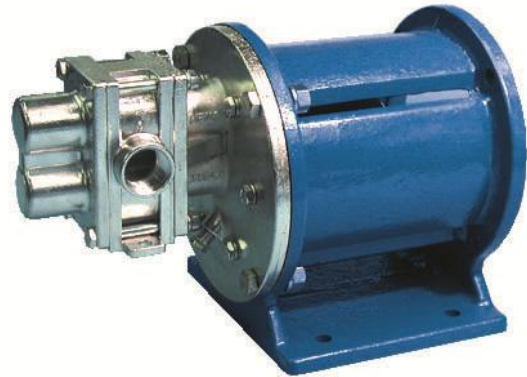




CONSOLIDATED BILL OF MATERIALS (BOM) FOR STANDARD H-SERIES GEAR PUMPS



**Models H7N, H7R & H7F
Sealed, Long-Coupled**



**Models H7N, H7R & H7F
Sealed & Mag-Drive,
Close-Coupled**

Table of Contents

Models H7N, H7R & H7F:	SEALED-LC:	316 SS Construction 2-3 Alloy-C Construction 4-5
	SEALED-CC:	316 SS Construction 6-7 Alloy-C Construction 8-9
	MAG-DRIVE:	316 SS Construction 10-11 Alloy-C Construction 12-13
Appendix 1:	Exploded View Reference Drawings	14-16
Appendix 2:	Meaning of Abbreviated Terms	17
Appendix 3:	Additional Parts for SEALED-CC Configuration	18
Appendix 4:	Mag-Drive Motor-Mounting Hardware	19

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: SEALED, LC Models H7N, H7R & H7F
--	--

Part Description	Drwg. Item #	316 Stainless Steel Construction				
		Code	Material	H7N	H7R	H7F
Position 3 – Basic Material & Port Type (Center Housing, Alignment Pins & Hardware)						
Center Housing, NPT	21	S	316 SS	360002	360002	370003
Center Housing, Flanged ¹	21	L	316 SS	360013	360013	370004
Center Housing, BSPT	21	X	316 SS	360008	360008	370008
Pin, Housing Alignment	12	S, L, X	316 SS	360801 (4)	360801 (4)	360801 (4)
Bolt, Hsg. (1/4-20 x 2.25/2.50) ²	4	S, L, X	18-8 SS	362001 (4)	362001 (4)	372001 (4)
Nut, Housing (1/4-20)	10	S, L, X	18-8 SS	862108 (4)	862108 (4)	862108 (4)
Lockwasher, Housing (1/4)	15	S, L, X	18-8 SS	863701 (4)	863701 (4)	863701 (4)
Position 4 – Drive Gear						
Gear	22	1	Alloy-C	970089	970006	970001
Gear	22	3	Teflon	970092	970054	970057
Gear	22	6	316 SS	970088	970005	970000
Gear	22	K	Kynar	970093	970082	970666
Gear	22	P	PEEK	970090	970008	970003
Key, Gear	23A	1, 3, 6, K, P	316 SS	970079	970010	970010
Position 5 – Idler Gear						
Gear	6	1	Alloy-C	970089	970006	970001
Gear	6	2	Carbon	970091	970009	970004
Gear	6	3	Teflon	970092	970054	970057
Gear	6	6	316 SS	970088	970005	970000
Gear	6	8	Ryton	970087	970007	970002
Gear	6	K	Kynar	970093	970082	970666
Gear	6	P	PEEK	970090	970008	970003
Key, Gear	23B	1,2,3,6,8,K,P	316 SS	970079	970010	970010
Position 6 – Wear Plates						
Wear Plate, Relieved	7	3	Teflon	360515 (4)	360497 (4)	360497 (4)
Wear Plate, Relieved	7	4	SiC	360517 (4)	360582 (4)	360582 (4)
Wear Plate, Relieved	7	E	Carbon 60	360513 (4)	360534 (4)	360534 (4)
Wear Plate, Relieved	7	P	PEEK	360516 (4)	360535 (4)	360535 (4)
Position 7 – Bearings						
Bearing	3A/3B	3	Teflon	3150057 (4)	3150057 (4)	3150057 (4)
Bearing	3A/3B	B	SiC	3150014 (4)	3150014 (4)	3150014 (4)
Bearing	3A/3B	E	Carbon 60	3150012 (4)	3150012 (4)	3150012 (4)
Bearing	3A/3B	P	PEEK	3150013 (4)	3150013 (4)	3150013 (4)
Position 8 – Seal Type						
Mechanical Seal, Single Internal	11	U	316 SS/Carbon	970032	970032	970032
Mechanical Seal, Single Internal	11	S	316 SS/Teflon	970039	970039	970039
Mechanical Seal, Double	11	F	316 SS/Carbon	970067	970067	970067
Mechanical Seal, Double	11	H	316 SS/Teflon	970068	970068	970068
Seal Seat, Outer	24	U, S, F, H	SiC	970123	970123	970123
Seal Seat, Inner	25	F, H	SiC	970121	970121	970121
Gland Plate, SMS & DMS	17	U, S, F, H	316 SS	970022	970022	970022
Screw, Gland (1/4-28 x 1 HHCS)	16	U, S, F, H	18-8 SS	362005 (2)	362005 (2)	362005 (2)
Lockwasher, Gland (1/4)	19	U, S, F, H	18-8 SS	863701 (2)	863701 (2)	863701 (2)
Plug, 1/8 NPT	9	U, S	316 SS	362304 (2)	362304 (2)	362304 (2)
Packing Ring	18	L	Teflon	970063 (5)	970063 (5)	970063 (5)
Packing Ring	18	R	Graphoil	970062 (5)	970062 (5)	970062 (5)
Lantern Ring	11	L, R	316 SS	970064	970064	970064
Gland Plate, PS	17	L, R	316 SS	3150061	3150061	3150061
Screw, Gland (1/4-28 x 1 HHCS)	16	L, R	18-8 SS	362005 (2)	362005 (2)	362005 (2)
Grease Fitting, 1/8 NPT	24	L, R	303 SS	867201	867201	867201
Plug, 1/8 NPT	9	L, R	316 SS	362304	362304	362304

1 - Flanges are ANSI 150# RF.
 2 - HHCS type.

See page 14 for Reference Drawing.

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: SEALED, LC Models H7N, H7R & H7F
---	---

Part Description	Drwg. Item #	316 Stainless Steel Construction				
		Code	Material	H7N	H7R	H7F
Position 9 – Bearing Flush Option (Front & Rear Housings)						
Front Housing, Standard	8	0	316 SS	970026	970026	970026
Front Housing, EBF	8	1	316 SS	970030	970030	970030
Front Housing, IBF	8	2	316 SS	970028	970028	970028
Rear Housing, Standard	2	0	316 SS	3150006	3150006	3150006
Rear Housing, EBF	2	1	316 SS	3150010	3150010	3150010
Rear Housing, IBF	2	2	316 SS	3150008	3150008	3150008
Plug, 1/8 NPT	9	1	316 SS	362304 (3)	362304 (3)	362304 (3)
Position 10 – Shafts						
Drive Shaft, Uncoated	20	0	316 SS	970085	970016	970016
Drive Shaft, CO-Coated	20	1	316 SS/CO	970085-CO	970016-CO	970016-CO
Drive Shaft, TC-Coated	20	2	316 SS/TC	970085-TC	970016-TC	970016-TC
Idler Shaft, Uncoated	1	0	316 SS	970077	970014	970014
Idler Shaft, CO-Coated	1	1	316 SS/CO	970077-CO	970014-CO	970014-CO
Idler Shaft, TC-Coated	1	2	316 SS/TC	970077-TC	970014-TC	970014-TC
Position 11 – O-Rings/Gaskets						
O-ring, Housing ³	5	0	Teflon	361101 (2)	361101 (2)	361101 (2)
Gasket, Seal Seat, Outer (MS only)	18	0	Teflon	970024 (2)	970024 (2)	970024 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	0	Viton	970120	970120	970120
O-ring, Housing ³	5	6	Silicone/FEP	371119 (2)	371119 (2)	371119 (2)
Gasket, Seal Seat, Outer (MS only)	18	6	Teflon	970024 (2)	970024 (2)	970024 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	6	Kalrez	970128	970128	970128
O-ring, Housing (2-040)	5	B	Buna-N	361106 (2)	361106 (2)	361106 (2)
Gasket, Seal Seat, Outer (MS only)	18	B	Buna-N	970058 (2)	970058 (2)	970058 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	B	Buna-N	970126	970126	970126
O-ring, Housing (2-040)	5	E	EPDM	361105 (2)	361105 (2)	361105 (2)
Gasket, Seal Seat, Outer (MS only)	18	E	EPDM	970059 (2)	970059 (2)	970059 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	E	EPDM	970127	970127	970127
O-ring, Housing (2-040)	5	V	Viton	361102 (2)	361102 (2)	361102 (2)
Gasket, Seal Seat, Outer (MS only)	18	V	Viton	970060 (2)	970060 (2)	970060 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	V	Viton	970120	970120	970120
O-ring, Housing (2-040)	5	K	Kalrez	361103 (2)	361103 (2)	361103 (2)
Gasket, Seal Seat, Outer (MS only)	18	K	Kalrez	970061 (2)	970061 (2)	970061 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	K	Kalrez	970128	970128	970128
Position 12 – Retaining Rings						
Retaining Ring, Gear	14	0	316 SS	3150015 (4)	3150015 (4)	3150015 (4)
Position 13 – Bearing Pins						
Pin, Bearing Lock	13	0	Teflon	361801 (4)	361801 (4)	361801 (4)
Pin, Bearing Lock (High Temp.)	13	6	316 SS	361807 (4)	361807 (4)	361807 (4)
Position 14 – Coupling Method						
Long-Coupled	-	9	-	X	X	X
Suffix – Trim Options						
Temperature Trim (Gears/Bearings)	-	-8(T) ⁵	-	Consult Factory		
Viscosity Trim (Gears)	-	-9D, -9T	-			

3 - Size: 2.906" Inner Diameter x .070" Cross-Sectional Diameter

4 - Size: 2-023

5 - T = Application Temperature in °F (e.g., -8(300) = Temperature Trim at 300°F).

