



YOU CAN SEE
OUR THINKING

CV LOCATIONS – MANUFACTURING & ENGINEERING

- Global manufacturing and engineering footprint
- Specialist Engineering teams linking leading technologies
- Global KAM Structure to support major customer projects
- Dedicated production plants, either TS 16949, QS 9000 or VDA 6.1 certified

Seattle, USA

Market Segment:
Chassis – NA
Powertrain – NA

Queretaro, MX

NAFTA Production

Bristol / Lichfield, UK

Market Segment:
Light Duty Truck
Chassis – EU

Stuttgart, D

Market Segment:
Powertrain

Brno, CZ

EU Component
Production

Shanghai, CN

Asia Tech Center
& Production

Sao Paulo, BRA

South America Production

■ CV Competence Centers

■ Manufacturing Site

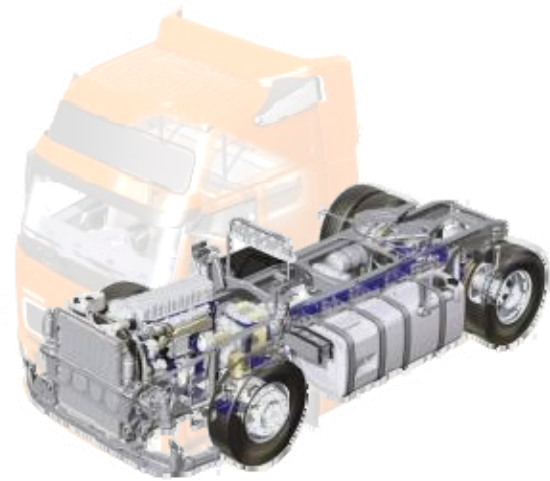


Powertrain



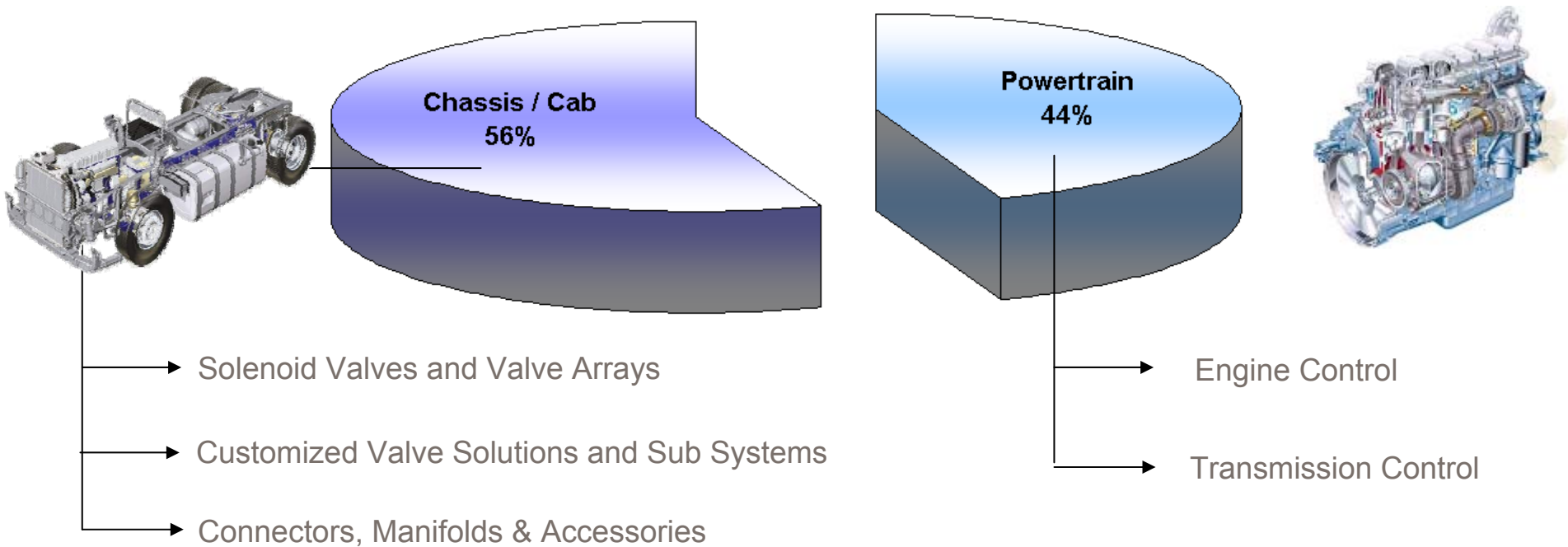
Fluid Management & Transmission Controls

