

MOTOR DIMENSIONS

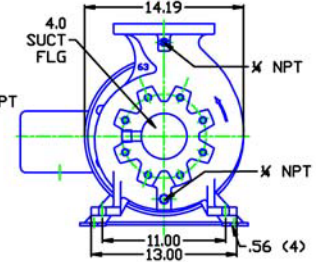
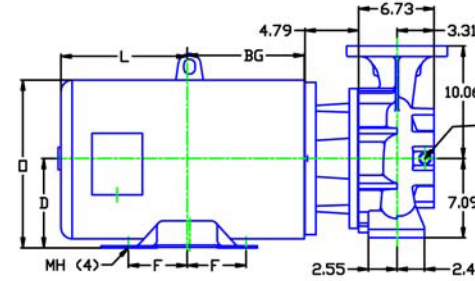
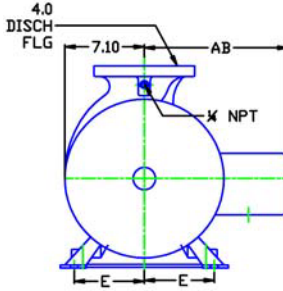
NEMA JP FRAME 3 PHASE 2900 RPM

HP	Type	Frame	D	E	F	O	AB	BG	L	MH
25	ODP	JP284	7.00	5.50	4.75	13.86	10.87	9.75	9.26	0.53
30	ODP	JP286	7.00	5.50	5.50	13.86	10.87	10.50	10.00	0.53
40	ODP	JP324	8.00	6.25	5.25	15.55	11.50	10.75	10.43	0.66
50	ODP	JP326	8.00	6.25	6.00	15.55	11.50	11.50	11.18	0.66
60	ODP	JP364*	9.00	7.00	5.63	16.52	13.20	11.51	11.56	0.75
25/30	TEFC	JP286	7.00	5.50	5.50	14.11	11.07	10.02	13.04	0.53
40/50	TEFC	JP326	8.00	6.25	6.00	15.93	12.58	11.00	14.60	0.66
60	TEFC	JP364*	9.00	7.00	5.63	18.52	15.00	11.54	14.96	0.66

* 326JP Shaft Dimensions are the next larger 60Hz motor derated for 50Hz operation.

