



Thomas & Brian Mfg.Pvt.Ltd



**INNOVATE . TEST . DELIVER**

[www.thomasandbrian.com](http://www.thomasandbrian.com)

# WHO ARE WE

We are one of the few organizations, who customers turn to when they are looking for solutions in *Material Conformity, Plant Productivity, Performance Enhancements of Products and Systems, Corrosion Resistance and Product Indigenization* with a clear emphasis on cost effectiveness and safety.

Our product range and knowledge are not limited to our standard line of products, but we also specialize in providing Critical Application based Solutions to our customers.

Material  
Conformity

Plant  
Productivity

Corrosion  
Resistance

Product  
Indigenization

# CORE CONCEPTS

## VALUES

### Accountability

We take ownership of outcomes, good or bad in any circumstance.

### Commitment to customers

Our prime focus is to fulfill the customer's needs and surpass their expectations.

### Consistency

We will always ensure consistency in product performance and quality first time every time.

### Respect

We respect our customers, suppliers and colleagues equally in any circumstance.

### Integrity

We are and will always strive towards being fair, honest and humble with all our stakeholders internal and external.

## VISION

To be a globally respected Indian company for products and solutions for critical applications in the Energy, Instrumentation, Fire Fighting and Defense industry.

## MISSION

To be focused on providing customers with world-class fluid control solutions, using advanced materials, fluid compatibility knowledge and three decades of experience in precision machining.

# OUR STORY

**1985** Thomas Quadros established *Marialex Industries*



**1986** Grew machining capability from manual to semi automatic machines

**1987** Thomas Quadros incorporated *Thomas & Brian®*

**Thomas & Brian Mfg. Co.**

INSTRUMENTATION PIPING SYSTEMS & COMPONENTS

**1992** *Powerlok Fittings* and *Nanflo Instrumentation Valves* are born serving the Energy, Chemical and Nuclear Industries of India

**1999** Thomas Quadros indigenized forging in India for *Nanflo Valves & Powerlok Fittings* for the energy sector



**2002** Manufacturing facility moved to current location of 25000 sq.ft. workspace



**2003** Thomas and Brian® purchased its first ever *CNC Lathe Machine of LMW (Lakshmi Machine Works)*



**2007** Thomas and Brian® established its own in house forge shop



**2010** Product range was now catering to *Analytical Instrumentation, Defence (Navy) Industry, HPLC and HPGC, Industrial, Medical, Calibration and Corrosive gases*

**2015** Thomas and Brian® has supported more than a dozen Indian Brands with its technology and product designs by this time and its products are sold in more than 45 countries



**2016** Developed a new range of *Automatic Fire Suppression Valves & Fittings for the Fire Industry*



**2017** COREZ® *Surface Modifications* was developed for corrosion resistance applications



**2018** Added *Mazak Variaxis 500* (5 axis) and *HAAS VMC* machines to its range to handle complex geometries

**2020** Consolidated all *Instrumentation Valves & Fittings* under *Powerlok™ - Valves and Fittings*





# OUR PRODUCTS

## Fittings

### Powerlok™ Tube & Pipe Fittings

Low cost and High performing fittings for all applications

Radial junction for smooth flow paths in Elbows

Operating Pressure Range Up to 11000 psig

Tube Size (OD) from 1/16" to 2" (2 to 50 mm)

Fittings Configurations in Straight, Elbow, Cross, Tee

Materials of Construction Stainless Steel, Brass and

Nickel Alloys

#### Series:

Powerlok™ Twin-Ferrule, Threaded and Weld end connections



## Instrumentation Valve Manifolds

Rugged One-Piece Forged Body Construction

Metal to Metal Bonnet to Body Seal

Maximum pressure 10000 psig

Maximum temperature up to 640°C

Flange Ends as per IEC 61518 Type A & B



### Series:

Two Valve Manifolds for Liquid Level and Static Pressure Applications

Three and Five Valve Manifolds for Differential Pressure Applications

## Gauge Root Valves

Rugged One-Piece Stainless Steel Body Construction

Metal to Metal Bonnet to Body Seal

Maximum temperature up to 640°C

Non-Rotating Ball or V-Tip and Plug Tip (Soft Seat)

