

# SAF MODUL AIR SUSPENSION

MODUL AR 421 H

MODUL AR 421

MODUL U

MODUL M

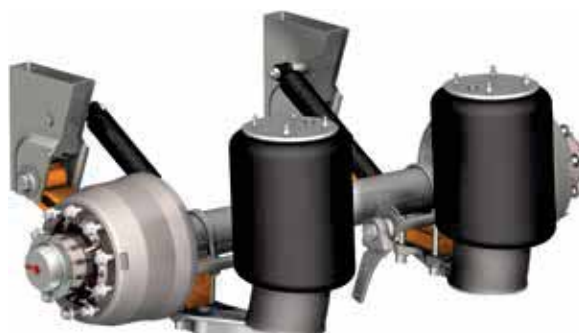


9–14 TONNES AIR SUSPENSION SYSTEM  
WITH DRUM BRAKE OR OPTIONAL DISC BRAKE

# FIRST CHOICE FOR YOUR TRAILER

All in all, the SAF MODUL Air Suspension System includes four different axle versions with an axle load of 9–14 tonne. A useful feature within the MODUL series is a weight-reduced single trailing arm which grants clear mounting benefits for the vehicle manufacturer and allows more payload for the carrier.

**SAF MODUL  
AR421H**



**SAF MODUL  
AR 421  
STEERING AXLE**



**SAF MODUL  
U**



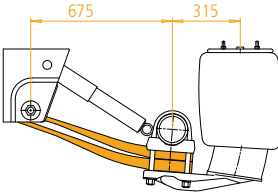
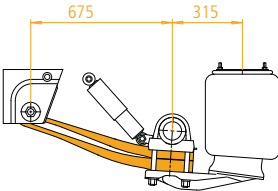
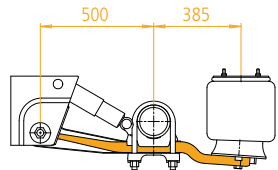
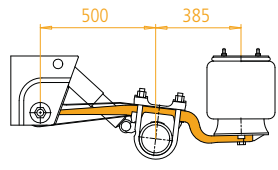
**SAF MODUL  
M**



# ALL OPTIONS FOR YOUR FLEET

- Air bag type
- Identification
- Diameter
- Total suspension travel

All measurements in mm

	Series	Feature(s)	Trailing Arm-Variations				Nominal ride height	2618V 29 300	2918V 27 350	2923V 31 350	2926V 30 350	3138 n.a. 390
			100 x 51	100 x 43/43	100 x 60	100 x 54/54						
	AR 421H	Trailing arm under the axle, extended suspension arm				•	380 to 480					420 with 9t 400 with 10t
	AR 421	Trailing arm under the axle, extended suspension arm				•	250 to 500				310	
	U	Trailing arm under the axle	•	•			170 to 380	180	180	200	270	
	M	Cranked trailing arm on the axle	•	•			340 to 530	180	180	200	270	

# TOP TECHNOLOGY – SELF STEERING AXLE AND AIR SUSPENSION

## Light weight system with a reduced number of components

- Lower maintenance costs, higher load capacity due to weight reduction
- Increased roll stability of the trailer
- More protection for the cargo
- System supplied complete requiring no additional assembly process at the trailer production

## Suspension allows up to 20 degrees steering angle of wheels

- This will save you fuel and reduce tire wear

Air bellows are reinforced, extremely temperature resistant and vulcanised against leakage. Internal bump stop allows continuation of the journey in case of air loss. Available in dia. 300, 350 and 390 mm. Air bellow offset upon demand.

Extremely maintenance friendly and economical during the entire lifetime.

20 degrees each direction self-steering angle



# BEST PERFORMANCE

## FOR TRAILER AND SEMI-TRAILER

### Self steering axle system allows reduced turning circle radius

- Tires turn automatically while maneuvering around corners
- Less drag on tires during turning, thus less friction, improved fuel economy and service life of the tires

### Suspension with very high axle travel of 400 mm

- Reduces the stress and chance of overloading on trailers and axles due to provided load equalization in all road conditions (over railway lines, over uneven terrain) especially when used with increased axle distances (over 2.4 m – “Vanderlea”)

