

BREAK TEST STANDS, TEST LANES AND HEADLIGHT-TESTERS **COMMERCIAL VEHICLES, COACHES AND AGRICULTURAL MACHINERY**



HLT

Headlight tester

The testing and positioning of headlights should be checked at the workshop on every visit just as the oil levels and other important things are also checked.

It is extremely important that the correct headlight adjustments are maintained since any deviation could mean that the driver loses meters in his line of sight. And it could also be dangerous for other road users when blinding them with incorrectly adjusted headlights.

In order to adjust the headlight according to most legal requirements, the vehicle should be positioned exactly 10 meters in front of a white wall with the centre axis of the headlight beams reflected onto it. This is the basis of checking the deviation of the beams in percentage terms according the make and brand of the vehicle and correcting it.

This form of measurement is often impractical as it can cause some problems due to lack of space in the workshop. The HLT headlight beamer adjustment device from NUSSBAUM offers the mechanic a small workshop helper that does the job more efficiently. The integrated lens enables the required 10 meter distance to be minimized down to just a few centimeters.

Approved by BMW for HLT 620



The headlight beamer tester and adjustment device is a robust precision instrument designed for simple user friendly implementation in the repair workshop. With a measuring height of between 270 mm to 1.300 mm it is ideal for testing not only headlights on cars but also for trucks.

In order to meet different country specific requirements Nussbaum is able to offer further models, e.g. for Switzerland, Belgium, France, England and many more.

HLT	600	610	620	620-L
Measuring height (mm)	270–1300			
Weight (kg)	30			
Luxmeter	-	yes	yes	yes
Laser positioning	optional	optional	optional	yes
Wheels	yes	yes	-	-
Rail kit	optional	optional	standard	adjustable



Highly robust and workshop orientated headlight tester with optical or laser positioning

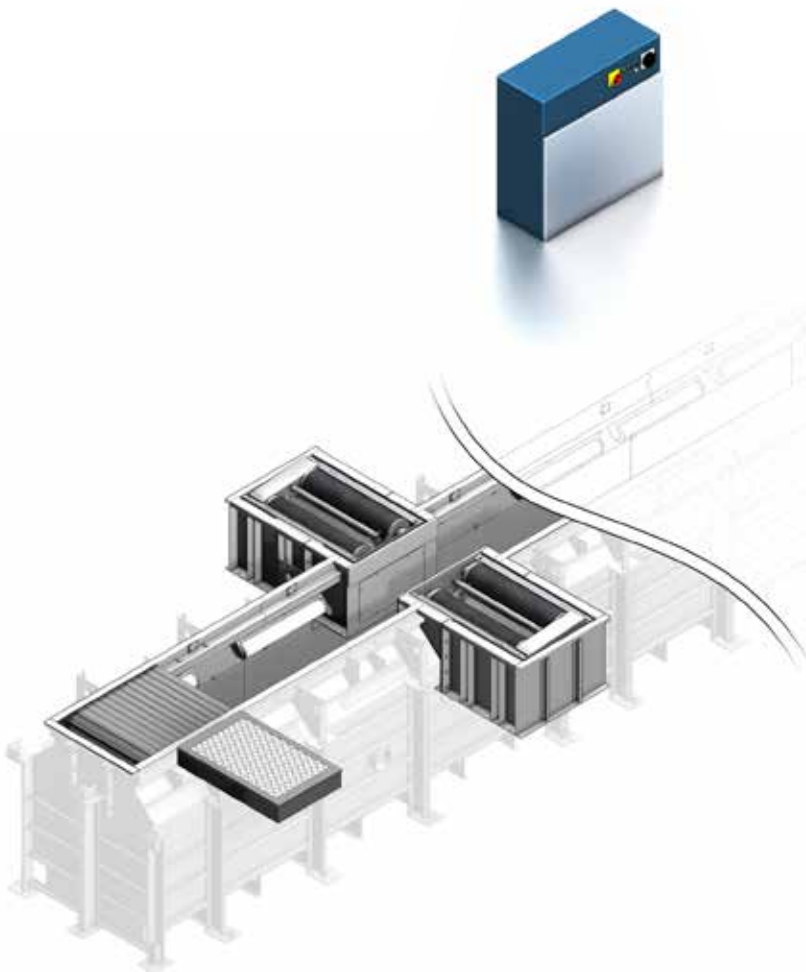
- Full testing range from a simple incandescent lamp up to the latest LED technologies
- One handed high adjustment with automatic locking
- Fast set up by use of a mirror
- Control of the measurement reflection using a hinged mirror at the rear of the cabinet
- Simple lateral movement from each headlamp without complicated maneuvering
- No electrical connection or batteries required
- Ergonomic controls



Brake Tester & Test Lane

YOUR CHOICE.

