Bangladesh Rice Research Institute

Technical Drawings of BRRI Winnower (Model: BRRI Win2024)

AKM Saiful Islam

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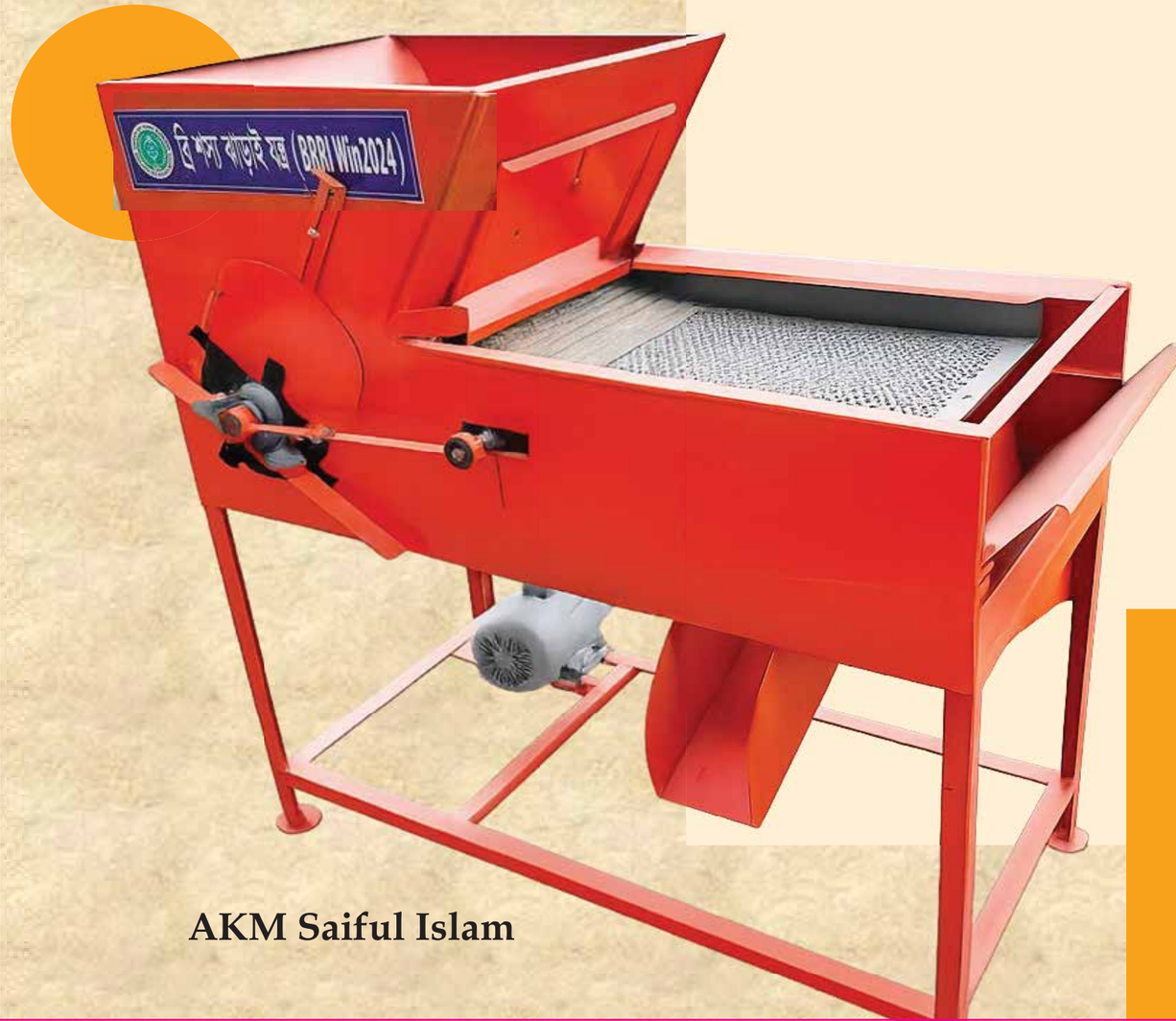

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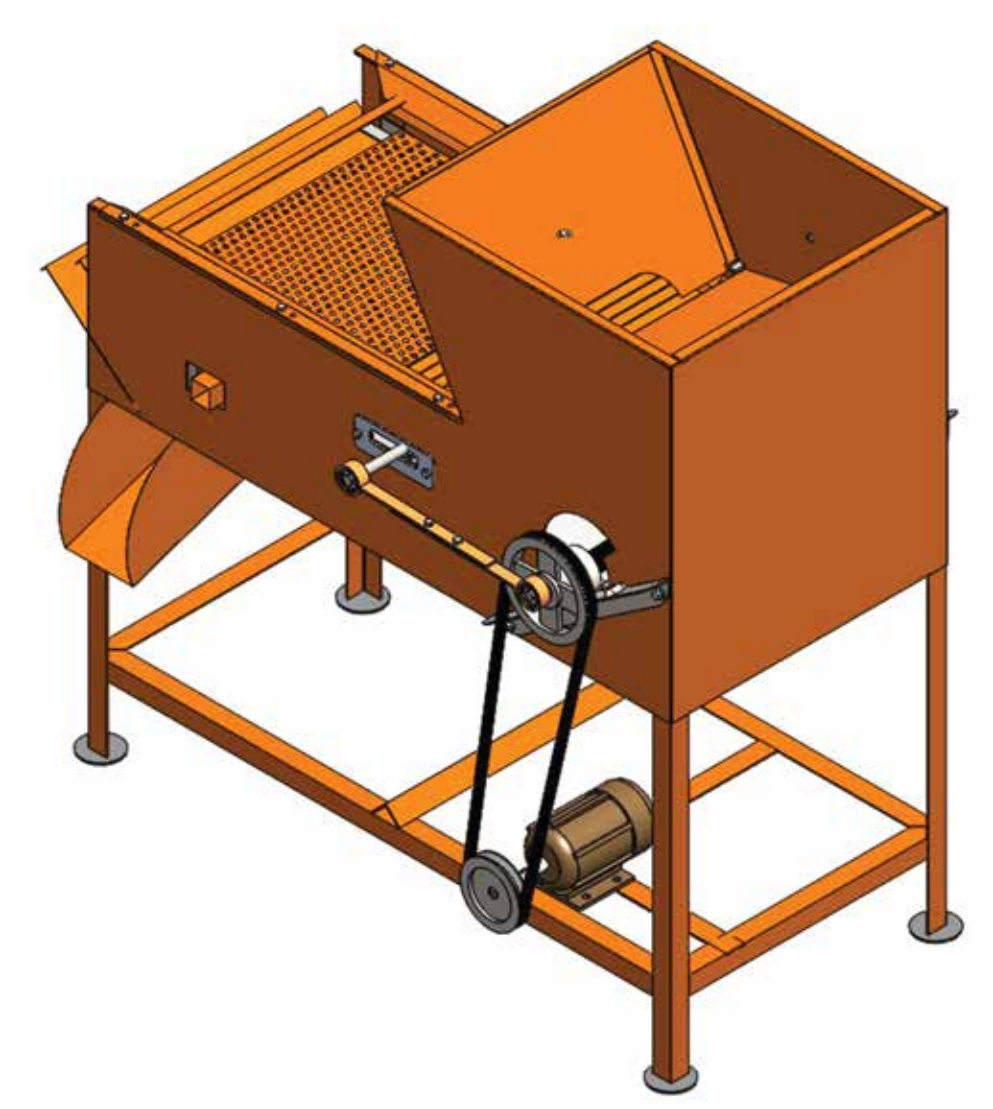

AKM Saiful Islam

First published : March 2026

Publication no. : **461**

Number of copies : 300

Cover page design : **Dr. AKM Saiful Islam**

Communication : Publication and public relation division
Bangladesh Rice Research Institute, Gazipur
Bangladesh

Printed by : **Tithy Printing & Packaging**
28/C-1, Toyenbee Circular Road
Motijheel C/A, Dhaka-1000

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Citation :

Islam, AKM Saiful 2026: Technical Drawings of BRRI Winnower (Model: BRRI Win2024). Publication number 461. Bangladesh Rice Research Institute, Gazipur, Bangladesh

Acknowledgment:

Special thanks to Prashad Engineering, Cox'sbazar and Mahboob Engineering, Jamalpur and all those who directly and indirectly helped in the preparation of this book.

Preface

Grain cleaning is a critical postharvest operation, as it has a direct impact on grain quality, safe storage, and market value. Traditionally, this operation has been carried out using manual methods that require intensive labor, consume significant time, and are increasingly impractical due to growing labor shortages. To overcome these challenges, the BRRI Winnower has been developed as a practical, efficient, and user-friendly solution for cleaning paddy and other crops. This machine is an improved version of the earlier BRRI winnower, which was primarily designed for paddy cleaning. In the improved model, multicrop winnowing is achieved by simply changing the sieve, enabling the same machine to be used for paddy as well as a wide range of other grains and crops. This enhancement significantly increases versatility, ensures better year-round utilization of the machine, and makes the technology more attractive to farmers and rural service providers. The BRRI Winnower has been designed with a clear understanding of rural conditions, emphasizing the needs of small and medium farmers, limited power availability, and the importance of cost-effective technology. This document presents the background, objectives, benefits, and technical drawings of the BRRI Winnower, which are expected to support the manufacture of high-quality machines and promote wider adoption of this technology.

Director General

Bangladesh Rice Research Institute

Foreword

It is a pleasure to present "Technical Drawings of BRRI Winnower (Model: BRRI Win2024)", carefully compiled by Dr. AKM Saiful Islam. The BRRI Winnower was developed to support farmers and rural entrepreneurs by providing a simple, affordable, and efficient solution for grain cleaning. The BRRI Win2024 model is an improved and more flexible version, equipped with a multicrop winnowing facility. By changing the sieve, the same machine can be used to clean paddy as well as other grains and crops, allowing both manufacturers and users to benefit from a single machine throughout the year. The technical drawings have been prepared in a clear and practical manner so that local workshops, fabricators, and small industries can easily understand the design and manufacture machines with proper dimensions, alignment, and material selection. When machines are built correctly, they perform better, last longer, and earn the confidence of farmers. This book helps manufacturers maintain consistent quality, reduce trial-and-error, and avoid common fabrication mistakes. At the same time, it supports skill development among technicians, students, and engineers, thereby strengthening local manufacturing capacity. It is hoped that this publication will help manufacturers produce high-quality BRRI Winnowers and contribute to the growth of rural entrepreneurship.

(Dr. Mohammad Khalequzzaman)

Chief Scientific Officer
Farm Machinery and Postharvest Technology Division
BRRI, Gazipur

About Project Director

Dr. AKM Saiful Islam graduated from the Department of Farm Power and Machinery, Bangladesh Agricultural University, Mymensingh and received chancellor award for achieving first position in graduate course. Dr. Islam obtained MS degree from the same university in 1996. He completed postgraduate diploma course from Silsoe College, UK in 1997. Dr. Islam obtained PhD in Agricultural Engineering from the Department of Farm Power and Machinery, Bangladesh Agricultural University, Mymensingh in 2012. He started his career as a Scientific Officer in Farm Machinery and Postharvest Technology Division of Bangladesh Rice Research Institute in 1998. Dr. Islam developed training manual for seedling raising techniques, BRRI weeder, rice-wheat reaper, BRRI open orum thresher, BRRI rice-wheat thresher, BRRI panicle thresher, BRRI whole feed combine harvester. He is involved in the invention and development of mechanized seedling raising techniques, BRRI seed sower, BRRI auto seed sower, BRRI rice transplanter, BRRI semi automatic rice transplanter, BRRI solar light trap, BRRI urea super granular fertilizer, BRRI power weeder, BRRI rice-wheat reaper, BRRI rice-wheat thresher, BRRI panicle thresher, BRRI whole feed combine harvester, BRRI head feed combine harvester, BRRI straw rope maker, BRRI air blow rice mill, BRRI compact rice mill, BRRI mil and BRRI short and long rice processing technology. At present, he is working as a Chief Scientific Officer and project director of the project "Strengthening Farm Machinery Research Activity for Mechanized Rice Cultivation (SFMRA)".

About the project

The project "Strengthening Farm Machinery Research Activity for Mechanized Rice Cultivation" was approved for implementation from July 2019 to June 2027 at an estimated cost of Tk 5059 Lakhs. The project is being implemented by the Farm Machinery and Postharvest Technology Division of Bangladesh Rice Research Institute under the Ministry of Agriculture in 12 upazilas of 12 districts of seven divisions of the country. One of the main objectives of the project is to strengthen farm machinery research activities for sustainable rice cultivation. The specific objectives of the project are (a) Developing ten agricultural machinery and technologies suitable to the socio-economic condition of the farmers: i.e. rice transplanter, mini combine harvester, power weeder, reaper binder, compact rice mills, rice transplanter-cum-fertilizer, straw rope maker, seed sower machines, post-harvest management and renewable energy (solar and briquette machines); (b) Further development of the machinery by collecting feedback from the stake holder through 400 adaptive trials; (c) Providing hands-on training to 6480 machine operators, farmers, mechanics and service providers and 480 local agricultural machinery manufacturers and extension officers/workers to increase their skills on modern agricultural machinery; (d) Capacity building of 20 scientists and 20 workshop workers for the research on modern agricultural machinery through higher education and training; and (e) Modernization of existing farm machinery research lab-cum-workshop. The project activities are a) Developing nine agricultural machinery and post-harvest technologies suitable for sustainable rice production i.e. rice transplanter, combine harvester, power weeder, reaper binder, compact rice mill, rice transplanter-cum-fertilizer, straw rope maker, seed sower machine, post-harvest management and renewable energy (solar and briquette machines); b) To procure prototypes from abroad and preparing indigenously adapted machines through reverse engineering and applied research; c) To develop machine according to the feedback obtained through practical field tests; d) To conduct 324 two-day residential hands-on training on seedling raising techniques, operation, repair and maintenance of rice transplanters for mechanized rice transplanting; e) To sensitize 6480 farmers, machine operators, mechanics, farmer groups/farmers associations, service providers about utility of agricultural machinery, operating techniques, repair and maintenance through 480 practical field tests of BRRI developed modern machinery; f) To publish the training schedule and names of the trainees in the form of a database on the BRRI web site to maintain transparency and accountability in the training program and to avoid duplicity in the selection of trainees; g) Developing 10 skilled scientific manpower through three months of overseas training; h) To organize short term (7-10 days) training of 10 scientists in agricultural machinery manufacturing countries; j) Conducting 10 trainings of three days duration on transfer of machinery technology to the farm machinery manufacturers/extension officers/workers; j) To enhance quality research skills by establishing machine testing lab (375 square meters) with modern equipment for machinery quality control; k) Develop a commercial approach to agriculture through limited long-term use of farm machinery and rental machinery service providers in the project area; l) Building co-operation between researchers, extension workers, manufacturers and farmers; d) Development of 2,500 cubic meter research field/plot for head office research; d) Vertical extension (450 square meters) of farm machinery lab cum office building at head office; n) Construction of machinery display cum ware house (150 sq m to 750 sq m in 5 Regional stations) for display room at BRRI Regional stations; (v) Skilling of 20 workshop workers through training in machine prototyping, repair and maintenance; d) To provide necessary technical assistance to the entrepreneurs and machinery manufacturing institutions/factories serving through the Department of Agriculture Extension for ensuring the use of sustainable agricultural machinery at the field level. Recruiting 11 persons (one office assistant cum computer programmer, two bench mechanics, two lathe-operators, two tin smiths, two hammer men and two drivers) through outsourcing to support the project director in project execution. Scientists of FMPHT division, research assistants, Accountant of Accounts division and staff of Planning and Evaluation division are working on the project as additional responsibilities.