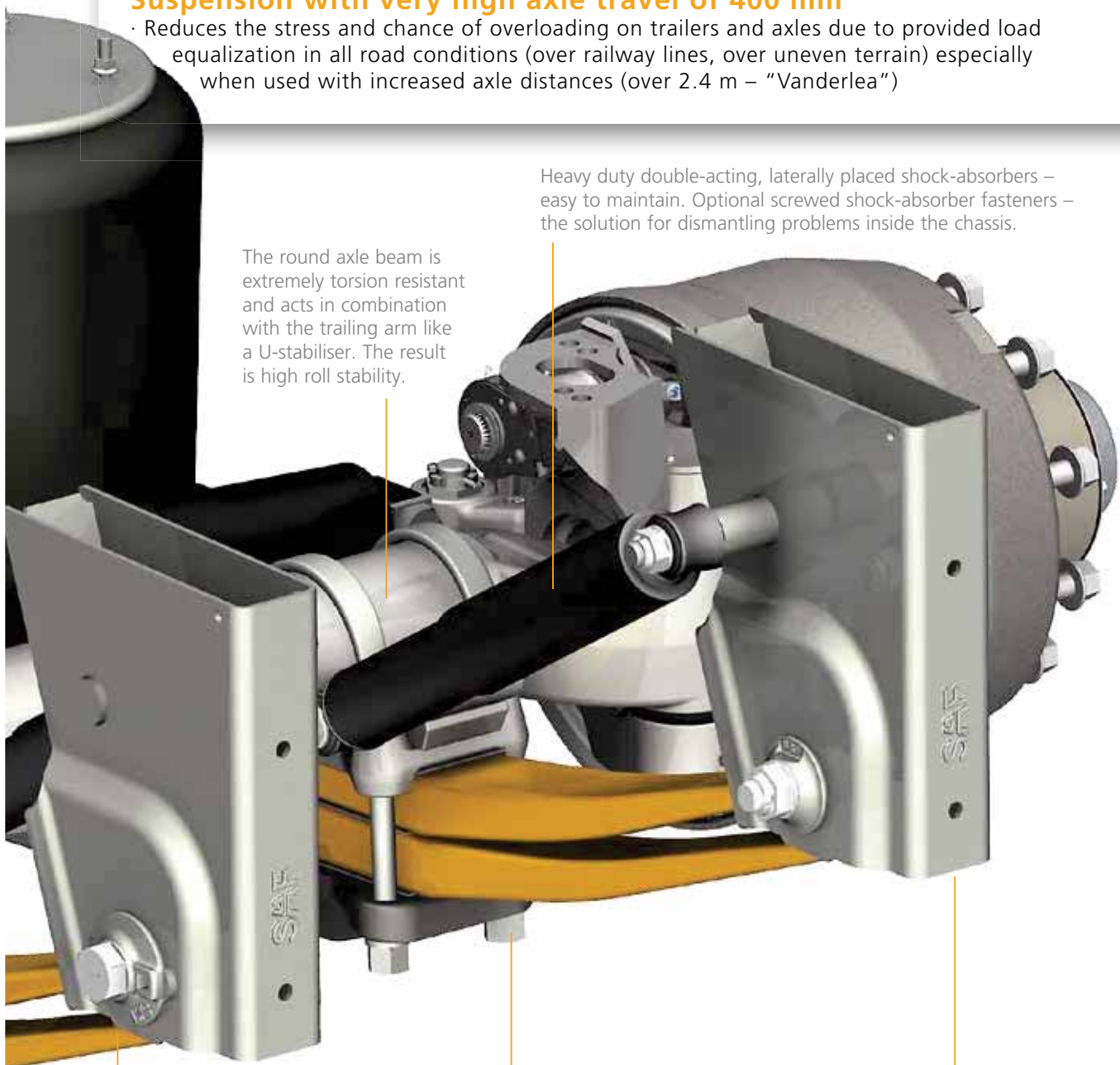
Heavy duty double-acting, laterally placed shock-absorbers – easy to maintain. Optional screwed shock-absorber fasteners – the solution for dismantling problems inside the chassis.

The round axle beam is extremely torsion resistant and acts in combination with the trailing arm like a U-stabiliser. The result is high roll stability.

Axle seats + clamping plates provide safe positioning also in extreme situations.

