

Section - I

IMPORTANT FEATURES OF THE TENDER

1. INSTRUCTIONS TO TENDERERS FOR FILLING TECHNICAL BID

- 1.1 Unless otherwise stated, latest alterations/ revisions of specifications/ standards/ drawings shall be applicable. In respect of safety standards and environmental standards relevant to the machine, the machine manufacturers shall ensure compliance with International (CE/ISO/DIN/JIS)/National standards (IS) (wherever applicable).
- 1.2 Tenderers should offer and quote for all the specified concomitant accessories, as these are considered essential for commissioning and utilization of the machine. Even if bidder does not recommend the purchase of any of these accessories, the price must be quoted for comparison purposes and their recommendation/suggestion to be indicated in the offer. Tenderers should also quote for optional accessories, spares and consumable spares as asked in the specifications.
- 1.3 In case, any item is required in sets, please specify nos. /pieces per set. This is essential for proper technical evaluation of the offer. Offers received without this may be considered as incomplete and liable to be rejected.
- 1.4 The bidder should quote only for the specified make of sub-assemblies and equipment wherever specified. Makes of sub-systems other than the specified ones will normally not be acceptable. In case, some other make is quoted, specific reasons for the same including its features/advantages over specified makes must be brought out in the offer.
- 1.5 In case there is a contradiction in any information provided (some parametric values given in the specification and those given in the brochure or some other document enclosed by the tenderer), unless specifically mentioned by Tenderer in the deviation clause of IREPS Online Bid, the values as given in this specification shall be taken as confirmed by the tenderer and offer evaluated accordingly.
- 1.6 Bidder or his authorized agent, in their own interest, should visit the consignee with prior appointment with Controlling Officer of the consignee and acquaint themselves with existing process of manufacturing/remanufacturing, site conditions, availability of material handling facilities etc.

  
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2.	<b>DESCRIPTION:</b> "Double Cylinder Hydraulic Machine for Pressing of Secondary Suspension of ICF Bogie" Capacity 20 Tonnes (Each Cylinder), as per Specification No. M/246/1/15/2026-27/Spec/DCHP/ICF (Basis: COFMOW/HP-50T/40 (20 + 20) T/200T/2021 Rev 03.)
2.1.1	The Press shall be capable of Pressing ICF Bogie Bolster for Fitment and Removal of Secondary Suspension Springs of ICF Bogie.
2.1.2	Press structure shall be able to support a work piece weight up to rated capacity.
2.1.3	Operating in semi-automatic mode with quick approach, slow down just before pressing, pressing, slow release and quick return. It shall also be possible to execute each of these operations individually.
2.1.4	The press shall be easy to operate and operator friendly.
2.1.5	The hydraulic press shall be foolproof and fail-proof, safe to operate.

2.2	<b>Leading parameters</b>	
2.2.1	<b>Major parameters:</b> (Note: No deviation in major parameter shall be accepted. )	
1.1	Type of press	Open front "C" frame vertical type, Downward Pressing
1.2	Capacity of press	20 Tonnes (minimum) On Each Cylinder
1.3	No. of Hydraulic Cylinders and type	a) 02 Nos. Double Acting Hydraulic Cylinders, each capable of generating 20 tonnes (minimum) force, for performing operation given in clause C of this specification. b) Both cylinders shall be capable of independent and synchronized operation.
2.2.2	<b>Other parameters</b>	
2.2.2.1	Working table size (LR X FB)	a) Two Tables of Size 2800 x 2000 x 420 mm (for placing on both sides of the press) b) One Table of Size 2800 x 490 x 420 mm (For placing directly below the RAM cylinder) c) Working table can be designed in three parts as mentioned above and alignment of all three parts should be done in a manner such that when ICF bogie is placed on the table for pressing operation, it should not wiggle.

