Draft Detailed Project Report

Agricultural Machinery Manufacturing Cluster, Ellenabad, Sirsa

Submitted To:
Directorate of MSME, Government of Haryana
(*for assistance under State Mini Cluster Development Scheme*)

October 2020

Prepared by:
Ernst & Young LLP
Under the project: MSME Ecosystem Transformation in Haryana

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23rd October 2020

Director General,
Directorate of MSME,
Government of Haryana,
1st Floor, 30 Bays Building, Sector 17, Chandigarh

Dear Sir,

As part of our engagement for providing consulting services for 'MSME Ecosystem Transformation in the State of Haryana', we hereby submit the Draft Detailed Project Report (DPR) for setting up a Common Facility Centre (CFC) for Agricultural Machinery Manufacturing Cluster in Sirsa for your kind perusal. The deliverable has been prepared in accordance with our engagement agreement with Directorate of Industries, Govt. of Haryana dated 03. 01.2017, and subsequent scope expansion work order no. Cluster/RFP/Selection of PMU/Part-II/21468-A dated 18.11.2019 our procedures were limited to those described in that agreement.

This Detailed Project Report is based on studies of and discussions with:

- Directorate of MSME, Govt. of Haryana
- DIC Sirsa
- Agricultural Machinery Manufacturing related units located in Sirsa
- Industry experts
- Secondary research

Our work has been limited in scope and time and we stress that more detailed procedures may reveal other issues not captured here. The procedures summarized in our Draft Detailed Project Report do not constitute an audit, a review or other form of assurance in accordance with any generally accepted auditing, review or other assurance standards, and accordingly we do not express any form of assurance. This Draft Detailed Project Report is intended solely for the information and use of the Office of Directorate of MSME, Government of Haryana and is not intended to be used by anyone other than specified party.

We appreciate the cooperation and assistance provided to us during the preparation of this report. If you have any questions, please contact the undersigned.

Sincerely,

Amar Shankar, Partner – Consulting Services

Disclaimer

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Acknowledgement

We would like to express our sincere gratitude to Directorate of MSME - Haryana and its officials for their involvement and valuable inputs during the preparation of this DPR. We are thankful to **Sh. Apoorva Kumar Singh, IAS, Principal Secretary, Industries & Commerce** and **Sh. Vikas Gupta, IAS, Director General, MSME, Government of Haryana** for sharing their insights about the 'Enterprises Promotion Policy 2015' and their vision about the State Mini Cluster Scheme. Special thanks to **Sh. Jaideep Kapoor, Additional Director, MSME, Haryana** for his proactive support and guidance to the team during the entire process.

We would like to convey our sincere thanks to members of **NJT Engineering Private Limited** and officials of **DIC, Sirsa** for their support during the on-site visits and interactions with agricultural machinery manufacturing units in Sirsa as well as facilitation in conducting stakeholder consultations.

Also, we must extend our sincere thanks to agricultural machinery manufacturing MSE entrepreneurs and other key stakeholders who gave us their valuable time and insights with respect to various dimensions of the industry and its support requirements. Without their help, capturing of the industry insights would not have been possible.

Abbreviations

BDS	Business Development Services
CAGR	Compound Annual Growth Rate
CFC	Common Facility Centre
CGTMSE	Credit Guarantee Fund Trust for Micro & Small Enterprises
CLCSS	Credit Linked Capital Subsidy Scheme
CNC	Computerized Numerical Control
DG-MSME	Director General - Micro Small & Medium Enterprises
DIC	District Industries Centre
DPR	Detailed Project Report
DSR	Diagnostic Study Report
EPP	Enterprise Promotion Policy
FI	Financial Institution
GDP	Gross Domestic Product
GOI	Government of India
GSDP	Gross State Domestic Product
GST	Goods and Service Tax
HFC	Haryana Finance Corporation
HSIIDC	Haryana State Industrial & Infrastructure Development Corporation Limited
IDBI	Industrial Development Bank of India
INR	Indian National Rupee
ITI	Industrial Training Institute
MHRD	Ministry of Human Resource Development
MSE	Micro and Small Enterprises
MSME	Micro, Small and Medium Enterprises
MSME-DI	MSME – Development Institute
NCR	National Capital Region
PNB	Punjab National Bank
PPP	Public Private Partnership
SIDBI	Small Industries Development Bank of India
SPV	Special Purpose Vehicle
SWOT	Strength, Weaknesses, Opportunities and Threats
UAM	Udyog Aadhar Memorandum
USD	United States Dollar

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Executive Summary

Executive summary

The Government of Haryana through the Directorate of Micro, Small and Medium Enterprises (MSME) intends to transform the MSME sector of the state and put it on a growth path. Several incentives have been offered under the state's ambitious 'Enterprise Promotion Policy (EPP) 2015' to provide an impetus to growth of the MSME sector. Towards this, the state aims to strengthen the technology infrastructure as well as enhance productivity and competitiveness of various MSME clusters across the state by leveraging funding under the State Mini Cluster Scheme providing grant under its EPP 2015.

In this context, this Detailed Project Report (DPR) has been prepared to seek grant-in-aid assistance under the State Mini Cluster Development Scheme to set up a state-of-the art Common Facility Centre (CFC) for agricultural machinery manufacturing cluster at Sirsa District, Haryana.

About the Sirsa Agricultural Machinery Manufacturing Cluster

There are about 300 agricultural machinery manufacturing units in Sirsa district. Most of the units are in Ellenabad sub-division of district Sirsa. The annual turnover of the cluster (micro and small) is about INR 200 Crore. Units in the cluster are Micro and Small in nature engaged in manufacturing of mini combine multi-crop thresher, maize thresher, groundnut digger, groundnut multi-crop thresher, ground net thresher and other miscellaneous agricultural machinery parts.

Diagnostic Study and Interventions

A diagnostic study was undertaken by the cluster members in September 2020 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. The diagnostic study report (DSR) was compiled by the cluster stakeholders in close coordination with the District Industries Centre, Sirsa. It was observed that most of the cluster units deploy obsolete technologies and are unable to meet the requirements of the market due to lack of availability of modern machines/equipment. The finishing of products is ordinary and non-uniform due to dependence on manual techniques and conventional machines. Cost competitiveness and quality of the product of MSE units engaged in agriculture machinery manufacturing in the cluster is affected by absence of in-house modern machines like CNC plasma cutting machine, CNC Lathe Machine, CNC Turning Centre, CNC Bending Machine, Press machines, Bandsaw & Drill Machine, etc. used for performing activities like cutting, turning, bending and other operations. Due to non-availability of these machines, units are dependent on private services providers which results in high cost and production delay. These were the major pain areas that necessitated an urgent intervention. In this context, the units decided to establish a CFC.

The DSR was validated by Deputy Director, DIC, Sirsa along with the officer from the head-office, on 9th October 2020 and was subsequently approved by the Director General - MSME on **13.10.2020**. The SPV was granted permission to go ahead with preparation of Detailed Project Report (DRP) for the cluster.

Proposed Common Facility Centre

The proposed CFC will facilitate:

- Hi-Tech Cutting Facility with advance CNC laser cutting machine
  - CNC Plasma Cutting Machine
- Mini Tool Room Facility wihich shall include following machine:
  - CNC Lathe Machine
  - CNC Turning Machine
  - CNC Bending Machine
  - CNC Milling Machine
  - Press Machines
  - Bandsaw
  - Drill Machines

Such a common facility will both supplement and complement the activities of firms in the cluster, and there is no similar facility available in the district for use by cluster units. The proposed common facilities will be utilized by the SPV members and will also be available to non-members units within and outside the cluster. The facility will provide a much needed infrastructural push to the cluster units and will enable them to become more competitive.

Special Purpose Vehicle for Project Implementation

After the diagnosis study, the cluster units came together to form a Special Purpose Vehicle (SPV) by the name and style of **'NJT Engineering Private Limited'.** The SPV has been set up as a Private Limited Company under section 7 of the Companies Act, 2013. DIC, Sirsa has played an important role in SPV formation by cluster stakeholders. The SPV already includes about 15 members who are subscribing to the necessary equity base of the company. The proposed CFC will be implemented on public-private partnership basis through the SPV **'NJT Engineering Private Limited'** by availing support from Government of Haryana (under EPP 2015).

Project Parameters, Viability and Sustainability

The cluster with support from State Government is planning to set up Common Facility Centre having state-of-the-art modern machining facilities to undertake job work of cluster units and the total estimated cost of proposed machines is about INR 202.50 lakh. The total contribution of SPV members will amount to INR 44.45 lakh as per the guidelines of Mini Cluster Development Scheme. Support from State Government is envisaged for INR 180.00 lakh towards the eligible project cost.

(Rs in Lakh)

PROJECT COST				
S. No.	Particulars	Total Project Cost	Eligible Amount as per Guidelines	Remarks
1	**Land & Building**			
	a. Land Value	0.00		
	b. Land Development	0.00	0.00	**Eligible (Max 25% of total of L&B, P&M, and Misc. F.A.)**
	c. Building & Other Civil Works	0.00		
	d. Building Value	0.00		
	Sub Total (A)	**0.00**	**0.00**	
2	**Plant & Machinery**			
	a. Indigenous	195.01		
	b. Imports	0.00	200	**Eligible**
	c. Secondary Machines	7.49		
	Sub Total (B)	202.50	200.00	
3	**Miscellaneous fixed assets (C)**	1.64	0.00	
4	**Preliminary & Preoperative Expenses (D)**	6.31	0.00	
5	**Contingency**			
	a. Building @ 2%	0.00	0.00	**Not eligible for grant**
	b. Plant & Machinery @ 5%	10.12	0.00	
	Sub Total (E)	10.12	0.00	
6	**Margin money for working capital @ 75% CU (F)**	3.88	0.00	
	Grand Total (A+B+C+D+E+F)	224.45	200.00	

Project Implementation

Project implementation is envisaged to involve a time-frame of about 6 months upon receipt of approval of grant-in-aid assistance from the Government of Haryana under State Mini Cluster Development Scheme. The project will be implemented by the SPV in close association with DIC, Sirsa.

In addition, for implementing this CFC project, a Project Management Committee (PMC) comprising of the Deputy Director, DIC, Sirsa, and representatives of the SPV members shall be constituted to directly oversee effective monitoring and implementation. The project will be implemented through the SPV, and the PMC will report progress of implementation to State Level Steering Committee and DIC, Sirsa.

The potential for the Agricultural Machinery Manufacturing Cluster, Sirsa to grow is enormous, with an increasing demand of agriculture products in the region. Increased GDP leads to higher purchasing power of subjects. Once a food deficient state, today Haryana has become a food surplus State. Haryana has accorded high priority to Agriculture Sector, with majority of population directly or indirectly dependent on agriculture and its allied

activities. The state has been involved in providing a stimulus to growth through strong infrastructure facilities such as metalled roads, rural electrification, extensive network of canals, development of market yards etc., coupled with research support and vibrant extension network to circulate information in relation to improved farm practices for farmers, much needed for agriculture progress.

Though Agriculture & Allied Sector has always been a significant contributor to the GSDP, however, the contribution at constant (2011-12) prices went down to only 16.6 percent of the GSVA during the year 2019-20. The state has become more dependent on Industry & Tertiary Sectors during the past years; however, advancement of Agri & Allied Sectors continues to be a crucial factor in the overall performance of the state economy.

The estimates indicate that the growth rate of the Agri & Allied Sector increased from 3.8 percent in 2015-16 to 7.9 percent in 2016-17 but it fell to 6.1 percent and 5.3 percent in 2017-18 and 2018-19 respectively. However, the cluster units are unable to effectively cater to the market segments due to lack of technological capacities, low production scales and outdated processes.

This cluster has the ability to increase its output and market share by manufacturing high quality products. The proposed facility will be open to all cluster firms to enable them to get job work done in order to cater to the agricultural machinery requirements of the market. The facility will also provide an opportunity to micro units to increase their capacity utilization and profitability. The facility will provide a major infrastructural push to the units reeling under high competition. The CFC will also enhance the co-operation and joint action among cluster stakeholders to improve their competitiveness to meet the demands of the domestic as well as international markets.

Introduction

1. Introduction

1.1 Overview of the cluster

There are about 300 agricultural machinery manufacturing units in Sirsa district. Most of the units in the cluster are situated in the Ellenabad Tehsil of Sirsa. The annual turnover of the cluster (micro and small units) is about INR 200 Crore. Units in the cluster are Micro and Small in nature engaged in manufacturing of agricultural machinery manufacturing such as mini combine multi-crop thresher, maize thresher, groundnut digger, groundnut multi-crop thresher, ground net thresher and other miscellaneous agricultural machinery parts.

Some of the major problems of the Agricultural Machinery Manufacturing Industry in Sirsa includes absence of advance cutting centre, proficient CNC machines for manufacturing high quality finished products and lack of technical and skilled work force. 15 units from the cluster have formed a Special Purpose Vehicle (SPV) in the name of "NJT Engineering Pvt. Ltd." under the scheme to set up a Common Facility Centre (CFC) to address common challenges & problems of the cluster.

1.2 About the State & District

Haryana is 11th state in the country in terms of GSDP, with growth rate of around 8.2%. With just 1.3% of the total area of the country, Haryana contributes to nearly 3.7% of India's GDP. Haryana, with just 1.37% of the country's geographical area and 1.97% of country's total population, is counted among the first few states with the highest per capita income.

The State economy has successfully transformed from a predominantly agricultural to a rapidly industrializing economy.

The industry sector contributes about 32.80% of the total GSDP of the state. Haryana is fast emerging as one of the most favoured investment destinations in India. The globalization of markets and a resilient economy have given an incredible drive to the industrial sector in Haryana, which already has a competitive advantage in terms of strategic location, basic infrastructure as well as large skilled, educated and young workforce. Besides, the State has investor-friendly policies and regulatory environment as outlined in its recent EPP 2015. It is one of the leading states in terms of industrial production, especially passenger cars, mobile cranes, two-wheelers & tractors. It is the 2nd largest contributor of food grains to India's central pool, accounts for more than 60% of the export of basmati rice in the country and is 3rd largest exporter of software.

The state is in transition from agrarian to manufacturing sector. To boost the growth rate further and make Haryana a favourable investment destination, the State has developed the Enterprise Promotion Policy in 2015. With the Enterprise Promotion Policy-2015, the state has envisaged a sustainable industrial spectrum in the state with a special focus on MSMEs in its endeavour for effecting a balanced regional and sustainable development. In order to accelerate the industrial growth in the state, the focus of the government is on holistic development, i.e., by encompassing initiatives for resource efficiency improvement, smarter technology, and environment friendly methods which reduce resource consumption.

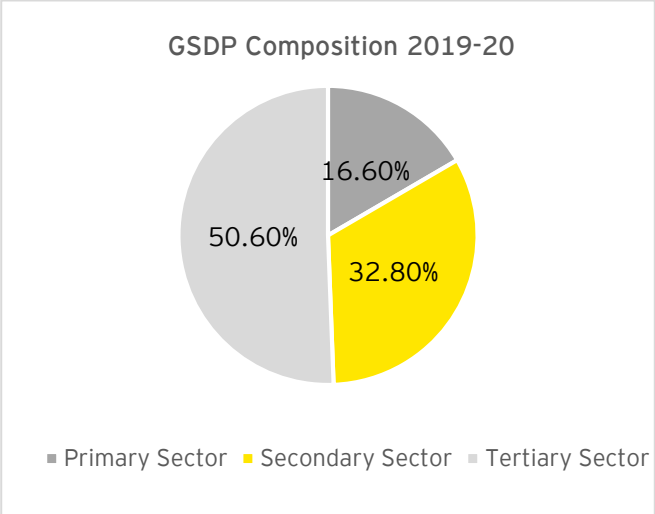


Figure 1: GSDP Composition 2019-20

Sirsa is a city and municipal council in the Sirsa district of the Indian state of Haryana. It is a town in the westernmost region of the state, bordering Punjab and Rajasthan. Sirsa district is the largest district of Haryana state, after the creation of Charkhi Dakhri out of Bhiwani district. Sirsa is the district headquarters and is located on National Highway 9 and 250 kilometers (160 mi) from the capital, Delhi. According to the 2011 census, Sirsa district has a population of 1,295,189 roughly. This gives it a ranking of 378th in India (out of total of 640). The district has a population density of 303 inhabitants per square kilometer (780/sq mi). As of the 2011 census, its population growth rate over the decade 2001-2011 was 15.99%, with a sex ratio of 897 females for every 1000 males and a literacy rate of 68.82%. This implies that people have moved away from farming due to lower profits. However, the district's economy is still predominantly agriculture based, owing to the existence of good irrigation systems across the district. Industrial activities have started increasing in the district due to the pro-business environment in the state. This had led to generation of employment in secondary and tertiary sectors.

Figure 2: District Map of Sirsa

The existing area under industrial use is approximately 76 hectares including the major industrial estate of HSIIDC in Sirsa. In view of a strategic location, available infrastructure,

topography and drainage, Government of Haryana has allocated an industrial area of 30.35 hectare in Sirsa district.

The district comprises of four tehsils – Sirsa, Dabwali, Rania and Ellenabad. These tehsils are further sub-divided into 7 blocks - Baragudha, Dabwali, Ellenabad, Nathusary Chopta, Odhan, Rania and Sirsa.

1.3 Industrial Scenario of Sirsa District

As the economy of district Sirsa is purely based on agriculture and is known as "**the cotton belt of Haryana**", the industrial scenario of this district is also influenced mostly by the same sector. Maximum number of MSME units in Sirsa are involved in food products sector, followed by textile and electrical equipment. In the last three years as well, food products sector has seen maximum number of new MSME units opened (395), followed by electrical equipment (44) and textiles (42). There are many types of industries in the district which are engaged in the manufacturing of various items such as Seed Processing, Wrapping Papers, Milk Chilling, Rice Shelling, Chemicals, Iron and Steel Fabrication, Agriculture Implements, Leather Good, Hard and Straw Board etc. A Food Park has been set up at the land of villages i.e. Teja Khera, Asha Khera and Chautala on the Dabwali-Sangria road. The total area of this land is about 113 acres. This Food Park is also developed by the HSIIDC to set up the food processing units.

Table 1:Total Investment by MSME in District Sirsa[1]

S.No	Industry	Total Investment	Investment (INR Lakhs)			
			FY'17	FY'18	FY'19	New Investment (Last Three Years)
Food Beverages & Tobacco						
1	Food Products	16130	2496	2464	1986	6946
2	Beverages	1828	440	2	1154	1596
Metal & Mineral Products						
3	Fabricated Metal	711	24	76	70	170
4	Rubber & Plastic Products	1982	759	1077	31	1867
Electrical, Electronics & Machinery						
5	Electrical Equipment	1210	310	169	247	726
6	Machinery & Equipment	590	23	58	81	162
Leather, Wood & Paper						
7	Leather & Related Products	144	18	17	12	47
8	Paper & Paper Products	289	33	50	73	156
9	Wooden Products	1181	8	494	178	680

[1] 2019: District Industries' Profiles, Haryana

S.No	Industry	Total Investment	Investment (INR Lakhs)			
			FY'17	FY'18	FY'19	New Investment (Last Three Years)
Textiles & Apparels						
10	Textile	3930	68	377	1295	1740
Other Manufacturing						
11	Other Manufacturing	13632	1289	3132	2289	6710

1.4 Geographical Traits

Sirsa is located 29.53'N 72.02'E occupying the extreme west corner of Haryana. It has an average elevation of 205 Meters or 672 feet. Sirsa is bounded by the districts of Faridkot and Bathinda of Punjab in the north and north east, Sriganga Nagar district of Rajasthan in the west and south and Hisar district in the east. Thus, it touches the interstate boundaries on three sides and is connected with its own state only in the eastern side. The terrain of Sirsa district can be broadly divided into three parts namely Haryana Plain, Alluvial bed of Ghaggahar or Nali and the sand dune track.

1.5 Demographic Trends and Administrative Set Up of Sirsa

In 2011, Sirsa had population of 1,634,445 of which male and female were 866,672 and 767,773 respectively. In 2001 census, Sirsa had a population of 1,425,022 of which males were 758,253 and remaining 666,769 were females. There was a change of 14.70 percent in the population compared to population as per 2001. In the previous census of India 2001, Sirsa District recorded increase of 22.49 percent to its population compared to 1991.

Position in 2011 Census is that there are four tahsils, namely, tahsil Dabwali (71 villages and Mandi Dabwali town), tahsil Sirsa (183 villages and Kalanwali and Sirsa towns), tahsil Rania (46 villages and Rania town) and tahsil Ellenabad (30 villages and Ellenabad town).

Deputy Commissioner is the overall administrative in-charge. He is responsible for 3 key functions as he also acts as the District Magistrate and the Collector. As Deputy Commissioner, he plays a critical role in guiding and functioning of Panchayat Raj institutions in addition to helping Panchayats, Panchayat Samitis, municipalities, market committees resolve the challenges being face by them.

As the District Magistrate, he is responsible for maintaining the law and order in the jurisdiction. Two Sub-Divisional Officers (civil), Tehsildars and Naib-Tehsildars are assigned to assist him. As the Collector, he is responsible for the collection and administration of revenue. Sub-Divisional officers, Tehsildars, Naib-Tehsildars, Kanungos and Patwaris are assigned to assist him with the revenue work.

Sector Overview

2. Sector Overview

Agriculture is the main stay of the people and as such it plays a predominant role in the economy of Sirsa. Agricultural machinery manufacturing sector plays a key role in supporting the performance of the agriculture sector to a large extent. This industry consists of businesses that manufacture and sell agricultural machinery and related goods. The manufacturing of agricultural machinery is undertaken by tiny units, small scale industries, organized medium and large-scale sector. Organized sectors manufacture sophisticated machinery such as tractors, engines, milling and dairying equipment. Traditional hand tools and bullock drawn tools are largely fabricated by village craftsmen (blacksmith and carpenters) and power operated machinery by small-scale industries.

The market is driven by various factors such as shifting of agricultural activities from animal or manual operations to automated methods, government initiatives towards farm mechanization, rising urbanization rate, easy credit and financial assistance, etc. Training programs conducted by government for technicians, farmers and machinery users is another important factor that is expected to further propel the demand of agricultural implements in coming years.

2.1 Brief Global Scenario

The Global Agri Machinery market size was 146.2 billion USD in 2018 and is projected to reach 156.12 USD in 2020. The global market is projected to witness significant growth on account of upcoming technologies in the industry coupled with improved economic conditions and rising farm income. These factors are expected to boost industry growth over the next couple of years. Traditional farming techniques such as ploughs, tillage, and seeders are now being replaced with various modern agricultural machinery. Advanced farming machinery such as spraying equipment, hay and forage equipment, harvesters, and irrigation and crop processing equipment are being used in various processes to enhance overall crop output and quality.

Agriculture equipment enable easy farming; it makes the process simpler and more profitable by enhancing crop quality and reducing labour cost. The market is expected to witness high growth over the forecast period owing to amalgamation of several novel technologies in this arena. Rise in global population is increasing the demand for food, thereby increasing pressure on agriculturists to innovate time- and cost-efficient methods of production. This is projected to spur the farm machinery market.

Strong economic growth in developing countries such as China, India, and Middle Eastern countries is projected to drive the farm machinery industry. Asia Pacific is expected to emerge as the largest market and witness the fastest growth. China alone held over 30.0% of the regional revenue in 2018. Regional growth can be ascribed to low level of mechanization and large area of agricultural land. However, mechanization of various agricultural processes is evolving progressively in Asia Pacific, which is estimated to spur demand for agricultural machinery over the forecast period.

2.2 India Scenario

The agriculture sector has been the mainstay of India's economy with more than 50% of its population engaged directly or indirectly in this sector. The livelihood of millions of farmers depends on this sector. In the last two decades its contribution to GDP has decreased significantly due to rapid growth of the services sector. The sector's GVA contribution fell from 18.2% in 2014-15 to 16.5% in 2019-20, according to the Ministry of Statistics and Program Implementation (MOSPI). The sector has recently seen growth in productivity and turnover due to use of machinery for agricultural purposes.

The Indian agricultural machinery market was worth 8.5 Billion USD in 2017. The market value is further projected to reach US$ 12.8 Billion by 2023, exhibiting a CAGR of 7.03% during 2018-2023. Agricultural machinery consists of a wide range of manual and mechanical tools such as threshers, cultivators, over ploughs, seed drills, chaff cutter machines, axes, etc. They help in reducing labour and improving the efficiency of agricultural activities. India has achieved considerable progress in the field of agricultural machinery over the past decades.

At the time of Independence, Indian farmers mostly used animal operated machinery (such as bullock-drawn ploughs and wooden planks) and hand tools (including spades, pickaxes, crowbars, sickles and choppers) for pulverization, compaction and smoothening of the soil. Later, the Green Revolution brought about large-scale farm mechanization which encouraged a significant number of farmers to opt for modern agricultural machinery including combine harvesters, rice trans-planters, power tillers, threshers, tractors, pumping sets, etc.

In India, the growing incomes of the farmers have boosted the demand for farm machinery. In addition, acute shortage of skilled labour for agricultural activities has further led to the growing demand for agricultural equipment. Moreover, the attractive subsidies provided by the Central and State governments have also encouraged farmers to purchase modern agricultural machinery.

2.2.1 Indian Agri Machinery Market Drivers

- **Substitute for manual labour:** One of the biggest advantages of agriculture machinery is that they can replace manual labour. Although, India represents amongst the largest countries for manpower in the world, all sectors of the economy have been affected by the scarcity of labour. This impact is currently being felt more in the agricultural sector compared to other sectors.
- **High Productivity and efficiency:** Use of agricultural machinery increase production, efficiency and per man productivity. Mechanization increases the yield of land per unit of area and also resulting in lower cost of work, resulting in better use of land and hence increasing farm income. Agricultural machinery is expected to increase yields by 25-30% in states with a low level of mechanisation, and by up to 10% in states that are already highly mechanised.

- **Long Terms Cost Savings:** Although buying agricultural machinery involve a high initial capital expenditure. Over a longer period of time, they prove to be more cost effective compared to manual labour and work animals.
- **Government Support:** Another major driver of the agriculture machinery industry is the fact that it represents a major focus area for the government. Agriculture remains a primary means of livelihood for more than 50% of the country's total population. The government of India is also providing subsidies to local farmers on water, electricity, agricultural machinery, agrochemicals, hybrid seeds, etc. It has also exempted agriculture income under the Indian Income Tax Act, meaning income earned from agricultural operations is not taxed. In addition, both state and central government often waive off loans given to the farmers.
- **Improvements in Agriculture Techniques:** The use of agricultural machinery also provides benefits during irrigation, land reclamation and the prevention of soil erosion.

2.3 Cluster Scenario

Haryana has accorded high priority to Agriculture Sector, with majority of population directly or indirectly dependent on agriculture and its allied activities. The state has been involved in providing a stimulus to growth through strong infrastructure facilities such as metalled roads, rural electrification, extensive network of canals, development of market yards etc, coupled with research support and vibrant extension network to circulate information in relation to improved farm practices for farmers, much needed for agriculture progress. The state has become more dependent on Industry & Tertiary Sectors during the past years; however, advancement of Agri & Allied Sectors continues to be a crucial factor in the overall performance of the state economy.

