

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA (SDSC SHAR)
NELLORE**

Tender for Stainless Steel Electro Pneumatic Ball Valves

Bids to be submitted online

Tender No.: SDSC SHAR/LSSF PURCHASE/SH202200049101 dated 26-05-2022

A. Tender Details

Tender No : **SDSC SHAR/LSSF PURCHASE/SH202200049101**

Tender Date : **26-05-2022**

Tender Classification: **GOODS**

Purchase Entity : **LSSF PURCHASE**

Centre : **SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA
(SDSC SHAR)**

Procurement of Stainless Steel Electro Pneumatic Ball Valves

Procurement of Stainless Steel Electro Pneumatic Ball Valves on PT two part basis.

A.1 Tender Schedule

Bid Submission Start Date : **26-05-2022 15:02**

Bid Clarification Due Date : **03-06-2022 16:00**

Bid Submission Due Date : **28-06-2022 16:00**

Bid Opening Date : **29-06-2022 14:30**

Price Bid Opening Date : **29-07-2022 14:30**

B. Tender Attachments

Technical Write-up/Drawings

Document : Spec

Instructions To Vendors

2. We are proposing to invite Tenders in Two Parts viz., Part-I Techno and Commercial & Part-II Price. All Tenderers are requested to follow carefully the following instructions before preparing their offer.

1.PART- I- TECHNO COMMERCIAL BID -

(1)This part should contain detailed Specifications of the items quoted by you along with Technical Literature and Leaflets if any.

(2)All the Commercial terms and Conditions applicable also should be indicated separately under separate heads.

(3)The Commercial terms such as delivery terms, delivery period, payment terms, warranty, validity of the offer, Installation & Commissioning, Duties and Taxes etc shall come into this.

(4)Either Technical Specifications or Terms & Conditions as above should be very clearly reflected items wise with reference to the items called for in the tender.

(5)Please not those Prices should not be indicated in this part.

(6)Any deviations from the Technical Specifications and Commercial Terms shall be indicated separately.

2.PART II PRICE BID

(1)The prices applicable for the items, item wise in response to the tender shall come into this part.

(2)Tender shall indicate very clearly item wise prices with reference to their Technical Offer.

C. Bid Templates

C.1 Technical Bid - Stainless Steel Electro Pneumatic Ball Valves

1. Ball Valves Electro Pneumatic SS Ball Valve of Size: 15NB x150#

2. Ball Valves Electro Pneumatic SS Ball Valve of Size: 15NB x300#

3. Ball Valves Electro Pneumatic SS Ball Valve of Size: 25NB x150#

4. Ball Valves Electro Pneumatic SS Ball Valve of Size: 25NB x300#

5. Ball Valves Electro Pneumatic SS Ball Valve of Size: 40NB x150#

6. Ball Valves Electro Pneumatic SS Ball Valve of Size: 40NB x300#

Common Specifications (Applicable for all items)

| SI No | Specification | Value | Compliance | Offered Specification | Remark |
|-------|-----------------------|--|--------------------|-----------------------|--------|
| 1 | Type | Two way EP Ball Valve with Pneumatic Actuator and Limit Switches | Yes / No / Explain | | |
| 2 | End Connection | RF Flanged with serration to ANSI B 16.5 | Yes / No / Explain | | |
| 3 | Port & Construction | Full Bore, 2 piece, 2-way | Yes / No / Explain | | |
| 4 | Operating Temperature | 50 0C Maximum | Yes / No / Explain | | |
| 5 | Fluid Handling | UH-25/N2O4/MMH/MON3 | Yes / No / Explain | | |
| 6 | Design Code | API 6D/ BS EN-ISO 17292 / ANSI B 16.34 | Yes / No / Explain | | |
| 7 | Testing Code | BS-EN-ISO-12266 Part 1/API 598 | Yes / No / Explain | | |
| 8 | Anti-static Device | Yes, to be provided | Yes / No / Explain | | |

