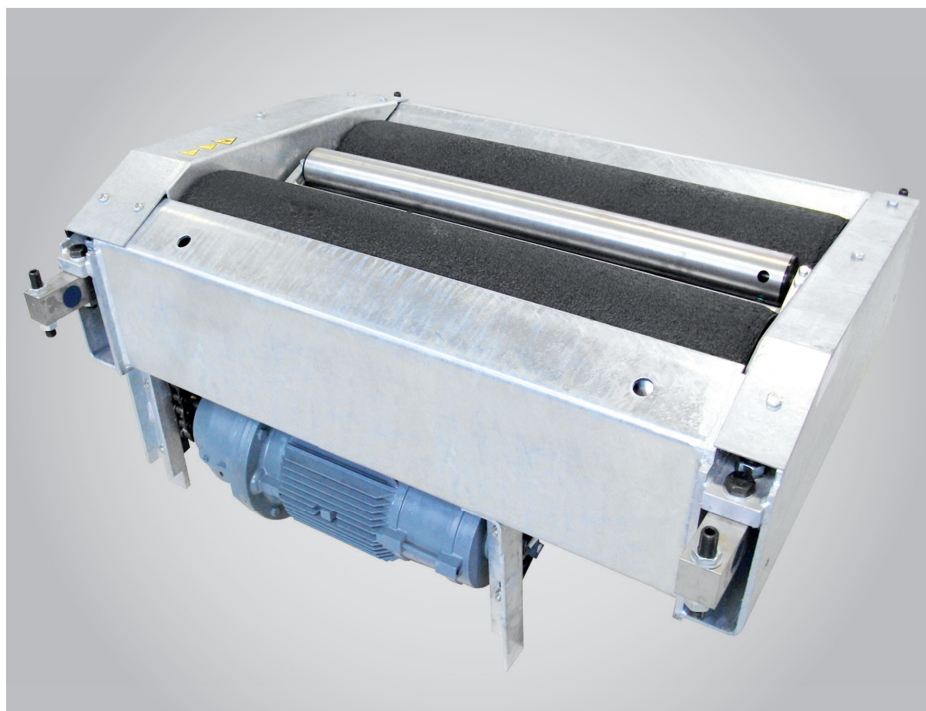




Roller brake testers for trucks

Roller brake testers for trucks of 13 to 20 tons axle load

Roller brake testers for trucks

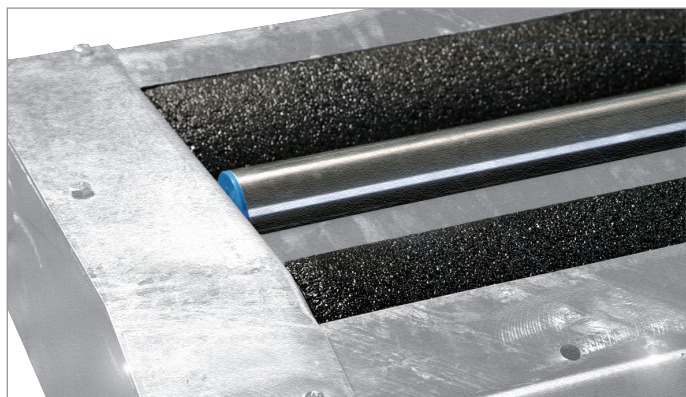


Unterneukirchen is the centre of excellence for testing technology in the strong and efficient Snap-on Group. For more than 30 years the name of Cartec has been a synonym for engineering and manufacturing of testing and diagnostics technology for cars and trucks.

Our customers benefit from concentrated expertise and direct and smooth handling of enquiries and orders.

A qualified team, the well-known product quality, good service and the advantages of the strong global Snap-on Group guarantee testing technology which is constantly optimised in terms of customer requirements.

This is the reason why our equipment have been approved and recommended by many important car manufacturers.



