

# Mitas

NEWSLETTER FOR CUSTOMERS AND FRIENDS OF MITAS



Primarily on the US market, AC 85 tires are widely used doubled - the picture shows a Case IH Magnum tractor with 480/80R50 tires on the rear and 420/85R34 tires on the front axle.

## The "eighty-five" AC 85 still reigns

The AC 85 is Mitas' broadest radial tractor tire range. These tires feature the standard 85% ratio between the sidewall profile and tread width similar to the classic tractor diagonal tires on which the radial tires are based.

The AC 85 is a modern, universal tire that provides excellent performance and outstanding economy of operation. Its large contact area improves traction, and its compound ensures wear resistance and longer service life.

"These are tried and trusted radial tires with balanced characteristics for a wide range of uses, both on and off road. This is why these products are still among the top-selling Mitas radial tractor tires," says Pavel Kott, Product Manager for Mitas and Cultor agricultural tires.

This range offers a total of 33 sizes suitable for tractors of up to 162 kW (220 HP). The tires enjoy their highest sales on the European and North American markets, where a large share of products is sent directly to agricultural equipment manufacturers whose ranges are still dominated by tractors. The AC 85 range is ideal for these thanks to sizes offered and due to its properties.

Today, Mitas 85%-profile tires are supplied as original equipment to all leading international agricultural equipment manufacturers, including AGCO, CNH, John Deere, Claas and ARGO.

Most of the AC 85 range has a top speed of 50 km/h. Its largest size, the 380/105R54 162 A8 (164 D), is designed for speeds of up to 65 km/h. At this speed, the load capacity is 4,750 kg (3.2 bars), while load capacity rises to 7,340 kg at 15 km/h in cyclical operation and inflated to 3.6 bars.

The 20-inch 280/85R20 112 A8 (112 B) is at the opposite end of the size range with a load capacity of 1,680 kg (10 km/h, 2 bars) and is suitable for the front wheels of tractors.

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This year, the AC 85 range has been expanded with the 320/85R20 119 A8 (119 B), a wider design for 20-inch rims.

The 460/85R38, 340/85R24, 420/85R34 and 380/85R28 are among the top-selling versions. There are also dozens of tire size combinations suitable for front and rear tractor axles, the most common being 520/85R42 (rear) + 460/85R30 (front), 520/85R38 + 420/85R28, 480/80R46 + 380/85R34 and 460/85R34 + 380/85R24.

In the US, Mitas AC 85 tires are often used with dual wheel systems that help reduce pressure transferred to the soil. There are also minor differences in the labeling of tires for the



Learn more about AC 85 tires here.

North American market. While tires are sold using the 460/85R46 label on the European market, in America they are labeled 480/80R46.

"The tires are actually the same size. It is just that tire sizes have historically been labeled differently," Kott explains.

The rear tractor tires also differ in tread depth. The basic R1 class tread depth is most commonly used with diagonal tires, the R1W class is the current "classic" among radial tractor tires, and the deep tread R2 class is intended, for example, for work in rice paddies. Mitas currently manufactures the AC 85 range with a tread depth corresponding to the R1W class.

"Although we are witnessing a clear trend for widening agricultural tires to improve soil protection and concurrently increase agricultural equipment load capacities, tires with the 85% profile remain a good choice for medium power and lower weight tractors, as they provide excellent driving characteristics and economy of operation," Kott says. (JB)

A John Deere 6090RC tractor mounted on Mitas AC 85 tires - 420/85R38 (rear) and 380/85R24 (front). The rear axle version allows a maximum load of up to 4,200 kg at a speed of 10 km/h and inflated to 2 bars.

## Cultor's Tires on Offer



Cultor also offers tractor tires with an 85% profile through its RD-01 range. This is an alternative for farmers looking for radial agricultural tires at an attractive price but with good properties.

