XYZ Machine Tools

FREE TRAINING on all new XYZ CNC products

The Company: ProtoTRAK Milling and Automation
XL Lathes and Manual Machines
ProTURN Lathes
Vertical Machining Centres CAD/CAM

OVER 350 NEW MACHINES ALWAYS IN STOCK

ProtoTRAK®
SIEMENS
HEIDENHAIN

XYZ CATALOGUE 2019/20
Welcome to the latest XYZ Product Catalogue.

Please remember that each and every machine tool within this Catalogue has been designed and built to be ‘the very best in its class’, and all of our machine tools are backed up with our first rate XYZ Customer Support Teams.

Duration: 3 min 55 sec

Visit the website to see the video

The Company

http://www.xyzmachinetools.com/video/overview

Inside the Devon Showroom and Training Centre.

The 18,000 sq ft Parts Department with over £1.5 million of parts held in stock.

The largest supplier of CNC into the UK.

When you commit to an XYZ product, XYZ commits to you.

This means that while your machine tool has the support of the XYZ Spares Department, and XYZ Service Team, you will be backed up by the Free support of the XYZ Applications Training Team and the Free XYZ Programming Helpline for as long as you need it.

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Most vehicle owners, even non-engineers, understand that routine maintenance is required for smooth, trouble-free, running. The same applies to machine tools, all machine tools. That's why XYZ provides tailor-made Service Plans for all of its machine tools.

To learn about the details of the Service Plan that fits your machine tools, please call us or visit www.xyzmachinetools.com.

There are five types of XYZ Service Plans to ensure the perfect running of your machine tool. The type of Service Plan you need depends on which machine tool you have purchased.

- ProtoTRAK Mills and XYZ 2-OP
  25 point Annual Service

- ProtoTRAK Lathes
  25 point Annual Service

- Machining Centres
  15 point Annual Service

- Turning Centres
  15 point Annual Service

- XL and Oil Country Lathes
  25 point Annual Service

These XYZ Service Plans are completely optional, in the same way as regularly servicing your car is optional.

With an XYZ Service Plan you know you’re in safe hands.

The XYZ Servicing Handbook - your personal passport to stress-free machine tool operation.
Visit the XYZ website at www.xyzmachinetools.com and click on the map to see who your Area Sales Manager is. Talk to the experts and learn how to maximise your low volume and prototype production with the very best technology from ProtoTRAK, Siemens and Heidenhain.

Who’s your Area Sales Manager?

XYZ Devon
Main Factory and Administration
Woodlands Business Park, Burlescombe, Tiverton, Devon. EX16 7LL

XYZ Blackburn
Thwaites Close, Shadsworth Industrial Estate, Blackburn, Lancashire. BB1 2QQ

XYZ Nuneaton Technical Centre
5/6 Tungsten Court, Hemdale Business Park, Nuneaton. CV11 6GZ

XYZ Sheffield (WNT showroom)
Sheffield Airport Business Park, Europa Link, Sheffield S9 1XU

XYZ London
944 Yeovil Road, Slough Trading Estate, Slough. SL1 4NH

XYZ Halifax
Opening Autumn 2019

XYZ across the UK

XYZ Devon: Hour Factory and Administration
Woodlands Business Park, Bideford, North Devon, EX39 2RU

XYZ Blackburn: The Coombes, Blackburn Industrial Estate, Blackburn, Lancashire, BB1 2QQ

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The XYZ Price Promise

We believe above all in fairness and treating customers as we would like to be treated.

The price you pay is the price every company pays… Big, Small, New or Regular every customer pays the same.

Our price negotiation policy is simple and straightforward.

XYZ promises that everyone gets our best price, automatically, every time.

Nigel Atherton
MANAGING DIRECTOR

The bitterness of poor quality remains long after the sweetness of low price is forgotten.

Mark Twain

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The people

When you buy an XYZ machine tool you automatically get XYZ Team Support. That’s a UK team of hand-picked people dedicated to keeping your business at the top.

This team is trained and resourced to make sure you get the very best from your XYZ machine tools.

And it is a team that you can count on at any time.

The Company

ISO 9001

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Keeping railway heritage rolling

Now almost 120 years old the Welshpool and Llanfair Light Railway continues to operate thanks to a dedicated team of volunteers and full and part-time engineering staff, who now have two XYZ machines tools, an XYZ SMX-4000 Bed Mill and an XYZ SLX 425 ProTURN lathe available to manufacture the parts vital to keeping its engines and rolling stock in the best of conditions.

The impact of the SLX lathe allowed Maverick to produce what it wanted, when it wanted, with lead times virtually non-existent.

Five-axis was the next step for us, the XYZ 710 VMC with a Lehmann five-axis unit was the right move.

The first job on the XYZ UMC-5X was an injection mould tool, manufacturing time reduced by 60 per cent.

It is a refreshing change to get such service from a supplier, it is how we like to treat our customers.

The simplicity of the control on the XYZ means we can quickly produce batches of 10-off prototypes [or production volumes].

Several factors were in favour of the XYZ UMC-5X including machine construction and design gave us confidence it would perform.

Several letters were in favour of the XYZ UMC-5X including machine construction and design gave us confidence it would perform.

The benefits of investing in XYZ machining capacity at JAW Engineering provide local industry with low volume sub-contracting capacity and emergency production in support for engineering projects for a number of years. In particular, several letters were in favour of the XYZ UMC-5X including machine construction and design gave us confidence it would perform.

We have seen growth through word of mouth, on the strength of our reputation for quality, and a willingness to invest.
Introducing the **XYZ** thoroughbreds, each one the best in its class.

Here at **XYZ** we have been developing, testing and refining our range of machine tools for over 35 years. Our winning principles of combining outstanding build quality with the world's best control systems, namely ProtoTRAK®, Siemens and Heidenhain, have seen the **XYZ** product range grow to become the nation's first choice for prototype and low-volume production. But that's just the start of it, because when you combine great value products with excellent support it's easy to see why **XYZ** has grown to be the largest supplier of CNC machine tools in the UK.

So here it is, the finished article, the **XYZ** range, each one the very best in its class.

**XYZ** Manual Mills, Lathes and Grinders

**XYZ** ProtoTRAK® KRX Turret Mill
2 Models available

**XYZ** ProtoTRAK® RMX Bed Mills
4 Models available

**XYZ** ProTURN® RLX Lathes
7 Models available

**XYZ** 2-OP
1 Model available

**XYZ** LR Range
1 Model available

**XYZ** VMC HD Range
4 Models available

**XYZ** High Speed VMC
1 Model available

**XYZ** 5 Axis Simultaneous and 4+1 VMC
2 Models available

**XYZ** Turning Centres
4 Models available

**XYZ** Robotic Automation
2 Models available

**XYZ** Heavyweight Vertical Machining Centres
2 Models available

**XYZ** XL & Oil Country Lathes
5 Models available

**XYZ** Robotic Automation
4 Models available

**XYZ** LR Range
4 Models available

**XYZ** VMC HD Range
4 Models available

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**XYZ** Turning Centres
4 Models available

**XYZ** Robotic Automation
2 Models available

**XYZ** Heavyweight Vertical Machining Centres
2 Models available

**XYZ** XL & Oil Country Lathes
5 Models available
When you buy any new XYZ Machining Centre or Turning Centre you get the FREE ‘Standard Training Option’. After you’ve completed your ‘Standard Training’ you get access to the XYZ Telephone Support Line should you need it.

This free, three days training starts with the first two days at an XYZ Centre, followed by a period of time to allow you to put into practice all that has been learnt so far. This ‘breathing space’ in the training course allows the 3rd and final day to be used either as a ‘refresher course’, or as a more ‘advanced training day’ based on the aspects that have now been learnt.

FREE XYZ product training

“Unleash the full power of your XYZ® and Siemens controls with our Advanced Training”

ProtoTRAK® Milling and Turning Training

Standard Training Option - FREE
XYZ offer free advanced decisions training for the first 12 months from date of order on all their ProtoTRAK controlled machines. This 6 month free course at any of our demonstration centres introduces delegates to the basics of programming, some of the most popular features of the control and setting up the machine for production of parts.

One on One Training
If you would like to focus more on the specialties of the parts you manufacture, these courses are available for up to 3 delegates and whilst costs charges are for equipment use the chance to have an instructor to yourself and learn in greater depth the features to help benefit your business.

Training On-Site
Training on the machine you have purchased can be undertaken at your premises at a day rate cost for up to 3 delegates and whilst costs charges are for equipment use the chance to have an instructor to yourself and learn in greater depth the features to help benefit your business.

Advanced Training
Once a user has the basics and needs to develop their programming skills into the next level, then advanced courses which are classroom based are available to improve operators knowledge and to help reduce programming time and increase machine productivity.

Telephone Support
XYZ telephone support is available once a training course has been attended. This help on the end of the telephone is to assist the user if encounters errors when programming or a quick way to get you up and running on the jobs you produce.

“Unleash the full power of your ProtoTRAK® and Siemens controls with our Advanced Training”

ProtoTRAK® Milling and Turning Training

Standard Training Option - FREE
XYZ offer free unlimited classroom training for the first 12 months from date of order on all their ProtoTRAK controlled machine tools. This broad-based course at any of our demonstration centres, introduces delegates to the basics of programming, some of the most popular features of the control and setting up the machine for production of parts.

One on One Training
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Training On-Site
If you would like to know more about the XYZ Training Courses, please call 01823 674200 and ask to speak to the Training Department.

All of the XYZ Training and Applications Team have years of experience related to the products involved and the latest developments from ProtoTRAK, Siemens and Heidenhain. These are the guys that will make your training experience an enjoyable one.
ProtoTRAK®

milling and turning

- BETTER
  New Hardware, Faster Feeds, 2x NEW features.
- EASIER
  Now with 15.6" touch screen.
- FASTER
  Drawing to finished component much faster than before.

Call now for your Desk Top Demo.

ProtoTRAK® Turret Mills

XYZ KMX 1500 pages 22, 26
XYZ KMX 2000 pages 22, 26
XYZ KMX 3LY pages 22, 26

ProtoTRAK® Bed Mills

XYZ RMX 2500 pages 22, 26
XYZ RMX 3500 pages 22, 26
XYZ RMX 4000 pages 22, 26
XYZ RMX 5000 pages 22, 26

ProtoTRAK® Production XYZ 2-OP Portable 3 axis CNC pages 29, 30

ProtoTRAK® Lathes

XYZ PROTURN RLX 1630 page 29
XYZ PROTURN RLX 355 page 29
XYZ PROTURN RLX 425 1.25 and 2 metre Gap Bed Lathes page 30
XYZ PROTURN RLX 555 1 and 1.75 metre Gap Bed Lathes page 31
XYZ PROTURN RLX 555 3 metre Gap Bed Lathe page 42

Milling, turning and more

The ProtoTRAK® control was designed from the ground up to be the easy to use control.

The current range of ProtoTRAK controls for the mill or lathe is simply the best technology solution for small batch and prototype production available today.

Program at the control in minutes or use ProtoTRAK offline software, DXF or parasolid converter options. Alternatively read in G code generated programs from a CAM system.

Why ProtoTRAK

ProtoTRAK is the ideal control for short runs.

The simplicity of ProtoTRAK makes training very simple and with only one days training you can be making profitable parts. Often much faster than on a machining or turning centre.

Get the new RMX and RLX control brochures. Call 01823 671200 or visit the website to download.

Or better still call to book your Desk Top Demo.
The ProtoTRAK CNC Manual control is simple to use for small batch machining now available today
ProtoTRAK was first developed 35 years ago by Southwestern Industries in California. They focused their entire efforts on finding an engineering solution that would provide consistent high efficiency performance all day long and simple programming technology.
From these focused efforts, ProtoTRAK developed the first ProtoTRAK product. ProtoTRAK is now a runaway success, with over 15,000 users in the UK and 100,000 worldwide.

The ProtoTRAK control is now available as the KMX and RMX for mills and the RLX for lathes. These three variants offer unrivalled milling and turning capabilities,

The ProtoTRAK CNC Manual control is simple to use for small batch machining – it’s the genuine article designed from the ground up to be the control for one-off and low volume production.

ProtoTRAK is unlike many alternatives, it is not simply a down-rated high volume control – it’s the genuine article designed from the ground up to be a control for one-off and low volume production.

ProtoTRAK® KMX

A four-axis CNC control designed especially for Turret Mills, with up to two-axis DRO display plots include points of every shape, including the vertex of a circle, each end of a rectangle and two points of any shape, including the vertex of a circle, each end of a rectangle and two points of any shape. The ProtoTRAK CNC Manual control is simple to use for small batch machining. ProtoTRAK is a genuine article designed from the ground up to be the control for one-off and low volume production.

