

PRE/POWER AMPLIFIER

Pre and power amplifier. Rated at 2x300W/8ohm
Made by: Hegel Music Systems AS, Oslo, Norway
Supplied by: Hegel Music Systems AS
Telephone: +47 22 605660
Web: www.hegel.com
Prices: £7000/£17,000 (pre/power amp)

AUDIO
FILE

Hegel P30A/H30A

Dubbed 'The Conductor' and 'The Orchestra', respectively, Hegel's replacements for the decade-old P30/H30 pre/power amplifiers are flagships worthy of their names
Review: **Jamie Biesemans** Lab: **Paul Miller**

By all accounts Hegel has been very busy over the last few years, which is a notion that might raise some eyebrows because – understandably – the Norwegian company went a little quiet during and after 2020. In fact, the V10 phono preamplifier [HFN Mar '21] has been about the only piece of hardware to escape the drawing board of Hegel's owner and master engineer Bent Holter since Covid. However, as industry insiders and the company's user base well knew, Hegel was battling the angry gods of software development to make its major integrated amplifiers Roon Ready.

It also transpired that Hegel was working on a follow-up to its flagship separates, the P30 preamp and H30 power amp. Both of these were launched in 2010, therefore predating new advances made at the company, one being its SoundEngine2 'error cancelling' technology. Now, after being teased at last year's High End Munich show, the P30A and H30A have arrived, bringing Hegel's reference models up to speed. Of course, Hegel wouldn't be Hegel without giving the duo suitable nicknames, in this case 'Conductor' for the preamp and 'Orchestra' for the nearly 50kg power amp. These sound a lot more thought-provoking than the simple 'A' added to the P30 and H30 monikers, at least.

TOUGH COMPETITION

At £17,000 for the H30A and £7000 for the P30A, this pairing is aiming high, competing with pre/power combinations including Mark Levinson's N°536/N°5206 and McIntosh's MC1502 and C70 – and those are just two examples of some varied competition. Smartly, in the case of the amp, Hegel has opted to do what it does best: build as much power as it can into a rather austere-looking box, and let the product speak for itself.

RIGHT: Toroidal transformer [top left] feeds separately regulated supplies [left] for the balanced, two-transistor gain stage [lower middle]. Note relay-switched inputs [right] and motorised ALPS volume control [top left]

The units are dressed differently than before, heralding a design change which other brands would call minor but in the case of the minimalists from Oslo might be considered earth-shattering. Retained from the older models is the full black chassis and next-to-nothing controls, but the angular wedge cut out of the top rim adds a twist of sophistication previously missing. As you would expect from a power amp, however, there's little more to say about the H30A's looks: it's a big box with a power button, and choice of unbalanced RCA or balanced XLR inputs on the rear.

LEFT AND RIGHT

The P30A is more outgoing, sporting two dials for volume and input selection, the latter a bit of a looker with its crescent of legends and white LEDs per input. There are five of those: three single-ended RCA pairs and two sets of balanced XLR pairs, plus an additional sixth Home Theatre 'max volume' input for integration into a surround sound system.

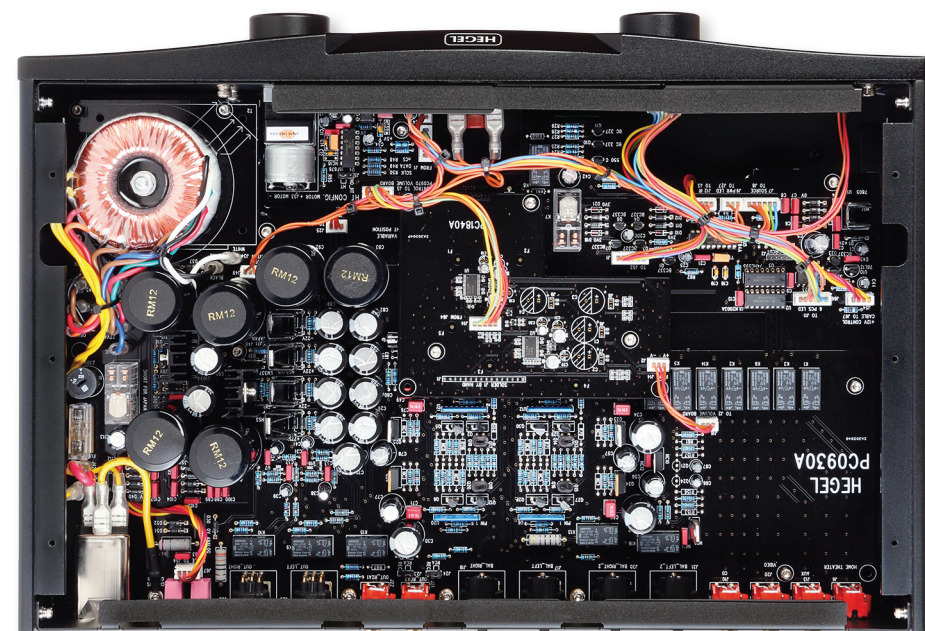
'Church bells rang, horns at full blast, then faded softly...'

