Draft Detailed Project Report

Sheet Metal Cluster, Kurukshetra

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

November 2020

Submitted by: MKV Enterprises Private Limited

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



22nd November 2020

Director General, Directorate of MSME, Government of Haryana, Plot No. C-3, HSVP Complex, Sector 6, Panchkula - 134109

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 Sheet Metal Fabrication Cluster in Kurukshetra for your kind perusal. The deliverable has been prepared in accordance with our engagement agreement with Directorate of Industries, Govt. of Haryana dated 03 January 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 Kurukshetra
- > Sheet Metal Fabrication related units located in Kurukshetra
- 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

This Draft Detailed Project Report for development of Common Facility Centre (CFC) at Kurukshetra Sheet Metal Fabrication Cluster has been prepared by Ernst & Young LLP (hereinafter referred to as 'EY' or 'Ernst & Young' or 'Us') and delivered to the 'Office of Director General of MSME - Government of Haryana (O/o of DG-MSME)' (hereinafter referred to as 'the Client').

The inferences and analyses made by EY in this report are based on information collated through primary research, secondary research, discussions with the client personnel and key stakeholders and our knowledge about the state mini cluster development scheme and its objectives. EY has taken due care to validate the authenticity and correctness of the information from various sources, however, no representations or warranty, expressed or implied, is given by EY or any of its respective partners, officers, employees or agents as to the accuracy or completeness of the information, data or opinions provided to EY by third parties or secondary sources.

Nothing contained herein, to the contrary and in no event shall EY be liable for any loss of profit or revenues and any direct, incidental or consequential damages incurred by the Client or any other user of this report.

In case the report is to be made available or disclosed to any third party, this disclaimer along with all the limiting factors must be issued to the concerned party. The fact that EY assumes no liability whatsoever, if for the reason any party is led to incur any loss for acting upon this report, must be brought to the notice of the concerned party.

© EY, 2020

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 Development 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 **MKV Enterprises Private Limited** (Special Purpose Vehicle) and officials of **DIC**, **Kurukshetra** for their support during the onsite visits and interactions with Sheet Metal Fabrication units in Kurukshetra as well as facilitation in conducting stakeholder consultations.

Also, we must extend our sincere thanks to sheet metal fabrication 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

AOA	Articles of Associations
BDS	Business Development Services
BEP	Break Even Point
CAGR	Compound Annual Growth Rate
CFC	Common Facility Centre
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
GSDP	Gross State Domestic Product
GST	Goods and Service Tax
НССІ	Haryana Chamber of Commerce & Industry
HSIIDC	Haryana State Industrial & Infrastructure Development Corporation Limited
HSS	Hollow structural section
HSVP	Haryana Shehri Vikas Pradhikaran
INR	Indian National Rupee
ITI	Industrial Training Institute
MHRD	Ministry of Human Resource Development
MSME	Micro, Small and Medium Enterprises
MSME-DI	MSME - Development Institute
NAAC	National Assessment and Accreditation Council
NCR	National Capital Region
PNB	Punjab National Bank
PPP	Public Private Partnership
R&D	Research & Development
SAIL	Steel Authority of India Limited
SIDBI	Small Industries Development Bank of India
SPV	Special Purpose Vehicle
SWOT	Strength, Weaknesses, Opportunities and Threats
UAM	Udyog Aadhar Memorandum

Table of Contents

Executiv	e summary	
1. Intr	oduction	16
1.1	Overview of the cluster	16
1.2	About the State & District	16
1.3	Industrial Scenario of Fatehabad District	
1.4	Geographical Traits	21
1.5	Demographic Trends and Economic Structure	21
2. Sec	tor Overview	23
2.1	Brief Global Scenario	23
2.2	India Scenario	24
2.3	Cluster Scenario	25
3. Diag	gnostic Study Findings	
3.1	Cluster Actors and their role	
3.2	Cluster Turnover, Market and Employment	
3.3	Production Process	
3.4	Value Chain Analysis	
3.5	Strength, Weakness, Opportunities and Threats (SWOT) Analysis	
3.6	Major issues/ Problem Areas of the cluster	
3.7	Key Technologies Missing	
3.8	Cluster growth potential	
4. Diag	gnostic Study Recommendations	
4.1	Soft Interventions Recommended and Action Taken	
4.2	Hard Interventions (Machines/ Technology in the proposed CFC)	
4.3	Expected outcome after Interventions (Long term vision)	
5. SPV	/ for Project Implementation	
5.1	Shareholder profile and shareholder mix	
5.2	Initiatives undertaken by the SPV	
5.3	SPV roles and responsibilities	
6. Proj	ject Economics	53
6.1	Project Cost	53
6.1.1	Building	53
6.1.2	Plant and Machinery	
6.1.3	Miscellaneous Fixed Assets	
6.1.4	Preliminary and Pre-operative Expenses	
6.1.5	Provision for Contingencies	
6.1.6	Margin Money for working capital	55

	6.1.7	Summary Project cost	55
	6.2	Means of Finance	56
	6.2.1	Share Capital	57
	6.2.2	Grant-in-Aid	57
	6.3	Expenditure Estimates	57
	6.3.1	Consumables	58
	6.3.2	Manpower Requirement	59
	6.3.3	Utilities	59
	6.3.4	Annual Repairs and Maintenance Expenses	60
	6.3.5	Insurance and Miscellaneous Administrative Expenses	61
	6.4	Working Capital	62
	6.5	Depreciation Estimates	63
	6.6	Income/Revenue Estimates	64
	6.7	Estimation of profitability: Income and Expenditure Statement	65
	6.8	Cash Flow Statement	68
	6.9	Projected Balance Sheets	69
	6.10	Break-even analysis	71
	6.11	Feasibility analysis summary and sustainability indicators	74
	6.12	Additional revenue sources	76
	6.13	Risk analysis & Sensitiveness	76
	6.14	Assumption for financial calculations	77
7.	. Proj	ject Implementation and Monitoring	80
	7.1	Envisaged Implementation Framework	80
	7.2	Monitoring Mechanism	81
8	Con	clusion	84
9	. Ann	nexures	86
	Annex	ure 1: DSR Approval Letter	86
	Annex	ure 2 (a): SPV Registration Certificate along with Memorandum of Association ((MoA)
			87
	Annex	ure 3: Verification of units by DIC, Fatehabad	92
	Annex	ure 4: Building availability proof	102
	Annex	ure 5: Machinery Quotations	105

List of Figures

Figure 1: GSDP Composition 2015-16	16
Figure 2: District map of Kurukshetra District	17
Figure 3: Products of the Sheet Metal Fabrication Units	26
Figure 4: Key Cluster Actors	31
Figure 5: Manufacturing Process of Cultivator	32
Figure 6: Organisational Structure of Proposed CFC	51

List of Tables

Table 1: Industry at a Glance	18
Table 2: Service Sector in Kurukshetra	19
Table 3: Value Chain Analysis of Fume Hood	35
Table 4: SWOT Analysis of the Cluster	36
Table 5: Rationale for Hard Interventions	39
Table 6: List of Directors	47
Table 7: Details of SPV members of Kurukshetra Steel Fabrication Cluster	48
Table 8: Building - Lease Basis	53
Table 9: Building - Other Particulars	53
Table 10: Building - Rent Chart for 10 years @ 10% yearly increase	53
Table 11: List of Proposed Plant & Machinery	54
Table 12: Miscellaneous Fixed Assets	54
Table 13: Preliminary and Pre-Operative Expenses	55
Table 14: Total Project Cost	55
Table 15: Means of Finance	56
Table 16: Consumables	58
Table 17: Expenditure Related to Salary (Direct Manpower - Machine Operators & Helpers)	59
Table 18: Expenditure Related to Salary (Indirect Manpower - Administrative & Support Staff)	59
Table 19: Machine & Equipment (Facility) wise Power Requirement	60
Table 20: Annual Expenditure Statement vis-à-vis Power Charges	60
Table 21: Annual Repairs and Maintenance Expenditure	61
Table 22: Insurance & Miscellaneous Administrative Expenses	61
Table 23: Calculation of Working Capital Requirement	62
Table 24: Depreciation based on WDV	63
Table 25: User Charges for Machinery	65
Table 26: Income & Expenditure Statement	66
Table 27: Cash Flow Statement	68
Table 28: Balance Sheet	70
Table 29: Break-even Estimates	71
Table 30: Financial Analysis	74
Table 31: Calculation of Return on Capital Employed	75
Table 32: Sensitivity Analysis	76
Table 33: Project Implementation Schedule	80

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 sheet metal fabrication cluster at Kurukshetra District, Haryana.

About Kurukshetra Sheet Metal Fabrication Cluster

There are about 200 sheet metal fabrication units in Kurukshetra district out of which 90% are micro and 10% are small. The annual turnover of the cluster (micro and small units) is about INR 100 Crore. Units in the cluster are engaged in the manufacturing of industrial sheds, gate grill, cooler body, steel door, steel chaukhat, fume hood, lab equipment, hospital furniture, school furniture, automatic rolling shutter, hydraulic machinery and other Steel fabrication products.

Diagnostic Study and Interventions

A diagnostic study was undertaken by the cluster members in October 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, Kurukshetra. 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. Due to non-availability of Hi-tech cutting facility, units are dependent on private services providers for cutting 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 presented to Director General - MSME and was subsequenly approved on **11**th **November 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 for cutting of sheet metal

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 disgnosis study, the cluster units come together to form a Special Purpose Vehicle (SPV) by the name and style of "**MKV Enterprises Private Limited**" as a private limited company under section 8 of the Companies Act, 2013 and rule 7 of the Companies (Incorporation) Rules, 2014. DIC Kurukshetra has played an important role in SPV formation by cluster stakeholders. The SPV has been incorporated on 19th November 2020, and includes 13 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 "**MKV Enterprises Private Limited**" by availing support from Government of Haryana (under EPP 2015).

The SPV members have a track record of cooperative initiatives. Cluster members have been autonomously undertaking several soft interventions to enhance knowledge and exposure of the cluster units on new trends in sheet metal fabrication industry and enhancing productivity of their units. This includes exposure visit to trade fairs, registration under UAM, awareness programs on new trends in agri-implemets manufacturing, design interventions and new technologies.

Project Parameters, Viability and Sustainability

The "MKV Enterprises Private Limited" with support from State Government (under the State Mini Cluster Development Scheme) is planning to set up a Common Facility Centre having state-of-the-art Hi-Tech cutting facilities to undertake job work of cluster units with a total project cost of about INR 220.41 lakhs. However, the maximum eligible project cost as per the scheme guidelines is INR 200 lakhs, with government of Haryana's grant restricted to 90% of max eligible project cost i.e. to INR 180 lakhs. Hence, the SPV members have proposed to contribute entire amount beyond INR 180.00 lakhs, taking their overall contribution to about 18.34% of the total project cost. The total contribution of SPV members will amount to INR 40.41 lakhs. Support from State Government is envisaged for INR 180.00 Lakhs.

The cost of the project and proposed means of finances is tabulated below:

	PROJECT COST						
S. No.	Particulars	Total Project Cost	Eligible Amount as per Guidelines	Remarks			
1	Land & Building						
	a. Land Value	0.00		Eligible			
	b. Land Development	0.00	0.00	(Max 25%			
	c. Building & Other Civil Works	0.00	0.00	L&B, P&M,			
	d. Building Value	0.00		and Misc.			
	Sub Total (A)	0.00	0.00	F.A.)			
2	Plant & Machinery						
	a. Indigenous	194.07	194.07				
	b. Imports	0.00	0.00	Eligible			
	c. Secondary Machines	9.68	9.68				
	Sub Total (B)	203.76	203.76				
3	Miscellaneous fixed assets (C)	1.64	0.00				
4	Preliminary & Preoperative Expenses (D)	2.40	0.00				
5	Contingency						
	a. Building @ 2%	0.00	0.00	for grant			
	b. Plant & Machinery @ 5%	10.19	0.00	.or grant			
	Sub Total (E)	10.19	0.00				
6	Margin money for working capital @ 75% CU (F)	2.43	0.00				
	Grand Total (A+B+C+D+E+F)	220.41	203.76				

The actual total project cost is estimated to be INR 220.41 lakhs. As indicated above, assistance to the project from the Govt. of Haryana is envisaged to the tune of INR 180.00 lakhs i.e. 81.66 percent of the project cost, SPV contribution is to the tune of INR 40.41 lakhs i.e. 18.34 percent of the total project cost. The means of financing are presented below:

	Means of Finance							
S. No.	Source of finance	Total Amount (INR In Lakh)						
1	Grant-in-aid under State Mini Cluster Development Scheme (Govt. of Haryana)	180.00						
2	Contribution of SPV	40.41						
	Total	220.41						

The viability and sustainability of the project is evident from the project economics as well as the cooperative spirit and profile of the SPV. Some indicators of the viability are as follows:

(INR in Lakh)

Project's financial indicators

	FEASIBILITY							
S. No.	Particulars	Estimates						
1	BEP (cash BEP at initial operating capacity of 75%)	55.40%						
2	Av. ROCE (PAT/CE)	30.39%						
3	Internal Rate of Return (IRR)	27.11%						
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoH	NPV is positive and high (INR 195.71 lacs) at a conservative project life of 10 years						
5	Payback period	4.5 years with Grant-in-aid assistance from GOH						
6	DSCR	Not Applicable (non-availment of term loan in this project)						

As evident from the financials above, with viability gap funding under State Mini Cluster Development Scheme of GoH, the project is highly viable and sustainable.

Project Implementation

Project implementation is envisaged to involve a time-frame of about 7 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, Kurukshetra.

In addition, for implementing this CFC project, a Project Management Committee (PMC) comprising of the GM, DIC Kurukshetra, and representatives of the SPV and EY experts 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 the State Level Steering Committee and DIC, Kurukshetra.

The potential for the Kurukshetra sheet metal fabrication cluster to grow is enormous, with an increasing demand of sheet metal components in the region. The strengths of Kurukshetra sheet metal fabrication cluster lie in its location (both geographically & industrially), with easy availability of raw material. However, the cluster units are unable to effectively cater to market demand due to lack of technological capacities, low production scales and outdated machinery.

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 sheet metal fabrication 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 200 sheet metal fabrication units in the cluster, with 13 units registered under Employment Memorandum or UAM (Udyog Aadhaar Memorandum) which have come together to form an SPV. The annual turnover of the cluster (micro and small units) is about INR 100 Crore. Units in the cluster are Micro and Small in nature engaged in manufacturing of industrial sheds gate grill, cooler body, steel door, steel chaukhat, fume hood, lab table, hospital furniture, school furniture, automatic rolling shutter, hydraulic machinery and other steel fabrication products.

1.2 About the State & District

Haryana is 11th state in the country in terms of GSDP, with growth rate of around 6.5%. Haryana contributes to nearly 3.4% of the India's GDP. With just 1.37% of the country's geographical area and 1.97% of country's total population, the state is counted among the

top few states with the highest per capita income. The state economy is predominantly agriculture.

