



## CENTRIFUGAL LIQUID CHILLERS

RENEWAL PARTS

Supersedes: 160.75-RP1 (811)

Form 160.75-RP1 (1113)

### UNIT COMPONENTS MODEL YK (STYLE G)



LD15222



Issue Date:  
November 15, 2013

# IMPORTANT!

## READ BEFORE PROCEEDING!

### GENERAL SAFETY GUIDELINES

This equipment is a relatively complicated apparatus. During installation, operation maintenance or service, individuals may be exposed to certain components or conditions including, but not limited to: refrigerants, materials under pressure, rotating components, and both high and low voltage. Each of these items has the potential, if misused or handled improperly, to cause bodily injury or death. It is the obligation and responsibility of operating/service personnel to identify and recognize these inherent hazards, protect themselves, and proceed safely in completing their tasks. Failure to comply with any of these requirements could result in serious damage to the equipment and the property in

which it is situated, as well as severe personal injury or death to themselves and people at the site.

This document is intended for use by owner-authorized operating/service personnel. It is expected that this individual possesses independent training that will enable them to perform their assigned tasks properly and safely. It is essential that, prior to performing any task on this equipment, this individual shall have read and understood this document and any referenced materials. This individual shall also be familiar with and comply with all applicable governmental standards and regulations pertaining to the task in question.

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### SAFETY SYMBOLS

The following symbols are used in this document to alert the reader to specific situations:



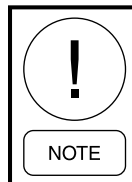
*Indicates a possible hazardous situation which will result in death or serious injury if proper care is not taken.*



*Identifies a hazard which could lead to damage to the machine, damage to other equipment and/or environmental pollution if proper care is not taken or instructions are not followed.*



*Indicates a potentially hazardous situation which will result in possible injuries or damage to equipment if proper care is not taken.*



*Highlights additional information useful to the technician in completing the work being performed properly.*



*External wiring, unless specified as an optional connection in the manufacturer's product line, is not to be connected inside the OptiView cabinet. Devices such as relays, switches, transducers and controls and any external wiring must not be installed inside the micro panel. All wiring must be in accordance with Johnson Controls' published specifications and must be performed only by a qualified electrician. Johnson Controls will NOT be responsible for damage/problems resulting from improper connections to the controls or application of improper control signals. Failure to follow this warning will void the manufacturer's warranty and cause serious damage to property or personal injury.*

## CHANGEABILITY OF THIS DOCUMENT

In complying with Johnson Controls' policy for continuous product improvement, the information contained in this document is subject to change without notice. Johnson Controls makes no commitment to update or provide current information automatically to the manual owner. Updated manuals, if applicable, can be obtained by contacting the nearest Johnson Controls Service office or accessing the Johnson Controls QuickLIT website at <http://cgproducts.johnsoncontrols.com>.

Operating/service personnel maintain responsibility for the applicability of these documents to the equipment. If there is any question regarding the applicability of

these documents, the technician should verify whether the equipment has been modified and if current literature is available from the owner of the equipment prior to performing any work on the chiller.

### CHANGE BARS

Revisions made to this document are indicated with a line along the left or right hand column in the area the revision was made. These revisions are to technical information and any other changes in spelling, grammar or formatting are not included.

MANUAL DESCRIPTION	FORM NUMBER
Variable Speed Drive – Operation	160.00-O1
Solid State Starter – Operation and Maintenance	160.00-O2
Floor Mounted MV SSS – Operation	160.00-O5
Unit Mounted MV SSS – Operation	160.00-O7
Installation – Unit	160.75-N1
Optiview™ Control Center – Operation and Maintenance	160.54-O1
Wiring Diagram – Field Connections for YK Chiller (Style G) OptiView Control Center with Remote Low or Medium Voltage EMS or Unit Mounted Low or Medium Voltage SSS	160.75-PW1
Wiring Diagram – Field Connections for YK Chiller (Style G) OptiView Control Center with Remote Medium Voltage SSS	160.75-PW2
Wiring Diagram – Field Connections for YK Chiller (Style G) OptiView Control Center with Remote Medium Voltage VSD	160.75-PW3
Wiring Diagram – Field Control Modifications for YK Chiller (Style G)	160.75-PW4
Wiring Diagram – YK Chiller (Style G) OptiView Control Center with Remote Low or Medium Voltage EMS	160.75-PW5
Wiring Diagram – YK Chiller (Style G) OptiView Control Center with Unit Mounted Low or Medium Voltage SSS, Unit Mounted Low Voltage VSD with Modbus, or Remote Medium Voltage VSD	160.75-PW6
Wiring Diagram – YK Chiller (Style G) OptiView Control Center with LTC I/O Board with Remote Low or Medium Voltage EMS	160.75-PW7
Wiring Diagram – YK Chiller (Style G) OptiView Control Center w/ LTC I/O Board with Unit Mounted Low or Medium Voltage SSS, Unit Mounted Low Voltage VSD with Modbus or Remote Medium Voltage VSD	160.75-PW8
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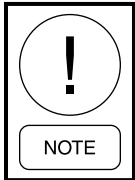
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## Q3 - Q6 COMPRESSORS UNIT COMPONENTS

**TABLE 1 - UNIT COMPONENTS (Q3-Q6 COMPRESSORS)**

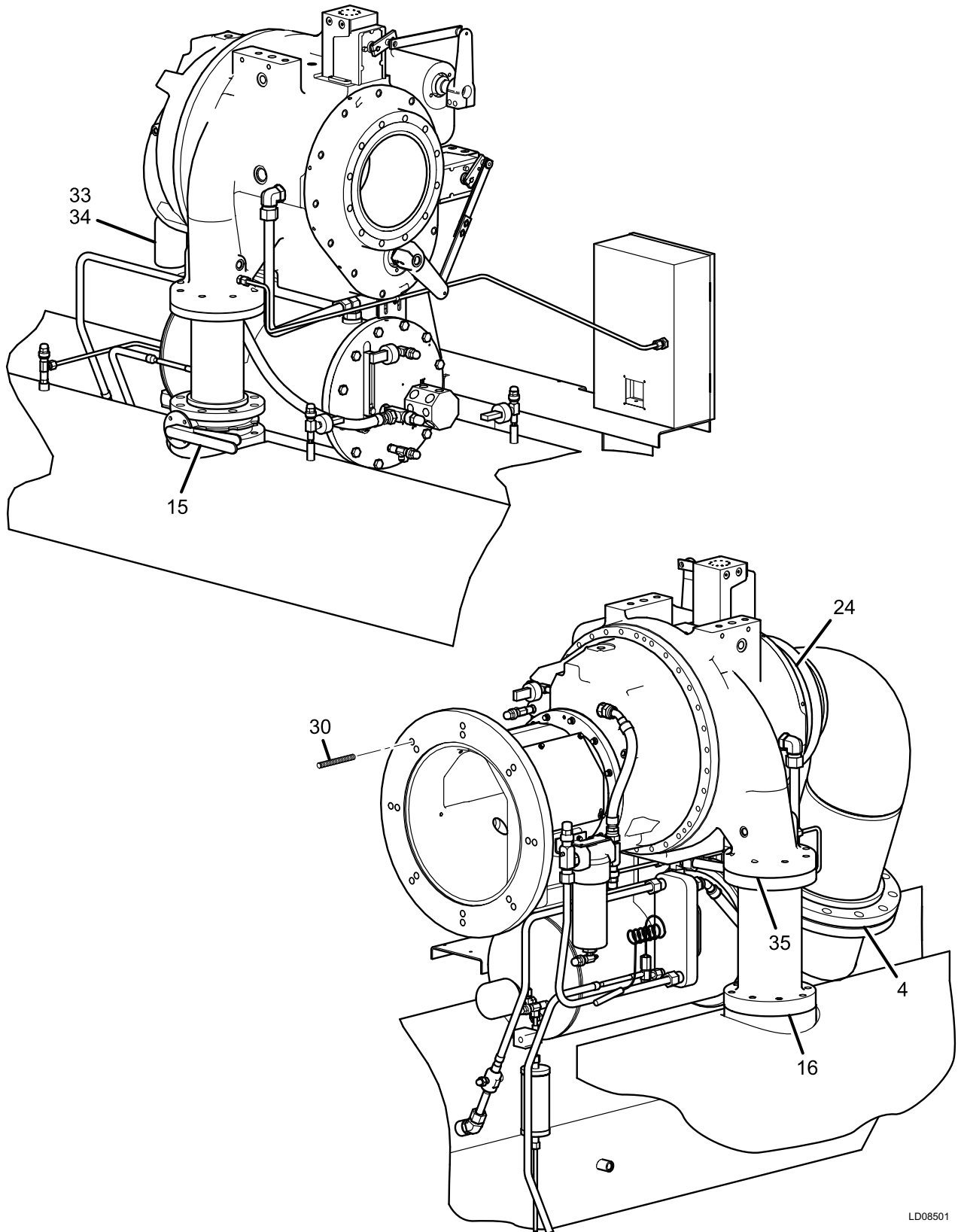
ITEM	DESCRIPTION	PART NUMBER	QUANTITY	FIGURE
4	Gasket, ANSI 10-150# Garlock (Q3/Q4)	028-15075-014	1	1
	Gasket, ANSI 12-150# Garlock (Q5/Q6/Q7)	028-15075-015	1	
7	O-ring, Neoprene 2.6 Id .210 Thk (2" Flange)	028-14469-000	1	*
8	O-ring, Neoprene 3.1 Id .210 Thk (2-1/2" Flange)	028-12597-000	1	*
15	Valve, Butterfly Size 5" (Q3/Q4)	022-10641-005	1	1
	Valve, Butterfly Size 6" (Q5/Q6)	022-10641-006	1	
16	Gasket, ANSI 5-150# Garlock (Q3/Q4)	028-15075-011	1	1
	Gasket, ANSI 6-150# Garlock (Q5/Q6/Q7)	028-15075-012	1	
24	Gasket (Q3/Q4)	028-15129-301	1	1
	Gasket (Q5/Q6/Q7)	028-15129-302	1	
30	Stud, Conts Thd 3/4-10 x 3-1/2	021-12772-000	8	1
33	Bottle, High Density	028-10579-000	1	1
34	Cap, High Density Bottle	066-89574-000	1	1
35	O-ring, Neoprene 5.975 Id .210 Thk (Q3/Q4)	028-14482-000	1	1
	O-ring, Neoprene 7.475 Id .210 Thk (Q5/Q6/Q7)	028-15061-000	1	

**NOTE:** Items with an \* are NOT represented.



*If the Discharge Spool Assembly is stamped with a "G" on the flanges it requires two gaskets (item 16).*

### Q3 - Q6 COMPRESSORS UNIT COMPONENTS



**FIGURE 1 - UNIT COMPONENTS (Q3-Q6 COMPRESSORS)**

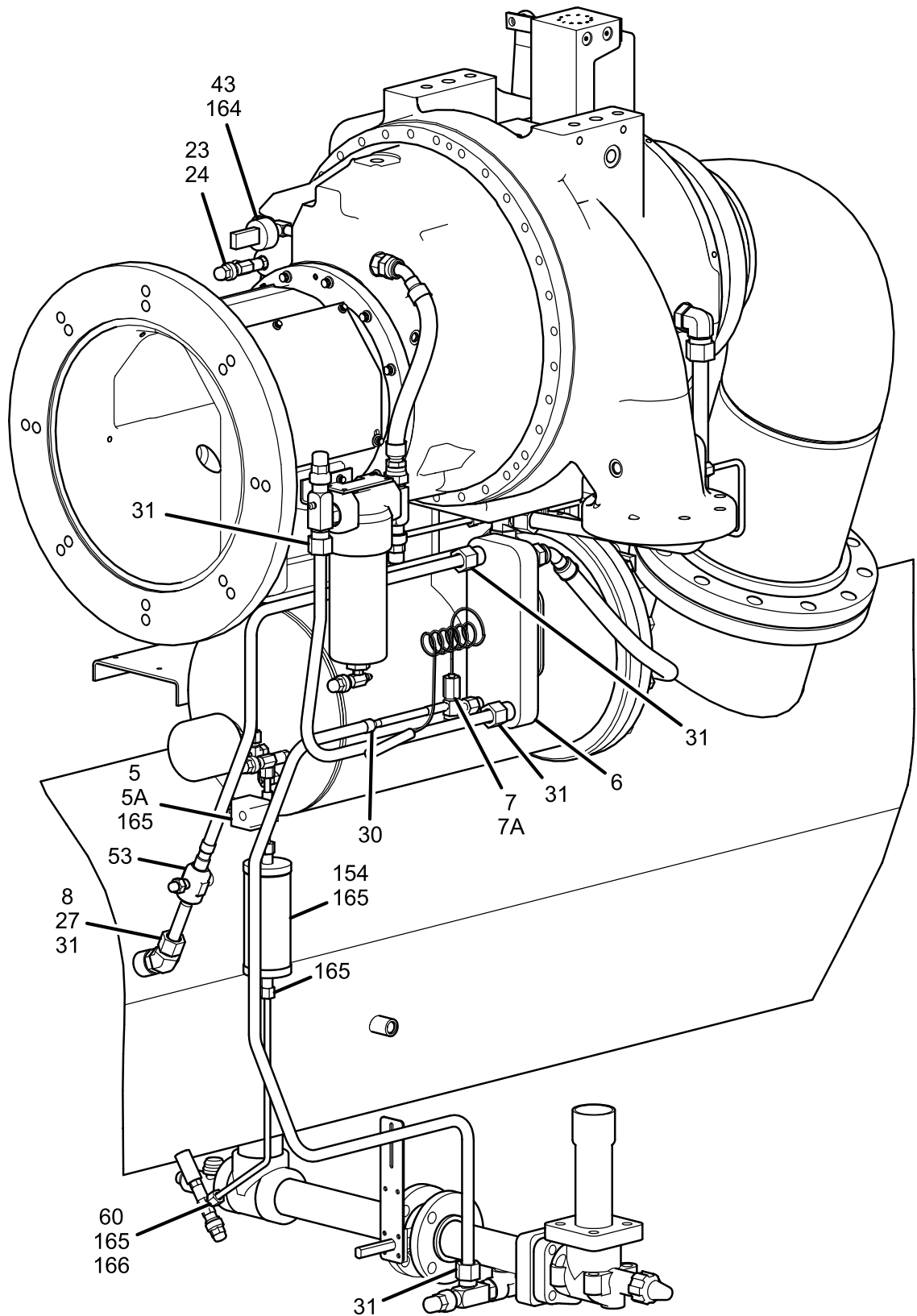
## Q3 - Q7 COMPRESSORS UNIT PIPING

**TABLE 2 - UNIT PIPING (Q3-Q7 COMPRESSORS)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY	FIGURE
5	Solenoid, Valve 3/8 ORFS	025-35150-001	1	2
5A	Coil, Service Replacement	025-37841-001	1	
6	Cooler, Oil	026-37549-000	1	2/4
7	Valve, Thermal Expansion	025-35133-000	1	2
7A	O-ring, Neoprene .489ID .070THK	028-12961-013	1	
8	Elbow, 3/4 OD Tube Male	023-18291-000	1	2
9	Elbow, 1" OD Tube 90° Male	023-18292-000	2	3/4
13	Hose, Refrig. ORFS 3/4 x 28	026-39123-028	1	3
17	Elbow, 3/8 OD x .035 x 8-12	023-18990-000	3	4
23	Gasket, Flare 3/8 OD Tube	028-01258-000	2	2/3
24	Cap, Flare 3/8 OD Tube	023-00977-000	2	2
26	O-ring, Neoprene .489 ID .070 Thk	028-12961-013	1	*
27	O-ring, Neoprene .924 Id .116 Thk	028-12961-006	1	2
30	Coupling, Sld C x C 3/4 x 1/2	023-16299-000	1	2
31	O-ring, Neoprene .739 Id .070 Thk	028-12961-015	7	2/3/4
32	O-ring, Neoprene .926 Id 0.70 Thk	028-12961-016	2	4
43	Transducer, Pressure	025-28678-006	3	2/3
44	Transducer, Pressure	025-28678-112	1	3
46	Connr, 3/8 OD Tube Male	023-18976-000	1	*
47	Fitting, 3/8 x 3/8 OD Tube Male	023-23701-000	1	3
	Fitting, 3/4 x 3/8 OD Tube Male (Q3/Q4 after 2/2010)	023-25118-000	1	
	Connector, 3/8 OD Tube Male (Q3-Q7 after 12/2011)	023-25551-000	1	
53	Valve, Ball 3/4 ID x 3/4 OD M	022-11685-000	1	2
55	Bottle, High Density	028-10579-000	1	*
58	Valve, Stop Angle Vertical	022-09577-000	3	3
59	O-ring, Neoprene .351 Id .072 Thk	028-12961-001	3	3
154	Filter, Drier 3/8 ORFS	026-37563-000	1	2
164	O-ring, Neoprene .414 Id x .072 Thk	028-12961-002	3	2/3
165	O-ring, Neoprene .364 Id x .070 Thk	028-12961-012	11	2/3/4
166	O-ring, Neoprene .468 Id x .078 Thk	028-12961-003	7	3/4
167	O-ring, Neoprene 1.17 Id x .116 Thk	028-12961-008	2	3/4
168	Drain Plug, Condenser	023-18282-000	1	*
169	O-ring, Drain Plug	028-12961-008	1	*
170	Sight Glass, Cond / Evap	023-17197-000	2	*
171	O-ring, Sight Glass	028-12961-036	2	*
172	Valve, Cond / Evap	022-09573-000	2	22
173	Gasket, Service Valve	028-04836-000	2	22

**NOTE:** Items with an \* are NOT represented.

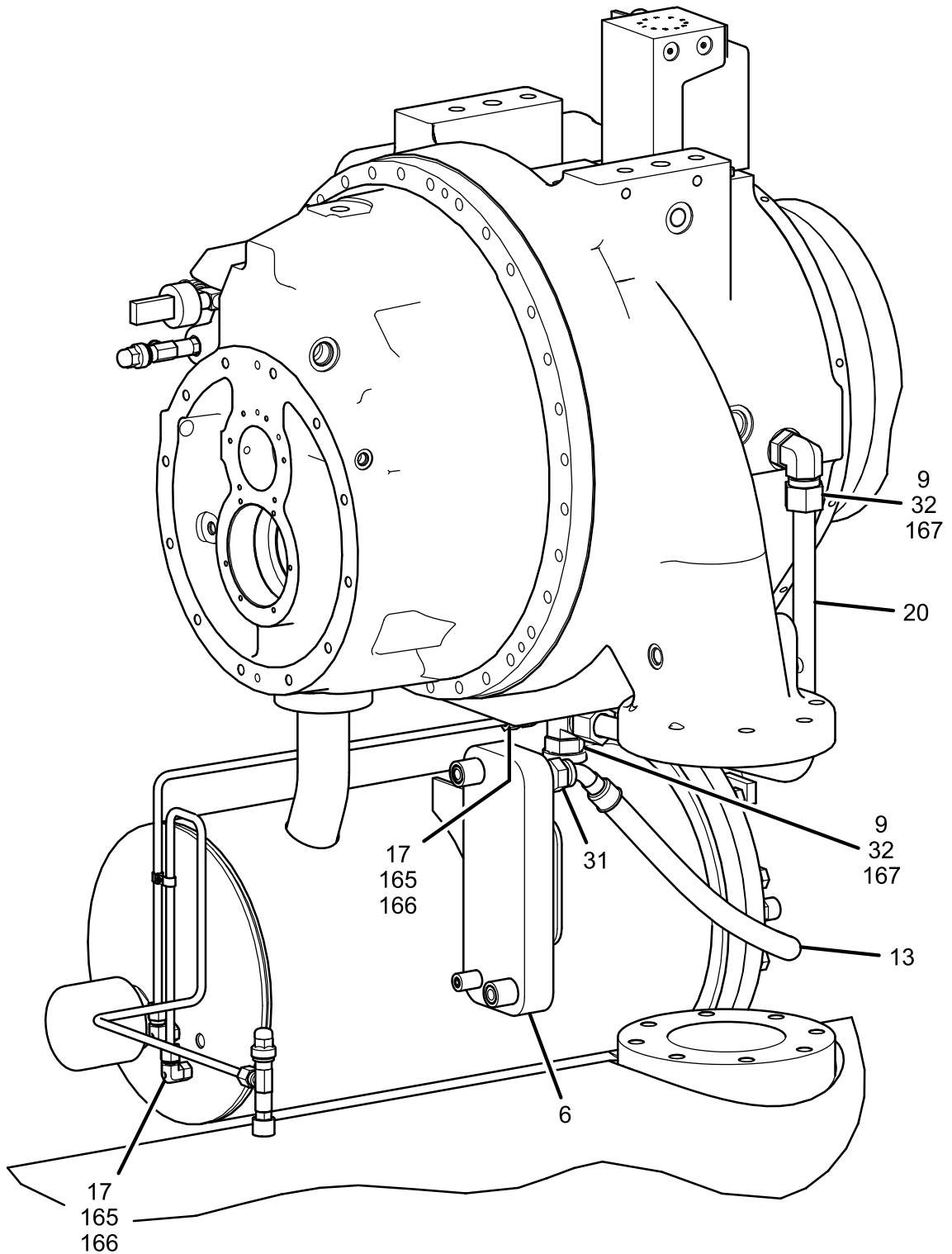
### Q3 - Q7 COMPRESSORS UNIT PIPING



**FIGURE 2 - UNIT PIPING (Q3 - Q7 COMPRESSORS)**



### Q3 - Q7 COMPRESSORS UNIT PIPING (CONT'D)



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**FIGURE 4 - UNIT PIPING (Q3 - Q7 COMPRESSORS)**

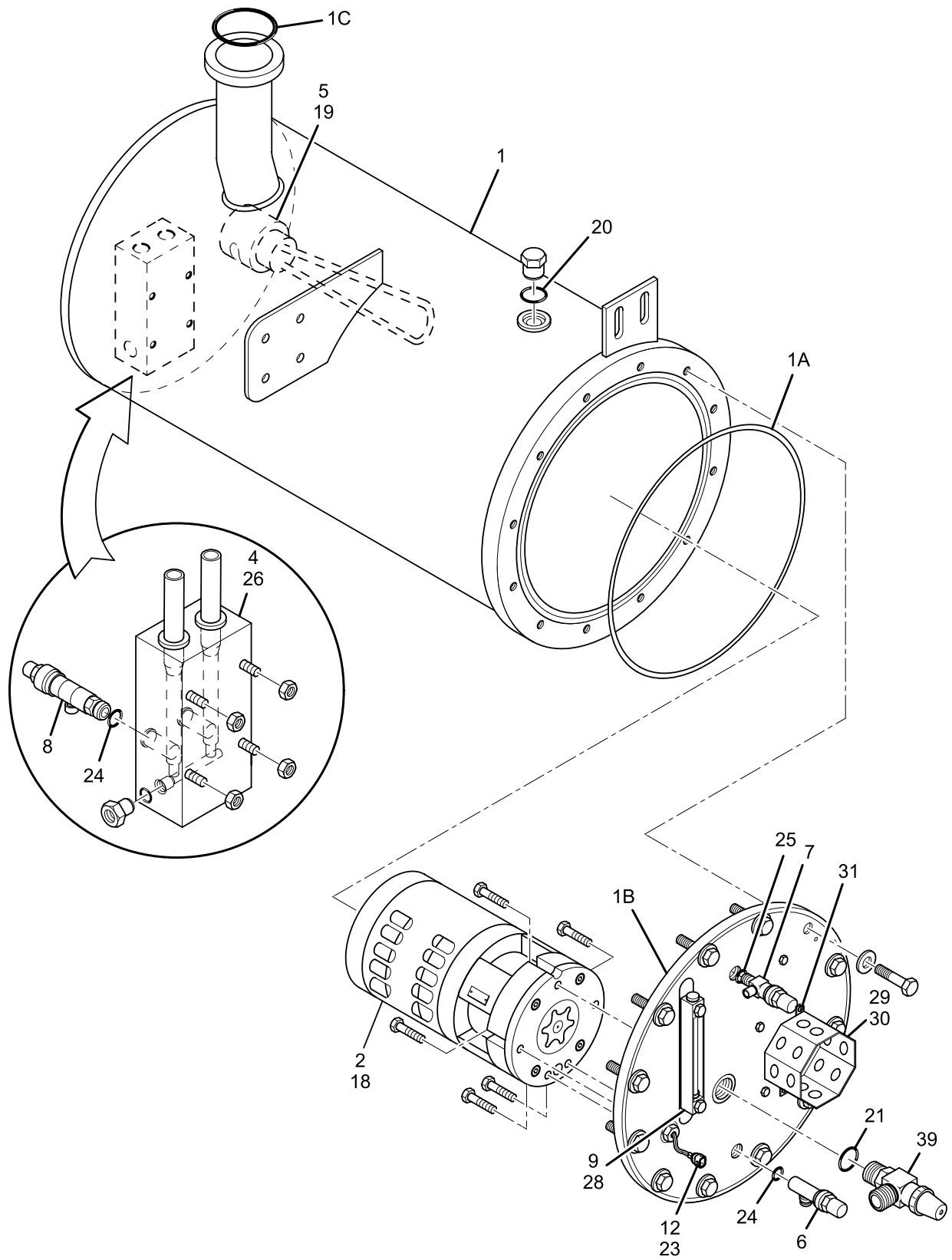
## Q3 - Q7 COMPRESSORS OIL PUMP HOUSING (Q3 - Q7 COMPRESSORS)

**TABLE 3 - OIL PUMP HOUSING (Q3-Q7 COMPRESSORS)**

ITEM	DESCRIPTION	PART NUMBER	FIGURE
1	Body, Oil Pump Housing (Q3-Q4) (Complete)	375-72177-001	5
	Body, Oil Pump Housing (Q3-Q4) (Canada) (Complete)	375-72178-000	
	Body, Oil Pump Housing (Q5-Q7) (Complete)	375-72193-001	
	Body, Oil Pump Housing (Q5-Q7) (Canada) (Complete)	375-72194-000	
1A	O-ring, Cover Plate (All)	028-11977-000	
1B	Cover Plate (Q3-Q7)	075-46360-000	
1B	Cover Plate (Q3-Q7 Canada)	075-54037-000	
1C	O-ring, Neoprene 2.600ID .210THK	028-14469-000	
2	Pump, Oil 20 GPM YK (Q3/Q4 prior 7/2010)	026-37937-000	5
	Pump, Oil 20 GPM YK (Q3/Q4 after 7/2010)	026-46326-002	
4	Block, Oil Educator Special K	026-37553-000	5
5	Heater, Electric Immer (1,000 W)	025-34523-000	5
6	Valve, Stop Angle Vertical	022-09578-000	5
7	Valve, Stop Angle Vertical	022-09577-000	5
8	Valve, Stop Angle Vertical	022-10054-000	5
9	Gage, Liquid Level Sight Front	026-37571-000	5
12	Sensor, Temp. 50,000 OHMS DIN	025-39993-000	5
13	Terminal, HV Fused Glass	025-32933-000	*
16	Baffle, Oil Pump Housing	092-07827-000	*
18	Screw, Cap Hex Soc Hd 3/8	021-08946-000	5
19	O-ring, Neoprene 01.734id .139 Thk	028-05188-000	5
20	O-ring, Neoprene 01.171id .116 Thk	028-12961-008	5
21	O-ring, Neoprene 0.924id .116 Thk	028-12961-006	5
23	O-ring, Neoprene 0.644id .087 Thk	028-12961-004	5
24	O-ring, Neoprene 0.468id 0.78 Thk	028-12961-003	5
25	O-ring, Neoprene 0.351id 0.772 Thk (Terminal)	028-12961-001	*
26	O-ring, Neoprene 0.612id .103 Thk	028-11999-000	5
27	O-ring, Neoprene 2.600id 0.210 Thk	028-14469-000	5
28	O-ring, Neoprene 0.487id .103 Thk	028-12961-035	5
29	Box, Elec 4 Octagon x 4 Deep	025-33238-000	5
	Box, Elec with Filter Board (after 11/2011)	025-45067-000	
30	Cover, Filter Outout Assy.	375-26580-000	5
31	Screw, Mach Pan Head Recd	021-03741-000	5
33	Terminal, Push-on Str 14-10 (200-346)	025-09455-000	*
34	Terminal, Push-on Str 18-14 (380-416, 440-600)	025-25920-000	*
35	Strap, Cable T and B L7-50-9-M	025-09607-000	5
36	Cap, Sealing Caplug 250	028-04574-000	5
37	Insr, Elec	025-10371-000	5
38	Ferr, Splice Cap	025-10372-000	5
39	Valve, Stop Angle	022-10047-000	5
40	Plate, Oil Pump Mtg Machining (Canada)	075-54038-000	5
41	Pin, Slot Spg 3/16 x 1/2 (Canada)	029-04138-000	5

**NOTE:** Items with an \* are NOT represented.

### Q3 - Q7 COMPRESSORS OIL PUMP HOUSING ASSEMBLY (Q3 - Q7 COMPRESSORS)



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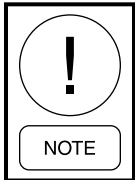
**FIGURE 5 - OIL PUMP HOUSING ASSEMBLY (Q3 - Q7 COMPRESSORS)**

## Q7, P7 - P9, AND H9 COMPRESSORS UNIT COMPONENTS

**TABLE 4 - UNIT COMPONENTS (Q7, P7-P9 & H9 COMPRESSORS)**

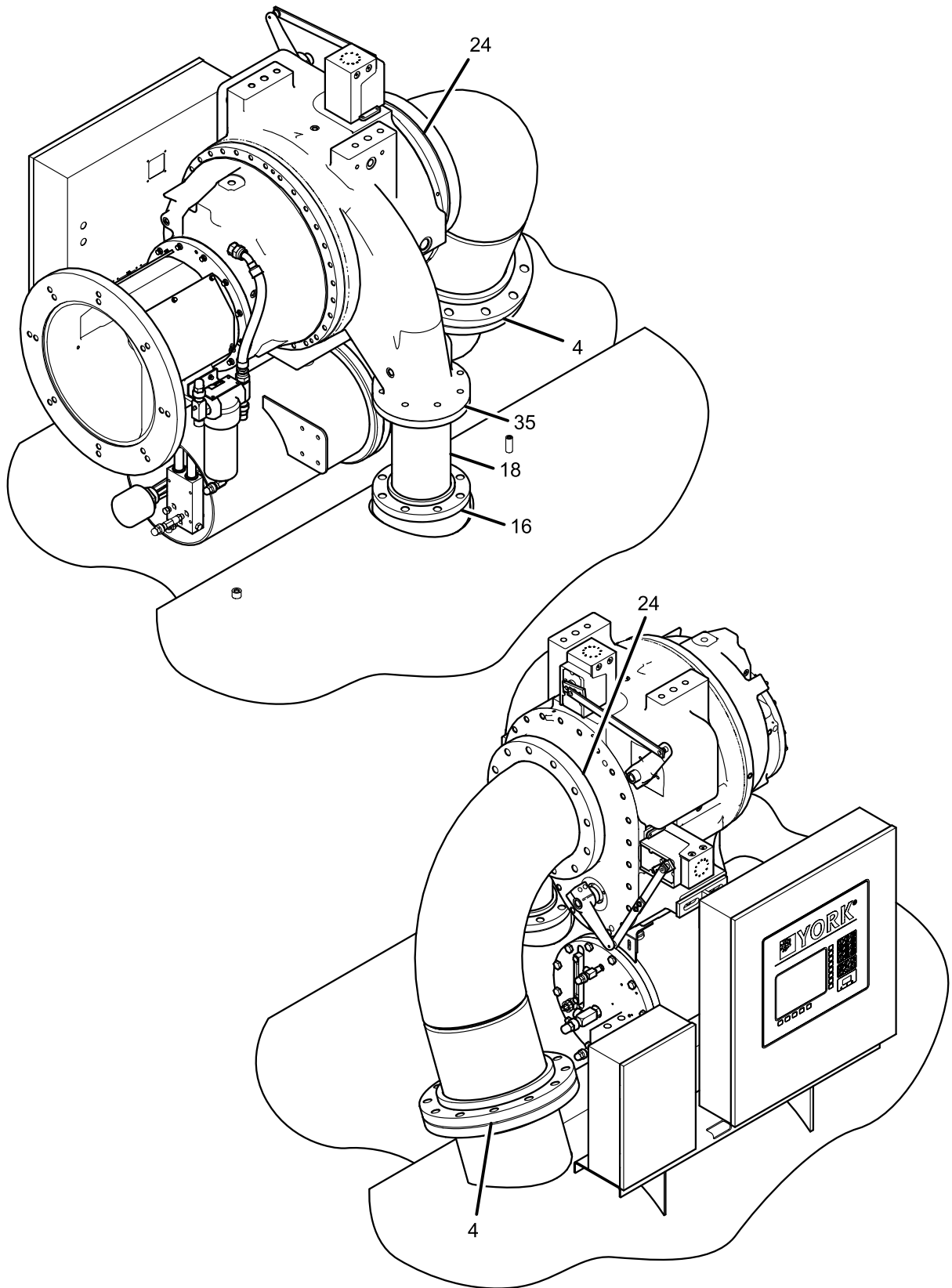
ITEM	DESCRIPTION	PART NUMBER	QUANTITY	FIGURE
4	Gasket, ANSI 12-150# (Q7 and P7)	028-15075-015	1	6
	Gasket, 14-150# (P8, P9 and H9)	028-15075-016	1	
7	O-ring, Neoprene 2.60 Id .21 Thk (2" Flange)	028-14469-000	1	*
8	O-ring, Neoprene 3.10 Id .21 Thk (2-1/2" Flange)	028-12597-000	1	*
15	Valve, Butterfly 6" (Q7 and P7)	022-10641-006	1	8
	Valve, Butterfly 8" (P8, P9 and H9)	022-10641-008	1	
16	Gasket, ANSI 6-150# (Q7 and P7)	028-15075-012	1	6
	Gasket, ANSI 8-150# (P8, P9 and H9)	028-15075-013	1	
24	Gasket (Q7 and P7)	028-15129-302	1	6
	Gasket (P8, P9 and H9)	028-15129-303	1	
35	O-ring, Neoprene 7.47 ID .210 Thk (Q7 and P7)	028-15061-000	1	6
	O-ring, Neoprene 9.475 ID .210 Thk (P8, P9 and H9)	028-15319-000	1	

**NOTE:** Items with an \* are NOT represented.



***If the Discharge Spool Assembly is stamped with a "G" on the flanges it requires two gaskets (item 16).***

### Q7, P7 - P9, AND H9 COMPRESSORS UNIT COMPONENTS



LD13169

**FIGURE 6 - UNIT COMPONENTS (Q7, P7 - P9, AND H9 COMPRESSORS)**

## Q7, P7 - P9 AND H9 COMPRESSORS UNIT PIPING

**TABLE 5 - UNIT PIPING (Q7, P7-P9 & H9)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
5	Valve, Solenoid 3/8 ORFS	025-35150-001	1	7
5A	Coil, Service Replacement	025-37841-001	1	6
6	Cooler, Oil Special K (Q7) (P7, P8 and H9 Before 1-21-2008)	026-37549-000	1	7/9
	Cooler, Oil Special K (P7 After 1-21-2008)	026-37909-000	1	
	Cooler, Oil Special K (P8, P9 and H9 After 1-21-2008)	026-41701-000	1	
7	Valve, Thermal Expansion (Q7)	025-35133-000	1	7
	Valve, Thermal Expansion (P7-P9 and H9)	025-38170-000	1	
8	Connr, 3/4" OD Tube Male	023-20272-000	1	*
9	Elbow, 1" OD Tube 90° Male	023-18292-000	2	8
13	Hose, Refrig. ORFS 3/4" x 28	026-39123-028	1	7/8/9
14	Filter In-Line ORFS	023-20878-001	1	7
17	Elbow, 3/8" OD Tube 90° Male	023-18980-000	3	89
23	Gasket, Flare 3/8" OD Tube	028-01258-000	2	7/9
24	Cap, Flare 3/8" OD Tube	023-00977-000	2	7/8/9
26	O-ring, Neoprene .489 ID .070 THK	028-12961-013	1	7
27	O-ring, Neoprene .924 ID .116 THK	028-12961-006	1	7
30	Coupling, SLD C x C 3/4" x 1/2"	023-16299-000	1	7
31	O-ring, Neoprene .739 ID x .070 THK	028-12961-015	7	7/8/9
32	O-ring, Neoprene .926 ID x .070 THK	028-12961-016	2	8
43	Transducer, Pressure	025-28678-006	3	8
44	Transducer, Pressure	025-28678-112	1	8
47	Fitting, 3/8" OD Tube Male (prior 9/2011)	023-23701-000	1	8
	Fitting, 3/8" OD Tube Male (after 9/2011)	023-25551-000		
53	Valve, Ball 3/4" ID x 3/4" OD	022-11685-000	1	7
55	Bottle, High Density	028-10579-000	1	8
58	Valve, Stop Angle	022-09577-000	1	7
59	O-ring, Neoprene .351 OD x .072 THK	028-12961-001	1	7
60	Valve, Stop Angle	022-10054-000	1	6
154	Filter, Drier 3/8" ORFS	026-37563-000	1	7
162	Valve, Stop Angle	022-10054-000	1	7
164	O-ring, Neoprene .414 ID x .072 THK	028-12961-002	4	8
165	O-ring, Neoprene .364 ID x .070 THK	028-12961-012	10	7/8/9
166	O-ring, Neoprene .468 ID x .070 THK	028-12961-003	5	8/9
167	O-ring, Neoprene 1.17 ID x .116 THK	028-12961-008	5	7
168	Drain Plug, Condenser	023-18282-000	1	*
169	O-ring, Drain Plug 1.171ID .116TH	028-12961-008	1	*
170	Sight Glass, Cond./Evap	023-17197-000	2	*
171	O-ring, Sight Glass 2.090ID .118THK	028-12961-036	2	*
172	Valve, Service Cond./Evap	022-09573-000	2	22
173	Gasket, Service Valve	028-04836-000	2	22

**NOTE:** Items with an \* are NOT represented.

### Q7, P7 - P9 AND H9 COMPRESSORS UNIT PIPING

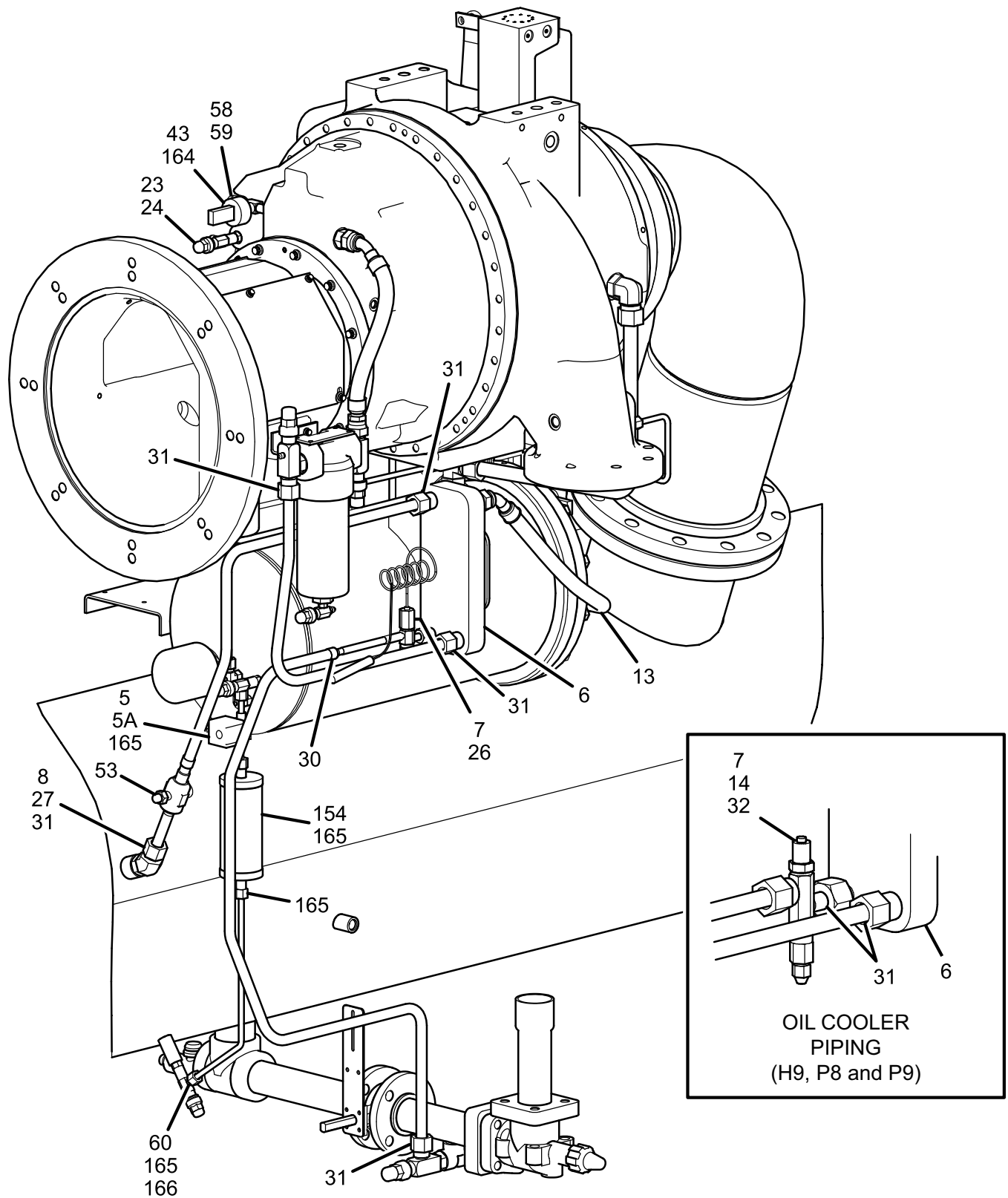
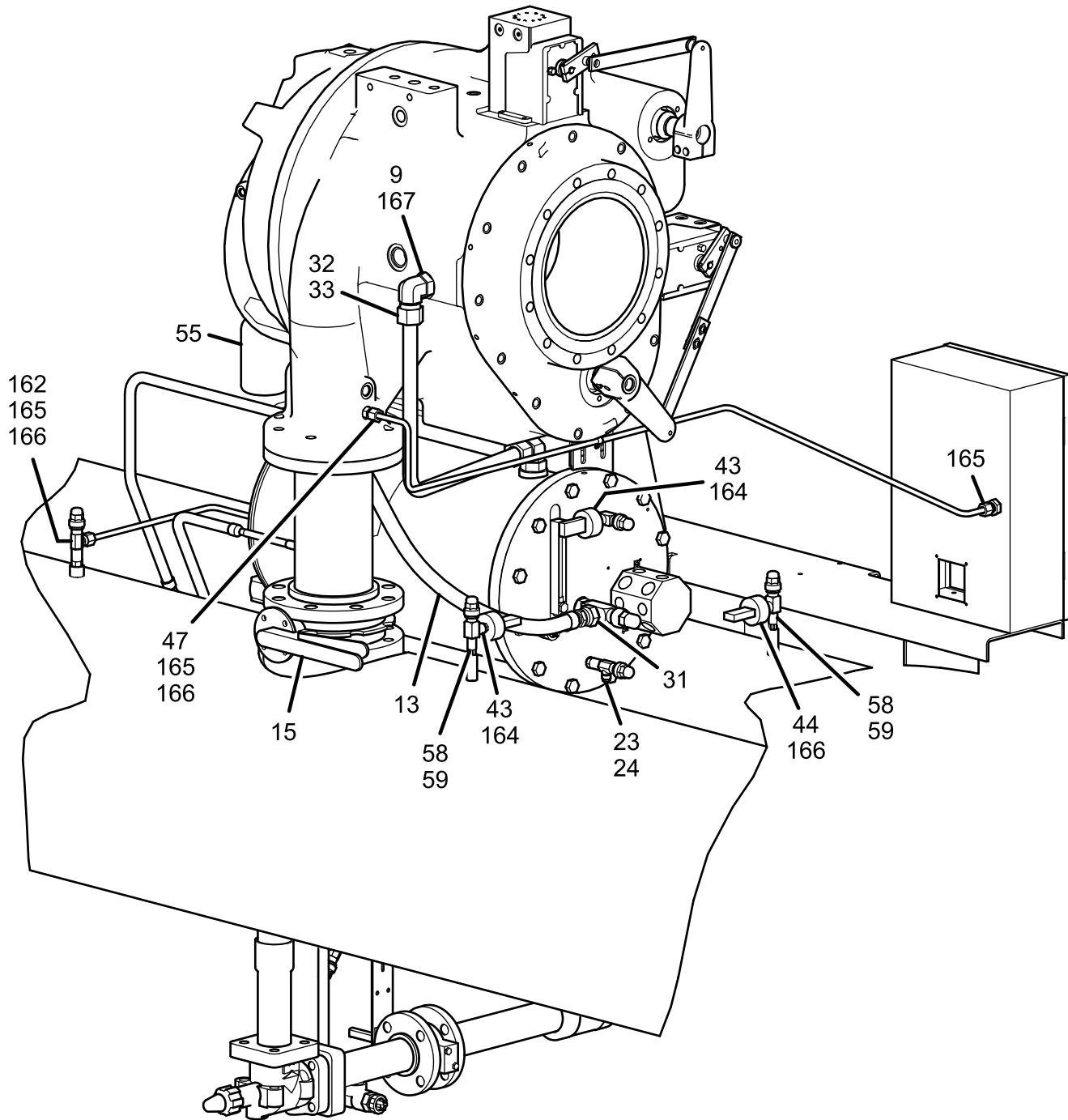