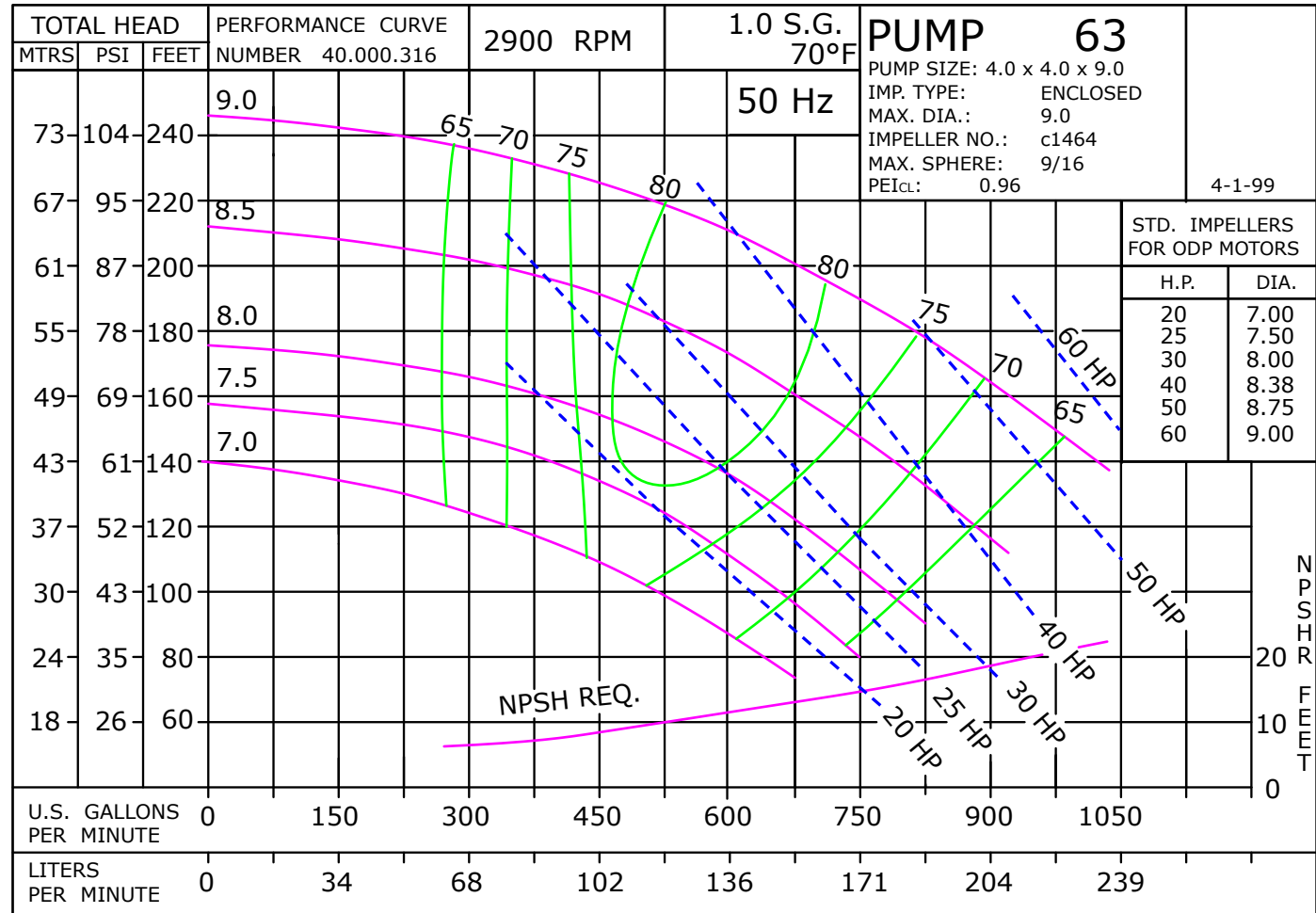
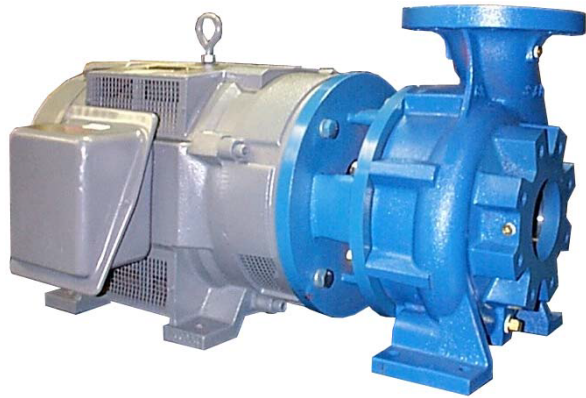
D063JPS324

DRAWING DEPICTS JPS324 50HP ODP MOTOR



ALL DIMENSIONS IN INCHES.

DRAWING REPRESENTS APPROXIMATE PUMP DIMENSIONS. AUTOCAD DRAWING TO SCALE AVAILABLE FROM FACTORY.



50 Hertz Pump & Motor Data

A 3-phase 50 Hertz Motorpump™ can be obtained in several ways. The most common options are listed below:

1. Most 60 Hz pumps available from Scot Pump can be operated on a 3-phase 50 Hz 190/380V power. However, when operated on 50 Hz power, the speed is reduced by approximately 20%, and a significant reduction in performance is realized. The charts below indicate these reductions in performance.
2. Pumps will produce the performance indicated in the performance curves when operated on 50 Hz power. The motors for these selections can be obtained through *derated 60 Hz motors* and *wound 50 Hz motors* (see below).

Contact factory for 1 Phase applications.

Derated 60 Hz Motors

The most common practice and readily available method of obtaining a 50 Hz motor is by using the next larger 60 Hz motor and derating it to the desired horsepower on 50 Hz. We will require the country the motor is being exported to, frequency in hertz and specific voltage to ensure that a nameplate with applicable efficiency and country markings (if required) is supplied. In utilizing this practice, service factors may be derated to 1.0. Please contact the factory for approval of the rating for your specific application.

Wound 50 Hz Motors

Specially wound 50 Hz motors are available. These motors are not normally a stock item and require an extended lead time.