The industry sector contributes about 18% 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, and a large skilled, educated and young workforce.





Besides, the State has an investor-friendly policy and regulatory environment. 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 gradually transforming from an agrarian economy to an industrial economy. 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.

The district Kurukshetra came into existence on 23 January 1973. Popularly known as the battlefield of Mahabharata, where the battle was fought between two diametrically conflicting forces of good and evil. Eventually, in this battle the forces of piety were rewarded, and the evils got vanquished in the land of righteousness.

Figure 2: District map of Kurukshetra District



Kurukshetra lies on the main Delhi Ambala Railway line about 160 kilometres North of Delhi, 34 kms North of Karnal and 40 kms South of Ambala. Its adjoining districts are Ambala, Yamuna Nagar, Karnal, Kaithal and Patiala (Punjab).

The Kurukshetra district comprises of two subdivisions namely Thanesar and Pehowa, three tehsils namely Thanesar, Shahbad and Pehowa, three sub-tehsils namely Ladwa, Babain and Ismailabad. The total 419 villages have been divided into six community development blocks i.e. Thanesar, Shahbad, Pehowa, Ladwa, Babain and Ismailabad. Total Number of towns are four.

1.3 Industrial Scenario of Kurukshetra District

As the economy of district Kurukshetra is purely based on agriculture, the industrial scenario of this district is also influenced mostly by the same sector. There is one industrial area developed by Haryana Urban Development Authority (HUDA) in Kurukshetra district. It is in Thanesar block and is situated in sector 2, Kurukshetra. It comprises of 93 plots out of which 81 plots are of 525 Sq. Mt. size and 12 plots are of 1000 Sq. Mt. size. The table shows categorization of blocks as per the status of industrial development. The Govt. has taken initiative in development of a new Industrial area in Kurukshetra. With State govt. planning to build a new Industrial area in Kurukshetra, the Kurukshetra Industry has requested to build the new Industrial area along NH44 for ease of connectivity.

The district has 1647 registered MSME units having a fixed investment of approximately INR 43,129 lakhs and providing employment to approximately 9,725 persons. Following table shows the total number of MSME units in each sector, in Kurukshetra, along with total investment and employment details.

S. No.	Industry	MSME Units in Nos.	Total Investment INR Lakhs	Employment in Nos.	
	Food, Beve	rages & Tobac	co		
1	Food products	635	25759	4068	
2	Beverages	8	110	61	
	Textile	es & Apparel			
3	Textiles	71	665	279	
4	Wearing apparel	183	1107	563	
	Leather,	Wood & paper			
5	Leather and related products	15	114	77	
6	Wood and products of wood and cork, except furniture; articles of straw and plaiting materials	52	675	276	
7	Paper and paper products	45	2290	668	
8	Furniture	41	337	219	
	Pharma, Petro-Che	micals, Rubbe	r products		
9	Pharmaceuticals, medicinal chemical and botanical products	32	373	176	
10	Chemicals and chemical products	63	1007	304	
11	Manufacture of coke and refined petroleum products	7	258	44	
12	Rubber and plastics products	38	1391	242	
	Metals & M	lineral Produc	ts		
13	Basic metals	31	859	238	

Table 1: Industry at a Glance¹

¹ Source: UAM Registration as on 31.03.2020

S. No.	Industry	MSME Total Industry Units in Investmen Nos. INR Lakhs		Employment in Nos.
14	Fabricated metal products, except machinery and equipment	42	633	214
15	Non-metallic mineral products	58	754	583
	Electrical, Elec	tronics & Mac	hinery	
16	Computer, electronic and optical products	25	226	74
17	Electrical equipment	41	403	222
18	Machinery and equipment	56	1194	407
	Automotive &	Auto-Compor	nents	
19	Motor vehicles, trailers and semi- trailers	10	306	70
20	Other Transport Equipment	4	22	51
	Other M	lanufacturing		
21	Other manufacturing	190	4646	889
		1647	43129	9725

Maximum number of MSME units in Kurukshetra are involved in the Food, Beverages & Tobacco, apart from food products & wearing apparel, metals & mineral Products, textiles, chemical products & non-metallic mineral products have significant number of MSMEs operating out of Kurukshetra. Kurukshetra has significant number of MSMEs operating in the services sector also. Below table gives a snapshot of the services sector in Kurukshetra:

S. No.	Industry	Total Units	Micro	Small	Medium	Total Investment (INR Lakhs)	Total employment
1	Civil Engineering	20	15	5	-	717	159
2	Construction of building	32	28	4	-	306	227
3	Electricity, gas, steam and air conditioning supply	21	21	-	-	145	86
4	Office administrative, office support and other business support activities	209	195	14	-	1408	625
5	Other professional, scientific and technical activities	136	122	13	1	1281	468
6	Repair and installation of	65	54	11	-	780	377

Table 2: Service Sector in Kurukshetra²

² Source: UAM Registration as on 31.03.2020

S. No.	Industry	Total Units	Micro	Small	Medium	Total Investment (INR Lakhs)	Total employment
	machinery and equipment						
7	Specialized construction activities	47	41	6	-	747	240
8	Architecture and engineering activities; technical testing and analysis	24	21	3	-	122	62
9	Financial service activities, except insurance and pension funding	47	46	1	-	182	100
10	Food and beverage service activities	239	200	39	-	2482	821
11	Mining support service activities	2	1	1	-	21	15
12	Repair of computers and personal and household goods	108	105	3		440	255
13	Warehousing and support activities for transportation	88	52	31	5	3954	526
14	Water collection, treatment and supply	11	8	3	-	154	44
15	Computer programming, consultancy and related activities	93	87	6	-	379	268
16	Human health activities	70	55	14	1	1235	398
17	Information service activities	43	42	1	-	142	134
18	Real estate activities	33	27	6	-	223	122

The Haryana government also undertook several initiatives to promote industrial development in the region. The state ensured creation of massive infrastructure in terms of complete electrification, provision of road transport, expansion of administrative, educational and health facilities in small towns, and establishment of many new industrial townships and urban estates.

1.4 Geographical Traits

The Kurukshetra district comprises of 419 villages and six blocks and lies between $29^{\circ}34'15''$ and $30^{\circ}-15'15''$ North latitude and 76° to 10'' and $77^{\circ}-17.5''$ East longitude covering an area of 1530 sq. km.

The district is surrounded by Punjab state and Ambala district in the north and Kaithal district and Karnal district towards south. The district headquarter, Kurukshetra is connected by roads with important cities of the state and Delhi. It is also connected by railway line with Delhi.

1.5 Demographic Trends and Economic Structure

The district Kurukshetra came into existence on 23 January 1973. Popularly known as the battlefield of Mahabharata, where the battle was fought between two diametrically conflicting forces of good and evil. Eventually, in this battle the forces of piety were rewarded, and the evils got vanguished in the land of righteousness.

Kurukshetra lies on the main Delhi Ambala Railway line about 160 kilometres North of Delhi, 34 kms North of Karnal and 40 kms South of Ambala. Its adjoining districts are Ambala, Yamuna Nagar, Karnal, Kaithal and Patiala (Punjab).

The district has sub-tropical continental climate. The annual average rainfall of the district is 290.5 mm. Saraswati, Markanda and Ghaggar are the important rivers of the district. It constitutes 3.3% of the state share in terms of geographical area.

As per the 2011 census, Kurukshetra's total population is 964,655 persons across a geographical area of 1,530 sq. kms. Kurukshetra district has a population density of 630 persons per sq. km. The population growth rate for Kurukshetra in the last decade (2001-2011) was 16.86%. Kurukshetra has an average literacy rate of 73.11%. The district's sex ratio is 889 females per thousand males.

Sector Overview



2. Sector Overview

Sheet metal fabrication is the process of converting metal sheets to the desired shape using different manufacturing methods. The completion of a product usually comprises of many steps - from cutting and bending to surface treatment and assembling. Sheet Metal fabrication jobs usually start with design drawings including precise measurements as per customer or product specifications. The sheets are then move to the fabrication stage where different parts of design specified are cut from sheets or punched, bent, formed, deep drawn, and finally all the parts are welded or fastened to give final products. Some of the items may be joined at installation stage of the final product/ project.

The fabrication sector is highly fragmented and labour-intensive sector with medium and small-scale industries heavily dependent on job work. The demand for fabrication sector comes from the engineering sector, especially capital goods, the growth of fabrication industry largely depends on the overall industrial growth scenario. The fabrication industry mainly caters to sectors such as transportation, packaging, consumer products, and construction. The major user industry for the fabrication sector is the general structural fabrication followed by the transportation, railway & shipping, machine building and construction including home, office and institutional furniture. The raw material for the fabrication industry is easily available in India except for special steel which needs to be imported. Imported steel is cheaper also than indigenously available steel.

The fabricated metal products range from needle to ship, from spiral staircase to car bodies. Various products start out as metal stock that fabricators bend, punch, drill, grind, thread, and cut to produce various shapes. The metal fabrication process varies greatly depending on the material being machined, the rate of production, the desired geometry, and other physical requirements of the part or product. The metal fabrication industry also varies greatly in the size, type, and distribution of facilities found in all parts of nation.

2.1 Brief Global Scenario

At the global level, the fabrication sector growth has depended on the industrial and manufacturing growth and with enhanced export opportunities. Emerging trends like outsourcing of engineering services have also provided opportunities for growth with engineering and design services (such as new product designing, product improvement, maintenance, designing manufacturing systems) getting increasingly outsourced to Asian countries like India. The global market for metal fabrication is fuelled by continued investments in electric furnace and metals processing, the growing aluminium consumption, the reshoring of manufacturing practices in the automotive industry, recovery in non-residential investments, and growing aerospace demand.

The global sheet metal fabrication services market is anticipated to expand at a CAGR of 1.7% during the forecast period 2018 to 2026. This is due to growing demand for ready to install fabrication products and components in several end-use industries such as industrial machinery, automotive, construction, and others. Sheet metal fabrication service providers are adopting prefabrication techniques to meet the increased demand. This is expected to

contribute to the growth of the sheet metal fabrication services market.³

Sheet metal fabrication services are an integral part of various end-use industries. With increased demand in the Asia Pacific region, manufacturers are shifting their base to this region which is boosting the growth of the sheet metal fabrication services market in Asia Pacific. The market in Asia Pacific is expected to grow at a CAGR of 2.3% over the forecast period.⁴

India Scenario 2.2

Rapid growth in the metal and manufacturing industry, growing demand for aluminium and increasing growth in aviation and automobiles market are factors driving the India metal fabrication equipment market. Metal fabrication has a huge market in India, however, lack of skilled workforce and issues with raw material availability are restraining the market growth. Metal fabrication equipment market is expected to grow at a remarkable rate, as the India is moving toward industrialization, urbanization owing to the growing population.

In India, fabrication contributes significantly to the GDP in terms of fabrication intensive industries, auxiliary products, complementary goods, employment, and user industries. The India fabrication market is expected to grow at 5.5% during the period of 2020 - 2025. In 2015, net worth of this sector was valued at \$16 Billion which is most likely to reach a net valuation of \$24 Billion by 2024. This is owing to factors, such as the increasing demand from the manufacturing sector, the rising preference toward pre-engineered buildings and components, and government initiatives toward infrastructure development activities. India being a rapidly emerging player of this industry is set to contribute further value to the industry and significantly contribute to the GDP of the country.

The fabricated metal product industry in Haryana carries a weight of 24.55% in the manufacturing sector. The index of this group increased from 237.8 in 2013-14 to 270.5 in 2014-15 recorded a growth of 13.8 percent. Cylinder has recorded highest growth of 35.4 percent in this group followed by fasteners (excl. zip-fasteners) at 22.1 percent. The index of fabricated products, others has declined by 32.2 percent followed by nuts, bolts, screw & washers, iron/steel 8.2 percent respectively. The sector employs around 1,20,000 persons in Haryana⁵.

Primary needs of setting up a fabrication unit is electricity and electricity distribution is not an issue in Haryana which has provided an impetus to establish fabrication units with small investment, in small place and with low work force requirement (as low as 5-10 persons). This makes discerning the exact number of fabrication unit in Haryana challenging.

Source: https://www.transparencymarketresearch.com/sheet-metal-fabrication-services-market.html

⁴Source: <u>https://www.transparencymarketresearch.com/sheet-metal-fabrication-services-market.html</u>

⁵ ³ Source: Annual survey of industries

2.3 Cluster Scenario

In last couple of years, Kurukshetra has seen a strong growth in sheet metal fabrication industry. This growth is majorly because of large demand for fabricated domestic and industrial products like Industrial sheds, gate grill, cooler body, steel door, steel chaukhat, fume hood, lab table, hospital furniture, school furniture, automatic rolling shutter hydraulic machinery etc. Some of the other major factors that has helped the industry as a whole to flourish in Kurukshetra district are:

- Government assistance
- Smart policies by Haryana Government, including a favourable tax policy
- > Proximity to Indira Gandhi International Airport in Delhi & domestic airport in
- Chandigarh
- 100% electricity supply
- Good connectivity to states like Delhi and Punjab

Kurukshetra sheet metal fabrication cluster has about 200 units, out of which 90% are micro units and 10% are small units across the value chain. Most of the units are in Thanesar and Ismilabad blocks of district Kurukshetra. The annual turnover of the cluster (micro and small) is about INR 100 Crore.

The cluster units are engaged in the manufacturing of industrial sheds gate grill, cooler body, steel door, steel chaukhat, fume hood, lab table, hospital furniture, school furniture, automatic rolling shutter, hydraulic machinery and other steel fabrication products.

Employment under the cluster units ranges from approx. 5 to 25 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 industrial sheds, gate grill, cooler body, steel door, steel chaukhat, Fume Hood, Lab Table, Hospital furniture, school furniture, automatic rolling shutter, hydraulic machinery and Steel fabrication products. A few of the products manufactured by the cluster are presented in figure 3 below:



Figure 3: Products of the Sheet Metal Fabrication Units

Industrial Shed



Gate Grill



Cooler Body



Steel chaukhat



Steel Door



Lab Table



Fume Hood

Diagnostic Study Findings



3. Diagnostic Study Findings

The diagnostic study was undertaken in the cluster during October 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, Kurukshetra. 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 due to dependence on manual techniques and conventional machines.

The DSR was approved by Director General, Directorate of MSME, Govt. of Haryana. 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

Many support institutions and agencies such as industry associations, government agencies, academic/ R&D institutes, financial institutions, BDS providers etc. situated within and outside the cluster play a key role in developing the cluster as well in complementing initiatives of the cluster SPV. The key stakeholders of Kurukshetra sheet metal fabrication cluster are:

A. Industry Associations

Haryana Chamber of Commerce & Industry, Kurukshetra Chapter (HCCI)

HCCI is the apex industry association of the MSMEs of Haryana and has presence in all major industrial districts of Haryana. HCCI raises and addresses the problems faced by industries in the state in a coordinated manner through its chapters. It also liaisons closely with the State and the Central Government to raise its concerns for development of industries in the state in a collective manner. It has a chapter in Kurukshetra district that takes care of the interest of MSMEs of Kurukshetra.