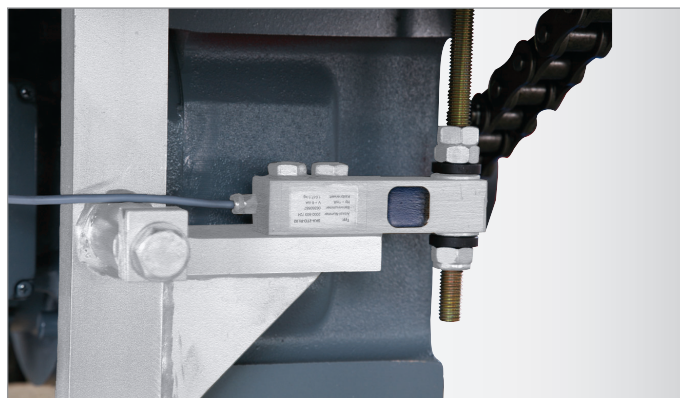
Roller coating

The steel rollers with wear-proof plastic coating on welded expanded metal mesh guarantee tyre-preserving vehicle tests. Alternatively SmoothGrip rollers are available, featuring thousands of nubs welded onto the steel rollers to ensure long life, low tyre wear and best suitability for spiked tyres.

Rust-proof feeler rolls

The brake test does not start before both feeler rolls are depressed. This safety feature prevents unintentional starting of the brake tester.

Roller brake testers in proven testing technology for an axle load range of 13 to 20 tons – the optimum solution for workshops, truck and bus pools as well as expert organisations carrying out inspections in line with government standards.



Braking force transducers

The features to be tested are detected by means of well-proven strain-gauge type load cells. This wear-free measuring system ensures reliable and error-free measurement of the forces produced.



The brake testers offer standard features such as:

- Automatic mode
- Manual mode
- Ovality measurement
- Cut-out at wheel lock
- Automatic switching in
- Display of braking force imbalance
- Indication of cut-out at wheel lock
- Automatic switching over between car and truck modes
- Electric automatic drive-off aid

Elevated rear rollers

Elevated rear rollers facilitate driving off the rollers and prevent the vehicle from driving off too early.

All brake testers are also available with level rollers, dual direction testing and 4WD mode.



Basic equipment

The brake testers consist of the following basic equipment:

- roller set with cables
- display cabinet

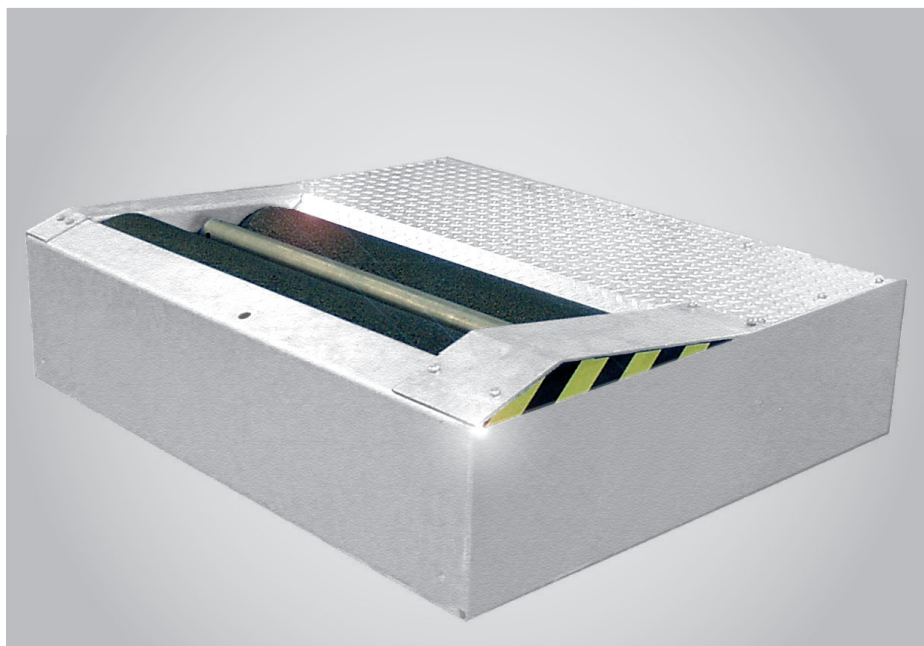
The mechanical parts are hot-galvanised and the motors are splash-proof – the optimum prerequisite to withstand harsh shop conditions and outdoor installation.

