

TECHNICAL BROCHURE

BHSJ R4



Basic Convertible Pump

HSJ

MULTI-STAGE CONVERTIBLE JET PUMPS - 60 HZ





Residential Water Systems

FEATURES

High Capacity and Pressure: Specifically designed to deliver high capacities at greater pressures.

Stainless Steel Pump Shaft: Hex design provides positive drive for impellers and eliminates clearance adjustments.

Easy to Service: Can be taken apart for service by removing four bolts.

Corrosion Resistant: Glass filled thermoplastic impellers. Stainless steel wear rings and coverplates. Electrocoat paint process applied inside and out and then baked on.

Powered for Continuous Operation: Pump is designed for continuous operation. All ratings are within the motor manufacturer's recommended working limits.

Convertible: Designed for use on shallow or deep well applications using appropriate Goulds Water Technology fittings. See the performance charts on the following pages for fitting order numbers.

NSF Listed: The first NSF listed jet pumps in the industry. All jet pumps and shallow well components only, deep well components are not listed.

AGENCY LISTINGS



Canadian Standards Association



Underwriters Laboratories^①



DRINKING WATER NSF/ANSI 61 & 372

Residential Water Systems

APPLICATIONS

Specifically designed for:

• Homes, Farms, Cottages, Booster service

SPECIFICATIONS

Pump

- Pipe connections:
 1¼" NPT suction, 1" NPT discharge,
 1" NPT drive (pressure).
- Pressure switch:
 34 1½ HP, AS4; 2 HP, AS10, both preset (30-50 PSI).

Motor

- NEMA standard
- ¾-1½ HP 115/230 V
- 2 HP 230 V only
- 60 Hz, capacitor start
- Single phase, 3500 RPM
- Built-in overload with automatic reset
- Stainless steel shaft
- Rotation: clockwise when viewed from motor end

Maximum temperature: 140°F

SYSTEM COMPONENTS

- Basic Pump Unit: Includes pump, motor, pressure switch, tubing, fittings, pressure gauge and bushing.
- Shallow Well Package: Includes adapter, nozzle, venturi, bolts, gasket and pipe plugs.
- Deep Well Jet Assembly Package: Twin Pipe includes: jet body, nozzle, venturi and foot valve.
 Packer includes: jet body with built-in check valve, nozzle and venturi.

Additional Accessories Required:

- Packer System well casing adapter AWJ2 (2") and turned coupling 64655.
- For Deep Well Systems a pressure control valve such as an AV22KIT or AV22 plus a JDW tubing kit.



AV22

MODEL INFORMATION

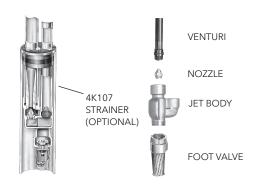
CSA Listed Order No.	U.L. Listed (Indoor use) ① Order No.	НР	Stages
HSJ07N	HSJ07NUL	3/4	2
HSJ10N	HSJ10NUL	1	2
HSJ15N	HSJ15NUL	1½	3
HSJ20N	HSJ20NUL	2	3

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PERFORMANCE RATINGS - SHALLOW WELL SYSTEM

HP/Model	3/2	нР	- HS	J07	N		1 HP	- HSJ	110N		1½ HP - HSJ15N					2 HP	- HSJ	20N						
Shallow Well Package		Fl	HSJC)7			F	HSJ1	0		FHSJ15				FHSJ20									
Adapter		4K62 4K62							62															
Nozzle		AN012					ANO12						Δ	NO1	2					A	4NO12	2		
Venturi		ΑI	D343	32			А	AD3439				AD3448				AD3448								
	Discharge Pressure - PSI												Di	scha	rge Pı	ressu	re - P\$	SI						
	30	40	50	60	Max.	30	40	50	60	Max.		40	50	60	70	80	Max.	30	40	50	60	70	80	Max.
Total Suction Lift (feet)	G	allor min	ns po lute	er	Shut off (PSI)	(ns pe iute	r	Shut off (PSI)	(Gallo	ns p	er mi	inute		Shut off (PSI)		Gal	lons p	er mir	nute		Shut off (PSI)
5'	18.5	18.3	14.6	8.0	76	22.8	22.7	19.8	12.2	79	22.8	22.8	22.8	21.7	17.0	11.2	104	28.2	28.0	25.8	22.7	21.2	16.2	105
10'	15.9	15.8	12.7	6.7	74	20.7	20.3	17.5	10.3	77	20.7	20.7	20.7	20.0	16.3	9.0	102	24.8	24.7	24.2	23.3	18.7	13.7	103
15'	13.8	13.8	11.0	5.6	71	18.0	17.8	15.2	9.2	74	18.0	18.0	18.0	17.7	14.2	-	99	21.3	21.3	20.8	20.7	18.7	13.7	101
20'	13.8	11.3	9.2	-	68	14.5	14.3	12.8	-	71	15.0	15.0	15.0	15.0	12.0	-	97	18.0	17.7	17.5	17.0	16.2	10.8	98
25'	8.6	8.6	5.7	-	65	11.5	11.4	8.3	-	68	11.2	11.2	11.2	11.0	-	-	95	12.3	12.0	11.9	11.7	10.5	-	95

