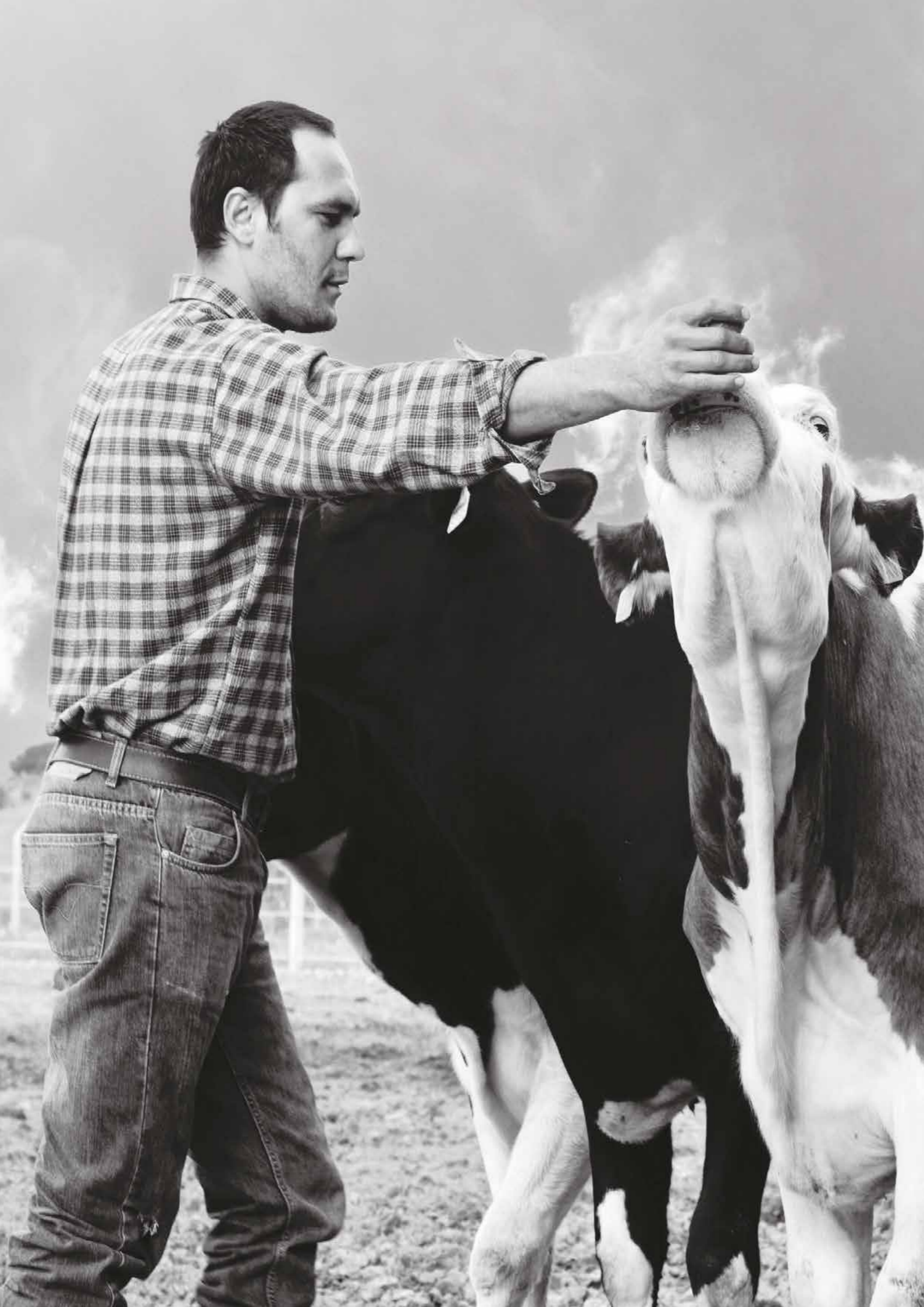


ZAGO®



SABRE KATANA

**THE BEST
PERFORMANCES**
FOR A HEALTHY
CATTLE FEEDING



SINCE MORE THAN

50 YEARS

ON FARMERS' SIDE

In our long-standing activity we have given an important contribution to the breeding in Italy and all over the world thanks to a great planning experience and to the development of increasingly new technologies.

That's why we are currently a **strong benchmark** for all the customers asking for focused answers to a more and more specialised zootechny respecting nature.





TO GIVE YOU THE BEST TO EAT

The research is for ZAGO an essential value. The cooperation with the most important and prestigious universities of Medical Sciences and Veterinary Sciences, allows to introduce innovations useful to increase the zootechnical performances and animal wellbeing. The result is an homogeneous mixing that preserves the physical structure of the forage obtained as quickly as possible.

These aspects allow to control the rumen fermentations and a greater digestibility of the fibrous component of the diet.



OUR COMMITMENT

ZAGO innovations are based on a strong and systematic research and development activity to satisfy the needs of the modern breedings.

A high quality, homogeneous mixing combined to a reliable and long-lasting technology are our priority as we perfectly know that cows don't accept any compromise!



SABRE KATANA SERIES

The new extraordinary Series of Feed-mixers

SABRE & KATANA offers a large range of versatile and reliable solutions to simplify everyday work to prepare the T.M.R. Unifeed ration in dairy cow farms, fattening cattle and also in sheep and goat farms.

The action of the powerful and robust chopping-mixing counter-rotating augers of **DUO MIX** system processes with impressive productivity whole cylindrical or prismatic bales, whether dry or wrapped products, saving time.

This innovative research is part of a long tradition of revolutionary technical solutions that have deservedly earned **ZAGO** a reputation as a pioneering company.

The **SABRE-KATANA** Series, trailed and stationary, with capacity from **5 to 33 m³**, meets the needs and requirements of a feeding aimed at obtaining the best results in terms of both production and animal health.