Agricultural Machine Manufacturing Association

Agricultural Machine Manufacturing Association is one of the prominent agricultural industry association of the Haryana. 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.

B. Government Bodies

District Industries Centre, Kurukshetra

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 Deputy 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 Scheme under which the fabrication industry wants to set up a CFC will also be implemented through the DIC office. The Kurukshetra DIC is actively promoting cluster development in the district and also helps the local units register under Udhyog Aadhar Memorandum (UAM). 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.

National Small Industry Corporation Limited

NSIC headquartered at Okhla, Delhi and with offices at Faridabad, Gurugram, Bahadurgarh, Ambala and Panipat in Haryana aids MSEs on raw material assistance, tender marketing and Government Purchase Programme. It also organizes industry fairs in different locations on regular basis and is critical to access Government institutional markets. Its composite loan schemes, skill up gradation, government purchase and marketing assistance programmes shall be coupled with cluster firms to provide them additional benefits.

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

Government Industrial Training Institute (ITI), Kurukshetra

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.

Kurukshetra University

Kurukshetra University is one of the premier educational institutions of India having its campus spreads over 473 acres. Established in 1956, the University is providing higher education to over half a million students on the campus and its affiliated colleges. Kurukshetra university offers a variety of technical and non-technical courses. The University has been awarded A+ Grade by NAAC and has been placed at 8th position amongst the State Universities of the country in Category-I by the Ministry of Human Resource Development (MHRD).

D. Banks / Fls

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 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), Kurukshetra

PNB Kurukshetra 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 manufacturing of industrial sheds, gate grills, steel doors, cooler body, lab table, school furniture, hospital furniture, fume hood, automatic rolling shutters, etc. Some of the leading manufacturers of the cluster are M.K.V Industries, R.D Industries, Kamla Engineering Works, Akash Engineering Works, etc. Key stakeholders of Kurukshetra sheet metal fabrication cluster are presented in figure 4 below:



Figure 4: Key Cluster Actors

3.2 Cluster Turnover, Market and Employment

The combined annual turnover of all the cluster units is estimated to be around INR 100 crore. However, there is an enormous potential of increasing the turnover (to about 150 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, fabricators will get better cutting facility and reduction in outsourced activities which will reflect in their improved work. Recommendations around these have been provided in the DSR.

3.2.1 Cluster Market and Employment

The units of the cluster are mainly catering to the markets of various districts of Haryana and neighbouring states like Punjab, Delhi, Rajasthan. Some fabricators get work orders from local contractors (who are involved in housing/construction project) or owner of houses/industries. These operations are carried out in two types:

- Fabrication of product (Gate Grill, Steel Door, Steel Chaukhat etc.) in their own shop according to the desired specifications of the customer and installed in user location
- Carry raw material to location where the final product is fabricated as per the site conditions like industrial shed, etc.

At present, the cluster is catering to local and national market only and no unit is exporting its products to international markets due to quality restrains and price competitiveness.

3.2.2 Cluster Employment

Presently, this cluster provides employment to 1500 people directly & indirectly. On an average micro unit employ approximately 3-5 persons, and small units in the cluster employ approximately 5-10 persons. On an average, micro and small-scale implements manufacturing units employ approximately 4-10 people

3.3 Production Process

The units in cluster are engaged in various activities across the value chain of fabrication processes. From selection of raw material to the finished products, various engineering activities involved in this process. The flow chart of the production process followed by fabrication units is shown in figure below:



Figure 5:Manufacturing Process of Cultivator

Fabrication Processes:

- a) <u>Measurement and Marking</u>: Measurement of sheets, angles, channels etc. as per drawing and specifications. An uncertainty represents the random and systemic errors of the measurement procedure; it indicates a confidence level in the measurement. Errors are evaluated by methodically repeating measurements and considering the accuracy and precision of the measuring instrument.
- b) <u>Cutting</u>: Cutting has been at the core of manufacturing. Cutting is the separation of a physical object, into two or more portions, through the application of an acutely directed force. Cutting is usually being done after measuring and marking with manual cutter machine. Saws, chisels, gas cutters are used for cutting process.

- c) <u>Bending</u>: This is required for making bend in pipes/rod to get desired shape. When bending is done, the residual stresses cause the material to spring back towards its original position, so the sheet must be over-bent to achieve the proper bend angle. The amount of spring back is dependent on the material, and the type of forming.
- d) <u>Welding</u>: Welding is very important operation as one of the most important method of jointing various metallic parts. Welding is the process which needs to be done in expertise manner.
- e) Notching: Notching is a low-cost process, particularly for its low tooling costs with a small range of standard punches. Notching is done at various levels. Notching is a process which cuts stock without the formation of chips or the use of burning or melting. Strictly speaking, if the cutting blades are straight the process is called shearing. The most commonly sheared materials are in the form of sheet metal or plates.
- f) <u>Machining</u>: Machining is the broad term used to describe removal of material from a workpiece, it covers several processes, which we usually divide into the following categories:
 - Cutting, generally involving single-point or multipoint cutting tools, each with a clearly defined geometry.
 - Abrasive processes, such as grinding.
 - Non-traditional machining processes, utilizing electrical, chemical, and optimal sources of energy.

Machining is a system consisting of the work product, the tool and the machine. This involves various operations like mechanics & shear bending in machining, and heat in machining. The traditional machining includes primers on turning, milling, drilling, and grinding. Some parts need to be machine like turning, drilling, facing, milling etc. This process is done by lathe machine, drill machine, milling machine etc.

- g) <u>Assembly</u>: In this process, various parts are joined as per drawing and geometry by welding and with the use of fasteners. Various fastening and welding methods are used in assembly to mechanically attach two or more parts together.
- h) <u>Finishing</u>: This involves cutting of extra material, inspection of each unit for defects, grinding of extra welding and ironing of the Fabrications. Finishing processes are employed to improve appearance, adhesion, corrosion resistance, tarnish resistance, chemical resistance, wear resistance, hardness, modify electrical conductivity, remove burrs and other surface flaws, and control the surface friction. Some of these techniques can be used to restore original dimensions to salvage or repair an item.

- i) **Painting:** Painting is done after assembly and finishing to make the product attractive and rust free and to increase product life.
- j) **Packaging:** Fabricated products are packaged for dispatch.
- k) **Dispatch:** Fabricated products are shipped to the buyers or distributors.

3.4 Value Chain Analysis

Value chain analysis of the fume hood has been conducted to ascertain the major cost areas and identify suitable interventions. The value chain analysis of fume hood is provided in table 3.

	Before Intervention		After Intervention			
Particulars	Value Added (INR)	Total Value (INR)	% of cost of production	Value Added	Total Value (INR)	% of cost of production
Raw Material						
Channel (402 kg @ INR 42), Angle (128 kg @ INR 42), Angle (230 kg @ INR 40), Flange (65 kg @ INR 41), Base (350 kg @ INR 42), Gray Plate (170 kg @ INR 63), Plate (30 kg @ INR 63), Plate (30 kg @ INR 41), Rod (sariya) (40 kg @ INR 40), Hook (30 kg @ INR 55), Rod (20 kg @ INR 41), Bush Plate (35 kg @ INR 55), MS Rod, Welding Rod and Axle	34585	34585	54.26%	34585	34585	59.90%
Cutting (Outsourced)	12000	46585	18.83%	6000	40585	10.39%
Bending	3650	49235	5.73%	3650	44235	6.32%
Welding	3000	52235	4.71%	3000	47235	5.19%
Paint, Finishing & Assembly	5000	57235	7.84%	5000	52235	8.66%
Electricity Cost	2000	59235	3.14%	2000	54235	3.46%

	Before Intervention			After Intervention		
Particulars	Value Added (INR)	Total Value (INR)	% of cost of production	Value Added	Total Value (INR)	% of cost of production
Labour	3500	63735	5.49%	3500	57735	6.06%
Total Production Cost	63735	63735	100	57735		100%
Profit	6373		10%	12124		
Selling Price	70108			68859		

Table 3: Value Chain Analysis of Fume Hood⁶

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 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:

⁶ Source: Stakeholder Consultation inputs

	Current	situation	Future			
Area	Strengths	Weaknesses	Opportunities	Threats		
Market	Strong presence in domestic market	 Units are unable to price their fabrications competitively due to high cost of automatic latest machines Lack of exposure Limited market area 	 Rising income levels and increasing urbanisation are driving growth of the domestic market Quality and productivity can be game changer for the cluster Enterprises can join hands together for International marketing, brand building and participation in trade fairs 	Strong competition from international players entering domestic market and other players within the domestic market		
Technology/ Product Quality	Each unit undertakes inspection of products at each stage in their manufacturing process	 Lack of access to modern technologies Low degree of mechanization No R&D on product development and product quality improvement Lack of awareness about latest trends and products in the industry 	 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 	 Increase in cost of production Increase in awareness of people on quality certifications shall lead to losing out to business/requirement for more stringent testing procedures. Competition from vendors manufacturing products at lower costs. 		

Table 4: SWOT Analysis of the Cluster
	Current	situation	Future		
Area	Strengths	Weaknesses	Opportunities	Threats	
				 Rapid technology obsolescence. 	
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	 Major raw material structural steel supply from Delhi, Ludhiana, Mandi Gobindgarh TATA & SAIL sales offices in Delhi/Faridabad & Mandi Gobindgarh are an advantage. 	 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 	 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	
Innovation	 Ability to develop products as per customer requirements Some units create their own designs (using 	 Lack of marketing products in the domestic & international market Low level of development in process 	 Sharing of best practices and information could lead to innovation in products amongst MSMEs in the cluster 	 Could lose business to other more price competitive manufacturers from neighbouring states 	

A	Current	situation	Future			
Area	Strengths	Weaknesses	Opportunities	Threats		
	conventional methods at present) and sell these.	 Traditional methods of production 				
Business Environment	 Steady growth in domestic demand Conductive policy and regulatory initiatives Active State Govt. and schemes for development of sector 	 Lack of common infrastructure/CFC facilities No long-term vision of manufacturers Competition is increasing from the local fabricators / Manufacturing at other places Unprofessional way of managing enterprises 	 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 enter in the low-tech segment 	 Dynamic business environment is always a challenge for less enterprising firms Change in policies and regulatory environment 		

3.6 Major issues/ Problem Areas of the cluster

The key problems cluster related problems identified are:

- Absence of Hi-Tech Cutting Facility: Currently, cluster units are dependent on private services providers 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. Sheets with thickness more than 6 mm cannot be cut through manual methods like gas cutting which is also dangerous. Lot of products of the cluster utilize metal sheets having thickness more than 25 mm which needs laser cutting and is outsourced by the cluster units to third party units.
- Lack of Space: Units are very small. They cannot stock raw material in bulk at their units. So, they cannot purchase raw material in bulk to realize benefits of economies of scale.
- Marketing: The cluster is mainly catering to the markets of local districts of Haryana and neighbouring states like Punjab, Delhi and Rajasthan. Therefore, there is scope for expansion of the market be it from national or international point of view. They must increase their capacity and capability in terms of technology, buying power, manufacturing etc. to meet latest industry quality standards and achieve cost competitiveness.
- 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 have been 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 implements, 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 challenges like higher production 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 technological gaps on various fronts that the CFC proposes to target, along with scope and illustration of major facilities is provided in table 6:

 Table 5: Rationale for Hard Interventions

Rationale for proposed hard interventions u	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								
The cluster units are dependent on private services providers in Ludhiana (Punjab) and Delhi, Noida for sheet metal cutting related work. Some units are using conventional machines and methods for cutting which are outdated required cutting accuracy and precision are low and takes much time for cutting work. This results in high cost and production delay	 Presence of Hi-Tech cutting facility in the cluster shall reduce the production cost & time. This shall also reduce the dependency of private service providers for cutting work. Following machines will be installed under this facility: CNC Fibre Laser Cutting Machine 							
Private players charge a higher fee, which greatly affects the Micro and Small Enterprises. This significantly increases their costs, thereby reducing their competitiveness								

3.8 Cluster growth potential

The potential for the Kurukshetra steel fabrication cluster to grow is enormous, owing to the increasing demand of steel products in the region. The steel fabrication market witnessed tremendous growth in last few years. The Haryana government has also undertaken several initiatives to promote industrial development in the region. The state has ensured creation of massive infrastructure in terms of complete electrification, provision of road transport, expansion of administrative, educational and health facilities in small towns, and establishment of many new industrial townships and urban estates.

By providing modern job work manufacturing facilities to units of the cluster under CFC mode, their production costs will reduce, and they will be able to cater the requirements of market in an efficiently manner. This will also provide an opportunity to micro units to get job work done on modern machines and manufacture high quality products. The CFC will also lead to creation of several jobs for skilled and unskilled workers.

Diagnostic Study Recommendations



4. Diagnostic Study Recommendations

Based upon the diagnostic study report and subsequent discussions with various cluster stakeholders and members of MKV Enterprises Private Limited 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 must be undertaken with government support to ensure the survival and growth of the steel metal fabrication units in Kurukshetra. 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. They have also conducted exposure visits to other developed clusters, participated in national and international exhibitions.

- 4.1 Soft Interventions Recommended and Action Taken
 - 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 meeting, the details of which are provided below:
 - Member Meeting: 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 September 2020 in Kurukshetra 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 which were resolved by other members of the cluster.
 - Awareness Programme on Mini Cluster Development Scheme: A programme for awareness of SPV members of sheet metal fabrication cluster Kurukshetra on mini cluster development scheme was conducted on September 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 (Udhyog 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.
 - Exposure Visit to Ludhiana: SPV members visited Ludhiana to identify essential machineries for CFC. Ludhiana is the hub of almost all kind of machineries in north India. Being the hub, in present era of competition, Ludhiana produce machines with very competitive prices. While Ludhiana

visit, beside the prices, SPV members gained knowledge of latest machineries and technologies, which would be beneficial of proposed CFC.

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

The steel metal fabrication units in Kurukshetra need technological support to enhance their competitiveness and ensure their survival. The units are reeling under bitter competition and low margins and require modern high capacity machines and other related equipment to get their job done and reduce their production cost.

The following common infrastructural facilities are being proposed for the CFC, with support from Directorate of Micro, Small and Medium Enterprise (MSME), Government of Haryana.

