

DELAYAN™

Professional Grade Agricultural Pumps.



HD Magnum
HYDRAULIC DRIVEN
Centrifugal Pumps

Delavan knows what

HD Magnum™



PowerFLO™



PowerMAX™

DELAHAN
PUMPS, INC.
PowerMAX™ Series
4" Bore x 8" Stroke
#PML400B-125

you need out of a pump.



Turbo-90™

RollerPRO™

DELAHAN™



Sizing, Selection & Plumbing Diagrams

How to Determine Pump Capacity for Your Sprayer

Pump Capacity (GPM): Boom Requirement (GPM) + Agitation Requirement (GPM)

Boom Requirement (GPM): Number of nozzles x flow rate per nozzle (GPM at desired PSIG)

Agitation Requirement (GPM): 5% of total tank volume if using liquids; 10% if using wettable powders

Example:

A boom with extended range 80-04 tips (0.40 GPM at 40 PSIG) and a 200 gallon tank with tank agitation.

Pump Capacity = (17 x 0.40) + (5% of 200)

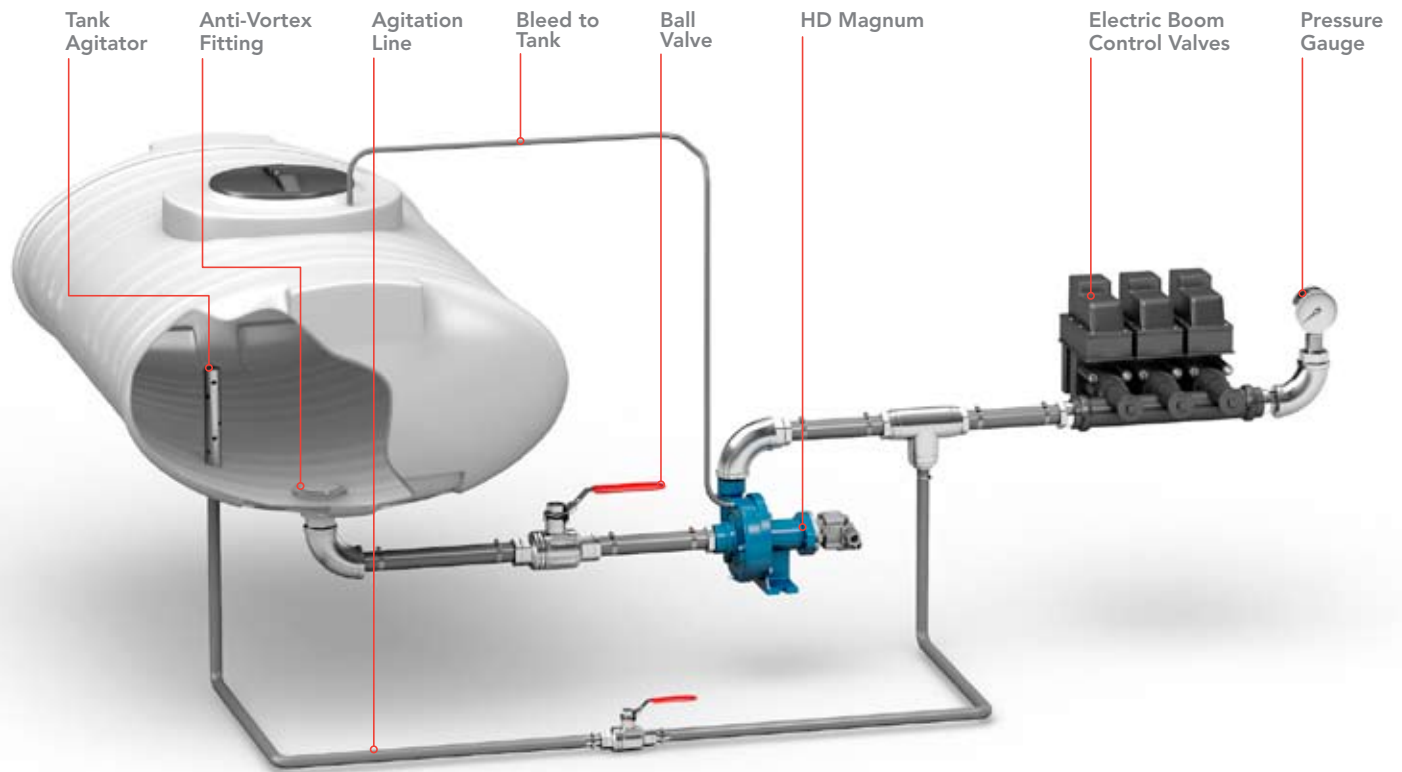
Pump Capacity = 6.8 + 10.0

Pump Capacity = 16.8 GPM

- See individual product specification pages for complete performance information.
- Please contact your Delavan Sales Agent or the factory if you need assistance in sizing a roller pump to your application. For high volume orders, customized units are available – consult factory.
- Use the pump flow charts to select the appropriate size roller pump based on your speed and pressure.



