Minutes of the Technology and Finance Standing Committee (TFSC) Meeting held on Wednesday, 30th May, 2012 at 11:30 A.M. in the Conference Room of CDC, Core 4 B, 2nd Floor, India Habitat Centre, Lodhi Road, New Delhi – 110 003.

List of participants is attached as Annexure - I.

The Minutes of the TFSC meeting held on 4th January, 2012 were circulated to all the Members of the Committee. Since, no comments have been received, the Minutes were adopted.

Dr. A. Duraisamy, Director (O) and Member Secretary, TFSC welcomed the Members and informed that the Chairman Dr. B. Sengupta is not able to attend the Meeting due to some pressing engagements and has authorized him to select the senior most Member to Chair the Meeting. Accordingly the name of Mr. H.S. Kaparwan was purposed with consensus to Chair the Meeting. The Director (O) then apprised the Committee about the actions taken by the Ozone Cell on recommendations made by the TFSC in its meeting held on 4th January, 2012.

Action Taken: Approval of Chairman, Empowered Steering Committee (ESC) for Implementation of the Montreal Protocol was taken on file and duty exemption certificates were issued for the following:

- 1. M/s Delphi Automotive Systems Pvt. Ltd., Greater Noida, U.P.
- 2. M/s Unity Appliance, Tamil Nadu.
- 3. M/s LG Electronics India Pvt. Ltd., Greater Noida (U.P.)
- 4. M/s SATA Vikas India Pvt. Ltd., Faridabad (District) Haryana
- 5. M/s Sanden Vikas India Limited, Faridabad
- 6. M/s Subros Ltd., New Delhi

Ex-post facto approval of ESC will be taken in its next meeting. The Committee took note of above.

The Committee then considered the following Agenda items:

Agenda Item No. 1

The application of **M/s Subros Ltd.**, Noida, for duty exemption for import of (1) a set of AIDA HY Flex press, (2) Evaporator cap pressing machine LH-RH and (3) Nocolok Brazing furnace needed for increasing the production capacity of their MAC manufacturing facilities at Noida, (U.P.)

M/s Subros Ltd., the largest manufacturer of car air-conditioners in India, introduced a new type of evaporators, called R S Evaporator in their MAC system. These are highly efficient in energy saving and are much cheaper. M/s Subros have established a very large scale manufacturing facility for R S Evaporators at their Noida plant. They have proposed to import more pieces of equipment to enhance the capacity of their Noida plant and have applied for duty exemption for it.

The details of these three pieces of equipment are given in the table below:

Table

| S. No. | Description of eqpt. | Qty | P.O No, & Date | Total amount in (FOB/CIF value) | Total CIF cost in Rs |
|-----------|---|-------|-----------------------------------|---------------------------------|----------------------|
| 1 | Aida Hy Flex Press/ Model : NC2 – 1600 (2) E | 1 set | 7200000424 | 2,50,000/- | 1,24,70,000/- |
| | | | Dated 20.12.2011 | USD | |
| 2 | Evaporator Cap Pressing Machine LH – RH | 1 set | 7200000427 Dated 24.01.2012 | 43,500/- USD | 21,69,780/- |
| 3 | Nocolok Brazing Furnace | 1 set | 7200000428 | 6,40,00,000/- | 3,90,40,000/- |
| | | | Dated 02.02.2012 | JPY | |
| | 5,36,79,780/- | | | | |
| | | | D | uty payable @ 7.5% | 40,25,983.50 |

The cost of these imported equipment is Rs. 5.37 crores and will be met from their internal resources. The import duty payable on it @ 7.5% would be approximately Rs. 40.3 lacs.

In their presentation before the Committee, the company representative explained the use of these machines being imported. One of the Members wanted to ensure that the MACs produced using these equipments will be filled only with non-ODS refrigerant R-134a. To ensure that the Committee desired that M/s Subros submits a certificate that only R-134a refrigerant will be used in the compressors fitted with R S Evaporators manufactured by using this equipment.

The Committee noted that all the required documents have been submitted by the firm and recommended the application for duty exemption of the equipment listed in the Table in accordance with the guidelines of the scheme.

Agenda Item No. 2:

The application of M/s Global Autotech Ltd., Greater Noida (U.P) for duty exemption for import of (a) MS 60 Single Spindle CNC Chucker (b) MW 120 Twin Spindle CNC Chucker and (c) one Teflon Coating Line for Pistons needed for manufacture of swash plates and Teflon coated pistons used in mobile air – conditioners suitable for non-ODS refrigerant R-134a.