The impeller and horsepower combination sized (taking the reduction in speed into consideration) may not be suitable for operation on 60 Hz power. The increase in speed, performance and load may overload the system and the electric motors. **Pumps sized for 50 Hz operation SHOULD NOT be tested on 60 Hz.**

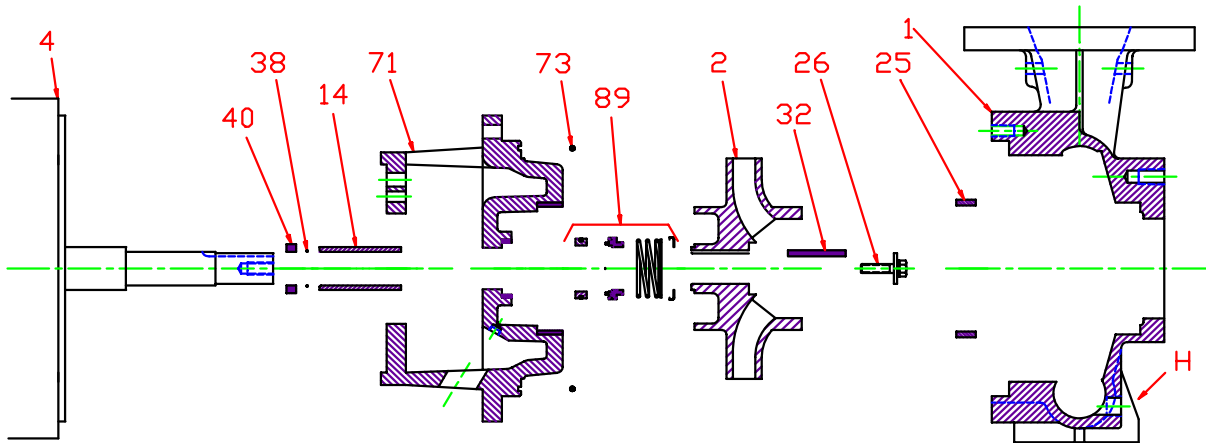
60 Hz Pump on 50 Hz Power		
No Impeller Change		
50 Hz	60 Hz	Factor
GPM =	GPM x	0.829
Head =	Head x	0.687
BHP =	HP x	0.569

To Size 60 Hz Pump Using 50 Hz Data,		
Obtain 60 Hz Data As Follows:		
60 Hz	50 Hz	Factor
GPM =	GPM x	1.2
Head =	Head x	1.45
BHP =	HP =	$\frac{\text{GPM} \times \text{Head} \times \text{SG of}}{3960 \times \text{Eff}}$

Change of Speed (RPM)		
	How Varies:	Examples
GPM	Directly	Double RPM = (2)(RPM) = (2)(GPM) Triple RPM = (3)(RPM) = (3)(GPM)
Head	Square	Double RPM = (2)(RPM) = (2) ² = (2)(2) = (4)(Head) Triple RPM = (3)(RPM) = (3) ² = (3)(3) = (9)(Head)
BHP	Cube	Double RPM = (2)(RPM) = (2) ³ = (2)(2)(2) = (8)(BHP) Triple RPM = (3)(RPM) = (3) ³ = (3)(3)(3) = (27)(BHP)

Change of Impeller Diameter (Dia.)		
	How Varies:	Examples
GPM	Directly	Double Dia. = (2)(Dia.) = (2)(GPM) Triple Dia. = (3)(Dia.) = (3)(RPM)
Head	Square	Double Dia. = (2)(Dia.) = (2) ² = (2)(2) = (4)(Head) Triple Dia. = (3)(Dia.) = (3) ² = (3)(3) = (9)(Head)
BHP	Cube	Double Dia. = (2)(Dia.) = (2) ³ = (2)(2)(2) = (8)(BHP) Triple Dia. = (3)(Dia.) = (3) ³ = (3)(3)(3) = (27)(BHP)

