

# FRONT END TIPPING SOLUTIONS ALPHA SERIES



Tipping Solutions | Container Handling | Waste Handling | Cranes

Next generation Tipping Solutions  
Lighter, faster, safer and more efficient



DEALER STAMP

**HYVA**<sup>®</sup>  
www.hyva.com

**HYVA**<sup>®</sup> TIPPING  
SOLUTIONS

ALPHA  
Series

www.hyva.com

ALPHA Series delivers lighter, faster, safer and more efficient front end tipping solutions.

## Heritage, innovation and leadership

The ALPHA Series extends and consolidates Hyva's record of innovation and leadership in front end cylinders. This is the fifth generation of front end tipping solutions which Hyva has brought to the market in more than 30 years.

Development has focused on **optimising transport efficiency, safety and reliability** for the typical duty and conditions prevailing in each market segment.

Year	HYVA Cylinder	Operating Pressure	Dry Weight	Wet Weight
1990	162-4 at 170 bar	170	316	394
2005	149-4 at 190 bar	190	257	322
2014	137-4 at 250 bar	250	222	274

Note: Based on the same/equal lifting capacity

## Tried and tested

The ALPHA solution was reached only after extensive **research, design and analysis**.

Every design was laboratory tested to verify that performance matched design specification. And, **extensive field trials** were conducted in China, India and the UK.

## Solution approach to Technology development

The new ALPHA Series is more than a new hydraulic cylinder. The total system – **cylinder, brackets and wet kit** – has been re-designed and re-engineered for higher efficiency and safer operating at lower cost.

## Solution for each Market segment

Through customer visits and consultation, Hyva has taken time to understand the different requirements of different users in different application areas and to use this knowledge to create product ranges for **Construction, Transportation and Mining** segments.

## Performance, efficiency and customer value

Lower dead weight	higher payload
Faster tipping and lowering	shorter cycle time
Longer service intervals	increased operating time
Safer and more reliable	reduced downtime
Cost effective	can reduce operating costs
Lower oil & fuel consumption	environmentally friendly

ALPHA Series presents front end tipping solutions capable of operating at pressures up to 250 bar.



**ALL NEW** front end tipping solution in which hydraulic cylinders are smaller, lighter, stronger, operate at higher pressure and consume less oil. Brackets are stronger, lighter and can be maintenance free.

Wet kits have improved knock-off and control options, cylinder mounted tipping valves, new tank and filter options, and, pumps operating at up to 250 bar.

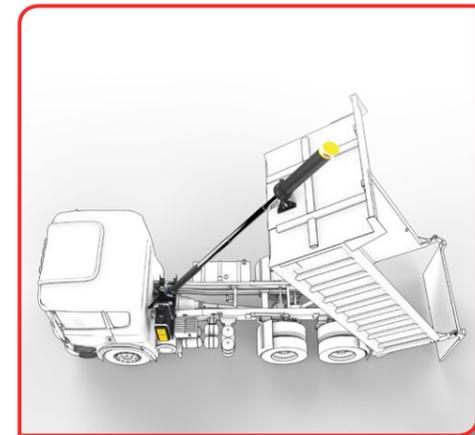
New cylinder diameters (118, 137, 157 and 179mm) in combination with the operating pressure at 250 bar have not only increased the range but also the optimisation of tipping solutions to specific applications.

The range includes Standard and Heavy Duty (HD) cylinders. HD cylinders have larger overlaps and stop and lift faces which have been redesigned to permit exceptionally high tipping and lowering speeds.

These improvements deliver faster tipping, shorter cycle times and reduced system size and weight which can translate into more efficient working routines, increased payloads and reduced operating costs.

Smaller space installations, quick connections of valves, cylinders and hoses, maintenance free seals and longer service intervals all contribute to lower levels of downtime.

Performance improvement has been achieved through re-design and re-engineering of the complete hydraulic system, down to the component and sub-assembly level, together with improvements to installation and service procedures.



New cylinder diameters

110	118	129	137	149
157	169	179	191	214



**LIGHTER** Reduced components weight through a combination of new materials and improved design has produced a lighter hydraulic system which can translate into higher payloads and can reduce operating costs.

**FASTER** Higher operating pressures, up to 250 bar, enable faster tipping and lowering and can deliver shorter cycle times.

**SAFER** Enhanced safety with re-designed cylinder overlaps and guide systems and new cylinder mounted HT tipping valves.

**MORE EFFICIENT** Reduced weight, increased operating speed, more reliable components, longer service intervals and lower fuel and oil consumption all contribute to improved efficiency and environmental performance.

ALPHA Series offers front end tipping solutions for Construction, Transportation and Mining.

## Tailored solutions

There is no single solution which can efficiently serve the full range of applications in all market segments. Extensive **research and consultation** with customers has been conducted to **optimise transport efficiency, safety and reliability** for the typical duty and conditions in all market segments.

## CONSTRUCTION

Solutions, with the standard operating pressure up to 250bar, providing best all round performance through the combination of **reduced weight, increased tipping speed** and the stability required for the application.

Maximum performance and more payload from a smaller package.



## TRANSPORTATION

Solutions designed to maximise payload in standard, silo and heavy duty trailers. **Weight saving** derived from lightweight brackets and from the new cylinders with lighter internal components.

The reduced weight of cover tubes on FC cylinders can achieve savings of up to 40kg. ALPHA tractor kits are ideally suited to all the latest Euro 6 truck chassis.



## MINING

Solutions designed to perform at **high speed in heavy duty conditions**. The solutions consist of high quality filters, heavy duty knock-off and heavy duty brackets.

The heavy duty ALPHA Series cylinder has larger overlaps and the stop and lift faces are redesigned to permit exceptionally high tipping and lowering increases up to 50%. For extra safety, the tipping valve is now mounted directly onto the base of the tipping cylinder.

