CONTROLS
www.controls-group.com

IPC global A Division of CONTROLS

WF WYKEHAM FARRANCE A Division of CONTROLS

DATA SHEET

Standard Asphalt Slab Roller Compactor

Asphalt slab roller compactor 77-PV41A02

Descripción General

The slab compactors can compact asphalt slabs to a target density applying specific loads corresponding to those of pavements rollers used in the highway construction. The slab can be used for:

- Wheel tracking test down to 38 mm thickness
- Cored to provide specimens for indirect tensile, static and dynamic creep tests
- Cut into beams for benfing fatigue tests

The slab compactors are proposed in two versions:

- Standard models
- Advanced models, which also satisfy the compaction procedure of EN 12697-33 and include other important features.

Electromechanical slab compactors feature a compacting system by roller segment head radius 535 mm. The roller segment freely moves by simple friction for better compaction uniformity. A brushless motor (standard models), or stepper motor (advanced models) moves vertically the roller segment under displacement control. the vertical load is applied orthogonally to the axis of the travel motion. the mould carriage moves back and forth by linear movement. The longitudinal (major) mould dimension correspond to the compaction direction so it is possible to obtain specimens of the proper lenght conforming to Standards. The lifting machine cover permit an easy access to the mould area. In the "rest" position, the mould is close to the operator for easy positioning while the roller segment is lifted and positioned at the back of the machine.

The Electromechanical slab compactor can be used as part of your **Superpave performance based testing** program.

Caracterìsticas Principales

- Completely electromechanically operated
- Conforming to ASTM D8079
- 8” touchscreen controlled
- Automatically compacts in displacement controlled mode up to target density/height or up to the (user selectable) load limit
- Mould dimensions: 500 x 400, 500 x 300, 400 x 300, 300 x 300 and 320 x 260 mm, 195 mm height
- Compaction direction in the longest (major) mould dimension to obtain specimens of the proper length conforming to Standard
- Vertical balanced of sliding cover for easy access and complete three side view
- Maximum compaction load 30 kN
- User defined controlled linear speed up to 300 mm/sec and adjustable pause at the mould inversion point

DATA SHEET

- Ideal for producing test beams for 4-Point bending (EN 12697-24, EN 12697-26, AASHTO T321) and slabs down to 38 mm
- Adjustable heating control system of the sector heads available as option
- Vibrating roller option, adjustable from 10 to 50 Hz
- *PRO-COMPACT closed-loop control slab

PRO-COMPACT closed-loop is an innovative mechanical and electronic control that combines orthogonality of the load, pendulum motion of the head and sinusoidal non-friction forward-reverse carriage movement. This results in an optimally compacted sample that features Planarity Regularity and hOmogeneity (PRO).
The software is able to combine a load/displacement compaction. This procedure provides at the beginning of the test a controlled displacement compaction, which can grant a flat surface of the compacted slab, followed by a load compaction phase, which can replicate the real compaction on the road surface.

Normativas

• ASTM D8079

Specifications

Models	**77-PV41A02** **77-PV41A04**
Machine control	- Vertical displacement of the roller segment by brushless motor measured directly by encoder to verify in real time the specimen thickness - Machine fitted with sensors to confirm the mould in position and for the automatic set-up of the horizontal travel
Firmware	Set up of compaction procedure with displacement control with load, density or thickness limit. - Selection, customization and storing of test parameters - Customization of the compacting procedure to be saved and recalled from the data base - Graphic display of roller vertical displacement vs. number of passes - Possibility to pre-set a load threshold to start compaction at the contact of the sector head with the specimen
Max. vertical force	30 kN
Compacting device	Roller segment, radius 535 mm

