

# SYSTEM ONE® PARTS

## Frame S

Keep with Instructions 1301-C00 for Installation, Operation and Maintenance

PN: 967100	<b>PARTS LIST</b>
	<b>1301-C01</b>
Section	1301
Effective	Nov 2012
Replaces	New

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X-Section Drawings	
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8"	3
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Back Covers (Ref #11)	5
Other Parts (Ref #16 - 896)	6 - 7

### Recommended Spare parts (Ref # is shaded.)

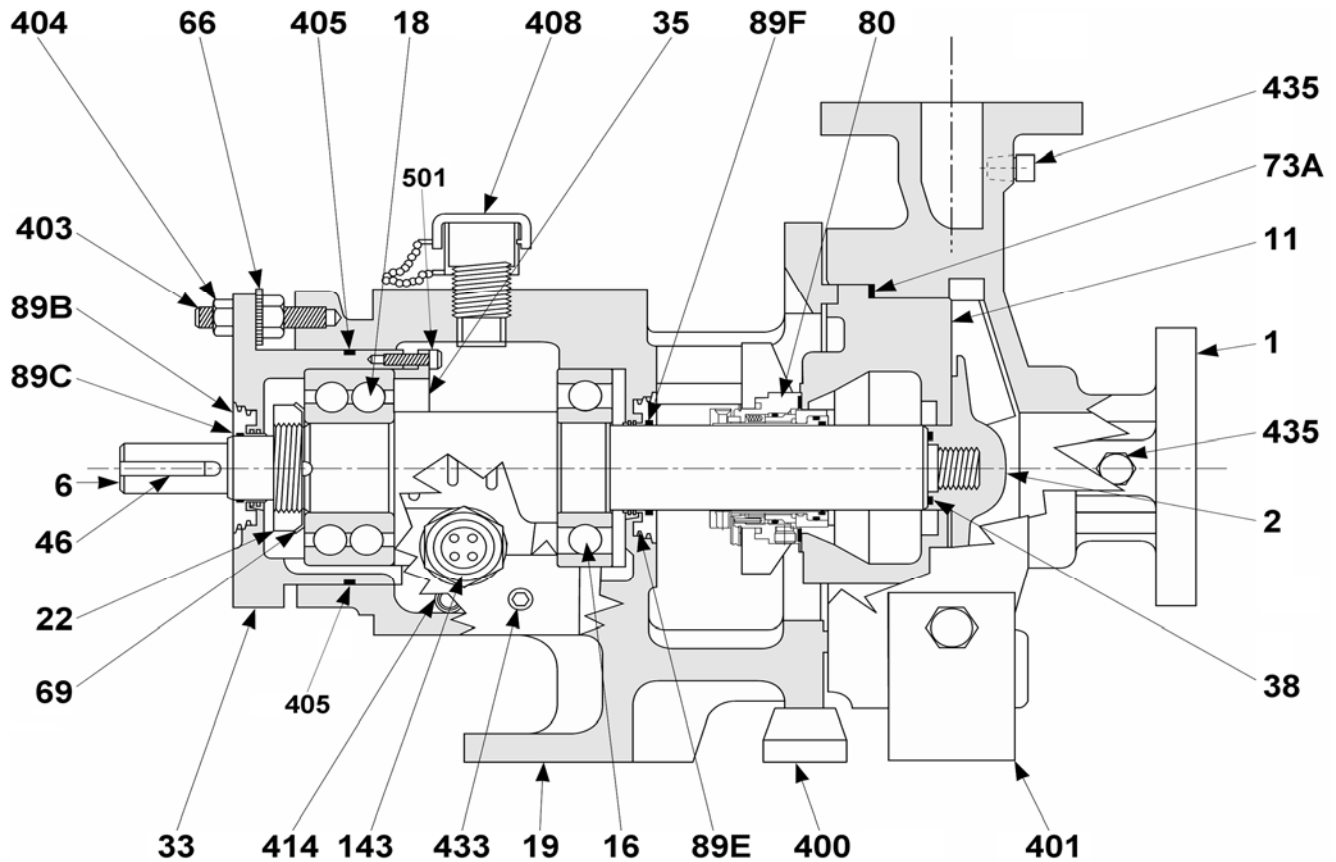
Ref #	Description
2	Impeller
6-RE	Rotating Element
73A	Casing Gasket
80	Mechanical Seal
89B	Lab Seal Rotor (w/ O-ring), Thrust Bearing
89E	Lab Seal Rotor (w/ O-ring), Radial Bearing
405	Cartridge O-ring



