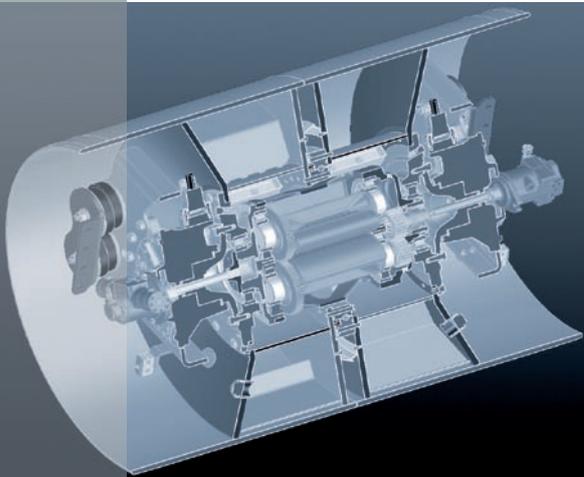


**BOMAG pivot-steered tandem rollers.
Performance perfection.**



High performance capability, excellent manoeuvrability, superb operator comfort and ease of handling plus extra versatility – these are features common to modern compaction equipment. However, BOMAG pivot-steered tandem rollers have now extended the boundaries of excellence. They are the point of reference for top compaction performance and deliver unbeatable quality and productivity. And the proven measuring and control technology of the BOMAG ASPHALT MANAGER offers even greater workmanship and quality benefits. Combined with the new target value control, it guarantees the highest standard of effectiveness.



Pivot-steered tandem rollers in the AP series.

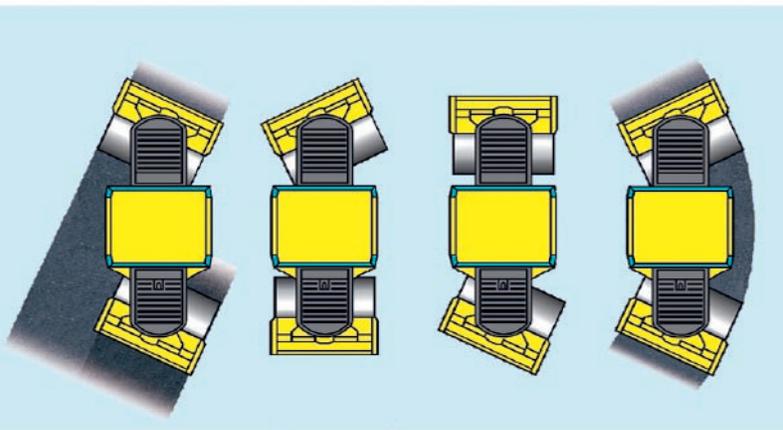
Pivot-steered tandem rollers in the AP series are the ultimate precision machines. They embody the full expertise of the global market leader to produce maximum on-site efficiency.

- **Economy.** Lower compaction costs per tonne of placed material.
- **Cost-efficiency.** Optimised sprinkling from water-saving high-performance nozzles.
- **Flexibility.** A total of four steering modes for accurate handling.
- **Auto-quality.** Automatic compaction control with ASPHALT MANAGER.
- **Power.** Exciter system with amplitudes of up to 0.80 mm.
- **Eco-friendly.** Efficient KUBOTA engines meet the latest Emission Standards and are even more economical with BOMAG ECOMODE.
- **Safety.** The water tanks are installed under the cab for high stability against over-turning and easy filling.
- **Precision.** Outstanding all-round visibility to drum surfaces and edges.
- **Design.** Special drum geometry for perfect placement.
- **Networked.** Fail-safe electronics with CAN BUS technology.
- **Comfort.** Operator's cabin with an exceptional operating concept, heating, federal motor safety standard lighting, brake release device and CE conformity.



Pivot steering: precision handling.

Pivot steering – with two separately steerable drums for precision work and added mobility – essential features for easy operation on sites with limited working space. The operator has no less than four steering modes to choose from.



Four steering modes: diagonal, front, back, synchronised.

The optional automatic setting ensures that the front drum always steers irrespective of the drive direction. With extra steering modes, BOMAG pivot-steered models are ideally suited for work on small and medium-sized contracts. However, pivot-steering also offers advantages on large-scale work due to high output potential and outstanding driver comfort.

