

So, there's no one perfect way (unless you want one of the machines like some folks)...

(1) oil stones:

coarse - silicon carbide, aluminum oxide === "India", "Crystolon", Arkansas

medium - silicon carbide, aluminum oxide === Arkansas, "India", "Crystolon"

fine - Arkansas

extra-fine (black or white Arkansas)

(2) water stones - various grades of Japanese and American water stones

Often listed by grit size - smaller number = coarser, larger number = finer

Available from hundreds up to around 8000; higher available but more expensive

(3) diamond "stones" - often listed by "micron" or "mesh" size -

the smaller the micron the finer, the larger the mesh size, the finer 300, 600, 1200 typical, but coarser and finer are available. Can be used dry, or with oil or water to help wash away swarf.

(4) ceramic stones - generally listed as coarse, medium, fine, extra-fine ; but may vary by manufacturer as to grit size. can use oil or water

(5) paper - finer sandpaper or wet/dry paper for polished edge

* India, Crystolon are brand names, Arkansas generally refers to stones mined there.

There are both natural and artificial stones available from around the world now and much easier to find since the internet of things.

All that said (and there's lots more you can look up)....

I'm kind of assuming you aren't interested in more coarse sharpening by file or grinder. Also left out was any mention of "ultra finishing" on a buffer or strop.

Couple things... I use sandpaper now & again but only pull the blades to me with the edge trailing. No round-over.

I use pastes & grits but no longer do so on leather strops unless it's a really hard leather or I do get round-over. Very hard rubber or fine grained hardwood now make my "strops".

I've got em all... diamond stones (DMT), water & Crystalon oil stones. I have a few ceramics, pastes & powders.

Nothing beats diamonds for flattening chisels or blades, except buying really top-notch chisels & blades. Use water & a bit of dishsoap... and nothing ever rusts if you wipe dry. I start with 120 on new chisels and work up to 8000.

Diamonds are fast. That's nice. They stay flat. That's nice. But depending on how nice you want your edges, you really have to work through at least (new blade) 4 grits to the 8000... and even then, the scratch patterns are evident, if fine. Touch-ups can start at 325-1200 depending on what condition needs touching up. Then finish on 8000.

However, if you are persnickity about finely-polished bevels, you still need a 4000-10000 water stone. 4000 waterstones produce a nicer primary edge or final bevel than 8000 diamonds.

Oilstones work well and only require a good deal of patience if preparing & sharpening new tools. They're fine for good general shop tools with noticeable scratch-pattern, modestly-rough finishes. But really... how fine an edge must you really need? And, only ceramics or diamond plates stay flat or last longer.

Arkansas stones?.. pretty good for general use and the finest black stone will produce a fine general edge. Not fast, long-lasting, clean the glaze like ceramics. Lube with soapy water is best. The grit on both oilstones can be buffed periodically on sic sandpaper to try keeping the used dull grit out of the way for persistently good results and speeding up future work. Like small pocket ceramics, a good fast touch-up stone while you're working with carving tools.

Don't use petroleum oil on any stone. It never made sense to me why anyone would put a friction-fighting, scratch & wear-prohibiting petroleum oil on a tool when you require friction & cutting action to properly do the job. Don't buy

Norton or other sharpening oil. Only buy & use drugstore mineral oil. It's cheap, the same base as Norton, and available in gallon jugs. It's also good for food-prep surfacing or rejuvenation.. no build-up however if that's your goal. It's also safe if you have grandchildren around who like to drink noxious liquids in your shop. The worst this will do to them is purge them quickly & vigorously.

Ceramics are really neat because you can get a decent variety of shapes and essentially 3-grits, if you pay attention to a variety of sourcing, such as kitchen, sewing-notions, crafting specialty outlets and sports outfitters. Lube with soapy water for dedicated tool-sharpening... clean the embedded metal out using kitchen/bath abrasive cleaners, such as Comet or Ajax powders. They're fast, hard, long-lasting and do a really good job up to the limitations of their scratch pattern. They are not good for heavy re-shaping work, only as hones. (although I've never had nor used some of the large rectangular ceramic stones such as LeeValley sell)

You can now buy a pretty tough psa film with diamond or sic grit, or without grit, and add your own sic or diamond grits or pastes, up to 10000. It actually works fast & really well, but is fairly expensive. Good replacement for sandpaper and eliminates round-over on the bevel and the corners. However, being too aggressive & impatient can cause cuts or tearing of the film on the push-stroke. So, I'm back to pull-stroke honing again. These are great for removing burrs, and work well on glass, steel & hard rubber plates. Mostly, I use them for odd-shaped sticks to hone odd-shaped tools. for example: I have a set of small carving gouges with an inside bevel, and use a set of birch dowels, down to 3/32" and paste or film & pastes to sharpen & hone that inside bevel.

I had a Makita electric horizontal water-stone wheel where you sharpened on the flat (side), that was a truly excellent, if messy tool to use, to a approx 1200g finish quality. I did all my tools on that machine from fine chisels to planer blades. It never gave me a hollow-grind which all the vertical-stone or wheeled machines give. It was stolen and Makita discontinued the very expensive machine. The Tormek is beyond what I'm willing to pay, but Grizzly has a clone for less. The Worksharp is a dry-sharp machine at 1725 RPM... too fast & hot for my liking. I do use a 1725 vari-speed with friable wheels for lathe tools as the steel and shapes lend to that style of grinding. But I am too ham-handed to sharpen my fine cutting tools on hot-grinding power-sharpening tools.

To answer your poll... Waterstones are easy to keep flat on glass (etc) mounted sandpaper. Mostly, up to 4000g, they're not too expensive. They're fast-cutting, and the grits break themselves down in size to much much finer particles (slurry) as you work your tool, leaving a nicer finish that I can get on oilstones. Effectively, a 1200 stone gets you to roughly a 4000-finish, and a 4000 stone will

take you to roughly an 8000 finish. And, yes, you'll replace a few over the years.

That's my vote for bench, mortise & dovetail chisels, plane blades and carving tools. But, if I just got a new set of bench chisels and want to flatten them... or need to flatten them... I crack out the diamond stones, because I'll beat the crap out of a waterstone, and my back, neck, shoulders, arms & fingertips simply cannot deal with oilstones for that job... bad enough on the diamonds.

Last, also get a good guide. That helps keep your bench chisels & plane blades accurate, straight & quickly sharp/honed.