



# Massive Attack

After 40 years Burmester presents its first turntable. And what a specimen it is! Thanks to best material plus clever ideas, the 60 kilogram heavy 175 is a „real Burmester“ – as well as a massive attack on the analogue establishment.

*Matthias Böde*

It was the surprise and the star of the High End show: the first turntable from Burmester. Well, not in 2018, but the year before. Consequently, the type designation 175 indicates the release date as May 2017 according to the Burmester nomenclature. Also in our listening room the colleagues cavorted around the polished, sparkling analog monument.

After all, we had waited long enough. The 175, with its thick aluminum planking and immaculately shimmering chrome front in the striking design of the „Reference Line“ by the Berlin-based noble-manufacturer, already played beguilingly good together with Burmester’s at the time new mono amps



**KEYWORD**

**RIAA equalization**

Virtually all modern records since the early 60s are made to the specifications of the Recording Industry Association of America, RIAA in short, according to which low frequencies are lowered and high amplified during the cutting process. The reproduction is then „equalized“ back-to-front.

**Incarnation of precision: the exact geometry of the arm and pickup are perfectly aligned**

and loudspeakers. Nevertheless, it was still a good one and a half years before the finished device would reach us for this exclusive test.

That was due to numerous detailed improvements as well as a further refinement of the „all-in-one concept“, which was planned from the start. The 175 is by no means intended to primarily appeal to vinyl freaks who want to unrestrictedly combine all parts of their turntables such as drive, tonearm, pickup and phono preamp. Rather, it is intended as a high-end all-inclusive offer for record lovers who prefer a perfectly coordinated solution at the highest level from a single manufacturer. This leads to a captivating simplicity in handling this internally highly complex machine and to the congenial implementation of the „Plug ‚n‘ Play“ idea, which is usually rather pursued in lower price ranges.

All you need for setting it up is a few strong arms – the platter alone, consisting of a three-layer aluminum-brass sandwich, weighs a good 15 kilograms, the entire 175 about 60 kilograms. Even the chrome-plated counterweight of the tonearm with its hard, stiff multilayer carbon tube is fixed at the correct contact force of 23 millinewtons, and the adjacent knob for antiskating is set to a sensible value. Hence there’s hardly anything for the proud owner to adjust.

He doesn’t even have to worry about a suitable pickup. The supplied moving coil type is pre-assembled. For their pickup the Berlin company did, however, not simply produce it

**After removing a metal plate, the complex drive concept becomes visible. Four motors drive the massive sub plate via belts. Not only should any deviations between the motors be compensated for, but also all tensile forces on the bearing. In conjunction with the high plate weight, this should promote the stability and smooth running of the 175. Its sound certainly proves the point!**

by themselves. Instead they sought cooperation with a specialist who would manufacture this jewel, which is encased in a sturdy aluminum housing, bespoke to their wishes.

It looks like it is Ortofon – Burmester doesn’t give any details – one of the first addresses in this sector. Technically, the MC impresses with an ultra-strong sapphire needle carrier that is applied „naked“, i.e. without a solder cone, that would impede the agility and dynamics of the diamond with its elaborate „Shibata“-cut. Adjustment is not to worry about either. As we quickly found out, the geometry was exactly on point, with the tonearm, which is mounted on a movable carriage, being fixed in such a way that the front edges of the arm and scanner were perfectly aligned, underlining the impression of precision in detail and demonstrating the use of expert hands.

Seeing the 175 sitting on its solid basis, which is obligatory with the components from Burmester’s „Reference Line“, its price



**Attention: from the XLR-jacks comes the completely equalized signal for the following preamplifier or amplifier. Anyone who wants to operate another MC cartridge can adjust the input impedance of the integrated phono preamp in six levels.**

of 31,800 Euros doesn't seem to be quite as high anymore. Especially since an important part of the analog package, which is filled to the brim in every respect, has not even been mentioned yet: the integrated phono preamplifier. Unlike a normal turntable, the 175 is not connected to a separate phono preamplifier or one integrated in the amplifier. Rather, it has its own already on board, ensuring shortest signal paths for the tiny MC currents, which are susceptible to interference. And it is just as uncompromising as the entire turntable, because it comes from Burmester's Phono-Pre 100, which combines excellent sound characteristics with low noise and minimal distortion.

