

BILSTEIN®

OFF-ROAD SHOCKS



LIFTED TRUCKS • SUVs • OFF-ROAD RACING



SETTING THE PACE FOR OVER 40 YEARS

BILSTEIN introduced the very first monotube gas pressure shock absorber to the extremely challenging world of off-road racing. It didn't take long for Baja racers to recognize the superior performance that this new technology provided and the wins started stacking up. In fact, most of off-road racing's renowned drivers have won on BILSTEIN shocks.

After 40 years of evolving monotube shock technology, the winning tradition continues, not only in Baja, but throughout the entire world of off-road racing. Every BILSTEIN off-road shock featured in this catalog is a true monotube high pressure gas shock; no emulsion, no foam cells, just performance. From the new 9200 Series for professional off-road racing, to the new 6112 Series 60mm shock for your lifted truck or SUV, count on BILSTEIN to deliver the terrain-taming performance you're looking for. After all, we've been the leader since the very beginning.

- DIRECT FIT PRODUCTS..... 04
 - 5100 SERIES 07
 - 5100 RIDE-HEIGHT ADJUSTABLE 08
 - 5160 SERIES 10
 - 6112 SERIES 11
- DIRECT FIT APPLICATIONS..... 12
- CUSTOM FIT PRODUCTS..... 21
 - 5125 SERIES 22
 - 5165 SERIES 22
 - 7100 CLASSIC SERIES 23
 - 7100 SERIES 24
 - 8125 SERIES 25
- CUSTOM FIT APPLICATIONS..... 26
- PROFESSIONAL RACING PRODUCTS..... 31
 - 9200 SERIES 32
 - BLACKHAWK® 9300 SERIES 34
- PROFESSIONAL RACING APPLICATIONS..... 36
- ACV AND BUMP STOP..... 38
- WARRANTY AND SERVICE..... 39

Official shock of:



DIRECT FIT

LIFTED TRUCK & SUV

- 5100 Series <
- 5100 Ride-Height Adjustable <
- 5160 Series <
- 6112 Series <



DIRECT FIT

TECHNOLOGY

The Technology of BILSTEIN's Monotube Design

Heat is one of the major detractors to the performance and longevity of any shock absorber. Conventional twintube designed shocks trap the heat within the shock body and do not let it adequately dissipate, making them prone to heat build-up, fade and eventual failure.

By contrast, BILSTEIN's superior monotube high gas pressure design allows the excessive heat from the oil to transfer to the outer surface of the shock body and dissipate more efficiently. The dividing piston also permits the oil to expand as heat builds, preventing aeration (foaming) and viscosity loss. This allows the shock to maintain full damping characteristics as temperatures rise.

Pressure Differentials

Shock oils contain roughly 10% gas molecules. The compression and rebound strokes of the shock piston in the oil column cause pressure differentials. When the piston rod is forced quickly into the shock tube, the pressure increases in front of the piston and decreases behind it.

These pressure differentials release gas molecules from the oil column which forms small bubbles (foaming). The foaming can become so excessive that damping force is severely reduced. The shock becomes unresponsive with a corresponding loss of vehicle control.

In a monotube gas pressure shock absorber, the nitrogen is separated from the oil by a dividing piston. This keeps the oil column under pressure at all times to prevent the release of gas molecules while enabling the shock to deliver consistent performance under all driving conditions.

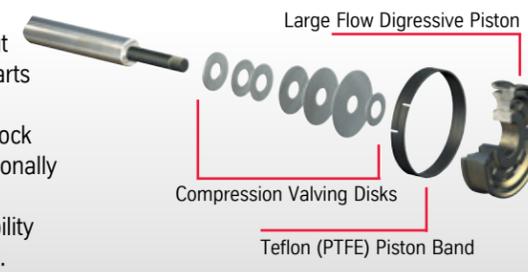


Monotube vs. Twintube Shock Design
The photo on the left dramatically illustrates the size difference between the working piston inside a BILSTEIN monotube shock and one found in a typical twintube shock.

BILSTEIN's piston has 228% larger surface area than the average conventional twintube piston offering greater sensitivity and superior vehicle control.

The piston head design allows independent tuning of the compression and rebound damping forces to provide optimum ride comfort and performance without compromise. It features fewer parts than most conventional twintube and so-called "road sensing" shock designs. This simple, yet exceptionally functional digressive design contributes to the extreme durability and long life of BILSTEIN shocks.

BILSTEIN's Digressive Working Piston Assembly



Hard Chrome Piston Rod
Features a super finished hard chrome plated surface with a maximum peak-to-valley measurement of .0002mm.

One Piece Aluminum Rod Guide & Seal
Keeps dirt out and maintains a nearly friction-free surface for longer life.

Self-Adjusting Digressive Piston
Instantly reacts and adjusts for any condition. Provides maximum vehicle body motion control while maintaining superior comfort.

BILSTEIN's Industry Leading Monotube Design
Provides superior tube strength while maximizing heat dissipation and shock life.

High Pressure Nitrogen Gas & "Floating" Dividing Piston
Nitrogen gas maintains constant pressure against the low mass "floating" dividing piston and column of hydraulic oil, eliminating the possibility of oil foaming and performance loss.



5100 SERIES

DIRECT FIT

5100 SERIES | Monotube Gas Pressure Shock Absorber for Lifted Trucks, Jeeps and SUVs

Due to their larger tires and a heightened stance, lifted vehicles place extra demands on a shock absorbers damping ability. The 5100 monotube design and patented digressive valving is uniquely suited to confront these demands. On or off-road, loaded or unloaded, BILSTEIN shocks instantly react to changing road inputs to maintain a stable, controlled, and comfortable ride.

Product Highlights

- > 46mm monotube design for consistent fade-free performance
- > Patented digressive valving instantly reacts to changing surface conditions for maximum comfort, and control on and off-road
- > Vehicle specific tuning optimizes performance for ride and handling
- > OEM certified mounting hardware allows for easy installation
- > Zinc plated for resistance to harsh elements
- > Black boot included
- > Made in the USA
- > Limited Lifetime Warranty

Watch Video:



OEM Certified Shock Mounts

Each 5100 Series has extremely durable and long lasting vulcanized neoprene rubber bushings with vehicle specific sleeves or cast crossbars.



5112 Series (kit)*

Levels vehicle, increases ground clearance, and allows for larger diameter tires. Kit includes (2) front 5100 shocks and (2) custom tuned springs to enhance vehicle control.

*5112 Series available for 05-'15 Ford F-250/F-350 4x4

Contact your BILSTEIN distributor for additional applications.



DIRECT FIT

5100 RIDE-HEIGHT

5100 RIDE-HEIGHT

DIRECT FIT



5100 RIDE-HEIGHT ADJUSTABLE

Designed to level out the front end of half-ton trucks and SUVs equipped with OEM coilover suspension.

Product Highlights

- > 46mm monotube design for consistent, fade-free performance
- > Extremely affordable and practical alternative to coil spring spacers, with the benefit of BILSTEIN's superior monotube design
- > Increases suspension travel
- > Utilizes the vehicle's stock front coil springs
- > Vehicle specific tuning for maximum performance
- > Made in the USA
- > Limited Lifetime Warranty

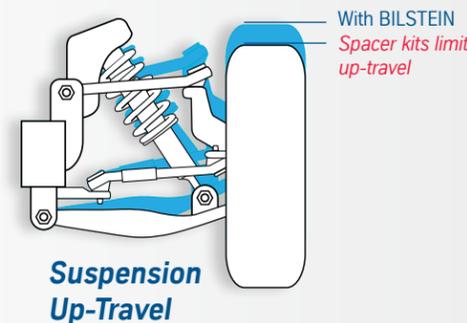
Adjustable Spring Perch

- > Levels and lifts vehicle 0" to 2.75" depending on application
- > Multiple snap-ring grooves allow for different spring seat positions
- > OEM specified snap-ring design



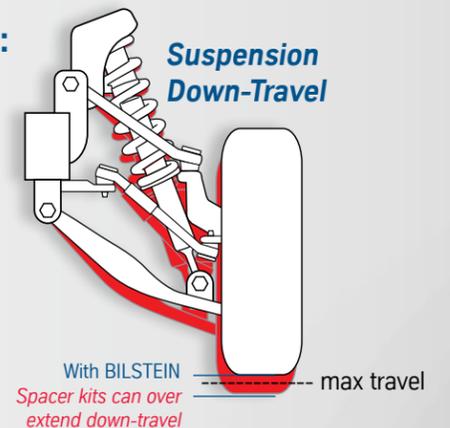
Read more on the advantages of the BILSTEIN 5100 Ride-Height Adjustable Shock

BILSTEIN 5100 Ride-Height Adjustable Shocks account for the shortcomings found in spacer kits:



Full stock suspension up-travel is maintained with the BILSTEIN 5100 Ride-Height Adjustable Shocks installed.

