

**In Ground Truck Lifts
DUPLEX Series**



Double Safety The Integrated Safety Device ISA-Duplex¹

The truck lifts of the DUPLEX series have been developed from a completely new standpoint. Special attention has been devoted to the safety factor.

The outstanding features of the integrated safety device ISA-Duplex represent a quantum leap in modern lifting technology. That which has been tried and tested for decades is now doubled.

Two cylinders adopt the task earlier carried out by one. The outer cylinder serves exclusively for lifting and lowering. The inner-lying, second cylinder cares exclusively for safety. Both cylinders are hermetically separated from one another by two independent hydraulic circuits. Furthermore, the integrated construction of the safety device has the enormous advantage of being completely protected against external influences. Neither corrosion nor other dirt particles can damage the integrated safety device ISA-Duplex.

Operation

(Lifting Cylinder)

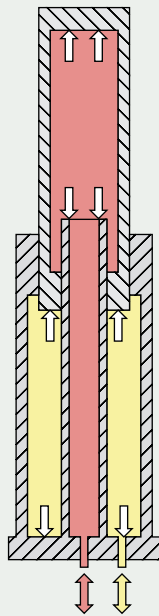


Safety

(Safety Cylinder)



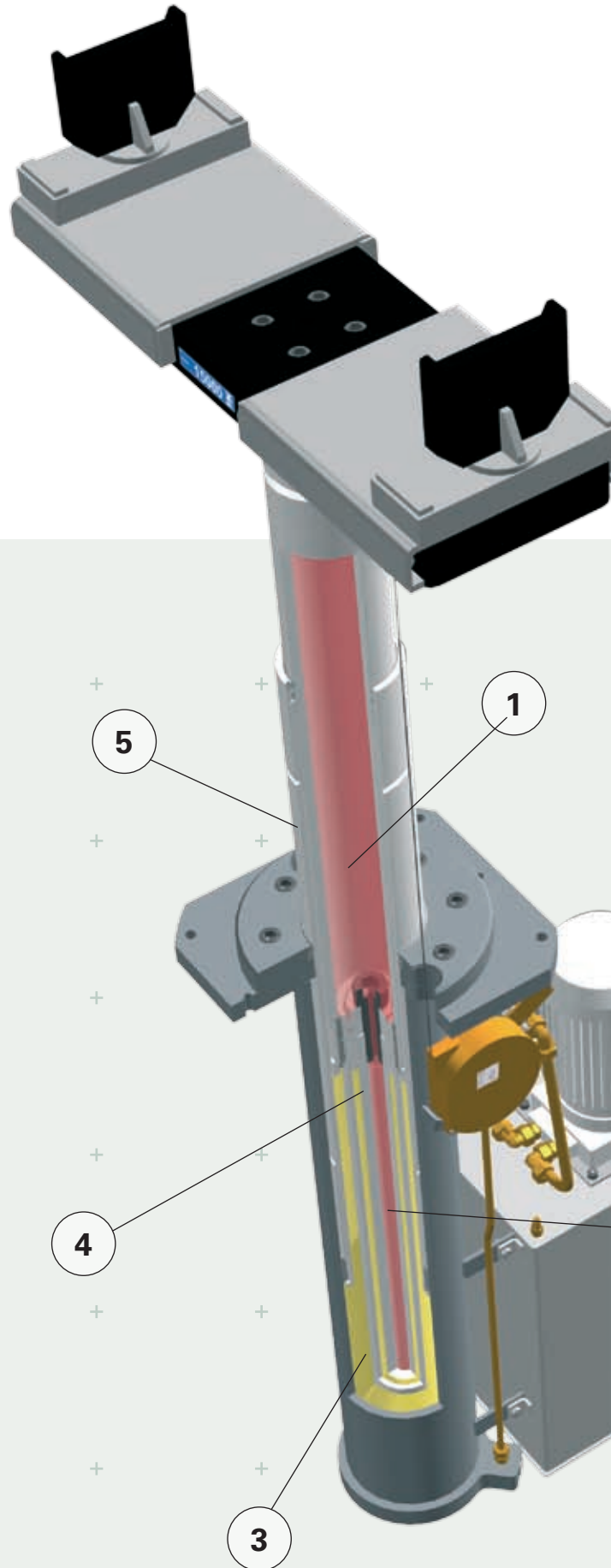
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2

Two Functions – One Goal

■ **1. The Quantum Leap:** The concept of the integrated safety device ISA-Duplex. Two cylinders with different functions but with a common goal: maximum safety. ■ **2. Hermetic Separation:** Two separate hydraulic circuits, in connection with the safety device ISA-Duplex, guarantee double safety.



