25 Braća-sport®
WORKING TOGETHER
est. 1991

Rowing

Sweeps and Sculls

Braća-sport®

OFFICIAL SERVICE:

ATHENS 2004 **BEIJING** 2008 **LONDON** 2012 **RIO** 2016

MISSION AND PHILOSOPHY

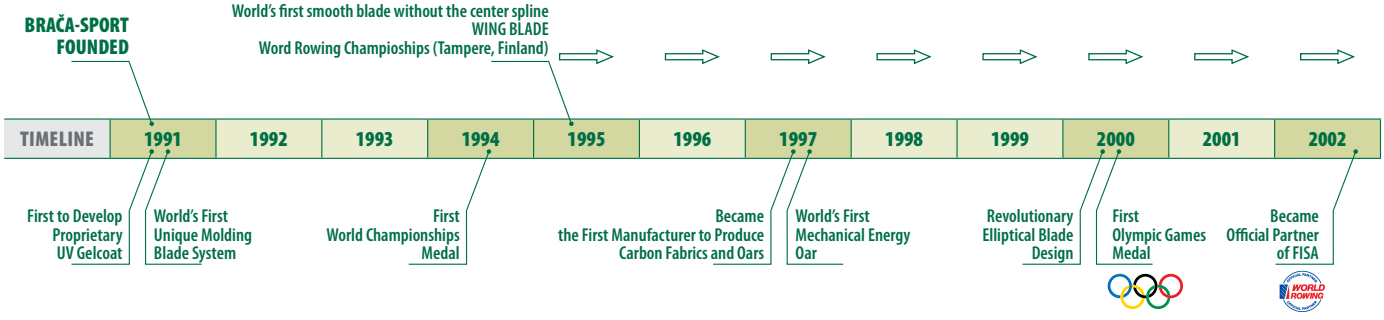
BRAČA-SPORT® mission and philosophy is to design, develop and produce the best performing scull and sweep oars for every rower and crew. Our scull and sweep oars have been designed using the latest technologies available, inspired by the comments and in collaboration with some of the world's most successful rowers and coaches.

All our product designs are based on the modular platform. BRAČA-SPORT® framework of the separate components forming homogeneous unit has been extensively researched and tested and has been proven to be the very best available method for strength, balance, durability and overall 'in water' performance.

We were the first to develop a unique blade molding system to protect the internal foam from water penetration and provide extra strength and rigidity to the oar. This exclusive high quality system provides maximum durability and outstanding impact protection in comparison to conventional composite blades which have exposed foam core on the open edge and are vulnerable to damage and the inevitable penetration of water.

Our seamless 'fitted into the shaft' blade design provides the best possible connection between the blade and the shaft enabling them to work as one homogenous unit.

All BRAČA-SPORT® blades meet and exceed current FISA safety standards. As of today BRAČA-SPORT® is still the only oar manufacturer to engineer and produce its own carbon fabrics. This provides the ability to produce a very specific and fine grain unidirectional high modulus carbon (HMC) fabric layers in contrast to what is available in the market. The diverse range of specific and fine grain materials is the key improvement enabler of the oar's performance characteristics.

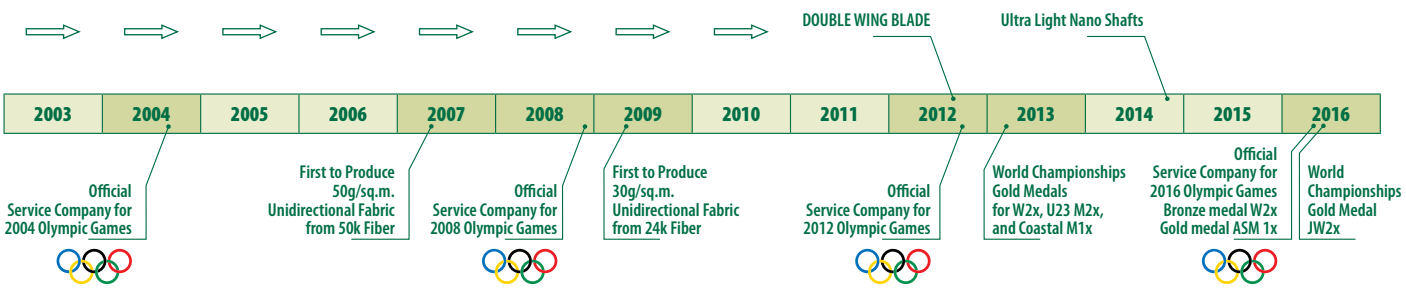


Together our unique combination of proprietary multi-characteristic and multi-layer composite fiber lay-up techniques and consolidation methods using a special epoxy resin and gelcoat with UV protection through high temperature (160°C) and pressure polymerization provides the ultimate mechanical and kinetic capabilities. This enables desired catch, drive, extraction, and recovery during the stroke and guarantees these characteristics for every scull and sweep oar produced; yielding the world's first mechanical energy BRAČA-SPORT® oar.

Over the last twenty years BRAČA-SPORT® has received numerous worldwide patents for a variety of technologies and processes and our goal is to continue to research, develop and create a diverse range of products that will remain satisfying to the huge variety of the world's rowers.

