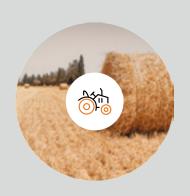






### WHAT'S YOUR BUSINESS?



#### **AGRICULTURE**

We started the production of wheels for tractors and green forage machinery in mind. Over two decades of experience in manufacturing wheels for agricultural industry have made us an indisputable expert. Know-how gained through the years taught us that farmers work in various conditions - and our job is to prepare their machines for all of them.



#### **FORESTRY**

As a company located next to the Białowieża primeval forest we know what challenges forwarder operators may come across. Wheels made for forestry sector are prepared for uneven terrain. We offer additional reinforcements to prevent disc wheels from deformations which may occur while working on the roots and branches in the woods.



#### **CONSTRUCTION**

Construction and mining machinery need to be durable on sandy and rocky ground while carrying heavy loads. Our factories are able to produce single- and multi-piece wheels out of thick sheets of metal. The increased thickness of material combined with our broad experience allow us to offer wheels that can withstand the most demanding work.





**99** Components of the highest quality let you save time needed at work just to spend it with the loved ones.

As residents of Podlaskie Voivodership we appreciate time spent with our loved ones and we know that time can be saved by working with reliable equipment.

We put emphasis on creating high quality products just to let our customers save time they spent on breakdowns that may occur at work.

## PRODUCT GUIDE - INDEX



Agriculture wheels

28 Forestry wheels

32 Construction wheels

Data sheet





The launch of Pronar took place in Eastern Poland in 1988. Pronar Wheels was originally created in 1997 only to produce wheels for Pronar machines. As the time flew other companies became interested in rims made by the Polish brand.

Right now Pronar Wheels is one of the biggest wheel producer in the world. We are the only company in Europe which is able to provide solutions for all agricultural machines, from small tractors to the biggest combine harvesters.

We are into technology - we follow the world of technical innovations and we are constantly upgrading our machine park. Our approach to production allows us to offer the highest standards for our customers. Our wheels can be found in over 80 countries spread around 6 continents across the globe.

As the owners of the technology behind our production we are able to offer over 10 000 wheel configurations which are made out of 450 available wheel types. Our machine park allows





We are the second largest agricultural wheels producer in the world



Our wheels drive businesses in over 80 countries



Three factories located in the area of **Green Lungs of Poland** 



We are present on six continents across the globe



**Globally approved** supplier, trusted by the biggest companies

us to produce over 1 000 000 wheels a year. All those numbers place us as the second largest agriculture wheel manufacturer in the world. We have just opened a second factory and we are ready to help our customers achieve higher results with our wheels. This is why we encourage you to contact us and ask us about sizes which are not present in this catalogue as we are able to develop new sizes tailored to your needs.



PRONAR WHEELS COM





#### **UNIQUE FACTORY LOCATIONS**

Pronar has 9 production facilities scattered around Podlaskie Voivodership. Our headquarters are located in Narew - a small village located in Eastern Poland. Narew is situated next to the primeval forest of Białowieża National Park in the region of so-called "Green Lungs of Poland". By visiting us you can also see a beauty of the forests, grasslands and wild life of Eastern Europe.

#### IN-HOUSE PRODUCTION

All of our products are made exclusively in our factories. We own all technology used in the process of manufacturing wheels and their parts. We cut, weld, press and shape steel by ourselves to create wheels tailored to the needs of our customers. Pronar also has its own Research and Development Centre where we run multiple tests exceeding European standards.

#### **WAREHOUSE SPACE**

We believe that independence creates the confidence in our possibilities. This is why we have our very own warehouses located on the premises of our factories. The heated warehouse spaces take up more than 10 000 m2. Our storage spaces are equipped with high loading racks and electric reach trucks. They allow us to save energy and make the most out of warehouse space.

#### **OVER 3000 EMPLOYEES**

Our most important asset is people - they are in charge in of designing and producing machines and solutions for many sectors including agriculture and recycling. Pronar is constantly investing in creating new workplaces for people, who are open to new challenges and ideas.

## SUSTAINABILITY





#### INTERNATIONAL STANDARDS

We are a member of the European Tyre and Rim Technical Organization (ETRTO). We are in close cooperation with other automotive companies, setting the industry standards. We produce our wheels according to EUWA, TRA, ETRTO standards. Our tyre assembly centre is accredited in accordance with Michelin quality requirements confirmed by an independent SGS certificate.

#### **DEMANDING TESTS**

We run diversified tests and experiments on our products to ensure their durability. Pronar Research and Development Centre developed their own trials exceeding international standards. Such a deep analysis of our wheels provides highly detailed information about the product to the customers. Our goal is to create the best bare rims in the world and science is the key to achieve it.

#### HIGH QUALITY AND DURABILITY

We invest a lot of resources in the development of our production plants. We understand our customers and the fact that they need a product which will serve them no matter what. High quality and durability, proven by tests and certificates, ensure that our wheel will last longer than the one with little to no documentation. And we know that a durable wheel is equal to reduced costs in the future.

#### THE BEST MATERIALS

The whole production process takes place in our factories – we do not have subcontractors who make wheels for us. We just know that we can count on ourselves. We are only dependent on material suppliers - we do not melt steel by ourselves. That's why we buy steel from reliable steel mills like Arcelor Mittal and U.S. Steel Kosice.

# AGRICULTURE WHEELS









High durability



High load capacity



Wide range of sizes



Anti-corrosion protection

Tractors are often exposed to difficult work conditions, that's why they need strong and reliable parts and components. Fixed wheels made for tractors offer the highest durability in class due to the rich production process behind it.

Our wheels are welded out of two parts - a rim and a disc. Bare rims are cut and rolled out of one sheet of steel to ensure the highest endurance.

Discs are usually thicker than rims because most commonly wheels tend to break around the PCD. Discs are cut out of a sheet of steel and pressed to achieve the desirable offset.

# ADJUSTABLE LUG



Tractors are truly versatile machines and our adjustable wheels let them unleash their resourcefulness by giving them the possibility of changing the settings of the wheels. This solutions gives the operator an opportunity to change the wheels' offset without having to buy new set of wheels. Adjustable lug wheels consist of discs mounted on bare rims by bolts. Such a combination gives the possibility of setting up to 4 different offsets of a single wheel. Thanks to this build the same set of wheels can be used on different fields requiring different width of tracks.



High durability



High load capacity



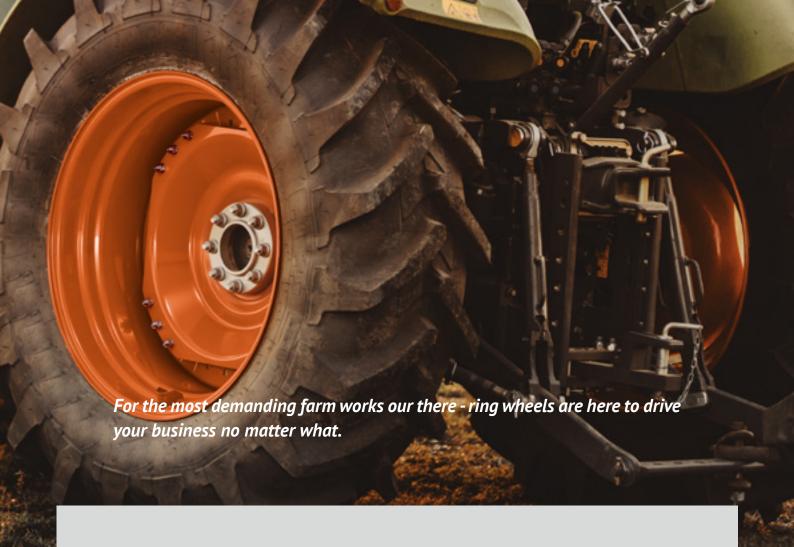
Wide range of sizes



Up to 4 different offset settings







Some machines require durability exceeding norms and standards. Such demanding tractors are equipped with reliable components to ensure their strength. This is the case in which ring wheels are chosen - their unique construction provides more stability around connection points.