The modular system offers standard solutions as well as extra configuration possibilities to enable the configuration of an ideal test lane.



ANALOGUE, DIGITAL OR PC MONITOR DISPLAY – YOU CHOOSE!

Clear and simple: With the digital analogue display, the most important results can be viewed at a glance on a 350 mm wide display: The brake forces, slip limits and high imbalance using signal lamps. The optional digital display enables further values such as vehicle weight, rolling resistance, pressure values P_m and P_z . Additional parallel analogues displays can also be installed.

The PC system adds even further possibilities: A 19" flat screen monitor comes as standard. A large LCD television monitor or a remote hand held rug board can also be combined as well as an additional analogue display.



FROM A ROLLER SET TO THE TEST LANE

The type of roller set with motors below, has the advantage of space saving over the entire width while motors to the sides allows for a shallow pit. You can supplement the test stand with a side slip tester to detect reasons for undue tyre wear due to wrongly adjusted geometry and a play detector to check steering components and wheel bearings. The braking efficiency can be calculated using the optional weighing device under the roller set. In conjunction with the roller set lifting device or the pull down device a simulated axle weight can be utilized for the same purpose as well as trailer/truck compatibility and SP testing.

truckbay – WE OFFER THE COMPLETE SOLUTION

The truckbay is a complete pre-fabricated steel cassette workshop pit for trucks up to 60 tons weight. An optional roller cover operated by the press of a button is strong enough to enable the truck to drive over. This in turn enormously increases the versatility and space in the workshop.

- You can select a standalone brake tester or a complete commercial vehicle test lane. We could deliver the complete pre-fabricated steel cassette pit, which with an optional roller cover enables trucks to drive over.
- Our own development branch for software, measurement and control technology as well as electronics, mechanics and in house production ensures flexibility, innovation and quality.
- All floor units are hot dip galvanized, optimally protecting them from corrosion.
- All brake testers are fitted with worm gears enabling rollers to self block assisting the exit of trucks, busses, transporters and cars.

THE MODULAR SOLUTION

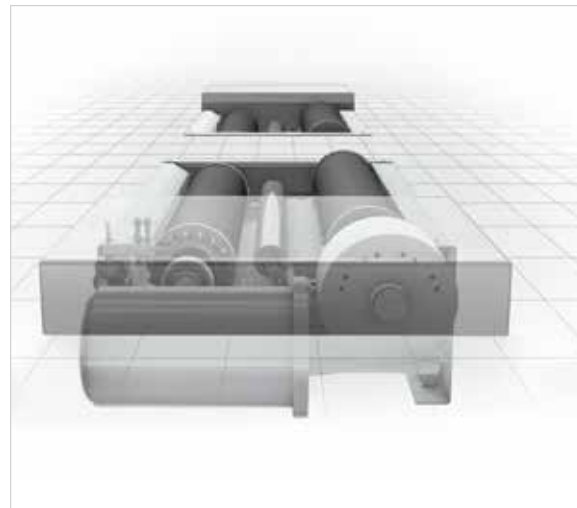
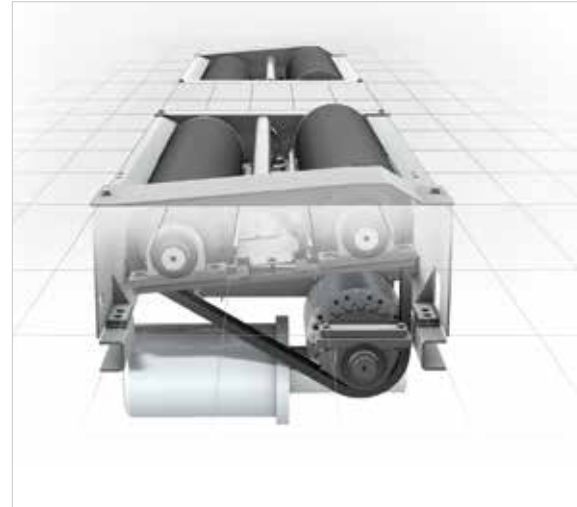
Using the modular concept, you are able to select the types of tests that you require: Either by utilizing the repairing tests, such as brake testing – which can also be used in a stand-alone format or a universal test lane which incorporates the brake test with others such as side slip and play detection.

