

ATLAS Teamwork: ATLAS Teamwork:

Reliable and multifunctional.



The ATLAS product range

When it comes to earth moving tasks and soil compaction, the ATLAS product range leaves nothing to be desired. What is more, alongside our new ATLAS compaction rollers, we take pride in our renowned ATLAS wheel loaders for lots of further applications. Our machines are strong and reliable as well as versatile and made-to-measure in all available categories and individual variants. Welcome to the team!



Subject to technical alterations.

ATLAS Compaction Rollers: your most powerful team partners.

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WEYHAUSEN

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ATLAS Teamwork:

Ideal new teammates emerged from a fine tradition: ATLAS Compaction Rollers.

For more than 30 years, F.Weyhausen AG & Co. KG has been producing compact wheeled loaders for various fields of application. The remarkable ATLAS wheeled loaders are appreciated as reliable partners in areas such as construction, gardening and landscaping, agriculture, material handling and recycling all over the world.

As an independent medium-sized traditional German company, we still believe in the values which provide the basis for our success: a well-trained and highly motivated staff as well as high-class components for excellent products.

At the same time, we face the ever-changing challenges of the market by encouraging and constantly implementing innovations. Many developments which are taken for granted today can be traced back to their origin at ATLAS Weyhausen, ranging from the first self-acting backhoe-loader to the ATLAS diagnosis system which allows for a permanent supervision of the machine.

Thanks to our lean company structure, we can act in a particularly efficient way in order to offer a versatile product range at fair conditions. Last but not least, we cultivate close and friendly relationships - both among our staff and with our customers and suppliers.

These company principles are reflected in our new product line of compaction engineering: ATLAS compaction rollers are equipped with solid, innovative technology and all features concerning their handling and maintenance are the result of elaborate and thorough planning and construction processes. Eight models with an operating weight ranging from 2.4 tons to 14 tons meet the different requirements of areas such as road and motorway construction, industrial foundation works as well as the construction of dikes and embankments.

Thus, not only does Atlas Weyhausen still set the benchmark for the construction of wheel loaders, but experiencing the outstanding quality of our new compaction rollers will surely convince you that we keep the promise that has been associated with our name for decades: Teamwork you can rely on.



Heinrich Puls,
Management Engineering
Compaction Rollers at
ATLAS Weyhausen

“Our challenge was to develop a team partner which ensures excellent compaction results. Based on our experience, we were able to come up with solutions that make sure that nothing can unhinge the machines, no matter what uses it is put to. Teammates with features that you may only expect from ATLAS: a powerful drive, elaborate engineering, excellent handling and easy maintenance.”

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ATLAS Teamwork:

Technical highlights.

Front chassis and drum

The complete front frame – with the exception of the crossbeam – has been welded to ensure maximum stability. The front and rear scrapers serve to remove material in case humid or cohesive soils are compacted. As an optional accessory, a pad foot segment kit can be attached to the smooth drum and the drum unit itself can be easily dismantled without lifting gear. Furthermore, the front chassis and the drum provide additional static load.

HA control

Perfect adaptation to different types of soil is ensured by the high pressure-dependent HA control. A continuous tractive force adjustment automatically provides the axle and the roller drum with maximum traction – without any intervention on the part of the driver. This results in an automatic traction control and a noticeably improved climbing ability, especially in areas such as dike and embankment construction.

Driver's cabin

A spacious cabin with excellent circumferential visibility and a low construction height. Individually adjustable driver's seat. Single joystick manoeuvring for change of direction and vibration unit. Thanks to the use of special cabin bearings, vibrations are damped. Specifically shaped screens serve to reduce the noise level.

Security

Ideal circumferential visibility, even while going backwards, thanks to the inclined engine hood and a compact design. The ROPS panoramic cabin is equipped with individually adjustable operating elements.

Engine

Water-cooled diesel engines with large fuel tanks, high durability and low consumption. A minimized noise level is attained by means of special engine bearings.

ECO Speed

This optional feature allows you to use the power of the hydraulic units that the compaction roller is equipped with to full capacity, in a particularly efficient way. Use ECO Speed to reduce the motor rotation speed by approx. 400 r.p.m., as compared to the nominal rotation speed, without any loss of power of the hydraulic system. While the vibration frequencies and the centrifugal forces remain constant, the noise exposure both for the driver and the environment as well as the fuel consumption are markedly reduced.

Maintenance

All maintenance components and aggregates are easily accessible, thanks to the wide opening of the engine hood. The maintenance-free articulated joint and the low-maintenance vibration unit warrant a long service life and reduce maintenance expenditures.

