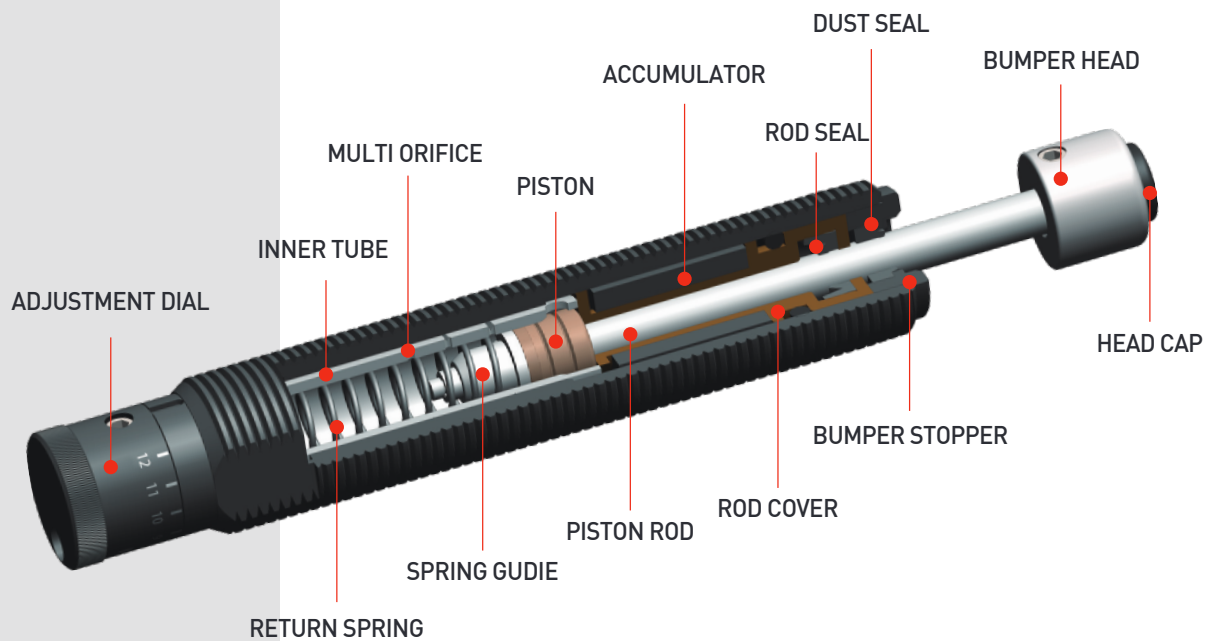


KMA Series



KOBA
Best Energy Absorption

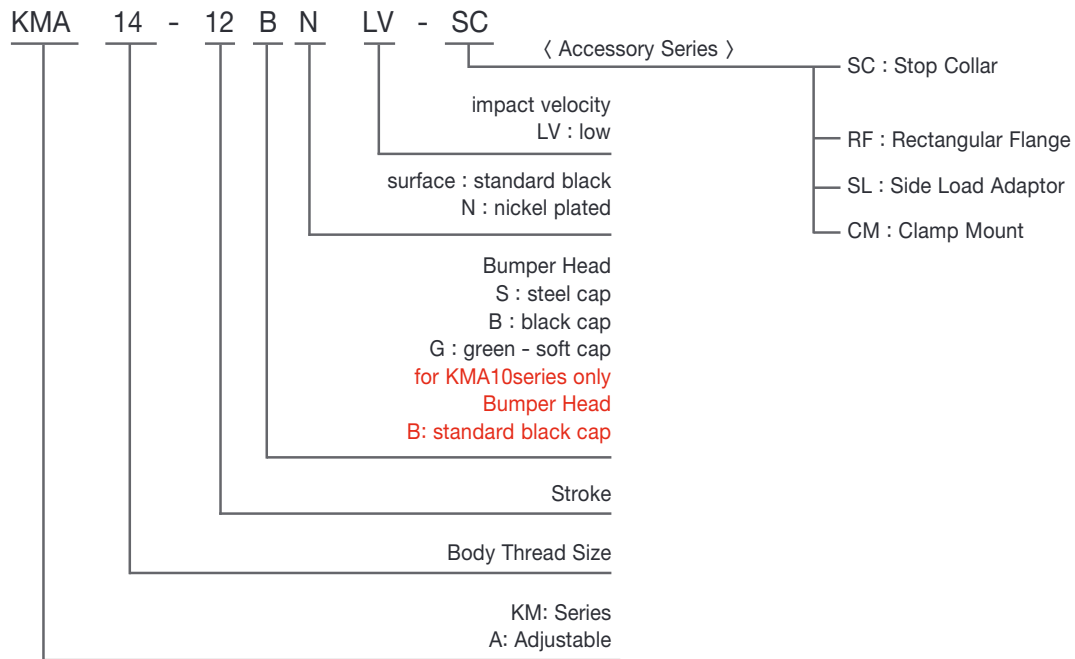
KMA - the adjustable industrial shock absorber for a broad range of application



Properties

- KMA is the adjustable series to control damping force according impact velocity by 12 steps.
- KMA series offer highest energy capacity and a wide range of effective Weight.
- Body has been developed as compact unit to avoid the Bottom Out problem.
- Fully threaded Body for highest mounting flexibility and improved thermal energy dissipation to the atmosphere.
- The hardened stainless steel piston Rod as well special treatment of the piston offers high life cycle rate.
- Several options of bumper head material - steel, black standard PU, green soft PU
- Impact velocity : 0,3~5,0m/s or for - LV(low velocity) models : 0,08~1,3m/s
- Standard temperature range -10~80 °c
- Option -40~120 °c (special seal, special oil)

