

INTISARI

Air Conditioner adalah alat pengondisian udara di dalam ruangan. Keberadaan *Air Conditioner* untuk PT Nutrifood Indonesia sangat penting, utamanya adalah ruangan produksi. Pada ruangan produksi dipasang AC jenis *split duct* untuk menjaga suhu dan kelembaban ruangan agar sesuai dengan standar yaitu suhu di bawah 25°C dan kelembaban (RH) di bawah 65%.

Pada ruangan *filling 9 lane* PT Nutrifood Indonesia dipasang AC *split duct* berkapasitas 15 PK merk *Fuji Electric*. Dalam perangkat AC *split duct* memiliki unit *outdoor* yang didalamnya terdapat kompresor. Kompresor ini seperti jantung manusia, merubah refrigeran bertekanan rendah menjadi bertekanan tinggi kemudian memompanya ke pipa untuk siklus refrigerasi.

Karena peran kompresor yang sangat krusial dalam siklus refrigerasi AC *split duct*, maka di dalam unit *outdoor* terdapat sistem pengaman kompresor untuk mengamankan kompresor dari gangguan *loss phase*, *low pressure*, *high pressure*, *over current*, dan *overheat fan*.

Pada sistem pengaman kompresor AC *split duct* 15 PK ini terdapat gangguan yaitu tekanan refrigeran yang sangat rendah (*low pressure*). Penulis menganalisa gangguan dan melakukan *trouble-shooting* serta melakukan pengukuran setelah dilakukan *trouble-shooting* terhadap unit AC tersebut.

Kata kunci: AC *split duct*, kompresor, refrigeran, *loss phase*, *low pressure*, *high pressure*, *over current*, *overheat fan*

ABSTRACT

Air Conditioner is a tool of air conditioning in the room. The existence of Air Conditioner for PT Nutrifood Indonesia is very important, is the main production room. In the production room mounted split type air conditioning duct to keep the temperature and humidity of the room to match the standard that is the temperature below 25°C and kelembaban (RH) below 65%.

In the space filling Indonesian 9 lane PT Nutrifood mounted split air conditioner duct capacity 15 PK brand Fuji Electric. In the split air conditioner duct has an outdoor unit in which there is a compressor. These compressors such as the human heart, changing the low-pressure refrigerant becomes high pressure and then pumped into the pipe for the refrigeration cycle.

Because of the crucial role of the compressor in the refrigeration cycle split air conditioner duct, then in the outdoor unit compressor contained security system to secure the compressor from interference phase loss, low pressure, high pressure, over current and overheat fan.

In the safety system duct split air conditioning compressor 15 PK, there are disorders that are very low refrigerant pressure (low pressure). The author analyzes interference and perform trouble-shooting and take measurements after trouble-shooting on the air conditioning unit.

Key word: AC split duct, compressor, refrigerant , loss phase, low pressure, high pressure, over current, overheat fan