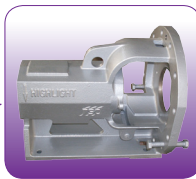
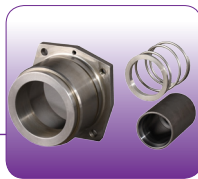
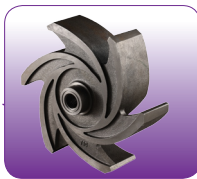
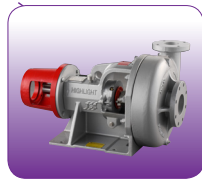




Centrifugal pumps
Centrifugal Pumps
Centrifugal pumps

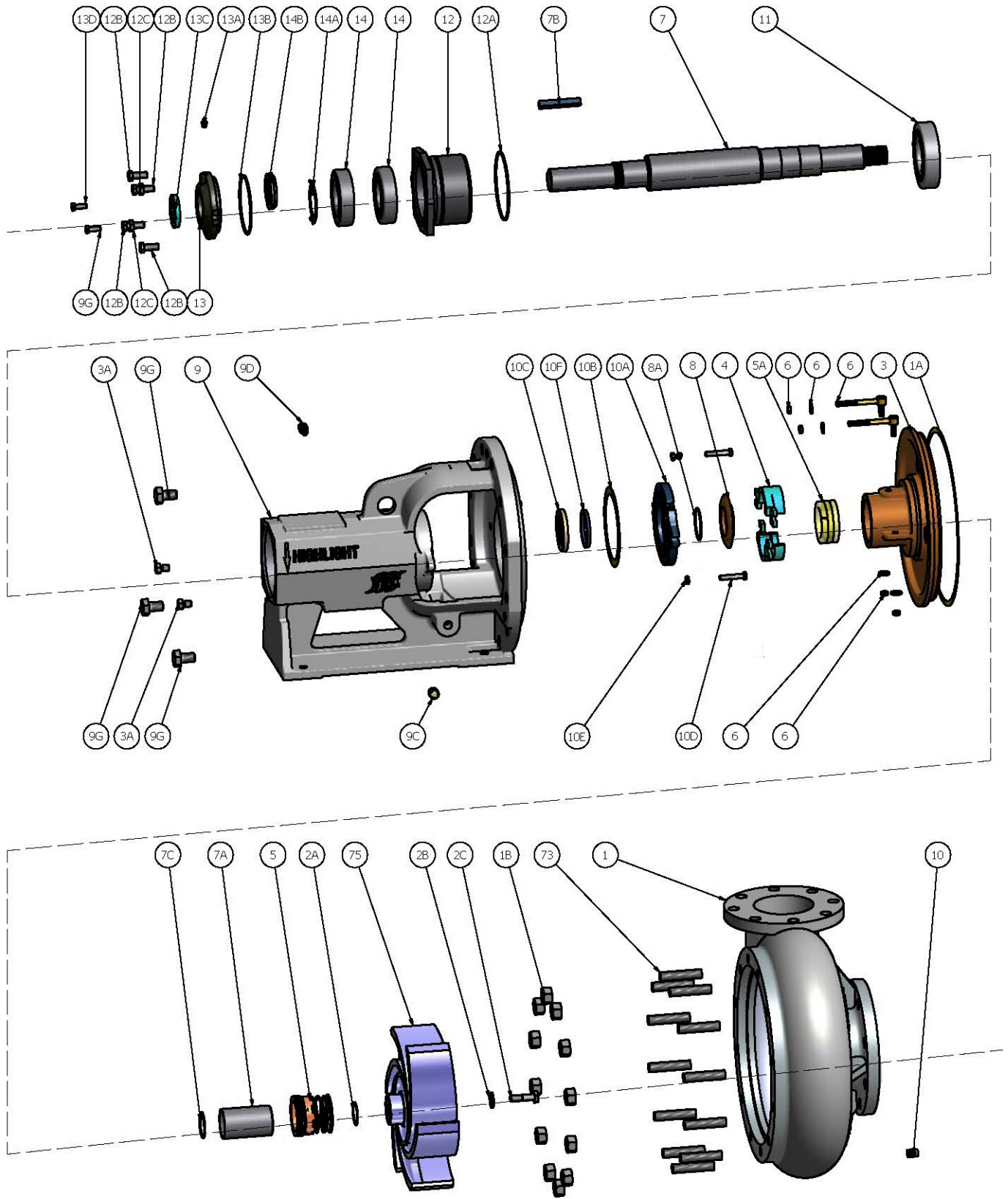


GLOBAL SOLUTIONS

DESIGNING, MANUFACTURING AND PACKAGING FOR THE OIL & GAS INDUSTRY

Beyond Integration
Seamless Solutions™

Centrifugal Pumps



Centrifugal Pumps

Item	Part Number	Reference Number	Description	Item	Part Number	Reference Number	Description
1A	TS-10399-46-1	648403012	Gasket, Casing	POWER FRAME			
1B	TS-3932-61	648402014	Nut, Casing		TS-250PFMS	ASSY, Power Frame (no casing and no Impeller)	ASSY, Power Frame (no casing and no Impeller)
1C	TS-3862-76	648401115	Stud, Casing	KITS			
1D	TS-8505-04-01	86485503	Plug, Casing Drain		TS-17950AH	(10B, 10C, & 10F)	KIT, Inboard Bearing Cover
1E	TS-8505-04-01	646400507	Plug, Flush Line		TS-20617AH	(12A, 13B, & 13C)	KIT, Outboard Bearing Cover
2A	TS-19110-72	648405082	Seal, Impeller		TS-601174550		KIT, Packing
2B	TS-7300239	7300239	Washer, Impeller		TS-641101076	(1A, 2A, & 7C)	KIT, Gasket & O-Ring, Fluid End
2C	TS-7415648	7415648	Bolt, Impeller Lock		TS-641103353	(10B, 12A, 13B)	KIT, Power End Gasket
3	TS-22223-01-30	641116157	Stuffing box, Mech. Seal --Hard Iron		TS-641103312	(10C, 10F, 13C)	KIT, Grease Seal
3	TS-20614-01-30	643365042	Stuffing box, Packed --Hard Iron		TS-648414308	(1A, 2A, 5, 5B, & 7C)	KIT, Mechanical Seal
3A	TS-3861-117	648401016	Bolt, Stuffing box				
3B	TS-19368-01	601499403	Grease Fitting	CASINGS - INCLUDES STUDS, NUTS, AND CASING GASKET			
4	TS-20622A	641103338	Gland Assy., Packing	1	TS-19203-01-30A	641101753	Pump Casing 3 x 2 x 13
5	TS-22451-1	648414308	Seal, Mechanical	1	TS-19205-01-30A	641101902	Pump Casing 4 x 3 x 13
5A	TS-25014-04M-B	661007005	Packing, Shaft - w/ lantern ring	1	TS-19222-01-30A	641102058	Pump Casing 5 X 4 X 14
5B	TS-648402600	648402600	Packing, Shaft -Mechanical Seal Backup 3 rings	1	TS-19122-01-30A	641101456	Pump Casing 6 x 5 x 11