- Hi-Tech Cutting Facility: By establishment of this facility in the CFC, cluster units will be able to do hi-tech cutting locally which will help them to reduce their dependencies on private service providers and increase their productions & profits. Currently, 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. Following machines will be installed under this facility of CFC:
 - (a) CNC Fibre Laser Cutting Machine: Α typical commercial laser for 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 laser cutters are used to cut flat-sheet material as well as structural and piping materials. At present the sheet cutting is done through the CNC Shearing machine. The machine cuts the sheet at 90degree 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 leads to the wastage of raw material as well as high probability of the human error. The proposed modern age laser 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, better quality final product at lower cost which would increase their competitiveness in the market. At, present the cluster only caters to the 1% of the domestic demand of the products due to inefficient production, price competitiveness, quality concerns etc. With the proposed machinery the cluster members are expecting the significant growth in their percentage share of the market. In this machine a laser cutting technology is used to cut the metals. This technology is the most widely used for cutting of metals in accurate and precise manner. In this cluster this intervention will help the units in cutting of metal sheets more accurately and all the products manufactured will be uniform.

4.3 Expected outcome after Interventions (Long term vision)

The cluster vision that has been progressively evolved is:

"The steel metal fabrication cluster of Kurukshetra would evolve into a preferred base for Indian and global customers by means of standardization, technology up-gradation through establishment of advanced facilities 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 implements 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 in-house appropriate facilities. 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 among 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 Kurukshetra 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 Kurukshetra Steel Fabrication 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 'MKV Enterprises Private Limited' with CIN U28999HR2020PTC091024. The SPV was registered on 19th November 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 in the near future. The members are micro & small - sized firms (registered units) involved in the manufacturing of steel products and related activities, predominately based in Thanesar area of district Kurukshetra.

DIC, Kurukshetra and state government both played an important role in SPV formation by cluster stakeholders. The SPV includes about 13 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 'MKV Enterprises 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 steel metal fabrication industry, design interventions and new technologies.

The SPV has conducted a series of stakeholder consultations (with various members, DIC, Kurukshetra 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 Kurukshetra and has helped in validation of findings and recommendations. It has kept the state government and the DIC Kurukshetra engaged during the entire period of development of DSR and DPR.

5.1 Shareholder profile and shareholder mix

List of Directors: The SPV has two directors. The details of the directors are furnished in the table 6. Other than these directors, the SPV will have provision of having one director/member from the state government. It is homogeneous in nature due to similar products and activities performed by the cluster units:

S. No.	Office bearer Name	Name of the unit	Unit address
1	Ramdutt	R.D Industries	Jhansa Road, Kurukshetra
2	Manish	M.K.V Industries	Jhansa Road, Kurukshetra

Table 6: List of Directors

The lead promoters/ shareholders have several years of successful experience in production of steel fabricated products and 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 steel fabricated products in Kurukshetra for several years. SPV directors/ members of the SPV also have considerable experience in marketing and manufacturing of steel fabricated products. Directors/members have been in close interactions with technical experts, government institutions and machinery suppliers. Post the DSR validation, the DIC Kurukshetra 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 below:

S. No.	Contact Person	Company Name	Contact No	Address of the Unit	UAM No/ GST No.	Products
1.	Mr. Manish	M.K.V Industries	7027022122	Jhansa Road, Kurukshetra	HR11A0005765 06FSLPS8926P1Z1	Fume Hood, Lab Table, Hydraulic Machinery
2.	Mr. Ramdutt	R.D Industries	7015274830	Jhansa Road, Kurukshetra	HR11A0005266	Industrial Sheds & other iron equipment
3.	Mr. Pawan Kumar	Saini Scales	9812031601	Saini Colony, Jhansa Road, Kurukshetra	HR11B0002948	Weighing Scales & Weighbridge
4.	Mr. Jugnu Goyal	Kamla Engg. Works	9991209420	lsmilabad, Kurukshetra	HR11A0001538	Industrial Sheds & other iron equipment
5.	Mrs. Anjana Rani	AL-MACK Agri Solution	7404187870	Hisar Ambala Road, Ismilabad, Kurukshetra	06CCVPR9994K1Z5	Industrial Sheds & automatic rolling shutters
6.	Mrs. Sudesh Rani	L.P Enterprises	9466218115	Narkatari, Kurukshetra	06ASCPR2390G1ZQ	Steel Fabrication & Plastic Bottles Manufacturer
7.	Mr. Chander Mohan Arora	Arjun Industries	8950502590	Kheri Brahman, Salarpur Road, Kurukshetra	HR11A0001544	Industrial Sheds & other iron equipment
8.	Mr. Rajat Saini	Guru Nanak Engg. Works	9896472756	Jhansa Road, Kurukshetra	HR11A0005766	Cooler Body & Gate Grill
9.	Mr. Lovekesh Jangra	Lovekesh Jangra Engg. Works	7876718227	Jhansa Road, Thanesar, Kurukshetra	HR11A0002779	Tractor Bumper & other tractor archeries
10.	Mr. Kamaljeet Singh	Guru Nanak Engineering Works	9588731118	Village Kirmach, Kurukshetra	HR11A0005767	Trolley, fabricated gate, grill
11.	Mr. Sunil Kumar	Saini Agriculture	8813861644	Jhansa Road, Kurukshetra	HR11A0005790	School Furniture & Hospital Furniture
12.	Mr. Jitender	Azad Trading Company	9812056516	Bhawani Khera, Near Petrol Pump, Jhansa Road,	06CLYPK6803J1Z1	Steel Fabrication & Plastic Bottles Manufacturer

Table 7: Details of SPV members of Kurukshetra Steel Fabrication Cluster

S.	Contact Person	Company	Contact No	Address of the Unit	UAM No/ GST No.	Products
No.		Name				
				Kurukshetra		
13.	Mr. Pardeep	Akash Engg.	8529972562	Village Jyotisar, Pehowa	HR11A0005792	Hospital Furniture & Steel
	Kumar	Works		Road, Kurukshetra		Door

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 a lot of capacity building initiatives to promote the cooperation among cluster units and enhance knowledge and exposure of the units. The major initiatives are:

- Exposure visits to trade fairs and machinery fairs for steel fabricated products in Ludhiana, Mohali, Muktsar to understand the technology, market requirement and available opportunities.
- Conducting various programs for capacity building, awareness generation and technological advancement in the cluster as well as participation in similar programs organized by stakeholders.

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 government departments for DPR approvals in the SLSC
- > Accompanying EY experts to various meetings at the state government departments
- Execution of lease deed registration in SPV name
- Garnering the SPV project contribution from the members
- > Formation of purchase committees for procurement of goods and services
- 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 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 Governing Body, and the day-to-day administration will be taken care of by the management that shall be appointed by the Board of Directors. Their role is detailed below:

- Governing Body: The Board of Directors will be the main 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 BoD will oversee the entire operations; CEO will be entrusted with specific responsibility like marketing, technical, finance, public relations etc. based on their interests and experience. CDE will oversee financial transactions of the society and maintain records of receipts and expenses.
- 2. Managerial, Technical and Administrative staff: A competent and well qualified professional with a background in the sheet metal fabrication manufacturing industry will be appointed as the Chairman, who will look after day-to-day operations of the CFC and shall be directly reporting to the Board of Directors. Each facility (Hi-Tech Cutting Facility) will have its own expert staff (supervisors, operations and helpers) as per the requirement. The details of manpower 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, storekeepers etc. to ensure effective functioning of the CFC. The proposed organizational structure of the CFC is given in figure 10:





Project Economics



6. **Project Economics**

6.1 Project Cost

The actual project cost of setting up a CFC is estimated at INR 220.38 Lakhs. The total cost estimation includes the following project components:

- 1. Building
- 2. Machinery & Equipment
- 3. Miscellaneous Fixed Assets
- 4. Pre-liminary & Pre-operative Expenses
- 5. Contingency
- 6. Margin Money for Working Capital

6.1.1 Building

The SPV shall lease a building

Table 8: Building - Lease Basis

BUILDING - LEASE BASIS						
S.No.	Particulars	Actual Cost				
1	Building Area (sq. ft.)	1800				
2	Monthly Rent (INR lakh)	0.16				
3	Rent for first year (INR lakh)	1.92				
4	Year on year increase in rent @	10.00%				

Table 9: Building - Other Particulars

OTHER PARTICULARS				
S.No.	Particulars			
1	Lease Deed Reg Cost (INR in lakh)	0.46		
2	Security Deposit (INR in lakh)	0.48		

Table 10: Building - Rent Chart for 10 years @ 10% yearly increase

RENT CHART FOR 10 YRS @ 10% YEARLY INCREASE										
Particulars	Year									
i ai ticulai s	1	2	3	4	5	6	7	8	9	10
Rent per										
year	1.92	2.11	2.32	2.56	2.81	3.09	3.40	3.74	4.12	4.53
Rent per										
month	0.16	0.18	0.19	0.21	0.23	0.26	0.28	0.31	0.34	0.38

6.1.2 Plant and Machinery

As detailed in section 4.2 (Hard interventions) several modern automatic and high capacity machines have been recommended to enable cluster units enhance their competitiveness. The major facilities proposed at the CFC is Hi-Tech Cutting Facility. The total cost of plant and machinery has been estimated at INR 203.76 lakhs.

The details of the proposed machinery items are presented in the table 11. The detailed quotations of the machines are provided in *Annexure 5*. 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.

S. No.	Machine Name	Quantit Y	Basic Price	Total Basic Price	Transpo rtation Charges *	Custom Duty as Applicabl e*	Gst as Applica ble *	Other Charges like Transit Insurance , Installati on etc.	Total Price
		Indigen ous	Indigenous	Indigenous	Indigen ous	Indigenou S	Indigen ous	Indigenou S	Indigen ous
Α	Primary Machinery								
1	Fibre Laser Cutting Machine with exchanging Pallet and Standard Accessories	1	162.00	162.00	0.90	-	29.32	1.85	194.07
	Sub Total (A)	2	162.0	162.0	0.90	0.0	29.32	1.85	194.07
В	Secondary Machinery								
1	100 KVA 3 Phase iGreen Generator Set	1	8.14	8.14	0.08	-	1.46	-	9.68
	Sub Total (B)	1	8.14	8.14	0.08	0.00	1.46	0.00	9.68
	Grand Total	3	170.14	170.14	0.98	-	30.79	1.85	203.76

y

*All prices are in INR lakhs (Other charges include freight, packaging, etc.)

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 **INR 1.64 Lakhs**. Details are provided in the table 12.

Table 12: Miscellaneous Fixed Assets

Miscellaneous fixed assets Particulars	Amount (INR in
	Lakhs)

Office items and allied items, furniture, fixtures, firefighting equipment, etc.	1.64
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, legal and administrative expenses, lease deed registration charges, tendering forms, and tendering cost etc.

Pre-operative expenses include expenses for administrative establishment, travelling, bank charges, overhead expenses during machinery testing period such as salaries, machine testing cost, bank charges, traveling, etc. The total expenditure for preliminary and pre-operative expenses are estimated at **INR 2.40 Lakhs** (details provided in the table 13).

(INR In Lakh) PRELIMINARY & PRE OPERATIVE EXPENSES S. No. Particulars Amount 1 Company Registration Charges 0.50 2 Tender forms & tendering cost 0.00 3 Travelling Cost 0.50 4 Machine testing cost 0.35 5 Lease deed registration charges 0.46 6 Bank Appraisal Charges 0.59 Total 2.40

Table 13: Preliminary and Pre-Operative Expenses

6.1.5 Provision for Contingencies

Provision for contingencies has to be made on plant and machinery. Contingencies on plant and machinery have been estimated at 5% that amounts to INR 10.19 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 **INR 8.43 lakh** with margin money requirement of **INR 2.43 lakh** (25% of working capital requirement as margin). The working capital requirement has been calculated based on requirement of one month of operational expenses and the calculation has been provided in the subsequent section.

6.1.7 Summary Project cost

A summary of total estimated project cost as per actuals and as per state mini cluster development scheme is presented in the table 14.

Table 14: Total Project Cost

PROJECT COST							
S. No.	Particulars	Total Project Cost	Eligible Amount as per Guidelines	Remarks			
1	Land & Building						
	a. Land Value	0.00		Fligible			
	b. Land Development	0.00	0.00	(Max 25% of			
	c. Building & Other Civil Works	0.00	0.00	total of L&B,			
	d. Building Value	0.00		P&M, and Misc. F.A.)			
	Sub Total (A)	0.00	0.00	1013C. I .A.)			
2	Plant & Machinery						
	a. Indigenous	194.07	194.07				
	b. Imports	0.00	0.00	Eligible			
	c. Secondary Machines	9.68	9.68				
	Sub Total (B)	203.76	203.76				
3	Miscellaneous fixed assets (C)	1.64	0.00				
4	Preliminary & Preoperative Expenses (D)	2.40	0.00				
5	Contingency						
	a. Building @ 2%	0.00	0.00	for grant			
	b. Plant & Machinery @ 5%	10.19	0.00				
	Sub Total (E)	10.19	0.00				
6	Margin money for working capital @ 75% CU (F)	2.43	0.00				
	Grand Total (A+B+C+D+E+F)	220.41	203.76				

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). The assistance to the project from Govt. of Haryana under state mini cluster development scheme is envisaged to the tune of 90% of max project cost of 200 lakhs. The SPV will be required to contribute 10% of the eligible project cost for project cost up to INR 200.00 lakh and any amount in excess of 180 lakhs. The total contribution of SPV members will amount to INR 40.41 lakhs. Support from State Government is envisaged for INR 180.00 lakhs.

Table 15: Means of Finance

	Means of Finance							
S. No.	Source of finance	Total Amount (INR In Lakh)						
1	Grant-in-aid under State Mini Cluster Development Scheme (Govt. of Haryana)	180.00						
2	Contribution of SPV	40.41						

(INR in Lakh)

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/equity contribution would be INR 40.41 lakhs contributed by the cluster SPV.

The extent of share capital/equity contribution by each member will be restricted to a maximum of 10% of total contribution to the share capital of the company.

6.2.2 Grant-in-Aid

Grant-in-aid of INR 180.00 lakh is expected from the Government of Haryana. The amount received by the way of grant under state mini cluster development scheme will be utilized to procure plant and machinery for the project.

6.3 Expenditure Estimates

In this section, a detailed estimate of expenditure of the CFC has been given on nine-hour single shift 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 in 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 hydraulic oil, grease and others etc.

