

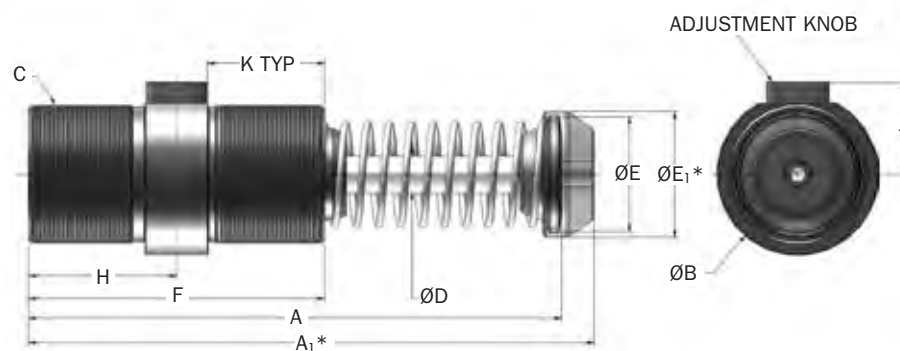
Adjustable Series Hydraulic Shock Absorbers

OEM Large-Bore Series

OEM 3.0M → OEM 4.0M Series

Technical Data

Standard



*Note: A1 and E1 apply to urethane striker cap accessory.

Catalog No./Model	(S) Stroke mm	Optimal Velocity Range m/s	E _T Max. Nm/c	E _T C Max. Nm/hr	F _p Max. Reaction Force N	Nominal Coil Spring Force		F _D Max. Propelling Force N	Mass Kg
						Extended N	Compressed N		
OEM 3.0M x 2	50	0,3-4,3	2 300	372 000	67 000	110	200	12 000	7,0
OEM 3.0M x 3.5	90	0,3-4,3	4 000	652 000	67 000	110	200	12 000	9,1
OEM 3.0M x 5	125	0,3-4,3	5 700	933 000	67 000	71	200	12 000	10,9
OEM 3.0M x 6.5	165	0,3-4,3	7 300	1 215 000	67 000	120	330	12 000	13,6
OEM 4.0M x 2	50	0,3-4,3	3 800	1 503 000	111 000	225	290	21 000	15,0
OEM 4.0M x 4	100	0,3-4,3	7 700	1 808 000	111 000	155	290	21 000	18,2
OEM 4.0M x 6	150	0,3-4,3	11 500	2 102 000	111 000	135	310	21 000	20,0
Δ OEM 4.0M x 8	200	0,3-4,3	15 400	2 407 000	111 000	180	355	21 000	30,0
Δ OEM 4.0M x 10	250	0,3-4,3	19 200	2 712 000	111 000	135	355	21 000	33,0

Note: Δ = Non-standard lead time items, contact ITT Enidine.

Catalog No./Model	A mm	A ₁ mm	B mm	C	D mm	E mm	E ₁ mm	F mm	H mm	J mm	K mm
OEM 3.0M x 2	245	265	98	M85 x 2.0	22	69	76	140	70	58	51
OEM 3.0M x 3.5	323	343	98	M85 x 2.0	22	69	76	179	90	58	71
OEM 3.0M x 5	399	419	98	M85 x 2.0	22	69	76	217	109	58	71
OEM 3.0M x 6.5	494	514	98	M85 x 2.0	22	81	81	256	128	58	71
OEM 4.0M x 2	313	335	127	M115 x 2.0	35	88	95	203	102	74	80
OEM 4.0M x 4	414	436	127	M115 x 2.0	35	88	95	254	127	74	105
OEM 4.0M x 6	516	538	127	M115 x 2.0	35	88	95	305	153	74	108
Δ OEM 4.0M x 8	643	665	127	M115 x 2.0	35	88	95	356	178	74	108
Δ OEM 4.0M x 10	745	767	127	M115 x 2.0	35	88	95	406	203	74	108

Notes: 1. All shock absorbers will function satisfactorily at 5% of their maximum rated energy per cycle. If less than 5%, a smaller model should be specified.

2. For mounting accessories, see pages 32.

3. Rear flange mounting of OEM 3.0M x 6.5, OEM 4.0M x 8 and OEM 4.0M x 10 models not recommended when mounting horizontally.

4. Δ = Non-standard lead time items, contact ITT Enidine.


