STA-RITE

HMS series

Horizontal Multi-Stage Jet/Centrifugal Pumps

C US
UL778/CSA108

HMS Series Multi-Stage Jet Pumps are the highest performing pumps available in its category. The HMS Series Convertible Jets utilize the built-in regulator, offering easier priming and better range of performance from a complete line of Shallow Well, 4" Double Pipe, 2" and 3" Single Pipe Jet Packages. Pump may also be operated as a self-priming centrifugal (to 25 ft.) to provide a wide range of high pressure applications.

APPLICATIONS

- **Water systems and sprinkling…** for homes, farms and cottages.

SPECIFICATIONS

Body – One-piece rugged cast iron
Pump and Motor Shaft – 416 stainless steel
Impeller – Polycarbonate
Diffuser – Corrosion-resistant cast iron
Pressure Switch Pre-Set – 30-50 PSI
Suction Ports – Drive-over-Suction

ORDERING INFORMATION

Catalog Number	HP	Description	Pipe Tapping Sizes			Stages	Motor Voltage	Approx. Wt. Lbs.
			Suct.	Drive	Disch.			
HMSD	3/4	Deep Well Jet	1-1/4"	1"	1"	2	115/230	50
HMSE	1	Deep Well Jet	1-1/4"	1"	1"	2	115/230	80
HMSF	1-1/2	Deep Well Jet	1-1/4"	1"	1"	2	115/230	85

AUTOMATIC PRESSURE REGULATOR – DEEP WELL

Catalog Number	Description	Application	Approx. Wt. Lbs.
PKG 107	Regulator, tubing, pipe plug and compression fitting.	Required for ALL deep well installations.	4

Order pump and pressure regulator, if required, from ordering information tables above.
A jet package and the automatic pressure regulator, described above, are required on all deep well installations.

PRO-Source™ is a trademark of Pentair Water.
In order to provide the best products possible, specifications are subject to change.

FEATURES

Automatic Pressure Regulator – Faster-acting and quieter, design eliminates "hunting" for correct drive pressure. New improved stem and guide are precisely molded to assure efficient, trouble-free performance on all deep wells. See ordering information (Deep well only).

Quality Construction – Close-grained cast iron pump body is rugged, one-piece unit, specially treated to resist corrosion. Drain port provided for easy winterizing.

Precision-machined Diffusers – Assure faster priming.

Mechanical Shaft Seal – Precision lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication for maximum protection.

Polycarbonate Impellers – Precision molded for perfect balance, and ultra-smooth for highest performance and efficiency.

Motor Windings – Superior insulation materials protect against excessive moisture and contaminants to ensure prolonged motor life.

Dustproof Cover – All electrical components are protected from dirt, dust and insects by a dustproof canopy. Ventilating air cannot contaminate vital switching components. This eliminates the most common cause of motor failure.

Balanced Rotor – Rotor is die cast under high pressures for uniform performance and greater efficiency; dynamically balanced.

Heavy-duty Ball Bearings – Shielded, permanently lubricated bearings are extensively tested to ensure extended life and smooth, quiet operation.

Pump and Motor Shaft – One piece threaded shaft for positive impeller drive and alignment. Shaft is stainless steel for maximum corrosion resistance.

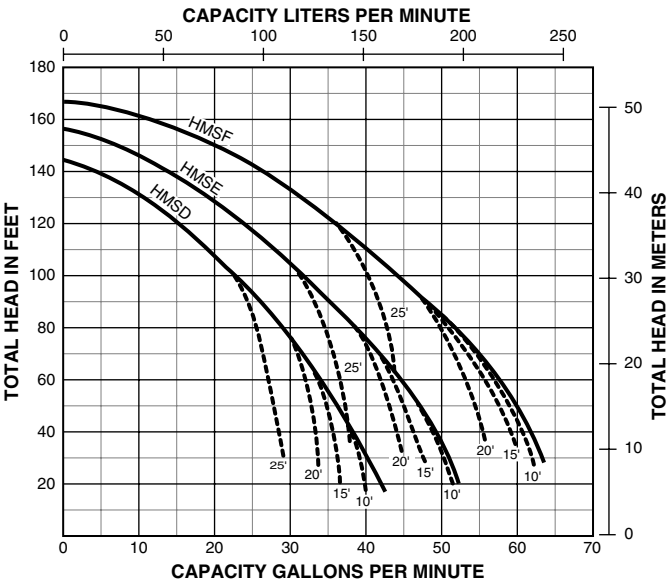
Horizontal Multi-Stage Jet/Centrifugal Pumps

