

CORNELL PUMP COMPANY

# CO-PILOT™ FLOW METERS

PROVEN RELIABILITY IN REMOTE MONITORING



Connect via Cell



5 Sensor Inputs



Remote Monitoring  
& Control



CORNELL   
Co-Pilot™

# CORNELL CO-PILOT™ 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 RPM<sup>2</sup> 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



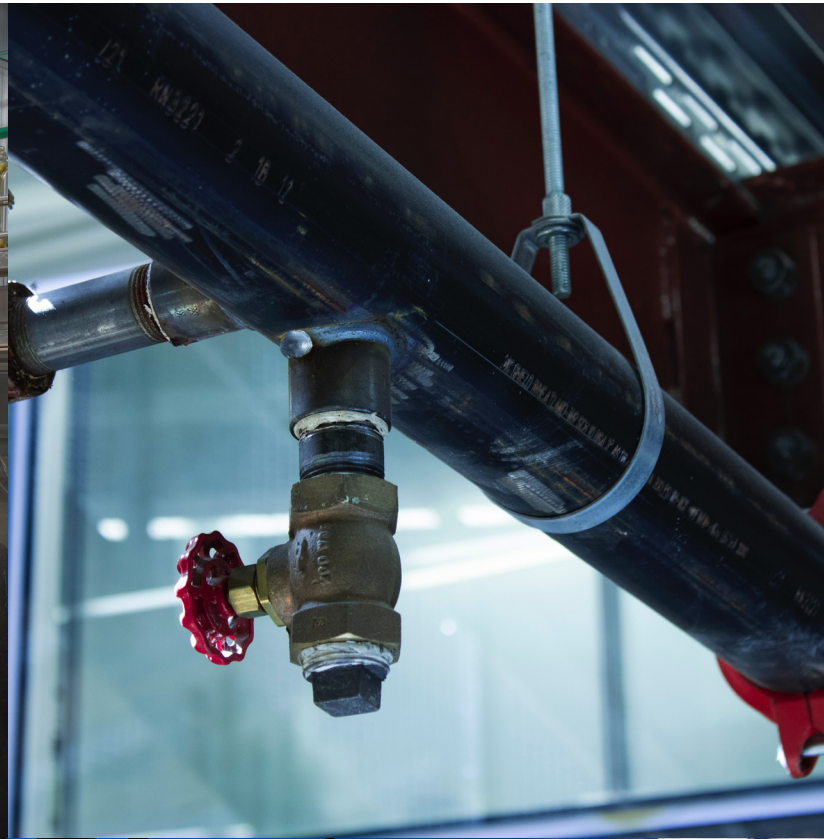
OUTSTANDING CO-PILOT SUPPORT AND INTEGRATION

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

PART OF RPM<sup>2</sup> ASSET  
MANAGEMENT SYSTEM



# CORNELL CO-PILOT™ FLOW METER



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

Available in battery and wired configurations, Co-Pilot Flow Meters are constructed to rigorous Cornell specifications in Europe. Designed to work seamlessly within the Co-Pilot ecosystem, the Flow Meters 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 [copilot@cornellpump.com](mailto:copilot@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 Co-Pilot Flow Meter, tracking usage is easy to do. Useful in canal pumping, well extraction, and more.



