CORNELL PUMP COMPANY

# FLOW METERS

## CO-PILOT™ REMOTE MONITORING CAPABLE

CORNELL

EFFICIENT BY DESIGN




CORNELL Co·Pilot™

# ELECTROMAGNETIC FLOW METER



## INTRODUCING NEW CO-PILOT FLOW METERS

| FLOW METER | |
|---|---|
| LINEAR MATERIALS | EBONITE |
| METERING TYPE | MAGNETIC |
| ELECTRODE MATERIAL | HASTELLOY C |
| FLANGE RATING | ANSI 150LB |
| INGRESS RATING | IP68 (HEAD UNIT) |
| BODY CONSTRUCTION | FULLY WELDED & INTERNALLY POTTED |
| VOLTAGE | BATTERY or 12-24VDC |
| AMBIENT TEMPERATURE | -4° TO 140°F / -20 TO 60°C |
| FLUID TEMPERATURE | -13° TO 176°F / -25° TO 80°C |
| ACCURACY | 0.2% of rate +/-0.08in/sec |
| FLOW VELOCITY RANGE | 0.05ft/sec TO 32.81ft/sec |
| FLOW UNITS | Ft3, GAL, m, m3, l, ML |
| OUTPUTS | PULSE , 4-20mA (when powered) MODBUS |

**Battery or wired configurations are available!**

## UTILIZE RPM² SOFTWARE WITH FLOW METER TO TRACK:

- ROBUST AND RELIABLE CONSTRUCTION
- ACCURATE MEASUREMENTS
- SMALL PHYSICAL FOOTPRINT
- BI-DIRECTIONAL METERING
- ABILITY TO OPERATE ON BATTERY
- EXTRAORDINARY CHEMICAL RESISTANCE
- CERTIFIED IP68 PROTECTION
- FULLY WELDED POTTED BODY
- ELECTRODES IN HASTELLOY C
- EASY INSTALLATION
- OUTSTANDING CO-PILOT SUPPORT AND INTEGRATION

**FLOWMETER AVAILABLE SIZES: 4" - 12"**
FOR OTHER SIZES INQUIRE WITH CORNELL

**PART OF RPM² ASSET MANAGEMENT SYSTEM**

RPM² REMOTE

# ELECTROMAGNETIC FLOW METER





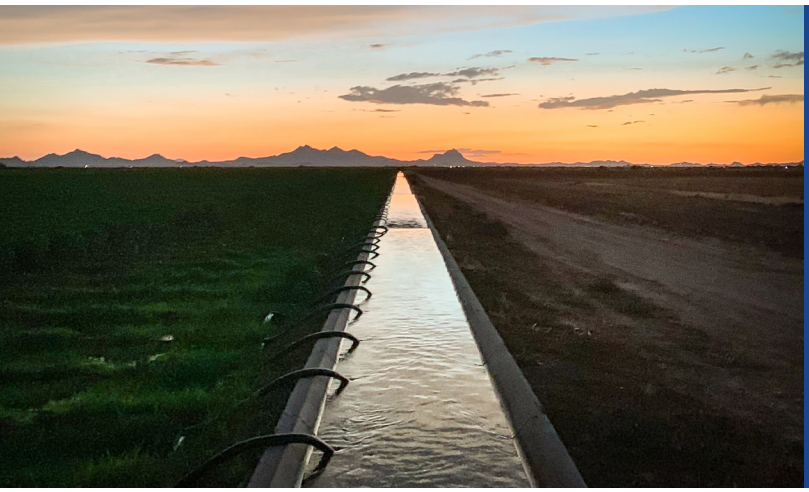
Cornell Flow Meters can be integrated with our popular Co-Pilot™ monitoring system to track current flow conditions and totalization over time.

