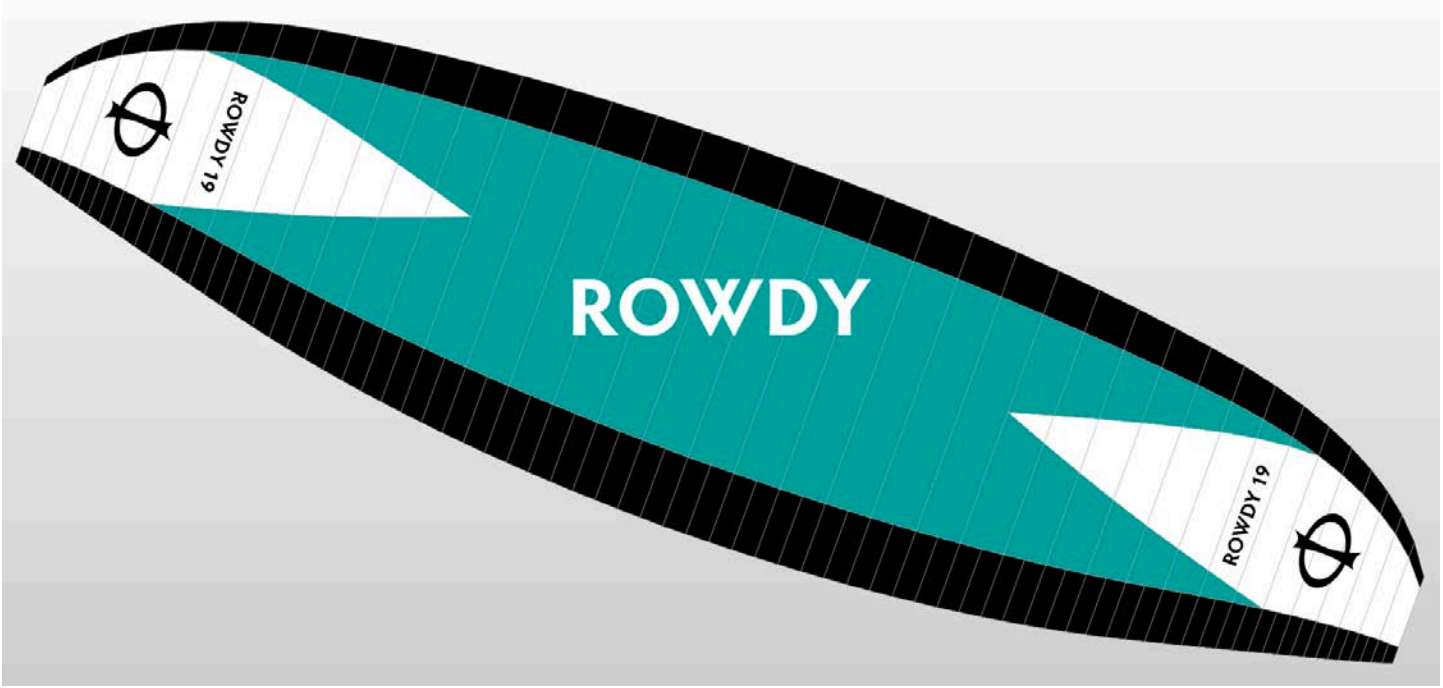
ROWDY

Manual Version 1.0 dated 07 November 2026



Congratulations!

Congratulations on your new PHI ROWDY! With the ROWDY, we bring our many years of experience in paraglider and kite development to a deliberately simple parakite design.

Flow simulations, calculations of the deformed wing and practical testing of several prototypes led to a clear solution. The result is a two-liner with few lines and a simple riser system. The specially developed aerofoil allows the suspension rows to be spaced far apart. The reduced rigging lowers line drag.

Nitinol reinforcements, a padded leading edge and sand outlets along the trailing edge complete the design for coastal use. This manual describes the construction, operation and care of your ROWDY.

Read the entire manual before first use. Familiarise yourself with the control system under qualified supervision. Incorrect operation or unsuitable flying conditions can cause serious or fatal accidents. For questions or suggestions, contact us at info@phi-air.com.



ROWDY on the Danish coast.

