

# Setting The Industry Standard

## Welcome

Authorised Agent

**RETEM HYDRAULICS**

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# Introduction to Edbro

# A Brief History

**Edbro**  
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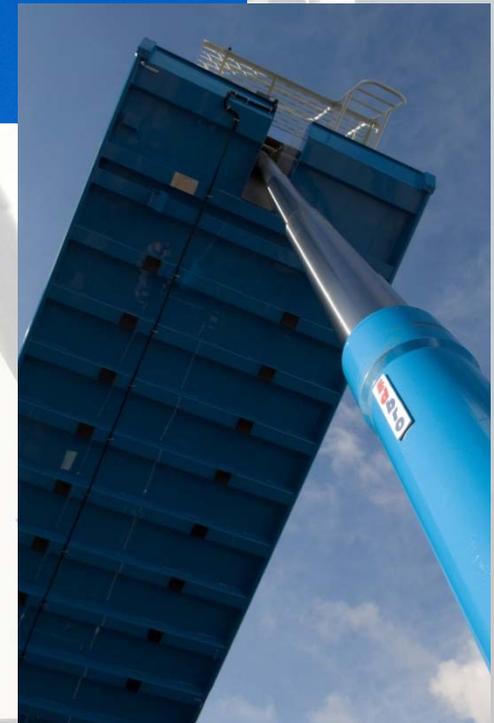
- Edbro was founded in 1916 by Maurice Edwards
- The Edward Brothers developed the first ever hydraulic hoist powered by the truck's engine
- From this point in its history, Edbro has continued to grow and innovate
- Edbro's head office and manufacturing plant are today located in Bolton, North West England on a 70,000m<sup>3</sup> (17 acre) site
- Group employees now number 275



# Edbro Today

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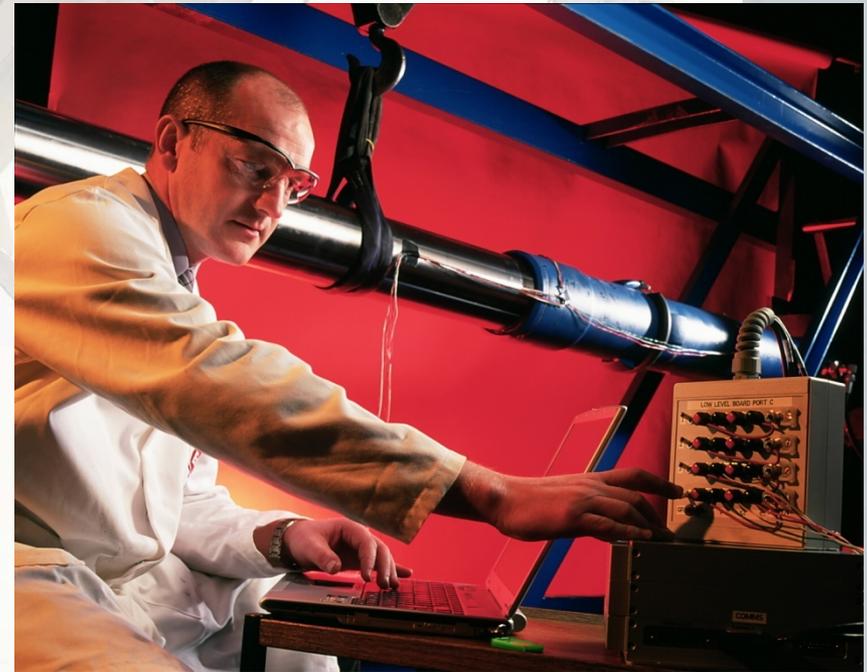
- Edbro currently enjoys worldwide sales around £35 million.
- As leading manufacturers of hydraulic tipping hoists, waste handling equipment, mobile cylinders, cab controls, and control valves
- Edbro is at the forefront of industry design and innovation
- Edbro sets the industry standards in product performance in over 60 countries
- Edbro runs a programme of continuous investment in both capital equipment, and research and product development



# Quality Standards

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- Edbro is ISO 9001 : 2000 accredited, Hitachi Approved & a member of the Institute of Road Transport Engineers
- British design, test & manufacture
- All cylinders are tested to 1.5 times MWP