Design consideration

- Suitable for cleaning multiple crops.
- Adjustable airflow for different grain sizes and weights.
- Efficient blower to remove impurities with minimal grain loss.
- Uniform feeding system for consistent cleaning.
- Easy-to-change and clean sieves.
- Low power requirement and energy-efficient operation.
- Strong, stable frame for durability.
- Operator-friendly design with safety guards.
- Reduced dust for a comfortable working environment.
- Made from locally available materials for easy maintenance.
- Affordable and portable for rural use.

Technical drawings of the BRRI Winnower provide comprehensive documentation of its design, construction, and operation. These drawings serve as essential guides for manufacturing, assembly, maintenance, and repair processes. Here's a detailed breakdown of the technical drawings typically associated with the BRRI Winnower:

General Assembly Drawing: This drawing provides an overall view of the winnower, showing all major components assembled together. It includes dimensions, annotations, and part numbers to identify each component and its placement within the assembly.

Exploded View Drawing: An exploded view illustrates individual components of the winnower, each separated from the others. Labels and callouts identify each part and its corresponding reference number for easy identification during assembly.

Frame Structure Drawing: Detail the structural framework of the winnower, including the main chassis, support beams, and mounting points for various components. Specify materials, dimensions, and welding details for each frame component to ensure structural integrity.

Cleaning Mechanism Drawing: Illustrate the internal mechanism responsible for cleaning rice grains, including the sieve, air blower, sorting chamber, and associated moving parts. Provide dimensions, clearances, and tolerances for each component to ensure proper functionality and alignment.

Cam Mechanism Drawing: If applicable, detail the cam mechanism used in the winnower to control the movement of cleaning components. Specify cam profiles, follower types, linkages, and other related parts to ensure proper operation and synchronization.

Assembly Instructions Drawing: Provide step-by-step instructions for assembling the winnower, accompanied by diagrams, illustrations, and textual descriptions. Include sequencing, fastener types, torque specifications, and alignment procedures to ensure accurate assembly.

These technical drawings play a crucial role in ensuring the successful implementation and operation of the BRRI Winnower, enabling manufacturers, technicians, and end-users to understand its design, functionality, and maintenance requirements effectively.

Purpose of developing BRRI winnower

- To efficiently remove chaff, dust, and light impurities from harvested crops.
- To make the cleaning of paddy and other grains faster and more reliable than traditional methods.
- To reduce labor requirement and address seasonal labor shortages.
- To minimize grain loss and improve overall grain quality.
- To ensure uniform and cleaner produce suitable for storage, milling, or marketing.
- To provide farmers and small entrepreneurs with an affordable and easy-to-use machine.
- To enable local manufacturing using available materials and skills.
- To support custom hiring services and small-scale agro-processing.
- To strengthen rural livelihoods by increasing productivity and value addition.

Characteristics of BRRI winnower

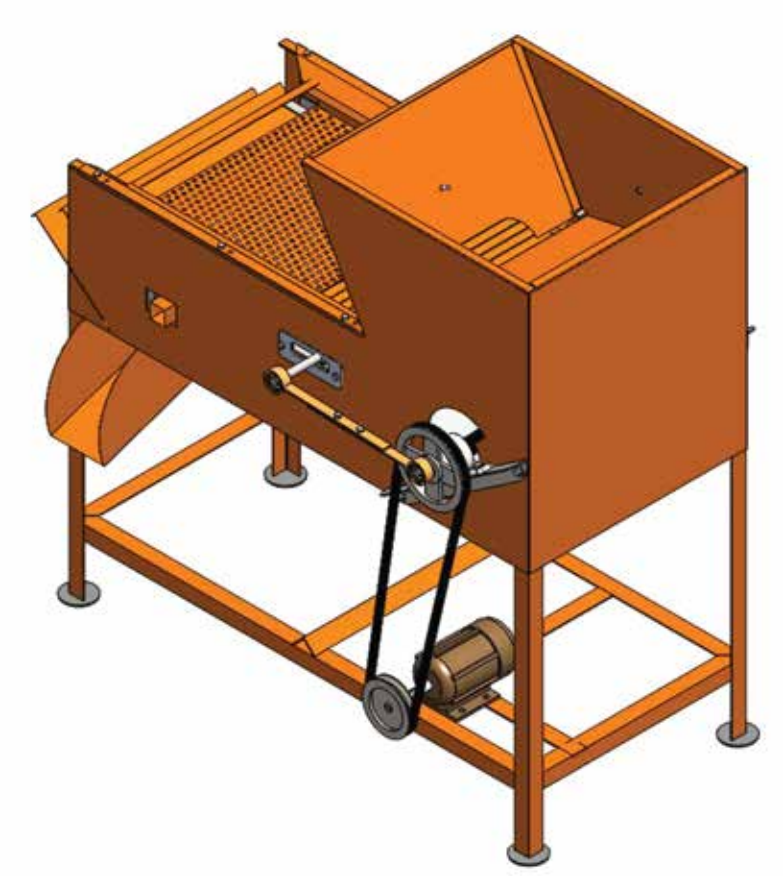
- Cleans multiple crops including paddy, wheat, maize, and pulses efficiently.
- Removes chaff, dust, and light impurities while keeping grain loss minimal.
- Adjustable airflow suits different grain types and conditions.
- Hopper and feed system ensure smooth and uniform grain flow.
- Sieves and screens are easy to remove, clean, and replace.
- Operates on low power, making it suitable for rural areas.
- Sturdy frame ensures durability and stability during operation.
- Portable and easy to move within farmyards and rural locations.
- Affordable and cost-effective for farmers and small entrepreneurs.
- Can be manufactured and maintained using locally available materials.
- Saves time and labor, increasing postharvest productivity.

Technical specifications

Name: BRRI Winnower
Model: BRRI Win2024
Taking l=length, w=width, h=height, t=thickness, ø=diameter, r=radius

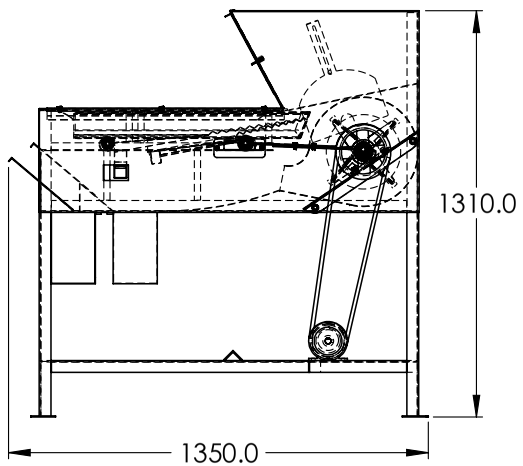
Sl. No.	Description	Specification
1	Overall machine dimensions (l×w×h), mm	1350×835×1310
2	Machine frame material	Angle bar (38×38×3) mm; Angle bar (20×20×3) mm; Flat bar (20×3) mm
3	Motor power, hp	0.5
4	Motor speed, rpm	1450
5	Motor type	Single phase, 220 V
6	Main base frame dimensions (l×w×h), mm	1225×580×1304
7	Main shaft dimensions (l×ø), mm	770×38
8	Sieve shaft (under main shaft) dimensions (l×ø), mm	770×20
9	Sieve shaft (under main shaft) dimensions (l×ø), mm	570×20
10	Sieve bush dimensions (OD×ID), mm	40×20
11	Motor pulley outer diameter, mm	125
12	Motor pulley bore diameter, mm	32
13	Main power shaft pulley outer diameter, mm	177
14	Main power shaft pulley bore diameter, mm	33
15	Blower outer diameter, mm	270
16	Blower bore diameter, mm	38.2
17	Blower cover plate diameter, mm	353
18	Outer cover sheet thickness, mm	1.5
19	Power transmission belt type and length, mm	B-belt, 1650
20	Sieve net dimensions (l×w×t), mm	520×510×2
	Sieve net hole diameter, mm	6; 10; 13
21	Ball bearing number	6306
22	Pillow block bearing	P-206
23	Dust support plate dimensions (l×w×t), mm	575×394×1.5
24	Dust delivery drain dimensions (l×w×t), mm	705×143×1.5
25	Grain divider dimensions (l×w×h×t), mm	570×110×89×1.5
26	Zig-zag plate dimensions (l×w×h×t), mm	510×235×12×2
27	Circlip (outer type) dimensions (OD×ID×t), mm	17.5×14.3×1.5
28	Circlip (inner type) dimensions (OD×ID×t), mm	44.5×34×1.8
29	Fasteners	Hexagonal nut bolts: M8, M10, M14

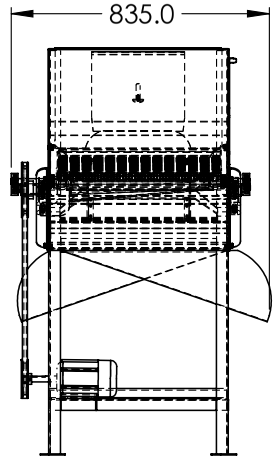
INDEX

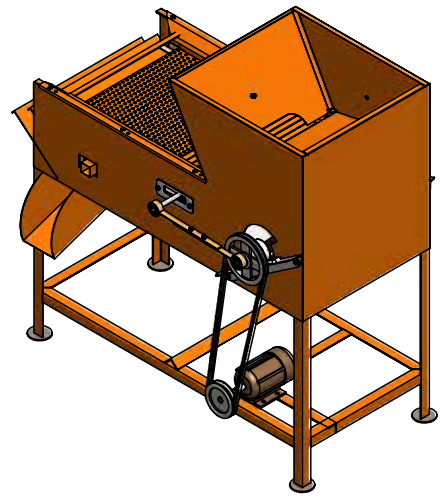


BRRI WINNOWER MACHINE ASSEMBLY

NOT A COMPLETE DRAWING. HERE JUST SHOWN OVER ALL DIMENSIONING OF THIS MACHINE.SOME VIEW IN NEXT PAGE.







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SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

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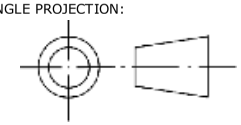


TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BRRI WINNOWER MACHINE ASSEMBLY

DWG NO: BWM_BWA_01_A4

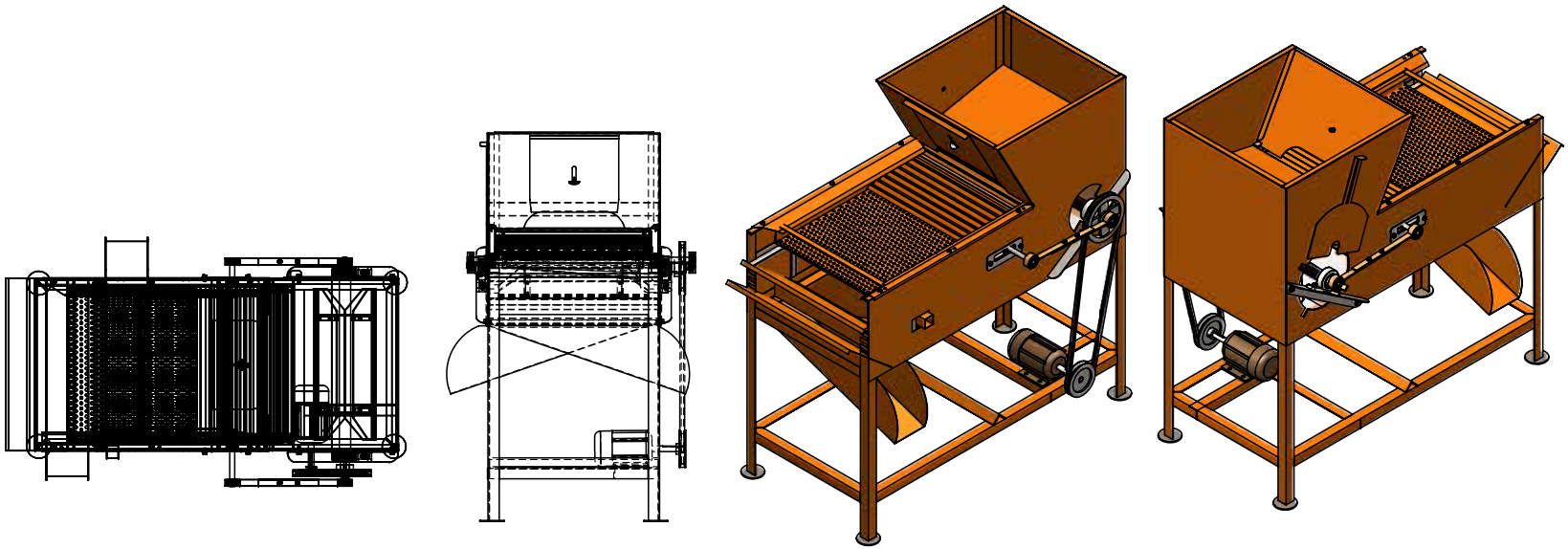
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 97861.75 g | A4

SCALE: 1:20 | SHEET 001 | REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

BRRI WINNOWER MACHINE ASSEMBLY
VARIOUS VIEWS.



