

# STA-RITE® HMS Series

Cast iron horizontal multi-stage jet pumps



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

## 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:** Diecast 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:** Stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

## 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.

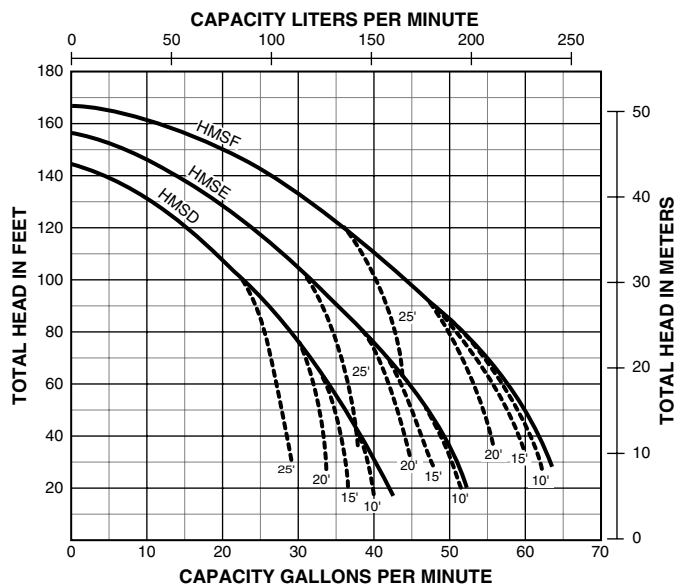
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## PUMP PERFORMANCE: SHALLOW WELL

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

## PUMP PERFORMANCE



\* Order Jet Package separately.

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.

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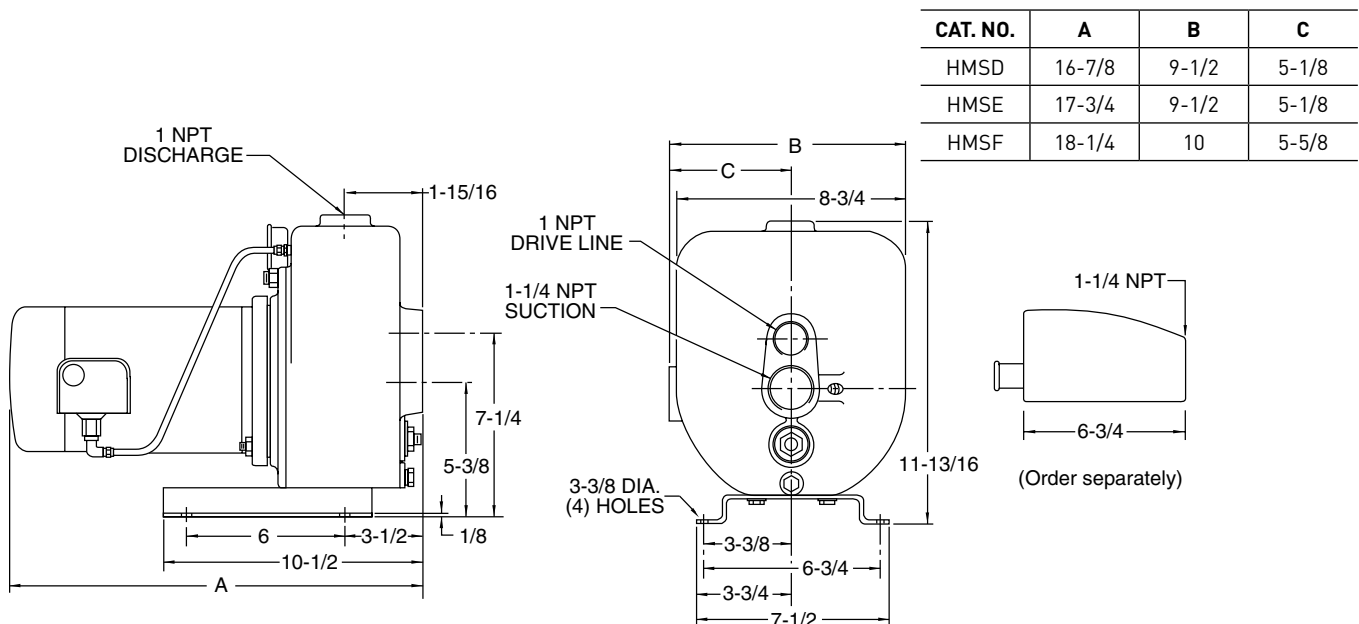
## PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE) CENTRIFUGAL APPLICATION

CATALOG NUMBER	HP	TOTAL SUCTION 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

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.

## OUTLINE DIMENSIONS



Dimensions (in inches) are for estimating purposes only.

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## PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE) DEEP WELL 2" SINGLE PIPE: 40 PSI

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'	
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									
		9CP	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 PIPE: 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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