	CONSUMABLES REQUIRED FOR MACHINES														
S. No.	Machine Name	No. Of Machin es	Particul ars	Total month ly Amt (INR)	Consuma bles required annually (INR In Lakh)	Amou nt (in INR Lakh)									
						Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
						75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
1	Fibre Laser Cutting Machine with exchanging Pallet and Standard Accessories	1	Hydraul ic, Oiling, Greasin g, Tools	5000. 00	0.60	0.45	0.48	0.51	0.54	0.57	0.60	0.60	0.60	0.60	0.60
	Total				0.60	0.45	0.48	0.51	0.54	0.57	0.60	0.60	0.60	0.60	0.60
	Consumables per month				0.05	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05

Table 16: Consumables

6.3.2 Manpower Requirement

Another major expenditure head is the manpower. Therefore, the facilities installed in the CFC will require manpower to function effectively as mentioned in section 5.3 of the report. The total manpower requirement for the project would be about 5 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 INR 3.23 lakh and for indirect at INR 6.47 lakhs. The total expense on manpower is projected at INR 9.70 lakh per annum. The details of monthly and yearly expenses for manpower required for running the project is provided in table 17:

Table 17: Expenditure Related to Salary (Direct Manpower - Machine Operators & Helpers)

Category	No. of Manpower Required	Salary per month per person (INR)	Total Salary Per Month (INR)	Total salary & wages per Year (INR lakh)
Operator	1	15,000.00	15,000.00	1.80
Helper	1	9,500.00	9,500.00	1.14
			-	0.00
			-	0.00
	2	0.25	0.25	2.94
Add: Perquisites/Fringe Benefits @ 10%	0.29			
Sub Total (A)				3.23

Table 18: Expenditure Related to Salary (Indirect Manpower - Administrative & Support Staff)

Category	No. of Manpower Required	Salary per month per person (INR)	Total Salary Per Month (INR)	Total salary & wages per Year (INR lakh)
Cluster Dev Executive (Supervisor)	1	25,000.00	25,000.00	3.00
HR & Accounts	1	15,000.00	15,000.00	1.80
Peon	1	9,000.00	9,000.00	1.08
	3	0.49	0.49	5.88
Add: Perquisites/Fringe Benefits	0.59			
Sub-Total (B)				6.47

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 27.50 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.

S. No.	Machine & Equipment	Power Requirement (kW)/ Connected Load	Total power requirement (60% of drawn power) kWh
1	Fibre Laser Cutting Machine with exchanging Pallet and Standard Accessories	25.00	15.00
	Total Connected load for CFC	25.00	15.00
	Buffer Connected Load (10% of Total Connected Load)	2.50	
	Total	27.50	

T - 1-1 -	10.		~ -		(E 1111 A)		D	D	. 1
i able	19:	маспіпе	άE	quipment	(Facility)	wise	Power	Requireme	nτ

The power requirement for operation of core machinery and equipment is 27.50 kWh. The facility is heavily based on electricity for operations and will also require 10% connected load as a buffer to get the electricity connection. The total connected load for the CFC is estimated to be 25 kW.

Fixed charges for connection of 27.50 KW @ INR 175 per kW = INR 4812.50 and monthly consumption charge @ 15 kW yields a consumption of 3510 units which amounts to INR 31,590. 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.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	75%	80%	85%	90%	95%	100%
Fixed	0.58	0.58	0.58	0.58	0.58	0.58
Variable	2.84	3.03	3.22	3.41	3.60	3.79
Total	3.42	3.61	3.80	3.99	4.18	4.37
Per month	0.29	0.30	0.32	0.33	0.35	0.36

Table 20: Annual Expenditure Statement vis-à-vis Power Charges

6.3.4 Annual Repairs and Maintenance Expenses

The annual repair and maintenance expenses have been estimated to be INR 6.21 lakhs. The details are presented in the table below:

Table 21: Annual Repairs and Maintenance Expenditure

ANNUAL REPAIR AND MAINTENANCE EXPENSES				
Repair & Maintenance of Building	0.10			
Repair & Maintenance of Plant and Machineries @ 3%	6.11			
Total	6.21			

6.3.5 Insurance and Miscellaneous Administrative Expenses

Insurance is a critical component of asset protection at the CFC. Insurance is computed based on 0.5 % on the fixed assets. Cost of insurance shall remain as a fixed cost. Miscellaneous administrative expenses are estimated at a lump-sum of INR 0.60 lakh per year. The cost of miscellaneous expenses is also considered to be fixed irrespective of scale of operation. The details are presented in the table below:

Table 22: Insurance & 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. INR Lakh)	1.07				
Miscellaneous Expenses (Stationery, communication, travelling, and other misc. overheads)	0.60				
Total	1.67				

6.4 Working Capital

Working capital has been calculated in terms of one month's operating expenses required for the CFC. The operating expenses include consumables, salaries, utilities, repair & maintenance, insurance and miscellaneous administrative expenses. The details are presented in the table below:

Table 23: Calculation of Working Capital Requirement

	(INR III Lakii)												
				WORI	KING CAP	ITAL							
S. No.	Particulars	Period				As	per Capa	city Utilis	ation				
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
			75%	80%	85%	90%	95%	100%	100%	100%	100%	100%	
1	Consumables	1 month	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
2	Utilities (Power)	1 month	0.29	0.30	0.32	0.33	0.35	0.36	0.36	0.36	0.36	0.36	
3	Working Expenses (Manpower)	1 month	0.74	0.75	0.77	0.78	0.80	0.81	0.81	0.81	0.81	0.81	
4	Sundry Debtors (Sales Value)	1 months	7.37	7.86	8.35	8.85	9.34	9.83	9.83	9.83	9.83	9.83	
5	Working capital (Total expenses)		8.43	8.96	9.48	10.00	10.53	11.05	11.05	11.05	11.05	11.05	
6	Working Capital Margin		2.43	2.96	3.48	4.00	4.53	5.05	5.05	5.05	5.05	5.05	
7	Working Capital Loan		6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	
8	Interest on Working capital loan @11% p.a.		0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	
9	Working Cap Margin %age		28.87%	33.02%	36.72%	40.03%	43.01%	45.70%	45.70%	45.70%	45.70%	45.70%	

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 25% of working capital is shown as margin for working capital and the remaining will be borne by SPV as borrowings. The margin money required for working capital is estimated to INR 8.43 lakh during the first year of operation (75% C.U.). Further, total working capital required at an operating capacity of 80% comes out to INR 8.96 lakh. The corresponding margin money for working capital requirement at 75% & 80%

(INID In Lakh)

capacity utilization in the first 2 years amounts to INR 2.43 lakh and INR 2.96 lakh respectively, and the corresponding loan amounts at INR 6.00 lakh and INR 6.00 lakh respectively.

6.5 Depreciation Estimates

Estimates of depreciation are non-cash expenditure and presented in this section based on 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 at 15% a year (envisaged project life of 10 years prior to replacement of assets), depreciation of furniture at the rate of 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 table below:

										(
	DEPRECIATION (WRITTEN DOWN VALUE METHOD) Particulars Year 1 Year 2 Year 3 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10														
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 Civilwork															
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	213.94	181.85	154.57	131.39	111.68	94.93	80.69	68.59	58.30	49.55					

Table 24: Depreciation based on WDV

(INR In lakh)

(INP In lakh)

DEPRECIATION (WRITTEN DOWN VALUE METHOD)														
							1							
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10				
Less: Depreciation @ 15%	32.09	27.28	23.19	19.71	16.75	14.24	12.10	10.29	8.74	7.43				
Closing Balance	181.85	154.57	131.39	111.68	94.93	80.69	68.59	58.30	49.55	42.12				
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				
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	32.32	27.42	23.31	19.82	16.85	14.33	12.19	10.36	8.81	7.49				
Depreciated value	183.26	155.84	132.53	112.71	95.85	81.52	69.34	58.97	50.16	42.67				

6.6 Income/Revenue Estimates

The CFC is expected to generate revenue by way of user charges that shall be levied based upon the hours a machine is operated for a particular job. 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 Kurukshetra shall be charged a premium for availing the CFC services. The major income sources for the CFC are envisaged by the way of providing Hi-tech cutting facility.

The user charges have been estimated based upon the operational expenses of the CFC and the prevalent market rates in Kurukshetra. User charges for service machineries 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.

The relevance and appropriateness of user charges is also evident form 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 an absolutely viable project. The estimated user charges for various machineries are presented in table below:

	REVENUE GENERATION AT CFC																
S. N o.	Machine Name	No. Of Machi nes	User Char ge per hour (INR)	No. Of Worki ng hours per day	No. Of Worki ng days per mont h	Reven ue per month (INR lakh)	Annual Revenu e generat ion (in INR lakh)	Amou nt in INR Lakh)									
								Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
								75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
1	Fiber Laser Cutting Machine with exchang ing Pallet and Standar d Accesso ries	1	420 0	9	26	9.83	117.94	88.4 5	94.3 5	100. 25	106. 14	112. 04	117. 94	117. 94	117. 94	117. 94	117. 94
	Total						117.94	88.4 5	94.3 5	100. 25	106. 14	112. 04	117. 94	117. 94	117. 94	117. 94	117. 94

Table 25: User Charges for Machinery

6.7 Estimation of profitability: Income and Expenditure Statement

The projections 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 INR 88.45 lakhs per annum on an operating capacity of 75%. For projection purposes, operating capacity of 75% is considered during first year, 80% during next year and 100% capacity from 6th year onwards.

The income tax rates have been considered depending upon the announcements made in the Budget 2020 and the tax applicable on a 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 7.48 lakhs in the first year to INR 18.19 lakhs in Year 10.

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 shift	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)	88.45	94.35	100.25	106.14	112.04	117.94	117.94	117.94	117.94	117.94				
B. Cost of Production :														
1. Utilities Power (Fixed + Variable)	3.42	3.61	3.80	3.99	4.18	4.37	4.37	4.37	4.37	4.37				
2. Direct labour and wages	2.43	2.59	2.75	2.91	3.07	3.23	3.23	3.23	3.23	3.23				
3. Consumable	0.45	0.48	0.51	0.54	0.57	0.60	0.60	0.60	0.60	0.60				

Table 26: Income & Expenditure Statement

PROFIT & LOSS ACCOUNT														
Particulars Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 4 Repair and Maintenance 4.66 4.97 5.28 5.59 5.90 6.21 <t< th=""></t<>														
4. Repair and Maintenance	4.66	4.97	5.28	5.59	5.90	6.21	6.21	6.21	6.21	6.21				
5. Depreciation	32.32	27.42	23.31	19.82	16.85	14.33	12.19	10.36	8.81	7.49				
Total Cost of production	43.27	39.07	35.65	32.85	30.58	28.75	26.60	24.78	23.23	21.91				
C. Administrative expenses :														
6. Manpower (Indirect)	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47				
7. Rent	1.92	2.11	2.32	2.56	2.81	3.09	3.40	3.74	4.12	4.53				
8. Insurance	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
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	10.06	10.25	10.46	10.69	10.95	11.23	11.54	11.88	12.25	12.66				
D. Financial expenses :														
10. Interest on Working capital loan @ 11% per annum	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66				
Total Financial Expenses	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66				
E. Total Expenses B+C+D	53.99	49.98	46.77	44.21	42.19	40.64	38.80	37.32	36.14	35.23				
F. Profit A - E	34.46	44.37	53.47	61.94	69.85	77.30	79.14	80.62	81.80	82.70				
G. P&P Expenses written off	0.48	0.48	0.48	0.48	0.48	0.00	0.00	0.00	0.00	0.00				
H. Income before Tax (F-G)	33.98	43.89	52.99	61.46	69.37	77.30	79.14	80.62	81.80	82.70				
I. Adjustment of Loss	-	-	-	-	-	-	-	-	-	-				
J. Income Tax (@22% for company)	7.48	9.66	11.66	13.52	15.26	17.01	17.41	17.74	17.99	18.19				
K. Net Profit /Loss for the year	26.51	34.24	41.33	47.94	54.11	60.29	61.73	62.88	63.80	64.51				
L. Cumulative Surplus	26.51	60.74	102.08	150.01	204.12	264.42	326.14	389.02	452.83	517.33				

(INR In Lakh)

As evident from the table above, the project is financially viable. A cumulative surplus of about INR 517.33 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

										(INR	in Lakh)
		CAS	H FLOW S	STATEME	NT						
Particulars	Constructio n Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
A. Source Funds :											
1. Cash Accruals (Net Profit + Interest Paid)		35.1 2	45.03	54.13	62.60	70.51	77.96	79.80	81.28	82.46	83.36
2. Increase in capital	40.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Depreciation		32.3 2	27.42	23.31	19.82	16.85	14.33	12.19	10.36	8.81	7.49
4. Increase in WC Loan		6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Change in Expenses Payable		1.22	0.05	0.05	0.05	0.05	0.06	0.03	0.03	0.03	0.03
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	220.41	74.6 6	72.50	77.49	82.47	87.42	92.35	92.01	91.67	91.30	90.89
B. Use of Funds :											
1. P&P Expenses	2.40	-	-	-	-	-	-	-	-	-	-

Table 27: Cash Flow Statement

CASH FLOW STATEMENT														
Particulars	Constructio n Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10			
2. Increase in fixed assets	215.58	-	-	-	-	-	-	-	-	-	-			
3. Increase in other Assets	2.43	0.48	0.57	0.58	0.58	0.59	0.59	0.08	0.09	0.09	0.10			
4. Increase in Sundry Debtors		7.37	0.49	0.49	0.49	0.49	0.49	0.00	0.00	0.00	0.00			
5. Interest		0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66			
6. Taxation		7.48	9.66	11.66	13.52	15.26	17.01	17.41	17.74	17.99	18.19			
Total Use of Funds	220.41	15.9 9	11.38	13.39	15.25	17.00	18.75	18.15	18.48	18.75	18.96			
		50.6												
C. Net Surplus (A -B)		58.6 8	61.12	64.11	67.22	70.42	73.60	73.86	73.19	72.55	71.93			
D. Cumulative Surplus		58.6 8	11 <mark>9.8</mark> 0	183.9 0	251.1 2	321.5 4	395.1 4	469.0 0	542.1 9	614.7 4	68 <mark>6.6</mark> 7			

(INR in Lakh)

The cash flow statement showcases the available net surplus for 10 years of the CFC operations. As most of the capital expenditure is being supported as grant under the 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 with regard to 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 28: Balance Sheet