FIGURE 7 - UNIT PIPING (Q7, P7 - P9 AND H9 COMPRESSORS)

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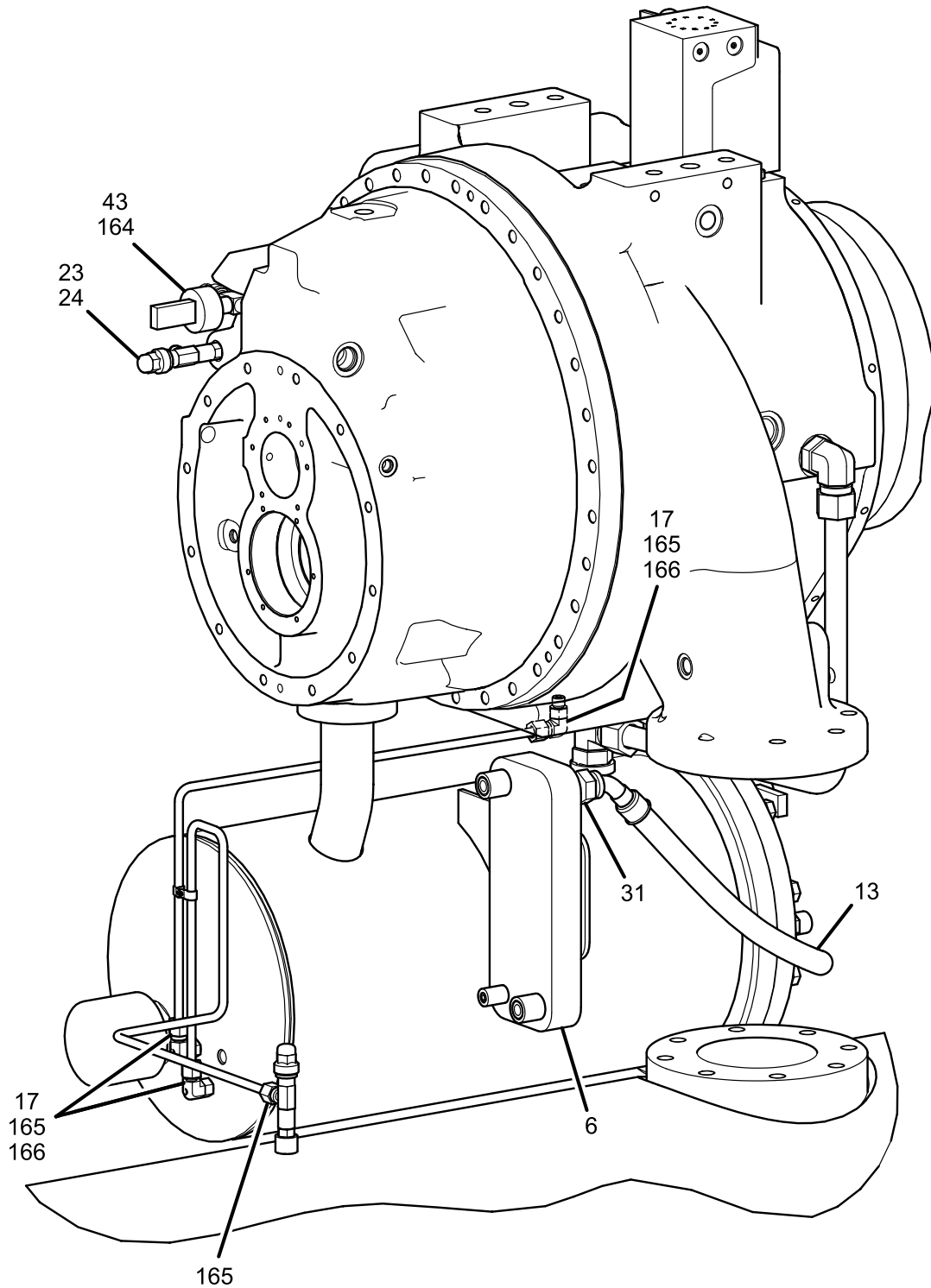
### Q7, P7 - P9 AND H9 COMPRESSORS UNIT PIPING (CONT'D)



LD13062

**FIGURE 8 - UNIT PIPING (Q7, P7 - P9 AND H9 COMPRESSORS)**

### Q7, P7 - P9 AND H9 COMPRESSORS UNIT PIPING (CONT'D)



LD13163

**FIGURE 9 - UNIT PIPING (Q7, P7 - P9 AND H9 COMPRESSORS)**

## P7 - P9 AND H9 COMPRESSORS OIL PUMP HOUSING (P7 - P9, AND H9 COMPRESSORS)

**TABLE 6 - OIL PUMP HOUSING (P7-P9 & H9)**

ITEM	DESCRIPTION	PART NUMBER	FIGURE
1	Body, Oil Pump Housing (P7) (Complete)	375-72195-001	10
	Body, Oil Pump Housing (P7) (Canada) (Complete)	375-72196-000	
	Body, Oil Pump Housing (P8 and P9) (Complete)	375-72197-001	
	Body, Oil Pump Housing (P8 and P9) (Canada) (Complete)	375-72198-000	
	Body, Oil Pump Housing (H9) (Complete)	375-72214-001	
	Body, Oil Pump Housing (H9) (Canada) (Complete)	375-72215-000	
1A	O-ring, Cover 13.475ID .275THK (All)	028-11977-000	
1B	Cover Plate (P7, P8, P9, and H9)	075-46360-000	
1B	Cover Plate (P7, P8, P9 and H9) (Canada)	075-54037-000	
1C	O-ring, Neoprene 3.100ID .210THK	028-12597-000	
2	Pump, Oil 20 GPM YK (prior 6/2010)	026-37937-000	10
	Pump, Oil 20 GPM YK (after 6/2010)	026-46326-002	
4	Block ,Oil Eductor Special K	026-37553-000	10
5	Heater, Electric Immer (3,000 W) (200-346)	025-32909-000	10
	Heater, Electric Immer (3,000 W) (380-416)	025-32917-000	
	Heater, Electric Immer (3,000 W) (440-480)	025-32918-000	
	Heater, Electric Immer (3,000 W) (500-600)	025-32920-000	
6	Valve, Stop Angle Vertical	022-09578-000	10
7	Valve, Stop Angle Vertical	022-09577-000	10
8	Valve, Stop Angle Vertical	022-10054-000	10
9	Gage, Liquid Level Sight Front	026-37571-000	10
12	Sensor, Temp. 50,000 OHMS DIN	025-39993-000	10
13	Terminal, HV Fused Glass	025-32933-000	*
16	Baffle, Oil Pump Housing	092-09753-000	*
19	O-ring, Neoprene 2.33id .118 Thk	028-12961-010	10
20	O-ring, Neoprene 01.171id .116 Thk	028-12961-008	10
21	O-ring, Neoprene 0.924id .116 Thk	028-12961-006	10
23	O-ring, Neoprene 0.644id .087 Thk	028-12961-004	10
24	O-ring, Neoprene 0.468id 0.78 Thk	028-12961-003	10
25	O-ring, Neoprene 0.351id 0.772 Thk (Terminal)	028-12961-001	*
26	O-ring, Neoprene 0.612id .103 Thk	028-11999-000	10
27	O-ring, Neoprene 2.600id 0210 Thk	028-14469-000	10
28	O-ring, Neoprene 0.487id .103 Thk	028-12961-035	10
29	Box, Elec 4 Octagon x 4 Deep	025-33238-000	10
30	Cover, Filter Outout Assy.	375-26580-000	10
33	Terminal, Push-on Str 14-10 (200-346)	025-09455-000	*
34	Terminal, Push-on Str 18-14 (380-416, 440-600)	025-25920-000	*
35	Strap, Cable T and B L7-50-9-M	025-09607-000	10
37	Ferr, Splice Cap	025-10372-000	10
38	Cap, Sealing Caplug 250	028-04574-000	10
41	Valve, Stop Angle	022-10047-000	10
42	Plate, Oil Pump Mtg Machining (Canada)	075-54038-000	*
43	Pin, Slot Spg 3/16 x 1/2 (Canada)	029-04138-000	*

NOTE: Items with an \* are NOT represented.

### P7 - P9 AND H9 COMPRESSORS (CONT'D) OIL PUMP HOUSING (P7 - P9, AND H9 COMPRESSORS)

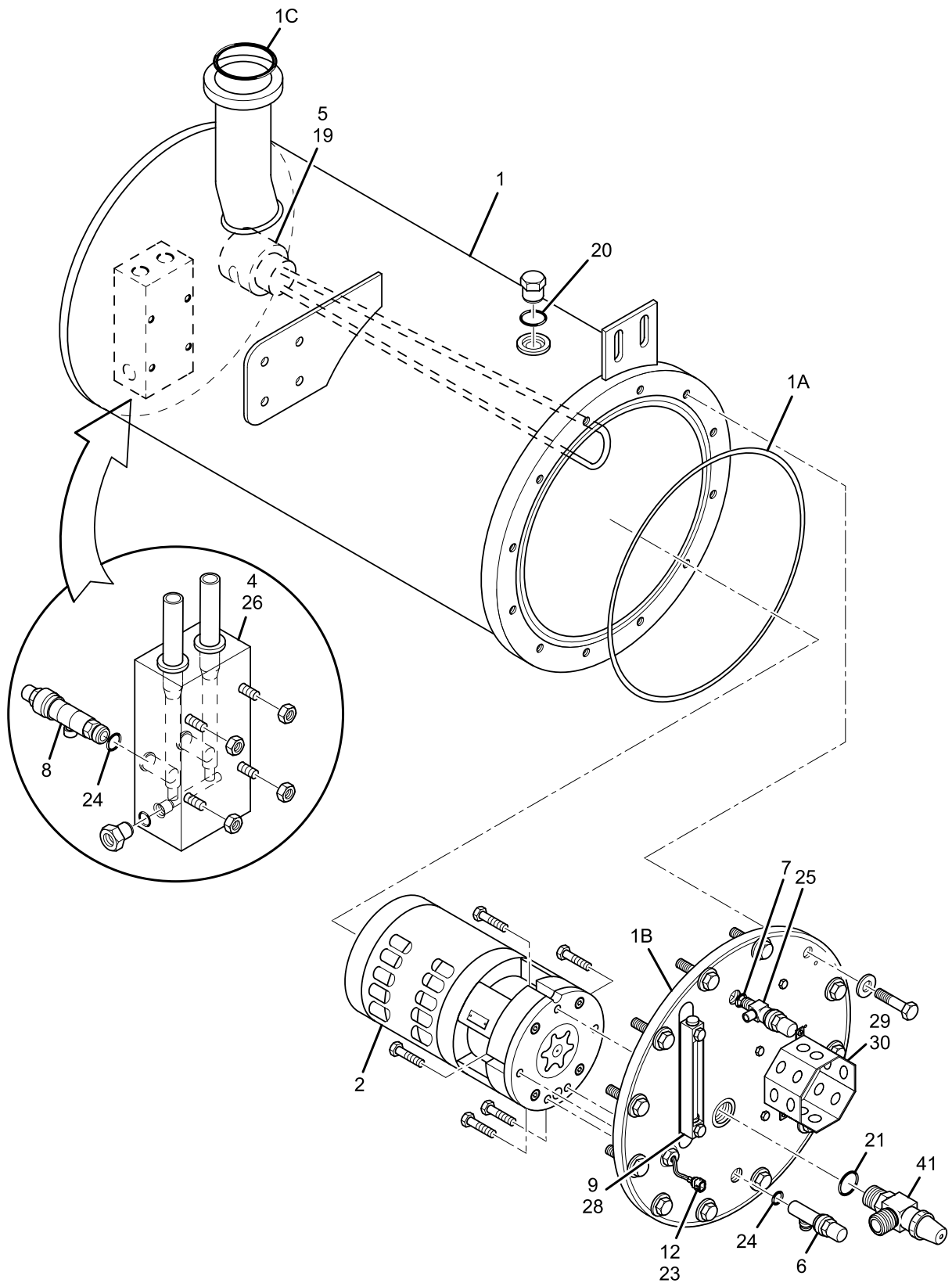


FIGURE 10 - OIL PUMP HOUSING ASSEMBLY (P7 - P9, H9 COMPRESSORS)

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## K1 - K4 AND K7 COMPRESSORS UNIT COMPONENTS

**TABLE 7 - UNIT COMPONENTS (K1-K4 & K7)**

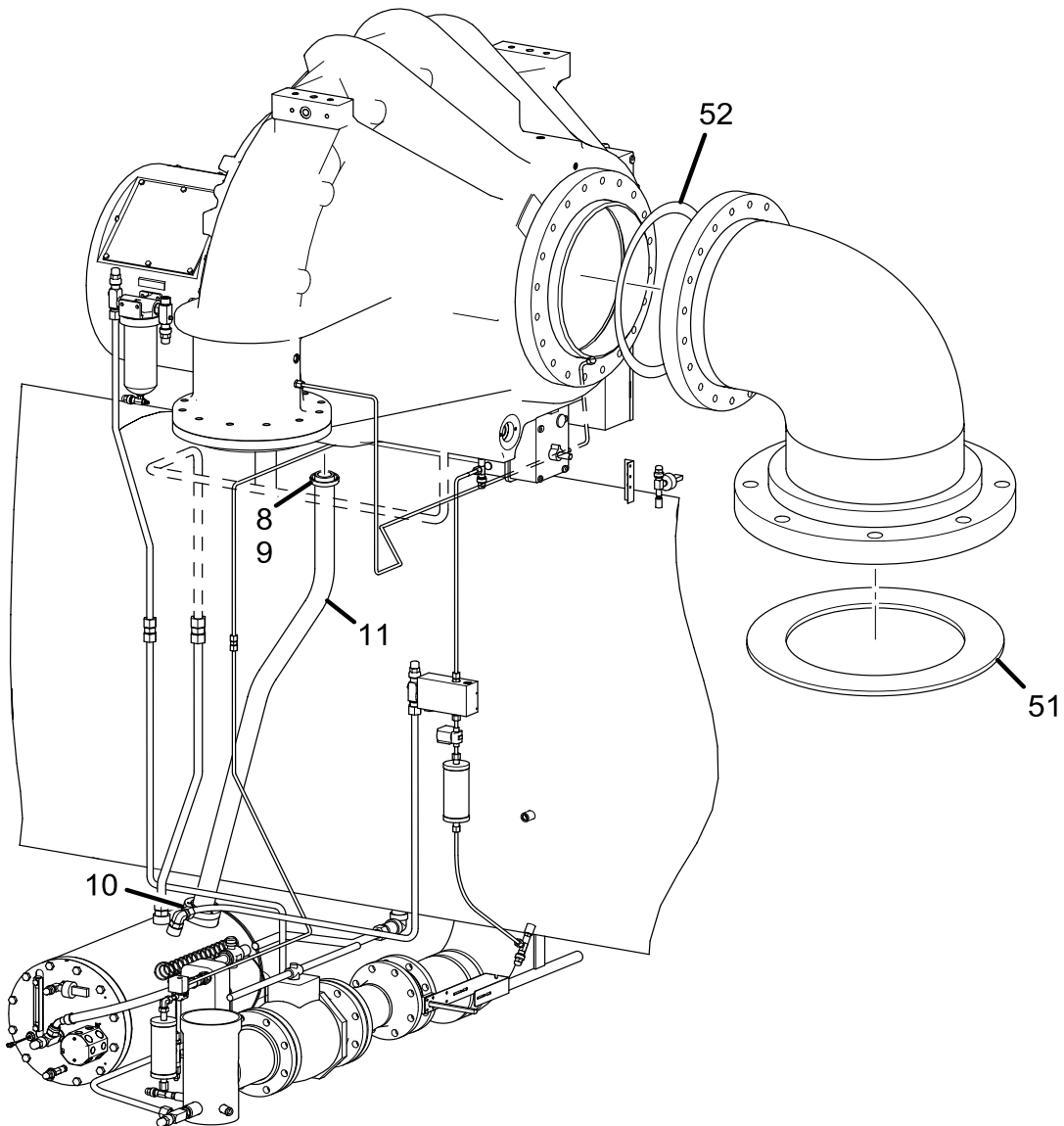
ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
4	Discharge Assy., 8" (K1 KTKP-K7K4 with Iso)	392-10333-019	1	12
	Discharge Assy., 8" (K1 KTKP-K7K4 without Iso)	392-10333-020		
	Discharge Assy., 8" (K1 Heat Recovery I-K with Iso)	392-16399-019		
	Discharge Assy., 8" (K1 Heat Recovery I-K without Iso)	392-16399-020		
	Discharge Assy., 8" (K1 Heat Recovery MN-MN with Iso)	392-16399-017		
	Discharge Assy., 8" (K1 Heat Recovery MN-MN without Iso)	392-16399-018		
	Discharge Assy., 8" (K1/K2 Heat Recovery PQ-PQ with Iso)	392-16399-017		
	Discharge Assy., 8" (K1/K2 Heat Recovery PQ-PQ without Iso)	392-16399-018		
	Discharge Assy., 8" (K1/K2 MQMQ-Q4Q4 without Iso)	392-10333-018		
	Discharge Assy., 8" (K1/K2 MQMQ-Q4Q4 with Iso)	392-10333-017		
	Discharge Assy., 8" (K2 Heat Recovery PQ-PQ without Iso)	392-16399-018		
	Discharge Assy., 8" (K2 Heat Recovery PQ-PQ with Iso)	392-16399-017		
	Discharge Assy., 10" (K3 NPNQ-Q4Q4 without Iso, K4 S-V with Iso)	392-10354-003		
	Discharge Assy., 10" (K3 NPNQ-Q4Q4 with Iso)	392-10354-001		
	Discharge Assy., 10" (K3 RQRQ-R7R4 without Iso)	392-10354-004		
	Discharge Assy., 10" (K3 RQRQ-R7R4 with Iso)	392-10354-002		
	Discharge Assy., 8" (K3 Heat Recovery NQ-NQ without Iso)	392-16400-003		
	Discharge Assy., 8" (K3 Heat Recovery NQ-NQ with Iso)	392-16400-001		
	Discharge Assy., 20-3/8" (K4 RPRP-S7S7 without Iso)	392-10354-006		
	Discharge Assy., 17-13/16" (K4 RPRP-S7S7 with Iso)	392-10354-005		
	Discharge Assy., 10" (K4 S-V without Iso)	392-10354-007		
	Discharge Assy., 10" (K4 X-T without Iso)	392-10354-003		
	Discharge Assy., 10" (K4 X-T with Iso)	392-10354-009		
	Discharge Assy., 10" (K4 X-X without Iso)	392-10354-005		
	Discharge Assy., 10" (K4 X-X with Iso)	392-10354-010		
	Discharge Assy., 12" (K7 W-W with Iso)	392-10366-002		
	Discharge Assy., 12" (K7 W-W without Iso)	392-10366-001		
	Discharge Assy., 12" (K7 Z-Z with Iso)	392-10366-004		
Discharge Assy., 12" (K7 Z-Z without Iso)	392-10366-003			
Discharge Assy., 12" (K7 Z-Y with Iso)	392-10366-005			
Discharge Assy., 12" (K7 Z-Y without Iso)	392-10366-006			
5	Valve, Butterfly Size 8" (K1-K2)	022-10641-008	1	12
	Valve, Butterfly Size 10" (K3-K4)	022-10641-010		
	Valve, Butterfly Size 12" (K7)	022-10641-012		
8	Flange, Oil Drain (K1-K2)	075-70282-000	1	11
	Flange, Oil Drain (K3-K4, K7)	075-52450-000		
9	O-ring, Neoprene 3.10 Id .210 Thk	028-12597-000	1	11
10	O-ring, Neoprene 2.73 Id .139 Thk	028-13578-000	1	11
11	Hose, Braided Flex Metal 52"	026-35300-012	1	11
	Hose, Braided Flex Metal 62"	026-35300-005		
	Hose, Braided Flex Metal 68"	026-35300-013		
	Hose, Braided Flex Metal 78"	026-35300-008		
12	Mounting Assy., Adjustable Mount	375-29270-000	1	12

## K1 - K4 AND K7 COMPRESSORS UNIT COMPONENTS (CONT'D)

**TABLE 7 (CONT'D) - UNIT COMPONENTS (K1-K4 & K7)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
13	Support, Control Panel Bracket 12-1/2"	075-64758-000	2	12
	Support, Control Panel Bracket 9"	075-54589-000		
	Support, Control Panel Bracket 18-1/2"	075-76062-000		
50	Gasket, ANSI 8-150# (K1-K2)	028-15075-013	1	12
	Gasket, ANSI 10-150# (K3-K4)	028-15075-014		
	Gasket, ANSI 12-150# (K7)	028-15075-115		
51	Gasket, ANSI 16-150# (K1-K2)	028-15075-017	1	11
	Gasket, ANSI 18-150# (K3-K4)	028-15075-018		
	Gasket, ANSI 20-150# (K7)	028-15075-119		
52	Gasket (K1-K2)	028-15129-304	1	11
	Gasket (K3-K4)	028-15129-305		
	Gasket (K7)	028-15129-106		
61	O-ring, Neoprene 9.475 Id .210 Thk (K1-K2)	028-15319-000	1	12
	O-ring, Neoprene 11.475 Id .275 Thk (K3-K4)	028-15801-000		
	O-ring, Neoprene 13.475 Id .275 Thk (K7)	028-11977-000		
62	Hose, Braided Flex Metal, 45" (after 6/2011)	026-46828-001	1	12
	Hose, Braided Flex Metal, 51" (after 6/2011)	026-46828-002		
	Hose, Braided Flex Metal, 57" (after 6/2011)	026-46828-003		
	Hose, Braided Flex Metal, 36" (after 6/2011)	026-46828-004		
65	Gasket, Round ANSI 2.00-150# (K3)	02815075-006	1	12
66	O-ring, Neoprene 2.60 Id .210 Thk (K3)	028-14469-000	1	12
67	O-ring, Neoprene 2.234 Id .139 Thk (K3)	028-16598-000	1	12

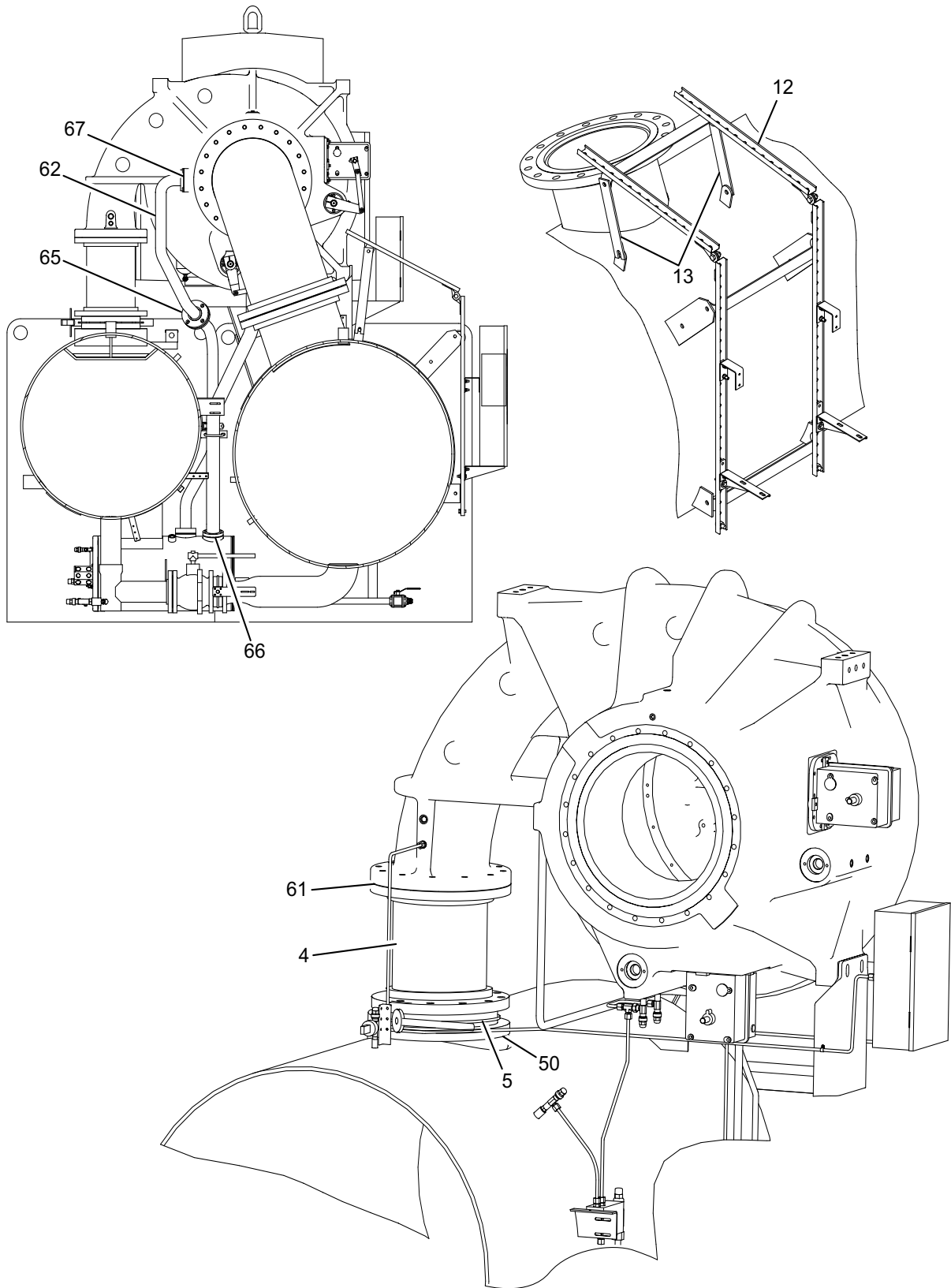
## K1 - K4 AND K7 COMPRESSORS UNIT COMPONENTS (CONT'D)



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FIGURE 11 - UNIT COMPONENTS (K COMPRESSORS)

### K1 - K4 AND K7 COMPRESSORS UNIT COMPONENTS (CONT'D)



**FIGURE 12 - UNIT COMPONENTS (K COMPRESSORS)**

LD13060

## K1 - K4 AND K7 COMPRESSORS UNIT PIPING

**TABLE 8 - UNIT PIPING (K1-K4 & K7)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY	FIGURE
2	Block, Oil Eductor (K1-K4)	026-37956-000	1	13/14
	Block, Oil Eductor (K7)	026-46156-000		
5	Valve, Solenoid 3/8" ORFS NC	025-35150-001	1	13/14
5A	Coil, Service Replacement	025-37841-001	1	
6	Oil Cooler	026-37958-000	1	13
7	Valve, Thermal Expansion	025-38170-000	1	13
8	Valve, Ball 1" IDF x 1" ODM	022-09797-000	1	13
9	Elbow, 3/4" OD Tube 90° Male	023-20272-000	1	13
13	Hose, Refrig. ORFS 3/4" x 25	026-39123-025	1	13
14	Valve, Stop Angle Vertical	022-10046-000	1	13/14
15	Filter, In-Line ORFS	023-20878-001	1	13
23	Gasket, Flare 3/8" OD Tube	028-01258-000	2	13
24	Cap, Flare 3/8" OD Tube	023-00977-000	2	13
27	O-ring, Neoprene .924 Id .116 Thk	028-12961-006	2	13/14
31	O-ring, Neoprene .739 Id .070 Thk	028-12961-015	11	13
32	O-ring, Neoprene .926 Id .070 Thk	028-12961-016	7	13
43	Transducer, Pressure	025-28678-006	3	13/14
44	Transducer, Pressure	025-28678-112	1	13
46	Connr, 3/8" OD Tube Male	023-18976-000	3	13
47	Connr, 1" OD Tube Male	023-18972-000	1	13
48	Elbow, Swivel Nut 3/8	023-21884-000	1	13
49	Fitting, 3/8" OD Tube Male (prior 12-2011)	023-23701-000	1	13/14
	Connector, 3/8 OD Tube Male (after 12-2011)	023-25551-000		
55	Bottle, High Density	028-10579-000	1	*
58	Valve, Stop Angle Vertical	022-09577-000	2	13
59	O-ring, Neoprene .351 ID .072 Thk	028-12961-001	2	13
61	Union, 3/4"	023-20731-000	1	13
62	Union, 1"	023-20223-000	1	13
63	Elbow, 1" OD Tube 90° Male	023-18292-000	1	13
153	Valve, Solenoid 3/8 ORFS	025-35150-002	1	13
154	Filter, Drier 3/8" ORFS	026-37563-000	1	13/14
164	O-ring, Neoprene .414 Id .072 Thk	028-12961-002	4	13/14
165	O-ring, Neoprene .364 Id .072 Thk	028-12961-012	10	13/14
166	O-ring, Neoprene .468 Id .078 Thk	028-12961-003	7	13/14
167	O-ring, Neoprene 1.17 Id .116 Thk	028-12961-008	2	13
176	Valve, Stop Angle Vertical	022-10054-000	3	13
180	Drain Plug, Cond.	023-18282-000	1	*
181	O-ring, Drain Plug 1.171ID .116THK	028-12961-008	1	*
182	Sight Glass, Cond./Evap.	023-17197-000	2	*
183	O-ring, Sight Glass 2.090ID .118THK	028-12961-036	2	*
184	Valve, Service Cond./Evap.	022-09573-000	2	22
185	Gasket, Service Valve	028-04836-000	2	22

**NOTE:** Items with an \* are NOT represented.

### K1 - K4 AND K7 COMPRESSORS UNIT PIPING (CONT'D)

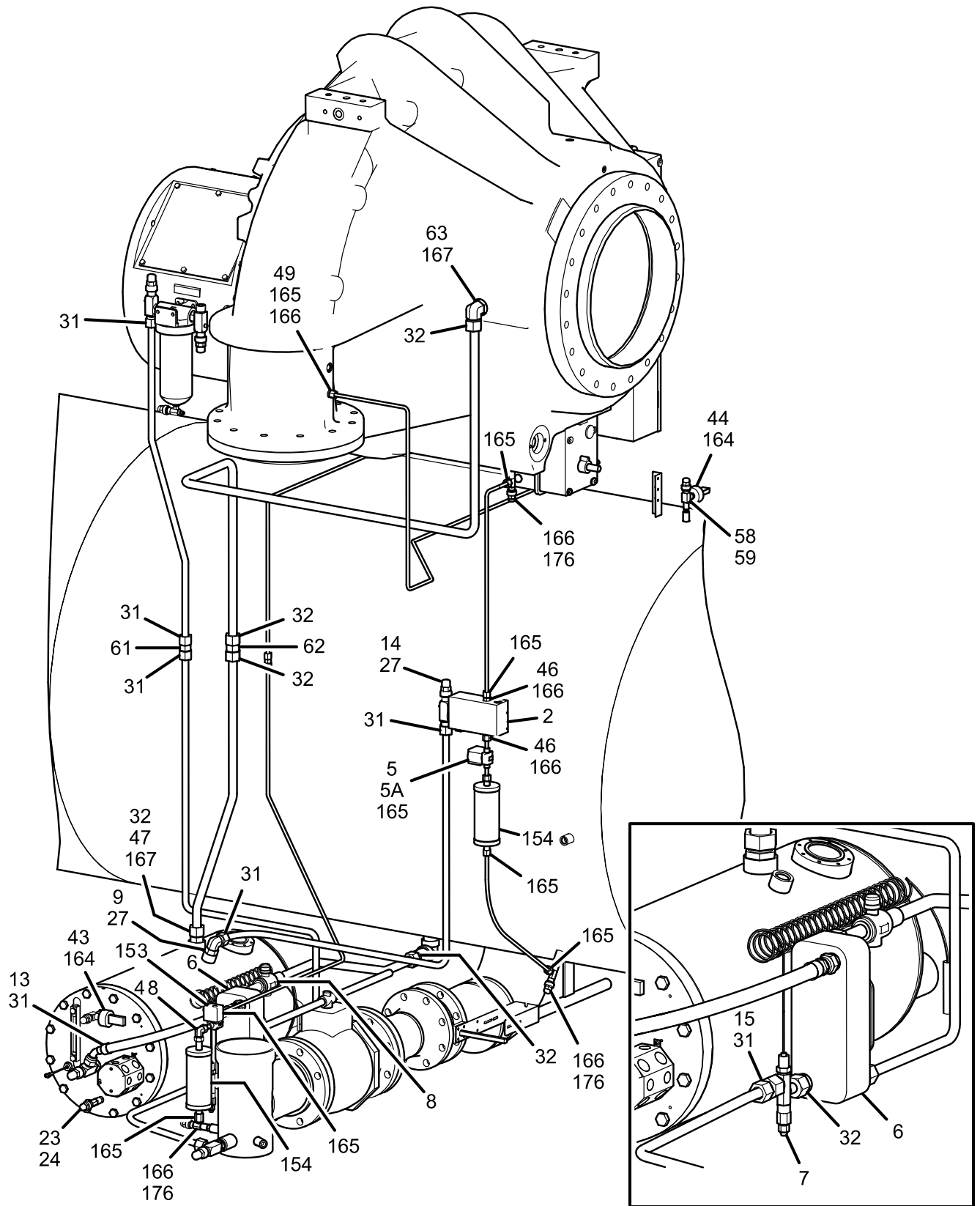


FIGURE 13 - UNIT PIPING (K COMPRESSORS)

LD13064

### K1 - K4 AND K7 COMPRESSORS UNIT PIPING (CONT'D)

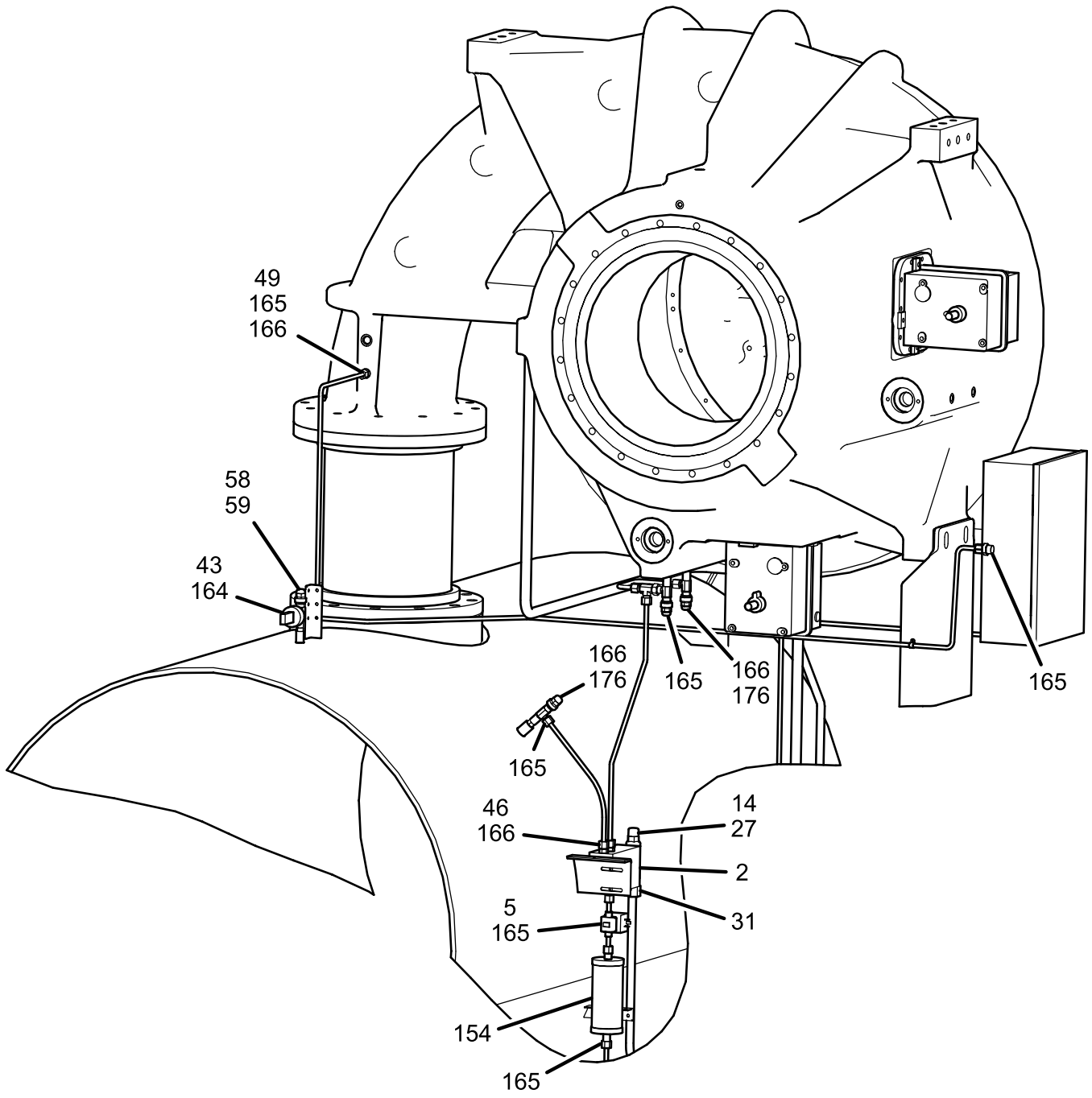


FIGURE 14 - UNIT PIPING (K COMPRESSORS)

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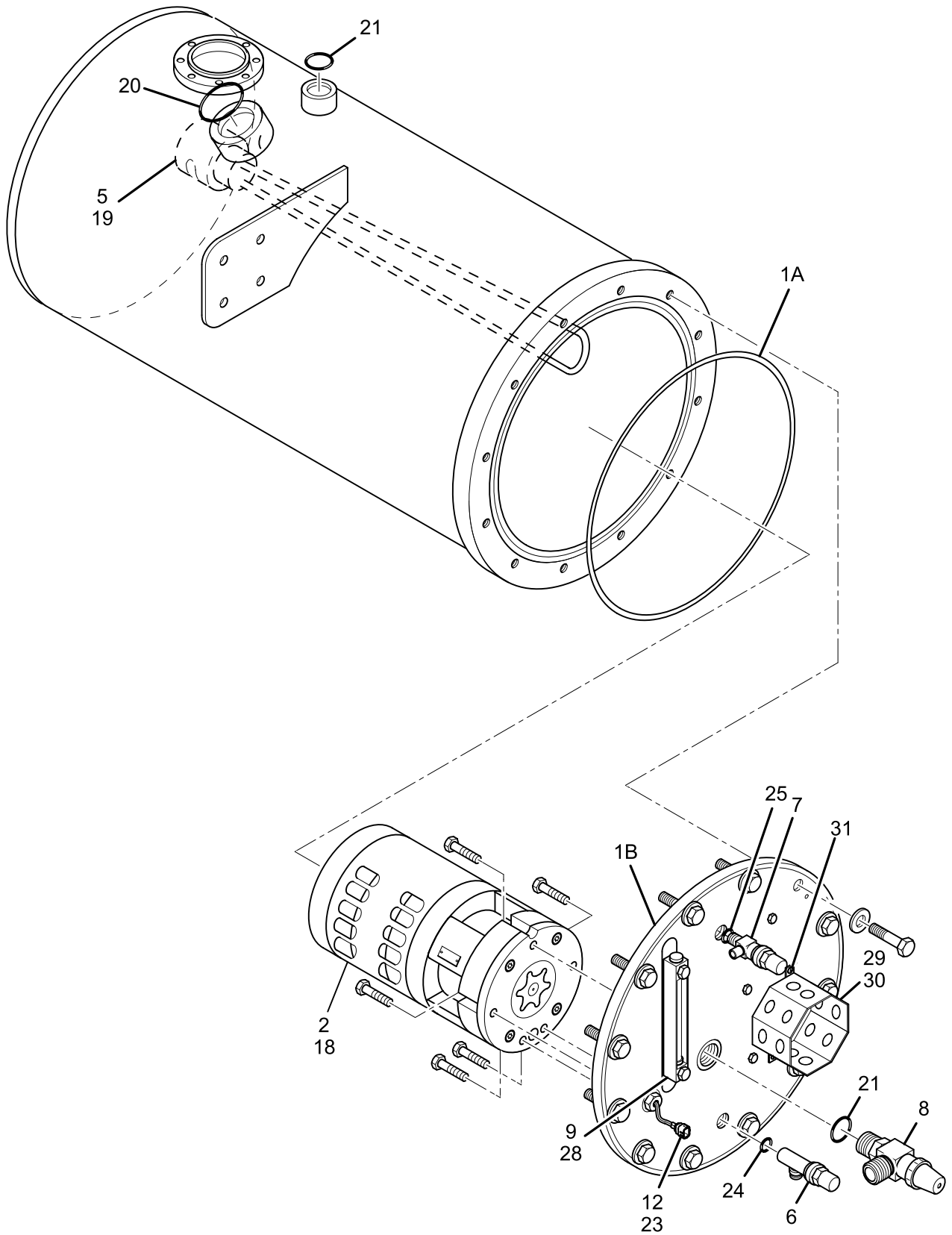
## K1 - K4 AND K7 COMPRESSORS OIL PUMP HOUSING (K1 - K4 AND K7 COMPRESSORS)