6	TS-B3701A	601102494	Bolt Assy, Gland	1	TS-19123-01-30A	641101605	Pump Casing 6 x 5 x 14
7	TS-20612-02-33	646490557	Shaft	1	TS-19763-01-30A	641102157	Pump Casing 8 x 6 x 11
7	TS-20612-02-04		Shaft, Stainless Standard	1	TS-19117-01-30A	641101308	Pump Casing 8 x 6 x 14
7A	TS-20943-21	641102182	Sleeve, Shaft (Mechanical Seal Pump)	1	TS-20937-01-30A	641102322	Pump Casing 10 x 8 x 14
7A2	TS-20613-21G-7A	641102181	Sleeve, Shaft (Packed Pump)				
7B	TS-4372-05-21	601212392	Key, Shaft	IMPELLERS -30 H.I. -AZ CHROME -04 SS -13 ALUM. BRZN			
7C	TS-23444-01-72	648415156	Seal, Shaft Sleeve	2	TS-19204- XX ** -30	Impeller for 3 x 2 x 13	
8	TS-22210-1A	641116108	Deflector Assembly	2	TS-19206- XX ** -30	Impeller for 4 x 3 x 13	
9	TS-20618-12-1	644302499	Frame, Grease Lubricated	2	TS-19224- XX ** -30	Impeller for 5 x 4 x 14	
9A	TS-8505-05	601474737	Plug, Frame Drain	2	TS-19121- XX ** -30	Impeller for 6 x 5 x 11	
9B	TS-18471	648403608	Plug, Oil Fill	2	TS-19224- XX ** -30	Impeller for 5 x 4 x 14	
9C	TS-8505-05	601474737	Plug, Frame Drain	2	TS-19121- XX ** -30	Impeller for 6 x 5 x 14	
9D	TS-8267-01	601473689	Breather	2	TS-19121- XX ** -30	Impeller for 6 x 5 x 11	
9E	TS-8478-3	601174584	Oiler Assembly	2	TS-19121- XX** -30	Impeller for 8 x 6 x 11	
9F	TS-66214131	662014131	Dip Stick	2	TS-19116- XX ** -30	Impeller for 8 x 6 x 14	
9G	TS-2538-1 H	2538-1H	Bolt, Casing Jack	2	TS-21867- XX ** -30	Impeller for 10 x 8 x 14	
10A	TS-20626A	644303109	Cover, Inboard Bearing				
10B	TS-20625	648408706	Gasket, I.B. Brg. Cover	**	Impeller Diameter Code Replaces the XX in the Part Number		
10C	TS-20619-01	648408300	Oil Seal, I.B. Brg. Cover		XX - First X equates to the diameter in inches minus the number 4.		
10D	TS-3861-1	601407505	Bolt, I.B. Brg. Cover		i.e. 13"-4=9, 12" - 4 = 8, 11-4=7, 10-4=6, 9-4=5, 8-4=4, 7-4=3 (14" Impellers = A0)		
10E	TS-3932-2	601408560	Nut, I.B. Brg. Cover		XX - Second X equates to a fraction of an inch by 1/8" increments.		
10F	TS-20620-01	648408409	Exclusion Seal, I.B. Bearing Cover		i.e. 1/4 or 2/8s = 2, 1/2 or 4/8s = 4, 3/4 or 6/8s = 6		