The PHI ROWDY

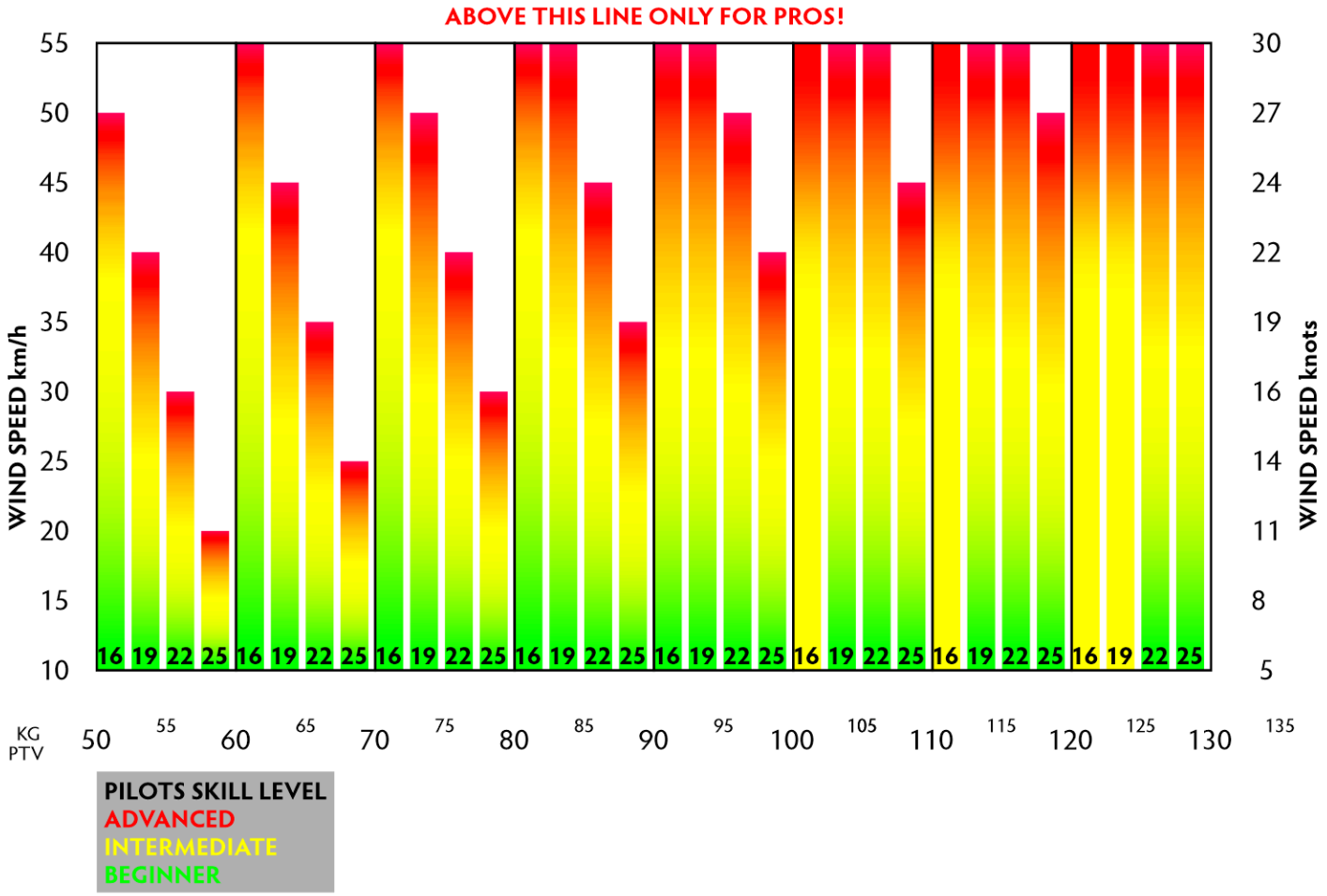
The ROWDY is a parakite. Operating its coupled steering and speed system requires specific training. Experience with a conventional paraglider does not replace this instruction.

Choose the wing size, flying site and conditions to suit your ability, total take-off weight and intended use. Total take-off weight includes the pilot, clothing and all equipment carried, including the wing and harness.

Before use, check the local rules and any qualifications or permissions required. Passing a structural load test alone does not describe the flying behaviour or establish suitability for every intended use.

Operating limits

For your first flights, choose steady, laminar wind and open terrain with generous take-off and landing areas. Before launching, assess wind direction, mean wind speed and peak gusts at the launch and along your planned flight path. Pay particular attention to lee areas, rotor behind terrain features and thermal turbulence. Paragliders and parakites also leave wake turbulence. Keep sufficient separation when crossing their flight path or following them, especially near the ground. Do not launch in strong turbulence, pronounced gusts, rapidly changing wind direction or strong thermic conditions. Launch only with adequate visibility and a dry canopy. Do not fly in rain, snow, fog or cloud.



Size, wind and weight chart for the ROWDY. The upper limits of the bars refer to peak gusts. When choosing your wing, allow an adequate margin below these upper values. Stay within the recommended take-off weight range for your size in the Technical Data section.

Load testing

The ROWDY has undergone load testing in accordance with EN 926-1.

Technical overview

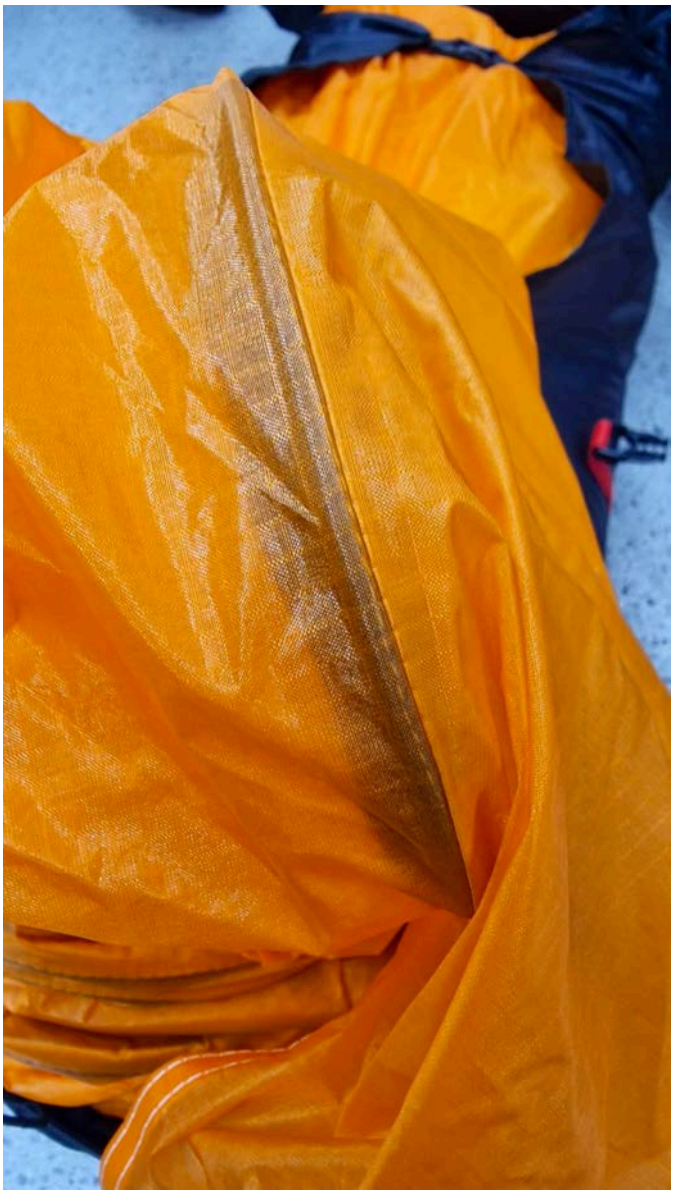
The ROWDY has 40 cells and two suspension rows, A and B. There are two risers on each side. The suspension system has no additional C-row and no floating B-pulley. The small number of lines reduces drag and makes the rigging easier to inspect and sort.