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2.2.2.3	Daylight	860 mm (minimum)	
2.2.2.4	Ram speed (max. permissible variation: + 10%)	a) Approach Speed = 50 mm/sec (minimum) b) Working Speed during pressing = 5 mm/sec (minimum) c) Return speed = 40 mm/sec	
2.2.2.5	RAM and Plunger Finish	Precision Ground and Hard Chrome Plated.	
2.2.2.6	Motor Power	10 HP (minimum)	
2.2.2.7	Geometrical accuracies of the press	As per IS: 14877 (Pt. I) : 2000 Grade 2	
2.2.2.8	Power supply	415 V+10% -20%, 50Hz. +/-3%	
2.2.2.9	Hydraulic oil tank capacity	150 Liters (Approx.)	
2.2.2.10	Two nos. separate earth pits will be provided and connected.		
2.2.3	Parameters of Bogie without Wheel Set:	ICF-AC	ICF Non-AC
2.2.3.1	Length	4360 mm	4360 mm
2.2.3.2	Width	2660 mm	2660 mm
2.2.3.3	Uncompressed Height (Bolster resting on Coil Spring without any fastening)	820 mm	820 mm
2.2.3.4	Weight of Bogie without Wheel	4000 kg	4000 kg
Note:	(a) A layout drawing of the existing machine installed at Izzatnagar Workshop is attached with this specification. Tenderers are required to visit the workshop to take all necessary measurements of the existing machine installed at Izzatnagar workshop, acquaint themselves with the working conditions and work to be done by the machine. (b) Tenderers are required to submit Detailed GA drawings including drawings of sub-assemblies e.g., hydraulic cylinder, etc., along with Hydraulic Circuit Diagram and Electrical Circuit Diagram for approval by consignee. Machine shall be designed and manufactured as per approved GA drawing only.		

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**2.3 Performance Standards:**

- (i) The machine should have geometrical accuracies as per Indian Standard Specifications IS: 14877(Pt.1):2000 Grade 2 or equivalent International Standards which shall be mentioned in the offer.
- (ii) Double Cylinder Hydraulic Machine for Pressing of Secondary Suspension of ICF Bogie" Capacity 20 Tonnes (Each Cylinder) should meet the performance and geometric testing criteria as laid down in DIN-55222. It shall be designed for high reliability and ease of maintenance. Any special features facilitating ease of maintenance shall be explained in the offer.

**2.4 Productivity Test:** Complete Removal and Insertion of Secondary Suspension Springs on 15 Nos. ICF Bogies (Minimum) per shift of 08 hours.**2.5 Prove out at firm's premises:**

- i) A load test shall be carried out at the manufacturer's works. Rigidity of the machine shall be demonstrated to the satisfaction of the appointed Inspector of Inspecting Agency. The major parameters including ram speeds and accuracies specified should be proved out during inspection of the machine.
- ii) Geometric and performance tests as per clause 2.3 of section I of Technical specification.

**2.6 Prove out at consignee's works:**

The machine performance shall be demonstrated by the supplier or his agent by performing productivity test as per clause 2.4 of section I, for proving-out successful commissioning at the consignee's works. The requirement operations of all the components listed in Annexure 'F', shall be proved out at the consignee's premises as the part of commissioning process.

**Note:** Tools & Equipment required for installation of the machine and Set of Test Mandrels/Special Gauges for checking & alignment of machine should be brought by the bidder. The bidder can take back these items after installation & commissioning of the machine, which are in not in the scope of supply. The bidder shall also be responsible for any deviation/rejection in prove out of the components due to wrong tooling, die, punches or malfunctioning of the machine during prove out and also for the delay in bending due to improper recommended tooling etc. Any changes in tooling during prove out shall be at the responsibility and cost of the bidder. The bidder shall supply the changed toolings at prove out stage as per requirement.

**3. Quantity & Consignee**

S. No.	Consignee	Qty.	Specification No.
1.	CWM/IZNS	01 Nos	M/246/1/15/2026-27/Spec/DCHP/ICF Basis: COFMOW/HP-50T/40 (20 + 20) T/200T/2021 Rev 03

**4. SCOPE OF SUPPLY**

The scope of supply shall include,

- (a) Design, manufacture, supply, installation, testing, commissioning and proving of machine on

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turnkey basis. Construction of Foundation is in scope of supply and is to be done by firm in accordance with clause 12.8 of Section II of this specification.

- (b) It shall also include all the concomitant accessories/equipment's as detailed in the specification and other concomitant accessories/ equipment, which the manufacturer Considers essential to make the machine fully operational, when installed and commissioned (refer Clause 4.1 of Section I).
- (c) It shall also include installation and commissioning of machine and related equipment (Clause 12 of Section II),
- (d) Training of personnel in operation and maintenance of machine (Clause 10 of Section II) and supply of technical documentation (Clause 4 of Section II).
- (e) Fulfilment of Warranty Obligations by firm during warranty period as per clause 16 of Section II of Technical Specification.
- (f) Comprehensive Annual Maintenance Contract, (if opted by consignee.)

