Jadis I-70 Tube Integrated Amplifier Review



James Michael Hughes is thunderstruck by this premium-priced integrated tube amplifier...

Jadis

I-70 Integrated Amplifier

£11,498



French company Jadis is famous for its uncompromising approach to quality. The new I-70 integrated amplifier offers a reference-class design based around the recently introduced Tung-Sol KT-170 valve. This is said by some to be one of the finest output tubes ever made, no less.

Few things get more 'old school' than the new I-70; it's a straightforward line-level design offering a claimed 50W RMS per channel. But, unlike many modern integrated amps, there's no built-in DAC, phono stage, and no balanced input option either.

It employs four Tung-Sol KT-170 tetrode output tubes in push-pull, pure Class A ultra-linear configuration. It is said that a pair of these tubes could, at a push, deliver something like 300W. However, Jadis restricts the power output to just 50W to maximise sound quality. The company says its conservative implementation of the KT-170 lowers distortion while delivering extra tonal depth and refinement. The tubes aren't pushed hard, which should enhance reliability and longevity – just as well when a replacement set of valves costs around £1,000 in the UK!





The KT-170 itself is a fairly large tube, not unlike a 300B in terms of size and appearance. The curvy domed shape is designed to maintain a high vacuum and improve heat dissipation. At its widest, the tube measures 6.5cm in diameter; Jadis provides a 3.5cm distance between each pair of tubes.

As you'd expect at this price, build quality is excellent. Point-to-point wiring features internally, and all components are of the very highest quality. The gold plated knobs and front plate won't appeal to everyone, but to my eyes, the amp looks classy and reassuringly expensive. At a hernia-inducing 30kg, it's heavy too!

Being pure Class A, the I-70 runs quite hot. Temperatures exceed 50 degrees Celcius immediately above the output tubes, but at the centre of the tube cage, it's around 37. However, the heat falls off quickly with distance. So the amp won't warm up your room much. Power consumption is 500VA. The protective cage protects the tubes but tends to trap the heat. Removing the cage allows heat to dissipate more evenly. While the top of each power tube gets very hot, the overall temperature of the chassis is not so high. The solid-state <u>Audia Flight FLS9 that I reviewed recently</u> gets much hotter, for example!

The I-70 was specifically designed from scratch to get the very best out of the new KT-170 tube. To this end, Jadis employs some of the techniques found in its more expensive Reference series amps, with special emphasis on monoblock construction and power supply implementation. Separate power supplies are not just used for the various individual circuits but also for different stages of the same circuit. Jadis designs and manufactures its own transformers, which are hand-wound. To eliminate induced noise, the filament voltage is stabilised.

A total of nine tubes are used; four KT-170s, three 12AU7/ECC82s, and two 12AX7/ECC83s. Each tube is individually numbered to indicate which socket it should be fitted to. Nominal output impedance is 4 to 8 ohms, but internal adjustment is possible to suit 1 to 16 ohms.

The Jadis runs silent; there's no transformer buzz to be heard. Residual output noise is also absent, but being picky, a slight degree of input hum can be discerned if you increase the volume control above a certain point. However, this noise is undetectable at any normal listening level. The line inputs have very high gain, needing just 150mV for full output.

Due to the limited power output of 50W, Jadis suggests partnering the amp with loudspeakers with a sensitivity of at least 90dB to ensure adequate headroom for transient peaks. I used <u>Klipsch Cornwall IV</u>s with 102dB sensitivity, which helped make the most of the available power. However, the I-70's very high gain means the volume control has to be set quite low. At five divisions above zero, my room was filled with sound.

While the volume control range was a bit cramped, it proved perfectly usable. Tracking between the left/right channels was very accurate, so you could have the volume control at a low setting without prematurely losing one channel. Less efficient speakers would give you more leeway. To make things more manageable, I lowered the gain of my phono stage by 6dB, and reduced the output on my <u>Auralic Altair G2</u> streamer by 12dB. The latter delivers a very high 4V, so full output can be a bit excessive – even for much lower sensitivity amps than the Jadis.

The I-70's logarithmic potentiometer produces a subjectively even variation of loudness over its full range of travel. Some amps use linear pots, which give a large change in level over the first quarter, and then just a small difference over the next two quarters. Fortunately, the Jadis isn't like that. The volume control is motorised and works smoothly when triggered by the remote handset. As the control was set at a fairly low point, I feared that touching the +/- buttons might produce excessively large changes in level, but fine adjustment was possible.

