

YDA-YDR

Shock absorbers

YDA series self-compensating and YDR series progressive adjustable shock absorbers are used to provide a linear deceleration and to let the impacting object stop smoothly. Lock nuts 2 pieces and impact cap is standard equipment (upon request without cap)

Advantages:

- Production rate increase
- Machine life extension
- Reduction of vibration and noise levels
- Reduction of maintenance cost



TECHNICAL CHARACTERISTICS

Ambient temperature	-10 ÷ 80 °C
Stroke	6 - 7 - 10 - 12 - 15 - 25 - 40 - 50 mm
Energy absorption per cycle	3 ÷ 300 Nm
Energy absorption per Hour	7000 ÷ 100000 Nm
Effective mass	6 ÷ 1400 Kg
Impact speed	0,3 ÷ 5 m/s

CONSTRUCTIVE CHARACTERISTICS

Body	steel
Piston rod	carbon steel chrome plated
Piston	carbon steel
Sealings	nitrilic rubber

CODIFICATION KEY

Y	D	A	0	8	1	0
1	2	3				

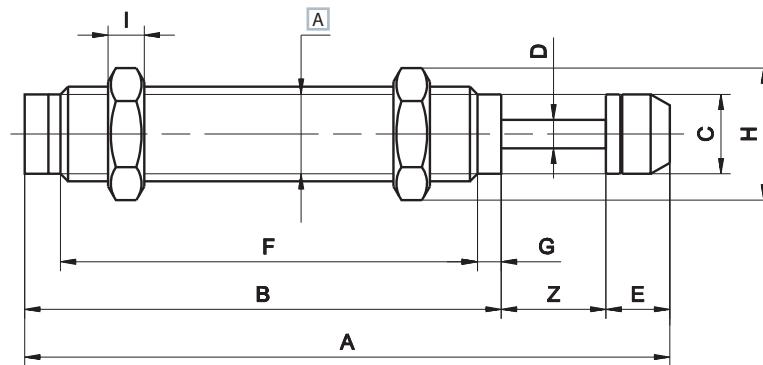
1 Series	2 Thread	3 Stroke
YDA = Self-Compensating	08 = M8 x 1 20 = M20 x 1,5	06 = 6 mm 15 = 15 mm
YDR = Adjustable	10 = M10 x 1 25 = M25 x 1,5	07 = 7 mm 25 = 25 mm
	12 = M12 x 1 27 = M27 x 1,5	10 = 10 mm 40 = 40 mm
	14 = M14 x 1,5 36 = M36 x 1,5	12 = 12 mm 50 = 50 mm

> THREAD SIZE/STROKE

Stroke (mm)	YDA							YDR			
	M8	M10	M12	M14	M20	M25	M27	M14	M20	M25	M36
6	■										
7		■									
10			■								
12				■							
15					■			■			
25						■	■		■	■	■
40										■	
50											■

