



# कार्यालय, नगर पालिक निगम, कोरबा (छ.ग.)

मुख्य कार्यालय - साकेत भवन, आई.टी.आई. चौक, कोरबा (छ.ग.)

टी.पी. नगर जोन

फा.क्र./8431/8458/निर्माण/टी.पी. नगर जोन/2019

कोरबा, दिनांक 18.10.2019

## निविदा आमंत्रण की सूचना

नगर पालिक निगम, कोरबा द्वारा शासकीय अर्द्धशासकीय विभागों में कार्यरत व्यवसाय से संबंधित अधिकृत विक्रेता/फर्मों/प्रदायकर्ताओं से (निविदा खुलने के दिनांक तक समस्त संशोधनों के साथ) शेड्यूल आयटम दरों पर निविदाएँ आमंत्रित की जाती है :-

1. निर्धारित प्रारूप में निविदा प्रपत्र प्राप्त होने अंतिम तिथि - 10.11.2019 सायंकाल 3:00 बजे तक
2. निविदा खुलने की अंतिम तिथि - 10.11.2019 सायंकाल 4:30 बजे तक

क्र.	कार्य का नाम	प्राक्कलन राशि में	घरोहर राशि रु में	निविदा प्रपत्र का मूल्य	निविदा प्रपत्र	कार्यावधि	ठेकेदार का वर्ग	निविदा खुलने की अंतिम तिथि
1	वार्ड क्र. 02 अंतर्गत तुलसी नगर उद्यान में बाह्य जिम सामग्री प्रदाय एवं स्थापना कार्य। (पार्षद मद 2019-20)	7,00,000/-	5,250/-	750/-	Form-A	02 माह	सक्षम श्रेणी	10.11.2019
2	वार्ड क्र. 25 स्थित प्रेस क्लब तिलक भवन में इंडोर जिम सामग्री प्रदाय एवं स्थापना कार्य। (महापौर मद 2019-20)	10,00,000/-	7,500/-	750/-	Form-A	02 माह	सक्षम श्रेणी	10.11.2019

### निविदा की शर्तें:-

1. निविदाकार द्वारा आपूर्ति किये जाने वाले सामग्री के निर्माता/कंपनी/फर्म द्वारा अधिकृत विक्रेता/डीलरशिप प्रमाण पत्र प्रस्तुत करना होगा।
2. निविदाकार द्वारा जिस निर्माता कंपनी के आयटम प्रदान करने हेतु दर प्रस्तुत की जा रही है, उन्हें उस कंपनी का आई एस. ओ. सर्टिफिकेट संलग्न करना अनिवार्य होगा अन्यथा निविदाकार इस निविदा के लिए अपात्र होगा।
3. निविदाकार आपूर्ति किये जाने वाले प्रत्येक जिम सामग्रियों की कंपनी का आयटम कैटलॉग जिसमें उस सामग्री की समस्त तकनीकी जानकारी स्पष्ट रूप से विनिर्दिष्ट हो प्रस्तुत किया जाना अनिवार्य होगा।
4. निविदाकार को आपूर्ति किये जाने वाली सामग्री से सम्बंधित यथा आपूर्ति किये जाने वाले सामग्री के निर्माणकर्ता/कंपनी/फर्म द्वारा जारी अधिकृत विक्रेता/डीलरशिप प्रमाण पत्र, आयटम कैटलॉग एवं आई.एस.ओ. एक ही कंपनी का होना अनिवार्य है।
5. निविदाकार के पास अधिकृत विक्रेता/डीलरशिप फर्म कंपनी में उत्पादों का पूर्व में किसी शासकीय संस्था में प्रदाय किये जाने संबंधी कार्यदेश प्रमाण पत्र एवं अनुभव प्रमाण पत्र प्रस्तुत करना होगा साथ ही यह भी सुनिश्चित करना होगा की उपरोक्त प्रमाण पत्र कार्यपालन अभियंता अथवा प्रवर श्रेणी के अधिकारी द्वारा जारी किया गया हो प्रस्तुत करना अनिवार्य होगा।
6. निविदा के दस्तावेज हाथो-हाथ न लिया जाकर रजिस्टर्ड पोस्ट अथवा स्पीड पोस्ट से प्राप्त किया जावेगा। अन्य माध्यमों यथा कोरियर सर्विस, साधारण डाक इत्यादि से प्राप्त अथवा समयावधि के पश्चात् प्राप्त निविदाओं पर विचार नहीं किया