Stem designs

NACE complaint variant on request





## Ball Valves

Ball Valves for a variety of applications right from general service to fuel service

- Pressure rating up to 20000 psig
- Anti blow-out gland as standard in most variants
- No packing adjustment required up to 30000 cycles
- Variety of Seats for high pressure and high cycle applications
- Lowest operating torque in pressurized conditions
- Sour Gas Service Compliant as per NACE MR-01-75



### Series:

- Direct and Panel Mount (Instrumentation Series)
- Trunnion Mount Series (Alternate Fuel Service)
- Top Entry Series (Process Flow Control)
- Medium Pressure up to 15000 psig

## Needle Valves

Trust Powerlok™ Needle Valves for positive shut-off, regulation and high flow applications.

- Pressures up to 30000 psig
- Soft and Metal seat options
- Through Bore options for high flow applications
- Screwed and Integral bonnet designs
- Sour Gas Service Compliant as per NACE MR-01-75



### Series:

- Integral Bonnet (IB Series)
- Screwed Bonnet (SB Series)
- Union Bonnet (UB Series for Severe Service)
- HP Series (High Pressure up to 30000 psig)

## Check Valves

**Powerlok™ Check Valves in fixed cracking pressures for accurate control of system back pressure**

Elastomer Seat for positive shut-off  
Metal seat for hydraulic applications  
Cracking pressure range from 1 to 25 psig  
Size range from 1/8" to 2" (2 to 50 mm)

### Series:

Soft Seat (O Ring Seal)



## Safety Relief Valves

Soft Seat (Elastomer and Polymer) as standard  
Metal Seat for high temperature and hydraulic applications  
Reseal achieved within 5% of relief pressure  
Variety of spring kits for over pressure protection  
up to 6000 psig

### Series:

Proportional Relief Series

Direct Acting Series

High Pressure Series (up to 15000 psig)



## DBB (Double Block & Bleed) and Monoflange

Powerlok™ range of Double Block & Bleed valves for a variety of closed coupled applications for vent/drain, chemical injection, sampling, isolation and severe service.

Primary Isolation and pressure measurement

Reduce leak points with enhanced safety

Variety of construction options available Single forged body

Two and Three piece bolted design

Process Monoflange Valves in Two Block and One Bleed configurations Fire safe as per API 6FA and API 607

Pressures from Class 150 to 2500 in accordance to ASME B16.5

Reduced fugitive emission valves



### Series:

Single Piece Forged

Three Piece Bolted

Two Piece Forged

## Flush Bottom Valves

Powerlok™ range of Flush bottom valves for high pressure autoclave and pressure vessel applications.

Negative fluid hold-up design

Unique Rising Piston design

Pressure rating 6000 psig

Single piece forged body construction

PEEK seals as standard for up to 320°C

Graphite seals for applications up to 600°C

BSP end connections with recommended metal sealing



# Over Pressure Protector

## Over Pressure Protectors

- Spring Loaded Design to protect Pressure Gauges
- Wide variety of Set Pressure Ranges
- Minimum Pressures as low as 6 psig
- Standard size range of 1/4" and 1/2"
- Operating Pressures up to 10000 psig Pressure



## Filters

## Filters

- Space Saving Filters
- Stainless Steel Construction as Standard
- All sintered elements as replaceable for quick maintenance
- Pressures up to 6000 psig
- Particulate filter range from 0.5 to 90 microns
- Stainless Steel as standard, Special alloys on request

### Series:

IF Series (Inline)

ITF Series (Tee Type)



# Pressure Regulators

## Pressure Regulator

Powerlok™ wide range of Pressure Regulators for all possible applications for safe operation of fluid systems.