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: SEALED, LC Models H7N, H7R & H7F
---	---

Part Description	Drwg. Item #	Alloy-C Construction				
		Code	Material	H7N	H7R	H7F
Position 3 – Basic Material & Port Type (Center Housing, Alignment Pins & Hardware)						
Center Housing, NPT	21	H	Alloy-C	360006	360006	370007
Center Housing, Flanged ¹	21	C	Alloy-C	360014	360014	370005
Center Housing, BSPT	21	Y	Alloy-C	360007	360007	370010
Pin, Housing Alignment	12	H, C, Y	Alloy-C	360804 (4)	360804 (4)	360804 (4)
Bolt, Hsg. (1/4-20 x 2.25/2.50) ²	4	H, C, Y	18-8 SS	362001 (4)	362001 (4)	372001 (4)
Nut, Housing (1/4-20)	10	H, C, Y	18-8 SS	862108 (4)	862108 (4)	862108 (4)
Lockwasher, Housing (1/4)	15	H, C, Y	18-8 SS	863701 (4)	863701 (4)	863701 (4)
Position 4 – Drive Gear						
Gear	22	1	Alloy-C	970089	970006	970001
Gear	22	3	Teflon	970092	970054	970057
Gear	22	6	316 SS	X	X	X
Gear	22	K	Kynar	970093	970082	970666
Gear	22	P	PEEK	970090	970008	970003
Key, Gear	23A	1, 3, K, P	Alloy-C	970080	970011	970011
Position 5 – Idler Gear						
Gear	6	1	Alloy-C	970089	970006	970001
Gear	6	2	Carbon	970091	970009	970004
Gear	6	3	Teflon	970092	970054	970057
Gear	6	6	316 SS	X	X	X
Gear	6	8	Ryton	970087	970007	970002
Gear	6	K	Kynar	970093	970082	970666
Gear	6	P	PEEK	970090	970008	970003
Key, Gear	23B	1, 2, 3, 8, K, P	Alloy-C	970080	970011	970011
Position 6 – Wear Plates						
Wear Plate, Relieved	7	3	Teflon	360515 (4)	360497 (4)	360497 (4)
Wear Plate, Relieved	7	4	SiC	360517 (4)	360582 (4)	360582 (4)
Wear Plate, Relieved	7	E	Carbon 60	360513 (4)	360534 (4)	360534 (4)
Wear Plate, Relieved	7	P	PEEK	360516 (4)	360535 (4)	360535 (4)
Position 7 – Bearings						
Bearing	3A/3B	3	Teflon	3150057 (4)	3150057 (4)	3150057 (4)
Bearing	3A/3B	B	SiC	3150014 (4)	3150014 (4)	3150014 (4)
Bearing	3A/3B	E	Carbon 60	3150012 (4)	3150012 (4)	3150012 (4)
Bearing	3A/3B	P	PEEK	3150013 (4)	3150013 (4)	3150013 (4)
Position 8 – Seal Type						
Mechanical Seal, Single Internal	11	U	Alloy-C/Carbon	970033	970033	970033
Mechanical Seal, Single Internal	11	S	Alloy-C/Teflon	970040	970040	970040
Mechanical Seal, Double	11	F	316 SS/Carbon	970067	970067	970067
Mechanical Seal, Double	11	H	316 SS/Teflon	970068	970068	970068
Seal Seat, Outer	24	U, S, F, H	SiC	970123	970123	970123
Seal Seat, Inner	25	F, H	SiC	970121	970121	970121
Gland Plate, SMS	17	U, S	Alloy-C	970034	970034	970034
Gland Plate, DMS	17	F, H	316 SS	970022	970022	970022
Screw, Gland (1/4-28 x 1 HHCS)	16	U, S, F, H	18-8 SS	362005 (2)	362005 (2)	362005 (2)
Lockwasher, Gland (1/4)	19	U, S, F, H	18-8 SS	863701 (2)	863701 (2)	863701 (2)
Plug, 1/8 NPT	9	U, S	Alloy-C	362301 (2)	362301 (2)	362301 (2)
Packing Ring	18	L	Teflon	970063 (5)	970063 (5)	970063 (5)
Packing Ring	18	R	Graphoil	970062 (5)	970062 (5)	970062 (5)
Lantern Ring	11	L, R	Alloy-C	970081	970081	970081
Gland Plate, PS	17	L, R	Alloy-C	3150063	3150063	3150063
Screw, Gland (1/4-28 x 1 HHCS)	16	L, R	18-8 SS	362005 (2)	362005 (2)	362005 (2)
Grease Fitting, 1/8 NPT	24	L, R	303 SS	867201	867201	867201
Plug, 1/8 NPT	9	L, R	Alloy-C	362301	362301	362301

1 - Flanges are ANSI 150# RF.
 2 - HHCS type.

See page 14 for Reference Drawing.

<p style="text-align: center;">Liquiflo Chemical Processing Pumps™</p>	<p style="margin: 0;">H-Series Gear Pumps BOM: SEALED, LC Models H7N, H7R & H7F</p>
---	---

Part Description	Drwg. Item #	Alloy-C Construction				
		Code	Material	H7N	H7R	H7F
Position 9 – Bearing Flush Option (Front & Rear Housings)						
Front Housing, Standard	8	0	Alloy-C	970027	970027	970027
Front Housing, EBF	8	1	Alloy-C	970031	970031	970031
Front Housing, IBF	8	2	Alloy-C	970029	970029	970029
Rear Housing, Standard	2	0	Alloy-C	3150007	3150007	3150007
Rear Housing, EBF	2	1	Alloy-C	3150011	3150011	3150011
Rear Housing, IBF	2	2	Alloy-C	3150009	3150009	3150009
Plug, 1/8 NPT	9	1	Alloy-C	362301 (3)	362301 (3)	362301 (3)
Position 10 – Shafts						
Drive Shaft, Uncoated	20	0	Alloy-C	970086	970017	970017
Drive Shaft, CO-Coated	20	1	Alloy-C/CO	970086-CO	970017-CO	970017-CO
Drive Shaft, TC-Coated	20	2	Alloy-C/TC	970086-TC	970017-TC	970017-TC
Idler Shaft, Uncoated	1	0	Alloy-C	970078	970015	970015
Idler Shaft, CO-Coated	1	1	Alloy-C/CO	970078-CO	970015-CO	970015-CO
Idler Shaft, TC-Coated	1	2	Alloy-C/TC	970078-TC	970015-TC	970015-TC
Position 11 – O-Rings/Gaskets						
O-ring, Housing ³	5	0	Teflon	361101 (2)	361101 (2)	361101 (2)
Gasket, Seal Seat, Outer (MS only)	18	0	Teflon	970024 (2)	970024 (2)	970024 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	0	Viton	970120	970120	970120
O-ring, Housing ³	5	6	Silicone/FEP	371119 (2)	371119 (2)	371119 (2)
Gasket, Seal Seat, Outer (MS only)	18	6	Teflon	970024 (2)	970024 (2)	970024 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	6	Kalrez	970128	970128	970128
O-ring, Housing (2-040)	5	B	Buna-N	361106 (2)	361106 (2)	361106 (2)
Gasket, Seal Seat, Outer (MS only)	18	B	Buna-N	970058 (2)	970058 (2)	970058 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	B	Buna-N	970126	970126	970126
O-ring, Housing (2-040)	5	E	EPDM	361105 (2)	361105 (2)	361105 (2)
Gasket, Seal Seat, Outer (MS only)	18	E	EPDM	970059 (2)	970059 (2)	970059 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	E	EPDM	970127	970127	970127
O-ring, Housing (2-040)	5	V	Viton	361102 (2)	361102 (2)	361102 (2)
Gasket, Seal Seat, Outer (MS only)	18	V	Viton	970060 (2)	970060 (2)	970060 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	V	Viton	970120	970120	970120
O-ring, Housing (2-040)	5	K	Kalrez	361103 (2)	361103 (2)	361103 (2)
Gasket, Seal Seat, Outer (MS only)	18	K	Kalrez	970061 (2)	970061 (2)	970061 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	K	Kalrez	970128	970128	970128
Position 12 – Retaining Rings						
Retaining Ring, Gear	14	0	Alloy-C	3150016 (4)	3150016 (4)	3150016 (4)
Position 13 – Bearing Pins						
Pin, Bearing Lock	13	0	Teflon	361801 (4)	361801 (4)	361801 (4)
Pin, Bearing Lock (High Temp.)	13	1	Alloy-C	361806 (4)	361806 (4)	361806 (4)
Position 14 – Coupling Method						
Long-Coupled	-	9	-	X	X	X
Suffix – Trim Options						
Temperature Trim (Gears/Bearings)	-	-8(T) ⁵	-	Consult Factory		
Viscosity Trim (Gears)	-	-9D, -9T	-			

3 - Size: 2.906" Inner Diameter x .070" Cross-Sectional Diameter

4 - Size: 2-023

5 - T = Application Temperature in °F (e.g., -8(300) = Temperature Trim at 300°F).

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: SEALED, CC Models H7N, H7R & H7F
--	--

