



VIRIO¹⁰⁰¹ Optimum balancing for heavy-duty tools When machining large-scale components such as crank casings, cylinder heads, transmissions or casting moulds, heavy-duty tools come into use which reach high cutting speeds, and therefore achieve the removal of large quantities of material. For economic reasons, large-scale series, for example in the automotive industry, are also machined using high-performance tools as they fully utilise the capacities of the machining centre.

The challenge: The larger and heavier the tools, the greater the effects of unbalance on the machining result – chatter marks and impurities in the surface are the result. Moreover, particularly with heavy-duty tools, the effect of unbalance substantially affects the lifespan of the tool spindle, meaning that the unbalance of the tools and their holders must be reduced accordingly.

VIRIO^{tool} Proven and robust technology

Due to the fact that many conventional machines are not optimised for this weight range, they are only partly suited for the balancing of heavy-duty tools.

The VIRIO^{tool} now offers a solution which balances tools up to 100 kg without limitations. The basis for this is a vertical balancing machine from our VIRIO series, which has been adapted for the balancing of tools. This machine concept distinguishes itself through an extremely modern, flexible balancing system, which thanks to its high serviceability, delivers impressive results – particularly for the balancing of tools – in everyday workshop and production situations.



Equipped with a vibration-reducing mineral case machine bed and a high-performance drive, the VIRIO^{tool} provides a solid and efficient base on which heavy-duty machining tools can be balanced.

Calibration runs are superfluous

The VIRIO^{too/} is permanently calibrated, allowing measuring runs to be started immediately after the input of the geometric data for your tool. In this way, you save time as well as money, and you are able to work with reproducible measuring results.





The practice-orientated manufacturing solution

Our pneumatic clamping system pulls the tool, or its holder, into the machine adapter under operating conditions, and as a result, even and reproducible tool seating is achieved. Thanks to this sophisticated adapter concept, the existing adapters of our Tooldyne balancing machine can be used without limitations.

Display of correction positions by an additional line laser





VIRIO^{tool}

assures with modern operating concept





Safe handling through modern operating concept

The VIRIO^{tool} is equipped with Schenck's proven SmartTouch balancing software of Tooldyne. Its users therefore work with the same measuring technology and user interface, and do not require further special training. This logically-structured operating concept convinces with its clear and distinctive display, as well as the touchscreen-coordinated symbols.

The protective cover enables simple and quick operation, and the upper working space also opens up for easy loading via a crane. Furthermore, the generous dimensioning permits the balancing of extremely large tools, and therefore provides significant reserves for future requirements.

Top measurement technology - simple handling and maximum perfection

Technical data

Rotor dimensions	– Max. rotor weight: 100 kg
	– Max. tool diameter: 800 mm
	 Max. tool length, from the spindle: 500 mm
	– Spindle speed: 800 rpm
	– Min. achievable residual unbalance: 0.5 gmm/kg per plane
	– Up to the limit of measuring uncertainty:
	for measurements on 1 plane, 4-10 gmm
	for measurements on 2 planes, 6-15 gmm
Machine data	– Dimensions (see drawing)
	– Total weight: 1,095 kg
	Connection to power line: 400V, 3 Ph ± 10%, 50/60 Hz
	Compressed air: 6 bar
	Drive power: 4 kW
	Protective cover according to ISO 21940-23 Class C60
	(Protection against ejected parts)
	Two-colour paint finish RAL7035 (light grey), RAL 7024 (graphite grey)
Measuring device	 with touchscreen operation
Accessories	 Printer for protocol printouts
	 Typical tool adapter e.g. for HSK 100/80/63 and SK/BT 50
	– more on request



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Balancing and Diagnostic Systems

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