

Hot Stuff

Channa Vithana feels the heat as he sizes up the full Class A JungSon JA-1/JA-99 preamplifier/power amplifier combination...

Sadly, it's still all too easy to be sniffy about Chinese products. Maybe it's latent cultural prejudice – akin to what many felt about Japanese manufacturing back in the sixties (before they started producing stuff that was manifestly superior to our own home grown fare by the end of the seventies) – but it's also because, well, they're just not quite there yet...

Actually, *quite* is the operative word, because if they're not "there", they're certainly "thereabouts". Editor DP found the JungSon JA-88D oh-so-close to being a Sugden beater (or at least a valid alternative) back in the May 2006 issue (see p50). His main criticism was the rather garish front panel, which would appeal to those with a thing for bling, but not urbane sophisticates like him... There was also the small matter of a few rough edges on the brushed steel casing, but this aside he found it offered truly superb "sound per pound".

Well, now we have the JungSon JA-1/JA-99 amplifier system, with a claimed 80W/8ohm of Class A power. It comes as a complete package for £999 – just £100 more than the integrated, and promises superior measured performance and the elimination of the huge and garish 'Volkswagen dashboard blue' power meters that DP hated so. Unfortunately, although what's taken its place is an improvement (i.e. no more power meters!), DP has opined that he's not in awe of the "his and hers monogrammed bath towel lettering" on the JA-99's fascia either... some people!

Aesthetics aside, what you're getting over and above the JA-88D is the separation of the preamplifier circuitry from the power amplifier, for superior sound quality. This is partly to do with mechanical isolation as well as the physical isolation of the power supplies, with their own mains feed. Another factor is the claimed distortion figures where the JA-88 integrated has a THD of 0.05% while the JA-1/JA-99 system has less with 0.02%. JungSon says the fully balanced design utilised in the pre and

power amplifiers along with Class A operation, "reduces distortion to a negligible degree". Well, enough PR-speak – you can read Noel's measured performance section for the last word on this.

The slim-line JA-1 preamplifier measures 438x355x69mm and weighs 7.9kg. It is remote-controllable and has five line inputs (without any apparent tape or phono-socket line outputs). One is balanced and a line output is also balanced, both using XLR sockets. The casework is nicely constructed and looks good with a contrasting light grey-brown cover to the satin-finished thick aluminium front panel. There is a simple but excellent display that can be read from afar and the control buttons operate mute, volume and input (labelled 'mode'). In use, you can hear the distinctive clicking action of the relay operated volume control. Relays are usually used in more expensive designs and in practice I found the volume control of the JA-1 to be excellent as it operated precisely and without the loud clang-type noise of some relay driven designs.

The operational feel of the control buttons, while working properly, felt a little flimsy, as did the shiny chrome-style power button (inclusive of JA-99). I would have preferred a simple array of circular buttons chamfer-cut into the front panel and finished off in matching satin silver aluminium – to give it a more refined feel. The remote control is a well-made affair with an ergonomic lower portion to fit nicely into the hand and is constructed from a thick metal band around the outside edge with wood top and bottom panels.

The JA-99 power amplifier is a big and heavy device measuring 438x430x135mm and weighing 26kg. It also has an attractively minimalist design with a simple oval opening locating the power switch and a surrounding light blue uplighting. There are a lot of perforated openings into the top, side and bottom panels of the casework, necessary for the huge heat dissipation required for the claimed

80W of Class A power. Though required for practical necessity, these openings do rather detract from the ostensibly clean lines of the JA-99. It has only one set of balanced XLR inputs at the rear.

Internally the JA-99 power amplifier uses a 680VA EI transformer (seen from the top plate, near the centre, under the air vents) which they say is made with extremely low internal resistance and large capacitance that ensures a steady flow of current to the power supply. The preamplifier uses two 30VA EI transformers to provide power independently for each channel. Positioned close by to the large EI transformer in the power amplifier are a set of eight capacitor shaped devices that JungSon calls 'audio pro wave filter condensers'. These total up to a hundred thousand micro Farads in capacity and are said to "ensure a steady flow of current supply and making the tone more beautiful".