Up-travel is restricted when the shock assembly bottoms out with the strut extension spacer installed.



BILSTEIN 5100 Ride-Height Adjustable Shocks prevent over extension of the suspension.

Strut extension spacers can create over extended down-travel causing possible ball joint, CV joint, or driveline component damage.

Toyota Tacoma shock shown with stock factory spring assembly installed. (not included with shock)

DIRECT FIT

5160 SERIES

6112 SERIES

DIRECT FIT



5160 SERIES

Similar to the 5100 Series, but with the added benefits of a remote reservoir resulting in increased wheel travel and improved long-term durability for off-road use.

Product Highlights

- > 46mm monotube design for consistent, fade-free performance
- > Designed to easily install in the stock mounting locations
- > Unique digressive valving system instantly reacts to changing road surface conditions
- > Remote reservoir increases shock oil capacity for greater heat dissipation
- > Vehicle specific tuning for maximum performance
- > Increases wheel travel on most applications
- > Includes reservoir mount kit and detailed installation instructions
- > Made in the USA

Swivel Mount

Unique swivel banjo fittings allow for 360° of rotation.

Optional Aluminum Clamp

Optional billet aluminum reservoir mounting clamp available. Part #11-176015

Watch Video:



6112 SERIES (kit)

Designed for the serious off-road adventure seeker, the all-new BILSTEIN 6112 Series kit is the ultimate suspension solution.

Product Highlights

- > Large 60mm monotube for increased oil capacity, cooling, and long-term durability
- > 60mm digressive piston for improved ride comfort and control over rough terrain
- > 18mm hard chrome piston rod
- > Custom engineered cold wound linear springs for enhanced vehicle control
- > Monotube design for consistent, fade-free performance
- > Application specific for maximum performance
- > Reuses OEM top mount and rubber isolator
- > Made in the USA
- > Limited lifetime warranty

Kit includes (2) front 60mm shocks, (2) spring seats and (2) springs.

Adjustable Spring Seat
Offers 0-2.5" of adjustable lift depending on the application.

60mm Digressive Piston

The 6112 Series optimizes on and off-road performance with a 60mm digressive piston for increased damping control.

Bottom Mount

Utilizes a high quality OEM lower mount for long-term durability and a perfect fit.

Watch Video:



DIRECT FIT

APPLICATIONS

APPLICATIONS

DIRECT FIT

Table listing vehicle models and applications for FORD TRUCKS & SPORT UTILITY VEHICLES, including 4WD Pickups and 2WD Pickups. Columns include Model, Year, Lifted Height (Front/Rear), Front Shock (Part #, Series, Note), and Rear Shock (Part #, Series, Note).

Table listing vehicle models and applications for GMC TRUCKS & SPORT UTILITY VEHICLES, including 4WD Pickups and 2WD Pickups. Columns include Model, Year, Lifted Height (Front/Rear), Front Shock (Part #, Series, Note), and Rear Shock (Part #, Series, Note).

DIRECT FIT

APPLICATIONS

Part #	Extended (in)	Collapsed (in)	Part #	Extended (in)	Collapsed (in)	Part #	Extended (in)	Collapsed (in)
5100/5160 SERIES COLLAPSED AND EXTENDED LENGTHS								
24-062107	15.43	10.04	24-187084	26.15	16.14	25-187663	25.00	14.95
24-062466	32.01	20.28	24-187107	15.43	10.15	25-187670	24.49	14.44
24-064576	28.44	16.97	24-187152	21.65	13.84	25-187687	22.48	13.48
24-065276	28.01	17.01	24-187169	20.87	13.54	25-187694	31.46	18.25
24-065283	21.52	13.27	24-187183	21.46	13.52	25-187779	22.34	13.58
24-066464	27.32	16.34	24-187190	26.50	16.51	25-187786	31.24	18.03
24-067379	28.29	17.28	24-187206	21.46	13.52	25-187793	24.92	14.87
24-100144	22.40	13.84	24-187213	30.31	19.57	25-187809	28.39	16.44
24-146708	24.63	14.98	24-187237	24.33	15.55	25-187816	24.92	14.87
24-146715	25.00	15.39	24-187367	21.40	15.12	25-188363	26.99	15.96
24-158428	20.01	13.19	24-187374	26.73	16.75	25-188370	34.39	20.28
24-158848	23.03	14.96	24-187466	21.91	16.22	25-188387	23.72	14.33
24-158930	21.06	13.39	24-188180	24.63	14.98	25-188394	31.24	18.03
24-164870	23.54	15.12	24-188197	24.61	14.98	25-193114	24.70	14.53
24-185257	24.00	14.88	24-188265	18.68	13.23	25-193121	25.00	14.95
24-185264	23.07	14.63	24-191203	27.36	16.95	25-193138	21.87	13.11
24-185400	17.58	11.30	24-196284	27.44	19.13	25-193145	22.00	13.44
24-185417	27.32	16.38	24-196451	18.64	14.06	25-194012	26.39	15.37
24-185493	18.98	12.17	24-196468	26.79	16.42	25-196474	18.64	13.90
24-185509	26.16	16.14	24-196499	22.48	17.58	25-196481	28.09	16.54
24-185523	18.98	12.17	24-197649	15.61	11.37	25-197754	28.33	16.38
24-185530	26.16	16.14	24-218023	24.23	15.98	25-197761	31.81	18.70
24-185615	26.20	16.18	24-218030	29.92	18.17	25-212662	26.93	15.91
24-185622	22.09	13.58	24-225434	32.09	26.28	25-218190	24.23	15.57
24-185639	21.85	13.68	24-225441	16.02	22.54	25-218206	31.26	18.17
24-185653	28.44	16.97	24-225793	19.20	13.35	25-227611	23.50	14.84
24-185660	23.68	14.63	24-232173	24.21	17.77	25-229738	27.46	15.91
24-185684	20.49	12.87	24-236942	21.50	13.27	25-229745	27.42	16.12
24-185745	17.95	11.67	24-238304	18.86	15.00	25-237429	25.69	15.22
24-185752	25.63	16.00	24-238878	24.61	14.96	25-242379	24.17	14.21
24-185776	24.37	14.88	24-238885	24.59	14.94	25-242539	24.17	14.21
24-185783	26.14	16.16	24-239363	21.89	16.34	33-061399	22.78	14.37
24-185929	24.63	14.98	24-239370	22.56	17.03	33-066868	23.84	14.88
24-185943	28.44	16.97	24-239387	24.32	17.76	33-104645	25.89	15.91
24-185950	21.38	14.15	24-239394	21.83	16.93	33-151618	25.93	15.91
24-186018	21.42	13.59	24-239455	24.96	16.73	33-151632	25.93	15.91
24-186025	29.70	18.04	24-241656	23.96	15.06	33-151663	25.93	15.91
24-186216	23.70	14.88	24-245487	22.56	17.03	33-151670	22.58	14.13
24-186223	24.59	15.48	24-248730	18.27	13.66	33-170794	23.64	14.72
24-186513	21.52	13.27	24-249928	18.66	13.86	33-170862	27.56	18.11
24-186636	29.92	18.17	24-249966	20.67	12.91	33-174525	20.08	12.83
24-186643	16.30	12.54	24-251747	22.64	15.04	33-185514	25.00	15.41
24-186681	26.61	16.33	24-251754	22.64	15.04	33-185545	26.02	15.96
24-186698	20.83	15.37	24-251778	24.17	15.58	33-185934	25.00	15.41
24-186704	24.94	15.31	24-251976	18.87	14.88	33-186009	27.11	16.69
24-186728	22.94	14.02	24-253253	18.87	14.88	33-186887	27.36	16.96
24-186735	15.76	11.30	24-253260	24.17	15.58	33-187174	23.50	14.91
24-186742	26.15	16.14	25-176407	16.30	12.83	33-187228	31.93	20.37
24-186766	25.00	15.79	25-176414	27.17	16.14	33-187280	19.29	13.71
24-186773	23.76	14.96	25-177411	21.38	13.96	33-187297	23.23	14.44
24-186810	21.18	13.06	25-177428	31.38	18.27	33-187471	28.03	17.07
24-186827	20.08	12.81	25-177435	26.61	15.59	33-187501	28.90	17.68
24-186872	27.56	16.41	25-177442	34.39	20.28	33-196619	22.44	14.55
24-186940	18.48	12.95	25-177893	24.43	14.82	33-225807	24.76	15.39
24-186957	25.39	16.53	25-187595	25.96	15.20	33-236957	24.35	15.12
24-186971	24.80	15.33	25-187601	28.09	16.54	33-236964	32.01	20.28
24-186988	21.26	15.18	25-187618	16.24	10.79	33-238319	16.18	25.79
24-186995	27.56	16.41	25-187625	27.17	16.14	33-238555	29.88	18.33
24-187053	15.26	10.55	25-187632	27.46	15.91	33-245492	22.46	14.25
24-187060	20.06	12.81	25-187649	27.42	16.12	33-247717	22.09	14.07
24-187077	21.62	13.66	25-187656	24.70	14.53	33-247724	21.14	13.62