Roller weight can be more widely distributed, for example, on sensitive and thin layers by offsetting the drums on each side by up to 1,350 mm – the crabwalk feature. And of course crabwalk can be combined with any of the four steering modes, so that sensitive mixes can be compacted without difficulty and large tonnages of asphalt can be compacted quickly. And there's more: crabwalk increases safety and stability when it's needed, such working close to edges or on angled slopes.

So what happens when steering the roller around bends in crabwalk mode? The patented steering system reduces the crabwalk when working on bends. The driver doesn't need to worry about manual corrections with BOMAG's adaptable steering control.

Crabwalk allows drum offset on both sides by up to 1,350 mm.





Special drum geometry produces seamless transition points



... and avoids tearing of the asphalt.

Split Drums for a better finish.

The drums are not only the contact point with the surface material, they also house the heart of every asphalt roller: the exciter system. All BOMAG pivot-steered asphalt rollers feature split drums front and back. Why? Because this design reduces shearing stress in the asphalt. Shearing occurs on tight bends and can lead to cracks in the surface. Specially developed BOMAG drum geometry ensures uniform compaction and greater evenness.

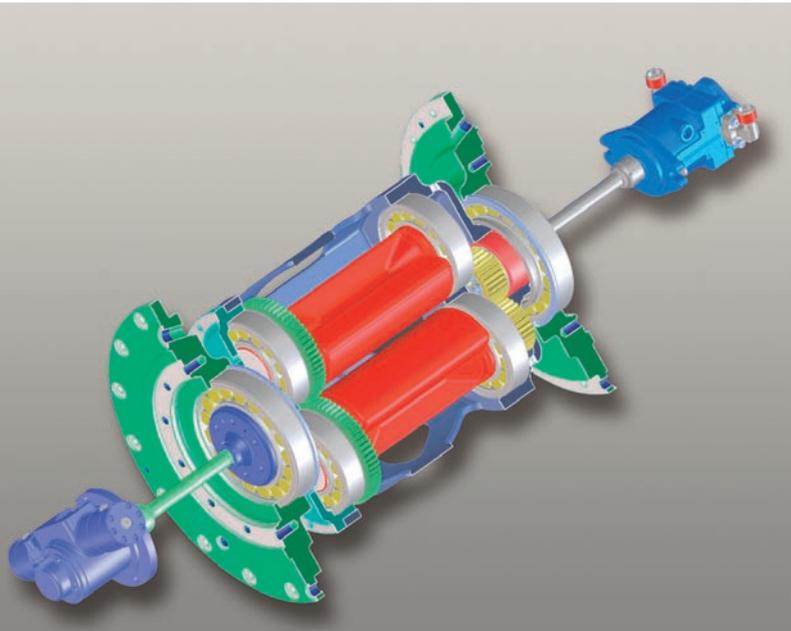
The exciter system. The heart beat.

BOMAG asphalt rollers in the AP series feature the option of circular or directed vibrator systems (used on the BOMAG ASPHALT MANAGER). Fine-tuned compaction output with amplitudes of up to 0.80 millimetres guarantee higher performance. This is compaction power that can be sensitively applied if necessary, on bridges or in inner-city areas. For example: in two stages for rollers with a circular exciter, and progressively and automatically on rollers with BOMAG ASPHALT MANAGER.



Split drums reduce shearing stresses around tight curves, and the potential for asphalt surface tearing is reduced.

BOMAG ASPHALT MANAGER: The benchmark for auto-compaction control.



Double exciter: Variable direction of forces from two counter-rotating, adjustable eccentric weights (marked red).



BOMAG offers the directed vibrator system, combined with BOMAG ASPHALT MANAGER, in both the 7t and 10t classes. The concept uses two counter-rotating, adjustable eccentric weights. If the weights point in the same direction, centrifugal forces increase whereas they are reduced as soon as the eccentric weights move into counter-directional positions.

Turning the entire exciter system including eccentric weights changes the direction of amplitude which can be adjusted infinitely between vertical (deep penetration high-performance compaction) and horizontal (sensitive, low-vibration surface compaction). This produces the right level of compaction needed or allowed for the material type and thickness, or for the subsurface and surrounding area. This means: care when necessary and power where possible. The exciter system features minimal start-up and short response times, producing even surfaces from the "first metre" onwards.

The directed vibrator system can produce highly sensitive surface compaction, such as on bridge work.

Automatic measurement and control.

The heart of this technology is the infinitely adjustable directed vibrator.

