Ergonomic Design Features of the BRAND Transferpette® single channel pipettes

from BrandTech® Scientific

Transferpette® single channel pipettes are an attractive alternative to traditional air-displacement pipettes. They are lightweight (approximately 100g) instruments that require minimal force for both pipetting and tip ejection. However, the primary ergonomic advantages of these instruments are their unique shape and the position of their pipetting key.

- The hook-shaped handle of the Transferpette® single channel pipette forms a hand cradle for users that allows suspension of the instrument in a relaxed hand. This reduces the static activity required of hand and arm muscles during operation by encouraging a relaxed grip during use. Reduced static muscle activity increases blood flow throughout the arm and hand and decreases the overall strain on muscles, tendons, and nerves of the forearm.
- The body design of the Transferpette® single channel pipette simplifies both left- and right-handed operation, and allows operators to alternate hands during operation.
- The offset pipetting key reduces radial abduction (extension of the thumb to a perpendicular or near perpendicular position compared to the fingers) of the thumb during operation. By reducing this radial abduction, the Transferpette® single channel pipette encourages proper pipetting posture and neutral hand position during operation, decreasing strain to the tendons, muscles, and nerves of the thumb and forearm.
- The offset pipetting key is intended to reduce the role of extensor and abductor tendons that pass through the first dorsal extensor compartment during pipetting. Inflammation of these tendons is the primary cause of de Quervain's tendinitis, a painful, debilitating repetitive stress injury that has been diagnosed in laboratory workers performing repetitive pipetting tasks.
- The offset pipetting key “diverts“ the strain of pipetting from the muscles of the thumb IP (interphalangeal) joint to include those responsible for adduction of the thumb basal joint. It effectively “spreads“ the force required for aspiration and dispensing across a greater number of muscles, thereby “diluting“ the force required from (and the strain experienced by) each muscle during aspiration and dispensing. This reduces muscle strain.
- Design is intended to reduce both the likelihood and severity of inflammation of the tendons, the carpal tunnel, and the first dorsal compartment by minimizing the roles of muscles with tendons passing through either the carpal tunnel (such as the flexor pollicis longus) or first dorsal extensor compartment.

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Secure, Comfortable Tip Ejector

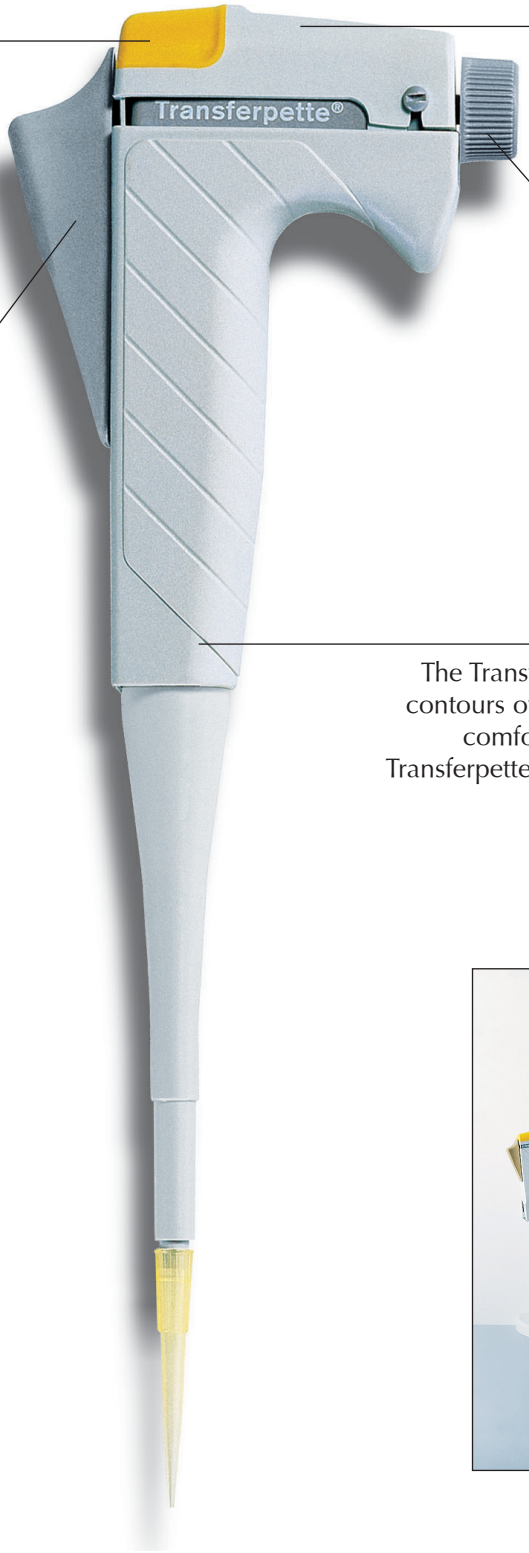
Tip ejector is mounted high, next to the pipetting key to limit unintended tip ejection.

The thumb sweeps comfortably sideways to the tip ejector, avoiding the concentrated strain from conventional pipettes of tip ejection with a cocked thumb.

Ergonomic Design

The side-mounted pipetting key reduces hand fatigue, especially during serial pipetting applications.

The unique hook-shaped handle lets the pipette suspend freely from the operator's hand, reducing strain to the muscles of the forearm.



Easy-to-read-settings

Simple Operation

The volume adjustment knob turns easily without snagging gloves. Each control has a dedicated function to prevent inadvertent volume changes or tip ejection.

Grip and Housing

The Transferpette® is designed around the contours of the human hand for maximum comfort. Lightweight, yet durable, the Transferpette® is designed for prolonged use.

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