



**HIGH STANDARD  
VALVES FOR  
NON-STANDARD  
CONDITIONS.**



# ZWICK: MANUFACTURER OF HIGH STANDARD TRIPLE OFFSET VALVES.

100% ZERO-LEAKAGE

100% MADE IN GERMANY

100% QUALITY



Zwick is a leading manufacturer of valves which meet highest requirements and quality standards. The product range contains metal-seated butterfly valves known as series TRI-CON, the check valves series TRI-CHECK and the TRI-BLOCK series, Zwick's Double Block and Bleed Design.

**ONLY HIGHEST QUALITY STANDARDS  
GUARANTEE HIGH TECHNICAL LEVEL  
THEREFORE ZWICK IS CERTIFIED  
ACCORDING TO DIN EN ISO 9001.**

30 years experience in design and production of valves guarantee high standard products. ZWICK valves are produced state-of-the-art. The triple offset butterfly valves are specially designed for critical services where they are used as shut off and control valves. The in-house design enables offering customized solutions for individual applications like the global Industries of Oil and Gas, Chemical, Petrochemical, Energy, Offshore and Steel. TRI-CON valves incorporate a unique third offset design with a true cone-in-cone seating and a reliable zero-leakage performance and allow bi-directional tightness.

The Zwick self-centering disc design that is keyed to the shaft accommodates differential thermal expansions of the disc and the shaft. The triple offset geometry assures frictionless running without radial loading of the seal ring and break-away torque. The TRI-CON series reaches a superior unrivaled life time cycle. For critical services a patented sealed bearing solution is offered to prevent fouling of the bearing associated with line media. Zwick's zero-leakage bearing design assures that no line media will migrate into bearings cavity. TRI-CON's standard graphite packing meets all requirements of TA-Luft for fugitive emissions from the shaft and packing arrangements. All triple offset valves are certified according to Fire-Safe to API and British Standard.

16.000 m<sup>2</sup>  
PRODUCTION  
AND STORAGE  
AREA



PERFECT LOGISTIC  
FLEXIBILITY

## FINDING THE BEST SOLUTION.

ZWICK - INNOVATIVE AND FLEXIBLE  
MANUFACTURER OF METAL-SEATED TRIPE  
OFFSET BUTTERFLY VALVES. 1977 FOUNDED  
AS A ONE-MAN COMPANY, ZWICK HAS GROWN  
TO A COMPANY WITH NOW MORE THAN 90  
DEDICATED EMPLOYEES.

Using more than 16.000 sqm production and storage area Zwick is in the position to react flexible and in time, to achieve short-term deliveries and customized solutions. The valves are available ex stock in different materials like Carbon Steel, Stainless Steel, Duplex and Superduplex, Brass and Alloys.

Zwick guarantees maintenance-free operations also in non-standard conditions through an accurate processing of all components Made in Germany.

To guarantee high quality standards the production is settled in Germany. Modern and innovative production processes with precise machining are special features Zwick provides to their customers. Manufacturing of the valves on highest level minimizes the natural wear and achieves operating cycles without comparison.

