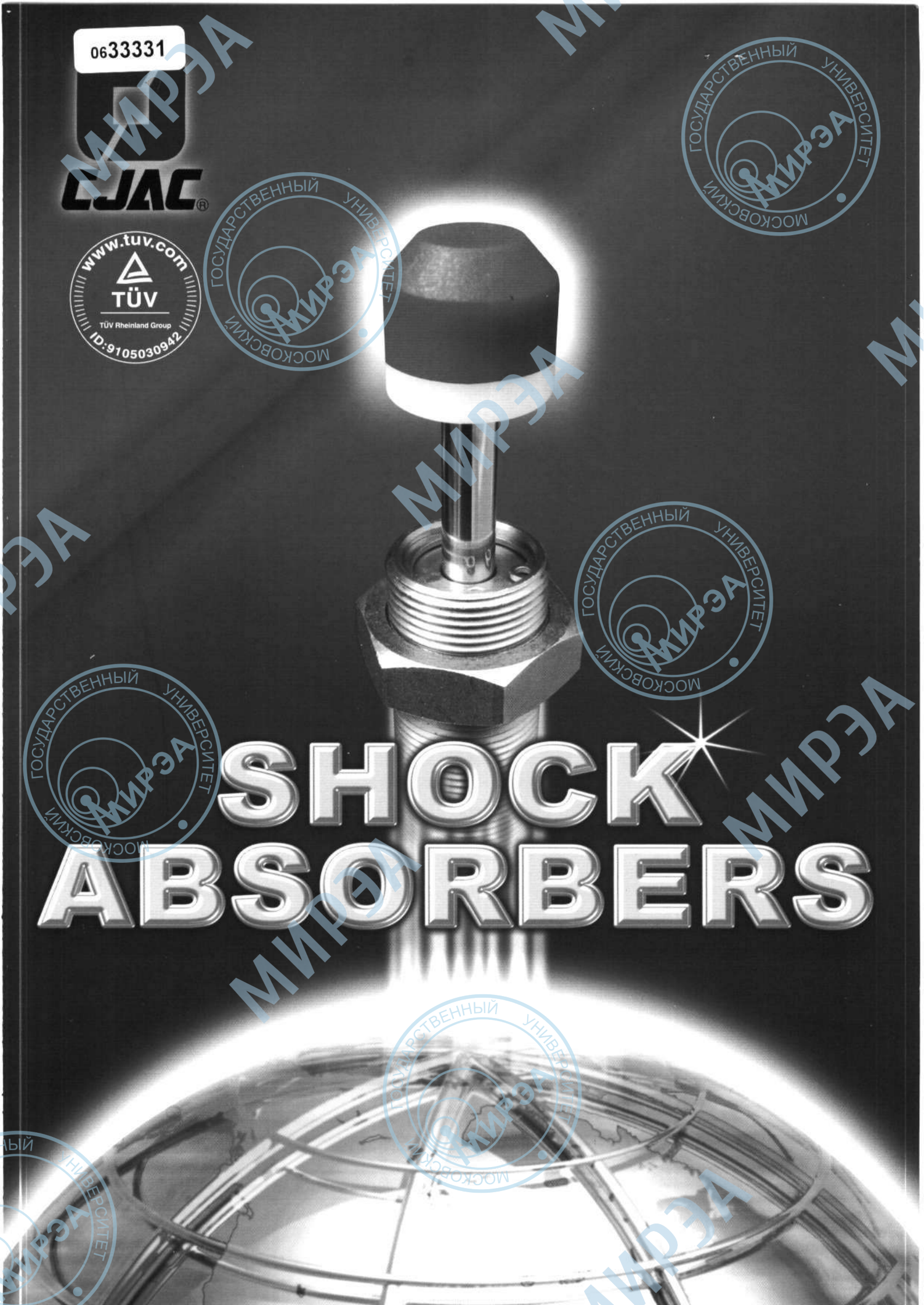
CJAC®



SHOCK ABSORBERS

CJAC®

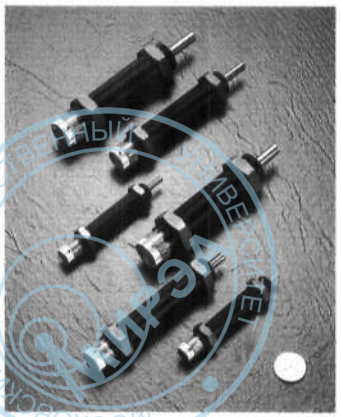
CJAC SHOCK ABSORBERS

Miniature AC Series -
M 8, M 10, M 12

New AC Series -
M 8, M 10, M 14, M 20, M 27

AC Series -
Porous Type With Cap

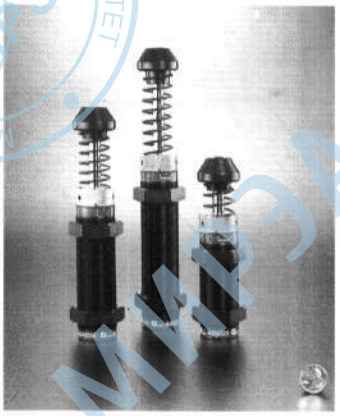
AD Series -
Adjustable Type With Cap



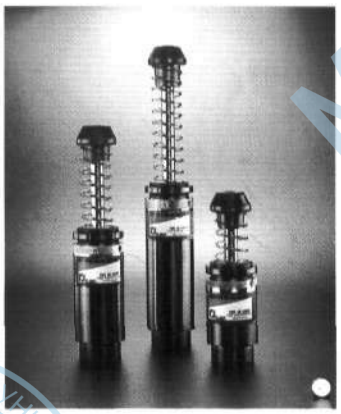
AD Series -
Adjustable Type Without Cap

New AC Series -
Porous Type

AC / AD Series - M 36



AD Series -
Porous Adjustable Tpye M 42

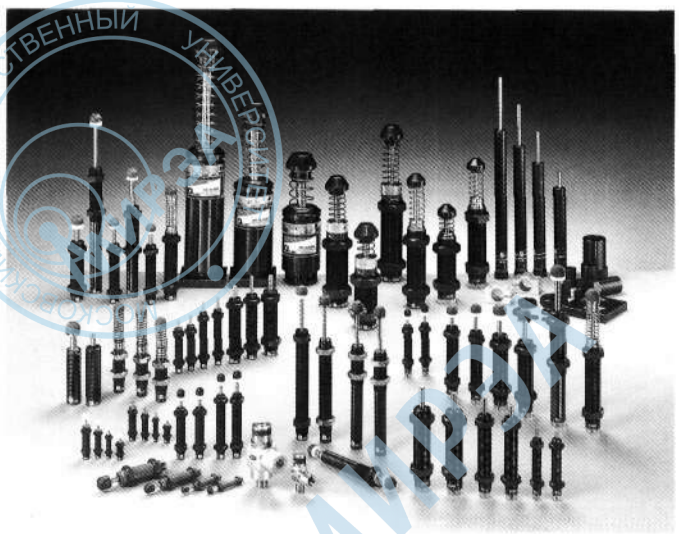


Heavy Duty Series -
UNF 2 1/2-12

Hydraulic Speed Controllers

Pilot Check Valves

Optional Accessories



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SPECIFICATIONS TABLE

SHOCK ABSORBERS:

AC SERIES-SELF COMPENSATION (NON-ADJUSTABLE)

Model	Stroke(mm)	Thread	Max. Energy Absorbed per cycle(Nm)	Max. Nm Per Hour (ETC)	Max. Effective mass (Kg)	Max. Impact Speed (m/s)	Without Cap (N)	With Cap (C)	Flange (F)	Stop Collar (SC)	Weight (g)	Page
AC - 0806	6	M 8X1.0	2	8,800	0.5-6	0.5-2.0	O	O	-	O	11	8
AC - 0806 - S	6	M 8X1.0	3	7,000	0.5-6	0.3-2.5	O	O	-	O	15	18
AC - 1005	5	M10X1.0	3	10,800	1-7	0.8-3.0	O	O	-	O	14	8
AC - 1007 - S	7	M10X1.0	6	12,400	1-12	0.3-3.5	O	O	-	O	25	18
AC - 1008	8	M10X1.0	4	15,200	2-9	0.8-3.0	O	O	-	O	20	8
AC - 1210	10	M12X1.0	5	17,640	5-30	0.8-3.0	O	O	-	O	31.5	8
AC - 1210 - S	10	M12X1.0	12	22,500	2-22	0.3-4	O	O	-	O	32	18
AC - 1412	12	M14X1.5	15	30,000	8-100	0.8-3.0	O	O	-	O	80	10
AC - 1412 - S	12	M14X1.5	20	33,000	1.5-40	0.3-5.0	O	O	-	O	65	18
AC - 1415 - 6K	15	M14X1.0	10	35,280	30	1	-	O	-	O	80	16
AC - 1415 - 7K	15	M14X1.0	10	35,280	15	1.5	-	O	-	O	80	16
AC - 1416	16	M14X1.5	20	35,000	10-150	0.8-3.0	O	O	-	O	90	10
AC - 2015 - S	15	M20X1.5	59	38,000	5-120	0.3-5.0	O	O	-	O	150	18
AC - 2020	20	M20X1.5	40	40,000	30-700	1.0-3.5	O	O	-	O	215	10
AC - 2030	30	M20X1.5	50	48,000	30-700	1.0-3.5	O	O	-	O	220	12
AC - 2030 - 5K	30	M20X1.5	44	26,460	60	1.2	-	O	-	O	185	16
AC - 2030 - 6K	30	M20X1.5	44	26,460	30	1.7	-	O	-	O	185	16
AC - 2030 - 7K	30	M20X1.5	44	26,460	15	2.4	-	O	-	O	185	16
AC - 2030 - 16K	30	M20X1.5	44	26,460	5	4.2	-	O	-	O	205	16
AC - 2030 - 18K	30	M20X1.5	44	26,460	3	6.0	-	O	-	O	205	16
AC - 2050	50	M20X1.5	60	60,000	60-1,200	1.0-3.5	-	O	-	O	300	12
AC - 2050 - 11K	50	M20X1.5	59	35,280	30	2	-	O	-	O	250	16
AC - 2050 - 12K	50	M20X1.5	59	35,280	15	2.8	-	O	-	O	250	16
AC - 2050 - 13K	50	M20X1.5	59	35,280	8	3.8	-	O	-	O	250	16
AC - 2050 - 16K	50	M20X1.5	59	35,280	5	5.0	-	O	-	O	235	16
AC - 2050 - 17K	50	M20X1.5	59	35,280	3	6.8	-	O	-	O	245	16
AC - 2525	25	M25X1.5	80	54,000	200-1,500	1.0-4.0	O	O	-	O	330	14
AC - 2525 - S	25	M25X1.5	80	60,000	6-180	0.3-5.0	O	O	-	O	295	18
AC - 2540	40	M25X1.5	120	75,000	300-2,000	1.0-4.0	-	O	-	O	430	14
AC - 2550	50	M25X1.5	98	90,000	15-160	1.0-4.0	O	O	-	O	435	14
AC - 2580	80	M25X1.5	150	120,000	20-200	1.0-4.0	O	O	-	O	565	14
AC - 2725 - S	25	M27X1.5	147	72,000	6-270	0.3-5.0	O	O	-	O	360	18
AC - 3660	60	M36X1.5	250	120,000	400-2,400	1.0-4.0	-	O	O	O	1,030	14
ACD - 2030	30	M20X1.5	45	55,000	40-900	1.0-3.5	-	O	-	O	220	12
ACD - 2035	35	M20X1.5	52	63,000	10-650	1.0-3.5	-	O	-	O	210	12

SPECIFICATIONS TABLE

SHOCK ABSORBERS:
AD SERIES-ADJUSTABLE

Model	Stroke(mm)	Thread	Max.Energy Absorbed per cycle(Nm)	Max.Nm Per Hour (ETC)	Max. Effective mass (Kg)	Max. Impact Speed (m/s)	Without Cap (N)	With Cap (C)	Flange (F)	Stop Collar (SC)	Weight (g)	Page
AD-1410	10	M 14X1.5	20	25,000	80	3.0	O	O	-	O	90	20
AD-2016	16	M 20X1.5	25	30,000	200	3.5	O	O	-	O	230	20
AD-2025	25	M 20X1.5	39	30,000	312	3.5	O	O	-	O	240	20
AD-2525	25	M 25X1.5	85	54,000	400	3.5	O	O	-	O	350	20
AD-2530	30	M 25X1.5	95	60,000	480	3.5	O	O	-	O	365	20
AD-2540	40	M 25X1.5	100	80,000	700	3.5	-	O	-	O	455	22
AD-2550	50	M 25X1.5	98	90,000	720	4.0	O	O	-	O	455	22
AD-2580	80	M 25X1.5	150	120,000	800	4.0	O	O	-	O	585	22
AD-3625	25	M 36X1.5	150	81,000	1,400	3.0	-	O	O	O	935	22
AD-3650	50	M 36X1.5	300	100,000	1,400	3.0	-	O	O	O	1,100	22
AD-4225	25	M 42X1.5	260	125,000	3,000	3.5	-	O	O	-	1,280	22
AD-4250	50	M 42X1.5	500	150,000	4,000	4.5	-	O	O	-	1,490	22
AD-4275	75	M 42X1.5	750	180,000	6,000	4.5	-	O	O	-	1,710	22
AD-64050	50	UNF21/2-12	12,000	1,500,000	12,727	1.5	-	O	O	-	4,115	24
AD-64100	100	UNF21/2-12	24,000	2,000,000	18,181	1.5	-	O	O	-	5,280	24
AD-64150	150	UNF21/2-12	36,000	2,500,000	23,636	1.5	-	O	O	-	6,785	24

HYDRAULIC SPEED CONTROLLERS:

Model	A	B	Max. Stroke	Operating Temperature	Max. Load	Weight (g)	Page
HR 15	151	136	15mm	0-60 °C	15-350 kgf	470	31
HR 30	202	172	30mm	0-60 °C	15-350 kgf	495	31
HR 60	254	194	60mm	0-60 °C	15-350 kgf	615	31
HR 80	336	256	80mm	0-60 °C	15-350 kgf	690	31
HR 100	390	290	100mm	0-60 °C	15-350 kgf	765	31

PILOT CHECK VALVES:

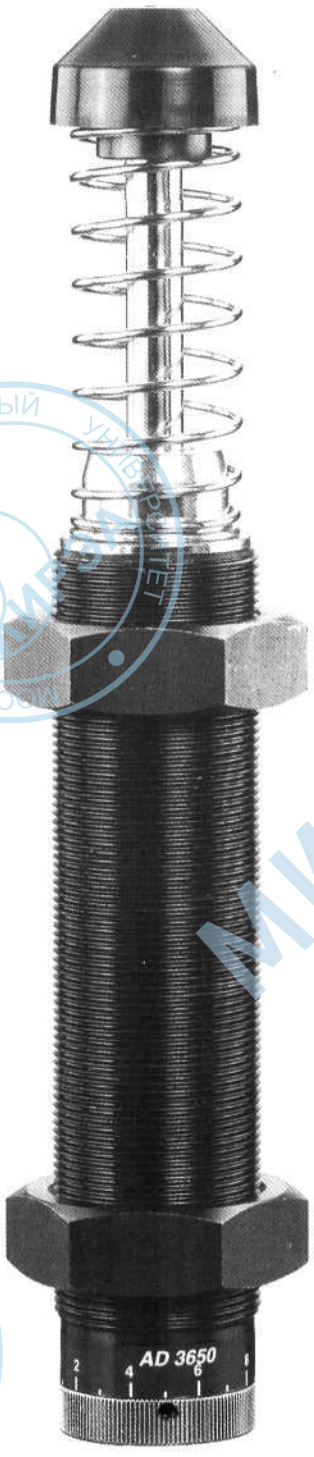
Model	Preasure (kg/cm^2)	Temperature	Orifice (mm^2)	Operation Time (times/min)	Weight (g)	Page
PC-02	0.5-9.5	-10~+70 °C	24	60	100	32
PC-04	0.5-9.5	-10~+70 °C	79	40	340	32

Why Do We Need Shock Absorbers

The simplest method to increase productivity is to raise machine operation speed. It often accompanies with excessive vibration and noise, damage to machines and products and decreasing in machine life. Most important of all, safety has to be sacrificed to a certain degree because of large shock forces generated.
CJAC shock absorbers are developed to provide linear deceleration and therefore solve these problems. They can stop or change direction of moving objects smoothly and quietly without any compromising in safety. CJAC shock absorbers are ideal for energy absorption and are being used whenever shock forces occur.