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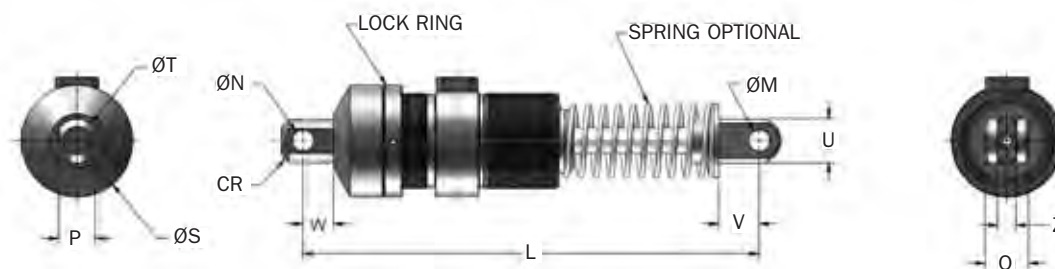
Adjustable Series Hydraulic Shock Absorbers

OEM Large-Bore Series

OEM 3.0M → OEM 4.0M Series

Accessories

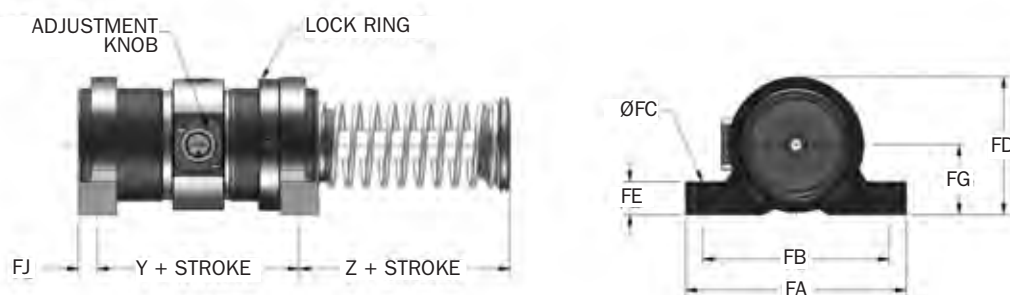
Clevis Mount



Catalog No./Model	(S) Stroke mm	L mm	M mm	N mm	P mm	Q mm	S mm	T mm	U mm	V mm	W mm	Z mm	CR mm	Mass Kg
Δ OEM 3.0M x 2 CM (S)	50	325,0	19,07 +0,25/0	19,07 +0,25/0	31,7 0/-0,3	38,0	98,0	38,1	38,1	36,0	26,0	16,0 +0,5/0	23,0	8,66
Δ OEM 3.0M x 3.5 CM (S)	90	402,0	19,07 +0,25/0	19,07 +0,25/0	31,7 0/-0,3	38,0	98,0	38,1	38,1	36,0	26,0	16,0 +0,5/0	23,0	10,70
Δ OEM 3.0M x 5 CM (S)	125	479,0	19,07 +0,25/0	19,07 +0,25/0	31,7 0/-0,3	38,0	98,0	38,1	38,1	36,0	26,0	16,0 +0,5/0	23,0	12,52
Δ OEM 3.0M x 6.5 CM (S)	165	574,0	19,07 +0,25/0	19,07 +0,25/0	31,7 0/-0,3	38,0	98,0	38,1	38,1	36,0	26,0	16,0 +0,5/0	23,0	15,24
Δ OEM 4.0M x 2 CM (S)	50	432,0	25,42 +0,25/0	25,42 +0,25/0	38,1 0/-0,3	90,5	127,0	57,2	51,0	51,0	44,0	38,2 +0,5/0	35,0	19,23
Δ OEM 4.0M x 4 CM (S)	100	533,0	25,42 +0,25/0	25,42 +0,25/0	38,1 0/-0,3	90,5	127,0	57,2	51,0	51,0	44,0	38,2 +0,5/0	35,0	22,41
Δ OEM 4.0M x 6 CM (S)	150	635,0	25,42 +0,25/0	25,42 +0,25/0	38,1 0/-0,3	90,5	127,0	57,2	51,0	51,0	44,0	38,2 +0,5/0	35,0	24,22
Δ OEM 4.0M x 8 CM (S)	200	762,0	25,42 +0,25/0	25,42 +0,25/0	38,1 0/-0,3	90,5	127,0	57,2	51,0	51,0	44,0	38,2 +0,5/0	35,0	34,20
Δ OEM 4.0M x 10 CM (S)	250	864,0	25,42 +0,25/0	25,42 +0,25/0	38,1 0/-0,3	90,5	127,0	57,2	51,0	51,0	44,0	38,2 +0,5/0	35,0	37,37

Notes: 1. "S" indicates model is supplied with spring.
2. Δ = Non-standard lead time items, contact ITT Enidine.