ProtoTRAK® RMX

This three-axis CNC offers the latest ProtoTRAK technology and displays include points of every shape, including the vertex of a circle, each end of a rectangle and two points of any shape. The ProtoTRAK CNC Manual control is simple to use for small batch machining.

ProtoTRAK® RLX

This two-axis CNC control allows manual running of the machine at full speed while the machine is under CNC control. ProtoTRAK is a genuine article designed from the ground up to be the control for one-off and low volume production.

ProtoTRAK on the lathe

From small lathes up to 3 metres between centres.

The features and benefits of ProtoTRAK®

TRAKing allows you to manually run through the program by winding the handles.

EASY No previous CNC experience is required with ProtoTRAK. The quick and easy plain English format requires just a few hours training for even the most inexperienced machinist to be creating programs. This allows you to train productivity and profitability.

LOOK Viewing operation in the geometry of the program as you enter the data, which allows for verification of the program, saving time and money while avoiding any costly mistakes. As with TRAKing it gives operators additional confidence.

VERIFY This feature of ProtoTRAK gives a graphical representation of the tool path to the machinist. This allows the required feedback that your program matches your expectations. Features such as Verify speed up the machining process by giving the confidence that the cutter path is exactly as you expect it to be.

TRAKing allows you to manually run through the program by winding the handles.
One of the many advanced features of the ProtoTRAK RMX and RLX controls is the ability to have a visual representation of the part that has been programmed as a solid model. This VERIFY feature supplements the tool path function, which will show where each tool will machine by allowing the operator to specify the material size that the part is to be made from, then running the program as if machining is taking place. The prove out can be performed at different speeds, with the option to display every operation, or just the finished part.

On the RMX milling control the part can be rotated to ensure the cutters have machined to the correct depth and have retracted between operations to avoid collisions. On the lathe, tool control of the part can be specified so that any internal details can be verified.

The VERIFY function is the ultimate in part program prove out and can be used for programs produced using ProtoTRAK conversational format or generated on CAD/CAM systems.

To see the ProtoTRAK verify video please visit [http://www.xyzmachinetools.com/video/verify](http://www.xyzmachinetools.com/video/verify)

Programming is easy on the ProtoTRAK control, but it can be made even easier. Fitting the optional DXF converter makes light work of programming profiles and selecting hole patterns by taking them straight from the CAD drawings in either DXF or DWG formats.

Because we don’t need the supplementary data such as the drawing border and even dimensions, layers can be turned off and the machine can decide where the X and Y axis position should be. Using the standard ProtoTRAK programming menu to select the operations needed for the part, no dimensional mistakes will ever be made again.

To see the ProtoTRAK DXF video please visit [http://www.xyzmachinetools.com/video/dxf](http://www.xyzmachinetools.com/video/dxf)

More and more companies now design their parts using solid modelling software. This data, in the form of solid model (.X_T format), can be imported directly into the ProtoTRAK control, allowing the machine to work straight from the design.

When the model is opened it can be viewed in full 3 dimensions along with the ability to zoom, pan and rotate the part to the desired perspective. The X and Y axis rotation positions can be used in the program menu before selecting the events required to manufacture the part.

To see the ProtoTRAK Parasolid video please visit [http://www.xyzmachinetools.com/video/parasolid](http://www.xyzmachinetools.com/video/parasolid)

ProtoTRAK® Verify

ProtoTRAK® DXF

ProtoTRAK® Parasolid

ProtoTRAK® trouser

ProtoTRAK® trouser
The economics of buying a ProtoTRAK® controlled machine tool

In this highly competitive age with high costs of skilled labour it is essential that you get the maximum productivity from your staff.
An investment in a new ProtoTRAK® machine allows you to be more productive by producing components quicker and more accurately than you might be doing at present.

Milling: programming time 10 minutes

When you are busy an investment in ProtoTRAK will improve productivity. To keep you busy the efficiency of ProtoTRAK allows you to quote less per part to win the order and still be profitable.

With extended warranties and service contracts available on all XYZ machine tools you can rest assured that there will be no surprise costs and benefit from years of trouble-free fixed cost production.

Milling: the maths

<table>
<thead>
<tr>
<th>MANUAL PRODUCTION</th>
<th>PROTOTRAK PRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Mill with DRO:</td>
<td>ProtoTRAK Mill:</td>
</tr>
<tr>
<td>One hour's work:</td>
<td>One hour's work:</td>
</tr>
<tr>
<td>Charge to customer: £35</td>
<td>Charge to customer: £30</td>
</tr>
<tr>
<td>Profit per hour: £19</td>
<td>Profit per hour: £224</td>
</tr>
</tbody>
</table>
*Based on a cost of £16.00 per hour for man and machine

Turning: programming time 3 minutes

Turning: the maths

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Making hard work easy
Program these components in minutes from scratch. Or, if drawings are produced by CAD as DXF or Solidworks files, a Parasolid or DXF file converter is available as an option, making programming time even shorter.
Introducing the new ProtoTRAK® KMX and touchscreen RMX for the mill

The KMX and RMX controls on the XYZ range of Turret and Bed Mills is a formidable combination, a serious contender to the XYZ VMCs.

**Productivity**
- ProtoTRAK RMX CNC integrated into the machine at the factory.
- TRAKing – control of program run.
- Programmable Spindle Control.

**Flexibility**
- Manual, two or three axis.
- Real handwheels so you can work manually.
- DRO mode with power feed, teach and more.
- Head swivels right and left.

**Strength and Power**
- Wide saddle.
- Box ways.
- Bed support of table and saddle.
- Low and high gear range.
- Ensure ram moves along the column for rigidity.

**Precision**
- Ball screws in the table, saddle and column.
- Brushless servo motors with 0.000003” encoder resolution.
- Quill scale and column ball screw encoder integrated into one Z dimension.
- Torque coating on bearing surfaces to reduce friction.

Get the new RMX control brochure
Call 01823 674200 or visit the website to get yours

To see more about tap, swipe, pan, zoom and other touchscreen gestures watch the videos at the XYZ website www.xyzmachinetools.com

Or, better still, get a demo in your machine shop. Talk to your XYZ Salesman about the new ProtoTRAK controls. Chances are he’ll have a Demo Box with him.
From entry level CNC capability with DRO and powerfeeds for little more than the cost of a manual mill, up to the top of the range RMX ProtoTRAK CNC control with 2 or 3 axis capabilities.

ProtoTRAK® Turret Mills
XYZ KMX 1500 pages 25, 26
XYZ KMX 2000 pages 25, 26
XYZ KMX SLY pages 25, 26

ProtoTRAK® Bed Mills
XYZ RMX 1500 pages 27, 28
XYZ RMX 1500 pages 27, 28
XYZ RMX 4000 pages 27, 28
XYZ RMX 5000 pages 27, 28

ProtoTRAK® Production
XYZ 2-OP pages 29, 30

Portable CNC
XYZ KMX 1500 pages 25, 26
XYZ KMX 2000 pages 25, 26
XYZ KMX SLV pages 25, 26

All XYZ machine tools are fitted with CE compliant guards. XYZ Turret Mills are fitted with swing and slide guards and XYZ Bed Mills are fitted with steel guards.

Bed Mill
Steel Guard.

Guarding
All XYZ machines are fitted with CE compliant guards. XYZ Turret Mills are fitted with swing and slide guards.

Turret Mill Swing and Slide Guard.

XYZ RMX 2500
This brings 3 axis milling within reach of all UK toolrooms.

XYZ RMX 3500
Bed Mills are essential for when 3 axis CNC machining is required. Offering 530mm of programmable ‘Z’ travel yet still keeping the versatility of a swivel head and manual quill.

XYZ RMX 4000
This 1000mm ‘X’ travel machine offers massive capacity at a very competitive price.

XYZ RMX 5000
Give yourself an advantage! How many companies do you know with 1500mm X axis capacity on a relatively low cost CNC Bed Mill.

XYZ KMX SLV
1000mm of ‘X’ Travel makes this one of the largest turret mills on the market.

Get the Desk Top Demo
Get the ProtoTRAK Desk Top Demo, it only takes 30 minutes and happens at your place. Alternatively visit the website and see the ProtoTRAK videos.

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Get the ProtoTRAK Desk Top Demo, it only takes 30 minutes and happens at your place. Alternatively visit the website and see the ProtoTRAK videos.
Motor / Head
All turret mill spindles are driven by AC motors transmitting power through a two speed gearbox and variable speed cone pulleys. Precision quill bearings are dynamically balanced and built in a dust free, temperature controlled environment, to ensure smooth and accurate cutting performance.

Control
The latest generation of ProtoTRAK KMX control provides maximum operator productivity particularly on one-off components or small batches. Even an operator with no previous CNC experience will be producing simple or complex parts within hours.

Servo’s & Ballscrews
High performance servo motors are built into the casting to protect them from the harsh machine shop environment. These servo’s provide smooth consistent power to the precision ground ballscrews to give a perfect milled finish.

Manual Operation
Mechanical handwheels allow the machinist to ‘feel’ the cutting process when manual machining is preferred, and will automatically disengage when the machine is running under CNC control.

Solid Casting
Built of solid Meehanite ribbed cast iron with induction hardened and ground slides. Turcite-B coated ways and auto lubrication to all slides and precision ground ballscrews aid accuracy and longevity.

TRAKing®
KMX Turret Mills have the TRAKing® facility as an option which allows the operator to wind the handwheel and the machine moves through the program at that speed. The faster you wind the faster it machines. Stop or reverse the handwheel and the machine does the same.

Guards removed for clarity
All machines are fitted with CE compliant guards. XYZ ProtoTRAK Turret Mills are fitted with swing and slide guards.
XYZ ProtoTRAK® RMX Bed Mill

Motor / Head
All RMX Bed Mills have programmable speed and are driven by AC motors with drive to the spindle cartridge, transmitting power through non-slip latest technology Polygrip Vee belts and pulleys. The lifetime lubricated and dynamically balanced spindle cartridge ensures smooth and accurate cutting performance even at high speeds.

Control
The latest generation of ProtoTRAK RMX evaluates same control provides conveyor operator with all features like manual, semi-auto or fully auto on various parameters. ProtoTRAK™ TRAKING® allows the operator to wind the handwheel and the machine moves through the program. The faster you wind the faster it machines. Stop or reverse the hand wheel and the machine does the same.

Solid Casting
Back of all machines has solid steel casting, high grade steel slides and ways, and are fabricated in all slides and precision ground to have accuracy in every category.

Servo’s & Ballscrews
High performance digital servo motors are built into the casting to protect them from the harsh machine shop environment. These high performance servo’s provide smooth, consistent, power to the precision ground ballscrews to give a perfect milled finish.

Guards removed for clarity
Can be extended to 530mm but this restricts Y axis travel to 480mm.

Programmable
Programmable spindle speeds of 40-5000 rpm are standard and TRAKING is available as an option on all models.

Optional Equipment
Riser Blocks, Office Software, Tailing, Vices etc.
DXF Converter, Parasolid Converter.

Standard Equipment
Trapezoidal Slides, Hardened and Ground Y Ways, 3 Axis DRO, Hardened and Ground X Ways, 3 Axis CNC, Precision Ground Y Ways, Coolant, 2 or 3 Axis CNC, Air Blow, Auto Lubrication, Interlocked Guarding.

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Achieve “cell set ups” quickly and easily without the need to employ extra skilled labour.

XYZ 2-OP double your profit

A true story filmed at PTG Plymouth.

Duration: 3 minutes 47 sec.

The most expensive item on any shopfloor is its manpower!

Any capital cost of a machine tool should be amortised over its reasonable life of say 7 - 10 years, therefore a £50,000 machine costs £5,000 to £7,000 per year depending on the term. But labour costs may be £30,000 a year so you need the operator kept busy running as many spindles as possible.

Every machine tool manufacturer is the most efficient use of labour.

However in a subcontract environment the job is only a few hundred components, or a few days’ work, it’s not worth moving machines around to set up a cell. The XYZ 2-OP addresses this issue by allowing you to quickly set up a cell so smaller batch runs, can be machined with negligible efficiency, dramatically reducing the time on the whole job.

If you are using any machine, quite a lot of the ‘expensive’ operator time can be just waiting for a machining cycle to finish. With the XYZ 2-OP the operator can use that time productively at virtually no cost to the business. The portability of the XYZ 2-OP addresses these issues and allows for higher productivity.

