

## **Rubber Inflatable Boat**

If you require a boat that provides a sense of security, excellent performance & easy handling then there is no boat better than The UniRub Techno makes Inflatable Boat. Highly regarded as one of the safest boat for Disaster & Rescue Management and it can also be used as a Tender as well as for Leisure Applications ( Fishing, picnics, etc. )

We provide boats ranging from 2 people to 12 person capacity. Boats can be custom engineered depending on specific usage. Our Boats are strong, safe, made to last which is the result of in-house manufacture. High strength Poly Amides & durable Hypalon / Neoprene coated fabrics are used resulting in super strong end products.

The Boats can be inflated by a foot pump or compressor (High-pressure source) & are fitted with in-house manufactured special Inflation / Deflation valves & Pressure Relief valves. The Boats are supplied with either rigid wooden keels or Inflatable keels, FRP floorboards or aluminium floor.

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### **Features:**

Our organization is well known in the industry, engaged in offering a broad range of Rubber Inflatable Boat to our prestigious clients at reasonable prices.

Our products are known for

- Precisely engineered
- Easy installation
- Durable nature
- Dimensional accuracy
- Lightweight
- High strength



**UniRub**  
Techno India Pvt. Ltd.



# INSTRUCTION MANUAL

## RUBBER INFLATABLE BOAT

**UniRub**

Techno India Pvt. Ltd.

Gat No - 354 / 355 / 364, Takve Budruk,  
Maval, Dist Pune : 412 106.





*Dear Valued Customer,*

## Congratulations !

You are now the proud owner of a **UniRub**  
Rubber inflatable boat.

Enjoy your inflatable and happy safe boating !

*Sincerely,*

*All UniRub Team*



**UniRub**  
Techno India Pvt. Ltd.



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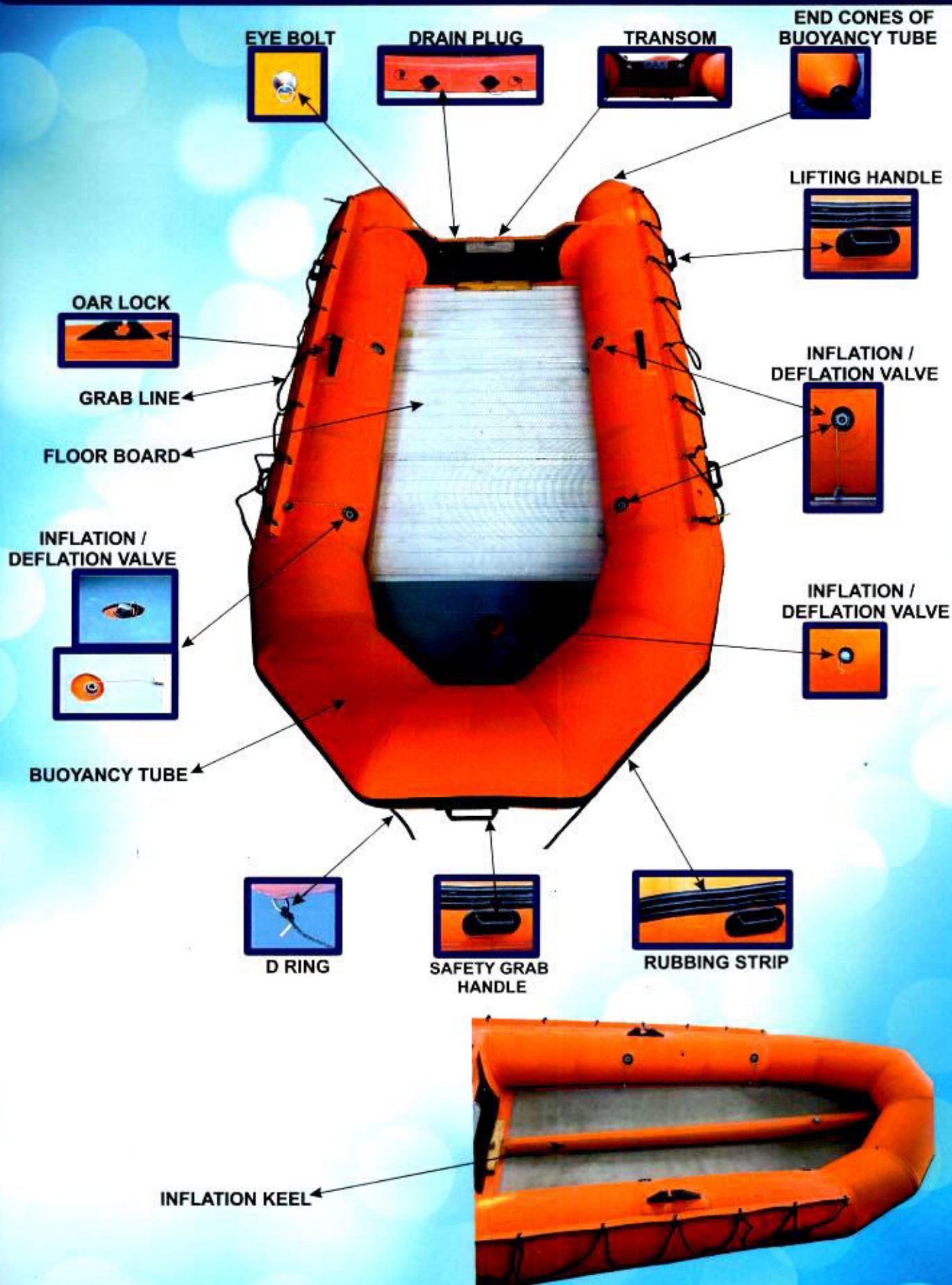
## Boat Description

