# **TECHNICAL BROCHURE**

BJ+R1

#### **FEATURES**

**Convertible:** May be used on shallow or deep well applications using appropriate Goulds Water Technology fittings.

#### Serviceable:

- Back pullout design for service without disturbing piping.
- Two compartment motor for access to wiring and replaceable components.
- Nozzle clean out plug in shallow well adapter.
- Corrosion resistant, plastic tubing and fittings are easily removed for cleaning. Premium O-ring design fittings need only be hand tight to seal.

Impeller: F.D.A. compliant, glass filled Noryl\*. Corrosion and abrasion resistant.

**Diffuser (Guidevane):** Bolt down Lexan\* diffuser has stainless wear ring for extended performance in abrasive conditions.

Powered for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits. Can be operated continuously without damage.

Corrosion Resistant: Electro-coat paint is baked on.

Protected Mechanical Seal: Diaphragm retains water in the casing to ensure the mechanical seal can never run dry.

**Excellent Air Handling Ability:** After initial priming the pump has the ability to re-prime itself.

# **AGENCY LISTINGS**





J+ J5, J7, J10 AND J15

CONVERTIBLE JET PUMPS 1/2, 3/4, 1 AND 11/2 HP - 60 HZ



# Goulds Water Technology

# 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: AS4 preset at 30-50 PSI

#### Motor:

- NEMA standard
- •60 Hz
- ½ 1½ HP, 115/230 V capacitor start
- Single phase
- •3500 RPM
- Built-in overload with automatic reset
- Stainless steel shaft
- Rotation: clockwise when viewed from motor end
- UL778 listed

Maximum temperature: 140°F

## **SYSTEM COMPONENTS**

Basic Pump Unit: Includes pump and motor, pressure gauge and bushing, pressure switch with tubing and fittings.

NOTE: THE TUBING COMES CONNECTED FOR SHALLOW WELL USE. A DEEP WELL SET UP REQUIRES A JDW FITTINGS PACKAGE OR AN AV22

Both include additional fittings and a 24" tubing to connect to a pressure control valve.

#### ADDITIONAL COMPONENTS REQUIRED

- Shallow Well Package: Includes shallow well adapter, nozzle, venturi (diffuser), gasket, bolts and pipe plugs OR
- Deep Well Package: Choose either a twin pipe or packer style.
  - Twin pipe includes jet body, nozzle, venturi (diffuser) and foot valve.
  - Packer includes packer body, nozzle, venturi (diffuser), and built-in check valve.

NOTE: Packer systems also require a packer adapter on the wellhead.

Deep well systems require a pressure control valve.

NOTE: YOU MUST HAVE A JDW OR AV22 KIT TO

MAKE THE PRESSURE SWITCH CONNECTION.

Pressure tank required on all systems.

# **MODEL INFORMATION**

CSA Listed Order No.	U.L. Listed (Indoor use)① Order No.	НР
J5	J5UL	1/2
J7	J7UL	3/4
J10	J10NUL	1
J15	J15UL	1½