PROJECTED BALANCE SHEET At the end Particulars Year 1 Year 2 Year 5 Year 10 of impl. Year 3 Year 4 Year 6 Year 7 Year 8 Year 9 Period 1. Fixed Assets : 132.53 183.26 155.84 95.85 69.34 58.97 Gross Block 215.58 215.58 112.71 81.52 50.16 Less : Depreciation (WDV) 32.32 27.42 23.31 19.82 16.85 14.33 7.49 12.19 10.36 8.81 215.58 183.26 155.84 132.53 112.71 95.85 81.52 69.34 58.97 Net Block 50.16 42.67 215.58 183.26 155.84 132.53 81.52 69.34 58.97 Total Fixed Assets (A) 112.71 95.85 50.16 42.67 2. Current Assets : Cash & bank Surplus (B.F) 58.68 119.80 183.90 251.12 321.54 395.14 469.00 542.19 614.74 686.67 7.86 Sundry Debtors 7.37 8.35 8.85 9.34 9.83 9.83 9.83 9.83 9.83 2.96 3.48 5.05 5.05 Margin Money for WC Loan 2.43 2.43 4.00 4.53 5.05 5.05 5.05 0.53 0.58 0.94 Other Current Assets 0.48 0.64 0.70 0.77 0.85 1.03 1.13 1.92 1.44 0.96 0.48 0.00 0.00 P&P Exp 2.40 0.00 0.00 0.00 0.00 Total current Assets (B) 70.88 132.58 197.28 265.09 336.11 410.79 484.73 558.00 630.64 702.68 Total Assets (A+B) 288.43 329.81 492.31 220.41 254.14 377.80 431.96 554.06 616.97 680.80 745.35 3. Current Liabilities : 6.00 6.00 Working Capital Loan 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00 1.22 1.27 Expenses Payable 1.32 1.37 1.43 1.48 1.51 1.53 1.57 1.60 7.22 7.27 7.32 Total Current Liabilities (C) 7.37 7.43 7.48 7.51 7.53 7.57 7.60

(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			
4. Fixed Liabilities														
Shareholders' Contribution	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41	40.41			
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		26.51	60.74	102.08	150.01	204.12	264.42	326.14	389.02	452.83	517.33			
Total Fixed Liabilities (D)	220.41	246.92	281.16	322.49	370.43	424.54	484.83	546.56	609.44	673.24	737.75			
Total Liabilities (C+D)	220.41	254.14	288.43	329.81	377.80	431.96	492.31	554.06	616.97	680.80	745.35			

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. From this point, a 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 29: Break-even Estimates

									(INF	≀ 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	88.45	94.35	100.25	106.14	112.04	117.94	117.94	117.94	117.94	117.94				
B. Variable costs														

(Rs in lakh)

BREAKEVEN POINT AT VARIOUS C.U. Particulars Vear 1 Vear 2 Vear 4 Vear 5 Vear 7 Vear 9 Vear 10														
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%				
Consumables	0.45	0.48	0.51	0.54	0.57	0.60	0.60	0.60	0.60	0.60				
Utilities (Power- variable charge)	2.84	3.03	3.22	3.41	3.60	3.79	3.79	3.79	3.79	3.79				
Interest on WC Loan	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66				
Repair & Maintenance	4.66	4.97	5.28	5.59	5.90	6.21	6.21	6.21	6.21	6.21				
Manpower (Direct)	2.43	2.59	2.75	2.91	3.07	3.23	3.23	3.23	3.23	3.23				
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)	11.04	11.73	12.42	13.11	13.81	14.50	14.50	14.50	14.50	14.50				
C. Contribution (A-B)	77.41	82.62	87.82	93.03	98.23	103.44	103.44	103.44	103.44	103.44				
D. Fixed Overheads (Cash)														
Manpower (Indirect)	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47				
Utilities (Power - fixed charges)	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58				
Rent	1.92	2.11	2.32	2.56	2.81	3.09	3.40	3.74	4.12	4.53				
Insurance	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
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)	10.10	10.29	10.50	10.73	10.99	11.27	11.58	11.92	12.29	12.70				
E. Fixed Overheads (Non-cash)														
Depreciation	32.32	27.42	23.31	19.82	16.85	14.33	12.19	10.36	8.81	7.49				
Preliminary & Pre-operative expenses written off	0.48	0.48	0.48	0.48	0.48	0.00	0.00	0.00	0.00	0.00				
Sub-total (E)	32.80	27.90	23.79	20.30	17.33	14.33	12.19	10.36	8.81	7.49				

(INR In Lakh)
									•	
		BREAKE	EN POINT	TAT VARI	OUS 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%
F. Total Fixed Overheads (D+E)	42.89	38.19	34.29	31.03	28.32	25.60	23.76	22.28	21.10	20.20
Break even point (F/C)	55.40%	46.22%	39.05%	33.36%	28.83%	24.75%	22.97%	21.54%	20.40%	19.52%

Book break-even is achieved at 55.40% (of operational capacity at 75 percent), 46.22% (of operational capacity at 80 percent), 39.05% (of operational capacity at 85 percent), 33.36% (of operational capacity at 90 percent), 28.83% (of operational capacity at 95 percent) and at 24.75% (of operational capacity at 100 percent). The operation of the CFC is expected to break-even and realize profit from 1st year of operations. Therefore, very low risk is involved in the project.

Moreover, the SPV members have the potential to run the facility for longer than one shift resulting in enhanced capacity utilization and generation of more revenues. In that case, project will break even earlier than estimated. Additionally, the approach has been to develop projections based upon conservative estimates (costs on a higher side and user charge/ revenues on a lower side) whereas, in real the revenues may be far higher.

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.

	FEASIBILITY	
S. No.	Particulars	Estimates
1	BEP (cash BEP at initial operating capacity of 75%)	55.40%
2	Av. ROCE (PAT/CE)	30.39%
3	Internal Rate of Return (IRR)	27.11%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoH	NPV is positive and high (INR 195.71 lacs) at a conservative project life of 10 years
5	Payback period	4.5 years with Grant-in-aid assistance from GOH
6	DSCR	Not Applicable (non-availment of term loan in this project)

Table 30: Financial Analysis

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

			RETURN	ON CAPITA	L EMPLOY	ED (ROCE)				
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	AVERAGE
Earning Before Interest and Tax (EBIT)	34.64	44.55	53.65	62.12	70.03	77.96	79.80	81.28	82.46	83.36	66.98
Capital Employed (with grant)	220.41	220.41	220.41	220.41	220.41	220.41	220.41	220.41	220.41	220.41	220.41
ROCE = EBIT/Captial Employed											
ROCE	15.72%	20.21%	24%	28.18%	31.77%	35.37%	36.20%	36.88%	37.41%	37.82%	30.39%

Table 31: Calculation of Return on Capital Employed

The average value of ROCE (with grant-in-aid) is 30.39%. This indicates the high techno-economic viability of the project should the government contribute a significant portion of the project cost as grant.

The Net Present Value is estimated at a discount rate of 10%. However, as reflected from the high values of NPV, it is positive at even 10.0%, the rate at which bank offers debt capital facility and even at higher discount rates. Project IRR is high at over 27.11% (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 the furniture industry 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; for instance, in terms of pursuing several joint efforts, registering the SPV, proceeding towards procurement of building, 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 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:

S. No.	Particulars	Base case	With 10% decline in user charge	With 15% decline in user charge	With 5% decline in user charge
1	BEP (cash BEP at operating capacity of 75%)	55.40%	62.55%	66.75%	58.76%
2	Internal Rate of Return (IRR)	27.11%	23.15%	21.01%	25.16%
3	Av. ROCE (PAT/CE) (with Grant)	30.39%	25.53%	22.98%	27.96%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) GoH	195.71	145.48	119.90	170.59

Table 32: Sensitivity Analysi	Table 32	Sensitivity	Analysis
-------------------------------	----------	-------------	----------

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

6.14 Assumption for financial calculations

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

- 1. The total project cost is pegged @ INR 220.41 Lakhs on the basis of estimates and quotations.
- 2. To finance the project, a total of INR 220.41 Lakhs is required. The financing will consist of grant from Government to 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 Project Steering Committee under Mint-Cluster Development Scheme. The financial projections thereafter are prepared for 10 years of operation starting 2021.
- 4. The Registered SPV will manage 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 a nine-hour single shift basis. Operation on single shift basis is assumed for purposes of projecting income estimates.
- Capacity utilization is assumed at 75% in the first year; 80% for second, 85% for third, 90% for fourth, 95% for fifth year and 100% thereafter. Machines will operate for 1 shift.
- 7. The workings about 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 are provided @ 3% of plant and machinery cost at varying capacity utilization.
- 9. Insurance is provided @ 0.5% on fixed assets including building, machinery, contingency as fixed cost at all capacity utilization.
- 10. Electricity connection required for the CFC shall cost at INR 1100 as security deposit and INR 2000 as service charge per kW connected load as per the regulatory norms in Haryana.
- 11. Fixed charges per kW of electric connection shall be charged @ INR 175 and variable charges @ INR 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. Provision for income tax has been made @ 22% including surcharge. This is the rate prescribed for Private Limited Companies as per the recent Budget 2019.
- 15. Profitability estimates in terms of ROCE, NPV, 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 time frame of about 7 months upon receipt of final approval of grant-in-aid assistance from the Government of Haryana under mini cluster development scheme.
- 2. User Base: The facilities may be used by SPV members and non-members. However, the charges will vary. The SPV will also be open for new entrants subject to them subscribing to the shareholding of the SPV, and them being genuinely pro-active and interested in cluster initiatives. The governing body 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 7 months involves several activities. The schedule is elaborated in the table below:

Activity/Month	1	2	3	4	5	6	7
Collecting Contribution from SPV members							
Receipt of final sanction from GoH							
Building on lease in the name of SPV							
Refurbishment of Building							
Formation of purchase committee							
Inviting E tenders for purchase of machines							
Obtaining statutory clearances and approvals							
Purchase of machinery and equipment							
Installation and trial run of machinery and equipment							
Arrangement of working capital							
Monitoring of the project by governing body							
Monitoring of the project by PMC							
Commencement of operations of the facility							

Table 33: Project Implementation Schedule

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 13 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 and Articles of Association of Registered Company: MOA, AOA and bye laws are indicative of the management and decision-making structure of the SPV. All the members of SPV have paid an advance and are members of the Registered Company. Few other units are also willing to be members of the SPV and once the CFC is approved and sanctioned from government of Haryana, many more members will be interested to subscribe to the shares of the SPV.
- 6. Availability of Building & Status of Acquisitions: A building will be leased by the SPV for the proposed CFC at Village adhoun, Kurukshetra district. A building of area 1800 sq. ft has already been identified by the SPV and a letter establishing the proof of availability of the building has been acquired and attached in *Annexure 4*
- 7. Availability of Requisite Clearances: A building with all required clearances will be leased by the SPV. Electricity is already available in the area and the proposed CFC can easily be connected to the grid. The other required clearances (environment, labor etc.) 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 enough 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:

- 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 members of the SLSC comprise of the following members:

- i. Secretary Industries & Commerce (Chairman)
- ii. Director General, MSME, Government of Haryana

- iii. Director, MSME-DI, Karnal
- iv. Concerned Joint Director/Deputy Director, Department of MSME, Govt. of Haryana
- v. Directors of related SPV
- vi. EY Cluster Development Expert under MSME project

In addition, for implementing the Kurukshetra Sheet Metal Cluster CFC project, a Project Management Committee (PMC) comprising the GM, DIC, Kurukshetra, 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 the State Level Steering Committee and DIC Kurukshetra.

Conclusion



8. Conclusion

The micro sheet metal fabrication units of Kurukshetra 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 units do not have these machines and hence are unable to cater the market demand and deliver quality agricultural implements.

Against this backdrop, it is inevitable to support the micro units in Kurukshetra to adopt modern cutting facilities. This will reduce their processing costs significantly while increasing the quality of their products.

The future of sheet metal fabrication industry is bright due to increase in demand of sheet metal products. 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 products. 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:

► Hi-tech Fibre Laser Cutting Facility

The total project cost (including plant/machinery and buildings) is estimated to be INR 220.41 Lakhs. The project shall be implemented by the SPV 'MKV Enterprises Private Limited which has been constituted by the cluster firms.

The CFC will be set up with support from DIC and the state government (Directorate of MSME) under PPP mode. The building for the project has already been identified by the SPV and shall be acquired on a lease basis upon in final approval by State Government. The state government is envisaged to provide grant for setting up of the modern machines under the Mini Cluster Development scheme, Haryana EPP 2015. The SPV members have proposed to contribute INR 40.41 lakhs of the project cost. Support from the State Mini Cluster Development Scheme of Government of Haryana is envisaged for INR 180.00 lakh. The project is financially viable and is expected to generate enough revenue to ensure its sustainability.

Annexures



9. Annexures

Annexure 1: DSR Approval Letter

Front 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/ Sheet Metal Fabrication/KKR/Ie Dated Chandigarh, the 12-11-302= Regarding conducting Detailed Project Report (DPR) in case of Sheet Metal Fabrication Cluster at Kurukshetra under the State Mini Cluster Subject:-Development Scheme, This is in reference to the subject noted above. in this connection, it is informed that the Diagnostic Study Report (DSR) in case of Sheet Metal Fabrication Cluster at Kurukshetra under State Mini Cluster Development Scheme has been approved by the Director General, MSME, Haryana on 11.11.2020. You are, therefore, requested to prepare the Detailed Project Regort (DPR) for the above said mini cluster. J.H. Additional Director (Cluster) for Director General, MSME, Haryana Dated:- 12-11-2020 Endst. No. Cluster/ Sheet Metal Fabrication/KKR/19 A copy of the above is forwarded to the SPV of the Kurukshetra, M.K.V. Industries Jhansa Road, Kurukshetra, 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: manisaini00001@gmail.com .24.41 Additional Director (Cluster) for Director General, MSME, Haryana Dated: 12. 11. 2020 Endst. No. Mini Cluster/ Sheet Metal Fabrication/KKR/13 A copy of the above is forwarded to Deputy Director, District Industries Centre, Kurukshetra for information and further necessary action. Additional Director (Cluster) for Director General, MSME, Haryana

Annexure 2: SPV Registration Certificate

TRUT	
सत्वमेव जयते	
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 Compa- rule 18 of the Companies (Incorporation) Rules, 2014)	nnies Act, 2013 (18 of 2013) and]
I hereby certify that MKV ENTERPRISES PRIVATE LIMITED is incorporated on th Two thousand twenty under the Companies Act, 2013 (18 of 2013) and that the compa	is Nineteenth day of November my is limited by shares.
The Corporate Identity Number of the company is U28999HR2020PTC091024.	
The Permanent Account Number (PAN) of the company is AAOCM0392A *	
The Tax Deduction and Collection Account Number (TAN) of the company is RTKM	13721B ·
Given under my hand at Manesar this Twentieth day of November Two thousand twer	ity .
	Digital Signature Certificat
	Ms. Susmithaa Selvara
For and on behalf of the Juris	dictional Registrar of Companie
	Registrar of Companie
	Central Registration Centr
Disclaimer: This certificate only evidences incorporation of the company on the basi of the applicant(s). This certificate is neither a license nor permission to conduct bus from public. Permission of sector regulator is necessary wherever required. Registrati company can be verified on <u>www.mca.gov.in</u>	is of documents and declaration iness or solicit deposits or fund on status and other details of th
Mailing Address as per record available in Registrar of Companies office:	
MKV ENTERPRISES PRIVATE LIMITED	and the second
SHOP NO. 644, WARD NO. 1, JHANSA ROAD, KURUKSHETRA.	
Kurukshetra, Haryana, India, 136118	
* as issued by the Income Tax Department	

Annexure 2 (a): Memorandum of Association (MoA)

