



FORM 13-10-211
1st Edition

GARDNER-DENVER ELECTRA-SAVER® COMPRESSORS

Cut Your Compressor Operating Costs



**THE ELECTRA-SAVER TURN-VALVE CAPACITY CONTROL SYSTEM
PROVIDES BETTER OPERATING EFFICIENCY AT PART LOAD
CONDITION THAN CONVENTIONAL THROTTLED INLET SCREW COMPRESSORS**

This fact can save you many dollars on your electric bill. And the amount saved will continue to increase with today's escalating power costs.

Determine how much the Electra-Saver advantage can save you!

The Comparative Part Load Energy Chart, shown on the following page, illustrates the part load energy requirements of a conventional throttled inlet screw compressor versus a Gardner-Denver Electra-Saver turn-valve capacity control compressor.

To determine the amount an Electra-Saver can save YOU, complete the worksheet using percentages from the chart and the specifics of your application.

See for yourself why it makes **Dollars and Sense** to buy a Gardner-Denver Electra-Saver compressor.

SAVINGS CALCULATION WORKSHEET

**Conventional
Throttled Inlet
Screw Compressor**

**Electra-Saver®
Turn-Valve
Compressor**

1. Identify Following Compressor and Application Conditions.

Full load BHP of machines being compared		
Motor efficiency of machines being compared		
Percent of rated capacity at which compressor is expected to operate		
Number of annual operating hours at that capacity		
Cost per KWH	\$	

**2. Convert full load BHP to full load input KW.
CAUTION: Do not use "output" or "shaft" KW compressor ratings.**

$\frac{\text{Full load BHP} \times .746}{\text{Motor efficiency}} = \text{Full load KW}$	$\underline{\hspace{2cm}} \times .746 = \underline{\hspace{1cm}} \text{ KW}$	$\underline{\hspace{2cm}} \times .746 = \underline{\hspace{1cm}} \text{ KW}$
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3. Determine KW at capacity which each machine is expected to operate.

$\text{Full load KW} \times \frac{\text{percentage from comparison chart}}{\text{capacity}} = \text{KW at expected capacity}$	$\underline{\hspace{2cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ KW}$	$\underline{\hspace{2cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ KW}$
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Example:
 At 65% capacity
 Use 91% for throttled inlet
 Use 75% for turn-valve

4. Determine KW savings of the Electra-Saver compressor.

Throttled inlet KW usage	
Minus — Turn-valve KW usage	
KW savings with Electra-Saver	

5. Determine your annual dollar savings through use of the Electra-Saver compressor.

$\underline{\hspace{2cm}} \times$	$\underline{\hspace{2cm}} \times$	$\underline{\hspace{2cm}} =$	$\underline{\hspace{2cm}}$
KW saved	Operating hours per year	Cost per KWH	Annual Savings with Electra-Saver Compressor

COMPARATIVE PART LOAD ENERGY REQUIREMENTS		
Per Cent of Full Load Capacity	Approx. % of Full Load Energy Required	
	Turn-Valve	Throttled Inlet
90	93	98
85	88	96
80	85	95
75	81	94
70	78	93
65	75	91
60	72	90
55	70	88
50	67	87
45	65	86
40	64	84

For additional information, contact your local representative or Gardner-Denver Compressors, 1800 Gardner Expressway, Quincy, Illinois 62305-4024, (217) 222-5400, Telex 40-4332
 Sales and Service Offices in all principal cities. Litho in

Specifications subject to change without notice.



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