Special stroke upon request

Dimensions



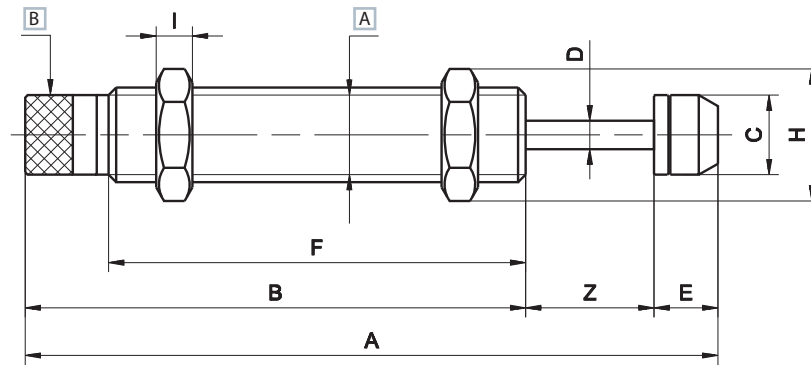
Z = Stroke

A Thread

Part No.	Stroke mm	Thread	A	B	C	D	E	F	G	H	I
YDA0806	6	M8x1,0	55,2	40,6	6,6	2,9	8,6	33,6	2	11,0	3
YDA1007	7	M10x1,0	62,6	47,0	8,6	3,0	8,6	39,0	3,0	12,7	3,0
YDA1210	10	M12x1,0	71,1	52,5	10,3	3,0	8,6	44,0	3,0	14,0	4,0
YDA1412	12	M14X1,5	90,0	67,0	12,0	4,0	11,0	58,0	4,0	19,0	5,0
YDA2015	15	M20X1,5	103,0	73,0	18,0	6,0	15,0	62,0	4,0	26,0	7,0
YDA2525	25	M25X1,5	136,0	92,0	22,0	8,0	19,0	82,0	—	32,0	9,0
YDA2725	25	M27x1,5	143,0	99,0	22,0	8,0	19,0	86,0	5,0	32,0	6,0

Part No.	Max energy per cycle Nm	Max energy per hour Nm	Max effective mass Kg	Max impact speed m/s	Temperature °C	Weight Kg
YDA0806	3	7000	6	0,3-2,5	-10 ÷ 80	0,017
YDA1007	6	12400	12	0,3-3,5	-10 ÷ 80	0,028
YDA1210	12	22500	22	0,3-4	-10 ÷ 80	0,032
YDA1412	20	33000	40	0,3-5	-10 ÷ 80	0,070
YDA2015	59	38000	120	0,3-5	-10 ÷ 80	0,16
YDA2525	80	60000	180	0,3-5	-10 ÷ 80	0,295
YDA2725	147	72000	270	0,3-5	-10 ÷ 80	0,375

Dimensions



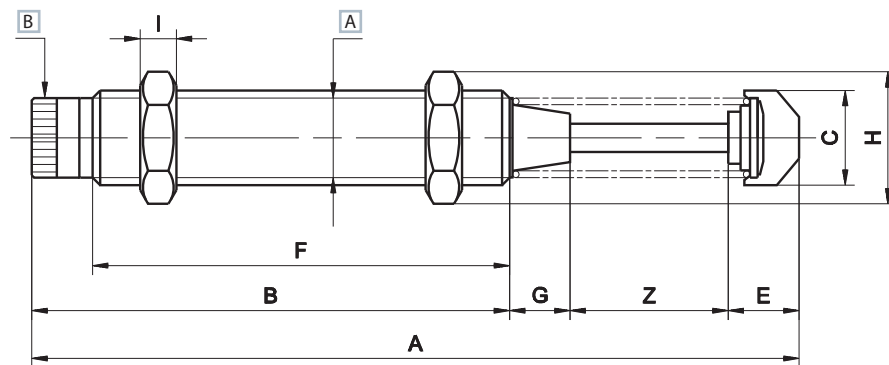
Z = Stroke

- A Thread
- B Adjustment screw

Part No.	Stroke mm	Thread	A	B	C	D	E	F	H	I
YDR1415	15	M14x1,5	127,5	102,0	12,0	4,0	10,5	86,0	19,0	5,0
YDR2025	25	M20X1,5	157,0	117,0	18,0	6,0	15,0	101,0	26,0	7,0
YDR2525	25	M25X1,5	162,5	118,5	22,0	8,0	19,0	101,0	32,0	9,0

Part No.	Max energy per cycle Nm	Max energy per hour Nm	Max effective mass Kg	Max impact speed m/s	Temperature °C	Weight Kg
YDR1415	22	26400	80	3	-10 ÷ 80	0,095
YDR2025	39	30000	312	3,5	-10 ÷ 80	0,24
YDR2525	85	54000	400	3,5	-10 ÷ 80	0,35

Dimensions



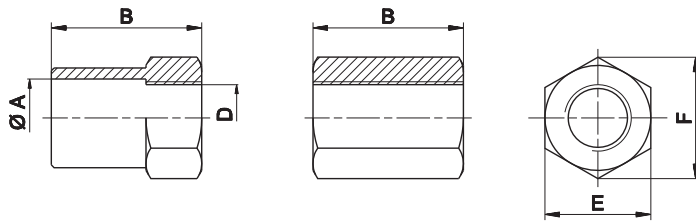
Z = Stroke

- A Thread
- B Adjustment screw

Part no.	Stroke mm	Thread	A	B	C	D	E	F	G	H	I
YDR2540	40	M25X1,5	221,5	144,5	22,0	8,0	37,0	117,0	10,0	32,0	9,0
YDR3625	25	M36X1,5	183,8	133,0	35,5	10,0	25,8	103,0	10,0	46,0	15,0
YDR3650	50	M36X1,5	246,8	171,0	35,5	10,0	25,8	134,0	17,0	46,0	15,0

