

ECOFLUX* Corrugated Tube Heat Exchanger

HRS Process Systems Ltd, India, is part of UK-based HRS group of companies, a leading heat transfer technology provider. HRS is equipped with a strong network all across domestic and international market like UK, Spain, USA, India, Australia, New Zealand and Malaysia to fulfil technology needs of process industries.

The high demand for heat transfer equipments in industries like chemical, pharmaceutical, agrochemical, petrochemical, oil and fats, fertilizer, food and beverages, engineering and others is driving the advancement in heat transfer technology. Heating, cooling, chilling, condensing, re-boiling, pasteurizing, sterilizing, evaporating are the key processes in these industries. To carry out such processes effectively, heat exchanger becomes heart of the process plant.

During heat transfer process, over a period of time, deposition of substance occurs. Formation of this boundary layer



is referred to as FOULING, a factor which poses resistance to product flow. Fouling is typically high in shell and tube (smooth tube) heat exchangers and significantly impacts the heat transfer process.

HRS offers ECOFLUX corrugated tube heat exchanger (CTHE), which is a shell and tube heat exchanger where "corrugated tubes" are used instead of plain tubes. This is a definitive option to tackle fouling seen in regular shell and tube heat exchangers. The tubes in ECOFLUX CTHE are corrugated to induce turbulence in both the flows

(product and service) even at lower velocity. Corrugated tube thus, boosts heat transfer multi-fold even at low Reynold's number with minimum increase in pressure loss. This enables efficient heat transfer even in liquids with high viscosity, large fibers or particulates.

ECOFLUX corrugated tube heat exchangers are compact in yet give significantly enhanced performance over smooth tube heat exchanger. It can be customized according to the process needs with wide choice of MOC like SS-304L, SS-316L, 904L, 321, Titanium, Duplex, Hastelloy, Alloy 20 and Copper depending upon compatibility of process fluids.

ECOFLUX CTHE is offered in a range of models as per ISO, TEMA and latest design standards to suit different process applications. It enables continuous process running for longer duration, requires low maintenance and also gives high response to CIP. This proves to be a versatile, economical and energy-efficient equipment for multiple process industries. ■

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Ultra-compact Industrial PC



The newest generation of universal, flexible and ultra-compact IPCs from Beckhoff is ideal for all tasks in the fields of automation, visualisation and communication. The Series has been expanded with the addition of the C6017, with an increased variety of interfaces and an integrated UPS. The C6017 is practically identical in design to the popular C6015, currently the smallest ultra-compact IPC from Beckhoff. The existing C6015 configuration with DisplayPort connection, an onboard dual Ethernet adapter with two 100/1000Base-T connections as well as a USB 3.0 and USB 2.0 port, is being extended on the C6017 with an additional two RJ45 and two USB 2.0 interfaces. Moreover, an optional capacitive 1-second UPS is integrated, which ensures storage of persistent data in the event of a power supply failure. Equipped with an Intel Atom CPU with up to four processor cores, the passively cooled IPC also features a robust aluminium and zinc die-cast housing so it is equally ideal for automation, visualisation and communication tasks up to the mid-performance range.

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or Circle Readers' Service Card 1

Slideway Low Friction Material



Slideway is an engineered thermoplastic developed for use in linear sliding elements to avoid metal-to-metal sliding contacts. It is a self-lubricating, wear-resistant material manufactured under technical know-how from BUSAK + SHAMBAN, USA.

Rollon Slideway provides low friction, stick slip-free operation, better positioning accuracy, repeatability, vibration damping and long life with minimum wear. It is dimensionally stable, maintenance-free and can be operated with or without lubrication for short duration; the allowable bearing pressure is 115 kg/cm and is suitable for high speed applications (conditions apply).

Rollon Slideway is used extensively on the guideways of new and reconditioning of guideways in SPMs, CNCs and conventional machine tools. It is available in thickness ranging from 0.8 to 4.0 mm and standard width of 12", length as per customers' requirements.

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or Circle Readers' Service Card 2

Indexing Plungers



Corrosion resistance, hygiene and material quality are properties which are highly appreciated in the pharma and food industry, in hospital engineering, fresh water supply and waste-water engineering, the aerospace industry, conveyor engineering and in machine and plant construction.

For these industries Elesa+GANter's standard machine elements has added to its product range of index plunger models GN 613 / GN 617 and GN 617.1 the design variant with stainless steel knob - the first all stainless steel index plunger. The GN 613 indexing plungers have no collar and boast extremely small dimensions, designed to absorb axial forces in their end position. The GN 617 and GN 617.1 indexing plungers are each fitted with a collar, with the GN 617.1 indexing plunger featuring an additional indexing lock. These are used if the index pin is temporarily not allowed to protrude. To engage, the knob is turned by 90° after pulling out. An index notch prevents the disengaged knob inadvertently turning back under the impact of vibrations. All stainless steel indexing plungers are made in consistently high quality and feature a long service life. Options - Ganter offer include the holding fixtures GN 612.1 and GN 412.1 as mounting aids for indexing plungers, cam

action-indexing plungers and positioning bushings (GN 412.2).

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