



## OVERVIEW

AxleTech's Independent Suspension Axle Systems (ISAS®) product line is specifically designed for applications requiring high mobility and maneuverability. The newest Independent Front Suspension drive axle was tested at a leading Tier 1 automotive testing facility and is engineered to provide superior performance for utility trucks compared to conventional leaf spring front beam axles.

## FEATURES AND BENEFITS

<b>Proven Independent Suspension Axle System technology</b>	The ISAS® product line has been fitted on high-mobility vehicles for over 20 years. The Independent Front Suspension system leverages decades of expertise in designing and manufacturing field-proven systems.
<b>Bolt-on system</b>	The Independent Front Suspension is a bolt-on system and does not require modifications to frame rails.
<b>5 to 12 inch ride height reduction</b>	The 5 to 12 inch height reduction improves vehicle roll stability vs. best-in-class beam axle mechanical AWD. Modular solution maintains the same ride height of a RWD truck.
<b>Lower center of gravity</b>	Better vehicle maneuverability and stability for safer and more confident handling.
<b>60% reduction in cab and driver-absorbed power</b>	Ride harshness improvements as well as reduction in unwanted steering feedback lead to less physical fatigue for the driver, and higher reliability of the cab.
<b>2-times the wheel travel</b>	The Independent Front Suspension provides 2-times the wheel travel compared to leaf spring front beam axles, which reduces peak stresses and loads onto the vehicle chassis, leading to improved component reliability.
<b>Modern steering geometry</b>	Upgraded truck handles and steers like a SUV compared to standard AWD truck.
<b>Air disc brake with ventor rotor</b>	Superior brake fade resistance and stopping power.

## TECHNICAL SPECIFICATIONS

<b>Configuration</b>	Double-wishbone
<b>Rating lb (kg)</b>	16,000 to 22,000 (7,250 to 10,000)
<b>Axle weight lb (kg)</b>	3,150 (1,429) including sub-frame
<b>Axle type</b>	Central compliantly mounted drop carrier with planetary reduction wheel ends
<b>Axle ratios</b>	4.48 to 10.48
<b>Planetary ratios</b>	3.56 to 4.63
<b>Differential</b>	Open
<b>Wheel mount in (mm)</b>	Hub-piloted 10 stud 13.19 BC (335) with future option 11.25 BC (285.75)
<b>Brakes</b>	Outboard air disc brake, vented rotor
<b>Springs</b>	Hot rolled coil springs
<b>Shock</b>	High capacity twin-tube shocks with integrated bump aid
<b>Total wheel travel in (mm)</b>	11.8 (300)
<b>Minimum rim size in (mm)</b>	22.5 rim (572) with 65/385 to 65/425 tire
<b>Hub flange to flange in (mm)</b>	94.8 (2,409)
<b>Track inches (mm)</b>	84.25 to 85.43 (2,140 to 2,170)
<b>Pinion joint series</b>	KV 150, KV 180, SAE 1710 or 1810, 16TYS or 17TYS, MECH 6C, 7C or 8.5C
<b>Steering joint type</b>	CV joints with ball spline plunge
<b>Max steering angles</b>	32°
<b>Camber</b>	0° +/- 1° adjustable
<b>Ride camber</b>	-15°/m
<b>Roll center height in (mm)</b>	9.84 (250)
<b>Ride steer</b>	5°/m understeer
<b>King pin inclination</b>	8.9°
<b>ABS hub compatibility</b>	Standard
<b>Input rotation</b>	Clockwise into pinion

### HEADQUARTERS

AxleTech  
1400 Rochester Road  
Troy, Michigan 48083  
USA

+1 877-877-9717  
Int'l +1 248-658-7200

### EMAIL

OE: sales@axletech.com  
Aftermarket: aftermarket@axletech.com

**AXLETECH.COM**