Part Description	Drwg. Item #	316 Stainless Steel Construction				
		Code	Material	H7N	H7R	H7F
Position 3 – Basic Material & Port Type (Center Housing, Alignment Pins & Hardware)						
Center Housing, NPT	21	S	316 SS	360002	360002	370003
Center Housing, Flanged ¹	21	L	316 SS	360013	360013	370004
Center Housing, BSPT	21	X	316 SS	360008	360008	370008
Pin, Housing Alignment	12	S, L, X	316 SS	360801 (4)	360801 (4)	360801 (4)
Bolt, Housing (1/4-20 x 2.25/2.50) ²	4	S, L, X	18-8 SS	362001 (4)	362001 (4)	372001 (4)
Nut, Housing (1/4-20)	10	S, L, X	18-8 SS	862108 (4)	862108 (4)	862108 (4)
Lockwasher, Housing (1/4)	15	S, L, X	18-8 SS	863701 (4)	863701 (4)	863701 (4)
Position 4 – Drive Gear						
Gear	22	1	Alloy-C	970089	970006	970001
Gear	22	3	Teflon	970092	970054	970057
Gear	22	6	316 SS	970088	970005	970000
Gear	22	K	Kynar	970093	970082	970666
Gear	22	P	PEEK	970090	970008	970003
Key, Gear	23A	1, 3, 6, K, P	316 SS	970079	970010	970010
Position 5 – Idler Gear						
Gear	6	1	Alloy-C	970089	970006	970001
Gear	6	2	Carbon	970091	970009	970004
Gear	6	3	Teflon	970092	970054	970057
Gear	6	6	316 SS	970088	970005	970000
Gear	6	8	Ryton	970087	970007	970002
Gear	6	K	Kynar	970093	970082	970666
Gear	6	P	PEEK	970090	970008	970003
Key, Gear	23B	1,2,3,6,8,K,P	316 SS	970079	970010	970010
Position 6 – Wear Plates						
Wear Plate, Relieved	7	3	Teflon	360515 (4)	360497 (4)	360497 (4)
Wear Plate, Relieved	7	4	SiC	360517 (4)	360582 (4)	360582 (4)
Wear Plate, Relieved	7	E	Carbon 60	360513 (4)	360534 (4)	360534 (4)
Wear Plate, Relieved	7	P	PEEK	360516 (4)	360535 (4)	360535 (4)
Position 7 – Bearings						
Bearing	3A/3B	3	Teflon	3150057 (4)	3150057 (4)	3150057 (4)
Bearing	3A/3B	B	SiC	3150014 (4)	3150014 (4)	3150014 (4)
Bearing	3A/3B	E	Carbon 60	3150012 (4)	3150012 (4)	3150012 (4)
Bearing	3A/3B	P	PEEK	3150013 (4)	3150013 (4)	3150013 (4)
Position 8 – Seal Type						
Mechanical Seal, Single Int. & Ext.	11	U, W	316 SS/Carbon	970032	970032	970032
Mechanical Seal, Single Int. & Ext.	11	S, X	316 SS/Teflon	970039	970039	970039
Mechanical Seal, Double	11	F	316 SS/Carbon	970067	970067	970067
Mechanical Seal, Double	11	H	316 SS/Teflon	970068	970068	970068
Seal Housing, SMS/DMS/PS	28	U, S, F, H	316 SS	390270	390270	390270
Seal Housing, EMS	28	W, X	316 SS	390273	390273	390273
Seal Seat, Outer	24	U, S, W, X, F, H	SiC	970123	970123	970123
Seal Seat, Inner	25	F, H	SiC	970121	970121	970121
Gland Plate, SMS/EMS/DMS	17	U, S, W, X, F, H	316 SS	970022	970022	970022
Screw, Gland (1/4-28 x 1 HHCS)	16	U, S, W, X, F, H	18-8 SS	362005 (2)	362005 (2)	362005 (2)
Lockwasher, Gland (1/4)	19	U, S, W, X, F, H	18-8 SS	863701 (2)	863701 (2)	863701 (2)
Plug, 1/8 NPT	9	U, S, W, X	316 SS	362304 (2)	362304 (2)	362304 (2)
Packing Ring	43	L	Teflon	970063 (5)	970063 (5)	970063 (5)
Packing Ring	43	R	Graphoil	970062 (5)	970062 (5)	970062 (5)
Seal Housing, SMS/DMS/PS	28	L, R	316 SS	390270	390270	390270
Lantern Ring	44	L, R	316 SS	970064	970064	970064
Gland Plate, PS	17	L, R	316 SS	3150061	3150061	3150061
Screw, Gland (1/4-28 x 1 HHCS)	16	L, R	18-8 SS	362005 (2)	362005 (2)	362005 (2)
Grease Fitting, 1/8 NPT	45	L, R	303 SS	867201	867201	867201
Plug, 1/8 NPT	9	L, R	316 SS	362304	362304	362304

1 - Flanges are ANSI 150# RF.
 2 - HHCS type.

See page 15 for Reference Drawing.

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: SEALED, CC Models H7N, H7R & H7F
--	--

Part Description	Drwg. Item #	316 Stainless Steel Construction				
		Code	Material	H7N	H7R	H7F
Position 9 – Bearing Flush Option (Front & Rear Housings)						
Front Housing, CC, Standard & EBF	8	0, 1	316 SS	3150033	3150033	3150033
Front Housing, CC, IBF	8	2	316 SS	3150035	3150035	3150035
Rear Housing, Standard	2	0	316 SS	3150006	3150006	3150006
Rear Housing, EBF	2	1	316 SS	3150010	3150010	3150010
Rear Housing, IBF	2	2	316 SS	3150008	3150008	3150008
Plug, 1/8 NPT	9	0, 2	316 SS	362304 (1)	362304 (1)	362304 (1)
Plug, 1/8 NPT	9	1	316 SS	362304 (3)	362304 (3)	362304 (3)
Position 10 – Shafts						
Drive Shaft, Uncoated	20	0	316 SS	970085	970016	970016
Drive Shaft, CO-Coated	20	1	316 SS/CO	970085-CO	970016-CO	970016-CO
Drive Shaft, TC-Coated	20	2	316 SS/TC	970085-TC	970016-TC	970016-TC
Idler Shaft, Uncoated	1	0	316 SS	970077	970014	970014
Idler Shaft, CO-Coated	1	1	316 SS/CO	970077-CO	970014-CO	970014-CO
Idler Shaft, TC-Coated	1	2	316 SS/TC	970077-TC	970014-TC	970014-TC
Position 11 – O-Rings/Gaskets						
O-ring, Housing ³	5	0	Teflon	361101 (2)	361101 (2)	361101 (2)
O-ring, Seal Housing (2-042)	27	0	Teflon	S4000	S4000	S4000
Gasket, Seal Seat, Outer (MS only)	18	0	Teflon	970024 (2)	970024 (2)	970024 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	0	Viton	970120	970120	970120
O-ring, Housing ³	5	6	Silicone/FEP	371119 (2)	371119 (2)	371119 (2)
O-ring, Seal Housing (2-042)	27	6	Silicone/FEP	371118	371118	371118
Gasket, Seal Seat, Outer (MS only)	18	6	Teflon	970024 (2)	970024 (2)	970024 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	6	Kalrez	970128	970128	970128
O-ring, Housing (2-040)	5	B	Buna-N	361106 (2)	361106 (2)	361106 (2)
O-ring, Seal Housing (2-042)	27	B	Buna-N	S4003	S4003	S4003
Gasket, Seal Seat, Outer (MS only)	18	B	Buna-N	970058 (2)	970058 (2)	970058 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	B	Buna-N	970126	970126	970126
O-ring, Housing (2-040)	5	E	EPDM	361105 (2)	361105 (2)	361105 (2)
O-ring, Seal Housing (2-042)	27	E	EPDM	S4001	S4001	S4001
Gasket, Seal Seat, Outer (MS only)	18	E	EPDM	970059 (2)	970059 (2)	970059 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	E	EPDM	970127	970127	970127
O-ring, Housing (2-040)	5	V	Viton	361102 (2)	361102 (2)	361102 (2)
O-ring, Seal Housing (2-042)	27	V	Viton	S4002	S4002	S4002
Gasket, Seal Seat, Outer (MS only)	18	V	Viton	970060 (2)	970060 (2)	970060 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	V	Viton	970120	970120	970120
O-ring, Housing (2-040)	5	K	Kalrez	361103 (2)	361103 (2)	361103 (2)
O-ring, Seal Housing (2-042)	27	K	Kalrez	S4004	S4004	S4004
Gasket, Seal Seat, Outer (MS only)	18	K	Kalrez	970061 (2)	970061 (2)	970061 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	K	Kalrez	970128	970128	970128
Position 12 – Retaining Rings						
Retaining Ring, Gear	14	0	316 SS	3150015 (4)	3150015 (4)	3150015 (4)
Position 13 – Bearing Pins						
Pin, Bearing Lock	13	0	Teflon	361801 (4)	361801 (4)	361801 (4)
Pin, Bearing Lock (High Temp.)	13	6	316 SS	361807 (4)	361807 (4)	361807 (4)
Position 14 – Coupling Method						
Close-Coupled (Additional Parts)	-	0-5, 8	-	See Appendix 3		
Suffix – Trim Options						
Temperature Trim (Gears/Bearings)	-	-8(T) ⁵	-	Consult Factory		
Viscosity Trim (Gears)	-	-9D, -9T	-			

3 - Size: 2.906" Inner Diameter x .070" Cross-Sectional Diameter

4 - Size: 2-023

5 - T = Application Temperature in °F (e.g., -8(300) = Temperature Trim at 300°F).

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: SEALED, CC Models H7N, H7R & H7F
--	--

Part Description	Drwg. Item #	Alloy-C Construction				
		Code	Material	H7N	H7R	H7F
Position 3 – Basic Material & Port Type (Center Housing, Alignment Pins & Hardware)						
Center Housing, NPT	21	H	Alloy-C	360006	360006	370007
Center Housing, Flanged ¹	21	C	Alloy-C	360014	360014	370005
Center Housing, BSPT	21	Y	Alloy-C	360007	360007	370010
Pin, Housing Alignment	12	H, C, Y	Alloy-C	360804 (4)	360804 (4)	360804 (4)
Bolt, Housing (1/4-20 x 2.25/2.50) ²	4	H, C, Y	18-8 SS	362001 (4)	362001 (4)	372001 (4)
Nut, Housing (1/4-20)	10	H, C, Y	18-8 SS	862108 (4)	862108 (4)	862108 (4)
Lockwasher, Housing (1/4)	15	H, C, Y	18-8 SS	863701 (4)	863701 (4)	863701 (4)
Position 4 – Drive Gear						
Gear	22	1	Alloy-C	970089	970006	970001
Gear	22	3	Teflon	970092	970054	970057
Gear	22	6	316 SS	X	X	X
Gear	22	K	Kynar	970093	970082	970666
Gear	22	P	PEEK	970090	970008	970003
Key, Gear	23A	1, 3, K, P	Alloy-C	970080	970011	970011
Position 5 – Idler Gear						
Gear	6	1	Alloy-C	970089	970006	970001
Gear	6	2	Carbon	970091	970009	970004
Gear	6	3	Teflon	970092	970054	970057
Gear	6	6	316 SS	X	X	X
Gear	6	8	Ryton	970087	970007	970002
Gear	6	K	Kynar	970093	970082	970666
Gear	6	P	PEEK	970090	970008	970003
Key, Gear	23B	1, 2, 3, 8, K, P	Alloy-C	970080	970011	970011
Position 6 – Wear Plates						
Wear Plate, Relieved	7	3	Teflon	360515 (4)	360497 (4)	360497 (4)
Wear Plate, Relieved	7	4	SiC	360517 (4)	360582 (4)	360582 (4)
Wear Plate, Relieved	7	E	Carbon 60	360513 (4)	360534 (4)	360534 (4)
Wear Plate, Relieved	7	P	PEEK	360516 (4)	360535 (4)	360535 (4)
Position 7 – Bearings						
Bearing	3A/3B	3	Teflon	3150057 (4)	3150057 (4)	3150057 (4)
Bearing	3A/3B	B	SiC	3150014 (4)	3150014 (4)	3150014 (4)
Bearing	3A/3B	E	Carbon 60	3150012 (4)	3150012 (4)	3150012 (4)
Bearing	3A/3B	P	PEEK	3150013 (4)	3150013 (4)	3150013 (4)
Position 8 – Seal Type						
Mechanical Seal, Single Int. & Ext.	11	U, W	Alloy-C/Carbon	970033	970033	970033
Mechanical Seal, Single Int. & Ext.	11	S, X	Alloy-C/Teflon	970040	970040	970040
Mechanical Seal, Double	11	F	316 SS/Carbon	970067	970067	970067
Mechanical Seal, Double	11	H	316 SS/Teflon	970068	970068	970068
Seal Housing, SMS/DMS/PS	28	U, S, F, H	Alloy-C	390271	390271	390271
Seal Housing, EMS	28	W, X	Alloy-C	390272	390272	390272
Seal Seat, Outer	24	U, S, W, X, F, H	SiC	970123	970123	970123
Seal Seat, Inner	25	F, H	SiC	970121	970121	970121
Gland Plate, SMS & EMS	17	U, S, W, X	Alloy-C	970034	970034	970034
Gland Plate, DMS	17	F, H	316 SS	970022	970022	970022
Screw, Gland (1/4-28 x 1 HHCS)	16	U, S, W, X, F, H	18-8 SS	362005 (2)	362005 (2)	362005 (2)
Lockwasher, Gland (1/4)	19	U, S, W, X, F, H	18-8 SS	863701 (2)	863701 (2)	863701 (2)
Plug, 1/8 NPT	9	U, S, W, X	Alloy-C	362301 (2)	362301 (2)	362301 (2)
Packing Ring	43	L	Teflon	970063 (5)	970063 (5)	970063 (5)
Packing Ring	43	R	Graphoil	970062 (5)	970062 (5)	970062 (5)
Seal Housing, SMS/DMS/PS	28	L, R	Alloy-C	390271	390271	390271
Lantern Ring	44	L, R	Alloy-C	970081	970081	970081
Gland Plate, PS	17	L, R	Alloy-C	3150063	3150063	3150063
Screw, Gland (1/4-28 x 1 HHCS)	16	L, R	18-8 SS	362005 (2)	362005 (2)	362005 (2)
Grease Fitting, 1/8 NPT	45	L, R	303 SS	867201	867201	867201
Plug, 1/8 NPT	9	L, R	Alloy-C	362301	362301	362301

