

PRE/POWER AMPLIFIER

Preamp & power amplifier. Rated at 150W/8ohm
 Made by: Bricasti Design Ltd, MA, USA
 Supplied by: SCV Distribution, Hertfordshire
 Telephone: 03301 222500
 Web: www.bricasti.com; www.scvdistribution.co.uk
 Prices: £13,500/£19,500 (pre/power)

AUDIO FILE

Bricasti M20/M25

With a rich heritage in the pro audio field, US brand Bricasti is paying closer attention to the high-end consumer market with this new, dual-mono pre/power combination
 Review: **Andrew Everard** Lab: **Paul Miller**

Few products passing through the *HFN* review process elicit quite as much discussion as has this Bricasti pairing – or at least one half of it. Our initial listening results were slightly puzzling, with a sound clearly doing many things right when interposed between editor PM's dCS Vivaldi One/Melco front-end [*HFN* Feb '18] and Bowers & Wilkins 800 D3 speakers [*HFN* Oct '16], and yet our musical souls were not entirely stirred. Was this an example of unpredictable system matching? Some judicious high-end separates swapping revealed the £19,500 M25 power amp was certainly able to deliver the goods in no uncertain fashion. But did the £13,500 M20 preamp sound just a little too smooth?

Some serious head-scratching from both myself and editor PM ensued, particularly after the lab assessment of the Bricasti duo [see p63] revealed the M20 preamp to have vanishingly low distortion and a frequency response as flat as a pancake (in the very good pancake sense). Curiouser and curiouser, as Alice once said, and so down the rabbit hole we plunged to indulge in over two months of dedicated listening sessions.

STUDIO AUDIENCE

But I'm getting ahead of myself: what is Bricasti, and what is this pre/power combination all about? Well, the company is based in Shirley, Massachusetts, some 40 miles outside Boston and has a background in professional equipment [see boxout, p59], most notably with its digital reverb units used by leading artists in top studios.

For a long time it was just about a one-product company – not such a bad thing when the single unit is as acclaimed as Bricasti's M7. It only branched out into the home-use hi-fi market getting on for a decade ago, later expanding to a

complete range, currently running to more than a dozen consumer products ranging from DACs [*HFN* Jun '11 and Oct '16] and amps to a network player [*HFN* Jun '20], in addition to a generous fistful of pro-use digital devices and amplification.

The new M20 is its sole all-analogue preamplifier – there's also the M12 'Source Controller' which acts as a digital in/analogue out preamp for multiple digital devices, and a trio of preamps. You can have the M20 in the solid, no-nonsense black-anodised aluminium finish, with clear-anodised aluminium silver controls seen here or, at extra cost, in 'Platinum finish', replacing the black and silver with chrome and brass respectively. I think I'll forgo the bling, thanks, not least because in best basic black both the preamp and the big M25 power amp will have matching looks.

A true dual-mono design, the M20 has just three inputs – two sets of balanced

XLRs, and one of single-ended RCAs, with duplicated XLR and RCA outputs to feed power amplification.