The Advantages Of Using CJAC Shock Absorbers Include:

1. To increase production rate
2. To extend machine life
3. To simplify equipment design
4. To reduce maintenance cost
5. To reduce vibration and noise levels



Comparison Of Shock Absorbing Of Dash Pots, Rubber Materials Springs, Cylinder Cushion And CJAC Shock Absorbers

In case of CJAC shock absorbers compared with other buffering devices, such as spring, dash pots, air buffers, or rubber materials, resistant forces are different from one another. Only CJAC shock absorbers can stop a moving object smoothly and quietly from the beginning to the end of impact stroke. Figure 1 shows a scheme of comparing shock forces generated by different cushioning materials. Through special design of fluid metering system, CJAC shock absorbers can provide a constant resistant force or linear deceleration throughout the entire impact stroke. all the kinetic energy of the moving object is converted into heat and dissipated into the air. Springs, air buffers and rubber materials only dissipate a small portion of the kinetic energy and store the remaining in elastic energy form. Therefore, large resistant forces and rebounding forces are inevitable near the end of the impact stroke. Without a delicate metering system, a dash pot will produce a large peak force at the beginning of the impact stroke.

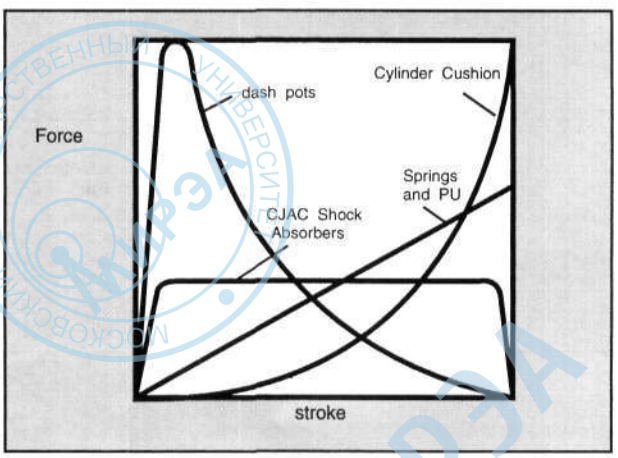
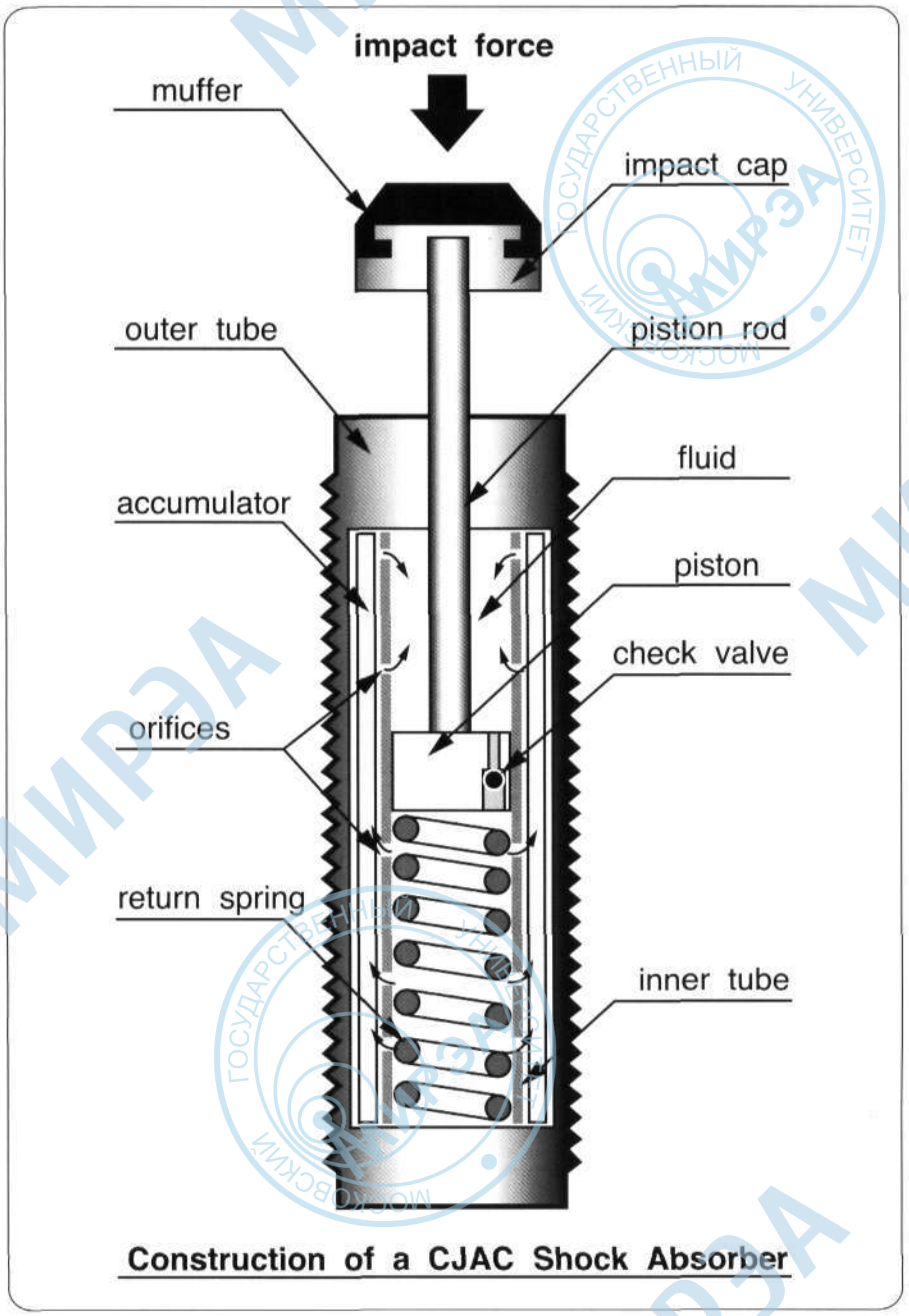


Figure 1

Operating Principles Of Shock Absorbers

All series of CJAC shock absorbers are of such construction as shown in the following drawing. On impact the piston rod moves into the shock absorber and the hydraulic fluid is pushed into accumulator to produce resistant force. Owing to special spacing and sizing of orifices, the pressure in the inner tube remains constant throughout the entire impact stroke. By providing a linear deceleration, a CJAC shock absorber brings the impacting object to stop smoothly and quiet. At the end of the impact stroke, the return spring pushes the piston to its original position for next cycle.



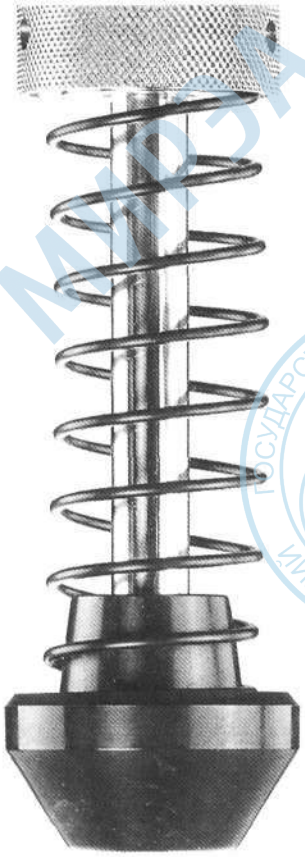
Construction of a CJAC Shock Absorber

Figure 2

An Actual CJAC Shock Absorber Drawing

The oil seal are all made by "Sakagami" in Japan with unique oil leak prevention and high durability.

Figure 3



CJAC Shock Absorber Performance Evaluation System

CJAC shock absorber are widely used in industrial fields. Impact forces, speeds and weights usually vary from applications to applications. A shock absorber testing system is built to evaluate the performance of energy absorption. Shock absorbers are tested for each critical application, batch of products before shipping and new model developed to ensure outstanding quality and consistent performance.

This is an MS-Windows based computer control automatic testing system. Mass blocks are raised by rod- less cylinders which can also generate propelling forces if necessary and released at the specified height to produce impact force and velocity. An IBM-PC computer is utilized to acquire testing data and control testing procedures through an A/D control card. Impact force and stroke of the unit under test are measured by impact force sensor and displacement sensor. Force-stroke relation, energy absorbed and impacting velocity are determined.

Each test is performed and checked by our well-trained engineers. Figure 4 illustrates the test results of one of CJAC shock absorbers.

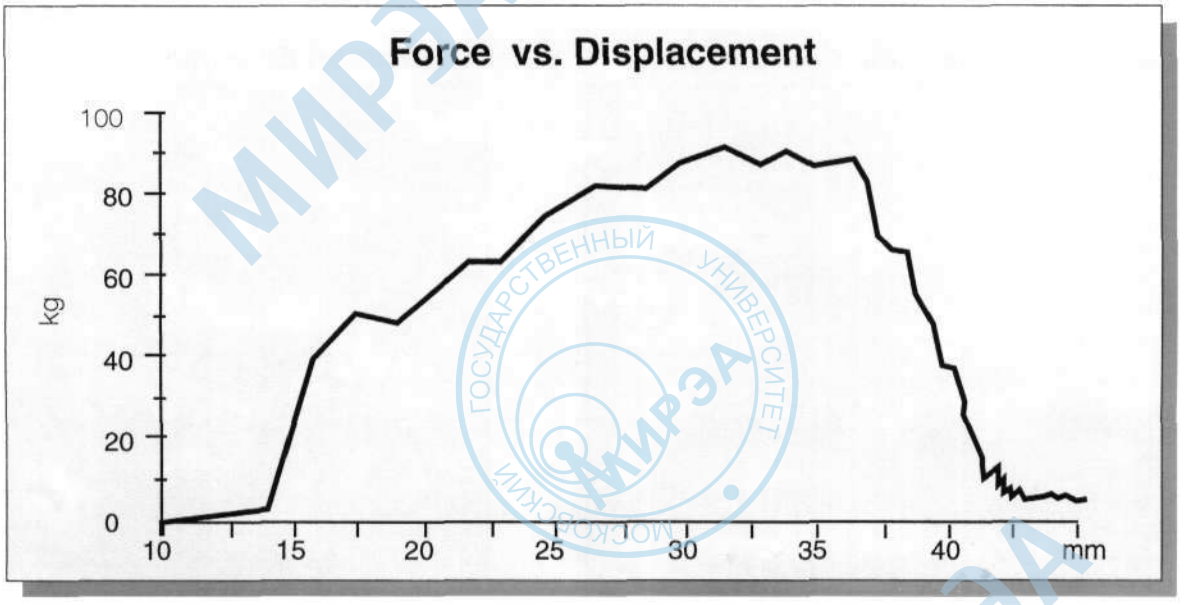
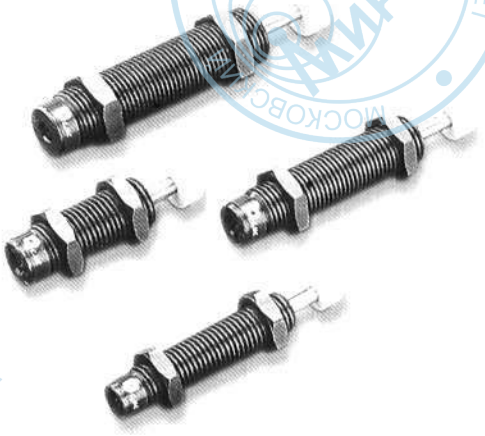


Figure 4

NON ADJUSTABLE HYDRAULIC SERIES

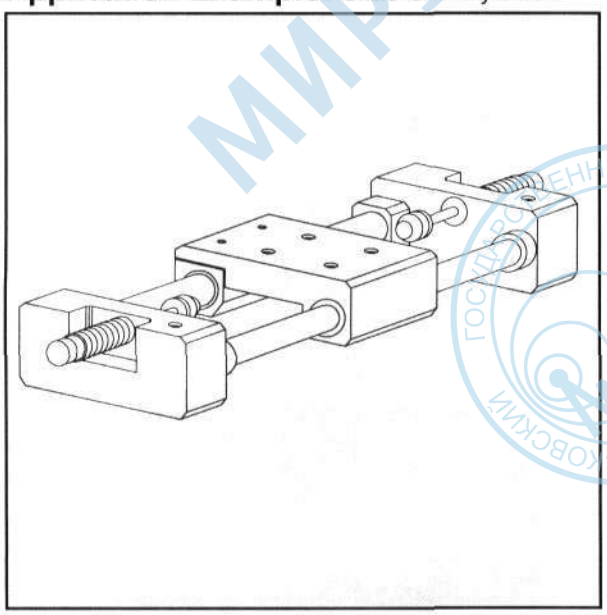
Engineering Data

Miniature AC Series-Self Compensation

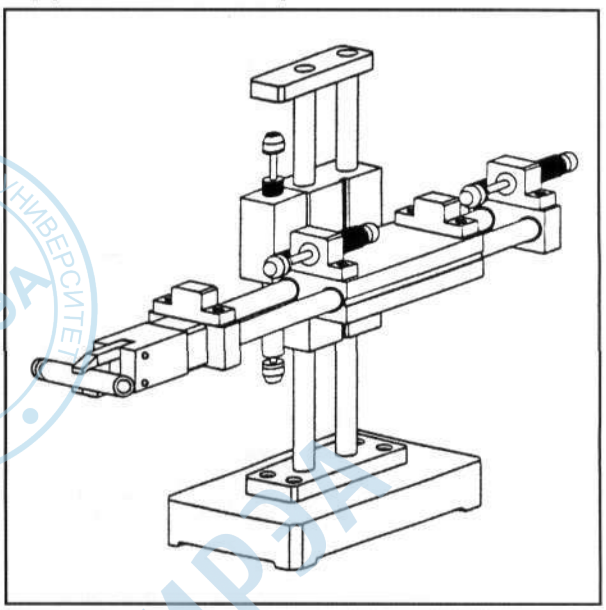


Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max .Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(℃)	Weight (g)
AC-0806-1	6	2	8,800	0.5	2.0	-10 ~ +80	11
AC-0806-2	6	2	8,800	2.0	1.0	-10 ~ +80	11
AC-0806-3	6	2	8,800	6.0	0.5	-10 ~ +80	11
AC-1005-1	5	3	10,800	1	3.0	-10 ~ +80	14
AC-1005-2	5	3	10,800	3	1.5	-10 ~ +80	14
AC-1005-3	5	3	10,800	7	0.8	-10 ~ +80	14
AC-1008-1	8	4	15,200	2	3.0	-10 ~ +80	20
AC-1008-2	8	4	15,200	4	1.5	-10 ~ +80	20
AC-1008-3	8	4	15,200	9	0.8	-10 ~ +80	20
AC-1210-1	10	5	17,640	5	3.0	-10 ~ +80	31.5
AC-1210-2	10	5	17,640	10	1.5	-10 ~ +80	31.5
AC-1210-3	10	5	17,640	30	0.8	-10 ~ +80	31.5

