

# Spatter Resistant Cylinder for Arc Welding

## Air Cylinder: Single Rod

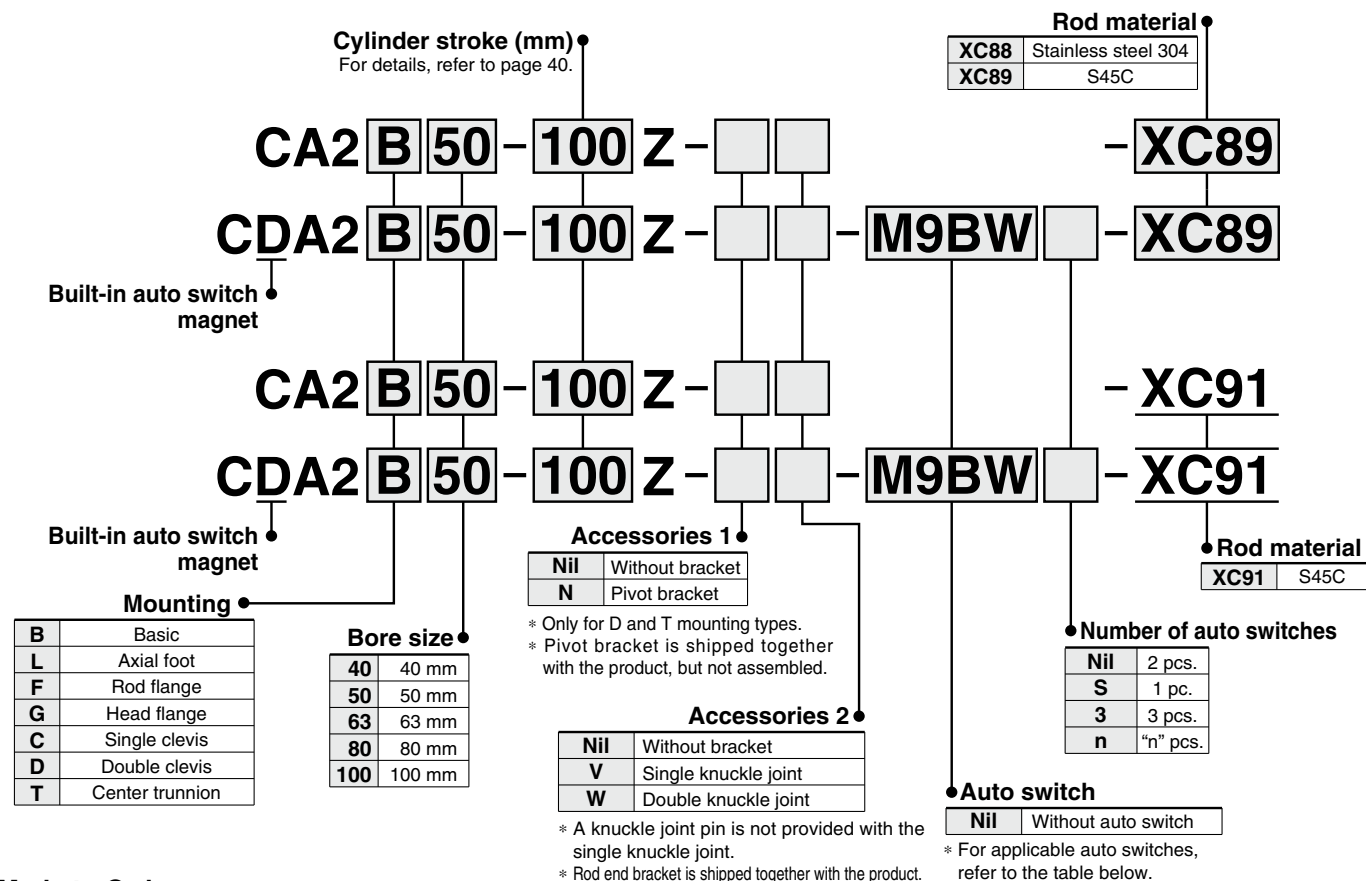
# CA2-XC88/XC89

# -XC91

ø40, ø50, ø63, ø80, ø100

RoHS

### How to Order



### Made to Order

| Part no. | Piston rod material<br>(Hard chrome plated) |                     | Coil<br>scraper | Lube-<br>retainer | Grease for<br>welding |
|----------|---------------------------------------------|---------------------|-----------------|-------------------|-----------------------|
|          | S45C                                        | Stainless steel 304 |                 |                   |                       |
| -XC88    | —                                           | ●                   | ●               | ●                 | ●                     |
| -XC89    | ●                                           | —                   | ●               | ●                 | ●                     |
| -XC91    | ●                                           | —                   | ●               | —                 | ●                     |

Note) Use the -XC91 in a place where the distance from the welding portion is far and the spatter scattering is minimized.

### Built-in Auto Switch Magnet Cylinder Model

If a built-in auto switch magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.  
(Example) CDA2L40-100Z-XC89

### Applicable Auto Switches/Refer to the WEB catalog or the Best Pneumatics No.2 for further information on auto switches.