<b>1</b> Air Tube	<b>11</b> Drain Valve
<b>2</b> Inflatable Keel	<b>12</b> Eye Bolt
<b>3</b> Transom	<b>13</b> Chequer Plate for OBM
<b>4</b> Air Valve	<b>14</b> Pontoons
<b>5</b> Towing Ring	<b>15</b> Additional layer of fabric
<b>6</b> Rubbing Starke	<b>16</b> R. Fabric floor
<b>7</b> Carrying Handle	<b>17</b> Anti-Splash tringle
<b>8</b> Lifting Handle	<b>18</b> Floor Boards
<b>9</b> Grabe Line ( Life line)	<b>19</b> Paddles
<b>10</b> Baffle ( Bulk head)	<b>20</b> Locking Strips (Stringer)





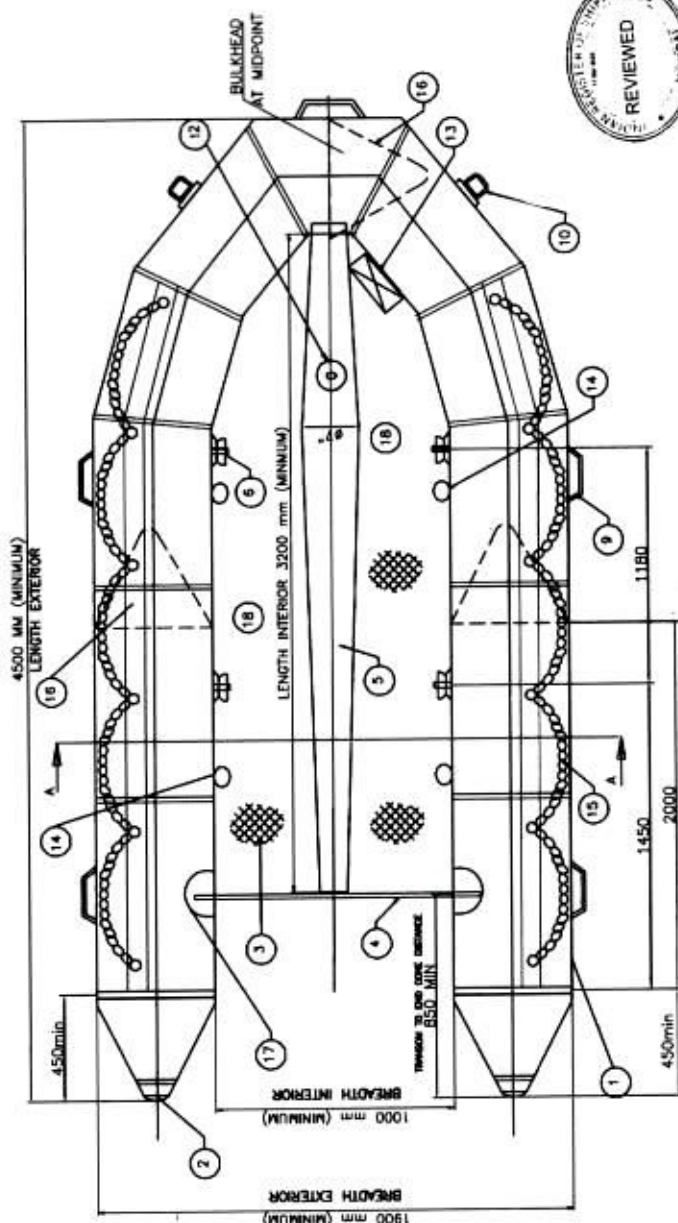
# Boat Hull



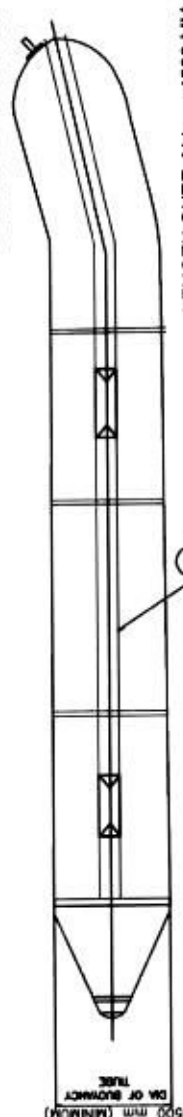
# Drawing for Inflatable motor rescue Boat

## Part List

SR NO	DESCRIPTION	MATERIAL / REMARK
	HULL ASSEMBLY	COATED FABRIC MADE OUT OF 1675 DTX FABRIC
1	BUOYANCY TUBE	HYPALON OUTER LAYER AND NEOPRENE INNER LAYER COMPOSITE 1675 DTX FABRIC
2	ENG CONES OF BUOYANCY TUBE	NEOPRENE RUBBER
3	FLOOR	HYPALON OUTER LAYER AND NEOPRENE INNER LAYER COMPOSITE 1675 DTX FABRIC
4	TRANSOM	ALUMINIUM & MARINE PLYWOOD
