Better your grinding

Would you like to be able to:

- Grind Faster?
- Grind Cooler?
- Grind more accurately?
- Polish better?
- Polish saver?
- Extend belt life?

Use the right belt speed

Abrasive Manufacturers

The optimal speeds for modern abrasive belts:

- Stock removal on Stainless & Tool Steel 30 ms / Mild Steel 35 ms
- Fine polishing on Stainless, Tool & Carbon Steel 8 ms
- Reduce belt speeds as you change from stock removal to polishing

Therefore, keep running slower as the grid increases

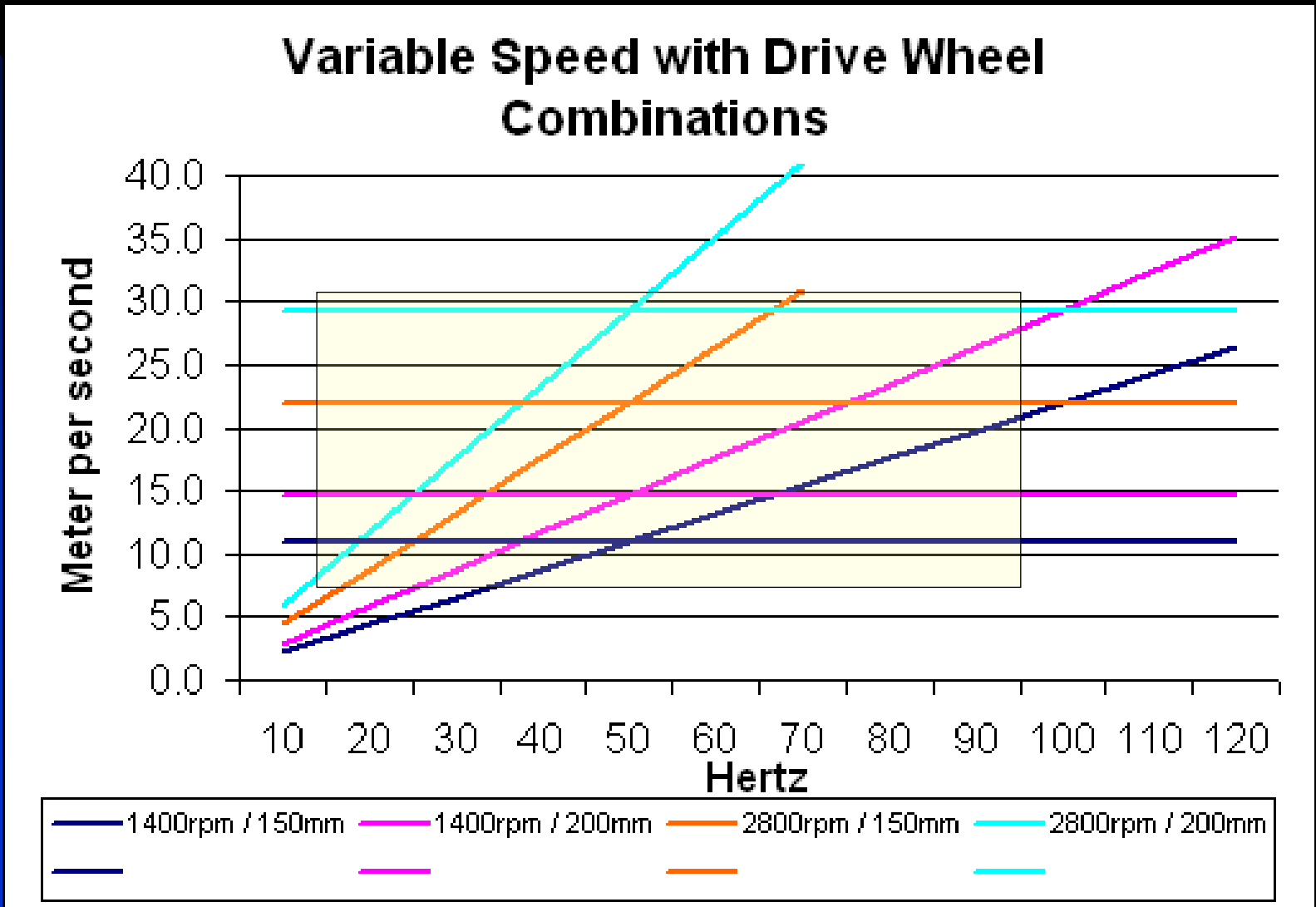
Single speed belt grinders at best a compromise