Chassis & Cab



Air Management & Vehicle Dynamics

VALVES & SYSTEMS for FLUID & MOTION CONTROL



- » Annual Revenue ~ 20-25% of Norgren turnover
- » ~ 600 employees globally



CHASSIS & CAB

Air Management

Vehicle Dynamics



Check Valves



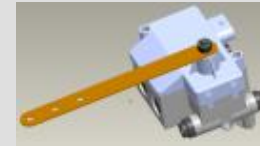
Control Valves



Valve Arrays



Cab Controls



Suspension Controls

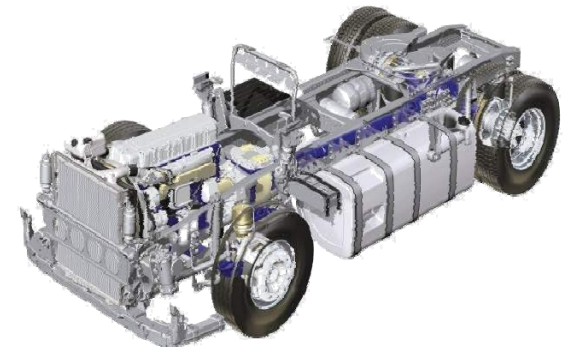


Tyre Inflation Controls

» **IMPROVE** Fuel Economy

» **REDUCE** Air Wastage

» **IMPROVE** Total Cost Ownership



POWERTRAIN

Fluid Management



Emissions after
Treatment
Components



Proportional
Control
