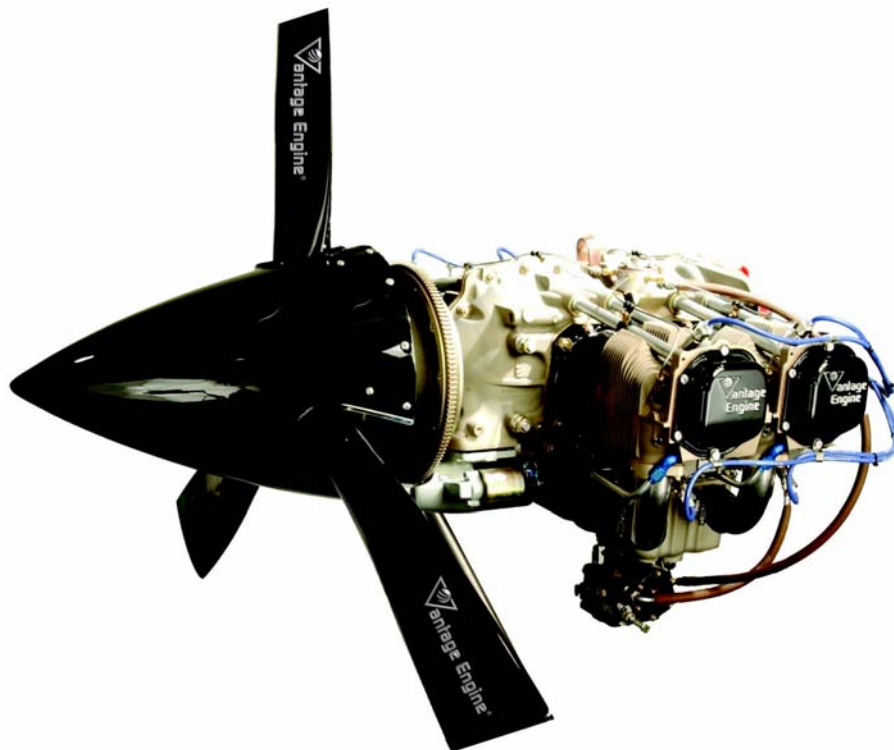


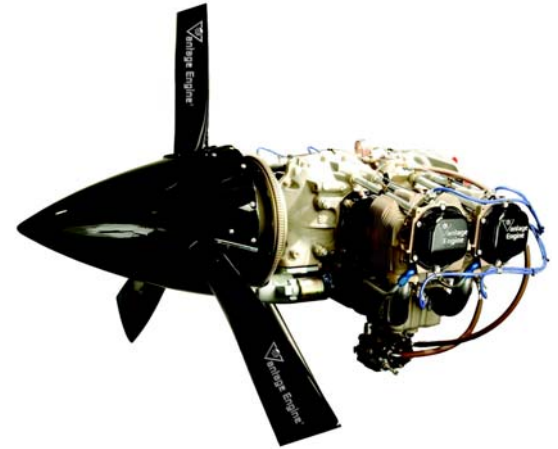


## ***O-360 & IO-360 Series Model Specification Summary***



**SUPERIOR**  
AIR PARTS, INC.

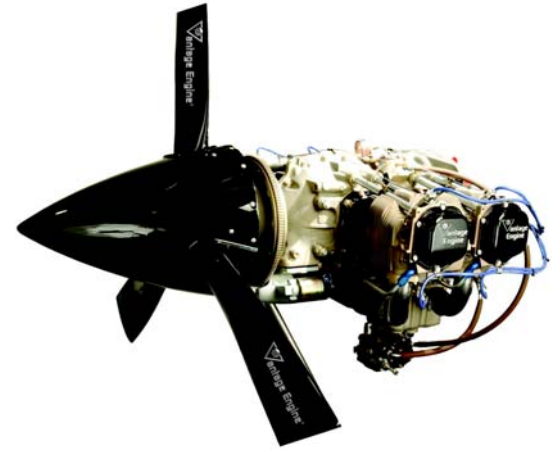
621 South Royal Lane, Suite 100 / Coppell, TX 75019 / 800-277-5168  
[www.superior-air-parts.com](http://www.superior-air-parts.com)



## O/IO-360 Series Technical Data Summary

Design Highlights		O-360	IO-360
Rating	180 BHp @ 2700 RPM		
General Description:			
Induction Style	Updraft Carbureted	Updraft Port Fuel Injection	
Induction Type	Naturally Aspirated		
Design Layout	4 cylinder – Horizontally Opposed		
Bore x Stroke	5.125 in x 4.375 in		
Displacement	361 in <sup>3</sup>		
Compression Ratio	8.5 : 1		
Mounting Options	Dynafoal (Type 1 or Type 2), Conical		
Dimensions (L x W x H)	32.8 x 33.4 x 24.6 (in)	32.8 x 33.4 x 24.0 (in)	
Weight	288 to 291 Lb *	290 to 293 Lb *	
Oil System:			
Capacity	8 Qt. Maximum / 2.5 Qt. Minimum		
Filtration	Full Flow Filter Provided		
Propeller:			
Type	Fixed-Pitch or Constant Speed		
Drive	Direct		
Rotation	Right (Clockwise) from Rear of Engine		
Minimum Fuel Grade:			
Avgas	91/98 (Lead Optional)		
Motor Gasoline	91 Octane (R+M/2) – No Alcohol		
Ignition:			
Type	Dual Impulse Magnetos		
Timing	R: 25°BTDC, L: 25°BTDC		
Firing Order	1-3-2-4		

