

# A New Icon

**A single-ended valve amplifier that combines sonic poise with power. Jon Myles is captivated by Icon Audio's new ST30se.**

**J**ust like vinyl, valve amplifiers are coming back into fashion to an increasing degree. The reason is simple, done well they offer a warmth, vibrancy and overall musical experience that even the best transistor-based amps find hard to match.

The drawbacks are that they can be harder to maintain, offer lower power, run hotter and - due to the use of expensive output transformers - are often dearer than a similarly-specified solid-state device.

Leicester-based Icon Audio and its chief designer and owner David Shaw have made it a mission, though, to try to square this circle by producing tube amplifiers that are as easy to use as possible, while still retaining that glorious valve sound.

At the higher end of the company's range it offers the likes of the MB 81 monoblocks featuring huge Russian-made GU81 valves producing some 200 Watts each and costing £15000.

But then there is the new pure Class A ST30se integrated amplifier I am reviewing here that, while not offering anywhere near the same power, comes in at a rather more affordable £1999.95 - and it's easy to slot into an existing system.

Based around two gherkin-shaped Tung-Sol KT150 output valves, it is a single-ended Class A design offering a claimed 18 Watts per channel in triode mode or a more substantial 28 Watts in ultralinear operation (see Measured Performance for more information).

The driver circuit uses three double triode CV181 valves designed by David Shaw himself and used in cascode mode.

Biasing the KT150s for optimum operation is simple thanks to the illuminated meter on the front fascia. Switch it in and then use the supplied screwdriver to adjust the two small controls located next to each valve until the needle reaches its black section.

Icon Audio do suggest the bias should be checked every month or so - but as this is easy to do it's not a hardship. The meter can also be set to give an indication of output power - although in use it does seem a little vague in its response.

Away from that meter the other functions on the front consist of the





rotary volume knob, input selector plus standby switch as well as the control to switch between triode and ultralinear operation. Do bear in mind here, though, that Icon Audio do not recommend doing this on the fly to save stressing the output transformers. Instead move the amplifier into standby mode and then make the adjustment before switching it back in.

Connections on the rear allow for three analogue inputs with gold-plated 4 Ohm and 8 Ohm loudspeaker options, and there is also a switchable (high/low) gain control for matching partnering equipment. The high setting gives you 200mv sensitivity, low offering 500mv.

Size-wise the ST30se measures 240mm x 380mm x 300mm (H/W/D) and – like all valve amplifiers of this size – is heavy, so ideally needs two people to lift onto a suitably well-ventilated hi-fi rack.

In usual Icon Audio fashion the internals are all point-to-point hand-wired and the overall finish and fit is exemplary, with the standard black finish and copper-coloured top plate giving it a purposeful, no-nonsense look.

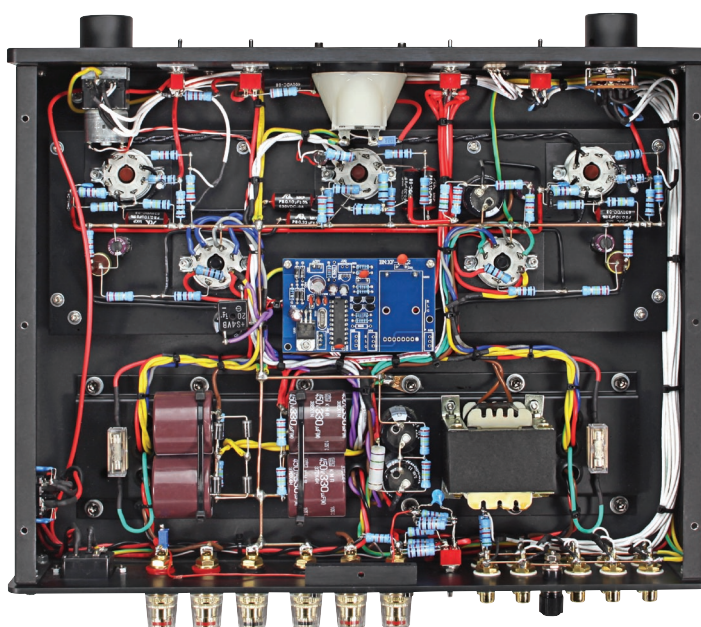
## SOUND QUALITY

Icon Audio describe the ST30se as being a medium-powered integrated amplifier capable of working with any loudspeaker of around 90dB sensitivity or more. I think they are being a little conservative here.

The use of the excellent Tung-Sol KT150 power tube - first released in 2013 - means this unit has uncommonly high power for a single-ended amplifier and in use



**The driver circuit uses three double triode CV181 valves - with Icon Audio's head man David Shaw's name etched on their front.**



**As is usual with all Icon Audio valve amplifiers, the internals are all point-to-point hand-wired giving a neat and, most importantly, robust look.**

it had no trouble driving a variety of loudspeakers from the small standmount Blue Aura ps40s (85dB sensitivity) to the larger Martin Logan ElectroMotion ESL X electrostatics.

Plugged into the latter and set to triode operation initially the ST 30se sounded crisp, clean and rather more rhythmically assured than most single-ended valve amplifiers around.

Best of all the low-end was free of any bloat, instead sounding very fast and punchy - not something associated with SE designs. Fed The Smiths' 'Barbarism Begins At Home' from a 24bit/96kHz download of 'Meat Is Murder', Andy Rourke's bass line had exceptional power via the Martin Logans, providing a firm foundation for Johnny Marr's ringing guitar above.

This is not a warm or lush amplifier, instead having a pristine quality about it that was a little like a solid-state amplifier without the harshness and clinical nature.

Switching to the Blue Aura ps40s there was an obvious reduction in the overall soundstage with the volume control having to be pushed higher to get decent sound levels but clarity and separation between instruments was still excellent.

