



Machines

High performance plate compactors 420-730 kg
APH 5030 / APH 6530 / APH 100-20

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Universal application in soil compaction



The unique triple-shaft exciter

Triple-shaft exciter system

The facts:

The new triple-shaft exciter system has been designed to improve the maneuverability and climb ability of a vibration plate in a revolutionary way. When working in cohesive material the unfavorable tilting action of plates, fitted with conventional double shaft exciter systems, and the lack of powerful climbing ability prevented the use of such machines or provided poor compaction results. The ease in handling and maneuvering of the machine can be felt particularly when the use of low frequency – high amplitude is requested. The triple shaft exciter system causes the plate to avoid erratic movements, allowing a smooth travel even through heavy, cohesive soil. The unique and even running travel rhythm makes the plate effortlessly climb over obstacles and/or backfill with high moisture content without the usual suction effect, which often causes the plate to come to a complete standstill. The APH 5030, APH 6530 and APH 100-20 are fully hydraulic vibrating plates and have been designed with the most favorable balance between impact force and centrifugal force in their respective weight classes.

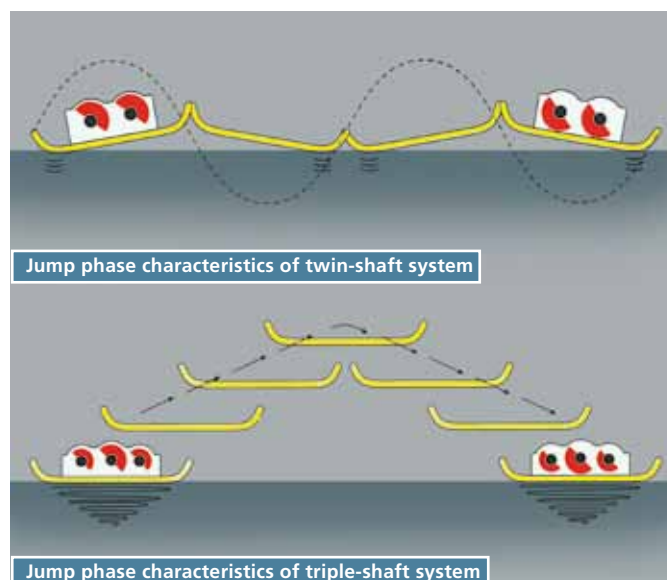
The result:

Maximum compaction performance – 60 kN or 100 kN respectively. Based on the triple shaft exciter system and subsequently due to the unique balance of impact force and centrifugal force model APH 6530 and model APH 100-20 offer an excellent forward and reverse travel as well as astonishing climb ability in cohesive material. Vibration plates fitted with the triple shaft exciter system provide homogenous compaction without disturbing the top layer of the compacted soil due to a continuous contact to soil.

Powerful arguments:

- Fully hydraulic, infinite servo-control gives the highest precision for forward and reverse travel as well as for point compaction.
- Low-vibration control arm and operating system provides a maximum in maneuverability, an effortless working even over a long period of time and a fatigue-free operator.
- A compact working height of only 765 mm allows an additional layer of compaction below diagonal trench reinforcement.
- Engine and hydraulic components are completely covered to prevent damage during transportation and by fall-in debris during trench work.
- Universal application through optimal, variable co-ordination of frequency, centrifugal force and amplitude.
- Convenience is not an option standard feature include electric start for operator convenience in confined areas as well as for reliable starting during operation in cold temperatures. Folding central lifting point for quick and safe loading and unloading. Emergency-stop function at the end of the control arm (APH 6530 optional).