KMA Series Ordering Information



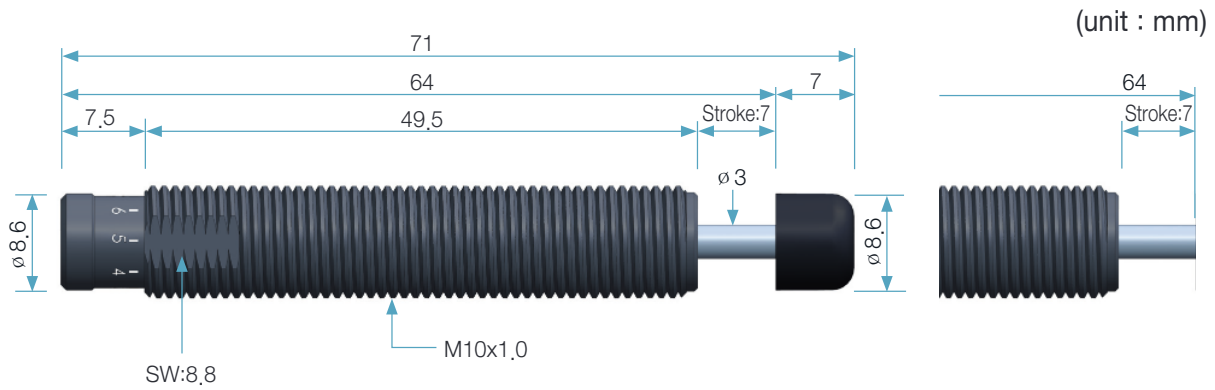
Accessory Series Charts

Accessories	Side Load Adapter	Stop Collar	Rectangular Flange	Clamp Mount
Model \ Symbols	SL	SC	RF	CM
KMA 10-07	●	●		●
KMA 12-14	●	●		●
KMA 14-12	●	●		●
KMA 16-12	●	●		●
KMA 20-16	●	●		●
KMA 25-25	●	●		●
KMA 27-25	●	●		●
-40		●		●
KMA 30-35	●	●		●
KMA33-25	●	●	●	●
-50		●	●	●
KMA 36-25	●	●	●	●
-50		●	●	●

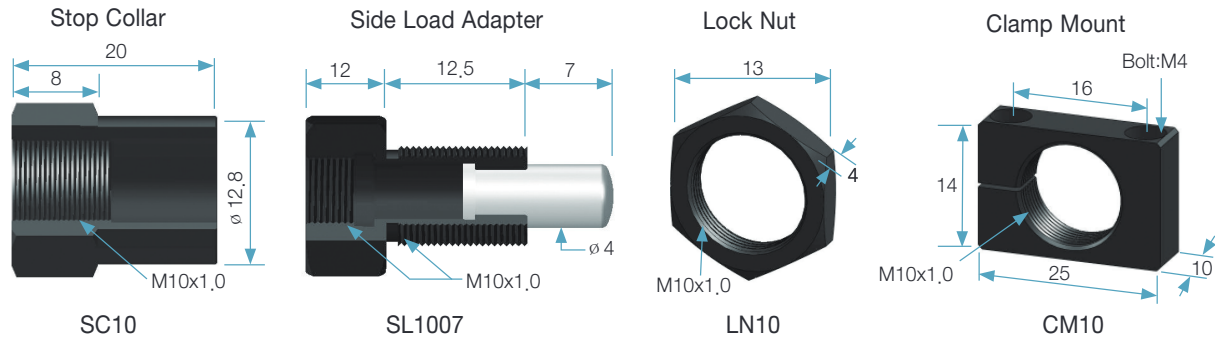
KMA 10 - 07(B)

Engineering Data

Model	Stroke (mm) S	Max_Energy / Cycle (Nm) E _T	Max_Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA10-07(B)	7	5.5	15,000	1-123	2.4	5.4	21



Accessory (unit : mm)