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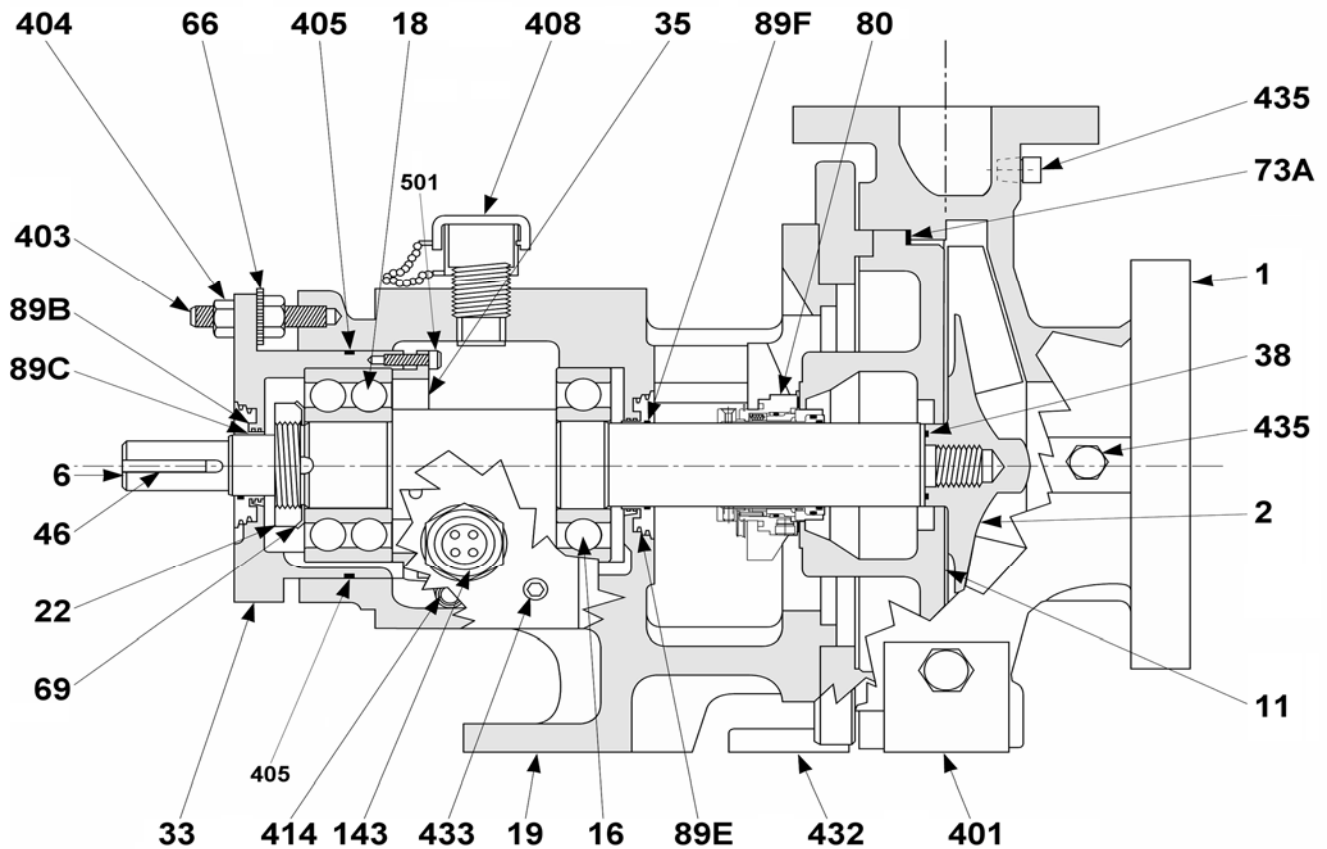
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## Frame-S 6" Cross Section