In this solution, a steel ring is welded to the bare rim to provide additional stiffness in areas prone to cracking under heavy loads or on uneven terrain. The disc is attached to the ring by bolts. It allows the user to change the disc based on their needs.

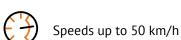
Simple version of ring allows up to 4 offset settings. They can be achieved by mounting the disc in different positions. This number

increases when we decide to use spacers - tubes put between the disc and the ring on the bolts. Ring wheels can be differentiated into two types: 1- and 2-step rings. The second type doubles the number of possible offset settings due to the two steps of the ring which is also known as the "waffle".

In this solution ring is shaped in unique way to double the offset possibilities. It also has another advantage – this unusual ring enhances the durability of a wheel making it less prone to deformation.

Improved stiffness and strength allow the machine to achieve higher loads and higher speeds - tractors with such wheels can drive up to 50 km/h.







Wide range of sizes

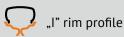


Up to 8 possible offset settings





High durability





Higher thickness



Anti-corrosion protection

Green forage machines are constructed in a different way than other agricultural trailers to limit their weight. This build has no room for regular axles that's why rake grassers use a different type of wheels.

Small wheels in sizes of 6" and 8" are made out of two separate discs welded together. Inside the two connected discs there is a build bearing. As a result, machines can operate without classic axles which usually rotate outside of the wheel.



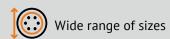
The structure of soil is the basic element responsible for its fertility, that is why field work requires so much commitment.

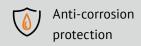
Work performed by machines lead to the kneading of soil as tyres have contact with the ground. The process of kneading soil may lead to a decrease in its fertility.

Row crop wheels limit the area of compaction by narrowing the path of the machine, which indisputably helps to reduce perish and fungal infections.















of tracks while using single wheels as well as limit soil compaction while using dual kits.



achieve.

Narrow path



Anti-corrosion protection



Up to 8 possible offset settings

to apply spacers - small steel tubes mounted

on bolts between two elements. Spacers vary

in sizes, so there are countless offsets one can

There is also an option to mount an additional tube in diameter size of PCD between a wheel



Pronar unique design





High durability



High load capacity



Wide range of sizes

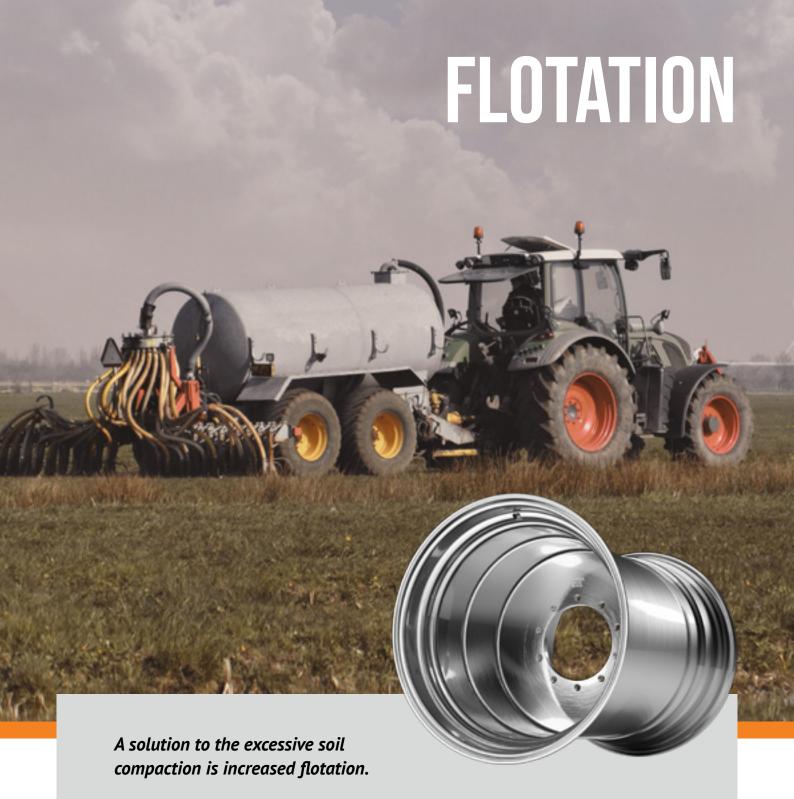


Anti-corrosion protection

Trailer wheels are made with their high durability in mind. Transportation of goods is crucial in any kind of business and we want to offer the best solution.

Our offer consists of a lot of available configurations as they serve a broad range of machinery including round ballers, bale wrappers and mixer feeders.

This is the most popular type of wheel as they serve not only agricultural machines - they can be also found in municipal machinery. Broad offer of configurations allow us to choose a wheel adapted to our client's needs.



Transport in large fields require large machines to reduce the time needed to complete tasks. To minimize potential loses which may arise from using equipment of higher weight we advise using flotation wheels with special flotation tyres. The construction of such wheels is deeper and broader to increase the footprint of the tyre. Increasing the area of contact between a tyre and the ground decreases the pressure on the field. Less soil compaction equals fewer damaged plants.



High durability



High load capacity



Wide range of sizes



+ Additional protection



Cultivation machines have their own requirements when it comes to the technical details of components used in their production. Wheels used in combine harvesters, chaser bins and other large machines are usually made out of thicker materials than wheels produced for other agricultural machines.

We shape discs with hydraulic presses at our

Narewka factory. Those machines allow us to forge steel with a pressure up to 5 000 t/cm2. We are the only wheel manufacturer in Europe capable of forming deep-drawn discs with depth up to 400 mm.

Precisely manufactured discs made out of steel up to 40 mm thick make failure-free operations possible even in the most difficult conditions. Pressed discs allow us to achieve high load capacity and extraordinary durability of wheels. Cultivation machines in all sizes and on 6 continents drive on our wheels. Such experience



### Harvesting is final\* step in farming - and this is why machines used in the process need the best components available.

allows us to make and offer dual solutions.

Dual wheels are usually used in the biggest machines available on the market. They are used to limit the pressure on the ground and kneading of the soil during operation. Combined with flotation tyres such a solution allows the user to work even in the most unpleasant conditions. Not to mention the additional durability when it comes to working with high loads on dual wheels.



