

AR105^e

Operation weight:
9,450 kg

Power:
105 kW (143 HP)

Shovel capacity:
1.6 - 2.0 m³



 **Weycor**
BY ATLAS WEYHAUSEN

AR105^e



SMALL e. BIG EFFECT.

weycor wheel loaders are more than the sum of their parts. They reflect true passion, a fascination with technology and 'Made in Germany' quality.

It's thanks to the innovative spirit of our people, their dedication to detail and their passion for powerful engine technology that this new **e-generation of wheel loaders** has been developed.

The small '**e**' stands for

- emission reduction: Keeps the required NOx and PM limits in accordance with the most stringent emission regulations
- efficient: higher power, lower consumption
- evolutionary: advanced designs that are optimised down to the smallest detail

WEYCOR: POWERFUL, PRECISE, RELIABLE.



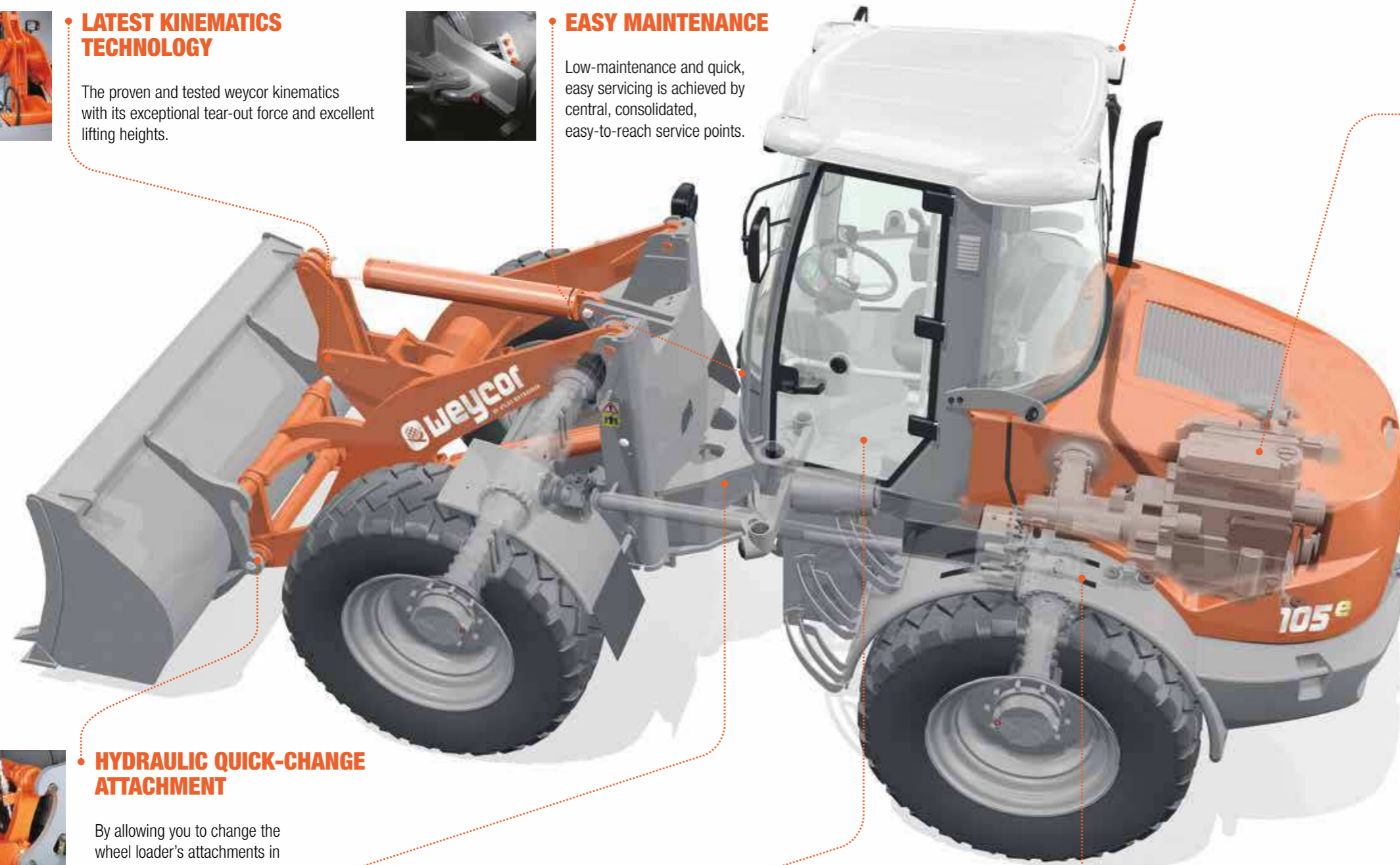
LATEST KINEMATICS TECHNOLOGY

The proven and tested weycor kinematics with its exceptional tear-out force and excellent lifting heights.



EASY MAINTENANCE

Low-maintenance and quick, easy servicing is achieved by central, consolidated, easy-to-reach service points.



HYDRAULIC QUICK-CHANGE ATTACHMENT

By allowing you to change the wheel loader's attachments in a few seconds, it turns the vehicle into an all-rounder.



ARTICULATED PENDULUM JOINT

Provides for excellent maneuverability and crosscountry mobility. Even on challenging terrain, the low center of gravity ensures exceptional stability.



SEPARATE INCHING PEDAL

Less wear & tear and fuel consumption: In contrast to the conventional combined brake/inching pedal, with the separate inching pedal, the risk of inadvertently activating the main brake while you drive is eliminated.



NEGATIVE BRAKE

Serves to maintain a stable position while the wheel loader is driven on slopes with the brake or inching function activated. All four wheels are automatically blocked as soon as the engine is stopped.

COMFORTABLE CABIN

In addition to the excellent circumferential visibility in the wheel loader, its clearly arranged controls and its ergonomic design.

POWERFUL DRIVE UNIT

weycor wheel loaders are equipped with state-of-the-art engines which combine high power reserves for challenging operations with up-to-date low emission values.