जावेगा। निविदा आयुक्त, नगर पालिक निगम, कोरबा आई.टी.आई. कॉलोनी रामपुर, कोसाबाड़ी जिला-कोरबा (छ.ग.) पिन नं.-495677 के पते पर भेजना होगा। निर्धारित तिथि को सायं 3:00 के पश्चात् प्राप्त निविदाएँ स्वीकार नहीं किए जावेंगे।

- 7 निविदा प्रपत्र नगर पालिक निगम, कोरबा के वेबसाईट [www.korbamunicipal.in/uad.cg.gov.in](http://www.korbamunicipal.in/uad.cg.gov.in) डाउनलोड किया जाकर नवीन निविदा प्रपत्र **Form - A/B/ABC** (जारी दिनोंक तक समस्त संशोधनों के साथ) निर्धारित शुल्क की डीडी के साथ संबंधित कार्य का नाम पूर्ण विवरण सहित भरकर भेजना होगा।
- 8 निविदा प्रपत्र त्रि-लिफाफा पद्धति से मान्य किया जावेगा जो निम्नानुसार होगा:-
  - (अ) प्रथम लिफाफा में ठेकेदार का आयकर चुकता प्रमाण पत्र, निविदा सूचना आमंत्रण पत्र की कंडिका क्र. 1, 2, 3 एवं 5 साथ ही निविदा सूचना आमंत्रण में उल्लेखित अन्य दस्तावेज के साथ निर्धारित प्रपत्र शुल्क का डीडी एवं अमानत राशि का टी.डी.आर./एफ.डी.आर. जो कि आयुक्त, नगर पालिक निगम कोरबा के नाम पर देय होगा प्रस्तुत करना होगा।
  - (ब) द्वितीय लिफाफा में ठेकेदार द्वारा भरा हुआ निविदा प्रपत्र होगा।
  - (स) तृतीय लिफाफा में उपरोक्त दोनो लिफाफाएँ होगी तथा आवश्यकता पड़ने पर मूल अभिलेख प्रस्तुत करना होगा।
- 9 जिन ठेकेदारों द्वारा नगर पालिक निगम (साडा) के किसी ठेके के कार्य में अनुबंध के अनुरूप कार्य न किया गया हो अथवा नगर पालिक निगम (साडा) के हित के विरुद्ध कार्य किया गया हो उन्हें निविदा भरने की पात्रता नहीं होगी।
- 10 निविदा प्रपत्र प्राप्त करने हेतु इच्छुक ठेकेदारों को आवेदन पत्र के साथ पूर्व में इस प्रकार की किए गए कार्यों की प्रमाणित सूची, पिछले 03 वित्तीय वर्ष का आय चुकता प्रमाण पत्र, पेन नम्बर, जी.एस.टी. पंजीयन साथ ही विस्तृत निविदा आमंत्रण सूचना (एनआईटी) हस्ताक्षरयुक्त एवं निर्धारित प्रारूप में निविदा आमंत्रण सूचना के कंडिका क्र. 08 के लिफाफा (अ) में प्रस्तुत करना अनिवार्य होगा।
- 11 कार्य हेतु लिफाफा (स) पर कार्य का नाम निविदा आमंत्रण सूचना क्रमांक, निविदा खुलने की तिथि स्पष्ट रूप से लिखकर भेजना होगा।