Deep Well Twin Pipe System



PERFORMANCE RATINGS - TWIN PIPE SYSTEMS - 4" WELL

HP/Mode	l	3/4 I	HP - HSJ0	7N	1 H	IP - HSJ1	0N	11/2	HP - HSJ	15N	2	HP - HSJ2	0N
Jet Assem Package		FT4-48	FT4-47	FT4-06	FT4-47	FT4-24	FT4-08	FT4-45	FT4-30	FT4-29	FT4-45	FT4-30	FT4-29
Pressure	Pipe		•	,	•		1	п	,	•			•
Suction	Size (in.)						11	1/4"					
Nozzle		AN012	AN013	AN014	AN013	AN	015			AN	013		
Venturi		AD727	AD724	AD720	AD	724	AD720	AD726	AD722	AD719	AD726	AD722	AD719
Pressure (Valve Sett (PSI) ②		37		40		4	-3	62	65	67	76	78	80
	Feet				Gallons P	er Minute	(GPM) 3	0-50 Pres	sure Swit	ch Setting	1	•	
	30	15.1			16.0			13.0			13.0		
	40	13.5			15.2			13.0			13.0		
Ð	50	11.8			14.7			13.0			13.0		
ee	60	10.7			13.7			12.8			12.8		
> 10	70	8.5	9.0		11.7	11.7		12.2			12.8		
Depth to Jet Assembly d on submergence of 5	80		7.5			10.5		10.6			12.0		
ser	90		6.2	6.2		9.0		9.2	9.3		11.3		
As	100			5.8		7.5			9.0		9.5	9.5	
er er	110			5.0		6.3	6.0		8.0			9.4	
ος. Pm	120			4.6			5.0		7.0			8.5	
th t su	130			4.0			4.3		6.2	5.8		7.7	
e b	140						4.0			5.6		6.8	
Depth to Jet Assembly (based on submergence of 5 feet)	150						3.5			5.2		6.0	5.7
Jas	160									4.7			5.5
=	170									4.2			5.3
	180									3.7			5.0
	190									3.2			4.5
	200												3.8

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

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

② Deep well jet pumps require a pressure control device on the discharge to provide back pressure to the jet assembly. Failure to control the amount of discharge by adjusting the back pressure (pressure control valve setting) will cause the pump to lose prime. On pumps with low control valve settings, up to 40 psi, a simple ball valve or AV15 will work. On systems with control valve settings of 40 - 80 psi an AV22, AV22KIT or AV21 is required. They measure the pressure on the outbound side so that the high pressure does not open the 30-50 psi switch and turn the pump off.