# TRIPLE OFFSET VALVES.

TRI-CON TRI-CHECK TRI-BLOCK  
TRIO FOR YOUR SUCCESS

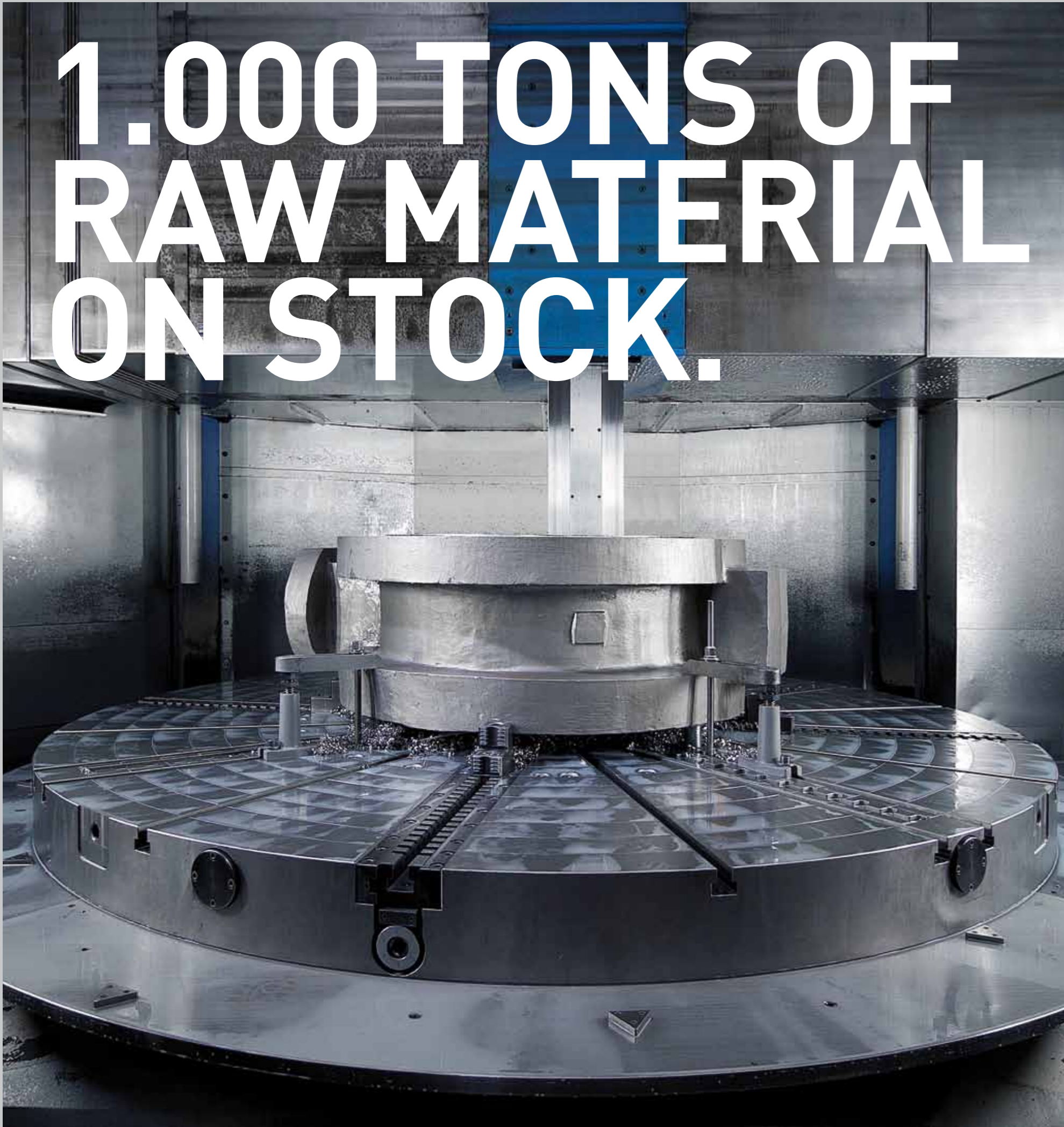
THE LEADER OF OUR SUCCESS TRIO IS THE TRIPLE ECCENTRIC METAL-SEATED BUTTERFLY VALVES OF THE TRI-CON SERIES, WHICH ARE USED IN ALL APPLICATIONS WHERE RELIABLE FUNCTIONALITY AND 100% ZERO-LEAKAGE ARE INDISPENSIBLE.

The number of unique technical attributes of the product, as the cone-in-cone seating design with the multiple laminations and the metal seat makes the series TRI-CON to an allrounder for many different industrial applications.

Zwick valves are used for industrial and exhaust gases, liquids, hot water or steam at lowest as well at high temperature zones up to 815°C. The TRI-CON is utilized extensively in the chemical, petro-chemical, oil & gas, offshore and district heating markets.



# 1.000 TONS OF RAW MATERIAL ON STOCK.



## APPLICATIONS

### REFINERY / PETROCHEMICAL

refineries  
storage tanks  
on- and offshore  
LNG and LPG  
ethylene extraction  
desulphurization  
FSPO  
ESD- HIPPS-valves

### CHEMICAL INDUSTRY

power plants  
process media (critical applications such as butadiene, styrene, ethylene, propylene, etc.)  
process cooling (cold box)  
supply and storage

### POWER GENERATION / ENERGY PRODUCTION

steam  
hot water  
condensate  
power plant (nuclear, coal, gas, steam, biomass)  
solar heat (thermal oil, molten salt)  
geothermal energy  
shale gas  
water- and pump-storage / hydro power plant  
waste incineration and processing plant  
district heat

### STEEL INDUSTRY

exhaust gases  
coke oven  
steam, water  
oxygen  
energy recovery  
blast furnace

### MINING INDUSTRY

water  
corrosive cases

### SUGAR INDUSTRY

steam  
hot water  
condensate

### GAS INDUSTRY

technical gases (e.g. oxygen, nitrogen)  
flammable gases (e.g. natural gas)  
carbon capture & storage  
mole sieve switching valves  
dehydration  
gas to liquids processing