AGRICULTURE



FOOD PROCESS



INDUSTRIAL



MINING



MUNICIPAL



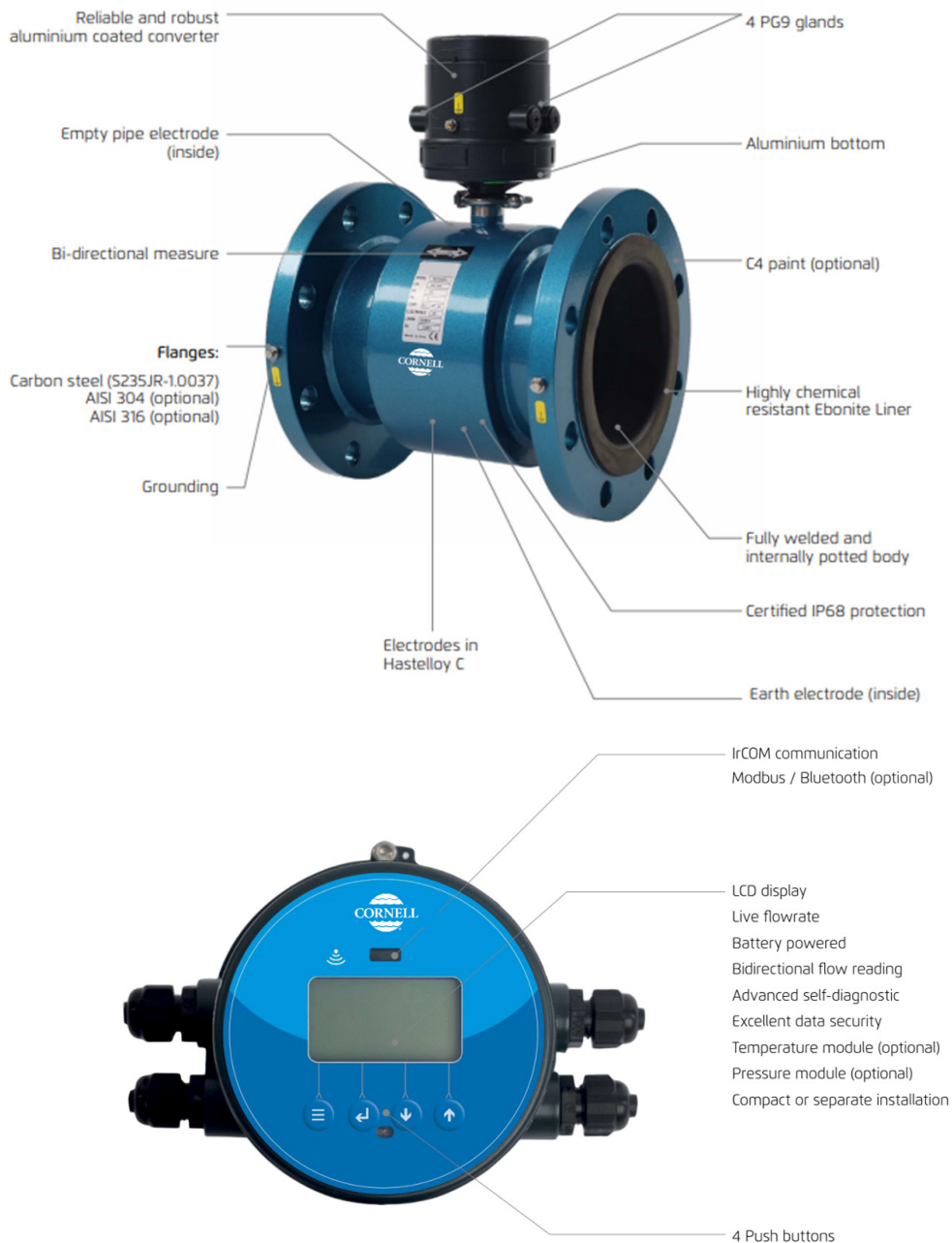
OIL & GAS



RENTAL



REFRIGERATION





Connect via Cell Network



5 Sensor Inputs



Remote Control



## CORNELL Co·Pilot™

### THE POWER OF IOT

Cornell Co-Pilot is a monitoring system that connects to your pump to track temperature, vibration, and location. Co-Pilot can also be powered with a wired connection for continuous monitoring and control system integration. Our Internet of Things (IoT) platform reflects our dedication to cutting-edge design and meeting customer needs.

### USE THE CO-PILOT TO:

- Plan maintenance
- Check operation
- Reduce manual inspections
- Track pump location
- Demonstrate run conditions to customers on warranty claims
- Improve run time through the maintenance program

### MONITORING AT YOUR FINGER TIPS

Easily monitor your pump's performance with desktop and mobile apps available for iOS and Android. Receive alerts for out-of-condition operations and view the last GPS location of the pump, all in one convenient platform.

