

Accelerated Polishing Machine

CRT-APM



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The Cooper-Wessex Accelerated Polishing Machine is the industry standard device for the determination of the Polished Stone Value PSV

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BRIEF INTRODUCTION

Wessex Engineering first manufactured an Accelerated Polishing Machine CRT-APM over 30 years ago, and were involved both in the development of the machine and the test procedures. Wessex has sold more than 1000 APMs globally.

In 1950 increased traffic flow and higher speeds, together with concerns about road safety led to research into the relationship between road materials and skid-resistance. Research at the UK Transport Road Research Laboratory showed a significant relationship between polishing of aggregates used in road surfaces and skid resistance. Tests were devised using an Accelerated Polishing Machine and a friction measuring device (known as the Pendulum Skid Tester, also supplied by Cooper-Wessex), to determine a Polished Stone Value (PSV).

Fourteen specimen aggregate samples are clamped around a rotating Road Wheel. These samples are subjected to two timed stages of abrasive polishing under a loaded rubber tyre. First by Corn Emery grit, and secondly by Flour Emery powder.

As the best quality market leaders Cooper-Wessex have recently been copied by low quality manufacturers. Imitators' machines may look similar, but precision, repeatability and reproducibility come only with years of experience.

KEY FEATURES

- High ground steel main spindle running in precision sealed ball bearings additionally protected by a labyrinth seal spindle axially loaded to eliminate end play.
- Adjustable 3 phase motor speed control with adjustable timing belt drive, reducing power consumption and improves control.
- Inverter drive to motor for precise speed control
- Digital display preset timer and revolution counter.
- Robust welded steel mainframe, standing on adjustable pads
- Specimens manufactured and easily removed from precision machined moulds.
- 14 Specimens located on 'Road Wheel' by rubber rings and held by simple side fixing.
- Tyred wheel easily removed for replacing tyres.
- Water gravity fed from high level tank through calibrated flow meter.
- Used abrasive and water collected in easily removable tray.
- Loaded tyre raised and lowered to the running surface by mechanical lifting device.
- Protection by covers and guards may be easily removed for maintenance.
- CE marked.
- ASTM option with pneumatic wheel.

KEY USES

- To produce polished stone samples of aggregates used in road surfaces, to simulate actual road conditions.

STANDARDS

- EN 1097-8:2009
(formerly BS 812 pt114: 1989)
- ASTM E303-93
- ASTM D3319-99

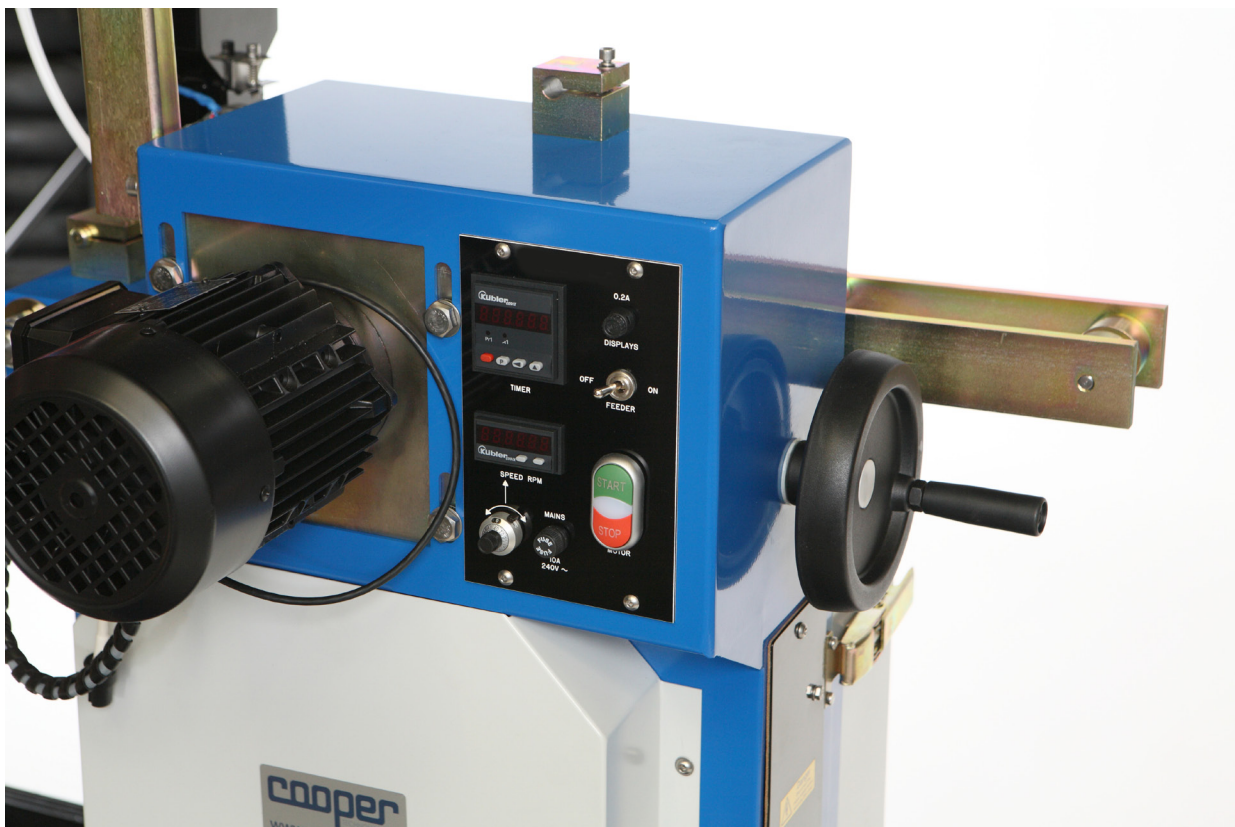
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SPECIFICATIONS

Road Wheel Speed	320 ± 5 rev min -1
Tyred Wheel Set Diameter mm	200 ± 3
Tyred Wheel Set Width mm	38 ± 2
Tyred Wheel Hardness	(69 ± 3) mm IRHD
Applied Load on the Wheel	(725 ± 10) Newton
Electrical Supply	230v/110v. 50/60 Hz Single Phase 13amp
Dimensions mm (WxDxH)	810 x 790 x 1230
Water Tank Height cm	155
Palletised Dimensions mm (WxDxH)	1200 x 800 x 1280
Weight (max) Kg	210
Volume cu meters	0.79



Accessories/Consumables

Accessories/consumables are not included in the price of the main device and may be purchased separately if required.

CRT-APM-886
Base Plate

CRT-APM-SAMP
Reference Sample – Moulded Criggion – Olivine Basalt

CRT-S882/190
Corn Emery 25Kg Bags (Graded)

CRT-S882/191
Flour Emery 25Kg Bags (Graded)

CRT-APM-S882/200
Control Stone 25Kg Bags (Ungraded)

CRT-APM-S882/201
Criggion Stone 25Kg Bags (Ungraded)

CRT-APM-S882/7
Road wheel assembly

CRT-APM-S882/1022
Corn Feeder 24 Volt

CRT-APM-S882/1023
Flour Feeder 24 Volt

CRT-APM-S882/0049
Weight BS EN 1097-8:2000

CRT-APM-S882/0049/ASTM
Weight American Standard

Calibration & Maintenance

Dispatched calibrated to EN 1097-8:2009 (accredited under ISO 9001:2000).

Calibration, Annual Service and Maintenance Contracts are available for this device. Please enquire for further details.

Note: This device should be checked annually.