M/s Global Autotech is a private limited company closely associated with **M/s Subros Ltd.** The company is engaged in the manufacture of parts and components of MACs which at present are totally supplied to **M/s Subros Ltd.**.

To augment the production of Swash plates and Teflon coated pistons used in MACs, M/s Global Autotech has proposed to import the equipments shown in the table below:

Table

| SI. | Details of | Qty | PO/LOI No & Date | Total cost | Total FOB cost |
|-----|------------------------------|-----|------------------|--------------|----------------|
| No | Machine/Equipment | | | FOB/CIF | (Rs. in lacs) |
| 1 | MS 60 Single Spindle CNC | 1 | GAL/PSS/IMP/1083 | 41,400,000/- | 281.52 |
| | Chucker & MW 120 Twin | | Dated | | |
| | Spindle CNC Chucker. | | 20.02.2012 | JPY | |
| | (As per Annexure II,III, IV) | | | | |

| 2 | Teflon | Coating | Line | for | 1 | GAL/PSS/IMP | 13,70,000/- | 753.50 |
|-----------------------------|-------------|---------|------|-----|---|-------------|-------------|---------|
| | Piston. | | | | | Dated | | |
| | | | | | | 07.05.2012 | USD | |
| | Total Price | | | | | | | 1035.02 |
| Duty Payable approx. @ 7.5% | | | | | | 77.62 lacs | | |

The total cost of machinery to be imported is Rs. 1035.02 lacs and duty on it @ 7.5% would be approx. 77.62 lacs.

The company representative gave a letter requesting that item no. 2 "Teflon Coating Line" in the above table may be removed as they have not been able to finalise the purchase order for this item. The Committee agreed to it. The revised cost of equipment is shown in the Table below:

| SI. | Details of | Qty | PO/LOI No & Date | Total cost | Total FOB cost |
|-----|------------------------------|------------|------------------|--------------|----------------|
| No | Machine/Equipment | | | FOB/CIF | (Rs. in lacs) |
| 1 | MS 60 Single Spindle CNC | 1 | GAL/PSS/IMP/1083 | 41,400,000/- | 281.52 |
| | Chucker & MW 120 Twin | | Dated | JPY | |
| | Spindle CNC Chucker. | | 20.02.2012 | | |
| | (As per Annexure II,III, IV) | | | | |
| | | | | Total Price | 281.52 lacs |
| | | 21.11 lacs | | | |

In their presentation before the Committee, the representative of the company explained in detail how swash plates work in the compressors of Mobile Air-Conditioners and how these will be manufactured and tin coated with the help of the single and Twin spindle CNC chuckers proposed to be procured.

After detailed discussion, the Committee desired that the Swash plates manufactured with the help for CNC chucker imported duty free will be used only for MACs filled with non-ODS refrigerant HFC 134a.

The Committee noted that all the required documents have been submitted by the company and recommended the application for duty exemption in accordance with the guidelines of the scheme.

Agenda Item No. 3

The Application of **M/s Sanden Vikas India Ltd.,** Faridabad, for duty exemption for import of 1 (i) Sirocco Fan Motor Press Fitting machine, (ii) Balancing machine, and (iii) Performance Inspection machine for compressor assembly and (2) & (3) Plastic injection moulds (36) of different types.

M/s Sanden Vikas India Limited, a large manufacturer of Mobile-Air Conditioners (MACs) using non-ODS refrigerant HFC-134a in India,. were one of the pioneers to change over to non-ODS technology. Recently they have introduced a new model of highly efficient energy saving variable compressors.