### CORNELL CO-PILOT ALLOWS YOU TO:

- Monitor pumps using the cloud and IOT
- Monitor temperature, vibration, and GPS location
- Additionally monitor pressure, flow, start/stop operations, and more\*
- Track data over time via web-based and mobile apps
- Receive real-time pump data for performance and health monitoring
- Receive alerts for preset running conditions

\*Requires external sensors; contact Cornell for details.

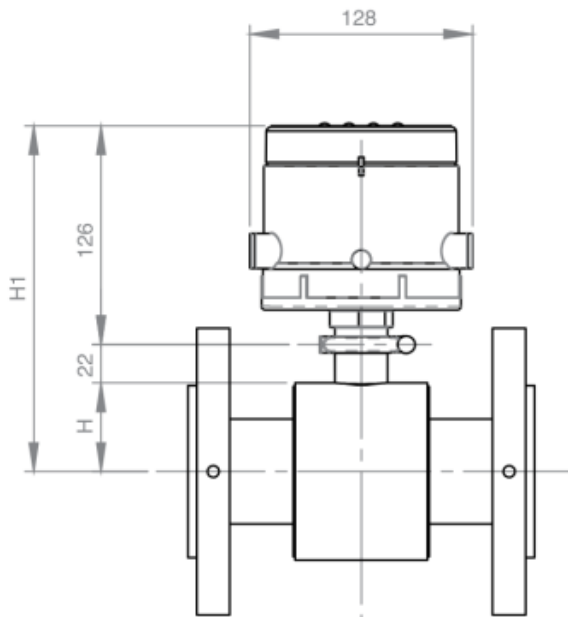
PART OF RPM<sup>2</sup> ASSET  
MANAGEMENT SYSTEM



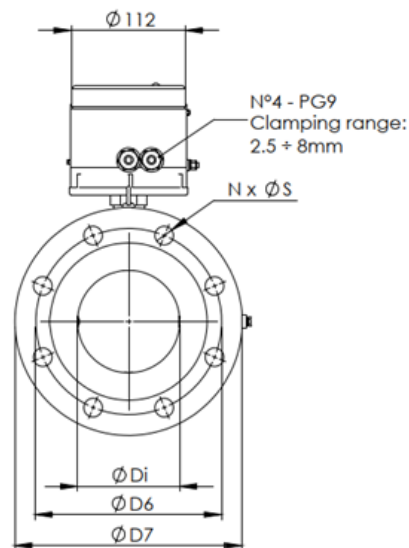
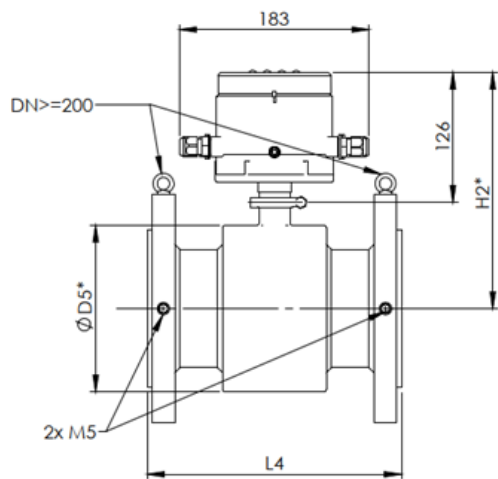
# INSTALLATION

