

Joystick boot dust and Dirt

Penny + Giles has developed a protective boot for its JC120 single axis fingertip joystick. Designed for aggressive and hostile environments, the boot gives a high degree of protection against the ingress of dust and dirt.

The boot is made from Neoprene, chosen for its resistance to deterioration from oils, greases and many other petroleum-based products. It has excellent weathering properties and is self-extinguishing, making it ideal for the conditions often found in the production and storage of materials such as aggregates, chemicals and agricultural foodstuffs.

Sealed to IP67 with the boot fitted, the JC120 is a small, compact joystick measuring only 26.5mm wide (28.5mm with the boot fitted) typically used in remote control 'chest packs' as used for loader and other cranes. It features a pivoting lever design that provides one axis of forward and reverse movement and a spring-return to centre.

c&a innovations

The Penny + Giles JC20 joystick with neoprene boot.



The Integrated poppet valve.

New poppets

Integrated Hydraulics has introduced a range of new 2-port, 2-way directional control poppet valves for 160 litres/min systems. Spool type valves rely on the close fit of the spool and sleeve to limit leakage across the spools lands when closed.

The poppet valve, however, uses a piston pressed against its seat by fluid pressure to prevent flow, with suitable surface finishes on the mating parts, flow past the valve will be minimal, in this case less than 5 drops per minute at 210 bar pressure differential.

The poppet valve also offers excellent flow conditions when the valve is open, thereby reducing pressure losses. Additionally, when the valve is open the flow washes over the poppet and seat removing any contamination that may be present, even the smallest particles of

which can cause havoc in a hydraulic system. These new valves are suitable for flows to 160 litres/min and pressures to 210 bar in both Normally Open and Normally Closed versions and they will fit cavities common to several other manufacturers. The solenoid in these valves operates a small pilot piston in the main poppet, which controls the pressure of fluid behind the main poppet and the balance of pressure moves the piston to the desired position. This arrangement reduces the power required by the solenoid, permitting high flow, high pressure applications.

Crash barrier vacuum lifter without hydraulics

Al-Vac has developed a two head vacuum lifter for its Combat lifting machine, the first of the new heads is designed for all S type barrier profiles while the other suits square box section types.

The vacuum head grips a length of barrier, allowing it to be lifted from its pallet rotated, and then aligned with the mounting posts for precise installation. The Combat is battery operated and completely self contained; it can be suspended from a loader crane without a need for any hydraulic or other connection. The vacuum head will safely handle up to 500kgs, more than enough for even the longer sections. The system includes a battery saving feature to maximise battery life and an accumulator which retains a partial vacuum after a section has been placed, both to save energy as well as to be ready to immediately pick up the next section.

The Al-Vac Combat has two specialised motor way barrier vacuum heads, which when utilised with a loader crane and remote control can provide large boosts to productivity



Anti Collision overheads

Smie, the crane anti collision specialist, has developed a new anti collision system, for overhead or gantry type cranes. The AC140 manages the interference between overhead or gantry cranes on one or more parallel and/or vertically separated tracks. The device not only helps improve safety, but thanks to its deceleration sensing can also boost productivity.



Smie has applied its tower crane experience to the industrial sector.

The AC140 provides Real-time communication of all parameters between all cranes that have the possibility to interfere with each other. The cranes can be on the same track or on several levels of parallel tracks. In the case of the system sensing a possible interference the AC 140 will either slow down one or both cranes or stop one or both. The AC140 is designed to cope with dusty or greasy environments and even where visibility is limited.

Each crane is fitted with a single AC system, it indicates the actual location of the crane on its rails, therefore allowing limits to be set for the cranes travel without the need for mechanical stops. The system can be set to maintain minimum distances between two cranes on the same track or even with a third crane in between and linked to prevent track overload. It can also control the spacing of two cranes on parallel tracks at several levels. The AC 140 also measures the travelling speed and direction of the crane, so that it can calculate the stopping distance. Smie says that the reliability and accuracy of these systems is such, that stopping distance between cranes can be substantially reduced, increasing productivity.