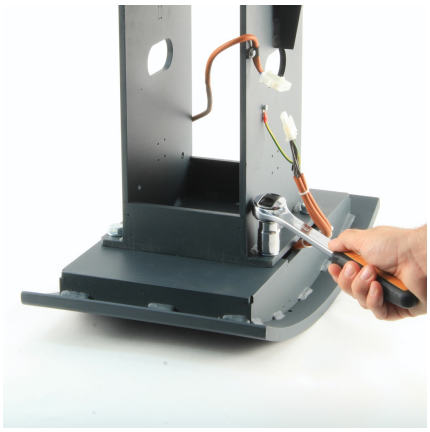
DATA SHEET

Back and forth horizontal travel	Adjustable: 300/320 mm 400 mm 500 mm By control panel
Trolley speed	Adjustable up to 300 mm/s Adjustable pause at inversion point
Mould dimensions*	320 x 260 x 195 mm 300 x 300 x 195mm 400 x 300 x 195mm 500 x 300 x 195mm 500 x 400 x 195mm
Roller vibration	Yes, adjustable frequency from 10 to 50 Hz (optional)
Heated foot	Yes (optional)
Electrical supply	220 V, 50 Hz, 1 ph, or 110 V, 60 Hz, 1 ph
Power rating	3000 WE
Overall dimensions (l x w x h)	1300 x 800 x 2040 mm
Weight approx.	650 kg

*To produce slabs down to 38 mm thickness. Maximum slab thickness varies with bitumen mixes composition.

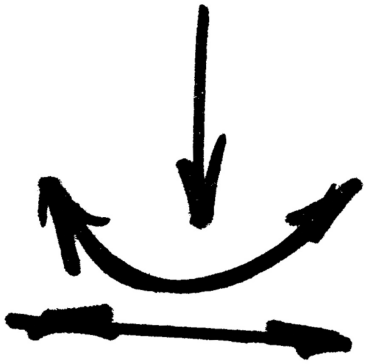
Pro-compact produces optimal slabs

DATA SHEET



Detail of interchangeable sector head for slab compactor

Planarity, Regularity and homogeneity of the slabs produced by the roller compactor



PRO-COMPACT pendulum motion

DATA SHEET

Detail of the touchscreen display

Productos

77-PV41A02

Standard multi-size electromechanical slab compactor. 230V/50-60Hz/1ph

77-PV41A04

Standard multi-size electromechanical slab compactor. 110V/60Hz/1ph

Accesorios y Consumibles

77-PV42001

Interchangeable sector head to produce slabs 320 mm long x 260 mm wide
77-PV42011

Interchangeable sector head to produce slabs 320 mm long x 260 mm wide. Complete with heating system
77-PV42102

Steel mould 320x260 mm, 195 mm high, to be filled at 155 mm max, for PV41XXX electromechanical slab compactor
77-PV43001

Interchangeable sector head to produce slabs 300 mm long x 300 mm wide
77-PV43011

Interchangeable sector head to produce slabs 300 mm long x 300 mm wide. Complete with heating system
77-PV43012

Compaction sector head heating system for 77-PV41C0x and 77-PV41A0x series
77-PV43042

Motor vibrator roller option. For 380V/50Hz/3ph, 220V/60Hz/3ph, 110-230V/50-60Hz/1ph models.
77-PV43102

Steel mould 300x300 mm, 195 mm high, to be filled at 155 mm max, for PV41XXX electromechanical slab compactor
77-PV44001

Interchangeable sector head to produce slabs 400 mm long x 300 mm wide
77-PV44011

Interchangeable sector head to produce slabs 400 mm long x 300 mm wide. Complete with heating system
77-PV44102

Steel mould 400x300 mm, 195 mm high, to be filled at 155 mm max, for PV41XXX electromechanical slab compactor
77-PV45001

Interchangeable sector head to produce slabs 500 mm long x 300 mm wide
77-PV45011

Interchangeable sector head to produce slabs 500 mm long x 300 mm wide. Complete with heating system
77-PV45102

Steel mould 500x300 mm, 195 mm high, to be filled at 155 mm max, for PV41XXX electromechanical slab compactor
77-PV46001

DATA SHEET

Interchangeable sector head to produce slabs 500 mm long x 400 mm wide
77-PV46011

Interchangeable sector head to produce slabs 500 mm long x 400 mm wide. Complete with heating system
77-PV46102
Steel mould 500x400 mm, 195 mm high, to be filled at 155 mm max, for PV41XXX electromechanical slab compactor