

# MS Series

Cast Iron



The MS Series Vertical Jet Pumps are the industry standard deep well jet pumps for over-the-well "bolt-on" installations.

The MS Series Jet Pumps include the pre-plumbed external automatic regulator, pressure gauge and a pressure switch. A complete line of casing adapters to drive the 4" double pipe or 2" and 3" single pipe jet packages can be purchased separately.

## APPLICATIONS

Water systems and sprinkling...for homes, farms and cottages.

## SPECIFICATIONS

**Body:** Rugged cast iron

**Pump and Motor Shaft:** 416 stainless steel

**Impellers:** Noryl®

**Diffuser:** Close-grained cast iron

## 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.

**Quality Construction:** Precision-machined, close-grained cast iron pump body and base are specially treated to resist corrosion.

**Noryl Impellers:** Precision-molded for perfect balance, and ultra-smooth for highest performance and efficiency.

**Pressure Switch:** High quality. Differential and cut-in/cut-out pressure settings are adjustable.

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

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

**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 diecast under high pressures for uniform performance and greater efficiency...dynamically balanced.

**Heavy-Duty Ball Bearings:** Permanently lubricated sealed 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	MAX. PRESS. REG. SETTING	PIPE TAPPING SIZES			MOTOR VOLTAGE	APPROX. WT. LBS.
				SUCT.	DRIVE	DISCH.		
MSD	3/4	Deep Well Jet	40 PSI	1-1/4"	1"	1"	115/230	67
MSE	1	Deep Well Jet	60 PSI	1-1/4"	1-1/4"	1"	115/230	73
MSF	1-1/2	Deep Well Jet	85 PSI	1-1/4"	1-1/4"	1"	230	120
MSG	2	Deep Well Jet	95 PSI	1-1/4"	1-1/4"	1"	230	125

## ADAPTER FLANGE

CATALOG NUMBER	DESCRIPTION	USED WITH
J216-26	1-1/4" x 1"	Offset single pipe, 4" double pipe through 3/4 HP
J216-27	1-1/4" x 1-1/4"	4" double pipe 1, 1-1/2 and 2 HP

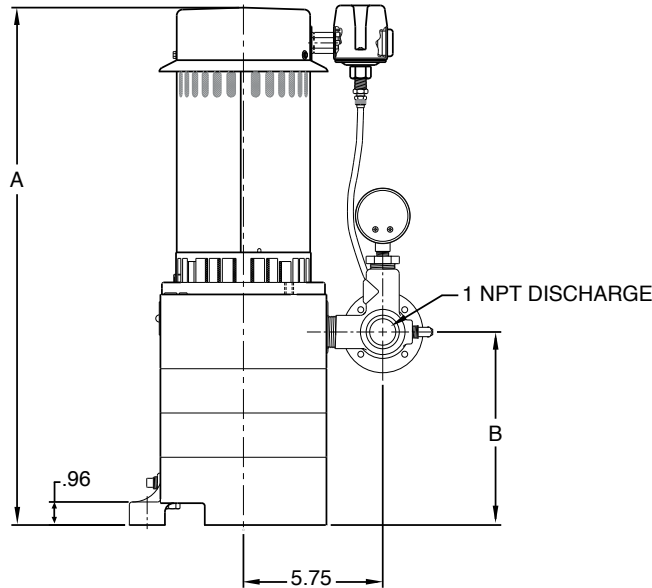
Order pump from ordering information table above. A Jet Package should be ordered with every MS Series Pump. All installations require an appropriate size adapter flange or casing adapter if bolt-on feature is desired.

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## OUTLINE DIMENSION



CAT. NO.	A	B
MSD	17-5/16	5-5/8
MSE	18-3/8	5-5/8
MSF	20-7/16	7-1/2
MSG	20-15/16	7-1/2

Dimensions (in inches) are for estimating purposes only.

## PUMP PERFORMANCE (Capacity in gallons per minute) DEEP WELL (40 PSI) 4" DOUBLE PIPE

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET																	JET AT MIN. DEPTH	JET AT MAX. DEPTH	MAX. PUMP SHUT-OFF PRESS. PSI								
					30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	180'	200'	220'	240'	260'				280'	300'	320'					
MSD	3/4	23SD	J32P-24	J34P-42	10.2	8.4	6.8	5.8	4.5	3.1	2.1	1.1																80	46	17-5/16	5-5/8	
		15SD	J32P-18	J34P-42	5.5	5.4	5.3	5.2	4.7	4.3	4.1	3.7	3.1	2.7	2.3	1.9													137			75
MSE	1	23SD	J32P-24	J34P-42	12.1	11.7	11.6	11.1	10.2	9.2	7.8	6.4	5.0	4.0	3.0														120	76	18-3/8	5-5/8
		15SD	J32P-18	J34P-42	5.5	5.5	5.5	5.4	5.3	5.3	5.2	5.1	5.1	5.0	4.8	4.5	3.3	2.7	2.0	1.3	1.0								200	97		
MSF	1-1/2	23SD	J32P-24	J34P-42	12.2	12.2	12.2	12.2	11.7	11.3	10.7	9.9	9.0	8.3	7.0	4.0	1.3												164	95	20-7/16	7-1/2
		15SD	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.3	5.2	5.1	5.1	5.0	4.8	4.7	4.5	4.3	4.0	3.3	2.7						314	172		
MSG	2	23SD	J32P-24	J34P-42	12.2	12.2	12.2	12.2	11.8	11.3	11.2	11.1	11.0	10.0	8.7	7.0	4.0	2.0											195	110	20-15/16	7-1/2
		15SD	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.3	5.2	5.1	5.1	5.0	5.0	4.8	4.8	4.5	4.3	4.0	3.3	2.7				314	172			