Sirsa agricultural machinery manufacturing cluster has about 300 units, out of which 90% are micro units and 10% are small units across the value chain. Most of the units are in Ellenabad sub-division of district Sirsa. The annual turnover of the cluster (micro and small) is about INR 200 Crore. The cluster units are engaged in the manufacturing of mini combine multi-crop thresher, maize thresher, groundnut digger, groundnut multi-crop thresher, ground net thresher and other miscellaneous agricultural machinery parts.

Each unit under this cluster provides employment to approx. 10 to 20 workers depending upon the size, product manufactured, type of technology adopted by the unit. Presently, the cluster is growing at annual rate of approximately 10% by using their present outdated machineries and methods which shows that there is huge potential for the cluster in future if it shifts to latest machinery, trains and skills its manpower

2.4 Cluster Products

The cluster units are engaged in the manufacturing of mini combine multi-crop thresher, maize thresher, groundnut digger, groundnut multi-crop thresher, ground net thresher and other miscellaneous agricultural machinery parts & Steel Fabrication, other agricultural machinery parts which caters to domestic as well as international market. A few of the products manufactured by the cluster are presented in figure 3 below:

Groundnut Thresher

Groundnut Multi Thresher

Mini Combine Multi Thresher

Maize Thresher

Groundnut Digger

Multi Crop Haramba Thresher

Figure 3: Products Manufactured by the units

Diagnostic Study Findings

3. Diagnostic Study Findings

The diagnostic study was undertaken in the cluster during September 2020 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. The diagnostic study report (DSR) was compiled with inputs from cluster SPV in close coordination with the DIC, Sirsa. Most of the cluster units deploy obsolete machines like lathe machine, manual drill machine, welding machines & hand tools. The cluster units in the cluster lacks in-house modern machines like CNC Plasma Cutting machine, CNC turning machine, CNC bending machine, CNC Milling Machine, Press Machines, Bandsaw, Drill Machine and Mig welding machines etc. for performing activities like cutting, turning, bending & drilling. These units are unable to meet the requirements of the market due to lack of availability of modern machines / equipment. The finishing of products is ordinary due to dependence on manual techniques and conventional machines.

The DSR was approved by Director General, Directorate of MSME, Govt. of Haryana on 13.10.2020. The approval of DSR and permission to undertake the Detailed Project Report (DPR) is provided in ***Annexure 1***. The SPV was granted permission to go ahead with preparation of DPR for the cluster. The major findings of the DSR are presented below:

3.1 Cluster Actors and their role

The diagnostic study has been undertaken in the cluster to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. It was observed that most of the cluster units deploy obsolete technologies and are unable to meet the requirements of the market due to lack of availability of modern machines/equipment.

The primary stakeholders in the cluster are the agricultural machinery manufacturers based in various locations of Sirsa. The other stakeholders include the industry association, government agencies (mainly DIC, regulatory bodies), raw material suppliers, BDS providers and academic/ R&D institutes. These cluster actors provide various services to the cluster units. Some of the major cluster actors located in and outside the cluster and catering to the units of the region are mentioned below:

A. Industry Associations

- **Agricultural Machine Manufacturing Association:**

  Agricultural Machine Manufacturing Association is one of the prominent agricultural industry association of the Haryana. The association operates from its registered office at Hisar. It plays a key role in helping the industries to raise their issues and help them getting addressed. It also liaisons closely with the State and the Central Government to raise its concerns for the development of industries in the state. All cluster members are associated with this association and it has 128 members. Few of the prominent units of agricultural machinery manufacturing cluster are also the members of this association.

- **Industrial Association, Sirsa**

  The Industrial Association works towards the promotion and development of industrial commerce and trade in Sirsa. The association is well equipped to take up members problems with the concerned authorities. The Industrial Association acts as a common point of contact with the collective strength of its members on issues of local, regional and national importance. It is responsible for organizing, from time to time, meetings with Government officials to voice trade and industry's problems/suggestions on various issues and also to seek on the spot decision.

- **MSME Chamber of Commerce and Industry Association (MSMECCIA), Sirsa**

  MSME Chamber of Commerce and Industry, established in October 2015, is a proactive and dynamic organisation working at the grass-root level with strong National and International linkages. At present 90 industrial units are the members of the association. Chamber acts as a catalyst in the promotion of industry, trade and entrepreneurship. Chamber located in Sirsa is a story of an institution dedicated to serve the interest of Commerce, Industry and Profession in particular and the economic development of the Country in general. MSME CCIA has cultivated a flair for service orientation which made it a matter of substance for business enterprises to seek membership and the benefit from such services that they derive. With the in-house expertise, it gives business and legal advice to local companies on most aspects of their business.

B. Government Bodies

- **District Industries Centre, Sirsa:**

  DIC is the most important government stakeholder for the cluster. The office of DIC comes under the Dept. of Industries & Commerce and is headed by the Joint Director who is assisted by assistant directors and technical field officers. DIC promotes and routes subsidy to micro and small enterprises in the region. The Mini Cluster Development Scheme under which the agricultural machinery industry wants to set up a CFC will also be implemented through the DIC office. The Sirsa DIC is actively promoting cluster development in the district and also helps the local units register under Udhyog Aadhar Memorandum (UAM) and Haryana Udhyam Memorandum (HUM). It would play a key role in project implementation.

- **MSME – Development Institute (MSME-DI), Karnal**

  MSME-Development Institute, Karnal is a field office of the Development Commissioner (MSME), Ministry of MSME, New Delhi, which is an apex body for formulating, coordinating and monitoring the policies and programmes for promotion and development of MSMEs in the country. MSME-DI provides a wide range of extension / support services to the MSMEs in the state.

- **Haryana State Infrastructure and Industrial Development Corporation (HSIIDC)**

  HSIIDC is an autonomous body set up by the Government of Haryana in 1967, headquartered at Panchkula. HSIIDC has been playing a progressive role in the

industrial development of various districts of Haryana. Over the years, it has greatly accelerated the pace of its activities by facilitating land allocation to industries, creating industrial areas and developing required infrastructure. Entrusted fundamentally with the task of establishing industrial areas, HSIIDC has also taken the responsibility of providing continued assistance to the units which come up in these industrial areas. HSIIDC provides a total package of assistance at a single point to the entrepreneurs and disburses incentives of behalf of State Government.

- **Haryana Shehri Vikas Pradhikaran (HSVP)**

  HSVP is the urban planning agency of the state of Haryana in India. It was established in 1967. It plays a key role in land development and execution of development works like roads, water supply, sewage, and drainage etc.

C. Educational Institutes

- **Northern Region Farm Machinery Training and Testing Institute, Hisar**

  This institute was setup under Ministry of Agriculture to propagate agricultural mechanization through imparting training on repair, maintenance and operation of agricultural machinery. Later the institute was also assigned the task of testing of agricultural equipment and machinery. Various agricultural equipment is tested as per BIS guidelines to assess the suitability under different agro climatic conditions. The institute is recognized to test combine harvester by Ministry. The training courses are being organized for user level, technician level and managerial level persons. Need based course are also organized. The institute is equipped for various workshops, imparting on the job trainings and demos, audio-visual facility etc.

- **Department of Farm Machinery & Power Engineering, CAET, Hisar**

  This is one of the most important departments of College of Agricultural Engineering and Technology under Agriculture University of Haryana. The college runs 4-year graduation program in technology and agriculture engineering, post graduate programs in technology, farm power, machinery, soil and water engineering. Research projects of the college include:

  a) Development, testing and popularization of machinery in Haryana State
  b) All India Coordinated Research Project on research and development of farm machinery and their adoption under actual field conditions in the state of Haryana.

  The Department has done pioneer research and extension work for giving a boost to farm mechanization in the state. The salient achievements of department include:

  a) Development/ promotion of bullock drawn machines like land preparation, land levelling, Stubble collector cum planter, mustard drill, seed cum fertilizer drills, weeding machines
  b) Development/ promotion of Tractor operated machines i.e. rotavators, puddlers, high clearance weeders, high capacity crop threshers, paddy trans-

planters, automatic sugarcane planters, ridge seeders/bed planters, potato planter & digger etc.

- **Government Industrial Training Institute (ITI), Sirsa**

  This Govt. ITI was started during the year 1962. The objective was to provide technical education to aspiring candidates who want to specialize in different trades. This institute holds courses in various trades such as Carpenter, Turner, Machinist, Fitter, Plumber, Mechanic, etc. Most of the workers of the cluster units have bee

D. Banks / FIs

- **Small Industries Development Bank of India (SIDBI)**

  SIDBI has been sincerely supporting cluster development initiatives in the State. SIDBI extends assistance directly as well as through primary lending institutions-FIs/Industrial Investment Corporations. SIDBI has been assisting the entire spectrum of SSIs and also Medium scale industries under various schemes tailored to meet the requirements of setting up of new projects, expansion, diversification, modernization and rehabilitation of existing units. Some related schemes such as the CGTMSE as well as the CLCSS are yet to be twinned with requirements of cluster firms.

- **Punjab National Bank (PNB), Sirsa**

  PNB Sirsa is the lead bank of the district and is responsible for acting as a leader for coordinating the efforts of all credit institutions in the district and to increase the flow of credit to agriculture, small-scale industries and other economic activities included in the priority sector in the rural and semi-urban areas.

E. Leading Manufacturers

Most of the manufactures in the cluster are engaged in production of agricultural machinery such as mini combine multi-crop thresher, maize thresher, groundnut digger, groundnut multi-crop thresher, ground net thresher and other miscellaneous agricultural machinery parts & Steel Fabrication, other agricultural machinery parts. Some of the leading manufacturers of the cluster are New Jagjeet Agro Industry, Gurunanak Agri Works, Haryana Agri Works, Public Agro Industry & Hindustan Agro Industry etc.

Key stakeholders of Sirsa agricultural machinery manufacturing cluster are presented in figure 4 below:

Figure 4: Key Cluster Actors

3.2 Cluster Market, Employment and Turnover

3.2.1 Cluster Market

The units of the cluster are mainly catering to the markets of various districts of Haryana and neighbouring states like Punjab, Uttar Pradesh, Rajasthan. Some of the prominent manufacturers in cluster also supply their products to Maharashtra, Madhya Pradesh and Gujarat. At present, few of the cluster units is catering to local & national market and very few are exporting its products to international markets due to quality restrains and price competitiveness. In addition, few of the units are also selling their products to overseas like Sudan & Africa.

3.2.2 Cluster Employment

Presently, this cluster provides employment to 3000 people directly & indirectly. On an average micro unit employ approximately 3-6 persons, and small units in the cluster employ approximately 10-20 persons. On an average, micro and small-scale machinery manufacturing units employ approximately 4-10 people. The average wages of unskilled labour in the industry are of INR 10,000 – 12,000 per month for workers operating on 8-10-hour shift. The average wages of skilled labour for precision activities such as cutting, drilling, bending and finishing etc. is around INR 15,000 – 20,000 per month. Cluster also provides employment to engineering graduate by offering monthly remuneration around INR 30,000.

3.2.3 Cluster Turnover

The annual turnover of all the cluster units is estimated to be around INR 200 crore. However, there is an enormous potential of increasing the turnover (to about 300 crore) as well as production of cluster units by deploying the modern machines/equipment which will speed up and localize new product development. Also, the finished products manufactured will be of international quality which will help the units of the cluster to explore export opportunities. This would result in enhanced turnover and open vistas for innovation, which was not possible earlier due to technology constrains.

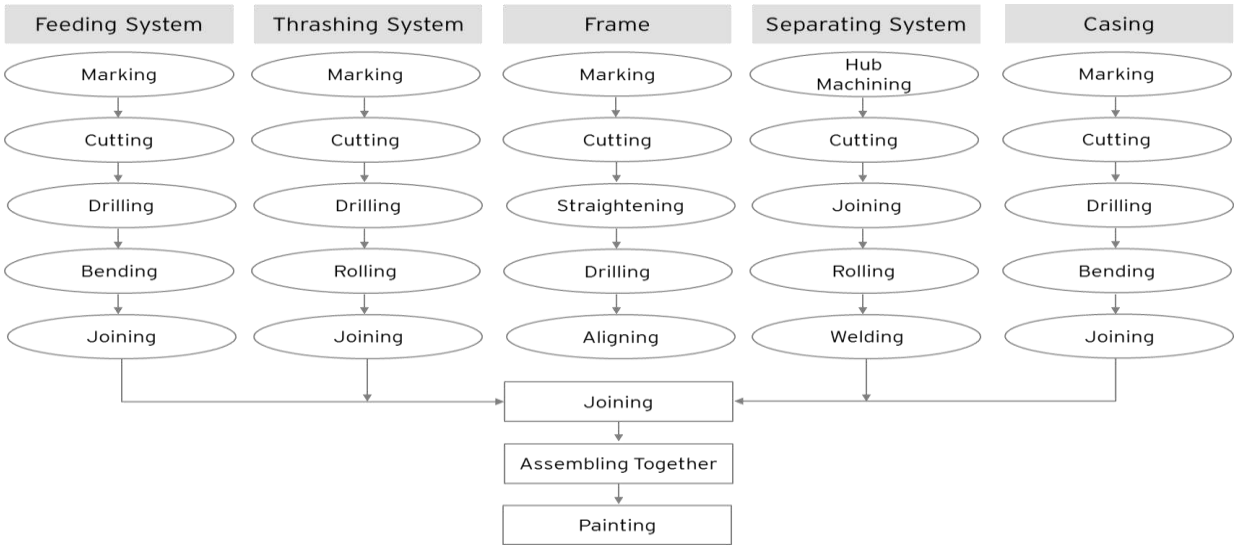
With the help of proposed CFC, agriculture machinery manufacturers will get better machining facilities and reduction in outsourced activities which will reflect in their improved work.

3.3 Production Process

The main raw materials required in production process are mild (structural) steel section, e.g. flats, angles, channels, squares, pipes, plates, rounds, BP sheets, CR sheets, etc. Agricultural machinery has a wide gamut of products. All the machinery have different functions, design and configuration, e.g. cultivator has no moving parts at all; harrow has low speed moving discs, mounted on an axle; seed drills and rotavators also have some low medium speed moving parts; whereas reapers and threshers have high speed moving parts. Therefore, there is no generic manufacturing process sequence for each product.

The typical production process of agriculture machinery does not involve any highly technical operations. Some of the important operations involved for most of the agricultural machinery manufacturing are shearing, cutting, pressing, gas cutting, sheet metal fabrication, welding, turning, grinding and painting etc. Simple machines such as welding sets, power presses, lathes, drilling machines are sufficient to produce majority of the machinery. Production process for thresher is shown in figure 5 below:

Figure 5: Manufacturing Process of Thresher



The manufacturing also involves inspections at various stages till they are finally assembled and packed as per the quality assurance standards/plans.

3.4 Value Chain Analysis

Value chain analysis of the Rotavator has been conducted to ascertain the major cost areas and identify suitable interventions. The value chain analysis of Rotavator is provided in table 2.

Table 2: Value Chain Analysis of Rotavator[2]

	Before Intervention			After Intervention		
Particulars	**Value Added (INR)**	**Total Value (INR)**	**% of cost of production**	**Value Added**	**Total Value (INR)**	**% of cost of production**
Mild (structural) steel section, e.g. Flats, Angles, Channels, squares, Pipes, Plates, Rounds, BP sheets, CR sheets, etc. (Raw Material)	50,000	50,000	55.56%	50,000	50,000	64.10%
Designing and Precision Work Cost (outsourced)	25,000	75,000	27.78%	13,000	63,000	10.96%
Electricity charges	5,000	80,000	5.56%	5,000	68,000	0.73%
Labour Cost	6,000	86,000	6.67%	6,000	74,000	7.29%
Paint/ Thinner Cost	3,500	89,500	3.89%	3,500	77,500	3.64%
Loading/ Unloading Cost	500	90,000	0.56%	500	78,000	0.29%
Total Production Cost	**90,000**		**100%**	**78,000**		**100%**
Profit Margin (10% before intervention and expected 18% after intervention)	**9,000**			**14,040**		
GST (12%)	**17,820**			**16,567**		
Selling Price	**1,16,820**			**1,08,607**		

The value chain analysis has been prepared based on the stakeholder consultation. It can be observed that the raw materials amount to over **55.56%** of total cost of production. The industry is labour intensive, with labour costs accounting for approximately **6.67%** of total

[2] Source: Stakeholders consultation inputs

production cost of a rotavator which includes also paint labour cost. The designing and precision work are outsourced whose costs around **27.78%** of the total production cost. The painting cost is around **3.89%** of the total production cost. The competitiveness of the cluster units can be increased by targeting the major cost area and providing common facilities to the units in order to undertake process at a lower cost. At present the cluster units are getting the **10%** profit margin. Post implementation of CFC, there will be reduction in designing cost and thereby resulting in significant reduction of cost of production and rise in profit margin by **18%.**

3.5 Strength, Weakness, Opportunities and Threats (SWOT) Analysis

A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the units in the cluster has been carried out keeping in mind the technology, marketing, product quality, skills, inputs, innovation, business environment and energy/environment compliance of the units. The SWOT analysis is provided in table 5:

Table 3: SWOT Analysis of the Cluster

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
Market	▸ Strong presence in domestic market ▸ Haryana and adjoining states are agrarian economies and have good demand of agri-machinery ▸ Major market within 1000 to 1500 km distance ▸ Good transport linkage- National Highway, State Highway and Railways Purchase by State Govt. Agriculture Departments and Corporations for further supply to farmers	▸ Seasonal marketing for different products, therefore, longer off seasons for majority units that are confined to narrow product range ▸ Most of the manufacturers of the cluster are working only for open market and through dealers ▸ Machinery normally have long life; therefore, the replacement sale occurs to the tune of 10 to 15% ▸ Payment is not prompt from dealers/traders due to stiff competition ▸ Lack of export opportunities due to quality restrains ▸ Lack of knowledge of export marketing/ documentation ▸ Lack of brand image	▸ Possibility of export to neighbouring countries ▸ Enterprises can join hands together for International marketing, brand building and participation in trade fairs ▸ Globalization can usher tremendous market potential for competitive firms ▸ Quality and productivity can be game changer for the cluster	▸ Strong competition from international players entering domestic market and other players within the domestic market ▸ Italy, Belgium & Spain are strong in this trade in the international market ▸ Overseas importers may change their sourcing country

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
		▸ Cutthroat competition on price at the expense of quality ▸ Inadequate information on new farming techniques		
Technology/ Product Quality	▸ Medium investment & low accuracy machinery required ▸ Basic technology infrastructure available ▸ Labour intensive & not high-tech sector	▸ Lack of modern technology ▸ Lack of awareness about latest trends and products in the industry ▸ No modern testing facility available	▸ Lot of scope for technology upgradation ▸ Creating technological awareness among entrepreneurs will create technology base to enter into new segments ▸ Possibility of establishing Common Facility Centre	▸ Low level of technology development ▸ If after modernization, cost competitiveness is not achieved ▸ Technology is ever changing process
Skill/ Manpower	▸ Workers have the skill and knowledge to operate machinery currently being used by the units ▸ Most work can be learnt easily on the job	▸ No skill development training programme/ facility for workers in the pipeline ▸ Cluster usually depends on under qualified tools and die makers who have no facility/ ability to upgrade their knowledge	▸ Training and organising workshops would help to increase the knowledge and skill of the existing workforce ▸ Unemployed youth can be trained easily	▸ Youth interested to work in other lucrative sectors ▸ Skill base needs continuous up-gradation to adapt new techniques
Inputs	▸ Availability of castings from nearby districts and other working parts for	▸ Local non-availability of sufficient casting parts and moving parts like	▸ Increased competition would make inputs cheaper and sufficient	▸ Price escalation of steel could lead to increase in input cost which may increase price of machinery

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
	the thresher and seed drill etc. from within the vicinity of Punjab ▸ Major raw material structural steel supply from Ludhiana, Mandi Gobindgarh ▸ TATA & SAIL sales offices in Delhi/Faridabad & Mandi Gobindgarh are an advantage.	gears/shafts and sub-soiler ▸ Cluster is solely dependent on other districts of Haryana and Punjab for supply of structural steel ▸ No facility available for testing of raw materials and related components ▸ No structured system of quality control		
Innovation	▸ Ability to develop products as per customer requirements ▸ Flexibility in choosing other products in the range due to similar manufacturing operations	▸ Lack of marketing products in the domestic & international market ▸ Low level of development in process ▸ Traditional methods of production	▸ Sharing of best practices and information could lead to innovation in products amongst MSMEs in the cluster	▸ Innovation required in every facet of business operation ▸ Advent of newer methods in technology for farming
Business Environment	▸ Medium investment required in plant & Machinery ▸ Weak presence of other industries, entrepreneurs interested in manufacturing activity as no easy alternate for	▸ Lack of knowledge of regulatory frameworks and government schemes among micro level units ▸ Lack of common infrastructure/CFC facilities	▸ Establish CFC with latest technologies ▸ Progressive and innovative enterprises have the ability to grow and meet requirement of export market as the developed countries may not like to	▸ Dynamic business environment is always a challenge for less enterprising firms ▸ Change in policies and regulatory environment

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
	investment available in the region	▶ No long-term vision of manufacturers ▶ Competition is increasing from the local fabricators / Manufacturing at other places ▶ Unprofessional way of managing enterprises	enter in the low-tech segment	

3.6 Major issues/ Problem Areas of the cluster

As it can be deciphered from the analysis in the preceding sections, cost competitiveness and quality of the product of MSE units engaged in agriculture machinery manufacturing in the cluster is affected by absence of in-house modern machines like CNC Plasma Cutting machine, CNC turning machine, CNC bending machine, CNC Milling Machine, Press Machines, Bandsaw, Drill Machine and Mig welding machines etc. Most of the MSEs are unable to afford these facilities. As per discussion with stakeholders, it is found that, as of now, they are heavily dependent upon third party private players in Ludhiana and Delhi for some essential operation like precision job work, finishing etc. These private players charge exorbitant price for their services. In addition, these private players do not accept some order due to heavy workload and the production get delays and the cluster units lose their market orders.

The key problems cluster related problems identified are:

- **Absence of hi-tech cutting facility:** Currently, cluster units are dependent on private services providers in Ludhiana (Punjab) and Delhi for cutting related work. This results in high cost and production delay. Some units are using conventional machines and methods for cutting which are outdated. Few of the units have in-house plasma cutting machine for sheet cutting used for the manufacturing of agricultural machinery like disc, harrow and angels etc. Plasma cutting machine is not useful for fine cutting and designing work and it also increases the wastage of raw material. So, the cluster units want to establish the CNC Laser Cutting Machine under the banner of CFC for better cutting, designing and good quality products. By establishing this facility in the CFC cluster units are able to increase their production, reduced the wastage of raw material and capture more market orders.
- **Absence of Mini Tool Room:** The major problem of the cluster is lack of modern machinery. The units are using conventional machines and methods for processes which are too old and need to be upgraded, particularly for cutting, bending and turning operations. These machineries are out-dated and cannot match the quality and standard of modern age. The machines are slow, non-precise and consume time and energy. It is said in industrial circles that "Tool Room" is the backbone of the Agricultural Machinery Manufacturing Industry". Tools, Moulds, Dies and other Production Aids – collectively called "Tools" - give shape and accuracy to the products. If the tools being used are of low quality, final product will also be of low quality. Therefore, good design and fabrication of tools is extremely important. A state-of-the-art mini tool room is therefore being proposed as part of the CFC with advanced machines like CNC Lathe Machine, CNC Turning Centre, CNC Bending Machine, Drill Machine, Press Machine, Welding Machines & Bandsaw Machine.

- **Marketing:** The cluster is mainly catering to the markets of local districts of Haryana and neighbouring states like Punjab, Maharashtra, Uttar Pradesh and Rajasthan. Some units of the cluster also supply their products to Maharashtra, Madhya Pradesh and Gujarat. Therefore, there is scope for expansion of the market be it from national or international point of view. They have to increase their capacity and capability in terms

of technology, buying power, manufacturing etc. to meet latest industry quality standards and achieve cost competitiveness.

- **Technology:** Sirsa Agricultural Machinery Manufacturing cluster units are dominated by aging technology and practically no technological innovation. However, in recent years, the demand of automatic and semi-automatic production systems is rising. This made them to look for modernisation and adaptation of latest machinery and technology.
- **Lack of skilled manpower:** Lack of skilled manpower is responsible for wastage of raw material, higher production time, low accuracy and low productivity results.
- **Limited access to markets**: The cluster units are small with low production capacity. Individually, they have not been able to garner bulk orders. Moreover, they are unable to diversify their production capacity due to lack of technological capacities, which has led to limited access to market. In order to increase the production capacity as well as manufacturing of high-quality machinery, the units would require modern efficient machinery. Lack of capital to purchase these machines has limited the production capacity of these units.

Due to lack of these facilities, the units face higher costs, thereby reducing their competitiveness, especially compared to other competitive areas. This results in loss of market share. These facilities, if provided through a CFC in the cluster with government support will help the units become more competitive.

3.7 Key Technologies Missing

The key technologies that are required in the cluster along with the proposed intervention to be set up are mentioned below:

Table 4: Rationale for hard interventions

Rationale for proposed hard interventions under CFC mode	
Critical technology gaps in the cluster	**Proposed technology interventions to enhance cluster's competitiveness through CFC mode**
Hi-tech cutting facility	
MSE units engaged in agriculture machinery manufacturing in the cluster is affected by absence of in-house advanced cutting technology like plasma cutting machine. Most of the MSEs are unable to individually afford those facilities.	The cluster units want to establish the CNC Plasma Cutting Machine under the banner of CFC for better cutting, designing and good quality products. By establishing this facility in the CFC cluster units can increase their production, reduced the wastage of raw material and capture the more market.

Currently, cluster units are dependent on private services providers in Ludhiana (Punjab) and Delhi for cutting related work. This results in high cost and production delay. Some units are using conventional machines and methods for cutting which are outdated. Few of the units have in-house plasma cutting machine for sheet cutting used in the manufacturing of agricultural machinery like disc, harrow and angels etc. Plasma cutting machine is not useful for fine cutting and designing work and this machine increases the wastage of raw material. So, the cluster units want to establish more advance CNC Laser Cutting Machine under the banner of CFC for better cutting, designing and good quality products. By establishing this facility in the CFC cluster units are able to increase their production, reduced the wastage of raw material and capture the more market.	Installation of modern machine provides better usage of raw material, shorter production time and multiple operations at a time. These machines require low maintenance and offers lower production time.
Mini Tool Room	
The major problem of the cluster is lack of modern machinery. The units are using conventional machines and methods for processes which are too old and need to be upgraded, particularly for cutting, bending and turning operations. These machineries are out-dated and cannot match the quality and standard of modern age. The machines are slow, non-precise and consume time and energy.	A state-of-the-art mini tool room is is the backbone of engineering industry. By establishing mini tool room, the cluster, the units will be able to machine high quality tools and dyes as well as achieve high quality finishing for their products. Moreover, the units would also be able to do new product development. A dedicated Mini Tool Room housing modern CNC Lathe Machine, CNC Turning Centre, CNC Bending Machine, Drill Machine, Press Machine, Welding Machines & Bandsaw Machine. By establishing the advanced machines in the CFC the cluster units will enable strengthening the production and productivity of the cluster units in following areas: ► Good tool design and manufacturing facilities within the cluster. ► Eliminating the need for relying on the private players.

	▶ Obtain tools economically at low costs. ▶ Reduction in cycle time & deliver the finished product faster to the customers. ▶ Enhanced the quality of products. ▶ Increased the quality of products with minimum rejections. ▶ Minimize the wastages of materials. This facility will be run on commercial basis in the cluster.

