



# Belt Driven Jet Pumps

MODELS J5BD, J7BD, J10BD, J15BD & HSJ20BDD

### FEATURES

- Cast iron construction.
- Shallow well or deep well jet assemblies available.
- Glass-filled Noryl® impellers.
- Glass-filled Lexan® diffusers.
- Serviceable back-pull out pump design.
- Use with gasoline engine in areas where electricity is unavailable. Gasoline engines sourced from others.
- Performance based on motor running at 3500 RPM.
- Use performance charts to select appropriate shallow well or deep well jet assemblies.
- Minimum motor requirements are shown on motor HP Chart

### APPLICATIONS AND SPECIFICATIONS

The Belt Driven jet pumps are sold less the required shallow or deep well jet assemblies. Order jet assemblies separately. Use the attached performance charts to select the appropriate jet assembly. Performance will be equal to that published on standard literature when the shaft is turned at 3500 rpm. Slower speeds will adversely affect flow and pressure and may also affect priming capability. Speeds over 3600 rpm may damage internal pump components and bearings and will void the warranty.

As with any jet pump a foot valve or check valve is recommended to hold prime. Always prime the pump, that is, completely fill it with water, before operating to prevent impeller or seal damage.

Motor HP should be equal to or greater than the minimum HP per the chart below. In some cases a higher HP motor may be needed to maintain 3500 RPM's. Pump shaft at motor connection is a 5/8" diameter shaft with 3/16" key slot.

**Note: Customers experienced with these pumps recommend, as a minimum, a 3 HP good quality gasoline engine for all models, this will provide reliable service, good priming, increased engine life and the required rpm in most installations.**

Pump prices are now included in the standard Jet and Submersible Price Book, PJETSUB, in the J+ and HSJ tables.

Basic pump repair parts and diagrams may be found in the J+ or HSJ repair part pages.

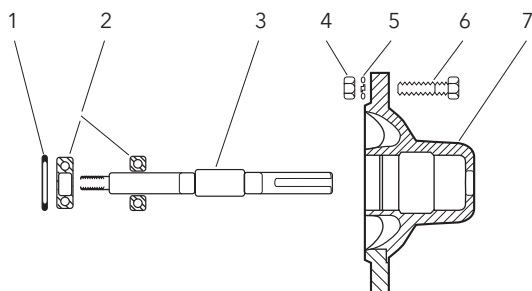
The bearing frame assembly typical replacement parts are:

**Bearing Frame (complete) assembly - 4K129**  
(consider replacing entire pump if bad)

**Shaft - 4K134**

**Bearing (1) - 4K24**

### BEARING HOUSING ASSEMBLY J-BD, HSJ-BD



Item No.	Part Name	Part No.
1	Retaining Ring	4K133
2	Ball Bearing	4K24
3	Shaft	4K134
4	Hex Nut	13K89
5	Lock Washer	13K90
6	Hex Bolt	13K88
7	Bearing Housing	4K130

### MOTOR HP CHART

Order No.	Minimum Engine HP
J5BD	1
J7BD	1
J10BD	1
J15BD	1.5
HSJ20BDD	3

### SHALLOW WELL PERFORMANCE RATINGS

HP/Model	½ HP - J5					½ HP - J5					¾ HP - J7					1 HP - J10					1½ HP - J15									
Shallow Well Package	FH5					FH5H (High Pressure Model)					FH7					FH10					FH15									
Adapter	4K62																													
Nozzle	AN017					AN019					AN018					AN018					AN022									
Venturi	AD3731					AD3528					AD3536					AD3538					AD3542									
Total Suction Lift (feet)	Discharge Pressure - PSI						Discharge Pressure - PSI						Discharge Pressure - PSI						Discharge Pressure - PSI						Discharge Pressure - PSI					
	20	30	40	50	Max. Shut off (PSI)	20	30	40	50	60	Max. Shut off (PSI)	30	40	50	60	Max. Shut off (PSI)	30	40	50	60	Max. Shut off (PSI)	30	40	50	60	Max. Shut off (PSI)				
	Gallons per minute					Gallons per minute					Gallons per minute					Gallons per minute					Gallons per minute									
5	17.5	16.5	10.2	5.0	63	11.5	11.3	11.0	7.7	4.8	83	21.3	18.3	12.5	6.6	70	24.8	24.4	16.6	9.9	74	26.6	26.3	25.0	15.6	80				
10	15.7	14.4	9.2	4.3	61	10.3	10.0	9.6	7.0	4.2	81	18.8	17.3	11.3	5.0	68	22.9	22.2	15.8	8.6	72	24.7	24.3	22.6	13.9	77				
15	13.7	12.5	8.0	3.6	59	8.8	8.6	8.3	6.3	3.7	79	16.4	15.5	9.6	3.7	66	19.8	19.5	13.8	6.9	70	21.6	21.5	20.4	12.9	75				
20	11.5	10.4	7.1	2.3	57	7.0	7.0	6.8	5.8	3.2	76	13.6	13.2	8.3	2.0	63	16.6	16.6	12.2	5.6	67	18.1	18.0	17.6	12.0	73				
25	8.7	8.6	6.2	1.3	54	5.3	5.2	5.2	5.0	2.8	73	10.0	9.9	6.4	1.0	59	12.5	12.4	10.4	3.6	65	14.0	14.0	14.0	10.1	71				