Just as with Mitas tires, these are products offering balanced properties for a wide range of uses in agriculture. Today, the range includes 26 sizes for 24-inch to 46-inch wheels.

In terms of size, the 480/80R46 158 A8 (158 B) "reigns" over the RD-01 range. Its load capacity at a speed of 50 km/h is 4,250 kg (at 2.4 bars), while at 10 km/h this can increase to 6,300 kg (at 3 bars).

The load capacity record holder is the 520/85R42 162 A8 (162 B) offering 7,125 kg (10 km/h, 3 bars).

# Move the Earth with us...

Mitas offers radial tires for excavators, loaders, backhoe loaders and other construction equipment through the EM (Earthmover Radial Tires) range. This is made up of two tread patterns manufactured in nine sizes.

Seven sizes are available with the universal non-directional EM-01 tread. Primarily, this is suitable for various types of loaders, dumpers, and other machinery for lighter construction of the tire work. The all-steel radial construction of the tire significantly increases load capacity and damage resistance, and is thus primarily suitable for stonier and harder surfaces.

The largest EM-01 size offered today - the 500/70R24 164 A8 (164 B) IND - is also the newest addition to the range. Its stationary load capacity is 10,500 kg, but at 50 km/h it still offers 5,000 kg (both when inflated to 4 bars).

The EM-02 is a directional tread pattern based on agricultural tires, with outstanding traction on softer ground. Its high durability makes it especially suitable for loaders, telescopic handlers, and other lighter construction equipment. The properties of the EM-02 position it between agricultural and



Non-directional EM-01 tread pattern for all-round application.

construction tires, and it is therefore also suitable for agricultural machinery.

Mitas offers two tires versions with the EM-02 tread pattern. The larger of these - the 440/70R24 147 B (164 A2) - has a load capacity of 8,032 kg (static, inflated to 3.2 bars) and 3,075 kg at 50 km/h and the same inflation pressure.

The best-selling EM versions of Mitas radial tires today are the 405/70R20 and 405/70R18, both in the EM-01 version.

"One advantage of EM radial tires is their universal nature - their structure means they can be used for construction and agricultural machinery if their tread pattern suits the terrain. Today, the machines used in construction and agriculture are very similar, and our range reflects this," says Jaroslav Musil, Mitas Product Manager for material

handling & construction tires. Mitas EM radial tires are used as original equipment by famous construction equipment manufacturers like



Mitas EM-01 405/70R20 tires mounted on a Mecalac AF1200 loader with an overall diameter of 1,076 mm and load capacity of up to 6,200 kg when stationary and inflated to 3.8 bars.

Kramer, Mecalac, Wacker Neuson, Liebherr, CNH and Atlas Weyhausen.

Radial tires significantly improve the efficiency of construction machinery. They improve traction and reduce fuel consumption for example, in particular during longer road journeys, which are often a necessity for construction machinery.

Trelleborg Wheel Systems is currently preparing the special Mitas EX-01 tire designed for dual wheel systems on construction machinery without the use of the usual intermediate ring. This new product will be manufactured with the same tread pattern as the EM-01 but will differ through its special sidewall adapted to cope with tire-to-tire contact. (JB)

## Agricultural tires for the future – larger and more ground-friendly

There are several trends in modern agricultural tire development that Mitas closely follows and influences. The requirements of agricultural machinery manufacturers are important, as they develop increasingly complex and heavier machinery to further improve the efficiency of field work. As a result, tire designers often face conflicting demands for higher tire load capacity and lower soil pressure.

These requirements mean the biggest trend in recent years has been for larger agricultural tires with extremely wide profiles and high load capacities. These tires often feature a special construction to improve their key characteristics. Another significant trend is an increase in the maximum permitted speed ratings, reflecting the characteristics of the latest agricultural machinery.