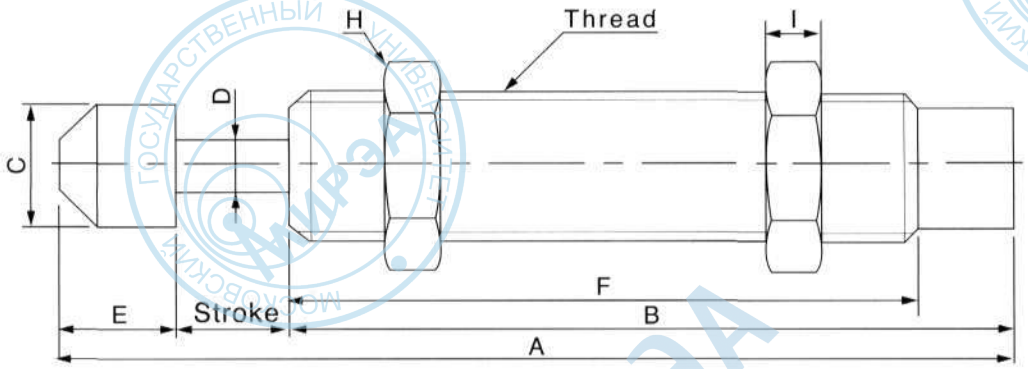
Application Example: Slide Unit Cylinder



Application Example: Pick and Place Robot

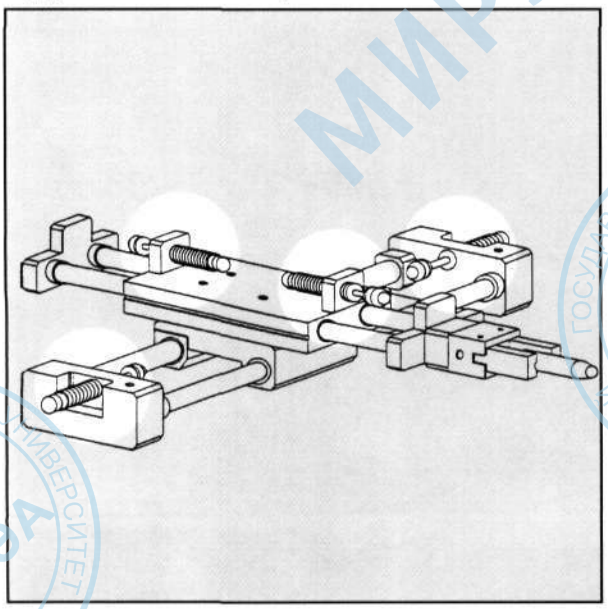


SHOCK ABSORBER

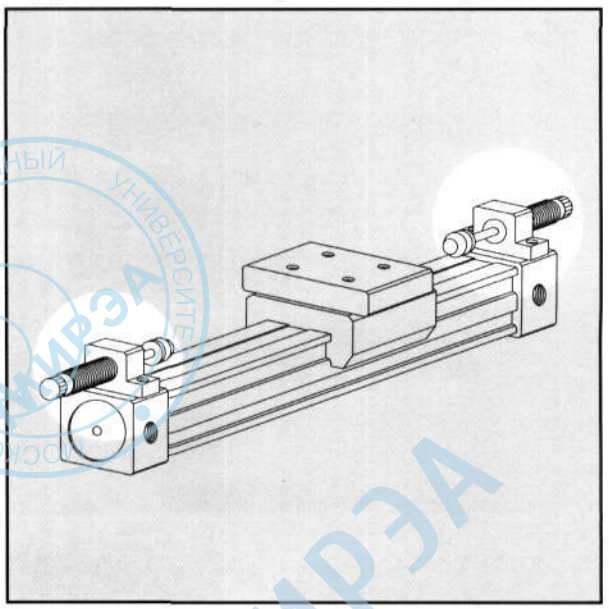


Model	Thread	Stroke (mm)	A	B	C	D	E	F	H	I
AC-0806-1	M 8X1.0	6	50	38	6.6	2.8	6	33	11	3
AC-0806-2	M 8X1.0	6	50	38	6.6	2.8	6	33	11	3
AC-0806-3	M 8X1.0	6	50	38	6.6	2.8	6	33	11	3
AC-1005-1	M 10X1.0	5	38.7	27.7	8.6	3	6	22.9	12.7	3
AC-1005-2	M 10X1.0	5	38.7	27.7	8.6	3	6	22.9	12.7	3
AC-1005-3	M 10X1.0	5	38.7	27.7	8.6	3	6	22.9	12.7	3
AC-1008-1	M 10X1.0	8	57	43	8.6	3	6	38	12.7	3
AC-1008-2	M 10X1.0	8	57	43	8.6	3	6	38	12.7	3
AC-1008-3	M 10X1.0	8	57	43	8.6	3	6	38	12.7	3
AC-1210-1	M 12X1.0	10	69.5	50	10.3	3	9.5	45.5	14	4
AC-1210-2	M 12X1.0	10	69.5	50	10.3	3	9.5	45.5	14	4
AC-1210-3	M 12X1.0	10	69.5	50	10.3	3	9.5	45.5	14	4

Application Example: Slide Unit



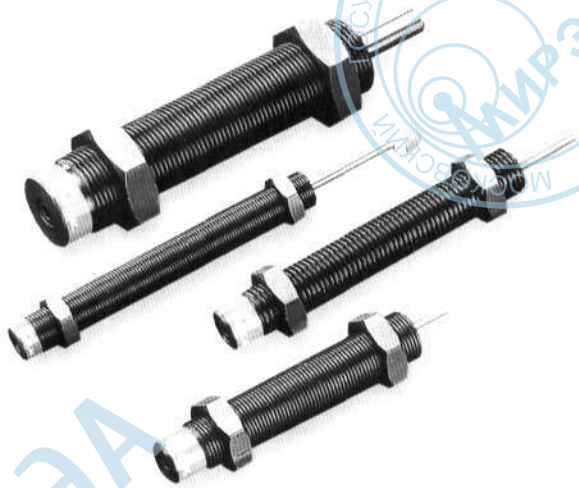
Application Example: Rodless Cylinder



NON ADJUSTABLE HYDRAULIC SERIES

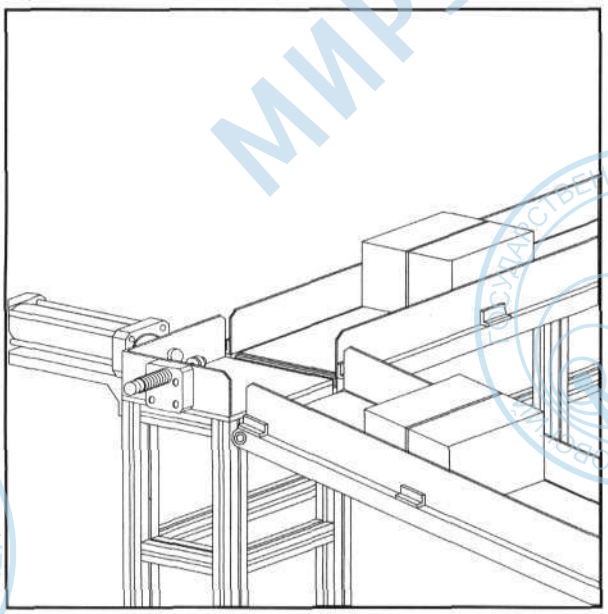
Engineering Data

AC Series-
Self Compensation

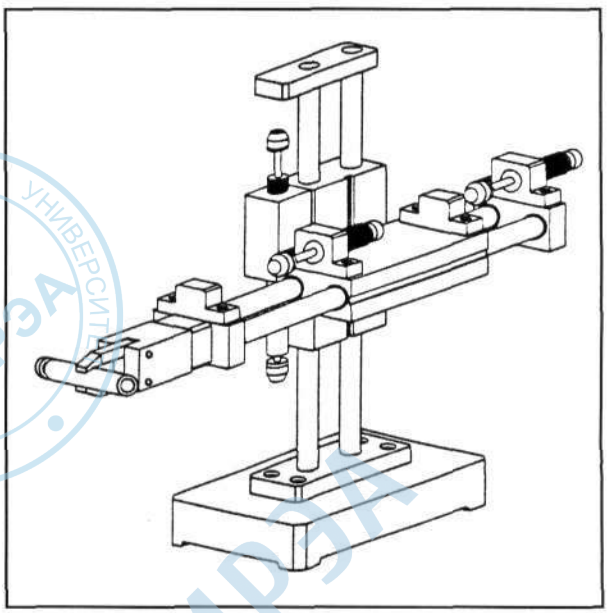


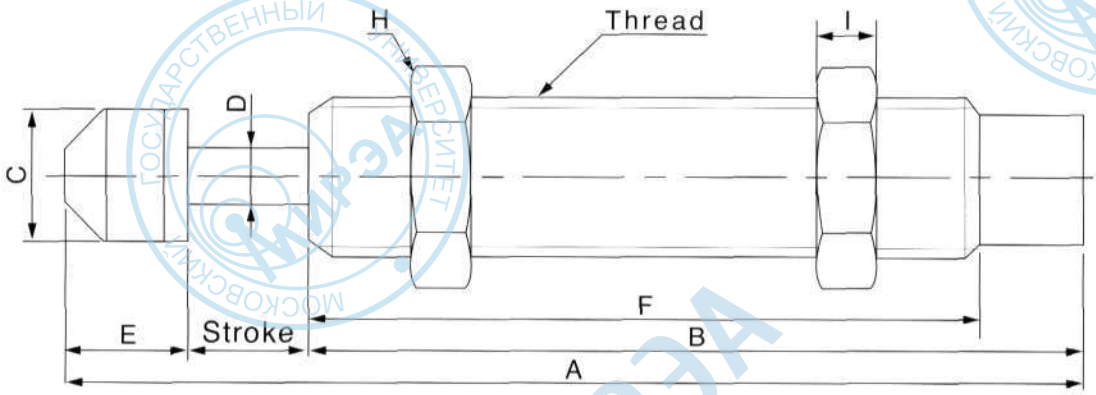
Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max . Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(°C)	Weight (g)
AC-1412-1	12	15	30,000	8	3.0	-10 ~ +80	80
AC-1412-2	12	15	30,000	50	1.5	-10 ~ +80	80
AC-1412-3	12	15	30,000	100	0.8	-10 ~ +80	80
AC-1416-1	16	20	35,000	10	3.0	-10 ~ +80	90
AC-1416-2	16	20	35,000	70	1.5	-10 ~ +80	90
AC-1416-3	16	20	35,000	150	0.8	-10 ~ +80	90
AC-2020-1	20	40	40,000	30	3.5	-10~+80	215
AC-2020-2	20	40	40,000	200	2.0	-10~+80	215
AC-2020-3	20	40	40,000	700	1.0	-10~+80	215

Application Example: Removing



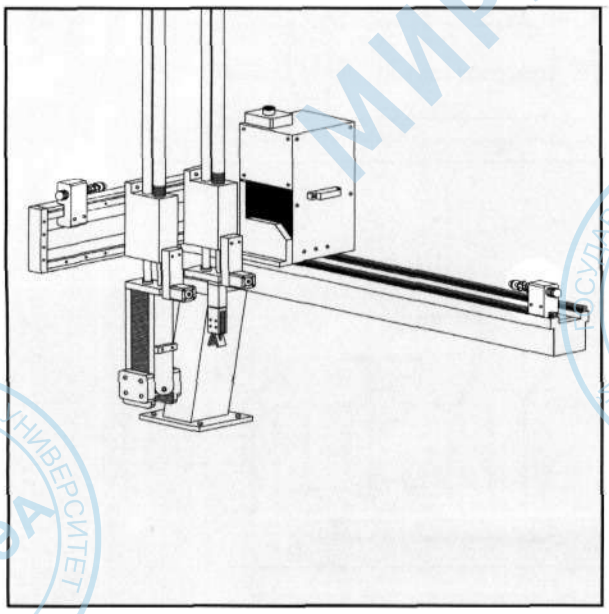
Application Example: Pick and Place Robot



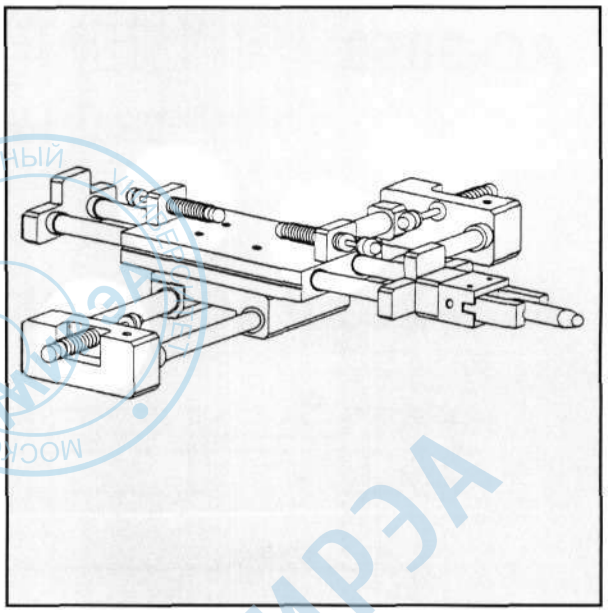


Model	Thread	Stroke (mm)	A	B	C	D	E	F	H	I
AC-1412-1	M 14X 1.5	12	102.3	76	12	4	14.3	67	19	5
AC-1412-2	M 14X 1.5	12	102.3	76	12	4	14.3	67	19	5
AC-1412-3	M 14X 1.5	12	102.3	76	12	4	14.3	67	19	5
AC-1416-1	M 14X 1.5	16	125.3	95	12	4	14.3	86	19	5
AC-1416-2	M 14X 1.5	16	125.3	95	12	4	14.3	86	19	5
AC-1416-3	M 14X 1.5	16	125.3	95	12	4	14.3	86	19	5
AC-2020-1	M 20X 1.5	20	148	110	18	6	18	101	26	5
AC-2020-2	M 20X 1.5	20	148	110	18	6	18	101	26	5
AC-2020-3	M 20X 1.5	20	148	110	18	6	18	101	26	5

Application Example: Robot for Plastic Injection Molding Machine



Application Example: Slide Unit



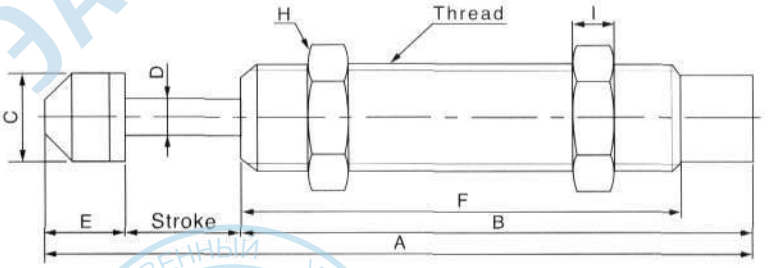
NON ADJUSTABLE HYDRAULIC SERIES

Engineering Data

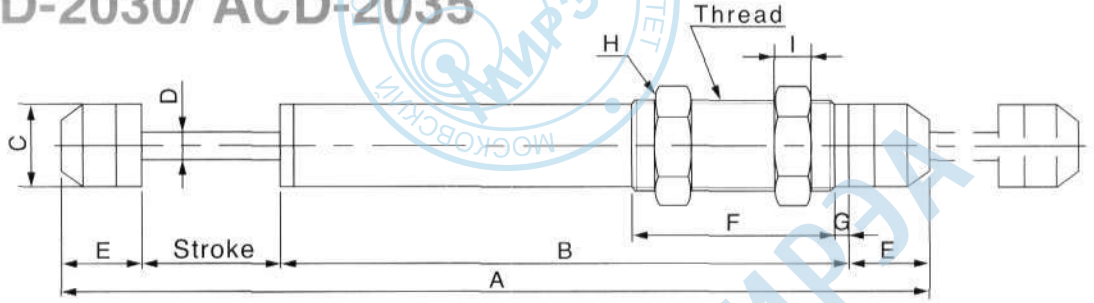
AC Series-
Self Compensation

Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max . Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(℃)	Weight (g)
AC-2030-1	30	50	48,000	30	3.5	-10~+80	220
AC-2030-2	30	50	48,000	200	2.0	-10~+80	220
AC-2030-3	30	50	48,000	700	1.0	-10~+80	220
AC-2050-1	50	60	60,000	60	3.5	-10~+80	300
AC-2050-2	50	60	60,000	400	2.0	-10~+80	300
AC-2050-3	50	60	60,000	1,200	1.0	-10~+80	300
ACD-2030-1	30	45	55,000	40	3.5	-10~+80	220
ACD-2030-2	30	45	55,000	300	2.0	-10~+80	220
ACD-2030-3	30	45	55,000	900	1.0	-10~+80	220
ACD-2035-1	35	52	63,000	40	3.5	-10~+80	210
ACD-2035-2	35	52	63,000	200	2.0	-10~+80	210
ACD-2035-3	35	52	63,000	650	1.0	-10~+80	210

