

**Sargent Irrigation
Broken Bow, NE.**

JOB NAME : <input type="text"/>		LOCATION : Brady , NE	
PUMP BRAND : SARGENT	POWERED BY : POWER UNIT	PUMP SIZE : 8 X 2 X 1.25	PUMP SET FT : 100
LINE BEARINGS : BRASS	HEAD NUT THREAD : 12	PUMP RPM : 1780	AGING FACTOR : NEW
UNDERGROUND	UNDERGROUND MAT : PLASTIC	IRRIG TYPE : 1000 FT X 8 IN PIVOT	PIVOT PSI : 60
900 GPM FROM	: 60 FT	PUMP LOSS	: 2.8 FT
CHECK VALVE LOSS	: 1.55 FT	HOOX-UP LOSS	: 0.33 FT
ELEVATION	: 5 FT	UNDERGROUND LOSS	: 12.03 FT
PIVOT LOSS	: 14.73 FT	60 PSI X 2.31	: 138.6 FT
TOTAL HEAD		: 235.03 FT	
BOWL BRAND : SARGENT	H. P. FACTOR : 100 %	4 STAGE 11SC BOWLA. 4 -9.00 UF & 0 -9.00 AC	AMOUNT OFF : 0.99 FT
HEAD FACTOR : 100 %	THRUST Lbs : 2903.1	ACTUAL HEAD : 236.03 FT	REQUIRED LATERAL : 0.3164 IN
BOWL HP : 65.61	BOWL ADJUSTMENT : 2.3 TURNS	BOWL LATERAL : 0.594 IN	GEAR DRIVE LOSS : 2.77 HP
SHAFT STRETCH	PUMP EFFICIENCY : 77.49 %	SHAFT LOSS : 0.08 IN	
BOWL EFFIC : 81.76 %		SHAFT EFFIC : 81.76 %	
MOTOR TYPE : DIESEL	GEAR RATIO : 1 - 1	PUMP HP : 69.22	MOTOR RPM : 1780
HP PER / GAL : 20	FUEL COST : \$ 1	FUEL PER / HR : 3.46	ANNUAL FUEL : 3461
ANNUAL HOURS: 1000	ANNUAL COST : \$ 3461.16		
BOWL ADJUSTMENT IS RELATIVE SHAFT STRETCH PLUS .125 In.			
PUMP POWER AND ANNUAL COST ARE FOR PUMP POWER ONLY AND DOES NOT INCLUDE ANY OTHER INSTALLATION DRIVE POWER REQUIREMENTS.			

ENGINEER : Dave Glendy

DATE : 04-29-2014

NOTE: The pump was redesigned in 2014 when the "new" pivot system went in. This pump Design worksheet from Sargent Irrigation shows that it now pumps 900 gpm rather than the 500 shown in the original log.