- 12 निविदाकार का यह दायित्व है कि वे निविदा भरने के पूर्व स्थल का स्वयं निरीक्षण कर लें ताकि प्रारंभ करने में किसी प्रकार की कठिनाई न हो।
- 13 निर्धारित निविदा प्रपत्र में उल्लेखित कंडिकाएँ स्वमेव लागू मानी जावेगी एवं निविदा आमंत्रण सूचना निविदा का ही भाग माना जावेगा।
- 14 निर्धारित प्रारूप में निविदा प्रपत्र, निविदा प्रपत्र शुल्क, अमानत राशि, निविदा आमंत्रण सूचना पत्र में उल्लेखित दस्तावेज सही पाए जाने पर ही निविदा दर संबंधी लिफाफा खोला जावेगा अन्यथा निविदा निरस्त कर दी जावेगी।
- 15 ठेकेदार को अपनी दरें शब्दों एवं अंको में लिखना अनिवार्य होगा।
- 16 शासन के विभिन्न विभागों जैसे:- खजिन विभाग, श्रम विभाग, समाज कल्याण विभाग इत्यादि विभागों द्वारा समय-समय पर जारी निर्देशों/आदेशों के पालन की समस्त जिम्मेदारी संबंधित ठेकेदार की होगी।
- 17 ठेकेदार यदि कार्य को अपूर्ण स्थिति में छोड़ता है तो निविदा प्रपत्र में उल्लेख अनुसार इस संबंध में प्रावधान के अंतर्गत कार्यवाही की जावेगी।
- 18 कार्य प्रारंभ नहीं करने अथवा अपूर्ण स्थिति में छोड़ने पर निगम द्वारा ठेकेदार के विरुद्ध तत् समय में एम.आई.सी. द्वारा स्वीकृत प्रस्ताव के अधीन कार्यवाही की जावेगी जिसकी संपूर्ण जवाबदारी ठेकेदार की होगी।
- 19 सफल निविदा दाता से अनुबंध के समय अतिरिक्त परफार्मेंस राशि जमा कराई जावेगी जबकि निविदा की दरों में काफी कमी हो जैसे निविदादाता को निविदा दर एवं अनुमानित लागत से 10 प्रतिशत से अधिक निविदा दर होने पर सफल निविदादाता को निविदा दर एवं अनुमानित लागत के 90 प्रतिशत अंतर की राशि के समतुल्य परफार्मेंस गारंटी के रूप में राष्ट्रीयकृत बैंक का एफ.डी.आर./टी.डी.आर. ऑफिस, टाईम डिपॉजिट अथवा एन.एस.सी. जो कि आयुक्त नगर पालिक निगम कोरबा के नाम से देय होगा, जो मांग तिथि से 15 दिवस के भीतर जमा करना अनिवार्य होगा। उपरोक्त राशि को जमा न करने की दशा में निविदा निरस्त कर दी जावेगी।
- 20 सम्पूर्ण किये गये कार्यों के लिये 5 प्रतिशत सुरक्षा राशि रनिंग देयको के साथ 01 वर्ष 5 प्रतिशत पृथक से 03 वर्ष की गारंटी के लिये परफार्मेंस सिक्यूरिटी के रूप में रोकी जावेगी।