AC-2030
AC-2050

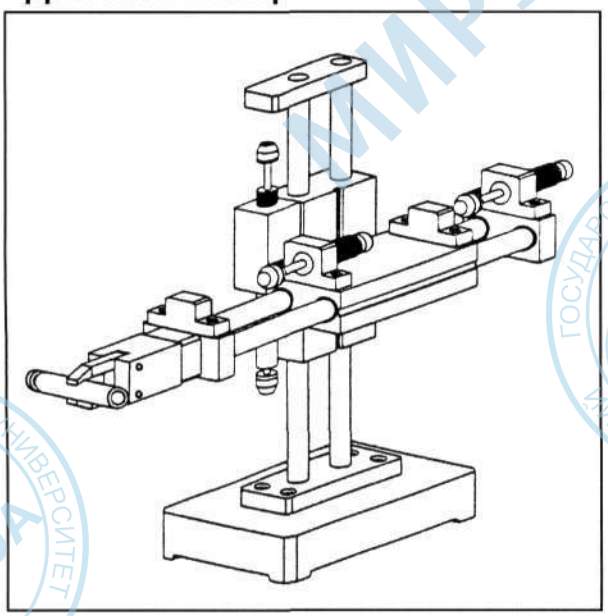


ACD-2030/ ACD-2035

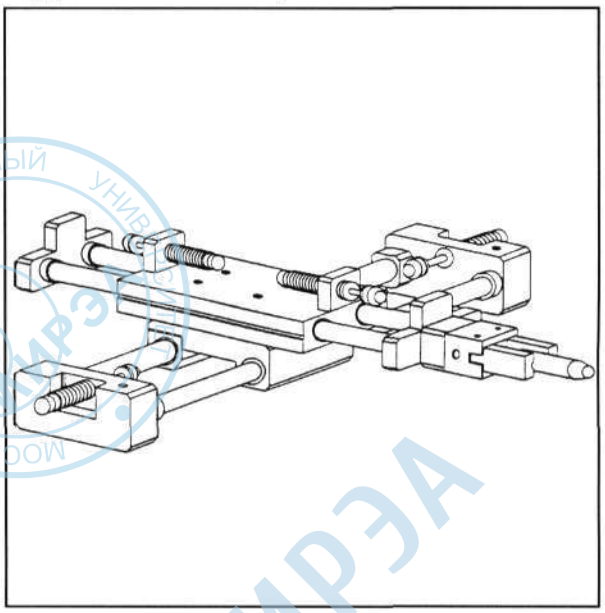


Model	Thread	Stroke (mm)	A	B	C	D	E	F	G	H	I
AC-2030-1	M 20X 1.5	30	158	110	18	6	18	101	-	26	8
AC-2030-2	M 20X 1.5	30	158	110	18	6	18	101	-	26	8
AC-2030-3	M 20X 1.5	30	158	110	18	6	18	101	-	26	8
AC-2050-1	M 20X 1.5	50	235	167	18	6	18	158	-	26	8
AC-2050-2	M 20X 1.5	50	235	167	18	6	18	158	-	26	8
AC-2050-3	M 20X 1.5	50	235	167	18	6	18	158	-	26	8
ACD-2030-1	M 20X 1.5	30	189	123	18	6	18	44	3	26	8
ACD-2030-2	M 20X 1.5	30	189	123	18	6	18	44	3	26	8
ACD-2030-3	M 20X 1.5	30	189	123	18	6	18	44	3	26	8
ACD-2035-1	M 20X 1.5	35	223	123	18	6	15	40	5	26	8
ACD-2035-2	M 20X 1.5	35	223	123	18	6	15	40	5	26	8
ACD-2035-3	M 20X 1.5	35	223	123	18	6	15	40	5	26	8

Application Example: Pick and Place Robot



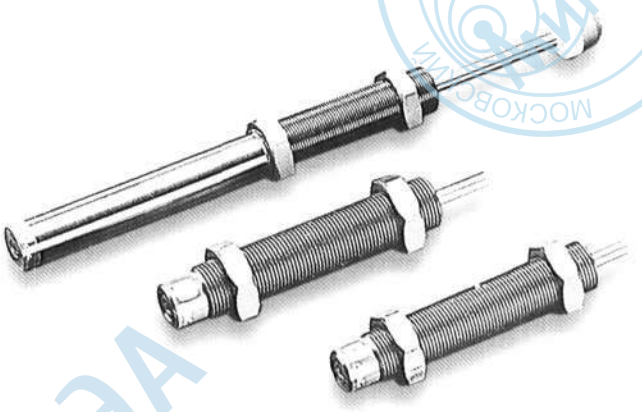
Application Example: Slide Unit



NON ADJUSTABLE HYDRAULIC SERIES

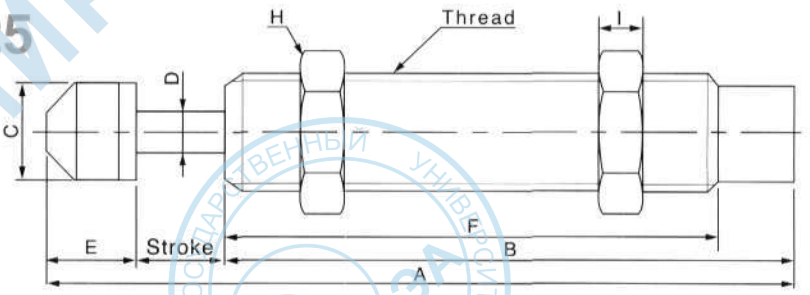
Engineering Data

AC Series-
Self Compensation

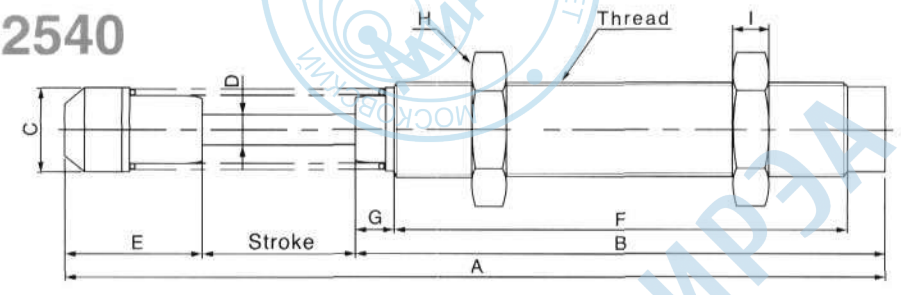


Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max . Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(℃)	Weight (g)
AC-2525-1	25	80	54,000	200	4.0	-10 ~ +80	330
AC-2525-2	25	80	54,000	800	2.5	-10 ~ +80	330
AC-2525-3	25	80	54,000	1,500	1.0	-10 ~ +80	330
AC-2540-1	40	120	75,000	300	4.0	-10 ~ +80	430
AC-2540-2	40	120	75,000	1,200	2.5	-10 ~ +80	430
AC-2540-3	40	120	75,000	2,000	1.0	-10 ~ +80	430
AC-2550-1	50	98	90,000	15	4.0	-10 ~ +80	435
AC-2550-2	50	98	90,000	40	2.5	-10 ~ +80	435
AC-2550-3	50	98	90,000	160	1.0	-10 ~ +80	435
AC-2580-1	80	150	120,000	20	4.0	-10 ~ +80	535
AC-2580-2	80	150	120,000	50	2.5	-10 ~ +80	535
AC-2580-3	80	150	120,000	200	1.0	-10 ~ +80	535
AC-3660-1	60	250	120,000	400	4.0	-10 ~ +80	1,030
AC-3660-2	60	250	120,000	1,500	2.5	-10 ~ +80	1,030
AC-3660-3	60	250	120,000	2,400	1.0	-10 ~ +80	1,030

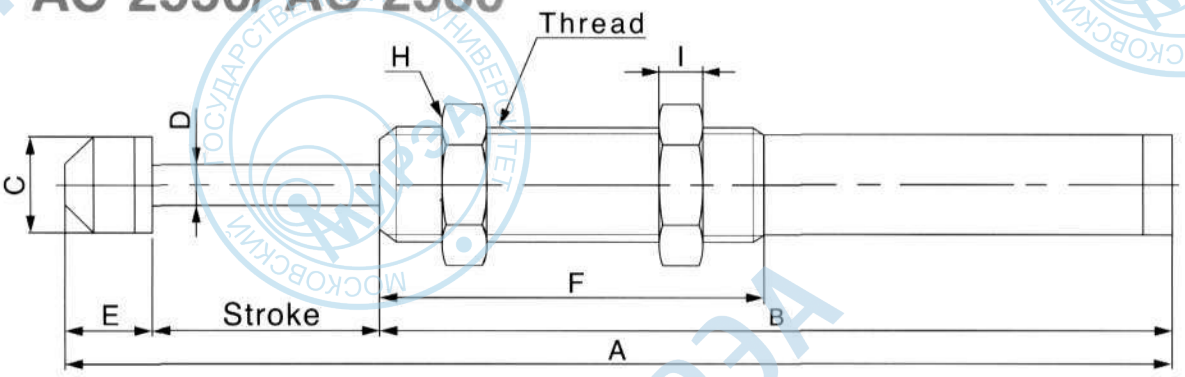
AC-2525



AC-2540

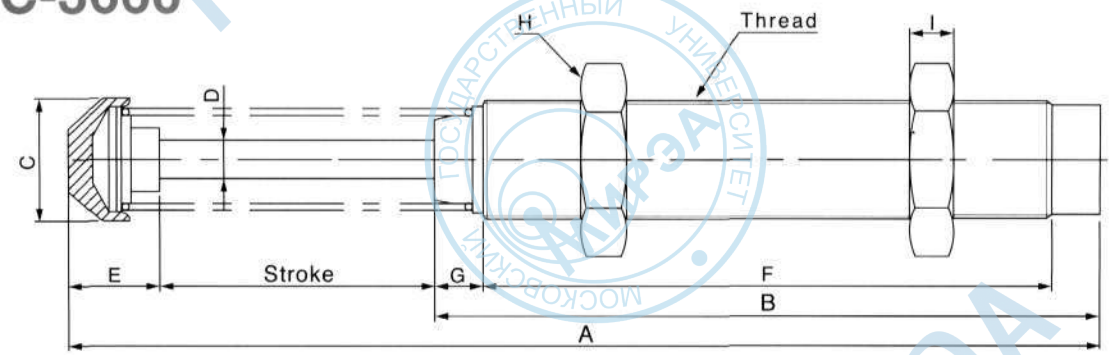


AC-2550/ AC-2580



Model	Thread	Stroke (mm)	A	B	C	D	E	F	G	H	I
AC-2525-1	M 25X 1.5	25	155.5	111	22	8	19.5	101	-	32	10
AC-2525-2	M 25X 1.5	25	155.5	111	22	8	19.5	101	-	32	10
AC-2525-3	M 25X 1.5	25	155.5	111	22	8	19.5	101	-	32	10
AC-2540-1	M 25X 1.5	40	213	137	22	8	36	117	10	32	10
AC-2540-2	M 25X 1.5	40	213	137	22	8	36	117	10	32	10
AC-2540-3	M 25X 1.5	40	213	137	22	8	36	117	10	32	10
AC-2550-1	M 25X 1.5	50	240	170.5	22	8	19.5	100	-	32	10
AC-2550-2	M 25X 1.5	50	240	170.5	22	8	19.5	100	-	32	10
AC-2550-3	M 25X 1.5	50	240	170.5	22	8	19.5	100	-	32	10
AC-2580-1	M 25X 1.5	80	336.5	237	22	8	19.5	100	-	32	10
AC-2580-2	M 25X 1.5	80	336.5	237	22	8	19.5	100	-	32	10
AC-2580-3	M 25X 1.5	80	336.5	237	22	8	19.5	100	-	32	10
AC-3660-1	M 36X 1.5	60	248	162	35	10	26	134	17	46	15
AC-3660-2	M 36X 1.5	60	248	162	35	10	26	134	17	46	15
AC-3660-3	M 36X 1.5	60	248	162	35	10	26	134	17	46	15

AC-3660



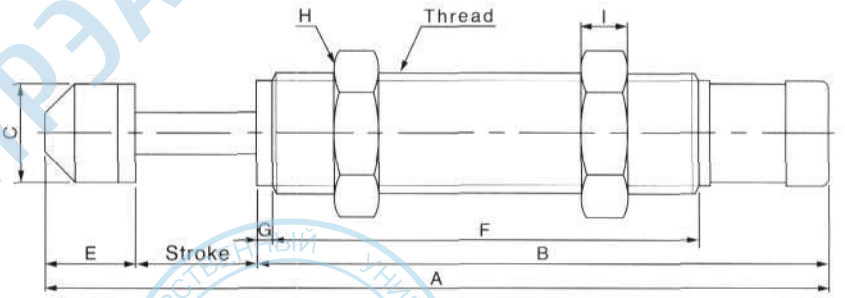
NON ADJUSTABLE HYDRAULIC SERIES

Engineering Data

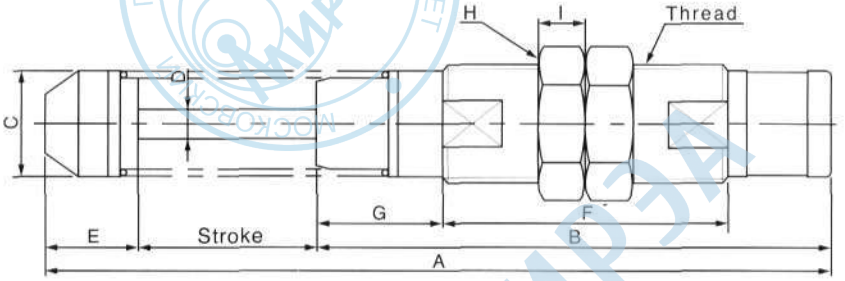
AC Series-
Self Compensation

Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max . Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(℃)	Weight (g)
AC-1415-6K	15	9.8	35,280	30	1	-10 ~ +80	80
AC-1415-7K	15	9.8	35,280	15	1.5	-10 ~ +80	80
AC-2030-5K	30	44	26,460	60	1.2	-10 ~ +80	185
AC-2030-6K	30	44	26,460	30	1.7	-10 ~ +80	185
AC-2030-7K	30	44	26,460	15	2.4	-10 ~ +80	185
AC-2030-16K	30	44	26,460	5	4.2	-10 ~ +80	205
AC-2030-18K	30	44	26,460	3	6.0	-10 ~ +80	205
AC-2050-11K	50	59	35,280	30	2	-10 ~ +80	250
AC-2050-12K	50	59	35,280	15	2.8	-10 ~ +80	250
AC-2050-13K	50	59	35,280	8	3.8	-10 ~ +80	250
AC-2050-16K	50	59	35,280	5	5.0	-10 ~ +80	235
AC-2050-17K	50	59	35,280	3	6.8	-10 ~ +80	245