High durability



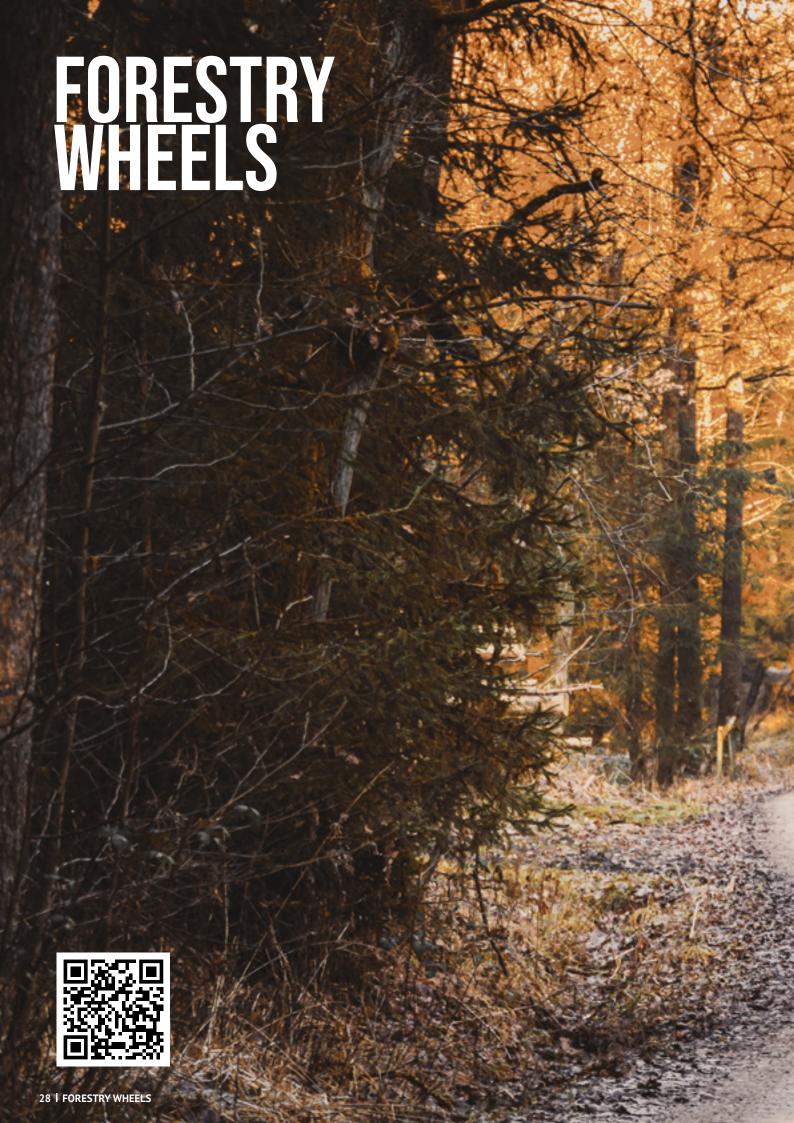
High load capacity



Timeless design



Anti-corrosion protection







Uneven terrain, severe weather conditions and high loads - those are just a few obstacles forestry machines face at work. And we have the solutions for all the possible problems.

Tyre valves may be damaged while working in

ground. To prevent such events we offer valve guards. Solution like that provides additional security and limits the possibility of breakdowns.

Another addition we offer is reinforcement rod. Driving on uneven terrain or branches may cause deformations of the rim. To avoid such damages a rod can be welded to the bare rim to reinforce it and make it much more durable and



#### Machines which work in the woods come with their own requirements. This is why they need a special kind of wheels.

less susceptible to deformation. Such damages can be also a threat to tyres of forwarders and harvesters.

To prevent tyres from slipping we shape bare rims in so called "H2" profile. It is an additional hump in the rim which is placed right behind tyre's foot. It limits the possibility of slipping the tyre out of the wheel.

Under heavy loads wheels can also slip in tyres. That's why we produce rims with knurling. A knurled pattern under the tyre's foot makes the wheel less slippery and gives more control for the operator.



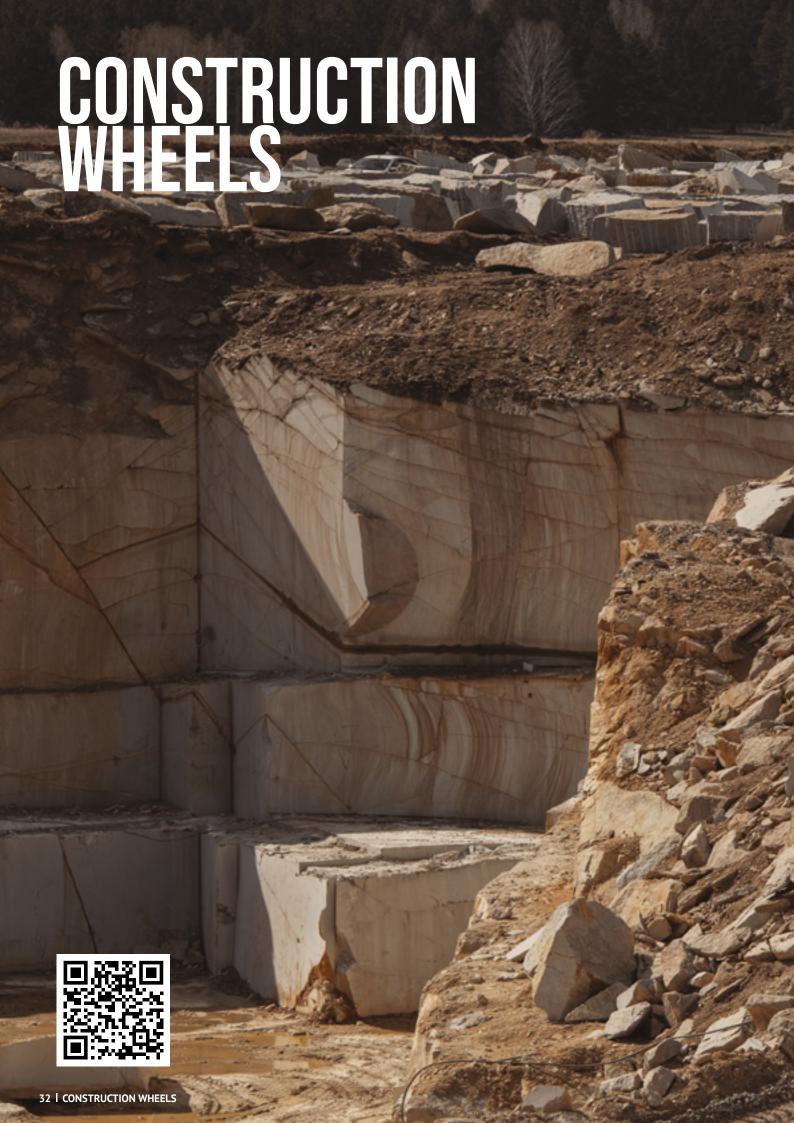


High load capacity



Wide range of sizes

















Wide range of sizes

Usually construction wheels are made out of thicker materials to make them more durable under heavy loads. We produce wheels with disc thickness up to 40 mm. Similarly to forestry wheels, some of the models come with reinforcement rod to prevent rims from deformation and valve guards to prevent tyres from valve damage.

Disc wheels for construction sector also have different shape to suit the OTR tyres. They are harder and more rigid than agriculture tyres and have their own needs when it comes to mounting them onto wheels.



The biggest machines used in construction and mining sectors usually use multi-piece wheels which allows the highest load capacity and durability on the market.

Such wheels come in 3- and 5-piece configurations. The choice between different setups is based on a type of machine and on work it will be performing.