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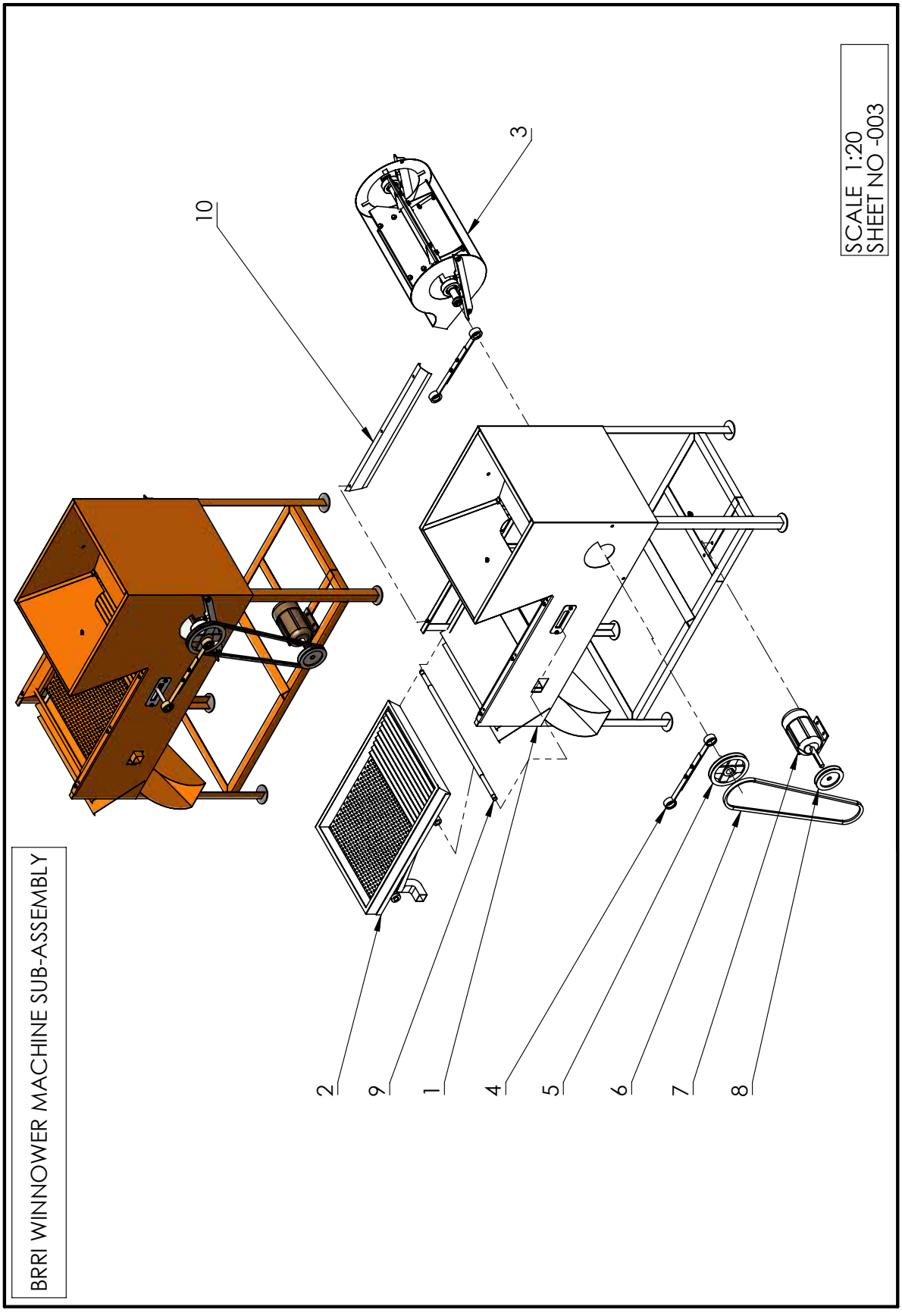
BRRI WINNOWER MACHINE SUB-ASSEMBLY
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3
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1
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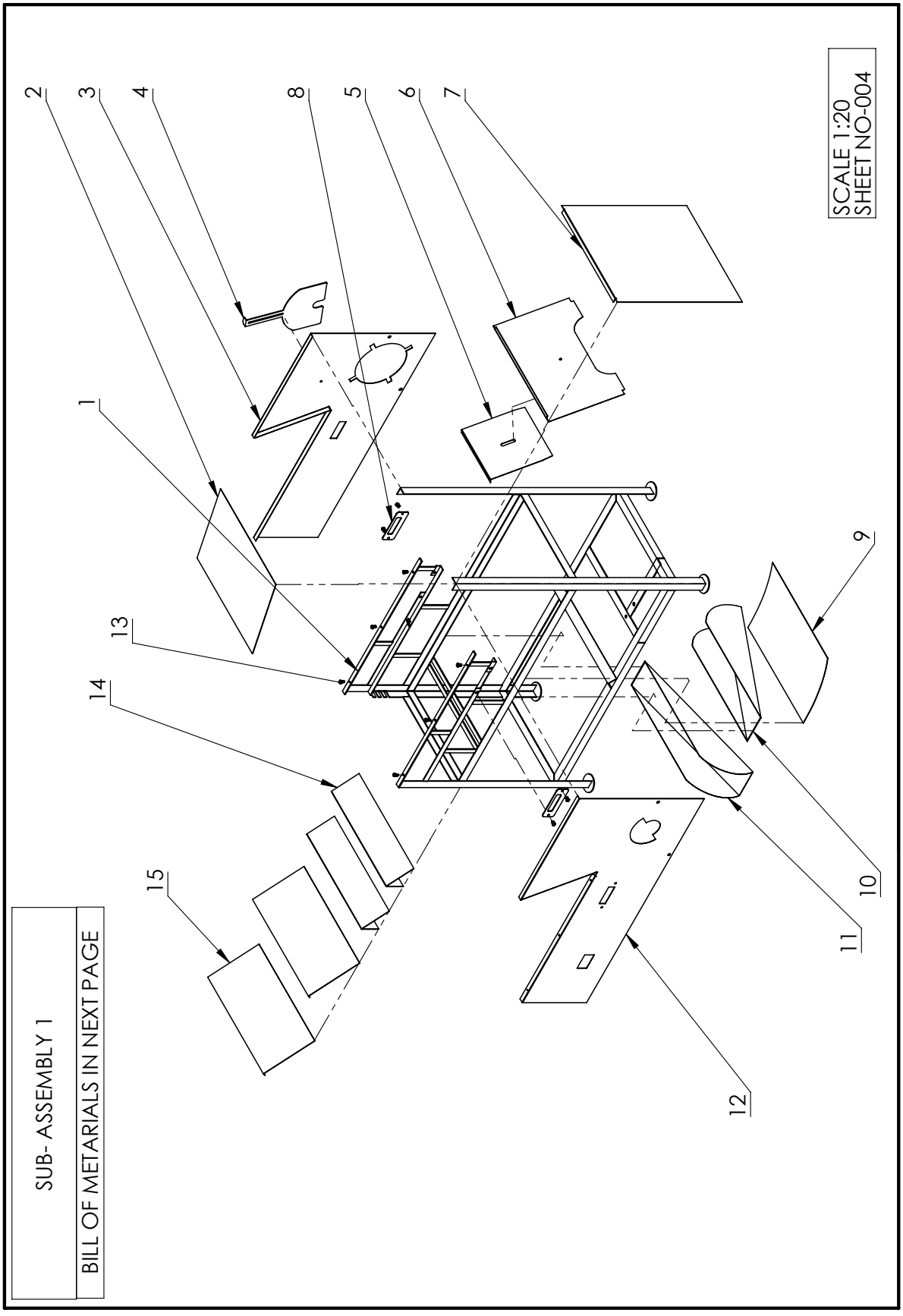
8


SUB- ASSEMBLY 1
BILL OF METARIALS IN NEXT PAGE
SCALE 1:20
SHEET NO-004
1
2
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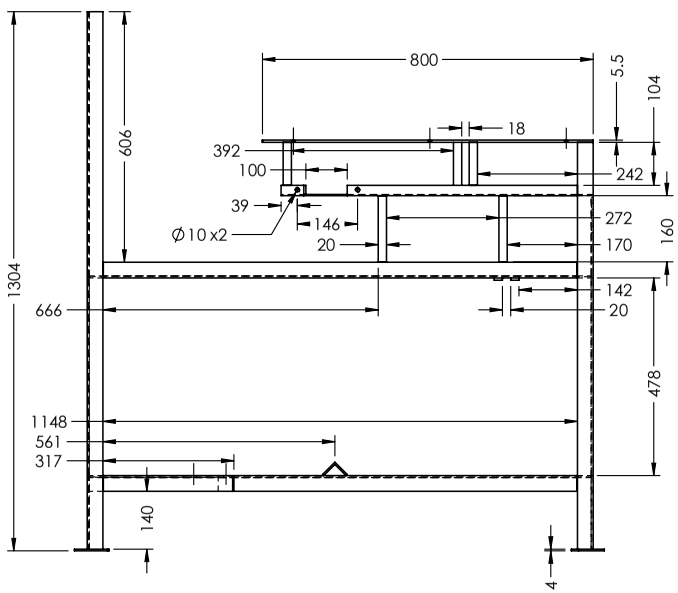
15

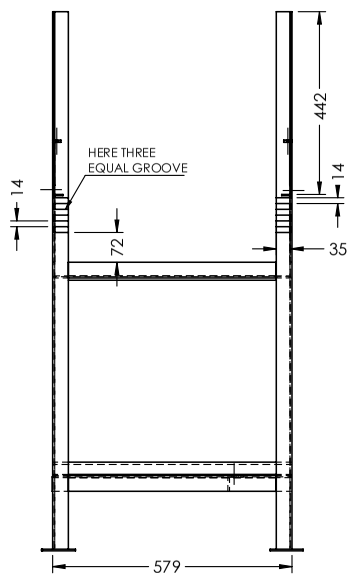
BILL OF METARIALS

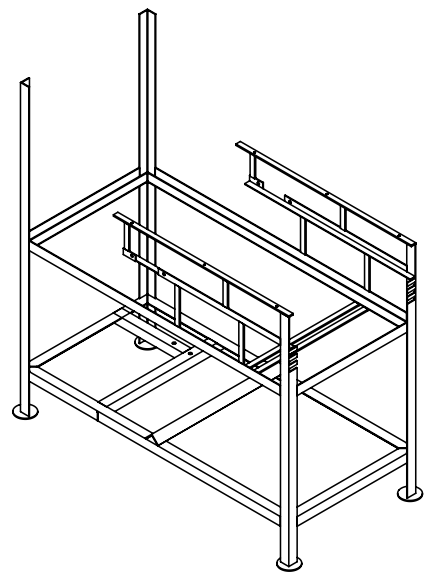
NO	DESCRIPTION	PART NO	MATERIAL	QTY
1	MAIN FRAME	BWM_MF_006_A4	PLAIN CARBON STEEL	1
2	HOPPER BOTTOM PLATE	BWM_HBT_008_A4	PLAIN CARBON STEEL	1
3	LEFT SIDE PLATE	BWM_LP_009_A4	PLAIN CARBON STEEL	1
4	AIR CONTROL PLATE	BWM_ACP_010_A4	PLAIN CARBON STEEL	1
5	GRAIN CONTROL PLATE	BWM_GCP_011_A4	PLAIN CARBON STEEL	1
6	HOPPER FRONT PLATE	BWM_HFP_012_A4	PLAIN CARBON STEEL	1
7	HOPPER BACK PLATE	BWM_HBP_013_A4	PLAIN CARBON STEEL	1
8	SLOT PLATE	BWM_SP_014_A4	PLAIN CARBON STEEL	2
9	BOTTOM PLATE	BWM_BP_015_A4	PLAIN CARBON STEEL	1
10	GRAIN OUTLET	BWM_GO_016_A4	PLAIN CARBON STEEL	1
11	GRAIN SECOND OUTLET	BWM_GSO_017_A4	PLAIN CARBON STEEL	1
12	RIGHT SIDE PLATE	BWM_RSP_018_A4	PLAIN CARBON STEEL	1
13	HEXAGONAL BOLT	BWM_HB_019_A4	ASTM A36	10
14	TRANSVERSE PLATE	BWM_TP_020_A4	PLAIN CARBON STEEL	2
15	AIR OUTLET CONTROL	BWM_AOC_021_A4	PLAIN CARBON STEEL	2

SHEET NO -005

MODEL IS SYMMETRY.NOT A COMPLETE DRAWING. HERE SHOWN FRONT AND RIGHT SIDE VIEW.SOME VIEW IN NEXT PAGE.HERE ALL ANGLE DIMENSION IS 38X38X3mm. FLAT BAR DIMENSION IS 20X4 mm. ALL HOLES ARE THROUGH ALL AND CENTER OF HIS GEOMETRY.







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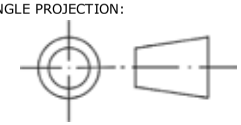

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: MAIN FRAME

DWG NO: BWM_MF_006_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 25570.80 g | A4

SCALE: 1:15 | SHEET 006 | REVISION: A

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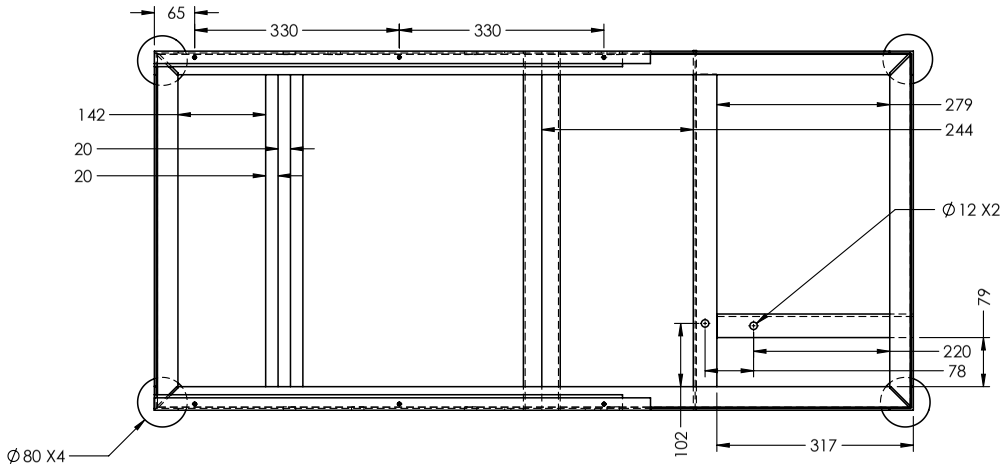

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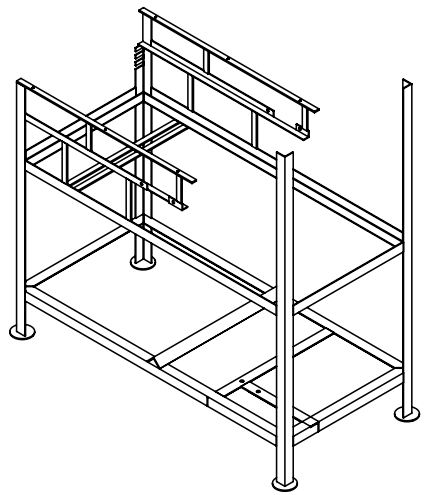
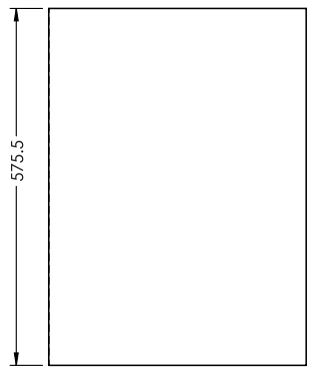
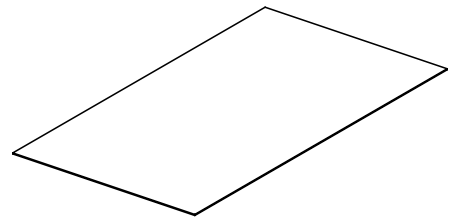


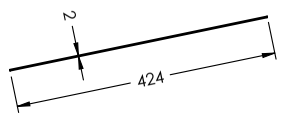
BACK VIEW OF ISOMETRIC

SCALE 1:10
SHEET NO -007

HOPPER BOTTOM PLATE .
MODEL IS SYMMETRY.







