

on test

microphone

Studio Projects T3

Multi-pattern Valve Microphone

An affordable new multi-pattern mic with a subtle tube sound.

Paul White

Studio Projects microphones sit somewhere between the better budget capacitor microphones and the premium-priced models from more established names in microphone manufacturing, and their solid-state models have already received favourable reviews in *Sound On Sound* over the past few months. The company obviously look up to the big-name German mics as their benchmarks and also specify a number of German components in their designs, their stated aim being to deliver big-name quality at a much lower price point. To achieve this, Studio Projects has a working partnership with Chinese company 797 Audio, who build the capsules and manufacture the microphones in Beijing.



6072 Dual Triode Valve

The latest addition to the Studio Projects range is the T3, a multi-pattern tube microphone that comes with cable, power supply, foam wind shield and shockmount, all packed in a tidy aluminium flightcase. In this case the tube is a dual-triode 6072, chosen for its traditional warm sound. Though tube mics are often expected to be noisier than their solid-state counterparts, this is not true of the T3, which performs almost identically to the company's solid-state C1 and C3 models in this respect. An HT supply of 200 Volts DC is used, so this isn't one of those mics that use a 'marketing' tube run at solid-state voltages.

Cosmetically, the mic is similar to its solid-state counterparts, with a cylindrical body, offset output socket for the (in this case seven-pin) XLR cable and robust side-entry grille. In fact it's

quite a large mic, with a 2.1-inch diameter and a length of almost nine inches, weighing in at a hefty 26.9 ounces, which can give lesser microphone stands a nasty case of the droops! Tube mics tend to be relatively heavy, so choosing a good, solid mic stand is always a good idea.

Studio Projects T3 £669

pros

- * Good build quality with accessories included.
- * Affordable.
- * Multiple patterns.
- * Smooth, natural sound quality.

cons

- * No pad and filter switches

summary

The T3 is a good vocal mic but can also turn its hand to most jobs within its SPL limit. The tube circuitry lends the mic a warm, confident sound, but without adding unnecessary or excessive coloration.

SOUND ON SOUND

The multiple patterns are created in the usual way of combining the contributions of two closely spaced diaphragms, which, here, are one inch in diameter, utilising six-micron thick, gold-sputtered mylar diaphragm material. Three polar patterns are supported — cardioid, omni and figure of eight — and are selected using a rotary switch on the external PSU. Additionally, six intermediate patterns may also be selected, the most useful aspect of which is that the user can choose from wide or narrow cardioid options. A centre electrode capsule is employed, a design feature of many 'classic' microphones, and a system of dynamic feedback is used at the capsule to reduce distortion at higher SPLs. There are no switches on the microphone itself and no pad or low-cut filters.

By way of specification, the mic claims a 20Hz-20kHz frequency response, but without a frequency plot or a set of limits this isn't particularly informative. Sensitivity is quoted as 14mV/Pa, which is similar to that of the solid-state models in the range and comparable with other microphones of this type. The maximum SPL is 125dB, and because there's no pad to extend this further, use inside kick drums or in other very loud locations is probably not recommended. For most practical purposes, though, 125dB should allow plenty of headroom. Noise is 18dBA, equating to a signal-to-noise ratio of 76dB, again not atypical for a large-diaphragm capacitor microphone.


Recommended applications for the T3 include vocals, broadcast announcing, close-miking acoustic instruments, drum overheads and guitar amp miking. Though the handling noise of the T3 is not unreasonable, the included shockmount should be used to isolate the mic from stand-borne noise, and, as with all such microphones, the use of a nylon mesh pop shield (not included) is absolutely essential when recording vocals to prevent popping. Furthermore, as with all capacitor mics, the T3 should not be dropped or subjected to moisture, condensation or excessive dust. Wind shields should always be used when recording outdoors, as very strong gusts of wind have been known to damage diaphragms, and a cheap tip for any capacitor mic user is to pop a plastic bag over it when not in use to keep the dust out.

Studio Test

My first test with the T3 was to record the main vocals for a band project I'm currently involved

in, and the results were encouraging. Certainly there's a hint of tube flattery that, in conjunction with conventional compression, produces a solid and assertive vocal sound, but there's no obvious-sounding artificial hype or distortion. In this respect, the performance is more like that of a classic mic, where the tonal contribution of the tube is subtle but still very important, and high frequencies are reproduced smoothly rather than splashily.

Predictably the T3 also turned in a great performance with acoustic guitars, but it is also capable of fine results when used to mic a good tube guitar amplifier. UK engineers often go for a dynamic model as first choice for amp miking, but I'm now starting to think that capacitor models produce a better sound in many situations, especially if you're after a more 'American' sound.

The bottom line then is that the T3 does indeed offer a high level of performance at a non-esoteric UK price, but it's equally true that it is not without some worthy competition. It does work very well and it has the advantage of fully switchable patterns, but there will be some sound sources that it suits better than others. It's impossible to come up with a definitive 'best in category' recommendation, because so much depends on the nature of the source sound and the kind of result you're after. Having said that, because the tube sound of the T3 isn't over-hyped, it's more likely to turn in consistently good results in different applications than a mic that's designed to deliver a specific tonal flavour. If you don't need the multiple patterns, there are more economical choices that I think sound every bit as good, not least Rode's mellifluously smooth NTK, but if you need the flexibility of pattern control and demand quality without paying through the nose for it, the T3 could be just what you're looking for. 

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