3.8 Cluster growth potential

The CFC fits into the long-term vision of the cluster in terms of enabling cluster enterprises improve quality and efficiency by means of appropriate plasma cutting machine and mini tool room facilities. This in turn shall enable cluster firms to tap regional demand. The common facility is expected to enhance the levels of co-operation and joint action amongst cluster stakeholders and SPV members to co-operate in the areas of marketing and procurement. The skill upgradation requirement of cluster manpower shall be met conducting training with help from equipment manufacturers and suppliers as part of additional service.

Diagnostic Study Recommendations

4. Diagnostic Study Recommendations

4.1 Soft Interventions Recommended and Action Taken

Based upon the diagnostic study report and subsequent discussions with various cluster stakeholders and members of Agricultural Machinery Manufacturing cluster during formulation of this Detailed Project Report (DPR), a mix of hard and soft interventions are being proposed to enhance the competitiveness of the cluster units. These have to be undertaken with government support to ensure the survival and growth of the agricultural manufacturing units in Sirsa. The recommendations for both soft and hard interventions have been elaborated in subsequent sections.

Cluster enterprises have also been undertaking several soft interventions (before, during and after the DSR) on their own and have been active in enhancing their awareness and exposure. The units have conducted several awareness programs and trainings in collaboration with DIC, Sirsa and BDS providers.

1. **Capacity Building and Awareness Generation:** One of the primary recommendations for soft interventions was to build the capacities of cluster units and generate awareness among stakeholders regarding cluster development (collective approach to address their issues) and benefits available to them in the form of cluster. In this regard, the cluster units had organized a series of workshops, the details of which are provided below:

   - **Member Meetings:** Cooperation and trust building among members is foremost condition for smooth functioning of the cluster and SPV. A meeting was organized by cluster members during the month of August 2020 in Sirsa to enhance cooperation among member units and to obtain inputs for the DSR. Members of the cluster were informed about the registration of company for the cluster and identification of land for the CFC. Members of the cluster raised their concerns during the meeting that were resolved by other members of the cluster.

   - **Awareness Programme on Mini Cluster Development Scheme:** A programme for awareness of SPV members of agricultural machinery manufacturing cluster Sirsa on mini cluster development scheme was conducted in July 2020. EY team members highlighted the main points of the scheme, informed the cluster member about what benefits they can avail from the scheme, and explained their role in case if they apply for scheme.

   - **UAM registration campaign**: Many of the cluster members, who did not have UAM (Udyog Aadhar Memorandum), got their unit registered under UAM. They not only support cluster members in online filling of UAM but also informed them about benefits of UAM.

4.2 Hard Interventions (Machines/ Technology in the proposed CFC)

The agricultural machinery manufacturing units in the Sirsa need technological support to enhance their competitiveness and ensure their survival. Those units are reeling under bitter competition and low margins. They require modern high capacity automatic machines and other related equipment to get their job work done and reduce their production costs.

The following common infrastructural facilities are being proposed for the CFC, with support from the state industry department;

4.2.1 Hi-Tech Cutting Facility

Cluster units deploy obsolete machines and used traditional methods for cutting of metal. For hi-tech cutting of metal, they are dependent on other private service providers which results in high cost, low productivity and consumes a lot of time. By introducing this facility under the banner of CFC, units would be able to increase their productivity with required perfection and in lesser time. Under this facility the following machine is proposed by the cluster units:

(a) **CNC Plasma Cutting Machine:** A typical plasma cutting materials would involve a motion control system to follow a CNC or G-code of the pattern to be cut onto the material. The focused laser beam is directed at the material, which then melts, burns, either vaporizes away, or is blown away by a jet of gas, leaving an edge with a high-quality surface finish. Industrial plasma cutters are used to cut flat-sheet material as well as structural and piping materials.

At present the sheet cutting is done through the Shearing machine & gas profile cutter. The machine cuts the sheet at 90-degree angle. The rest of the hole is done manually such as marking of holes/cut outs in the sheet, drilling/ cutting of holes/ cut-outs. Also, the machine cuts the entire length of the sheet even if it is not required. The above-mentioned process done by Plasma cutting machine leads to the wastage of raw material as well as high probability of the human error.

The proposed modern age CNC plasma cutting machine will help the cluster members to reduce the wastage of raw material as well as the human error. Also, the reduction in the manual process would lead to the increase production capacity of the cluster. As discussed with the stakeholders the proposed machine may increase their production capacity at least 4 times as against as of now. Laser cutting machine will also help the cluster members to innovate the design of the products and achieve better quality final product at lower cost which would increase their competitiveness in the market. With the proposed machine the cluster members are expecting the significant growth in their percentage/ share of the market.

4.2.2 Mini Tool Room Facility

The cluster units deploy outdated machines which results in non-uniformity in end products, less productivity and consumption of time. Therefore, a Machining facility has been proposed in the CFC for advanced finishing of end products. Under this facility the following machines are proposed by cluster units:

(a) **CNC Lathe Machine:** This machine is computer controlled and use rotary cutters to remove metal from a workpiece. With a vertically oriented spindle, tools stick straight down from the tool holder, and often cut across the top of a workpiece. The machine is operated by a programme to facilitate machining of moulds and dies with intricate shapes, meriting higher accuracy. The cluster units do not have inhouse vertical machinery centre machine. They are dependent on private player at Ludhiana, Delhi and Chandigarh for machining work. By establishing this machine in the CFC, the cluster units will be able to improve the quality of the products, reduced the wastage of raw material and increase the production capacity of the units.

(b) **CNC Milling Machine:** This machine is used in the CFC to prepare the tools & dies. It forms predetermined bends by clamping the workpiece between a matching punch and die. At present the cluster units are using the conventional milling machine. Due to the absence of this machine units are unable to make the tools & die as per required specifications. The accuracy and size of the dies are the main pain area of the cluster units. By deploying of this machine in the CFC units can make the tools & dies with proper accuracy and size. This machine will also help the cluster units for different types of machining work which is currently outsourced.

(c) **CNC Bending Machine:** It is a machine pressing tool for bending sheet and plate material, most commonly sheet metal. CNC Synchro press brakes are designed to give more accuracy and better productivity. The controller has a facility to program the various jobs with complex bending sequence on screen. The CNC Control is used for Three Axis Control or more. The program gives facility to bend different bending degrees; different back gauge positions & different open positions. It has a facility to save

different programs and it can be reloaded as & when required. The machine will help the cluster to reduce the wastage in terms of bending the sheet. There is high wastage in the current technology deployed.

(d) **CNC Turning Lathe Machine:** This machine is computer controlled and use rotary cutters to remove metal from a workpiece. Currently, the cluster are dependent on conventional lathe machines. These machines have the accuracy issues, production issues and not able the do the complex jobs. So, the cluster units want to setup the CNC Turning Lathe machine under the banner of CFC. By this machine cluster unit will be able to improve their accuracy in their products, enable the units to do the complex jobs, increase the production capacity, reduced the setup-change over time.

(e) **Hydraulic Press:** This machine is to be used for slower, deep draw parts. The reason hydraulic stroke presses are used for deep draw parts is because the hydraulic power allows for a more consistent source of pressure in a larger range of the stroke, as compared to a mechanical press. This machine may be used for faster running parts as well, however, the ability to run deep draw parts is diminished the faster the press is running. Ensuring that the proper amount of force is applied at the bottom of the stroke is crucial as well, to avoid over exertion of the material causing ripping and potential damage to the die and press.

(f) **Band-Saw** – The most common use for the band saw, however, is in cutting irregular shapes. The second most common use is in resawing or ripping lumber into thinner slabs. A band saw also makes the smoothest cuts and, with the appropriate blade, can be used to cut materials other than wood, including metal.

4.3 Expected outcomes after intervention (Long term vision)

The cluster vision that has been progressively evolved is:

"The agricultural machinery manufacturing cluster of Sirsa would evolve into a preferred base for Indian and global customers by means of standardization, technology up-gradation through modern tool room and quality improvement through **Hi-Tech Cutting Facility** and **Mini Tool Room Facility** by the year 2020. The emphasis is on tapping national and global customer base by producing internationally competitive products."

The mission of the project is closely twinned with cluster vision:

- Enhance productivity and efficiency in the agricultural machinery manufacturing process by employing appropriate technology in the form of common facility.
- Value addition to services offered to customers by manufacturing quality products and contributing to consumer satisfaction as well as improving performance of cluster enterprises.
- Encourage cluster firms to cater the demand of large industries through integrated equipment envisaged in the CFC and benefit the firms of adjacent districts for regional development as agriculture implement manufacturing hub.

The CFC fits into the long-term vision of the cluster in terms of enabling cluster enterprises improve quality and efficiency by means of appropriate **Hi-Tech Cutting Facility** and **Mini Tool Room Facility**. This in turn shall enable cluster firms to tap regional demand and increase export. The common facility is expected to enhance the levels of co-operation and joint action amongst cluster stakeholders and SPV members to co-operate in the areas of marketing and procurement. The skill upgradation requirement of cluster manpower shall be met conducting training with help from equipment manufacturers and suppliers as part of additional service.

In addition, mini cluster at Sirsa will complement the efforts of State Government to promote clusters in the State and serve as a model for up gradation of micro, small enterprise clusters.

Special Purpose Vehicle (SPV) for Project Implementation

5. SPV for Project Implementation

The micro & small units at Agricultural Machinery Manufacturing Cluster came together to form a Special Purpose Vehicle (SPV) as a private limited company under section 7 of the Companies Act, 2013 and rule 18 of the Companies (Incorporation) Rules, 2014. The SPV is named as **'NJT Engineering Private Limited'** with CIN U29309HR2020PTC089176. The SPV was registered on 10th September 2020. The certificate of registration along with Memorandum of Association (MoA) and Articles of Association (AoA) and PAN Card of the SPV are provided in ***Annexure – 2***. The company has an authorized paid up capital of INR 10.00 Lakh which shall be enhanced soon. The members are micro & small -sized firms (registered units) involved in the manufacturing of agricultural machinery and related activities, predominately based in Ellenabad area of district Sirsa.

DIC, Sirsa and state government both played an important role in SPV formation by cluster stakeholders. The SPV includes about 15 members who are subscribing to the necessary equity base of the company. The SPV shall always be open for new members to join and for the existing members to leave while maintaining a minimum member base of at least 10. The proposed CFC will be implemented on public-private partnership basis through SPV **'NJT Engineering Private Limited'** by availing support from Government of Haryana (under EPP 2015) state mini cluster development scheme.

The SPV members have a strong record of accomplishment of cooperative initiatives. SPV members are also members of prominent cluster associations. Cluster members have been autonomously undertaking several soft interventions to enhance knowledge and exposure of the cluster units on new trends in fabrication industry and enhancing productivity of their units as mentioned in the previous sections. These include exposure to cluster development initiatives in other clusters, exposure visits to fairs, registration under UAM and awareness programs on new trends in agricultural equipment industry, design interventions and new technologies.

The SPV has conducted a series of stakeholder consultations (with various members, DIC, Sirsa and EY experts) during finalization of project components, selection of technologies and development of Detailed Project Report. The SPV has been instrumental in spreading awareness about cluster development under state mini-cluster development scheme in Sirsa and has helped in validation of findings and recommendations. It has kept the state government and the DIC Sirsa engaged during the entire period of development of DSR and DPR.

5.1 Shareholder profile and Shareholding mix

List of Directors: The SPV has two directors. The details of the directors are furnished in the table 5. Other than these directors, the SPV will have provision of having one director/member from the state government. The SPV comprises members from micro agricultural implements manufacturing units. It is homogeneous in nature due to similar products and activities performed by the cluster units:

Table 5: List of Directors

S. No.	Name of Director	Name of the unit	Unit address
1	Raghubir Singh	New Jagjit Janta Agri Engg. Works	Hanumangarh Road, Mini Bypass, Ellenabad
2	Hari Singh	Ellenabad Agri Works	Nohar Subham Road, Hospital Back Side, Sirsa Road, Ellenabad

The lead promoters/ shareholders have several years of successful experience in production of agricultural implements products are well versed with the benefits of cluster development initiatives. These units are financially viable in nature.

Members of the SPV have been engaged in production of agricultural machinery in Sirsa for several years. SPV directors/ members of the SPV also have considerable experience in marketing and manufacturing of agricultural machinery. Directors/members have been in close interactions with technical experts, government institutions and machinery suppliers. Post the DSR validation, the DIC Sirsa also acknowledged the genuineness and enthusiasm of the SPV members to undertake project initiatives under state mini cluster development scheme as well as verified the existence of the SPV members. The verified list is provided in **Annexure 3**.

The SPV was formed with the objective of taking up cluster level activity in a joint and coordinated manner, wherein all units have equal say. The shareholding pattern of members of the registered SPV includes the contribution from every member of SPV and no individual shareholder holds more than 10% equity stake in the capital of the company. Details of SPV members along with their contact persons, unit details, UAM numbers and products manufactured are provided in table 6.

Table 6: Details of SPV members of Agricultural Machinery Manufacturing Cluster, Sirsa

Sr No.	UAM	COMPANY	ADDRESS	PROP.	MOBILE	INVESTMENT IN PLANT & MACHINERY IN LAKHS	TURNOVER IN LAKHS
1	HR17A0007120	NEW JAGJEET AGRO IND.	HANUMANGARH ROAD, ELLENABAD, SIRSA	NAVDEEP SINGH	9416107588	1060000	17024701
2	HR17A0007121	GURUNANAK AGRI WORKS	SHRI JIVAN NAGAR, DABWALI ROAD, SIRSA	HANSPAL SINGH	9466688214	300000	604000
3	HR17A0007123	VEER AGRI WORKS	HANUMANGARH ROAD, NER PETROL PUMP ELLENABAD, SIRSA	VEER SINGH	9215584571	515000	4884000
4	HR17A0007122	SHRI PARTAP STEEL IND.	SHRI JIVAN NAGAR, DABWALI ROAD, SIRSA	HARWEL SINGH	9050094521	300000	2532301

Sr No.	UAM	COMPANY	ADDRESS	PROP.	MOBILE	INVESTMENT IN PLANT & MACHINERY IN LAKHS	TURNOVER IN LAKHS
5	HR17A0007124	NEW HARI PARTAP AGRI WORKS	HANUMANGARH ROAD, OPP SHIV MANDIR, ELLENABAD	VIRENDER SINGH	7027526001	525000	7419242
6	HR17A0007125	HARYANA AGRI WORKS	HANUMANGARH ROAD, NEAR FCI GODOWN ELLENABAD, SIRSA	OM PARKASH	9813302022	590000	2856042
7	HR17A0007126	SHRI VISHAV KARMA AGRI WORKS	SIRSA ROAD, ELLENABAD, SIRSA	JASWANT SINGH SINGH	9416258348	450000	2422040
8	HR17A0007127	PUBLIC AGRO IND.	SIRSA ROAD, ELLENABAD, SIRSA	NARENDER SINGH	9466001947	525000	4275887
9	HR17A0007128	GURUNANAK AGRI WORKS	SIRSA ROAD, ELLENABAD, SIRSA	MANDER SINGH	9416921354	810000	3850482
10	HR17A0007129	HINDUSTHAN AGRO IND	SIRSA ROAD, ELLENABAD, SIRSA	RANJEET SINGH	9896958958	450000	3049576
11	HR17A0007130	DASHMESH AGRI ENGG WORS	HANUMANGARH ROAD, ELLENABAD, SIRSA	AVTAR SINGH	8813897551	250000	750000
12	HR17A0007109	ELLENABAD AGRI WORKS	NOHAR ROAD, SHUBHAM HOSPITAL BACK SIDE, ELLENABAD. SIRSA	HARI SINGH	9354742500	180000	800000
13	HR17A0007179	JAI VISHAVKARMA AGRI. WORKS	SIRSA ROAD, ELLENABAD, SIRSA	DALIP SINGH	9416440382	450000	4875883
14	HR17A0007330	NEW JAGJEET AGRO TECH	HANUMANGARH ROAD OPP SHIV MANDIR, ELLENABAD	JITENDER SINGH	9416379801	750000	1956821
15	HR17B0007347	NEW JAGJEET JANTA AGRI ENGG WORKS	HANUMANGARH ROAD, MINI BYPASS, ELLENABAD	RAGHVIR SINGH	9416284665	4500000	6229326

5.2 Initiatives undertaken by the SPV

As mentioned in detail in section 4.1 (Soft interventions recommended and action taken), the SPV members have proactively undertaken many capacity building initiatives to promote the cooperation among cluster units and enhance knowledge and exposure of the units. These initiatives have been undertaken in collaboration with DIC, EY, Haryana Agriculture Manufacturing Association etc. The major initiatives are:

- Pursuing initiatives in close coordination with DIC, Sirsa to facilitate understanding of cluster development, common procurement, marketing, available government support, latest technology for common facility etc.
- Exposure visit to Punjab/NCR to understand the latest available technology and machinery related to fabrication. This would help them to adopt latest methods and machinery for the manufacturing of agricultural equipment and made them more competitive in market.
- Conducting various programs for capacity building, awareness generation and technological advancement in the cluster as well as participation in similar programs organized by stakeholders.
- Identification of building for setting up of CFC and collective effort made by the SPV members to identify the suitable space for CFC.

5.3 SPV roles and responsibilities

The SPV will play an important guiding role in the overall management and operations of the CFC. It will provide direction to the management of the CFC and will monitor usage and performance of the CFC. The SPV will constantly report to the state government about the performance of the CFC. The major roles and responsibilities that are envisaged to be performed by the SPV post the submission of this DPR are mentioned below:

- Coordinating with the state industry department for DPR approvals in the SLSC
- Accompanying EY experts to various meetings at the state government departments
- Execution of lease deed registration of building in SPV name
- Garnering the SPV project contribution from the members
- Formation of purchase committees for procurement of goods
- Establishing, operating and maintaining all common facilities as mentioned in the DPR
- Obtain any statutory approvals/clearances from various government departments
- Recruit appropriate professionals to ensure smooth execution of the CFC
- Collection of user charges from members and other users of the facilities as per the decided rates to meet the recurring expenses and future expansions of the CFC. While various estimates on user charges / service fee are presented in this DPR, all decisions including usage priority of facilities by members will be made based on decision by members of SPV.
- Preparation and submission of progress reports to state industry department

The Memorandum and Articles of Associations of the Cluster SPV indicates the democratic process in terms of decision-making based on votes. All members of SPV will meet once every fortnight/month to discuss/resolve operational issues. The management of the CFC will be a two-tier structure for smooth and uninterrupted functioning. The executive body i.e. Board of Directors (BoD) will include office bearers elected/nominated from time to time, including one nominee of State Government (DIC). They will also remain present during meetings.

While various estimates on user charges/service fees are presented in this DPR, all decisions including usage priority of facilities by members will be made by unanimous decision of the members. The CFC will seek direction and guidance from the SPV BoD, and the day-to-day

administration will be taken care of by the management that shall be appointed by the SPV BoD. Their role is detailed below:

1. **Board of Directors**: The BoD will be the main governing body and will oversee the operations of the CFC. They will have the decision-making power in terms of fixing user fees (for members and non-members) and usage of reserves etc. for future expansion. The Chairman and Managing Director will oversee the entire operations; each Director will be entrusted with specific responsibility like marketing, technical, finance, public relations etc. based on their interests and experience.

2. **Managerial, Technical and Administrative staff**: A competent and qualified professional with a background in the fabrication industry will be appointed as the Cluster Development Executive (CDE), who will look after day-to-day operations of the CFC and shall be directly reporting to the Board of Directors. Each facility (cutting and mini tool room) will have its own expert staff (supervisors, operations and helpers) as per the requirement. The details of work force and other requirements are already mentioned in the DPR in the Project Economics section. There shall be provisions for administrative staff such as accounts personnel, marketing professional, etc. to ensure effective functioning of the CFC. The proposed organizational structure of the CFC is given in figure 6:

Figure 6: Organisational Structure of Proposed CFC

Project Economics

6. Project Economics

6.1 Project Cost

The total project cost is estimated at **Rs. 224.45 lakh**. The project cost for setting up a CFC in the Agricultural Implements Manufacturing Cluster in Sirsa includes the following:

1. Building (on lease)
2. Machinery and equipment
3. Miscellaneous fixed assets
4. Preliminary & Pre-operative expenses
5. Contingency
6. Margin money for working capital

6.1.1 Building

The SPV shall lease on a 10-year irrevocable lease. The SPV has identified the building and obtained a letter establishing the availability of the building. The building is located the, Ellenabad district Sirsa, Haryana. The available area is 6000 square feet and the monthly rent for the first year would be Rs. 1.80 lakh, with an annual increase at the market rate (estimated at 10%). The detail of each project component is provided below;

Table 7: Building Lease Basis

BUILDING - LEASE BASIS		
S. No.	**Particulars**	**Actual Cost**
1	Building Area (sq. ft.)	6000
2	Monthly Rent (INR lakh)	0.15
3	Rent for first year (INR lakh)	1.80
4	Year on year increase in rent @	10.00%

6.1.2 Plant and Machinery

As detailed in section 4.2 (hard interventions), the machines proposed in the cluster will enable cluster units enhance their competitiveness. The machines have been categorized as primary and secondary. The machines that shall be used primarily for job work have been categorized as primary, whereas, the auxiliary/supporting machines have been categorized as secondary machines. The major facilities proposed at the CFC are for Plasma Cutting Machine, CNC Lathe Machine, CNC Milling Machine, CNC Bending Machine, Drill Machine and Bandsaw Machine. The total cost of plant and machineries has been estimated at INR 202.50 lakh including taxes and installation fees, and contingency works out to INR 10.12 lakh. The details of the proposed machinery items are presented in the table below. The detailed specifications and quotations of the machines are provided in the annexure. The SPV has considered quotations for machinery from suppliers based on the manufacturer's reputation, service support, price and quality. However, an open online tendering system shall be followed for procurement of these machines during project execution, and selected vendors will be further invited to negotiate.

Table 8: List of Proposed Plant & Machinery

S. No.	Machine Name	Quantity	Basic Price	Total Basic Price	Transportation Charges*	Gst as Applicable *	Other charges like Installation & Insurance	Total Price	Supplier Options
		Indigenous	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous	
A	Primary Machinery								
1	CNC Profile Cutting Machine with 2 Plasma cutting station	1	38.50	38.50	0.50	7.02		46.02	PROARC Welding and Cutting Systems Pvt. Ltd.
2	CNC Lathe LL20T-L10	1	25.00	25.00	0.02	4.50	-	29.52	Lakshmi Machine Work, Coimbatore
3	CNC Lathe LL20T-L7	1	22.75	22.75	0.02	4.10	-	26.87	Lakshmi Machine Work, Coimbatore
4	CNC Hydraulic Bending Press	1	24.50	24.50	0.50	4.50	-	29.50	Hindustan Hydraulics,Jalandhar
5	CNC Control Keyway Milling Machine	1	14.00	14.00	-	2.52	0.70	17.22	Bansal Machine Tools, Ludhiana
6	Power Press 200 T	1	11.50	11.50	-	2.07	-	13.57	Samrat Products (India)
7	Power Press 50 T	3	4.10	12.30	-	2.21	-	14.51	Samrat Products (India)
8	Horizontal Milling Machine	1	5.75	5.75	-	1.04	0.29	7.07	Bansal Machine Tools, Ludhiana
9	Hydraulic Multipurpose cutting press	1	3.00	3.00	-	0.54	-	3.54	Dhanjal Engg. Works
10	Drill Machine (25 mm)	1	0.60	0.60	-	0.11	-	0.71	Sharda Tools Co. Pvt. Ltd., Ludhiana

S. No.	Machine Name	Quantity	Basic Price	Total Basic Price	Transportation Charges*	Gst as Applicable *	Other charges like Installation & Insurance	Total Price	Supplier Options
		Indigenous	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous	
11	Drill Machine (36 mm)	1	0.72	0.72	-	0.13	-	0.85	Sharda Tools Co. Pvt. Ltd., Ludhiana
12	MIG Welding Machines	3	1.16	3.47	-	0.62	-	4.09	Brahm Robotics Pvt. Ltd., Mohali Punjab
13	Bandsaw	1	1.30	1.30	-	0.23		1.53	
	Sub Total (A)	**17**	**152.88**	**163.39**	**1.04**	**29.60**	**0.99**	**195.01**	
B	**Secondary Machinery**								
1	DG Set 125 KVA	1	6.35	6.35	-	1.14	-	7.49	IEC, Karnal
	Sub Total (B)	**1**	**6.35**	**6.35**	-	**1.14**	-	**7.49**	
	Grand Total	**18**	**159.23**	**169.74**	**1.04**	**30.74**	**0.99**	**202.50**	

6.1.3 Miscellaneous Fixed Assets

The CFC would also require fixed assets such as furniture, fixtures, firefighting equipment, first-aid equipment etc. for smooth running of operations. The total estimated capital expenditure for purchase of miscellaneous fixed assets is estimated to be Rs. 1.64 Lakh. Details are provided in the table below.

Table 9: Miscellaneous Fixed Assets

MISCELLANEOUS FIXED ASSETS		
S. No.	Particulars	Amount (Rs. In Lakh)
1	Office Table (1)	0.10
2	Office Chair (4)	0.12
3	Guest Chair (4)	0.20
4	Firefighting equipment (8)	0.22
5	Other Fixed Assets	1.00
	Total	**1.64**

6.1.4 Preliminary and Pre-operative Expenses

Another major component of the project cost is the preliminary and pre-operative expenses. The preliminary expenses are envisaged as expenses incurred for registration of SPV, Project Report Preparation (DSR & DPR) legal and administrative expenses, tendering forms, tendering cost, etc.

Pre-operative expenses include expenses for electricity connection charges, refurbishment of the building, administrative establishment, travelling, bank charges, stationery, telephone, overhead expenses during machinery testing period such as salaries, machine testing cost, bank charges, travelling, etc. The total expenditure for preliminary and pre-operative expenses are estimated at Rs. 6.31 Lakh (details provided in the table below).

Table 10: Preliminary and Pre-Operative Expenses

(Rs. In Lakh)

PRELIMINARY & PRE-OPERATIVE EXPENSES		
S. No.	Particulars	Amount
1	Company Registration Charges	1.20
2	Project Management Charges	0.57
3	Travelling Cost	1.50
4	Machine testing cost	0.60
5	Loading unloading charges	1.00
6	Lease deed registration charges	0.85
7	Bank Appraisal Charges	0.59
	Total	**6.31**

6.1.5 Provision for Contingencies

As per the guidelines of state-mini cluster development scheme a provision for contingencies has to be made on plant/machinery and building (not applicable in this case as the building is being taken on a lease basis). Contingencies on plant and machinery have been estimated at 5% that amounts to Rs. 10.08 lakh.