On a parakite, steering and changes in angle of attack are coupled. The control handle position therefore affects more than the trailing edge alone. The effects, permitted travel and reference points of the ROWDY system are described in the settings section.

Nitinol reinforcements stabilise the aerofoil shape. Neoprene padding at the leading edge spreads the pressure from the Nitinol rods over a larger area and protects the nose against abrasion.



Neoprene padding at the leading edge.



Leading edge with Nitinol reinforcement.

Sand outlets are distributed along the entire span of the trailing edge. These openings allow sand that has entered the canopy to escape.



Sand outlets along the trailing edge.

ROWDY risers

The ROWDY is a two-liner with one A-riser and one B-riser on each side. The system has no floating B-pulley and therefore uses one fewer pulley. The layout is clear and the risers are made from high-quality materials. The A-riser is made from webbing, making it easy to grip. The red comfort handle on the B-riser helps with groundhandling and is used to depower the canopy on the ground in strong wind.



Complete ROWDY riser assembly.

Control handle reference positions

Check regularly that the brake lines do not come under tension too early!
The brake lines should only become taut when the risers are the same length (see also Paragliding Mode).
This is best checked during groundhandling.

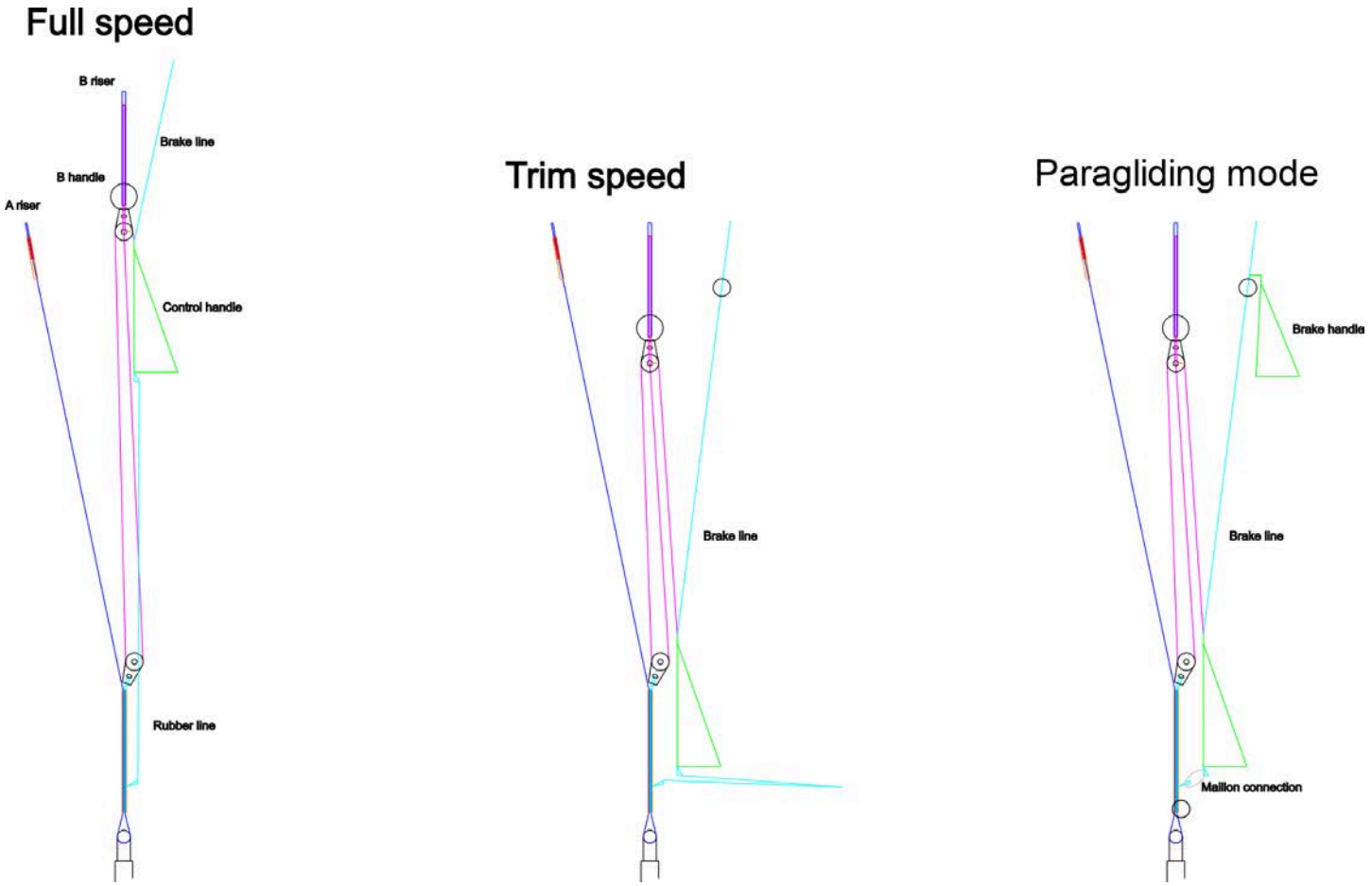
Warning!
Brake lines that are set too short can cause instability!