SABRE

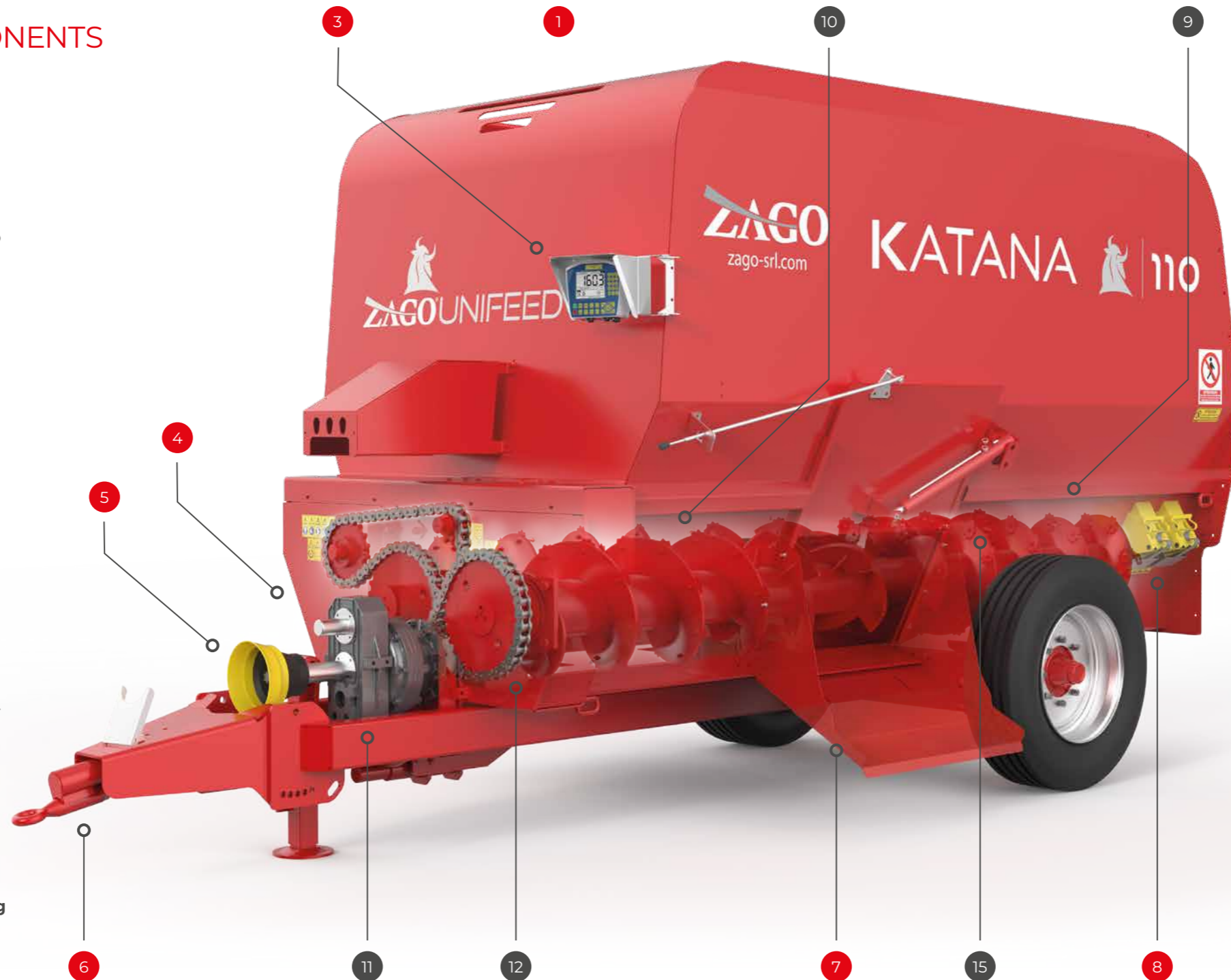


KATANA

01 VERSATILE SOLUTIONS QUALITY PARAMETERS

EXTERNAL COMPONENTS

- 1 **Mixing tank** with compact and strong design, with great loading capacity and excellent internal product circulation.
- 2 **All greasing points** are external to the machine and easily accessible.
- 3 Reliable and precise **weighing system** resting on an **independent frame**.
- 4 **Extra-reinforced high-torque** new planetary gearbox (depending on models)
- 5 **Augers reverse gear** (OPTIONAL)
- 6 Longitudinally and height **adjustable drawbar** to adapt the towing hitch to any type of tractor.
- 7 Wide opening **discharge conveyor** to unload the product quickly and uniformly.
- 8 Externally mounted **auger bearing supports** for better mixing and easier maintenance (OPTIONAL).

