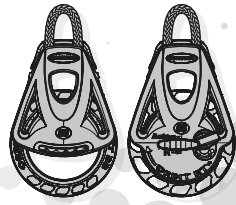


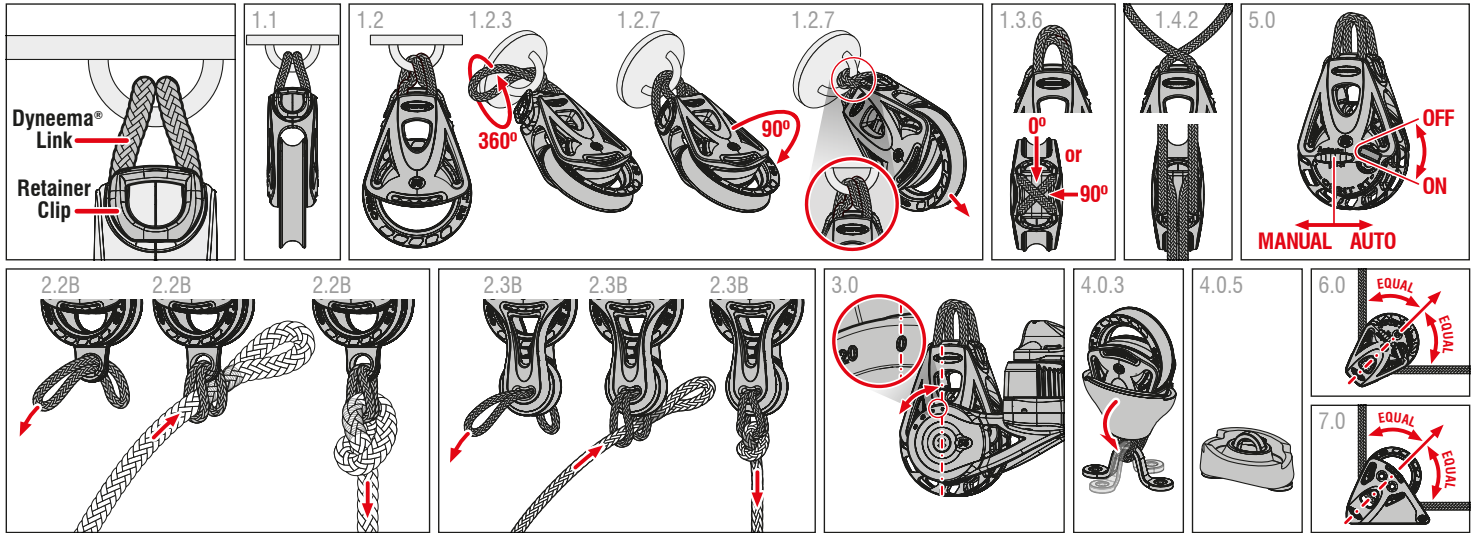
RONSTAN ORBIT BLOCK™

USER INSTRUCTIONS



Suitable fasteners				Qty	Metric	Imperial	Head Type
RF55151	S55	BB Cheek block		3	M5	3/16"	
RF56151	S55	RT Cheek block		2	M5	3/16"	
RF55171	S55	BB Upright lead block		2	M6	1/4"	
RF2455	S55	Standup base		2	M6	1/4"	
RF75151	S70	BB Cheek block		3	M6	1/4"	
RF2470	S70	Standup base		2	M8	5/16"	

Replacement parts			
DYNEEMA® LINKS			
RF9004-08	S55	BB & RT Single and Fiddle	RF55101, RF55111, RF55501, RF55511, RF55521, RF55531, RF56101, RF56111, RF56121, RF56131
RF9005-10	S55	BB & RT Double and Triple	RF55201, RF55211, RF55301, RF55311, RF56331
RF9005-10	S70	BB & RT Single	RF75101, RF75111, RF76101, RF76111
RF9006-12	S70	BB Double	RF75211
RETAINER CLIPS			
RF50001	S55	BB & RT Single and Fiddle	RF55101, RF55111, RF55501, RF55511, RF55521, RF55531, RF56101, RF56111, RF56121, RF56131
RF50002	S55	BB Double & RT Triple	RF55201, RF55211, RF56331
RF50003	S55	BB Triple	RF55301
RF70001	S70	BB & RT Single	RF75101, RF75111, RF76101, RF76111
RF70002	S70	BB Double	RF75211



Ronstan Orbit Block™ User Instructions

1.0 Fitting of Orbit Blocks™ with Dyneema® Links

- For best results, the Dyneema® Link must be attached to a mounting point with a smooth, well rounded profile.
- Avoid attaching directly to fittings with sharp edges or rough surfaces that may damage the Dyneema® Link through abrasion or point loading. For this situation use a shackle with a smooth surface between the Link and the fitting.

