
CHAMPION®

13-11-511
Version: 07
October 31, 2005

ROTORCHAMP®
OIL-FREE ROTARY SCREW
COMPRESSOR

MODELS

RCOF (EWC99D)
20, 25 & 30 HP

PARTS LIST

CHAMPION®

A Gardner Denver Product

MAINTAIN COMPRESSOR RELIABILITY AND PERFORMANCE WITH GENUINE CHAMPION® COMPRESSOR PARTS AND SUPPORT SERVICES

Champion® Compressor genuine parts, manufactured to design tolerances, are developed for optimum dependability – specifically for Champion compressor systems. Design and material innovations are the result of years of experience with hundreds of different compressor applications. Reliability in materials and quality assurance is incorporated in our genuine replacement parts.

Your authorized Champion Compressor distributor offers all the backup you'll need. A worldwide network of authorized distributors provides the finest product support in the air compressor industry.

Your authorized distributor can support your Champion air compressor with these services:

1. Trained parts specialists to assist you in selecting the correct replacement parts.
2. Factory warranted new and remanufactured rotary screw airends. Most popular model remanufactured airends are maintained in stock at the Remanufacturing Center in Indianapolis, IN., for purchase on an exchange basis with liberal core credit available for the replacement unit.
3. A full line of factory tested RotorLub™ compressor lubricants specifically formulated for use in Champion compressors.
4. Repair and maintenance kits designed with the necessary parts to simplify servicing your compressor.

Authorized distributor service technicians are factory trained and skilled in compressor maintenance and repair. They are ready to respond and assist you by providing fast, expert maintenance and repair services.

For the location of your local authorized Champion Air Compressor distributor, refer to the yellow pages of your phone directory, check the Gardner Denver Web Site at www.gardnerdenver.com or contact:

Factory:
Champion
1301 N. Euclid Ave.
Princeton, IL. 61356
Phone: (815) 875-3321
Fax: (815) 872-0421

INSTRUCTIONS FOR ORDERING REPAIR PARTS

When ordering parts, specify Compressor MODEL, Method of Cooling, POWER and SERIAL NUMBER (see nameplate on unit). The Airend Serial Number is also stamped on top of the discharge bearing carrier castings.

All orders for Parts should be placed with the nearest authorized distributor.

Where NOT specified, quantity of parts required per compressor or unit is one (1); where more than one is required per unit, quantity is indicated in parenthesis. **SPECIFY EXACTLY THE NUMBER OF PARTS REQUIRED.**

DO NOT ORDER BY SETS OR GROUPS.

To determine the Right-Hand and Left-Hand side of a compressor, stand at the motor end and look toward the compressor. Right-Hand and Left-Hand are indicated in parenthesis following the part name, i.e. (RH) and (LH), when appropriate.

TOTAL PRODUCT SUPPORT – CHAMPION'S

Commitment to total product support continues long after the purchase of your quality Champion rotary screw compressor.

Champion original parts incorporate years of experience and improvements in design, materials and quality assurance. Maintaining your compressor investment with Champion parts will insure protection for the air compressor unit and long, dependable service life.

Your authorized Champion compressor distributor maintains a complete stock of all common maintenance parts, factory approved Rotorlub lubricants, and Champion factory warranted exchange airends. In addition, authorized distributor technicians are factory trained, and can provide complete diagnostic, compressor maintenance and repair services.

This manual is designed to assist you in maintaining high performance and receiving many years of dependable service you expect from your Champion compressor.

REMANUFACTURED AIRENDS

Whenever an airend requires replacement or repair, Champion offers an industry unique, factory remanufactured airend exchange program. From its modern Remanufacturing Center in Indianapolis, IN., Champion is committed to supplying you with the highest quality, factory remanufactured airends that are guaranteed to save you time, aggravation and money.

Immediately Available

Repair downtime costs you money, which is why the most popular models are in inventory at all times.

Skilled Craftsmen

Our Remanufacturing assembly technicians average over 20 years experience with air compression products.

Precision Remanufacturing

All potentially usable parts are thoroughly cleaned, inspected and analyzed. Only those parts that can be brought back to original factory specifications are remanufactured. Every remanufactured airend receives a new overhaul kit: bearings, gears, seals, sleeves and gaskets.

Extensive Testing

Champion performs testing that repair houses just don't do. Magnaflux and ultrasonic inspection spot cracked or stressed castings, monochromatic light analysis exposes oil leaks, and coordinate measurement machine inspects to +/- .0001", insuring that all remanufactured airends meet factory performance specifications.

Warranty

Champion backs up every remanufactured airend with a new warranty...27 months from purchase, 24 months from service.

Champion remanufactured airends deliver *quality without question...year in and year out.*

Call Champion for information on the airend exchange program and the name of your authorized distributor.

Phone Number: 815-875-3321 or
Fax: 815-872-0421

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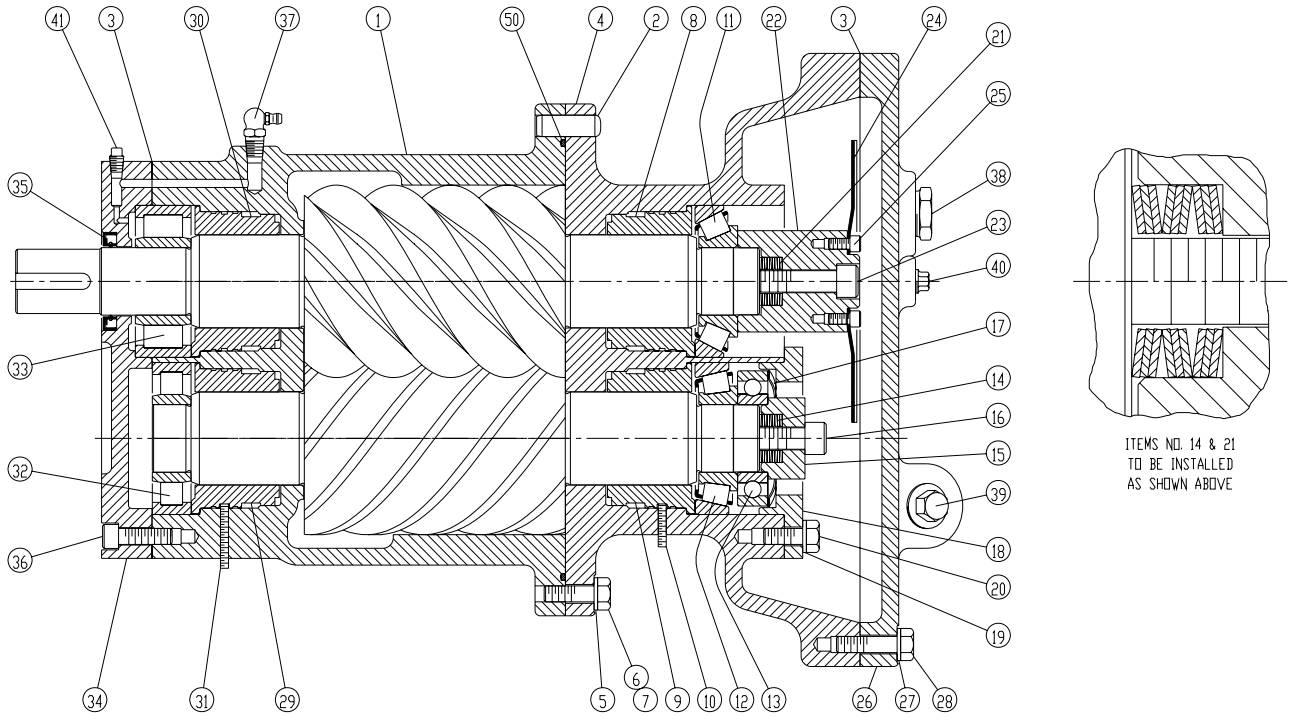
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For Operating and Service Manual, see:

SERVICE MANUAL 13-11-609

Order by Part Number and Description. Reference Numbers are for your convenience only.

BARE COMPRESSOR



**300JWC810-F
(Ref. Drawing)**

AIREND REPLACEMENTS

HP	NEW AIREND
20	JWCABB
25	JWCABB
30	JWCABB

NOTICE

See your Champion Distributor for new airend availability.

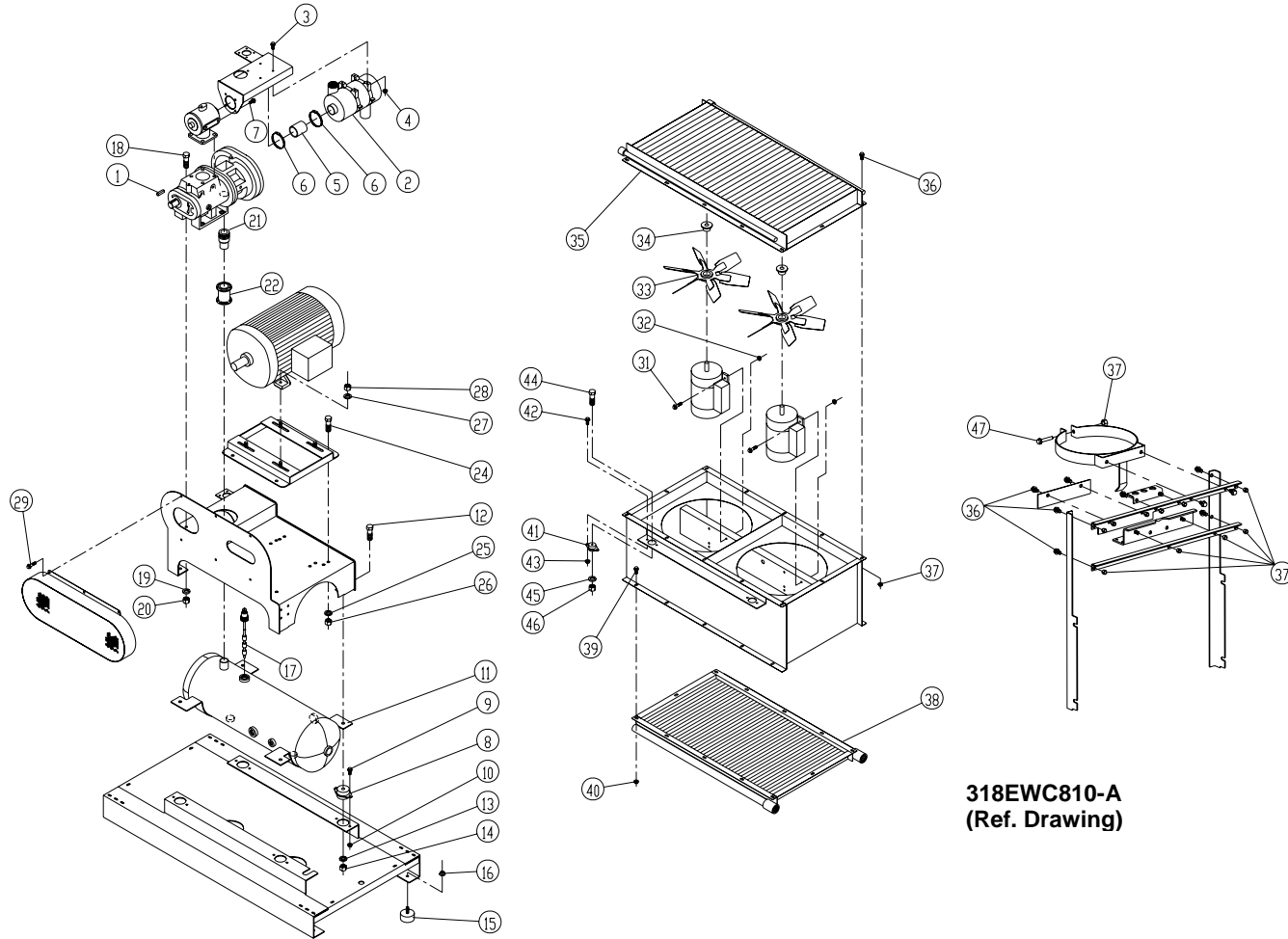
Order by Part Number and Description. Reference Numbers are for your convenience only.

BARE COMPRESSOR

B/M: 301JWC4049

Ref. No.	Name of Part	Qty.	Part No.
1	AIR CYLINDER.....	1	
2	PIN.....	2	
3	GASKET ELMINATOR.....	1	
4	BEARING HOUSING.....	1	
5	LOCKWASHER.....	10	
6	SCREW.....	9	
7	SCREW.....	1	
8	SEAL.....	1	
9	SEAL.....	1	
10	SCREW.....	2	
11	ROLLER BEARING.....	1	
12	ROLLER BEARING.....	1	
13	BEARING.....	1	
14	SPRING.....	9	
15	BEARING RETAINER PLATE.....	1	
16	SCREW.....	1	
17	SPRING.....	1	
18	RETAINER.....	1	
19	LOCKWASHER.....	4	
20	SCREW.....	4	
21	SPRING.....	9	
22	BEARING RETAINER PLATE.....	1	
23	SCREW.....	1	
24	SLINGER.....	1	
25	SCREW.....	2	
26	COVER.....	1	
27	LOCKWASHER.....	10	
28	SCREW.....	10	
29	SEAL.....	1	
30	SEAL.....	1	
31	SCREW.....	2	
32	ROLLER BEARING.....	1	
33	ROLLER BEARING.....	1	
34	SEAL HOUSING.....	1	
35	OIL SEAL.....	1	
36	SCREW.....	9	
37	PIPE FITTINGS.....	2	
38	GAUGE.....	1	
39	PLUG.....	1	
40	PLUG.....	5	
41	PLUG.....	6	
42	PLUG (not shown).....	6	
43	PLUG (not shown).....	10	
50	O-RING.....	1	

BASIC ASSEMBLY GROUP



318EWC810-A
(Ref. Drawing)

Order by Part Number and Description. Reference Numbers are for your convenience only.

