



State-of-the-art twin-screw  
compressor designed for  
R717 and low temp. application

# Open-type Model RG Series Screw Compressor



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## Features of RG Open-type Compressor

Floating ECO Port for Economizer Use (RG-200, RG-410, RG-620, RG-830)

- Enhanced cooling capacity and energy efficiency
- Efficient vapor injection through a specially-designed keyway
- Effective at full load as well as at partial load
- Pulsation-free design



### High-efficiency Screw Rotor Profile

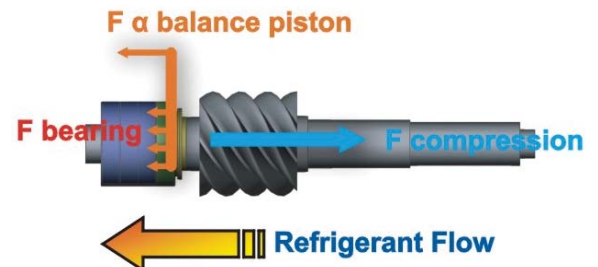
- 5-to-6 rotor profile patented in Taiwan, US ,UK and China
- Suitable in low-temp. and R717 application
- High volumetric efficiency

### Dual Capacity Control

- 4-step or Stepless (25%-100%) capacity modulation
- Easy control with solenoid valve and coil
- Efficient loading/ unloading oil circuit

### Durable Bearing Structure

- Rigid thrust ball bearings and roller bearings
- $\alpha$  balance piston against axial thrust
- PEEK® bearings in R717 application
- Heavy-duty design



### Wide Vi Selection

- Variable volume ratio ( $V_i$ ) without over- or under-compression
- Manually adjusted volume ratio for a wide range of applications

### Easy Oil Management

- Pressure-differential lubrication and capacity modulation
- Built-in oil circuit for lubrication of bearings, rotors and mechanical seal

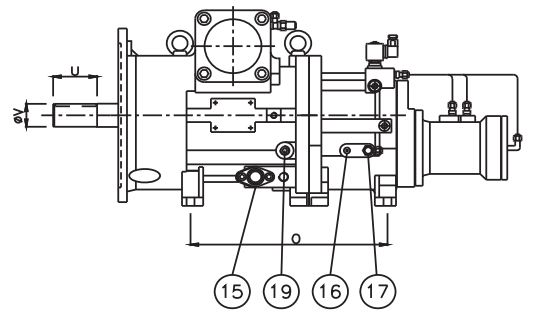
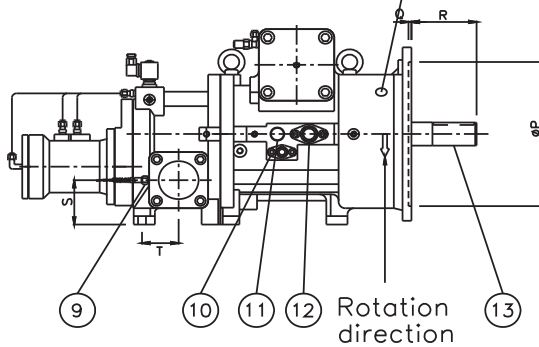
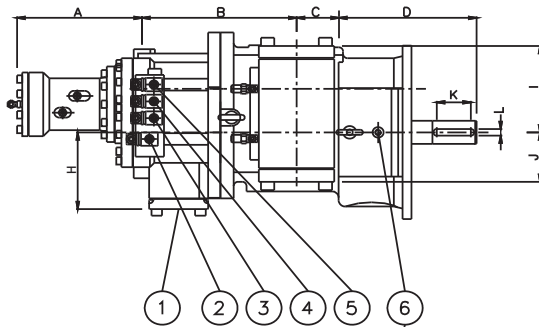
### More Features

- Flanged-on motor mounting
- Spring or bellow type mechanical seal
- Oil injection connector for extra cooling to chamber
- Discharge temperature thermistor
- Capacity indicator as optional accessory
- Low noise level and minimum vibration
- Few moving parts and easy maintenance
- Compact size on piping work