Compact Design

Piston and Diaphragm Sensed Options Available

Optional features include self-venting and capture vent

Pressure Control Ranges:

to 10 psig through 0 to 500 psig (Diaphragm Sensed)

0 to 3600 psig (Piston Sensed)

Valve Seats PEEK , PCTFE, PTFE ( As per pressure & Nature of Fluid Media)

Metal Seat options for high pressure hydraulic applications



### Series:

Forward Pressure Series (Pilot Regulators)

Back Pressure Series

High Pressure Hydraulic Series

High Sensitivity Series

High Flow Series

# Automatic Fire Suppression Range

## Automatic Fire Suppression Range

Powerlok™ range of Valves and accessories for Automatic Fire Suppression Systems. Achieve performance of global standards with products using designed to achieve quick suppression using clean agents like FM-200™, NOVEC® and CO2.

Integral Designs with reduced leak points

Variety of modular connections for flexible system designs

Working Pressures up to 1500 psig

### Series:

IDLP (Indirect Release Low Pressure)

IDHP (Indirect High Pressure)

DLP (Direct Low Pressure)

HPC (High Pressure CO2. Series)





Thomas & Brian<sup>®</sup> brings you the most comprehensive solutions in Corrosion resistance and Chemical Compatibility through COREZ<sup>®</sup> Surface Modifications Solution.

COREZ<sup>®</sup> treatments are advanced Fluoro-Polymer treatments done on various Metal Equipments prone to Heavy corrosion and Chemical Attack. These coatings can be used in for performance enhancement like Lubricity or Enhance Non-Stick properties against corrosive & reactive chemicals.

### Fuloro-Polymer Treatment Solutions

PTFE

ETFE

ECTFE

PVDF

PFA

PEEK

# CASE STUDIES

## **Super-Critical Fluid Extraction using CO<sub>2</sub>**

Product used : Ball Valve

Industry : Chemical and Pharmaceutical.

## **High Operation Process Application**

Product used : Actuated Needle Valve

Industry : Process Automation

## **High Operation Cycle Application**

Product used : Actuated Ball Valve

Industry : Packaging and Automation

## **Crude Line Application**

Product used : Full Bore Ball Valve

Industry : Oil and Gas

## **Xylene Application at 30°C**

Product used : Flanged Polymer Ball Valve

Industry : Chemical and Pharmaceutical

## **High Viscous Fluid**

Product used : Through Bore Needle Valve

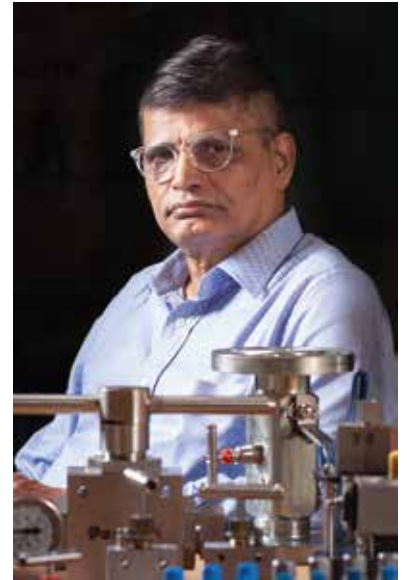
Industry : Chemical Process



# OUR LEADERSHIP

## **E. T. Quadros** **Founding Chairman and Managing Director**

Thomas & Brian® was founded in early 1987 by Mr. E T Quadros with an initial loan of \$350 with a clear vision of “giving the Best products available to the Indian end-users”. His only mission was to provide the end-users with the best performing product which till date is part of our core concepts and the company’s culture.



**Brian Quadros**  
Director - Sales & Marketing



**Meera Quadros**  
Director - Admin & Human Resource



**Amol Kaveskar**  
Chief Technical Officer





# CONTACT DETAILS

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Innovate.Test.Deliver