

# AR520

OPERATING WEIGHT  
6,450 kg

ENGINE OUTPUT  
80 kW (107 HP)

SHOVEL CAPACITY  
1.1 – 2.2 m<sup>3</sup>



 **Weycor**  
BY ATLAS WEYHAUSEN





# FIRST IMPRESSIONS COUNT!

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 generation of wheel loaders has been developed.

**6,450** <sup>KG</sup> OPERATING WEIGHT

**80** <sup>KW (107 HP)</sup> ENGINE OUTPUT

**1.1** <sup>M<sup>3</sup></sup> STANDARD SHOVEL CAPACITY

Operating data

|                                    |           |
|------------------------------------|-----------|
| Shovel capacity acc. to SAE        | 1.1 m³    |
| Track width                        | 1,640 mm  |
| Turning radius (outer shovel edge) | 4,700 mm  |
| Tear out force                     | 6,800 daN |
| Torque                             | 5,290 daN |
| Tipping load, straight             | 5,170 kg  |
| Tipping load, articulated          | 4,565 kg  |
| Lifting capacity at ground level   | 6,035 daN |
| Operating weight                   | 6,450 kg  |

Specifications

|   |                |
|---|----------------|
| <b>Differing data for use of pallet forks (500 mm distance to center of gravity)*</b> |                |
| Static tipping load, straight and articulated   | 3,625 kg       |
| Lifting capacity  | 4,810 daN      |
| Payload 80% even surface**  | 2,900 kg       |
| Payload 60% uneven surface***   | 2,175 kg       |
| <b>Sound level</b>  |                |
| Average sound power level L <sub>WA</sub> <sup>(1)</sup>                              | 100.0 dB(A)    |
| Guaranteed sound power level L <sub>WA</sub> <sup>(2)</sup>                           | 101.0 dB(A)    |
| Sound pressure level L <sub>pA</sub> <sup>(3)</sup>                                   | 75.0 dB(A)     |
| Vibration values hand/arm/whole body vibration <sup>(4)</sup>                         | < 2.5/0.5 m/s² |

Important Information on Shovel Size / Shovel Contents:

The details contained in this brochure relate solely to the weycor shovels referred to in the respective data sheet, with the associated technical parameters and configurations on which the respective CE approval for the device is based. The volume of the specific usable shovel depends on the material-specific bulk weights (t/m³) of the shovel contents, which you can take as approximations from the data sheet's TABLE OF SPECIFIC WEIGHTS IN t/m³. Regardless of this, neither the wheel loader's permissible working weight nor its permissible tipping loads may be exceeded. If the wheel loader is equipped with shovels that are not manufactured and licenced by Atlas Weyhausen GmbH, the buyer and / or the operator is solely responsible for compliance with the relevant statutory regulations and licensing requirements – particularly those relating to road-traffic and road-traffic-licensing law.

\*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 & appendixes. (2) According to 2000/14/EG & appendixes. (3) According to ISO 6396. (4) According to ISO 8041.



# DETAILS THAT MAKE AN IMPRESSION

It is demanding to meet the new legal requirements for exhaust emissions. The challenge is to create also tangible benefits for our customers. We are proud to have achieved both in the development of the current wheel loader generation: more power - less consumption, plus a number of others innovations that really make a difference on tough construction sites.

## Latest kinematics technology

The proven and tested weycor kinematics with its exceptional tear-out force and excellent lifting heights. The tapered loading rocker makes sure you can always keep an eye on the attachment.

