



# xcelstor<sup>®</sup> CNG

## Your low-emission mobility solution.



### Green transit solutions.

**Deploying low and zero-emission technology is a critical part of reducing greenhouse gas (GHG) emissions.**

Introduced to market in 1994, New Flyer's heavy-duty compressed natural gas (CNG) transit bus can meet your transit agency's low-emission needs today.

### Facts.

CNG lends consistency in operation and design across the transit industry: all bus manufacturers who produce CNG buses in North America do so using the same CNG tank technology.

**CNG offers direct solutions to your low-emission challenges.**

With clean, safe, and readily available technology, CNG propulsion **emits 90% less nitrogen oxide (NOx) than diesel engines** - and meets particulate matter levels without the need of a filter.

## Benefits of Xcelstor<sup>®</sup> CNG.



#### Breathability

CNG buses emit virtually no visible particulate matter or black soot at the tailpipe, lending cleaner, more breathable air to your community.



#### Easy Transition

With fewer infrastructure resources than battery-electric buses, CNG buses can be immediately deployed and scaled, helping to transition your fleets to low and zero-emission.



#### Extended Range

CNG buses provide an extended range of 350 - 400 miles.



#### Cost-Effective

The price of natural gas remains steady and less expensive than diesel.



#### Low-Maintenance

CNG buses are easier to maintain than traditional diesel engine buses.

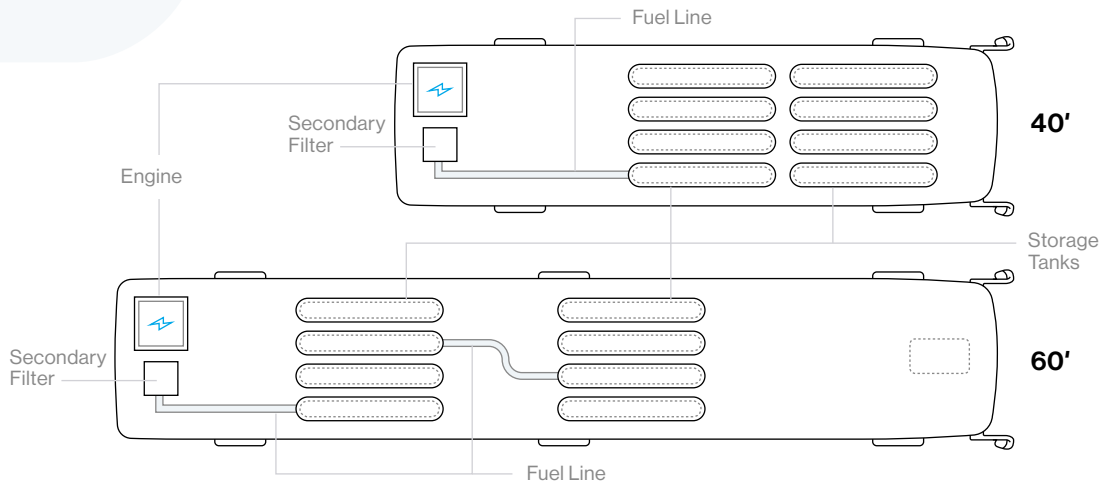


#### Particulate Filter-Free

CNG eliminates the need for particulate filters and regeneration cycles.

## How it works.

CNG is made by compressing natural gas. It is stored in cylindrical tanks placed on the roof and distributed via a main fuel supply line.



A CNG fuel system transfers high-pressure natural gas from the storage tank through the main fuel supply line to a fuel block manifold and filter.

The natural gas pressure level is reduced using a pressure regulator — to be compatible with the engine fuel injection system. Fuel is then introduced into the intake manifold or combustion chamber.

## Over 25 years of innovating CNG technology.

New Flyer has delivered nearly 13,000 CNG buses to transit agencies across the United States and Canada. Today, its CNG technology is built on the Xcelsior® transit bus model.

### Unmatched Safety

New Flyer continually references and integrates industry-leading safety measures and best practices to its manufacturing process, including recommendations of the Federal Motor Carrier Safety Administration (“FMCSA”) and National Fire Protection Association (“NFPA”) 2019 – both of which are considered to be industry standards.

### Proven Design + Performance

New Flyer has delivered over 15,000 Xcelsior® heavy-duty transit bus models, together accumulating over one billion miles of revenue service.

### Commitment to Clean, Safe, Sustainable Transit

Every day, New Flyer buses carry millions of people to their destinations – this is not a responsibility we take lightly. Together with leading transit agencies, we are proud to deliver safe, low-emission mobility solutions to communities across North America.



### Why choose a New Flyer CNG bus?

New Flyer has been your CNG leader for more than 25 years and offers unmatched expertise in the design and deployment of low-emission transit buses.

### Facts.

New Flyer CNG buses conform to the EPA and NHTSA comprehensive Heavy-Duty National Program that reduces greenhouse gas emissions and fuel consumption for heavy-duty highway vehicles.

