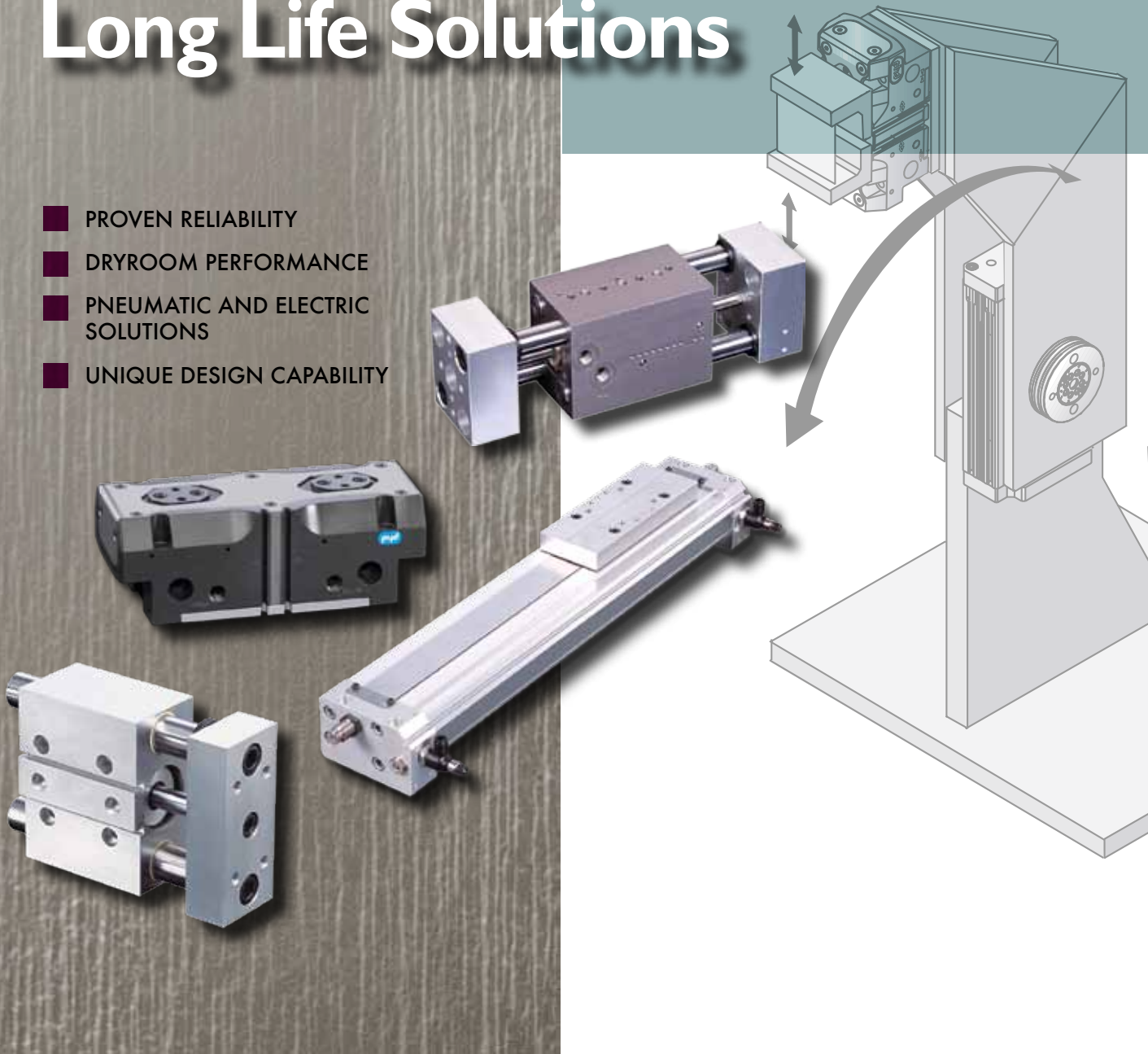


lithium ion battery
manufacturing

Long Life Solutions

- PROVEN RELIABILITY
- DRYROOM PERFORMANCE
- PNEUMATIC AND ELECTRIC SOLUTIONS
- UNIQUE DESIGN CAPABILITY



We can meet
your dry room requirements.

