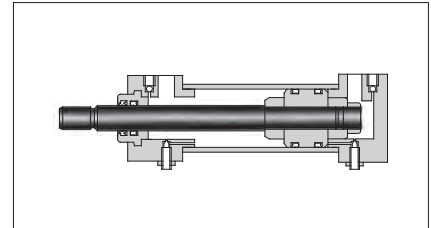


# "CJT 3.5 MPa" Series Hydraulic Cylinders

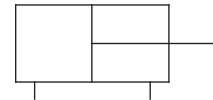
YUKEN's "CJT 3.5 MPa" Series Hydraulic Cylinders are provided with many mounting types so that they can be used for wide use of general purpose industrial machines such as machine tools.

Moreover, Switch-Set "CJT" Series Hydraulic Cylinders with a proximity switch which facilitates detecting a position with a slide proximity switch on the cylinder body is also available.

(Refer to page J-69 for details.)



Graphic Symbol



## Specifications

| Model Numbers                |               | CJT35-****-***-30                          |      |
|------------------------------|---------------|--|------|
| Cylinder Bore                | mm            | 32, 40, 50, 63, 80<br>100, 125, 160        |      |
| Mounting Type                |               | SD, LA, LB, FA, FB, CA, CB, TA, TC         |      |
| Nominal Pressure★1           |               | 3.5 MPa                                    |      |
| Maximum Allowable Pressure★1 |               | 4.5 MPa                                    |      |
| Proof Test Pressure★1        |               | 5.0 MPa                                    |      |
| Minimum Working Pressure     |               | 0.2 MPa                                    |      |
| Operating Maximum Speed      |               | 300 mm/s                                   |      |
| Operating Minimum Speed      |               | 8 mm/s                                     |      |
| Maximum Stroke★2             | Cylinder Bore | 32   | 1000 |
|                              |               | 40   | 1000 |
|                              |               | 50, 63                                     | 1200 |
|                              |               | 80   | 1600 |
|                              |               | 100  | 1600 |
|                              |               | 125, 160                                   | 1800 |
| Tolerance of Stroke          |               | Refer to the table "Tolerance of Stroke"★3 |      |
| Tolerance of Thread          |               | JIS B 0211-6g(JIS grade 2 or equivalence)  |      |
| Ambient Temperature Range    |               | -10 - +80°C                                |      |
| Applicable Standard          |               | Compliant with former JIS B8354            |      |

★1. See page J-7 for definition of pressure terms.

★2. May be limited to even lower value in accordance with the buckling strength. Refer to page J-10 for strokes above buckling strength.

★3. Tolerance of Stroke

| Stroke mm              | Tolerance mm |
|------------------------|--------------|
| 100 or less            | +0.8<br>0    |
| More than 100 to 250   | +1.0<br>0    |
| More than 250 to 630   | +1.25<br>0   |
| More than 630 to 1000  | +1.4<br>0    |
| More than 1000 to 1600 | +1.6<br>0    |
| More than 1600 to 2000 | +1.8<br>0    |

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48

Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курган (3522)50-90-47  
Курск (4712)77-13-04  
Липецк (4742)52-20-81  
Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Новосибирск (3496)41-32-12

Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Пермь (342)205-81-47  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Самара (812)309-46-40  
Саранск (8342)22-96-24  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35

Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35  
Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Улан-Удэ (3012)59-97-51  
Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

## Model Number Designation

| F—  | CJT35  | —LB  | 32                                      | S              | 100                | B  | —A  | B  | D  | —K  | —30           |
|---|--|--|---|----------------|--------------------|--|---|--|--|---|---------------|
| Packing Material  | Series Number                                  | Mounting Type                              | Cylinder Bore mm                        | Rod Size       | Cylinder Stroke mm | Cushion Type   | Port Position <sup>★1</sup>   | Cushion Adj. Valve Position <sup>★1</sup>  | Air Vent Valve Position <sup>★1</sup>  | Options <sup>★2</sup>   | Design Number |
| None :<br>Nitrile Rubber (standard)<br><br>F :<br>Fluoro Rubber<br><br>6 :<br>Hydrogenated Nitrile Rubber | CJT35 :<br>3.5 MPa Series<br>Standard Cylinder | SD, LA<br>LB, FA<br>FB, CA<br>CB, TA<br>TC | 32, 40<br>50, 63<br>80, 100<br>125, 160 | S :<br>Special | Cylinder Stroke    | B :<br>With Cushion on Both ends<br><br>R :<br>With Cushion on the Rod side<br><br>H :<br>With Cushion on the Cap side<br><br>N :<br>Without Cushion | (Viewed from Rod End)<br><br>A :<br>Upper (Standard)<br><br>B :<br>Right<br><br>C :<br>Under<br><br>D :<br>Left | B :<br>Right (Standard)<br><br>A :<br>Upper<br><br>C :<br>Under<br><br>D :<br>Left | D :<br>Left (Standard)<br><br>A :<br>Upper<br><br>B :<br>Right<br><br>C :<br>Under | F : With Dust Cover (Material: Nylon Tarpaulin, Heat resistant up to 80°C)<br><br>G : With Dust Cover (Material: Chloroprene, Heat resistant up to 130°C)<br><br>H : With Dust Cover (Material: Conex, Heat resistant up to 200°C)<br><br>K : With Lock Nut (Std.)<br><br>L : With T-End (Rod End Eye)<br><br>M : With Y-End (Rod End Clevis) | 30            |

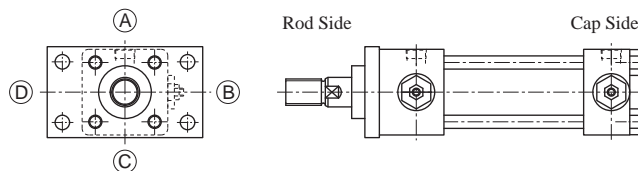
★1. As for each direction of port, cushion adj. valve & air vent valve, please select from (A)(B)(C)(D) viewed from rod end(see the figure on the right).

<Standard directions>

Port : (A), Cushion Adjusting Valve : (B), Air Vent Valve : (D)

Note : The direction of port and cushion adj. valve is not available to be the same direction. However, the other combinations are available.

★2. Using the options in combination is available.  
Please specify the option code in the alphabet.  
Ex. FKL



## Mounting Type

| Code | Name                          | Illustration of Mounting Type | Code | Name                  | Illustration of Mounting Type |
|------|-------------------------------|-------------------------------|------|-----------------------|-------------------------------|
| SD   | Basic Type                    |                               | CA   | Cap Detachable Eye    |                               |
| LA   | Foot Mounting Side Lugs       |                               | CB   | Cap Detachable Clevis |                               |
| LB   | Foot Mounting Side End Angles |                               | TA   | Rod Trunnion          |                               |
| FA   | Rod Rectangular Flange        |                               | TC   | Intermediate Trunnion |                               |
| FB   | Cap Rectangular Flange        |                               |      |                       |                               |

