



Specification for Gas Exhaust
Equipment for Hand-held Furnace

Machining Aluminum Die Cast Part

Site New Plant in Mexico

Approval		
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	Revised	Mo./date	Created

Smoke Exhaust Equipment for Hand-held Melting Furnace
General matter

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Category	Content of specification	Remarks
1. Summary	To install a gas exhaust equipment that sucks and discharges dust and gas emission generated from hand-held melting furnace attached to the die casting machine to outside the building in HP die casting plant in the new plant in Mexico.	
2. Delivery time	To complete installation on site in Mexico plant in mid June in 2013. (Detailed schedule will be separately arranged) Mass production is scheduled to start in February 2014.	
3. Installation location	Celaya, State of Guanajuato, Mexico To be installed outside the building of HP plant	
4. Scope of specification	<p>Complete set of design, fabrication, packaging, transport, insurance, tariff, trial operation adjustment of gas exhaust equipment as well as on-site installation expense and guidance training</p> <p>1) Fabrication and installation of one unit of gas exhaust equipment</p> <p>2) Duct construction from duct connection point of hand-held melting furnace to gas exhaust equipment. (to be decided upon separate consultation)</p> <p>3) One set of documents to be separately submitted</p> <p>4) To deliver list of recommended replacement parts and spare parts as well as spare parts needed for regular cleaning for half year based on regular cleaning cycle.</p>	
5. Outside scope of specification	<p>(1) Primary power source construction Power supply: 480V 60Hz 3-phase, Supplier must provide transformer if needed.</p> <p>(2) Foundation work in the location for installing gas exhaust equipment, provided drawing required for foundation work is provided in advance.</p>	
6. Legal and technical	<p>Domestic laws and regulations concerning safety, environment, etc. in Mexico must take precedence over all other laws and regulations.</p> <p>HM mechanical equipment safety standard, HM equipment maintenance specification as well as specification for equipment reliability and safety provisions (electrical specification) must be complied with.</p> <ul style="list-style-type: none"> • HM mechanical equipment safety standard, HM equipment maintenance specification and electrical specification shall be provided separately (to be attached to this specification at the time of ordering). • The order of priority of document provided by HM shall be as follows in case the same item is covered. <ul style="list-style-type: none"> ① HM mechanical equipment safety standard ② HM electrical specification ③ HM equipment maintenance specification ④ This specification 	
7. Responsibility of construction	Supplier must be entirely responsible for the operations related to design fabrication, disassembly and installation adjustment.	
8. Warranty period	<p>(1) Warranty Period shall be for one year from the date of receiving.</p> <p>(2) During the Warranty Period, any and all accident, failure, and malfunction arising due to the Supplier's design, material, fabrication, etc. shall be corrected as soon as possible and free of charge by the Supplier.</p> <p>(3) Supplier must inspect, investigate, adjust and repair free of charge for any malfunction arising due to the Supplier after Warranty Period.</p>	

