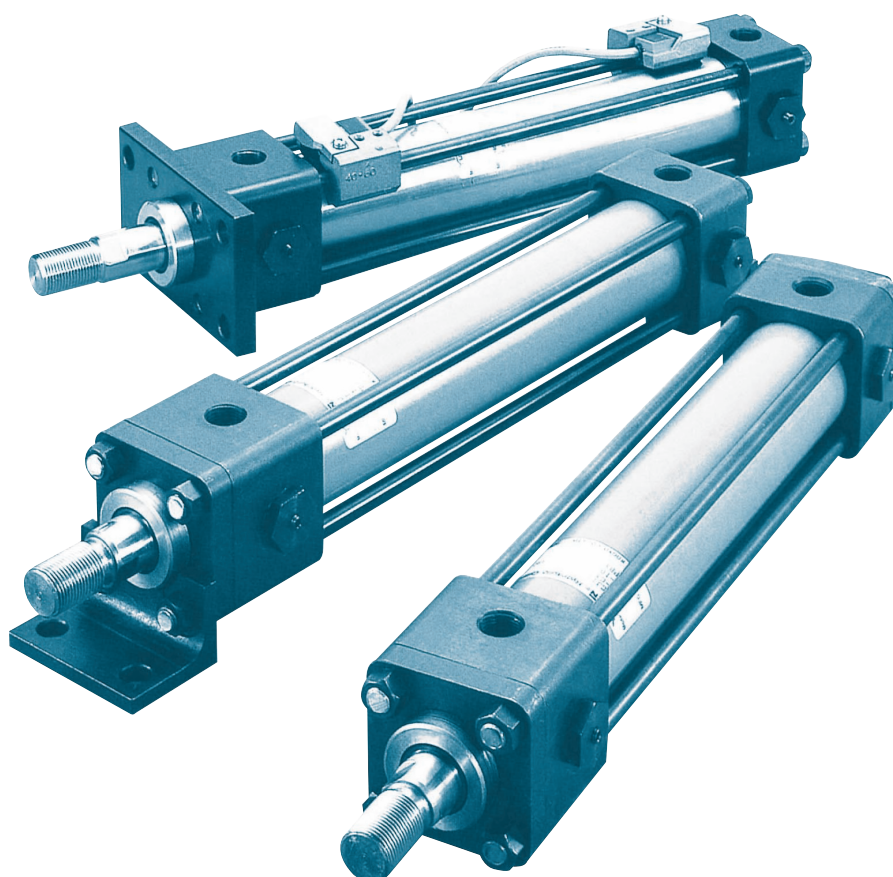


**J**

# **HYDRAULIC CYLINDER**

---

- CJT TYPE 35 · 70 · 140 · 210 SERIES HYDRAULIC CYLINDER..... J-4
- CJT SERIES HYDRAULIC CYLINDER WITH PROXIMITY SWITCH ..... J-45
- C6 SERIES COMPACT CYLINDER ..... J-51



## Related to the unit and the design number

### ■ Unit

This catalog to the International System of Units SI, and here the main display unit of the conventional (gravity units) with the { } in the notation.

(For example) the pressue- 21MPa{214kgf/cm<sup>2</sup>}

This latest international trends as the introduction of SI units are still being carried out in Japan (1986 enacted on or after January 1, revised Japanese Industrial Standards (JIS) for the week to display units in SI units.) And is determined can. Here also according to the catalog of the show was to.

In particular, the main display is shown with { } SI units and conventional units with the conversion factor is as follows. { }

- Pressure 1MPa=10.197162=10.2kgf/cm<sup>2</sup>
- Kinematic viscosity 1mm<sup>2</sup>/s=1cSt

### ■ For a number of design changes

Products designed to improve the numbers are subject to change without notice. However, if you change the design number one place to the bottom of the mounting dimensions and performance specifications is not a change.

## Contents

|                                                     |       |      |
|-----------------------------------------------------|-------|------|
| CJT series hydraulic cylinder                       | ----- | J-4  |
| ● 35 Series hydraulic cylinder                      | ----- | J-4  |
| ● 70/140 Series Type hydraulic cylinder             | ----- | J-14 |
| ● 210 Series Type hydraulic cylinder                | ----- | J-37 |
| CJT series hydraulic cylinder with proximity switch | ----- | J-45 |
| C6 series compact cylinder                          | ----- | J-51 |

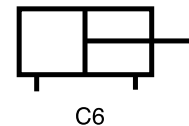
## C6 series Compact type Hydraulic Cylinders

### C6 Series Compact Type Hydraulic Cylinders

SEWON's "C6" series Compact type Hydraulic Cylinder compared with a conventional full length of the cylinder is 1/3 of a compact space, so you can mount in tight spaces. It has the following features.



