SPINDLE SYSTEM SELECTION PROCESS

Principle Engineering

Key Criteria:

- Clamping body diameter
- Tool change: Manual/Auto
- Cutter shank diameter

1. Populate enquiry form

Larger spindles use lager bearings so have greater load capacity. If run in "low RPM" range, there is less heat generated therefore less cooling is required.

2. Select Spindle

Synchronous Brushless DC Motor
- One spindle per inverter
- High power density relative to size
- Fewer losses; more efficient better able to run at S1

Asynchronous AC Spindle
- •How many spindles per inverter?
- •Some inverters can run 2 or 3 AC spindles.
- The technology is robust

3. Check total power and current required from inverter

4. Select Inverter

Synchronous Brushless DC Motor
- One spindle per inverter
- High power density relative to size
- Fewer losses; more efficient better able to run at S1

- Some customers may wish to use their own inverter
- It may be possible to use a smaller inverter if the spindle is used at less than the max power; see asterisked options in catalogue.

5. Select Power Supply or Transformer

Transformers are cheaper; work well with a regular electricity supply; electrical peeks adversely affect inverter performance. It is safer to use a filtered power supply. Desktop inverters and Easy Drive 4638 use 240V AC input so can be plugged into domestic mains in the UK.

6. Select Accessories

Mounting Block can be chilled with recirc water or lost air.
Collets are not supplied with the spindle.
Cables see catalogue
Air Filters see catalogues

7. Request Quotation

Please note this information is provided for high level guidance only. For specific project queries, further technical information and enquiries please call us on +44 (0) 845 539 0068 or contact us through our website at www.principle-eng.co.uk.