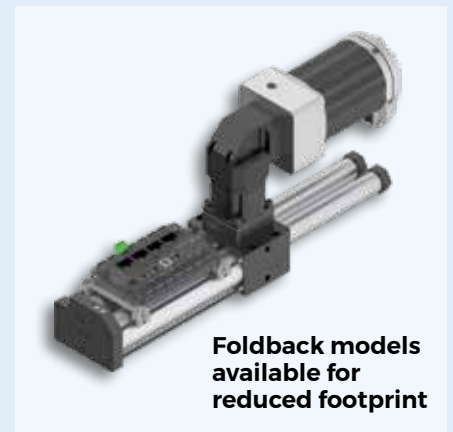
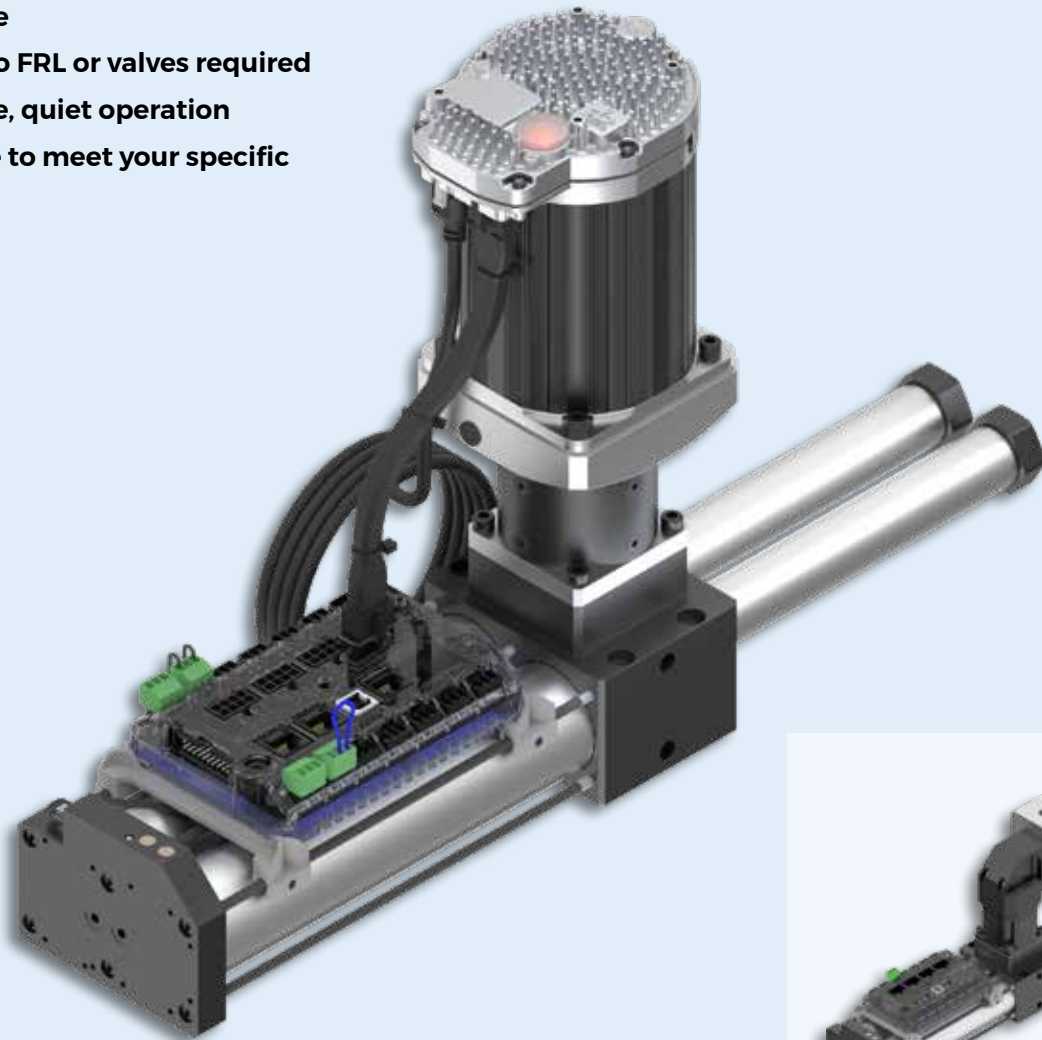