The no-spin-axle

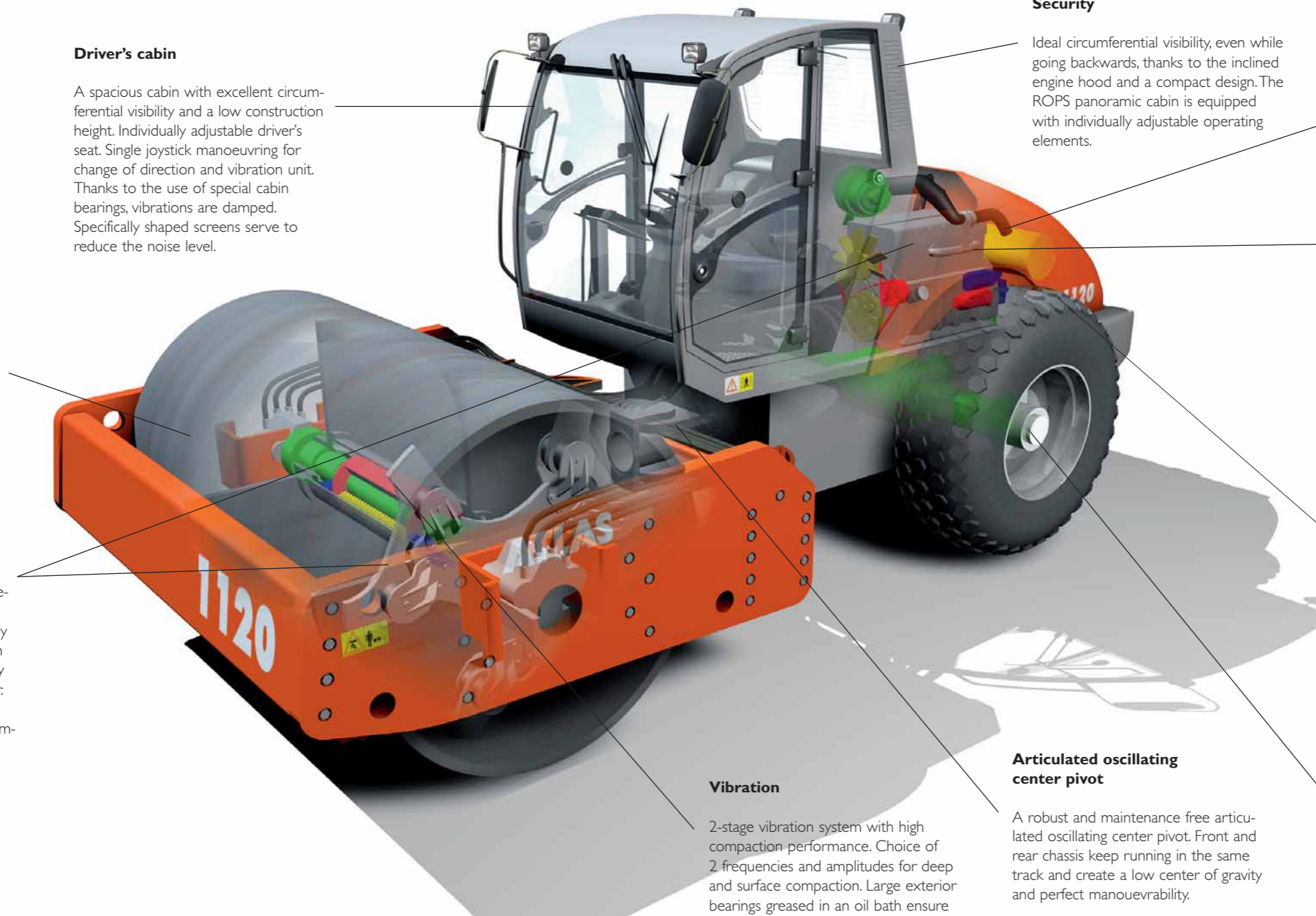
Part of the standard equipment of all ATLAS compaction rollers. A permanent differential lock serves to attain optimal traction. The differential lock unlatches automatically whenever different wheel speeds are caused by frequent turns and winding terrain.

Articulated oscillating center pivot

A robust and maintenance free articulated oscillating center pivot. Front and rear chassis keep running in the same track and create a low center of gravity and perfect manoeuvrability.

Vibration

2-stage vibration system with high compaction performance. Choice of 2 frequencies and amplitudes for deep and surface compaction. Large exterior bearings greased in an oil bath ensure long inspection intervals.