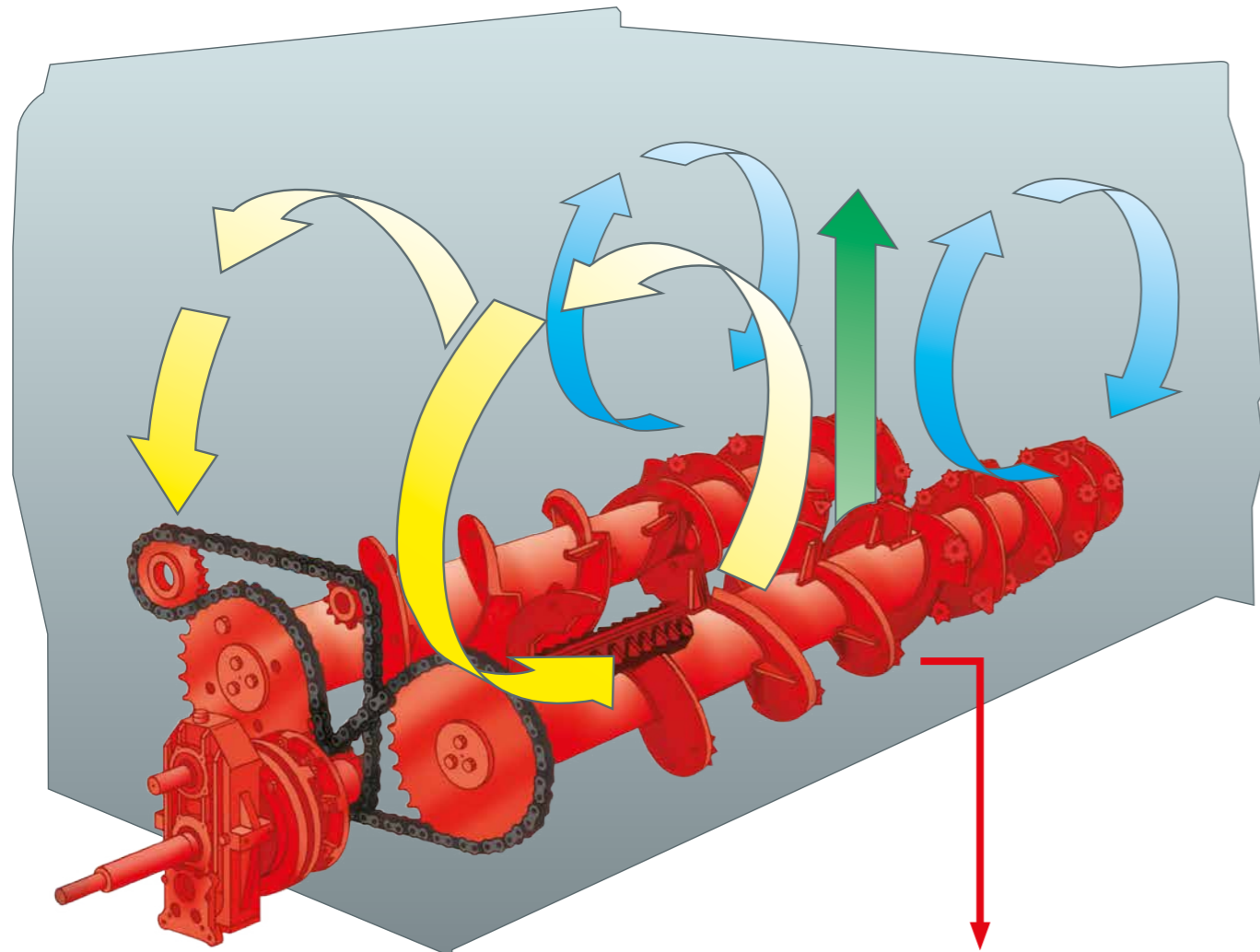


SABRE - KATANA ROBUST AND RELIABLE

INTERNAL COMPONENTS

- 9 **Patented "DUO MIX"** chopping-mixing system with 2 high-speed lower augers and working precision.
- 10 High-strength and high thickness (12-15-20 mm) **steel augers** (depending on models).
- 11 New **augers drive line**, strong and reliable.
- 12 **High-resistance drive chains** with automatic lubrication system by sealed oil bath.
- 13 **Parachute valves** on all working cylinders. Total safety in every detail.
- 14 Anti-unscrewing **blade fixing system** by means of bolts with left and right threads.
- 15 New design of **knives** allowing quicker and precise cutting of long fiber products.
- 16 New industrial high-efficiency **scrapers**, reinforced and highly efficient.

02 DUO MIX FLOW TECHNOLOGY



In the early '90, ZAGO revolutioned the livestock market inventing **DUO MIX** chopping and mixing system.



INNOVATIVE PERFORMANCES GUARANTEED EFFICIENCY

A PIONEERING CHOPPING AND MIXING SYSTEM WITH 2 COUNTER-ROTATING AUGERS

The exclusive **DUO MIX** system consists of two robust **twin sector counter-rotating bottom augers**, positioned at the bottom of the tank, equipped with star knives of extraordinary chopping strength and with scrapers, able to process any product with limited power absorption and high performances.

With the introduction of the new **SABRE-KATANA** Series, performance is amplified with further technical developments creating the mixing system "**DUO MIX FLOW**".

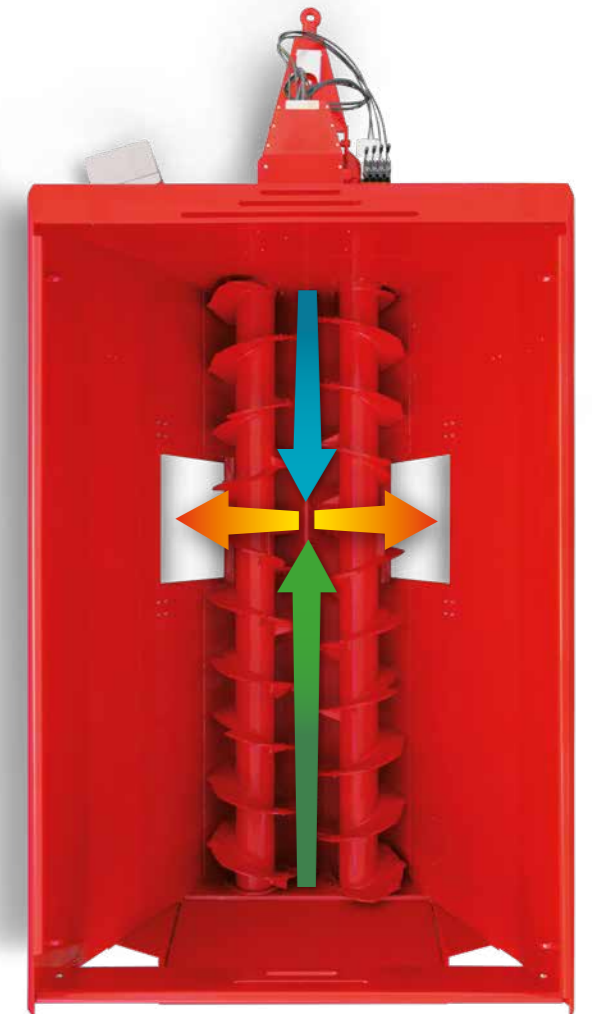
Thanks to the **two lower opposed spiral augers**, the double flow of the product pushes towards the centre (**DUO MIX FLOW**).

The addition of a new feed from below pushes the mixture towards the ends of the tank, completing the mixing cycle.

SOFT AND HOMOGENEOUS

Thanks to the flow created by the push of the two bottom augers to the centre of the tank, the product moves and mixes smoothly, ensuring a quick and aggressive cutting.

The result is a **mixture cut to an optimal length** and mixed with an excellent uniformity degree to obtain the best ruminal activation and nutrient assimilation.



The obtained TMR is a **soft, homogeneous mixing**, with optimal palatability and digestibility that maintains the nutritional properties of the individual components enhancing the quality of the fodder.

DUO MIX FLOW SYSTEM



- 01** An **efficient materials flow** reduces mixing time.
- 02** The **gentle treatment of the products** ensures an excellent "forage value" of the silage and prevents any overheating of the final product.
- 03** In every single phase of the mixing process the **product is never pushed or pressed** against the walls.
- 04** **Maximum palatability and ruminability.**
- 05** The ration, thanks to a preserved fiber structure,

- increases the beef's appetite and the rumin's correct transit.**
- 06** **Quick shredding** on whole cylindrical bales of forage, straw and wrapped bales of humid products and on each kind of any other ingredient necessary to prepare the ration.
- 07** **Homogeneous mixing** of all products even with partial loading and with additions.
- 08** The **high number of knives per auger** results in incomparable cutting performances.

There is no range of feed-mixers in the world that can guarantee such **adequate performances at low costs**, both for the drastic reduction in ration and maintenance costs.

The cutting of hay is **clean and precise** without being fried, allowing a perfect rumination of the beef and an homogeneous feeding.