Sonically, this amp proved a very good match for Klipsch Cornwall IVs, and they, in turn, benefited hugely from an amplifier of this quality. Nonetheless, I'd feel happier if the amplifier gain was maybe 10dB to 15dB lower were I partnering this with such sensitive speakers.

THE LISTENING

I expected great things from this amp and wasn't disappointed. The Jadis produced a large and powerful sound that belied its relatively modest 50W power output. Allied to this is a delectable smoothness and sense of refinement. Sonically, it's the proverbial iron fist in a velvet glove. The end result is both gutsy and dynamic while at the same time subtle and delicately nuanced. I went to this amp after using the excellent solid-state Audia Flight FLS9. The latter sounds wonderfully clean and refined, with great timing, but the I-70 offers superior tonality.

Along with massive scale and dynamics, the Jadis sounds very mellifluous with a deliciously effortless, fluid sort of musical presentation. It offers a very neutral/natural tonal quality that's mellow and warm without being soft or lacking in focus. From all this, you might think this amp sounds euphonic, and superficially there's an element of that. But this implies it has a character that is superimposed on each recording, and that's definitely not the case. It's more like the amp teases these qualities out of the recording.

Yet, for all its innate warmth and smoothness, the Jadis is not lacking in bite or immediacy. It's actually a very fast and lithe-sounding amplifier, offering outstanding clarity and definition. Bass is quite exceptional – clean, powerful, deep – and remarkable for a transformer-coupled tube amp. The manufacturer claims a frequency response of 10Hz to 36kHz (-3dB), which is very extended and well up to solid-state standards. It suggests that the output transformers have very low loss at frequency extremes.

On percussionist **Mino Cinelu's** self-titled album, I was gobsmacked by the weight and power of the lower frequencies, especially on tracks like *Oncoming Horizons* or *Will O the Wisp*. I heard a firmness and control that few solid-state amps can match. It was almost like I'd added a sub. The Jadis also reproduced solo piano superbly. Lower registers had impressive weight and richness, while upper registers sounded tactile with a crisp dynamic attack, yet rounded and sweet too. There was none of that thin hard 'broken bottles' harshness from the high notes.

I deliberately tried an early 1981 digital recording of **Brahms'** volatile heaven-storming third sonata with **Gerhard Oppitz** on the Orfeo label. This always sounded brittle, and while the piano tone remained bright and forward, it was satisfyingly full-sounding. I was also impressed by a CD of **Beethoven's** piano variations with **Ingrid Jacoby** on IMP. Previously, this recording had just seemed rather average – it was a bit small and distant, but via the Jadis, it was remarkably sonorous and ample, with nicely rounded bass notes.

Comparing the Jadis to Audia Flight's excellent FLS9, the latter sounded slightly thinner and tonally a touch drier and harder. However, the more incisive sounding FLS9 gave certain recordings a bit more drive and bite, although pace and timing seemed about equal between the two amps.

I also made comparisons to my own Opera Audio Consonance M100S Plus – a nice sweet-sounding valve amp using paired 300B tubes which deliver about 22W. I was hoping I might hear some of the refinement and sweet, relaxed ease of the Jadis. Dream on! The Consonance sounded good but couldn't match the smooth and sophisticated finesse of the Jadis or its sense of pace – not to mention its effortlessness and overall refinement.

The Jadis sounded warmer and less mechanical, more graceful and freeflowing. Such sweet velvety smoothness creates an impression of refined ease, which (alas!) my M100S Plus didn't quite aspire to. The Jadis was also more forward-moving, assertive, and more polished and urbane. What can I say? You get what you pay for.

THE VERDICT

The Jadis I-70 is not inexpensive, and facilities are limited. There is no built-in DAC or phono stage and just five unbalanced line-level inputs, with no balanced option. It's very basic then, but its sound quality is quite the reverse. Quite simply, it's one of the best-sounding amplifiers that I have ever heard.

This amplifier is hard to beat for those who prize warmth, delicacy, subtlety, finesse, and seek assertive dynamics without aggression. It produces gorgeous results; its innate sweetness and refinement make it a joy to hear. Any foibles suddenly seem secondary to the wonderful music it makes. It's a sound that captures the heart, as well as the mind.

For more information visit Jadis