Construction machines have different requirements than machines from different sectors. OTR tyres are much stiffer than tyres used in agriculture so they need a different type of wheel. And multipiece wheel is made just for them.



*H*igh durability



High load capacity



Timeless design



Multipiece build

## KEY PRODUCTION FACTS





Factories equipped with automated production lines



We use materials of the highest quality



Wheel sizes from 6 to 54 inches in diameter



Wheel sizes from 4.25 to 44 inches in width



We work with materials with thickness up to 40 mm



We deep shape discs with offset up to 400 mm

450
We have over 450 available

types of wheels

10000
Our offer consists of over 10 000 possible wheel configurations

1000000

We produce over a million wheels a year



### Our products are tested according to European and international standards by external research units as well us by our own R&D Centre.

Our aim is to provide customers with durable products of the highest quality. This is why we run our own tests in Pronar Research & Development Centre located in our headquarters in Narew. All of Pronar products are tested here, from wheels to trailers.

All tests are run according to the European and international standards. Material tests, chemical tests, fatigue tests of wheels, approval tests and many more are conducted here by our

experts. The aim of our R&D centre is to develop innovative technological solutions and to test product prototypes before they are launched on the market.

Location of our R&D Centre allows us to save resources because we can test wheels in the place they are manufactured. What is more, our experts also test raw materials before they are used to produce rims or other components.



#### Our eye for details and high quality of production is proven by many wellknown accreditation bodies and certifications.

We are a member of European Tyre and Rim Technical Organization (ETRTO). We work closely with other automotive companies, setting the industry standards. Our wheels are produced according to EUWA, TRA and ETRTO standards. It is a confirmation that our products meet international norms.

To provide goods of the highest quality, our factories have implemented the ISO 9001:2015-10 management system. According to this

certification all wheels undergo rigorous quality controls at every stage of production.

In addition we work closely with tyre manufacturers from all around the world. Our accredited assembly centre works in accordance with Michelin quality requirements confirmed with SGS certificate.



### We are aware of the stereotypes that our company is a men's world. Fortunately, this is a thing of the past.

Our company is constantly developing and the size of the company determines the need for employees. Right now there are over 3000 people working at Pronar and we know there is room for new members of our team.

We know for sure that saying "a men's world" is a relic of the past as more and more women take up jobs which are stereotypically made for men. And so it is at Pronar as nowadays women can be spotted at production halls as well, not only in the offices.

We believe that female power can drive our business the evidence of this can be seen every day at our factories. Women assemble, weld, paint and do many more tasks and they do them more than correctly.

Women have a better eye for details than men and are much more precise in general. We believe that women can do everything - that's why they are more than welcome at Pronar.



#### We believe that the best investment is investment in people. This is why we offer training for beginners as part of Pronar Academy.

We believe in people's willingness to work and natural talent. This is why we offer jobs to people with no previous experience. Some of them had no chance to learn particular things in the past and some want to change their profession.

This is why we have founded the Pronar Academy, which was created to remove obstacles like lack of knowledge and previous experience. The Academy is a program which gives everyone a chance to learn things from scratch like welding. Students of the Academy gain theoretical and practical knowledge from experienced Pronar employees. All students also get employment contract and earn money while learning how to perform work while learning.

All welders at Pronar have European certification confirming their expertise. All students are prepared for such examinations because meeting international standards requires extraordinary welding skills.



### The most complete range of tyres on the market from one of the most experienced companies. With some additional perks.

We have many years of experience in agricultural and industrial sectors and we want to use our knowledge to serve complete solutions to our customers. This is why we have opened our own tyre wholesale.

Our offer consists of over 2 000 available tyre sizes and 500 tread types. We cooperate with Michelin and TVS Eurogrip to fulfil the needs of the market. We offer tyres for agricultural, municipal, recycling and construction sectors.

We keep the entire assortment in the heated warehouse on our premises. The storage space takes up over 10 000 m2 and is equipped with high loading racks. All these solutions help us store very large stocks of products while maintaining the liquidity of our warehouse.

To make the communication between us and our customers much easier we have launched our very own online store. You can find it on our website where you will learn more about it.



#### The offer of our complete wheels with tyres help our customers save time and money.

Some customers prefer to buy wheels and tyres separately in order to mount them later in their own facilities. It is a time- and money-consuming process as usually those two components are bought from two different suppliers. It means that the customer also has to pay twice for the transport as well as waste resources on mounting process.

We have a solution to that - our offer also consists of complete wheels with tyres. Our tyre

assembly centre, located on our premises, is accredited in accordance with Michelin quality requirements confirmed by an independent SGS certificate. This confirms that our mounting area meets all necessary norms to offer the highest assembly quality.

High stock of available tyre sizes combined with our wheels offer help our customers save great amount of resources.

### DATA SHEET FIXED WHEELS

Wheel diameter	Rim width and shape	
	4.25	
	5JA	
	7	
12"	8.5H2	
	9H2	
	9.5H2	
	10.5H2	
	6.75	
14,5"	8.00	
	9.50	
	W5.5	
	W6	
	W7	
	W8	
15"	W10	
15	W13	
	7.001	
	9.00	
	10LB	
	13LB	
15.3"	9.00	
15.5"	13.00 H2	
16"	W6	
	W7	
	W8	

Wheel diameter	Rim width and shape	
	W12	
	4.00E	
	4.50E	
4.62	5.00F	
16"	5.50F	
	6.00L	
	9.00	
	11	
	8.25	
16,5"	9.75	
	12.00	
17"	13.00	
	16.00	
	16.00H2	
17,5"	14.00	
	W8	
/ /	W9	
	4.50E	
10"	5.50F	
18"	9	
	11	
	13	
1 7	13 H2	
19.5"	6.75	
17.5	7.50	

Wheel diameter	Rim width and shape	
	8.25	
	11.75	
19,5"	12.25	
	13.00	
	14.00	
	W7	
	W8	
	W9	
	W10	
	W11	
	W12	
	W13	
20"	W14L	
20	W16L	
	5.50F	
1.13	9	
li 1999	11	
	12	
	13	
///	14	
	16.00	
/	8.25	
	9.00	
//	11.75	
//	13.00	
22,5"	14.00	
	16.00	
	20.00	
	28.00	
	16.00 H2	
	18.00 H2	

Wheel diameter	Rim width and shape	
	20.00 H2	
22,5"	22.00 H2	
	24.00 H2	
	W7	
	W8	
	W9	
	W10	
	W11	
	W12	
1	W13	
24"	W14L	
	W15L	
	W16L	
	DW13L	
	DW14L	
	DW15L	
	DW16L	
	DW18L	
	DW12	
241	DW16L	
26"	DW20B	
	DW25B	
	20.00 H2	
26.5"	24.00 H2	
	28.00 H2	
	W7	
28"	W8	
	W9	
	W10	
1	W11	
1	W12	

Wheel diameter	Rim width and shape	
	W13	
	W14L	
28"	W15L	
	W16L	
	W18L	
	W12	
	W13	
	W14L	
	W15L	
	DW12	
	DW13	
30"	DW14L	
	DW15L	
	DW16L	
	DW18L	
	DW20B	
	DW23B	
	DW25B	
1	20.00 H2	
30,5"	24.00 H2	
111	28.00 H2	
15	W7	
	W8	
	W10	
	W11	
	DW20B	
32"	DW21B	
	DW27B	
	DW30B	
	DW36B	
	DW44B	