\*Approximate dry weight – actual weight varies by model

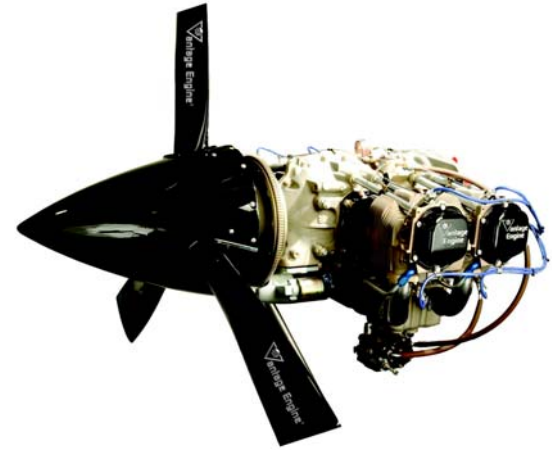


# O/IO-360 Series Technical Data Summary

Model Designations					
<p><b>IO-360-A1A2</b></p> <p>Fuel System Type ——— Power Rating</p> <p>Cylinder Type ——— Accessory Package</p> <p>Crankshaft &amp; Propeller Type ——— Crankcase &amp; Engine Mount Type</p>					
Fuel System Type		O	Denotes a Carbureted System and "Opposed Cylinder" Arrangement		
		IO	Denotes Port Fuel Injection System and "Opposed Cylinder" Arrangement		
Cylinder Type		360	Parallel Valve Style Cylinder, 361 in <sup>3</sup> Displacement		
Model Suffix Digits	1 <sup>st</sup> Digit	Crankshaft & Propeller Type	A	Fixed-Pitch, Thin-Wall Front Main	
			B	Constant-Speed, Thin-Wall Front Main	
	2 <sup>nd</sup> Digit	Crankcase & Engine Mount Type	1	Type 1 Dynafocal Style Isolation Mount	
			2	Type 2 Dynafocal Style Isolation Mount	
3			Conical Style Isolation Mount		
3 <sup>rd</sup> Digit	Accessory Package	A	Unison Magnetos Precision Carburetor or Fuel Injection *		
4 <sup>th</sup> Digit	Power Rating	1	Reserved for Future Use	Reserved for Future Use	
		2	8.5 : 1 Compression Ratio	180 BHp Rated Power	

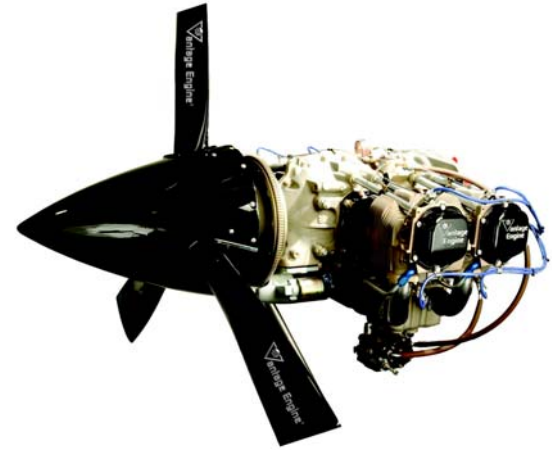
\* As appropriate to Fuel System Type





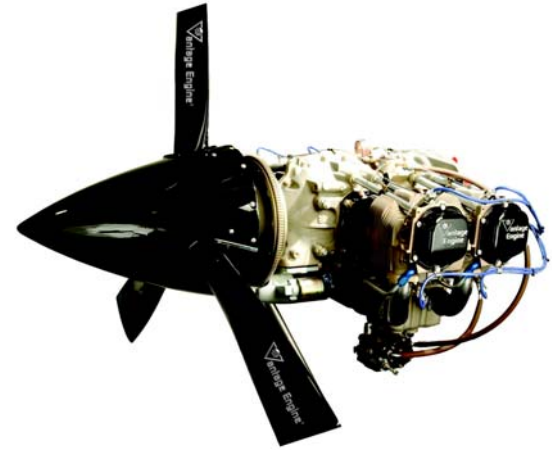
## O/IO-360 Series Technical Data Summary

Performance Highlights			
	Units	O-360	IO-360
Max Continuous Power	BHp		180
Max Recommended Cruise	BHp	144 (80% Max Continuous Power)	
Best Fuel Consumption:			
- 80% Max Power	GPH	10.5 (Peak EGT)	
		11.7 (Best Power)	
- 70% Max Power	GPH	8.9 (Peak EGT)	
		9.9 (Best Power)	
- 60% Max Power	GPH	8.1 (Peak EGT)	
		8.9 (Best Power)	
Best BSFC:			
- 80% Max Power	Lb/Hp-hr	0.43 (Peak EGT)	
		0.48 (Best Power)	
- 70% Max Power	Lb/Hp-hr	0.41 (Peak EGT)	
		0.46 (Best Power)	
- 60% Max Power	Lb/Hp-hr	0.44 (Peak EGT)	
		0.48 (Best Power)	



**O/IO-360 Series  
Technical Data Summary**

<b>Operational Limits</b>			
	Units	O-360	IO-360
Max Continuous Speed	RPM	2700	
Max Continuous Manifold Pressure	In-Hg	29.5	
Cylinder Head Temperature:			
Maximum	°F	500°	
Maximum Recommended	°F	430°	
Oil:			
Maximum Temperature (at engine inlet)	°F	240°	
Minimum Pressure (at idle)	psig	20	
Minimum Pressure (normal)	psig	55	
Maximum Pressure (normal)	psig	95	
Maximum Pressure (cold)	psig	115	
Fuel:			
Minimum Pressure (inlet to pump)	psig	+0.5	-2.0
Maximum Pressure (inlet to pump)	psig	+8.0	+35.0



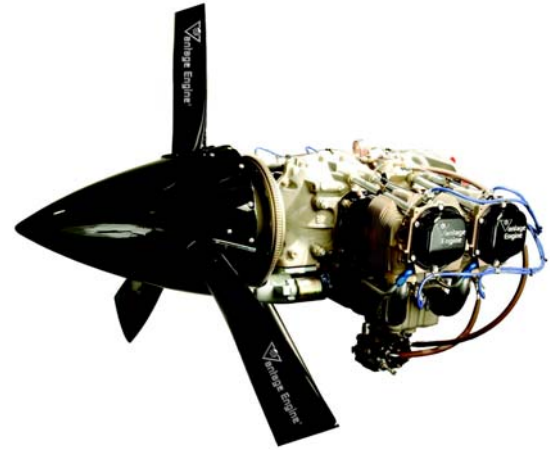
## O/IO-360 Series Technical Data Summary