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.

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**PUMP PERFORMANCE** (Capacity in gallons per minute)  
**DEEP WELL (40 PSI) 2" SINGLE PIPE**

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET																				MAX. PUMP SHUT-OFF PRESS. PSI	
					30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	180'	200'	220'	240'	260'	JET AT MIN. DEPTH	JET AT MAX. DEPTH			
					MSD	3/4	12AP	J32P-24	J34P-42	10.0	8.3	6.1	4.7	3.8	2.0	1.4										
8AP	J32P-18	J34P-42	5.5	5.4			5.2	5.0	4.4	4.3	4.1	3.7	3.1	2.4	2.1	1.4							135	73		
MSE	1	12AP	J32P-24	J34P-42	12.1	11.3	11.2	10.0	8.8	7.6	6.5	5.6	3.3	1.8								118	80			
		8AP	J32P-18	J34P-42	5.5	5.5	5.3	5.3	5.2	5.1	5.0	5.0	5.0	5.0	4.5	4.2	2.0						198	126		
MSF	1-1/2	12AP	J32P-24	J34P-42	12.2	12.0	12.0	12.0	11.5	11.2	9.7	8.3	6.8	5.5	4.2	3.3						162	110			
		8AP	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.3	5.2	5.1	5.0	5.0	5.0	4.8	4.3	3.5	2.7	1.7			266	158		
MSG	2	12AP	J32P-24	J34P-42	12.2	12.0	12.0	12.0	11.7	11.2	11.0	10.3	8.3	7.5	6.3	5.3						193	139			
		8AP	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.3	5.2	5.2	5.1	5.1	5.0	4.8	4.7	4.3	3.7	3.2	2.5		312	192		

**PUMP PERFORMANCE** (Capacity in gallons per minute)  
**DEEP WELL (40 PSI) 3" SINGLE PIPE**

CAT. NO.	HP	JET NO.	USES VENTURI	USES NOZZLE	PUMPING DEPTH IN FEET																				MAX. PUMP SHUT-OFF PRESS. PSI	
					30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	180'	200'	220'	240'	260'	280'	300'	320'	JET AT MIN. DEPTH	JET AT MAX. DEPTH
					MSD	3/4	23CP	J32P-24	J34P-42	10.2	8.4	6.8	5.8	4.5	3.1	2.1	1.1									
17CP	J32P-29	J34P-44	12.0	10.4			8.5	6.6	4.3	2.1														77	50	
16CP	J32P-18	J34P-42	5.5	5.4			5.3	5.2	4.7	4.3	4.1	3.7	3.1	2.7	2.3	1.9								137	75	
MSE	1	23CP	J32P-24	J34P-42	12.1	11.7	11.6	11.1	10.2	9.2	7.8	6.4	5.0	4.0	3.0								120	76		
		16CP	J32P-18	J34P-42	5.5	5.5	5.5	5.4	5.3	5.3	5.2	5.1	5.1	5.0	4.8	4.5	3.3	2.7	2.0	1.3	1.0			200	97	
MSF	1-1/2	23CP	J32P-24	J34P-42	12.2	12.2	12.2	12.2	11.7	11.3	10.7	9.9	9.0	8.3	7.0	4.0	1.3						164	95		
		22CP	J32P-20	J34P-42	7.7	7.7	7.7	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.0	7.0	4.3	4.0	3.2	2.2				210	110	
		16CP	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.2	5.2	5.1	5.0	5.0	4.9	4.7	4.0	3.8	3.0	2.3	1.7	268	132	
MSG	2	23CP	J32P-24	J34P-42	12.2	12.2	12.2	12.2	11.8	11.3	11.2	11.1	11.0	10.0	8.7	7.0	4.0	2.0						195	110	
		22CP	J32P-20	J34P-42	7.7	7.7	7.7	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.0	7.0	5.3	5.0	4.7	4.0	3.0	2.2		250	128	
		16CP	J32P-18	J34P-42	5.5	5.5	5.5	5.5	5.5	5.5	5.3	5.3	5.2	5.1	5.1	5.0	5.0	4.8	4.7	4.5	4.3	4.0	3.3	2.7	314	172

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.



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