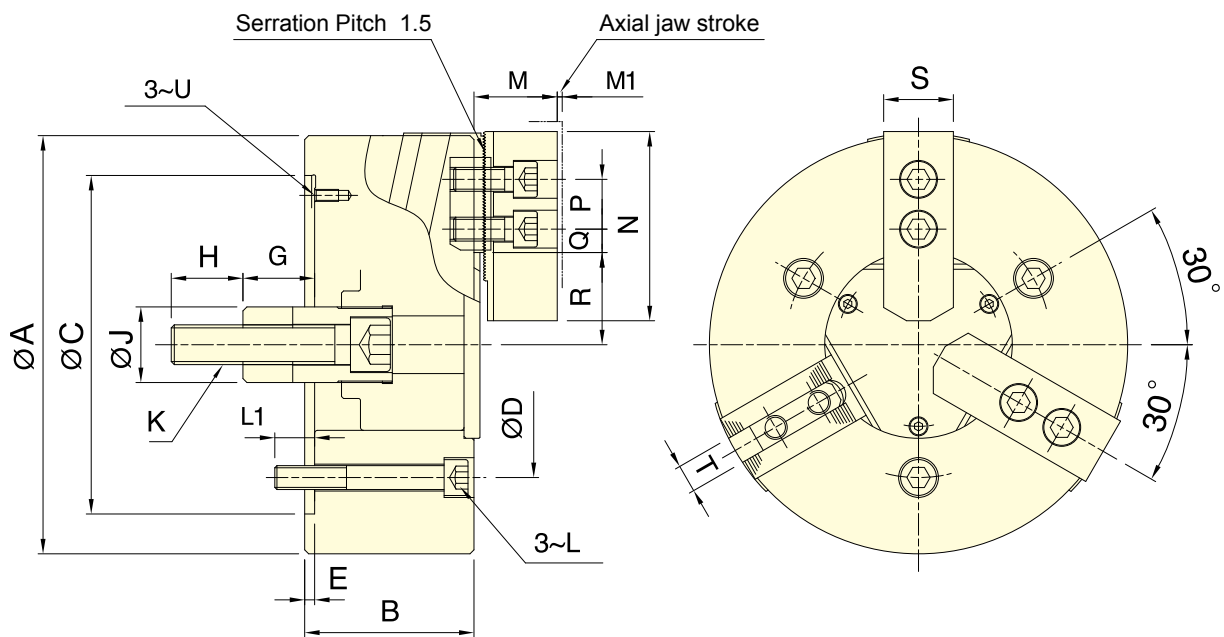




- The surface of the center through cover is grinding treated, it can be the position base surface of the jig/workpiece.
- The slideway of main jaws is inclined. It improves the clamping force and reduces the upfloat situation of the workpiece.
- Work with standard top jaws.
- Airtight pressure detect function is optional.
- External gripping only.



Subject to technical changes

## SPECIFICATIONS

| Model | Plunger stroke | Jaw stroke (Dia.)   | Chuck Dia. Max. | Chuck Dia. Min. | Max. D.B. pull | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl. | Max. pressure              |
|-------|----------------|---------------------|-----------------|-----------------|----------------|---------------------|----------------------------|---------------------|--------|---------------|----------------------------|
|       | mm             | mm                  | mm              | mm              | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |               | MPa (kgf/cm <sup>2</sup> ) |
| 3N-06 | 20             | 8.1<br>(axial 0.9)  | 165             | 14              | 18 (1835)      | 61.5 (6270)         | 5000                       | 0.05                | 11.1   | RK-100(N)     | 2.6 (26)                   |
| 3N-08 | 23             | 9.4<br>(axial 1.0)  | 210             | 17              | 25 (2540)      | 85.8 (8750)         | 4500                       | 0.14                | 24.5   | RK-125(N)     | 2.2 (22)                   |
| 3N-10 | 25             | 10.2<br>(axial 1.1) | 254             | 22              | 29 (2950)      | 108 (11000)         | 4000                       | 0.32                | 34.5   | RK-150(N)     | 1.8 (18)                   |