### Accessories

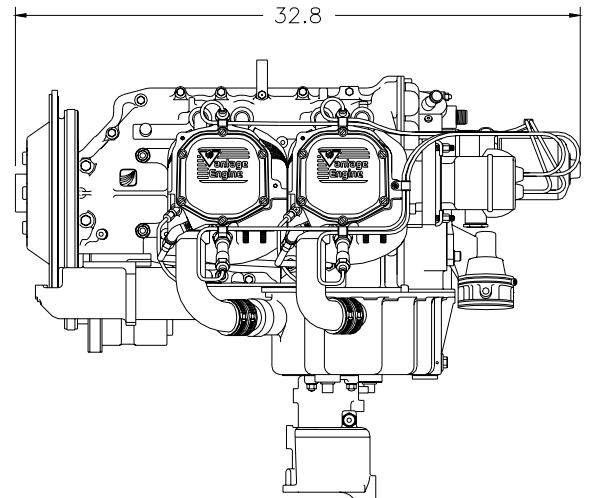
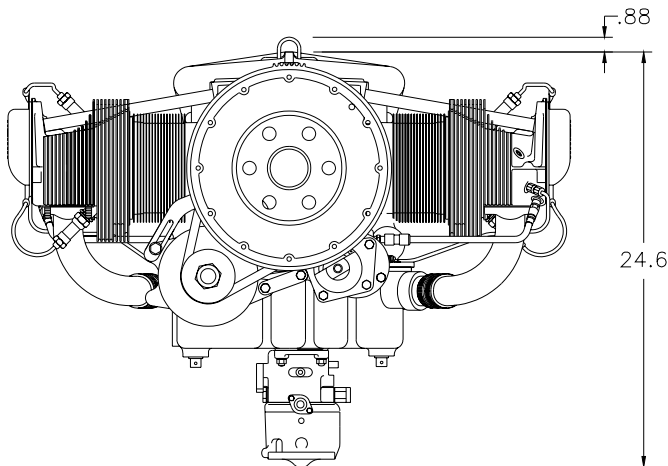
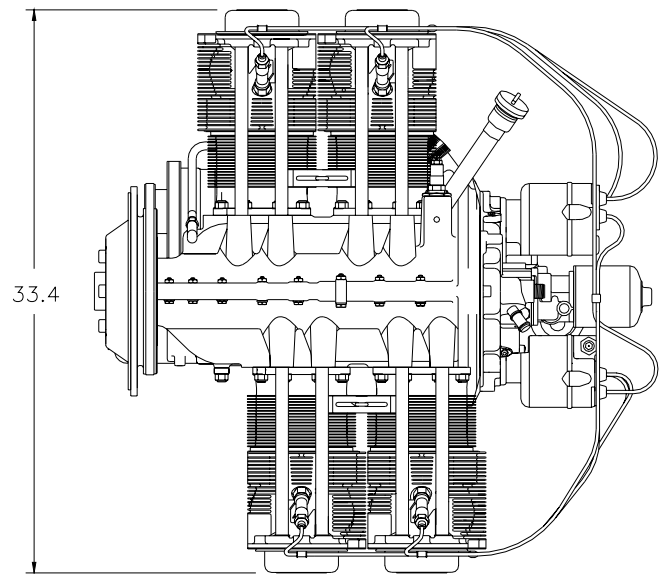
Starter	Supplied	SkyTec 149-12LS (Lightweight Style)
Fuel Pump	Supplied	Aero Accessories AF15472
Carburetor	Supplied (As Appropriate)	Precision MA-4-5
Fuel Injector	Supplied (As Appropriate)	Precision RSA-5 type
Magneto (both)	Supplied	Unison 4371 (Lightweight Style)
Harness (both)	Supplied	Unison M4001
Alternator	Not-Supplied	Mounting Holes and Standard SAE Size 0.38 Drive Pulley Provided
Propeller Governor	Not-Supplied	AND20010 Drive Pad Adapter Supplied with Cover
Accessory Drive	Supplied	AND20000 Drive Pad Supplied with Cover (Suitable for standard vacuum pump, alternator or hydraulic accessory)
Tachometer Drive	Supplied	Standard Drive Socket Supplied