Valves



Customized
Applications



Emission / Exhaust
Management
Components



Electric Inlet
Throttle

Fuel Efficiency & Performance



» **IMPROVE** Fuel Economy

» **REDUCE** Emissions

» **IMPROVE** Reliability

FREIGHTLINER AMU – air control unit



CUSTOMISED SOLUTION - air control unit



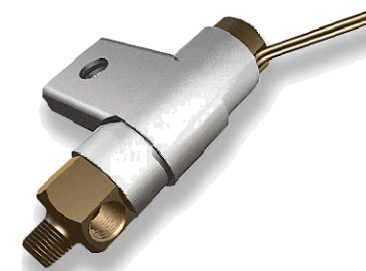
Regulátor



Dvojitý kontrolní ventil



Relé ventil



Elektroventil



Talkový
spínač



Tlakový
ventil



Regulátor



Inverzní ventil



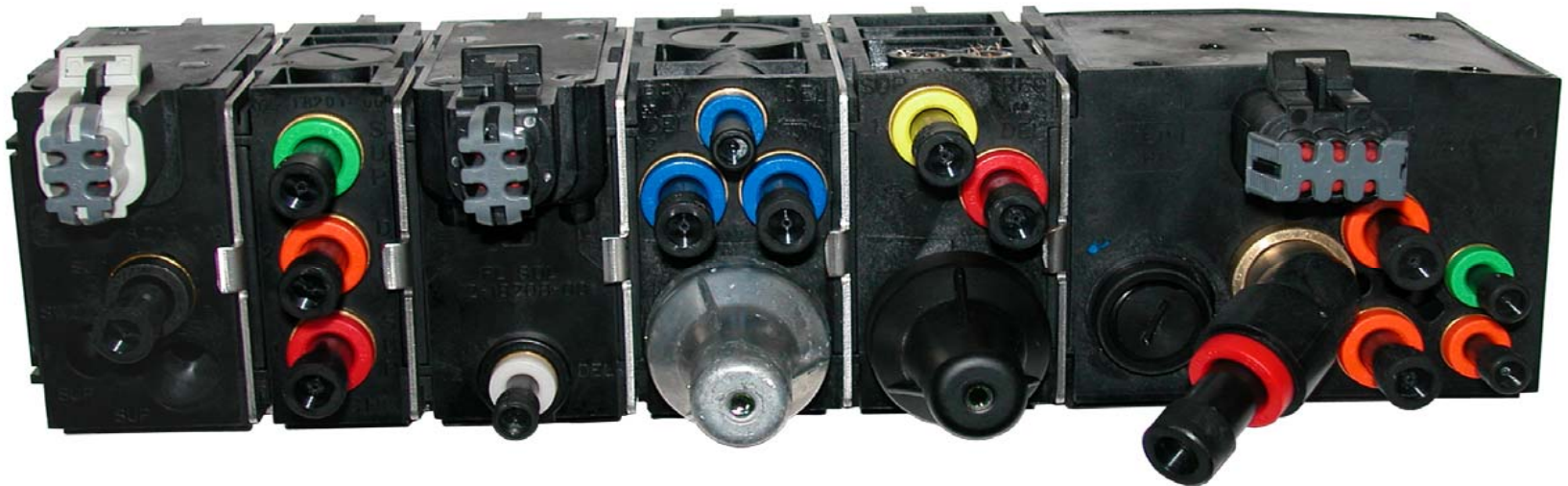
30 fittingů



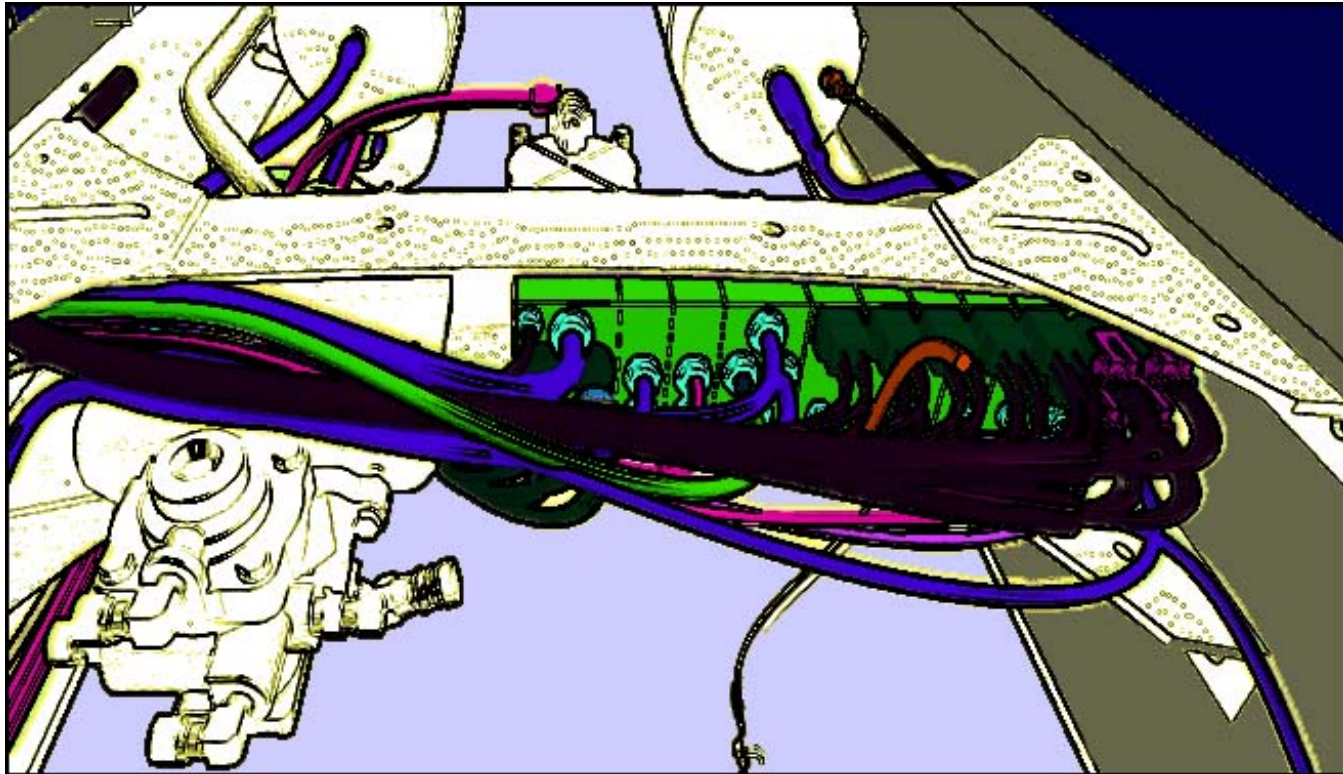
ALL these SINGLE components...

