

Like father like son

Official Debut of a New generation power generator

# Bully Sound Company

## BSC-100m Mono Power Amplifier



Established for only a little more than two years, the American high-end audio brand Bully Sound Company LLC. (BSC) is a newbie in the industry, having launched only two amplifiers. Despite that, the young mastermind of the company Bret D'Agostino together with his father Dan D'Agostino (founder of Krell Industries and Dan D'Agostino Master Audio Systems) have revived the shrinking market of high-end high power generators.

**Bully Sound Company BSC-100m** specification ● Output power: 100 W (8Ω), 200 W (4Ω), 400 W (2Ω) ● Input impedance: 48 kΩ (XLR) 20 kΩ (RCA) ● Gain: 26.1dB ● Input sensitivity: 1.4 Vrms (XLR, RCA) ● Size: (H x W x D): 248 x 420 x 464 mm ● Weight: 36.29 kg

## Heavily influenced by father Dan D'Agostino

Under the influence of his father, Bret D'Agostino learnt to make his own cross-over network with a soldering iron at the age of six. After graduation he started a web designing company under the name of BSC which later became a professional cable and accessory provider, as well as a professional studio. With his experience and perseverance for good quality sound replay, and of course the support of his father, Bret decided to venture into the high-end audio market in 2010. His products demonstrated to audiophiles and music lovers around the globe that a high power amplifier of exquisite quality does not always come with an expensive price tag, reflecting the company's user-oriented philosophy. In spite of that, there is no compromise on quality as Bret repeatedly stated on his website. All BSC products are assembled and tested in American factories without any exceptions.

## Huge heat sink no longer exposed

When I first laid eyes on Bret's debut BSC-100m mono power amplifier, I was struck by its resemblance to Dan D'Agostino's signature Krell high current amplifier KSA-100 that is still in use today. The black and grey aluminium surface plate is delicate on the touch, while the huge heat sinks are all hidden in the very strong sand-blast steel case. This design effectively reduces scratches and injuries to users when moving the appliance. The amplifier can be connected via RCA and XLR sockets provided by Neutrik. However, the heavy-duty speaker terminals, which are gold-plated pure copper, are only compatible to cables with spades. Finally the 20A high current IEC power socket ensures uninterrupted power supply to all components within the amplifier.

## 3-stage bias adjustment

Like his father and many other stubborn audiophiles, Bret still believes that the Class D amplifying module which runs on PWM, despite its small size and high efficiency, cannot replace the sound of a traditional Class A amplifier. However, in order to comply with the ever more stringent power regulations, the amplifier is equipped with a 3-stage bias adjusting knob. When switched to the low consumption and low heat Eco mode, the pure Class A power is only 5W. Even if it is switched on for half a day, the amplifier will only warm up slightly. When the knob is turned to 50%, the pure Class A bias operation is limited to 50W. When the knob is at 100% and the machine is in full swing, the pure Class A bias is running at low efficiency and high





heat. As for output, the BSC-100m can produce a power of 100W when the matching speaker's impedance is maintained at 8Ω. If a pair of 4Ω speakers is used, such as the Dynaudio Confidence C4 signature version at our audition room, output figures will be instantly doubled to 200W. Even if it drops to 2Ω, or 1Ω which is near short circuit, the manufacturer guarantees that the output figures will not be lower than 400W and 800W respectively.

### A filtering capacity close to 120,000 μF

The power supply of BSC-100m mono power amplifier is comprised of two toroidal transformers, one of which has a rating of 1368 VA with a number of secondary windings. This transformer is specially wound to Bret's request by the Bridgeport Magnetics Tortran. The large SDB4004 bridge rectifier can deliver an output current as much as 40A. On the left of the transformers is an energy storage that can rival a battery power supply. It consists of a total of 12 electrolytic capacitors, 6 of which are the Japanese 18,000μF/ 80V capacitors from the KMH heat resistant range of Nippon Chemi-con, two 4,700 μF/80V and four 680 μF/100V by Nichicon. Apart from the main

toroidal transformers, there is another smaller one attached to the back of the surface plate especially for the purposes of electronic protection circuit and soft start. Other related parts include high efficiency bridge rectifiers and voltage stabilizers, and four 6,800  $\mu\text{F}/16\text{V}$  electrolytic capacitors by Nichicon for power storage. In addition, there are large relays and 7812 voltage stabilizers by Zettler and Omron respectively. Together they provide a staggering total filtering capacity of near 120,000  $\mu\text{F}$ .