**TABLE 9 - OIL PUMP HOUSING (K1-K4 & K7)**

ITEM	DESCRIPTION	PART NUMBER	FIGURE
1	Body, Oil Pump Housing (K1-K4 and K7)	375-60694-000	15
	Body, Oil Pump Housing (K1-K4 and K7) (Canada)	375-61444-000	
1A	O-ring, Cover 13.475ID .275THK (All)	028-11977-000	
1B	Cover Plate (K1-K7)(All)	075-46360-000	
2	Pump, Oil 20 GPM YK (prior 6-2010)	026-37937-000	15
	Pump, Oil 20 GPM YK (after 6-2010)	026-46326-002	
5	Heater, Electric Immer (3,000 W) (200-346)	025-32909-000	15
	Heater, Electric Immer (3,000 W) (380-416)	025-32917-000	
	Heater, Electric Immer (3,000 W) (440-480)	025-32918-000	
	Heater, Electric Immer (3,000 W) (550-600)	025-32920-000	
6	Valve, Stop Angle Vertical	022-09578-000	15
7	Valve, Stop Angle Vertical	022-09577-000	15
8	Valve, Stop Angle Vertical	022-10047-000	15
9	Gage, Liquid Level Sight Front	026-37571-000	15
12	Sensor, Temp. 50,000 OHMS DIN	025-39993-000	15
13	Terminal, HV Fused Glass	025-32933-000	*
19	O-ring, Neoprene 2.33id .118 Thk	028-12961-010	15
20	O-ring, Neoprene 0.926id .070 Thk	028-12961-016	15
21	O-ring, Neoprene 0.924id .116 Thk	028-12961-006	15
23	O-ring, Neoprene 0.644id .087 Thk	028-12961-004	15
24	O-ring, Neoprene 0.468id 0.78 Thk	028-12961-003	15
25	O-ring, Neoprene 0.351id 0.772 Thk (Terminal)	028-12961-001	15
28	O-ring, Neoprene 0.487id .103 Thk	028-12961-035	15
29	Box, Elec 4 Octagon x 4 Deep	025-33238-000	15
30	Cover, Filter Outout Assy.	375-26580-000	15
31	Screw, Mach Pan Head Recd	021-03741-000	15
33	Terminal, Push-on Str 14-10 (200-346)	025-09455-000	*
34	Terminal, Push-on Str 18-14 (380-416, 440-600)	025-25920-000	*
35	Strap, Cable T and B L7-50-9-M	025-09607-000	15
36	Insr, Elec	025-10371-000	15
37	Ferr, Splice Cap	025-10372-000	15
38	Cap, Sealing Caplug 250	028-04574-000	15
39	O-Ring, Neoprene 1.171id .116 Thk	028-12961-008	15
42	Plate, Oil Pump Mtg Machining (Canada)	075-54038-000	15
43	Pin, Slot Spg 3/16 x 1/2 (Canada)	029-04138-000	15

**NOTE:** Items with an \* are NOT represented.

### K1 - K4 AND K7 COMPRESSORS OIL PUMP HOUSING (K1 - K4 AND K7 COMPRESSORS)



**FIGURE 15 - OIL PUMP HOUSING ASSEMBLY (K1 - K4, AND K7 COMPRESSORS)**

LD13591

## OIL FILTER ARRANGEMENTS SINGLE AND DUAL FILTERS

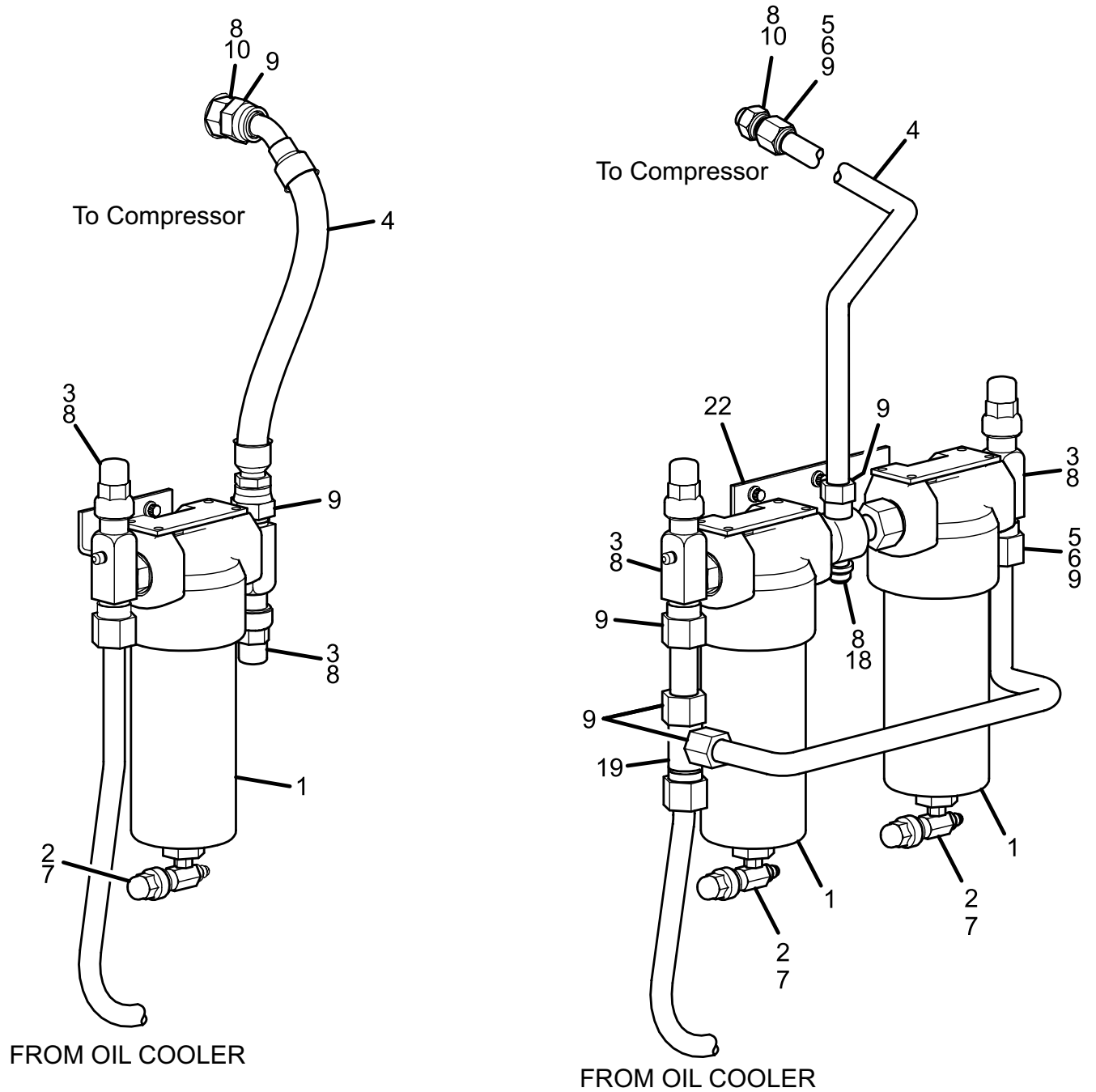
**TABLE 10 - OIL FILTER ARRANGEMENTS**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
<b>SINGLE OIL FILTER</b>				
1	Filter, Oil	026-37589-000	1	16
	Filer, Oil Hydac Housing	026-37589-001	1	
1A	Filter Element, Replacement	026-32831-000	1	*
1B	O-ring, Filter Housing 3.484ID .139THK	028-14404-000	1	*
1	Filter, Oil Seubert Housing w/	026-47427-000	1	16
2	Valve, Stop Angle Vertical	022-10092-000	1	16
3	Valve, Stop Angle Vertical	022-10046-000	2	16
4	Refrig. and Hose Assy. 3/4 x 17	026-39123-017	1	16
7	O-ring, Neoprene .351 ID .072 Thk	028-12961-001	1	16
8	O-ring, Neoprene .924 ID .116 thk	028-12961-006	2	16
9	O-ring, Neoprene .739 ID .070 thk	028-12961-015	1	16
10	Connr, 3/4 OD Tube Male	023-18290-000	1	16
<b>DUAL OIL FILTERS</b>				
1	Filter, Oil	026-37589-000	2	16
	Filer, Oil Hydac Housing	026-37589-001	2	
1A	Filter Element, Replacement	026-32831-000	2	*
1B	O-ring, Filter Housing 3.484ID .139THK	028-14404-000	2	*
1	Filter, Oil Seubert Housing w/	026-47427-000	2	16
2	Valve, Stop Angle Vertical	022-10092-000	2	16
3	Valve, Stop Angle Vertical	022-10046-000	2	16
7	O-ring, Neoprene .351 ID .072 THK	028-12961-001	2	16
8	O-ring, Neoprene .924 ID .116 THK	028-12961-006	5	16
9	O-ring, Neoprene .739 ID .070 thk	028-12961-015	6	16
10	Connr, 3/4 OD Tube Male	023-18290-000	1	16
18	Valve, 3-way Ball	022-10094-000	1	16
19	Tee, Union 3/4	023-18913-000	1	16

**NOTE:** Items with an \* are NOT represented.

# OIL FILTER ARRANGEMENTS

## SINGLE AND DUAL FILTERS



LD12997

FIGURE 16 - OIL FILTER ARRANGEMENTS

**VARIABLE ORIFICE**  
**VARIABLE ORIFICE (Q3 - Q7 AND P7)**  
**2" OPTION WITH ISOLATION VALVE**

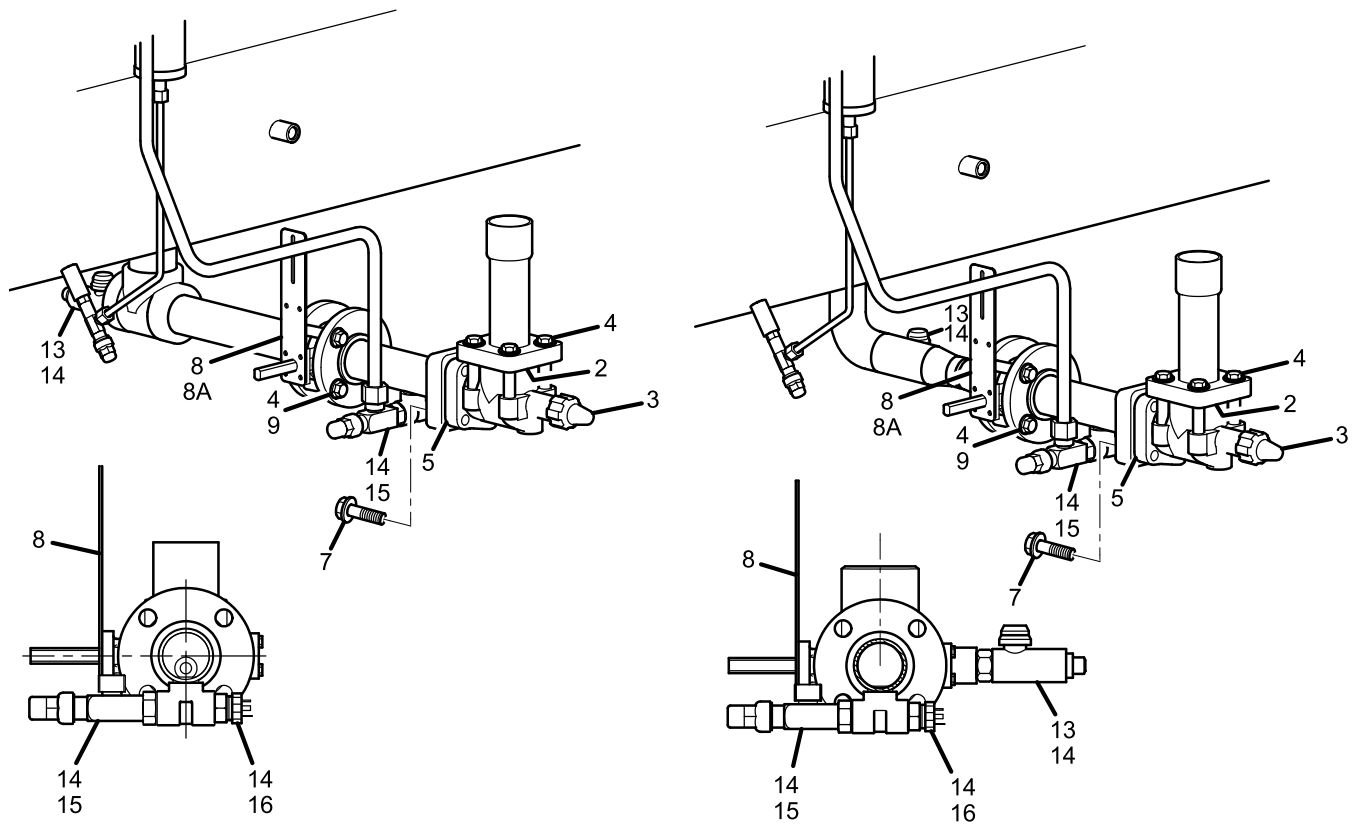
**TABLE 11 - 2" VARIABLE ORIFICE (Q3-Q7 & P7)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	Gasket, 2" Valve	064-47078-000	1	17
3	Valve, Stop Compr. 2-5/8 OD	022-10048-000	1	17
4	HCS5, 0.625-11 x 4.5 GR 5 Zn	021-32010-036	8	17
5	Gasket, Flange	028-14463-000	1	17
7	HCS5, .625-11 x 2.5 GR5 Zn	021-32010-020	4	17
8	Valve, Butterfly Sz. 2"	022-10642-002	1	17
8A	O-ring, Neoprene 3.109 ID .139Thk	028-12961-023	2	
9	Nut, Hex .625-11 x GR 5 Zn	021-32010-501	4	17
13	Valve, Ball 1-1/16-12UN-2A	022-09757-000	1	17
14	O-ring, Neoprene .924 ID .116 Thk	028-12961-006	2	17
15	Valve, Stop Angle Vertical	022-12047-000	1	17
16	Sensor, Temperature 3000 Ohms	025-39517-000	1	17
17	Actuator, Electric	025-38177-000	1	*

**2" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
4	HCS5, 0.625-11 x 4.5 GR 5 Zn	021-32010-036	8	17
8	Valve, Butterfly Sz. 2"	022-10642-002	1	17
8A	O-ring, Neoprene 3.109 ID .139Thk	028-12961-023	2	
9	Nut, Hex .625-11 x GR 5 Zn	021-32010-501	4	17
13	Valve, Ball 1-1/16-12UN-2A	022-09757-000	1	17
14	O-ring, Neoprene .924 ID .116 Thk	028-12961-006	3	17
15	Valve, Stop Angle Vertical	022-12047-000	1	17
16	Sensor, Temperature 3000 Ohms	025-39517-000	1	17
17	Actuator, Electric	025-38177-000	1	*

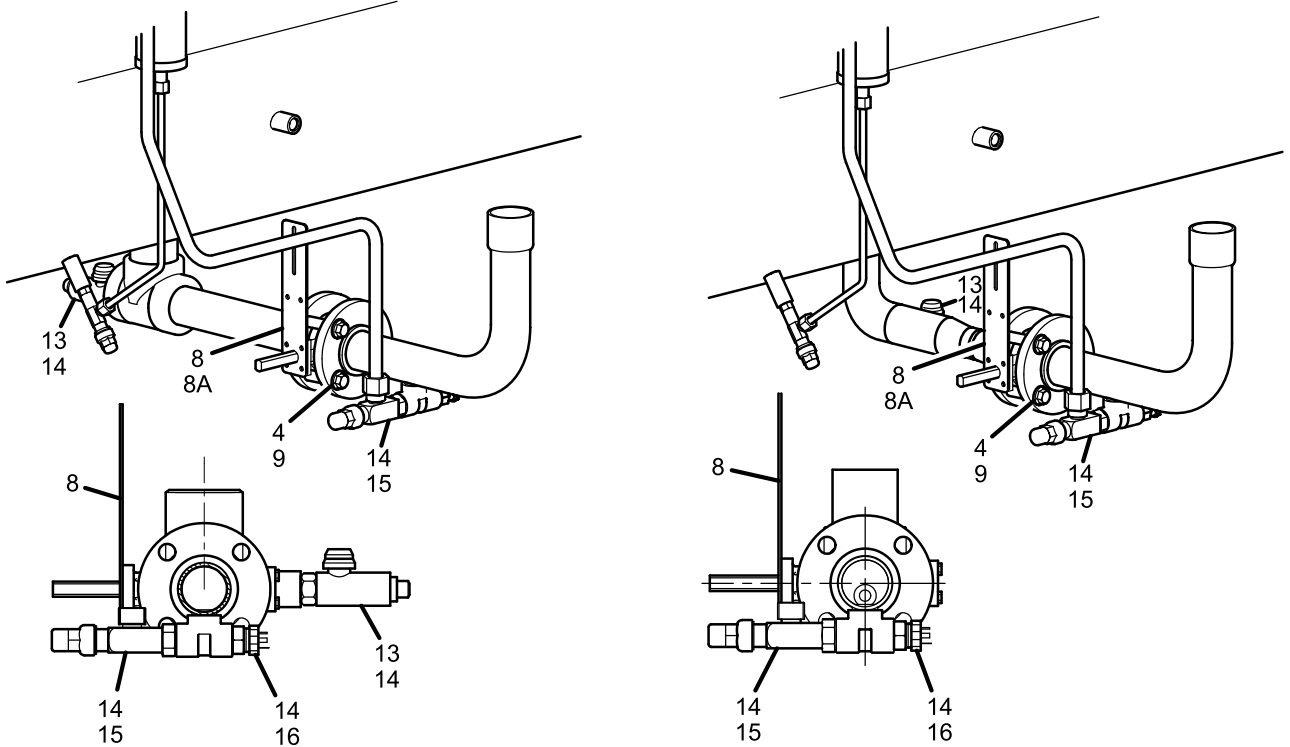
**NOTE:** Items with an \* are NOT represented.



A-A to D-D Shell Codes

Q3-Q7, P7  
 WITH ISOLATION VALVE

E-E to F-F Shell Codes



A-A to D-D Shell Codes

Q3-Q7, P7  
 WITHOUT ISOLATION VALVE

E-E to F-F Shell Codes

**FIGURE 17 - VARIABLE ORIFICE (2") STANDARD YK**

LD13044

**VARIABLE ORIFICE (Q3 - Q7 AND P7) WITH FALLING FILM  
 2" OPTION WITH ISOLATION VALVE**

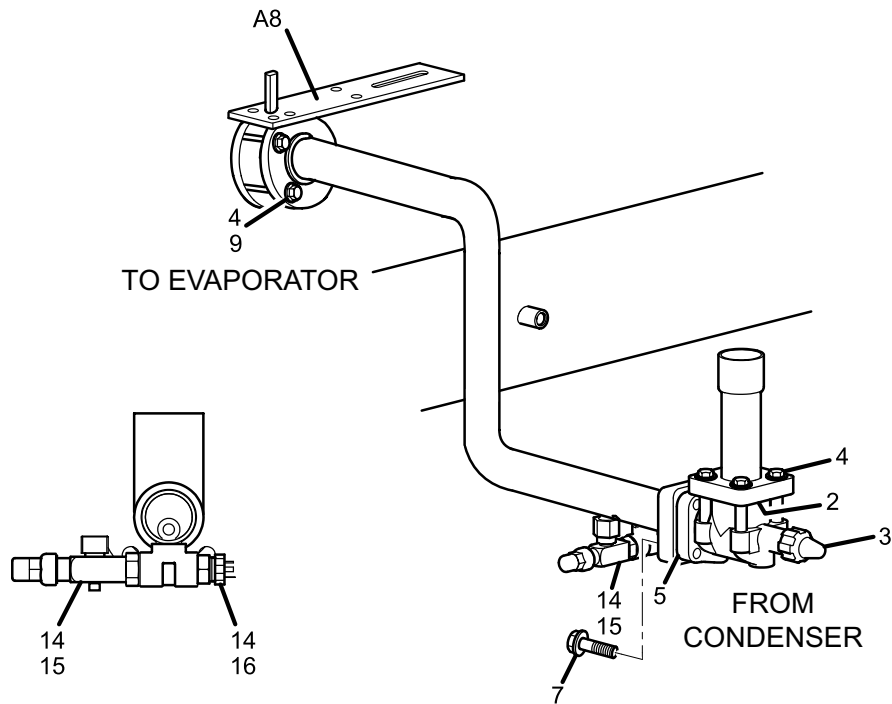
**TABLE 12 - VARIABLE ORIFICE 2" FALLING FILM (Q3-Q7 & P7)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	Gasket, 2" Valve	064-47078-000	1	18
3	Valve, Stop Compr. 2-5/8 OD	022-10048-000	1	18
4	HCS5, 0.625-11 x 4.5 GR 5 Zn	021-32010-036	8	18
5	Gasket, Flange	028-14463-000	1	18
7	HCS5, .625-11 x 2.5 GR5 Zn	021-32010-020	4	18
8	Valve, Butterfly Sz. 2"	022-10642-002	1	18
8A	O-ring, Neoprene 3.109 ID .139Thk	028-12961-023	2	
9	Nut, Hex .625-11 x GR 5 Zn	021-32010-501	4	18
14	O-ring, Neoprene .924 ID .116 Thk	028-12961-006	3	18
15	Valve, Stop Angle Vertical	022-12047-000	1	18
16	Sensor, Temperature 3000 Ohms	025-39517-000	1	18
17	Actuator, Electric	025-38177-000	1	*

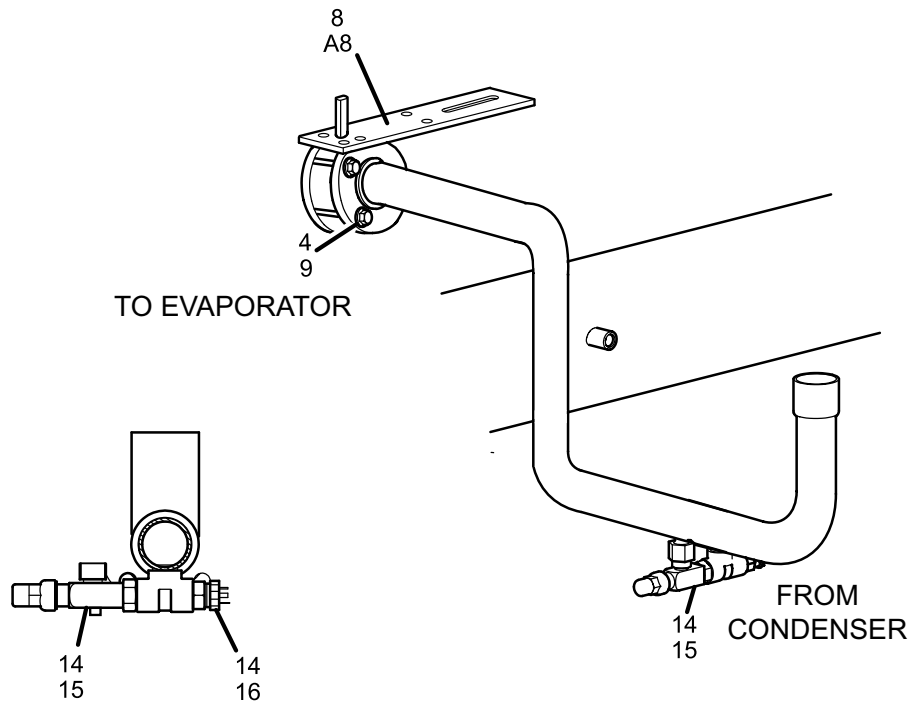
**2" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
4	HCS5, 0.625-11 x 4.5 GR 5 Zn	021-32010-036	8	18
8	Valve, Butterfly Sz. 2"	022-10642-002	1	18
8A	O-ring, Neoprene 3.109 ID .139Thk	028-12961-023	2	
9	Nut, Hex .625-11 x GR 5 Zn	021-32010-501	4	18
13	Valve, Ball 1-1/16-12UN-2A	022-09757-000	1	18
14	O-ring, Neoprene .924 ID .116 Thk	028-12961-006	3	18
15	Valve, Stop Angle Vertical	022-12047-000	1	18
16	Sensor, Temperature 3000 Ohms	025-39517-000	1	18
17	Actuator, Electric	025-38177-000	1	*

**NOTE:** Items with an \* are NOT represented.



A-A to F-F Shell Codes  
 Q3-Q7, P7  
 WITH ISOLATION VALVE



A-A to F-F Shell Codes  
 Q3-Q7, P7  
 WITHOUT ISOLATION VALVE

**FIGURE 18 - VARIABLE ORIFICE (2") WITH FALLING FILM**

LD13044b

**VARIABLE ORIFICE WITH HEAT RECOVERY (Q4 AND Q7)  
 2" OPTION WITH ISOLATION VALVE**

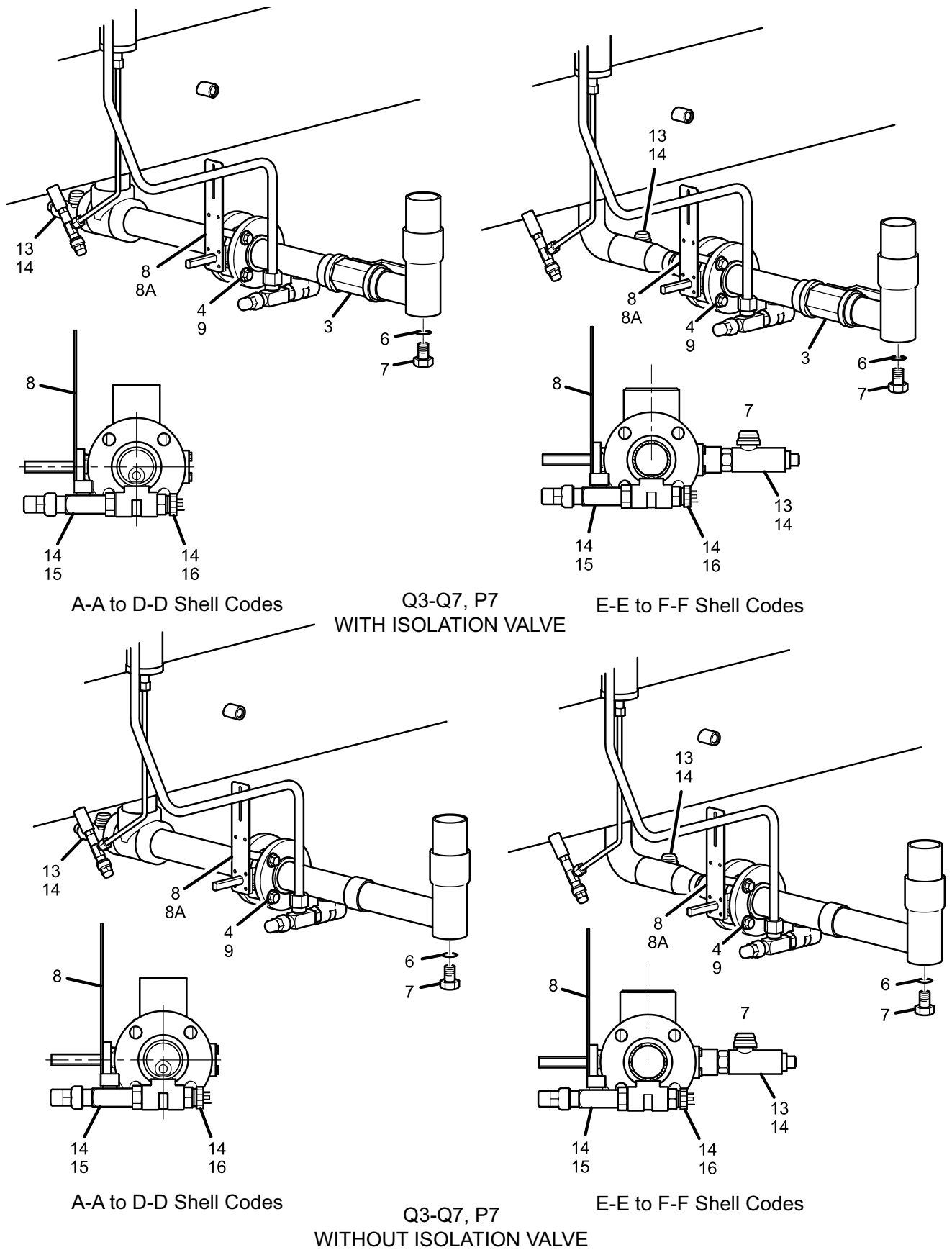
**TABLE 13 - VARIABLE ORIFICE 2" HEAT RECOVERY (Q4 & Q7)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
3	Valve, Ball S/W	022-08752-000	1	19
4	HCS5, 0.625-11 x 4.5 GR 5 Zn	021-32010-036	8	19
6	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	19
7	Plug, Hex HD 3/4	023-18280-000	1	19
8	Valve, Butterfly Sz. 2"	022-10642-002	1	19
8A	O-ring, Neoprene 3.109 ID .139Thk	028-12961-023	2	
9	Nut, Hex .625-11 x GR 5 Zn	021-32010-501	4	19
13	Valve, Ball 1-1/16-12UN-2A	022-09757-000	1	19
14	O-ring, Neoprene .924 ID .116 Thk	028-12961-006	3	19
15	Valve, Stop Angle Vertical	022-10047-000	1	19
16	Sensor, Temperature 3000 Ohms	025-39517-000	1	19
17	Actuator, Electric	025-38177-000	1	*

**2" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
4	HCS5, 0.625-11 x 4.5 GR 5 Zn	021-32010-036	8	19
6	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	19
7	Plug, Hex HD 3/4	023-18280-000	1	19
8	Valve, Butterfly Sz. 2"	022-10642-002	1	19
8A	O-ring, Neoprene 3.109 ID .139 Thk	028-12961-023	2	
9	Nut, Hex .625-11 x GR 5 Zn	021-32010-501	4	19
13	Valve, Ball 1-1/16-12UN-2A	022-09757-000	1	19
14	O-ring, Neoprene .924 ID .116 Thk	028-12961-006	3	19
15	Valve, Stop Angle Vertical	022-10047-000	1	19
16	Sensor, Temperature 3000 Ohms	025-39517-000	1	19
17	Actuator, Electric	025-38177-000	1	*

**NOTE:** Items with an \* are NOT represented.



**FIGURE 19 - VARIABLE ORIFICE WITH HEAT RECOVERY (2")**

LD13044

**VARIABLE ORIFICE (P8 AND P9) STANDARD YK  
 2" OPTION WITH ISOLATION VALVE**

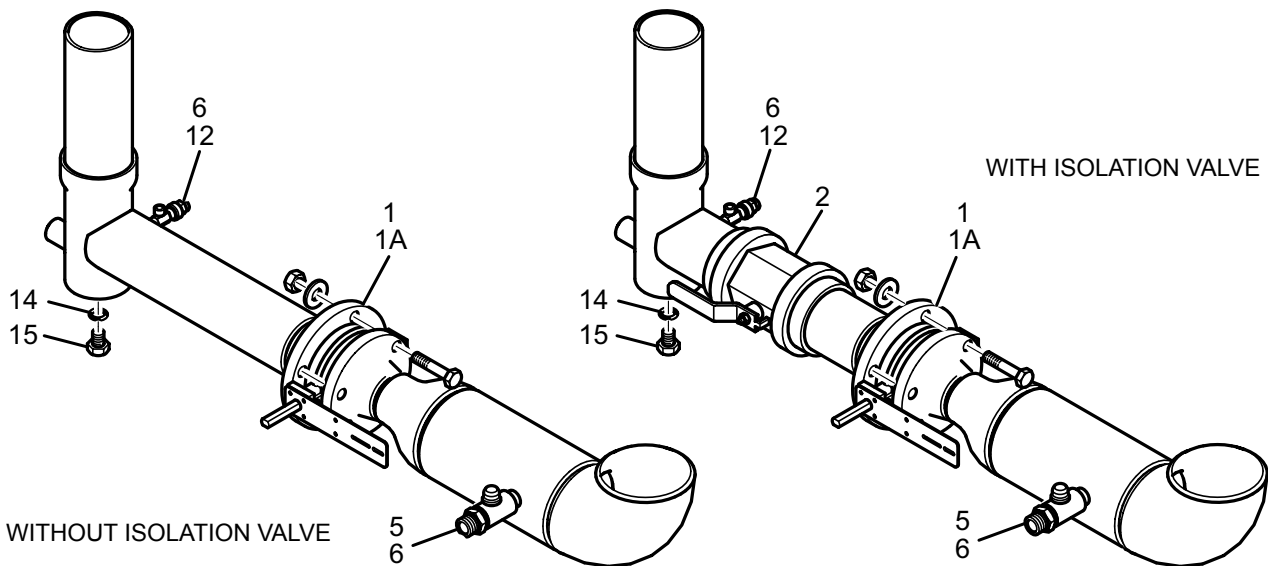
**TABLE 14 - VARIABLE ORIFICE 2" (P8 & P9)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Valve, Butterfly 150#	022-10642-002	1	20
1A	O-ring, Neoprene 3.109 ID .139 Thk	028-12961-023	2	
2	Valve, Ball S/W 2.00	022-08752-000	1	20
5	Valve, Ball Stor 1.06	022-09757-000	1	20
6	O-ring, Neoprene .924 Id	028-12961-006	2	20
12	Valve, Stop Ang Vertical	022-10047-000	1	20
14	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	20
15	Plug, Hex HD 3/4	023-18280-000	1	20
16	Sensor, Temperature 3000 Ohms	025-39517-000	1	20
17	Actuator, Electric	025-38177-000	1	*

**2" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Valve, Butterfly Size 2	022-10642-002	1	20
1A	O-ring, Neoprene 3.109 ID .139 Thk	028-12961-023	2	
5	Valve, Ball 1-1/16 - 12 Un-2a	022-09757-000	1	20
6	O-Ring, Neop 00.924id .116thk M	028-12961-006	2	20
12	Valve, Stop Ang Vertical	022-10047-000	1	20
14	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	20
15	Plug, Hex HD 3/4	023-18280-000	1	20
16	Sensor, Temperature 3000 Ohms	025-39517-000	1	20
17	Actuator, Electric	025-38177-000	1	*

**NOTE:** Items with an \* are NOT represented.



**FIGURE 20 - VARIABLE ORIFICE (2")**

LD13046b

**VARIABLE ORIFICE (P8, P9, H9 AND H9 WITH HEAT RECOVERY)  
 3" OPTION WITH ISOLATION VALVE**

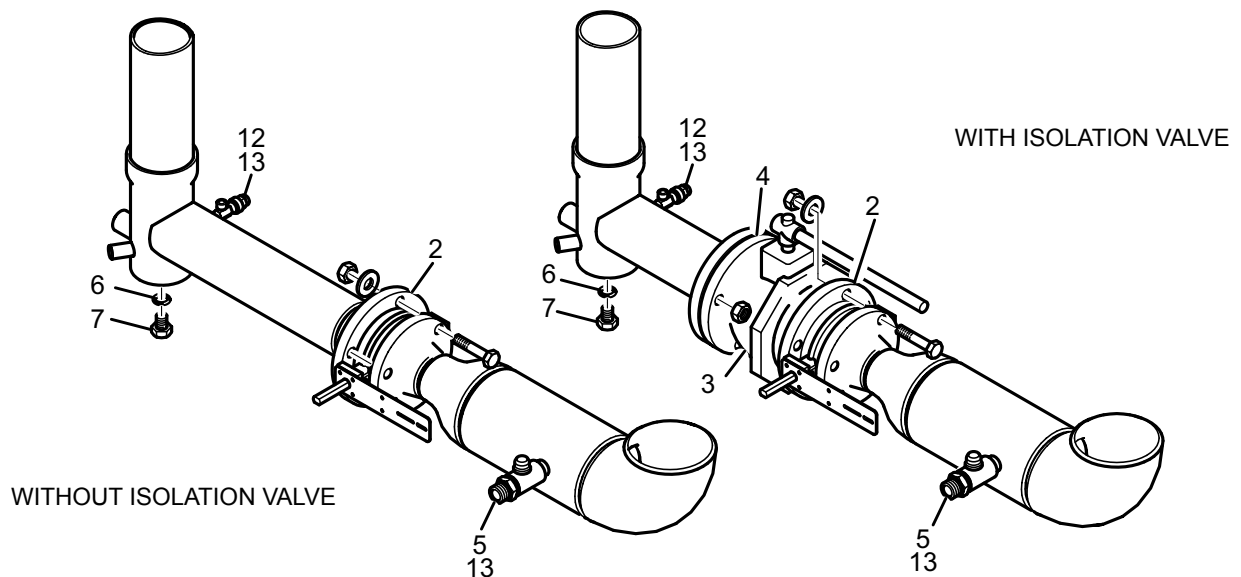
**TABLE 15 - VARIABLE ORIFICE 3" (P8, P9 & H9)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	Valve, Butterfly #150	022-10642-002	1	21
2A	O-ring, Neoprene 4.10 ID .210 Thk	028-12961-025	2	
3	Valve, Ball S/W 2.00	022-08752-000	1	21
4	Gasket, ANSI 3-150#	028-15075-108	1	21
5	Valve, Ball	022-09757-000	1	21
6	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	21
7	Plug, Hex HD 3/4	023-18280-000	1	21
11	Actuator, Electric	025-38178-000	1	*
12	Valve, Stop Angle	022-10047-000	1	21
13	O-ring	028-12961-006	2	21
15	O-ring	028-12961-003	1	21

**3" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	Valve, Butterfly #150	022-10642-002	1	21
2A	O-ring, Neoprene 4.10 ID .210 Thk	028-12961-025	2	
5	Valve, Ball	022-09757-000	1	21
6	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	21
7	Plug, Hex HD 3/4	023-18280-000	1	21
11	Actuator, Electric	025-38178-000	1	*
12	Valve, Stop Angle	022-10047-000	1	21
13	O-ring	028-12961-006	2	21
15	O-ring	028-12961-003	1	21

**NOTE:** Items with an \* are NOT represented.



LD13821

**FIGURE 21 - VARIABLE ORIFICE (3")**

**VARIABLE ORIFICE (P8 AND P9 WITH FALLING FILM)  
 3" OPTION WITH ISOLATION VALVE**

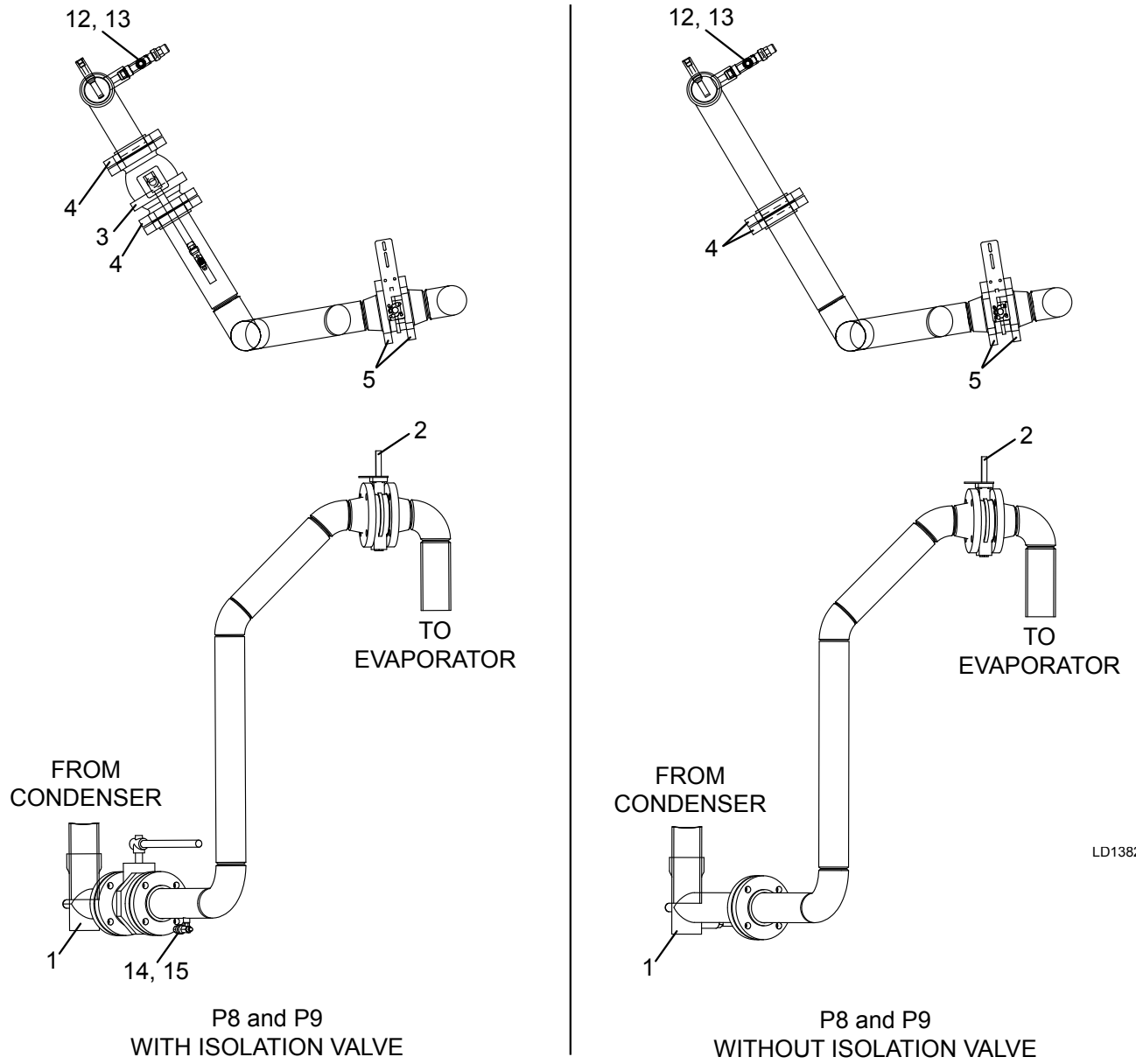
**TABLE 16 - VARIABLE ORIFICE 3" (P8 & P9 FALLING FILM)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Tee Liquid 3 X 3 X 3	375-76015-001	1	22
2	Valve Butterfly Size 3	022-10642-003	1	22
3	Valve Ball 3" Flanged	022-09739-000	1	22
4	Flange Rd Rf 150# S/O 3.00"	023-03610-000	2	22
5	Flange Rd Rf 150#Wn Std 3.00"	023-04436-000	2	22
12	Valve Stop Ang Vertical	022-12047-000	1	22
13	O-Ring Neo1 00.924id .116thk M	028-12961-006	1	22
14	Valve Stop Ang Vertical	022-10092-000	1	22
15	O-Ring Neo1 00.351id .072thk M	028-12961-001	1	22
19	Gasket, Round ANSI 3-150#	028-15075-008	1	*

**3" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Tee Liquid 3 X 3 X 3	375-76015-003	1	22
2	Valve Butterfly Size 3	022-10642-003	1	22
4	Flange Rd Rf 150# S/O 3.00"	023-03610-000	2	22
5	Flange Rd Rf 150#Wn Std 3.00"	023-04436-000	2	22
12	Valve Stop Ang Vertical	022-12047-000	1	22
13	O-Ring Neo1 00.924id .116thk M	028-12961-006	1	22

**NOTE:** Items with an \* are NOT represented.



**FIGURE 22 - VARIABLE ORIFICE (3") WITH FALLING FILM**

**VARIABLE ORIFICE (H9 WITH FALLING FILM)  
 3" OPTION WITH ISOLATION VALVE**

**TABLE 17 - VARIBALE ORIFICE 3" (H9 FALLING FILM)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Tee Liquid 3 X 3 X 3	375-76015-001	1	23
2	Valve Butterfly Size 3	022-10642-003	1	23
3	Valve Ball 3" Flanged	022-09739-000	1	23
4	Flange Rd Rf 150# S/O 3.00"	023-03610-000	2	23
5	Flange Rd Rf 150#Wn Std 3.00"	023-04436-000	2	23
11	Valve Stop Ang Vertical	022-12047-000	1	23
12	O-Ring Neo1 00.924id .116thk M	028-12961-006	1	23
13	Valve Stop Ang Vertical	022-10092-000	1	23
14	O-Ring Neo1 00.351id .072thk M	028-12961-001	1	23
19	Gasket, Round ANSI 3-150#	028-15075-008	1	*

**3" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Tee Liquid 3 X 3 X 3	375-76015-003	1	23
2	Valve Butterfly Size 3	022-10642-003	1	23
4	Flange Rd Rf 150# S/O 3.00"	023-03610-000	2	23
5	Flange Rd Rf 150#Wn Std 3.00"	023-04436-000	2	23
11	Valve Stop Ang Vertical	022-12047-000	1	23
12	O-Ring Neo1 00.924id .116thk M	028-12961-006	1	23