In their efforts to increase production of this new model of compressors the company requires to import (i) one Sirocco Fan Motor Press Fitting machine, a new item to increase production with precision (ii) a balancing machine with jigs and (iii) a performance inspection machine (pumping machine) to regulate flow rate of the refrigerant to get better cooling in operation. In addition they want to import 36 plastic injection moulds needed for manufacture of different plastic moulded parts. The details of the machinery being imported are given in the table below:

TABLE

| S. No. | Description of Equipment | Qty / Unit | P. O No. & Date | Price in | Price in INR |
|--------|---|---------------|---------------------|----------------------|---------------|
| 1. | Sirocco Fan Motor Press Fitting machine | 1 Set | | 1,57,37,950/- Yen | 98,28,350/- |
| | II. Balancing Machine including Jig | 1 Set | l12000132 | 62,35,000/- Yen | 38,93,758/- |
| | III. Performance Inspection machine (Pumping machine) with Cosmo Flow Meter & Spares | 1 Set | Dated 05/07/2012 | 2,62,14,000/- Yen | 1,63,70,643/- |
| 2. | i. Case Blower Upper | 1 No | | 51,000/- USD | 28,05,000/- |

| II. | Mould case Blower | 1 No | | 51,000/- | 25,30,000/- |
|--------|--------------------|------|------------|----------------|-------------|
| | lower | | SVL/IMP/4 | USD | |
| III. | Case Htr Left | 1 No | 601 | 51,000/- | 24,75,000/- |
| | | | | USD | |
| IV. | Case Htr Right | 1 No | Dated | 51,000/- | 24,75,000/- |
| | | | 05/07/2012 | USD | |
| V. | Case Intake | 1 No | | 30,000/- | 16,50,000/- |
| | | | | USD | |
| VI. | Foot Duct L & U | 1 No | | 34,000/- | 18,70,000/- |
| | | | | USD | |
| VII. | Filter Cover | 1 No | | 7,000/- | 3,85,000/- |
| | | | | USD | |
| VIII. | HC Retainer A | 1 No | | 10,500/- | 5,77,500/- |
| | | | | USD | |
| IX. | HC Retainer B | 1 No | | 7,900/- | 4,34,500/- |
| | | | | USD | |
| X. | Lever Intake A | 1 No | | 7,000/- | 3,85,000/- |
| | | | | USD | |
| XI. | Lever Intake B | 1 No | | 7,000/- | 3,85,000/- |
| | | | | USD | |
| XII. | Lever Intake Joint | 1 No | | 5,800/- | 3,19,000/- |
| | | | | USD | |
| XIII. | Link Intake | 1 No | | 6,000/- | 3,30,000/- |
| | | | | USD | |
| XIV. | Lever Foot | 1 No | | 5,000/- | 2,75,000/- |
| | | | | USD | |
| XV. | Lever Mode Joint A | 1 No | | 5,800/- USD | 3,19,000/- |
| XVI. | Lever Mode Joint B | 1 No | _ | 5,800/- | 3,19,000/- |
| | | | | USD | |
| XVII. | Main Link | 1 No | _ | 10,000/- | 5,50,000/- |
| | | | | USD | |
| XVIII. | Rod Mode joint | 1 No | 1 | 5,800/- | 3,19,000/- |
| | | | | USD | |

| | XIX. Lever vent/DEF | 1 No | | 5,000/- USD | 2,75,000/- |
|---|--------------------------|------|-----------|----------------|-------------|
| | XX. Link Air mix | 1 No | | 6,700/- USD | 3,68,500/- |
| | XXI. Lever Air Mix | 1 No | _ | 6,700/- | 3,68,500/- |
| | AXI. LOVOI / III IVIIX | 1110 | | USD | 0,00,000/ |
| | XXII. Damper Vent / DEF | 1 No | _ | 7,000/- | 3,85,000/- |
| | | | | USD | |
| | XXIII. Damper Foot | 1 No | | 7,000/- | 3,85,000/- |
| | | | | USD | |
| | XXIV. Damper Intake B | 1 No | | 7,000/- | 3,85,000/- |
| | | | | USD | |
| | XXV. Damper Vent / DEF | 1 No | | 8,000/- | 4,40,000/- |
| | | | | USD | |
| | XXVI. Damper Foot | 1 No | | 7,000/- | 3,85,000/- |
| | | | | USD | |
| | XXVII. Damper Intake B | 1 No | | 11,000/- | 6,05,000/- |
| | | | | USD | |
| 3 | I. Retainer A YE3 | 1 No | SVL/IMP/4 | 15,500/- | 8,52,500/- |
| | | | 600 | USD | |
| | II. Retainer B YE3 | 1 No | | 15,500/- | 8,52,500/- |
| | | | | USD | |
| | III. Resister Cover YE3 | 1 No | | 10,000/- | 5,50,000/- |
| | | | | USD | |
| | IV. Blower Case Motor | 1 No | | 18,000/- | 9,90,000/- |
| | | | | USD | |
| | v. Blower Case Suction | 1 No | | 22,000/- | 12,10,000/- |
| | | | | USD | |
| | VI. Cap/Bkt Blower Motor | 1 No | | 7,500/- | 4,12,500/- |
| | YC5 | | | USD | |
| | VII. Flange Blower Motor | 1 No | | 17,500/- | 9,62,500/- |
| | YC5 | | | USD | |
| | | | | | |