# OFFICE OF THE MUNICIPAL CORPORATION, KORBA (C.G.)

## DETAILED ESTIMATE

Name of work - Supply & Installation of open GYM at Ward no. 02

S.No	Item Description	Qty.	Unit	Rate	Amount
1	<p><b>SKY WALKER (Double User)</b>  <b><u>MACHINE PART DESCIPRION OF SKY WALKER</u></b></p> <p>a) FOUNDATION RECTANGULAR PIPE                      b) FOUNDATION CONNECTOR                      c) STNDING RECTANGULAR PIPE NO.1                      d) STNDING RECTANGULAR PIPE NO.2                      e) CYLINDER PIPE                      f) PENDULAM BAR BIG                      g) PENDULAM BAR SMALL                      h) BRIDGE RECTANGULAR PIPE                      i) BRACKET                      j) STANDING PAD                      k) BUSH                      l) HOLDING PIPES                      m) GRIPERS</p> <p>1 There are two foundation recangular pipes of length 556mm bredth 79mm and height 40mm.                      2 These 2 foundation rectangular pipes are connected with foundation connector of length 760mm breadth 80mm and height 40mm foundation connector is welded to both foundation rectangular pipe through the middle of the same pipes.                      3 Standing rectangular pipe no.1 of length 930 diameter 89mm is welded to one of the foundation rectanular pipes top through the center.                      4 Standing rectangular pipe no. 02 of length 745mm diameter 89mm is welded to another foundation rectangular pipes top through the center.                      5 Cylindrical pipes are welded on the top and center of the both standing pipes diameter of cylindrical pipe is 60mm and length is of 457 mm.                      6 On the both ends of cylindercal pipes 2 pendulum bar big and pendulum bar small are suspended through pin bearing connection these pendulum bars can swing in forward and backward notion length of big pendulum bar is 770mm and length of small pendulum bar is 515mm gaps between tbe 2 pin bearing is 338mm these nendulum bars are welded to the bush                      7 Free ends of the big pendulum bars and small pendulum bars are welded with bushes these walded bushes are itted in the brackets.                      8 bridge rectangular pipe of length 920mm breadth 40 and height 60mm is connectedbetween one big pendulum and small pendulum bar of same side.                      9 Brackets are welded on the both sides of the bridge rectangularpipe for connection of big pendulum bar and small pendulum bar with steel screws.                      10 In the middle of the bridge rectangular pipe standing pads (foot rest) are attachde with steel screw standing pads may be plastic or of metal.</p>	2	Pcs		
2	<p><b>AIR WALKER (Single User)</b>  <b><u>MACHINE PART DESCIPRION OF AIR WALKER</u></b></p>	2	Pcs		

- a) MOUNTING PLATE
- b) CENTER PILLAR
- c) TRAPEZIUM SHAPED PIPE
- d) CAP
- e) HOLDING PIPE
- f) HINGE SUPPORTER
- g) OBTUSE L SHAPED PIPE
- h) RECTANGULAR PIPE
- i) STANDING PAD
- j) TRINGULAR HINGE SUPPORTER

- 1 Acircular mounting plate of diameter 233 mm and thickness 8mm it has 4 holes at 90 degrees which P.C.D. 170mm hole diameter is 20mm
  - 2 On circular mounting plate a center pillar is welded diameter of the center pillar is 114mm and height is 223mm
  - 3 Trapezium shaped pipe is welded to the center pillar from the middle at the base trapezium shaped pipe upper portion is open with two branches.
  - 4 Cap is on the two branches of upper portion/top of the branches are 925mm wide and length of each branch is 885mm at the base of the branches the gap is 925mm with a radius bend 235mm.
  - 5 Openend of trapezium shaped pipe is welded with a holding pipe holding pipe has a straight length of 810mm and a 90 degrees radius on both sides then a small straight length of 246mm through the small straight length holding pipe is welded to trapezium shapes pipe holding pipe is welded at an angle of 40 degrees to the open ends of trapezium shaped pipe height of joint is 1212mm.
  - 6 Hinge support of length 126mm is welded on the branches of trapezium shaped pipe at a height of 1117mm from the base.
  - 7 2 Obtuse L shaped pipes are connected to the hinge supporter by the bushes. Bushes are welded at the upper portion of the obtuse L Shaped pipe lower portion of obtuse L shaped pipe is welded with rectangular pipe of length 705mm radius 124mm and short length 137mm
  - 8 On rectangular pipe standing pad are tightly screwed standing pad (foot rest) is of plastic
  - 9 Tringular hinge supporter are welded to the hinge supporter to provide better strength.
- Note: All the movable jionts have a PIN BEARING in between tightmed with the Allen bolt polydrive head bolt having plastic caps on the ends Since plastic caps are fixed on the ends the bolt can't be