Flange Foot Mount



Catalog No./Model	Part Number	Model Ref	J mm	Y mm	Z mm	FA mm	FB mm	FC mm	FD mm	FE mm	FG mm	FJ mm	FK mm	Bolt Size mm	Mass kg	Notes
FM M85 x 2	2F3330	OEM 3.0M	58	81,0	59,0	165,0	139,7	13,5	103,0	25,4	52,3	14,1	28,7	M12	1 984	1
FM M115 x 2	2F3720	OEM 4.0M	74	190,5	37,0	203,2	165,0	16,8	149,4	38,0	79,5	16,0	50,8	M16	3 900	2

Notes: 1. OEM 3.0M x 6,5, Z dimension is 77,7mm.
2. OEM 4.0M x 8 and 4.0M x 10M, Z dimension is 62,0mm.
3. For rear foot mount, dimension FJ is 22,4mm.

Stop Collar (SC)

(LR)OEMXT $\frac{3}{4}$ → (LR)OEMXT 2.0M

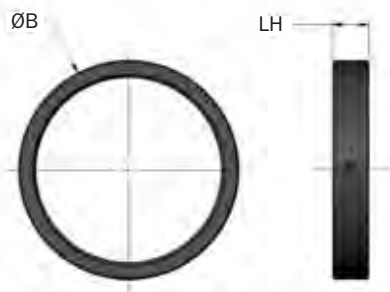


Catalog No./Model	Part Number	Model Ref	CA mm	CB mm	CD mm	Mass g
Δ SC M2 $\frac{1}{2}$ - 12*	8KE2940	(LR)OEMXT $\frac{3}{4}$	49,0	49,0	56,5	340
Δ SC M2 $\frac{1}{2}$ - 12 x 2	8KE3010	(LR)OEMXT 1 $\frac{1}{8}$ x 2 & 4	63,0	65,0	76,0	652
Δ SC M2 $\frac{1}{2}$ - 12 x 6	8KE3012	(LR)OEMXT 1 $\frac{1}{8}$ x 6	93,0	65,0	76,0	936
Δ SC M42 x 1.5 x 1	8K2940	(LR)OEMXT 1.5M x 1	62,0	49,0	56,0	397
Δ SC M42 x 1.5 x 2	8K2941	(LR)OEMXT 1.5M x 2	75,0	49,0	56,0	539
Δ SC M42 x 1.5 x 3	8K2942	OEMXT 1.5M x 3	87,0	49,0	56,0	652
Δ SC M64 x 2 x 2	M93010057	(LR)OEMXT 2.0M x 2	89,0	65,0	76,0	936
Δ SC M64 x 2 x 4	M93011057	OEMXT 2.0M x 4	114,0	65,0	76,0	1 191
Δ SC M64 x 2 x 6	M93012057	OEMXT 2.0M x 6	143,0	65,0	76,0	1 475

Notes: 1. * Do not use with urethane striker cap.

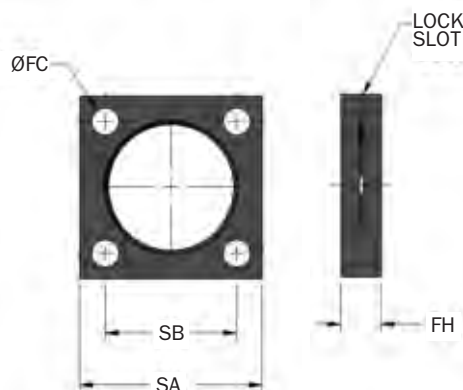
2. Δ = Non-standard lead time items, contact ITT Enidine.

Lock Ring (LR)



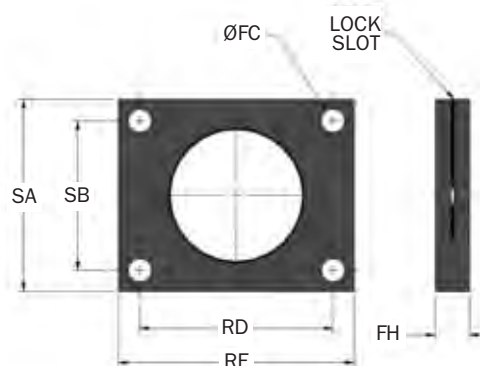
Catalog No./Model	Part Number	Model Ref	B mm	LH mm	Mass g
LR 1 $\frac{3}{4}$ - 12	F8E2940049	(LR)OEMXT $\frac{3}{4}$	50,8	9,6	85
LR 2 $\frac{1}{2}$ - 12	F8E3010049	(LR)OEMXT 1 $\frac{1}{8}$	73,0	12,7	114
LR M42 x 1.5	F82940049	(LR)OEMXT 1.5M	50,8	9,6	85
LR M64 x 2	F83010049	(LR)OEMXT 2.0M	73,0	12,7	114
LR M85 x 2	F83330049	(LR)OEM 3.0M	98,2	16,0	226
LR M115 x 2	F83720049	(LR)OEM 4.0M	126,7	22,4	397