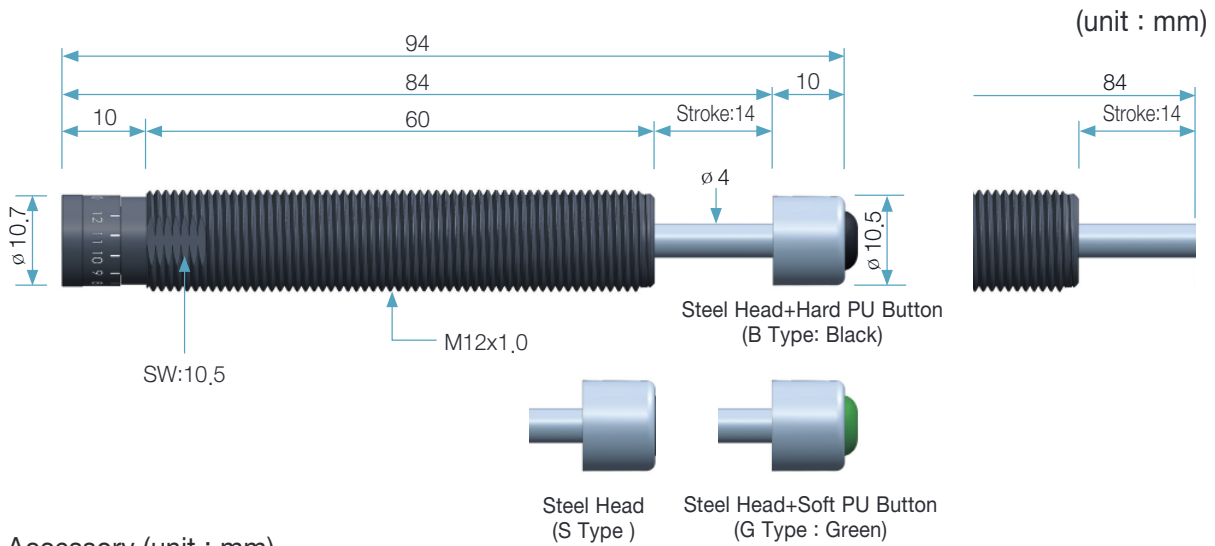
Adjustment Diagram



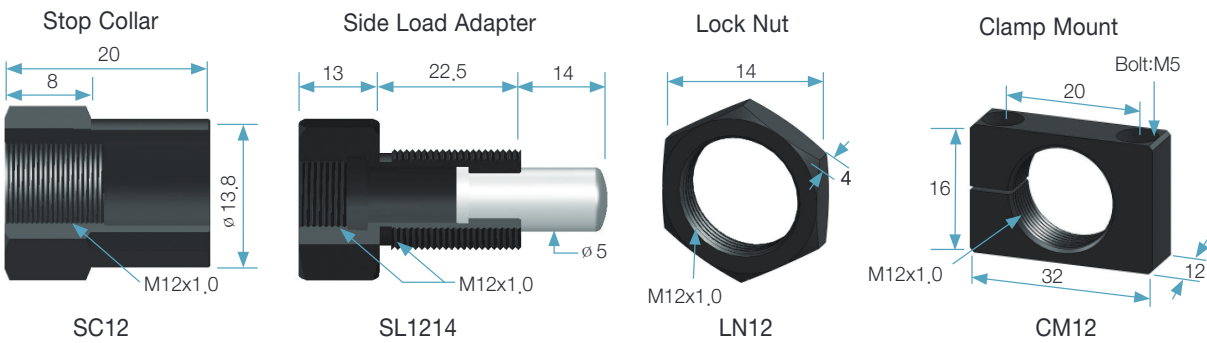
KMA 12 - 14(B)

Engineering Data

Model	Stroke (mm) S	Max_Energy / Cycle (Nm) E _T	Max_Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA12-14(B)	14	21,5	35,000	4-477	3,7	9,6	33



Accessory (unit : mm)



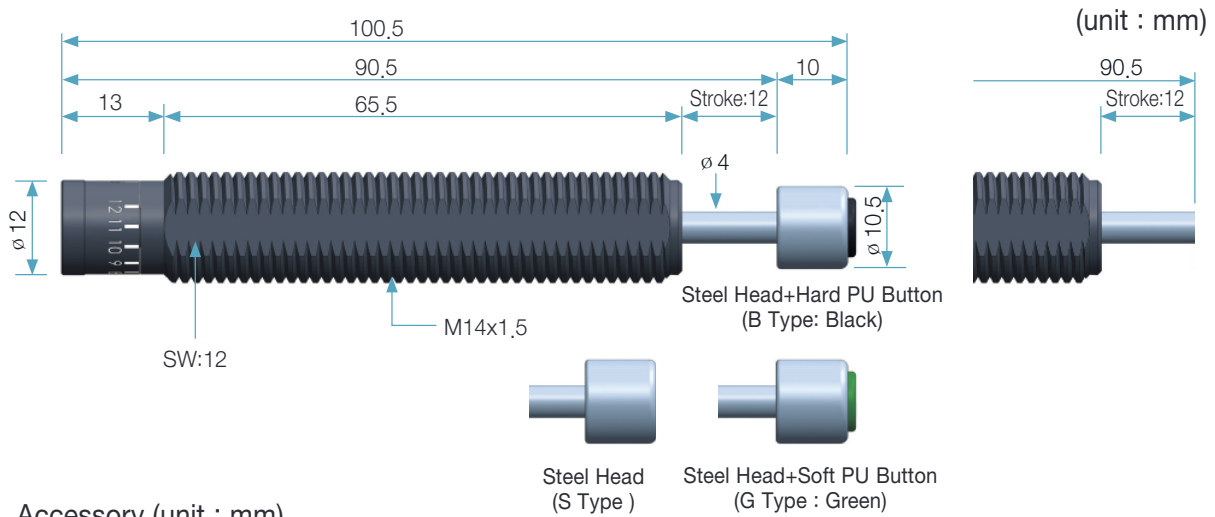
Adjustment Diagram



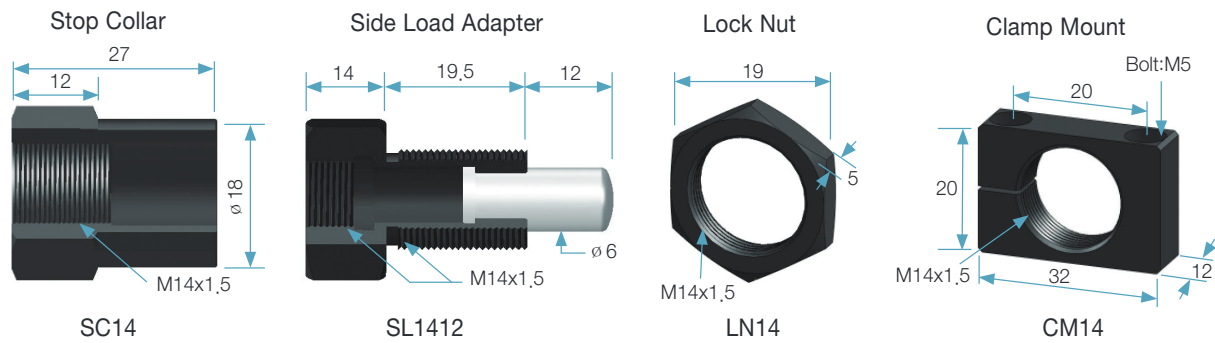
KMA 14 - 12(B)

Engineering Data

Model	Stroke (mm) S	Max_Energy / Cycle (Nm) E _T	Max_Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA14-12(B)	12	21,5	45,000	1,5-494	3,6	9,8	55
-12(B)LV				25,4-1,650			



Accessory (unit : mm)



