

CONTROLS, DRIVES & AUTOMATION

BRINGING TOGETHER ENGINEERING & DESIGN

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FESTO

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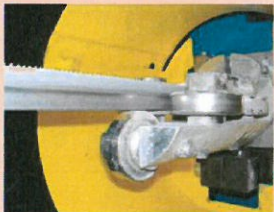
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FOR USE IN DUSTY ENVIRONMENTS

When high quality band saw manufacturer, ProSaw, found that bearings were regularly failing on automated saws that had been supplied to a prominent manufacturer of building insulation, ProSaw turned to NSK for a solution.

"As soon as we saw the application we realised that, although perfectly stable in its solid form, the insulation material produces fine abrasive particles when it is being cut with a saw blade. While no issue on a building site, the particles were an issue in production; working their way through the standard bearing seals, sticking to the lubricant inside and creating a fine lapping paste which was wearing the bearings out extremely quickly," says Simon Grant, business development manager at NSK.



The solution was to recommend the use of NSK Deep Groove Ball bearings with the high performance DDU sealing arrangement, these bearings are designed specifically for use in dusty environments and employ a face riding contact seal with a grease return feature on the inside surface of the seal. They also incorporate a shoulder on the inner ring and an additional debris trap on the outside.

Tel: 0500 2327464



ELECTROMECHANICAL CLUTCH TAKEN FROM PROTOTYPE TO PRODUCTION

In one of the first automated transmission systems on the market, Eichenberger Gewinde has developed the critical structural element for a cutting edge, automatic version of the clutch, taking it from a one-off prototype to series production. It is available through Eichenberger's UK distributor, Moore International.

Using a cold-formed steel ballscrew of diameter 12mm and pitch 3mm, the clutch is able to fully engage at low motor rotation speeds by merely pressing a switch. Operating the clutch is also adapted according to information supplied by a tilt sensor and the required starting gear, while the motor rotation speed can be increased for a smooth start if required.

The clutch does not slip when it is used, meaning the speed of the mechanisms in frictional contact does not deviate. The clutch, therefore, is 100% efficient at disconnecting the transmission from the engine. This efficiency effectively protects the clutch and other drive train components against mechanical overloading.

Tel: 01202 743222

PNEUMATIC PRODUCTS

Thorite's latest Summer 2015 Air Power publication begins with a useful Compressor Selection Guide followed by 12 pages of compressors, each hand-picked to provide the ultimate choice for either DIY, Trade or Professional users.

The compressors include direct drive, belt drive and silent piston models from FIA, ABAC, SIP, as well as Thorite's own-brand Professional and Performance ranges. There are also 110V and petrol powered compressors, plus a choice of high output single phase tandem units.

Every compressor featured in Air

Power includes completely free delivery.

Tel: 01274 663471



HYDRAULIC CLAMPING & BRAKE SYSTEM

New from KTR is a clamping system that is able to clamp both axial forces and torque; in emergency cases it is even able to brake. The passive clamping and brake system KTR-STOP NC is hydraulically driven and offers a multifunctional use.

The KTR-STOP NC clamps the shafts from ball screw drives, linear drives or bar guides, holding tool tables and work pieces in place. The clamping increases the system stiffness and reduces vibrations ensuring an accurate manufacturing process.

Additionally, the system offers a failsafe function: when unplanned loss of hydraulic pressure or an engine failure occurs the NC assumes the function of a brake and closes within milliseconds.

Tel: 0114 258 7757

CYCLOIDAL GEARS FOR FAST APPLICATIONS

The new cycloidal gears of the RF-P series from Nabtesco are claimed to set new standards for fast applications in a compact space,

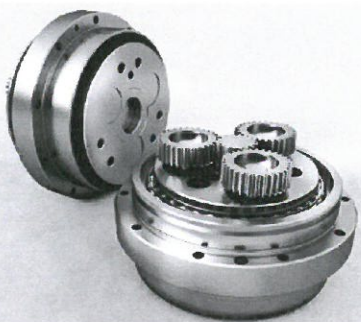
making the eccentric gears ideal for use in the arm axes of Delta and Scara robots, as well as in the wheel drives of driverless transport systems (DTS).

The compact cycloidal gears achieve high output speeds of up to 200rpm and operate with extremely high precision. In the zero crossing of the hysteresis the maximum opening is two arc

minutes. This is especially advantageous in fast pick & place or positioning tasks in industrial environments, and also in automated transport processes that use driverless transport systems, for example in warehouse logistics.

For applications in the food industry the gear heads are available already filled with H1 lubricants.

Tel: +49 (0) 211 17379 0



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