| | | Approx Duty p | oayable @ 7.5% | 45,91,706.2/- |
|---|-------------------------|---------------|----------------|---------------|
| | | <u>,</u> | Total | 6,12,22,750/- |
| | IRIS | | USD | |
| | IX. Case Suction Side - | 1 No | 30,000/- | 16,50,000/- |
| | IRIS | | USD | |
| V | VIII. Case Motor side – | 1 No | 30,000/- | 16,50,000/- |

The total cost of the equipment being imported is Rs 6.12/- crores and duty on it @ 7.5% would be approx. Rs. 45.91 lacs. The cost of the project will be met from internal accruals.

In their presentation before the Committee, the company representative explained how the new equipment will increase production of better quality of parts for Mobile Air—Conditioners manufactured by them. The performance machine will ensure better flow of the refrigerant R-134a in their MACs ensuring better cooling and longer life. The balancing machine will ensure smooth movement of compressor parts reducing noise and vibration during their operation.

The Committee noted that all the required documents have been submitted by the firm and recommended the application for duty exemption in accordance with the guidelines of the scheme.

Agenda Item No. 4

The application of M/s Vikas Alcast Pvt. Ltd., for import of three pressure Die casting machines required for manufacture of parts for compressor used in Mobile Air – Conditioners.

M/s Vikas Alcast Pvt. Ltd., is a new company formed by promoters of M/s Sanden Vikas (India) Ltd., to manufacture parts of compressors which will be used by M/s Sanden Vikas to manufacture finished compressors for their Mobile Air – Conditioners.

To begin with, the company is undertaking the manufacture of (i) cylinder blocks (ii) cylinder heads and (iii) front housing of MACs. For this they are proposing to import three pressure die casting machines to make aluminium die casted parts which will be machined by other partner companies to finished parts. The details of the Die Casting machine being imported are shown in the table below:

Table

| SI. | Details of | Qty | PO No & Date | Total cost in | Total cost in |
|-----|---|--------------|--------------------------------|---------------|---------------|
| No | Machine/Equipment | | | (Yen) | INR |
| 2 | UB670IS2 Die-Casting Machine and Handling equipment Case 2B without Vacuum Device. UB8500iS2 Die – Casting Machine and handling equipment Case 2B without Vacuum Device. | 1 set 2 sets | VAPL/01 Dated 12.12.2011 | 9,61,69,166/- | , , , |
| | | | | Total Price | 8,75,88,466/- |
| | | | Duty Payable ap | prox. @ 7.5% | 65,69,134.9/- |

The cost of these imported machines is Rs. 8.76 crores and duty on it would be 6.6 lacs @ 7.5%. The project cost will be met by equity participation by promoters.

In their presentation before the Committee, the company representative gave details of their new venture. At present M/s Sanden Vikas procures pressure die casted compressor parts from others to produce finished compressor blocks. This process can not ensure quality of the products. The pressure die casting machines proposed to be installed now will produce these parts under their own supervision ensuring quality compressors for the MACs produced by M/s Sanden Vikas.

The Committee noted that all the required documents have been submitted by the firm and recommended the application for duty exemption in accordance with the guidelines of the scheme.

Agenda Item No. 5: Formulation of policy regarding import of blends containing HCFC-22

The Director, Ozone Cell and the Member Secretary of the TFSC briefly introduced the Agenda Item stating that the production and consumption of CFCs in India were phased-out from 1st January, 2008 except the use of pharmaceutical CFC's in manufacture of Metered Dose Inhalers (MDIs). However, there are still a large number of CFC based appliances and equipments in the country. These appliances and equipments require servicing refrigerants. Some of the blends containing HCFC-22 which are recommended by the UNEP Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee (RTOC) of the Technology and Economic Assessment Panel (TEAP) are used as servicing refrigerants. Some of the blends containing HCFC-22 are also used in manufacturing of Foam and Fire Extinguishers.

