



NEW INVERTER COMPRESSOR CHILLER ON R513A PROVIDES ENERGY EFFICIENCY



THE CHALLENGE

Following an invite to tender for a £16 MIL new build project from one of our EPCM customers, ICS Cool Energy were specified to provide a full turnkey solution including a screw chiller.

The customer currently operates a multiphase flow testing loop at their laboratory in Scotland. This facility is the global centre for independent testing and development of multiphase flow meters.

To meet increased demand from the Oil and Gas industry, the customer needed to extend the flow and pressure ranges available for testing. To achieve this, the new flow lab facility was required to be built adjacent to the existing site, where the screw chiller would be used to provide process cooling.

The process consists of a recirculating loop of oil, water and gas that is separated and then recombined, allowing the three phases to be metered as individual phases and as a combined three-phase flow.

THE SOLUTION

Once specified, our sales engineer met the customer at their site to undertake a site survey, review their process and discuss their exact requirements.

During the consultation, the sales engineer explained the benefits of selecting the screw chiller with twin inverter compressors and twin inverter pumps with the low GWP R513a refrigerant – all providing greater efficiency and savings for now and the future.

In addition to the requirement for the screw chiller, whilst undertaking the site survey, it became apparent that a chiller unit on their existing building required replacement due to ongoing condenser issues causing failure. To ensure the duty requirements were met, the sales engineer included within the proposal, two 400kW scroll chillers on R410A to provide 750kW of cooling.



THE RESULT

The R513a refrigerant is a suitable replacement for R134a with a low GWP of <630 compared to 1430. As it is more environmentally friendly, it is also more budget friendly, which provides the customer with a more sustainable option for the future when they may require more gas.

In addition to savings created from the more environmentally friendly R513a, the customer will also benefit from greater performance provided by the twin inverter compressors which will give the site an excellent turndown efficiency.

The trouble-free performance of the additional scroll chillers will save the customer considerable maintenance costs and disruption.

All units are being supported by an ICS Cool Energy planned preventative maintenance programme which includes regular water checks and laboratory testing as well as extended warranties for the units – providing extra peace of mind.



Date code: 08/18

Our International offices:

Ireland: +353 (0)46 92 52934

Germany: +49 (0)7046 88087 0

Netherlands: +31 (0)88 258 258 0

Switzerland: +41 (0)55 415 91 09

Austria: 00800 0116 0117

France: +33 1 60 66 80 83