

PUMP *action*



Manual stirrup pumps are the preferred method for filling PCPs for many airgunners. **Mark Camoccio** puts five well-known pumps to the test...

I got my first air rifle when I was a schoolboy, back in the 1970s – and, like thousands before me, I started with a classic little break barrel. Once PCP technology took hold, though, I just couldn't resist.

Giving up the independence of a self-generating power source always seemed to grate with me, though – part of the magic seemed to be lost along the way. In my bid for longer breaks between trips to the diving shop, I bought increasingly larger, more cumbersome air tanks... until I literally gave myself a hernia! As you can imagine, I was more than a little excited – and relieved – at the advent of the airgun pump.

Early versions were frighteningly tough to operate but, over the years, the design's been perfected and today's offerings really do represent a viable alternative to hefty diving bottles. What's more, they're relatively hassle-free – no more tiresome trips for refills, and no more expensive outlay for bi-annual test certificates!

Though manual airgun pumps simply will not suit everyone, I consider the physical effort required to operate all the pumps tested here to be entirely manageable. To some extent, technique

is the key. If you properly utilise your body weight above the handle to do the majority of the pumping effort, your momentum will naturally do most of the work.

Make sure you keep good care of whichever system you use – dirt and grit are always potentially destructive where pneumatic systems are concerned, so keep all the valves and hoses clean. I'd avoid charging outdoors whenever possible – or at least make sure you do it in a relatively dust-free environment.

Prolonged usage can also lead to over-heating which, in turn, can cause damage to internal seals. Adopt a methodical, measured charging regime to avoid this. I top up my gun after every shooting session, which means it takes far less time and effort than if its reservoir had been emptied.

Do keep in mind that moisture will remain in the system; even moisture traps on hand pumps will not be as 'dry' as the air from a diving bottle. This damp can be a problem down the line, though Hill's Dry-Pac add-on is probably the most efficient filter at combating this.

Despite these minor caveats, the manual pump still represents a break to freedom for the PCP user. It's the cheapest option by far – air's free, as is elbow grease! – and you don't need to have your pump tested or need to worry so much about storage, transit and refilling issues. ●

PUMP COMARISONS – CHARGING PERFORMANCE FROM 100 TO 200BAR

PUMP	EFFORT REQUIRED	STROKES TO ACHIEVE: 100-150BAR	STROKES TO ACHIEVE: 150-200BAR	TOTAL STROKES	PRICE
Hill	Moderate	40	50	90	£139
FX Three Stage	Very little	39	53	92	£149
FX Four Stage	Moderate	49	80	129	£179
CNC Green Monster	Moderate	38	48	86	£127.50
Webley Tri-Pump	Very little	32	46	78	£139.99

HILL PUMP AND DRY-PAC SYSTEM

Based in Sheffield, Hill is widely-renowned for its pumps and, to airgun pumps in particular, the company brings top-class engineering knowledge and experience. I've had two models of theirs for five years, and they still run perfectly.

In build, this model's solid and, though quite heavy, it's very manageable. With over-sized handlebars and an impressively sturdy construction, it's reassuring to use. Designed to be quickly taken down for transport, the handlebar's got one screw holding it in place, while the base is retained by a chunky, knurled locking ring. Since it is Hill, though, the locking bolts are engineered to last.

Where the Hill really excels is its optional Dry-Pac moisture reduction system – Anschütz actually insist on its use in conjunction with its guns. The pod uses a dry medium, similar to mustard seeds in appearance, to remove a claimed 80 per cent of moisture in the air. The smooth pumping action rounds off what is a great piece of working kit.

Max. pressure: 230BAR

Weight: 6.6lb

Height: 25in

Moisture trap: Built-in with micron particle filter; Dry-Pac pod is extra

Price: £139 (£179 inc. Dry-Pac)

Contact: Hill Pumps

T: 0114 248 4882

W: www.hillpumps.com

Build quality: ★★★★★

Ease of use: ★★★★★

Value for money: ★★★★★



FX THREE-STAGE PUMP

FX, from Sweden, was the company to introduce airgun hand pumps way back in 1993 – and, while those efforts were pretty hard work when it came to filling your cylinders, it pioneered the development of similar kit and has since gone on to become the name associated with top-end pumps for PCPs.

The Three-Stage is reasonably light and works a treat. Initial assembly is simple – just screw the external moisture trap, hose and footplate into place.

That external trap doesn't work alone – there's an in-built one, too. Other features include rubber-covered handles and a Kevlar hose. All constructed, the Three Stage makes light work of getting to 200BAR, though my feet were a tad too large for the footplate.

FX's Three-Stage comes with a five-year warranty, so you can be assured it will live up to expectations in the long run. All-in-all, a simple-to-use, very effective pump.

