

# CLIMB SAFE

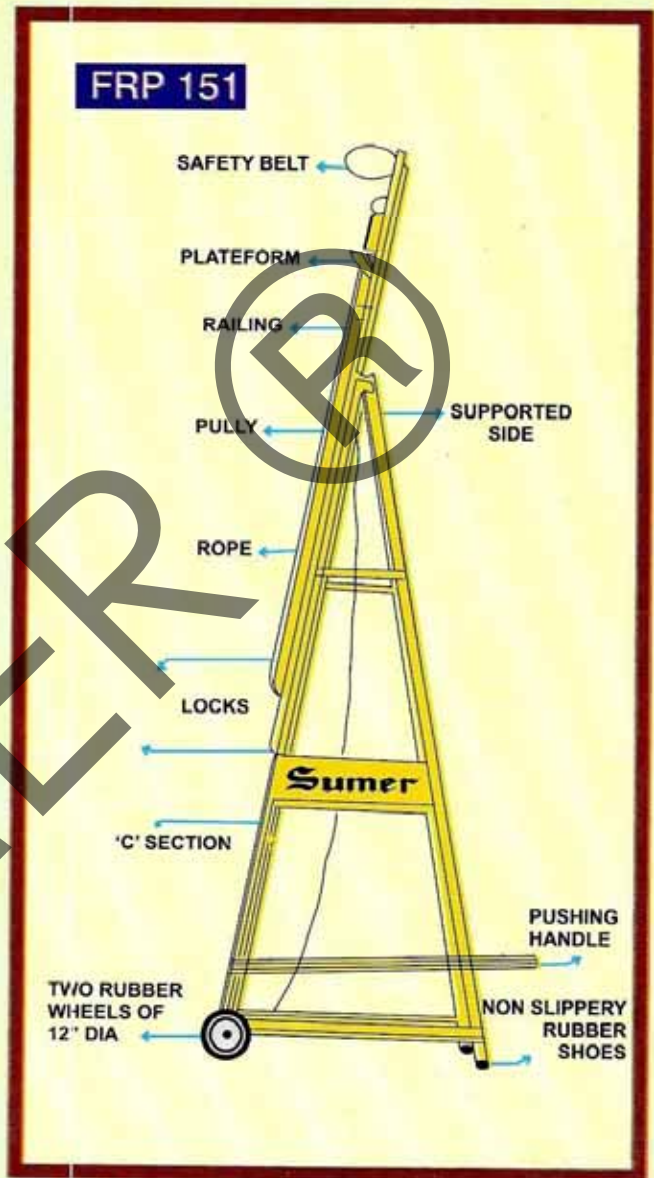
## Sumer FIBRE SAFETY LADDERS



FRP 159

### FRP WALL SUPPORT EXTENSION LADDER

1. Sides:- Fibre Glass (FRP) Pultruded Channel (Rectangular Tube Optional)
2. Steps:- Aluminium 26 mm square corrugated (optional FRP 32 mm round corrugated supported by aluminium tube).
3. Heavy duty lock:- Pulley and poly proplene rope for extension.
4. Anti skid rubber shoe on the upper and lower side
5. Size:- Minimum closed 10' extended 17' (10'+10')  
Maximum closed 20' extended 35' (20'+20')
6. Rungs Braces on Steps (optional if required)



FRP 151

### FRP TELESCOPIC ECONOMICAL WHEELED TOWER LADDER

1. Sides: Fibre Glass (FRP) Pultruded Channel (Rectangular Tube Optional)
2. Steps: Aluminium 26 mm square corrugated (optional FRP 32 mm round corrugated supported by aluminium tube)
3. Ladder is fitted with safety ring, platform, two wheels & pushing handle (Side Railing Optional)
4. Heavy duty lock: Pulley and poly proplene rope for extension.
5. Anti skid rubber shoe on the upper and lower side
6. Size:- Min. 10' to 17' (10+10) Max. 20' to 35' (20+20)
7. Rungs Braces on steps (optional if required)

**Sumer** : A Trusted Name in Manufacturing Of Platform Ladders, Step Ladders, Tower Ladders and Overhead Line Conductor Ladders, Since 1965

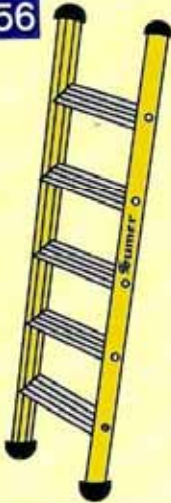
# Sumner

FIBREGLASS LADDERS

YOUR SAFETY IS OUR CONCERN

FRP 444

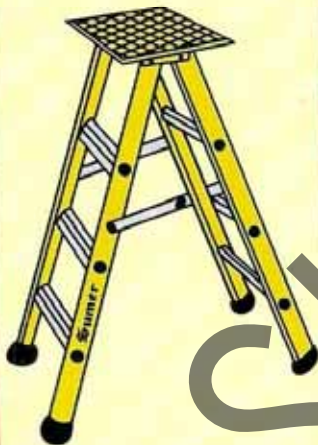
FRP 156



## FRP WALL SUPPORT SINGLE LADDER

1. Sides:- Fibre Glass (FRP) Pultruded Channel (Rectangular Tube Optional)
2. Steps:- Aluminium 26 mm square corrugated (optional FRP 32 mm round corrugated supported by aluminium tube).
3. Anti skid rubber shoe on the upper and lower side.
4. Size Minimum 5' Maximum 20'
5. Rungs Braces on Steps (optional if required)