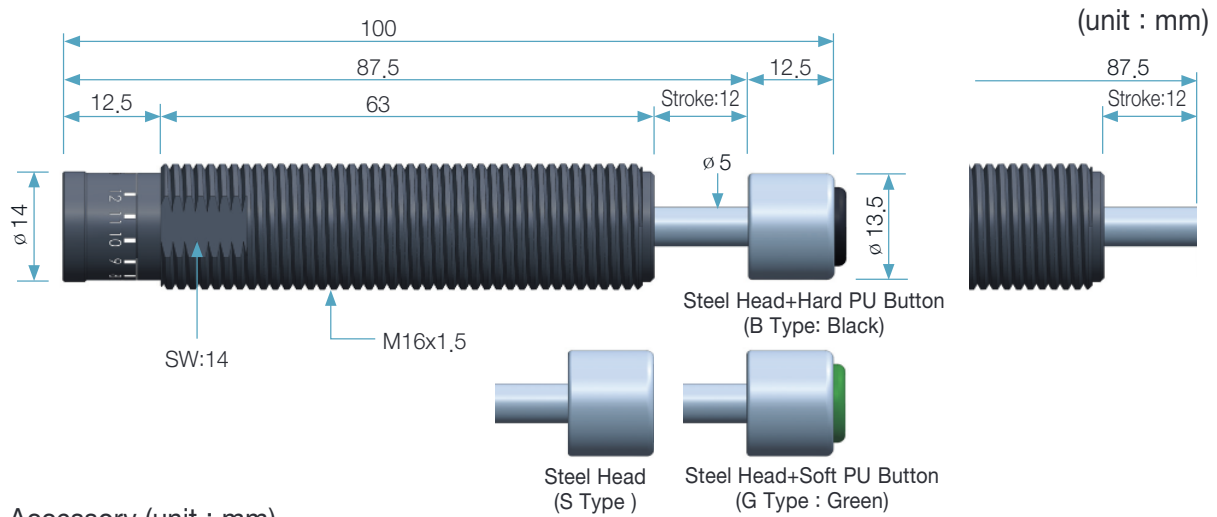
Adjustment Diagram



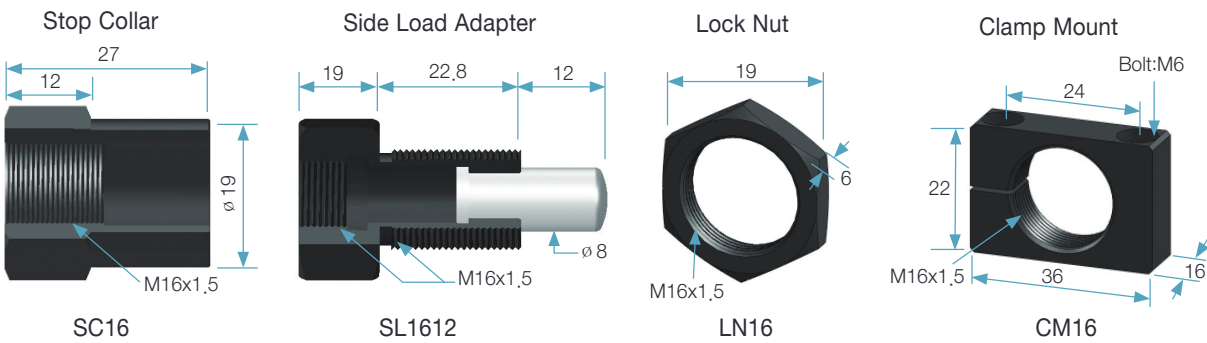
KMA 16 - 12(B)

Engineering Data

Model	Stroke (mm) S	Max_Energy / Cycle (Nm) E _T	Max_Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA16-12(B)	12	27	51,000	2-527	4.9	11.4	80
-12(B)LV				31.9-3,375			



Accessory (unit : mm)