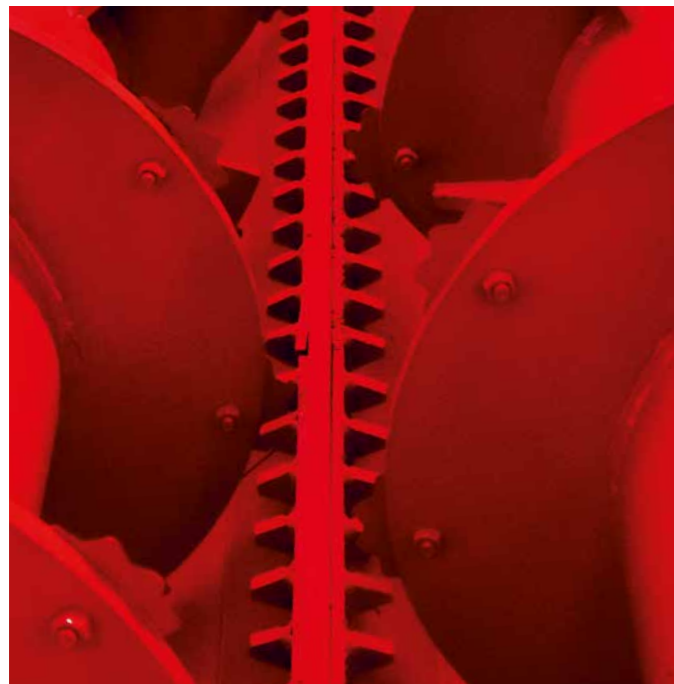
UNIQUE IN THE WORLD FOR PERFORMANCE AND RESULTS



By using **SABRE - KATANA** machines, milk production increases a lot and also animals' weight.

Everywhere in the world **ZAGO** feed-mixers fully satisfy the farmers' needs as they can process any product and by-product available in their farms.

03 DUO MIX FLOW COMPONENTS



03.1 BOLTED SCRAPERS

Their disposition specially designed according to the different kind of ingredients of the ration, **prevents forage from twisting on the augers.**



03.2 CENTRAL FIN

The **central fin**, positioned between the two augers, grants a quick and precise cutting, without defibration.

A whole bale can be chopped **very quickly.**



03.3 NEW SERRATED STAR KNIVES

The new high durable **carbon star knives** are firmly fixed in the peripheric part of the chopping-mixing lower augers. Their disposition together with a progressive cutting profile grants a net cut without any defibration of the product. The round shape allows them to be repositioned (3 uses) and reused when a part wears out. In this way the knife is exploited to the maximum, increasing duration and halving replacement costs.



04 SABRE - KATANA TECHNICAL ASPECTS

04.1 MIXING TANK

The new design of the mixing tank allows an **optimal internal circulation of the product**, more strength and solidity.

Side walls have been stiffened by folds and reinforced edges resulting in **high capacity to absorb stress**.



HIGH-QUALITY MATERIALS, UNCHANGED OVER TIME



SABRE - KATANA Series is in **S.K.D. (Semi Knocked-Down)** version available.

Any model, in particular of big dimensions, in order to save transport costs by truck or by sea, can be loaded partially disassembled and reassembled at final destination.

SABRE Series can be equipped with **upper extensions**, to contain fibrous products, which increase further the containing capacity, improving the mixing process.

All different structural components are built with high-resistance and **high-thickness steel** conferring extreme strength and long service life.

04.2 TRANSMISSION

The new drive line to the augers, created by Zago Research & Development department, is made by an **exclusive extra-reinforced epicycloidal gearbox** with high torque (with different versions according to the models) and by **high-strength roller chains**, lubricated in sealed oil bath.

A EPICYCLOIDAL EXTRA-REINFORCED GEARBOXES



Series 1000 ASA120-140
Std 5 – 17 m³

Series 2000 ASA160
Std 20-33 m³ - Opt. 13 – 17 m³

Series 3000 ASA160-200
Opt 20-33 m³ Zago Design

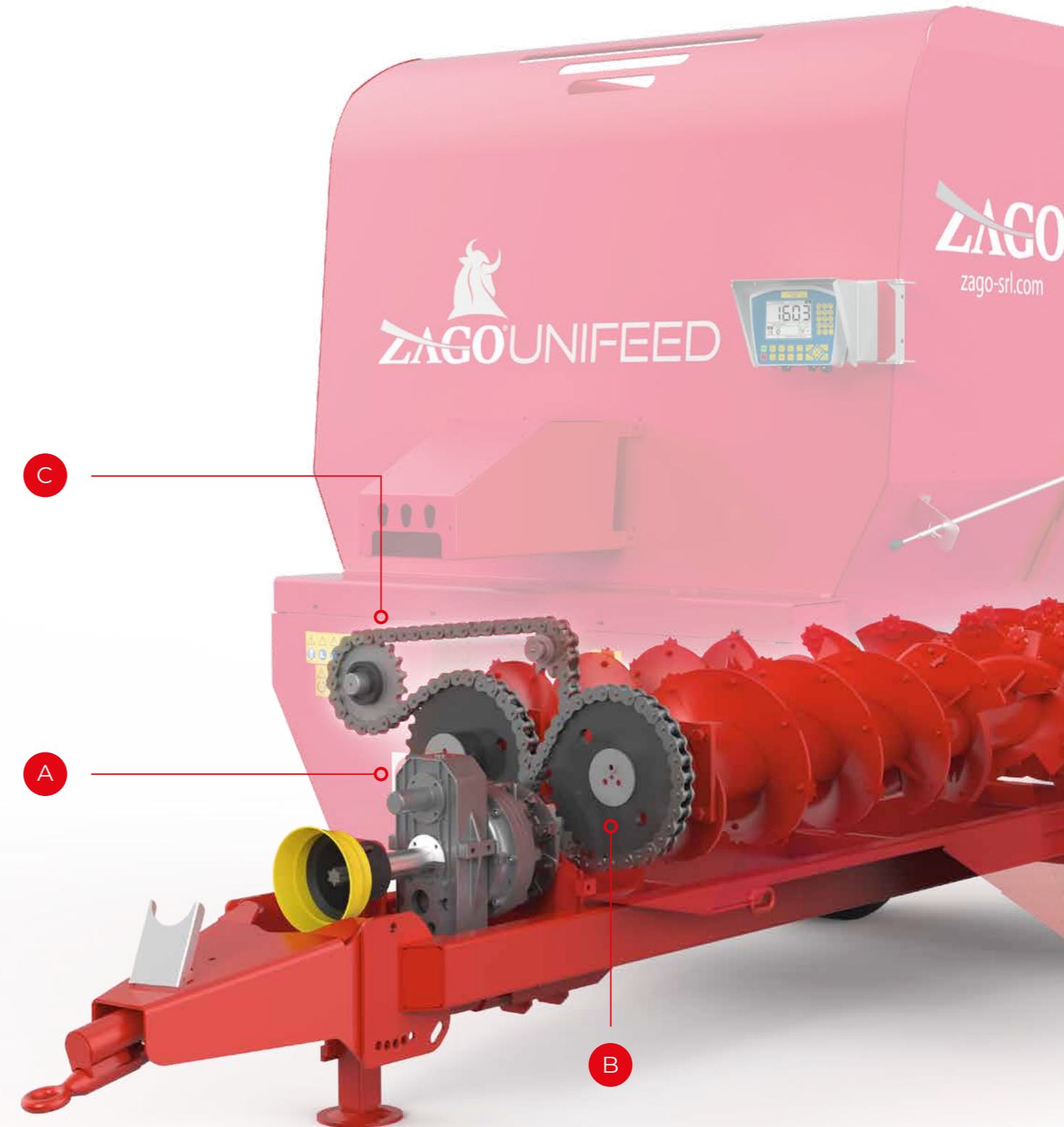


B SPLINED PROFILE SHAFTS for a uniform power transmission and a quick maintenance.