BASIC ASSEMBLY GROUP

B/M: 302EWC4017

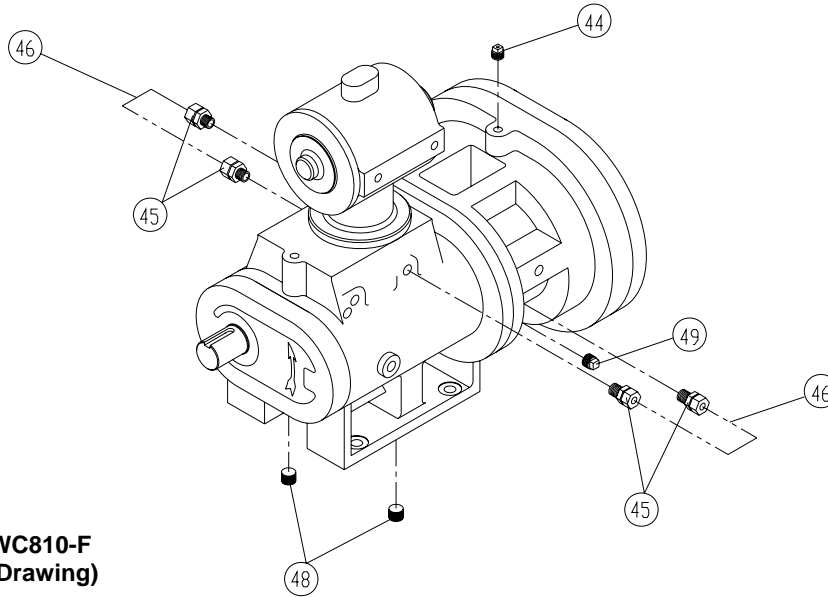
Ref. No.	Name of Part	Qty.	Part No.	Ref. No.	Name of Part	Qty.	Part No.
1	KEY.....	1	8501217	25	LOCKWASHER.....	4	95B5
* 2	AIR FILTER.....	1	5L350	26	NUT.....	4	50B5
3	SCREW.....	2	75LM50	27	LOCKWASHER.....	4	95B5
4	NUT.....	2	50AW4	28	NUT.....	4	50B5
5	HOSE.....	1	29Z475	29	SCREW.....	6	75LM51
6	CLAMP.....	2	2009395	31	SCREW.....	8	75LM97
7	SCREW.....	4	75LM51	32	NUT.....	8	50AW4
8	VIBRATION ISOLATOR.....	4	49C46	33	FAN.....	2	300EWC701
9	SCREW.....	4	75LM51	34	SHEAVE BUSHING.....	2	22G36
10	NUT.....	4	50AW5	35	WATER COOLER.....	1	300EWC257
11	MOISTURE SEPARATOR.....	1	301EWC1443	36	SCREW.....	22	75LM51
12	SCREW.....	4	655EF160	37	NUT.....	22	50AW5
13	LOCKWASHER.....	4	95B7	38	AFTERCOOLER.....	1	300EWC292
14	NUT.....	4	50B7	39	SCREW.....	12	75LM51
15	VIBRATION ISOLATOR.....	4	49C102	40	NUT.....	12	50AW5
16	NUT.....	4	50AW35	41	VIBRATION ISOLATOR.....	4	49C58
*** 17	SWITCH.....	1	300EWC375	42	SCREW.....	8	75K54
18	SCREW.....	4	655EE060	43	NUT.....	8	50AW4
19	LOCKWASHER.....	4	95B5	44	SCREW.....	4	75A102
20	NUT.....	4	50B5	45	LOCKWASHER.....	4	95B2
21	NIPPLE.....	1	64EB879	46	NUT.....	4	50B2
** 22	FLEXIBLE COUPLING.....	1	64EB810	47	SCREW.....	1	75LM271
24	SCREW.....	4	655EE050				

* For Repair, order Element Part Number 2117900

** For Repair, order (2) Gaskets, Part Number 2117158

*** Parts included in Electrical Control Kit Part Number 308EWC6013. Refer to page 40.

Order by Part Number and Description. Reference Numbers are for your convenience only.



300JWC810-F
(Ref. Drawing)

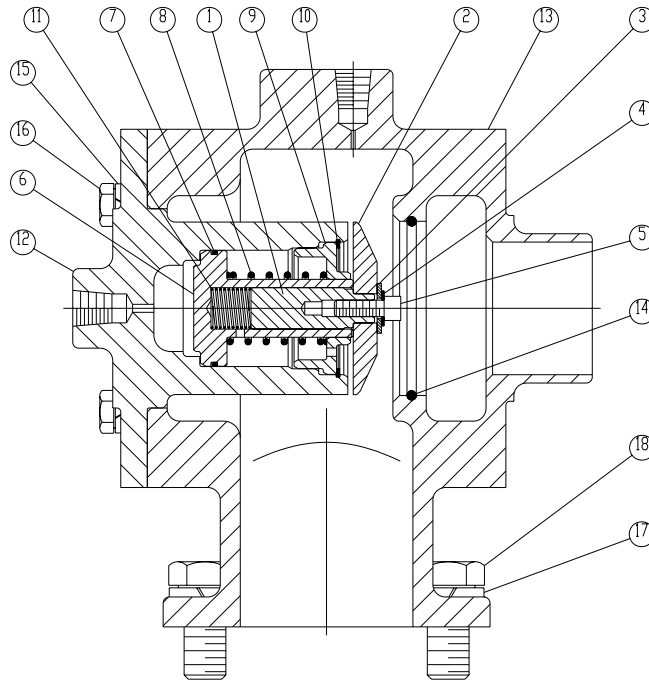
NOTE: ITEMS 45 AND 46 ARE USED FOR SEAL SCAVENGE AND RETURN. ITEM 47 IS NOT SHOWN. ITEM 49 IS FOR PLUGGING OF UNUSED DISCHARGE TEMPERATURE PORT. SEE DRAWING 300JWC800 FOR MORE DETAILS.

SEAL SCAVENGE – BARE COMPRESSOR

B/M: 301JWC4049

Ref. No.	Name of Part	Qty.	Part No.
44	ORIFICE.....	1	202WBO814
45	TUBE CONNECTOR.....	4	86E9
46	TUBE (IN FEET).....	2	85G5
48	PLUG.....	2	00901923 0002
49	PLUG.....	1	64AJ2

Order by Part Number and Description. Reference Numbers are for your convenience only.



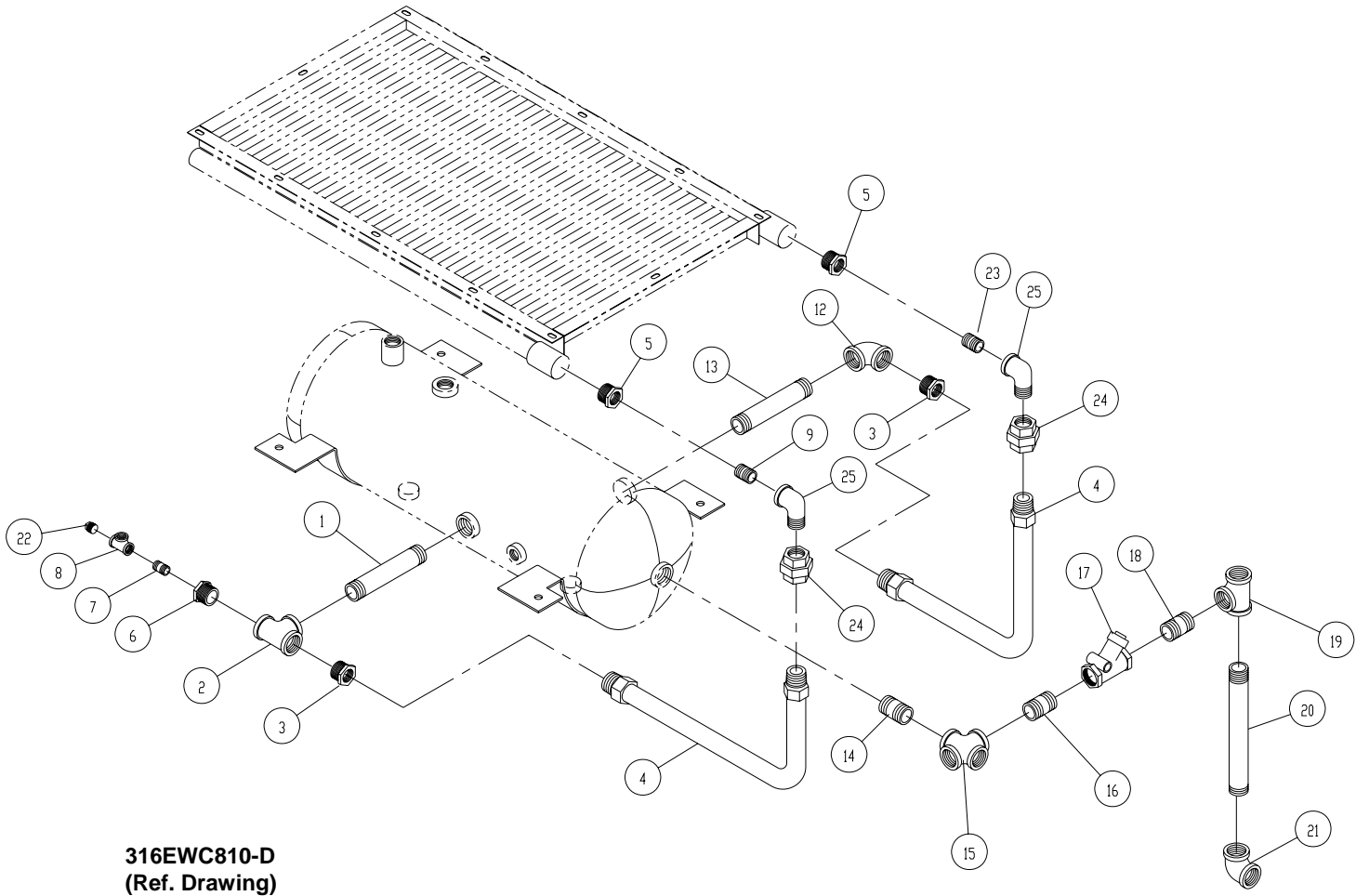
300JWE810
(Ref. Drawing)

INLET VALVE GROUP

B/M: 300JWC4030

Ref. No.	Name of Part	Qty.	Part No.
1	VALVE-GUIDE	1	201SSE483
2	INLET VALVE.....	1	300JWE044
3	WASHER.....	1	95A1C
4	LOCKWASHER.....	1	95H16
5	SCREW	1	655EC03N
6	INLET VALVE PISTON	1	300JWE043
7	O-RING	1	5100498
8	SPRING.....	1	78H22
9	RETAINER	1	300JWE205
10	RETAINING RING.....	1	74D92
11	SPRING.....	1	78W59
12	INLET VALVE CYLINDER	1	300JWE420
13	INLET HOUSING	1	300JWC041
14	O-RING	1	25AM15
15	LOCKWASHER.....	4	95B3
16	SCREW	4	655ED040
17	LOCKWASHER.....	4	95B3
18	SCREW	4	655ED040
19	GASKET ELIMINATOR (not shown).....	1	25BC222

