

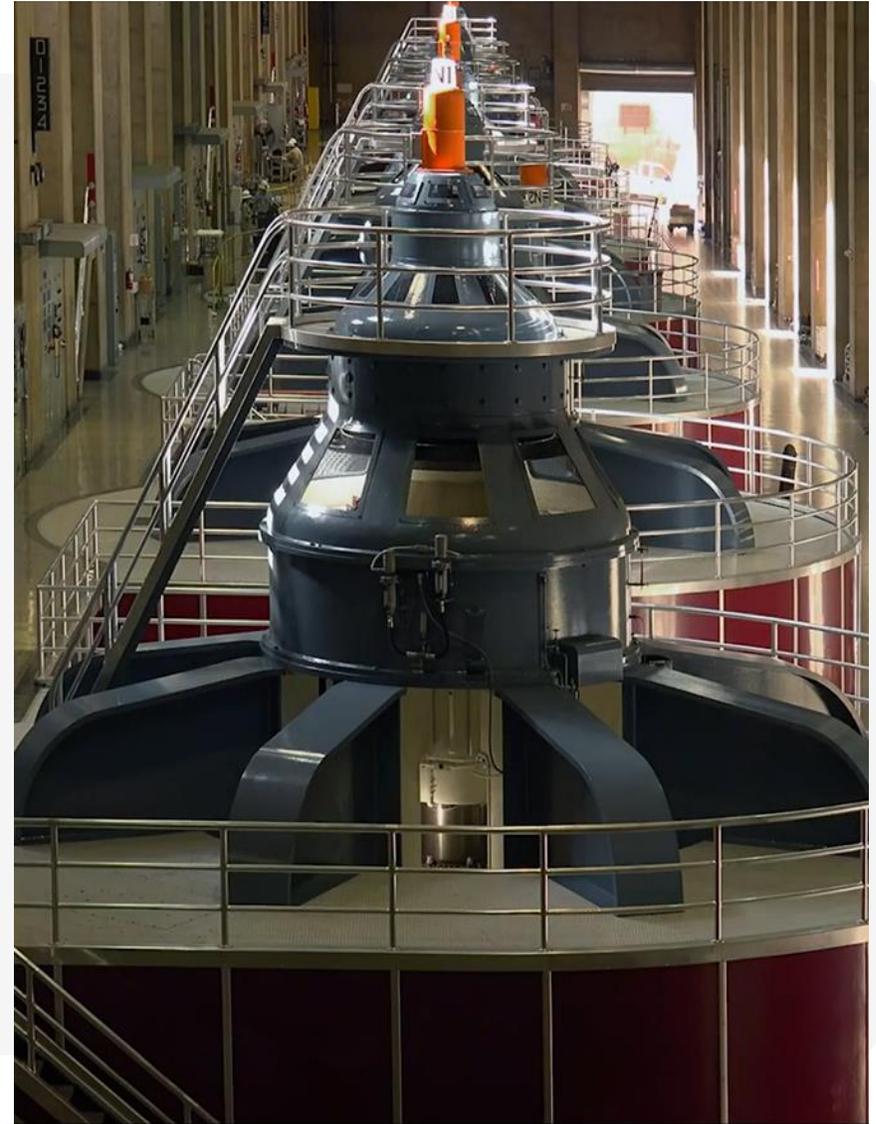
# SymphonyAI Industrial

Industrial AI for the future of business

# Accelerating autonomous plant operations

SymphonyAI Industrial is an innovator in industrial insight, accelerating autonomous plant operations.

The industry-leading EurekaAI/IoT platform and industrial optimization solutions connect tens of thousands of assets and workflows in manufacturing plants globally and process billions of data points daily, pushing new plateaus in operational intelligence.