### PULP & PAPER INDUSTRY

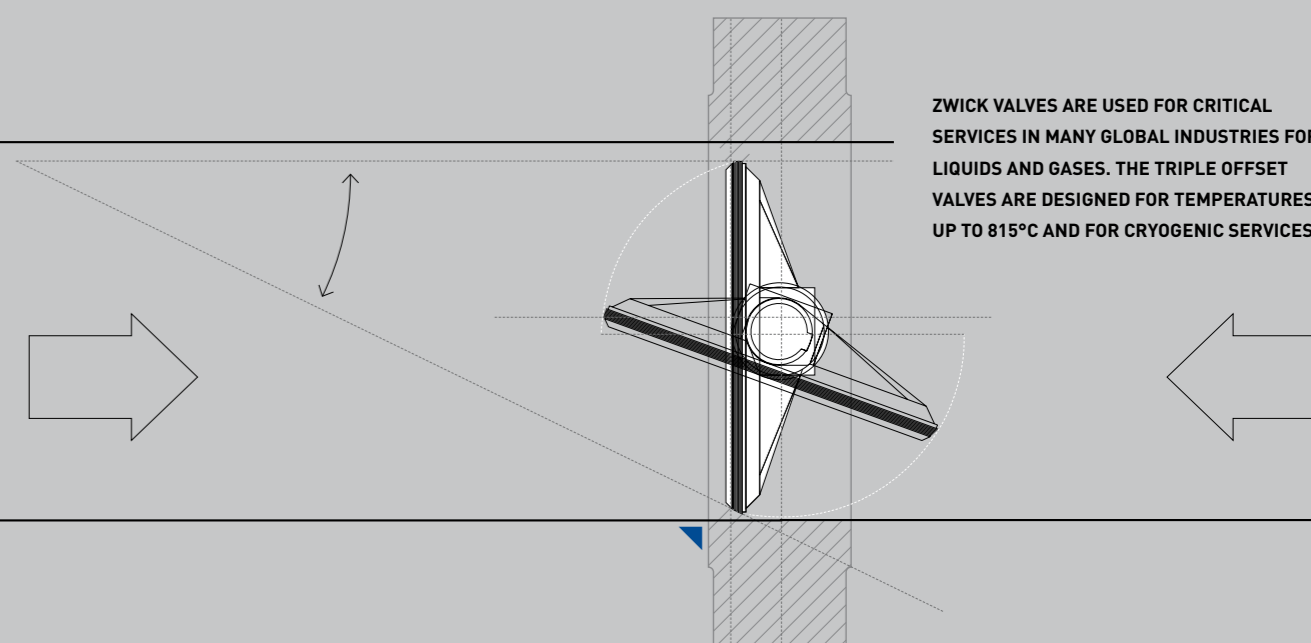
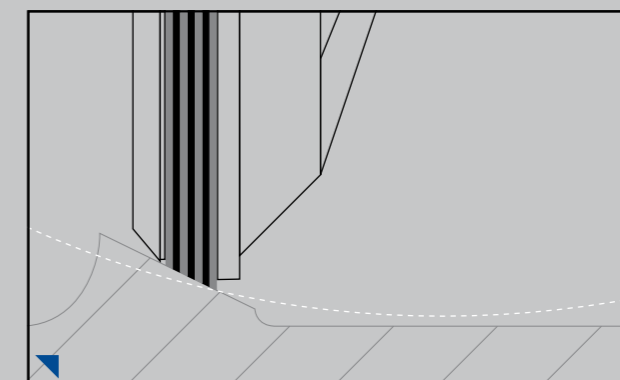
steam  
hot water  
condensate