The New Surface Generation DUPLEX Lifting Cylinder with Nitro-Diffusion Technology²

As elementary components of truck lifts the lifting cylinders in workshop surroundings are exposed to most unfavourable environmental influences.

For this reason, the lifting cylinders of the truck lifts in the new DUPLEX series are available as an option with the new Nitro-Diffusion Technology. Unlike the classic hard chromium plating, with the Nitro-Diffusion Technology a surface transformation takes place, which not only makes the lifting cylinder resistant to external influences but also increases the resistance to wear.

With Nitro-Diffusion Technology, damaged chromium layers which can lead to seal ring damage and corrosion are a thing of the past. Maintenance intervals are longer and durability increases.

Double Safety

● **1. Safety** : The independence of the lifting and safety systems are guaranteed by two separate hydraulic circuits. ● **2. Safety** : The inner-lying safety cylinder is completely protected from external influences (corrosion, pollution and mechanical damage etc.). ● **3. Safety** : The lifting cylinder being forced to ascend and descend together with the safety cylinder guarantees maximum operating safety all the time. ● **4. Safety** : The multi-cylinder as an integral component of the integrated safety device ISA-Duplex. ● **5. Safety**: The outer cylinder serves exclusively for lifting and lowering. The inner-lying second cylinder cares exclusively for safety.

	+	+	+
	+	+	+
	+	+	+
	+	+	+
	+	+	+
	+	+	+

2

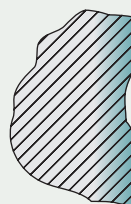
¹ Patent No. 198 41 894.9-14

² Registered design No. 201 02 352.0

³ Wahl, G., Sharon, A., *Improved Corrosion Resistance Obtained Through Replacement of Chromium with Nitrocarburizing*, 6

Nitro-Diffusion

Transformed surface



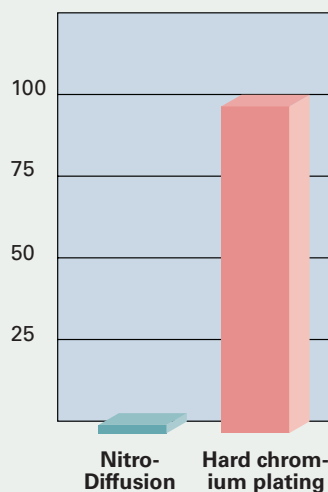
Hard chromium plating

Applied layer



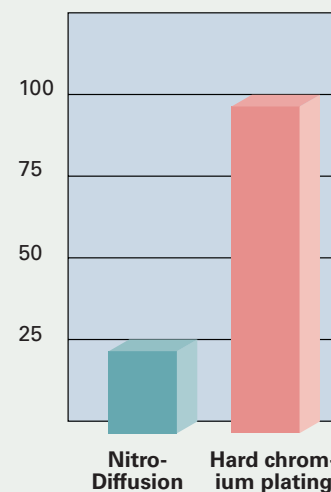
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Corroded surface [%]



2

Depth of wear [µm]



3

Transformed Surface

■ **1. The Profit**: High durability and operating safety: two factors achieved by the Nitro-Diffusion Technology. ■ **2. Corrosion Resistance**: Nitro-Diffusion in comparison to hard chromium plating, salt spray test CASS according to DIN 50021. ■ **3. Depth of Wear**: Nitro-Diffusion in comparison with hard chromium plating, depth of wear caused by seal rings on a shaft which runs 70 hours in water and then 24 hours without lubrication.³

Completely Even The FLEXCOVER Pit Cover from BLITZ⁴

Modern truck workshops have to optimise their work routine. In order to do this, it is important to have a safe and above all useable covering of the truck lift pit.