To learn more visit the website to see the video or call 01823 674200 to arrange a demonstration near you.

OPTIONS TO FIT YOUR EXACT NEEDS

XYZ 2-OP Double your profit

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XYZ 2-OP Specifications

X Yaw 95 mm
Y Yaw 95 mm
Z Yaw 95 mm
Table size 657 x 381 mm
Spindle to table 70 - 525 mm
Rapid feed XYZ axis 15 M/min
Max table load 250 kg
Rapid feed XYZ axis 15 M/min
Max table load 250 kg
T slot size 16 mm
T slot number & pitch 4 @ 63 mm
Spindle speed 50 - 6000 RPM
Spindle motor 3 hp
Tool magazine capacity 8 station
Machine weight 1100 kg
Footprint Width x Depth x Height 775 x 1,380 x 2,520 mm

XYZ 2-OP

Cell manufacturing for all machine shops with NO increase in labour.

XYZ 2-OP

Programmable Pneumatic Speed Indexer

Quick set up set with 8 station rotary indexable table

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Quick set up set with 8 station rotary indexable table

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To learn more visit the website to see the video or call 01823 674200 to arrange a demonstration near you.
Introducing the new touchscreen Proto TRAK® RLX for the lathe

**BETTER**
New Hardware,
Faster Feeds,
11 NEW features.

**EASIER**
Now with 15.6” touch screen.

**FASTER**
Drawing to finished component much faster than before.

With a choice of swings, bed lengths and spindle bores, the XYZ RLX range has a lathe to make you more productive.

**NEW**

- ProtoTRAK RLX is possibly the simplest CNC control available today.
- 15.6” touchscreen makes the control simple and intuitive.
- Gesture control makes controlling the screen quick and easy.
- Constant Surface Speed control for improved tool life and surface finishes.
- Electronic handwheels allows Tapers, Radii and Fillets to be produced manually.
- Enhanced ProtoTRAK Assistant is your on board help at the touch of the screen.
- Proturn Lathes are standard with TRAKing® which allows the operator to wind the handwheel and the machine moves through the program. The faster you wind the faster it machines. Stop or reverse the handwheel and the machine does the same.
- Choice of toolholding, quick change toolpost, 4 station indexer or 8 station turret.
- Optional DXF software allows program production straight from the drawing.

Enhance your 3D model with the ProtoTRAK RLX. It’s more intuitive, more productive and would suit your machine shop to a T.
The ProtoTRAK® RLX control is available across the ProTurn range, from small lathes through to three metre between centre lathes. The RLX can be used manually or under full CNC control with clearance cycles, profiling, grooving, drilling, standard and custom thread routines and more.

Get the ProtoTRAK Desk Top Demo, it only takes 30 minutes and happens at your place. Alternatively visit the website and see the ProtoTRAK videos.

Improved precision and production options

Optional four or eight station indexing tool posts improve productivity on larger batches.

If you’re considering buying a large turning centre fitting an 8 station turret to a large ProTURN could give you very similar results at a fraction of the price. Perhaps 80% of the performance at 30% of the price.
**8 Station Turret**
If you're considering buying a large turning centre fitting an 8 station turret to a large/longbed ProTURN could give you very similar results at a fraction of the price. Perhaps 80% of the performance at 30% of the price.

**Guarding**
Built and guarded to comply with the latest CE regulations to ensure complete operator safety. When closed and in full CNC operation the easy lift, totally enclosed guard, ensures water tight containment of swarf and coolant.

**Saddle & Apron**
The apron moves with the saddle and emulates the actions of a manual lathe. This brings reassuring familiarity to the first time user of a CNC Lathe, and a joy stick provides for rapid positioning.

**TRAKing ®**
Proturn Lathes are standard with TRAKing which allows the operator to wind the handwheel and the machine moves through the program. The faster you wind the faster it machines. Stop or reverse the handwheel and the machine does the same.

**Swarf Tray**
Front opening easy access Swarf Tray makes light work of swarf removal and reduces the amount of space required at the rear of the machine.

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**XYZ ProTURN® Lathes - time proven quality**

**Control**
The latest generation of ProtoTRAK RLX control provides maximum operator productivity particularly on one-off components or small batches. Even an operator with no previous CNC experience will be producing simple or complex parts within hours.

**Guarding**
Two built in safety interlocks prevent any damage to the operator or machine from moving or rotating parts and ensure complete operator safety.

**Saddle & Apron**
The apron moves with the saddle and emulates the actions of a manual lathe. This brings reassuring familiarity to the first time user of a CNC Lathe.

**Tailstock**
The tailstock is built using Japanese induction hardened and precision ground gears. Two precision taper roller bearings and a support journal bearing ensure spindle rigidity and concentricity.

**Bed & Base**
Unlike most other Lathes that are cast or fabricated in two or three pieces and then bolted together, the Proturn RLX is a one piece solid ribbed casting that provides weight and rigidity ensuring unrivalled precision. The extra wide 'Vee and flat' bed way provides a large bearing surface that makes other Lathes seem flimsy by comparison. The lower cost RLX 1630 does not have a single piece casting.

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**XYZ PROTURN RLX 1630**

**SWING OVER BED 400mm**
**SPINDLE BORE 54mm**
**DISTANCE BETWEEN CENTRES 760mm**
**MAX 2500 RPM**

**Standard Equipment**
TRAKing®.
Constant Surface Speed.
Verify Solid Model Graphics.
Rapid Traverse with Joy Stick.
3 Jaw Chuck 200mm.
Quick Change Toolpost and 6 Holders.
Centres and Bushes.
Tailstock.
Interlocked Chuck Guard and Main Guard.
Auto Lubrication.
Contact.
Worklight.

**Optional Equipment**
4 Station Auto Indexing Toolpost.
Faceplates, Steadies, Chucks and Collet Chucks.
Offline Software.
Adjustable Back Stop.
DXF Converter.

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**XYZ**
*Made easy*
Designed from the ground up to be the easy to use CNC: 1 min 22 sec

See the videos at www.xyzmachinetools.com

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**XYZ PROTURN RLX 555 3 metre Gap Bed Lathe**
XYZ PROTURN RLX 355

SWING OVER BED 360mm
SPINDLE BORE 52mm
DISTANCE BETWEEN CENTRES 1000mm
MAX 4000 RPM

Standard Equipment
- TRAKing®
- Constant Surface Speed
- Verify Solid Model Graphics
- 2 Speed Headstock
- Rapid Traverse with Jog Stick
- 2 Jaw Chuck 250mm
- Quick Change Toolpost and 6 Holders
- Centres and Bushes
- Air Assisted Floating Tailstock
- Interlocked Chuck Guard and Main Guard
- Auto Lubrication
- Coolant
- Worklight

Optional Equipment
- 4 or 8 Station Auto Indexing Toolposts
- Faceplates, Steadies, Chucks and Collet Chucks
- Offline Software
- Adjustable Backstop
- DFX Converter
- Drilling Attachment
- Swarf Conveyor

XYZ ProTURN RLX 355 x 2 metre

XYZ PROTURN RLX 425

AVAILABLE AS A 1.25 AND 1 METRE GAP BED LATHE

SWING OVER BED 458mm
SPINDLE BORE 80mm
DISTANCE BETWEEN CENTRES 1250 & 2000mm
MAX 2500 RPM

Standard Equipment
- TRAKing®
- Constant Surface Speed
- Verify Solid Model Graphics
- 3 Speed Headstock
- Rapid Traverse with Jog Stick
- 3 Jaw Chuck 250mm
- Quick Change Toolpost and 6 Holders
- Centres and Bushes
- Air Assisted Floating Tailstock
- Interlocked Chuck Guard and Main Guard
- Auto Lubrication
- Coolant
- Worklight

Optional Equipment
- 4 or 8 Station Auto Indexing Toolposts
- Faceplates, Steadies, Chucks and Collet Chucks
- Offline Software
- Adjustable Backstop
- DFX Converter
- Drilling Attachment
- Swarf Conveyor

XYZ RLX 425

XYZ ProtocNC

Made easy
Designed from the ground up to be the easy way to use CNC
1 min 22 sec

See the videos at www.xyzmachinetools.com
XYZ PROTURN RLX 555

1 and 1.75 METRE GAP BED LATHE
SWING OVER BED 560mm
DISTANCE BETWEEN CENTRES 1000 or 1750mm
MAX 1800 RPM

Standard Equipment

- TRAKking®
- Constant Surface Speed
- Verify Solid Model Graphics
- 2 Speed Headstock
- Rapid Traverse with Joystick
- 3 Jaw Chuck 315mm
- Quick Change Toolpost and 6 Holders
- Centres and Bushes
- Air Assisted Floating Tailstock
- Interlocked Chuck Guard and Main Guard
- Auto Lubrication
- Coolant
- Worklight

Optional Equipment

- 4 or 5 Station Auto Indexing Toolposts
- Faceplates, Steadies, Chucks and Collet Chucks
- Offline Software
- Adjustable Backstop
- DFX Converter
- Driving Attachment
- Swarf Conveyor

XYZ PROTURN RLX 555

3 METRE GAP BED LATHE
SWING OVER BED 560mm
DISTANCE BETWEEN CENTRES 3000mm
MAX 1800 RPM

Standard Equipment

- TRAKking®
- Constant Surface Speed
- Verify Solid Model Graphics
- 2 Speed Headstock
- Rapid Traverse with Joystick
- 3 Jaw Chuck 315mm
- Quick Change Toolpost and 6 Holders
- Centres and Bushes
- Air Assisted Floating Tailstock, with towing hitch
- Interlocked Chuck Guard and Main Guard
- Auto Lubrication
- Coolant
- Worklight

Optional Equipment

- 4 or 5 Station Auto Indexing Toolposts
- Faceplates, Steadies, Chucks and Collet Chucks
- Offline Software
- Adjustable Backstop
- DFX Converter
- Driving Attachment
- Swarf Conveyor

ProtoTRAK on the lathe

See the videos at www.xyzmachinetools.com

ProtoTRAK on the lathe

ProtoTRAK has a reputation for offering a large turning centre fitting an 8 station turret at a large/long bed ProTURN could give you very similar results at a fraction of the price. Perhaps 80% of the performance at 30% of the price.
The use of linear rails on machining centres has been common for many years, as they allow users to take advantage of improvements in digital motion control and modern cutting tool performance, therefore maximising their competitiveness. Now, with the latest design advances in linear rail technology, XYZ Machine Tools feel that they meet its own stringent performance standards, while still providing a cost advantage and the arrival of the three machines XYZ LR range is the result.

Hardened Box Way Slides

Hardened box ways with Turcite coated slides have been the first choice for XYZ machines for many years, as they are renowned for providing the best solution for machine tool construction. The combination of machine weight and hardened box slideways guarantees a highly rigid machining platform, providing exceptional vibration damping, especially on intermittent cutting across a wide range of materials, such as Inconel, titanium, cast iron or stainless steel.

Linear Roller Bearing Slides

XYZ Machine Tools makes use of linear roller bearing slide technology for high-speed, high-precision applications that also call for enhanced linear stiffness and rigidity under cutting. These slideways provide a large bearing contact area and ease of finish on XYZ’s 1060 HS and UMC-5X high speed five-axis machines, where they provide optimum cutting performance for the applications that these machines face.

Why VMC?

ProtoTRAK is ideal for low volume production but when moderate to large quantities or many tools are required, machining or turning centres are the answer.
Siemens or Heidenhain are the perfect conversational controls and both are world leaders in production control systems.

Call 01823 674200 to arrange a demo and see the Siemens or Heidenhain controls in action.

At XYZ we believe that it’s really important that you see a Machining Centre cutting metal before you buy. Simply looking at photographs and spec’ sheets just isn’t good enough.

Optimise the profitability of a small space with this top selling VMC. The 660 HD is at the top of its class with power and performance in abundance.

The mid range 800 HD offers great capacity and cutting performance.

The 1100 HD is a real workhorse with a solid casting, rigid box ways. A great metal remover.

From 500 LR to 3010 HD, 5 axis and beyond.

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At XYZ Machine Tools we know how important it is to have powerful CNC controls that remain easy to learn and easy to set up.

We pride ourselves on providing only ‘the right machine and control for the job’, to do this we have over 100 years experience in machine tool development, having supplied the Heidenhain to our VMCs, and the Siemens 828D ShopTurn to our Turning Centres.

