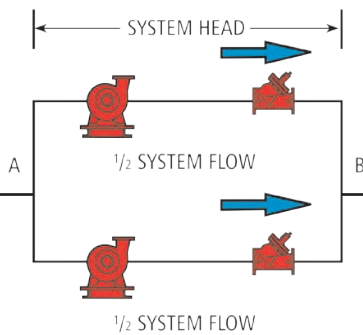
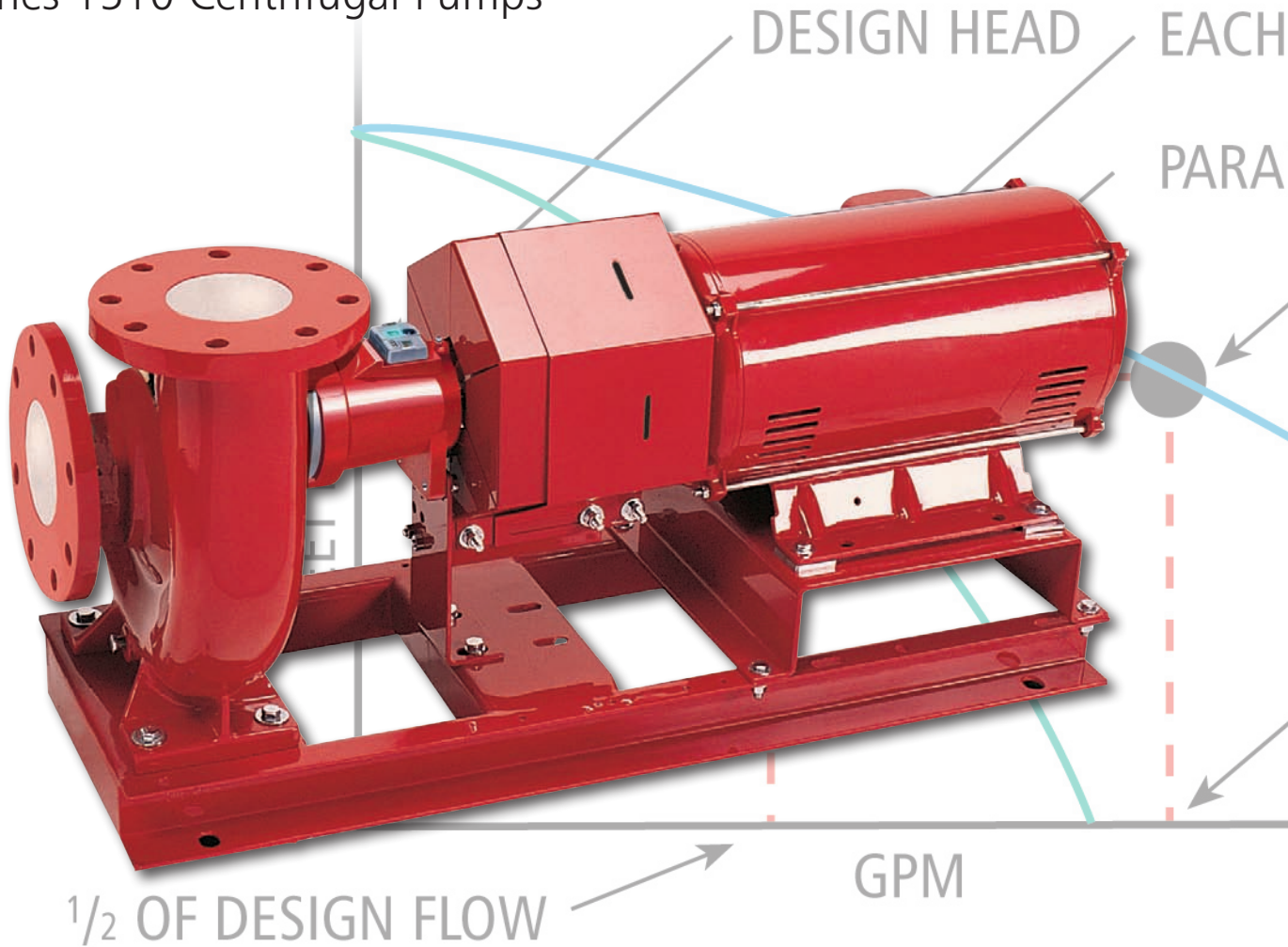




Bell & Gossett®

Series 1510 Centrifugal Pumps



Engineered for life



Technical Data

BALANCE STANDARDS

Impellers are balanced to Hydraulic Institute Standards ANSI/HI 9.6.4-2009.