# O/IO-360 Series Technical Data Summary



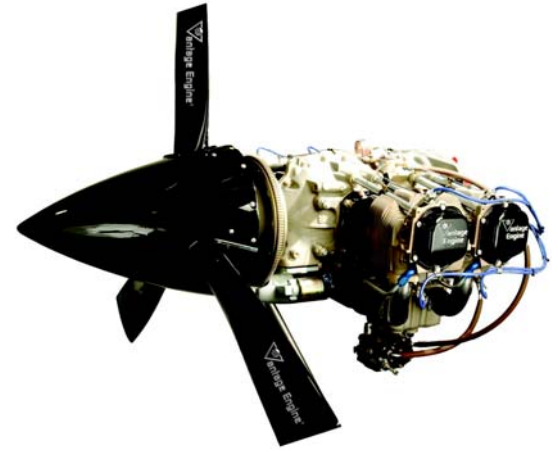
## O-360 Overall Dimensions



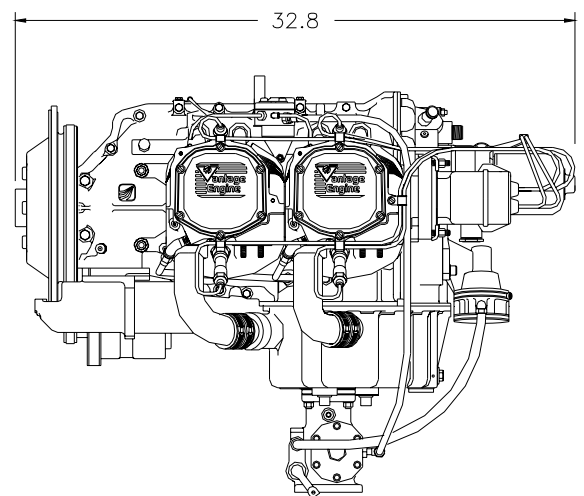
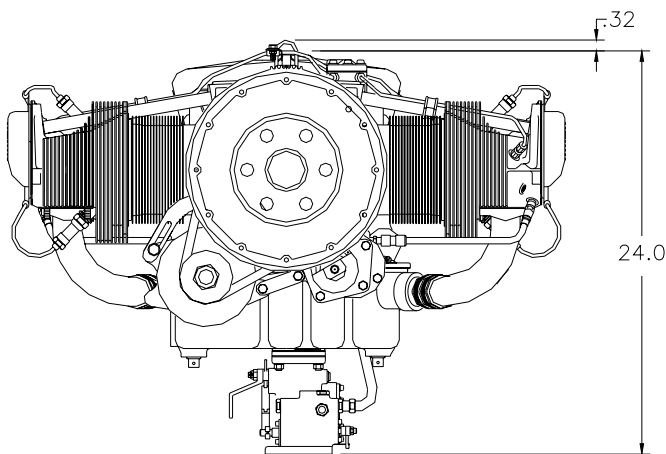
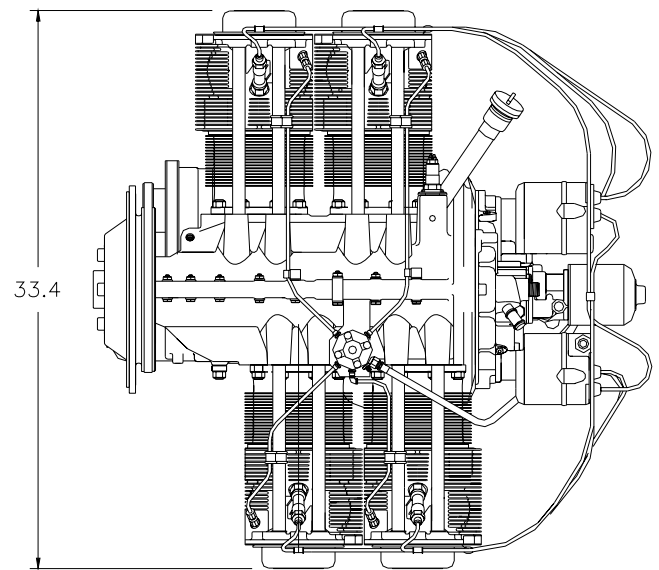




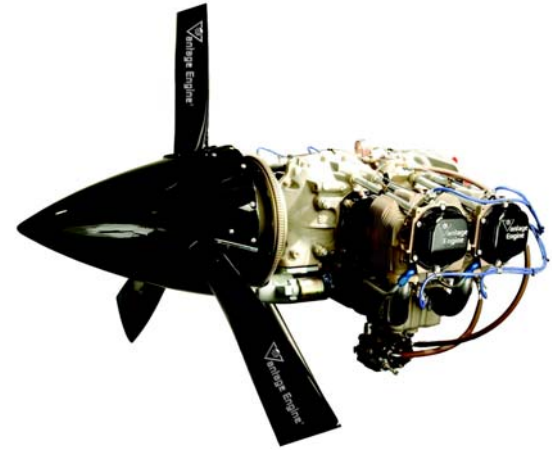
## O/IO-360 Series Technical Data Summary