Passenger cars may also be tested on the same system. An integrated weighing device, lifting device, pull down device, pressure sensors and further options are also available for extended results.

You select either the analogue display with the advantage of clear and quick presentation of the results, or a PC system which can register the pre-programmed number of axles and types of braking systems as well as displaying the calculated results. All results can also be saved in a database together with customer and vehicle information. They can be called up or even transmitted to a workshop network system.

Which roller set is the right one?

- The type „with motors below the rollers“ has the advantage of using a smaller space in the workshop whereas the type with motors to the sides has the advantage of lower roller pits.
- The motor power 9 kW offers a measuring range up to 30 kN and an axle weight capacity of up to 13t, the motor power 11 kW offers a measuring range up to 40 kN and an axle weight capacity of up to 18 t. The testing speed for trucks is 2,5 km/h. If you would like to test both commercial vehicles and passenger cars on the same rollers, then you can choose the version with switchable speeds, enabling cars to be tested at 5 km/h.
- You can also select various types of roller coating such as welded or plastic corundum surface. Both of these fulfil the international requirements for the coefficients of adhesion.
- The rear roller raised by 50 mm is the standard version but we also offer a floor level version which enables testing in both directions. Braking efficiency calculations require the assistance of an optional weighing device fitted under the rollers. This configuration can also measure the truck/trailer suitability, SP testing and with the addition of a lifting device or pull down device simulated weights can also be induced.



Agricultural test bench

- Especially trucks with wide base tires demand test benches with a roller length of 1,300 mm and a high test width.
- For testing tractors there is the agricultural version of the test bench. On this bench also trucks and coaches can be tested. The testable roller diameter is from 800 to 2200 mm, the center distance of the rollers has been increased up to 680 mm.