Centrifugal Pump Plumbing Diagram,



How a Centrifugal Pump Works

- The pump shaft is driven by a hydraulic motor
- A constant supply of fluid enters the inlet side of the pump (Note: centrifugal pumps cannot be operated dry!)
- As the impeller rotates, centrifugal force pushes the fluid around the pump cavity through the pump housing to the outlet of the pump
- The volume of flow is determined by several factors including: speed, operating pressure, size of the pump



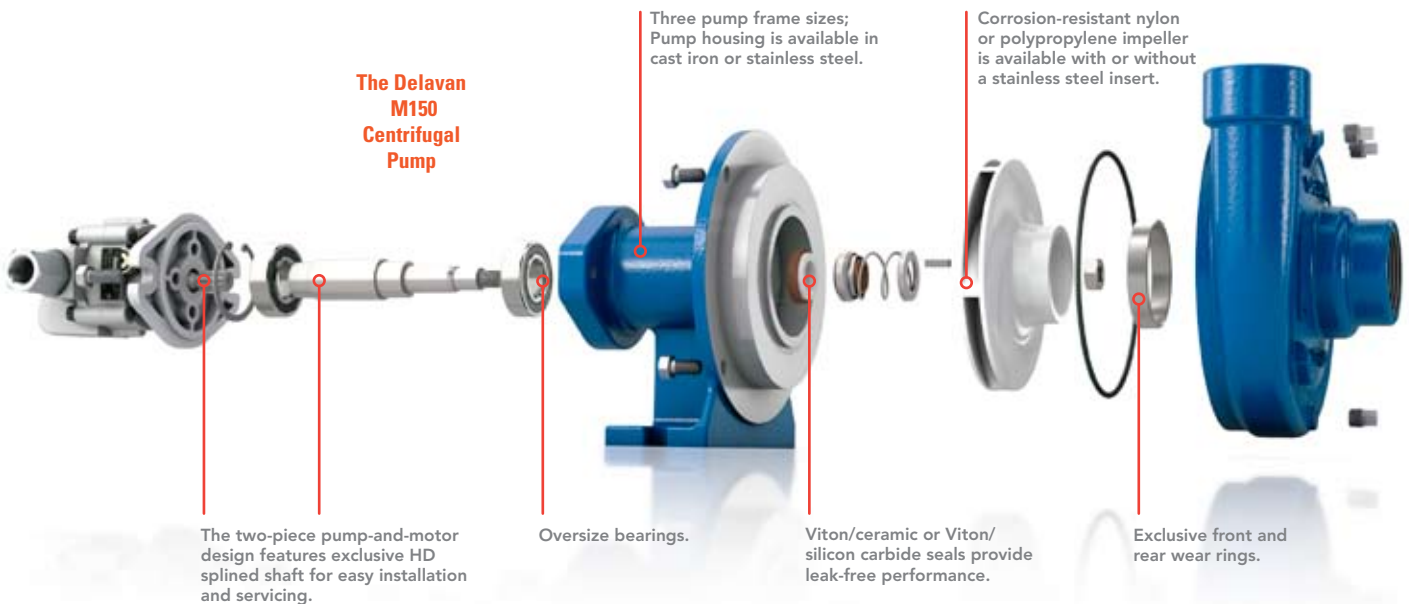
DELAVAN

HD *Magnum*

HYDRAULIC DRIVEN
Centrifugal Pumps



High volume, perfect control, long life.