Slim hanger brackets for 120 mm chassis rail. By choosing different hanger brackets and top air spring supports, ride heights can be achieved from 200 to 500 mm. Maintenance-free heavy duty trailing arm clamping system.

Parabolic trailing arms are available for 9–14 tonne axle capacity and centre of gravity heights.



# SAF MODUL

## ONE EFFICIENT SYSTEM –

*As early as 1964, SAF was the first European manufacturer to develop and introduce workable air suspension systems. Today, both vehicle manufacturers and fleets all over the world put their trust in the SAF brand. With its new SAF MODUL product range, SAF-HOLLAND can offer you a new, complete air suspension system with outstanding product features and cutting-edge benefits:*

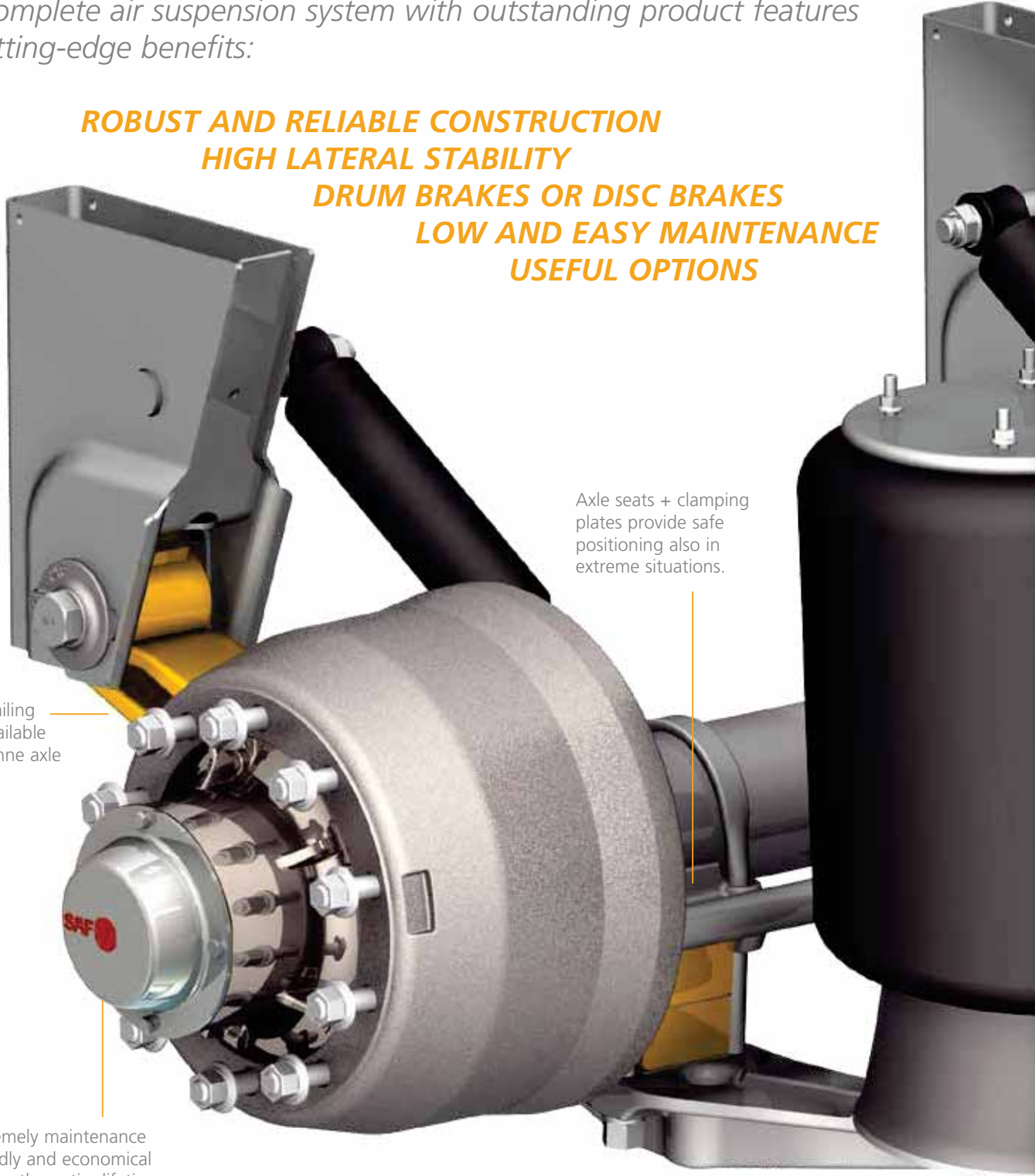
**ROBUST AND RELIABLE CONSTRUCTION**

**HIGH LATERAL STABILITY**

**DRUM BRAKES OR DISC BRAKES**

**LOW AND EASY MAINTENANCE**

**USEFUL OPTIONS**



Parabolic trailing arms are available for 9–14 tonne axle capacity.