Comfort handle on the B-riser.

How the risers work

Like every parakite, the ROWDY has a functional link between the brakes and the speed system. The conventional brake handle is connected to the speed system and becomes a control handle. It operates both the brake when pulled down and the speed system when raised.



When the control handle is brought down to the main carabiner, the two risers become equal in length and the brake line comes under tension.

Paragliding mode

One of the ROWDY's special features is its paragliding mode. Both risers are locked in the trim-speed position by securing the screw links. This locks out the acceleration function of the control system. You steer the ROWDY using the brake lines, either directly with the small ball grips or with the optional brake handles. Attach each brake handle with a lark's head knot above the ball grip. The following photos show the locking arrangement, the ball grip and the fitted brake handle.

Warning!
Secure or release the screw link only on the ground.



Detail of the riser locking arrangement.



Small ball grip on the line.



Close-up of the screw link and adjacent lines.



Brake handle above the ball grip in paragliding mode.

Before first use

Use undamaged equipment that is suitable for the ROWDY. Check the compatibility of the wing, connectors, harness and, where carried, reserve parachute. Handles and lines must move freely throughout their intended range of travel.

Warning!
Do not alter line lengths, handle attachments, stops or pulley arrangements yourself. Changes can affect the angle of attack, steering response and available travel. Record any PHI-approved changes and have them checked by a qualified specialist.

Training and instruction

Before your first independent flight, we recommend thorough parakite training at a school experienced in parakites. This also applies if you already fly paragliders. Groundhandling is an essential part of the instruction. Start under supervision in steady wind on an open area. Practise inflating, stabilising and lowering the canopy in a controlled manner from different positions, as well as aborting launches. Learn how to depower the canopy on the ground using the red B-riser handle. Practise first in moderate wind before applying the technique under supervision in stronger wind. Make your first flight under the supervision of a qualified flight instructor. Learn take-off, flight and landing progressively with instruction. Familiarise yourself with the ROWDY's coupled control system. The control handle position affects both steering and angle of attack.



Groundhandling the ROWDY on the Danish coast.

Harness

We recommend an EN-tested, open-leg harness with excellent impact protection. Parakites are often flown at high speed close to the ground. Your legs and the harness protector can reduce the consequences of an impact.
For full control when alternating between groundhandling and flight, we recommend a harness that provides a stable, upright body position and a very easy transition between the flying position (upper body reclined, legs drawn up) and the landing position (upper body upright, legs ready to run). Avoid a harness in which you tip backwards too easily!
Unlike when flying a paraglider, you cannot take your hands off the control handles. An easy change of position in the harness is therefore essential!
All control handle positions must be safely reachable with your chosen harness.

Warning!
A harness that allows an unstable body position distracts the pilot when flying close to the ground! You must always be able to change your body position quickly, from sitting to upright and with your legs ready to run, without using your hands!

Pre-flight check

Assess the wind, gusts, terrain, obstacles and airspace, and identify a suitable landing area and space to abort. Pay particular attention to lee areas, rotor and changes in wind conditions along the planned flight path. Do not launch if the conditions or your physical and mental state are unsuitable for the intended flight.

Checks before every use

- Canopy and leading edge. No visible tears, abrasion, broken reinforcements or unusual deformation.
- Lines. Fully sorted, undamaged and free from knots or tangles, with no foreign objects or trapped lines.
- Risers and connectors. Correctly connected, untwisted, fully closed and free from visible damage. Both sides must be set to the same operating mode, and the screw links must be fully closed.
- Controls. Correct attachments and settings, unrestricted travel and no obstruction from sand, clothing or equipment.
- Harness and reserve system, where carried. Put on and checked according to their respective manuals, with handles accessible.
- Surroundings. Clear take-off and abort paths, no people at risk, and a final check of wind, airspace and flight plan.

Warning!
Do not launch with damage, uncertain settings or unusual operation. Have the cause investigated before using the equipment again.

Flying the ROWDY

Before your first flight, familiarise yourself under qualified supervision with the construction, handle travel and behaviour on the ground. Choose suitable terrain with ample separation from obstacles and other people. Plan a way to abort.

Lay out the wing so that the lines and canopy can be checked clearly. Avoid dragging the canopy or tensioned lines across sharp or abrasive surfaces. Make sure that the air intakes and lines are clear.

Take-off

Launch only with a fully controlled canopy and a clear take-off path. Abort if you notice a knot or tangled lines, if the canopy overshoots or cannot be controlled, or if conditions deteriorate.

Flight and control

Learn the ROWDY's responses progressively in a suitable environment. Because steering and angle of attack are coupled, you must understand the effects of both hands and the transitions between different flight states.

Straight flight and turns

Familiarise yourself with your ROWDY's flying behaviour in smooth air, over open terrain and with sufficient height above the ground. In straight flight, observe how much the wing dives when accelerating. Then progressively explore how much height you lose in turns at different bank angles. Take particular care to learn this with the smaller wing sizes, and maintain an adequate height margin.

