

# Made to Order Common Specifications: -XC73: Built-in Cylinder with Lock (CDNG)



Symbol

**-XC73**

## 54 Built-in Cylinder with Lock (CDNG)

This type has a built-in cylinder with lock, which accommodates intermediate stops, emergency stops and drop prevention, etc.

### Applicable Series

| Series | Description    | Model | Action        | Note | Vol. no. (for std model) |
|--------|----------------|-------|---------------|------|--------------------------|
| MGG    | Guide cylinder | MGG   | Double acting |      | ②-2 From P. 538          |

### How to Order

MGG  Bearing type  Mounting type  Bore size  - Stroke  - Auto switch  - C <sup>Note 1</sup>  -XC73

### Cylinder Specifications

| Applicable series  |                      | MGG                               |           |        |                                       |
|--|----------------------|-----------------------------------|-----------|--------|---------------------------------------|
| Bore size (mm)   |                      | 20                                | 25        | 32     | 40                                    |
| Basic cylinder   |                      | CDNGBN                            | Bore size | Stroke | D - Auto switch - C <sup>Note 1</sup> |
| Minimum operating pressure   |                      | 0.2 MPa (Horizontal with no load) |           |        |                                       |
| Piston speed   |                      | 50 to 1000 mm/s <sup>Note 2</sup> |           |        |                                       |
| Stroke adjustment range (One side)<br>[Built-in adjustment bolts (2 pcs.)] |                      | 0 to -15 mm                       |           |        |                                       |
| Non-rotating accuracy <sup>*2</sup>  | Slide bearing        | ±0.06°                            | ±0.05°    | ±0.04° |                                       |
|  | Ball bushing bearing | ±0.04°                            | ±0.04°    | ±0.04° |                                       |
| Shock absorber model   |                      | RB1412                            | RB2015    |        |                                       |

Note 1) This symbol is indicated when the D-A9□ or M9□ type auto switch is specified. It does not apply to other auto switches (D-C7□ and H7□, etc.) (Nil)

Note 2) When the piston is locked, the load mass is limited by the mounting orientation and the operating pressure. For details about the lock specifications, etc., refer to the cylinders with lock (Best Pneumatics No. 2-2).

\*1 Specifications other than shown on the left are the same as the standard type.

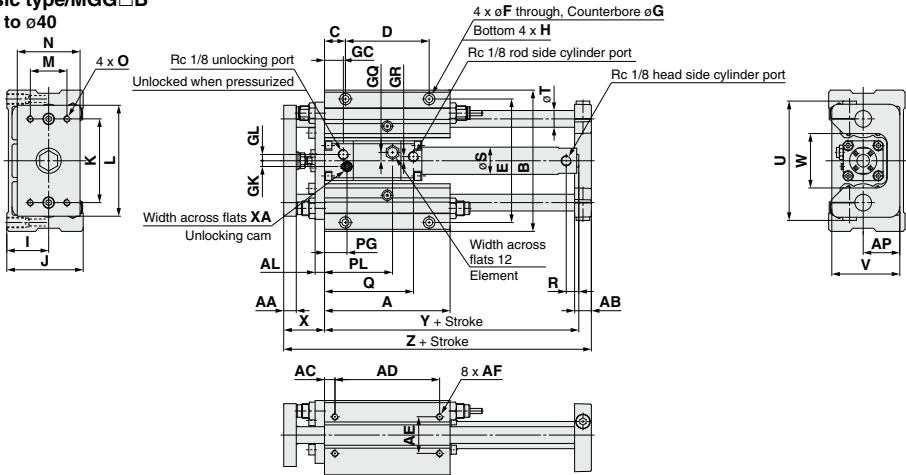
\*2 Non-rotating rod accuracy must be below the values shown in the table at the retraction of the cylinder (initial value), and without loads or the conditions excluding the deflection of the guide rods.