Technical data and scope of delivery

Break test stands for commercial vehicles, transporters and coaches up to an axle load of 13.000kg											
Specification	Testing speed	Roller length 1,100 mm				Roller length 1,300mm					
		Motors below	Motors to the side	Motors below	Motors to the side	Motors below	Motors below	Motors below			
Motor power 9 kW Max. driven over load 16 t Max. breakforce 30 kN Display range 8/40 kN Roller diameter 282mm Roller surface: welded Testable roller diameter 440-1,400 mm Power connection (Ph./V/A/Hz) 3/400/63/50	Singlespeed 2,5 km/h for truck 2 speeds 2,5 km/h for truck 5,0 km/h for passenger car	analog	BT 610 raised roller 0986400C00N	BT 620 raised roller 0986400C19N	Visio	BT 610 Visio raised roller 0986400C50N	BT 620 Visio raised roller 0986400C54N	analog	BT 710 raised roller 0986400C47N	Visio	BT 710 Visio raised roller 0986400C48N
			BT 610 floor level 0986400C80N	BT 620 floor level 0986400C26N		BT 610 Visio floor level 0986400C84N	BT 620 Visio floor level 0986400C91N		BT 712 raised roller 0986400C4AN		BT 712 Visio raised roller 0986400C4BN
Roller surface: welded Testable roller diameter 440-1,400 mm Power connection (Ph./V/A/Hz) 3/400/63/50	2 speeds 2,5 km/h for truck 5,0 km/h for passenger car	analog	BT 612 raised roller 0986400C01N	BT 622 raised roller 0986400C20N	Visio	BT 612 Visio raised roller 0986400C51N	BT 622 Visio raised roller 0986400C55N	analog	BT 712 raised roller 0986400C4AN	Visio	BT 712 Visio raised roller 0986400C4BN
			BT 612 floor level 0986400C81N	BT 622 floor level 0986400C27N		BT 612 Visio floor level 0986400C85N	BT 622 Visio floor level 0986400C92N		BT 712 raised roller 0986400C4AN		BT 712 Visio raised roller 0986400C4BN
Break test stands for commercial vehicles, transporters and coaches up to an axle load up to 18.000 kg											
Specification	Testing speed	Roller length 1,100 mm				Roller length 1,300mm					
		Motors below	Motors to the side	Motors below	Motors to the side	Motors below	Motors below	Motors below			
Motor power 2x 11 kW Max. driven over load 18 t Max. breakforce 40 kN Display range 8/40 kN Roller diameter 282mm Roller surface: plastic corundum Testable roller diameter 440-1,400 mm Power connection (Ph./V/A/Hz) 3/400/63/50	Singlespeed 2,5 km/h for truck 2 speeds 2,5 km/h for truck 5,0 km/h for passenger car	analog	BT 640 raised roller 0986400C02N	BT 650 raised roller 0986400C17N	Visio	BT 640 Visio raised roller 0986400C52N	BT 650 Visio raised roller 0986400C56N	analog	BT 740 raised roller 0986400C45N	Visio	BT 740 Visio raised roller 0986400C46N
			BT 640 floor level 0986400C82N	BT 650 floor level 0986400C28N		BT 640 Visio floor level 0986400C86N	BT 650 Visio floor level 0986400C58N		BT 742 raised roller 0986400C43N		BT 742 Visio raised roller 0986400C44N
Roller surface: plastic corundum Testable roller diameter 440-1,400 mm Power connection (Ph./V/A/Hz) 3/400/63/50	2 speeds 2,5 km/h for truck 5,0 km/h for passenger car	analog	BT 642 raised roller 0986400C03N	BT 652 raised roller 0986400C18N	Visio	BT 642 Visio raised roller 0986400C53N	BT 652 Visio raised roller 0986400C57N	analog	BT 742 raised roller 0986400C43N	Visio	BT 742 Visio raised roller 0986400C44N
			BT 642 floor level 0986400C83N	BT 652 floor level 0986400C29N		BT 642 Visio floor level 0986400C87N	BT 652 Visio floor level 0986400C93N		BT 742 raised roller 0986400C43N		BT 742 Visio raised roller 0986400C44N
Break test stands for agricultural machinery, commercial vehicles, transporters and coaches up to an axle load of 18.000 kg											
Specification	Testing speed	Roller length 1,300mm									
		Motors below	Motors below	Motors below	Motors below	Motors below					
Motor power 11 kW, Max. axle weight 18 t, Measuring range 40 kN, Roller diameter 282 mm, Standard roller coating: welded surface, Size wheel for testing 800 - 2.200 mm, Power connections (Ph./V/A/Hz) 3/400/63/50	Singlespeed 2,5 km/h	analog	BT 840 raised roller 0986400C4CN	Visio	BT 840 Visio raised roller 0986400C4DN						

Dimensions and weight

Roller set approx. (kg)	600
Analogue display (H x W x D) (mm)	580 x 900 x 275
Control unit (H x W x D) (mm)	1060 x 880 x 240



You choose the display and control units:

ANALOGUE DISPLAY

The braking values are quickly and easily read with the 350 mm scale on the analogue display. The standard format also has signal lamps for the slip values and for exceeding the maximum brake force difference.

The measurement ranges change automatically from 8 kN to 40 kN and the 14 digit LCD display (optional) shows other values such as axle weight, pressures, and results of the side slip.



MONITOR DISPLAYS FOR THE PC SYSTEMS

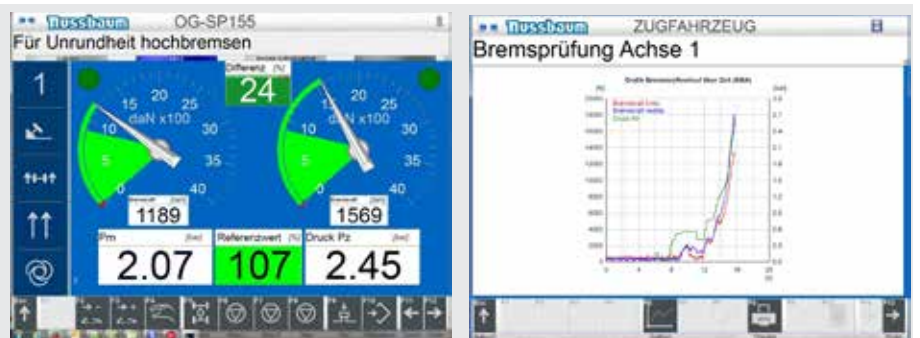
The modern software system offers many options and is nevertheless simple and intuitive to use. Vehicles can be configured by allocating braking systems to axles which can be saved for calling up later, which is comfortable and time saving.

