

# **TECHNICAL BROCHURE**

BJ+R2



**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

# **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 engineered composite. Corrosion and abrasion resistant.

Diffuser (Guidevane): Bolt down glass filled engineered composite 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.

**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







# **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	11/2

# **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, 3500 RPM, single phase
- ½ 1½ HP, 115/230 V capacitor start
- 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 KIT.

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
  - 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.

# **SHALLOW WELL PERFORMANCE RATINGS**

HP/Model	½ HP - J5 ½ HP - J5							3/2	HP -	- <b>J</b> 7		1 HP - J10				1½ HP - J15										
Shallow Well Package			FH5	FH5 (High Pressure Model)						FH7				FH10				FH15								
Adapter												4K62														
Nozzle	AN017							A١	1019					AN0	18		AN018				AN022					
Venturi	AD3731						AD	3528				AD3536 AD3538				38		AD3542								
	Dis	charg	je Pre	ssure	re - PSI Discharge Pressure - PSI Discharge Pressure - PSI Discharge Pressure - PSI				Discharge Pressure - PSI																	
Total Suction	20	30	40	50	Max. Shut	20	30	40	50	60	Max. Shut	30	40	50	60	Max. Shut	30	40	50	60	Max. Shut	30	40	50	60	Max. Shut
Lift (feet)	Gall	ons p	er mi	nute	off (PSI)	G	allon	s per	minut	te	off (PSI)	Gall	lons p	er mi	nute	off (PSI)	Gall	ons p	er mi	nute	off (PSI)	Callana manusimuta off				
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 1/2 HP - J5 3/4 HP - J7 1 HP - J							HP - J1	0		1½ HP - J15									
Well Casing mi	in. I.D.			4		41/2		4		4	1/2		4		4	1/2	4	1/2	
Pressure		Pipe Size	ipe 1		11/4	1		11⁄4		1			11/4		1	1/4			
Suction		(in.)		11/4		11/2		11/4		11/2		11/4			11/2		11/2		
Jet Assembly F	Package	1	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 AT			AT4			A	AT5		AT4			AT5		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 Se	Control Valve Setting (PSI) ②			30	30	30	28	29	30	28	30	31	33	35	30	32	35	40	
		Feet					Gallons	Per Mir	nute (GP	M) 30-5	O PSI P	ressure :	Switch S	etting					
		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		
fe		60		7.0	5.2	6.4	10.2			13.0		11.5	11.2		14.3		15.0		
Depth to Jet Assembly d on submergence of 5		70			4.7	5.6		8.2		11.0	10.0		9.3		12.6		14.0	11.2	
e m		80			3.8	4.8		6.5			8.6		7.3	6.2	10.0	10.0		10.6	
Ass		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	
p to		110							3.5		5.0			4.5		5.7		6.2	
pth n sı		120														4.5		5.2	
d o		130																4.0	
Depth to Jet Assembly (based on submergence of 5		140																2.8	
<u>e</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			1,	2 HP - J	5			3⁄4 HI	P - J7			1 HP	- J10			1½ H	<b>HP - J15</b> 3				
Well Casing		2			3	2	2	3	3	2	2	,	3			3					
Suction Pipe Si		11/4		1	1/2	1	1/4	1	1/2	1	1/4	11/2			1½						
Jet Assembly F	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 Body (only	)		AP2		Al	P3	Al	2	Al	P3	Al	2	А	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 Valve Se	etting (PSI) ②	30	30	30	30	30	30	32	27	30	35	36	28	32	34	34	34	39			
	Feet				(	allons	Per Min	ute (GF	M) 30-	50 PSI F	Pressure	Switch	Settin	g							
	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						
ğ	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 5	70			4.3	7.3	5.6		7.1	11.5	9.8		9.0	12.7			14.4					
E e B	80			3.5		4.8		5.1		8.6		7.3	10.2	10.3		12.9					
Ass yen	90							4.3		7.3		5.6		8.8		10.9	10.3				
er et	100									6.2		4.2		7.2			9.6	7.3			
to .	110									5.0				5.8			8.2	6.5			
ᆄ	120													4.5			6.9	5.8			
Depth to Jet Assembly (based on submergence of 5 feet)	130																5.8	5.0			
	140																4.7	4.5			
( <b>p</b> s	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.

 $<sup>{</sup> ext{ }}{ ext{ }}{$ 

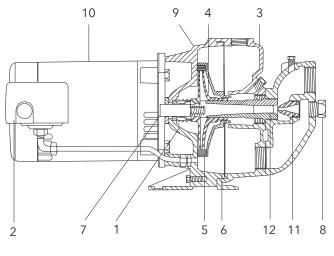
② Deep well jet pumps require a pressure control device on the discharge to provide back pressure to the jet assembly. Failure to control the amount of discharge by adjusting the back pressure (pressure control valve setting) will cause the pump to lose prime. On pumps with low control valve settings,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

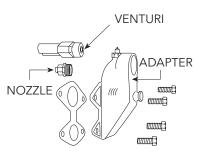
① Jet Assembly Package includes jet body, AP2 or AP3; built-in check valve, nozzle and venturi.

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

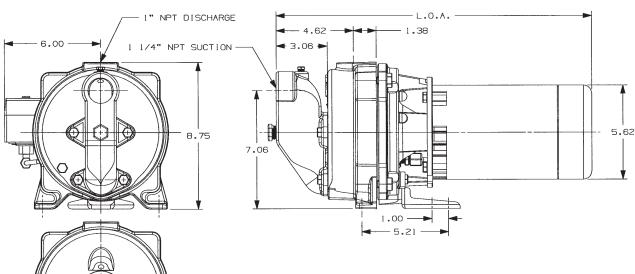


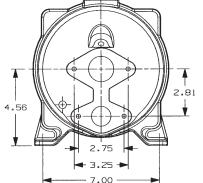


Shallow Well Model

Shallow Well Package

# **DIMENSIONS AND WEIGHTS**





Model	Model J5		J7	J10	J15
НР	1/2	1/2	3/4	1	1½
Weight (lbs.)	50	50	55	59	68
L.O.A.	201⁄2	201/2	21	21½	24

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



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