

DATA SHEET

Advanced Automated Asphalt Saw, AUTOSAW II



General description

The cutting machines proposed in the market are normally standard saws for field use in the building industry, modified to clamp and to cut samples. They do not assure the rigidity and stability to obtain precisely specimens for laboratory use. For this reason we have designed and produced specifically designed Asphalt saws to fulfill the stringent requirements of the relevant Standards and, consequently, of the Research and Central laboratories.

The Autosaw is an automated specimen clamping and sawing system for fast, accurate cutting of beams from asphalt prisms prepared in the PReSBOX or slab compactor and for trimming cylinders from GALILEO, GYROCOMP, SERVOPAC and other gyratory compactors. An easy-to-use spacer system sets the specimen position and allows beams or cores to be cut without the need for measurement. The saw blade advances and retracts to the home position automatically. The Autosaw includes the multislab jig. Completed with the suitable accessory, can be used to cut also asphalt cores at the desired length. It can be fitted with 650 mm dia. blade with a maximum cutting depth of 200 mm and prism length of 500 mm (extendable to 700 mm, on request). Cutting speed is operator selectable for optimum specimen finish and throughput. The asphalt saw allows an easy-to-use sawing systems for fast, accurate cutting of beams for asphalt prisms to be used in the different tests. Complete with table and clamping device for slabs, water pump for cooling the blade and filtering system.

The **Autosaw** can be used as part of your **Superpave performance based testing** program.

Main features

- Touch screen CPU control allows for easy set-up including carriage speed and retraction sequence
- Intelligent system with adjustable limit switches allow for repetitive cuts with minimal carriage overtravel saving time
- Protection cabinet with several automatic locking access doors to ensure unparalleled safety and clean operation in laboratory environments.
- Slab and prism of any shape and dimensions can be sawn without additional accessories (see table for maximum dimensions)
- Pneumatic clamping of prisms and cores
- Compressed air gun for cleaning specimens and sawing system
- Easy spacer system allows precise preparation of beams or cores
- Automatic advance and retraction of saw blade to home position
- Adjustable cutting speed for optimum specimen finish and throughput
- Numerous interlocks to ensure operator safety
- Motor features dynamic braking to immediately stop while switched off
- Motor mounted on twin chrome-plated steel rails with sealed bearings
- Stainless steel water collection pan
- Unique clamping mechanism for cylindrical specimens minimizes specimen damage. Use of a sacrificial PVC tube produces a superior

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- finish and minimizes edge chipping
- Jig for round cores, 100 or 150 mm dia, with both automatic or manual feeding of the sample, length up to 200 mm, and jig for 200 mm dia. cores with manual feeding
- Quick and easy specimen set-up

Standards

- AASHTO R83
- AASHTO PP99

Specifications

Blade diameter	650 mm
Max cutting depth	200 mm
Cores*	100, 150 or 200 mm dia.
Prism length*	Max 500 mm
Accuracy	Length, perpendicularity and flatness +/- 1% max., according to Standards
Blade speed	1400-1680 rpm (50/60 Hz)
Blade traverse	0-200 mm/min (variable speed)
Blade retraction traverse	0-999 mm/min (variable speed)
Air supply for clamping	700 kPa min
Cutting advancement	Automatic speed control with variable stop and retract control sensors
Cooling	Water recirculation pump and stainless steel tank (included)
Power supply	5 kW
Voltage	400 V, 50 Hz, 3 ph or 220 V, 60 Hz, 3 ph
Dimensions (L x W x H)	2000 x 800 x 1700 mm
Weight approx.	650 kg

* Models suitable for cores 38 to 200 mm dia. and prisms up to 700 mm, available on request

Products

77-PV47105

AUTOSAW II, Automated universal asphalt saw, complete with asphalt multi-slab jig and protection cabinet. Blade not included. 400V/50-60Hz/3ph+N

77-PV47106

AUTOSAW II, Automated universal asphalt saw, complete with asphalt multi-slab jig and protection cabinet. Blade not included. 220V/60Hz/3ph+N

Accessories and consumables

77-PV47000/1

Diamond blade 650mm dia. for asphalt, suitable for Autosaw II and Multisaw

77-PV47000/2

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Sacrificial PVC tube for 100mm dia. cores

77-PV47014

Jig for round cores, from 38 to 200 mm dia, for Manual cut of samples from 10 to 300 mm length

77-PV47020

Jig for trapezoidal specimens, to be used in Two Point Bend test according to EN 12697-24A and 26A

77-PV47025

Jig for Wheel Tracking cores, Semi-Circular Bend test samples (except the notch) and Disk Shaped Compact Tension samples(except the notch and two holes). 77-PV47011 or 77-PV47014 are required.

77-PV47030

Jig for Overlay test samples according to TX-248-F(77-PV47011 or 77-PV47014 required)

77-PV47011

Universal jig for cores, for AUTOSAW II models only, to automatically perform single or double parallel cut on cores (100 or 150 mm dia., 10 to 200mm length), or manual cut on cores with diameter between 100 and 150 mm, 10 to 300 mm length