Dynamic stiffness E_{VIB} in MN/m² is calculated as the reference or comparative value. The acceleration transducer on the front drum uses measuring technology to detect the interaction between asphalt and drum with increasing compaction; this interaction is then regulated by a rapid control circuit. The compaction force is automatically adjusted to the stiffness of the material being compacted. The amplitude is regulated under directly using the E_{VIB} value, supported by the new target value control. A central operating and display unit, the BOP (BOMAG Operating Panel), continually displays the dynamic stiffness and compaction progress to the roller driver. It also supplies information about surface temperature, travel speed, exciter frequency and effective amplitude. And the best about this is: The system is really easy to operate with an uncomplicated menu.

In automatic mode, the system takes only fractions of a second to adjust the compaction output, so providing optimum compaction at all times. Drum bounce and operating errors are eliminated. The direction of vibration is always synchronised against the travel direction of the roller to prevent the formation of bow-waves. This can occur on certain types of asphalt particularly when the aggregate mix proportions are low.

The ASPHALT MANAGER can also be supplemented with other modules. The technical requirements for surface covering compaction control are enhanced when combined with BOMAG COMPACTION METER (BCM) and satellite supported location system GPS. This means that all compaction data for a construction project can be recorded, processed, administered, graphically displayed and when necessary printed out on-site.

A site can be documented over its surface with the "BCM 05-Mobile" and BOMAG evaluation software "BCM-05 Office".



Performance by design.



Power-pack: the 4-cylinder Kubota engine with direct fuel injection.

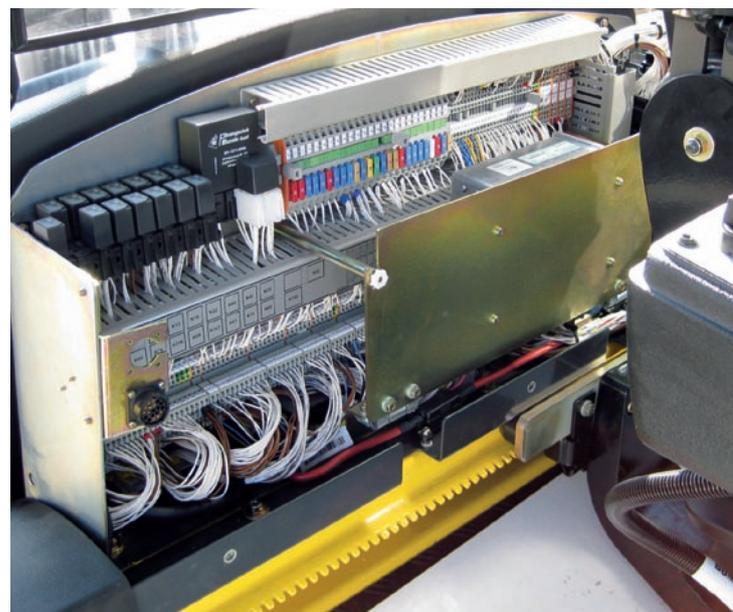
Electronics: networked data with CAN BUS.

The BW 154 AP or BW 174 AP rollers contain a host of features, even if the driver is unaware of some due to intuitive controls. A multitude of control signals are detected in real-time, passed on and processed. For quick and safe changes to travel and operating conditions, the signal transfer on all pivot-steered asphalt rollers uses the latest CAN BUS technology. This allows full networking of the entire electronics system, rapid error detection and standardised interfaces. Vibration-proof terminal technologies, reliable plug-in connections and abrasion-resistant cable surfaces ensure operating reliability even under the hardest on-site conditions.

Engine: the intelligent use of force.

All pivot-steered BOMAG rollers use powerful 4-cylinder KUBOTA engines with direct fuel injection, turbo charger and 4-valve technology. These units feature even generation of power with low fuel consumption and low CO2 emissions plus outstandingly quiet running and reduced noise output overall. Naturally the machinery meets strict Emission Standards EPA TIER III and TIER IV interim as well as EU Level IIIA.

BOMAG ECOMODE ensures clean operation as standard. Active engine management provides the roller driver with power only when he needs it, and reduces power when the application permits. Combined with a sophisticated control, the intelligent sensor system immediately detects the necessary power requirements; the engine speed of this tried and tested Kubota engine is then automatically adjusted. This greatly alleviates the levels of noise experienced in the cabin.



Control centre: electronics located behind the operator's seat.