Graphic Symbols



- **Compact Design**  
By intergrating the cylinder tube and cover can mounted in a small space, so space is possible upset.
- **Rich diversity**  
C6 series model of the from 3, 135 kinds are abundant. Please choose according to the applications.
- **High durability of the piston**  
Strong material in the cylinder piston cast iron tiles Tak(FCD35) is adopted, do not have to worry about pressing the sick.
- **Easy to maintenance**  
Without removing the pipe just to solve a packing rod bushing, etc.. that can be very easy maintenance.

#### Specifications

| Description                     | Model Numbers | Standard Type<br>C6-SA-※SA※B140N※                               | Foot Type<br>C6-SA-※LD※B140N※ |
|---------------------------------|---------------|-----------------------------------------------------------------|-------------------------------|
| Cylinder Bore mm                |               | 32, 40, 50, 63, 80, 100                                         | 32, 40, 50, 63                |
| Max. Operating Pressure         |               | 14MPa {143kgf/cm <sup>2</sup> }                                 |                               |
| Allowable Surge Pressure        |               | 21MPa {214kgf/cm <sup>2</sup> }                                 |                               |
| Max. Operating Pressure         |               | 0.3MPa {3.1kgf/cm <sup>2</sup> } or less                        |                               |
| Range of Operating Speed        |               | 8~100mm/s                                                       |                               |
| Stroke mm                       |               | Refer to Model Number Designation                               |                               |
| Tolerance of Stroke mm          |               | 0~+0.8(KS B 8354 A Class)                                       |                               |
| Accuracy of Thread at Rod End   |               | KS B 0211 (2 Class)                                             |                               |
| Range of Ambient Temperature °C |               | -10 ~ +80                                                       |                               |
| Hydraulic Fluids                |               | Petroleum based Oil : To use another fluids, please contact us. |                               |

- Calculate the mass by following formula.  
[Weight] = [Basic weight] + [Additional Mass per 1mm X Stroke(mm)]  
For the "Basic weight" & "Additional Mass per 1mm", please see page J-53, J-55.

#### Model Number Designation

| C6              | -S                           | A                 | -1                                                | SA               | 32                   | B            | 140                                        | N               | 10                                 | M                                           | N                                                | Design Number |
|-----------------|------------------------------|-------------------|---------------------------------------------------|------------------|----------------------|--------------|--------------------------------------------|-----------------|------------------------------------|---------------------------------------------|--------------------------------------------------|---------------|
| Series Number   | Type of Rod                  | Standard /Special | Material of Packing                               | Type of Mounting | Cylinder Bore mm     | Type of Rod  | Nax. Operating Pres.                       | Type of Cushion | Stroke mm                          | Type of Nut                                 | Lock Nut                                         |               |
| C6:<br>Standard | S:<br>Single<br>W:<br>Double | A:<br>Standard    | 1:Nitrile<br>2:Polyurethane<br>[3:Fluorine*]<br>1 | SA:<br>Standard  | 32,40<br>50,63<br>80 | B:<br>B type | 140:<br>14MPa<br>{143kgf/cm <sup>2</sup> } | N: None         | 5,10,15,20<br>25,30,35,40<br>45,50 | None:<br>Female<br>(standard)<br>M:<br>Male | None:<br>Without Lock Nut<br>N:<br>With Lock Nut | 11            |

★ 1. [ ] Fluorine Packing and change the type of end thread is treated as a standard type. Please contact us for details.

## C6 series Compact type Hydraulic Cylinders

### Compliance Packing materials and Hydraulic Fluids

| Type of Packing          | 1             | 2              | 3        |
|--------------------------|---------------|----------------|----------|
| Type of Fluids           | Nitrile Ruber | Urethane Ruber | Fluorine |
| Petroleum based Oil      | ○             | ○              | ○        |
| W/O Emulsion based Oil   | ○             | ○              | ○        |
| O/W Emulsion based Oil   | ○             | ○              | ○        |
| Water glycol type Oil    | ○             | ×              | △        |
| Phosphate ester type Oil | ×             | ×              | ○        |

★ 1. The mark O is available, X is unavailable. Please contact us about mark △.