Unique solution



This is what the industry is getting excited about

The APH 5030, APH 6530 and APH 100-20 with unique triple-shaft exciter

Electric start and an electronic engine monitor are standard features on model APH 100-20, the electric starter is optional on models APH 5030 and APH 6530:

- Robust and low maintenance battery with enhanced asset-reservoir and integrated carrying handles. The battery is bedded into a newly developed, vibration resistant, suspension system (APH 100-20 only).
- An electronic shut off system protects the engine via solenoid, in case the engine's oil level reaches minimum
- Engine can not be restarted unintentionally when running
- All electric functions are cut off after two minutes, when the engine has been switched off via throttle and without turning the ignition off (model APH 100-20 only)
- In case of low battery power, when it becomes necessary to start the engine manually with the provided crank, the electronic recognizes the manual start and allows battery to re-load, provided the ignition switch is set in the "On" position (model APH 100-20 only)

Precision servo operating convenience and Emergency Stop switch as standard (APH 6530: optional equipment)



Fully hydraulic drive with powerful, Hatz diesel engine



Folding, single lifting point



Reliable, vibration resistant and service friendly battery



• Electric start
• Oil alert system
• no unintentional engine re-start
automatic engine cut-off in case of longer engine switch-off (without ignition turn-off) prevents discharge of battery (model APH 100-20 only)



Effortless manual start with safety crank





Universal application with the highest level of safety

Dead Man's Handle as an Option

Under certain circumstances – for example on confined sites – additional safety is needed when using heavy-duty vibrating plates.

The solution:

Special handles with electronic sensors in the guide handle register the touch of the operator and activate the hydraulics and exciter system, so that the machine is ready to use, provided the electric emergency button has been pulled out.

The electric emergency button and the control electronics of the dead man's handle are connected in series so that the hydraulics are immediately deactivated and the machine stops after a few centimetres when the emergency button is pressed or the handles are released, the engine remains in idle drive.

These are the corresponding advantages:

- The handles are highly sensitive – already the lightest touch of a finger suffices – the use of work gloves also does not pose a problem
- No levers etc. need to be operated
- Manipulation is virtually impossible: wrapping with wire etc. has no effect
- The work of the operator is not restricted and tire-some restarting of the engine is also unnecessary
- Sensor handles have already proven their efficiency in the area of agriculture



Dead man's handle with electronic sensors (option)



The revolution of Ammann 3-shaft technology – now with ACE

The tried and tested 3-shaft high performance compactor with ACE system – for optimal continuous compaction control

Ammann presents a pioneering development in the area of pedestrian compaction equipment: in addition to the tried and tested 3-shaft high performance compactors, the unique advantages of the well-known Ammann ACE system for optimal compaction control are now featured on vibrating plates. It is now possible to display and measure the degree of compaction and to present the compaction results visually and soil analyses to be performed simultaneously for quality control purposes.

Mode of operation

The vibrations generated by the exciter shafts are detected by sensors on the base plate, which transfer acceleration data and the relative positions of the exciters to a site control system. This control system, which is mounted vibration-isolated and clearly visible to the user on the handle, controls all operations based on a patented system and ensures that the machine continuously operates at maximum performance. This is supported by highly efficient compaction performance control with our tested fully hydrostatic system – a standard feature on all heavy-duty Ammann vibrating plates.

Operating options

The APH 6530-ACE and APH 100-20-ACE offers three standard operating options that cover the spectrum of compaction tasks in earthworks. These options can be selected flexibly as required:

Relative compaction control 'ACEeco'

As an alternative to the ACE-system Ammann offers with the system 'ACEeco' the corresponding relative compaction control display. Hereby the operator is continuously informed about the achieved degree of compaction and the maximal feasible compaction. 'ACEeco' is available as option on models APH 5030, 6530 and 100-20 (with electric starter only).



Compaction control system 'ACEeco' (option)





Easy control



1 – Manual mode

with relative display of degree of compaction.

When this option is selected, information relating to the achieved degree of compaction in the soil is continuously shown graphically on the easy readable display with automatic brightness regulating feature during operation. This enables the operator to adapt the mode of operation to the achieved degree of compaction and avoid unnecessary compaction passes and possible over-compaction.