KEY FACTS

- The only manufacturer to engineer and produce carbon fabrics and oars
- World's first and only mechanical energy oar
- More than 300 years of combined engineering experience, including aerospace, advanced composite materials science, biomechanics and kinetics, chemical, electrical, mechanical and computer systems engineering
- The most precise scull and sweep oar on the market for all parameters
- Inventor of the original elliptical blade shape concept
- We use a proprietary UV epoxy gelcoat on all our products
- Inventor of a unique blade molding system to protect the internal foam from water penetration
- Proprietary multi-layer and multi-characteristic lay-up methods

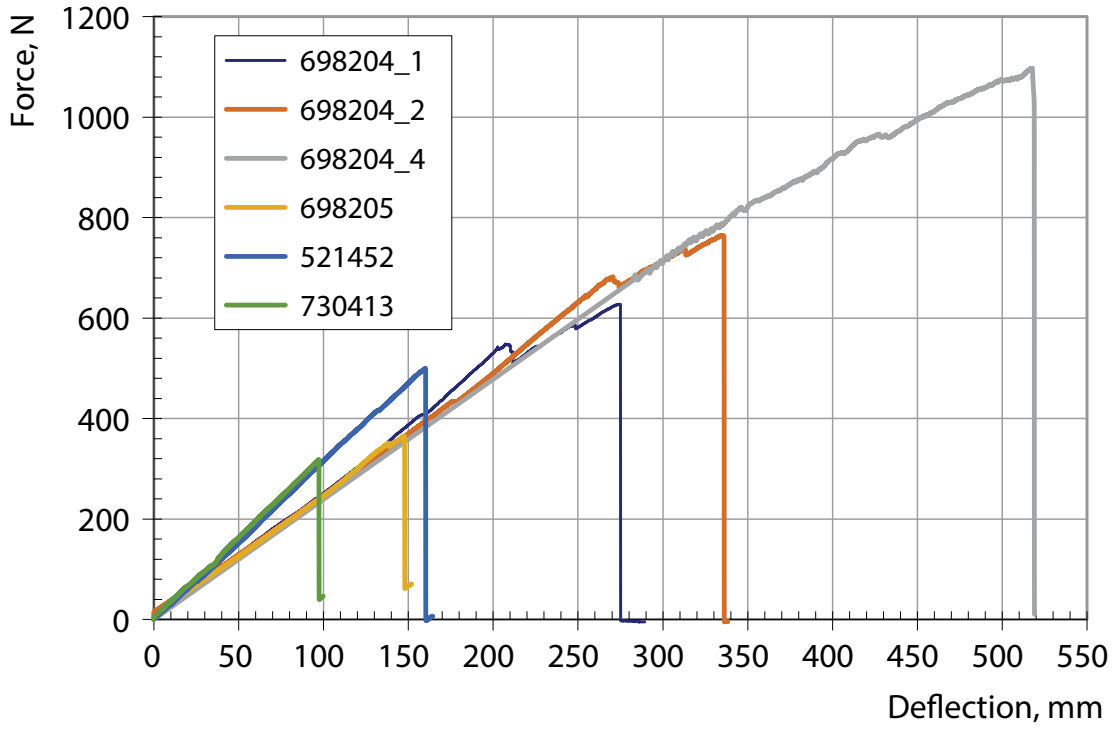


The latest Computational Fluid Dynamics (CFD) science, process and software are the foundation of oar design and analysis at BRAČA-SPORT® research and development group. The highly-accurate and sophisticated computational hydrodynamic analysis allows us to simulate fluid flow physics in real rowing conditions, run many what-if scenarios, and quickly analyze the effects of fluid flow and related forces on the scull and sweep oar blade components.

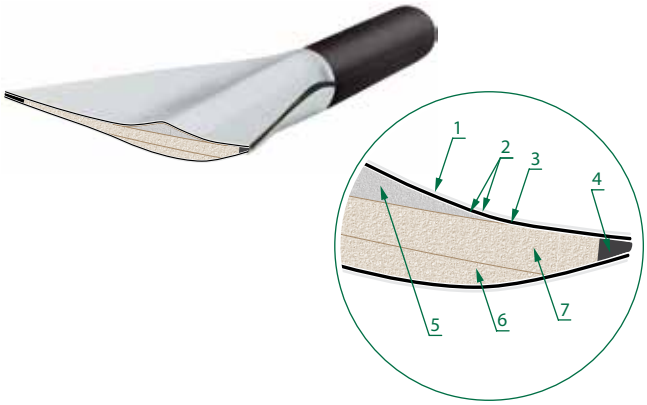
This analysis enables us to virtually get inside the design and see how it performs. It gives us a deeper insight into blade designs and provides comprehensive data on many phenomena, which wouldn't be visible through any other means such as experimental tests. In addition the process allows predicting what will happen under a given set of circumstances. We predict how the design will perform, and test hundreds of variations until we arrive at an optimal result for the best oar.

Introduced stiffness and strength laboratory tests for shafts. Evaluation of limit state under extreme loading conditions allow select manufacturing technologies to produce high strength structures. In "Strength of materials" laboratory at Kaunas University of Technology the mechanical tests and characterization has been performed by testing new structures of shafts.

Furthermore BRAČA-SPORT® results are independently validated by one of the leading European Universities - Kaunas University of Technology.



LOW VOLUME

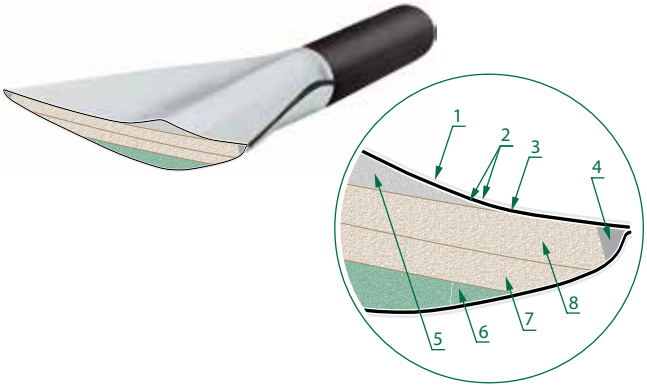


BRAČA-SPORT® **Low Volume** (LV) blade design is developed for all levels of competition with thickness at the minimum level permitted by current FISA rules. Certain blades are also available with a **High Volume** (HV) option and are specifically designed for the novice and recreational rower who want slightly more buoyancy and balance. Both are designed to provide the best possible performance during the stroke.

The main differences are shown in the sectional views of **Sharp Blade** example.

