

## HM 4 - HM 50 Horizontal Balancing Machines



- Universally applicable
- High balancing accuracy
- Easy to upgrade through modular construction and a wide range of accessories
- Hard-bearing principle ensures quick change-over from one workpiece to the next
- CAB 700 or CAB 920 measuring instrumentation with extensive operator prompting
- Full range of safety equipment for all protection classes

### Range of application

Universal balancing machines series HM are conceived for highly precise balancing of a wide spectrum of rotors. They are suitable for balancing cylindrical rotors with integral shaft journals and for balancing disc shaped rotors on balancing arbors.

Permanent calibration, ergonomic design and a logical operating sequence facilitate operation.

Their modular design principle and a wide range of accessories make the machine highly flexible.

Schenck universal balancing machines series HM are a highly efficient investment both for one-off rotors and for small batches.

### Sequence of operations

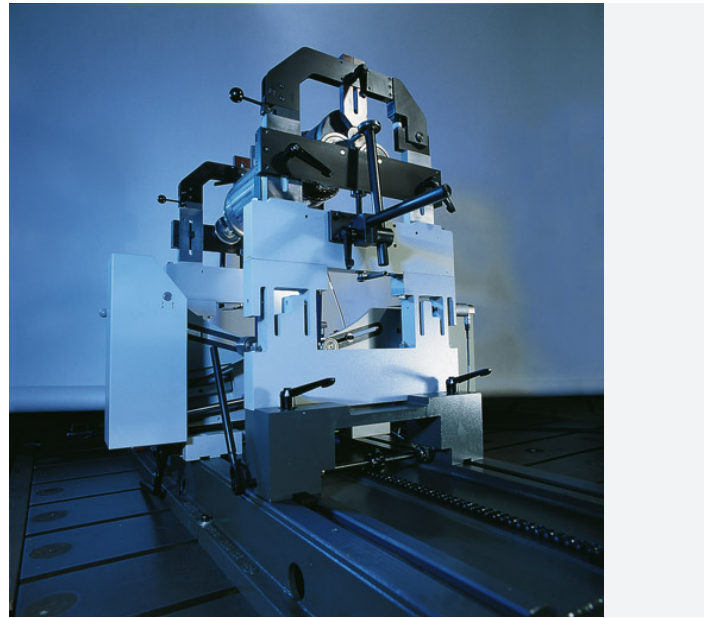
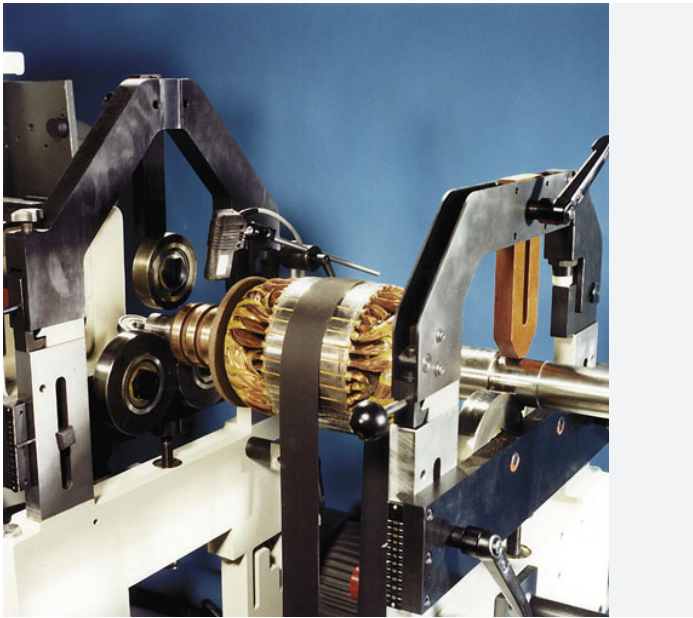
- Manually load work-piece on the bearing pedestals, close hold-down bearings and connect drive (belt drive or drive shaft)
- Close protection device and start automatic measuring sequence:
- Acceleration, determination and display of the unbalance on the measuring instrument, braking. The readout is retained on the measuring instrument even after the measuring run has ended.

- Open protection device, manually correct unbalance (if required).
- Check correction result (with measuring instrument displaying whether the tolerance has been achieved) and unload the rotor from the machine.