| Type                    | Special function   | Electrical entry | Indicator light | Wiring (Output)         | Load voltage |           | Auto switch model | Lead wire length (m) |       |       |       | Pre-wired connector | Applicable load |            |   |
|-------------------------|--------------------|------------------|-----------------|-------------------------|--------------|-----------|-------------------|----------------------|-------|-------|-------|---------------------|-----------------|------------|---|
|                         |                    |                  |                 |                         | DC           | AC        | Tie-rod mounting  | 0.5 (Nil)            | 1 (M) | 3 (L) | 5 (Z) |                     |                 |            |   |
| Solid state auto switch | —                  | Grommet          | Yes             | 3-wire (NPN)            | 24 V         | 5 V, 12 V | M9N               | ●                    | ●     | ●     | ○     | ○                   | IC circuit      | Relay, PLC |   |
|                         | 3-wire (PNP)       |                  |                 | 12 V                    |              | M9P       | ●                 | ●                    | ●     | ○     | ○     | —                   |                 |            |   |
|                         | 2-wire             |                  |                 | 5 V, 12 V               |              | M9B       | ●                 | ●                    | ●     | ○     | ○     |                     |                 |            |   |
|                         | 3-wire (NPN)       |                  |                 | 12 V                    |              | M9NW      | ●                 | ●                    | ●     | ○     | ○     | IC circuit          |                 |            |   |
|                         | 3-wire (PNP)       |                  |                 | —                       |              | M9PW      | ●                 | ●                    | ●     | ○     | ○     | —                   |                 |            |   |
|                         | 2-wire             |                  |                 | —                       |              | M9BW      | ●                 | ●                    | ●     | ○     | ○     |                     |                 |            |   |
|                         | 2-wire (Non-polar) |                  |                 | —                       |              | P3DWA     | ●                 | —                    | ●     | ●     | ●     |                     |                 |            |   |
|                         | —                  |                  |                 | —                       |              | P4DW      | —                 | —                    | ●     | ●     | ●     |                     |                 |            |   |
| Reed auto switch        | —                  | Grommet          | Yes             | 3-wire (NPN equivalent) | —            | 5 V       | —                 | A96                  | ●     | —     | ●     | —                   | —               | IC circuit | — |
|                         | No                 |                  |                 | 2-wire                  | 24 V         | 12 V      | 100 V             | A93                  | ●     | —     | ●     | ●                   | —               | —          | — |
|                         |                    |                  |                 |                         |              |           |                   | 100 V or less        | A90   | ●     | —     | ●                   | —               | —          | — |

\* Lead wire length symbols: 0.5 m..... Nil (Example)M9NW  
1 m..... M (Example)M9NWM  
3 m..... L (Example)M9NWL  
5 m..... Z (Example)M9NWZ

\* Please contact SMC for auto switches, auto switch proper mounting positions and operating ranges other than the above.

\* For details about auto switches with pre-wired connector, refer to the WEB catalog or Best Pneumatics No.2.

\* The D-A9□/M9□□□/P3DWA auto switches are shipped together, (but not assembled). (However, auto switch mounting brackets are assembled for the D-A9□/M9□□□ before shipment.)



## Specifications

| Bore size (mm)                       |                                   | 40                                                                                        | 50   | 63   | 80   | 100  |
|--------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------|------|------|------|------|
| Fluid                                |                                   | Air                                                                                       |      |      |      |      |
| Action                               |                                   | Double acting                                                                             |      |      |      |      |
| Proof pressure                       |                                   | 1.5 MPa                                                                                   |      |      |      |      |
| Maximum operating pressure           |                                   | 1.0 MPa                                                                                   |      |      |      |      |
| Ambient and fluid temperature        |                                   | Without auto switch: -10 to 70°C Note 1)<br>With auto switch: -10 to 60°C Note 1)         |      |      |      |      |
| Minimum operating pressure           |                                   | 0.05 MPa                                                                                  |      |      |      |      |
| Piston speed                         |                                   | 50 to 500 mm/s                                                                            |      |      |      |      |
| Cushion                              |                                   | Air cushion                                                                               |      |      |      |      |
| Stroke length tolerance              |                                   | Up to 250 <sup>st</sup> : +1.0 <sub>0</sub> 251 to 1000 <sup>st</sup> : +1.4 <sub>0</sub> |      |      |      |      |
| Lubrication                          |                                   | Not required (Non-lube)                                                                   |      |      |      |      |
| Mounting                             |                                   | Basic, Foot, Rod flange, Head flange<br>Single clevis, Double clevis, Center trunnion     |      |      |      |      |
| Allowable kinetic energy (J) Note 2) | When air cushion is activated     | 2.8                                                                                       | 4.6  | 7.8  | 16   | 29   |
|                                      | When air cushion is not activated | 0.33                                                                                      | 0.56 | 0.91 | 1.50 | 2.68 |

Note 1) With no freezing

Note 2) Activate the air cushion when operating the cylinder. If this is not done, the piston rod assembly or the tie-rods will be damaged when the allowable kinetic energy exceeds the values shown in the table above.

## Standard Strokes

| Bore size | Standard stroke Note 1)                                                     | Max. manufacturable stroke Note 2) |
|-----------|-----------------------------------------------------------------------------|------------------------------------|
| 40        | 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500           | 1000                               |
| 50, 63    | 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600      | 1000                               |
| 80, 100   | 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700 | 1000                               |

Note 1) Intermediate strokes not listed above are produced upon receipt of order.

Note 2) For details about applicable maximum stroke, refer to the model selection table (The WEB catalog or front matter 34 of the Best Pneumatics No.2).

### Minimum Stroke for Auto Switch Mounting

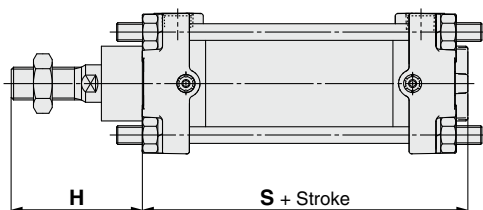
## ⚠ Caution

- The minimum stroke for mounting varies with the auto switch type and cylinder mounting type. In particular, the center trunnion type needs careful attention. (For details, refer to the WEB catalog or Best Pneumatics No.2.)