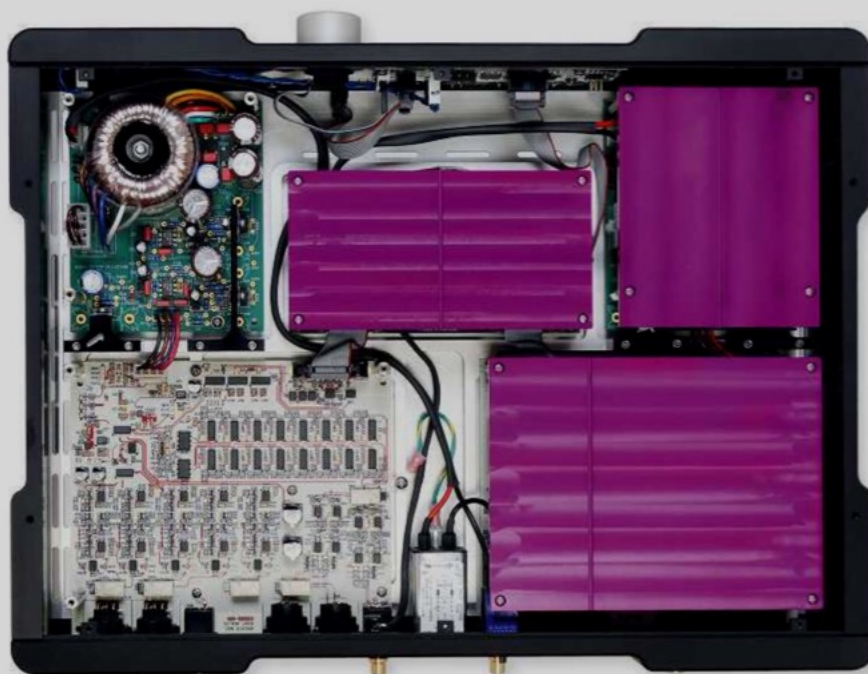
BALANCE OF POWER

A little care is needed when hooking up your system as the rear panel is mirror-imaged around the mains input and power switch, with the various left channel inputs and outputs on one side and the right channel sockets 'reflected' on the other side. Similarly, the compact IR remote

[pictured, p63] takes a little familiarisation – the 'Filter' button is in fact a stepwise balance control for the preamp.

Furthermore, while there's just the one rotary on the front of the preamp, this is an encoder and not just a volume control. Its function is determined by a row of buttons below the red dot-matrix display panel, so it's slightly too easy to find yourself

'I'll forgo the bling, thanks, in favour of best basic black'



RIGHT: The M20 is a dual-mono design with separate L/R PSUs [top] and audio boards [bottom], all with purple-anodised covers [right channel PSU and pre boards exposed here]. Fifth board is for logic PSU/input switching [centre]



LEFT: Massively built and immaculately finished, this line-only pre/power combination is dual-mono throughout, with both all-alloy chassis supported on Stillpoints isolation feet

having higher gain than that of the M20.

SOUNDS UNIQUE
Bricasti says it uses 'Vishay foil resistors in key locations in the circuit. We find them to have a unique sound, so we employed them to impart a tonal character to the M20'. Was this the reason behind the oh-so smooth – but arguably too polished – sound we experienced with our default Melco/Vivaldi/B&W system mentioned at the beginning of this review? Things got very interesting when we took the M20

out of the loop and fed the M25

power amp from the competitively-priced T+A P 3100 HV preamp [HFN Oct '20]. Suddenly the presence and treble sprang into life... It also became clear that the M25 itself made a much better pairing with speakers other than our B&W 800 D3s.

Switching to the Klipsch Heresy IVs [p64] and these amplifiers were up, up and away with more zip and zing than we might possibly have wished for. Better still, with the tall yet slender multi-driver Scansonic MB6 B flagships [full review in HFN Dec '20] the M20/M25 showed an agility and poise that had completely eluded them with the big B&Ws, the somewhat soft and uninvolved sound replaced with one of much greater vitality and interest. ☺

changing input or balance rather than adjusting the output level.

Within the preamp, that dual-mono layout is clear [see inside picture, p58], with separate ceramic circuit boards, multiple linear PSUs, a Class A output buffer and a fifth board that looks after all the control functions. The construction here is all-discrete, as you would expect at this level, with the volume control implemented using a resistor ladder boasting a near-perfect channel balance.

There's also programmable input offset, along with the option of setting and storing a 'reference' level, which would be handy if the M20 was used with an AV processor, and the choice to rename the inputs from a selection of descriptive labels – DAC, CD, etc – preset in the preamp's menu. Other options allow the display brightness to be adjusted and the temperature of the circuitry to be monitored.