## 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.

## Easy maintenance

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

## Articulated pendulum joint

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

## Comfortable cabin

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

## Powerful drive unit

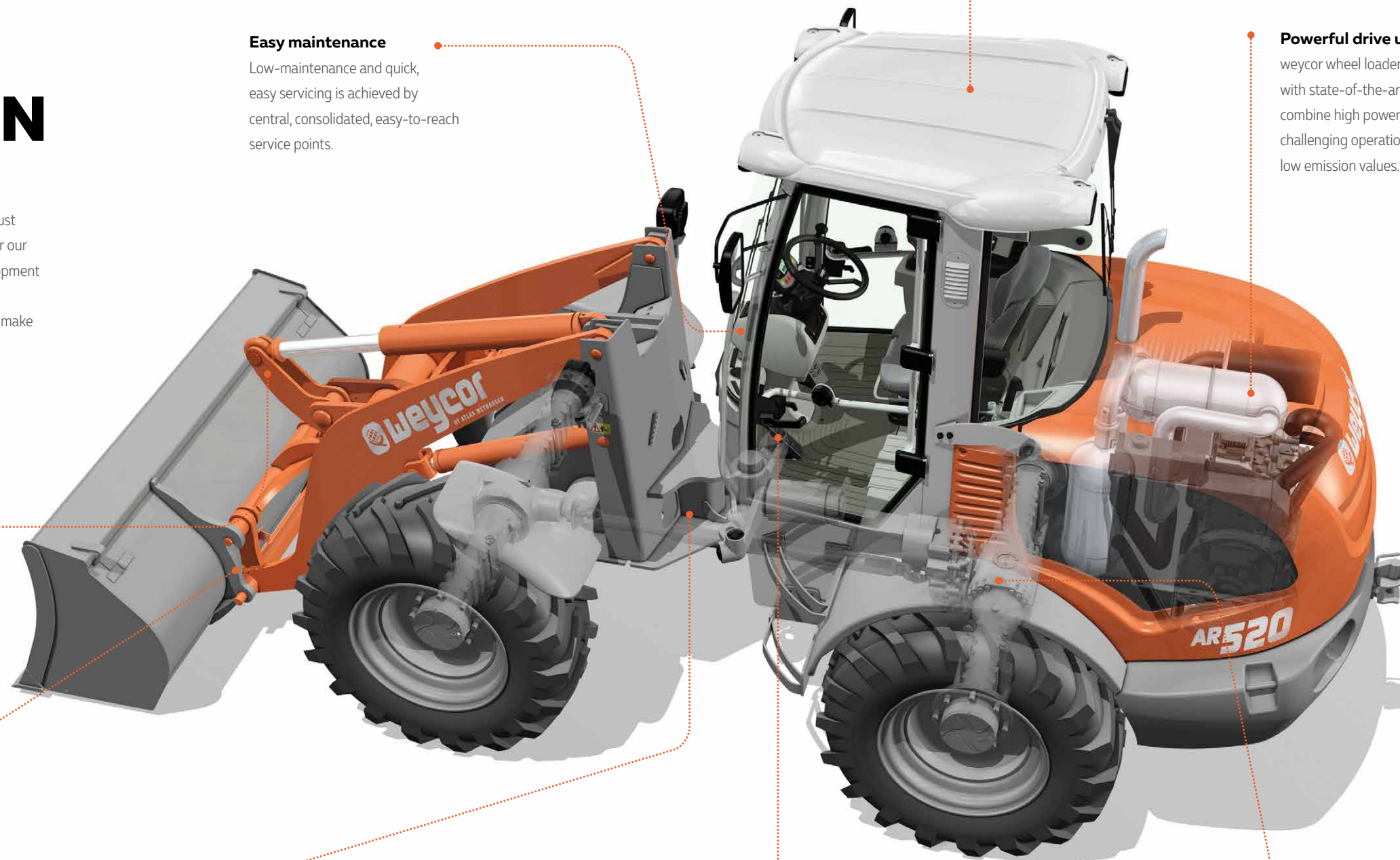
weycor wheel loaders are equipped with state-of-the-art engines which combine high power reserves for challenging operations with up-to-date low emission values.

## 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.



# INNOVATIVE ENGINE TECHNOLOGY

## TCD 3.6 L4 – intelligent efficient:

We have been convinced of the quality of Deutz engines for over 40 years. Our cooperation with Deutz also offers numerous benefits for the AR 520: such as the electronic engine control with intelligent connection to the drive management. This ensures the best engine performance with low fuel consumption.



## Deutz engine technology: TCD 3.6 L4

The new Deutz engines offer special technical solutions for the exhaust and injection system. A diesel oxidation catalyst (DOC) in combination with an SCR unit sustainably reduces both, soot particles and emitted nitrogen oxides. The open system of the DOC requires no additional maintenance. This offers some advantages for the user at the daily work. The engines already meet the EU Stage V emission standard expected from 2019 with a diesel particle filter.