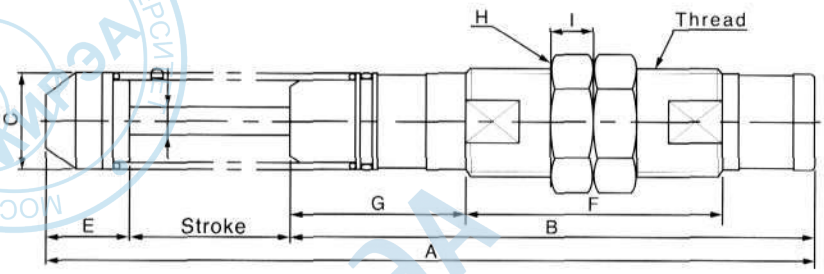
AC-1415-6K 1415-7K



AC-2030-5K 2030-6K 2030-7K

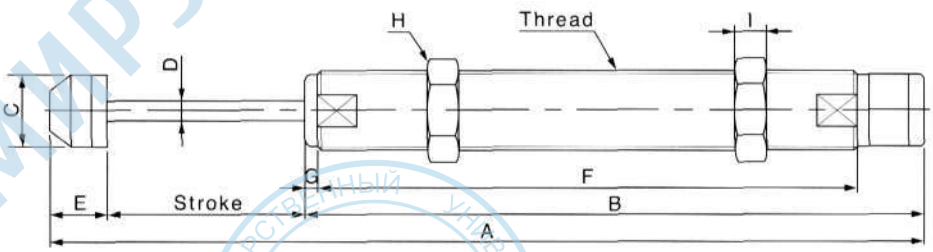


AC-2030-16K
2030-18K

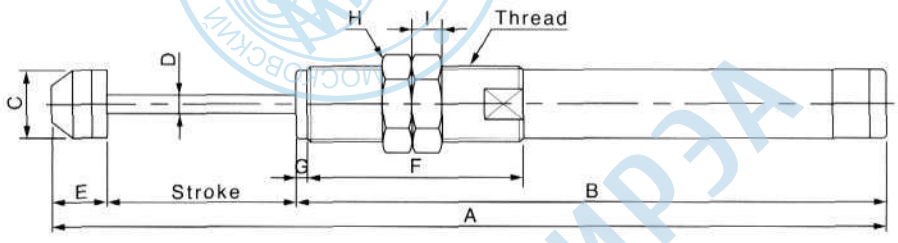


Model	Thread	Stroke (mm)	A	B	C	D	E	F	G	H	I
AC-1415-6 K	M 14X 1.0	15	95.2	69.5	12	3.5	10.7	53	2	19	5
AC-1415-7 K	M 14X 1.0	15	95.2	69.5	12	3.5	10.7	53	2	19	5
AC-2030-5 K	M 20X 1.5	30	132.6	85.6	18	5	17	48	21	26	8
AC-2030-6 K	M 20X 1.5	30	132.6	85.6	18	5	17	48	21	26	8
AC-2030-7 K	M 20X 1.5	30	132.6	85.6	18	5	17	48	21	26	8
AC-2030-16 K	M 20X 1.5	30	144.3	97.3	18	5	17	48	32.7	26	8
AC-2030-18 K	M 20X 1.5	30	144.3	97.3	18	5	17	48	32.7	26	8
AC-2050-11 K	M 20X 1.5	50	221	156	18	5	15	136	3	26	8
AC-2050-12 K	M 20X 1.5	50	221	156	18	5	15	136	3	26	8
AC-2050-13 K	M 20X 1.5	50	221	156	18	5	15	136	3	26	8
AC-2050-16 K	M 20X 1.5	50	221	156	18	5	15	136	3	26	8
AC-2050-17 K	M 20X 1.5	50	221	156	18	5	15	60	3	26	8

AC-2050-11K
2050-12K
2050-13K
2050-16K



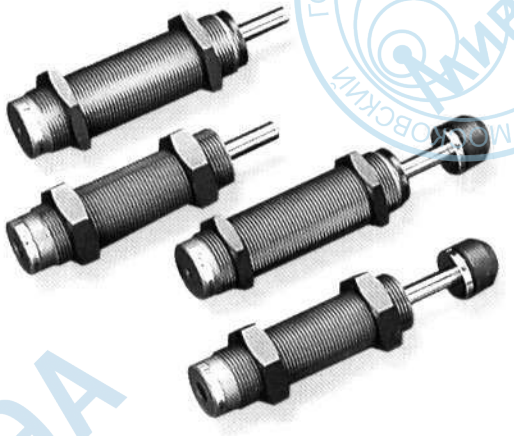
AC-2050-17K



NON ADJUSTABLE HYDRAULIC SERIES

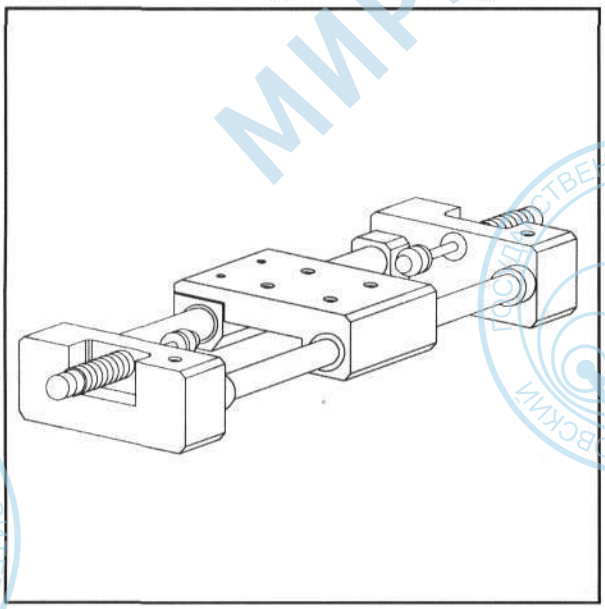
Engineering Data

AC Series-
Self Compensation

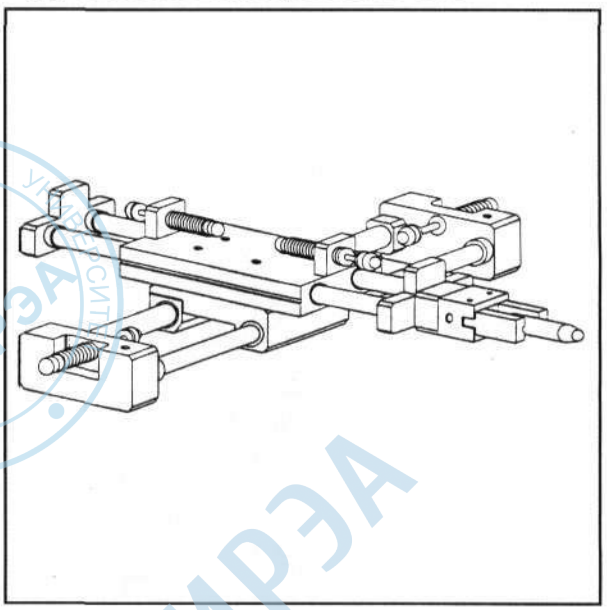


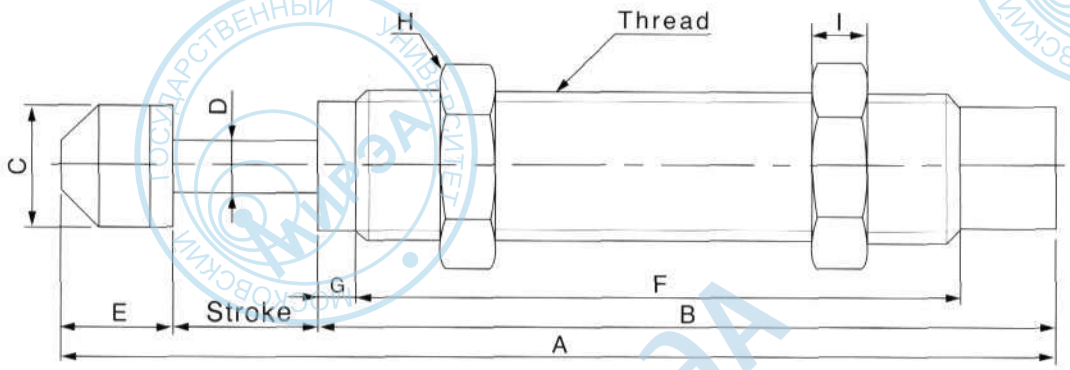
Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max . Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(℃)	Weight (g)
AC-0806-S N	6	3	7,000	6	0.3-2.5	-10 ~ +80	15
AC-0806-S	6	3	7,000	6	0.3-2.5	-10 ~ +80	17
AC-1007-S N	7	6	12,400	12	0.3-3.5	-10 ~ +80	25
AC-1007-S	7	6	12,400	12	0.3-3.5	-10 ~ +80	28
AC-1210-S N	10	12	22,500	22	0.3-4.0	-10 ~ +80	29
AC-1210-S	10	12	22,500	22	0.3-4.0	-10 ~ +80	32
AC-1412-S N	12	20	33,000	40	0.3-5.0	-10 ~ +80	65
AC-1412-S	12	20	33,000	40	0.3-5.0	-10 ~ +80	70
AC-2015-S N	15	59	38,000	120	0.3-5.0	-10 ~ +80	150
AC-2015-S	15	59	38,000	120	0.3-5.0	-10 ~ +80	160
AC-2525-S N	25	80	60,000	180	0.3-5.0	-10 ~ +80	295
AC-2525-S	25	80	60,000	180	0.3-5.0	-10 ~ +80	280
AC-2725-S N	25	147	72,000	270	0.3-5.0	-10 ~ +80	360
AC-2725-S	25	147	72,000	270	0.3-5.0	-10 ~ +80	375

Application Example: Slide Unit Cylinder



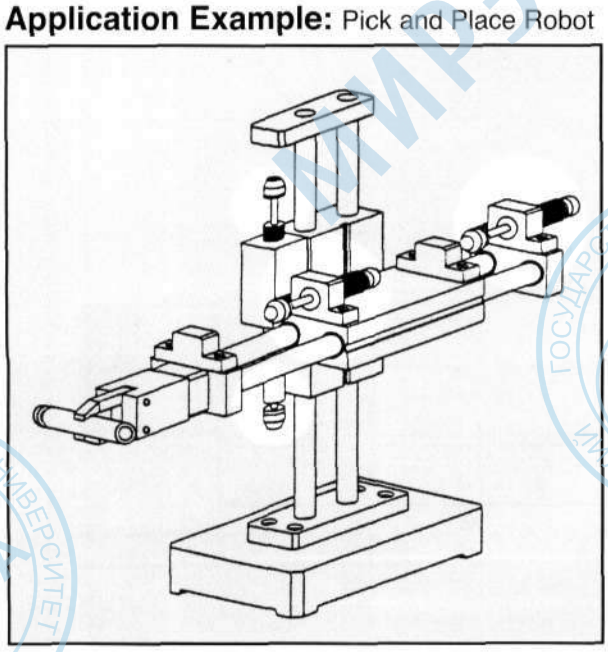
Application Example: Slide Unit



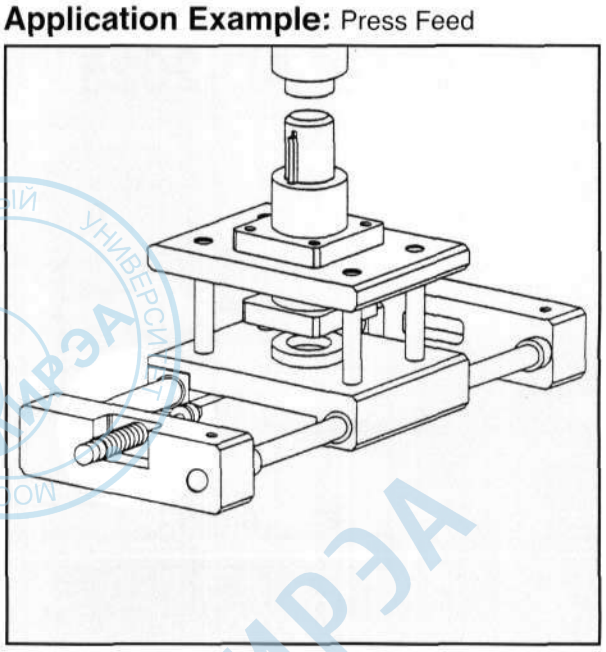


Model	Thread	Stroke (mm)	A	B	C	D	E	F	G	H	I
AC-0806-S N	M 8X 1.0	6	-	40.6	-	2.8	-	33.6	2	11	3
AC-0806-S	M 8X 1.0	6	55.2	40.6	6.6	2.8	8.6	33.6	2	11	3
AC-1007-S N	M 10X 1.0	7	-	47	-	3	-	39	3	12.7	3
AC-1007-S	M 10X 1.0	7	62.6	47	8.6	3	8.6	39	3	12.7	3
AC-1210-S N	M 12X 1.0	10	-	50	-	3	-	45.5	-	14	4
AC-1210-S	M 12X 1.0	10	68.4	50	10.3	3	8.4	45.5	-	14	4
AC-1412-S N	M 14X 1.5	12	-	67	-	4	-	58	4	19	5
AC-1412-S	M 14X 1.5	12	90	67	12	4	11	58	4	19	5
AC-2015-S N	M 20X 1.5	15	-	73	-	6	-	62	4	26	8
AC-2015-S	M 20X 1.5	15	103	73	18	6	15	62	4	26	8
AC-2525-S N	M 25X 1.5	25	-	92	-	8	-	82	-	32	10
AC-2525-S	M 25X 1.5	25	135.8	92	22	8	18.8	82	-	32	10
AC-2725-S N	M 27X 1.5	25	-	111	-	8	-	86	5	36	6
AC-2725-S	M 27X 1.5	25	142.8	99	22	8	18.8	86	5	36	6

