SCOT

MOTORPUMP™ — 2900 RPM

50 HERTZ, 1.50 X 1.25 X 5.5 NPT

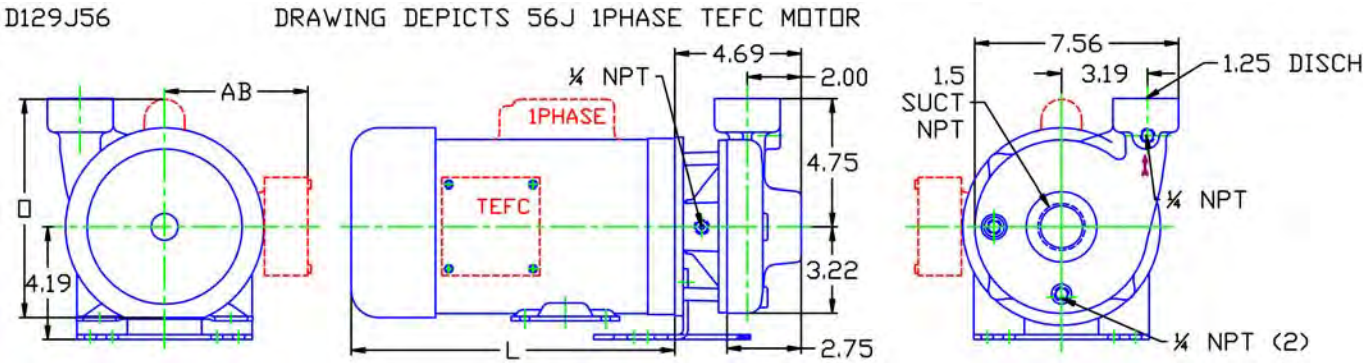
129
J56

MOTOR DIMENSIONS

NEMA J56 FRAME 2900 RPM

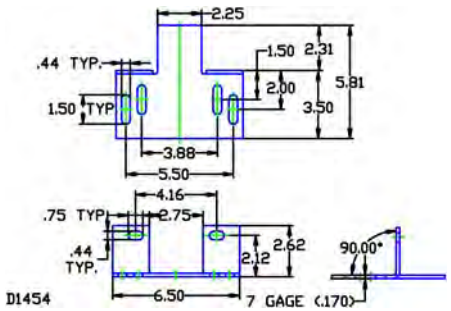
HP	ODP			TEFC		
	3 PHASE			3 PHASE		
	L	O	AB	L	O	AB
.50	8.26	6.46	3.32	9.48	7.33	5.87
.75	8.65	6.46	3.32	9.48	7.33	5.87
1.0	8.65	6.46	3.32	9.87	7.33	5.87
1.5	8.44	6.46	3.32	11.05	7.33	5.87