COMPRESSED AIR PIPING



**316EWC810-D
(Ref. Drawing)**

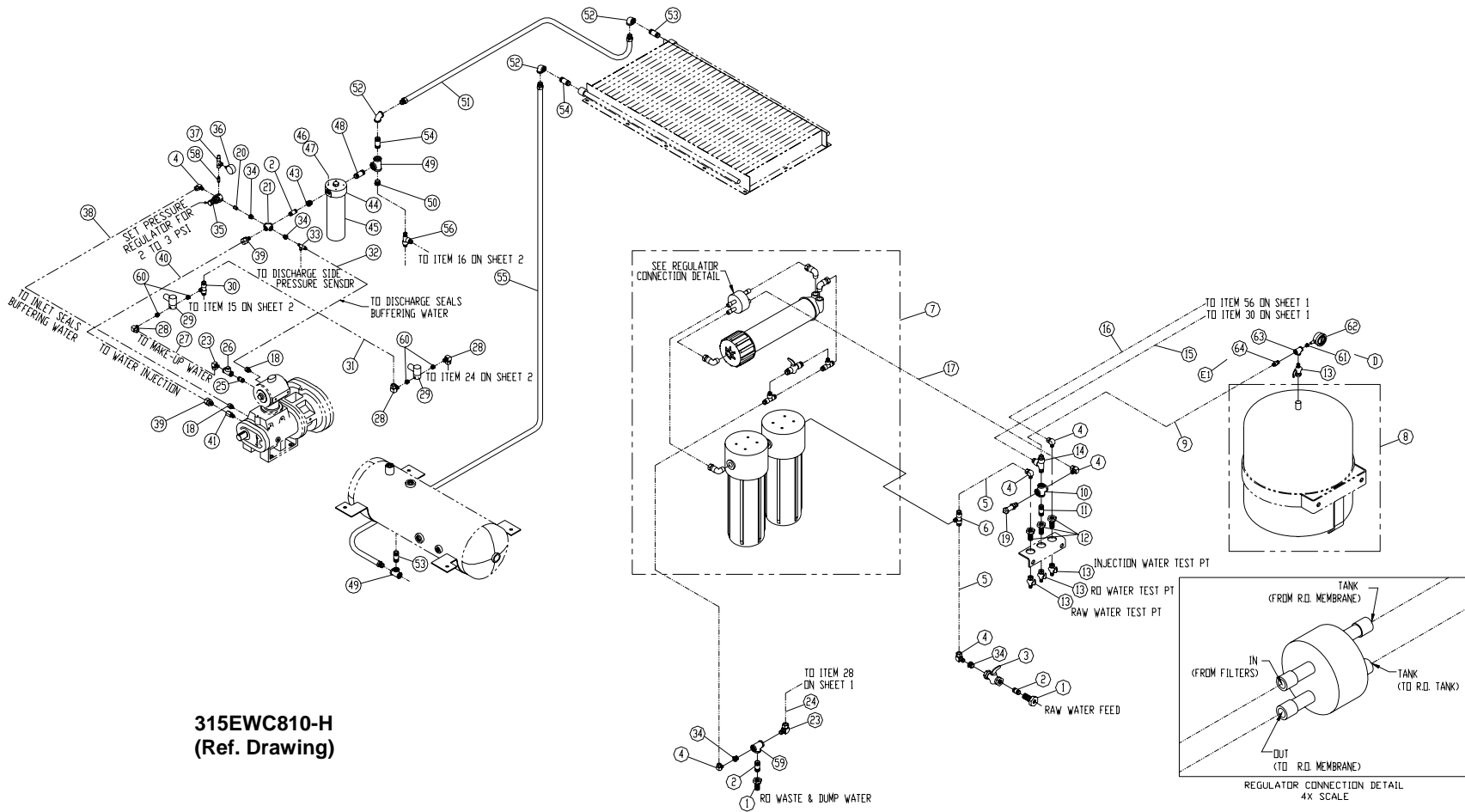
FINAL DISCHARGE

Order by Part Number and Description. Reference Numbers are for your convenience only.

COMPRESSED AIR PIPING

Ref. No.	Name of Part	Qty.	B/M: 305EWC4019 Part No.
1	NIPPLE	1	64EB812
2	TEE	1	64EB814
3	PIPE BUSHING	2	64EB960
4	HOSE	2	29Z425
5	PIPE BUSHING	2	64EB960
6	PIPE BUSHING	1	64EB811
7	NIPPLE	1	63Z15
8	TEE	1	64G15
9	NIPPLE	1	64EB514
12	ELBOW	1	64EB254
13	NIPPLE	1	64EB812
14	NIPPLE	1	64EB813
15	CROSS	1	64EB815
16	NIPPLE	1	64EB813
17	CHECK VALVE	1	90J131
18	NIPPLE	1	64EB813
19	TEE	1	64EB814
20	NIPPLE	1	64EB812
21	ELBOW	1	64EB254
22	PLUG	1	64AJ2
23	NIPPLE	1	64EB515
24	UNION	2	64EB531
25	TEE	2	64EB554

WATER PIPING GROUP



315EWC810-H
(Ref. Drawing)

Order by Part Number and Description. Reference Numbers are for your convenience only.

WATER PIPING GROUP

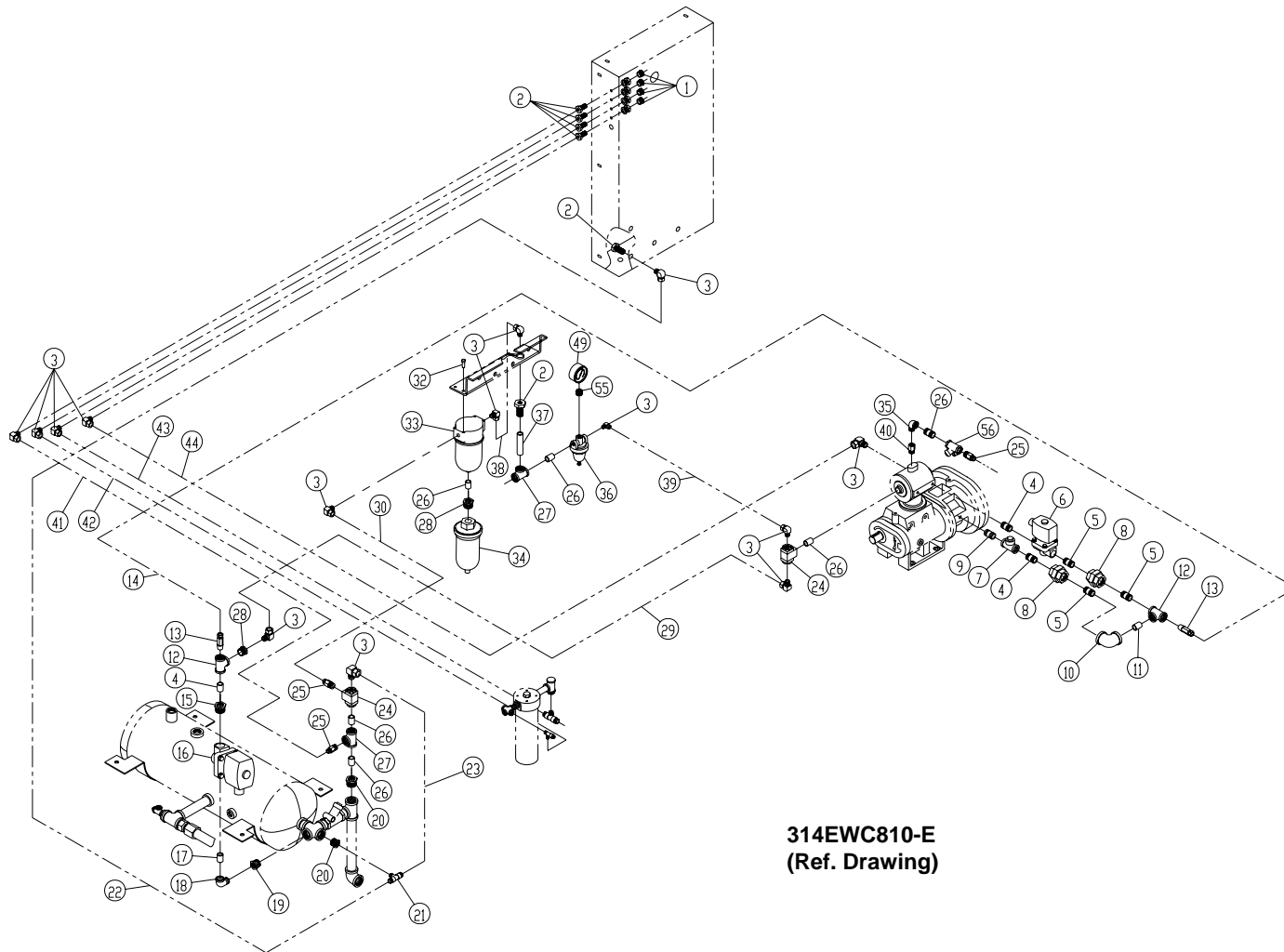
B/M: 304EWC4019

Ref. No.	Name of Part	Qty.	Part No.	Ref. No.	Name of Part	Qty.	Part No.
1	PIPE COUPLING	2	64EB613	33	TEE.....	1	2009284
2	NIPPLE	3	64EB618	34	PIPE BUSHING	5	64E62
3	BALL VALVE.....	1	90AR241	35	REGULATOR	1	88H319
4	ELBOW.....	6	86E60	36	PRESSURE GAUGE	1	27P356
5	TUBE (IN FEET).....	3	85G3	37	CONTROL VALVE.....	1	90AR1102
6	TEE.....	1	86E118	38	TUBE (IN FEET).....	4	85G3
* 7	FILTER (WATER)	1	26C52	39	TUBE CONNECTOR	2	86E20
8	FILTER (TANK).....	1	26C45	40	TUBE (IN FEET).....	3	85H6
9	TUBE (IN FEET).....	4	85G5	41	ORIFICE	1	200ECM814
10	CROSS	1	64K13	43	PIPE BUSHING	1	64EB524
11	NIPPLE	1	63Z14	44	FILTER HOUSING.....	1	26C34
12	PIPE COUPLING	3	64EB368	45	ELEMENT	1	2117902
13	COCK	4	90A19	46	WASHER	4	95A1
14	TEE.....	1	86E136	47	SCREW	4	75LM47
15	TUBE (IN FEET).....	8	85G5	48	NIPPLE.....	1	64EB52
16	TUBE (IN FEET).....	8	85G3	49	TEE.....	2	64EB530
17	TUBE (IN FEET).....	2	85G3	50	PIPE BUSHING	1	64E71
18	TUBE CONNECTOR	2	86E4	51	HOSE	1	29Z373
19	PRESSURE RELIEF VALVE	1	90AR1107	52	ELBOW.....	3	64EB137
20	NIPPLE	1	63Z15	53	NIPPLE.....	2	64EB651
21	CROSS	1	64EB822	54	NIPPLE.....	2	64EB175
23	ELBOW.....	2	86N383	55	HOSE	1	29Z374
24	TUBE (IN FEET).....	6	85G5	56	TEE.....	1	2009284
25	NIPPLE	1	63AP35	58	NIPPLE.....	1	63Z50
26	VALVE-CHECK.....	1	90J121	59	TEE.....	1	64EB429
27	TUBE (IN FEET).....	4	85G5	60	PIPE BUSHING	4	64E50
28	ELBOW.....	3	86E64	61	PIPE BUSHING	1	64E28
**29	VALVE SOLENOID.....	2	91B226	62	PRESSURE GAUGE	1	27P384
30	TEE.....	1	86N347	63	TEE.....	1	64G15
31	TUBE (IN FEET).....	1	85G5	64	TUBE CONNECTOR	1	86E9
32	TUBE (IN FEET).....	3	85G3				

* For Repair, order: Sediment Filter Element..... 2118141
 Carbon Block..... 2118142
 100 GDP Membrane..... 2118143

** Parts included in Electrical Control Kit Part Number 308EWC6013. Refer to page 40.

CONTROL FITTING GROUP



314EWC810-E
(Ref. Drawing)

Order by Part Number and Description. Reference Numbers are for your convenience only.