TRIM CONTROL

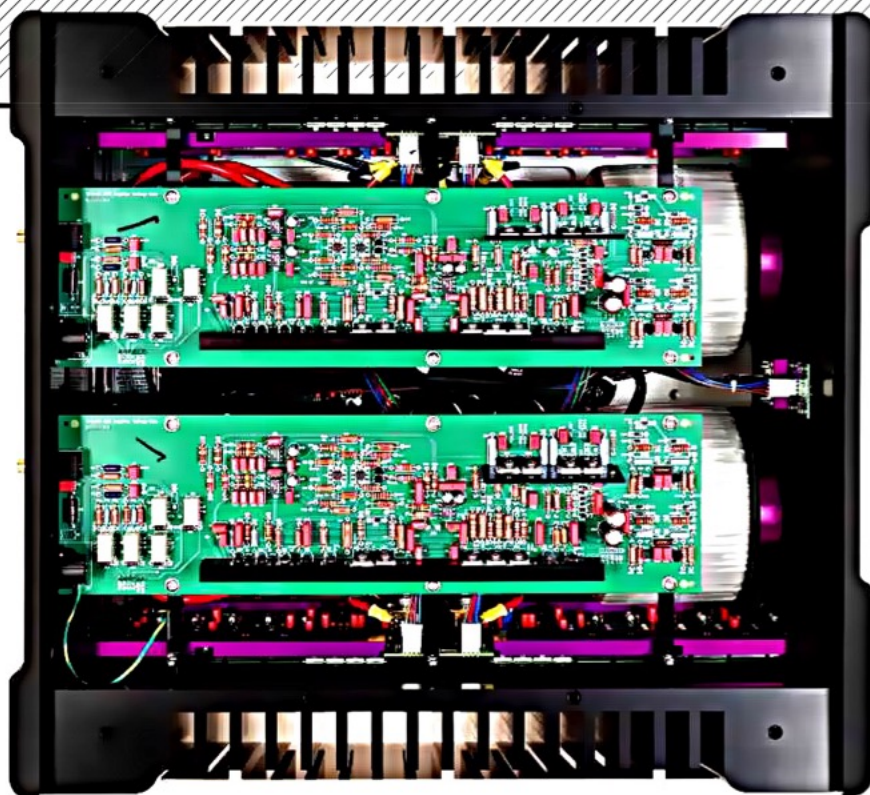
The M25 power amp, another dual-mono design, is both deeper and bulkier but also rests its substantial 45kg frame on the same Stillpoints feet as the M20 preamp. It fits in the range between the M15 stereo amp and the M28 monoblocks with which it shares many circuit features right back to its brace of transformers. Rated at 150W/8ohm, 300W/4ohm and 600W/2ohm [see PM's Lab Report, p63],

it has little to show for all its power beyond solid build and simple connectivity that includes RCA and balanced XLR inputs, 'winged' terminals for one pair of loudspeakers, 12V trigger sockets and an RS232 connection that is currently only used for diagnostics.

As with all Bricasti products, the casework is 'milled from solid' aluminium, while within the balanced design extends to a healthy array of output devices fixed straight to chunky heatsinks on either side of the unit. One slightly hidden feature is the amplifier's trim control, on a tiny screwhead down with the trigger sockets. This allows four steps of 6dB attenuation should the M25 be used with a preamp

PRO HERITAGE

Bricasti was founded in 2004 by ex-Lexicon staff – international sales person Brian Zolner (interviewed by PM, p61) and digital engineer Casey Dowdell – at a time when Lexicon's parent company, Harman International, was closing down its operations in New England. It took its name from the two founders, adding the 'ti' on the end 'because it sounded good'. Its first product, the M7 digital reverb unit launched in 2007, was built around an advanced DSP engine for reverberation synthesis. The M7 allows mastering and recording engineers to create their ambience of choice, whether giving vocals space to 'breathe' or adjusting the sense of instruments in a particular space or soundstage. As such it has become a go-to tool in sound design and audio effects, and is employed in many studios. In 2011 Bricasti brought its knowledge to the consumer audio field with the launch of the M1 DAC [HFN Jun '11], a dual-mono design that set the pattern for all of the company's 'hi-fi' products to date.



ABOVE: The M25's dual-mono PSU/amplifier design is clear enough with separate toroidal transformers [right] and M28-based voltage gain stages [green PCBs] for each channel. Six pairs of power transistors per balanced side per channel are bolted to the heatsinks [top/bottom]

If there's character to this pre/power amplifier, it's one of relaxed, confident music-making, some way from the sonic fireworks other amplification can deploy – and as the earlier testing revealed, much of this comes from the M20 preamplifier. The bass here is big and rich, and with some recordings can seem in some danger of overwhelming the whole presentation, but there's no denying that with a big orchestral work, or even just a well-recorded grand piano, it offers both a weight and scale that's addictive.

PERFORMANCE ART

Yes, beside more analytical-sounding components, the M20/M25 can appear to get a little confused when the material becomes really busy, but then as anyone who attends live concerts will attest, the kind of layering and spotlighting one encounters in hi-fi is often a long way from the more holistic concert hall sound.

Thus with the Boulez/New York Philharmonic recording of Ravel's *La Valse* [Sony Classical SS 89121; DSD64], the richness of the M20/M25's sound increases the ominous feel of the muted opening,

before developing into a powerful wash of sound as the orchestral forces swell. It's not one of those 'point at the woodwinds' presentations, but it's indubitably moving and musically satisfying.

