VALX delivers a new experience in trailer axle design. With no compromise in any vital area. Our axles are not the cheapest, and nor are they the lightest. But our pricing is very competitive with the established top brands. And our weight is within a few kilograms of the lightest. Which is highly acceptable in relation to the outstanding durability that we've designed in, built in and tested in. Durability that translates into high reliability and unmatched Total Cost of Ownership. That's what you'll experience with VALX!

Valx axles. The smart alternative.

VALX
GOING THE EXTRA MILE

VALX DRUM 420 / 360

Technical specifications

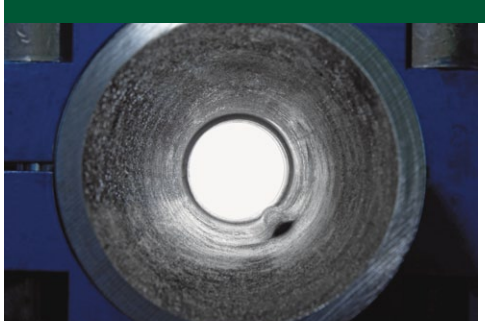
BEAM The axle is based on a one piece, extremely strong seamless, cold-drawn beam design. The non-welded beam structure eliminates risks of weakening or material degradation.

HUB The zero offset hub offers a choice of 19.5 or 22.5 inch wheel sizes.

AIR SUSPENSION The specially developed VDL Weweler air suspension meets the VALX philosophy of light weight, low component count and minimal maintenance. A wide range of ride heights and offsets can be accommodated by only one type of shock absorber, air spring, hanger bracket and two different tail ends.

BRAKE The drum brake offers high efficiency, thermal and mechanical stability and low peak stresses, together with consistent and predictable brake performance.

The axle is based on a one piece, extremely strong seamless, cold-drawn beam design in which the VALX groove is forged.



BEAM

The VALX axle beam has a higher strength-to-weight ratio than any other in Europe, and forms the basis for long-term durability under tough operating conditions.

- *Spindle journals have thickened sections, and are induction hardened and ground to increase life and minimise fretting*
- *Straightened after completion*
- *Large inner journal radius for maximum lifetime*
- *Cold-rolled threaded section for long life and minimal damage and pick-up*
- *Fully sealed tube*
- *Main axle beam assembly is fully E-coated for long-lasting corrosion protection*

HUB

Highly accurate CNC machining and reduced tolerances ensure accurate bearing pre-setting and an even pressure distribution across the bearing cups. The wide bearing spread minimises bearing loads and maximises bearing life, while reducing sensitivity to brake heat transfer.

- *Designed and tested in Europe to accepted European standards*
- *Distinctive 'family' design*
- *Available in 8 or 10-stud variant with zero offset*
- *Made from modular graphite, ductile iron to EN1563:1997, EN-GJS-400-7*

DRUM BRAKE

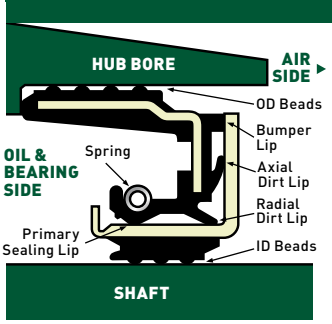
The drum brakes have been developed with the support of brake expert prof. Andrew Day of the University of Bradford, UK. The design is based on proven technology.