Wheel diameter	Rim width and shape	
	W8	
	W10	
	W12	
	W13	
	W15L	
7.42	W16L	
34"	DW14L	
	DW15L	
	DW16L	
	DW18L	
	DW20B	
	DW23B	
	W7	
	W8	
36"	W10	
	W11	
	W12	
	W7	
	W8	
	W10	
	W12	
	W15L	
	W16L	
38"	DW10	
36	DW12	
	DW14L	
	DW15L	
	DW16L	
	DW18L	
	DW20B	
	DW23B	

Wheel diameter	Rim width and shape	
	DW25B	
38"	DW27B	
	DW30B	
	W8	
	W10	
	DW16L	
42"	DW18L	
42"	DW20B	
	DW23B	
	DW25B	
	DW30B	
	W7	
44"	W8	
	W10	
	W10	
	W12	
	DW13	
46"	DW16L	
40	DW20B	
	DW25B	
	DW27B	
	DW30B	
	W8	
48"	W10	
	W12	
	W10	
50"	W12	
	W13L	
	DW16L	
F3"	W10	
52"	W12	

Wheel diameter	Rim width and shape
54"	W8
	W10
	W12

# DATA SHEET ADJUSTABLE LUG & RING WHEELS

Wheel diameter	Rim width and shape	Adjustable lug	1- or 2-step ring
16"	W6	+	1-step
	W7	+	1-step
	5.50F	+	1-step
	5.50F	+	1-step
10"	W8	+	1-step
18"	W9	+	1-step
	W7	+	1-step
	W8	+	1-step
20"	W9	+	1-step
	W10	+	1-step
	W11	+	1-step
	W7	+	1- & 2-step
	W8	+	1- & 2-step
	W9	+	1- & 2-step
	W10	+	1- & 2-step
2.4"	W11	+	1- & 2-step
24"	W12	+	1- & 2-step
	W13	+	1- & 2-step
	W14L	+	1- & 2-step
	W15L	+	1- & 2-step
	W16L		1- & 2-step
	DW12		1- & 2-step
26"	DW16L		1- & 2-step
	DW20B		1- & 2-step
	DW25B		1- & 2-step

Wheel diameter	Rim width and shape	Adjustable lug	1- or 2-step ring
	W7	+	1- & 2-step
	W8	+	1- & 2-step
	W9	+	1- & 2-step
	W10	+	1- & 2-step
	W11	+	1- & 2-step
28"	W12	+	1- & 2-step
	W13	+	1- & 2-step
	W14L	+	1- & 2-step
	W15L	+	1- & 2-step
	W16L		1- & 2-step
	W18L		1- & 2-step
	W12	+	1-step
	W13	+	1-step
	W14L	+	1-step
	W15L	+	1-step
	DW12	+	1- & 2-step
	DW13	-///	1- & 2-step
30"	DW14L	//	1- & 2-step
	DW15L	+	1- & 2-step
	DW16L	+	1- & 2-step
	DW18L	+	1- & 2-step
	DW20B	+	1- & 2-step
	DW23B		1- & 2-step
	DW23B	+	1- & 2-step
	W7	+	1- & 2-step
32"	W8	+	1- & 2-step
	W10		1- & 2-step
	W11		1- & 2-step
	W8	+	1- & 2-step
34"	W10	+	1- & 2-step
	W12	+	1- & 2-step

Wheel diameter	Rim width and shape	Adjustable lug	1- or 2-step ring
	W13	+	1- & 2-step
	W15L	+	1- & 2-step
	W16L	+	1- & 2-step
	DW14L	+	1- & 2-step
34"	DW15L	+	1- & 2-step
	DW16L	+	1- & 2-step
	DW18L	+	1- & 2-step
	DW20B		1- & 2-step
	DW23B		1- & 2-step
	W7	+	1- & 2-step
	W8	+	1- & 2-step
36"	W10	+	1- & 2-step
	W11	+	1- & 2-step
18	W12	+	1- & 2-step
	W7	+	1- & 2-step
	W8	+	1- & 2-step
	W10	+	1- & 2-step
	W12	+	1- & 2-step
919	W15L	+	1- & 2-step
	W16L	+	1- & 2-step
	DW10	+	1- & 2-step
38"	DW12	+	1- & 2-step
38	DW14L	+	1- & 2-step
	DW15L	+	1- & 2-step
	DW16L	+ 3	1- & 2-step
	DW18L	+ 7	1- & 2-step
	DW20B		1- & 2-step
	DW23B		1- & 2-step
	DW25B		1- & 2-step
	DW27B		1- & 2-step
40"	W8		1-step

Durchmesser	Rim width and shape	Adjustable lug	1- or 2-step ring
	W10		1-step
	DW16L		1-step
	DW18L		1-step
42"	DW20B		1-step
	DW23B		1-step
	DW25B		1-step
	DW30B		1-step
	W7		1-step
44"	W8		1-step
	W10		1-step
	W10		1-step
	W12		1-step
	DW13		1-step
46"	DW16L		1-step
40	DW20B		1-step
	DW25B		1-step
	DW27B		1-step
	DW30B		1-step
	W8		1-step
48"	W10		1-step
	W12		1-step
	W10		1-step
50"	W12		1-step
50"	W13L		1-step
	DW16L	WASABYE)	1-step
52"	W10	NECE	1-step
32	W12	TOTO !	1-step
	W8		1-step
54"	W10	4	1-step
	W12		1-step

# DATA SHEET

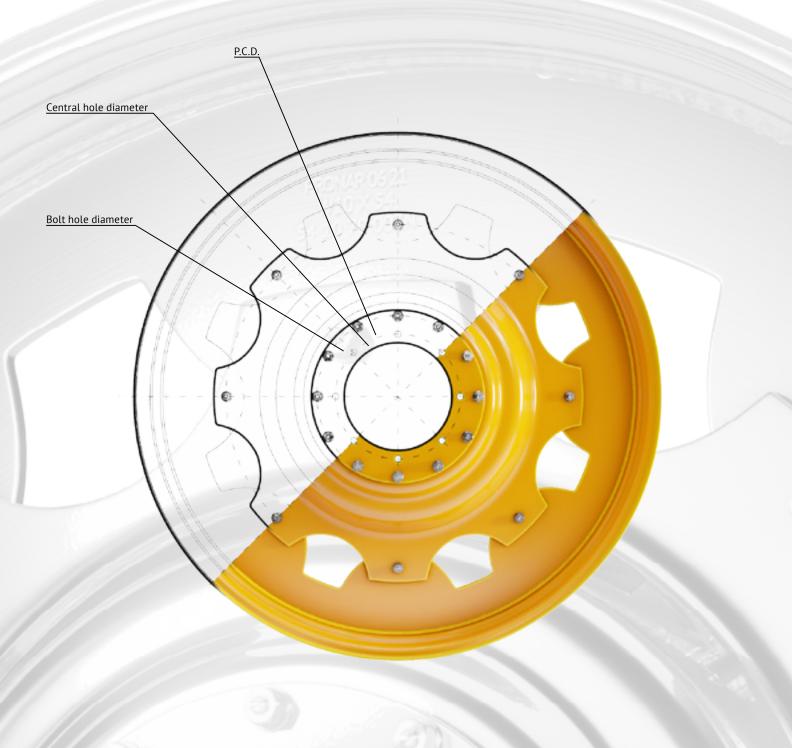
Wheel diameter	Rim width and shape		
24"	W8		
	W10		
	W12		
	W15L		
	W8		
20"	W10		
28"	W12		
	W14L		
	DW12		
70"	DW14L		
30"	DW15L		
	DW20B		
	W8		
32"	W10		
	DW21B		
34"	W10		
34	DW15L		
	W8		
36"	W10		
	W12		
	W8		
38"	W10		
	W12		