HD Magnum
Centrifugal Pump **M125**



M125 95 GPM Pump

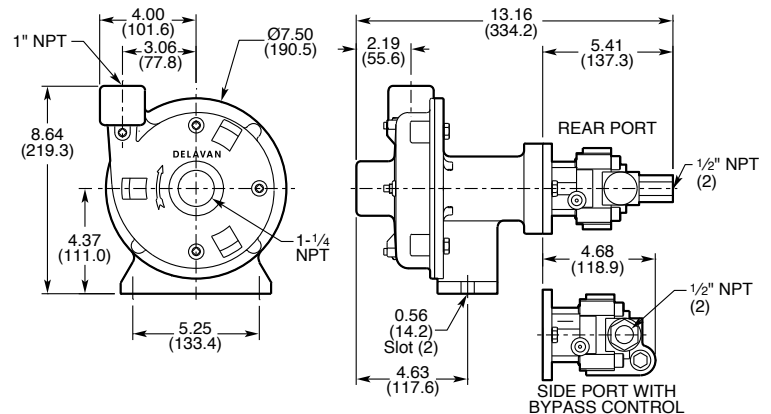
Specifications:
Pump

- Type:** Centrifugal
- Max Recommended Temperature:** 140°F
- Port Size:** Inlet: 1 1/4" FNPT
Outlet: 1" FNPT
- Max. Flow (GPM):** 95
- Max. Pressure Shut-off (PSI):** 130
- Hydraulic Motor Ports:** 1/2 SAE x FNPT
- Weight:** 29 lbs (13.2 kg)

Materials of Construction

- Motor Housing:** Aluminum
- Pump Housing:** Cast iron or stainless steel
- Impeller:** Nylon (standard) or polypropylene (optional); with or without stainless steel inserts
- Mechanical Seals:** Cast Iron: Viton/Ceramic Seal (Standard)
SS: Viton/Silicon Carbide (Standard)
- Hydraulic Motor:** See pg. 53

- 95 GPM
- Max. Pressure Shut-off: 130 PSI
- Port Size:
Inlet: 1 1/4 in. FNPT
Outlet: 1 in. FNPT
- Pump Housing:
Cast Iron or
Stainless Steel
- Motor Housing:
Aluminum



HD Magnum™ M125 Centrifugal Pump

HD Magnum
Centrifugal Pump **M150**



M150 191 GPM Pump

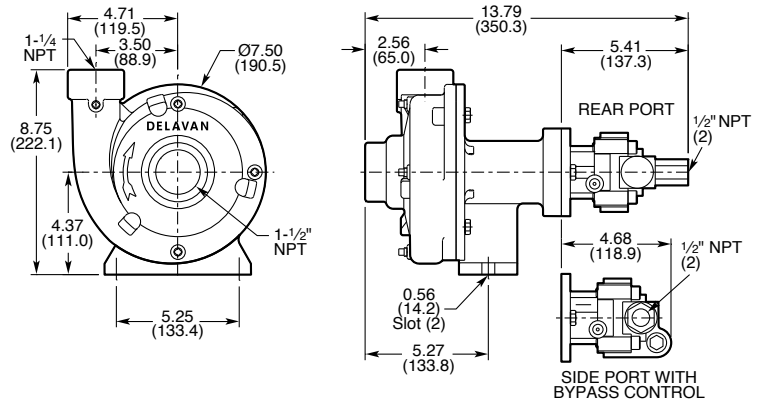
Specifications:
Pump

- Type:** Centrifugal
- Max Recommended Temperature:** 140°F
- Port Size:** Inlet: 1½" FNPT
Outlet: 1¼" FNPT
- Max. Flow (GPM):** 191
- Max. Pressure Shut-off (PSI):** 140
- Hydraulic Motor Ports:** ½ SAE x FNPT
- Weight:** 32 lbs (14.5 kg)

Materials of Construction

- Motor Housing:** Aluminum
- Pump Housing:** Cast iron or stainless steel
- Impeller:** Nylon (standard) or polypropylene (optional); with or without stainless steel inserts
- Mechanical Seals:** Cast Iron: Viton/Ceramic Seal (Standard)
SS: Viton/Silicon Carbide (Standard)
- Hydraulic Motor:** See pg. 53

- 191 GPM
- Max. Pressure Shut-off:
140 PSI
- Port Size:
Inlet: 1 ½ in. FNPT
Outlet: 1 ¼ in. FNPT
- Pump Housing:
Cast Iron or
Stainless Steel
- Motor Housing:
Aluminum