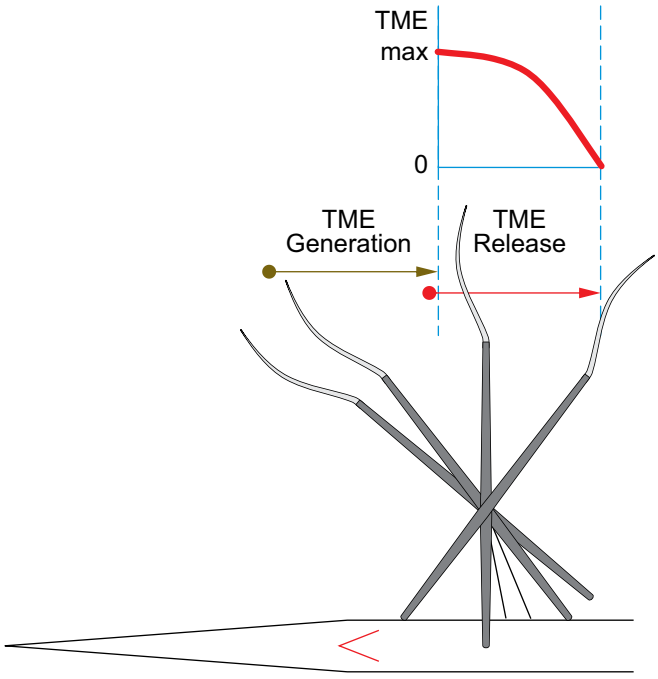
1 - gelcoat (clear or yellow)
2,3 - glass-carbon-glass fiber "sandwich"
4 - impact resistant packing
5,6,7 - special filling foam

HIGH VOLUME



1 - gelcoat (clear or yellow)
2,3 - glass-carbon-glass fiber "sandwich"
4 - impact resistant packing
5,6,7,8 - special filling foam

MECHANICAL ENERGY

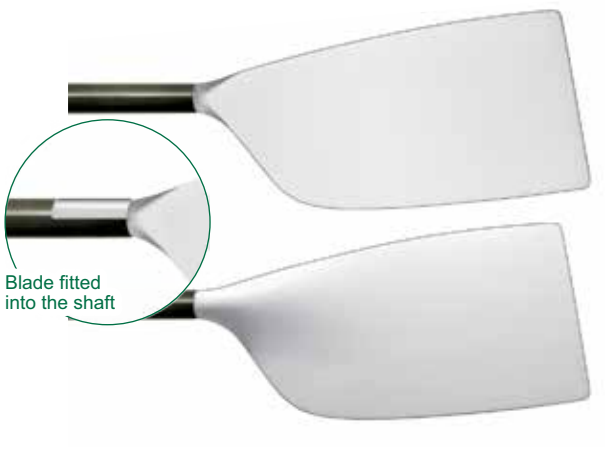


BRAČA-SPORT® research and development of latest technologies has enabled the production of a line of scull and sweep oar shafts that are equal in both quality and performance.

The key performance factor of BRAČA-SPORT® oar is the revolutionary "Mechanical Energy" concept. The shaft has the ability to store elastic potential energy during the first part of drive and release it starting from the middle of the stroke in a controlled manner, providing maximum acceleration to the boat.

The mechanical energy of an object can be the result of its motion (kinetic energy) and/or the result of its stored energy of position (potential energy). There are two forms of potential energy: gravitational potential energy and elastic potential energy. The total amount of mechanical energy is merely the sum of the potential energy and the kinetic energy. This sum is simply referred to as the total mechanical energy (TME).

TME = PEspring + KE

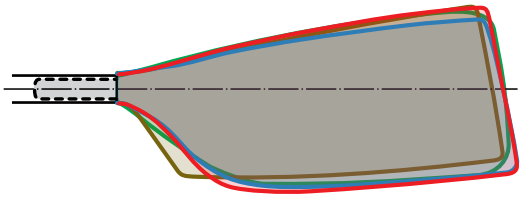


BRAČA-SPORT® **Double Wing Blade** product line line is our latest and most advanced 3-dimentional blade shape based on our original 'wing-shape' design and world's first smooth blade without the center spline. The blade thickness gradually decreases from the shaft towards the edges for even force distribution and mechanical stability.

The main concepts of the **Double Wing Blade** design are in maximizing the performance and stability throughout the entire length of the stroke.

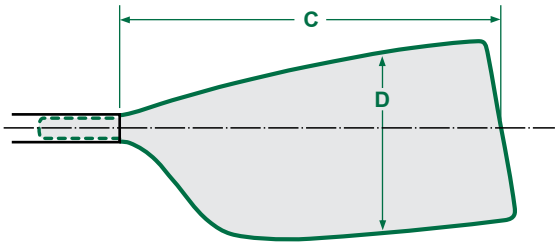
Key performance characteristics of the **Double Wing Blade** are:

- extremely stable performance throughout the entire length of the stroke
- clean catch, finish and recovery
- firm stroke line and reduced slippage in the water
- provides maximum turbulence free water contact area
- very forgiving in the instance of technical errors
- easy to handle and great comfort for the rower
- low air drag during recovery



Comparison of different BRAČA-SPORT® blade shapes:

DOUBLE WING BLADE
FUSION BLADE
SHARP BLADE
BIG BLADE

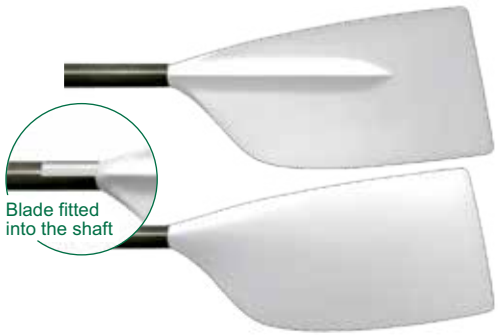


The pitch of the **Double Wing Blade** can be adopted to suit your needs between 0° and +7°. It can be specified at the time of the order. Please contact your dealer for details.

