

Project No. – 22WS (0050)/2023-
24/EMR-II/ASPIRE

Dated: September 11, 2025

To,

Email:

Phone:

Sub: Inviting quotation for Wire cut EDM machine

Dear Sir/Madam,

The Institute intends to procure a **wire cut EDM machine** (as per the specification provided in Annexure-I) for one of its sponsored research projects sponsored by CSIR. You are invited to participate in this bidding process and submit your quotation for the supply and installation of the complete set-up with the following terms and conditions.

You may kindly give your lowest offer on the following terms and conditions by **29st September 2025**.

- 1) Interested Firms/Parties should submit documentary proof (photocopy) of the following:
 - a) Valid Registration Certificate of the firm.
 - b) GSTIN and PAN Number.
- 2) The rates quoted should be **FOR Destination** inclusive of all applicable taxes/statutory levies (GST or any other applicable central/state government taxes). No additional charges shall be entertained by PDPM IIITDM Jabalpur.
- 3) The product shall come with a **valid support contract** for the period mentioned in the specifications (refer Annexure-I).
- 4) The supplier must ensure **technical support** (email/phone/online) for installation, activation, and operation issues for a **minimum of 3 years** from the date of installation.
- 5) Sealed quotation should reach on or before **3.00PM, 29/09/2025**, to the **AR (Purchase), PDPM-IIITDM Jabalpur, Dumna Airport Road, Mehgawan, Jabalpur-482005**. Alternatively, duly signed quotations on the letter head of the firm can be submitted through email also at the following email addresses: **arpurchase@iiitdmj.ac.in** and manu@iiitdmj.ac.in within the same deadline of **3.00PM, 29/09/2025**. Hard copies are also required in case of Email submission.
- 6) The Institute reserves the right to reject any or all quotation without specifying any reasons thereof.
- 7) For any technical queries regarding the indented item or its specification or compatibility, please contact the undersigned at: manu@iiitdmj.ac.in.

- 8) Any delay or failure in delivering the items due to administrative or technical issues will be the responsibility of the supplier.
- 9) All disputes will be subject to jurisdiction in Jabalpur, Madhya Pradesh.

Thanking you,

(Dr. Manu Srivastava)
Project Investigator

Technical Specification – Wire Cut EDM

Category	Specification
Machine Type	High-precision CNC Wire EDM with LM Guideways & Ball Screw drive
Table Size (L × W)	~550 × 450 mm or better
X & Y Axis Travel	350 × 250 mm or better
U & V Axis Travel	±6° / 80 mm (±30°/±45° optional) or better
Z Axis Travel	300 mm or better
Max. Workpiece Thickness	300 mm or better
Max. Workpiece Size	~650 × 550 × 300 mm or better
Max. Workpiece Weight	100 Kg or better
Cutting Speed	Up to 120–150 mm ² /min (depending on cut mode and material)
Cutting Accuracy	±0.01 mm
Surface Finish (Ra)	≤1.2 μm (multi-pass skim cut)
Wire Diameter	0.15–0.25 mm (0.18 mm standard)
Wire Material	Molybdenum / Brass wire
Control System	CNC PC-based controller with Windows interface
Programming	AutoCut software, DXF/DWG import, multi-pass cutting support
Functions	Auto edge & center find, auto gap recovery, auto threading (option), dry run mode
Axes Drive	Closed-loop stepper/servo motors with LM guideways
Power Supply	3-phase, 415 V ±10%, 50 Hz
Power Rating	~3 kVA
Water Tank Capacity	~150 L or more with high-pressure filtration unit
Machine Weight	~1800–2000 kg
Protection	Over-voltage, short-circuit, over-travel protection
Standard Accessories	Mentioned below
Optional Features	- Multi-cut function (for higher accuracy and surface finish) - Taper cutting up to ±30° / 80 mm (or ±45° optional) - Auto wire threading - Aluminium cutting device
Warranty	3 Years
Training & Installation	Free installation & 3 days training included

Standard Accessories (Included with Machine):

- Wire Spools: Molybdenum wire (0.18 mm, 2000 m × 2 rolls)
- Dielectric System: Tank with multi-stage filter unit, pump, and resin cartridge
- Soap Gel / Dielectric Concentrate: 2–3 kg
- Wire Alignment / Vertical Setting Block (1 No.)
- Workpiece Clamping Kit (standard fixtures, including v-blocks, clamps, and magnetic base)
- Industrial PC with CNC Software (AutoCut / equivalent)

- Tool Kit (1 complete set with calibration tools, leveling tools, spanners, Allen keys, etc.)
 - Spare Wear Parts Kit (guides, power feed contacts, rollers, filters, seals – sufficient for **1 year operation**)
 - Carriage / Trolley for tank & accessories
 - User & Maintenance Manuals (hard copy + soft copy)
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Additional Essential Accessories (to be supplied mandatorily):

- Extra Wire Spools: Brass (0.2 mm, 5000 m × 2 rolls) and Molybdenum (0.18 mm, 5000 m × 2 rolls)
 - Resin Cartridges (minimum 2 additional sets for dielectric purification)
 - Dielectric Filters (minimum 5 spare units)
 - Set of precision parallels & angle plates for work holding
 - Stainless steel work holding clamps set (different sizes)
 - Dial Gauge with Magnetic Stand (for alignment verification)
 - Workpiece levelling block & height gauge attachment
 - Uninterruptible Power Supply (UPS, 3 kVA, 30 minutes backup for controller unit)
 - Coolant / Dielectric circulation pump (1 spare unit)
 - Fire extinguisher (CO₂ type, 5 kg, for machine safety)
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Optional (Recommended Upgrades):

- Automatic Wire Threading Unit
- Taper Cutting Attachment ($\pm 30^\circ$ / 80 mm, $\pm 45^\circ$ optional)
- Aluminium Cutting Attachment
- Chiller Unit for dielectric temperature control (essential in continuous operation)
- Dust-proof enclosure for PC controller