Moving to ultralinear operation brought a boost in power, although at the expense of the more mellifluous flow to the music that the triode setting provides. Much here will depend on your loudspeakers and individual taste - but on the whole I preferred the triode mode most times.

Used in this mode the Icon

Audio brought a vibrancy to The Allegri Quartet's 'String Quartets by Alec Roth' CD, via our reference BDP-105D Universal disc player. Timing between the various string instruments is a key to these pieces and that was one of the ST30se's main assets. On the slower pieces it exerted a firm sense of control



**The gherkin-shaped Tung-Sol KT150 Russian-made valve offers exceptional power for a single-ended design.**

but when the pace increased there was no lag, so the quality of light and shade was portrayed vividly.

Moreover, individual instruments were easy to delineate and had a refreshing timbral accuracy. During the gloriously pastoral 'On Malvern Hills' I could close my eyes and picture the bows on strings of the violin. Via the Martin Logans especially, the music came into the room with a three-dimensional nature that sounded more like a live rendition than a CD recording.

Indeed, the Icon Audio and Martin Logans made a compelling case for themselves as a combination.



There are 4 Ohm and 8 Ohm loudspeaker taps on the rear (right) as well as CD, Aux and Tuner inputs (left).

Combined they will cost you just shy of £6500 - which may not be pocket change but in the world of true high-end audio represents value for money.

To give the combination a thorough work-out I turned to Kraftwerk's superbly recorded live opus 'Minimum-Maximum' with its blend of atmospherics, intertwined electronic synth lines and deep, propulsive bass.

Everything was there in crystal clear quality. The Icon Audio caught hold of all the elements and thrust them into the room. Detail on the likes of 'Autobahn' meant the noise of

a car door shutting at the beginning of the track sounded just as though it was parked in the room, while every blip and bleep of the electronica was picked out with absolute clarity.

If there's any reservation, I'd say those who like the slightly lush sound of some lower-powered single-ended valve amplifiers may not initially take to the ST30se. Listen longer, though, and you'll find what you are getting instead is a lot more detail and focus as well as the power to work with a much wider and more varied range of loudspeakers.

In fact, I could imagine many dedicated transistor amplifier

enthusiasts being converted to the valve camp via this new Icon Audio. It really is that good.

## CONCLUSION

Icon Audio have really hit the mark with the new ST30se integrated amplifier. Easy to use, it combines a healthy power output with assured timing and a gorgeously open sound which is comfortable with all genres of music. Play some bass-heavy rock and it will happily pound out the bass, while with acoustic tracks it will bring out all the rich tonality of violins or double bass. Pair it with a good set of loudspeakers and you will have the heart of a system that will keep you satisfied for many years.



The supplied remote is simple - offering control of volume and mute.

## MEASURED PERFORMANCE

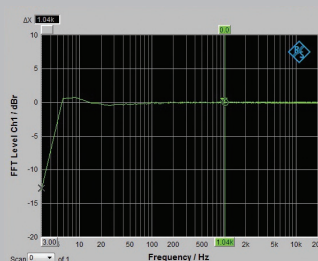
The single KT-150 pentode power valve used in each channel of the ST-30se produced a healthy (as SEs go) 28 Watts into 8 Ohms under test, in Ultralinear mode, and 21 Watts in Triode mode. These are relatively high power values for a Single-Ended (SE) amplifier, that typically come in at around 9 Watts when using something like a 300B triode. The ST-30se's power is plenty enough to drive modern, sensitive loudspeakers to high volume, since just 10 Watts or so is needed to play loud - more will play very loud.

Power was maintained well at low frequencies, where the large output transformer cores resisted magnetic saturation and overload; distortion hovered around 0.5%; bass will sound clean and undistorted as a result.

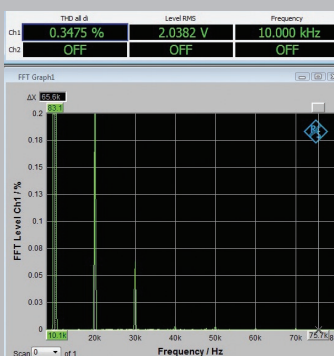
As valve amplifiers go damping factor was high at 6, due to the use of feedback. This also helped keep distortion levels reasonable at around 0.2% in Ultralinear mode and 0.4% in Triode mode, at low power outputs. Distortion rose steadily as power rose, to 1% just below clipping. However, it comprised

correlated second and third harmonics that rose and fell with the signal, unlike high feedback transistors amps where

### FREQUENCY RESPONSE



### DISTORTION



the distortion patterns are not correlated to the signal, behaving erratically. So SEs like this might look poor superficially, but they're not in real life listening, because of the way the ear perceives different forms of distortion.

Frequency response was wide, the upper limit being 50kHz (-1dB) at all volume control positions. The low frequency response extends down to 6Hz before falling away rapidly, the small hump being due to feedback time constants. The ST-30se will not sound dull or warm: it is flat across the audio band and even beyond.

The ST-30se produces high power as pure SEs go. It has unusually wide bandwidth too, so will not have a warm sound balance. A clean and pure, but relatively fast sound is likely. **NK**

Power	28W
Frequency response	6Hz-50kHz
Separation	83dB
Noise	98dB
Distortion	0.2%
Damping factor	6
Sensitivity (L/H)	800 / 400mV

ICON AUDIO  
ST30SE £1999.95



OUTSTANDING - amongst the best.

### VERDICT

Combines all the benefits of single-ended valve operation with a healthy dose of power for a superb listening experience.

### FOR

- power
- clean, open sound
- detail
- easy operation

### AGAINST

- nothing at the price

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