Braking values and truck/trailer suitability are also simple to carry out. The system is network capable and the display can be transferred over to large screen monitors or a rugged netbook.



VARIOUS ANALYSIS AND INDICATION POSSIBILITIES

If the reference values „braking force vs brake pressure“ is known, the direct evaluation of the braking efficiency of the axle takes place during the test.



Accessories

LIFTING AND PULL DOWN DEVICES

Twin or triple axles often require an increase of wheel contact pressure on the rollers. Normally, a pull down device should be used, which can be found in our list of accessories.

With the type "motors below" we also offer an optional lifting device which enables the whole roller set to lift by 500 mm. This kind of weight simulation done by the press of a button is quick and comfortable to use. In combination with the weighing device, the simulated weight can easily be read and directly from the monitor or from the LCD display.

A significant simulation of weight can be achieved by simply using a belt which is tightened around the chassis and the pit foundation, together with the lifting device.



Lifting device



Hydraulic pull down device



Hydraulic pull down device on rail



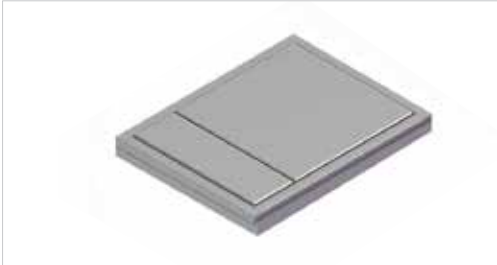
Pneumatic pull down device



Pneumatic pull down device



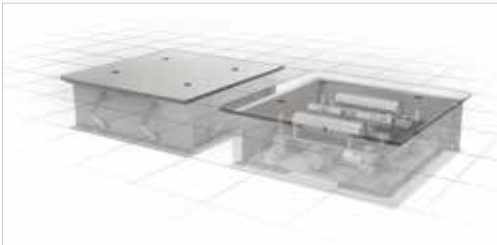
Accessories



SIDE SLIP TESTER

May detect the reason for undue tyre wear due to wrongly adjusted geometry.

Side Slip	
Permissible axle weight	18 t
Measuring range	-15 m/km to +15 m/km



PLAY DETECTOR

checks steering components and wheel bearings.

Play detectors	
Permissible axle weight	20 t
max. plate movement f/r nd l/r	± 50 mm from central position
max. power each side	230kN
Power connections (Ph./V/A/Hz)	2 3/400/16/50



RUGGED NETBOOK

is suitable for the workshop environment. It shows all the measuring results as the pc monitor. The same time it works like an comfortable remote control.

Accessories

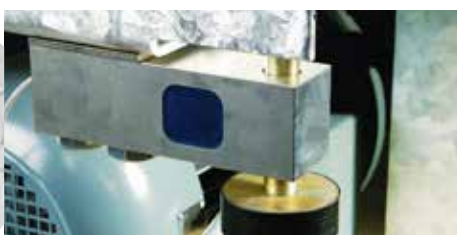
RC PRESSURE SENSORS

10 different pressures from the central supply to the axle supplies as well as the pedal force meter can be measured simultaneously. The charging station ensures constant operational readiness as the stationary RC receiver station is also combined with this unit.

There is also a 200 bar hydraulic measurement range system available. An optical or audible warning system avoids pressure loss through the vehicle sensors.



IR remote controls for analogue and PC versions



Weighing device



100 mm sensor roller



Pull down device



Printer for PC



Printer for analogue display

DEVELOPMENT & MANUFACTURING

Modern production processes mainly manufactured in-house ensure long lasting product quality. Enclosures and frameworks are all produced on modern laser plants and worm gears are developed and manufactured in our own factories.





truckbay

TESTING & MAINTENANCE PIT FOR TRUCKS

The truckbay is a completely prefabricated pit for the repair and inspection of heavy duty vehicles up to 60 tons. With a standing height of up to 1.60 meters the truckbay makes modern and ergonomic work possible. The truckbay complies with the regulations for the prevention of industrial accidents according to the German law UVV (Unfallverhütungsvorschriften) and with the federal water act, WHG (Wasserhaushaltsgesetz) §19 sections i, l and g.