Recently, the Refrigerants Gas Manufacturers Association (REGMA) has brought to the attention of the MoEF that there is an import of large quantity of blends containing HCFC-22 in the country. It was also stated that these blends are practically not in use anywhere and do not enjoy recommendation from Original Equipment Manufacturers (OEMs). Considering the importance of the issue and to have a holistic view of the subject, the MoEF convened a meeting of the concerned stakeholders, REGMA, Refrigeration and Air Conditioning Manufacturers Association (RAMA), importers and DGFT. During the meeting various stakeholders expressed their views on the subject which were quiet divergent.

The MoEF has decided to form a policy regarding some of the issues related to HCFC-22 and its blends and referred this subject matter to the TFSC to evolve / draft an order laying down the guidelines in respect of agreed procedure on the following:

(i) Set a threshold for HCFC blends, above which blends having a higher proportion of HCFC-22 may not be allowed to be imported.

- (ii) In the interest of protection of interests of the users, the import permits in respect of HCFC blends above or below the threshold may be allowed only to actual users.
- (iii) In the interest of protection of interests of the consumers, the price differential, if any, between the international prices of the HCFC-22 and the domestic prices may also be regulated through an agreed mechanism.

The TFSC discussed in detail the various aspects related to import of blends containing HCFC-22 including to set a threshold of HCFC-22 in the blends allowed to be imported, the availability of servicing refrigerants to the Small and Medium Enterprises (SMEs) involved in servicing of refrigeration and air-conditioning, appliances and equipment, availability of alternatives to HCFC blends, pricing of HCFC-22 etc. The Committee noted that there are over 30 blends containing 40 to 96% of HCFC – 22 being marketed and used world over by servicing sector for foams, refrigeration and air-conditioning etc. From past record about 7 blends have been imported in India by users and traders.

After a detailed discussion, the Committee decided the following:

- (i) Since there is no information available on use pattern, suitability, advantage of various proportions of blends, technical and commercial details etc, it is not possible to arrive at thresholds as higher or lower proportions of HCFC in the blends for the purpose of import permits.
- (ii) In the interest of protection of actual users including SMEs, micro SMEs etc, import permits of the HCFC based blends be allowed.
- (iii) No consensus was arrived at HCFC price regulation.

The TFSC further recommended the following:

- (i) A national level consultative meeting of the stakeholders involving REGMA, RAMA, SMEs, etc may be convened to take a well informed decision to set a threshold of HCFC-22 in the HCFC based blends.
- (ii) In order to protect the interest of the consumers a consultative meeting of the stakeholders involving REGMA, RAMA, SMEs, etc may be convened by the Ozone Cell, MoEF to regulate the price differential, if any, between the domestic and international prices of the HCFC-22.

Additional Agenda Item No. 1: The DGFT's application of M/s Dolphin Trading Company, New Delhi for import of HFCs.

The Director, Ozone Cell and the Member Secretary of the TFSC briefly introduced the Agenda Item stating that the Directorate General of Foreign Trade (DGFT) has sought comments regarding import of R-404A (HFC-404A) and R-407C (HFC-407C) by M/s. Dolphin Trading Company, New Delhi. The Member Secretary has also informed the committee that the DGFT has also sought comments for the import of these blends in the light of a general decision taken by the Exim Facilitation Committee (EFC) of the DGFT to give approvals with the condition of 25% increase on the previous year turnover of the company to limit the quantity of imports. The MoEF has referred this issue to the TFSC for its consideration and advice.

The Member Secretary also informed the committee that based on the decision of the meeting held on 10th April, 2012 under the Chairmanship of Mr. J. M. Mauskar, the then Special Secretary, MoEF, the DGFT was informed that as the HFCs and the blends of HFCs are non-Ozone Depleting Substances (ODSs), the applications for the import of HFCs and HFC-blends should not be referred to the MoEF for its recommendations.

The TFSC considered the issue and observed that the application referred by the DGFT is on blends of HFCs which are non-ODSs and are under Open General License (OGL). The HFCs and HFC blends are not controlled substances under the Montreal Protocol and the import of such substances does not require any recommendation from the MoEF. As regard to the EFC of the DGFT recommendations to give approvals with condition of 25% increase on the previous year turnover of the company to limit the quantity of imports, the TFSC felt that it is not within the purview of the Committee. It was also decided by the Committee that such proposals may not be forwarded to the TFSC as these are not related to the Montreal Protocol and ODS phase-out program.