The same goes for the scale and weight of Paul Lewis's piano on his reading of Mussorgsky's *Pictures At An Exhibition* [Harmonia Mundi HMC 902096]. The Bricasti duo, driving the fast and agile Scansonic speakers, sounds

'Yes, they do the hi-fi stuff, and do it rather well'

detailed and dynamic, but above all focuses on the performance, not on picking out the finest sonic details. To draw a distinction between musicality and hi-fi may seem an artificial construct, but there's no shortage of equipment

out there appearing to work so hard on detail-retrieval that we end up listening to the system, not to the music. That's emphatically not the case with this Bricasti pair. Yes, they do the hi-fi stuff, and do it rather well, but they're much more about a musically fulfilling sound, whether with 'demo music' – chamber ensembles, close-recorded jazz or (please no more) girl and guitar – or more general fare that people listen to for pleasure, not analysis.

Thus with Sam Cooke's 'You Send Me', from the *Portrait Of A Legend* compilation [ABKCO 92642], there are few if any new insights into the recording, but instead a wonderfully warm, generous and organic sound encouraging further listening. And that's also true with the glorious cover

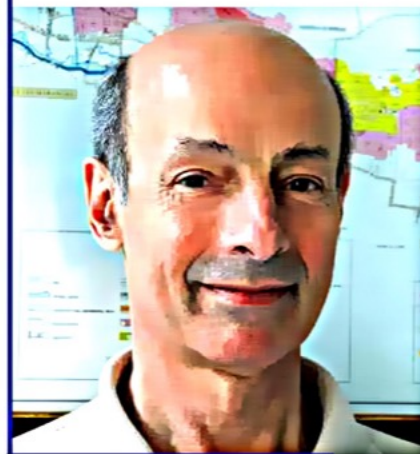
BRIAN ZOLNER

During our review, editor Paul Miller took the opportunity to talk with Bricasti's President, Brian Zolner. Hot topic was the apparent contradiction between the technical transparency of the M20 preamp [see Lab Report, p63] versus its subjective impact on the *sound* of the amplifier combination in our listening tests.

'Many recordings are made with a lot of "top end" and compression so we avoided adding more distortion and presence', Brian explained. 'We use the minimum gain – about 3dB in the balanced path with an extra 6dB for the RCA input. In practice we use separate buffers for these balanced and single-ended stages – a mix of fully discrete output circuits and inputs using high slew rate/fast settling op-amps. The RCA and balanced inputs/outputs can be treated separately if so desired.'

Minimising microphony is also core to the mechanical build of the M20. 'We took great care to reduce micro vibrations', recalled Brian, 'the case is cut from aluminium and even the PCB standoffs are milled into the chassis, providing solid contact to the bottom plate for the PCBs and PSUs. Even our linear regulators are mounted directly to the chassis.'

Finally, we had to ask about the vivid violet anodising inside the M20 and M25! 'We sub-contract all our anodising to a plating house, and these guys had a purple tank as well as clear and platinum. So we thought "Hey, let's use some purple inside the amps just in case anyone lifts the lid".' If nothing else, Brian's decision certainly brightened up the four pages of this feature review!





ABOVE: The shallower M20 preamp [top] offers three line inputs (two balanced on XLRs, one single-ended on RCA) with a matching trio of outputs. The physically deeper M25 power amp has balanced (XLR) and RCA ins, trigger connections and single sets of substantial gold-plated 4mm/butterfly wing speaker cable binding posts

of 'Be My Baby' on Kate & Anna McGarrigle's *Dancer With Bruised Knees* [Warner Bros 7599-25958-2], which is treated with characteristic lushness in the simple arrangement while bringing out the sisters' voices and their harmonies.

LAVISH HARMONIES

Indeed, the more I listened to the Bricasti M20/M25, the more I found myself enjoying the sound – not through acclimatisation, but rather as a result of relaxing out of audio trainspotting mode and allowing myself to be immersed in the music. Playing the theme from 'Frozen' on the *Spes* album by the Cantus choir [2L 2L110SABD] I was immersed in the lavish harmonies, and rather taking the quality of the recording for granted. Moreover, a romp through the Level 42 back-catalogue, courtesy of 'The Hit Combination', the closing track on the *Remixes* compilation [Polydor 513 085-2] is just that via the Bricasti combo



LEFT: Bricasti's compact but chunky all-alloy remote offers input select, volume, balance ('Filter') and display options

– a romp, and all the more fun for it, with gutsy, punchy bass held well in control, and the rest of the mix stinging rather well.