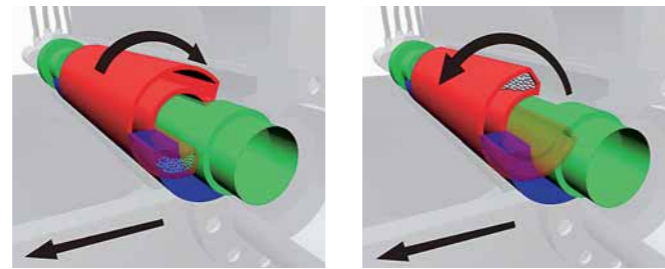
ATLAS Teamwork:

Powerful and optimized with regard to maintenance.

ATLAS vibration system

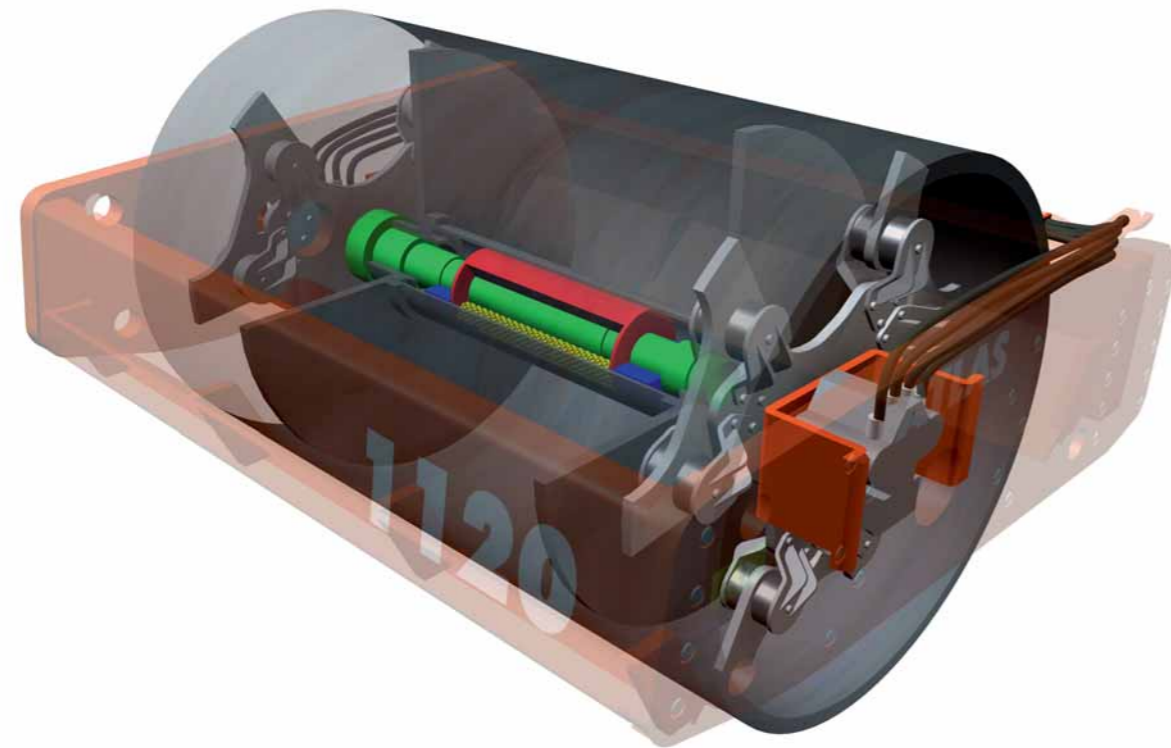
The ATLAS vibration system is prepared to perform any compaction task. In order to attain the energy required for the desired degree of compaction, you can choose from two amplitudes and use the automatic r.p.m. adjustment of the vibration shaft:

High centrifugal forces and low frequencies for deep compaction or low centrifugal forces and high frequencies for surface compaction. Though remarkably robust, the ATLAS vibration system is very easy to maintain: Large exterior bearings greased in an oil bath ensure long service intervals. Thanks to its innovative design, access to formerly hard-to-reach bearings has been facilitated considerably.



high amplitude – low r.p.m.

low amplitude – high r.p.m.



A strong principle

The flyweight is composed of a static and a variable part. The static part is established by a firm weight on the shaft. The variable part consists of a staggered housing with a variable mass. Depending on the direction in which the vibration shaft rotates, the variable mass is added or deducted from the fixed mass via the centrifugal force. In this manner, higher or lower amplitudes can be created.