5	INFLATABLE KEEL	HYPALON OUTER LAYER AND NEOPRENE INNER LAYER COMPOSITE 1675 DTX FABRIC
6	INFLATION / DEFLATION VALVE	ENG G PLASTIC
7	SELF BALLER (GOAW VALVE)	ENG G PLASTIC / NEOPRENE RUBBER
8	RUBBERING STRIP	NEOPRENE RUBBER
9	CARRIING HANDLES	NEOPRENE RUBBER
10	TOWING FITTINGS	S.S.
11	OBM ATTACHMENT PLATE	ALUMINIUM
12	INFLATION / DEFLATION VALVE OF KEEL	ENG G PLASTIC
13	STORAGE POCKET	RUBBERISED FABRIC
14	OBM SECURING ASSEMBLY	RUBBERISED FABRIC / VELCRO
15	GRAB LINE	NYLON
16	BULK HEAD	RUBBERISED FABRIC
17	CHAFING STRIP / PATCH	RUBBERISED FABRIC
18	FLOOR BOARD (1 SET)	ALUMINIUM / MARINE PLYWOOD



SEE LETTER E-101298-133514



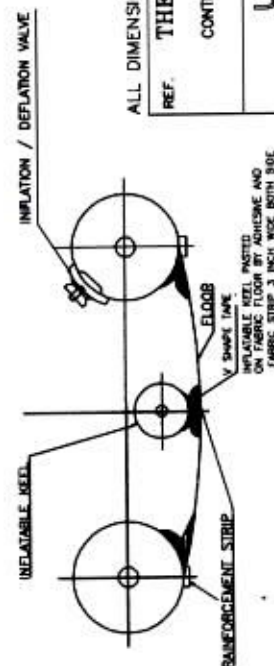
LENGTH OVER ALL : 4500 MM  
BREADTH OVERALL : 1900 MM  
LENGTH INTERIOR : 3200 MM  
BREADTH INTERIOR : 1000 MM  
TUBE DIA : 500 MM  
CAPACITY : 10 PERSONS  
ALL DIMENSIONS ARE IN MM ENGINE : OBM 30 HP

REF. THE COMMANDANT, 07TH, BN NDRF 81  
BHATINDA PUNJAB  
CONTRACT NO. - GEMC-51168776230793, DT- 27-01-2020  
ORDER QTY. - 72 NOS.