CUSTOMISED SOLUTION - air control unit

... in ONE INTEGRATED SYSTEM

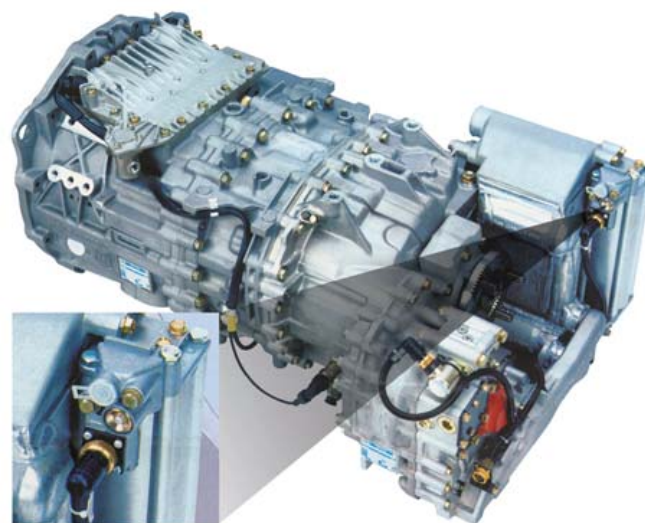


CUSTOMISED SOLUTION - air control unit

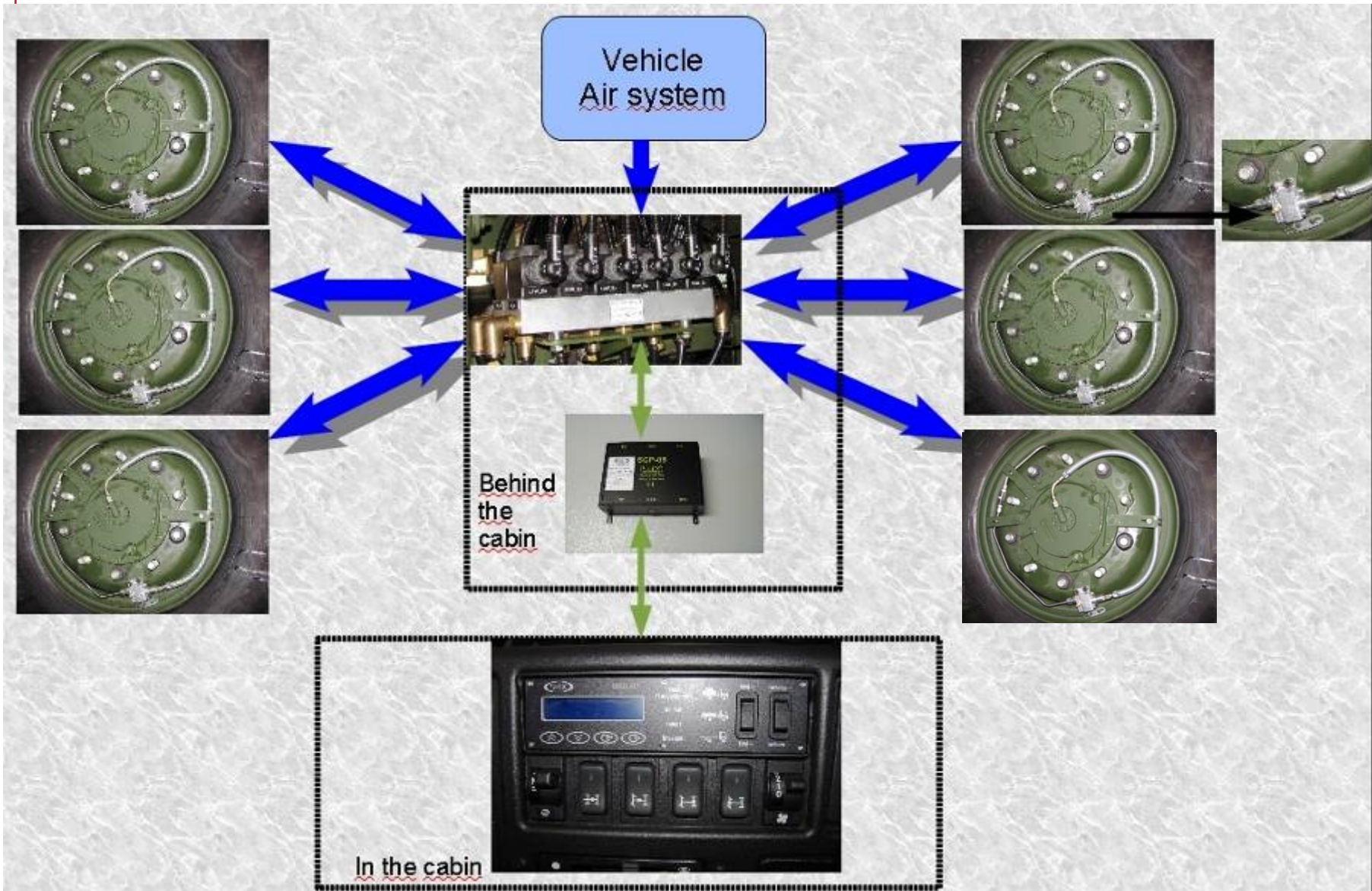


INTEGROVANÉ KARTRIDŽOVÉ VENTILY

- » Integrovaná ventil-válec jednotka pro řazení převodů (Mercedes).
- » Dva kartridžové ventily v pouzdře proporcionálně kontrolují pneumatický válec NORGREN
- » Integrovaný v ZF převodovém systému
- » Odolá 130°C a >30g vibrace