6.1.6 Margin Money for working capital

The total working capital requirement during the first year of operation at 75% capacity utilization is estimated at Rs. 14.88 lakh. The working capital loan, if required, will be availed from a local bank and is calculated at Rs. 11 lakhs with margin money requirement of Rs. 3.88 Lakh (minimum 25% of working capital requirement as margin). The working capital requirement has been calculated based on requirement of one month of operational expenses and 1-month debtor collection period. **Summary Project cost**

A summary of the total estimated project cost as per actual and as per State Mini Cluster Development Scheme is presented in the table below:

Table 11: Detailed Project Cost

(Rs in Lakh)

PROJECT COST				
S. No.	**Particulars**	**Total Project Cost**	**Eligible Amount as per Guidelines**	**Remarks**
1	**Land & Building**			**Eligible (Max 25% of total of L&B, P&M, and Misc. F.A.)**
	a. Land Value	0.00	0.00	
	b. Land Development	0.00		
	c. Building & Other Civil Works	0.00		
	d. Building Value	0.00		
	Sub Total (A)	**0.00**	**0.00**	
2	**Plant & Machinery**			**Eligible**
	a. Indigenous	195.01	195.01	
	b. Imports	0.00	0.00	
	c. Secondary Machines	7.49	7.49	
	Sub Total (B)	**202.50**	**200.00**	
3	**Miscellaneous fixed assets (C)**	**1.64**	**0.00**	**Not eligible for grant**
4	**Preliminary & Preoperative Expenses (D)**	**6.31**	**0.00**	
5	**Contingency**			
	a. Building @ 2%	0.00	0.00	
	b. Plant & Machinery @ 5%	10.12	0.00	
	Sub Total (E)	**10.12**	**0.00**	
6	**Margin money for working capital @ 75% CU (F)**	**3.88**	**0.00**	
	Grand Total (A+B+C+D+E+F)	**224.45**	**200.00**	

6.2 Means of Finance

The project will be financed from two sources: equity from SPV, and grant-in-aid from Govt. of Haryana (under State Mini Cluster Development Scheme, EPP-2015). Working capital loan, if required, will be secured from a local bank. The assistance to the project from Govt. of Haryana under State Mini Cluster Development Scheme is envisaged to the tune of 90% of the project cost for project up to 200 lakhs. SPV will be required to contribute 10 % of project cost for project cost up to Rs. 200 lakhs. Hence, the SPV members have proposed to contribute the entire amount beyond Rs. 180 lakhs, taking their overall contribution to the total project cost. The total contribution of SPV members will amount to Rs. 44.45 lakh. Support from State Government is envisaged for Rs. 180.00 Lakh. Details of the means of finance are provided in the table below:

Table 12: Means of Finance

Detailed Means of Finance							
S. No.	Source of finance	Project cost upto eligible cost		Project cost over eligible cost			Remarks
		Percentage Contribution	Amount (INR in lakh)	Percentage Contribution	Amount (INR in lakh)	Total Amount (INR in lakh)	
1	Grant-in-aid under State Mini Cluster Development Scheme (Govt. of Haryana)	90%	180.00	0%	0.00	180.00	As per EPP, 2015 GoH contribution is max 90%
2	Contribution of SPV	10%	20.00	100%	24.45	44.45	
	Total	**100%**	**200.00**	**100%**	**24.45**	**224.45**	

6.2.1 Share Capital

The contribution of the SPV members will be by way of subscription to shares in the SPV registered as a Private Limited Company. The extent of paid-up share capital would be Rs. 44.45 lakh contributed by the cluster SPV. The authorized share capital of the company is INR 10 lakh at present which shall be increased in due course. The extent of equity subscription by each member will be restricted to a maximum of 10% of total share capital of the company.

6.2.2 Grant-in-Aid

Grant-in-aid of Rs. 180.00 lakh is expected from Government of Haryana. The amount received by the way of grant under State Mini Cluster Development Scheme will only be utilized to procure plant and machinery for the project. The state government will deduct the INR 4.00 lakh towards the preparation DSR & DPR of the project.

6.3 Expenditure Estimates

In this section, a detailed estimate of expenditure of the CFC has been conducted on eight-hour single shift (i.e. 8 hours) operation basis. This has been estimated based upon extensive inputs by the cluster members and the prevalent rates of consumables,

utilities and manpower in the cluster. This section considers annual cost of undertaking job work and expenditure estimates. The critical components related to expenditure comprise consumables, manpower, electricity and also expenditure on repair and maintenance of assets, insurance and administrative overheads. Other elements comprise expenditures by the way of interest toward working capital loans, miscellaneous expenses and non-cash depreciation expenditure.

6.3.1 Consumables

Machines installed at the CFC shall require consumables during operations and completion of the job work. Consumables are critical components of project facilities and may be understood in terms of machinery oil, water, grease oil and chemicals & powder & paint etc.

Table 13: Consumables

CONSUMABLES REQUIRED FOR MACHINES											
S. No.	Machine Name	No. Of Machines	Particulars	Total monthly Amt (Rs.)	Consumables required annually (Rs. In Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)
						Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						75%	80%	85%	90%	95%	100%
1	CNC Profile Cutting Machine with 2 Plasma cutting station	1	Greasing, Tools	5000.00	0.60	0.45	0.48	0.51	0.54	0.57	0.60
2	CNC Lathe LL20T-L10	1	Hydraulic Oil, Greasing, Tools	10000.00	1.20	0.90	0.96	1.02	1.08	1.14	1.20
3	CNC Lathe LL20T-L7	1	Hydraulic Oil, Greasing, Tools	10000.00	1.20	0.90	0.96	1.02	1.08	1.14	1.20
4	CNC Hydraulic Press	1	Hydraulic Oil, Greasing, Tools	10000.00	1.20	0.90	0.96	1.02	1.08	1.14	1.20
5	CNC Control Keyway Milling Machine	1	Hydraulic Oil, Greasing, Tools	7000.00	0.84	0.63	0.67	0.71	0.76	0.80	0.84
6	Power Press 200 T	1	Hydraulic, Oiling, Greasing, Tools	4000.00	0.48	0.36	0.38	0.41	0.43	0.46	0.48
7	Power Press 50 T	3	Hydraulic, Oiling, Greasing, Tools	2500.00	0.30	0.23	0.24	0.26	0.27	0.29	0.30
8	Horizontal Milling Machine	1	Hydraulic, Oiling,	5000.00	0.60	0.45	0.48	0.51	0.54	0.57	0.60

CONSUMABLES REQUIRED FOR MACHINES											
S. No.	Machine Name	No. Of Machines	Particulars	Total monthly Amt (Rs.)	Consumables required annually (Rs. In Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)
			Greasing, Tools								
9	Hydraulic Multipurpose cutting press	1	Hydraulic, Oiling, Greasing, Tools	5000.00	0.60	0.45	0.48	0.51	0.54	0.57	0.60
10	Drill Machine (25 mm)	1	Greasing, Drill Nose	2500.00	0.30	0.23	0.24	0.26	0.27	0.29	0.30
11	Drill Machine (36 mm)	1	Greasing, Drill Nose	2500.00	0.30	0.23	0.24	0.26	0.27	0.29	0.30
12	MIG Welding Machines	3	Greasing, Welding Rod	5000.00	0.60	0.45	0.48	0.51	0.54	0.57	0.60
13	Bandsaw	1	Greasing oil	1000.00	0.12	0.09	0.10	0.10	0.11	0.11	0.12
	Total	17.00			8.34	6.17	6.58	6.99	7.40	7.81	8.22
	Consumables per month				0.70	0.51	0.55	0.58	0.62	0.65	0.69

6.3.2 Manpower Requirement

Another major expenditure head is the manpower. Facilities installed at CFC will require manpower to function effectively. The total manpower requirement for the project would be about 19 persons. The manpower required under project has been divided under two categories: Direct & Indirect. Direct manpower is required for operation of machines while indirect manpower is required for administrative purposes. The annual expenditure on salary component for direct manpower is estimated at Rs. 22.84 lakh and for indirect at 7.99 lakh. The total expense on manpower is projected at Rs. 2.57 lakh per month or Rs. 30.82 lakh per annum. The details of monthly and yearly expenses for manpower required for running the project is provided in table below:

Table 14: Expenditure related to Salary (direct manpower - machine operators and helpers)

DIRECT MANPOWER				
Category	**No. of Manpower Required**	**Salary per month per person (INR)**	**Total Salary Per Month (INR)**	**Total salary & wages per Year (INR lakh)**
Agricultural Machinery Manufacturing Cluster, Sirsa (Supervisor)	1	20,000.00	20,000.00	2.40
Plasma Machine Operator	1	15,000.00	15,000.00	1.80
Machine Operator CNC	6	12,500.00	75,000.00	9.00
Helper	7	9,000.00	63,000.00	7.56
	15	**0.57**	**1.73**	**20.76**
Add: Perquisites/Fringe Benefits @ 10%				**2.08**
Sub Total (A)				**22.84**

Table 15: Expenditure Related to Salary (indirect manpower – administrative and support staff)

INDIRECT MANPOWER				
Category	**No. of Manpower Required**	**Salary per month per person (INR)**	**Total Salary Per Month (INR)**	**Total salary & wages per Year (INR lakh)**
Cluster Development Executive	1	25,000.00	25,000.00	3.00
Accountant cum Human Resource Executive	1	15,000.00	15,000.00	1.80
Office Executive	1	9,500.00	9,500.00	1.14
Security Guard	1	11,000.00	11,000.00	1.32
	4	**0.61**	**0.50**	**7.26**
Add: Perquisites/Fringe Benefits @ 10%				**0.73**
Sub-Total (B)				**7.99**
Total (A) + (B)	**19**			**30.82**

6.3.3 Utilities

The most important utilities required in the project is power supply. Proposed CFC requires power for operation of machinery as well as other supporting equipment for smooth operations. The total connected load requirement has been estimated at 166.10 kW. The table below depicts the machine and equipment wise power requirement in the CFC. The drawn power is conservatively assumed at 60% of the connected load in the case of operating facilities and shop floor.

Table 16: Machine & Equipment (facility) wise power requirement

UTILITIES			
S. No.	**Machine & Equipment**	**Power Requirement (kW)/ Connected Load**	**Total power requirement (60% of drawn power) kWh**
1	CNC Profile Cutting Machine with 2 Plasma cutting station	50.00	30.00
2	CNC Lathe LL20T-L10	20.00	12.00
3	CNC Lathe LL20T-L7	20.00	12.00
4	CNC Hydraulic Bending Press	11.00	6.60
5	CNC Control Keyway Milling Machine	5.50	3.30
6	Power Press 200 T	16.00	9.60
7	Power Press 50 T	4.00	2.40
8	Horizontal Milling Machine	3.50	2.10
9	Hydraulic Multipurpose cutting press	5.00	3.00
10	Drill Machine (25 mm)	2.00	1.20
11	Drill Machine (36 mm)	2.00	1.20
12	MIG Welding Machines	12.00	7.20
	Total Connected load for CFC	**151.00**	**90.60**
	Buffer Connected Load (10% of Total Connected Load)	**15.10**	
	Total	**166.10**	

The power requirement for operation of core machinery and equipment and administrative facilities is 151.00 kW. The facility is heavily based on electricity for operations and will also require additional 10% connected load as a buffer to get the electricity connection. The total connected load for the CFC is estimated to be 166.10 kW.

Fixed charges for connection of151 kW @ Rs. 175 per kW equals Rs. 29,067.50/- per month and monthly consumption charge @ Rs. 9.00 per unit for 18120 units amounts to Rs.

1,92,147.50/- per month. This has been calculated based on the prevalent rates of the power provider. The table below presents the envisaged annual expenditure in terms of power related charges.

Table 17: Annual Expenditure Statement vis-à-vis Power Charges

Power charges at various C.U.						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	75%	80%	85%	90%	95%	100%
Fixed	3.49	3.49	3.49	3.49	3.49	3.49
Variable	14.68	15.66	16.63	17.61	18.59	19.57
Total	18.17	19.14	20.12	21.10	22.08	23.06
Per month	1.51	1.60	1.68	1.76	1.84	1.92

6.3.4 Annual Repairs and Maintenance Expenses

The annual repairs and maintenance expenses have been estimated to be Rs. 6.17 lakh. The details are presented in the table below:

Table 18: Annual Repairs and Maintenance Expenditure

REPAIR & MAINTENANCE	
ANNUAL REPAIR AND MAINTENANCE EXPENSES	
Repair & Maintenance of Building	0.10
Repair & Maintenance of Plant and Machineries @ 3%	6.07
Sub Total A	**6.17**

6.3.5 Insurance and Miscellaneous Expenses

Insurance is a critical component of asset protection at the CFC. Insurance is computed on the basis of 0.5 percent on the fixed assets. Cost of insurance shall remain as a fixed cost. Miscellaneous administrative expenses are estimated at a lump-sum of Rs. 0.60 lakh per year. The details are presented in the table below:

Table 19: Insurance and Miscellaneous Administrative Expenses

OTHER EXPENSES	
Insurance Charges (Estimate @ 0.5% on fixed assets (such as buildings, civil works, and Plant & machinery, including related contingency expenses of approx. Rs. Lakh)	1.06
Miscellaneous Expenses (Stationery, communication, travelling, and other misc. overheads)	0.60
Sub Total B	**1.66**

6.4 Working Capital

Working capital has been calculated in terms of one month's operating expenses required for the CFC as well as one-month debtor collection period. The operating expenses includes in form of consumables, salaries, utilities and rent expenses.

The working capital requirement of the project for the one month of operation has been considered for consumables and expenses. The SPV will contribute the margin money for working capital and rest of working capital will be borrowed from local bank. While calculating the project cost, a minimum of 25% of working capital is shown as margin for working capital and the remaining will be borne by SPV as borrowings. The total working capital is estimated to be Rs. 14.88 lakh during the first year of operation (75% C.U.). Further, total working capital required at an operating capacity of 80% during the second year comes out to Rs. 15.81 lakh. The corresponding margin money for working capital requirement at 75% & 80% capacity utilization in the first 2 years amounts to Rs. 3.88 lakh and Rs. 4.81 lakh respectively, and the corresponding loan amounts to Rs. 7.00 lakh.

The details are presented in the table below:

Table 20: Working Capital

WORKING CAPITAL								
S. No.	Particulars	Period	As per Capacity Utilisation					
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			75%	80%	85%	90%	95%	100%
1	Consumables	1 month	0.51	0.55	0.58	0.62	0.65	0.69
2	Utilities (Power)	1 month	1.51	1.60	1.68	1.76	1.84	1.92
3	Working Expenses (Manpower)	1 month	2.09	2.19	2.28	2.38	2.47	2.57
4	Sundry Debtors (Sales Value)	1 months	10.76	11.48	12.20	12.92	13.63	14.35
5	Working capital (Total expenses)		14.88	15.81	16.74	17.67	18.60	19.53
6	Working Capital Margin		3.88	4.81	5.74	6.67	7.60	8.53
7	Working Capital Loan		11.00	11.00	11.00	11.00	11.00	11.00
8	Interest on Working capital loan @11% p.a.		1.21	1.21	1.21	1.21	1.21	1.21
9	Working Cap Margin %age		26.10 %	30.44 %	34.29 %	37.75 %	40.86 %	43.67 %

6.5 Depreciation Estimates

Estimates of depreciation are non-cash expenditure and presented in this section on the basis of Written down Value (WDV) methods. Accounting for depreciation would facilitate sustainability of operations in terms of developing a fund for replacement of assets. The relevant fund that is accumulated could facilitate the replacement of such assets toward the end of the envisaged asset life of 10 years. Depreciation of plant and machinery is considered at 15% a year (envisaged project life of 10 years prior to replacement of assets), depreciation of furniture at 10% per year, and depreciation of miscellaneous fixed assets at the rate of 15% a year. The computation of depreciation as per WDV method is provided in the tables below.

Table 21: Depreciation based on WDV

(Rs. In lakh)

DEPRECIATION (WRITTEN DOWN VALUE METHOD)										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Land										
Opening Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less : Depreciation	-	-	-	-	-	-	-	-	-	-
Closing Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building and Civil-work										
Opening Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less: Depreciation @ 10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plant & Machinery										
Opening Balance	212.62	180.73	153.62	130.58	110.99	94.34	80.19	68.16	57.94	49.25
Less: Depreciation @ 15%	31.89	27.11	23.04	19.59	16.65	14.15	12.03	10.22	8.69	7.39
Closing Balance	180.73	153.62	130.58	110.99	94.34	80.19	68.16	57.94	49.25	41.86
Furniture										
Opening Balance	0.42	0.38	0.34	0.31	0.28	0.25	0.22	0.20	0.18	0.16
Less: Depreciation @ 10%	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02

(Rs. In lakh)

DEPRECIATION (WRITTEN DOWN VALUE METHOD)										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Closing Balance	0.38	0.34	0.31	0.28	0.25	0.22	0.20	0.18	0.16	0.15
Other Misc. Fixed Assets										
Opening Balance	1.22	1.03	0.93	0.84	0.75	0.68	0.61	0.55	0.49	0.44
Less: Depreciation @ 15%	0.18	0.10	0.09	0.08	0.08	0.07	0.06	0.05	0.05	0.04
Closing Balance	1.03	0.93	0.84	0.75	0.68	0.61	0.55	0.49	0.44	0.40
Total Depreciation	32.12	27.25	23.17	19.70	16.75	14.24	12.11	10.30	8.76	7.45
Depreciated value	182.14	154.89	131.72	112.02	95.27	81.02	68.91	58.61	49.86	42.41

6.6 Income/Revenue Estimates

The CFC is expected to generate revenue by way of user charges that shall be levied based upon the sheet cutting, sheet bending machining work, drilling and welding work. The user charges shall vary based upon the user i.e- the SPV members and non SPV members. The user charges will be less for the SPV members as compared to non SPV members. Firms based outside Sirsa shall be charged a premium for availing the CFC services. The major income sources for the CFC are envisaged by the way of machining and powder coating work. The user charges have been estimated based upon the operational expenses of the CFC and the prevalent market rates in Ludhiana and Delhi. User charges for secondary machines have not been considered as a part of revenue. Estimation of user charges for availing services at CFC has been done on a conservative basis. An average user charge has been used, considering the demand for basic and specialized in-house modern machines for performing activities like cutting sheet cutting, sheet bending machining work, drilling and welding work etc. The relevance and appropriateness of user charges is also evident from the fact that the rates fixed help meet operating expenditures and provide sustainable replacement of assets. It is also envisaged that the CFC will generate enough income to sustain and grow, making it a viable project.

The estimated user charges are presented in table below:

Table 22: User Charges for Machinery

REVENUE GENERATION AT CFC													
S. No.	Machine Name	No. Of Machines	User Charge per hour (Rs.)	No. Of Working hours per day	No. Of Working days per month	Revenue per month (Rs. lakh)	Annual Revenue generation (in Rs. lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)	Amount in Rs. Lakh)
								Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
								75%	80%	85%	90%	95%	100%
1	CNC Profile Cutting Machine with 2 Plasma cutting station	1	1500	8	26	3.12	37.44	28.08	29.95	31.82	33.70	35.57	37.44
2	CNC Lathe LL20T-L10	1	1200	8	26	2.50	29.95	22.46	23.96	25.46	26.96	28.45	29.95
3	CNC Lathe LL20T-L7	1	800	8	26	1.66	19.97	14.98	15.97	16.97	17.97	18.97	19.97
4	CNC Hydraulic Press	1	600	8	26	1.25	14.98	11.23	11.98	12.73	13.48	14.23	14.98
5	CNC Control Keyway Milling Machine	1	500	8	26	1.04	12.48	9.36	9.98	10.61	11.23	11.86	12.48
6	Power Press 200 T	1	400	8	26	0.83	9.98	7.49	7.99	8.49	8.99	9.48	9.98
7	Power Press 50 T	3	250	8	26	1.56	18.72	14.04	14.98	15.91	16.85	17.78	18.72
8	Horizontal Milling Machine	1	300	8	26	0.62	7.49	5.62	5.99	6.36	6.74	7.11	7.49
9	Hydraulic Multipurpose cutting press	1	200	8	26	0.42	4.99	3.74	3.99	4.24	4.49	4.74	4.99
10	Drill Machine (25 mm)	1	150	8	26	0.31	3.74	2.81	3.00	3.18	3.37	3.56	3.74
11	Drill Machine (36 mm)	1	200	8	26	0.42	4.99	3.74	3.99	4.24	4.49	4.74	4.99
12	MIG Welding Machines	3	100	8	26	0.62	7.49	5.62	5.99	6.36	6.74	7.11	7.49
13	Bandsaw	1	100	8	26	0.21	2.50	1.87	2.00	2.12	2.25	2.37	2.50
	Total	**17.00**					**172.22**	**129.17**	**137.78**	**146.39**	**155.00**	**163.61**	**172.22**

6.7 Estimates of profitability: Income and Expenditure Statement

The projection for income and expenditures of the CFC has been conducted for ten years. The projections have been undertaken based upon the income and expenditure heads mentioned in previous sections. The projected statements highlight income, expenses, profits earned, income tax and net profit etc. The details are presented in the table below:

The total gross revenue is estimated to be Rs. 27.96 lakh for the first year of operation at an operating capacity of 75%. For projection purposes, operating capacity of 75% is considered for first year, 80% for second year and 100% capacity from 6th year onwards.

The income tax rates have been considered depending upon the announcement made in the Budget 2020 and the tax applicable to a Pvt. Limited Company. Income tax has been considered at 22 per cent on taxable profit inclusive of all the tax components. The incidence of tax ranges from INR 7.88 lakh in the first year to INR 19.04 lakh in Year 10.

Table 23: Income and Expenditure Statement

(Rs. In Lakh)

PROFIT & LOSS ACCOUNT										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Number of working days	300	300	300	300	300	300	300	300	300	300
Number of shifts	1	1	1	1	1	1	1	1	1	1
Capacity Utilisation in %	**75%**	**80%**	**85%**	**90%**	**95%**	**100%**	**100%**	**100%**	**100%**	**100%**
A. Income										
(User/ Service Charge)	**129.17**	**137.78**	**146.39**	**155.00**	**163.61**	**172.22**	**172.22**	**172.22**	**172.22**	**172.22**
B. Cost of Production:										
1. Utilities Power (Fixed + Variable)	18.17	19.14	20.12	21.10	22.08	23.06	23.06	23.06	23.06	23.06
2. Direct labour and wages	17.13	18.27	19.41	20.55	21.69	22.84	22.84	22.84	22.84	22.84
3. Consumable	6.17	6.58	6.99	7.40	7.81	8.22	8.22	8.22	8.22	8.22
4. Repair and Maintenance	4.63	4.94	5.25	5.56	5.87	6.17	6.17	6.17	6.17	6.17
5. Depreciation	32.12	27.25	23.17	19.70	16.75	14.24	12.11	10.30	8.76	7.45
Total Cost of production	**78.21**	**76.18**	**74.94**	**74.31**	**74.20**	**74.53**	**72.40**	**70.59**	**69.05**	**67.74**
C. Administrative expenses:										

(Rs. In Lakh)

PROFIT & LOSS ACCOUNT										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
6. Manpower (Indirect)	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99
7. Rent	3.00	3.30	3.63	3.99	4.39	4.83	5.31	5.85	6.43	7.07
8. Insurance	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
9. Misc. Expense	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Total Administrative Expenses	**12.65**	**12.95**	**13.28**	**13.64**	**14.04**	**14.48**	**14.96**	**15.50**	**16.08**	**16.72**
D. Financial expenses:										
10. Interest on Working capital loan @ 11% per annum	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
Total Financial Expenses	**1.21**	**1.21**	**1.21**	**1.21**	**1.21**	**1.21**	**1.21**	**1.21**	**1.21**	**1.21**
E. Total Expenses B+C+D	**92.07**	**90.34**	**89.43**	**89.16**	**89.45**	**90.22**	**88.57**	**87.29**	**86.34**	**85.67**
F. Profit A - E	**37.10**	**47.44**	**56.96**	**65.84**	**74.16**	**82.00**	**83.65**	**84.93**	**85.89**	**86.55**
G. P&P Expenses written off	1.26	1.26	1.26	1.26	1.26	0.00	0.00	0.00	0.00	0.00
H. Income before Tax (F-G)	**35.84**	**46.18**	**55.70**	**64.58**	**72.90**	**82.00**	**83.65**	**84.93**	**85.89**	**86.55**
I. Adjustment of Loss	-	-	-	-	-	-	-	-	-	-
J. Income Tax (@22% for company)	7.88	10.16	12.25	14.21	16.04	18.04	18.40	18.68	18.90	19.04
K. Net Profit /Loss for the year	**27.96**	**36.02**	**43.45**	**50.37**	**56.86**	**63.96**	**65.25**	**66.25**	**66.99**	**67.51**
L. Cumulative Surplus	**27.96**	**63.98**	**107.42**	**157.79**	**214.66**	**278.62**	**343.86**	**410.11**	**477.10**	**544.61**

As evident from the table above, the project is financially viable. A cumulative surplus of about Rs 510.58 Lakh shall be earned by the SPV even after accounting for taxation and depreciation at the end of ten years. This surplus generated shall be used for further addition in the machinery or improvement and up-gradation of facilities. Additionally, the SPV intends to conduct a lot of other development activities in the cluster that shall be funded through the surplus earned at the CFC.

6.8 Cash Flow Statement

Cash flow statement indicates the cash balance and the liquidity position of the project over the years. The table below presents the sources and disposal/uses of funds statement of the project.

Table 24: Cash Flow Statement

(Rs in Lakh)

CASH FLOW STATEMENT											
Particulars	Lease Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
A. Source of Funds :											
1. Cash Accruals (Net Profit + Interest Paid)		38.31	48.65	58.17	67.05	75.37	83.21	84.86	86.14	87.10	87.76
2. Increase in capital	44.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Depreciation		32.12	27.25	23.17	19.70	16.75	14.24	12.11	10.30	8.76	7.45
4. Increase in WC Loan		11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Change in Expenses Payable		4.37	0.24	0.24	0.24	0.24	0.25	0.04	0.04	0.05	0.05
5. Increase in Grant-in-aid from GoH	180.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Sources of Funds	**224.45**	**85.80**	**76.14**	**81.58**	**86.99**	**92.37**	**97.70**	**97.01**	**96.48**	**95.90**	**95.27**
B. Use of Funds :											
1. P&P Expenses	6.31	-	-	-	-	-	-	-	-	-	-
2. Increase in fixed assets	214.26	-	-	-	-	-	-	-	-	-	-
3. Increase in other Assets	3.88	0.45	0.97	0.98	0.98	0.99	0.99	0.07	0.08	0.09	0.10
4. Increase in Sundry Debtors		10.76	0.72	0.72	0.72	0.72	0.72	0.00	0.00	0.00	0.00
5. Interest		1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
6. Taxation		7.88	10.16	12.25	14.21	16.04	18.04	18.40	18.68	18.90	19.04
Total Use of Funds	**224.45**	**20.31**	**13.06**	**15.16**	**17.12**	**18.95**	**20.96**	**19.69**	**19.97**	**20.19**	**20.35**

(Rs in Lakh)

CASH FLOW STATEMENT											
Particulars	Lease Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
C. Net Surplus (A -B)		65.49	63.08	66.42	69.87	73.41	76.74	77.33	76.51	75.71	74.92
D. Cumulative Surplus		65.49	128.57	194.99	264.86	338.28	415.02	492.34	568.85	644.56	719.48

The cash flow statement shows the available net surplus for 10 years of the CFC operations. As most of the capital expenditure is being supported as grant under the State Mini Cluster Development Scheme (EPP 2015), therefore it does not have any negative effect on the Cash flow, in terms of interest, etc.