# Test and Development

- Success at recent Mercedes Benz tilt tests in Korea prove the stability and quality of Edbro cylinders
- All new products are endurance tested to 10,000 tipping cycles under extreme conditions (6-8 year typical usage)
- Following in-house testing, new products are field tested with operators for real-life performance feedback



# Safety Focus

- Expert application engineering ensures cylinder assemblies are selected to lift a full payload to full tip with comfortable factors of safety
- Built-in features of equipment optimise operator safety
- Mounting of hydraulic CT valve in combined ram & tank assemblies protects from risk of hose bursts



# Fit & Forget Reliability

- Proven Edbro reputation for ultimate reliability in operation
- Fit & Forget performance for minimal maintenance requirements from installation and maximum durability for the life of the chassis
- Average breakdown cost of £450 per day when a vehicle is off the road
- Increased profitability through reduced product downtime

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# Product Portfolio

# LNC/SCC Series

- 3 model range principally suited to 4x2 trucks up to 16 tonnes GVW
- LNC combined ram & tank or SCC separate ram & tank available
- Lightweight cylinder designs offer savings of up to 25% against competitor kits
- LNC provides a 2 hour reduction on fitting time when compared to separate ram and tank
- Proven “fit & forget” product design for ultimate reliability and reduced maintenance costs
- LNC provides maximum operator safety with combined ram & tank construction and CT valve mounting



# CX Series

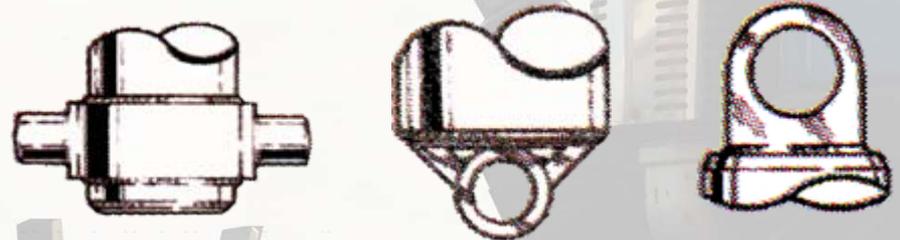
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- 4 model range for 12 to 32 tonnes GVW chassis
- Lift capacities of 16 to 32 tonnes
- Laser welded one-piece tube construction provides longer cylinder life and allows up to 15% faster tipping speeds
- Increased operational profits
- Lightest, fastest & most reliable product in its class
- Substantial weight advantage
  - up to 165 kg LIGHTER than competition
- Key operator benefits
  - More payload + faster turnaround + optimum reliability  
= INCREASED PROFITS
- Overall the CX range is quieter, more efficient and easier to maintain making it more environmentally friendly



# CS Series

- Product range from CS10 to CS19 with strokes from 2759 to 9678 mm and lift capacities from 13 to 60 tonnes
- Range of mounting options available for base and small inner end fixings
- Minimum equipment weight with maximum lift capacity for ultimate efficiency
- Laser welded one-piece tube construction provides longer cylinder life
- "Fit and forget" product with proven reliability
- Unique high performance sealing system provides years of trouble free operation



# TS Series

- 3 model range with lift capacities of 20 to 32 tonnes
- Suitable for truck or trailers installations and available for tipper or tipper/crane applications
- Installation with truck mounted cranes uses common pump and oil supply
- Increased operator safety with built-in stabilising mechanism
- 20% more lift capacity against competing products for increased efficiency in operation and