## Accessories

| Mounting |                                 | Basic | Axial foot | Rod flange | Head flange | Single clevis | Double clevis | Center trunnion |
|----------|---------------------------------|-------|------------|------------|-------------|---------------|---------------|-----------------|
| Standard | Rod end nut                     | ●     | ●          | ●          | ●           | ●             | ●             | ●               |
|          | Clevis pin                      | —     | —          | —          | —           | —             | ●             | —               |
| Option   | Single knuckle joint            | ●     | ●          | ●          | ●           | ●             | ●             | ●               |
|          | Double knuckle joint (With pin) | ●     | ●          | ●          | ●           | ●             | ●             | ●               |

## Comparison of the Dimensions of Each Series



| Bore size (mm) | XC88, 89 |     | XC91 |     | XC35 |     | Standard |     |
|----------------|----------|-----|------|-----|------|-----|----------|-----|
|                | H        | S   | H    | S   | H    | S   | H        | S   |
| 40             | 56       | 95  | 51   | 95  | 51   | 95  | 51       | 95  |
| 50             | 60       | 101 | 58   | 101 | 58   | 101 | 58       | 101 |
| 63             | 60       | 112 | 58   | 112 | 58   | 112 | 58       | 112 |
| 80             | 73       | 133 | 71   | 133 | 71   | 133 | 71       | 133 |
| 100            | 74       | 143 | 72   | 143 | 72   | 143 | 72       | 143 |

\* At 0 stroke

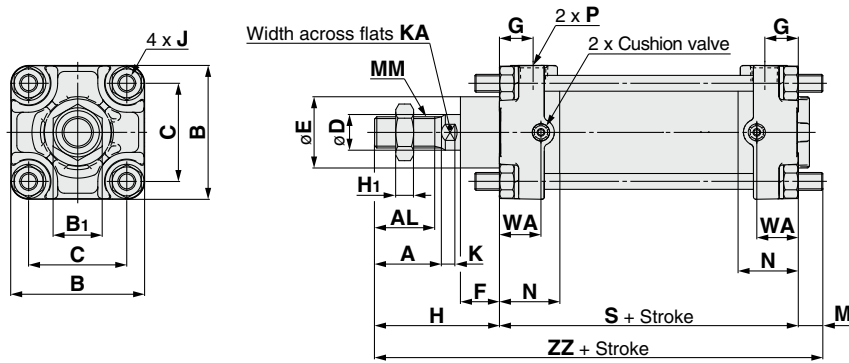
# CA2-<sup>XC88</sup> -<sup>XC89</sup>

Bore Size

## ø40 to ø100

CA2-<sup>XC88</sup>  
-<sup>XC89</sup>

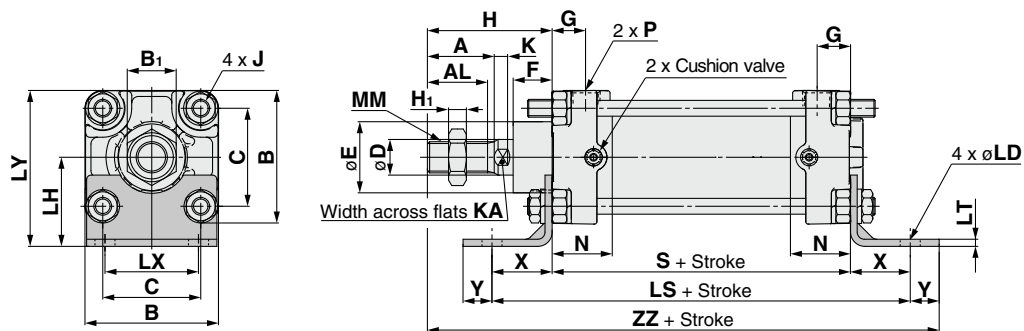
Basic: CA2B



| Bore size (mm) | A  | AL | B   | B <sub>1</sub> | C  | D  | E  | F    | G  | H <sub>1</sub> | J          | K  | KA | M  | MM        |
|----------------|----|----|-----|----------------|----|----|----|------|----|----------------|------------|----|----|----|-----------|
| 40             | 30 | 27 | 60  | 22             | 44 | 16 | 32 | 17.5 | 15 | 8              | M8 x 1.25  | 6  | 14 | 11 | M14 x 1.5 |
| 50             | 35 | 32 | 70  | 27             | 52 | 20 | 40 | 15   | 17 | 11             | M8 x 1.25  | 7  | 18 | 11 | M18 x 1.5 |
| 63             | 35 | 32 | 85  | 27             | 64 | 20 | 40 | 15   | 17 | 11             | M10 x 1.25 | 7  | 18 | 14 | M18 x 1.5 |
| 80             | 40 | 37 | 102 | 32             | 78 | 25 | 52 | 19   | 21 | 13             | M12 x 1.75 | 10 | 22 | 17 | M22 x 1.5 |
| 100            | 40 | 37 | 116 | 41             | 92 | 30 | 52 | 19   | 21 | 16             | M12 x 1.75 | 10 | 26 | 17 | M26 x 1.5 |

| Bore size (mm) | N  | P   | S   | WA   | H  | ZZ  |
|----------------|----|-----|-----|------|----|-----|
| 40             | 27 | 1/4 | 84  | 18.5 | 56 | 151 |
| 50             | 30 | 3/8 | 90  | 18.5 | 60 | 161 |
| 63             | 31 | 3/8 | 98  | 23   | 60 | 172 |
| 80             | 37 | 1/2 | 116 | 28.5 | 73 | 206 |
| 100            | 40 | 1/2 | 126 | 28.5 | 74 | 217 |

