

KEY		ITEM	DESCRIPTION	
1	INLET	4" LUG/LEVER BUTTERFLY VALVE (SHIPPED LOOSE)		
2	BASKET STRAINER	4" CLASS 125 CAST IRON W/ STAINLESS STEEL BASKET		
3	PUMP	GOULDS 54AI1K9A0 450GPM @ 40TDH 7.5HP TEPE		
4	SKID	EPOXY COATED CARBON STEEL		
5	CONTROL PANEL	NEMA 4X ENCLOSURE MAIN POWER DISCONNECT MAIN POWER LED INDICATOR PUMP H-O-A SWITCH PUMP RUNNING LED INDICATOR PURGE H-O-A SWITCH SYSTEM PURGING LED INDICATOR ALARM LED INDICATOR 460VAC TO 120VAC TRANSFORMER PUMP CONTACTOR AND OVERLOAD PROGRAMMABLE PURGE CONTROLLER REMOTE START/STOP TERMINALS (24VDC) REMOTE PURGE TERMINALS (24VDC)		
6	SEPARATOR	XFD-0400 FLOW RATE AT 4 PSID: 352 GPM FLOW RATE AT 12 PSID: 610 GPM		
7	PURGE	1-1/2" FPT 120VAC FULL PORT MOTORIZED PURGE KIT		
8	DISCHARGE	4" LUG/LEVER BUTTERFLY VALVE (SHIPPED LOOSE)		
DRAWN		12/17/2020		
RB				
CHECKED			TITLE JLW 450GPM @ 80TDH WITH MOTORIZED PURGE KIT, BASKET STRAINER, AND ISOLATION VALVES	
QA				
MFG				
APPROVED				
		SIZE	DWG NO	REV
		CT-0450-40-MPK/BS-IV		
		SCALE	0.1 : 1	SHEET 1 OF 1

Customer	Date	16.04.2020
Contact	Project	
Phone number	Project no.	
Email		

54AI1K9A0

Operating data

Pump type	Single-Stage Pumps	Fluid	Water
No. of pumps / Reserve	1 / 0	Operating temperature t A	°F 39.2
Nominal flow	US g.p.m. 450	pH-value at t A	7
Nominal head	ft 39.99	Density at t A	lb/ft ³ 62.4
Static head	ft 0	Kin. viscosity at t A	ft ² /s 1.689E-5
Inlet pressure	psi 0	Vapor pressure at t A	psi 14.5
Environmental temperature	°F 68	Solids	0
Available system NPSH	ft 0	Altitude	ft 0

Pump data

Make	Goulds Water Technology	Nominal	US g.p.m. 463.7 (463.7)
Speed	rpm 3600	Flow	Max- US g.p.m. 618.7
No. of stages	1	Min-	US g.p.m.
Max. casing pressure	psi	Nominal	ft 42.5
Max. working pressure	psi 24.7	Head	at Qmax ft 22.6
Head H(Q=0)	ft 57	at Qmin	ft 57
Weight	lb 223	Shaft power	hp 5 (5)
Max.	inch 4 3/4	Max. shaft power	hp 5
Impeller R	designed inch 4 3/4	Efficiency	% 74.66
Min.	inch 4	NPSH 3%	ft 26.6

Shaft Seal

Type 21	Xylem
Car/Cer/Buna (Std.) [Max Temp. 212°F/100°C]	
Rotary	Carbon
Stationary	Ceramic
Elastomers	Buna-N
Metal Parts	Type 316 SS

Motor data

Specific design	3ph TEPE	Speed	3500 rpm	Insulation class	F
Electric voltage	460 V	Frame size	213CZY	Colour	RAL 5010
Type	230/460V 213CZY (C11A32F5BG2S)	Degree of protection	IP 55		
Rated power	7.5 hp	Electric current	8.6 A		

Remarks:

