KUZMA Turntables currently in production

STABI S

STABI SD

STABI REF2

STABI M

STABI XL2

STABI XL4

MODEL	STABI S	STABI SD	STABI REF2	STABI M	STABI XL2	STABI XL4
Mass (kg)	13	15,5	40	60	77	91
Platter mass (kg)	4	4	8	12	22	22
Platter material	aluminium	aluminium	aluminium & acyrlic	aluminium & acyrlic	aluminium & acyrlic	aluminium & acyrlic
Bearing type	Pointed shaft	pointed shaft	ruby ball – inverted	ruby ball – inverted	ruby ball – inverted	ruby ball – inverted
Shaft diameter (mm)	10	10	16	16	28	28
Chassis / Levelling	brass / no	brass / no	aluminium & acyrlic / yes	aluminium / yes	brass / no	brass / no
Turntable levelling	no	no	no	yes	no	no
Motor (pcs)	1 AC	1 AC	2 AC	1 DC	2 AC	4 AC
Belt	rubber	rubber	rubber	special	rubber	rubber
External power supply	optional	optional	yes	yes	yes	yes
Speeds (rpm)	33; 45	33; 45	33; 45 *	33; 45 *	33; 45 *	33; 45 *
Armboard	no (optional)	yes	yes	yes	yes	yes
VTA adjustment	yes	yes	no	no	yes: VTA tower	yes: VTA tower
No. of tonearms	1 (+1 optional)	2	1	1	1 (+2 optional)	1 (+2 optional)
Suspended	no	no	yes (2.2 Hz)	special	no	no
Dimensions (mm)	400 x 300 x 170	400 x 400 x 170	500 x 400 x 200	600 x 500 x 280	450 x 450 x 300	450 x 450 x 300
Finishes	brass or black	brass or black	black	black	brass or black	brass or black
Clamp	optional	optional	yes	yes	yes	yes
Mat	yes	yes	yes	yes	yes	yes
Lid	yes	no	no	yes	no	no
Accessories	oil; allen keys	oil; allen keys	oil; allen keys	oil; allen keys	oil; allen keys	oil; allen keys
Options	SD kit; 12 inch kit; platter kit (2.6 kg); platter kit (2.6 kg); armboards; power supply; clamp; supporting platforms	SD kit; 12 inch kit; platter kit (2.6 kg); platter kit (2.6 kg); armboards; power supply; clamp; supporting platforms	armboards * 78	armboards * 78	XL 4 kit (14 kg); tonearm towers (14 kg); armboards * 78	tonearm towers (14 kg); armboards * 78