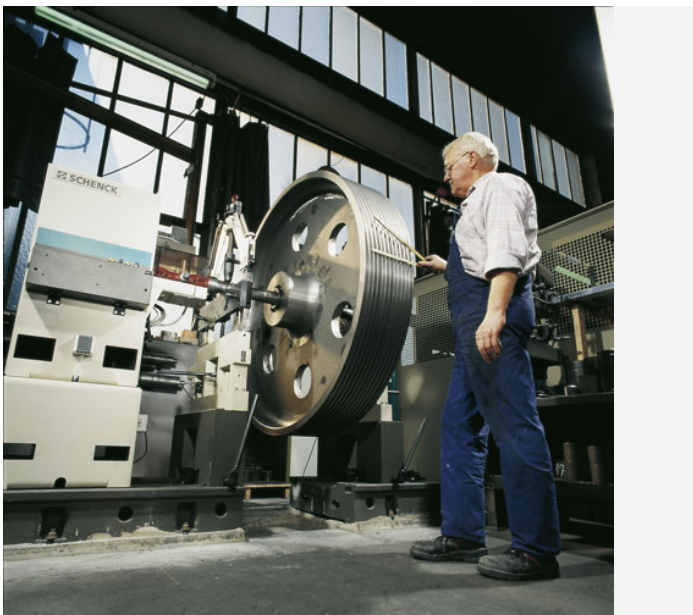
### Special features

- Easy to operate – hard-bearing principle eliminates the need for calibration runs
- Provides for correction in two planes or separate correction of static and couple unbalance
- Rotors can be mounted on their original shafts or on mounting arbors, optionally with mounted anti-friction bearings
- Angle indexing display in case of belt drive
- Automatic measuring cycle with infinitely variable settings for acceleration, measuring and braking time
- Upgradeable by many additional modules e.g. for mass correction

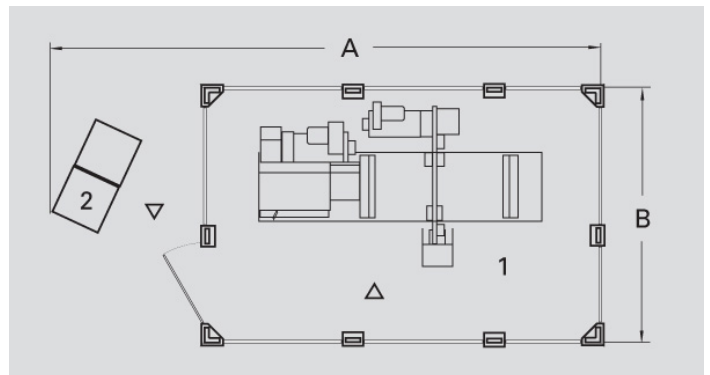
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HM bearing pedestals: Extremely slim and sturdy bearing pedestals guarantee high overall stiffness, high linearity and low damping. Use of the Schenck force-measuring principle, with the middle part of the bearing pedestal designed as a dynamometer. The sensors are arranged outside the force path and are therefore not affected by impacts. The shape of your rotors is an essential factor determining the selection of the drive system. Several drive systems can be combined on one machine.



Underslung belt drive (BU) ensures smooth running and universal applicability, whilst end drive (U) allows high drive powers.



1 Balancing machine  
2 Controls and measuring device  
Plan view (non-binding example)

## HM 4 - HM 50 Horizontal Balancing Machines

Technical data at a glance		HM 4	HM 40	HM 5	HM 50
Measuring instrument		CAB 700	CAB 700	CAB 700	CAB 700
Roller carriages		•	•	•	•
Underslung belt drive BU		•	•		
End drive				•	•
Protective device as per ISO 7475		•	•	•	•
<b>Rotor</b>					
Weight, max.	[kg]	1500	3000	5500	8000
Diameter, max.	[mm]	1600	1600	1600	1600
Bearing distance, max.	[mm]	1750	1750	2000	1980
Bearing journal diameter	[mm]	12 - 200	15 - 240	18 - 280	25 - 380
<b>Machine</b>					
Width A	[mm]	3150	3150	4200	4200
Depth B	[mm]	2700	2700	3750	3750
Height C	[mm]	2000	2000	2000	2000
Balancing speed, min.	[min <sup>-1</sup> ]	120	120	120	120
MARU	[gmm]	5	8	16	20
Air pressure	[kPa]	600	600	600	600
Power supply	[V]	400	400	400	400
Drive power	[kW]	7,5	7,5	7,5	7,5

Order-Nr.	R0060700.01	R0060800.01	R0060900.01	R0061000.01
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Order-Nr.	R0060701.01	R0060801.01	R0060901.01	R0061001.01
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Software options	Order-Nr.	o.r.	o.r.	o.r.	o.r.
Underslung belt drive BU	Order-Nr.	-	-	R0060203.01	R0060203.01
End drive	Order-Nr.	•	•	-	-
Various roller carriages	Order-Nr.	o.r.	o.r.	o.r.	o.r.
Report printer	Order-Nr.	R0060705.01	R0060805.01	R0060905.01	R0061005.01
Mass correction system	Order-Nr.	o.r.	o.r.	o.r.	o.r.

2) Other data on request

3) Main configuration: 3 / PE AC 500Hz 400 V +6 / -10%

4) Minimum achievable residual unbalance per balancing plane

A large industrial machine, likely a horizontal balancing machine, with a prominent rotating drum and various mechanical components. The machine is set in a clean, industrial environment.

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5) Up to HM10 with protection class C, in all other cases protection class B

o.r. On request