### IO-360 Overall Dimensions

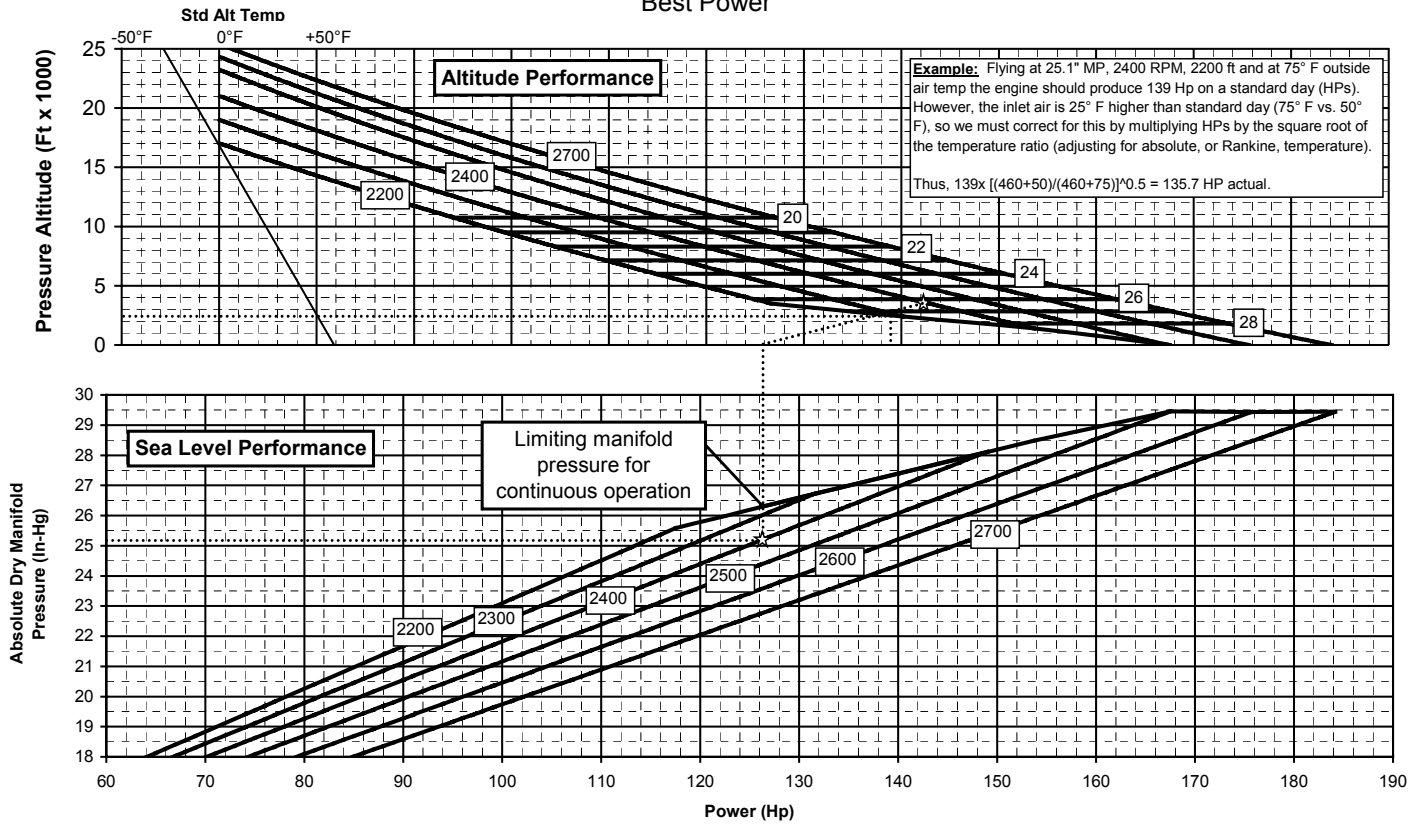


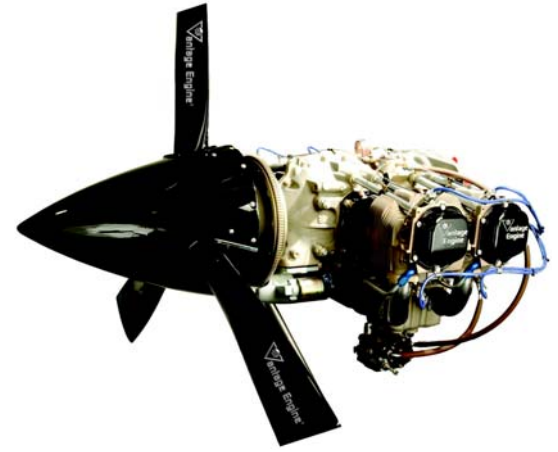




# O/IO-360 Series Performance Summary

## Altitude Performance Superior Vantage O/IO-360 Series Best Power

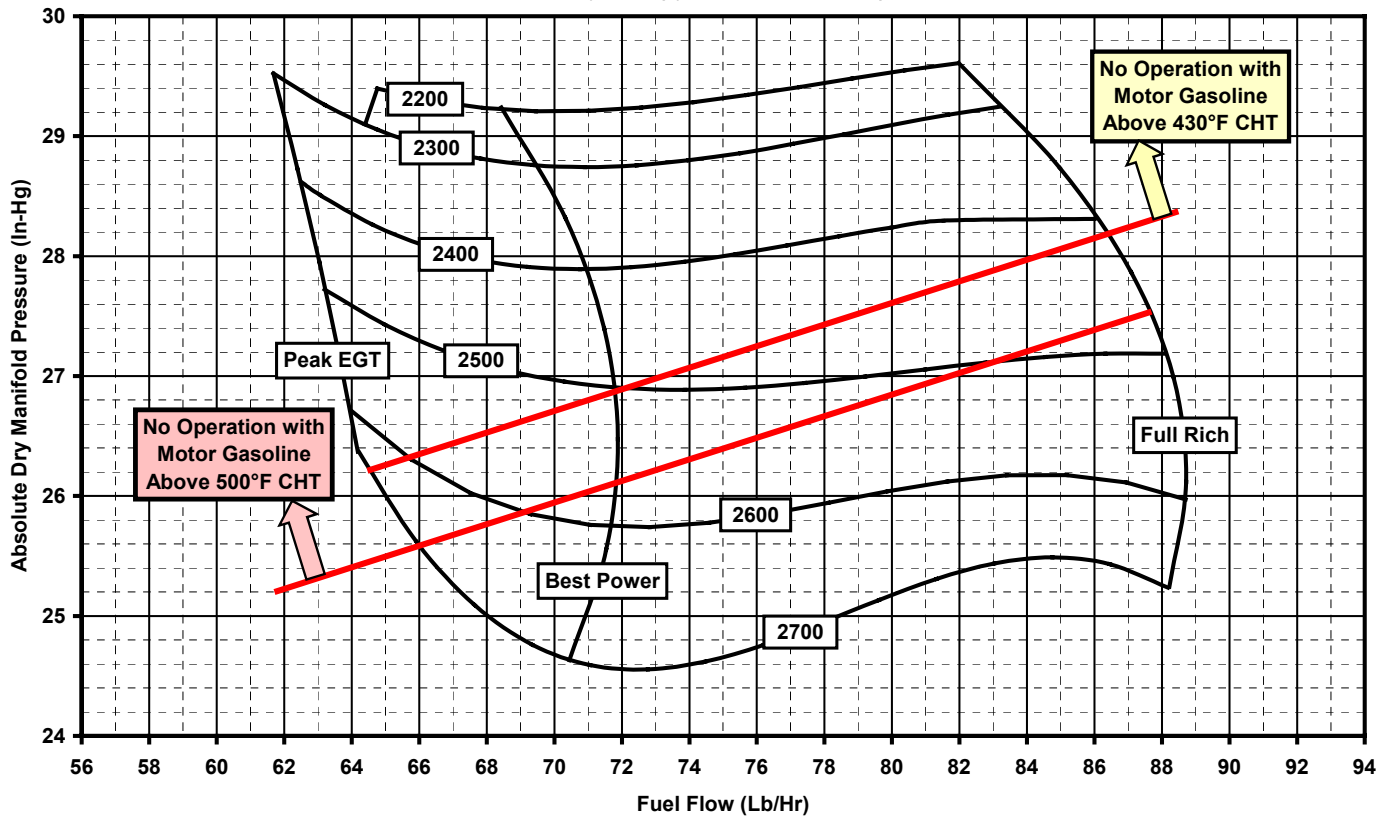


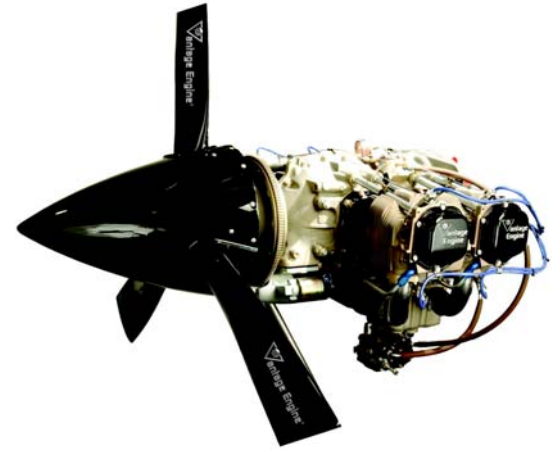


# O/IO-360 Series Performance Summary

## Cruise Performance

Superior Vantage O/IO-360 Series  