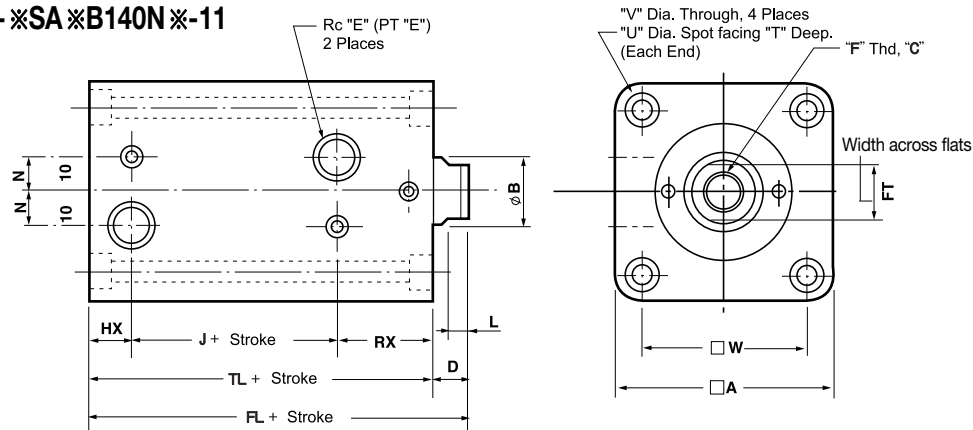
★ 2. Operating Temperature range of packing is -10 ~ +80℃.