**NOTE:** Items with an \* are NOT represented.

### VARIABLE ORIFICE (H9 WITH FALLING FILM) 3" OPTION WITH ISOLATION VALVE

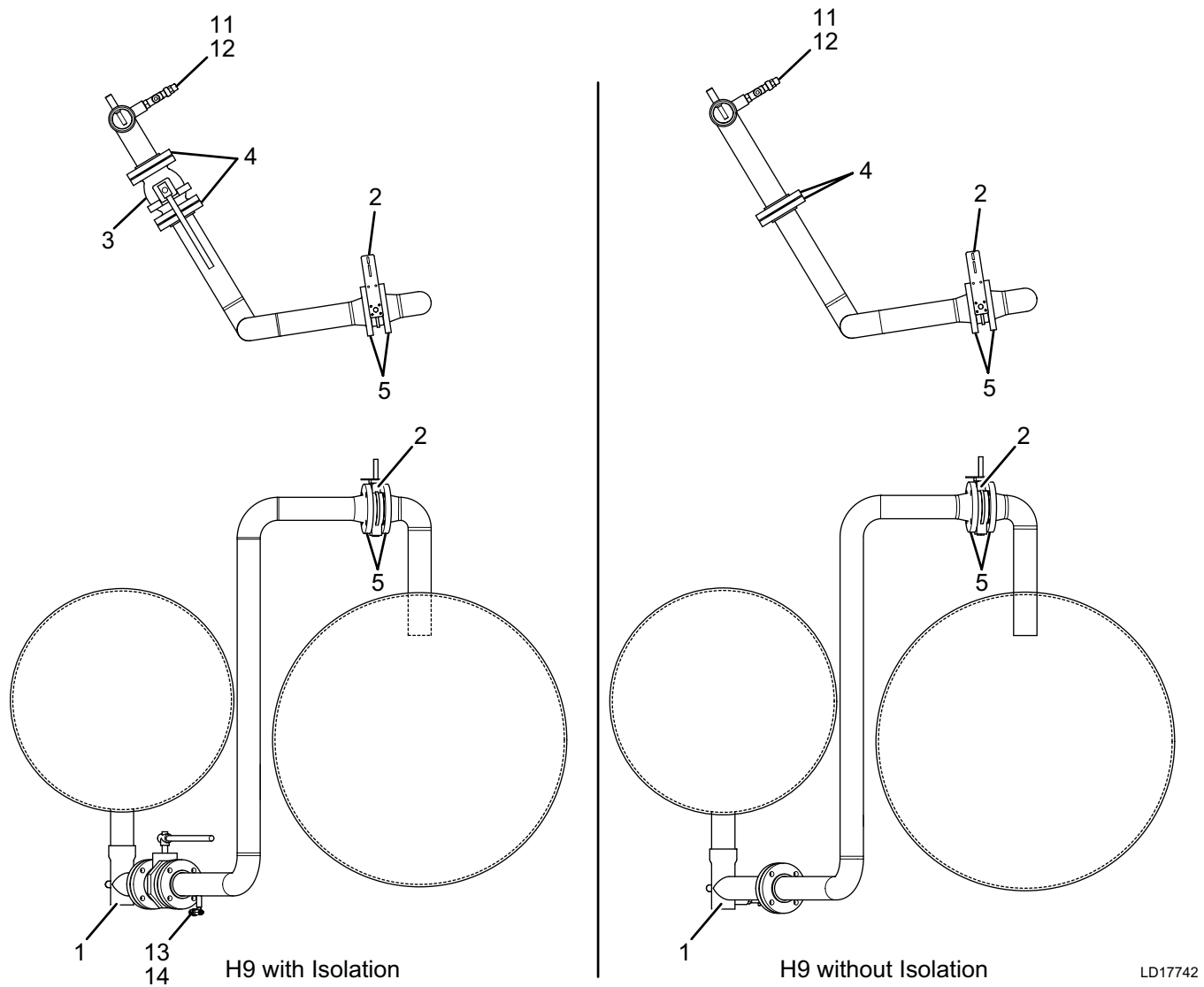


FIGURE 23 - VARIABLE ORIFICE (3")

**VARIABLE ORIFICE (K1, K2 AND K2 WITH HEAT RECOVERY)  
 3" OPTION WITH ISOLATION VALVE**

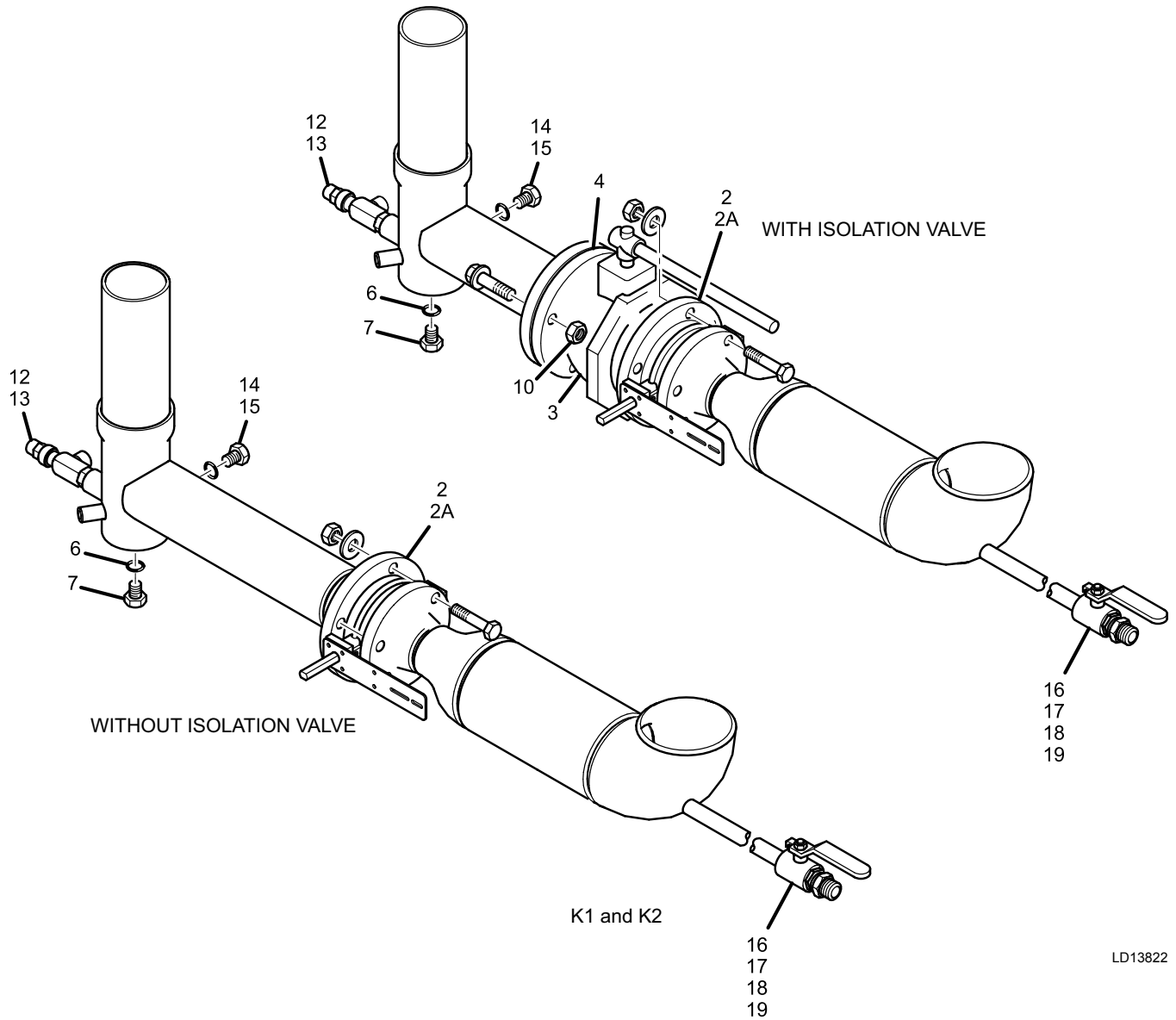
**TABLE 18 - VARIABLE ORIFICE 3" (K1, K2 & K2 HEAT RECOVERY)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	Valve, Butterfly 3"	022-10642-003	1	24
2A	O-ring, Neoprene 4.10 ID .210 Thk	028-12961-025	2	
3	Valve, Ball 3" Flanged	022-09739-000	1	24
4	Gasket, ANSI 3-150#	028-15075-108	1	24
6	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	24
7	Plug, Hex HD 3/4	023-18280-000	1	24
11	Actuator, Electric	025-38178-000	1	*
12	Valve, Stop Angle	022-10047-000	1	24
13	O-ring, Neoprene .924ID .116THK	028-12961-006	2	24
14	Plug, Hex	023-18962-000	1	24
15	O-ring, Neoprene .468ID .078THK	028-12961-003	1	24
16	Valve Ball 1 Npti X 1 Npti	022-06873-000	1	24
17	Bush Pipe 1 - 11-1/2 Npte	023-04045-000	1	24
18	Connr 3/4 Ext Fla X 3/4	023-00934-000	1	24
19	Gasket Fla 3/4 Od Tube	028-09211-000	1	24

**3" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	Valve, Butterfly 3"	022-10642-003	1	24
2A	O-ring, Neoprene 4.10 ID .210 Thk	028-12961-025	2	
6	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	24
7	Plug, Hex HD 3/4	023-18280-000	1	24
11	Actuator, Electric	025-38178-000	1	*
12	Valve, Stop Angle	022-10047-000	1	24
13	O-ring, Neoprene .924ID .116THK	028-12961-006	2	24
14	Plug, Hex	023-18962-000	1	24
15	O-ring, Neoprene .468ID .078THK	028-12961-003	1	24
16	Valve Ball 1 Npti X 1 Npti	022-06873-000	1	24
17	Bush Pipe 1 - 11-1/2 Npte	023-04045-000	1	24
18	Connr 3/4 Ext Fla X 3/4	023-00934-000	1	24
19	Gasket Fla 3/4 Od Tube	028-09211-000	1	24

**NOTE:** Items with an \* are NOT represented.



**FIGURE 24 - VARIABLE ORIFICE (3")**

**VARIABLE ORIFICE (K1 - K3 AND K2 WITH HEAT RECOVERY)  
 4" OPTION WITH ISOLATION VALVE**

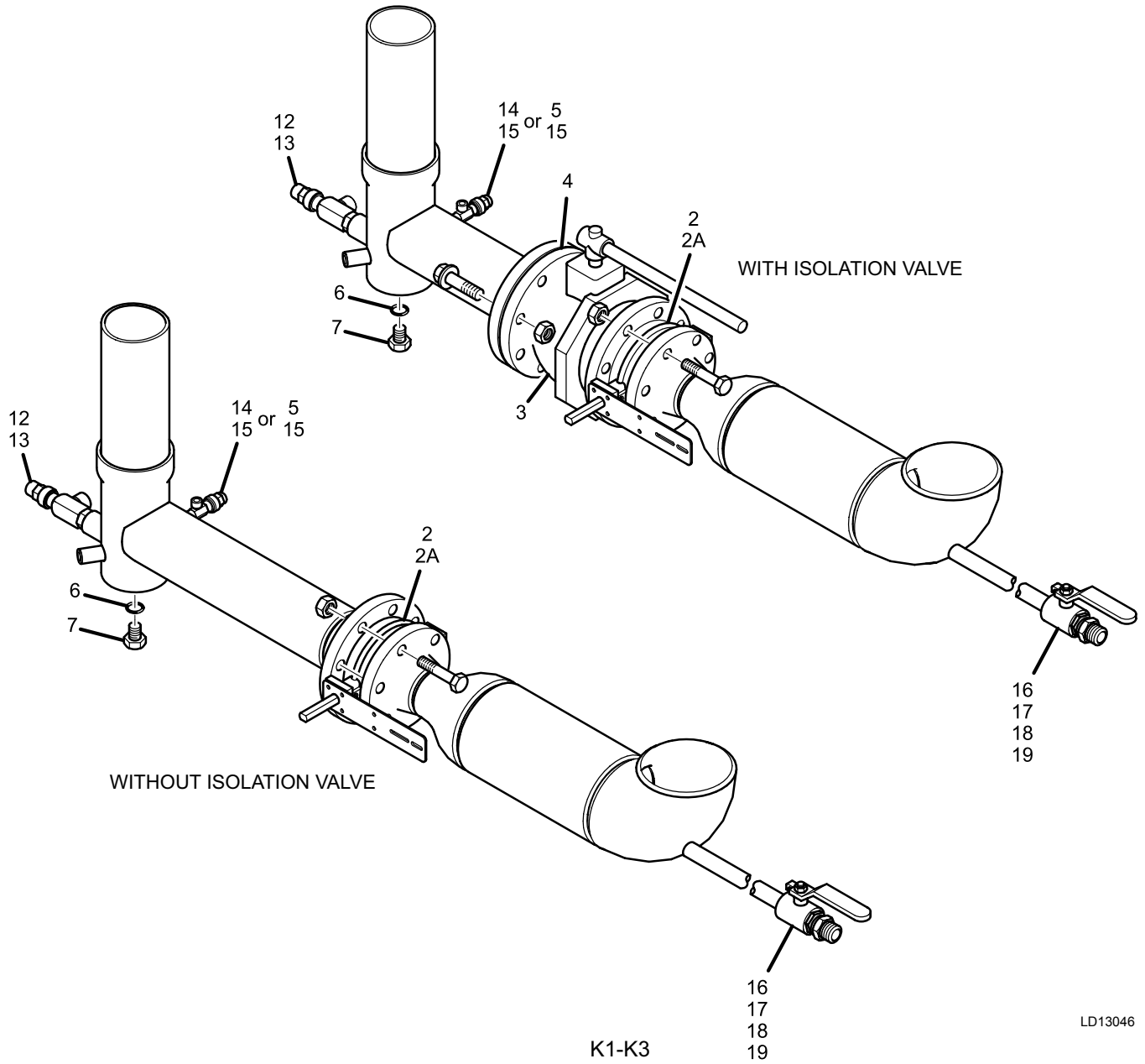
**TABLE 19 - VARIABLE ORIFICE 4" (K1-K3 & K2 HEAT RECOVERY)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	Valve, Butterfly 4"	022-10642-004	1	25
2A	O-ring, Neoprene 5.10 ID 2.75 Thk	028-12961-026	2	
3	Valve, Ball 4" Flanged	022-09740-000	1	25
4	Gasket, ANSI 4-150#	028-15075-110	1	25
5	Plug, Hex	023-18962-000	1	25
6	O-ring, Neoprene .644 ID .087	028-12961-004	1	25
7	Plug, Hex HD 3/4	023-18280-000	1	25
8	HCS5, .625-11 x 3 GR5 Zn	021-32010-024	8	25
9	HSC5, .625-11 x 5 GR5 Zn	021-32010-040	8	25
10	Nut, Hex .625-11 GR5 Zn	021-32010-501	16	25
11	Actuator, Electric	025-38178-000	1	*
12	Valve, Stop Angle	022-10047-000	1	25
13	O-ring, Neoprene .924ID .116THK	028-12961-006	1	25
14	Valve, Stop Angle	022-10054-000	1	25
15	O-ring, Neoprene .468ID .078THK	028-12961-003	1	25
16	Valve, Ball 1 Npti X 1 Npti	022-06873-000	1	25
17	Bush, Pipe 1 - 11-1/2 Npte	023-04045-000	1	25
18	Connr, 3/4 Ext Fla X 3/4	023-00934-000	1	25
19	Gasket, Fla 3/4 Od Tube	028-09211-000	1	25

**4" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	Valve, Butterfly 4"	022-10642-004	1	25
2A	O-ring, Neoprene 5.10 Id .275 Thk	028-12961-026	2	
5	Plug, Hex	023-18962-000	1	25
6	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	25
7	Plug, Hex HD 3/4	023-18280-000	1	25
9	HCS5, .625-11 GR5 Zn	021-32010-040	8	25
10	Nut, Hex .625-11 GR5 Zn	021-32010-501	8	25
11	Actuator, Electric	025-38178-000	1	*
12	Valve, Stop Angle	022-10047-000	1	25
13	O-ring, Neoprene .924ID .116THK	028-12961-006	1	25
14	Valve, Stop Angle	022-10054-000	1	25
15	O-ring, Neoprene .468ID .078THK	028-12961-003	1	25
16	Valve, Ball 1 Npti X 1 Npti	022-06873-000	1	25
17	Bush, Pipe 1 - 11-1/2 Npte	023-04045-000	1	25
18	Connr, 3/4 Ext Fla X 3/4	023-00934-000	1	25
19	Gasket, Fla 3/4 Od Tube	028-09211-000	1	25

**NOTE:** Items with an \* are NOT represented.



**FIGURE 25 - VARIABLE ORIFICE (4")**

**VARIABLE ORIFICE (K3 AND K4)  
 4" OPTION WITH ISOLATION VALVE**

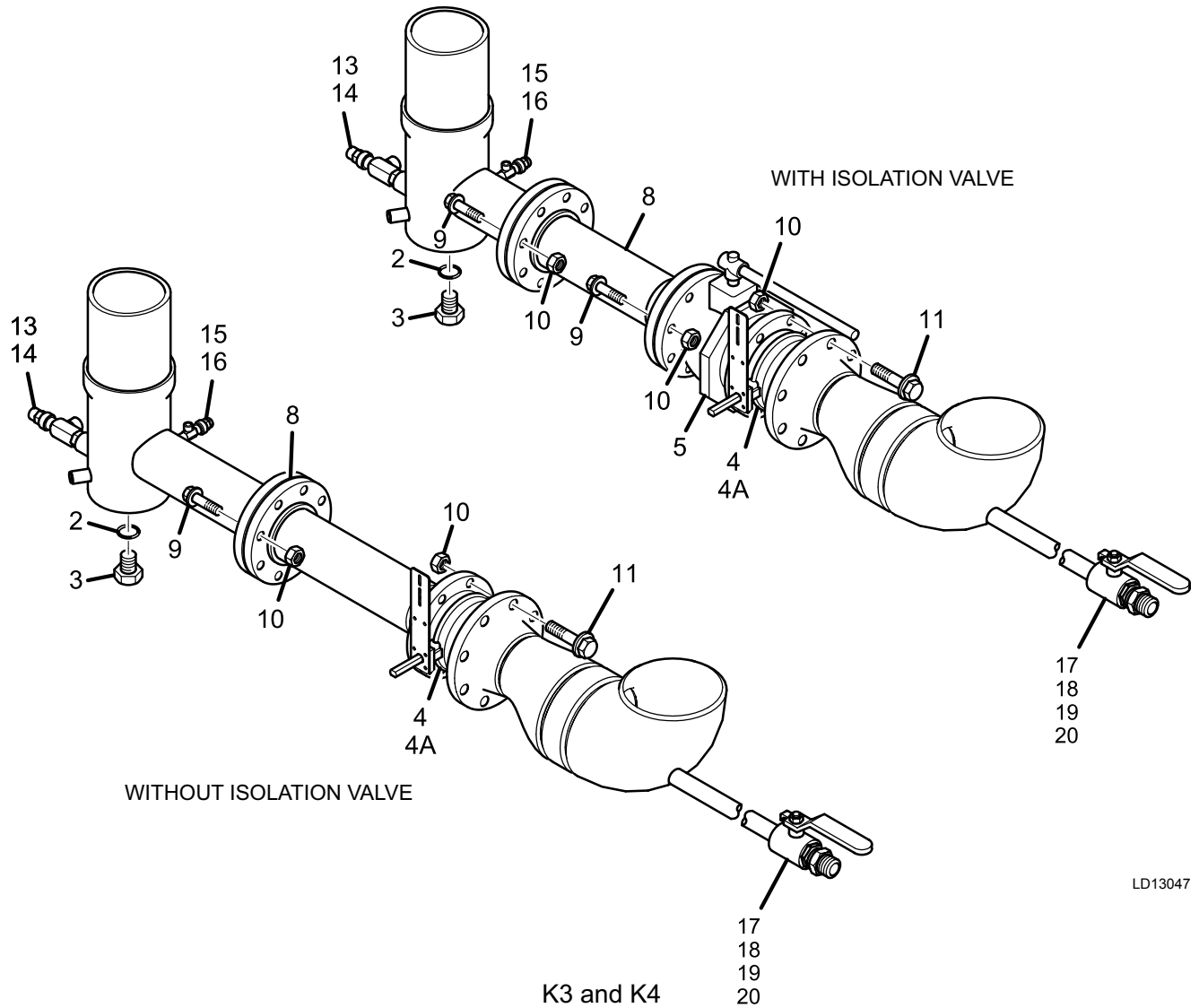
**TABLE 20 - VARIABLE ORIFICE 4" (K3 & K4)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	26
3	Plug, Hex HD 3/4	023-18280-000	1	26
4	Valve, Butterfly SZ 4"	022-10642-004	1	26
4A	O-ring, Neoprene 5.10 ID .275 Thk	028-12961-026	2	
8	Pipe, 16" Lg 4" Sch 40	075-67789-000	1	26
9	HCS5, .625-11 x 3 GR5 Zn	021-32010-024	16	26
10	Nut, Hex .625-11 x GR5 Zn	021-32010-501	24	26
11	HCS5, .625-11 x 5 GR5 Zn	021-32010-040	8	26
12	Actuator, Electric	025-38178-000	1	*
13	Valve, Stop Angle	022-10047-000	1	26
14	O-ring, Neoprene .924ID .116THK	028-12961-006	1	26
15	Valve, Stop Angle	022-10054-000	1	26
16	O-ring, Neoprene .468ID .078THK	028-12961-003	1	26
17	Valve, Ball 1 Npti X 1 Npti	022-06873-000	1	26
18	Bush, Pipe 1 - 11-1/2 Npte	023-04045-000	1	26
19	Connr, 3/4 Ext Fla X 3/4	023-00934-000	1	26
20	Gasket, Fla 3/4 Od Tube	028-09211-000	1	26

**4" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	26
3	Plug, Hex HD 3/4	023-18280-000	1	26
4	Valve, Butterfly, Sz 4"	022-10642-004	1	26
4A	O-ring, Neoprene 5.10 ID .275 Thk	028-12961-026	2	
8	Gasket, ANSI 4-150#	028-15075-110	1	26
9	HCS5, .625-11 x GR5 Zn	021-32010-024	8	26
10	Nut, Hex .625-11 GR5 Zn	021-32010-501	16	26
11	HCS5, .625-111 x 5 GR5 Zn	021-32010-040	8	26
12	Actuator, Electric	025-38178-000	1	*
13	Valve, Stop Angle	022-10047-000	1	26
14	O-ring, Neoprene .924ID .116THK	028-12961-006	1	26
15	Valve, Stop Angle	022-10054-000	1	26
16	O-ring, Neoprene .468ID .078THK	028-12961-003	1	26
17	Valve, Ball 1 Npti X 1 Npti	022-06873-000	1	26
18	Bush, Pipe 1 - 11-1/2 Npte	023-04045-000	1	26
19	Connr, 3/4 Ext Fla X 3/4	023-00934-000	1	26
20	Gasket, Fla 3/4 Od Tube	028-09211-000	1	26

**NOTE:** Items with an \* are NOT represented.



LD13047

**FIGURE 26 - VARIABLE ORIFICE (4")**

**VARIABLE ORIFICE (K4, K7 AND K7 WITH HEAT RECOVERY)  
 5" OPTION WITH ISOLATION VALVE**

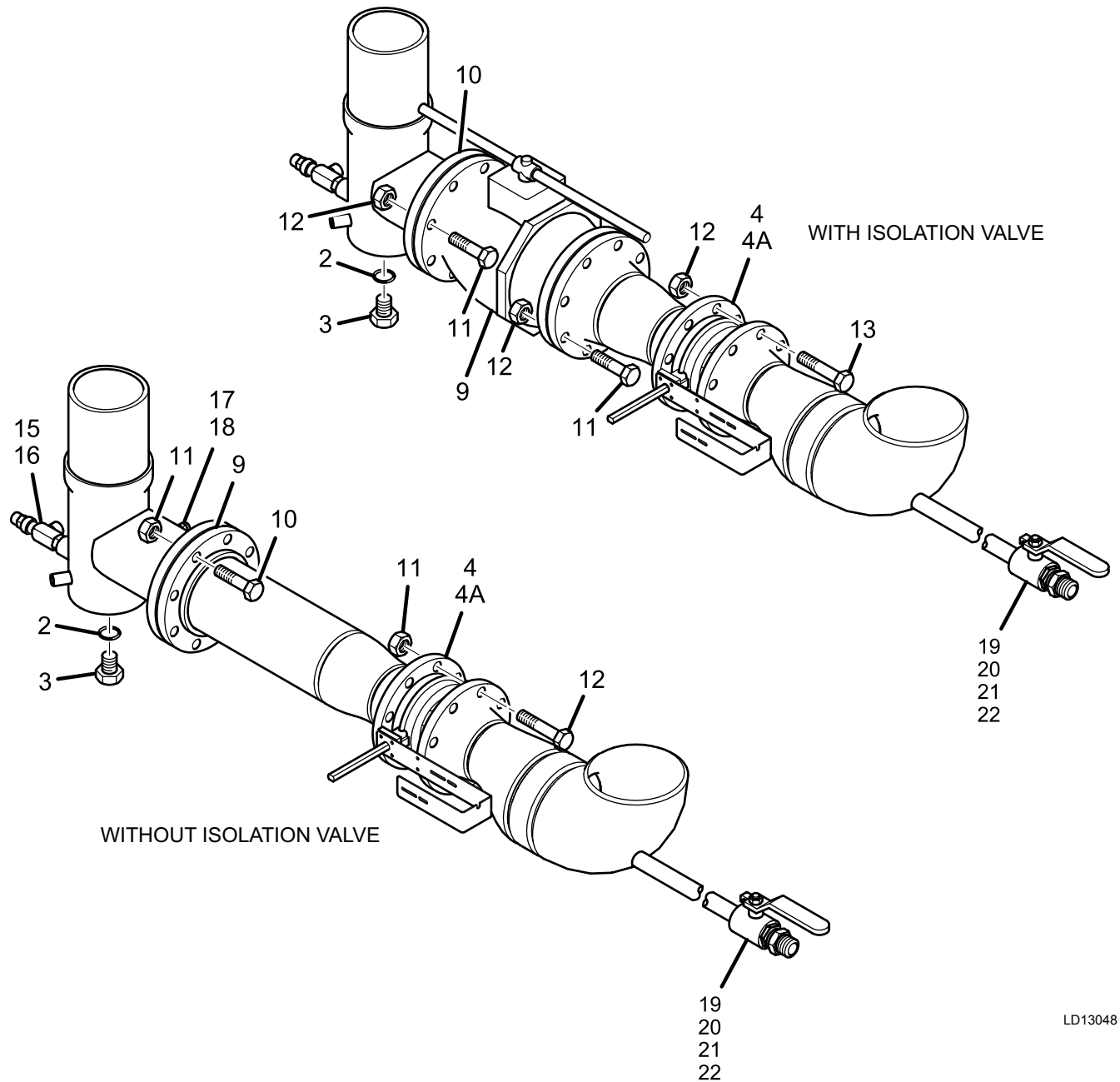
**TABLE 21 - VARIABLE ORIFICE 5" (K4, K7 & K7 HEAT RECOVERY)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	27
3	Plug, Hex HD 3/4	023-18280-000	1	27
4	Valve, Butterfly SZ 5"	022-10642-005	1	27
4A	O-ring, Neoprene 5.975 ID .275 Thk	028-12961-027	2	
8	Gasket, ANSI 6-150#	028-15075-112	2	27
9	Valve, Ball 6" Flanged	022-10609-000	1	27
11	HCS5, .75-10 x 3 GR5 Zn	021-32012-024	16	27
12	Nut, Hex .750-10 x 5 GR5 Zn	032-32012-501	24	27
13	HCS5, .75-10 x 5 GR5 Zn	021-32012-040	8	27
14	Actuator, Electric	025-38178-000	2	*
15	Valve, Stop Angle	022-10047-000	1	27
16	O-ring, Neoprene .924ID .116THK	028-12961-006	1	27
17	Valve, Stop Angle	022-10054-000	1	*
18	O-ring, Neoprene .468ID .078THK	028-12961-003	1	*
19	Valve, Ball 1 Npti X 1 Npti	022-06873-000	1	27
20	Bush, Pipe 1 - 11-1/2 Npte	023-04045-000	1	27
21	Connr, 3/4 Ext Fla X 3/4	023-00934-000	1	27
22	Gasket, Fla 3/4 Od Tube	028-09211-000	1	27

**5" OPTION WITHOUT ISOLATION VALVE**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
2	O-ring, Neoprene .644 ID .087 THK	028-12961-004	1	27
3	Plug, Hex HD 3/4	023-18280-000	1	27
4	Valve, Butterfly, Sz 5"	022-10642-005	1	27
4A	O-ring, Neoprene 5.975 ID .275 Thk	028-12961-027	2	
9	Gasket, ANSI 6-150#	028-15075-112	1	27
10	HCS5, .75-10 x 3 GR5 Zn	021-32012-024	8	27
11	Nut, Hex .750-10 x GR5 Zn	032-32012-501	16	27
12	HCS5, .750-10 x 5 GR5 Zn	021-32012-040	8	27
13	Actuator, Electric	025-38178-000	2	*
15	Valve, Stop Angle	022-10047-000	1	27
16	O-ring, Neoprene .924ID .116THK	028-12961-006	1	27
17	Valve, Stop Angle	022-10054-000	1	27
18	O-ring, Neoprene .468ID .078THK	028-12961-003	1	27
19	Valve, Ball 1 Npti X 1 Npti	022-06873-000	1	27
20	Bush, Pipe 1 - 11-1/2 Npte	023-04045-000	1	27
21	Connr, 3/4 Ext Fla X 3/4	023-00934-000	1	27
22	Gasket, Fla 3/4 Od Tube	028-09211-000	1	27

**NOTE:** Items with an \* are NOT represented.



LD13048

K6 and K7

**FIGURE 27 - VARIABLE ORIFICE (5")**

## RELIEF VALVES

**TABLE 22 - EVAPORATOR RELIEF VALVES**

EVAPORATOR WITHOUT ISOLATION VALVE							
SHELL CODE	3-WAY VALVE	QUANTITY	O-RING	RELIEF VALVE	QUANTITY	O-RING	FIGURE
A	022-10073-000	1	028-12961-008	022-10078-000	2	028-12961-008	28
C	022-10074-000	1	028-12961-017	022-10079-000	2	028-12961-017	28
D							
E							
F							
G							
H							
I							
J							
K	022-10074-000	2	028-12961-017	022-10076-000	4	028-12961-017	28
L	022-10073-000	2	028-12961-008	022-10078-000	4	028-12961-008	28
M	022-10074-000	2	028-12961-017	022-10076-000	4	028-12961-017	28
N							
P							
Q							
R							
S							
W	022-07892-003	1	-	022-07893-025*	2	-	28
X	022-10074-000	2	02-12961-017	022-10076-000	4	028-12961-017	28
Z	022-07892-003	1	-	022-07893-025*	2	-	28

**NOTE:** \* Relief Valves require Pipe Bushing (023-05791-000).

EVAPORATOR WITH ISOLATION VALVE				
SHELL CODE	RELIEF VALVE	QUANTITY	O-RING	FIGURE
A	022-10078-000	1	028-12961-008	28
C	022-10079-000	1	028-12961-017	28
D				
E				
F				
G				
H				
I				
J				
K	022-10076-000	2	028-12961-017	28
L	022-10078-000	2	028-12961-008	28
M	022-10076-000	2	028-12961-017	28
N				
P				
Q				
R				
S				
W	022-07893-025**	1	-	28
X	022-10076-000	2	028-12961-017	28
Z	022-07893-025**	1	-	28

**NOTE:** \*\* Relief Valves require Flange Relief Valve Companion (023-13837-003).

## RELIEF VALVES (CONT'D)

**TABLE 23 - CONDENSER RELIEF VALVES**

CONDENSER							
SHELL CODE	3-WAY VALVE	QUANTITY	O-RING	RELIEF VALVE	QUANTITY	O-RING	FIGURE
A	022-10073-000	1	028-12961-008	022-10078-000	2	028-12961-008	28
C							
D							
B*	022-10074-000	1	028-12961-017	022-10079-000	2	028-12961-017	28
E							
F							
I*							
J							
K							
L							
M							
N							
O*							
P	022-10074-000	2	028-12961-017	022-10076-000	4	028-12961-017	28
Q							
R							
U*	022-10074-000	2	028-12961-017	022-10079-000	4	028-12961-017	28
S							
T							
V	1-5/16	1	028-12961-017	1-5/8	2	028-12961-017	28
022-10073-000	022-10078-000						
W	022-100074-000	2	028-12961-017	022-10079-000	4	028-129-61-017	28
Y*							
X	1-5/8	1	028-12961-017	1-5/8	2	028-12961-017	28
Z	022-10074-000			022-10079-000			
022-10073-000	1-5/16	1	028-12961-017	1-5/16	2	028-12961-017	28
022-10078-000	022-10078-000						

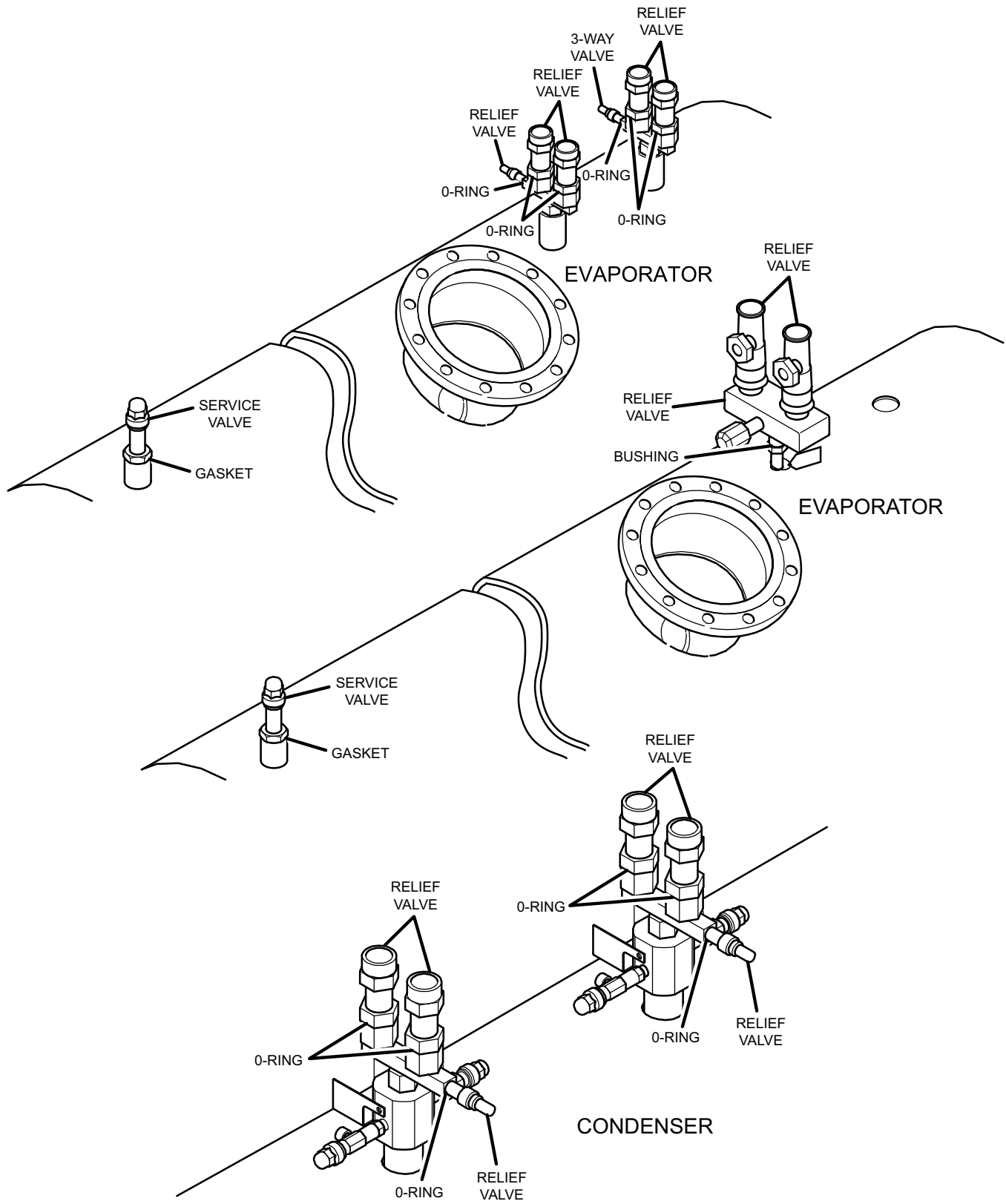
**NOTE:** \* = Heat Recovery

### MISCELLANEOUS VALVES

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
172	Valve, Service Cond / Evap	022-09573-000	2	*
173	Gasket, Service Valve	028-04836-000	2	*

**NOTE:** Items with an \* are NOT represented.

# RELIEF VALVES (CONT'D)



LD13049a

FIGURE 28 - RELIEF VALVES

## HOT GAS BYPASS COMPONENTS 2" WITH ISOLATION VALVE

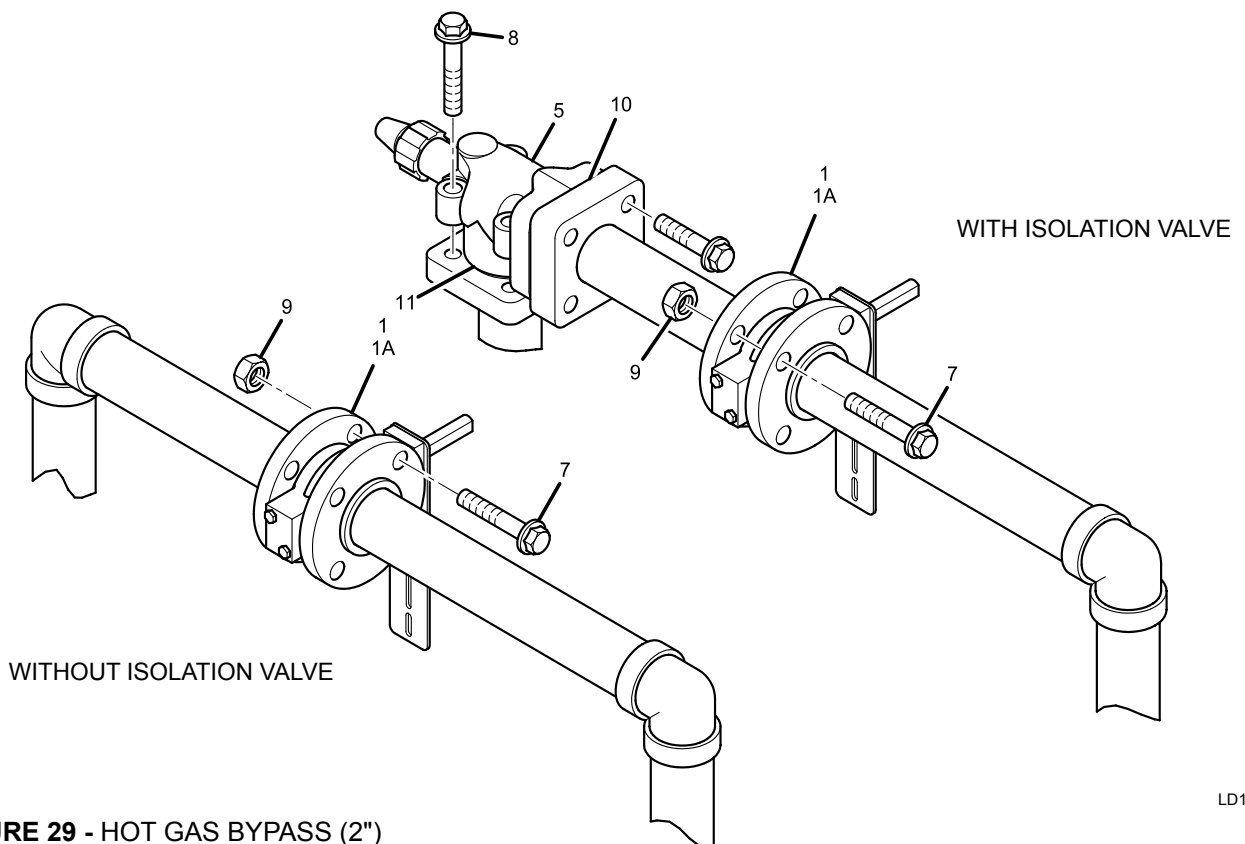
**TABLE 24 - 2" HOT GAS BYPASS**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Valve, Butterfly 2"	022-10643-002	1	29
1A	O-ring, Neoprene 3.109 ID .139 Thk	028-12961-023	2	
5	Valve, Stop Compr. 2-5/8 OD	022-10048-000	1	29
7	HCS5, .625-11 x 4.5 GR5 Zn	021-32010-036	8	29
8	HCS5, .625-11 x 2.5 GR5 Zn	021-32010-020	4	29
9	Nut, Hex .625-11 x GR5 Zn	021-32010-501	4	29
10	Gasket, Flange 2" Valve	064-47078-000	1	29
11	Gasket, 2" Valve	064-47078-000	1	29
13	Motor, Actuator	025-38180-000	1	*
14	Kit, PRV Position Sensor	371-02012-001	1	32

## 2" WITHOUT ISOLATION VALVE

ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Valve, Butterfly 2"	022-10643-002	1	29
1A	O-ring, Neoprene 3.109 ID .139 Thk	028-12961-023	2	
7	HCS5, .625-11 x 4.5 GR5 Zn	021-32010-036	4	29
9	Nut, Hex .625-11 x GR5 Zn	021-32010-501	4	29
10	Motor, Actuator	025-38180-000	1	*
11	Kit, PRV Position Sensor	371-02012-001	1	32