# **SHALLOW WELL PERFORMANCE RATINGS**

HP/Model	½ HP - J5					1	⁄2 HP	' - J5				3/4	HP	J7			1 H	IP – J	10			11/2	HP	J15		
Shallow Well Package	FH5					FH5h	H (Hiç	gh Pr	essu	re M	odel)			FH7				F	H10				F	H15		
Adapter													4K	62												
Nozzle	AN017						ANG	)19				А	N018	3			Α	N018	3			Α	N022	2		
Venturi	AD3731						AD3	528				ΑI	D353	6			A[	D353	8			A[	D354	-2		
	Disc	harge	Pres	sure -	- PSI	D	ischa	ge Pr	ressu	re - P	SI	Disc	harge	Pres	sure -	- PSI	Disc	harge	Pres	sure -	- PSI	Disc	harge	Pres	sure	- PSI
	20	30	40	50	Max.	20	30	40	50	60	Max.	30	40	50	60	Max.	30	40	50	60	Max.	30	40	50	60	Max.
l =							- 1			l			l						- 1							~ .
Total Suction Lift (feet)	G	iallor min		r	Shut off (PSI)	Ga	llons	per	minu	ıte	Shut off (PSI)	G	iallor min	ns pe ute	r	Shut off (PSI)		allor min	ns pe ute	r	Shut off (PSI)	G	iallor min	ns pe ute	r	Shut off (PSI)
			ute		off	Ga	llons		minu 7.7	ite 4.8	off		min			off		min	ute		off		min	•		off (PSI)
Lift (feet)	17.5	min	ute		off (PSI)	Ga					off (PSI)		min 18.3	ute 12.5	6.6	off (PSI)	24.8	min	ute 16.6		off (PSI)	26.6	min 26.3	ute	15.6	off (PSI) 80
Lift (feet)	17.5 15.7	min 16.5	ute 10.2	5.0	off (PSI) 63	<b>G</b> a	11.3	11.0	7.7	4.8	off (PSI) 83	21.3 18.8	min 18.3	ute 12.5 11.3	6.6	off (PSI) 70	24.8 22.9	min 24.4	ute 16.6 15.8	9.9	off (PSI) 74	26.6 24.7	min 26.3 24.3	ute 25.0	15.6 13.9	off (PSI) 80 77
Lift (feet)  5 10	17.5 15.7	min 16.5 14.4 12.5	ute 10.2 9.2	5.0 4.3	off (PSI) 63 61	Ga 11.5 10.3	11.3 10.0	11.0 9.6	7.7 7.0	4.8	off (PSI) 83 81	21.3 18.8	min 18.3 17.3 15.5	12.5 11.3 9.6	6.6 5.0	off (PSI) 70 68	24.8 22.9 19.8	min 24.4 22.2	16.6 15.8 13.8	9.9 8.6	off (PSI) 74 72	26.6 24.7	min 26.3 24.3 21.5	ute 25.0 22.6	15.6 13.9 12.9	off (PSI) 80 77 75

### TWIN PIPE PERFORMANCE RATINGS

HP/Model				½ HF	P - J5			3,	4 HP - J	7			1	HP - J1	0		1½ HF	P - J15
Well Ca	sing m	in. I.D.		4		41/2		4		4	1/2		4		4	1/2	4	.1/2
Pressure Pipe			1		11/4		1		1	1/4		1		1	1/4	1	1/4	
Suction		Size (in.)		11⁄4		11/2		11/4			1/2		11/4		1			1/2
① Jet As	ssembly	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 Bod	ly (only	)		AT4		AT5		AT4			Γ5		AT4		A	-	A	
Nozzle			AN017											AN016				
Venturi						AD724								AD722				AD727
② Contro	ol Valve Se	etting (PSI)	30	30	30	30	28	29	30	28	30	31	33	35	30	32	35	40
		Feet						Per Mir	ute (GF		50 PSI I		Switch	Setting				
		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	
feet)		50		7.6		6.9	13.2			15.0		14.4			16.0		16.1	
25		60		7.0	5.2	6.4	10.2			13.0		11.5	11.2		14.3		15.0	
epth to Jet Assembly on submergence of 5		70			4.7	5.6		8.2		11.0	10.0		9.3		12.6		14.0	11.2
sen		80			3.8	4.8		6.5			8.6		7.3	6.2	10.0	10.0		10.6
As		90			3.1	4.1		5.0	5.0		7.3			6.1		8.7		9.0
Jet		100							4.4		6.0			5.4		7.0		7.6
b rg		110							3.5		5.0			4.5		5.7		6.2
epth on s		120														4.5		5.2
De do		130																4.0
De (pased)		140																2.8
<u>a</u>		150																1.5
		160																
		170																