The JA-99 uses eight pairs of "carefully chosen power transistors" and a portentously named "giant missile-type radiator" for heat dissipation. One 'missile radiator' is located on each side and can be seen through the ventilation openings. It consists of what looks like a long and thick square section rod of metal in the middle, which is then slotted through with many thin metal sheets intermingled with thicker uprights. The 'missile radiator' looks quite delicate and is probably why it is kept inside the casework instead of externally like a heatsink. It is perhaps also to lower costs – as elaborate, thick heatsinks (some of the best, as on the mid-nineties Musical Fidelity F series) cannot be cost/ space effective for Class A heat dissipation of this size.

In use, the JA-99 gets very hot and even though it is 26kg, I would recommend placing its mass onto a dedicated, level and stable support, separate from anything else. I would not place it on the floor either as that can be disastrous for sound quality, especially near the vibrations caused by a loudspeaker. I would



recommend treating the JA-1/JA-99 like valve amplifiers and switch them on for about thirty minutes to an hour before serious listening and then off immediately afterwards. I connected the Unico CD with Chord Company Chameleon Silver Plus XLRs into the JA-1 and with Moray James Cryogenic XLRs into the JA-99.

SOUND QUALITY

At the price, it is quite remarkable that the JungSon combo produces such a finely balanced and luxuriously appointed sound. The music from the Jacqueline du Pré compilation, 'A Lasting Impression' had a rich and fulsome feel to it, being wonderfully fluid and enjoyable. The sound was deep, lush and communicative. As crescendos appeared, the JungSons handled them with excellent poise and control, without stifling any of the impact. The individual instruments such as the cello had superb timbre and deep expressive textures while the instrumental separation was acceptably good.

Neneh Cherry's rendition of 'I've Got You Under My Skin' from Red, Hot & Blue sounded authoritative. Thus, her vocals were outstandingly three dimensional with convincing phrasing, definition and emotional expression - where breath inhalation and exhalation were clearly revealed as she changed from rapping to the proper singing parts. Instrumental and vocal separation was good while the individual instruments and cleverly

"they're closer than some modern valve amplifiers to that warm, rose-tinted style of hi-fi, and have a useful 150W to underpin things..."

arranged driving electronic beats were reproduced with excellent definition bearing in mind the price.

With 'Something About You' by Level 42, the music was deep and full-bodied with good control and definition to what can sometimes be a rather bright recording on some systems. Thus the sound was immersive and communicative where the instruments and vocals were clearly defined and expressed. The music had an excellent ebb and flow to it and sounded cohesive and

engaging. Bass extension with Level 42 was very good, as was the bass tunefulness.

The climactic 'Whisper A Prayer For The Dying' by Coverdale & Page saw David Coverdale's opening vocals delivered with breathy atmospheric as the song structure started to unravel. Jimmy Page's guitar had excellent timbre and phrasing, while the instrumental separation was very good; I could identify each element with clarity but without clinical dislocation. However, as the song





structure progressed and changed in emphasis from lilting reflection to broad and powerful driving rhythm, typical of Page, the JungSons struggled to express the full-tilt dynamics by sounding a tad closed in and shrill in the upper midband. The JungSons were much happier when the song reverted back to its reflective, simpler moments.

I was able to directly compare the £999 JungSons to a more expensive £1595 Moon Audio i-3 integrated amplifier using the phono-socket version of the Chord Company Chameleon Silver Plus interconnect from the unbalanced output of the Unico CD. With all the music, the Moon offered a more free-flowing spatiality and rhythmical sophistication in comparison. Comparatively, the Moon was leaner and less full-bodied but it was also superior in timing where one could follow successive notes and rhythms with less concentration. The JungSons were superior with the emotional feel to the Jacqueline du Pré 'A Lasting Impression' compilation where the violins, cello and orchestration were handled with a full-bodied and convincing timbre.