### Summary

| Type of Rod | Cylinder Bore mm | Rod Dia. mm | Action | Effective area cm <sup>2</sup> | Output Power kN{kgf}               |                                    |                                  |                                    |                                    |                                    |                                    |                                    |                                    |                                    |                                    |                                    |
|-------------|------------------|-------------|--------|--------------------------------|------------------------------------|------------------------------------|----------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
|             |                  |             |        |                                | 3MPa<br>{30.6kgf/cm <sup>2</sup> } | 4MPa<br>{40.8kgf/cm <sup>2</sup> } | 5MPa<br>{51kgf/cm <sup>2</sup> } | 6MPa<br>{61.2kgf/cm <sup>2</sup> } | 7MPa<br>{71.4kgf/cm <sup>2</sup> } | 8MPa<br>{81.6kgf/cm <sup>2</sup> } | 9MPa<br>{91.8kgf/cm <sup>2</sup> } | 10MPa<br>{102kgf/cm <sup>2</sup> } | 11MPa<br>{112kgf/cm <sup>2</sup> } | 12MPa<br>{122kgf/cm <sup>2</sup> } | 13MPa<br>{133kgf/cm <sup>2</sup> } | 14MPa<br>{143kgf/cm <sup>2</sup> } |
| B           | 32               | 18          | Push   | 8.0                            | 2.41<br>{246}                      | 3.21<br>{327}                      | 4.02<br>{410}                    | 4.82<br>{492}                      | 5.67<br>{578}                      | 6.43<br>{656}                      | 7.23<br>{737}                      | 8.04<br>{820}                      | 8.84<br>{902}                      | 9.65<br>{984}                      | 10.45<br>{1066}                    | 11.25<br>{1148}                    |
|             |                  |             | Pull   | 5.5                            | 1.64<br>{167}                      | 2.19<br>{223}                      | 2.74<br>{252}                    | 3.29<br>{336}                      | 3.84<br>{392}                      | 4.39<br>{448}                      | 4.94<br>{504}                      | 5.49<br>{560}                      | 6.04<br>{616}                      | 6.59<br>{672}                      | 7.14<br>{728}                      | 7.69<br>{784}                      |
|             | 40               | 22.4        | Push   | 12.6                           | 3.76<br>{384}                      | 5.02<br>{512}                      | 6.28<br>{641}                    | 7.53<br>{768}                      | 8.79<br>{897}                      | 10.05<br>{1025}                    | 11.30<br>{1153}                    | 12.56<br>{1281}                    | 13.82<br>{1410}                    | 15.07<br>{1537}                    | 16.33<br>{1666}                    | 17.59<br>{1794}                    |
|             |                  |             | Pull   | 8.6                            | 2.58<br>{263}                      | 3.45<br>{352}                      | 4.31<br>{440}                    | 5.17<br>{527}                      | 6.03<br>{615}                      | 6.90<br>{704}                      | 7.76<br>{792}                      | 8.62<br>{879}                      | 9.48<br>{967}                      | 10.35<br>{1056}                    | 11.21<br>{1143}                    | 12.07<br>{1231}                    |
|             | 50               | 28          | Push   | 19.6                           | 5.89<br>{601}                      | 7.85<br>{801}                      | 9.81<br>{1001}                   | 11.78<br>{1202}                    | 13.74<br>{1401}                    | 15.70<br>{1601}                    | 17.67<br>{1802}                    | 19.63<br>{2002}                    | 21.59<br>{2202}                    | 23.56<br>{2403}                    | 25.52<br>{2603}                    | 27.48<br>{2803}                    |
|             |                  |             | Pull   | 13.5                           | 4.04<br>{412}                      | 5.39<br>{550}                      | 6.73<br>{686}                    | 8.08<br>{824}                      | 9.43<br>{962}                      | 10.78<br>{1100}                    | 12.12<br>{1236}                    | 13.47<br>{1374}                    | 14.82<br>{1512}                    | 16.17<br>{1649}                    | 17.52<br>{1787}                    | 18.86<br>{1924}                    |
|             | 63               | 35.5        | Push   | 31.2                           | 9.35<br>{954}                      | 12.46<br>{1271}                    | 15.58<br>{1589}                  | 18.70<br>{1907}                    | 21.82<br>{2226}                    | 24.93<br>{2543}                    | 28.05<br>{2861}                    | 31.17<br>{3179}                    | 34.28<br>{3497}                    | 37.40<br>{3815}                    | 40.52<br>{4133}                    | 43.64<br>{4451}                    |
|             |                  |             | Pull   | 21.3                           | 6.38<br>{651}                      | 8.50<br>{867}                      | 10.63<br>{1084}                  | 12.76<br>{1302}                    | 14.89<br>{1519}                    | 17.01<br>{1735}                    | 19.14<br>{1952}                    | 21.27<br>{2170}                    | 23.40<br>{2387}                    | 25.52<br>{2603}                    | 27.65<br>{2820}                    | 29.78<br>{3038}                    |
|             | 80               | 45          | Push   | 50.2                           | 15.06<br>{1536}                    | 20.08<br>{2048}                    | 25.10<br>{2560}                  | 30.12<br>{3072}                    | 35.14<br>{3584}                    | 40.16<br>{4096}                    | 45.18<br>{4608}                    | 50.20<br>{5120}                    | 55.22<br>{5632}                    | 60.24<br>{6144}                    | 65.26<br>{6657}                    | 70.28<br>{7169}                    |
|             |                  |             | Pull   | 34.3                           | 10.29<br>{1050}                    | 13.27<br>{1354}                    | 17.15<br>{1749}                  | 20.58<br>{2099}                    | 24.01<br>{2449}                    | 27.44<br>{2799}                    | 30.87<br>{3149}                    | 34.30<br>{3499}                    | 37.73<br>{3848}                    | 41.16<br>{4198}                    | 44.59<br>{4548}                    | 48.02<br>{4898}                    |