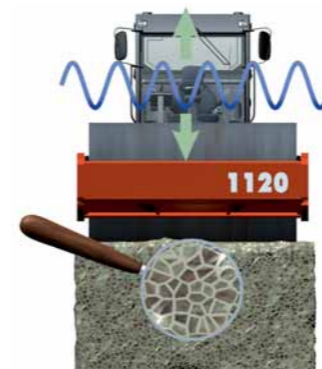
Fields of application of low amplitudes when compacting thin layers:

- gravel, sand, mixed soils
- gravel and crushed stone basis
- surface compaction

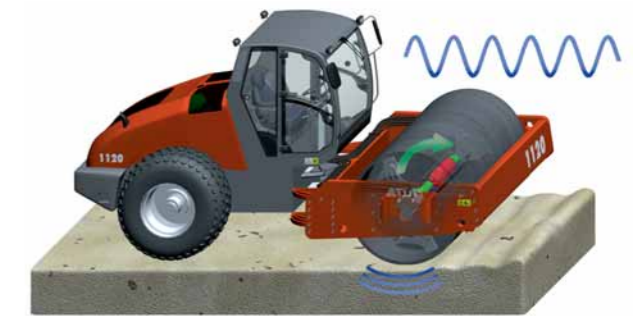
Fields of application of high amplitudes for the compaction of thick layers:

- non-cohesive and cohesive soils
- gravel and crushed stone basis
- hydraulically bonded layers
- anti-freeze layers
- substratum
- dikes, dams

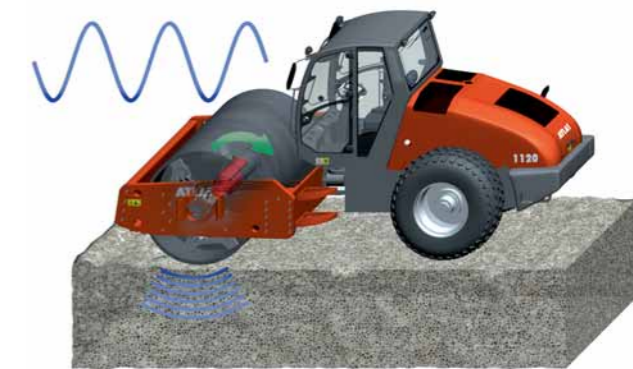
The overall weight of the machine, the static linear distributed load, the oscillating mass as well as the amplitude and the frequency are among the most relevant parameters with regard to the efficiency of compaction.



Low amplitude



High amplitude



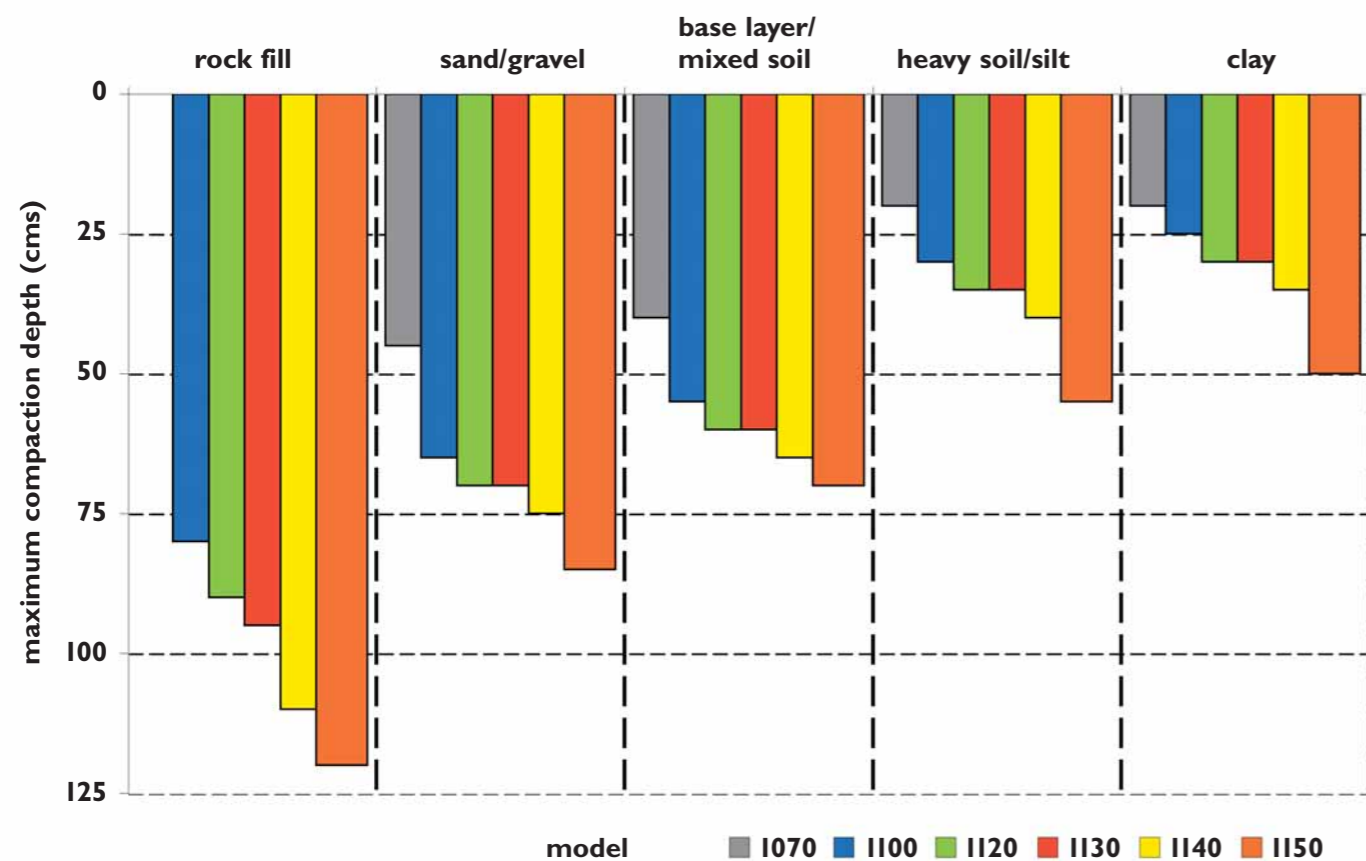
ATLAS Teamwork:

Top results in all areas.

Roadworks or industrial construction, gardening or landscaping, the construction of dikes and embankments – different fields of application require different compaction results. From our product line of ATLAS compaction rollers, with their operating weights ranging from 2.4 tons to 14 tons, it is easy to choose the ideal model for every purpose and project.

For an overview of the maximum compaction depths to be attained by means of the different models while working on typically encountered material like rock fill or clay, see the chart below:

Compaction results of ATLAS compaction rollers



Powerful and versatile.



Articulated oscillating center pivot

All ATLAS compaction rollers have been equipped with robust, nearly maintenance-free articulated oscillating center pivots. They make sure that the front and rear chassis keep running in the same track and create a low center of gravity. The center pivot bends to an angle of 35°, with the oscillation angle at $\pm 12^\circ$. Hence, part of the appeal of all ATLAS compaction rollers lies in their excellent manoeuvrability.



The no-spin-axle

By means of a permanent differential lock, the no-spin-axle ensures the exceptional traction and the remarkable climbing ability displayed by ATLAS compaction rollers at all times. As soon as rolling turns cause different wheel speeds, the differential lock is automatically turned off and will not be re-activated unless the wheels run synchronously again. The no-spin axle is part of the standard equipment of all ATLAS compaction roller types.

ATLAS Teamwork:

Superior and accessible.



Powerful diesel engines

In all ATLAS compaction rollers, modern waste gas reduced heavy-duty diesel engines are at work. Large fuel tanks and efficient water cooling ensure smooth operation even at extreme outside temperatures or on difficult grounds. Longevity and low consumption guarantee a maximum of profitability. Thanks to special motor bearings, noise emission is considerably reduced.

Hydraulic and engine service

The engine hood opens wide, which allows for easy access to the relevant aggregates. This, in turn, leads to fast and trouble-free servicing. Maintenance-free or low-maintenance components, such as the vibration system or the articulated oscillating center pivot, contribute to lowering the service expenditures even further.

Comfortable and safe.



ROPS panoramic cabin

Whether driving forward or backward, ATLAS compaction rollers always offer a perfect circumferential visibility and provide you with an excellent overview in any situation. Special cabin bearings damp vibrations. The screens were specifically designed to reflect sound waves and to provide for a reduction of the noise level.



In conjunction with the ergonomic arrangement of all operating elements and the compaction measurement system, thanks to its adjustable inclination, the steering column allows for stress-free operation. It goes without saying that the cabin can be easily accessed from both sides of the vehicle. In addition, a swiveling seat can be installed as an optional feature.