**NOTE:** Items with an \* are NOT represented.



**FIGURE 29 - HOT GAS BYPASS (2")**

LD13050

## HOT GAS BYPASS COMPONENTS 3" WITH ISOLATION VALVE

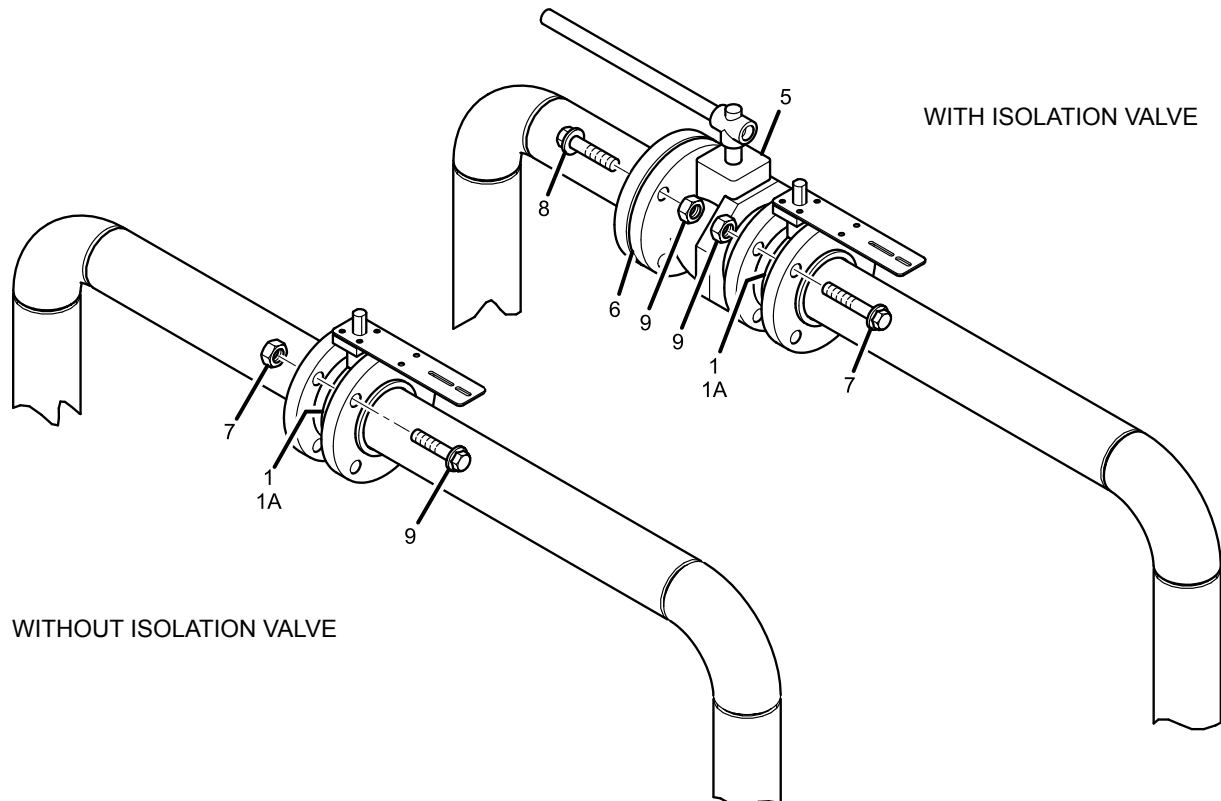
**TABLE 25 - 3" HOT GAS BYPASS**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Valve, Butterfly 3"	022-10643-003	1	30
1A	O-ring, Neoprene 4.10 ID .210 Thk	028-12961-025	2	
5	Valve, Ball 3" Flanged	022-09739-000	1	30
6	Gasket, ANSI 3-150#	028-15075-008	1	30
7	HCS5, .625-11 x 4.75 GR5 Zn	021-32010-038	4	30
8	HCS5, .625-11 x 3 GR5 Zn	021-32010-024	4	30
9	Nut, Hex .625-11 GR5 Zn	021-32010-501	8	30
10	Motor, Actuator	025-38180-000	1	*
11	Kit, PRV Position Sensor	371-02012-001	1	32

## 3" WITHOUT ISOLATION VALVE

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Valve, Butterfly 3"	022-10643-003	1	30
1A	O-ring, Neoprene 4.10 ID .210 Thk	028-12961-025	2	
7	HCS5, .625-11 x 4.75 GR5 Zn	021-32010-038	4	30
9	Nut, Hex .625-11 x GR5 Zn	021-32010-501	4	30
10	Motor, Actuator	025-38180-000	1	*
11	Kit, PRV Position Sensor	371-02012-001	1	32

**NOTE:** Items with an \* are NOT represented.



**FIGURE 30 - HOT GAS BYPASS (3")**

LD13051

## HOT GAS BYPASS COMPONENTS 4" WITH ISOLATION VALVE

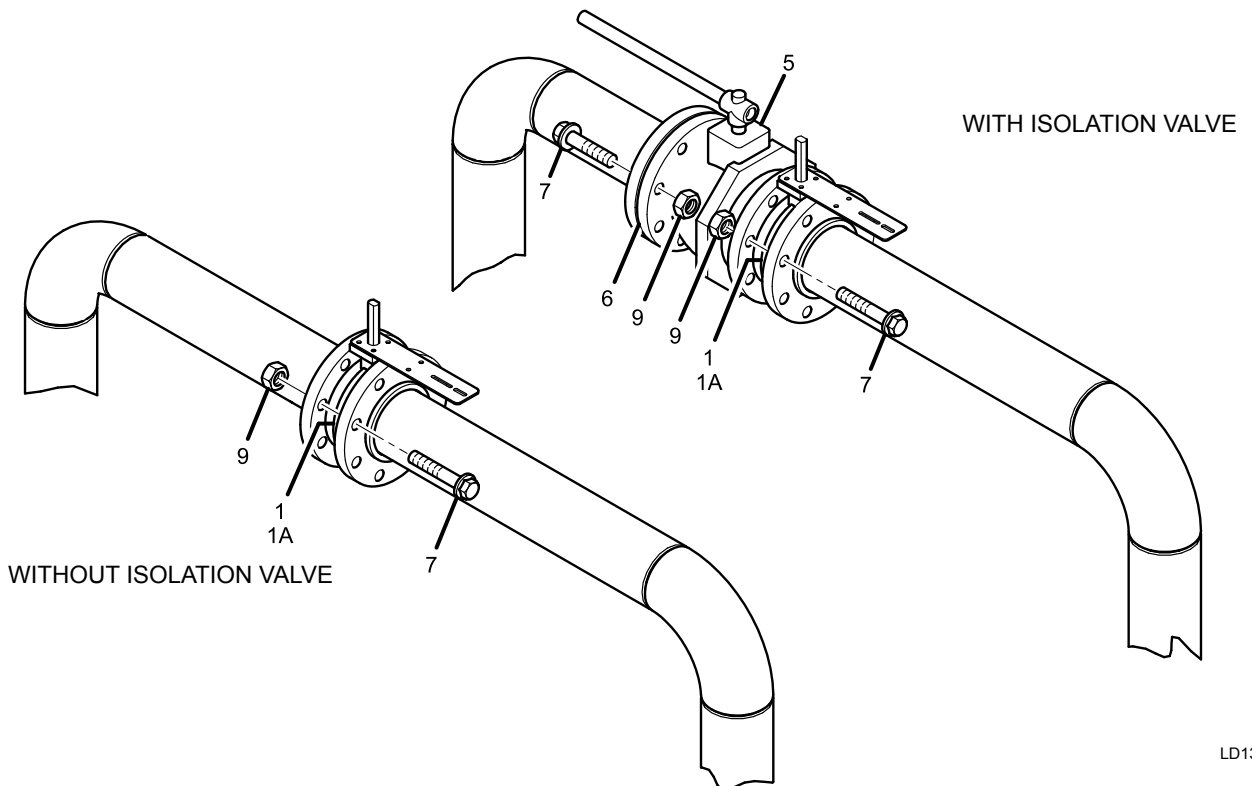
**TABLE 26 - 4" HOT GAS BYPASS**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Valve, Butterfly 4"	022-10643-004	1	31
1A	O-ring, Neoprene 5.10 ID .275 Thk	028-12961-026	2	
5	Valve, Ball 4" Flanged	022-09740-000	1	31
6	Gasket, ANSI 4-150#	028-15075-010	1	31
7	HCS5 .625-11 x 4.75 GR5 Zn	021-32010-038	8	31
8	HCS5 .625-11 x 3.00 GR5 Zn	021-32010-024	8	31
9	Nut, Hex .625-11 x GR5 Zn	021-32010-501	16	31
10	Motor, Actuator	025-38180-000	1	*
11	Kit, PRV Position Sensor	371-02012-001	1	32

## 4" WITHOUT ISOLATION VALVE

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Valve, Butterfly 4"	022-10643-004	1	31
1A	O-ring, Neoprene 5.10 ID .275 Thk	028-12961-026	2	
7	HCS5, .625-11 x 4.75 GR5 Zn	021-32010-038	8	31
9	Nut, Hex .625-11 x GR5 Zn	021-32010-501	8	31
10	Motor, Actuator	025-38180-000	1	*
11	Kit, PRV Position Sensor	371-02012-001	1	32

**NOTE:** Items with an \* are NOT represented.

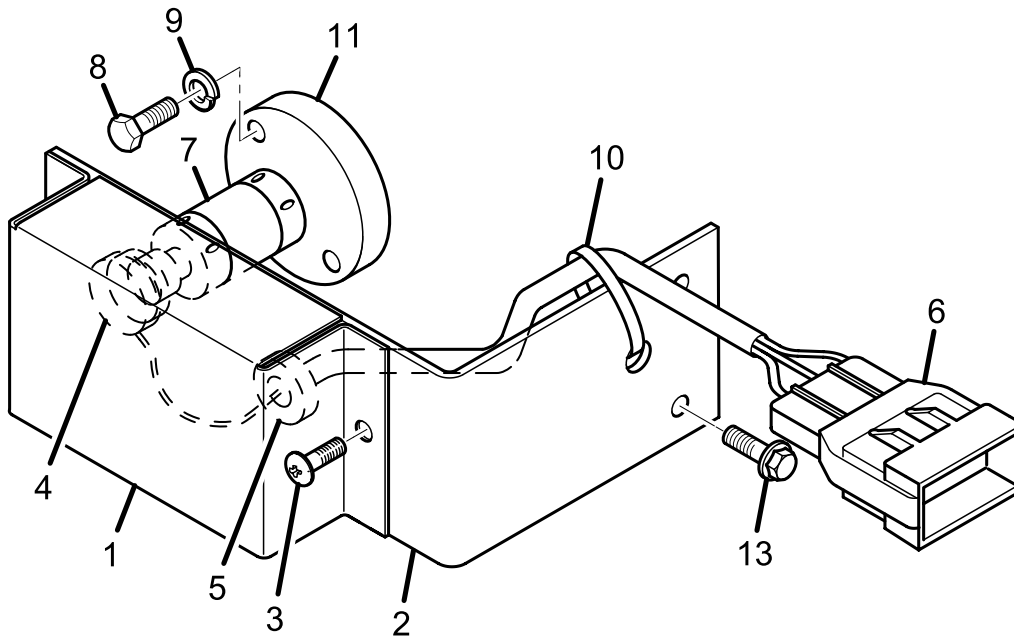


**FIGURE 31 - HOT GAS BYPASS (4")**

## PRV POSITION SENSOR KIT (371-02012-001)

**TABLE 27 - PRV POSITION SENSOR KIT (371-02012-001)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Cover, PRV Position Sensor	071-02012-002	1	32
2	Bracket, Support Upper PRV	371-02012-209	1	32
3	Screw, Tapping Thread Forming	021-13757-000	2	32
4	POT, 2500 Ohms 2 Watt	025-32570-000	1	32
5	Bushing, Strain Relief Straight	025-09080-000	1	32
6	Cable PRV Sensor VSD	571-02012-005	1	32
7	Coupling, Shaft, Flexible	029-24196-000	1	32
8	Screw, Cap Hex Soc Hd #10	021-18674-000	2	32
9	Lockwasher, Hel Spg #10	032-08292-000	2	32
10	Strap, Cable T and B L4-18-9-M	025-18167-000	1	32
11	Cap, PRV Sensor	071-02012-006	1	32
12	Shaft, PRV Position Sensor	071-02012-007	1	32
13	Screw, Washer Assy.	021-18487-000	2	32



LD13053

**FIGURE 32 - PRV POSITION SENSOR KIT**

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## VARIABLE SPEED OIL PUMP CONTROL PANEL NEMA 1 COMMON PARTS (371-04137-010)

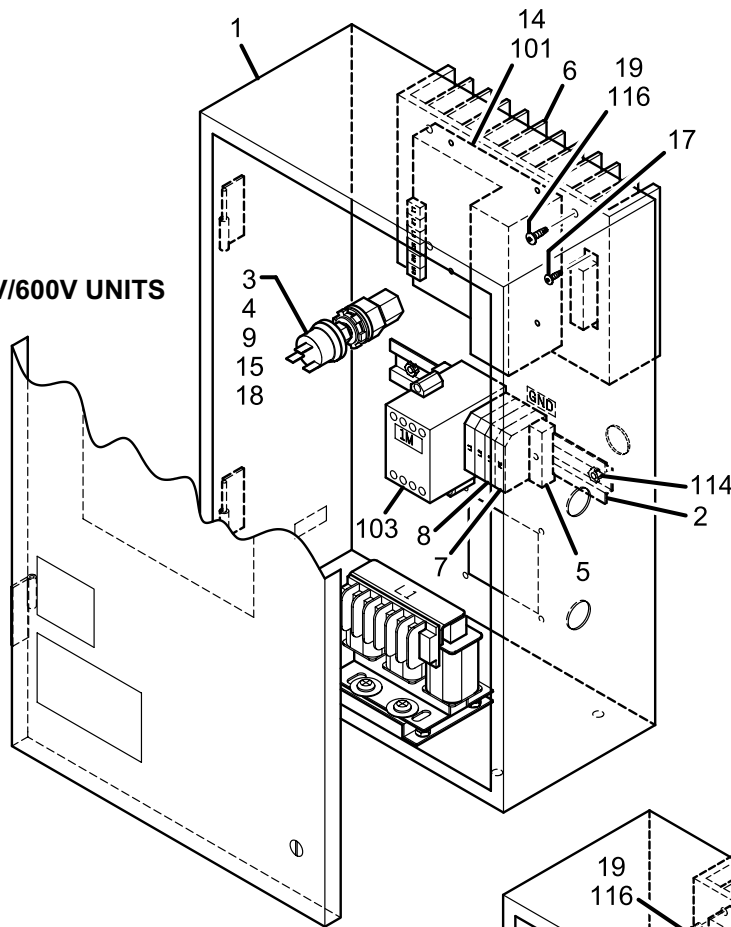
**TABLE 28 - VARIABLE SPEED OIL PUMP PANEL (NEMA 1)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Box, Elec. VSOPD Panel	371-04137-311	1	33
2	Rail, Mounting Contactor	025-29167-000	.09	33
3	O-ring, Neoprene .301ID .064THK	028-12961-021	1	33
4	Switch, High Pressure Cut-out	025-37890-204	1	33
5	Clamp, Din rail	025-29189-000	2	33
6	Heatsink	071-02766-301	1	33
7	Terminal Block	025-39564-000	1	33
8	Terminal Block	025-39800-000	3	33
9	Sealing, Ring 1/2	025-09613-000	1	33
13	Marker, Terminal Block	025-33271-000	3	33
14	Compound, Heat Conductive	013-02997-000	.01	33
15	Locknut, Conduit	025-05701-000	1	33
17	Screw, Tapping #6-32Unc	021-19152-000	2	33
18	Adapter, Bulkhead	023-20859-000	1	33
19	Lockwasher, Th 1/4	021-12507-000	4	33

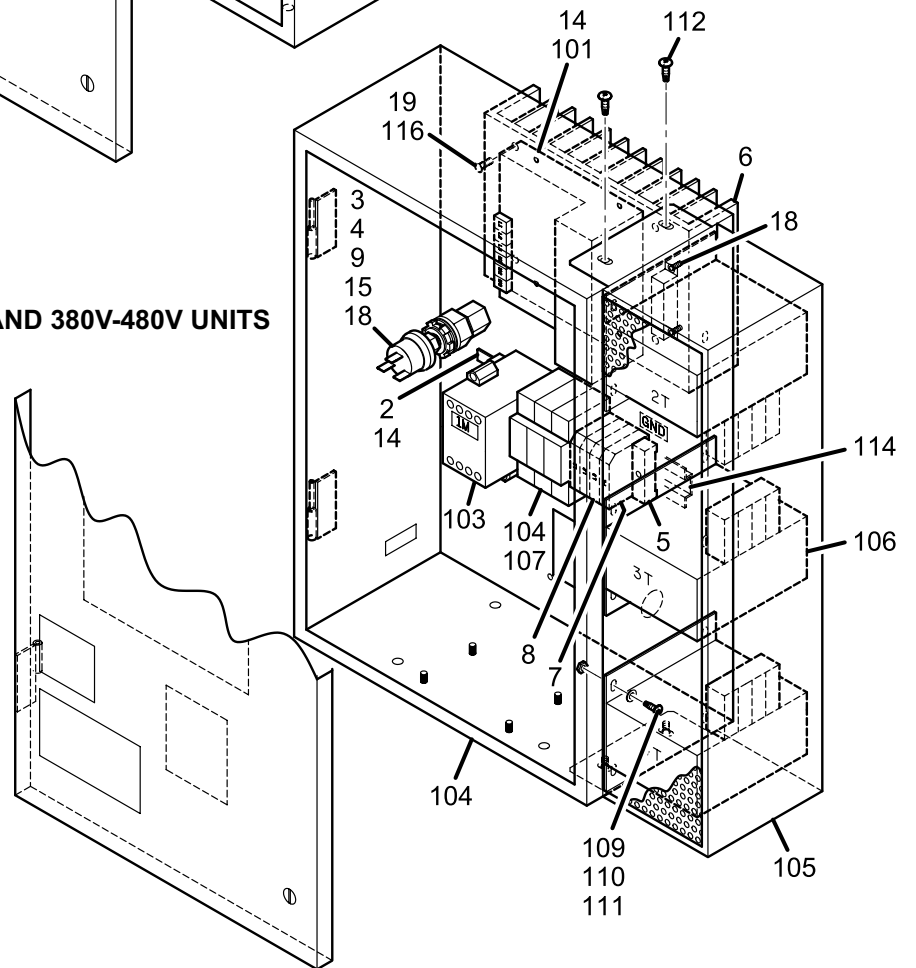
### NEMA 1 VARIABLE PARTS (371-04137-XXX)

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
101	Variable Speed Oil Pump Drive (200V-240V, 346V)	024-30468-001	1	33
	Variable Speed Oil Pump Drive (380V-480V, 575V/600V)	024-30468-002		
102	Bracket, Inductor Mtg.	371-02795-315	1	33
103	Contactor (1M)	024-25522-000	1	33
104	Fuse, Cartridge Type (575V/600V)	025-35903-000	3	33
	Fuse, Cartridge Type (346V)	025-35906-000		
105	Cover, Xmfr, VS Oil Pump Drive	371-02797-311	1	33
106	Transformer (T2, T3, T4) (575V/600V)	025-33233-000	3	33
	Transformer (T2, T3, T4) (346V)	025-33232-000		
107	Fuseholder, 3-Pole	025-37863-000	1	33
108	Main Harness (P/H/K Compressors, 200V-240V and 380V-480V)	571-04137-201	1	33
	Main Harness (P/H/K Compressors, 575V/600V and 346V)	571-04137-211		
	Main Harness (Q Compressors, 200V-240V and 380V-480V)	571-04137-221		
	Main Harness (Q Compressors, 575V/600V and 346V)	571-04137-231		
109	Screw, #10-32	021-09567-000	12	33
110	Lockwasher, Hel Spg #10	021-01137-000	12	33
111	Nut, Hex #10-32	021-08670-000	12	33
112	Screw, Tap Thd, Cutting #10-24	021-14727-000	4	33
114	Nut Washer Assy. #10-24	021-18024-000	6	33
115	Inductor (200V-240V)	025-37860-000	1	33
	Inductor (380V-480V)	025-37861-000		
116	Screw, Machine Pan Hd 1 1/4-20 x 1/2 (200V-240V, 380V-480V)	021-01853-000	8	33
	Screw, Machine Pan Hd 1 1/4-20 x 1/2 (575V/600V, 346V)	021-01853-000	4	
117	Lockwasher, Th Extnl Int 1/4	021-12507-000	4	33

**346V AND 575V/600V UNITS**



**200V-240V AND 380V-480V UNITS**



**FIGURE 33 - VARIABLE SPEED OIL PUMP CONTROL PANEL (NEMA 1)**

LD13054

## VARIABLE SPEED OIL PUMP CONTROL PANEL

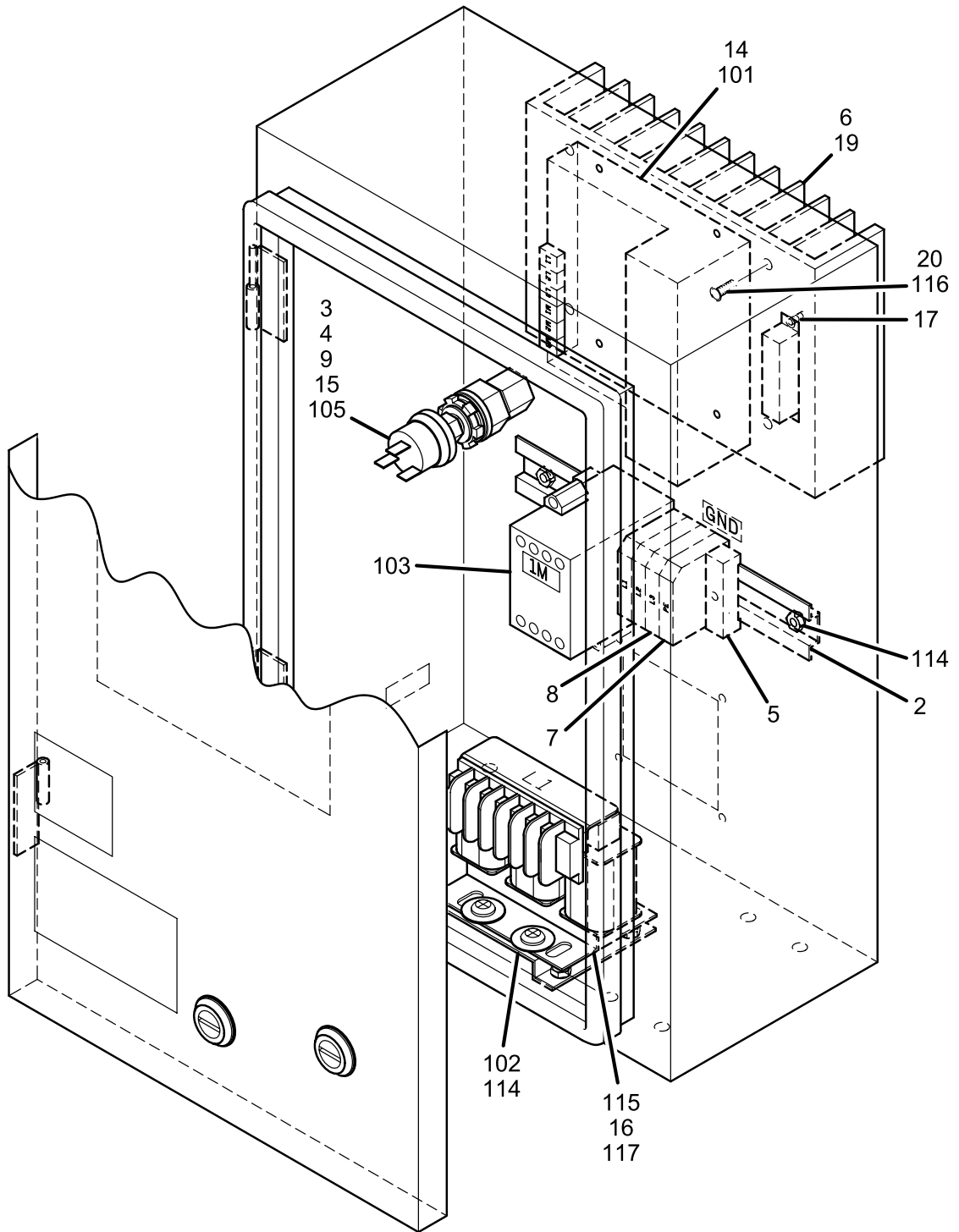
### NEMA4/12, NEMA4X COMMON PARTS (371-04156-010)

**TABLE 29 - VARIABLE SPEED OIL PUMP PANEL (NEMA 4/12 & NEMA4X)**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Box, Elec. VSOPD Panel	371-04156-311	1	34
2	Rail, Mounting Contactor	025-29167-000	.09	34
3	O-ring, Neoprene .3011D .064THK	028-12961-021	1	34
4	Switch, High Pressure Cut-out	025-37890-204	1	34
5	Clamp, Din Rail	025-29189-000	2	34
6	Heatsink	071-02766-301	1	34
7	Terminal Block	025-39564-000	1	34
8	Terminal Block	025-33269-000	3	34
9	Sealing, Ring 1/2	025-09613-000	1	34
13	Marker, Terminal Block	025-33272-000	3	34
14	Compound, Heat Conductive	013-02997-000	.01	34
15	Locknut, Conduit	025-05701-000	1	34
17	Screw, Tapping #6-32Unc	021-19152-000	2	34
19	Sealant, Silicone Rubber	013-02469-000	1	34
20	Lockwasher, Th 1/4	021-12507-000	4	34

### NEMA4/12, NEMA4X VARIABLE PARTS (371-04156-XXX)

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
101	Variable Speed Oil Pump Drive (200V-240V)	024-30468-001	1	34
	Variable Speed Oil Pump Drive (380V-480V)	024-30468-002		
102	Bracket, Inductor Mtg.	371-02795-315	1	34
103	Contactor (1M) (200V-240V, 380V-480V)	024-25522-000	1	34
104	Box, Elec. VSOPD Panel (NEMA 4/12)	371-04156-311	1	34
	Box, Elec. VSOPD Panel (NEMA 4X)	371-04156-315		
105	Adapter, Bulkhead (NEMA 4/12)	023-20859-000	1	34
	Adapter, Bulkhead (NEMA 4X)	025-39306-000		
108	Harness, Main (P/H/K Compressors)	571-04137-201	1	34
	Harness, Main (Q Compressors)	571-04137-221		
114	Nut/Washer Assy. #10-24	021-18024-000	6	34
115	Inductor (200V-240V)	025-37860-000	1	34
	Inductor (280V-480V)	025-37861-000		
116	Screw, Mach Pan HD Rec'd 1 1/4-20 x 1/2	021-01853-000	8	34
117	Lockwasher Th Extnl Int 1/4	021-12507-000	4	34



LD13055

**FIGURE 34 - VARIABLE SPEED OIL PUMP CONTROL PANEL (NEMA 4/12, NEMA4X)**

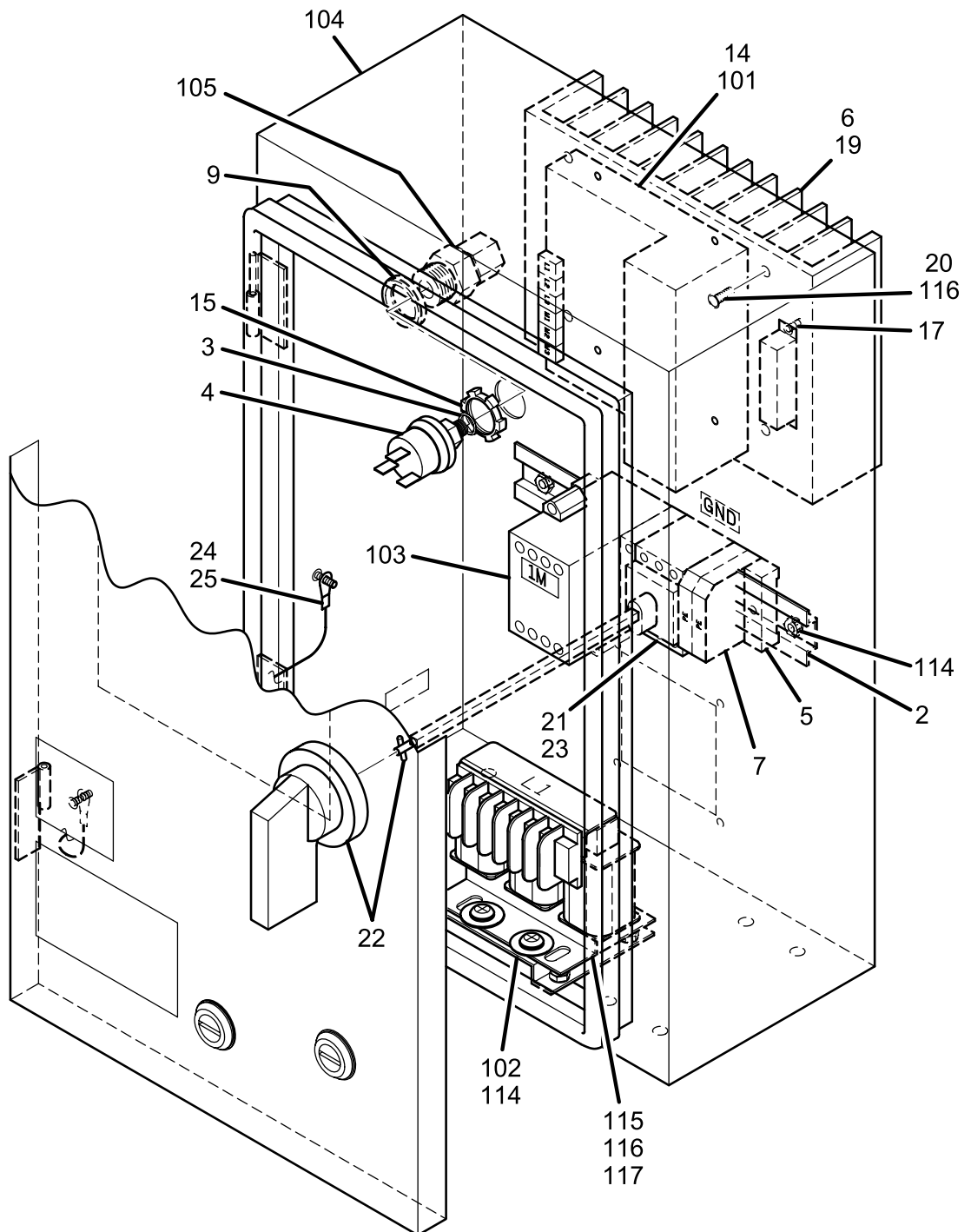
## VARIABLE SPEED OIL PUMP CONTROL PANEL CE COMMON PARTS (371-04936-010)

**TABLE 30 - VARIABLE SPEED OIL PUMP CONTROL PANEL (CE)**

ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY/UNIT	FIGURE
1	Box, Elec. VSOPD Panel	371-04936-311	1	35
2	Rail, Mounting Contactor	025-29167-000	.09	35
3	O-ring, Neoprene .301ID .064THK	028-12961-021	1	35
4	Switch, High Pressure Cut-out	025-37890-204	1	35
5	Clamp, Din Rail	025-29189-000	2	35
6	Heatsink	071-02766-301	1	35
7	Terminal Block	025-39564-000	1	35
9	Sealing, Ring 1/2	025-09613-000	1	35
13	Marker, Terminal Block	025-33272-000	3	35
14	Compound, Heat Conductive	013-02997-000	.01	35
15	Locknut, Conduit	025-05701-000	1	35
17	Screw, Tapping #6-32Unc	021-19152-000	2	35
18	Adapter, Bulkhead	023-20859-000	1	35
19	Sealant, Silicone Rubber	013-02469-000	1	35
20	Lockwasher, Th 1/4	021-12507-000	4	35
21	Switch Disconnect, 30A 600V	024-34015-000	1	35
22	Kit, Door Mounting, Disconnect	024-34016-000	1	35
23	Switch, Disconnect, Accessory, GND Terminal	024-34017-000	1	35
24	Strap, Grounding	525-32508-001	1	35
25	Nut, Keps #8-32	021-17664-000	2	35

## CE VARIABLE PARTS (371-04936-010)

ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY/UNIT	FIGURE
101	Variable Speed Oil Pump Drive (prior 6-2008)	024-30468-002	1	35
	Variable Speed Oil Pump Drive (after 6-2008)	024-36133-002		
102	Bracket, Inductor Mtg.	371-02795-315	1	35
103	Contactor, (1M) (380V-416V)	024-25522-000	1	35
104	Box, Elec. VSOPD Panel	371-04936-311	1	35
105	Adapter, Bulkhead	025-39306-000	1	35
108	Harness, Main (P/H/K Compressors)	571-0436-201	1	35
	Harness, Main (Q Compressors)	571-04936-211		
114	Nut/Washer Assy. #10-24	021-21038-001	6	35
115	Inductor	025-37861-000	1	35
116	Screw, Mach. Pan Hd Rec'd 1 1/4-20 x 1/2	021-01853-000	8	35
117	Lockwasher Th Extrnl Int 1/4	021-12507-000	4	35



LD13056

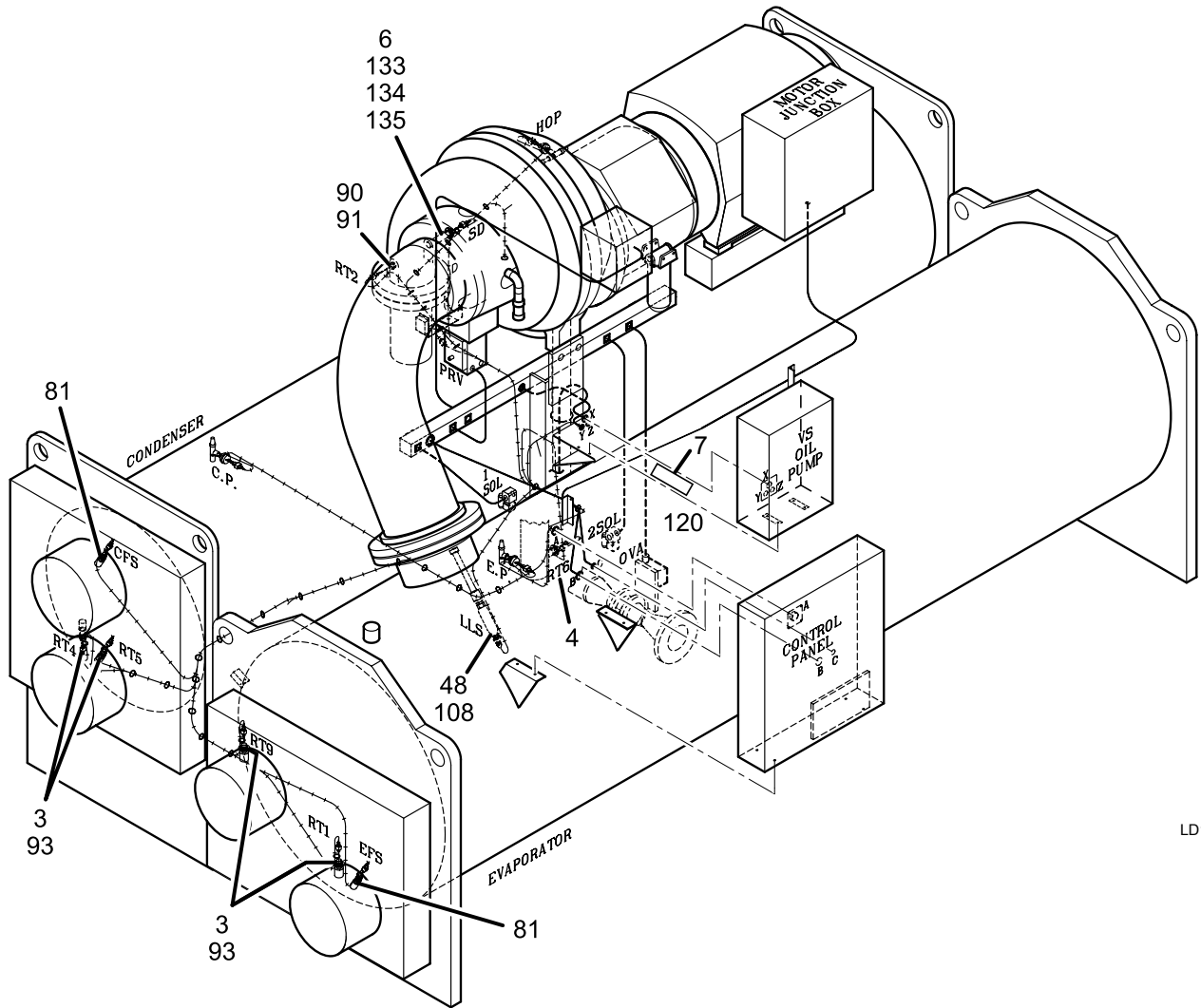
**FIGURE 35 - VARIABLE SPEED OIL PUMP CONTROL PANEL (CE)**

## SYSTEM CONTROL COMPONENTS

**TABLE 31 - SYSTEM CONTROL COMPONENTS**

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
3	Sensor, Temperature 3000 Ohms	025-29964-000	5	36
4	Sensor, Condenser Liquid Temperature (P8, P9, H9, and K)	025-29964-000	1	36
	Sensor, Condenser Liquid Temperature (Q3-Q7, and P7)	025-39517-000		
6	O-ring, Neoprene .644 Id .087 Thk	028-12961-004	2	*
7	Sensor, Temp. Evaporator Refrigerant	025-34159-000	1	*
	Sensor, Temp. Evaporator Refrigerant (Square Connector)	025-41904-000		
21	Diode, Bridge	031-00210-000	1	*
22	Wiring, Resistor	575-00364-001	1	*
48	Gasket, Seal 1" OD x 7/8	028-04836-000	1	36
65	Control, Current CM-2	031-00947-000	1	36
81	Sensor, Flow	025-41573-000	2	36
90	O-ring, Neoprene .644 ID .087 Thk	028-12961-004	1	36
91	Sensor, Temperature 50,000 Ohms DIN	025-39993-000	1	36
93	Well, Thermo	026-32328-000	4	36
108	Sensor, Level R-134a (Q3-Q7/P7/K1-K4) (prior 6-2013)	025-43950-006	1	36
	Sensor, Level R-134a (Q3-Q7/P7/K1-K4) (after 6-2013)	025-46044-006		
	Sensor, Level R-134a (K1-K4/K7) (prior 6-2013)	025-43950-008		
	Sensor, Level R-134a (K1-K4/K7) (after 6-2013)	025-46044-008		
108A	Level Control Module (Pushbutton Style)	325-42383-001		
108B	Level Control Module (Potentiometer Style)	025-34146-000		
109	Sensor ("X" and Larger Cond. Shell Codes)	325-40338-000	1	36
109A	Module ("X" and Larger Cond. Shell Codes)	325-42383-002		
120	Actuator, Electric (2" Valve)	025-38177-000	1	36
	Actuator, Electric (3" and 4" Valve)	025-38178-000		
	Actuator, Electric (5" Valve)	025-38178-000	2	
133	Valve, Ball 3/4-16Unf-2A	022-11715-000	1	36
134	Transducer, Pressure R-22/R-134 (VGD Compressor)	025-40088-000	1	36
135	O-ring, Neoprene .414 Id .072 Thk	028-12961-002	1	36

**NOTE:** Items with an \* are NOT represented.



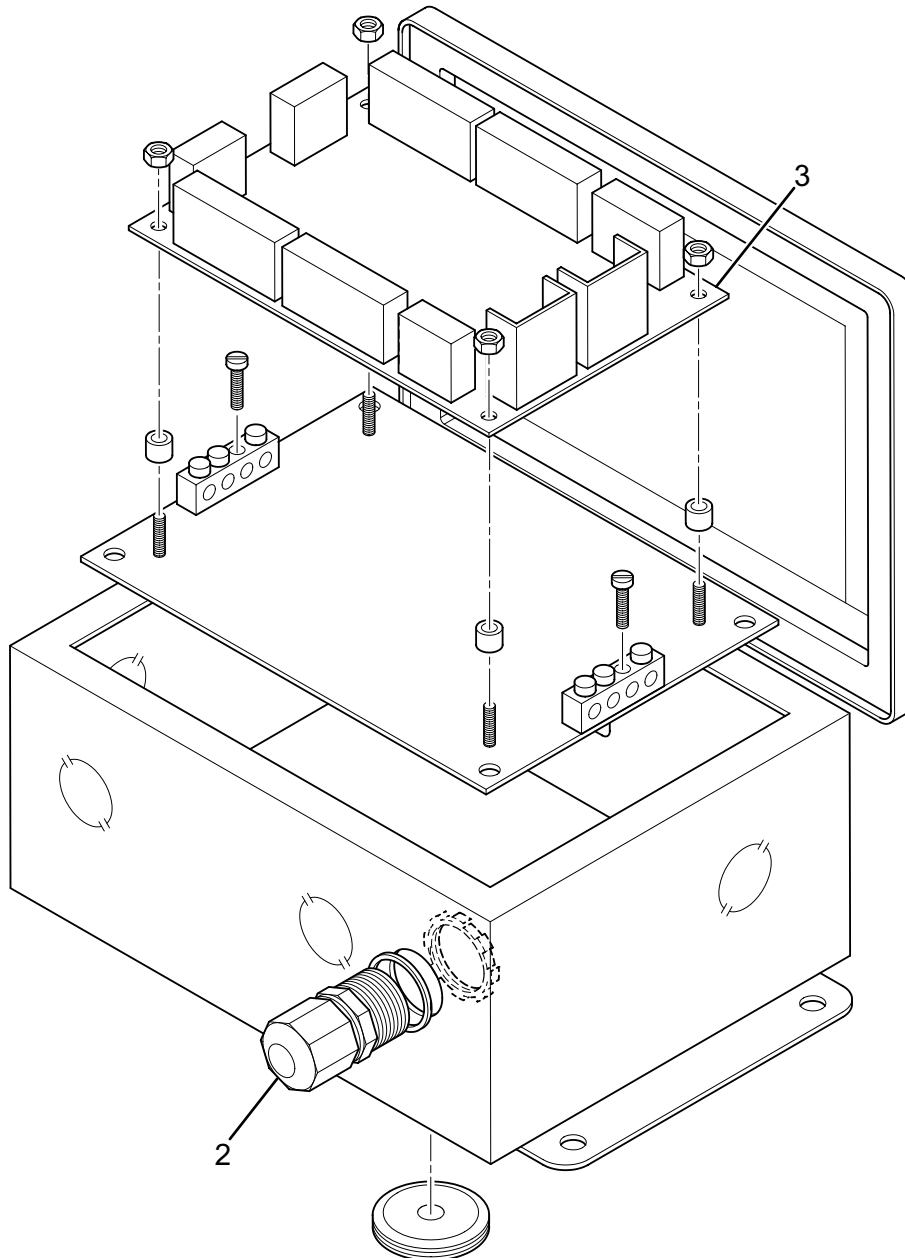
LD13066

**FIGURE 36 - WIRING SYSTEM**

## MOTOR MONITORING

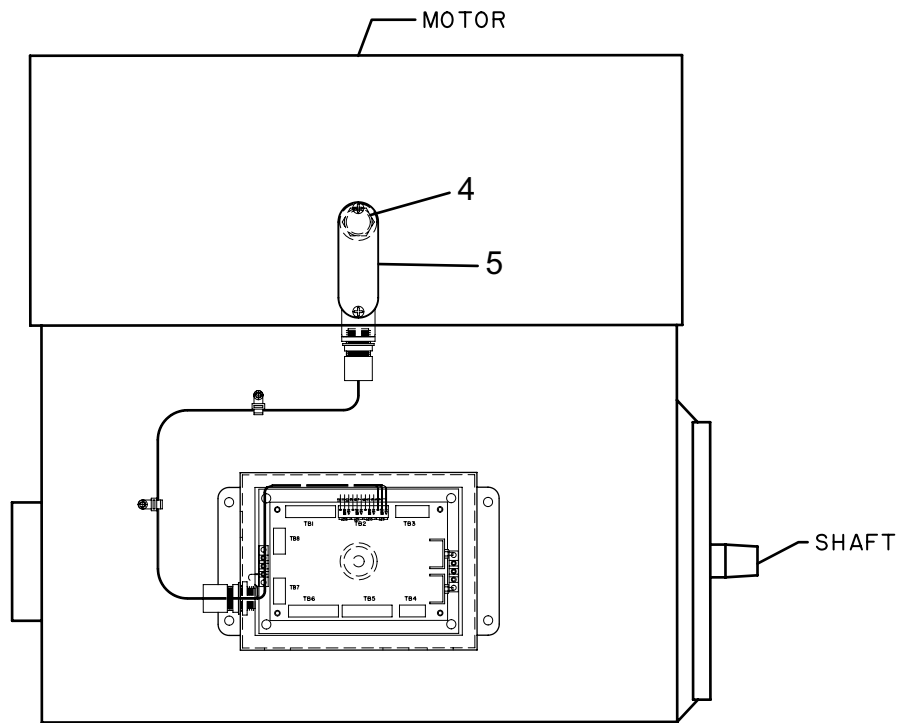
TABLE 32 - MOTOR MONITORING

ITEM	DESCRIPTION	PART NUMBER	QUANTITY/ UNIT	FIGURE
1	Motor Monitoring Shielding Cable	025-43432-000	20 FT.	*
2	Motor Monitoring CONN CA STR 1/2	025-43523-000	1	37
3	Motor Monitoring Circuit Board	031-02893-004	1	37
4	Motor Leak Detector	025-42937-000	2	38
5	Motor Box Conduit Outlet Box	025-42944-000	2	38
6	Accelerometer	025-42945-000	2	39
7	Accelerometer Cable	025-43349-000	1	39
8	Accelerometer Glue Mount	025-43370-000	1	39



