

## Shock Absorber and Air Shock Absorber

The shock absorber is an important down hole tool in drilling operation. It utilizes absorbing fitting to absorb and decrease the stroke load, shock load and torque load in drilling so as to protect the bit and BHA, decrease drill cost and increase drilling efficiency. BOMCOBRAS mainly produces Hydraulic Shock Absorber, Bi-directional Shock Absorber and Mechanical Shock Absorber, which have the following characters.

### Product Features:

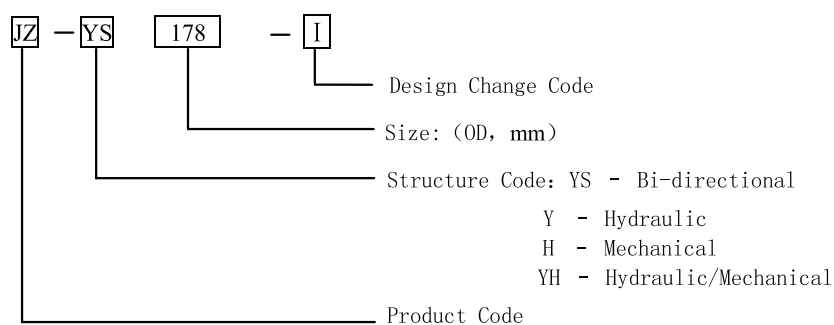
JZ-YS series Bi-directional Shock Absorber adds screw structure compared with the Hydraulic Shock Absorber. So it can decrease and absorb not only longitudinal direction shock and impact of drilling string but also radial torsion shock and impact. Using this shock tool will realize the best adaptation of drilling pressure and rotation speed in the operation of drilling or coring.

JZ-H series Mechanical Shock Absorber absorbs the shock load by stretch unit made of disc spring. It characters simple structures and stable performance, especially it can work in high temperature strata.

KJZ-H series Air Shock Absorber is a kind of shock eliminator tool, which cooperates with the roller bit and abrasive core bit while drilling. It can absorb and reduce the longitudinal shock and impulsive load during the drilling course. Thus it is able to keep the normal drilling pressure, extend the useful life of drilling bit, protect the BHA and ground equipment, reduce the drilling cost and enhance the drilling efficiency. The Air Shock Absorber is different from the Hydraulic Shock Absorber that uses the silicon oil as medium. It adopts the disc spring as spring part and working condition cannot influence its operating characteristic. This Air Shock Absorber is a new kind of product designed on the base of researching the special working condition of air drilling, which characters in simple structures, stable operation, convenience maintenance, better shock absorb and long life, especially it adapts to the air drilling.

JZ-YH series shock absorber is a kind of shock eliminator tool, cooperating the dishing spring and silicon oil as shock absorber medium. It has rightful structure and repaired easily. It can absorb and reduce the longitudinal shock and impulsive load during the drilling course. The shock absorber's hardness can be adjusted dynamically as a result of the combination of the mechanical and hydraulic medium. This ideal absorber is suitable to all kinds drilling operation mode.

### Model Illustrations:



### Specifications for Shock Absorber

Name	Model	OD (mm)	ID (mm)	Length (m)	Max Tensile load (kN)	Max Torsion load (kN·m)	Thread	Axial Load To Fully Compress Tool (kN)	Spring Rate (kN/mm)
Bi-directional Shock Absorber (Hydraulic)	JZ-YS159- I	159	45	4.6	1500	15	4 IF	300	3.5~5.0
	JZ-YS165- I	165	45	4.6	1500	15	4 IF	300	3.5~5.0
	JZ-YS178- I	178	50	5.4	1500	15	4 1/2 IF	350	3.5~5.0
	JZ-YS203- I	203	64	5.1	2000	20	6 5/8 REG	480	4.0~5.5
	JZ-YS229- II	229	70	4.8	2000	20	7 5/8 REG	540	4.0~6.5
Shock Absorber (Hydraulic)	JZ-Y121	121	38	3.5	1000	10	3 1/2 IF	250	3.0~3.5
	JZ-Y159- I	159	45	3.4	1500	15	4 IF	300	3.5~5.0
	JZ-Y165- I	165	45	3.4	1500	15	4 IF	300	3.5~5.0
	JZ-Y178- I	178	57	3.8	1500	15	4 1/2 IF	350	3.5~5.0
	JZ-Y203	203	64	4.8	2000	20	6 5/8 REG	480	4.0~5.5
	JZ-Y229	229	70	3.9	2000	20	7 5/8 REG	540	4.0~6.5
Shock Absorber (Mechanical)	JZ-H159- I	159	50	3.0	1500	15	4 IF	300	3.5~5.0
	JZ-H165- I	165	50	3.0	1500	15	4 IF	300	3.5~5.0
	JZ-H178- I	178	50	3.0	1500	15	4 1/2 IF	350	3.5~5.0
	JZ-H203- II	203	64	3.0	2000	20	6 5/8 REG	480	4.0~5.5
	JZ-H229	229	70	3.5	2000	20	7 5/8 REG	540	4.0~6.5
	JZ-H279	279	80	4.5	2500	25	8 5/8 REG	700	5.0~7.5
Shock Absorber (Hydraulic / Mechanical)	JZ-YH178	178	57	6.0	1500	15	4 1/2 IF	350	3.5~5.0

### Specifications for Air Shock Absorber

Name	Model	OD (mm)	ID (mm)	Length (m)	Max Tensile load (kN)	Max Torsion load (kN·m)	Thread	Axial Load To Fully Compress Tool (kN)	Spring Rate (kN/mm)
Air Shock Absorber (Mechanical)	KJZ-Y121	121 ( 4 3/4 )	38	3.5	1000	10	3 1/2 IF	250	3.5~5.0
	KJZ-H159	159 ( 6 1/4 )	50	3.0	1500	15	4 IF	300	3.5~5.0
	KJZ-H165	165 ( 6 1/2 )	50	3.0	1500	15	4 IF	300	3.5~5.0
	KJZ-H178	178 ( 7 )	50	3.0	1500	15	4 1/2 IF	350	3.5~5.0
	KJZ-H203	203 ( 8 )	64	3.0	2000	20	6 5/8 REG	480	4.0~5.5
	KJZ-H229	229 ( 9 )	70	3.5	2000	20	7 5/8 REG	540	4.0~6.5
	KJZ-H279	279	80	4.5	2500	25	8 5/8 REG	700	5.0~7.5