FRP 152



## FRP SELF SUPPORTING STOOL TYPE STEP LADDER

1. Sides:- Fibre Glass (FRP) Pultruded Channel (Rectangular Tube Optional)
2. Steps:- Aluminium 26 mm square corrugated (Optional FRP 32 mm round corrugated supported by aluminium tube).
3. Platform of size 400x300 mm
4. Anti skid rubber shoe on the upper and lower side.
5. Size Minimum 5' Maximum 20'
6. Rungs Braces on Steps (optional if required)

## ADVANTAGES

- Non-Conductive
- Corrosion Resistant
- Light Weight
- Strong & Sturdy
- Colourfull

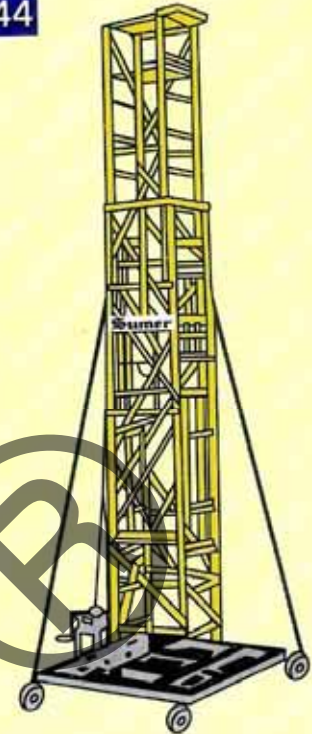
Used in :

- Electricity Boards
- Railways
- Industries
- Telecom
- Municipality
- Chemical Plants
- Coastal Areas
- Power Plants
- Effluent & Water Treatment Plants
- Hotels
- Households etc.

## Sumner FIBRE GLASS LADDERS

CLIMB SAFE LADDERS, from Sumner provide the ultimate protection to workers near electrical utility lines. Being light in weight, these ladders are easy to handle.

Sumner Rich range of fibre glass ladders find multifarious applications in Electricity Boards, Railways, Industries, Hotels, Shops & Stores and in Household. It may be used to climb down a manhole in city drainage, to climb up chemical tanks or on utility vehicles for electrical maintenance etc.



## FRP TELESCOPIC TOWER LADDER

1. Sides:- Fibre Glass (FRP) Pultruded Channel (Rectangular Tube Optional)
2. Steps:- Aluminium 26 mm square corrugated (optional FRP 32 mm round corrugated supported by Aluminium tube).
3. Platform insulated 600x600 mm fitted 3' below from the top
4. Tool tray on the top
5. Mounted on M. S. Trolley with two fix and two swivel wheels with pushing handle
6. Handwinch (gear box) with wire rope for easy operation
7. Size:- Min. 10'to17'(10+10) Max. 20'to35'(20+20)
8. Rungs Braces on Steps (optional if required)

## APPLICATIONS

- Safe Electrical Maintenance
- Chemical Tanks, Towers, Manholes
- Hilly Regions, Painters
- Industrial & Commercial
- Colour Coding

- 1) Duty Rating :  
Light=90kg. Heavy = 115kg  
Extra heavy = 136kg
- 2) Excellent Insulation
- 3) Dielectric strength upto 30kv
- 4) Aluminium raw material used (alloy & temper) confirming to IS: 733-1975 (latest)

All measurements & sizes are approx.

# ELECTRICAL APPLICATIONS

## FIBRE GLASS CABLE TRAYS AND SUPPORT SYSTEM

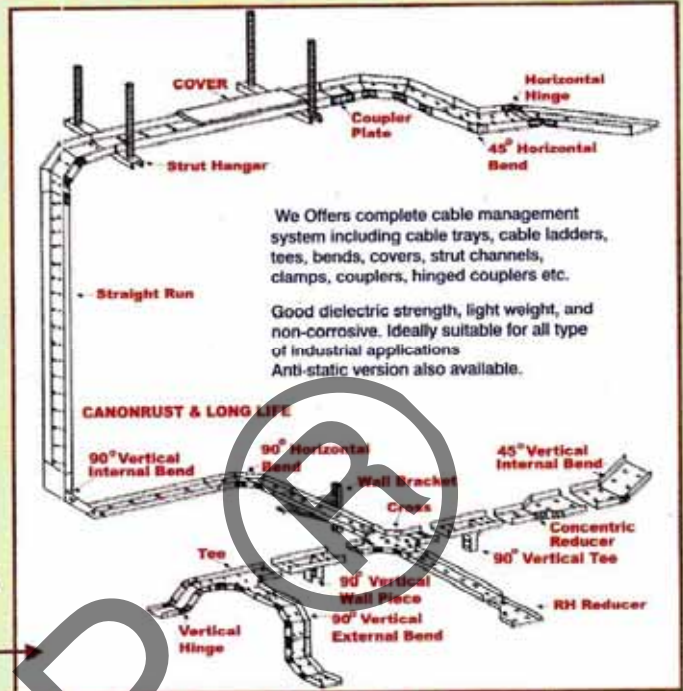


### FRP CABLE TRAYS

- Rust-proof and corrosion-proof
- 100% maintenance-free
- Lightweight and strong
- Suitable for all weather Conditions
- Suitable for horizontal and vertical layout
- Very economical