TECHNICAL PARAMETERS OF DOUBLE WING BLADE

		Dimensions					Pitch
		Surface Area (sq.cm/sq.in)	C (cm/in)	D in widest place (cm/in)	Volume		
					HV	LV	
Sculls	min	793 / 122.9	793 / 122.9	21.3 / 8.39		•	0° to +7°
	max	813 / 126.0	813 / 126.0	21.7 / 8.54		•	0° to +7°
Sweeps	min	1150 / 178.3	1150 / 178.3	25.0 / 9.84		•	0° to +7°
	max	1200 / 186.0	1200 / 186.0	25.0 / 9.84		•	0° to +7°

1 sq.cm = 0.155 sq.in 1 cm = 0.3937 in
1 sq.in = 6.4516 sq.cm 1 in = 2.54 cm

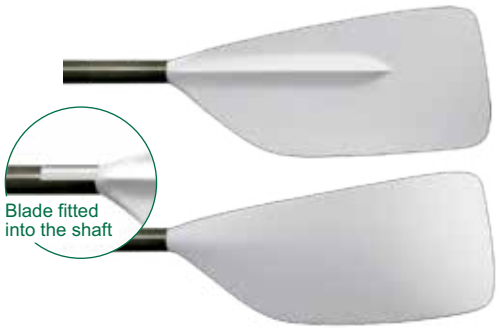


BRAČA-SPORT® **Fusion Blade** product line is our most advanced and best-balanced elliptical 3-dimentional blade shape. The main concepts of the **Fusion Blade** design are in maximizing the performance of the catch, drive, finish and recovery simultaneously.

Key performance characteristics of the **Fusion Blade** are:

- extremely clean and instant catch enabling immediate application of maximum power as soon as the blade enters the water
- increased stability during the drive phase by eliminating vibrations throughout the entire length of the stroke
- extra smooth and stable finish at the end of the stroke by removing jolt and shake occurrences at the exit
- low air drag during recovery

The pitch of the **Fusion Blade** can be adopted to suit your needs between 0° and +7°. It can be specified at the time of the order. Please contact your dealer for details.



BRAČA-SPORT® **Sharp Blade** product line is the original world's first elliptical 3-dimentional innovative blade shape and was designed using advance kinetic, biomechanical and material science concepts.

The main concepts of this revolutionary blade design are in the 3-dimensional curved shape and thickness of the blade and in the position and geometry of the spline.

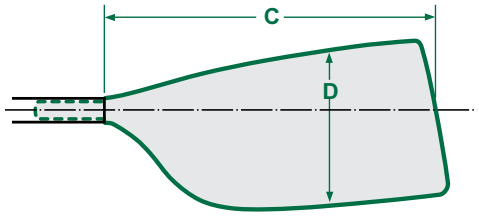
The edge of the spline runs parallel under the level of the blade edges.

The thickness of the Sharp Blade is at the minimum level permitted by current FISA rules. The result is an extremely well balanced, double spooned blade with excellent aero- and hydrodynamics.

Key performance characteristics of the Sharp Blade are:

- extremely high rowing efficiency throughout the entire length of the stroke
- smooth (water) catch and recovery
- ideal stability during the stroke
- low air-drag during recovery

The pitch of the Sharp Blade can be adopted to suit your needs between 0° and +7°. It can be specified at the time of the order. Please contact your dealer for details.



TECHNICAL PARAMETERS OF FUSION AND SHARP BLADES

			Dimensions					Pitch
			Surface Area (sq.cm/sq.in)	C (cm/in)	D in widest place (cm/in)	Volume		
						HV	LV	
FUSION BLADE	Sculls	min	800 / 124.0	44.8 / 17.64\	21.7 / 8.54		•	0° to +7°
		max	814 / 126.2	45.1 / 17.76	22.0 / 8.66		•	0° to +7°
	Sweeps	min	1130 / 175.2	55.0 / 21.65	24.5 / 9.65		•	0° to +7°
		max	1178 / 182.6	57.0 / 22.44	24.5 / 9.65		•	0° to +7°
SHARP BLADE	Sculls	min	759 / 117.6	45.0 / 17.72	20.5 / 8.07	•	•	0° to +7°
		max	809 / 125.4	46.5 / 18.31	21.5 / 8.27		•	0° to +7°
	Sweeps	min	1062 / 164.6	56.5 / 22.24	23.5 / 9.25		•	0° to +7°
		max	1162 / 180.1	57.5 / 22.64	24.5 / 9.65		•	0° to +7°

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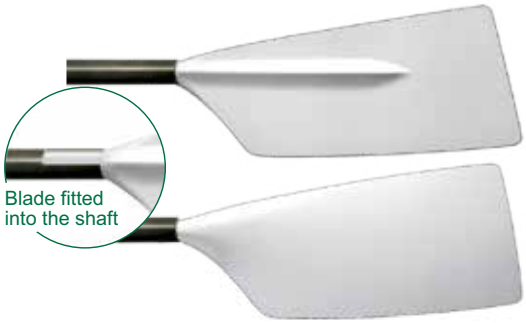
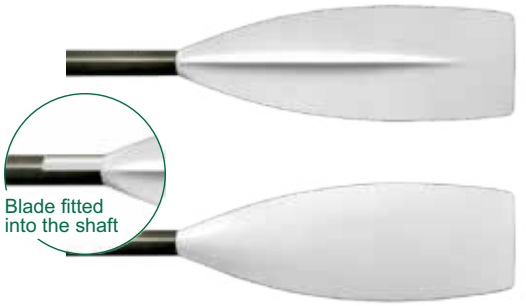


BRAČA-SPORT® **Big Blade** product line is the traditional hatchet/cleaver blade style which was first introduced in 1992. It was designed using Computer-aided design (CAD) to improve performance characteristics by enhancing the blade shape and position and geometry of the spline.

The main performance characteristics of **Big Blade** are:

- low air-drag
- greatest surface area at the tip

The pitch of the **Big Blade** can be adopted to suit your needs between 0° and +7°. It can be specified at the time of the order. Please contact your dealer for details.