There are no digital inputs, as the P30A is purely analogue. It's also fully balanced, duplicating every part from start to finish, including separate volume controls per channel. This strict separation of left and right is continued in the H30A, with

two large 1kVA toroidal transformers, one per channel, together with an equally imposing dual arrangement of 56 large reservoir capacitors, which helps explain why it's a two-man lift. Hegel's SoundEngine2, a feed-

forward compensation regime which Bent Holter has refined to reduce distortion in as least an invasive fashion as possible, is also implemented on each channel.

Hegel markets the H30A as a monoblock first, stereo power amp second. The company – and we can imagine its accountants are in agreement – envisages the P30A being paired with two of these monstrous units. You won't be lacking power in that case, as in mono mode the H30A is specified to deliver 1.1kW into 8ohm [see PM's boxout, p61]. Opt for one



H30A and you'll still enjoy appreciable grunt [see PM's Lab Report, p65].

Before this audition, I encountered the system a few times with KEF Blade One Meta floorstanders [HFN May '22], as there's a working relationship between Hegel and GP Acoustics in many countries. It's a match that seemed to work very well, although during testing I used Focal Sopra N°2s [HFN Sep '15], which in my day-to-day

set-up are connected to a Hegel Reference H590 [HFN Oct '18]. I left this – the company's top-flight integrated amp – in place, allowing comparisons to be made.

CHARGING AHEAD

Although there's a big price gap between the H590 and the P30A/H30A, and they would seem

ABOVE: Hegel's classic matt black, curved alloy fascias bring a suggestion of softness to what is otherwise a brutally minimalist duo. Large rotaries serve the P30A's vol. and input selection

to be aimed at very different audiences, there's an obvious performance strand running through them – a 'music-first' approach. In that sense, Hegel's new duo offers more of the same – well, very much more of the same – with no sign of a gaping performance chasm between the two. Yet, as hoped, the P30A and H30A

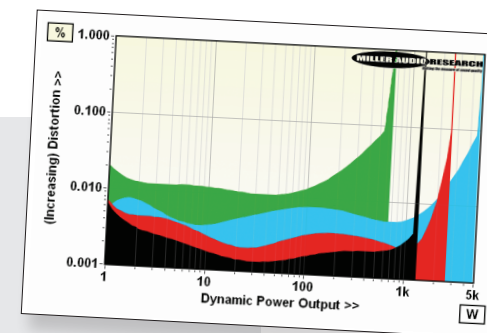
showcase more control and refinement. The choice of DAC stage will impact the tonal character too, compared to the AKM-based converter in the H590, and with more challenging loudspeakers, the combo will charge ahead.

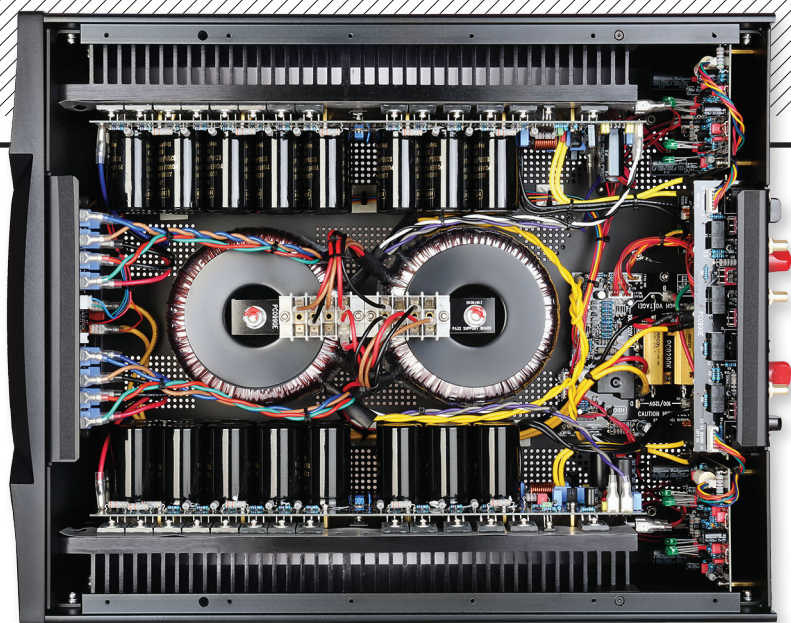
With Andrew Gourlay's *Wagner: Parsifal Suite* [Orchid Classics ORC100207; 96kHz/24-bit] the system impressed with a very natural, lifelike portrayal overflowing with detail. This collection of the music pieces from the German composer's magnum opus is thrilling stuff, especially if you don't have a spare four-and-a-half hours to listen ☞

