



Welcome to the latest newsletter from HAT International, aimed at keeping all our customers up to date with the latest products and developments within our company, as well as some general news on what's going on in the industry. We trust you find it informative and we welcome any comments or suggestions you may have to improve the format.

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LATEST DEVELOPMENTS

We are pleased to announce the opening of our new **London Sales Office** to service customers in the Southern UK, Europe and North Africa. Recently joining the company as **Business Development Manager** for these territories is **Mr Raffaele Merola**. Raff will be focusing on HAT's range of standard column packings and demisters as well as supporting the company's full range of mass transfer and separation internals, and associated installation and commissioning services.

Orders this month include the **offshore installation** of the trays and column internals supplied for an Amine gas sweetening plant in the North Sea; two separate contracts for the supply of **separator and scrubber internals** and baffles for FPSO projects in the Asia-Pacific region and an order for the supply of duplex stainless steel **static mixers and coalescer packs** for use in oily water treatment service in the Middle East.

Recent deliveries include a number of solid bed **reactor internals** including bed support grids and wedge wire screens, floating screens and inlet/outlet diffusers for two projects in the Middle East; numerous **wire mesh demisters** and demister spray wash systems for customers in the Middle East, Far East and UK; and several **vane inlet distributors** for gas treatment columns for West Africa.

FEATURED APPLICATION - COMPRESSOR GAS SCRUBBERS

Our feature this month looks at the selection of internals for liquid mist removal from gas in compression systems. Although a relatively straightforward knock-out service, there are a number of factors the design should take into account when compared with gas/liquid separators in regular applications. In particular these include mechanical vibration, flow pulsation and a consideration of the likely liquid droplet characteristics. A conventional scrubber design would look at the overall performance envelope especially liquid loading, gas density and turndown to determine the optimum inlet device and mist eliminator type. Higher liquid loads generally mean the designer should consider more sophisticated vane type inlet devices rather than simple deflectors or half-pipes. Note that VID's also allow a more compact height between the liquid level, inlet and demister due to their better gas/liquid distribution, a benefit which may be important for HP vessel cost control.

Wire mesh - Lower liquid loads, good for fine droplet removal, largest flow area required, simple, economic, good turndown and low pressure drop, may plug in fouling service or fine wires may break off in corrosive service particularly if combined with vibration, hence their use in compression trains needs careful consideration if wire particles can cause damage downstream.

Vane types - High liquid loads, good for medium and large droplet removal but can also be designed for fine mists, more compact and expensive than wire mesh pads, slightly higher pressure drop, performance may suffer at high gas densities and/or low turndown. Good for compressor service where flow conditions are relatively stable and resistant to vibration and pulsation.



Axial Swirl Cyclones - Can accept quite high liquid loads and generally offer good performance for a wide range of droplet sizes. Most compact design, but more expensive and higher pressure drop, can be designed for LP and HP applications although turndown may be limited unless combined with a secondary mesh or vane device. Also resistant to vibration and pulsation. Usually used where a reduction in vessel diameter is required.

Compressor knock-out systems should specify that all internal bolting should be self-locking type, If compressor oil is expected to be carried over into the KO vessel it can have a tendency to form a film on the vessel walls, so anti-creep demister designs should be employed to prevent it having an easy path to the outlet nozzle.

INDUSTRY MARKET NEWS

OIL PRICE HITS NEW HIGHS.....After trading relatively steadily between USD 70-71 during most of June, Brent crude shot up to nudge USD 80 mid July on speculative buying following low US stockpile data.

NICKEL PRICE REVERSES.....After 6 months of rapid advance to USD 24/lb in May, Nickel prices have been dropping back to levels around USD 15/lb by mid July, but are still double the price of 24 months ago.

DOLLAR SINKS TO NEW LOWS.....The US currency has continued its long slide to below USD1.00 = 0.725 Euros and 0.49 GBP by mid July.

OIL DEMAND TO OUTSTRIP SUPPLY BY 2012.....The IEA/OECD warns that rising demand for oil and gas from emerging countries is forecast to put pressure on prices and exceed global production by 2012.

Thank you for reading, if you would like more details about the above topics or our product range, please contact us any time using info@hatltd.com