DEUTZ ENGINE TECHNOLOGY

TCD 4.1 L4

Water cooled 4-cylinder inline engine with turbocharging, charge air cooling and cooled external exhaust gas recirculation. Engine and exhaust aftertreatment (EAT) are adapted to an optimum efficiency of the total system and therefore ensure minimum fuel and total running costs. The engines have a modular exhaust aftertreatment system (EAT). The powerful DEUTZ Common Rail (DCR[®]) injection system and the electronic engine control (EMR 4) with intelligent link to the drive management ensure optimum engine performance at low fuel consumption. The engines meet the requirements of the EU Stage IIIB and US EPA TIER 4 interim with DVERT[®] particulate filter (DPF). In the version of TIER 4 final additionally equipped with SCR. The regeneration of the particulate filter by heat-mode during operation has no affect to the engine performance. A necessary active non-operating regeneration can only be initiated by the driver.

AR105^e

TECHNICAL DATA

ENGINE

Make	Deutz Diesel engine
	TCD 4.1 L4
Type	water cooled
Power***	105 kW (143 HP)
	at 2,200 min ⁻¹
Max. torque	550 Nm
	at 1,600 min ⁻¹
Stroke	4,040 cm ³
Cylinders	4 in Reihe

ELECTRICAL SYSTEM

Operating voltage	12 V
Battery	12 V / 100 Ah
Alternator	14 V / 95 A
Starter	12 V / 4 kW

DRIVE

- Output-regulated hydrostatic drive with pressure cut off and closed circuit acting on all 4 wheels
- Speed with standard tires: Operating speed range 0-6 km/h Road speed range 0-20 km/h Optional high speed 40 km/h (upon request)
- 1st and 2nd hydraulic gear can be engaged under load, forward/backward travel also
- Forward/backward travel, speed ranges and off-position operational via weycor joystick
- Drive operated by accelerator and separate inching pedal for best distribution of the hydraulic power for thrust and lifting forces

BRAKES

Standard brake: Multi-disc brake in oil bath acting on all 4 wheels. Supplementary brake functions via inching pedal and hydrostatic drive acting on all 4 wheels.

Parking brake: Parking brake as spring-loaded brake acting on all 4 wheels. In case of standstill of engine the spring-loaded brake is automatically re-activated.