Maximum stroke limited by buckling strength

Calculation of Maximum Stroke

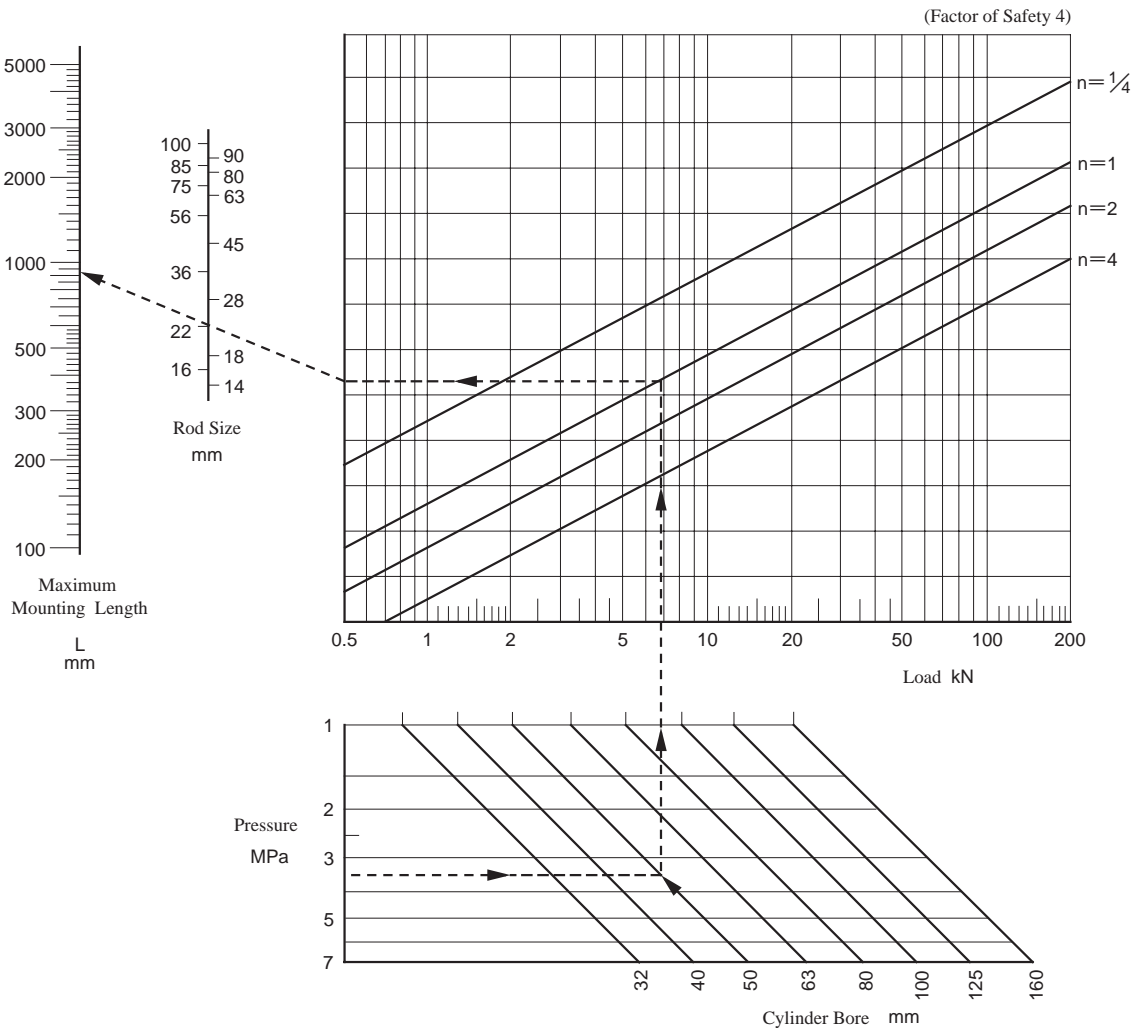
1. Calculate rod end coefficient  $n$  from the table on the right.
2. Calculate the maximum installation length  $L$  by applying various values such as cylinder bore, rod size, pressure, and rod end coefficient to the figure below.
3. Refer to the external dimensions and calculate the mounting length  $L_o$  when retracted.

Use the formula  $S=L-L_o$  and calculate the maximum stroke  $S$ .  
 (Example) Cylinder bore 50 mm, rod size 22 mm, mounting type TA  
 (rod trunnion type) standard cylinder operated at 3.5 MPa pressure. Calculate the maximum stroke. Assume that the lock nut for rod end attachment is not used.

From the table on the right  $n=1$   
 From the figure below  $L \approx 930$   
 From Dimensional Drawing (J-16) and Rod End Attachment (J-17)  
 $L_o = (44 + 64) = 108$   
 therefore  $S=L-L_o=930-108$   
 hence  $S \approx 822$  mm

| Mounting Type | Type | Rod End Coefficient $n$ | Mounting Type | Type | Rod End Coefficient $n$ |
|---------------|------|-------------------------|---------------|------|-------------------------|
| LA            |      | 1/4                     | FB            |      | 1/4                     |
|               |      |                         |               |      |                         |
|               |      |                         |               |      |                         |
| LB            |      | 2                       | TA            |      | 1                       |
|               |      |                         |               |      |                         |
|               |      |                         |               |      |                         |
| FA            |      | 4                       | TC            |      | 1                       |
|               |      |                         | CA            |      |                         |
|               |      |                         | CB            |      |                         |

$S=L-L_o$   
 $S$  : Stroke mm  
 $L$  : Mounting Length at extension mm  
 $L_o$  : Mounting Length at contraction mm  
 Note: For  $L_o$  dimensions, refer to dimensional drawing and add the dimensions of rod end attachment.



## Syllabus Table

| Rod Size Code | Cylinder Bore mm | Rod Size mm | Push/Pull | Pressurized Area cm <sup>2</sup> | Output kN |        | Velocity by a unit flow rate 10L/min mm/s | Flow rate by a unit velocity 10mm/s L/min |
|---------------|------------------|-------------|-----------|----------------------------------|-----------|--------|---|---|
|               |                  |             |           |                                  | 1MPa      | 3.5MPa |   |   |
| S             | 32               | 16          | Push      | 8.0                              | 0.8       | 2.81   | 208                                       | 0.5                                       |
|               |                  |             | Pull      | 6.0                              | 0.6       | 2.11   | 277                                       | 0.4                                       |
|               | 40               | 16          | Push      | 12.6                             | 1.26      | 4.40   | 132                                       | 0.8                                       |
|               |                  |             | Pull      | 10.6                             | 1.06      | 3.69   | 157                                       | 0.6                                       |
|               | 50               | 22          | Push      | 19.6                             | 1.96      | 6.87   | 85  | 1.2                                       |
|               |                  |             | Pull      | 15.8                             | 1.58      | 5.54   | 105                                       | 0.9                                       |
|               | 63               | 22          | Push      | 31.2                             | 3.12      | 10.91  | 53  | 1.9                                       |
|               |                  |             | Pull      | 27.4                             | 2.74      | 9.58   | 61  | 1.6                                       |
|               | 80               | 28          | Push      | 50.3                             | 5.03      | 17.59  | 33  | 3.0                                       |
|               |                  |             | Pull      | 44.1                             | 4.41      | 15.44  | 38  | 2.6                                       |
|               | 100              | 36          | Push      | 78.5                             | 7.85      | 27.49  | 21  | 4.7                                       |
|               |                  |             | Pull      | 68.4                             | 6.84      | 23.93  | 24  | 4.1                                       |
|               | 125              | 45          | Push      | 122.7                            | 12.27     | 42.95  | 14  | 7.4                                       |
|               |                  |             | Pull      | 106.8                            | 10.68     | 37.38  | 16  | 6.4                                       |
|               | 160              | 56          | Push      | 201.0                            | 20.10     | 70.37  | 8.3                                       | 12.1                                      |
|               |                  |             | Pull      | 176.4                            | 17.64     | 61.75  | 9.4                                       | 10.6                                      |

## Mass Table

Approx. Mass may be obtained from the formula below.