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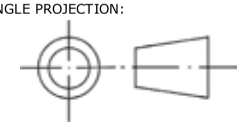
TITLE: BRRI WINNOWER MACHINE

DRG. NAME: HOPPER BOTTOM PLATE

THIRD ANGLE PROJECTION:



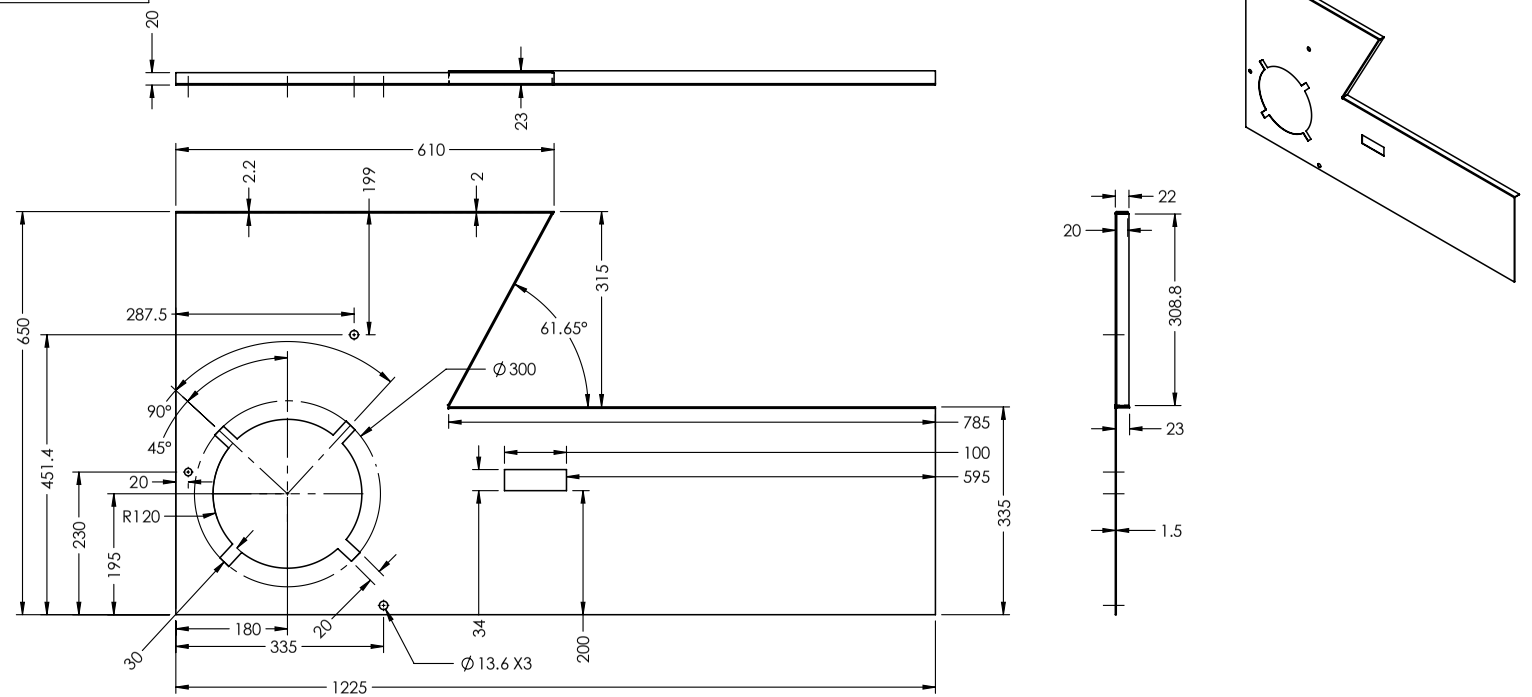
DWG NO: BWM_HBP_008_A4

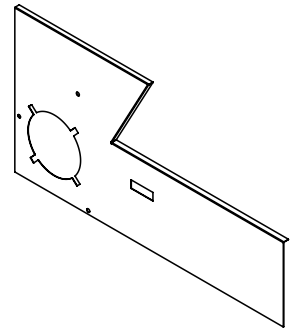
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 1099.35 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 008	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

HOPPER LEFT SIDE PLATE .
MODEL IS SYMMETRY.
ALL HOLE ARE THROUGH ALL.





UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

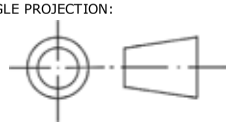
DRG. NAME: HOPPER LEFT SIDE PLATE

DWG NO: BWM_HLP_009_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

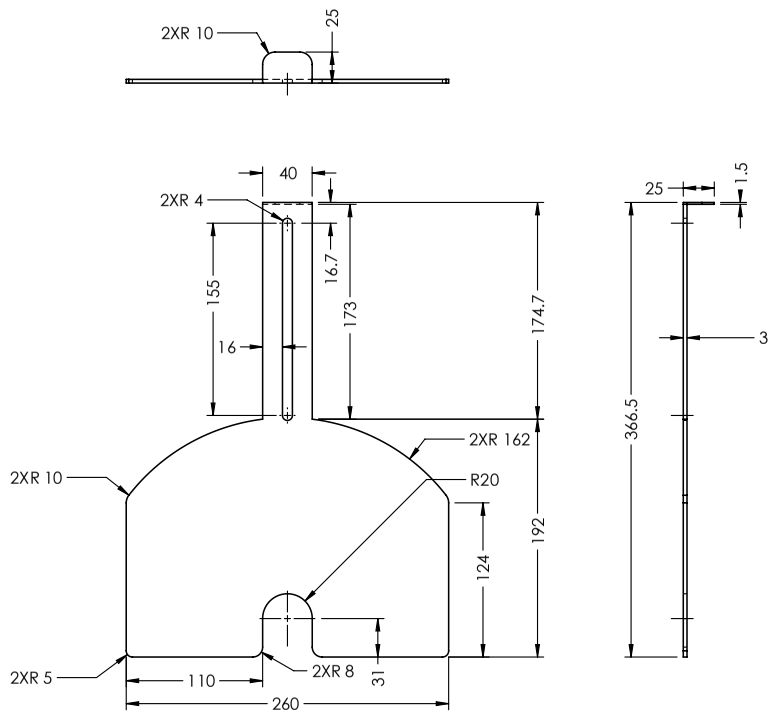
WEIGHT: 7078.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 009	REVISION: A

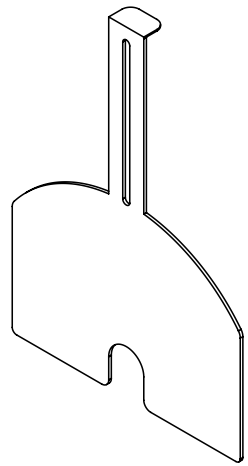
THIRD ANGLE PROJECTION:



NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

AIR CONTROL PLATE .
MODEL IS SYMMETRY.





UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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SCALE DRAWING
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CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

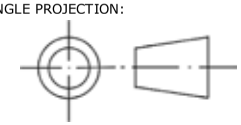
DRG. NAME: AIR CONTROL PLATE

DWG NO: BWM_ACP_010_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

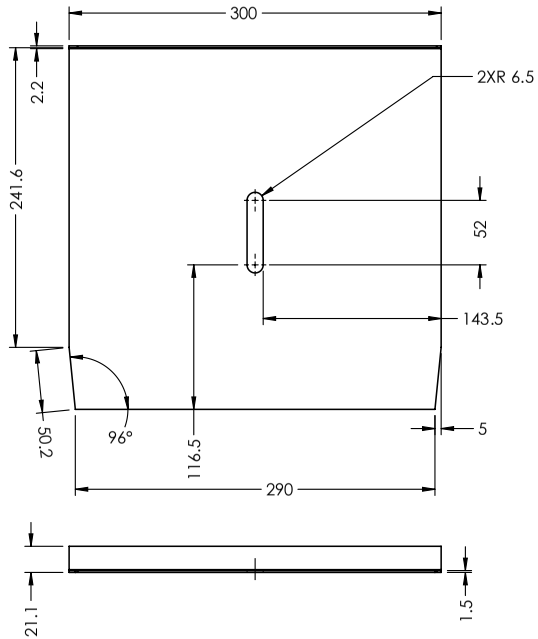
WEIGHT: 670.75 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 010	REVISION: A

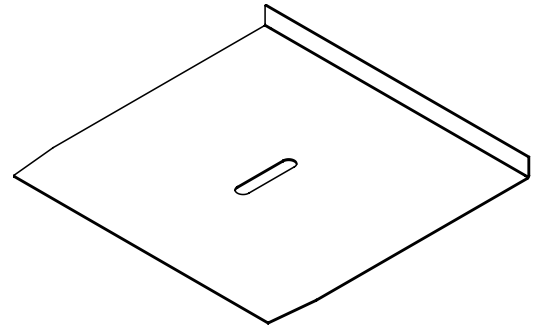
THIRD ANGLE PROJECTION:

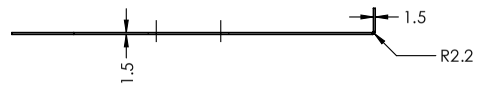


NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

GRAIN CONTROL PLATE .
MODEL IS SYMMETRY.







UNLESS OTHERWISE SPECIFIED:
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DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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SCALE DRAWING
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FIRST ISSUED: 8 DEC 2025

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APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

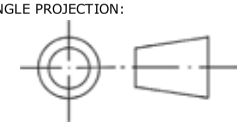
DRG. NAME: GRAIN CONTROL PLATE

DWG NO: BWM_GCP_011_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

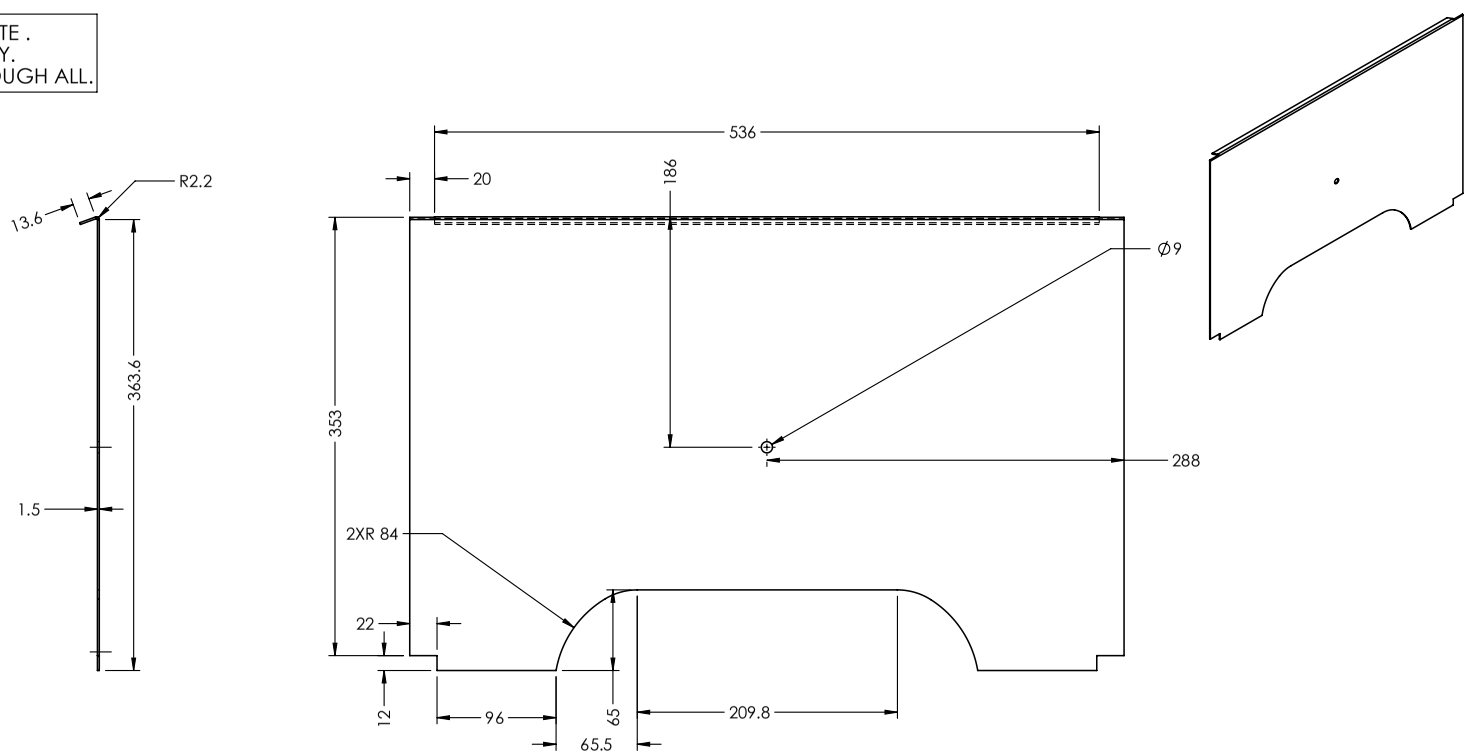
WEIGHT: 870.75 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 011	REVISION: A

THIRD ANGLE PROJECTION:



NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

HOPPER FRONT PLATE .
MODEL IS SYMMETRY.
ALL HOLE ARE THROUGH ALL.



UNLESS OTHERWISE SPECIFIED:
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DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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SCALE DRAWING
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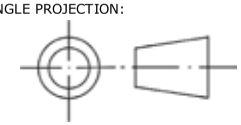
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: HOPPER FRONT PLATE

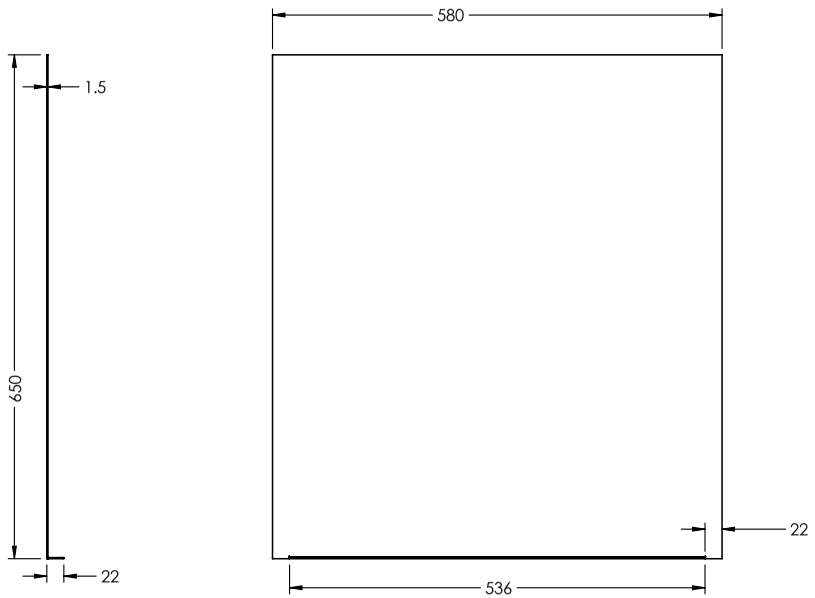
DWG NO: BWM_HFP_012_A4

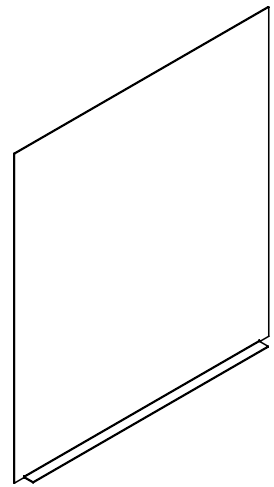
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 9790.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 012	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

HOPPER BACK PLATE .
MODEL IS SYMMETRY.





UNLESS OTHERWISE SPECIFIED:
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DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

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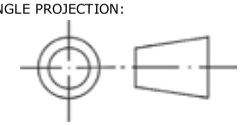
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: HOPPER BACK PLATE

THIRD ANGLE PROJECTION:



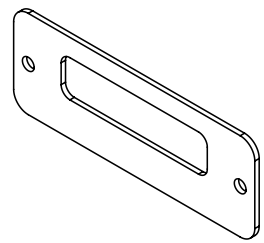
DWG NO: BWM_HBP_013_A4

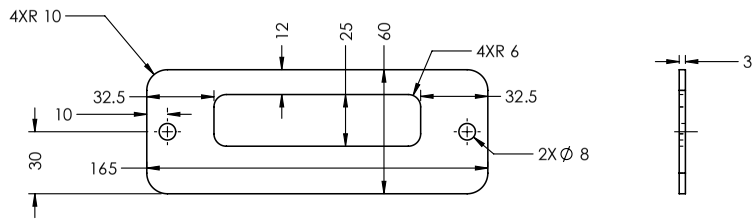
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 8890.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 013	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

SLOT PLATE .
MODEL IS SYMMETRY.
ALL HOLE ARE THROUGH ALL.





NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
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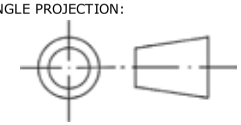
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

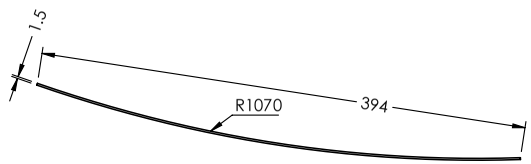
DRG. NAME: SLOT PLATE

DWG NO: BWM_SP_014_A4

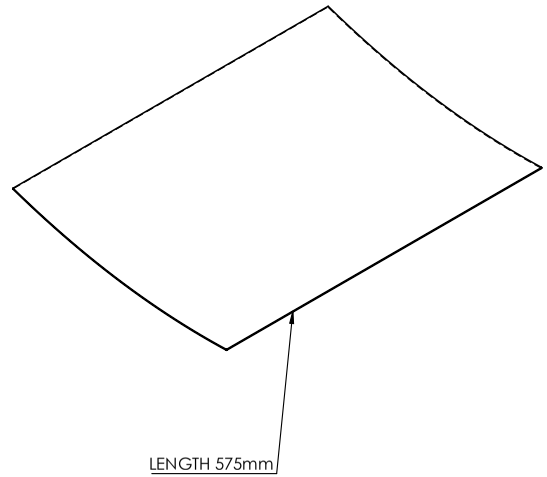
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 290.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:3	SHEET 014	REVISION: A

CURVE BOTTOM PLATE .
HERE SHOWN FRONT VIEW.



CURVE LENGTH 397 mm.



UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

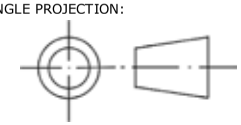
SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: CURVE BOTTOM PLATE

THIRD ANGLE PROJECTION:



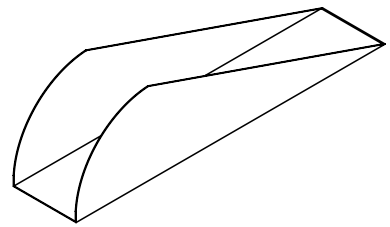
DWG NO: BWM_CBP_015_A4

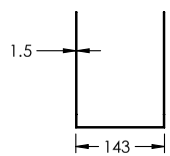
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

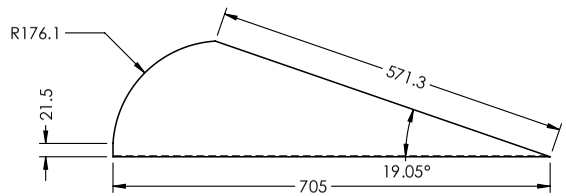
WEIGHT: 290.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 015	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

GRAIN OUTLET PLATE .
MODEL IS SYMMETRY.







UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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SCALE DRAWING
FINISH: NONE
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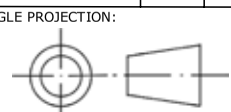
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: GRAIN OUTLET PLATE

THIRD ANGLE PROJECTION:



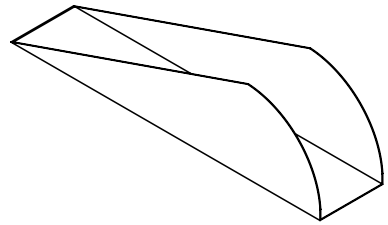
DWG NO: BWM_GOP_016_A4

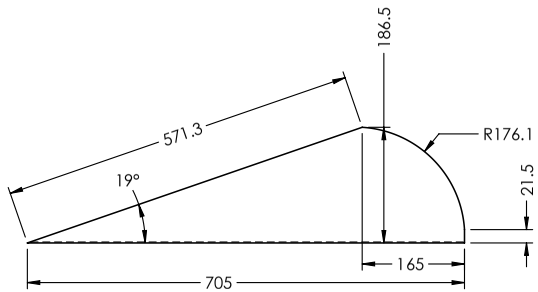
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

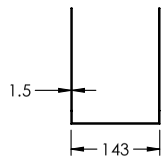
WEIGHT: 790.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 016	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

GRAIN OUTLET 2ND PLATE .
MODEL IS SYMMETRY.







UNLESS OTHERWISE SPECIFIED:
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DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

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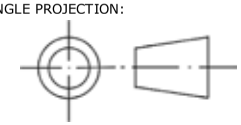
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: GRAIN OUTLET 2ND PLATE

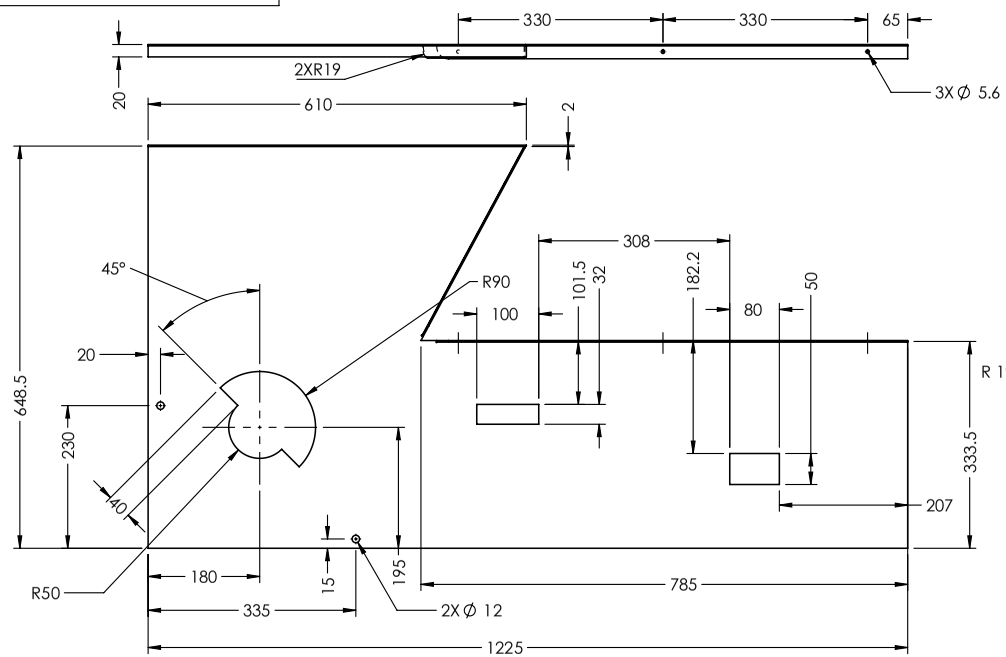
DWG NO: BWM_GOP_017_A4

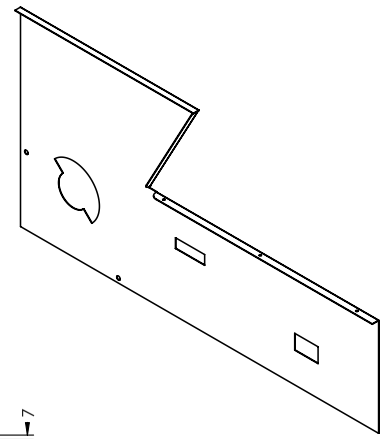
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

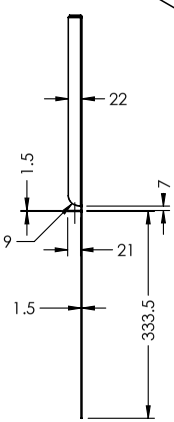
WEIGHT: 790.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 017	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

RIGHT SIDE FRAME PLATE . MODEL IS SYMMETRY. LEFT SIDE AND RIGHT SIDE FRAME OUTER DIMENSIONS ARE SIMILER. ALL HOLE ARE THROUGH ALL.







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MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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FIRST ISSUED: 8 DEC 2025

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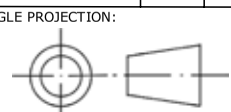
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

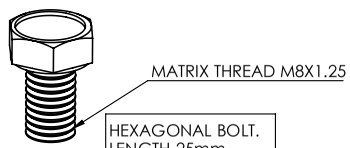
DRG. NAME: RIGHT SIDE PLATE

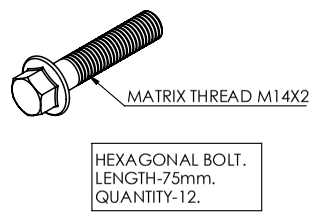
DWG NO: BWM_RSP_018_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 7078.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 018	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED





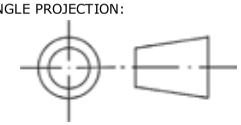
UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: HEXAGONAL BOLT

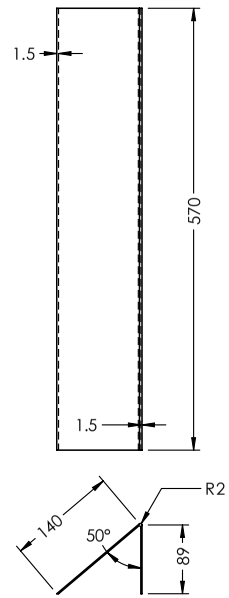
DWG NO: BWM_RSP_019_A4

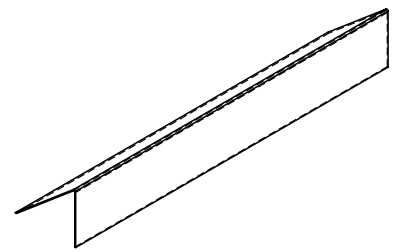
OUTSOURCING: VENDOR

WEIGHT: 126.65 g	MATERIAL : ASTM A36	A4
SCALE: 1:1	SHEET 019	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

GRAIN DIVIDER TRANSVERSE PLATE .
MODEL IS SYMMETRY.





UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
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MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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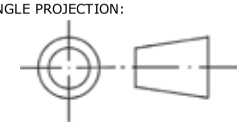
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: GRAIN DIVIDER TRANSVERSE PLATE

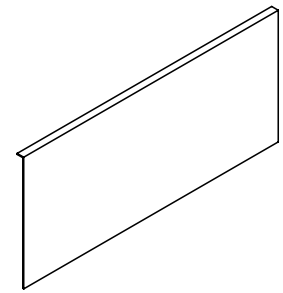
DWG NO: BWM_TP_020_A4

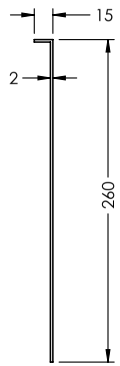
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 1245.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 020	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

AIR OUTLET CONTROL PLATE .
MODEL IS SYMMETRY.
HERE SHOWN PARTS ASSEMBLY POSITION.





UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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SCALE DRAWING
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FIRST ISSUED: 8 DEC 2025

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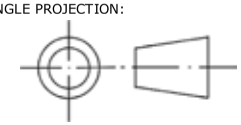
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: AIR OUTLET CONTROL PLATE

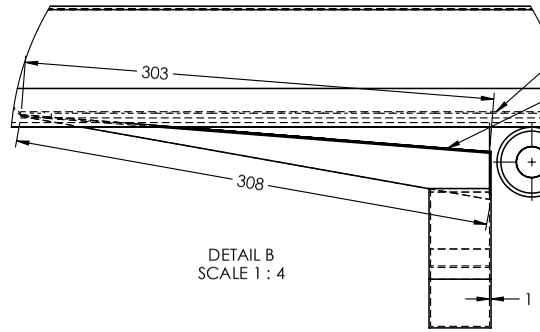
DWG NO: BWM_AOP_021_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

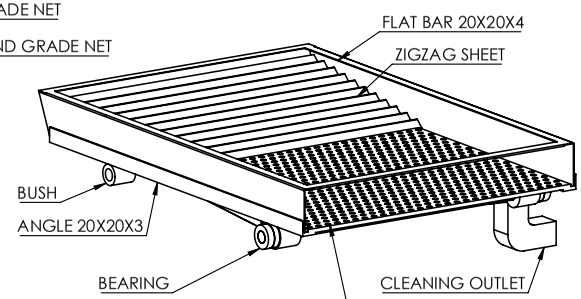
WEIGHT: 1125.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 021	REVISION: A

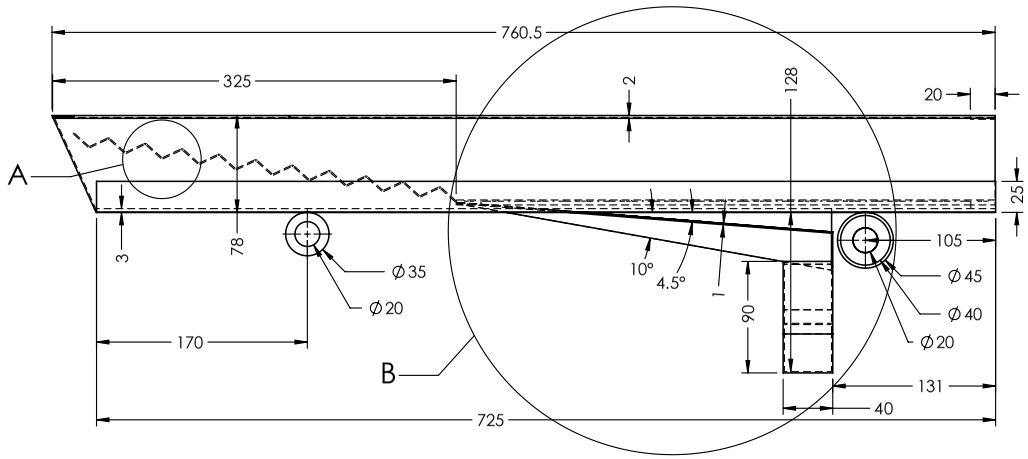
NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

SEIVE . NOT A COMPLETE DRAWING.HERE SHOWN ONLY FRONT VIEW.NEXT PAGE FOR MORE VIEW. MODEL IS SYMMETRY. 6203 BEARING QUANTITY-2.

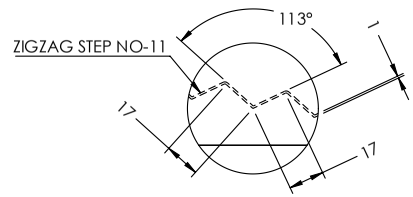


DETAIL B
SCALE 1 : 4





FIRST NET 510X520X4
WITH 10mm HOLE
FULL PATTERN



DETAIL A
SCALE 1 : 3

UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
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SCALE DRAWING
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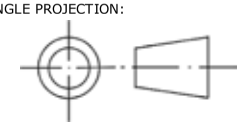
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: SIEVE

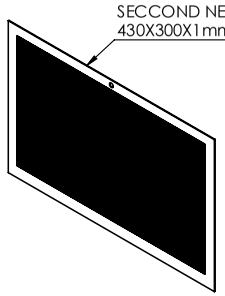
DWG NO: BWM_S_022_A4

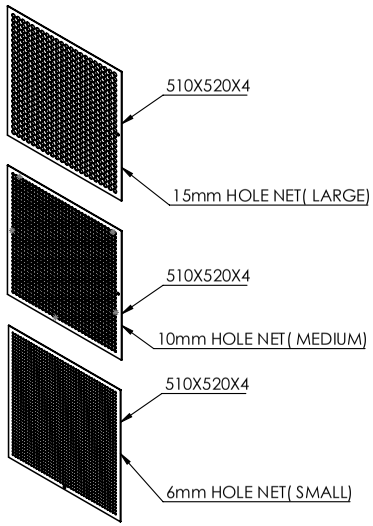
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 9825.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 022	REVISION: A

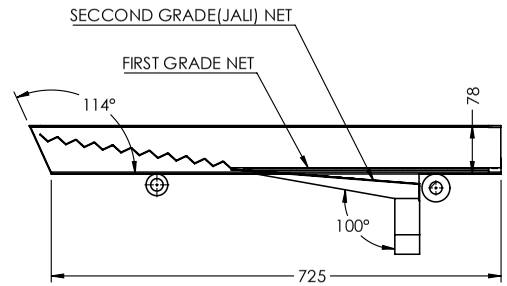
NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

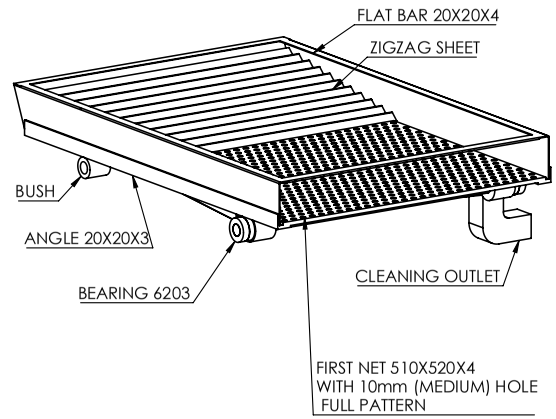
SEIVE . NOT A COMPLETE DRAWING.HERE SHOWN ONLY TOP VIEW.NEXT PAGE FOR MORE VIEW. MODEL IS SYMMETRY.