80% Power (144 Hp) - Rich of Peak Operation

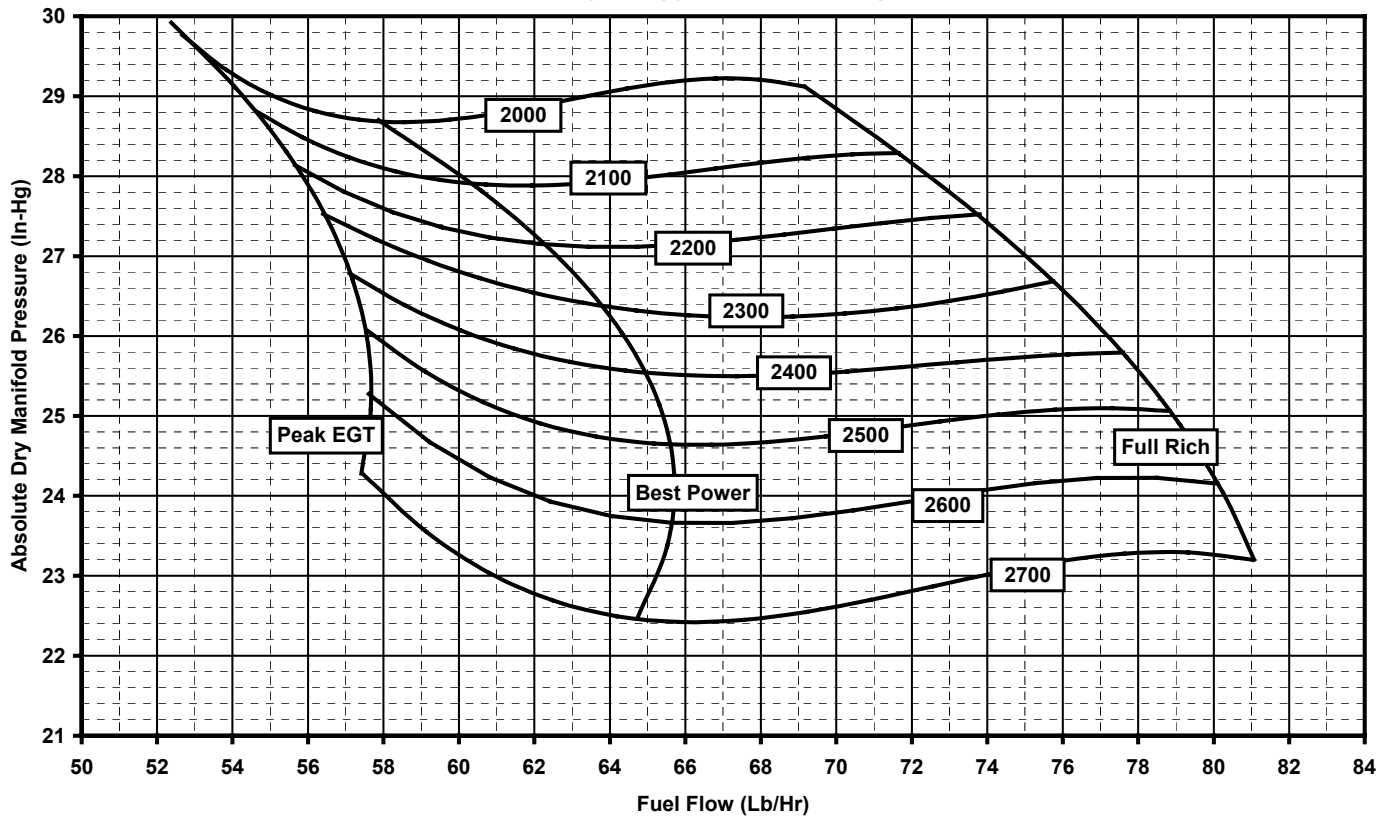


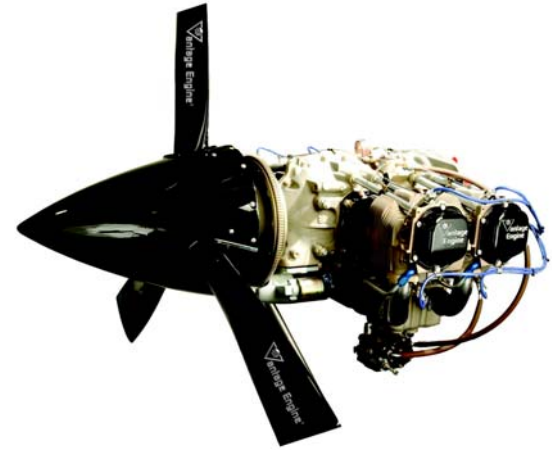


# O/IO-360 Series Performance Summary

## Cruise Performance

Superior Vantage O/IO-360 Series  
70% Power (126 Hp) - Rich of Peak Operation

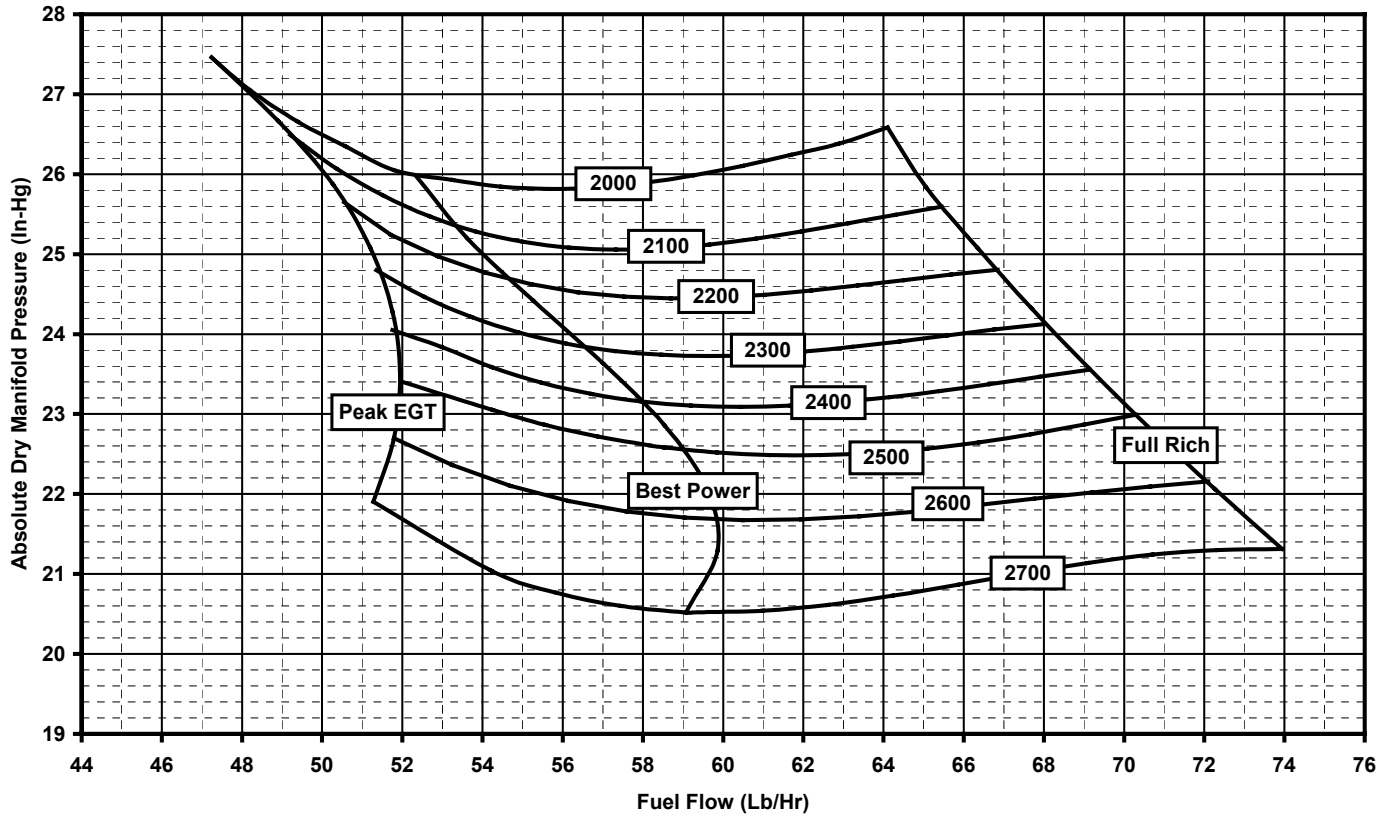