Electrify Pneumatic Actuators with PHD's Remote Drive

- Increases energy efficiency
- Maintains force to pneumatic actuator
- Removes weight of motor from actuator
- Powers multiple pneumatic actuators at the same time
- Easy setup: No FRL or valves required
- Reduces noise, quiet operation
- Customizable to meet your specific application



Foldback models available for reduced footprint

ERDP

Patent Pending

DESCRIPTION

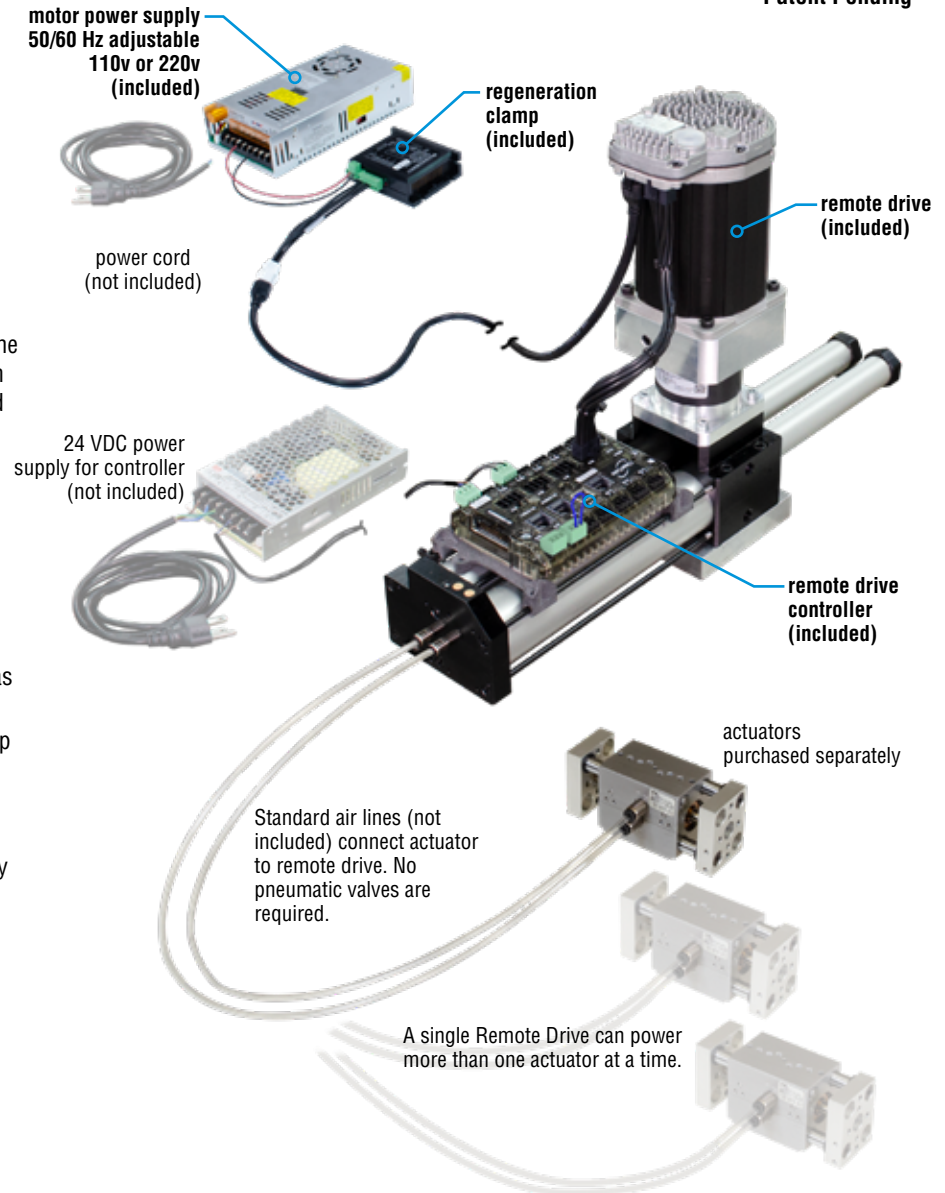
- The PHD Remote Drive electrically powers pneumatic grippers, clamps, and short travel linear actuators, independent of factory air systems.
- Unlike a conventional pneumatic system, the remote drive and attached actuator(s) form a closed loop system with no air exhausted during operation.