Ref.	Description	Ref.	Description	Ref.	Description
1	Casing	46	Key, Coupling	400	Foot, Bearing Frame
2	Impeller	66	Micrometer Nut	401	Foot, Casing (optional)
6	Shaft	69	Lockwasher, Thrust Bearing	403	Stud, Cartridge
11	Back Cover	73A	Gasket, Casing	404	Locknut, Cartridge
16	Bearing, Radial	80	Mechanical Seal	405	O-Ring, Cartridge
18	Bearing, Thrust	89B	Seal, Labryinth Rotor, Thrust	408	Oil Filler Assembly
19	Bearing Frame	89C	Seal, Labryinth O-Ring, Thrust	414	Plug, Magnetic
22	Locknut, Thrust Bearing	89E	Seal, Labryinth Rotor, Radial	433	Plug, Bearing Frame
33	Bearing Cartridge	89F	Seal, Labryinth O-Ring, Radial	435	Plug, Casing
35	Retainer Cover	143	Oil Sight Glass	501	Screw, Retainer Cover
38	O-Ring, Impeller Hub				

## Frame-S 8" Cross Section



Ref.	Description	Ref.	Description	Ref.	Description
1	Casing	46	Key, Coupling	401	Foot, Casing (optional)
2	Impeller	66	Micrometer Nut	403	Stud, Cartridge
6	Shaft	69	Lockwasher, Thrust Bearing	404	Locknut, Cartridge
11	Back Cover	73A	Gasket, Casing	405	O-Ring, Cartridge
16	Bearing, Radial	80	Mechanical Seal	408	Oil Filler Assembly
18	Bearing, Thrust	89B	Seal, Labryinth Rotor, Thrust	414	Plug, Magnetic
19	Bearing Frame	89C	Seal, Labryinth O-Ring, Thrust	432	Adater Plate
22	Locknut, Thrust Bearing	89E	Seal, Labryinth Rotor, Radial	433	Plug, Bearing Frame
33	Bearing Cartridge	89F	Seal, Labryinth O-Ring, Radial	435	Plug, Casing
35	Retainer Cover	143	Oil Sight Glass	501	Screw, Retainer Cover
38	O-Ring, Impeller Hub				

## Frame-S SPARE PARTS

### Ref #1 Casing Assembly Frame-S

Casing assemblies do not include gasket (73A) or feet (401).

6" assemblies include 4 studs (098281), 4 nuts (098289), and 2 plugs (435 at bottom of this table)

8" assemblies include 8 studs (090751), 8 nuts (098394), and 2 plugs (435 at bottom of this table)

Flange	Other	DI	CF8M	CD4	CN7M	HB	HC
<b>1x1.5-6</b>		Part Number for Casing Assembly					
150FF	- Drain	099968	099972	697736	097416		097710
150RF	- Drain						
300FF	- Drain	099970	099974				
300RF	- Drain						
<b>2x3-6</b>		Part Number for Casing Assembly					
150FF	- Drain	090769	090767	685365	697764	801500	098053
150RF	- Drain						
300FF	- Drain	090773	090771				
300RF	- Drain						
<b>1x1.5-8</b>		Part Number for Casing Assembly					
150FF	- Drain	099969	099973	685404	625505	628597	097481
150RF	- Drain						
300FF	- Drain	099971	099975				
300RF	- Drain						
<b>1.5x3-8</b>		Part Number for Casing Assembly					
150FF	- Drain	090770	090768	634907	697869	628633	097989
150RF	- Drain						
300FF	- Drain	090774	090772				
300RF	- Drain						
Ref #435	Plug (2)	361388			350664	628343	628482

### Ref #2 Impeller Assembly Frame-S

Impeller assembly includes trim, ISO G 6.3 balance and PTFE O-ring (38).

Specify trim at time of order. There is a charge for retrim after shipment (981631).