## DIMENSIONS

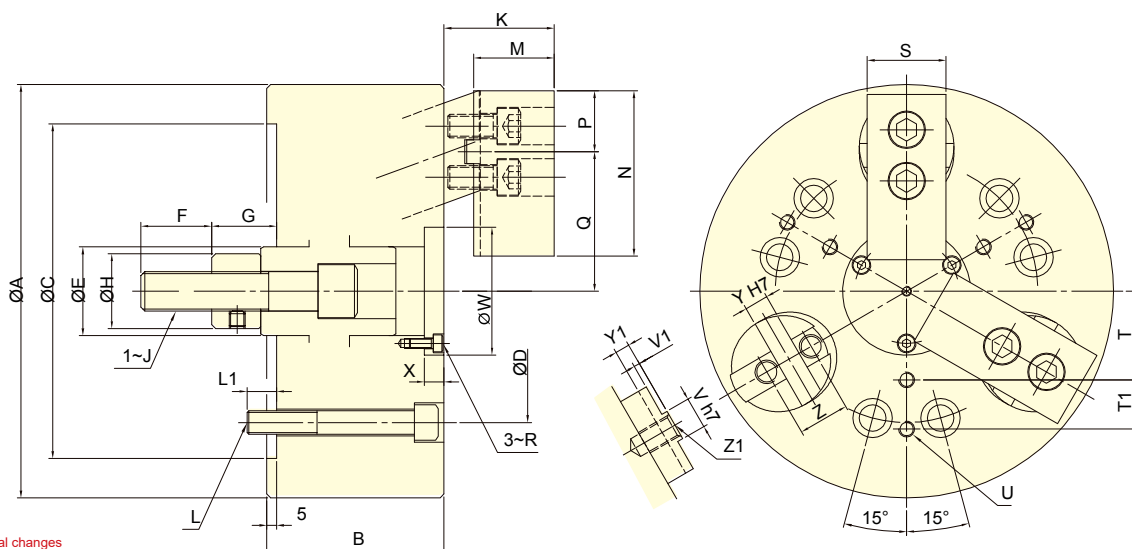
| Model | A   | B  | C(H6) | D     | E | G max. | G min. | H  | J  | K       | L   |
|-------|-----|----|-------|-------|---|--------|--------|----|----|---------|-----|
| 3N-06 | 165 | 72 | 140   | 104.8 | 5 | 54.5   | 34.5   | 36 | 34 | M16x2   | M10 |
| 3N-08 | 210 | 85 | 170   | 133.4 | 5 | 59     | 36     | 36 | 38 | M20x2.5 | M12 |
| 3N-10 | 254 | 89 | 220   | 171.4 | 5 | 63     | 38     | 36 | 45 | M20x2.5 | M16 |

| Model | L1 | M  | M1  | N   | P  | Q max. | Q min. | R max. | R min. | S  | T  | U  |
|-------|----|----|-----|-----|----|--------|--------|--------|--------|----|----|----|
| 3N-06 | 16 | 41 | 0.9 | 73  | 20 | 15.25  | 7.75   | 38.3   | 34.25  | 31 | 12 | M6 |
| 3N-08 | 20 | 42 | 1.0 | 95  | 25 | 22.25  | 11.75  | 46.3   | 41.6   | 35 | 14 | M6 |
| 3N-10 | 24 | 47 | 1.1 | 110 | 30 | 33.75  | 11.25  | 52.1   | 47     | 40 | 16 | M8 |



- Radial clamp and axial pull down at the same time, keep the workpiece attaching close to the base surface of the chuck.
- Almost no workpiece uplifting displacement.
- The body and the cylinder pull-down mechanism are heat-treated and fine boring, which guarantee the clamping precision and durability.
- Airtight pressure detect function is optional.