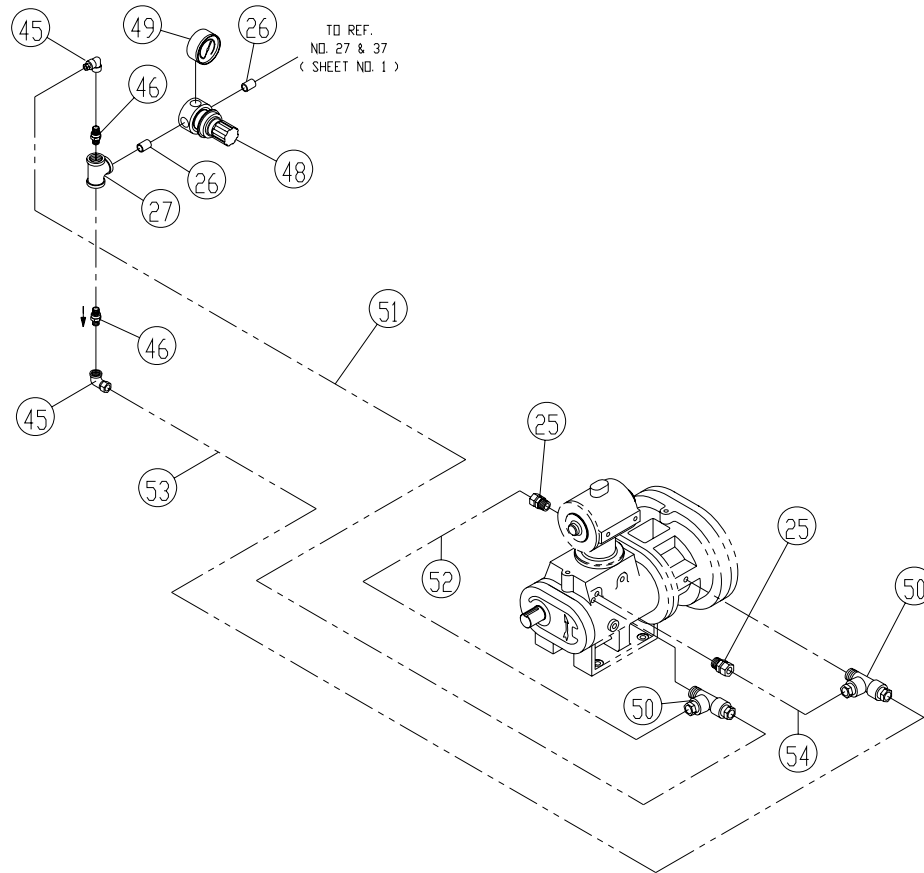
CONTROL FITTING GROUP

B/M: 302EWC4052

Ref. No.	Name of Part	Qty.	Part No.	Ref. No.	Name of Part	Qty.	Part No.
1	PIPE BUSHING.....	4	64E28	24	CONTROL VALVE.....	2	90AR1006
2	PIPE COUPLING	6	64EB368	25	TUBE CONNECTOR.....	5	86E4
3	ELBOW	14	86E60	26	NIPPLE	7	64EB525
4	NIPPLE.....	3	63Z20	27	TEE	3	64G15
5	NIPPLE.....	3	8508626	28	PIPE BUSHING	2	64E62
* 6	SOLENOID VALVE	1	91B128	29	TUBE (IN FEET).....	4	85G3
7	CHECK VALVE	1	90J129	30	TUBE (IN FEET).....	2	85G3
8	UNION.....	2	64EB430	32	SCREW.....	4	75LM215
9	NIPPLE.....	1	63AP50	33	FILTER (PIPE LINE).....	1	5L340
10	ELBOW	1	64EB428	34	DRAIN.....	1	7000364
11	NIPPLE.....	1	8508625	35	ELBOW	1	64D55
12	TEE.....	2	64EB429	* 36	VALVE-SUB/PILOT	1	88B46
13	TUBE CONNECTOR.....	2	86E18	37	NIPPLE	1	63Z23
14	TUBE (IN FEET).....	3	85G6	38	TUBE (IN FEET).....	1	85G3
15	PIPE BUSHING.....	1	64EB524	39	TUBE (IN FEET).....	4	85G3
* 16	SOLENOID VALVE	1	91B95	40	ORIFICE	1	300EWF814
17	NIPPLE.....	1	64EB52	41	TUBE (IN FEET).....	10	85G3
18	ELBOW	1	64EB55	42	TUBE (IN FEET).....	5	85G3
19	PIPE BUSHING.....	1	64EB936	43	TUBE (IN FEET).....	5	85G3
20	PIPE BUSHING.....	2	64EB811	44	TUBE (IN FEET).....	4	85G3
21	TEE.....	1	86E119	49	PRESSURE GAUGE	2	27P356
22	TUBE (IN FEET).....	8	85G3	55	PIPE BUSHING	1	64E28
23	TUBE (IN FEET).....	2	85G3	56	STRAINER.....	1	82E46

* Parts included in Electrical Control Kit Part Number 308EWC6013. Refer to page 40.

CONTROL FITTING GROUP



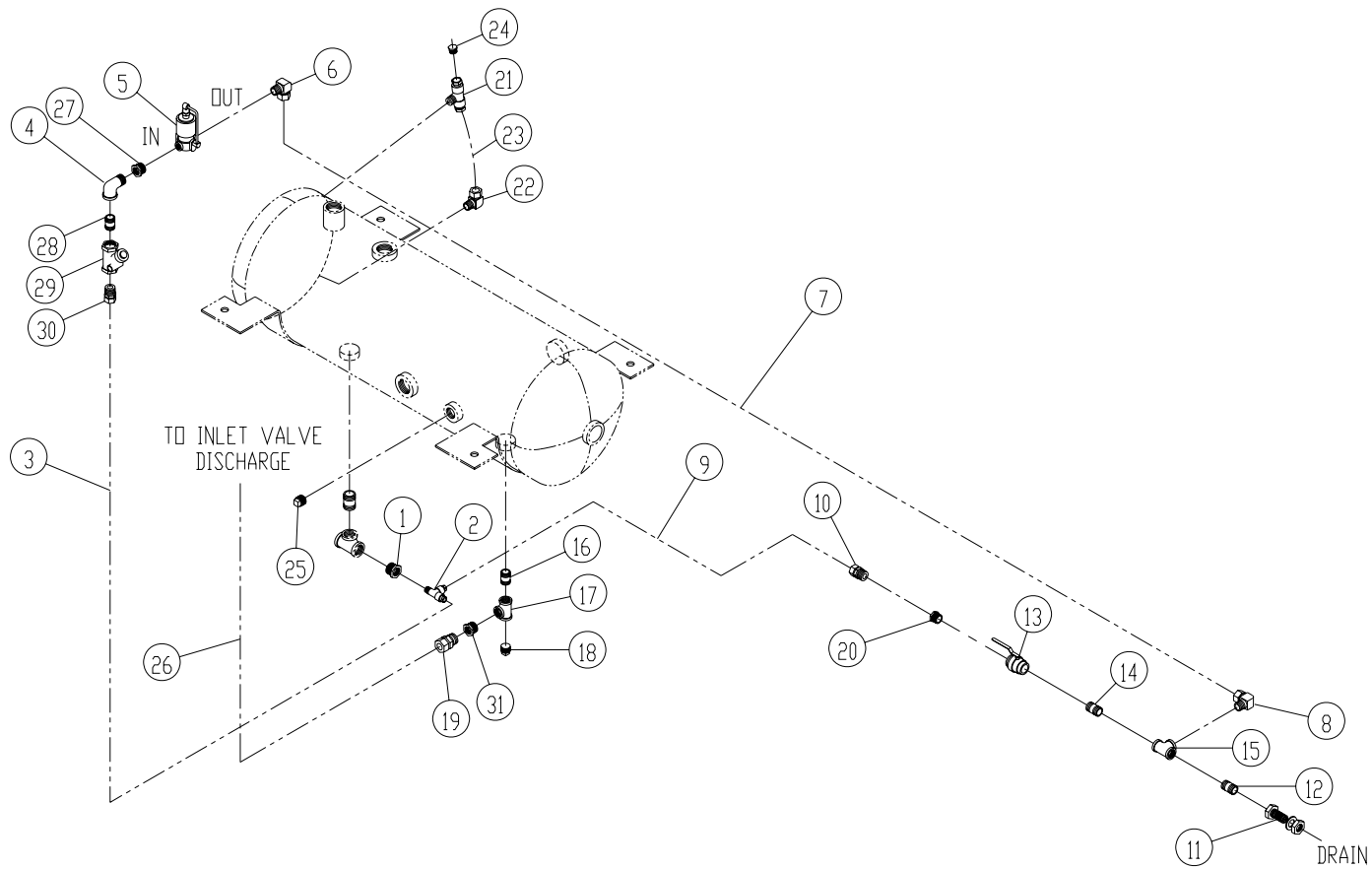
314EWC810-E
(Ref. Drawing)

Order by Part Number and Description. Reference Numbers are for your convenience only.

CONTROL FITTING GROUP

Ref. No.	Name of Part	Qty.	B/M: 302EWC4052 Part No.
25	TUBE CONNECTOR.....	5	86E4
26	NIPPLE.....	7	64EB525
27	TEE.....	3	64G15
45	ELBOW.....	2	86E193
46	CHECK VALVE.....	2	90AR261
48	REGULATOR.....	1	88H318
49	PRESSURE GAUGE.....	2	27P356
50	TEE.....	2	86E136
51	TUBE (IN FEET).....	6	85G3
52	TUBE (IN FEET).....	2	85G3
53	TUBE (IN FEET).....	6	85G3
54	TUBE (IN FEET).....	2	85G3

DRAIN PIPING



317EWC810-D
(Ref. Drawing)

Order by Part Number and Description. Reference Numbers are for your convenience only.

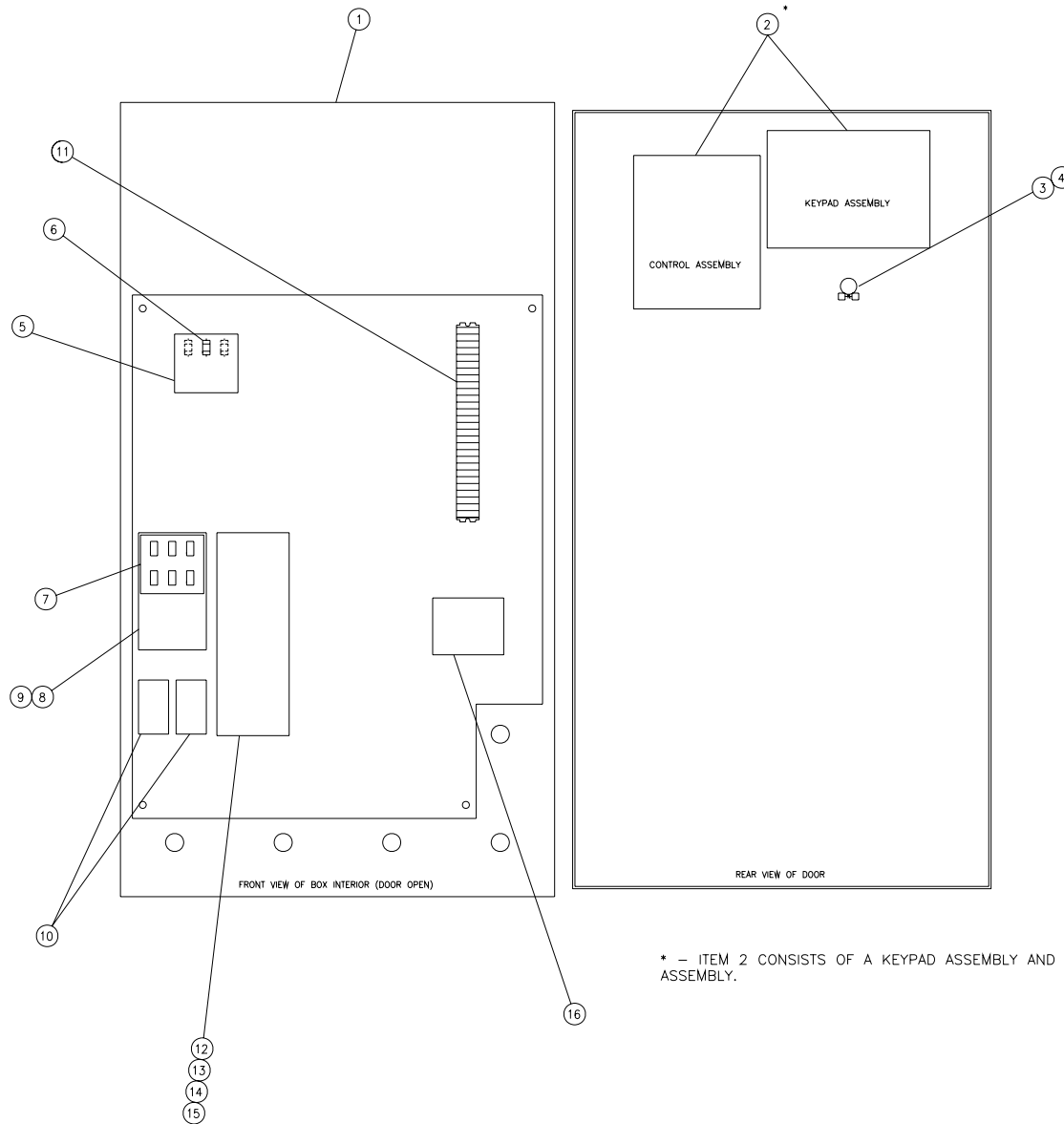
DRAIN PIPING

B/M: 306EWC4019

Ref. No.	Name of Part	Qty.	Part No.
1	PIPE BUSHING	1	64E71
2	TEE.....	1	86E136
3	TUBE (IN FEET).....	4	85G5
4	ELBOW.....	1	64D32
* 5	VALVE SOLENOID	1	91B146
6	ELBOW.....	1	86E65
7	TUBE (IN FEET).....	6	85G5
8	ELBOW.....	1	86N383
9	TUBE (IN FEET).....	6	85G5
10	ELBOW.....	1	86E10
11	PIPE COUPLING.....	1	64EB613
12	NIPPLE.....	1	64EB618
13	BALL VALVE	1	90AR241
14	NIPPLE.....	1	63AP35
15	TEE.....	1	64EB429
16	NIPPLE.....	1	63AP35
17	TEE.....	1	64EB429
18	PLUG.....	1	64AJ4
19	TUBE CONNECTOR.....	1	86E4
20	BUSHING PIPE	1	64EB469
21	TEE.....	1	86E119
22	ELBOW.....	1	86E60
23	TUBE (IN FEET).....	1	85G3
24	PLUG	1	86N142
25	PLUG	1	64AJ4
26	TUBE (IN FEET).....	3	85G3
27	PIPE BUSHING	1	64E50
28	NIPPLE.....	1	63Z15
29	STRAINER	1	82E46
30	TUBE CONNECTOR.....	1	86E9
31	PIPE BUSHING	1	64E62

* Parts included in Electrical Control Kit Part Number 308EWC6013. Refer to page 40.