Square Flange (SF)



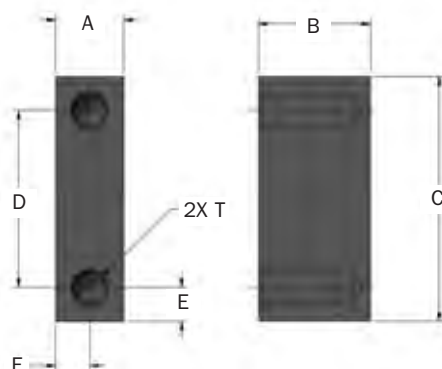
Catalog No./Model	Part Number	Model Ref	FC mm	FH mm	SA mm	SB mm	Bolt Size mm	Mass g
SF 1 $\frac{3}{4}$ - 12	M4E2940129	(LR)OEMXT $\frac{3}{4}$	8,6	12,7	57,2	41,4	M8	140
SF 2 $\frac{1}{2}$ - 12	M4E3010129	(LR)OEMXT 1 $\frac{1}{8}$	10,4	15,7	90,0	89,0	M10	570
SF M42 x 1.5	M42940129	(LR)OEMXT 1.5M	8,6	12,7	57,2	41,4	M8	140
SF M64 x 2	M43010141	(LR)OEMXT 2.0M	10,4	15,7	89	69,9	M10	570
SF M85 x 2	M43330141	OEM 3.0M	13,5	19,0	101,6	76,2	M13	680
SF M115 x 2	M43720141	OEM 4.0M	16,5	25,4	139,7	111,3	M16	1 590

Rectangular Flange (RF)



Catalog No./Model	Part Number	Model Ref	FC mm	FH mm	RD mm	RE mm	SA mm	SB mm	Bolt Size mm	Mass g
RF 1 3/4 -12	M5E2940129	(LR)OEMXT 3/4	8,6	12,7	60,5	76,2	57,2	41,4	M8	260
RF M42 x 1.5	M52940129	(LR)OEMXT 1.5M	8,6	12,7	60,5	76,2	57,2	41,4	M8	260
RF M85 x 2	M53330129	OEM 3.0M	13,5	19,1	101,6	127,0	101,6	76,2	M13	1 040

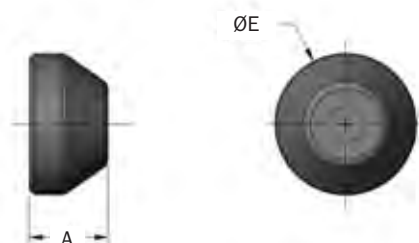
Stop Bar Kit



Kit Part Number	Model Ref	A mm	B mm	C mm	D mm	E mm	F mm	T	Bolt Size mm	Mass g
Δ T52940300	OEMXT 3/4	16,0	26,2	57,2	41,4	7,98,1	5/16 - 24	UNF x 18 mm DEEP	5/16	173
Δ T53010300	OEMXT 1 1/8	12,7	36,1	88,9	69,9	9,78,1	3/8 - 24	UNF x 18 mm DEEP	3/8	298

Notes: 1. Kit includes 2 Stop Bars, Rectangular Flange for OEMXT 3/4 and 1.5M, Square Flange for 1 1/8 and 2.0M and Lock Ring.
2. Δ = Non-standard lead time items, contact ITT Enidine.

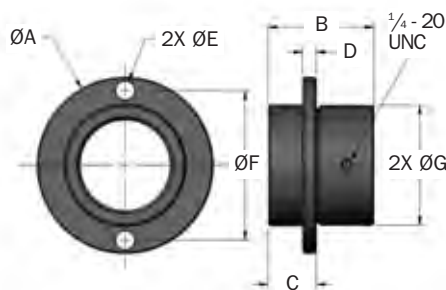
Urethane Striker Cap (UC)



Catalog No./Model	Part Number	Model Ref	A mm	E ₁ mm	Mass g
UC 2940	C92940079	(LR)OEMXT 3/4	24,5	44,5	14
UC 3010	C93010079	(LR)OEMXT 1 1/8	24,1	57,0	23
UC 2940	C92940079	(LR)OEMXT 1.5M	24,5	44,5	14
UC 3010	C93010079	(LR)OEMXT 2.0M	24,1	57,0	23
UC 3330	C93330079	OEM 3.0M	31,4	76,0	85
UC 3720	C93720079	OEM 4.0M	37,5	95,0	170

Note: For complete shock absorber dimension with urethane striker cap, refer to engineering data, pages 27-31.