◆ Built-in cylinder with lock

### Dimensions

#### Basic type/MGG□B

ø20 to ø40



#### Standard Stroke

| Bore size (mm) | Stroke range (mm)      | A   | AA | AB | AC | AD  | AE | AF                 | AL | AP | B   | C  | D   | E   | F   | G           | GC | GK  | GL | GQ | GR | H                   | I  | J   |
|----------------|------------------------|-----|----|----|----|-----|----|--------------------|----|----|-----|----|-----|-----|-----|-------------|----|-----|----|----|----|---------------------|----|-----|
| 20             | 75, 100, 125, 150, 200 | 120 | 12 | 16 | 10 | 100 | 35 | M6 x 1 depth 12    | 9  | 35 | 135 | 20 | 80  | 118 | 6.6 | 11 depth 8  | 18 | 5.5 | 6  | 8  | 4  | M10 x 1.5 depth 18  | 40 | 73  |
| 25             | 75, 100, 125           | 140 | 16 | 19 | 10 | 120 | 40 | M8 x 1.25 depth 16 | 9  | 45 | 170 | 20 | 100 | 150 | 9   | 14 depth 10 | 25 | 6.5 | 9  | 10 | 7  | M12 x 1.75 depth 21 | 50 | 93  |
| 32             | 150, 200               | 140 | 16 | 19 | 10 | 120 | 40 | M8 x 1.25 depth 16 | 9  | 45 | 170 | 20 | 100 | 150 | 9   | 14 depth 10 | 25 | 6.5 | 9  | 10 | 7  | M12 x 1.75 depth 21 | 50 | 93  |
| 40             | 250, 300               | 170 | 19 | 21 | 10 | 150 | 45 | M10 x 1.5 depth 20 | 12 | 50 | 194 | 25 | 120 | 170 | 11  | 17 depth 12 | 26 | 7   | 11 | 12 | 7  | M14 x 2 depth 25    | 55 | 103 |

#### Long Stroke

| Bore size (mm) | K   | L   | M  | N  | O                  | PG   | PL | Q   | R  | S  | T  | U   | V  | W  | X  | YA | Y   | Z   |
|----------------|-----|-----|----|----|--------------------|------|----|-----|----|----|----|-----|----|----|----|----|-----|-----|
| 20             | 80  | 106 | 35 | 60 | M6 x 1 depth 9     | 21.5 | 65 | 85  | 12 | 26 | 16 | 114 | 65 | 52 | 39 | 3  | 143 | 194 |
| 25             | 95  | 134 | 50 | 75 | M8 x 1.25 depth 13 | 26.5 | 73 | 96  | 12 | 31 | 20 | 138 | 84 | 62 | 46 | 3  | 153 | 228 |
| 32             | 95  | 134 | 50 | 75 | M8 x 1.25 depth 13 | 26.5 | 73 | 97  | 12 | 38 | 20 | 138 | 84 | 62 | 46 | 3  | 156 | 228 |
| 40             | 115 | 152 | 56 | 90 | M10 x 1.5 depth 16 | 28   | 81 | 104 | 12 | 47 | 25 | 164 | 94 | 75 | 56 | 4  | 171 | 274 |

| Bore size (mm) | Stroke range (mm) | R  | Y   |
|----------------|-------------------|----|-----|
| 20             | 250 to 400        | 14 | 151 |
| 25             | 350 to 500        | 14 | 161 |
| 32             | 350 to 600        | 14 | 164 |
| 40             | 350 to 800        | 15 | 180 |



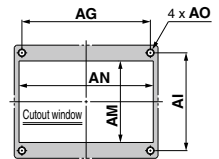
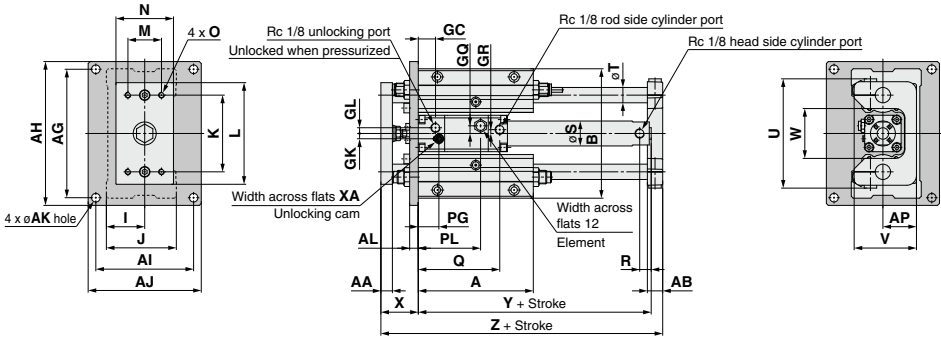
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## 54 Built-in Cylinder with Lock (CDNG)