AXLES

Rigid axles with planetary reduction gears in wheel hubs, connecting electrically 100%-differential lock in front and rear axle.

STEERING

- Fully hydraulic center pivot steering
- Front and rear wheels follow the same track
- Steering angle of 40° to each side, ±12° angular movement at rear of vehicle
- Operating pressure of steering hydraulics 175 bar
- Emergency steering function

TIRES

Standard: 17.5-25 EM – Construction machine tires for relatively soft surface with high traction and good self-cleaning

Special tires upon request

HYDRAULIC SYSTEM

- Variable pump for loading and steering hydraulics
- Priority valve favoring steering hydraulics
- 3rd hydraulic section serial
- Loading hydraulic hydraulically pre-activated by weycor joystick, including float position
- Operating pressure 250 bar, Delivery of pump 138.6 l/min

LOADING EQUIPMENT

- Powerful and solid Z-kinematics with high tear out force
- Hydraulic quick change device
- Activation of all functions by weycor joystick
- Parallel movement while using pallet forks
- Automatic shovel return to excavation position
- Automatic center position
- Locking device acc. to German StVZO for road travel

Lifting 5.9 s

Lowering 4.0 s

Tipping 1.6 s

FUEL/OIL CAPACITIES

Diesel.....	120 Liter
Hydraulic oil.....	106 Liter
Engine oil	16 Liter
Front axle	7.2 Liter
Rear axle	7.2 Liter
Gear oil	1.8 Liter
Cooling liquid.....	23 Liter

STANDARD EQUIPMENT

INCLUSIVE

- weycor diagnostic system (ADS) for monitoring engine parameters with integrated electronic anti-theft device
- Rear driving mirrors, foldable
- Heatable rear screen
- Comfortable access to cab from both sides
- Activation of all functions by weycor joystick
- Control lights for speed range, forward/backward travel
- Lights acc. to German StVZO for road travel
- Individually adjustable driver's seat with adjustable right arm rest
- Engine water heating with heat exchange and 4-stage fan
- Front windscreen ventilation, variable output
- Sound absorbing ROPS cab
- Working lights front and rear
- Windscreen wipe and wash unit in front and rear
- Sun visor, coat hook, ceiling lamp, stow facility
- Adjustable steering column
- Heat protection glazing with large tinted screens
- Control lights for engine oil pressure, overheating, hydraulic oil temperature, battery power, parking brake and air filter
- Central dashboard with indicators for preheating, engine temperature, fuel, working hour meter

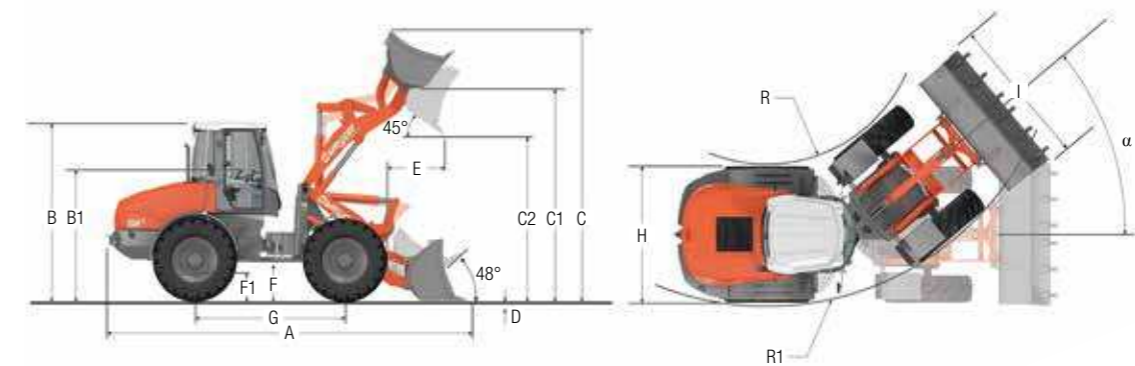
OPTIONS

TECHNICAL OPTIONS

- Stability damping system
- High speed version
- Trailer coupling
- Main battery switch
- Corrosion prevention against salt
- Special paintings and oils
- Joystick with integrated proportional steering for 3rd section
- Warning beacon
- Anti-theft-device with code stick
- Heatable and air cushioned seats
- Air conditioning, auxiliary heating
- Radio
- Doors with sliding windows, left and right side