BENEFITS

- Pneumatic actuator(s) is driven the same as a standard pneumatic valve.
- Powers appropriately sized actuator with up to 100 psi [7 bar] operating pressure.
- Programmed to emulate behavior of pneumatic actuator (i.e. grip - release).
- Motor brake can be added to reduce energy consumption during long gripping or clamping intervals. Contact PHD for more details.
- Consult PHD for other sizes and options.

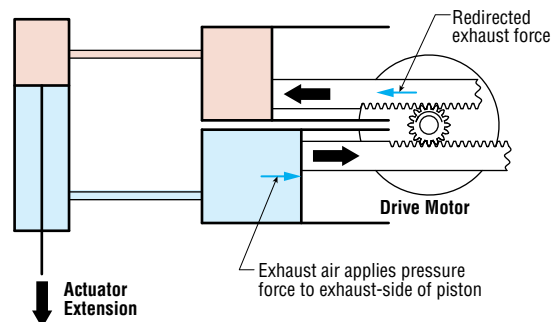
OPERATION

- Force produced against the exhaust-side piston is redirected to help compress the compression-side air.
- Energy expended to compress air on the compression side is recovered during subsequent expansion.
- Two-piece piston opens during the expansion cycle to replace air leaked.
- Pneumatic actuator(s) connects directly to the remote drive with standard pneumatic tubing.
- Remote drive connects to your digital controls.



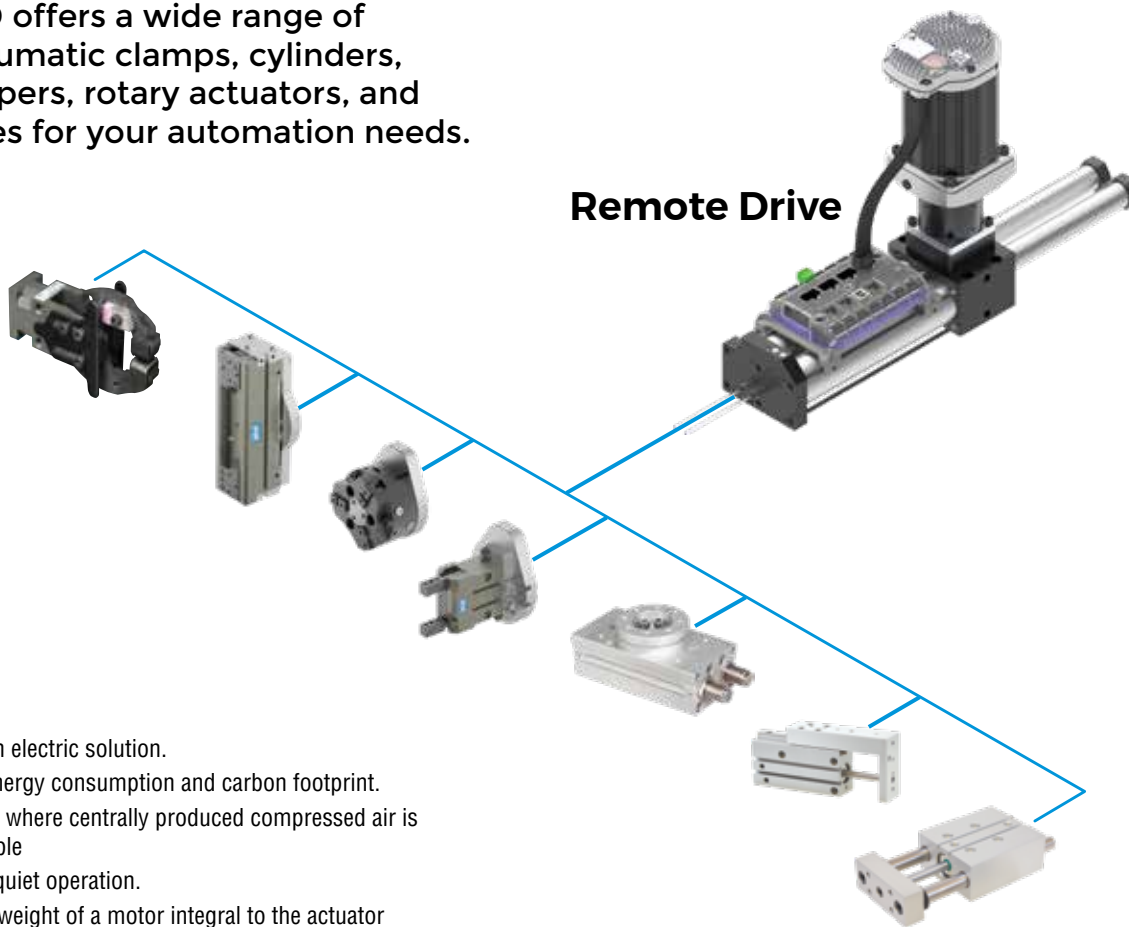
Air waste is the greatest energy inefficiency in conventional pneumatic systems!

