SPEED POST

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સરદારવલ્લભભાઈનેશનલઈન્સ્ટીટ્યુટઓફટેકનોલોજી, સુરત
सरदारवल्लभभाईराष्ट्रीयप्रौद्योगिकीसंस्थान, सूरत
SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT
(An Institute of National Importance, Ministry of Education, Government of India)

SVNIT

No. DoME/Seed Money/SK/OH-35 / 4273 /2025-26/3050 Date: 20/02/2026

20 FEB 2026

To,
Institute Website

Sub: Enquiry for Severe Plastic Deformation (Constrained groove pressing and equal channel angular pressing) Tools and Dies.

Dear Sir,

You are requested to quote your rates for **Severe Plastic Deformation (Constrained groove pressing and equal channel angular pressing) Tools and Dies** at the SVNIT Campus, Surat listed overleaf. The quotations may be sent to the undersigned in a sealed envelope and superscripted as "Quotation with reference to Enquiry No: **DoME/Seed Money/SK/OH-35, 4273/2025-26 Date: 20/02/2026**". Your quotation should reach the undersigned on or before **26/02/2026 at 5:00 P.M. addressed to The HOD, DoME, S. V. National Institute of Technology, Ichchhanath, Surat-395007, Gujarat.** However, SVNIT Surat accepts no responsibility for offers received after the due time and date.

The quotations should be furnished with the following information.

1. The rates specified in the quotation are for Design, Material procurement, Fabrication, Assembly, and Supply of Severe Plastic Deformation (Constrained groove pressing and equal channel angular pressing) Tools and Diesat the SVNIT Campus, Surat as per the required features mentioned in the tableon a **F.O.R. Institute** basis.
2. GST and any additional charges such as transportation F.O.R. SVNIT should be clearly specified at the concessional rates allowed to educational institutions as per the relevant notification of the Government.
3. The supply period is to be clearly mentioned in the quotation.
4. The supply order is for a period of **30 days** from the date of issue of a confirmed supply order.
5. The period of validity of the quotation should be at least 30 Days after last date to receive the quotation. Offer subject to a prior sale may please be avoided.
6. Generally, Payment shall be made within a period of thirty days from the date of satisfactory completion of the supply, installation, training& submission of bills and official procedure from the account section of the institute.
7. All concessions available to an educational institution should be specified and also taken into account while quoting.
8. The mode of supply must be mentioned. The supply should be at F.O.R. SVNIT, Surat.
9. An offered quotation may be rejected if any ambiguity is found.
10. The supply will be executed under the direct supervision of the Department Head, Mechanical Engineering.
11. In case of any accident during supply leading to injuries/damages to human being/equipment, or loss of life the bidder shall be fully responsible for settling all claims and indemnify the department against any claim arising out of such accident.
12. The acceptance of inquiry will rest with the competent authority (The Director, SVNIT, Surat) who does not bind himself to accept the lowest one and reserves the right to accept or reject any or all the inquiry tenders without giving any reasons thereof.
13. The Director, SVNIT, Surat reserves the right to accept an offer, which is not strictly conform to the specifications but is otherwise, found suitable. If offers do not comply with specifications or are found in substandard condition, the same is to be taken from the institute, at the cost and responsibility of the supplier.

Yours faithfully,

Head, Mech. Engg. Dept.

Technical Specifications

Sr. No.	Item Description	Qty.	Unit Rate Rs. Ps.	Total Rs. Ps.
1.	**Severe Plastic Deformation (Constrained groove pressing or equal channel angular pressing) Tools and Dies**	**2 set**		
	This specification outlines the requirements for the design, procurement, and fabrication of tooling specifically engineered for Severe Plastic Deformation (SPD) processes, such as Equal Channel Angular Pressing (ECAP) and Constrained Groove Pressing (CGP). 1. The scope includes: (a) Optimization of tool CAD models, specifically focusing on channel intersection angles φ and outer corner radii ψ for ECAP, or groove profiles for CGP. Design must include to ensure the die does not yield under maximum processing loads. (b) Material Procurement: Sourcing of ultra-high-strength and shock-resistant tool steels (E31, D2 or H13) capable of maintaining structural integrity under cyclic high-pressure loading. (c) Utilization of precision CNC machining and Wire Electrical Discharge Machining (W-EDM) to achieve the complex internal geometries required for uniform strain distribution. (d) Comprehensive reporting on dimensional accuracy, hardness profiles, and surface integrity. 2. Technical Requirements (a) To ensure the longevity of the tooling under cyclic high-pressure loading, the supplier must achieve dimensional tolerances within ±0.01 mm and ensure an airtight fit between split-die components to prevent material "flash" or leakage. (b) Forming surfaces must be polished to a mirror finish with a micro-surface roughness of Ra ≤ 0.1–0.2 μm and treated with wear-resistant coatings, to minimize friction and prevent material galling during the deformation process. (c) Technical requirements dictate that the bulk tool steel be vacuum hardened and tempered to a range of 45–55 HRC, providing the necessary dimensional stability and fatigue resistance required for SPD applications. (d) A high-precision guidance and containment system must be integrated into the assembly to maintain alignment within 5 μm and ensure the die remains securely closed under maximum press tonnage. (e) Upon completion, the supplier shall provide a comprehensive set of deliverables, including the fully assembled tool and die set, spare inserts for high-wear areas, and detailed validation reports documenting dimensional accuracy and material certifications. (f) All components must be delivered in vacuum-sealed, corrosion-resistant packaging to preserve the high-integrity surface finishes until they are integrated into the pressing environment.			

Note: (1) Quotation must be provided on the firms/company's letter pad.
(2) The items will be accepted only after quality and content checks at Department office, Mechanical Engineering.
(3) Clearly mention all the price including all applicable taxes, payment terms, delivery period, transportation cost, validity of quotation, etc.