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BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL

FOUNDRY DIVISION

NOTES FOR DESIGN AND MANUFACTURE OF GRAVITY DIE TOOL
(TECHNICAL DELIVERY CONDITIONS)

DESCRIPTION : FAN BLADE

DRAWING NO. 34028040824


METAL SPECIFICATION FOR CASTING : AA19950

NOTE FOR MANUFACTURING OF GRAVITY DIE TOOL

- 1 Hot die steel Gravity die tool equipment for Fan blade casting with drawing no. 34028040824 to be made by CAD/CAM designing & CNC machining . Casting to be casted horizontally.
- 2 Hardening of Hot die steel blocks to be done by Vacuum Hardening process.
- 3 Material used for die tool manufacturing - Hot die steel H 13, Cr - Mo - V alloyed
- 4 Contraction allowance for item = 1%
- 5 Machining allowance for the casting - 5 mm wherever machining symbol marked.
- 6 General wall thickness of die - 30 mm minimum.
- 7 Locks , guides and locating pins to be provided for proper matching of die tool blocks.
- 8 Die tool to be properly finished with standard taper for easy withdrawl of casting.
- 9 Proper clamping system to be provided to die tool.
- 10 Provisions for easy handling of different pieces of die tool.
- 11 Die tool for Fan blade casting shall produce one casting at a time.

General

- 1 Die Tool shall be supplied based on designed Die Tool Drg.made by the party and approved by BHEL.
- 2 Casting drawing no. 34028040824 will be supplied by Foundry division, BHEL, Bhopal to the manufacturer/ supplier.
- 3 Die tool for Fan blade to be made and delivered after BHEL's inspection at suppliers work.
- 4 Supplier to be associated during production of first - off casting.
- 5 Supplier to furnish detailed dimensional report of Die tool equipment vis a vis casting drawing dimension.
- 6 Final clearance shall be given only after successful casting at Foundry division, BHEL, Bhopal.


Mgr. (FYM)

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FOUNDRY DIVISION

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(3)

BHART HEAVY ELECTERICALS LIMITED, BHOPAL

FOUNDRY DIVISION

CHECK LIST FOR TECHNICAL DELIVERY CONDITIONS.

DRAWING NO. - 34028040824 & 34028040827

DISRIPTION : FAN BLADE

CASTING METAL SPECIFICATION : AA19950

FACILITIES REQUIRED FOR ALUMINIUM PATTERN MANUFACTURING		VENDER / SUPPLIER TO CONFIRM TICK AT THE APPROPRIATE
1	DESIGNING FACILITY	
	1.1 3D / Solid Modeling of component, Die tool and Core Box.	YES / NO
	1.2 Party to submit the 3D/Solid model and get it approved by indenting department.	YES / NO
2	MACHINING FACILITY	
	2.1 The party should have in-house CNC machining facility.	YES / NO
	2.2 The party should have in-house conventional machining facility like lathe, milling machine, sanding machine, tools, equipments and calibrated measuring instruments.	YES / NO
3	PATTERN MATERIAL SPECIFICATION	
	3.1 Hot Die steel to be used for pattern manufacture.	YES / NO
	3.2 TC should be supplied along with pattern.	YES / NO
4	STAGE INSPECTION	
	4.1 After receiving order party should get the facilities and capabilities verified by indenting department.	YES / NO
	4.2 Party should give the progress/status of pattern and get the physical stage inspection done at their works.	YES / NO
	4.3 Stages of inspection	
	(i) 3D / Solid modeling.	YES / NO
	(ii) Wooden master pattern (If made).	
(iii) Machining of Die Tool.	YES / NO	
(iv) Final inspection.	YES / NO	
5	Party should furnish detailed dimension report along with method of operations.	YES / NO
6	Supplier should be associated with production of first off casting.	YES / NO

NOTE : Party should answer all the above queries so their technically suitability can be judged.
If it is found that the party has furnished wrong information, then they will be technically rejected or their order will be cancelled.

Seal & Signature of Vender / Supplier