LITHBMFG01



PHD is a member of the
MAC Distributor Network



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www.phdinc.com • phdinfo@phdinc.com

DRY CELL

**We can meet
your dry room requirements.**

- PHD understands that dry rooms must meet or exceed the stringent requirements for lithium ion battery manufacturing.
- PHD has developed a number of products that have proven to perform at optimum levels while in your dry room. Many of our products have been thoroughly tested in our dry room chamber. Our dry room chamber has controlled humidity levels of the ambient and actuated air that match or exceed your dry room specifications.

lithium ion battery manufacturing

PROVEN RELIABILITY:

Below are just a few of PHD units that have proven long life with high repeatability within the dry room environment.

These products have been thoroughly tested over 10 million cycles in our dry room chamber which has a controlled humidity level of 0.1% relative humidity and a -80°C dew point.

GRW Gripper



SFP Slide



SAH Slide



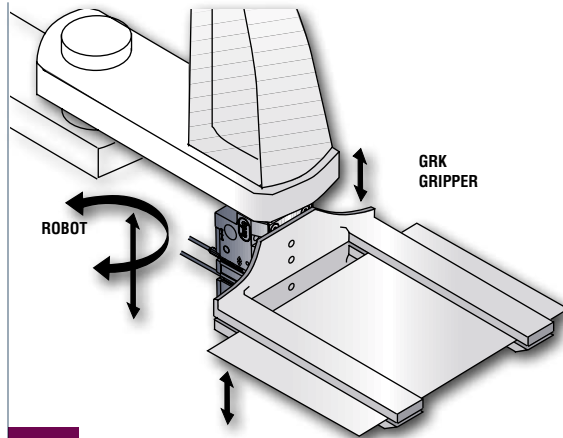
GRK Gripper



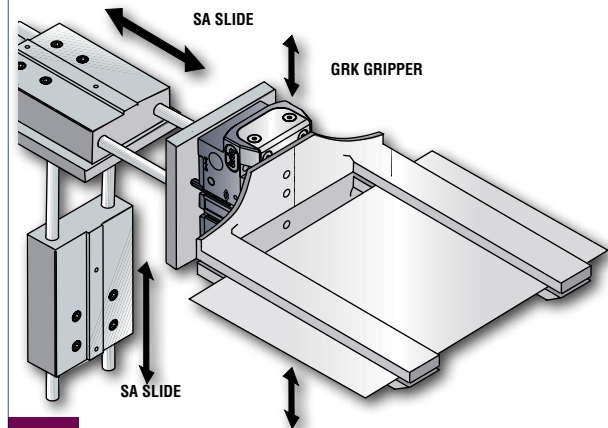
Full life units for lithium ion battery manufacturing

Here are some examples of dry room solutions already provided by PHD.

