

Custom Engineered Pump Design Application





Manufacturing MTH Pumps in the USA since 1965 MTH begins the development process by researching the needs of the customer and the application requirements. Research projects with the customer's equipment brought in-house and tested in a simulated operating environment, is often used to aid in the development of design input specifications. At the heart of this process is the desire to find a solution to pumping problems that traditionally plague the industry or application in question. In each major industry MTH endeavors to become the most capable source of pumping knowledge available, thereby providing our customers with an additional engineering resource that can be leveraged to increase their product's advantage in the marketplace. Not lost in this effort, is the desire to meet the ongoing needs of the OEM to reduce cost, extend product life, reduce maintenance, and add product capabilities.

With basic design specifications in mind, MTH enters a rapid design / prototyping / testing cycle where newly designed or modified standard product can be evaluated for performance, reliability, and cost of manufacturing. The result is a custom engineered product offering that specifically addresses customer and application needs while very often reducing the cost of the overall product. MTH has been very successful at producing and selling custom engineered products at a cost less than that of commonly available standard pumps.

MTH's efforts to surpass customer satisfaction extend well beyond the pump itself. Special mounting brackets, piping trees, construction materials, custom assembly / packaging / testing services, inventory stocking arrangements, and JIT shipping schedules are all a part of the solution that our existing customers have found in a valuable product partner that is MTH Pumps. Please snd us the information on your custom engineered applications. The form below will help determine where to start.

1. Customer Information			Quote's D	Quote's Due Date:	
*Dist./Cust.:	*Contact Name:				
Mailing Address:					
*Email:	*le	l:	_Ext: Fax:		
2. End-User Information (If located					
(This information is necessary to er	nsure compliance to export laws a	nd regulations of U.S. Dep	partments of: Commerce	e; Homeland Security;	
and, other U.S. agencies.)					
*End-User:	*City, S	state & Country:			
*Location Where Pumps Will Be Ins	stalled/Used (City, State & Country	/):			
*End Product and Brief Description	of Process (of system where pur	ip will be used):			
3. Service Conditions					
		Conc: %	*Specific Gravity:		
*Liquid Name:	Max °F °C	*Viscosity: At Normal Tame		 cP SSU	
Vapor Pressure: At Normal Temp.	At Ambient Temp PSIA	Jelting Point:	°F °C Boiling Poin	0, 330 t· °F °C	
*Suction Pressure: PSIG	Discharge Pressure:	SIG NPSHA:	Feet Meters	I U	
*Flow Rate: Units	*Differential Pressure:	Feet Meters PS	I If NPSHA is not given mfr will s	necify the NPSHR1	
*Oil Used:		Conc · % *Sr	pecific Gravity.		
*Special Operating Conditions and					
4. Suspended Material Informat	ion (If none, please state "none.")				
*S.M. Name:		Conc. (% by wt.): _	Grain Size: Max.:	Avg.:	
5. Filtration (If none, please state "no	one.")				
Filter Type:	· · · · · · · · · · · · · · · · · · ·	Filter Size (Micron):	Grain Size: Max.:	Avg.:	
6.Pump Information					
Pump Type: (Regen. Turbine or Cer	ntrifugal; Canned Motor or Sealed	Туре)			
Material Requirements: I	RoHS Passivation Estimated	d Qty Per Year:			
Piping Connection: Standard NP	PT SAE BSP Other:				
7. Motor/Installation Conditions					
*Elect. Source: 1-Phase 3-F	Phase Hz		Voltage		
Location: Indoors Outdoors			F/C		
Enclosure: ODP TEFC EX	P Other:				
Motor Rating: UL CE CSA	Other:				
7. Special Boxing: No Ye	s If yes - Type: Exp	ort			
	Oth	ner - Attach Description			
8. Long Term Storage Prep:	No Yes				
9. Accessories / Other Informati	on:				
	// /				
10. Replacement Unit Information	on (it applicable)				
Manufacturer:		Model Number:			
Casing/Impeller Material:		O-ring Material:			
Bearing or Seal Material:			SIC / Carb	on / NiR / Etc.	

MTH PUMPS Engineered Products and Accessories



The mission of MTH Pumps is to design, develop, and produce pumping products to fit applications in which they are technically correct

solutions that also address the peripheral needs of the customer. To this end, the company has endeavored to become

highly vertically integrated to maximize the flexibility and agility of the company to meet product and customer needs. To facilitate the engineering centered nature of the company, MTH has acquired a number of resources needed to bring it to the leading edge of engineered product design and development. MTH utilizes highly



experienced design engineers, solid modeling CAD software, rapid prototyping equipment, its own pattern and mold making shop, its own foundry and fabrication

shop, state of the art auto-loading CNC machining equipment, and a wealth of inspection and testing equipment to rapidly design and develop the right solution for the job. In many cases, the design of custom pumps and accessories has netted a significant cost savings to the customer over the use of



standard off the shelf products. Whether the customer is looking for a slight modification to one of our standard products, a totally new pump design, or a completely different kind of product, MTH has the broad range of resources required to complete the task.

In the area of pump design, MTH has entered into the sealless pump market with sealless

MTH Pumps In-house Capabilities Include:

- Creative Engineering services
- Solid modeling design
- Rapid Prototyping tools
- Pattern and mold making shop
- · Bronze and Aluminum casting foundry (casting services inquiries invited)
- · Highly automated state-of-the-art CNC machine shop
- · Custom designed assembly/testing equipment and facilities
- · Customized packaging and labeling capabilities
- · Large finished inventory capacity for high availability and rapid shipment
- Dedicated Service and Repair Facility



canned versions of many of our standard products such as the SM50, SL50, ST31, ST41, ST51, SP31, and more are coming. Other custom OEM sealless products utilize extended shaft vertical immersible or controlled leakage designs. We have also developed products for special centrifugal designs, DC applications in both sealless and sealed versions, disk

friction centrifugal's, axial flow turbines for aerial firefighting, and submersible craft trim



and drain pumps. Other engineered products and accessories include the X41 Series of sealless canned chiller pumps, seal quench glands to extend seal life in difficult applications, special valves and suction strainers, mounting brackets, stainless steel tanks and systems, and custom piping trees and manifolds. For MTH customers, our advice is always: "if you don't see it, please ask."





While MTH Pumps' primary talents lie in engineering design, our efforts to meet and exceed customer specifications and satisfaction extend beyond the engineering and manufacturing arena. Special sourcing arrangements, construction materials,

custom assembly, packaging, labeling, and testing services, quality surveillance, inventory stocking

arrangements, and JIT shipping schedules are all a part of the solution that our existing customers have found in a valuable product partner that is MTH Pumps.





Manufacturing MTH Pumps in the USA since 1965

> ISO 9001 & 14001 Registered Company

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