6.9 Projected Balance Sheets

The annual balance sheets for the CFC have been projected based upon estimates in the earlier sub-sections about various current and fixed liabilities and also current and fixed assets. As evident from the projections, a considerable amount of reserves and surplus gets accumulated. These shall also be utilized for expansion of the CFC and undertaking other cluster development activities. Decision on deployment of reserves and surplus accumulated will be based on the performance of the project and requirements of cluster firms and members of the SPV. The projected balance sheets are provided in the table below:

Table 25: Balance Sheet

(Rs in lakh)

PROJECTED BALANCE SHEET											
Particulars	At the end of impl. Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1. Fixed Assets:											
Gross Block	214.26	214.26	182.14	154.89	131.72	112.02	95.27	81.02	68.91	58.61	49.86
Less: Depreciation (WDV)		32.12	27.25	23.17	19.70	16.75	14.24	12.11	10.30	8.76	7.45
Net Block	214.26	182.14	154.89	131.72	112.02	95.27	81.02	68.91	58.61	49.86	42.41
Total Fixed Assets (A)	**214.26**	**182.14**	**154.89**	**131.72**	**112.02**	**95.27**	**81.02**	**68.91**	**58.61**	**49.86**	**42.41**

(Rs in lakh)

PROJECTED BALANCE SHEET											
Particulars	At the end of impl. Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
2. Current Assets:											
Cash & bank Surplus (B.F)		65.49	128.57	194.99	264.86	338.28	415.02	492.34	568.85	644.56	719.48
Sundry Debtors		10.76	11.48	12.20	12.92	13.63	14.35	14.35	14.35	14.35	14.35
Margin Money for WC Loan	3.88	3.88	4.81	5.74	6.67	7.60	8.53	8.53	8.53	8.53	8.53
Other Current Assets		0.45	0.50	0.54	0.60	0.66	0.72	0.80	0.88	0.96	1.06
P&P Exp	6.31	5.05	3.78	2.52	1.26	0.00	0.00	0.00	0.00	0.00	0.00
Total current Assets (B)		**85.64**	**149.14**	**216.00**	**286.31**	**360.17**	**438.62**	**516.02**	**592.61**	**668.41**	**743.42**
Total Assets (A+B)	**224.45**	**267.78**	**304.03**	**347.72**	**398.33**	**455.44**	**519.65**	**584.93**	**651.22**	**718.26**	**785.83**
3. Current Liabilities:											
Working Capital Loan		11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Expenses Payable		4.37	4.61	4.84	5.09	5.33	5.58	5.62	5.66	5.71	5.76
Total Current Liabilities (C)		**15.37**	**15.61**	**15.84**	**16.09**	**16.33**	**16.58**	**16.62**	**16.66**	**16.71**	**16.76**
4. Fixed Liabilities											
Shareholders' Contribution	44.45	44.45	44.45	44.45	44.45	44.45	44.45	44.45	44.45	44.45	44.45
Grant from GoH	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Reserves and Surplus		27.96	63.98	107.42	157.79	214.66	278.62	343.86	410.11	477.10	544.61
Total Fixed Liabilities (D)	**224.45**	**252.41**	**288.43**	**331.87**	**382.25**	**439.11**	**503.07**	**568.31**	**634.56**	**701.55**	**769.06**
Total Liabilities (C+D)	**224.45**	**267.78**	**304.03**	**347.72**	**398.33**	**455.44**	**519.65**	**584.93**	**651.22**	**718.26**	**785.83**

6.10 Break-even analysis

The break-even (BE) estimates of the project indicate the level of activity at which the total revenues of the project equal the total costs. It also portrays whether the revenue contribution is sufficient to meet the fixed costs. From this point, the project is expected to start generating

profits. As per the calculations, the CFC achieves break even in the first year itself as no major interest costs are being incurred. Hence, BE estimates at level of activity relevant to the first year and subsequent years of activity are provided in the table below:

Table 26: Break Even Estimates

(Rs. In Lakh)

BREAKEVEN POINT AT VARIOUS C.U.										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Capacity Utilization	75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
A. Total Earning by way of user charges	129.17	137.78	146.39	155.00	163.61	172.22	172.22	172.22	172.22	172.22
B. Variable costs										
Consumables	6.17	6.58	6.99	7.40	7.81	8.22	8.22	8.22	8.22	8.22
Utilities (Power- variable charge)	14.68	15.66	16.63	17.61	18.59	19.57	19.57	19.57	19.57	19.57
Interest on WC Loan	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
Repair & Maintenance	4.63	4.94	5.25	5.56	5.87	6.17	6.17	6.17	6.17	6.17
Manpower (Direct)	17.13	18.27	19.41	20.55	21.69	22.84	22.84	22.84	22.84	22.84
Misc. Expenditure (90% variable)	0.41	0.43	0.46	0.49	0.51	0.54	0.54	0.54	0.54	0.54
Total Variable Cost (B)	43.81	46.65	49.49	52.33	55.17	58.01	58.01	58.01	58.01	58.01
C. Contribution (A-B)	85.36	91.13	96.90	102.67	108.44	114.21	114.21	114.21	114.21	114.21
D. Fixed Overheads (Cash)										
Manpower (Indirect)	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99	7.99
Utilities (Power - fixed charges)	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49
Rent	3.00	3.30	3.63	3.99	4.39	4.83	5.31	5.85	6.43	7.07
Insurance	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Misc. Expenditure (10% fixed)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Sub-total (D)	15.60	15.90	16.23	16.59	16.99	17.43	17.91	18.44	19.03	19.67

(Rs. In Lakh)

BREAKEVEN POINT AT VARIOUS C.U.										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Capacity Utilization	75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
E. Fixed Overheads (Non-cash)										
Depreciation	32.12	27.25	23.17	19.70	16.75	14.24	12.11	10.30	8.76	7.45
Preliminary & Pre-operative expenses written off	1.26	1.26	1.26	1.26	1.26	0.00	0.00	0.00	0.00	0.00
Sub-total (E)	33.38	28.51	24.43	20.96	18.01	14.24	12.11	10.30	8.76	7.45
F. Total Fixed Overheads (D+E)	48.98	44.41	40.66	37.55	35.00	31.67	30.02	28.74	27.79	27.12
Break even point (F/C)	57.38%	48.73%	41.96%	36.58%	32.28%	27.73%	26.29%	25.17%	24.33%	23.74%

Book break-even is achieved at 57.38% (of operational capacity at 75 per cent) and at 48.73% (of operational capacity at 80 percent). The operation of the CFC is expected to break-even and realizes profit from 1st year of operations. Therefore, very low risk is involved in the project.

6.11 Feasibility analysis summary and sustainability indicators

A summary of the financial analysis in terms of key financial indicators such as Return on Capital Employed (ROCE), Net Present Value (NPV), Break Even Point (BEP) and the Internal Rate of Return (IRR) is presented in the table below. The indicators validate the financial viability and sustainability potential of the proposed project.

Table 27: Financial Analysis

FEASIBILITY		
S. No.	**Particulars**	**Estimates**
1	BEP (cash BEP at initial operating capacity of 75%)	57.38%
2	Av. ROCE (PAT/CE)	31.65%
3	Internal Rate of Return (IRR)	27.57%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoH	NPV is positive and high (Rs. 206.65 lacs) at a conservative project life of 10 years
5	Payback period	2.95 years with Grant-in-aid assistance from GOH
6	DSCR	Not Applicable (non-availment of term loan in this project)

The annual estimates in the context of ROCE are presented in the table below:

Table 28: Calculation of Return on Capital Employed

RETURN ON CAPITAL EMPLOYED (ROCE)											
Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**AVG**
ROCE = EBIT/Capital Employed											
ROCE	16.51%	21.11%	25%	29.31%	33.02%	37.07%	37.81%	38.38%	38.80%	39.10%	**31.65%**

The average value of ROCE (with grant-in-aid) is 31.65%. This indicates high techno-economic viability of the project should the government contribute a significant portion of the project cost as grant. Capital employed considered includes the SPV contribution as well as the grant component to the project.

The Net Present Value, estimated at a discount rate of 10%, is Rs. 132.83. As reflected from the high values of NPV, it is positive at even 10%, the rate at which bank offers debt capital facility and even at higher discount rates. Project IRR is high at over 21.81% (at a conservative project life of 10 years). This substantiates the viability of the project.

6.12 Additional revenue sources

Additional sources of revenue shall also be explored by the SPV by offering procurement and marketing services in future to more enterprises. The SPV members are strong believers of the cluster concept and would like to explore the potential of undertaking cluster initiatives to improve the backward and forward linkages of the cluster units. However, in order to ensure conservativeness in income estimates, in the initial years, the income earning possibilities of such revenues are not captured in this DPR.

6.13 Risk analysis & Sensitiveness

Risk in the project is relatively low in the context of the following:

- **Promoters are experienced**: Risk in the project is quite low given the strength and profile of the SPV members. They have considerable experience not only in manufacturing of agricultural implements but also in undertaking cluster developmental initiatives.
- **Facility is pre-marketed:** Evidently, complete capacity of the core facility to be established in terms of various facilities may be easily availed by members of the SPV themselves, thus the facility would already have a captive market.
- **Sustainability indicators in terms of the strength of the SPV and the economics of the project:** Evidence of cooperative initiatives of SPV members as articulated in previous chapters; in terms of pursuing several joint efforts, registering the SPV and proceeding towards procurement of land, and securing commitment from members, vis-à-vis progressively mobilizing necessary paid up capital, all reflect the strength of the SPV.

High economic viability indicators upon considering the benefits of grant-in-aid under the State Mini Cluster Development Scheme and EPP 2015 also serve as evidence of techno-economic viability and sustainability of the project. A sensitivity analysis has been carried out to ascertain the impact on the project, should there be any loss of revenue. This has been calculated assuming drop in user charges. Major financial parameters are still attractive. The important parameters related to the sensitivity analysis are presented in the table below:

Table 29: Sensitivity Analysis

SENSTIVITY ANALYSIS					
S. No.	Particulars	Base case	With 5% decline in user charge	With 10% decline in user charge	With 15% decline in user charge
1	BEP (cash BEP at operating capacity of 75%)	57.38%	62.08%	67.57%	74.10%
2	Internal Rate of Return (IRR)	27.57%	28.17%	24.56%	18.80%
3	Av. ROCE (PAT/CE) (with Grant)	31.65%	24.79%	21.81%	21.06%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) GoH	206.65	169.97	132.83	96.16

Even assuming reduction in user charges, ROCE is favourable. From the above, it is evident that the project is viable even under (unlikely) risky environment circumstances.

6.14 Assumption for financial calculations

The financial statements and project profitability estimates in this DPR are based on the following assumptions:

1. The total project cost is pegged @ Rs. 224.45 Lakh on the basis of estimates and quotations.

2. To finance the project, a total of Rs. 224.45 Lakh is required. The financing will consist of grant from Government of Haryana and contribution by SPV.

3. In the financial projections and analysis, year 2020 is the envisaged period of project implementation also involving installation of plant, machinery and other equipment. This period will commence from the date of final approval by the State Level Steering Committee under State Mini Cluster Development Scheme. The financial projections thereafter are prepared for 10 years of operation starting 2020.

4. The registered SPV will manage the CFC, and these services are to be used by the SPV to member as well as non-member units. The common facility will benefit registered SPV as well as non-member firms who (in some cases) may not afford to contribute to necessary equity capital.

5. The CFC will operate for 25 days a month, that is, for 300 days a year on an eight-hour single shift basis. Operation on single shift basis is assumed for purposes of projecting income estimates.

6. Capacity utilization is assumed at 75% in the first year; 80% for second, 85% for third year and 100% from 6^{th} year onwards.

7. The workings with regard to expenses related to the project have been tabulated and categorized in terms of those related to consumables, manpower, electricity, and miscellaneous administrative expenditures.

8. Repairs and maintenance is provided @ 3% of plant and machinery cost at varying capacity utilization.

9. Insurance is provided @ 0.5% on fixed assets including building & civil works, machinery, contingency as fixed cost at all capacity utilization.

10. Electricity connection will not be required as it is already present in the building.

11. Fixed charges per kW of electric connection shall be charged @ Rs. 175 and variable charges @ Rs. 9 per unit consumed.

12. Income estimates have been projected most conservatively. The prescribed user charges are competitive vis-à-vis charges for similar services in other regions.

13. Depreciation on fixed assets is calculated on Written Down Value (WDV) method for all purposes.

14. Debtors' collection period is taken at 1 month of calculation of Working Capital Limits.

15. Provision for income tax has been made @ 22% (excluding cess).

16. Profitability estimates in terms of ROCE, NPV, and IRR are computed considering operating results for first 10 years of operation.

Project Implementation and Monitoring

7. Project Implementation and Monitoring

7.1 Envisaged Implementation Framework

1) **Time frame**: Project implementation is envisaged to involve a timeframe of about 6 months upon receipt of final approval of grant-in-aid assistance from the Government of Haryana under Mini Cluster Development Scheme, Govt. of Haryana.
2) **User Base:** SPV members and non-members may use the facilities. However, the charges will vary. The SPV will also be open for new entrant's subject to them subscribing to the shareholding of the SPV, and them being genuinely pro-active and interested in cluster initiatives. The GC of the SPV can decide on same or differential user charges for both members and non-members or based upon the volume of the output.
3) **Project implementation schedule:** The project implementation schedule envisaged over a period of 6 months involves several activities. The schedule is elaborated in the table 30 below:

Table 30: Project Implementation Schedule

Activity/Month	1	2	3	4	5	6
Receipt of final approval from Govt. of Haryana						
Bipartite Agreement						
Formation of purchase committee						
Finalisation of Bidding document for the procurement of Plant & Machinery & publish to tender on e-procurement portal						
Finalisation of tenders						
Issuance of LOAs & Contract Agreements						
Collecting Contribution from SPV/ stakeholder						
Purchase of Machinery and equipment & physical verification of the machinery						
Installation and trial run of machinery and equipment						
Arrangement for working capital						

Activity/Month	1	2	3	4	5	6
Monitoring of the project by PMC						
Commencement of operations of the facility						

4 **Contractual agreements/MoU with member units:** Agreements have been indicatively finalized in terms of utilization of assets in respect of shareholders. A total of 15 units are participating in the SPV and all these units have agreed to contribute towards the SPV share of the project cost. The utilization of the common facility will be in line with the proposed shareholding pattern. The consent letter wherein the member units agree for payments of 10% share of cost of CFC will be submitted in due course of time and as per final approval from Government of Haryana.

5 **Memorandum of Articles and Articles of Association:** Memorandum of Articles & Articles of Association are indicative of the management and decision-making structure of the SPV. All the members of SPV have paid an advance and are became the members of the Society.

6 **Availability of Building & Status of Acquisitions**: The SPV has identified the building for the proposed CFC at Ellenabad in Sirsa district. The total area of the plot is 6000 sq. feet.

7 **Availability of Requisite Clearances:** the SPV Government will procure necessary required clearances. Electricity is already available in the area and the proposed CFC can easily be connected to the grid. The other required clearances (environment, labor. IPH etc.) will be taken to the concerned department for NOC issuance, which shall be obtained in due course.

8 **O & M Plan:** The revenue stream for O&M is dependent on realization of user charges from the SPV members and other users/MSMEs in the case of various facilities. As detailed in the financial section, the cash incomes are sufficient to meet operating expenditures, overheads as well as depreciation for sustainable replacement of assets. The SPV will also have to keep a track of maintenance of assets through collection of user charges from the members/ users.

7.2 Monitoring Mechanism

As mentioned in the implementation schedule, the following key activities shall be conducted during establishment of the CFC:

- Minor Civil Works Alteration
- Electrical works
- Purchase of machinery & commissioning
- Trial production
- Commercial production

The successful implementation of above activities will depend on the following aspects:

- Implementation of above within the time frame

- Supervising and overseeing the implementation of the proposals and fine tuning and advocating more measures if needed, depending on the site conditions
- Project level monitoring indicators to evaluate the implementation of the CFC proposal at recommended intervals
- Suitable purchase mechanisms for proposed plant & machinery
- Periodical reporting of the status of implementation and monitoring of the results of key performance indicators, and
- Constant evaluation of the measures implemented based on the data available from project level monitoring and status reports and providing directions accordingly.

The project will be implemented through SPV and PMC will report progress of implementation to the State Government & Central Government.

7.3 Project Monitoring

The committee may operate under the overall monitoring of the State Level Steering Committee (SLSC). Other key stakeholders such as representatives of cluster SPV, related government departments, support institutions, cluster level industry associations and consultants may be inducted as members under the committee.

The members may comprise the following:

i. Principal Secretary, Industries and Commerce, Government of Haryana (Chairman)
ii. Director General, Department of MSME, Member
iii. Director MSME DI, Karnal, Member
iv. Deputy Director, DIC, Sirsa
v. Members of related SPV
vi. EY Cluster Development Expert under MSME project

In addition, for implementing the Sirsa Agricultural Machinery Manufacturing cluster CFC project, a Project Management Committee (PMC) comprising the Deputy Director, DIC, Sirsa, and representatives of SPV, and EY experts shall be constituted to directly oversee effective monitoring and implementation.

The project will be implemented through SPV and PMC will report progress of implementation to DIC Sirsa.

Conclusion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8. Conclusion

The micro & small agricultural machinery manufacturing units of Sirsa are dependent on manual, low capacity and obsolete technologies for production and are barely surviving due to intense competition from large firms. The increasing costs of raw materials coupled with high production costs is driving many micro players out of the market. The micro & small units do not have the advanced machining facilities and hence are unable to procure orders from MNCs. To add to their woes, the micro and small units are unable to produce quality products for the biggest market segment in the region.

Against this backdrop, it is inevitable to support the micro & small agricultural manufacturing units in Sirsa to adopt an advanced cutting Centre & Mini Tool Room comprising of advance machining Centre. This will reduce their processing costs significantly while increasing the quality of their products.

The future of agricultural industry is bright. This segment is poised to grow at a steady rate with major applications being in engineering goods. Several factors are enhancing the demand and supply of agricultural machinery in India such as high growth of end-user industry & govt. focus on agriculture industries etc. Particularly in the Sirsa region, the market possibility for high quality agricultural machinery is promising. The only constraint is the lack of technologies and related infrastructure which can be removed by setting up a CFC. The cluster firms have not been able to obtain bulk orders from large customers due to lack of quality, production capacity and poor quality of produce. The technologies required for upgradation are extremely expensive and the same cannot be adopted by any individual units in the cluster. Hence, the following facilities have been proposed in the CFC:

- Plasma cutting facility
- Mini Tool Room Facility

The total project cost (including plant/machinery and buildings) is estimated to be INR **224.45 lakh**. The project shall be implemented by the SPV '**NJT Engineering Pvt. Ltd.**' which has been constituted by the cluster firms. A number of capacity building programs and exposure visits have been organised by the SPV for the benefit for its members.

The CFC will be set up with support from DIC and the state government (Department of MSME) under PPP mode. The building for the project has already been identified by the SPV and shall be acquired immediately upon in final approval by State Government. The state industry department is envisaged to provide grant for setting up of the CFC under the Mini Cluster Development scheme, Haryana EPP 2015. The SPV members have proposed to contribute **INR 44.50 lakh** of the project cost. Support from Mini Cluster Development Scheme of the State Government of Haryana is envisaged for **INR 180.00 lakh.** ICICI Bank will provide working capital requirement for the project, if required. The project is financially viable and is expected to generate enough revenue to ensure its sustainability.

Annexures

9. Annexures

1: DSR Approval Letter from Department of MSME, Government of Haryana

From

The Director General, MSME, Haryana

To

M/s Ernst & Young LLP,
Unit 613-615, 6th Floor,
Elante Offices, Chandigarh
Email :- upinder.dhingra@in.ey.com

Memo No. Mini Cluster/Agri Machinery Manufacturing/Sirsa/ 16801-A
Dated Chandigarh, the 15/10/2020

Subject:- Regarding conducting Detailed Project Report (DPR) in case of Sirsa Agriculture Machinery Manufacturing Cluster under the State Mini Cluster Development Scheme.

Kindly refer to the subject cited above.

In this connection, it is informed that the Diagnostic Study Report (DSR) in case of Sirsa Agriculture Machinery Manufacturing Cluster under State Mini Cluster Development Scheme has been approved by the Director General, MSME, Haryana on 13.10.2020. You are, therefore, requested to prepare the Detailed Project Report (DPR) for the above said mini cluster.

Additional Director (Cluster)
for Director General, MSME, Haryana

Endst. No. Cluster/ Agriculture Machinery Manufacturing/Sirsa 16802-A Dated:- 15/10/2020

A copy of the above is forwarded to the SPV of the Sirsa, Agriculture Machinery Manufacturing Cluster, M/s New Jagjeet Janta Agriculture Engg. Works Haryana with a request to provide requisite documents and information as asked by Ernst & Young LLP immediately which are required for preparation of DPR. E-mail : harikiran.saggu@gmail.com

Additional Director (Cluster)
for Director General, MSME, Haryana

Endst. No. Mini Cluster/Agriculture Machinery Manufacturing/Sirsa 16803-A Dated:- 15/10/2020

A copy of the above is forwarded to Deputy Director, District Industries Centre, Sirsa for information and further necessary action.

Additional Director (Cluster)
for Director General, MSME, Haryana

2. Certificate of Incorporation

GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS

Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that NJT ENGINEERING PRIVATE LIMITED is incorporated on this Tenth day of September Two thousand twenty under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is U29309HR2020PTC089176.

The Permanent Account Number (PAN) of the company is **AAHCN1506E** *

The Tax Deduction and Collection Account Number (TAN) of the company is **RTKN06954D** *

Given under my hand at Manesar this Tenth day of September Two thousand twenty .

Digital Signature Certificate
Mr MANGAL RAM MEENA
Deputy Registrar Of Companies
For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca.gov.in

Mailing Address as per record available in Registrar of Companies office:

NJT ENGINEERING PRIVATE LIMITED
NEAR SHIV MANDIR,, HANUMANGARH ROAD,, ELLENABAD, Sirsa,
Haryana, India, 125102

2 (a) Memorandum of Articles

[Pursuant to Schedule I (see sections 4 and 5) to the Companies Act, 2013] FORM NO. INC-33

SPICe+MOA

(e-Memorandum of Association)

* **Table applicable to company as notified under schedule I of the companies Act, 2013** A

Table A- MEMORANDUM OF ASSOCIATION OF A COMPANY LIMITED BY SHARES

1. The Name of the Company is: NJT ENGINEERING PRIVATE LIMITED

2.The Registered office of the company will be situated in the state of: Haryana-HR

3.(a)The objects to be pursued by the company on its incorporation are

(I) To function as Special Purpose Vehicle (SPV) and Set up Common Facilities Centre(CFC) and other infrastructure activities for Manufacturing, Engineering & allied Industry of all types of agriculture and other implements, tools, machines and for the benefits of its members and Industry/concerned stakeholders following the guidelines and notifications for State Mini Cluster Development Scheme of Govt. of Haryana.

(II) To undertake works/scheme/programs of Government relating to growth and development of Engineering & Allied Industry and carry out/conduct soft and hard intervention activities under State Mini Cluster Development Scheme of Govt. of Haryana.

(III) To act as a resource center for development and strengthening network as Business Development Services related to Manufacturing, Technology, Market, Capacity building and Hand holding support for the purpose of growth and development of the Engineering & Allied Industry of all types of agriculture and other implements, tools, machines under State Mini Cluster Development Scheme of Govt. of Haryana.

(IV) To make available raw and packing material to all members of Engineering & allied industry at competitive rates by opening of raw and packing material bank.

(V) To arrange latest technology for upgrading all manufacturing units to provide Quality certificate to its members.

(VI) To render assistance and encouragement as may be necessary to persons engaged in Engineering and/or Manufacturing Industry.

(VII) To undertake job work, manufacturing, import, export of all type of Fabrication, Engineering & allied products and research work in connection with development of Engineering & allied Industry.

(VIII) To conduct training programs/seminars for capacity building and skill enhancement of workers in the engineering & allied industry.

(IX) No salary/interest/dividend shall be paid to any stakeholder of the company.

(X) No profit will be distributed amongst any member. All profit shall be ploughed back in the business & added to reserves & surplus. (ii) To carry on in India the business of marketing, promoting, franchising or dealing in any of the above activities , both in internal and external markets for any of the above purposes

3.(b)Matters which are necessary for furtherance of the objects specified in clause 3(a) are

1) To do all or any of the acts or things as mentioned in the main objects either as principals, contractors or otherwise and either alone or in conjunction with others.

(2) To remunerate any firm, person or body corporate rendering services to the Company, including without limitation, in relation to the

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promotion or formation of the Company, either by cash payment or by allotment to him or them of shares and securities of the Company as paid -up in full or in part or otherwise.

(3) To pay all costs, charges and expenses incurred or sustained in or about the formation, registration, promotion, incorporation, establishment and advertisement of the Company or which the Company shall consider to be preliminary including contracts entered into by the Company.

(4) To recruit, train and develop staff, organize seminars, training programs and conferences for employees, customers and the general public.

(5) To enter into contracts or arrangements or other dealings for more efficient conduct of the business of the Company or any part thereof and also to enter into any arrangement with any Government or Authorities or any persons or companies that may seem conducive to the main objects of the Company.

(6) To buy, sell, repair, alter, improve, exchange, let on hire, import, export and deal in all works, plant, machinery, tools, appliances, apparatus, products, materials, substances, articles and things capable of being used in any business which the Company is competent to carry on, or which may be required by any customer or person having dealings with the Company or which may seem capable of being profitably dealt with in connection therewith and to manufacture, experiment with, render marketable and otherwise deal in all products and services incidental to any of the businesses carried on by the Company.

(7) To lease, sub-lease, hire, purchase, license or otherwise acquire and/or sell, dispose of, construct, alter, modify, develop or otherwise deal in any properties, factories, shades, offices, guest houses, employee accommodation, godowns, warehouses, or other structures for housing and carrying on the businesses of the Company or for its employees, clients or other persons or for any other persons or for any other purpose as the Board of Directors may think expedient for the benefit of the Company.

(8) To enter into, undertake and execute contracts or other arrangements with any parties for any transactions, including the provision and supply or use of materials, machinery, equipment, articles or other products and/or services necessary for or otherwise required for or incidental to carrying out the objectives of the Company.

(9) To receipt of contract amount in foreign currencies & repatriate the amount out side India.

(10) To recruit, train and develop a pool of technical, managerial and administrative personnel including staff, employees, agents, for the Company or any subsidiary, affiliate or group companies or any other company, firm or other person, particularly where such companies, firms or persons are engaged in any business related to the business of the Company.

(11) To employ, engage, appoint, retain or otherwise procure, suspend or terminate the services of professionals, consultants, engineers, design consultants, technicians, legal and financial advisors, or other experts and to imbibe innovation and modern management techniques in the functioning and businesses of the Company.

(12) To retrench, lay-off, suspend, terminate the appointment of or dismiss executives, managers, assistants, support staff and other employees and to remunerate them at such rates as may be thought fit.

(13) To adopt such means of making known the articles, goods, products, appliances manufactured or dealt in or processes and services provided by, or at the disposal of the Company, as well as properties, assets and effects of the Company as may seem expedient, in particular by advertising in the press and through billboards, hoardings, motion pictures, by broadcasting, telecasting or by publication of books, periodicals and any other material convenient to the Company, by participating in trade fairs, exhibitions and by granting prizes, rewards and donations.

(14) To appoint dealers, sub-dealers, agents, sub-agents, distributors, sole selling agents, sole concessionaires, either in India or any place in India, for the efficient conduct of the bus iness of the Company, and remunerate them for their services.

(15) To take and/or provide discounts or to approve other terms of payment or credit in relation to any sums owing to or due from the Company and to impose or agree to pay any interest thereon or to write off any such sums or parts thereof.