Wheel diameter	Rim width and shape		
	DW12		
	DW23B		
38"	DW15L		
	DW18L		
	DW20B		
	W8		
	W10		
42"	DW20B		
	DW23B		
	W8		
44"	W10		
	W10		
46"	W12		
	DW13		
	W8		
48"	W10		
	W12		
	W10		
50"	W12		
52"	W10		
	W10		
54"	W12		

AR type	Central hole diameter	P.C.D.	Bolt holes	Bolt hole diameter	Stud holes
AR-1	ø110.2+0.5	ø152.4	8	ø19+0.5	Н
AR-2	ø150.1+0.5	ø203.2	8	ø20+0.5	Н
AR-3	ø140+0.5	ø203.2	8	ø21+0.5	Н
AR-4	ø152.4+0.5	ø203.2	8	ø20+0.5	Н
AR-5	ø161+0.5	ø205	6	ø21.5+0.5/ ø27+0.5/Rk16	A2
AR-6	ø161+0.5	ø205	8	ø21.5+0.5/ ø27+0.5/Rk16	A2
AR-7	ø221+0.5	ø275	8	ø19+0.5	Н
AR-8	ø221+0.5	ø205	8	ø21+0.5	Н
AR-9	ø221+0.5	ø275	8	ø21.5+0.5/ ø27+0.5/Rk16	A2
AR-10	ø221+0.5	ø275	8	ø27+0.5/ ø32+0.5/Rk18	A3
AR-11	ø221+0.5	ø275	8	ø24+0.5	Н
AR-12	ø281+0.5	ø335	10	ø24+0.5	Н
AR-13	ø281+0.5	ø335	10	ø27+0.5/ ø32+0.5/Rk18	A3
AR-14	ø152.4+0.5	ø203.2	8	ø22+0.5	Н
AR-15	ø151+0.5	ø203.2	8	ø20+0.5	Н
AR-16	ø281+0.5	ø335	10	ø22+0.5	Н
AR-17	ø140+0.5	ø203.2	8	ø20+0.5	Н
AR-18	ø50+0.5			-	-
AR-19	ø50+0.5		/-	-	-
AR-20	ø110.2+0.5	ø152.4	8	ø20+0.5	Н
AR-21	ø281+0.5	ø335	10	ø20+0.5	Н
AR-22	ø290+0.5	ø335	8	ø18+0.5	Н
AR-23	ø221+0.5	ø275	8	ø22+0.5	Н
AR-24	ø291+0.5	ø330	8	ø17.5+0.5	Н
AR-25	ø170+0.5	ø220	8	ø24+0.5	Н
AR-26	ø221+0.5	ø275	8	ø21.5+0.5/ ø27+0.5/Rk16	A2
AR-27	ø152.4+0.5	ø203.2	8	ø21+0.5	Н
AR-28	ø152.4+0.5	ø203.2	8	ø18+0.5	Н

AR type	Central hole diameter	P.C.D.	Bolt holes	Bolt hole diameter	Stud holes	
AR-29	ø281+0.5	ø335	10	ø22+0.5	Н	
AR-30	ø221+0.5	ø275	8	ø20+0.5	Н	
AR-31	ø290+0.5	ø330	8	ø16+0.5	Н	
AR-32	ø170+0.5	ø220	ø220 8 ø27+0.5/ ø32+0.5/Rk18		A3	
AR-33	ø153+1	ø203.2	8	ø21.5+0.5/ ø27+0.5/Rk16	A2	
AR-34	ø250+1	ø285	6	ø17+0.5	Н	

AR type	Central hole diameter	P.C.D.	Bolt holes	Bolt hole diameter	Stud holes
AR-35	ø199.5+1	ø250	ø250 8 ø24+0.5/ ø30+0.5/<90°		В
AR-36	ø285+0.5	ø325	6	ø20+0.5	H
AR-37	ø280.5+1	ø325	6	ø18+0.5	Н
AR-38	ø153+0.5	ø203.2	8	ø17+0.5	Η
AR-39	ø250+1	ø285	6	ø18+0.5	Н
AR-40	ø117.4+0.5	ø152.4	6	ø17+0.5	Н



# DATA SHEET BALL BEARING AND MULTIPIECE WHEELS

Ball bearing wheels				
Wheel diameter	Rim width and shape			
6"	4.501			
8"	5.501			
	7.001			

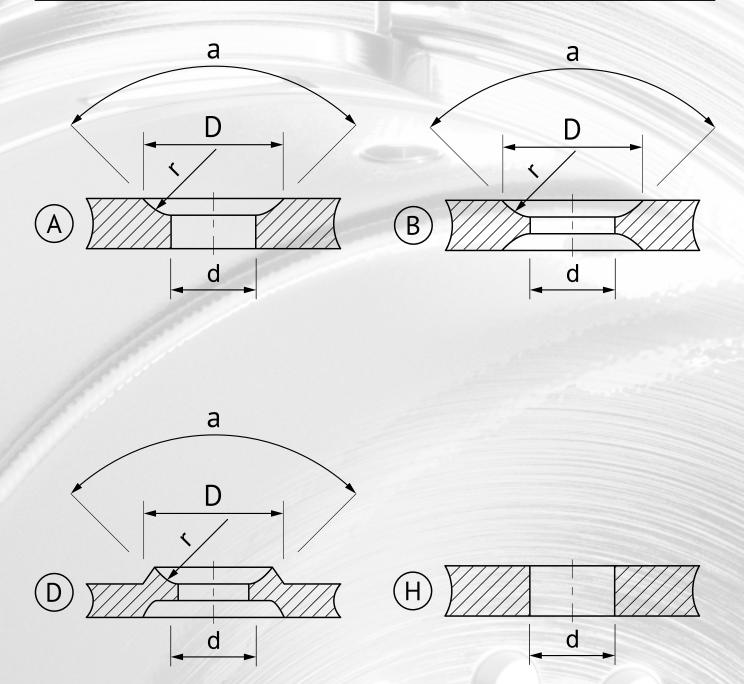
Multipiece wheels						
Wheel diameter	Rim width and shape	Flange height	Number of parts			
14,5"	10.00	-	3			
	7.5	-	3			
20"	8.0	-	3			
	20.5	-	3			
24"	8.5	-	3			
	13	2,5	5			
	14	1,5	5			
	17	2	5			
25"	19,5	2,5	5			
	22	3	5			
	24	3	5			
	25	3,5	5			



You can find an updated list of sizes on our website at pronarwheels.com/sizes.

