



*Tecumseh*

From: North America Product Management Team  
To: North America OEM and Distribution Customers  
Date: September 23, 2020  
Subject: ARGUS Return Gas Capacity Rating Conversion

## PRODUCT BULLETIN

Dear Valued Customer,

To ensure you are selecting and comparing equipment properly for your application, Tecumseh has released a capacity adjustment multiplier for the Tecumseh ARGUS condensing units to align with other manufacturer's rating conditions.

Tecumseh rates capacity for its condensing units with an evaporator temperature of 20° F SST or less using a return\_gas temperature of 40° F to simulate real world performance. See below excerpt from our Tecumseh ARGUS technical catalog. Other manufacturers of similar condensing units rate with 65° F in all evaporator temperature ranges as their compressor supplier rates their products using those conditions.

Medium Temperature Evaporating Range Temperature is -10°F to +45°F.  
All capacities are listed in Btu/h.  
All capacity data is at dew point conditions.  
≤ 20°F is 40°F Return Gas | > 20°F is 65°F Return Gas | Sub cooling 5°F.

This difference if not corrected properly may result in **oversizing** a Tecumseh condensing unit as compared to another manufacturer. There is currently no industry standard regarding rating performance of condensing units beyond reporting net capacity and AWEF values to the USA Department of Energy or NRCan.

As such, if you would like to compare Tecumseh ARGUS to another manufacturers units when selecting units with an evaporator temperature of 20° F SST or less, **simply multiply the Tecumseh ARGUS condensing unit capacity rating by 1.1** to determine what it would be at a return gas temperature of 65° F. Please find example on the next page.



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## EXAMPLE

95°F Ambient						
Model Number	Suction Temperature (SST)					
	-30°F	-25°F	-20°F	-10°F	0°F	10°F
AS*R2430Z*****	1,315	1,690	2,085	2,860	3,900	4,940
AS*R2440Z*****	1,690	2,140	2,610	3,377	4,350	5,185
AS*R2450Z*****	2,795	3,334	3,861	4,879	5,848	6,769
AS*R2460Z*****	2,860	3,515	4,310	6,200	7,875	10,100
AS*R2480Z*****	4,540	5,600	6,750	9,150	11,170	14,420
AS*S2480Z*****	5,785	6,493	7,350	9,140	11,080	13,403
AS*R2510Z*****	5,421	6,639	7,888	10,479	13,192	16,030
AS*S2510Z*****	6,987	7,831	8,710	10,958	13,139	15,769
AS*S2512Z*****	7,633	8,528	9,600	11,746	14,286	17,190
AS*S2514Z*****	9,161	10,241	11,521	14,164	17,088	20,502
AS*S2520Z*****	13,234	14,916	16,787	21,101	26,173	32,006
AS*S2524Z*****	15,496	17,583	19,842	24,875	30,595	37,003

When seeking capacity for a 2 HP R-404A low-temperature microchannel reciprocating compressor condensing unit at 95°F ambient, with a saturated suction temperature of -10°F, our capacity will indicate 9,150 btu/h based on the performance tables.

Whereas, if the capacity was rated at a return gas temperature of 65° F the result will be at a higher capacity rating of 10,065 btu/h. Ex, 9,150 X 1.1 = 10,065 btu/h.

### Questions

If you have questions that are not addressed in this bulletin, please contact your local Tecumseh Sales Representative or Technical Service Team (800.211.3427) members.