The XYZ range of extra large lathes is fitted with the Heidenhain TNC 440 control. In our opinion these controls offer the best value for money, for the production of low volume and advanced prototyping on a broad range of materials. All of these controls fitted by XYZ can be easily programmed off-line, using CAD/CAM or programmed without any ‘G coding’ knowledge and support as standard so no G codes are required but these controls can be upgraded to having the full Shopmill shopfloor software package which is supplied as standard on the Heavy Duty, Heidenhain and UMC 4+1 models. Developed over many years, Shopmill has evolved into the ultimate and most flexible control software for production type machines. Due to the need for increased performance and processing power, the 1060 HS and UMC-5X machines are fitted with Siemens 840D SL controls which using special high performance processors already proven. To give these workshops the opportunity to benefit from the quality of programming packages that allow users to generate programs for the controls away from the machine itself. Loaded onto a desktop or laptop computer, the TNC product brings the Heidenhain programming concept to a full touchscreen and uses all of the modes of operation and programming functions such as cycle definitions and contouring functions to an easy to use interface. The UMX-5X is offered with the TNC 640 control which still uses the Heidenhain shopfloor programming system but also gives the user the functionality to swivel the workpiece and execute simultaneous 5 axis programs that developing workshops and aerospace manufacturing companies need.

Heidenhain for Milling

Some workshops have taken programs from Cam software is easy using either USB ports or network (G45) connections.

Siemens for Milling

Using either the 828D or 840D SL controls, programming on the shopfloor is easy with the conversational formats developed by Siemens. The LR range is supplied with the 828D control with cycle support as standard so G codes are required but these controls can be upgraded to having the full Shopmill shopfloor software package which is supplied as standard on the Heavy Duty, Heavyweight and UMC 4+1 models. Developed over many years, Shopmill has evolved into the ultimate and most flexible control software for production type machines. Due to the need for increased performance and processing power, the 1060 HS and UMC-5X machines are fitted with Siemens 840D SL controls which using special high speed machining features produces smooth surface finishes and ensures cycle time reductions when doing more than one task. Taking programs from Cam software is easy using either USB ports or network (G45) connections.

Siemens for Turning

Fitted to the complete range of XYZ turning centres and XL range, Siemens 828D controls with the Shopmill software allows users to get the very best from XYZ’s production turning equipment. With the conversational Shopmill shopfloor turning software, producing programs for standard 2 axis lathes and machines fitted with Live tooling and Y axis has never been easier and quicker. Selecting the feature you require and answering the prompts generates a working program in minutes. But, working with Siemens, XYZ have developed extra capabilities such as tailstock programming, balanced cycles for pneumatic and servo type feeders and automatic use of the tool setting probing.

Heidenhain for Milling

Some workshops have taken programs from Cam software is easy using either USB ports or network (G45) connections.

Increased productivity and ease of use, are the key elements of the latest Siemens and Heidenhain controls fitted to XYZ’s range of VMC’s and Turning Centres.

Getting the best from your production machining and turning centres is reliant on using a flexible CNC control that the operators want to use and program. At XYZ we understand that having the right control for the work you are producing and engaging the user leads to a more productive machine. From our experience and research the Siemens and Heidenhain controls deliver on both fronts.
With the digital world moving ever faster, here at XYZ we understand that many customers want to use their CAD/CAM facilities to program their CNC Machine. XYZ can support both our customers and CAD/CAM suppliers in the generation of the coding required to run ProtoTRAK, Siemens and Heidenhain controlled machines. With our extensive knowledge of machining strategies and machine performance, we can assist you in getting the most from your 2.5D through to 5 axis simultaneous machines and increase productivity using high speed and adaptive machining toolpaths.

There are many 3rd party Cam software packages on the market catering to a multitude of budget but, they are only of benefit to users if they produce the correct coding for the machine controller through the post processor functionality. With many years of machining experience and understanding G code programs, XYZ’s Applications and support staff can assist in testing post processed programs and advise on changes that need to be made so that the best possible performance is gained from the machine, achieving good surface finishes and in the quickest cycle time.

No matter if you are generating programs for machines in 2.5 axis with Z level machining and hole production techniques, 3 axis surfaces machining on complex mould and die parts, 4th axis machining scallop profiles and pockets around bars, multi face machining on the UMC 4+1 or even doing impeller type full 5 axis machining, XYZ’s team can advise on the coding required and test the generated program to ensure that the output from the Cam package is correct and functional.

XYZ work alongside many of the industries well known names and many of our signature demonstration parts have been produced using these software packages.

As technology moves on, XYZ ensure we are kept abreast of the new and innovative developments in the CAD/CAM world which enables us to discuss with our customers the most productive ways of manufacturing parts, helping our customers to gain the advantage in this competitive manufacturing world.

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All leading CAD/CAM systems can integrate with the XYZ range of CNC machines. XYZ Machine Tools are happy to talk to your supplier to ensure post processing is correct and integration is smooth and hassle free.

There are many 3rd party Cam software packages on the market catering to a multitude of budget but, they are only of benefit to users if they produce the correct coding for the machine controller through the post processor functionality. With many years of machining experience and understanding G code programs, XYZ’s Applications and support staff can assist in testing post processed programs and advise on changes that need to be made so that the best possible performance is gained from the machine, achieving good surface finishes and in the quickest cycle time.

No matter if you are generating programs for machines in 2.5 axis with Z level machining and hole production techniques, 3 axis surfaces machining on complex mould and die parts, 4th axis machining scallop profiles and pockets around bars, multi face machining on the UMC 4+1 or even doing impeller type full 5 axis machining, XYZ’s team can advise on the coding required and test the generated program to ensure that the output from the Cam package is correct and functional.

All leading CAD/CAM systems can integrate with the XYZ range of CNC machines. XYZ Machine Tools are happy to talk to your supplier to ensure post processing is correct and integration is smooth and hassle free.

With the digital world moving ever faster, here at XYZ we understand that many customers want to use their CAD/CAM facilities to program their CNC Machine. XYZ can support both our customers and CAD/CAM suppliers in the generation of the coding required to run ProtoTRAK, Siemens and Heidenhain controlled machines. With our extensive knowledge of machining strategies and machine performance, we can assist you in getting the most from your 2.5D through to 5 axis simultaneous machines and increase productivity using high speed and adaptive machining toolpaths.
At XYZ the Siemens controls that we fit have many software options included that we consider essential for everyday machining.

### Turning the XYZ standard Siemens control features.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Siemens 2013</th>
<th>Siemens 2014</th>
<th>Siemens 2015</th>
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### Milling the XYZ standard Siemens control features.

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Direct drive on three axes
The three axes traverse are driven by high performance servo motors, which drive ballscrews with couplings assuring high positioning accuracy under any load condition. The optimised ballscrews are preloaded to minimise backlash.

Automatic Lubrication
The automatic lubrication is controlled by the CNC system that monitors and distributes oil to the guideways and ballscrews to ensure all critical components are lubricated with the correct amount of oil at all times.

Fully protected
All XYZ 660 HD and 800 HD HD machines feature steel concertina guards on all axes to protect the solid ribbed castings, slides and precision ground ballscrews. The final casting produced is solid, rigid and reliable.

Finite Element Analysis
We don't just 'hope' we have a rigid machine, every XYZ machine is designed using the latest design technology. All parts and castings are analysed for areas of stress and weakness using Finite Element Analysis, so the parts and castings are the best they can be from the outset. Red points show stress and they are optimised in the final casting.

Swarf Management
Wash down facilities are standard on all VMCs. Swarf from the machining area is washed down to the swarf removal area. An optional conveyor can further reduce the time spent cleaning.

Linear Rails on all axes of the LR Range
XYZ LR Machining Centres - quality proven

XYZ HD machining centres all use the well proven model of a solid Meehanite ribbed casting, with induction hardened and ground slides combined with Turcite-B coated ways. The combination, along with the computer modeled rib reinforcement, gives excellent torsion and bending rigidity. The XYZ machining centre range has optimised degreasing in boxes and substantial lubrication to slides and ball-screws, allowing fast rapid traverse rates.

XYZ LR Frames
These machining centres have proven their worth in the toughest of sub-contract machine shops environments, which can be assured that XYZ machining centres are a worthwhile investment you can rely on well into the future. The new XYZ LR range of VMCs have been back to the same existing standards and have further the latest in linear bearing technology.
Ball bar testing

Ball bar testing is performed to ensure circularity precision and accuracy. Test values are used as a reference for adjusting the machine to achieve optimum condition. The test items include backlash, lateral play, mismatched servo gains in the CNC and geometry errors such as squareness and straightness.

Laser inspection

The laser equipment inspects positioning accuracy. This is then used by the control to compensate for ‘ballscrew pitch error’ thus ensuring machining accuracy and repeatability.

Rigorous testing of spindle

The high pressure coolant option efficiently dissipates swarf and heat from deep hole machining. This greatly enhances cutting performance at typical cutting speeds, giving significant workspace machining accuracy.

Automated Tool Changer

Auto Type-Automated Tool Changer.

The type-C automated tool changer is a time-proven, reliable tool selection that load change is automated in only 3.5 seconds. This substantially increases the productivity of high volume or complex components.

Tool Removal Device

The high pressure coolant option effectively dissipates swarf and heat from deep hole machining. The floating tool clamp/unclamping feature ensures lifetime accuracy and long service life of the spindle. During tool change an airblast automatically cleans the spindle taper.

Swarf Management

The airless carousel tool changer on all XYZ VMCs provides a unique tooling solution. The carousel tool changer features a bi-directional, pre-selecting, random tool selection. Fast tool change is achieved in only 2.5 seconds tool to tool.

Swarf Air Blast

The airless carousel tool changer on all XYZ VMCs provides a unique tooling solution. The carousel tool changer features a bi-directional, pre-selecting, random tool selection. Fast tool change is achieved in only 2.5 seconds tool to tool.

Coolant Tank

All XYZ VMCs come with large volume base mounted coolant tanks, each have two pumps, one for the main spindle supply and one for the wash down facilities to ensure consistent flow.

4th and 5th Axis options.

4th axis are available as an optional extra on all XYZ VMCs.

Armless Carousel Tool changer.

The XYZ LR range and the XYZ 660 HD have carousel tool changers as standard. The carousel tool changer on all XYZ VMCs provides a unique tooling solution. The carousel tool changer features a bi-directional, pre-selecting, random tool selection. Fast tool change is achieved in only 2.5 seconds tool to tool.

5th axis as shown on the VMC.

Optimal on all XYZ VMCs with high speed spindles.

Spindle Oil Cooler

Controlled by digital electronics the spindle oil cooler offers high accuracy temperature control of +/− 1º C. The screen displays setting temperatures and actual temperatures for easy use. This optional extra is best suited to high speed machining.

Through spindle Coolant option

The high pressure coolant option efficiently dissipates swarf and heat from deep hole machining. This greatly enhances cutting performance at typical cutting speeds, giving significant workspace machining accuracy.

Spindle Oil Cooler

High Performance Spindles

The 8000 rpm spindle is fitted as standard on all XYZ VMCs, the 10,000 rpm spindle is fitted as standard on all HD VMCs. The 15,000 rpm spindle provides high axial and radial stiffness, generating minimum heat and vibration. The 24,000 rpm spindle is ideal for high performance machining and being pressurized to 1 bar it stops coolant ingress. The high rigidity of the bearings makes them perfect for machining all types of materials. Drive is provided by timing belt and pulley.

10,000, 12,000, 15,000, 18,000 and 24,000 rpm Spindle options.

All spindle types are dynamically balanced to give smooth and accurate cutting performance at high speeds.

4th and 5th Axis options.

The XYZ LR Range and the XYZ 660 HD have carousel tool changers as standard. The carousel tool changer on all XYZ VMCs provides a unique tooling solution. The carousel tool changer features a bi-directional, pre-selecting, random tool selection. Fast tool change is achieved in only 2.5 seconds tool to tool.

5th axis as shown on the VMC.

Optimal on all XYZ VMCs with high speed spindles.

Spindle Oil Cooler

Controlled by digital electronics the spindle oil cooler offers high accuracy temperature control of +/− 1º C. The screen displays setting temperatures and actual temperatures for easy use. This optional extra is best suited to high speed machining.

Through spindle Coolant option

The high pressure coolant option efficiently dissipates swarf and heat from deep hole machining. This greatly enhances cutting performance at typical cutting speeds, giving significant workspace machining accuracy.

Spindle Oil Cooler

High Performance Spindles

The 8000 rpm spindle is fitted as standard on all XYZ VMCs, the 10,000 rpm spindle is fitted as standard on all HD VMCs. The 15,000 rpm spindle provides high axial and radial stiffness, generating minimum heat and vibration. The 24,000 rpm spindle is ideal for high performance machining and being pressurized to 1 bar it stops coolant ingress. The high rigidity of the bearings makes them perfect for machining all types of materials. Drive is provided by timing belt and pulley.