The allowable residual unbalance in the impeller rotating assembly conforms to ANSI grade G6.3 (Ref. ISO 1940).

ANSI Balance Quality Grades of G2.5 and G1 for the rotating assembly are also available. Consult your local Bell & Gossett Representative for additional details.

VIBRATION LIMITS

Series 1510 pumps conform to Hydraulic Institute ANSI/HI 9.6.4-2009 for recommended acceptable unfiltered field vibration limits (as measured at the pump bearings per ANSI/HI 9.6.4-2009, Figure 9.6.4.2.3.1) for pumps with rolling contact bearings.

PUMP SPEED RPM	OVERALL DISPLACEMENT (Unfiltered) Peak to Peak-Mils (.001")
3600	2.2
1800	3.8
1200	5.8

SEISMIC CAPABILITIES

Series 1510 pumps are capable of withstanding a horizontal load of 0.5g* without adversely affecting pump operation.

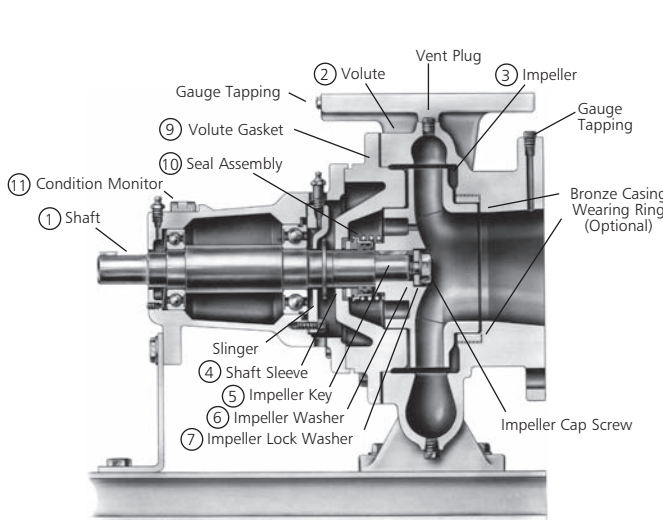
*Piping and/or fasteners used to anchor the pump to the mounting pads on the floor are excluded.

MECHANICAL SEAL

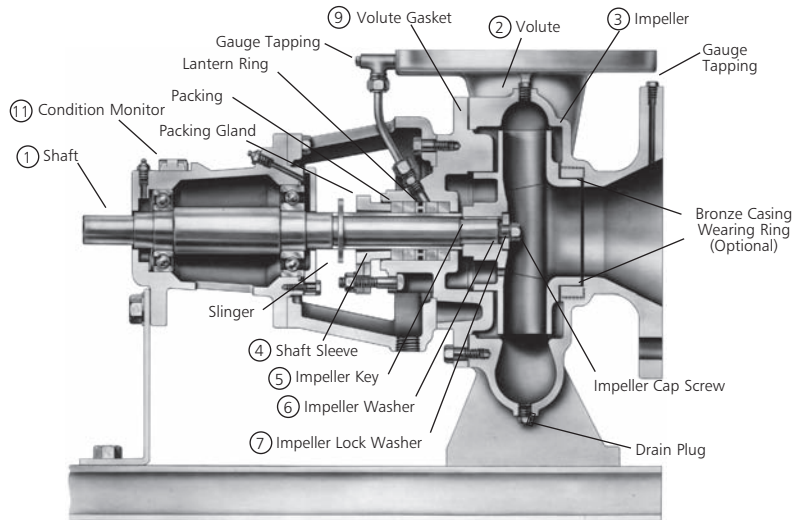
Seal Features	
Standard Seal Type	B&G
Internally Flushed Seal	Yes
Enlarged Seal Chamber	Yes
Standard Seal Construction	Buna-Carbon-Ceramic
Standard Working Pressure	175 psig (12 Bar)
Maximum Working Pressure	250 psig (17 Bar)
Standard Seal Temperature Rating	225 deg F (107°C)
Optional Temperature Rating	250 deg F (121°C)

The ceramic material is 99.5% pure alumina oxide, ceramic seat hardness of 68 Rockwell C, or a tensile strength of 300,000 psi.