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|----|--|--|--------------------|--|--|
| 9 | Operation | By Stainless Steel bracket mounted Pneumatic actuator | Yes / No / Explain | | |
| 10 | Fire Safe Design | API-607 / BS-EN-ISO12266 Part-II | Yes / No / Explain | | |
| 11 | Fugitive Emission test (FET) | All valves shall have stem seal arrangement to meet the Fugitive emission test (FET) version | Yes / No / Explain | | |
| 12 | Leakage Class | ANSI B16.104 Class VI/FCI70.2-100% bubble tight Shutoff | Yes / No / Explain | | |
| 13 | Type test certificates for Fugitive emission test as per ISO 15848 part-I and fire safe test as per BS 6755 part-II shall be furnished at the time of inspection | To be agreed | Yes / No / Explain | | |
| 14 | Body | SS 316/CF8M/Forged Design | Yes / No / Explain | | |
| 15 | Stem & Gland Nut | SS 316 | Yes / No / Explain | | |
| 16 | Ball | SS 316 (From solid bar)/CF8M | Yes / No / Explain | | |
| 17 | Seat | PTFE /RPTFE | Yes / No / Explain | | |
| 18 | Gland packing seals | Primary seal : Kalrez 6380, Secondary seal : PTFE, Graphite | Yes / No / Explain | | |
| 19 | Body seals | PTFE/Graphite and PTFE encapsulated Viton "O" ring , SS316 Spiral wound (Minimum two seals). | Yes / No / Explain | | |
| 20 | Bolting | A 193 Gr. B8M/A194 Gr. 8M | Yes / No / Explain | | |
| 21 | Heat Treatment | Solution annealing of all castings as per (In case of Castings only) ASTM A 351 SS11.1 | Yes / No / Explain | | |
| 22 | Actuator Type | Spring return, single acting piston & Direct Mounted as per ISO Std. Links shall be of Stainless Steel | Yes / No / Explain | | |

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| 23 | Actuator Input Signal | Min 5 bar (g) of N2 gas/Air nominal 7 bar (g) | Yes / No / Explain | | |
| 24 | Angle of rotation | 90° (with a provision on the actuator to adjust the angle of rotation) | Yes / No / Explain | | |
| 25 | Response time along with valve | Less than 5 seconds (for Opening) | Yes / No / Explain | | |
| 26 | Actuator Failure Position | Normally closed | Yes / No / Explain | | |
| 27 | Actuator Body Material | Extruded Aluminum Alloy internally Hard anodized, externally coated with Polyurethane/ Epoxy powder | Yes / No / Explain | | |
| 28 | Actuator Piston & Rack | Anodized die cast Aluminum/Manufacturer's standard/Pinion as Nitride coated steel, Piston as Aluminium | Yes / No / Explain | | |
| 29 | Actuator Air Supply Connections | ¼ " BSPP, Female | Yes / No / Explain | | |
| 30 | Actuator Springs | Cartridge type multi helical springs of material spring Steel, Electro static | Yes / No / Explain | | |
| 31 | Optimum torque should be selected for each size of valve actuator. | For interpolated torque values, next higher value should be chosen to avoid oversize actuators | Yes / No / Explain | | |
| 32 | The specified Micro-Switch assemblies housed in Flame proof and weatherproof enclosure will be mounted on Actuator for monitoring the ON/OFF status of Electro Pneumatic Valves. | To be agreed | Yes / No / Explain | | |
| 33 | Limit switch type and no. of switches for each valve | Heavy duty SPDT switches - 4 nos (2 nos for ON and 2 nos for OFF) | Yes / No / Explain | | |