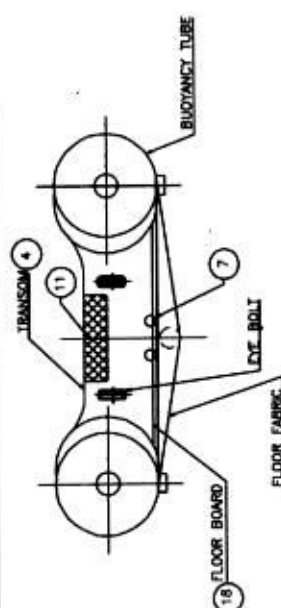
UNIRUB TECHNO INDIA PVT. LTD.

TAKWE BR. PUNE - 412106

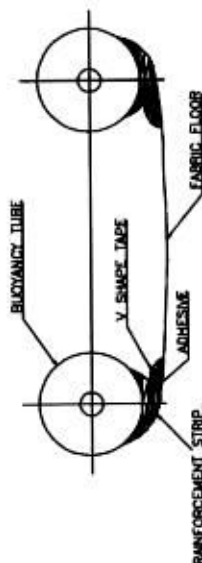
DATE	REV.
20.11.19	03
20.11.19	03
20.11.19	03
20.11.19	03



CONNECTION DETAILS OF INFLATABLE KEEL AND BUOYANCY TUBE



CONNECTION DETAILS OF BUOYANCY TUBE, TRANSOM AND FLOOR



CONNECTION DETAILS OF FLOOR & BUOYANCY TUBE

















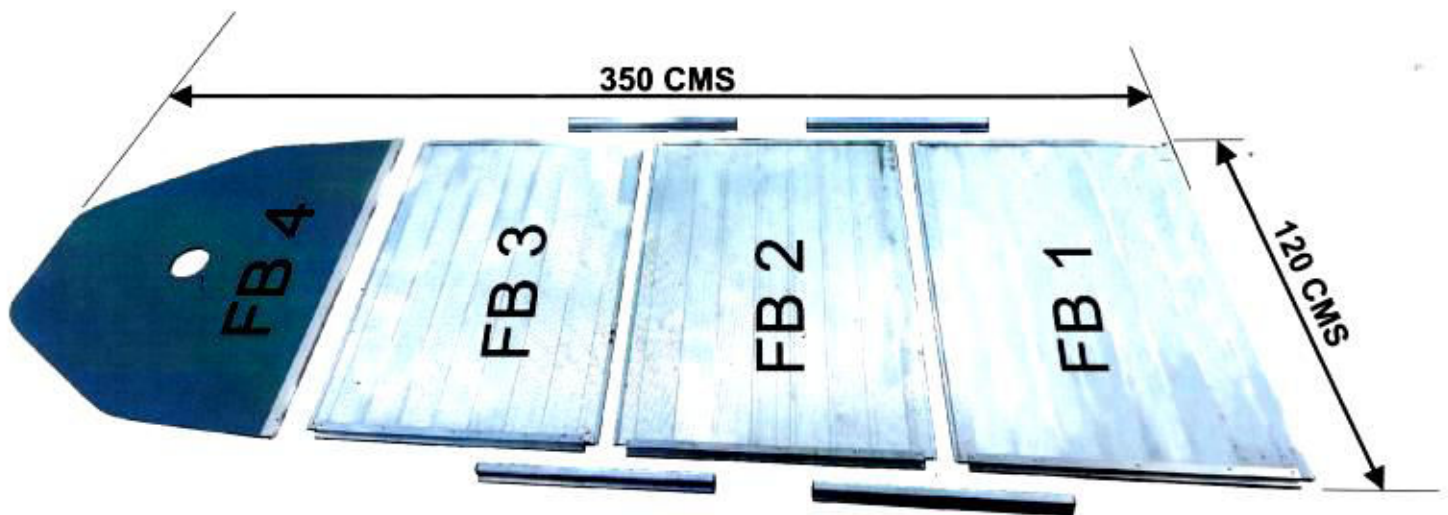
## Accessories provided with Inflatable Boat



1		FOOT AIR PUMP
2		OAR LOCK
3		LIFTING HANDLE
4		INFLATION / DEFLATION VALVE
5		END CONES OF BUOYANCY TUBE
6		ELECTRICAL BATTERY PUMP
7		EYE BOLT
8		DRAIN PLUG