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4th and 5th Axis options.

The XYZ LR Range and the XYZ 660 HD have carousel tool changers as standard. The carousel tool changer on all XYZ VMCs provides a unique tooling solution. The carousel tool changer features a bi-directional, pre-selecting, random tool selection. Fast tool change is achieved in only 2.5 seconds tool to tool.

5th axis as shown on the VMC.

Optimal on all XYZ VMCs with high speed spindles.

Spindle Oil Cooler

Controlled by digital electronics the spindle oil cooler offers high accuracy temperature control of +/− 1º C. The screen displays setting temperatures and actual temperatures for easy use. This optional extra is best suited to high speed machining.

Through spindle Coolant option

The high pressure coolant option efficiently dissipates swarf and heat from deep hole machining. This greatly enhances cutting performance at typical cutting speeds, giving significant workspace machining accuracy.

Spindle Oil Cooler

High Performance Spindles

The 8000 rpm spindle is fitted as standard on all XYZ VMCs, the 10,000 rpm spindle is fitted as standard on all HD VMCs. The 15,000 rpm spindle provides high axial and radial stiffness, generating minimum heat and vibration. The 24,000 rpm spindle is ideal for high performance machining and being pressurized to 1 bar it stops coolant ingress. The high rigidity of the bearings makes them perfect for machining all types of materials. Drive is provided by timing belt and pulley.

10,000, 12,000, 15,000, 18,000 and 24,000 rpm Spindle options.

All spindle types are dynamically balanced to give smooth and accurate cutting performance at high speeds.

4th and 5th Axis options.

The XYZ LR Range and the XYZ 660 HD have carousel tool changers as standard. The carousel tool changer on all XYZ VMCs provides a unique tooling solution. The carousel tool changer features a bi-directional, pre-selecting, random tool selection. Fast tool change is achieved in only 2.5 seconds tool to tool.

5th axis as shown on the VMC.

Optimal on all XYZ VMCs with high speed spindles.

Spindle Oil Cooler

Controlled by digital electronics the spindle oil cooler offers high accuracy temperature control of +/− 1º C. The screen displays setting temperatures and actual temperatures for easy use. This optional extra is best suited to high speed machining.

Through spindle Coolant option

The high pressure coolant option efficiently dissipates swarf and heat from deep hole machining. This greatly enhances cutting performance at typical cutting speeds, giving significant workspace machining accuracy.

Spindle Oil Cooler

High Performance Spindles

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Through spindle Coolant option

The high pressure coolant option efficiently dissipates swarf and heat from deep hole machining. This greatly enhances cutting performance at typical cutting speeds, giving significant workspace machining accuracy.
The XYZ 500 LR is the smallest machine in XYZ’s new linear rail technology range. As part of this new range of machines, the XYZ 500 LR offers price competitive performance with axis travels of 510 x 400 x 450 mm, 8000 rpm spindle and 20m/min cutting feedrates. The move to linear rail technology comes after recent significant design advances in these rails, which now makes them compatible with XYZ’s quality/performance criteria. With their addition to the XYZ range the LR machines offer a lower cost introduction to VMC ownership. XYZ Machine Tools is happy to demonstrate the capability of these machines at any of its UK showrooms.

**Standard Equipment**

- Siemens ES8D Control.
- Optimized Digital Servos.
- Rigid Tapping.
- Flood Coolant.
- Worklight.
- 12 Station Carousel.
- Easy Clean Swarf Tray.
- Coolant capacity 105 L
- Ballscrew size (grade C3) 28 mm P8
- Pull Studs.
- USB Port.
- Compact Flash Card Slot.

**Optional Equipment**

- 4th Axis Rotary Table.
- Swarf Conveyor and Bin.
- Renishaw/Heidenhain Toolsetting and Probe.
- 12,000 RPM Spindle.
- Remote Electronic Handwheel.
- AC/DC Servo Motors.
- Advanced Swarf Management System.
- Side Vision Panels.
**Standard Equipment**

- Siemens 880D Control.
- Optimised Digital Servos.
- Rigid Tapping.
- Flood Coolant.
- Worklight.
- 20 Station Carousel.
- Easy Clean Seed Tray.
- Steel Concourse Guards on all axes.
- Powder Coated Guarding.
- Pull Studs.
- USB Port.
- Compact Flash Card Slot.

**Optional Equipment**

- 4th Axis Rotary Table.
- Swarf Conveyor and Bin.
- Renishaw/Heidenhain Toolsetting and Probing.
- 12,000 RPM Spindle.
- Through Spindle Coolant.
- Remote Electronic Handwheel.
- Side Vision Panels.
- Offline Programming.
- 24 Station Arm Type ATC.
- ShopMill Advanced Software.
- Contour Handwheel (wind the handwheel to run through the program).
- Factory Networking.
- Advanced Swarf Management System.

### XYZ 750 LR

**Linear Rails**

- **SPINDLE** 18 HP / 13 kW
- **830 x 410 mm TABLE**
- **750 x 440 x 500 mm TRAVEL**
- **8000 RPM SPINDLE**
- **SOLID CASTING 3500 KG**

**Dimensions**

- X Travel 750 mm
- Y Travel 440 mm
- Z Travel 500 mm
- Table size 830 x 410 mm
- Spindle centre to column 500 mm
- Spindle to table 100 – 600 mm
- Column front to table centre 305 – 745 mm
- Rapid feed XYZ axis 20,000 mm/min
- Cutting feed rates 1-20,000 mm/min
- Max table load 500 kg
- T slot size 16 mm
- T slot number & pitch 3 @ 100 mm
- Spindle speed 5 - 8000 rpm
- Spindle motor 18 HP / 13 kW
- Spindle taper BT 40
- Tool magazine capacity 20 carousel (24 arm type optional)
- Tool change time tool to tool 8 sec (2.5 sec)
- Max tool diameter 80 mm
- Max tool weight 7 kg
- Coolant capacity 125 L
- Ballscrew size (grade C3) 32 mm P8
- AC servo motor size X and Y 8Nm Z 12Nm
- Machine weight 3500 kg
- Footprint W x D x H 2100 x 2150 x 2450 mm

Sitting in the middle of the new XYZ LR range of linear rail machines, the XYZ 750 LR capacity will make it the most popular choice for those looking to step up to CNC vertical machining centre operation at a very competitive price. With axis travels of 750 x 440 x 500 mm the XYZ 750 LR has the capacity to handle the majority of work passing through a typical machine shop. Add to this the 8000 rpm BT 40 spindle, 20 position toolchanger and a maximum table load of 500 kg it is a more than capable machine. Demonstrations of the XYZ 750 LR are available at any of the XYZ showrooms.

For more details on the XYZ 750 LR build specification please see pages 51 to 54.

**Linear Rail Ball Bearing Slides**

The use of linear rails on machining centres has been common for many years, as they allow users to take advantage of improvements in digital motion control and modern cutting tool performance, therefore maximising their competitiveness. Now, with the latest design advances in linear rail technology, XYZ Machine Tools feel that they meet its own stringent performance standards, while still providing a cost advantage and the arrival of the three machine XYZ LR range is the result.
The XYZ 1000 LR provides large capacity at affordable prices

As the largest machine in the new XYZ Linear rail series of vertical machining centres the XYZ 1000 LR has an impressive specification, including 1000 mm of travel in the X-axis and 500 mm in both the Y and Z axes. It shares the same 13 kW, 8000 rpm, BT 40-spindle with the other machines in the range as well as the standard 20 position tool carousel. It also has the option of a 24 station arm-type tool changer. The recent development in linear rail technology now means that XYZ can deliver a machine of this size to a very competitive price/performance ratio. Demonstrations of XYZ's linear rail machines are available at any of the XYZ showrooms.

Linear Rail Ball Bearing Slides

The use of linear rails on machining centres has been common for many years, as they allow users to take advantage of improvements in digital motion control and modern cutting tool performance, therefore maximising their competitiveness. Now, with the latest design advances in linear rail technology, XYZ Machine Tools feel that they meet its own stringent performance standards, while still providing a cost advantage and the arrival of the three machine XYZ LR range is the result.
The new XYZ 660 HD with increased travels in X & Y of 660 mm and 450 mm

With a small footprint of just 2000 x 2100 x 2600 mm this VMC will give modern day production capabilities to most shopfloors, with room to spare! The XYZ 660 is the smallest HD VMC in our range with a standard casting, wide box slideways and powerful direct drives on all three axes. The XYZ 660 HD features an automatic 12 station toolchanger and can accommodate most components with travels of 660 mm x 450 mm x 500 mm.

As XYZ we believe that it’s really important that you see a VMC cutting metal before you buy, simply looking at photographs and spec sheets just isn’t good enough.

For more details on the XYZ 660 HD build specification please see pages 51 to 54

Conforming to ISO 10791
Positional accuracy 4 microns
Repeatability 3 microns
Circularity over 300mm 5 microns
Geometric accuracy over 300mm 5 microns

Box Way Slides

Hardened Box Way Slides

The combination of machine weight and hardened box slideways guarantees a highly rigid machining platform, providing exceptional vibration damping, especially on intermittent cutting across a wide range of materials, such as Inconel, titanium, cast iron or stainless steel.
The XYZ 800 HD is a compact, highly capable and popular machine. With its solid cast ribbed structure, 24-station arm-type toolchanger, and vibration absorbing box slideways it is a rigid machine ideal for the typical sub-contractor who doesn’t know what material it will be cutting from day-to-day.

The XYZ 800 HD can cut even the toughest materials faster than most other competitor VMCs. At XYZ we believe that it is really important in the machine buying process to see the machine cutting metal before you buy, so we encourage you to visit one of our UK showrooms for a demonstration of the XYZ HDs.

### Standard Equipment

- Siemens 808D ShopMill or Heidenhain TNC 620 Control.
- Touch Screen.
- Optimised Digital Servo’s.
- Hardened Table.
- Right Tapping.
- High Pressure Flood Coolant.
- Contact Washdown.
- LED Worklight.
- 24 Station Arm Type Tool Changer.
- Remote Electronic Handwheel.
- Easy Clean Swarf Trap.
- Steel Concertina Guards on all Axes.
- Stainless Steel Floor Pan.
- Pad Therm. Guarding.
- Pull Studs.
- Networking.
- USB Port.

### Optional Equipment

- 4th Axis Rotary Table.
- 5th Axis Rotary Table.
- Swarf Conveyor & Bin.
- 12,000 rpm Spindle.
- Through Spindle Coolant.
- Offline Programming.
- Rainshaw/Heidenhain Toolsetting and Probing.
- Contour Handwheel (used the handwheel to run through the program).
- Oil Skimmer.
- Advanced Swarf Management System.
- Remote Electronic Handwheel.
- Easy Clean Swarf Tray.
- Steel Concertina Guards on all Axes.
- Stainless Steel Floor Pan.
- Powder Coated Guarding.
- Pull Studs.
- Networking.
- USB Port.
- Conforming to ISO 10791
  - Positional accuracy: ±5 microns
  - Repeatability: ±2 microns
  - Circularity over 300mm: 8 microns
  - Geometric accuracy over 300mm: 8 microns

### Hardened Box Way Slides

Hardened box ways with Turcite coated slides have been the first choice for XYZ machines for many years, as they are renowned for providing the best solution for machine tool construction. The combination of machine weight and hardened box slideways guarantees a highly rigid machine platform, providing exceptional vibration damping, especially on intermittent cutting across a wide range of materials, such as Inconel, titanium, cast iron or stainless steel.
XYZ 1100 HD

SPINDLE 33 HP / 25 kW
1200 x 600 mm TABLE
1100 x 610 x 610 mm TRAVEL
10,000 RPM SPINDLE
5TH AXIS CASTING 7000 KG

Standard Equipment

- Siemens 840D ShopMill or Heidenhain TNC 530 Control
- Touch Screen
- Optimised Digital Servo’s
- Hardened Table
- Rig Tapping, Twin Spindle Augers, Spindle Conveyer & Bin from Auger
- Hardened Box Slides and Coated Slide System
- Coolant Washdown, LED Worklight
- 38 Station Arm Type Tool Changer, Programmatically Cooled Extended Head
- Remote Electronic Handwheel, Easy Clean Slide Tray, Steel Convoluted Guards on all Axes, Stainless Steel Floor Pan, Powder Coated Guards, Pull Studs, Network Port, USB Port.