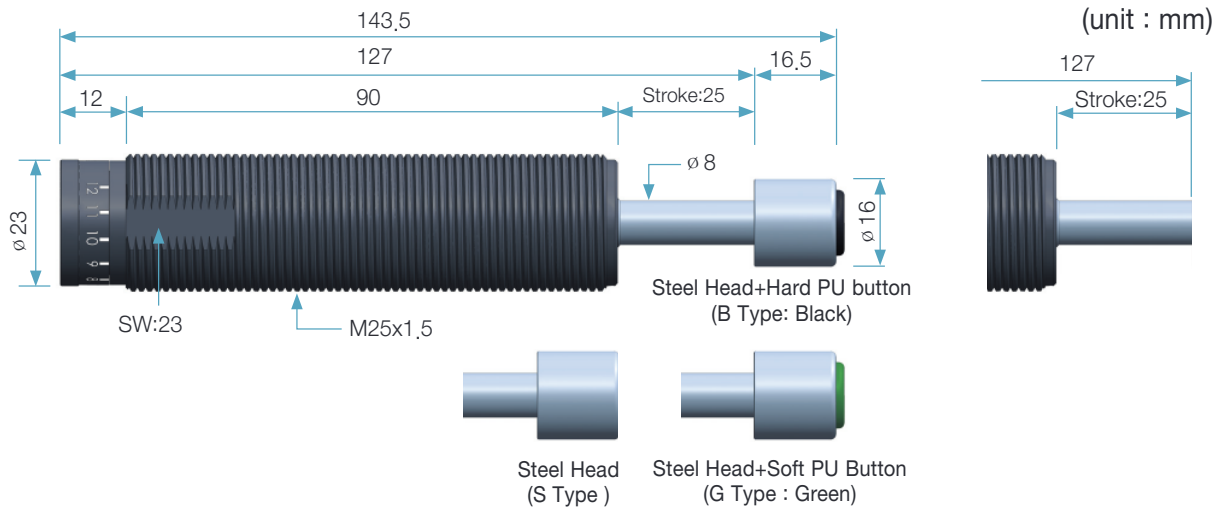
Adjustment Diagram



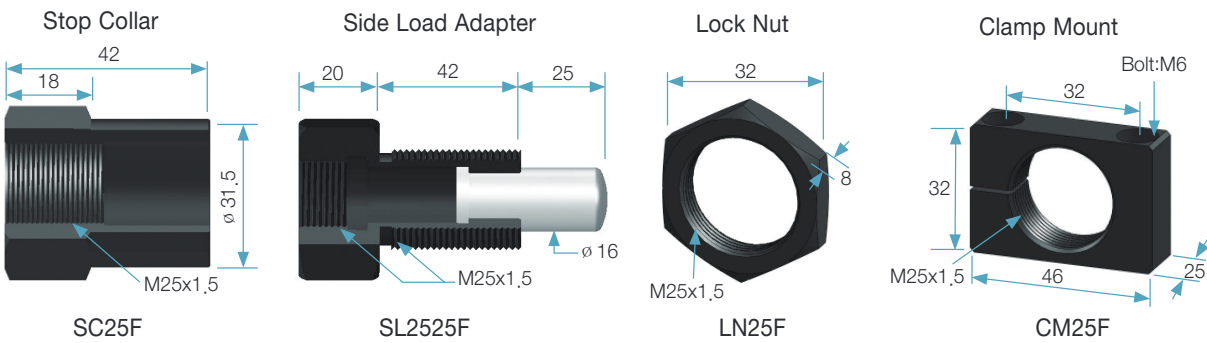
KMA 25 - 25(B)

Engineering Data

Model	Stroke (mm) S	Max_Energy / Cycle (Nm) E _T	Max_Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA25-25(B)	25	177	113,000	8,3-2,150	10,2	29,5	285
-25(B)LV				209,4-15,750			



Accessory (unit : mm)



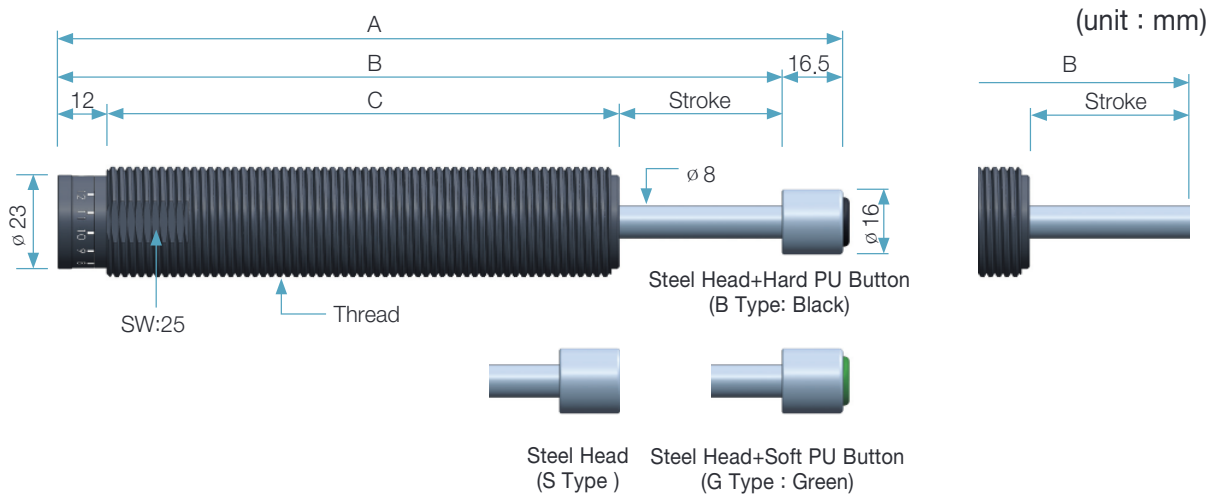
Adjustment Diagram



KMA 27 Series

Engineering Data

Model	Stroke (mm) S	Max. Energy / Cycle (Nm) E _T	Max. Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA27-25(B)	25	177	113,000	8,3-2,150	10,2	29,5	305
-25F(B)							
-25(F)(B)LV							
-40(B)	40	283	149,000	20-5,120	10	31	429
-40(B)LV							



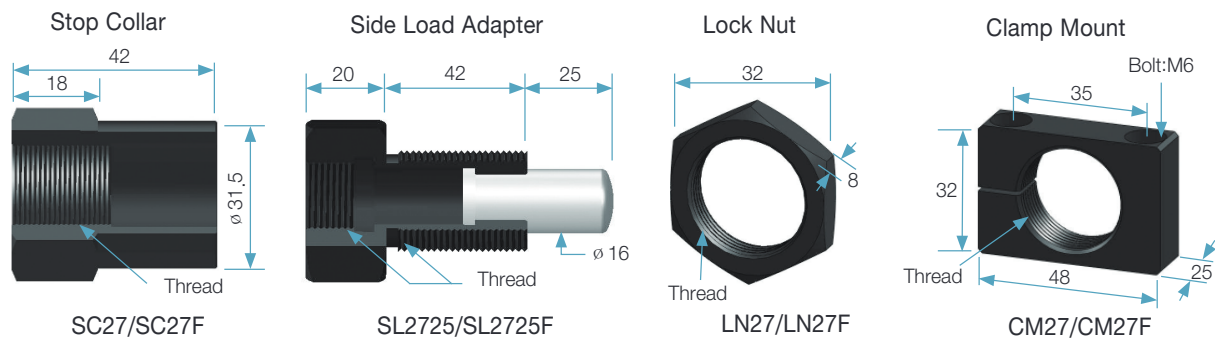
Dimensions (unit : mm)

Model	St	THREAD	A	B	C
KMA27-25(B)	25	M27x3,0	143,5	127	90
-25(B)LV					
-25F(B)					
-25F(B)LV	40	M27x1,5	194,5	178	126
-40(B)					
-40(B)LV					

Adjustment Diagram



Accessory (unit : mm)