Materials of Construction



Standard Configuration



Optional – S Configuration

DESCRIPTION	BRONZE FITTED PUMP (STANDARD CONFIGURATION)	ALL IRON PUMP (OPTIONAL)
1 Shaft	Steel SAE 1144	Steel SAE 1144
2 Volute	Cast Iron ASTM #A159	Cast Iron ASTM #A159
3 Impeller	Cast Bronze ASTM #B584	Cast Iron ASTM #A536
4 Shaft Sleeve	Bismuth Bronze #C89835	#304 Stainless Steel ASTM #A312
5 Impeller Key	#304 Stainless Steel	#304 Stainless Steel
6 Impeller Washer	1510 – Steel	Stainless Steel
7 Impeller Lock Washer	#304 Stainless Steel	#304 Stainless Steel
8 Impeller Cap Screw	#304 Stainless Steel	#304 Stainless Steel
9 Volute Gasket	Cellulose Fiber	Cellulose Fiber
10 Seal Assemblies		
11 Condition Monitor	Stainless Steel Encloser	Stainless Steel Encloser
Standard Seal		
Bellows	Buna N	Buna N
Faces	Carbon-Ceramic	Carbon-Ceramic
Metal Parts	Brass	Stainless Steel
Spring	Stainless Steel	Stainless Steel
For Stuffing Box		
10A Flushed Single		
O-Rings	EPREPR	
Faces	Carbon-Tungsten Carbide	Carbon-Tungsten Carbide
Metal Parts	Stainless Steel	Stainless Steel
Spring	Stainless Steel	Stainless Steel
Packed		
Packing	Graphited Impregnated Teflon	Graphited Impregnated Teflon
Gland	Bronze	Cast Iron
Lantern Ring	Filled TFE	Filled TFE

OPTIONAL FEATURES

All Iron Construction

Bronze Casing Wear Ring

Stainless Steel Shaft Sleeve

Stainless Steel Shaft

Drip Pan

EPR/Tungsten Carbide Seal

(Standard Configuration only)

Stuffing Box Construction with several seal and packing options

Seal Selection Guide For:

A. Standard Seals

- BUNA-PH Limitations 7-9; Temperature Range -20°F to +225°F

- EPR-PH Limitations 7-11; Temperature Range -20°F to +250°F

For use on open or closed clear water systems. Maximum working pressure 175 psi.

B. Flushed Single Seals (Stuffing Box Design)

- PH Limitations 7-11; Temperature Range -20°F to +300°F**

For use on closed or open systems where the temperature or pressure requirements exceed the limitations of the standard seal. Available in 175 psi, or 250 psi working pressures.

C. Flushed double Seals (Stuffing Box Design)

PH Limitations 7-9; Temperature Range 0°F to +250°F

For use on closed or open low pressure systems which may contain a high concentration of abrasives. An external flush is required. Maximum working pressure 175 psi.

D. Packing (Stuffing Box Design)

PH Limitations 7-9; Temperature Range 0°F to +190°F

For use on open or closed systems which require a large amount of make-up water, as well as systems which are subjected to widely varying chemical conditions and solids buildup.

** For operating temperatures above 250°F, a cooled flush is required – and is recommended for temperatures above 225°F for optimum seal life. On closed systems, cooling is accomplished by inserting a small heat exchanger in the flush line to cool the fluid. Flush-line Filters and Sediment Separators are available on special request.