### Floor Board for 4.5 mtr. Boat

- Total length - 138" ( 350 cms)
- Total width - 47" ( 120 cms)
- **STORAGE BAG 4.5 mtr . Boat**  
**VALISE FOR HULL**
- Total Length : 63" x 24" x 16"  
(160 cms x 60 cms x 40 cms)







## Assembly

- 1** Roll out the boat on a flat smooth surface from the packing case.
- 2** Inflate Air keel.
- 3** Start installing floor Board components beginning from transom as per sequence mentioned in floor drawing.
- 4** Inflate boat Hull chambers.
- 5** Inflate air keel by means of electric pump/footpump.
- 6** Install the floor boards in sequence starting FB 1 then FB 3 and then FB 2.
- 7** Insert the buoyancy tube at the bottom floor.
- 8** Fill air into rear chambers no. 1 & 3 using electric pump and foot pump.
- 9** Then install front floor board (FB 4 into the bow section).
- 10** Fill in air into the other chambers i.e chamber no. 2.
- 11** Check if it is correctly in aligned.
- 12** Flatten the apex by standing on it (in the boat) pulling the life line to prevent the fabric being pinched.
- 13** Use 12V battery to operate electric pump.

## DESCRIPTION:

① Material : - Engineering plastic

② Colour :- Grey



③ Top diameter :- 6.3 cms / 2.5 inch

④ Bottom diameter :- 5.0cms / 2 inch

⑤ Height :- 6.0 cms / 2.3 inch

⑥ Comes in four part : One inside part,  
: One outside part  
: Chuck nut  
: Valve cap

⑦ Easy to inflate and deflate

⑧ Double seal leak protection





## Boat Deflation and Folding



- 1 Place the boat on plain surface with the help of carrying handles.
- 2 Clean and rinse the boat with fresh water to remove sand and other debris.
- 3 Deflate the chambers.
- 4 Remove the boards.
- 5 Deflate keel.
- 6 Dry the boat and powder it with Talc.
- 7 Fold and pack as shown in the drawing.



## Engine Installation



- 1 Install the OBM in the middle of the transom on the Aluminum plate fixed on transom.
- 2 The axis of the propeller must be parallel to the water surface.



**Please refer Engine Manual  
for operation and precautions**

## Repair Instruction



- 1** Firstly, the site of damage must be identified. If the site is already not visible the a mixture of soap and water can be sprayed onto the surface of an inflated boat, bubbles will appear where there is a puncture. Mark the site of puncture with a non-greasy marker.
- 2** Clean and dry the surface of the inflatable boat thoroughly before proceeding.
- 3** Create a round patch of material that has an approximate circumference of 2" (5 cm) from the centre of the hole in the inflatable boat. Use the same material of patch that the boat is constructed from for best effect.
- 4** Prepare the site of repair with fine grit sandpaper, taking care not to rub through the coating of the fabric into the scrim of the material below. This will roughen the surface in preparation for the glue.
- 5** Do the same preparation on the surface of the patch that you have prepared.
- 6** Clean both the site of repair and the patch with a cleaning fluid. This should be Toluene for rubber based boats (Hypalon, EPDM, Neoprene) Wait no longer than 30 minutes between cleaning and applying adhesive.
- 7** Mix the adhesive to be applied if this is a 2-pack adhesive come as an adhesive and accelerator and whilst the adhesive can be used on its own, the accelerator gives the adhesive a faster and stronger bond. (Ratio pf Adhesive to acceleratoris 10:1)
- 8** Apply 2l coats of adhesive to both the repair site and patch, waiting 10 minutes between coats.
- 9** Use a dry, clean knuckle to press onto the surface of the adhesive to test if it is ready for application. If pressing on with a knuckle does not pull adhesive off the surface of the repair site, but is tacky then the adhesive is ready.
- 10** Apply the prepared patch to the repair site, starting in the centre or edge, working out any air pockets. Use an edging roller to firmly press the repair together if available, or a smooth handle of a screwdriver if not.
- 11** Wait preferably at least 30 minutes for the repair to cure before attempting inflation. Some adhesives require an overnight curing time. Read the instructions of the adhesive product you have purchased.