2 – Automatic mode

with relative display of degree of compaction.

When this option is selected, the machine automatically reduces the compaction performance preventing reliably harmful loosening in the upper soil layers. This option therefore also allows less experienced operators to achieve an optimal compaction result. As in the manual mode, graphic information on the degree of compaction is continuously displayed, enabling the operator to respond accordingly.

3 – Measurement mode (absolute display)

One machine - two tools.

The measurement mode allows compaction measurement at any point on site. When the proportional display shows that sufficient compaction is achieved, the actual k_B value can be determined by the machine via measurement. For this purpose, selection of the measurement menu is necessary; the machine then signals via the display whether measurement can be effected. After a short time, the soil rigidity is displayed as a numerical value in MN/m.

Manual mode



Automatic mode

on/off



Measurement mode

on/off



Fully hydraulic and much more

Benefits and advantages at a glance

Functional design: the compact and foldable engine cover offers optimal protection of components and easy accessibility for service

A hydraulic pump to power drive and drive control eliminates an expensive and high-wearing v-belt system

Air-cooled Hatz or Faryman Diesel engine with integrated oil alert system powerful, service friendly and low emissions values

Emergency stop switch: vibration can be activated independently from engine drive

Control handle bar: ergonomically adjustable and lockable, with Orbitrol providing drive control

Hydrostatic motor drives the exciter shafts

Hydrostatic adjustment of the exciter shafts controlled by the Orbitrol on the handle bar

The unique triple-shaft exciter



Optimized shape of abrasion-resistant, self-cleaning cast iron base plate ensures balanced running performance, powerful drive and high climbability

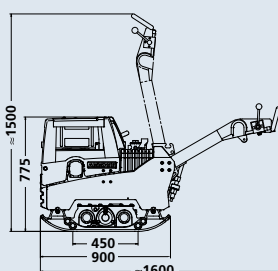


Technical Data

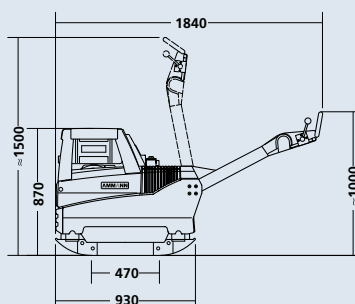
		APH 5030	APH 6530	APH 100-20
		Hatz Diesel	Hatz Diesel	Hatz Diesel
Weight / Measurements				
Operating weight CECE basic unit	kg (lb)	401 (884)	480 (1058)	680 (1499)
with extension plates	kg (lb)	420/433 (926/955)	500/525 (1102/1157)	705/730 (1554/1609)
with e-start	kg (lb)	+ 30 (66)	+ 30 (66)	
Working width basic unit	mm (in)	450 (18)	550 (22)	650 (26)
with extension plates	mm (in)	600/750 (24/30)	700/850 (28/33)	800/950 (31/37)
Drive				
Engine type		Hatz 1 D 50S	Hatz 1 D 81S	Hatz 1 D 90S
Type		1 cyl./4-stroke-Diesel	1 cyl./4-stroke-Diesel	1 cyl./4-stroke-Diesel
Power	HP (kW)	9,4 (7)	13,5 (10)	14,8 (10,9)
at speed	U/min. (rpm)	2700	3000	2900
Fuel consumption	l/h (gal/hr)	1,7 (0,4)	2,5 (0,6)	2,5 (0,6)
Tank capacity	l (gal)	5 (1,1)	7 (1,5)	10 (2,2)
Max. incline	°	30	30	30
Max. gradeability	%	36	36	36
Operating speed	m/min (mph)	0-28 (0-1)	0-32 (0-1,2)	0-28 (0-1)
Centrifugal force	kN (lbf)	50 (11)	65** (15)	100 (22)
Frequency	Hz (vpm)	65 (3900)	55 (3300)	40 (2400)
Max. compaction performance*	m²/h (ft²/hr)	756/1008/1260	1056/1344/1632	1090/1350/1600
		(8137/10850/13563)	(11367/14467/17567)	(11733/14531/17222)
sand/gravel	cm (in)	70 (28)	90 (35)	100 (39)
cohesive soil	cm (in)	30 (12)	30 (12)	40 (16)
Optional equipment				
extension plates	mm (in)	75/150 (3/5,9)	75/150 (3/5,9)	75/150 (3/5,9)
Electric start		optional	optional	standard
operating hour meter		x	x	x
control system "ACEco"		x	x	x
emergency stop		x	x	standard
dead man's handle		x	x	x