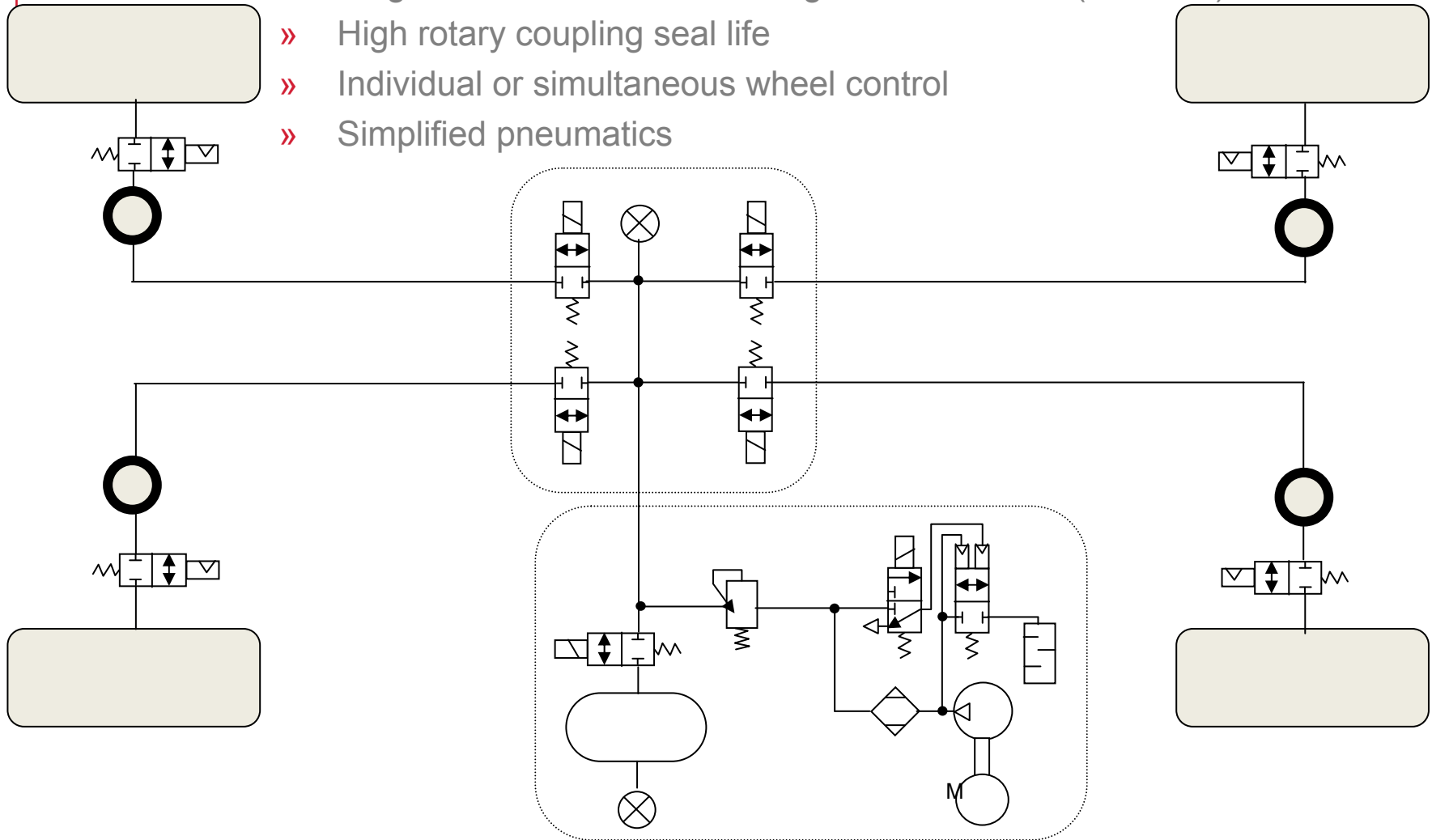


TIRE INFLATION SYSTEM



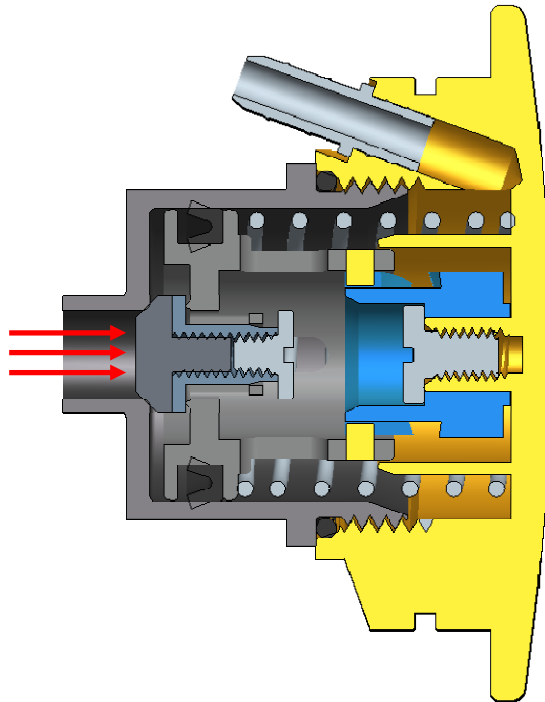
Norgren latching wheel valve solution

- » Single air line for both switching and air transfer (no wires)
- » High rotary coupling seal life
- » Individual or simultaneous wheel control