## Japanese Sanken high power transistors

Continuing our discussion on the choice of frequency amplifying section, instead of the economical Op-amp, small power transistors are used as the DC-coupled input and driving stage for better sound reproduction. Since there is no coupling capacitor, noise pollution is minimized. This is especially good for maintaining high fidelity. At the back of the machine are 4 sets of

rather aggressive-looking large heat sinks with sharp corners. Each heat sink is fitted with the Japanese Sanken 2SA1295Y/2SC3264 large power transistors in parallel push-pull mode to provide uninterrupted current. All parts come with military grade metal film non-inductive resistors. To ensure good sound quality, the cables for signal paths are especially made to Bret's order by Transparent Audio.

## List of equipment

The BSC-100m mono power amplifier was tested in our audition room. The equipment used include Swiss CH Precision D1 SACD/CD compatible player and the newly released CH DAC which can be up-graded with various functional modules in the future, Boulder 2010 balanced pre-amplifier, Danish Dynaudio Confidence C4 Signature reference speakers, Tara Labs The Zero vacuum insulated digital cable, the newly-released Anaconda Etron by Shunyata Research, Dutch Silltech Empress Crown Crown interconnect





cables and Emperor Crown Crown speaker cable. In my personal experience, switching the operating bias to 100% in the day while at work and then to Eco mode when I get home is the best way to ensure that the BSC-100m is ready at all times.

## Passionate sound in entire frequency range Tight and delicate texture

After listening to 'The Perfect Sound 2012' hybrid SACD, I found that the whole audio range tone from this big fellow that's been continuously run-in for almost a month to be rather passionate. Although its input sensitivity is slightly above our resident Momentum, it doesn't leave the impression of being rough. After its treatment, impurities in the recording no longer send you cringing, even though its playing level is slightly higher than normal. I then listened to the newly



released 'Time After Time' by Alan Tam and Teresa Carpio which was produced with cutting-edge HR Cutting digital technique and SHM-CD special material by JVC Japan, as well as the essential 'Master Superior 2012' Audiophile Compilation. I discovered another feature that is unique to these pure Class A power generators: the tight and delicate sound texture made each instrument more vivid which together painted a life-like and colourful musical picture. Its clear and smooth super high region extending ability is thoroughly demonstrated through the 'Esotar 2' tweeters of Dynaudio Confidence C4 Signature.

## Free adjustment of the pre-amp output

The BSC-100m flown from America provided me with both touching and always captivating sound quality. I then switched to 'Hope', nicknamed 'the locomotive' by Hugh Masekela and 'The Sheffield Lab Drum and Track Disc' XRCD24 audiophile version, the large transformer and the powerful electrolytic filtering capacitors allowed me to adjust the output volume of the Boulder 2010 pre-amplifier to any level without worry. The majestic presence and ground-shaking energy effortlessly filled a 300 feet listening environment. The amplifier also provided outstanding braking power and lightning-speed transient on the speaker units. In addition I also listened to the exhilarating audiophile recordings such as the 'Picture at an Exhibition' by the American Reference Recordings and 'Leopold Stokowski: Rhapsodies'. The wide sound field was realistic and fulfilling, the exceptional analytical power also accentuated weaker details.

## Conclusion

Some thirty years ago, Dan D'Agostino completely overthrew the common belief that a pure Class A amplifier could only be delicate but not powerful. Today, with Bret D'Agostino's two-piece BSC-100m, the unrivaled characteristic of a large-current pure Class A amplifier is continued. Although its output power is only 100W, when paired with suitable equipment, it can create an experience that is both impressive and inspiring. For audiophiles interested in a traditional pure Class A large-current amplifier but constrained by space, the BSC-60s is worth a try. 音