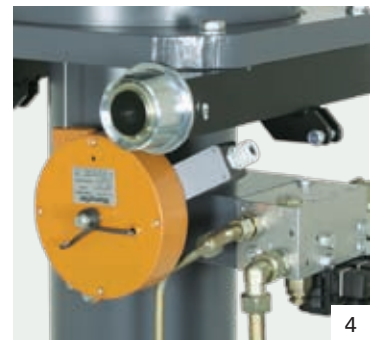
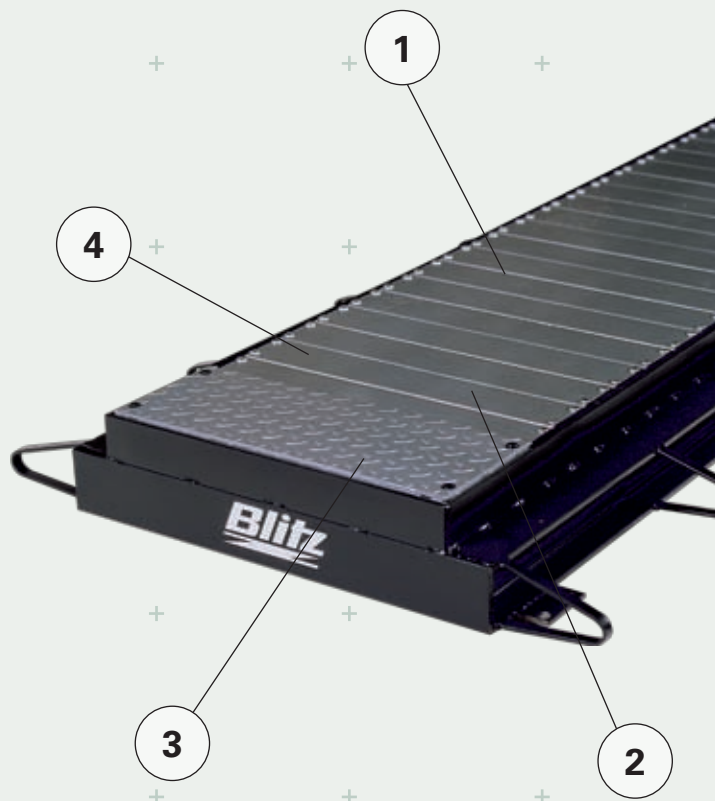
These requirements can be more than met with the FLEXCOVER pit cover from BLITZ. The innovative design providing a flat workshop floor enables gearbox lifts, for example, to be used directly on top of the pit cover. The very high load-bearing capacity (4 metric tonnes wheel load) means that commercial vehicles can drive directly over the pit cover.

The flexible, joint-free connection of the individual FLEXCOVER segments provides easy-running movement. Furthermore, complete galvanisation as a standard provides additional protection against corrosion.

⁴ Registered design No. 298 16 307.1

The FLEXCOVER pit cover – The Details

- 1. Floor-level installation of the FLEXCOVER segments which can be completely driven over.
- 2. Complete galvanisation of the individual segments.
- 3. Capable of bearing 4 t wheel load.
- 4. Flexible, joint-free connection of the segments allow easy running.



Intricacies

- **1. Tough and Universal:** The tough standard traverse of the DUPLEX lifting post, with exchangeable slides and plug type connections can be universally applied.
- **2. One Unit:** All oil-leading parts are directly flanged or tubed on the DUPLEX lifting post.
- **3. Submerged:** DUPLEX lifting units have an integrated motor immersed in oil for even quieter running and optimal thermal conditions. The hot galvanised oil container cares for an especially high operating safety. Thus corrosive dirt particles in the check valve do not have a chance.
- **4. Maintenance-Friendly in Detail:** Easy servicing counts. A small example: DUPLEX rollers with integrated lubricating nipple.

Model	Stroke mm	Capacity per Cyl. t	Lifting Cylinder		Standard Length of Frame Installation Depth*			Lifting Time s	Lowering Time s	Oil filling per lifting unit l
			Total	Moveable	FLEX- COVER mm	Slid cover mm	Frame mm			