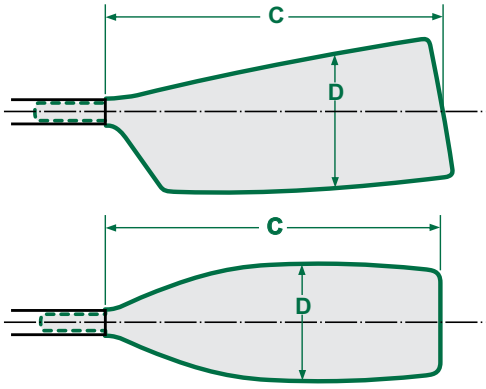
The **Macon Blade** is an all-time classic and has been used by rowers for many years.

This blade is still preferred by recreational rowers and is a very good learning tool for novice rowers, helping them to focus on basic boat moving skills and will teach them how to row better.

The main performance characteristics of the **Macon Blade** are:

- central spine
- symmetric 'tulip' shape

The pitch of the **Macon Blade** can be adopted to suit your needs between 0° and +7°. It can be specified at the time of the order. Please contact your dealer for details.



TECHNICAL PARAMETERS OF BIG AND MACON BLADES

			Dimensions					Pitch
			Surface Area (sq.cm/sq.in)	C (cm/in)	D in widest place (cm/in)	Volume		
						HV	LV	
BIG BLADE	Sculls		788 / 122.1	44.5 / 17.52	21.5 / 8.46		•	0° to +7°
	Sweeps		1102 / 170.8	56.5 / 22.24	23.5 / 9.25		•	0° to +7°
MACON BLADE	Sculls	16	653 / 101.2	50.0 / 19.29	16.0 / 6.30		•	0° to +7°
		17	690 / 107.0	50.0 / 19.29	17.0 / 6.69	•	•	0° to +7°
		18	723 / 112.1	50.0 / 19.29	18.0 / 7.09		•	0° to +7°
	Sweeps	20	935 / 144.9	57.0 / 22.44	20.0 / 7.87		•	0° to +7°
		21	991 / 153.6	57.0 / 22.44	21.0 / 8.27		•	0° to +7°

1 sq.cm = 0.155 sq.in 1 cm = 0.3937 in
1 sq.in = 6.4516 sq.cm 1 in = 2.54 cm

Our goal is to design, develop and configure the best performing sweep and sculling oars for every rower and crew. We are proud to bring the major shaft innovations to the rowing community, such as the world's first controlled force and energy shaft (mechanical energy eShaft) and UV-protective shaft.

All shafts build using our proprietary UV-protective epoxy gelcoat, preserving all high performance parameters and characteristics for a long period of time. BRAČA-SPORT® technology guarantees the weight for specific set of sculls and sweep oars, with a variance of no more than ± 5 g (0.005 kg, 0.011 lb, 0.1764 oz).

OAR WEIGHT

	Ultra Light Nano	Ultra Light	Standard	Recreational
Sculls	1.35 – 1.50 kg 2.98 – 3.30 lb 47.62 – 52.91 oz 1350 – 1500 g	1.35 – 1.50 kg 2.98 – 3.30 lb 47.62 – 52.91 oz 1350 – 1500 g	1.50 – 1.70 kg 3.31 – 3.75 lb 52.91 – 59.97 oz 1500 – 1700 g	1.80 – 1.90 kg 3.97 – 4.19 lb 63.49 – 67.02 oz 1800 – 1900 g
Sweeps	2.40 – 2.60 kg 5.29 – 5.73 lb 84.66 – 91.71 oz 2400 – 2600 g	2.40 – 2.60 kg 5.29 – 5.73 lb 84.66 – 91.71 oz 2400 – 2600 g	2.60 – 3.00 kg 5.73 – 6.61 lb 91.71 – 105.80 oz 2600 – 3000 g	not available

Weight within a range is dependent on oar configuration

1 kg = 2.2046 lb = 35.274 oz = 1000 g;
1 oz = 0.02835 kg = 0.0625 lb = 28.35 g;

1 lb = 0.4536 kg = 16 oz = 453.6 g;
1 g = 0.001 kg = 0.0022 lb = 0.03527 oz.

644571 **Ultra Light Nano**
Blade - DWB min | Oar weight, gr - 1400
Oar length, cm - 285-290 | Shaft stiffness, cm - 4.0
Handle, cm - 3.4 carbon | Center of gravity, cm - 150

BRAČA-SPORT® **Ultra Light Nano**, our small diameter shaft, features an exclusive design and all the high performance characteristics of the Ultra Light shaft. The Nano shafts are hand made with the highest grade of high modulus carbon. We use our lightest prepreg carbon fabrics - Unipreg®, specifically manufactured for rowing oars. The Ultra Light Nano is the only small diameter shaft with a wide stiffness range. They are designed for highly competitive and elite rowers of all sizes.

609247 **Ultra Light**
Blade - DWB max | Oar weight, gr - 1340
Oar length, cm - 285-290 | Shaft stiffness, cm - 3.8
Handle, cm - 3.4 carbon | Center of gravity, cm - 149

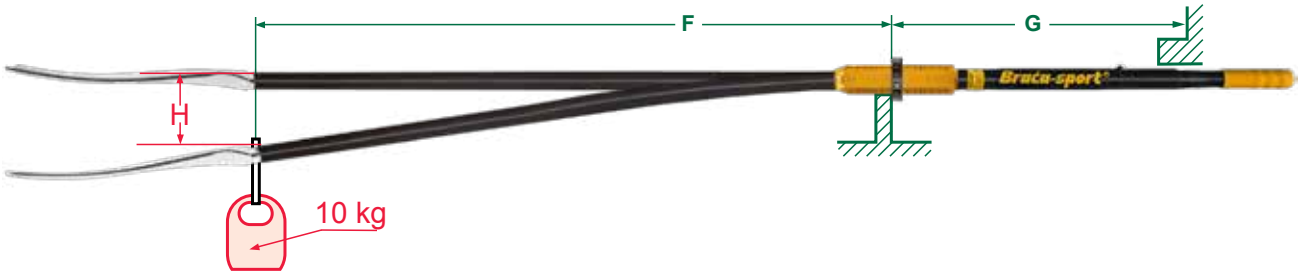
BRAČA-SPORT® **Ultra Light (Yellow band)** is a highly advanced and sophisticated ultra light shaft design and represents the highest level of technology offered in composites. These shafts have supreme high-performance characteristics, achieved via development of proprietary multi-layer and multi-characteristic hand lay-up methods of our own 100% pure high modulus prepreg carbon fabrics - Unipreg®, specifically manufactured for rowing oars. They are designed for highly competitive and elite rowers.

