



Service Bulletin Tech Tip (SG-0006) Version 1, March 2014

BITZER Recip, Screw and Scroll Recommended Operating Temperatures and Cycling Rates

Listed below are the operating temperatures and cycling rate Recommendations for BITZER Products.

Operating Temperatures	Recips	CS Screw	HS-OS Screw	Scroll
Maximum Discharge Line Temperature	250°F	***250°	212°	*250°
Minimum Discharge Line Temp Above Condensing Temp	55°F	40°F	40°F	40°F
Maximum Oil Temperature	175°F	251°	158°	
Minimum Oil Temperature	95°	N/A	**120°	
Minimum Suction Superheat	15°F	5°F	5°F	10°F
Maximum Suction Superheat	N/A	35°F	35°F	50°F
Typical Suction Superheat	20-30°F	12-14°F	12-14°F	

*Measured within 4" from valve

**From oil cooler (HS-OS) Series

***Discharge gas temperature must be at least 55°F above the actual condensing temp for R22 and R407C or 40°F above for R134A, R404A and R507A. When the discharge gas temperature is above 230°F during reduced loads, additional oil cooling is recommended.

Cycling (# of Starts / Hour Related to Compressor / Motor Size)			
Nominal Motor	Recommended Limit	Absolute Maximum	Minimum Run Time
Recips			
up to 7.5 HP	10	20	2 min
up to 20 HP	8	12	3 min
above 20 HP	6	6	5 min
Screws		Min Run Time	
35 thru 90 (CS65/75)	6	5 min	
110 thru 320 (CS85/95)	4	5 min	
20 thru 40 (HS53)	6	7 min	
OS53 and 74	6	7 min	
110 thru 180 (HS85)	4	5 min	
OS85	4	5 min	
Scrolls		Min Run Time	
		6	
		3 min	