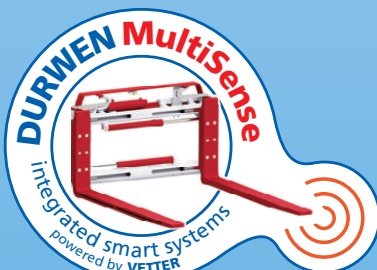
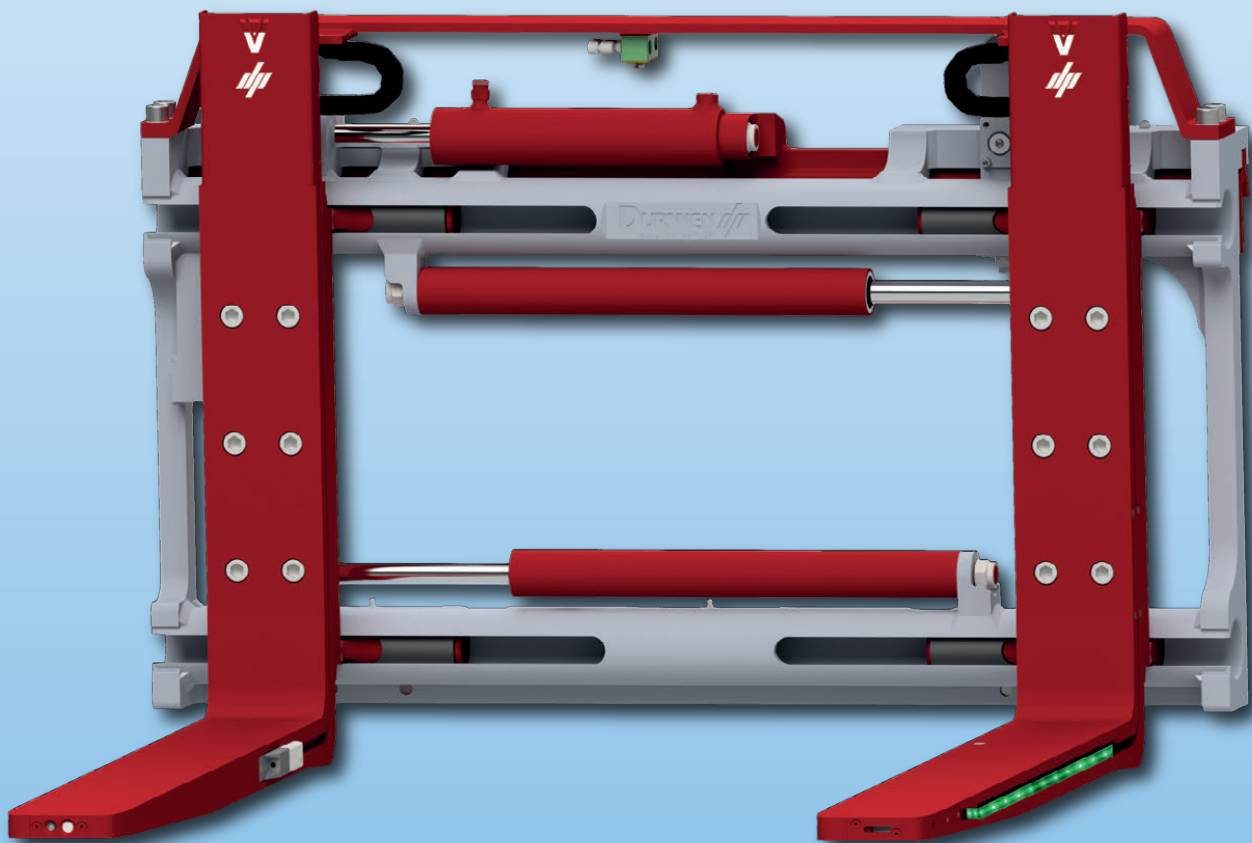


# MULTISENSE SMARTFORK®



# Durwen MultiSense SmartFork®

## The intelligent fork

If the view is restricted by the load, you can only rely on your intuition. You do not longer have to accept this. SmartFork® enable a better view on everything otherwise hidden, making your work a lot safer with an unobstructed view. Intuition meets precision – in a tool which makes working as efficient and safe as no other fork before.