Following Burmester's credo of fully balanced signal routing, the output currents are fed to a pair of XLR sockets, via which the 175 connects to the pre- or integrated amplifier like a high level device. The currents are, of course, equalized according to RIAA specifications. The processing without ground connection is particularly suitable here. After all, besides the microphone, the MC pickup is the only truly ground-free source in high fidelity, and experience has shown that the balanced mode is beneficial

**The counterweight of the precisely mounted tonearm is correctly fixed in the delivery condition. A measuring plate is enclosed for the antiskating.**

in terms of increased naturalness and resolution.

It goes without saying that the amplification factor of the phono board is perfectly matched to the parameters of the pickup. That's why the 175 doesn't offer any different values to choose from in this regard. The selected gain of just above 60 decibels would, however, also fit other MCs. In terms of impedance, they might, on the other hand, want to be matched higher than the Burmester pickup, which – typical for Ortofon – is satisfied with the usual 100 Ohm. A six-step rotary switch is then available, which allows matching for an MC with higher input resistances.

So, a lot of brains and effort was already invested into tonearm, pickup and phono pre. The heart of the turntable is, however, its drive, which is indeed rather special. Together with a professional partner who has a lot of experience in turntable construction, the Burmester team developed a drive that wants to surpass conventional solutions in terms of smoothness and consistency. The result is a design in which four motors surround the solid subplate. In order to compensate for tiny irregularities between them

## TEST DEVICES

**Turntable:** Transrotor Rondino nero with tone arm 5009 and MC scanner Figaro

**Phono-Preamps:** Accoustic Arts Tube Phono II, Brinkmann Edison

**Pre- / Power Amplifier:** Accoustic Arts Tube Preamp II-MK2 / Amp II-MK 3

**Loudspeakers:** B & W 800 D3, Fischer & Fischer SN470M

**Cables:** HMS Suprema, JIB Silver Galaxy BP-006SC (Phono), Burmester XLR 3 (NF), HMS Gran Finale Jubilee / in-akustik 2404 (NF / LS)





The case of the MC-pickup consists of a solid aluminum block. The needle carrier is made of hard sapphire. The diamond has a sophisticated „Shibata“-cut.

The likewise solidly executed subplate is based on a polished stainless steel axle with a carbide ball, which in turn stands on a self-lubricating bearing base.



**SHIBATA-CUT**

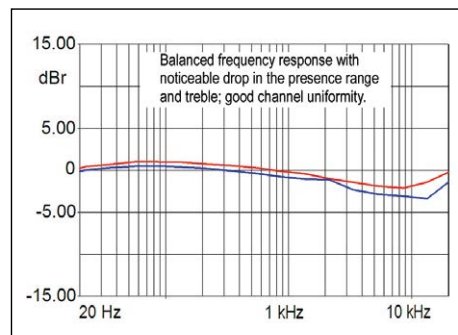
Above the usual elliptical rounding of the pickup-diamond, there are a number of elaborately faceted „line contact“-cuts, which should extract a maximum of information, especially in the high-frequency range.

One of them is this needle form developed in the 1970s for the CD4-Quadro-plate by JVC technician Norio Shibata, which is still one of the top cuts.

and, more importantly, to avoid one-sided pulling on the bearing, which is as robust as it is precise, the motor quartet is coupled to each other via short rubber belts as well as to the driven, cylindrical plate support. The synchronous motors follow a clock frequency that is digitally generated in an external power supply unit, also manufactured to the highest standards. The fine adjustment of the two speeds of 33.33 and 45 rpm is carried out via two mini-potis on the rear.