- *420 x 180 and 360 x 200 variants*
- *Camshaft head and journals hardened*
- *Large bronze plated cam head bearing with lip seals*
- *Induction-hardened brake shoe pivot and roller pins*
- *Robotically machined welded shoe with machine-finished profile*
- *Rollers, pins, springs, clips and camshaft bearings common for all brake variants*
- *Hardened three-piece cam roller with bronze bush*
- *Stainless steel pivot pin bushes*
- *Thermally optimised drums*
- *Friction pairs matched for optimum wear rates*
- *Forged steel brake spiders with increased stiffness for high stability*
- *Dust cover enclosed in the drum for better protection*
- *Easy ABS sensor inspection and replacement*
- *Fully wear and crash tested with TÜV approvals*

VALX AXLES	DRUM 420	DRUM 360
Axle load	9000 Kg	9000 Kg
Wheel size	22.5"	19.5"
Axle beam [1]	1 piece ~ ø 146 x 10	1 piece ~ ø 146 x 10
Hub offset	0 mm	0 mm
Wheelbolts and dimensions	10 ~ M22 x 1.5	8-10 ~ M22 x 1.5
Wheel Bolt Circle	335 mm	275 / 335 mm
Brake	VALX drum	VALX drum
Brake dimensions	420 x 180 mm	360 x 200 mm
Bearings	Timken : B-145662 ~ B-145649	Timken : B-145662 ~ B-145649
Bearing setting [2]	Full Proof Preloaded	Full Proof Preloaded
Tyre mounting	Single	Single
Paint system	E-coating	E-coating

[1] *Best strength / weight ratio*
[2] *Separate tapered roller bearings*

For the VALX axle hub SKF supplies the specially developed Scotseal PlusXL.



FRICTION MATERIAL

Textar T0124 trailer friction material is specially designed and developed for VALX S-Cam foundation brakes.

- *Optimum value for money through long life*
- *Kind to drums; superior brake drum compatibility*
- *Exceptional brake performance across the entire speed, pressure and temperature ranges*
- *High resistance to wear and good noise performance*

SEAL

For the VALX axle hub SKF supplies the specially developed Scotseal PlusXL, made of high-temperature resistant, long-life HNBR rubber to exclude dirt and moisture from the wheel bearings. Together with the bearings themselves, the seals are retained in place by a circlip when the hub is removed, simplifying service and maintaining the integrity and cleanliness of the hub assembly.

- *Specially designed multi-lip seal, common to all variants*
- *Spring-loaded primary lip seals grease in and keeps road dirt and water out*
- *Withstands high compression loads when the hub assembly is removed*
- *Unitized design protects sealing lips from damage*
- *Easy to fit and remove - one piece hand mounting*
- *NBR blend sleeve compound grips spindle and resists turning even at high temperature; allows seal re-use*
- *Widely available and supplied by a world leader in sealing technology*

BEARINGS

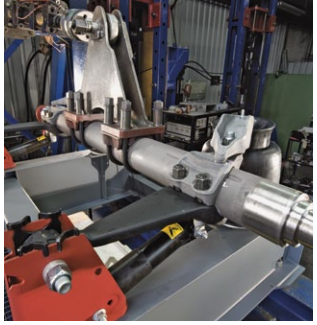
The bearing solution is based on two single-row preset tapered roller bearings, combining cost-effective maintenance with maximum performance and reliability with minimum total cost of operation. Optimised pre-setting maximises bearing life and brake performance.

- *Widely available, high-capacity bearings*
- *Universal load line position*
- *Preloaded to maximise life and limit play for drum brakes*
- *Bearings can be disassembled for inspection and replaced if necessary*
- *Hub retains the bearings when removed, protecting them from dirt entry*

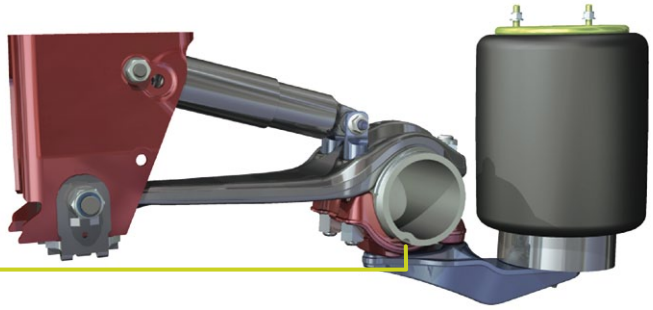
Testing the VALX axles in extreme operating conditions.