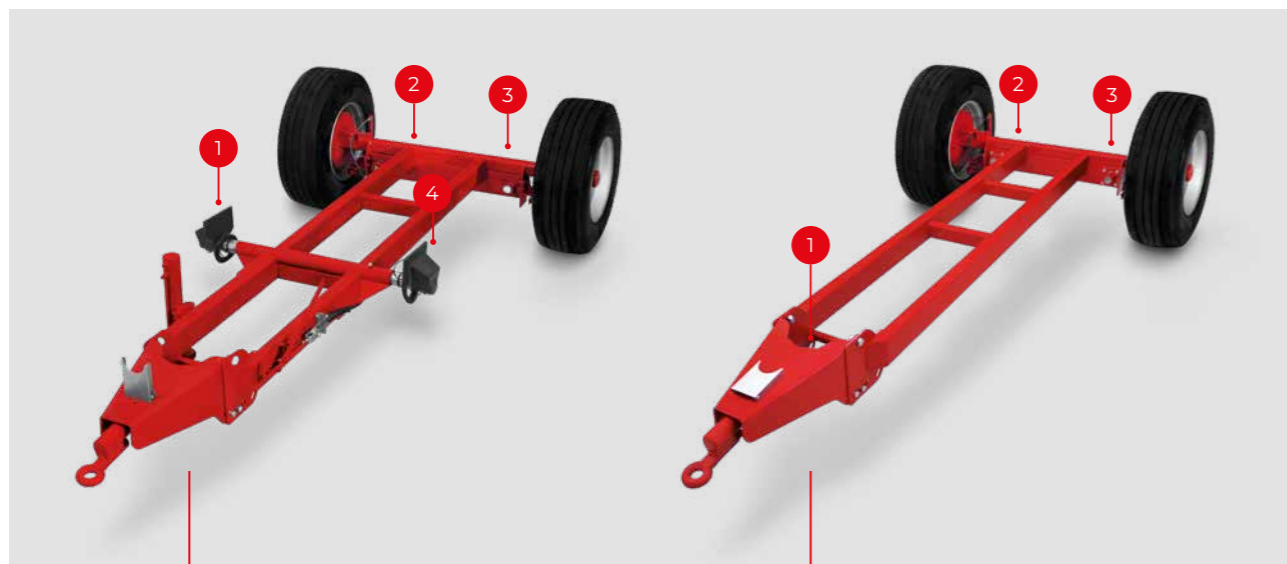
C HIGH-RESISTANCE ROLLER CHAINS, lubricated in sealed oil bath.

GUARANTEED PERFORMANCES OVER TIME



04.3 THE FRAME

The **independent frame** guarantees a precise weighing, not affected by the feed-mixer's movements.



FRAME WITH
**4 LOADING
CELLS**

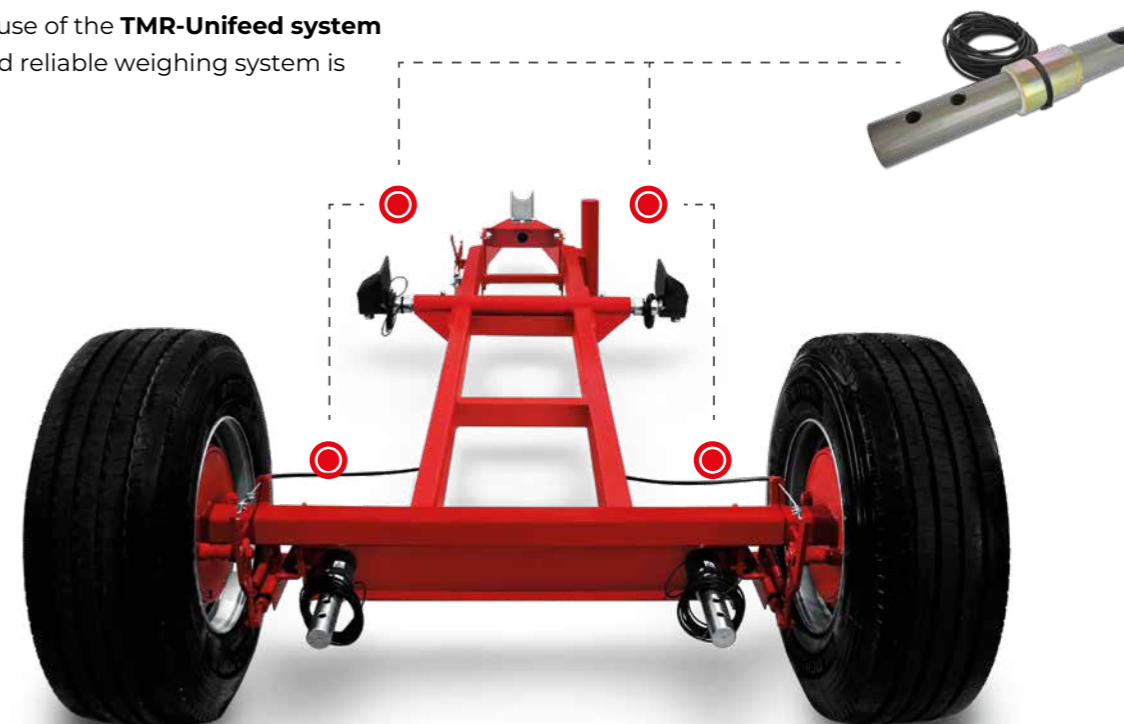
FRAME WITH
**3 LOADING
CELLS**

The ration is perfectly mixed, appealing and respecting the organoleptic features of the products. The excellent functionality provided by these machines thanks to a technology skilfully applied in each of their main components guarantees the farmer **secure results** and a **rapid return on investment**.



04.4 ELECTRONIC WEIGHING SYSTEM

For the full use of the **TMR-Unifeed system** a simple and reliable weighing system is essential.



All ZAGO models are equipped with an electronic weighing system with **three or four sensors** connecting the **mixing tank** to the **independent frame** and granting maximum precision in feeding livestock even in rough, uneven terrains.

ACCESSORIES AND OPTIONALS

A **wide catalogue of accessories** and optionals allow to satisfy the different needs of each single farmer making his daily work easier and more organised.



05 SABRE - KATANA CONSTRUCTION ASPECTS

05.1 DISCHARGES

The exceptional **homogeneity of mixing** grants the distribution of the same ration uniformly throughout the whole crib.

The two **large discharge doors** allow a quick, continuous and regular distribution limiting the quantity of residual product on the tank bottom..