The 175 is switched on in the classic Burmester style via the toggle lever at the front right, which switches between Off, Standby and On. In „On“ the adjacent light turns green. A rotary knob with the positions Off, 33 and 45 starts the drive or switches it off without disconnecting the phono board from the power supply. This keeps the phono board „warm“ during long pauses while the plate is resting.

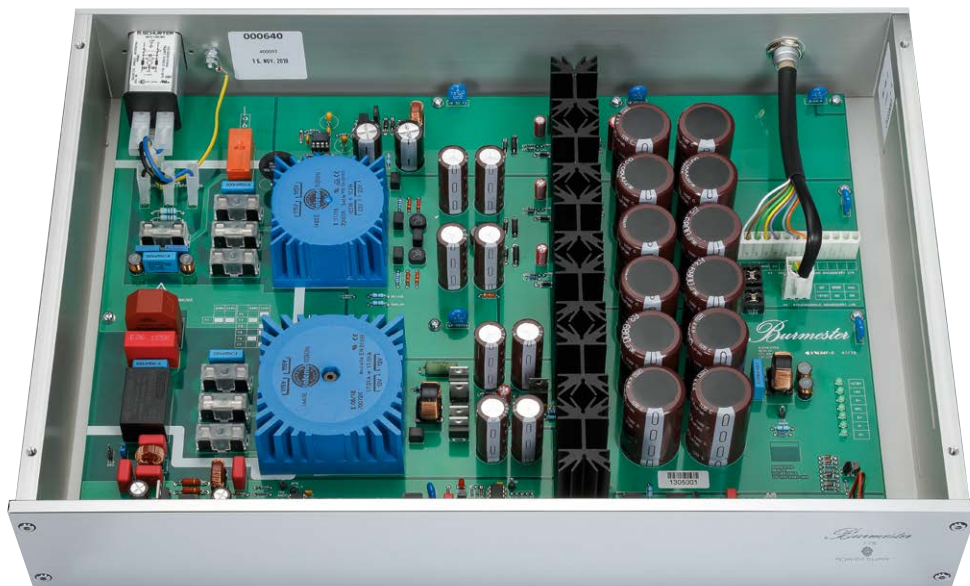
Thanks to the four motors, the acceleration time of the massive plate is short. The drive only acknowledges the effort with a gentle growl. We would still recommend to just let the plate turn during the listening session. This is easier on the belts, and it's also no problem to change the Discs this way, as their edges are easy to grip. The handling



The frequency response of the Burmester MC shows a slight drop in the presence range, which was almost non-existent to the ear.

of the Burmester is in general very simple. Rarely have I experienced that a top turntable causes so little trouble.

With the 175 comes a specially pressed „Reference Check“ record. Its one kilohertz tone and the frequency sweep from 20 Hz to 20 kHz are especially interesting for measurement freaks or for leveling. The antiskating should be adjusted with the help of an empty area, in such a way that the tonearm stands still on the rotating disk. Notwithstanding however the fact that the skating force changes continuously depending on the speed, the position of the pickup above the plate and, above all, due to the respective modulation



strength. Hence, it naturally turns out stronger in the groove due to the higher friction than if the needle „skates“ only with the tip on the smooth surface. Therefore simply turn the little antiskating control so far that the arm moves slightly outwards. Then you should have found the perfect middle ground.

That’s exactly how we did it, and it was all there was in the way between the, admittedly rather exhausting, setting up and the 175s captivating performance. Since our test device was fully broken in, the warm-up was allowed to be only briefly. We were just too curious whether the first record player of Germany’s big high-end brand would be a major success and also a „real Burmester“.

And, hooray, it is all of the above! The 175 follows exactly those sound premises for which the components from Berlin are famous and in great demand all over the world and which have been perfected in the „Reference Line“: crisp, crackling temperament in connection with forward striving timing, gnarled conciseness, radiant colorfulness as well as a filigree elegance behind the veil of casual sovereignty.