(16) To pay for any property or rights acquired, either in cash, against debentures, or in fully or partly paid shares, or by the issue of securities, or by providing services and generally in such terms as may be determined and agreed upon.

(17) To carry on research and development activities on all aspects related to the business and objects of the Company.

(18) To undertake all types of technical, economic, and financial investigations and aid or assist or enter into partnership with any institution, university, company, partnership , firm or person or persons conducting such research or study and to subsidize, endow and assist workshops, libraries, meetings, lectures, and conferences and do suc h other acts to generally encourage, promote and reward studies, researches, investigations, experiments, tests and inventions of any kind that may be considered to assist any of the businesses of the Company.

(19) To identify projects, project ideas, to prepare profiles, project reports, and undertake market research, feasibility studies, per-investment studies and investigation of industries on a micro and/or macro level and to render appropriate services, to identify scope and potential for economic and industrial development in any particular geographical area or location whether in India or abroad.

(20) To acquire from any person, firm or body corporate, whether in India or elsewhere, technical information, know -how, processes, engineering, manufac turing and operating data, plans, lay-outs and blue-prints useful for the design, manufacture, erection and operation of plant and machinery, required for any of the businesses of the Company and to pay remuneration thereof in any currency by way of lump-sum or instalments or fees or royalties.

(21) To develop and/or furnish to any person, firm or body corporate whether in India or elsewhere, technical information, know-how, processes, engineering, manufacturing and operating data, plans, lay-outs and blue-prints useful for the design, manufacture, erection and operation of plant and machinery, required for any of the businesses of the Company and to obtain remuneration thereof in any currency by way of lump-sum or instalments or fees or royalties or through any other arrangement.

(22) To apply for, purchase, or otherwise acquire, protect or prolong any patent, design, concessions, trademarks, copyrights and the like, conferring an exclusive or non-exclusive or limited right of use, or any secret or other information and/or systems, processes of the Company or which the Company may develop or acquire or propose to develop or acquire.

(23) To apply for, purchase or otherwise acquire brand names/service marks for the products manufactured and the ser vices rendered by the Company, from any company, firm, or other person anywhere in the world, particularly international brand names/ service marks of the Company's holding or group companies.

(24) To expend money for improving or seeking to improve any patents, rights, inventions, discoveries, or information and/or systems, processes of the Company or which the Company may develop or may acquire or propose to develop or acquire.

(25) To use, exercise, develop, sell, assign, grant licenses or otherwise turn to account the property, rights and information so acquired.

(26) To establish and maintain or procure the establishment and maintenance of any non-contributory or contributory pension, superannuation, provident, welfare and education funds and trusts for the benefit of any person who is or was at any time in the employment or service of the Company or any subsidiary or affiliate of the Company, or who is or was at any time a director of the Company or of any such other company as aforesaid and the spouse, family and dependents of any such person.

(27) To provide for the welfare of employees or ex-employees of the Company and their spouses or the dependants of such persons by grant of money, pensions, allowances, bonus or other payments or by contributing to other associations, institutions, funds or trusts and by providing or subscribing or contributing towards places of instruction and recreation, hospitals and dispensaries, medical and other assistance as the Company may think fit.

(28) To purchase, hire or use all kinds of vehicles including cars, heavy transport vehicles, and aircraft, for the purpose of transportation of equipment, materials, employees and managerial personnel or for any other purpose.

(29) To acquire and hold one or more memberships or membership privileges in stock/security exchanges, commodity exchanges, clearing houses in any other trade or service associations which memberships, or membership privileges are likely in any manner to facilitate the conduct of the Company's business.

(30) To purchase, take on lease, exchange, mortgage, charge, hypothecate, encumber, hire or otherwise acquire or dispose of any movable or immovable property including lands, buildings, and flats of any description in India or elsewhere.

(31) To purchase, take on lease, exchange, mortgage, charge, hypothecate, encumber, or otherwise acquire or dispose of any other rights and privileges which the Company may think fit, and in particular of shares, debentures, or securities of any other company and to give any warranties in connection therewith as the Company shall think fit.

(32) To deal in, sell, mortgage, let out or otherwise dispose of the businesses, undertaking or all or any of the property and assets for the time being of the Company, or any part thereof, for such consideration and on such terms, as the Company thinks fit, particularly for shares, debentures, or securities of any other company and to give any warranties in connection therewith as the Company shall think fit.

(33) To promote, invest or assist any companies for the purpose of acquiring all or any of the property, rights and liabilities of such companies, which may seem beneficial to the Company.

(34) To enter into joint venture, partnership, or any other arrangement for joint working in business, sharing profits or for co-operation or for mutual assistance or form, promote, subsidize and assist companies and partnerships of all kinds with any person, firm or company or to acquire or carry on any other business (whether manufacturing or otherwise) auxiliary to the business of the Company or connected therewith or which may seem to the Company capable of being conveniently carried on in connection with the above, or calculated directly or indirectly to enhance the value of or render more profitable any of the Company's property or to amalgamate with any person, firm or company carrying on or about to carry on any business or transaction included in the objects of the Company or any other similar business, in India or abroad.

4.The liability of the member(s) is limited and this liability is limited to the amount unpaid, if any, on the shares held by them.

5.The share capital of the company is 1,000,000.00 rupees, divided into,

100,000.00	Equity	shares of	10.00	rupees each	,and

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6 ☒ We, the several persons, whose names and addresses are subscribed, are desirous of being formed into a company in pursuance of this memorandum of association, and we respectively agree to take the number of shares in the capital of the company set against our respective names:

☐ I, whose name and address is given below, am desirous of forming a company in pursuance of this memorandum of association and agree to take all the shares in the capital of the company (Applicable in case of one person company):

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S.No.	Subscriber Details					
	Name, Address, Description and Occupation	DIN/PAN/Passport Number	No. of shares taken		DSC	Dated
1	HARI SINGH S/O RAGHUBIR SINGH R/O H.NO.37, WARD NO.12, ELLENABAD, SIRSA HARYANA 125102 (BUSINESS)	BEQPS4335M	5,000	Equity	HARI SINGH	09/09/20
				Preference		
2	RAGHUVIR SINGH S/O HARDYAL SINGH R/O H.NO.37, WARD NO.12, ELLENABAD, SIRSA HARYANA 125102 (BUSINESS)	AFUPS4825A	5,000	Equity	RAGHUVIR SINGH	09/09/20
				Preference		
	Total Shares taken		10,000.0	Equity		
				Preference		

Signed before Me					
Name		Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	DSC	Dated
FCS	SOURABH PARNAMI	#396, GANPATI ENCLAVE, DABWALI ROAD, BATHINDA PUNJAB 151001 (PCS)	9396	SOURABH PARNAMI	09/09/20

Modify Check Form

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2 (b) Articles of Associations

[Pursuant to Schedule I (see Sections 4 and 5) to the Companies Act, 2013)] FORM NO. INC-34

SPICe+ AOA
(e-Articles of Association)

*Table F as notified under schedule I of the companies Act, 2013 is applicable to the company

NJT ENGINEERING PRIVATE LIMITED

A COMPANY LIMITED BY SHARES

Check if not applicable	Check if altered	Article No	Description
			Interpretation
☐	☒	I	(1) In these regulations- (a) "the Act" means the Companies Act, 2013, (b) "the seal" means the common seal of the company. (2) Unless the context otherwise requires, words or expressions contained in these regulations shall bear the same meaning as in the Act or any statutory modification thereof in force at the date at which these regulations become binding on the company. PRIVATE COMPANY (3) The Company is a "private company" which by its articles,— (i) restricts the right to transfer its shares; (ii) except in case of One Person Company, limits the number of its members to two hundred: Provided that where two or more persons hold one or more shares in a company jointly, they shall, for the purposes of this clause, be treated as a single member: Provided further that— (A) persons who are in the employment of the company; and (B) persons who, having been formerly in the employment of the company, were members of the company while in that employment and have continued to be members after the employment ceased, shall not be included in the number of members; and (iii) prohibits any invitation to the public to subscribe for any securities of the company;
			Share capital and variation of rights
☐	☐	II 1	Subject to the provisions of the Act and these Articles, the shares in the capital of the company shall be under the control of the Directors who may issue, allot or otherwise dispose of the same or any of them to such persons, in such proportion and on such terms and conditions and either at a premium or at par and at such time as they may from time to time think fit.
☐	☐	2	(i) Every person whose name is entered as a member in the register of members shall be entitled to receive within two months after incorporation, in case of subscribers to the memorandum or after allotment or within one month after the application for the registration of transfer or transmission or within such other period as the conditions of issue shall be provided,- (a) one certificate for all his shares without payment of any charges; or (b) several certificates, each for one or more of his shares, upon payment of twenty rupees for each certificate after the first. (ii) Every certificate shall be under the seal and shall specify the shares to which it relates and the amount paid-up thereon. (iii) In respect of any share or shares held jointly by several persons, the company shall not be bound to issue more than one certificate, and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all such holders
☐	☐	3	(i) If any share certificate be worn out, defaced, mutilated or torn or if there be no further space on the back for endorsement of transfer, then upon production and surrender thereof to the company, a new certificate may be issued in lieu thereof, and if any certificate is lost or destroyed then upon proof thereof to the satisfaction of the company and on execution of such indemnity as the company deem adequate, a new certificate in lieu thereof

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			shall be given. Every certificate under this Article shall be issued on payment of twenty rupees for each certificate. (ii) The provisions of Articles (2) and (3) shall mutatis mutandis apply to debentures of the company.
☐	☐	4	Except as required by law, no person shall be recognised by the company as holding any share upon any trust, and the company shall not be bound by, or be compelled in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share, or (except only as by these regulations or by law otherwise provided) any other rights in respect of any share except an absolute right to the entirety thereof in the registered holder.
☐	☐	5	(i) The company may exercise the powers of paying commissions conferred by sub-section (6) of section 40, provided that the rate per cent or the amount of the commission paid or agreed to be paid shall be disclosed in the manner required by that section and rules made thereunder. (ii) The rate or amount of the commission shall not exceed the rate or amount prescribed in rules made under sub-section (6) of section 40. (iii) The commission may be satisfied by the payment of cash or the allotment of fully or partly paid shares or partly in the one way and partly in the other.
☐	☐	6	(i) If at any time the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may, subject to the provisions of section 48, and whether or not the company is being wound up, be varied with the consent in writing of the holders of three-fourths of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class. (ii) To every such separate meeting, the provisions of these regulations relating to general meetings shall mutatis mutandis apply, but so that the necessary quorum shall be at least two persons holding at least one-third of the issued shares of the class in question.
☐	☐	7	The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking pari passu therewith.
☐	☐	8	Subject to the provisions of section 55, any preference shares may, with the sanction of an ordinary resolution, be issued on the terms that they are to be redeemed on such terms and in such manner as the company before the issue of the shares may, by special resolution, determine.
			Lien
☐	☐	9	(i) The company shall have a first and paramount lien- (a) on every share (not being a fully paid share), for all monies (whether presently payable or not) called, or payable at a fixed time, in respect of that share; and (b) on all shares (not being fully paid shares) standing registered in the name of a single person, for all monies presently payable by him or his estate to the company: Provided that the Board of directors may at any time declare any share to be wholly or in part exempt from the provisions of this clause. (ii) The company's lien, if any, on a share shall extend to all dividends payable and bonuses declared from time to time in respect of such shares.
☐	☐	10	The company may sell, in such manner as the Board thinks fit, any shares on which the company has a lien: Provided that no sale shall be made- (a) unless a sum in respect of which the lien exists is presently payable; or (b) until the expiration of fourteen days after a notice in writing stating and demanding payment of such part of the amount in respect of which the lien exists as is presently payable, has been given to the registered holder for the time being of the share or the person entitled thereto by reason of his death or insolvency.
☐	☐	11	(i) To give effect to any such sale, the Board may authorise some person to transfer the shares sold to the purchaser thereof. (ii) The purchaser shall be registered as the holder of the shares comprised in any such transfer. (iii) The purchaser shall not be bound to see to the application of the purchase money, nor shall his title to the shares be affected by any irregularity or invalidity in the proceedings in reference to the sale.
☐	☐	12	(i) The proceeds of the sale shall be received by the company and applied in payment of such part of the amount in respect of which the lien exists as is presently payable. (ii) The residue, if any, shall, subject to a like lien for sums not presently payable as existed upon the shares before the sale, be paid to the person entitled to the shares at the date of the sale.
			Calls on shares
☐	☐	13	(i) The Board may, from time to time, make calls upon the members in respect of any monies unpaid on their shares (whether on account of the nominal value of the shares or by way of premium) and not by the conditions of allotment thereof made payable at fixed times: Provided that no call shall exceed one-fourth of the nominal value of the share or be payable at less than one month from the date fixed for the payment of the last preceding call. (ii) Each member shall, subject to receiving at least fourteen days' notice specifying the time or times and place of payment, pay to the company, at the time or times and place so specified, the amount called on his

			shares. (iii) A call may be revoked or postponed at the discretion of the Board.
☐	☐	14	A call shall be deemed to have been made at the time when the resolution of the Board authorizing the call was passed and may be required to be paid by instalments.
☐	☐	15	The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof.
☐	☐	16	(i) If a sum called in respect of a share is not paid before or on the day appointed for payment thereof, the person from whom the sum is due shall pay interest thereon from the day appointed for payment thereof to the time of actual payment at ten per cent per annum or at such lower rate, if any, as the Board may determine. (ii) The Board shall be at liberty to waive payment of any such interest wholly or in part.
☐	☐	17	(i) Any sum which by the terms of issue of a share becomes payable on allotment or at any fixed date, whether on account of the nominal value of the share or by way of premium, shall, for the purposes of these regulations, be deemed to be a call duly made and payable on the date on which by the terms of issue such sum becomes payable. (ii) In case of non-payment of such sum, all the relevant provisions of these regulations as to payment of interest and expenses, forfeiture or otherwise shall apply as if such sum had become payable by virtue of a call duly made and notified.
☐	☐	18	The Board- (a) may, if it thinks fit, receive from any member willing to advance the same, all or any part of the monies uncalled and unpaid upon any shares held by him; and (b) upon all or any of the monies so advanced, may (until the same would, but for such advance, become presently payable) pay interest at such rate not exceeding, unless the company in general meeting shall otherwise direct, twelve per cent per annum, as may be agreed upon between the Board and the member paying the sum in advance.
			Transfer of shares
☐	☐	19	(i) The instrument of transfer of any share in the company shall be executed by or on behalf of both the transferor and transferee. (ii) The transferor shall be deemed to remain a holder of the share until the name of the transferee is entered in the register of members in respect thereof.
☐	☐	20	The Board may, subject to the right of appeal conferred by section 58 decline to register- (a) the transfer of a share, not being a fully paid share, to a person of whom they do not approve; or (b) any transfer of shares on which the company has a lien.
☐	☐	21	The Board may decline to recognise any instrument of transfer unless- (a) the instrument of transfer is in the form as prescribed in rules made under sub-section (1) of section 56; (b) the instrument of transfer is accompanied by the certificate of the shares to which it relates, and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer; and (c) the instrument of transfer is in respect of only one class of shares.
☐	☐	22	On giving not less than seven days' previous notice in accordance with section 91 and rules made thereunder, the registration of transfers may be suspended at such times and for such periods as the Board may from time to time determine: Provided that such registration shall not be suspended for more than thirty days at any one time or for more than forty-five days in the aggregate in any year.
			Transmission of shares
☐	☐	23	(i) On the death of a member, the survivor or survivors where the member was a joint holder, and his nominee or nominees or legal representatives where he was a sole holder, shall be the only persons recognised by the company as having any title to his interest in the shares (ii) Nothing in clause (i) shall release the estate of a deceased joint holder from any liability in respect of any share which had been jointly held by him with other persons.
☐	☐	24	(i) Any person becoming entitled to a share in consequence of the death or insolvency of a member may, upon such evidence being produced as may from time to time properly be required by the Board and subject as hereinafter provided, elect, either- (a) to be registered himself as holder of the share; or (b) to make such transfer of the share as the deceased or insolvent member could have made. (ii) The Board shall, in either case, have the same right to decline or suspend registration as it would have had, if the deceased or insolvent member had transferred the share before his death or insolvency.
☐	☐	25	(i) If the person so becoming entitled shall elect to be registered as holder of the share himself, he shall deliver or send to the company a notice in writing signed by him stating that he so elects. (ii) If the person aforesaid shall elect to transfer the share, he shall testify his election by executing a transfer of the share. (iii) All the limitations, restrictions and provisions of these regulations relating to the right to transfer and the registration of transfers of shares shall be applicable to any such notice or transfer as aforesaid as if the death

			or insolvency of the member had not occurred and the notice or transfer were a transfer signed by that member.
☐	☐	26	A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the company: Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself or to transfer the share, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other monies payable in respect of the share, until the requirements of the notice have been complied with.
			Forfeiture of shares
☐	☐	27	If a member fails to pay any call, or instalment of a call, on the day appointed for payment thereof, the Board may, at any time thereafter during such time as any part of the call or instalment remains unpaid, serve a notice on him requiring payment of so much of the call or instalment as is unpaid, together with any interest which may have accrued.
☐	☐	28	The notice aforesaid shall- (a) name a further day (not being earlier than the expiry of fourteen days from the date of service of the notice) on or before which the payment required by the notice is to be made; and (b) state that, in the event of non-payment on or before the day so named, the shares in respect of which the call was made shall be liable to be forfeited.
☐	☐	29	If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the Board to that effect.
☐	☐	30	(i) A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board thinks fit. (ii) At any time before a sale or disposal as aforesaid, the Board may cancel the forfeiture on such terms as it thinks fit.
☐	☐	31	(i) A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares, but shall, notwithstanding the forfeiture, remain liable to pay to the company all monies which, at the date of forfeiture, were presently payable by him to the company in respect of the shares. (ii) The liability of such person shall cease if and when the company shall have received payment in full of all such monies in respect of the shares.
☐	☐	32	(i) A duly verified declaration in writing that the declarant is a director, the manager or the secretary, of the company, and that a share in the company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share; (ii) The company may receive the consideration, if any, given for the share on any sale or disposal thereof and may execute a transfer of the share in favour of the person to whom the share is sold or disposed of; (iii) The transferee shall thereupon be registered as the holder of the share; and (iv) The transferee shall not be bound to see to the application of the purchase money, if any, nor shall his title to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share.
☐	☐	33	The provisions of these regulations as to forfeiture shall apply in the case of nonpayment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the nominal value of the share or by way of premium, as if the same had been payable by virtue of a call duly made and notified.
			Alteration of capital
☐	☐	34	The company may, from time to time, by ordinary resolution increase the share capital by such sum, to be divided into shares of such amount, as may be specified in the resolution.
☐	☐	35	Subject to the provisions of section 61, the company may, by ordinary resolution,- (a) consolidate and divide all or any of its share capital into shares of larger amount than its existing shares; (b) convert all or any of its fully paid-up shares into stock, and reconvert that stock into fully paid-up shares of any denomination; (c) sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the memorandum; (d) cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.
☐	☐	36	Where shares are converted into stock,- (a) the holders of stock may transfer the same or any part thereof in the same manner as, and subject to the same regulations under which, the shares from which the stock arose might before the conversion have been transferred, or as near thereto as circumstances admit: Provided that the Board may, from time to time, fix the minimum amount of stock transferable, so, however, that such minimum shall not exceed the nominal amount of the shares from which the stock arose. (b) the holders of stock shall, according to the amount of stock held by them, have the same rights, privileges

			and advantages as regards dividends, voting at meetings of the company, and other matters, as if they held the shares from which the stock arose; but no such privilege or advantage (except participation in the dividends and profits of the company and in the assets on winding up) shall be conferred by an amount of stock which would not, if existing in shares, have conferred that privilege or advantage. (c) such of the regulations of the company as are applicable to paid-up shares shall apply to stock and the words "share" and "shareholder" in those regulations shall include "stock" and "stock-holder" respectively.
☐	☐	37	The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law,- (a) its share capital; (b) any capital redemption reserve account; or (c) any share premium account.
			Capitalisation of profits
☐	☐	38	(i) The company in general meeting may, upon the recommendation of the Board, resolve- (a) that it is desirable to capitalise any part of the amount for the time being standing to the credit of any of the company's reserve accounts, or to the credit of the, profit and loss account, or otherwise available for distribution; and (b) that such sum be accordingly set free for distribution in the manner specified in clause (ii) amongst the members who would have been entitled thereto, if distributed by way of dividend and in the same proportions. (ii) The sum aforesaid shall not be paid in cash but shall be applied, subject to the provision contained in clause (iii), either in or towards- (A) paying up any amounts for the time being unpaid on any shares held by such members respectively; (B) paying up in full, unissued shares of the company to be allotted and distributed, credited as fully paid-up, to and amongst such members in the proportions aforesaid; (C) partly in the way specified in sub-clause (A) and partly in that specified in sub-clause (B); (D) A securities premium account and a capital redemption reserve account may, for the purposes of this regulation, be applied in the paying up of unissued shares to be issued to members of the company as fully paid bonus shares; (E) The Board shall give effect to the resolution passed by the company in pursuance of this regulation.
☐	☐	39	(i) Whenever such a resolution as aforesaid shall have been passed, the Board shall- (a) make all appropriations and applications of the undivided profits resolved to be capitalised thereby, and all allotments and issues of fully paid shares if any; and (b) generally do all acts and things required to give effect thereto. (ii) The Board shall have power- (a) to make such provisions, by the issue of fractional certificates or by payment in cash or otherwise as it thinks fit, for the case of shares becoming distributable in fractions; and (b) to authorise any person to enter, on behalf of all the members entitled thereto, into an agreement with the company providing for the allotment to them respectively, credited as fully paid-up, of any further shares to which they may be entitled upon such capitalisation, or as the case may require, for the payment by the company on their behalf, by the application thereto of their respective proportions of profits resolved to be capitalised, of the amount or any part of the amounts remaining unpaid on their existing shares; (iii) Any agreement made under such authority shall be effective and binding on such members.
			Buy-back of shares
☐	☐	40	Notwithstanding anything contained in these articles but subject to the provisions of sections 68 to 70 and any other applicable provision of the Act or any other law for the time being in force, the company may purchase its own shares or other specified securities.
			General meetings
☐	☐	41	All general meetings other than annual general meeting shall be called extraordinary general meeting.
☐	☐	42	(i) The Board may, whenever it thinks fit, call an extraordinary general meeting. (ii) If at any time directors capable of acting who are sufficient in number to form a quorum are not within India, any director or any two members of the company may call an extraordinary general meeting in the same manner, as nearly as possible, as that in which such a meeting may be called by the Board.
			Proceedings at general meetings
☐	☐	43	(i) No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business. (ii) Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103.
☐	☐	44	The chairperson, if any, of the Board shall preside as Chairperson at every general meeting of the company.

Page 5 of 10

☐	☐	45	If there is no such Chairperson, or if he is not present within fifteen minutes after the time appointed for holding the meeting, or is unwilling to act as chairperson of the meeting, the directors present shall elect one of their members to be Chairperson of the meeting.
☐	☐	46	If at any meeting no director is willing to act as Chairperson or if no director is present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their members to be Chairperson of the meeting.
			Adjournment of meeting
☐	☐	47	(i) The Chairperson may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place. (ii) No business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. (iii) When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting. (iv) Save as aforesaid, and as provided in section 103 of the Act, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.
			Voting rights
☐	☐	48	Subject to any rights or restrictions for the time being attached to any class or classes of shares,- (a) on a show of hands, every member present in person shall have one vote; and (b) on a poll, the voting rights of members shall be in proportion to his share in the paid-up equity share capital of the company.
☐	☐	49	A member may exercise his vote at a meeting by electronic means in accordance with section 108 and shall vote only once.
☐	☐	50	(i) In the case of joint holders, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders. (ii) For this purpose, seniority shall be determined by the order in which the names stand in the register of members.
☐	☐	51	A member of unsound mind, or in respect of whom an order has been made by any court having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee or other legal guardian, and any such committee or guardian may, on a poll, vote by proxy.
☐	☐	52	Any business other than that upon which a poll has been demanded may be proceeded with, pending the taking of the poll.
☐	☐	53	No member shall be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the company have been paid
☐	☐	54	(i) No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes. (ii) Any such objection made in due time shall be referred to the Chairperson of the meeting, whose decision shall be final and conclusive.
			Proxy
☐	☐	55	The instrument appointing a proxy and the power-of-attorney or other authority, if any, under which it is signed or a notarised copy of that power or authority, shall be deposited at the registered office of the company not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the instrument proposes to vote, or, in the case of a poll, not less than 24 hours before the time appointed for the taking of the poll; and in default the instrument of proxy shall not be treated as valid.
☐	☐	56	An instrument appointing a proxy shall be in the form as prescribed in the rules made under section 105.
☐	☐	57	A vote given in accordance with the terms of an instrument of proxy shall be valid, notwithstanding the previous death or insanity of the principal or the revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the shares in respect of which the proxy is given:Provided that no intimation in writing of such death, insanity, revocation or transfer shall have been received by the company at its office before the commencement of the meeting or adjourned meeting at which the proxy is used.
			Board of Directors
☐	☒	58	The number of the directors and the names of the first directors shall be determined in writing by the subscribers of the memorandum or a majority of them. 1. HARI SINGH 2. RAGHUVIR SINGH

☐	☐	59	(i) The remuneration of the directors shall, in so far as it consists of a monthly payment, be deemed to accrue from day-to-day. (ii) In addition to the remuneration payable to them in pursuance of the Act, the directors may be paid all travelling, hotel and other expenses properly incurred by them- (a) in attending and returning from meetings of the Board of Directors or any committee thereof or general meetings of the company; or (b) in connection with the business of the company.
☐	☐	60	The Board may pay all expenses incurred in getting up and registering the company.
☐	☐	61	The company may exercise the powers conferred on it by section 88 with regard to the keeping of a foreign register; and the Board may (subject to the provisions of that section) make and vary such regulations as it may thinks fit respecting the keeping of any such register.
☐	☐	62	All cheques, promissory notes, drafts, hundis, bills of exchange and other negotiable instruments, and all receipts for monies paid to the company, shall be signed, drawn, accepted, endorsed, or otherwise executed, as the case may be, by such person and in such manner as the Board shall from time to time by resolution determine.
☐	☐	63	Every director present at any meeting of the Board or of a committee thereof shall sign his name in a book to be kept for that purpose.
☐	☐	64	(i) Subject to the provisions of section 149, the Board shall have power at any time, and from time to time, to appoint a person as an additional director, provided the number of the directors and additional directors together shall not at any time exceed the maximum strength fixed for the Board by the articles. (ii) Such person shall hold office only up to the date of the next annual general meeting of the company but shall be eligible for appointment by the company as a director at that meeting subject to the provisions of the Act.
			Proceedings of the Board
☐	☐	65	(i) The Board of Directors may meet for the conduct of business, adjourn and otherwise regulate its meetings, as it thinks fit. (ii) A director may, and the manager or secretary on the requisition of a director shall, at any time, summon a meeting of the Board.
☐	☐	66	(i) Save as otherwise expressly provided in the Act, questions arising at any meeting of the Board shall be decided by a majority of votes. (ii) In case of an equality of votes, the Chairperson of the Board, if any, shall have a second or casting vote.
☐	☐	67	The continuing directors may act notwithstanding any vacancy in the Board; but, if and so long as their number is reduced below the quorum fixed by the Act for a meeting of the Board, the continuing directors or director may act for the purpose of increasing the number of directors to that fixed for the quorum, or of summoning a general meeting of the company, but for no other purpose.
☐	☐	68	(i) The Board may elect a Chairperson of its meetings and determine the period for which he is to hold office. (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the directors present may choose one of their number to be Chairperson of the meeting.
☐	☐	69	(i) The Board may, subject to the provisions of the Act, delegate any of its powers to committees consisting of such member or members of its body as it thinks fit. (ii) Any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Board.
☐	☐	70	(i) A committee may elect a Chairperson of its meetings. (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the members present may choose one of their members to be Chairperson of the meeting.
☐	☐	71	(i) A committee may meet and adjourn as it thinks fit. (ii) Questions arising at any meeting of a committee shall be determined by a majority of votes of the members present, and in case of an equality of votes, the Chairperson shall have a second or casting vote.
☐	☐	72	All acts done in any meeting of the Board or of a committee thereof or by any person acting as a director, shall, notwithstanding that it may be afterwards discovered that there was some defect in the appointment of any one or more of such directors or of any person acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such director or such person had been duly appointed and was qualified to be a director.
☐	☐	73	Save as otherwise expressly provided in the Act, a resolution in writing, signed by all the members of the Board or of a committee thereof, for the time being entitled to receive notice of a meeting of the Board or committee, shall be valid and effective as if it had been passed at a meeting of the Board or committee, duly convened and held.
			Chief Executive Officer, Manager, Company Secretary or Chief Financial Officer

