







# MIRACLE CURE FOR LACK OF DRIVE

An estimated 98 percent of all turntables on the hi-fi market are belt-driven designs. However, a small group of the indomitable believe this is not the way to bliss.



*The direct-drive motor runs quietly and at a stable speed*

The first, of course, was Technics. The Japanese invented the direct drive in the late sixties and made it popular in the world's radio studios. The concept's rapid start and stop times were real advantages here, and DJs in the clubs soon became interested in them as well. And so, slowly but surely, from the mid to late seventies, the direct drive began to take over turntable world domination. The development was suddenly slowed down by the appearance of the CD, which initially sent the turntable into a deep slumber. However, once the initial shock was over and turntables proved astonishingly resilient, the days of large quantities and expensive engine developments were over. What could be built were turntables with relatively fast-turning motors with little torque. Therefore, the belt was essential as a „gear“ between the motor and the platter. There was no longer a market for slow and precise rotating motors like those needed for direct-drive turntables.

*The TD 403 DD is visually inspired by Thorens designs of days gone by*



In principle, this is still true, but there are a few exceptions. A few manufacturers have discovered the DJ turntable market for themselves and serve it with Technics-style direct drives. And that's why there are such engines out there. Thorens' owner Gunter Kürten knows this, and he equipped his top model TD 124 DD with such a motor for a reason. It works excellently, and the unit is a resounding international success. Couldn't it be a bit cheaper than the 8000 EUR you have to pay for such a machine? But yes! Some time ago, the TD 402 DD proved that a direct drive unit that "is „capable“ from a hi-fi point of view does not have to be financial overkill.

If you want something a bit more refined, the new TD403 DD is the preferred means. At first glance, the 1400 EUR complete package is recognizable as a classic Thorens; the toggle switches on the left and right front are unmistakable. The construction is similar to the proven TD 402 DD but differs in some crucial points. The TD 403

DD has a much heavier (1.4 kilograms) metal platter and the very accomplished TP 150 tonearm from the belt-driven TD 1500.

What the TD 403 DD doesn't have – and neither does its smaller brother – is the Thorens-typical sub-chassis. This would only be a problem if the substructure for the turntable were of the more resonance-prone variety. But if you want to invest in this price range, you'll probably also want to provide a suitable stand. The stand should also be horizontal because the Thorens doesn't have a height adjustment option. With a four-digit price tag, a few words of criticism are necessary: Four damper feet of the cheap kind, screwed into a rather puny three-millimeter hardboard as the device's base – that's not very high-end. The accessories industry will certainly already rub their hands and diligently design upgrades.

## Teammates

### Integrated amplifier:

- **Thivan Labs 811 Anniversary**

### Loudspeakers:

- **DIY Focal / JBL**

## Competitors

### Turntable:

- **Pro-Ject X8 SuperPack**
- **AIE 751**

### Cartridges:

- **Ortofon Cadenza Bronze**
- **Ortofon Quintet Blue**

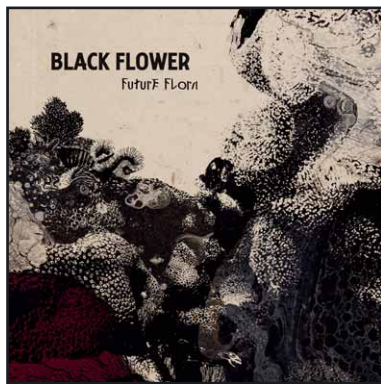
### Phono preamplifiers:

- **Pro-Ject DS3 B**
- **Malvalve preamp three phono**



*The Ortofon 2M Blue fits well with the Thorens, but it is not the end of the line*





### What we played

**Black Flower**  
Future Flora

**Kungens Män**  
Bränna Tid

**Dead Can Dance**  
Spiritchaser

**Deep Purple**  
Made In Japan

A solid MDF frame is revealed underneath the said panel. The direct drive motor is screwed in the center - this should be the model we already know from the TD 402 DD. The self-contained unit is much simpler than the one that drives the platter of the TD 124 DD, for example, where the stator magnets are mounted directly on the platter - as we know from the powerful professional direct drive units.