OFF-ROAD

CUSTOM FIT

- 5125 Series <
- 5165 Series <
- 7100 Classic Series <
- 7100 Series <
- 8125 Series <



CUSTOM FIT

5125 SERIES

5165 SERIES

7100 CLASSIC SERIES

CUSTOM FIT



5125 SERIES

Same performance features as the 5100 Series. Available in a selection of lengths and valvings for use on modified or specialty vehicle applications.

Product Highlights

- > 46mm monotube design for consistent, fade-free performance
- > Self-adjusting deflective disc valving
- > High-flow piston reduces harshness
- > Available in stem-to-eye and eye-to-eye mounting configurations
- > Zinc coating for resistance to off-road elements
- > Custom valving available
- > Factory rebuildable
- > Made in the USA



5165 SERIES

Same performance features as the 5160 Series. Available in a selection of lengths and valvings for use on modified or specialty vehicle applications.

Product Highlights

- > 46mm monotube design for consistent, fade-free performance
- > Remote reservoir allows for greater heat dissipation
- > Available in stem-to-eye and eye-to-eye mounting configurations
- > Zinc coating for resistance to off-road elements
- > Custom valving available
- > Factory rebuildable
- > Billet aluminum reservoir clamp available (as shown) Part #11-176015
- > Made in the USA



7100 CLASSIC SERIES

Since their inception in the early 70's, the 7100 Classic Series have equipped more winning off-road cars and trucks than any other shock. Today, the 7100 Classic Series is perfect for meeting the demands of these vintage race vehicles.

Product Highlights

- > 46mm monotube design for consistent, fade-free performance
- > Available for standard and coilover applications in a wide variety of lengths
- > Self-adjusting deflective disc valving
- > High-flow piston reduces harshness
- > Custom valving available
- > Factory rebuildable
- > Spherical bearing end loops accept 1/2" and 12mm mounting bolts
- > Made in Germany



Steve Rountree - Mexican NORRA 1000

CUSTOM FIT

7100 SERIES

8125 SERIES

CUSTOM FIT



7100 SERIES

8125 SERIES

The versatile 7100 Series shocks are completely owner rebuildable, and available in various lengths and valvings. These shocks come in remote reservoir or non-reservoir designs.

Product Highlights

- > 46mm monotube design for consistent, fade-free performance
- > Self-adjusting deflective disc valving
- > High-flow piston reduces harshness
- > Nickel plated with clear coat
- > Owner rebuildable
- > 1/2" spherical heim mounts
- > Made in the USA



7100 Series is also available in a non-reservoir version

Designed for the serious off-road enthusiast. Available in multiple lengths for a wide range of custom applications, the 8125 Series features the highest quality machined components for long lasting durability.

Product Highlights

- > Available in 46mm* and 60mm* monotube design for consistent, fade-free performance
- > Threaded body with dual-rate coilover hardware
- > Remote reservoir for greater resistance to heat and increased travel length
- > High temperature seal extends life of shock
- > 22mm case hardened piston rod provides brute tensile strength while resisting sand blasting and rock chipping
- > Zinc plated for resistance to off-road elements
- > -8 high temperature hose
- > Owner rebuildable
- > Industry standard 5/8" spherical heim bearings
- > All components are billet machined. No cast parts
- > Made in the USA



8125 Series uses industry standard coilover springs

- > 46mm* shock uses a 2.5" ID Coilover Spring
- > 60mm* shock uses a 3.0" ID Coilover Spring

*BILSTEIN measures shock size by piston diameter. Outer body diameter is the industry standard measurement for off-road shocks.

BILSTEIN Piston Diameter	Outer Body Diameter
46mm	2.0"
60mm	2.65"

CUSTOM FIT

APPLICATIONS

APPLICATIONS

CUSTOM FIT

Part #	Travel	Extended Length	Collapsed Length	Mounting		Sleeves	Boot	Valving	Shaft Diameter
				Upper	Lower				
5125 SERIES									
EYE TO EYE									
33-187112	5.33"	16.45"	11.12"	EB1*	EB1*	1/2"	No	223/90	14mm
33-062518	6.63"	18.50"	12.03"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-233970	7.30"	20.40"	13.00"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-230313	8.00"	21.70"	13.70"	EB1*	EB1*	1/2"	Yes	170/60	14mm
33-185590	8.13"	21.54"	13.58"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-230443	8.40"	22.50"	14.10"	EB1*	EB1*	1/2"	Yes	170/60	14mm
33-185606	8.60"	22.50"	14.06"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-186542	9.24"	24.35"	15.11"	EB1*	EB1*	1/2" 12mm	Yes	255/70	14mm
33-230320	9.24"	24.35"	15.11"	EB1*	EB1*	1/2"	Yes	360/80	14mm
33-214672	9.59"	25.00"	15.41"	EB1*	EB1*	1/2"	Yes	201/87	14mm
33-104645	10.17"	25.93"	15.91"	EB1*	EB1*	1/2"	Yes	170/60	14mm
33-185552	10.17"	25.93"	15.91"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-230344	10.00"	25.90"	15.90"	EB1*	EB1*	1/2"	Yes	360/80	14mm
33-186559	11.00"	28.01"	17.00"	EB1*	EB1*	1/2" 12mm	Yes	170/60	14mm
33-104652	11.00"	28.01"	17.00"	EB1*	EB1*	1/2" 12mm	Yes	255/70	14mm
33-230382	11.94"	29.70"	17.90"	EB1*	EB1*	1/2"	Yes	170/60	14mm
33-185569	11.94"	29.70"	17.91"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-185576	14.30"	34.90"	20.75"	EB1*	EB1*	1/2"	No	255/70	14mm

STEM TO EYE

33-230306	4.50"	13.90"	9.40"	Stem	EB1*	1/2" 12mm	Yes	360/80	14mm
33-230405	5.70"	16.40"	10.70"	Stem	EB1*	1/2" 12mm	Yes	360/80	14mm
33-186504	6.65"	18.42"	11.77"	Stem	EB1*	No	Yes	366/240	14mm
24-185684	7.62"	20.45"	12.83"	Stem	EB1*	1/2" 12mm	Yes	224/100	14mm
24-065283	8.23"	21.50"	13.27"	Stem	EB1*	1/2" 12mm	Yes	398/94	14mm
33-230450	8.60"	22.90"	14.30"	Stem	EB1*	1/2" 12mm	Yes	360/80	14mm
33-230337	9.40"	24.40"	15.00"	Stem	EB1*	1/2" 12mm	Yes	255/70	14mm
33-230412	9.20"	24.40"	15.20"	Stem	EB1*	1/2" 12mm	Yes	360/80	14mm
24-214667	9.84"	25.98"	16.14"	Stem	EB1*	1/2"	Yes	178/94	14mm
33-230351	10.20"	26.40"	16.10"	Stem	EB1*	1/2" 12mm	Yes	255/70	14mm
33-230368	10.40"	26.40"	16.30"	Stem	EB1*	1/2" 12mm	Yes	360/80	14mm
33-230375	11.20"	28.30"	17.10"	Stem	EB1*	1/2" 12mm	Yes	255/70	14mm
33-230429	11.20"	28.30"	17.10"	Stem	EB1*	1/2" 12mm	Yes	360/80	14mm
33-230399	11.50"	29.40"	17.90"	Stem	EB1*	1/2" 12mm	Yes	255/70	14mm
33-230436	12.20"	30.90"	18.70"	Stem	EB1*	1/2" 12mm	Yes	255/70	14mm