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| 34 | The Micro-Switches shall be mechanical contact type. | The three wires/leads from each of the Micro-Switches shall be sealed at switch side and other end terminated on terminal blocks (shall be of Wago type, not screw type)/PCB | Yes / No / Explain | | |
| 35 | It means all the 12 leads from all the micro switches shall be terminated on terminal blocks/PCB. | However, total 15 nos. of terminal blocks including spares shall be provided inside each enclosure. | Yes / No / Explain | | |
| 36 | All the four no. of Micro-Switches, 15 nos. of terminal blocks, spring loaded rotary cams for position setting along with connecting shaft etc., shall be housed inside the enclosure | To be confirmed | Yes / No / Explain | | |
| 37 | Material of construction of enclosure | Aluminium alloy | Yes / No / Explain | | |
| 38 | Degree of protection and Electrical classification of enclosure | IP 65 or better, Flame proof suitable for Zone 0/1 Group IIC environment certified by BASEEFA or equivalent International Agency/ IS 2148 Gr. II C | Yes / No / Explain | | |
| 39 | Cable Entry for limit switch enclosure | ¾" NPT (female) 2 nos. (1 no. to be plugged) One no. of ¾"NPT suitable double compression gland (GR-IIC) shall be supplied with each enclosure | Yes / No / Explain | | |
| 40 | Local ON/OFF indication | Impact Resistant Thermoplastic to be mounted on Micro-Switch assembly | Yes / No / Explain | | |

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| 41 | Cams for limit switches | Individual cam with adjustment Provision for each Micro-Switch to be provided | Yes / No / Explain | | |
| 42 | Mounting Accessories | All fittings, connectors, screws, Circlips etc. shall be of SS 316 only & the scope includes the supply of coupling and mounting bracket links also. | Yes / No / Explain | | |
| 43 | OFFER should contain cross-sectional drawings & relevant brochures/ catalogues of valves, Actuator, Limit Switches and Limit switch housing. | to be uploaded in portal | Yes / No / Explain | | |
| 44 | The valve cross sectional drawings should contain gland packing details | Location & number of seals and material of construction of seals | Yes / No / Explain | | |
| 45 | Prefeable make Valve | Velan/ flow serve/Virgo/ L&T/Argus | Yes / No / Explain | | |
| 46 | Prefeable make Actuator | Virgo /EI-O-Matic (Netherlands) / Automax/Supernova/ /Flowserve/ Rotadisc/ Bettis/L&T | Yes / No / Explain | | |
| 47 | Prefeable make Limit switch | Honeywell / Omeron | Yes / No / Explain | | |
| 48 | Prefeable make Limit switch enclosure | Emerson, Virgo, Westlock, Top worxs | Yes / No / Explain | | |
| 49 | The cross sectional drawings with material of construction of all parts shall be sent to purchaser for approval before commencing production. | to be agreed | Yes / No / Explain | | |

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| 50 | The supplier shall guarantee that the valves supplied shall be exactly as per the approved drawings in all respects. | To be agreed | Yes / No / Explain | | |
| 51 | No welding is allowed on the valve body. | To be agreed | Yes / No / Explain | | |
| 52 | All valves shall be made of investment castings only. | Sand casting / Bar stock construction is not acceptable. Forged design is acceptable | Yes / No / Explain | | |
| 53 | All sealing & seating materials shall be compatible with UH-25/N2O4/MMH/MON3 chemicals | Purchaser reserves right to suggest suitable materials if offered materials are not compatible with fluids, during approval of drawings. | Yes / No / Explain | | |
| 54 | ISO interface for mounting pneumatic actuator to be provided on the valve body. | To be agreed | Yes / No / Explain | | |
| 55 | Valve actuators shall be provided with sintered mufflers on vent side. | To be agreed | Yes / No / Explain | | |
| 56 | Make of Valve, Actuator and Limit Switches | bidder shall mention the makes of valve, actuator, limit switch and enclosure in the offer | Yes / No / Explain | | |
| 57 | All fasteners shall be SS 316/316L/304/304L | To be agreed | Yes / No / Explain | | |