Automatic test sequence

After the error check routine the brake test starts automatically, determining rolling resistance of tight brakes, ovality of brake drum and brake disc and the permanent braking force imbalance between left-hand and right-hand sides.

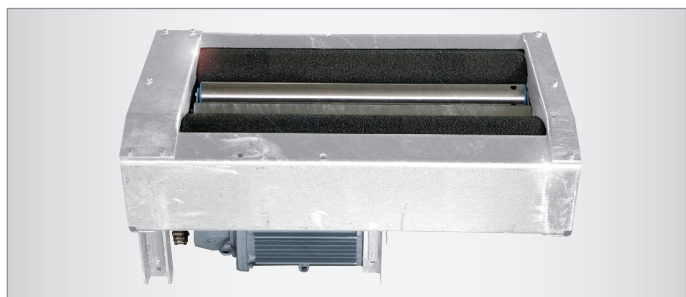
The data measured for the individual axles is assigned automatically.

Roller brake testers for trucks



Proven testing technology for your workshop

Depending on individual requirements and conditions on site the roller sets can be installed in front of the pit, or separately on left and right sides..



BDE 3504 N of up to 13 t

- Roller set in two-part design
- Motors under the rollers

BDE 4504 N of up to 16 t and 20 t axle load

- Roller set in two-part design
- Motors under the rollers

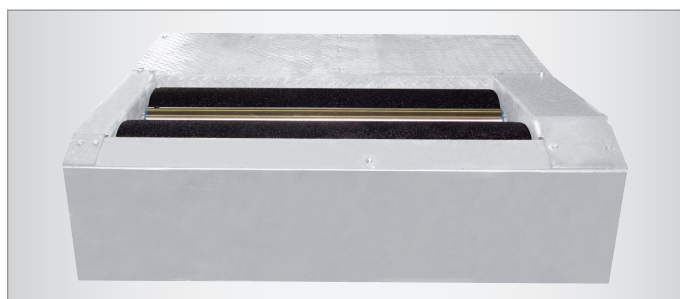
BDE 4504 G of up to 16 t axle load

- Roller set in two-part design
- Motors at drive-off end

BDE 4504 K of up to 16t axle load

- Unique roller set in compact design
- Motors in the middle of the rollers

All brake testers are available with one or two speeds. All truck brake testers are also available with brake motors.



Built-in frames for the roller sets facilitate preparation of the foundation

- There is no need to embed in concrete a steel beam with edge guards as otherwise inevitable.
- The time required for encasing is considerably reduced.
- Foundations will always fit perfectly.



Additional brake tester models:

- BDE 3504 in surface-mounted version (mobile) of up to 13 t axle load

Control options

Display cabinet SC



With SC versions the electronic unit is integrated in the display cabinet, hence no power cabinet is required.

Display cabinet COMBI



The COMBI display cabinet can be used in conjunction with the power cabinet only.

Power cabinet



Measuring range of 0–6 / 0–30 kN for BDE 3504 N – 13 t
Measuring range of 0–8 / 0–40 kN for
– BDE 4504 N – 16 t and 20 t
– BDE 4504 K – 16 t
– BDE 4504 G – 16 t

When a car is tested, the measuring range switches automatically to 6 kN or 8 kN.

In addition there is the possibility of simultaneous operation, e.g. with the display cabinet installed in the check-in bay and connected via COM lead to the PC which is for instance located in the shop office.

Tablet PC (optional)



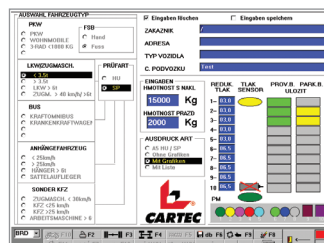
The tablet PC is rugged and very handy and has the added benefit that no specific user software is required.