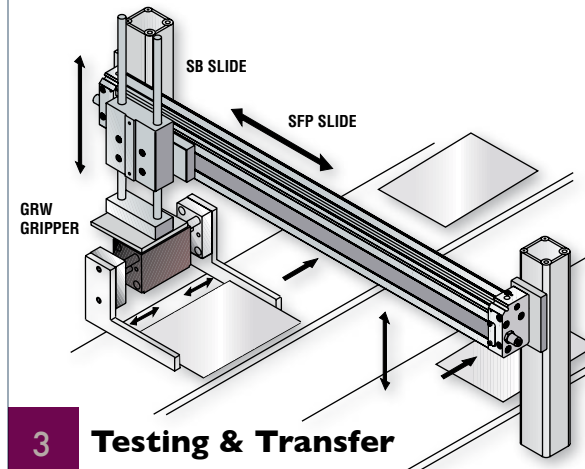
see next page for more solutions



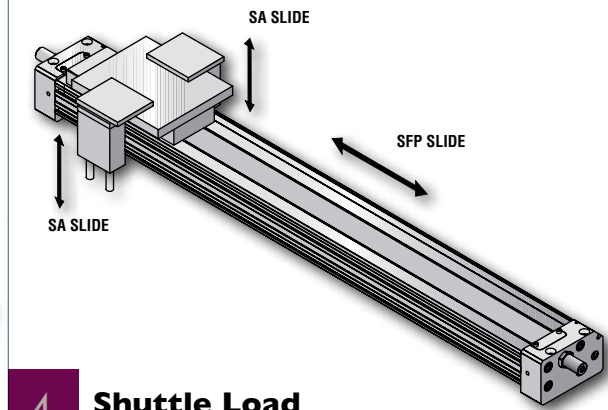
1 Battery Plate Transfer



2 Hand-Off Assembly

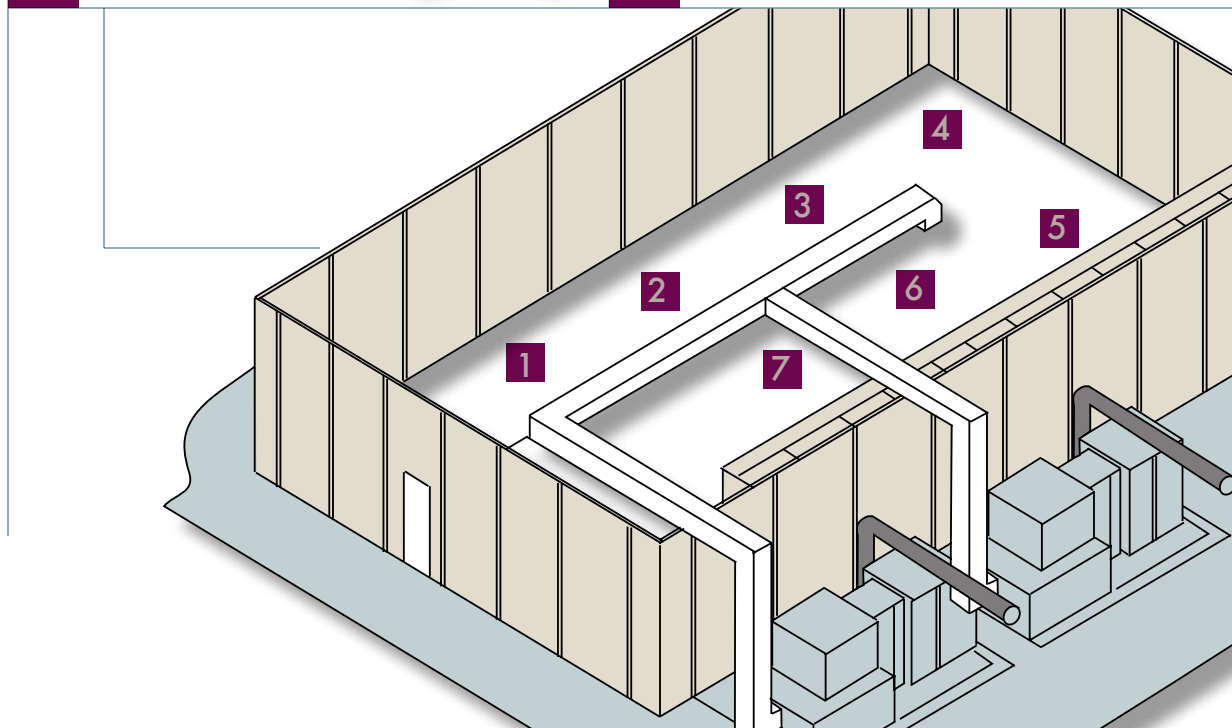


3 Testing & Transfer



4 Shuttle Load

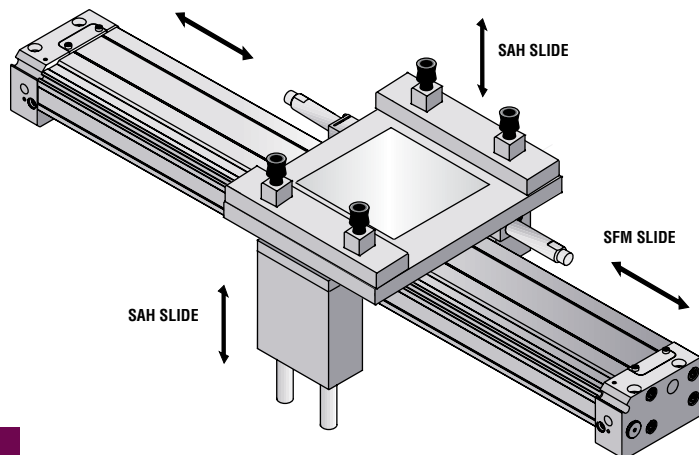
- experience
- proven reliability