Power supplies

Clamps

Armboards

XL towers

KUZMA Tonearms currently in production

	STOGI S	STOGI S 12	STOGI S 12VTA	STOGI	STOGI REF	STOGI REF 313	STOGI REF 313VTA	4 POINT	AIR LINE
MODEL	STOGI S	STOGI S 12	STOGI S 12VTA	STOGI	STOGI REF	STOGI REF 313	STOGI REF 313VTA	4 POINT	AIR LINE
Effective length (mm)	229	304.8	304.8	229	229	313	313	280	184
Arm mount distance (mm)	212	300	212	212	212	300	212	212	212
Distance from spindle to horizontal bearing (mm)	212	291	291	212	212	300	300	264	irelevant
Bearing type	unipivot	unipivot	unipivot	ball bearings	ball bearings	ball bearings	ball bearings	4 pivot	Air bearing
Effective mass (g)	11	12	12	12	13	13	13	14	vert.: 13; horiz.: 80
Total mass (g)	690	810	1750	870	800	980	2010	2050	2270
Offset angle (°)	23	17.8	17.8	23	23	17.4	17.4	19.5	0
VTA adjustment	yes	yes	VTA tower	yes	yes	Yes	VTA tower	VTA tower	VTA tower
Azimuth	yes	yes	yes	yes	worm drive	worm drive	worm drive	worm drive	worm drive
Tube	straight	straight	straight	straight	conical	conical	conical	conical	conical
Bias	yes	yes	yes	yes	yes	yes	yes	yes	–
Max standard cartridge weight (g)	15	15	15	15	15	15	15	35	25
Optional light and heavy counterweight	yes	yes	yes	yes	yes	yes	yes	yes	yes
Damping	yes	yes	yes	no	no	no	no	separate vert. & hor.	yes
Detachable headshell	no	no	no	no	no	yes	yes	yes (+ 1 spare)	no
Arm mount	Kuzma	Kuzma & Stogi	Kuzma & Stogi	Kuzma & Stogi	Kuzma & Stogi	Kuzma & Stogi	Kuzma	Kuzma	Kuzma
Standard wiring	copper	copper	copper	copper	copper	copper	copper	silver	silver
Accessories	protractors; allen keys; cartridge mounting screws	protractors; allen keys; cartridge mounting screws	protractors; allen keys; cartridge mounting screws	protractors; allen keys; cartridge mounting screws	protractors; allen keys; cartridge mounting screws	protractors; allen keys; cartridge mounting screws	protractors; allen keys; cartridge mounting screws	protractors; allen keys; cartridge mounting screws	protractors; allen keys; cartridge mounting screws
Options	XLR; 5 Pin	XLR; 5 Pin	XLR; 5 Pin	XLR; 5 Pin	XLR; 5 Pin	XLR; 5 Pin	XLR; 5 Pin	XLR; 5 Pin	XLR; 5 Pin

KUZMA ANALOGUE PRODUCTS

Kuzma turntables and tonearms have been praised worldwide by the audio community since 1983.

We firmly believe in solid construction with the use of quality materials, as well as precision in engineering and manufacturing for every part used in the construction of our turntables and tonearms. We aim to mimic the process that takes place when records are cut, so that our products extract the maximum music from the grooves of a vinyl record.

We use solid, non resonant materials such as aluminium, brass and acrylic, designed in forms and structures that emphasise rigidity, damping and insulation.

The best available parts and materials are used for bearings, shafts, wires, connectors and screws etc.

Our products incorporate many of our own original and innovative designs, such as special bearing constructions with selected bearing materials, diamond polished carbon steel shafts, a unique mat material, non resonant construction, damping suspension, special glue and hand made assemblies.

Most of our platters and chassis are constructed with multiple layers to minimize vibrations and emphasise damping and immunity to environmental disturbances.

Adjustments and control of parameters are of the utmost importance without compromising performance. Once set up, the turntable or tonearm should continue to function at an optimal level.

Turntables

Motors

These 24 pole AC motors have a precision shaft and run with low noise. The bearings are modified and precision made pulleys ensure the smooth transfer of rotation via the precision ground rubber belt to the subplatter. Multiple motors are used, which means each motor contributes to rotational energy, while using less power and, at the same time, causing less vibration. The total result is a more uniform drive of platter at any given moment.

Motor power supply

The power supply insulates motors from the mains supply and controls precise speed with pure sine waves, which minimise motor vibration and give uniform drive to the rotating platter.

Bearings

The carbon steel used for platter shafts is ground, lapped and finally diamond polished to give the finest low friction sliding structure. A unique damping, low friction and low vibration bearing material is used which minimises air slack and vibration inside the bearing. Vertical support is provided by a polished ruby ball immersed in an oil pool on top of the inverted shaft, in our top turntables.

Platters

Our smallest model has damping rubber material inserted into the solid aluminium, to prevent any ringing resonance. Other platters are multilayered of aluminium and acrylic topped with a special mat of textile and rubber compound. An additional weight or screw down clamp further controls record vibration. Rotational tolerances of our platters are below 0.02mm.

Suspension

Most of our turntables are not suspended. Due to the design and construction of the chassis as well as the rigidity of individual parts, however, our turntables are not sensitive to outside disturbances. Solid aluminium, acrylic or brass is used to minimise internal and external vibration. Some turntables use a damped spring suspension system tuned to below 2.5Hz to give extra insulation with no need for special turntable supports.