Optional Equipment

- 4th Axis Rotary Table, 5th Axis Rotary Table, 12,000 rpm Spindle, Through Spindle Coolant, Offline Programming, Renishaw/Makino Touchless Tapping and Probing, Container Measurhead (meas the handwheel to run through the program), Oil Skimmer, Advanced Smart Management System.

Performance has been proven in some of the toughest machine shop environments to reassure customers that an XYZ machining centre is a true workhorse that you can depend on for many years of reliable and accurate operation.

At XYZ we believe that it is really important in the machine buying process to see the machine cutting metal before you buy.

For more details on the XYZ 1100 HD build specification please see pages 51 to 54.

The new XYZ 1100 HD with increased travels in X & Y of 1100 mm and 610mm

This completely new structure has a newly designed base that allows for better support of the X and Y travel and increases table load capacity from 800 kg to a massive 1500kg. There is never any table overhang and the table is always fully supported. Built on a solid Meehanite, computer encoded, ribbed casting with induction hardened ground and Turcite-B coated, slides give the XYZ 1100 HD superb vibration absorption and rigidity. The optimised digital servo motors and automatic lubrication of the slides and slideways also ensure maximum rapid traverse rates.

Performance has been proven in some of the toughest machine shop environments to reassure customers that an XYZ machining centre is a true workhorse that you can depend on for many years of reliable and accurate operation.

At XYZ we believe that it is really important in the machine buying process to see the machine cutting metal before you buy.

Hardened Box Way Slides

Hardened box ways with Turcite coated slides have been the first choice for XYZ machines for many years, as they are renowned for providing the best solution for machine tool construction. The combination of machine weight and hardened box slideways guarantees a highly rigid machining platform, providing exceptional vibration damping, especially on intermittent cutting across a wide range of materials, such as Inconel, titanium, cast iron or stainless steel.

For more details on the XYZ 1100 HD build specification please see pages 51 to 54.

For more details on the XYZ 1100 HD build specification please see pages 51 to 54.
The XYZ 1060 High Speed - the flagship of the XYZ VMC range.

This high accuracy and high speed Vertical Machining Centre is equipped with the latest control technology from Siemens, the 840DSL ShopMill control. The 1060 has top of the line THK linear roller bearings making it capable of modern fast machining for use in the aerospace and mouldmaking industries where precision is of paramount importance.

The XYZ 1060 HS can easily be upgraded to 4 or 5 axis.

### Linear Roller Bearings

**XYZ 1060 HS**

**SPINDLE** 23 HP / 17 KW

1520 x 600 mm TABLE
1020 x 610 x 620 mm TRAVEL
12,000 RPM SPINDLE (12,000 RPM Optional)
43 M/min RAPIDS

**CHILLED BALLSCREWS**

**SOLID CASTING** 7500 Kg

**SIEMENS 840DSL**

**SHOPMILL CONTROL**

<table>
<thead>
<tr>
<th>Standard Equipment</th>
<th>XYZ 1060 HS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siemens 840DSL High Speed Gantry Controller</td>
<td></td>
</tr>
<tr>
<td>(5” Touch Screen)</td>
<td></td>
</tr>
<tr>
<td>1520 x 610 x 620 mm Coated Spindle</td>
<td></td>
</tr>
<tr>
<td>43 M/min RAPIDS</td>
<td></td>
</tr>
<tr>
<td>Temperature Controlled Ball Screws</td>
<td></td>
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<tr>
<td>Temperature Controlled Spindle</td>
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<tr>
<td>Pneumatically Counterbalanced Head</td>
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<tr>
<td>36 Station Aine Tool changer</td>
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<tr>
<td>High Pressure Coolant</td>
<td></td>
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<tr>
<td>Through Spindle Coolant</td>
<td></td>
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<tr>
<td>Coolant Washdown</td>
<td></td>
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<tr>
<td>Servo Conveyor &amp; Bin</td>
<td></td>
</tr>
<tr>
<td>Optimised Digital Servo’s</td>
<td></td>
</tr>
<tr>
<td>Hard Drives and Networking</td>
<td></td>
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<tr>
<td>Rapid Trapping</td>
<td></td>
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<tr>
<td>Remote Electronic Handwheel</td>
<td></td>
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<tr>
<td>High Speed Converting Guards</td>
<td></td>
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<tr>
<td>Stainless Steel Rail Pan</td>
<td></td>
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<tr>
<td>Powder Coated Guarding</td>
<td></td>
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<tr>
<td>USB Port</td>
<td></td>
</tr>
<tr>
<td>Networking</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional Equipment</th>
<th>XYZ 1060 HS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Axis Rotary Table</td>
<td></td>
</tr>
<tr>
<td>5th Axis Rotary Table</td>
<td></td>
</tr>
<tr>
<td>Linear</td>
<td></td>
</tr>
<tr>
<td>Offline Programming</td>
<td></td>
</tr>
<tr>
<td>12,000 RPM Spindle</td>
<td></td>
</tr>
<tr>
<td>Removable/Heidenhain Toolsetting and Pribing</td>
<td></td>
</tr>
<tr>
<td>Contour Handwheel</td>
<td></td>
</tr>
<tr>
<td>(used the handwheel to run through the program)</td>
<td></td>
</tr>
<tr>
<td>Advanced Swarf Management System</td>
<td></td>
</tr>
</tbody>
</table>

This high accuracy and high speed Vertical Machining Centre is equipped with the latest control technology from Siemens, the 840DSL ShopMill control. The 1060 has top of the line THK linear roller bearings making it capable of modern fast machining for use in the aerospace and mouldmaking industries where precision is of paramount importance.

The XYZ 1060 HS can easily be upgraded to 4 or 5 axis.

**Linear Roller Bearings**

- **XYZ Machine Tools** makes use of linear roller bearing slides technology for high-speed, high-precision applications that also call for enhanced endway stiffness and rigidity whilst cutting. These slideways provide a larger bearing contact area and can be found on the XYZ 1060 HS and XYZ UMC-5X high speed five-axis machines, where they provide optimum cutting performance for the applications that these machines face.

**Linear Roller Bearing Slides**

**The XYZ 1060 High Speed - the flagship of the XYZ VMC range.**

This high accuracy and high speed Vertical Machining Centre is equipped with the latest control technology from Siemens, the 840DSL ShopMill control. The 1060 has top of the line THK linear roller bearings making it capable of modern fast machining for use in the aerospace and mouldmaking industries where precision is of paramount importance.

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The XYZ 1510 HD has an insatiable appetite for all types of metal removal.

Built on a solid Meehanite ribbed casting with induction hardened & ground slides and Turcite-B coated ways. This combination along with the computer modelled rib reinforcement gives superb vibration absorption and rigidity.

Optimised digital servo motors and automatic lubrication to slides and ball-screws ensures fast rapid feed.

Performance proven in the toughest of sub-contract machine shop environments you can be assured that an XYZ Machining Centre is a 'workhorse' you know you can rely on well into the future.

At XYZ we believe that it's really important that you see the VMC actually cutting metal before you buy. Looking at photographs and spec' tables just isn't good enough.

The XYZ 1510 HD features extended linear rail supports for the larger 1500mm X axis saddle. For the full build specification of the XYZ VMCs see pages 51 to 54.

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### Standard Equipment

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spindle</td>
<td>23 HP / 17 kW</td>
</tr>
<tr>
<td>Table</td>
<td>1600 x 600 mm</td>
</tr>
<tr>
<td>Travel</td>
<td>1500 x 600 x 600 mm</td>
</tr>
<tr>
<td>Spindle Speed</td>
<td>5 - 10,000 rpm</td>
</tr>
<tr>
<td>Spindle Motor</td>
<td>23 HP / 17 kW</td>
</tr>
<tr>
<td>Spindle Taper</td>
<td>BT 40</td>
</tr>
<tr>
<td>Tool Magazine Capacity</td>
<td>24 or 32 arm type</td>
</tr>
<tr>
<td>Tool Change Time</td>
<td>2.5 secs</td>
</tr>
<tr>
<td>Max Tool Diameter</td>
<td>100 mm</td>
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<tr>
<td>Max Tool Weight</td>
<td>7 kg</td>
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<tr>
<td>Coolant Capacity</td>
<td>200 L</td>
</tr>
<tr>
<td>Ballscrew Size (Grade C3)</td>
<td>40 mm P10</td>
</tr>
<tr>
<td>AC Servo Motor Size</td>
<td>X and Y 16Nm, Z 16Nm</td>
</tr>
<tr>
<td>Machine Weight</td>
<td>8250 kg</td>
</tr>
<tr>
<td>Footprint</td>
<td>W x D x H 4200 x 2850 x 2910 mm</td>
</tr>
</tbody>
</table>

### Optional Equipment

- 4th Axis Rotary Table
- 5th Axis Rotary Table
- Swarf Conveyor & Bin
- ZF Gearbox
- Offline Programming
- Rasterizer/Resinathion Toolsetting and probing
- Contour Handwheel (allows the handwheels to run through the program)
- Advanced Swarf Management System

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Hardened Box Way Slides

Hardened box ways with Turcite coated slides have been the first choice for XYZ machines for many years, as they are renowned for providing the best solution for machine tool construction.

The combination of machine weight and hardened box slide-ways guarantees a highly rigid machining platform, providing exceptional vibration damping, especially on intermittent cutting across a wide range of materials, such as Inconel, titanium, cast iron or stainless steel.
For the full build specification of the XYZ VMCs see pages 51 to 54.

Hardened Box Ways

Slides

Hardened box ways with Turcite coated slides have been the first choice for XYZ machines for many years, as they are renowned for providing the best solution for machine tool construction. The combination of machine weight and hardened box slideways guarantees a highly rigid machining platform, providing exceptional vibration damping, especially on intermittent cutting across a wide range of materials, such as Inconel, titanium, cast iron or stainless steel.

XYZ VMCs

The VMC range with easy to use control and full 5 axis ability. Duration: 2 min 7 sec

See the videos at www.xyzmachinetools.com

XYZ 2010 HD

<table>
<thead>
<tr>
<th>TABLE 2200 x 1000 mm</th>
<th>TRAVEL 2000 x 1000 x 800 mm</th>
<th>8000 RPM SPINDLE</th>
<th>16 M/MIN RAPIDS</th>
<th>SOLID CASTING 20,000 KG</th>
</tr>
</thead>
</table>

XYZ 2510 HD

<table>
<thead>
<tr>
<th>TABLE 2700 x 1000 mm</th>
<th>TRAVEL 2500 x 1000 x 800 mm</th>
<th>8000 RPM SPINDLE</th>
<th>16 M/MIN RAPIDS</th>
<th>SOLID CASTING 23,000 KG</th>
</tr>
</thead>
</table>

XYZ 3010 HD

<table>
<thead>
<tr>
<th>TABLE 3100 x 1000 mm</th>
<th>TRAVEL 3000 x 1000 x 800 mm</th>
<th>8000 RPM SPINDLE</th>
<th>16 M/MIN RAPIDS</th>
<th>SOLID CASTING 25,000 KG</th>
</tr>
</thead>
</table>

The XYZ Super

Heavyweights with up to 3 metres of travel

As British manufacturing grows, so it seems do the size of the components it needs to machine, with oil, gas, aerospace and renewables demanding larger capacity machine tools. Enter the XYZ Super Heavyweight VMC with up to 3000 mm x 1000 mm x 800 mm of travel. Backing up this capability is the 25 tonnes of solid Meehanite casting, with wide box slideways, six on the Y axis alone!

The XYZ Heavyweights have a 4 ‘hardened box way’ slides on the F axis for assured accuracy across 1000mm.

For the full build specification of the XYZ VMCs see pages 51 to 64.

Hardened Box Way Slides

Hardened box ways with Turcite coated slides have been the first choice for XYZ machines for many years, as they are renowned for providing the best solution for machine tool construction. The combination of machine weight and hardened box slideways guarantees a highly rigid machining platform, providing exceptional vibration damping, especially on intermittent cutting across a wide range of materials, such as Inconel, titanium, cast iron or stainless steel.

The XYZ Super Heavyweights all have a one metre Y axis travel.

Optional Equipment


Standard Equipment

The perfect Aerospace production platform with up to 10,000 mm on the X axis.

Introducing the large X axis range of Travelling Column Machines, perfect for those large Aerospace/Energy components.

Make easy work of those big aerospace components with the XYZ range of large X-axis Travelling Column machines. The machines benefit from the latest Siemens 828D ShopMill control featuring advanced and easy to program conversational software, along with ‘roller’ linear ways that ensure optimum precision and speed.

