

CONSTANT FLOW REGULATOR

Type CFR 190, 312

FOR AMMONIA, R22, R134A, R404A, R502
AND OTHER COMMON REFRIGERANTS

Description

Automatic expansion valve for all refrigerants.
Small downstream pressure regulator.
Stainless steel seating.
Spring tempered diaphragms.
Bolt-on companion flanges

Ordering Information

Specify refrigerant load in tons
1/4", 3/8", or 1/2" FPT companion flanges.
Pressure range: S, 2-90 PSIG, Range H, 75-300 PSIG,
Range V, 25" vacuum-50 PSIG

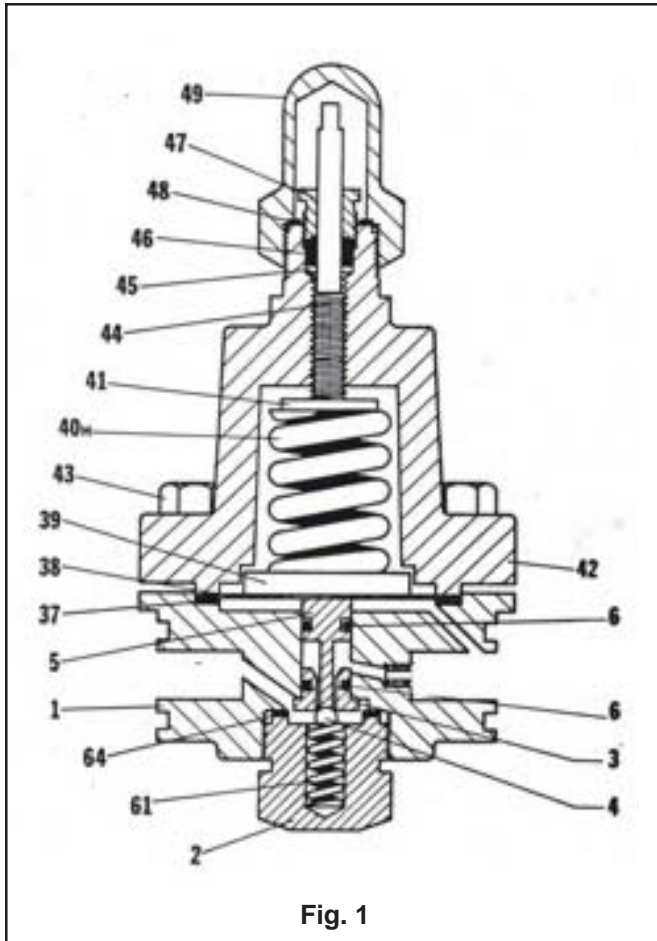


Fig. 1

Repair Kit CFR 190.....**206967**
Repair Kit CFR 312.....**206968**

BULLETIN 21-04

Type CFR



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Installation, Service and Parts Information

Capacity in Tons

		CONDENSING TEMPERATURE			
Model	Refrigerant	110°F	100°F	90°F	80°F
190	R-717	23	21	19	17
	R-22	8	7	6.5	6
	R-12	5.5	5	4.5	4
	R-502	6.6	6	5.5	5
312	R-717	40	37	33	30
	R-22	14	12	11.5	10.5
	R-12	10	9	8	7
	R-502	12	10.8	9.6	8.5

Item	Description
1	Body
2	Plug
3	Seat
4	Ball
5	Pusher Pin
6	O Ring
37	Gasket
38	Diaphragm
39	Spring Plate
40	Spring
41	Spring Guide
42	Bonnet
43	Cap Screw
44	Adjusting Stem
45	Stem Washer
46	Packing
47	Packing Nut
48	Gasket
49	Seal Cap
61	Spring, Ball
64	Gasket

SAFETY INFORMATION

Safe Operation (See also Bulletin RSB)

People doing any work on a refrigeration system must be qualified and completely familiar with the system and the Refrigerating Specialties Division valves involved, or all other precautions will be meaningless. This includes reading and understanding pertinent Refrigerating Specialties Division product bulletins and Safety Bulletin RSB prior to installation or servicing work.

Where cold refrigerant liquid lines are used, it is necessary that certain precautions be taken to avoid damage that could result from liquid expansion. Temperature increase in a piping section full of solid liquid will cause high pressure, due to the expanding liquid that can possibly rupture a gasket, pipe or valve. All hand valves isolating such sections should be marked, warning against accidental closing, and must not be closed until the liquid is removed. Check valves must never be installed upstream of solenoid valves or regulators with electric shut-off, nor should hand valve upstream of solenoid valves or downstream of check valves be closed until the liquid has been removed. It is advisable to properly install relief devices in any section where liquid expansion could take place.

Avoid all piping or control arrangements that might produce thermal or pressure shock. For the protection of people and products, all refrigerant must be removed from the section to be worked on before a valve, strainer, or other device is opened or removed. Flanges with ODS connections are not suitable for ammonia service.

SERVICE AND MAINTENANCE

All systems require maintenance and service. The personnel doing the work must be qualified and completely familiar with the system they are to work on or all other precautions will be meaningless. Do not attempt to work on any part of a refrigeration system without having help nearby and observing. Use safety glasses or a safety face shield for added safety to protect the eyes. Protective equipment should be readily available and all personnel involved should be thoroughly trained in its use.

Warranty

All Refrigerating Specialties Products are warranted against defect in workmanship and materials for a period of one year from date of shipment from the factory. This warranty is in force only when products are properly installed, maintained and operated in use and service as specifically stated in Refrigerating Specialties Catalogs or Bulletins for normal refrigeration applications, unless otherwise approved in writing by Refrigerating Specialties Division. Defective products, or parts thereof returned to the factory with transportation charges prepaid and found to be defective by factory inspection will be replaced or repaired at Refrigerating Specialties' option, free of charge, F.O.B. factory. Warranty does not cover products which have been altered or repaired in the field; damaged in transit, or have suffered accidents, misuse, or abuse. Products disabled by dirt, or other foreign substances will not be considered defective.

THE EXPRESS WARRANTY SET FORTH ABOVE CONSTITUTES THE ONLY WARRANTY APPLICABLE TO REFRIGERATING SPECIALTIES PRODUCTS, AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WRITTEN OR ORAL, INCLUDING ANY WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. No employee, agent, dealer or other person is authorized to give any warranties on behalf of Refrigerating Specialties, nor to assume, for Refrigerating Specialties, any other liability in connection with any of its products.