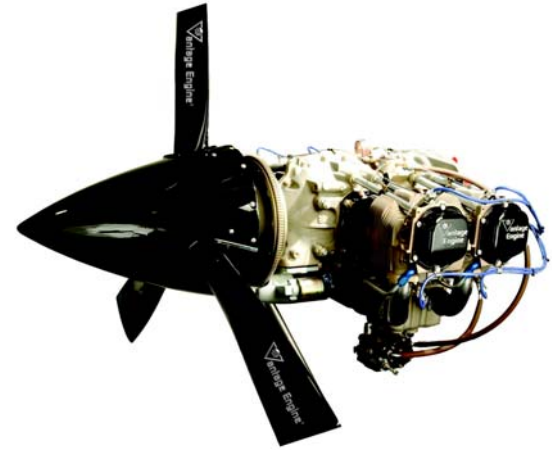


# O/IO-360 Series Performance Summary

## Cruise Performance

Superior Vantage O/IO-360 Series  
60% Power (108 Hp) - Rich of Peak Operation

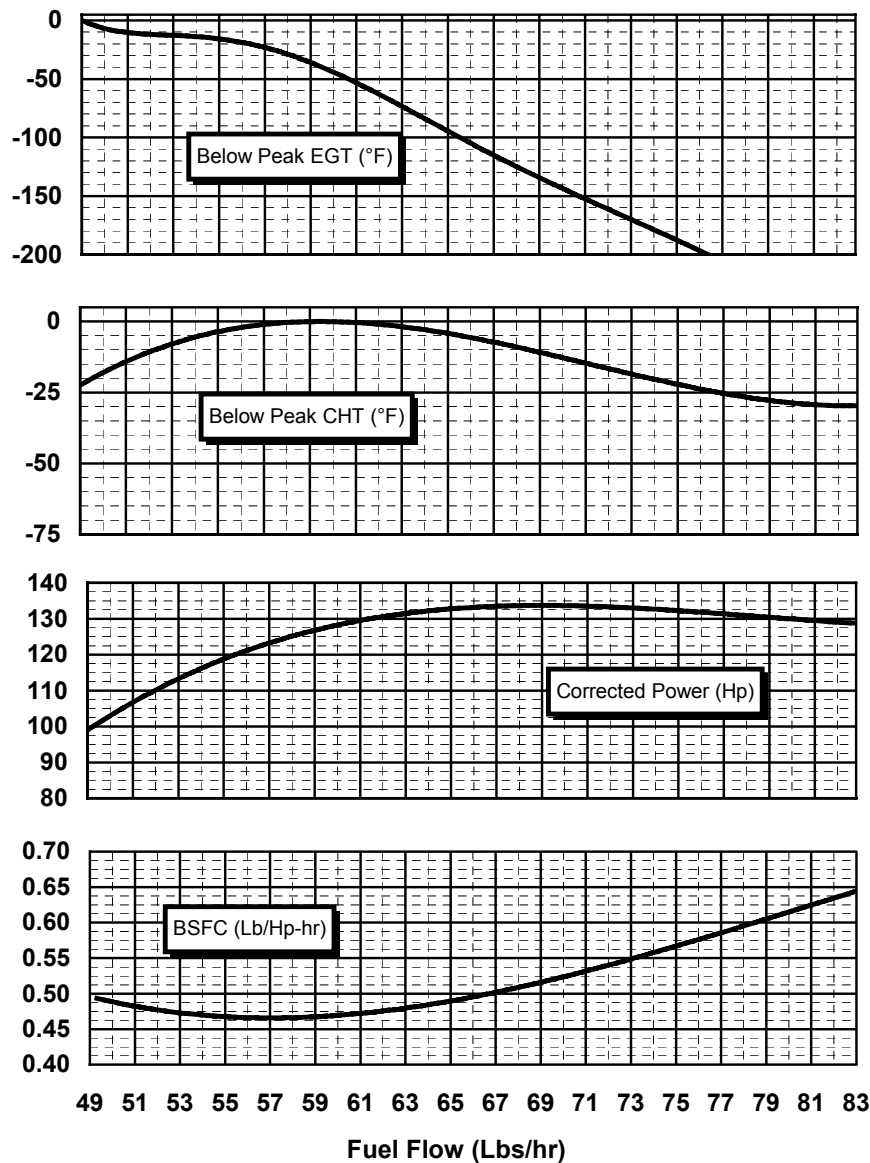


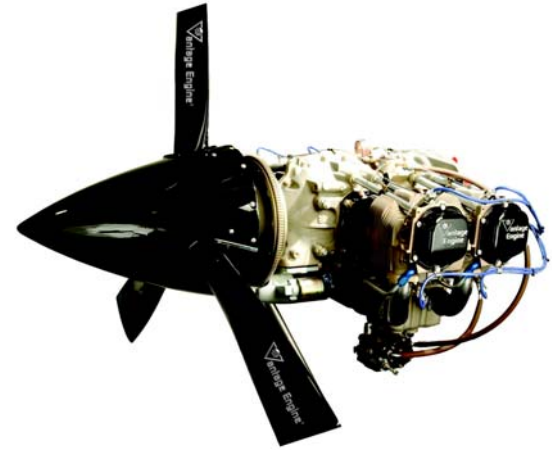


# O/I/O-360 Series Performance Summary

## Performance Cruise Fuel Mixture Curve

Superior Vantage O-360 Series  