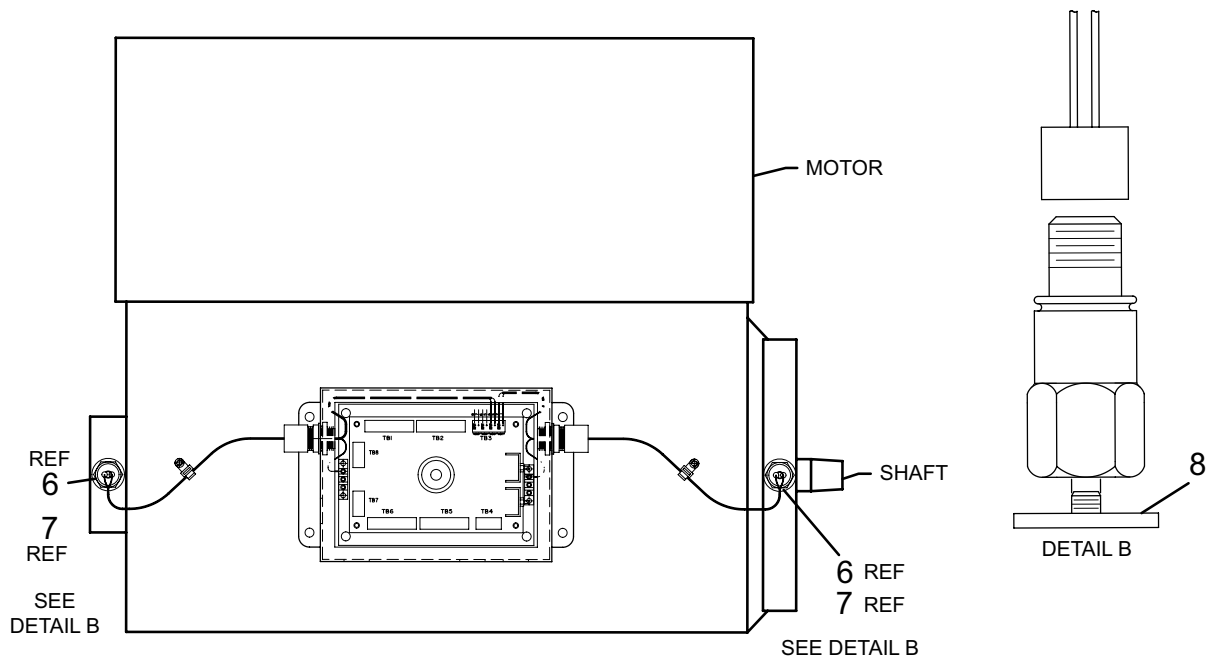
LD15219

FIGURE 37 - MOTOR MONITORING ENCLOSURE ASSEMBLY



LD15220

**FIGURE 38 - MOTOR MONITORING OPTICAL COOLING COIL LEAK DETECTOR**



LD15221

**FIGURE 39 - MOTOR MONITORING VIBRATION DETECTOR**

## EVAPORATOR TUBES

**TABLE 33 - 3/4" EVAPORATOR TUBES (FLOODED SHELL)**

SHELL CODE	TUBE QUANTITY	COPPER			COPPER NICKEL	
		STANDARD	OPTIONS			
		0.025 (MT#271)	0.028 (MT#272)	0.035 (MT#273)	0.028 (MT#177)	0.035 (MT#179)
AP	106	007-10004-000	007-10005-000	007-10006-000	007-08410-000	007-08411-000
AQ	130					
AR	159					
AS	194					
CP	209					
CQ	235					
CR	279					
CS	336					
DP	209	007-10014-000	007-10015-000	007-10016-000	007-08851-000	007-08852-000
DQ	235					
DR	279					
DS	336					
EP	277	007-10004-000	007-10005-000	007-10006-000	007-08851-000	007-08852-000
EQ	337					
ER	397					
ES	468					
ET	540					
FQ	337	007-10014-000	007-10015-000	007-10016-000	007-08410-000	007-08411-000
FR	397					
FS	468					
FT	540					
GQ	465	007-10004-000	007-10005-000	007-10006-000	007-08410-000	007-08411-000
GR	525					
GS	594					
HQ	465	007-10014-000	007-10015-000	007-10016-000	007-08851-000	007-08852-000
HR	525					
HS	594					
JP	498	007-10004-000	007-10005-000	007-10006-000	007-08410-000	007-08411-000
JQ	618					
JR	772					
JS	843					
KP, KT	498	007-10007-000	007-10008-000	007-10009-000	007-08849-000	007-08850-000
KQ, KV	618					
KR, KW	772					
KS, KX	843					

## EVAPORATOR TUBES (CONT'D)

**TABLE 33 (CONT'D) - 3/4" EVAPORATOR TUBES (FLOODED SHELL)**

SHELL CODE	Turbo-EPHII			Turbo-ESP		
	OPTIONS					
	0.025 (MT#321)	0.028 (MT#322)	0.035 (MT#323)	0.025 (MT#371)	0.028 (MT#372)	0.035 (MT#373)
AP	007-09995-000	007-10197-000	007-10198-000	007-10641-000	007-10642-000	007-10643-000
AQ						
AR						
AS						
CP						
CQ						
CR						
CS						
DP	007-10206-000	007-10207-000	007-10208-000	007-10644-000	007-10645-000	007-10646-000
DQ						
DR						
DS						
EP	007-09995-000	007-10197-000	007-10198-000	007-10641-000	007-10642-000	007-10643-000
EQ						
ER						
ES						
ET						
FQ	007-10206-000	007-10207-000	007-10208-000	007-10644-000	007-10645-000	007-10646-000
FR						
FS						
FT						
GQ	007-09995-000	007-10197-000	007-10198-000	007-10641-000	007-10642-000	007-10643-000
GR						
GS						
HQ	007-10206-000	007-10207-000	007-10208-000	007-10644-000	007-10645-000	007-10646-000
HR						
HS						
JP	007-09995-000	007-10197-000	007-10198-000	007-10641-000	007-10642-000	007-10643-000
JQ						
JR						
JS						
KP, KT	007-10199-000	007-10200-000	007-10201-000	007-10647-000	007-10648-000	007-10649-000
KQ, KV						
KR, KW						
KS, KX						

## EVAPORATOR TUBES (CONT'D)

**TABLE 33 (CONT'D) - 3/4" EVAPORATOR TUBES (FLOODED SHELL)**

SHELL CODE	TUBE QUANTITY	COPPER			COPPER NICKEL	
		STANDARD	OPTIONS			
		0.025 (MT#271)	0.028 (MT#272)	0.035 (MT#273)	0.028 (MT#177)	0.035 (MT#179)
LQ	618					
LR	772	007-10014-000	007-10015-000	007-10006-000	007-08851-000	007-08852-000
LS	843					
MQ	782					
MR	912	007-10007-000	007-10008-000	007-10009-000	007-08849-000	007-08850-000
MS	1046					
NQ	782					
NR	912	007-10014-000	007-10015-000	007-10016-000	007-08851-000	007-08852-000
NS	1046					
PQ	888					
PR	1009	007-10007-000	007-10008-000	007-10009-000	007-08849-000	007-08850-000
PS	1083					
QQ	888					
QR	1009					
QS	1083	007-10014-000	007-10015-000	007-10016-000	007-08851-000	007-08852-000
QT	1161					
QV	1335					
RP	1000					
RQ	1215					
RR	1234	007-10014-000	007-10015-000	007-10016-000	007-08851-000	007-08852-000
RS	1484					
RT	1493					
RV	1742					
SQ	1215					
SS	1484	007-10017-000	007-10018-000	007-10019-000	007-09622-000	007-09623-000
SV	1742					
WP	1000					
WR	1234	007-10048-000	007-10049-000	007-10050-000	007-10038-000	007-10039-000
WT	1493					
XQ	1537					
XR	1699	007-10014-000	007-10015-000	007-10016-000	007-08851-000	007-08852-000
XS	1850					
ZQ	1537					
ZR	1699	007-10017-000	007-10018-000	007-10019-000	007-09622-000	007-09623-000
ZS	1850					

## EVAPORATOR TUBES (CONT'D)

**TABLE 33 (CONT'D) - 3/4" EVAPORATOR TUBES (FLOODED SHELL)**

SHELL CODE	Turbo-EPHII			Turbo-ESP		
	OPTIONS					
	0.025 (MT#321)	0.028 (MT#322)	0.035 (MT#323)	0.025 (MT#371)	0.028 (MT#372)	0.035 (MT#373)
LQ						
LR	007-10206-000	007-10207-000	007-10208-000	007-10644-000	007-10645-000	007-10646-000
LS						
MQ						
MR	007-10199-000	007-10200-000	007-10201-000	007-10647-000	007-10648-000	007-10649-000
MS						
NQ						
NR	007-10206-000	007-10207-000	007-10198-000	007-10644-000	007-10645-000	007-10646-000
NS						
PQ						
PR	007-10199-000	007-10200-000	007-10201-000	007-10647-000	007-10648-000	007-10649-000
PS						
QQ						
QR						
QS	007-10206-000	007-10207-000	007-10198-000	007-10644-000	007-10645-000	007-10646-000
QT						
QV						
RP						
RQ						
RR						
RS	007-10206-000	007-10207-000	007-10198-000	007-10644-000	007-10645-000	007-10646-000
RT						
RV						
SQ						
SS	007-10209-000	007-10210-000	007-10211-000	007-10650-000	007-10651-000	007-10652-000
SV						
WP						
WR	007-10212-000	007-10213-000	007-10214-000	007-10653-000	007-10654-000	007-10655-000
WT						
XQ						
XR	007-10206-000	007-10207-000	007-10208-000	007-10644-000	007-10645-000	007-10646-000
XS						
ZQ						
ZR	007-10209-000	007-10210-000	007-10211-000	007-10650-000	007-10651-000	007-10652-000
ZS						

## EVAPORATOR TUBES (CONT'D)

**TABLE 34 - 1" EVAPORATOR TUBES (FLOODED SHELL)**

SHELL CODE	TUBE QUANTITY	COPPER			COPPER NICKEL			
		STANDARD	OPTIONS					
		0.025 (MT#286)	0.028 (MT#287)	0.035 (MT#288)	0.025 (MT#326)	0.028 (MT#327)	0.035 (MT#328)	
K2,K5	312							
K3,K6	366	007-10086-000	007-10087-000	007-10088-000	007-10215-000	007-10216-000	007-10217-000	
K4,K7	421							
M2	339							
M3	402	007-10215-000	007-10216-000	007-10217-000	007-10101-000	007-10102-000	007-10103-000	
M4	499							
N2	339							
N3	402	007-10134-000	007-10222-000	007-10223-000	007-10108-000	007-10109-000	007-10110-000	
N4	499							
P2	427							
P3	501	007-10215-000	007-10216-000	007-10217-000	007-10101-000	007-10102-000	007-10103-000	
P4	568							
Q2	427							
Q3	501	007-10134-000	007-10222-000	007-10223-000	007-10108-000	007-10109-000	007-10110-000	
Q4	568							
R2	643							
R3	655							
R4	727	007-10134-000	007-10222-000	007-10223-000	007-10108-000	007-10109-000	007-10110-000	
R5	779							
R6	815							
R7	887							
S3	655							
S5	779	007-10224-000	007-10225-000	007-10226-000	007-10111-000	007-10112-000	007-10113-000	
S7	887							
W1	537							
W2	643	007-10227-000	007-10228-000	007-10229-000	007-10117-000	007-10118-000	007-10119-000	
W4	727							
W6	815							
X2	807							
X3	954	007-10134-000	007-10222-000	007-10223-000	007-10108-000	007-10109-000	007-10110-000	
X4	1063							
Z1	670							
Z2	807	007-10224-000	007-10225-000	007-10226-000	007-10111-000	007-10112-000	007-10113	
Z3	954							
Z4	1063							

## EVAPORATOR TUBES (CONT'D)

**TABLE 34 (CONT'D) - 1" EVAPORATOR TUBES (FLOODED SHELL)**

SHELL CODE	Turbo-ESP		
	OPTIONS		
	0.025 (MT#376)	0.028 (MT#377)	0.035 (MT#378)
K2,K5	007-10656-000	007-10657-000	007-10658-000
K3,K6			
K4,K7			
M2	007-10656-000	007-10657-000	007-10658-000
M3			
M4			
N2	007-10659-000	007-10660-000	007-10661-000
N3			
N4			
P2	007-10656-000	007-10657-000	007-10658-000
P3			
P4			
Q2	007-10659-000	007-10660-000	007-10661-000
Q3			
Q4			
R2	007-10656-000	007-10660-000	007-10661-000
R3			
R4			
R5			
R6			
R7			
S3	007-10659-000	007-10663-000	007-10664-000
S5			
S7			
W1	007-10665-000	007-10666-000	007-10667-000
W2			
W4			
W6			
X2	007-10659-000	007-10660-000	007-10661-000
X3			
X4			
Z1	007-10662-000	007-10663-000	007-10664-000
Z2			
Z3			
Z4			

## EVAPORATOR TUBES (CONT'D)

**TABLE 35 - 3/4" EVAPORATOR TUBES (HYBRID FALLING FILM-FLOODED SHELL)**

SHELL CODE	TUBE QUANTITY	COPPER			COPPER NICKEL	
		STANDARD	OPTIONS			
		0.025 (MT#271)	0.028 (MT#272)	0.035 (MT#273)	0.028 (MT#177)	0.035 (MT#179)
AC	223	007-09995-000	007-10197-000	007-10198-000	007-08410-000	007-08411-000
AD	279					
CC	252					
CD	316					
CE	402					
DC	252	007-10206-000	007-10207-000	007-10208-000	007-08851-000	007-08852-000
DD	316					
DE	402					
EC	310	007-09995-000	007-10197-000	007-10198-000	007-08410-000	007-08411-000
ED	410					
EE	518					
FC	310	007-10206-000	007-10207-000	007-10208-000	007-08851-000	007-08852-000
FD	410					
FE	518					
GC	409	007-09995-000	007-10197-000	007-10198-000	007-08410-000	007-08411-000
GD	512					
GE	667					
HC	409	007-10206-000	007-10207-000	007-10208-000	007-08851-000	007-08852-000
HD	512					
HE	667					
KC	670	007-10199-000	007-10200-000	007-10201-000	007-08849-000	007-08850-000
KD	881					
IB	670	007-10011-000	007-10012-000	007-10013-000	007-08830-000	007-08644-000
ID	740					
IF	822					
IH	920					
MB	782	007-10011-000	007-10012-000	007-10013-000	007-08830-000	007-08644-000
MD	912					
MF	1063					
NB	782	007-10760-000	007-10761-000	007-10762-000	007-10758-000	007-10759-000
ND	912					
NF	1063					
PB	888	007-10011-000	007-10012-000	007-10013-000	007-08830-000	007-08644-000
PD	1009					
PF	1161					
QB	888	007-10760-000	007-10761-000	007-10762-000	007-10758-000	007-10759-000
QD	1009					
QF	1161					
QH	1371					

## EVAPORATOR TUBES (CONT'D)

**TABLE 35 (CONT'D) - 3/4" EVAPORATOR TUBES (HYBRID FALLING FILM-FLOODED SHELL)**

SHELL CODE	Turbo-EHP11			Turbo-ESP		
	OPTIONS					
	0.025 (MT#321)	0.028 (MT#322)	0.035 (MT#323)	0.025 (MT#371)	0.028 (MT#372)	0.035 (MT#373)
AC	007-09995-000	007-10197-000	0007-10198-000	007-10641-000	007-10642-000	007-10643-000
AD						
CC						
CD						
CE	007-10206-000	007-10207-000	007-10208-000	007-10644-000	007-10645-000	007-10646-000
DC						
DD						
DE						
EC	007-09995-000	007-10197-000	007-10198-000	007-10641-000	007-10642-000	007-10643-000
ED						
EE						
FC						
FD	007-10206-000	007-10207-000	007-10208-000	007-10644-000	007-10645-000	007-10646-000
FE						
GC						
GD						
GE	007-10699-000	00-10700-000	007-10701-000	007-10711-000	007-10712-000	007-10713-000
HC						
HD						
HE						
KC	007-10203-000	007-10204-000	007-10205-000	007-10692-000	007-10693-000	007-10694-000
KD						
IB						
ID						
IF	007-10203-000	007-10204-000	007-10205-000	007-10692-000	007-10693-000	007-10694-000
IH						
MB						
MD						
MF	007-10203-000	007-10204-000	007-10205-000	007-10692-000	007-10693-000	007-10694-000
NB						
ND						
NF						
PB	007-10749-000	007-10750-000	007-10751-000	007-10743-000	007-10744-000	007-10745-000
PD						
PF						
QB						
QD	007-10203-000	007-10204-000	007-10205-000	007-10692-000	007-10693-000	007-10694-000
QF						
QH						
QD						
QF	007-10749-000	007-10750-000	007-10751-000	007-10743-000	007-10744-000	007-10745-000
QF						
QH						
QH						

## EVAPORATOR TUBES (CONT'D)

**TABLE 36 - 1" EVAPORATOR TUBES (HYBRID FALLING FILM-FLOODED SHELL)**

SHELL CODE	TUBE QUANTITY	COPPER			COPPER NICKEL
		STANDARD	OPTIONS		
		0.025 (MT#286)	0.028 (MT#287)	0.035 (MT#288)	0.025 (MT#326)
A3	112	007-10430-000	007-10431-000	007-10432-000	007-10430-000
A4	135				
C3	124				
C4	156				
C5	203				
D3	124	007-10134-000	007-10222-000	007-10223-000	007-10134-000
D4	156				
D5	203				
E3	164	007-10430-000	007-10431-000	007-10432-000	007-10430-000
E4	205				
E5	253				
F3	164	007-10134-000	007-10222-000	007-10223-000	007-10134-000
F4	205				
F5	253				
G3	211	007-10430-000	007-10431-000	007-10432-000	00710705-000
G4	264				
G5	328				
H3	211	007-10134-000	007-10222-000	007-10223-000	007-10708-000
H4	264				
H5	328				
K8	256	007-10215-000	007-10216-000	007-10217-000	007-10219-000
K9	342				
K0	448				
I2	256	007-10090-000	007-10091-000	007-10092-000	007-10219-000
I4	321				
I6	386				
I8	474				
M5	339	007-10090-000	007-10091-000	007-10092-000	007-10219-000
M7	402				
M8	499				
M9	566				
N5	339	007-10763-000	007-10764-000	007-10065-000	007-10752-000
N7	402				
N8	499				
N9	566				
P5	427	007-10090-000	007-10091-000	007-10092-000	007-10219-000
P7	501				
P8	600				
Q5	427	007-10763-000	007-10764-000	007-10765-000	007-10752-000
Q7	501				
Q8	600				
Q9	719				

## EVAPORATOR TUBES (CONT'D)

**TABLE 36 (CONT'D) - 1" EVAPORATOR TUBES (HYBRID FALLING FILM-FLOODED SHELL)**

SHELL CODE	COPPER NICKEL				
	OPTIONS				
	0.028 (MT#327)	0.035 (MT#328)	0.025 (MT#376)	0.028 (MT#377)	0.035 (MT#378)
A3	007-10431-000	007-10432-000	007-10668-000	007-10669-000	007-10670-000
A4					
C3					
C4					
C5					
D3	007-10222-000	007-10223-000	007-10659-000	007-10660-000	007-10661-000
D4					
D5					
E3	007-10431-000	007-10432-000	007-10668-000	007-10669-000	007-10670-000
E4					
E5					
F3	007-10222-000	007-10223-000	007-10659-000	007-10660-000	007-10661-000
F4					
F5					
G3	007-10706-000	007-10707-000	007-10717-000	007-10718-000	007-10719-000
G4					
G5					
H3	007-10709-000	007-10710-000	007-10720-000	007-10721-000	007-10722-000
H4					
H5					
K8	007-10220-000	007-10221-000	007-10695-000	007-10696-000	007-10697-000
K9					
K0					
I2	007-10220-000	007-10221-000	007-10695-000	007-10696-000	007-10697-000
I4					
I6					
I8					
M5	007-10220-000	007-10221-000	007-10695-000	007-10696-000	007-10697-000
M7					
M8					
M9					
N5	007-10753-000	007-10754-000	007-10746-000	007-10747-000	007-10748-000
N7					
N8					
N9					
P5	007-10220-000	007-10221-000	007-10695-000	007-10696-000	007-10697-000
P7					
P8					
Q5	007-10753-000	007-10754-000	007-10746-000	007-10747-000	007-10748-000
Q7					
Q8					
Q9					

## CONDENSER TUBES

**TABLE 37 - 3/4" CONDENSER TUBES**

SHELL CODE	TUBE QUANTITY CONDENSER/ SUB-COOLER	COPPER		
		STANDARD	OPTIONS	
		0.025 (MT260#)	0.028 (MT#261)	0.035 (MT#262)
AP	136/16	007-09289-000	007-09282-000	007-09283-000
AQ	178/16			
AR	200/16			
AS	228/16			
CP	223/24	007-09289-000	007-09282-000	007-09823-000
CQ	260/24			
CR	331/24			
CS	419/24			
DP	223/24	007-09265-000	007-09266-000	007-09627-000
DQ	260/24			
DR	331/24			
DS	419/24			
EP	323/32	007-09289-000	007-09282-000	007-09283-000
EQ	394/32			
ER	470/32			
ES	523/32			
ET	585/32			
EV	460/42			
EW	513/42			
EX	575/42			
FQ	394/32	007-09265-000	007-09266-000	007-09267-000
FR	470/32			
FS	523/32			
FT	585/32			
FV	460/42			
FW	513/42			
FX	575/42			
JP	451/51	007-09289-000	007-09282-000	007-09283-000
JQ	549/51			
JR	735/51			
JS	823/51			
KP	451/51	007-09262-000	007-09263-000	007-09264-000
KQ	549/51			
KR	735/51			
KS	823/51			

## CONDENSER TUBES (CONT'D)

**TABLE 37 (CONT'D) - 3/4" CONDENSER TUBES**

SHELL CODE	COPPER NICKEL		COPPER (SMOOTH BORE)	
	OPTIONS			
	0.028 (MT#201)	0.035 (MT#203)	0.028 (MT#225)	0.035 (MT#226)
AP	007-08412-000	007-07935-000	007-09200-000	007-08518-000
AQ				
AR				
AS				
CP	007-08412-000	007-07935-000	007-09200-000	007-08518-000
CQ				
CR				
CS				
DP	007-09857-000	007-09858-000	007-08857-000	007-08858-000
DQ				
DR				
DS				
EP	007-08412-000	007-07935-000	007-09200-000	007-08518-000
EQ				
ER				
ES				
ET				
EV				
EW				
EX				
FQ	007-09857-000	007-09858-000	007-08857-000	007-08858-000
FR				
FS				
FT				
FV				
FW				
FX				
JP	007-08412-000	007-07935-000	007-09200-000	007-08518-000
JQ				
JR				
JS				
KP	007-09859-000	007-09860-000	007-08650-000	007-08641-000
KQ				
KR				
KS				

## CONDENSER TUBES (CONT'D)

**TABLE 37 (CONT'D) - 3/4" CONDENSER TUBES**

SHELL CODE	TUBE QUANTITY CONDENSER/ SUB-COOLER	COPPER		
		STANDARD	OPTIONS	
		0.025 (MT260#)	0.028 (MT#261)	0.035 (MT#262)
LQ	549/51	007-09265-000	007-09266-000	007-09267-000
LR	735/51			
LS	823/51			
MP (H9)	611/84	007-09262-000	007-09263-000	007-09264-000
MQ (H9)	731/84			
MR (H9)	851/84			
MS (H9)	953/84			
MP (K1/K2)	611/84	007-09262-000	007-09263-000	007-09264-000
MQ (K1/K2)	731/84			
MR (K1/K2)	851/84			
MS (K1/K2)	953/84			
NP	611/84	007-09265-000	007-09266-000	007-09267
NQ	731/84			
NR	851/84			
NS	953/84			
PQ	1061/100	007-09262-000	007-09263-000	007-09264-000
PR	1199/100			
PS	1341/100			
QQ	1061/100	007-09265-000	007-09266-000	007-09267-000
QR	1199/100			
QS	1341/100			
RQ	1436/120	007-09265-000	007-09266-000	007-09267-000
RR	1589/120			
RS	1704/120			
SQ	1436/120	007-09608-000	007-09626-000	007-09627-000
SR	1589/120			
SS	1704/120			
TP	1567/144	007-09265-000	007-09266-000	007-09267-000
TQ	1750/144			
TR	1941/144			
TS	2053/144			
VP	1567/144	007-09608-000	007-09626-000	007-09627-000
VQ	1750/144			
VR	1941/144			
VS	2053/144			

## CONDENSER TUBES (CONT'D)

**TABLE 37 (CONT'D) - 3/4" CONDENSER TUBES**

SHELL CODE	COPPER NICKEL		COPPER (SMOOTH BORE)	
	OPTIONS			
	0.028 (MT#201)	0.035 (MT#203)	0.028 (MT#225)	0.035 (MT#226)
LQ	007-09857-000	007-09858-000	007-08857-000	007-08858-000
LR				
LS				
MP (H9)	007-09859-000	007-09860-000	007-08650-000	007-08641-000
MQ (H9)				
MR (H9)				
MS (H9)				
MP (K1/K2)	007-09859-000	007-09860-000	007-08650-000	007-08641-000
MQ (K1/K2)				
MR (K1/K2)				
MS (K1/K2)				
NP	007-09857-000	007-09858-000	007-08857-000	007-08858-000
NQ				
NR				
NS				
PQ	007-09859-000	007-09860-000	007-08650-000	007-08641-000
PR				
PS				
QQ	007-09857-000	007-09858-000	007-08857-000	007-08858-000
QR				
QS				
RQ	007-09857-000	007-09858-000	007-08857-000	007-08858-000
RR				
RS				
SQ	007-09861-000	007-09862-000	007-09633-000	007-09634-000
SR				
SS				
TP	007-09861-000	007-09862-000	007-09633-000	007-09634-000
TQ				
TR				
TS				
VP	007-09861-000	007-09862-000	007-09633-000	007-09634-000
VQ				
VR				
VS				

## CONDENSER TUBES (CONT'D)

**TABLE 37 (CONT'D) - 3/4" CONDENSER TUBES**

SHELL CODE	TUBE QUANTITY CONDENSER/ SUB-COOLER	COPPER		
		STANDARD	OPTIONS	
		0.025 (MT260#)	0.028 (MT#261)	0.035 (MT#262)
WQ	1522/180	007-10051-000	007-10052-000	007-10053-000
WR	1688/180			
WS	1854/180			
XQ	1799/180	007-09265-000	007-09266-000	007-09267-000
XR	2029/180			
XS	2325/180			
ZQ	1799/180	007-09608-000	007-09626-000	007-09627-000
ZR	2029/180			
ZS	2325/180			

**TABLE 38 - 3/4" HEAT RECOVERY CONDENSER TUBES**

SHELL CODE	TUBE QUANTITY Condenser/ Sub-Cooler	COPPER		
		STANDARD	OPTIONS	
		0.025 (MT#)	0.028 (MT#)	0.035 (MT#)
BW*	176/NA	007-09289-000	007-09282-000	007-09283-000
BX*	273/NA			
BW**	395/60			
BX**				
IW*	242/NA			
IX*	426/NA			
IW**	601/72			
IX**				
OW*	298/NA	007-09262-000	007-09263-000	007-09264-000
OX*	629/NA			
OW**	871/121			
OX**				
UW*	339/NA	007-09262-000	007-09263-000	007-09264-000
UX*	663/NA			
UW**	875/169			
UX**				
YW*	823/NA	007-09608-000	007-09626-000	007-09627-000
YX*	1559/NA			
YW**	2802/361			
YX**				

**NOTE:**

\* Heating Bundle Tubes

\*\* Main Tower Bundle Tubes / Sub-Cooler Tubes

## CONDENSER TUBES (CONT'D)

**TABLE 37 (CONT'D) - 3/4" CONDENSER TUBES**

SHELL CODE	TUBE QUANTITY CONDENSER/ SUB-COOLER	COPPER		
		STANDARD	OPTIONS	
		0.025 (MT#260#)	0.028 (MT#261)	0.035 (MT#262)
WQ	007-10040-000	007-10041-000	007-10042-000	007-10043-000
WR				
WS				
XQ	007-09857-000	007-09858-000	007-08857-000	007-08858-000
XR				
XS				
ZQ	007-09857-000	007-09858-000	007-08857-000	007-08858-000
ZR				
ZS				

**TABLE 38 (CONT'D) - 3/4" HEAT RECOVERY CONDENSER TUBES**

SHELL CODE	COPPER NICKEL		COPPER (Smooth Bore)	
	OPTIONS			
	0.028 (MT#)	0.035 (MT#)	0.028 (MT#)	0.035 (MT#)
BW*	007-08412-000	007-07935-000	007-09200-000	007-08518-000
BX*				
BW**				
BX**				
IW*				
IX*				
IW**				
IX**				
OW*	007-09859-000	007-09860-000	007-08650-000	007-08641-000
OX*				
OW**				
OX**				
UW*	007-09859-000	007-09860-000	007-08650-000	007-08641-000
UX*				
UW**				
UX**				
YW*	007-09861-000	007-09862-000	007-09633-000	007-09634-000
YX*				
YW**				
YX**				

## CONDENSER TUBES (CONT'D)

**TABLE 39 - 1" CONDENSER TUBES**

SHELL CODE	TUBE QUANTITY CONDENSER/ SUB-COOLER	COPPER			COPPER NICKEL
		STANDARD	OPTIONS		
		0.025 (MT#266/260)	0.028 (MT#267/261)	0.035 (MT#268/262)	0.028 (MT#317/261)
E3	207/42	007-10442-000/	007-10443-000/	007-10444-000/	007-10449-000/
E4	259/42	007-09289-000	007-09282-000	007-09283-000	007-09282-000
F3	207/42	007-10025-000/	007-10063-000/	007-10064-000/	007-10123-000/
F4	259/42	007-09265-000	007-09266-000	007-09267-000	007-09266-000
K2	235/51	007-10054-000/ 007-09262-000	007-10055-000/	007-10056-000/	007-10120-000/
K3	285/51		007-09263-000	007-09264-000	007-09263-000
K4	391/51				
M2	301/84	007-10054-000/ 007-09262-000	007-10055-000/	007-10056-000/	007-10120-000/
M3	383/84		007-09263-000	007-09264-000	007-09263-000
M4	481/84				
N2	301/84	007-10025-000/ 007-09265-000	007-10063-000/	007-10064-000/	007-10123-000/
N3	383/84		007-09266-000	007-09267-000	007-09266-000
N4	481/84				
P2	470/100	007-10054-000/ 007-09262-000	007-10055-000/	007-10056-000/	007-10120-000/
P3	581/100		007-09263-000	007-09264-000	007-09263-000
P4	717/100				
Q2	470/100	007-10025-000/ 007-09265-000	007-10063-000/	007-10064-000/	007-10123-000/
Q3	581/100		007-09266-000	007-09267-000	007-09266-000
Q4	717/100				
R2	621/120	007-10025-000/ 007-09265-000	007-10063-000/	007-10064-000/	007-10123-000/
R3	745/120		007-09266-000	007-09267-000	007-09266-000
R4	893/120				
S2	621/120	007-10065-000/ 007-09608-000	007-1066-000/	007-10067-000/	007-10037-000/
S3	745/120		007-09626-000	007-09627-000	007-09626-000
S4	893/120				
T2	670/144	007-10025-000/ 007-09265-000	007-10063-000/	007-10064-000/	007-10123-000/
T3	848/144		007-09266-000	007-09267-000	007-09266-000
T4	943/144				
T5	1071/144				
V2	670/144	007-10065-000/ 007-09608-000	007-10066-000/	007-10067-000/	007-10037-000/
V3	848/144		007-09626-000	007-09627-000	007-09626-000
V4	943/144				
V5	1071/144				
W1	594/180	007-10068-000/ 007-10051-000	007-10069-000/	007-10070-000/	007-10124-000/
W2	757/180		007-1052-0002	007-10053-000	007-10052-000
W3	899/180				
W4	1003/180				
X2	710/180	007-10025-000/ 007-09265-000	007-10063-000/	007-10064-000/	007-10123-000/
X3	955/180		007-09626-000	007-09267-000	007-09266-000
X4	1215/180				
Z1	576/180	007-10065-000/ 007-09608-000	007-10066-000/	007-10067-000/	007-10037-000/
Z2	710/180		007-09626-000	007-09627-000	007-09626-000
Z3	955/180				
Z4	1215/180				

## CONDENSER TUBES (CONT'D)

**TABLE 40 - 1" HEAT RECOVERY CONDENSER TUBES**

SHELL CODE	TUBE QUANTITY CONDENSER/ SUB-COOLER	COPPER			COPPER NICKEL
		STANDARD	OPTIONS		
		0.025 (MT#266/260)	0.028 (MT#267/261)	0.035 (MT#268/262)	0.028 (MT#317/261)
O8*	431/121	007-10054-000/ 007-09262-000	007-10055-000/ 007-09263-000	007-10056-000/ 007-09264-000	007-10120-000/ 007-09263-000
O9*					
O8**	181/NA	007-10054-000/ 007-09262-000	007-10055-000/ 007-09263-000	007-10056-000/ 007-09264-000	007-10120-000/ 007-09263-000
O9**	289/NA				
U8*	463/169	007-10054-000/ 007-09262-000	007-10055-000/ 007-09263-000	007-10056-000/ 007-09264-000	007-10120-000/ 007-09263-000
U9*					
U8**	190/NA	007-10054-000/ 007-09262-000	007-10055-000/ 007-09263-000	007-10056-000/ 007-09264-000	007-10120-000
U9**	305/NA				
Y8*	1101/361	007-10065-000/ 007-09608-000	007-10066-000/ 007-09626-000	007-10067-000/ 007-09627-000	007-10037-000/ 007-09626-000
Y9*					
Y8**	522/NA	007-10065-000/ 007-09608-000	007-10066-000/ 007-09626-000	007-10067-000/ 007-09627-000	007-10037-000
Y9**	846/NA				

**NOTE:**

\* Heating Bundle Tubes

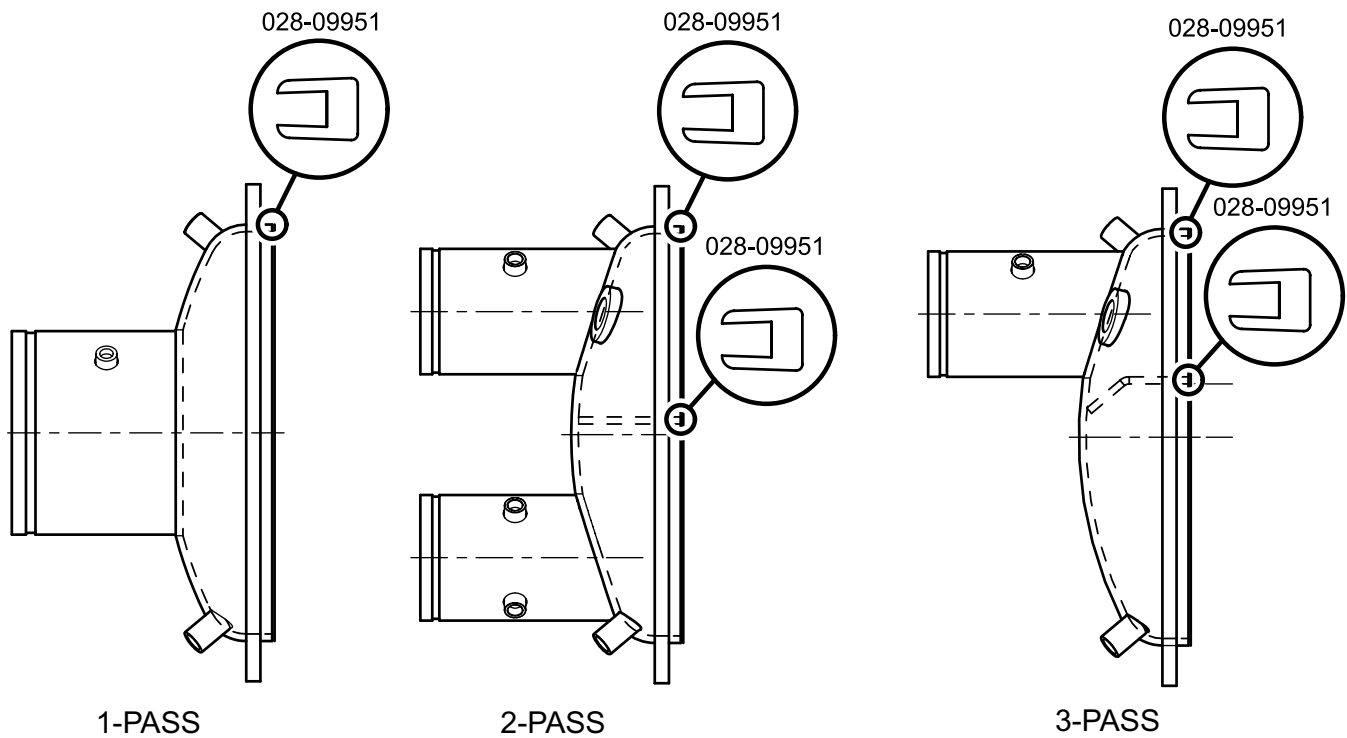
\*\* Main Tower Bundle Tubes / Sub-Cooler Tubes

## WATERBOX GASKETS

**TABLE 41 - CONDENSER COMPACT WATERBOXES 150 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
AP-AS	028-09951-000	11.5"	028-09951-000	13.5'	028-09951-000	15'
CP-CS	028-09951-000	13.5'	028-09951-000	15.5'	028-09951-000	17.5'
DP-DS						
EP-EX	028-09951-000	15.5'	028-09951-000	17.9'	028-09951-000	20.3'
FQ-FX						
JP-JS	028-09951-000	17.6'	028-09951-000	20.4'	028-09951-000	23'
KP-KS						
LQ-LS						
K2-K4	028-09951-000	21'	028-09951-000	24'	028-09951-000	27'
MP-MS						
M2-M4						
NP-NS						
N2-N4	028-09951-000	24'	028-09951-000	28'	028-09951-000	32'
PQ-PS						
P2-P4						
QQ-QS						
Q2-Q4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13068

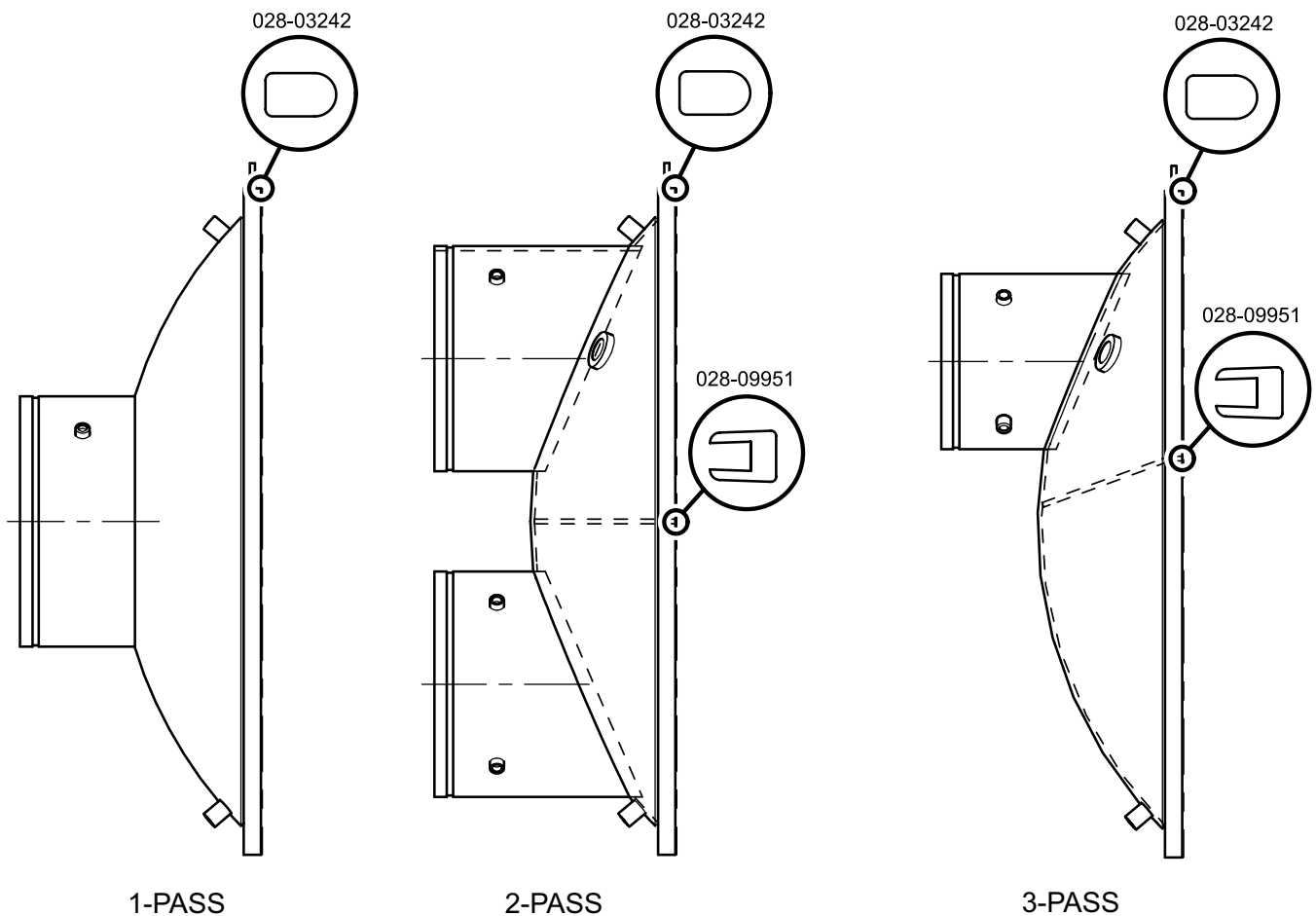
**FIGURE 40 - CONDENSER 150 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 41 (CONT'D) - CONDENSER COMPACT WATERBOXES 150 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
RQ-RS	028-03242-000	26.4'	028-09951-000	4'	028-09951-000	7.5'
R2-R4			028-03242-000	26.4'	028-03242-000	26.4'
SQ-SS						
S2-S4						
TP-TS	028-03242-000	28'	028-09951-000	4.4'	028-09951-000	8.6'
T2-T5			028-03242-000	28'	028-03242-000	28'
VP-VS						
V2-V5						
WQ-WS	028-03242-000	30'	028-09951-000	4.7'	028-09951-000	9.2'
W1-W4			028-03242-000	30'	028-03242-000	30'
XQ-XS						
Z1-Z4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