## Mighty performance

80 kW at a maximum of 2,200 rpm

## Compliance with emission standards

Standard: DOC + SCR - EU Stage 4

DOC / DPF + SCR - EU Stage 5



# TECHNICAL DATA

| Engine              |                             |
|---------------------|-----------------------------|
| Model               | TCD 3.6 L4                  |
| Design              | water-cooled                |
| Output              | 80 kW (107 HP) at 2,200 rpm |
| Max. torque         | 430 Nm at 1,300 rpm         |
| Cubic capacity      | 3,621 cm³                   |
| Number of cylinders | 4 in line                   |

| Electrical system |               |
|-------------------|---------------|
| Operating voltage | 12 V          |
| Battery           | 12 V / 100 Ah |
| Generator         | 14 V / 95 A   |
| Starter           | 12 V / 3,2 kW |

| Drive   |
|---|
| Output-regulated hydrostatic drive with pressure cut off and closed circuit acting on all 4 wheels.<br>Speed with standard tires:<br><b>Operating speed range</b> 0–6.5 km/h<br><b>Road speed range</b> 0–20 km/h<br><b>Optional high speed</b> 0–40 km/h<br>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   |
|--|
| <b>Standard brake:</b> 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.<br><b>Parking brake:</b> Parking brake as springloaded brake acting on all 4 wheels. In case of standstill of engine the spring-loaded brake is automatically reactivated. |

| 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 <small>(Special tires upon request)</small>  |
|--|
| <b>Standard:</b> 405/70 R20 EM – Construction machine tires for clay, sand, gravel, asphalt, roads, gardening and landscaping    |
| <b>Special tires:</b> 400/70 R20 XMCL – Construction machine tires for clay, sand, gravel, fields and greenland, fortified roads |

| Hydraulic system   |
|--|
| Gear 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 280 bar, Delivery of pump 72 l/min                                      |

| Fuel/oil capacities |           |
|---------------------|-----------|
| Diesel              | 130 Liter |
| Hydraulic oil       | 86 Liter  |
| Engine oil          | 9.5 Liter |
| Front axle          | 4.5 Liter |
| Rear axle           | 4.2 Liter |
| Gear oil            | 2.5 Liter |
| Cooling liquid      | 17 Liter  |
| AdBlue              | 10 Liter  |

| 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           |       |
| Locking device acc. to German StVZO for road travel      |       |
| Lifting  | 5.0 s |
| Lowering   | 3.2 s |
| Tipping  | 1.2 s |