26 in-Hg x 2400 RPM

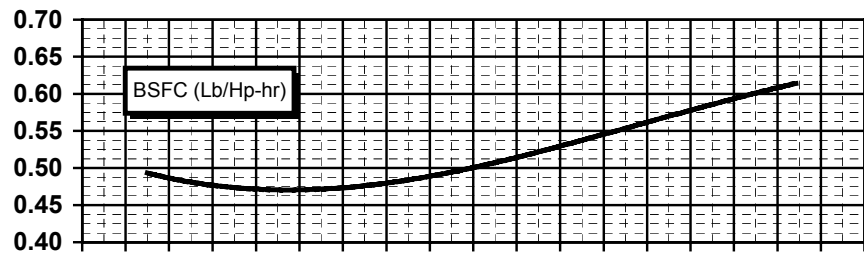
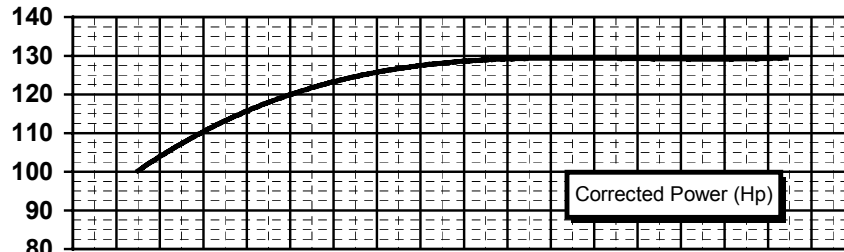
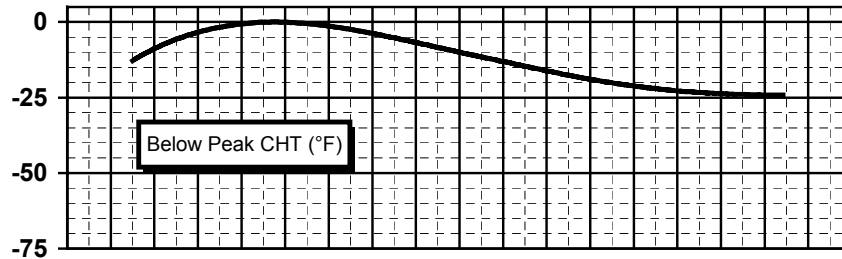
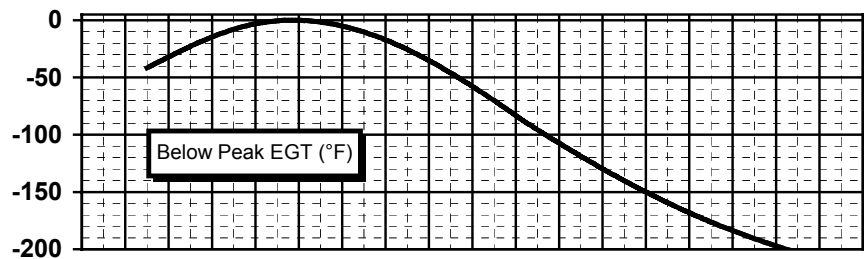




# O/IO-360 Series Performance Summary

## Performance Cruise Fuel Mixture Curve

Superior Vantage IO-360 Series  
26 in-Hg x 2400 RPM



Fuel Flow (Lb/Hr)