Stop Collar With Flange (SCF)



Catalog No./Model	Part Number	Model Ref	A mm	B mm	C ±.002 mm	D mm	E mm	F mm	G mm	Bolt Size mm	Mass g
Δ SCF 1 3/4 -12	M98640300	OEMXT 3/4	83	49,3	22,4	6,4	8,6	70	56	8	638
Δ SCF 2 1/2 -12	M98650300	OEMXT 1 1/8	108	63	25,4	9,7	8,6	89	75	8	1 238

Notes: 1. Locking set screw feature provided as standard.
2. Δ = Non-standard lead time items, contact ITT Enidine.

Adjustable Series Hydraulic Shock Absorbers

ECO OEM/OEMXT/OEM Large Bore Series

Adjustment Techniques

After properly sizing the shock absorber, the useable range of adjustment settings for the application can be determined:

1. Locate the intersection point of the application's impact velocity and the selected model graph line.
2. The intersection is the **maximum** adjustment setting to be used. Adjustments **exceeding this maximum suggested setting could overload the shock absorber.**
3. The useable adjustment setting range is from the 0 setting to the **maximum** adjustment setting as determined in step 2.

Example: OEM 1.25M x 1

1. Impact Velocity: 1,0 m/s
2. Intersection Point: Adjustment Setting 5
3. Useable Adjustment: Setting Range 0 to 5

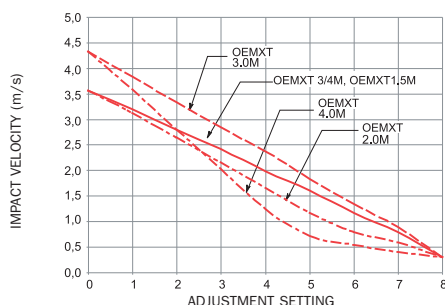
Example: (LR)OEMXT 2.0M x 2

1. Impact Velocity: .5 m/s
2. Intersection Point: Adjustment Setting 3
3. Useable Adjustment: Setting Range 0 to 3

Useable Adjustment Setting Range

Position 0 provides minimum damping force.
Position 8 provides maximum damping force.

OEMXT Large

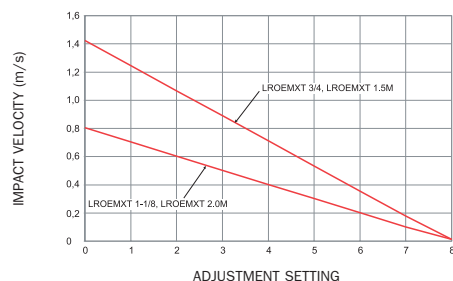


180° adjustment with setscrew locking. OEMXT 3.0M - OEM 4.0M



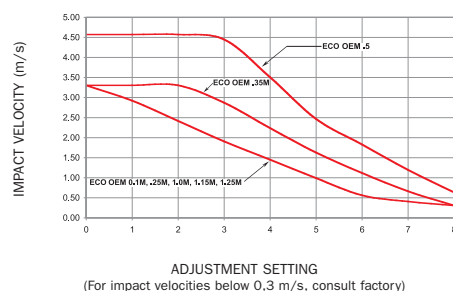
360° adjustment with setscrew locking. OEMXT 1.5M and OEMXT 2.0M

(LR)OEMXT Large



360° adjustment with setscrew locking (LR)OEMXT 1.5M and (LR)OEMXT 2.0M

ECO OEM Small Series

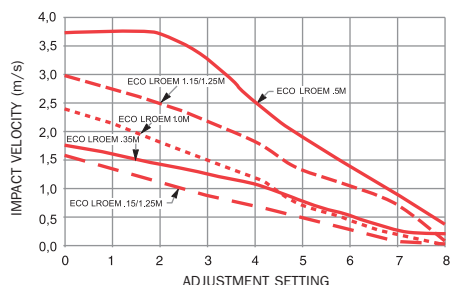


180° adjustment with setscrew locking ECO OEM 0.1M - ECO OEM 0.5M



360° adjustment with setscrew locking ECO OEM 1.0M

ECO (LR)OEM Small Series



180° adjustment with setscrew locking ECO (LR)OEM 0.15M - ECO (LR)OEM 0.5M



360° adjustment with setscrew locking ECO (LR)OEM 1.0M