# OPERATING INSTRUCTIONS RDN MODEL 202 or 204 WHEEL PULLER WITH AC VECTOR DRIVE

This machine has been carefully crated to assure safe arrival to your plant. It is important that you immediately inspect the equipment upon arrival at your plant and report any possible damage incurred in transit to the trucker.

It is suggested that you uncrate the equipment as soon as possible so that any concealed damage may be discovered.

Compare the packing list with items received and in turn cross check the items with your purchase order and report any discrepancies immediately to RDN MFG. CO., INC. at the address or phone number listed above.

# **DESCRIPTION**

The lower shafts are driven by a AC Flux Vector variable speed control and motor. The operator speed reference is a ten turn potentiometer. Standard machines have manually adjusted threaded rods for positioning the upper wheels. For machines equipped with pneumatic operation, the wheels are opened and closed with pneumatic cylinders.

### START-UP PREPARATION

The machine should be aligned with other extrusion equipment in the line and adjusted to the proper centerline height with the threaded jackscrews.

The machine is regarded as portable and therefore, it is not equipped with a fused disconnect switch. If your local electrical code requires a fused disconnect, we suggest you provide one on

a wall conveniently located in relation to the equipment. The puller is supplied with a twist lock plug and should be plugged into a properly grounded socket.

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Make sure that the equipment is properly wired for the voltage, phase and cycle supplied at your plant. Should there be any questions regarding the electrical connection, do not hesitate to contact us.

The air supply line to the puller should be 1/2" diameter. Supply pressure should be 80-90 psi. The air pressure regulator should be set to 60-70 psi.

With electrical power and air pressure connected, check for proper rotation of the wheels. The lower wheels should rotate counter clockwise when viewed from the operators side of the machine. If the rolls do have correct rotation, reverse the armature lead connections.

# **OPERATION**

Adjustment of the wheel clearance is controlled by hand wheels for machines designed for manual wheel opening and closing. For machines equipped with pneumatic operation, an OPEN-CLOSE selector switch is provided to actuate pneumatic cylinders for opening and closing the wheels. Also, an adjustable pressure regulator with gauge is provided for each of the top wheels to adjust the closing force of the wheels.

CAUTION: When setting the gap between the wheels, be sure to set the regulators as low as possible. After closing the wheels and adjusting the gap, increase air pressure slowly to the desired psi.

# **OPERATION:**

- 1. Turn on Disconnect switch.
- 2. Pull out the Emergency Stop button and press Power On button.
- 3. Press Start button.
- 4. Select the desired power speed by turning the speed control Potentiometer clockwise, this will increase motor speed.

To change speed repeat Step 4..

For machines equipped with an optional speed transmission, the transmission can be shifted at a very low motor speed setting, but should not be shifted under load.

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# MAINTENANCE AND LUBRICATION

This machine was designed for continuous operation with a minimum amount of maintenance. Keep the machine cleaned and lubricated, and it will remain in good working condition.

Facilities should be made to remove water from the extrudate before it reaches the puller if it is positioned downstream of the water cooling tank. Water will corrode the machine and reduce its useful life.

Keep a coating of light oil on all shafting.

Grease all bearings and fittings with No. 2 Lithium base ball bearing grease every 4 - 6 weeks.

Place a light coat of grease on the upper wheel guides weekly.

Place a few drops of oil on the roller chain each week.

The idler sprockets and idler pulley have lifetime lubricated sealed ball bearings and require no attention.

**Note:** AC vector and AC Servo motors are designed to run hot. It is not uncommon for the motor temperature to reach 180-200f, depending upon ambient temp.

Follow the manufacturer's suggestions for lubrication of the speed reducer and transmission (optional). Separate instructions are included as part of this manual.

- 1. A four-speed manual shift transmission with ratios of 4:1, 3.14:1. 2:1 and 1:1.
- 2. A fixed speed reducer.

The puller speed is adjusted by selecting the proper transmission ratio and then adjusting the ten turn speed reference potentiometer to the desired line speed.

**CAUTION** - The transmission should be shifted only when the machine is stopped!