#### 4.1 CONCOMITANT ACCESSORIES

4.1.1 The machine should be accompanied with the following concomitant accessories:  
 (Quantity of each item shall be indicated in the bid)

i.	First fill of oils and lubricants required for successful commissioning of the machine.	150 liters minimum.
ii.	Maintenance tools (List of tools indicating make, description & quantity shall be furnished in the bid)	1 set
iii.	Compatible Servo controlled voltage stabilizer (Ref. Clause 2.13.2 of Section II)	1 no.
iv.	Compatible Ultra-isolation transformer (Ref. Clause 2.13.3 of Section II)	1 no.
v.	Flexible four core copper cable with armored conduit from main switch to Isolation transformer, Isolation transformer to voltage stabilizer & voltage stabilizer to machine on-off switch of machine's panel.	10 meter length (minimum)
vi.	Necessary tools and fixtures capable of carrying out the required operations on ICF Bogie	2 Sets
vii.	Any other accessory/ equipment, which the manufacturer considers essential to make the machine operational, when installed and commissioned connected to power source and give the specified output/productivity.	

#### 4.2 Optional Accessories

Any other accessory, which can improve the productivity, performance, reliability, efficiency, or enhance the capability of the machine as a whole or part thereof, should be quoted as optional accessory. Cost of optional accessories shall be quoted separately and shall not be included in the basic price of the machine. Cost of optional accessories will not be taken for commercial evaluation of the firms.

#### 5.0 Evaluation Criteria

Total value of the offer will be calculated based on

- (i) The cost of the basic machine, "Double Cylinder Hydraulic Machine for Pressing of

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- Secondary Suspension of ICF Bogie Capacity 20 Tonnes (Each Cylinder), as per Specification No. M/246/1/15/2026-27/Spec/DCHP/ICF".
- (ii) Cost of the concomitant accessories and cost of any other accessory which in the opinion of supplier is essentially required for making the machine fully functional.
  - (iii) Cost of Turnkey Charges viz. foundation, installation & commissioning etc.
  - (iv) Cost of Comprehensive AMC for five years after expiry of warranty period as per clause 17 of section II of this specification.
  - (v) Duties and taxes as quoted by the bidder, insurance and freight.

## 6.0 Other Items to be Quoted

The following items will need to be quoted additionally though will not be part of commercial evaluation:

- i. Optional Accessories with break-up of individual items as specified in clause 4.3 of section II.
- ii. Consumables as per clause 6 of Section II with breakup of individual items as applicable.

## 7.0 Delivery Schedule Chart

In the event of acceptance of the offer, the machine(s) shall be supplied as per the following Milestone Chart:

**Name of machine:** Double Cylinder Hydraulic Machine for Pressing of Secondary Suspension of ICF Bogie Capacity 20 Tonnes (Each Cylinder)

**Specification No.:** M/246/1/15/2026-27/Spec/DCHP/ICF

S. No	Activity	Activity Code	Outer Limit of Time Schedule expected by IZNS
1.	Issue of LOA	D1	-
2.	Submission of SD Money by Successful Bidder	D2	D1+30 days
3.	Issue of Purchase Order	D3	D2+30 days
4.	Submission of GA drawings to consignee by Successful Bidder/Supplier along with information on power and other utilities required for machine.	D4	D3 + 45 days
5.	Approval of GA drawings by consignee (to be governed by clause 11.2 of section-II)	D5	D4+ 45 days
6.	Confirmation of availability of clear site by consignee	D6	By D5 (i.e. at the time of approval of GA drg.
7.	Completion of foundation.	D7	D6+150 days or latest by D 8
8.	Supply/ Delivery of machine.	D8	180 Days
9.	Power connection for the machine and other on-site requirement to be provided by railways.	D9	D8 + 7 days

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10	Railway to give call to supplier for the commissioning of machine.	D10	D8+ 7 days
11	Installation, commissioning and proving out of machine by supplier.	D11	D9 + 120 days or D10+ 120 days (whichever is later)
12	Issue of PTC by consignee	D12	D11 + 30 days
13	Warranty by supplier	D13	D11 + 2 years
14	AMC	D14	D13 + 5 years

Notwithstanding the delivery period indicated elsewhere in the tender document, the delivery indicated in this schedule shall be taken as overriding and final.

  
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