CONTROLLER ASSEMBLY – 20, 25 & 30 HP - FULL VOLTAGE STARTERS



**321EWC810-A
(Ref. Drawing)**

* - ITEM 2 CONSISTS OF A KEYPAD ASSEMBLY AND A CONTROL ASSEMBLY.

Order by Part Number and Description. Reference Numbers are for your convenience only.

CONTROLLER ASSEMBLY – 20 HP - FULL VOLTAGE STARTERS

Ref. No.		QTY	200V	230V	460V	575V
	NEMA 12 CONTROL BOX		348EWC466	354EWC466	352EWC466	358EWC466
	NEMA 4 CONTROL BOX		349EWC466	355EWC466	353EWC466	359EWC466
1	CONTROL/STARTER BOX (NEMA 12).....	1	301EWC179	301EWC179	301EWC179	301EWC179
	CONTROL/STARTER BOX (NEMA 4).....	1	302EWC179	302EWC179	302EWC179	302EWC179
2	CONTROLLER ASSEMBLY.....	(See Page 27)				
3	OPERATOR.....	1	24CA2907	24CA2907	24CA2907	24CA2907
4	CONTACT BLOCK	1	24CA2908	24CA2908	24CA2908	24CA2908
5	TRANSFORMER	1	24CA4451	24CA4451	24CA4451	24CA4451
6	FUSE	1	24CA3725	24CA3725	24CA3725	24CA3725
7	HOLDER-FUSE	1	24CA4098	24CA4098	24CA4098	24CA4098
8	STARTER	1	24CA4132	24CA4132	24CA4132	24CA4132
9	COIL-STARTER.....	1	2115950	2115950	2115950	2115950
10	RELAY	2	24CA4086	24CA4086	24CA4086	24CA4086
11	BLOCK.....	7	24CA2633	24CA2633	24CA2633	24CA2633
12	STARTER	1	24CA4142	24CA4142	24CA4137	24CA4137
13	COIL-STARTER.....	1	2116124	2116124	2115950	2115950
14	RELAY	1	24CA4087	24CA4087	24CA4086	24CA4086
15	CONTACTOR-RELAY	1	24CA3258	24CA3258	24CA2609	24CA2609
16	CONTROLLER	1	302EWC1173	302EWC1173	302EWC1173	302EWC1173

To reference drawing, refer to page 20.

Order by Part Number and Description. Reference Numbers are for your convenience only.

CONTROLLER ASSEMBLY – 25 HP - FULL VOLTAGE STARTERS

Ref. No.		QTY	200V	230V	460V	575V
	NEMA 12 CONTROL BOX		350EWC466	354EWC466	354EWC466	358EWC466
	NEMA 4 CONTROL BOX		351EWC466	355EWC466	355EWC466	359EWC466
1	CONTROL/STARTER BOX (NEMA 12).....	1	301EWC179	301EWC179	301EWC179	301EWC179
	CONTROL/STARTER BOX (NEMA 4).....	1	302EWC179	302EWC179	302EWC179	302EWC179
2	CONTROLLER ASSEMBLY.....	(See Page 27)				
3	OPERATOR.....	1	24CA2907	24CA2907	24CA2907	24CA2907
4	CONTACT BLOCK	1	24CA2908	24CA2908	24CA2908	24CA2908
5	TRANSFORMER	1	24CA4451	24CA4451	24CA4451	24CA4451
6	FUSE	1	24CA3725	24CA3725	24CA3725	24CA3725
7	HOLDER-FUSE	1	24CA4098	24CA4098	24CA4098	24CA4098
8	STARTER	1	24CA4132	24CA4132	24CA4132	24CA4132
9	COIL-STARTER.....	1	2115950	2115950	2115950	2115950
10	RELAY	2	24CA4086	24CA4086	24CA4086	24CA4086
11	BLOCK.....	7	24CA2633	24CA2633	24CA2633	24CA2633
12	STARTER	1	24CA3881	24CA4142	24CA4142	24CA4137
13	COIL-STARTER.....	1	2116555	2116124	2116124	2115950
14	RELAY	1	24CA4086	24CA4087	24CA4087	24CA4086
15	CONTACTOR-RELAY	1	24CA3259	24CA3258	24CA3258	24CA2609
16	CONTROLLER	1	302EWC1173	302EWC1173	302EWC1173	302EWC1173

To reference drawing, refer to page 20

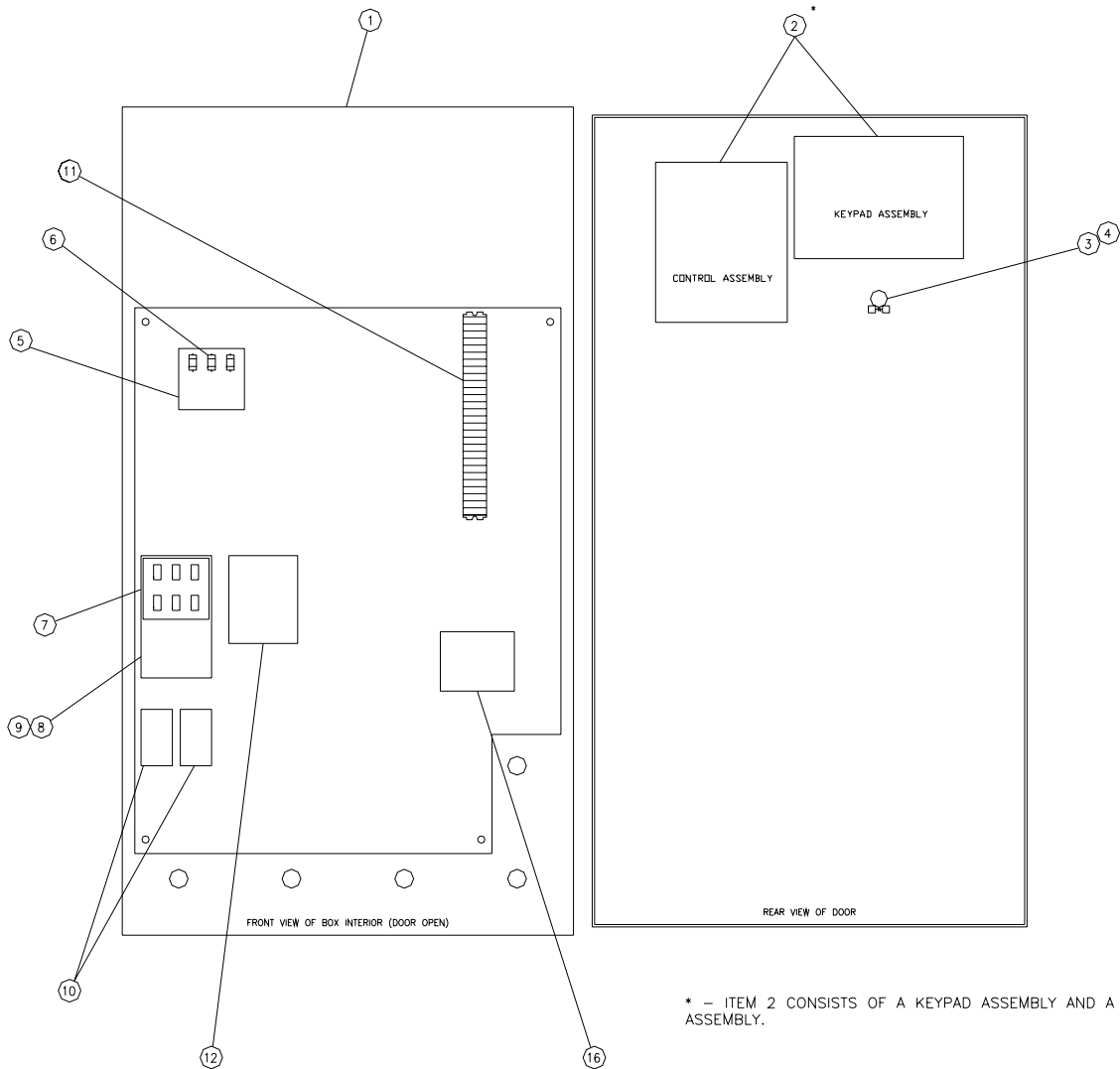
Order by Part Number and Description. Reference Numbers are for your convenience only.

CONTROLLER ASSEMBLY – 30 HP - FULL VOLTAGE STARTERS

Ref. No.		QTY	200V	230V	460V	575V
	NEMA 12 CONTROL BOX		350EWC466	356EWC466	354EWC466	360EWC466
	NEMA 4 CONTROL BOX		351EWC466	357EWC466	355EWC466	361EWC466
1	CONTROL/STARTER BOX (NEMA 12).....	1	301EWC179	301EWC179	301EWC179	301EWC179
	CONTROL/STARTER BOX (NEMA 4).....	1	302EWC179	302EWC179	302EWC179	302EWC179
2	CONTROLLER ASSEMBLY.....	(See Page 27)				
3	OPERATOR.....	1	24CA2907	24CA2907	24CA2907	24CA2907
4	CONTACT BLOCK	1	24CA2908	24CA2908	24CA2908	24CA2908
5	TRANSFORMER	1	24CA4451	24CA4451	24CA4451	24CA4451
6	FUSE	1	24CA3725	24CA3725	24CA3725	24CA3725
7	HOLDER-FUSE	1	24CA4098	24CA4098	24CA4098	24CA4098
8	STARTER	1	24CA4132	24CA4132	24CA4132	24CA4132
9	COIL-STARTER.....	1	2115950	2115950	2115950	2115950
10	RELAY	2	24CA4086	24CA4086	24CA4086	24CA4086
11	BLOCK.....	7	24CA2633	24CA2633	24CA2633	24CA2633
12	STARTER	1	24CA3881	24CA3881	24CA4142	24CA4142
13	COIL-STARTER.....	1	2116555	2116555	2116124	2116124
14	RELAY	1	24CA4086	24CA4086	24CA4087	24CA4087
15	CONTACTOR-RELAY	1	24CA3259	24CA3259	24CA3258	24CA3258
16	CONTROLLER	1	302EWC1173	302EWC1173	302EWC1173	302EWC1173

To reference drawing, refer to page 20.

CONTROLLER ASSEMBLY – LESS MAIN STARTER



**322EWC810-A
(Ref. Drawing)**

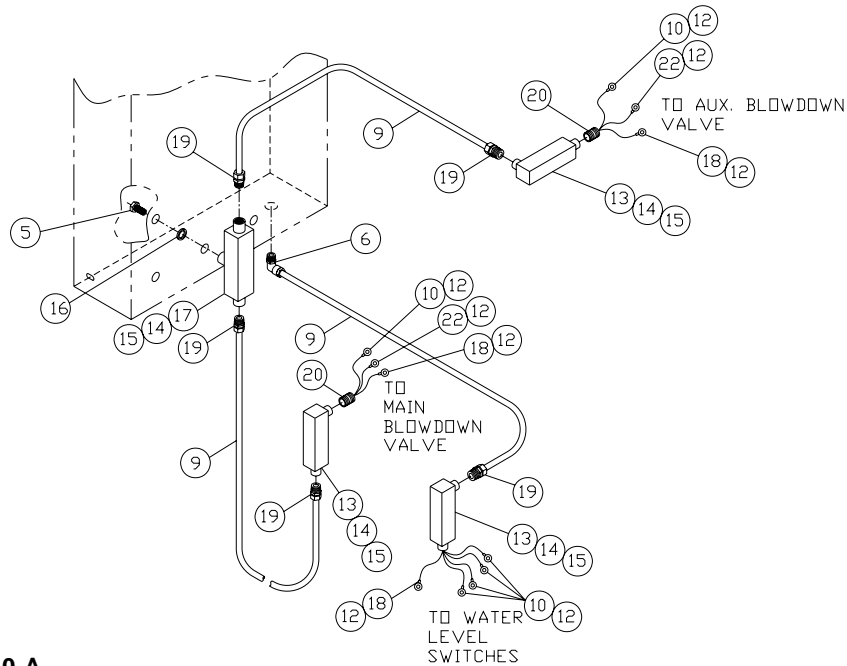
Order by Part Number and Description. Reference Numbers are for your convenience only.

CONTROLLER ASSEMBLY – LESS MAIN STARTER

Ref. No.		QTY	200V	230V	460V	575V
	NEMA 12 CONTROL BOX		362EWC466	364EWC466	364EWC466	366EWC466
	NEMA 4 CONTROL BOX		363EWC466	365EWC466	365EWC466	367EWC466
1	CONTROL/STARTER BOX (NEMA 12).....	1	301EWC179	301EWC179	301EWC179	301EWC179
	CONTROL/STARTER BOX (NEMA 4).....	1	302EWC179	302EWC179	302EWC179	302EWC179
2	CONTROLLER ASSEMBLY	(See Page 27)				
3	OPERATOR	1	24CA2907	24CA2907	24CA2907	24CA2907
4	CONTACT BLOCK	1	24CA2908	24CA2908	24CA2908	24CA2908
5	TRANSFORMER	1	24CA4451	24CA4451	24CA4451	24CA4451
6	FUSE	1	24CA3725	24CA3725	24CA3725	24CA3725
7	HOLDER-FUSE	1	24CA4098	24CA4098	24CA4098	24CA4098
8	STARTER	1	24CA4132	24CA4132	24CA4132	24CA4132
9	COIL-STARTER.....	1	2115950	2115950	2115950	2115950
10	RELAY	2	24CA4086	24CA4086	24CA4086	24CA4086
11	BLOCK.....	8	24CA2633	24CA2633	24CA2633	24CA2633
12	CONTROL RELAY.....	1	24CA3896	24CA3896	24CA3896	24CA3896
16	CONTROLLER	1	302EWC1173	302EWC1173	302EWC1173	302EWC1173

To reference drawing, refer to page 24

Order by Part Number and Description. Reference Numbers are for your convenience only.



324EWC810-A
(Ref. Drawing 0)

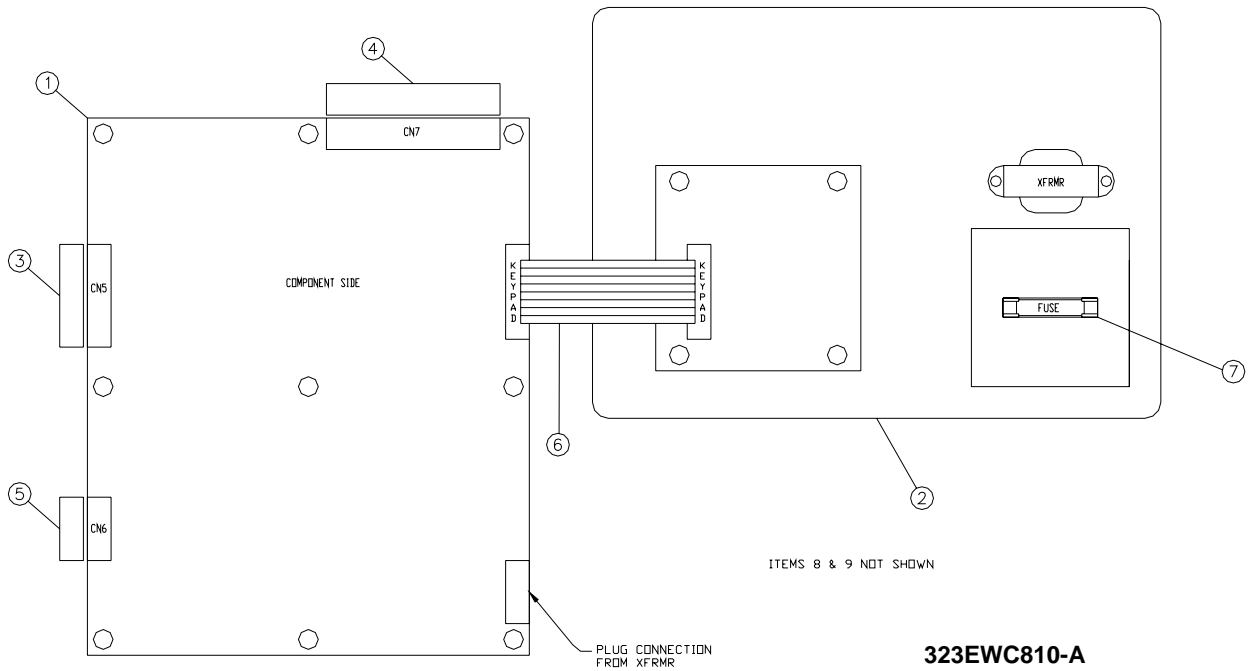
ELECTRICAL CONNECTIONS

B/M: 301EWC4002

Ref. No.	Name of Part	Qty.	Part No.
* 1	VACUUM SWITCH (not shown)	1	88H195
* 2	ELECTRICAL PROBE (not shown)	1	21D264
* 3	PRESSURE TRANSDUCER (not shown)	3	88H359
5	NIPPLE	5	24CA4641
6	CONDUIT FITTING	1	24A380
7	CLAMP (not shown).....	1	98H3
8	SCREW (not shown).....	1	75LM215
9	CONDUIT (IN FEET)	10	24A402
10	WIRE (IN FEET)	54	97H2R
11	FITTING-ELECTRICAL (not shown)	1	24CA2865
12	CONNECTOR.....	11	24CA2068
13	FITTING-CONDUIT	3	24A340
14	COVER	4	24A343
15	GASKET	4	24A342
16	SEALING RING	5	24A383
17	FITTING-CONDUIT	1	24A341
18	WIRE (IN FEET)	12	97H2G
19	FITTING-CONDUIT	5	24A378
20	NIPPLE	2	24A503
* 21	SWITCH-PRESSURE (not shown).....	1	88A301
22	WIRE (IN FEET)	10	97H2W

* Parts included in Electrical Control Kit Part Number 308EWC6013. Refer to page 40.

Order by Part Number and Description. Reference Numbers are for your convenience only.



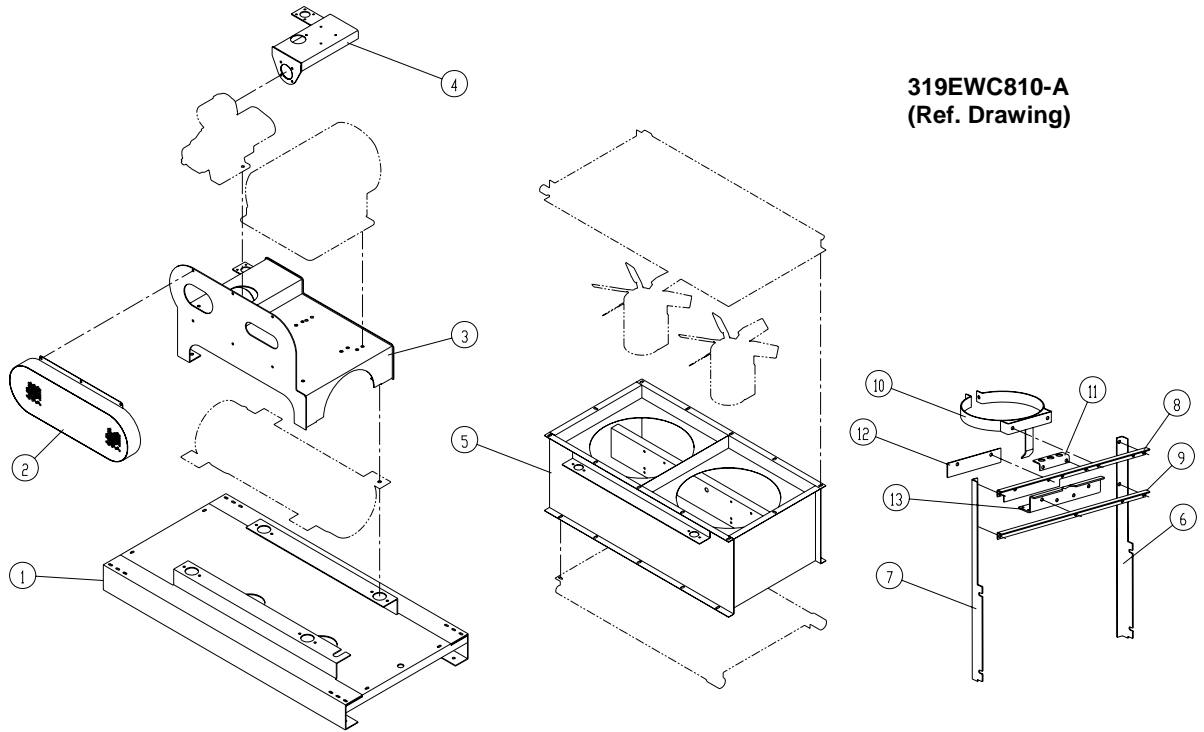
323EWC810-A
(Ref. Drawing)

CONTROLLER ASSEMBLY

B/M: 300EWC2006

Ref. No.	Name of Part	Qty.	Part No.
1	CONTROLLER	1	300EWC1173
2	SWITCH	1	301EWC375
3	PLUG-CONNECTOR.....	1	24CA3400
4	PLUG	1	24CA3913
5	PLUG	1	24CA3914
6	HARNESS-WIRING	1	24CA4501
7	FUSE	1	24CA2932
8	CONTROL-GENERAL (not shown).....	1	300EWC556
9	CONTROL (DISPLAY) (not shown).....	1	301EWC556

Order by Part Number and Description. Reference Numbers are for your convenience only.



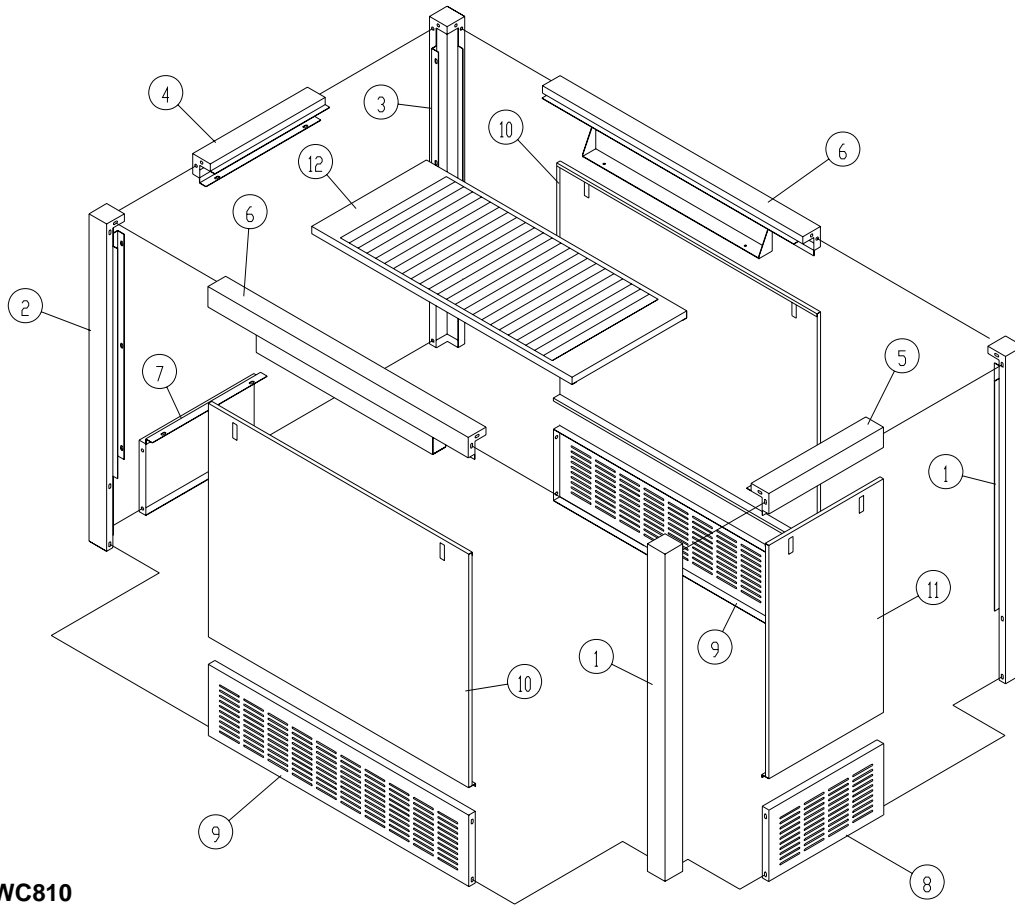
319EWC810-A
(Ref. Drawing)

COMMON FABRICATED PARTS

B/M: 301EWC4049

Ref. No.	Name of Part	Qty.	Part No.
1	BASE	1	300EWC285
2	DRIVE GUARD	1	300EWC120
3	SUPPORT COMPRESSOR AND MOTOR	1	306EWC165
4	FILTER BRACKET	1	300EWC389
5	SHROUD	1	300EWC647
6	SUPPORT (LEFT SIDE).....	1	301EWC165
7	SUPPORT (RIGHT SIDE)	1	302EWC165
8	SUPPORT (TOP SIDE)	1	303EWC165
9	SUPPORT (BOTTOM).....	1	304EWC165
10	SUPPORT (RO TANK).....	1	305EWC165
11	SUPPORT.....	1	308EWC165
12	BRACE.....	1	300EWC326
13	SUPPORT.....	1	307EWC165

Order by Part Number and Description. Reference Numbers are for your convenience only.



