Putting the rest in the shade!

Automatic Powered
Awnings • Biminis • Canopies • Sunroof Systems
Makefast is the U.K.’s leading manufacturer and supplier of manual and electric sliding roofs, awnings and bimini hydraulic units.

## Sunroofs
Makefast powered sunroof systems incorporate either a solid panel to provide a hardtop, or canvas to allow a longer open area. Electrically driven, reliable and easy to operate.

## Narrow Track Sunroofs
Makefast is proud to announce their latest product innovation - the “Narrow Track Sunroof System”. This budget, compact and stylish unit is ideal for boats where the track channels are narrow, and fits many existing roof profiles.

## Bimini Hydraulic Units
Makefast’s cutting edge “Bimini Power system” allows one person, at the touch of a button, to deploy or stow a Bimini in 60 seconds, instead of several crew members taking up to fifteen minutes with traditional structures. In addition, the Bimini can remain deployed whilst cruising at up to 35 knots. A cumbersome procedure made easy.

## Manual or Powered Awning
To complement the current Makefast range of powered Sunroofs and Bimini units, Makefast introduces their new “Powered Sun Awnings”. It features a compact electrically powered drive unit, which deploys a rigid 316-grade stainless steel structure, secured with auto tensioning pivot arms. Complete with canvas shade.

### CONTENTS:
- Powered “Soft Top” Canvas Sunroof —— 3
- Powered Hard Top Single Panel Sunroof —— 4
- Powered “Hard Top” Stacking Sunroof —— 5
- Canvas Lifters for Standard Sunroofs —— 6
- Constant Tension System for Narrow Track Sunroofs —— 6
- Powered Narrow Track Sunroof —— 7
- Manual Narrow Track Sunroof —— 8
- NEW Targa Roof Mechanism —— 9
- Powered Sun Awning —— 10
- Automatic Powered Bimini System —— 11
- Typical Mounting Configurations —— 12
POWERED “SOFT TOP” CANVAS SUNROOF

For new and existing designs
Single panel canvas roof with integral headlining facility. Suitable for use on most sizes of Sports yachts and sailboats. It is designed to complement the profile of the yacht.

TECHNICAL SPECIFICATION

POWERED SOFT TOP CANVAS SUNROOF

- Roof mechanism capable of accommodating considerable movement and build variation in parent structure of yacht.
- Clear width of opening 1.5 – 3 metres
- Clear length of opening 1.5 to 3 metres
- Opening speed nominal 5 metres per minute
- Low maintenance, self lubricating, self cleaning tracks and cars. Highly polished stainless steel
- Carriage construction Non Hygroscopic plastic
- Type 316 stainless steel cable system, 7 x 19 construction.
- Integral torque limiter built into high tensile brass drive wheel
- Motor gear box unit :- 12 or 24 volt available
  Fixed ratio gearbox
  Protected IP54 unit
- Electrical control box rated IP66
- Limit sensors fore and aft
- Electrical overload safety trip
- Operated by 2 way rocker switch mounted on the dashboard – customer supplied
- Remote control option available
- Unit weight 65 Kgs. based on 3 metres x 2.5 metres (excluding canvas)
- Canvas supplied by customer or ask Makefast to quote.
- Core system is designed to accommodate build variation, extremes of temperature and weather, and structural movement of the boat whilst at sea.
- Extensive salt spray and function testing is carried out

2 year warranty period from date of despatch (full details available)

MAKEFAST STANDARD TRACK SUNROOF – CHANNELS

Drawing 1. All dimensions are nominal, please contact Makefast with your proposal

Photo courtesy of Sealine International Ltd.

Photo courtesy of Princess Yachts International PLC
**POWERED HARD TOP SINGLE PANEL SUNROOF**

For new and existing designs
Single panel solid roof in GRP or glass. Suitable for use on most sizes of sport yachts and sailboats. It is designed to complement the profile of the yacht. For boats over 12 metres (40 ft.)