Available in battery and wired configurations, Cornell Flow Meters are constructed to rigorous Cornell specifications in Europe. Designed to work seamlessly within the Co-Pilot ecosystem, the Flow Meters can provide:

- Important System Data
- Current Flow Rate & Accumulation Tracking
- Totalizations based on time
- Municipal organizations with verifiable data logs

The most trusted name in equipment monitoring and management assures users that our Flow Meters will meet or exceed reliability, durability, and accuracy expectations. Contact **iotsales@cornellpump.com** or your Cornell Regional Sales manager today to learn more about this remarked evolution in flow monitoring.

# CORNELL CO-PILOT™ FLOW METER



## Flow Meters—help track water usage. Critical in Western states' agricultural and industrial applications.

Penalties for noncompliance have increased, and enforcement reporting and actions are up. With a Flow Meter, tracking usage is easy to do. Useful in canal pumping, well extraction, and more.

AGRICULTURE

FOOD PROCESS

INDUSTRIAL

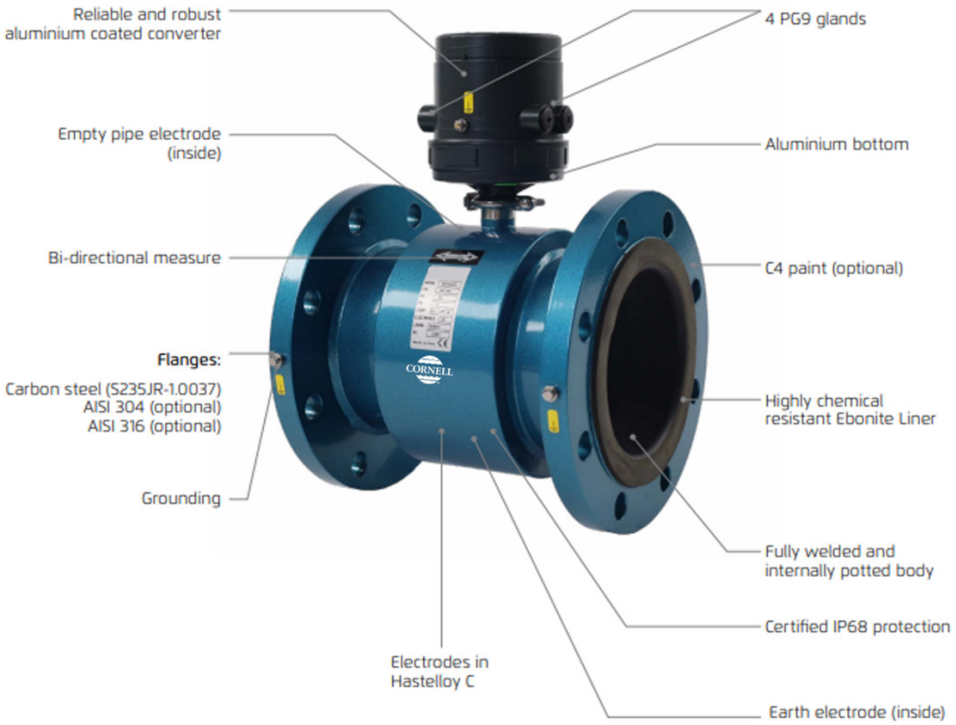
MINING

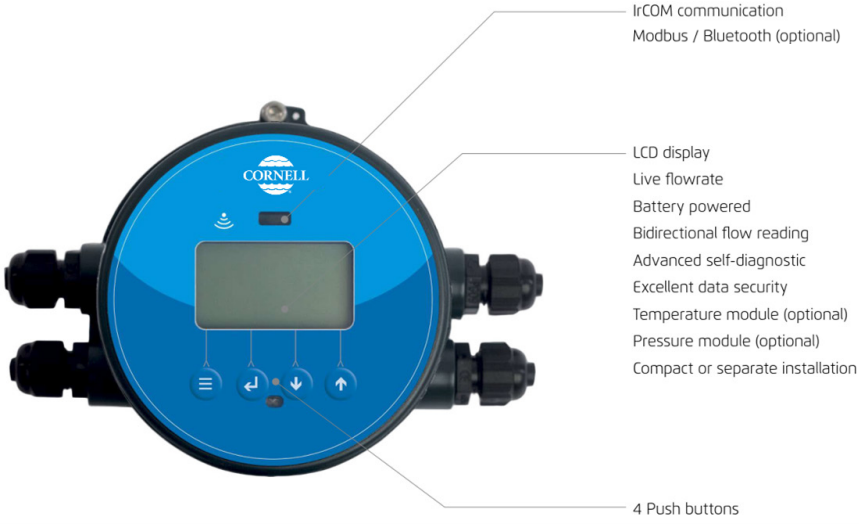
MUNICIPAL

OIL & GAS

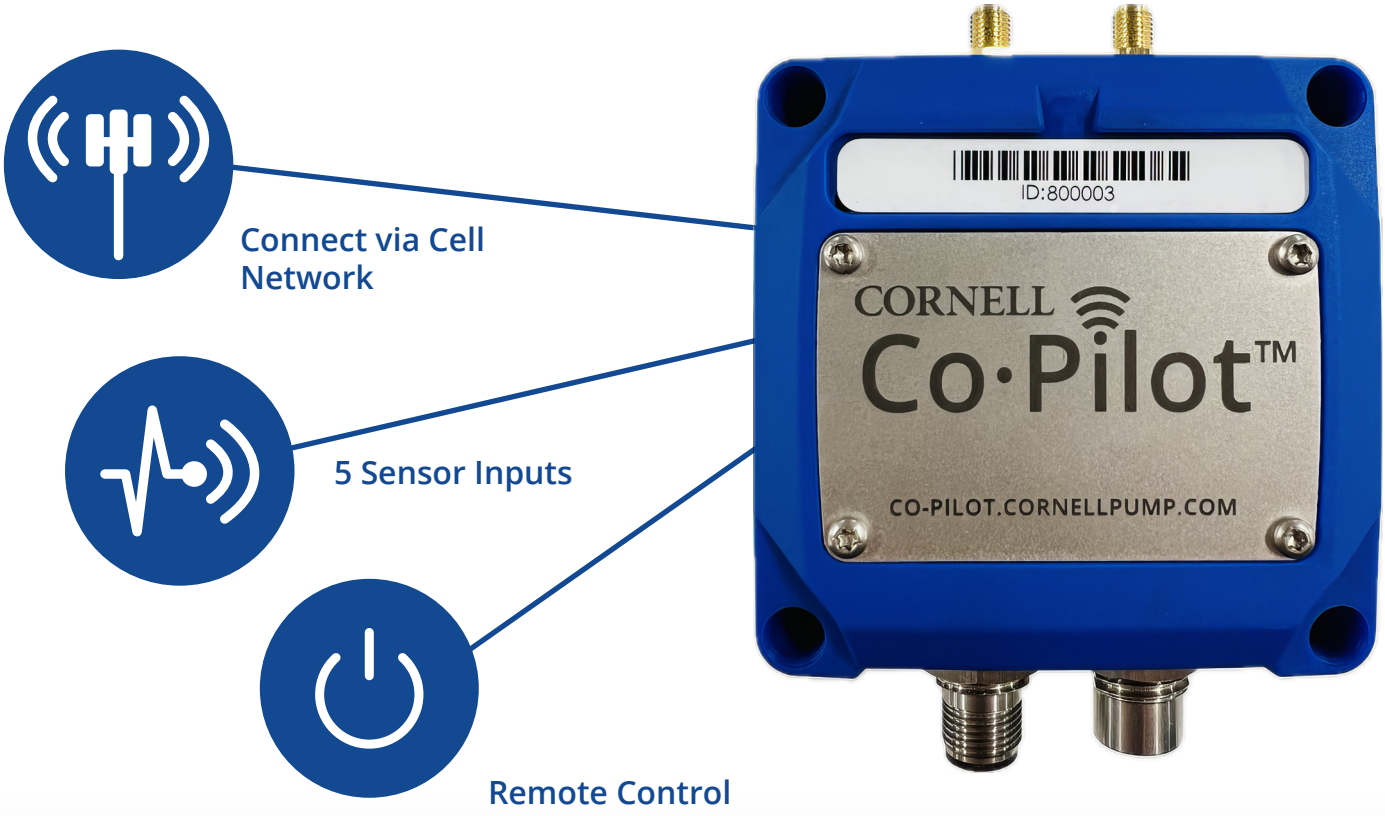
RENTAL

REFRIGERATION



# CO-PILOT™




CORNELL Co·Pilot™

## THE POWER OF IOT

Cornell Co-Pilot is a telematics monitoring system that mounts on your pump and is externally powered by 12-24 VDC via battery or wired connection. Co-Pilot harnesses the power of IoT (Internet of Things) by delivering you the control and data you need to maximize your pump's efficiency, compare data across multiple pumps, and manage maintenance all from your phone, tablet, or PC. We at Cornell pride ourselves in providing quality, user-friendly pump monitoring solutions that reflect our dedication to cutting-edge design and meeting customer needs.

## USE THE CO-PILOT TO:

- Plan maintenance
- Check operation with real-time pump data, and monitor performance degradation and critical conditions.