* 5/8" ID hourglass bushing

5165 SERIES

EYE TO EYE

25-187878	6.30"	17.30"	11.00"	EB1*	EB1*	1/2"	No	360/80	14mm
25-187861	7.50"	19.80"	12.30"	EB1*	EB1*	1/2"	No	170/60	14mm
25-187885	7.50"	19.80"	12.30"	EB1*	EB1*	1/2"	No	255/70	14mm

5165 SERIES *continued*

25-176223	8.80"	22.40"	13.60"	EB1*	EB1*	1/2"	No	170/60	14mm
25-176230	8.80"	22.40"	13.60"	EB1*	EB1*	1/2"	No	255/70	14mm
25-176124	9.40"	23.60"	14.20"	EB1*	EB1*	1/2"	No	170/60	14mm
25-176117	9.40"	23.60"	14.20"	EB1*	EB1*	1/2"	No	255/70	14mm
25-176100	9.40"	23.60"	14.20"	EB1*	EB1*	1/2"	No	360/80	14mm
25-177510	9.80"	24.40"	14.60"	EB1*	EB1*	1/2"	No	255/70	14mm
25-177503	9.80"	24.40"	14.60"	EB1*	EB1*	1/2"	No	360/80	14mm
25-187700	11.00"	27.40"	16.40"	EB1*	EB1*	1/2"	No	170/60	14mm
25-187717	11.00"	27.40"	16.40"	EB1*	EB1*	1/2"	No	255/70	14mm
25-187724	11.00"	27.40"	16.40"	EB1*	EB1*	1/2"	No	360/80	14mm
25-175783	11.60"	28.50"	16.90"	EB1*	EB1*	1/2"	No	255/70	14mm
25-187731	13.10"	31.00"	17.90"	EB1*	EB1*	1/2"	No	170/60	14mm
25-187748	13.10"	31.00"	17.90"	EB1*	EB1*	1/2"	No	255/70	14mm
25-187755	14.20"	34.90"	20.70"	EB1*	EB1*	1/2"	No	170/60	14mm
25-187762	14.20"	34.90"	20.70"	EB1*	EB1*	1/2"	No	255/70	14mm

STEM TO EYE

25-177497	7.40"	19.20"	11.80"	Stem	EB1*	1/2" 12mm	No	366/240	14mm
25-177480	8.40"	21.20"	12.80"	Stem	EB1*	1/2" 12mm	No	366/240	14mm
25-177473	8.80"	22.00"	13.20"	Stem	EB1*	1/2" 12mm	No	366/240	14mm

Part #	Travel	Description	Valving	Extended	Collapsed	Finish
7100 CLASSIC SERIES						

8" Travel

F4-B46-0359-H1	8"	Standard Body	180/75	22.05"	13.82"	Classic Yellow
F4-B46-0349-H2	8"	Standard Body	275/78	22.05"	13.82"	Classic Yellow

10" Travel

F4-B46-1362-H1	10"	Standard Body	170/60	25.82"	15.79"	Classic Yellow
F4-B46-1361-H1	10"	Standard Body	180/75	25.82"	15.79"	Classic Yellow
F4-B46-0360-H1	10"	Standard Body	275/78	25.82"	15.79"	Classic Yellow

12" Travel

F4-B46-1353-H1	12"	Standard Body	170/60	31.10"	19.37"	Classic Yellow
F4-B46-1351-H1	12"	Standard Body	275/78	31.10"	19.37"	Classic Yellow
F4-B46-0350-H1	12"	Standard Body	360/80	31.10"	19.37"	Classic Yellow

14" Travel

F4-B46-1072-H1	14"	Standard Body	150/50	34.80"	20.75"	Classic Yellow
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VW Off-Road

24-000338	5.02"	Rear Swing Axle	330/130	15.43"	10.41"	Classic Yellow
F4-B46-0930-H0*	5.36"	Rear Swing Axle or IRS	345/135	16.22"	10.86"	Zinc Plated
24-000321	4.96"	Front King Pin Stock Beam	289/104	15.24"	10.28"	Classic Yellow
F4-BOA-0000304	6.65"	Front Ball Joint Beam Cut and Turned	220/115	18.58"	11.93"	Zinc Plated

*Optional coilover kit available (Part #B4-BOA-0000117)

CUSTOM FIT

APPLICATIONS

APPLICATIONS

CUSTOM FIT

Part # Travel Description Valving Extended Collapsed Finish

Part # Travel Description Valving Reservoir Extended Collapsed

7100 CLASSIC SERIES *continued*

Coilover Shocks (Supplied with 2.5" single rate spring hardware)

F4-B46-0204-H0	5"	Coilover w/ Hardware	Custom	16.25"	11.25"	Zinc Plated
B46-02050R	6"	Coilover w/ Hardware	Custom	18.25"	12.00"	Zinc Plated
B46-0206W	8"	Coilover w/ Hardware	Custom	22.25"	14.00"	Zinc Plated
F4-B46-1103-H1	10"	Coilover w/ Hardware	255/100	26.65"	17.44"	Zinc Plated

12" Travel

AK7112R01	12"	Reservoir Shock	150/50	Y	31.10"	19.53"
AK7112S01	12"	Non-Reservoir Shock	150/50	N	31.10"	19.53"
AK7112SB01	12"	Reservoir Short Body	150/50	Y	27.68"	16.10"
B46-1353R	12"	Reservoir Shock	170/60	Y	31.10"	19.53"
B46-1353S	12"	Non-Reservoir Shock	170/60	N	31.10"	19.53"
AK7112SB	12"	Reservoir Short Body	170/60	Y	27.68"	16.10"
AK7112R03	12"	Reservoir Shock	180/75	Y	31.10"	19.53"
AK7112S03	12"	Non-Reservoir Shock	180/75	N	31.10"	19.53"
AK7112SB03	12"	Reservoir Short Body	180/75	Y	27.68"	16.10"
AK7112R04	12"	Reservoir Shock	255/70	Y	31.10"	19.53"
AK7112S04	12"	Non-Reservoir Shock	255/70	N	31.10"	19.53"
AK7112SBB	12"	Reservoir Short Body	255/70	Y	27.68"	16.10"
B46-1351R	12"	Reservoir Shock	275/78	Y	31.10"	19.53"
B46-1351S	12"	Non-Reservoir Shock	275/78	N	31.10"	19.53"
AK7112SBA	12"	Reservoir Short Body	275/78	Y	27.68"	16.10"
B46-0350R	12"	Reservoir Shock	360/80	Y	31.10"	19.53"
B46-0350S	12"	Non-Reservoir Shock	360/80	N	31.10"	19.53"
AK7112SB06	12"	Reservoir Short Body	360/80	Y	27.68"	16.10"
AK7112R99	12"	Reservoir Shock	Custom	Y	31.10"	19.53"
AK7112S99	12"	Non-Reservoir Shock	Custom	N	31.10"	19.53"
AK7112SB99	12"	Reservoir Short Body	Custom	Y	27.68"	16.10"

7100 SERIES

8" Travel

AK7108R01	8"	Reservoir Shock	150/50	Y	22.29"	14.06"
AK7108S01	8"	Non-Reservoir Shock	150/50	N	22.29"	14.06"
AK7108R02	8"	Reservoir Shock	170/60	Y	22.29"	14.06"
AK7108S02	8"	Non-Reservoir Shock	170/60	N	22.29"	14.06"
B46-0359R	8"	Reservoir Shock	180/75	Y	22.29"	14.06"
B46-0359S	8"	Non-Reservoir Shock	180/75	N	22.29"	14.06"
AK7108R04	8"	Reservoir Shock	255/70	Y	22.29"	14.06"
AK7108S04	8"	Non-Reservoir Shock	255/70	N	22.29"	14.06"
B46-0349R	8"	Reservoir Shock	275/78	Y	22.29"	14.06"
B46-0349S	8"	Non-Reservoir Shock	275/78	N	22.29"	14.06"
AK7108R06	8"	Reservoir Shock	360/80	Y	22.29"	14.06"
AK7108R06	8"	Non-Reservoir Shock	360/80	N	22.29"	14.06"
AK7108R99	8"	Reservoir Shock	Custom	Y	22.29"	14.06"
AK7108R99	8"	Non-Reservoir Shock	Custom	N	22.29"	14.06"