- 2800 rpm with 200mm drive wheel = 29 ms Excellent for stock removal, way to fast for polishing
- 2800 rpm with 150mm drive wheel = 22 ms Compromise
- 1400 rpm with 200mm drive wheel = 14 ms Compromise
- 1400 rpm with 150mm drive wheel = 11 ms Very slow for stock removal, OK for polishing

How can we change belt speeds?

- Multiple machines, one fast - one slow and some in-between
- Gearboxes or adjustable pullies - R! & Effort
- Serrated wheels add the advantage of higher speeds - R!
- Dedicated variable speed drive - “Invertor” on every machine - R!
- Sharing variable speed drive with multiple machines by CB’s or multi plug solutions - R! & dangerous
- Sharing variable speed drive with multiple machines by rotary switch - Effort
- Sharing variable speed drive with multiple machines by variable speed remote & supply wiring

The ideal solution

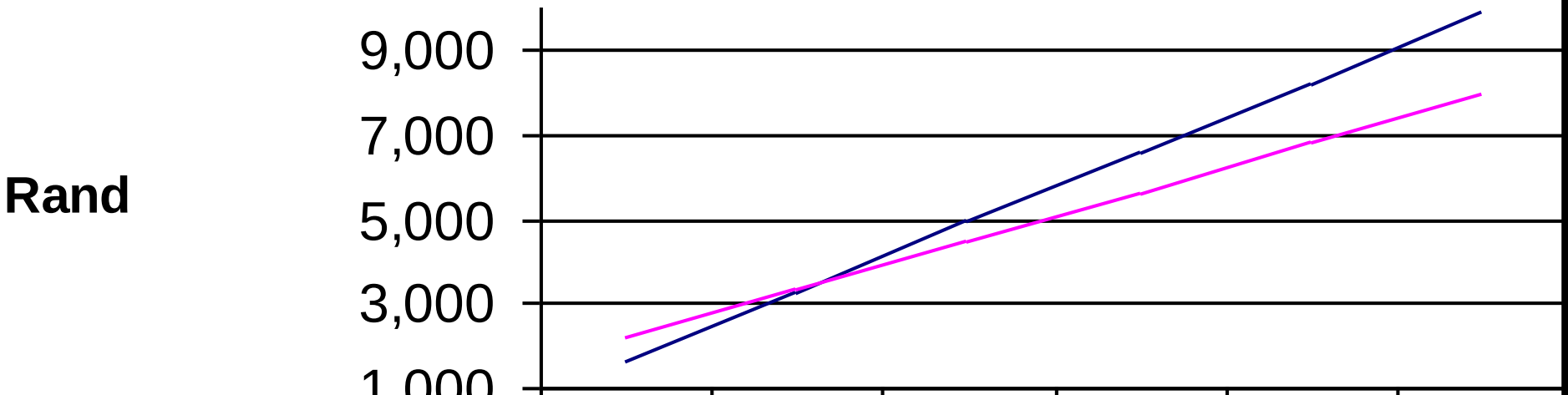


Important Points on Variable Speed Drives

- Invert single phase to 3 phase, manipulate frequency to effect speed
- Requires single phase supply, no need for 3 phase electricity at home
- Drive a 3 phase motor - more reliable, better balanced, less noise and cheaper
- Convenience of turning the dial, dual directional
- Braking functionality
- Speed range 2800 rpm motor with 200mm drive wheel
- 8 to 35 meter per second - ideal for knifemaking
- Smaller kw rated 220/380 - 3 phase motors acceptable, regardless of motor

Cost

Variable Speed Costs - 0.75kw



	1	2	3	4	5	6
Single Phase	1,650	3,300	4,950	6,600	8,250	9,900
Variable Speed	2,210	3,370	4,510	5,660	6,810	7,960

Machines