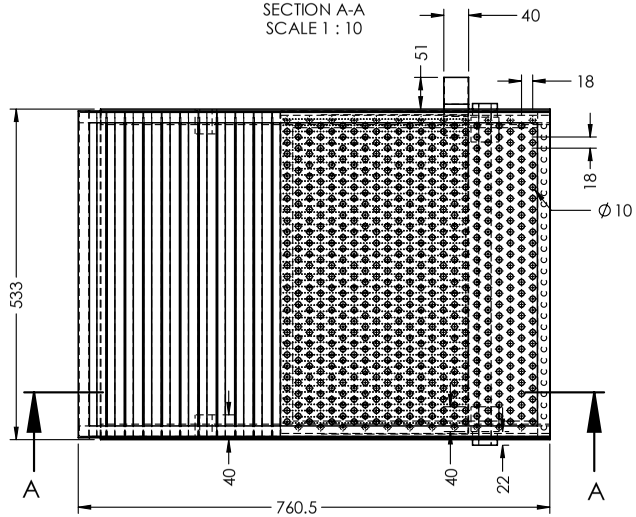


NOTE. THERE ARE THREE TYPE OF SIEVE
1.LARGE HOLES NET.
2.MEDIUM HOLES NET.
3.SMALL HOLES NET.
SIEVE WILL CHANGE FOR ESSENTIAL WORK.



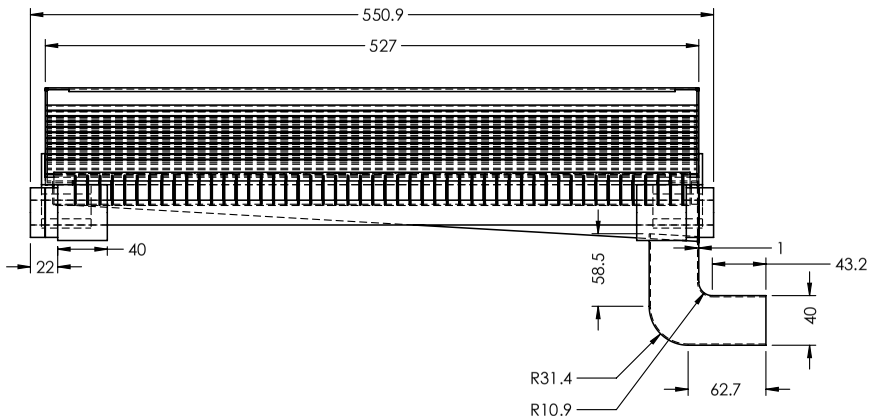


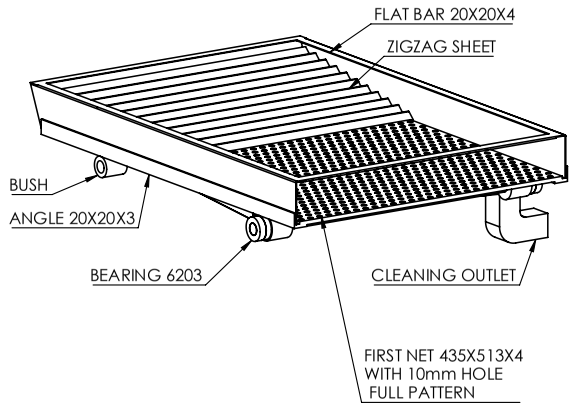
SECTION A-A
SCALE 1 : 10

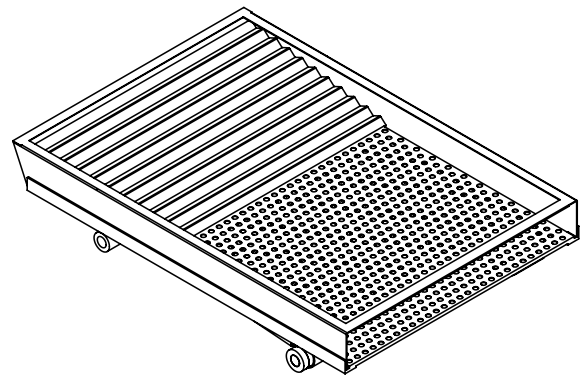


SCALE: 1:5
SHEET 023

SEIVE .HERE SHOWN ONLY RIGHT SIDE VIEW. MODEL IS SYMMETRY.



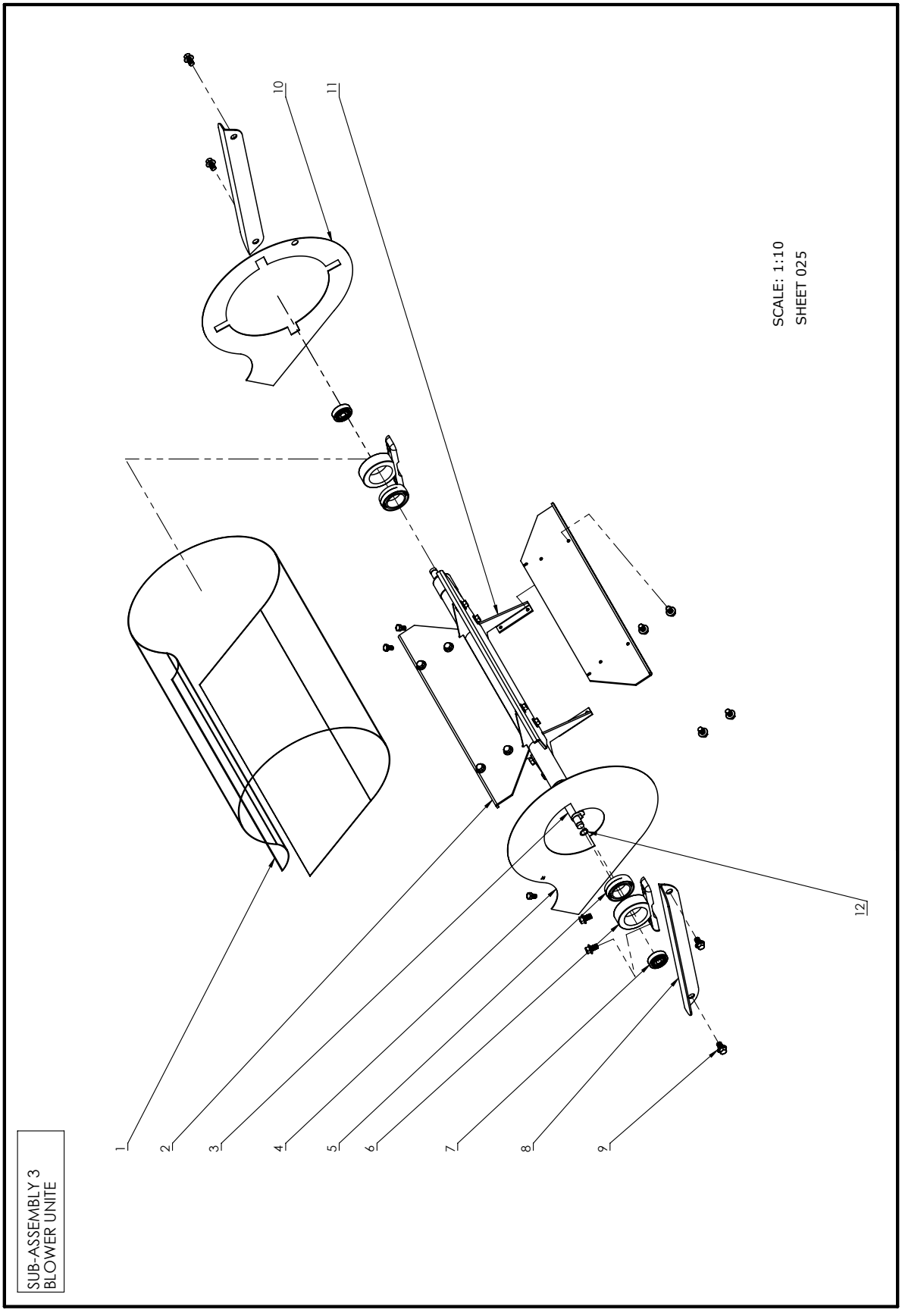




ISOMETRIC VIEW

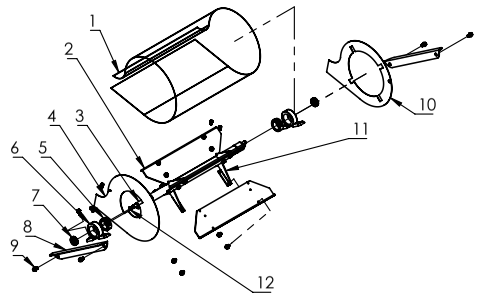
SCALE: 1:5

SHEET 024


SUB-ASSEMBLY 3
BLOWER UNITE
SCALE: 1:10
SHEET 025
1
2
3
4
5
6
7
8
9
10
11
12

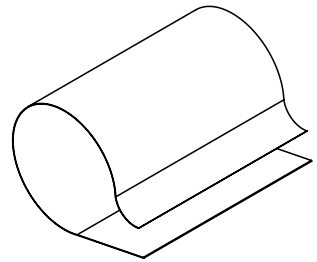
SUB-ASSEMBLY 3
BLOWER UNITE

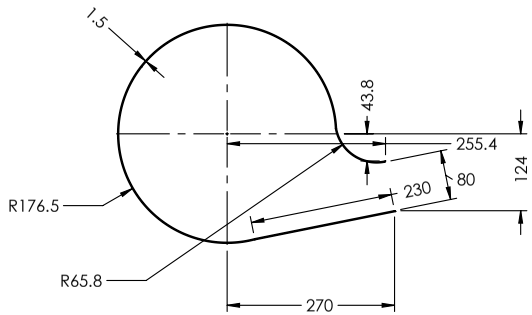
NO	DESCRIPTION	PART NO	MATERIAL	QTY
1	BLOWER COVER PLATE	BWM_BCP_027_A4	PLAIN CARBON STEEL	1
2	BLOWER PLATE	BWM_BP_028_A4	PLAIN CARBON STEEL	4
3	BLOWER SHAFT	BWM_BS_029_A4	AISI 1018	1
4	BLOWER RIGHT SIDE PLATE	BWM_BRP_030_A4	PLAIN CARBON STEEL	1
5	PILLOW BEARING	BWM_PB_031_A4	STAINLESS STEEL	2
6	BEARING HOUSE	BWM_BH_032_A4	GRAY CAST IRON	2
7	BEARING	BWM_B_033_A4	STAINLESS STEEL	8
8	BLOWER HOLDING BAR	BWM_BHB_034_A4	ASTM A36	2
9	HEXAGONAL BOLT	BWM_HB_035_A4	STAINLESS STEEL	20
10	BLOWER LEFT SIDE PLATE	BWM_BLP_036_A4	PLAIN CARBON STEEL	1
11	BLOWER PLATE HOLDER	BWM_BPH_037_A4	PLAIN CARBON STEEL	2
12	CIRCLIP	BWM_RSP_038_A4	ASTM A36	2

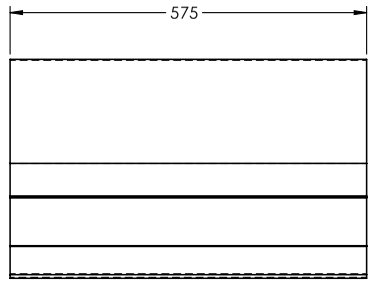


SCALE: 1:30
SHEET 026

BLOWER COVER PLATE .







UNLESS OTHERWISE SPECIFIED:
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SCALE DRAWING
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DETAILS	NAME	SIGNATURE	DATE
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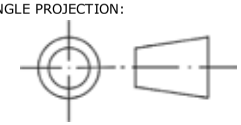
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BLOWER COVER PLATE

THIRD ANGLE PROJECTION:



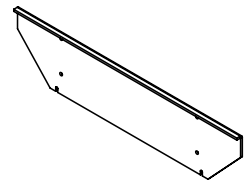
DWG NO: BWM_BCP_027_A4

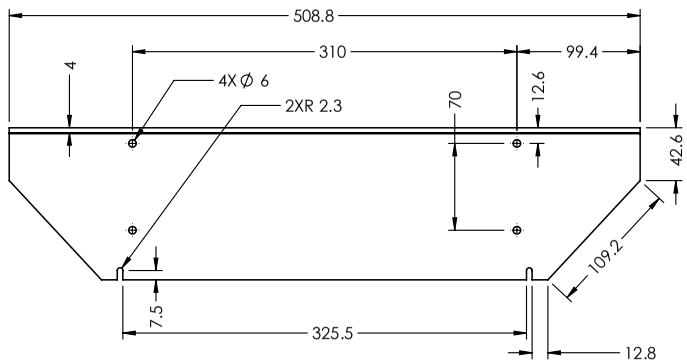
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

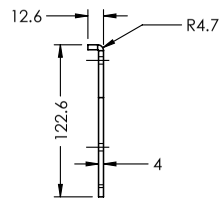
WEIGHT: 2586.65 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:10	SHEET 027	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

BLOWER PLATE .
MODEL IS SYMMETRY.
ALL HOLE ARE
THROUGH ALL.