# UB/YB Series

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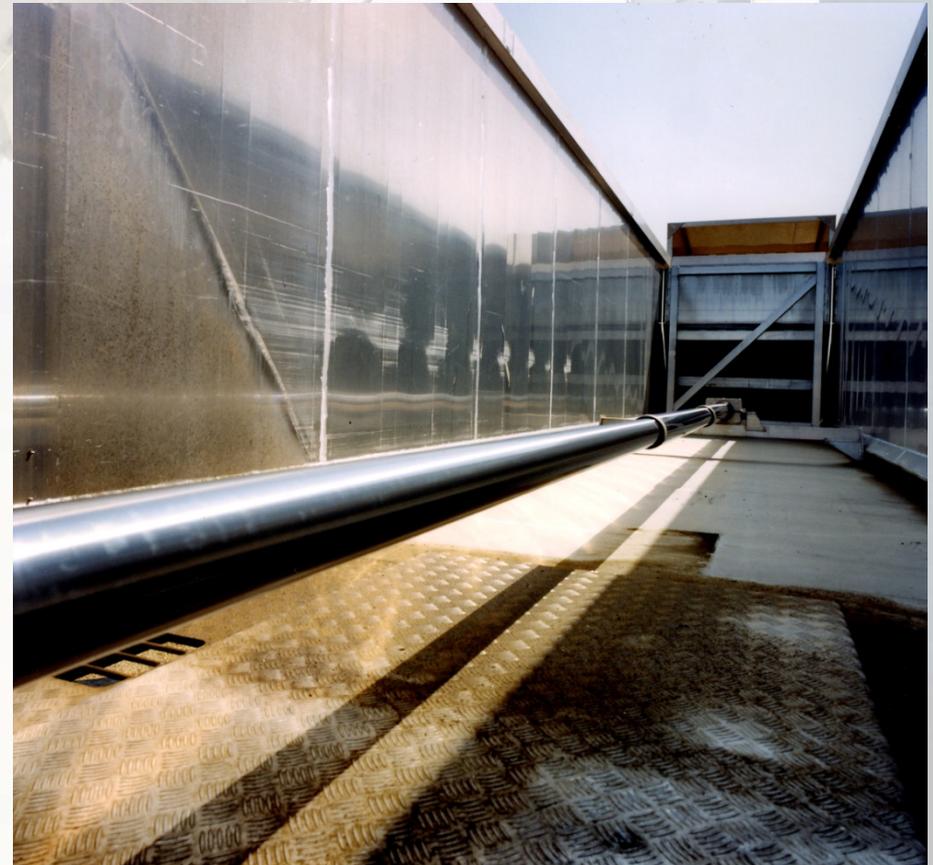
- 4 model range suitable for 7.5 to 18 tonnes GVW chassis with nominal lift capacity from 5 to 12 tonnes
- Compact underbody single hoist lifting system available for tipper or tipper/crane applications
- Comprehensive range of cylinder options are available on request
- YB Series comes with specially designed cradle for 3-way applications
- Specially designed materials manufactured using Tuftride® process for increased tube strength and durability
- “Fit and Forget” product with Edbro reputation for proven reliability



# RK Series

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- 7 model range from RK098 to RK254 with strokes up to 12 metres
- Extended load capacities up to 69 tonnes at 135 bar
- Typically used in ejector trailers, RCV's and special applications
- Double-acting on all extensions
- Available with a range of mounting options for both base and piston ends
- Hard chromed inner tubes protect the cylinder even when exposed to the elements
- Designed for optimum durability and "fit & forget" performance



# C Series Cylinder Technology

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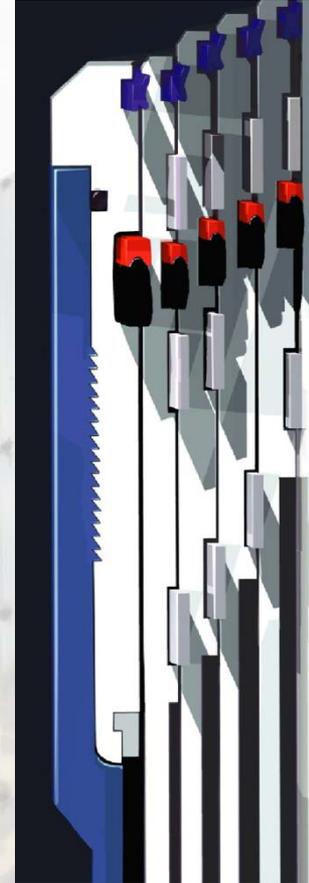
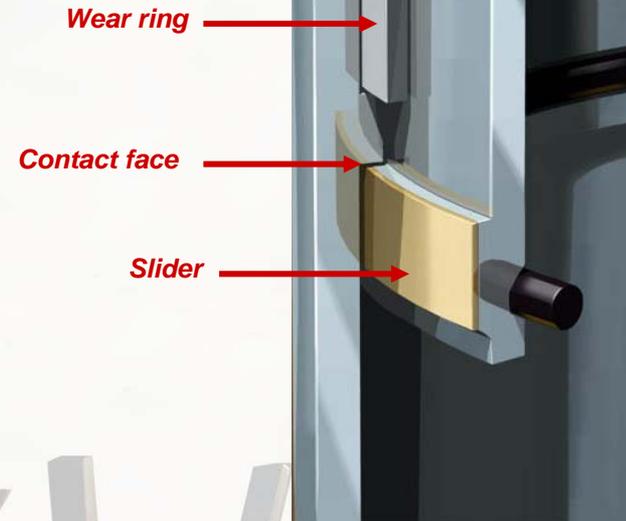
- Laser welded one-piece tube construction strengthens the tube for longer life and creates a much lighter product to increased payload capacity
- Unique high performance sealing system provides years of trouble free operation
- Protection built into the design at the critical tube mouth to prevent contamination
- Integral 'steel to steel' stop contact faces giving 20% more surface area against most clip ring designs