## Safety Instructions:

**When boating: Learn and respect local regulations and practices.**

**Do not neglect the safety rules, this could jeopardize your life and the lives of others.**

**Learn to control your boat correctly and to respect the navigation rules.**

**Take a boating safety course to improve your knowledge. Always operate with courtesy and respect.**

	<b>CAUTION! DO NOT EXCEED AUTHORIZED NUMBER OF PERSONS OR WEIGHT.</b>
	<b>NO ALCOHOL / DRUGS:</b> Do not drink alcohol or take drugs before or while operating your boat. Ensure that all passengers remain sober.
	If using outboard motor, Always use the stop switch lanyard: Your outboard comes equipped with a stop switch safety lanyard to prevent a runaway boat in case the operator falls overboard. Attach it to the operator, it could save a life. <b>THE PROPELLER IS DANGEROUS. KEEP HANDS AWAY FROM THE PROPELLER.</b>
	Make sure your passengers remain seated: sitting on the buoyancy tubes may be comfortable at rest or at low speeds provided your passengers use the grab line. At planing speeds, in rough water or during sharp turns, all passengers should position themselves in seats or on the floor. We will take no responsibility if this warning is disregarded.
	Use personal flotation device (PFDs): PFDs are compulsory equipment. Wear them.
	No bow riding: Bow riding is illegal in most areas and is extremely dangerous. Be especially careful when docking: arms and legs may be injured if they are outside the boat.



## General precaution:

- 1** Before placing the boat in the water, ensure the adequacy of pressure in the buoyancy tubes.
- 2** Inspect the valve cap.
- 3** Ensure that the floor boards and locking strips are properly positioned.
- 4** Retighten the motor clamps.
- 5** Secure the out board motor by tying to eye bolt on the transom.



## Storage:

- 1** Use talc powder while packing the boat.
- 2** Keep the boat and accessories packed separately in separate valises.
- 3** Protect your boat from rodent attack preferably in a box/container.
- 4** Keep the boat in a safe place away from pointed objects which might causes the fabric to get torn and under covered area.





An ISO 9001 : 2015 Certified Co.



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Manufactured By :

**UniRub**

**Techno India Pvt. Ltd.**

Factory / Office : Gat No 354 / 355 & 364  
At Post Takve Budruk,  
Takve Maval, Dist Pune : 412 106.



# UNIRUB INFLATABLE BOATS



**Unirub Techno India Pvt. Ltd.**

Gat No. 354, 355, 364, At Post Takve Bk., Tal. Maval, Dist. Pune 06.

Tel.: +91-02114-244370/71





**UniRub**  
Techno India Pvt. Ltd.



## UNIRUB SEMI RIGID INFLATABLE BOAT

Having established themselves in the world market for life saving inflatables, "Unirub Techno India Pvt. Ltd.", have gone paces further and developed the Rigid Inflatable Boat" (R.I.B)

The R.I.B. has a deep 'V' rigid hull made of FRP, which is unsinkable and is further complemented by large inflatable buoyancies fabricated out of high tensile rubberised fabric. The deep 'V' hull enhances speed even in choppy conditions to give a dry and comfortable ride. The wide flattened stern section ensures stability which is a great advantage when getting into or out of the boat.

Propelled by a high power Out Board Motor, the R.I.B. goes upto a speed of 20 Knots in less than 10 seconds and with its wide deck platform it can carry upto 10 people including gear.

The rapid and robust characteristics of the boat with its wide range of standard and optional equipment makes it ideal for sportsmen, divers and rescue teams.

## UNIRUB INFLATABLE BOATS



## UNIRUB INFLATABLE BOATS

- 1) Boat Assault : Capacity 12 persons
- 2) Boat Recce : Capacity 03 Persons
- 3) Gemini Craft : Capacity 09 Persons
- 4) Leisure Boats : Too orders

The above inflatable Boats are being manufactured for the Army & Navy and Leisure Markets.

These Boats are fabricated from the core of a heavy duty nylon fabric, coated with high grade synthetic polymer on both the sides. This fabric is unaffected by sea water, oil, petrol or marshy waste floating on river surfaces and has a very high abrasion resistance and is totally impermeable. It is unaffected by long exposures to sunlight. Heavy Duty extruded rubber strakes are fitted around the boat to protect against chafe and reinforcing strips placed in areas vulnerable to wear.

Each boat has independent Buoyancy Chambers (upto 6 in the larger boats). With a wide beam and a low centre of gravity, the Inflatable Boat is exceptionally stable.

Designed to be assembled for launching in minutes (with the help of a Foot Pump provided), the Unirub boat can go anywhere and can be stored anywhere too. They are light and can be carried very easily.