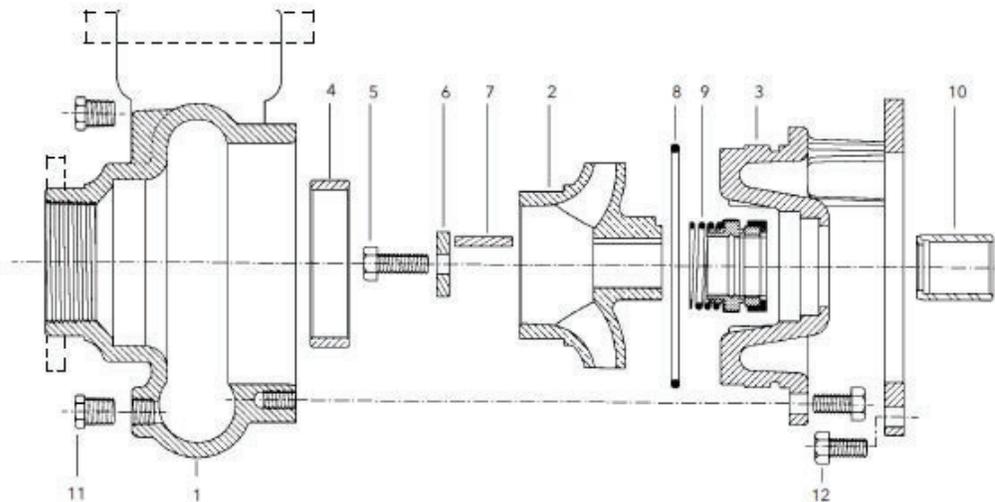
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Pump Materials

1 - Casing	Cast iron ASTM A48 CL30
2 - Impeller	Cast iron ASTM A48 CL30
3 - Motor adapter	Cast iron ASTM A48 CL30
4 - Casing wearing ring	Cast iron ASTM A48 CL30
5 - Impeller bolt	Stainless Steel (AISI 304)
6 - Impeller washer	Stainless Steel (AISI 304)
7 - Square key way	Stainless Steel (AISI 304)
8 - O-ring	Refer Mechanical Seals
9 - Mechanical Seal	Refer Mechanical Seals
10 - Shaft sleeve	Stainless Steel (AISI 304)
11 - 1/4" pipe plug	Steel
12 - Hex head screw	Steel

MATERIALS OF CONSTRUCTION, MATERIALES DE CONSTRUCCIÓN



Remarks:

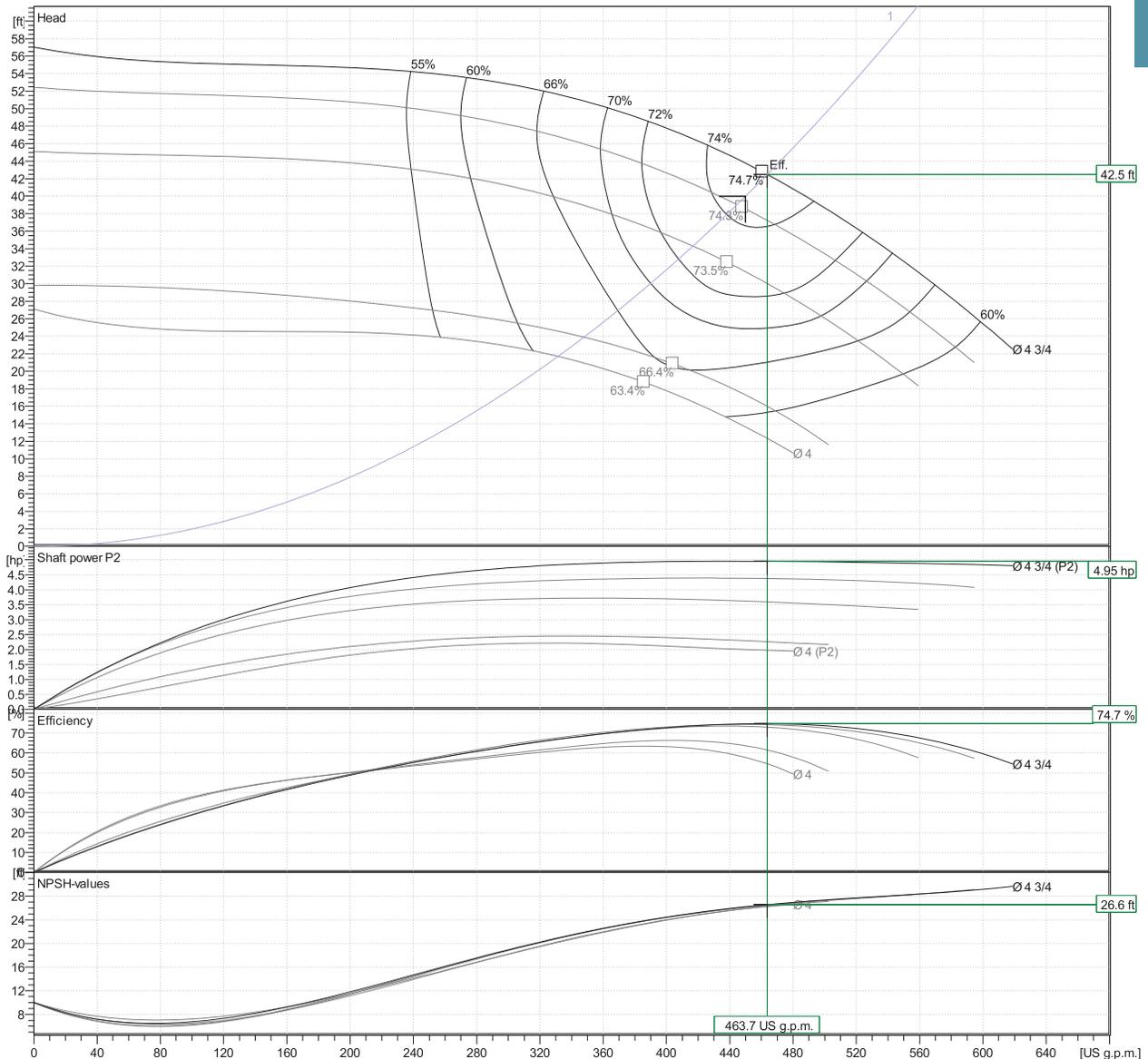
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Hydraulic Data