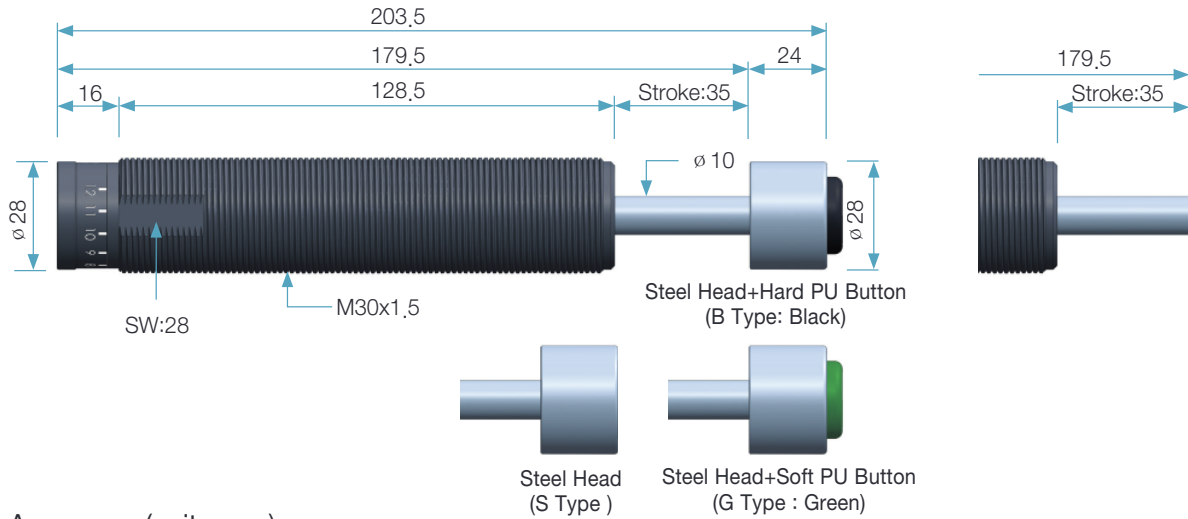


KMA 30 - 35(B)

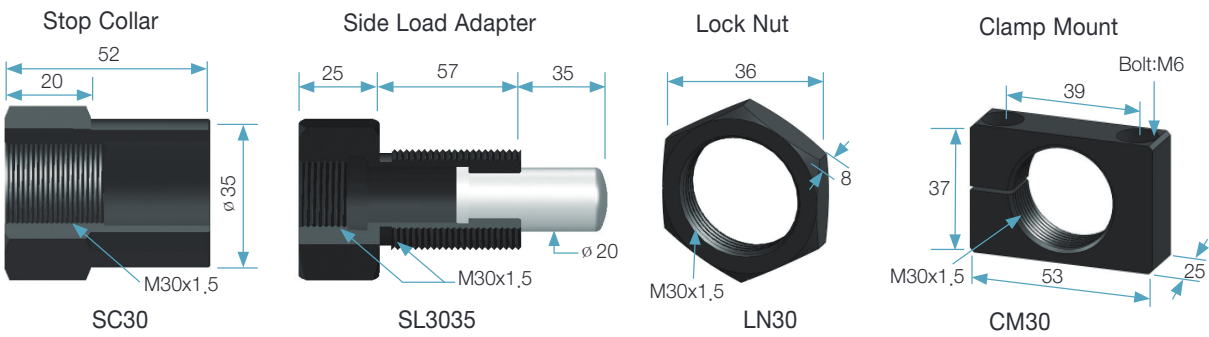
Engineering Data

Model	Stroke (mm) S	Max_Energy / Cycle (Nm) E _T	Max_Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA30-35(B)	35	356	137,000	25-6,950	17,8	50,3	610

(unit : mm)



Accessory (unit : mm)



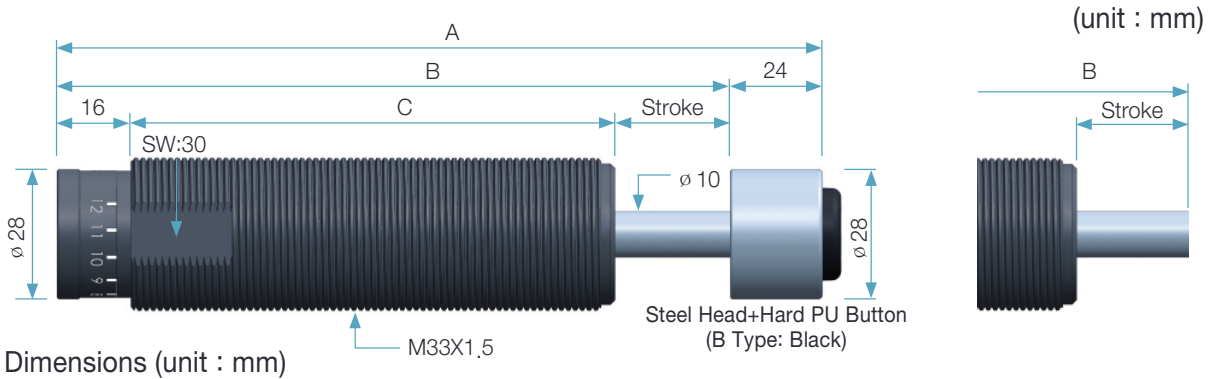
Adjustment Diagram



KMA 33 Series

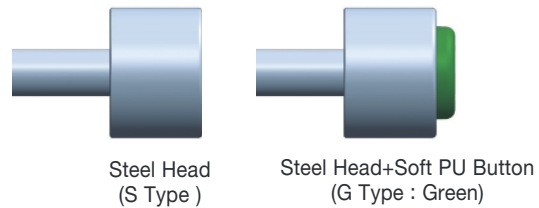
Engineering Data

Model	Stroke (mm) S	Max. Energy / Cycle (Nm) E _T	Max. Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA33-25(B) -25(B)LV	25	314	120,000	25-6,980 97-60,930	17,5	48,8	454
-50(B) -50(B)LV	50	628	150,000	50-14,000 192-120,312	13,6	65,3	580