- lowest cost of ownership
- full life
- high repeatability
- unique solutions
- electromechanical
- optimum precision
- superior delivery



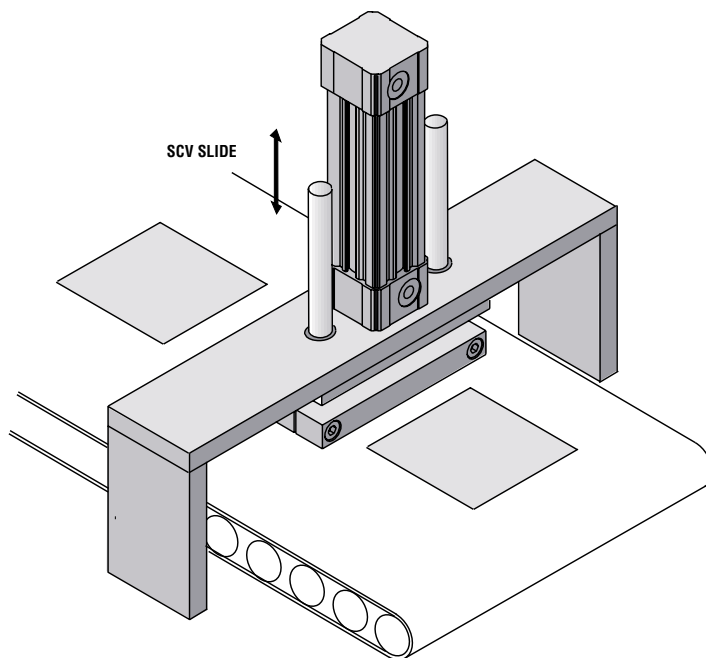
Electric Solutions



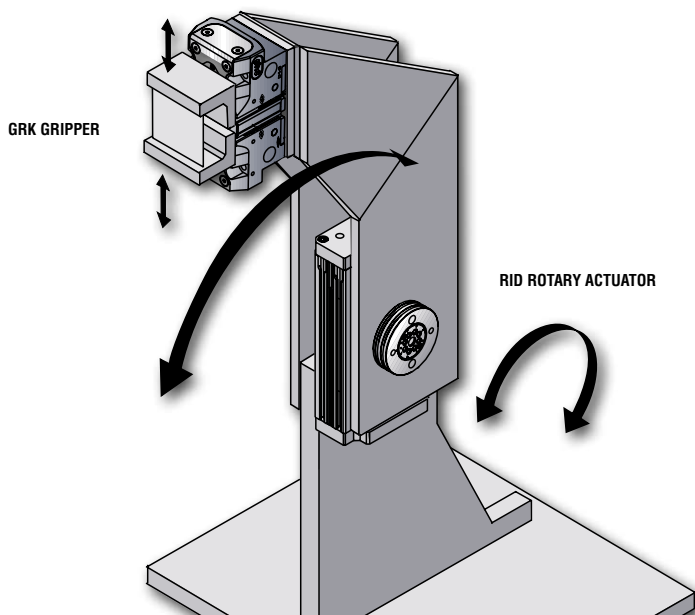
Unique Solutions™



5



6



7

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