



Spax Dampers

Spax patented on car adjustable shock absorbers and have been supplying upgraded suspension to Manufacturers, Race Teams, Restorers and Enthusiasts since the 1960's.

Our global network of OEM's, dealers and specialist mechanics supply on-car adjustable dampers to upgrade original equipment and help accurately tune suspension, allowing our customers to drive with increased confidence on the roads, and win on the track.

CSX Customer Specified Coilover Range

Our CSX Damper range provides the opportunity for customers to create bespoke specification coil-over dampers from a selection of standardised, steel, damper bodies and end fixings. Specifically designed for Race, Custom & Modified cars our CSX range has over 5000 potential part numbers combining end fixings, body & stroke lengths, bumpstops and springseat diameters.

CSX dampers have CNC machined bodies with integral external thread for the use of adjustable spring platforms. They have 28 clicks of adjustable damping stiffness via a body mounted adjuster knob. The adjustment alters both the rebound and bump forces in unison, at approx 3:1 ratio. Damping characteristics have been specially designed to be ideal for fast road and competition use.

An adjustable spring platform allows easy ride height and corner weight setting. This can be achieved without removing the damper from the vehicle and a choice of 1.9" or 2.5" ID spring platforms is available.

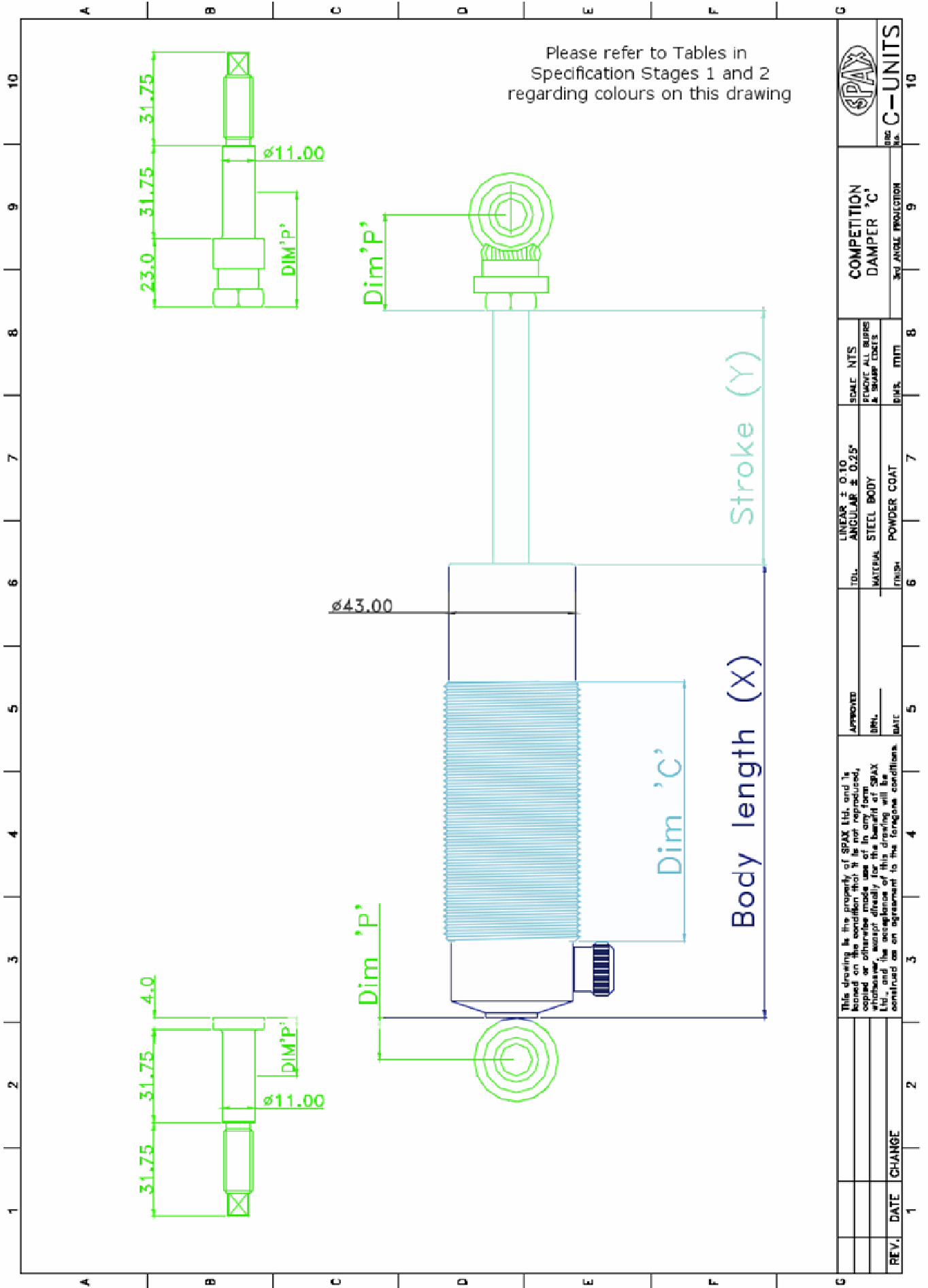
Each damper is individually hand built, matched and tested on our in-house factory Dynamometer Test Machine, assuring quality, consistency and performance.