PHD's Remote Drive does not exhaust air!



PHD offers a wide range of pneumatic clamps, cylinders, grippers, rotary actuators, and slides for your automation needs.

Remote Drive



USES

- Provide an electric solution.
- Reduce energy consumption and carbon footprint.
- Supply air where centrally produced compressed air is not available
- Provides quiet operation.
- Eliminate weight of a motor integral to the actuator (transfer bar and robot arm weight limitations).
- One motor powering multiple actuators.

APPLICATION EXAMPLES

- Automated guided vehicles
 - Welding cells
 - Crossbar robotic feeding
 - Medical / Hospitals
 - Packaging
 - Robotic EOAT
 - Assembly cells
 - Food processing
- And many others

Consult PHD with your application needs.



Warehouse



Assembly



Packaging



Crossbar Transfer



Medical



Weld Cells

ENGINEERING DATA & DIMENSIONS: Model ERDP Remote Drive

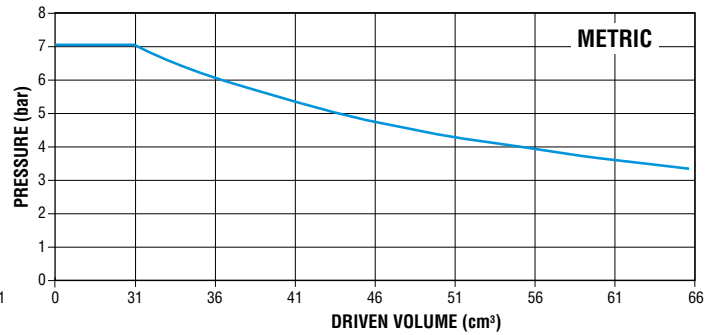
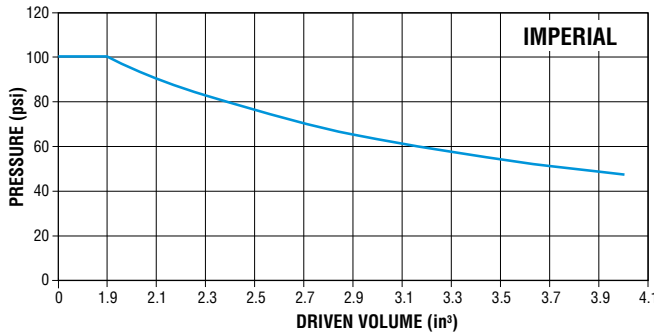
SPECIFICATIONS	ERDP54
MOTOR POWER SUPPLY ⁽¹⁾	1500 W ⁽³⁾ , 85 - 145 VAC @ 50/60 Hz Input
MOTOR CONTROLLER POWER SUPPLY ⁽²⁾	5 W Minimum, 24 VDC
TYPICAL NOISE LEVEL	50 dB
ACTION TIME ⁽⁴⁾	380 mS Maximum
WEIGHT	17.44 lb [7.91 kg]

NOTES:

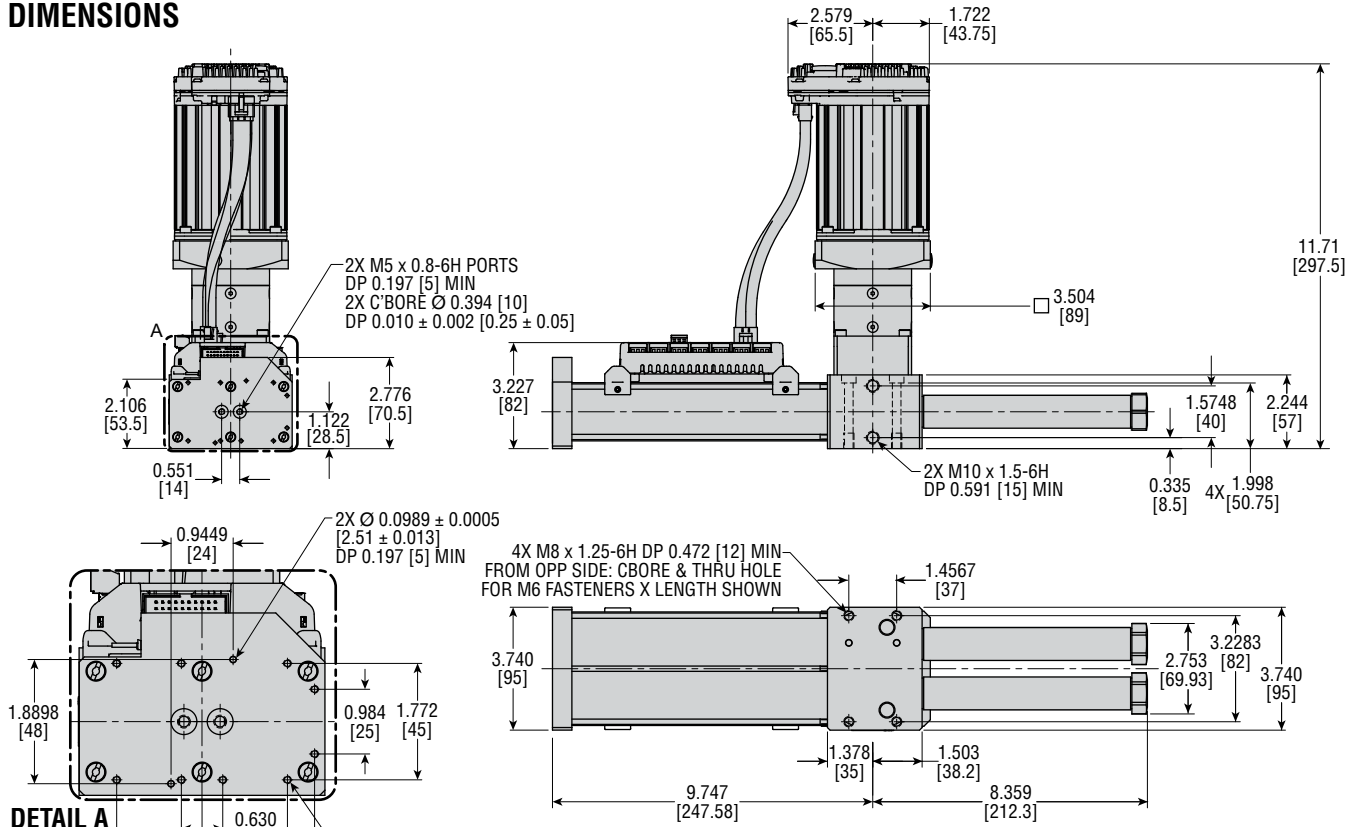
- (1) Supplied with Remote Drive
- (2) Supplied by customer
- (3) Maximum capability of power supply; typical energy consumption in drive mode much lower and depending on application
- (4) Time for driven actuator to open or close (grippers or clamps), extend or retract (linear cylinders), rotate (rotaries), or escape component (escapements)

ERD PRESSURE VS. DRIVEN VOLUME

DRIVEN VOLUME = Actuator volume (one direction) + airline volume (one direction) + additional volumes
(example: valving placed between ERDP54 and multiple driven actuators)



DIMENSIONS



NOTES:

- 1) DESIGNATED \varnothing IS CENTERLINE OF MOUNTING PATTERN
- 2) ALL DIMENSIONS ARE REFERENCE ONLY UNLESS SPECIFICALLY TOLERANCED