Standard Equipment
- Siemens 828D ShopMill Control
- or Heidenhain TNC 620.
- X axis linear scale.
- Full splash guard.
- Coolant and Wash-down.
- Auto lubrication pump.
- 8000 rpm spindle, BT40.
- X/Y/Z rapid 24 M / Min.
- 24 station Arm Type ATC.
- Metal telescopic cover for 3 axis.
- Swarf Auger with bin.

Optional Equipment
- 12,000 rpm spindle and cooler.
- BT50 spindle.
- Tilt head (B axis).
- Two speed gearbox.
- Through spindle coolant.
- Upgrade to 30 station ATC.
- Swarf Conveyor and bin.
- Linear Scales.
- Contour Handwheel (wind the handwheel to run through the program).

Linear Roller Bearings

Linear Roller Bearing Slides

XYZ Machine Tools makes use of linear-roller bearing slide technology for high-speed, high-precision applications that also call for enhanced slideway stiffness and rigidity whilst cutting. These slideways provide a larger bearing contact area and can be found on the XYZ 1060 HS and XYZ UMC-5X high speed five-axis machines, where they provide optimum cutting performance for the applications that these machines face.
High precision, high speed, 4+1 or simultaneous 5 axis VMC.

- Siemens 828 or 840DSL ShopMill Control (TNC 640 HSCI Heidenhain optional).
- Front loading 500mm diameter trunnion rotary table 90 rpm.
- High accuracy rotary axis direct drive high torque motor 90 rpm no worm and wheel.
- Tilting axis servo worm drive with brake +/- 120° (2.5 sec full rotation, torque motor optional).
- Maximum table load of 600 kg.
- Traori / Kinematic functions for XYZ UMC-5X axis simultaneous machining.
- 12,000 / 15,000 rpm in-line spindle or high speed 18,000 / 24,000 rpm motorised built-in spindle.
- High pressure through spindle coolant system.
- Side-mounted 24, 30, 48 or 60 tools ATC for quick tool changing.
- Linear scales X Y and Z (option on XYZ UMC 4+1).
- High precision encoders on A and C axis pivot centres.
- Thermal growth compensation (XYZ UMC-5X only).
- Patented Smart Machining Technology (XYZ UMC-5X only).
- Gantry frame machine.
- Over 200 installed in Europe.
- Comes with fully dedicated 5 axis XYZ Service, Programming and Sales Engineers.

Call 01823 674200 for copies of the full technical 12 page brochure or visit the website to download.
Once integrated, the same XYZ ROBO-TEND® unit can be used on a Machining Centre or Turning Centre, across the entire shopfloor as and when needed.

This brings true mobile robot automation within the reach of traditional sub-contract engineering businesses.

A fully integrated tending system for both Milling and Turning.

Wheel in the blank billets - wheel out the finished batch.

- Minimise your labour costs.
- Works 24/7 without holidays, tea, chatting or comfort breaks.
- Finance from less than £2 per hour.
- Payback can be just a few months if purchased outright.
- British designed and built.
- KUKA Cybertech Robot as standard (other makes are available).
- 10 kg Robot capacity (larger available).
- Vision system.
- Modular system (drawer or conveyor).
- Quick and easy change from one machine to another with conversational set up*
- Integrates with VMC’s or Turning Centres.

Nigel Atherton
XYZ MANAGING DIRECTOR

£2
PER HOUR
FROM
LESS THAN
+VAT   SUBJECT TO STATUS

Once integrated, the same XYZ ROBO-TEND® unit can be used on a Machining Centre or Turning Centre, across the entire shopfloor as and when needed.

For up to 3 people on installation day.

To get the new ROBO-TEND brochure call 01823 674200 or visit the website to download.

* The XYZ ROBO-TEND is only currently available for new XYZ Siemens controlled machines. Other machines and controls may require interface. Price on application.
1 Wheel it up.
The robot trolley is wheeled up to the front of the chosen machine tool and then locked into position.

2 Lock it into position.
The loading trolley is then securely attached to the robot trolley. The robot identifies the trolley and its contents. The guard locks and ROBO-TEND becomes live.

3 Tell it the billet size.
With a wide central walkway between the robot trolley and loading trolley, the operator has easy access to the machine for workholding, replacement, inspection and maintenance.

With a conversational interface the robot controller can be programmed to know the shape of billet, material size and number of parts in the drawers.

The ROBO-TENDs ‘Turnover Station’ allows component ‘flipping’ for second operation work, this gives ROBO-TEND even greater flexibility.

The ROBO-TEND located on a Turning Centre.

The XYZ ROBO-TEND located on a Turning Centre.

The ROBO-TEND is a complete system suitable for any machine tool or workholding system. It can match any production requirement.

Customised Options for XYZ ROBO-TEND

- Interchangeable pin plate insert
- Vertical conveyor system
- Automatic vice
- Safe and secure.

The XYZ ROBO-TEND can be configured to match any production requirement.

The XYZ ROBO-TEND located on a Turning Centre.

Options

- Dual pneumatic gripper
- Servo (Electric) gripper
- Dual servo (Electric) gripper
- Increased depth of drawers
- Vertical conveyor
- One-way drawer system
- Additional storage trolleys
- Bespoke systems available

Interchangeable pin plate insert

The XYZ ROBO-TEND located on a Turning Centre.

Standard equipment:
- KUKA Robot and Siemens Control Panel
- User friendly Conversational Control
- Vision System
- Guarding

Optional equipment and features:
- Servo or dual grippers
- Automatic vices
- Vertical conveyor system
- Turnover System
- Two-way drawer system (allows component intervention whilst robot and machine continue to work)
- Additional storage trolleys
- Bespoke systems available

NEW

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The ROBO-TEND shown is for demonstration purposes only and is not a complete system.

There may be limitations on components and sizes that can be gripped and your requirements should be discussed and agreed in writing prior to order.

Standard

User friendly Conversational Control
- KUKA Robot and Siemens Control Panel
- Vision System
- Guarding

Optional equipment and features:
- Servo or dual grippers
- Automatic vices
- Vertical conveyor system
- Turnover System
- Two-way drawer system (allows component intervention whilst robot and machine continue to work)
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Turning Centres

The 'Y' axis of the XYZ TC 320 LTY can travel 50mm above and below centreline (100mm total travel), making easy work of most components that would normally require milling and turning operations.

Why TC?
ProtoTRAK is ideal for low volume production but when moderate to large quantities or many tools are required turning centres or machining centres are the answer.

SIEMENS

Call 01823 674200 to arrange a demo and see the Siemens controls in action.

With 20 years of experience working with Siemens, we know the Siemens controls on XYZ Turning Centres contain many standard features that are unavailable or optional from other machine suppliers. At XYZ we believe that it’s really important that you see a Turning Centre cutting metal before you buy. Simply looking at photographs and spec sheets just isn’t good enough.
All XYZ turning centres are constructed using solid Meehanite ribbed castings with hardened and ground Turcite-B coated slideways providing a solid machine base. The result is a series of machines that can be put through their paces day after day for many years. Productivity features include chip conveyer, 12-station VDI turret, automatic tool setting and parts catcher and optimised digital servo motors on each axis as standard, while fan units and fire testing are available as options.

All in all, XYZ turning centres offer the complete package for a wide variety of components.

The XYZ Turning Centre is equipped with a solid Meehanite Ribbed Casting giving them excellent rigidity and balance. Box slideways are designed to disperse heat and reduce backlash, giving superb rigidity and performance.

The XYZ TC 120 LTY Carcass

The robot arm of the XYZ Turning Centre is standard on all XYZ Turning Centres. The robot arm gives the operator consistency when measuring tool offsets. The presetting arm is standard on all XYZ Turning Centres.

The XYZ COMPACT TURN 65 Carcass

The XYZ TC 220 LTY Carcass

Swarf management is achieved by ‘swarf conveyor with bin on all XYZ Turning Centres.

Swarf management is achieved by ‘swarf conveyor with bin on all XYZ Turning Centres.

Hydromax cylinder mechanism for chuck or collet clamping, unclamping

Hydromax cylinder mechanism for chuck or collet clamping, unclamping

Various makes of pneumatic and servo bar feeds can be supplied.

Pneumatic cylinder mechanism for chuck or collet clamping, unclamping

With either 65 or 77 mm bar capacity all XYZ Turning Centres are fitted with sensors to inform the operator if the part is not clamped correctly.

XYZ Turning Centres - quality proven

All XYZ Turning Centres are equipped with solid Meehanite Ribbed Casting giving them excellent rigidity and balance. Box slideways are designed to disperse heat and reduce backlash, giving superb rigidity and performance.

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All in all, XYZ turning centres offer the complete package for a wide variety of components.
The XYZ CT 65, it might be small but it packs a mighty production punch.

The XYZ Compact Turn 65 is a small,rigid,versatile turning centre that makes the most of its small footprint. Each Compact Turn comes complete with a wide range of standard equipment, normally offered as extras on competitor machines, these include hydraulic chuck,12-station VDI turret, Renishaw tool setting,swarf conveyor and tailstock. Control is provided by the latest Siemens 828D ShopTurn conversational control making the CT 65 ideal for both experienced and novice CNC users.

The CT 65 is perfect for the subcontractor that doesn’t know what job is coming in next. This 2 axis machine and a CNC milling machine or a VMC is often a more versatile and cost effective combination than buying a lathe with Y axis or live tooling turret.

For the full build specification of the XYZ Turning Centres see pages 83 and 84.
XYZ CT 65 LTY

The CT 65 LTY Turning Centre for quick one hit mill/turn production.

The smallest Y axis turning centre in the XYZ range offers great production capabilities from a very small footprint. The CT 65 LTY is a perfectly sized, yet solidly built, versatile turning centre that makes the most of the smallest of shopfloor spaces. Standard equipment, not normally found on machines of this type, include hydraulic chuck, 12-station VDI turret, Renishaw tool setting, swarf conveyor and tailstock. The ideal in conversational control technology from Siemens the 828D ShopTurn makes the machine ideal for experienced and novice CNC users alike.

The addition of the Y axis and live tooling means that productivity can be enhanced as many components that require turning and milling can come off the CT 65 LTY finished.

For the full build specification of the XYZ Turning Centres see pages 83 and 84.

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The addition of the Y axis and live tooling means that productivity can be enhanced as many components that require turning and milling can come off the CT 65 LTY finished.

For the full build specification of the XYZ Turning Centres see pages 83 and 84.
This large capacity workhorse of a turning centre comes complete with standard equipment that includes hydraulic chuck, 12 station turret, Renishaw tool setting, swarf conveyor and tailstock. Many of these options are costly extras with competitors machine tools. The latest Siemens 828D ShopTurn conversational control makes it ideal for both experienced and novice CNC users. For a subcontractor that doesn’t know what job is coming in next week this 2 axis machine and the CNC milling machine or a VMC is often a more versatile and cost effective combination than buying a Turning Centre with Y axis or live tooling turret.

For bigger turning capacity see our extra large CNC lathes on pages 93 to 96.

The TC 400 is the largest capacity turning centre in the XYZ range.

**Standard Equipment**

- Siemens 828D ShopTurn Central.
- Hydraulic 300mm 3 Jaw Chuck (380mm optional*).
- Sauter ‘German’ VDI Turret.
- Automatic Tool Setting Arm.
- Swarf Conveyor & Bin.
- Through Tool Flood Coolant.
- Remote Electronic Handwheel.
- USB Ports.
- Networking.

**Optional Equipment**

- Bar Puller.
- Offline Programming.
- Advanced Swarf Management System.

**SPINDLE 43 HP / 32 kW**

- 300mm CHUCK (380mm optional*).
- 91 mm SPINDLE BORE

- 78 mm BAR CAPACITY
- 1200 RPM

- Tool setting arm has to be removed.
The TC 320 LTY packs a powerful productivity punch.

The TC 320 LTY is the largest y-axis turning centre in the XYZ range and provides users with exceptional capacity from a solid cast machine base. The addition of the 100 mm y axis (+/-50 mm) adds a degree of versatility to the machine that allows many parts to be machined complete, increasing productivity significantly. Added to this is the extensive list of standard equipment that makes the XYZ TC 320 LTY a highly competitive turning centre package. This list includes hydraulic chuck, 12-station (all live) VDI turret, Renishaw tool setting, swarf conveyor and the market leading Siemens 828D ShopTurn conversational control.