1 - Flanges are ANSI 150# RF.
 2 - HHCS type.

See page 15 for Reference Drawing.

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: SEALED, CC Models H7N, H7R & H7F
--	--

Part Description	Drwg. Item #	Alloy-C Construction				
		Code	Material	H7N	H7R	H7F
Position 9 – Bearing Flush Option (Front & Rear Housings)						
Front Housing, CC, Standard & EBF	8	0, 1	Alloy-C	3150034	3150034	3150034
Front Housing, CC, IBF	8	2	Alloy-C	3150036	3150036	3150036
Rear Housing, Standard	2	0	Alloy-C	3150007	3150007	3150007
Rear Housing, EBF	2	1	Alloy-C	3150011	3150011	3150011
Rear Housing, IBF	2	2	Alloy-C	3150009	3150009	3150009
Plug, 1/8 NPT	9	0, 2	Alloy-C	362301 (1)	362301 (1)	362301 (1)
Plug, 1/8 NPT	9	1	Alloy-C	362301 (3)	362301 (3)	362301 (3)
Position 10 – Shafts						
Drive Shaft, Uncoated	20	0	Alloy-C	970086	970017	970017
Drive Shaft, CO-Coated	20	1	Alloy-C/CO	970086-CO	970017-CO	970017-CO
Drive Shaft, TC-Coated	20	2	Alloy-C/TC	970086-TC	970017-TC	970017-TC
Idler Shaft, Uncoated	1	0	Alloy-C	970078	970015	970015
Idler Shaft, CO-Coated	1	1	Alloy-C/CO	970078-CO	970015-CO	970015-CO
Idler Shaft, TC-Coated	1	2	Alloy-C/TC	970078-TC	970015-TC	970015-TC
Position 11 – O-Rings/Gaskets						
O-ring, Housing ³	5	0	Teflon	361101 (2)	361101 (2)	361101 (2)
O-ring, Seal Housing (2-042)	27	0	Teflon	S4000	S4000	S4000
Gasket, Seal Seat, Outer (MS only)	18	0	Teflon	970024 (2)	970024 (2)	970024 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	0	Viton	970120	970120	970120
O-ring, Housing ³	5	6	Silicone/FEP	371119 (2)	371119 (2)	371119 (2)
O-ring, Seal Housing (2-042)	27	6	Silicone/FEP	371118	371118	371118
Gasket, Seal Seat, Outer (MS only)	18	6	Teflon	970024 (2)	970024 (2)	970024 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	6	Kalrez	970128	970128	970128
O-ring, Housing (2-040)	5	B	Buna-N	361106 (2)	361106 (2)	361106 (2)
O-ring, Seal Housing (2-042)	27	B	Buna-N	S4003	S4003	S4003
Gasket, Seal Seat, Outer (MS only)	18	B	Buna-N	970058 (2)	970058 (2)	970058 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	B	Buna-N	970126	970126	970126
O-ring, Housing (2-040)	5	E	EPDM	361105 (2)	361105 (2)	361105 (2)
O-ring, Seal Housing (2-042)	27	E	EPDM	S4001	S4001	S4001
Gasket, Seal Seat, Outer (MS only)	18	E	EPDM	970059 (2)	970059 (2)	970059 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	E	EPDM	970127	970127	970127
O-ring, Housing (2-040)	5	V	Viton	361102 (2)	361102 (2)	361102 (2)
O-ring, Seal Housing (2-042)	27	V	Viton	S4002	S4002	S4002
Gasket, Seal Seat, Outer (MS only)	18	V	Viton	970060 (2)	970060 (2)	970060 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	V	Viton	970120	970120	970120
O-ring, Housing (2-040)	5	K	Kalrez	361103 (2)	361103 (2)	361103 (2)
O-ring, Seal Housing (2-042)	27	K	Kalrez	S4004	S4004	S4004
Gasket, Seal Seat, Outer (MS only)	18	K	Kalrez	970061 (2)	970061 (2)	970061 (2)
O-ring, Seal Seat, Inner (DMS only) ⁴	26	K	Kalrez	970128	970128	970128
Position 12 – Retaining Rings						
Retaining Ring, Gear	14	0	Alloy-C	3150016 (4)	3150016 (4)	3150016 (4)
Position 13 – Bearing Pins						
Pin, Bearing Lock	13	0	Teflon	361801 (4)	361801 (4)	361801 (4)
Pin, Bearing Lock (High Temp.)	13	1	Alloy-C	361806 (4)	361806 (4)	361806 (4)
Position 14 – Coupling Method						
Close-Coupled (Additional Parts)	-	0-5, 8	-	See Appendix 3		
Suffix – Trim Options						
Temperature Trim (Gears/Bearings)	-	-8(T) ⁵	-	Consult Factory		
Viscosity Trim (Gears)	-	-9D, -9T	-			

3 - Size: 2.906" Inner Diameter x .070" Cross-Sectional Diameter

4 - Size: 2-023

5 - T = Application Temperature in °F (e.g., -8(300) = Temperature Trim at 300°F).

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: MAG-DRIVE, CC Models H7N, H7R & H7F
---	---

Part Description	Drwg. Item #	316 Stainless Steel Construction				
		Code	Material	H7N	H7R	H7F
Position 3 – Basic Material & Port Type (Center Housing, Alignment Pins & Hardware)						
Center Housing, NPT	21	S	316 SS	360002	360002	370003
Center Housing, Flanged ¹	21	L	316 SS	360013	360013	370004
Center Housing, BSPT	21	X	316 SS	360008	360008	370008
Pin, Housing Alignment	24	S, L, X	316 SS	360801 (4)	360801 (4)	360801 (4)
Bolt, Housing (1/4-20 x 2.25/2.50) ²	4	S, L, X	18-8 SS	362001 (4)	362001 (4)	372001 (4)
Nut, Housing (1/4-20)	29	S, L, X	18-8 SS	862108 (4)	862108 (4)	862108 (4)
Lockwasher, Housing (1/4)	30	S, L, X	18-8 SS	863701 (4)	863701 (4)	863701 (4)
Bolt, Front Hsg. (3/8-16 x 1.50) ²	27	S, L, X	18-8 SS	620833 (4)	620833 (4)	620833 (4)
Nut, Front Housing (3/8-16)	26	S, L, X	18-8 SS	S1003 (4)	S1003 (4)	S1003 (4)
Lockwasher, Front Housing (3/8)	31	S, L, X	18-8 SS	S1004 (4)	S1004 (4)	S1004 (4)
Bolt, Cont. Can (1/4-28 x 5/8) ²	18	S, L, X	18-8 SS	S620013 (6)	S620013 (6)	S620013 (6)
Lockwasher, Cont. Can (1/4)	32	S, L, X	18-8 SS	863701 (6)	863701 (6)	863701 (6)
Position 4 – Drive Gear						
Gear	22	1	Alloy-C	970089	970006	970001
Gear	22	3	Teflon	970092	970054	970057
Gear	22	6	316 SS	970088	970005	970000
Gear	22	K	Kynar	970093	970082	970666
Gear	22	P	PEEK	970090	970008	970003
Key, Gear	23A	1, 3, 6, K, P	316 SS	970079	970010	970010
Position 5 – Idler Gear						
Gear	6	1	Alloy-C	970089	970006	970001
Gear	6	2	Carbon	970091	970009	970004
Gear	6	3	Teflon	970092	970054	970057
Gear	6	6	316 SS	970088	970005	970000
Gear	6	8	Ryton	970087	970007	970002
Gear	6	K	Kynar	970093	970082	970666
Gear	6	P	PEEK	970090	970008	970003
Key, Gear	23B	1,2,3,6,8,K,P	316 SS	970079	970010	970010
Position 6 – Wear Plates						
Wear Plate, Relieved	7	3	Teflon	360515 (4)	360497 (4)	360497 (4)
Wear Plate, Relieved	7	4	SiC	360517 (4)	360582 (4)	360582 (4)
Wear Plate, Relieved	7	E	Carbon 60	360513 (4)	360534 (4)	360534 (4)
Wear Plate, Relieved	7	P	PEEK	360516 (4)	360535 (4)	360535 (4)
Position 7 – Bearings						
Bearing	3A/3B	3	Teflon	3150057 (4)	3150057 (4)	3150057 (4)
Bearing	3A/3B	B	SiC	3150014 (4)	3150014 (4)	3150014 (4)
Bearing	3A/3B	E	Carbon 60	3150012 (4)	3150012 (4)	3150012 (4)
Bearing	3A/3B	P	PEEK	3150013 (4)	3150013 (4)	3150013 (4)
Position 8 – Outer Magnet Bore (Pedestal, Shims, Adapter & Motor-Mounting Hardware)						
Pedestal – 5/8" (NEMA 56C)	16	0	CI/Epoxy	SP000	SP000	SP000
Pedestal – 7/8" (NEMA 143/145TC)	16	1	CI/Epoxy	SP000	SP000	SP000
Pedestal – 14 mm (IEC 71 - B5)	16	2	CI/Epoxy	SP001	SP001	SP001
Pedestal – 19 mm (IEC 80 - B5)	16	3	CI/Epoxy	SP002	SP002	SP002
Pedestal – 24 mm (IEC 90 - B5)	16	4	CI/Epoxy	SP002	SP002	SP002
Pedestal – 1-1/8" (NEMA 182/184TC)	16	5	CI/Epoxy	SP000	SP000	SP000
Shim, Pedestal (NEMA 182/184TC)	-	5	303 SS	SHIM-S105 (4)	SHIM-S105 (4)	SHIM-S105 (4)
Adapter Plate (NEMA 182/184TC)	-	5	CS/Epoxy	SP0046	SP0046	SP0046
Pedestal – 28 mm (IEC 100/112 - B5)	16	8	CI/Epoxy	SP002	SP002	SP002
Shim, Pedestal (IEC 100/112 - B5)	-	8	CS/Epoxy	SHIM-112 (2)	SHIM-112 (2)	SHIM-112 (2)
Adapter Plate (IEC 100/112 - B5)	-	8	CS/Epoxy	SP0048	SP0048	SP0048
Motor-Mounting Hardware	15/34	0-5, 8	18-8 SS	See Appendix 4		
Position 9 – Bearing Flush Option (Front & Rear Housings)						
Front Housing, MC, Std. & EBF	8	0, 1	316 SS	3150033	3150033	3150033
Front Housing, MC, IBF	8	2	316 SS	3150035	3150035	3150035
Rear Housing, Standard	2	0	316 SS	3150006	3150006	3150006
Rear Housing, EBF	2	1	316 SS	3150010	3150010	3150010
Rear Housing, IBF	2	2	316 SS	3150008	3150008	3150008
Plug, 1/8 NPT	9	0, 2	316 SS	362304 (1)	362304 (1)	362304 (1)
Plug, 1/8 NPT	9	1	316 SS	362304 (3)	362304 (3)	362304 (3)