HD Magnum™ M150 Centrifugal Pump

HD Magnum

Centrifugal Pump M200



M200 245 GPM Pump

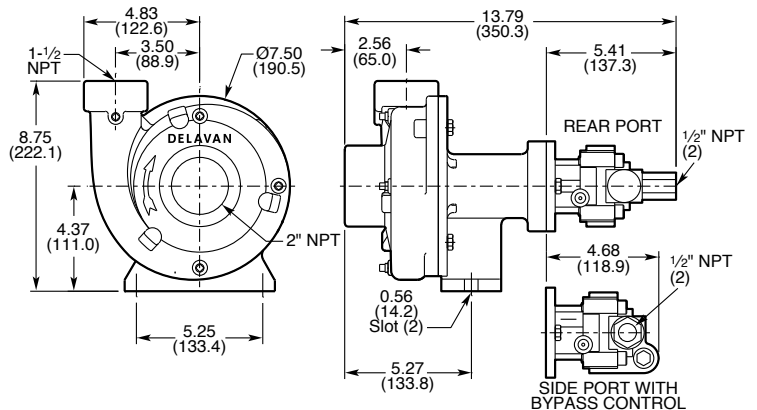
Specifications: Pump

- Type: Centrifugal
- Max Recommended Temperature: 140°F
- Port Size: Inlet: 2 FNPT
Outlet: 1½" FNPT
- Max. Flow (GPM): 245
- Max. Pressure Shut-off (PSI): 150
- Hydraulic Motor Ports: ½ SAE x FNPT
- Weight: 33 lbs (15.0 kg)

Materials of Construction

- Motor Housing: Aluminum
- Pump Housing: Cast iron or stainless steel
- Impeller: Nylon (standard) or polypropylene (optional); with or without stainless steel inserts
- Mechanical Seals: Cast Iron: Viton/Ceramic Seal (Standard)
SS: Viton/Silicon Carbide (Standard)
- Hydraulic Motor: See pg. 53

- 245 GPM
- Max. Pressure Shut-off:
150 PSI
- Port Size:
Inlet: 2 in. FNPT
Outlet: 1 ½ in. FNPT
- Pump Housing:
Cast Iron or
Stainless Steel
- Motor Housing:
Aluminum



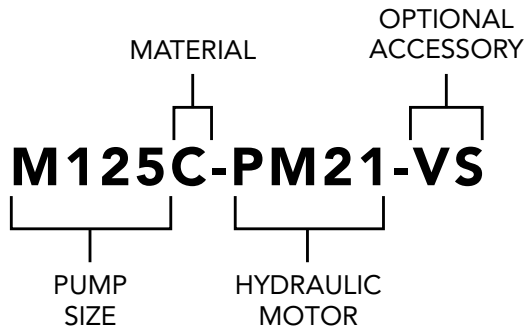
HD Magnum™ M200 Centrifugal Pump

HD Magnum Ordering Information

Part Number (ID Code)

Select the appropriate order code from each of the designated categories below to build a complete pump model number. Use the performance chart to determine appropriate pump size.

Example: **M125C-PM21-VS**



Pump Size	Port Size - FNPT (in)	
	Inlet	Outlet
M125	1 1/4	1
M150	1 1/2	1 1/4
M200	2	1 1/2

Material	
C	Cast iron with nylon impeller and Viton/ceramic seal (standard)
SS	Stainless steel with nylon impeller and Viton/silicon carbide seal (standard)

Hydraulic Motor*	
PM21	5-7 GPM, rear ports (M125 only)
PM37	7-10 GPM, rear ports (M125 & M150 only)
PM45	11-13 GPM, rear ports
PM58	13-15 GPM, rear ports
PM58B	13-15 GPM, side ports
PM70B	15-17 GPM, side ports

Optional Acc.	
-VS	Viton/silicon carbide seal (optional for cast iron models)
-PI	Polypropylene impeller
-NS	Nylon impeller with stainless steel insert
-PS	Polypropylene impeller with stainless steel insert

* All hydraulic motors are designed for open and closed center systems. Consult factory for other motor options.

Performance

Pump Size	Hydraulic Motor Size	Hydraulic Oil Flow (GPM)	Pump Flow GPM @ Rated PSI															
			10	20	30	40	50	60	70	80	90	100	110	120	130	140		
M125	PM21*	5	58	55	51	38	31	17										
		6	65	64	63	59	54	49	42	34	26	15						
		7	73	72	70	69	68	64	59	53	45	38	30	22				
	PM37	8	78	76	75	71	69	61	52	34	15							
		9	79	77	76	73	70	63	59	46	30	8						
M150	PM37*	7	155	144	127	105	65	21										
		8	175	170	161	145	126	104	78	43								
		9	180	172	163	151	138	115	88	64	39							
	PM45	11	180	173	165	152	136	123	101	82	61	32	8					
		12	185	177	169	160	151	138	121	103	82	63	45	11				
		13	191	182	174	168	159	145	133	117	101	86	60	36				
	PM58	13	172	165	159	148	136	124	106	86	66	37	12					
		14	180	172	164	156	147	135	120	104	86	69	51	15				
	PM58B	15	185	174	165	159	150	141	131	118	101	88	63	38				
16		163	157	152	149	145	128	100	64	10								
PM70B	16	171	164	156	153	149	144	135	117	79	51							
	17	176	167	159	155	150	146	139	121	82	53							
M200	PM45*	11	229	221	217	193	180	149	128	111	75	42	29					
		12	240	236	230	220	205	194	151	137	123	93	81	41	14			
		13	245	238	229	216	199	186	167	146	122	108	76	55	17			
	PM58	13	232	226	214	200	184	161	139	110	79	36						
		14	235	229	222	204	190	169	145	124	100	70	44	12	10			
	PM58B	15	240	232	226	209	195	179	156	135	110	84	53	32	20	10		
		15	163	157	152	149	145	128	100	64	10							
PM70B	16	171	164	156	153	149	144	135	117	79	51							
	17	176	167	159	155	150	146	139	121	82	53							