These boats are used by assault troops for Rescue, Reconnaissance and Off Shore Patrolling.

For the Leisure Market we offers vivid colours and our range extends to White Water Rafts.

#### **Item 4.5 m Rubberized inflatable boat**

- Exterior size of boat, minimum (L X B) in mm = 4500 x 2000
- Interior size of boat , minimum. (L x B) in mm = 3200 x 1000
- Diameter of Buoyancy tube, Min (mm) 500
- Air Chambers min.: 5
- Colour of the Boat : Orange
- Material fabric: The craft will built of Buoyancy Tube made of Composite Fabric consisting of Hypalon (outer layers) and Neoprene (inner layers) of 1670 Dtex or equivalent
- The Inflation/Deflation valve shall combine a high pressure air connection with a deflation valve in each air tight chamber and shall be as per ISO 6185-3 (2014).
- Floor Board (nos & Size) interlocked together to form a rigid platform (mm x mm x mm): 3 & Length 800 x Width 1200 x 12-14mm thick
- The Floor boards shall be made of High Strength Tempered Anodised marine grade Aluminium alloy with a non-skid finish. These boards (Three/Four pieces) shall be interconnected together to form a rigid platform. The forward/bow piece of floorboard may be made of marine plywood (IS 710) coated with FRP lamination.
- **Keel** The boat shall have provided with inflatable keel of suitable size to provide the rigidity & stability during operation of boat.
- **Rubbing Strips..** Following single piece Rubbing Strips of moulded neoprene rubber of 2" width (where not mentioned) and extending along the entire length shall be attached to the buoyancy tube for the protection of the craft:-
  - (a) Bow rubbing strip 4".
  - (b) Outer anti chafing strip 100mm wide on both sides.
  - (c) Anti-Chafing Strip under Keel.
  - (d) Two Beaching Strips 100 mm wide under buoyancy tubes.
  - (e) Chafing patch for coxswain's position
- Handles should be provided for carrying the Rubber Boat
- Fittings: Life line all round to support 10 persons in water, Carrying Handle- 4 no's, towing hook-2 no's, Storage pocket-1 no, Drain Plug- 2 no's, rubber strake all through fender line and keel line.
- Accessories: Foot pump-2 no, Floor Board 1 set-FRP floor board, Paddles of aluminium handle and molded plastic blades-2nos, Valise-1nos.
- Rubber strakes should be provided at the bottom for safety of the inflatable boat
- Inflatable Mechanism of Boat : Foot Pump as well as Electric Pump (12 V DC)
- Aluminium flooring should be provided.



- Additional Spares  
Inflation/ Deflation Valves 02 Nos  
Pressure gauge 01 Nos  
Electric Inflation pump 01 No  
Bellow Inflation Foot Pump 01 Nos  
Patching material with adhesive to repair leak/damage in buoyancy tube.
- Type approval from Indian Register of Shipping required for rubber coated fabric as per ISO 6185-3-2014 of OEM
- Work approval certificate from Indian Register of Shipping required for manufacturer of inflatable boat as per IS 6185-1 to 3
- Bidder must upload "Directorate General of quality assurance certificate for rubber boat manufacturer (OEM) (CQAE Certificate)
- Bidder must also upload active IRS work approval and active IRS type approval for Rubber boat.

#### Out Board Motor 30 HP 2stroke

Out Board Motor	An outboard motor is a propulsion system for rescue boats, consisting of a self-contained unit that includes engine, gearbox and propeller or jet drive, designed to be affixed to the outside of the transom with accessories.
MAKE MODEL	SUZUKI DT30
TRANSOM HEIGHT mm	S: 381, L: 508
STARTING SYSTEM	Manual
WEIGHT kg	S: 56,L: 57
ENGINE TYPE	2-stroke 2 Cylinders
DISPLACEMENT cm <sup>3</sup>	499
BORE xSTROKE mm	71x63
MAXIMUM POWER kW	22.1
FULL THROTTLE OPERATING RANGE rpm	5,000-5,600
FUEL TANK CAPACITY Lit.	Gasoline:25
IGNITION SYSTEM	P.E.I.