(Pursuant to Schedule I (see se the Companies Act, 2013) FOR	ections 4 and 5) to M NO. INC-33	
		SPICe+MOA
		(e-Memorandum of Association)
Table applicable to company a	as notified under schedule I of the co	ompanies Act, 2013 A
Table A- MEMORANDUM OF ASS	OCIATION OF A COMPANY LIMITED	BY SHARES
1. The Name of the Company is	MKV ENTERPRISES PRIVATE LIMI	TED
2. The Registered office of the comp	pany will be situated in the state of	Haryana-HR
3.(a)The objects to be pursued by t	he company on its incorporation are	
Antiset CFC) and being inhabited and industry/concerned stake holders folk Bovernment of Haryana. 2. To undertake works/scheme/program suf/conduct soft and hard intervention a 3. To act as a resource center for fabrication Industry under for Stat 4. To make available raw and packin of raw and packing material bank. 5. To arrange latest technology for upgi certificate to its members. 5. To render assistance and encours Manufacturing industry. 7. To undertake and to do trading, man Fabrication products and research wori 6. To conduct training center programs	advertises for order when Pathcasters I wing the guidelines and notifications I as of Government relating to growth and o activities under for State Mini Cluster Development and Hand holding support for the purpose to Mini Cluster Development Scheme u marking all manufacturing units to provide (agement as may be necessary to per- ufacturing, import, export of all type of She is nonnection with development of Shee Seminars.	tor State Mini Cluster Development Scheme under development of Sheet Metal Fabrication Industry and carry elopment Scheme under Government of Haryana. k as Business development Services related to e of growth and development of the Sheet Metal inder Government of Haryana. Netal Fabrication Industry at competitive rates by opening Quality sons engaged in Sheet Metal Fabrication and/or wet Metal t Metal Fabrication Industry.
3.(b)Matters which are necessary f	or furtherance of the objects specifie	id in clause 3(a) are
 To receipt of contract amount in fore 	aign currencies & repatriate the amount o	ut side india
(2) To do all or any of the acts or thing n conjunction with others.	s as mentioned in the main objects either	as principals, contractors or otherwise and either alone or
(3) To pay all costs, charges and expension establishment and advertisement of the by the Company.	nses incurred or sustained in or about the Company or which the Company shall o	e formation, registration, promotion, incorporation, onsider to be preliminary including contracts entered into
4) To enter into contracts or arrangem and also to enter into any arrangement nain objects of the Company.	ents or other dealings for more efficient o with any Government or Authorities or an	conduct of the business of the Company or any part thereof by persons or companies that may seem conducive to the
(5) To buy, sell, repair, alter, improve, e apparatus, products, materialis technica Company.	exchange, let on hire, import, export and d il collaboration and necessary formulas a	teal in all works, plant, machinery, tools, appliances, nd patent rights for furthering the main objects of the

Page 1 of 4

(6) 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 otherwise required for or incidental to carrying out the objectives of the Company.
(8) To recruit, train and develop staff, organize seminars, training programs and conferences for employees, customers and the general public.
(9) 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, from or other person, particularly where such companies, firms or persons are engaged in any business related to the business of the Company.

(10) To employ, engage, appoint, retain or otherwise procure, suspend or terminate the services of professionalis, 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.

(11) 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.

(12) To adopt such means of making known the articles, goods, products, appliances produced 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.

(13) To acquire, and possess the whole or part of the business assets, property, goodwill, rights and itabilities of any persons, society, association or company carrying on any business.

(14) To appoint dealers, sub-dealers, agents, sub-agents, distributors, sole selling agents, sole concessionaries, 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 carry on research and development activities on all aspects related to the business and objects of the Company.

(17) To acquire from any person, firm or body corporate, whether in India or elsewhere, technical information, know -how, processes, engineering, and operating data, plans, lay-outs and blue-prints useful for the design, 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.

(18) To develop and/or furnish to any person, firm or body corporate whether in India or elsewhere, technical information, know-how, processes, engineering and operation of plant and blue-prints useful for the design, eroction 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 installments or fees or royalises or through any other arrangement.

(19) 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.

(20) To apply for, purchase or otherwise acquire brand namesiservice marks for the products produced and the services 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.

(21) 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.

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

(23) 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 affliate of the Company, or who is or was at any time a director of the Company or of any such other company as atomisaid and the spouse, family and dependents of any such person.

(24) 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.

ospitals and dispensaries, medical and other assistance as the Company may think fit.

Page 2 of 4

(26) To purchas moveable or imm	e, take on lease, e noveable property	ixchange, mortgage, ch including lands, buildin	arge, hypothecate, gs, and flats of any	encumber, hire or otherwis description in India or elsev	e acquire or dispese of any where.
4.The liability of them.	of the member(s) is limited and this li	ability is limited to	o the amount unpaid, if	any, on the shares held by
5.The share ca	pital of the comp	pany is 1,000,0	00.00		rupees, divided into,
	90	Barrowser	Carrow	Enterior and	8

 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):

5.No.			Subscriber Details				
	Name, Addreis, Descripti	DIN/PAN/Pessport Number	No. of s taken	shares	DSC	Dated	
1	NAME - RAW DATT FATHER'S NAME - MR RAM SINGH ADDRESS - VILLAGE BHWANI KHERA, TEHSE DHANESAR , DISTRICT KURUKSHETRA (HARYANA)- USE118, DECUPATION - BUSINESS		ME- RAM DATT FATHER'S NAME - MR. RAM SINGPALQPDS183Q 5,000 E DRESS- VILLAGE BH/WANI KHERA, TEHSE		DAT		19/11/20
				Preference		T THE	
2	SAME MANISH SANI FATHER'S NAME MR. IAMDUTT SANI ADDRESS - VILLAGE BHWANI KHENA,		PSLPSW926P	5,660	Equity	MANI T	19/11/20
	HARYANA)-116118, OCC			Protoronce	SAINI		
				10,000.0	Equity		
	То	tal Sharea taken			Preference		
6		5	igned before Me				
Name		Address, Descripti	ion and Occupation	DIN/P Numb Memb	AN/Passpo ser/ sership ser	et DSC	Dated
FCA	AJAY MONDA	FONGA P1758/E, JYOTI NAGAR, KURUSHETRA-136 ITE (NARYANA), INDIA OECUPATION - CA WITNESS TO SUBSCRIBER/ SUBSCRIBER(S), WHO HAS/HAVE		51157)	D	AJAY 100 MON 201 GA 100	19/11/20

в

Annexure 2(b): Article of Association (AoA)

[Pu the	rsua Con	nt to S ipanie	Schedule I (see Sections 4 and 5) to as Act, 2013)] FORM NO. INC-34	(e-Articles of Association)					
*Tabl	le F	25	notified under schedule I of the companies Act, 2013 is appl	icable to the company					
			MKV ENTERPRISES PRIVATE LI	MITED					
1			A COMPANY LIMITED BY SHAI	RES					
Che ck if not appl icab le	Che ck if alter ed	Articl e No							
			Interpretati	on					
		ī	 (1) In these regulations → (a) "Company" means M/s MKV ENTERPRISES PRIV/ (b) "Office" means the Registered Office of the Companies (c) "Act", means the Companies Act, 2013 and any station (d) "The Seal" means the Common Seal of The Company and Directors" means the Directors of the Company and Directors by whatever names called. (2) Unless the context otherwise requires, words or expressisame meaning as in the Act or any statutory modification the become binding on the company. (3) The Company is a Private Company within the meaning accordingly: (i) The right to transfer shares in the Company is restricted i appearing; (ii) The number of members of the Company (exclusive of prompany, and persons who having been formerly in the employment and have continued to be limited to two hundred; provided that for the purpose of this cone or more shares in the Company, the shall, be treated as (iii) prohibits any invitation to the public to subscribe for any 	ATE LIMITED ty. sutory modifications thereof. my. d includes persons occupying the position of the ons contained in these regulations shall bear the ereof in force at the date at which these regulation of Section 2(68) of the Companies Act, 2013, and in the manner and to the extent hereinafter versons who are in the employment of the ployment of the Company, were members of the embers after the employment ceased) shall be definition where two or more persons jointly hold a single member, and, securities of the company;					
			Share capital and varia	ation of rights					
		II. 1.	Subject to the provisions of the Act and these Articles, the si the control of the Directors who may issue, allot or otherwise persons, in such proportion and on such terms and condition time as they may from time to time think fit. (a) The Authorised Share Capital of the Company shall be si may, from time to time, be provided in Clause V of the Memo reduce the capital in accordance with the Company?s regula in force in that behalf with the powers to divide the share cap several classes an d attach thereto respectively such ordinal such a manner as may for the time being be provided by the (b) The minimum paid up Capital of the Company shall be I	hares in the capital of the company shall be under a dispose of the same or any of them to such as and either at a premium or at par and at such uch amounts and be divided into such shares as orandum of Association, with power to increase or ations and legislative provisions for the time being pital, whether original increased or decreased into ry, preferential or special rights and conditions in Regulations of the Company and allowed by law. Rs. 1,00,000/-(Rupees One Lakhs)					
		2	 (i) Every person whose name is entered as a member in the within two months after incorporation, in case of subscribers one month after the application for the registration of transfe conditions of issue shall be provided,- (a) one certificate for all his shares without payment (b) several certificates, each for one or more of his s certificate after the first. (ii) Every certificate shall be under the seal and shall specify 	register of members shall be entitled to receive to the memorandum or after allotment or within r or transmission or within such other period as the of any charges; or shares, upon payment of twenty rupees for each the shares to which it relates and the amount					

8		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 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 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.
 -	-	

	17	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 ca duly made and notified. 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
	lu .	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 (i) The instrument of transfer of any share in the company shall be executed by or on behalf of both the
	19	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	(a) the board may, subject to the right of appear conferred by section be 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	(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 thereunde 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 nomined 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, upo 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 have

		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 delive 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.
	1	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.

	3	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,
	36	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. (i) Whenever such a resolution as aforesaid shall have been passed, the Board shall-
	39	 (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; (ii) 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.
	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 b Chairperson of the meeting.
	38 	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 capita 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.
Γ.		Proxy
	65	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.
	58	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 a 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. RAM DATT 2. MANISH SAINI
	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 traveling, 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 numbe 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, shal notwithstanding that it may be afterwards discovered that there was some defect in the appointment of any on or more of such directors or of any person acting as aforesaid, or that they or any of them were disqualified, be as used as if each or use such directors or of any person acting as aforesaid.

	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.
1		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 purpos 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 whereo 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	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, the registered address of that one of the joint holders who is first named on the register of members, or to success 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 othe 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 Art

	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.
	1	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 favor or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.
×		Others
	89	Directions issued by the RBI the directors may, from time to time, raise or borrow any sums of money for and on behalf of the Company from the member or other persons, companies or banks or they may themselves advance money to the company on such interest as may be approved by the Directors. b) The Directors may, from time to time, secure the payment of such money in such manner and upon such terms and conditions in all respects as they deem fit and in particular by the issue of bonds or debentures or b pledge, mortgage, charge or any other security on all or any properties of the Company (both present and future) including its uncalled capital for the time being. OPERATION OF BANK ACCOUNTS The Directors shall have the power to open bank accounts to sign cheques on behalf of the Company and to operate all banking accounts of the Company and to receive payments, make endorsements, draw and accept negotiable instruments, hundies and bills or may authorise any other person or persons to exercise such powers. AUDIT (a) The first Auditor of the Company shall be appointed by the Board of Directors within one month from the date of registration of the Company and the Auditors so appointed shall hold office until the conclusion of the Keeting till the conclusion of its sixth Annual General Meeting and thereafter till the conclusion of the Meeting till the conclusion of its sixth Annual General Meeting and thereafter till the conclusion of the Meeting till the conclusion of its sixth Annual General Meeting may determine. In case of an Auditor appointed by the Board his remuneration shall be fixed by the Board. SECRECY Subject to the provisions of law of land and the act, every manager, auditor trustee, member of a committee, officer servarit, agent accountant or other persons employed in the business of the company shall, if so required by the Board of Directors before entering upon his duties, sign, declaration, pledging himself to observe sticl secrecy respecting all transactions of the Company

PRIVATE COMPANY The Company is a Drivele Company within the pression of Section 2/69) of the Company's Act 2012 and
The Company is a Private Company within the meaning of Section 2(06) of the Companies Act, 2013 and accordingly -
(a) No invitation shall be issued to the public to subscribe for any securities of the company.
(b) The number of members of the Company (exclusive of persons who are in the employment of the Company and 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 is limited to 200 (Two hundred) provided that for the purposes of this definition, where two or more persons jointly hold one or more shares in the Company, they shall be treated as a single member and; (c) The right to transfer the shares in the Company is restricted in the manner and to the extent hereinafter appeariant.
 (d) Prohibits any invitation or acceptance of deposits from Persons other than its members, directors or their relatives.