# C Series Cylinder Technology

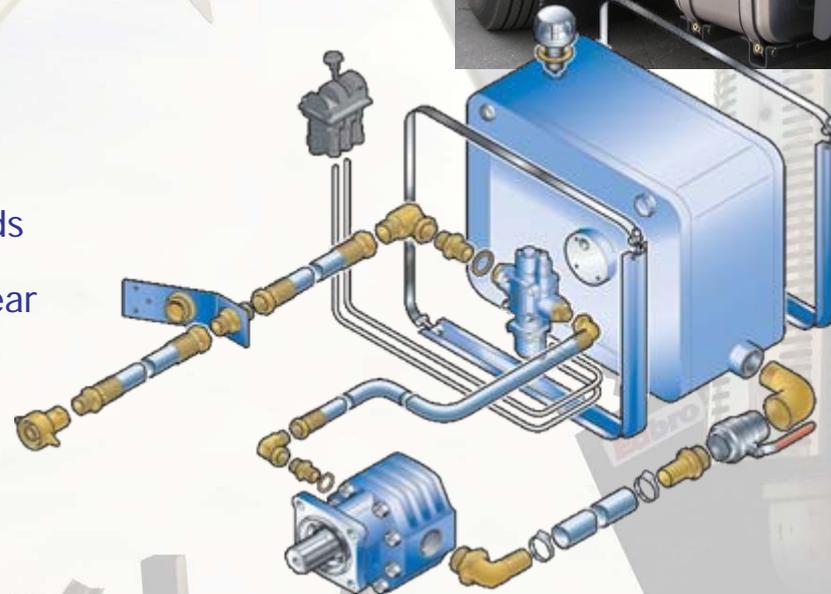
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- Greater thrust on smallest tube compared with competitor products guaranteed to lift the full payload to the end of the last stage
- Designed as a “Fit and Forget” product for year of proven reliability in most demanding environments
- Minimal servicing requirements decreases risk of downtime in operation



# Tractor Wet Kits

- Complete kit supplied ready to install
- Tipper kits, walking floors, car transporters...
- Customisable kit content for optimum performance in each application
- High speed tipping and light weight kit options
- Large range of components specially selected to meet Edbro quality standards
- Variety of tank sizes, side mount and rear of cab, aluminium or steel
- Technical specification service to help ensure kits meet your requirements



# Kit Components

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- One-stop shop for complete kit solutions
- Top quality components designed and selected to meet Edbro stringent quality standards
- Optimises overall equipment performance
- Components available from hydraulic and pneumatic valves to pumps, PTOs and hoses



# EBA Bent Axis Tipper Pumps

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- 4 sizes 47, 64, 90 & 130 lit/min @ 1000 rpm
- Highest output flow from smallest pump size
- Lightweight aluminium alloy casings
- European standard mounting flange
- Captive plungers in drive plate
- High capacity taper roller bearings
- Twin double lip oil seals
- Triple piston rings on plungers
- Precision gearing on rotating barrel