- Get alerts from out-of-condition operation
- Reduce manual inspections
- Reduce warranty claims
- Improve efficiency
- Compare data across multiple pumps
- Better asset management
- Cloud monitor single and multiple pumps

## MONITORING AT YOUR FINGER TIPS

Easily monitor your pump's performance and get remote control through your PC and mobile apps available for iOS and Android. Receive alerts for out-of-condition parameters and view the GPS location of the pump(s). Set up user accounts for employees and end users in one convenient platform.

## CORNELL CO-PILOT ALLOWS YOU TO:

- GPS location and history
- Flow rate & accumulation with compatible flow meter
- Suction & discharge pressure
- Radial & axial vibration
- Temperature
- Remote start/stop and adjust RPM
- Engine/Motor data
- Operation hours
- Fluid levels

*Requires external sensors; contact Cornell for details.

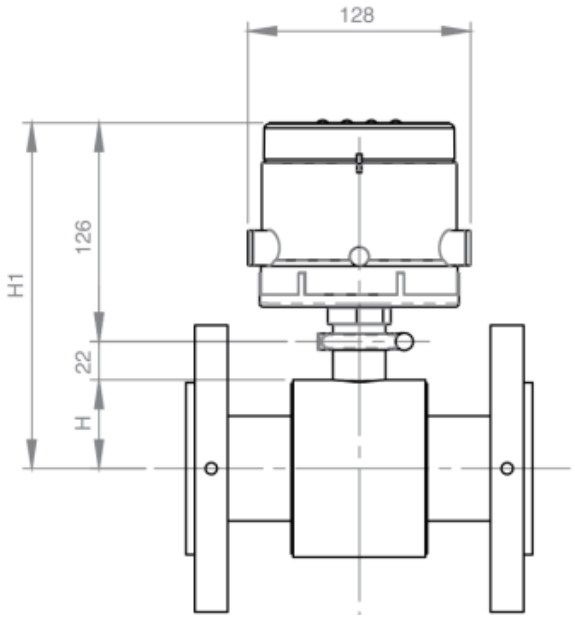
**PART OF RPM² ASSET MANAGEMENT SYSTEM**