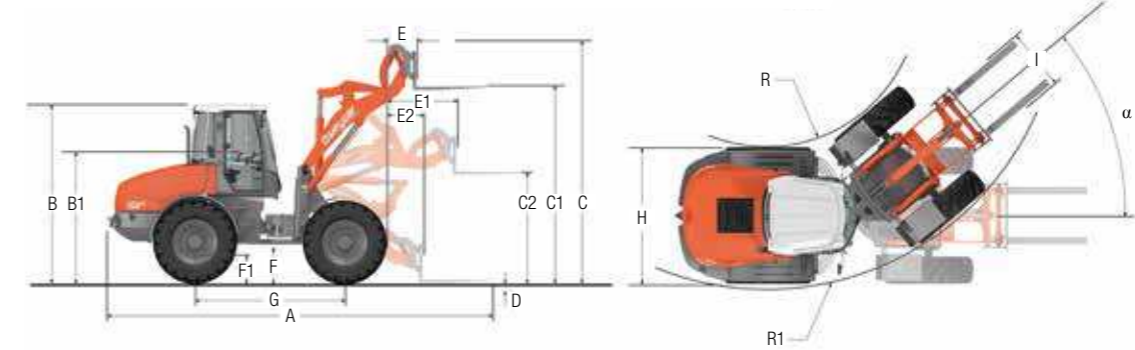
More options upon request

TECHNICAL DATA AR 105e WITH STANDARD SHOVEL



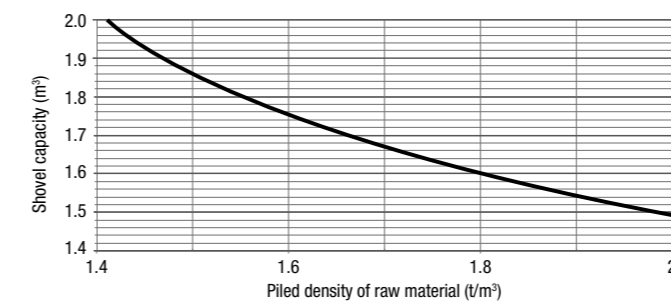
A	6,405 mm
B	2,990 mm
B1	2,205 mm
C	4,880 mm
C1	3,810 mm
C2	2,930 mm
D	65 mm
E	940 mm
F	570 mm
F1	410 mm
G	2,650 mm
H	2,225 mm
I	2,300 mm
R	2,540 mm
R1	4,850 mm
α	40°

TECHNICAL DATA AR 105e WITH PALLET FORKS



A	6,780 mm
B	2,990 mm
B1	2,205 mm
C	4,200 mm
C1	3,600 mm
C2	1,700 mm
D	50 mm
E	490 mm
E1	1,320 mm
E2	660 mm
F	570 mm
F1	410 mm
G	2,650 mm
H	2,225 mm
I	1,400 mm
R	2,540 mm
R1	4,850 mm
α	40°

DIAGRAM FOR SHOVEL SELECTION



SPECIFIC GRAVITY FOR MATERIAL HANDLING WEIGHT (t/m³)

Construction	Industry	
concrete.....1.9	ember.....0.7	phosphate fertiliser.....2.2
soil (dry).....1.5	brown coal briquette.....0.8	turf (watery).....1.1
soil (watery).....2.0	ferrous product.....7.8	turf (dry).....0.4
rock (fill).....2.4	iron ore.....2.3	mineral fertilizer.....1.0
granite.....1.8	cullet.....1.9	
limestone.....1.6	gas coke.....0.4	
gravel (dry).....1.9	timber.....0.8	
gravel (watery).....2.1	mineral coal.....1.2	
loam.....1.7	paper.....0.9	
plaster.....2.2	slag.....1.0	
sand (dry).....1.9	slag concrete.....2.7	
sand (watery).....2.1		
sandstone.....2.4	Landscaping, Agriculture	
shale.....2.2	agricultural crop.....0.7	
sediment.....2.1	grain.....0.6	
crushed stone.....1.5	hay.....0.3	
de-icing salt.....1.3	potash.....1.1	
clay.....1.6	compost.....1.0	
cement.....1.7	flour.....0.5	
clinker (stacked).....1.8	clay (watery).....2.3	