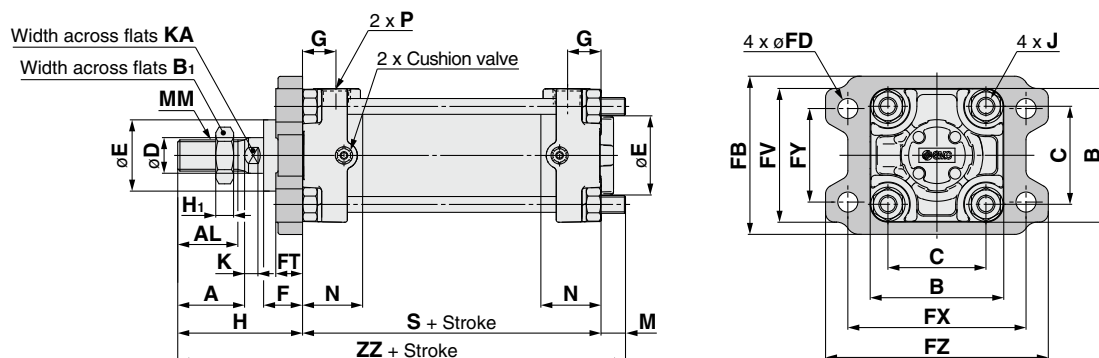
Axial foot: CA2L



| Bore size (mm) | A  | AL | B   | B <sub>1</sub> | C  | D  | E  | F    | G  | H <sub>1</sub> | J          | K  | KA | LD   | LH | LS  | LT  | LX | LY  |
|----------------|----|----|-----|----------------|----|----|----|------|----|----------------|------------|----|----|------|----|-----|-----|----|-----|
| 40             | 30 | 27 | 60  | 22             | 44 | 16 | 32 | 17.5 | 15 | 8              | M8 x 1.25  | 6  | 14 | 9    | 40 | 138 | 3.2 | 42 | 70  |
| 50             | 35 | 32 | 70  | 27             | 52 | 20 | 40 | 15   | 17 | 11             | M8 x 1.25  | 7  | 18 | 9    | 45 | 144 | 3.2 | 50 | 80  |
| 63             | 35 | 32 | 85  | 27             | 64 | 20 | 40 | 15   | 17 | 11             | M10 x 1.25 | 7  | 18 | 11.5 | 50 | 166 | 3.2 | 59 | 93  |
| 80             | 40 | 37 | 102 | 32             | 78 | 25 | 52 | 19   | 21 | 13             | M12 x 1.75 | 10 | 22 | 13.5 | 65 | 204 | 4.5 | 76 | 116 |
| 100            | 40 | 37 | 116 | 41             | 92 | 30 | 52 | 19   | 21 | 16             | M12 x 1.75 | 10 | 26 | 13.5 | 75 | 212 | 6   | 92 | 133 |

| Bore size (mm) | MM        | N  | P   | S   | X  | Y  | H  | ZZ  |
|----------------|-----------|----|-----|-----|----|----|----|-----|
| 40             | M14 x 1.5 | 27 | 1/4 | 84  | 27 | 13 | 56 | 180 |
| 50             | M18 x 1.5 | 30 | 3/8 | 90  | 27 | 13 | 60 | 190 |
| 63             | M18 x 1.5 | 31 | 3/8 | 98  | 34 | 16 | 60 | 208 |
| 80             | M22 x 1.5 | 37 | 1/2 | 116 | 44 | 16 | 73 | 249 |
| 100            | M26 x 1.5 | 40 | 1/2 | 126 | 43 | 17 | 74 | 260 |

## Rod flange: CA2F

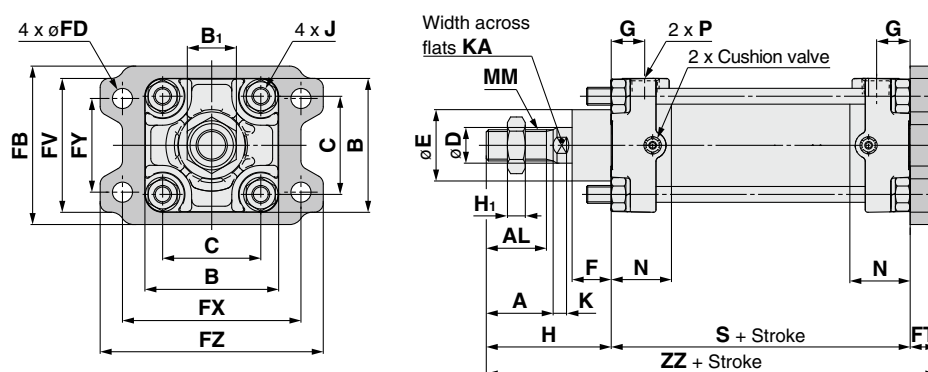


| Bore size (mm) | A  | AL | B   | B <sub>1</sub> | C  | D  | E  | F    | FB  | FD   | FT | FV  | FX  | FY | FZ  | G  | H <sub>1</sub> | J          | K  |
|----------------|----|----|-----|----------------|----|----|----|------|-----|------|----|-----|-----|----|-----|----|----------------|------------|----|
| 40             | 30 | 27 | 60  | 22             | 44 | 16 | 32 | 17.5 | 71  | 9    | 12 | 60  | 80  | 42 | 100 | 15 | 8              | M8 x 1.25  | 6  |
| 50             | 35 | 32 | 70  | 27             | 52 | 20 | 40 | 15   | 81  | 9    | 12 | 70  | 90  | 50 | 110 | 17 | 11             | M8 x 1.25  | 7  |
| 63             | 35 | 32 | 85  | 27             | 64 | 20 | 40 | 15   | 101 | 11.5 | 15 | 86  | 105 | 59 | 130 | 17 | 11             | M10 x 1.25 | 7  |
| 80             | 40 | 37 | 102 | 32             | 78 | 25 | 52 | 19   | 119 | 13.5 | 18 | 102 | 130 | 76 | 160 | 21 | 13             | M12 x 1.75 | 10 |
| 100            | 40 | 37 | 116 | 41             | 92 | 30 | 52 | 19   | 133 | 13.5 | 18 | 116 | 150 | 92 | 180 | 21 | 16             | M12 x 1.75 | 10 |

| Bore size (mm) | KA | M  | MM        | N  | P   | S   | H  | ZZ  |
|----------------|----|----|-----------|----|-----|-----|----|-----|
| 40             | 14 | 11 | M14 x 1.5 | 27 | 1/4 | 84  | 56 | 151 |
| 50             | 18 | 11 | M18 x 1.5 | 30 | 3/8 | 90  | 60 | 161 |
| 63             | 18 | 14 | M18 x 1.5 | 31 | 3/8 | 98  | 60 | 172 |
| 80             | 22 | 17 | M22 x 1.5 | 37 | 1/2 | 116 | 73 | 206 |
| 100            | 26 | 17 | M26 x 1.5 | 40 | 1/2 | 126 | 74 | 217 |