# EBA Bent Axis Crane Pumps

**Edbro**  
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- 8 model range from 12 to 108 lit/min @ 1000 rpm
- 400 bar rated operating pressure
- European standard mounting flange
- Dual and variable flow high pressure pumps also available



# Customer Endorsements

## *Tipping Systems*

- **“We continue to use Edbro cylinders after 30 years not only for their reliability, but also for their lightness.”**

Chris Bartlett, Wilcox

- **“We asked our customers what make of tipping cylinder they preferred and the overwhelming response was Edbro. We have always found the Edbro CS range to be fit-and forget units, that offer high strength and require minimum maintenance.”**

Dave Tallent, Wordsworth Holdings

- **“We demand the fastest possible turnarounds for our trucks. The integrated design of the Edbro tipping cylinders gives us this performance.”**

Graham Bailey, D Morgan



# Customer Endorsements

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## *Tipping Systems*

- **“I buy Edbro simply because they are the best. I have tried several other makes and nothing compares.”**

Leon Bailey, Tarmac owner/driver

- **“I don’t know of any other tipping cylinders on the market that can provide the same margin of safety.”**

Jimmy Kelly, Jimmy Kelly Truck & Trailer Bodies Ltd

- **“Throughout our fleet we have never had a single vehicle off the road due to an Edbro cylinder.”**

Brendan Maher, W Maher & Sons Ltd



# Customer Endorsements



## *Quality & Service*

- **"Edbro provide the best back-up service."**

Neil Ball, EWC

- **"The technical expertise of the Edbro team and the excellent service back-up makes for a complete package which is simply unrivalled in the industry."**

Ian Booth, Thomas Hardie Engineering



# Product Development

# Edbro C Series

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- Setting standards for the manufacture and operation of telescopic front end and underbody tipping hoists
- Assembly for 'top lift' installation with top mounting plate option
- Assembly for 'cover mounting' installation for increased column strength and cylinder protection
- Compact design:
  - Lightweight
  - Maximum strength
  - Increased thrust
  - Proven seal technology
- Thick wall head on base tube for maximum resistance to side loads



# C Series Design Features

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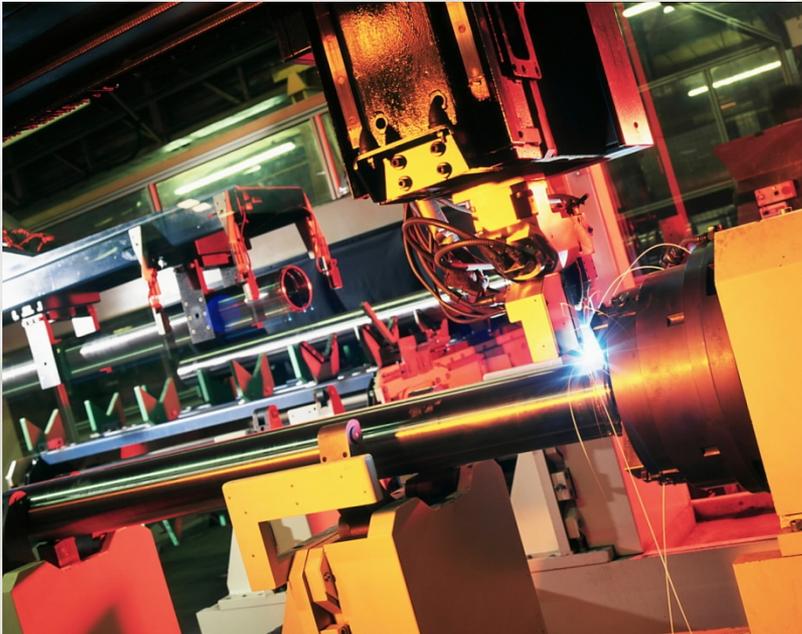
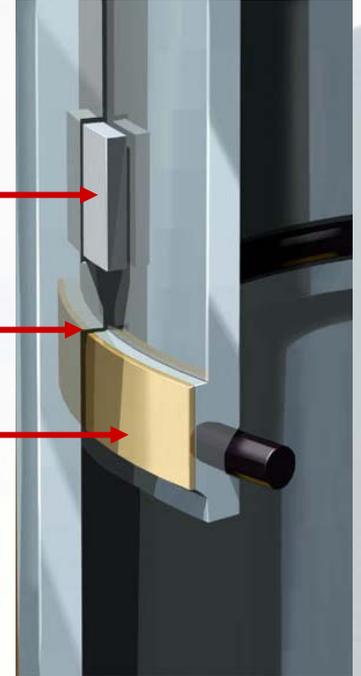
## Special tube construction