Application Example: Pick and Place Robot



Application Example: Press Feed



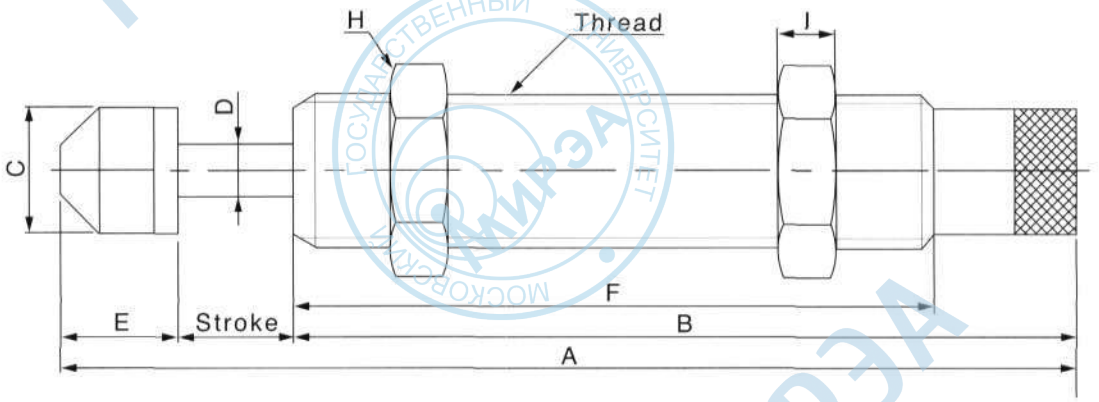
ADJUSTABLE HYDRAULIC SERIES

Engineering Data

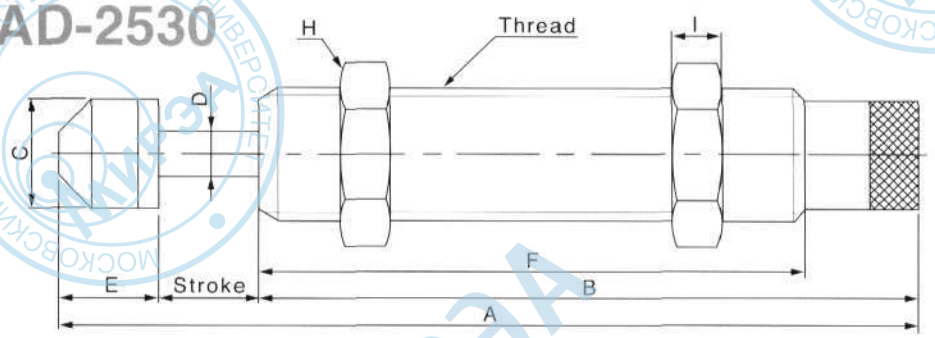
AD Series-Adjustable

Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max . Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(℃)	Weight (g)
AD-1410 N	10	20	25,000	80	3.0	-10 ~ +80	84
AD-1410	10	20	25,000	80	3.0	-10 ~ +80	90
AD-2016 N	16	25	30,000	200	3.5	-10 ~ +80	222
AD-2016	16	25	30,000	200	3.5	-10 ~ +80	230
AD-2025 N	25	39	30,000	312	3.5	-10 ~ +80	232
AD-2025	25	39	30,000	312	3.5	-10 ~ +80	240
AD-2525 N	25	85	54,000	400	3.5	-10 ~ +80	335
AD-2525	25	85	54,000	400	3.5	-10 ~ +80	350
AD-2530 N	30	95	60,000	480	3.5	-10 ~ +80	340
AD-2530	30	95	60,000	480	3.5	-10 ~ +80	365

AD-1410
AD-2016/ AD-2025

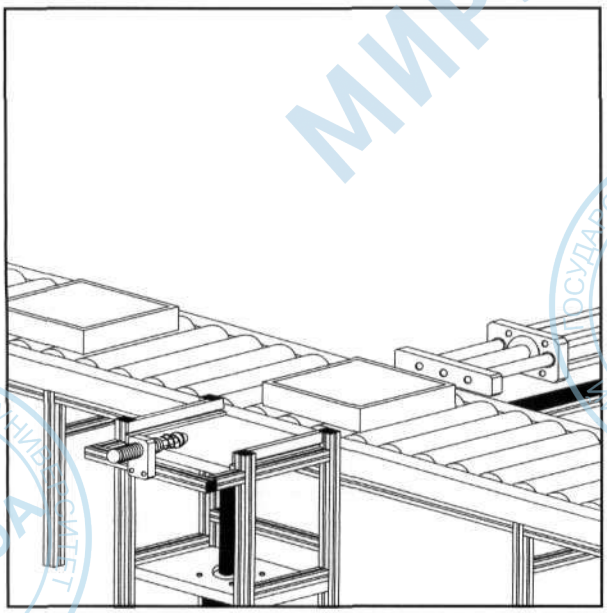


AD-2525/AD-2530

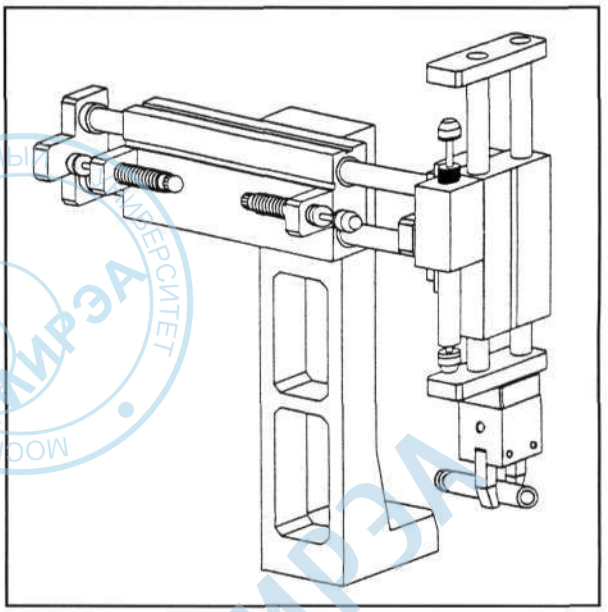


Model	Thread	Stroke (mm)	A	B	C	D	E	F	G	H	I
AD-1410 N	M 14X 1.5	10	-	88.5	-	4	-	72.5	-	19	5
AD-1410	M 14X 1.5	10	112.8	88.5	12	4	14.3	72.5	-	19	5
AD-2016 N	M 20X 1.5	16	-	117	-	6	-	101	-	26	8
AD-2016	M 20X 1.5	16	151	117	18	6	18	101	-	26	8
AD-2025 N	M 20X 1.5	25	-	117	-	6	-	101	-	26	8
AD-2025	M 20X 1.5	25	160	117	18	6	18	101	-	26	8
AD-2525 N	M 25X 1.5	25	-	118.5	-	8	-	101	-	32	10
AD-2525	M 25X 1.5	25	163	118.5	22	8	19.5	101	-	32	10
AD-2530 N	M 25X 1.5	30	-	118.5	-	8	-	101	-	32	10
AD-2530	M 25X 1.5	30	168	118.5	22	8	19.5	101	-	32	10

Application Example: Foundry Mould Box Transporter



Application Example: Pick and Place Machine



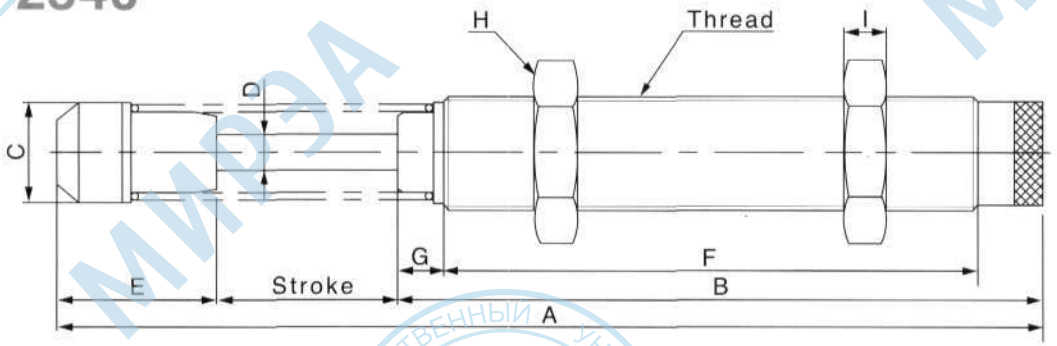
ADJUSTABLE HYDRAULIC SERIES

Engineering Data

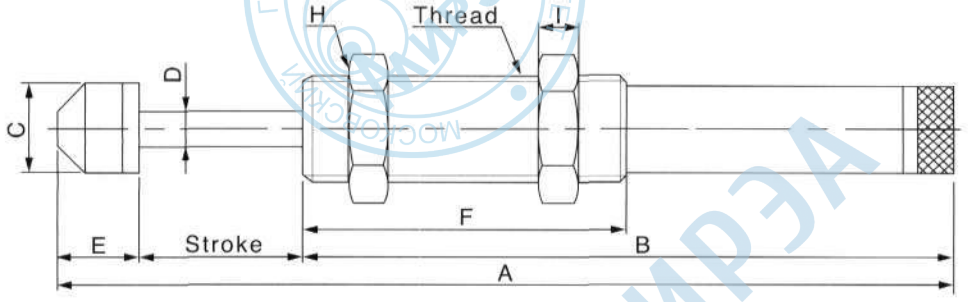
AD Series-Adjustable

Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max . Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(℃)	Weight (g)
AD-2540	40	100	80,000	700	3.5	-10 ~ +80	455
AD-2550	50	98	90,000	720	4.0	-10 ~ +80	455
AD-2580	80	150	120,000	800	4.0	-10 ~ +80	585
AD-3625	25	150	81,000	1,400	3.0	-10 ~ +80	955
AD-3650	50	300	100,000	1,400	3.0	-10 ~ +80	1,100
AD-4225	25	260	125,000	3,000	3.5	-10 ~ +80	1,280
AD-4250	50	500	150,000	4,000	4.5	-10 ~ +80	1,490
AD-4275	75	750	180,000	6,000	4.5	-10 ~ +80	1,710

AD-2540

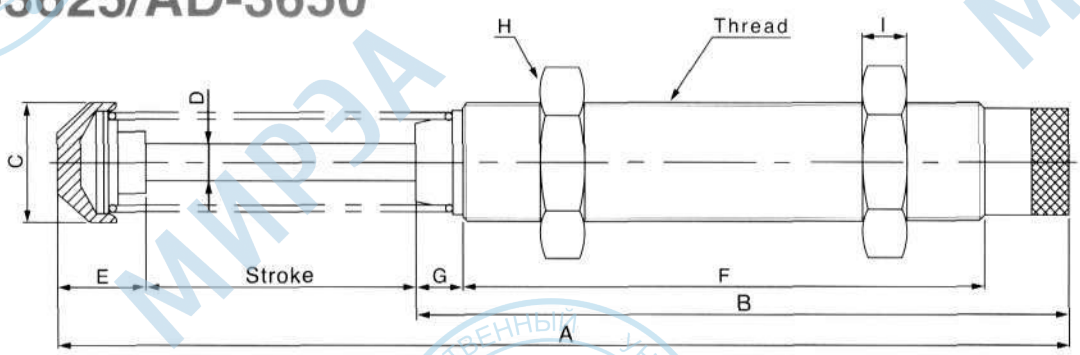


AD-2550 / AD-2580

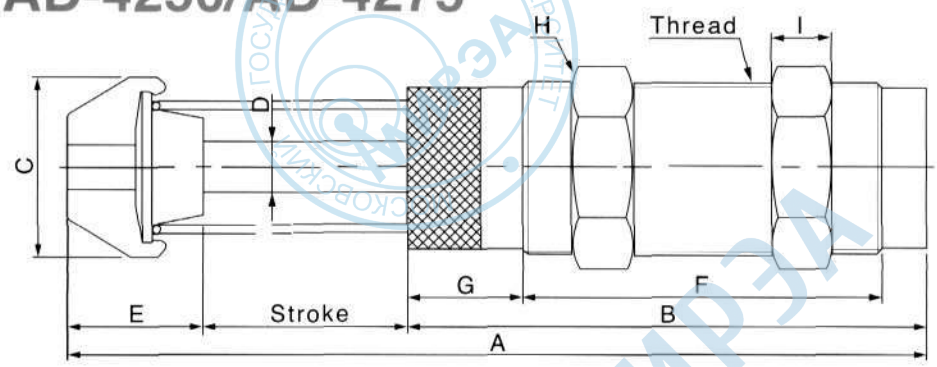


Model	Thread	Stroke (mm)	A	B	C	D	E	F	G	H	I
AD-2540	M 25X 1.5	40	220.5	144.5	22	8	36	117	10	32	10
AD-2550	M 25X 1.5	50	247.5	178	22	8	19.5	100	-	32	10
AD-2580	M 25X 1.5	80	344	244.5	22	8	19.5	100	12.5	32	10
AD-3625	M 36X 1.5	25	183.8	133	35.5	10	25.8	103	10	46	10
AD-3650	M 36X 1.5	50	246.8	171	35.5	10	25.8	134	17	46	15
AD-4225	M 42X 1.5	25	186.4	127.5	44.5	12	33.9	88	28.5	50	15
AD-4250	M 42X 1.5	50	240.9	157	44.5	12	33.9	117.5	28.5	50	15
AD-4275	M 42X 1.5	75	301.4	187.5	44.5	12	38.9	148	28.5	50	15

AD-3625/AD-3650



AD-4225/AD-4250/AD-4275

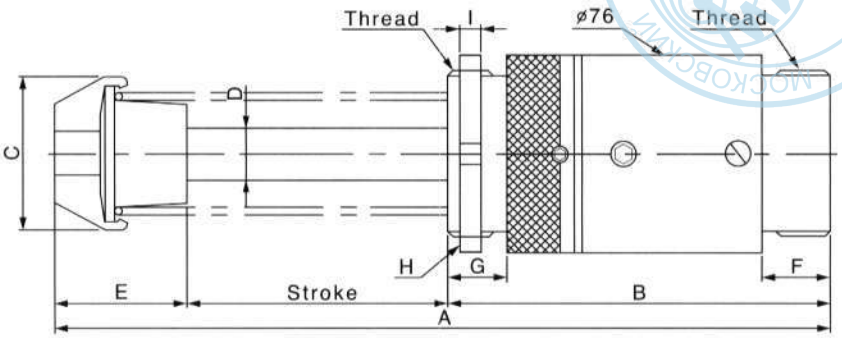


HEAVY DUTY SERIES

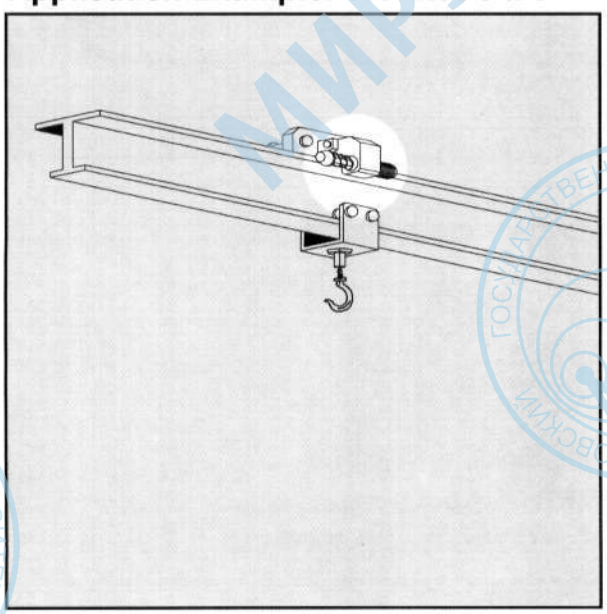
Engineering Data

Model	Stroke (mm)	Max. Nm Per Cycle(Et)	Max . Nm Per Hour(ETc)	Max. Effective Mass(Me)kg	Max. Impact Speed(v)m/s	Operating Temperature(℃)	Weight (g)
AD-64050	50	12,000	1,500,000	12,727	1.5	-10 ~ +80	4,115
AD-64100	100	24,000	2,000,000	18,181	1.5	-10 ~ +80	5,280
AD-64150	150	36,000	2,500,000	23,636	1.5	-10 ~ +80	6,785

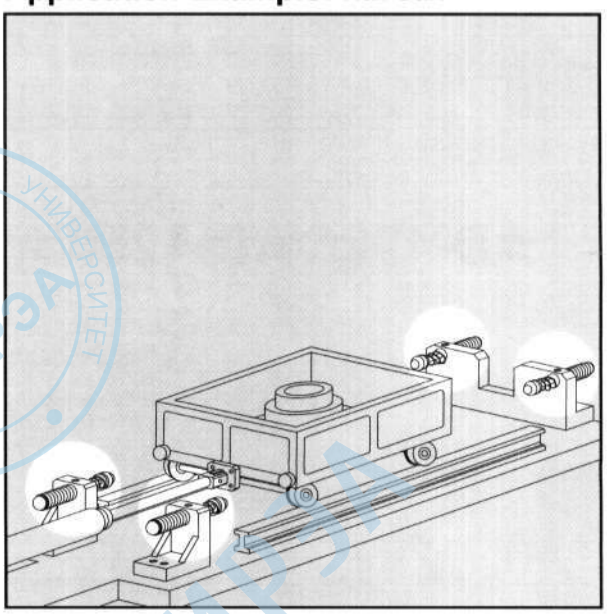
AD-64050/ AD-64100/ AD-64150



Application Example: Over-head Crane



Application Example: Rail Cart



Model	Thread	Stroke	A	B	C	D	E	F	G	H	I
AD-64050	UNF 2 1/2-12	50	247.8	146	59	20	51.8	26	23	76.2	9.4
AD-64100	UNF 2 1/2-12	100	347.8	196	59	20	51.8	26	23	76.2	9.4
AD-64150	UNF 2 1/2-12	150	467.8	256	59	20	61.8	26	23	76.2	9.4

Ordering Information

AC - 0806 - 1 - □

- AC: AD: Adjustable / AC: Non-Adjustable / ACD: Double Cushion
- 0806: Tube O.D.
- 06: Stroke mm
- 1: Select damping constant from graph: -1 : High Impact Speed / -2 : Medium Impact Speed / -3 : Low Impact Speed
- □: Blank:With Cap / N : Without Cap

Notes:

1. Please install an lmm (approx.) mechanical stop before the end of impact stroke and do not drive shock absorbers into their final position under full load.
2. Reusing is prohibited after dismantling. Do not paint on the rod and threaded body.
3. Stop collar protects shock absorber's piston from buttoming out and can be used in adjusting stroke.
4. Please pay attention to assembly, especially on steel thickness & offcenter angle.
5. Install shock absorbers as close to the moving object's center as possible.
6. When installing over 2 pcs of shock absorbers, please ensure that they have the same stroke.

