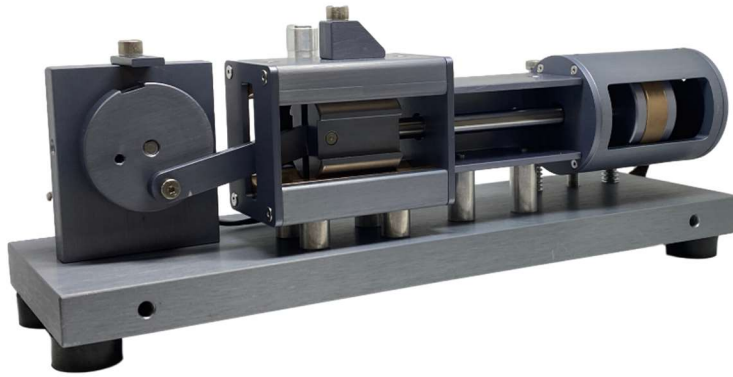


## CMCP601R

### Reciprocating Compressor Demonstration Kit



#### Features:

- 0 to 300 RPM
- Adjustable Height Cylinder
- Rod Drop and Runout
- Crosshead Vibration
- Crosshead Pin Reversal
- Motor/Gear Vibration
- Cylinder End Vibration
- Loose Piston Nut
- Portable Demonstration Kit
- Battery or Charger Powered

#### Product Overview

The CMCP601R Reciprocating Compressor Demonstration Kit is designed to demonstrate vibration monitoring techniques used on Reciprocating Machinery. Fully equipped with sensors the CMCP601R can be equipped with Accelerometers on the Motor/Gear, Crosshead and Cylinder End along with Proximity Probes in the Distance Piece for Rod Drop and Rod Runout. A mounting bracket and machined Flywheel Notch are provided for a Proximity Probe Keyphasor or other type of once per turn reference signal. Two shaft connecting rod holes are provided for adjusting the total stroke distance.

The Battery Powered DC Motor has an adjustable speed of 0 to 300 RPM (0 to 5.0 Hz). The Cylinder is independently mounted on two vertical spring-loaded linear bearings and height (alignment) can easily be adjusted to demonstrate both Rod Drop and Rod Run Out. The Crosshead has both upper and lower Oil Infused Bronze Bearings (Slippers) and the Piston rides on actual Wear Ring Stock. The Connecting Rod has Bronze Bearings on both ends and connects the Flywheel (Crank) to the Crosshead Pin. Stroke can be adjusted on the Flywheel between 1", and 1.25" (25.4 and 31.75 mm).

The CMCP601R Reciprocating Compressor Demonstration Kit comes complete with: Reciprocating Compressor Kit, Carrying Case, Rechargeable Li-Ion Battery and Charger.

#### Motor/Controller Specifications

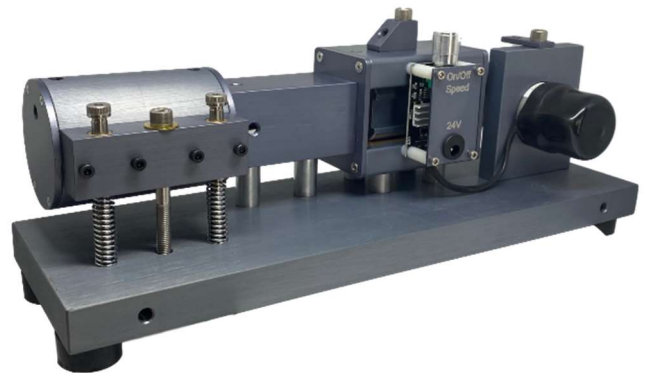
Speed Range:	0 to 300 RPM
Rotation:	Clockwise
Stroke:	1", 1.25" (25.4mm, 31.75mm).
Voltage:	24 VDC
Motor Torque:	4 N.cm
Current Draw:	120 mA Full Speed, 200 mA Startup
Controller:	80 Watts, 3 Amps Max