PC cabinet (optional)

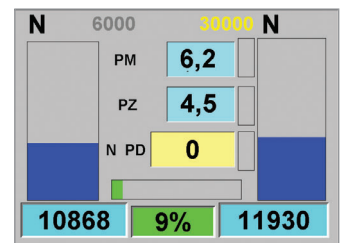
The optional PC cabinet offers ample space for a PC, a TFT monitor, an A4 ink-jet printer, keyboard and mouse.



Testing software Main screen



Graphical brake analysis



Roller brake testers for trucks

Brake tester options

Side-slip tester SSP 4000

The side-slip tester is designed to measure toe of the vehicle under test. The results of toe-in and toe-out respectively are read out on the optional integrated LED on the display cabinet, or in graphical form on the optional monitor.

Joint-play detector GST 4600

The joint play detector GST 4600 FA is a useful supplement for check-in or inspections to carry out a visual check of axle play. The galvanised test plates are operated hydraulically upon key operation of the test lamp. The test plates can be controlled one by one, in counter-directions (4-way control), or in same directions (8-way control).

4WD kit

In 4WD mode the roller sets start in counter-directions to prevent damage to gearbox and axle of 4WD trucks.

Lifting device HBV 4000

The lifting device HBV 4000 can be used only in conjunction with BDE 4504 N 20 t with rollers 1000 mm long and wheel / axle load weighing unit to simulate various wheel / axle loads. The roller set is raised and pressed against the vehicle under test.

Load simulator NSV 4000

The load simulator NSV 4000 is designed to simulate various axle loads of 0 to 10,000 kg on trucks by pulling the vehicle downwards by means of chains.

Load simulator NSV 3000

Same as NSV 4000, but with one instead of two cylinders to simulate axle loads of 0 to 2,800 kg; for use on all truck brake testers of type N, N SC, G, G SC.

Wheel / axle load weighing unit

The wheel / axle load weighing unit is designed to automatically detect, calculate and store weight. The values are read out on the optional integrated LED on the display cabinet, or in graphical form on the optional monitor.

Safety device for pit installation

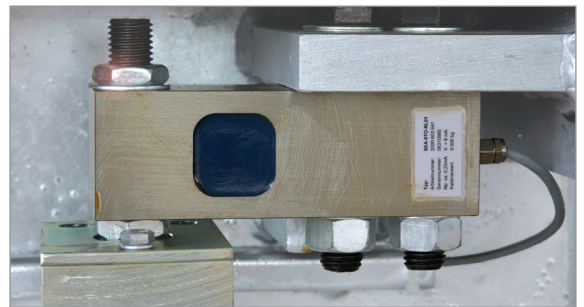
When the roller sets are installed over a pit, the danger zone is to be protected with a safety device so that the rollers stop at once when a person enters the danger zone (comply with country-specific regulations).

Pressure transducers

Set of 2 to 5 off, wireless design, also available as cable type transducer. The values measured remain available also for later analysis.

Pedal force measuring systems

For pedal force measurement during the brake test, pedal force measuring systems are available in cable or wireless design. Pedal pressure is read out either on an optional integrated LED on the display cabinet, or in graphical form on the optional monitor.