3

**SURF BOARD 2 (Single User)**

**MACHINE PART DESCIPRION OF SURF BOARD**

- a) MOUNTING PLATE
- b) CENTER PILLAR
- c) CAP
- d) ARM HOLDING PIPE
- e) ARM HOLDER AND SUPPORTER
- f) ARMS
- g) PENDULUM PIPE HOLDER
- h) PENDULUM PIPE
- i) SQUARE PIPE
- j) STANDING PAD

- 1 Acircular mounting plate of diameter 233 mm and thickness 8mm it has 4 holes at 90 degrees which P.C.D. 170mm hole diameter is 20mm

2

Pcs

- 2 On circular mounting plate a center pillar is welded diameter of the center pillar is 144mm and height is 1345mm
- 3 Cap is fixed on the top of the center pillar with rivets.
- 4 2 horizontal armholding pipes of length 992 mm are welded on both sides of center pillar at a height of 1222mm from the mounting plate.
- 5 2 Bending arm holder and supporters are welded on the both sides of center pillar at a height of 1355mm from the mounting plate.
- 6 2 arm are connected to the both arm holding pipes and arm holder/supporter through welding length of arms are 814mm.
- 7 2 pipe pendulum holders are welded on the sides of center pillar by perpendicular to the arm holding pipe the height of the pendulum pipe is 1121mm from the base of mounting plate.
- 8 Pendulum pipes fitted in to the pendulum pipe holder with a self greasing high quality bearing pendulum pipe is movable and swing side ways length of pendulum pipe is 863mm.
- 9 Pendulum pipe is suspended at an angle of 3 degrees at the base of free end of the pendulum pipe is welded to the square pipe at a distance of 5mm from the starting point.
- 10 Standing pads are tightly screwed with steel screw to the square pipe standing pad may be of plastic or steel metal.  
Note: All the movable joints have a PIN BEARING in between tightened with the Allen bolt polydrive head bolt having plastic caps on the ends Since plastic caps are fixed on the ends the bolt can't be

4

**SITUP BOARD (Single User)**

**MACHINE PART DESCRIPTION OF SITUP BOARD**

- a) CIRCULAR MOUNTING PLATE
- b) CENTER PILLAR
- c) MAIN PIPE
- d) SQUARE MOUNTING PLATE
- e) FRAME BASE PIPE
- f) FRAME SUPPORTER
- g) FRAME
- h) FOOT REST
- i) BENDING SUPPORT PIPE
- j) PVC PAD
- k) CAP

- 1 A circular mounting plate of diameter 233 mm and thickness 8mm it has 4 holes at 90 degrees which P.C.D. 170mm hole diameter is 20mm
- 2 In this circular mounting plate a center pillar is welded diameter of the center pillar is 114mm and the height is 568mm.
- 3 Cap is fixed on the top of the center pillar with rivets.
- 4 Two main pipes are welded opposite to each other with the center pillar having length 266mm height from the bottom edge is 174mm
- 5 Two square mounting plates are welded on the main pipes apart from the edges of the mounting main pipes 91mm these plates are of length 190mm breadth 150mm and thickness 5mm.
- 6 A frame base pipe is welded with the square mounting plate at a distance of 14mm from the one of the edge of base pipe having 2 parts first length straight pipe 108mm and radius 119mm therefore we have four base pipes welded on the 2 square mounting plate(2x2) towards the welding the distance between the two base pipes is 218mm
- 7 A foot rest pipe is welded on the radial edge of the 2 base pipes of one square mounting plate rest pipes are extended equally from the center.