### TWIN PIPE PERFORMANCE RATINGS

HP/Model	½ HP - J5					¾ HP - J7					1 HP - J10					1½ HP - J15				
Well Casing min. I.D.	4					4½					4					4½				
Pressure	1					1½					1					1½				
Suction Pipe Size (in.)	1¼					1½					1½					1½				
① Jet Assembly Package	FT4-13	FT4-31	FT4-08	FT5-14	FT4-14	FT4-34	FT4-18	FT5-47	FT5-48	FT4-44	FT4-43	FT4-18	FT5-49	FT5-11	FT5-12	FT5-11				
Jet Body (only)	AT4					AT5					AT4					AT5				
Nozzle	AN017	AN016	AN015	AN018	AN017	AN016	AN016	AN018	AN017	AN017	AN017	AN016	AN019	AN018	AN019	AN018				
Venturi	AD726	AD723	AD720	AD724	AD729	AD725	AD722	AD730	AD725	AD730	AD727	AD722	AD732	AD727	AD734	AD727				
Control Valve Setting (PSI)	30	30	30	30	28	29	30	28	30	31	33	35	30	32	35	40				
Feet	Gallons Per Minute (GPM) 30-50 PSI Pressure Switch Setting																			
Depth to Jet Assembly (based on submergence of 5 feet)	30	13.0	11.0			15.8			16.6		17.0			19.3		21.2				
	40	11.8	9.0			15.7			16.0		16.6			18.0		20.0				
	50		7.6		6.9	13.2			15.0		14.4			16.0		16.1				
	60		7.0	5.2	6.4	10.2			13.0		11.5	11.2		14.3		15.0				
	70			4.7	5.6		8.2		11.0	10.0		9.3		12.6		14.0	11.2			
	80			3.8	4.8		6.5			8.6		7.3	6.2	10.0	10.0		10.6			
	90			3.1	4.1		5.0	5.0		7.3		6.1		8.7			9.0			
	100							4.4		6.0			5.4		7.0		7.6			
	110							3.5		5.0			4.5		5.7		6.2			
	120														4.5		5.2			
	130																4.0			
	140																2.8			
	150																1.5			
	160																			
170																				

① Jet assembly package includes: jet body, nozzle, Venturi and foot valve.

## PERFORMANCE RATINGS - SHALLOW WELL SYSTEM

HP/Model	2 HP - HSJ20N						
Shallow Well Package	FHSJ20						
Adapter	4K62						
Nozzle	ANO12						
Venturi	AD3448						
Discharge Pressure - PSI							
Total Suction Lift (feet)	30	40	50	60	70	80	Max. Shut off (PSI)
	Gallons per minute						
5'	28.2	28.0	25.8	22.7	21.2	16.2	105
10'	24.8	24.7	24.2	23.3	18.7	13.7	103
15'	21.3	21.3	20.8	20.7	18.7	13.7	101
20'	18.0	17.7	17.5	17.0	16.2	10.8	98
25'	12.3	12.0	11.9	11.7	10.5	-	95

## PERFORMANCE RATINGS - TWIN PIPE SYSTEMS - 4" WELL

HP/Model	2 HP - HSJ20N			
Jet Assembly Package (1)	FT4-45	FT4-30	FT4-29	
Pressure Suction	Pipe Size (in.)			
	1"			
	1¼"			
Nozzle	AN013			
Venturi (Diffuser)	AD726	AD722	AD719	
Pressure Control Valve Setting (PSI)	76	78	80	
Depth to Jet Assembly (based on submergence of 5 feet)	Feet	Gallons Per Minute (GPM) 30-50 Pressure Switch Setting		
	30	13.0		
	40	13.0		
	50	13.0		
	60	12.8		
	70	12.8		
	80	12.0		
	90	11.3		
	100	9.5	9.5	
	110		9.4	
	120		8.5	
	130		7.7	
	140		6.8	
	150		6.0	5.7
	160			5.5
	170			5.3
180			5.0	
190			4.5	
200			3.8	

(1) Jet assembly package includes jet body (AT4), venturi, nozzle and foot valve.

**NOTE:** An offset of 50 feet will result in a decrease of about 25% from ratings as shown.



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