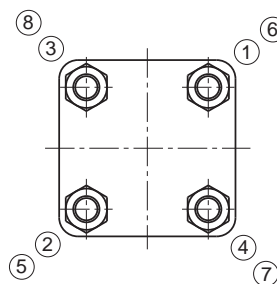
$$\text{Mass} = \text{A} + [\text{B} \times \text{Stroke}(\text{mm}) / 100] + \text{C} + \text{D}$$

| Cylinder Bore mm | A Basic Mass SD type | B Additional Mass By A Unit Stroke 100mm | C Basic Mass (Each Mounting) |      |      |      |      |      |      |      | D Additional Mass     |                          |                   |
|------------------|----------------------|--|------------------------------|------|------|------|------|------|------|------|-----------------------|--------------------------|-------------------|
|                  |                      |  | LA                           | LB   | FA   | FB   | CA   | CB   | TA   | TC   | T-End (Rod End Eye) L | Y-End (Rod End Clevis) M | Lock Nut (Std.) K |
| 32               | 1.17                 | 0.41                                     | 0.12                         | 0.19 | 0.17 | 0.24 | 0.12 | 0.12 | 0.05 | 0.3  | 0.15                  | 0.20                     | 0.02              |
| 40               | 1.77                 | 0.45                                     | 0.19                         | 0.23 | 0.25 | 0.32 | 0.18 | 0.15 | 0.19 | 0.48 | 0.16                  | 0.34                     | 0.02              |
| 50               | 2.56                 | 0.78                                     | 0.28                         | 0.36 | 0.41 | 0.50 | 0.26 | 0.30 | 0.19 | 0.56 | 0.22                  | 0.35                     | 0.03              |
| 63               | 3.98                 | 0.94                                     | 0.29                         | 0.46 | 0.56 | 0.64 | 0.40 | 0.36 | 0.19 | 0.70 | 0.22                  | 0.35                     | 0.03              |
| 80               | 7.55                 | 1.22                                     | 0.66                         | 0.86 | 1.40 | 1.56 | 1.02 | 0.82 | 0.19 | 1.15 | 0.78                  | 1.01                     | 0.1               |
| 100              | 11.4                 | 2.00                                     | 0.96                         | 1.60 | 1.96 | 2.25 | 1.28 | 1.38 | 0.41 | 3.10 | 1.30                  | 1.76                     | 0.3               |
| 125              | 15.6                 | 3.30                                     | 1.42                         | 2.24 | 3.78 | 4.24 | 4.24 | 4.42 | 0.58 | 4.80 | 3.19                  | 4.36                     | 0.5               |
| 160              | 35.0                 | 4.90                                     | 2.60                         | 5.68 | 7.76 | 8.78 | 8.05 | 8.91 | 1.13 | 6.10 | 4.29                  | 5.82                     | 1.1               |

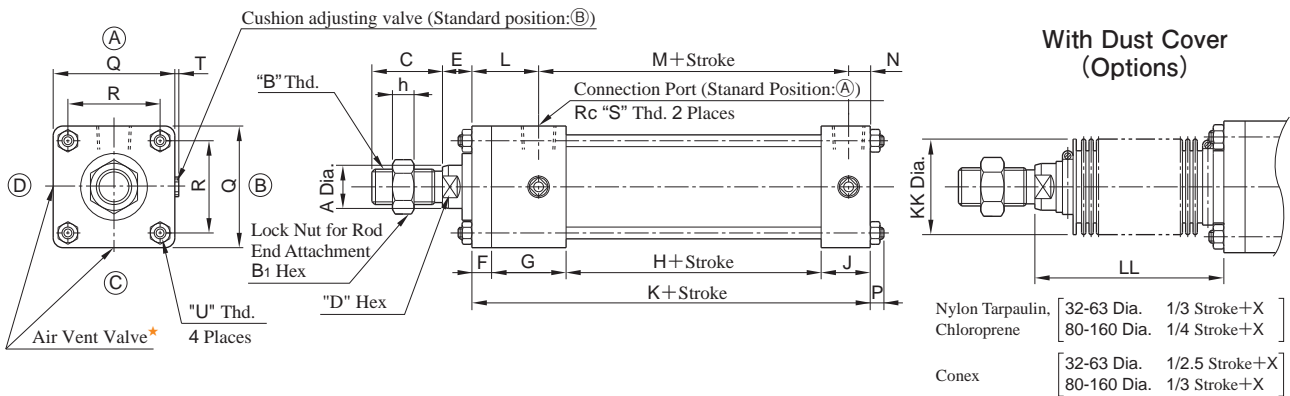
## Tie Rod Tightening

When tightening tie rods, do not tighten only one tie rod tightly at a time, but gradually tighten the tie rods in the order of the numbers shown in the figure on the right. Note that one-sided tightening of tie rods may cause operation failure or chattering.

| Bore mm              | 32  | 40  | 50  | 63 | 80 | 100 | 125 | 160 |
|----------------------|-----|-----|-----|----|----|-----|-----|-----|
| Tightening Torque Nm | 4.1 | 4.1 | 4.1 | 10 | 21 | 35  | 87  | 180 |



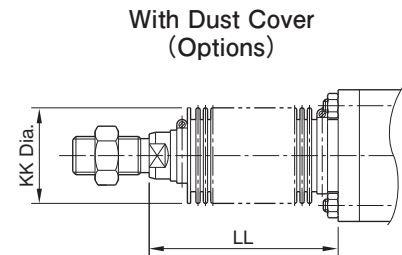
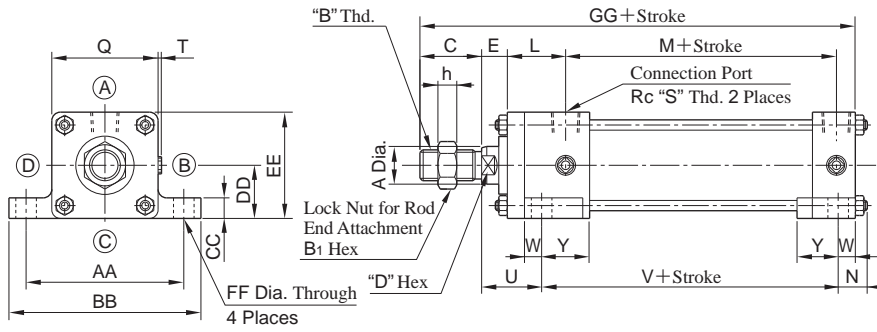
## SD : Basic Type



★The air vent valve can be provided at the remaining two of the four locations in position ①, ②, ③, ④, that are not designated as port and cushion adjusting valve positions.  
(Port direction: ①, cushion adjusting valve direction : ③ and ④ for standard ②)

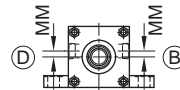
| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | F  | G  | H  | h  | J  | K   | L  | M  | N  | P  | Q   | R   | S   | T      | U        | KK  | X  |
|---------------|----|----------|----------------|----|----|----|----|----|----|----|----|-----|----|----|----|----|-----|-----|-----|--------|----------|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 10 | 38 | 30 | 7  | 25 | 103 | 34 | 58 | 11 | 7  | 44  | 33  | 1/4 | Max. 5 | M6×1     | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 10 | 38 | 30 | 7  | 25 | 103 | 34 | 58 | 11 | 7  | 50  | 37  | 3/8 | Max. 5 | M6×1     | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 10 | 38 | 30 | 11 | 25 | 103 | 34 | 58 | 11 | 7  | 62  | 47  | 3/8 | Max. 5 | M6×1     | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 10 | 38 | 33 | 11 | 25 | 106 | 34 | 61 | 11 | 9  | 76  | 56  | 3/8 | Max. 5 | M8×1.25  | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 16 | 45 | 31 | 14 | 32 | 124 | 43 | 67 | 14 | 10 | 94  | 70  | 1/2 | Max. 5 | M10×1.25 | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 16 | 45 | 31 | 17 | 32 | 124 | 43 | 67 | 14 | 12 | 114 | 89  | 1/2 | Max. 5 | M12×1.5  | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 20 | 45 | 37 | 22 | 32 | 134 | 47 | 73 | 14 | 16 | 138 | 110 | 1/2 | Max. 5 | M16×1.5  | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 25 | 50 | 42 | 26 | 38 | 155 | 54 | 84 | 17 | 19 | 176 | 142 | 3/4 | Max. 5 | M20×1.5  | 100 | 70 |

LA : Foot Mounting Side Lugs



Nylon Tarpaulin, [ 32-63 Dia. 1/3 Stroke+X  
80-160 Dia. 1/4 Stroke+X ]  
Chloroprene [ 32-63 Dia. 1/2.5 Stroke+X  
80-160 Dia. 1/3 Stroke+X ]  
Conex