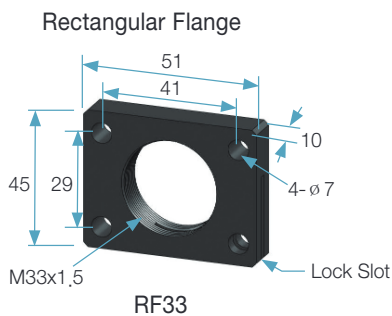
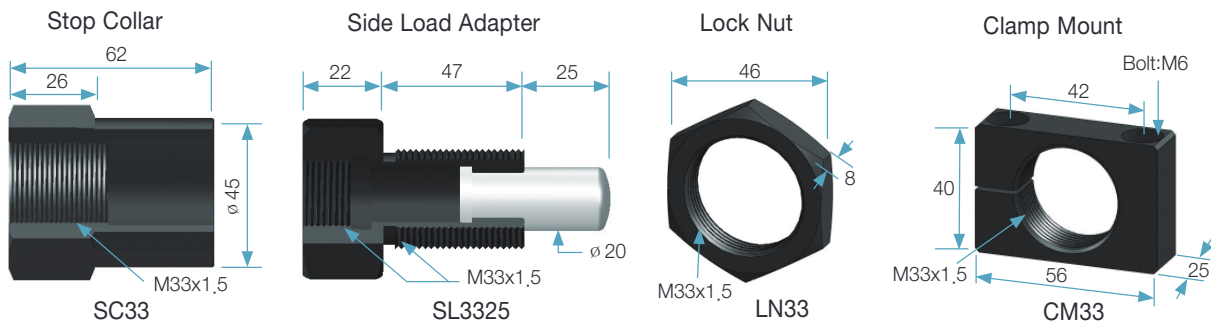


Dimensions (unit : mm)

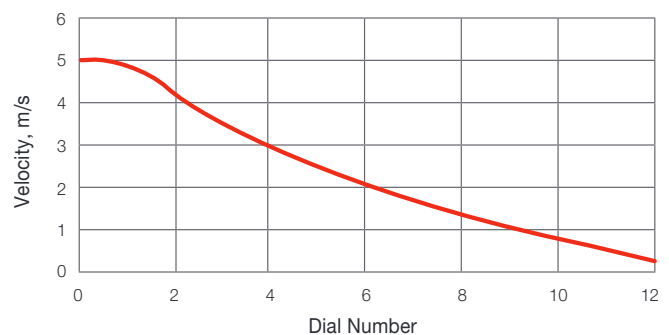
Model	St	A	B	C
KMA33-25(B) -25LV(B)	25	170	146	105
-50(B) -50LV(B)	50	229	205	139



Accessory (unit : mm)



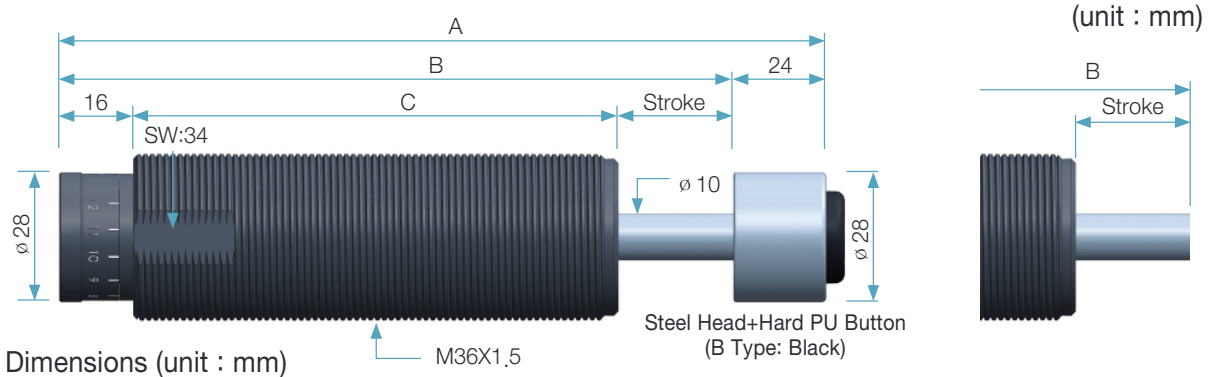
Adjustment Diagram



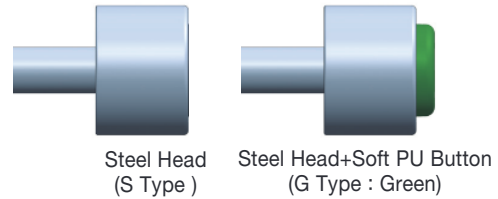
KMA 36 Series

Engineering Data

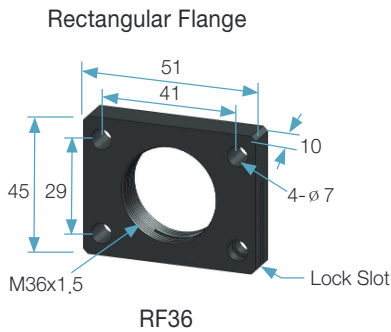
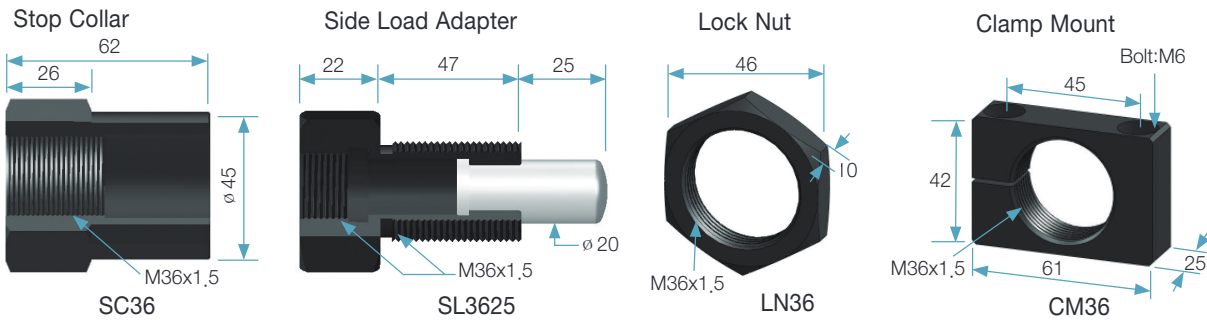
Model	Stroke (mm) S	Max_Energy / Cycle (Nm) E _T	Max_Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)
					Ext	Comp	
KMA36-25(B)	25	346	125,000	25-6,980	25	56.2	725
-25(B)LV				97-60,930			
-50(B)	50	692	160,000	50-14,000	22.5	60	885
-50(B)LV				192-120,312			