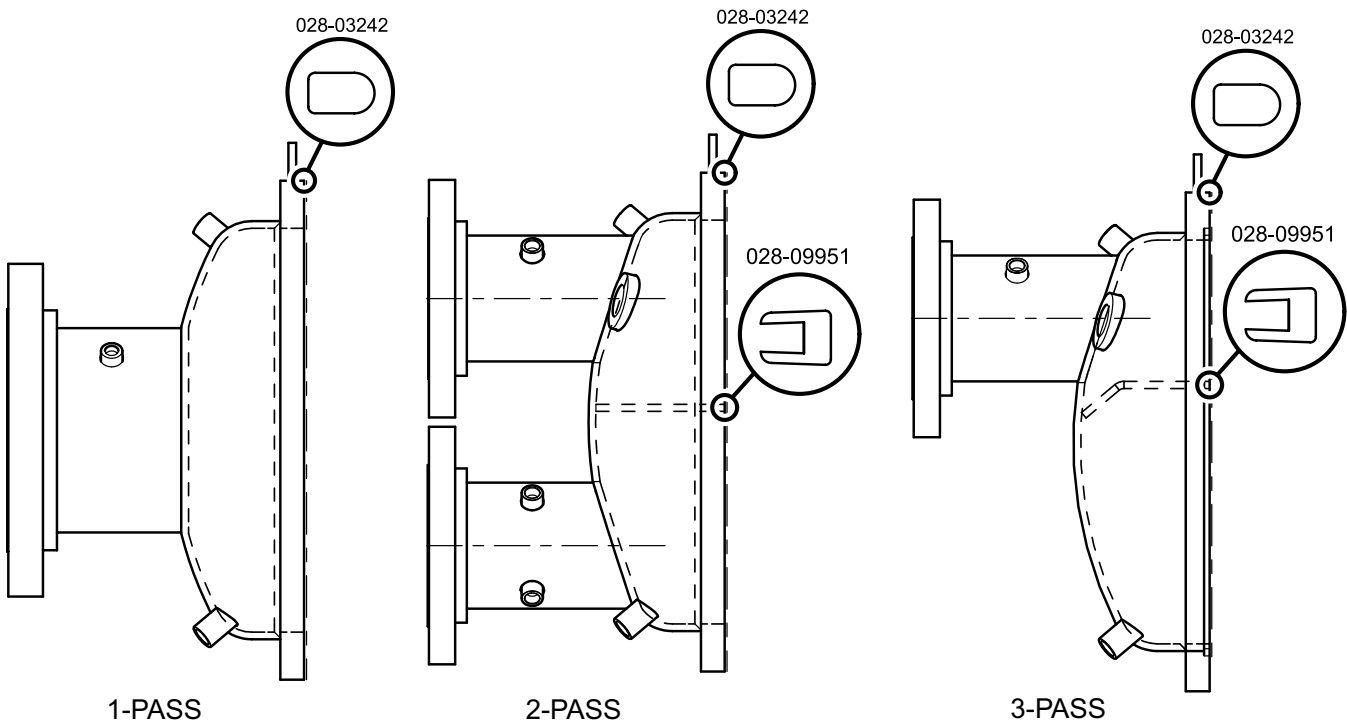
**FIGURE 41 - CONDENSER 150 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 42 - CONDENSER COMPACT WATERBOXES 150 PSI (PRIOR JULY 2010)**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
AP-AS	028-03242-000	11.4'	028-09951-000	1.8'	028-09951-000	1.8'
			028-03242-000	11.4'	028-03242-000	11.4'
CP-CS	028-03242-000	13.5'	028-09951-000	2.1'	028-09951-000	4.1'
DP-DS			028-03242-000	13.5'	028-03242-000	13.5'
EP-EX	028-03242-000	15.8'	028-09951-000	2.5'	028-09951-000	4.8'
FQ-FX			028-03242-000	15.8'	028-03242-000	15.8'
JP-JS	028-03242-000	17.8'	028-09951-000	2.8'	028-09951-000	5.4'
KP-KS			028-03242-000	17.8'	028-03242-000	17.8'
LQ-LS						
MP-MS	028-03242-000	21.5'	028-09951-000	4'	028-09951-000	7'
M2-M4			028-03242-000	21.5'	028-03242-000	21.5'
NP-NS						
N2-N4						
PQ-PS	028-03242-000	24'	028-09951-000	4'	028-09951-000	8'
P2-P4			028-03242-000	24'	028-03242-000	24'
QQ-QS						
Q2-Q4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13070

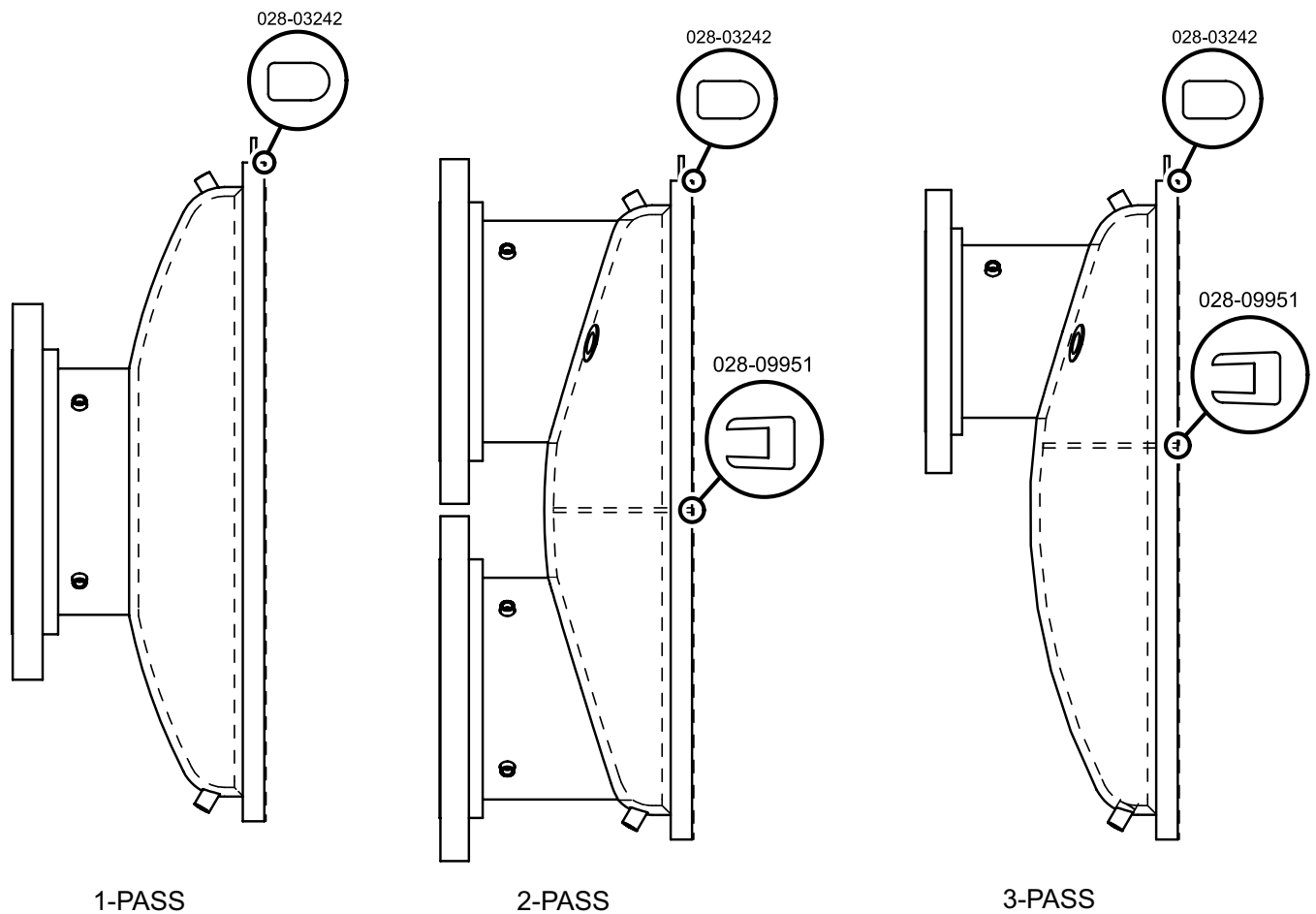
**FIGURE 42 - CONDENSER 150 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 42 (CONT'D) - CONDENSER COMPACT WATERBOXES 150 PSI (PRIOR JULY 2010)**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
RQ-RS	028-03242-000	25.8'	028-09951-000	4'	028-09951-000	7.9'
R2-R4			028-03242-000	25.8'	028-03242-000	25.8'
SQ-SS						
S2-S4						
TP-TS	028-03242-000	28.1'	028-09951-000	4.4'	028-09951-000	8.5'
T2-T5			028-03242-000	28.1'	028-03242-000	28.1'
VP-VS						
V2-V5						
WQ-WS						
W1-W4						
ZQ-ZS	028-03242-000	30'	028-09951-000	5.1'	028-09951-000	5.1'
Z1-Z4			028-03242-000	30'	028-03242-000	30'

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13070

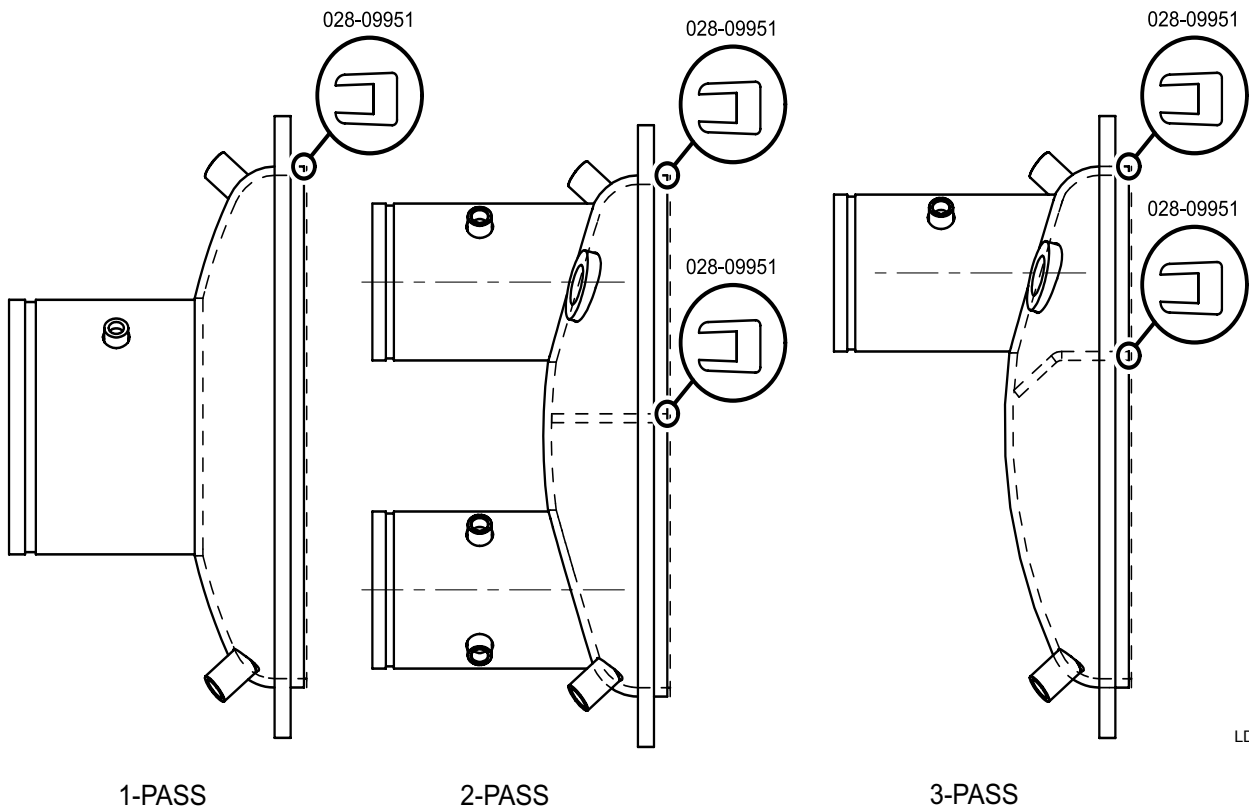
**FIGURE 43 - CONDENSER 150 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 43 - EVAPORATOR WITH STANDARD COMPACT WATERBOXES 150 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
AP-AS	028-09951-000	13.5'	028-09951-000	15.5'	028-09951-000	17.5'
CP-CS	028-09951-000	15.6'	028-09951-000	18.1'	028-09951-000	20.1'
DP-DS						
EP-ET	028-09951-000	17.6'	028-09951-000	20.6'	028-09951-000	22.8'
FQ-FS						
GQ-GS	028-09951-000	20.6'	028-09951-000	24.4'	028-09951-000	27.1'
HQ-HS						
JP-JS	028-09951-000	23.3'	028-09951-000	31'	028-09951-000	30'
KP-KX						
LQ-LS						
K2-K7	-	-	-	-	028-09951-000	30'
MQ-MS	028-03242-000	27'	028-09951-000	5.5'	028-09951-000	5.5'
M2-M4			028-03242-000	27'	028-03242-000	27'
NQ-NS						
N2-N4						
PQ-PS	028-03242-000	27'	028-09951-000	5.5'	028-09951-000	5.5'
P2-P4			028-03242-000	27'	028-03242-000	27'
QQ-QS						
Q2-Q4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



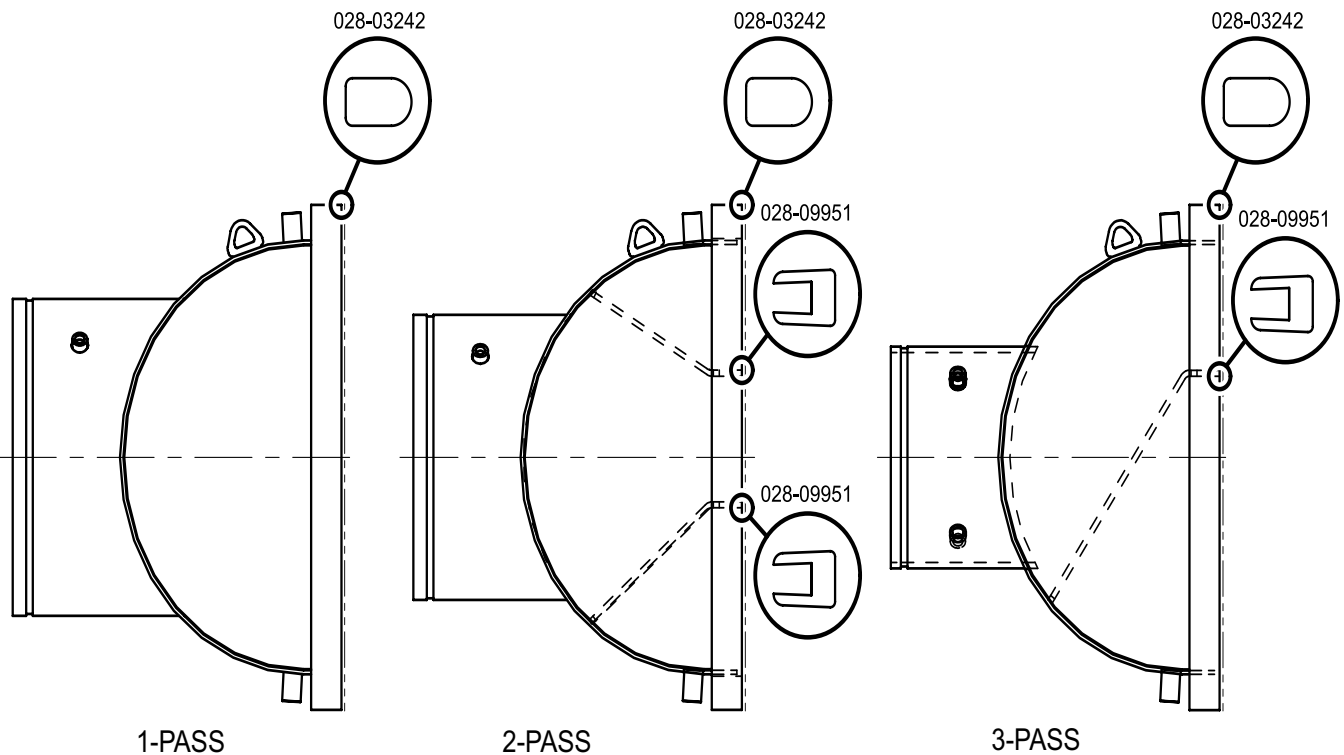
**FIGURE 44 - EVAPORATOR 150 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 43 (CONT'D) - EVAPORATOR WITH STANDARD COMPACT WATERBOXES 150 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
QT-QV	028-03242-000	26'	028-09951-000 028-03242-000	6' 26'	028-09951-000 028-03242-000	8.5' 26'
RQ-RV	028-03242-000	15.9'	028-09951-000 028-03242-000	5.5' 15.9'	028-09951-000 028-03242-000	5.5' 15.9'
R2-R7						
SQ-SV						
S3-S7						
WP-WT						
W1-W6						
XQ-XS	028-03242-000	15.9'	028-09951-000 028-03242-000	5.5' 15.9'	028-09951-000 028-03242-000	5.5' 15.9'
X2-X4						
ZQ-ZS						
Z1-Z4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



**FIGURE 45 - EVAPORATOR 150 LB. WATERBOX GASKET**

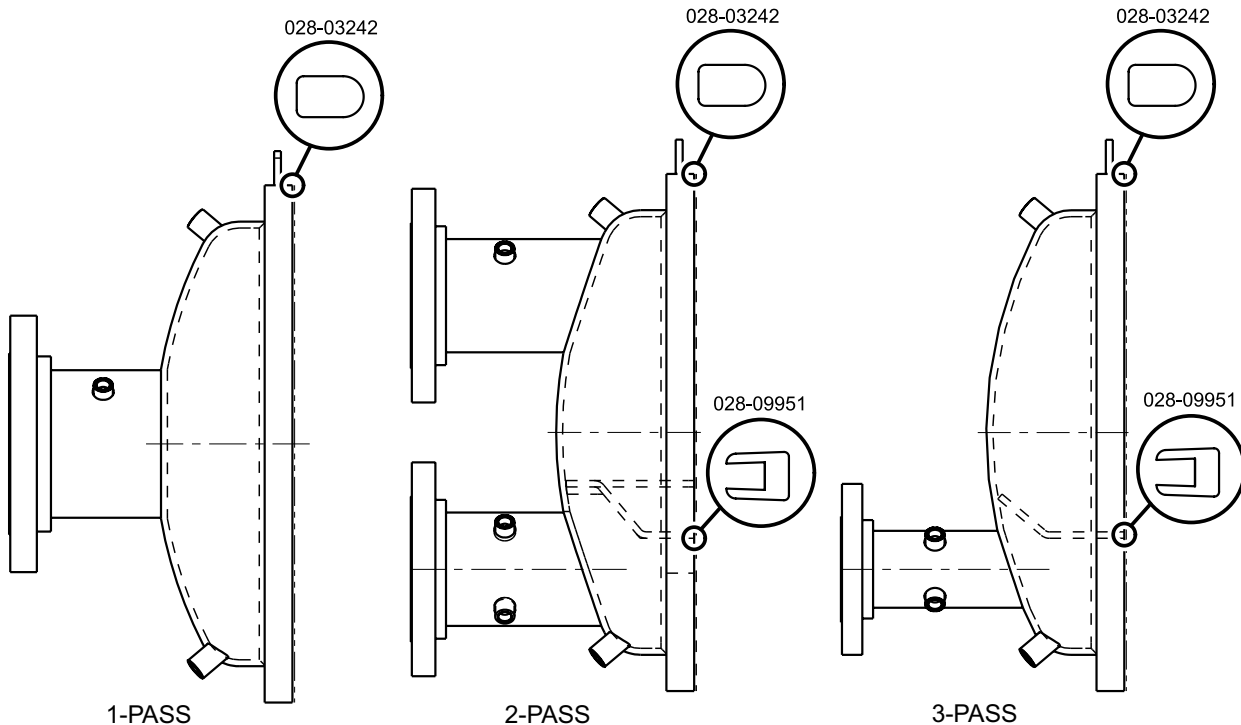
LD13070

## WATERBOX GASKETS (CONT'D)

**TABLE 44 - EVAPORATOR WITH STANDARD COMPACT WATERBOXES 300 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS		
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	
AP-AS	028-03242-000	13.7'	028-09951-000 028-03242-000	2.2' 13.7'	028-09951-000 028-03242-000	3.9' 13.7'	
CP-CS	028-03242-000	17.9'	028-09951-000	3'	028-09951-000	5.8'	
DP-DS			028-03242-000	17.9'	028-03242-000	17.9'	
EP-ET	028-03242-000	20.8'	028-09951-000	3.7'	028-09951-000	6.5'	
FQ-FT			028-03242-000	20.8'	028-03242-000	20.8'	
GQ-GS	028-03242-000	23.8'	028-09951-000	13.5'	028-09951-000	6.7'	
HQ-HS			028-03242-000	23.8'	028-03242-000	23.8'	
JP-JS	028-03242-000	26'	028-09951-000	4.5'	028-09951-000	8'	
KP-KX			028-03242-000	26'	028-03242-000	26'	
LQ-LS			-	-	-	028-09951-000 028-03242-000	6.7' 23.8'
MQ-MS	028-03242-000	28'	028-09951-000	5'	028-09951-000	8'	
M2-M4			028-03242-000	28'	028-03242-000	28'	
NQ-NS			-	-	-	-	-
N2-N4			-	-	-	-	-
PQ-PS	028-03242-000	32.5'	028-09951-000	5.5'	028-09951-000	5.5'	
P2-P4			028-03242-000	32.5'	028-03242-000	32.5'	
QQ-QV			-	-	-	-	-
Q2-Q4			-	-	-	-	-

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13149

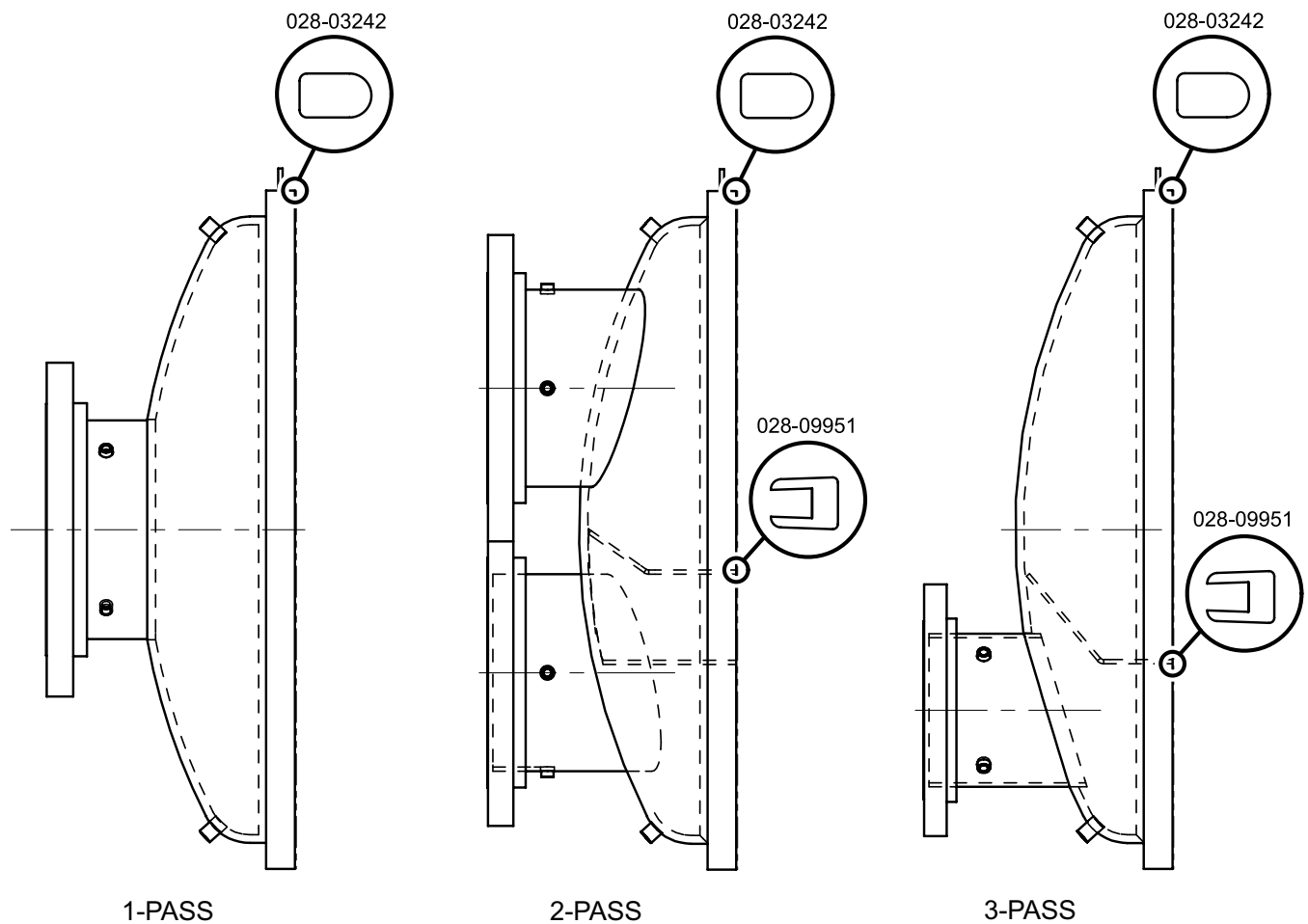
**FIGURE 46 - EVAPORATOR 300 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 44 (CONT'D) - EVAPORATOR WITH STANDARD COMPACT WATERBOXES 300 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
RQ-RV	028-03242-000	32.5'	028-09951-000 028-03242-000	5.5' 32.5'	028-09951-000 028-03242-000	5.5' 32.5'
R2-R7						
SQ-SV						
S3-S7						
WP-WT						
W1-W6						
XQ-XS	028-03242-000	32.5'	028-09951-000 028-03242-000	5.5' 32.5'	028-09951-000 028-03242-000	10' 32.5'
X2-X4						
ZQ-ZS						
Z1-Z4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13150

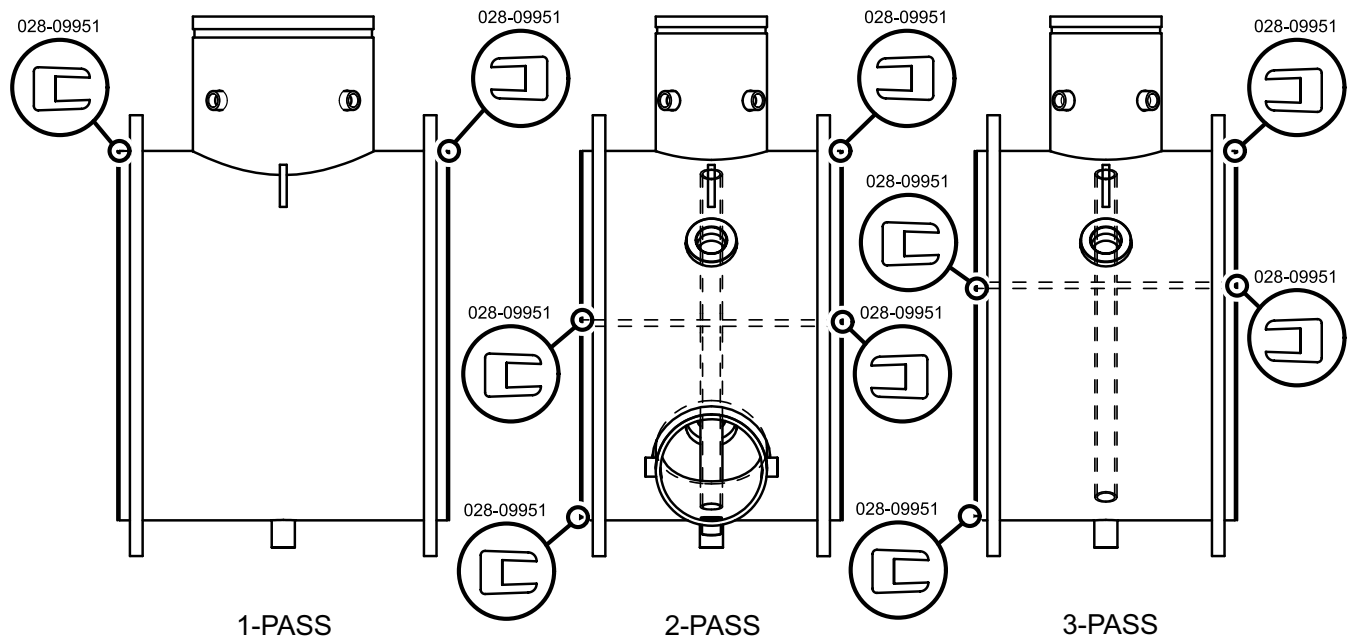
**FIGURE 47 - EVAPORATOR 300 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 45 - CONDENSER WITH MARINE WATERBOXES 150 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
AP-AS	028-09951-000	22.7'	028-09951-000	20.7'	028-09951-000	20.7'
CP-CS	02809951-000	27.2'	028-09951-000	27.2'	028-09951-000	35.4'
DP-DS						
EP-ET	028-09951-000	31'	028-09951-000	28.2'	028-09951-000	40.6'
FP-FS						
JP-JS	028-09951-000	35.2'	028-09951-000	32'	028-09951-000	41'
KP-KS						
K2-K4						
LQ-LS						
MP-MS	028-03242-000	42'	028-09951-000	17'	028-09951-000	13'
M2-M4						
NP-NS			028-03242-000	21'	028-03242-000	42'
N2-N4						
MB-MH	-	-	028-09951-001	17'	028-09951-001	13'
NB-NH			028-03242-000	31.5'	028-03242-000	42'
PQ-PS	028-03242-000	47'	028-09951-000	8'	028-09951-000	15'
P2-P4						
QQ-QS			028-03242-000	47'	028-03242-000	47'
Q2-Q4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



**FIGURE 48 - CONDENSER 150 LB. MARINE WATERBOX GASKET**

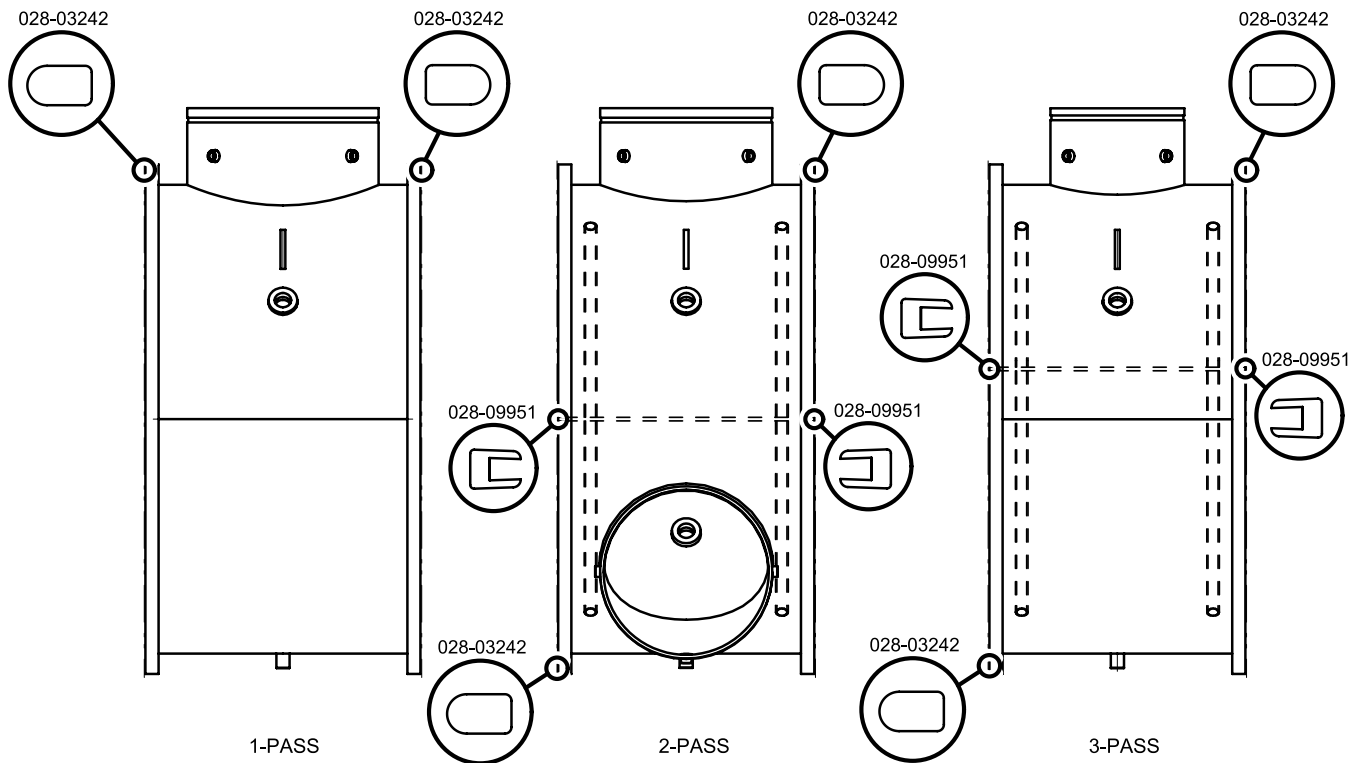
LD13153

## WATERBOX GASKETS (CONT'D)

**TABLE 45 (CONT'D) - CONDENSER WITH MARINE WATERBOXES 150 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
RQ-RS	028-03242-000	52.8'	028-09951-000	8'	028-09951-000	8'
R2-R4			028-03242-000	39.6'	028-03242-000	39.6'
SQ-SS						
S2-S4						
TP-TS	028-03242-000	55.7'	028-09951-000	8.7'	028-09951-000	8.7'
T2-T5			028-03242-000	41.8'	028-03242-000	41.5'
VP-VS						
V2-V5						
WQ-WS						
W1-W4						
XQ-XS	028-03242-000	60'	028-09951-000	24.5'	028-09951-000	18.5'
X1-X4			028-03242-000	30.5'	028-03242-000	60'
ZQ-ZS	028-03242-000	55.3'	028-09951-000	9.4'	028-09951-000	18.5'
Z1-Z4			028-03242-000	41.5'	028-03242-000	55.3'

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



**FIGURE 49 - CONDENSER 150 LB. MARINE WATERBOX GASKET**

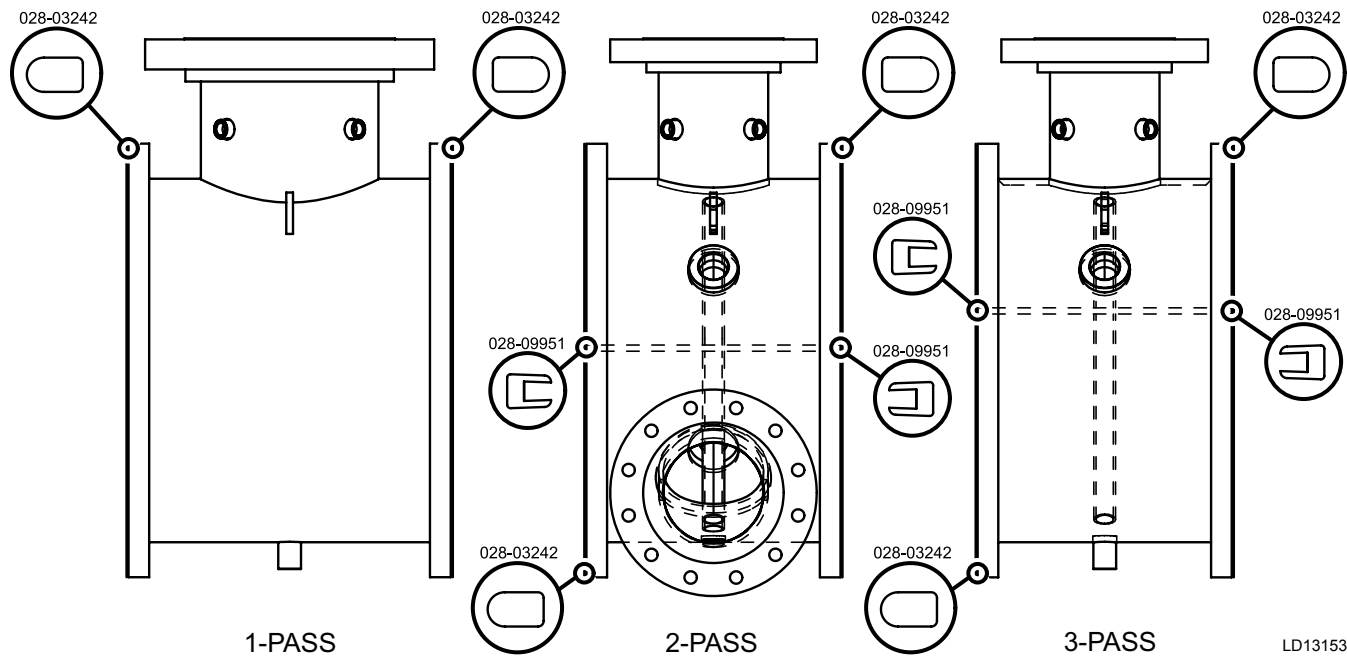
LD13154

## WATERBOX GASKETS (CONT'D)

**TABLE 46 - CONDENSER WITH MARINE WATERBOXES 300 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
AP-AS	028-03242-000	23.2'	028-09951-000	3.6'	028-09951-000	7'
			028-03242-000	17.4'	028-03242-000	23.2'
CP-CS	028-03242-000	27.4'	028-09951-000	2.1'	028-09951-000	4.1'
DP-DS			028-03242-000	20.7'	028-03242-000	27.4'
EP-ET	028-03242-000	31.6'	028-09951-000	4.9'	028-09951-000	9.5'
FQ-FT			028-03242-000	23.6'	028-03242-000	32'
EV-E4	-	-	028-09951-000	4.9'	028-09951-000	9.5'
FV-F4			028-03242-000	23.6'	028-03242-000	32'
JP-JS	028-03242-000	35.6'	028-09951-000	2.7'	028-09951-000	5.4'
KP-KS						
K2-K4						
LQ-LS						
MP-MS	028-03242-000	42.75'	028-09951-000	6.5'	028-09951-000	13'
M2-M4						
NP-NS						
N2-N4						
PQ-PS	028-03242-000	47'	028-09951-000	8'	028-09951-000	15'
P2-P4						
QQ-QV						
Q2-Q4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



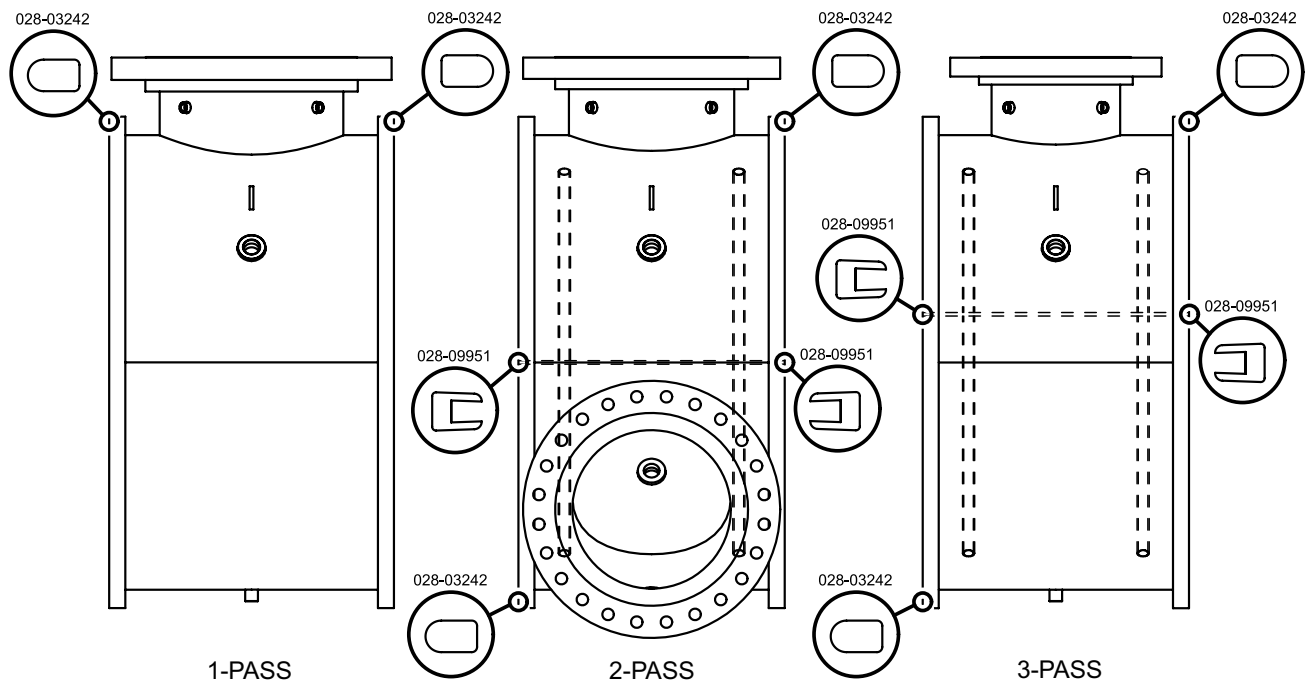
**FIGURE 50 - CONDENSER 300 LB. MARINE WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 46 (CONT'D) - CONDENSER WITH MARINE WATERBOXES 300 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
RQ-RS	028-03242-000	51.5'	028-09951-000	8'	028-09951-000	16'
R2-R4			028-03242-000	39'	028-03242-000	51.5'
SQ-SS						
S2-S4						
TP-TS	028-03242-000	56'	028-09951-000	9.4'	028-09951-000	18.2'
T2-T5			028-03242-000	42'	028-03242-000	60.1'
VP-VS						
V2-V5						
WQ-WS						
W1-W4						
ZQ-ZS	028-03242-000	60.1'	028-09951-000	9.4'	028-09951-000	18.2'
Z1-Z4			028-03242-000	45.1'	028-03242-000	60.1'