LIST OF PARTICIPANTS

| 2 | Mr. H. S. Kaprwan, C-215, Sector 51, Kendriya Vihar, Noida – 200 1307 Ph : 9891597792 Dr. Kiran Pal, | Member Member |
|---|---|------------------|
| | Joint Director, Centre for Fire, Explosive & Environment Safety, Defence Research & Development Organisation, Ministry of Defence, Brig. S.K. Mazumdar Road, Timarpur, Delhi – 110 054 | |
| 3 | Dr. Izzatullah, Director (Chem), O/o DC (SSI), Ministry of Micro, Small & Medium Enterprises, Room No. 702, Nirman Bhavan, New Delhi – 110 011 | Member |
| 4 | Prof. R.S. Agarwal, Senior Advisor and Coordinator, Sector Phase-out Plan Unit (SPPU), Ozone Cell, Ministry of Environment and Forests, Core IV B, 2 nd Floor, India Habitat Centre, Lodhi Road, New Delhi – 003 | Special invitee |
| 5 | Mr. S.V. Subba Rao National Program Manager, Sector Phase-out Plan Unit (SPPU), Ozone Cell, Ministry of Environment and Forests, Core IV B, 2 nd Floor, India Habitat Centre, Lodhi Road, New Delhi – 110 003 | Special invitee |
| 6 | Mr. Ringkhang Muchahary Technical Officer - SPPU Ministry of Environment and Forests, Core IV B, 2 nd Floor, India Habitat Centre, Lodhi Road, New Delhi – 110003 | Special invitee |

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| 7 | Mr. Fahad Naim Technical Officer - PMU Ministry of Environment and Forests, Core IV B, 2 nd Floor, India Habitat Centre, Lodhi Road, New Delhi – 110003 | Special invitee |
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| 8 | Ms. Chanchal Sharma Technical Officer - PMU Ministry of Environment and Forests, Core IV B, 2 nd Floor, India Habitat Centre, Lodhi Road, New Delhi – 110003 | Special invitee |
| 9 | Prof. S.K. Mukerjee, Consultant, Ozone Cell, Ministry of Environment and Forests, Core IV B, 2 nd Floor, India Habitat Centre, Lodhi Road, New Delhi – 110003 | Consultant |
| 10 | Dr. A. Duraisamy, Director (Ozone Cell), Ministry of Environment and Forests, Core IV B, 2 nd Floor, India Habitat Centre, Lodhi Road, New Delhi – 110003 | Member Secretary |

M/s Global Autotech Limited P.O. No GAL/PSS/IMP/1083 dated 20.02.2012

| Sr. No | Description | Muratec |
|--------|--|--------------|
| 1 | MS 60 Single Spindle CNC Chucker | 1 set |
| | Spindle Speed (RPM) | 4500 |
| | Spindle Motor (KW) | 7.5KW/30 min |
| | Controller | Fanuc |
| | Programmable Tool Geometry and Wear off set Input (G10) | Yes |
| | Manual Pulse Generator (0.001 mm, 0.01 mm, 0.1 mm), Ethernet Funciton/10 BASE | Yes |
| | Std 8 Station Turret for Both sides, Automatic Turret reference, Point Return function | Yes |
| | Tool Station Index Counter Software, (CRT Display, 6 – digit with Caution function) | Yes |
| | Work Counter & Total Work counter Software (CRT Display, 8 – digit) | Yes |
| | Operation Guide Function (LCD Display), Alarm Diagnostic Display | Yes |
| | 100 V Power Supply Sockets (side of operation panel and inside control panel) | Yes |
| | Fluorescent Lamp on/off software switch LCD screen | Yes |
| | 1X6 W illumination lamp, illumination lamp on/off software switch in CRT | Yes |
| | Remote operation panel for Loader setting | Yes |
| | Abnormal load detection & track back | Yes |
| | Coolant unit (std. coolant tank, pump & piping) | Yes |
| | Coolant & air blow nozzles over chucks for both side | Yes |
| | Operational manual | 01 Set |
| | Service manual | 01 Set |
| | Fanuc manual | 01 Set |
| | Fixture drawing | Yes |
| | Consumable drawing | Yes |
| | Direct Fanuc warranty (2 years from shipping date) | Yes |
| | Trial cutting of 1 type of component in Japan | 1 set |
| 2 | BASE Machine option | 1 |
| | Toll monitor software (Servo – drive torque exceed detection) | 1 set |
| | Signal Tower (Red/Green/ Yellow) | 1 set |
| | 4 – point spindle stop orientation (by M-code) | 1 set |
| | Work location confirmation sensor (Air operated) | 1 set |
| | Chip conveyor (Hinge type) | 1 set |
| | 3 (50Hz)/4.2 (60Hz) Bar Pressure Coolant Pump | 1 set |
| | Coolant filter (GAK08 – 60 K:TAISEI) | 1 set |
| | OP30 Control for retract tool head (only air supply) | 1 set |