## Head flange: CA2G



| Bore size (mm) | A  | AL | B   | B <sub>1</sub> | C  | D  | E  | F    | FB  | FD   | FT | FV  | FX  | FY | FZ  | G  | H <sub>1</sub> | J          |
|----------------|----|----|-----|----------------|----|----|----|------|-----|------|----|-----|-----|----|-----|----|----------------|------------|
| 40             | 30 | 27 | 60  | 22             | 44 | 16 | 32 | 17.5 | 71  | 9    | 12 | 60  | 80  | 42 | 100 | 15 | 8              | M8 x 1.25  |
| 50             | 35 | 32 | 70  | 27             | 52 | 20 | 40 | 15   | 81  | 9    | 12 | 70  | 90  | 50 | 110 | 17 | 11             | M8 x 1.25  |
| 63             | 35 | 32 | 85  | 27             | 64 | 20 | 40 | 15   | 101 | 11.5 | 15 | 86  | 105 | 59 | 130 | 17 | 11             | M10 x 1.25 |
| 80             | 40 | 37 | 102 | 32             | 78 | 25 | 52 | 19   | 119 | 13.5 | 18 | 102 | 130 | 76 | 160 | 21 | 13             | M12 x 1.75 |
| 100            | 40 | 37 | 116 | 41             | 92 | 30 | 52 | 19   | 133 | 13.5 | 18 | 116 | 150 | 92 | 180 | 21 | 16             | M12 x 1.75 |

| Bore size (mm) | K  | KA | MM        | N  | P   | S   | H  | ZZ  |
|----------------|----|----|-----------|----|-----|-----|----|-----|
| 40             | 6  | 14 | M14 x 1.5 | 27 | 1/4 | 84  | 56 | 152 |
| 50             | 7  | 18 | M18 x 1.5 | 30 | 3/8 | 90  | 60 | 162 |
| 63             | 7  | 18 | M18 x 1.5 | 31 | 3/8 | 98  | 60 | 173 |
| 80             | 10 | 22 | M22 x 1.5 | 37 | 1/2 | 116 | 73 | 207 |
| 100            | 10 | 26 | M26 x 1.5 | 40 | 1/2 | 126 | 74 | 218 |

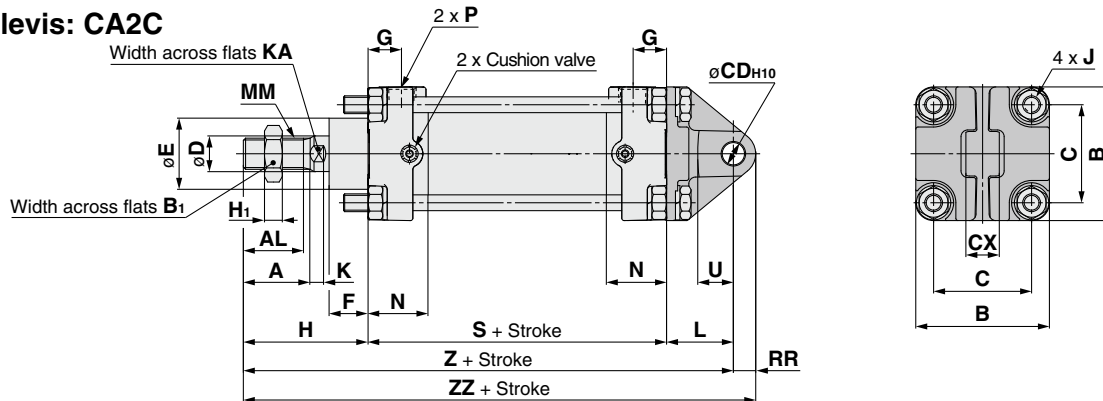
# CA2-XC88 CA2-XC89

Bore Size

## ø40 to ø100

CA2-XC88  
CA2-XC89

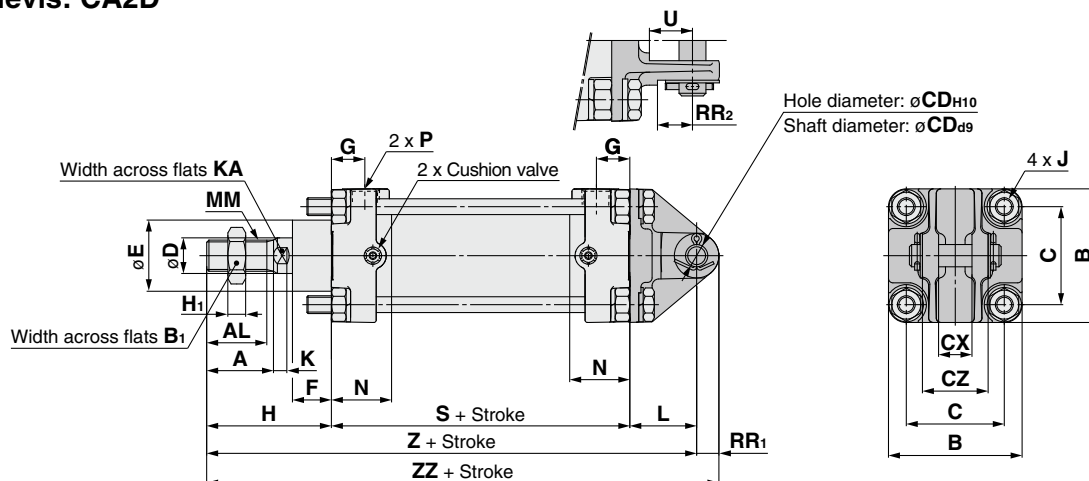
Single clevis: CA2C



| Bore size (mm) | A  | AL | B   | B <sub>1</sub> | C  | CD <sub>H10</sub>                 | CX                                   | D  | E  | F    | G  | H <sub>1</sub> | J          | K  | KA | L  |
|----------------|----|----|-----|----------------|----|-----------------------------------|--------------------------------------|----|----|------|----|----------------|------------|----|----|----|
| 40             | 30 | 27 | 60  | 22             | 44 | 10 <sup>+0.058</sup> <sub>0</sub> | 15 <sup>-0.1</sup> <sub>-0.3</sub>   | 16 | 32 | 17.5 | 15 | 8              | M8 x 1.25  | 6  | 14 | 30 |
| 50             | 35 | 32 | 70  | 27             | 52 | 12 <sup>+0.070</sup> <sub>0</sub> | 18 <sup>-0.1</sup> <sub>-0.3</sub>   | 20 | 40 | 15   | 17 | 11             | M8 x 1.25  | 7  | 18 | 35 |
| 63             | 35 | 32 | 85  | 27             | 64 | 16 <sup>+0.070</sup> <sub>0</sub> | 25 <sup>-0.1</sup> <sub>-0.3</sub>   | 20 | 40 | 15   | 17 | 11             | M10 x 1.25 | 7  | 18 | 40 |
| 80             | 40 | 37 | 102 | 32             | 78 | 20 <sup>+0.084</sup> <sub>0</sub> | 31.5 <sup>-0.1</sup> <sub>-0.3</sub> | 25 | 52 | 19   | 21 | 13             | M12 x 1.75 | 10 | 22 | 48 |
| 100            | 40 | 37 | 116 | 41             | 92 | 25 <sup>+0.084</sup> <sub>0</sub> | 35.5 <sup>-0.1</sup> <sub>-0.3</sub> | 30 | 52 | 19   | 21 | 16             | M12 x 1.75 | 10 | 26 | 58 |