	Standard pitch o	circle diameters		
No. of bolt holes	Central hole diameter	P.C.D.	Bolt hole diameter	
n	D1	D2	d	
	70	112	16	
	80	115	16	
	94	140	16.5/18.5	
5	101.7	139.7	16	
	110	160	18.5	
	135	175	20	
	290	335	21.5	
	80	120	20	
	85	130	18	
	117.7	152.4	14.7/16/18	
	135	170	17	
6	161	205	21.5	
	163	222.3	32	
	180	230	20	
1	280	325	20	
100	382.5	425	17	
/	109	152.4	17	
	110	152.4	20.5	
//	140	203.2	21	
	145	190	20.5	
	151	203.2	20	
	152.6/153	203.2	17/19	
8	160	220	27	
//	161	205	21.5	
4	170	250	27	
	199.5	250	21.5	
	221	275	21.5/17	
	290	330	17	
	362.5	405	17	
10	281	335	27	
12	390	430	17	

	Stud hole types							
	Spherical stud hole dimensions			Conical stud hole dimensions				
Number	d	D	r	Number	d	D	a	
1	18.5	24	14	13	15	19,8	60°	
2	21.5	27	16	15	16	22	90°	
3	27	32	18	16	15,5	-	60°	
5	32.2	37	22.2	20	28,6	36	90°	
12	16	20	12	21	21,5	27	90°	



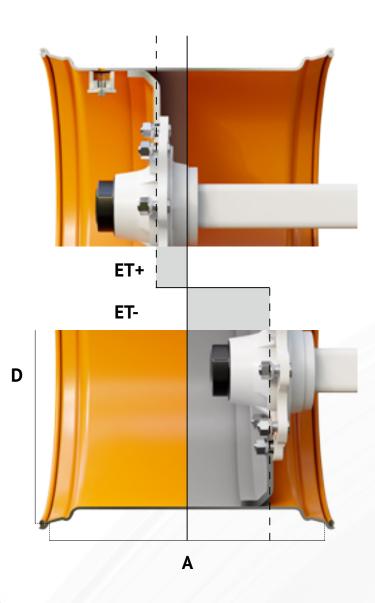
We constantly improve our production plants enabling us to produce wheels in more sizes. Therefore, we reserve the right to make changes to this publication without prior notice. All size data available in this catalogue is for illustration purposes only and is not subject to any claims.

## DATA SHEET RIM PROFILES & OFFSET GUIDE

Setting the right offset is crucial when choosing wheels as it determines the width of tracks of the machine. Offset can be measured as easily as rim's diameter.

To measure ET correctly, simply find the middle spot of the wheel and measure distance between wheel's middle spot and disc.

ET+ positive offsetET- negative offsetA width of the wheelD wheel diameter



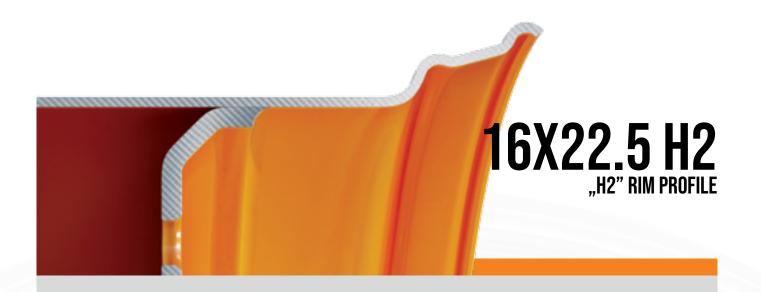
W10X24
"W" RIM PROFILE

Wheels differ in diameter and width, the thickness of materials used, in configurations. But there is also one important factor when it comes to choosing the right wheels for your machine - a rim profile.

We can differentiate many different markings when it comes to profiles in the ETRTO standards

but we will focus on few main ones. The "W" rim profile is one of the most important ones among them.

The profile is marked as "W" when it has a stamping on the edge of the bare rim. It enhances the durability making it less vulnerable to deformation.



Some machines are made to work mainly on uneven terrain. We can spot them in forestry works or on construction sites. They usually carry high loads and drive over obstacles.

Wheels of such machines are exposed to possible deformations or slipping in tyres. To prevent those from happening we offer wheels with "H2" profile. It stands for two humps located before and after the place in which the foot of the tyre is placed.

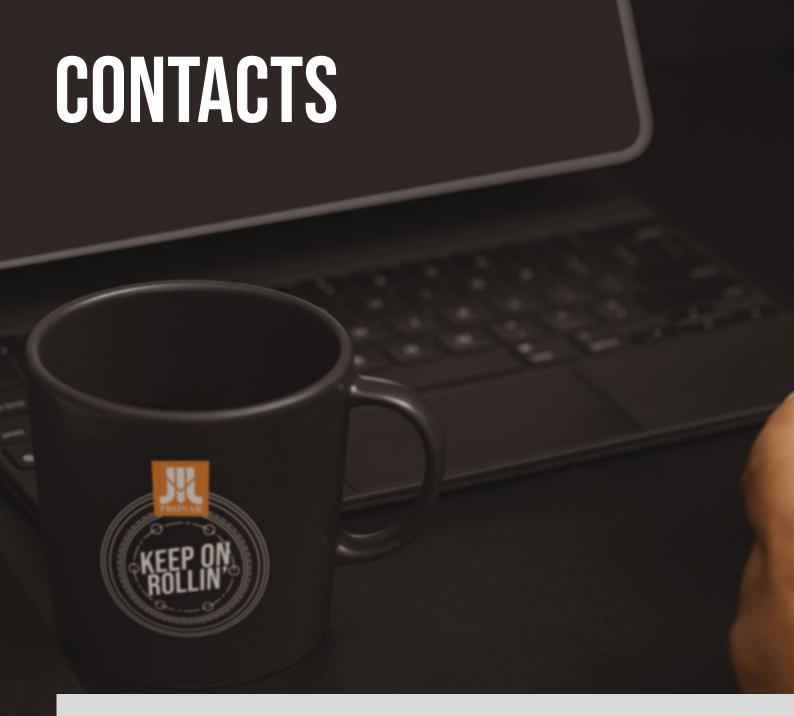
Humps prevent the tyre from slipping from its place and decreases wheel's vulnerability to deformation. "H2" profile makes the machine more reliable in adverse work conditions.



This profile of the bare rim is used in large machines which weight more or need to carry higher loads than machines using wheels with "W" profile. In short - larger machines most commonly use "DW" profile.

Wheels with "DW" marking in their size have two stamps on the edge of the rim instead of just one. It is applied to increase bare rim's durability to withstand tough work conditions. It is much stronger solution than single "W" profile.

The additional perk of "DW" profile is easier tyre assembly process. It is easier to move the stiff foot of the tyre closer to the bare rim's flange over two small steps than over one higher.