VALX AXLES	DRUM 420	DRUM 360
Seal [3]	SKF 4 lip	SKF 4 lip
Air suspension	Weweler MBS	Weweler MBS
Clamped on axle beam [4]	Yes	Yes
Ride height [5]	210 - 420 mm	210 - 420 mm
Air spring ø	300 / 330 mm	300 / 330 mm
Air spring offset	0 / 25 / 50 / 65 / 90 mm	0 / 25 / 50 / 65 / 90 mm
L1 / L2	520 / 320 mm	520 / 320 mm
Hanger bracket height welded (bolted)	235 (241) mm	235 (241) mm
Hanger bracket bracing	flexible design	flexible design
Axle lift	Optional	Optional
Hubodometer	Optional	Optional

[3] *Wear parts inside*
[4] *No welding for air suspension needed on axle beam*
[5] *RH minimum is adjustable by fitting a bump-stop to the chassis of the trailer*



The suspension mount, with a groove in the axle beam, uses no welds or U-bolts for maximum strength and durability of the axle.



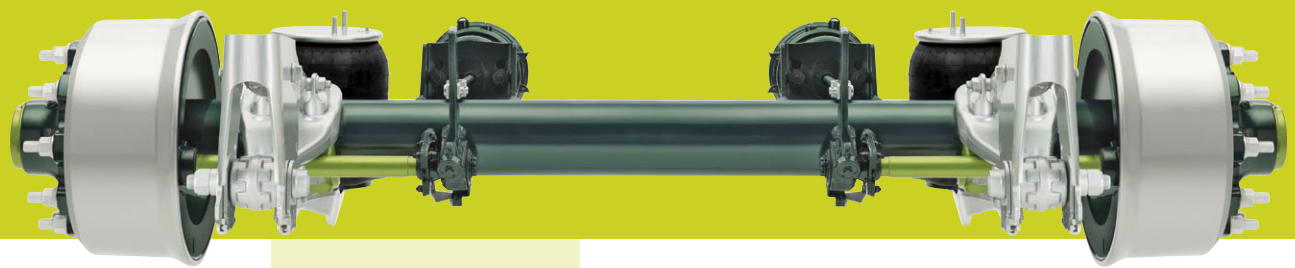
AIR SUSPENSION

The suspension is clamped around the axle and held in place by a groove in the beam, offering a unique modularity in spring track, ride height and offset. This non-welded construction ensures maximum strength and improves the life of the axle.

- *New innovative design from a world suspension leader VDL Weweler*
- *Maximum axle load 9T; lightest 9T spring beam suspension available*
- *Ride height range 210-420 mm with only two different tail ends*
- *Offset 0-25-50-65-90 mm with one air suspension type without extra parts*
- *Suspension spring clamps to the axle tube without welding or U-bolts*
- *Optional bolt-on, non-welded hanger bracket and bracing*
- *Lightweight construction (128 kg) with low component count for a wide range of ride heights and offsets*
- *Single damper type with high temperature viton seals for all suspension variants providing optimal critical damping*
- *Realignment-free*
- *Maintenance-free, robust, small diameter bushing*
- *Tapered spring profile for good roll stiffness and low single-wheel vertical stiffness*
- *Meets accepted criteria for road-friendly suspensions*
- *Damper works as a check strap*
- *Optional: bolt on-mounted axle lift*
- *Optional: one type splitter for the MBS range*

ORDER

VALX axles are available from stock or for early delivery from the VALX works in Valkenswaard, the Netherlands. For further details about products, applications, specifications and availability, please contact us! We'll provide you with fast and detailed support.
Visit our website **www.valx.eu** to discover all information about VALX! The smart alternative.



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VALX is subsidized by the Ministry of Economic Affairs / SenterNovem, Brabant Province, SRE and Limburg Province, The Netherlands

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03-2011