### 7 good reasons for SmartFork® in Industry 4.0:

- Improve view: also when picking up loads
- Increase safety: for staff and goods
- Reduce damage: through improved view and intelligent sensors
- Lower costs: because of less damage to goods and packaging
- Upgrade ergonomics: unobstructed view without inconvenient twisting of head and upper body
- Save time: via safely navigating during transport and through faster workflow
- Simplify loading: integrated sensors in fork facilitate work

## Statistical information, Germany 2016:

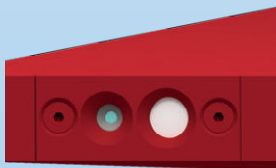
65% of all forklift truck accidents involved hitting persons or obstacles!

Accidents are sadly an everyday occurrence in many companies still. There were 12.671 accidents to be reported in 2016 alone, thereof seven with fatal end. The average damage costs reached 85.000 Euro. And then there are the number of small collisions every day causing smaller damages and large internal expenses.

The most common cause of accident is human error since oftentimes forklift truck drivers are literally on the way in blind flight. SmartFork® support the industrial truck driver through improved view, warning functions, better visibility and intelligent sensors.

Source: BGHW aktuell 04/15 and DGUV 2016, Germany

#### SmartFork® FrontCam SF-F



- Expansion of visual field
- Targeting load carriers
- Safe loading
- Detecting obstacles with picked-up load
- For counterbalance and reach trucks
- Lighting for clear image

#### SmartFork® SideCam SF-S



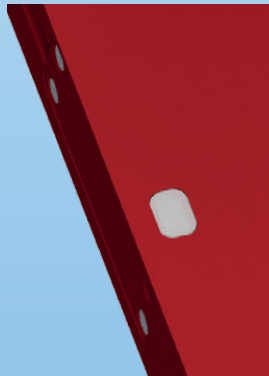
- Easier and safer entering of pallets
- Improved loading
- Both forks in visual field of camera
- Unique: partly integrated camera installation and cable routing inside fork
- Considerably more robust and durable solution compared to prior systems

#### SmartFork® Laser SF-L



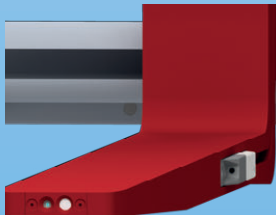
- Safe loading
- Precise targeting of load carriers
- Simple load handling in high-rack storage
- Less damage to goods
- Easy installation: operation via existent power supply or battery

#### SmartFork® Secure SF-SE



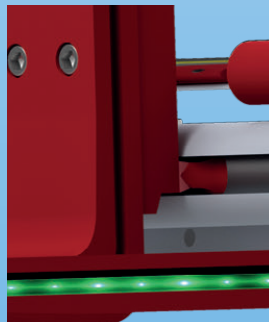
- Safe loading
- Easy detecting of pallet end
- No lifting of goods behind current load

#### SmartFork® PremiumCam SF-PC



- Automatic switch between sideward and front camera when loading/unloading
- Safe transport even in difficult situations
- Detection of distances or targeting of pallets in great heights
- Precise and easy entering of fork pocket
- Less damage to transport goods
- Best view ahead of goods/load

#### SmartFork® Flash



- Visible from a distance even in dark and complex work areas through installed LED's
- Reduction of accidents
- Higher work safety
- Applicable for entry depth determination
- Freely programmable display of LED's

**SmartFork® FrontCam**  
**Forks with one tip end camera, with lighting**

The forklift truck driver receives horizontal view ahead and benefits from higher safety when transporting and loading as well as when setting down loads even for bulky goods. There is also the possibility of combination with the line laser SmartFork® Laser. The high-quality special camera is integrated into the fork tip and secured by a protection plate. The fork tip thickness is 25 mm, any chamfered length is possible. The camera objective has a tilt of 0° and the interface is installed in the fork head.

**SmartFork® SideCam**  
**Forks with sideward camera**

Both forks are in the visual field of the camera with the SideCam. Due to the stable mounting of the camera, there is no risk of tearing. The cables are integrated into the fork so that there are no protruding edges, furthermore the interface is installed in the fork head. The SmartFork® SideCam has approximately 60% less protrusion compared to competing products.