14" Travel

AK7114R01	14"	Reservoir Shock	150/50	Y	35.22"	20.83"
AK7114S01	14"	Non-Reservoir Shock	150/50	N	35.22"	20.83"
AK7114SB01	14"	Reservoir Short Body	150/50	Y	33.84"	19.53"
AK7114RA	14"	Reservoir Shock	170/60	Y	35.22"	20.83"
AK7114SA	14"	Non-Reservoir Shock	170/60	N	35.22"	20.83"
AK7114SBA	14"	Reservoir Short Body	170/60	Y	33.84"	19.53"
AK7114R03	14"	Reservoir Shock	180/75	Y	35.22"	20.83"
AK7114S03	14"	Non-Reservoir Shock	180/75	N	35.22"	20.83"
AK7114SB03	14"	Reservoir Short Body	180/75	Y	33.84"	19.53"
AK7114R04	14"	Reservoir Shock	255/70	Y	35.22"	20.83"
AK7114S04	14"	Non-Reservoir Shock	255/70	N	35.22"	20.83"
AK7114SB	14"	Reservoir Short Body	255/70	Y	33.84"	19.53"
AK7114R05	14"	Reservoir Shock	275/78	Y	35.22"	20.83"
AK7114S05	14"	Non-Reservoir Shock	275/78	N	35.22"	20.83"
AK7114SB05	14"	Reservoir Short Body	275/78	Y	33.84"	19.53"
AK7114R06	14"	Reservoir Shock	360/80	Y	35.22"	20.83"
AK7114S06	14"	Non-Reservoir Shock	360/80	N	35.22"	20.83"
AK7114SB06	14"	Reservoir Short Body	360/80	Y	33.84"	19.53"
AK7114R99	14"	Reservoir Shock	Custom	Y	35.22"	20.83"
AK7114S99	14"	Non-Reservoir Shock	Custom	N	35.22"	20.83"
AK7114SB99	14"	Reservoir Short Body	Custom	Y	33.84"	19.53"

10" Travel

AK7110R01	10"	Reservoir Shock	150/50	Y	25.77"	16.10"
AK7110S01	10"	Non-Reservoir Shock	150/50	N	25.77"	16.10"
AK7110SB01	10"	Reservoir Short Body	150/50	Y	24.31"	14.21"
B46-1362R	10"	Reservoir Shock	170/60	Y	25.77"	16.10"
B46-1362S	10"	Non-Reservoir Shock	170/60	N	25.77"	16.10"
AK7110SBA	10"	Reservoir Short Body	170/60	Y	24.31"	14.21"
B46-1361R	10"	Reservoir Shock	180/75	Y	25.77"	16.10"
B46-1361S	10"	Non-Reservoir Shock	180/75	N	25.77"	16.10"
AK7110SB03	10"	Reservoir Short Body	180/75	Y	24.31"	14.21"
AK7110R04	10"	Reservoir Shock	255/70	Y	25.77"	16.10"
AK7110S04	10"	Non-Reservoir Shock	255/70	N	25.77"	16.10"
AK7110SB	10"	Reservoir Short Body	255/70	Y	24.31"	14.21"
B46-0360R	10"	Reservoir Shock	275/78	Y	25.77"	16.10"
B46-0360S	10"	Non-Reservoir Shock	275/78	N	25.77"	16.10"
AK7110SB05	10"	Reservoir Short Body	275/78	Y	24.31"	14.21"
AK7110R	10"	Reservoir Shock	360/80	Y	25.77"	16.10"
AK7110S	10"	Non-Reservoir Shock	360/80	N	25.77"	16.10"
AK7110SB06	10"	Reservoir Short Body	360/80	Y	24.31"	14.21"
AK7110R99	10"	Reservoir Shock	Custom	Y	25.77"	16.10"
AK7110S99	10"	Non-Reservoir Shock	Custom	N	25.77"	16.10"
AK7110SB99	10"	Reservoir Short Body	Custom	Y	24.31"	14.21"

CUSTOM FIT

APPLICATIONS

Part # Travel Description Valving Reservoir Extended Collapsed

7100 SERIES *continued*

VW Off-Road

B46-0930R*	5.36"	Rear Swing Axle or IRS	345/135	Y	16.04"	10.81"
B46-0930S*	5.36"	Rear Swing Axle or IRS	345/135	N	16.04"	10.81"
B46-1085R	6.65"	Front Ball Joint Beam Cut and Turned	220/115	Y	18.46"	11.83"
B46-1085S	6.65"	Front Ball Joint Beam Cut and Turned	220/115	N	18.46"	11.83"

*Optional coilover kit available (Part #B4-BOA-0000117)

Part# Travel Description Valving Reservoir Shaft Diameter Extended Collapsed

8125 SERIES 46mm* (2")

33-225463	5"	46mm* Coilover w/ Hardware	255/100	46mm*	22mm	17.00"	12.00"
33-225487	6"	46mm* Coilover w/ Hardware	255/100	46mm*	22mm	19.00"	13.00"
33-225500	8"	46mm* Coilover w/ Hardware	255/100	46mm*	22mm	23.00"	15.00"
33-225524	10"	46mm* Coilover w/ Hardware	255/100	46mm*	22mm	27.00"	17.00"
33-225548	12"	46mm* Coilover w/ Hardware	255/100	46mm*	22mm	31.50"	19.50"
33-225562	14"	46mm* Coilover w/ Hardware	255/100	46mm*	22mm	35.50"	21.50"
33-225586	16"	46mm* Coilover w/ Hardware	255/100	46mm*	22mm	39.50"	23.50"

Part# Travel Description Valving Reservoir Shaft Diameter Extended Collapsed

8125 SERIES 60mm* (2.65")

8" Travel

33-225494	8"	60mm* Coilover Short Body w/ Hardware	370/110	60mm*	22mm	24.00"	16.00"
33-225579	8"	60mm* Coilover w/ Hardware	370/110	60mm*	22mm	25.50"	17.50"

10" Travel

33-225517	10"	60mm* Coilover Short Body w/ Hardware	370/110	60mm*	22mm	28.50"	18.50"
33-225593	10"	60mm* Coilover w/ Hardware	370/110	60mm*	22mm	29.50"	19.50"

12" Travel

33-225531	12"	60mm* Coilover Short Body w/ Hardware	370/110	60mm*	22mm	32.50"	20.50"
33-225616	12"	60mm* Coilover w/ Hardware	370/110	60mm*	22mm	33.50"	21.50"

14" Travel

33-225555	14"	60mm* Coilover Short Body w/ Hardware	370/110	60mm*	22mm	37.00"	23.00"
33-225630	14"	60mm* Coilover w/ Hardware	370/110	60mm*	22mm	38.50"	24.50"

16" Travel

33-225654	16"	60mm* Coilover Standard Body	370/110	60mm*	22mm	42.50"	26.50"
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*BILSTEIN measures shock size by piston diameter. Outer body diameter is the industry standard measurement for off-road shocks.

BILSTEIN Piston Diameter	Outer Body Diameter
46mm	2.0"
60mm	2.65"

PROFESSIONAL

OFF-ROAD RACING

9200 Series Bypass <
 9200 Series Coilover <
 Blackhawk® 9300 Series <



9200 SERIES Bypass

BILSTEIN 9200 Series Bypass shocks are position sensitive and adjustable, offering 6 zones of damping control and 4 external adjusters: 2 rebound and 2 compression. Utilizing an externally adjustable bypass shock is the easiest and most effective way to tune your off-road suspension for ultimate performance.