- » Simplified pneumatics

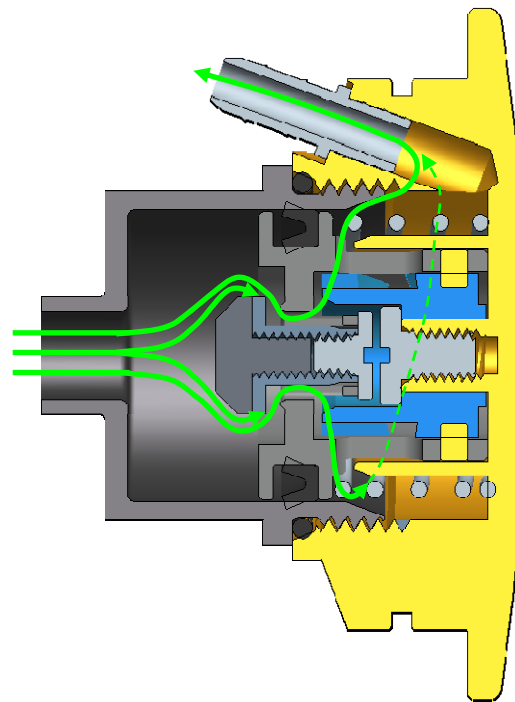


Norgren latching wheel control valve

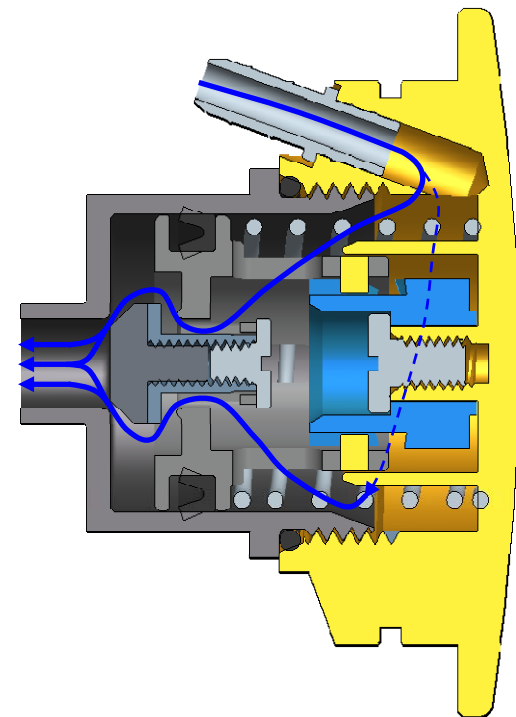
- » High flow rates in & out of the tire
- » Definite open & closed states ...with a single pneumatic channel