**SmartFork® Laser**  
**Forks with integrated line laser**

The aiming device SmartFork® Laser enables an exact targeting of the load carrier by the forklift truck driver which simplifies loading remarkably. The high-quality laser is integrated into the fork tip and positioned in a way that the laser is clearly visible on the load carrier/storage rack while concentrating on the center foot of the load carrier. The thickness of the fork tip is 25 mm. For usage on counterbalance trucks, the laser is additionally protected against damage by a cover plate. SmartFork® Laser complies with the lowest laser protection class (= no danger for eyes). The integration into the lifting height control is also recommended so that the laser is activated from a specific height only.

**SmartFork® Secure**  
**Forks with one integrated laser sensor in fork tip**

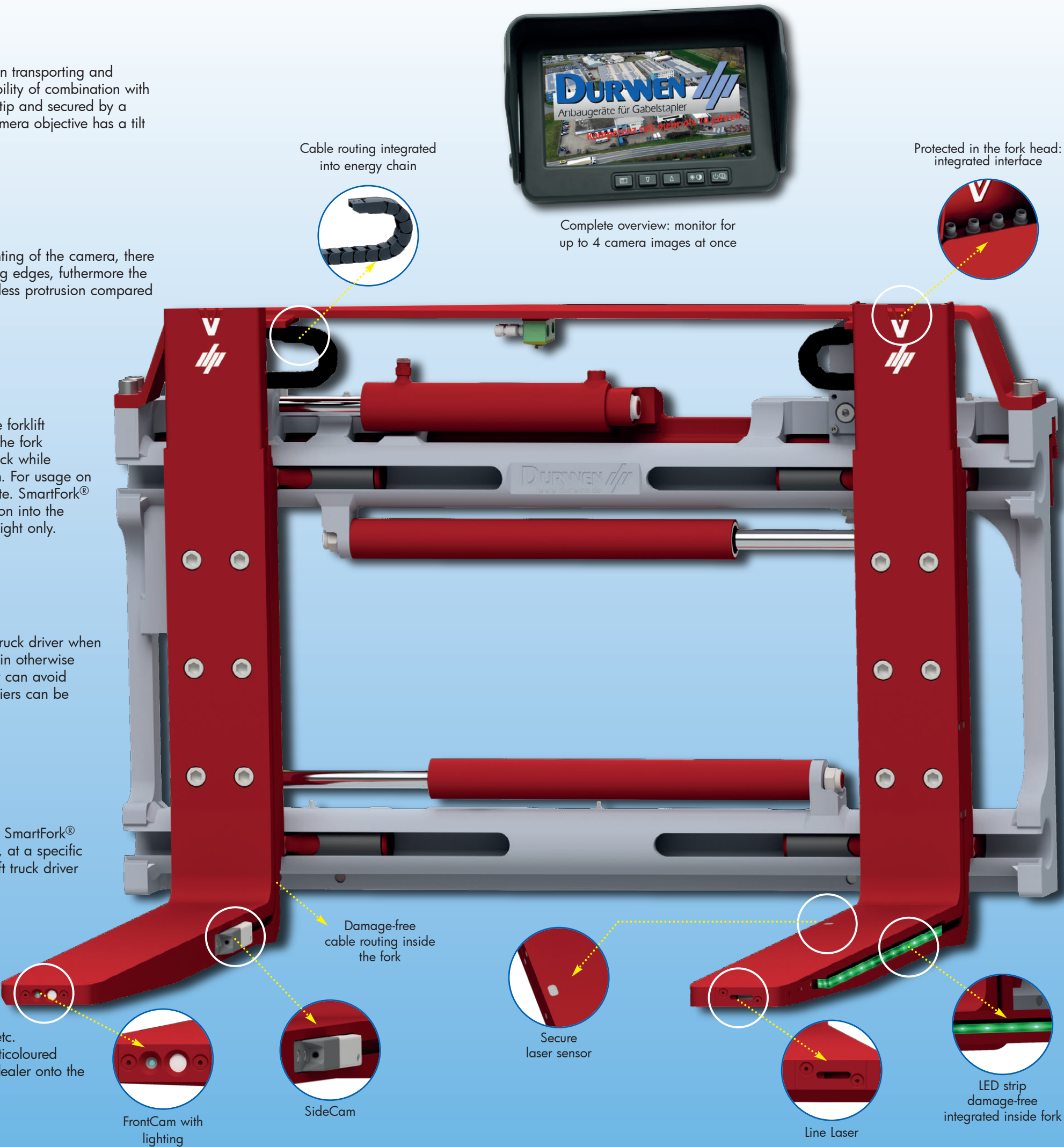
The laser sensor SmartFork® Secure on the surface of the fork blade supports the forklift truck driver when loading in the (block) warehouse and ensures damage-free loading and unloading even in otherwise unmanageable heights. The space between two goods is reliably detected and the driver can avoid protruding forks by slightly reversing the forklift truck. Up to three firmly defined load carriers can be picked up and stored independently.