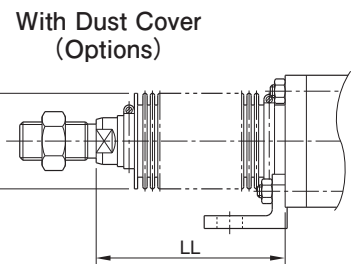
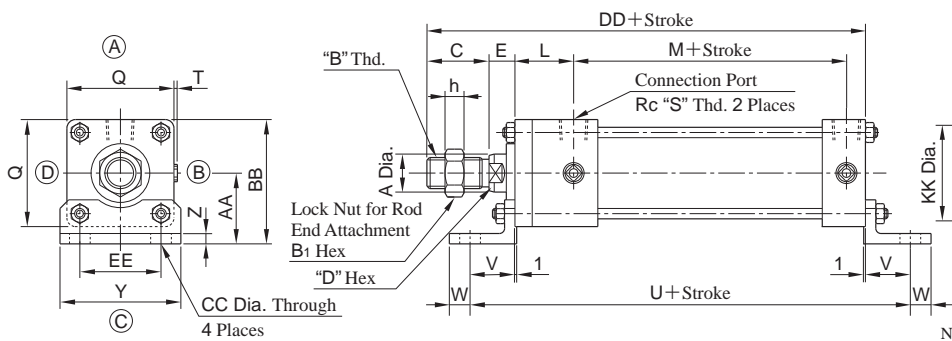
- Notes: 1. The socket head cap screw shall be used as a mounting bolt.  
2. As for cylinder bore 32-100, in case the port direction is (B) or (D), pipe fittings may interfere with cylinder mounting bolts. And as for cylinder bore 32-100, the port positions are as shown on the right(MM dimensions). Refer to instructions on page J-4 for details.



| Cylinder Bore | mm |    |    |
|---------------|----|----|----|
|               | 32 | 40 | 50 |
| MM            | 5  | 6  | 6  |

| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | h  | L  | M  | N  | Q   | S   | T     | U  | V  | W  | Y  | AA  | BB  | CC | DD | EE               | FF  | GG | KK  | X   |    |
|---------------|----|----------|----------------|----|----|----|----|----|----|----|-----|-----|-------|----|----|----|----|-----|-----|----|----|------------------|-----|----|-----|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 17 | 44  | 1/4 | Max.5 | 35 | 73 | 10 | 18 | 69  | 84  | 8  | 22 | -0.300<br>-0.384 | 44  | 9  | 142 | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 17 | 50  | 3/8 | Max.5 | 35 | 73 | 10 | 24 | 80  | 100 | 8  | 25 | -0.300<br>-0.384 | 50  | 12 | 142 | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 58 | 17 | 62  | 3/8 | Max.5 | 35 | 73 | 10 | 24 | 92  | 112 | 12 | 31 | -0.310<br>-0.410 | 62  | 12 | 154 | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 61 | 19 | 76  | 3/8 | Max.5 | 35 | 76 | 10 | 24 | 108 | 128 | 12 | 38 | -0.300<br>-0.410 | 76  | 12 | 157 | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 14 | 43 | 67 | 23 | 94  | 1/2 | Max.5 | 48 | 82 | 13 | 32 | 128 | 150 | 19 | 47 | -0.320<br>-0.420 | 94  | 14 | 191 | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 17 | 43 | 67 | 30 | 114 | 1/2 | Max.5 | 57 | 72 | 18 | 27 | 154 | 182 | 24 | 57 | -0.340<br>-0.460 | 114 | 18 | 207 | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 22 | 47 | 73 | 38 | 138 | 1/2 | Max.5 | 67 | 70 | 22 | 23 | 189 | 224 | 29 | 69 | -0.360<br>-0.480 | 138 | 22 | 243 | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 26 | 54 | 84 | 43 | 176 | 3/4 | Max.5 | 78 | 82 | 24 | 26 | 236 | 278 | 42 | 89 | -0.380<br>-0.520 | 178 | 26 | 280 | 100 | 70 |

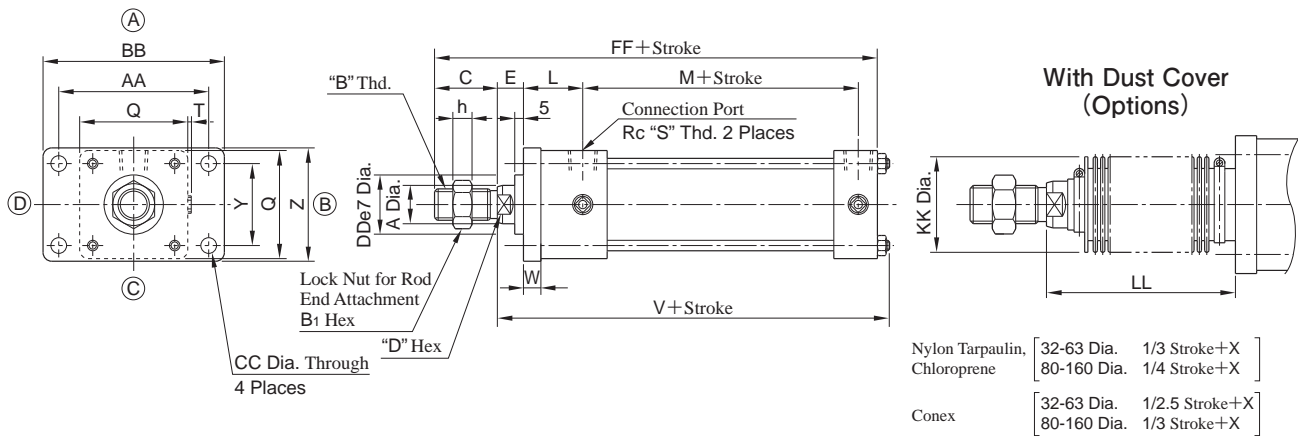
LB : Foot Mounting Side End Angles



Nylon Tarpaulin, [ 32-63 Dia. 1/3 Stroke+X  
80-160 Dia. 1/4 Stroke+X ]  
Chloroprene [ 32-63 Dia. 1/2.5 Stroke+X  
80-160 Dia. 1/3 Stroke+X ]  
Conex

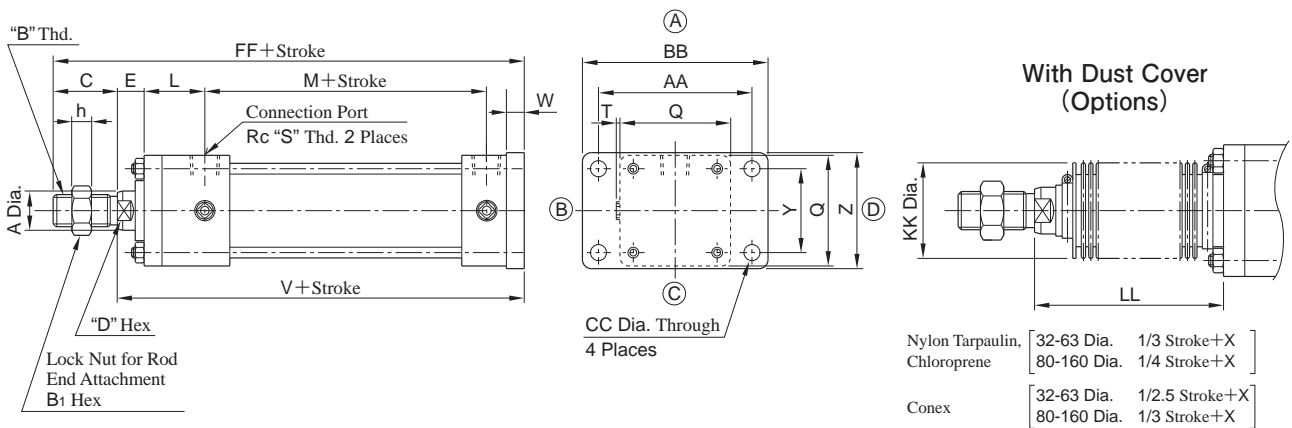
| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | h  | L  | M  | Q   | S   | T     | U   | V  | W  | Y   | Z  | AA  | BB  | CC | DD  | EE  | KK  | X  |
|---------------|----|----------|----------------|----|----|----|----|----|----|-----|-----|-------|-----|----|----|-----|----|-----|-----|----|-----|-----|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 44  | 1/4 | Max.5 | 149 | 23 | 10 | 54  | 5  | 33  | 55  | 9  | 142 | 33  | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 50  | 3/8 | Max.5 | 153 | 25 | 12 | 60  | 5  | 35  | 60  | 12 | 142 | 37  | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 58 | 62  | 3/8 | Max.5 | 155 | 26 | 12 | 70  | 6  | 41  | 72  | 12 | 154 | 47  | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 61 | 76  | 3/8 | Max.5 | 162 | 28 | 12 | 80  | 6  | 48  | 86  | 12 | 157 | 56  | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 14 | 43 | 67 | 94  | 1/2 | Max.5 | 192 | 34 | 14 | 97  | 8  | 59  | 106 | 14 | 191 | 70  | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 17 | 43 | 67 | 114 | 1/2 | Max.5 | 204 | 40 | 18 | 120 | 9  | 70  | 127 | 18 | 207 | 89  | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 22 | 47 | 73 | 138 | 1/2 | Max.5 | 228 | 47 | 22 | 138 | 10 | 86  | 155 | 22 | 243 | 95  | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 26 | 54 | 84 | 176 | 3/4 | Max.5 | 271 | 58 | 26 | 178 | 15 | 111 | 200 | 26 | 280 | 128 | 100 | 70 |