OPERATING DATA

Shovel capacity acc. to SAE	1.6 m ³
Track width	1,780 mm
Turning radius (outer shovel edge)	5,250 mm
Tear out force	7,000 daN
Torque	6,300 daN
Tipping load, straight	7,330 kg
Tipping load, articulated	6,490 kg
Lifting capacity at ground level	8,200 daN
Service weight	9,450 kg

Differing data for use of pallet forks (500 mm distance to center of gravity)*

Static tipping load, straight and articulated	5,260 kg
Lifting capacity	6,800 daN
Payload 80% even surface**	4,208 kg
Payload 60% uneven surface***	3,156 kg

Sound level

Average acoustic power-level L_{WA}⁽¹⁾	102.0 dB(A)
Guaranteed acoustic power-level L_{WA}⁽²⁾	103.0 dB(A)
Sound pressure level L_{pA}⁽³⁾	79.0 dB(A)
Specific vibration-data Hand- / arm- / bodyvibration⁽⁴⁾	< 2.5/0.5 m/s ²

* Travel with load only permitted close to the ground.
 ** According to ISO 8313 and EN 474-3. *** According to ISO 14396, EU RL97/68/EC. (1) According to 2000/14/EG & appendices.
 (2) According to 2000/14/EG & appendices. (3) According to ISO 6396.
 (4) According to ISO 8041.

PRODUCT RANGE

S

	AR 30	AR 60	AR 80 ^e
Operation weight	2,150 kg	4,300 kg / 4,650 kg	6,220 kg
Power	24.6 kW (33.5 HP)	36.5 kW (50.0 HP)	70.0 kW (95.0 HP)
Shovel capacity	0.32 - 0.45 m ³	0.65 - 1.00 m ³	1.10 - 1.30 m ³

	AR 35	AR 65 ^e	AR 85 ^e
Operation weight	2,500 kg	5,150 kg	7,000 kg
Power	24.6 kW (33.5 HP)	54.0 kW (73.0 HP)	80.0 kW (109.0 HP)
Shovel capacity	0.34 - 0.45 m ³	0.80 - 1.05 m ³	1.30 - 1.50 m ³

	AR 35 Super	AR 75 ^e	AR 95 ^e
Operation weight	2,875 kg	5,760 kg	7,900 kg
Power	29.4 kW (40.0 HP)	54.0 kW (73.0 HP)	85.0 kW (115.5 HP)
Shovel capacity	0.34 - 0.50 m ³	1.00 - 1.25 m ³	1.40 - 2.00 m ³

	AR 40	AR 75 ^e S	AR 95 ^e Super
Operation weight	3,500 kg	6,280 kg	8,200 kg
Power	29.4 kW (40.0 HP)	54.0 kW (73.0 HP)	95.0 kW (129.0 HP)
Shovel capacity	0.50 - 0.60 m ³	0.80 m ³	1.40 - 2.00 m ³

	AR 75 ^e T	
Operation weight	6,000 kg	
Power	54.0 kW (73.0 HP)	
Shovel capacity	1.00 m ³	

L

XL

Model range XXL



AR 105 ^e
9,450 kg
105.0 kW (143.0 HP)
1.60 - 2.00 m ³



AR 200 ^e
12,400 kg
115.0 kW (156.0 HP)
2.10 - 2.50 m ³



AR 250 ^e
13,800 kg
160.0 kW (218.0 HP)
2.40 - 3.00 m ³

Compliance with the new statutory limits for exhaust emissions is one thing. Deriving tangible benefits for our customers is another. We are proud to have incorporated both in the development of the new generation of wheel loaders.

Higher power - lower consumption plus a series of other innovative features that make a genuinely positive difference in a construction site environment. All the features inside are now represented on the outside by a small 'e' and the new product name 'weycor'.

weycor is an ATLAS WEYHAUSEN GMBH brand.