---

**TECHNICAL SPECIFICATION**

**POWERED "HARD TOP" SINGLE PANEL SUNROOF**

- Roof mechanism capable of accommodating considerable movement and build variation in parent structure of yacht.
- Clear width of opening 1.5 – 3 metres
- Clear length of opening 1.5 to 3 metres
- Opening speed nominal 5 metres per minute
- Low maintenance, self lubricating, self cleaning tracks and cars. Highly polished stainless steel
- Carriage construction Non Hygroscopic plastic
- Stainless steel cable system, 7 x 19 construction.
- Motor gear box unit :-
  - 12 or 24 volt available
  - Fixed ratio gearbox
  - Protected IP54 unit
- Electrical control box rated IP66
- Limit sensors fore and aft
- Electrical overload safety trip
- Operated by 2 way rocker switch mounted on the dashboard – customer supplied
- Unit supplied in modular form
- 2 assembled track assemblies
- Including carriages, tracks, pillars
- Cable tensioning units mounted to base channel. With separate motor
- Assembly and control box.
- Installation and service manual included
- Remote control option available
- Unit weight 60 Kgs. based on 3 metres x 2.5 metres (excluding panel)
- Solid panel supplied by customer or ask Makefast to quote.
- Core system is designed to accommodate build variation, extremes of temperature and weather, and structural movement of the boat whilst at sea.
- Extensive salt spray and function testing is carried out

2 year warranty period from date of (full details available)
**POWERED “HARD TOP” STACKING SUNROOF**

Luxury bespoke design. For new designs only

Multi panel solid roof in GRP or glass. Suitable for use on most sizes of Sports yachts and sailboats. It is designed to complement the profile of the yacht. Can utilize 2 panels or more and can accommodate various panel lengths. Panel thickness nominally 20 mm.

---

**TECHNICAL SPECIFICATION**

**POWERED “HARD TOP” STACKING SUNROOF**

- Roof mechanism capable of accommodating considerable movement and build variation in parent structure of yacht.
- Clear width of opening 1.5 – 3 metres
- Clear length of opening 1.5 to 3 metres
- Panel thickness – 20 mm.
- Panel length – 600 mm.
- Opening speed nominal 5 metres per minute
- Track construction, highly polished stainless steel
- Carriage construction Non Hygroscopic plastic
- Stainless steel cable system,
- 7 x 19 construction.
- Motor gear box unit -
  - 12 or 24 volt available
  - Fixed ratio gearbox
  - Protected IP54 unit
- Electrical control box rated IP66
- Limit sensors fore and aft
- Operated by 2 way rocker switch mounted on the dashboard – customer supplied
- Remote control option available
- Electrical overload safety trip
- Unit supplied in modular form
- 2 assembled track assemblies
- Including carriages, tracks, pillars
- Cable tensioning units mounted to base channel. With separate motor
- Assembly and control box.
- Installation and service manual included.
- Unit weight 60 Kgs. based on 3 metres x 2.5 metres (excluding canvas)
- Solid panel supplied by customer or ask Makefast to quote.
- Core system is designed to accommodate build variation, extremes of temperature and weather, and structural movement of the boat whilst at sea.
- Extensive salt spray and function testing is carried out

2 year warranty period from date of (full details available)
**CANVAS LIFTERS FOR STANDARD SUNROOFS**

Both external canvas and inner headlining can be raised.
Ensures the canvas is held outside the cabin space when the roof is opened.

**CONSTANT TENSION SYSTEM FOR CANVAS SUNROOFS**

Retains canvas tension when opening and closing sunroof
Both canvas and inner headlining can be tensioned.
Textile panels only fold in sequence at the aft for stowage. If the sunroof is in the half way position, panels remain tensioned allowing the benefit of full headroom. Suitable for electric and manual systems. Manual Version allows roof to lock in any position along the track length.

---

**TECHNICAL SPECIFICATION**

**CANVAS LIFTERS FOR STANDARD TRACK SUNROOFS**

- The canvas is raised by intermediate lifter beams situated in between each cross beam.
- The canvas neatly stacks at the rear of the boat without the need for a storage shelf.
- The lifting and falling is a soft progressive action controlled by damping springs situated within the track car assemblies.
- In stainless steel. Lifter beam can be stainless steel or anodised aluminium depending on application.
- For sizes see standard roof technical specifications.

2 year warranty period from date of despatch (full details available)

---

**CONSTANT CANVAS TENSION FOR CANVAS SUNROOFS**

**TECHNICAL SPECIFICATION**

**OPTIONAL CONSTANT TENSION SYSTEM**

- Unique gripping system retains the canvas tension.
- The canvas neatly folds and stows away at the rear of the roof.
- Canvas roof line is maintained during operation.
- For size and materials see narrow track roof Technical specification.
- Can be ordered with the standard canvas sunroof or the narrow track sunroof mechanism.