Subject to technical changes

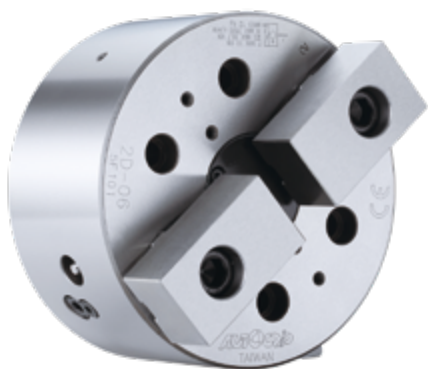
## SPECIFICATIONS

| Model | Plunger stroke | Jaw stroke (Dia.) | Chuck Dia. Max. | Chuck Dia. Min. | Max. D.B. pull | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl. | Max. pressure              |
|-------|----------------|-------------------|-----------------|-----------------|----------------|---------------------|----------------------------|---------------------|--------|---------------|----------------------------|
|       | mm             | mm                | mm              | mm              | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |               | MPa (kgf/cm <sup>2</sup> ) |
| 3D-04 | 7              | 5                 | 110             | 13              | 6.0(612)       | 10.5(1070)          | 3500                       | 0.007               | 4.5    | RK-75         | 1.6(16.5)                  |
| 3D-05 | 7              | 5                 | 135             | 21              | 10.0(1020)     | 17.0(1730)          | 3500                       | 0.018               | 7.9    | RK-75         | 2.7(27.5)                  |
| 3D-06 | 10             | 7.2               | 165             | 22              | 15.0(1530)     | 25.0(2550)          | 3500                       | 0.051               | 15     | RK-100        | 2.1(21.4)                  |
| 3D-08 | 10             | 7.2               | 210             | 28              | 25.0(2550)     | 45.0(4590)          | 3000                       | 0.15                | 26     | RK-125        | 2.2(22.5)                  |
| 3D-10 | 15             | 10.8              | 254             | 35              | 35.0(3569)     | 60.0(6118)          | 2500                       | 0.37                | 46     | RK-125        | 3.1(31.6)                  |
| 3D-12 | 15             | 10.8              | 304             | 50              | 45.0(4590)     | 75.0(7650)          | 2000                       | 0.79                | 70     | RK-150        | 2.8(28.5)                  |
| 3D-15 | 20             | 14.5              | 381             | 60              | 53.9(5500)     | 90.0(9180)          | 1500                       | 2.25                | 132    | RK-150        | 3.4(34.2)                  |

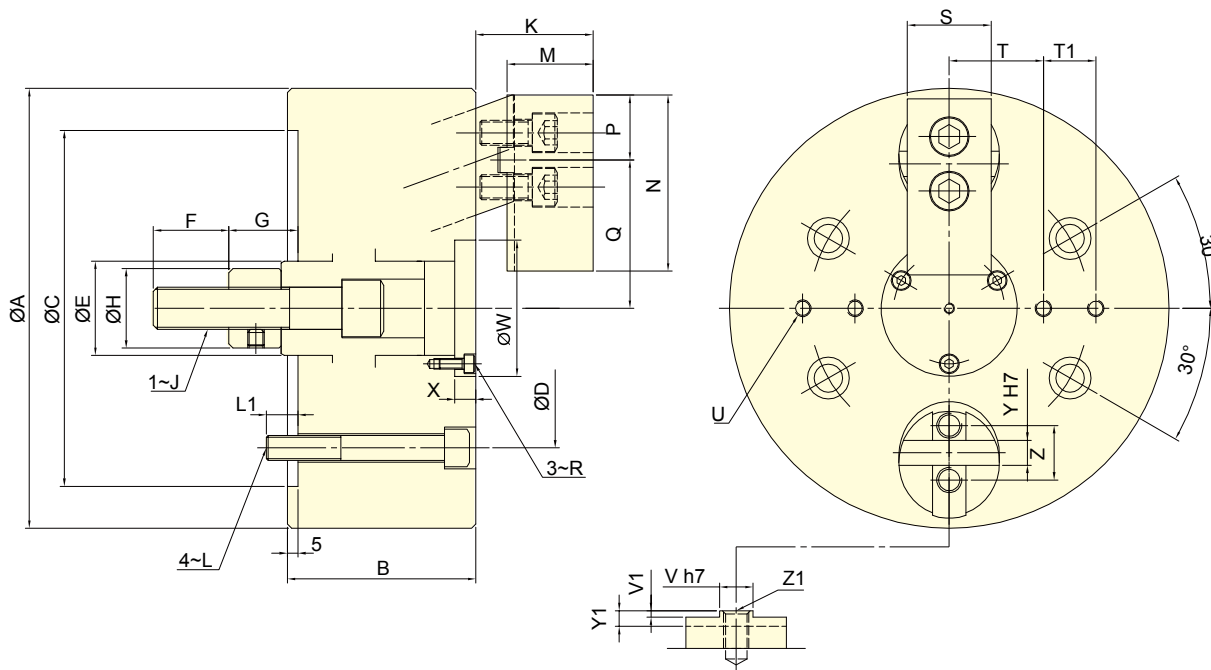
## DIMENSIONS

| Model | A   | B   | C (H6) | D     | E  | F  | G max. | G min. | H  | J   | K max. | K min. | L     | L1 | M    | N   | P  |
|-------|-----|-----|--------|-------|----|----|--------|--------|----|-----|--------|--------|-------|----|------|-----|----|
| 3D-04 | 110 | 60  | 85     | 70.6  | 25 | 20 | 22     | 15     | 25 | M10 | 30     | 23     | 3~M10 | 15 | 19.5 | 50  | 22 |
| 3D-05 | 135 | 70  | 110    | 82.6  | 30 | 25 | 24     | 17     | 28 | M12 | 35     | 28     | 3~M10 | 16 | 24.5 | 56  | 23 |
| 3D-06 | 165 | 85  | 140    | 104.8 | 35 | 36 | 37     | 27     | 32 | M16 | 45     | 35     | 6~M10 | 16 | 31   | 70  | 27 |
| 3D-08 | 210 | 90  | 170    | 133.4 | 45 | 36 | 38     | 28     | 38 | M20 | 56     | 46     | 6~M12 | 15 | 41   | 84  | 31 |
| 3D-10 | 254 | 110 | 220    | 171.4 | 55 | 46 | 47     | 32     | 50 | M24 | 65     | 50     | 6~M16 | 24 | 46   | 100 | 38 |
| 3D-12 | 304 | 125 | 220    | 171.4 | 55 | 50 | 49.5   | 34.5   | 53 | M27 | 70     | 55     | 6~M16 | 22 | 51   | 120 | 42 |
| 3D-15 | 381 | 140 | 300    | 235   | 70 | 55 | 61     | 41     | 55 | M30 | 86     | 66     | 6~M20 | 30 | 60   | 165 | 60 |