Axle seats + clamping plates provide safe positioning also in extreme situations.

Extremely maintenance friendly and economical during the entire lifetime.

# AIR SUSPENSION

## FOUR INDIVIDUAL SOLUTIONS

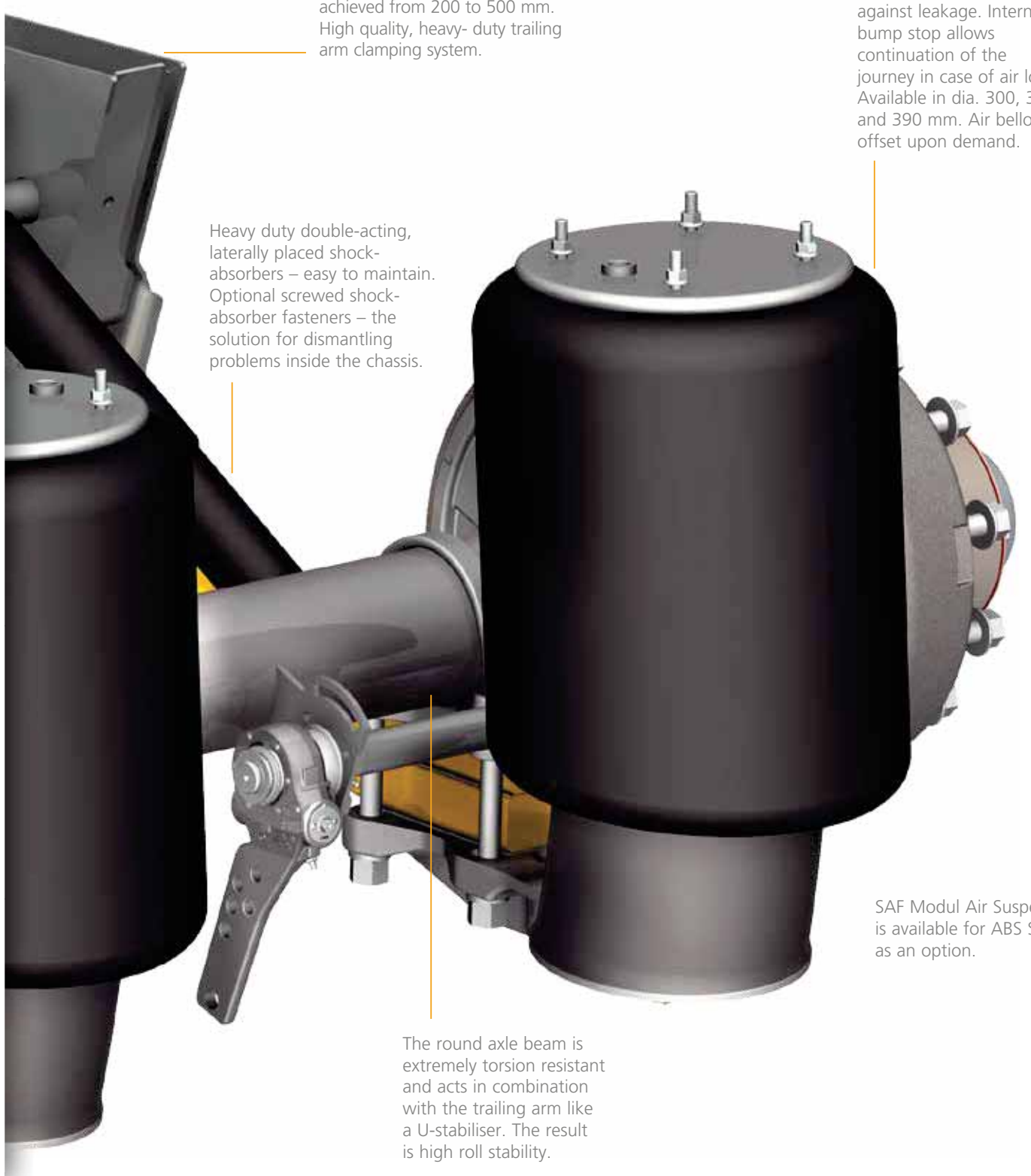
Slim hanger brackets for 120 mm chassis rail. By choosing different hanger brackets and air spring supports, ride heights can be achieved from 200 to 500 mm. High quality, heavy-duty trailing arm clamping system.