RPM² REMOTE

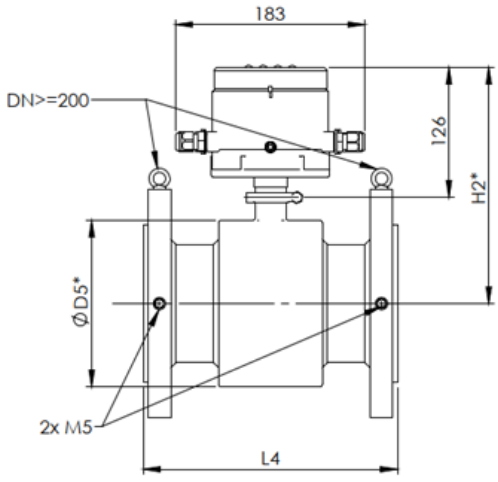
# INSTALLATION

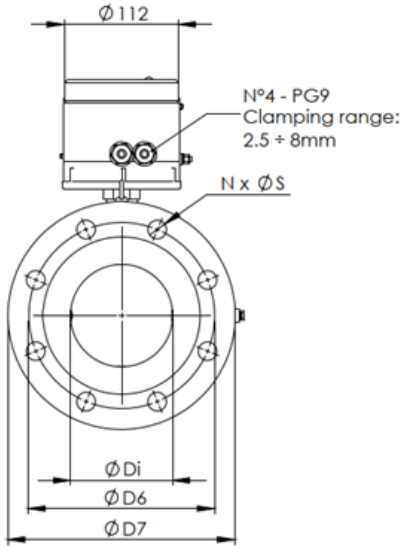
## MECHANICAL INSTALLATION

The following mechanical installation images are designed to show how simple it is to set up a Cornell Co-Pilot Flow Meter. If an end-user has questions, Cornell offers calibration videos on our YouTube Channel for an easy setup. Cornell's inside application engineers also stand ready to answer any questions about Flow Meter installation, Co-Pilot, or other IIoT offerings.



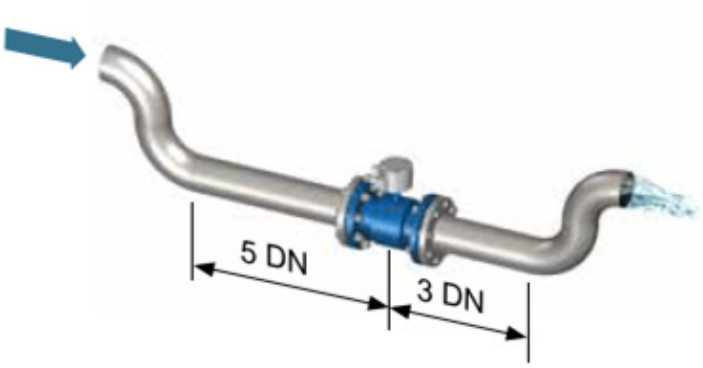

| SIZE | H (in) | H1 (in) |
|---|---|---|
| 4" | 3.19 | 19.08 |
| 6" | 4.13 | 21.08 |
| 8" | 5.16 | 23.25 |
| 10" | 6.30 | 25.67 |
| 12" | 7.32 | 27.83 |




| DN | L4 | DS | Di | D6 | D7 | N | S | H1 | H2 | H3 |
|---|---|---|---|---|---|---|---|---|---|---|
| 4" | 9.84 | 6.34 | 3.83 | 7.50 | 9.06 | 8 | 3/4 | 9.19 | 9.00 | 10.81 |
| 6" | 11.81 | 8.27 | 5.84 | 9.50 | 11.02 | 8 | 7/8 | 10.16 | 9.96 | 11.77 |
| 8" | 13.78 | 10.28 | 7.68 | 11.75 | 13.58 | 8 | 7/8 | 11.16 | 10.96 | 12.78 |
| 10" | 17.72 | 12.56 | 9.65 | 14.25 | 15.94 | 12 | 1 | 12.30 | 12.11 | 13.92 |
| 12" | 19.69 | 14.61 | 12.12 | 17.00 | 19.09 | 12 | 1 | 13.33 | 13.13 | 14.94 |