The truckbay consists of leak proof steel cassettes, which thanks to the self-supporting structure make complex formwork or armoring during the installation unnecessary. Our truckbay is available in different versions and lengths up to 42,5 meters. The regular standing heights are available from 1.50 to 1.60 meters. With the truckbay, two variants of truck loads are distinguished in accordance with DIN 1072: SLW30 for 30 tons and SLW60 for 60 tons.

You are able to drive over the closed cover with the specific traffic load (30 or 60 tons). The truckbay is available with or without an automatic roll cover, the truckbay cover, which is optional available as one piece or divided in two pieces.



truckbay 030	SLW	Length	Opening width	Working width	Standing height
with roll cover	30	up to 42,5m	0,96m	1,5m	1,5 – 1,6m
without roll cover	30	up to 42,5m	0,96m	1,5m	1,5 – 1,6m
truckbay 060	SLW	Length	Opening width	Working width	Standing height
with roll cover	60	up to 42,5m	0,96m	1,5m	1,5 – 1,6m
without roll cover	60	up to 42,5m	0,96m	1,5m	1,5 – 1,6m



The truckbay cover increases the safety factor in your workshop – it is easy to handle thanks to its buttonoperated electric motor. Our cover offers you several advantages:

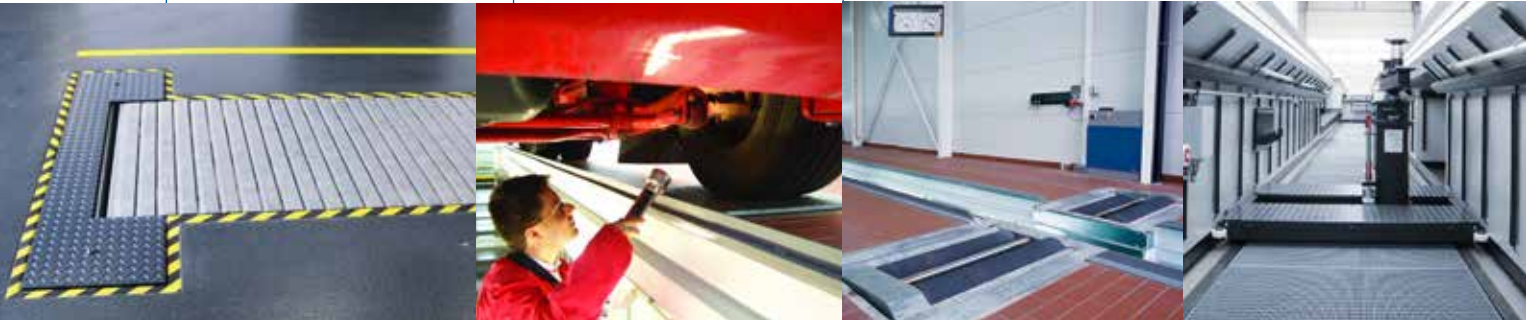
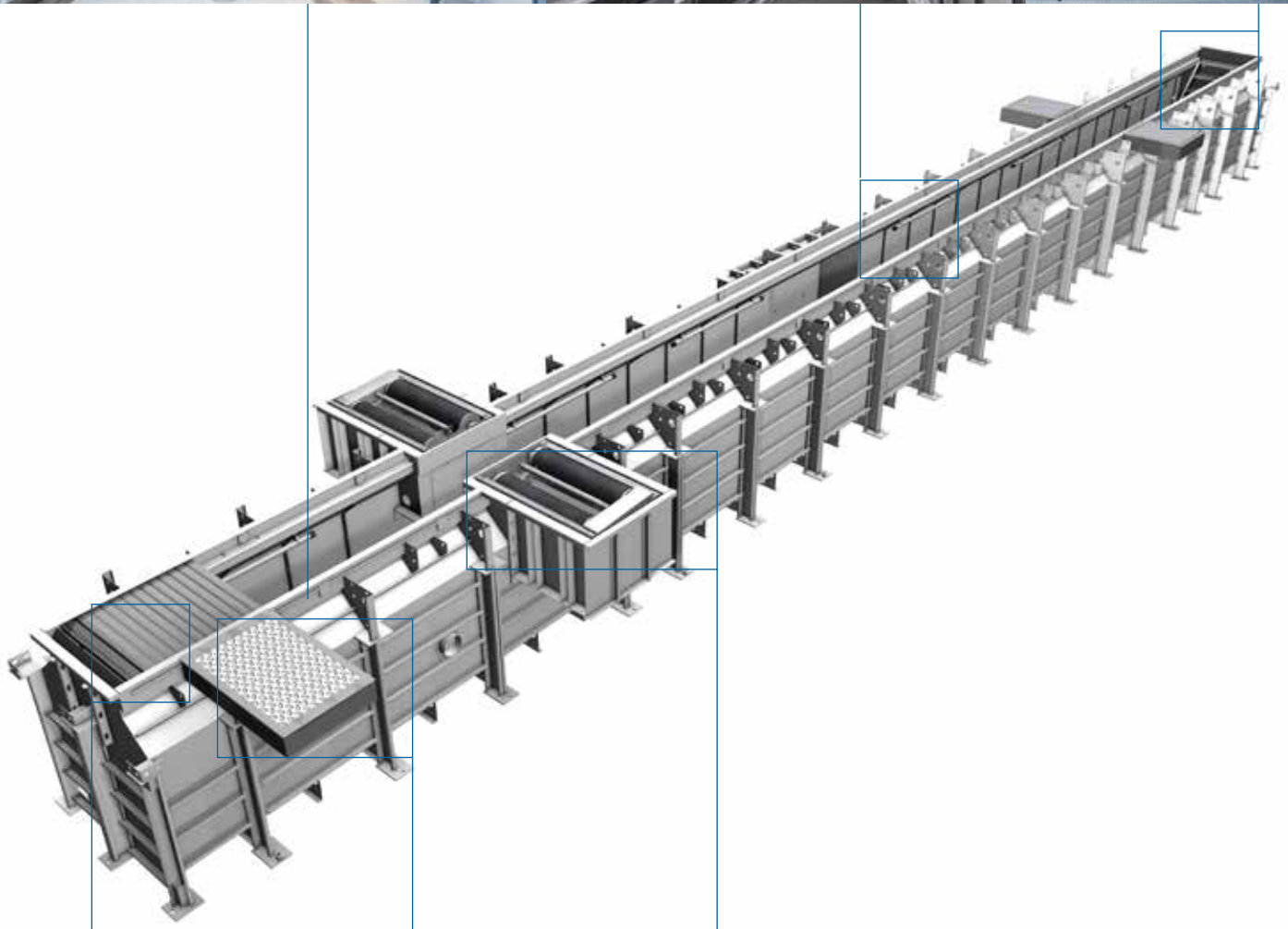
- Complete use of the workshop / hall surface with closed pit
- Integration into the shunting surface, since over-driving is possible according to the heavy load class
- Easy and safe handling due to dead man's switch and safety contact strip