BRIDGED BEHEMOTH

While the H30A is a stereo power amp [see Lab Report, p65], and will surely be purchased by audiophiles for use as such, Hegel still limits its specification to the H30A's bridged *monoblock* performance. These are the numbers you'll see copy 'n pasted into every other review of this amplifier. That's not the *HFN* way [see p37] so I thought we should don the welding gloves and check for ourselves...

Bridging the H30A's two channels doubles the available rail voltage and realises 1.24kW/8ohm and 2.115kW/4ohm, figures that are comfortably in excess of Hegel's rating. There's more under dynamic, music-like, conditions [see inset Graph] with 1.31kW, 2.59kW and a thumping 4.99kW (50A) available into 8, 4 and 2ohm, respectively (re. 10msec at <1% THD). Bridging also means the amp 'sees' half the load connected in stereo guise, so Hegel has current-limited the H30A's output to just 655W/1ohm here, protecting the amp against accidental shorts. In practice, the maximum current available is no different in either stereo or bridged mono modes just as the H30A's overall gain is fixed at +32.1dB and the A-wtd S/N remains between 87-88dB (re. 0dBW). The low distortion is also retained in bridged mode, settling between 0.0016-0.002% over the first 200W/8ohm, increasing slightly thereafter up to a mere 0.0024% at the rated 1kW/8ohm (all re. 1kHz). In either mode, the H30A is a super-clean beast! PM





to the full opera. Streaming from Roon through an Auralic Aries LE and Musical Fidelity M6x DAC [HFN Jul '22], the P30A/H30A embraced the wealth of information in these recordings. 'Act 3. Transformation Music' was an eye-opener, with the momentous, funereal progression building to a climax, church bells ringing and horns at full blast, then fading softly away. There's so much going on, both in terms of composition and dynamics, and it was all displayed on a grand scale.

HELICOPTER HEROICS

This part was an exciting high point, as the rest of the suite is more subdued and romantic, favouring smaller details over melodrama. However, Gourlay isn't the first to let the music from Wagner speak on its own. *The Ring: An Orchestra* [Chandos CHSA 5060; 96kHz/24-bit], with Neeme Järvi conducting, was an earlier, more rousing attempt.

BELOW: The H30A's wraparound bonnet secures a very sturdy alloy chassis while vents, above and below, ensure adequate air flow up through the internal heatsinking. Build is excellent



ABOVE: A bridgeable dual-mono design, the H30A employs 14 pairs of Sanken power transistors on each heatsink. The PSU has no fewer than 16x8200µF/100V reservoir capacitors per side

Playing 'V. Die Walkuren', at high volume, which evokes pea-coloured helicopters instead of the intended warriorresses – cheers, Coppola – didn't strain the Hegel system one bit. The instrumentation sounded crystal-clear, from the attack of the horns to the sustained crash of the cymbals. It all felt very effortless, as if there were no limits.

Looking past the Sopra N°2's own sound signature, the P30A/H30A made a striking show of rendering these recordings as they are, with only a fleeting touch of added colour. This is what the H30A, in particular, excels at: not over-embellishing, but letting excitement come from the music at hand. This might strike some listeners, used to amps that tend to embroider, as a bit dull at first, but to my mind there's more long-term joy in listening to music than to apparatus.

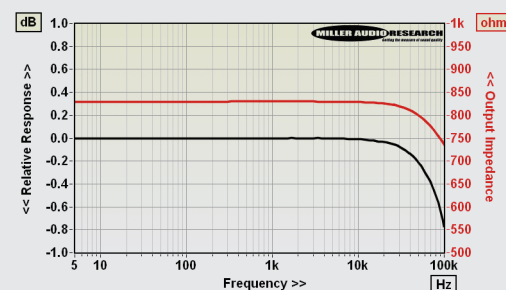
Folkessange [Relapse Records RR7426; 44.1kHz/16-bit], the last ➔