**SmartFork® PremiumCam**  
**Forks with integrated front and sideward camera**

The SmartFork® Premium Cam is an intelligent combination of SmartFork® FrontCam and SmartFork® SideCam which facilitates effectively moving goods in and out of storage. When loading, at a specific entry depth, the sideward camera will switch to the front camera automatically. The forklift truck driver always uses the suitable camera and thus has the best view in all situations.

**SmartFork® Flash**  
**Forks with integrated LED stripe**

The sideways embedded LED stripe SmartFork® Flash is an effective solution to avoid accidents while increasing work safety. The fork is visible from afar in dark work environments, e.g. when driving out of storage aisles, on the company site, in parking lots etc. Another application of SmartFork® Flash is the determination of the entry depth via the multicoloured bright display. The LED stripe can be programmed by the factory or retrofit by your forklift dealer onto the used long goods lengths and therefore onto each individual application case.

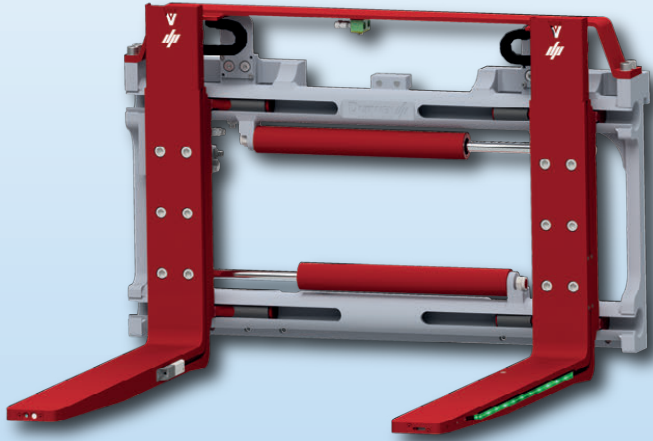




# Durwen attachments with SmartFork® technology

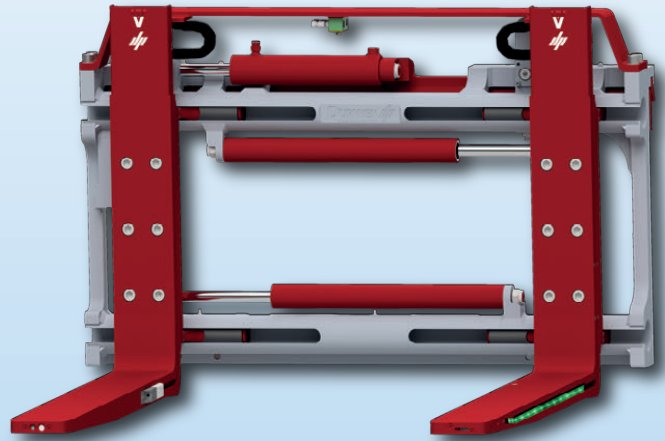
## RZV-G-SF

**The fork positioner type RZV-G** has a stable round guide in which the carrier with bolt-on forks is positioned. Integral sideshift enables sideshifting dependent on opening range of the forks. Use of standard forks according to ISO 2328 is also possible.