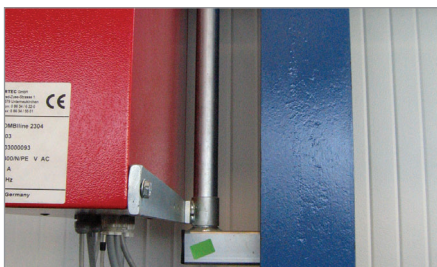


Additional options

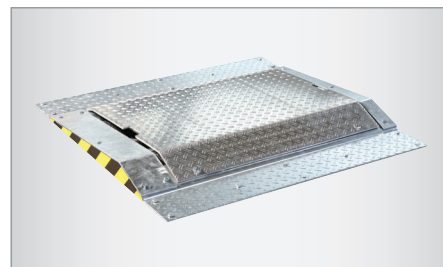
IR remote control unit



Column or swivel-type wall bracket for display cabinet



Roller cover plates, traversable version, plug-in type



Technical data

		BDE 3504 N	BDE 4504 N
Max. drive-over load per axle	t	13	20
Roller coefficient dry – wet		> 0.7 / > 0.6	> 0.7 / > 0.6
Temperature range	°C	0 up to + 40	0 up to + 40
Measuring principle		load cell	load cell
Processing of measured data		microprocessor	microprocessor
Measuring range	kN	0 – 30	0 – 40
Maximum achievable brake force	kN	26	40
Display cabinet SC – H x W x D	mm	600 x 800 x 200	600 x 800 x 200
Display cabinet SC – Weight	kg	35	35
Display cabinet Combi – H x W x D	mm	900 x 900 x 200	900 x 900 x 200
Display cabinet Combi – Weight	kg	50	50
Power cabinet – H x W x D	mm	800 x 600 x 200	800 x 600 x 200
Power cabinet – Weight	kg	35	35
Mains voltage	V	3/N/PE 400 V AC	3/N/PE 400 V AC
Frequency	Hz	50	50
Fusing slow-blow type	A	3 x 50	3 x 80
Drive rating / Motor power	kW	2 x 9.2	2 x 15
Test width min. – max.	mm	variable	variable
Roller set – W x L x H	mm	1225 x 700 x 550	1270 x 1210 x 640
Roller diameter	mm	204	255
Roller length	mm	1000	1000
Roller elevation	mm	30	50
Anti-corrosion finish: galvanisation	DIN	50976-t Zn	50976-t Zn
Idling speed (2nd speed optional)	km/h	2.5 / 5.0	2.6 / 5.2
Roller set – Weight	kg	2 x 400	2 x 700

Roller brake testers for trucks

Technical data

		BDE 4504 G	BDE 4504 N	BDE 4504 K
Max. drive-over load per axle	t	16	16	16
Roller coefficient dry – wet		> 0.7 / > 0.6	> 0.7 / > 0.6	> 0.7 / > 0.6
Temperature range	°C	0 up to + 40	0 up to + 40	0 up to + 40
Measuring principle		load cell	load cell	load cell
Processing of measured data		microprocessor	microprocessor	microprocessor
Measuring range	kN	0 – 40	0 – 40	0 – 40
Maximum achievable brake force	kN	30	30	30
Display cabinet SC – H x W x D	mm	600 x 800 x 200	600 x 800 x 200	600 x 800 x 200
Display cabinet SC – Weight	kg	35	35	35
Display cabinet Combi – H x W x D	mm	900 x 900 x 200	900 x 900 x 200	900 x 900 x 200
Display cabinet Combi – Weight	kg	50	50	50
Power cabinet – H x W x D	mm	800 x 600 x 200	800 x 600 x 200	800 x 600 x 200
Power cabinet – Weight	kg	35	35	35
Mains voltage	V	3/N/PE 400 V AC	3/N/PE 400 V AC	3/N/PE 400 V AC
Frequency	Hz	50	50	50
Fusing slow-blow type	A	3 x 50	3 x 50	3 x 50
Drive rating	kW	2 x 11	2 x 11	2 x 11
Test width min. – max.	mm	variable	variable	952 – 2922
Roller set – W x L x H	mm	1390 x 1560 x 380	1270 x 1210 x 640	3160 x 920 x 350
Roller diameter	mm	255	255	204
Roller length	mm	1200	1000	985
Roller elevation	mm	50	50	30
Anti-corrosion finish: galvanisation	DIN	50976-t Zn	50976-t Zn	50976-t Zn
Idling speed (2nd speed optional)	km/h	2.6 / 5.2	2.6 / 5.2	2.6 / 5.2
Roller set – Weight	kg	2 x 960	2 x 700	950

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CARTEC 

Part of the machines is illustrated with optional extras which are available at extra cost. Technical and visual modifications reserved.

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