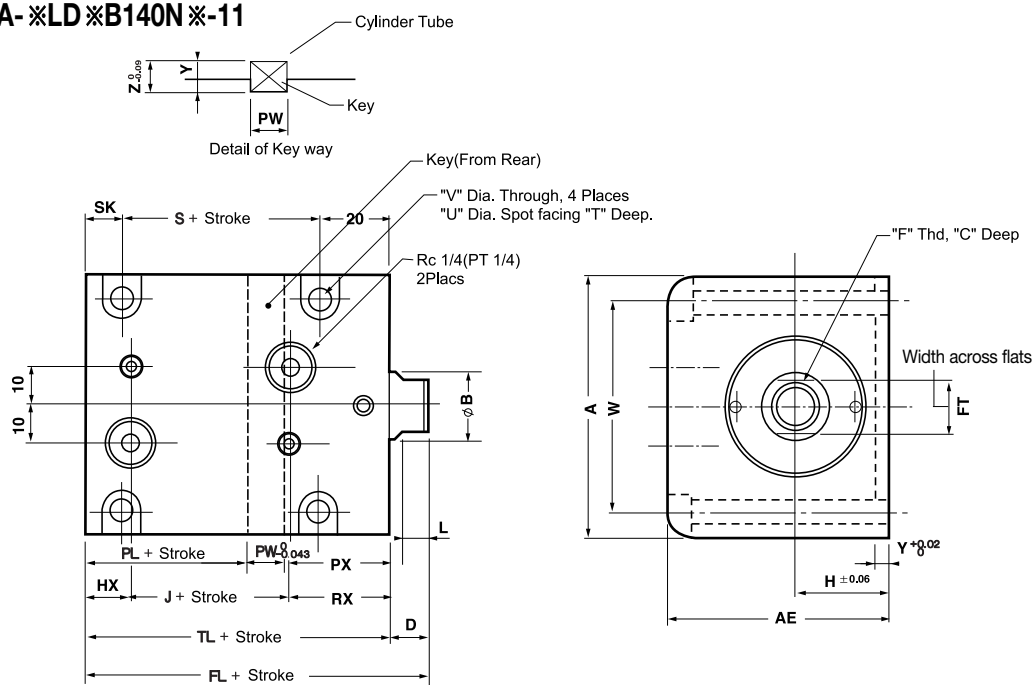
## C6 series Compact type Hydraulic Cylinders

### Standard Type : C6-SA-※SA※B140N※-11



| Cylinder Bore | A   | B  | C  | D  | E   | F        | FL  | FT | HX | J  | L  | N  | RX | T    | TL  | U    | V   | W   | Approx. Mass kg |                                |
|---------------|-----|----|----|----|-----|----------|-----|----|----|----|----|----|----|------|-----|------|-----|-----|-----------------|--------------------------------|
|               |     |    |    |    |     |          |     |    |    |    |    |    |    |      |     |      |     |     | Basic Weight    | Additional Mass per 1mm stroke |
| 32            | 62  | 18 | 15 | 10 | 1/4 | M12×1.75 | 64  | 14 | 12 | 14 | 7  | 10 | 28 | 6.5  | 54  | 11   | 6.6 | 47  | 1.36            | 0.025                          |
| 40            | 70  | 22 | 20 | 10 | 1/4 | M16×2    | 65  | 19 | 12 | 16 | 7  | 10 | 27 | 8.6  | 55  | 14   | 9   | 52  | 1.67            | 0.030                          |
| 50            | 80  | 28 | 24 | 11 | 1/4 | M20×2.5  | 71  | 24 | 13 | 19 | 8  | 10 | 28 | 10.8 | 60  | 17.5 | 11  | 58  | 2.32            | 0.037                          |
| 63            | 94  | 36 | 33 | 13 | 1/4 | M27×3    | 80  | 30 | 13 | 24 | 9  | 10 | 30 | 13   | 67  | 20   | 14  | 69  | 3.57            | 0.047                          |
| 80            | 114 | 45 | 33 | 17 | 3/8 | M30×3.5  | 95  | 41 | 18 | 25 | 14 | 15 | 35 | 15.2 | 78  | 23   | 16  | 86  | 6.35            | 0.067                          |
| 100           | 136 | 56 | 40 | 25 | 3/8 | M33×3.5  | 136 | 51 | 25 | 41 | 14 | 15 | 45 | 20   | 111 | 29   | 20  | 102 | 14.0            | 0.145                          |