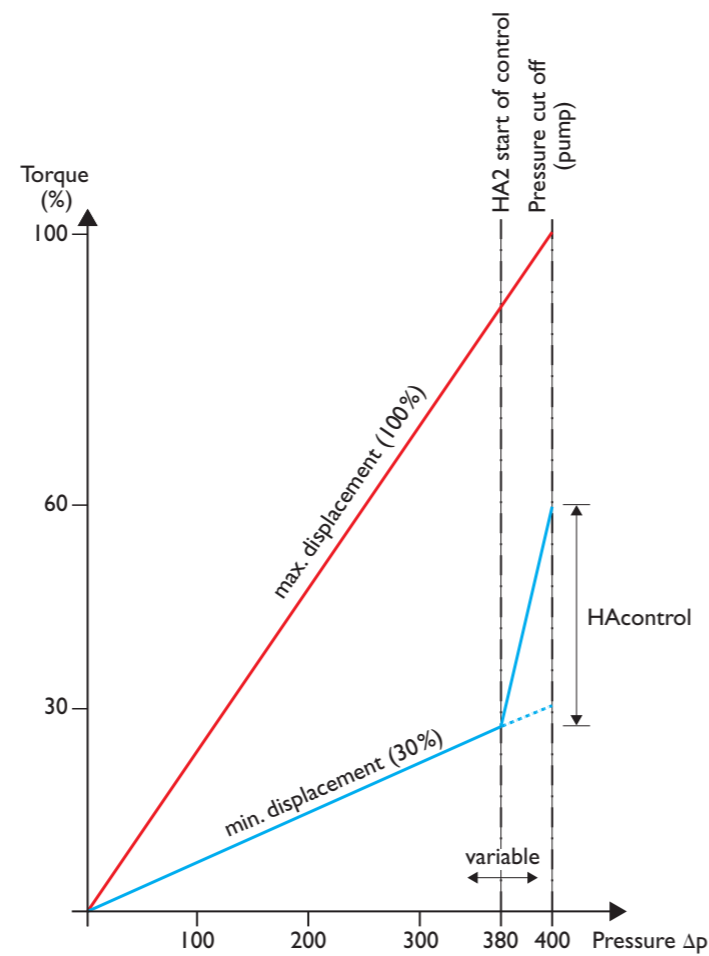
ATLAS Teamwork:

The best traction – automatically.

In order to adapt the vehicle to different types of soil, the drive units of all ATLAS compaction rollers are equipped with a high pressure-dependent HA control. Thanks to the continuous adjustment of the tractive force, maximum traction both at the axle and the roller drum (for type 1070, this applies to the roller drum only) is at your disposal at all times. As this is an automatic feature, there is no need for the driver to intervene. In comparison with conventional 4-stage drive units, this system results in more efficient traction control and a noticeably improved climbing ability, especially in areas such as dike and embankment construction. The control is effectuated at the skid threshold, by robust hydraulic motors which can be oversteered, if necessary (Vgmax control). The system is exceptionally stable and works without electronic regulation, which is why it does not require parameterization.

Perfect adaptation to all situations

The HA control serves to optimize the compaction roller's traction and its propulsion on all types of ground in the upper pressure range. Automatic, safe and without the need for the driver to intervene.

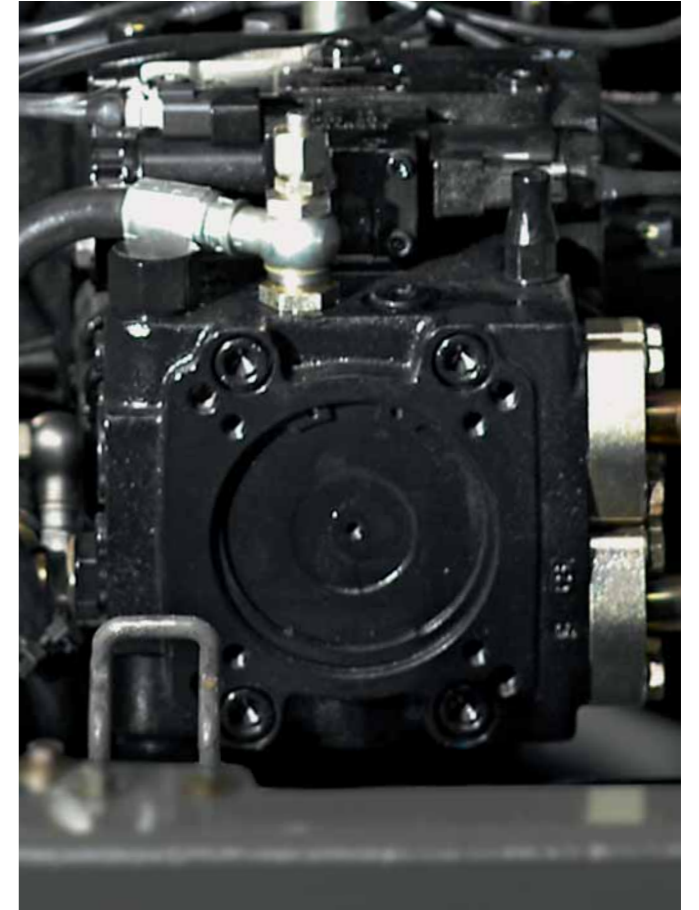


More power, less consumption.