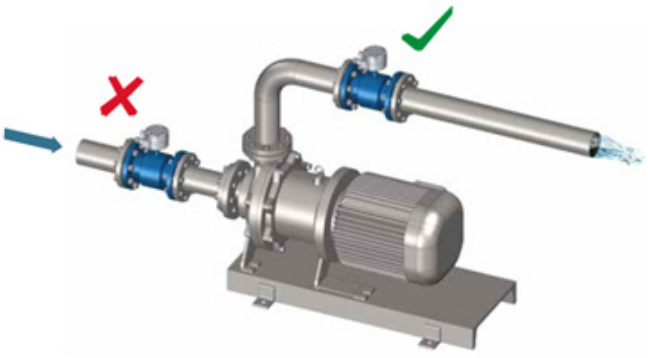
# INSTALLATION




## INSTALLATION GUIDELINES

**IMPORTANT NOTE: THE SENSOR MUST ALWAYS BE FULL OF LIQUID**

Flow Meter should be installed 5x pipe diameters down-stream of any obstructions (pipe bends, valves, etc.) and 3x pipe diameters upstream of any obstructions.



**AVOID NEGATIVE PRESSURE INSTALLATIONS**

VIEW HELPFUL SETUP VIDEOS AT:
HTTPS://WWW.YOUTUBE.COM/@CORNELLPUMPCOMPANY

# CORNELL PULSE™




- CONNECTS VIA BLUETOOTH
- PROVIDES A SNAPSHOT OF OPERATION
- RETROFITTABLE TO OLDER PUMPS OR OTHER EQUIPMENT

## LEADING-EDGE REAL TIME SNAPSHOT

Cornell Pulse is a new real-time method to measure pump temperature and vibration. The device is a small wireless unit, less than 2" in circumference, mounted on the pump and takes readings when prompted by the user via a mobile app. The app can be used on phones and tablets and detect common pump issues if the user keeps track of the readings. Pulse is designed to withstand tough wash-down conditions and can last up to five years with daily measurements (more frequent measurements use battery power and reduce service life.)

DOWNLOAD THE PULSE APP

CORNELL PUMP COMPANY

# MARKET & PRODUCT LINE

CORNELL
EFFICIENT BY DESIGN



AGRICULTURE



FOOD PROCESS



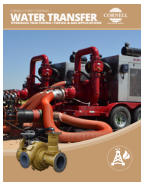
INDUSTRIAL



MINING



MUNICIPAL



WATER TRANSFER



REFRIGERATION



CONSTRUCTION



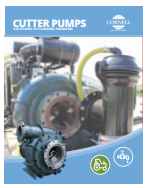
SLURRY



SLURRY SM



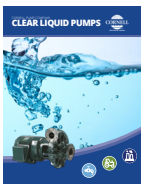
MANURE



CUTTERS



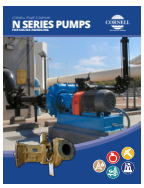
SELF PRIMING



CLEAR LIQUIDS



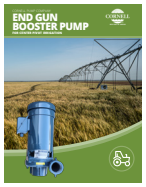
MX SERIES



N SERIES



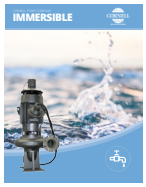
Z-SERIES



EDGE™



HYDRAULIC SUBS



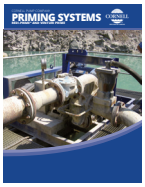
IMMERSIBLE



CD4MCU



RUN-DRY™



PRIMING SYSTEMS



CYCLOSEAL®

**Cycloseal® and Redi-Prime® are Registered Trademarks of Cornell Pump Company.**

**Cornell pumps and products are the subject of one or more of the following U.S. and foreign patents:**

**6,074,554; 6,036,434; 6,079,958; 6,309,169; 6,104,949; 12,270,421 B2**

**SEE ALL LITERATURE AT CORNELLPUMP.COM/DOCUMENT-LIBRARY**

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