# Who we serve

## OIL & GAS



## POWER GENERATION



## CHEMICAL, PHARMA, BIOTECH



## FOOD & BEVERAGE



## INDUSTRIAL, OEM, MANUFACTURING, SERVICES



## PAPER, METALS & MINING



# CASE STUDY

 **Client:** Glass Manufacturer, India

 **Product:** They choose Performance 360™ to get automatic and advanced prediction of furnace performance deterioration.

 **Situation:** Valued at \$10B, the Piramal Group has a broad presence across various sectors such as healthcare, life science, drug discovery and specialty glass manufacturing. They were looking to maximize the energy efficiency of the glass furnaces, stabilize operational variability, and resolve sensor issues while also increasing throughput.

 **Result:**

- They recognized a 1% to 2% decrease in gas consumption that generated approximately \$1.5M in savings per year.
- Increased throughput 3% to 5% per year by decreasing final product rejection rate by 5%.

# CASE STUDY

**Client:** Food, Agricultural and Industrial Manufacturing, Minnesota

**Product:** Cargill chose WATCHMAN 360, a full suite of expert automated diagnostics, analytics, and reliability services.

**Situation:** Established in 1865, Cargill is the largest privately-held generating \$114B in revenue and employing 155,000 across 70 countries. They needed to enhance their asset monitoring program in terms of reducing manual data collection and improving their overall data quality that was feeding their analytics.

**Result:**

- Elimination of 80-90% of manual review and diagnostic work load previously performed by analysts onsite, resulting in ~40% manpower cost reduction
- 10% overall equipment fault reduction with related unplanned downtime decrease
- Development of full asset database with images, description, nameplate information, and operating parameters
- Creation of a centralized team with five domain experts who coordinate program through the cloud
- Estimated savings is \$4M per year.
- 95% decrease in emergency maintenance

# CASE STUDY



**Client:** Large Oil & Gas Refinery, Texas



**Product:** They choose APM 360™ to get automatic and advanced prediction of pump performance deterioration.



**Situation:** As the second-largest privately held company in North America generating \$60B in revenue, the refinery strives to be a world-class, cost-efficient operator of their many facilities. As such they found that the pump's in their Texas refinery consume 75% - 85% of the plant's energy. They were looking for the best way to reduce this percentage.



## **Result:**

- Patented AI algorithms were able to predict anomalous pump behavior weeks in advance giving the Koch team plenty of time to take proactive measures.
- In one year, pump energy consumption decreased by 5% translating into a savings of approximately \$5M.



# CASE STUDY

- ○ ○ **Client:** Large Petrochemical Manufacturer, at one of their global sites
- ○ ○ **Product:** They choose Performance 360™ to get advanced detection of process condition anomalies across multiple data streams plus recommended corrective actions.
- ○ ○ **Situation:** As part of a \$1.3B conglomerate, the ammonia plant needed a cost-effective way to improve plant health. Although they had healthy, optimized production assets, the plant was experiencing shut downs because of process "trips". Specifically, high concentrations of CO<sub>2</sub> were increasing temperatures beyond the threshold limit. Restarting the plant post-process took 3-4 days causing production losses \$1M/day and more.
- ○ ○ **Result:**
  - Early detection of process variation before the "trip" gives more time for corrective action
  - Each outage has a maintenance cost avoidance of \$300,000.
  - Production loss avoidance is \$1M/day. Typical outage is 3 days
  - Total cost avoidance calculation is \$3M+ for each shutdown.



# CASE STUDY

 **Client:** Largest Global Gold Mining Company

 **Product:** They chose Performance 360 to predictively capture the mill's operating dynamics in real-time and guide the search for the best possible operating point while ensuring the mill's stability.

 **Situation:** The ore grinding mill's control system in their US location was experiencing bottlenecks that resulted in decreased throughput. Issues such as significant & dynamic variability in ore properties, process uncertainties, and operator-to-operator variability all helped to create these bottlenecks.

 **Result:** Increased grinding mill throughput by over 1% which translates to just over \$8M per year.



**THANK YOU**



[SymphonyIndustrial.AI](https://SymphonyIndustrial.AI)