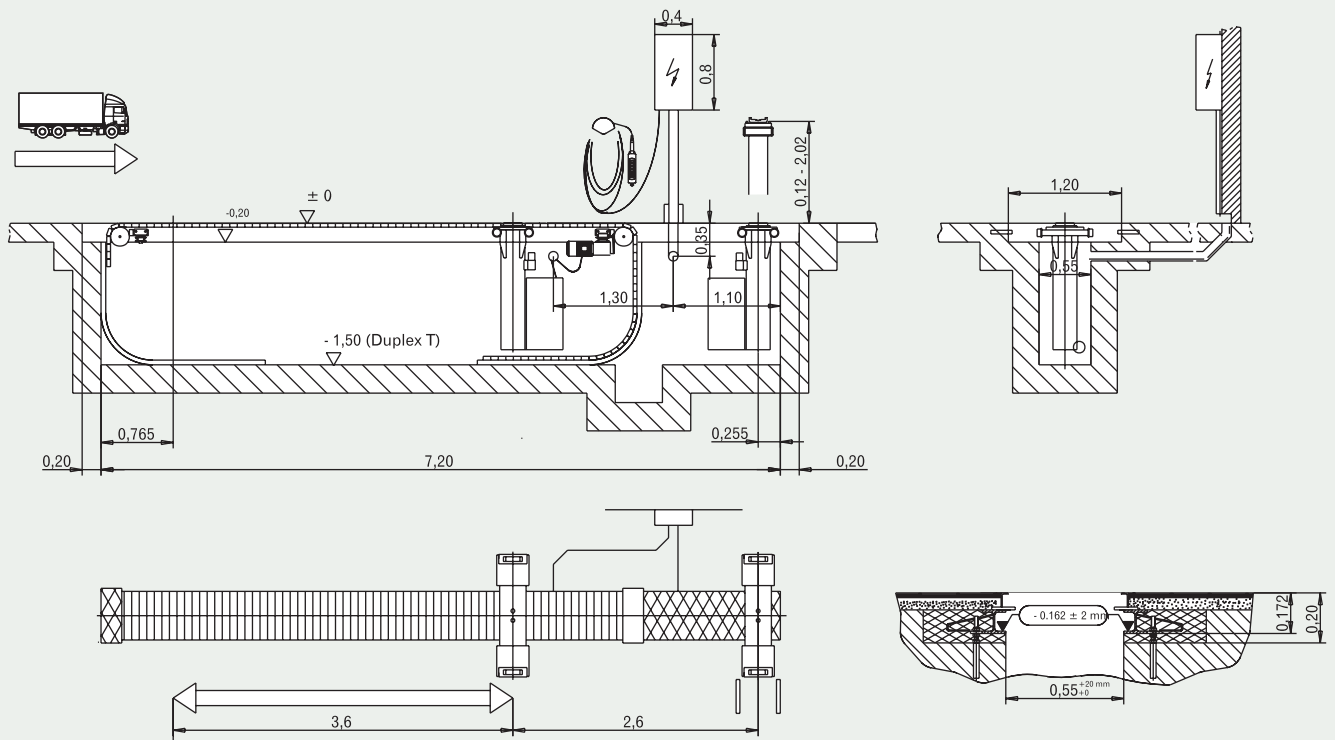
Truck Lift

Telescopic execution

T 2-15-1900 R	1900	2 x 15	2	1	7,29	7,00	1400	85	72	55
T 2-15-1900 W	1900	2 x 15	2	1	7,29	7,00	1450	85	72	55
T 3-15-1900 R	1900	3 x 15	3	2	14,58	14,14	1400	85	72	55
T 3-15-1900 W	1900	3 x 15	3	2	14,58	14,14	1450	85	72	55
T 4-15-1900 R	1900	4 x 15	4	3	20,74	20,52	1400	85	72	55
T 4-15-1900 W	1900	4 x 15	4	3	20,74	20,52	1450	85	72	55

* In connection with the slide cover

Standard adjusting range for each moveable lifting unit is 3,6 m.
Other adjusting ranges can be offered upon request.