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SCALE DRAWING
FINISH: NONE
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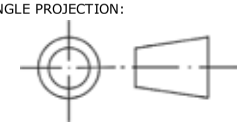
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BLOWER PLATE

THIRD ANGLE PROJECTION:



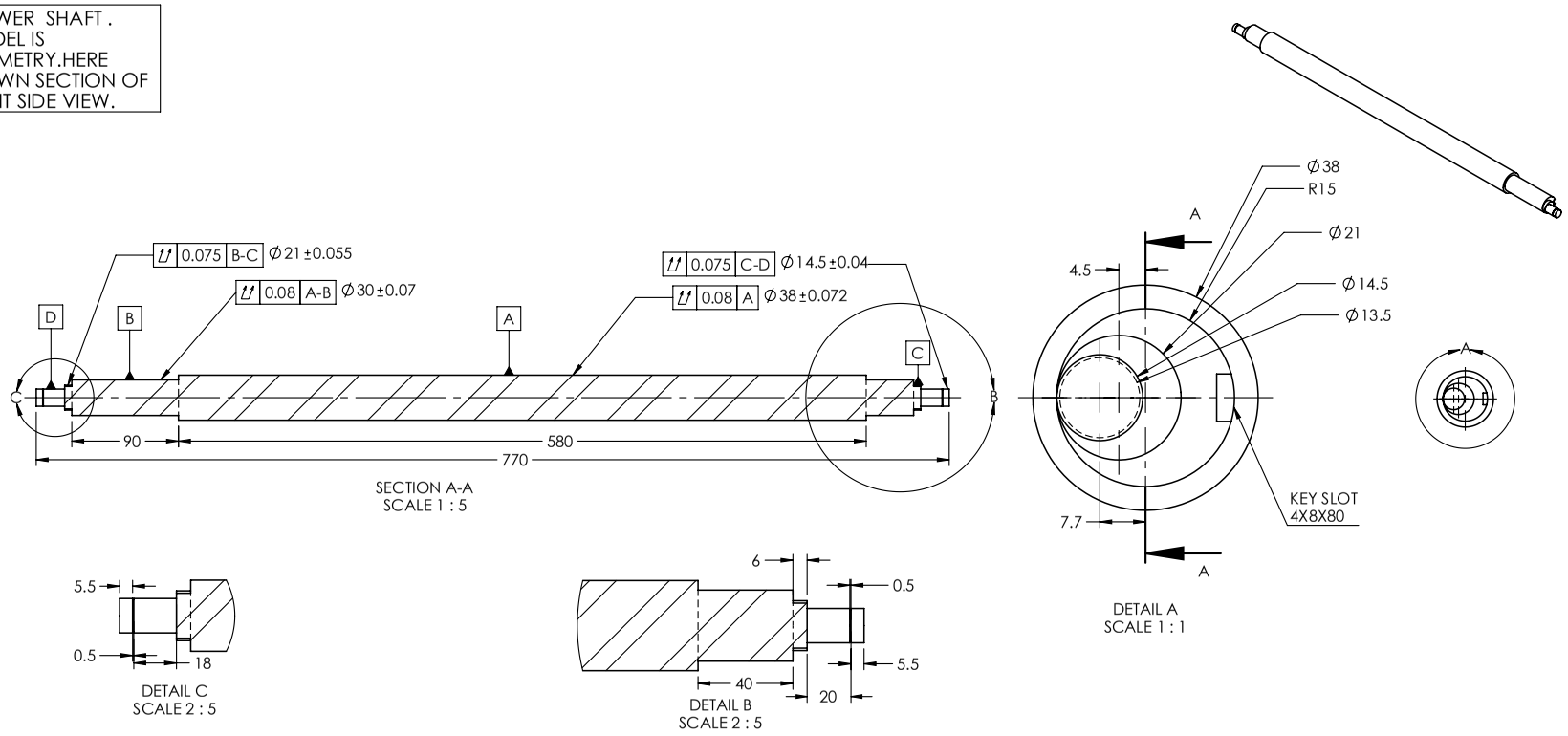
DWG NO: BWM_BCP_028_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 3539.95 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 028	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

BLOWER SHAFT . MODEL IS SYMMETRY.HERE SHOWN SECTION OF RIGHT SIDE VIEW.



NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

UNLESS OTHERWISE SPECIFIED:
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SCALE DRAWING
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APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:

TITLE: BRRI WINNOWER MACHINE

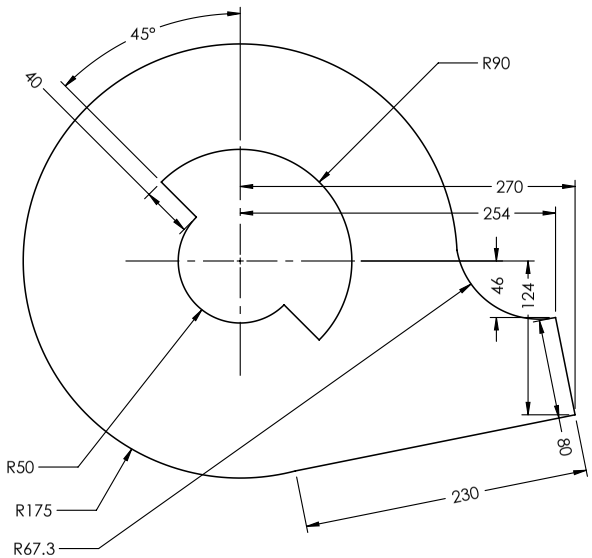
DRG. NAME: BLOWER SHAFT

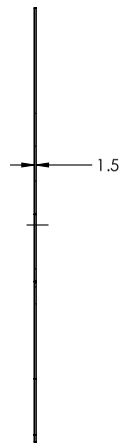
DWG NO: BWM_BCP_029_A4

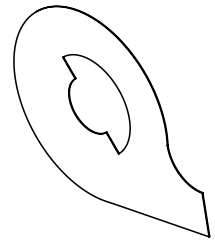
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 5049.75 g	MATERIAL : AISI 1018	A4
SCALE: 1:5	SHEET 029	REVISION: A

BLOWER RIGHT SIDE PLATE .
MODEL IS SYMMETRY.







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STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
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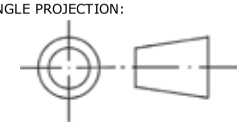
DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BLOWER RIGHT SIDE PLATE

THIRD ANGLE PROJECTION:



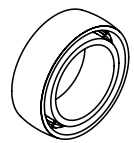
DWG NO: BWM_BRP_030_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 549.75 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 030	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

PILLOW BEARING . ID 30mm,
OD 60mm, WIDTH 20mm.
QUANTITY-02.



UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

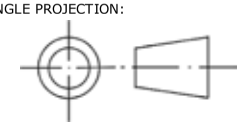
SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: PILLOW BEARING

THIRD ANGLE PROJECTION:



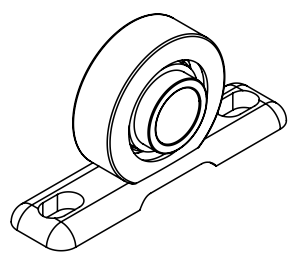
DWG NO: BWM_PB_031_A4

OUTSOURCING: VENDOR

WEIGHT: 239.89 g	MATERIAL : STAINLESS STEEL	A4
SCALE: 1:3	SHEET 031	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

PILLOW BEARING BLOCK- UCP206.
QUANTITY-02.



UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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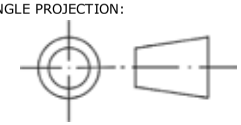
SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: PILLOW BEARING BLOCK-206

THIRD ANGLE PROJECTION:



DWG NO: BWM_PB_032_A4

OUTSOURCING: VENDOR

WEIGHT: 557.89 g	MATERIAL : GRAY CAST IRON	A4
SCALE: 1:3	SHEET 032	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

BALL BEARING-6302.
QUANTITY-08.

UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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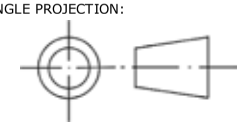
SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BALL BEARING

THIRD ANGLE PROJECTION:



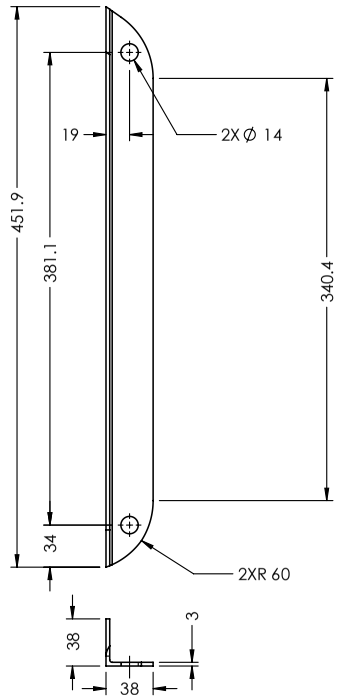
DWG NO: BWM_PB_033_A4

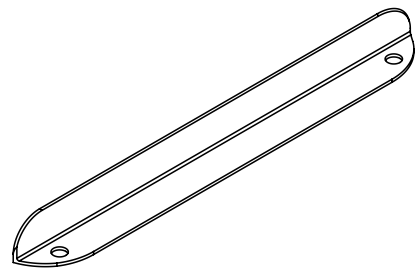
OUTSOURCING: VENDOR

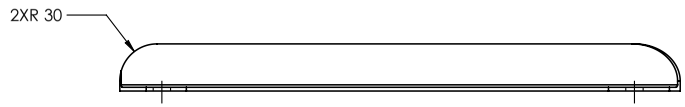
WEIGHT: 225.80 g	MATERIAL : STAINLESS STEEL	A4
SCALE: 1:2	SHEET 033	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

BLOWER HOLDING BAR .
MODEL IS SYMMETRY. ALL HOLE ARE THROUGH ALL.







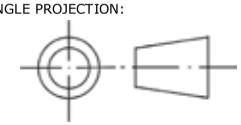
UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BLOWER HOLDING BAR

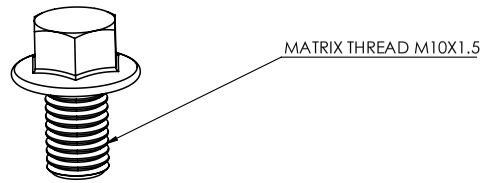
DWG NO: BWM_BRP_034_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 129.45 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 034	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

HEXAGONAL BOLT



UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

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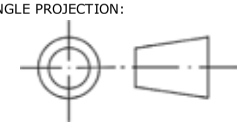
SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: HEXAGONAL BOLT

THIRD ANGLE PROJECTION:



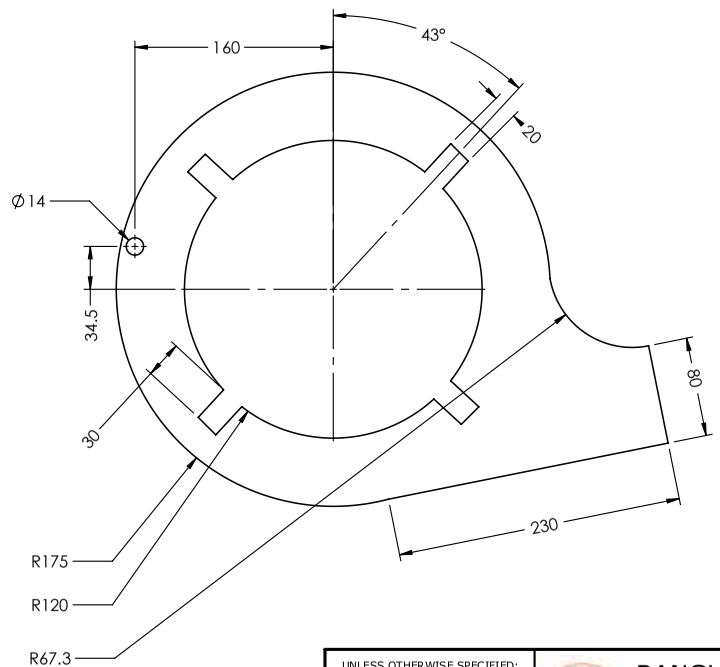
DWG NO: BWM_PB_035_A4

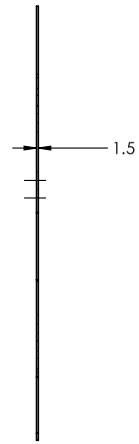
OUTSOURCING: VENDOR

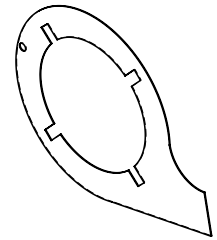
WEIGHT: 155.80 g	MATERIAL : STAINLESS STEEL	A4
SCALE: 1:1	SHEET 035	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

BLOWER LEFT SIDE PLATE . SOME DIMENSION IN RIGHT SIDE PLATE. MODEL IS SYMMETRY.ALL HOLE ARE THROUGH ALL.







UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

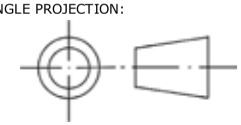
SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BLOWER LEFT SIDE PLATE

THIRD ANGLE PROJECTION:



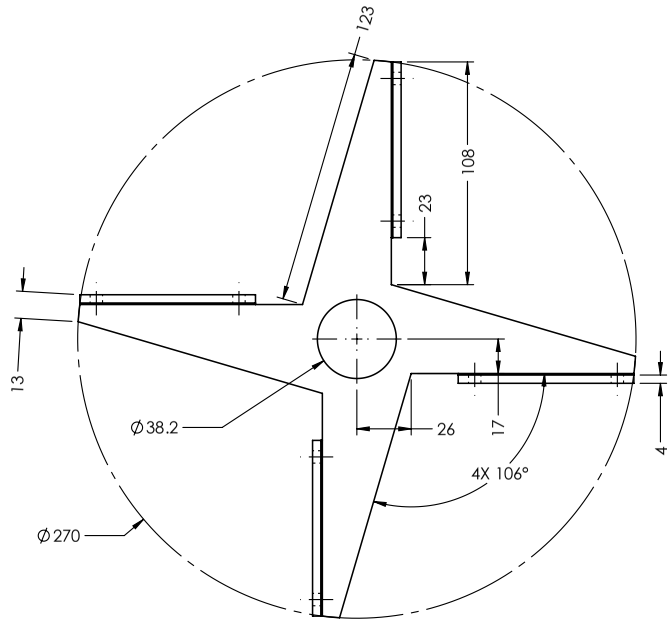
DWG NO: BWM_BLP_036_A4

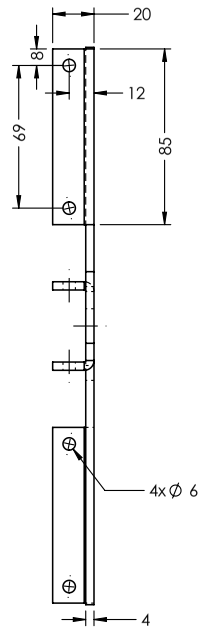
MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

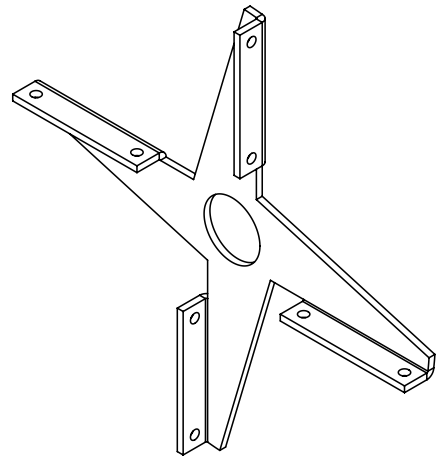
WEIGHT: 1219.45 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 036	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

BLOWER PLATE HOLDER .
MODEL IS SYMMETRY.ALL HOLE ARE THROUGH ALL.







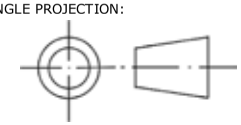
UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BLOWER PLATE HOLDER

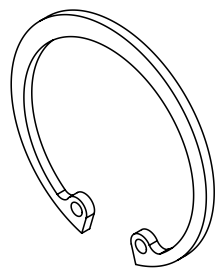
DWG NO: BWM_BLP_037_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 1429.05 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:3	SHEET 037	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

CIRCLIP LOCK.
TYPE: OUTER.
OUTER DIA-17.6mm.
INNER DIA-14.3mm.
THICKNESS-1.5mm.
QUANTITY-2.



CIRCLIP LOCK.
TYPE: INNER.
OUTER DIA-44.5 mm.
INNER DIA-38 mm.
THICKNESS-1.8 mm.
QUANTITY-2.

