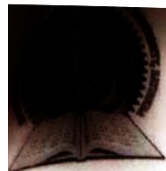


### General Technical Specifications of the items:

Item No.	Item	Technical Specification
1.	<b>Shade Net Structure 1000 sq. Mtr</b>	<p><b>Commissioning of Shade Net Structure, supply, Installation and civil work include</b></p> <p>Structure:- Folding/dismantable, on nut bolts, structure should with stand to minimum wind velocity of 130 Km/hr</p> <p><b>Structural Components:</b></p> <ul style="list-style-type: none"><li>• <b>Foundation pipe:</b> 1m to 1.2m length, 48mm OD, 3mm thickness.</li><li>• <b>Net house columns:</b> 4m height, 76mm &amp; 60mm OD, 2mm thickness.</li><li>• <b>Top purlins:</b> 4m length, 42mm &amp; 48mm OD, 2mm thickness.</li><li>• <b>3/4/5 way connectors:</b> 200mm each side, 48mm OD, 2mm thickness.</li><li>• <b>Clamps and nut bolts:</b> As per requirement.</li><li>• <b>Corridors:</b> 2.0m width, 60mm OD, 2mm thickness.</li><li>• <b>Horizontal members:</b> 1m to 1.5m length, 42mm OD, 2mm thickness.</li></ul> <p><b>Entry Room Specifications:</b></p> <ul style="list-style-type: none"><li>• <b>Entry room size:</b> 4m x 4m, 4m x 3m, or 3m x 3m (prefer sliding doors).</li><li>• <b>Double door entry:</b> Inner door made of frame stitched with a 40-mesh insect net, with a minimum 50cm overlapping.</li><li>• <b>Door size:</b> 1.2m x 2m, made of GI square pipe.</li><li>• <b>Frame of door:</b> Hot dip galvanized ISA covering all sides to close gaps.</li><li>• <b>Lower half of door:</b> Aluminum sheet.</li><li>• <b>Upper half of door:</b> 5mm thick polycarbonate sheet.</li><li>• <b>Flooring:</b> 4-inch RCC with a foot dip.</li></ul> <p><b>Insect Net:</b> Forty mesh insect net on all four sides and top</p>





# Maharaja Ranjit Singh Punjab Technical University

Badal Road, Bathinda -151001

(Established by Govt. of Punjab vide Punjab Act No. 5 of 2015)

ਮਹਾਰਾਜਾ ਰਣਜੀਤ ਸਿੰਘ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ ਬਾਠਿੰਡਾ

SCHOOL OF AGRICULTURE SCIENCES & ENGINEERING

Ref. No.- MRSPTU/SASE/25/

Date-

**Shade Net:** 50% shade net installed beneath the insect net  
**Poly Sheet:** 200-micron anti-dust, anti-fog, diffused poly sheet for the entry room

**Profiles:** Galvolume or GI profiles of 200 to 220 grams per running meter.

**Spring Insert:** UV-stabilized zigzag spring with 2.3mm diameter, made of high-carbon steel with cold galvanization, used to fix the shade net to the profile.

**Foundation Work:** Telescopic type with a column size of 45cm x 45cm x 90cm, using CC 1:2:4 ratio compacted over a 10cm layer of 1:8:16. Two hold fasts placed perpendicularly at 20cm intervals, starting 20cm from the base.

**Top Purlins:** Fixed on each column at the top with a grid size of 6m x 4m.

## Drip System

- Main and Sub-main Line: PVC 63mm x 4 kg/cm<sup>2</sup> – 48 meters
- 16mm LLDPE Lateral Line CL-2: 70 meters
- In-line 16mm, 1.3 to 2.4 LPH @ 20-40cm CL2: 1500 meters
- Ball Valve 63mm (Molded Seal, Plain): 2 Nos.
- Sub-main Flush Valve 40mm: 2 Nos.

## Fogging System

- Main and Sub-main Line: PVC 50mm x 6 kg/cm<sup>2</sup> – 42 meters
- 16mm LLDPE Lateral Line: 400 meters
- 4-way Fogger Assembly with HPLPD: 96 Nos.
- Ball Valve 50mm (Teflon Seal, Plain): 1 No.
- Sub-main Flush Valve 40mm: 2 Nos.
- GI Wire 2mm Thick: 350 meters

## Filtration Unit

- Disc Filter 25 m<sup>3</sup>/hr: 1 No.
- Sand Filter/Hydrocyclone 25 m<sup>3</sup>/hr: 1 No.
- Manifold GI+GMV/HDPE: 1 No.
- Ventury Assembly Complete: 1 No.
- Air Release Valve Assembly 1": 1 No.

## Delivery & Integration:-

All features must be integrated system with unified control and commissioning must be completed 8 weeks from award date. Training for operating personnel must be provided.

## Warranty & Support

Minimum 3 year warranty for all hardware components, covering defects in materials and workmanship.



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On-site service response must be within 48 business hours of fault reporting.  
All replacements parts and labour during the warranty period shall be provided at no additional cost.  
Free training for operation and maintenance of 1 year.