**BILSTEIN measures shock size by piston diameter. Outer body diameter is the industry standard measurement for off-road shocks.*

BILSTEIN Piston Diameter	Outer Body Diameter
60mm	2.65"
70mm	3.0"
83mm	3.5"



Product Highlights

- > Available in 60mm*, 70mm* and 83mm* monotubes
- > 4-tube, position sensitive with adjustable rebound and compression
- > Multiple stroke lengths available ranging from 8" to 18"
- > 60mm* piggy back or remote reservoir
- > Case hardened, centerless ground piston rod (22mm or 1 1/8") depending on body diameter
- > Machined billet aluminum components
- > 5/8" uniball mounts with 1/2" step spacers
- > 3 stage high-temp seal
- > Red synthetic high-temp racing oil
- > Zinc plated
- > Multiple valvings available
- > Owner rebuildable
- > Made in the USA

9200 SERIES Coilover

Product Highlights

- > Available in 46mm* and 60mm* monotubes
- > Threaded body with dual rate coilover hardware
- > Multiple stroke lengths available ranging from 8" to 16"
- > Case hardened, centerless ground 22mm piston rod
- > Machined billet aluminum components
- > 5/8" uniball mounts with 1/2" step spacers
- > 60mm* remote reservoir
- > 3 stage high-temp seal
- > Red synthetic high-temp racing oil
- > Zinc plated
- > Multiple valvings available
- > Owner rebuildable
- > Made in the USA



9200 Series Coilover uses industry standard coilover springs

- > 46mm* shock uses a 2.5" ID Coilover Spring
- > 60mm* shock uses a 3.0" ID Coilover Spring

**BILSTEIN measures shock size by piston diameter. Outer body diameter is the industry standard measurement for off-road shocks.*

BILSTEIN Piston Diameter	Outer Body Diameter
46mm	2.0"
60mm	2.65"





BLACK HAWK® 9300 SERIES

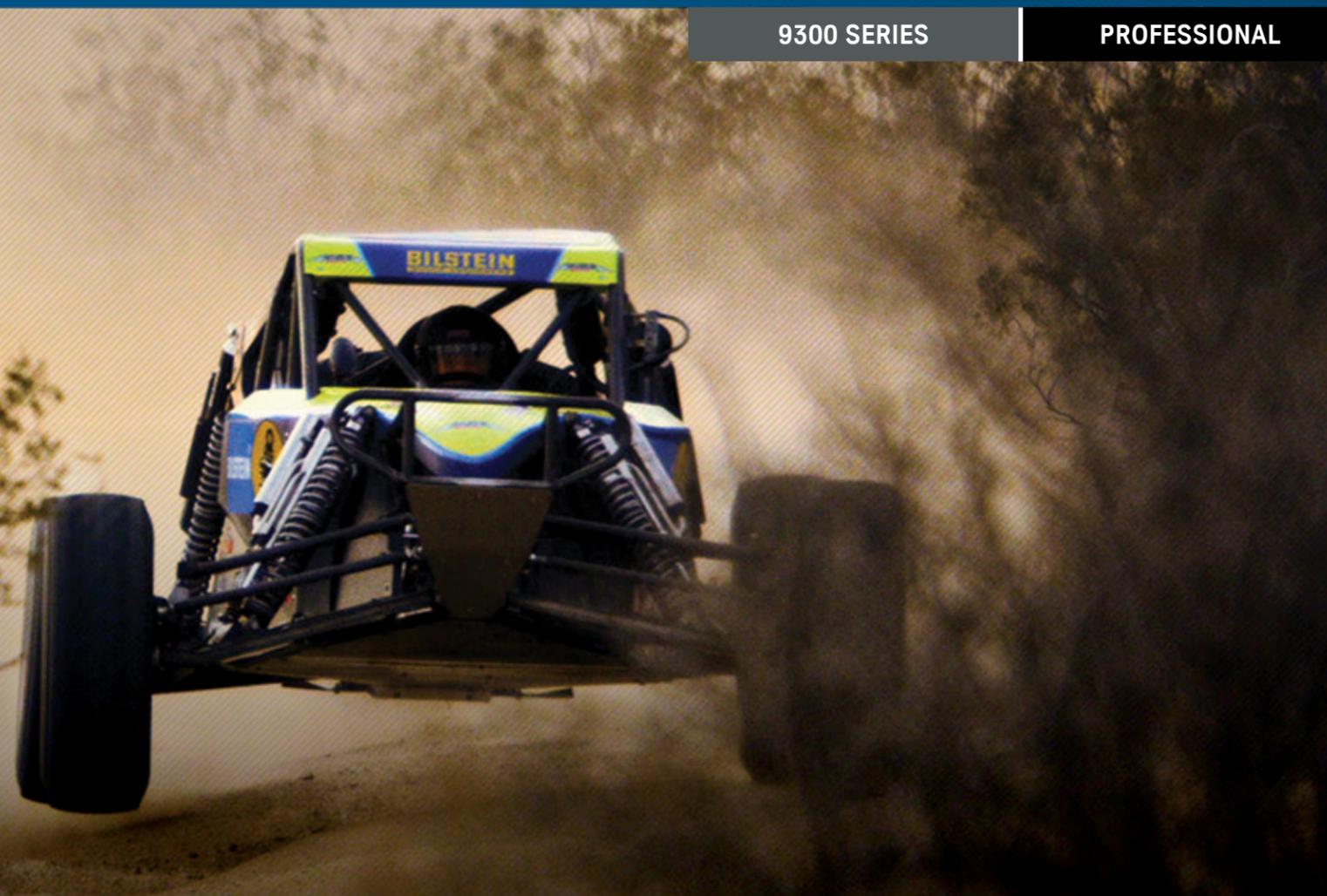
The Black Hawk® 9300 Series is the ultimate in off-road race shock technology. Its Radial Bypass Damping™ (RBD) design provides a superior level of performance and tuning capability. It's big and bold with an unmistakable hard anodized finish.

Product Highlights

- > One piece 6061 extruded aluminum body with hard anodized finish
- > 30% faster heat dissipation
- > 10% - 25% lighter than similar welded bypass steel shocks
- > 4.5" diameter aluminum reservoir with anti-cavitation valve (ACV)
- > Bypass tubes allow for position sensitive damping adjustability
- > Completely owner tunable and rebuildable
- > Made in the USA

Remote Reservoir

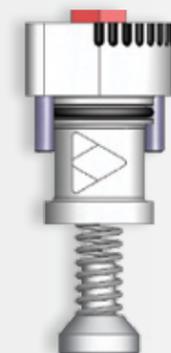
- > 4-1/2" diameter x 12" 6061-T6 aluminum reservoir housing
- > Anti-cavitation valve (ACV) (U.S. Patent 7628259) and large reservoir diameter reduces the required gas pressure, lowering the piston rod pressure and giving the vehicle greater damping control



Shock Body (U.S. Patent 7191877)

- > Rapid heat dissipating, one piece extruded 6061 aluminum construction featuring Radial Bypass Damping™ (RBD) technology
- > Approximately 30% faster cooling efficiency than steel and up to 100° lower peak operating temperatures
- > Stronger and 10%-25% lighter than similar welded steel bypass shock bodies without the distortion from welding

Incremental Bypass Flow Metering Valve™ (IFMV) (U.S. Patent 7325660)



- > Extremely accurate, incremental flow adjustment within a sealed mechanism for extreme resistance to dirt contamination
- > Easily adjustable color-coded Rebound (red) and Bump (blue) IFMV adjusters with an internal detent feature providing prominent "clicks" to each of the 9 settings
- > High impact, titanium check valve piston providing excellent wear characteristics

PROFESSIONAL APPLICATIONS

Part #	Travel	Description	Valving	Reservoir Body	Shaft Diameter	Extended	Collapsed
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9200 SERIES BYPASS 83mm* (3.5")

33-246666	10"	83mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	29.5"	19.5"
33-246673	12"	83mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	33.5"	21.5"
33-246680	14"	83mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	38.5"	24.5"
33-246697	16"	83mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	42.5"	26.5"
33-246703	18"	83mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	46.5"	28.5"

9200 SERIES BYPASS 70mm* (3")

33-241210	10"	70mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	29.5"	19.5"
33-241227	12"	70mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	33.5"	21.5"
33-241234	14"	70mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	38.5"	24.5"
33-241241	16"	70mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	42.5"	26.5"
33-241258	18"	70mm* Bypass (4 Tube)	Custom	60mm*	1 1/8"	46.5"	28.5"

