

ANNEXURE – 10.1

SPECIFICATION OF NEW DESIGN HAND WHEEL BARROW

S.No.	Material	Size	Details for	No.	Quantity	Remarks
1	M.S. Angle	25x25x5 mm	Top Frame	-	332 CM	
2	M.S. Angle	25x25x5 mm	Bottom Frame	-	330 CM	
3	M.S. Angle	25x25x5 mm	Standing support	4	100 CM	
4	M.S. Angle	25x25x5 mm	Bottom frame Section angle	1+2	230 CM	
5	M.S. Tee	40x40x6 mm	Bending wheel	2	314 CM	Each wheel
6	M.S. Flat	40x6 mm	Support wheel & hub	12	240 CM	Dia 500 each
7	M.S. Flat	20x5 mm	For axle bracke	2	70 CM	Wheel need
8	M.S. Flat	20x5 mm	Barrow Section Flat	-	710 CM	6 supports
9	MS Square bar	25x25 mm	Axle	1	100 CM	
10	Round head rivet	32x10 mm	Riveting	2 wheels	12 No.	
11	Round head rivet	25x8 mm	Riveting	2 wheels	12 No.	
12	Hexagonal bolt	40x10 mm	Axle & Bracket	2 side	4 Nos	
13	M.S. Washer	25x50 mm – 16G thick		2 side	4 Nos	
14	Cotter pin	6x50 mm length	TO joint	2 side	2 Nos	
15	C.I. Hub	Complete with axle hole 20 mm support hole 6 no. with turning etc. The weight of the hub 3.5 Kg	Each side	2 side	2 Nos	
16	HDPE Wheel	8"x3"x1" HDPE Wheel Red Colour	Front side of the Barrow	1	1 No.	HDPE Material
17	Bearing	SKF 6204 ZZ	For Wheels	2 sides	4 Nos	
18	Galvanise Tube	20 mm B grade	For handle	-	127 CM	
19	Black anti corrosive paint		Barrow should be painted coats inside & outside	With two		
20	MS bush	ID=25mm wall thickness- 3mm	For two sides of the wheel	2 sides	2 Nos	
21	M.S. Angle	25x25x5 mm	For handle	2 Nos	114 CM	

Note : Every Wheel Barrow should be equipped with 1500 mm long 5 MM MS chain and 7 Lever Jalaram lock. For each wheel barrow, MS chain should be provided with fitting arrangement.

SKETCH PLAN FOR REFUSE M.S. WHEEL BARROW

**NOTE :- (1) ALL DIMENSIONS MENTIONED IN MILLIMETRES ONLY
(2) WHEEL BARROWS AS PER SAMPLE**

POLYTHYLENE CONTAINER FOR WHEEL BARROW

**SPECIFICATIONS FOR POLYETHYLENE CONTAINER TO BE USED
IN THE HANDCART FOR COLLECTION OF SOLID WASTE**

The polyethylene container having size of 325 mm x 325 mm at the top and 290 mm x 290 mm at bottom with overall height of 325 mm shall be designed for transferring solid waste to the communal waste storage sites.

Material of Manufacture

The material used for the manufacture of moulded polyethylene garbage bins should be virgin and the best quality. The material should conform to the following standards:

S.No.	Property	Testing Method	Unit	Value
1	Density	IS-7328-1992	Gm/cm ²	> 0.930
2	MFI	IS-2530-1963	GMs/10 min	1.5 to 5
3	Tensile strength	IS-8543-84 Part – 4/ Sec 7 1996	Kg/cm ²	120
4	Flexural modulus	IS-13360 part – 5/sec 7 1996	Kg/cm ²	3000
5	Hardness (Shore)	IS-13360 part-5/sec I 1992	D scale	> D 50
6	Vicat Softening Temp	IS-1336 part-6/sec I 1992	C	> 90
7	Impact Strength (2.5 Kg/1 mts)	IS-12701-1996	J/mm ²	No puncture or damage
8	Weathering – Colour fastness	IS-22530-1963		No.4 gray scale

Accelerated
UV

ASTM-G-53

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should be tested with
Q>U>V type accelerated

Test (50° C)
Q.U.V.

Weather meter for 200
hours flexural modulus
Should each be not less
That 80% of the values
Before exposure.

- The internal form and surface of the container shall be such that it will not trap the contents.
- There shall be no sharp edges anywhere on the container.
- The internal and external surfaces shall be smooth and non-porous, free from cracks, splits, dents, distortion, blisters, voids, air bubbles and other surface blemishes or defects.
- The bins are expected to be used in outdoor conditions. They should be UV stabilised and should be able to withstand outdoor weather conditions in India.

SPECIFICATIONS FOR POLYETHYLENE CONTAINER TO BE USED IN THE WHEEL BARROW FOR COLLECTION AND TRANSPORTATION OF SOLID WASTE

The polyethylene container having size of 325 mm x 325 mm at the top and 290 mm x 290 mm at bottom with overall height of 325 mm shall be designed for transferring solid waste to the communal waste storage sites. It shall be made from durable material. The moulded polyethylene container shall be made from one piece moulding process. It shall have top-rim outside and embossment as per requirement.

The bottom of container shall have 10 mm dia. of four holes. It shall be drilled at the corners. In-built suitable stiffener shall be provided in the bottom and 15 mm wide and 10 mm deep and suitable stiffener must be provided on both the sides other than the handle fixed sides. Built-rim shall be provided at bottom for easy handling and tilting container.

A handle shall be provided at the top of the container. The handle shall be made from 8 mm MS bar and both ends of handle shall be fitted at the top of container, with MS strips. The ends of handle shall be fitted with rivets by placing inside and outside MS strips. The fixing arrangement shall be such that it can hold handle firmly and easily so also tilting and lifting can be done.

TOLERANCES :- + or – 3 mm except wall thickness.

THICKNESS :- All side should be 3 mm thick.
Tolerances of +/- 5% will be allowed.
Bottom should be 4 mm thick.