Ref #	Size	CD4	CF8M	Alloy 20	HB	HC
2	<b>1x1.5-6</b>	099988	628493	097415		097708S.
	<b>2x3-6</b>	099990		697761	801503	098052
	<b>1x1.5-8</b>	099991		625504	628594	097482
	<b>1.5x3-8</b>	099992	981013	697872	097479	097991

## Frame-S SPARE PARTS

### Ref #6 Shaft Assemblies and Rotating Elements Frame-S.

Ref# 6-SA: **Shaft Assembly** Includes shaft (6), locknut (22), locknut washer (69), and key (46).

Ref# 6-RE: **Rotating Element** Includes shaft assembly (6-SA), bearings (16&18), bearing cover (35).

Ref.#	Description	Parts/pump	Part #	Note
6-SA	Shaft Assembly FRS CS/316	1	099652	
	Shaft Assembly FRS CS/316 (for 7308)		364261	Use for vertical
	Shaft Assembly FRS CS/A20		059448	
	Shaft Assembly FRS CS/A20 (for 7308)		636804	Use for vertical
	Shaft Assembly FRS CS/HB		628600	
	Shaft Assembly FRS CS/HB (for 7308)			Use for vertical
	Shaft Assembly FRS CS/HC		098070	
	Shaft Assembly FRS CS/HC (for 7308)			Use for vertical
6-RE	Rotating Element FRS CS/316 (w/ 5308)	1	099654	
	Rotating Element FRS CS/316 (w/ 3308)			
	Rotating Element FRS CS/316 (w/ 7308)		685064	
	Rotating Element FRS CS/316 (w/ 7308) vertical		364260	
	Rotating Element FRS CS/A20 (w/ 5308)		097419	
	Rotating Element FRS CS/A20 (w/ 3308)			
	Rotating Element FRS CS/A20 (w/ 7308)		636805	
	Rotating Element FRS CS/A20 (w/ 7308) vertical		628990	
	Rotating Element FRS CS/HB (w/ 5308)		628601	
	Rotating Element FRS CS/HB (w/ 3308)			
	Rotating Element FRS CS/HB (w/ 7308)			
	Rotating Element FRS CS/HC (w/ 5308)		098071	
	Rotating Element FRS CS/HC (w/ 3308)		808422	
	Rotating Element FRS CS/HC (w/ 7308)			

### REF #11 Back Cover Assemblies Frame-S

Bush/Other options	DI	CF8M	CD4	CN7M	HB	HC
<b>6 inch</b>	Part Number for Back Cover Assembly					
Standard - no bush	099687	099685	685367	097417	801497	097712
For Enviroseal®	801359	640660	801426			
For Carbon Bush	981663	981398				
With Jacket	Use SS	059424				
<b>8 inch</b>	Part Number for Back Cover Assembly					
Standard - no bush	099688	099686	630960	685439	628590	097993
For Enviroseal®	644081	644459		982476		643108
For Carbon Bush		981399				
With Jacket	Use SS	097474				
Plug* (1 included)		099831		090077	628588	643176

(Ref #11) Hardware included with standard Frame-S Back Cover Assemblies

Ref.	Description	Parts/pump	Part #	
*	Gland Stud	4	363491	
*	Nut for Gland Stud	4	801465	
*	Washer for Gland Stud	4	362054	
*	Mounting Stud - 6"	2	361994	
	Mounting Stud - 8"		361993	
*	Nut for Mounting Stud	2	361944	

\* Not depicted in drawing.