### FA : Rod Rectangular Flange



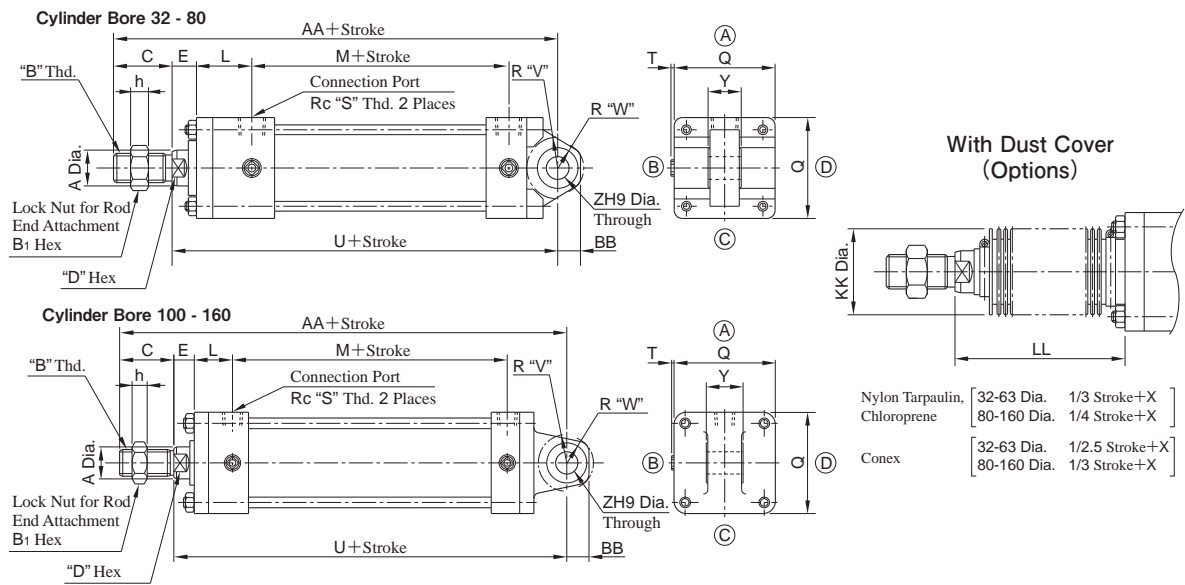
| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | h  | L  | M  | Q   | S   | T     | V   | W  | Y   | Z   | AA  | BB  | CC | DD | FF  | KK  | X  |
|---------------|----|----------|----------------|----|----|----|----|----|----|-----|-----|-------|-----|----|-----|-----|-----|-----|----|----|-----|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 44  | 1/4 | Max.5 | 125 | 10 | 33  | 47  | 58  | 72  | 7  | 30 | 142 | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 50  | 3/8 | Max.5 | 125 | 10 | 36  | 52  | 70  | 84  | 7  | 30 | 142 | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 58 | 62  | 3/8 | Max.5 | 125 | 10 | 47  | 65  | 86  | 104 | 9  | 34 | 154 | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 61 | 76  | 3/8 | Max.5 | 130 | 10 | 56  | 76  | 98  | 116 | 9  | 34 | 157 | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 14 | 43 | 67 | 94  | 1/2 | Max.5 | 153 | 16 | 70  | 95  | 119 | 143 | 12 | 42 | 191 | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 17 | 43 | 67 | 114 | 1/2 | Max.5 | 159 | 16 | 84  | 115 | 140 | 166 | 14 | 50 | 207 | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 22 | 47 | 73 | 138 | 1/2 | Max.5 | 175 | 20 | 110 | 138 | 176 | 212 | 18 | 60 | 243 | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 26 | 54 | 84 | 176 | 3/4 | Max.5 | 203 | 25 | 142 | 178 | 225 | 225 | 22 | 72 | 280 | 100 | 70 |

### FB : Cap Rectangular Flange



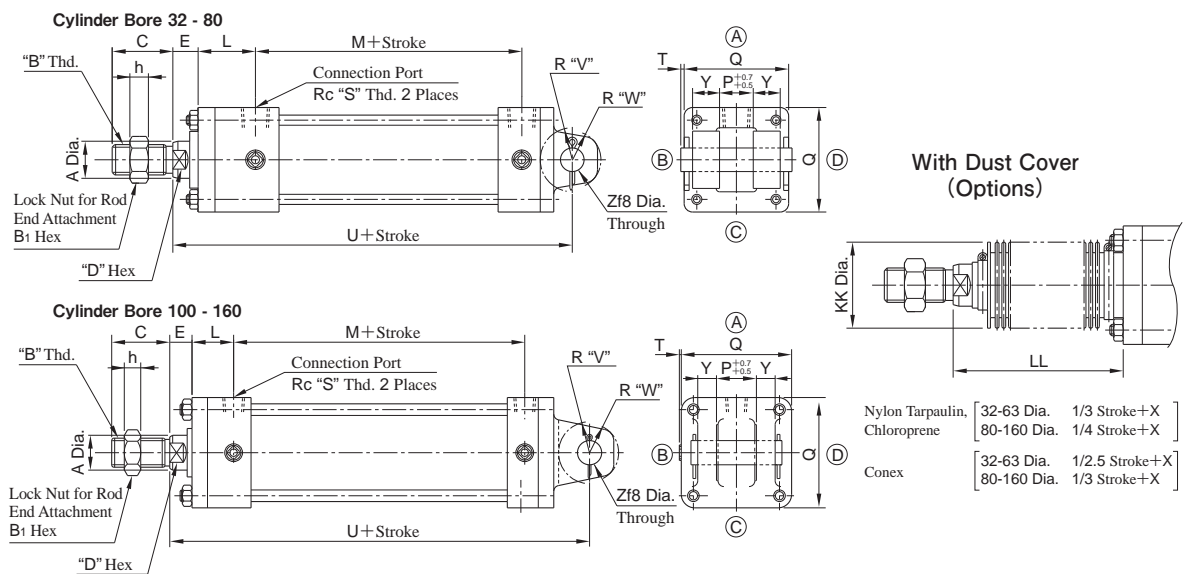
| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | h  | L  | M  | Q   | S   | T     | V   | W  | Y   | Z   | AA  | BB  | CC | FF  | KK  | X  |
|---------------|----|----------|----------------|----|----|----|----|----|----|-----|-----|-------|-----|----|-----|-----|-----|-----|----|-----|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 44  | 1/4 | Max.5 | 128 | 10 | 33  | 47  | 58  | 72  | 7  | 152 | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 50  | 3/8 | Max.5 | 128 | 10 | 36  | 52  | 70  | 84  | 7  | 152 | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 58 | 62  | 3/8 | Max.5 | 128 | 10 | 47  | 65  | 86  | 104 | 9  | 164 | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 61 | 76  | 3/8 | Max.5 | 131 | 10 | 56  | 76  | 98  | 116 | 9  | 167 | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 14 | 43 | 67 | 94  | 1/2 | Max.5 | 159 | 16 | 70  | 95  | 119 | 143 | 12 | 207 | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 17 | 43 | 67 | 114 | 1/2 | Max.5 | 163 | 16 | 84  | 115 | 140 | 166 | 14 | 223 | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 22 | 47 | 73 | 138 | 1/2 | Max.5 | 179 | 20 | 110 | 138 | 176 | 212 | 18 | 263 | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 26 | 54 | 84 | 176 | 3/4 | Max.5 | 209 | 25 | 142 | 178 | 225 | 225 | 22 | 305 | 100 | 70 |