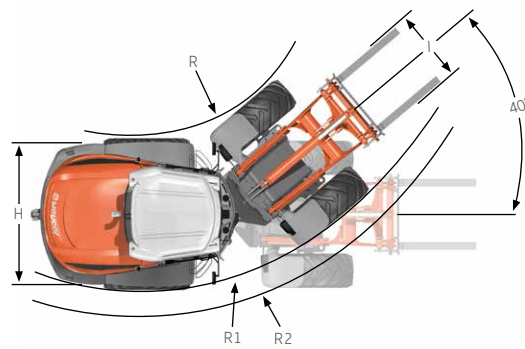
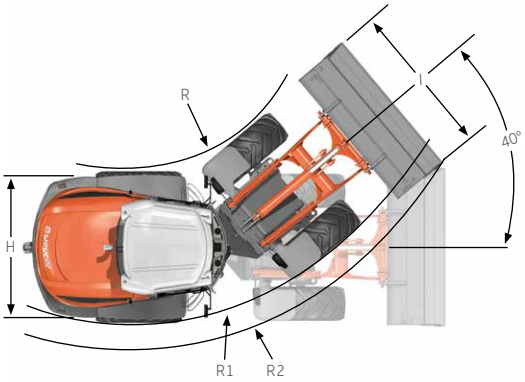
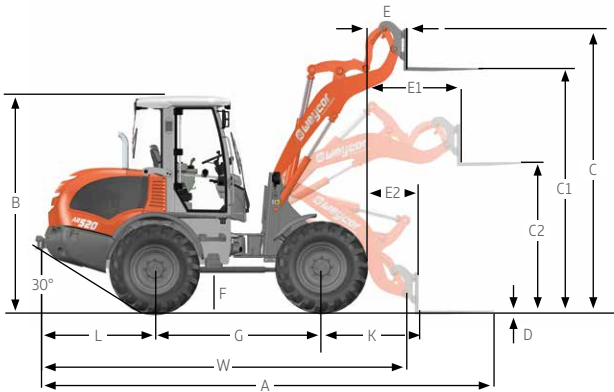
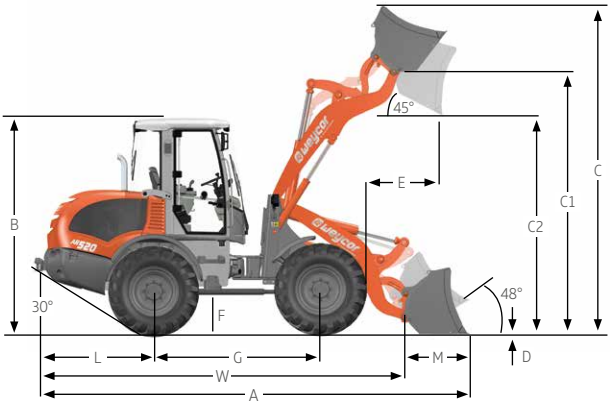
| Equipment – Series  |
|---|
| Rear driving mirrors, foldable  |
| Heatable rear screen  |
| Comfortable access to cab from both sides   |
| Activation of all functions by weycor joystick  |
| Control lights for speed range, forward/backward travel   |
| Lights acc. to German StVZO for road travel   |
| Individually adjustable driver’s seat with adjustable right arm rest  |
| Water heating with heat exchange and 3-stage fan  |
| Front windscreen ventilation, variable output   |
| Sound absorbing ROPS cab  |
| Windscreen wipe and wash unit in front and rear   |
| Sun visor, coat hook, ceiling lamp, stow facility   |
| Adjustable steering column  |
| Heat protection glazing with largetinted 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                              |
| Joystick with integrated proportional steering for 3rd section  |
| weycor diagnostic system (ADS) for monitoring engine parameters with integrated electronic anti-theft device                |

| Equipment – Option   |
|--|
| 4th hydraulic section front or rear                          |
| Stability damping system                                     |
| Slow drive inching pedal                                     |
| High speed version 40 km/h                                   |
| Extended lifting frame                                       |
| Preparation for Hydraulic hammer, Hand throttle device       |
| Load check valve for lifting and working cylinders           |
| Trailer coupling   |
| Main battery switch  |
| Corrosion prevention against salt                            |
| Special paintings and oils                                   |
| Anti-theft-device with code stick                            |
| Heatable and air cushioned seats                             |
| Radio  |
| Doors with sliding windows, left and right side              |
| Electrically adjustable and heated exterior rearview mirrors |
| Telescopic steering column                                   |
| Air conditioning   |
| FOPS-II-roof   |
| LED work light   |
| DPF  |
| Reverse gear alarm   |
| 12 V socket 2-pin  |
| 12 V socket 13-pin   |
| Bucket level indicator                                       |