Armboards

Pre-cut armboards are available for all our turntables, thus making it possible to mount any tonearm, though our tonearms remain the best value for money.

VTA (vertical tracking angle) adjustments

Some of our turntables have a facility enabling adjustment of the tonearm's VTA even if the tonearm itself lacks this facility.
Our top of the range turntable model has a precise VTA adjustment built into the tonearm tower, which allows VTA adjustment of ANY tonearm, regardless of type, in the repeatable range of 0.01mm, without any loss of rigidity in the assembly.

Tonearms

Main structure

All parts are machined from solid aluminium or brass and are designed in such a way that, when assembled by screws or glue, structural rigidity is given to the tonearm. The effect on sound of even the smallest part is taken into consideration.

Bearings

Unipivot is the simplest and yet very effective, very low friction, zero play type of bearing. Sliding and rolling surfaces inside the bearing cup are specially pressed to give the lowest starting friction, zero play and minimal vibration inside the cup or pivot point.
4Point bearings are constructed with two points in the vertical bearing and two points in the horizontal bearing, giving this tonearm a unique bearing configuration with lowest possible friction, zero play and stability of the tonearm in all directions, except those which need as much freedom as possible.
The ball bearings made by most worldwide manufacturers, while conforming to ABEC standards, are inadequate for our purposes due to dirt in grooves, on balls or in the bearing oil. We use the precise ball bearings which are used in gyroscopes. Each bearing is vacuum packed with its own serial number and we further individually test each bearing for noise and lubrication. Only then are they precisely mounted into tonearms, with zero play preloading.
Air bearings are bearings with the lowest possible friction and, if used as in precision machinery, they also have the highest rigidity in all directions. If an air bearing is used with low pressure, or has only a few holes which blow air out, then the tonearm will float. This will give low friction but any small force exerted on the cartridge during play, will cause tonearm instability and prevent the cartridge from accurately reading what is in the grooves.
We use a high air pressure porous graphite bearing which gives stable and precise positioning to an accuracy of below 0.001 mm. A force of even a few kg will not disturb the tonearm position.

Tonearm tubes

Most of our tonearms incorporate tubes machined from solid blocks of aluminium, though the internal construction is more complex than it looks. Conical tubes have less vibration than straight tubes. In addition the inside wall is not all the same thickness and, being made from two parts glued together, gives more damping and rigidity to the whole tube and the walls themselves.

Azimuth adjustments

Azimuth adjustment should be simple, easily repeatable and not adding any vibration or slack to the construction.
We use counterweight eccentricity to set up azimuth in a unipivot bearing tonearms, but precise azimuth adjustment is made by repeatable shifting of a screw inside the counterweight.
The conical tubes contain a built-in worm drive, which allows precise tube rotation without any slack when the tube is rotating back and forth. The worm drive is immersed in damping grease. Locking the tube gives rigidity to the whole assembly.

VTA adjustment

The height of the tonearm can be adjusted in the armbase. Our best tonearms incorporate a VTA tower, which allows for repeatable VTA adjustments of 0.01 mm, during play, in the range of 10 mm with zero play, so it is not even necessary to lock the VTA mechanism.

Detachable headshell

The use of a standard detachable headshell for ease of cartridge replacement is always accompanied by mechanical and electrical compromise. We have, however, created our own unique hex shape, five point holding, fixing system, which holds the headshell in a precise and rigid position. This causes no structural weakness and is completely accurate. Electrical contacts are left intact as cartridge clips are unplugged from the cartridge.

Cables

Any breaks or solder joints in wires running from the cartridge to the phono input, are a compromise. We create our own cables using thin wires obtained from reputable audio cable manufacturers. These wires run from the cartridge clips to phono plugs in one continuous length, inside the insulated and shielded tubes in a balanced configuration.

Find more information on our web site.

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KUZMA
TURNTABLES AND ARMS