A collection of short pointed topical papers.





Fault Finder

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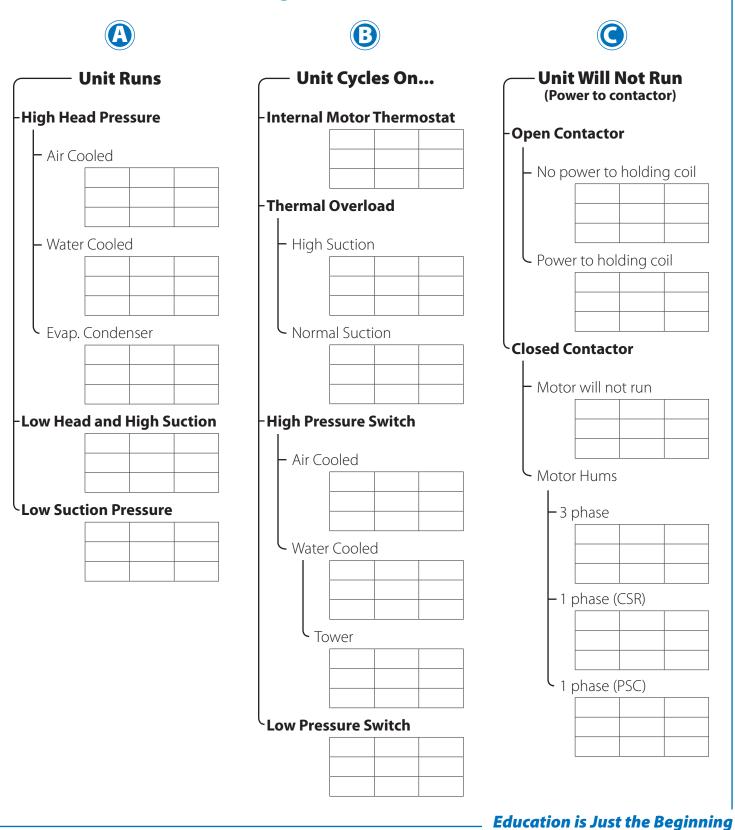
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Refrigeration Fault Finder Guide Insufficient or No Cooling (Thermostat calling for cooling)





Refrigeration Fault Finder Guide Insufficient or No Cooling (Thermostat calling for cooling)

Fault Number Key

- 1. Low pressure switch open
- 2. High pressure switch open
- 3. Motor overload open
- **4.** Control transformer or fuse open
- 5. Broken or loose control wire
- **6.** Holding coil burned out
- 7. Motor winding open
- 8. Internal motor stator open
- **9.** Contactor's contacts burnt off or missing
- 10. Single phasing
- 11. Grounded winding
- **12.** Stuck compressor
- **13.** Bad start capacitor
- **14.** Bad run relay
- **15.** Wired wrong
- 16. Run capacitor open or shorted
- 17. High low pressures not equal
- **18.** High voltage and low suction
- 19. Suction gas too warm
- 20. High head pressure
- **21.** Inefficient compressor: valves, gaskets etc.
- **22.** Wrong refrigerant
- 23. Too much evaporator air
- 24. Low voltage
- **25.** Phase unbalance

- 26. Tight compressor
- 27. Compressor box hot
- **28.** Scaled or dirty coil
- 29. Low air quantity
- **30.** Air re-circulation
- **31.** Dirty water screen
- 32. Pump stopped
- **33.** Overcharge of refrigerant
- **34.** Non condensables in system
- **35.** Dirty coil
- **36.** Defective water valve
- **37.** Insufficient water
- **38.** Water too warm
- **39.** Low refrigerant charge
- 40. Restricted drier or filter
- **41.** Restricted capillary
- **42.** Bad TX valve power element
- **43.** Restricted refrigerant distributor
- **44.** Improperly sized compressor (under/over sized)
- **45.** Compressor running "unloaded "
- 46. Pressure operating control improperly set
- **47.** Defective or improperly set EPR valve
- **48.** Defective or improperly set CPR valve
- 49. Low evaporator load
- **50.** Condensers low ambient controls defective



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Unit Runs

-High Head Pressure

- Air Cooled

29	30	33
34	35	

Water Cooled

28	33	34
36	37	

Evap. Condenser

28	29	30
31	32	

-Low Head and High Suction

•		
21	44	45

Low Suction Pressure

22	29	39
40	41	42
43	44	49



Unit Cycles On...

-Internal Motor Thermostat

18	19	40

-Thermal Overload

- High Suction

20	21	
22	23	

Normal Suction

22	24	25
26	27	

-High Pressure Switch

- Air Cooled

29	30	33
34	35	50

- Water Cooled

28	33	34
36	37	38

Tower

29	30	37

Low Pressure Switch

29	39	40
41	42	44
46	47	48



Unit Will Not Run (Power to contactor)

Open Contactor

No power to holding coil

1	2	3
4	5	8

Power to holding coil

- :					
	6				

Closed Contactor

- Motor will not run

otor will floctall					
	7	8	9		

Motor Hums

- 3 p	ohase		
	7	10	
	11	12	

- 1 phase (CSR)

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	12	13	
	14	15	

1 phase (PSC)

	7	12		
	16	17		