Sprinkler system: Clean drums.

Five (BW 154 AP series) or six (BW 174 AP family) water nozzles are integrated in the front and rear cross bar protected from the wind; their job is to spray an even film of moisture over the drum and prevents asphalt sticking to the surface. Two independent sprinkler pumps deliver water from the connected tanks to the nozzles. If one pump fails, the second pump takes over and supplies all water demand.

The water tanks are mounted beneath the driver's cab. Filling the tanks is an easy job carried out conveniently and safely from ground level. The machine's centre of gravity is also reduced, increasing stability. Heat from the engine assists with ice-free work on cold days. Drivers also benefit from this design with good visibility over the drums.

Other features:

- Multi-stage interval switch for accurate water metering – up to continuous output
- New nozzle concept: for a perfect spray pattern and reduced water consumption
- Optical and acoustic early warning system for low water
- Triple water filtering increases service life
- Simple and quick tank, pumps and pipe emptying to avoid frost damage



High-performance nozzles provide even spray to the drum surface.

Inner strength – the BOMAG operating concept.

Machine user friendliness has a big influence on how much performance potential is actually available. The roller needs to be intuitive and easy to handle. This helps avoid errors and improves workmanship.

This begins from the first contact with the machine. Development engineers at BOMAG have analysed movements and work habits, and then designed the cab to meet these needs. The impressive result is a truly intelligent, feel-good workplace: The driver has no unnecessary switches or convoluted information menus. Instead, all relevant operating controls are always within reach –

irrespective of the numerous adjustment options inside the modern BOMAG cockpit.

Together with a multifunctional travel lever, optimally designed to fit the shape of a hand, the active armrest system is an excellent arm support and makes controlling the roller less tiring.

An air of comfort – the operator's platform features high levels of comfort, clarity and easy operation.





Modern design using digital display for all important functions. A round gauge for AP type rollers ...



... and LC display for rollers with BOMAG ASPHALT MANAGER.

Better workmanship with easy handling.

- A spacious cab with panorama window (inc. rear windscreen heating) for an unobstructed view over drums and edges; window extensively hinged and adjustable to allow ventilation
- Generous projecting roof with rain gutter for a clear view in poor weather conditions
- Even platform floor without seat guide rails for quick and easy cleaning
- Clear, glare-free display with screens for:
 - Engine speed (AM version)
 - Travel speed,
 - Tank display,
 - Water level,
 - Warning and error messages,
 - Service and diagnosis codes
- Mini steering wheel and other important functions integrated into the armrest
- Ergonomically shaped multi-function lever



Generous projecting roof for better visibility.



The foot-operated seat can be easily shifted across a wide range – the armrest projects out of the window at the extreme limit.

The result: a relaxed seat posture with a view of the mat edges.

Easy handling is in-built here.

The deluxe seat on the BW 154 and BW 174 models offers wide adjustment options for every driver's seating comfort.

The seat can be rotated by up to 270°, shifted sideways or adjusted in height – this BOMAG deluxe seat can be adjusted to suit every operator perfectly.

The curved arm consoles can be adjusted to different operator heights and provide good support. The control elements are integrated into the arm consoles making them comfortable and easy to reach irrespective of the seat position, so long work days are less tiring.





A matter of perspective: the deluxe seat can be adjusted for any driver.



Finger tip controls: precise steering using the mini steering wheel.

Settings, left-hand armrest:

- Mini steering wheel
- Steering mode
- Crabwalk
- Sprinkler settings

Settings, right-hand armrest:

- Options (service, chip spreader, edge cutter)
- Travel speed
- Preselect amplitude
- Automatic or manual vibration mode
- EMERGENCY STOP button

Other seat features:

- Can be conveniently and easily shifted across the entire width of the cab using a foot bracket
- Easy adjustment with smooth roller bearings
- Adjustment options for seat height, driver's weight and seat back position
- The 180° rotatable seat is extremely convenient and above all ergonomic, in particular for precision work with attached equipment (precision spreader BS150 / BS180-2, KSG on the rear drum).

Key settings: vibration, work modes and travel speed are always close at hand.



Options – for special work.



Edge cutter for a clean edge.



Optional lighting for the drum edge.



Single or multi-coloured – BOMAG can supply almost any colour scheme.

In addition to a comprehensive standard specification, BOMAG also offers a wide range of options in both the 7t and the 10t class.