All dimensions in metres

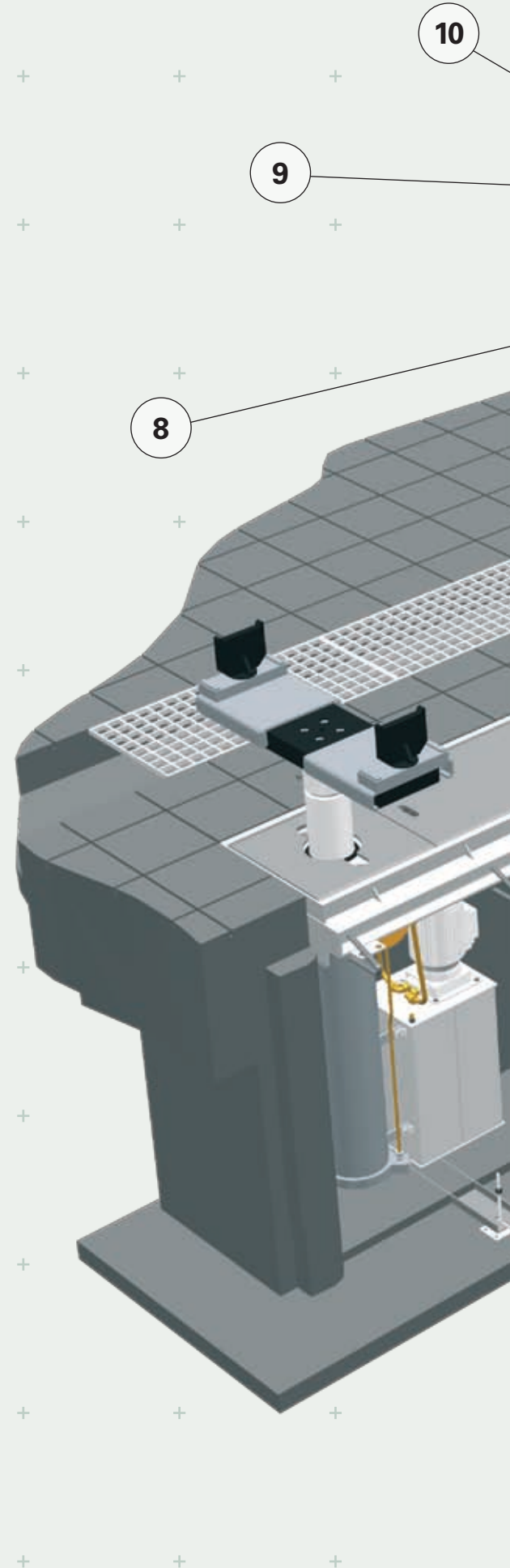


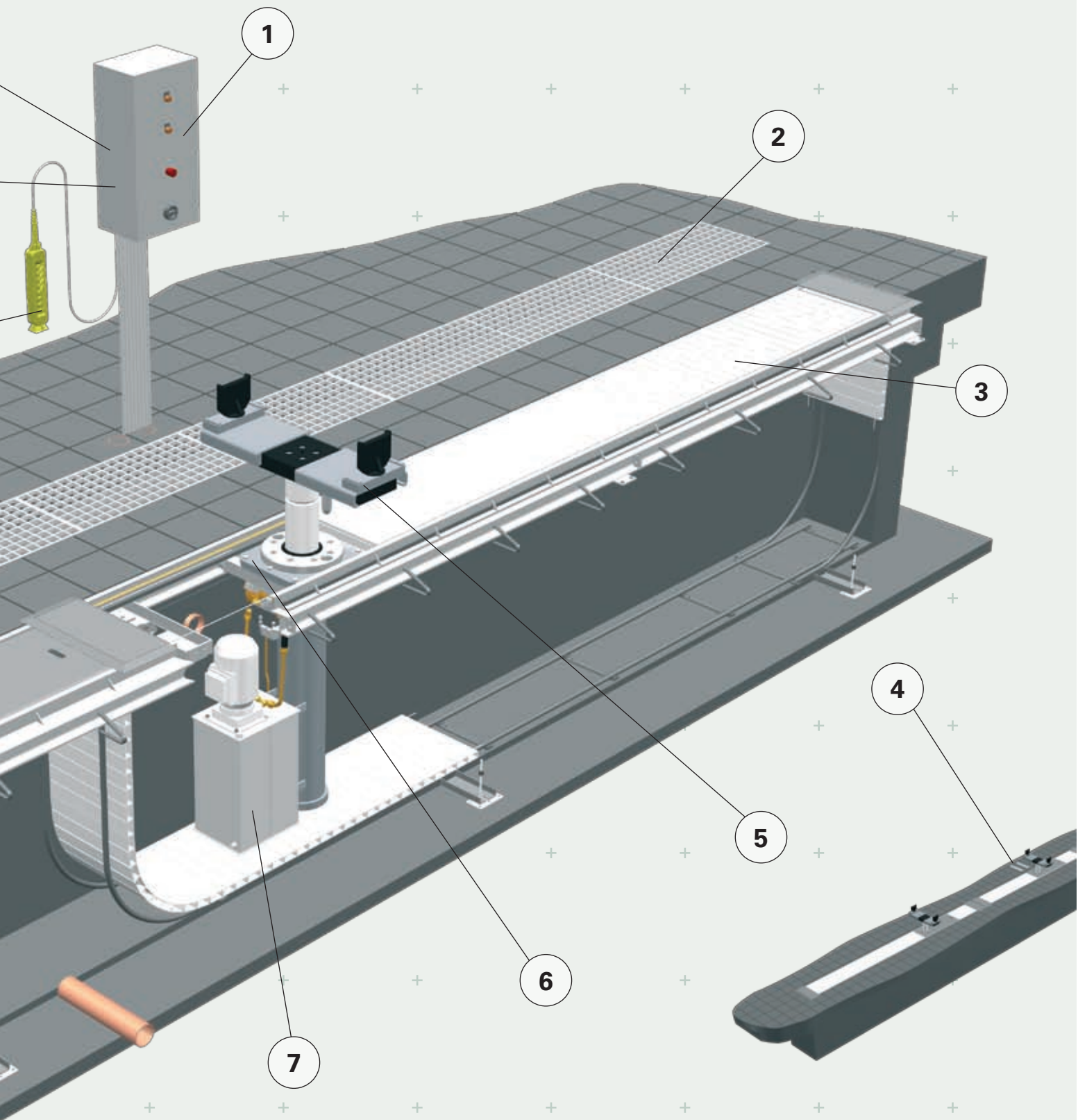
The Large Variety DUPLEX Truck Lifts at a Glance