# SPECIFIED, SPECIALIZED.

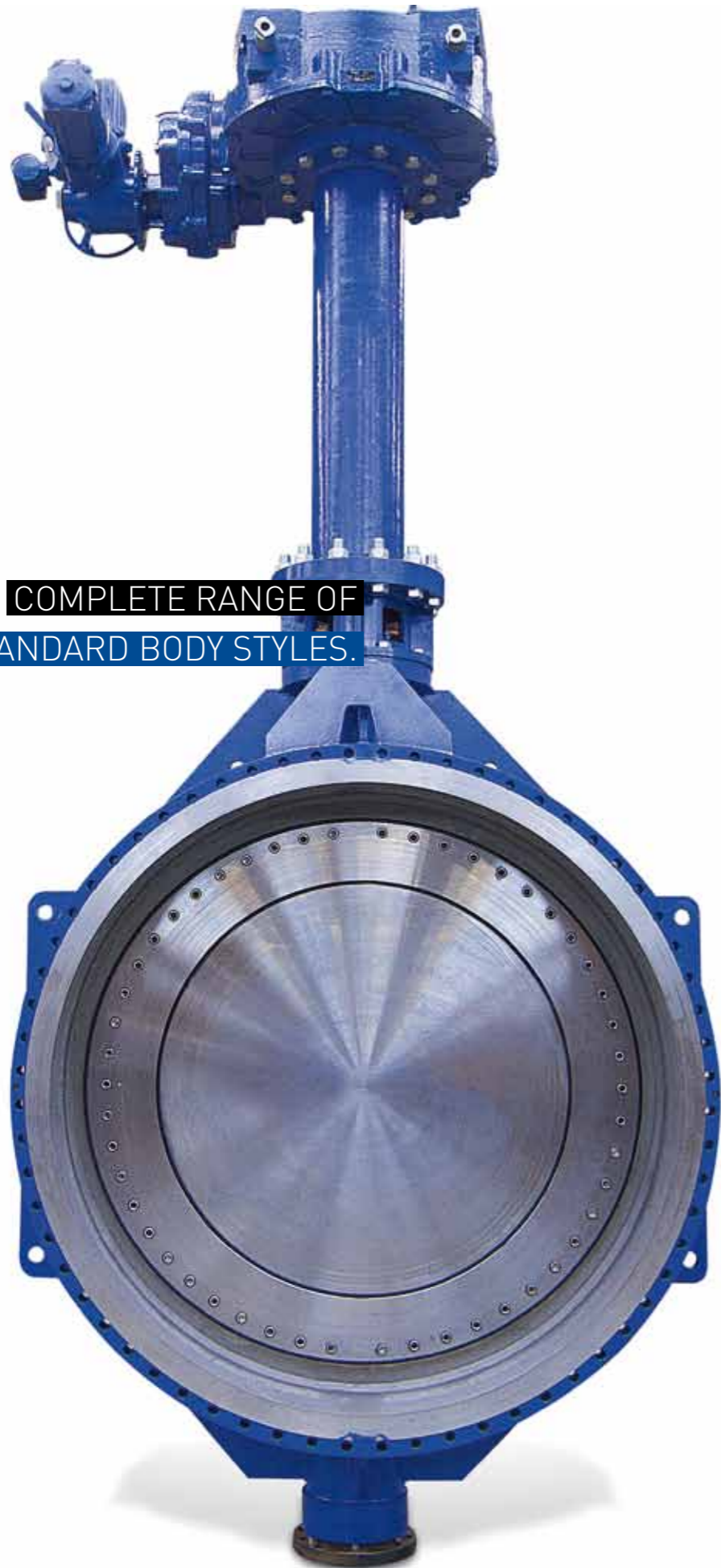
## TRIPLE OFFSET METAL-SEATED STATE-OF-THE-ART

The triple offset geometry and the special features guarantee 100% zero-leakage performance even during extreme temperature variation and pressure peaks. TRI-CON valves offer the widest laminated seal ring in the market today, made possible by true cone-in-cone seating design which assures a frictionless opening and closing with lowest torques and without break-away torque. Zwick's design provides 100% tightness in gas services.

- true cone in cone seating design
- frictionless
- no break-away torque
- large sealing surface
- no radial loading of the seal ring



ZWICK VALVES ARE USED FOR CRITICAL SERVICES IN MANY GLOBAL INDUSTRIES FOR LIQUIDS AND GASES. THE TRIPLE OFFSET VALVES ARE DESIGNED FOR TEMPERATURES UP TO 815°C AND FOR CRYOGENIC SERVICES.

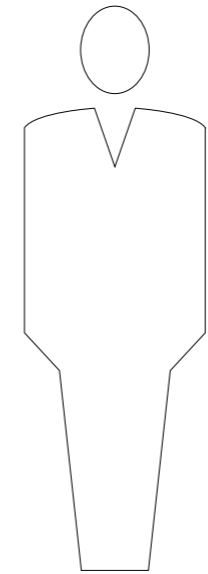


COMPLETE RANGE OF  
STANDARD BODY STYLES.

# MAXIMUM PERFORMANCE – DAY TO DAY.

THE SERIES TRI-CON CONTAINS NOMINAL SIZES FROM 2" TO 88" AND PRESSURE CLASSES FROM ANSI 150 LBS TO 900 LBS.

THE COMPLETE RANGE OF STANDARD BODY STYLES LIKE LUG TYPE, DOUBLE FLANGE, AND GATE VALVE'S FACE TO FACE DIMENSIONS ARE AVAILABLE IN VARIOUS RAW MATERIALS.



Zwick likes it large - valves can be manufactured in maximum diameters, more than 180 cm!

# ZWICK

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