1 - Flanges are ANSI 150# RF.

2 - HHCS type.

See page 16 for Reference Drawing.

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: MAG-DRIVE, CC Models H7N, H7R & H7F
--	---

Part Description	Drwg. Item #	316 Stainless Steel Construction				
		Code	Material	H7N	H7R	H7F
Position 10 – Shafts						
Drive Shaft, MC, Uncoated	20	0	316 SS	970083	970018	970018
Drive Shaft, MC, CO-Coated	20	1	316 SS/CO	970083-CO	970018-CO	970018-CO
Drive Shaft, MC, TC-Coated	20	2	316 SS/TC	970083-TC	970018-TC	970018-TC
Idler Shaft, Uncoated	1	0	316 SS	970077	970014	970014
Idler Shaft, CO-Coated	1	1	316 SS/CO	970077-CO	970014-CO	970014-CO
Idler Shaft, TC-Coated	1	2	316 SS/TC	970077-TC	970014-TC	970014-TC
Position 11 – O-Rings						
O-ring, Housing ³	5	0	Teflon	361101 (2)	361101 (2)	361101 (2)
O-ring, Containment Can (2-042)	19	0	Teflon	S4000	S4000	S4000
O-ring, Housing ³	5	6	Silicone/FEP	371119 (2)	371119 (2)	371119 (2)
O-ring, Containment Can (2-042)	19	6	Silicone/FEP	371118	371118	371118
O-ring, Housing (2-040)	5	B	Buna-N	361106 (2)	361106 (2)	361106 (2)
O-ring, Containment Can (2-042)	19	B	Buna-N	S4003	S4003	S4003
O-ring, Housing (2-040)	5	E	EPDM	361105 (2)	361105 (2)	361105 (2)
O-ring, Containment Can (2-042)	19	E	EPDM	S4001	S4001	S4001
O-ring, Housing (2-040)	5	V	Viton	361102 (2)	361102 (2)	361102 (2)
O-ring, Containment Can (2-042)	19	V	Viton	S4002	S4002	S4002
O-ring, Housing (2-040)	5	K	Kalrez	361103 (2)	361103 (2)	361103 (2)
O-ring, Containment Can (2-042)	19	K	Kalrez	S4004	S4004	S4004
Position 12 – Retaining Rings						
Retaining Ring	28	0	316 SS	3150015 (6)	3150015 (6)	3150015 (6)
Position 13 – Bearing Pins						
Pin, Bearing Lock	25	0	Teflon	361801 (4)	361801 (4)	361801 (4)
Pin, Bearing Lock (High Temp.)	25	6	316 SS	361807 (4)	361807 (4)	361807 (4)
Position 14 – Magnetic Coupling						
Inner Magnet, MCU – 5/8" Bore	11	U	316 SS/SmCo	SIMCU-05	SIMCU-05	SIMCU-05
Outer Magnet, MCU – 56C	10	U (Pos. 8 = 0)	CS/ SmCo	SOMCU-5	SOMCU-5	SOMCU-5
Outer Magnet, MCU – 143/145TC	10	U (Pos. 8 = 1)	CS/ SmCo	SOMCU-7	SOMCU-7	SOMCU-7
Outer Magnet, MCU – IEC 71 (B5)	10	U (Pos. 8 = 2)	CS/ SmCo	SOMCU-71	SOMCU-71	SOMCU-71
Outer Magnet, MCU – IEC 80 (B5)	10	U (Pos. 8 = 3)	CS/ SmCo	SOMCU-80	SOMCU-80	SOMCU-80
Outer Magnet, MCU – IEC 90 (B5)	10	U (Pos. 8 = 4)	CS/ SmCo	SOMCU-90	SOMCU-90	SOMCU-90
Outer Magnet, MCU – 182/184TC	10	U (Pos. 8 = 5)	CS/ SmCo	SOMCU-9	SOMCU-9	SOMCU-9
Outer Magnet, MCU – IEC100/112 (B5)	10	U (Pos. 8 = 8)	CS/ SmCo	SOMCU-112	SOMCU-112	SOMCU-112
Inner Magnet, MCB – 5/8" Bore	11	B	316 SS/SmCo	SIMCB-05	SIMCB-05	SIMCB-05
Outer Magnet, MCB – 56C	10	B (Pos. 8 = 0)	CS/ SmCo	SOMCB-5	SOMCB-5	SOMCB-5
Outer Magnet, MCB – 143/145TC	10	B (Pos. 8 = 1)	CS/ SmCo	SOMCB-7	SOMCB-7	SOMCB-7
Outer Magnet, MCB – IEC 71 (B5)	10	B (Pos. 8 = 2)	CS/ SmCo	SOMCB-71	SOMCB-71	SOMCB-71
Outer Magnet, MCB – IEC 80 (B5)	10	B (Pos. 8 = 3)	CS/ SmCo	SOMCB-80	SOMCB-80	SOMCB-80
Outer Magnet, MCB – IEC 90 (B5)	10	B (Pos. 8 = 4)	CS/ SmCo	SOMCB-90	SOMCB-90	SOMCB-90
Outer Magnet, MCB – 182/184TC	10	B (Pos. 8 = 5)	CS/ SmCo	SOMCB-9	SOMCB-9	SOMCB-9
Outer Magnet, MCB – IEC100/112 (B5)	10	B (Pos. 8 = 8)	CS/ SmCo	SOMCB-112	SOMCB-112	SOMCB-112
Inner Magnet, MCV – 5/8" Bore	11	V	316 SS/SmCo	SIMCV-05	SIMCV-05	SIMCV-05
Outer Magnet, MCV – 56C	10	V (Pos. 8 = 0)	CS/ SmCo	SOMCV-5	SOMCV-5	SOMCV-5
Outer Magnet, MCV – 143/145TC	10	V (Pos. 8 = 1)	CS/ SmCo	SOMCV-7	SOMCV-7	SOMCV-7
Outer Magnet, MCV – IEC 71 (B5)	10	V (Pos. 8 = 2)	CS/ SmCo	SOMCV-71	SOMCV-71	SOMCV-71
Outer Magnet, MCV – IEC 80 (B5)	10	V (Pos. 8 = 3)	CS/ SmCo	SOMCV-80	SOMCV-80	SOMCV-80
Outer Magnet, MCV – IEC 90 (B5)	10	V (Pos. 8 = 4)	CS/ SmCo	SOMCV-90	SOMCV-90	SOMCV-90
Outer Magnet, MCV – 182/184TC	10	V (Pos. 8 = 5)	CS/ SmCo	SOMCV-9	SOMCV-9	SOMCV-9
Outer Magnet, MCV – IEC100/112 (B5)	10	V (Pos. 8 = 8)	CS/ SmCo	SOMCV-112	SOMCV-112	SOMCV-112
Key, Inner Magnet	13	U, B, V	316 SS	970010	970010	970010
Position 15 – Containment Can						
Containment Can, Single Wall (Domed)	12	S	316 SS	S2002	S2002	S2002
Dual Kan Option (Modified Parts)	12	D	316 SS	Consult Factory		
Suffix – Trim Options						
Temperature Trim (Gears/Bearings)	-	-8(T) ⁴	-	Consult Factory		
Viscosity Trim (Gears)	-	-9D, -9T	-			

3 - Size: 2.906" ID x .070" CSD

4 - T = Application Temperature in °F (e.g., -8(300) = Temperature Trim at 300°F).