#### Battery and Charger Specifications

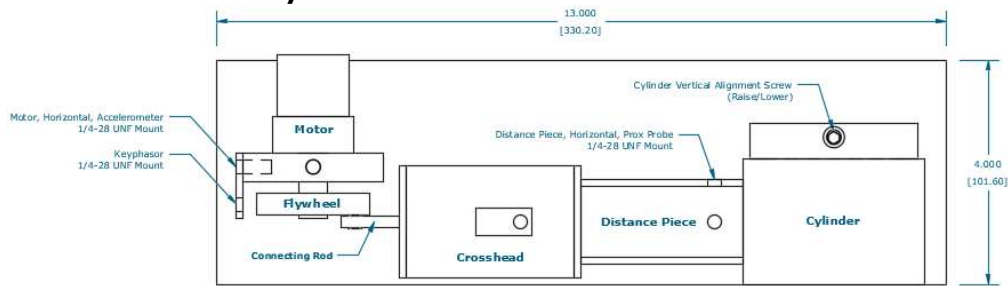
Battery Output:	22.2 VDC, 3.2 Amps
Battery Life:	>20 Hours Continuous Operation
Charger Output:	25.2 VDC, 2 Amps
Power/Charging Cable:	2.1 mm Jack/Splitter Cable

#### Mechanical Specifications

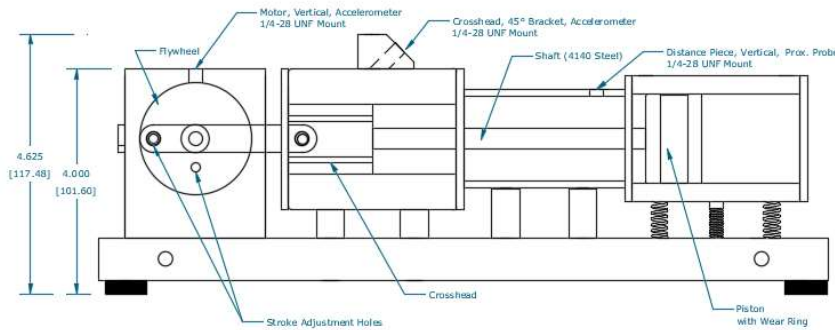
Base Material:	Aluminum, Anodized Gray
Piston Rod:	4000 Series Steel
Wear Ring Material:	Bronze Filled PTFE



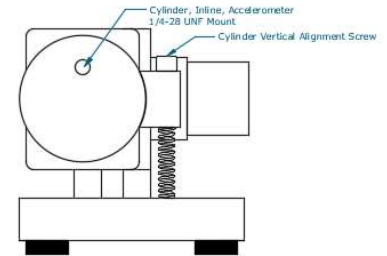
## Dimensions and Layout



Top View



Side View



Non-Driven End View

## Sensor Mounting Locations

Motor Mount:	(2) Vertical and Horizontal (Accelerometers)
Keyphasor:	(1) Once per Turn, Flywheel (Proximity Sensor)
Crosshead:	(1) Vertical or 45° Mount (Accelerometer)
Distance Piece:	(2) Vertical and Horizontal (Proximity Probes)
Cylinder:	(1) Axial, In Line with Piston (Accelerometer)
Mounting Threads:	(All) 1/4-28 UNF

## Dimensions and Weight

Rotor Kit Dimensions:	13" L x 4" W x 5.1" H (330 x 102 x 130 mm)
Travel Case Dimensions:	17.5" L x 14.2" x 7.1" H (444.5 x 360.6 x 180.3 mm)
Weight:	14 Lbs. (6.35kg)

## Optional Sensor Accessory Kit Contents

1x Battery Pack	(CMCP-Bat-22.2)
2x Sensor Power Module	(CMCP300P)
1x Proximator Mounting Plate	(CMCP300P-PLATE-M)

## Optional Sensor Kit Contents

3x Accelerometers	(CMCP1100-05-00-00) Motor Mount Horizontal, Crosshead and Cylinder End
2x Proximity Probes Systems	(5mm, 200mV/mil Output) Keyphasor and Rod Drop/Runout

## Ordering Information

CMCP601R	Reciprocating Compressor Demonstration Kit Includes Reciprocating Compressor, Battery Pack, Battery Charger and Travel Case
CMCP601R-ACCKIT	Optional Sensor Accessory Kit (Includes Additional Battery, 2 CMCP300P Interface Modules and Proximator Plate)
CMCP601R-SENSORS	Optional Sensor Kit Includes Three Accelerometers and Two Proximity Probes
CMCP-BAT-22.2	Li-Ion Battery and Charger