

# Extruder Retrofit

## Project Planning Checklist

### Pre-Planning Phase

- Observe Drive Space Availability – Obtain Drive or Pre-Configured Drive dimensions
- Find a suitable mounting place near the motor or existing drive
- Perform Wire Audit – Number and Size of wires used from the DC Motor to the DC Drive.  
Existing wires should not be spliced if drive relocation is required or if they are not long enough.  
If existing wire is used, and more is required to obtain the desired amp rating per phase, additional wire should be the exact same size as existing.
- Select Wire sizes and lengths
- Drive mounting should be less than 300 wire length feet to the motor. A load reactor would be required if more than 300 feet.
- Motor dimensions should be checked against the new AC Vector motor to help anticipate any physical limitations in the retrofit. The Reliance RPM-AC is a lower profile and may be required if retrofitting a Reliance DC motor. Most of the DC motors are older and larger and the NEMA Marathon or V\*S Master Vector AC motors can be used.
- Conduit mounting should be checked and noted either F-1 or F-2
- Blower Motor Fan mounting should be noted
- Note whether Belt-Coupled or Direct Coupled (Belted requires Roller Bearings)
- Note shaft- diameter for any coupling change requirements
- Note base dimensions for motor mounting to plan any machining or base mount requirements
- Find existing wiring diagrams or create them to document existing control wiring
- Label control wires if not labeled

### Ordering phase

- Order drive and motor
- Order Wire and Conduit
- Order lugs to adapt power wires to drive and motor

### Scheduling Phase

- Obtain delivery expectation for drive and motor
- Obtain delivery for wire and conduit
- Coordinate with production
- If new wire and conduit is required. Arrange for installation prior to the date of Drive and motor installation when possible.
- Check that drive and motor is what was ordered when received.
- Schedule maintenance staff or electricians to perform the physical retrofit
- Schedule start-up and drive configuration.