| 3 | Loader options | | |
|---|---|-------|--|
| | Standard Gantry type loader system | 1 set | |
| | Chuck jaws for loader A/B chucks to suit work piece | 1 set | |
| | Common chute dummy discharge and NG work | 1 set | |
| | piece | | |
| | Loader grease supply detection | 1 set | |
| | Support loader stand (both sides) | 1 set | |
| | Type "B" loader interface for parts feed – out to | 1 set | |
| | buyers work handling system | | |
| 4 | Work piece handling device options | | |
| | Leader chuck air blow | 1 set | |
| | Re-chucking unit for positioning for OP30 1 set | 1 set | |
| | Wrong parts detection SW | 1 set | |
| 5 | OP30 Chucking options | | |
| | Special collets chuck to suit 1 type of component | 1 set | |
| | Stopper & Positioning pin to suit 1 type of | 2 set | |
| | component | | |
| | Master work to suit 1 type of component | 2 set | |
| | 6" Hydraulic cylinder with check valve | 1 set | |
| 6 | Tooling options | | |
| | Special tool head for rough cutting | 1 set | |
| | Special head for retract tool for finish NT Samson | 1 set | |
| | type 80 retract unit | | |
| | Manual type retract head controller | 1 set | |
| | Oil reserve unit for retract tool unit | 1 set | |
| | Cutting tools, insert for trial cutting in Japan | 1set | |

M/s Global Autotech Limited P.O. No GAL/PSS/IMP/1083 dated 20.02.2012

| Sr. No | Description | Muratec |
|--------|--|------------------|
| 1 | MS 120 Twin Spindle CNC Chucker | 1 set |
| | Spindle Speed (RPM) | 4500 |
| | Spindle Motor (KW) | 5.5/7.5KW/30 min |
| | Controller | Fanuc |
| | Programmable Tool Geometry and Wear off set Input (G10) | Yes |
| | Manual Pulse Generator (0.001 mm, 0.01 mm, 0.1 mm), Ethernet Funciton/10 BASE 7 | Yes |
| | Std 8 Station Turret for Both sides, Automatic Turret reference, Point Return function | Yes |
| | Tool Station Index Counter Software, (screen display, 6 – digit with Caution function) | Yes |
| | Work Counter & Total Work counter Software (screen Display, 8 – digit) | Yes |
| | Operation Guide Function (LCD Display), Alarm Diagnostic Display | Yes |
| | 100 V Power Supply Sockets (side of operation panel and inside control panel) | Yes |
| | Fluorescent Lamp on/off software switch LCD screen | Yes |
| | 2X6 W Fluorescent lamp, limit switch for Rear cover | Yes |
| | Remote operation panel for Loader setting | Yes |
| | Abnormal load detection & track back | Yes |
| | Coolant unit (std. coolant tank, pump & piping) | Yes |
| | Coolant & air blow nozzles over chucks for both side | Yes |
| | Operational manual | 1 set |
| | Service manual | 1 set |
| | Fanuc manual | 1 set |
| | Fixture drawing | Yes |
| | Consumable drawing | Yes |
| | Direct Fanuc warranty (2 years from shipping date) | Yes |
| | Trial cutting of 1 type of component in Japan | 1 set |
| 2 | BASE Machine option | |
| | High precision specification | 1 set |
| | Tool monitor software for both the Turrets (Servo – | 1 set |
| | drive torque exceed detection) | |
| | Signal tower (Red/Green/ Yellow) | 1 set |
| | 4 – point spindle stop orientation on both side (by M-code) | 1 set |
| | Coolant blow through spindle for both side | 1 set |
| | Work location confirmation sensor for both side (Air operated) | 1 set |
| | Chip conveyor (Hinge type) | 1 set |
| | 3 (50Hz) / 4.2 (60Hz) Bar Pressure Coolant Pump – | 1 set |