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: MAG-DRIVE, CC Models H7N, H7R & H7F
---	---

Part Description	Drwg. Item #	Alloy-C Construction				
		Code	Material	H7N	H7R	H7F
Position 3 – Basic Material & Port Type (Center Housing, Alignment Pins & Hardware)						
Center Housing, NPT	21	H	Alloy-C	360006	360006	370007
Center Housing, Flanged ¹	21	C	Alloy-C	360014	360014	370005
Center Housing, BSPT	21	Y	Alloy-C	360007	360007	370010
Pin, Housing Alignment	24	H, C, Y	Alloy-C	360804 (4)	360804 (4)	360804 (4)
Bolt, Housing (1/4-20 x 2.25/2.50) ²	4	H, C, Y	18-8 SS	362001 (4)	362001 (4)	372001 (4)
Nut, Housing (1/4-20)	29	H, C, Y	18-8 SS	862108 (4)	862108 (4)	862108 (4)
Lockwasher, Housing (1/4)	30	H, C, Y	18-8 SS	863701 (4)	863701 (4)	863701 (4)
Bolt, Front Hsg. (3/8-16 x 1.50) ²	27	H, C, Y	18-8 SS	620833 (4)	620833 (4)	620833 (4)
Nut, Front Housing (3/8-16)	26	H, C, Y	18-8 SS	S1003 (4)	S1003 (4)	S1003 (4)
Lockwasher, Front Housing (3/8)	31	H, C, Y	18-8 SS	S1004 (4)	S1004 (4)	S1004 (4)
Bolt, Cont. Can (1/4-28 x 5/8) ²	18	H, C, Y	18-8 SS	S620013 (6)	S620013 (6)	S620013 (6)
Lockwasher, Cont. Can (1/4)	32	H, C, Y	18-8 SS	863701 (6)	863701 (6)	863701 (6)
Position 4 – Drive Gear						
Gear	22	1	Alloy-C	970089	970006	970001
Gear	22	3	Teflon	970092	970054	970057
Gear	22	6	316 SS	X	X	X
Gear	22	K	Kynar	970093	970082	970666
Gear	22	P	PEEK	970090	970008	970003
Key, Gear	23A	1, 3, K, P	Alloy-C	970080	970011	970011
Position 5 – Idler Gear						
Gear	6	1	Alloy-C	970089	970006	970001
Gear	6	2	Carbon	970091	970009	970004
Gear	6	3	Teflon	970092	970054	970057
Gear	6	6	316 SS	X	X	X
Gear	6	8	Ryton	970087	970007	970002
Gear	6	K	Kynar	970093	970082	970666
Gear	6	P	PEEK	970090	970008	970003
Key, Gear	23B	1, 2, 3, 8, K, P	Alloy-C	970080	970011	970011
Position 6 – Wear Plates						
Wear Plate, Relieved	7	3	Teflon	360515 (4)	360497 (4)	360497 (4)
Wear Plate, Relieved	7	4	SiC	360517 (4)	360582 (4)	360582 (4)
Wear Plate, Relieved	7	E	Carbon 60	360513 (4)	360534 (4)	360534 (4)
Wear Plate, Relieved	7	P	PEEK	360516 (4)	360535 (4)	360535 (4)
Position 7 – Bearings						
Bearing	3A/3B	3	Teflon	3150057 (4)	3150057 (4)	3150057 (4)
Bearing	3A/3B	B	SiC	3150014 (4)	3150014 (4)	3150014 (4)
Bearing	3A/3B	E	Carbon 60	3150012 (4)	3150012 (4)	3150012 (4)
Bearing	3A/3B	P	PEEK	3150013 (4)	3150013 (4)	3150013 (4)
Position 8 – Outer Magnet Bore (Pedestal, Shims, Adapter & Motor-Mounting Hardware)						
Pedestal – 5/8" (NEMA 56C)	16	0	CI/Epoxy	SP000	SP000	SP000
Pedestal – 7/8" (NEMA 143/145TC)	16	1	CI/Epoxy	SP000	SP000	SP000
Pedestal – 14 mm (IEC 71 - B5)	16	2	CI/Epoxy	SP001	SP001	SP001
Pedestal – 19 mm (IEC 80 - B5)	16	3	CI/Epoxy	SP002	SP002	SP002
Pedestal – 24 mm (IEC 90 - B5)	16	4	CI/Epoxy	SP002	SP002	SP002
Pedestal – 1-1/8" (NEMA 182/184TC)	16	5	CI/Epoxy	SP000	SP000	SP000
Shim, Pedestal (NEMA 182/184TC)	-	5	303 SS	SHIM-S105 (4)	SHIM-S105 (4)	SHIM-S105 (4)
Adapter Plate (NEMA 182/184TC)	-	5	CS/Epoxy	SP0046	SP0046	SP0046
Pedestal – 28 mm (IEC 100/112 - B5)	16	8	CI/Epoxy	SP002	SP002	SP002
Shim, Pedestal (IEC 100/112 - B5)	-	8	CS/Epoxy	SHIM-112 (2)	SHIM-112 (2)	SHIM-112 (2)
Adapter Plate (IEC 100/112 - B5)	-	8	CS/Epoxy	SP0048	SP0048	SP0048
Motor-Mounting Hardware	15/34	0-5, 8	18-8 SS	See Appendix 4		
Position 9 – Bearing Flush Option (Front & Rear Housings)						
Front Housing, MC, Std. & EBF	8	0, 1	Alloy-C	3150034	3150034	3150034
Front Housing, MC, IBF	8	2	Alloy-C	3150036	3150036	3150036
Rear Housing, Standard	2	0	Alloy-C	3150007	3150007	3150007
Rear Housing, EBF	2	1	Alloy-C	3150011	3150011	3150011
Rear Housing, IBF	2	2	Alloy-C	3150009	3150009	3150009
Plug, 1/8 NPT	9	0, 2	Alloy-C	362301 (1)	362301 (1)	362301 (1)
Plug, 1/8 NPT	9	1	Alloy-C	362301 (3)	362301 (3)	362301 (3)

1 - Flanges are ANSI 150# RF.

2 - HHCS type.

See page 16 for Reference Drawing.

Liquiflo Chemical Processing Pumps™	H-Series Gear Pumps BOM: MAG-DRIVE, CC Models H7N, H7R & H7F
--	---

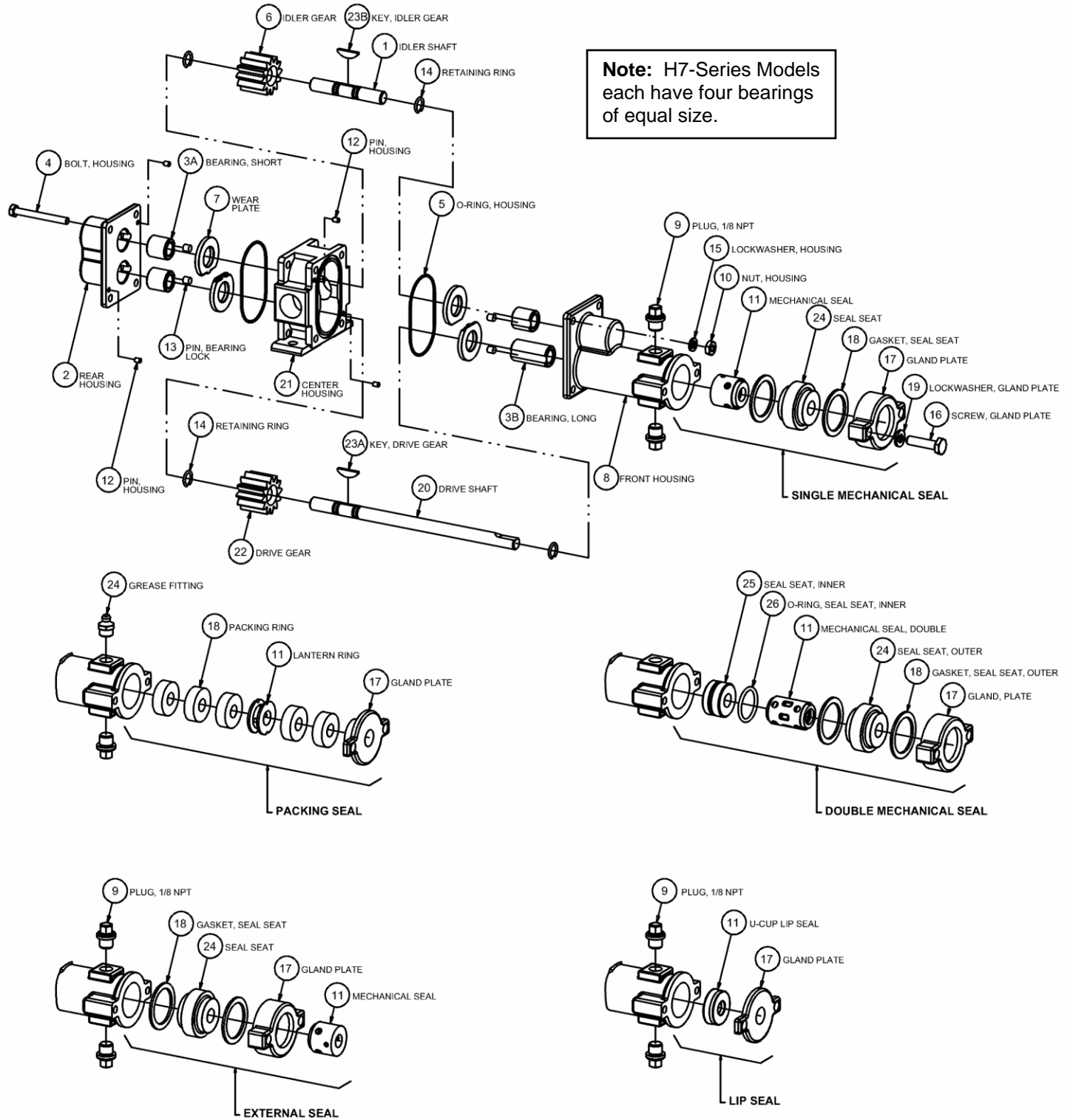
Part Description	Drwg. Item #	Alloy-C Construction				
		Code	Material	H7N	H7R	H7F
Position 10 – Shafts						
Drive Shaft, MC, Uncoated	20	0	Alloy-C	970084	970019	970019
Drive Shaft, MC, CO-Coated	20	1	Alloy-C/CO	970084-CO	970019-CO	970019-CO
Drive Shaft, MC, TC-Coated	20	2	Alloy-C/TC	970084-TC	970019-TC	970019-TC
Idler Shaft, Uncoated	1	0	Alloy-C	970078	970015	970015
Idler Shaft, CO-Coated	1	1	Alloy-C/CO	970078-CO	970015-CO	970015-CO
Idler Shaft, TC-Coated	1	2	Alloy-C/TC	970078-TC	970015-TC	970015-TC
Position 11 – O-Rings						
O-ring, Housing ³	5	0	Teflon	361101 (2)	361101 (2)	361101 (2)
O-ring, Containment Can (2-042)	19	0	Teflon	S4000	S4000	S4000
O-ring, Housing ³	5	6	Silicone/FEP	371119 (2)	371119 (2)	371119 (2)
O-ring, Containment Can (2-042)	19	6	Silicone/FEP	371118	371118	371118
O-ring, Housing (2-040)	5	B	Buna-N	361106 (2)	361106 (2)	361106 (2)
O-ring, Containment Can (2-042)	19	B	Buna-N	S4003	S4003	S4003
O-ring, Housing (2-040)	5	E	EPDM	361105 (2)	361105 (2)	361105 (2)
O-ring, Containment Can (2-042)	19	E	EPDM	S4001	S4001	S4001
O-ring, Housing (2-040)	5	V	Viton	361102 (2)	361102 (2)	361102 (2)
O-ring, Containment Can (2-042)	19	V	Viton	S4002	S4002	S4002
O-ring, Housing (2-040)	5	K	Kalrez	361103 (2)	361103 (2)	361103 (2)
O-ring, Containment Can (2-042)	19	K	Kalrez	S4004	S4004	S4004
Position 12 – Retaining Rings						
Retaining Ring, Gear	28	0	Alloy-C	3150016 (6)	3150016 (6)	3150016 (6)
Position 13 – Bearing Pins						
Pin, Bearing Lock	25	0	Teflon	361801 (4)	361801 (4)	361801 (4)
Pin, Bearing Lock (High Temp.)	25	1	Alloy-C	361806 (4)	361806 (4)	361806 (4)
Position 14 – Magnetic Coupling						
Inner Magnet, MCU – 5/8" Bore	11	U	Alloy-C/SmCo	SIMCU-15	SIMCU-15	SIMCU-15
Outer Magnet, MCU – 56C	10	U (Pos. 8 = 0)	CS/ SmCo	SOMCU-5	SOMCU-5	SOMCU-5
Outer Magnet, MCU – 143/145TC	10	U (Pos. 8 = 1)	CS/ SmCo	SOMCU-7	SOMCU-7	SOMCU-7
Outer Magnet, MCU – IEC 71 (B5)	10	U (Pos. 8 = 2)	CS/ SmCo	SOMCU-71	SOMCU-71	SOMCU-71
Outer Magnet, MCU – IEC 80 (B5)	10	U (Pos. 8 = 3)	CS/ SmCo	SOMCU-80	SOMCU-80	SOMCU-80
Outer Magnet, MCU – IEC 90 (B5)	10	U (Pos. 8 = 4)	CS/ SmCo	SOMCU-90	SOMCU-90	SOMCU-90
Outer Magnet, MCU – 182/184TC	10	U (Pos. 8 = 5)	CS/ SmCo	SOMCU-9	SOMCU-9	SOMCU-9
Outer Magnet, MCU – IEC100/112 (B5)	10	U (Pos. 8 = 8)	CS/ SmCo	SOMCU-112	SOMCU-112	SOMCU-112
Inner Magnet, MCB – 5/8" Bore	11	B	Alloy-C/SmCo	SIMCB-15	SIMCB-15	SIMCB-15
Outer Magnet, MCB – 56C	10	B (Pos. 8 = 0)	CS/ SmCo	SOMCB-5	SOMCB-5	SOMCB-5
Outer Magnet, MCB – 143/145TC	10	B (Pos. 8 = 1)	CS/ SmCo	SOMCB-7	SOMCB-7	SOMCB-7
Outer Magnet, MCB – IEC 71 (B5)	10	B (Pos. 8 = 2)	CS/ SmCo	SOMCB-71	SOMCB-71	SOMCB-71
Outer Magnet, MCB – IEC 80 (B5)	10	B (Pos. 8 = 3)	CS/ SmCo	SOMCB-80	SOMCB-80	SOMCB-80
Outer Magnet, MCB – IEC 90 (B5)	10	B (Pos. 8 = 4)	CS/ SmCo	SOMCB-90	SOMCB-90	SOMCB-90
Outer Magnet, MCB – 182/184TC	10	B (Pos. 8 = 5)	CS/ SmCo	SOMCB-9	SOMCB-9	SOMCB-9
Outer Magnet, MCB – IEC100/112 (B5)	10	B (Pos. 8 = 8)	CS/ SmCo	SOMCB-112	SOMCB-112	SOMCB-112
Inner Magnet, MCV – 5/8" Bore	11	V	Alloy-C/SmCo	SIMCV-15	SIMCV-15	SIMCV-15
Outer Magnet, MCV – 56C	10	V (Pos. 8 = 0)	CS/ SmCo	SOMCV-5	SOMCV-5	SOMCV-5
Outer Magnet, MCV – 143/145TC	10	V (Pos. 8 = 1)	CS/ SmCo	SOMCV-7	SOMCV-7	SOMCV-7
Outer Magnet, MCV – IEC 71 (B5)	10	V (Pos. 8 = 2)	CS/ SmCo	SOMCV-71	SOMCV-71	SOMCV-71
Outer Magnet, MCV – IEC 80 (B5)	10	V (Pos. 8 = 3)	CS/ SmCo	SOMCV-80	SOMCV-80	SOMCV-80
Outer Magnet, MCV – IEC 90 (B5)	10	V (Pos. 8 = 4)	CS/ SmCo	SOMCV-90	SOMCV-90	SOMCV-90
Outer Magnet, MCV – 182/184TC	10	V (Pos. 8 = 5)	CS/ SmCo	SOMCV-9	SOMCV-9	SOMCV-9
Outer Magnet, MCV – IEC100/112 (B5)	10	V (Pos. 8 = 8)	CS/ SmCo	SOMCV-112	SOMCV-112	SOMCV-112
Key, Inner Magnet	13	U, B, V	Alloy-C	970011	970011	970011
Position 15 – Containment Can						
Containment Can, Single Wall (Domed)	12	S	Alloy-C	S2003	S2003	S2003
Dual Kan Option (Modified Parts)	12	D	Alloy-C	Consult Factory		
Suffix – Trim Options						
Temperature Trim (Gears/Bearings)	-	-8(T) ⁴	-	Consult Factory		
Viscosity Trim (Gears)	-	-9D, -9T	-			