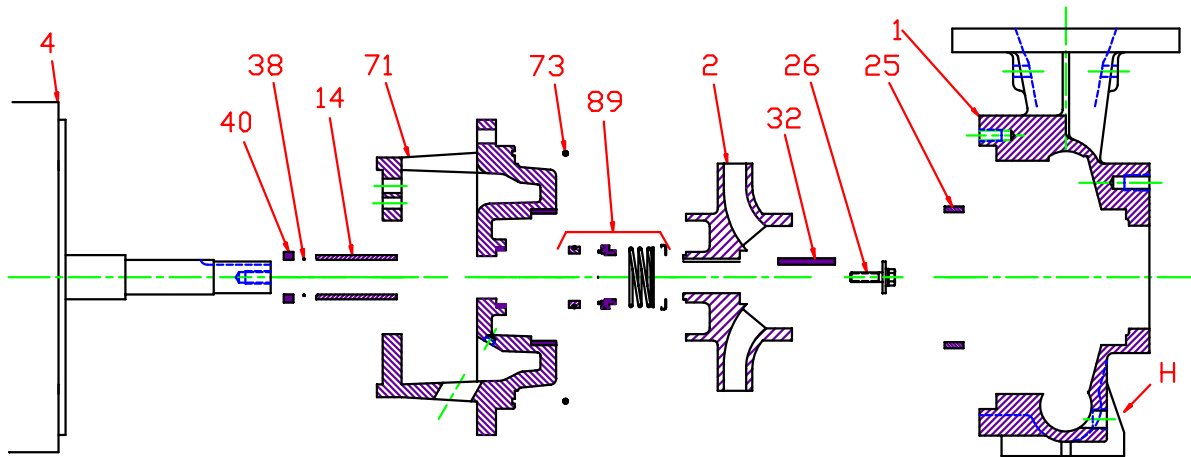
Pump 63 • Iron • JP Frame • 2900 RPM



KEY NO.	PART NAME	PUMP NO. 63
1+	CASE, IRON, 4x4 FLG	130.000.256X
2	IMPELLER, 1¼" KEYED, ENCLOSED, SPECIFY DIAMETER: IRON BRONZE	137.000.146 137.000.145
4	MOTOR, JP280/320 MOTOR, JP360	See 60HZ Chart See 60HZ Chart
14*	SHAFT SLEEVE, BRONZE SHAFT SLEEVE, STAINLESS	110.000.397 110.000.308
25	WEAR RING, BRONZE WEAR RING, STAINLESS	110.000.301 110.000.300
26*	IMPELLER RETAINER, STAINLESS	118.000.640
32*	KEY, STAINLESS	102.000.257
38*	O-RING, SHAFT	116.000.241
40*	FLINGER, STAINLESS	110.000.307
71	ADAPTER, IRON, JP280/320/360	132.000.271
73*	GASKET, CASE, BUNA	116.000.240
89*	1¼" SEALS: BN-CARB/CM VN-CARB/CM VN-CARB/SIL VN-SIL/SIL EPDM-CARB/SIL EPDM-SIL/SIL	101.000.196 101.000.216 101.000.221 101.000.231 101.000.196B 137.001.555
--	° REPAIR KITS: BN-CARB/CM SEAL VN-CARB/CM SEAL (S) VN-CARB/SIL SEAL VN-SIL/SIL SEAL (S) EPDM-CARB/SIL SEAL EPDM-SIL/SIL SEAL	118.000.388 118.000.388A 118.000.388B 118.000.388C 118.000.388D 118.000.388E

* DENOTES COMPONENTS INCLUDED IN REPAIR KIT.
+ INCLUDES BRONZE WEAR RING. FOR STEEL WEAR RING, REPLACE SUFFIX "X" WITH "X1".
° THE REPAIR KIT INCLUDES THE BRONZE SHAFT SLEEVE EXCEPT THE (S) INDICATED, WHICH IS STAINLESS.

Pump 63 • Iron • JP Frame • 2900 RPM



CONSTRUCTION OPTIONS

KEY	PART NAME	STANDARD FITTED	BRONZE FITTED	ALL IRON
1	Case	Iron	Iron	Iron
2	Impeller	Iron	Bronze	Iron
14	Shaft Sleeve	Bronze	Bronze	Stainless
25	Wear Ring, Case	Bronze	Bronze	Steel
26	Impeller Retainer	Stainless	Stainless	Stainless
32	Key	Stainless	Stainless	Stainless
38	Shaft O-Ring	BUNA	BUNA	BUNA
40	Flinger	Stainless	Stainless	Stainless
71	Adapter	Iron	Iron	Iron
73	Gasket, Case	BUNA	BUNA	BUNA
89	Mechanical Seal, Type 21 BN-CM	Standard	Standard	Standard
H	Plug, Drain	Brass	Brass	Plated Steel

E063JP

B11

C0632900JP