Due to the weightier style of the JungSons, the music also had more

impact to the orchestral crescendos. I wasn't able to directly compare the pre and power amplifier sections of the JungSons with my high-end reference Densen B-250/B-330 amplifiers as the JungSons can only be connected via balanced XLR cables. However, I was able to substitute the JA-1 preamplifier with a (balanced in/out) NHT Pro passive preamplifier (see www.nhtpro.com) which costs approximately £75. Here the JungSon JA-99 power amplifier timed much better, bringing it into line with the more expensive Moon i-3. Thus all the music benefited from better phrasing of vocals and instruments, which allowed for a more engaging sound overall. The JA-1 is not necessarily a weak-link, because without it, the vocal and instrumental timbre that was tangible and three-dimensional with all the music used became minimised.

CONCLUSION

This £999 JungSon combo made deep, full-bodied, and powerful music, its strength being outstanding vocal reproduction for the price and excellent instrumental timbre in

all the music used. Still, if you have sensitive, high quality loudspeakers above a 90dB rating, then the Sugden A21a integrated remains my choice as the best amplifier under £1,000, thanks to its brilliant rhythmical qualities and outstanding resolution. However, these JungSons are far more versatile and much more effective in the real world of inefficient (i.e. most) loudspeakers, and tuneable if desired with different or superior preamplifiers (Shadow Distribution may be able to supply just the JA-99). As such, if you're a fan of beautifully reproduced vocals and instruments with a deep, powerful sound, these amplifiers are closer than some modern valve amplifiers to that warm, rose-tinted style of hi-fi, and offer a useful 80W or so to underpin it. Another superb, real world audiophile bargain from JungSon, one of China's best brands right now.

REFERENCE SYSTEM:

- Unico CD Player (£1,250)
- Moon Audio i-3 Integrated Amplifier (£1,595)
- NHT Pro PVC Balanced Passive Volume-Control (£75 approx)
- Waterfall Victoria Loudspeakers (£2,000)

MUSIC:

- Jacqueline du Pré, 'A Lasting Impression' (1996)
- Various-artists, 'Red, Hot & Blue' (1990)
- Level 42, 'World Machine' (1985/2000)
- Coverdale, Page (1993)

VERDICT

Brilliant value pre-power combo with a rich, full bodied Class A sound allied to real world speaker driving prowess.

JUNGSON JA-1/JA-99 £999
 Shadow Distribution
 ☎ +44 (0)1592 744 779
 www.shadowdistribution.co.uk

FOR

- outstanding vocals
- full-bodied, powerful sound
- compelling value

AGAINST

- timing
- runs very hot

MEASURED PERFORMANCE

The JA-88D power amplifier runs very hot when idling in Class A. It is able to produce 150W into 8ohms and no less than 240W into 4ohms and, if pushed to full output will actually run cooler, but few users will achieve this on a regular basis. Also, the distortion characteristics are such that it is happiest when driving 8ohm loads up to 15V or so (around 30W) whereupon distortion will hover around 0.1%. Much above this sort of output third harmonic distortion rises rapidly, reaching 0.45% at full output into 8ohms and 0.68% into 4ohms. Third harmonic at this level adds a noticeable sharpening effect which some confuse with 'speed'. You get a glassy sound. So, providing it isn't pushed too hard the JungSon should be fine, with distortion levels hovering around 0.01%. It will harden up as volume is raised however.

A slight counterbalance to this is a distinctly curtailed high frequency limit of 16kHz in the frequency response. This will soften and warm the sound.

Otherwise the JungSon measured well. It is unusual in running a small d.c. offset (176mV d.c. max) on both

positive and negative loudspeaker terminals. If either is shorted sparks fly and protection trips in!

The JungSon measures well at low power into 8ohms or more, but not at high power, especially into 4ohms. It will have a unique sound. NK

Power	150watts
CD/tuner/aux.	
Frequency response	2Hz-16kHz
Separation	78dB
Noise	-91dB
Distortion	0.38%
Sensitivity	240mV



pro amp: the JungSon preamp only connects to the power amp via balanced XLRs...