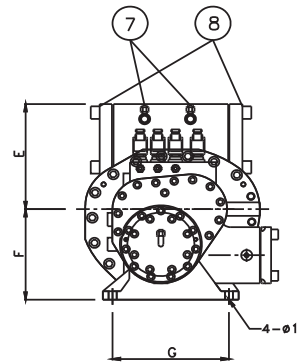
**Technical Data:**

Model		RG-200	RG-410	RG-620	RG-830	RG-1150	RG-1270	
Displacement at 50Hz	Cubic FT/Min	112	237	364	746	674.51	746	
Maximum speed	rpm	4500					3600	
Minimum speed	rpm	1500						
Range of capacity control	-	25%~100%						
Range of Vi-adjustment	-	2.6~5.1				2.6~5.6		
Weight	lb	511	2570	1047	1131	2205	2571	

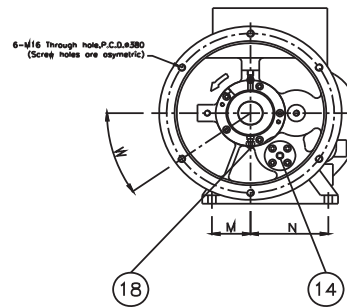
**RG-200~830 Outline**



No.	Name	Note	No.	Name	Note
1	Discharge flange		11	Oil sight glass	
2	Solenoid valve	Stepless,NC	12	Oil inlet	1-1/8"ODF
3	Solenoid valve	25%,NC	13	Compressor Shaft	ø45~ø60 (*1)
4	Solenoid valve	60%,NC	14	Vi adjustment	2.6~5.1
5	Solenoid valve	75%,NC	15	Economizer port	7/8"&1-1/8"ODF(*2)
6	Plug		16	Plug	
7	Angle valve(Low side)	1/4"F	17	Angle valve(High side)	1/4"F
8	Suction flange		18	Oil drain	
9	Discharge temp. sensor	PTC(Optional)	19	Capacity indicator plug	1/2"NPT
10	Compression chamber liquid/oil injection port	5/8"ODF			