ECO speed, an optional feature, allows for a particularly efficient exploitation of the power output of the hydraulic units. This system renders it possible to reduce the motor rotation speed by approx. 400 r.p.m., as compared to the nominal rotation speed, while all parameters regarding the machine's overall performance remain intact. The intelligent hydraulic system automatically ensures that its resources can still be used to full capacity and both the vibration frequencies and the centrifugal forces remain unaffected. Noticeable outcomes of this innovative, optimized use of the hydraulic capacities: Not only does the vehicle consume less fuel, but the sound level in the cabin is lowered and hence both the driver's and the environment's noise exposure reduced – without any output losses of the hydraulic system. It goes without saying that the driver can intervene and manually claim the full capacity of the drive unit at all times.

Markedly more economical, noticeably quieter

Thanks to ECO speed, the motor rotation speed can be lowered by approx. 400 r.p.m., compared to the nominal rotation speed, while the hydraulic system continues to dispose of its full capacity. While the noise level and the fuel consumption of the compaction roller are reduced, the vibration frequencies and the centrifugal forces remain unaffected.



ATLAS Teamwork:

Convenient and precise.

Automatic compaction control

On many construction sites, continuous control and documentation of all compaction work is obligatory. In order to meet these requirements, ATLAS offers a digital system which allows for the registration and analysis of the entire compaction process. Potential weak spots are detected within seconds.

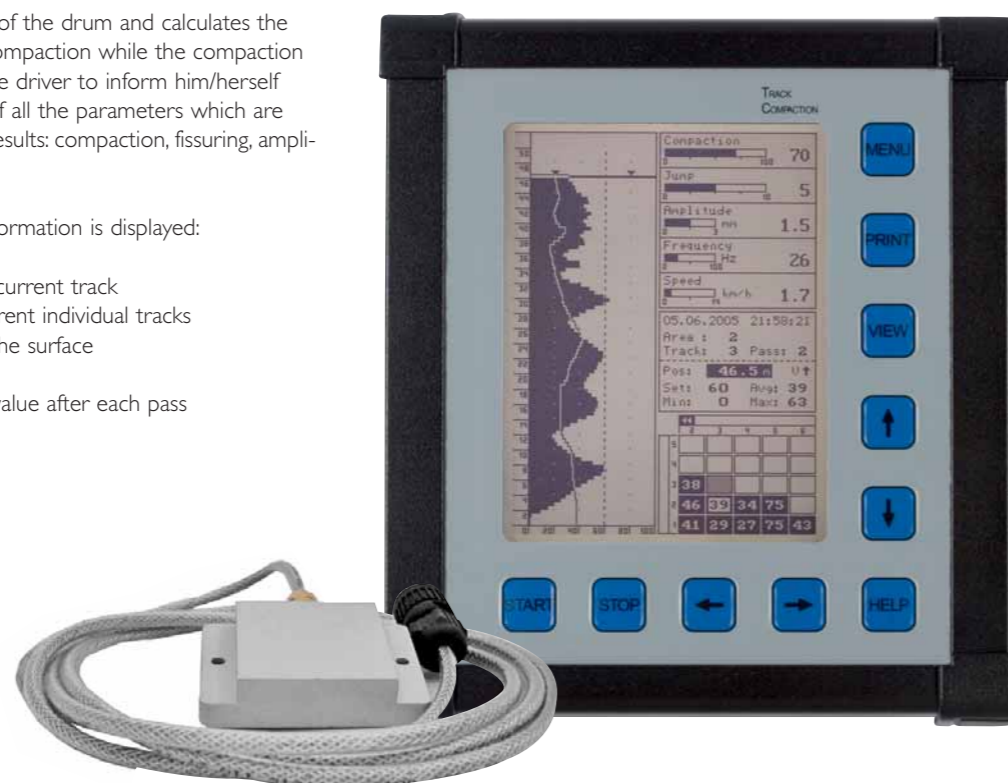
The system is based on a sensor which records the acceleration. It is mounted on an undamped oscillating part of the drum. All information is transferred to a LCD display in the cockpit. The portable unit is attached by a quick-release fastener. Thus, it can be utilized in different machines.



The sensor records the oscillation of the drum and calculates the values required to attain relative compaction while the compaction work is in progress. This enables the driver to inform him/herself continuously of the current state of all the parameters which are relevant to obtaining the desired results: compaction, fissing, amplitude, frequency and speed.