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| 58 | Foundry/Material test certificate of all wetted parts of the valves and all other test certificates like, Body hydro test, Leak test, Functional test, etc., shall be furnished to the purchaser at the time of inspection. | To be agreed | Yes / No / Explain | | |
| 59 | IGC testing shall be conducted as per ASTM A262 practice-B or E on valve bodies on one sample for each Heat No/Lot No. based on feasibility | To be agreed | Yes / No / Explain | | |
| 60 | Radiography shall be carried out on critical areas for one number in each size. | To be agreed | Yes / No / Explain | | |
| 61 | Radiography evaluation reports shall be submitted during inspection of valves. | The radiography testing charges are to be included and No additional charges will be paid | Yes / No / Explain | | |
| 62 | Valves shall have stem seal arrangement to meet the fugitive emission test (FET) version & fire safe version. | To be agreed | Yes / No / Explain | | |

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| 63 | Type test certificates for Fugitive emission test as per ISO 15848 part-I and fire safe test shall be furnished along with the offer and at the time of inspection. | To be agreed | Yes / No / Explain | | |
| 64 | Test certificates from appropriate testing and certifying authorities for explosion proof for specified class and protection class of Limit Switch Enclosures shall be obtained and furnished at the time of inspection | To be agreed | Yes / No / Explain | | |
| 65 | Inspection of valves prior to dispatch at manufacturers site. | Valves shall be inspected as per QAP at manufacturer's site and Dispatch clearance of items is only after inspection and clearance. | Yes / No / Explain | | |
| 66 | The valves shall be tagged with size, class rating and material of construction of body, manufacturers reference no. etc. | To be agreed | Yes / No / Explain | | |
| 67 | Painting of valves: | High epoxy paint with aliphatic polyurethane final coat and total DFT shall be $150 \pm 10 \mu$. Painting shall be carried out after our final inspection. | Yes / No / Explain | | |

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| 68 | 3 Sets of Documents Comprising Purchase order copy, Final Drawings, Operational and Maintenance manual, Test certificates, Part list and spares list shall be sent along with item. | To be agreed | Yes / No / Explain | | |
| 69 | The bidder has to confirm all the specifications by point wise and deviations shall be highlighted without which offers shall not be considered. | To be agreed | Yes / No / Explain | | |
| 70 | Supplier shall also accept the part order with same offered cost. | To be agreed | Yes / No / Explain | | |
| 71 | The purchaser reserves the right to procure/not to procure the items after receiving the quote from supplier. | To be agreed | Yes / No / Explain | | |
| 72 | Valves shall be neatly packed to avoid damage during transit | To be agreed | Yes / No / Explain | | |
| 73 | Acceptance of QAP | to be agreed | Yes / No / Explain | | |
| 74 | The bidder shall sign and stamp the technical specifications, general conditions and all annexures | copy to be uploaded in the portal | Yes / No / Explain | | |

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| 75 | The bidder shall mention the details of imported components and their % in the total valve cost | The % cost of components which are not manufactured in India shall be specified | Yes / No / Explain | | |
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Supporting Documents required from Vendor

1. Signed and stamped copy of specifications, General conditions, QAP and Annexures

2. Technical details of valves, actuators, limit switches and limit switch enclosures

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

| Sl. No. | Description | Compliance | Vendor Terms |
|---------|--|--------------------|--------------|
| 1 | The supplier shall mention the makes of the valve, actuator, limit switch and limit switch enclosure in his offer | Yes / No / Explain | |
| 2 | The supplier shall submit the catalogues, brochures and other technical details of the valves. | Yes / No / Explain | |
| 3 | P & F charges, if any, please mention percentage Note: Please state Whether Quoted percentage is Extra or Inclusive, if not it will be treated as included in the quoted cost. Please note that in Two part tenders, only percentage should be mentioned otherwise those offers shall be summarily rejected. | Yes / No / Explain | |
| 4 | Please mention your GST registration details GST No. for SHAR- GSTIN: 37AAAGS1366J1Z1 | Yes / No / Explain | |
| 5 | In case of Specific Brand items, Please provide Authorization certificate from OEM. | Yes / No / Explain | |
| 6 | Please specify whether you are a MSME if so please furnish the documentary evidence along with your offer. Vendors may please note that MSMEs are not exempted from the submission of security deposit. | Yes / No / Explain | |