The TC 320 LTY is a solid cast machine with box ways that forms the base for precision turning and rigid milling. For the full build specification of the XYZ Turning Centres see pages 83 and 84.
XYZ XL Lathes and Oil Country Lathes

XYZ XL 780

**SPINDLE** 43 HP / 32 kW
**3 METRE GAP BED LATHE**
**SWING OVER BED 780mm**
**SPINDLE EMN 1500**
**DISTANCE BETWEEN CENTRES 3000mm**
**MAX 1300 RPM**

**Standard Equipment**
Siemens 828D ShopTurn Control.
3 Jaw 500mm diameter steel chuck (1300 RPM Max).
4 Station Auto Indexing Toolpost.
Air assist ‘floating’ tailstock with towing hitch.
Joystick control for rapid movement.
Coolant.
Worklight.
Automatic lubrication.
Electromagnetic spindle brake.
Chuck guard (interlocked).
Swarf guard (interlocked).
Dead centres, sleeves.
Networking.
Compact Flash Card slot.
USB Port.

**Optional Equipment**
Siemens Contour Handwheel (wind the handwheel to run through the program)
Office Programming.
Face Plates, Steadies and Chucks.
Factory Networking.
8 Station Turret.
Conveyor and Bin.
Advanced Swarf Management System.

**Control**
We have chosen the ‘Easy to program’ Siemens 828D Conversational ‘Shop Turn’ Control as the standard control.

**Tailstock**
The massive tailstock with two milled cross roller ways ensures maximum concentricity. The rear of the tailstock incorporating a multi point variable speed tailstock.

**Headstock**
The Headstock is a high spec unit with all hardened and ground parts. Double Taper Spindle bearings and spindle bearing supporting races now hardened and ground. High pressure oil lubrication is provided to all gears and bearings via a pump and oil cooler ensuring thermal stability, quiet running and long life.

**Bed**
The heavy duty bed and base is cast in one piece. The massive 500mm wide bed is induction hardened and ground in its entirety. This heavy machine comes with a massive 500mm wide bed with induction hardened and ground slides.

**Tailstock**
The massive tailstock with two milled cross roller ways ensures maximum concentricity. The rear of the tailstock incorporating a multi point variable speed tailstock.

**8 Station Turret**
If you’re considering buying a large turning centre, fitting an 8 station turret to a large/long bed CNC Lathe could give you very similar results at a fraction of the price. Perhaps 80% of the performance at 30% of the price.

**Cost Bed & Base**
This heavy machine comes with a massive 500mm wide bed with induction hardened and ground slides.

**The XYZ XL780 is also available with 4 foot breezy**
The XYZ XL and Oil Country Lathes are heavy-duty machines built to handle the toughest of work for either chucking or between centre applications using the massive tailstock assembly. The solid ribbed cast construction with wide vee and flat bed ways offer excellent stability and rigidity. The powerful spindles sit in a headstock built using the highest quality gears and bearings. In combination, these features create one of the most capable and reliable ranges of large capacity lathes available in the UK.

### XYZ OIL COUNTRY

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### XYZ XL Lathes and Manual Machines

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The XYZ Oil Country and XL Lathes feature a one-piece bed and base casting.
Introducing the XYZ family of manual machine tools

Despite the advances of easy to use CNC systems we still offer a complete range of Manual Machine Tools which are very popular with Training Organisations and Maintenance Shops etc. For those who have to operate within very tight budgets, we still offer a complete range of manual Turret Mills and Lathes in the UK, which have become synonymous with quality, reliability and value for money.

All XYZ manual machines are built of solid ribbed cast iron to provide unrivalled rigidity and stability and all are fitted with European bearings and electrical components to full CE approval.

Larger and shorter beds are available.

XYZ for education

XYZ Machine Tool education team is focused on providing UK colleges, universities, private training establishments and research centres with competitively priced manual and CNC machines as well as a package of service and support exclusive to the sector.

XYZ for Education is our commitment to the UK education sector through which we offer any organisation involved in the education of the next generation of engineers special pricing on the full range of XYZ products. In addition, XYZ has developed a variety of training programmes aimed at the education sector. The combination ensures that training centres are able to deliver the correct training, using techniques and machines that trainees will encounter once they return to industry, with the educators kept fully up to date with changes in machine tool development and application.

XYZ for Education is for everyone involved in education and will benefit Bursars, Teachers, Technicians and Students. With this program XYZ is actively helping to develop the engineers of tomorrow... today.

For more information please visit our site to download the brochure or visit the worldwide XYZ Machine Tools site to download or visit the worldwide XYZ Machine Tools site...
Vertical and horizontal tapping, with M24 max capacity to aluminium and steel. See table below.

Fast Tap makes light work of:

- Reaming.
- Chamfering.
- Countersinking.
- Spot Facing.
- Helicoil insertion.
- Stud making.
- Assembly work - screw & nut driving.

**FT 1000**

<table>
<thead>
<tr>
<th>Speed (No Load)</th>
<th>FT 1000</th>
<th>FT 800</th>
<th>FT 600</th>
<th>FT 400</th>
<th>FT 200</th>
<th>FT 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPM</td>
<td>1200</td>
<td>800</td>
<td>400</td>
<td>250/800</td>
<td>90/250</td>
<td>90</td>
</tr>
<tr>
<td>Air Pressure</td>
<td>90 psi</td>
<td>90 psi</td>
<td>90 psi</td>
<td>90 psi</td>
<td>90 psi</td>
<td>90 psi</td>
</tr>
<tr>
<td>Noise</td>
<td>85.0 dBA</td>
<td>85.1 dBA</td>
<td>84.2 dBA</td>
<td>84.2 dBA</td>
<td>84.1 dBA</td>
<td>84.1 dBA</td>
</tr>
</tbody>
</table>

**XYZ 260 HORIZONTAL BANDSAW**

Vertical guide arms carrying carbide faced guides.
- Fast & accurate blade tensioning.
- Standard blade size 25x3300mm.
- Conveniently placed controls.
- 90˚ - 45˚ mitering.

**Fast Tap**

<table>
<thead>
<tr>
<th>Cutting Capacity</th>
<th>25 mm Round Bar</th>
<th>24 mm Short Bar</th>
<th>22 mm Medium Bar</th>
<th>20 mm Long Bar</th>
<th>16 mm Small Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Jaw Opening</td>
<td>150 mm</td>
<td>165 mm</td>
<td>50 mm</td>
<td>400 x 220 mm</td>
<td>100 mm</td>
</tr>
<tr>
<td>Depth of Jaws</td>
<td>195 x 395 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Size</td>
<td>35 kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Height</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**A-TYPE MILLING VICE**

12” HYDRAULIC MILLING VICE - 6” & 8” Jaw Width
- 12” opening. 6000Kg clamp force.
- Rugged construction. Body is made of high quality ductile cast iron for extra rigidity. Sliding bedways flame hardened and ground.
- Concealed spindle for extra protection. Hydra booster system for extra clamping pressure. Quick release clamping.
- Optional swivel base. Draw down jaws.

**TOOLING VOUCHERS**

WNT (UK) Tooling Vouchers are available to purchase from XYZ giving additional discount plus the tooling voucher can be added to your capital purchase.

WNT (UK) Vouchers are available from £500 upwards.

**53 PIECE STEEL CLAMPING KIT**

Heat treated steel black oxide finish. Black size 50mm
Set in steel rack consists of 24 Studs (75, 98, 125, 150, 175 & 200mm lengths), 6 x Flange nuts, 6 x Step slugs and 6 x Step blocks. Can be wall mounted for tidy and compact storage.

**TOOLING VOUCHERS**

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WNT (UK) Vouchers are available from £500 upwards.
KITAGAWA TT 4th Axis Rotary Tables

- **Kingston NCX Model:** TT20, TT25, TT30, TT35, TT40, TT45, TT50
- **Maximum Diameter:** 160 mm, 200 mm, 250 mm
- **Maximum Clamping Torque:** 150 Nm, 310 Nm, 350 Nm, 600 Nm
- **Maximum Clamping Torque (Tilt):** 300 Nm, 500 Nm, 550 Nm, 800 Nm, 1200 Nm, 1200 Nm
- **Faceplate Register:** Ø50H7, Ø50H7, Ø65H7, Ø100H7
- **Maximum Load Vertical:** 60 kg, 80 kg, 100 kg, 125 kg
- **Centre Height:** 120, 140, 140, 180
- **Maximum Load Tilted:** 20 kg, 30 kg, 30 kg, 40 kg, 40 kg, 60 kg

Terms and Conditions

All details contained within this catalogue are accurate as of the time going to press, but please be aware that XYZ Machine Tools Ltd has a policy of continuous development. Because of this, some details may be subject to change without prior notice. Please be sure to verify all specifications and details prior to ordering.

1. **Payment Terms:** The purchase price shall be paid in three instalments, with no interest being charged after the first instalment. The first instalment of 50% of the purchase price is due on or before the date of delivery. The second instalment of 30% is due 30 days after the date of delivery. The final instalment of 20% is due 60 days after the date of delivery. Failure to pay any instalment on the due date will result in interest being charged at a rate of 6% per annum above the base rate of HSBC Bank plc.

2. **Delivery:** The Company shall use its best endeavours to deliver the Goods within the agreed time. The Company shall not be liable for any delay in delivery caused by circumstances beyond its control, including but not limited to acts of God, strikes, lockouts, or other industrial disputes.

3. **Force Majeure:** The Company shall not be liable for any delay in delivery or non-delivery of the Goods caused by circumstances beyond its control, including but not limited to acts of God, war, fire, or strikes.

4. **Pricing:** The price for any imported parts incorporated in the Goods may be subject to fluctuation and the Company may increase the price for any reason under clause 6.2.

5. **Confirmation of Order:** No order submitted by the Purchaser shall be deemed to be accepted by the Company unless and until confirmed in writing by the Company.

6. **Cancellations:** A confirmed order may be cancelled by the Purchaser except with the agreement in writing of the Company and on terms that the Purchaser shall indemnify the Company against all expenses reasonably incurred by the Company in respect of the confirmed order.

7. **Inspection:** The Purchaser shall be responsible for inspecting the Goods:
   - a. prior to acceptance
   - b. at its own risk
   - c. if the Goods are damaged or incomplete on delivery
   - d. if the Company reasonably apprehends that any of the events mentioned in clauses (a)-(c) above are about to occur in relation to the Purchaser and notifies the Purchaser accordingly; in each case without incurring any liability for any loss or damage caused to the Purchaser and without prejudice to the Company's rights to vary the contract or cancel the contract with the Purchaser in the following circumstances;

8. **Alterations and Repairs:** The Purchaser shall not be entitled to alter, vary or repair the Goods or any part of it without the prior written consent of the Company.

9. **Warranty:** Subject to the conditions of this clause and of clause 10 the Company warrants that Goods will at their time of acceptance under Clause 8, remain free from defects in material and workmanship for the shorter of a period of 12 months or for 2000 hours of use.

10. **Exclusion of Liability:** The Company shall not be liable to the Purchaser or be deemed to be in breach of the contract by reason of any delay in performing or any failure to perform its obligations under this contract. The Company shall be liable for any death or personal injury caused by the negligence of the Company, but subject to this, the Company shall not be liable to the Purchaser by reason of any delay in performing or any failure to perform its obligations under this contract, except as provided under this clause.

11. **Undertakings:** The Purchaser undertakes to indemnify the Company against all expenses reasonably incurred by the Company in connection with the transport of the Goods and the transportation of the Goods from the Company's premises to the place of delivery.

12. **Non-transferable:** The Purchaser's rights and obligations under this contract shall not be transferred or assigned directly or indirectly either in part or whole to any third party without the prior written consent of the Company.

13. **General:** These terms and conditions and any contract incorporating them shall be governed by and construed in accordance with English Law and all disputes hereunder shall be subject to the exclusive jurisdiction of the English courts.

14. **Non-transference:** The Purchaser's rights and obligations under this contract shall not be transferred or assigned directly or indirectly either in part or whole to any third party without the prior written consent of the Company.
XYZ across the UK

**XYZ DEVON** Main Factory and Administration
Woodlands Business Park, Burlescombe,
Tiverton, Devon. EX16 7LL

**XYZ BLACKBURN**
Thwaites Close, Shadsworth Industrial Estate,
Blackburn, Lancashire. BB1 2QQ

**XYZ NUNEATON TECHNICAL CENTRE**
5/6 Tungsten Court, Hemdale Business Park,
Nuneaton, CV11 6GZ

**XYZ SHEFFIELD** (WNT Showroom)
Sheffield Airport Business Park,
Europa Link, Sheffield. S9 1XU

**XYZ LONDON**
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Slough. SL1 4NH

**XYZ HALIFAX**
Opening Autumn 2019

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