Considerations for selecting shock absorbers:

1. Moving direction (in horizontal, free fall or rotary motion)
2. Total weight of impacting object
3. Propelling force (pneumatic / hydraulic cylinder, motor etc.)
4. Impact Velocity
5. Number of impact per hour
6. Applicable quantity of shock absorbers in impacting direction

Functions of hydraulic shock absorbers:

1. Eliminating vibration and absorbing striking energy in a short time
2. Reducing operating noise and offering a quiet working environment
3. Accelerating machine operation and elevating production capacity
4. Extending machine life time and reducing after sale service
5. Improving quality of products

Applications:

Robots for plastic injection moulding machine, pick and place robots, feeding equipment, screen print machines, conveyors, air cylinders, vibration conveyor systems, rolling doors, medical equipment, foundry industries, rodless cylinders, package machines, machine tools, rubber/ plastic machines, woodworking machines, aircraft industries, military equipment, education researches and automotive transfer lines

***Customer's own specification is welcome**
***The specifications are subject to change without advance notice.**

Sizing Formulas and Examples

Four parameters are required to precisely determine the dimension of CJAC shock absorbers:

1. Mass to be decelerated m (kg)
2. Impact velocity v (m/s)
3. Propelling or driving force F (N)
4. Number of impact cycles per hour C (/hr)

Some useful calculation formulas:

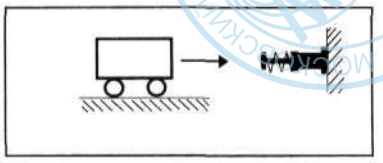
1. Kinetic energy: $E_K = mv^2/2$
2. Drive energy: $E_D = F \cdot S$
3. Free fall velocity: $v = \sqrt{2g \cdot h}$
4. Pneumatic or hydraulic cylinder driving forces: $F = 0.00785\ Pd^2$
5. Maximum shock force (approximate): $F_m = 1.2\ E_T/S$
6. Propelling force generated by electric motors: $F = 3000\ kW/v$
7. Total energy absorbed per hour: $E_{TC} = E_T \cdot C$

Symbols	Unit	Description
μ		coefficient of friction
α	(rad)	angle of incline
θ	(rad)	side load angle
ω	(rad/s)	angular velocity
A	(m)	width
B	(m)	thickness
C	(/hr)	impact cycles per hour
d	(mm)	cylinder bore diameter
E_D	(Nm)	drive energy per cycle
E_K	(Nm)	kinetic energy per cycle
E_T	(Nm)	total energy per cycle
E_{TC}	(Nm)	total energy per hour
F	(N)	propelling force
F_m	(N)	maximum shock force
g	(m/s^2)	acceleration due to gravity (9.81 m/s^2)
h	(m)	height
HM		arresting torque factor for motors (normally 2.5)
kW	(kW)	electric motor power
m	(kg)	mass to be decelerated
M_e	(kg)	effective mass
P	(bar)	operation pressure
R	(m)	radius
R_s	(m)	shock absorber mounting distance from rotation center
S	(m)	stroke
T	(Nm)	driving torque
t	(s)	deceleration time
v	(m/s)	velocity of impact mass
v_s	(m/s)	impact velocity at shock absorber

Example 1: Horizontal impact

Application data:

m = 300kg
v = 1.0m/s
S = 0.04m
C = 300/hr



Formulas and calculation:

$$E_K = \frac{mv^2}{2} = \frac{300 \cdot 1.0^2}{2} = 150Nm$$

$$E_T = E_K = 150Nm$$

$$E_{TC} = E_T \cdot C = 150 \cdot 300 = 45000Nm/hr$$

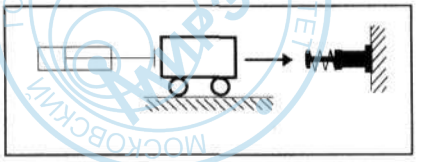
$$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 150}{1.0^2} = 300kg$$

Choose from sizing diagram: AD3650 is adequate

Example 2: Horizontal impact with propelling force

Application data:

m = 300kg
v = 1.2m/s
S = 0.05m
P = 40N/cm²
d = 100mm
C = 300/hr



Formulas and calculation:

$$E_K = \frac{mv^2}{2} = \frac{300 \cdot 1.2^2}{2} = 216Nm$$

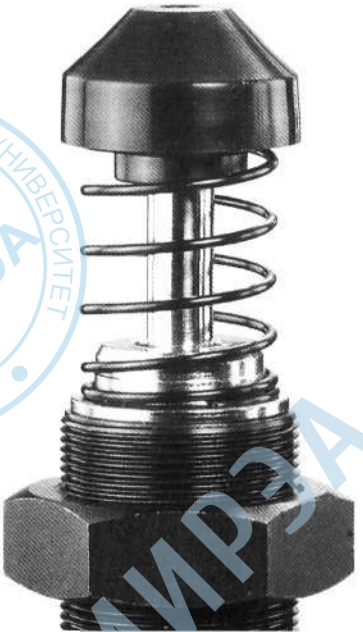
$$E_D = F \cdot S = 0.00785Pd^2 \cdot s$$
$$= 0.00785 \cdot 40 \cdot 100^2 \cdot 0.05 = 157Nm$$

$$E_T = E_K + E_D = 216 + 157 = 373Nm$$

$$E_{TC} = E_T \cdot C = 373 \cdot 300 = 111900Nm/hr$$

$$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 373}{1.2^2} = 518kg$$

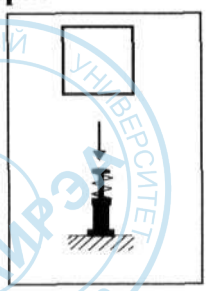
Choose from sizing diagram: AD4250 is adequate



Example 3: Free fall impact

Application data:

m = 40kg
h = 0.4m
S = 0.06m
C = 200/hr



Formulas and calculation:

$v = \sqrt{2g \cdot h} = \sqrt{2 \cdot 9.81 \cdot 0.4} = 2.8 m/sec$

$E_K = \frac{mv^2}{2} = \frac{40 \cdot 2.8^2}{2} = 157Nm$

$E_D = F \cdot S = mg \cdot h = 40 \cdot 9.81 \cdot 0.06 = 23.5Nm$

$E_T = E_K + E_D = 157 + 23.5 = 180.5Nm$

$E_{TC} = E_T \cdot C = 180.5 \cdot 200 = 36100Nm/hr$

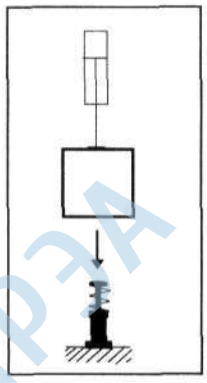
$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 180.5}{2.8^2} = 46kg$

Choose from sizing diagram: AC3660-1 is adequate

Example 4:Free fall impact with propelling force

Application data:

m = 40kg
h = 0.3m
S = 0.025m
P = 5bar
d = 50mm
C = 200/hr
v = 1.0m/sec



Formulas and calculation:

$E_K = \frac{mv^2}{2} = \frac{40 \cdot 1.0^2}{2} = 20Nm$

$E_D = F \cdot S = (mg + 0.0785Pd^2) \cdot s$
$= (40 \cdot 9.81 + 0.0785 \cdot 5 \cdot 50^2) \cdot 0.025 = 33.5Nm$

$E_T = E_K + E_D = 20 + 33.5 = 55.5Nm$

$E_{TC} = E_T \cdot C = 55.5 \cdot 200 = 11100Nm/hr$

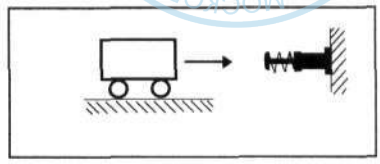
$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 55.5}{1.0^2} = 111kg$

Choose from sizing diagram: AD2525 is adequate

Example 5: Horizontal impact with motor driving

Application data:

m = 400kg
v = 1.0m/s
kW = 1.5kW
HM = 2.5
S = 0.075m
C = 60/hr



Formulas and calculation:

$E_K = \frac{mv^2}{2} = \frac{400 \cdot 1.0^2}{2} = 200Nm$

$E_D = F \cdot S = \frac{kW \cdot HM}{v} \cdot S = \frac{1500 \cdot 2.5}{1.0} \cdot 0.075 = 281Nm$

$E_T = E_K + E_D = 200 + 281 = 481Nm$

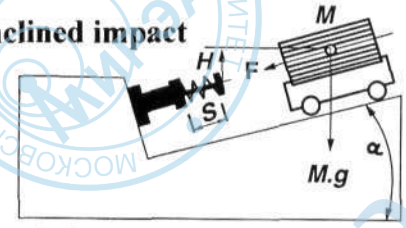
$E_{TC} = E_T \cdot C = 481 \cdot 60 = 25860Nm/hr$

$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 481}{1.0^2} = 962kg$

Choose from sizing diagram: AD4275 is adequate

Example 6: Inclined impact

m = 150kg
h = 0.3m
S = 0.075m
α = 30°
C = 200/hr



Formulas and calculation:

$v = \sqrt{2g \cdot h} = \sqrt{2 \cdot 9.81 \cdot 0.3} = 2.43 m/sec$

$E_K = \frac{mv^2}{2} = \frac{150 \cdot 2.43^2}{2} = 443Nm$

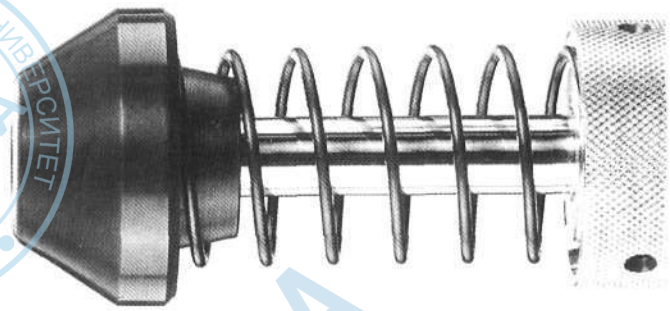
$E_D = F \cdot S = m \cdot g \cdot S \cdot \sin\alpha = 150 \cdot 9.81 \cdot 0.075 \cdot \sin 30°$
$= 55.2Nm$

$E_T = E_K + E_D = 433 + 55.2 = 498.2Nm$

$E_{TC} = E_T \cdot C = 498.2 \cdot 200 = 99640Nm/hr$

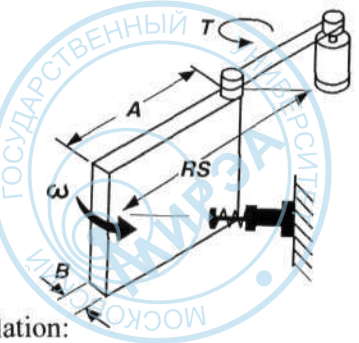
$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 498.2}{2.43^2} = 168.7kg$

Choose from sizing diagram: AD4275 is adequate



Example 7: Horizontal rotating door

Application data:



$m = 20kg$
$\omega = 2.0rad/s$
$T = 20Nm$
$R_s = 0.8m$
$A = 1.0m$
$B = 0.05m$
$S = 0.016m$
$C = 100/hr$

Formulas and calculation:

$$I = \frac{m(4A^2 + B^2)}{12} = \frac{20(4 \cdot 1.0^2 + 0.05^2)}{12} = 6.67kg \cdot m^2$$

$$E_K = \frac{I\omega^2}{2} = \frac{6.67 \cdot 2.0^2}{2} = 13.34Nm$$

$$\theta = \frac{s}{R_s} = \frac{0.04}{0.8} = 0.05rad$$

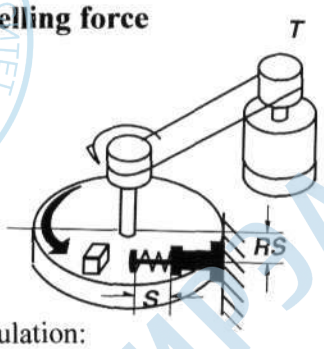
$E_D = T \cdot \theta = 20 \cdot 0.05 = 1.0Nm$
$E_T = E_K + E_D = 13.34 + 1.0 = 14.34Nm$
$E_{TC} = E_T \cdot C = 14.34 \cdot 100 = 1434Nm/hr$
$v = \omega \cdot R_s = 2.0 \cdot 0.8 = 1.6m/s$

$$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 14.34}{1.6^2} = 11.20kg$$

Choose from sizing diagram: AD2016 is adequate

Example 8: Rotary index table with propelling force

Application data:



$m = 200kg$
$\omega = 1.0rad/s$
$T = 100Nm$
$R = 0.5m$
$R_s = 0.4m$
$S = 0.04m$
$C = 100/hr$

Formulas and calculation:

$$I = \frac{mR^2}{2} = \frac{200 \cdot 0.5^2}{2} = 25kg \cdot m^2$$

$$E_K = \frac{I\omega^2}{2} = \frac{25 \cdot 1.0^2}{2} = 12.5Nm$$

$$\theta = \frac{s}{R_s} = \frac{0.04}{0.4} = 0.1rad$$

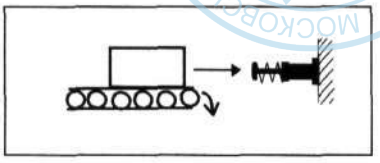
$E_D = T \cdot \theta = 100 \cdot 0.1 = 10Nm$
$E_T = E_K + E_D = 12.5 + 10 = 22.5Nm$
$E_{TC} = E_T \cdot C = 22.5 \cdot 50 = 1125Nm/hr$
$v = \omega \cdot R_s = 1.0 \cdot 0.4 = 0.4m/s$

$$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 22.5}{0.4^2} = 281kg$$

Choose from sizing diagram: AD2540 is adequate

Example 9:Horizontal mass on driven rollers

Application data:



$m = 150kg$
$v = 0.5m/s$
$\mu = 0.25$
$S = 0.02m$
$C = 120/hr$

Formulas and calculation:

$$E_K = \frac{mv^2}{2} = \frac{150 \cdot 0.5^2}{2} = 18.75Nm$$

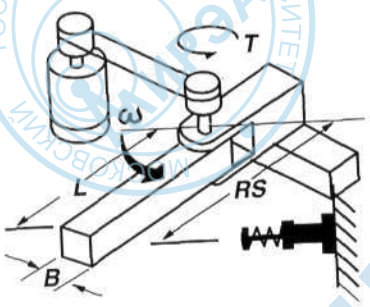
$E_D = F \cdot S = mg\mu \cdot s = 150 \cdot 9.81 \cdot 0.25 \cdot 0.02 = 7.35Nm$
$E_T = E_K + E_D = 18.73 + 7.35 = 26.1Nm$
$E_{TC} = E_T \cdot C = 26.1 \cdot 120 = 3132Nm/hr$

$$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 26.1}{0.5^2} = 208.8kg$$

Choose from sizing diagram: AC2020-3 is adequate

Example 10: Rotating beam with driving force

Application data:



$m = 40kg$
$A = 0.5m$
$B = 0.05m$
$\omega = 2.0rad/s$
$T = 10Nm$
$R_s = 0.4m$
$S = 0.05m$
$C = 50/hr$

Formulas and calculation:

$$I = \frac{m(4A^2 + B^2)}{12} = \frac{40(4 \cdot 0.5^2 + 0.05^2)}{12} = 3.36kg \cdot m^2$$

$$E_K = \frac{I\omega^2}{2} = \frac{3.36 \cdot 2.0^2}{2} = 6.8Nm$$

$$\theta = \frac{s}{R_s} = \frac{0.05}{0.4} = 0.125rad$$

$E_D = T \cdot \theta = 10 \cdot 0.125 = 1.25Nm$
$E_T = E_K + E_D = 6.8 + 1.25 = 8.05Nm$
$E_{TC} = E_T \cdot C = 8.05 \cdot 50 = 402.5Nm/hr$
$v = \omega \cdot R_s = 2.0 \cdot 0.4 = 0.8m/s$

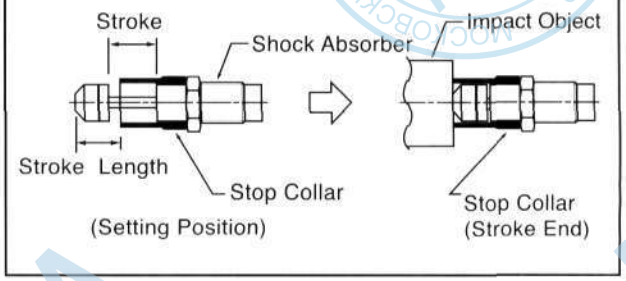
$$M_e = \frac{2E_T}{v^2} = \frac{2 \cdot 8.05}{0.8^2} = 25.15kg$$

Choose from sizing diagram: AD1416-2 is adequate

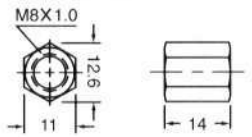
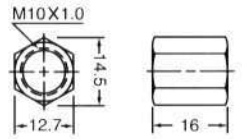
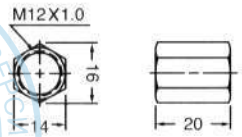
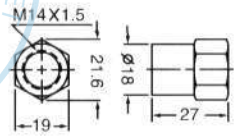
Stop Collars-SC Series

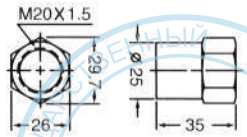
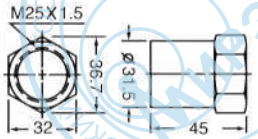
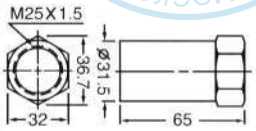
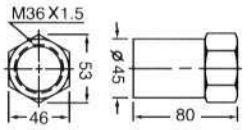
CJAC Shock Absorber's stop collars are available from M8 ×1.0 to M36 × 1.5 and suitable for shock absorbers with or without cap. They also can be used for adjusting stroke and fixing position.

How to set stop collar

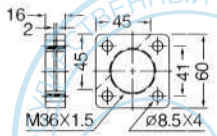
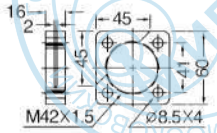
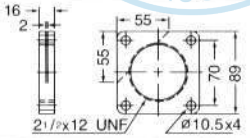


Optional Accessories:

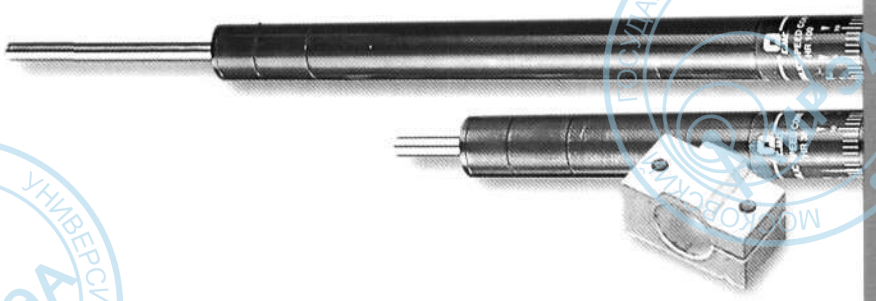
Model	Dimensions	Applicable For Shock Absorber Model
SC 08		*AC-0806
SC 10		*AC-1005 *AC-1007 *AC-1008
SC 12		*AC-1210
SC 14		*AC-1412 *AD-1410 *AC-1415 *AD-1415 *AC-1416 *AC-1420

Model	Dimensions	Applicable For Shock Absorber Model
SC 20		*AC-2015 *AD-2016 *AC-2020 *AD-2025 *AC-2030 *AC-2050 *ACD-2030
SC 25		*AC-2525 *AD-2525 *AC-2550 *AD-2530 *AC-2580 *AD-2550 *AD-2580
SC 40		*AC-2540 *AD-2540
SC 50		*AC-3660 *AD-3625 *AD-3650

Flanges-F Series

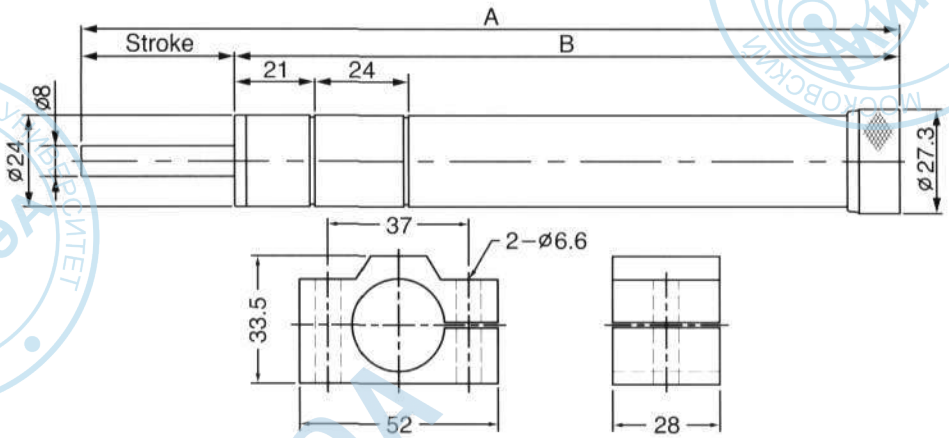
Model	Dimensions	Applicable For Shock Absorber Model
F 36		*AC-3660 *AD-3650
F 42		*AD-4225 *AD-4250 *AD-4275
F64		*AD-64050 *AD-64100 *AD-64150

HYDRAULIC SPEED CONTROLLERS

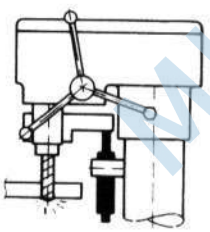


- CJAC Hydraulic Speed Controllers are ideal for all kind of cutting tools on machines which need continuous, stable feeding speed.
- Completely sealed construction with anti-dust function to prevent oil leakage, perfect for using in special environment.
- Feeding speeds freely are variable, with reverse travel using powerless springs.
- *Small size easy to install, suitable for robot drilling equipment, conveyor lines, pneumatic tools, woodworking* equipment, grinding and cutting machines.

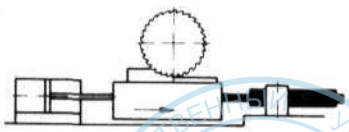
MODEL	A	B	MAX. STROKE	OPERATING TEMPERATURE	MAX. LOAD	WEIGHT
HR 15	151	136	15 mm	0-60 °C	15-350 kgf	470 g
HR 30	202	172	30 mm	0-60 °C	15-350 kgf	495 g
HR 60	254	194	60 mm	0-60 °C	15-350 kgf	615 g
HR 80	336	256	80 mm	0-60 °C	15-350 kgf	690 g
HR 100	390	290	100 mm	0-60 C	15-350 kgf	765 g



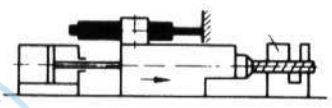
Application Examples:



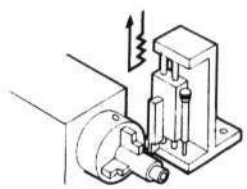
Drilling



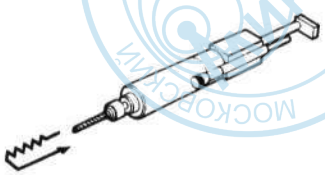
Disk Sawing



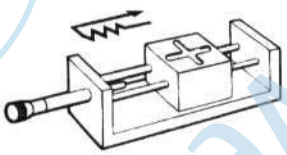
Horizontal Drilling



Turning

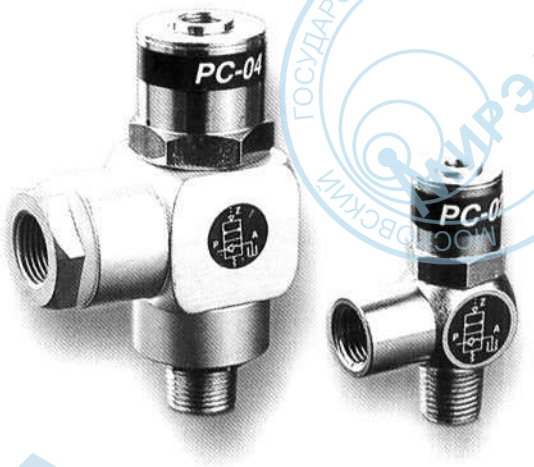


Pneumatic Powered Drilling



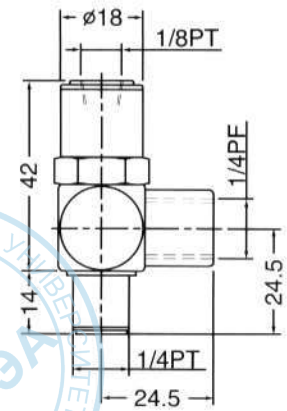
Linear Motion Slide

PILOT CHECK VALVES

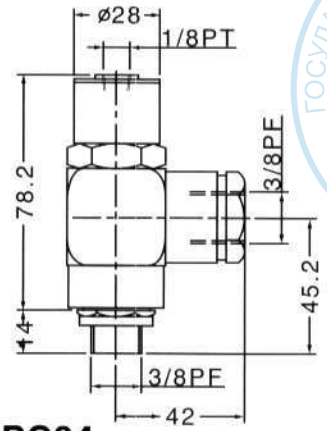


- Maintaining pressure.
- Preventing leakage.
- Accuracy position holding.
- Special load design applications.

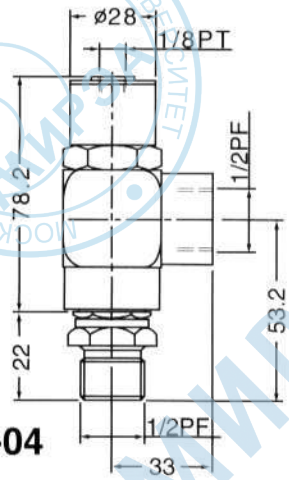
MODEL	PREASURE (Kg/cm²)	TEMPERATURE	ORIFICE (mm²)	OPERATION TIME (times/min)	WEIGHT (g)
PC-02	0.5-9.5	-10~+70°C	24	60	100
PC-04	0.5-9.5	-10~+70°C	79	40	340



PC02

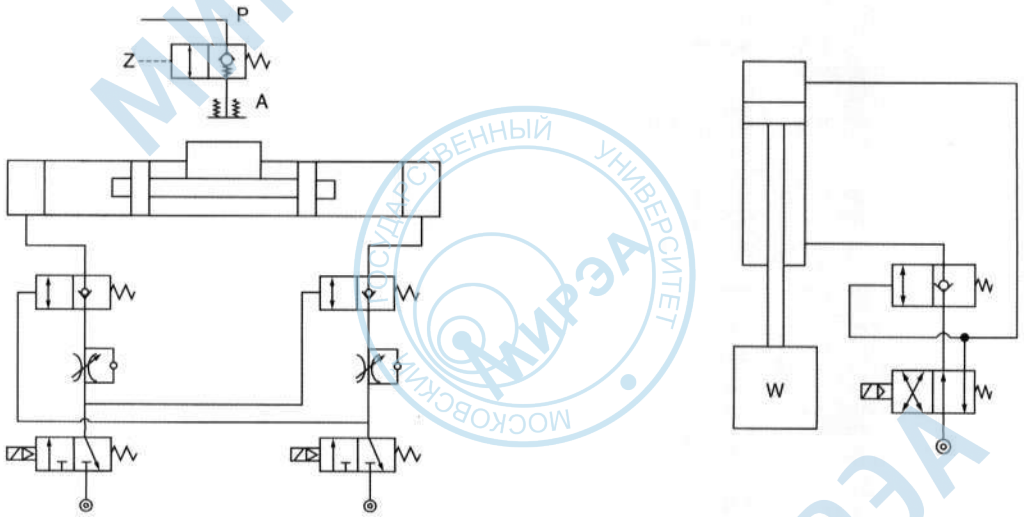


PC04



PC-04

Application Example:

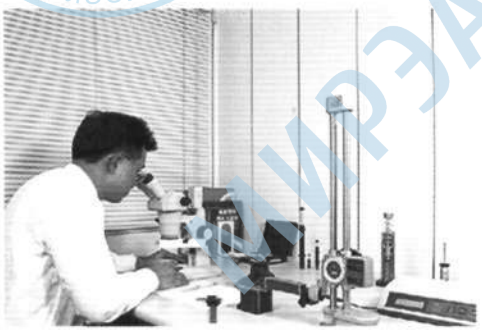


CJAC SHOCK ABSORBERS

R & D Team

Precision Working

Inspection



Product Assembly

Quality Testing System

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Product Guideline CJ 2006.03.5000

ГУ РосНИИИТ и АП Ассоциация МВТК

Федеральный информационный фонд отечественных и иностранных каталогов на промышленную продукцию

Каталог был представлен на выставке

«Компрессорная техника и пневматика, Насосы, Арматура - 2006»

Каталог включен в базу данных «Федерального информационного фонда отечественных и иностранных каталогов на промышленную продукцию»

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Электронная копия издания изготовлена с целью её включения в базы данных Федерального информационного фонда отечественных и иностранных каталогов на промышленную продукцию, которые формируются в соответствии с Постановлением Правительства РФ от 24 июля 1997 г. № 950 и Постановлением Правительства РФ от 31 декабря 1999 г. № 2172-р и зарегистрированы Комитетом по политике информатизации при Президенте РФ под №№ 39-50.

2006 год