- Large steel to steel stop contact face gives 20% more surface area than cost clip ring hosts
- Single piece tube construction (no clips, grooves or rings) strengthens tubes and eliminates resulting wear, twist or abrasion

*Wear ring* →

*Contact face* →

*Slider* →



- High grade alloy steel, thin wall tubing and laser welding technology for unique high performance cylinder construction

# C Series Design Features

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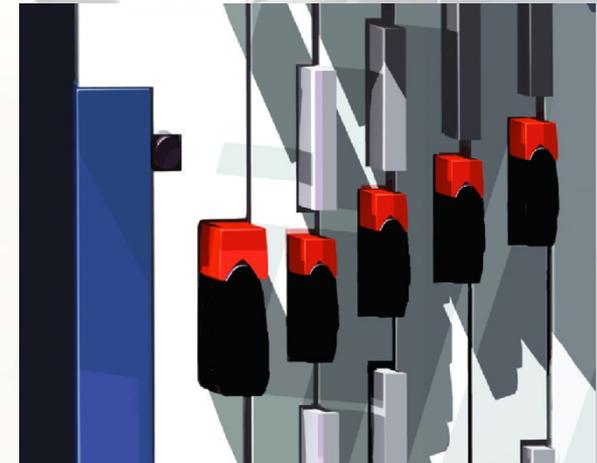


## Ultimate power to weight ratio

- Advanced process technology and high grade lightweight materials allow close resting of the tubes for maximum lift diameter at the top stages of the CS cylinders
- Close tube nesting delivers ultimate power to weight ratio

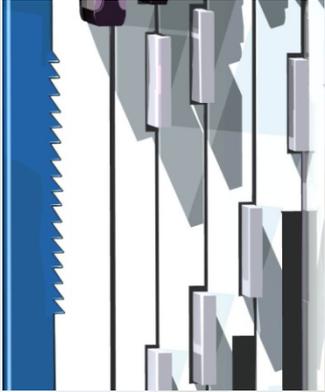
## High performance seals

- Unique sealing system reduces friction for smooth operation
- Reduced leakage and resistance to contamination for years of trouble free operation
- Optimum durability for long life and reduced maintenance requirements



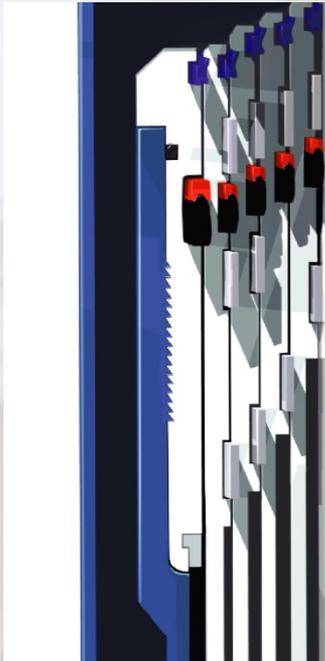
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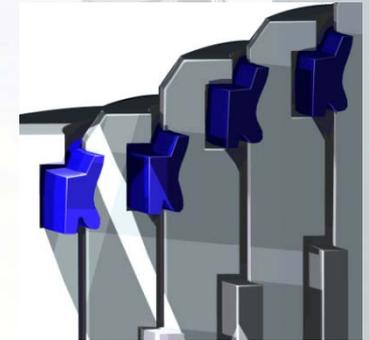
## Durable wear rings

- Wear rings made from non-metallic, acetal material to provide low friction and long service life



## Wiper seals

- Double lip wiper seal ensures efficient lubrication of each tube and prevents contamination of the cylinder



## Base ram nut

- Single gland nut on the base tube allows for easy assembly and servicing
- No special tools required

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