
Motor frame size	56 frame DP (drip proof)
Shaft	5/8" diameter by 2" long
Power rating	ML370 370 watts (1/2HP) ML500 550 watts (3/4HP) ML750 750 watts (1 HP)

PRICES (inclusive of VAT)

ML370 (complete with 0.5HP motor)	£464
ML550 (complete with 0.75HP motor)	£499
ML750 (complete with 1.0HP motor)	£515
<i>UK Mainland Delivery</i>	£18

WARRANTY

Newton Tesla offers 3 years (return to base) warranty on both controller and motor provided that they are always used together and that the motor is protected from ingress of liquids and foreign objects such as swarf.