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

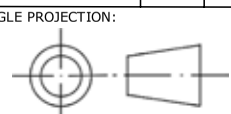
UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

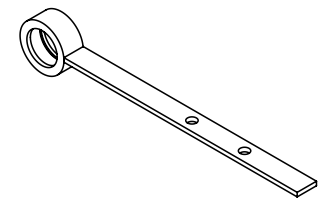
DRG. NAME: CIRCLIP

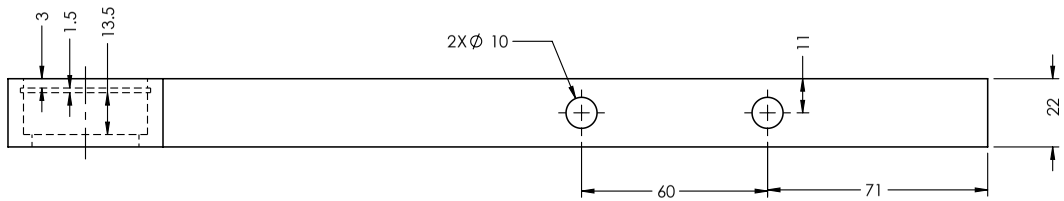
DWG NO: BWM_CLP_038_A4

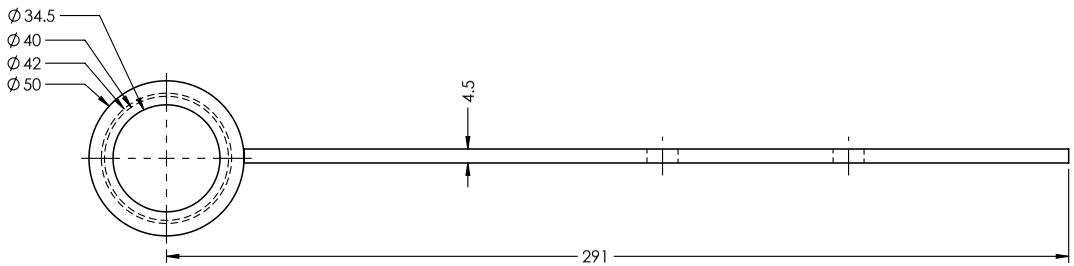
OUTSOURCING: VENDOR

WEIGHT: 65.80 g	MATERIAL : ASTM A36	A4
SCALE: 1:1	SHEET 038	REVISION: A

SUB-ASSEMBLY-4
MODEL IS SYMMETRY.
QUANTITY-4.ALL HOLE
ARE THROUGH ALL.







UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

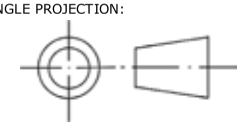
DRG. NAME: BEARING HOUSE

DWG NO: BWM_BH_039_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

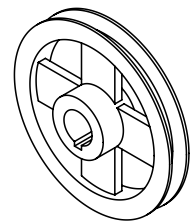
WEIGHT: 605.90 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:2	SHEET 039	REVISION: A

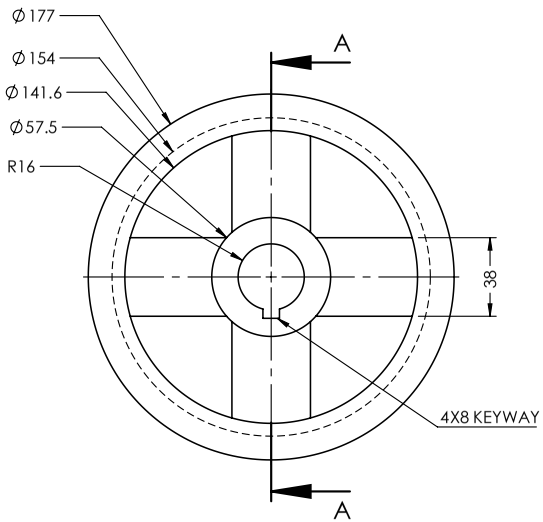
THIRD ANGLE PROJECTION:

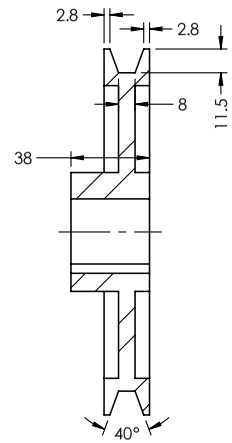


NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

SUB-ASSEMBLY-5
MODEL IS SYMMETRY







SECTION A-A
SCALE 1 : 3

UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

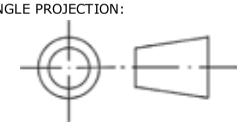
TITLE: BRRI WINNOWER MACHINE

DRG. NAME: BLOWER PULLEY

DWG NO: BWM_BP_040_A4

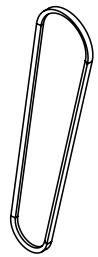
OUTSOURCING: VENDOR

THIRD ANGLE PROJECTION:



WEIGHT: 2075.90 g	MATERIAL : GRAY CAST IRON	A4
SCALE: 1:3	SHEET 040	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED



SUB-ASSEMBLY-6
POWER PULLEY BELT.
TYPE-B
LENGTH-65 inch.

UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

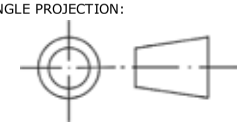
SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: PULLEY BELT

THIRD ANGLE PROJECTION:

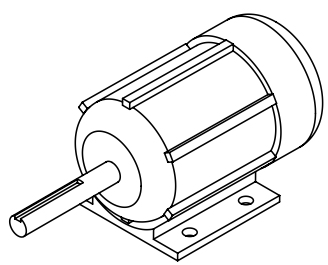


DWG NO: BWM_BP_041_A4

OUTSOURCING: VENDOR

WEIGHT: 325.90 g	MATERIAL : RUBBER	A4
SCALE: 1:3	SHEET 041	REVISION: A

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED



SUB-ASSEMBLY-7
MOTOR.
HP-1.5 KW-1.1
RPM-1400.

UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
* DOES NOT APPLY TO HOLE SIZE

BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

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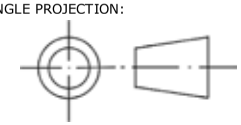
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

TITLE: BRRI WINNOWER MACHINE

DRG. NAME: MOTOR

THIRD ANGLE PROJECTION:



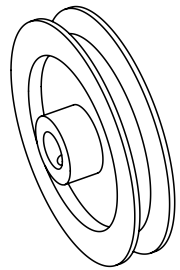
DWG NO: BWM_BP_042_A4

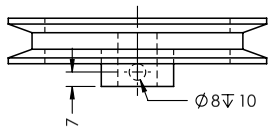
OUTSOURCING: VENDOR

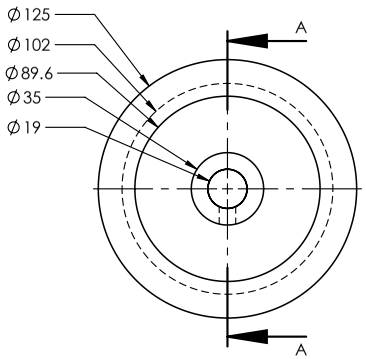
WEIGHT: 6285.90 g	MATERIAL : GRAY CAST IRON	A4
SCALE: 1:5	SHEET 042	REVISION: A

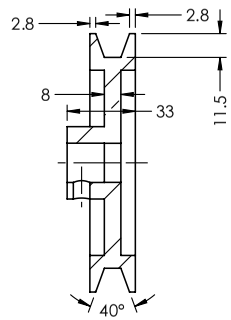
NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

SUB-ASSEMBLY-8
MOTOR PULLEY.









SECTION A-A
SCALE 1 : 3

UNLESS OTHERWISE SPECIFIED:
STD. TOLERANCE
DIMENSIONS ARE IN MILLIMETER
MILLIMETER: ± 0.1, ANGULAR: ± 0.05°
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BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

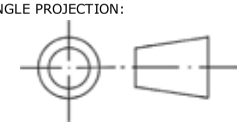
TITLE: BRRI WINNOWER MACHINE

DRG. NAME: MOTOR PULLEY

DWG NO: BWM_BP_043_A4

OUTSOURCING: VENDOR

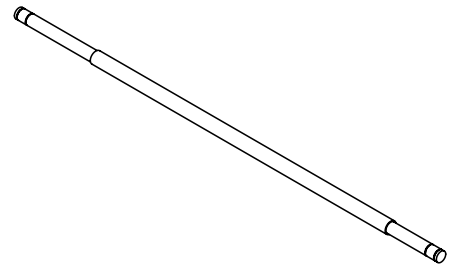
THIRD ANGLE PROJECTION:

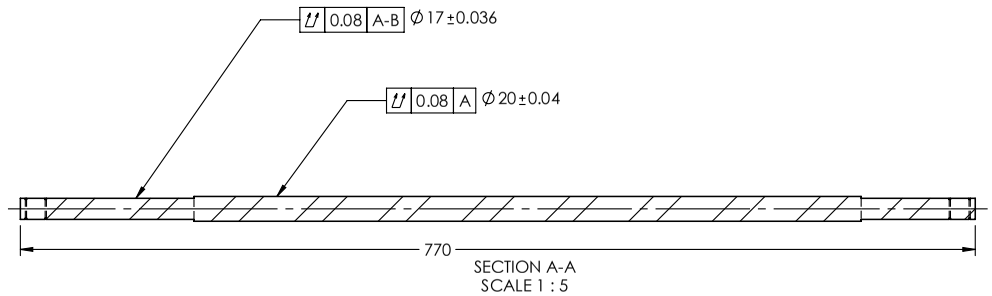


WEIGHT: 2055.20 g	MATERIAL : GRAY CAST IRON	A4
SCALE: 1:5	SHEET 043	REVISION: A

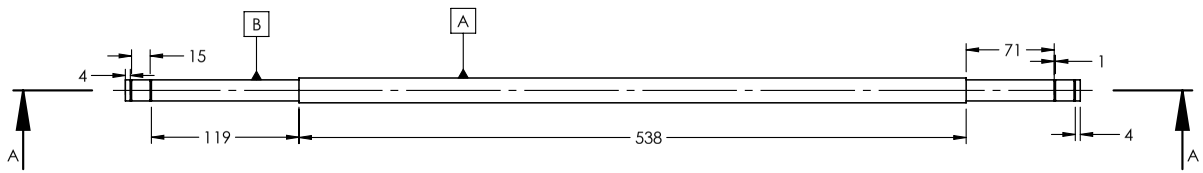
NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

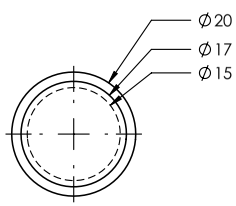
SUB-ASSEMBLY-9
SIEVE SHAFT.





SECTION A-A
SCALE 1 : 5





DETAIL A
SCALE 1 : 1

NOTE: DEBURR AND BREAK SHARP EDGES ALL BENDS MIN. RADIUS UNLESS SPECIFIED

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BANGLADESH RICE RESEARCH INSTITUTE
SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

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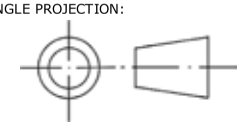
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

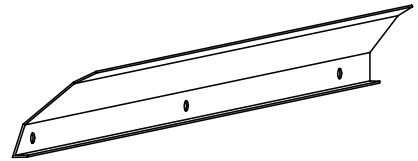
DRG. NAME: SIEVE SHAFT

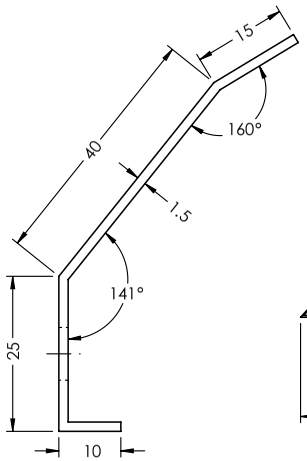
DWG NO: BWM_SS_044_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

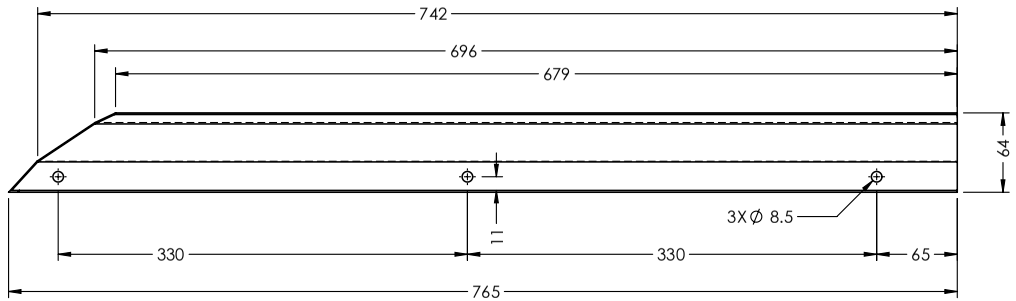
WEIGHT: 3205.20 g	MATERIAL : ASTM A36	A4
SCALE: 1:5	SHEET 044	REVISION: A

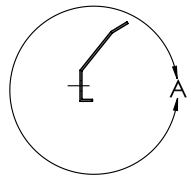
SUB-ASSEMBLY-10
WINNOWER SHOW
COVER.QUANTITY-02.
MODEL IS SYMMETRY.ALL
HOLE ARE THROUGH ALL.





DETAIL A
SCALE 2:3





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SFMRA PROJECT, FMPHT DIVISION

SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

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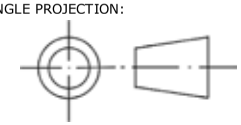
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

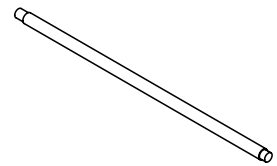
DRG. NAME: WINNOWER SUPPORT PLATE

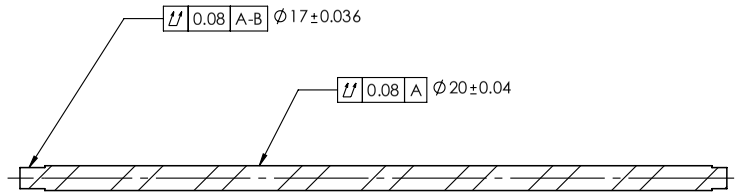
DWG NO: BWM_WSP_045_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

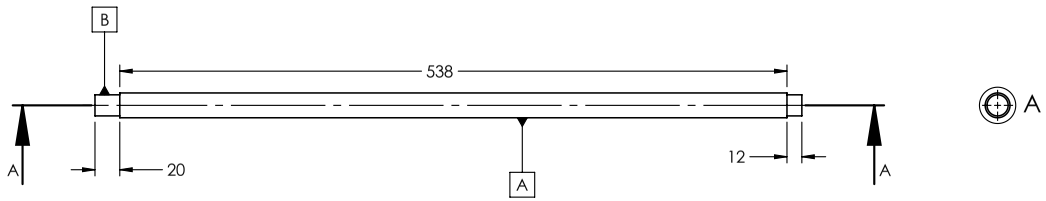
WEIGHT: 1145.20 g	MATERIAL : PLAIN CARBON STEEL	A4
SCALE: 1:5	SHEET 045	REVISION: A

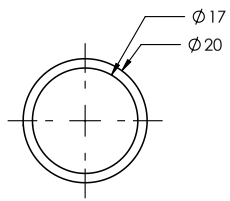
SIEVE SHAFT NO-03.





SECTION A-A
SCALE 1 : 5





DETAIL A
SCALE 1 : 1

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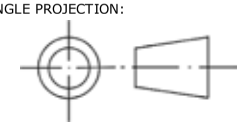
SCALE DRAWING
FINISH: NONE
FIRST ISSUED: 8 DEC 2025

DETAILS	NAME	SIGNATURE	DATE
DRAWN	MD. SHOBUJ AHMED	M S A	20 DEC,2025
CHK'D	DR.MD.MOSHARRAF HOSSAIN	M M H	25DEC,2025
APPV'D	DR. AKM SAIFUL ISLAM	A S I	30DEC,2025

THIRD ANGLE PROJECTION:



TITLE: BRRI WINNOWER MACHINE

DRG. NAME: SIEVE SHAFT NO-03

DWG NO: BWM_SS3_046_A4

MANUFACTURING METHOD: MACHINING, BENDING,MOLDING & WELDING

WEIGHT: 2855.20 g	MATERIAL : ASTM A36	A4
SCALE: 1:5	SHEET 046	REVISION: A