10G	TS-21641-01	661010033	Grease Fitting		For a 11-34" impeller, the two digit code for the middle number set would be 74.		
10H	TS-648411908	648411908	Grease Fitting				
11	TS-250BIS	661009010	Bearing, Inboard & Spacer	COMPLETE BARE PUMPS			
11	TS-250IBB	648408102	Bearing, Inboard Ball		TS-640202123-ITXX **	3x2x13	Centrifugal Pump, Mechanical Seal
12	TS-20624-01-01	644308504	Housing, O.B. Bearing		TS-640202222-ITXX **	4x3x13	Centrifugal Pump, Mechanical Seal
12A	TS-7496-253	648402295	Seal, O.B. Brg. Housing		TS-640202321-ITXX **	5x4x14	Centrifugal Pump, Mechanical Seal
12B	TS-3861-138	648401057	Bolts, O.B. Brg. Housing		TS-640202529-ITXX **	6x5x11	Centrifugal Pump, Mechanical Seal
12C	TS-3932-62	658404702	Nut, O.B. Brg. Housing Jam		TS-640202628-ITXX **	6x5x14	Centrifugal Pump, Mechanical Seal
13	TS-20617A	641103296	Cover, O.B. Bearing		TS-640202826-ITXX **	8x6x11	Centrifugal Pump, Mechanical Seal
13A	TS-661010020	661010020	Grease Fitting, O.B. Bearing Cover		TS-640202925-ITXX **	8x6x14	Centrifugal Pump, Mechanical Seal
13B	TS-7496-26	072200017	O-ring, O.B. Bearing Cover		TS-640203121-ITXX **	10x8x14	Centrifugal Pump, Mechanical Seal
13C	TS-20619-02	648408359	Oil Seal, O.B. Brg. Cover				
13D	TS-3861-139	648401081	Bolt, O.B. Brg. Cover	**	Impeller Diameter Code Follows the IT (Impeller Trim) in the Part Number		
14	TS-250BOB	648408201S	Bearing, O.B. (sold as 2 Brg. Set ONLY)		XX - First X equates to the diameter in inches minus the number 4.		
14A	TS-6124-4	648402105	Lock washer, O.B. Bearing		i.e. 13"-4=9, 12" - 4 = 8, 11-4=7, 10-4=6, 9-4=5, 8-4=4, 7-4=3 (14" Impellers = A0)		
14B	TS-6123-4	648402055	Locknut, O.B. Bearing		XX - Second X equates to a fraction of an inch by 1/8" increments.		
	TS-20938-02-1		Frame, Grease Lubricated Short/Sandmaster		i.e. 1/4 or 2/8s = 2, 1/2 or 4/8s = 4, 3/4 or 6/8s = 6		
	TS-20939-02-33		Shaft, Short/Sandmaster		For a 11-34" impeller, the two digit code for the middle number set would be 74.		