622835 **Standard**
Blade - BB | Oar weight, gr - 1550
Oar length, cm - 289 | Shaft stiffness, cm - 4.7
Handle, cm - 3.4 carbon | Center of gravity, cm - 144

BRAČA-SPORT® **Standard (Red band)** is our standard lightweight shaft. It is developed using advanced and proprietary multi-layer and multi-characteristic filament winding machine lay-up methods of high modulus carbon (60 % Carbon) and other high performance composite materials. These shafts are designed for all levels of racing and rowing, and have an excellent balance of high performance, maximum strength and durability.

622846 **Recreational**
Blade - Macon 17 | Oar weight, gr - 1800
Oar length, cm - 286 | Shaft stiffness, cm - 6.7
Handle, cm - 3.4 carbon | Center of gravity, cm - 141

BRAČA-SPORT® **Recreational (Green band)** is a unique design with reduced carbon content (20% Carbon), which continues to provide excellent performance characteristics. It is developed using advanced and proprietary multi-layer and multi-characteristic filament winding machine lay-up methods. The shaft is softer and developed to absorb the impact from each stroke, reducing the risk of common rowing injuries. These shafts are a good choice for scholastic and club programs where durability and highest impact resistance are key factors.



The **Ultra Light** and **Ultra Light Nano** BRAČA-SPORT® shafts are available in many precise levels of stiffness as shown in the table below. The stiffnes of the **Standard** and **Recreational** shafts can not be specified exacly but they are within the ranges shown. Each shaft is designed and built for a specific stiffness and then measured and verified for accuracy before it is assembled. The stiffness variable (deflection) of the oar is measured using a 10 kg weight as shown in the figure above. For any set of sculls or oars, the stiffness will vary no more than ± 0.1 cm.

SHAFT STIFFNESS

		F	G	Stiff ← H (cm) → Stiff 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 5.1 5.2 6.6 6.7 6.8 6.9 7.0
Sculls	Ultra Light Nano	150 cm 59.06 in	65 cm 25.59 in	• • • • • • •
	Ultra Light			• • • • • • • • •
	Standard			Stiff Soft
	Recreational			Default
Sweeps	Ultra Light Nano	205 cm 80.71 in	65 cm 25.59 in	• • • • • • • •
	Ultra Light			• • • • • • • •
	Standard			Stiff Soft

1in = 2.54 cm, 1 cm = 0.3937 in

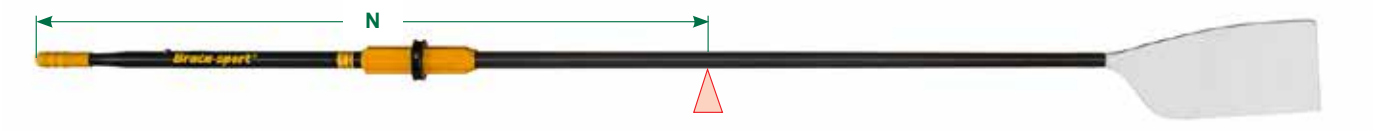
BRAČA-SPORT® offers adjustable and fixed length scull and sweep oars. Correct oar length directly corresponds to the overall boat performance. Optimal oar length is generally determined by a rower's technical style, physiological condition of crew, physical characteristics, and boat rigging. Many factors affect optimal leverage such as blade design and size, and inboard settings. A longer oar provides more leverage than a short one.

Our standard production lengths are shown in the table below. Adjustable oars allow for more precise and versatile fine-tuning. Each oar range of adjustment is 50 mm and labeled with exact min and max length. For adjustable oars all the variable factors for optimal performance are set in the middle of the range, for example a 370-375 cm length oar has optimal performance at 372.5 cm. Non-standard requests are available upon request. Please contact your dealer for details.

OAR OVERALL LENGTH

	Double Wing Blade	Fusion Blade	Sharp Blade	Big Blade	Macon Blade
Sculls	245 – 305 cm 96.46 – 120.09 in	245 – 305 cm 96.46 – 120.09 in	245 – 296 cm 96.46 – 116.54 in	245 – 296 cm 96.46 – 116.54 in	245 – 305 cm 96.46 – 120.09 in
Sweeps	350 – 430 cm 137.79 – 169.29 in	350 – 430 cm 137.79 – 169.29 in	350 – 430 cm 137.79 – 169.29 in	350 – 430 cm 137.79 – 169.29 in	350 – 430 cm 137.79 – 169.29 in

1in = 2.54 cm, 1 cm = 0.3937 in



Our center of gravity facilitates an effortless BRAČA-SPORT® signature catch during the stroke.

BRAČA-SPORT® unique electronic equip-ment allows us to fine-tune the center of gravity (CG) of the specific set of sculls and sweep oars with Zero cm(inches) error. This ensures that all sculls and sweep oars in the particular set are evenly distributed to each side of a boat to reduce disturbances to the boat's balance.

The centre of gravity is determined by balancing the oar on a narrow support structure.

CENTER OF GRAVITY

	Ultra Light Nano	Ultra Light	Standard	Recreational
Sculls	147 – 152 cm 57.87 – 59.84 in	146 – 151 cm 57.48 – 59.45 in	143 – 146 cm 56.30 – 57.48 in	140 – 143 cm 55.12 – 56.30 in
Sweeps	187 – 192 cm 73.62 – 75.59 in	186 – 191 cm 73.23 – 75.20 in	183 – 186 cm 72.05 – 73.23 in	not available

1in = 2.54 cm, 1 cm = 0.3937 in

BRAČA-SPORT® standard positioning of our sleeves are equipped with a wide range of adjustment capabilities to satisfy a variety of rigging settings.

