





High Quality
4-Pin-Point Bearing



TPE Damped Counterweight

# **EVO AS**

# High precision s-shape tonearms

- Flexible high-purity copper inner wiring
- Aluminium tonearm tube with SME headshell
- Aluminium bearing block
- Ultra-low friction 4 pin point cardanic tonearm bearing
- TPE damped counterweight prevents resonances
- Accurate azimuth and VTA adjustment
- Outside ring is open to prevent bell-mode resonances
- · Silicone-damped armlift can be adjusted to suit arm height
- · Gold plated 5PIN DIN output socket
- · Shiny aluminium parts polished by hand
- Available as AS Black & AS HG version in 9, 10, 12 inch
- Made in Europe

### **EVO AS Black:**

9" 1.099€ MSRP (incl. VAT)
10" 1.150€ MSRP (incl. VAT)
12" 1.199€ MSRP (incl. VAT)

### **EVO AS HG:**

9" 1.699€ MSRP (incl. VAT)
10" 1.750€ MSRP (incl. VAT)
12" 1.799€ MSRP (incl. VAT)



### **EVO Tonearms**

The tonearm is one of the most important parts of a turntable and therefore not only influences, but also shapes the sound in a specific way. We did in-depth listening tests with different bearing types, tonearm materials and also cartridge combinations to develop the sound we are looking for.

About 15 years ago, we released the Evolution tonearm range. These tonearms were a huge success and with this experience we were able to further develop our tonearm design. This new EVO Premium tonearm range is the result of our work from the last years, and we are proud to also offer new finishes and many additional improvements.



### 10 Insights from our Research

- **1** Resonance damping
- Damped counterweights and super high mass bearing gimbals.
- Conical tubes
- Conical tonearm tube design guarantees that resonances are traveling to the bearing block and also reduce the moving mass of the tonearm/headshell.
- ∩2 Single-piece tubes
- Single-piece tonearm tubes increase the stiffness & increase the sound transparency.
- Cartridge matching
- Correct tonearm and cartridge matching and the resulting resonance is exceptionally critical for a clean tracking and accurate, controlled bass reproduction.
  - \_\_ Materials
- For low compliance cartridges, you need tonearms with high effective mass, or in other words, tonearms made of aluminum alloys as opposed to carbon.
- High-purity conductors

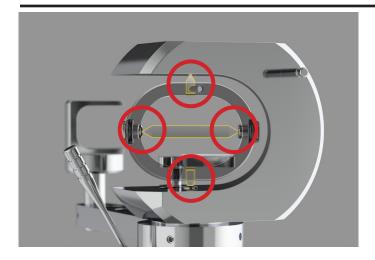
  High-purity conductors have a significant positive influence on low level cartridge signals, so we use the highest purity copper (Standard EVO) or a pure silver wiring (Premium).
- ∩7 High mass
- High mass flange design is crucial to fix the tonearm securely to the turntable.
- Tonearm holder

  Massive tonearm holder reduces the overall resonances of the whole tonearm.
- O9. Counterweights

  An assortment of different counterweights is necessary to balance the cartridge correctly.
  - Highest precision
  - A precision arm can only be made with the highest level of diamond knife machinery, allowing you to work with tolerances of 1/1000 mm.







## Tonearm tube & its inner wiring

For the EVO AS tonearm, we use a special aluminium s-shape tube with the highest internal damping, paired with a SME headshell. The s-shaped tonearm is not only an eye-catcher on every turntable, it also brings technical advantages. The arm benefits from much less groove angle distortion and an excellent tracking ability.

The SME headshell allows you to quickly change your cartridges. We also offer headshells made of different materials to find the perfect fit for your cartridge. The arm tube is fixed by a single screw to allow rotation for an easy azimuth adjustment.

The inner wiring is made of flexible high-purity copper which is an optimum conductor for the very small phono signal. Each lead is fitted with a goldplated connector clip.



### The Bearing

The new EVO tonearm uses an inverted cardanic ABEC 7 quality bearing with 4 stainless steel tips. This bearing type is very stable and low friction, which guarantees a clear tracking. This results in a detailed and open sound stage. All the microinformation from the groove is preserved.

The bearing sits in a an full aluminium housing, which provides the needed stability. The massive outside ring is open to avoid resonances.

Due to the tonearm design, the bearing is maintenance-free and very easy to adjust.