| Model | Q max. | Q min. | R  | S  | T    | T 1 | U     | V (h7) | V 1 | W   | X  | Y(H7) | Y1  | Z  | Z1  |
|-------|--------|--------|----|----|------|-----|-------|--------|-----|-----|----|-------|-----|----|-----|
| 3D-04 | 37     | 34.5   | M3 | 25 | 22.5 | -   | 3~M6  | 8      | 2.5 | 35  | 2  | 8     | 6   | -  | M10 |
| 3D-05 | 46     | 43.5   | M3 | 30 | 27.5 | -   | 3~M6  | 8      | 2.5 | 44  | 2  | 8     | 6   | -  | M12 |
| 3D-06 | 57.7   | 54.3   | M4 | 35 | 35   | 20  | 6~M6  | 10     | 2.5 | 52  | 7  | 10    | 6.5 | -  | M14 |
| 3D-08 | 70.8   | 67.2   | M5 | 40 | 45   | 25  | 6~M8  | 16     | 3   | 65  | 10 | 12    | 7.5 | 26 | M12 |
| 3D-10 | 85     | 79.6   | M6 | 50 | 55   | 30  | 6~M8  | 18     | 3   | 75  | 12 | 15    | 7.5 | 32 | M14 |
| 3D-12 | 101.9  | 96.5   | M6 | 60 | 70   | 35  | 6~M10 | 20     | 3   | 90  | 12 | 17    | 7.5 | 36 | M16 |
| 3D-15 | 135.6  | 128.3  | M8 | 70 | 95   | 45  | 6~M12 | 24     | 4   | 120 | 13 | 20    | 6   | 40 | M16 |



- Radial clamp and axial pull down at the same time, keep the workpiece attaching close to the base surface of the chuck.
- Almost no workpiece uplifting displacement.
- The body and the cylinder pull-down mechanism are heat-treated and fine boring, which guarantee the clamping precision and durability.
- Airtight pressure detect function is optional.



Subject to technical changes

## SPECIFICATIONS

| Model | Plunger stroke<br>mm | Jaw stroke (Dia.)<br>mm | Chuck-<br>ing<br>Dia.Max.<br>mm | Chuck-<br>ing<br>Dia.Min.<br>mm | Max. D.B. pull<br>kN (kgf) | Max. Clamping<br>force<br>kN (kgf) | Max. speed<br>min <sup>-1</sup> (r.p.m.) | Moment of<br>inertia<br>kg · m <sup>2</sup> | Weight<br>kg | Matching cyl. | Max. pressure<br>MPa (kgf/cm <sup>2</sup> ) |
|-------|----------------------|-------------------------|---------------------------------|---------------------------------|----------------------------|------------------------------------|------------------------------------------|---------------------------------------------|--------------|---------------|---------------------------------------------|
| 2D-06 | 10                   | 7.2                     | 165                             | 22                              | 10.0 (1020)                | 16.7 (1700)                        | 3500                                     | 0.045                                       | 12           | RK-100        | 1.4 (14.3)                                  |
| 2D-08 | 10                   | 7.2                     | 210                             | 28                              | 16.7 (1700)                | 30.0 (3060)                        | 3500                                     | 0.13                                        | 23           | RK-125        | 1.5 (15)                                    |
| 2D-10 | 15                   | 10.8                    | 254                             | 35                              | 23.3 (2379)                | 40.0 (4079)                        | 2500                                     | 0.34                                        | 43           | RK-125        | 2.1 (21.1)                                  |