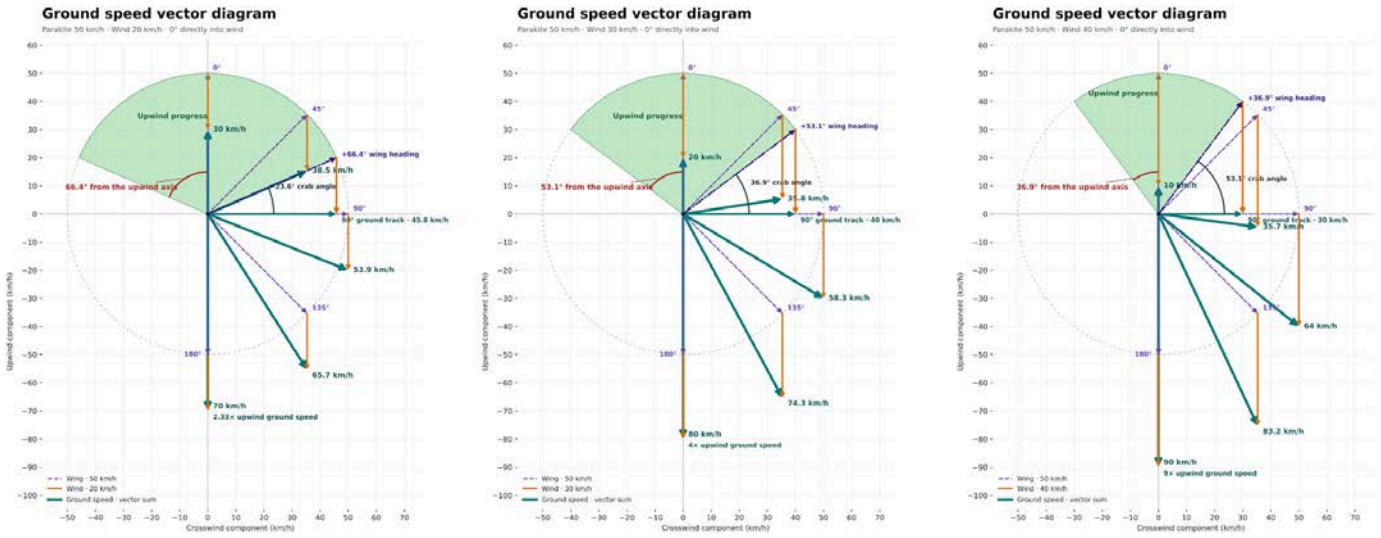
Soaring and terrain clearance

Monitor how the wind develops and keep an accessible escape route or landing option in mind. Clearance from terrain and obstacles must suit your experience and the dynamics of the situation. Flight paths shown in demonstration videos are not instructions for your own flying.

Warning!
The ROWDY is highly resistant to collapse. A flexible canopy suspended on lines can nevertheless collapse at any time. Close to the ground, a collapse leaves you without the time or height needed to react.
Continuously observe the wind, gusts, turbulence and wake turbulence. Fly actively. Keep the control handles in your hands, monitor changes in control pressure and respond early and progressively to disturbances. At high speed, collapses can be particularly abrupt. Avoid full speed in turbulent air. Excessively deep or abrupt control inputs can cause a stall. Maintain an adequate airspeed margin near the ground and avoid steep turns and full circles.
Avoid low flying in turbulent air and maintain adequate clearance from terrain and obstacles. If conditions deteriorate, increase terrain clearance early and plan to land.

Ground speed in wind

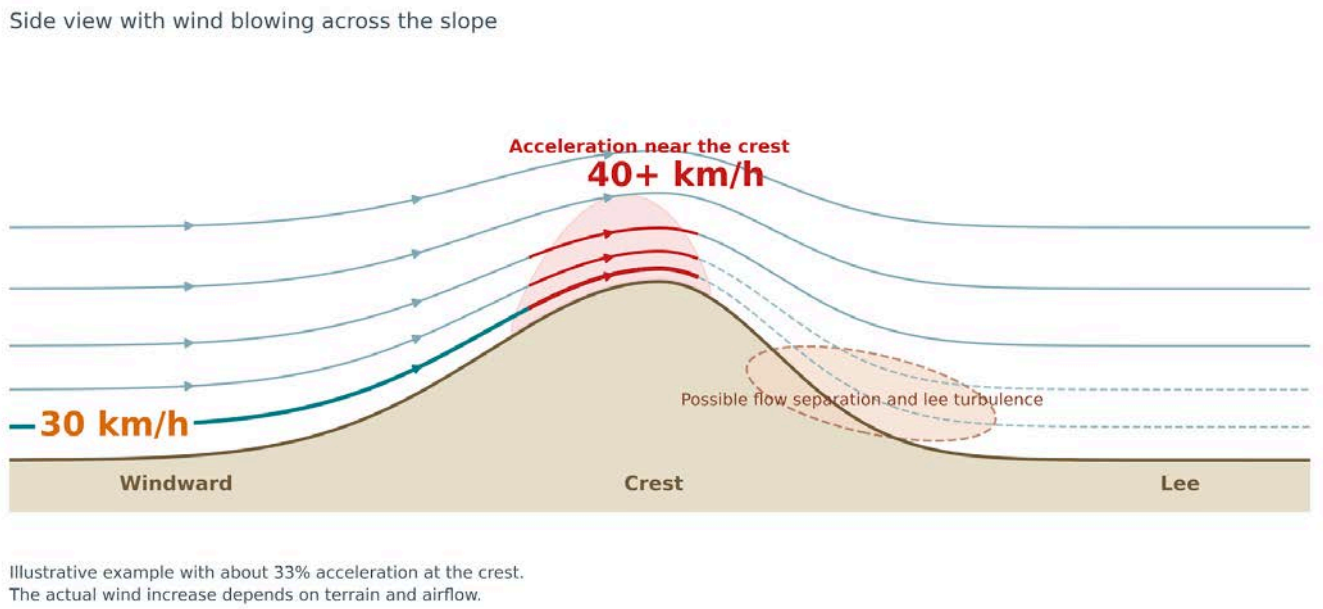
As wind increases, keep the nose of the wing sufficiently into wind. If you turn too far away from the wind, your ground speed can rapidly multiply. This is particularly important near the ground, where you then have less time to react.