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

# **PACKER SYSTEM PERFORMANCE RATINGS**

HP/Model ½ HP					15			3⁄4 H	P - J7			1 HP	- J10			1½ HF	P - J15			
Well Casing			2		,	3	:	2		3	2	2	;	3		(	3			
Suction Pipe Size (in.)			11/4		1	1/2	1	1/4	1	1/2	1	1/4	11/2		11/2					
Jet Assembly Package ①		FP2-13	FP2-31	FP2-08	FP3-36	FP3-24	FP2-40	FP2-47	FP3-53	FP3-54	FP2-48	FP2-43	FP3-55	FP3-14	FP3-16	FP3-18	FP3-21	FP3-24		
Jet Bod	y (only)		AP2		Α	P3	Α	P2	А	P3	Al	P2	Α	P3		Al	P3			
Nozzle		AN017	AN016	AN015	AN021	AN018	AN015	AN015	AN018	AN017	AN016	AN016	AN019	AN018	AN019	AN021	AN023	AN018		
Venturi		AD726	AD723	AD720	AD730	AD724	AD727	AD723	AD730	AD725	AD729	AD725	AD732	AD727	AD735	AD723	AD731	AD724		
Control Setting		30	30	30	30	30	30	32	27	30	35	36	28	32	34	34	34	39		
	Feet					Gallo	ons Per	Minute	(GPM)	30-50 F	SI Pres	sure Sw	itch Se	tting						
	30	11.9	9.5		13.1		13.8		16.8		16.7		19.3		24.4					
	40	10.6	7.9		12.6		13.5		16.8		14.6		19.3		23.1					
et)	50		7.6		10.7	6.9	11.5		15.3		13.5		18.0		20.2					
2 fe	60		6.7	4.8	8.8	6.5	9.0	7.8	13.5		11.0	9.2	15.3		16.9	15.0				
of !	70			4.3	7.3	5.6		7.1	11.5	9.8		9.0	12.7			14.4				
sem ice	80			3.5		4.8		5.1		8.6		7.3	10.2	10.3		12.9				
Ass	90							4.3		7.3		5.6		8.8		10.9	10.3			
Jet	100									6.2		4.2		7.2			9.6	7.3		
to ,	110									5.0				5.8			8.2	6.5		
oth n su	120													4.5			6.9	5.8		
Depth to Jet Assembly (based on submergence of 5 feet)	130																5.8	5.0		
- asec	140																4.7	4.5		
(bs	150																3.4	4.0		
	160																	3.3		
	170																	2.8		

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 (AT4), venturi, nozzle and foot valve.

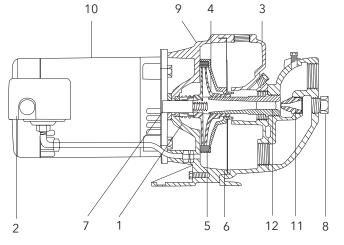
② Deep well jet pumps require a pressure control device on the discharge to provide back pressure to the jet assembly. Failure to control the amount of discharge by adjusting the back pressure (pressure control valve setting) will cause the pump to lose prime. On pumps with low control valve settings, 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.

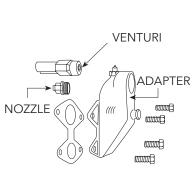
① Jet Assembly Package includes jet body, AP2 or AP3; built-in check valve, nozzle and venturi.

② Same as above

# **COMPONENTS**

Item No.	Description
1	Mechanical seal
2	Pressure switch
3	Casing
4	Impeller
5	Diffuser (Guidevane)
6	Diaphragm
7	Stainless steel shaft
8	Nozzle clean-out plug
9	Motor adapter
10	Motor
11	Nozzle
12	Venturi

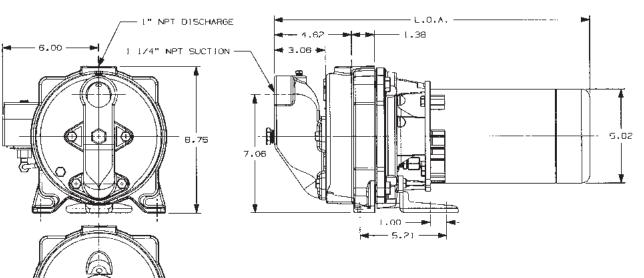


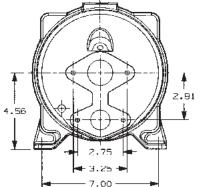


Shallow Well Model

Shallow Well Package

# **DIMENSIONS AND WEIGHTS**





Model	J5	J5H	J7	J10	J15
HP	1/2	1/2	3/4	1	1½
Weight (lbs.)	50	50	55	59	68
L.O.A.	20½	20½	21	21½	24
•					

Weight includes shallow well adapter. (All dimensions are in inches and weights in lbs. Do not use for construction purposes.)



Xylem Inc.

2881 East Bayard Street Ext., Suite A

Seneca Falls, NY 13148 Phone: (866) 325-4210 Fax: (888) 322-5877

www.gouldswatertechnology.com

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