VRC Overload Detection System

Custom mechanical VRCs (vertical reciprocating conveyors) manufactured by Wildeck are now available with the advanced AutoSenz™ overload detection system which includes an easy-to-read graphical display interface and extensive system diagnostics that make the VRC much easier to use and understand.

Wildeck’s breakthrough AutoSenz™ technology (Patent No. 7,408,317) continuously monitors and protects your VRC from jams or material overload conditions. The AutoSenz™ system automatically determines the overload setpoint each time the VRC motor starts lifting, which is far superior and safer than fixed setpoint motor overload systems.

When a VRC is raised, bulky material has the potential to shift and accidentally project off the side of the carriage, entering the running/clearance zone. This material could then become wedged between the carriage and side of the building, or other equipment/structure. Since standard VRCs are designed to provide their full lifting force, an accidental jam could cause severe equipment and facility damage.

Wildeck’s new AutoSenz™ overload detection system has been designed to stop the VRC in its tracks and alert the operator so corrective action can be taken.
INNOVATIVE DESIGN

Wildeck VRCs with AutoSenz™ technology are the most innovative and safe mechanical lifts available. They are well suited for multi-level applications demanding faster speeds and higher frequency rates.

VRC DIAGNOSTIC MESSAGES

If the AutoSenz™ system detects a reason to stop the VRC’s travel, an easy-to-understand text message will be displayed for the operator. Examples include:

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carriage Jam</td>
<td>Carriage has jammed.</td>
</tr>
<tr>
<td>Over Capacity</td>
<td>Carriage load too heavy.</td>
</tr>
<tr>
<td>Gate Open</td>
<td>Gate interlock open contact not made.</td>
</tr>
<tr>
<td>Phase Loss</td>
<td>Motor was single phased.</td>
</tr>
<tr>
<td>E-Stop</td>
<td>E-Stop pushed and not reset.</td>
</tr>
<tr>
<td>Motor OL Relay</td>
<td>Motor overload relay tripped.</td>
</tr>
<tr>
<td>Carriage O.T.</td>
<td>Over travel limit switch was tripped.</td>
</tr>
<tr>
<td>Chain Fault</td>
<td>Chain limit switch was tripped.</td>
</tr>
<tr>
<td>CR Fault</td>
<td>Monitors control redundancy.</td>
</tr>
<tr>
<td>Floor LS Fault</td>
<td>Two different floor level limit switches were ON at once.</td>
</tr>
<tr>
<td>Missed Floor</td>
<td>Carriage missed the desired middle floor.</td>
</tr>
</tbody>
</table>

Whether your installation requires a single mechanical lift or multiple VRCs, Wildeck’s AutoSenz™ overload detection system is essential to reduce potential damage to your facility, equipment or inventory due to VRC overloads or jams.

APPLICATIONS:

- Distribution Centers
- Warehouses
- Manufacturing
- Military Installations
- Government Facilities
- Assembly Plants
...and more

MECHANICAL LIFTS:

- Heavy-duty 4-Post
- Straddle
- Cantilever
- Automated Lifts

DIGITAL CONTROLLER

The integral digital controller communicates a wide range of functional data, VRC status and a complete VRC event history log - features that are not available from other VRC manufacturers. Displays include:

- Main Systems Status
- VRC Event/History Log
- Real-Time I/O Status
- Motor Amperage Meter
- VRC Parameter Setup
  (password-protected)
- Maintenance Mode/
  Jog Control
- Additional Control Screens