## DIMENSIONS

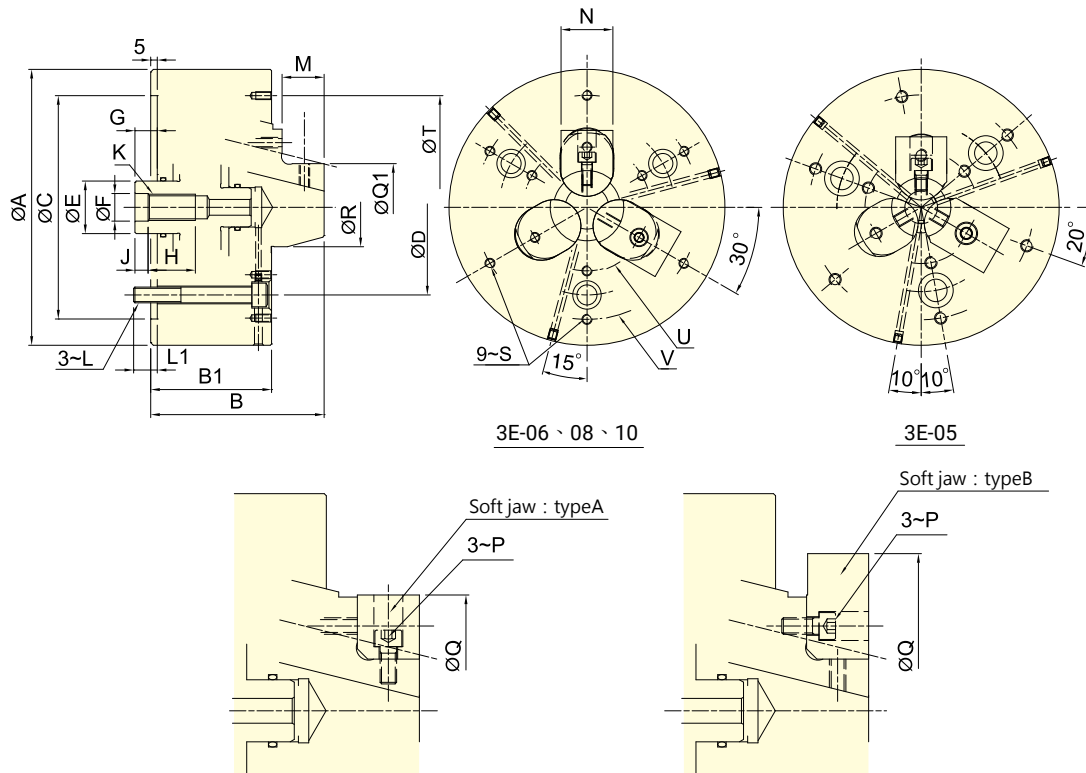
| Model | A   | B   | C (H6) | D     | E  | F  | G max. | G min. | H  | J   | K max. | K min. | L   | L 1 | M  | N   | P  |
|-------|-----|-----|--------|-------|----|----|--------|--------|----|-----|--------|--------|-----|-----|----|-----|----|
| 2D-06 | 165 | 85  | 140    | 104.8 | 35 | 36 | 37     | 27     | 32 | M16 | 45     | 35     | M10 | 16  | 31 | 70  | 27 |
| 2D-08 | 210 | 90  | 170    | 133.4 | 45 | 36 | 38     | 28     | 38 | M20 | 56     | 46     | M12 | 15  | 41 | 84  | 31 |
| 2D-10 | 254 | 110 | 220    | 171.4 | 55 | 46 | 47     | 32     | 50 | M24 | 65     | 50     | M16 | 24  | 46 | 100 | 38 |

| Model | Q max. | Q min. | R  | S  | T  | T1 | U    | V (h7) | V 1 | W  | X  | Y (H7) | Y1  | Z  | Z1  |
|-------|--------|--------|----|----|----|----|------|--------|-----|----|----|--------|-----|----|-----|
| 2D-06 | 57.7   | 54.3   | M4 | 35 | 35 | 20 | 4~M6 | 10     | 2.5 | 52 | 7  | 10     | 6.5 | -  | M14 |
| 2D-08 | 70.8   | 67.2   | M5 | 40 | 45 | 25 | 4~M8 | 16     | 3   | 65 | 10 | 12     | 7.5 | 26 | M12 |
| 2D-10 | 85     | 79.6   | M6 | 50 | 55 | 30 | 4~M8 | 18     | 3   | 75 | 12 | 15     | 7.5 | 32 | M14 |



- Suitable for internal gripping.
- Radial clamp and axial pull down at the same time, keep the workpiece attaching close to the base surface of the chuck.
- Almost no workpiece uplifting displacement.
- With high precision and stability that chuck suitable for end process.
- Airtight pressure detect function is optional.