# Tracking Force & VTA

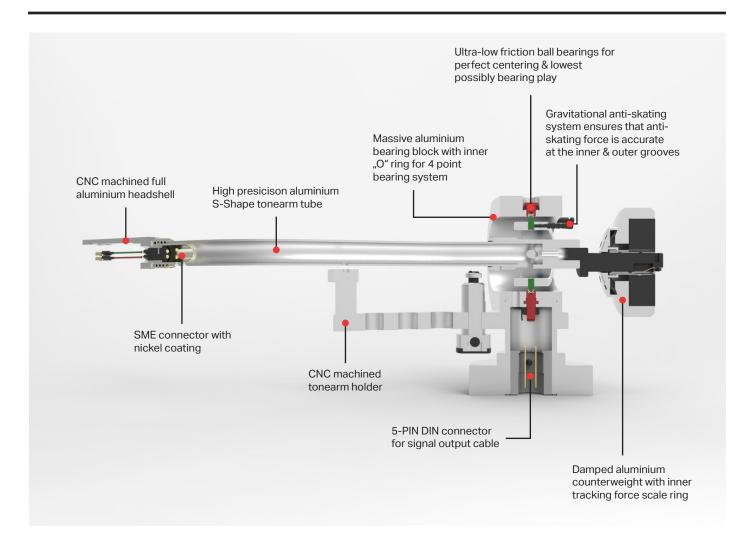
We supply two counterweights for each tonearm to give you the possibility to use a broad range of cartridges and set the tracking force as accurately as possible. After setting the tracking force, the counterweight should be as close to the bearing block as possible to ensure best stability and keep tonearm inertia as low as possible. Choose the counterweight that sits closer to the bearing block for your given tracking force.

You can find the cartridge weight range for each tonearm length on the last page. The counterweight itself is a new design which features TPE damping to counteract unwanted resonances.

The tonearm height can be continuously adjusted by loosening the two grub screws. It gives you the option of adapting the tonearm to height changes to always achieve the best sound quality. Setting and experimenting with the VTA & Azimuth is crucial in extracting every last bit of performance out of your cartridges.

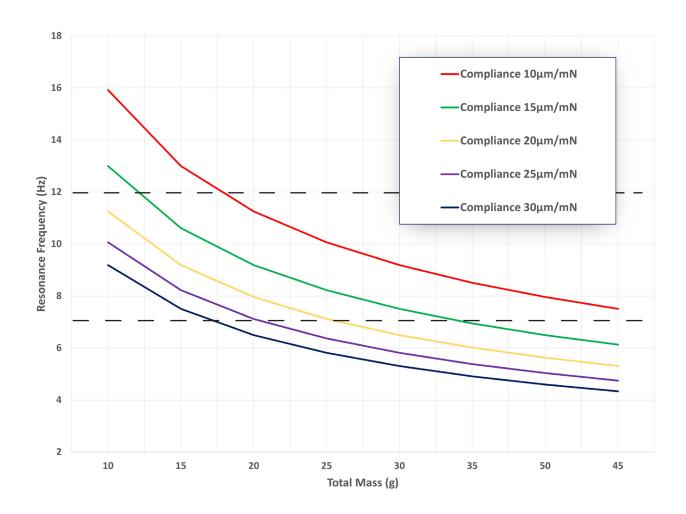












# **Resonance frequency considerations**

When selecting a cartridge for your turntable, the total effective mass of the tonearm (=effective mass of tonearm plus cartridge weight plus headshell plus mounting hardware) has to be taken into account in relation to the mechanical compliance (elasticity) of the cartridge cantilever system.

This correct mechanical match between cartridge and tonearm is one of the most important factors for neutral sound. A mismatch can result in bad impulse behavior (less resolution of dynamics and micro-dynamics, narrow soundstage, bloated or thin bass). A resonance frequency within 7-12Hz is optimal for the system.

To give the customer the perfect arm for his cartridge, we now offer a very wide variety of tonearms with different effective masses.

#### **EVO AS Tonearms**

Depending on headshell weight suitable for 5 to 25  $\mu$ m/mN

Recommended by Pro-Ject for low compliance cartridges -> 5 to 10 µm/mN

### Our cartridge recommendations:

### With aluminium headshell:

Ortofon Cadenza Series

#### With carbon headshell:

Ortofon Cadenza Series

### With wood headshell:

- Ortofon Cadenza Series
- Ortofon Quintet Series





|                                                 | 12"                                       | 10"                                       | 9"                                       |
|-------------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------|
| Effective tonearm lenght                        | 304,8 mm                                  | 254 mm                                    | 230 mm                                   |
| Mounting distance                               | 291,6 mm                                  | 238 mm                                    | 212 mm                                   |
| Offset angle                                    | 18°                                       | 21,4°                                     | 24°                                      |
| Overhang                                        | 13,2 mm                                   | 16 mm                                     | 18 mm                                    |
| Pitch of mounting grooves in headshell          | 12,7 mm                                   | 12,7 mm                                   | 12,7 mm                                  |
| Effective tonearm mass with / without headshell | 28,1 / 14,5 g                             | 25 / 11,7 g                               | 24,2 / 10,6 g                            |
| Incl. counterweights (cartridge weight)         | No. 73 (7 - 13,5 g)<br>No. 74 (11 - 22 g) | No. 33 (6,5 - 11 g)<br>No. 47 (11 - 18 g) | No. 32 (6,5 - 11 g)<br>No. 33 (9 - 16 g) |
| Cartridge weight                                | 7-22 g                                    | 6,5-18 g                                  | 6,5-16 g                                 |
| The range of the tracking force                 | 0 - 3 g                                   | 0 - 3 g                                   | 0 - 3 g                                  |
| The minimal null point                          | 125 mm                                    | 126,8 mm                                  | 130,6 mm                                 |
| The maximal null point                          | 251,7 mm                                  | 248,2 mm                                  | 243,7 mm                                 |
| Tonearm weight (without flange)                 | 311g                                      | 305g                                      | 303g                                     |