LAB REPORT

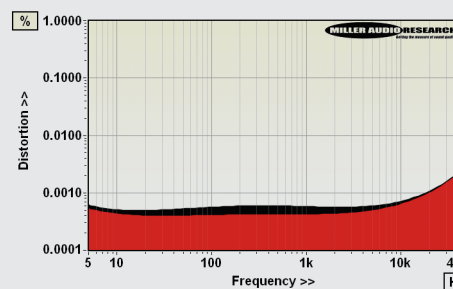
HEGEL P30A

With no RIAA phono stage option – the V10 covers this particular base [HFN Mar '21] – and no integrated network-attached DAC as included in the H95 [HFN Oct '20], the P30A remains a purist, fully analogue line preamplifier. Maximum gain is +5.1dB, or a little under 2x (balanced in/out), while the residual noise is held to a very low –96.2dBV (15.5µV). This is reflected in the wide 98.0dB A-wtd S/N ratio (re. 0dBV). The P30A's low noise might suggest the possibility for it to be pressed into service as a headphone amplifier – with a suitable XLR- or RCA-6.35mm adapter – but the high-ish ~830ohm source impedance [red trace, Graph 1] rather works against the idea (a sub-1ohm output impedance is preferred for driving low or variable impedance phones, see p74). The line frequency response is very flat and extended [black trace, Graph 1] reaching below 1Hz and right up to 100kHz within +0.0/–0.78dB so, in combination with the H30A [see p65], will remain an 'open pipe' for ultrasonic noise arising from DSD64/128 media sources.

Within the 20Hz–20kHz audioband, distortion is very low indeed at just 0.00038–0.0011% (re. 0dBV) and only rises gently above 20kHz to 0.0025%/40kHz [see Graph 2, below]. This well-considered ultrasonic compensation bodes well for avoiding the sort of in-band IMD that might otherwise be caused by DSD's requantisation noise, for example. Moreover, the P30A has the headroom to drive the least sensitive power amps, combining an input overload margin that's >10V with a maximum balanced output of 13.8V (the H30A requires 1.25V to raise 2x300W/8ohm). The dual mono layout achieves a >100dB stereo separation and channel balance is good to 0.05dB. PM



ABOVE: Balanced line frequency response (black) and output impedance (red) at 0dBV



ABOVE: Distortion versus extended frequency at 0dBV (Balanced in / out; left, black; right channel, red)

HI-FI NEWS SPECIFICATIONS

Maximum output (<1% THD, 47kohm)	13.8Vrms (Balanced)
Maximum input level (<1% THD)	>10Vrms (Balanced)
Output impedance (20Hz–20kHz)	825–830ohm (Balanced)
Freq. response (20Hz–20kHz/100kHz)	+0.0dB to –0.0dB / –0.78dB
Input sensitivity (re. 0dBV)	550mV (Balanced)
A-wtd S/N ratio (re. 0dBV)	98.0dB
Distortion (20Hz–20kHz re. 0dBV)	0.00038–0.0011%
Power consumption	24W (1W standby)
Dimensions (WHD) / Weight (total)	430x96x300mm / 7.2kg



ABOVE: Preamp [top] has two balanced (XLR) and three single-ended (RCA) ins, an HT 'direct', plus two (RCA) and one set of balanced (XLR) outputs. Power amp [below] has switchable RCA/XLR and bridged mono inputs, and 4mm speaker binding posts

album from Danish performer Myrkur (née Amalie Bruun), combined traditional Scandinavian folk and instruments, such as the nyckelharpa, with more modern sounds. No challenge there for the P30A/H30A, with Bruun's singing on 'Ella' airily arranged on top of powerfully driven percussion. The preamp, helped along by the capable Musical Fidelity DAC, showed off its chops on the 'Leaves Of Yggdrasil', dextrously weaving the background choral singing with the main vocals, and the sparse piano notes with the strings.

SHEER POWER

Myrkur's older *M* set [Relapse Records R7292; 44.1kHz/16-bit] has a different flavour, veering closer to black metal, and it presented the P30A/H30A with the challenge of reproducing guitar- and double bass-drum driven soundscapes upon which more delicate instruments float. That hard contrast between sheer power and subtlety is difficult to pull off, but again the P30A and H30A shrugged and took care of the job. The power

chords on 'Hæven', the dramatic piano playing beneath the singing on 'Byssan Lull' – both are very different in character, but this Hegel combo has the capability to handle large orchestrations and more refined works with equal panache.