PUMP PERFORMANCE
SHALLOW WELL

Catalog Number	HP	Jet* Number	Uses Venturi	Uses Nozzle	Disch Press. PSI	Total Suction Lift Ft. 5'	10'	15'	20'	25'
HMSD	3/4	PKG 1 - 29SD	N32P-66B	J34P-41	20	9.6	8.2	7.0	5.8	3.9
					30	9.1	7.9	6.5	5.6	3.9
					40	8.8	7.7	6.3	5.6	3.9
					50	8.5	7.6	6.2	5.6	3.9
					60	7.7	7.3	6.2	5.6	3.9
					70	5.5	5.1	4.7	4.2	3.6
					80	3.5	3.1	2.8	2.3	1.9
					Shut-Off	102	96	96	96	90
HMSE	1	PKG 1 - 10SD	N32P-67B	J34P-44	20	13.0	11.2	9.8	7.8	5.8
					30	12.5	11.0	9.5	7.6	5.7
					40	12.2	10.9	9.4	7.6	5.7
					50	12.1	10.8	9.2	7.6	5.7
					60	12.0	10.8	9.2	7.6	5.7
					70	10.2	9.6	8.6	7.4	5.7
					80	7.4	6.8	6.2	5.5	4.8
					Shut-Off	108	108	108	102	102
HMSF	1-1/2	PKG 1 - 10SD	N32P-67B	J34P-44	20	15.9	13.3	12.2	9.6	7.0
					30	15.6	13.2	12.2	9.5	7.0
					40	15.3	13.1	12.1	9.4	6.9
					50	14.9	13.0	11.9	9.3	6.8
					60	14.4	12.9	11.7	9.2	6.7
					70	13.7	12.7	11.5	9.0	6.6
					80	12.6	12.1	10.8	8.7	6.4
					90	9.5	8.5	7.8	7.2	5.7
					100	5.9	5.0	4.4	3.8	3.2
					Shut-Off	120	120	114	114	108

* Order Jet Package separately.

PUMP PERFORMANCE



Tested and rated in accordance with Water Systems Council standards.

NOTE: Pumps installed with a PRO-Source™ tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

NOTE: Dotted lines indicate performance reduction at high suction lift.

Horizontal Multi-Stage Jet/Centrifugal Pumps

PUMP PERFORMANCE *(Capacity in Gallons Per Minute)*
CENTRIFUGAL APPLICATION

Catalog Number	HP	Total Suct. Lift Ft.	Discharge Pressure – PSI					Shut-Off Pressure PSI
			20	30	40	50	60	
HMSD	3/4	5	37	30	24	15	–	60
		10	35	29	21	13	–	60
		15	33	27	19	9	–	60
		20	32	26	17	6	–	60
		25	31	24	15	–	–	60
HMSE	1	5	47	40	33	24	10	65
		10	46	38	31	21	7	65
		15	44	36	28	18	–	65
		20	42	35	26	15	–	65
		25	41	33	24	12	–	65
HMSF	1-1/2	5	60	53	46	36	23	68
		10	58	52	43	33	21	68
		15	56	49	41	30	16	68
		20	55	47	39	27	12	68
		25	54	41	36	25	–	68

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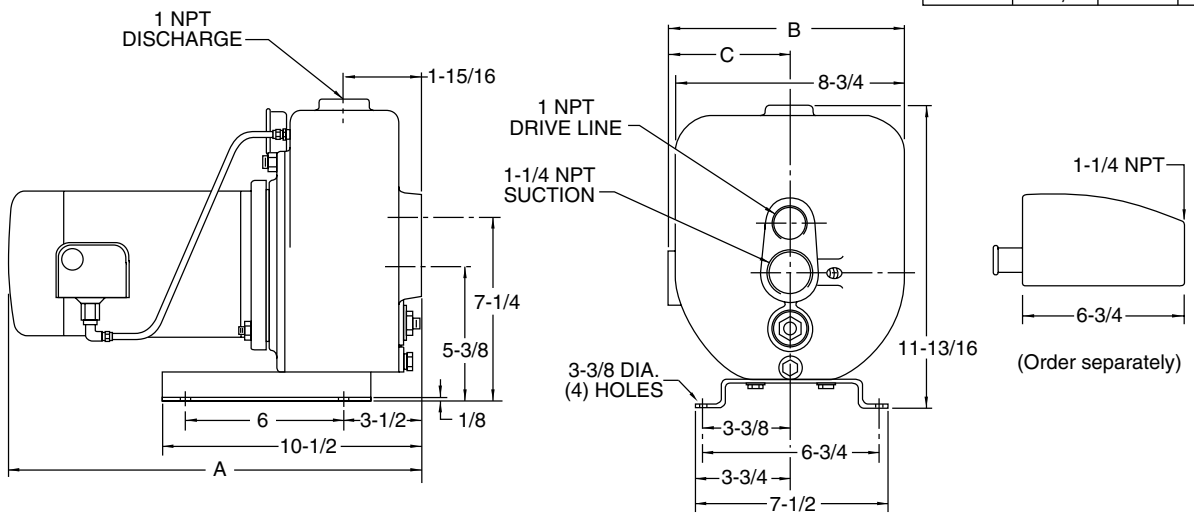
OUTLINE DIMENSIONS