| Bore size (mm) | MM        | N  | P   | RR | S   | U  | H  | Z   | ZZ  |
|----------------|-----------|----|-----|----|-----|----|----|-----|-----|
| 40             | M14 x 1.5 | 27 | 1/4 | 10 | 84  | 16 | 56 | 170 | 180 |
| 50             | M18 x 1.5 | 30 | 3/8 | 12 | 90  | 19 | 60 | 185 | 197 |
| 63             | M18 x 1.5 | 31 | 3/8 | 16 | 98  | 23 | 60 | 198 | 214 |
| 80             | M22 x 1.5 | 37 | 1/2 | 20 | 116 | 28 | 73 | 237 | 257 |
| 100            | M26 x 1.5 | 40 | 1/2 | 25 | 126 | 36 | 74 | 258 | 283 |

Double clevis: CA2D

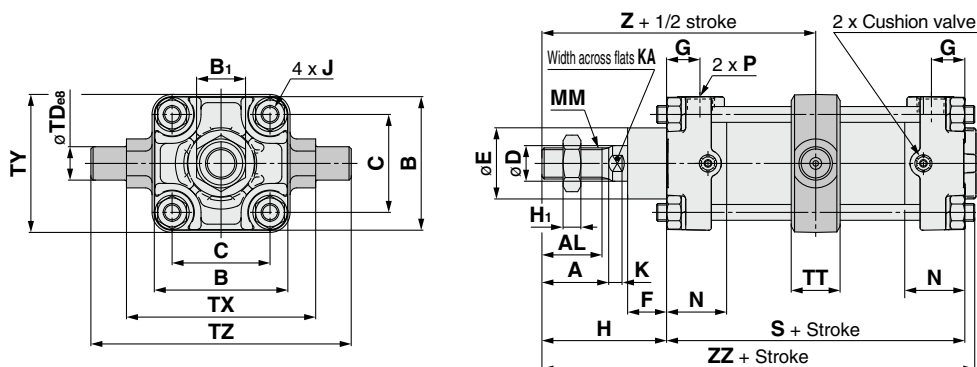


| Bore size (mm) | A  | AL | B   | B <sub>1</sub> | C  | CD <sub>H10</sub>                 | CX                                   | CZ   | D  | E  | F    | G  | H <sub>1</sub> | J          | K  | KA | L  |
|----------------|----|----|-----|----------------|----|-----------------------------------|--------------------------------------|------|----|----|------|----|----------------|------------|----|----|----|
| 40             | 30 | 27 | 60  | 22             | 44 | 10 <sup>+0.058</sup> <sub>0</sub> | 15 <sup>+0.3</sup> <sub>+0.1</sub>   | 29.5 | 16 | 32 | 17.5 | 15 | 8              | M8 x 1.25  | 6  | 14 | 30 |
| 50             | 35 | 32 | 70  | 27             | 52 | 12 <sup>+0.070</sup> <sub>0</sub> | 18 <sup>+0.3</sup> <sub>+0.1</sub>   | 38   | 20 | 40 | 15   | 17 | 11             | M8 x 1.25  | 7  | 18 | 35 |
| 63             | 35 | 32 | 85  | 27             | 64 | 16 <sup>+0.070</sup> <sub>0</sub> | 25 <sup>+0.3</sup> <sub>+0.1</sub>   | 49   | 20 | 40 | 15   | 17 | 11             | M10 x 1.25 | 7  | 18 | 40 |
| 80             | 40 | 37 | 102 | 32             | 78 | 20 <sup>+0.084</sup> <sub>0</sub> | 31.5 <sup>+0.3</sup> <sub>+0.1</sub> | 61   | 25 | 52 | 19   | 21 | 13             | M12 x 1.75 | 10 | 22 | 48 |
| 100            | 40 | 37 | 116 | 41             | 92 | 25 <sup>+0.084</sup> <sub>0</sub> | 35.5 <sup>+0.3</sup> <sub>+0.1</sub> | 64   | 30 | 52 | 19   | 21 | 16             | M12 x 1.75 | 10 | 26 | 58 |

| Bore size (mm) | MM        | N  | P   | RR <sub>1</sub> | RR <sub>2</sub> | S   | U  | H  | Z   | ZZ  |
|----------------|-----------|----|-----|-----------------|-----------------|-----|----|----|-----|-----|
| 40             | M14 x 1.5 | 27 | 1/4 | 10              | 16              | 84  | 16 | 56 | 170 | 180 |
| 50             | M18 x 1.5 | 30 | 3/8 | 12              | 19              | 90  | 19 | 60 | 185 | 192 |
| 63             | M18 x 1.5 | 31 | 3/8 | 16              | 23              | 98  | 23 | 60 | 198 | 214 |
| 80             | M22 x 1.5 | 37 | 1/2 | 20              | 28              | 116 | 28 | 73 | 237 | 257 |
| 100            | M26 x 1.5 | 40 | 1/2 | 25              | 23.5            | 126 | 36 | 74 | 258 | 283 |

\* A clevis pin, flat washers and split pins are included.