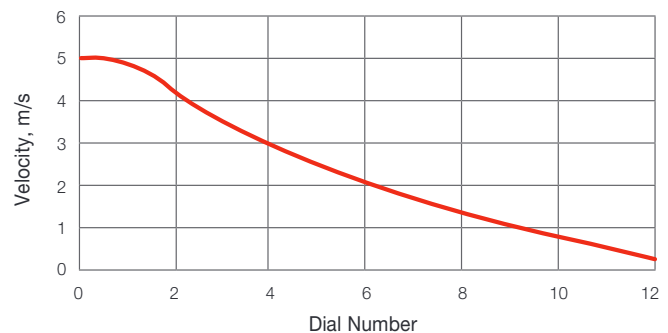
Model	St	A	B	C
KMA36-25(B)	25	170	146	105
-25LV(B)				
-50(B)	50	229	205	139
-50LV(B)				



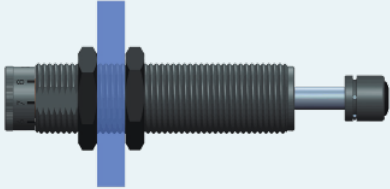
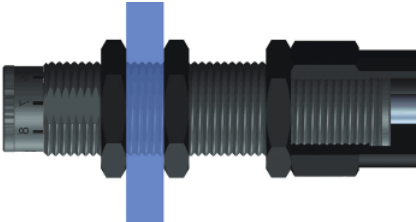
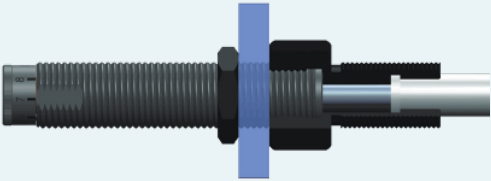
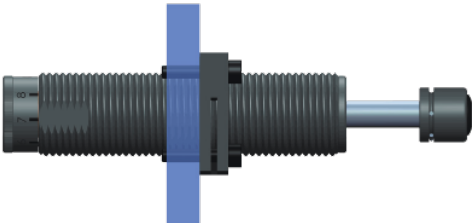
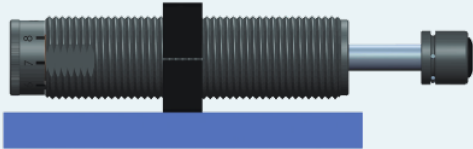
Accessory (unit : mm)



Adjustment Diagram



KMA/KMS Accessories Installation

NAME	Installation	Remark
Lock Nut		<p>Installation is simply done by fastening Lock Nut, This is basic installation.</p>
Stop Collar + Lock Nut		<p>Stop Collar guarantees accurate stopping and positioning and protects "Bottoming out" of Piston.</p>
Side Load Adapter + Lock Nut		<p>When the shock absorber has to be installed in rotation application with short distance, Side load adapter prevent "one-side wearing".</p>
Flange Mount		<p>Use Square Flange or Rectangular Flange in order to fix shock Absorber conveniently.</p>
Clamp Mount		<p>Clamp mount is used in horizontal installation usually and specially if the shock absorber is long.</p>

At a glance

Adjustable type Shock Absorbers - KMA Series

Model	Stroke (mm) S	Max. Energy / Cycle (Nm) E _T	Max. Energy / Hour (Nm/h) E _T C	Effective Weight (kg) We	Recoil Force (N)		Weight (g)	Thread
					Ext	Comp		
KMA10-07	7	5.5	15,000	1-123	2.4	5.4	21	M10x1.0
KMA12-14	14	21.5	35,000	4-477	3.7	9.6	33	M12x1.0
KMA14-12	12	21.5	45,000	1.5-494	3.6	9.8	55	M14x1.5
-12LV				25.4-1,650				
KMA16-12	12	27	51,000	2-527	4.9	11.4	80	M16x1.5
-12LV				31.9-3,375				
KMA20-16	16	61	63,000	4.5-1,230	8	19.6	145	M20x1.5
-16LV				72.1-5,600				
KMA25-25	25	177	113,000	8.3-2,150	10.2	29.5	285	M25x1.5
-25LV				209.4-15,750				
KMA27-25(F)	25	177	113,000	8.3-2,150	10.2	29.5	305	M27x1.5(F) M27x3.0
-25(F)LV				209.4-15,750				
KMA27-40	40	283	149,000	20-5,120	10	31	429	M27x2.0
-40LV				334.9-25,200				
KMA30-35	35	356	137,000	25-6,950	17.8	50.3	610	M30x1.5
KMA33-25	25	314	120,000	25-6,980	17.5	48.8	454	M33x1.5
-25LV				97-60,930				
KMA33-50	50	628	150,000	50-14,000	13.6	65.3	580	M33x1.5
-50LV				192-120,312				
KMA36-25	25	346	125,000	25-6,980	25	56.2	725	M36x1.5
-25LV				97-60,930				
KMA36-50	50	692	160,000	50-14,000	22.5	60	885	M36x1.5
-50LV				192-120,312				