### Foot Type : C6-SA-※LD※B140N※-11

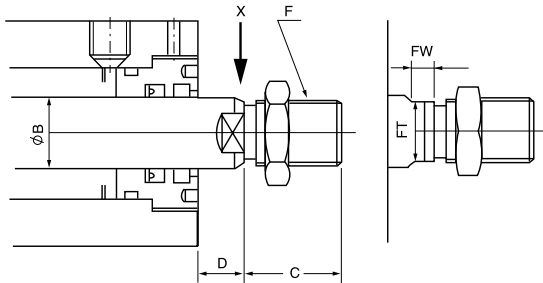


| Cylinder Bore | A   | AE | B  | C  | D  | F        | FL | FT | H  | HX | J  | L | PL | P W | PX | RX | S  | SX | T    | TL | U    | V  | W  | Y   | Z  | Approx. Mass kg |                                |
|---------------|-----|----|----|----|----|----------|----|----|----|----|----|---|----|-----|----|----|----|----|------|----|------|----|----|-----|----|-----------------|--------------------------------|
|               |     |    |    |    |    |          |    |    |    |    |    |   |    |     |    |    |    |    |      |    |      |    |    |     |    | Basic Weight    | Additional Mass per 1mm stroke |
| 32            | 70  | 56 | 18 | 15 | 10 | M12×1.75 | 64 | 14 | 25 | 12 | 14 | 7 | 14 | 12  | 28 | 28 | 24 | 10 | 8.6  | 54 | 14   | 9  | 56 | 3.3 | 8  | 1.39            | 0.026                          |
| 40            | 80  | 64 | 22 | 20 | 10 | M16×2    | 65 | 19 | 29 | 12 | 16 | 7 | 15 | 12  | 28 | 27 | 23 | 12 | 10.8 | 55 | 17.5 | 11 | 62 | 3.3 | 8  | 1.76            | 0.032                          |
| 50            | 94  | 74 | 28 | 24 | 11 | M20×2.5  | 71 | 24 | 34 | 13 | 19 | 8 | 17 | 14  | 29 | 28 | 27 | 13 | 13   | 60 | 20   | 14 | 74 | 3.8 | 9  | 2.58            | 0.041                          |
| 63            | 115 | 89 | 36 | 33 | 13 | M27×3    | 80 | 30 | 42 | 13 | 24 | 9 | 20 | 16  | 31 | 30 | 32 | 15 | 15.2 | 67 | 23   | 16 | 90 | 4.3 | 10 | 4.26            | 0.057                          |

# SEWON Hydraulics

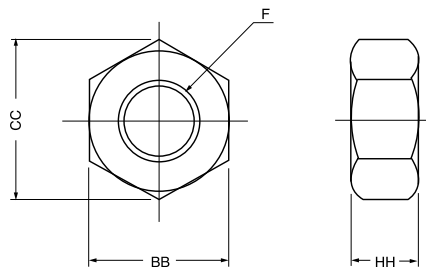
## C6 series Compact type Hydraulic Cylinders

### Screw Specifications Symbol : M



| Cylinder Bore | B  | C  | D  | F       | FT | FW |
|---------------|----|----|----|---------|----|----|
| 32            | 18 | 25 | 10 | M16×1.5 | 14 | 7  |
| 40            | 22 | 30 | 10 | M20×1.5 | 19 | 7  |
| 50            | 28 | 34 | 11 | M24×1.5 | 24 | 8  |
| 63            | 36 | 45 | 13 | M30×1.5 | 30 | 9  |
| 80            | 45 | 60 | 17 | M39×1.5 | 41 | 14 |
| 100           | 56 | 60 | 25 | M48×1.5 | 51 | 14 |

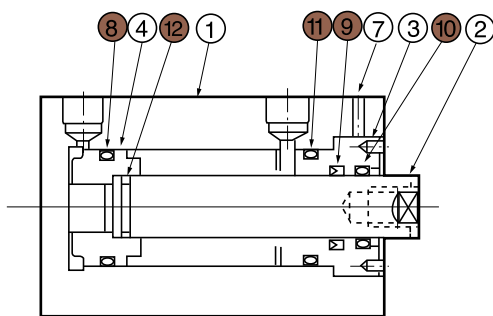
### Lock nut Symbol : N



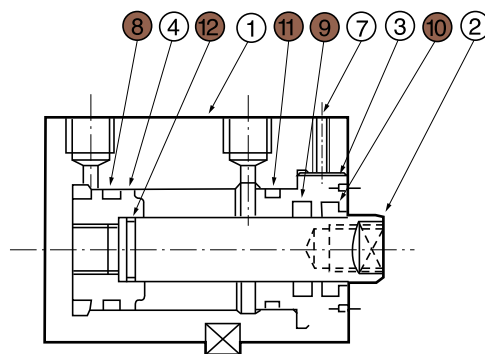
| Cylinder Bore | F       | BB | CC   | HH |
|---------------|---------|----|------|----|
| 32            | M16×1.5 | 24 | 27.7 | 10 |
| 40            | M20×1.5 | 30 | 34.6 | 12 |
| 50            | M24×1.5 | 36 | 41.6 | 14 |
| 63            | M30×1.5 | 46 | 53.1 | 18 |
| 80            | M39×1.5 | 60 | 69.8 | 23 |
| 100           | M48×1.5 | 75 | 86.5 | 29 |