Subject to technical changes

## SPECIFICATIONS

| Model | Plunger stroke | Jaw stroke (Dia.) | Chucking Dia.Max. | Chucking Dia.Min. | Max. D.B. pull | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl. | Max. pressure              |
|-------|----------------|-------------------|-------------------|-------------------|----------------|---------------------|----------------------------|---------------------|--------|---------------|----------------------------|
|       | mm             | mm                | mm                | mm                | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |               | MPa (kgf/cm <sup>2</sup> ) |
| 3E-05 | 6              | 3                 | 83                | 29                | 13.0(1325)     | 42.0(4280)          | 7000                       | 0.018               | 7.5    | RK-100        | 1.8(18.5)                  |
| 3E-06 | 10             | 5                 | 110               | 44                | 18.0(1835)     | 58.0(5910)          | 6000                       | 0.042               | 13.6   | RK-100        | 2.5(25.6)                  |
| 3E-08 | 10             | 5                 | 150               | 50                | 25.0(2530)     | 80.0(8150)          | 5000                       | 0.14                | 26.5   | RK-125        | 2.2(22.5)                  |
| 3E-10 | 10             | 5                 | 190               | 60                | 35.0(3570)     | 100.0(10200)        | 3600                       | 0.31                | 39.5   | RK-150        | 2.8(28.5)                  |

## DIMENSIONS

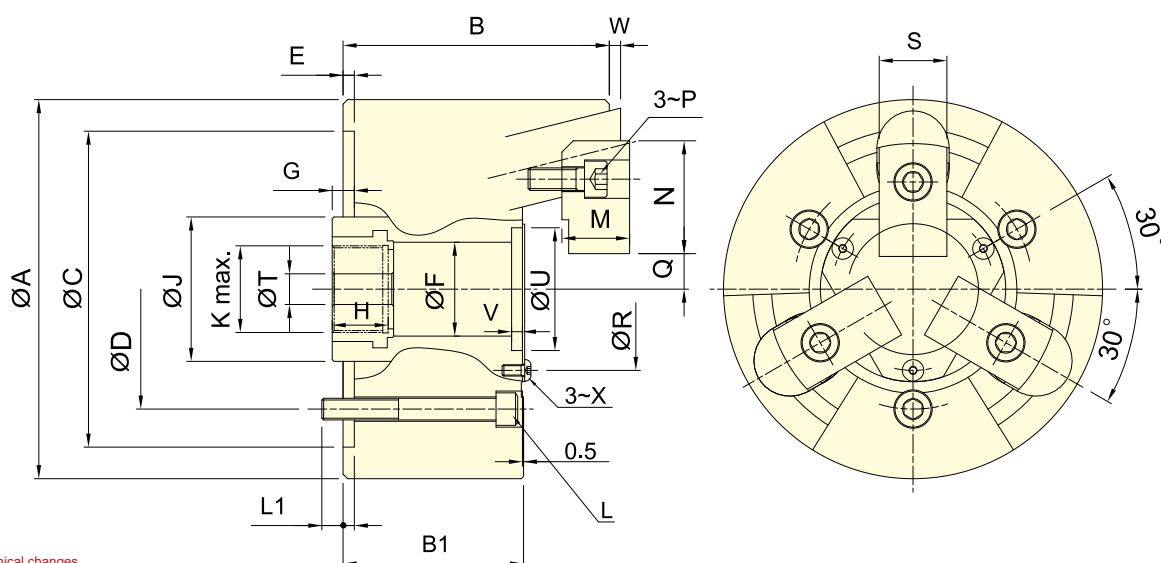
| Model | A   | B   | B1  | C (H6) | D     | E  | F (H8) | G max. | G min. | H  | J  | K   | L   | L1 |
|-------|-----|-----|-----|--------|-------|----|--------|--------|--------|----|----|-----|-----|----|
|       |     |     |     |        |       |    |        |        |        |    |    |     |     |    |
| 3E-05 | 135 | 98  | 72  | 110    | 82.6  | 25 | 18     | 18     | 12     | 25 | 8  | M16 | M10 | 15 |
| 3E-06 | 165 | 112 | 80  | 140    | 104.8 | 35 | 18     | 22     | 12     | 30 | 8  | M16 | M10 | 16 |
| 3E-08 | 210 | 135 | 90  | 170    | 133.4 | 40 | 21     | 22     | 12     | 36 | 10 | M20 | M12 | 18 |
| 3E-10 | 254 | 152 | 102 | 220    | 171.4 | 50 | 25     | 25     | 15     | 48 | 10 | M24 | M16 | 23 |