Which disc was the first to find its way on the felt damped carbon mat of the Burmester you ask? It was Anne Bisson’s fantastic, „live“ recorded 45-piece direct cut album „Four Seasons In Jazz“. In „September In Montreal“ a powerful, pulsating acoustic bass sets the accents, whose strings the 175 let vibrate with elastic tension. In general, it always presented the lower ranges sinewy

**The external power supply unit offers two completely separate and stabilized supply voltages for the complex motor and signal electronics.**

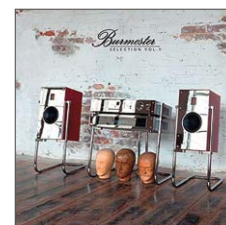
and perfectly defined. No trace of slowness or thickening. Anyone who had suspected that the heavy metal enclosure of the pickup would cause the bass resonance to slip off and the basses to become correspondingly muddy was most pleasantly disappointed. The 175’s heavy, rock-solid frame and base plate certainly contribute significantly to its steadfastness and precise definition of even the most complex passages.

A further result of this stability is the sharpness of the edges and three-dimensional plasticity. Not only did Miss Bisson stand exactly contoured between the speakers, no, in fact you could almost hear „around“ her. And the turmoil in the frequency cellar didn’t prevent the turntable from depicting delicate smoking of hi-hats in the background clearly and with subtle shades against a deep black background.

To be honest, the description of the 175’s admirably balanced performance between bouncing attack, deeply staggered spaciousness and natural precision inherently attracts the superlatives. It presented our discs, which were heard umpteen times, in beguiling perfection. Whether it staged the sometimes brilliant, sometimes timid orchestra in Chadwick’s „Jubilee“ or performed Diana Krall’s keyboard and vocals in the Paris Olympics,

## WHAT WE HAVE HEARD

### Burmester Selection Vol. 1

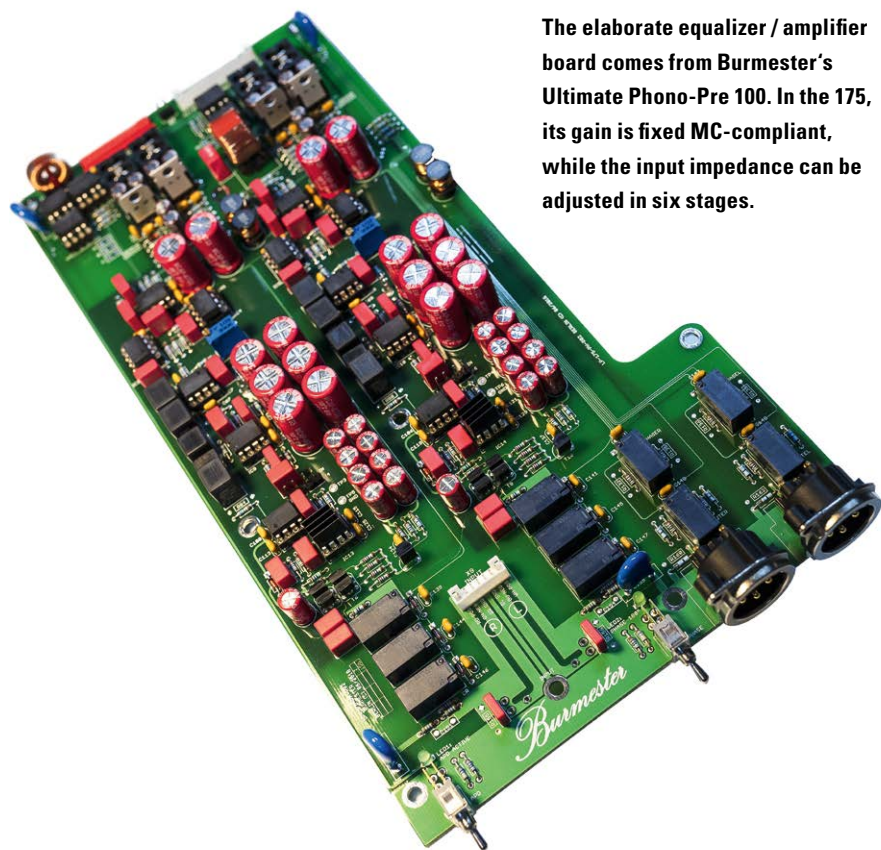


Not only on the 175 do the selected titles of this 45s sampler sound first class (Do-LP).