### Dimensions

Front mounting flange type/MGG□F  
ø20 to ø40



Mounting dimensions

### Standard Stroke

| Bore size (mm) | Stroke range (mm)      | A   | AA | AB | AG  | AH  | AI  | AJ  | AK | AL | AM  | AN  | AO  | AP | B   | GC | GK  | GL | GQ | GR | I  | J   | K   | L   | M  | N  |
|----------------|------------------------|-----|----|----|-----|-----|-----|-----|----|----|-----|-----|-----|----|-----|----|-----|----|----|----|----|-----|-----|-----|----|----|
| 20             | 75, 100, 125, 150, 200 | 120 | 12 | 16 | 134 | 150 | 102 | 118 | 9  | 9  | 85  | 140 | M8  | 35 | 135 | 18 | 5.5 | 6  | 8  | 4  | 40 | 73  | 80  | 106 | 35 | 60 |
| 25             | 75, 100, 125           | 140 | 16 | 19 | 170 | 186 | 134 | 150 | 9  | 9  | 105 | 175 | M8  | 45 | 170 | 25 | 6.5 | 9  | 10 | 7  | 50 | 93  | 95  | 134 | 50 | 75 |
|                | 150, 200, 250, 300     | 140 | 16 | 19 | 170 | 186 | 134 | 150 | 9  | 9  | 105 | 175 | M8  | 45 | 170 | 25 | 6.5 | 9  | 10 | 7  | 50 | 93  | 95  | 134 | 50 | 75 |
| 40             |                        | 170 | 19 | 21 | 190 | 210 | 140 | 160 | 11 | 12 | 115 | 200 | M10 | 50 | 194 | 26 | 7   | 11 | 12 | 7  | 55 | 103 | 115 | 152 | 56 | 90 |

### Long Stroke

| Bore size (mm) | O                  | PG   | PL | Q   | R  | S  | T  | U   | V  | W  | X  | XA | Y   | Z   |
|----------------|--------------------|------|----|-----|----|----|----|-----|----|----|----|----|-----|-----|
| 20             | M6 x 1 depth 9     | 21.5 | 65 | 85  | 12 | 26 | 16 | 114 | 65 | 52 | 39 | 3  | 143 | 194 |
| 25             | M8 x 1.25 depth 13 | 26.5 | 73 | 96  | 12 | 31 | 20 | 138 | 84 | 62 | 46 | 3  | 153 | 228 |
| 32             | M8 x 1.25 depth 13 | 26.5 | 73 | 97  | 12 | 38 | 20 | 138 | 84 | 62 | 46 | 3  | 156 | 228 |
| 40             | M10 x 1.5 depth 16 | 28   | 81 | 104 | 12 | 47 | 25 | 164 | 94 | 75 | 56 | 4  | 171 | 274 |

| Bore size (mm) | Stroke range (mm) | R  | Y   |
|----------------|-------------------|----|-----|
| 20             | 250 to 400        | 14 | 151 |
| 25             | 350 to 500        | 14 | 161 |
| 32             | 350 to 600        | 14 | 164 |
| 40             | 350 to 800        | 15 | 180 |

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This type has a built-in cylinder with lock, which accommodates intermediate stops, emergency stops and drop prevention, etc.

## How to Order

**MGC** Bearing type Mounting type Bore size — Stroke — Equipped/Not equipped rear plate — Auto switch — C Note 1 — **XC73**

Built-in cylinder with lock

## Cylinder Specifications

| Applicable series                   |                      | MGC                               |           |        |    |             |          |
|-------------------------------------|----------------------|-----------------------------------|-----------|--------|----|-------------|----------|
| Bore size (mm)                      |                      | 20                                | 25        | 32     | 40 |             |          |
| Basic cylinder                      |                      | CDNGBA                            | Bore size | Stroke | D  | Auto switch | C Note 1 |
| Minimum operating pressure          |                      | 0.2 MPa (Horizontal with no load) |           |        |    |             |          |
| Piston speed                        |                      | 50 to 750 mm/s <sup>Note 2)</sup> |           |        |    |             |          |
| Non-rotating accuracy <sup>#2</sup> | Side bearing         | ±0.06°                            |           | ±0.05° |    | ±0.04°      |          |
|                                     | Ball bushing bearing | ±0.04°                            |           | ±0.04° |    | ±0.04°      |          |

Note 1) This symbol is indicated when the D-A9□ or M9□ type auto switch is specified. It does not apply to other auto switches (D-C7□ and H7□, etc.) (Nil)

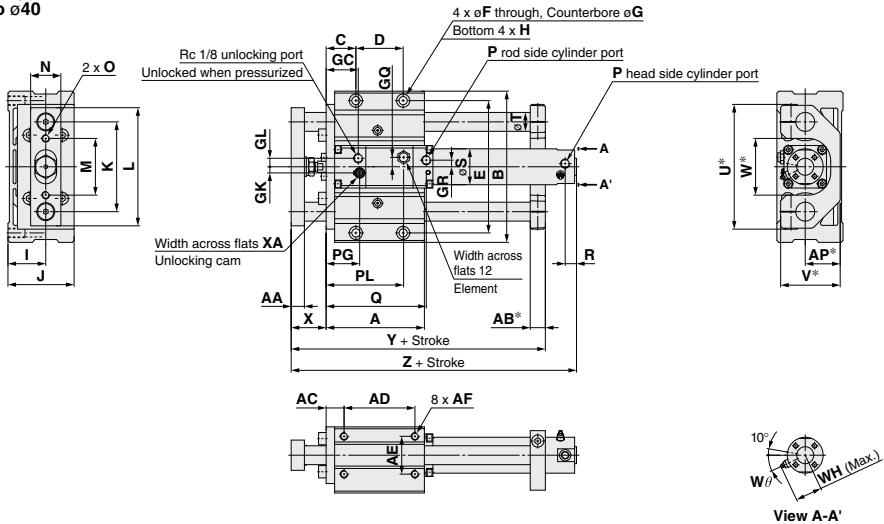
Note 2) When the piston is locked, the load mass is limited by the mounting orientation and the operating pressure. For details about the lock specifications, etc., refer to the cylinders with lock (Best Pneumatics No. 2-2).