Twenty years ago, 'mathrock' outfit Cursive released their landmark *Domestica* album, a raw listening experience detailing the gradual breakup of singer Tim Kasher's marriage, with ultra-precise guitar riffs and drumming to turn up the intensity. Spinning the 2022 vinyl re-release [15 Passenger 15PRO6], on a balanced Pro-Ject X2 B and Phono Box S3 B [HFN Sep '22], the Hegel amplifiers brought the drums into the room, with superb timing and incredible dynamic impact. Mathrock bands rarely sound as tight and in control on stage, making an excellent recording like this played on the P30A/H30A arguably the best way to enjoy it. ⚡

HI-FI NEWS VERDICT

Embracing and extending this Norwegian brand's aesthetic minimalism and clear sound, the P30A and H30A (or two H30As if funds permit) form an impressive no-holds barred duo that marries a distaste for colouration to plentiful power and refinement. Leveraging a committed balanced design philosophy and Hegel's 'SoundEngine2', it's hard to imagine any loudspeakers this system can't drive to excellence.

Sound Quality: 88%
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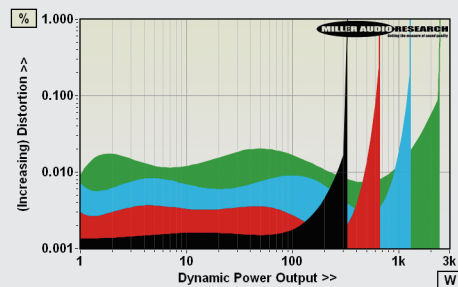


LEFT: Alloy RC8 system remote control governs all Hegel components, providing, in this instance, access to the preamp's input, volume and mute

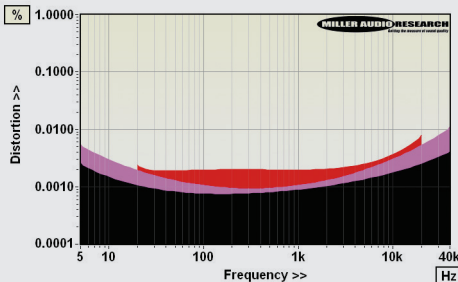
LAB REPORT

HEGEL H30A

Rated at a conservative 2x300W/8ohm, Hegel's most capable power amp to date not only smashes its own specification but also delivers a power output – continuous and dynamic, plus a load-tolerance – that's astonishingly close to that of the D'Agostino Progression S350 reviewed in this same issue [p70]. In practice this means 2x325W/8ohm and 2x625W/4ohm with 329W, 655W, 1.28kW and 2.45kW available to support transient peaks (all re. 1kHz/10msec/<1% THD). The H30A's maximum current capacity of 49.5A is deeply impressive and further cements the amplifier's 'high-end' ranking [see Graph 1, below]. Distortion is low too, although there is an observable warm-up time for this amplifier – distortion at switch on (cold) is 0.003%/1kHz falling to 0.0012% after 30 minutes at 10W/8ohm. After several hours distortion levels out at 0.0009-0.005% [re. 20Hz-20kHz/10W, and see Graph 2 below]. Distortion is also very 'flat' with level, certainly over the first 1-100W of its range, only increasing from 0.0015%/100W to 0.01%/300W (all 1kHz/8ohm). Hegel has engineered +32.1dB of gain (balanced input) here, bringing the total gain of the pre/power combo to a very useable +37.2dB, while holding the A-wtd S/N ratio of the H30A to a respectable 88.4dB (re. 0dBW). This, and the –75dBV residual noise, represents a good performance bearing in mind the size and proximity of those dual PSU transformers [p63]. The output impedance is a low and fairly flat <0.02ohm up to 10kHz where it then rises to 0.04ohm/20kHz and 0.29ohm/100kHz. So while the response is flat to tight –0.5dB limits from 10Hz-90kHz/8ohm, this pulls back to 70kHz/4ohm, 47kHz/2ohm and 30kHz/1ohm. Nevertheless, this remains a clean, powerful amp. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 49.5A



ABOVE: Distortion versus frequency versus power output (1W/8ohm, black; 10W, pink; 100W, red)

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	325W / 625W
Dynamic power (<1% THD, 8/4/2/1ohm)	329W/655W/1.28kW/2.45kW
Output imp. (20Hz–20kHz/100kHz)	0.014–0.032ohm / 0.27ohm
Freq. resp. (20Hz–20kHz/100kHz)	–0.2dB to –0.03dB/–0.65dB
Input sensitivity (for 0dBW/300W)	70mV / 1245mV
A-wtd S/N ratio (re. 0dBW/300W)	88.4dB / 113.2dB
Distortion (20Hz–20kHz, 10W/8ohm)	0.0009-0.0052%
Power consumption (Idle/Rated o/p)	123W / 955W (1W standby)
Dimensions (WHD) / Weight	430x240x575mm / 47.4kg