| Model | M  | N  | P   | type A |        | type B |        | Q1   |      | R  | S     | T   | U (p.c.d) | V (p.c.d) |
|-------|----|----|-----|--------|--------|--------|--------|------|------|----|-------|-----|-----------|-----------|
|       |    |    |     | Q max. | Q min. | Q max. | Q min. | max. | min. |    |       |     |           |           |
| 3E-05 | 20 | 25 | M6  | 68     | 50     | 83     | 67     | 50   | 29   | 25 | M6x12 | 110 | 55        | 110       |
| 3E-06 | 23 | 31 | M6  | 90     | 70     | 110    | 89     | 70   | 44   | 40 | M6x12 | 130 | 76        | 134       |
| 3E-08 | 30 | 35 | M8  | 110    | 90     | 150    | 108    | 90   | 50   | 49 | M6x12 | 170 | 100       | 170       |
| 3E-10 | 35 | 40 | M10 | 127    | 110    | 190    | 125    | 110  | 60   | 59 | M8x16 | 210 | 120       | 210       |



- Pin-Arbor Draw Down type 3-jaw thru-hole power chuck.
- High radial gripping force and high accuracy.
- Suitable for heavy machining.



Subject to technical changes

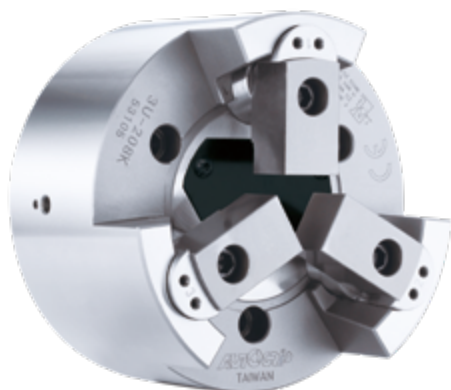
## SPECIFICATIONS

| Model  | Plunger stroke | Jaw stroke (Dia.) | Chuck- ing Dia.Max. | Chuck- ing Dia.Min. | Max. D.B. pull | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl. | Max. pressure              |
|--------|----------------|-------------------|---------------------|---------------------|----------------|---------------------|----------------------------|---------------------|--------|---------------|----------------------------|
|        | mm             | mm                | mm                  | mm                  | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |               | MPa (kgf/cm <sup>2</sup> ) |
| 3U-203 | 4              | 2                 | 42                  | 14                  | 5.8(590)       | 16.7(1700)          | 10000                      | 0.001               | 1.8    | RK-75(N)      | 1.6(16)                    |
| 3U-204 | 6              | 3                 | 60                  | 10                  | 10.0(1020)     | 28.4(2900)          | 8000                       | 0.005               | 3.9    | RK-75(N)      | 2.7(27)                    |
| 3U-205 | 6              | 3                 | 84                  | 15                  | 13.9(1420)     | 39.7(4050)          | 8000                       | 0.012               | 6.8    | RK-100(N)     | 2.0(20)                    |
| 3U-206 | 10             | 5                 | 105                 | 24                  | 17.9(1830)     | 57.8(5900)          | 7000                       | 0.055               | 14.7   | RK-100(N)     | 2.6(26)                    |
| 3U-208 | 12             | 6                 | 132                 | 25                  | 25.0(2550)     | 80.0(8150)          | 6000                       | 0.14                | 25.5   | RK-125(N)     | 2.2(22)                    |
| 3U-210 | 10             | 5                 | 163                 | 34                  | 31.0(3160)     | 100.0(10100)        | 4500                       | 0.36                | 43.5   | RK-125(N)     | 3.1(31)                    |
| 3U-212 | 10             | 5                 | 210                 | 81                  | 35.0(3570)     | 100.0(10100)        | 3600                       | 0.68                | 63.0   | RK-125(N)     | 3.1(31)                    |

