

Parts Listings and Cross-Sectional Drawings

Parts list

Table 24: Construction material and quantity (continued)

Item	Quantity	Part name	Pump Material (3196, HT 3196, CV 3196, 3796)	Pump Material (NM 3196)	Pump Material (3198)
			All Titanium	Vinylester	D.I./Teflon
100	1	Casing	1220	6929	9639
101	1	Impeller	1220	6929	6944
105	1	Lantern Ring	Teflon	—	—
106	1 set	Stuffing Box Packing	Non-asbestos braid	—	—
107	1	Gland—Packed Box	1220	—	—
108	1	Frame Adapter	1013		
109C	1***	Outboard Bearing End Cover	1001		
112A	1	Outboard Bearing	Double row angluar contact		
113	2	Plug—Grease Relief	2210		
113B	1	Plug—Oil Fill	2210		
122	1	Shaft—Less Sleeve	2156	2229	—
122	1	Shaft—With Sleeve	2229		6947
126	1	Shaft Sleeve	2156	2229	—
134	1	Bearing Housing	1001		
136	1	Bearing Locknut	Steel		
168A	1	Radial Bearing	Single row ball		
184	1	Seal Chamber/Stuffing Box Cover	1220	6929	9639
193	2	Grease Fitting	Steel		
228	1	Bearing Frame			
236A	10	Cap Screw—Bearing Clamp Ring	2210		
239	1	Support, Casing	—	—	—
241	1	Frame Foot	1001		
248	1	Oil Thrower	2210		
250	1	Gland—Mechanical Seal	Material varies		
253B	1	Bearing Clamp Ring	2210		
319	1	Sight Glass	Glass/steel		
332A	1	Outboard Labyrinth Seal w/O-rings	Brass ASTM B505-96		
333A	1	Inboard Labyrinth Seal w/O-rings	Brass ASTM B505-96		
351	1	Casing Gasket	Aramid fiber w/EPDM		
353	4	Gland Stud	2156	2229	2229
355	4	Gland Stud Nut	2156	2229	2229
358	1	Plug—Casing Drain	2156	—	—
358Y	1 ***	Plug, Impeller	2156	—	—

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Item	Quantity	Part name	Pump Material (3196, HT 3196, CV 3196, 3796)	Pump Material (NM 3196)	Pump Material (3198)
			All Titanium	Vinylester	D.I./Teflon
360C	1 ***	Gasket—Thrust End Cover	Buna		
360D	1	Gasket—Frame-to-Adapter	Buna		
360Q	1	Gasket—Gland-to-Stuffing Box Cover	Material varies		
361A	1	Retaining Ring	Steel		
370	****	Bolt—Adapter to Case	2228		
370B	4	Bolt—Frame-to-Adapter	2210		
370C	**	Clamp Bolt —Bearing Housing	2210		
370D	**1	Jack Bolt—Bearing Housing	2210		
370F	2	Bolt—Frame Foot to Frame	2210		
370H	2	Stud—Stuffing Box Cover-to-Adapter	2228		
370Y	2	Bolt—Cap Casing to Support	–	–	–
371C	6 ***	Cap Screw-End Cover to Bearing Housing	2210		
382	1	Bearing Lockwasher	Steel		
383	1	Mechanical Seal	Material varies		
400	1	Coupling Key	2210		
408A	1	Plug—Oil Drane	2210		
408H	4	Plug—Oil Mist Connection	2210		
408J	1	Plug—Oiler	2210		
408L	1	Plug—Oil Cooler Inlet	2210		
408M	1	Plug—Oil Cooler Outlet	2210		
408N	1	Plug—Sight Glass	2210		
412A	1	O-Ring, Graphoil Impeller	–	–	–
418	3	Jack Bolt—Adapter-to-Case	2228		
423	3	Jam Nut—Bearing Housing Jack Bolt	2210		
423B	2	Hex Nut—Stuffing Box Cover to Adapter	2228		
428	1	Gasket, Plug	Teflon		
437	1	Lockwasher, Casing to Support	–	–	–
458Y	1 ***	Plug, Impeller	2156	–	–
469B	2	Dowel Pin—Frame-to-Adapter	Steel		
494	1	Tube Element, Finned Cooled	304SS / Copper		
496	1	O-Ring Bearing Housing	Buna N		
412A	1	O-Ring—Impeller	Viton		
497F	1	O-Ring—Outboard Labyrinth Rotor	Viton		
497G	1	O-Ring—Outboard Labyrinth Stator	Viton		
497H	1	O-Ring—Inboard Labyrinth Rotor	Viton		
497J	1	O-Ring—Inboard Laybrinth Stator	Viton		
497L	1	O-Ring Internal (inboard)	Viton		