## 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



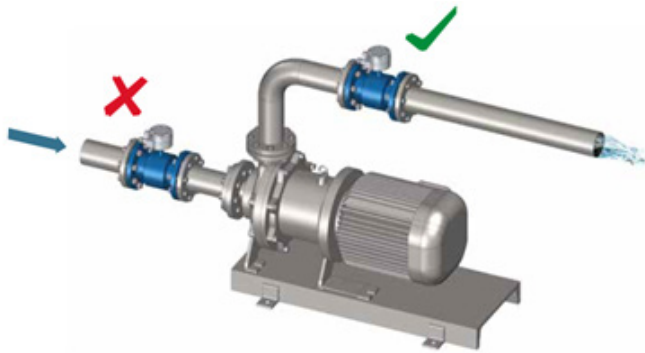
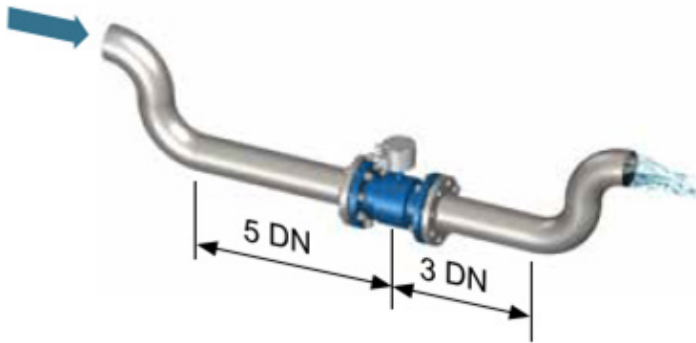
DN	L4	DS	Di	D6	D7	N	S	H1	H2	H3
4"	9.84	6.34	3.83	7.50	9.06	8	3/4	9.19	9.00	10.81
6"	11.81	8.27	5.84	9.50	11.02	8	7/8	10.16	9.96	11.77
8"	13.78	10.28	7.68	11.75	13.58	8	7/8	11.16	10.96	12.78
10"	17.72	12.56	9.65	14.25	15.94	12	1	12.30	12.11	13.92
12"	19.69	14.61	12.12	17.00	19.09	12	1	13.33	13.13	14.94

# INSTALLATION

## INSTALLATION GUIDELINES

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

Flow Meter should be installed 5x pipe diameters downstream 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](https://www.youtube.com/@cornellpumpcompany)

## CORNELL PULSE™



- CONNECTS VIA BLUETOOTH
- PROVIDES A SNAPSHOT OF OPERATION
- INCLUDED ON ALL NEW CORNELL PUMPS\*
- RETROFITTABLE TO OLDER PUMPS OR OTHER EQUIPMENT

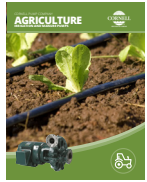
## LEADING-EDGE REAL TIME SNAPSHOT

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



AGRICULTURE



FOOD PROCESS



INDUSTRIAL



MINING



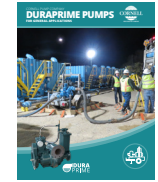
MUNICIPAL



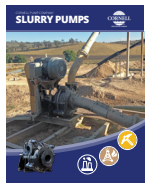
WATER TRANSFER



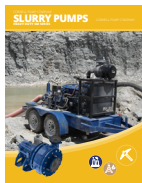
REFRIGERATION



CONSTRUCTION



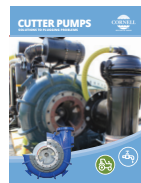
SLURRY



SLURRY SM



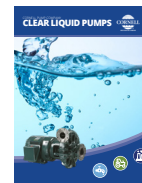
MANURE



CUTTERS



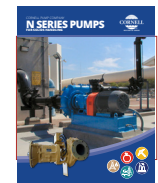
SELF PRIMING



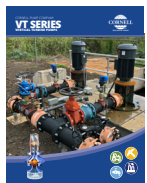
CLEAR LIQUIDS



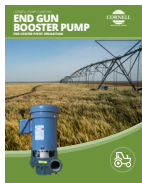
MX SERIES



N SERIES



CYCLONE™



EDGE™



HYDRAULIC SUBS



IMMERSIBLE



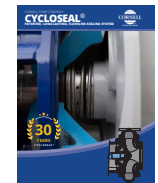
CD4MCU



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.

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