Series 1510 Centrifugal Pumps cont.'d

DIMENSIONS – INCHES (MM)			STANDARD MECHANICAL SEAL PUMP MODEL 1510, 1510-F								STUFFING BOX CONSTRUCTION PUMP MODEL 1510-PF, 1510-S																							
PUMP SIZE DISCHARGE	SUCTION SIZE	MOTOR FRAME SIZE	HA	HB	HD	HL	HO	HP	Y	Z	HA	HB	HD	HL	HO	HP	Y	Z																
3 BC		182T-184T	14 3/8 (371)	31(787)	10 1/8 (273)	3 11/16 (94)	18 1/8 (464)	3 (76)	4 1/2 (121)	6 1/8 (156)	14 3/8 (371)	34 1/8(879)	10 1/8 (273)	3 11/16 (94)	18 1/8 (464)	3 (76)	4 1/2 (121)	6 1/8 (156)																
		213T-215T		34 1/8(870)							12(305)	4 11/16 (122)	20 1/2(521)	19 1/2(495)	16 (406)	46 1/2(1181)			12(305)	4 11/16 (122)	19 1/2(495)	5 (127)												
		254T		39 1/2(1000)											16 (406)	51 1/8 (1314)			12(305)	4 11/16 (122)	19 1/2(495)	5 (127)												
		284TS-286TS		16 (406)							46 1/8 (1181)	13(330)	4 11/16 (122)	20 1/2(521)	19 1/2(495)	5 (127)			5 1/2 (140)	7 1/8 (187)	16 (406)	42 1/8 (1073)	14 (356)	6 11/16 (170)	23 1/2 (597)	5 (127)	5 1/2 (140)	7 1/8 (187)						
324TS-326TS	46 1/8 (1181)	12(305)	4 11/16 (122)		20 1/2(521)	19 1/2(495)	16 (406)	51 1/8 (1314)	12(305)	4 11/16 (122)	19 1/2(495)	5 (127)																						
3 Et	4	184T	16 (406)	42 1/8 (1073)	14 (356)	6 11/16 (170)	23 1/2 (597)	5 (127)	5 1/2 (140)	7 1/8 (187)	16 (406)	42 1/8 (1073)	14 (356)	6 11/16 (170)	23 1/2 (597)	5 (127)	5 1/2 (140)	7 1/8 (187)																
		213T-215T		46 1/8 (1181)							4 11/16 (122)	20 1/2(521)	19 1/2(495)	5 (127)																				
		254T		51 1/8 (1314)											16 (406)	51 1/8 (1314)			12(305)	4 11/16 (122)	19 1/2(495)	5 (127)												
		326TS		46 1/8 (1181)							12(305)	4 11/16 (122)	20 1/2(521)	19 1/2(495)	16 (406)	51 1/8 (1314)			12(305)	4 11/16 (122)	19 1/2(495)	5 (127)												
3 Gt		364TS-365TS	24 (610)	56 (1422)	16 1/2 (419)	4 11/16 (122)	26 (660)	6 (152)	5 1/2 (143)	8 (203)	16 (406)	46 1/2(1181)	14 (356)	4 1/8 (105)	23 1/2 (597)	5 (127)	5 1/2 (143)	8 (203)																
		404TS	16 (406)	46 1/8 (1181)	14 (356)	4 1/8 (105)	23 1/2 (597)	5 (127)																										
		213T-215T	16 (406)	46 1/8 (1181)	14 (356)	4 1/8 (105)	23 1/2 (597)	5 (127)																										
		254T-256T		51 1/8 (1314)							46 1/2(1181)	14 (356)	4 1/8 (105)	23 1/2 (597)	5 (127)																			
4 ACt		145T	14 3/8 (371)	31 (787)	10 1/8 (273)	4 11/16 (122)	18 1/8 (464)	3 (76)	4 11/16 (122)	5 1/2 (146)	14 3/8 (371)	34 1/8(879)	10 1/8 (273)	4 11/16 (122)	18 1/8 (464)	3 (76)	4 11/16 (122)	5 1/2 (146)																
		182T-184T		34 1/8(870)							12(305)	5 1/8 (138)	20 1/2(521)	19 1/2(495)	5 (127)																			
		213T		39 1/2(1000)												16 (406)			46 1/8 (1181)	12(305)	5 1/8 (138)	20 1/2(521)	19 1/2(495)	5 (127)										
		254T-256T		16 (406)							46 1/8 (1181)	12(305)	5 1/8 (138)	20 1/2(521)	19 1/2(495)	5 (127)																		
324TS-326TS	46 1/8 (1181)	12(305)	5 1/8 (138)		20 1/2(521)	19 1/2(495)																												
4 BC	5	213T-215T	14 3/8 (371)	34 1/8(870)	12 1/8 (324)	4 (102)	20 1/8 (527)	3 (76)	5 (127)	7 (178)	16 (406)	46 1/2(1181)	14 (356)	5 1/8 (138)	22 (559)	5 (127)	5 (127)	7 (178)																