- îî			Subscriber Details	\$			
S. NO	Name, Address, Descri	ption and Occupation	DIN/PAN/Passpo Number	rt Plac	e	DSC	Dated
1	NAME:- RAM DATT FAT SINGH ADDRESS:- VI TEHSIL THANESAR , I (HARYANA)- 136118, OC	HER'S NAME :- MR. RAM LLAGE BHIWANI KHERA, DISTRICT KURUKSHETRA CUPATION :- BUSINESS	ALQPD5183Q KURUKSHETRA		RAM DISSIDI	19/11/2020	
2	NAME:- MANISH SAINI RAMDUTT SAINI ADDR KHERA, TEHSIL THAN KURUKSHETRA (HA OCCUPATION :- BUSINESS	FATHER'S NAME - MR. ESS VILLAGE BHIWANI NESAR DISTRICT ARYANA)- 136118,	FSLPS8926P	KURUKSHE	KURUKSHETRA		19/11/2020
		S	igned Before Me				
	Name	Address, Description	and Occupation	DIN/PAN/ Passport Number/ Membership Number	Place	DSC	Dated
FC	AJAY MONGA A	#1758/6, JYOTI NAGAR	I, KURUKSHETRA	11570	KURUKS HETRA	AJAY MON GA	19/11/2020

Annexure 3: Verification of units by DIC, Kurukshetra

From Assistant Director Officiating Deputy Director District Industries Centre, Kurukshetra To The Director of Industries & Commerce, Haryana (Cluster), Chandigarh Memo no. DIC/KKR/Cluster/ 1164 Dated. 11 .09.2020 Subject:-Application for assistance under Mini Cluster Scheme of Steel Fabrication for Kurukshetra. Kindly refer in reference to Notification dated 10.06.2016 on the above cited subject. In this connection, it is informed that the list of 13 units received vide letter refer above, all 13 units falls in blocks thanesar &Ismilabad of district Kurukshetra. The units (List attached) pertains to this district are visited and found in working. As per notification dated 10-06-2016 the Steel Fabrication units fulfill the eligibility of Mini Cluster & recommended for setting up Mini Cluster. This is for your information and further necessary action please. 0 Assistant Director Encls: As above Officiating Deputy Director District Industries Centre. Kurukshetra L

CN	Cantast		List of V	Members for sh	eet metal fabricatio	on cler kurukel	hotro	
·	Person	Company/Firms/ Units/Proprietor /Name	Contact No.	Address of Unit	UAM No & GST NO	Products	Last year turnover	P/M Investment
1.	Mr. Manish	M.K.V industries	7027022122	Jhansa road Kurukshetra	06FSLPS8926P1Z1 HR11A0005765	Mfrs. of Fume Hood, Lab Table & hydraulic machinery	4500000.00 31-3-2020	360800.00
2.	Mr. Ramdutt	R.D. INDUSTRIES	7015274830	Jhansa road Kurukshetra	HR11A0005266	Mfrs. of industrial shed & other iron equipment.	3000000.00 (31-3-2020	478500.00
5	Mr. Powan kumar	SAINI SCALES	9812031601	Saini colony jhansa road kurukshetrsa	Hr11b0002948	Mfrs. of weighing scales & weighbridge	5000000.00 31-3-2020	1200000.00
4	Mr. jugnu goyal	KAMLA ENGG WORKS	9991209420	ISMAILABAD KURUKSHETRA	HR11A0001538	Mfrs. of industrial shed & other iron equipment.	8000000.00 31-3-2020	700000.00
5.	Mrs. anjana rani	AL-MACK AGRI SOLUTION	7404187870	HISAR AMBALA ROAD ISMILABAD KURUKSHETRA	06CCVPR9994K1Z5	Mfrs. of industrial shed & automatic rolling shutter	68518500.13 31-3-2020	458000.00
6.	Mrs. sudesh rani	L.P ENTERPRISES	9466218115	NARKATARI KURUKSHETRA	06ASCPR2390G1ZQ	Steel fabrication & plastic bottles	4560000.00 31-3-2020	670000.00
7.	Mr. chander mohan arora	ARJUN INDUSTRIES	8950502590	KHERI BRAHMAN SALARPUR ROAD KURUKSHETRA	HR110001544	Mfrs. of industrial shed & other iron	5000000.00 31-3-2020	550000.00
B./	Mr. Rajat saini	GURUNANK ENGG WORKS	9896472756	JHANSA ROAD KURUKSHETRA	HR11A0005766	Mfrs. of cooler body &gate grill.	1096859.00	409662.50
	Mr. lovekesh jangra	LOVEKESH JANGRA ENGG WORKS	7876718227	Jhansa road Thanaser kurukshetra	HR11A0002779	Mfrs. of tractor bumper other	3500000.00 31-3-2020	156040.00
0.	Mr. kamaljeet singh	Gurunanak engineering Woorks	9588731118	Vill kirmach kurukshetra 136118	HR11A0005767	Mfrs. of trolley gate grill.	3550000.00 31-3-2020	340000.00
1.	Mr. sunil kumar	SAINI AGRICULTURE	8813861644	JHANSA ROAD KURUKSHETRA	HR11A0005790	Mfrs. of school furniture & hospital furniture	2660000.00 31-03-2020	290000.00

List of V Members for sheet metal fabrication cl. .er, kurukshetra

S.N	Contact Person	Company/Firms/ Units/Proprietor /Name	Contact No.	Address of Unit	UAM No & GST NO	Products	Last year turnover	P/M Investment
12.	Mr. Jitender	Azad trading company	9812056516	Bhawani khera near patrol pump Jhansa road kurukshetra	06CLYPK6803J1Z1	Steel fabrication & plastic bottles manufacturer	3550000.00 31-3-2020	145000.00
13.	Mr. pardeep kumar	AKASH ENGG. WORKS	8529972562	VILL. JYOTISAR PEHOWA ROAD KKR	HR11A0005792	Mfrs. of hospital furniture and steel door.	18478500.00 31-3-2020	365471.00

Deputy Director Distt. Industries Centre KURUKSHETRA 4

Annexure 4: Building availability proof

20th nov., 2020 To,

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

Subject: Regarding building lease for Centre of sheet metal fabrication Cluster, Kurukshetra

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 I, Amrik singh S/o Sh. Jarnail singh am willing to provide my building at village adhoun, district Kurukshetra on a 10 years irrevocable lease to the Centre of sheet metal fabrication 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 1800 square feet and shall be provided on a lease basis with rent of Rs. 16,000 per month for the first year, with a standard annual increase as per the market norms.

Yours sincerely,

Name: Amrik singh S/o Sh. Jarnail singh

Signature: 34

Address: Village adhoun , District-Kurukshetra, Haryana

Annexure 5: Machinery Quotations

Laser Science Services (I) Pvt. Ltd.

Bringing Tomorrow's Technology Today GSTIN: 27AAACL9602L1ZA [CIN: U 51507 MH 2004 PTC 144383] A-454, TTC Industrial Area, MIDC, Mahape, Navi Mumbai 400710 Ph.: +91-22-41553232 Fax: +91-22-27781672 / 41553240

Date: December 4th 2020

To: MKV Industries Pvt. Ltd. Kurukshetra

Sub: Quotation against requirement of 4kW Laser Cutting Machine.

Dear Sir,

With reference to above mentioned tender enquiry, we are pleased to offer you the Model FASTCUT 4000 Premium.

Hope our offer suits to your technical and commercial requirements.

Kindly feel free to contact us for any further details.

Thanking and assuring you the best of our services always.

FOR LASER SCIENCE SERVICES (I) PVT. LTD

Abhishek Singh Vice President-Sales



Laser Science Services (I) Pvt. Ltd.

Bringing Tomorrow's Technology Today GSTIN: 27AAACL9602L1ZA [CIN: U 51507 MH 2004 PTC 144383] A-454, TTC Industrial Area, MIDC, Mahape, Navi Mumbai 400710 Ph.: +91-22-41553232 Fax: +91-22-27781672 / 41553240

Quotation

To: MKV Industries Pvt. Ltd. Kurukshetra

Ref: Your requirement.

Due date: NA

Quote Ref: LS/MKV/Q-20201015

Quote Dated: December 4th 2020

Sr.	Description	Qt	Unit Price	Unit Price				
No.		у.						
1	Laser Cutting System	01	INR 1,62,00,000.00	INR 1,62,00,000.00				
	Model: FASTCUT 4000 Premium							
	 Laser Type: Fiber Laser 							
	Laser Make: IPG/Coherent							
	Laser Wavelength: 1070nm							
	Maximum Power: 4000W							
	• Acceleration: 1.5G							
	Power Consumption: 25Kw							
	 Max Speed: 90m/min for single as 	ris						
	120m/min for complex	x speed						
	 Min Linewidth: 0.15mm (for mater 	rials wi	th thickness less than 0.4	4mm), depends on the				
	sheet thickness							
	 Cutting Thickness ; MS: max 22m 	m, mas	ss production 18mm;					
	SS: max 12m	m, mas	s production 10mm;					
	 Max.Cutting Dimension: 1500*30 	00mm						
	• With Exchange Table and Cover							
	Cutting Table Mechanical Accuracy	y: ±0.	05mm					
	X,Y Repeated Positioning Precision	n : ±0.0	2mm					
	 Power Supply: Three-phase 5 wire 	s AC 38	30V±5%, 50Hz±1%					
	All Accessories like Chiller, UPS and Fu	ıme Ext	ractor are included in th	e offer.				
	Total Price FOR Kurukshetra		INR 1,62,00,	000.00+GST				
		1	1					

FOR LASER SCIENCE SERVICES (I) PVT. LTD

Abhishek Singh Vice President-Sales

www.laserscience.co.in

ISO 9001:2015 Certified

E-mail: sales@laserscience.in





Laser Science Services (I) Pvt. Ltd.



Bringing Tomorrow's Technology Today[®] GSTIN: 27AAACL9602L1ZA [CIN: U 51507 MH 2004 PTC 144383] A-454, TTC Industrial Area, MIDC, Mahape, Navi Mumbai 400710 Ph.: +91-22-41553232 Fax: +91-22-27781672 / 41553240

Note:

• **Export License:** In an event of an order, you need to provide End Use statement and letter of Certification duly typed and signed on your letter head.

Terms and Conditions

- Validity: Our offer is valid for 180 days from its date.
- **Payment:** 30% advance against Proforma Invoice 60% against delivery and rest 10% against installation.
- Delivery: 12-14 weeks from the receipt of PO, EndUse and Advance payment at our end.
- **Warranty:** 13 Months from date of delivery, or 12 months from date of acceptance. Warranty doesnot include Optical Items,fiber cable and consumable. These are covered under warranty for 90 days.

If any replacement is required under warranty, the defective part/system has to be returned to us on freight pre-paid basis and we will ship the repaired/replaced goods on freight pre-paid basis to you.

• Installation and Training: Installation and Training will be done by Laser Science Services (I) Pvt Ltd Engineer.

FOR LASER SCIENCE SERVICES (I) PVT. LTD

Abhishek Singh Vice President-Sales

ISO 9001:2015 Certified

E-mail: sales@laserscience.in

Quotation for 100 KVA IGREEN SILENT DGSET

Annexure 2: Techno-Commercial terms & conditions				
Sr. No.	Description		Unit Price (Exclusive of GST)	
1.	Supply of 10 comprising of 4K1080TA-0 1500 RPM & 415 Volts , 5 a common M Control Pane frame, I No.1 and other fea Ease of in Superior I Multicolou AMF as s (Auto Cha Kirloska	O KVA KOEL iGREEN LIQUID COOLED SILENT DG SET KOEL iGreen make LIQUID Cooled Diesel Engine model 22 (CPCB NORMS COMPLIANCE) developing 156 BHP @ 100 KVA KOEL Green make Alternator rated at 3 Phase, 10 Hz; 0.8 p.f. @ 1500 RPM both mounted, and aligned on 45 base frame complete with MS Fuel Tank Integrated 1, Residential Exhaust Silencer, AVM Pads fitted on base 2 Volts DC Battery KOEL Battery Leads, 1st fill of Lube Oil, tures like : formation: QR enabled Genset. Looks: New attractive color scheme. r Genset Status Indicator tandard design: Auto start Auto Stop (Type A panel) ingeover in customer's scope) Remote Monitoring System (KRM)	8,13,559-00	
		DNS:- Ex-works Barwala (Harvana), Friedht Extra.Transit insu	irance in customer's	
GST		account. EXTRA @18%. Any changes in GST at the time of (Dispatch will be in	
PAYM	IENT:	customer's account. 25% advance along with confirmed order and balance against performa invoice payable at Chandigarh by way of DD/Cheque payable at par prior to dispatch.		
DELIV	VERY:	4 - 5 Weeks from the date of receipt of Techno-commercially clear order.		
EREC	TION:	As the order is for supply of material, the Erection of the same including material like Earthing, Cable, Civil Work, Exhaust Pipe, etc is not our scope. However, we will undertake <u>First Commissioning Visit for the commissioning of the DG</u> <u>set will be free of cost after you complete installation work.</u>		
	IGRE	EN		
--	---	----------------------		
	#iforTomo	TON		
WARRANTY:	2 years from the date of installation or 5000 operating hours or 30 caler months from dispatch date whichever is earlier, subject to sourcing of spa consumables & services from Kirloskar Authorized Service Dealer (KOEL CA and DG set installed with proper KOEL Installation Guidelines.	ndar Ires, RE)		
VALIDITY:	30 Days.			
NOTE :	Please note that the order should be placed on M/S INDUSTR EQUIPMENTS COMPANY, BARWALA	IAL		
ORDER CANCELL Order (whichever	ATION CLAUSE: In Case of Cancellation of order, 50% advance or 10 % value of is higher) shall be deducted as cancellation charges.			
Please feel free	o contact the undersigned for any clarification.			
We look forward	for an opportunity to serve you.			
Thanking you,				
Yours faithfully,				
Raiesh Chadha -	Business Manager			
9812050509				
RTGS DETAIL: - HDFC BANK A/- IFSC CODE.HDF BANK ADDRESS	INDUSTRIAL EQUIPMENTS COMPANY C NO.01070330000592 C 0000107 SCO 78-79/8-C, CHANDIGARH			
	AN ISO 9001, 14001, 50001 & OHSAS 18001 Certified Company Karnal Branch: 2nd Floor, Durgs Mandir Complex, Near Bus Stand, Opp. Central Bank, Karnal The CUEA 4400000, 981205000			

Our offices

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

Elante Offices, Unit No. B 613-615, Industrial & Business Park, Phase 1, Chandigarh, Punjab 160002 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

Kolkata

22, Camac Street Block 'C', 3rd floor Kolkata - 700 016 Tel: + 91 33 6615 3400 Fax: + 91 33 2281 7750

Mumbai

6th floor & 18th floor Express Towers Nariman Point Mumbai - 400 021 Tel: + 91 22 6657 9200 (6th floor) + 91 22 6665 5000 (18th floor) Fax: + 91 22 22876401 (6th floor) + 91 22 2282 6000 (18th floor)

Block B-2, 5th Floor, Nirlon Knowledge Park,

Off Western Express Highway, Goregaon (E), Mumbai - 400 063 Tel: +91 22 6749 8000 Fax: +91 22 6749 8200

15th Floor, The Ruby, 29, Senapati Bapat Marg, Dadar (W), Mumbai - 400 028, India Tel: +91 22 6192 000

NCR

Golf View Corporate Tower - B Near DLF Golf Course Sector 42 Gurgaon - 122002 Tel: + 91 124 464 4000 Fax: + 91 124 464 4050

6th floor, HT House 18-20 Kasturba Gandhi Marg New Delhi - 110 001 Tel: + 91 11 4363 3000 Fax: + 91 11 4363 3200

4th and 5th Floor, Plot No. 2B, Tower 2, Sector 126, NOIDA - 201 304 Gautam Budh Nagar, UP, India Tel: +91 120 671 7000 Fax: _91 120 671 7171

Pune

C-401, 4th floor Panchshil Tech Park Yerwada (Near Don Bosco School) Pune - 411 006 Tel: + 91 20 6603 6000 Fax: + 91 20 6601 5900

Ernst & Young LLP

Assurance | Tax | Transactions | Advisory

About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

Ernst & Young LLP is one of the Indian client serving member firms of EYGM Limited. For more information about our organization, please visit www.ey.com/in.

Ernst & Young LLP is a Limited Liability Partnership, registered under the Limited Liability Partnership Act, 2008 in India, having its registered office at 22 Camac Street, 3rd Floor, Block C, Kolkata - 700016

© 2020 Ernst & Young LLP. Published in India.

All Rights Reserved.

ED 0515

This publication contains information in summary form and is therefore intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. Neither Ernst & Young LLP nor any other member of the global Ernst & Young organization can accept any responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication.