

YF.COM

# Young & Franklin Inc.

QUALITY.  
DURABILITY.  
RELIABILITY.



# ABOUT

 **Young & Franklin Inc.**



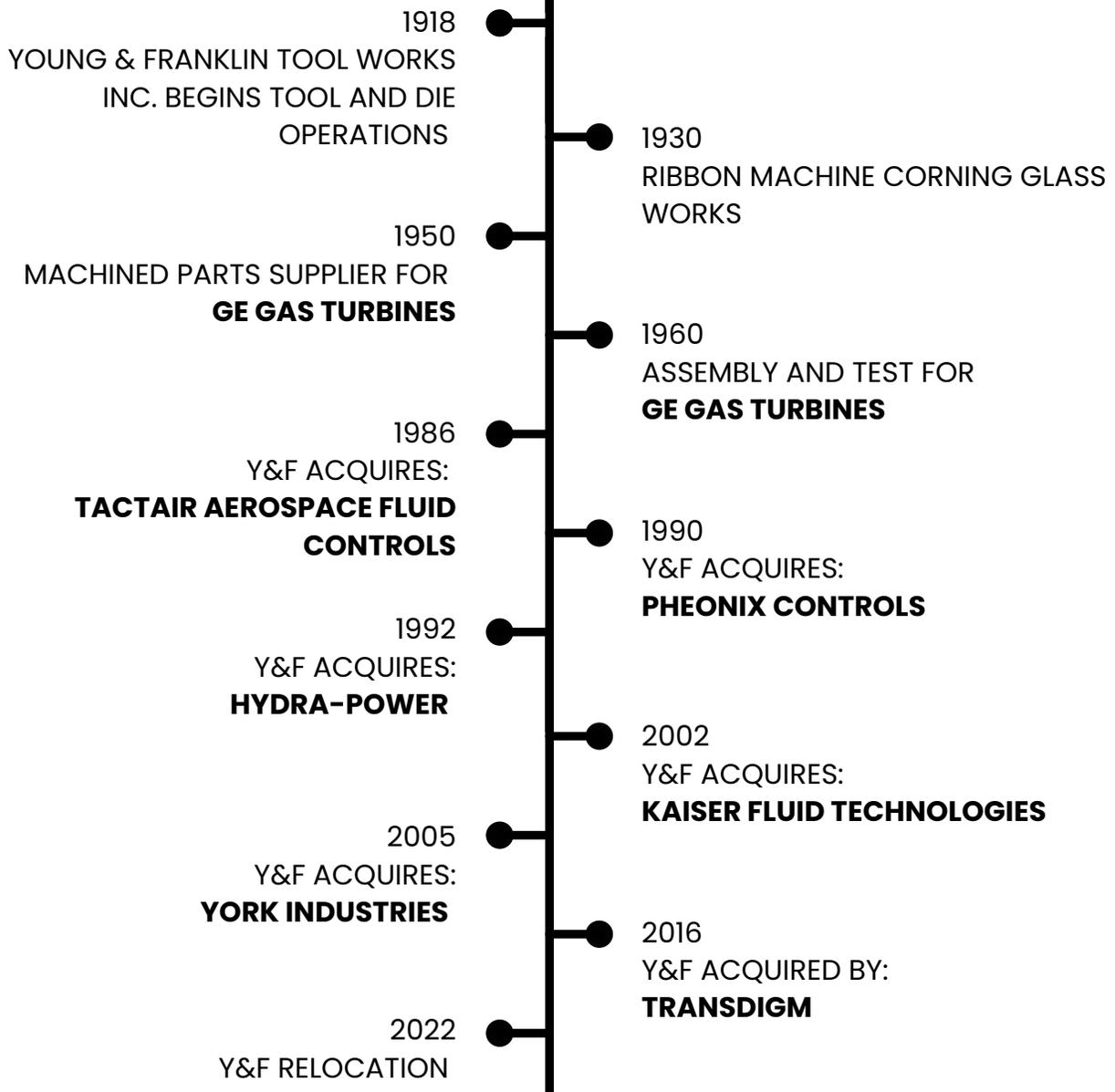
**Young & Franklin Inc. (Y&F)** specializes in designing, manufacturing, and maintaining products for industrial gas turbines used in the power generation and oil & gas sectors.

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Founded in 1918 and based in Liverpool, New York, Y&F serves over 15,000 industrial gas turbines worldwide with a range of high-quality products. Globally, both OEMs and asset owners rely on Y&F for top-quality valves and actuators known for their reliability, durability, and superior craftsmanship.



# HISTORY



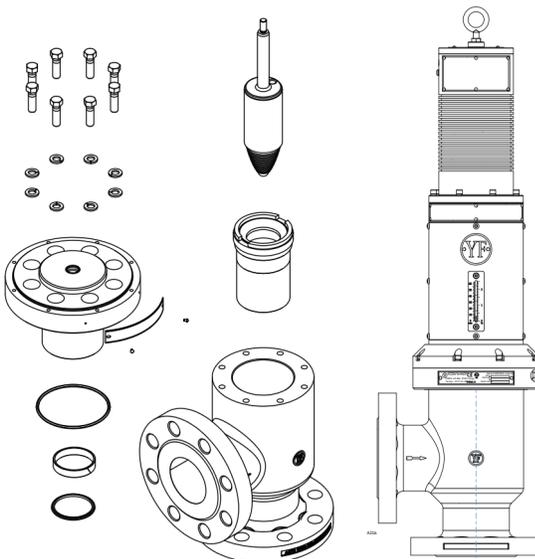
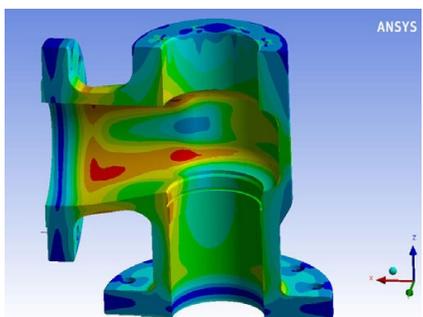


# DESIGN & ENGINEERING

Y&F, a design-to-build manufacturer, collaborates with clients to customize existing designs to suit their requirements or develop new designs tailored to their specifications.

To deliver top-notch control solutions, Y&F offers a range of technical support services for each project, ensuring assistance before, during, and after the sale.

The application and sales engineering teams at Y&F extend support and advice to clients in choosing the most suitable solutions.

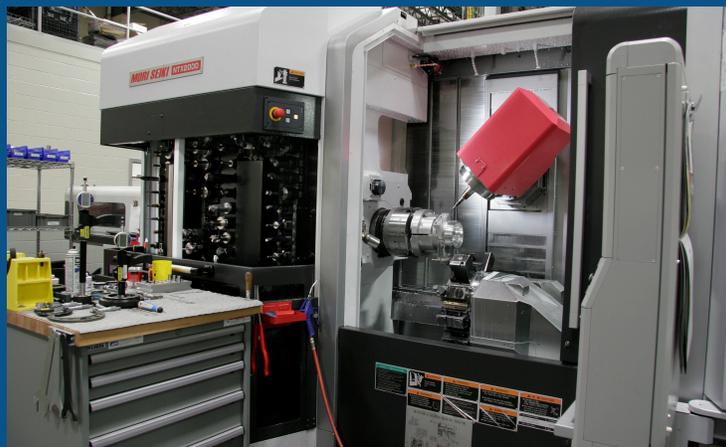


# MANUFACTURING & TESTING

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Young & Franklin Inc. possesses cutting-edge manufacturing capabilities, such as CNC mill-turn lathes and horizontal mills with pallet systems. The company also has precision cylindrical grinding and honing capabilities. Furthermore, Y&F utilizes advanced assembly and test processes with specialized tooling and multiple test stands. To maintain quality standards, the company employs multiple Coordinate Measuring Machines and Vision Inspection Systems.

YF utilizes customized tooling and diverse test stands for assembly and testing. Quality assurance is maintained through Coordinate Measuring Machines and Vision Inspection Systems, ensuring high product standards.



# REPAIR & OVERHAUL SERVICES

Y&F in Liverpool, NY offers repair, remanufacturing, and Core/Exchange services internationally. Remanufacturing restores products to like-new condition. We also offer upgrades, emergency services, and spare parts.

## YF Overhaul Process:

Incoming Inspection & Test

Complete Disassembly & Cleaning

Remanufacturing

Engineering & Assembly Updates

Factory Acceptance Test and Paint



# PREVIOUS NON-YF REPAIRS



The IGV actuator emergency trip relay O-rings were cut during assembly, causing a hydraulic lock, turbine trip, and failure to restart



Site technician failed to remove a set screw during actuator maintenance. New parts were needed, extending the outage duration



This valve stem was improperly heat-treated, and galled on the bushing. The valve locked and tripped the turbine



Over torque of Servo bolts caused bolt failure and a high-pressure oil leak, resulting in fire



# PRODUCT LINE: HYDRAULICS

Thousands of industrial gas turbines have shipped from the original manufacturers with hydraulic fuel control valves and guide vane actuation systems manufactured by Y&F. OEMs and aftermarket customers continue to rely on Y&F to supply new hydraulic products and to support fielded units with repair and overhaul services.



6000-9500 Series  
*Combined Gas Control /  
Stop Ratio Valve*



8550 Series  
*Splitter / Transfer  
Valve*



8277 Series  
*Severe Service  
IGV Actuator*

1949

4010 Series  
*Fuel Regulator*



7500 Series  
*Combined Gas Control /  
Stop Ratio Valve*



8580 Series  
*Gas Control /  
Stop Ratio Valves*



# PRODUCT LINE: **ELECTRIC**

Leveraging decades of experience in hydraulically actuated valves, Young & Franklin Inc. now offers electromechanically actuated (EMA) control valves and actuators designed specifically for the challenging operating conditions of industrial gas turbines. The complete line of Y&F EMA actuators are run by the 1100D Series Digital Motor Controller.