The mills of the TD 403 DD grind a bit slower in this respect, which can already be seen in the ramp-up times of the disc. These are significantly longer than those of professional devices because there is simply less torque. However, since the user probably doesn't want to have heated club evenings with the device, this is only of secondary importance.

The TD 403 DD does have a speed adjustment, but it is only accessible to the service. However, since the speeds are right on point, this is only a minor inconvenience. Let's turn our attention to the TP-150, a true tonearm gem. Visually, it is based on the EMT classic 929. The J-shaped nine-inch arm is a medium-heavy type and fitted with an SME-compatible headshell at the front end, which makes life very easy for anyone with ambitions to change cartridges: change the headshell with the pre-adjusted cartridge, adjust the tracking force, and you're done. By the way, the included headshell is a very refined but rather heavy aluminum piece. One of the highlights of the tonearm is the anti-skating device, which designer Helmut Thiele has cleverly accommodated in the arm



*Very nicely solved: The anti-skating of the TP 150*



*The tonearm is visually based on a classic from EMT*

base extension. The adjustment is made by moving a weight. For this purpose, a pin is included to reach there better. The height adjustment of the TP 150 is also very nicely solved: It is done via a large threaded ring with externally mounted holes. A pin can also be inserted here, and the adjustment can be performed precisely. The tracking force is adjusted in the old-fashioned way using a rotatable counterweight. After balancing the arm, the „adjustment disk“ on the front of the weight is turned to zero, and the duo of weight and disk is then adjusted to the desired value using the scale. This works accurately, so you do not have to use a tonearm scale. This adjustment is the only thing you have to worry about after purchasing the TD 403 DD; the manufacturer has already made all other adjustments. This also applies to the adjustment of the included cartridge. In this case, they

chose the Ortofon 2M Blue, a decidedly respectable MM in the 200 EUR class. It differs from the smaller 2M Red in that it has a „naked“ elliptical pick-up diamond. This means that the diamond is shot through a hole in the stylus cantilever and is thus immovably clamped. This contrasts with the version with a glued-on diamond, which adds more unwanted mass. The 2M Blue generates 5.5 millivolts at 5 cm/s – enough so even less sensitive phono stages should have no problems.

The TD 403 DD likes impulse-rich music and makes that unmistakably clear after a few beats. Take, for example, the jazzy electro album „Future Flora“ by the Belgian band „Black Flower.“ It celebrates the interplay between horns and electronic beats. If the joy of playing is not there, it doesn't get going. You really can't state that here. It sounds extremely agile, concise, and



*The cast aluminium plate of the TD 403 DD weighs 1.4 kilograms*

wiry; we have an excellent overview of the funky happenings. The drums have drive, the horns emit energy and radiance, and there's real momentum at the bottom.

Not bad, especially considering the relatively cheap Ortofon-MM. Could there be more? After extremely positive experiences with the Quintet Blue in the Pro-Ject X8, especially with a symmetrical connection to the Pro-Ject phono preamplifier, I transplanted the same combination to the TD 403 DD. And how much more is possible! The wonderfully dragging „K-rauta“ by the Swedish atmospheric rockers „Kungens Män“ lives from a profound bass drum line that carries the song rhythmically. With this setup, the whole thing gains stability and intensity. It's not the sheer force that appeals but the bone-dry precision. The two guitar lines shimmer weightlessly through the room, everything swings; everything is groove. This is how music works.

*Holger Barske*

*Of course, the device comes with a dust cover*





## Thorens TD 403 DD



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|--------------------------|----------------------------|
| • Price                  | approx. 14,000 Euro        |
| • Distribution           | Thorens, Bergisch Gladbach |
| • Phone                  | +49 2204 8677720           |
| • Internet               | thorens.com                |
| • Dimensions (W x H x D) | 420 x 141 x 360 mm         |
| • Weight                 | approx. 7.2 kg             |

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Thorens  
TD 403 DD

International 3/22

» The TD 403 DD conveys pure Direct Drive feeling: It sounds extraordinarily impulsive and lively, is very easy to use, and is a terrific all-round solution to musical happiness.