Calculated examples at an airspeed of 50 km/h. From left to right, wind speed increases from 20 to 30 to 40 km/h. Directly downwind, ground speed is respectively 2.33, 4 and 9 times the speed directly into wind.

Warning!
The stronger the wind, the smaller the green sector!
In strong wind, ground speed increases very sharply when you leave the green sector.

Wind over a slope



Warning!
Wind can accelerate significantly on the windward slope and near the crest. In the calculated example, 30 km/h on flat ground can become about 40 km/h at the crest, at the same height above the local ground. The actual increase depends on the shape of the slope and the airflow. Before launching, also assess conditions at the crest and pay attention to peak gusts. Keep adequate terrain clearance when soaring and maintain a clear escape route and landing option. Flow separation and strong turbulence can occur on the lee side.



Landing

Plan your landing early and choose a clear area with suitable ground. Account for wind direction, wind gradient, obstacles and other people. Keep the intended run-out and canopy securing area clear. In little or no headwind, allow extra space for a longer flare and run-out. Preserve enough airspeed during the approach to flare.

Approach and flare

Practise approaches over a clear, obstacle-free landing area. Choose level, soft ground when learning to flare. Allow generous space before touchdown. The ROWDY can still cover a considerable distance over the ground during the flare.

Warning!
Avoid hook turns on the landing approach. At high wing loading, the dynamics can increase substantially. What is fun with sufficient height can become dangerous close to the ground. A steep turn can rapidly consume height and increase speed. Such approaches require a very high level of flying skill and specific training.

After touchdown

After landing, secure the wing against reinflation. In strong wind, pull the red B-riser handle to depower and lower the canopy. The red B-riser handle also helps you lower the wing in a controlled manner during groundhandling. Keep people and obstacles clear of the direction of pull.

Disturbances and unusual situations

The ROWDY's coupled control system requires specific instruction in disturbances and emergency procedures. If you lose control and cannot quickly stabilise the flight, deploy your reserve parachute immediately if one is carried.

- Knots, tangled lines or a cravat.
- Asymmetric or frontal collapse, or unusual pitching or rolling.
- Approaching a stall, asymmetric stall, parachutal stall or full stall.
- Blocked pulley, damaged control system or loss of a control handle.
- Unexpected increase in wind, backward drift or no forward progress over the ground.
- Becoming wet in flight, landing in water or contact with salt water.

Rapid descent and emergency planning

The spiral dive is the ROWDY's only rapid-descent manoeuvre. Big ears and B-stall are unsuitable. A spiral dive can produce high sink rates and high G-loads. Practise it only during supervised safety training, with sufficient height and clear airspace.

After an exceptional event, have the equipment checked before further use if damage or changes in operation cannot be confidently ruled out.

Care and maintenance

Warning!
The ROWDY is built from durable materials. For coastal use, PHI deliberately avoids Technora lines. Sand and salt deposits can accelerate line wear and reduce strength. Even robust polymers such as nylon age faster when exposed to heat and UV radiation. Sand and dust can also damage the material through abrasion. Protect the ROWDY from unnecessary sun and heat, remove sand and dust after use and inspect the fabric and lines regularly for wear.

Carefully remove loose debris and sand. Pack the wing clean and dry. Avoid unnecessary pressure on the leading edge, reinforcements and connectors. Nitinol makes packing easier, but careful handling is still essential.

Store the equipment dry and protected from direct sunlight, excessive heat, chemicals and mechanical stress. Allow damp equipment to dry in a suitable shaded, well-ventilated place. Do not store it tightly compressed for prolonged periods.

Care and repairs

Minimise unnecessary UV exposure and contact with sharp or rough ground. Check the leading edge, seams, line attachment points and areas with frequent ground contact particularly carefully. Sand can cause additional wear in pulleys and lines.

Remove loose dirt gently. Do not use solvents, aggressive cleaners or pressure washing. After heavy soiling or contact with salt water, agree the appropriate treatment with PHI or an authorised service centre.

Servicing and replacement lines

Line manufacture and replacement, and the subsequent inspection of line geometry and trim, must be carried out by a suitably qualified specialist. Only line types and constructions approved for the specific model, size and production version may be used.

The published line dimensions describe the target condition of a new wing under the stated measurement conditions. Use and ageing can change line lengths. A replacement line must therefore not be manufactured and fitted to the tabulated dimension without assessment. The specialist must assess the existing line set and determine the required replacement line length according to PHI service instructions. The corresponding line on the opposite side can be used for comparison, but this does not replace a professional assessment of line geometry and trim.

When requesting a replacement line, specify the model, size, serial number, affected side as viewed in the direction of flight, and line designation. If the designation is unclear, mark the affected line section between its connection points on the appropriate line plan and send the marked plan to PHI or the specialist.

Replacement-line manufacturing documents and line measurement documents serve different purposes. The line plan shows routing and designations. The corresponding size- and version-specific line list contains manufacturing details. The measurement checksheets guide the inspection. Use the documents applicable to your wing and follow their measurement conditions.

Record the replacement. Before further use, correct workmanship, line geometry, trim and operation must be checked. Repairs to other load-bearing parts and risers must also be carried out by qualified specialists.

Periodic inspection

The regular inspection interval is 24 months from the first flight. Record the date of the first flight in the equipment documentation and retain the inspection reports.

Damage, unusual operation or exceptional loads may require an inspection before the regular interval has elapsed. Continued airworthiness is assessed on the basis of the equipment’s condition and the current PHI inspection instructions.

Environment and disposal

Respect nature conservation, local access rules, breeding and protected areas, and other people’s interests. Use only permitted routes across dunes and sensitive vegetation. Do not leave behind line offcuts, repair materials or packaging.