UNIFORM DISTRIBUTION OF THE MIXING

Mixing is distributed by an unloading chain conveyor or stainless steel chain (optional), hydraulically height adjustable.

FIXED OR ROTATING MAGNETS

The possibility to equip the feed-mixers with **fixed or rotative magnets** on the unloading to eliminate the ferrous impurities, grants a better quality of the ration.



The **fixed magnet** is the easiest solution and can be installed in the lower and/or upper part of the discharge conveyor.



The **rotating magnet** ensures an **efficient selection and removal of ferrous residues** that can contaminate the ration and be ingested by animals, such as wires, combs, bolts, etc. The rotating movement also allows an additional aeration of the T.M.R. ration making it even more tasty.

05.2 HOPPER

The **rear hopper** allows to easily load flours, minerals, vitamins and additives.

One of the advantages of horizontal technology is the possibility to **load products from above** by telescopic or loader and from the rear through an easily accessible opening.



05.3 COVERS

Simple and comfortable maintenance with easy access. The accessibility to mechanical, hydraulic and electrical components is simplified by means of **inspectable covers**. Greasing and adjustment operations are simple and convenient to perform.



05.4 OIL TANK

Oil tank for the **independent hydraulic system** (optional in the NT version).



06 SABRE - KATANA MODELS EQUIPMENT

06.1 LOADING CRANE

To facilitate working operations using a single tractor, the crane is a **useful accessory** for the **handling** and **loading** of both loose and packed products.

Possibility to **load from above very quickly, easily and safely**, cylindric round bales or prismatic giant bales and any other kind of loose products.



06.2 REAR LOADER



The **rear loader** is an optional useful to all operators requiring **high performances, comfort and simplicity**.

SIMPLICITY WITHIN REACH



This version allows, by using a single tractor, to safely load both **cylindric bales or loose products** and to carry out easily and autonomously the entire ration preparation



06.3 SILAGE CUTTER



1.650 mm - 1.850 mm

FOR A SMOOTH AND COMPACT SILAGE FACE

ZAGO knows that animal wellbeing and production returns in milk and meat are associated with the wholesomeness of the food rations.

An **excellent milling equipment**, frequently renewing the silage wall, helps to avoid fermentation, mould and loss of product which would negatively impact on the farm profits.

The WT version is available for the models from **9 to 21 m³ with double rotation direction silage cutter**. The silage cutter can dessilate in few minutes all necessary ingredients, from corn and maize silage and grass silage to bales of straw and hay.

The **milling drum** has a working width of **1.650 mm and 1.850 mm** (optional).

The special position of the blades of the rotor, with **increased thickness**, makes it possible to remove cleanly and uniformly any material, ensuring a **smooth and compact silage face** preserving the fiber structure and preventing mould formation, cracks and product losses that can negatively impact animals wellbeing and their milk or meat production.



A **powerful hydraulic system** together with the special rotor and conveyor design grants fast **loading performances, accurate in quantity**.

The mobile **independent frame** of the machine **optimises the accuracy of weighing** and allows the collection of the material down to the ground, granting perfect cleaning of the terrain.



WT version is equipped with the protection devices required by **EC regulation**: protection bonnets, parachutes valves on the hydraulic cylinders, the tiller's 'man-present' control and the movable bulkhead that **prevents the operator from accidental contact with the lower augers** while keeping them rotating at all times, allowing safe loading of products to be dessilated.

The **rear movable** bulkhead opens to allow the loading of the material only when the operator from the driver's seat, via the 'man-present' control, operates the rotation of the tiller.

The internally mounted tiller frame reduces the size dimensions, **leaves the upper opening completely free**, allowing **simple and easy introduction of materials** and **facilitate transit** even through narrow passages.

07 ELECTRIFICATION FOR A SUSTAINABLE FUTURE

ZAGO has always developed solutions focusing on efficiency and **environmental sustainability**. In this field we have developed electrification projects intended for farms that want to self-consume the electricity produced by their biogas plant or from other sources such as photovoltaics.

Reliability and **low operating costs** are characteristics that allow these machines to be used for many hours a day in the development of production cycles. The **low level of noise emissions** coming both from the motor and from the chopping and mixing system makes this version ideal for use in any environment.

EFFICIENCY AND ENVIRONMENTAL SUSTAINABILITY

Additional electric models are HYBRID QE and HYBRID SELF.

HYBRID QE model is driven by an electric motor and by the tractor's PTO shaft.

HYBRID SELF is a selfpropelled model driven completely by electric motor.

SOLARIS is a full electric self propelled model driven by battery.

SOLARIS
ELECTRIC POWER
5-17 m³



JAGUAR
ELECTRIC POWER
5-21 m³



HAWK
ELECTRIC POWER
5-13 m³



INNOVATION IN THE SERVICE OF NATURE



08 SABRE - KATANA ACCESSORIES

EFFICIENCY AND QUALITY

The feed-mixers of the **KATANA-SABRE** Series can be **customised on request** with an extensive list of accessories, in order to satisfy every specific request and special working requirements.

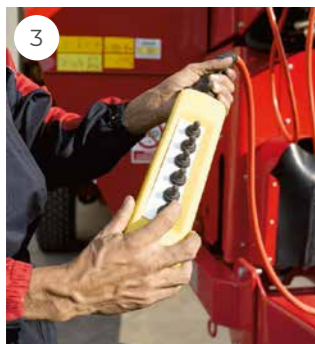
The **very high quality of materials** and the **modern technologies** used, qualify a complete range in line with all safety regulations.



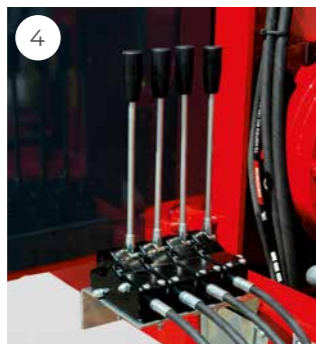
1 Hydraulic couplings to tractor



2 Programmable weighing system



3 Electric remote controls with push-button panel



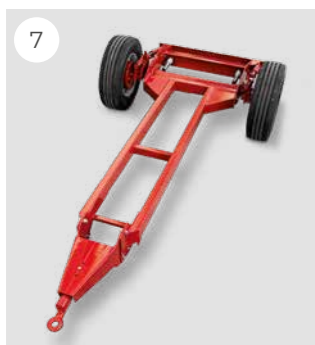
4 Teleflex cable controls



5 Reverse gear for augers rotation



6 Direct discharge by chute



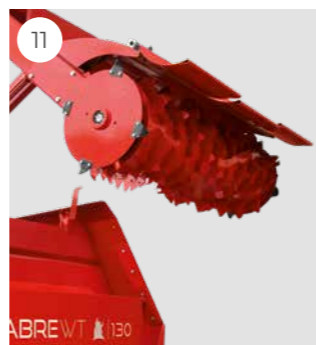
7 Frame with lifting axle



8 Mechanic / hydraulic foot



10 Fixed unloading conveyor with rotary magnet



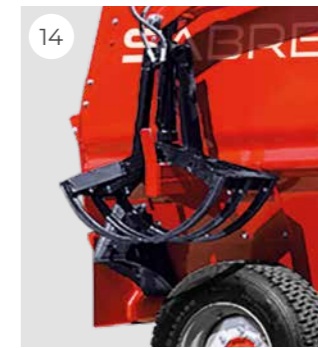
11 Silage cutter (WT version)