The high integration degree of all the components and the variety of the different options are just some advantages of the truckbay, that provide the optimal and individual solution for you.



truckbay components

TESTING & MAINTENANCE PIT FOR TRUCKS



Assemble your own truckbay



LIGHTING

Besides the standard lighting with 58 Watts of moisture-proof lamps, we offer optionally a hand lamp with cable-winder. The hand lamp ensures an exact detail view under the vehicle.



COMPRESSED AIR INSTALLATION

The piping for the compressed air is already assembled and equipped with 3 brazen quick-couplers. The compressed air installation can additionally be upgraded to stainless steel piping.



ELECTRICAL INSTALLATION

The standard electrical installation includes: circular cable conduit, two electric safety sockets 230V/ 50Hz, which are shock-resistant and protected from jet water (IP65) with wiring. Additional sockets can be installed at any time.



STAIRS AND EMERGENCY LADDER

The truckbay with two sets of pit stairs; additionally we offer an emergency ladder. The stairs are powder-coated with anti-slip surface. The two sets of stairs are available in three types: standard stairs, stairs with space for pit jack and stairs with space for hanging jack.



DRAINAGE – 2 METHODS

The water is purged with a drainage pipe, which can be attached to either the sewage system of the workshop, or into a pump pit with a submerged pump.



SURFACE TREATMENT

The truckbay is protected from corrosion with a special two-component active primer, as well as special two-component finish coating. They offer ideal protection against commercial oils, greases and acids.



FLOORING

The flooring of the truckbay is covered with grating, 30 x 11 mm mesh. Therefore an easy visual underside inspection and easy cleaning is possible.



WORKSHOP EQUIPMENT

We offer a variety of workshop equipment which upgrades the truckbay functionality. For example: break tester, joint play detector, pit jack and a lot more!



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