Centrifugal Pumps

The TSC Highlight™ centrifugal pump features a rugged design with heavy duty construction that reduces downtime and total cost of ownership for operators and contractors in today's highly competitive drilling industry.

MULTIPLE APPLICATIONS

Manufactured from wear resistant materials, the Highlight™ centrifugal pump can be used in a multitude of applications from handling abrasive cements and drilling fluids in the oil and gas industry, to waste disposal applications in the agriculture industry.

DIVERSE OPERATING RANGE

The Highlight™ pump line features seven different fluid end sizes and 100+ impeller sizes for fluid flows from as little as 160 gpm to as much as 2500 gpm.

DIMENSIONAL ENVELOPE

The Highlight™ conforms to the industry standard dimensional envelope in the oil and gas drilling and well service industry.

GLOBAL DISTRIBUTION

TSC has global distribution with offices and distributors located in major geographic oil and gas regions.

PROLONGED RUN TIMES

Wear resistant fluid end materials provide for prolonged run times on critical wear components.

PREVENT COSTLY FAILURES

TSC's 2-1/2" pump shaft is highly resistant to deflections induced by the pump impeller and helps prevent costly failure of optional mechanical seals.

IMPROVED FLUID FLOW

Wide vane impellers allow for improved fluid flow dynamics and high fluid volume.

IMPROVED OVERALL FATIGUE RESISTANCE

Heavy-walled power end construction improves overall fatigue

resistance through additional mass in critical stress areas.

IMPROVED BEARING LIFE

Heavy duty inboard roller bearings provide additional bearing area for longer bearing and mechanical seal life.

REDUCE MAINTENANCE

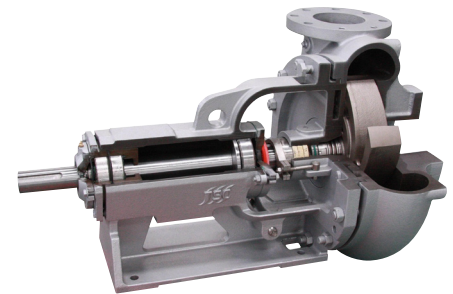
Optional mechanical seal reduces maintenance and improves long-term maintenance procedures.

FULL OPEN IMPELLER

Minimizes induced shaft loading.

ENHANCED PUMP EFFICIENCY

Concentric casing reduces turbulence and enhances fluid end life.



Model	10×8×14	8×6×14	8×6×11	6×5×14
Discharge Volume (max.)	4300 gpm	2600 gpm	2150 gpm	1825 gpm
Discharge Head (max.)	175 ft	205 ft	120 ft	225 ft
RPM (min.-max.)	1200-1800	1200-1800	1200-1800	1200-1800
Inlet diameter (inch)	10	8	8	6
Outlet diameter (inch)	8	6	6	5
Weight (lb.)	705	595	595	529
Dimension (inch)	38×26×26	38×25×25	38×24×24	36×22×21
Model	6×5×11	5×4×14	4×3×13	3×2×13
Discharge Volume (max.)	1800 gpm	1150 gpm	875 gpm	550 gpm
Discharge Head (max.)	120 ft	215 ft	530 ft	500 ft
RPM (min.-max.)	1200-1900	1200-2100	1200-3600	1200-3600
Inlet diameter (inch)	6	5	4	3
Outlet diameter (inch)	5	4	3	2
Weight (lb.)	529	529	445	432
Dimension (inch)	36×20×20	36×20×20	34×19×19	34×19×19