## Center trunnion: CA2T



| Bore size<br>(mm) | A  | AL | B   | B <sub>1</sub> | C  | D  | E  | F    | G  | H <sub>1</sub> | J          | K  | KA | MM        | N  | P   | S   |
|-------------------|----|----|-----|----------------|----|----|----|------|----|----------------|------------|----|----|-----------|----|-----|-----|
| 40                | 30 | 27 | 60  | 22             | 44 | 16 | 32 | 17.5 | 15 | 8              | M8 x 1.25  | 6  | 14 | M14 x 1.5 | 27 | 1/4 | 84  |
| 50                | 35 | 32 | 70  | 27             | 52 | 20 | 40 | 15   | 17 | 11             | M8 x 1.25  | 7  | 18 | M18 x 1.5 | 30 | 3/8 | 90  |
| 63                | 35 | 32 | 85  | 27             | 64 | 20 | 40 | 15   | 17 | 11             | M10 x 1.25 | 7  | 18 | M18 x 1.5 | 31 | 3/8 | 98  |
| 80                | 40 | 37 | 102 | 32             | 78 | 25 | 52 | 19   | 21 | 13             | M12 x 1.75 | 10 | 22 | M22 x 1.5 | 37 | 1/2 | 116 |
| 100               | 40 | 37 | 116 | 41             | 92 | 30 | 52 | 19   | 21 | 16             | M12 x 1.75 | 10 | 26 | M26 x 1.5 | 40 | 1/2 | 126 |

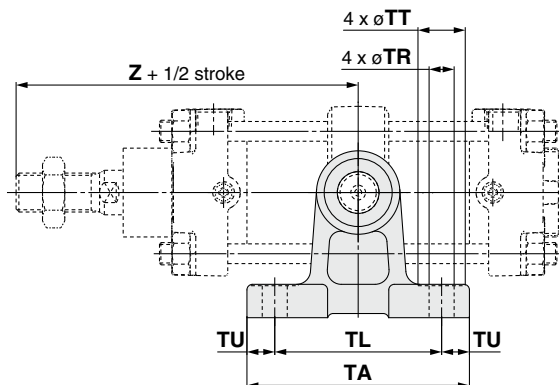
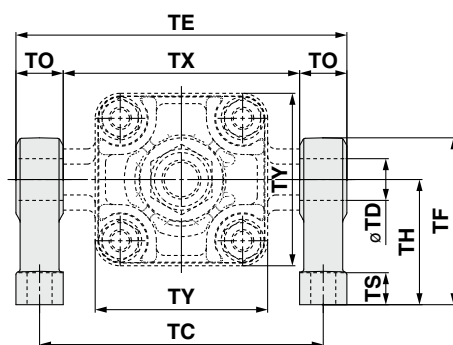
| Bore size<br>(mm) | TD <sub>e8</sub>                       | TT | TX  | TY  | TZ  | H  | Z   | ZZ  |
|-------------------|----------------------------------------|----|-----|-----|-----|----|-----|-----|
| 40                | 15 <sup>-0.032</sup> <sub>-0.059</sub> | 22 | 85  | 62  | 117 | 56 | 98  | 145 |
| 50                | 15 <sup>-0.032</sup> <sub>-0.059</sub> | 22 | 95  | 74  | 127 | 60 | 105 | 156 |
| 63                | 18 <sup>-0.032</sup> <sub>-0.059</sub> | 28 | 110 | 90  | 148 | 60 | 109 | 164 |
| 80                | 25 <sup>-0.040</sup> <sub>-0.073</sub> | 34 | 140 | 110 | 192 | 73 | 131 | 196 |
| 100               | 25 <sup>-0.040</sup> <sub>-0.073</sub> | 40 | 162 | 130 | 214 | 74 | 137 | 208 |

\* Do not disassemble the trunnion type, as it is extremely difficult to align the axial center of the trunnion with the axial center of the cylinder. (Refer to **the WEB catalog** or Best Pneumatics No.2.)

## Pivot Bracket/Trunnion and Double Clevis Pivot Bracket

- Strength is the same as cylinder brackets.

### Trunnion pivot bracket

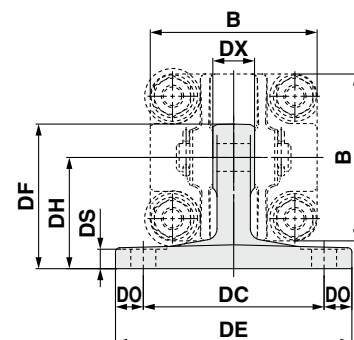
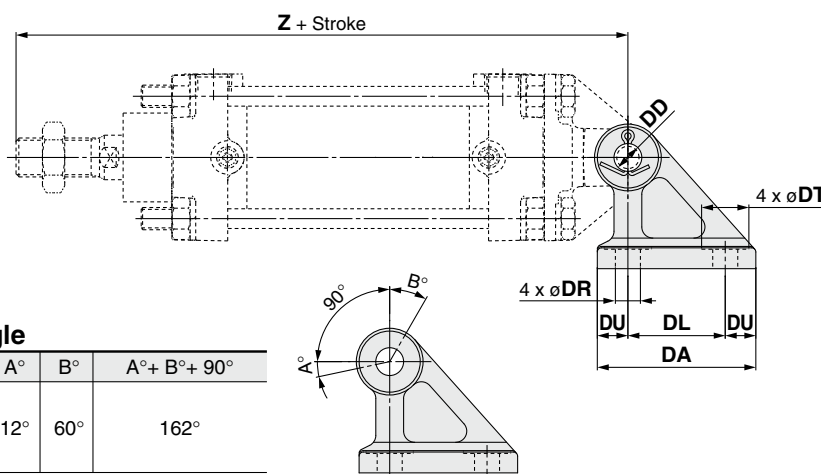