3 - Size: 2.906" ID x .070" CSD

4 - T = Application Temperature in °F (e.g., -8(300) = Temperature Trim at 300°F).

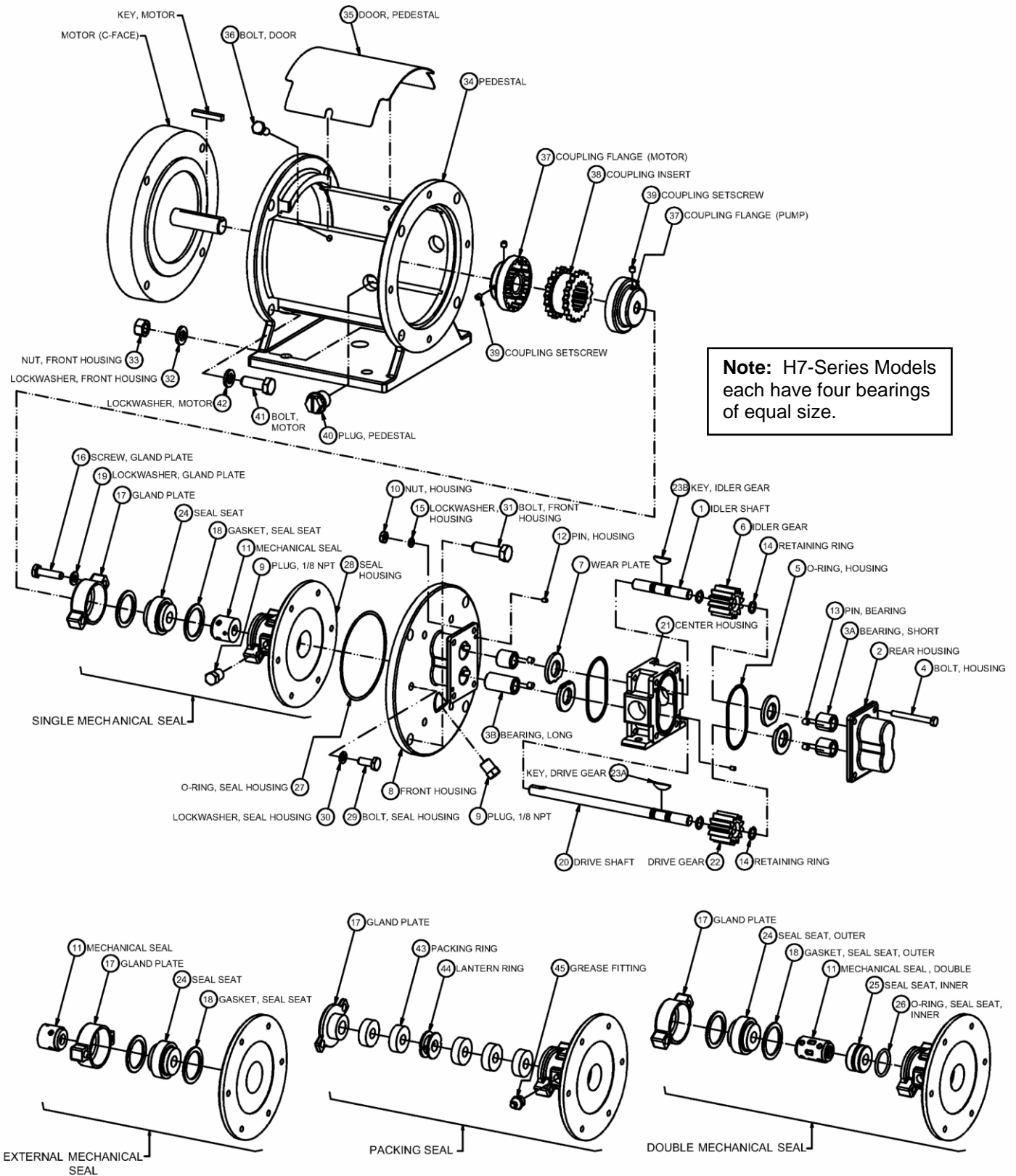
Appendix 1: Exploded View Reference Drawings

Models H7N, H7R & H7F – SEALED, Long-Coupled



Appendix 1: Exploded View Reference Drawings (continued)