CA : Cap Detachable Eye



| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | h  | L  | M  | Q   | S   | T     | U   | V  | W  | Y                                 | Z  | AA  | BB | KK  | X  |
|---------------|----|----------|----------------|----|----|----|----|----|----|-----|-----|-------|-----|----|----|-----------------------------------|----|-----|----|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 44  | 1/4 | Max.5 | 137 | 17 | 14 | 16 <sup>0</sup> <sub>-0.070</sub> | 12 | 161 | 12 | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 50  | 3/8 | Max.5 | 137 | 17 | 16 | 20 <sup>0</sup> <sub>-0.084</sub> | 14 | 161 | 14 | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 58 | 62  | 3/8 | Max.5 | 137 | 19 | 16 | 20 <sup>0</sup> <sub>-0.084</sub> | 14 | 173 | 14 | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 61 | 76  | 3/8 | Max.5 | 140 | 19 | 16 | 20 <sup>0</sup> <sub>-0.084</sub> | 14 | 176 | 14 | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 14 | 43 | 67 | 94  | 1/2 | Max.5 | 175 | 26 | 22 | 32 <sup>0</sup> <sub>-0.100</sub> | 20 | 223 | 20 | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 17 | 43 | 67 | 114 | 1/2 | Max.5 | 200 | 32 | 30 | 40 <sup>0</sup> <sub>-0.100</sub> | 25 | 260 | 25 | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 22 | 47 | 73 | 138 | 1/2 | Max.5 | 226 | 42 | 36 | 45 <sup>0</sup> <sub>-0.100</sub> | 32 | 310 | 32 | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 26 | 54 | 84 | 176 | 3/4 | Max.5 | 261 | 45 | 42 | 50 <sup>0</sup> <sub>-0.100</sub> | 36 | 357 | 36 | 100 | 70 |

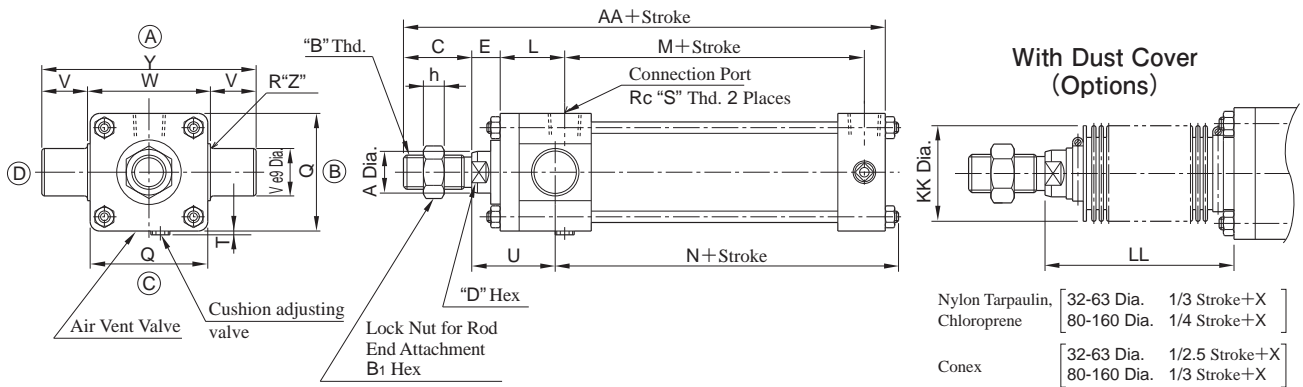
CB : Cap Detachable Clevis



| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | h  | L  | M  | P  | Q   | S   | T     | U   | V  | W  | Y    | Z  | KK  | X  |
|---------------|----|----------|----------------|----|----|----|----|----|----|----|-----|-----|-------|-----|----|----|------|----|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 16 | 44  | 1/4 | Max.5 | 137 | 18 | 15 | 8    | 12 | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 20 | 50  | 3/8 | Max.5 | 137 | 18 | 15 | 12   | 14 | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 58 | 20 | 62  | 3/8 | Max.5 | 137 | 19 | 17 | 16   | 14 | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 61 | 20 | 76  | 3/8 | Max.5 | 140 | 19 | 17 | 16   | 14 | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 14 | 43 | 67 | 32 | 94  | 1/2 | Max.5 | 175 | 32 | 23 | 16   | 20 | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 17 | 43 | 67 | 40 | 114 | 1/2 | Max.5 | 200 | 32 | 30 | 20   | 25 | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 22 | 47 | 73 | 45 | 138 | 1/2 | Max.5 | 226 | 42 | 36 | 22.5 | 32 | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 26 | 54 | 84 | 50 | 176 | 3/4 | Max.5 | 261 | 45 | 42 | 25   | 36 | 100 | 70 |



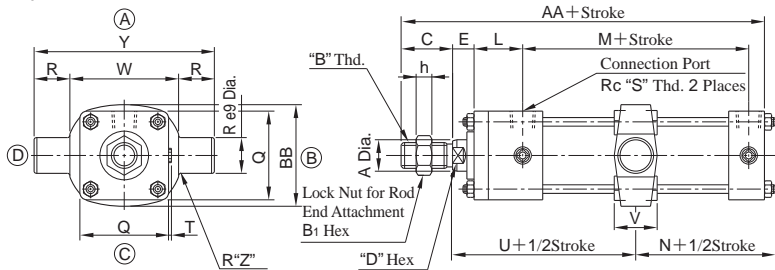
### TA : Rod Trunnion



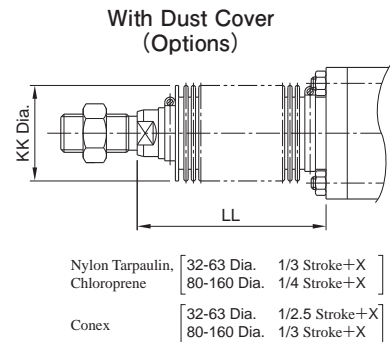
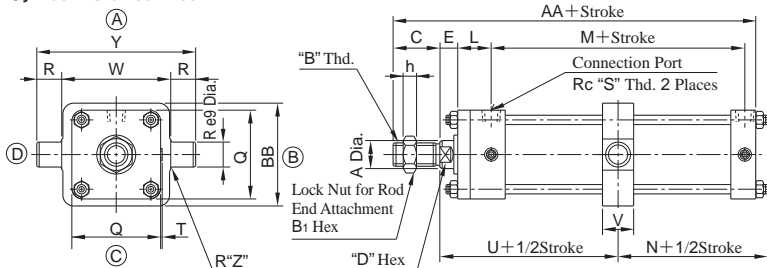
| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | h  | L  | M  | N   | Q   | S   | T     | U  | V  | W   | Y   | Z   | AA  | KK  | X  |
|---------------|----|----------|----------------|----|----|----|----|----|----|-----|-----|-----|-------|----|----|-----|-----|-----|-----|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 81  | 44  | 1/4 | Max.5 | 44 | 16 | 44  | 76  | 1   | 142 | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 81  | 50  | 3/8 | Max.5 | 44 | 25 | 50  | 100 | 1.6 | 142 | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 58 | 81  | 62  | 3/8 | Max.5 | 44 | 25 | 63  | 113 | 1.6 | 154 | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 61 | 86  | 76  | 3/8 | Max.5 | 44 | 25 | 76  | 126 | 1.6 | 157 | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 14 | 43 | 67 | 96  | 94  | 1/2 | Max.5 | 57 | 25 | 95  | 145 | 1.6 | 191 | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 17 | 43 | 67 | 98  | 114 | 1/2 | Max.5 | 61 | 32 | 114 | 178 | 2.5 | 207 | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 22 | 47 | 73 | 108 | 138 | 1/2 | Max.5 | 67 | 36 | 144 | 216 | 2.5 | 243 | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 26 | 54 | 84 | 124 | 176 | 3/4 | Max.5 | 79 | 45 | 184 | 274 | 3   | 280 | 100 | 70 |