All inboard settings components are fitted with BRAČA-SPORT® proprietary design yellow sleeves and black buttons.

Specific requests for oars and sculls that require non-standard positioning can also be specified at time of order. Please contact your dealer for details.

INBOARD SETTING RANGE

	K (cm/in)		S (cm/in)	
	Adjustable	Standard	Adjustable	Standard
Sculls	75 / 29.53	75 / 29.53	20 / 7.87	20 / 7.87
Sweeps	102 / 40.16	102 / 40.16	22 / 8.66	22 / 8.66

1in = 2.54 cm, 1 cm = 0.3937 in


Sweep adjustable handle with thermo shrink


Sweep fixed handle with thermo shrink


Sweep Nano adjustable handle with thermo shrink


Sweep adjustable handle with timber veneer


Sweep fixed handle with timber veneer


Sweep fixed wooden handle


Scull adjustable handle


Scull fixed handle


Scull fixed wooden handle (tourist)

BRAČA-SPORT® offers adjustable and fixed length handles for both sculls and sweep oars. Standard handles and grips are available in various types and sizes.

All of our wooden components are treated with a highly water resistant varnish to eliminate the ingress of water and prolong the life span of the handle. Wooden handles can be left smooth or custom textured with a file or sandpaper.

Our exclusive timber veneer is made from special Gabon wood, which has been chosen for its extreme water resistant characteristics and durability. It will continuously maintain its size and shape preventing typical expansion and shrinkage.

The BRAČA-SPORT® adjustable system design is based on the utilization of 100% carbon materials for all handle parts. They are built with high laser precision equipment to enable the tightest wiggle-jiggle-free handle to shaft fitting available in the market. This eliminates any movement within the adjust-able system and guarantees desired performance during varying rowing con-ditions.

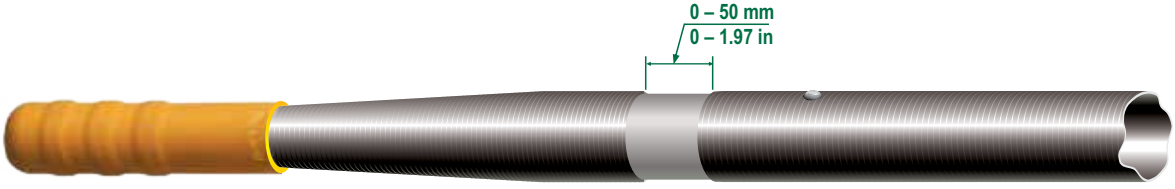
The adjustable handles are available in all shaft constructions. Our adjustable mecha-nism allows for easy 5 cm adjustment to the overall length.

Specific custom requests for handles and grips can be accommodated. Please contact your dealer for details.

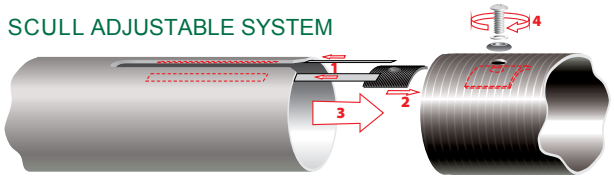
HANDLE AND GRIP OPTIONS

	Handle Type			Diameter (cm/in)		
	Construction	Adjustable	Fixed	Small	Medium	Large
Sculls	Wooden (Tourist)		•		3.4 / 1.37	3.6 / 1.42
	Carbon with grip	•	•	3.2 / 1.26	3.4 / 1.34	3.6 / 1.42
Sweeps	Wooden		•		4.2 / 1.65	4.5 / 1.77
	Carbon with timber veneer	•	•	4.0 / 1.57	4.2 / 1.65	4.5 / 1.77
	Carbon with thermo shrink grip	•	•	4.0 / 1.57	4.2 / 1.65	4.5 / 1.77
	Nano carbon with thermo shrink grip	•	•		40-36/ 1.57-1.41	

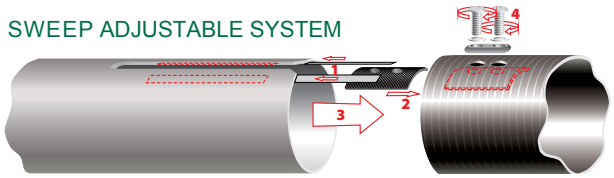
1in = 2.54 cm, 1 cm = 0.3937 in



SCULL ADJUSTABLE SYSTEM



SWEEP ADJUSTABLE SYSTEM



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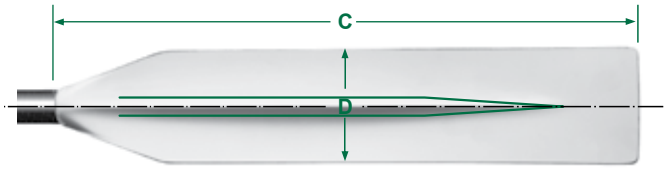
BRAČA-SPORT® also offers specially constructed blades for use in rowing tanks.

We believe it is important for the athletes to get the same feel when training in a rowing tank as they get in their own boats. The balde has a larger curve than the normal blades, which helps to mimick the rowing feel during the stroke. This is also benefitial to beginners who can aquire solid technical skills in the rowing tank before getting into an actual boat.

The main characteristics of the **Rowing Tank Blade** are:

- shape is based on the original **Macon Blade**
- specially curved blade shape for optimal stroke feel
- special sandwich layer construction allows a wide size range
- completely closed shape (no exposed foam) regardless of blade size



The blade size can be specified when ordering, please see the table below. The pitch of the **Rowing Tank Blade** can also be adopted to suit your needs between 0° and +7°. Please contact your dealer for details.

