

**ANNEXURE-A**

Supply of Material Handling Tools i.e. Chain Pulley Blocks, D-Shackles, Ratchet Lashings and Polyester Webbing Slings as per Technical Specifications and Schedule of Qty. as given below:

<b>Sr. No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty.</b>
<b>1</b>	Chain Pulley Blocks, Rated Capacity: 1 MT, Standard Lifting Height/Length: 6 mtr	Nos.	10
<b>2</b>	Chain Pulley Blocks, Rated Capacity: 2 MT, Standard Lifting Height/Length: 6 mtr	Nos.	10
<b>3</b>	Chain Pulley Blocks, Rated Capacity: 3 MT, Standard Lifting Height/Length: 6 mtr	Nos.	10
<b>4</b>	Chain Pulley Blocks, Rated Capacity: 5 MT, Standard Lifting Height/Length: 6 mtr	Nos.	10
<b>5</b>	Alloy Steel D-Shackles as per IS/ISO 2415: 2004 Grade 6, Capacity (WLL): 0.5 MT	Nos.	20
<b>6</b>	Alloy Steel D-Shackles as per IS/ISO 2415: 2004 Grade 6, Capacity (WLL): 1 MT	Nos.	20
<b>7</b>	Alloy Steel D-Shackles as per IS/ISO 2415: 2004 Grade 6, Capacity (WLL): 2 MT	Nos.	20
<b>8</b>	Alloy Steel D-Shackles as per IS/ISO 2415: 2004 Grade 6, Capacity (WLL): 4.75 MT	Nos.	20
<b>9</b>	Alloy Steel D-Shackles as per IS/ISO 2415: 2004 Grade 6, Capacity (WLL): 9.50 MT	Nos.	10
<b>10</b>	Ratchet Lashings (Two Part) with Hook Width: 50mm, Length: 3 meter Break Strength: 5000 Kgs	Nos.	4
<b>11</b>	Ratchet Lashings (Two Part) with Hook Width: 50mm, Length: 5 meter Break Strength: 5000 Kgs	Nos.	4
<b>12</b>	Ratchet Lashings (Two Part) with Hook Width: 50mm, Length: 5 meter Break Strength: 5000 Kgs	Nos.	4
<b>13</b>	Ratchet Lashings (Two Part) with Hook Width: 75mm, Length: 3 meter Break Strength: 10000 Kgs	Nos.	4
<b>14</b>	Ratchet Lashings (Two Part) with Hook Width: 75mm, Length: 5 meter Break Strength: 10000 Kgs	Nos.	4
<b>15</b>	Ratchet Lashings (Two Part) with Hook Width: 75mm, Length: 5 meter Break Strength: 10000 Kgs	Nos.	4
<b>16</b>	Heavy Duty Polyester Duplex Webbing Slings with Anti Abrasive/Wear Protection Sleeve. Sling Width: 300 mm with both side standard eye loops, EWL (Effective Working Length): 5 Meter, Eye to Eye Length: 10 Meter, Protection Sleeve Length: 5.0 Meter, Vertical Lift Capacity: 12 MT	Nos.	4
<b>17</b>	Heavy Duty Polyester Duplex Webbing Slings with Anti Abrasive/Wear Protection Sleeve. Sling Width: 200 mm with both side standard eye loops, EWL (Effective Working Length): 5 Meter, Eye to Eye Length: 10 Meter, Protection Sleeve Length: 5.0 Meter, Vertical Lift Capacity: 16 MT	Nos.	4

The technical specifications and instructions to bidder are mentioned below:

**1. Technical Specifications for Chain Pulley Blocks:**

- a. The chain pulley blocks shall be as per IS: 3832 marked.
- b. The chain pulley blocks triple spur gear type and hand operated with hook suspension.
- c. The chain pulley blocks shall have surface hardened gears, needle Roller Bearing, friction Brake and Grade 80 load chain.
- d. The chain pulley blocks shall be suitable for outdoor operation & ambient temperature up to 50 °C and shall be suitably painted.
- e. The other technical specifications of the offered chain pulley blocks shall be provided as given below:

Capacity – Safe working load in Kg	As per Tender Tech. Specs
Hook to Hook (Lift), m	6
Hook Suspension, Max	Vendor to specify
Maximum Weight: Hook suspension unit with chain for hook-to-hook, (Kg)	Vendor to specify
Effort on hand chain to raise full working load, Max (Kg)	Vendor to specify
Velocity Ratio	Vendor to specify
Length of Hand Chain from chain wheel to lowest suspended point, m	Vendor to specify