2 year warranty period from date of despatch (full details available)

---

Photo courtesy of Princess Yachts International PLC
POWERED NARROW TRACK SUNROOF

New lighter sunroof which can be used on many existing boats.
It is ideal for boats where the gutters are narrow and fits many existing roof profiles.
It has a maximum travel of 2 metres and a maximum weight of 50 Kgs.
316 grade stainless steel track and rail system

Photo courtesy of Manò Marine

Photo courtesy of Fiart Mare S.p.A

TECHNICAL SPECIFICATION

TECHNICAL SPECIFICATION FOR
POWERED NARROW TRACK SUNROOF

• Self cleaning, self lubricating system incorporating nylon with silicon additive
• Low profile with self centering cross beams and fabric tensioners
• Roof mechanism capable of accommodating considerable movement and build variation in parent structure of yacht.
• Cable driven system ensures parallel motion on nose cone without twisting.
• Powered unit supplied with electronic control
• Bx to IP65 24V or 12V
• Electrical overload safety trip
• Canvas supplied by customer or ask
• Makefast to quote.
• Core system is designed to accommodate build variation, extremes of temperature and weather, and structural movement of the boat whilst at sea.
• Extensive salt spray and function testing is carried out

2 year warranty period from date of (full details available)

Submit your drawings or concept for a solution proposal... Contact Sales on T: +44 (0)1886 809010 E: sales@makefast.com www.makefast.com
MANUAL NARROW TRACK SUNROOF

Cable driven system ensures parallel motion on nose cone without twisting

Supplied with central Type 316 stainless steel handle

Photo courtesy of Atlantis yachts s.r.l, Italia

TECHNICAL SPECIFICATION

MANUAL NARROW TRACK SUNROOF

- Self cleaning, self lubricating system incorporating nylon with silicon additive
- Low profile with self centering cross beams fabric tensioners
- Roof mechanism capable of accommodating considerable movement and build variation in parent structure of yacht.
- Cable driven system ensures parallel motion on nose cone without twisting.
- Clear width of opening 1.0 – 2.0 metres
- Clear length of opening 1.5 to 3 metres
- Central handle with auto clamping feature
- Canvas supplied by customer or ask Makefast to quote.
- Core system is designed to accommodate build variation, extremes of temperature and weather, and structural movement of the boat whilst at sea.
- Extensive salt spray and function testing is carried out

2 year warranty period from date of (full details available)

OPENING DIMENSIONS OF MANUAL TRACK SUNROOF

All dimensions are nominal, please contact Makefast with your proposal

80mm Cable Channel

S/S Cable

4 Beams and Rollers 400mm

Maximum width 2.25m

Maximum opening 2.1m

Customer Panel

Outer Wall

INGOMBRO MINIMO

4 ASTE + RULLI

400mm

80mm CAVO CANALE

MASSIMA APERTURA 2.1M

SPOILER PERSONAL’ZZATO

DAL PRODUCTORE

CAVO IN ACCIAIO

TUTTE LE DIMENSIONI SONO DEL TUTTO INDICATIVE; A RICHIESTA SCHEMI E PROPOSTE COMMERCIALI

All dimensions are nominal, please contact Makefast with your proposal
NEW TARGA ROOF MECHANISM

Powered retractable bimini to suit “Targa” styled hardtop. Once released at the fore the Bimini retracts to the aft arch and is stowed uniformly to convert the cockpit to an open top. When closed the bimini provides full waterproof cover to the cockpit.

TECHNICAL SPECIFICATION

NEW TARGA ROOF MECHANISM

- Roof mechanism capable of accommodating considerable movement and build variation in parent structure of yacht.
- Clear width of opening 1.5 – 3 metres
- Clear length of opening 1.5 – 3 metres
- Opening speed nominal 5 metres per minute
- Low maintenance, self lubricating, self cleaning tracks and cars. Highly polished 316SS
- Carriage construction Non Hygroscopic plastic
- Type 316 stainless steel cable system, (7 x 19 construction.)
- Motor gear box unit:
  - 12 or 24 volt available
  - Fixed ratio gearbox
  - Protected IP54 unit
- Electrical control box rated IP66
- Limit sensors fore and aft
- Electrical overload safety trip
- Operated by 2 way rocker switch mounted on the dashboard – customer supplied
- Remote control option available
- Unit weight 65 Kgs. based on 3 metres x 2.5 metres (excluding canvas)
- Canvas supplied by customer or ask Makefast to quote.