12 Unloading conveyor 0,80 m with hydraulic lifting



13 Unloading conveyor 1,40 m with hydraulic lifting



14 Loading crane



15 Rear loader

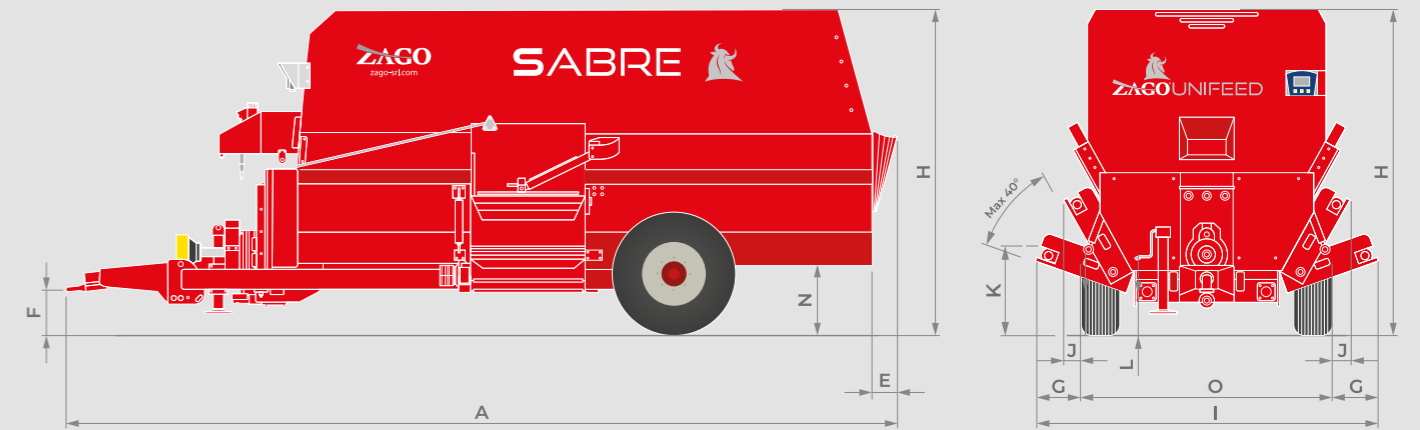
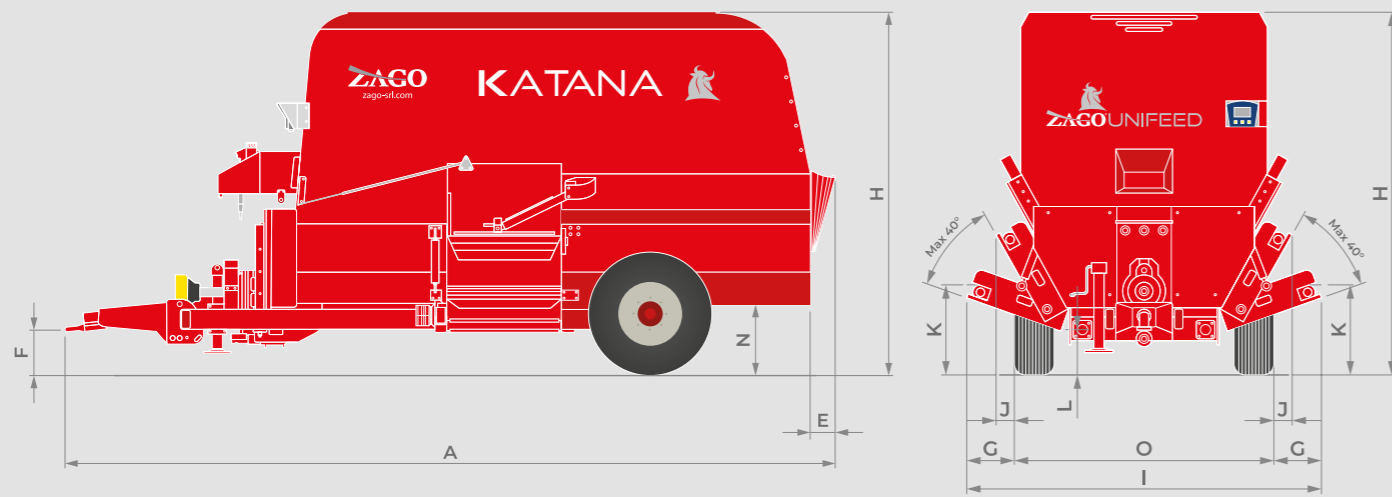


OTHER ACCESSORIES

- Cutting-mixing augers with Hardox flytes
- Cutting-mixing augers with stainless steel flytes
- Stainless steel bottom lining to increase the service life of the mixer
- Lowered axle and wheels to reduce the total height of the mixer
- Single axle with parabolic leafspring
- Twin-axle rocker frame
- Chassis with mechanical tandem suspensions with parabolic leaf spring
- Chassis with mechanical suspension bogie with brakes
- Discharge with different conveyor lengths
- Braking system and road approval
- Weighing indicators with different program possibilities, repeater displays, remote terminals, data transfer, printers and management softwares allow to meet the farmers' needs



INNOVATION AND RELIABILITY
WITHOUT COMPROMISE



KATANA

MODEL	VOLUME	A	E	F	H	I	L	N	O	AUGERS	EMPTY WEIGHT
	m ³	mm	mm	mm	mm	mm	mm	mm	mm	∅	kg
50 NT	5	4770	200	265	2040	2690	270	480	1760	450	3000
70 NT	7	4820	200	320	2250	2710	280	505	1760	450	3700
90 NT	9	5230	200	320	2460	2710	280	505	1760	450	4000
110X NT	11	5460	200	320	2470	2710	280	505	1760	450	4600
110XL NT	11	5505	200	370	2470	2860	355	580	2080	500	4900
140 NT	14	5865	200	370	2860	2860	355	580	2080	500	5300
170 NT	17	6310	200	370	2910	2860	355	580	2090	500	6500
210 NT	21	6870	200	410	3120	3020	385	610	2370	600	7000
240 NT	24	6870	200	410	3270	3020	385	610	2370	600	7900
270 NT	27	7930	200	400	3150	3095	410	640	2540	700	8500
300 NT	30	7930	200	400	3400	3095	410	640	2540	700	9000