Edge cutters, ECs for short are used to give a clean cut on surface mat edges or when compacting binder and base layers. The ECs are equipped as standard with drum edge lighting for night-time deployment and can be supplemented with a guide rod for precise cutting of asphalt edges. And there is a range of special cutting discs and pressure rollers for different jobs. Handling? Control is from the cockpit where the driver has an unbroken view of the EC.

Customised paint work is a popular choice. So BOMAG offers customers a virtually unlimited range of paintwork on the BW 154 and BW 174. Special paint is available in several different colours.



BOMAG also offers all pivot-steered asphalt rollers as an ACP combination version for careful rolling and kneading effect on asphalt.

The 7 t pivot steered roller is also available as a BW 154 ACP-4 combination roller. On combination rollers the rear steel drum is replaced with four smooth tyres giving optimum asphalt surface contact. Advantage: careful rolling and kneading effect on asphalt. High wheel loads of over 900 kg per tyre (BW 154 ACP) or over 1,000 kg per tyre (BW 174 ACP) produce high compaction performance. Large tyre diameters create greater evenness at the surface.

Combination rollers also feature higher gradeability. In addition to standard water tanks, a generously sized central tank with direct pressure sprinkling is mounted over the tyres. Pivot-steered combination rollers may also be equipped with BOMAG ASPHALT MANAGER or a precision chip spreader.

Other options:

- Air-conditioning
- Bio-hydraulic oil
- By-pass filter
- Radio or fittings for a radio
- Drum edge lighting
- Work and service lights
- Special back-up warning buzzer with broadband technology ("white noise")
- Flashing beacon
- Only on combination rollers: thermal aprons and special tyres
- Only on AP rollers: asphalt surface temperature display

	AP	AP AM	ACP	ACP AM
BW 154	Tandem roller: split smooth drum with circular exciter front and rear	Tandem roller: split smooth drum with directed vibrator at front and circular exciter at rear	Combination roller: split smooth drum with circular exciter at front and rubber tyres at rear	Combination roller: split smooth drum with directed vibrator at front and rubber tyres at rear
BW 174				

Up close: precision chip spreader for uniform surface dressing

To increase skid resistance on asphalt surfaces, pivot-steered BOMAG rollers can be fitted with an optional precision chip spreader. Based on patented vibrating screen technology the spreader provides exceptionally even and precise spreading at a defined rate. The spreading widths are max. 1.50 metres (BS 150) or max. 1.80 metres (BS 180) and are variable in between.

The spreader's angle of inclination can be altered during travel so that spread rates are adjusted as specified, irrespective of chip type, travel speed or the nature of the base, giving an consistent spread placement. Chip loss at edges is avoided as are overlapping tracks and over-spreading.

The BOMAG precision chip spreader: Features

	BW 154 series inc. combination rollers: BS 150	BW 174 series inc. combination rollers: BS 180
Empty weight (spreader with supporting frame):	560 kg	640 kg
Tank volume	550 l	900 l
Filling height	1,43 m	1,50 m
Spreading width	max. 1,50 m	max. 1,80 m

Customers may also specify hydraulic lateral displacement which moves the unit quickly to the side limits without having to turn the roller. A quick change device makes assembly and disassembly quick and easy.

The hopper is mounted on to the supporting frame and connected electrically and hydraulically to the roller using quick couplings. If necessary, the spreader can be dismantled in a few minutes and stored safely against overturning. A standard filler filter prevents damage from external particle ingress and allows rapid cleaning of the hopper.

Other features:

- Patented linear exciter with proven and highly accurate vibrating screed technology
- Federal motor safety standard-compliant lighting with light guard to protect against impact damage
- Reinforced parking skids or jacks for secure positioning
- Easy adjustment of the spread rate through hydraulic pivoting
- Spreading width regulator for exact control of spread width
- Safe operation of unit from the operator's platform (switches integrated into the arm console or travel lever)

The BS 150 and BS 180 precision chip spreaders are suitable for all conventional chippings, including double-crushed chips 2/5 and 1/3 as well as screenings particle size 0/2.

The large pivot range allows secure loading of the entire roller onto low-load trailers. The precision chip spreader doesn't have to be transported separately.



Advantages.

Fitted with the optional BOMAG ASPHALT MANAGER, these pivot-steered models deliver high compaction for deep-penetration compaction work or low vibration for use on sensitive areas such as on bridges. With pivot steering, they are able to meet the tightest specifications for tolerance and compaction with perfect ease of handling.



