

SYSTEM ONE® PARTS

Frame S

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

PN: 967100 PARTS LIST
1301-C01

Section	1301
Effective	Nov 2012
Replaces	New

	Page
X-Section Drawings	
6"	2
8"	3
Casings (Ref #1)	4
Impellers (Ref #2)	4
Shafts / Rotating Elements (ref #6)	5
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

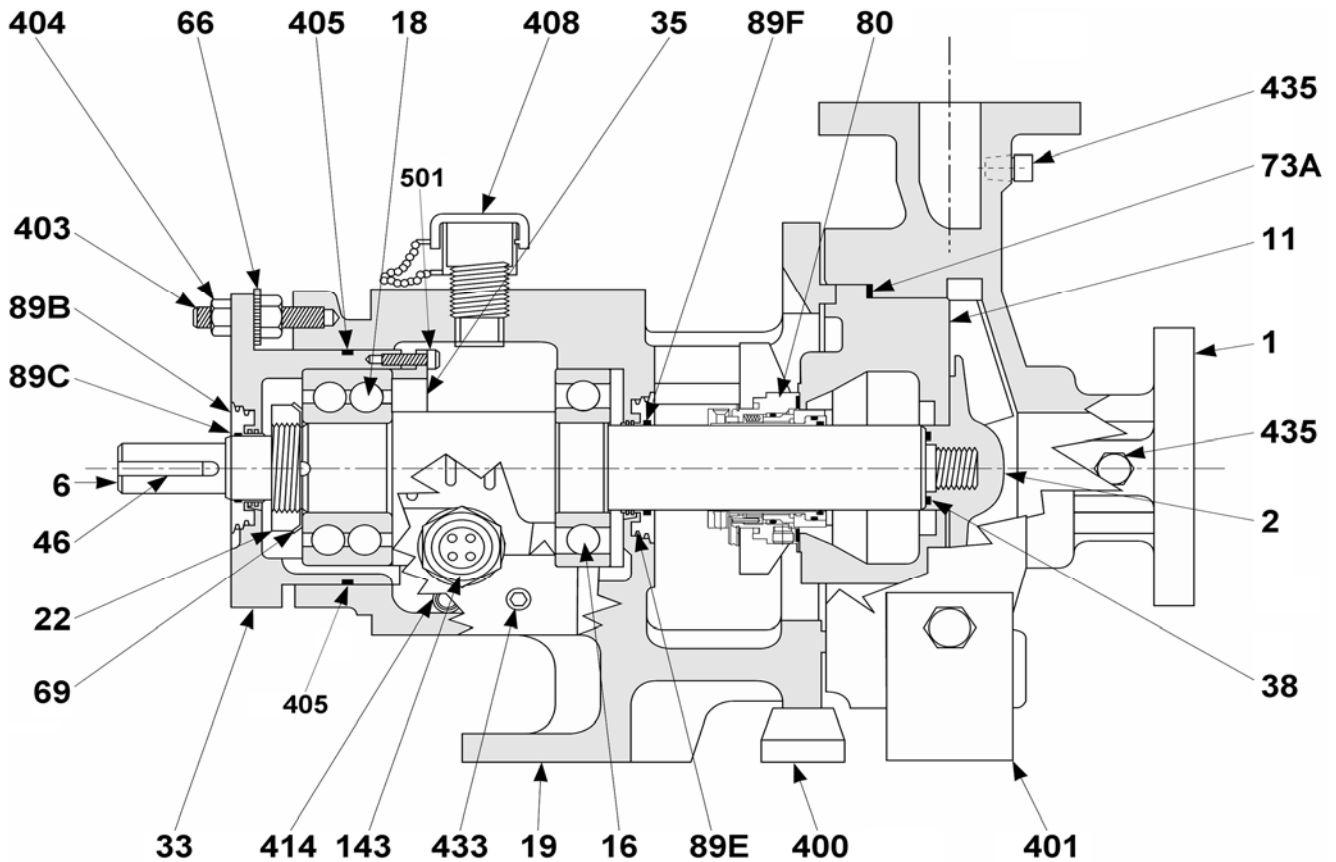


Дистрибутор:

България, София 1528, ул."Поручик Неделчо Бончев" 3, ет.5

+359 2 973 27 67, +359 2 973 2370; office_bg@opwmarket.com

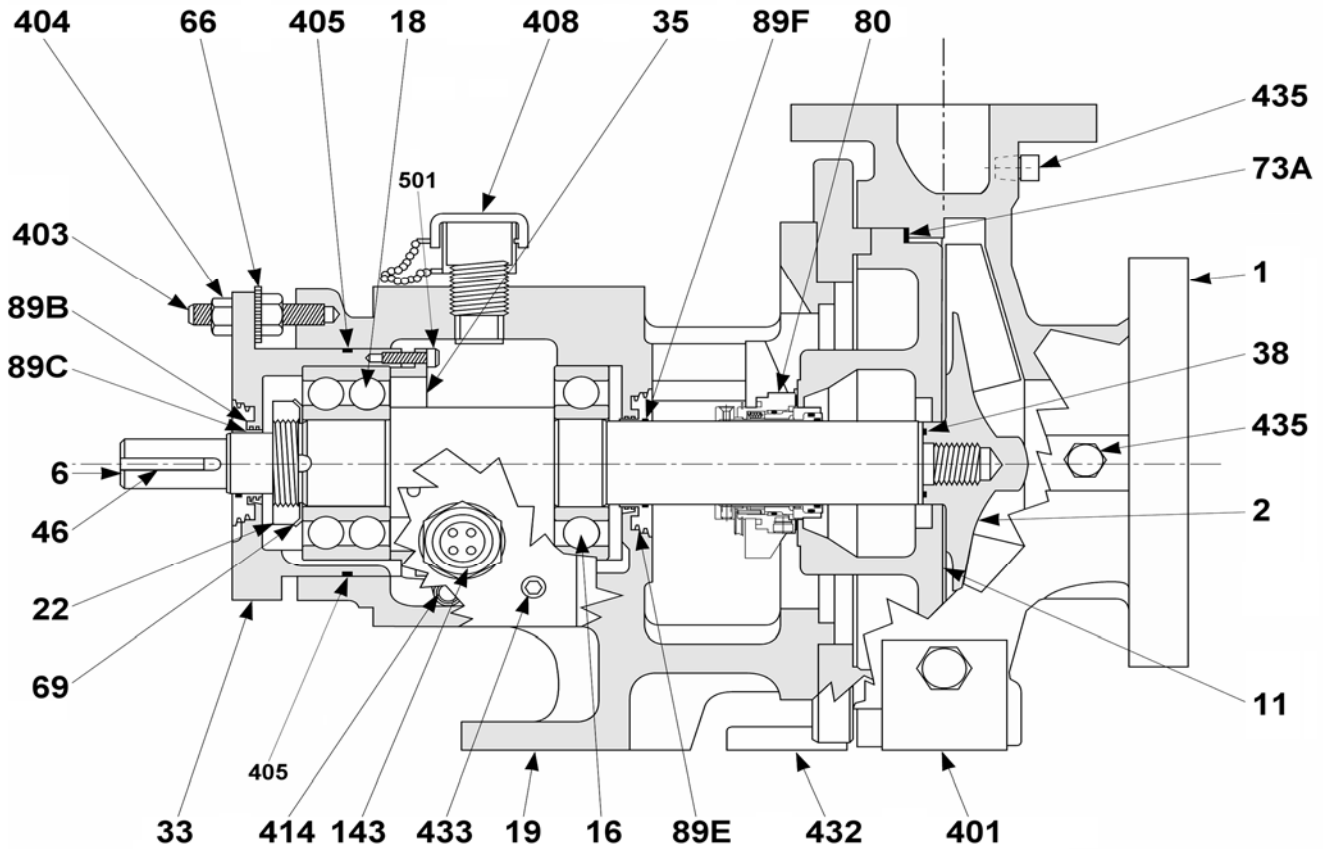
Frame-S 6" Cross Section



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
1x1.5-6		Part Number for Casing Assembly					
150FF	- Drain	099968	099972	697736	097416		097710
150RF	- Drain						
300FF	- Drain	099970	099974				
300RF	- Drain						
2x3-6		Part Number for Casing Assembly					
150FF	- Drain	090769	090767	685365	697764	801500	098053
150RF	- Drain						
300FF	- Drain	090773	090771				
300RF	- Drain						
1x1.5-8		Part Number for Casing Assembly					
150FF	- Drain	099969	099973	685404	625505	628597	097481
150RF	- Drain						
300FF	- Drain	099971	099975				
300RF	- Drain						
1.5x3-8		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	1x1.5-6	099988	628493	097415		097708S.
	2x3-6	099990		697761	801503	098052
	1x1.5-8	099991		625504	628594	097482
	1.5x3-8	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
6-RE	Shaft Assembly FRS CS/HC	1	098070	
	Shaft Assembly FRS CS/HC (for 7308)			Use for vertical
	Rotating Element FRS CS/316 (w/ 5308)		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
6 inch	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				
8 inch	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 ¹	1	099648	
	Thrust Bearing 3308 DNRCBM ¹ (Optional)		801597	
	Thrust Bearing 7308 BEGAY ¹ (Optional)	2	363378	Use for vertical
Note:	5308 and 3308 thrust bearings are interchangeable (same cartridge and shaft) 7308 thrust bearings (2) require a special cartridge and shaft			
Parts required to convert from 5308 thrust bearing to (2) 7308 angular contact thrust bearings:				
(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	Casing Gaskets for FRS - 6"			
	Casing Gasket FRS 6" CFN .06	1	363424	
	Casing Gasket FRS 6" RG0 .12		097685	
	Casing Gasket FRS 6" RPE .06		097652	
	Casing Gasket FRS 6" PTFE .06		099850	
	Casing Gaskets for FRS - 8"			
	Casing Gasket FRS 8" CFN .06	1	363423	
	Casing Gasket FRS 8" RG0 .12		628989	
	Casing Gasket FRS 8" RPE .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
RPE	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





1809 Century Avenue, Grand Rapids, Michigan 49503-1530 U.S.A

Telephone: (616)241-1611 • Fax: (616)241-3752

Email: blackmer@blackmer.com • Internet: www.blackmer.com