#1 Specifications other than shown on the left are the same as the standard type.

#2 Non-rotating rod accuracy must be below the values shown in the table at the retraction of the cylinder (initial value), and without loads or the conditions excluding the deflection of the guide rods.

## Dimensions

### Basic type/MGC□B ø20 to ø40



### Standard Stroke

| Bore size (mm) | Stroke range (mm)      | A   | AA | AB* | AC   | AD  | AE | AF                 | AP* | B   | C    | D  | E   | F    | G           | GC | GK  | GL | GQ | GR | H                   | I  | J    | K   |
|----------------|------------------------|-----|----|-----|------|-----|----|--------------------|-----|-----|------|----|-----|------|-------------|----|-----|----|----|----|---------------------|----|------|-----|
| 20             | 75, 100, 125, 150, 200 | 94  | 11 | 13  | 16.5 | 70  | 35 | M6 x 1 depth 12    | 32  | 135 | 26.5 | 50 | 118 | 6.8  | 11 depth 8  | 27 | 5.5 | 6  | 8  | 4  | M8 x 1.25 depth 14  | 35 | 60   | 80  |
| 25             | 75, 100, 125           | 104 | 14 | 16  | 19   | 75  | 40 | M8 x 1.25 depth 16 | 37  | 160 | 31.5 | 50 | 140 | 8.6  | 14 depth 10 | 34 | 6.5 | 9  | 10 | 7  | M10 x 1.5 depth 18  | 40 | 70   | 95  |
| 32             | 150, 200               | 104 | 14 | 16  | 19   | 75  | 40 | M8 x 1.25 depth 16 | 37  | 160 | 31.5 | 50 | 140 | 8.6  | 14 depth 10 | 34 | 6.5 | 9  | 10 | 7  | M10 x 1.5 depth 18  | 40 | 70   | 95  |
| 40             | 250, 300               | 142 | 17 | 19  | 22   | 110 | 45 | M10 x 1.5 depth 20 | 42  | 194 | 37   | 80 | 170 | 10.5 | 17 depth 12 | 38 | 7   | 11 | 12 | 7  | M12 x 1.75 depth 21 | 45 | 82.5 | 115 |

### Long Stroke

| Bore size (mm) | L   | M  | N  | O         | P        | PG   | PL | Q   | R  | S  | T  | U*  | V* | W* | WH   | W <sub>l</sub> | X  | XA | Y   | Z   | Bore size (mm) | Stroke range (mm) | R  | Z   |
|----------------|-----|----|----|-----------|----------|------|----|-----|----|----|----|-----|----|----|------|----------------|----|----|-----|-----|----------------|-------------------|----|-----|
| 20             | 105 | 50 | 25 | M6 x 1    | M5 x 0.8 | 30.5 | 74 | 96  | 12 | 26 | 16 | 112 | 53 | 50 | 23   | 30°            | 30 | 3  | 148 | 182 | 20             | 250 to 400        | 14 | 190 |
| 25             | 125 | 60 | 32 | M8 x 1.25 | M5 x 0.8 | 35.5 | 82 | 106 | 12 | 31 | 20 | 132 | 63 | 60 | 25   | 30°            | 37 | 3  | 169 | 199 | 25             | 350 to 500        | 14 | 207 |
| 32             | 125 | 60 | 32 | M8 x 1.25 | Rc 1/8   | 35.5 | 82 | 106 | 12 | 38 | 20 | 132 | 63 | 60 | 28.5 | 25°            | 37 | 3  | 169 | 207 | 32             | 350 to 600        | 14 | 210 |
| 40             | 150 | 75 | 38 | M8 x 1.25 | Rc 1/8   | 40   | 93 | 116 | 12 | 47 | 25 | 162 | 73 | 70 | 33   | 20°            | 44 | 4  | 210 | 227 | 40             | 350 to 800        | 15 | 236 |

Note) Without rear plate: Dimensions with an asterisk (\*) mark is not needed.