TECHNICAL PARAMETERS OF ROWING TANK BLADE

	Dimensions	
	C (cm/in)	D (cm/in)
Sculls	50 / 19.68	8.5 / 3.35 10.0 / 3.94
Sweeps	57 / 22.44	11.0 / 4.33 12.0 / 4.72

1in = 2.54 cm, 1 cm = 0.3937 in

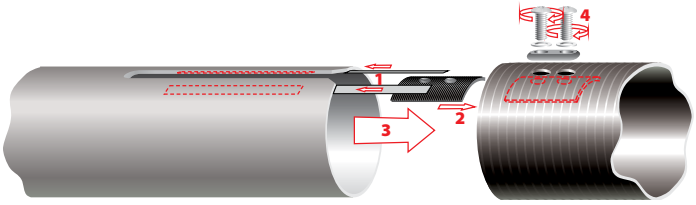
CLASICA

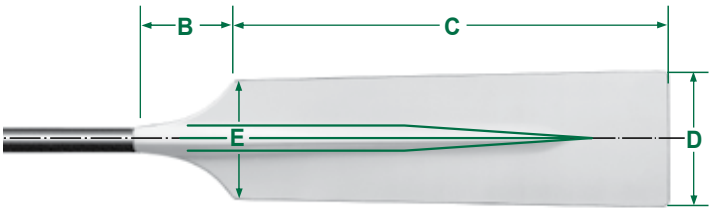
ISPAÑA

SPANISH OARS ADJUSTABLE HANDLES

Handle with timber veneer

Handle with thermo shrink





The BRAČA-SPORT® Spanish Family product line is specifically designed for the traditional summer regattas of Mediterranean and northern Spain.

There are five distinctly different oars which are based on the specific requirements of the five different vessels:

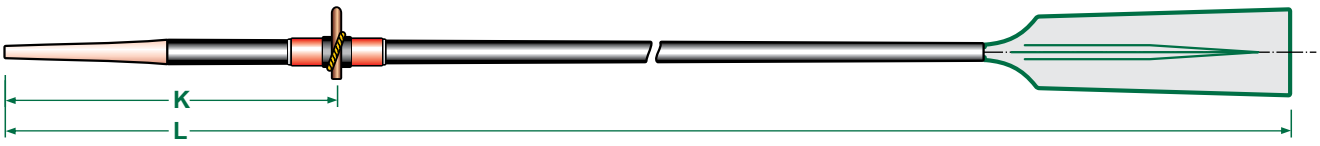
- the **BATEL** – four rowers and one timonel ('timonel'- controls the tiller)
- the **TRAINERILLA** – six rowers and one timonel
- the **FALUCHO** – eight rowers and one timonel
- the **LLAUT** – eight rowers and one timonel
- the **TRAINERA** – thirteen rowers and one timonel

The Spanish Family oars represent the perfect marriage of traditional design with the latest achievements in composite material tech-nology.

This high quality carbon construction guaran-tees the needed stiffness while still remaining incredibly lightweight.

Custom options of blade geometry and oar length that correspond to the technical specifications of each athlete are also available.

All custom requests are kept confidential and will not be disclosed to third parties. Please contact your dealer for details.



SPANISH OAR MEASUREMENTS

		B (cm)	C (cm)	D (cm)	E (cm)	K (cm)	L (cm)
CLASICA	Batel Trainerilla Falucho Llaut Trainera	13	55 – 68	18 – 22	15.5 – 18.5	70 – 95	295 – 405
ISPAÑA	Batel Trainerilla Falucho Llaut Trainera	13	55 – 65	18 – 21	15.5 – 18.0	70 – 95	295 – 405


CUCA

BRAČA-SPORT® is committed to make the sport of rowing available to everyone and we try to broaden our portfolio accordingly.

Para-rowing is a dinamically growing segment of our sport which brings freedom into many disabled people's lives. We feel it is important to listen to their comments and suggestions so we can produce the best equipment which satisfies their requiremnets.

We produce special shorter versions of our shafts which are more suitable for para-rowing:

- scull oar length starts from 245 cm (96.46 in)
- sweep oar length starts from 364 cm (143.31 in)

The stiffness and length of the oars sould be specified when ordering. Please contact your dealer for details.

The Irish "One Design" boat is the primary boat of use in the All Ireland Coastal Rowing Championships, an annual event where Coastal Rowing Crews from all over Ireland come to compete. The boat was created to allow for competitors to row against each other in the same boat, as previously they have competed in their own traditional boats, which vary from region to region and offered different advantages. The All-Ireland Coastal Rowing Championships has evolved into one of the largest single sport, single venue, team events in the country with over 500 crews from 45- 50 clubs involving up to 3000 individual competitors taking part every year. It is by far, the largest regatta of any code in Ireland and one of the biggest in Europe.

BRAČA PERFORMANCE SHIRT

Colours

The BRAČA-SPORT® Performance Thermal shirt is engineered for high-performance workouts and competition. It offers an unique balance between zoned thermal compression and ventilation and provides superior moisture management capabilities.

- Provides enhanced airflow and is highly breathable
- Transports moisture away from the body and keeps the skin dry
- Reduces skin temperature during intense workout and competition

Sizes: XS, S, M, L, XL, XXL (Unisex).

BRAČA BACKPACK

This high-performance technical bag is designed for carrying all your daily essential belongings with ease.

- Panel-loading main compartment offers plenty of room for gear and clothing
- Dual side mesh water bottle pockets to keep bottles from bouncing around
- Adjustable padded shoulder straps and padded backpanel offer load-carrying comfort

BRAČA CAP

The BRAČA-SPORT® Cap is great fitting and perfect for everyday and after-sport use.

- 100% cotton construction is durable and comfortable for long-lasting wear.
- Velcro® closure quickly adjusts to the right size for your head.
- Anti-glare lower brim eliminates light reflection and distraction.
- Low-profile, relaxed fit is perfect for both men and women.

BRAČA COVERS

To protect oars from damage, we offer covers made of special, highly durable fabrics constructed with tear-resistant micro ripstop nylon and closed-cell foam padding. The covers are stitched with heavy duty thread, reinforced ends and heavy duty zippers.

The BRAČA-SPORT® Universal Oar Covers adapt to fit and accommodate different lengths of scull and sweep oars, providing a great protection during transport and storage.

Braca-sport®

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