TECHNICAL DATA

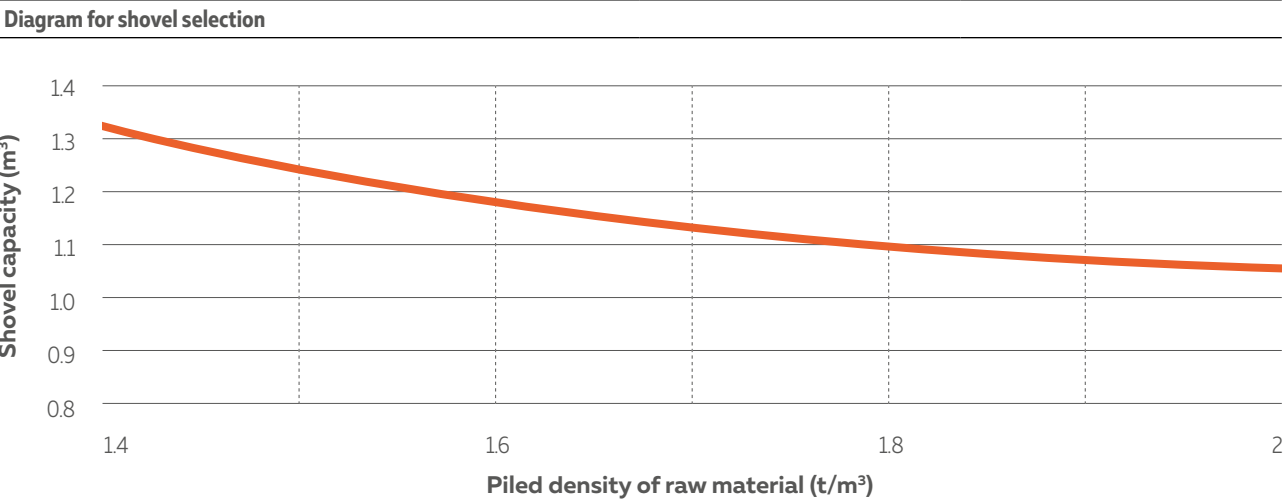
|    | AR 520 with standard shovel | AR 520 with pallet forks |
|----|-----------------------------|--------------------------|
| A  | 5,655 mm                    | 6,008 mm                 |
| B  | 2,820 mm                    | 2,820 mm                 |
| C  | 4,285 mm                    | 3,954 mm                 |
| C1 | 3,445 mm                    | 3,275 mm                 |
| C2 | 2,681 mm                    | 1,520 mm                 |
| D  | 12 mm                       | 8 mm                     |
| E  | 776 mm                      | 549 mm                   |
| E1 | -                           | 1,329 mm                 |
| E2 | -                           | 778 mm                   |
| F  | 530 mm                      | 530 mm                   |
| G  | 2,199 mm                    | 2,199 mm                 |
| H  | 2,079 mm                    | 2,079 mm                 |
| I  | 2,150 mm                    | 1,080 mm                 |
| K  | -                           | 1,344 mm                 |
| L  | 1,480 mm                    | 1,480 mm                 |
| M  | 855 mm                      | -                        |
| R  | 2,050 mm                    | 2,050 mm                 |
| R1 | 4,060 mm                    | 4,060 mm                 |
| R2 | 4,700 mm                    | 4,700 mm                 |
| W  | 4,800 mm                    | 4,800 mm                 |



With standard shovel

With pallet forks

| Specific gravity for material handling weight (t/m³) |     |                   |     |                          |     |                      |     |
|--|-----|-------------------|-----|--------------------------|-----|----------------------|-----|
| Construction   |     | Industry          |     | Landscaping, Agriculture |     |                      |     |
| Concrete   | 1.9 | Sand (watery)     | 2.1 | Ember                    | 0.7 | Agricultural crop    | 0.7 |
| Soil (dry)   | 1.5 | Sandstone         | 2.4 | Brown coal briquette     | 0.8 | Grain                | 0.6 |
| Soil (watery)  | 2.0 | Shale             | 2.2 | Ferrous product          | 7.8 | Hay                  | 0.3 |
| Rock (fill)  | 2.4 | Sediment          | 2.1 | Iron ore                 | 2.3 | Potash               | 1.1 |
| Granite  | 1.8 | Crushed stone     | 1.5 | Cullet                   | 1.9 | Compost              | 1.0 |
| Limestone  | 1.6 | De-icing salt     | 1.3 | Gas coke                 | 0.4 | Flour                | 0.5 |
| Gravel (dry)   | 1.9 | Clay              | 1.6 | Timber                   | 0.8 | Clay (watery)        | 2.3 |
| Gravel (watery)                                      | 2.1 | Cement            | 1.7 | Mineral coal             | 1.2 | Phosphate fertiliser | 2.2 |
| Loam   | 1.7 | Clinker (stacked) | 1.8 | Paper                    | 0.9 | Turf (watery)        | 1.1 |
| Plaster  | 2.2 |                   |     | Slag                     | 1.0 | Turf (dry)           | 0.4 |
| Sand (dry)   | 1.9 |                   |     | Slag concrete            | 2.7 | Mineral fertiliser   | 1.0 |





You can find our current product range and more exciting details at: **[www.products.weycor.de](http://www.products.weycor.de)**

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice, errors expected. The technical data refer only to the standard version, illustrations do not necessarily show the standard version of the machine. Not all products are available in all markets.

weycor is a brand of ATLAS WEYHAUSEN GMBH.

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