1

Pcs

	<p>8 A frame support is welded on the frame base pipe having length 385mm and diameter 38mm from the straight edge of the frame base pipe is 84mm these support pipes are welded on 4 base pipes.</p> <p>9 A curved frame having a curved radius 2384mm and fllet radius 74mm is welded with the straight edge of the frame base pipe and 2nd side is with the foot rest pipe fllet radius is on the four corners of the curved frame the pipe used to make the curved frame have diameter 32mm</p> <p>10 A PVC pad is mounting on the curved frame having same dimension as of the curved frame with the help of the mushroom head screws (steel).</p> <p>11 Bending support is welded on the either side of the center pillar having 3 parts short length 34mm radius 150mm and long straight length 179mm the bending support is welded 322mm from the center pillar on the main pipe whereas other edge (towards short length) welded with center pillar Note: All the movable joints have a PIN BEARING in between tightened with the Allen bolt polydrive head bolt having plastic caps on the ends Since plastic caps are fixed on the ends the bolt can't be opened until they will be broken.</p>		
5	<p><b>MULTIFUNCTIONAL TRAINER (Single User)</b> <b><u>MACHINE PART DESCRIPTION</u></b></p> <p>a) MOUNTING PLATE 1 b) CAP c) HANDLE CONNECTING PIPE 1 d) CONNECTING PIPE 1 e) CENTER PILLAR f) HOLDING PIPE 1 g) HOLDING PIPE 2 h) MOVABLE PIPE i) SQUARE PIPE j) STEPPING PLATES k) STEPPER BASE l) STANDING PLATE m) CENTER PIPE n) MOUNTING PLATE 2 o) HANDLE CONNECTING PIPE 2 p) NYLON PAD q) HINGED PIPE 1 r) HINGED PIPE 2</p>	1	Pcs
6	<p><b>STANDING SEATING TWISTER (Double User)</b> The standing seating twister made of gavanised pipe with thickness approx (3mm) with stainless steel screw and Argon/MIG welding along with comfortable plastic seats with material to bear outer weathering action the complete machine should be with double powder coating baked at temperatures + 200 degrees for minimum of 25 minutes ensuring a very good quality weather resistant product colors dark green red and yellow. The foundations should be embedded properly by digging and jamming through cement concrete with all necessary equipment all works complete. Material should be ISO approved of posses IS standard including 1st year maintenance.</p>	1	Pcs
7	<p><b>CROSS TRAINER (Single User)</b> <b><u>MACHINE PART DESCRIPTION OF CROSS TRAINER</u></b></p> <p>a) MOUNTING PLATE b) CENTER PILLAR</p>	1	Pcs

- c) MAIN SUPPORTER
- d) CYLINDRICAL PIPE BIG
- e) BRIDGE
- f) SMALL CYLINDRICAL
- g) PENDULUM BARS
- h) HOLDING PIPES
- i) GRIPPER
- j) STANDING PAD
- j) ROTATORS
- i) BRACKET