Service and maintenance.

The high-economy Kubota engine is mounted lengthways directly beneath the driver's cab. The water tanks are integrated into large swing doors which can be opened fully for easy access to the engine and all service areas such as wear parts

or air and hydraulic filters. A range of Service Kits is also available combining all parts needed for regular servicing and maintenance. Only BOMAG original parts specific to these models are used, to reduce unwanted downtime.

In addition to long service intervals and low servicing costs, the central BOMAG service department and global service network keep BOMAG rollers running smoothly where-ever they are working.



BOMAG Service Kits contain only BOMAG original parts.

Profitability.

Value for money – not just the purchase price; value also includes the running costs, resale value, ease of servicing and replacement parts' supply. The outstanding performance BOMAG models BW 154 or BW 174, combined with low running costs, emphasise the cost cutting potential of these rollers. Cutting-edge technologies and high quality materials and production save BOMAG users time and money.

Sustainability and responsible use of resources are standard policy at BOMAG and apply to every BOMAG product. As a result, our pivot-steered rollers can be operated with bio-hydraulic oil without limitation. Plastic parts are fully recyclable and machine noise levels are among the lowest on the market.

BOMAG rollers are renowned for less downtime, and this derives from more than 50 years experience in compaction technology and the expertise of the global compaction leader. This plus CE conformity contributes to higher BOMAG resale values.

Customers throughout the world trust the BOMAG name.

The company has been part of the FAYAT Group since 2005. BOMAG has six branches in Germany and eleven independent subsidiary companies around the globe. More than 500 dealers in over 120 countries offer distribution and support for BOMAG equipment.



Head Office / Hauptsitz:
BOMAG
Hellerwald
56154 Boppard
GERMANY
Tel. +49 6742 100-0
Fax +49 6742 3090
info@bomag.com

BOMAG Maschinen-
handels-gesellschaft m.b.H.
Porschestraße 9
1230 Wien
AUSTRIA
Tel. +43 1 69040-0
Fax +43 1 69040-20
austria@bomag.com

BOMAG (CANADA), INC.
3455 Semenik Court
Mississauga
Ontario L5C 4P9
CANADA
Tel. +1 905 361 9961
Fax +1 905 361 9962
canada@bomag.com

BOMAG (CHINA)
Compaction Machinery Co. Ltd.
2808 West Huancheng Road
Shanghai Comprehensive
Industrial Zone (Fengxian)
Shanghai 201401
CHINA
Tel. +86 21 33655566
Fax +86 21 33655508
china@bomag.com

BOMAG France S.A.S.
2, avenue du Général de Gaulle
91170 Viry-Châtillon
FRANCE
Tel. +33 1 69578600
Fax +33 1 69962660
france@bomag.com

BOMAG (GREAT BRITAIN), LTD.
Sheldon Way
Larkfield, Aylesford
Kent ME20 6SE
GREAT BRITAIN
Tel. +44 1622 716611
Fax +44 1622 718385
gb@bomag.com

BOMAG Italia Srl.
Z.I. Via Mella, 6
25015 Desenzano del Garda (BS)
ITALIA
Tel. +39 030 9127263
Fax +39 030 9127278
italy@bomag.com

BOMAG Japan Co. Ltd.
12-7, Daidoh-Cho 2-Chome
Akashi-City
Hyogo-Pref 673-0029
JAPAN
Tel. +81 78 924 1631
Fax +81 78 924 1633
japan@bomag.com

BOMAG Polska Sp. z o.o.
Ul. Szyszkowa 52
02-285 Warszawa
POLAND
Tel. +48 22 482 0400
Fax +48 22 482 04 01
poland@bomag.com

Representative office
of BOMAG GmbH
Leningradsky prospect, h.72, b. 4
Office 2307
125315 Moscow
RUSSIA
Tel. +7 (495) 287 92 90
Fax +7 (495) 287 92 91
russia@bomag.com

BOMAG GmbH
300 Beach Road
The Concourse, #38-03
Singapore 199555
SINGAPORE
Tel. +65 6 294 1277
Fax +65 6 294 1377
singapore@bomag.com

BOMAG Americas, Inc.
2000 Kentville Road
Kewanee
Illinois 61443
U.S.A.
Tel. +1 309 8533571
Fax +1 309 8520350
usa@bomag.com



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FAYAT