9200 SERIES BYPASS 60mm* (2.65")

33-246710	8"	60mm* Bypass Short Body (4 Tube)	Custom	60mm*	22mm	24.0"	16.0"
33-246727	8"	60mm* Bypass (4 Tube)	Custom	60mm*	22mm	25.5"	17.5"
33-246734	10"	60mm* Bypass Short Body (4 Tube)	Custom	60mm*	22mm	28.5"	18.5"
33-246741	10"	60mm* Bypass (4 Tube)	Custom	60mm*	22mm	29.5"	19.5"
33-246758	12"	60mm* Bypass Short Body (4 Tube)	Custom	60mm*	22mm	32.5"	20.5"
33-247120	12"	60mm* Bypass (4 Tube)	Custom	60mm*	22mm	33.5"	21.5"
33-246765	14"	60mm* Bypass Short Body (4 Tube)	Custom	60mm*	22mm	37.0"	23.0"
33-247137	14"	60mm* Bypass (4 Tube)	Custom	60mm*	22mm	38.5"	24.5"
33-246772	16"	60mm* Bypass (4 Tube)	Custom	60mm*	22mm	42.5"	26.5"

9200 SERIES COILOVER

9200 SERIES COILOVER 60mm* (2.65")

33-243764	8"	60mm* Coilover w/ Hardware	180/75	60mm*	22mm	25.5"	17.5"
33-244464	8"	60mm* Coilover w/ Hardware	255/100	60mm*	22mm	25.5"	17.5"
33-244518	8"	60mm* Coilover w/ Hardware	360/80	60mm*	22mm	25.5"	17.5"
33-243771	10"	60mm* Coilover w/ Hardware	180/75	60mm*	22mm	29.5"	19.5"
33-244471	10"	60mm* Coilover w/ Hardware	255/100	60mm*	22mm	29.5"	19.5"
33-244525	10"	60mm* Coilover w/ Hardware	360/80	60mm*	22mm	29.5"	19.5"
33-243788	12"	60mm* Coilover w/ Hardware	180/75	60mm*	22mm	33.5"	21.5"
33-244488	12"	60mm* Coilover w/ Hardware	255/100	60mm*	22mm	33.5"	21.5"
33-244532	12"	60mm* Coilover w/ Hardware	360/80	60mm*	22mm	33.5"	21.5"
33-243795	14"	60mm* Coilover w/ Hardware	180/75	60mm*	22mm	38.5"	24.5"
33-244495	14"	60mm* Coilover w/ Hardware	255/100	60mm*	22mm	38.5"	24.5"
33-244549	14"	60mm* Coilover w/ Hardware	360/80	60mm*	22mm	38.5"	24.5"
33-243801	16"	60mm* Coilover w/ Hardware	180/75	60mm*	22mm	42.5"	26.5"
33-244501	16"	60mm* Coilover w/ Hardware	255/100	60mm*	22mm	42.5"	26.5"
33-244556	16"	60mm* Coilover w/ Hardware	360/80	60mm*	22mm	42.5"	26.5"

APPLICATIONS PROFESSIONAL

Part #	Travel	Description	Valving	Reservoir Body	Shaft Diameter	Extended	Collapsed
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9200 SERIES COILOVER 46mm* (2")

33-246789	8"	46mm* Coilover w/ Hardware	180/75	60mm*	22mm	23.0"	15.0"
33-246796	8"	46mm* Coilover w/ Hardware	255/100	60mm*	22mm	23.0"	15.0"
33-246802	8"	46mm* Coilover w/ Hardware	360/80	60mm*	22mm	23.0"	15.0"
33-246819	10"	46mm* Coilover w/ Hardware	180/75	60mm*	22mm	27.0"	17.0"
33-246829	10"	46mm* Coilover w/ Hardware	255/100	60mm*	22mm	27.0"	17.0"
33-246833	10"	46mm* Coilover w/ Hardware	360/80	60mm*	22mm	27.0"	17.0"
33-246840	12"	46mm* Coilover w/ Hardware	180/75	60mm*	22mm	31.5"	19.5"
33-246857	12"	46mm* Coilover w/ Hardware	255/100	60mm*	22mm	31.5"	19.5"
33-246864	12"	46mm* Coilover w/ Hardware	360/80	60mm*	22mm	31.5"	19.5"
33-246871	14"	46mm* Coilover w/ Hardware	180/75	60mm*	22mm	35.5"	21.5"
33-246888	14"	46mm* Coilover w/ Hardware	255/100	60mm*	22mm	35.5"	21.5"
33-246895	14"	46mm* Coilover w/ Hardware	360/80	60mm*	22mm	35.5"	21.5"
33-246901	16"	46mm* Coilover w/ Hardware	180/75	60mm*	22mm	39.5"	23.5"
33-246918	16"	46mm* Coilover w/ Hardware	255/100	60mm*	22mm	39.5"	23.5"
33-246925	16"	46mm* Coilover w/ Hardware	360/80	60mm*	22mm	39.5"	23.5"

9200 SERIES CARRIER 46mm* (2" NON-RESERVOIR)

33-243528	8"	46mm* Coil-Carrier w/ Hardware	N/A	No	22mm	23.0"	15.0"
33-243535	10"	46mm* Coil-Carrier w/ Hardware	N/A	No	22mm	27.0"	17.0"
33-243542	12"	46mm* Coil-Carrier w/ Hardware	N/A	No	22mm	31.5"	19.5"
33-243559	14"	46mm* Coil-Carrier w/ Hardware	N/A	No	22mm	35.5"	21.5"
33-243566	16"	46mm* Coil-Carrier w/ Hardware	N/A	No	22mm	39.5"	23.5"

9200 Series Technical Specifications

Coilover Body: Monotube Seamless Steel 60mm or 46mm ACME Thread
Bypass Body(4-Tube): Monotube, Seamless Steel 60mm, 70mm, 83mm
Piston Rod (For 70mm and 83mm shocks): 1 1/8" Centerless Ground, Case Hardened
Piston Rod (For 46mm and 60mm shocks): 22mm Centerless Ground, Case Hardened
Piston: 7075 Machined Aluminum, Hard Anodized
Piston (For 46mm shocks): Centered Metal
Valving: Deflective Disc, Velocity Sensitive. Independent Rebound and Compression Tuning
Piston Wear Band: Bronze with DP4 Coating. O-Ring Tensioned
Seal: 3 Stage High Temperature (Cup Seal, High Pressure Seal, Wiper)
Reservoir: 60mm Machined Seamless Steel
Dividing Piston: Machined Aluminum, Hard Anodized with Viton O-ring
Oil: Red High Temp Synthetic
Hose: High Temp Matchmate Aeroquip (Optional Straight, 90 Degree, 45 Degree)
Rod End: Machined Steel, Zinc Plated
Uniball: 5/8" Com 10, Stainless Steel, Teflon Lined
Top Cap: Machined Aluminum, Black Hard Anodized
Bypass Adjuster: Chromoly Incremental Flow Metering Check Valve
Bypass Tubing (For 60mm Shocks): 5/8" OD
Bypass Tubing (For 70mm and 83mm Shocks): 3/4" OD
Coilover Jounce Stop: 3 Stage Closed Cellular Foam
Finish: Zinc Plated
Coilover Hardware: Machined Aluminum, Hard Anodized Top Adjuster and Spring Hat, Steel Crossover Nuts, Fiberglass Impregnated Nylon Slider

*BILSTEIN measures shock size by piston diameter. Outer body diameter is the industry standard measurement for off-road shocks.

BILSTEIN Piston Diameter	Outer Body Diameter
46mm	2.0"
60mm	2.65"
70mm	3.0"
83mm	3.5"

Part #	Travel	Description	Valving	Reservoir Body	Shaft Diameter	Extended	Collapsed
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BLACK HAWK® 9300 SERIES

AK9312BY	12"	Black Hawk 4 Tube Bypass	Custom	4.5"	1 1/8"	34.75"	22.75"
AK9314BY	14"	Black Hawk 4 Tube Bypass	Custom	4.5"	1 1/8"	38.75"	24.75"
AK9316BY	16"	Black Hawk 4 Tube Bypass	Custom	4.5"	1 1/8"	42.75"	26.75"
AK9318BY	18"	Black Hawk 4 Tube Bypass	Custom	4.5"	1 1/8"	46.75"	28.75"

Extended rod ends available in 1", 2", 3"

60mm ANTI-CAVITATION VALVE (ACV)



Anti-Cavitation Valve: B4-FU0-Z005A01

The 60mm ACV is a stationary piston which can be optionally located at the port of the remote reservoir attached to 9200 Series shock absorbers. The ACV is designed to exponentially increase the internal pressure on the shock oil as the velocity of the shaft stroke increases. By virtually eliminating the possibility of shock fade due to cavitation, the shock is able to reach high levels of operating performance.