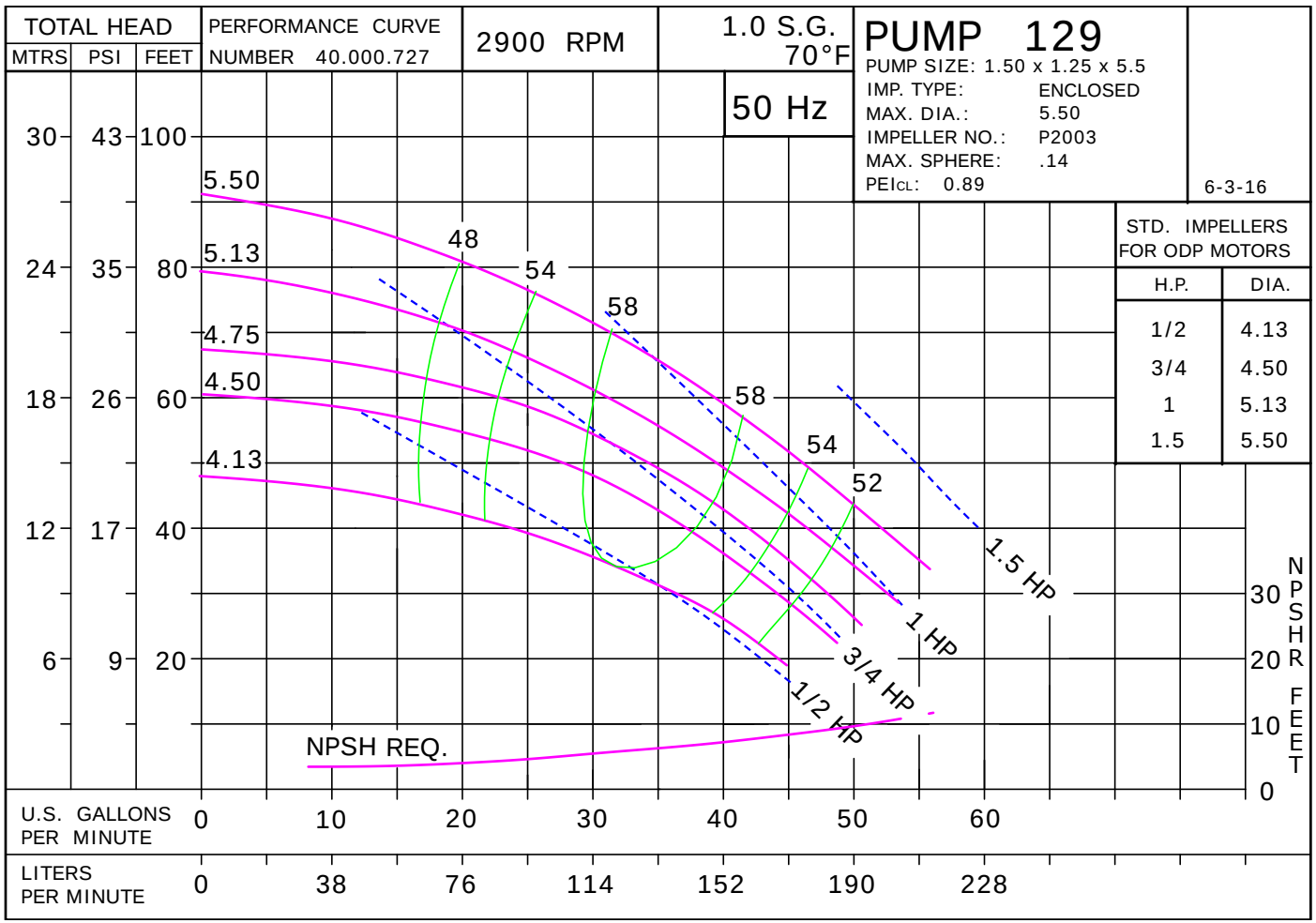
Note: The 1.5HP is a derated 2HP motor.



ALL DIMENSIONS IN INCHES.

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





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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 =	$\frac{\text{GPM x Head x SG of}}{\text{3960 x Eff}}$

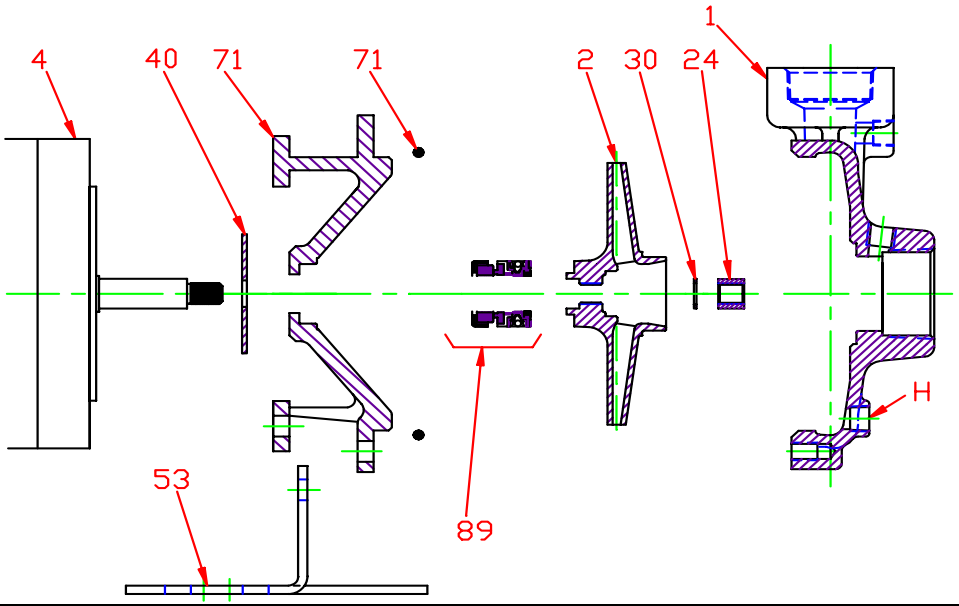
Change of Speed (RPM)

	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 129 • Iron • J56 Frame • 2900 RPM