### TC : Intermediate Trunnion

Cylinder Bore 32 - 80



Cylinder Bore 100 - 160

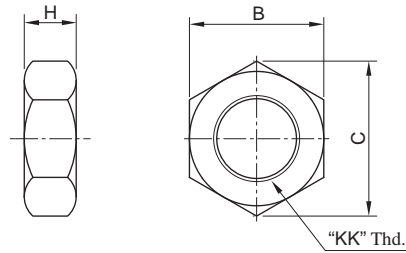


| Cylinder Bore | A  | B        | B <sub>1</sub> | C  | D  | E  | h  | L  | M  | N    | Q   | R  | S   | T     | U     | V  | W   | Y   | Z   | AA  | BB  | KK  | X  |
|---------------|----|----------|----------------|----|----|----|----|----|----|------|-----|----|-----|-------|-------|----|-----|-----|-----|-----|-----|-----|----|
| 32            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 47   | 44  | 16 | 1/4 | Max.5 | 78    | 30 | 55  | 87  | 1   | 142 | 52  | 36  | 50 |
| 40            | 16 | M12×1.25 | 19             | 24 | 13 | 15 | 7  | 34 | 58 | 47   | 50  | 25 | 3/8 | Max.5 | 78    | 30 | 63  | 113 | 1.6 | 142 | 59  | 40  | 50 |
| 50            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 58 | 47   | 62  | 25 | 3/8 | Max.5 | 78    | 30 | 76  | 126 | 1.6 | 154 | 71  | 45  | 55 |
| 63            | 22 | M18×1.5  | 24             | 36 | 19 | 15 | 11 | 34 | 61 | 50.5 | 76  | 25 | 3/8 | Max.5 | 79.5  | 30 | 88  | 138 | 1.6 | 157 | 86  | 45  | 55 |
| 80            | 28 | M24×2    | 32             | 48 | 24 | 19 | 14 | 43 | 67 | 57.7 | 94  | 25 | 1/2 | Max.5 | 95.5  | 35 | 114 | 164 | 1.6 | 191 | 104 | 60  | 65 |
| 100           | 36 | M30×2    | 41             | 60 | 30 | 23 | 17 | 43 | 67 | 59.5 | 114 | 32 | 1/2 | Max.5 | 99.5  | 40 | 140 | 204 | 2.5 | 207 | 132 | 71  | 65 |
| 125           | 45 | M42×2    | 60             | 84 | 41 | 25 | 22 | 47 | 73 | 66.5 | 138 | 36 | 1/2 | Max.5 | 108.5 | 53 | 166 | 238 | 2.5 | 243 | 160 | 80  | 65 |
| 160           | 56 | M48×2    | 70             | 96 | 50 | 29 | 26 | 54 | 84 | 78   | 176 | 45 | 3/4 | Max.5 | 125   | 58 | 214 | 304 | 3   | 280 | 208 | 100 | 70 |

## Options

### Lock Nut

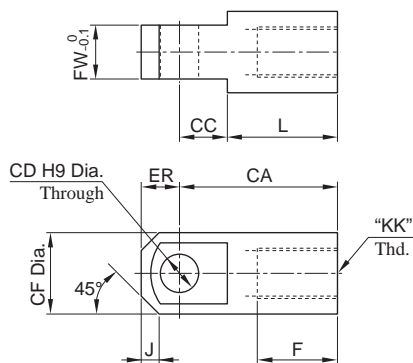
Option Code : K



|          | KK | H  | B  | C    |
|----------|----|----|----|------|
| M12×1.25 |    | 7  | 19 | 21.9 |
| M18×1.5  |    | 11 | 27 | 31.2 |
| M24×2    |    | 14 | 36 | 41.6 |
| M30×2    |    | 17 | 46 | 53.1 |
| M42×2    |    | 22 | 65 | 75   |
| M48×2    |    | 26 | 75 | 86.5 |

### Rod End Attachment

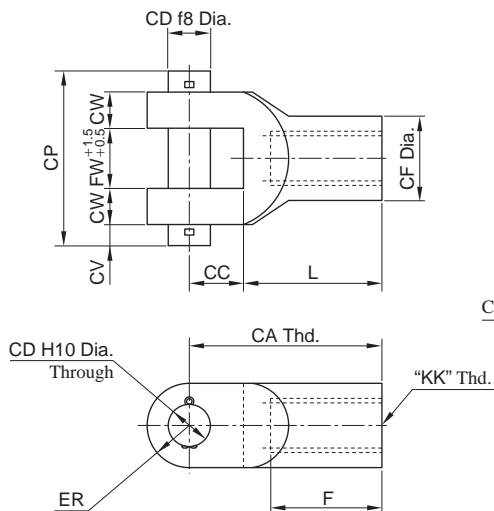
T-End (Rod End Eye) Option Code : L



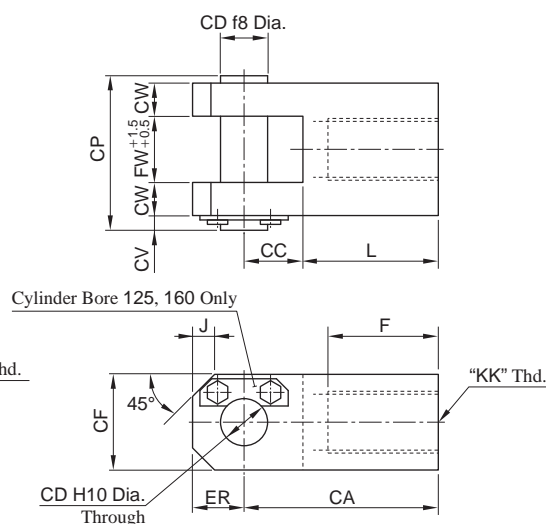
| Cylinder Bore | KK       | F  | CA  | CC | CD | CF | ER  | FW | J  | L   |
|---------------|----------|----|-----|----|----|----|-----|----|----|-----|
| 32            | M12×1.25 | 25 | 55  | 20 | 12 | 24 | R12 | 16 | -  | 35  |
| 40            | M12×1.25 | 25 | 60  | 20 | 14 | 24 | R12 | 20 | -  | 40  |
| 50            | M18×1.5  | 37 | 64  | 18 | 14 | 28 | R14 | 20 | -  | 46  |
| 63            |          |    |     |    |    |    |     |    |    |     |
| 80            | M24×2    | 49 | 100 | 30 | 20 | 38 | R19 | 32 | -  | 70  |
| 100           | M30×2    | 61 | 110 | 37 | 25 | 48 | R24 | 40 | -  | 73  |
| 125           | M42×2    | 67 | 132 | 40 | 32 | 70 | 32  | 45 | 15 | 92  |
| 160           | M48×2    | 78 | 150 | 45 | 36 | 79 | 36  | 50 | 19 | 105 |