1.1 (Diagram 1.1) Attachment at 90° (transverse)

- 1.1.1 Use a shackle key or small screwdriver to release one side of the Retainer Clip. Use a finger to hold the other side of the Retainer Clip in place.
- 1.1.2 Remove the free end of the Dyneema® Link from its recess in the head of the block.
- 1.1.3 Pass the Link through the mounting point.
- 1.1.4 Press the end of the Link over the Retainer Clip and firmly back into its recess in the block. A little tension on the Link may help to settle it into position.
- 1.1.5 Snap the Retainer Clip back into place over the Link. An audible "click" confirms secure attachment.

1.2 (Diagram 1.2) Attachment at 0° (in-line)

- 1.2.1 Use a shackle key or small screwdriver to release one side of the Retainer Clip.
- 1.2.2 Remove the end of the Dyneema® Link from its recess in the head of the block.
- 1.2.3 (Diagram 1.2.3) Twist the Link anti-clockwise 360° (i.e. first twist 180° to form a figure-8 shape, then twist again).
- 1.2.4 Pass the Link through the mounting point, taking care to keep it twisted as described above.
- 1.2.5 Press the end of the twisted Link over the Retainer Clip and firmly back into its recess in the block. A little tension on the Link may help to settle it into position.

1.2.6 Snap the Retainer Clip back into place over the Link. An audible "click" confirms secure attachment.

1.2.7 (Diagram 1.2.7) Rotate the block clockwise back to 0° and pull slightly to align and tension the link symmetrically.

1.3 Attachment at 0° or 90° to a Pin, Shackle, Saddle, or Control line, etc.

- 1.3.1 Use a shackle key or small screwdriver to release one side of the Retainer Clip.
- 1.3.2 Remove the end of the Dyneema® Link from its recess in the head of the block.
- 1.3.3 Twist the Link anti-clockwise 180° to form a figure-8 shape.
- 1.3.4 Press the end of the twisted Link firmly back into its recess in the block. A little tension on the Link may help to settle it into position.
- 1.3.5 Snap the Retainer Clip back into place over the Link. An audible "click" confirms secure attachment.

1.3.6 (Diagram 1.3.6) Pass a shackle, saddle, pin, or rope end through the Link (which now has a single crossover) at 0° or 90° to the block, depending on the desired alignment.

1.4 Other Attachment

- 1.4.1 Snap shackles (fixed or swivel) can be fitted to Orbit Blocks™ using the methods described above for 0° or 90° attachment.
- 1.4.2 (Diagram 1.4.2) Custom lashings, straps or Links can be made from Dyneema® rope of the same diameter as the supplied link. Note: where required to fit around an object wider than the head of the block (eg a boom) the ends of the custom Link must cross each other prior to being fitted into the recesses in the head of the block. The Maximum Working Load and Breaking Load of the assembly (Block + Link) is limited by the strength of the rope and the joining method. Knots, splices, stitching, etc. will generally have a lower Breaking Load than the rope itself.

2.0 Fitting of Sheets/Lines to Becket

IMPORTANT: Ronstan Orbit Blocks™ have several unique becket arrangements. To avoid improper loading or failure of the becket, use only the correct method of line attachment for each type as described below.

2.1 BB Single Blocks with Becket

- Pass the sheet end through the becket eye and secure with a bowline or eye splice.

2.2 BB Double & Triple Blocks with Becket; RT Single, & Single/Cleat Blocks with Becket

- Method A: Pass the sheet end through the becket eye and secure with a bowline or eye splice.
- Method B: (Diagrams 2.2B) Pass a Dyneema® Link through the becket eye. Pass the sheet end through both loops of the Link and secure with a bowline or splice. If using a pre-spliced sheet, secure with a cow hitch through both loops of the Link.

2.3 BB Fiddle Blocks with Becket

- Method A: Pass a Dyneema® Link through the becket eye of the standard fiddle block. Pass the sheet end through both loops of the Link and secure with a bowline or splice.
- Method B: (Diagrams 2.3B) If using a pre-spliced sheet, secure with a cow hitch through both loops of the Link.

2.4 RT Triple/Cleat Blocks with Becket

- The becket is located on the underside of the cleat arm. Pass the sheet end through the becket eye and tie a stop knot in the end. The knot should be on the side of the becket eye away from the sheaves.

3.0 (Diagram 3.0) Adjustment of cleat arm angle

- 3.0.1 Loosen the screw at the centre of the cleat arm on each side of the block (approximately 1 ½ turns).
- 3.0.2 Adjust the cleat arms to the required angle. The cleating angle can be adjusted from 0 degrees (when the sheet is coming out of the block at right angles to the centre line of the block) to 60 degrees (40 degrees on RT triple, becket & cleat). The cleat arm angle is indicated by the number aligned with the centre line of the block.