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| 7 | <p>As per Notification No. 05/2018 CUSTOMS Dtd. 25.01.2018 ISRO is eligible to reduced rate of customs duty @ 10.775% (CD@5% plus Surcharge@10% plus IGST@5%). In case of foreign component involved, We will provide Customs Duty Exemption Certificate in case of Import Orders/ imported supplies/ High Sea Sales. In this connection, tenderer has to provide the following.</p> <p>(i) Please indicate whether your rate is inclusive of this Customs duty @ 10.775% or extra.</p> <p>(ii) what would be the percentage of foreign exchange component you have considered in your quote.</p> <p>(iii) List of items with approximate quantities which require customs duty exemption certificate to be provided.</p> <p>Note: Please state Whether Quoted percentage is Extra or Inclusive, if not it will be treated as included in the quoted cost</p> <p>Please note that in Two part tenders, only percentage should be mentioned otherwise those offers shall be summarily rejected.</p> | Yes / No / Explain | |
| 8 | <p>VALIDITY OF OFFER: - The validity of offers/tenders should be 180 days from the date of opening of the tenders. Tenders shorter than offer validity mentioned above will not be considered for evaluation.</p> | Yes / No / Explain | |
| 9 | <p>Delivery Term:- FOR : SDSC SHAR, Sriharikota In case of Foreign orders, FOB or FCA or EX-WORKS.</p> | Yes / No / Explain | |
| 10 | <p>Freight charges, if any. If YES please mention the percentage / amount.</p> <p>Note: Please state Whether Quoted percentage is Extra or Inclusive, if not it will be treated as included in the quoted cost</p> <p>Please note that in Two part tenders, only percentage should be mentioned otherwise those offers shall be summarily rejected.</p> | Yes / No / Explain | |
| 11 | <p>Delivery Period: Within 06 months from the date of receipt and acceptance of items.</p> | Yes / No / Explain | |

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| 12 | <p>Payment Term :- (a) 100% payment shall be made through PFMS within 30 days of receipt and acceptance of the item at our site. (b) However the following payment term also will be considered if required. 01. 30% of order value as advance against ABG. 02. 60% of order value against receipt of item at SDSC SHAR. 03. Balance 10% of order value against satisfactory performance of items against PBG.</p> <p>SUPPLIER SHOULD SPECIFICALLY MENTION THE PAYMENT TERMS WHICH MENTIONED ABOVE (ANY ONE i.e (a) OR (b))</p> | Yes / No / Explain | |
| 13 | <p>Liquidated Damages (LD) :- Since delivery is the essence of this order, LD @ 0.5% per week or part thereof subject to a maximum of 10% of the order value for the delayed period of supply/ scope of work.</p> | Yes / No / Explain | |
| 14 | <p>Warranty:- Warranty for the offered item shall be from the date of installation/acceptance of the item at our site for a minimum period of one year or as specified in the tender document.</p> | Yes / No / Explain | |
| 15 | <p>Performance Bank Guarantee (PBG) :- You have to submit a PBG from a Nationalised / Scheduled Bank for 3 % of the order value at the time of supply valid till the completion of warranty period plus 60 days towards claim period. OR 3 % OF THE ORDER VALUE SHALL BE HOLD TILL THE COMPLETION OF WARRANTY PERIOD.</p> | Yes / No / Explain | |