		254T	39 1/2(1000)	14 (356)	5 1/8 (146)	24 1/2 (622)	6 (152)	5 (127)																										
		256T	46 1/8 (1181)								14 (356)	5 1/8 (146)	24 1/2 (622)	6 (152)																				
		286TS	16 (406)	46 1/8 (1181)	12(305)	5 1/8 (138)	20 1/2(521)	19 1/2(495)			5 (127)																							
324TS-326TS	46 1/8 (1181)	12(305)		5 1/8 (138)	20 1/2(521)	19 1/2(495)																												
4 Et		364TS-365TS	24 (610)	56 (1422)	16 1/2 (419)	4 11/16 (122)	26 1/2 (667)	6 (152)	5 1/2 (141)	7 1/8 (184)	16 (406)	42 1/8 (1073)	14 (356)	6 11/16 (170)	23 1/4 (603)	5 (127)	5 1/2 (141)	7 1/8 (184)																
		404TS	16 (406)	46 1/8 (1181)	14 (356)	4 11/16 (122)	23 1/4 (603)	5 (127)																										
		213T-215T	16 (406)	46 1/8 (1181)	14 (356)	6 11/16 (170)	23 1/4 (603)	5 (127)																										
		254T		46 1/2(1181)							14 (356)	4 11/16 (122)	23 1/4 (603)	5 (127)																				
4 GB		256T	16 (406)	46 1/8 (1181)	15 (381)	5 1/8 (137)	25 (635)	5 (127)	6 (152)	8 1/8 (217)	16 (406)	46 1/2(1181)	15 (381)	5 1/8 (137)	25 (635)	5 (127)	6 (152)	8 1/8 (217)																
		284T-286T		51 1/8 (1314)							15 (381)	5 1/8 (137)	25 (635)	5 (127)																				
		324TS-326TS		46 1/8 (1181)											15 (381)	5 1/8 (137)			25 (635)	5 (127)														
		364TS-365TS		24 (610)							46 1/8 (1181)	15 (381)	5 1/8 (137)	25 (635)	5 (127)																			
404TS	46 1/8 (1181)	15 (381)	5 1/8 (137)		25 (635)	5 (127)																												
5 At		182T-184T	14 3/8 (371)	31(787)	12 1/8 (324)	5 1/8 (146)	21 1/8 (540)	3 (76)	5 1/2 (148)	6 1/8 (159)	14 3/8 (371)	34 1/8(879)	12 1/8 (324)	5 1/8 (146)	21 1/8 (540)	3 (76)	5 1/2 (148)	6 1/8 (159)																
		213T-215T	34 1/8(870)	14 (356)	6 1/8 (175)	22 1/2 (572)	19 1/2(495)	5 (127)																										
		254T-256T	46 1/8 (1181)								14 (356)	6 1/8 (175)	22 1/2 (572)	19 1/2(495)	5 (127)																			
		284TS-286TS	16 (406)	46 1/8 (1181)	12(305)	6 1/8 (175)	22 1/2(572)	19 1/2(495)			5 (127)																							
324TS-326TS	46 1/8 (1181)	12(305)		6 1/8 (175)	22 1/2(572)	19 1/2(495)																												
5 BCt	6	213T-215T	16 (406)	46 1/8 (1181)	15 (381)	4 11/16 (122)	25 (635)	5 (127)	6 (152)	7 1/2 (191)	16 (406)	46 1/2(1181)	15 (381)	6 11/16 (164)	25 (635)	5 (127)	6 (152)	7 1/2 (191)																
		254T		46 1/8 (1181)		4 11/16 (122)					25 (635)	6 11/16 (164)		25 (635)																				
		256T		51 1/8 (1314)		4 11/16 (122)					25 (635)	6 11/16 (164)		25 (635)																				
		284T		46 1/2(1181)		4 11/16 (122)					25 (635)	6 11/16 (164)		25 (635)																				
5 Et		254T-256T	24 (610)	46 1/8 (1181)	15 (381)	4 11/16 (122)	25 1/2 (648)	6 (152)	5 1/2 (138)	7 1/2 (202)	16 (406)	51 1/8 (1314)	4 1/8 (113)	25 1/2 (648)	6 (152)	5 1/2 (138)	7 1/2 (202)																	
		284T-286T		46 1/8 (1181)							4 1/8 (113)	25 1/2 (648)						6 (152)																