#### **Wojciech Tomkiel**

Pronar Wheels Director wojciech.tomkiel@pronar.pl +48 516 149 304



#### Krzysztof Szubzda

Head of Technology & Development krzysztof.szubzda@pronar.pl +48 516 149 303





#### Rafał Mazur

Head of Sales and Marketing rafal.mazur@pronar.pl +48 502 782 754







#### **Marcin Jarmocik**

Western Europe Sales Manager marcin.jarmocik@pronar.pl +48 509 834 982







#### Michał Korch

Global OEM Sales Manager michal.korch@pronar.pl +48 516 149 302





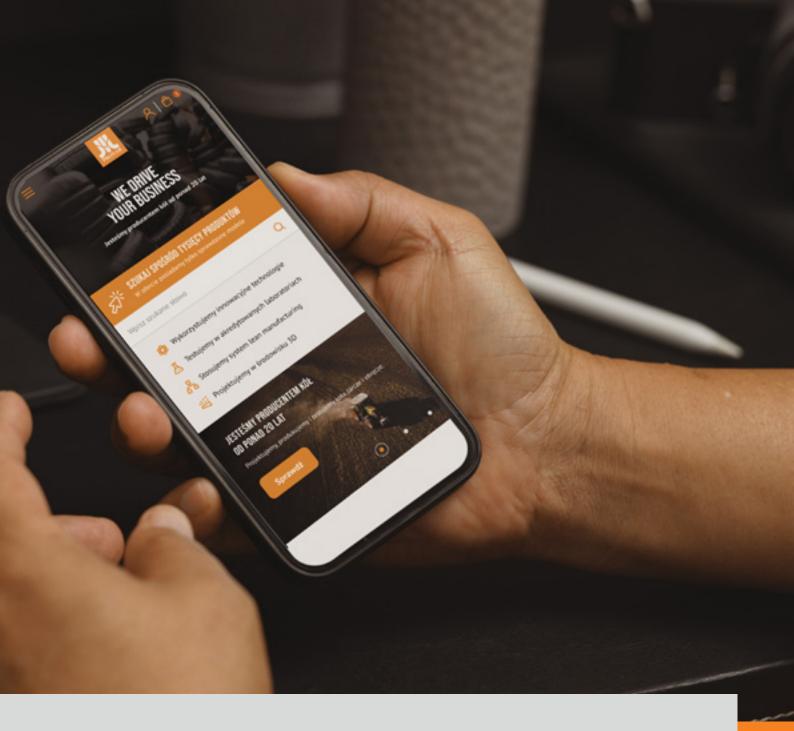




#### Agnieszka Dąbrowska

Domestic Sales Manager agnieszka.dabrowska@pronar.pl +48 509 399 687





#### Grzegorz Bućko

Oversea Sales Manager grzegorz.bucko@pronar.pl +48 510 925 620





#### **Piotr Turowski**

Eastern Europe Sales Manager piotr.turowski@pronar.pl +48 515 149 281



#### Mateusz Gudz

Tyre Wholesale Manager mateusz.gudz@pronar.pl +48 506 138 310





#### Marcin Bukowski

Marketing Manager marcin.bukowski@pronar.pl +48 690 299 593





#### Bartłomiej Ługowoj

Purchasing and Logistics Manager bartlomiej.lugowoj@pronar.pl +48 690 299 593





## GTCS

#### Shortcut of General Terms and Conditions of Sale (GTCS) of Pronar Wheels

#### § 1. General Statements.

1.1 These General Terms and Conditions of Sale, hereinafter referred as GTCS, apply to all supplies of goods offered by the Wheels Department of Pronar Sp. z o.o. (Pronar Wheels), EU VAT 543-02-00-939, hereinafter referred as "Seller".

1.2 Any natural or legal person purchasing goods available in Seller's offer is referred as "Buyer".

#### § 2. Commodity information.

2.2 The Buyer is obliged to know and confirm the technical parameters of the ordered goods.

2.3rd The Seller reserves the right to make design changes.

#### § 3. Confidentiality.

3.1 The Buyer is obliged to, unless specified otherwise on the basis of the separate agreement, consider all the information received during mutual cooperation as confidential and use it exclusively to correct utilization of purchased products and never share it with any other third parties.

#### § 4. Purchase orders.

4.1 The Seller delivers goods to the Buyer on the basis of order schedules agreed in the written form.

4.9 The Buyer bears the costs of order cancellation in case of precedent confirmation of the order acceptance by the Seller.

#### § 5. Dates of delivery.

5.2 The Seller reserves the right to change the terms, in particular in case of:

a) force majeure understood as: strike, war, epidemic, pandemic, lock-outs, difficulties in the supply of energy or materials, administrative and local authorities' decisions, fire, flood and other natural disasters,

b) the interruption or delay in the supply of raw materials, energy, components from subcontractors, and other unforeseen events, on which the Seller has no influence,

 c) failures, transport and customs delays, transport disturbances including roadblocks, time constraints, traffic transport trucks,
 d) unexpected price changes.

#### § 6. Pick-up and delivery terms.

6.2 The Buyer is obliged to pick up the ordered goods at the place and time agreed and accepted by the Seller in the order confirmation.

6.13 Release of goods to the Buyer or the carrier provides the basis for issue the invoice on this day, in which the goods were released

#### § 7. Rates and pricing.

7.1 The prices of goods offered by the Seller are included in the price list available in the Sales of Pronar Wheels.

7.2 All prices in the price list are net prices (excluding VAT).

7.3 The Seller reserves the right to revise the price list (in terms of assortment and prices), the validity of which shall be verified by the date of

7.8 The final price of the goods and the terms of payment shall be determined individually for each order through negotiations and the price is increased by VAT in case of domestic sales in accordance with applicable regulations in this regard in Poland. Unless otherwise agreed, apply the payment terms included in the order confirmation.

#### § 8. Terms of payment.

8.1 The Seller will receive the payment for the goods after invoicing under the conditions defined in the order confirmation. The deadline for payment in each case is determined on and from the date of invoice.

8.10 In case of outstanding payment, the Seller reserves the right to suspend shipment until the clearance of the debt by the Buyer.

#### § 9. Warranty and complaints.

9.1 Warranty granted by the Seller is valid for the Buyer only.

9.2 The standard warranty period is 24 months from date of sale.

9.14 All complaints shall be submitted to the following company address using valid form. Email: claims@pronar.pl + contact person's email,

Fax: +48 85 873 35 22 with note: "Wheels Claim"

Postal address: Pronar Sp. z o.o.; 17-210 Narew; ul. Mickiewicza 101A; with note: "Pronar Wheels".

#### § 10. Responsibility restriction.

10.4 The Seller shall not be liable for any damages and losses resulting from faulty work carried out by the Buyer's service or caused by use of non-original parts.

#### § 11. Applicable law, place of fulfilment of obligations, place of jurisdiction.

11.1 Any disputes between the parties in connection with the execution of the contract, terms which are described by the provisions of these GTCS, will, as far as possible, be settled amicably, and ultimately to the courts.

#### § 12. Final Provisions.

12.1 In case of exclusion from GTCS any of the provisions on the basis of a separate agreement referred to in §1.3, others remain in full force

12.2 In case of legal ineffectiveness of individual points GTCS, other provisions, implemented on the basis of the contract, remain in force. Parties will agree to replace the ineffective provision by the provision effective, having reflect its meaning and intention as closely as possible.

12.3 The Seller reserves the right to make changes to the GTCS. Amendments of the provisions start to involve the other party from the moment they were delivered in the manner customary in trade relations between Parties, if the Buyer does not object to this change immediately after receiving the notice of application to the GTCS.

12.4 Current version of GTCS is always available at the Seller and the at https://pronarwheels.com/gtcs/.

Placing an order means that the Buyer have read and accepted the full text of GTCS.







#### Pronar Sp z o.o.

Mickiewicza 101A street 17-210 Narew, Poland EU VAT: PL5430200939

Tel. +48 85 68 27 208 wheels@pronar.pl

pronarwheels.com