CROSS TRAINER DIMENTION AND MEASUREMENT OF MACHINE ARE FOLLOWING

- 1 Acircular mounting plate of diameter 233 mm and thickness 8mm it has 4 holes at 90 degrees which P.C.D. 170mm hole diameter is 20mm
- 2 On these circular mounting plate a center pillar is welded diameter of the center pillar is 114mm and height is 192mm
- 3 Main supporter is connected to the centre pillar main supporter have 5 parts vertical length 585mm radius 1 235mm straight length 577mm radius 2 235mm angle 230 degree diameter of the main supporter pipe is 89mm the last length is tilted whose length is 179mm main supporter pipe is welded at height of 148mm from the mounting plate
- 4 Big cylindrical pipe is welded at 967mm from the mounting plate on the vertical length of the main supporter pipe length of the pipe used 280mm and diameter is 60mm.
- 5 Small cylindrical pipe is welded at the edge of the tilted length at 184mm and diameter 60mm small cylindrical pipe is welded at the middle of the tilted length of the main supporter pipe bridge of length 1045mm breadth 60mm height 40mm one edge of the bridge is connected with the bearing of the rotators and brackets are welded at the other edge and connected with the pendulum bar joints have a bearing and pin in between tightened with the allen bolt polydrive head bolt having plastic caps on the ends Since plastic caps are fixed on the ends the bolt can't be opened until they will be broken.
- 6 Pendulum bar of length 718mm and diameter and diameter of 38mm is welded with the small pipe of length 60mm and diameter 60mm downward direction small pipe is connected vertically with the holding pipe having 3 parts length 153mm radius 96mm and angular length 120mm at an angle of 26 degree holding pipe consists of extended length 137mm studded with the gripper either of plastic or rubber both ends of the cylindrical pipe is connected the small pipe joints have a bearing and pin in between tightened with the allen bolt polydrive head bolt having plastic caps on the ends Since plastic caps are fixed on the ends the bolt can't be opened until they will be broken.
- 7 Standing pad is fixed with the bridge from the middle and tightened with the Allen bolt polydrive head it is of plastic.
- 8 Rotators have a metallic strip of length 214mm thickness 10mm and connected with the pipe of length 23mm and diameter 60mm on both sides during rotation through the rotators one of the bridges will be straight while other in angular way angle 17 degrees.
- 9 Rotators small cylindrical pipe and bridge are connected with each other by bearing and pin in between tightened with Allen polydrive head bolt having cap fixed of plastic.

Note: All the movable joints have a PIN BEARING in between tightened with the Allen bolt polydrive head bolt having plastic caps on the ends Since plastic caps are fixed on the ends the bolt can't be opened until they will be broken

8

**CYCLE (Single User)**

**MACHINE PART DESCRIPION OF CYCLE**

- a) GRIPPER
- b) CAP
- c) MAIN PIPE
- d) SEAT
- e) CENTER PILLAR
- f) MOUNTING PLATE
- g) Asstt. Engineer
- h) Asstt. Engineer
- i) Municipal Corporation
- j) Korba (C.G.)
- k) RADDLE ROD
- l) AXEL PIPE
- m) PIN
- n) BEARING
- o) NUT

**MECHANICAL DIMENTION AND MEASUREMENT OF MACHINE FOLLOWING**

- 1 A circular mounting plate of diameter 233 mm and thickness 8mm it has 4 eye holes made on this plate at 90 degrees which P.C.D. 170mm hole diameter is 20mm length is 39.9mm
- 2 On circular mounting plate a center pillar is welded diameter of the center pillar is 114mm and height is 209mm
- 3 Main pipe of diameter 60mm and thickness 4mm have five parts long length 795mm short long length 509.7mm short length 220.1mm radius 1 and radius 2 of 150mm.
- 4 The midpoint of the short length of the main pipe is welded with the center pillar the right edge of the short length having a radius 2 bent at an angle of 10 degree and short long length is with that radius 2 angularly.
- 5 The left edge of the short length having a radius 1 bent at an angle of 13.7 degree and long length is with that radius 1 angularly.
- 6 On the edge of the short long length of main pipe a seat having ISO standard shape is fitted horizontally.
- 7 The plastic seat is tightened with the help of Allen bolts (polydrive head)
- 8 On the edge of the long length of the main pipe a plastic cap is fixed.
- 9 Arm having diameter 32mm thickness 3mm have five parts length 1 161.8mm radius 1 70.2mm bent at angle of 30 degree straight length 2 100mm radius 276mm bent at angle of 60 degree and a straight edge 150mm arms are welded on both either faces of the main pipe at a height 1043mm from the mounting plate and 401mm apart from the center of the mounting plate.
- 10 Gripper are fitted with the straight edge of the arm pipe gripper made up of either rubber or plastic.
- 11 Support pipe having diameter 38mm length of 516.6mm and thickness 3mm the edge of the support pipe are welded one with the long length and other with the short long length of the main pipe the height of the support pipe from the mounting plate is 546.6mm.

2

Pcs



12 Two strip having dimensions length 170mm thickness 6mm and height 42mm are welded on both the faces of the short length of the main pipe the distance between the strips is 50mm.