Air bellows are reinforced, extremely temperature resistant and vulcanised against leakage. Internal bump stop allows continuation of the journey in case of air loss. Available in dia. 300, 350 and 390 mm. Air bellow offset upon demand.

Heavy duty double-acting, laterally placed shock-absorbers – easy to maintain. Optional screwed shock-absorber fasteners – the solution for dismantling problems inside the chassis.

SAF Modul Air Suspension is available for ABS System as an option.

The round axle beam is extremely torsion resistant and acts in combination with the trailing arm like a U-stabiliser. The result is high roll stability.



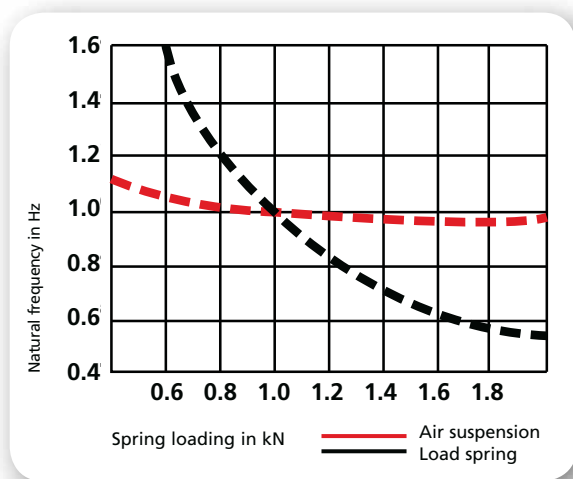
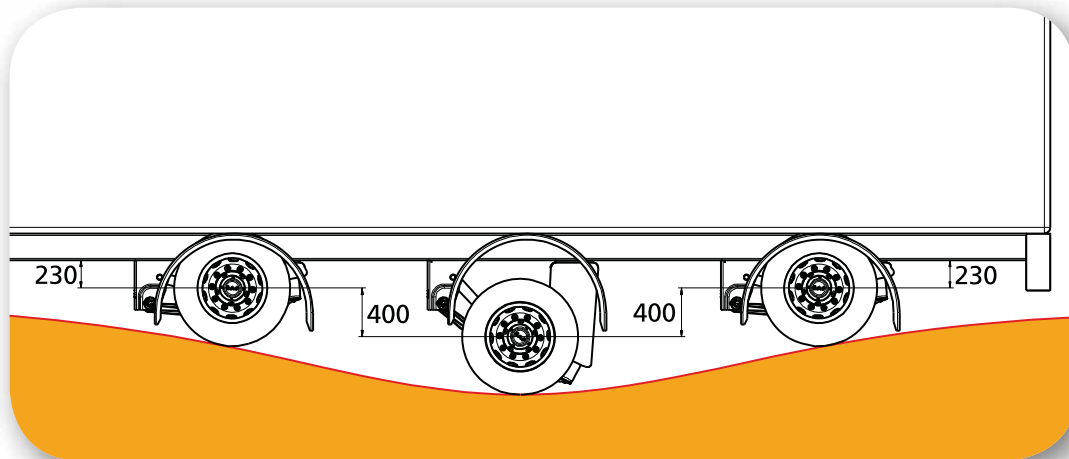
# SAF MODUL AT A GLANCE

## THE BENEFITS FOR YOUR FLEET

One of the main advantages of the SAF MODUL air suspension system is its versatility. It allows for individual combinations and specific applications: SAF MODUL is designed to fit your needs regarding road conditions and transport goods.