☐	☐	74	Subject to the provisions of the Act,- (i) A chief executive officer, manager, company secretary or chief financial officer may be appointed by the Board for such term, at such remuneration and upon such conditions as it may thinks fit; and any chief executive officer, manager, company secretary or chief financial officer so appointed may be removed by means of a resolution of the Board; (ii) A director may be appointed as chief executive officer, manager, company secretary or chief financial officer
☐	☐	75	A provision of the Act or these regulations requiring or authorising a thing to be done by or to a director and chief executive officer, manager, company secretary or chief financial officer shall not be satisfied by its being done by or to the same person acting both as director and as, or in place of, chief executive officer, manager, company secretary or chief financial officer.
			The Seal
☐	☐	76	i) The Board shall provide for the safe custody of the seal. (ii) The seal of the company shall not be affixed to any instrument except by the authority of a resolution of the Board or of a committee of the Board authorised by it in that behalf, and except in the presence of at least two directors and of the secretary or such other person as the Board may appoint for the purpose; and those two directors and the secretary or other person aforesaid shall sign every instrument to which the seal of the company is so affixed in their presence.
			Dividends and Reserve
☐	☐	77	The company in general meeting may declare dividends, but no dividend shall exceed the amount recommended by the Board.
☐	☐	78	Subject to the provisions of section 123, the Board may from time to time pay to the members such interim dividends as appear to it to be justified by the profits of the company.
☐	☐	79	(i) The Board may, before recommending any dividend, set aside out of the profits of the company such sums as it thinks fit as a reserve or reserves which shall, at the discretion of the Board, be applicable for any purpose to which the profits of the company may be properly applied, including provision for meeting contingencies or for equalizing dividends; and pending such application, may, at the like discretion, either be employed in the business of the company or be invested in such investments (other than shares of the company) as the Board may, from time to time, thinks fit. (ii) The Board may also carry forward any profits which it may consider necessary not to divide, without setting them aside as a reserve.
☐	☐	80	(i) Subject to the rights of persons, if any, entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid or credited as paid on the shares in respect whereof the dividend is paid, but if and so long as nothing is paid upon any of the shares in the company, dividends may be declared and paid according to the amounts of the shares. (ii) No amount paid or credited as paid on a share in advance of calls shall be treated for the purposes of this regulation as paid on the share. (iii) All dividends shall be apportioned and paid proportionately to the amounts paid or credited as paid on the shares during any portion or portions of the period in respect of which the dividend is paid; but if any share is issued on terms providing that it shall rank for dividend as from a particular date such share shall rank for dividend accordingly.
☐	☐	81	The Board may deduct from any dividend payable to any member all sums of money, if any, presently payable by him to the company on account of calls or otherwise in relation to the shares of the company.
☐	☐	82	(i) Any dividend, interest or other monies payable in cash in respect of shares may be paid by cheque or warrant sent through the post directed to the registered address of the holder or, in the case of joint holders, to the registered address of that one of the joint holders who is first named on the register of members, or to such person and to such address as the holder or joint holders may in writing direct. (ii) Every such cheque or warrant shall be made payable to the order of the person to whom it is sent.
☐	☐	83	Any one of two or more joint holders of a share may give effective receipts for any dividends, bonuses or other monies payable in respect of such share.
☐	☐	84	Notice of any dividend that may have been declared shall be given to the persons entitled to share therein in the manner mentioned in the Act.
☐	☐	85	No dividend shall bear interest against the company.
			Accounts
☐	☐	86	(i) The Board shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations, the accounts and books of the company, or any of them, shall be open to the inspection of members not being directors.

			(ii) No member (not being a director) shall have any right of inspecting any account or book or document of the company except as conferred by law or authorised by the Board or by the company in general meeting.
			Winding up
☐	☐	87	Subject to the provisions of Chapter XX of the Act and rules made thereunder- (i) If the company shall be wound up, the liquidator may, with the sanction of a special resolution of the company and any other sanction required by the Act, divide amongst the members, in specie or kind, the whole or any part of the assets of the company, whether they shall consist of property of the same kind or not. (ii) For the purpose aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different classes of members. (iii) The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the contributories if he considers necessary, but so that no member shall be compelled to accept any shares or other securities whereon there is any liability.
			Indemnity
☐	☐	88	Every officer of the company shall be indemnified out of the assets of the company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.

	Subscriber Details				
S. NO	Name, Address, Description and Occupation	DIN/PAN/Passport Number	Place	DSC	Dated
1	HARI SINGH S/O RAGHUBIR SINGH R/O H.NO.37, WARD NO.12, ELLENABAD, SIRSA, HARYANA 125102 (BUSINESS)	BEGPS4335M	Ellenabad	HARI SINGH	09/09/2020
2	RAGHUVIR SINGH S/O HARDYAL SINGH R/O H.NO.37, WARD NO.12, ELLENABAD, SIRSA, HARYANA 125102 (BUSINESS)	AFUPS4826A	Ellenabad	RAGHUVIR SINGH	09/09/2020

Signed Before Me						
Name		Address, Description and Occupation	DIN/PAN/ Passport Number/ Membership Number	Place	DSC	Dated
FCS	SOURABH PARNAMI	#396, GANPATI ENCLAVE, DABWALI ROAD, BATHINDA PUNJAB 151001 (PCS)	9396	BATHINDA	SOURABH PARNAMI	09/09/2020

Checkform Modify

Page 10 of 10

3. Verification of units by DIC, Sirsa

From

Deputy Director
District Industries Centre
Sirsa

To

The Director General of Industries & Commerce, Haryana
(Cluster) Chandigarh

Memo No./SRS/DIC/ 1124 Dated: 30.07.2020

Subject: Request letter for Agriculture Machinery Manufacturing Cluster, Sirsa.

Please find herewith request letter alongwith application on prescribed Annexure-1 & 2 duly signed by cluster representative for development of Agriculture Machinery Manufacturing Cluster at Ellenabad, District Sirsa.

The following information/document attached herewith:

(i) List of units identified by MSME Facilitator duly verified by IEO concerned containing their proper name, address, product manufactured, contact number, turnover & UAM etc.

(ii) The application on Annexure-1 & 2 duly signed by representative of cluster members.

The demand of the cluster seems to be genuine and case may be taken up under Mini Cluster Scheme. The detail of required documents in respect of member units have already been sent by the applicant to the department vide email dated 15.07.2020. However, some of the unit members were not being able to download their Udyog Aadhar Registration certificates due to close of UAM portal and now have been advised to get them registered on Udyam Registration Portal/HUM. The Udyam Registration certificates will be provided later on as and when furnished by the member units.

It is, therefore, recommended that request of the cluster may please be considered for approval of the cluster as per norms under policy guidelines.

Encls. As above.

Deputy Director
District Industries Centre
Sirsa

5. Building Availability Proof

GSTIN : 06AKNPS6704L1ZL On official letter head (if available) All Subject to Ellenabad Jurisdiction Only.

New Jagjeet Janta Agriculture Engg. Works

Off. : Sirsa Road, Ellenabad (Haryana)
Factory : Mini Bypass, Hanumangarh Road, Ellenabad

Manufacturer : All types of Thresher & Agriculture equipments.

Tel: 01698-220570, M. 94163 79801, 92155 84665, 92155 96570

Prop. Raghubir Singh Mukhtyar Singh Saggu

Ref. No. ..... Dated.....

To,

The Director General,
Directorate of MSME, Govt. of Haryana,
HEPC, Sector-2, Panchkula

Subject: Regarding building lease for Centre of Agricultural Implements Manufacturing Cluster, district Sirsa

Reference: Cluster project to establish Common Facility Centre (CFC) under State Mini Cluster development scheme of Government of Haryana

Dear Sir,

This is to confirm that we Harmeet kaur w/o Raghuvir singh and Harpreet kaur w/o Mukhtiar singh are willing to provide my building at NJT Engineering Pvt. Ltd. district Sirsa on a 10 years irrevocable lease to the Centre of Agricultural Implements Manufacturing Cluster for the establishment of a Common Facility Centre, provided the cluster is approved by the Government of Haryana. The area which will be provided is 6000 square feet and shall be provided on a lease basis with rent of Rs. 15000 per month for the first year, with a standard annual increase as per the market norms.

Yours sincerely,

Name: Harmeet kaur, Harpreet kaur

Signature: Harmeetkaur Harpreet Kaur

Address: Hanumangarh road near shiv mandir Ellenabad

New Jagjeet Thresher www.newjagjeetjanta.com rubal.saggu79801@gmail.com

6. Machinery Quotations

LAKSHMI MACHINE WORKS LIMITED
(Machine Tool Division), P.O - Arasur, Coimbatore - 641 407

Annexure AR1

Date: 05-10-2020

RECOMMENDED SCOPE OF SUPPLY

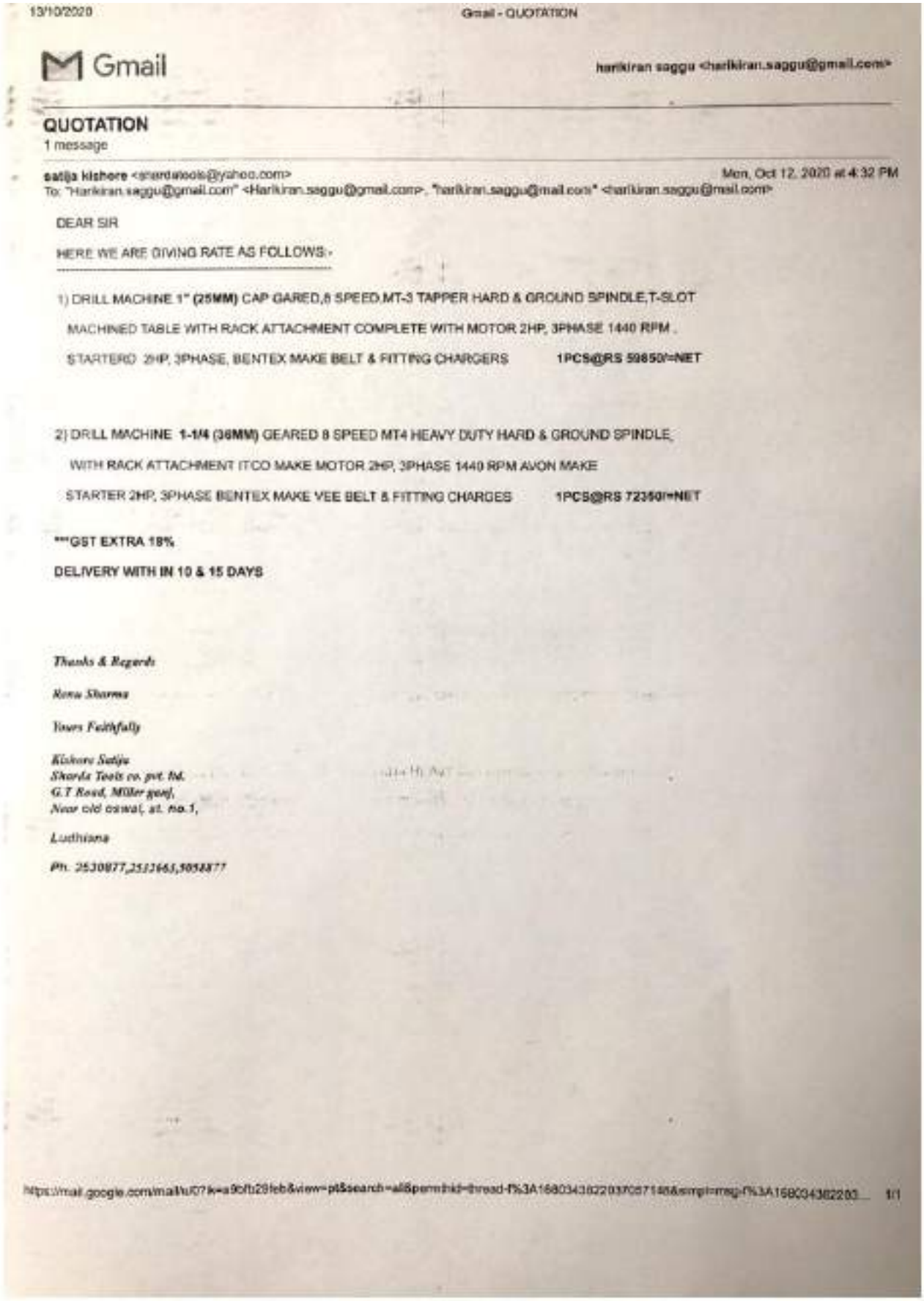
Customer : M/s : NJT Engineering Pvt Ltd, Ellenabad
Machine : LL20T-L10 CNC Lathe

S.No.	Description	Qty	Price Rs. Ex-Works
1	LL20T L10 CNC LATHE with standard features and accessories including the following.	1 No.	26,55,000
1.1	30/0 degrees slant saddle / bed		
1.2	Variable speed 9 kW (cont) / 11 kW (15 min.)Beta Powerzp Series AC spindle drive, spindle speed 3500 rpm		
1.3	250 mm x 3 jaw power operated hollow chuck (Samchuly Make)with hollow cylinder and one set each hard and soft jaws		
1.4	Through hole (hollow) hydraulic cylinder		
1.5	Coolant nozzle above headstock		
1.6	Linear motion bearing guideways for axis traverses		
1.7	Pitch error and backlash compensation		
1.8	Manual pulse generator		
1.9	Eight-station vertically indexing hydraulic turret (LMW)		
1.10	One set of general purpose turret tool holders		
1.11	Tailstock with add-on rotating centre (Programmable quill IN-OUT)		
1.12	Coolant system, 50lpm @ 1.5 bar		
1.13	Automatic centralized lubrication system		
1.14	Built-in AC for control cubicle (Indigenous)		
1.15	Footswitch for operation of chuck and tailstock		
1.16	Process completion lamp (3 tier)		
1.17	One set of maintenance tools		
1.18	One set of machine manuals		
1.19	CNC system FANUC 0i TF with FANUC operation panel		
	Colour: Standard LMW Colour		
2.1	Full Packing		50,000
2.2	Bar capacity 65 mm with A2-6 spindle nose in lieu of standard		27,000
2.3	Interface for chip conveyor		11,000
2.4	Preparation for Steady Rest (Suitable for 5-101mm FAR make)		60,000
	Total Package Price =		**28,03,000**
	Our Best Package price on Ex-Works Coimbatore basis =		**25,00,000**
	Plus GST 18% & TCS on Total Value 0.075% =		**29,52,213**

Note:
1. Validity: 4 Weeks from the date of offer
2. Delivery:1-2 weeks from the date of receipt of technically and commercially clear order
3. Payment terms: 10% of the order value along with Purchase Order as non refundable and balance 90% with full taxes & duties against Proforma Invoice before despatch through RTGS / D.D
4. Taxes & Duties: As applicable at the time of dispatch
5. Transportation & Transit insurance : Transportation is you're A/C Insurance to LMW Account
6. For conducting trials during machine inspection, toolings will be used from this package. Necessary gauges for inspection to be brought by the purchaser.
7. General Conditions of sale:
   The General conditions of sale:7810208 attached herewith forms part of this quotation
   Please Note : Order Once placed cannot be cancelled by you after accepted by us after the scheduling of the manufacture of the machine against your order,change in specification of the machine cannot be accepted. So specification of machine/Scope of supply has to be thoroughly checked by you before placement of order.
8. Machine will be in warranty for a period of 12 months from the date of commissioning or 18 months from the date of despatch, whichever is earlier excluding Special tooling.

for LAKSHMI MACHINE WORKS LTD

Jatinder K Makkar
DM - Sales & Marketing



13/10/2020 Gmail - QUOTATION

Gmail harikiran saggu <harikiran.saggu@gmail.com>

QUOTATION

1 message

satija kishore <shardatools@yahoo.com> Mon, Oct 12, 2020 at 4:32 PM
To: "Harikiran.saggu@gmail.com" <Harikiran.saggu@gmail.com>, "harikiran.saggu@mail.com" <harikiran.saggu@mail.com>

DEAR SIR

HERE WE ARE GIVING RATE AS FOLLOWS:-

1) DRILL MACHINE 1" **(25MM)** CAP GARED,8 SPEED,MT-3 TAPPER HARD & GROUND SPINDLE,T-SLOT MACHINED TABLE WITH RACK ATTACHMENT COMPLETE WITH MOTOR 2HP, 3PHASE 1440 RPM . STARTERD 2HP, 3PHASE, BENTEX MAKE BELT & FITTING CHARGERS **1PCS@RS 59850/=NET**

2) DRILL MACHINE **1-1/4 (36MM)** GEARED 8 SPEED MT4 HEAVY DUTY HARD & GROUND SPINDLE, WITH RACK ATTACHMENT ITCO MAKE MOTOR 2HP, 3PHASE 1440 RPM AVON MAKE STARTER 2HP, 3PHASE BENTEX MAKE VEE BELT & FITTING CHARGES **1PCS@RS 72350/=NET**

*****GST EXTRA 18%**

DELIVERY WITH IN 10 & 15 DAYS

Thanks & Regards

Renu Sharma

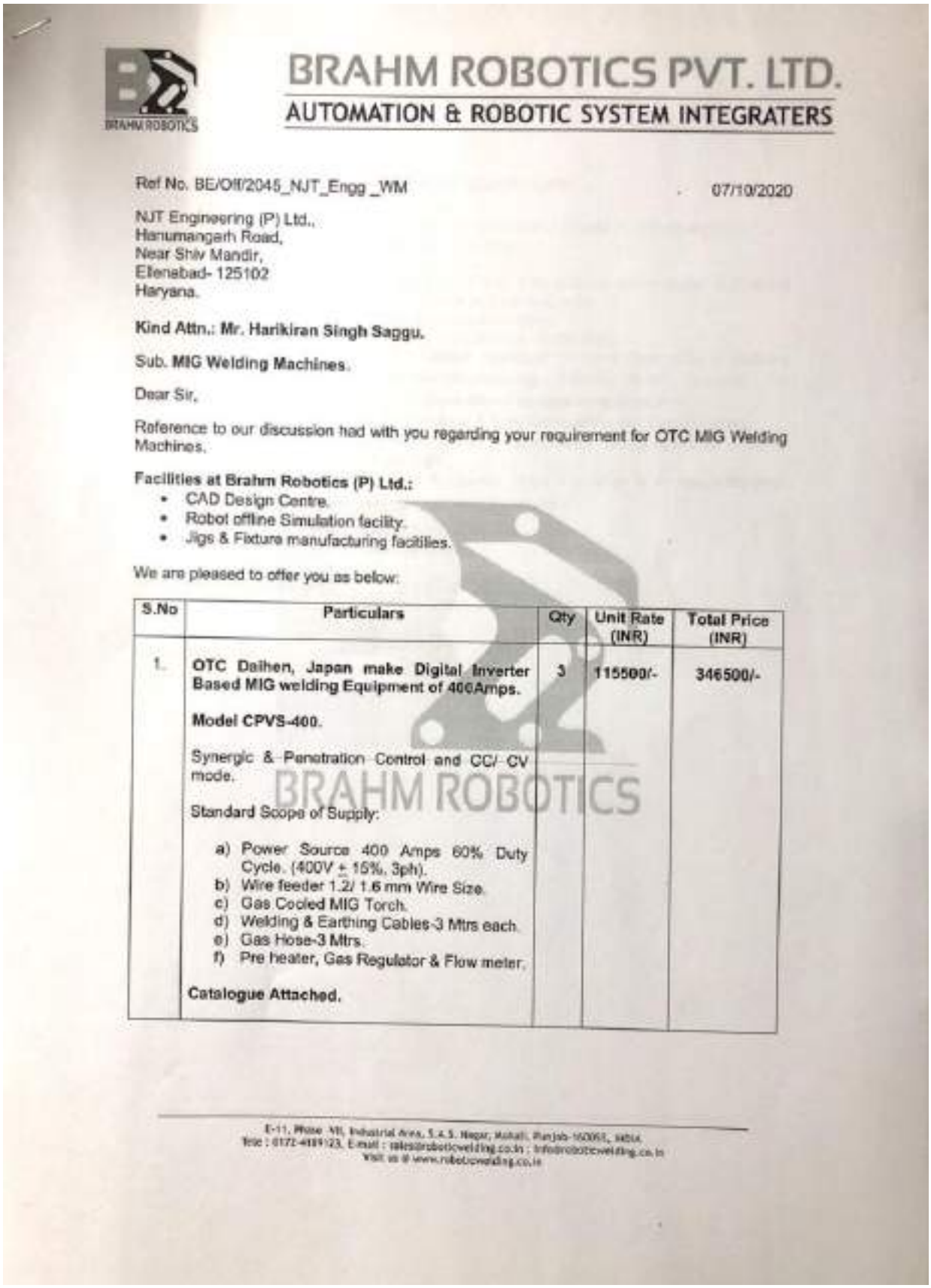
Yours Faithfully

Kishore Satija
Sharda Tools co. pvt. ltd.
G.T Road, Miller ganj,
Near old canal, st. no.1,

Ludhiana

Ph. 2530877,2511665,5054877

https://mail.google.com/mail/u/0?ik=a9cfb29feb&view=pt&search=all&permthid=thread-f%3A1680343822937057146&simpl=msg-f%3A1680343822937... 1/1



BRAHM ROBOTICS PVT. LTD.

AUTOMATION & ROBOTIC SYSTEM INTEGRATERS

Ref No. BE/Off/2045_NJT_Engg _WM

07/10/2020

NJT Engineering (P) Ltd.,
Hanumangarh Road,
Near Shiv Mandir,
Ellenabad- 125102
Haryana.

Kind Attn.: Mr. Harikiran Singh Saggu.

Sub. **MIG Welding Machines.**

Dear Sir,

Reference to our discussion had with you regarding your requirement for OTC MIG Welding Machines.

Facilities at Brahm Robotics (P) Ltd.:

- CAD Design Centre.
- Robot offline Simulation facility.
- Jigs & Fixture manufacturing facilities.

We are pleased to offer you as below:

S.No	Particulars	Qty	Unit Rate (INR)	Total Price (INR)
1.	**OTC Daihen, Japan make Digital Inverter Based MIG welding Equipment of 400Amps.** **Model CPVS-400.** Synergic & Penetration Control and CC/ CV mode. Standard Scope of Supply: a) Power Source 400 Amps 60% Duty Cycle. (400V ± 15%, 3ph). b) Wire feeder 1.2/ 1.6 mm Wire Size. c) Gas Cooled MIG Torch. d) Welding & Earthing Cables-3 Mtrs each. e) Gas Hose-3 Mtrs. f) Pre heater, Gas Regulator & Flow meter. **Catalogue Attached.**	3	115500/-	346500/-

E-11, Phase VII, Industrial Area, S.A.S. Nagar, Mohali, Punjab-160055, INDIA.
Tele : 0172-4699123, E-mail : sales@brahmrobotics.co.in ; info@brahmrobotics.co.in
Visit us @ www.brahmrobotics.co.in

TIN : 03621119674
S.T./C.S.T. No. 45436514
Dt. 25-4-79

QUOTATION

(O) 0161-2490511
(R) 0161-2490370
(M) : 099155-01026-27

Bansal Machine Tools

Manufacturers of : MACHINE TOOLS

Specialists in :
MILLING MACHINE

2604, Street. No. 4, Near A.T.I.,
Janta Nagar, Gill Road, Ludhiana141-003.

NO. BMT / 1201

To M/s. NJT ENGINEERING PVT. LTD.
Haryanagesh Road, Ellenabad Date 05/10/2020

Sr. No.	DESCRIPTION OF GOODS	QNTY.	PRICE	TOTAL
1)	Horizontal Milling Machine No. 2 Gear Head, Six Speed Table Size 52" x 12" Hobbing Attachment 6½" Centre Spindle Bore – 70 MM Complete with Electricals. GST 18%.	One		575000 = 103500 =

The Above Prices Are Net Ex-works Ludhiana, Packing, Forwarding Insurance if any Sales Tax and Excise duty will be charged extra at the time of despatch of the machine.
PAYMENT : 50% of the value of the order in advance and balance against delivery of the machine Ex- Work or documents through any Nationalized Bank.
DELIVERY: With in ..45.....days from the date of confirm order.
VALIDITY : 45 days subject to any price hike by the Government.
GUARANTEE : One Year guarantee against all manufacturing defect without accident.
INSTALLATION : Free of Cost within Ludhiana only. Out Station Installation Charges will be 5% of cost of Machine with in India. For Foreign Countries Installation will include Air fare plus other amenities such as food, transportation, accommodation etc.
We hope that you find our quotation in order and favorable to you and you will be pleased to place your trail order, with us, which we assure you will receive our best prompt attention.
NOTE : Previous Price List Cancelled
All Disputes are Subject to Ludhiana Jurisdiction Only.

G. Total : 678500 =
Less Adv. :
Balance :

For **Bansal Machine Tools**

Your's Faithfully

Prop./Manager

TIN : 06722913051
DT. 12-12-2000

॥ ੴ ਸਤਿਗੁਰੂ ਰਾਮ ਸਿੰਘ ਜੀ ਸਹਾਇ ॥

A QUALITY NAME IN HYDRAULIC MACHINERY

Dhanjal Engineering Works

Mfg. of : All type of Hydraulic Press (40 Tonnes to 1000 Tonnes Capacity), Hydraulic Multipurpose Cutting Press for Angle, Flat, Channel, Round & Square, Hydraulic Shearing Cutter, Deep Draw Press and other Jigs

SPL. IN : HYDRAULIC SHEET BENDING PRESS

Ref. No..... **Quotation / Estimate** Dated.....

To
M/s NJT Engineering Pvt. Ltd.,
Hanumangarh road, near Shiv mandir
Ellenabad PIN -125102

Dear Sir,

We received your inquiry for Hyd. multipurpose Cutting Press. We are thanks you very much for your showing interest in our products and noted the same.