Deep Well Packer System







PERFORMANCE RATINGS - PACKER SYSTEM

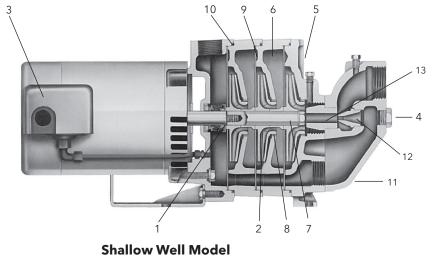
HP/M	odel		¾ HP	- HSJ	107N			1 H	P - HS	J10N			11/2	HP-	HSJ1	5N		2 HP - HSJ20N			N		
Well Cas			2		3	3		2		3	3		2			3		2				3	
Suction	Pipe Size (in.)		11⁄4		1	1/2		11/4		1	1/2		11⁄4			1½			11⁄4			1½	
Jet Ass Packag		FP2- 51	FP2- 50	FP2- 06	FP3- 40	FP3- 42	FP2- 50	FP2- 07	FP2- 08	FP3- 40	FP3- 49	FP2- 49	FP2- 30	FP2- 29	FP3- 47	FP3- 46	FP3- 34	FP2- 49	FP2- 30	FP2- 29	FP3- 47	FP3- 46	FP3- 34
Jet Bo (Only)	dy		AP2		Al	P3		AP2		Al	-3		AP2			AP3			AP2			AP3	
Nozzle	•	AN012	AN013	AN014	AN013	AN014	AN013	AN014	AN015	AN013	AN015						ANO	013					
Ventu	ri	AD727	AD724	AD720	AD724	AD722	AD7	724	AD720	AD724	AD723	AD726	AD722	AD719	AD727	AD722	AD719	AD726	AD722	AD719	AD727	AD722	AD719
Pressur Contro Setting	Valve		40		36	4	0	4	5	40	43	62	65	67	62	64	66	76	78	80	75	78	80
	Feet						Gal	lons I	Per M	inute ((GPM)	30-5	0 Pre	ssure	Switc	h Sett	ing						
	30	14.9			15.3		15.8			16.3		13.0			14.7			13.0			14.7		
	40	13.1			13.5		14.0			16.0		13.0			14.5			13.0			14.7		
	50	11.6			12.5		12.5			15.5		12.9			14.3			13.0			14.7		
	60	10.5			12.2		11.2	11.3		14.2		12.7			14.3			13.0			14.5		
et)	70	8.4	8.8		11.8			10.0		12.5		11.8			14.2			12.8			14.5		
, te	80		7.6		10.2	8.5		8.7		10.0		10.2	0.4		12.2			11.8			13.5		
of !	90		6.0	6.2		7.8		7.3		8.3	9.0	8.3	9.1		10.0	0.4		10.5	0.1		12.7		\vdash
sem	100			5.7 4.3		6.9		5.5 4.2	4.8		8.2 7.3		8.3 7.3		7.8	9.1		8.5	9.1 8.9		10.5	9.1	
As	120			3.8		5.3		4.2	4.0		6.7		6.2			7.6			7.9		0.3	9.1	\vdash
Depth to Jet Assembly (based on submergence of 5 feet)	130			2.2		4.5			3.5		5.8		5.4	5.6		6.9			6.9			8.8	\vdash
함	140			2.2		7.5			3.0		4.8		J	5.3		6.2			6.0			8.2	
ptł on s	150								2.4		4.1			4.8		5.4	5.6		5.2	5.6		7.3	
Δp	160													4.3			5.5			5.4		6.5	
Jase	170													3.6			5.0			4.9		5.7	5.7
=	180													3.0			4.7			4.3			5.6
	190																4.3			3.8			5.5
	200																3.8			3.3			5.3
	210																3.3						4.8
	220																						4.5
	230																						4.0

NOTE: An offset of 50 feet will result in a decrease of about 25% from ratings as shown. Special turned (diameter) couplings are required on 2" packer systems, order no. 64655 in Jet and Sub price book.

① Jet Assembly Package includes jet body, AP2 or AP3; built-in check valve, nozzle and venturi.

② Deep well jet pumps require a pressure control device on the discharge to provide back pressure to the jet assembly. Failure to control the amount of discharge by adjusting the back pressure (pressure control valve setting) will cause the pump to lose prime. On pumps with low control valve settings, up to 40 psi, a simple ball valve or AV15 will work. On systems with control valve settings of 40 - 80 psi an AV22, AV22KIT or AV21 is required. They measure the pressure on the outbound side so that the high pressure does not open the 30-50 psi switch and turn the pump off.

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COMPONENTS

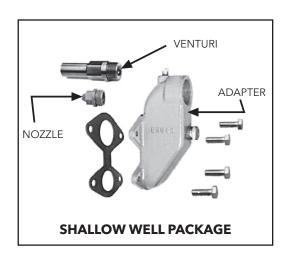
Item #	Description	Material					
1	Mechanical Seal	Carbon/Ceramic/ Buna/SS					
2	Impeller	Glass Filled Engineered Composite					
3	Pressure Switch	Various					
4	Plug	Carbon Steel					
5	Casing	Cast Iron					
6	Intermediate Stage	Cast Iron					
7	Hex Shaft Extension	Stainless Steel					
8	Wear Ring	Stainless Steel					
9	Cover Plate	Stainless Steel					
10	O-Rings	Buna-N					
11	Shallow Well Adapter	Cast Iron					
12	Nozzle	Delrin					
13	Venturi	Polypropylene					
14	Motor Adapter	Cast Iron					

DIMENSIONS AND WEIGHTS

HP/Model	¾-HSJ07N	1-HSJ10N	1½-HSJ15N	2-HSJ20N
Weight	53	58	72	75
Length ^①	15	16	17	19
Width	8	8	8	8
Height	9	9	9	9

(All dimensions are in inches and weights in lbs. Do not use for construction purposes.)

 $[\]ensuremath{\textcircled{1}}$ Add 4" for shallow well adapter.



Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com



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