| | both side | |
|---|--|-------|
| | Coolant filter (GAK08 – 60 K:TAISEI) | 1 set |
| 3 | Post – Process gauging options | 1 |
| | Post Process Gauging system (ID 1 point & work width) | 1 set |
| | to suit 2 type of component | |
| | ID Gauged by Air Micrometer, face 2 points Gauging | 1 set |
| | with Parallety check function | |
| | Master work for 1 type of component | 1 set |
| 4 | Loader options | |
| | Standard Gantry type loader system with Turnaround | 1 set |
| | unit | |
| | Chuck jaws for loader A/B/E/F chucks to suit work | 1 set |
| | piece | |
| | Common chute for dummy discharge and NG work | 1 set |
| | piece (special type) | |
| | Loader grease supply detection | 1 set |
| | Type "B" loader interface for parts feed – out to buyers | 1 set |
| | work handling system | |
| 5 | Work piece handling device options | 1 |
| | Leader chuck air blow | 1 set |
| | Re-chucking station for 2 types of component to check | 1 set |
| | position without changing over | |
| 6 | OP10 Chucking options | |
| | UBL – 8" Chuck | 1 set |
| | Master Jaw to suit 1 type of component | 1 set |
| | Chuck jaw to suit 1 type of component | 1 set |
| | Stopper Base | 1 set |
| | Stopper & Positioning pin to suit 1 type of component | 1 set |
| | Master work to suit 1 type of component | 1 set |
| | 6" Hydraulic cylinder with check valve | 1 set |
| 7 | OP 20 Chucking options | |
| | PA – 25 Chuck | 1 set |
| | Clamping pin to suit 1 type of component | 1 set |
| | Stopper & positioning pin to suit 1 type of component | 1 set |
| | Master work to suit 1 type of component | 1 set |
| | 6" Hydraulic cylinder with check valve | 1 set |
| 8 | Tooling options | |
| | Knee tool (for 20 mm sq. shank) MC8 – 86080 – 10 | 3 set |
| | 18 Tool head for burnish drill | 2 set |
| | Tooling package (bush sleeve, cutting tools & inserts) | 1 set |
| | roller tool include | |

M/s Global Autotech Limited P.O. No GAL/PSS/IMP/1083 dated 20.02.2012

1 Prices: The prices mentioned in the purchase order are FOB, Nagoya, Japan & will remain firm till the completion of this order. 2 With in 10 days of machine trial of 04 months from the Dispatch Date: date of LOI (Reference MON Dated 10th Feb. 2012) 3 Place of M/s Global Autotech Limited, 3D, Udyog Vihar, Ecotech -Delivery/Final II, Greater Noida (U.P) India Destination: 4 Term of 100% through LC at Sight Payment: 5 Freight & Freight & Insurance will be borne by M/s Global Autotech Insurance: Limited Packing & The machine shall be adequately packed to avoid any 6 Forwarding: damages and rust during transit as per international standard for sea worthy packing. Breakages, damages & transit losses due to weak & insufficient / poor packing shall be borne by M/s Murata Machinery Ltd., 7 Shipment In addition to the Original negotiable documents in quadruplicate routed through bank, a complete set of non Documents: - negotiable documents sent separately to us by courier along with necessary Drawing / Catalogues / Mills Chemical composition certificate for clearance. The Machine will be inspected by M/s Murata Machinery Testing & QA 8 Ltd., and report submitted to us before dispatch for Check: clearance. 9 Marking The Consignment should be marked as By Sea Global Autotech Ltd., 3D, Udyog Vihar, Greater Noida, U.P. OUR PO NO & Date 10 Warranty Machine general warranty period is 1 year from the date of commissioning. Following parts are subject to specific warranty period Fanuc Controller 1. 2. Years from the B/L date Please send your confirmation of acceptance of this 11 Acceptance purchase order and its terms & conditions. 12 Installation & Free of cost installation & commissioning will be done by commissioning engineers of M/s Murata Machinery Ltd., in India

will not start trial.

Penalty will be imposed 0.5% per week sub to max 5.% of PO value after 05 months from the dt. Of L/C, if murata

13 Penalty clause