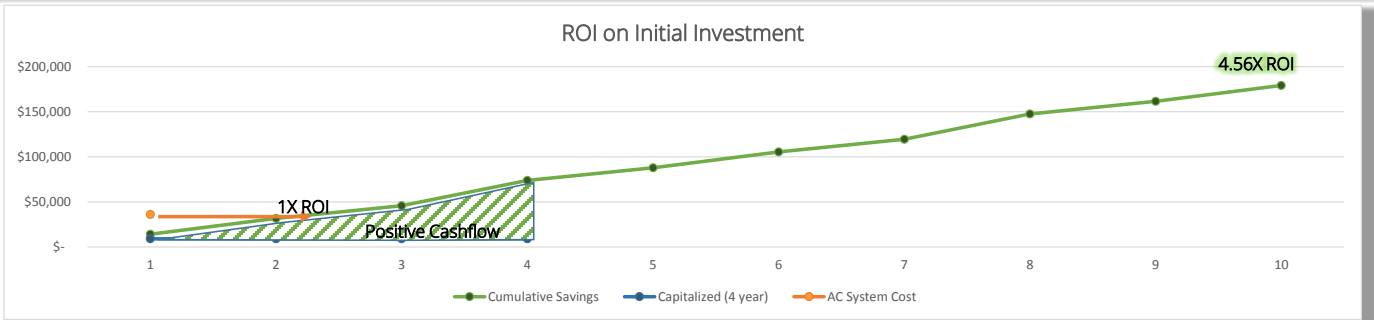




# 250HP Extruder Drive Study Results

Pre/Post studies conducted on operation running 24/7 for 50 weeks a year at 92% load and 62% speed, with a utility rate of .07KWH

Year	1	2	3	4	5	6	7	8	9	10	10 Year Totals
<b>DC MOTOR CHARACTERISTICS (Pre-study)</b>											
250HP DC Utilities	\$ 74,983	\$ 74,983	\$ 74,983	\$ 74,983	\$ 74,983	\$ 74,983	\$ 74,983	\$ 74,983	\$ 74,983	\$ 74,983	\$ 749,830
DC Peak KW	\$ 18,751	\$ 18,751	\$ 18,751	\$ 18,751	\$ 18,751	\$ 18,751	\$ 18,751	\$ 18,751	\$ 18,751	\$ 18,751	\$ 187,510
<b>DC Maintenance</b>											
Brushes	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 9,000
Commutator	\$ 3,439			\$ 3,439		\$ 3,439		\$ 3,439		\$ 3,439	\$ 17,195
Armature Rewind				\$ 10,419				\$ 10,419			\$ 20,838
DC Cost of Ownership	\$ 94,634	\$ 98,073	\$ 94,634	\$ 108,492	\$ 94,634	\$ 98,073	\$ 94,634	\$ 108,492	\$ 94,634	\$ 98,073	\$ 984,373
Annualized	\$ 98,437	\$ 98,437	\$ 98,437	\$ 98,437	\$ 98,437	\$ 98,437	\$ 98,437	\$ 98,437	\$ 98,437	\$ 98,437	\$ 984,373
<b>AC EXTRUDER DRIVE SOLUTION (Post-study)</b>											
250HP AC Utilities	\$ 64,414	\$ 64,414	\$ 64,414	\$ 64,414	\$ 64,414	\$ 64,414	\$ 64,414	\$ 64,414	\$ 64,414	\$ 64,414	\$ 644,140
AC Peak KW	\$ 16,109	\$ 16,109	\$ 16,109	\$ 16,109	\$ 16,109	\$ 16,109	\$ 16,109	\$ 16,109	\$ 16,109	\$ 16,109	\$ 161,090
AC Cost of Ownership	\$ 80,523	\$ 80,523	\$ 80,523	\$ 80,523	\$ 80,523	\$ 80,523	\$ 80,523	\$ 80,523	\$ 80,523	\$ 80,523	\$ 805,230
Annual Savings	\$ 14,111	\$ 17,550	\$ 14,111	\$ 27,969	\$ 14,111	\$ 17,550	\$ 14,111	\$ 27,969	\$ 14,111	\$ 17,550	\$ 179,143
<b>Cumulative Savings</b>	<b>\$ 14,111</b>	<b>\$ 31,661</b>	<b>\$ 45,772</b>	<b>\$ 73,741</b>	<b>\$ 87,852</b>	<b>\$ 105,402</b>	<b>\$ 119,513</b>	<b>\$ 147,482</b>	<b>\$ 161,593</b>	<b>\$ 179,143</b>	<b>\$ 179,143</b>
AC System Cost	\$ 36,054										\$ 36,054
Capitalized (4 year)	\$ 9,014	\$ 9,014	\$ 9,014	\$ 9,014							\$ 36,054