*depending on ground conditions

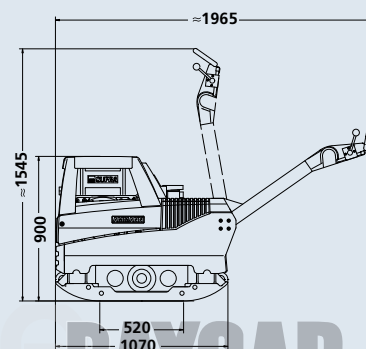
Specifications are subject to change due to technical improvements ** manual start version kN (lbf) 60 (13)



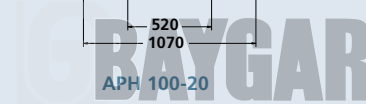
APH 5030



APH 6530



APH 100-20





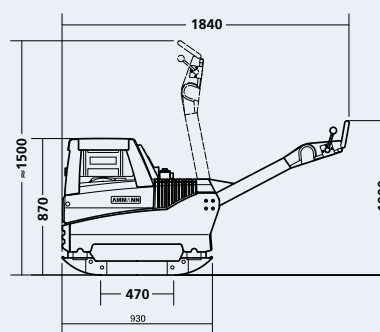


Technical Data

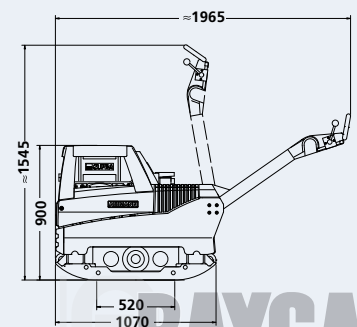
 Ammann 3-Wellen® Hochleistungsverdichter Excitateur à 3 arbres haute performance High Performance Triple Shaft Exciter System	APH 6530-ACE		APH 100-20-ACE
	Hatz		Hatz
	Diesel		Diesel
Weight / Measurements			
Operating weight CECE basic unit			
with extension plates	kg	530/555	705/730
Working width basic unit	mm	700/850	800/950
Drive			
Engine type	Hatz 1 D 81S		Hatz 1 D 90S
Type	1 cyl. 4-stroke diesel		1 cyl. 4-stroke diesel
Power	HP/kW	13,6/10	14,8/10,9
at speed	U/min	2800	2900
Cooling	Luft		Luft
Fuel consumption	l/h	ca. 2,5	ca. 2,5
Tank capacity	l	7	10
Max. incline	°	30	30
Max. gradeability	%	36	36
Drive	hydraulic		hydraulic
Shift forward / reverse	hydraulic		hydraulic
Operating speed			
Variable	m/min	0-32	0-28
Vibration			
Centrifugal force	kN	65	100
Frequency	Hz	55	40
Maximum performance	m²/h	1350/1630	1350/1600
Electric start	standard		standard
emergency stop	standard		standard
Max. compaction performance*			
sand/gravel	cm	90	100
cohesive soil	cm	30	40
Optional equipment			
extension plates	mm	75/150	75/150
operating hour meter	x		x
Compaction control "ACEeco"	x		x

*depending on ground conditions

Specifications are subject to change due to technical improvements



APH 6530-ACE



APH 100-20-ACE