When we look back, we see that agricultural tires have been significantly growing in section width for many years. Data obtained by Mitas experts shows that while in 1957 the average section width of a representative sample of agricultural traction tires fluctuated around 300 mm; widths of 450 mm were exceptional. By 2017, tires commonly had an average section width of almost 900 mm. The Mitas brand portfolio even included a tire with a section width of 1,220 mm – the 1250/50R32 – designed for high-power tractors and combine harvesters, and available in several versions with different load capacities.

Alongside the width of agricultural traction tires, the overall diameter has been growing, too. In 1957, the average did not even reach 1,200 mm, and diameters up to 1,600 mm were exceptional; in 2017 the average diameter of the largest tires approached 2,200 mm.

The Mitas diameter “champion” is the 710/75R42 from the SFT (Super Flexion Tires) range, which has an outer diameter of 2,171 mm. Comparable diameters are also reached by the VF (Very High Flexion) and CHO (Cyclic Harvesting Operation) tires designed for combine harvesters. “We don’t expect significant further increases in the external proportions of agricultural tires in the future, as agricultural machinery must still be certified for operation on normal roads,” says Pavel Kott, Product Manager of Mitas agricultural tires.

When it comes to load capacity of agricultural traction tires, this has increased from an average 1,000 kg in 1957 to almost 9,000 kg in 2017. The highest load capacity in the Mitas portfolio is offered by the



Mitas 800/70R38 SFT CHO mounted on a Claas harvester allows extremely low inflation pressure and maximum load capacity at the same time.



Mitas 1250/50R32 SFT tire mounted on a grain cart Unverferth 1015 Xtreme. With its width 1,220 mm and the overall diameter 2,020 mm, this is the largest tire in Mitas’ portfolio.

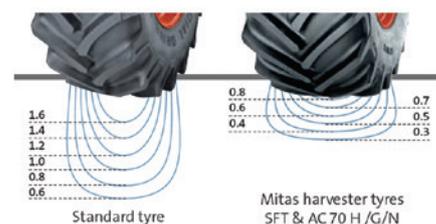
1250/50R32 CHO SFT 194 A8 (191 B). This tire’s nominal load capacity is 10,900 kg (at a speed of 50 km/h and inflated to 3.2 bars), but in the cyclic regime and at a speed up to 10 km/h this rises to 21,240 kg (again at 3.2 bars). High load capacities are not only offered by all radial Mitas tires for combines and harvesters, but also by tires such as the Agriterra range for heavy agricultural trailers.

The last figure documenting the changing characteristics of agricultural traction tires is their maximum permitted speed. This has increased from an average of 20–30 km/h in 1957 to 65 km/h today. The Mitas AC 65 and HC 70 radial tractor tires and the “silent” tires with the SST (Silent Speed Tires) construction permit speeds of up to 65 km/h, but Mitas also has the AC 70 G MPT steel-belted multipurpose tire range designed for speeds of up to 90 km/h.

The currently widely used flexible sidewall technology allowing maximum load capacities under simultaneously lower inflation pressures is a significant improvement in radial agricultural tire construction, offering enhanced traction characteristics and soil protection when used on heavy machinery. This flexible sidewall construction is used by the Mitas SFT (Super Flexion Tires) and by the new generation of tires labeled IF (Improved Flexion) and VF (Very High Flexion). Compared with standard radial tires, VF tires have around 40% higher load capacities at the same inflation pressures.

The extensive Mitas radial tire range offers solutions for all kinds of agricultural machinery and applications – from high-power tractors to combine harvesters, and from field preparation to harvest. The Mitas HC (High Capacity Tires) and SFT (Super Flexion Tires) were primarily developed for the most powerful machines with over 180 HP. The extremely large volume of air in the tires ensures gentle ground handling when working with heavy loads.

The HC 3000 and SFT CHO tires for heavy harvesters are capable of higher maximum loads with simultaneous gentler ground handling in the field and more comfort on the road. In addition to these special tires, Mitas produces three radial tractor tire ranges with different profiles, and many other versions for trailers and agricultural machinery. “We offer radial tires for the vast majority of modern machines used by farmers,” Kott concludes. (JB)



Extremely wide tires distribute the weight of the machine across the surface area, lowering the compaction of the soil.

