

V 2 L - 40 L, VE 2 L - 5L Vertical Balancing Machines for the Aircraft Industry



- Simple, safe handling and small space requirement
- Balancing in one or two planes
- No calibration runs required due to permanent calibration
- High measurement accuracy through digital processing of measurement values
- Protective shrouds according to SAE standards

Range of application

Measurement and correction of unbalance in one or two correction planes in individual compressor and turbine discs, spacers, etc. for jet engines.

The series VE is designed for rotors that need to be balanced in only one plane.

These machines are used in manufacturing and overhaul workshops. Simple change over to other rotor types by exchanging tooling adapters and selecting the respective stored rotor file.

Manual unbalance correction in or out of the machine.

Design

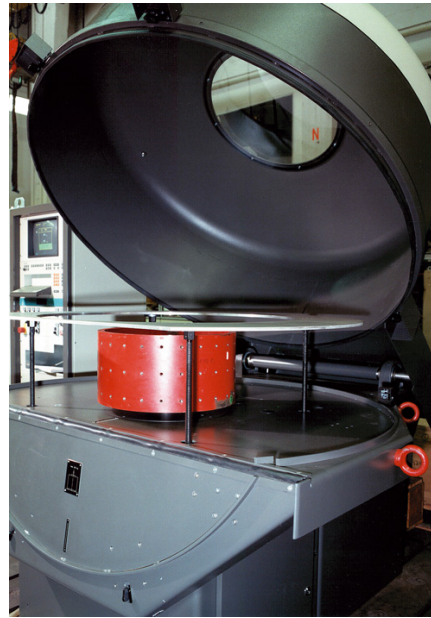
Force-measuring vertical balancing machine with permanent calibration and manual operating sequence.

Welded machine housing, balancing unit formed as a dynamometer system, with highly sensitive electrodynamic transducers, precision balancing spindle and drive motor. Control cabinet with operating elements and microprocessor measuring unit, protective shroud according to ISO 7475.

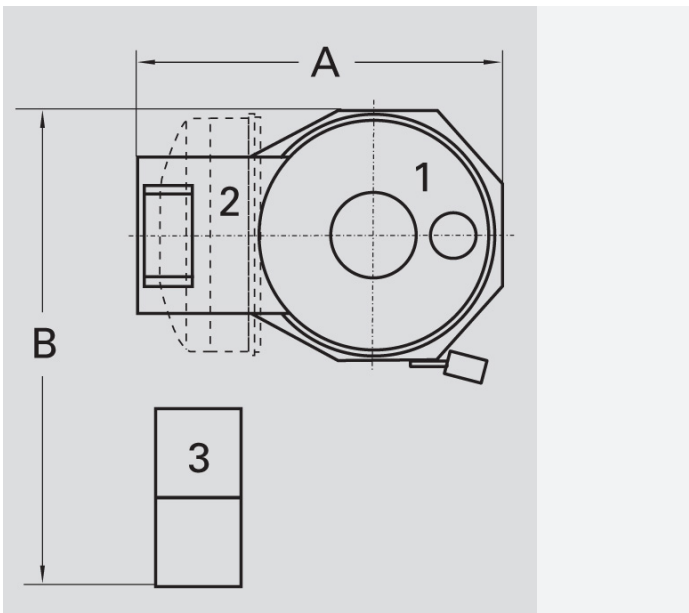
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Vertical, force-measuring balancing machines series V are specially designed for balancing compressor and turbine discs, seals, spacers, etc. for jet engines in one or two correction planes. The accuracy and large operating range of Schenck RoTec machines permits many balancing tasks to be covered by one machine, reducing the handling costs and increasing efficiency.



For jet engine rotors that are balanced in only one plane the VE series is the cost-effective solution. The vibration system here also operates according to dynamometer principles and permits permanent calibration of the measuring unit and high balancing accuracy.



1 Balancing machine
2 Protective hood
3 Control cabinet and measuring device
Plan view (non-binding example)

V 2 L - 40 L, VE 2 L - 5L

Vertical Balancing Machines for the Aircraft Industry

Technical data at a glance		VE1L	VE2L	VE3L	VE4L	VE40L	VE5L	V1L	V2L	V3L	V4L	V40L
Measuring unit		CAB 925	CAB 925	CAB 925	CAB 925	CAB 925	CAB 925	CAB 925	CAB 925	CAB 925	CAB 925	CAB 925
Protective shroud C600 acc. to ISO 7475		•	•	•	•	•	•	•	•	•	•	•
Balancing in one plane		•	•	•	•	•	•					
Balancing in two planes								•	•	•	•	•
Rotor description												
Weight	[kg]	0.3 - 10	0.5 - 25	2 - 60	5 - 150	10 - 300	15 - 500	0.3 - 10	0.5 - 25	2 - 60	5 - 150	10 - 300
Diameter, max.	[mm; inch]	406; 16	610; 24	990; 39	1448; 57	1178; 70	2082; 82	406; 16	610; 24	990; 39	1448; 57	1178; 70
Height	[mm; inch]	254; 10	254; 10	254; 10	508; 20	508; 20	610; 24	254; 10	254; 10	254; 10	508; 20	508; 20
Machine												
Width A	[mm]	2300	2300	2600	3400	4700	4900	2300	2300	2600	3400	4700
Depth B	[mm]	2800	2800	3100	5000	5400	5900	2800	2800	3100	5000	5400
Height C	[mm]	1700	1800	2100	2800	3200	3600	1700	1800	2100	2800	3200
Balancing speed, max.	[min ⁻¹]	2000	1500	1200	950	950	950	2000	1500	1200	950	950
Balancing accuracy	[mikroinch]	30	30	30	50	50	50	30	30	30	50	50
Test rotor	[lbs]	8	25	25	80	250	250	8	25	25	80	250
Air pressure	[kPa]	-	-	-	600	600	600	-	-	-	600	600
Drive power	[kW]	1.1	1.1	2.2	7.5	7.5	22	1.1	1.1	2.2	7.5	7.5
Order No.		R0470100.01	R0470200.01	R0470300.01	R0470400.01	R0470500.01	R0470600.01	R0470700.01	R0470800.01	R0470900.01	R0471000.01	R0471100.01
Order No.		-	-	-	R0470401.01	R0470501.01	R0470601.01	-	-	-	R0471001.01	R0471101.01
Drive locking equipment	Order No.	R0470102.01	R0470202.01	R0470302.01	R0470402.01	R0470502.01	R0470602.01	R0470702.01	R0470802.01	R0470902.01	R0471002.01	R0471102.01
SAE test rotor ARP4162	Order No.	R0470103.01	R0470203.01	R0470303.01	R0470403.01	R0470503.01	R0470603.01	R0470703.01	R0470803.01	R0470903.01	R0471003.01	R0471103.01
11 kW drive	Order No.	-	-	-	-	R0470504.01	-	-	-	-	-	R0471104.01
Report printout equipment	Order No.	R0470105.01	R0470205.01	R0470305.01	R0470405.01	R0470505.01	R0470605.01	R0470705.01	R0470805.01	R0470905.01	R0471005.01	R0471105.01

2) Alternatively also 1100 min⁻¹

3) Conformance to SAE ARP 4050 / 5323 with corresponding SAE test rotor

4) 1 lb = 0.456 kg

5) Tasks with an open shroud. Non-binding, dependent on the respective equipment delivery