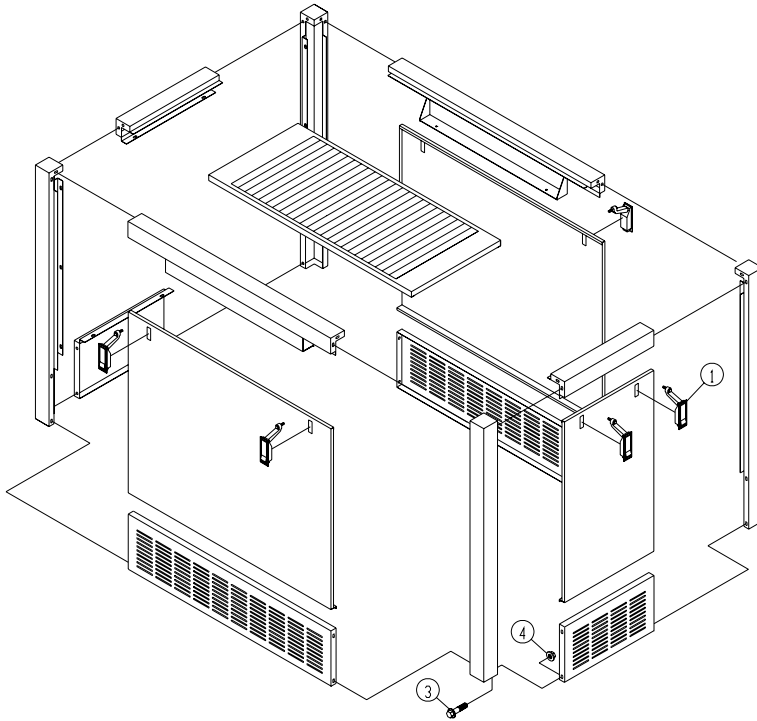
304EWC810
(Ref. Drawing)

ENCLOSURE GROUP

B/M: 300EWC4017

Ref. No.	Name of Part	Qty.	Part No.
1	POST	2	300EWC313
2	POST	1	301EWC313
3	POST	1	302EWC313
4	FRAME	1	302EWC314
5	FRAME	1	301EWC314
6	FRAME	2	300EWC314
7	PANEL	1	303EWC216
8	PANEL	1	304EWC216
9	PANEL	2	302EWC216
10	PANEL	2	300EWC216
11	PANEL	1	301EWC216
12	GRILLE	1	300EWC736

Order by Part Number and Description. Reference Numbers are for your convenience only.



300EWC810
(Ref. Drawing)

ENCLOSURE HARDWARE

B/M: 300EWC4013

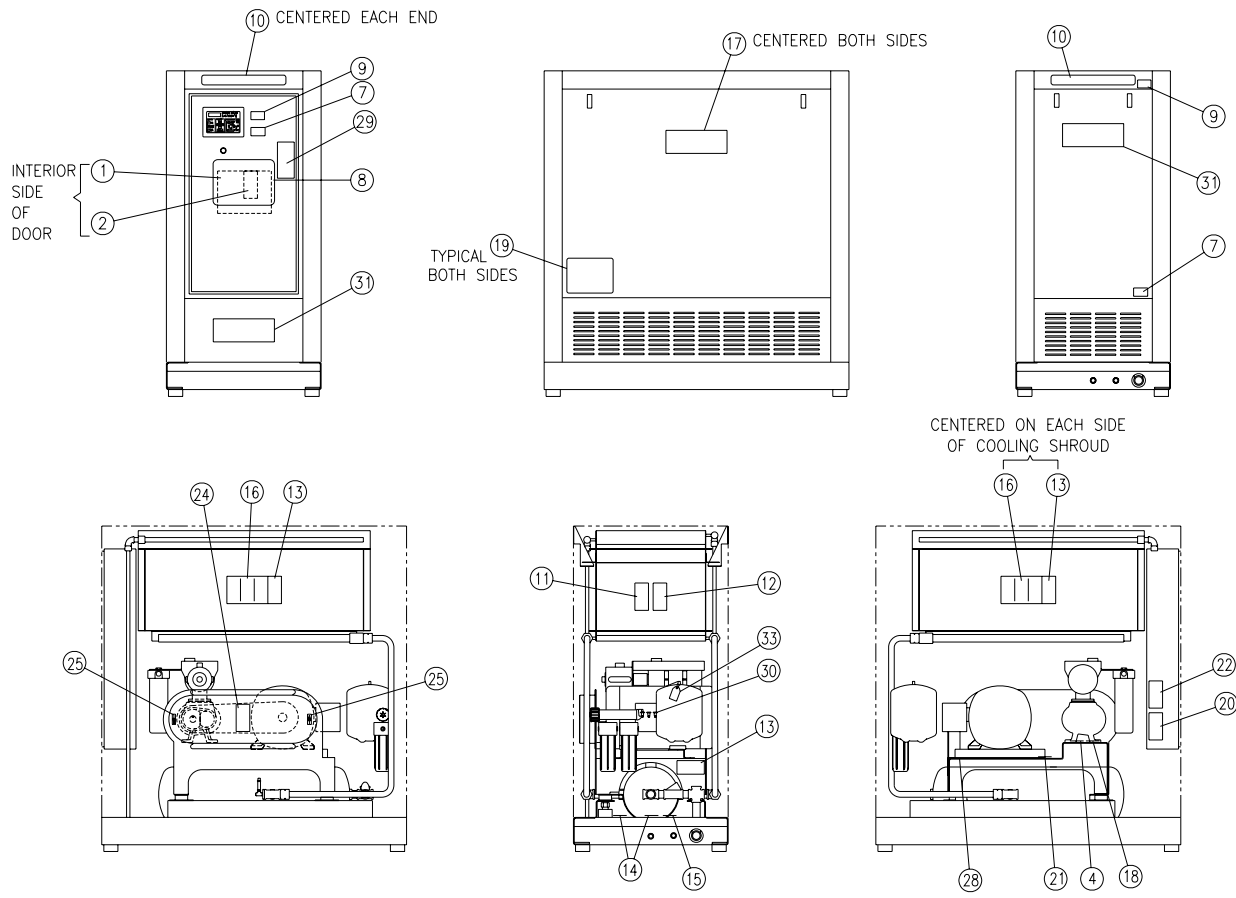
Ref. No.	Name of Part	Qty.	Part No.
1	CONVERSION KIT	6	303EBM6005
	LATCH	6	31D68
	WASHER	6	VP1014732
	ADAPTOR.....	6	VP1014733
2	SEAL (not shown) (IN FEET).....	36	32E12
3	SCREW.....	58	75LM51
4	NUT.....	58	50AW5

OVERLOAD RELAY HEATER CONVERSION LISTING

Refer to Motor Nameplate “Amperage” and Decal in Control Panel for Selection of Overload Relay Heater Packs

CUTLER-HAMMER PART NUMBER	GARDNER DENVER PART NUMBER
H2002B	24CA4101
H2003B	24CA4102
H2004B	24CA4103
H2005B	24CA4104
H2006B	24CA4105
H2007B	24CA4106
H2008B	24CA4107
H2009B	24CA4108
H2010B	24CA4109
H2011B	24CA4110
H2012B	24CA4111
H2013B	24CA4112
H2014B	24CA4113
H2015B	24CA4114
H2016B	24CA4115
H2017B	24CA4116
H2018	24CA2924
H2019	24CA2925
H2020	24CA2926
H2021	24CA2927
H2022	24CA2893
H2023	24CA2894
H2024	24CA2928

IDENTIFICATION AND INSTRUCTION GROUP



**320EWC810-C
(Ref. Drawing)**

NOTES: DETAIL NO.S 26 & 27 ARE NOT SHOWN
 DETAIL NO'S 7 & 9 ARE USED WITH GD VARIANTS
 DETAIL NO.S 2 & 31 ARE USED WITH CHAMPION VARIANTS
 (DETAIL NO. 2 IS LOCATED ON TOP OF THE GD EQUIVALENT IN DETAIL NO. 1)
 DETAIL NO.S 2, 7, 8, 9, 10, 17, 18, 19, 22, & 31 ARE NOT USED WITH MDC VARIANTS

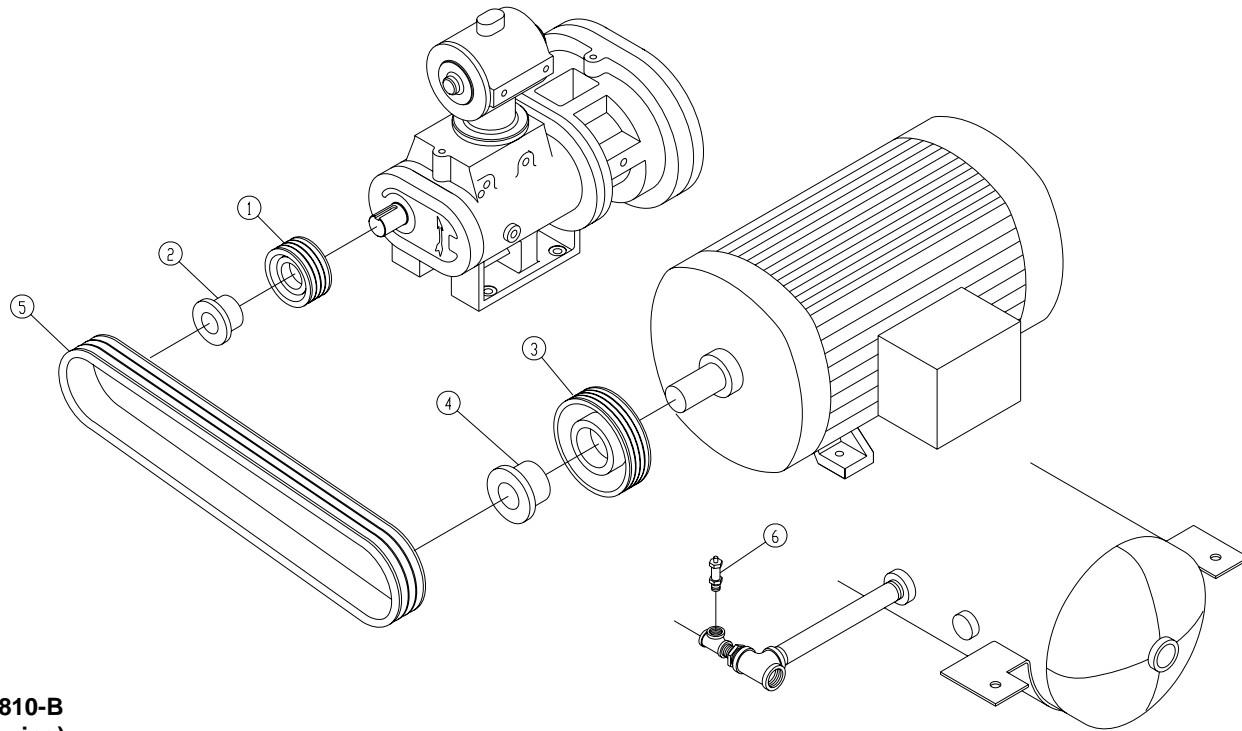
Order by Part Number and Description. Reference Numbers are for your convenience only.

IDENTIFICATION AND INSTRUCTION GROUP

B/M: 304EWC4011

Ref. No.	Name of Part	Qty.	Part No.
1	DECAL-WARNING (ELECTRICAL SHOCK & FIRE).....	1	314EAQ077
2	DECAL WARNING-READ OPERATOR MANUAL.....	1	305EWC077
8	DECAL OPERATION & MAINTENANCE (CHAMPION).....	1	306EWC077
10	DECAL (CHAMPION).....	2	309EWC077
11	DECAL-CAUTION (DO NOT LIFT)	1	208EAQ077
12	DECAL-WARNING (UNIT CAN AUTO START).....	1	207EAQ077
13	DECAL-DANGER (DO NOT BREATHE DISCHARGE. AIR)	3	206EAQ077
14	PLATE-DATA (WATER DRAIN).....	2	201EWD454
15	PLATE-DATA (RAW WATER IN).....	1	301EWD454
16	DECAL-WARNING	2	227EAQ077
17	DECAL-CHAMPION	2	310EBA077
18	DECAL NOTICE	1	307EWC077
19	DECAL (CHAMPION) LARGE.....	2	308EBA077
20	DECAL-DANGER (AIR/OIL UNDER PRESSURE).....	1	212EAQ077
21	DECAL-WATER SEPARATOR	1	206EWD077
22	DECAL-NOTICE (USE GENUINE CHAMPION PARTS).....	1	308EWC077
24	DECAL-WARNING (ROTATING MACHINERY)	1	211EAQ077
25	DECAL-ROTATION ARROW	2	204EBE077
27	SEALANT (not shown)	1	25BC448
29	DECAL-WARNING	1	323EAQ077
30	DATA PLATE.....	1	300EWD454
31	DECAL (CHAMPION) ROTORCHAMP.....	2	310EBA077
33	TAG-INSTRUCTION (WARNING).....	1	303EWC304

DRIVE GROUPS



302EWC810-B
(Ref. Drawing)

Order by Part Number and Description. Reference Numbers are for your convenience only.

DRIVE GROUPS *

Ref. No.	Name of Part	Qty.	20 HP 100 PSIG 300EWC4004 Part No.	20 HP 125 PSIG 301EWC4004 Part No.	20 HP 150 PSIG 302EWC4004 Part No.
1	SHEAVE	1	73M43V65	73M43V60	73M43V69
2	BUSHING-SHEAVE	1	22F24SK	22F24SK	22F24SK
3	SHEAVE	1	73M43V56	73M43V45	73M43V45
4	BUSHING-SHEAVE	1	22F26SDS	22F26SDS	22F26SDS
5	BELT SET 4 PIECE.....	1	13AG5604	13AG5604	13AG5604
6	VALVE-PRESSURE/RELIEF	1	90AR661	90AR662	90AR663

Ref. No.	Name of Part	Qty.	25 HP (ODP) 100 PSIG 303EWC4004 Part No.	25 HP (ODP) 125 PSIG 304EWC4004 Part No.	25 HP (ODP) 150 PSIG 305EWC4004 Part No.
1	SHEAVE	1	73M43V53	73M43V50	73M43V60
2	BUSHING-SHEAVE	1	22F24SDS	22F24SDS	22F24SK
3	SHEAVE	1	73M43V56	73M43V47	73M43V50
4	BUSHING-SHEAVE	1	22F26SDS	22F26SDS	22F26SDS
5	BELT SET 4 PIECE.....	1	13AG5604	13AG5604	13AG6004
6	VALVE-PRESSURE/RELIEF	1	90AR661	90AR662	90AR663

NOTE: These parts are used on packages with 25 HP O.D.P. Motors

* Refer to Page 34 for reference drawing.