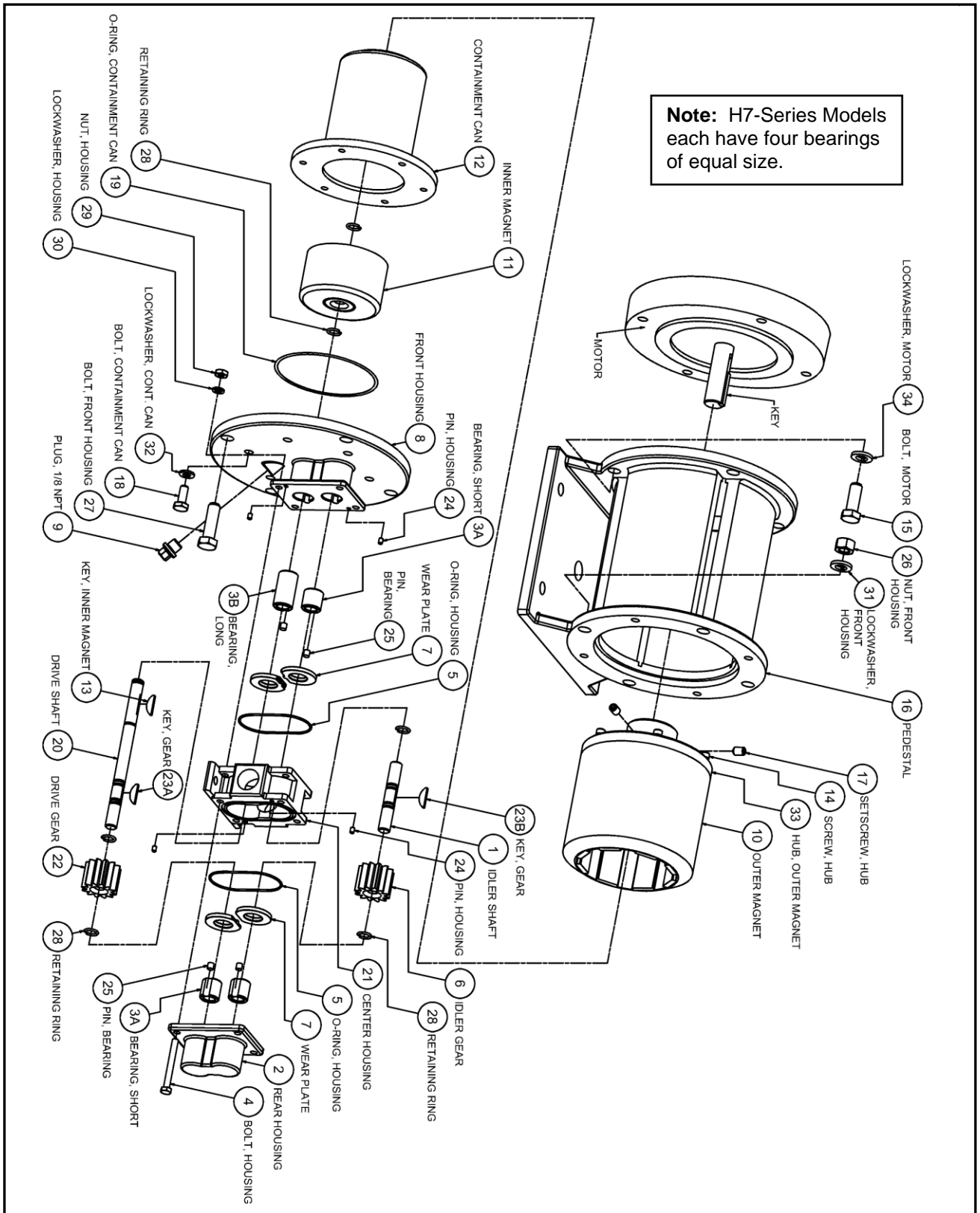
Models H7N, H7R & H7F – SEALED, Close-Coupled



Note: H7-Series Models each have four bearings of equal size.

Appendix 1: Exploded View Reference Drawings (continued)

Models H7N, H7R & H7F – MAG-DRIVE, Close-Coupled



Appendix 2: Meaning of Abbreviated Terms

Term	Meaning	Notes
ANSI	American National Standards Institute	e.g., ANSI 150# flanges
BSPT	British Standard Pipe Threads	Type of threaded port
Buna-N	Buna Nitrile (rubber)	O-ring material; NBR; elastomer
CC	Close-Coupled	Method of pump-motor coupling
CI	Cast Iron	Pedestal structural material
CO	Chrome Oxide	Shaft coating material
Cont. Can	Containment Can	Part of Mag-drive pump
CS	Carbon Steel	Outer magnet and adapter structural material
CSD	Cross-Sectional Diameter	O-ring Dimension
DMS	Double Mechanical Seal	Internally mounted double seal
Drwg.	Drawing (Item #)	See corresponding exploded view reference drawing
EBF	External Bearing Flush	Housing option for H-Series pumps
EMS	External Mechanical Seal	Externally mounted single seal
EPDM	Ethylene-Propylene-Diene Monomer (rubber)	O-ring material; elastomer
FH-SHCS	Flat Head, Socket Head Cap Screw	Type of bolt
HHCS	Hex Head Cap Screw	Type of bolt
HY	High-Yield (key)	Type of gear key
IBF	Internal Bearing Flush	Housing option for H-Series pumps
ID	Inner Diameter	O-ring Dimension
LC	Long-Coupled	Method of pump-motor coupling
LY	Low-Yield (key)	Type of gear key
MC	Magnetically Coupled	Mag-drive pump
MS	Mechanical Seal	Includes single & double seals
NPT	National Pipe Threads	Type of threaded port
PEEK	Poly-Ether-Ether-Ketone (plastic)	Bearing Grade PEEK; material option for gears, bearings & wear plates
Pos.	Position (#)	Position number of model code
PS	Packing Seal	Comprised of Teflon or Graphoil packing rings
RF	Raised Face	Type of flange
SHCS	Socket Head Cap Screw	Type of bolt
SiC	Silicon Carbide	Bearing, wear plate and seal seat material
Silicone/FEP	Silicone Rubber (encapsulated with) Fluoro-ethylene-propylene (plastic)	O-ring material; suggested for temperature cycling applications
SmCo	Samarium Cobalt	Inner and outer magnet material
SMS	Single Mechanical Seal	Internally mounted single seal
SS	Stainless Steel	e.g., 303 SS, 316 SS, 18-8 SS
TC	Tungsten Carbide	Shaft coating material
X	Not Available or Not Applicable	Used in lieu of Part Number
#	Number or Pound	e.g., Position #, Part #, 150# flanges, etc.

Appendix 3: Additional Parts for SEALED-CC Configuration

Mechanical Coupling, Pedestal & Adapter

Model Code Pos. 14	Motor Frame	Mechanical Coupling ¹				Pedestal ³	Adapter ⁴
		Part #	Size	Type (Woods)	Max Torque ²	Part #	Part #
0	NEMA 56C	A-5107	5/8" x 5/8"	4J	156	SP009	X
1	NEMA 143/145TC	A-5108	5/8" x 7/8"	4J	156	SP009	X
2	IEC 71–B5 Flange	A-5227	5/8" x 14 mm	5J	312	SP010	X
3	IEC 80–B5 Flange	A-5230	5/8" x 19 mm	5J	312	SP011	X
4	IEC 90–B5 Flange	A-5113	5/8" x 24 mm	4J	156	SP011	X
5	NEMA182/184TC	A-5214	5/8" x 1-1/8"	5J	312	SP009	SP0046
8	IEC 100/112–B5 Flg.	A-5232	5/8" x 28 mm	5J	312	SP011	SP0048

1 – Coupling material is Steel flanges with EPDM insert. Coupling Temperature Range is -30°F to 275°F.

2 – Maximum Torque rating in inch-pounds at 75°F (24°C). Consult factory for couplings with higher torque ratings.

3 – Material is Cast Iron/Epoxy. Pedestal includes 303 SS door (Part # 865078) and two 1/4-20 x 5/8 bolts (Part # 620008).

4 – Material is Carbon Steel/Epoxy.

Assembly Hardware

Model Code Pos. 14	Part Description	Material	Size	Bolt Type	Part #	Qty.
0-5, 8	Bolt, Seal Housing	18-8 SS	1/4-28 x 5/8	HHCS	S620013	6
	Lockwasher, Seal Housing	18-8 SS	1/4	–	863701	6
	Bolt, Front Housing	18-8 SS	3/8-16 x 1-1/2	HHCS	620833	4
	Nut, Front Housing	18-8 SS	3/8-16	–	S1003	4
	Lockwasher, Front Housing	18-8 SS	3/8	–	S1004	4
0, 1, 5	Bolt, Motor	18-8 SS	3/8-16 x 1-1/4	HHCS	S1000	4
	Lockwasher, Motor	18-8 SS	3/8	–	S1004	4
5	Bolt, Adapter (NEMA 182/184TC) ¹	18-8 SS	1/2-13 x 1	SHCS	641105	4
2	Bolt, Motor	18-8 SS	3/8-16 x 1-1/2	SHCS	781117	4
	Nut, Motor	18-8 SS	3/8-16	–	S1003	4
	Lockwasher, Motor	18-8 SS	3/8	–	S1004	4
3, 4	Bolt, Motor	18-8 SS	M10 x 40	SHCS	S1011	4
	Nut, Motor	18-8 SS	M10 Std. Hex	–	S1013	4
	Lockwasher, Motor	18-8 SS	M10	–	S1012	4
8	Bolt, Motor	18-8 SS	1/2-13 x 2	FH-SHCS	S641111	4
	Nut, Motor	18-8 SS	1/2-13	–	641108	4
	Lockwasher, Motor	18-8 SS	1/2	–	641107	4
	Bolt, Adapter (IEC 100/112-B5) ²	18-8 SS	3/8-16 X 1	SHCS	781118	4
	Lockwasher, Adapter ²	18-8 SS	3/8	–	S1004	4

1 – For mounting adapter plate (Part # SP0046) to motor.

2 – For mounting adapter plate (Part # SP0048) to CC-pedestal (Part # SP011).

Appendix 4: Mag-Drive Motor-Mounting Hardware

Mag-Drive Motor-Mounting Hardware

Model Code Pos. 8	Part Description	Material	Size	Bolt Type	Part #	Qty.
0, 1, 5	Bolt, Motor	18-8 SS	3/8-16 x 1-1/4	HHCS	S1000	4
	Lockwasher, Motor	18-8 SS	3/8	–	S1004	4
5	Bolt, Adapter (NEMA 182/184TC) ¹	18-8 SS	1/2-13 x 1	SHCS	641105	4
2	Bolt, Motor	18-8 SS	3/8-16 x 1-1/2	SHCS	781117	4
	Nut, Motor	18-8 SS	3/8-16	–	S1003	4
	Lockwasher, Motor	18-8 SS	3/8	–	S1004	4
3, 4	Bolt, Motor	18-8 SS	M10 x 40	SHCS	S1011	4
	Nut, Motor	18-8 SS	M10 Std. Hex	–	S1013	4
	Lockwasher, Motor	18-8 SS	M10	–	S1012	4
8	Bolt, Motor	18-8 SS	1/2-13 x 2	FH-SHCS	S641111	4
	Nut, Motor	18-8 SS	1/2-13	–	641108	4
	Lockwasher, Motor	18-8 SS	1/2	–	641107	4
	Bolt, Adapter (IEC 100/112-B5) ²	18-8 SS	3/8-16 X 1	SHCS	781118	4
	Lockwasher, Adapter ²	18-8 SS	3/8	–	S1004	4

1 – For mounting adapter plate (Part # SP0046) to motor.

2 – For mounting adapter plate (Part # SP0048) to MC-pedestal (Part # SP002).