# Woodturning lathes on offer for hobbyists and artistic woodturners in South Africa

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The variety of woodturning lathes on offer in the local South African market for hobbyists and artistic woodturners is quite limited, and seems to have reduced further in recent years. There are excellent lathes on offer, but there is not the variety that is advertised in the first world. (see any Woodturning magazine)

I have excluded the extra cheap lathes sold by the big-box retailers and the high end lathes such as the VB36 from this discussion:

- The extra cheap lathes that can be had for just over R1700-, have square tube beds and flimsy fittings – don't waste your money on those. If you must have one, look in the second hand shops – so you will waste less money, when you realise how little use they are.


- VB36 class lathes – these are typically lathes you graduate to once you find the larger units listed below are limiting you. Expect to pay the price of small car at present exchange rates. If you feel you need one, Jez Rowe in PE was importing them, last I heard. (See www.vb36.com for more.)

All the lathes mentioned below accept 2 Morse Taper (MT) tooling and most have a 1" x 8tpi headstock spindle thread. Accessories in these sizes are widely available. The larger Novas and Jets may have larger spindle threads, so check this before you upgrade.
For the purposes of this article, I have divided the lathes available in the local market into Mini, Midi and larger lathes. Prices have not been included, as these change frequently with the fluctuating exchange rates – do shop around.

**Mini lathes.**
This category is defined by the Jet Mini – JWL-1014, which was first on sale in 2004 in South Africa (at R2300- imported by SAM). It has been updated slightly over the years to include an indexing pin/spindle lock, but is essentially unchanged. It can turn a workpiece up to 10 inches in diameter by 14 inches long (250mm diam x 350mm long), with 5 fixed speeds from the ½ horsepower (370W) motor. The 10 inches diameter is over the bed, and doesn't include the tool rest banjo, so you will not be able fit on a full 10" x 14" cylinder without fouling the tool rest banjo.
The JWL-1014 is an excellent starter lathe. If you out grow this lathe or lose interest, it has good resale value. A bed extension is available to increase the maximum length between centres. It has been offered in a variable speed version (JWL1014VS), which uses a DC motor. The VS has been criticised for lack of torque at low speeds, even on the lowest belt speed range.
In the US the JWL-1014 has been superseded by the JWL-1015 and JWL-1015VS, which are now offered locally. It has a wider bed and better access to the belt for speed changes. At 35 kg, it is slightly heavier than the JWL-1014. The VS has three

speeds – 200-1015 / 300-1750 / 600-3600 rpm from a ½ hp motor. It also has a 24 position spindle lock/indexing pin.

For Jet Lathes, see Strand Hardware at www.strandhardware.co.za for more info and pricing. Hardware Centre offer some of the range. We have a JWL-1014 at the clubhouse, so you can try it out before you decide to buy.

**Midi lathes.**

While not a new category, there have been some additional offerings in this category. The bench-mark model was initially the slightly larger Jet JWL-1220, which was visually identical to the Jet Mini (JWL-1014), but offered a larger work piece capacity of 12" diam x 20" long (300mm x 500mm), as well as a spindle lock/indexing pin. A variable speed version was also offered.

Adendorf sells the MC1218 with a capacity of 12" x 18" (300mm x 450mm), and weight of 38kg. The rated motor power is 550W, at five speeds of 580/900/1300/1800/2700 rpm. Johan Kramer and Schalk van Niekerk have used these lathes for some time now and recommend them as good value for money. (See www.adendorf.co.za for more info and current pricing.)
Similar products are offered by other suppliers, such as SA Machinery, although availability is uncertain at present.

Innovations in the Midi lathe range have come from Jet and Nova.

A Nova Comet II was purchased by the WWA for demonstrations, superseding the Jet Mini. In addition to the larger capacity of 305 x 420mm (12" x 17"), it has a variable speed drive. A DC motor is used to provide variable speeds. With a 550W motor, forward and reverse – three belt drive settings (250-680; 530-1420; 1380-4000 rpm), it offers significantly more capability for demonstrations. Low speed torque delivery is excellent. It has a spindle lock/indexer and weighs about 40 kg. One criticism is the speed ranges on the speed control dial are so small as to be almost illegible. Available from Hardware Centre and Mr Woodturner (www.mrwoodturner.co.za ). A bed extension is available if required for longer work pieces.

The newer Jet 1221VS has a slight increase in capacity to the JWL-1220 but is a significant redesign. It looks visually different, with a much wider bed, and a significant increase in weight (55kg), it is altogether a much more substantial lathe. You get what you pay for, and it is also significantly more expensive. The capacity is 12" x 21" (318mm x 520mm). It has a 24 position spindle lock/ indexing pin. Variable speed drive is provided by a 1 horsepower (750W) DC motor offering three speed ranges of 60-900/110-1800/220-3600 rpm. It has significant flexibility and apparently, very good low speed torque. At Smit has used his for the past year and he is delighted with it. A bed extension is available if required for longer work pieces.