## Mitas to enhance its popular E-07 tire range

Mitas is enhancing its tire portfolio for trail and adventure motorcycles and, due to popular demand, is reintroducing a number of sizes for its E-07 range alongside the successful E-07+, giving riders in this segment even more choice.

"The E-07 is a true 50% on-road and 50% off-road adventure tire. Over its long years of service, it has continued to be one of the most desirable choices for adventure riders, as it combines road riding performance and wear characteristics with the capability to take more adventurous off-road trips. Due to its hardwearing compound and optimal performance on- and off-road, the E-07 remains a preferred choice on many journeys across the world," explained Gustavo Pinto Teixeira, Vice President Two Wheels and Specialty Tires business unit at Trelleborg Wheel Systems.

The E-07+ is a class-leading 60% on-road and 40% off-road adventure tire. It was designed for larger adventure motorcycles with higher power outputs, when great off-road performance combined with improved on-road

performance is required. Since the tread pattern is slightly more on-road oriented than the original E-07, both the requirements are

*The E-07 is equally an on-road and off-road adventure tire...*



(TL) versions of both the E-07 and E-07+ can be used with a tube on tube-type rims.

JANJA LIKAR  
ČARMAN,  
MITAS MOTO

*...and the E-07+ is designed for more frequent on-road use.*

met. A bigger knobby design provides plenty of open space between the tread blocks to displace sand, mud, and water from the contact patch, while keeping enough rubber between the road and the rotating tire.

Selected E-07 and E-07+ sizes are available in the "Dakar" version (marked with a yellow stripe) featuring a reinforced carcass, higher puncture resistance, and harder compound. This is ideal for higher loads, longer adventure trips, and extreme conditions. The E-07 tire portfolio currently contains 17 sizes, with 19 for the E-07+; all for 17- to 21-inch rims.

Both patterns remain fully interchangeable and compatible between front and rear, thereby offering a degree of personalization that only Mitas can provide to the market. All the tubeless

## The new Cultor website

The Cultor website has featured a new design since the end of last year. The website now has a more modern appearance, while banner images make it more engaging and generally create a better user experience. The European origin of Cultor tires is also graphically highlighted on the website.



The www.cultor-tyres.com domain offers six languages and www.cultor-tires.com has French and English versions intended for the North American market. A new European French version of the Cultor website will be created in the near future. This will expand the existing European portfolio of www.cultor-tyres.com websites, currently available in English, Czech, Italian, German, Dutch, and Spanish.

Detailed information about the products sold under the Cultor brand since 2009 remains the most important content of the websites. An easy-to-use tire finder on the homepage helps visitors find specific Cultor tires, and also the nearest dealer if required. A tire pressure calculator is another useful website feature.

"We launched an online campaign for the German Cultor website to raise awareness of the Cultor brand at the beginning of May. This highly targeted campaign attracted a large number of visitors to the website. The special offer is intended for German, Austrian, and Swiss customers who receive a gift if they purchase two radial tires. The campaign will run until the end of 2020," said Digital Marketing Manager, Regina Fičková.

Get to know the Cultor brand more. Take a look at the www.cultor-tyres.com and www.cultor-tires.com websites. They definitely have a lot to offer. (RF)



Mitas motorcycle and aircraft tires are part of the Two Wheels & Specialty Tires business unit of Trelleborg Wheel Systems.

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Mitas, part of the Trelleborg Group, is one of Europe's leading tire brands for agricultural machines, construction vehicles, material handling equipment, motorcycles, and other specialty segments. Mitas tires are produced in the Czech Republic, the United States, Serbia, Slovenia, Sri Lanka, and promoted through a global sales and distribution network.



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