MODEL	Discharge conveyor L=600 mm			Discharge conveyor L=800 mm			Discharge conveyor L=1000 mm			Discharge conveyor L=1200 mm			Discharge conveyor L=1400 mm		
	J	G	K	J	G	K	J	G	K	J	G	K	J	G	K
	mm			mm			mm			mm			mm		
50 NT	175	270	535	290	470	585	400	665	620	515	860	665	630	1055	710
70 NT	175	270	535	290	470	585	400	665	620	515	860	665	630	1055	710
90 NT	175	270	535	290	470	585	400	665	620	515	860	665	630	1055	710
110X NT	175	270	535	290	470	585	400	665	620	515	860	665	630	1055	710
110XL NT	55	200	660	155	385	725	250	575	790	350	765	855	445	955	920
140 NT	55	200	660	155	385	725	250	575	790	350	765	855	445	955	920
170 NT	55	200	660	155	385	725	250	575	790	350	765	855	445	955	920
210 NT	10	150	705	110	340	775	210	525	845	305	710	915	405	900	980
240 NT	10	150	705	110	340	775	210	525	845	305	710	915	405	900	980
270 NT	-55	100	795	45	285	865	150	475	935	250	665	1005	345	855	1070
300 NT	-55	100	795	45	285	865	150	475	935	250	665	1005	345	855	1070

SABRE

MODEL	VOLUME	A	E	F	H	I	L	N	O	AUGERS	EMPTY WEIGHT
	m ³	mm	mm	mm	mm	mm	mm	mm	mm	∅	kg
90 NT	9	5110	200	320	2230	2860	300	525	2020	500	4300
110 NT	11	5510	200	320	2350	2860	300	525	2020	500	4900
130 NT	13	5850	200	370	2460	2860	350	575	2070	500	5500
150 NT	15	6290	200	370	2600	2860	350	575	2070	500	6000

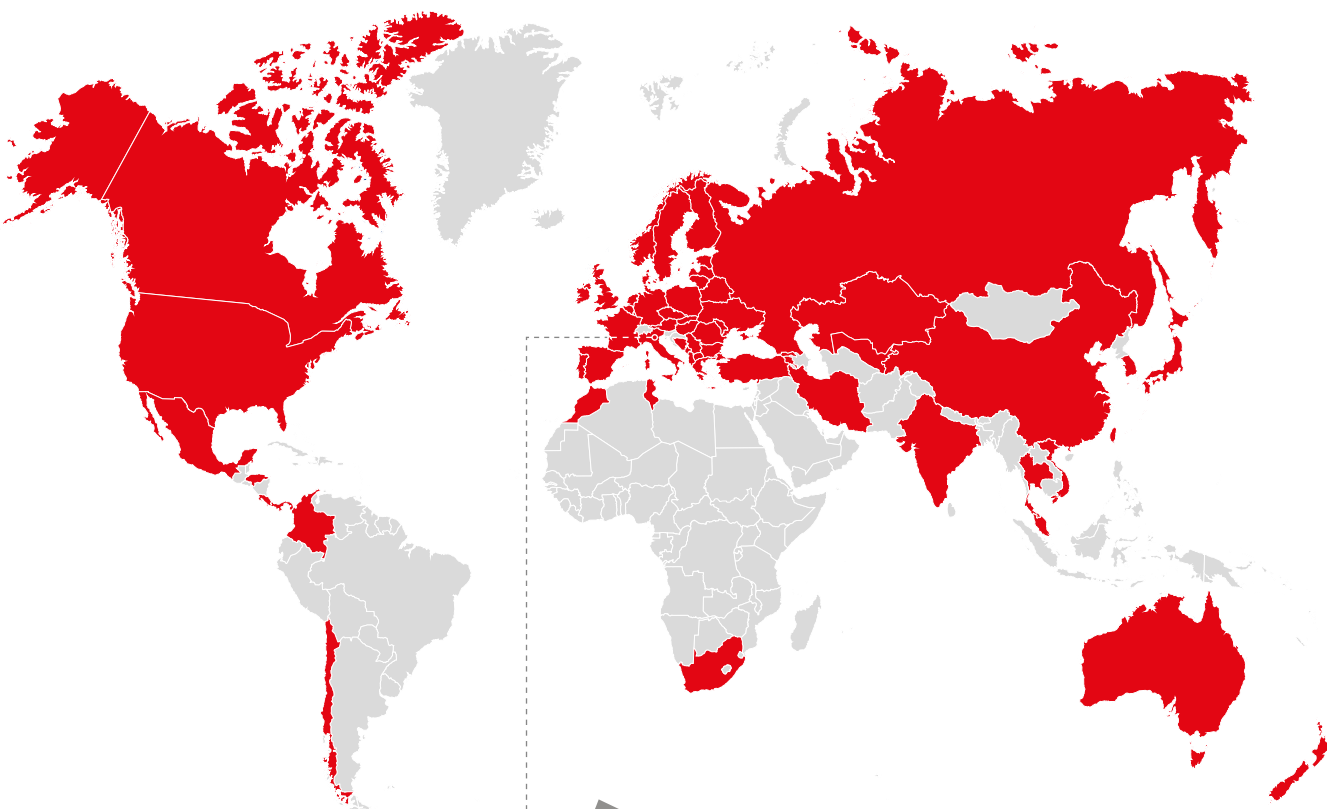
MODEL	Discharge conveyor L=600 mm			Discharge conveyor L=800 mm			Discharge conveyor L=1000 mm			Discharge conveyor L=1200 mm			Discharge conveyor L=1400 mm		
	J	G	K	J	G	K	J	G	K	J	G	K	J	G	K
	mm			mm			mm			mm			mm		
90 NT	85	230	605	180	415	665	280	605	740	375	795	805	475	985	870
110 NT	85	230	605	180	415	665	280	605	740	375	795	805	475	985	870
130 NT	55	200	660	155	385	725	250	575	790	350	765	855	445	955	920
150 NT	55	200	660	155	385	725	250	575	790	350	765	855	445	955	920

NOTA: Technical data and images are guideline only. In the effort to provide products that constantly meet client requirements, ZAGO reserves the right to apply updates at any time and without notice.



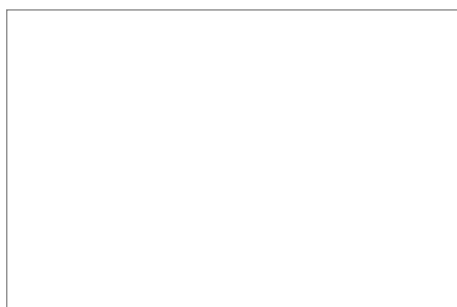
ZAGO UNIFEED

IN THE WORLD



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Authorized Dealer



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