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13154

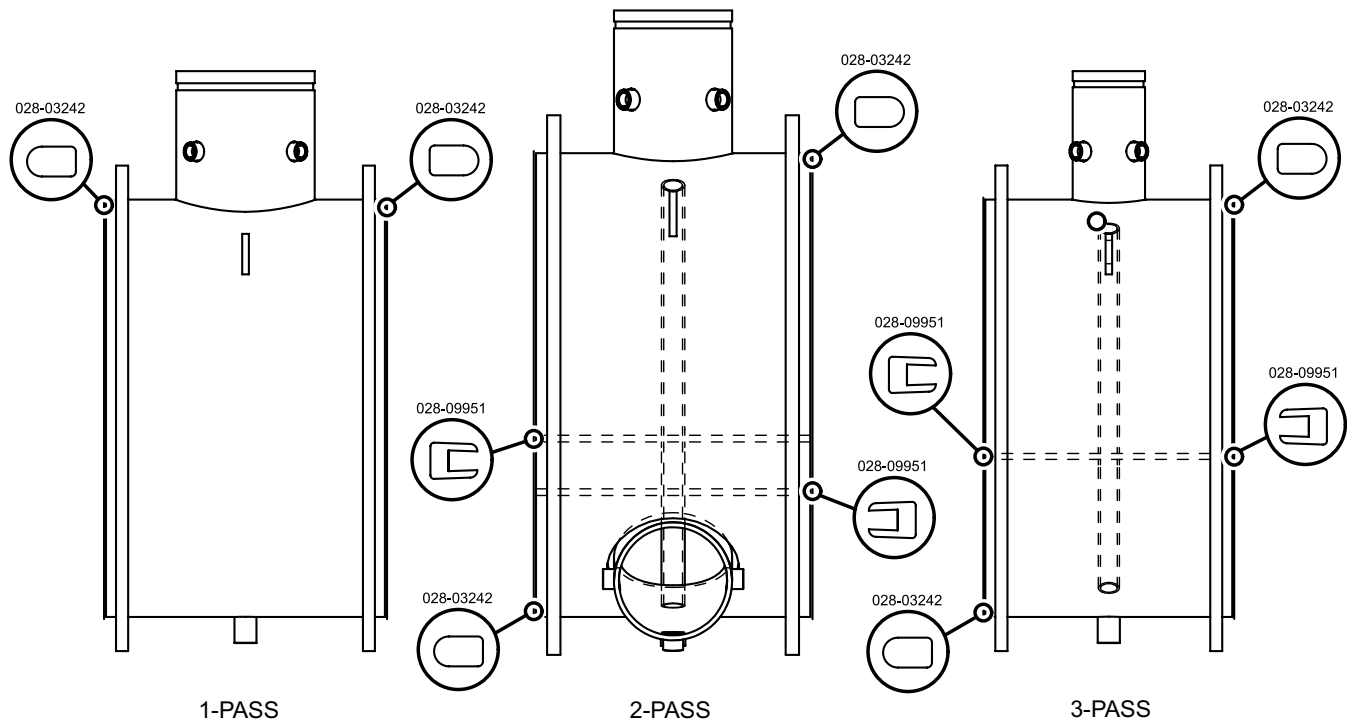
**FIGURE 51 - CONDENSER 300 LB. MARINE WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 47 - EVAPORATOR WITH MARINE WATERBOXES 150 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
AP-AS	028-09951-000	27'	028-09951-000	24.8'	028-09951-000	35.8'
CP-CS	028-09951-000	31.1'	028-09951-000	27.6'	028-09951-000	39'
DP-DS						
EP-ET	028-09951-000	35.2'	028-09951-000	32.2'	028-09951-000	47'
FQ-FT						
GQ-GS	028-03242-000	41.8'	028-09951-000	7.1'	028-09951-000	12.8'
HQ-HS			028-03242-000	31.4'	028-03242-000	41.8'
JP-JS	028-03242-000	47'	028-09951-000	19'	028-09951-000	27'
KP-KX			028-03242-000	24'	028-03242-000	47'
LQ-LS						
MQ-MS						
M2-M4	028-03242-000	52'	028-09951-000	8'	028-09951-000	15'
NQ-NS			028-03242-000	39'	028-03242-000	52'
N2-N4						
PQ-PS	028-03242-000	56'	028-09951-000	18'	028-09951-000	18'
P2-P4			028-03242-000	56'	02803242-000	56'
QQ-QV						
Q2-Q4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



**FIGURE 52 - EVAPORATOR 150 LB. MARINE WATERBOX GASKET**

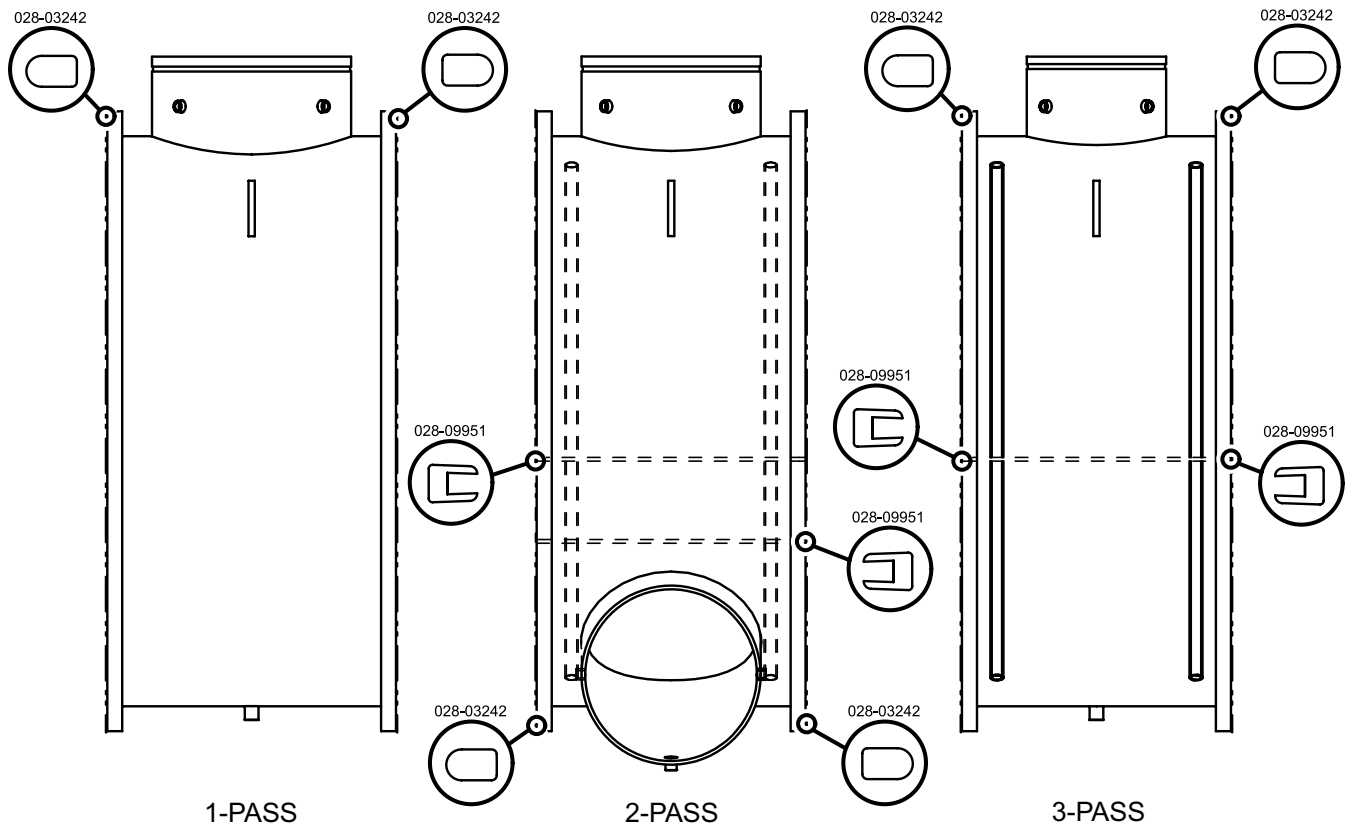
LD13157

## WATERBOX GASKETS (CONT'D)

**TABLE 47 (CONT'D) - EVAPORATOR WITH MARINE WATERBOXES 150 PSI (CONT'D)**

SHELL CODE	1 PASS		2 PASS		3 PASS			
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED		
RQ-RV	028-03242-000	56'	028-09951-000	18'	028-09951-000	24'		
R2-R7			028-03242-000	56'	028-03242-000	56'	028-03242-000	56'
SQ-SV								
S3-S7								
WP-WT								
W1-W6								
XQ-XS	028-03242-000	66.3'	028-09951-000	11.2'	028-09951-000	19.4'		
X2-X4			028-03242-000	49.8'	028-03242-000	028-03242-000	66.3'	
ZQ-ZS								
Z1-Z4								

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13158

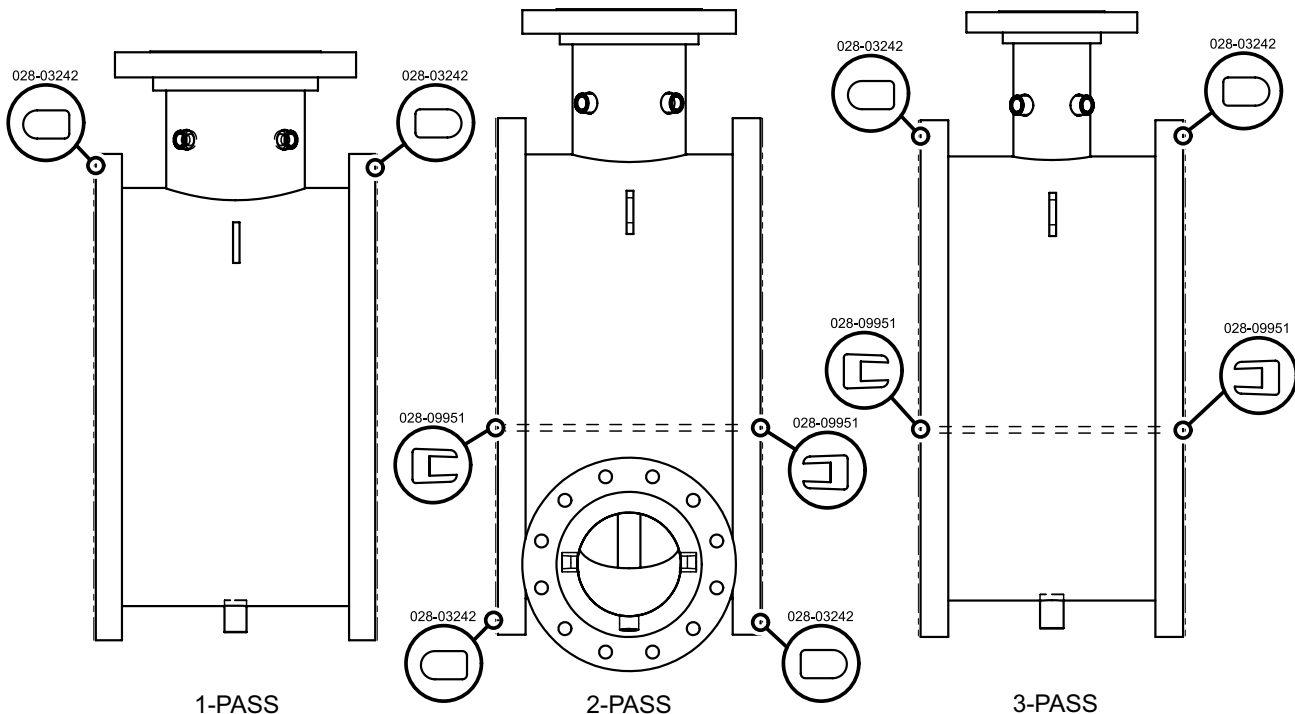
**FIGURE 53 - EVAPORATOR 150 LB. MARINE WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 48 - EVAPORATOR WITH MARINE WATERBOXES 300 PSI**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
AP-AS	028-03242-000	56'	028-09951-000	4.4'	028-09951-000	7.8'
			028-03242-000	22'	028-03242-000	29.2'
CP-CS	028-03242-000	31.6'	028-09951-000	5.1'	028-09951-000	8.9'
DP-DS			028-03242-000	23.6'	028-03242-000	32'
EP-ET	028-03242-000	35.8'	028-09951-000	3.4'	028-09951-000	11.6'
FQ-FT			028-03242-000	26.4'	028-03242-000	35.8'
GQ-GS	028-03242-000	42.7'	028-09951-000	7.4'	028-09951-000	12'
HQ-HS			028-03242-000	32.1'	028-03242-000	42.7'
JP-JS	028-03242-000	47.6'	028-09951-000	7.6'	028-09951-000	13.4'
KP-KX			028-03242-000	35.7'	028-03242-000	47.6'
K2-K7						
LQ-LS						
MQ-MS	028-03242-000	52'	028-09951-000	8.5'	028-09951-000	15'
M2-M4			028-03242-000	39'	028-03242-000	52'
NQ-NS						
N2-N4						
PQ-PS	028-03242-000	56'	028-09951-000	9'	028-09951-000	16'
P2-P4			028-03242-000	42'	028-03242-000	52'
QQ-QV						
Q2-Q4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



**FIGURE 54 - EVAPORATOR 300 LB. MARINE WATERBOX GASKET**

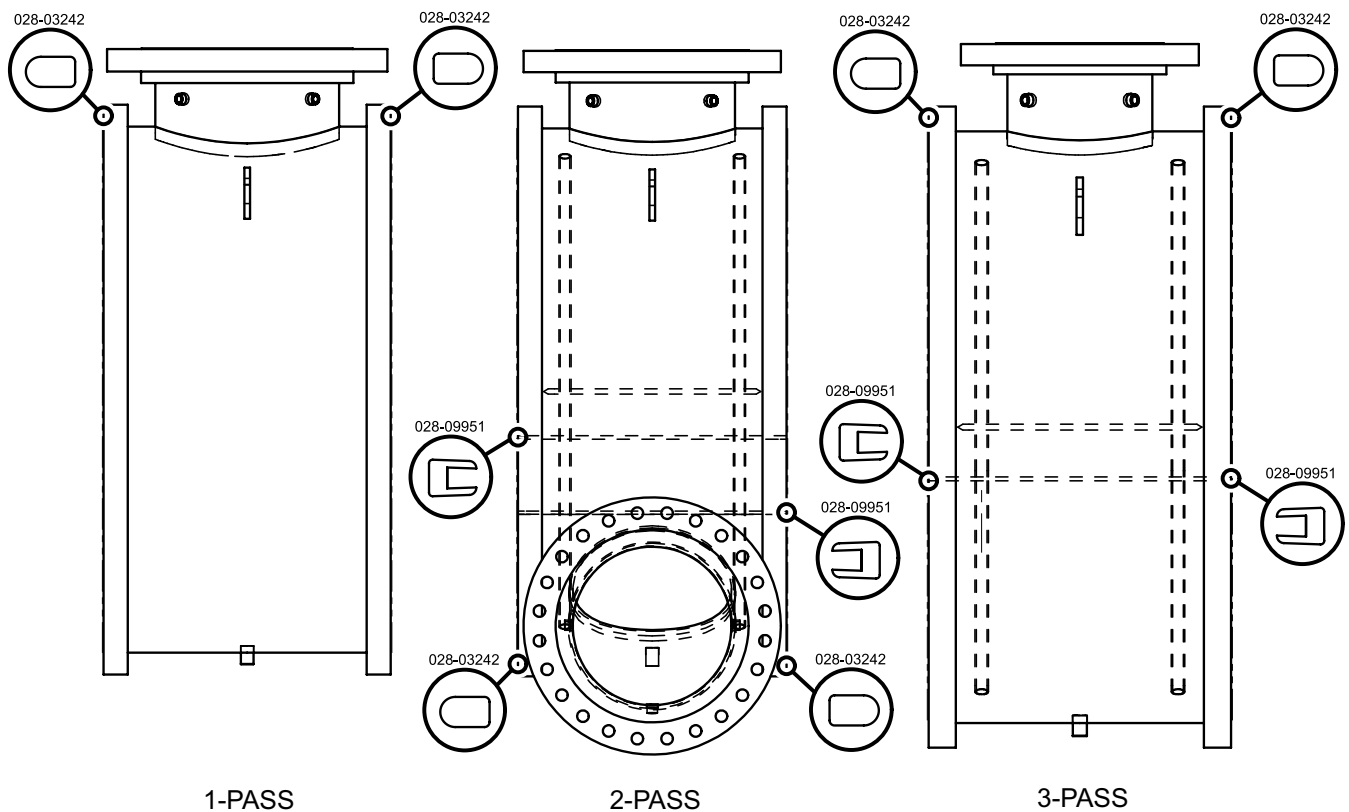
LD13159

## WATERBOX GASKETS (CONT'D)

**TABLE 48 (CONT'D) - EVAPORATOR WITH MARINE WATERBOXES 300 PSI (CONT'D)**

SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
RQ-RV	028-03242-000	56'	028-09951-000 028-03242-000	9' 42'	028-09951-000 028-03242-000	16' 52'
R2-R7						
SQ-SV						
S3-S7						
WP-WT						
W1-W6	028-03242-000	65'	028-09951-000 028-03242-000	11' 48.7'	028-09951-000	65'
XQ-XS						
X2-X4						
ZQ-ZS						
Z1-Z4						

**NOTE:** When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13160

**FIGURE 55 - EVAPORATOR 300 LB. MARINE WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 49 - CONDENSER WITH HEAT RECOVERY COMPACT WATERBOXES 150 PSI**

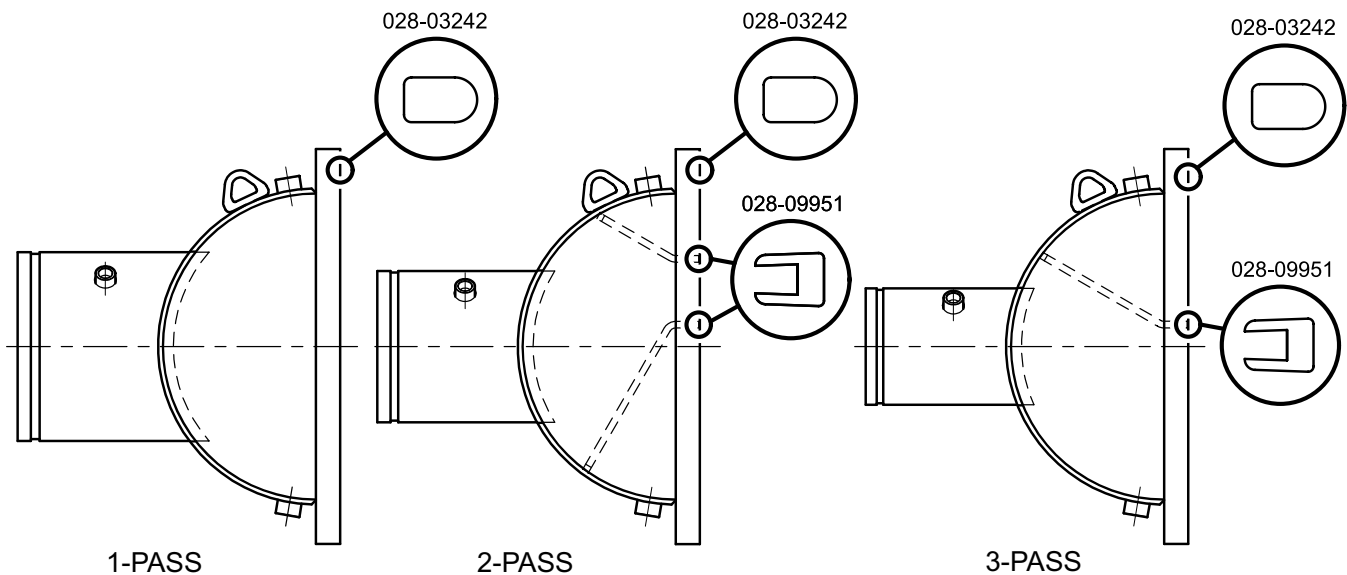
SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
<b>BW, BX*</b>	028-03242-000	18.5'	028-09951-000	3.5'	028-09951-000	6'
			028-03242-000	18.5'	028-03242-000	18.5'
<b>BW, BX**</b>	028-03242-000	17.5'	028-09951-000	3.5'	028-09951-000	6'
			028-03242-000	17.5'	028-03242-000	17.5'
<b>IW, IX*</b>	028-03242-000	21'	028-09951-000	4'	028-09951-000	7'
			028-03242-000	21'	028-03242-000	21'
<b>IW, IX**</b>	028-03242-000	19.5'	028-09951-000	4'	028-09951-000	7'
			028-03242-000	19.5'	028-03242-000	19.5'
<b>OW, OX O8, O9*</b>	028-03242-000	24.5'	028-09951-000	4.5'	028-09951-000	8'
			028-03242-000	24.5'	028-03242-000	24.5'
<b>OW, OX O8, O9**</b>	028-03242-000	22.5'	028-09951-000	4.5'	028-09951-000	8'
			028-03242-000	22.5'	028-03242-000	22.5'
<b>UW, UX U8, U9*</b>	028-03242-000	26'	028-09951-000	5'	028-09951-000	8.5'
			028-03242-000	26'	028-03242-000	26'
<b>UW, UX U8, U9**</b>	028-03242-000	24.5'	028-09951-000	4.5'	028-09951-000	8.5'
			028-03242-000	24.5'	028-03242-000	24.5'
<b>YW, YX Y8, Y9*</b>	028-03242-000	37'	028-09951-000	7'	028-09951-000	12'
			028-03242-000	37'	028-03242-000	37'
<b>YW, YX Y8, Y9**</b>	028-03242-000	33'	028-09951-000	6.5'	028-09951-000	12'
			028-03242-000	33'	028-03242-000	33'

**NOTE:**

\* Cooling Only Waterbox Arrangement

\*\*Heat Recovery Waterbox Arrangement

When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



LD13823

**FIGURE 56 - CONDENSER HEAT RECOVERY 150 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 50 - CONDENSER WITH HEAT RECOVERY COMPACT WATERBOXES 300 PSI**

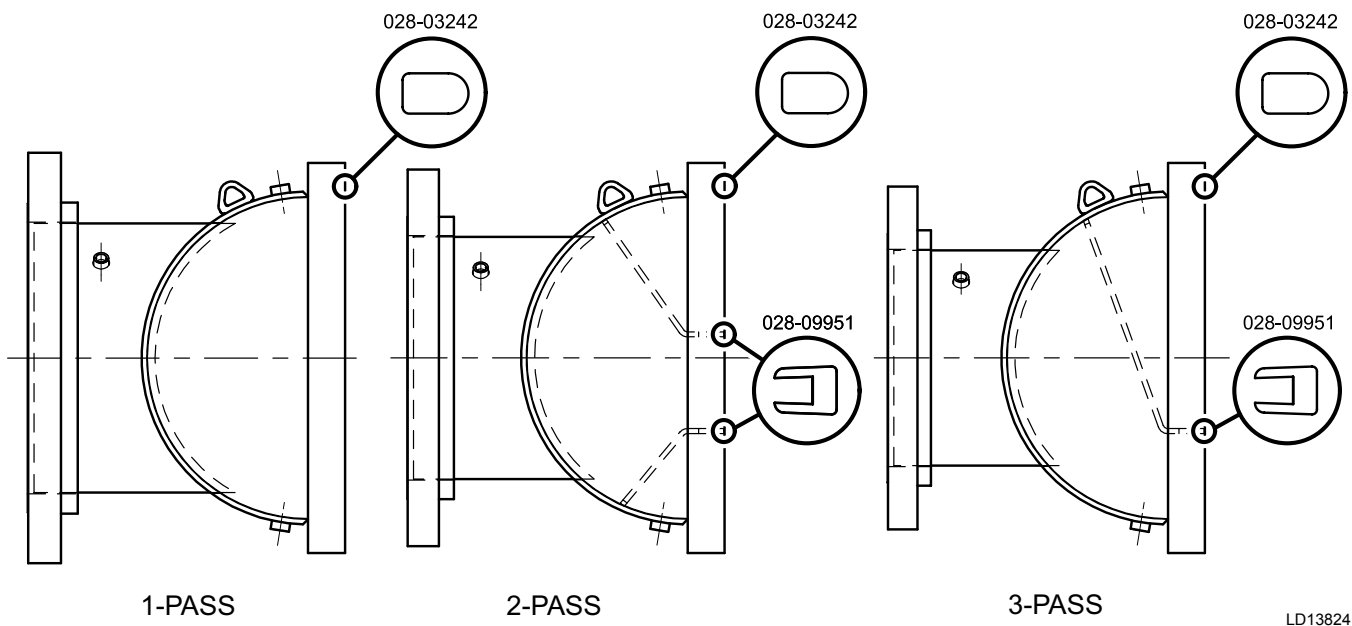
SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
<b>BW, BX*</b>	028-03242-000	18.5'	028-09951-000 028-03242-000	3.5' 18.5'	028-09951-000 028-03242-000	6' 18.5'
<b>BW, BX**</b>	028-03242-000	17.5'	028-09951-000 028-03242-000	3.5' 17.5'	028-09951-000 028-03242-000	6' 17.5'
<b>IW, IX*</b>	028-03242-000	21'	028-09951-000 028-03242-000	4' 21'	028-09951-000 028-03242-000	7' 21'
<b>IW, IX**</b>	028-03242-000	19.5'	028-09951-000 028-03242-000	4' 19.5'	028-09951-000 028-03242-000	7' 19.5'
<b>OW, OX O8, O9*</b>	028-03242-000	24.5'	028-09951-000 028-03242-000	4.5' 24.5'	028-09951-000 028-03242-000	8' 24.5'
<b>OW, OX O8, O9**</b>	028-03242-000	22.5'	028-09951-000 028-03242-000	4.5' 22.5'	028-09951-000 028-03242-000	8' 22.5'
<b>UW, UX U8, U9*</b>	028-03242-000	26'	028-09951-000 028-03242-000	5' 26'	028-09951-000 028-03242-000	8.5' 26'
<b>UW, UX U8, U9**</b>	023-03242-000	24.5'	028-09951-000 028-03242-000	4.5' 24.5'	028-09951-000 028-03242-000	8.5' 24.5'
<b>YW, YX Y8, Y9*</b>	023-03242-000	37'	028-09951-000 028-03242-000	7' 37'	028-09951-000 028-03242-000	12' 37'
<b>YW, YX Y8, Y9**</b>	023-03242-000	33'	028-09951-000 028-03242-000	6.5' 33'	028-09951-000 028-03242-000	12' 33'

**NOTE:**

\* Cooling Only Waterbox Arrangement

\*\*Heat Recovery Waterbox Arrangement

When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



**FIGURE 57 - CONDENSER HEAT RECOVERY 300 LB. WATERBOX GASKET**

## WATERBOX GASKETS (CONT'D)

**TABLE 51 - CONDENSER WITH HEAT RECOVERY MARINE WATERBOXES 150 PSI**

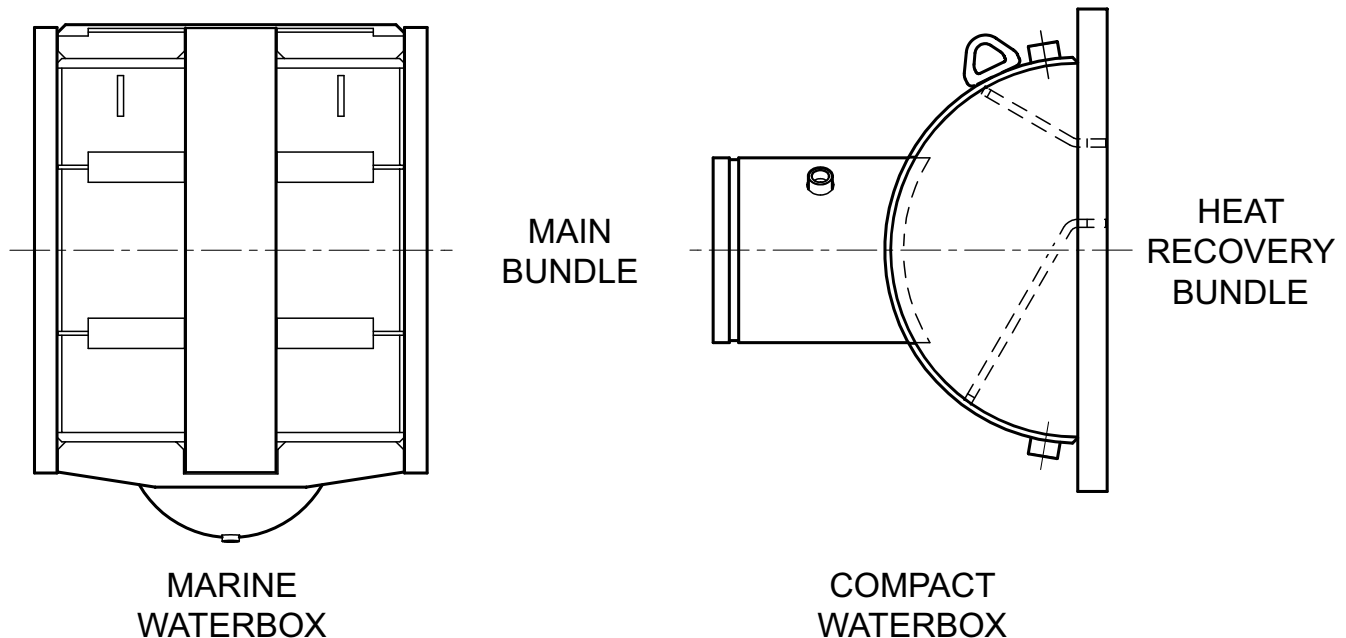
SHELL CODE	1 PASS		2 PASS		3 PASS	
	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED	GASKET P/N	FEET REQUIRED
<b>BW, BX*</b>	028-03242-000	18.5'	028-09951-000	3.5'	028-09951-000	6'
			028-03242-000	18.5'	028-03242-000	18.5'
<b>BW, BX**</b>	028-03242-000	19.5'	028-09951-000	3'	028-09951-000	5'
			028-03242-000	19.5'	028-03242-000	19.5'
<b>IW, IX*</b>	028-03242-000	21'	028-09951-000	4'	028-09951-000	7'
			028-03242-000	21'	028-03242-000	21'
<b>IW, IX**</b>	028-03242-000	21'	028-09951-000	4'	028-09951-000	6.5'
			028-03242-000	21'	028-03242-000	21'
<b>OW, OX O8, O9*</b>	028-03242-000	24.5'	028-09951-000	4.5'	028-09951-000	8'
			028-03242-000	24.5'	028-03242-000	24.5'
<b>OW, OX O8, O9**</b>	028-03242-000	24.5'	028-09951-000	4.5'	028-09951-000	8'
			028-03242-000	24.5'	028-03242-000	24.5'
<b>UW, UX U8, U9*</b>	028-03242-000	26'	028-09951-000	5'	028-09951-000	8.5'
			028-03242-000	26'	028-03242-000	26'
<b>UW, UX U8, U9**</b>	028-03242-000	25.5'	028-09951-000	4.5'	028-09951-000	7.5'
			028-03242-000	25.5'	028-03242-000	25.5'
<b>YW, YX Y8, Y9*</b>	028-03242-000	37'	028-09951-000	7'	028-09951-000	12'
			028-03242-000	37'	028-03242-000	37'
<b>YW, YX Y8, Y9**</b>	028-03242-000	37'	028-09951-000	5'	028-09951-000	12'
			028-03242-000	37'	028-03242-000	37'

**NOTE:**

\* Cooling Only Waterbox Arrangement

\*\*Heat Recovery Waterbox Arrangement

When ordering Gasket Material specify length required by replacing the -000 with either -025 for 25', -050 for 50', or -100 for 100'.



**FIGURE 58 - CONDENSER MARINE HEAT RECOVERY 150 LB. WATERBOX GASKET**

LD13823

## VIBRATION ISOLATORS

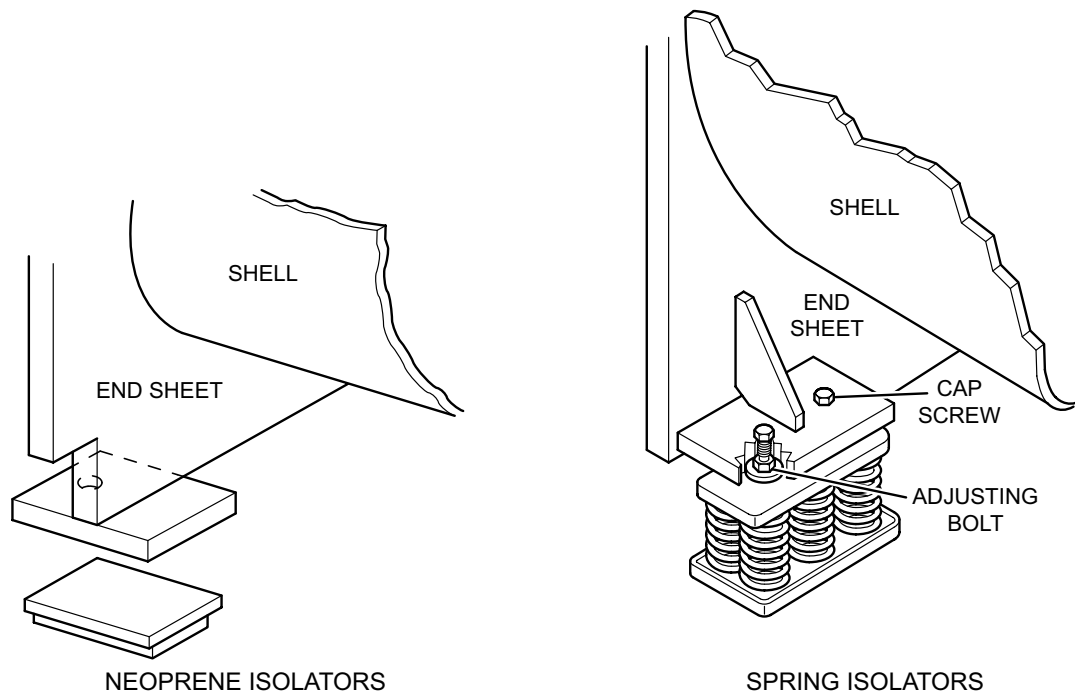
**TABLE 52 - NEOPRENE VIBRATION ISOLATORS**

SYSTEM OPERATING WEIGHT		PART NUMBER (Includes Quantity of 4 Pads)	PAD SIZE
KILOGRAMS	POUNDS		
Up to 7423	Up to 16,365	028-14462-000	5.5" x 5.5" (14 x 14 cm)
7424 to 13,107	16,366 to 28,835	028-14459-000	7" x 5.5" (23 x 14 cm)
13,108 to 24,332	28,836 to 53,530	028-14460-000	9" x 7" (23 x 18 cm)
24,333 to 45,666	53,531 to 100,464	028-14461-000	11" x 10" (30 x 25.4 cm)
45,667 to 58,967	100,465 to 130,000	028-15070-000	12" x 11" (30.5 x 30 cm)
58,968 to 91,332	130,001 to 200,928	028-14461-000*	11" x 10" (30 x 25.4 cm)

**NOTE:** \* When used with K7. Quantity is 2.

**TABLE 53 - SPRING ISOLATORS**

SYSTEM OPERATING WEIGHT		PART NUMBER (Includes Quantity 4 Spring Bolts)	QUANTITY (Number of Mounts Per Package)
KILOGRAMS	POUNDS		
4536 to 8873	10,000 to 19,563	029-23716-000	4
8874 to 11,093	19,564 to 24,457	029-21793-000	4
11,094 to 13,982	24,458 to 30,826	029-21376-000	4
13,983 to 15,880	30,827 to 35,009	029-20933-000	4
15,881 to 20,974	35,010 to 46,239	029-20934-000	4
20,975 to 26,467	46,240 to 58,349	029-20935-000	4
26,468 to 35,031	58,350 to 77,229	029-20936-000	4
35,032 to 40,525	77,230 to 89,340	029-21388-000	4
40,526 to 52,163	89,341 to 115,000	029-24121-000	4
52,164 to 86,183	115,001 to 190,000	029-24384-000	4



**FIGURE 59 - NEOPRENE ISOLATORS / SPRING ISOLATORS**

**TABLE 54 - INLET CHILLED WATER STRAINER (COMPACT HEADS AND MARINE WATERBOXES)**

NOZZLE SIZE	PART NUMBER
6	029-12948-000
8	029-12949-000
10	029-12950-000
12	029-12951-000
14	029-14727-000
16	029-14811-000
18	029-20932-000
20	029-22729-000

**TABLE 55 - CURRENT TRANSFORMER KIT AND TRANSFORMER ONLY**

**USE WITH FACTORY-MOUNTED MOTORS ONLY**  
**USE WITH FIELD INSTALLED ELECTRO-MECHANICAL STARTERS ONLY**

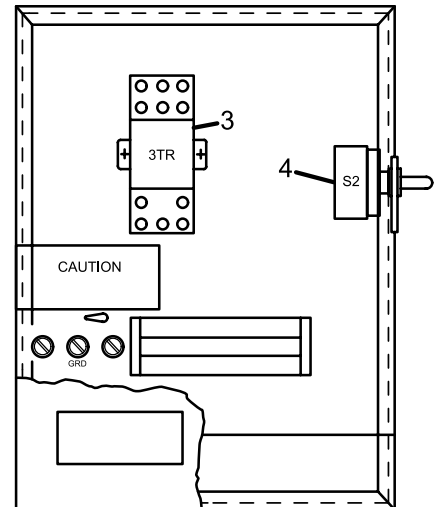
MOTOR VOLTAGE	FLA	"CT" RATIO	PART NUMBER	
			TRANSFORMER KIT (Includes Transformer)	TRANSFORMER ONLY
<b>200/600</b>	65-111	200:1	375-17422-701	025-29469-000
	112-224	350:1	375-17422-702	025-21173-002
	225-829	700:1	375-17422-703	025-21173-003
	830-1790	1400:1	375-17422-704	025-21173-004
<b>2300-4160</b>	11-37	200:1	375-17422-705	025-29469-000
	124-264	350:1	375-17422-706	025-21173-002
	265-518	700:1	375-17422-707	025-21173-005
	519-1036	1400:1	375-17422-708	025-21173-011

## MULTIPLE UNIT SEQUENCE KIT CONTROLS

**TABLE 56 - MULTIPLE UNIT SEQUENCE KIT (TWO UNIT)**

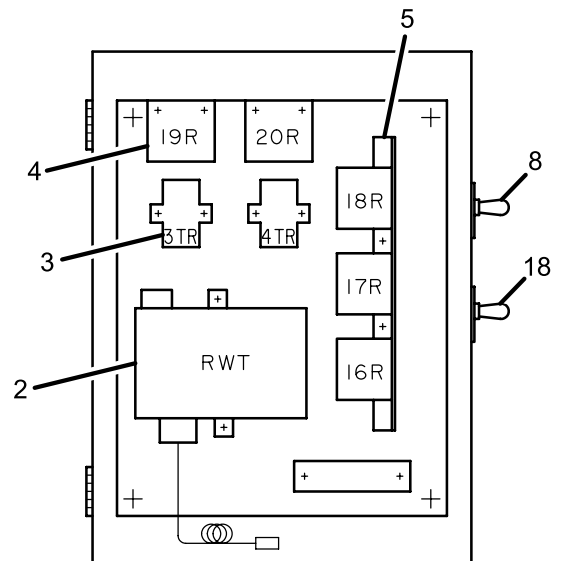
TWO UNIT			
ITEM	DESCRIPTION	PART NUMBER	QUANTITY
1 <sup>1</sup>	Controller, RWT	025-15154-000	1
2	Relay, Time Delay	024-13711-000	1
3	Switch, Toggle	024-14057-000	1

<sup>1</sup> Not Shown. Remote Mounted.



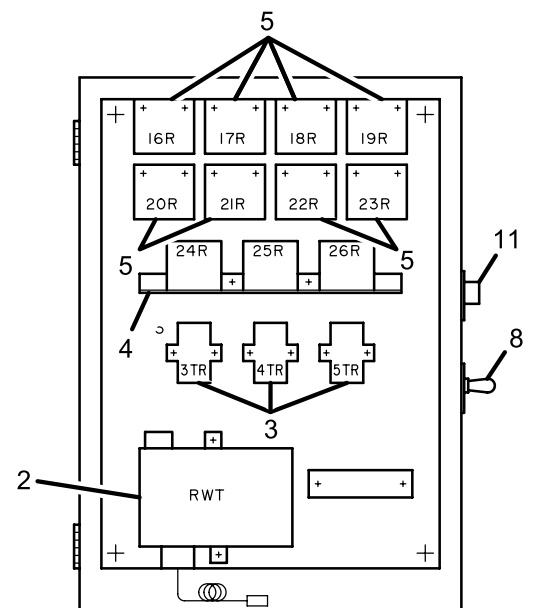
**TABLE 57 - MULTIPLE UNIT SEQUENCE KIT (THREE UNIT)**

THREE UNIT			
ITEM	DESCRIPTION	PART NUMBER	QUANTITY
2	Control, Temp 2 Stage	025-10215-000	1
3	Relay, TD 115V	024-30497-000	2
4	Relay, Control 120V Coil	024-14519-000	2
5	Relay Assy.	375-21706-000	1
8	Switch, Toggle 3 Position	024-17026-000	1
18	Switch, Toggle	024-11736-000	1



**TABLE 58 - MULTIPLE UNIT SEQUENCE KIT (FOUR UNIT)**

FOUR UNIT			
ITEM	DESCRIPTION	PART NUMBER	QUANTITY
2	Control, Temp. 3-Stage	025-10214-000	1
3	Relay, TD 115V	024-30497-000	3
4	Relay Assy.	375-21706-000	1
5	Relay, Control 120V Coil	024-14519-000	8
8	Switch, Toggle	024-11736-000	1
11	Switch, Rotary 4 Ckt 15A	024-20494-000	1



## MISCELLANEOUS AND ACCESSORIES

**TABLE 59 - CONSUMABLES**

DESCRIPTION	PART NUMBER	QUANTITY
Compound, Heat Conductive (For Thermometer Wells)	013-00898-000	4 Oz. Can
Caribbean Blue Enamel, Touch-up Spray Can	013-01835-000	-
Black, Touch-up Spray Can	Purchase Locally	-
YORK "K" Oil (5 Gallon)	011-00533-000	5 Gallon
YORK "K" Oil (R-134a Units) 1 Gallon	011-01202-000	1 Gallon

**TABLE 60 - FLOW SWITCH CONTROL**

DESCRIPTION	PART NUMBER
150 DWP	024-26116-000
300 DWP	024-12144-000

**TABLE 61 - DIFFERENTIAL PRESSURE CONTROL**

DESCRIPTION	PART NUMBER
Control, Differential Pressure*	025-30919-000

\* 300 PSI Maximum Working Pressure

**TABLE 62 - TEMPERATURE RECORDER**

DESCRIPTION		PART NUMBER
HZ	NUMBER OF PENS	
60	1	025-09658-000
	2	025-09823-000
50	1	025-12650-000
	2	025-12330-000

**TABLE 63 - COMMON PIPING PARTS**

DESCRIPTION	STEEL TUBING	STAINLESS STEEL TUBING	NUT	STEEL SLEEVE	STAINLESS STEEL SLEEVE
3/8"	003-00969-000	003-02407-000	023-18977-000	023-20760-000	023-17534-000
1/2"	003-00243-000		023-17541-000	023-19089-000	023-17542-000
3/4"	003-03518-000	003-02487-017	023-18286-000	023-18914-000	023-17536-000
1"	003-03515-000		023-18287-000	023-18911-000	023-17538-000

## MISCELLANEOUS AND ACCESSORIES (CONT'D)

**TABLE 64 - ELECTRICAL CONNECTORS**

DESCRIPTION	YORK P/N
Flow Sensor, (Style F)	025-38186-000
Flow Sensor, 90° Connector (Style G)	025-42799-000
Flow Sensor, Straight (Style G)	025-41574-000
Variable Orifice Actuator- DIN Connector	025-37878-000
Hot Gas Bypass Valve Actuator- DIN Connector	025-37877-000
Oil Return Solenoid- DIN Connector	025-37876-000
Thrust Bearing Proximity Probe- DIN Connector (Style F)	025-34047-000
Thrust Bearing Proximity Probe- DIN Connector (Style G)	025-37805-000
Compressor Stall Sensor- DIN Connector	025-37805-000
Liquid Refrigerant level Sensor- DIN Connector	025-37805-000
PRV Actuator Connector	025-38172-000
VGD Actuator Connector	025-38172-000

**TABLE 65 - RECOMMENDED SPARES**

ITEM	DESCRIPTION	PART NUMBER
1	Preventive Maintenance Kit (YK G Unit)	366-94952-016
	Element Oil Filter	026-32831-000
	O-Ring Neo1 03.484Id .139Thk M (Oil Filter)	028-14404-000
	Filter Drier 3/8 Orfs	026-37563-000
	O-Ring Neo1 00.364Id .070Thk M (Filter Drier)	028-12961-012
2	Type F Oil (R-22 Units), 5 Gallons	011-00434-000
	Type K Oil (R-134a Units), 5 Gallons	011-00533-000
	Type K Oil (R-134a Units), 1 Gallon	011-01202-000
	Type J Oil (K Compressor retrofit R-22 to R-134a), 5 Gallons	011-00558-000

**NOTE:** Reference SI0135 for more information on recommended oil viscosities for R-134a single stage compressors.

**TABLE 66 - AUTOGREESER KIT**

DESCRIPTION	MICROBOARD	SOFTWARE VERSION	YORK P/N
Autogreaser	031-02430-000 / -001	older than V27	026-41276-000
		V27 and newer	026-47498-000
	031-03630-000	V0 and newer	026-47498-000



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