3.0.3 Re-tighten the screw at the centre of the cleat arm on each side of the block.

4.0 Stand-up kit

- 4.0.1 Use the method described in 1.3 above to set the link for 90° (transverse) or 0° (in-line).
- 4.0.2 Turn the rubber boot inside out and place it over the head of the block so the link protrudes through the small end.
- 4.0.3 (Diagram 4.0.3) Pass the saddle through the link in the required orientation.
- 4.0.4 Fix the saddle to the mounting surface.
- 4.0.5 (Diagram 4.0.5) If attaching the block to a fitting that is already fixed in place, roll up the bottom half of the boot to simplify attachment of the Link and unroll it again when finished.

5.0 (Diagram 5.0) Ratchet mode operation

- RT Orbit Blocks™ can be set to Automatic mode or Manual mode to suit the application or user's preference. RT blocks with cleats are fully automatic only.

5.1 Manual Mode

- 5.1.1 RT blocks leave the factory in Manual mode, with the block MODE switches on both sides of the block positioned away from the red ON/OFF knob.
- 5.1.2 Use the red ON/OFF knob to turn the ratchet ON or OFF.

5.2 Auto Mode

- 5.2.1 With the block in Manual mode, turn the ratchet off by rotating the red ON/OFF knob to the OFF position.
- 5.2.2 Slide the black MODE switch firmly toward the red ON/OFF knob until it locks into the recess in the knob. Repeat with the MODE switch on the other side of the block.
- 5.2.3 The block is now in Auto mode.
- 5.2.4 To return to Manual mode, slide the black MODE switches on both sides of the block firmly away from the red ON/OFF knob. Now use the red ON/OFF knob to turn the ratchet ON and OFF.

6.0 (Diagram 6.0) Cheek block alignment

- Cheek blocks must be properly aligned so that the axis of the block bisects the angle between line entry and exit, which must be approximately in the same plane. Misalignment or improper installation will reduce the load capacity of the block.

7.0 (Diagram 7.0) Upright Lead block alignment

- The Upright Lead block is designed to provide a 90 degree change in line direction, with line entry at 90 degrees to the base and line exit parallel to the base. Any variation on these line angles will reduce the load capacity of the block.

8.0 CARE AND MAINTENANCE

Dyneema® Link

- Ronstan BB and RT Orbit Blocks™ feature a unique Dyneema® Link head. Building on the latest trends in grand prix dinghy and ocean racing, it replaces the steel head post and shackle arrangement of traditional blocks. Ronstan Dyneema® Links are made from highest quality FSE Robline Ocean 3000 12 plat Dyneema® SK75 line, treated with S.Y.I.S. impregnation for high resistance to abrasion and UV protection. Dyneema® is a super strong polyethylene fibre that offers maximum strength combined with minimum weight. Dyneema® fibre's high tenacity allows it to match the strength of steel at one tenth of the weight. It is more durable than polyester and has a specific strength that is 40 percent greater than aramid fibre.
- To receive the maximum performance benefit from the Dyneema® Link, it must be used correctly, inspected regularly and replaced when required.
- The Dyneema® Link must be attached to a mounting point with a smooth, well rounded profile without sharp edges or burrs. If in doubt, use a shackle with a smooth surface between the Link and the mounting point.
- The Dyneema® Link will eventually suffer degradation from fatigue, wear and UV exposure. Like all running and standing rigging, the Link should be inspected regularly and replaced if it shows significant amount of wear or fibre damage, or as a part of your regular boat maintenance program.

Orbit Blocks™

- Grit and sand will damage bearing systems. Ronstan Orbit Blocks™ have a precisely engineered bearing system that should be kept clean and free of sand and grit to ensure optimum performance and service life. Blocks, in particular the bearing areas, should be flushed with fresh water regularly and periodically cleaned with a mild detergent and water.

- Dry lubricants such as Ronstan Sailfast silicon spray may be used to lubricate the bearing system and ratchet controls. Oil/petrochemical based lubricants must not be used.

- Ronstan Orbit Blocks™ are designed and manufactured for applications on sailboats. See the Info section of the Ronstan web site and our catalogue for important customer considerations and warranty information.

9.0 Definitions

- BB = Ball Bearing
 - RT = Ratchet
 - MWL = Maximum Working Load
 - BL = Breaking Load
- Dyneema® is a trademark of Royal DSM NV. DSM is the inventor and manufacturer of Dyneema®, the world's strongest fibre™. "Dyneema®", and "Dyneema® (s)", the world's strongest fibre™ are trademark(s) (applications) owned by Royal DSM NV.