Max. pressure: 250BAR

Weight: 5.3lb

Height: 25in

Moisture trap: Built-in with particle filter

Price: £149

Contact: Deben

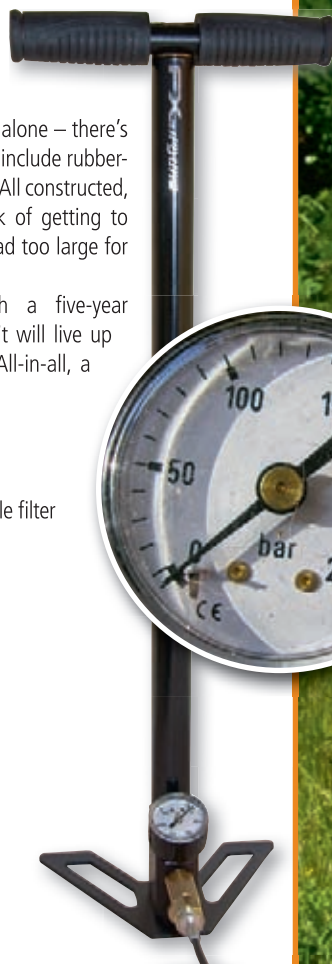
T: 01394 387762

W: www.deben.com

Build quality: ★★★★★

Ease of use: ★★★★★

Value for money: ★★★★★



FX FOUR STAGE TURBO PUMP

Hot on the Three-Stage's heels, FX recently released the excitingly-named FourStage Turbo Pump. It's well-built (as all FX gear is), but there is a little fine-tuning needed on the principle design. Still, it does the job and is extremely effective if you're looking to achieve higher-end pressures without the accompanying physical strain!

A unique gearing system allows you to switch between achieving high volume with low pressure and high pressure with low volume.

Theoretically, this should make pumping to high pressure easier – you do the first, say, three-quarter fill using 300cc of air per stroke, after which you 'gear down', filling with 200cc of air per stroke for the final, more tiring part of the process. How do you change gear? Simple – just turn the four-stage adjustment dial situated between the handlebars.

It works well, but I found the pumping stroke a little slack – which meant filling sessions certainly took longer, though a small price to pay for the easier input effort. FX offers a five-year workmanship warranty, so it's clearly a pump that's built to last.

Max. pressure: 300BAR

Weight: 5.3lb

Height: 25in

Moisture trap: Built-in with particle filter

Price: £179

Contact: Deben

T: 01394 387762

W: www.deben.com

Build quality: ★★★★★

Ease of use: ★★★★★

Value for money: ★★★★★



CNC GREEN MONSTER

If weight's a sticking point – then it's the Green Monster for you. The lightest in the test, it's a winner if you're looking to take your charging gear out to the field and don't fancy lugging around much weight.

One caveat to that lack of weight, though, is that the pump's main barrel isn't as sturdy as some of the other models featured here, not that it should pose any problems if used correctly. The unit comes flat-packed, but you've only got to secure the footplate and hose into place to assemble it.

Each stroke is smooth, with a reasonable amount of effort required. Possibly due to the slightly flexible barrel, I occasioned on patches of resistance on the downward stroke during my testing. Despite the reading on the gauge, this pump comes with a maximum recommended pressure of 200BAR. While perfectly adequate for the majority of PCPs, it's something to bear in mind if you've also got those models which take 230 or 250BAR.

Max. pressure: 200BAR

Weight: 4.9lb

Height: 25in

Moisture trap: Built-in with particle filter

Price: £127.50

Contact: Brocock

T: 01527 527800

W: www.brocock.co.uk

Build quality: ★★★★★

Ease of use: ★★★★★

Value for money: ★★★★★



WEBLEY TRI-PUMP

The Webley is heavy, large... and very impressive. With a reassuringly sturdy frame and big build, and a remarkably smooth and easy pumping stroke, it's a clear leader in the efficiency stakes.

Chunky handle bars fill your hands comfortably and give you good leverage over each stroke, but they're not just an operation feature. Housed within one is the moisture trap and particle filter, and the other's a storage space – it's there you'll find spare seals. Both have screw-on end caps, so you can quickly get to the moisture trap if it needs maintenance.

There are more nifty touches, though. A lock at the bottom of the main barrel ensures the pump doesn't open up when lifted by the handles – simple, yes, but oh so useful when you're carrying it around! I also like the Webley's pressure gauge; having coloured zones gives instantaneous feedback on your gun's fill level, rather than having to focus on reading normal, plain dials.

The Webley's my winner – it's an extremely well-thought-out product for the PCP shooter.

Max. pressure: 230BAR

Weight: 7.5lb

Height: 26in

Moisture trap: Removable moisture and particle filter

Price: £135

Contact: Webley

T: 01902 722144

W: www.webley.co.uk

Build quality: ★★★★★

Ease of use: ★★★★★

Value for money: ★★★★★

CAMOC'S CHOICE