DUPLEX 4-Posts – The largest of all DUPLEX lifts is also the most universal. With 4 posts and 2 hand-held control panels it is also possible to lift 2 vehicles separately. Due to synchronisation control as standard, the full capacity of supply can be seen clearly when truck and trailer are lifted together.

DUPLEX 3-Posts – In addition to the application possibilities which the 2-post lifts already offer, the 3-post execution is necessary for semi-trailers and articulated busses.

DUPLEX 2-Posts – The 2-post execution as the smallest DUPLEX type is the ideal choice for lifting trucks and busses.





The details at a glance

- **1. Comfort:** The IP 54 protected control unit is the heart of each DUPLEX truck lift. The integrated synchronisation control as a standard avoids unintentional height differences. A programmable automatic axle distance pre-selection is also available as an option.
- **2. Planning tip:** Planning a water flume is especially suitable for washing bays.
- **3. Load capacity up to 4 metric tonnes:** There are two types of permanent pit covering to choose from. The sliding covering and the roll covering, although different, are in their effect comparable. Note the lower capacity of the sliding covering (ca. 600kg wheel load).
- **4. Exact:** Wheel troughs care for the safe positioning of the vehicle before take up.
- **5. Flexibility:** The BLITZ standard traverse, together with the extensive programme of accessories, allows the easy and above all safe take up of almost every type of vehicle.
- **6. Precision:** The adjusting drive, consisting of 2 kW gear motors and guided link chain, allows the precise positioning of the individual lifting posts.
- **7. Linear:** A special hydraulic pump which is also suitable for suction operation ensures a constant lowering speed – both with or without load.
- **8. Mobility:** With the hand-held control panel the lifting and lowering movements, as well as the adjustment of the lifting units, can be sensitively controlled. The lifting units can be controlled separately as well as together. Integrated into the control panel is a dead-man control, as well as an emergency stop button.
- **9. At a safe distance:** Emergency lowering is carried out by the central control unit. The load can be lowered from a safe distance using an external 24 V power supply (e.g. lorry or fork-lift truck battery).
- **10. Safety:** The redundant design of the central control unit – consisting of two PL controls (PLC's) – provides safety at the highest level.

Accessories & load carrying devices

Special accessories for special applications

T

Axle traverse Standard, with extendable sliders

TS

Axle traverse Standard

TF

Axle traverse Flat, with extendable sliders

TEF

Axle traverse Extra Flat, with extendable sliders

TV

Axle traverse Special

TT

Special traverse with screwed-on hard rubber plates, for supporting electric buses (TROLLEY) on the vehicle frame