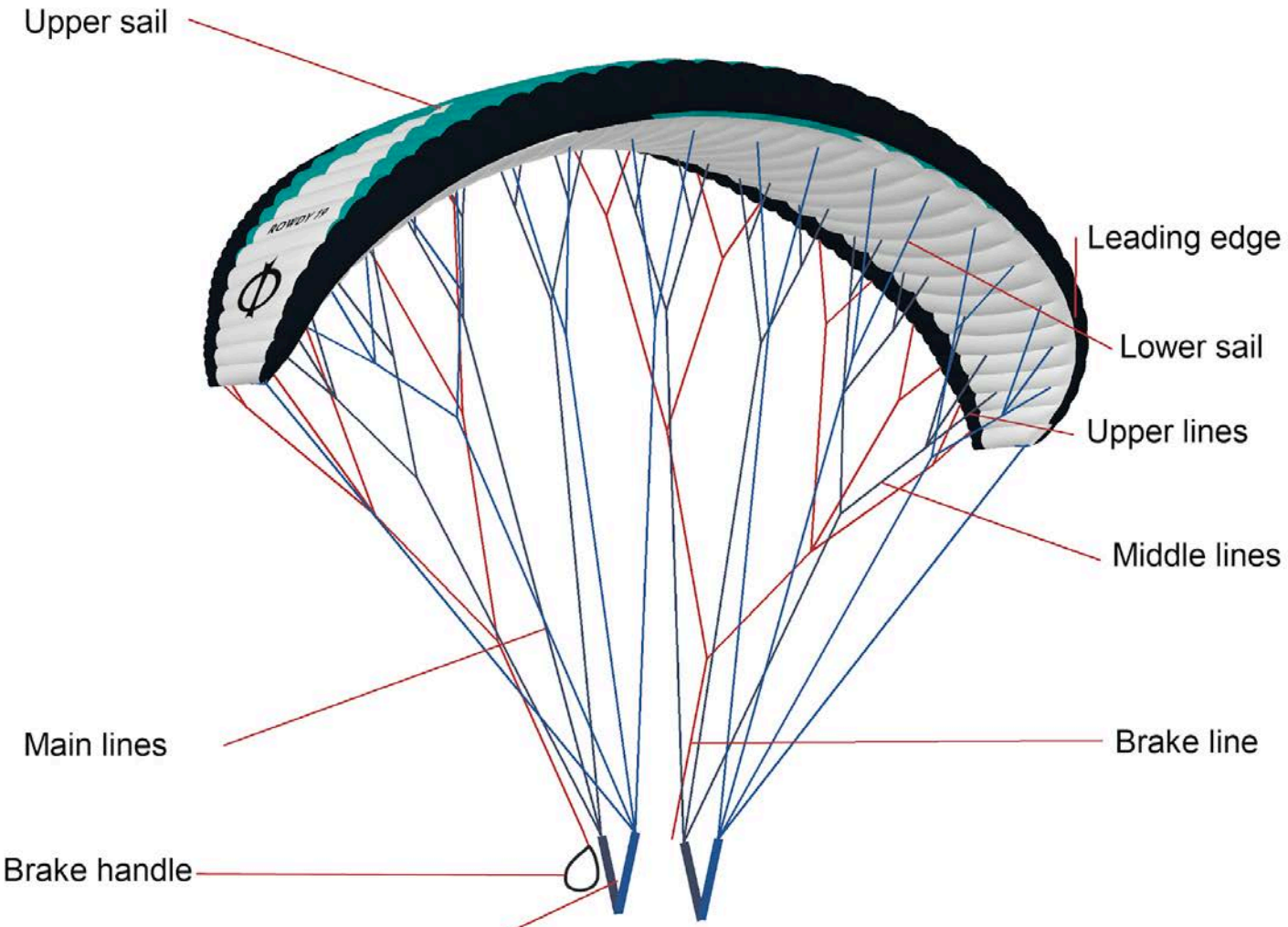
Handle retired equipment so that it cannot mistakenly be used as airworthy equipment. Discuss appropriate recycling or disposal with PHI or a specialist.

We wish you many enjoyable experiences with your ROWDY! Your PHI team.