**Larger lathes**

Lathes using a variable speed Reeves drive are offered by Jet and Adendorf. A Reeves drive uses a belt between two cone pulleys – by

moving the speed control lever, the relative diameters of the two pulleys are changed, giving a range of speeds. The speeds can only be changed while the lathe is running, which can be a disadvantage.
This design of lathe has been available for many years, offered by various manufacturers.

The **Jet JWL-1236** (above, previous page) has a capacity of 12" x 36" (300mm x 860mm).The swivel head contains a variable-speed Reeves drive that gives a speed range of 550 to 3000 rpm. The minimum speed is perhaps a little high for the largest workpieces when they are out of balance. A ¾ horsepower motor is specified. The spindle thread is 1" x 8tpi and 2 MT is used for the tapers.

Visually similar to the Jet, and also using a Reeves drive for variable speed, is the **Adendorf MC900** (shown left). It offers 305mm diameter by 880mm between centres, with a speed range of 500 to 2000 rpm. It weighs 80 kg. It offers a rotating head stock for greater flexibility. One concern I have is with the rigidity of the tool rest arm shown. Check that the spindle thread is 1" x 8tpi and that 2 MT is used for the tapers, as this is not stated in the specifications.

The Nova lathes are popular in South Africa. The **Nova 3000** was first offered over 20 years ago by Hardware Centre. The WWA has one at the clubhouse for you to try out.

It has been updated as the **Nova 1624-44** with the same capabilities as the **3000**. It uses the same bed as the redesigned DVR, allowing Teknatool to reduce their inventory. It now has a 1.5 horsepower motor. As sold it has a 16" x 24" (400mm diam x 600mm long) work piece capability, and bed extensions provide for 20" (500mm) increases in length. (Nick Arnul in the UK uses one with three bed extensions for turning architectural columns.) Weighing in at 114kg, this is significant step up from the Midi lathes. It has a swivelling headstock, and together with outboard tool rests, it allows large work pieces. It also has a low minimum speed of 180 rpm, which is good for large, out of balance work pieces. It accommodates #2 MT tooling, but you need to check which spindle thread is offered: 1 ¼" x 8 tpi or M33 x 3.5 and ensure that your chucks will fit. If you want variable speed, Teknatool does offer a DVR upgrade motor, but I haven't seen it locally – ask Hardware Centre or Strand Hardware (who are now the agents.)
(The **1624-44** is probably the best value for money in the larger lathes, and can be retrofitted later with a 3 phase motor and variable speed drive if you need the convenience.
See www.cfptech.co.za for variable speed motor/drive combinations.)

The **Nova DVR XP** has the same physical dimensions as the **1624-44**, and has the same bed and tailstock. The headstock contains an integrated motor and variable speed drive rated at 2 horsepower (1.5kW) with a continuous speed range of 100 to 3500 rpm. No belts or speed changes are required and low speed torque is excellent. With the

integrated motor in the headstock, the weight is 82 kg, somewhat lighter than the **1624-44**. Aside from the price, the only significant concern about the **DVR XP** is the membrane keyboard – some people would prefer solid switches and an analogue speed control knob. Fitting a surge plug is apparently a wise precaution, given our high lightning incidence in Gauteng, and the poor power quality experienced by some consumers. This applies to all lathes with electronics, not just the DVR.

Jet lathes are imported by Strand Hardware (www.strandhardware.co.za ) and are available from Hardware Centre in Gauteng. (www.hardwarecentre.co.za )

Larger Jet lathes offered are:

- **Jet JWL 1442VS** – Capacity of 14” x 42”, swivel head, with variable speed Reeves drive – speed range of 450 to 3000. 1 horsepower motor.

- **Jet JWL-1642EVS** – Capacity of 16” x 42”, with a swivel head and electronic variable speed control. Two belt speed ranges – 50 – 1200 and 125 – 3200 rpm, from the 1.5 horsepower motor. Perhaps best compared with the Nova DVR in terms of capability.

SA Machinery does offer some larger lathes including one with a Reeves drive, similar to the ones above, as well as a variable speed drive lathe. Their web site was not operating correctly at the time of writing, so you may need to pay them a visit to check what they are presently offering.

Check the spindle threads and tapers supplied are commonly available before making a decision. I would also enquire about spare part availability on items not readily available elsewhere such as variable speed drives.