Item	Quantity	Part name	Pump Material (3196, HT 3196, CV 3196, 3796)	Pump Material (NM 3196)	Pump Material (3198)
			All Titanium	Vinylester	D.I./Teflon
497N	1	O-Ring Internal (outboard)	Viton		
503	1	Adapter Ring	1013		
529	1	Lockwasher—Frame Foot-to-Bearing Frame	Steel		
555	1	Tube, Finned Cooling Assembly	304AA / Copper		
555A	1	Tube, Ftg Male (Frame Cooling)	Brass		
555B	2	Connector, Thermocouple (Frame Cooling)	Brass		
555C	2	Elbow, Female (Frame Cooling)	Brass		
555D	1	Conn TC Sealed PWR	Cast iron		
761B	1	i-ALERT™ Condition Monitor	Stainless steel/epoxy		

Table 25: Key to table symbols

—	Not applicable
*	Only applicable for HT 3196
**	3 for STi, MTi
****	4 for 6 in. STi 8 for 8 in. STi and MTi 16 for 13 in. MTi 12 for 10 in. MTi

Table 26: Material-code reference

Material	Goulds material code	ASTM	Din	ISO	JIS
Cast Iron	1001	A48 CLASS 20			
Ductile Iron	1012	A395 Gr60-40-18			
Ductile Iron	1013	A536 Gr60-42-10			
CD4MCu	1041	A744 CD4MCU			
Monel	1119	A494 GrM-35-1			
316SS	1203	A744 CF-8M	1.4408		G5121 (SC514)
Alloy 20	1204	A744CN-7M	1.4500		
317SS	1209	A744CG-8M	1.4448		
Hastelloy C	1215	A494 CW-6M			
CD4MCu	1216	A744CD4MCU	9.4460		
Hastelloy B	1217	A494 N-7M			
Titanium	1220	B367 GrC-3			
Nickel	1601	A494 GrCZ100			
Monel	2150	B164 UNS N04400			
Nickel	2155	B160 UNS N02200			
Titanium	2156	B348 Gr2			
Carbon Steel	2201	A576 Gr. 1018 and 1020			
Carbon Steel	2210	A108Gr1211			

Material	Goulds material code	ASTM	Din	ISO	JIS
304SS	2228	A276 Type 304			
316SS	2229	A276 Type 316			
Alloy 20	2230	B473 (N08020)			
317SS	2232	A276			
4150 Steel	2237	A322Gr4150			
4140 Steel	2238	A434Gr4140			
4140 Steel	2239	A193 Gr. B7			
Alloy B-2	2247	B335 (N10665)			
Alloy C-276	2248	B574 (N10276)			
GMP-2000	6929	N/A			
PFA Lined Steel	6944	N/A			
PFA Lined 316SS	6947	N/A			
PFA Lined Ductile Iron	9639	N/A			