TB

Special traverse with welded-in tongues, for supporting special buses

TR

Axle traverse executed as wheel grip

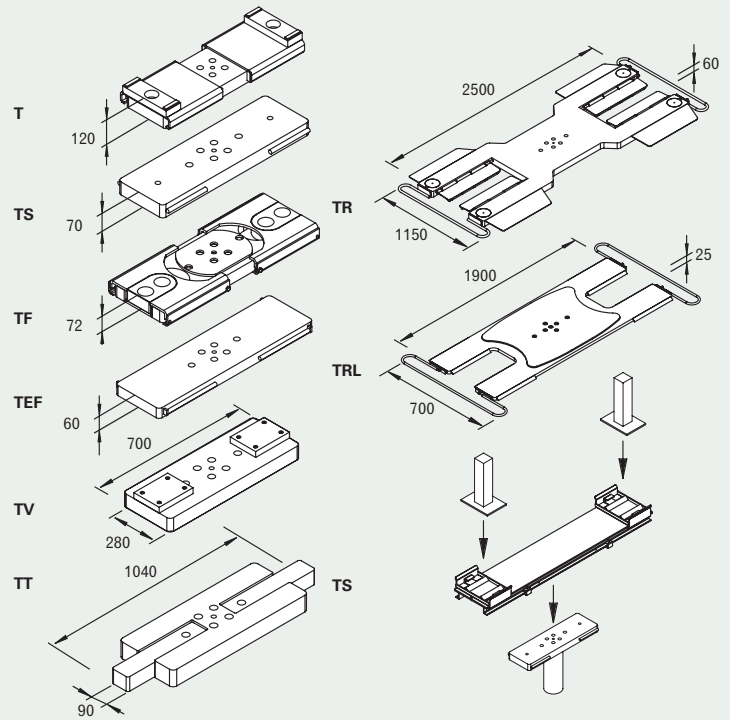
TRL

Axle traverse executed as wheel grip, suitable for all popular makes of mobile home and van with an axle load of max. 3.0 t

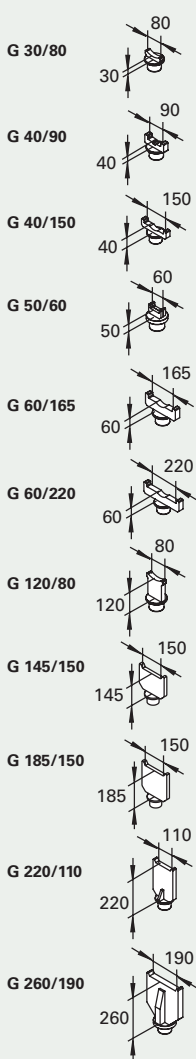
TS

Special traverse incl. trolley and interchangeable shoes for supporting semi-trailers at the unhitching supports (plate or wheel supports), suitable for all popular makes of semi-trailer

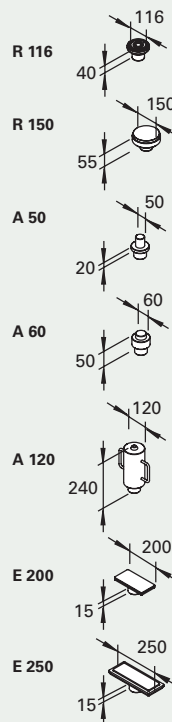
Traverse



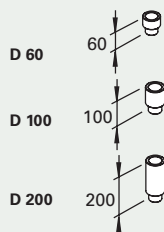
Standard acceptance



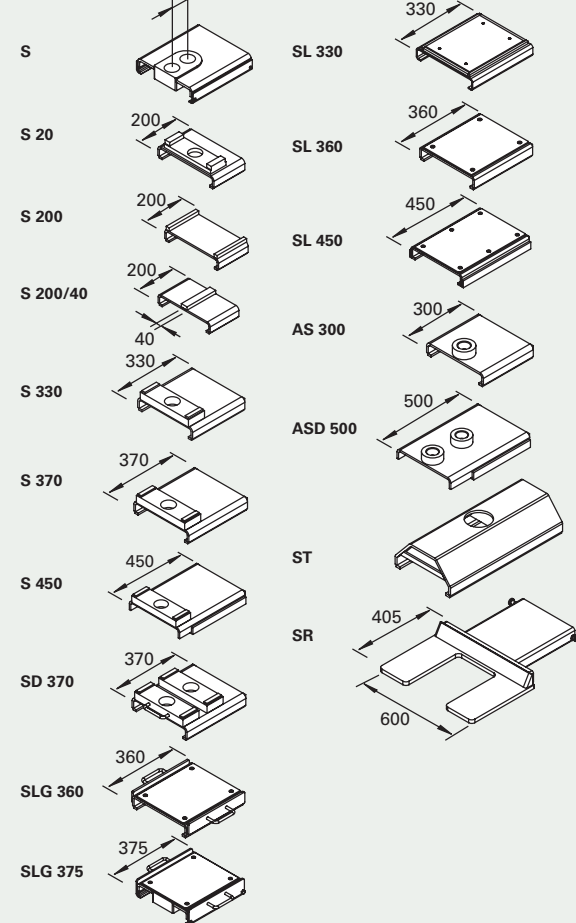
Support plate



Spacer



Slider



G 30/80

Fitting all crosspiece sliders

G 40/90

Suitable for supporting low-floor buses (MAN and DB CITARO) at the front axle, fitting all crosspiece sliders