Each damper is epoxy powder coated assuring a superb finish and long life.

The CSX range has been designed so it can be serviced, re-valved and repaired if required.



Spax CSX Coilover Damper Configuration Drawing



COMPETITION DAMPER °C

SCALE: NTS
REDUCE ALL DIMS & SHARP EDGES

LINEAR ± 0.10
ANGULAR ± 0.25°

TOL. MATERIAL FINISH

APPROVED: DIM. DATE

This drawing is the property of SPAX Ltd. and is not to be copied or otherwise made use of in any form without the express written consent of SPAX Ltd. and the acceptance of this drawing will be construed as an agreement to the foregoing conditions.

REV. DATE CHANGE

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

Designing a bespoke Damper to create your Spax Part number *(Please refer to drawing on page 2)*

There are 5 simple stages to designing your own damper. Please follow these stages in order, if you are looking to replace your existing shock absorber then you may find it useful to have it, off the car to take measurements, when specifying this up-rated, adjustable, replacement.

These coilover dampers cost £159.99 each, unless you select any Optional Extras in Stage 4 which are charged at £10.00 per modification. CSX dampers will usually be manufactured in one week following receipt of your order.

Stage 1:

Choose the top and bottom fixings required to fit the dampers to the car. The selections will form the second part of your CSX Part Number but this is the first decision to be made in specifying the part.

Stage 1 Part Number	Description	Length	Bore	Dim 'P'	
				Top	Bottom
A	Bonded Bush 10	25.4 mm (1")	9.6mm (3/8")	32.0 mm	14.5 mm
B	Bonded Bush 14	31.8mm (1 1/4")	11.2 mm (7/16")	32.0 mm	14.5 mm
C	Bonded Bush 18	31.8mm (1 1/4")	12.8mm (1/2")	32.0 mm	14.5 mm
D	Spherical Bearing	12 mm	12.8mm (1/2")	36.0 mm	17.5 mm
E	Stem (standard)	see Configuration Drawing on Page 2		39.0 mm	20.0 mm
F	Silentblock Bush	28.0mm	16mm (5/8")	39.0 mm	21.0 mm

Note: option D (Spherical Bearings) are fitted with a 15mm internal diameter bearing fitted with a removable 1/2" (12.7mm) sleeve

Stage 2:

Select the body and stroke lengths you require

Stage 2 Part Number	Damper Body Length Dim (X) (mm)	Damper Stroke Length Dim (Y) (mm)	Spring-Seat Thread Length Dim (C) (mm)	Standard Bump Rubber length (mm)	Max Spring Length (Inches)	Damper sizes, if fitted with DD Fixings mm (inch dims are approximate)	
						Closed Length (excludes Bump rubber) mm (inch)	Max Open Length mm (inch)
C70/900	131	46	65	27	4.5	185 (7.25)	231 (9.00)
C75/975	143	54	77	27	5.0	197 (7.75)	251 (10.00)
C75/100	143	64	77	27	5.5	197 (7.75)	261 (10.25)
C80/105	156	64	90	27	6.0	210 (8.25)	274 (10.75)
C80/110	156	74	90	45	6.5	210 (8.25)	284 (11.25)
C90/115	181	64	95	27	7.0	235 (9.25)	299 (11.75)
C90/120	181	74	95	45	7.5	235 (9.25)	309 (12.25)
C90/125	181	89	95	45	8.0	235 (9.25)	324 (12.75)
C90/130	181	99	95	45	8.5	235 (9.25)	334 (13.25)
C100/135	207	89	120	45	9.0	261 (10.25)	350 (13.75)
C100/140	207	99	120	60	9.5	261 (10.25)	360 (14.25)
C100/145	207	114	120	60	10.0	261 (10.25)	375 (14.75)
C100/150	207	124	120	60	10.5	261 (10.25)	385 (15.25)
C120/160	258	99	150	60	11.0	312 (12.25)	415 (16.25)
C120/170	258	124	150	60	12.5	312 (12.25)	436 (17.25)
C120/180	258	149	150	60	13.5	312 (12.25)	461 (18.25)
C120/190	258	174	150	60	15.5	312 (12.25)	486 (19.25)

Stage 3:
Select the spring seat fixings you require

Part Number	Spring Seat ID
0	No spring seats required
1	Fittings for 1.9" ID spring
2	Fittings for 2.25" ID spring

Stage 4
Select any Optional Extras. These are charged for at £10 each.

Stage 4 Part Number	Optional Extras	Standard Specification
A	<i>Upside down fitment</i>	Mount up to 45 degrees inclination
B	<i>Yellow powder coated</i>	Black powder coating
C	<i>TrakSPAX Spring Aid</i>	Rubber Bumpstop (length per table 2)
D	<i>Spring Adapter: increase diameter from 2.25" to 2.5"</i>	As per Stage 3
E	<i>Rebound to bump ratios = 1,2,4,5:1</i>	Rebound to bump ratio 3:1 <small>The majority of customers use the 3:1 setting since this is ideal for most track and fast road applications.</small>

Stage 5

Now build up the part number based on the selections made in designing your CSX Coilover Damper

Body / Stroke Lengths	Top fixing	Bottom fixing	Spring ID Size	Extras
Stage 2 Choice	Stage 1 Choice	Stage 1 Choice	Stage 3 Choice	Stage 4 Choice

Example; if given a CSX Part Number **C90/120ED1B** we would build a Damper according to the specification below;

Stage 2 Part Number	Stage 1 TOP Part Number	Stage 1 BOTTOM Part Number	Stage 3 Part Number	Stage 4 Part Number
C90 / 120	E	D	1	B
<i>Damper with Body Length = 181mm and Stroke Length = 74mm</i>	<i>Damper with Stem type Top Fixing "P" Dim to measure open / closed lengths = 39mm (per drawing on page 2)</i>	<i>Damper with Spherical Bearing type Bottom Fixing "P" Dim to measure open / closed lengths = 17.5mm (per Stage 1 Table)</i>	<i>Damper fitted with top and bottom springseats and caps for 1.9" ID Springs (per Stage 3 table)</i>	<i>Damper powder coated in Yellow, not black (per Stage 4 table)</i>

The standard for specifying dampers is to quote open and closed lengths and measure from the centre of the top fixing to the centre of the bottom fixing as fitted to car, hence our quoting "Dim P" lengths.

The above example would give a damper with a closed length (metal to metal no bumpstop fitted) of "X (Body Length) + P (Top fixing) + P (Bottom Fixing) = 181 + 39 + 17.5 = 238mm"

And an Open length (fully extended) of "Closed length + Stroke (Y) = 238 + 74 = 310mm"