### Opus 3 Test Record 1



The famous compilation of audiophile pearls from the noble label Opus 3 has high standards and lost none of its charm.



The elaborate equalizer / amplifier board comes from Burmester's Ultimate Phono-Pre 100. In the 175, its gain is fixed MC-compliant, while the input impedance can be adjusted in six stages.



**TUNES INCLUDED**

The 175's scope of delivery includes this 45 rpm cut record, which offers measuring and test signals, but also four music titles in top quality.

the Berliner always struck the right note and the right mood!

We are certain that also Dieter Burmester would have been enthusiastic about the 175, because it not only corresponds to his uncompromising approach, but also fits in perfectly with the sound philosophy of the German High End's leading figure, who died in 2015, which was to grip the listener with inner tension and live verve. It's a pity that Burmester, who had developed his first ideas for the 175 the year before his death, is no longer able to experience its performance.

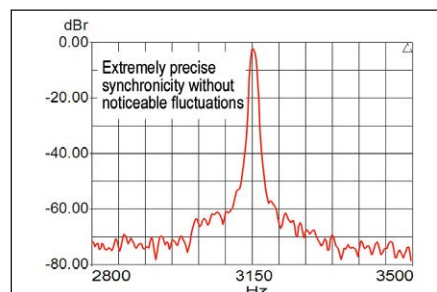
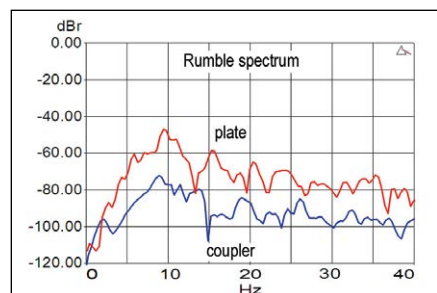
It's lucky for all other providers of fine analogue products that the 175 due to its closed concept only aims at a very specific clientele that wants exactly that. Otherwise, Burmester's „massive attack“ would probably shoot some rivals from the analogue sky. It seems to be true that good things take a while and the Berliners have made the best of the long wait. Their turntable is nothing short of a dream! ■

**Burmester 175**

**Price:** around 31,800 € (complete with MC cartridge and integrated phono MC preamp)  
**Dimensions:** 45 x 21 x 37 cm (WxHxD)  
**Warranty:** 3 years (at registration)  
**Contact:** Burmester Audiosysteme  
**Tel.:** +49 30 7879680  
**www.burmester.de**

Burmester's all-in-one turntable consistently plays out the advantage of the perfect matching of its individual parts. Workmanship as well as sound quality is simply perfect and worthy of the ultimate „Reference Line“ of the Berlin manufacturer in every respect. The high price therefore seems appropriate. Reference status!

**Measurement Results**



Output voltage (pickup only)	0,3 mV
Tracking force	23 mN

**Labor-Kommentar**



The results are approaching the limits of what we can measure. Whether synchronicity or rumble, this turntable sets standards. For the best sound, be sure to pay attention to the correct mains phase!

**Features**

A balanced analog output, external power supply, height-adjustable feet, heavy metal base, phase reversal, deactivatable automatic shut-off, six-level adjustable input impedance for the phono board, speed fine adjustment

STEREO-TEST	
SOUND QUALITY	100%
PRICE/PERFORMANCE	
<b>VERY GOOD</b>	