Material: Cast iron (mm)

| Part no. | Bore size (mm) | TA  | TL | TU | TC  | TX  | TE  | TO | TR   | TT | TS | TH | TF  | TY  | Z   | TD-H10 (Hole)                     |
|----------|----------------|-----|----|----|-----|-----|-----|----|------|----|----|----|-----|-----|-----|-----------------------------------|
| CA2-S04  | 40             | 80  | 60 | 10 | 102 | 85  | 119 | 17 | 9    | 17 | 12 | 45 | 60  | 62  | 98  | 15 <sup>+0.070</sup> <sub>0</sub> |
|          | 50             | 80  | 60 | 10 | 112 | 95  | 129 | 17 | 9    | 17 | 12 | 45 | 60  | 74  | 105 | 15 <sup>+0.070</sup> <sub>0</sub> |
| CA2-S06  | 63             | 100 | 70 | 15 | 130 | 110 | 150 | 20 | 11   | 22 | 14 | 55 | 73  | 90  | 109 | 18 <sup>+0.070</sup> <sub>0</sub> |
| MB-S10   | 80             | 120 | 90 | 15 | 166 | 140 | 192 | 26 | 13.5 | 24 | 17 | 75 | 100 | 110 | 131 | 25 <sup>+0.084</sup> <sub>0</sub> |
|          | 100            | 120 | 90 | 15 | 188 | 162 | 214 | 26 | 13.5 | 24 | 17 | 75 | 100 | 130 | 137 | 25 <sup>+0.084</sup> <sub>0</sub> |

\* Order 2 trunnion pivot brackets per cylinder.

### Double clevis pivot bracket



#### Rotating Angle

| Bore size (mm) | A°  | B°  | A° + B° + 90° |
|----------------|-----|-----|---------------|
| 40 to 100      | 12° | 60° | 162°          |

Material: Cast iron (mm)

| Part no. | Bore size (mm) | DA | DL | DU   | DC  | DX   | DE  | DO   | DR   | DT | DS | DH | DF | B   | Z   | DDH10 (Hole)                      |
|----------|----------------|----|----|------|-----|------|-----|------|------|----|----|----|----|-----|-----|-----------------------------------|
| CA2-B04  | 40             | 57 | 35 | 11   | 65  | 15   | 85  | 10   | 9    | 17 | 8  | 40 | 52 | 60  | 170 | 10 <sup>+0.058</sup> <sub>0</sub> |
| CA2-B05  | 50             | 57 | 35 | 11   | 65  | 18   | 85  | 10   | 9    | 17 | 8  | 40 | 52 | 70  | 185 | 12 <sup>+0.070</sup> <sub>0</sub> |
| CA2-B06  | 63             | 67 | 40 | 13.5 | 80  | 25   | 105 | 12.5 | 11   | 22 | 10 | 50 | 66 | 85  | 198 | 16 <sup>+0.070</sup> <sub>0</sub> |
| CA2-B08  | 80             | 93 | 60 | 16.5 | 100 | 31.5 | 130 | 15   | 13.5 | 24 | 12 | 65 | 90 | 102 | 237 | 20 <sup>+0.084</sup> <sub>0</sub> |
| CA2-B10  | 100            | 93 | 60 | 16.5 | 100 | 35.5 | 130 | 15   | 13.5 | 24 | 12 | 65 | 90 | 116 | 258 | 25 <sup>+0.084</sup> <sub>0</sub> |

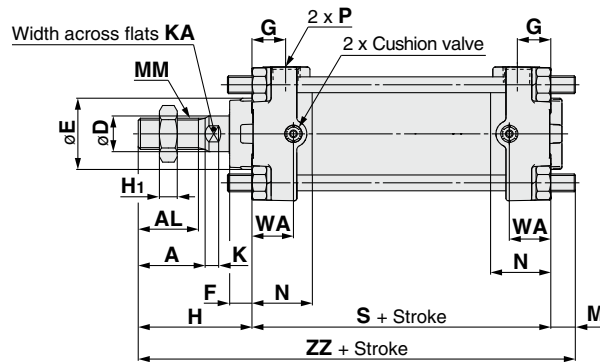
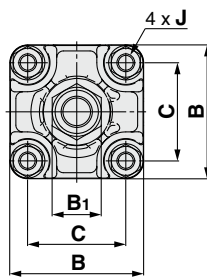
# Spatter Resistant Cylinder for Arc Welding Air Cylinder: Single Rod **CA2-XC91**

Bore Size

**ø40 to ø100**

**CA2B□-XC91** \* Dimensions are the same as the standard product (Series CA2).

**Basic: CA2B**



| Bore size<br>(mm) | A  | AL | B   | B <sub>1</sub> | C  | D  | E  | F  | G  | H <sub>1</sub> | J          | K  | KA | M  |
|-------------------|----|----|-----|----------------|----|----|----|----|----|----------------|------------|----|----|----|
| 40                | 30 | 27 | 60  | 22             | 44 | 16 | 32 | 10 | 15 | 8              | M8 x 1.25  | 6  | 14 | 11 |
| 50                | 35 | 32 | 70  | 27             | 52 | 20 | 40 | 10 | 17 | 11             | M8 x 1.25  | 7  | 18 | 11 |
| 63                | 35 | 32 | 85  | 27             | 64 | 20 | 40 | 10 | 17 | 11             | M10 x 1.25 | 7  | 18 | 14 |
| 80                | 40 | 37 | 102 | 32             | 78 | 25 | 52 | 14 | 21 | 13             | M12 x 1.75 | 10 | 22 | 17 |
| 100               | 40 | 37 | 116 | 41             | 92 | 30 | 52 | 14 | 21 | 16             | M12 x 1.75 | 10 | 26 | 17 |

| Bore size<br>(mm) | MM        | N  | P   | S   | WA   | H  | ZZ  |
|-------------------|-----------|----|-----|-----|------|----|-----|
| 40                | M14 x 1.5 | 27 | 1/4 | 84  | 18.5 | 51 | 146 |
| 50                | M18 x 1.5 | 30 | 3/8 | 90  | 18.5 | 58 | 159 |
| 63                | M18 x 1.5 | 31 | 3/8 | 98  | 23   | 58 | 170 |
| 80                | M22 x 1.5 | 37 | 1/2 | 116 | 28.5 | 71 | 204 |
| 100               | M26 x 1.5 | 40 | 1/2 | 126 | 28.5 | 72 | 215 |

Spatter Resistant Cylinders  
for Arc Welding

Clamp Cylinders

Gas/Air Switching Valve

Detection Switches

Tubing

Fittings

Flow Control Equipment