Cat. No.	A	B	C
HMSD	16-7/8	9-1/2	5-1/8
HMSE	17-3/4	9-1/2	5-1/8
HMSF	18-1/4	10	5-5/8



Dimensions (in inches) are for estimating purposes only.

Horizontal Multi-Stage Jet/Centrifugal Pumps

PUMP PERFORMANCE *(Capacity in Gallons Per Minute)*

Cat. No.	HP	Jet No.	Uses Venturi	Uses Nozzle	Pumping Depth in Feet														
					20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'	160'
DEEP WELL 2" SINGLE PIPE – 40 PSI																			
HMSD	3/4	13AP	J32P-26	J34P-44	12.0	10.8	9.6	8.1	6.9	5.5									
		22AP	J32P-22	J34P-43					7.9	6.7	5.5	4.7	3.9	3.0					
		8AP	J32P-18	J34P-42									4.0	3.6	3.1	2.7	2.2		
HMSE	1	5AP	J32P-29	J34P-41	16.3	15.6	14.1	12.0	9.9	8.2	6.0								
		4AP	J32P-24	J34P-41					8.9	7.9	7.0	5.8	4.7	3.6	2.5				
		19AP	J32P-20	J34P-43											4.0	3.2	2.3	1.8	1.3
HMSF	1-1/2	15AP	J32P-33	J34P-41	20.0	18.5	17.0	13.6	10.4	7.6	5.0								
		2AP	J32P-26	J34P-41					10.6	9.2	8.0	6.0	4.5	3.7	3.0	2.2			
		23AP	J32P-20	J34P-44											4.3	3.5	2.7	2.4	2.0
DEEP WELL 3" SINGLE PIPE – 40 PSI																			
HMSD	3/4	17CP	J32P-29	J34P-44	12.8	11.5	10.2	8.9	7.6	6.1									
		18CP	J32P-24	J34P-44					7.8	6.9	6.0	5.3	4.5	3.6					
		16CP	Factory Installed										5.0	4.4	3.9	3.4	3.0	2.5	2.0
HMSE	1	7CP	J32P-32	J34P-41	17.8	16.2	14.6	13.0	11.4	9.6	7.7								
		9CP	J32P-26	J34P-41					10.7	9.8	9.0	7.9	6.7	5.8	5.0	4.1			
HMSF	1-1/2	10CP	J32P-38	J34P-45	21.7	19.7	17.9	15.9	14.0	11.0	8.0								
		9CP	J32P-26	J34P-41					11.1	10.8	10.6	9.7	8.9	7.5	6.5	5.5			
		19CP	Factory Installed	J34P-41											6.9	6.1	5.3	4.6	4.1
DEEP WELL 4" DOUBLE – 40 PSI																			
HMSD	3/4	CK2	J32P-29	J34P-44	12.8	11.5	10.2	8.9	7.6	6.1									
		CK2	J32P-24	J34P-44					7.8	6.9	6.0	5.3	4.5	3.6					
		15SD	Factory Installed										5.0	4.4	3.9	3.4	3.0	2.5	2.0
HMSE	1	CK3	J32P-32	J34P-41	17.8	16.2	14.6	13.0	11.4	9.6	7.7								
		CK3	J32P-26	J34P-41					10.7	9.8	9.0	7.9	6.7	5.8	5.0	4.1			
		CK1	J32P-20	J34P-43											5.0	4.5	3.9	3.5	3.0
HMSF	1-1/2	CK4	J32P-38	J34P-45	21.7	19.7	17.9	15.9	14.0	11.0	8.0								
		CK3	J32P-26	J34P-41					11.1	10.8	10.6	9.7	8.9	7.5	6.5	5.5			
		4SD	Factory Installed												6.9	6.1	5.3	4.6	4.1

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