# Cheng Fluid Systems, Inc.

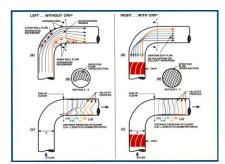
Cheng Fluid Systems, Inc. is located in Mountain View, California. It was formed in October of 1990 to develop, patent, and market Fluid Flow Conditioning Devices & Solutions. Cheng Fluid Systems, Inc. holds the patents for the Cheng Rotation Vane (CRV®) and Large Angle Diffuser (LAD®). Due to their unique and fundamental nature, the CRV® and LAD® have a significant market and a wide range of applications, from fuel systems in aircraft and automobiles to large industrial and utility complexes, such as chemical processing, power plants and water distribution utilities.

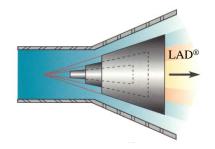
The value and effectiveness of the company's products have been proven in over 2,000 installations with over 1500 being used by Fortune 500 chemical, refining, and power companies.

- Piping systems are the heart of any utility or process. Efficiency in these systems has payback and allows total output
- Any fluid that flows through elbows and sudden expansions will experience:

	Turbulence	Accelerated	Flow Separation
•	Reverse Flow	Pressure Loss	Cavitation
•	Flashing	Noise	Vibration

- The CRV<sup>®</sup> imparts to the fluid (gas or liquid) a gyroscopic motion, which counteracts the elbow induced gyroscopic motion, & enables the fluid to negotiate the turn through the elbow in a flat uniform flow across the entire cross sectional area of the pipe
- This results in an even distribution of process fluid through any cross-section of the elbow and transforms the elbow into the equivalent of a straight length of pipe, and there is no additional pressure drop with the use of a CRV®
- The LAD consists of a series of overlapping, truncated cones, all with a common focal point, which is located within the expansion and allows a uniform exit profile





A CRV® & LAD® installed close to: pumps, compressors, check valves, control valves, flow measurement equipment, elbow erosion/noise, water hammer, condensers, exhaust section, chemical processing, and heat exchangers, will have better performance results, reliability/efficiency of any downstream equipment and will improve maintenance down times & energy costs will be reduced



## **Executive Summary**

### Founder/CEO:

Dr. Dah Yu Cheng, has over 30 years of experience & recognition as a rocket scientist, inventor, plasma physicist, & aerodynamicist

#### **Product:**

CRV® Cheng Rotation Vane LAD® Large Angle Diffuser

#### Market:

Over 3,000 of the CRV®s have been installed in over 2,000 facilities.

#### Industry:

Refineries Power Pump Oil

Nuclear Automotive
Mining Water Processing
Gas Utility Complexes

CFS is dedicated to solving our customer's fluid flow problems by using our technology and experience, along with our patented products, the Cheng Rotation Vane (CRV®) and Large Angle Diffuser (LAD®)