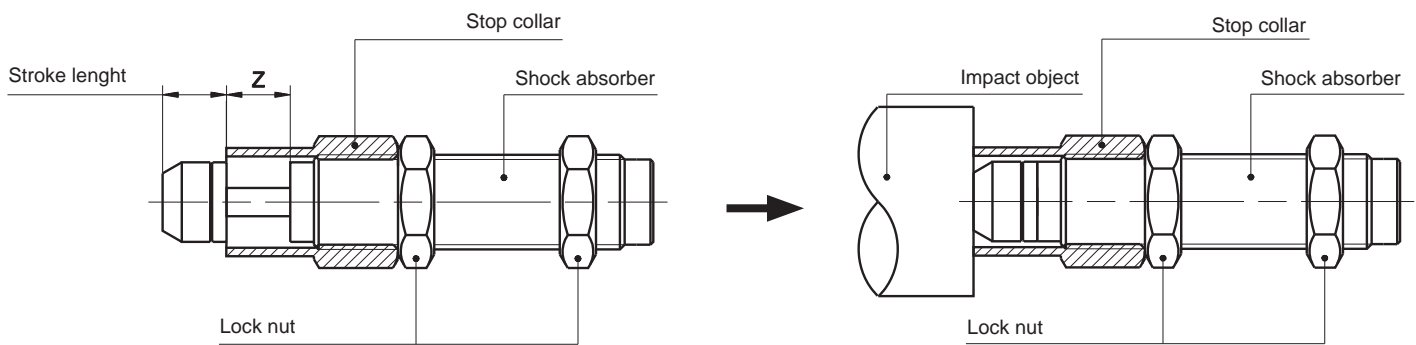
Part no.	Max energy per cycle Nm	Max energy per hour Nm	Max effective mass Kg	Max impact speed m/s	Temperature °C	Weight Kg
YDR2540	100	80000	700	3,5	-10 ÷ 80	0,455
YDR3625	150	81000	1400	3,5	-10 ÷ 80	0,955
YDR3650	300	100000	1400	3,5	-10 ÷ 80	1,1

Dimensions



> Setting position

> Stroke end



Z = Stroke

Stop collars	Shock absorbers	$\varnothing A$	B	D	E	F
YDG08	YDA0806	-	14	M8 x 1	11	12,5
YDG10	YDA1007	-	16	M10 x 1	13	14,5
YDG12	YDA1210	-	20	M12 x 1	14	16
YDG14	YDA1412/YDR1415	18	27	M14 x 1	19	21,5
YDG20	YDA2015/YDR2025	25	35	M20 x 1,5	26	28,7
YDG25	YDA2525/YDR2525	31,5	45	M25 x 1,5	32	36,7
YDG25L	YDR2540	31,5	65	M25 x 1,5	32	36,7
YDG27	YDA2725	31,5	45	M27 x 1,5	32	36,7
YDG36	YDA3625/YDR3650	45	80	M36 x 1,5	46	53

> Assembly instruction

1. The installation must be designed so that the impact body is perpendicular to the shock absorber's axial center
2. Stop collar protects shock absorber's piston from butting out and can be used in adjusting stroke
3. Do not disassembly. Do not paint threaded body and rod
4. Do not expose shock absorbers to dirt, humidity, liquid such as cutting oil, water, dust, solvent, etc.
5. When installing over 2 pieces of shock absorbers, please ensure that they have the same stroke
6. YDA self-compensating type does not need adjustment
7. YDR adjustable type: the minimum absorptions is achied when adjustment screw is at "0" setting. The maximum absorption is achieved when the highest number on the scale is reached. In order to adjust the shock absorber, set the adjustment screw to a medium level. If the absorption is too soft, increase the adjustment by turning adjustment screws.