KEY NO.	PART NAME	PUMP NO. 129	
1	CASE, IRON, 1.50 x 1.25 NPT	137.002.759X	
2	IMPELLER, 7/16" THREADED, ENCLOSED, SPECIFY DIAMETER:		
	BRONZE	137.002.672	
4	MOTOR:		
	J56, ROUND BODY	See 60HZ Chart	
	J56, 3.5" RIGID BASE	See 60HZ Chart	
24*+	NUT, STAINLESS	105.000.465	
30*+	D WASHER, STAINLESS	104.000.168	
40*	FLINGER, NEOPRENE	104.000.171	
53	BASE, STEEL	119.000.231A	
71	ADAPTER, IRON	132.000.337X	
73*	GASKET, CASE, BUNA	116.000.146	
89*	5/8" SEALS:		
	NO RETAINER: (not shown)		
	TYPE 6, BN-CARB/CM	101.000.110	
	WITH RETAINER:		
	TYPE 21, VN-CARB/CM	101.000.103	
	TYPE 21, VN-CARB/SIL	101.000.120	
	TYPE 21, VN-SIL/SIL	101.000.239	
	TYPE 21, EPDM-CARB/SIL	101.000.173	
	TYPE 21, EPDM-CARB/CM	101.000.327	
	TYPE 21, EPDM-SIL/SIL	101.000.236	
--	REPAIR KITS:	3 PHASE:	† 1 PHASE:
	BN-CARB/CM SEAL	118.000.340	118.000.340.1
	VN-CARB/CM SEAL	118.000.340A	118.000.340A.1
	VN-CARB/SIL SEAL	118.000.340B	118.000.340B.1
	VN-SIL/SIL SEAL	118.000.340J	118.000.340J.1
	EPDM-CARB/SIL SEAL	118.000.340C	118.000.340C.1
	EPDM-CARB/CM SEAL	118.000.340R	118.000.340R.1
	EPDM-SIL/SIL SEAL	118.000.340D	118.000.340D.1

* DENOTES COMPONENTS INCLUDED IN REPAIR KIT.
+ NOT REQUIRED ON 1/3 TO 1-1/2 HP 1 PHASE MOTORS.
† USE 3 PHASE KIT ON 2-3 HP 1 PHASE MOTORS.

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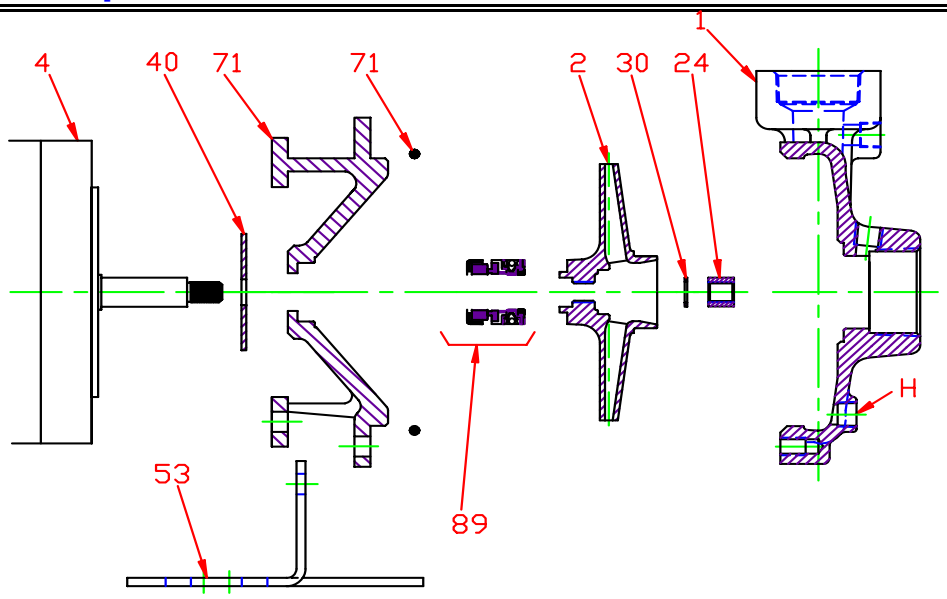

CONSTRUCTION OPTIONS		
KEY	**PART NAME**	**STANDARD FITTED**
1	Case	Iron
2	Impeller	Bronze
24	Impeller Locknut	Stainless
30	D-Washer	Stainless
40	Flinger	Neoprene
53	Base	Steel
71	Adapter	Iron
73	Gasket, Case	Buna
89	Mechanical Seal, Type 6 BN-CM	Standard
H	Plug, Drain	Brass

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