**Bottom-line Gain \$ 143,089**

COMPARISON OF TOTAL UTILITY COSTS		DC Motor	AC Motor
KW Consumption	\$ 749,830		\$ 644,140
Peak KW Charges	\$ 187,510		\$ 161,090
	<u>\$ 937,340</u>		<u>\$ 805,230</u>
			Delta <b>-14.1%</b>
DC MOTOR: 250 HP, 1750 RPM, DPBV, 506AT frame, F1			C MOTOR: 250HP, 1750RPM, DPG-FV, L3203 frame, F1

COMPARISON OF 250HP AQUISITION COSTS		DC Motor	ACPAK™ Extruder Drive and Motor
250HP DC Motor	\$ 43,960		ACPAK AC Drive \$22,090
			250HP AC Motor <u>\$13,964</u>
			<u>\$36,054</u>
			Delta <b>18.0%</b>
DC MOTOR: 250 HP, 1750 RPM, DPBV, 506AT frame, F1			AC MOTOR: 250HP, 1750RPM, DPG-FV, L3203 frame, F1 NEMA 12/FV, 250HP ACPAK Drive, Line Reactor, Blower Str, Flange Disconnect

# ACPAK®

## AC EXTRUDER DRIVE PACKAGE



### EFFICIENT THERMAL DESIGN

- No Need for Air Conditioner
- Longer Component Life
- 70% Reduction in Heat



### COURTESY PANEL

- Pre-Wired Blower Starter
- Control Transformer
- Drive Control Connections

### DOOR MOUNTED DRIVE INTERFACE

- No Need to Open Door
- Monitor Drive Status
- View Alarms

### ARC FLASH OPTION

- Remotely Mounted Breaker
- No Power in Panel
- LED/Probe Verification

### INDUSTRY LEADING DRIVES

- No Need to Upsize HP
- No Isolation Transformer
- PF Correction Not Needed

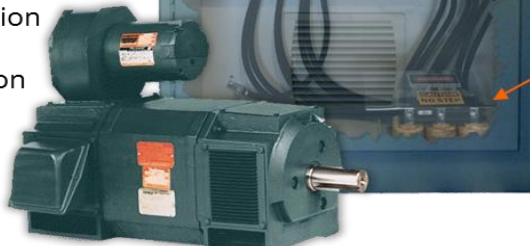
### RDI OPTION

- Control or Monitoring
- Drive Health Screen
- Trending
- Alarms and History
- Gearbox Calculator



### RELIANCE RPM-AC MOTOR\*

- Fits in Old DC Space
- Can Mount Under the Barrel
- Less Power Consumption
- Better Insulation
- Better Speed Regulation
- Filter Kit Included



### COVERED LINE REACTOR

- Eliminates Iso-Transformer
- Reduces Heat Losses
- Limits Energy Losses

ACPAK AC EXTRUDER DRIVE PACKAGE	FEATURE COMPARISON		
	ICT ACPAK	SYSTEM INTEGRATOR	DRIVE MFG
3-Year warranty on Drive System / 2-Year on Motor	✓	✗	✗
Can ship up to 500HP systems in 24 hours!	✓	✗	✗
Hundreds of ACPAKs running extruders with no failures	✓	✗	✓
Thermally designed to not require AC or heat exchanger	✓	✓	✓
Covered line-reactor and blower filter kit included	✓	✗	✗
Blower motor starter standard in design	✓	✓	✓
Pre-engineered design with ARC flash option	✓	✗	✓
Control Terminations remote from Power Leads	✓	✗	✗