13 Axle pipe of diameter 70mm length 130mm thickness 5mm is welded on the strips and extended 34mm equally both sides on both the edges of the axle pipe bearing are fitted and axle pin is fitted through out the pipe having bigger diameter 35mm and diameter fitted with the bearing is 30mm axle pin is 40.5mm extended outwards in which wheel plates of thickness 10mm are fitted on both sides a nut is adjusted with the washer along the axle pin and tightly fit a plastic cap is fixed on the open edge of the wheel plate.

14 A hole of diameter 12mm is made on the wheel plate 165mm apart from the center of the wheel plate the paddle rod is 151.5mm it is 31mm a part from the face of the wheel plate the paddle is adjusted with the paddle rod as it can freely rotate on the other edge of the paddle rod a washer is fixed along with the nut to avoid displacement of the paddle from the paddle rod the paddle could be of any type of shape as per the requirement a plastic cap is fixed on the nut to avoid dust.

15 A particular key slot is made at the center of the wheel plate so that the paddles adjusted in such a manner if one is in upward direction then other is in the downward direction.

9

**SHOULDER BUILDER (Double User)**

**MACHINE PART DESCRIPTION OF SHOULDER BUILDER**

- a) MOUNTING PLATE
- e) CENTER PILLAR
- b) 2 HINGE HOLDING PIPE
- c) 2 BENDING PIPE
- d) CAP
- e) 2 U SHAPED PIPES
- f) HANDLES
- g) 2 STRAIGHT PIPE (No.-1)
- h) STRAIGHT PIPE (No.-2)
- i) STRAIGHT PIPE (No.-3)
- j) SEAT BASE PIPE
- i) SEAT BENDING PIPE
- i) SEAT
- i) BACK SEAT
- i) HINGE BOX
- i) BRACKET HOLDER

1 A circular mounting plate of diameter 233 mm and thickness 8mm There are 4 holes on this plate at 90 degrees which P.C.D. 17mm hole diameter is 20mm.

2 On circular mounting plate a center pillar is welded diameter of the center pillar 119mm and height is 1838mm

3 Cap is fixed on the top of the center pillar with rivets.

4 At 1528mm vertical distance - 2 hinges holding pipes are welded in opposite directions hinge holding pipes have clear hole for screw at 177mm distance.

5 Bending pipes are welded to the hinge holding pipes and the center pillar to provide mechanical strength to the hinge holding pipe.

6 Hinge box is fitted to the hinge holding pipes with a steel screw and bush hingebox has a clear hole at the base.

7 U shaped pipes are welded at the upper part of the hinge box.

8 At the opening end of the U shaped pipe handles are fitted with steel screw.

2

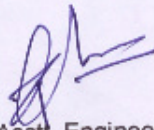
Pcs

- 9 Straight pipe no. 1 is fitted to the hinge box at the base with pin bearing.
- 10 Lower end of the straight pipe no. 1 is fitted to straight pipe with a pin bearing.
- 11 Straight pipe no. 2 and no. 3 are joined to the center pillar and seat base pipe one over the other respectively with a gap of 490mm through bracket jointers which are welded to the centre pillar and seat base pipe also.
- 12 Seat base pipe is connected with straight pipe no. 2 and no. 3 with pin bearings.
- 13 Over seat base pipe a seat bending pipe is welded.
- 14 Seat and back seat are fitted on the seat bending pipe with pin bearing these seats are of plastic.

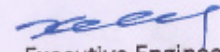
Note: All the movable joints have a PIN BEARING in between tightened with the Allen bolt polydrive head bolt having plastic caps on the ends. Since plastic caps are fixed on the ends the bolt can't be opened until they will be broken.



Sub Engineer  
Municipal Corporation  
Korba (C.G.)



Asstt. Engineer  
Municipal Corporation  
Korba (C.G.)



Executive Engineer  
Municipal Corporation  
Korba (C.G.)