STEERING	Tiller
TRIM METHOD	Manual Trim & Tilt
FUEL/OIL MIXING RATIO	50:1 <sup>*1</sup>
GEAR SHIFT	F-N-R
GEAR RATIO	2.09:1
DRIVE PROTECTION	Rubber bush



#### **Item 4.7 m Rubberized inflatable boat with 30 HP OBM**

- Exterior size of boat, minimum (L X B) in mm = 4700 x 2000
- Interior size of boat , minimum. (L x B) in mm = 3300 x 1000
- Diameter of Buoyancy tube, Min (mm) 500
- Air Chambers min.: 5
- Colour of the Boat : Orange
- Material fabric: The craft will built of Buoyancy Tube made of Composite Fabric consisting of Hypalon (outer layers) and Neoprene (inner layers) of 1670 Dtex or equivalent
- The Inflation/Deflation valve shall combine a high pressure air connection with a deflation valve in each air tight chamber and shall be as per ISO 6185-3 (2014).
- Floor Board (nos & Size) interlocked together to form a rigid platform (mm x mm x mm): 3 & Length 800 x Width 1200 x 12-14mm thick
- The Floor boards shall be made of High Strength Tempered Anodised marine grade Aluminium alloy with a non-skid finish. These boards (Three/Four pieces) shall be interconnected together to form a rigid platform. The forward/bow piece of floorboard may be made of marine plywood (IS 710) coated with FRP lamination.
- **Keel** The boat shall have provided with inflatable keel of suitable size to provide the rigidity & stability during operation of boat.
- **Rubbing Strips..** Following single piece Rubbing Strips of moulded neoprene rubber of 2" width (where not mentioned) and extending along the entire length shall be attached to the buoyancy tube for the protection of the craft:-
  - (a) Bow rubbing strip 4".
  - (b) Outer anti chafing strip 100mm wide on both sides.
  - (c) Anti-Chafing Strip under Keel.
  - (d) Two Beaching Strips 100 mm wide under buoyancy tubes.
  - (e) Chafing patch for coxswain's position
- Handles should be provided for carrying the Rubber Boat
- Fittings: Life line all round to support 10 persons in water, Carrying Handle- 4 no's, towing hook-2 no's, Storage pocket-1 no, Drain Plug- 2 no's, rubber strake all through fender line and keel line.
- Accessories: Foot pump-1 no, Floor Board 1 set-FRP floor board, Paddles of aluminium handle and molded plastic blades-2nos, Valise-1nos.
- Rubber strakes should be provided at the bottom for safety of the inflatable boat
- Inflatable Mechanism of Boat : Foot Pump as well as Electric Pump (12 V DC)
- Aluminium flooring should be provided.

- Additional Spares  
Patching material with adhesive to repair leak/damage in buoyancy tube.
- Type approval from Indian Register of Shipping required for rubber coated fabric as per ISO 6185-3-2014 of OEM
- Work approval certificate from Indian Register of Shipping required for manufacturer of inflatable boat as per IS 6185-1 to 3
- Bidder must upload "Directorate General of quality assurance certificate for rubber boat manufacturer (OEM) (CQAE Certificate)
- Bidder must also upload active IRS work approval and active IRS type approval for Rubber boat.
- The Craft is to be constructed under the approval of Indian Register of Shipping (IRS) in accordance with ISO 6185, Part 3 (2014).
- Bidder must also upload active NABL certificate (National Accreditation Board for Testing and Calibration Laboratories) as per ISO/IEC 17025:2017"General Requirements for the Competence of Testing &Calibration Laboratories"

Out Board Motor	An outboard motor is a propulsion system for rescue boats, consisting of a self-contained unit that includes engine, gearbox and propeller or jet drive, designed to be affixed to the outside of the transom with accessories.
MAKE MODEL	40 HP Suzuki / Tohatsu (Made in Japan)
TRANSOM HEIGHT mm	S: 381, L: 508
STARTING SYSTEM	Manual
WEIGHT kg	S: 56,L: 57
ENGINE TYPE	2-stroke 2 Cylinders or 3 cylinder
DISPLACEMENT cm <sup>3</sup>	499
BORE ×STROKE mm	71x63
MAXIMUM POWER kW	22.1
FULL THROTTLE OPERATING RANGE rpm	5,000-5,600
FUEL TANK CAPACITY Lit.	Gasoline:25
IGNITION SYSTEM	P.E.I.
STEERING	Tiller



TRIM METHOD	Manual Trim & Tilt
FUEL/OIL MIXING RATIO	50:1 <sup>*1</sup>
GEAR SHIFT	F-N-R
GEAR RATIO	2.09:1
DRIVE PROTECTION	Rubber bush