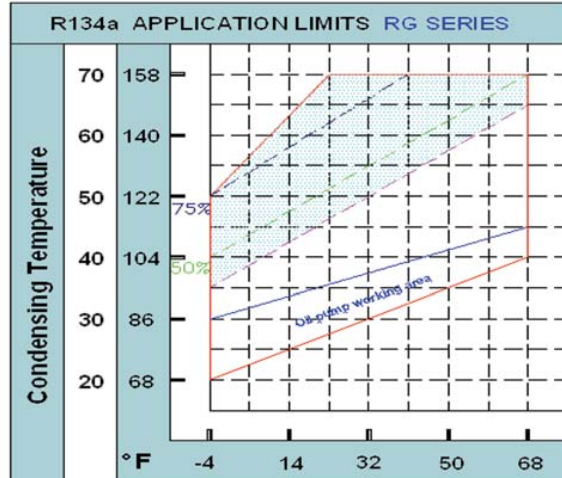
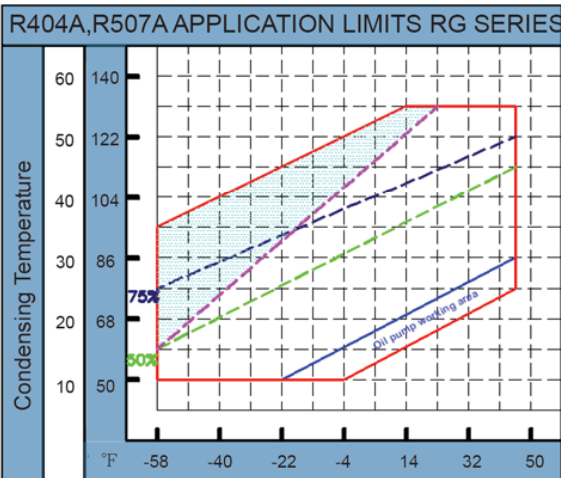
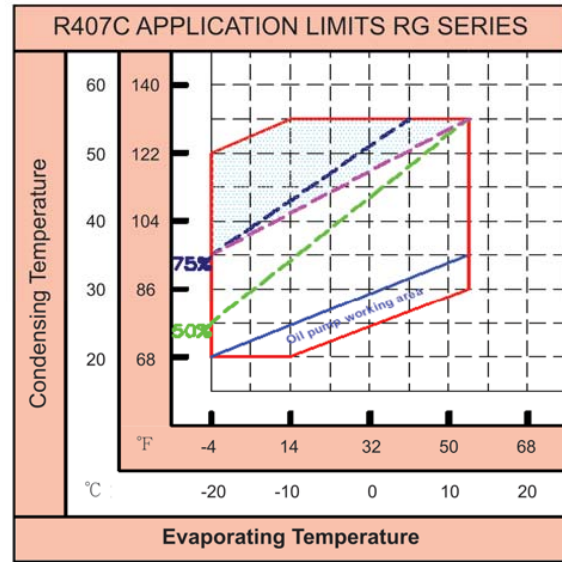
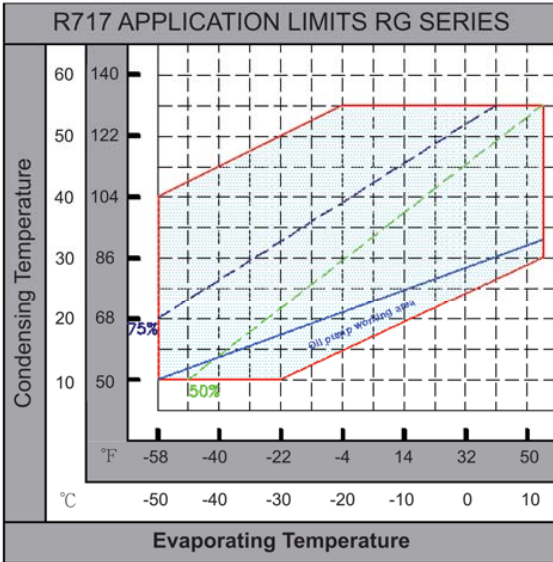
\*1  
 RG-200:ø45  
 RG-410:ø55  
 RG-620:ø60  
 RG-830:ø60  
 \*2  
 RG-200:7/8"  
 RG-410~830:1 1/8"



	A	B	C	D	E	F	G	H	I	J	K	L
<b>RG-200</b>	8.6	11	3.5	10.74	8.78	7.83	10.40	6.71	6.06	2.99	1.97	.47
<b>RG-410</b>	11.16	13.80	3.80	12.27	9.86	8.50	10.40	7.20	8.11	4.64	3.03	.063
<b>RG-620</b>	12.44	15.16	6.02	11.50	12.52	9.84	13.78	8.31	9.11	4.78	3.03	.063
<b>RG-830</b>	12.44	17.24	6.22	12.65	12.52	9.84	13.78	8.38	9.19	4.70	3.03	.063
<b>RG-1270</b>	14.92	19.96	8.78	13.57	18.90	12.40	17.72	10.39	14.09	8.86	2.99	20

	M	N	O	P	Q	R	S	T	U	V	W
<b>RG-200</b>	3.66	6.73	14.61	Ø11.57	.25	5.78	5.78	3.11	3.94	Ø1.77	1.57
<b>RG-410</b>	3.44	6.95	17.6	Ø13.54	.25	5.81	4.17	3.27	3.94	Ø1.77	1.38
<b>RG-620</b>	4.65	4.76	21.14	Ø14.96	.25	5.90	4.57	4.05	3.94	Ø2.36	1.38
<b>RG-830</b>	4.65	9.13	23.46	Ø14.96	.25	5.92	4.86	4.09	3.94	Ø2.36	1.38
<b>RG-1270</b>	5.51	11.42	28.74	Ø19.68	.25	6.41	6.97	5.20	4.92	Ø2.91	1.77

## Application Limits



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HBCE-RG-17-A(500)