Additionally, the 60mm ACV allows for a broader range of damping, offering a comfortable ride while maintaining a superior level of control. The ability to adjust the valving of both the main piston and the ACV offers a limitless number of achievable combinations for unequalled damping performance. Proper tuning of this system greatly reduces the event of hard bottoming at full compression.

The ACV is primarily recommended for front application coilover and smooth body shock absorbers. If you are interested in this added feature, please consult the BILSTEIN Off-Road Racing Department for proper tuning specifications.



BUMP STOPS

BILSTEIN's new generation bump stops feature extremely durable Delrin® strike pads. The Delrin® pads are simple to replace and offer a cost effective replacement to aluminum tips, plus they can be retrofitted to earlier model bump stops. The new BILSTEIN bump stops are available in 2", 3" and 4" travel models.

Product Highlights

- > Thick-walled monotube design
- > Seamless steel & electroless nickel finished body
- > Universal frame bracket fitment (2" O.D.)
- > 1-1/4" hardened chrome steel shaft
- > Nitrogen pressure adjustable

Part #	Travel		Valving	Extended	Collapsed
F4-BE5-G724-M0	4"	Bump Stop w/ Delrin® Tip	Standard	13.2"	9.42"
F4-BE5-G723-M0	3"	Bump Stop w/ Delrin® Tip	Standard	12.2"	9.42"
F4-BE5-G722-M0	2"	Bump Stop w/ Delrin® Tip	Standard	11.2"	9.42"

SERVICING YOUR SHOCKS (9300/9200/8125/7100 Series) – USE NITROGEN ONLY!

All shocks with a reservoir or schrader valve should be serviced on a regular basis. Failure to service your shock will reduce the life span and damage the shock absorber.

Nitrogen can be serviced through a fill valve located on the shock body (schrader shock) or at the end of the reservoir (reservoir shock).

Tip: If the suspension begins to feel soft, you may need to increase nitrogen pressure. A BILSTEIN Gas Filling Tool (part #193000) is available. Please contact a BILSTEIN dealer for more details. Nitrogen bottles typically can be purchased at a welding supply store.

Do not attempt to repair or rebuild any shock if you are not qualified to do so.

9300 / 9200 / 8125 Series are delivered without nitrogen pressure. These shocks must be filled prior to use. Proper fill level ranges from 180 – 250 PSI on 9200 / 8125. Fill level ranges for 9300 Series are 70 – 100 PSI.

INSTALLATION

9300/9200/8125/7100/7100 Classic/5165/5125 Series

These products are not intended for use on any OEM applications, and may not directly fit in standard mounting locations. **The user is responsible for determining the suitability of these products.**

Incorrect installation can lead to the failure of this product. Below are a few tips:

- These shocks cannot be used as a compression limiter. Failure of the shock and/or mounts will result.
- Limit strap is strongly recommended on any high-speed application where suspension oscillations to "full droop" are a common occurrence.
- The 9300 Series, 9200 Series, 8125 Series, 7100 Series, 7100 Classic Series are supplied with (4) heim spacers, which must be placed on both sides of the spherical bearing (top and bottom). The purpose of these spacers is to allow the spherical bearing to articulate as the shock cycles through its travel. It is very important that the heim spacers, or any part of the mount brackets, etc., do not contact the end loop during operation. Any interference with the free movement of the bearings may result in a bent or broken piston rod.
- It is very important to cycle the suspension to "full bump" and "full droop" before operating the vehicle with this product. Failure can occur if the shock body comes in contact with the chassis, tire and wheel, or suspension of the vehicle.

6112/5160/5100 Series

These shocks may only be used for specific applications. Due to the variations in lift kit manufacturers' systems, it is the responsibility of the installer/end user to confirm that the shocks are dimensionally correct. Most lift kits require lowered bump stops to compensate for longer shocks mounted into the OEM location. BILSTEIN will not be liable for damage caused by a full compression impact of the shock absorber.

OWNER REBUILDABLE SHOCKS (9300/9200/8125/7100 Series)

The 9300 Series, 9200 Series, 8125 Series and 7100 Series are fully owner rebuildable and revalvable. Any component can be purchased through a BILSTEIN dealer or direct from BILSTEIN. Owner rebuildable shocks can also be revalved and serviced by BILSTEIN, if requested. For a complete parts listing please refer to www.bilsteinUS.com. For 9300 Series, please contact BILSTEIN Off-Road Department direct at 1-800-537-1085 for parts, service or technical questions.

FACTORY REBUILDABLE SHOCKS (7100 Classic/6112/5165/5160/5125/5100 Series)

Factory rebuildable shocks can be serviced by the BILSTEIN Technical Center in Poway, California. These shocks can be rebuilt to factory specification or revalved to a new specification. Internal adjustments can be made independently to the rebound and compression damping forces. For more information please contact BILSTEIN at 1-800-537-1085.

ZINC PLATED FINISH (9200/8125/6112/5165/5160/5125/5100 Series)

9200 Series, 8125 Series, 5165 Series, 5160 Series, 5125 Series, and 5100 Series feature a proprietary BILSTEIN zinc plated finish. This finish must be serviced in order to maintain its luster. Particularly in moist climates, a protective coating, such as a wax or lubricating oil should be periodically applied to prevent tarnishing. This finish is not covered under warranty.

LIMITED 90 DAY WARRANTY (9300/9200/8125/7100/7100 Classic/5165/5160/5125 Series)

BILSTEIN warrants to the original retail purchaser that, for a period of ninety (90) days from the date of purchase, this product shall be free from defects in material and workmanship. Any implied warranty of merchantability, fitness or fitness for particular purpose, except as may be prohibited by applicable law, is likewise limited in duration to ninety (90) days from the date of original retail purchase. Some states do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you.

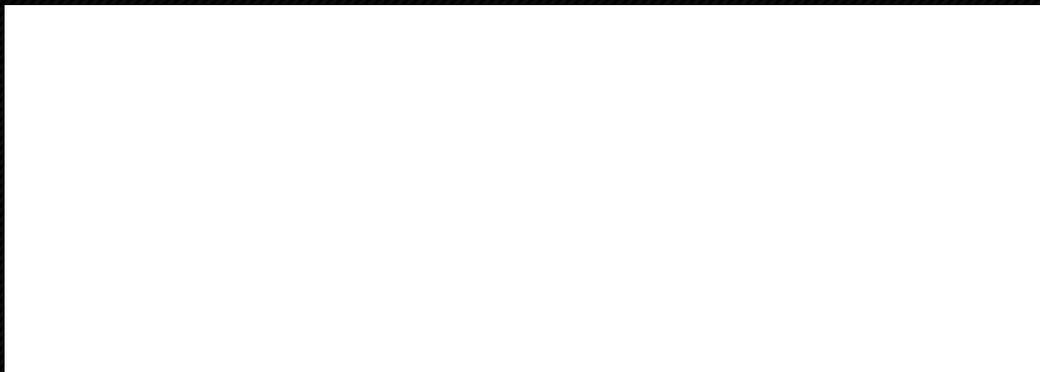
This warranty is non-transferable and does not cover normal wear and tear or any other loss, liability or damage resulting from improper alteration, disassembly, handling, installation, service, repair or use of this product. Should this product fail as a result of a defect in materials or workmanship within the warranty period, contact BILSTEIN's Customer Service Department by telephone at 1-800-537-1085, or in writing at ThyssenKrupp BILSTEIN of America 14102 Stowe Drive, Poway, California 92064 for repair or replacement at manufacturer's option.

Repair or replacement as provided by this warranty is customer's sole and exclusive remedy in the event of a product failure. Manufacturer shall not be liable for any incidental, consequential or other damages resulting from the disassembly, handling, installation, service, repair or use of this product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

BILSTEIN Off-Road Racing Department
14102 Stowe Drive, Poway, CA 92064

Phone | (800) 537-1085



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