		324T		51 1/8 (1314)							4 1/8 (113)	25 1/2 (648)						6 (152)																
		364TS-365TS		46 1/8 (1181)							4 1/8 (113)	25 1/2 (648)						6 (152)																
5 Gt		254T-256T	24 (610)	56 (1422)	16 1/2 (419)	5 1/8 (138)	29 1/2 (749)	6 (152)	6 (152)	9 (229)	24 (610)	56 (1422)	16 1/2 (419)	5 1/8 (138)	29 1/2 (749)	6 (152)	6 (152)	9 (229)																
		284T-286T		16 (406)							56 (1422)	16 1/2 (419)	5 1/8 (138)	29 1/2 (749)	6 (152)																			
		324T-326T		16 (406)							56 (1422)	16 1/2 (419)	5 1/8 (138)	29 1/2 (749)	6 (152)																			
		364T-365T		16 (406)							56 (1422)	16 1/2 (419)	5 1/8 (138)	29 1/2 (749)	6 (152)																			
6 BCt		254T-256T	16 (406)	46 1/2(1181)	15 (381)	8 1/8 (213)	25 1/2 (648)	5 (127)	7 (178)	8 1/8 (210)	16 (406)	51 1/8 (1314)	15 (381)	8 1/8 (213)	25 1/2 (648)	5 (127)	7 (178)	8 1/8 (210)																
		284T-286T		51 1/8 (1314)							15 (381)	8 1/8 (213)	25 1/2 (648)	5 (127)																				
		324T-326T		46 1/8 (1181)											15 (381)	8 1/8 (213)			25 1/2 (648)	5 (127)														
		364T-365T		46 1/8 (1181)							15 (381)	8 1/8 (213)	25 1/2 (648)	5 (127)																				
6 Et		254T-256T	24 (610)	56 (1422)	16 1/2 (419)	6 (152)	27 1/2 (699)	6 (152)	6 1/8 (156)	8 1/2 (216)	24 (610)	56 (1422)	16 1/2 (419)	6 (152)	27 1/2 (699)	6 (152)	6 1/8 (156)	8 1/2 (216)																
		284T-286T		16 (406)							56 (1422)	16 1/2 (419)	6 (152)	27 1/2 (699)	6 (152)																			
		324T-326T		16 (406)							56 (1422)	16 1/2 (419)	6 (152)	27 1/2 (699)	6 (152)																			
		364T		16 (406)							56 (1422)	16 1/2 (419)	6 (152)	27 1/2 (699)	6 (152)																			
6 Gt*	8	"L" FRAME – TO AND INCLUDING 12 1/2" IMPELLER																																
		256T	24 (610)	56 (1422)	16 1/2 (419)	6 1/8 (159)	30 1/2 (775)	6 (152)	6 1/2 (165)	9 1/8 (237)	24 (610)	56 (1422)	16 1/2 (419)	6 1/8 (159)	30 1/2 (775)	6 (152)	6 1/2 (165)	9 1/8 (237)																
		284T-286T																	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)
		324T-326T																	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)
364T-365T	26 (660)	59 1/8 (1505)																	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)		
404TS	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)																		
"XL" FRAME – 12 1/2" IMPELLER AND LARGER																																		
365TS	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)																		
404TS-405TS	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)	26 (660)	59 1/8 (1505)	17 (432)	6 1/8 (165)	31 (787)	6 (152)	6 1/2 (165)	9 1/8 (237)																		

These dimensions are not to be used for installation purposes unless certified.
 *1 3/8" impeller for 1450 RPM service with "L" frame.

†250 psi (17 bar) available Maximum Working Pressure 175 psi (12 bar)

8G ONLY

DIMENSIONS – INCHES (MM)			STUFFING BOX CONSTRUCTION PUMP MODEL 1510-S							
PUMP SIZE DISCHARGE	SUCTION SIZE	MOTOR FRAME SIZE	HA	HB	HD	HL	HO	HP	Y	
8G (203)	10 (254)	284T-445TS	28 (711)	70 (1778)	18 1/8 (464)					