Y-End (Rod End Clevis) Option Code : M

● Cylinder Bore 32 - 100



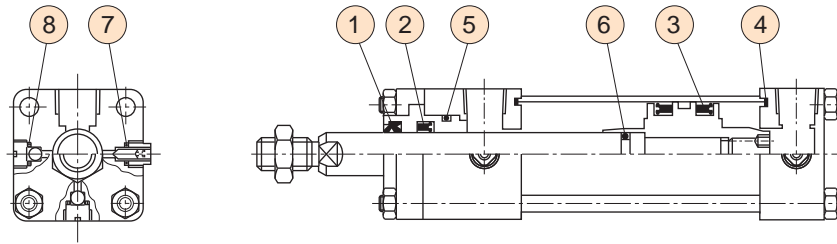
● Cylinder Bore 125, 160



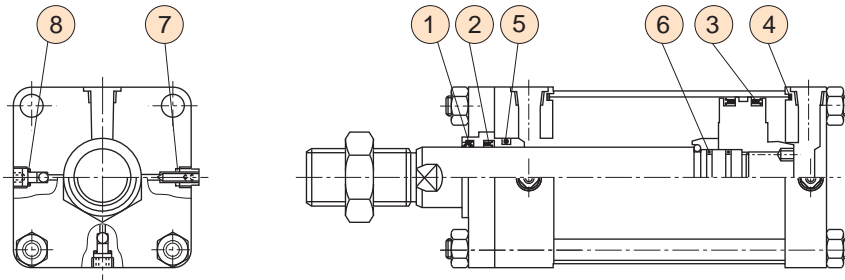
| Cylinder Bore | KK       | F  | CA  | CC | CD | CF | CW   | ER  | FW | CV | CP  | J  | L   |
|---------------|----------|----|-----|----|----|----|------|-----|----|----|-----|----|-----|
| 32            | M12×1.25 | 25 | 55  | 20 | 12 | 24 | 8    | R12 | 16 | 7  | 46  | -  | 35  |
| 40            | M12×1.25 | 25 | 60  | 20 | 14 | 24 | 12   | R12 | 20 | 7  | 58  | -  | 40  |
| 50            | M18×1.5  | 37 | 64  | 18 | 14 | 28 | 12   | R14 | 20 | 7  | 58  | -  | 46  |
| 63            |          |    |     |    |    |    |      |     |    |    |     |    |     |
| 80            | M24×2    | 49 | 100 | 28 | 20 | 38 | 16   | R19 | 32 | 7  | 78  | -  | 72  |
| 100           | M30×2    | 61 | 110 | 35 | 25 | 48 | 20   | R24 | 40 | 7  | 94  | -  | 75  |
| 125           | M42×2    | 75 | 132 | 40 | 32 | 65 | 22.5 | 35  | 45 | 10 | 105 | 15 | 92  |
| 160           | M48×2    | 86 | 150 | 45 | 36 | 70 | 25   | 40  | 50 | 10 | 115 | 15 | 105 |

# CJT 35

Cylinder Bore 32 - 100



Cylinder Bore 125 - 160



| Item          |                                       | ①         | ②           | ③              | ④                 | ⑤                     | ⑥                       | ⑦                  | ⑧                |
|---------------|---------------------------------------|-----------|-------------|----------------|-------------------|-----------------------|-------------------------|--------------------|------------------|
| Cylinder Bore | Name                                  | Dust Seal | Rod Packing | Piston Packing | Packing for Cover | O-Ring for Bush<br>★2 | O-Ring for Piston<br>★2 | Cushion Valve Seal | Check Valve Seal |
|               | Model Numbers for Seal Kit ★1<br>Q'ty | 1         | 1           | 2              | 2                 | 1                     | 2                       | 2                  | 4                |
| 32            | KS-CJT35- 32S-30                      | DHS-16    | UHR-16      | RHP-32         | TX- 32            | G25                   | S10                     | TF- 8              | CR- 8            |
| 40            | KS-CJT35- 40S-30                      | DHS-16    | UHR-16      | RHP-40         | TX- 40            | G25                   | P12                     | TF- 8              | CR- 8            |
| 50            | KS-CJT35- 50S-30                      | DHS-22    | UHR-22      | RHP-50         | TX- 50            | G35                   | P18                     | TF- 8              | CR- 8            |
| 63            | KS-CJT35- 63S-30                      | DHS-22    | UHR-22      | RHP-63         | TX- 63            | G35                   | P18                     | TF-12              | CR-12            |
| 80            | KS-CJT35- 80S-30                      | DHS-28    | UHR-28A     | RHP-80A        | TX- 80            | P36                   | P22A                    | TF-12              | CR-12            |
| 100           | KS-CJT35-100S-30                      | DHS-36    | UHR-36      | RHP-100A       | TX-100            | P46                   | G30                     | TF-14              | CR-14            |
| 125           | KS-CJT35-125S-30                      | DHS-45    | UHR-45A     | RHP-125A       | TX-125            | G55                   | G40                     | TF-14              | CR-14            |
| 160           | KS-CJT35-160S-30                      | DHS-56    | UHR-56      | RHP-160        | TX-160            | G65                   | G50                     | TF-14              | CR-18            |

★1. Please specify the seal kit numbers above when ordering the seals.

★2. O-ring is OR NBR-70-1 P(G)\*\*-N. Reference The O-ring code "S" for the cylinder bore 32 is a special standard.

★3. Material of standard packing is Nitrile Rubber. About Fluoro Rubber and Hydrogenated Nitrile Rubber, please specify "F-" in addition to the model of seal kit after "KS".

Fluorine Rubber : F- Hydrogenated Nitrile Rubber : 6-

Note: The packing code changes without notice.

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231  
 Ангарск (3955)60-70-56  
 Архангельск (8182)63-90-72  
 Астрахань (8512)99-46-04  
 Барнаул (3852)73-04-60  
 Белгород (4722)40-23-64  
 Благовещенск (4162)22-76-07  
 Брянск (4832)59-03-52  
 Владивосток (423)249-28-31  
 Владикавказ (8672)28-90-48  
 Владимир (4922)49-43-18  
 Волгоград (844)278-03-48  
 Вологда (8172)26-41-59  
 Воронеж (473)204-51-73  
 Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
 Ижевск (3412)26-03-58  
 Иркутск (395)279-98-46  
 Казань (843)206-01-48  
 Калининград (4012)72-03-81  
 Калуга (4842)92-23-67  
 Кемерово (3842)65-04-62  
 Киров (8332)68-02-04  
 Коломна (4966)23-41-49  
 Кострома (4942)77-07-48  
 Краснодар (861)203-40-90  
 Красноярск (391)204-63-61  
 Курган (3522)50-90-47  
 Курск (4712)77-13-04  
 Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
 Москва (495)268-04-70  
 Мурманск (8152)59-64-93  
 Набережные Челны (8552)20-53-41  
 Нижний Новгород (831)429-08-12  
 Новокузнецк (3843)20-46-81  
 Новосибирск (383)227-86-73  
 Ноябрьск (3496)41-32-12  
 Омск (3812)21-46-40  
 Орел (4862)44-53-42  
 Оренбург (3532)37-68-04  
 Пенза (8412)22-31-16  
 Пермь (342)205-81-47  
 Петрозаводск (8142)55-98-37  
 Псков (8112)59-10-37

Ростов-на-Дону (863)308-18-15  
 Рязань (4912)46-61-64  
 Самара (846)206-03-16  
 Санкт-Петербург (812)309-46-40  
 Саранск (8342)22-96-24  
 Саратов (845)249-38-78  
 Севастополь (8692)22-31-93  
 Симферополь (3652)67-13-56  
 Смоленск (4812)29-41-54  
 Сочи (862)225-72-31  
 Ставрополь (8652)20-65-13  
 Сургут (3462)77-98-35  
 Сыктывкар (8212)25-95-17  
 Тамбов (4752)50-40-97  
 Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
 Томск (3822)98-41-53  
 Тула (4872)33-79-87  
 Тюмень (3452)66-21-18  
 Улан-Удэ (3012)59-97-51  
 Ульяновск (8422)24-23-59  
 Уфа (347)229-48-12  
 Хабаровск (4212)92-98-04  
 Чебоксары (8352)28-53-07  
 Челябинск (351)202-03-61  
 Череповец (8202)49-02-64  
 Чита (3022)38-34-83  
 Якутск (4112)23-90-97  
 Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47