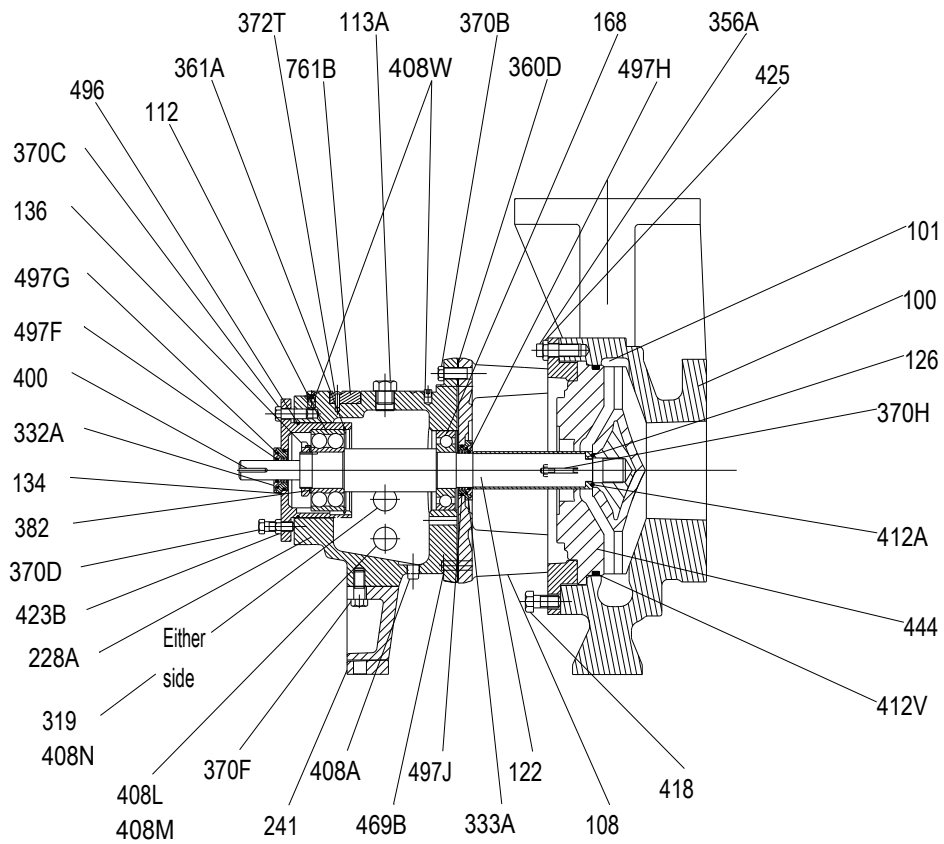


Figure 31: NM 3196 cross-sectional drawing

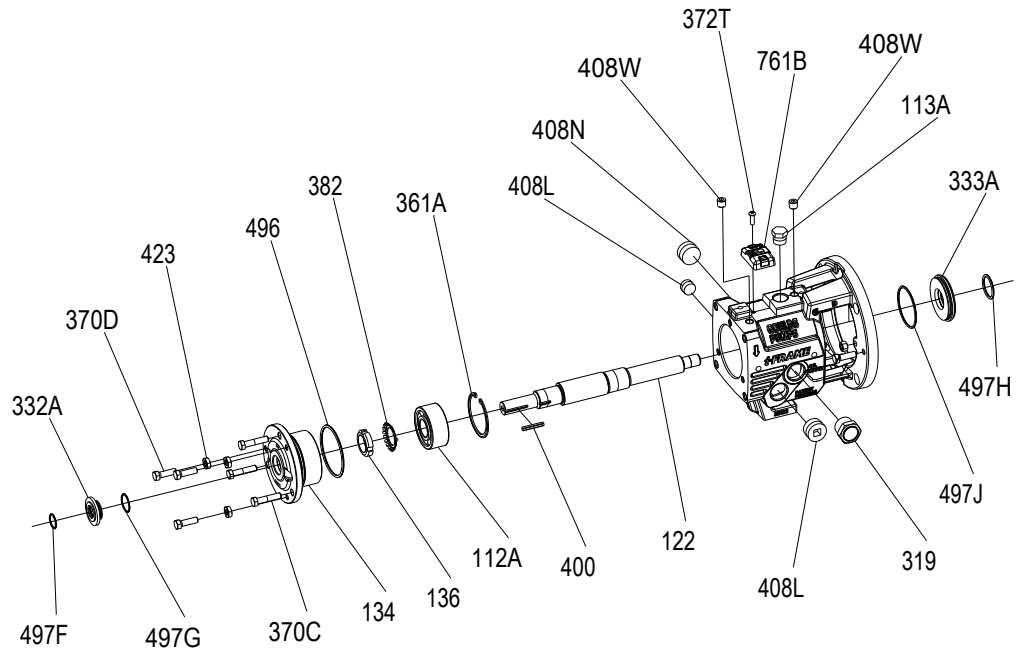


Figure 32: STi bearing-frame exploded view

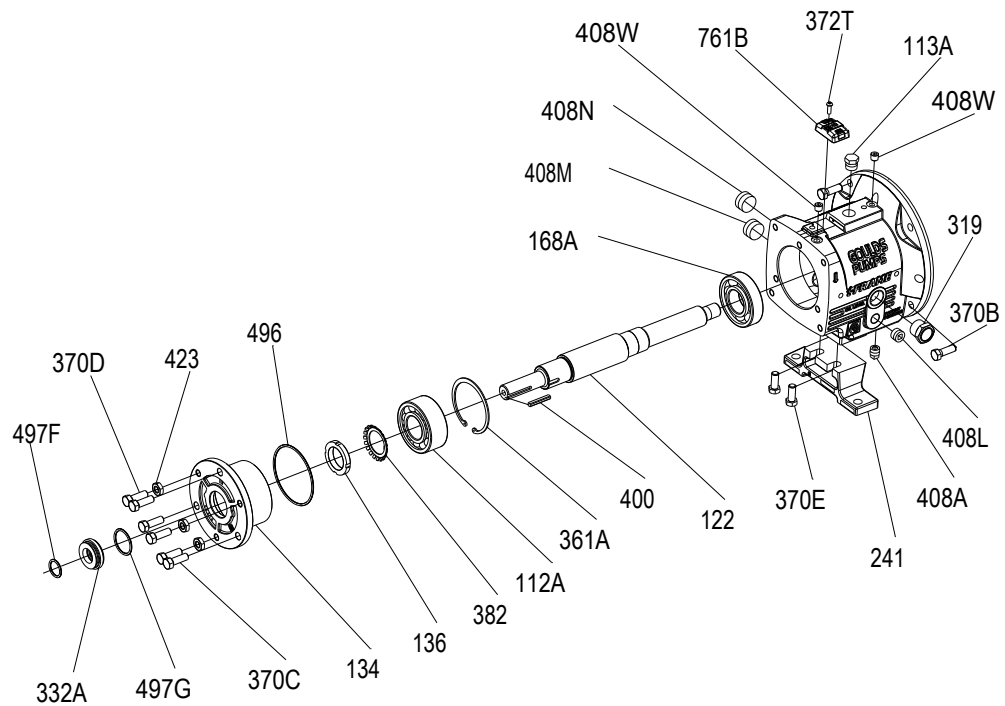


Figure 33: MTi bearing-frame exploded view

The finned-tube oil cooler is standard on HT 3196 and optional on all other models.

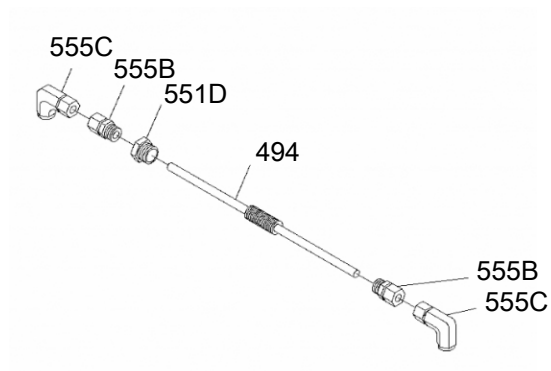


Figure 34: Finned-tube oil cooler exploded view