### List of Seals

#### Standard Type : C6-SA-1SA※B140N※



#### Foot Type : C6-SA-1LD※B140N※

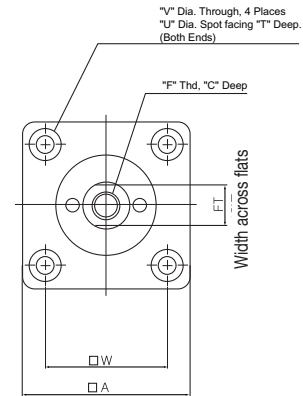
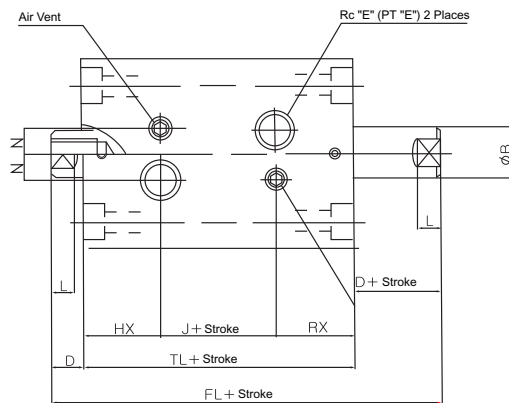


| Cylinder Bore | Name     | ⑧ Piston Packing  | ⑨ Rod Packing | ⑩ Dust Wifer | ⑪ Bush Gasket     | ⑫ Piston Gasket |
|---------------|----------|-------------------|---------------|--------------|-------------------|-----------------|
|               | Material | Nitrile           | Nitrile       | Nitrile      | Nitrile           | Nitrile         |
|               | Qty.     | 1                 | 1             | 1            | 1                 | 1               |
| 32            |          | KS B 2401-1B-G 30 | USH-18        | LBH-18       | KS B 2401-1B-P 26 | P14             |
| 40            |          | KS B 2401-1B-G 30 | USH-22        | LBH-22       | KS B 2401-1B-G 35 | P18             |
| 50            |          | KS B 2401-1B-P 44 | USH-28        | LBH-28       | KS B 2401-1B-G 45 | P22A            |
| 63            |          | KS B 2401-1B-P 53 | USH-36        | LBH-36       | KS B 2401-1B-G 60 | P30             |
| 80            |          | KS B 2401-1B-P 70 | USH-45        | LBH-45       | KS B 2401-1B-G 75 | P39             |
| 100           |          | KS B 2401-1B-P 90 | USH-56        | LBH-56       | KS B 2401-1B-G 95 | P50             |

★ In case of packing material "1", see upper table. Please contact us about another packing materials.

## C6 series Compact type Hydraulic Cylinders

### Double Acting Type: C6-WA-※SA※※B140N※※-11



| Cylinder Bore | A   | B  | C  | D  | E   | F        | FL  | FT | HX | J  | L  | N  | RX | T    | TL | U    | V   | W  |
|---------------|-----|----|----|----|-----|----------|-----|----|----|----|----|----|----|------|----|------|-----|----|
| 32            | 62  | 18 | 15 | 10 | 1/4 | M12×1.75 | 93  | 14 | 28 | 17 | 7  | 10 | 28 | 6.5  | 73 | 11   | 6.6 | 47 |
| 40            | 70  | 22 | 20 | 10 | 1/4 | M16×2    | 93  | 19 | 27 | 19 | 7  | 10 | 27 | 8.6  | 73 | 14   | 9   | 52 |
| 50            | 80  | 28 | 24 | 11 | 1/4 | M20×2.5  | 101 | 24 | 28 | 23 | 8  | 10 | 28 | 10.8 | 79 | 17.5 | 11  | 58 |
| 63            | 94  | 36 | 33 | 13 | 1/4 | M27×3    | 114 | 30 | 30 | 28 | 9  | 10 | 30 | 13   | 88 | 20   | 14  | 69 |
| 80            | 114 | 45 | 33 | 17 | 3/8 | M30×3.5  | 133 | 41 | 35 | 29 | 14 | 15 | 35 | 15.2 | 99 | 23   | 16  | 86 |