Operating Data Specification		Hydraulic data (duty point)		Impeller design	
Flow	450 US g.p.m.	Flow	464 US g.p.m.	Impeller R	4 ³ / ₄ "
Head	40 ft	Head	42.5 ft	Frequency	60 Hz
Static head	0 ft			Speed	3600 rpm

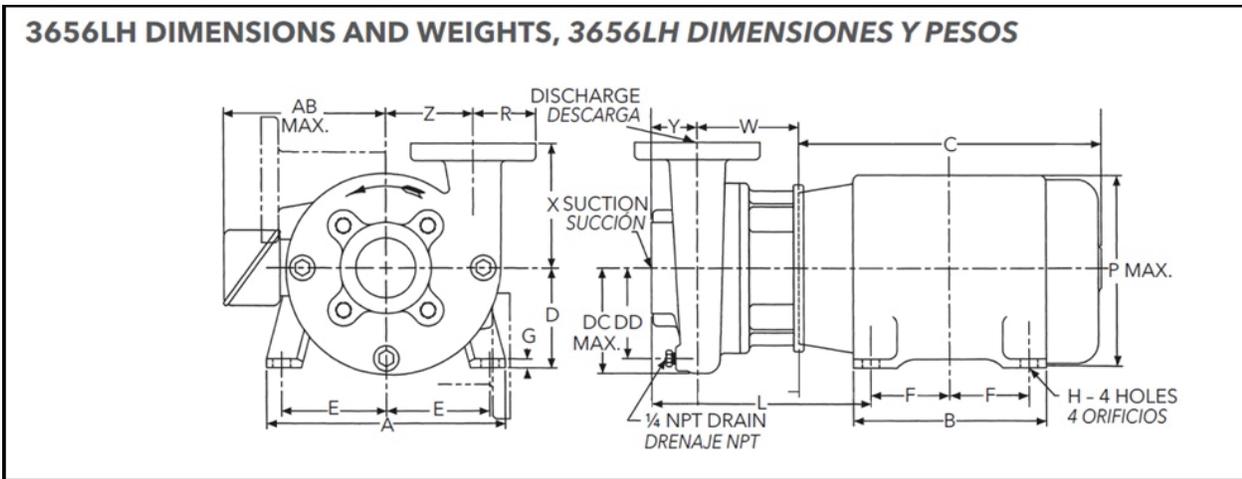
Power data referred to:
 Water [100%] ; 39.2°F; 62.4lb/ft³; 1.69E-5ft²/s
 Performance according to ISO 9906 - Annex A



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Drawing



Dimensions inch

A	9 ¹ / ₂	H	7 ⁷ / ₁₆			Weight	
AB Max.	8 ³ / ₁₆	L	12 ³ / ₄			223	lb
B	8	P Max.	10 ³ / ₁₆				
C Ref.	15 ¹ / ₂	R	4 ¹ / ₂				
D	5 ¹ / ₄	Suction	4				
DD	5 ¹ / ₄	W	4 ¹ / ₄				
Discharge	4	X	7				
E	4 ¹ / ₄	Y	4				
F	2 ³ / ₄	Z	4 ¹ / ₂				