One Hyd. multipurpose Cutting Press Rs. 3,00,000

1 - Flat 350 mm x 20 mm
2 - Round 45 mm
3 - Angle 100 x 12 mm
4 - Channel size 100mm X 50mm
5 - Channel size 75mm X 35mm
6 - Cylinder size 130 mm (single Acting)
7 - Driven with Six plunger hyd. Pump
8 - Driven with electric moto

G.S.T. 18% Extra - 54,000/-
Total Amount - 3,54,000

Term & Conditions :

1- Delivery 30 days after order.
2- 40% advance with PO.

A/c No. 26180400005751 Branch Sirsa
RTGS Code: BARB0SIRSAX
TIN NO: 06722913051 PAN NO : ARCPS2515H
G.S.T No – 06ARCPS2515H1ZYP

Dhanjal Engineering Works

40% Advance with P.O., Electric Motor ; Tax, Loading, Unloading & Transportation Charges Extra

FACTORY : Plot No. 114, HSIIDC, Ind. Estate, SIRSA - 125055 (Hry.) Tel. +91-1666-323003, Cell. +91-98963-41838, +91-99960-20838
E-mail : dhanjalhydraulics@yahoo.co.in, dhanjalhydraulics@gmail.com Website : dhanjalhydraulic.com

TIN : 03621119674
S.T./C.S.T. No. 45436514
Dt. 25-4-79

QUOTATION

(O) 0161-2490611
(R) 0161-2490370
(M) 099155-01026-27

Bansal Machine Tools

Manufacturers of : MACHINE TOOLS

Specialists in :
MILLING MACHINE

2604, Street. No. 4, Near A.T.I.,
Janta Nagar, Gill Road, Ludhiana141-003.

NO. BMT/1202

To M/s. NTT Engineering Pvt. Ltd.
Hoshiarpur Road, Ellenabad Date 5/6/2020

Sr. No.	DESCRIPTION OF GOODS	QNTY.	PRICE	TOTAL
1)	CNC Control Keyway Milling Machine TOTAL Length - 10' Two Axis PLC Servo Control Ball Screw 32mm Rolled HIWIN TAIWAN MAKE Complete with Electricals GST 18%	One		1400000 = 252000 =
			G. Total :	1652000 =/-
			Less Adv. :	
			Balance :	

The Above Prices Are Net Ex-works Ludhiana. Packing, Forwarding Insurance if any Sales Tax and Excise duty will be charged extra at the time of despatch of the machine.
PAYMENT : 50% of the value of the order in advance and balance against delivery of the machine Ex- Work or documents through any Nationalized Bank.
DELIVERY: With in 90 days from the date of confirm order.
VALIDITY : 45 days subject to any price hike by the Government.
GUARANTEE : One Year guarantee against all manufacturing defect without accident.
INSTALLATION : Free of Cost within Ludhiana only. Out Station Installation Charges will be 5% of cost of Machine with in India. For Foreign Countries Installation will include Air fare plus other amenities such as food, transportation, accommodation etc.
We hope that you find our quotation in order and favorable to you and you will be pleased to place your trial order, with us, which we assure you will receive our best prompt attention.
NOTE : Previous Price List Cancelled
All Disputes are Subject to Ludhiana Jurisdiction Only.

For Bansal Machine Tools

Your's Faithfully

Prop./Manager

PROARC

14-Oct-2020

To,
M/s. NJT Engineering Pvt Ltd
Hanumangarh Road, Near Shiv Mandir, Ellenabad 125102
Mobile: 9215596570
Email: harikiran.saggu@gmail.com

Sub: Proposal and Quotation for CNC Plasma Profile Cutting Machine

Dear Sir,

This is with reference to your discussion With **Mr. Ashish Thakur** and **Mr. Sunil Pathak** on your requirement for CNC Plasma Profile Cutting Machine.

The next few pages present our understanding of your requirement and a commercial proposal for the same.

Should you need more information on any of the points, please contact us and we will be pleased to provide you with adequate inputs.

We assure you of our commitment to detail and quality and look forward to receiving the order.

Thanks & Regards,
For Pro Arc Welding and Cutting Systems Pvt. Ltd.

Salim Mujawar
(Mobile: 7757022263)
Business Development Executive

Page 3 of 7

PROARC

3. Requirements in the scope of the user for this product:

- Covered shed for the machine
- Civil works - I Beam & Base plates for mounting of machine rails
- Installation of I beam, base plates for mounting, Anchor Bolts and Chemicals are in client scope.
- Power – 415V 50Hz 3ϕ power for plasma, 230V 50Hz 1ϕ power for CNC
- Separate Earthing for plasma and CNC
- Online UPS (6 KVA with 15-20 min backup) for CNC controller
- Cutting table. Drawing will be provided by Pro-Arc
- Air compressor and refrigerated air dryer with fine filter with gauge (7.7 scfm, 8.3 bar, ISO 8573-1 Class 1.2.2) 5HP
- Customer should provide welder & welding machine for mounting the adjusting plate at the time of installation
- For SigmaNEST nesting software, Personal Computer with original Windows10 Pro or higher, with i 5Core or higher, & internet connection.

4. Cost Details

The cost estimate is based on the assumption of the requirement provided by M/s. NJT Engineering Pvt Ltd and the product specifications mentioned in the product.

Phase	Amount (INR)
Basic Price for **ProCut** CNC Profile Cutting Machine of **cutting width 4000mm** and **cutting length 14600mm** with **2 Plasma** Cutting Station with **Powermax 105®** of Hypertherm Make and **Sigma Nest Advance Nesting Software.**	**38,50,000/-** Thirty Eight Lakh Fifty Thousand Only

Note: The above charges do not include optional items and taxes.

The above costs include:

- Design Development Delivery Dispatch
- Project Management
- Documentation – Help on site.
- User Acceptance Testing (UAT) and training support expected to be for a period of 1 week.
- Installation, Commissioning and Training

5. Standard Terms of Sale:

Price	**FOR, Basis**
Packaging	N/A
Taxes	GST Extra at 18 % or as applicable at the time of dispatch
Delivery	10-12 Week after receipt of Purchase Order & advance
Payment	40% Advance 60% Plus 100% Taxes against Pro-forma Invoice after inspection & before despatch
Transport	Extra to Customer's account
Insurance	Extra to Customer's account
Warranty	15 months from date of supply or 12 months from date of commissioning, whichever is earlier
Validity of quotation	30 days from the date of this quotation

Page 7 of 7

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Trade Samrat Mark

Samrat Products (India)

Manufacturers Of :
All Kind Of PowerPress&Special Purpose Machines
M- +91-9417233493, 0161-5056798

0017 ,Garcha Colony,Old Campll Cola Road
Dhandri Kalan Ludhiana ,Punjab- 141010
www.samratproducts.com

Date=13/10/2020
G.S.T-03ADNPS0240G1ZU

To NJT Engineering PVT LTD
Hanumangarh road near shiv
Mandir Allahabad

Quotation

With The Reference To Your Enquiry. We Pleased to Quotes Following Rates. Which We Are Sure You Will Find Competitive .

S.no	Contents	Tons	Type	Rate P/m	Amount(Rs)
1.	Otie Power Press 200 Ton Capacity H Type Steel Body Geared With All Gun-Metal Bushes ,3 Pc T Nut ,Screw Spanner,Gear Key Set Spare, Knockout System With Heavy Cover Of Gear and Wheel ,Oil Pump Hand Operated. 1.Bed Size 32x32 2.Bed To Bare 20 3.Stroke 6 4.Punch Bare 50 MM 5. Bed Bore 10	200	H	11,50,000/-	11,50,000=00
2.	Electric Motar 20Hp CrompTon ,Vbelt, Pully Fitted				
				SubTotal	11,50,000=00
				G.S.T(18%)	2,07,000=00
				Grand Total	13,57,000=00

Terms Conditions:
1. The Above rate are Ex-Works Not Otie.
2.Other Local Taxes ,Insurance ,Forwarding Charges Etc.
3.50%- Advance Along With Order And Balance Through Draft .
4.Above Prices Are Without Electricals Equipments.
5.Subject to Ludhiana Courts Only.
6.Prices Are Subjected to change without any prior notice.
7.Rate Prevailing at the time of dispatch will charge.
8.Erection of machines at user works only.
9.Prices Are Factory Otie Rate No Transport Charges Are Included In Price of Machine.

Auth Signature

https://mail.google.com/mail/u/0/#inbox/FMfcgxwKhqkQKcgPFMwKjHBcFVrwLgSD?projector=1&messagePartId=0.1 1/1

15/10/2020 allahabad 002.jpg

Trade Samrat Mark

Samrat Products (India)

Manufactures Of :
All Kind OF PowerPress&Special Purpose Machines.

M- +91-9417233493, 0161-5056798

603/7 ,Garcha Colony,Old Campal Gola Road Dhandri Kalan Ludhiana ,Punjab- 141010
www.samratproducts.com

Date-13/10/2020
G.S.T-03ADNPS0240G1ZU

To NJT Engineering PVT LTD
Hanumangarh road near shiv Mandir Allahabad

Quotation

With The Reference To Your Enquiry. We Pleased to Quotes Following Rates. Which We Are Sure You Will Find Competitive .

S.no	Contents	Tons	Type	Rate P/m	Amount(Rs)
1.	Three Power Press 50 Ton Capacity C Type Steel Body Geared With All Gun-Metal Bushes ,3 Pc T Nut ,Screw Spanner,Gear Key Set Spare, Knockout System With Heavy Cover Of Gear and Wheel ,Oil Pump Hand Operated. 1.Bed Size 20x30 2.Bed To Ram 16 3.Stroke 4 4.Punch Bore 32 MM 5.Bed Bore 7 Accessories- 1.Cover Gear& Wheel Heavy 2.Electric Motar 5Hp Siemens 3.Electric Starter ,Vbelt ,PullyFitted With Machine 4.4Pc T Nut For Die Clamping 5.Heavy Duty Nut-Out Systems 6.Key Set Spare 7.Fitment Screw Key	50	C	4,10,000/-	12,30,000=00
				SubTotal	12,30,000=00
				G.S.T(18%)	2,21,400=00
				Grand Total	14,51,400=00

Terms Conditions:
1.The Above rate are Ex-Works Not Out.
2.Other Local Taxes,Insurance ,Forwarding Charges Etc.
3.50% Advance Along With Order And Balance Through Draft .
4.Above Prices Are Without Electricals Equipments.
5.Subject to Ludhiana Courts Only.
6.Prices Are Subjected to change without any prior notice.
7.Price Prevailing at the time of dispatch will charge.
8.Inspection of machines in our works only.
9.Prices Are Factory Our Basic No Transport Charges Are included In Price of Machine.

Auth Signature

https://mail.google.com/mail/u/0/#inbox/FMfcgxwKhqkQKqcPFMwHjHSkFVrwLpSD?projector=1&messagePartId=0.2

KOEL GREEN

INDUSTRIAL EQUIPMENTS COMPANY
AN ISO 9001, 14001, 50001 & OHSAS 18001 Certified Company
Karnal Branch: 2nd Floor, Durga Mandir Complex,
Near Bus Stand, Opp. Central Bank, Karnal
Tel: 0184-4040509 , 9812030509
E – mail: iec.karnal@iecgensets.com , www.iecgensets.com

IEC
Power Delivered

REF/IEC-KAR/2020-21/DG/RKJ **Dated: - 15-10-2020**

TO
NJT ENGINEERING PVT. LTD.
HANUMANGARH ROAD, NEAR SHIV MANDIR, ELLENABAD, SIRSA

SUB: QUOTATION FOR KOEL GREEN SILENT ELECTRIC GENERATING SET (CPCB II) WITH MANUAL CONTROL PANEL

Dear Sir,
We acknowledge with thanks the receipt of your valued enquiry referred to above. We are accordingly submitting our most competitive offer for your favorable consideration.

S. No.	DESCRIPTION	UNIT PRICE EACH
1	Supply of **125 KVA KOEL GREEN SILENT DG SET** comprising of **Kirloskar** make WATER cooled Diesel Engine model **6R1080TA-G1 (CPCB NORMS II COMPLIANT)** developing **175 BHP** @ 1500 RPM & **125 KVA Kirloskar Green** make Alternator rated at **3 Phase, 415 Volts**, 50 Hz; 0.8 p. f. @ 1500 RPM both mounted, and aligned on a common MS base frame complete with MS Fuel Tank, **MANUAL Control Panel**, Residential Exhaust Silencer, AVM Pads fitted on base frame,1 Nos.12 Volts DC Battery (KOEL GREEN) with Battery Leads, 1st fill of Lube Oil and Coolant, **all housed in Sound Proof Acoustic Enclosure**	**6,35,000-00**

TERMS & CONDITIONS

PRICE : - : Ex-Works, Freight EXTRA & transit insurance to customer a/c.

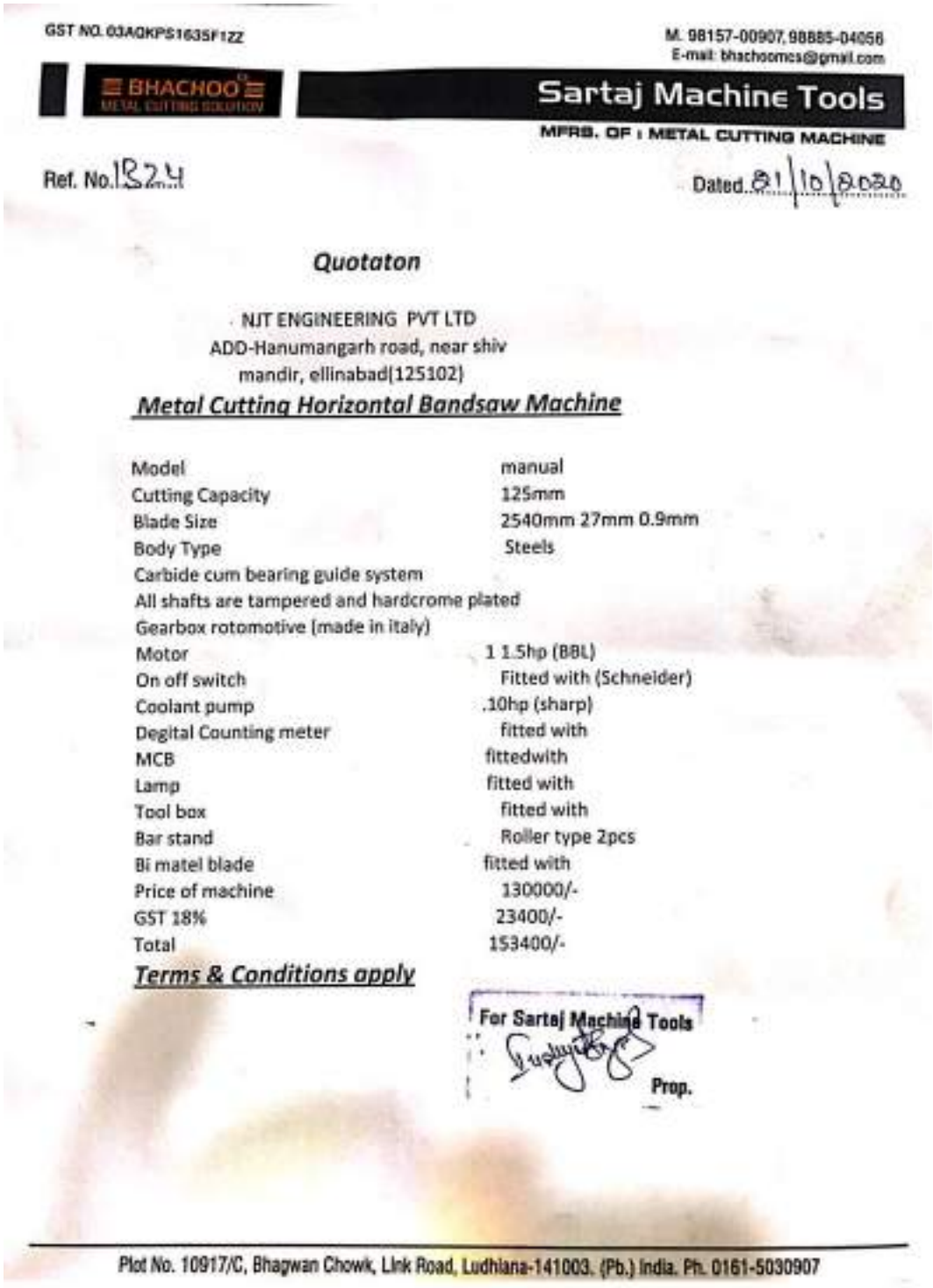
G.S.T : **EXTRA @18% However G.S.T will be charged as applicable at the time of dispatch.**

DELIVERY: - 3-4 Weeks from the receipt of your Tecno-comercial clear order with advance

STATUTORY VARIATIONS: All state taxes, duties, levies like Octroi, entry tax, WCT, GST etc. and statutory variations or imposition of new taxes/duties shall be to purchaser's account.

PAYMENT: **30 % advance along with your confirmed order and balance by D.D. Fav: INDUSTRIAL EQUIPMENTS CO.,** payable at CHANDIGARH. Against Performa Invoice before dispatch Of D.G Set.

CONT...III



GST NO. 03AQKPS1635F1ZZ

M. 98157-00907, 98885-04056
E-mail: bhachoomcs@gmail.com

BHACHOO METAL CUTTING SOLUTION

Sartaj Machine Tools

MFRS. OF : METAL CUTTING MACHINE

Ref. No. 1824

Dated 21/10/2020

Quotaton

NJT ENGINEERING PVT LTD
ADD-Hanumangarh road, near shiv
mandir, ellinabad(125102)

Metal Cutting Horizontal Bandsaw Machine

Model	manual
Cutting Capacity	125mm
Blade Size	2540mm 27mm 0.9mm
Body Type	Steels
Carbide cum bearing guide system	
All shafts are tampered and hardcrome plated	
Gearbox rotomotive (made in italy)	
Motor	1 1.5hp (BBL)
On off switch	Fitted with (Schneider)
Coolant pump	.10hp (sharp)
Degital Counting meter	fitted with
MCB	fittedwith
Lamp	fitted with
Tool box	fitted with
Bar stand	Roller type 2pcs
Bi matel blade	fitted with
Price of machine	130000/-
GST 18%	23400/-
Total	153400/-

Terms & Conditions apply

For Sartaj Machine Tools

Prop.

Plot No. 10917/C, Bhagwan Chowk, Link Road, Ludhiana-141003. (Pb.) India. Ph. 0161-5030907

LAKSHMI MACHINE WORKS LIMITED
(Machine Tool Division), P.O - Arasur, Coimbatore - 641 407

LMW.

Annexure AR1

Date: 05-10-2020

RECOMMENDED SCOPE OF SUPPLY

Customer : M/s : NJT Engineering Pvt Ltd, Ellenabad
Machine : LL20T-L7 CNC Lathe

S.No.	Description	Qty	Price Rs. Ex-Works
1	LL20T L7 CNC LATHE with standard features and accessories including the following:	1 No.	24,59,000
1.1	360 degrees slant saddle / bed		
1.2	**Variable speed 9 kW (cont) / 11 kW (15 min.)Beta Powerup Series AC spindle drive, spindle speed 3500 rpm**		
1.3	**250 mm x 3 jaw power operated hollow chuck (Samchuly Make)with hollow cylinder and one set each hard and soft jaws**		
1.4	Through hole (hollow) hydraulic cylinder		
1.5	Coolant nozzle above headstock		
1.6	Linear motion bearing guideways for axis traverses		
1.7	Pitch error and backlash compensation		
1.8	Manual pulse generator		
1.9	**Eight-station vertically indexing hydraulic turret (LMW)**		
1.10	One set of general purpose turret tool holders		
1.11	Tailstock with add-on rotating centre (Programmable quill IN-OUT)		
1.12	Coolant system, 60lpm @ 1.5 bar		
1.13	Automatic centralized lubrication system		
1.14	Built-in AC for control cubicle (Indigenous)		
1.15	Footswitch for operation of chuck and tailstock		
1.16	Process completion lamp (3 tier)		
1.17	One set of maintenance tools		
1.18	One set of machine manuals		
1.19	CNC system FANUC 0i TF with FANUC operation panel		
	Colour: Standard LMW Colour		
2.1	Full Packing		50,000
2.2	Bar capacity 66 mm with A2-6 spindle nose in lieu of standard		27,000
2.3	Interface for chip conveyor		11,000
2.4	Preparation for Steady Rest (Suitable for 8-101mm FAR make)		60,000

Total Package Price =	**26,07,000**
Our Best Package price on Ex-Works Coimbatore basis =	**22,75,000**
Plus GST @18% & TCS on Total Value @.075% =	**26,06,513**

Note:
1. Validity: 4 Weeks from the date of offer
2. Delivery:1-2 weeks from the date of receipt of technically and commercially clear order
3. Payment terms: 10% of the order value along with Purchase Order as non refundable and balance 90% with full taxes & duties against Proforma Invoice before despatch through RTGS / D.D
4. Taxes & Duties: As applicable at the time of dispatch
5. Transportation & Transit insurance : Transportation to you're A/C Insurance to LMW Account
6. For conducting trials during machine inspection, toolings will be used from this package. Necessary gauges for inspection to be brought by the purchaser.
7. General Conditions of sale:
   The General conditions of sale:781/2009 attached herewith forms part of this quotation.
   Please Note : Order Once placed cannot be cancelled by you after accepted by us after the scheduling of the manufacture of the machine against your order.change in specification of the machine cannot be accepted. So specification of machine/Scope of supply has to be thoroughly checked by you before placement of order.
8. Machine will be in warranty for a period of 12 months from the date of commissioning or 15 months from the date of despatch, whichever is earlier excluding Special tooling.

for LAKSHMI MACHINE WORKS LTD

Jatinder K Makkar
DM - Sales & Marketing

HINDUSTAN HYDRAULICS

Jalandhar – 144027 (Punjab)
Tel: +91 181 2670054 / 55 56
Email: - sales@hindustanhydraulics.in
varinder@hindustanhydraulics.co.in
Website: www.hindustanhydraulics.com

Quotation no. HH.SALES NO. 2020-2021/ 428/R0 **Dated: - 07/10/20**

M/S NJT ENGINEERING PVT LTD
HANUMANGARH ROAD NEAR SHIV
MANDIR, ELLENABAD
(M):- 9354742500
Email: - harikiran.saggu@gmail.com

KIND ATTN: - MR. HARI SINGH SAGGU

Dear Sir,

This has reference to your discussions with Mr. Pratul Arora regarding your requirement of bending machine. We are hereby sending you our best offer for the same as under:-

A. CNC Bending machine Model EHPe 150 x 3100 mm

Our offer is valid for a period of 30 days from the date hereof and thereafter subject to our confirmation.

You are requested to kindly go through the above offer. In case you require any technical and commercial clarifications, you may contact us or we can depute our representative at your office under prior intimation.

Thanking you

For Hindustan Hydraulics Pvt Ltd

Rajan Kumar
Manager Sales

Page: 1 / 8

HINDUSTAN HYDRAULICS

G.T. Road, Suranussi
Jalandhar – 144027 (Punjab)
Tel: +91 181 2670054 / 55 56
Email: - sales@hindustanhydraulics.in
varinder@hindustanhydraulics.co.in
Website: www.hindustanhydraulics.com

Scope & Detail

A. CNC Bending machine Model EHPe 150 x 3100 mm

CONTROLLER

- **CNC controller Model S 630 – ESA, Italy make as per following details:-**
  - Graphic colour 10" touch screen display (1024 x 600 pixels resolution
  - 128 MB silicon disk.
  - Interactive 2d graphic editor for work-pieces and tools data entry
  - 2D graphic display of machine frame, work-piece and tools
  - 2 serial port rs232.
  - 1 VGA port for external monitor connection
  - 2 USB (2.0) ports.

CNC BACKGUAGE

- CNC X axis Backguage
- AC servo driven
- Range 0 – 550 mm
- R axis manual adjustment
- Z axis on LM guide
- **Total 4 nos. backguage pedestals**

STANDARD ACCESSORIES

- **Manual Anti Deflection System**
- Front support arms – 2 nos.
- Foot control pedal with emergency switch
- Side guard & Rear guard
- Set of operational manual

TOOLING

- Punch code 1260 – 835 mm x 4 pcs
- 4 V die code 2067- V = 16-22-35-50 mm – 835 mm x 4 pcs

Make - Eurostamp, Italy

EX-WORKS BEST PRICE: - Rs. 24,50,000/-
(Rs. Twenty four lac fifty thousand only)

Page: 2 / 8

Our Office

Ahmedabad
2nd Floor, Shivalik Ishaan
Near CN Vidhyalaya,
Ambawadi,
Ahmedabad - 380 015
Tel: + 91 79 6608 3800
Fax: + 91 79 6608 3900

Bengaluru
"UB City", Canberra Block
12th & 13th floor
No.24, Vittal Mallya Road
Bengaluru - 560 001
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+ 91 80 6727 5000
Fax: + 91 80 2210 6000
Fax: + 91 80 2224 0695

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Ernst & Young Pvt. Ltd.
Sector 9-C, Madhya Marg,
Chandigarh, Punjab 160009
Tel: +91 172 6717800
Fax: +91 172 6717888

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TPL House, 2nd floor
No 3, Cenotaph Road
Teynampet
Chennai - 600 018
Tel: + 91 44 4219 4400
+ 91 44 6632 8400
Fax: + 91 44 2431 1450

Hyderabad
205, 2nd floor
Ashoka Bhoopal Chambers
Sardar Patel Road
Secunderabad - 500 003
Tel: + 91 40 6627 4000
Fax: + 91 40 2789 8851

Oval Office, 18, iLabs Centre,
Hitech City, Madhapur,
Hyderabad – 500081
Tel: +91 40 6736 2000
Fax: +91 40 6736 2200

Kochi
9th Floor, Abad Nucleus
NH-49, Maradu PO
Kochi, Kerala 682304, India
Tel: + 91 484-3044000
Fax: + 91 484 2705393

Ernst & Young LLP

Ahmedabad
2nd Floor, Shivalik Ishaan
Near CN Vidhyalaya,
Ambawadi,
Ahmedabad - 380 015
Tel: + 91 79 6608 3800
Fax: + 91 79 6608 3900

Bengaluru
"UB City", Canberra Block
12th & 13th floor
No.24, Vittal Mallya Road
Bengaluru - 560 001
Tel: + 91 80 4027 5000,
+ 91 80 6727 5000
Fax: + 91 80 2210 6000
Fax: + 91 80 2224 0695

Chandigarh
1st Floor, SCO: 166-167
Ernst & Young Pvt. Ltd.
Sector 9-C, Madhya Marg,
Chandigarh, Punjab 160009
Tel: +91 172 6717800
Fax: +91 172 6717888

Chennai
TPL House, 2nd floor
No 3, Cenotaph Road
Teynampet
Chennai - 600 018
Tel: + 91 44 4219 4400
+ 91 44 6632 8400
Fax: + 91 44 2431 1450

Hyderabad
205, 2nd floor
Ashoka Bhoopal Chambers
Sardar Patel Road
Secunderabad - 500 003
Tel: + 91 40 6627 4000
Fax: + 91 40 2789 8851

Oval Office, 18, iLabs Centre,
Hitech City, Madhapur,
Hyderabad – 500081
Tel: +91 40 6736 2000
Fax: +91 40 6736 2200

Kochi
9th Floor, Abad Nucleus
NH-49, Maradu PO
Kochi, Kerala 682304, India
Tel: + 91 484-3044000
Fax: + 91 484 2705393

About EY

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Artwork by: JG