*Note: Smaller displacement motors on larger pumps can cause pressures on hydraulic motor to exceed recommended manufacturer's specifications. Consult factory for details.

HD Magnum Accessories

HYDRAULIC DRIVEN
Centrifugal Pumps

Hydraulic Motors

Delavan hydraulic motors are matched to HD Magnum Series Centrifugal pumps.
(Hydraulic motor fittings sold separately)



With Rear Ports

Motor	Hydraulic Oil Flow (GPM)	Part Number
PM21	5-7	I34-029
PM37	7-10	I34-030
PM45	10-13	I34-031
PM58	12-15	I34-032



With Side Ports and Flow Control

Motor	Hydraulic Oil Flow (GPM)	Part Number
PM58B	12-15	I34-033
PM70B	13-18	I34-034



**HD Magnum™ 150
with Side Port
Hydraulic Motor**

HD Magnum™ Hydraulic Motor Repair Kits

Bypass Valve Assembly	Part #: 904003
Seal Kit	Part #: 904804
Bearing Kit (includes bearings and seal kit)	Part #: 904824

HD Magnum™ Pump Repair Kits

Kit contains appropriate seals, gasket, hardware, and instructions.

With Viton/Ceramic Seals:

M125	Part #: RK-M125VC
M150 & M200	Part #: RK-M215VC

With Viton/Silicon Carbide Seals:

M125	Part #: RK-M125VS
M150 & M200	Part #: RK-M215VS



**HD Magnum™
Pump Repair Kits**

Old Style Delavan Centrifugal Pumps Hydraulic Motor (Gresen) Repair Kits

(Models 34945-1 & 35566-1)	
Bearing and Seal Kit	Part #: 38109-1
Seal Kit	Part #: 38109-2
Bypass Valve Kit	Part #: 38109-4

Old Style Delavan Centrifugal Pump Repair Kits

For centrifugal pump models 34945-1 and 35566-1. Kit contains Viton/ceramic seal, gasket, hardware, and instructions.

Part #: 35745



**Old Style Delavan
Centrifugal Pump Repair Kit**

Hydraulic Motor Fittings



Outlet Adapter
3/4 -16 x 1/2" NPTF
Part #: I34-050



Inlet Adapter with Reverse
Flow Check Valve
7/8 -14 x 1/2" NPTF
Part #: I34-060



Fluid Innovation. Solid Engineering.

Standard Warranty

Delavan warrants PowerFLO Series Pumps for a period of one year from date of manufacture.

All products sold by Delavan are warranted only to purchasers from Delavan for resale or for use in purchasers' own business or original equipment manufacture, against defects in workmanship or materials under normal use, maintenance and service (rental use excluded).

The sole and exclusive obligation of Delavan under this or any implied warranty shall be to replace or, at its option, to repair, without charge, any product which is determined by Delavan to be defective in workmanship or materials after the product is returned to the Delavan factory*, shipping costs prepaid.

In no event shall Delavan be liable to any person for indirect or consequential damages or for injury or commercial loss resulting from any use or inability to use any Delavan product. Delavan expressly negates any other warranty, express or implied, including any warranty of merchantability or fitness for a particular purpose, or arising from any course of dealing or custom or usage of trade.

No person, including any dealer or representative of Delavan, is authorized to make any representation or warranty on behalf of Delavan in addition to or inconsistent with these provisions. Purchasers to whom these provisions apply agree to hold Delavan harmless from claims by their customers in excess of the obligations of Delavan expressly set forth herein.

* Important return safety instructions:

When you return your pump for warranty or repair, you must always do the following:

1. Flush chemical residue from the pump (best done in the field).
2. Tag pump with type of chemicals having been sprayed.
3. Include complete description of operation problem, such as how pump was used, symptoms of malfunction, etc.

Since pumps can contain residues of toxic chemicals these steps are necessary to protect all the people who handle return shipments, and to help pinpoint the reason for the breakdown.



The Delavan
M150 Stainless Steel
Centrifugal Pump



Powerful Products
for a Fluid World.