There was a time in the early stages of this long review process when I had the M20/M25 combination neatly pigeonholed in that 'good with well-recorded small-ensemble music, but...' slot, but it's not quite as simple as that. The more editor PM and I mixed up the system, the more I enjoyed the pairing, and its focus on performances rather than hi-fi minutiae. After I came to realise what it was doing, and the intentions of the designers, so the more my appreciation grew. Yes, the Bricasti pairing sounds different, there's no doubt about that – but it's a very appealing kind of different. ☺

HI-FI NEWS VERDICT

This isn't 'grab you by the lapels' amplification, but its subtler charms are likely to win you over. Immaculately built and finished – though swerve the blingy 'Platinum' preamp option – this is a combination that puts the music first, and the hi-fi second. Approach it with that in mind, rather than hoping to hear every superfluous nuance, and you'll find it has a very satisfying and entirely effortless presentation.

Sound Quality: 85%

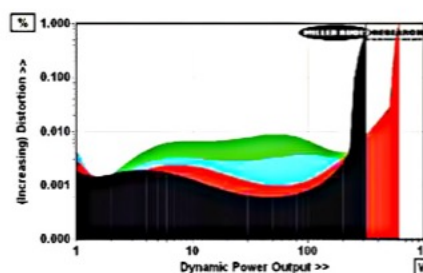


LAB REPORT

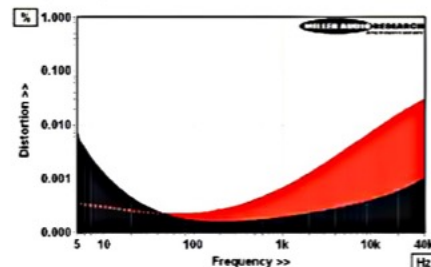
BRICASTI M20/M25

How much gain (amplification factor) is sufficient? In more than a few of our amplifier lab reports I have puzzled over the high >40dB gain on offer – a throwback to the pre-CD era when line-level sources offered rather less than today's 2V output. Bricasti recognises this and so the M20 preamp offers just 2.8dB (x1.4) gain while the fully balanced/bridged M25 is engineered for +26.9dB (x22.1), the combined +29.7dB gain requiring a perfectly reasonable 93mV input to achieve a 0dBW (1W/8ohm) output (or 1.13V for the rated 150W/8ohm output). The main 'feature' of the M20 is its R2R ladder volume control operating in 1dB steps over a 90dB range. This is combined with a 'Filter' facility that, in reality, is not a filter at all but a channel balance trim that operates over finer ± 0.5 dB steps. But the M20 is a very linear preamp, offering a >12V output from a 28ohm (balanced) source impedance with a wide 100dB A-wtd S/N ratio. THD is vanishingly low at <0.0003%, 20Hz–20kHz [black trace, Graph 2] and the response flat to within ± 0.1 dB limits from 2Hz–100kHz.

The partnering M25 power amp makes a mockery of its 150W/8ohm and 300W/4ohm spec. by delivering a substantial 2x304W/8ohm and 2x585W/4ohm on the bench, although the dynamic outputs of 320W and 615W into 8 and 4ohm, followed by a reduction to 458W and 279W into 2 and 1ohm loads, indicates some conservative current-limiting at work [Graph 1]. THD climbs very gently with level from ~0.0003% at 1W to 0.0007% at 10W and 0.01% at the rated 150W/8ohm (all 1kHz) and more generally with frequency from 0.0002% at 100Hz to 0.0007% at 1kHz and 0.03% at 20kHz [red trace, Graph 2]. Noise is very low and the A-wtd S/N ratio wide at 99dB (re. 0dBW). PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 16.7A



ABOVE: THD vs. frequency for M20 preamp (0dBV output, black) vs. M25 power amp (10W/8ohm, red)

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	304W / 585W
Dynamic power (<1% THD, 8/4/2/1ohm)	320W / 615W / 458W / 279W
Output imp. (20Hz–20kHz, pre/power)	28ohm / 0.002–0.009ohm
Freq. resp. (20Hz–100kHz, pre/power)	+0.0 to –0.13dB / +0.0 to –1.2dB
Input sensitivity (for 0dBV/0dBW)	725mV (pre) / 129mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	99.5dB (pre) / 98.9dB (power)
Distortion (20Hz–20kHz, 1V/10W)	0.0001–0.0003% / 0.0002–0.016%
Power consumption (idle/rated o/p)	135W/490W (27W, preamp)
Dimensions (WHD, Pre/Power)	425x115x320/425x260x457mm