	<b>35'</b> <i>XN35</i>	<b>40'</b> <i>XN40</i>	<b>60'</b> <i>XN60</i>
<b>Measurements</b>			
<b>Length</b>	36' 3" (11.05m) Over bumpers; 35' 5" (10.80m) Over body	41' 0" (12.50m) Over bumpers; 40' 2" (12.24m) Over body	60' 10" (18.54m) Over bumpers; 60' 0" (18.29m) Over body
<b>Width</b>	102" (2.6m)	102" (2.6m)	102" (2.6m)
<b>Roof Height</b>	11' 1" (3.3m) Over charging rails	11' 1" (3.3m) Over charging rails	11' 1" (3.3m) Over charging rails
<b>Step Height</b>	14" (356mm)	14" (356mm)	14" (356mm)
<b>Front Step Height (Kneeled)</b>	10" (254mm)	10" (254mm)	10" (254mm)
<b>Interior Height – Floor to Ceiling</b>	79" (2m) Over front and rear axle; 95" (2.4m) Mid-coach	79" (2m) Over front and rear axle; 95" (2.4m) Mid-coach	79" (2m) Over front and rear axle; 95" (2.4m) Mid-coach
<b>Tire Size</b>	305/70R22.5	305/70R22.5	305/70R22.5
<b>Aisle Width</b>	22" to 24" (559mm to 610mm) (varies with seat model)	22" to 24" (559mm to 610mm) (varies with seat model)	22" to 24" (559mm to 610mm) (varies with seat model)
<b>Wheelbase</b>	226.75" (5.8m)	283.75" (7.2m)	229" (5.8m) Front / 293" (7.4m) rear

<b>Propulsion</b>			
<b>Transmission</b>	Allison; Voith and ZF options available	Allison; Voith and ZF options available	Allison; Voith and ZF options available
<b>Engine Options</b>	Cummins L9 CNG	Cummins L9 CNG	Cummins L9 CNG

<b>Passenger Capacity</b> (With wheelchair barrier protection)			
<b>Seats</b>	Up to 32	Up to 40	Up to 61 (with one exit door)
<b>Standees</b>	Up to 33	Up to 43	Up to 62 (with one exit door)

<b>Accessibility</b>			
<b>Doors</b>	2	2	2 or 3 (option for up to 5 doors)
<b>Wheelchair Accessibility</b>	32" (813mm) wide, 1:6 slope NFIL or SmartRider™ ramp, front door	32" (813mm) wide, 1:6 slope NFIL or SmartRider™ ramp, front door	32" (813mm) wide, 1:6 slope NFIL or SmartRider™ ramp, front door
<b>Wheelchair Locations</b>	2 - Front location, rear location also available (other options available)	2 - Front location, rear location also available (other options available)	2 - Front location, rear location also available (other options available)

<b>Approach Angle</b>			
<b>Approach/Departure/Breakover Angles</b>	9°/9°/12°	9°/9°/9°	9°/9°/12° (front) 9° (back)

<b>Turning Radius</b> (Body, with aluminum wheels; *Varies with wheel type)			
<b>Turning Radius</b>	39' (11.9m)*	44' (13.4m)*	44' (13.4m)*

<b>Main Components</b>			
<b>Floor</b>	Composite at rear interior step, ACQ Plywood remainder (dB Ply used on upper deck). Tarabus, Altro, RCA	Composite at rear interior step, ACQ Plywood remainder (dB Ply used on upper deck). Tarabus, Altro, RCA	Composite at rear interior step, ACQ Plywood remainder (dB Ply used on upper deck). Tarabus, Altro, RCA
<b>Electrical System</b>	Parker Vansco	Parker Vansco	Parker Vansco
<b>Cooling System</b>	Electric cooling fans (EMP, Modine)	Electric cooling fans (EMP, Modine)	Electric cooling fans (EMP, Modine)
<b>Fuel Tank</b>	Type 4 Natural Gas Vehicle Fuel Cylinder: 3300 SCF at 3600 psi service pressure	Type 4 Natural Gas Vehicle Fuel Cylinder: 3300 SCF at 3600 psi service pressure	Type 4 Natural Gas Vehicle Fuel Cylinder: 3300 SCF at 3600 psi service pressure
<b>HVAC</b>	Thermo King TE15 (rear)	Thermo King TE15 (rear)	Thermo King RLFE (front) TE15 (rear)
<b>Axles</b>	MAN VOK 07 Front disc brakes; MAN HY-1350 Rear disc brakes; Single reduction axle	MAN VOK 07 Front disc brakes; MAN HY-1350 Rear disc brakes; Single reduction axle	MAN VOK 07 Front disc brakes; ZF AVN 132 Center disc brake; MAN HY-1350 Rear disc brakes; Single reduction axle