**2. Technical Specifications for D Shackles:**

- a. Dee Shackles shall be designed, manufactured and tested as per IS: 6132 or IS/ISO: 2415 or ASME B 30.26. Each Dee Shackle shall have unique serial no./identification no. embossed on it.
- b. The Dee Shackles shall be tested as per code given above and shall be certified by the supplier and a certificate for each Dee Shackle shall be provided to HWPK at the time of delivery.
- c. The safety factor for the Dee Shackles shall be 4:1 or better. The supplier shall submit a certificate to this effect.
- d. The Dee Shackles shall be forged and free from any cracks, slags, defects and distortion/bend.

**3. Technical Specifications for Ratchet Lashings:**

- a. The break strength of the Ratchet Lashings shall be as given in schedule of qty. above.
- b. The length and width of the Ratchet Lashings shall be as given in schedule of qty. above.

**4. Technical Specifications for Polyester Flat Duplex Webbing Slings:**

- a. Polyester Flat Duplex Webbing Slings shall be designed, manufactured and tested as per ASME B 30.9 or ISO4878 EN 1492-1. All the slings shall have wear protection sleeve/anti abrasion sleeves of requisite length.
- b. Slings shall be tested as per code given above and shall be certified by the supplier and a certificate for each sling shall be provided to HWPK at the time of delivery. The sling identification number on certificate shall match that on the slings.
- c. The safety factor for the slings shall be 5:1 or better. The supplier shall submit a certificate to this effect.
- d. Slings shall be free from any Snags, punctures, tears, or cuts and worn stitches. Material used for slings shall be fresh, genuine and their weaving shall be of good quality.
- e. The slings shall not have any joint in its length.
- f. The slings shall be Branded/Reputed Make Only. The supplier shall submit credential (PO Copy, customer feedback etc) for supplying similar material to reputed customers.
  - a. Polyester Flat Duplex Webbing Slings (item sl. No. 1 to 5) shall be designed, manufactured and tested as per ASME B 30.9 or ISO4878 EN 1492-1.

**5. Instructions to the bidders are as follows:**

- a. The bidders shall submit the detailed technical specifications/catalogue of the Chain Pulley Blocks, Dee Shackles, Ratchet Lashings and slings along with their offer. The technical specifications shall include Make, Model, MOC, Size, Applicable design/Manufacturing Standard/Code, Safety factor and capacity etc.
- b. The supplier shall submit credentials (PO Copy, customer feedback etc) for supplying similar material to reputed customers.
- c. Material shall be delivered to Stores Officer, HWP Kota, Anushakti via Kota, Rajasthan-323303.

**QUALITY ASSURANCE PLAN**

**Supply of Material Handling Tools i.e. Chain Pulley Blocks, D-Shackles, Ratchet Lashings and Polyester Webbing Slings.**

SI No	Components	Characteristics	Type/check	Quantum	Ref. Doc	Acceptance norms	Forms of Record	Insp. Agency		
								P	W	R
1	Chain pulley blocks	Design, Construction & Inspection	Major	-	IS: 3832 latest edition/Tender Technical Specifications	IS: 3832 latest edition/Tender Technical Specifications	ISI Certification	1/2	2	3
2	Dee Shackles	Design, Construction & Inspection	Major	-	IS: 6132 or IS/ISO: 2415 latest edition or ASME B 30.26 /Tender Technical Specifications	IS: 6132 or IS/ISO: 2415 latest edition or ASME B 30.26 /Tender Technical Specifications	ISI Certification	1/2	2	3
3	Ratchet Lashings	Size and Breaking Strength	Major	-	Tender Technical Specifications	Tender Technical Specifications	Certificate by Supplier	1/2	2	3
4	Polyester Webbing Slings	Design, Construction & Inspection	Major	-	ASME B 30.9 or ISO: 4878 EN 1492-1 & Tender Technical Specifications	As per ASME B 30.9 or ISO4878 EN 1492-1 & Tender Technical Specifications	Conformance Certificate	1,2	-	3
4	All the items	Visual Check	Major	100%	Tender Technical Specifications	free from any defects i.e. Snags, punctures, tears, or cuts and worn stitches	-	1,2,3	-	-

**LEGENDS:**

**P = Performing Agency, W = Witnessing Agency, R = Review of Documents Agency**

**1 = Sub-Vendor, 2 =Supplier/Manufacturer, 3 = HWP (K) Representative**