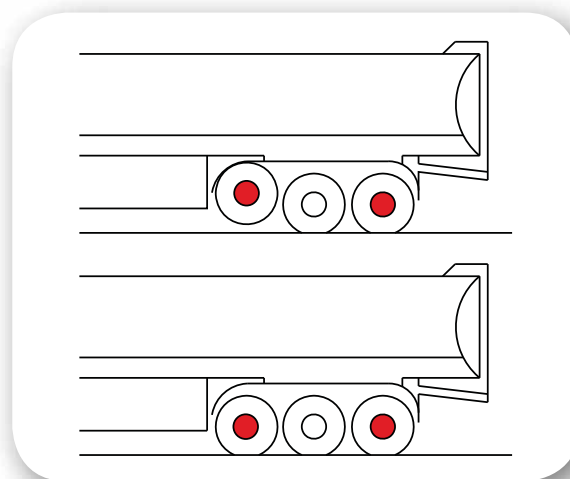
### PERFECT LOAD DISTRIBUTION

- axle travel per module up to 400 mm
- load equalized on all axles
- road friendly
- load friendly



### A SPRING RATE ACCOMODATED FOR CHANGING LOAD CONDITION

- no wheel bounce – reduced tire wear
- comfort for driver
- extended lifetime of chassis
- optimum protection of load, chassis and road under all driving conditions



### OPTIONAL AXLE LIFT(S)

- reduced tire wear
- increases fuel economy

### THE LEVELING-VALVE

maintains a constant ride height in all loading situations by adding or releasing air to/from the system. Each air suspension module can be combined to form a single/tandem or triaxle configuration. All suspension modules are mechanically independent.



# PROVEN BRAKE RELIABILITY AND ADVANCED BRAKING TECHNOLOGY

The SAF MODUL Air Suspension System allows you to choose between a wheel end with drum brake or a wheel end with the patented *INTEGRAL* disc brake (Offset 120 mm). Whether you wish to equip your trailer with a drum braked or disc braked MODUL – you have the security of the first choice, because we attach the greatest importance to the efficiency of the brakes in our suspension systems. SAF-HOLLAND thus ensures that you drive not only a particularly cost-efficient air suspension system, but also a comfortingly safe one, too.



## DRUM BRAKE IS STANDARD EQUIPMENT

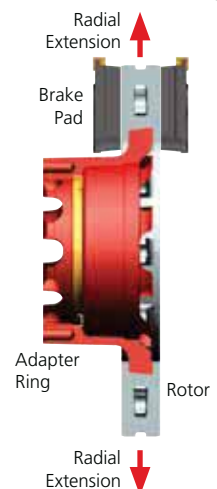
### SELECTIVE LONG-TERM CORROSION PROTECTION

of hub, hub caps, wheel bolts, nuts and components.



## OPTIONAL INTEGRAL DISC BRAKE IS THE ADVANCED BRAKING SOLUTION

*INTEGRAL*'s Bi-Metallic rotor assembly is designed to control the effects of heat. Unlike conventional disc brake technology that often experiences uncontrolled deformation and hotspots, *INTEGRAL*'s rotor expands in a radial direction under braking conditions keeping the rotor surfaces flat and stable.





From fifth wheel rebuild kits to suspension bushing repair kits, SAF-HOLLAND Original Parts are the same quality components used in the original component assembly. SAF-HOLLAND Original Parts are tested and designed to provide maximum performance and durability. Will-fits, look-alikes or, worse yet, counterfeit parts will only limit the performance potential and could possibly void SAF-HOLLAND's warranty.

Always be sure to spec SAF-HOLLAND Original Parts when servicing your SAF-HOLLAND product.

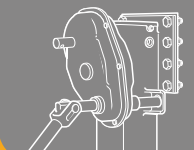
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## HIGH QUALITY COMPONENTS FOR THE COMMERCIAL VEHICLE INDUSTRY

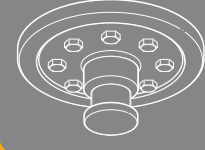
SISTEMAS DE  
SUSPENSÃO  
E EIXOS



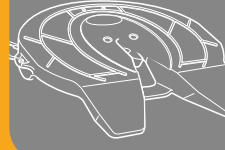
APARELHOS DE  
LEVANTAMENTO



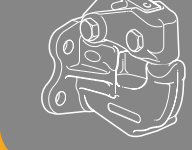
PINOS REI



QUINTAS RODAS



ENGATES



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