Core system is designed to accommodate build variation, extremes of temperature and weather, and structural movement of the boat whilst at sea.

Extensive salt spray and function testing is carried out

2 year warranty period from date of
(full details available)

Photo courtesy of Motion Yachts BV
Makefast sun Awning has spring loaded tension arms and a 316 stainless steel construction.

- Electric power with manual override
- Compact mechanism design
- Easy to fit mounting points
- Maximum extension is 2.2 metres
- Width can be customer specific

**POWERED SUN AWNING**

Makefast sun Awning has spring loaded tension arms and a 316 stainless steel construction.

- Electric power with manual override
- Compact mechanism design
- Easy to fit mounting points
- Maximum extension is 2.2 metres
- Width can be customer specific

**SUN AWNING DIMENSIONS**

- **12 PACKING PLATE**
- **486 OVER TYPE VALANCE RAIL**
- **389 OVER MAIN PIVOT**
- **243 OVER MOUNTING BRACKET**

**TECHNICAL SPECIFICATION**

- Control Box to IP65, 24V or 12V
- Soft stop/start
- Width up to 4 metres as standard
- Silent gearbox
- Electric power with manual override
- Compact mechanism design
- Easy to fit mounting points
- Canvas to suit customers specifications
- Canvas auto tensioning
- Stainless steel construction

Two year warranty period from Date of   (full details available)
AUTOMATIC POWERED BIMINI SYSTEM

Great added value for Bimini makers. For new build yachts or retrofit.

- BHU-001 and BHU-001Y Medium bimini hydraulic system fits 38 mm. (1 ½”) tube.
- BHU-002 and BHU-002Y Small bimini Hydraulic unit fits 32 mm. (1 ¼” tube)
- BHU-003 Large, strong bimini hydraulic Unit fits 50 mm. (2”).

AUTOMATIC POWERED BIMINI UNIT

- Connection system allows all hydraulic pipe work to be hidden within mountings
- Coloured pipe system for ease of installation and identification
- Self tensioning
- Range of movement 150° as standard see diagram on Page 12
- Push button control with automatic rocker safety switch
- Automatic safety override valve
- Operation warning beeper unit installed in system (can be silenced)
- Adjustable torque
- Hydraulic pump unit available in 12 or 24 volt pump unit box
- Manual override facility

2 year warranty period from date of Despatch (full details available)

TECHNICAL SPECIFICATION

FOR ALL SIZES

BASE PLATE

Manufactured to customer’s requirements
Ask Makefast sales for details

FOR THE MODELS

Photo courtesy of Azimut Yachts

Photo courtesy of Sanlorenzo Yachts

Photo courtesy of Princess Yachts International PLC

Photo courtesy of Princess Yachts International PLC

FORCE MODEL

<table>
<thead>
<tr>
<th>Part No</th>
<th>Dim. A</th>
<th>Dim. B</th>
<th>Force required to operate unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHU-002</td>
<td>&gt;3m</td>
<td>&gt;2.5m</td>
<td>64KgM</td>
</tr>
<tr>
<td>BHU-001</td>
<td>&gt;4m</td>
<td>&gt;3m</td>
<td>130KgM</td>
</tr>
<tr>
<td>BHU-003</td>
<td>+4m</td>
<td>+3m</td>
<td>282KgM</td>
</tr>
</tbody>
</table>
TYPICAL MOUNTING CONFIGURATIONS FOR AUTOMATIC POWERED BIMINI SYSTEMS

TUBE ADAPTORS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>To fit tube size mm</th>
<th>To Suit Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD-001</td>
<td>25</td>
<td>BHU-002 and BHU-002Y</td>
</tr>
<tr>
<td>AD-002</td>
<td>25</td>
<td>BHU-001 and BHU-001Y</td>
</tr>
<tr>
<td>AD-003</td>
<td>32</td>
<td>BHU-001 and BHU-001Y</td>
</tr>
<tr>
<td>AD-004</td>
<td>38</td>
<td>BHU-002 and BHU-002Y</td>
</tr>
</tbody>
</table>

PUMP DIMENSIONS

BHU-001Y - BHU-002Y

BHU-001

BHU-002

BHU-002Y

BHU-003

Makefast Limited
31 Mochdre Industrial Estate, Newtown, Powys, Wales, SY16 4LE, United Kingdom
T: +44 (0)1686 629010 • F: +44 (0)1686 626700 • E: sales@makefast.com • www.makefast.com