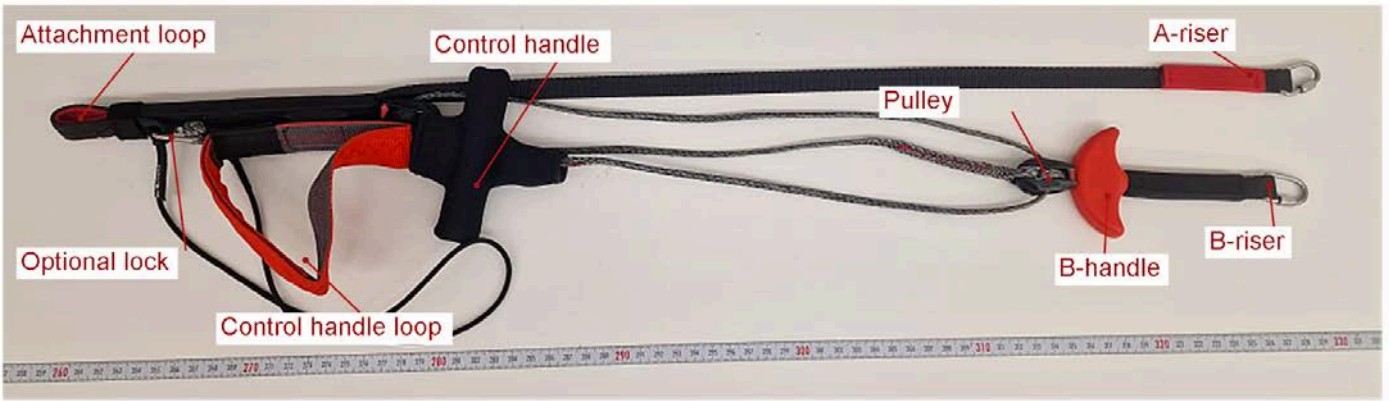
Technical data

ROWDY					
Size		**16**	**19**	**22**	**25**
Number of cells		40	40	40	40
Projected span	m	6.79	7.40	7.96	8.49
Projected area	m²	13.57	16.10	18.64	21.19
Projected aspect ratio		3.4	3.4	3.4	3.4
Flat span	m	8.65	9.43	10.14	10.82
Flat area	m²	15.88	18.86	21.83	24.81
Flat aspect ratio		4.72	4.72	4.72	4.72
Line length	m	5.28	5.75	6.19	6.60
Maximum chord	m	2.28	2.49	2.68	2.85
Minimum chord	m	0.54	0.59	0.64	0.68
Weight	kg	3.78	4.17	4.74	5.18
Standard weight range	kg	50-110	50-110	60-110	65-120
Materials		MJ 32 / Skytex 40			
Risers		R15			
Riser length	mm	720	720	720	720

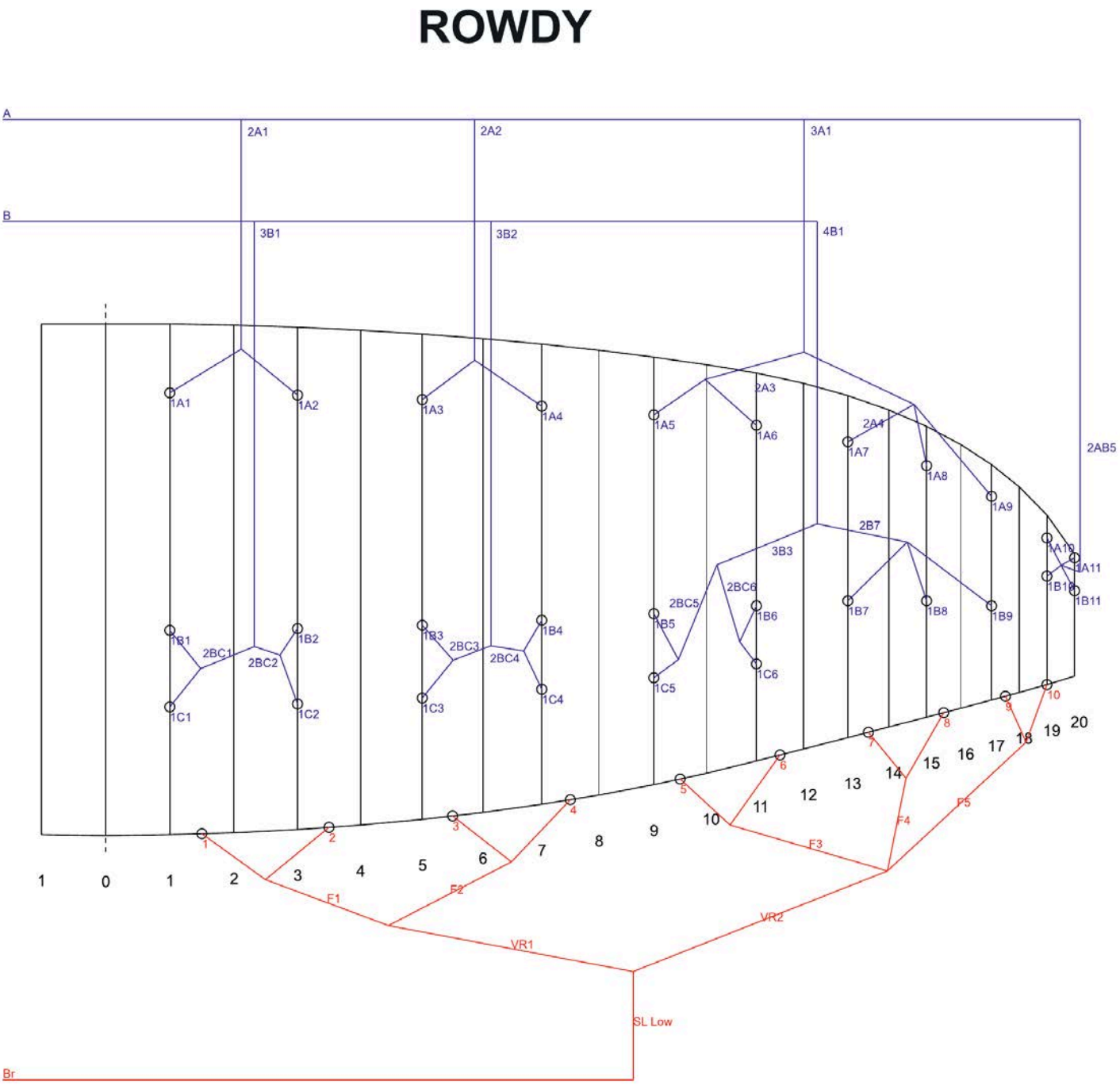
Wing overview



ROWDY riser detail



Line plan


ROWDY
A
B
2A1
2A2
3A1
3B1
3B2
4B1
2AB5
1A1
1A2
1A3
1A4
1A5
2A3
1A6
2A4
1A7
1A8
1A9
1A10
1A11
1B10
1B11
2B7
3B3
1B1
2BC1
2BC2
1B2
1C1
1C2
1B3
2BC3
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1B9
1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
F1
F2
F3
F4
F5
VR1
VR2
SL Low
Br