Normal run mode: control pressure vented, tire poppet firmly sealed on body

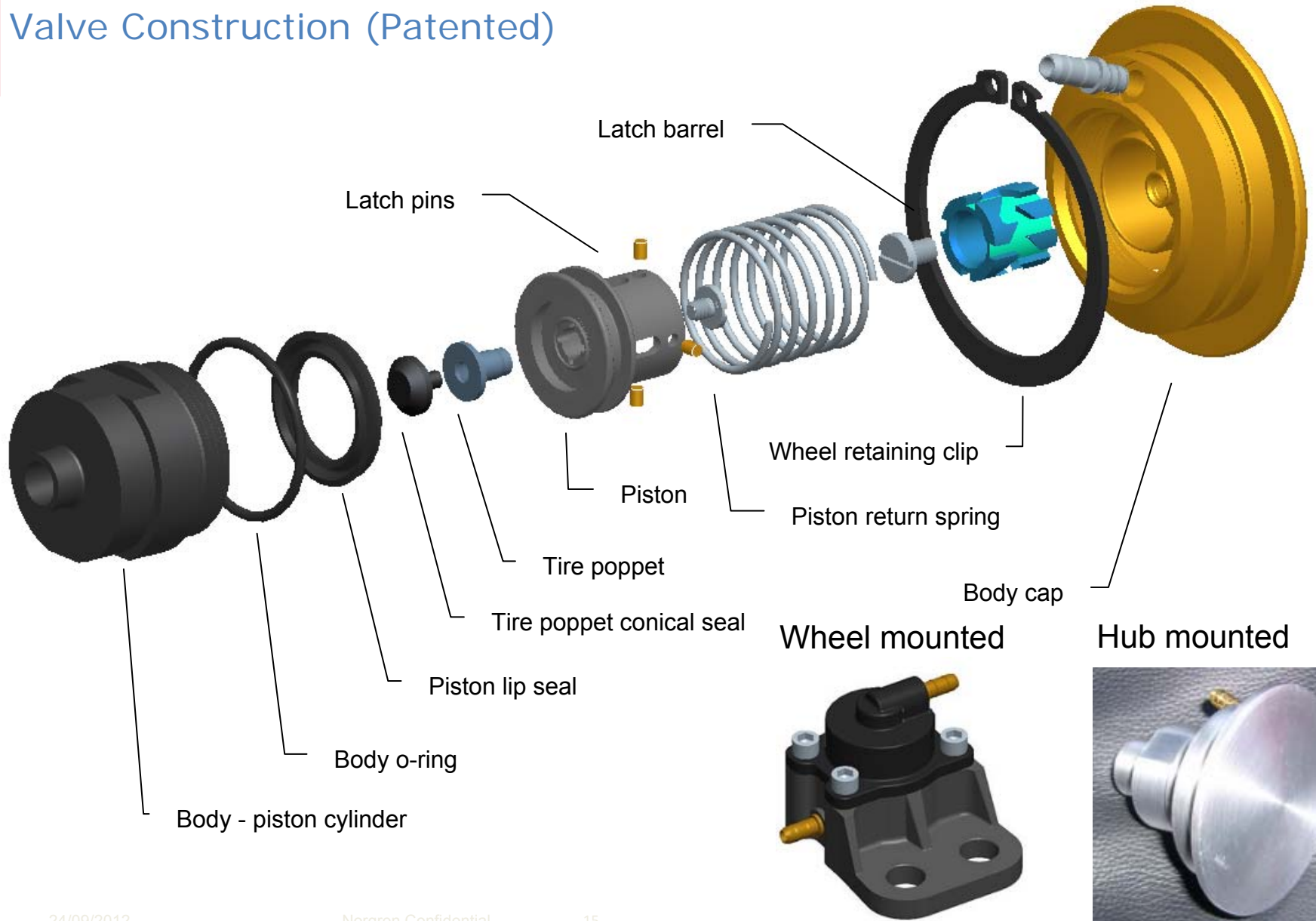


Inflate mode: control pressure high, piston moves to right, tire poppet forced open



Deflate mode: control pressure reduced, piston moves to left and is stopped by latch, tire poppet back flows freely

Valve Construction (Patented)



Controller