Order by Part Number and Description. Reference Numbers are for your convenience only.

DRIVE GROUPS *

Ref. No.	Name of Part	Qty.	25 HP (TEFC)	25 HP (TEFC)	25 HP (TEFC)
			100 PSIG 306EWC4004 Part No.	125 PSIG 307EWC4004 Part No.	150 PSIG 308EWC4004 Part No.
1	SHEAVE	1	73M43V53	73M43V50	73M43V60
2	BUSHING-SHEAVE	1	22F24SDS	22F24SDS	22F24SK
3	SHEAVE	1	73M43V56	73M43V47	73M43V50
4	BUSHING-SHEAVE	1	22F30SDS	22F30SDS	22F30SDS
5	BELT SET 4 PIECE.....	1	13AG5604	13AG5604	13AG6004
6	VALVE-PRESSURE/RELIEF	1	90AR661	90AR662	90AR663

NOTE: These parts are used on packages with 25 HP T.E.F.C.. Motors

Ref. No.	Name of Part	Qty.	30 HP	30 HP	30 HP
			100 PSIG 309EWC4004 Part No.	125 PSIG 310EWC4004 Part No.	150 PSIG 311EWC4004 Part No.
1	SHEAVE	1	73M43V53	73M43V56	73M43V50
2	BUSHING-SHEAVE	1	22F24SDS	22F24SDS	22F24SDS
3	SHEAVE	1	73M43V69	73M43V65	73M43V50
4	BUSHING-SHEAVE	1	22F30SK	22F30SK	22F30SDS
5	BELT SET 4 PIECE.....	1	13AG6004	13AG6004	13AG5604
6	VALVE-PRESSURE/RELIEF	1	90AR661	90AR662	90AR663

* Refer to Page 34 for reference drawing.

**MOTOR GROUP
MAIN DRIVE MOTORS
FULL VOLTAGE**

Name of Part	20 HP Part No.	25 HP Part No.	30 HP Part No.
OPEN DRIP PROOF (60 HZ – ODP)			
Motor, 200V	24CA4437	24CA4438	24CA4439
Motor, 230/460V	24CA4440	24CA4441	24CA4442
Motor, 575V	24CA4443	24CA4444	24CA4445
Motor Mounting Base	24AZ21	24AZ22	24AZ23

OPEN DRIP PROOF (60 HZ – ODP – HIGH EFFICIENCY)			
Motor, 200V	24CA4468	24CA4469	24CA4470
Motor, 230/460V	24CA4471	24CA4472	24CA4473
Motor, 575V	24CA4474	24CA447524ca4476	
Motor Mounting Base	24AZ21	24AZ22	24AZ23

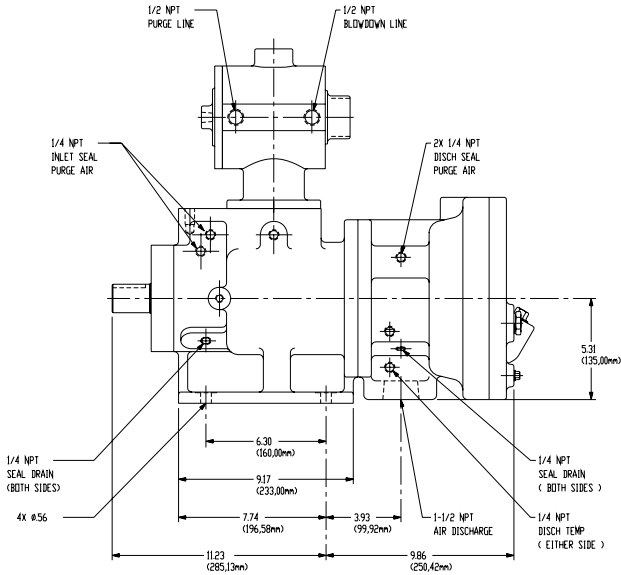
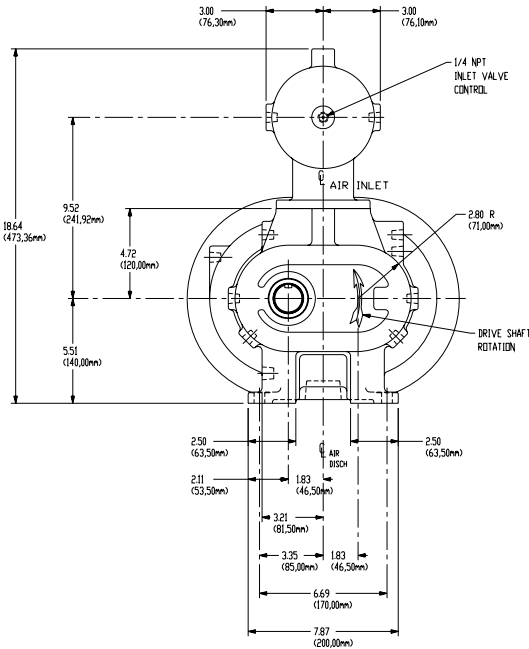
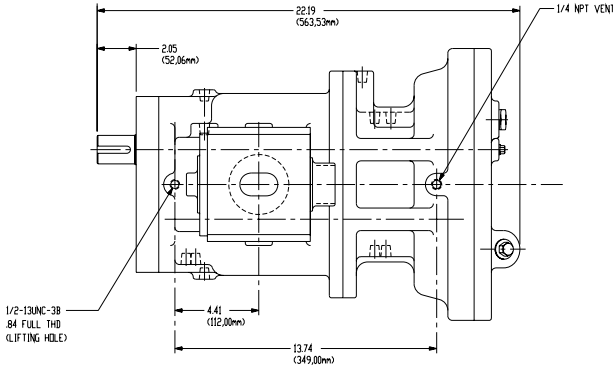
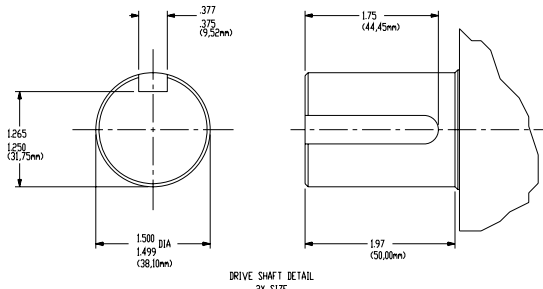
TOTALLY ENCLOSED FAN COOLED (60 HZ – TEFC)			
Motor, 200V	24CA4486	24CA4487	24CA4488
Motor, 230/460V	24CA4490	24CA4491	24CA4492
Motor, 575V	24CA4493	24CA4494	24CA4495
Motor Mounting Base	24AZ22	24AZ23	24AZ24

TOTALLY ENCLOSED FAN COOLED (60 HZ – TEFC – HIGH EFFICIENCY)			
Motor, 200V	24CA4477	24CA4478	24CA4479
Motor, 230/460V	24CA4480	24CA4481	24CA4482
Motor, 575V	24CA4483	24CA4484	24CA4485
Motor Mounting Base	24AZ22	24AZ23	24AZ24

**MOTORS
(FAN MOTOR – 2 REQUIRED)
(60 HZ – TEFC)**

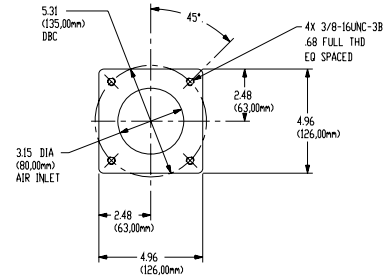
VOLTAGE	FAN MOTOR
200	24CA4446
230/460	24CA4447
575	24CA4448

COMPRESSOR OUTLINE

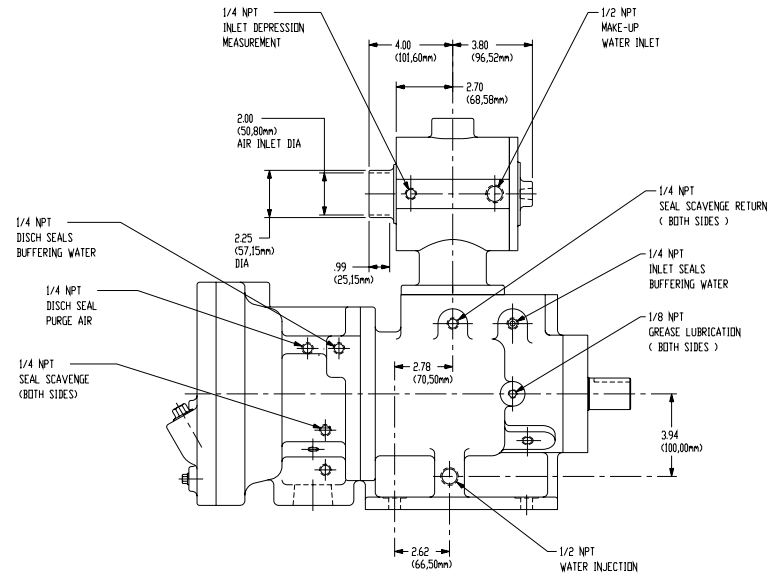
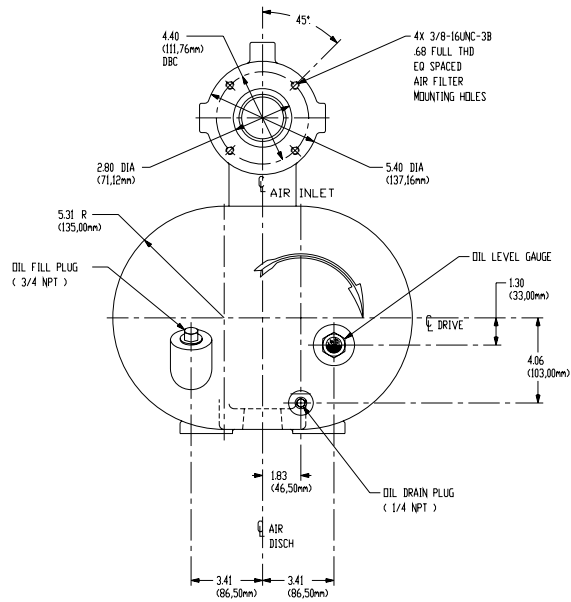


301JWC800-A
(Ref. Drawing)
Page 1 of 2

COMPRESSOR OUTLINE



CYLINDER AIR INLET FLANGE



301JWC800-A
(Ref. Drawing)
Page 2 of 2

REPAIR KITS

Your Champion rotary screw compressor is designed and manufactured for many years of reliable operation. All components are engineered to exacting specifications, which will function together as a system to provide maximum efficiency. To insure the continuing integrity of compressor operation, use only original quality genuine Champion replacement parts and accessories.

Name of Part	Qty.	Part No.
ROUTINE MAINTENANCE KIT (4000 Hours)		307EWC6013
ELEMENT, AIR FILTER.....	2	2117900
ELEMENT, RECIRCULATING WATER FILTER.....	4	2117902
ELEMENT, RO SEDIMENT FILTER.....	4	2118141
ELEMENT, RO CARBON BLOCK.....	4	2118142
ELEMENT, RO 100 GDP MEMBRANE.....	1	2118143
ELECTRICAL/MECHANICAL CONTROL KIT		308EWC6013
VALVE SOLENOID (Auxiliary Blowdown)	1	91B128
VALVE SOLENOID (Water Drain)	1	91B146
VALVE SOLENOID (Main Blowdown)	1	91B95
VALVE SOLENOID (Water Fill/Dump)	2	91B226
SWITCH-LEVEL	1	300EWC375
SWITCH-VACUUM	1	88H195
PROBE-ELECTRICAL	1	21D264
TRANSDUCER-PRESSURE	3	88H359
DISK-COUPLING.....	2	2117158
SWITCH-PRESSURE.....	1	88A301
VALVE-SUBTRACTIVE	1	88B46
MISCELLANEOUS REPAIR ITEMS		
O-RING, SHELL (For 26C34)	1	2116644
O-RING, COVER NUT (For 26C34)	1	2116645
O-RING, GASKET SEAL (For 26C34).....	1	2116646
TOUCH-UP PAINT.....		200EWD6003
1 QUART CAN.....	1	28H8
LUBRICANT		
5 GALLON PAIL (RotorLub 800)	1	28H188

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A Gardner Denver Product

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E-mail: champion@championpneumatic.com



Plants in Princeton IL, and Manteca, CA

Due to Champion's continuing product development program,
specification and materials are subject to change without
notice.