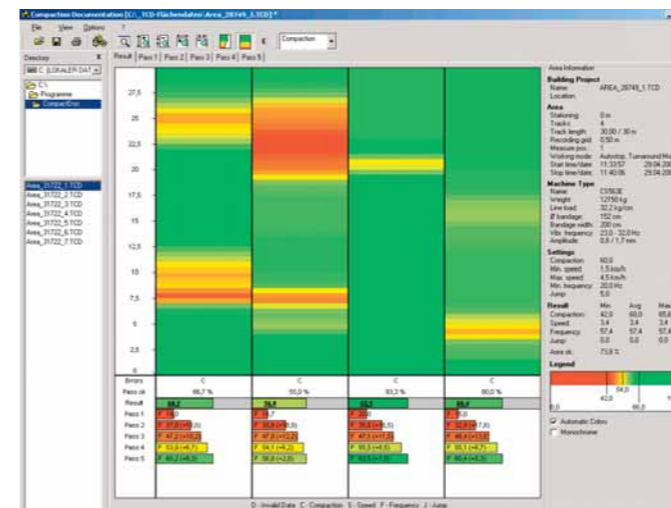
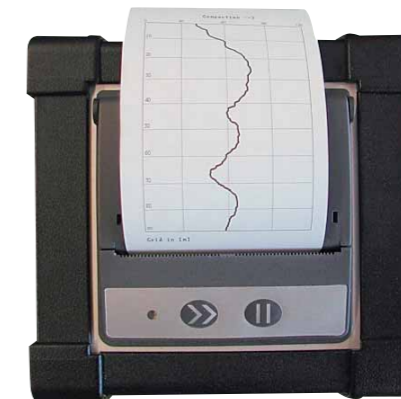
At the same time, the following information is displayed:

- the compaction progress of the current track
- the compaction progress of different individual tracks
- the position of the machine on the surface
- the average compaction value
- the increase of the compaction value after each pass



All data are stored and can be printed out or transferred to a PC for further analysis. The memory capacity allows for the registration of

- 99 surfaces
- 18 tracks per surface
- 8 passes per track
- 30 to 800 meters track length
- 350 kilometers of working range



Using the corresponding software, the data recorded by the compaction measurement are instantly transferred to the PC and thus made available for further processing.

Besides, the software also offers a wide scope of options with respect to the analysis and the graphic presentation of the values, which allows for precise and individually tailored documentation. If required, the compaction results of a particular area and all the corresponding data can be summarized and printed on a DIN-A4 sheet of paper:

ATLAS Teamwork:

A perfect team partner for any job.

Each ATLAS compaction roller has its particular strengths, and we are sure that one of them will meet your specific needs! Consider the following areas of application which are perfect for our compaction rollers:

- public roads, parking lots
- industrial foundation works
- road construction
- construction of motorways and heavy load roads
- construction of runways and railway tracks
- construction of dams and embankments



Our models and their technical details.

AW 240



Operating weight	2450 kg
Linear drum load	12.25 kg/cm
Amplitudes	0.5 mm
Frequencies	53 / 61 Hz
Centrifugal force	21.5 / 28 kN
Power	22.5 kW (33.6 HP)

AW 260



Operating weight	2650 kg
Linear drum load	11.04 kg/cm
Amplitudes	0.5 mm
Frequencies	53 / 61 Hz
Centrifugal force	25 / 34 kN
Power	22.5 kW (33.6 HP)

AW 300



Operating weight	3000 kg
Linear drum load	12.00 kg/cm
Amplitudes	0.5 mm
Frequencies	52 / 58 Hz
Centrifugal force	29 / 37 kN
Power	22.5 kW (33.6 HP)

AW 1070



Operating weight	7100 kg
Linear drum load	22.40 kg/cm
Amplitudes	1.8 / 0.8 mm
Frequencies	30 / 40 Hz
Centrifugal force	120 / 90 kN
Power	61.5 kW (84 HP)

AW 1110



Operating weight	11200 kg
Linear drum load	29.00 kg/cm
Amplitudes	1.8 / 0.8 mm
Frequencies	30 / 38 Hz
Centrifugal force	220 / 150 kN
Power	96 kW (130 HP)

AW 1120



Operating weight	12000 kg
Linear drum load	32.80 kg/cm
Amplitudes	1.8 / 0.6 mm
Frequencies	30 / 40 Hz
Centrifugal force	240 / 140 kN
Power	96 kW (130 HP)

AW 1130



Operating weight	12900 kg
Linear drum load	33.30 kg/cm
Amplitudes	1.9 / 0.9 mm
Frequencies	30 / 38 Hz
Centrifugal force	260 / 190 kN
Power	103 kW (140 HP)

AW 1140



Operating weight	13900 kg
Linear drum load	38.00 kg/cm
Amplitudes	1.9 / 0.7 mm
Frequencies	30 / 40 Hz
Centrifugal force	280 / 180 kN
Power	103 kW (140 HP)

Subject to technical alterations.

ATLAS Teamwork:

For your notes.