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| 16 | Security Deposit (SD) :- 3 % value of the order shall be deposited with SDSC within 10 days from the date of the Purchase Order towards security deposit in the form of Bank Guarantee towards performance of the Contract valid till completion of the contract period plus sixty days towards claim period. (This will be returned by SDSC immediately on execution of the order satisfactorily as per order terms. If not, the amount will be forfeited). NOT REQUIRED FOR LANDED COST BELOW RS.5 LAKHS. | Yes / No / Explain | |
| 17 | In case, if parties are unable to provide two separate BGs, i.e., one for SD & one for PBG, they can submit a combined BG for SD & PBG for 3 % of the Order value valid till the completion of total contractual obligation (i.e., Supply period plus warranty period plus 60 days). Please confirm. | Yes / No / Explain | |
| 18 | Insurance :- Being a Govt. Of India Dept., Insurance is not required at our cost. Please ensure the safe delivery of the ordered item with proper transport worthy packing. | Yes / No / Explain | |
| 19 | Validity of Offer :- The validity of the offers / tenders should be 120 days from the date of opening of the tenders. Tenders shorter than offer validity mentioned above will not be considered for evaluation. | Yes / No / Explain | |
| 20 | Remarks if any: 1. Annexure-I of tender document i.e "Additional terms & conditions to tender enquiry" may be read as below. a) Point No.01 - Offer validity of the offers/tenders should be 180 days from the date of tender opening. b) Point No.08 - 3% of order value shall be submitted as Security Deposit. c) Point No.09 - PBG for 3% of order value should be submitted. | Yes / No / Explain | |
| 21 | In case of foreign orders: (a) Please specify whether any Export clearance is required. (b) Please specify whether any agency commission is involved or not | Yes / No / Explain | |

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| 22 | <p>Special conditions against Indian Agents submitting quotations in Foreign Currency.</p> <p>(a) Foreign Principals proforma invoice indicating the commission payable to the Indian Agent and nature of after sales service to be rendered by the Indian Agent.</p> <p>(b) Copy of Agency agreement with the Foreign Principal, precise relationship between them and their mutual interest in the business.</p> <p>(c) The enlistment of the Indian Agent with Director-General of Supplies & Disposals under the Compulsory Registration Scheme of Ministry of Finance.</p> | Yes / No / Explain | |
| 23 | Please provide valid/currently using E-mail Id & Contact no. for seeking further clarifications if any | Yes / No / Explain | |
| 24 | <p>For this procurement, bids from Class-I & class-II Local Suppliers are admissible. Hence provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DIPP), Ministry of Commerce & Industries vide letter No. P-45021/2/2017-PP(BE-II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments: Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).</p> <p>(a) Class-I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.</p> <p>(b) Class-II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order.</p> <p>IT IS ALSO REQUESTED TO PROVIDE MII CERTIFICATE FOR PROVING THE PERCENTAGE OF LOCAL CONTENT.</p> | Yes / No / Explain | |

C.3 Price Bid

| Sl. No. | Item | Quantity | Unit Price | Currency | Total Price | Remark |
|---------|--|------------|------------|----------|-------------|--------|
| 1 | Ball Valves Electro Pneumatic SS Ball Valve of Size: 15NB x150# | 3.00 Nos. | | - | | |
| 2 | Ball Valves Electro Pneumatic SS Ball Valve of Size: 15NB x300# | 6.00 Nos. | | - | | |
| 3 | Ball Valves Electro Pneumatic SS Ball Valve of Size: 25NB x150# | 4.00 Nos. | | - | | |
| 4 | Ball Valves Electro Pneumatic SS Ball Valve of Size: 25NB x300# | 16.00 Nos. | | - | | |
| 5 | Ball Valves Electro Pneumatic SS Ball Valve of Size: 40NB x150# | 4.00 Nos. | | - | | |
| 6 | Ball Valves Electro Pneumatic SS Ball Valve of Size: 40NB x300# | 5.00 Nos. | | - | | |

Common charges (Applicable for all items)

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| P&F PER COMMON | |