**8650 Series**  
*Electric Inlet Guide  
Vane Actuator*



**8654 Series**  
*Quick Shutoff  
Valve*



**1100D300 DMC**  
*Digital Motor Controller*

**2006**

**3010 Series**  
*EMA Gas Control Valves /  
Fuel Metering Units*



**8655 Series**  
*Electric Stop /  
Ratio Valve*



**7600 Series**  
*Electric Combined  
Valve*



# HYDRAULIC GAS CONTROL VALVES



*8580 Aux/Stop Valve*



*8580 Gas Control Valve*



*8580 Stop/Ratio Valve*



*8540 Gas Control Valve*



*8540 Gas Stop/Ratio Valve*



*8550 Gas Splitter/Transfer Valve*



*7185 Gas Control Valve*



*7185 Stop/Ratio Valve*

## COMBINED GAS VALVES



*7500 Combined Stop Ratio & Control Valve*



*9500 Combined Stop Ratio & Control Valve*



# ELECTRIC GAS CONTROL VALVES



*3010 Gas Control Valve*



*3010 High Temperature  
Gas Control Valve*



*8655 Stop Ratio Valve*



*1100D320  
Digital Motor Controller*



*8662 Gas  
Splitter/Transfer Valve*



*3010E620 Fuel  
Metering Valve*



*8641 Integrated Natural  
Gas Fuel Control Valve*

## COMBINED GAS VALVES



*7600 Combined  
Stop/Speed Ratio and  
Control*



# ELECTRIC GUIDE VANE ACTUATORS



*8650E201 Inlet Guide Vane  
Actuator*



*8650E250 Inlet Guide Vane  
Actuator*



*8650 Nozzle Guide Vane  
Actuator*

# HYDRAULIC GUIDE VANE ACTUATORS



*8277 Inlet Guide Vane  
Actuator*



*7626 Inlet Guide Vane  
Actuator Controller*



*7645 Inlet Guide Vane  
Actuator*



*8604 Variable Stator Vane  
Actuator*



# SPECIALTY CONTROLS



8654 Quick Shutoff/Isolation Valve



1290 Ratchet Sequencing Valve



8591 Differential Pressure & Pilot Valves



8605 PID Controller

# LIQUID FUEL VALVES



7735 Liquid Fuel Bypass Valve



7552 Liquid Fuel Stop Valve



3937 Liquid Fuel Stop Valve



8413 Liquid Fuel Stop Valve



8365 Liquid Fuel Bypass Valve



# HYDRAULIC ACTUATION PRODUCT MATRIX

*Turbine Frame*

|   | 5 | 6B | 6FA | 7A-EA | 7F | 3002J | 5002E |
|---|---|----|-----|-------|----|-------|-------|
| 8580 Gas Control Valves                   |   |    | ■   | ■     | ■  |       |       |
| 8580 Stop/Ratio Valves                    |   |    | ■   | ■     | ■  |       |       |
| 8540 Gas Control Valves                   |   |    |     | ■     | ■  |       |       |
| 8540 Gas Stop/Ratio Valves                |   |    |     | ■     | ■  |       |       |
| 8550 Gas Splitter/Transfer Valves         |   | ■  |     | ■     | ■  |       |       |
| 7500 Combined Stop Ratio & Control Valve  |   |    |     | ■     |    |       |       |
| 9500 Combined Stop Ratio & Control Valve  | ■ | ■  |     |       |    | ■     |       |
| 8277 Inlet Guide Vane Actuator            |   | ■  | ■   | ■     | ■  |       |       |
| 7626 Inlet Guide Vane Actuator Controller | ■ | ■  |     |       |    |       |       |
| 7645 Inlet Guide Vane Actuator            | ■ | ■  |     |       |    |       |       |
| 8604 Variable Stator Vane Actuator        |   |    |     |       |    |       | ■     |
| 7735 Liquid Fuel Bypass Valve             | ■ | ■  | ■   |       |    | ■     |       |
| 1290 Ratchet Sequencing Valve             | ■ | ■  |     |       |    |       | ■     |
| 3937 Liquid Fuel Stop Valve               | ■ | ■  |     |       |    | ■     |       |
| 7552 Liquid Fuel Stop Valve               |   |    | ■   | ■     |    |       |       |
| 8413 Liquid Fuel Stop Valve               |   |    |     |       | ■  |       |       |
| 8365 Liquid Fuel Bypass Valve             |   |    |     |       | ■  |       |       |



# ELECTRIC ACTUATION PRODUCT MATRIX

## *Turbine Frame*

|   | 5 | 6B | 6FA | 7A-EA |  | 7F | 3002J | 5002D | 5002E |
|---|---|----|-----|-------|--|----|-------|-------|-------|
| <b>3010 Gas Control Valve</b>                     |   |    |     |       |  |    |       |       |       |
| <b>3010 High Temperature Gas Control Valve</b>    |   |    |     |       |  |    |       |       |       |
| <b>8655 Stop/Ratio Valve</b>                      |   |    |     |       |  |    |       |       |       |
| <b>1100D320 Digital Motor Controller</b>          |   |    |     |       |  |    |       |       |       |
| <b>8662 Gas Splitter/Transfer Valve</b>           |   |    |     |       |  |    |       |       |       |
| <b>7600 Combined Stop Ratio and Control Valve</b> |   |    |     |       |  |    |       |       |       |
| <b>8650E201 Inlet Guide Vane Actuator</b>         |   |    |     |       |  |    |       |       |       |
| <b>8650E250 Inlet Guide Vane Actuator</b>         |   |    |     |       |  |    |       |       |       |
| <b>8650 Nozzle Guide Vane Actuator</b>            |   |    |     |       |  |    |       |       |       |
| <b>8654 Quick Shutoff Valve</b>                   |   |    |     |       |  |    |       |       |       |





## Global Support



**Find your local resaler at [YF.com](http://YF.com)**