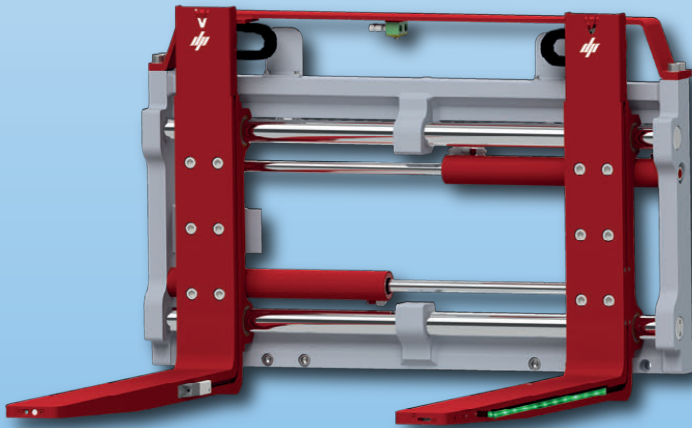
## RZV-GS-SF

**The fork positioner type RZV-GS** has a stable round guide in which the carrier with bolt-on forks is positioned. Constant sideshift enables sideshifting completely at every fork position. Use of standard forks according to ISO 2328 is also possible.



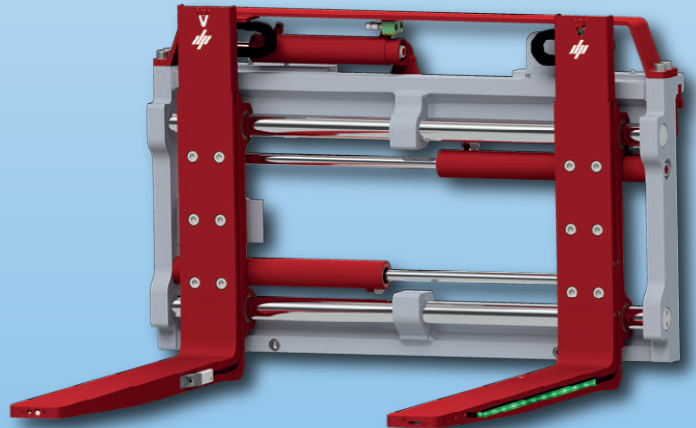
## ZVW-G-SF

**The fork positioner type ZVW-G** is shaft-guided and welded as a stable frame. Integral sideshift enables sideshifting dependent on opening range of the forks. The forks are bolted on this unit. This attachment is also suitable for smaller carriages.



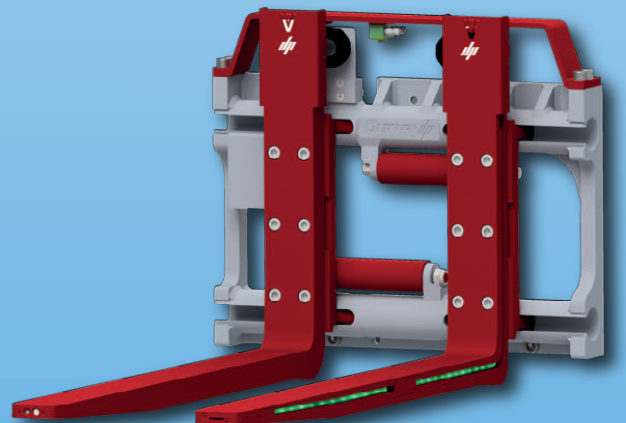
## ZVW-GS-SF

**The fork positioner type ZVW-GS** is shaft-guided and welded as a stable frame. Constant sideshift is possible to use at every fork position. The forks are bolted on this unit. This attachment is also suitable for smaller carriages.



## RZV-G-SF für Schubmaststapler

**The fork positioner type RZV-G-SF** for reach trucks has a stable round guide in which the carrier with bolt-on forks is positioned. The frame width is designed in a way that it fits in between the support arms of the reach truck.





You are looking for a digital version:



## DURWEN SERVICE - YOUR BACKUP!



Durwen factory I, Plaidt



Durwen factory II, Mayen



Durwen research and development centre



... well prepared to support you



**More than 75 years experience**

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