### Sumer's FRP - ALUMINIUM CABLE TRAY SYSTEM



## CROSS ARMS, DISCHARGE POLES & OPERATING RODS



Corrosion resistant, high strength cross arms are suitable to support high tension lines (for 11KV & 33 KV lines) and also avoid birdage faults.

Light weight, high electrical insulation properties make operating and discharge rods safe for electrical maintenance on H.T. Lines.



## CORROSION APPLICATIONS

### GRATINGS, HANDRAILS, PLATFORMS & CAGE LADDERS FOR CHEMICAL TANKS (SPECIALLY WALK WAY PLATFORMS)



**Sumer** Gratings, Handrails, and Platforms are ideally suitable for highly corrosive applications for walkways, cross over bridges, working platforms, drain covers etc.

#### APPLICATIONS

- Off shore platforms
- Cooling Towers
- Chemical Plants
- Refineries
- Electro plating Industry
- Paper Industry
- Effluent Treatment Plants
- Food & Drug Industry
- Power Plants
- Architectural Applications
- Swimming Pools
- Tanneries



## PROPERTIES OF PULTRUDED FRP SECTIONS

PROPERTY	UNIT	RODS & BARS	SECTIONS
Ultimate Tensile Strength	Kg/cm <sup>2</sup>	4000-8000	1350 - 2150
Tensile Modulus	Kg/cm <sup>2</sup>	2.5 - 4.8 x 10 <sup>5</sup>	1.8 x 10 <sup>5</sup>
Flexural Strength	Kg/cm <sup>2</sup>	2500 - 10000	2110
Flexural Modulus	Kg/cm <sup>2</sup>	3-5 x 10 <sup>5</sup>	1.1 x 10 <sup>5</sup>
Izod Impact	Kg/cm/cm of notch	130	107
Compressive Strength	Kg/cm <sup>2</sup>	2500 - 5000	1250 - 1400
Compressive Modulus	Kg/cm <sup>2</sup>	2.5 - 4 x 10 <sup>4</sup>	---
Borcol Hardness		50 - 65	---
<b>ELECTRICAL</b>			
Dielectric Strength			
Axial	Kv/25mm	30 - 45	30
Radial	Kv/mm	10 - 15	8
Arc Resistance	Sec.	120	100
CTI		>500	>500
<b>OTHERS</b>			
Specific Gravity		1.9 - 2.15	1.8 - 2.0
Water Absorption	%	0.1 - 0.25	0.1 - 0.25

## CHEMICAL RESISTANCE

Isophthalic Polyester Resin	For most of the general applications. Recommended for severe corrosive atmospheres, such as strong acids, strong alkalis, etc. For Electrical Insulation and High Temperature application (Class F)
Vinylester Resin	
Epoxy Resin	

## RANGE OF FRP SECTIONS

SECTION	SIZES
RODS	2, 3, 7, 8, 10, 12, 16, 20, 25
FLATS	25x3, 25x12, 30x5, 30x10, 40x10, 40x16, 50x10, 70x3, 70x4.5, 90x4,
CHANNELS - U-Type	50x25, 75x25, 84x30, 100x30, 100x40, 100x50, 150x30, 150x50, 200x50, 300x50,
STRUT CHANNELS	38x25, 41x41
ANGLES	35x5, 50x6, 160x35x8
TUBES - OD X ID	8x4, 10x6.5, 12x8.5, 25x19, 32x26,
SQUARE/RECTANGULAR PIPES	25x25, 30x25, 41x41x4, 50x28x3, 50x50x6, 63x63x6, 75x45x4
STUDS & NUTS	M 8 x 1.25, M 10 x 1.5, M 12 x 1.75, M 16 x 2.0, M 20 x 2.5
DOG BONE SECTION	10 x 13, 10 x 16
Associated with	<b>ERCON COMPOSITES</b> (ISO 9001 Certified Company)
Quality Producer of FRP Pultruded Sections - Tested & Certified by :-	
(a) Electrical Research and Development Association - Vadodara	
(b) Central Power Research Institute - Bangalore	

CORROSION RESISTANT  
EASILY MACHINABLE  
LIGHT WEIGHT

ELECTRICAL INSULATION  
STRONG AS STEEL  
ELECTRO MAGNETIC TRANSPARENT

WEATHERABILITY  
FIRE RETARDANT  
ECONOMICAL

# Sumer & Co.

3477, Gali Bajrang Bali, Chawri Bazar, Delhi-110006  
Ph. : 23267598, 23266973 (M) 56099598 Fax : 23279661