## Frame-S SPARE PARTS

Ref.#	Description	Parts/pump	Part #	Note
16	Radial Bearing 6308 C3	1	099649	
	Radial Bearing 6308-Z C3 (Vertical)		363676	
18	Thrust Bearing 5308 AH/C3 <sup>1</sup>	1	099648	
	Thrust Bearing 3308 DNRCBM <sup>1</sup> (Optional)		801597	
	Thrust Bearing 7308 BEGAY <sup>1</sup> (Optional)	2	363378	Use for vertical
<b>Note:</b> 5308 and 3308 thrust bearings are interchangeable (same cartridge and shaft) 7308 thrust bearings (2) require a special cartridge and shaft				
<b>Parts required to convert from 5308 thrust bearing to (2) 7308 angular contact thrust bearings:</b> (1) Bearing cartridge item # 628268 (2) ea. 7308 bearings item # 363378 (1) Shaft, item # 364261				
19	Bearing Frame Assembly Includes: bearing frame (19), sight glass (143), stud (403), oil cap (408), plugs (414 and 433), jackbolts.	1	099642	
	Bearing Frame Assembly Vertical		363658	Use for vertical
22	Bearing Locknut N08	1	099794	
33	Cartridge (5308, 3308 brgs.) with Hardware, O-ring	1	363721	
	Cartridge (7308 qty.2 brgs.) with Hardware, O-Ring		628268	
	Cartridge (7308 qty.2 brgs.) with Hardware, O-Ring		981278	Use for vertical
35	Retainer Cover	1	099644	
	Retainer Cover with shield		364262	Use for vertical
38	Impeller O-ring	1	090712	Included in #2
46	Key	1	361875	
66	Micrometer Nut SS	3	099793	
69	Bearing Lockwasher W08	1	099790	
73A	<b>Casing Gaskets for FRS - 6"</b>			
	Casing Gasket FRS 6" CFN .06	1	363424	
	Casing Gasket FRS 6" RG0 .12		097685	
	Casing Gasket FRS 6" CRPE .06		097652	
	Casing Gasket FRS 6" PTFE .06		099850	
	<b>Casing Gaskets for FRS -8"</b>			
	Casing Gasket FRS 8" CFN .06	1	363423	
	Casing Gasket FRS 8" RG0 .12		628989	
	Casing Gasket FRS 8" CRPE .06		801664	
	Casing Gasket FRS 8" PTFE .06		099849	
Casing Gasket FRS 8" PTFE .09	364054			

### Material Key for Wet End Gaskets (Ref #73A)

Abrv	Description	Application	Old Type
CFN	Carbon Fiber with nitrile binder (Standard)	General	197
RG0	Reinforced Graphite no binder	High Temperature	199
CRPE	Ceramic Reinforced PTFE	High Temperature/Pressure	196
PTFE	PTFE Style 2000 (Std A20-HB-HC)	Chemical Resistant	2000

## Frame-S SPARE PARTS

Ref.#	Description	Parts/pump	Part #	Note
80	Mechanical Seal - See mechanical seal pages	1		
89B	Thrust Lab Seal Rotary, 1.12" SS	1	099646	
89C	Thrust Lab Seal Rotary O Ring (2-024 FKM)	1	098954	
89E	Radial Lab seal Rotary, 1.50" SS	1	099647	
89F	Radial Lab Seal Rotary O Ring (2-029 FKM)	1	098972	
143	Oil Sight Glass 0.75-14 NPT	1	099645	
401	Casing Foot Assembly - 1x1.5-6	1	090734	Includes 2 feet
	Casing Foot Assembly - 2x3-6, 1x1.5-8, 1.5x3-8	Optional	090733	Includes 2 feet
400	Bearing Frame Front Foot ( 6" sizes only)	1	090732	
403	Micrometer Stud (.37-24x2.38) SS	3	099682	
404	Cartridge Locknut (.37-24) SS	3	099681	
405	Cartridge O-Ring (2-155 Buna)	1	099897	Included in #33
408	Oil Filler and Cap	1	098364	
414	Magnetic Drain Plug .25-18 NPT	2	099792	
432	Adapter Plate Assembly (8" sizes only)	1	090700	
433	Magnetic Drain Plug .25-18 NPT	1	099792	
435	Plug for suction and discharge taps	2	Varies by matl	See Ref #1 Casings
501	Retainer Cover Socket Head Cap Screws	8	361865	
502*	Jacking Screw	2	099791	
*	Temperature Monitor		685362	
*	Bearing Housing Cooling Coil		099904	
*	Throat Bushings - See Components and Accessories Price Page 10-1301-02.			

\* Not depicted in drawing



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