



MVSP 6/8/10/12/14/22
SERIES
UGE063/ACHV



WARNING - Reliance on this Manual Could Result in Severe Bodily Injury or Death!

This manual is out-of-date and is provided only for its technical information, data and capacities. Portions of this manual detailing procedures or precautions in the operation, inspection, maintenance and repair of the product forming the subject matter of this manual may be inadequate, inaccurate, and/or incomplete and cannot be used, followed, or relied upon. Contact Conair at info@conairgroup.com or 1-800-654-6661 for more current information, warnings, and materials about more recent product manuals containing warnings, information, precautions, and procedures that may be more adequate than those contained in this out-of-date manual.

METAPLAST... The Downstream Specialists

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WARRANTY

New Apparatus Warranty: Conair/ Metaplast warrants all new equipment to be free of defects in materials and workmanship and to conform to any drawings and specifications for a period of one (1) year from the date of shipment. Equipment that is defective and found not to be in conformity with this warranty will, at the option and expense of Conair/Metaplast, be repaired or replaced.

This warranty does not cover:

- 1) Failures not reported within the warranty period.
- 2) Damage due to misapplication, abuse, improper installations or abnormal temperature, dirt or corrosive matter.
- 3) Failure due to operation, intentional otherwise, above rated capacities.
- 4) Alterations, or tampering, by anyone other than an authorized Conair/ Metaplast representative.
- 5) Damage in shipment.
- 6) Expense incurred by the Buyer in attempt to rework any alleged defects.

1.0 RECEIVING AND HANDLING

1.1 *Acceptance*

Thoroughly inspect equipment before accepting shipment from the transport company. Damage and shortages should be noted on your freight bill by the receiving agent. If concealed loss or damage is discovered, notify your freight, or receiving agent, at once and request for an inspection.

Conair/Metaplast will assist you in collecting claims for loss or damage in shipment; however, responsibility rests with the transport company and claims can not be deducted nor should payment be withheld on any Conair/Metaplast invoice, as the carrier guarantees safe delivery.

1.2 *Storage*

If the equipment is to be stored for any period of time prior to installation, the area should be dry, and not subject to extremes in temperature, or humidity changes. Be aware that after use prior to storage, the machine should be inspected, and lubrication applied where, and as, needed. This is done in order to prevent bearings to be damaged by contaminated grease.

2.0 GENERAL DESCRIPTION

Located as part of the downstream production line, the MVSP table supports the calibration tooling and provides sizing and cooling capabilities to maintain consistent profile dimensions.

The Conair/Metaplast MVSP Model is a vacuum calibration table designed to support and supply water and vacuum to the calibration tools required by the operator. Multiple outlets, with separate ball valve controls, supply vacuum and water within convenient reach of the operator. To align tooling with accuracy, the table pan is fitted with precision mount rails to hold the calibration tooling firmly in place.

The water level in the reservoir tank is supplied and controlled through an automatic valve and a water level control system.

2.1 *Standard Features*

- Table size: (see Data Sheet)
- Stainless steel pan construction.
- Precision aligned threaded mounting rails.
- Pan design permits easy access to auxiliary vacuum tank.
- Vacuum outlets with individual 1/2-inch ball valves. ... (See Data Sheet for Qty).
- Water outlets with individual 3/8-inch ball valves. ... (See Data Sheet for Qty).
- Individual vacuum pump START/STOP illuminating push buttons.
- Vacuum pump selection possible through multi-bypasses.
- Overall dimensions: (see Data Sheet).
- Water drains from pan surface, piped to main drain..
- Rear mounted main water drain and water supply.
- Linear travel on brass bearings that run on two hardened steel shafts.
- Removable access panels on base frame.
- Foot walk (6 inches wide) along entire table base length.
- Caster-mounted floor stands with floor locking jackscrews.
- Heavy-duty, all steel welded construction.
- All parts painted or plated to resist corrosion.

- Horizontal level gauges, front and rear.
- Gauges on each vacuum manifold section.
- Right to left machine operation.

2.2 Standard Features MVSP-R

The MVSP-R has all the standard features of the MVSP (see 2.1)

In addition it features.

- V-groove caster and rails.
- Pendulum control panel.

2.3 Standard Features closed circuit

- Closed cooling water circuit, with reservoir, recirculation pump, heat exchanger and water filtration system with bypass.

2.4 Table Movement on Floor Stand

18-inch motorized movement, 1/2 HP, with proximity switch at extremes of movement, and "FORWARD / REVERSE" operation controls.
6-inch manually adjustable height movement.
3-inch manually adjustable lateral movement.

3.0 INSTALLATION / SET UP

3.1 Location

Machine is to be located where ambient temperature does not exceed 40° C, and where clean air has free access to ventilating inlets and outlets. Except for specially equipped units with protective enclosures, the location must be clean and dry.

3.2 Leveling and Alignment

MVSP

The MVSP is supplied with four floor lock jackscrews (mounted on the base plate) to enable a firm base.

MVSP-R

The MVSP-R is supplied with it's own v-rail base, it should be installed on a firm base, leveled and fastened into place.

The calibrator should be leveled and aligned to the desired centerline height. There are level gauges located on the machine for this procedure.

It is recommended that a plumb line be strung from the extruder to the last machine installed to ensure proper alignment of the extrusion machinery with the extruder.

3.3 Power Supply

230, 460 or 575 volts; 3 phase; 60 Hz.

Note: All internal wiring has been performed at the Conair/Metaplast factory - it is only necessary to connect a male electrical plug to the provided wire cable and plug it into the mating female receptacle.

Before applying power, check the voltage nameplate to ensure compatibility with the power source.

4.0 OPERATION / START-UP

4.1 Operator Adjustments with closed cooling circuit

4.1.1 Water Input Supply

The water line must be connected to the rear mounted solenoid control valve to supply water to the reservoir. Once the power is applied, the reservoir tank will automatically fill to a preset level.

4.1.2 Overflow Connection

The overflow port is used as a safety measure, in case the reservoir receives a surge of water. It must be connected to the plant drain system.

4.1.3 Tank Drain Ball Valve

The tank drain ball valve is located at the base of the reservoir tank. It must be connected to the plant drain system.

4.1.4 Heat Exchanger Connections

The MVSP may be equipped with a heat exchanger to remove any excessive heat build up in the reservoir.

The plant water cooling system must be connected to the heat exchanger ports (at the rear of the machine).

4.1.5 Drain-Out Line

The drain-out line is used to drain the reservoir. Connect the drain-out line from the ball valve (located at the rear of the machine) to the plant drain system.

To drain the reservoir tank

- Close off the water supply to the tank.
- Close the valve to the heat exchanger.
- Open the drain out valve.
- Start the circulation pump.

4.2 Operator Adjustments with open cooling circuit

4.2.1 Water Input Supply

Connect water direct to water manifold and to the vacuum pumps liquid service line.

4.2.2 Drain-Out Line

The drain-out line must be connected to the plant drain.

4.3 Operation

- 1) Connect the power line (supplied with the calibrator) to the plant power supply.
- 2) Connect the water line to the WATER IN solenoid valve at the rear of the calibrator.
- 3) Connect water supply from plant to vacuum pump supply line.

Unit will not run without vacuum supply water, a pressure sensor is mounted on line. Vacuum pump must be supplied with water to seal impellers.

- 4) Connect the drain-out line and overflow outlet to the plant drain system.
- 5) Connect the plant cooling water system to the heat exchanger (located at the rear of the machine).
- 6) Turn on the WATER IN line to the calibrator.
Note: Water will not start to flow into the reservoir tank until the power disconnect switch is turned on.
- 7) Turn disconnect switch (located on the main electrical panel) to the ON position to apply power to the MVSP.

The CIRCULATION STOP push-button will illuminate, and the reservoir tank will begin to fill with water. The tank will stop filling at a preset level.

Note: The water level is controlled with a level control system. When at a low level, the tank will fill with water; at a high level, the tank will stop filling.

- 8) Check that the lateral and longitudinal table movement corresponds with the FORWARD and REVERSE push buttons on the operator control station to ensure correct motor rotations on the system.

To verify that the table movement is correct: press TABLE REVERSE the table will move away from the extruder. If the table moves forward: Reverse any two incoming phases at the power disconnect switch.

- 9) Connect the water and vacuum hoses to the appropriate manifolds to enable a connection to the calibration tooling.
- 10) Press the CIRCULATION START push-button to start the water circulation system.
- 11) Start the vacuum pumps. Press START PUMP #1 and close all vacuum-tooling valves on the manifold. Suction should develop (as well as be seen) on the gauge for this pump.

- 12) Press START PUMP #2 and perform the same test.
- 13) Start the extruder, and feed the profile through the calibrator, haul-off, and cut-off saw.
- 14) Once the profile is steady within the production line, start the calibration process to begin the sizing operation.

5.0 MAINTENANCE

The MVSP must be kept in good working order to assure a consistent product. Check frequently to ensure freedom from obstructions and smooth operation. The use of high quality materials and conservative machine design will result in a long, trouble-free operation providing that basic service practices are followed.

Inspection at intervals, dependent upon service conditions, is the best insurance against costly maintenance and breakdown; experience is your best guide. Record inspection results and action required or performed.

- All the bearings are sealed and lubricated for life.
- Grease nipples indicate the grease points.
- Regular lubrication will ensure low maintenance as well as long machine life.

5.1 *Daily (or at each start-up)*

- Check and clean, the overflow screens on the calibration table top.
- Check all the water supply lines and vacuum hoses for any leaks or cracks.
- Ensure that all the guards are in place and that the door to the electrical control cabinet is closed.
- Verify that the table FORWARD and REVERSE movements are smooth and unobstructed.
- Verify that all the vacuum levels are correct.

5.2 *Quarterly (or every 1500 hours)*

- Disconnect the power from the MVSP calibration table.
- Check and grease all the table movements, including the table movement spindle and bushings.
- Change the oil in the gear reducer for the table movement.

Note: For the proper grade of oil, refer to the information sheet: Flexline, "Worm Gear Speed Reducers, Lubrication and Installation", supplied in this manual.

- Check all the vacuum pumps for any leaks.
- Verify that all the motor/pump couplings are in good shape (no wear), and that they rotate freely by hand.
- Blow, or vacuum, all the dust from the electrical cabinet and all components.
- Tighten all the electrical connections inside the electrical cabinet.
- Check that all the fuses are secure in the fuse holders.
- Check all the gaskets around the electrical cabinets and have them replaced if damaged.
- Check all the wire conduits to the motors for any damage. Change the conduit if there is any damage on the outer surface.

5.3 *Filters (on closed circuit equipped units)*

The MVSP has two filters used to prevent debris from entering the circulation system. To ensure maximum filtration, clean the filter weekly.

Older non-current models have a clear plastic T style filter piped in line before the pump, Part Number 315-162-1003

5.4 *Bypass*

The MSVP is equipped with a bypass system in order to avoid interruption of the calibration line when a filter needs to be cleaned or changed during operation.

Data Sheet

Model Number	Table Tray Size Length x Width	Outlet Vacuum	Outlet Water	H.P. and # of Vacuum Pumps	(Optional) Water Recirculation
MVSP 6-1-5	24" x 72" (610 x 1830 mm)	10	10	1 x 5 H.P.	3/4 H.P.
MVSP 8-2-5	24" x 84" (610 x 2134 mm)	30	22	2 x 5 H.P.	2 or 5 H.P.
MVSP 10-2-5	24" x 120" (610 x 3050 mm)	30	22	2 x 5 H.P.	5 H.P.
MVSP 12-2-7.5	24" x 144" (610 x 3660 mm)	30	22	2 x 7.5 H.P.	5 H.P.
MVSP 14-4-7.5	24" x 168" (610 x 4270 mm)	48	40	2 x 7.5 H.P.	7.5 H.P.
MVSP 22-5-7.5	24" x 264" (610 x 6706 mm)	76	70	2 x 7.5 H.P.	7.5 H.P.

464-100-9005-00 Main box (1 x Vacuum pump)

	Metaplast No	Description	Part No	Manufacturer	Qty
7	315-011-2006	Safety covers (serie 62000-63000)	8530	Gould	3
8	315-017-3013	Splitter (4 opening 185 Amp)	63133	Gould	1
9	315-010-2020	Fuse holder 2 Pole (ATM style)	30312	Gould	1
12	315-001-1013	Breaker (1.5 Amp)	MG17413	Merlin Gerin	1
14	315-017-3001	Power supply 120V for lamp	P9PDNVO	G.E	2
15	315-011-1000	Light bulb for pushbutton (120V)	BA9S130	G.E	2
16	315-015-3007	Name plate "STOP"	P9ACP2R201	G.E	1
17	315-014-2033	Contact block N.C	P9B01VN	G.E	1
18	315-015-5028	Push button red illum.	P9CPLRGD	G.E	1
19	315-015-3006	Name plate "START"	P9ACP2R202	G.E	1
20	315-014-2035	Contact block N.O	P9B10VN	G.E	3
21	315-015-5026	Push button green illum.	P9CPLVGD	G.E	1
22	315-015-5004	Push button black std.	P9CPNNG	G.E	2
23	315-015-3010	Name plate "FORWARD"	P9ACP2R214	G.E	1
24	315-015-3012	Name plate "REVERSE"	P9ACP2R215	G.E	1
25	315-019-5027	Proximity switch AC/DC 18mm NC 3meter	BES-516-212-E4-E-03	Balluff	2
26	315-168-1015	Pressure switch	H100-95303	U.E.	1
27	315-167-2073	Solenoid valve 3/8"	30-VX2330-03N-3D	SMC	1
30	315-002-3099	Device support (mounting CA7)	KBD	Sprecher+Schuh	1
31	315-006-2003	Connecting module (KTA3 to CA7)	KT3-NW23	Sprecher+Schuh	1
32	315-014-2036	Auxiliary contact block (NO)	KT3-25-PE2-10	Sprecher+Schuh	1
34	315-002-3098	Device support (mounting CAU4)	KBR	Sprecher+Schuh	1
35	315-002-3097	Connecting module (KTA3 to CA4)	KCD4	Sprecher+Schuh	1
36	315-014-2028	Auxiliary contact block (NO-NO)	KT3-25-PA-20	Sprecher+Schuh	1
38	315-014-6024	Auxiliary contact block (NC)	CA7-PA-01	Sprecher+Schuh	1
40	315-014-2017	Reversing contactors	CAU4-9-01-120-NO	Sprecher+Schuh	1
41	315-002-3095	Connecting Kit (CAU4 reversing)	KCR4	Sprecher+Schuh	1
M	315-006-1076	Enclosure / NEMA-12	5412 ES161208	Eurobex	1
O	315-006-1023	Enclosure	1500 EDC090604	Eurobex	1

464-100-9005-01 230VAC (1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1014	Fuse 20 Amp AJT style	AJT-20	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	1
33	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	1
37	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
39	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	1
42	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	1
43	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9005-02 460VAC (1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1009	Fuse 15 Amp AJT style	AJT-15	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	1
33	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
37	315-014-1020	Motor circuit controller (1 - 1.6A)	KTA3-25-1.6A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
42	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	1
43	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9005-03 575VAC (1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1087	Fuse 12 Amp AJT style	AJT-12	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
37	315-014-1019	Motor circuit controller (0.63 - 1A)	KTA3-25-1A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
42	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	1
43	315-012-0055	Motor AC 0,5 H.P. 575V	VM3538-5	Baldor	1

464-100-9005-04 230VAC (1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut.	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	1
33	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	1
37	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
39	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	1
42	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	1
43	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9005-05 460VAC (1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1014	Fuse 20 Amp AJT style	AJT-20	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	1
33	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	1
37	315-014-1020	Motor circuit controller (1 - 1.6A)	KTA3-25-1.6A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
42	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	1
43	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9005-06 575VAC (1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1009	Fuse 15 Amp AJT style	AJT-15	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	1
33	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	2
37	315-014-1019	Motor circuit controller (0.63 - 1A)	KTA3-25-1A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
42	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	1
43	315-012-0055	Motor AC 0,5 H.P. 575V	VM3538-5	Baldor	1
44	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	1

464-100-9006-00 Main box (2 x Vacuum pump)

	Metaplast No	Description	Part No	Manufacturer	Qty
7	315-011-2006	Safety covers (serie 62000-63000)	8530	Gould	3
8	315-017-3013	Splitter (4 opening 185 Amp)	63133	Gould	1
9	315-010-2020	Fuse holder 2 Pole (ATM style)	30312	Gould	1
12	315-001-1013	Breaker (1.5 Amp)	MG17413	Merlin Gerin	1
14	315-017-3001	Power supply 120V for lamp	P9PDNVO	G.E	4
15	315-011-1000	Light bulb for pushbutton (120V)	BA9S130	G.E	4
16	315-015-3007	Name plate "STOP"	P9ACP2R201	G.E	2
17	315-014-2033	Contact block N.C	P9B01VN	G.E	2
18	315-015-5028	Push button red illum.	P9CPLRGD	G.E	2
19	315-015-3006	Name plate "START"	P9ACP2R202	G.E	2
20	315-014-2035	Contact block N.O	P9B10VN	G.E	4
21	315-015-5026	Push button green illum.	P9CPLVGD	G.E	2
22	315-015-5004	Push button black std.	P9CPNNG	G.E	2
23	315-015-3010	Name plate "FORWARD"	P9ACP2R214	G.E	1
24	315-015-3012	Name plate "REVERSE"	P9ACP2R215	G.E	1
25	315-019-5027	Proximity switch AC/DC 18mm NC 3meter	BES-516-212-E4-E-03	Balluff	2
26	315-168-1015	Pressure switch	H100-95303	U.E.	1
27	315-167-2073	Solenoid valve 3/8"	30-VX2330-03N-3D	SMC	2
30	315-002-3099	Device support (mounting CA7)	KBD	Sprecher+Schuh	2
31	315-006-2003	Connecting module (KTA3 to CA7)	KT3-NW23	Sprecher+Schuh	2
32	315-014-2036	Auxiliary contact block (NO)	KT3-25-PE2-10	Sprecher+Schuh	2
34	315-002-3098	Device support (mounting CAU4)	KBR	Sprecher+Schuh	1
35	315-002-3097	Connecting module (KTA3 to CA4)	KCD4	Sprecher+Schuh	1
36	315-014-2028	Auxiliary contact block (NO-NO)	KT3-25-PA-20	Sprecher+Schuh	1
38	315-014-6024	Auxiliary contact block (NC)	CA7-PA-01	Sprecher+Schuh	2
40	315-014-2017	Reversing contactors	CAU4-9-01-120-NO	Sprecher+Schuh	1
41	315-002-3095	Connecting Kit (CAU4 reversing)	KCR4	Sprecher+Schuh	1
M	315-006-1115	Enclosure / NEMA-12	5412 ES202008	Eurobex	1
O	315-006-1023	Enclosure	1500 EDC090604	Eurobex	1

464-100-9006-01 230VAC (1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1021	Fuse 35 Amp AJT style	AJT-35	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut.	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
33	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	2
37	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
39	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	2
42	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	2
43	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9006-02 460VAC (1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
33	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	2
37	315-014-1020	Motor circuit controller (1 - 1.6A)	KTA3-25-1.6A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
42	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	2
43	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9006-03 575VAC (1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1016	Fuse 25 Amp AJT style	AJT-25	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	2
37	315-014-1019	Motor circuit controller (0.63 - 1A)	KTA3-25-1A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
42	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	2
43	315-012-0055	Motor AC 0,5 H.P. 575V	VM3538-5	Baldor	1

464-100-9006-04 230VAC (1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
33	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	2
37	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
39	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	2
42	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	2
43	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9006-05 460VAC (1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
33	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	2
37	315-014-1020	Motor circuit controller (1 - 1.6A)	KTA3-25-1.6A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
42	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	2
43	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9006-06 575VAC (1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1016	Fuse 25 Amp AJT style	AJT-25	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
33	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	2
37	315-014-1019	Motor circuit controller (0.63 - 1A)	KTA3-25-1A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
42	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	2
43	315-012-0055	Motor AC 0,5 H.P. 575V	VM3538-5	Baldor	1
44	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	2

464-100-9007-00 Main box (3 x Vacuum pump)

	Metaplast No	Description	Part No	Manufacturer	Qty
7	315-011-2006	Safety covers (serie 62000-63000)	8530	Gould	3
8	315-017-3013	Splitter (4 opening 185 Amp)	63133	Gould	1
9	315-010-2020	Fuse holder 2 Pole (ATM style)	30312	Gould	1
12	315-001-1013	Breaker (1.5 Amp)	MG17413	Merin Gerin	1
14	315-017-3001	Power supply 120V for lamp	P9PDNVO	G.E	6
15	315-011-1000	Light bulb for pushbutton (120V)	BA9S130	G.E	6
16	315-015-3007	Name plate "STOP"	P9ACP2R201	G.E	3
17	315-014-2033	Contact block N.C	P9B01VN	G.E	3
18	315-015-5028	Push button red illum.	P9CPLRGD	G.E	3
19	315-015-3006	Name plate "START"	P9ACP2R202	G.E	3
20	315-014-2035	Contact block N.O	P9B10VN	G.E	5
21	315-015-5026	Push button green illum.	P9CPLVGD	G.E	3
22	315-015-5004	Push button black std.	P9CPNNG	G.E	2
23	315-015-3010	Name plate "FORWARD"	P9ACP2R214	G.E	1
24	315-015-3012	Name plate "REVERSE"	P9ACP2R215	G.E	1
25	315-019-5027	Proximity switch AC/DC 18mm NC 3meter	BES-516-212-E4-E-03	Balluff	2
26	315-168-1015	Pressure switch	H100-95303	U.E.	1
27	315-167-2073	Solenoid valve 3/8"	30-VX2330-03N-3D	SMC	3
30	315-002-3099	Device support (mounting CA7)	KBD	Sprecher+Schuh	3
31	315-006-2003	Connecting module (KTA3 to CA7)	KT3-NW23	Sprecher+Schuh	3
32	315-014-2036	Auxiliary contact block (NO)	KT3-25-PE2-10	Sprecher+Schuh	3
34	315-002-3098	Device support (mounting CAU4)	KBR	Sprecher+Schuh	1
35	315-002-3097	Connecting module (KTA3 to CA4)	KCD4	Sprecher+Schuh	1
36	315-014-2028	Auxiliary contact block (NO-NO)	KT3-25-PA-20	Sprecher+Schuh	1
38	315-014-6024	Auxiliary contact block (NC)	CA7-PA-01	Sprecher+Schuh	3
40	315-014-2017	Reversing contactors	CAU4-9-01-120-NO	Sprecher+Schuh	1
41	315-002-3095	Connecting Kit (CAU4 reversing)	KCR4	Sprecher+Schuh	1
M	315-006-1044	Enclosure / NEMA-12	5412 ES242008	Eurobex	1
O	315-006-1023	Enclosure	1500 EDC090604	Eurobex	1

464-100-9007-01 230VAC (1-1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	3
37	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
39	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	3
42	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	3
43	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9007-02 460VAC (1-1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	3
37	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
42	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	3
43	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9007-03 575VAC (1-1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1016	Fuse 25 Amp AJT style	AJT-25	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	3
37	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
42	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	3
43	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9007-04 230VAC (1-1/2HP Movement-7.5HP Vacuum)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1028	Fuse 80 Amp AJT style	AJT-80	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	2
33	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	3
37	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
39	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	3
42	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	3
43	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9007-05 460VAC (1-1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	3
37	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
42	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	3
43	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9007-06 575VAC (1-1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	3
37	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
42	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	3
43	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1
44	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	3

464-100-9008-00 Main box (4 x Vacuum pump)

	Metaplast No	Description	Part No	Manufacturer	Qty
7	315-011-2006	Safety covers (serie 62000-63000)	8530	Gould	3
8	315-017-3013	Splitter (4 opening 185 Amp)	63133	Gould	1
9	315-010-2020	Fuse holder 2 Pole (ATM style)	30312	Gould	1
12	315-001-1013	Breaker (1.5 Amp)	MG17413	Merlin Gerin	1
14	315-017-3001	Power supply 120V for lamp	P9PDNVO	G.E	8
15	315-011-1000	Light bulb for pushbutton (120V)	BA9S130	G.E	8
16	315-015-3007	Name plate "STOP"	P9ACP2R201	G.E	4
17	315-014-2033	Contact block N.C	P9B01VN	G.E	4
18	315-015-5028	Push button red illum.	P9CPLRGD	G.E	4
19	315-015-3006	Name plate "START"	P9ACP2R202	G.E	4
20	315-014-2035	Contact block N.O	P9B10VN	G.E	6
21	315-015-5026	Push button green illum.	P9CPLVGD	G.E	4
22	315-015-5004	Push button black std.	P9CPNNG	G.E	2
23	315-015-3010	Name plate "FORWARD"	P9ACP2R214	G.E	1
24	315-015-3012	Name plate "REVERSE"	P9ACP2R215	G.E	1
25	315-019-5027	Proximity switch AC/DC 18mm NC 3meter	BES-516-212-E4-E-03	Balluff	2
26	315-168-1015	Pressure switch	H100-95303	U.E.	1
27	315-167-2073	Solenoid valve 3/8"	30-VX2330-03N-3D	SMC	4
30	315-002-3099	Device support (mounting CA7)	KBD	Sprecher+Schuh	4
31	315-006-2003	Connecting module (KTA3 to CA7)	KT3-NW23	Sprecher+Schuh	4
32	315-014-2036	Auxiliary contact block (NO)	KT3-25-PE2-10	Sprecher+Schuh	4
34	315-002-3098	Device support (mounting CAU4)	KBR	Sprecher+Schuh	1
35	315-002-3097	Connecting module (KTA3 to CA4)	KCD4	Sprecher+Schuh	1
36	315-014-2028	Auxiliary contact block (NO-NO)	KT3-25-PA-20	Sprecher+Schuh	1
38	315-014-6024	Auxiliary contact block (NC)	CA7-PA-01	Sprecher+Schuh	4
40	315-014-2017	Reversing contactors	CAU4-9-01-120-NO	Sprecher+Schuh	1
41	315-002-3095	Connecting Kit (CAU4 reversing)	KCR4	Sprecher+Schuh	1
M	315-006-1046	Enclosure / NEMA-12	5412 ES242408	Eurobex	1
O	315-006-1023	Enclosure	1500 EDC090604	Eurobex	1

464-100-9008-01 230VAC (1-1/2 HP Movement-5HP Vacuum)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1028	Fuse 80 Amp AJT style	AJT-80	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	1
33	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	4
37	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
39	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	4
42	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	4
43	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9008-02 460VAC (1-1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	4
37	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
42	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	4
43	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9008-03 575VAC (1-1/2 HP Movement-5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	4
37	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
42	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	4
43	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9008-04 230VAC (1-1/2HP Movement-7.5HP Vacuum)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1107	Fuse 100 Amp AJT style	AJT-100	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	1
33	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	4
37	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
39	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	4
42	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	4
43	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9008-05 460VAC (1-1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	4
37	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
42	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	4
43	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9008-06 575VAC (1-1/2HP Movement-7.5HP Vacuum)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	4
37	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
39	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
42	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	4
43	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1
44	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	4

464-100-9011-00 Main box (2 x Vacuum pump)

	Metaplast No	Description	Part No	Manufacturer	Qty
7	315-011-2006	Safety covers (serie 62000-63000)	8530	Gould	3
8	315-017-3013	Splitter (4 opening 185 Amp)	63133	Gould	1
9	315-010-2020	Fuse holder 2 Pole (ATM style)	30312	Gould	1
12	315-001-1013	Breaker (1.5 Amp)	MG17413	Merlin Gerin	1
14	315-017-3001	Power supply 120V for lamp	P9PDNVO	G.E	9
15	315-011-1000	Light bulb for pushbutton (120V)	BA9S130	G.E	9
16	315-015-3007	Name plate "STOP"	P9ACP2R201	G.E	4
17	315-014-2033	Contact block N.C	P9B01VN	G.E	4
18	315-015-5028	Push button red illum.	P9CPLRGD	G.E	4
19	315-015-3006	Name plate "START"	P9ACP2R202	G.E	4
20	315-014-2035	Contact block N.O	P9B10VN	G.E	6
21	315-015-5026	Push button green illum.	P9CPLVGD	G.E	4
22	315-015-5004	Push button black std.	P9CPNNG	G.E	2
23	315-015-3010	Name plate "FORWARD"	P9ACP2R214	G.E	1
24	315-015-3012	Name plate "REVERSE"	P9ACP2R215	G.E	1
25	315-019-5027	Proximity switch AC/DC 18mm NC 3meter	BES-516-212-E4-E-03	Balluff	2
26	315-168-1015	Pressure switch	H100-95303	U.E.	1
27	315-167-2073	Solenoid valve 3/8"	30-VX2330-03N-3D	SMC	2
30	315-002-3099	Device support (mounting CA7)	KBD	Sprecher+Schuh	4
31	315-006-2003	Connecting module (KTA3 to CA7)	KT3-NW23	Sprecher+Schuh	4
32	315-014-2036	Auxiliary contact block (NO)	KT3-25-PE2-10	Sprecher+Schuh	4
36	315-002-3098	Device support (mounting CAU4)	KBR	Sprecher+Schuh	1
37	315-002-3097	Connecting module (KTA3 to CA4)	KCD4	Sprecher+Schuh	1
38	315-014-2028	Auxiliary contact block (NO-NO)	KT3-25-PA-20	Sprecher+Schuh	1
40	315-014-6024	Auxiliary contact block (NC)	CA7-PA-01	Sprecher+Schuh	4
41	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
44	315-014-2017	Reversing contactors	CAU4-9-01-120-NO	Sprecher+Schuh	1
45	315-002-3095	Connecting Kit (CAU4 reversing)	KCR4	Sprecher+Schuh	1
46	315-011-1005	Pilot light green	P9CLVD	G.E	1
47	315-015-3026	Name plate "BLANK"	P9ACP2N	G.E	1
48	315-167-2074	Solenoid valve	30-VX2280-10N-3D	SMC	1
49	315-051-1006	Hold down spring for base S411	HFN	Carlo Gavazzi	1
50	315-015-9002	Base for level control	S411	Carlo Gavazzi	1
51	315-019-3000	Level control	S195166115	Carlo Gavazzi	1
52	315-019-3004	Level sensor	VNY-3	Carlo Gavazzi	1
M	315-006-1046	Enclosure / NEMA-12	5412 ES242408	Eurobex	1
O	315-006-1117	Enclosure	1500 EDC140604	Eurobex	1

OPTION: PENDULUM

O	315-006-1094	Assembled package	C-CP313613	Hoffman	1
	315-002-2002	Flanged elbow coupling	C-CS2FEC	Hoffman	1
	315-051-1011	Intermediate joint	C-CS2IJ	Hoffman	1
	315-051-1017	Set-up-joint	C-CS2SJ	Hoffman	1
	315-051-1007	Hollow aluminium extru.	C-CS2T5	Hoffman	2
	315-006-1093	Front face	C-FP3136	Hoffman	1
	315-006-1101	Enclosure / NEMA-12	5412 ESCH101006	Eurobex	1

OPTION: Split frame

25	315-019-5025	Proximity switch plastic AC/DC(calibrator)	BES-517-223-U3-E	Balluff	2
	315-006-1030	Enclosure	1500 SDC030302	Eurobex	1
	315-006-1031	Enclosure	1500 SDC050302	Eurobex	1
	315-017-5002	Power track (feet)	162P-1-3,4	GRP Gleason	1
	315-011-2002	Bracket kit	BK162-1	GRP Gleason	1
	315-014-8026	Softstarter (240V)	PBS-011-240V	Sprecher+Schuh	1
	315-014-8008	Softstarter (460V)	PBS-011-480V	Sprecher+Schuh	1
	315-014-8009	Softstarter (575V)	PBS-011-600V	Sprecher+Schuh	1

464-100-9011-01 230VAC (1,5HP Mv.-3HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-8065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	2
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0025	Motor AC 3 H.P. 230/460V	VM3611T	Baldor	2
56	315-012-0014	Motor AC 0,5 H.P. 230/460V	VM3538	Baldor	1

464-100-9011-02 460VAC (0,5HP Mv.-3HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-8061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1014	Fuse 20 Amp AJT style	AJT-20	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150QE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
35	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	2
39	315-014-1020	Motor circuit controller (1 - 1.6A)	KTA3-25-1.6A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0025	Motor AC 3 H.P. 230/460V	VM3611T	Baldor	2
56	315-012-0014	Motor AC 0,5 H.P. 230/460V	VM3538	Baldor	1

464-100-9011-03 575VAC (0,5HP Mv.-3HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-8061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1009	Fuse 15 Amp AJT style	AJT-15	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
35	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	2
39	315-014-1019	Motor circuit controller (0.63 - 1A)	KTA3-25-1A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
55	315-012-0023	Motor AC 3 H.P. 575V	VM3611T-5	Baldor	2
56	315-012-0055	Motor AC 0,5 H.P. 575V	VM3538-5	Baldor	1

464-100-9011-04 230VAC (0,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	2
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	2
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	2
56	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9011-05 460VAC (0,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	2
39	315-014-1020	Motor circuit controller (1 - 1.6A)	KTA3-25-1.6A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	2
56	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9011-06 575VAC (0,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1016	Fuse 25 Amp AJT style	AJT-25	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
35	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	2
39	315-014-1019	Motor circuit controller (0.63 - 1A)	KTA3-25-1A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
55	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	2
56	315-012-0055	Motor AC 0,5 H.P. 575V	VM3538-5	Baldor	1

464-100-9011-07 230VAC (0,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-8066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1027	Fuse 70 Amp AJT style	AJT-70	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	2
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	2
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0036	Motor AC 7.5 H.P 230/460V	VM3710T	Baldor	2
56	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9011-08 460VAC (0,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	2
39	315-014-1020	Motor circuit controller (1 - 1.6A)	KTA3-25-1.6A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	2
56	315-012-0014	Motor AC 0,5 H.P 230/460V	VM3538	Baldor	1

464-100-9011-09 575VAC (0,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5007	Bus bar (connect 5 KTA3-25)	KT3-25-DB-54-5	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	2
39	315-014-1019	Motor circuit controller (0.63 - 1A)	KTA3-25-1A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	2
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
55	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	2
56	315-012-0055	Motor AC 0,5 H.P. 575V	VM3538-5	Baldor	1
57	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	2

464-100-9012-00 Main box (3 x Vacuum pump)

	Metaplast No	Description	Part No	Manufacturer	Qty
7	315-011-2006	Safety covers (serie 62000-63000)	8530	Gould	3
8	315-017-3013	Splitter (4 opening 185 Amp)	63133	Gould	1
9	315-010-2020	Fuse holder 2 Pole (ATM style)	30312	Gould	1
12	315-001-1013	Breaker (1.5 Amp)	MG17413	Merlin Gerin	1
14	315-017-3001	Power supply 120V for lamp	P9PDNVO	G.E	11
15	315-011-1000	Light bulb for pushbutton (120V)	BA9S130	G.E	11
16	315-015-3007	Name plate "STOP"	P9ACP2R201	G.E	5
17	315-014-2033	Contact block N.C	P9B01VN	G.E	5
18	315-015-5028	Push button red illum.	P9CPLRGD	G.E	5
19	315-015-3006	Name plate "START"	P9ACP2R202	G.E	5
20	315-014-2035	Contact block N.O	P9B10VN	G.E	7
21	315-015-5026	Push button green illum.	P9CPLVGD	G.E	5
22	315-015-5004	Push button black std.	P9CPNNG	G.E	2
23	315-015-3010	Name plate "FORWARD"	P9ACP2R214	G.E	1
24	315-015-3012	Name plate "REVERSE"	P9ACP2R215	G.E	1
25	315-019-5027	Proximity switch AC/DC 18mm NC 3meter	BES-516-212-E4-E-03	Balluff	2
26	315-168-1015	Pressure switch	H100-95303	U.E.	1
27	315-167-2073	Solenoid valve 3/8"	30-VX2330-03N-3D	SMC	3
30	315-002-3099	Device support (mounting CA7)	KBD	Sprecher+Schuh	5
31	315-006-2003	Connecting module (KTA3 to CA7)	KT3-NW23	Sprecher+Schuh	5
32	315-014-2036	Auxiliary contact block (NO)	KT3-25-PE2-10	Sprecher+Schuh	5
36	315-002-3098	Device support (mounting CAU4)	KBR	Sprecher+Schuh	1
37	315-002-3097	Connecting module (KTA3 to CA4)	KCD4	Sprecher+Schuh	1
38	315-014-2028	Auxiliary contact block (NO-NO)	KT3-25-PA-20	Sprecher+Schuh	1
40	315-014-6024	Auxiliary contact block (NC)	CA7-PA-01	Sprecher+Schuh	5
41	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
44	315-014-2017	Reversing contactors	CAU4-9-01-120-NO	Sprecher+Schuh	1
45	315-002-3095	Connecting Kit (CAU4 reversing)	KCR4	Sprecher+Schuh	1
46	315-011-1005	Pilot light green	P9CLVD	G.E	1
47	315-015-3026	Name plate "BLANK"	P9ACP2N	G.E	1
48	315-167-2074	Solenoid valve	30-VX2260-10N-3D	SMC	1
49	315-051-1006	Hold down spring for base S411	HFN	Carlo Gavazzi	1
50	315-015-9002	Base for level control	S411	Carlo Gavazzi	1
51	315-019-3000	Level control	S195166115	Carlo Gavazzi	1
52	315-019-3004	Level sensor	VNY-3	Carlo Gavazzi	1
M	315-006-1047	Enclosure / NEMA-12	5412 ES243008	Eurobex	1
O	315-006-1117	Enclosure / NEMA-12	1500EDC140604	Eurobex	1

OPTION: PENDULUM					
O	315-006-1094	Assembled package	C-CP313613	Hoffman	1
	315-002-2002	Flanged elbow coupling	C-CS2FEC	Hoffman	1
	315-051-1011	Intermediate joint	C-CS2IJ	Hoffman	1
	315-051-1017	Set-up-joint	C-CS2SJ	Hoffman	1
	315-051-1007	Hollow aluminium extru.	C-CS2T5	Hoffman	2
	315-006-1093	Front face	C-FP3136	Hoffman	1
	315-006-1101	Enclosure / NEMA-12	5412 ESCH101006	Eurobex	1

OPTION: Split frame					
25	315-019-5025	Proximity switch plastic AC/DC(calibrator)	BES-517-223-U3-E	Balluff	2
	315-006-1031	Enclosure / NEMA-12	15005DC050302	Eurobex	1
	315-006-1030	Enclosure / NEMA-12	15005DC030302	Eurobex	1
	315-017-5002	Power track (feet)	162P-1-3,4	GRP Gleason	5
	315-011-2002	Bracket kit	BK162-1	GRP Gleason	1
	315-014-8026	Softstarter (240V)	PBS-011-240V	Sprecher+Schuh	1
	315-014-8008	Softstarter (460V)	PBS-011-480V	Sprecher+Schuh	1
	315-014-8009	Softstarter (575V)	PBS-011-600V	Sprecher+Schuh	1

464-100-9012-01 230VAC (1,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1027	Fuse 70 Amp AJT style	AJT-70	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	2
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	3
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	3
56	315-012-0050	Motor AC 1.5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-02 460VAC (1,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	3
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	3
56	315-012-0050	Motor AC 1.5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-03 575VAC (1,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
35	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	3
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
55	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	3
56	315-012-0008	Motor AC 1.5 H.P 575V	VM3554-5	Baldor	1

464-100-9012-04 230VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1107	Fuse 100 Amp AJT style	AJT-100	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	2
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	3
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0036	Motor AC 7.5 H.P 230/460V	VM3710T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-05 460VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 01500E20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	3
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-06 575VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	3
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
55	315-012-0033	Motor AC 7.5 H.P 575V	M3710T-5	Baldor	3
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1
57	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	3

464-100-9012-07 230VAC (1,5HP Mv.-5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1028	Fuse 80 Amp AJT style	AJT-80	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	2
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	3
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	1
43	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2024	JetPump 5 H.P. 230/460V	3BF25035	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-08 460VAC (1,5HP Mv.-5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 01500E20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	3
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2024	JetPump 5 H.P. 230/460V	3BF25035	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-09 575VAC (1,5HP Mv.-5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2022	Fuse covers for L10 (30Amp)	L10-FCA2	Sprecher+Schuh	1
4	315-002-7016	Terminals shields for L10 (30 Amp)	L10-LNC1	Sprecher+Schuh	1
5	315-015-6061	Disconnect switch fusible 30A (J type)	L10-NJ030P3	Sprecher+Schuh	1
6	315-010-1019	Fuse 30 Amp AJT style	AJT-30	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	3
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2026	JetPump 5 H.P. 575V	3BF25037	Gould	1
55	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	3
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9012-10 230VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1107	Fuse 100 Amp AJT style	AJT-100	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	2
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	1
35	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	3
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	1
43	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2024	JetPump 5 H.P. 230/460V	3BF25035	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-11 460VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	3
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2024	JetPump 5 H.P. 230/460V	3BF25035	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-12 575VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	3
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2026	JetPump 5 H.P. 575V	3BF25037	Gould	1
55	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	3
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1
57	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	3

464-100-9012-13 230VAC (1,5HP Mv.-5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1107	Fuse 100 Amp AJT style	AJT-100	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	2
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	3
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	1
43	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2027	JetPump 7,5 H.P. 230/460V	3BF27535	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-14 460V (1,5HP Mv.-5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 01500E20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	3
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2027	JetPump 7,5 H.P. 230/460V	3BF27535	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-15 575VAC (1,5HP Mv.-5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	3
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2029	JetPump 7,5 H.P. 575V	3BF27535	Gould	1
55	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	3
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9012-16 230V (1,5HP Mv.-7,5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2029	Fuse covers for L10 (200Amp)	L10-FCD1	Sprecher+Schuh	3
4	315-002-7028	Terminals shields for L10 (200 Amp)	L10-LNC4	Sprecher+Schuh	1
5	315-002-7029	Disconnect switch fusible 200A (J type)	L10-NJ200P3	Sprecher+Schuh	1
6	315-010-1034	Fuse 125 Amp AJT style	AJT-125	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	2
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	1
35	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	3
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	1
43	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2027	JetPump 7,5 H.P. 230/460V	3BF27535	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-17 460V (1,5HP Mv.-7,5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	3
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2027	JetPump 7,5 H.P. 230/460V	3BF27535	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	3
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9012-18 575V(1,5HP Mv.-7,5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	3
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	3
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2029	JetPump 7,5 H.P. 575V	3BF27535	Gould	1
55	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	3
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9013-00 Main box (4 x Vacuum pump)

	Metaplast No	Description	Part No	Manufacturer	Qty
7	315-011-2006	Safety covers (serie 62000-63000)	8530	Gould	3
8	315-017-3013	Splitter (4 opening 185 Amp)	63133	Gould	1
9	315-010-2020	Fuse holder 2 Pole (ATM style)	30312	Gould	1
12	315-001-1013	Breaker (1.5 Amp)	MG17413	Merlin Gerin	1
14	315-017-3001	Power supply 120V for lamp	P9PDNVO	G.E	13
15	315-011-1000	Light bulb for pushbutton (120V)	BA9S130	G.E	13
16	315-015-3007	Name plate "STOP"	P9ACP2R201	G.E	6
17	315-014-2033	Contact block N.C	P9B01VN	G.E	6
18	315-015-5028	Push button red illum.	P9CPLRGD	G.E	6
19	315-015-3006	Name plate "START"	P9ACP2R202	G.E	6
20	315-014-2035	Contact block N.O	P9B10VN	G.E	8
21	315-015-5026	Push button green illum.	P9CPLVGD	G.E	6
22	315-015-5004	Push button black std.	P9CPNNG	G.E	2
23	315-015-3010	Name plate "FORWARD"	P9ACP2R214	G.E	1
24	315-015-3012	Name plate "REVERSE"	P9ACP2R215	G.E	1
25	315-019-5027	Proximity switch AC/DC 18mm NC 3meter	BES-516-212-E4-E-03	Balluff	2
26	315-168-1015	Pressure switch	H100-95303	U.E.	1
27	315-167-2073	Solenoid valve 3/8"	30-VX2330-03N-3D	SMC	4
30	315-002-3099	Device support (mounting CA7)	KBD	Sprecher+Schuh	6
31	315-006-2003	Connecting module (KTA3 to CA7)	KT3-NW23	Sprecher+Schuh	6
32	315-014-2036	Auxiliary contact block (NO)	KT3-25-PE2-10	Sprecher+Schuh	6
36	315-002-3098	Device support (mounting CAU4)	KBR	Sprecher+Schuh	1
37	315-002-3097	Connecting module (KTA3 to CA4)	KCD4	Sprecher+Schuh	1
38	315-014-2028	Auxiliary contact block (NO-NO)	KT3-25-PA-20	Sprecher+Schuh	1
40	315-014-6024	Auxiliary contact block (NC)	CA7-PA-01	Sprecher+Schuh	6
41	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
44	315-014-2017	Reversing contactors	CAU4-9-01-120-NO	Sprecher+Schuh	1
45	315-002-3095	Connecting Kit (CAU4 reversing)	KCR4	Sprecher+Schuh	1
46	315-011-1005	Pilot light green	P9CLVD	G.E	1
47	315-015-3026	Name plate "BLANK"	P9ACF2N	G.E	1
48	315-167-2074	Solenoid valve	30-VX2260-10N-3D	SMC	1
49	315-051-1006	Hold down spring for base S411	HFN	Carlo Gavazzi	1
50	315-015-9002	Base for level control	S411	Carlo Gavazzi	1
51	315-019-3000	Level control	S195166115	Carlo Gavazzi	1
52	315-019-3004	Level sensor	VNY-3	Carlo Gavazzi	1
M	315-006-1047	Enclosure / NEMA-12	5412 ES243008	Eurobex	1
O	315-006-1117	Enclosure / NEMA-12	1500EDC140604	Eurobex	1

OPTION: PENDULUM

O	315-006-1094	Assembled package	C-CP313613	Hoffman	1
	315-002-2002	Flanged elbow coupling	C-CS2FEC	Hoffman	1
	315-051-1011	Intermediate joint	C-CS2LJ	Hoffman	1
	315-051-1017	Set-up-joint	C-CS2SJ	Hoffman	1
	315-051-1007	Hollow aluminium extru.	C-CS2T5	Hoffman	2
	315-006-1093	Front face	C-FP3136	Hoffman	1
	315-006-1101	Enclosure / NEMA-12	5412 ESCH101006	Eurobex	1

OPTION: Split frame

25	315-019-5025	Proximity switch plastic AC/DC(calibrator)	BES-517-223-U3-E	Balluff	2
	315-006-1031	Enclosure / NEMA-12	15005DC050302	Eurobex	1
	315-006-1030	Enclosure / NEMA-12	15005DC030302	Eurobex	1
	315-017-5002	Power track (feet)	162P-1-3,4	GRP Gleason	5
	315-011-2002	Bracket kit	BK162-1	GRP Gleason	1
	315-014-8026	Softstarter (240V)	PBS-011-240V	Sprecher+Schuh	1
	315-014-8008	Softstarter (460V)	PBS-011-480V	Sprecher+Schuh	1
	315-014-8009	Softstarter (575V)	PBS-011-600V	Sprecher+Schuh	1

464-100-9013-01 230VAC (1,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1107	Fuse 100 Amp AJT style	AJT-100	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	4
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-02 460VAC (1,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	4
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-03 575VAC (1,5HP Mv.-5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
35	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	4
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
55	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	4
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9013-04 230VAC (1,5HP Mv.-7,5HP Vc.-2HP

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3
3	315-010-2029	Fuse covers for L10 (200Amp)	L10-FCD1
4	315-010-7028	Terminals shields for L10 (200 Amp)	L10-LNC4
5	315-010-7029	Disconnect switch fusible 200A (J type)	L10-NJ200P3
6	315-010-1034	Fuse 125 Amp AJT style	AJT-125
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V
28	315-017-2002	Supply block	KT3-25-A3
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A
35	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120
43	315-014-6022	Contactors (three phase)	CA7-23-10-U120
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T

464-100-9013-05 460VAC (1,5HP Mv.-7,5HP Vc.-2HP

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V
28	315-017-2002	Supply block	KT3-25-A3
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A
34	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T

464-100-9013-06 575VAC (1,5HP Mv.-7,5HP Vc.-2HP

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	S
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	S
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	S
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	S
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	S
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	G
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	G
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	C
28	315-017-2002	Supply block	KT3-25-A3	S
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	S
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	S
34	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	S
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	S
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	S
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	S
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	S
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	
54	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	
55	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	
57	315-087-2001	C face kit for M3710T-5	37-1304	

464-100-9013-07 230VAC (1,5HP Mv.-5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1107	Fuse 100 Amp AJT style	AJT-100	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	4
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	1
43	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2024	JetPump 5 H.P. 230/460V	3BF25035	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-08 460VAC (1,5HP Mv.-5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	4
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2024	JetPump 5 H.P. 230/460V	3BF25035	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-09 575VAC (1,5HP Mv.-5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1046	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	4
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2026	JetPump 5 H.P. 575V	3BF25037	Gould	1
55	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	4
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9013-10 230VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2029	Fuse covers for L10 (200Amp)	L10-FCD1	Sprecher+Schuh	3
4	315-002-7028	Terminals shields for L10 (200 Amp)	L10-LNC4	Sprecher+Schuh	1
5	315-002-7029	Disconnect switch fusible 200A (J type)	L10-NJ200P3	Sprecher+Schuh	1
6	315-010-1034	Fuse 125 Amp AJT style	AJT-125	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	1
35	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	4
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	1
43	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2024	JetPump 5 H.P. 230/460V	3BF25035	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-11 460VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	4
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2024	JetPump 5 H.P. 230/460V	3BF25035	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-12 575VAC(1,5HP Mv.-7,5HP Vc.-2HP Rc-5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	4
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2026	JetPump 5 H.P. 575V	3BF25037	Gould	1
55	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	4
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1
57	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	4

464-100-9013-13 230VAC(1,5HP Mv.-5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1107	Fuse 100 Amp AJT style	AJT-100	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	4
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	1
43	315-014-6019	Contactors (three phase)	CA7-16-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2027	JetPump 7,5 H.P. 230/460V	3BF27535	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-14 460V (1,5HP Mv.-5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	4
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2027	JetPump 7,5 H.P. 230/460V	3BF27535	Gould	1
55	315-012-0032	Motor AC 5 H.P 230/460V	VM3615T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-15 575VAC(1,5HP Mv.-5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1025	Fuse 50 Amp AJT style	AJT-50	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	4
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2029	JetPump 7,5 H.P. 575V	3BF27535	Gould	1
55	315-012-0053	Motor AC 5 H.P 575V	VM3615T-5	Baldor	4
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9013-16 230V (1,5HP Mv.-7,5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2029	Fuse covers for L10 (200Amp)	L10-FCD1	Sprecher+Schuh	3
4	315-002-7028	Terminals shields for L10 (200 Amp)	L10-LNC4	Sprecher+Schuh	1
5	315-002-7029	Disconnect switch fusible 200A (J type)	L10-NJ200P3	Sprecher+Schuh	1
6	315-010-1108	Fuse 150 Amp AJT style	AJT-150	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	3
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5005	Bus bar (connect 2 KTA3-25)	KT3-25-DB-54-2	Sprecher+Schuh	2
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	1
35	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	4
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	1
43	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2027	JetPump 7,5 H.P. 230/460V	3BF27535	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-17 460V (1,5HP Mv.-7,5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2023	Fuse covers for L10 (100Amp)	L10-FCC1	Sprecher+Schuh	3
4	315-002-7018	Terminals shields for L10 (100 Amp)	L10-LNC3	Sprecher+Schuh	1
5	315-002-6066	Disconnect switch fusible 100A (J type)	L10-NJ100P3	Sprecher+Schuh	1
6	315-010-1028	Fuse 80 Amp AJT style	AJT-80	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	4
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2027	JetPump 7,5 H.P. 230/460V	3BF27535	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-18 575V(1,5HP Mv.-7,5HP Vc.-2HP Rc-7,5HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	4
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2029	JetPump 7,5 H.P. 575V	3BF27535	Gould	1
55	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	4
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1

464-100-9013-04 230VAC (1,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1034	Switch handle for L10 "Yellow/Red"(100A)	L10-HM1E	Sprecher+Schuh	1
2	315-030-1035	Rod 200mm for L10 disconnect (100A)	L10-R3	Sprecher+Schuh	1
3	315-010-2029	Fuse covers for L10 (200Amp)	L10-FCD1	Sprecher+Schuh	3
4	315-010-7028	Terminals shields for L10 (200 Amp)	L10-LNC4	Sprecher+Schuh	1
5	315-010-7029	Disconnect switch fusible 200A (J type)	L10-NJ200P3	Sprecher+Schuh	1
6	315-010-1034	Fuse 125 Amp AJT style	AJT-125	Gould Shawmut	3
10	315-010-1083	Fuse 1 1/2 Amp ATM style	ATM-1 1/2	Gould Shawmut	2
11	315-017-1255	Transformer 150VA 240v / 120v	DO 0150GE20	Transfab	1
13	315-015-9005	Phase relay (240 Volts)	EUAC-240V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	2
29	315-017-5008	Bus bar (connect 3 KTA3-25)	KT3-25-DB-54-3	Sprecher+Schuh	1
	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	1
33	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
34	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
35	315-014-1025	Motor circuit controller (16 - 25A)	KTA3-25-25A	Sprecher+Schuh	4
39	315-014-1027	Motor circuit controller (4 - 6.3A)	KTA3-25-6.3A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6022	Contactors (three phase)	CA7-23-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-05 460VAC (1,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1038	Fuse 1 Amp ATM style	ATM-1	Gould	2
11	315-017-1150	Transformer 150VA 480v / 120v	DO 0150OE20	Transfab	1
13	315-015-9011	Phase relay (480 Volts)	EUAC-480V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
34	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
35	315-014-1022	Motor circuit controller (10 - 16A)	KTA3-25-16A	Sprecher+Schuh	4
39	315-014-1026	Motor circuit controller (2.5 - 4A)	KTA3-25-4A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
54	315-164-2015	JetPump 2 H.P. 230/460V	1ST1G5B4	Gould	1
55	315-012-0036	Motor AC 7,5 H.P 230/460V	VM3710T	Baldor	4
56	315-012-0050	Motor AC 1,5 H.P 230/460V	VM3554T	Baldor	1

464-100-9013-06 575VAC (1,5HP Mv.-7,5HP Vc.-2HP Rc-2HP Pr.)

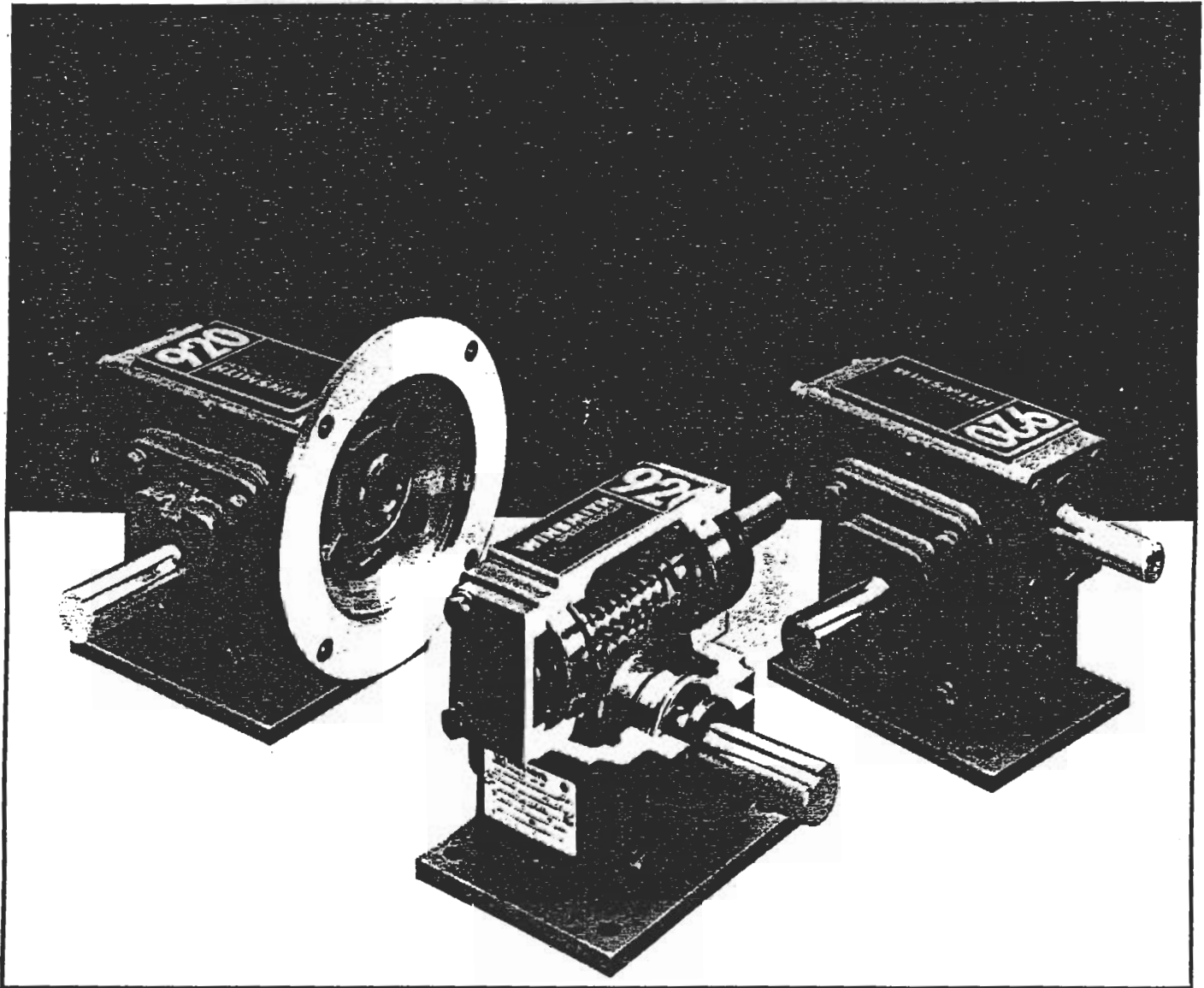
1	315-030-1029	Switch handle for L10 "Yellow/Red"	L10-HS4E	Sprecher+Schuh	1
2	315-030-1030	Rod 256mm for L10 disconnect	L10-R1	Sprecher+Schuh	1
3	315-010-2025	Fuse covers for L10 (60Amp)	L10-FCJ60	Sprecher+Schuh	1
4	315-002-7023	Terminals shields for L10 (60 Amp)	L10-LNC2	Sprecher+Schuh	1
5	315-002-6065	Disconnect switch fusible 60A (J type)	L10-NJ060P3	Sprecher+Schuh	1
6	315-010-1026	Fuse 60 Amp AJT style	AJT-60	Gould Shawmut	3
10	315-010-1082	Fuse 3/4 Amp ATM style	ATM-3/4	Gould Shawmut	2
11	315-017-1048	Transformer 150VA 600v / 120v	DO 0150QE20	Transfab	1
13	315-015-9014	Phase relay (600 Volts)	EUAC-600V	Carlo Gavazzi	1
28	315-017-2002	Supply block	KT3-25-A3	Sprecher+Schuh	1
29	315-017-5006	Bus bar (connect 4 KTA3-25)	KT3-25-DB-54-4	Sprecher+Schuh	2
33	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
34	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
35	315-014-1021	Motor circuit controller (6.3 - 10A)	KTA3-25-10A	Sprecher+Schuh	4
39	315-014-1023	Motor circuit controller (1.6 - 2.5A)	KTA3-25-2.5A	Sprecher+Schuh	1
42	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	1
43	315-014-6021	Contactors (three phase)	CA7-12-10-U120	Sprecher+Schuh	4
53	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
54	315-164-2003	JetPump 2 H.P. 575V	1ST1G6B4	Gould	1
55	315-012-0033	Motor AC 7,5 H.P 575V	M3710T-5	Baldor	4
56	315-012-0008	Motor AC 1,5 H.P 575V	VM3554-5	Baldor	1
57	315-087-2001	C face kit for M3710T-5	37-1304	Baldor	4

APPENDIX C
SPEED REDUCER

WINSMITH
PEERLESS-WINSMITH, INC.

ILD-90

D-90[®] TYPE SE[®] SPEED REDUCERS



Installation, Operation, and Lubrication Instructions

This Engineering Service Bulletin is designed to enable users to obtain the best possible performance from their WINSMITH[®] Speed Reducers.

operation. If a speed reducer is installed in an atmosphere containing exceptional amounts of moisture or dust, a shielded or hooded vent plug should be used. For intermittent duty applications, where the operating temperature does not rise more than about 20 degrees F, internal pressure build-up is minimal and venting is not necessary. Some models are available with an optional internal expansion chamber allowing units to be totally sealed. Contact us for more details.

4. C-Flange Motor Mounting Procedures

A. Mounting Motor to C-Flange Reducer With Hollow Input Shaft

Check motor and reducer mounting registers for nicks that would interfere with assembly. Remove if necessary.

Remove protective plastic plug from reducer input shaft. The bore has been coated with an anti-seize compound.

Align the motor shaft and key with keyway in bore and slide motor up to flange.

Position the motor conduit box as desired.

Using the fasteners supplied, secure the motor to the reducer. Draw down evenly so as not to bend the motor shaft. Tighten fasteners to 200 inch pounds.

B. Mounting Motor to C-Flange Reducer With Coupling Adaptor

Check motor and reducer mounting registers for nicks that would interfere with assembly. Remove if necessary.

When assembling the motor and coupling, the coupling halves should be equally spaced on each shaft to insure adequate engagement. The following describes a method for doing this.

First determine the assembled shaft clearance by measuring the distance from the C-Flange face to the reducer shaft end and subtracting the motor shaft length. Mount and secure the motor shaft coupling half with the spider end extending one half the clearance distance beyond the motor shaft. Mount the reducer coupling half and coupling spider on reducer shaft in its approximate position but do not secure.

Locate the motor conduit box in the desired position and secure the motor to the reducer flange using the fasteners provided. Tighten to about 200 inch pounds.

Using the access hole in the flange, slide the coupling together and tighten the set screw.

5. Unit Assembly/Disassembly Instructions

Contact the factory for an instruction manual.

III. LUBRICATION & MAINTENANCE

1. Factory Filling

WINSMITH speed reducers are filled to the proper level for the standard mounting position (as shown in Figures 1 or 2) with the appropriate grade of oil for operation in a 51°F to 110°F temperature environment. **The oil level should be checked and adjusted (if necessary) prior to operation, using the oil level plug provided and while the unit is oriented in its operating position.**

2. Ambient Temperature

If the operating ambient temperature is outside the range specified above, then refer to lubrication chart and refill the unit with the correct grade based on actual ambient temperatures. See item 3 for additional information regarding oil changes.

3. Oil Changing

When changing oil for any reason, it should be remembered that oils of various types may not be compatible. Therefore, when changing to a different oil, it is recommended that the housing be completely drained and thoroughly flushed with a light flushing oil prior to refilling with the appropriate lubricant. The oil level should be rechecked after a short period of operation and adjusted, if necessary. When changing double reduction models, each housing should be drained and filled independently, even though there may be a common level.

A. Initial Oil Change

The oil in a new speed reducer should be changed at the end of 250 hours of operation. (30 days for 8 hour per day service, 15 days for 16 hour service, 10 days for 24 hour service).

B. Subsequent Oil Changes

Under normal conditions, after the initial oil change, the oil should be changed after every 2500 hours of operation, or every six months, whichever occurs first. Under severe conditions (rapid temperature changes, moist, dirty or corrosive environment) it may be necessary to change oil at intervals of one to three months. Periodic examination of oil samples taken from the unit will help establish the appropriate interval.

C. Synthetic Oils

Synthetic lubricants can be advantageous over mineral oils in that they generally are more stable, have a longer life, and operate over a wider temperature range. These oils are appropriate for any application but are especially useful when units are subjected to low start-up temperatures or high operating temperatures. However, continuous operation above 225°F may cause damage to seals or other components. It is recommended that the initial oil be changed or filtered after the first 1500 hours of operation to remove metal particles that accumulate during break-in. Subsequent oil changes should be made after 5000 hours operation if units are operating in a clean environment. See comments under 3B for more severe ambient conditions.

4. Long Term Storage or Infrequent Operation

If a speed reducer is to stand idle for an extended period of time, either prior to installation or during use, it is recommended that the unit be filled completely with oil to protect interior parts from rust corrosion due to internal condensation. Be sure to drain the oil to the proper level before placing the speed reducer in service. A long term storage option is available on new units. Contact us for details.

5. Low Input Speeds (Under 1160 RPM)

When input speeds are less than 1160 RPM, grease fittings will be required to lubricate any bearings not partially covered by the normal oil level. Such units are considered non-standard and necessitate

factory modification. These fittings must be lubricated every 3-6 months depending on operating conditions using a high quality lithium base NLGI #2 bearing grease (NLGI #1½ for synthetic oils). Bearing greases must be compatible with the type of gear lubricant being used (ie. mineral, synthetic, food grade, etc.) and the ambient temperature range. If this low speed operating condition exists and units are without the appropriate grease fittings, please contact the factory.

6. Oil Temperature

Speed reducers in normal operation can generate temperatures up to 200°F depending on the type of reducer and the severity of the application (loading, duration of service, ambient temperatures). Excessive oil temperatures may be the result of one or more of the following factors:

A. Overloads

Overloads may be due to the original unit selection being too small for the application, or increased loads on the speed reducer to a point where its rating is exceeded after it has been in service for a period of time. Always check the speed reducer rating when increasing driven loads or increasing the horsepower rating of the motor or other prime mover.

B. Overfilling or Underfilling

If a speed reducer is overfilled with oil, the energy used in churning the excessive oil can result in overheating. If this occurs, shut down the drive, remove the oil level plug and allow oil to drain until oil ceases to drain from the level hole, reinstall the oil level plug and restart the drive. If the speed reducer is underfilled, the resultant friction can cause overheating and possible damage. If this occurs, fill the speed reducer to the oil level plug hole and check the gearing for excessive wear.

C. Inadequate Cooling

In order to dissipate internally generated heat, the speed reducer must be installed in such a way that air can circulate freely. Tightly confined areas (inside cabinets, etc.) should be avoided. If this is not possible, forced air cooling by means of a separate blower should be used.

APPENDIX D
WATER PUMPS

Installation, Operation and Maintenance Instructions Model 3656/3756

A9700199

DESCRIPTION & SPECIFICATIONS:

The Models 3656 (close-coupled) and 3756 (frame-mounted) are single-stage end-suction pumps for general service, liquid transfer, booster applications, etc. They are available in three different materials of construction: all-iron, bronze-fitted and all-bronze ("S" Group only). Application will depend on the material of construction.

The pumps have fully enclosed impellers, key driven and held in position by an axial bolt and washer. Casings are full volute in design with replaceable wear ring. Depending on the size, they have either threaded or flanged inlet and discharge connections. Shafts are protected by stainless steel sleeves and shaft sealing is with mechanical seal.

Close-coupled units have NEMA frame motors, C-face mounting, JM shaft extension. Frame mounted units can be coupled to motors through a spacer coupling, or belt driven.

1. Important:

- 1.1. Inspect unit for damage. Report damage to carrier immediately.
- 1.2. Electrical supply must be a separate branch circuit with fuses or circuit breakers, wire size, etc., per National and Local electrical codes. Install an all-leg disconnect switch near pump.

CAUTION

Always disconnect electrical power when handling pump or control.

- 1.3. Motor must be wired for proper voltage (check nameplate). Wire size must limit maximum voltage drop to 10% of nameplate voltage at motor terminals, or motor life and pump performance will be lowered.
- 1.4. Always use horsepower-rated contactors and starters.
- 1.5. Motor Protection

1.5.1. Single-phase: Thermal protection for single-phase unit is sometimes built in (check nameplate). If no built-in protection is provided, use a contactor with a proper overload. Fusing is permissible.

1.5.2. Three-Phase: Provide three-leg protection with properly sized magnetic starter and thermal overloads.

- 1.6. Maximum Liquid Temperatures:
212°F (100°C) with standard seal.
250°F (120°C) with optional high temperature seal.

1.7. Allowable operating pressure: 175 PSI.

1.8. Maximum number of starts per hour: 20, evenly distributed.

1.9. Regular inspection and maintenance will increase service life. Base schedule on operating time. Refer To Section 8.

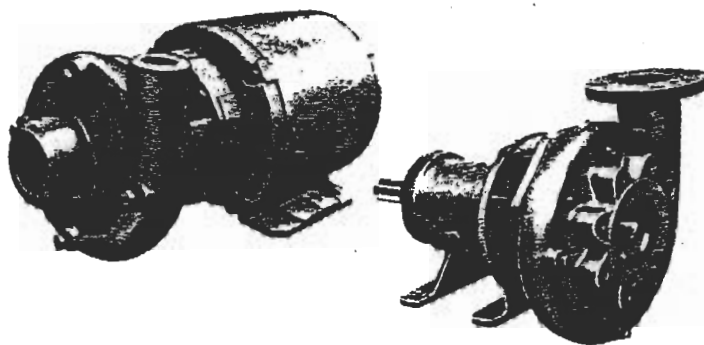
2. Installation:

2.1. General

- 2.1.1. Locate pump as near liquid source as possible (below level of liquid for automatic operation).

CAUTION

Do not install with motor below pump. Any leakage or condensation will effect the motor.



- 2.1.2. Protect from freezing or flooding.
- 2.1.3. Allow adequate space for servicing and ventilation.
- 2.1.4. All piping must be supported independently of the pump, and must "line-up" naturally.

CAUTION

Never draw piping into place by forcing the pump suction and discharge connection.

2.1.5. Avoid unnecessary fittings. Select sizes to keep friction losses to a minimum.

2.1.6. After the piping is complete rotate the unit by hand to check for any binding.

2.2. Close-coupled units:

2.2.1. Units may be installed horizontally, inclined or vertically.

2.2.2. Foundation must be flat and substantial to eliminate strain when tightening bolts. Use rubber mounts to minimize noise and vibration.

2.2.3. Tighten motor hold-down bolts before connecting piping to pump.

2.3. Frame-mounted units:

2.3.1. Bedplate must be grouted to a foundation with solid footing. Refer to Fig. 1.

2.3.2. Place unit in position on wedges located at four points (two below approximate center of driver and two below approximate center of pump). Adjust wedges to level unit. Level or plumb suction and discharge flanges.

2.3.3. Make sure bedplate is not distorted and final coupling alignment can be made within the limits of movement of motor and by shimming, if necessary.

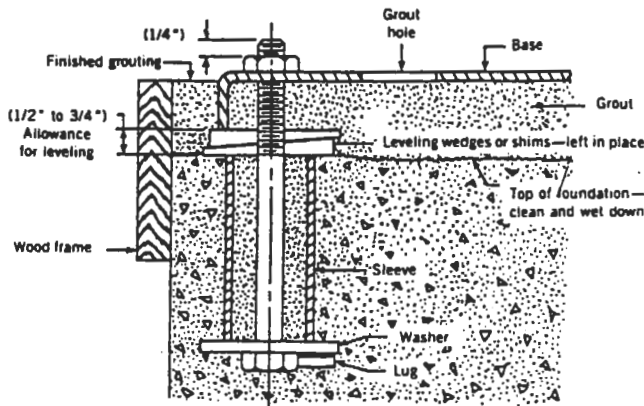


Figure 1

8.2.1. Bearing frame should be regreased every 2,000 hours or 3 month interval, whichever occurs first. Use a #2 sodium or lithium based grease. Fill until grease comes out of relief fittings, or lip seals, then wipe off excess.

8.2.2 Follow motor and coupling manufacturers' lubrication instructions.

8.2.3. Alignment must be rechecked after any maintenance work involving any disturbance of the unit.

9. Disassembly:

Complete disassembly of the unit will be described. Proceed only as far as required to perform the maintenance work needed.

9.1. Turn off power.

9.2. Drain system. Flush if necessary.

9.3. Close-Coupled Units: Remove motor hold-down bolts.

Frame-Mounted Units Remove coupling, spacer, coupling guard and frame hold-down bolts.

9.4. Disassembly of Liquid End:

9.4.1. Remove casing bolts (370).

9.4.2. Remove back pull-out assembly from casing (100).

9.4.3. Unscrew impeller bolt (198) with a socket wrench.

CAUTION

Do not insert screwdriver between impeller vanes to prevent rotation.

It may be necessary to use a strap wrench around the impeller if impacting the socket wrench will not loosen the impeller blot. Hold shaft on frame mounted units.

9.4.4. Remove impeller washer (199).

9.4.5. Use two pry bars, 180 degrees apart, to remove the impeller (101) from shaft.

9.4.6. Remove impeller key (178) and seal spring.

9.4.7. Remove mechanical seal (383) rotating member by using two pry bars, 180 degrees apart. Gently break the bond between the shaft sleeve (126) and the rubber part of the mechanical seal by wedging.

9.4.8. Remove mechanical seal stationary seat by unbolting the adapter (108) from the motor or bearing frame and pushing the seat and rubber cup from the motor side. Adapters for close coupled and frame mounted units are the same.

On all-bronze units a separate seal housing (not illustrated) is used. Unbolt the seal housing from the adapter and remove the stationary seat as explained previously.

9.4.9. Shaft sleeve is bonded and sealed to the shaft with locking compound (Loctite 271, or equal). The bond must be broken before removal can be attempted. Break bond by heating the sleeve with a torch to about 250°F to 300°F. Pull off sleeve.

9.4.10. Casing wear rig (103) and/or seal housing wear ring (203) is removed by drilling a hole about the size of the ring thickness axially to relieve tension. Chisel off the ring toward center.

9.5. Disassembly of Bearing Frame:

9.5.1. Remove bearing cover (134).

9.5.2. Remove shaft assembly from frame (228).

9.5.3. Remove lip seals (333A) from bearing frame and bearing cover.

9.5.4. Straighten tang in lockwasher (382). Remove locknut (136) and lockwasher.

9.5.5. Use bearing puller or arbor press to remove ball bearings (112 & 168).

10. Reassembly:

10.1. All parts should be cleaned before assembly.

10.2. Refer to parts list to identify required replacement items. Specify pump index number when ordering parts.

10.3. Reassembly is the reverse of disassembly.

10.4. Observe the following when reassembling the bearing frame:

10.4.1. Replace lip seals if worn or damaged.

10.4.2. Replace ball bearings if loose, rough or noisy when rotated.

10.4.3. Check shaft for rumout at the sleeve area. Maximum permissible is .002" T.I.R.

10.5. Observe the following when reassembling the liquid-end:

10.5.1. Shaft sleeve is locked and sealed against the shaft with locking compound. Shaft and sleeve bore must be clean and oil free. Apply Loctite #271 (Goulds part no. AL2172), or equal, on shaft where sleeve fits. Slide shaft sleeve over shaft, twisting back and forth a couple of times to evenly spread the compound.

CAUTION

Sleeve must seat against shaft shoulder. Let cure according to instructions. Wipe off uncured excess compound.

10.5.2. All mechanical seal components must be in good condition or leakage may result. Replacement of complete seal assembly, whenever seal has been removed, is good standard practice.

It is permissible to use a light lubricant, such as glycerine, for the mechanical seal seat and on the shaft to facilitate assembly. Do not contaminate the mechanical seal sealing faces with lubricant.

10.5.3. If wear ring is being replaced, use no lubricants on the metal-to-metal fit when pressing in the replacement.

10.5.4. Use a new impeller bolt.

10.5.5. Inspect seal housing O-ring (513) and replace if damaged.

10.6. Check reassembled unit for binding. Correct as required.

11. Trouble Shooting Chart:

MOTOR NOT RUNNING:

(See Cases 1 thru 6)

LITTLE OR NO LIQUID DELIVERED:

(See Cases 7 thru 17)

POWER CONSUMPTION TOO HIGH:

(See Cases 4, 17, 18, 19, 22)

EXCESSIVE NOISE AND VIBRATION:

(See Cases 4, 6, 9, 13, 15, 16, 18, 20, 21, 22)

PROBABLE CAUSE:

1. Tripped thermal protector

2. Open circuit breaker

3. Blown fuse

4. Rotating parts binding

5. Motor wired improperly

6. Defective motor

7. Not primed

8. Discharge plugged or valve closed

9. Incorrect rotation

10. Foot valve too small or suction not submerged

11. Low voltage

12. Phase loss

13. Air or gases in liquid

14. System head too high

15. NPSHA too low:

Suction lift too high or friction losses excessive. Check with vacuum gauge

16. Impeller worn or plugged

17. Incorrect impeller diameter

18. Head too low causing excessive flow rate

19. Viscosity or specific gravity too high

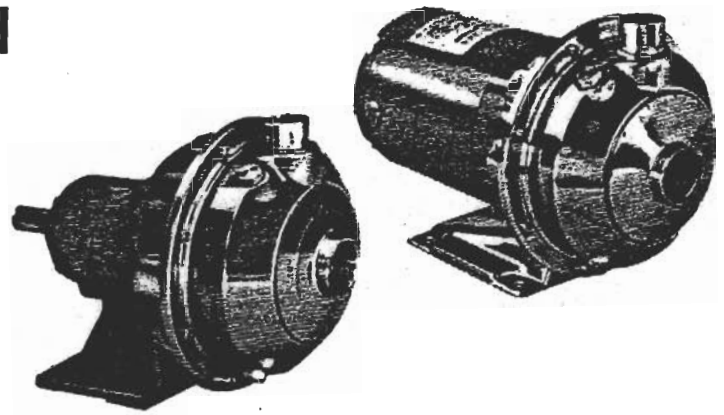
20. Worn bearings

21. Pump or piping loose

22. Pump and motor misaligned

Installation, Operation and Maintenance Instructions

Model NPE/ NPE-F



DESCRIPTION & SPECIFICATIONS:

The Models NPE (close-coupled) and NPE-F (frame-mounted) are end suction, single stage centrifugal pumps for general liquid transfer service, booster applications, etc. Liquid-end construction is all AISI Type 304 stainless steel, stamped and welded. Impellers are fully enclosed, non-trimable to intermediate diameters. Casings are fitted with a diffuser for efficiency and for negligible radial shaft loading.

Close-coupled units have NEMA 48J or 56J motors with C-face mounting and threaded shaft extension. Frame-mounted units can be coupled to motors through a spacer coupling, or belt driven.

1. Important:

1.1. Inspect unit for damage. Report any damage to carrier/dealer immediately.

1.2. Electrical supply must be a separate branch circuit with fuses or circuit breakers, wire sizes, etc., per National and Local electrical codes. Install an all-leg disconnect switch near pump.

CAUTION

Always disconnect electrical power when handling pump or controls.

1.3. Motors must be wired for proper voltage. Motor wiring diagram is on motor nameplate. Wire size must limit maximum voltage drop to 10% of nameplate voltage at motor terminals, or motor life and pump performance will be lowered.

1.4. Always use horsepower-rated switches, contactor and starters.

1.5. Motor Protection

1.5.1. Single-phase: Thermal protection for single-phase units is sometimes built in (check nameplate). If no built-in protection is provided, use a contactor with a proper overload. Fusing is permissible.

1.5.2. Three-phase: Provide three-leg protection with properly sized magnetic starter and thermal overloads.

1.6. Maximum Operating Limits:

Liquid Temperature: 212 F (100 C) with standard seal.
250 F (120 C) with optional high temp seal.
Pressure: 75 PSI.
Starts Per Hour: 20, evenly distributed.

1.7. Regular inspection and maintenance will increase service life. Base schedule on operating time. Refer to Section 8.

2. Installation:

2.1. General

2.1.1. Locate pump as near liquid source as possible (below level of liquid for automatic operation).

2.1.2. Protect from freezing or flooding.

2.1.3. Allow adequate space for servicing and ventilation.

2.1.4. All piping must be supported independently of the pump, and must "line-up" naturally.

CAUTION

Never draw piping into place by forcing the pump suction and discharge connections.

2.1.5. Avoid unnecessary fittings. Select sizes to keep friction losses to a minimum.

2.2. Close-Coupled Units:

2.2.1. Units may be installed horizontally, inclined or vertically.

CAUTION

Do not install with motor below pump. Any leakage or condensation will affect the motor.

2.2.2. Foundation must be flat and substantial to eliminate strain when tightening bolts. Use rubber mounts to minimize noise and vibration.

2.2.3. Tighten motor hold-down bolts before connecting piping to pump.

2.3. Frame-Mounted Units:

2.3.1. Bedplate must be grouted to a foundation with solid footing. Refer to Fig. 1.

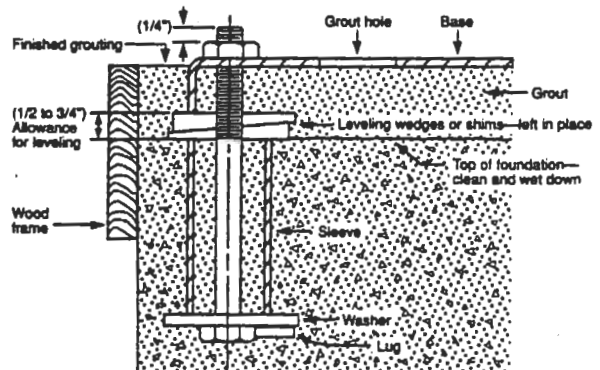


Figure 1

conditions and temperature has stabilized. Check for expansion of piping. On frame-mounted units coupling alignment may have changed due to the temperature differential between pump and motor. Recheck alignment.

8. Maintenance:

8.1. Close-Coupled Unit. Ball bearings are located in and are part of the motor. They are permanently lubricated. No greasing required.

8.2. Frame-Mounted Units:

8.2.1. Bearing frame should be regreased every 2,000 hours or 3 month interval, whichever occurs first. Use a #2 sodium or lithium based grease. Fill until grease comes out of relief fittings, or lip seals, then wipe off excess.

8.2.2. Follow motor and coupling manufacturers' lubrication instructions.

8.2.3. Alignment must be rechecked after any maintenance work involving any disturbance of the unit.

9. Disassembly:

Complete disassembly of the unit will be described. Proceed only as far as required to perform the maintenance work needed.

9.1. Turn off power.

9.2. Drain system. Flush if necessary.

9.3. Close-Coupled Units: Remove motor hold-down bolts.

Frame-Mounted Units: Remove coupling, spacer, coupling guard and frame hold-down bolts.

9.4. Disassembly of Liquid End:

9.4.1. Remove casing bolts (370).

9.4.2. Remove back pull-out assembly from casing (100).

9.4.3. Remove impeller locknut (304).

CAUTION

Do not insert screwdriver between impeller vanes to prevent rotation of close-coupled units. Remove cap at opposite end of motor. A screwdriver slot or a pair of flats will be exposed. Using them will prevent impeller damage.

9.4.4. Remove impeller (101) by turning counter-clockwise when looking at the front of the pump. Protect hand with rag or glove.

CAUTION

Failure to remove the impeller in a counter-clockwise direction may damage threading on the impeller, shaft or both.

9.4.5. With two pry bars 180 degrees apart and inserted between the seal housing (184) and the motor adapter (108), carefully separate the two parts. The mechanical seal rotary unit (383) should come off the shaft with the seal housing.

9.4.6. Push out the mechanical seal stationary seat from the motor side of the seal housing.

9.5. Disassembly of Bearing Frame:

9.5.1. Remove bearing cover (109).

9.5.2. Remove shaft assembly from frame (228).

9.5.3. Remove lip seals (138 & 139) from bearing frame and bearing cover if worn and are being replaced.

9.5.5. Use bearing puller or arbor press to remove ball bearings (112 & 168).

10. Reassembly:

10.1. All parts should be cleaned before assembly.

10.2. Refer to parts list to identify required replacement items. Specify pump index or catalog number when ordering parts.

10.3. Reassembly is the reverse of disassembly.

10.4. Observe the following when reassembling the bearing frame:

10.4.1. Replace lip seals if worn or damaged.

10.4.2. Replace ball bearings if loose, rough or noisy when rotated.

10.4.3. Check shaft for runout. Maximum permissible is .002" T.I.R.

10.5. Observe the following when reassembling the liquid-end:

10.5.1. All mechanical seal components must be in good condition or leakage may result. Replacement of complete seal assembly, whenever seal has been removed, is good standard practice.

It is permissible to use a light lubricant, such as glycerin, to facilitate assembly. Do not contaminate the mechanical seal faces with lubricant.

10.5.2. Inspect casing O-ring (513) and replace if damaged. This O-ring may be lubricated with petroleum jelly to ease assembly.

10.5.3. Inspect guidevane O-ring (349) and replace if worn.

CAUTION

Do not lubricate guidevane O-ring (349). Insure it is not pinched by the impeller on reassembly.

10.6. Check reassembled unit for binding. Correct as required.

10.7. Tighten casing bolts in a star pattern to prevent O-ring binding.

11. Trouble Shooting Chart:

MOTOR NOT RUNNING

(See causes 1 thru 6)

LITTLE OR NO LIQUID DELIVERED:

(See causes 7 thru 17)

POWER CONSUMPTION TOO HIGH:

(See causes 4, 17, 18, 19, 22)

EXCESSIVE NOISE AND VIBRATION:

(See causes 4, 6, 9, 13, 15, 16, 18, 20, 21, 22)

PROBABLE CAUSE:

1. Tripped thermal protector
2. Open circuit breaker
3. Blown fuse
4. Rotating parts binding
5. Motor wired improperly
6. Defective motor
7. Not primed
8. Discharge plugged or valve closed
9. Incorrect rotation
10. Foot valve too small, suction not submerged, inlet screen plugged.
11. Low voltage
12. Phase loss (3-phase only)
13. Air or gasses in liquid
14. System head too high
15. NPSHA too low:
Suction lift too high or suction losses excessive. Check with vacuum gauge.
16. Impeller worn or plugged
17. Incorrect impeller diameter
18. Head too low causing excessive flow rate
19. Viscosity or specific gravity too high.
20. Worn bearings
21. Pump or piping loose
22. Pump and motor misaligned

Instrucciones De Instalación, Operación Y Mantenimiento

Modelo NPE/ NPE-F

DESCRIPCIÓN Y ESPECIFICACIONES:

Los modelos NPE (compacto) y NPE-F (montado en marco) son bombas centrífugas de una etapa, de succión axial para el servicio de transferencia de líquidos en general, aplicaciones de refuerzo de presión, etc. La construcción del extremo sumergido es toda de AISI (Instituto Norteamericano del Hierro y el Acero) de acero inoxidable Tipo 304, estampada y soldada. Los impulsores son totalmente cerrados, y no se pueden recortar a diámetros intermedios. Las carcasas están equipadas con un difusor para eficiencia y que las cargas radiales sean negligibles en el eje.

Las unidades compactas tienen motores NEMA 48J o 561, con montaje de cara C y extensión roscada del eje. Las unidades montadas en marco se pueden acoplar a los motores a través de un espaciador de acoplamiento, o ser accionadas por correa.

1. Importante:

1.1. Inspeccione si la unidad tiene daños. Informe inmediatamente de cualquier daño al transportista o al agente.

1.2. La alimentación eléctrica debe ser un circuito separado con los fusibles o interruptores automáticos, tamaños de alambres, etc., de acuerdo con los Códigos Eléctricos Nacional y Local. Instale un interruptor de desconexión en todos los alambres cerca de la bomba.

PRECAUCIÓN

Siempre desconecte la corriente eléctrica cuando maneje la bomba o los controles.

1.3. El cableado de los motores debe ser adecuado para la tensión. El diagrama del cableado del motor está en la placa del fabricante del motor. El tamaño de los alambres debe limitar la máxima caída de tensión al 10% de la tensión de la placa del fabricante en los terminales del motor, o la vida del motor y el rendimiento de la bomba se disminuirán.

1.4. Siempre use interruptores, contactores y arrancadores con clasificación de potencia nominal.

1.5. Protección del motor

1.5.1. Monofásico: La protección térmica en las unidades monofásicas a veces está incorporada (verifique la placa del fabricante). Si no se provee protección incorporada, use un contactor con la sobrecarga apropiada. Se permite usar fusible.

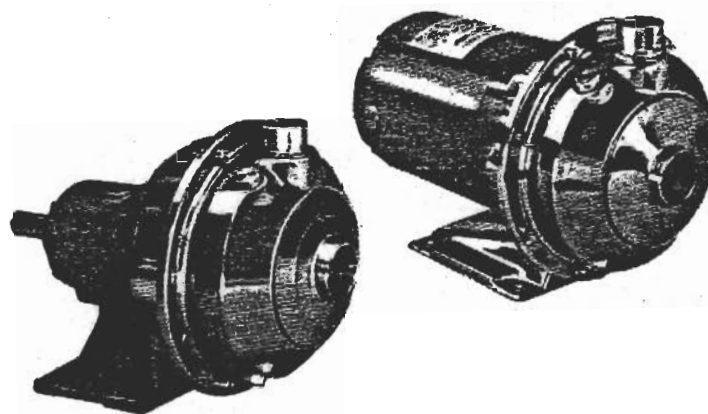
1.5.2. Trifásico: Proporcione protección en los tres alambres con arrancador magnético de tamaño apropiado y sobrecargas térmicas.

1.6. Límites máximos de operación:

Temperatura del líquido: 210°F (100°C) con sello estándar
250°F (120°C) con sello de alta temperatura opcional

Presión: 75 lib/pulg²
Arranques por hora: 20, distribuidos uniformemente

1.7. La inspección y el mantenimiento regular aumentarán la vida de servicio. Establezca el programa de acuerdo al tiempo de funcionamiento. Refiérase a la Sección 8.



2. Instalación:

2.1. Generalidades

2.1.1. Coloque la bomba tan cerca de la fuente del líquido como sea posible (debajo del nivel del líquido para operación automática).

2.1.2. Proteja de la congelación o inundación.

2.1.3. Deje espacio libre adecuado para el servicio y la ventilación.

2.1.4. Toda la tubería debe estar soportada independientemente de la bomba, y debe "estar alineada" naturalmente.

PRECAUCIÓN

Nunca estire la tubería en el lugar forzando las conexiones de la succión y descarga de la bomba.

2.1.5. Evite los accesorios innecesarios. Seleccione los tamaños para mantener las pérdidas de fricción al mínimo.

2.2. Unidades compactas:

2.2.1. Estas unidades pueden instalarse horizontalmente, inclinadas o verticalmente.

PRECAUCIÓN

No instale con el motor debajo de la bomba. Cualquier fuga o condensación afectará al motor.

2.2.2. La cimentación debe ser plana y substancial para eliminar las deformaciones cuando se aprietan los pernos. Use montajes de goma para minimizar el ruido y las vibraciones.

2.2.3. Apriete los pernos de sujeción del motor antes de conectar la tubería a la bomba.

2.3. Unidades montadas en marco:

2.3.1. La placa de base debe estar unida, con lechada, a una cimentación con zapata sólida. Vea la Fig. 1.

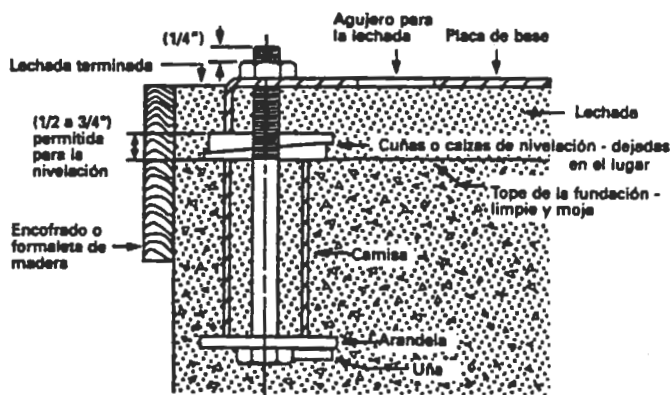


Figura 1

Directives d'installation,
d'utilisation et d'entretien

Modèles NPE et NPE-F

DESCRIPTION ET CARACTÉRISTIQUES

Les pompes de modèles NPE (montées sur moteur) et NPE-F (montées sur socle) sont des pompes centrifuges à un étage et à orifice d'aspiration situé à l'extrémité. Elles sont utilisées pour le transfert général de liquides, le gavage, etc. Les composants de la pompe proprement dite sont tous en inox AISI de type 304 estampé ou soudé. L'impulseur est de type fermé. On ne peut l'usiner pour en réduire le diamètre. Le corps de pompe est muni d'un diffuseur pour en améliorer l'efficacité et diminuer la charge radiale de l'arbre.

Les pompes de modèle NPE sont montées sur des moteurs NEMA 48J ou 56J au moyen d'un support (entretoise) en C. Le bout de l'arbre du moteur est fileté. Les pompes montées sur socle peuvent être reliées au moteur par un accouplement à entretoise ou par une courroie.

1. Informations importantes

1.1. Inspecter l'appareil et signaler immédiatement tout dommage au transporteur ou au détaillant.

1.2. L'alimentation en électricité doit être assurée par un circuit de dérivation distinct dont les fusibles ou les disjoncteurs, le calibre des fils, etc., sont conformes aux prescriptions du code provincial ou national de l'électricité. Poser un sectionneur tout conducteur près de la pompe.

ATTENTION

On doit toujours couper le courant lorsque l'on effectue quelque travail que ce soit sur la pompe ou les commandes.

1.3. Le câblage d'alimentation du moteur doit convenir à la tension de fonctionnement. Le schéma de câblage se trouve sur la plaque signalétique du moteur. Les fils doivent avoir un calibre limitant la chute de tension maximale, aux bornes du moteur, à 10 % de la valeur de tension indiquée sur la plaque signalétique, sinon la durée de vie du moteur et les performances de la pompe diminueront.

1.4. Il faut toujours employer des contacteurs et des démarreurs conçus pour les puissances nominales en horse-power (hp).

1.5. Protection du moteur

1.5.1. Moteurs monophasés – Ces moteurs sont parfois munis d'une protection thermique intégrée (consulter la plaque signalétique). Dans le cas contraire, utiliser un contacteur à protection appropriée contre les surcharges. Les dispositifs fusibles sont permis.

1.5.2. Moteurs triphasés – Employer une protection trois conducteurs appropriée contre les surcharges thermiques ainsi qu'un démarreur magnétique convenant à la charge électrique.

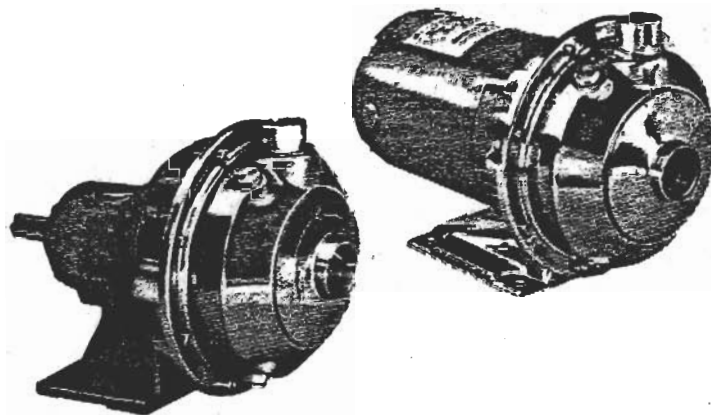
1.6. Limites d'utilisation maximales

Température du liquide: 100°C (212°F), avec joint standard;
120°C (250°F), avec joint pour hautes températures en option.

Pression: 517 kPa (75 lb/po²)

Démarrages par heure: 20, répartis uniformément

1.7. Une inspection et un entretien réguliers augmenteront la durée de vie de l'appareil. Établir un programme d'entretien et d'inspection basé sur le temps de fonctionnement. Voir la section 8.



2. Installation

2.1. Généralités

2.1.1. Placer la pompe aussi près de la source de liquide que possible, mais plus bas pour assurer l'amorçage automatique.

2.1.2. Protéger l'appareil contre les inondations et le gel.

2.1.3. Laisser assez d'espace pour l'entretien et l'aération.

2.1.4. La tuyauterie doit posséder ses propres supports et «s'aligner» correctement sur la pompe.

ATTENTION

Ne jamais tirer sur la tuyauterie pour la relier aux raccords d'aspiration et de refoulement.

2.1.5. Ne poser aucun accessoire de tuyauterie superflu. Choisir le calibre qui réduit les pertes de charge par frottement au minimum.

2.2. Pompes montées sur moteur:

2.2.1. Les pompes peuvent être installées sur une surface horizontale, inclinée ou verticale.

ATTENTION

Ne pas placer le moteur plus bas que la pompe afin de le protéger contre les fuites et l'eau de condensation.

2.2.2. L'assise doit être plane et solide pour empêcher que le serrage des boulons ne cause de contraintes. Monter l'appareil sur caoutchouc pour réduire le bruit et les vibrations au minimum.

2.2.3. Serrer les boulons de fixation du moteur avant de raccorder la tuyauterie à la pompe.

2.3. Pompes montées sur socle:

2.3.1. On doit fixer la plaque d'assise à une dalle reposant sur une semelle de fondation solide et remplir de coulis l'espace séparant la plaque et la dalle (V. fig. 1).

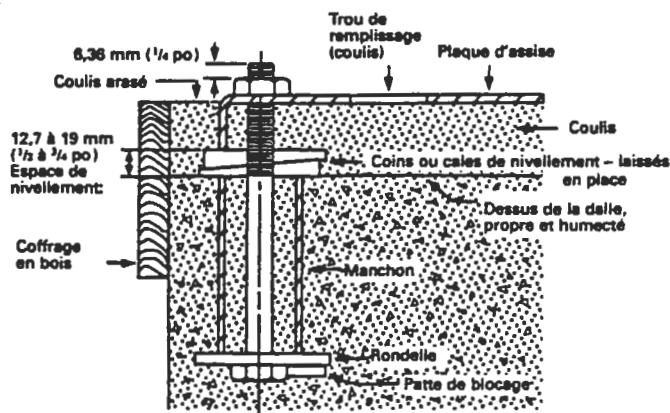


Figure 1

service normales et la stabilisation de la température, vérifier tout le système. Vérifier également si la tuyauterie s'est dilatée. Dans le cas des pompes montées sur socle, la différence de température entre le moteur et la pompe peut altérer le centrage de l'accouplement. Vérifier le centrage de nouveau.

8. Entretien

8.1. Dans le cas des pompes montées sur moteur, les roulements sont situés à l'intérieur du moteur et sont lubrifiés à vie. Aucun graissage n'est requis.

8.2. Pompes montées sur socle:

8.2.1. Les roulements de palier devraient être graissés toutes les 2000 heures ou tous les trois mois, soit la période prenant fin la première. Employer une graisse au lithium ou au sodium n° 2. Remplir le roulement jusqu'à ce que la graisse sorte par les garnitures ou par la lèvre des joints, puis essuyer le surplus.

8.2.2. Suivre les directives de lubrification du fabricant du moteur et de l'accouplement.

8.2.3. Vérifier le centrage de nouveau après tout travail d'entretien nécessitant le déplacement ou le desserrage des boulons de fixation de l'appareil.

9. Démontage

Le démontage complet de la pompe est décrit ci-dessous. Ne démonter que ce qui est approprié à l'entretien nécessaire.

9.1. Couper le courant.

9.2. Vidanger le système. Le rincer au besoin.

9.3. Dans le cas des pompes montées sur moteur, enlever les boulons de fixation de ce dernier. Quant aux pompes montées sur socle, enlever le grillage ou l'écran protecteur, l'entretoise, l'accouplement et les boulons de fixation du socle.

9.4. Pompe:

9.4.1. Enlever les vis de fixation (370) du corps de pompe.

9.4.2. Écarter l'ensemble pompe du corps de pompe (100).

9.4.3. Enlever l'écrou de blocage (304) de l'impulseur.

ATTENTION

Ne pas insérer de tournevis entre les aubes de l'impulseur pour l'empêcher de tourner: enlever le couvercle d'extrémité du moteur et utiliser la fente ou les méplats de blocage de l'arbre; on prévient ainsi l'endommagement de l'impulseur.

9.4.4. Dévisser l'impulseur (101) dans le sens antihoraire (vu du devant de la pompe). Se protéger les mains avec un linge ou des gants.

ATTENTION

Toute tentative de dévissage dans le sens horaire peut endommager les filets de l'impulseur ou de l'arbre, ou des deux.

9.4.5. Retirer le logement de joint (184) avec soin au moyen de deux leviers placés dans un angle de 180° entre le logement et l'adaptateur de moteur (108). L'élément tournant du joint mécanique (383) devrait sortir de l'arbre avec le logement.

9.4.6. Pousser l'élément immobile du joint mécanique hors du logement.

9.5. Palier:

9.5.1. Enlever le couvercle de palier (109).

9.5.2. Sortir l'arbre (122) du palier (228).

9.5.3. Si les joints à lèvre (138 et 139) sont usés et doivent être remplacés, les retirer du palier et du couvercle de palier.

9.5.4. À l'aide d'un arrache-roulement ou d'une presse à mandriner, extraire les roulements (112 et 168).

10. Remontage

10.1. Chaque pièce devrait être nettoyée avant le remontage.

10.2. Voir la liste des pièces pour déterminer celles qui sont requises. Préciser le numéro de pièce ou de catalogue de la pompe lorsque l'on commande des pièces.

10.3. Le remontage se fait dans l'ordre inverse du démontage.

10.4. Observer les directives suivantes pendant le remontage du palier:

10.4.1. Remplacer les joints à lèvre s'ils sont usés ou endommagés.

10.4.2. Remplacer les roulements à billes s'ils ont du jeu, s'ils ne tournent pas rond ou s'ils sont bruyants.

10.4.3. Vérifier si l'arbre comporte des faux-ronds: le faux-rond maximal admissible est de 0,051 mm (0,002 po).

10.5. Observer les directives suivantes pendant le remontage de la pompe:

10.5.1. Tous les composants du joint mécanique doivent être en bon état pour empêcher les fuites. Le remplacement du joint en entier est une pratique courante appropriée chaque fois que le joint est enlevé. On peut utiliser un lubrifiant léger comme la glycérine pour faciliter l'assemblage. Ne pas contaminer la surface du joint mécanique avec le lubrifiant.

10.5.2. Inspecter le joint torique (513) du corps de pompe et le remplacer s'il est endommagé. On peut employer du pétrolatum (vaseline) pour faciliter sa pose.

10.5.3. Inspecter le joint torique (349) de l'aube (enveloppe) directrice et le remplacer s'il est endommagé.

ATTENTION

Ne pas lubrifier le joint torique (349) de l'aube directrice. S'assurer que le joint n'est pas pincé par l'impulseur au cours du remontage.

10.6. Une fois la pompe remontée, vérifier s'il y a grippage. Apporter les corrections nécessaires.

10.7. Serrer les vis de fixation du corps de pompe en étoile pour prévenir le coincement du joint torique.

11. Diagnostic des anomalies

Moteur ne fonctionne pas
(V. causes 1 à 6)

Débit de liquide faible ou nul:
(V. causes 7 à 17)

Consommation d'électricité excessive:
(V. causes 4, 17, 18, 19 et 22)

Vibration et bruit excessifs:
(V. causes 4, 6, 9, 13, 15, 16, 18, 20, 21 et 22)

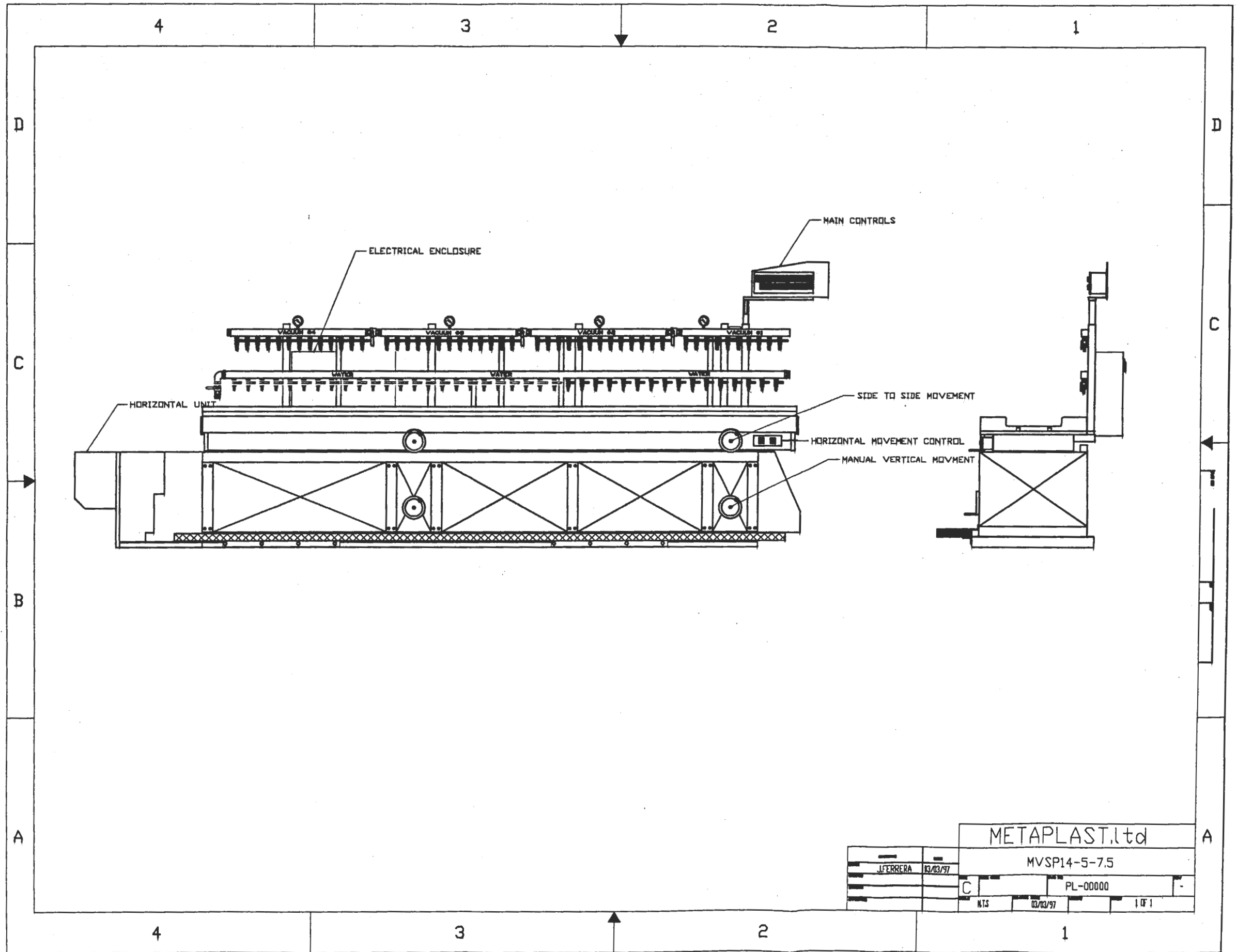
CAUSES PROBABLES:

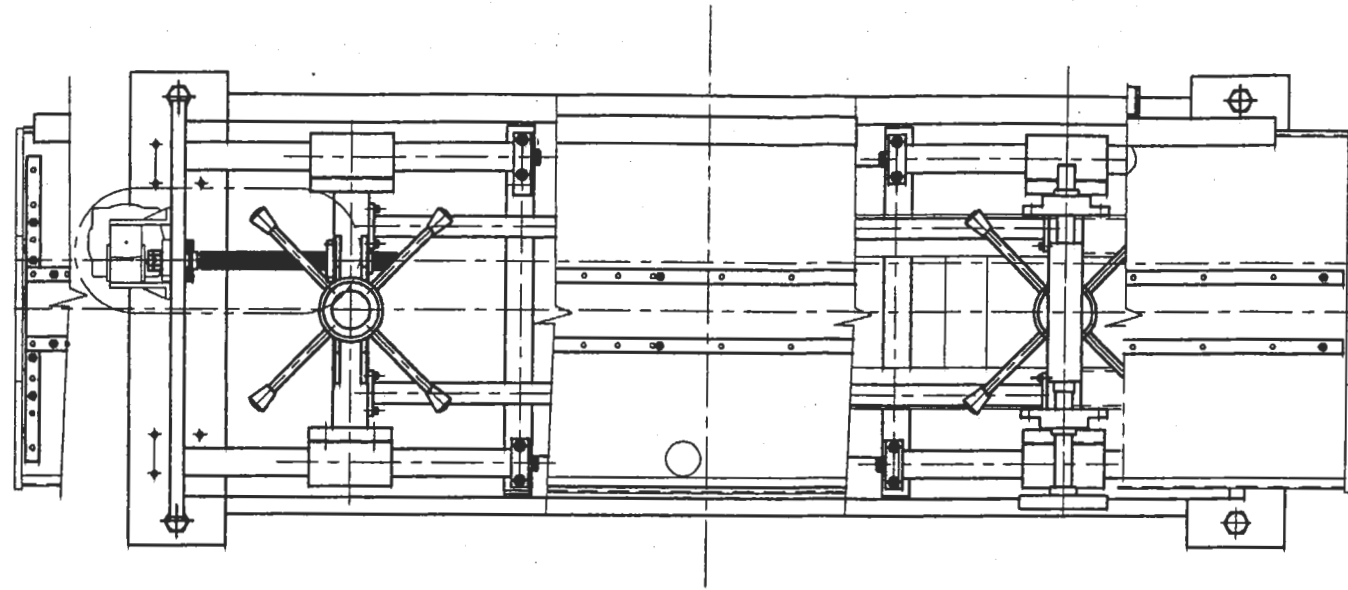
1. Protecteur thermique déclenché.
2. Disjoncteur ouvert.
3. Fusible sauté.
4. Pièces tournantes grippées.
5. Moteur mal connecté.
6. Moteur défectueux.
7. Pompe non amorcée.
8. Tuyau de refoulement obstrué ou robinet fermé.
9. Mauvais sens de rotation.
10. Clapet de pied trop petit, entrée de tuyau d'aspiration non submergée, crépine de tuyau d'aspiration obstruée.
11. Basse tension électrique.
12. Perte de phase (moteurs triphasés seulement).
13. Présence d'air ou de gaz dans le liquide.
14. Hauteur du système trop grande.
15. Charge nette absolue à l'aspiration trop faible – hauteur ou perte d'aspiration excessives – vérifier avec un vacuomètre.
16. Impulseur usé ou obstrué.
17. Diamètre d'impulseur inapproprié.
18. Hauteur trop faible – vitesse d'écoulement excessive.
19. Viscosité ou densité trop élevée.
20. Roulements usés.
21. Pompe ou tuyauterie mal assujetties.
22. Pompe et moteur désalignés.

APPENDIX A

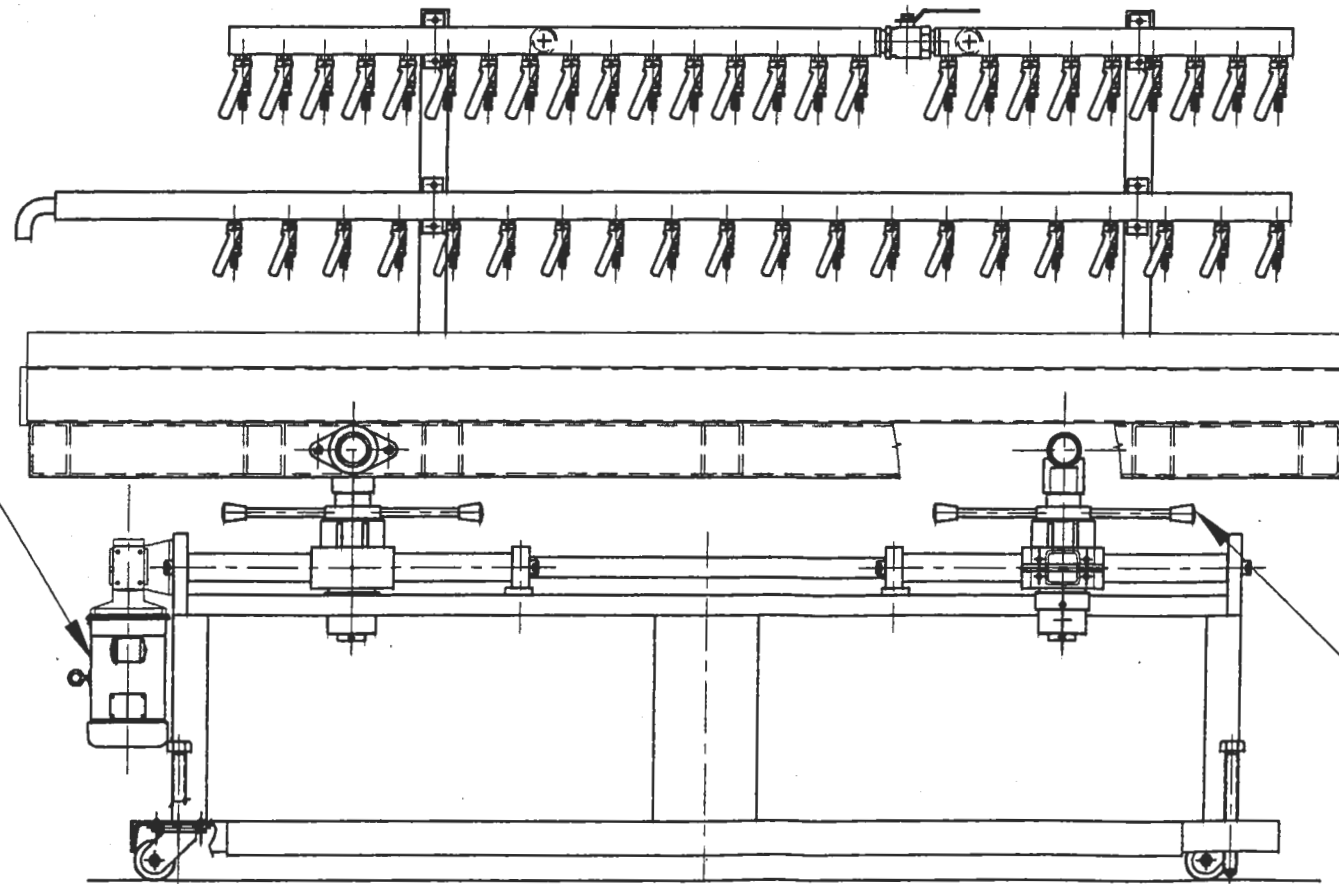
DRAWINGS
MVSP-R & MVSP

APPENDIX B
ELECTRIC DIAGRAM



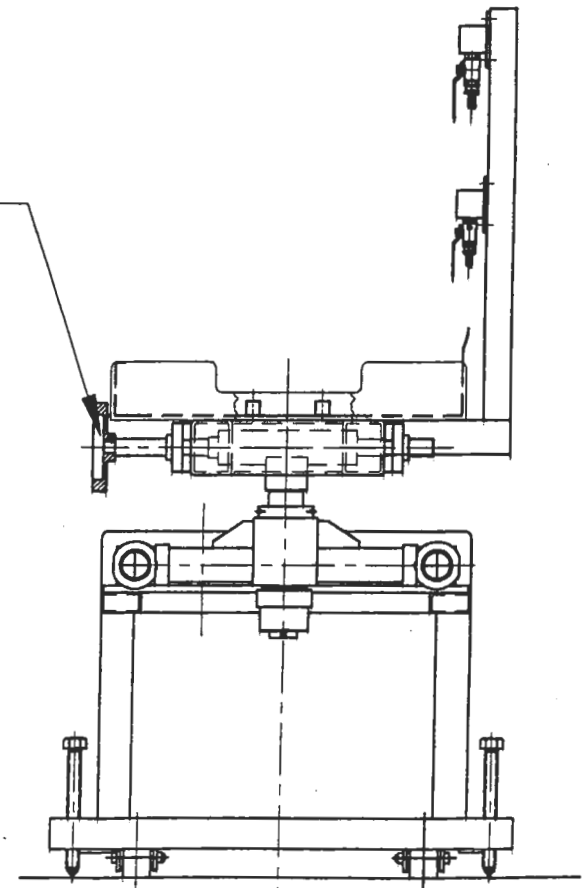


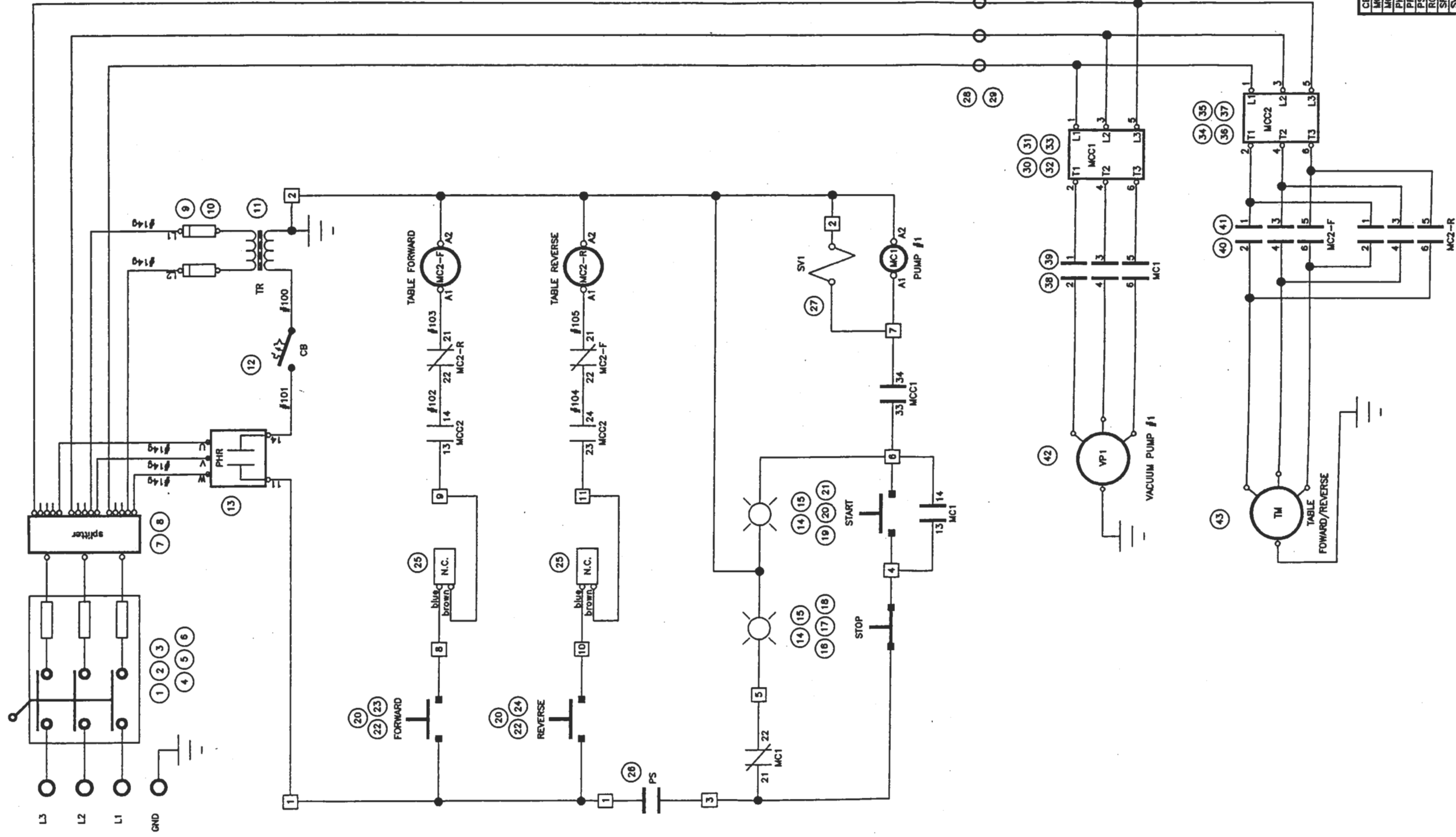
MOTORIZED
LEFT TO RIGHT



FRONT TO BACK MOVEMENT

HEIGHT ADJUSTMENT



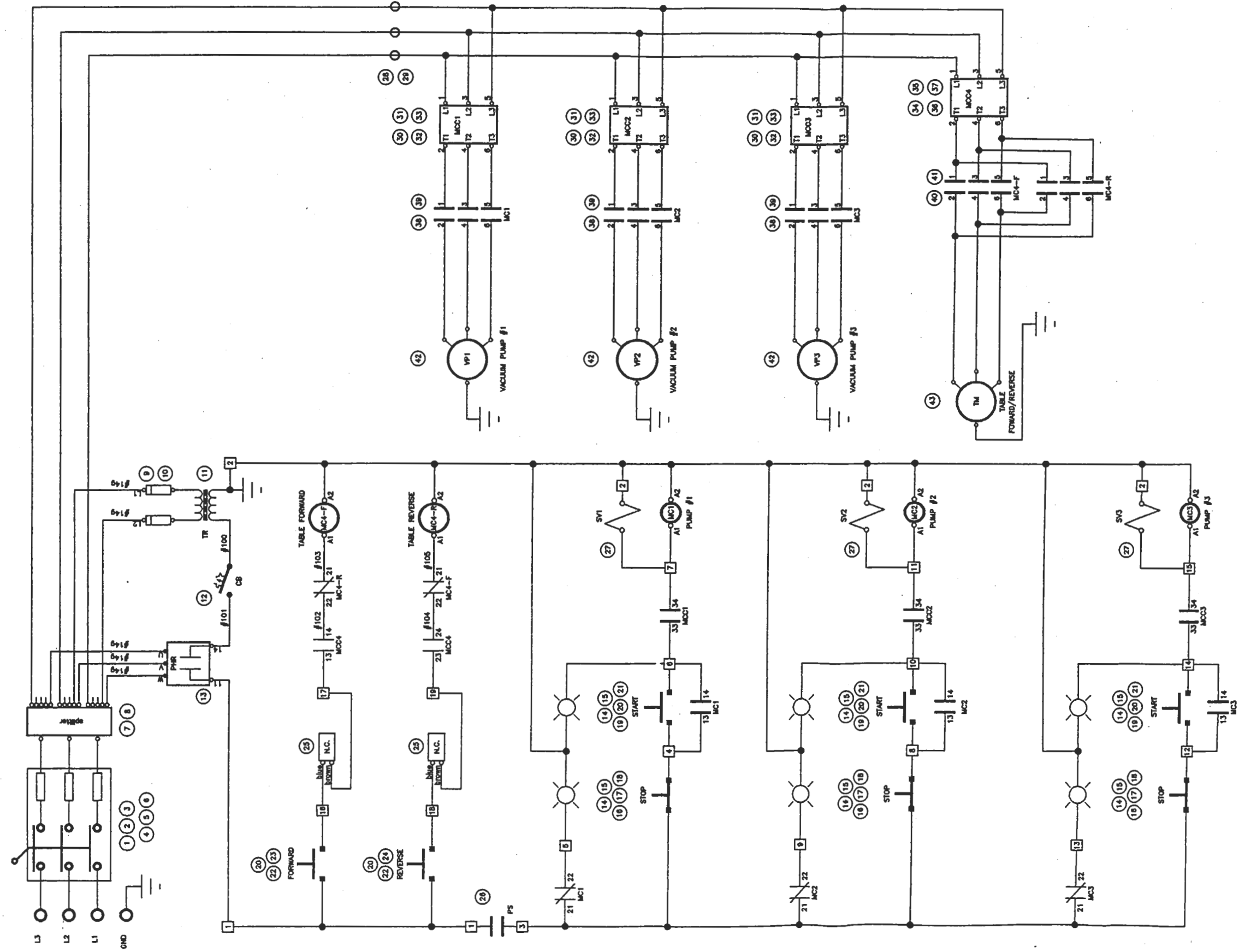


CB	=	CIRCUIT BREAKER
MC	=	MOTOR CONTACTOR
MCC	=	MOTOR CIRCUIT CONTROLLER
PHR	=	PHASE RELAY
PR	=	PROCESS PUMP
PS	=	PRESSURE SWITCH
RC	=	RECIRCULATION PUMP
SF	=	SOFT START
SV	=	SOLENOID VALVE
TM	=	TABLE MOTOR
TR	=	TRANSFORMER
VP	=	VACUUM PUMP

Conair-Metaplast Ltd.

TITLE : CALIBRATION TABLE
 ELECTRICAL : PRESSURE SWITCH, SOLENOID ON VACUUM PUMP
 TABLE MOVEMENT, 1x VACUUM PUMP AND SAFETY PHASE RELAY

Dwg# : 484-100-8005-00 DATE : 20/07/99



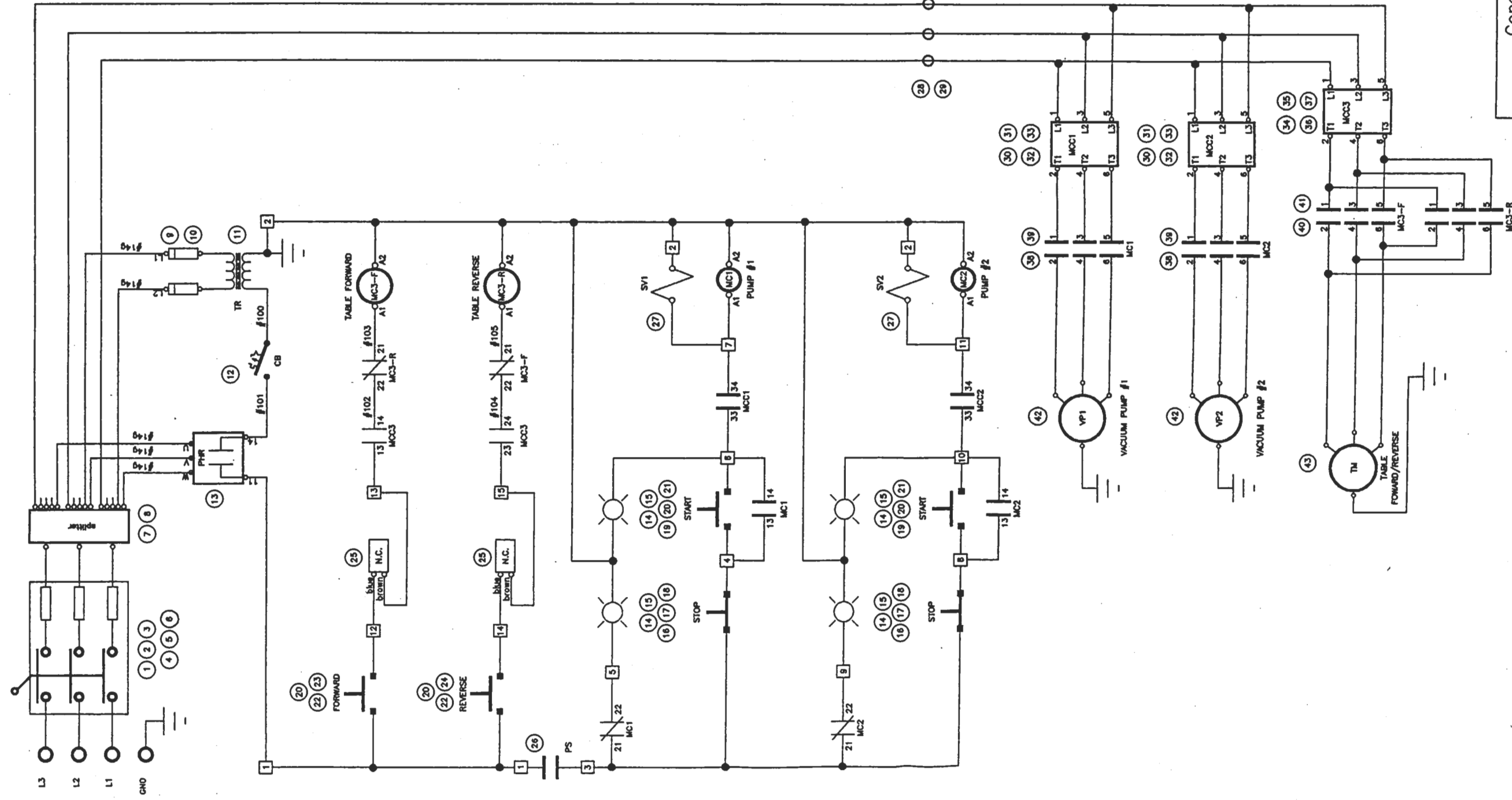
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99	STOP	3
100	START	3

Conair-Metaplast Ltd.

TITLE : CALIBRATION TABLE
 ELECTRICAL : PRESSURE SWITCH, SOLENOID ON VACUUM PUMP.
 TABLE MOVEMENT, 3x VACUUM PUMP AND SAFETY PHASE RELAY

DWG# : 484-100-9007-00

DATE : 20/07/99



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MCC	=	MOTOR CIRCUIT CONTROLLER
PHR	=	PHASE RELAY
PR	=	PROCESS PUMP
PS	=	PRESSURE SWITCH
RC	=	RECIRCULATION PUMP
SF	=	SOFT START
SV	=	SOLENOID VALVE
TM	=	TABLE MOTOR
TR	=	TRANSFORMER
VP	=	VACUUM PUMP

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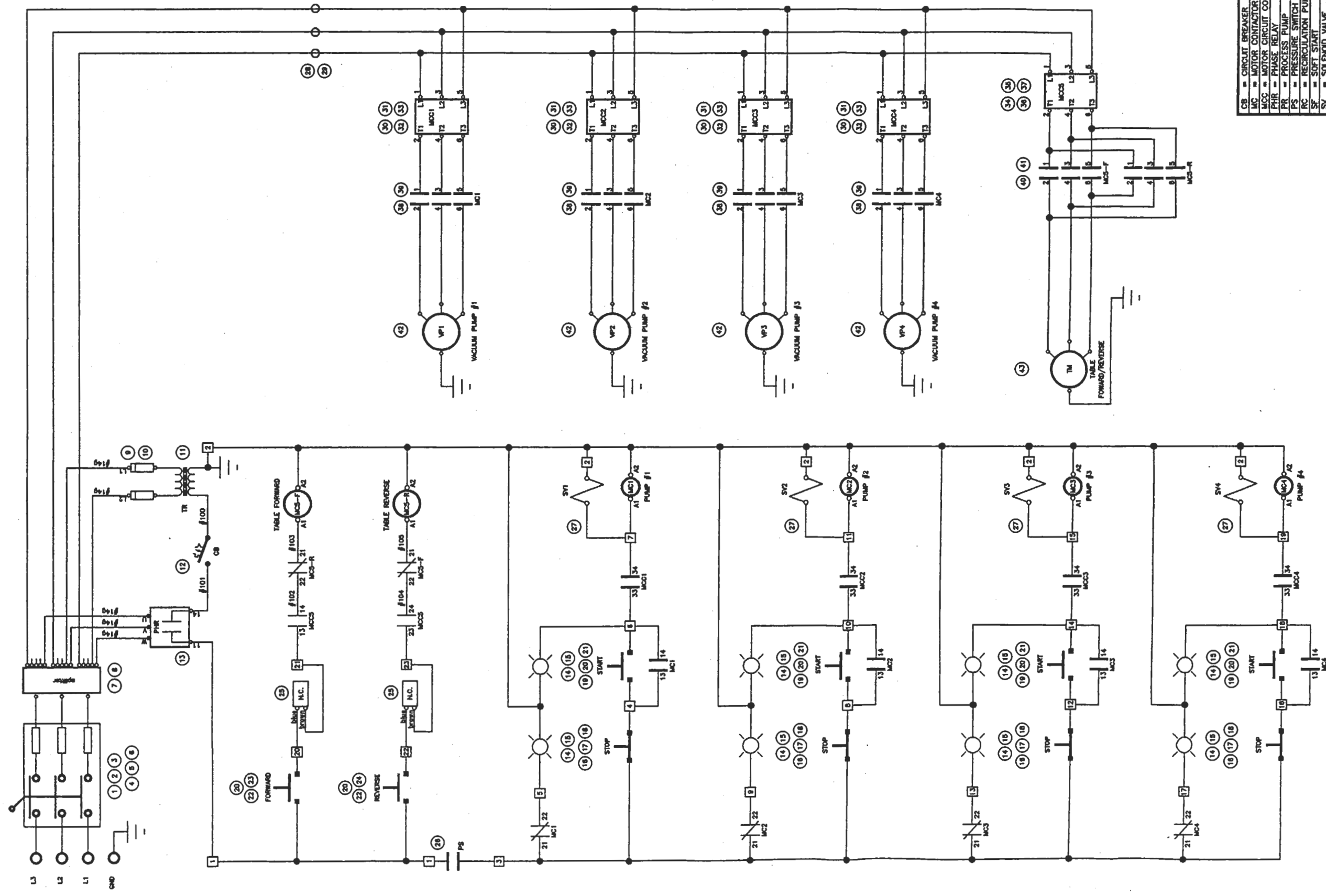
TITLE : CALIBRATION TABLE

ELECTRICAL : PRESSURE SWITCH, SOLENOID ON VACUUM PUMP

TABLE MOVEMENT, 2x VACUUM PUMP AND SAFETY PHASE RELAY

DWG# : 484-100-9006-00

DATE : 20/07/98

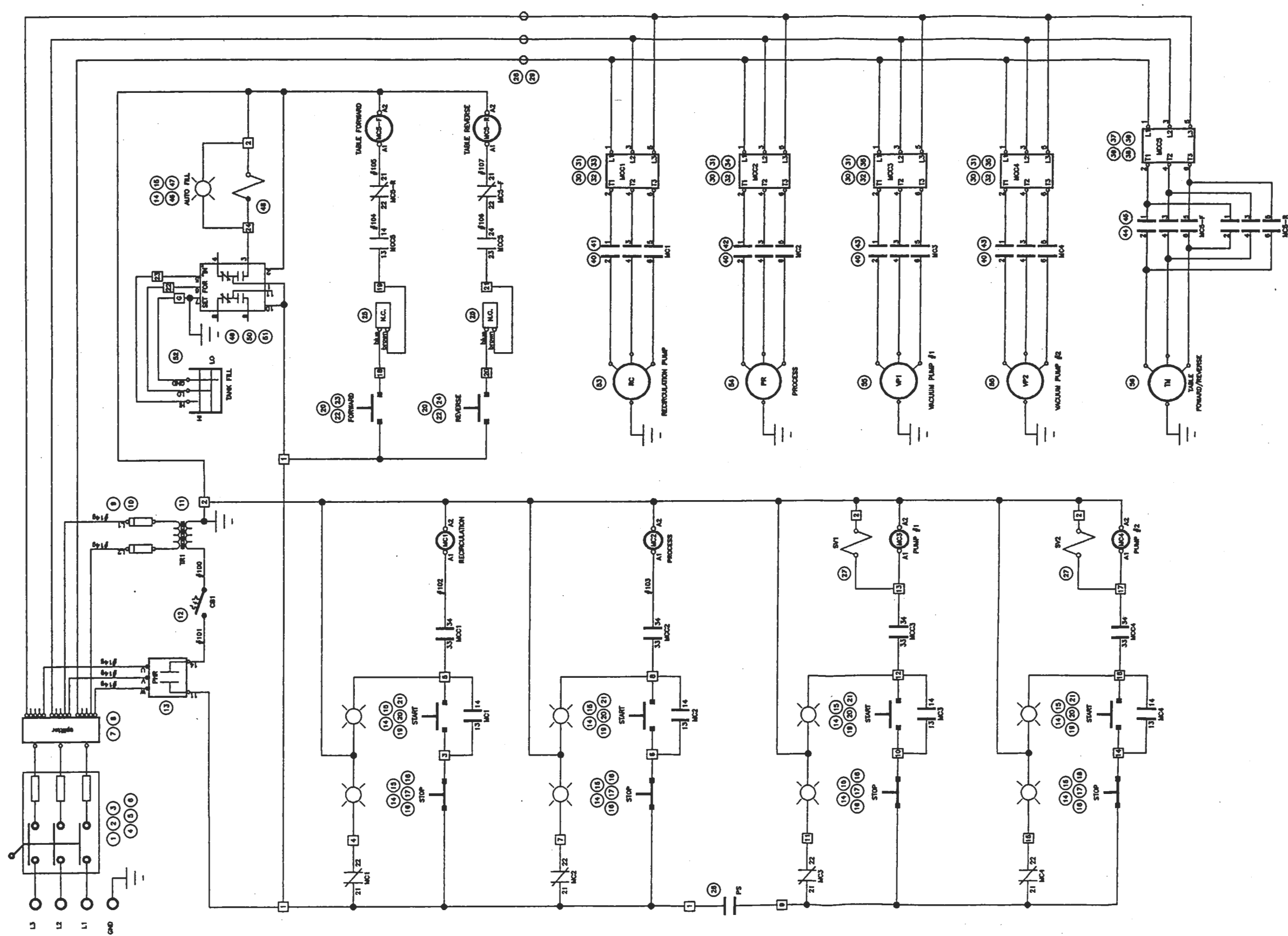


CB	=	CIRCUIT BREAKER
MC	=	MOTOR CONTACTOR
MCC	=	MOTOR CIRCUIT CONTROLLER
PHR	=	PHASE RELAY
PR	=	PROCESS PUMP
PS	=	PRESSURE SWITCH
RC	=	RECIRCULATION PUMP
SF	=	SOFT START
SV	=	SOLENOID VALVE
TM	=	TABLE MOTOR
TR	=	TRANSFORMER
VP	=	VACUUM PUMP

Conair-Metaplast Ltd.

TITLE : CALIBRATION TABLE
 ELECTRICAL : PRESSURE SWITCH, SOLENOID ON VACUUM PUMP,
 TABLE MOVEMENT, 4x VACUUM PUMP AND SAFETY PHASE RELAY

DWG# : 484-100-9008-00 DATE : 20/07/99



CB	=	CIRCUIT BREAKER
MC	=	MOTOR CONTACTOR
MCC	=	MOTOR CIRCUIT CONTROLLER
PHR	=	PHASE RELAY
PR	=	PROCESS PUMP
PS	=	PRESSURE SWITCH
RC	=	RECIRCULATION PUMP
SF	=	SOFT START
SV	=	SOLENOID VALVE
TM	=	TABLE MOTOR
TR	=	TRANSFORMER
VP	=	VACUUM PUMP

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TITLE : CALIBRATION TABLE

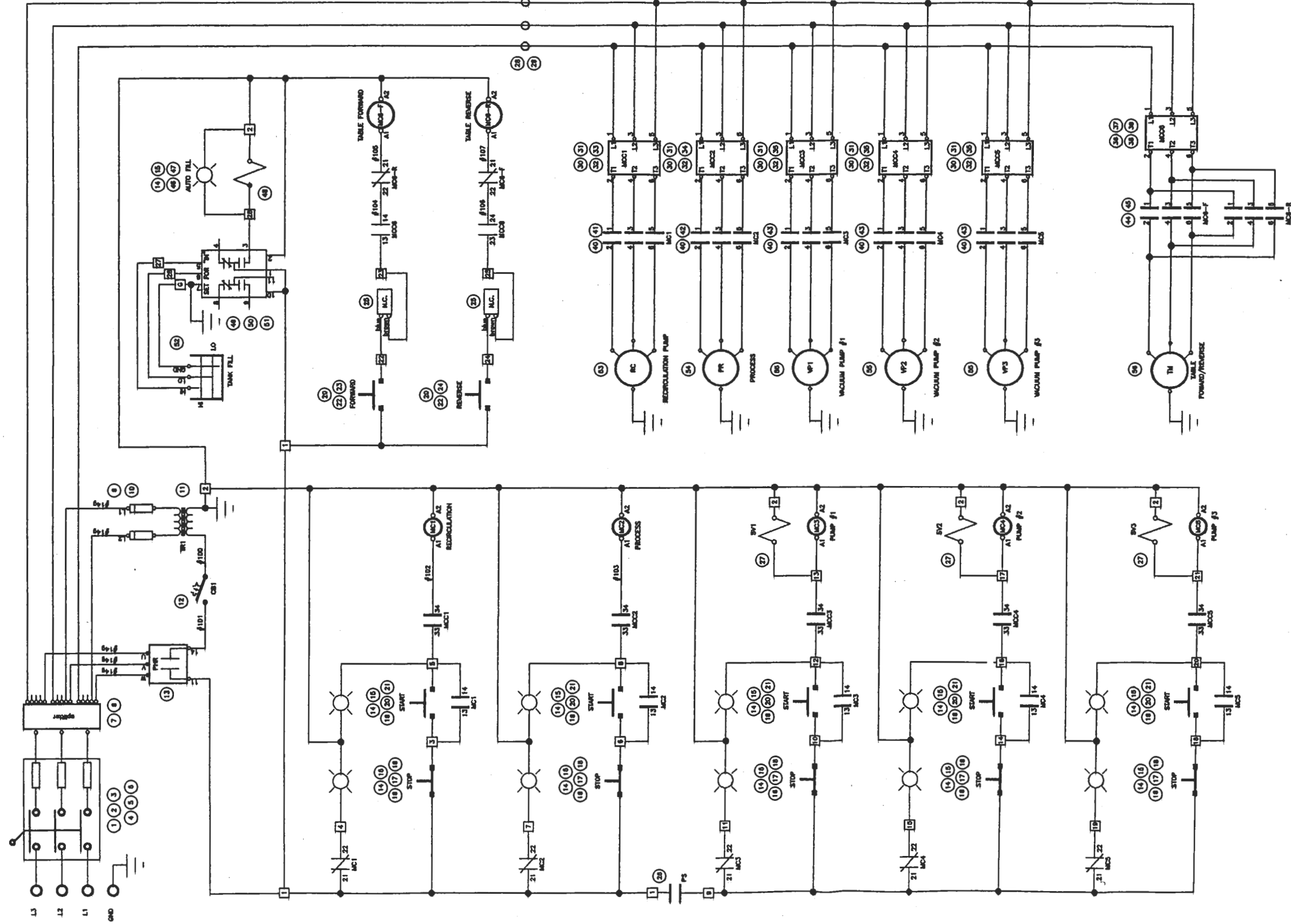
ELECTRICAL : PRESSURE SWITCH, SOLENOID ON VACUUM PUMP.

TABLE MOVEMENT, 2x VACUUM PUMP, SAFETY PHASE RELAY

LEVEL CONTROL, 1x RECIRCULATION PUMP, 1x PROCESS PUMP

DWG# : 464-100-9011-00

DATE : 20/07/99

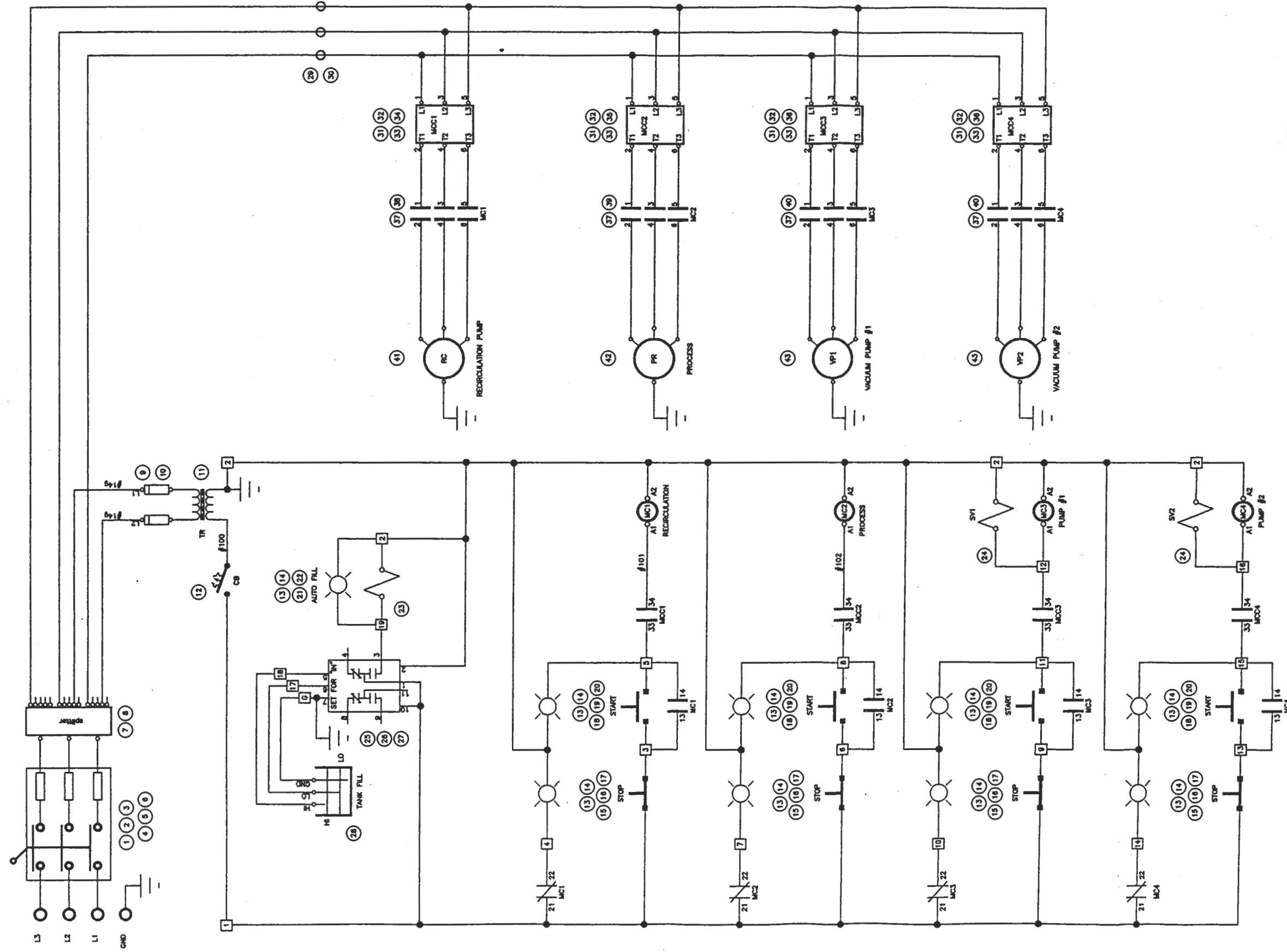


CB	=	CIRCUIT BREAKER
MC	=	MOTOR CONTACTOR
MCC	=	MOTOR CIRCUIT CONTROLLER
PHR	=	PHASE RELAY
PR	=	PROCESS PUMP
PS	=	PRESSURE SWITCH
RC	=	RECIRCULATION PUMP
SF	=	SOFT START
SV	=	SOLENOID VALVE
TM	=	TABLE MOTOR
TR	=	TRANSFORMER
VP	=	VACUUM PUMP

Conair--Metaplast Ltd.

TITLE : CALIBRATION TABLE
 ELECTRICAL : PRESSURE SWITCH, SOLENOID ON VACUUM PUMP.
 TABLE MOVEMENT, 3x VACUUM PUMP, SAFETY PHASE RELAY.
 LEVEL CONTROL, 1x RECIRCULATION PUMP, 1x PROCESS PUMP

Dwg# : 464-100-9012-00 DATE : 20/07/96



CB	=	CIRCUIT BREAKER
MC	=	MOTOR CONTACTOR
MCC	=	MOTOR CIRCUIT CONTROLLER
PR	=	PROCESS PUMP
RC	=	RECIRCULATION PUMP
SV	=	SOLENOID VALVE
TR	=	TRANSFORMER
VP	=	VACUUM PUMP

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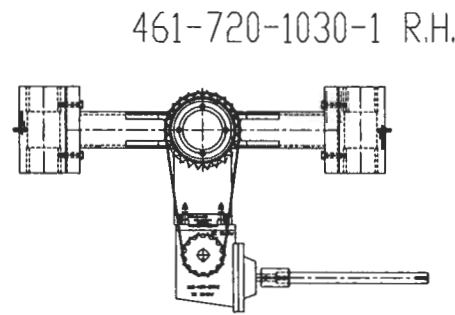
TITLE : VACUUM SIZING TANK
 ELECTRICAL : SOLENOID ON VACUUM PUMP.
 2x VACUUM PUMP.
 LEVEL CONTROL, 1x RECIRCULATION PUMP, 1x PROCESS PUMP

DWG# : 464-200-9013-00 DATE : 03/08/99

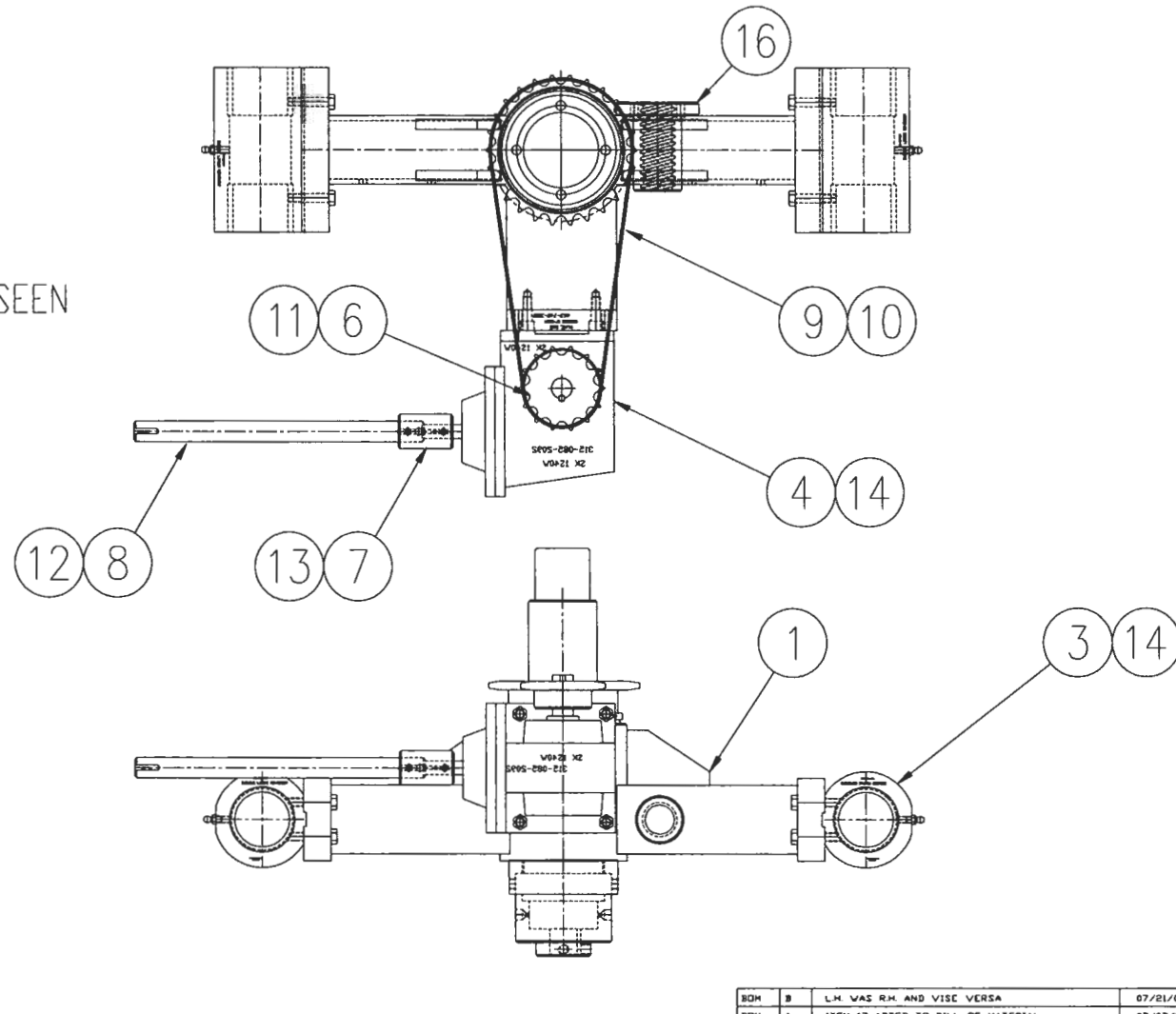
ITEM NO.	METAPLAST	METAPLAST	QTY.	DESCRIPTION	ITEM NO.	METAPLAST PART NO.	METAPLAST MATL. NO.	QTY.	DESCRIPTION
10	315-082-2011	X	1	LINK CHAIN 50-ICL	1	SEE TABLE A		1	CARRIAGE DRIVE & REDUCER SUPPORT
11	X	X	1	KEY SQUARE 3/16 X 3/16 X 1.0 LG	2	461-720-1040	X	1	VERTICAL MOVEMENT ASSY REDUCED
12	X	X	1	KEY SQUARE 3/16 X 3/16 X 3/4 LG	3	461-720-1011	X	2	BUSHING LINERAR MOVEMENT
13	X	X	1	KEY SQUARE 1/8 X 1/8 X 3/4 LG	4	315-085-2092	X	1	REDUCER SK IS40-W 6.8:1
14	X	X	12	SCREW, HEX HEAD, 5/16-18 NC X 1 1/4 LG	5	463-740-3002	X	1	PLATE, BASE, GEAR BOX UP-DOWN
15	X	X	2	SCREW, SOCKET HEAD CAP, 5/16-18 NC X 2 LG	6	315-093-7132	X	1	SPROCKET 50B14HT 3/4 BORE WITH KEY
16	SEE TABLE A	X	SEE A	SEE TABLE A	7	463-720-3011	X	1	COLLAR MANUAL MOVEMENT
17	315-080-9001	X	1	BEARING THRUST (NTN 51117)	8	463-720-3010	X	1	SPINDLE MANUAL MOVEMENT
18		X			9	315-082-2004	X	1	CHAIN SINGLE 50-1R (47 LINKS OR 29 3/8" EFF. LENGTH)

TABLE A

ITEM 1		ITEM 16	
ITEM NUMBER	DESCRIPTION	ITEM NUMBER	DESCRIPTION
461-720-1030	462-720-2012 CARRIAGE DRIVE & REDUCER SUPPORT LH	463-720-3025	SIDE MOVEMENT SCREW BUSHING
461-720-1030-1	462-720-2012-1 CARRIAGE DRIVE & REDUCER SUPPORT RH	NIL	----



461-720-1030 L.H. AS SEEN



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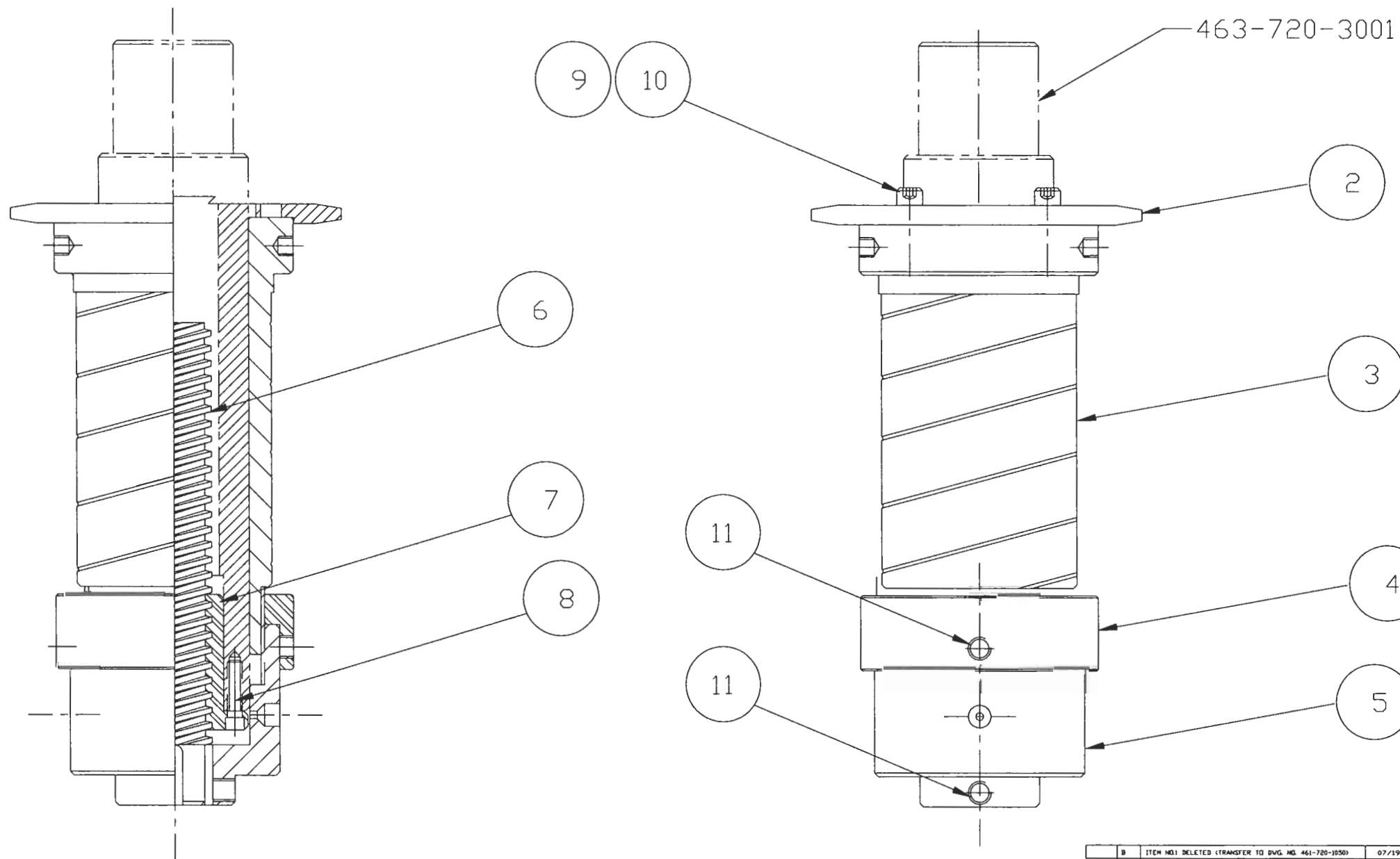
USED ON SUB ASS'Y	USED ON FINISHED GOOD	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS: .X .X.X .X.XX FRACTIONS: 1/16 1/8 3/16 1/4 3/8 1/2 5/8 3/4 7/8 1.000	CONTRACT NO.
X	X	DO NOT SCALE DRAWING	
X	X		
X	X		
X	X		
X	X		

BOH	B	L.H. WAS RH. AND VISE VERSA	07/21/00	R.C.
BOH	A	ITEM 17 ADDED TO BILL OF MATERIAL	07/07/00	MD
ZONE	REV	DESCRIPTION	DATE	APPROVED
REVISIONS				
CONAIR METAPLAST LTD. 2275, 43 Ave., Lachine, Qc, Canada H8T 2G1 Tel: (514) 638-5569 Fax: (514) 638-6844				
TITLE		CARRIAGE VERTICAL MOVEMENT REDUCED		
SCALE	1/4	REV	B	
DATE	16/12/97	DWG NO.	461-720-1030	
DESIGNER	ART SZILVESZTER	REV	1	1
APPROVED		RELEASE DATE		
		CAN FILE	461-720-1030.DWG	

ITEM NO.	METAPLAST PART NO.	METAPLAST MATL. NO.	QTY.	DESCRIPTION	ITEM NO.	METAPLAST PART NO.	METAPLAST MATL. NO.	QTY.	DESCRIPTION
7	463-720-3004	X	1	DRIVER	1		X		
8	x	X	4	SOCH. HD. MACH. SCREW 5/16-18 UNC x 7/8 LG.	2	463-720-3000	X	1	SPROCKET
9	X	X	4	SPRING LOCK WASHER .56 O.D. x .109 THK	3	463-720-3002	X	1	HOUSING
10	X	X	3	SOCH. HD. MACH. SCREW 3/16-18 UNC x .63 LG.	4	463-720-3005	X	1	SLEEVE
11	X	X	3	SOCH. SET SCREW 5/16-18 UNC x 1/4 LG.	5	463-720-3006	X	1	BOTTOM
					6	463-720-3003	X	1	THREADED SPINDLE

NOTE:

DEBURR AND BREAK ALL SHARP EDGES.



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USED ON SUB ASS'Y	USED ON FINISHED GOOD	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CONTRACT NO.
X	X	DECIMALS: X = .005, XX = .002, XXX = .001, XXXX = .0005	
X	X	FRACTIONS: 1/16	
X	X	DO NOT SCALE DRAWING	
X	X	MATERIAL	APPROVALS
X	X	FINISH	DATE
X	X	√125	ART. SZILVESZTER 16/12/97
X	X		DESIGNER
X	X		APPROVED

ALL ZONE	REV	DESCRIPTION	DATE	APPROVED
B		ITEM NO1 DELETED (TRANSFER TO DWG. NO. 461-720-1050)	07/19/00	R.C.
A		GENERAL REVISION	10/20/98	M.G.

REVISIONS

CONAIR METAPLAST LTD.
 2275, 41 Ave., Lachine, Qc, Canada H8T 2G1
 Tel: (514) 638-5569 Fax: (514) 638-6884

TITLE: VERTICAL MOVEMENT ASS'Y REDUCED

SCALE: C
 ENG. NO: 461-720-1040
 SHEET: 1 / 1