G 40/150

Standard acceptance

G 50/60

Fitting all crosspiece sliders

G 60/165

Suitable for supporting trucks at the front axle, fitting all crosspiece sliders

G 60/220

Suitable for supporting trucks at the front axle, fitting all crosspiece sliders

G 120/80

Fitting all crosspiece sliders

G 145/150

For rear axles with differential

G 185/150

For rear axles with differential

G 220/110

For rear axles with differential

G 260/190

For rear axles with differential



DUPLEX Options The Right Solution for Every Application

The variety of options fulfils every wish. Here is a small extract:

- Extended frame or cassette
- Hot galvanised frame
- Programmable and automatic axle distance pre-selection (AAV-Control)
- Automatic "run-into" protection for areas with overhead cranes
- Washing bay execution incl. galvanised wheels, axles, load carrying claws and channel covering, as well as a protection cover against splash water for hydraulic drive

R 116

Support plate with edged hard rubber base, suitable for supporting vehicles on the chassis, fitting all cross-piece sliders

R 150

Support plate with edged hard rubber base, suitable for supporting vehicles on the chassis, fitting all cross-piece sliders

A 50

Supporting peg Ø 50 mm, height 20 mm, fitting all crosspiece sliders and support elements

A 60

Supporting peg Ø 60 mm, height 50 mm, fitting all crosspiece sliders and support elements

A 120

Supporting peg Ø 120 mm, height 240 mm, with handles, fitting all crosspiece sliders

E 200

Support with vulcanised hard rubber base, suitable for supporting vehicles on the chassis, fitting all cross-piece sliders

E 250

Support with edged hard rubber base, suitable for supporting vehicles on the chassis, fitting crosspiece sliders

D 60

Spacer 60 mm

D 100

Spacer 100 mm

D 200

Spacer 200 mm

S

Fitting universal traverse

S 20

Similar to standard slider S 370, but shortened by 170 mm, fitting special traverseTV, suitable for VOLVO standard truck

S 200

Slider as for special slider S20, but with welded-on, lateral limiting rails, fitting special traverseTV, suitable for VOLVO and Scania articulated buses, 3rd axle

S 200/40

Slider as for special slider S 200, but with welded-on, central web, fitting special traverseTV, suitable for VOLVO and Scania articulated buses, rear axle

S 330

Slider as for standard slider S 370, but shortened by 40 mm, fitting standard traverse TS

S 370

Slider for load acceptance

S 450

Slider as for standard slider S 370, but shortened by 80 mm, fitting standard traverse TS

SD 370

Slider with two pick up points, fitting standard traverse TS

SLG 360

Slider as for special slider SL 360, but flat with lateral limiting rails and handles, fitting standard traverse TS

SLG 375

Slider with screwed-on aluminium chequer sheet, lateral limiting rails and handles, fitting universal traverse TF

SL 330

Slider as for standard slider S 370, but flat with applied plastic plate, fitting standard traverse TS

SL 360

Slider as for special slider S 370, but flat with screwed-on aluminium chequer sheet, fitting standard traverse TS

SL 450

Slider as for special slider S 450, but flat with screwed-on aluminium chequer sheet, fitting standard traverse TS

AS 300

Slider for support set Sprinter, fitting standard traverse TS

ASD 500

Slider for support set Sprinter, fitting standard traverse TS

ST

(For standard traverse TS). For supporting semi-trailers on the king pin, suitable for all popular makes of semi-trailer

SR

Wheel fork support slider suitable for supporting cars and vans up to 3.5 t axle load, suitable for standard traverse TS

Installation and Advice Important Information for Choosing a Truck Lift

Frame versus Cassette – The right choice beforehand often avoids costs incurring later. With the frame as one option and the cassette as the other, BLITZ offers two possibilities, which take into account the different requirements on site.

The frame is especially interesting for new workshops. The segment design guarantees low transport costs. By means of the existing stone anchors a stable and durable connection is made with the floor plate.

The cassette is ideal for the later installation in workshops or pits which already exist. Also in cases when the project schedule only leaves a short time available for the installation of the truck lift, the cassette is the right choice.