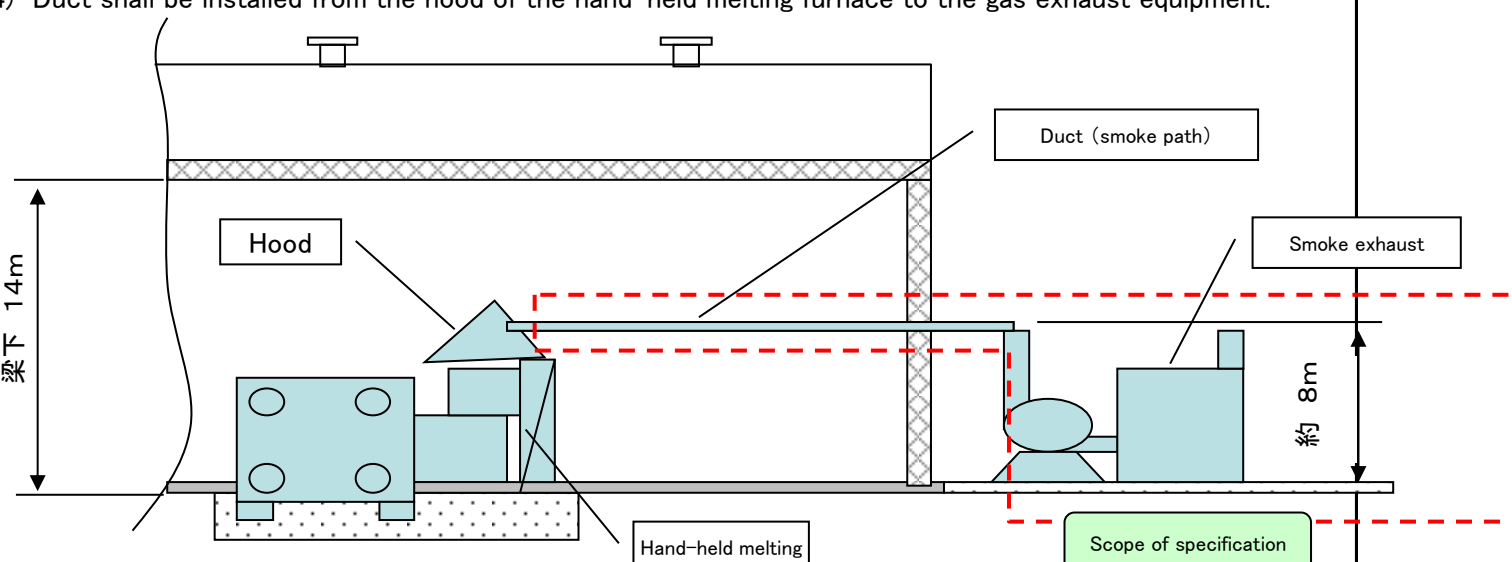
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	Content of specification	Remarks
<p>9. Operation and training of maneuvering</p> <p>10. Documents for submission</p>	<p>Supplier must give necessary explanation for individual equipment and safety related matters such as maneuvering, operation, and maintenance and give practical guidance and training so that concerned parties can master its operation.</p> <p>(1) Quotation: 3 copies Details of each item must be clarified in accordance with this specification.</p> <p>Details of equipment main unit, installation work expenses, and SV cost must be clarified.</p> <p>(2) Approval drawing: 3 copies Document embodying the entire quotation conceptual drawing must be submitted. HM must confirm content of approval drawing and return to Supplier with inserted comment.</p> <p>Supplier must execute changes from review in approval drawing and obtain HM's approval after resubmitting the approval drawing.</p> <p>(3) Overall drawing, assembly drawing, electrical circuit diagram, control panel related drawing, process sheet (that clarifies details from ordering to installation completion), etc.</p> <p>(4) Drawings to be always kept inside the control panel shall be kept inside a special transparent folder separate from operation manual.</p> <p>(5) Parts list: 2 copies Lists of equipment in use, parts, consumables, etc.</p> <p>(6) Equipment control manual: 3 copies List of control items, inspection sheet, inspection sheet for starting up operation, emergency contact</p> <p>(7) Document to be submitted to governmental agencies: 1 original copy Certificate and permit as required by laws as well as legally stipulated legal document (HM will investigate domestically required documents in Mexico in advance and notify which documents are required.)</p>	
<p>11. 検収条件</p>	<p>(1) Equipment must be delivered and installed in designated location and pass in the sessions attended by Supplier and by HM</p> <p>(2) All the content of equipment specification and minutes of preparatory arrangement must be satisfactorily met.</p> <p>(3) All the document for submission must be prepared and submitted.</p> <p>(4) All the content of equipment receiving report must be consulted and completely addressed by countermeasures.</p>	

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1. Basic specification	<p>(1) The capacity of the gas exhaust equipment shall be to suck dust and gas emission from melting furnace for three (3) 2500-ton die casting machine.</p> <p>(2) Dust, etc. shall be generated mainly when the dumper on the top of furnace is open during the injection of material or during the oxidation treatment (slug removal work). Please see the frequency of each operation below.</p> <p>(3) Aluminum material injection frequency: Twice to five (5) times/H (Material injection amount: 200kg~500kg/each time) Slug removal operation: About once to twice/H</p> <p>(4) Ability to adjust to temperature about 300~700°C during the discharge of dust, etc.</p> <p>(5) Dust, etc. deposited inside gas exhaust equipment must be easily cleanable.</p> <p>None of any part of body must come in contact with the actuator of the equipment during the cleaning or safety must be otherwise secured by such measure as stopping of equipment during the cleaning.</p> <p>(7) Noise must be cancelled to less than 85dB in a location 1m away from dust collector.</p> <p>(8) Equipment, drive motor, etc. must be for use outside the building (water-proof specification).</p> <p>(9) Paint color must be standard colors of Supplier.</p> <p>(10) Design and fabrication must be executed while considering the length of the duct (gas path).</p>	
2. Installation location and installation work	<p>(1) Please see the drawing below as well as the layout drawing provided in the next page for installation location. Details are to be explained separately.</p> <p>(2) Equipment must be fixed with hole-in-anchor, etc. so that it will not be overturned.</p> <p>(3) Operation panel must be installed inside the building or otherwise water-proof specification must be provided.</p>	
Instruction 外工事	<p>(4) Duct shall be installed from the hood of the hand-held melting furnace to the gas exhaust equipment.</p> 	

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	Content of specification	Remarks
<p>(5) Duct from gas exhaust equipment must be branched to connect to each hand-held melting furnace. However, refer to the above drawing to see where the No. 3 equipment is planned to be installed and fixed with flange.</p>		

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	<p>(6) To provide a dumper that can manually be closed and opened in a location close to hood of each hand-held melting furnace (for opening and closing is necessary for the repair of hand-held melting furnace).</p> <p>(7) Duct must be fixed and supported utilizing a gutter rail of overhead crane or the beam or wall of the building.</p> <p>(8) Both inside and outside of duct must have anti-corrosion paint, etc.</p> <p>(9) Duct must be connected with flange and capable of easy attachment and removal.</p> <p>(10) HM must provide Supplier drawing(s) with dimensions of flange on the side of hand-held melting furnace.</p>	