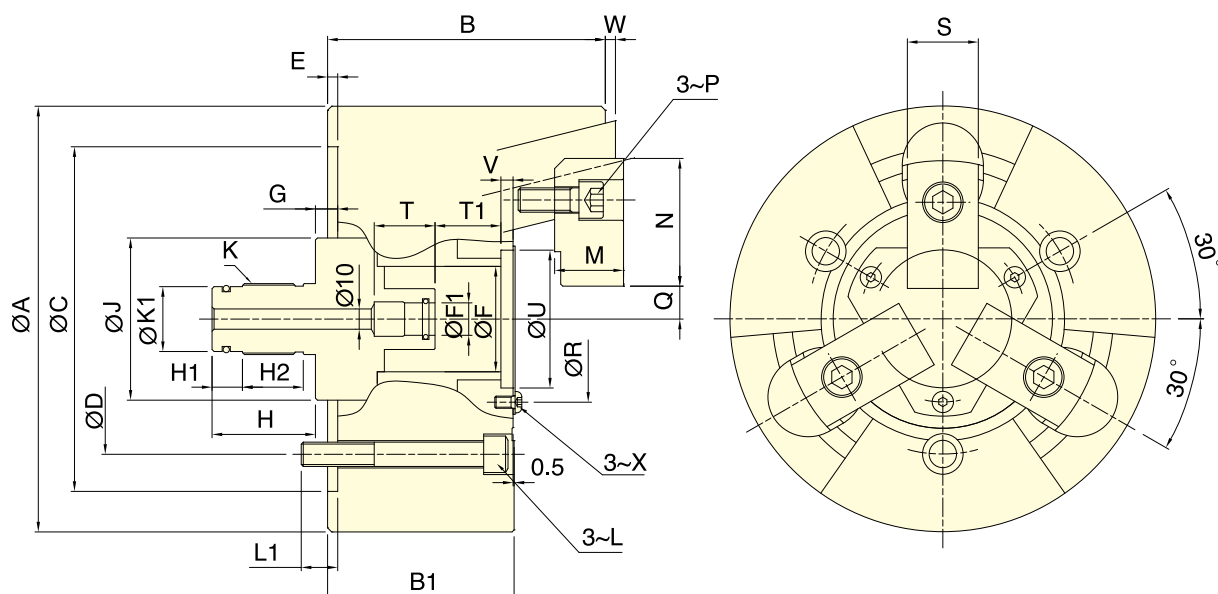
## DIMENSIONS

| Model  | A   | B    | B1  | C(H6) | D     | E   | F   | G max. | G min. | H    | J   | K       | L     | L1   |
|--------|-----|------|-----|-------|-------|-----|-----|--------|--------|------|-----|---------|-------|------|
| 3U-203 | 85  | 54.5 | 42  | 70    | 54    | 3.5 | 25  | 18     | 14     | 22   | 38  | M20x1.5 | 3~M8  | 11   |
| 3U-204 | 110 | 72.5 | 55  | 85    | 70.6  | 4   | 30  | 16     | 10     | 24.5 | 42  | M24x1.5 | 3~M10 | 12   |
| 3U-205 | 135 | 84.5 | 63  | 110   | 82.6  | 4   | 35  | 16     | 10     | 26   | 50  | M28x1.5 | 3~M10 | 15   |
| 3U-206 | 168 | 118  | 80  | 140   | 104.8 | 5   | 45  | 20     | 10     | 31   | 60  | M38x1.5 | 3~M10 | 16.5 |
| 3U-208 | 210 | 137  | 92  | 170   | 133.4 | 5   | 52  | 23     | 11     | 31   | 80  | M48x2   | 3~M12 | 18   |
| 3U-210 | 254 | 152  | 102 | 220   | 171.4 | 5   | 75  | 25     | 15     | 37   | 105 | M68x2   | 3~M16 | 23   |
| 3U-212 | 304 | 157  | 102 | 220   | 171.4 | 5   | 100 | 25     | 15     | 37   | 135 | M92x2   | 3~M16 | 26   |

| Model  | M  | N    | P   | Q max. | Q min. | R   | S  | T  | U(H6) | V   | W max. | W min. | X   |
|--------|----|------|-----|--------|--------|-----|----|----|-------|-----|--------|--------|-----|
| 3U-203 | 12 | 26   | M5  | 7.5    | 6.5    | 38  | 15 | 10 | 32    | 3.5 | 2      | -2     | M3  |
| 3U-204 | 17 | 40   | M6  | 10.75  | 9.25   | 46  | 20 | 10 | 38    | 4   | 3      | -3     | M4  |
| 3U-205 | 20 | 41.5 | M8  | 13.25  | 11.75  | 55  | 24 | 10 | 45    | 5   | 3      | -3     | M5  |
| 3U-206 | 30 | 50   | M10 | 15.75  | 13.25  | 72  | 30 | 17 | 58    | 6   | 5      | -5     | M5  |
| 3U-208 | 34 | 63   | M12 | 16.25  | 13.25  | 82  | 35 | 17 | 68    | 6   | 5      | -7     | M6  |
| 3U-210 | 39 | 74   | M14 | 20.75  | 18.25  | 107 | 40 | 17 | 93    | 6   | 5      | -5     | M8  |
| 3U-212 | 44 | 74   | M14 | 44.25  | 41.75  | 130 | 40 | 17 | 114   | 6   | 5      | -5     | M10 |



- Pin-Arbor Draw Down type 3-jaw non-thru-hole power chuck.
- High radial gripping force and high accuracy.
- Suitable for heavy machining.
- Can work with the airtight detection device to perform axial position confirm, suitable for the precision of large length size process.



Subject to technical changes

## SPECIFICATIONS

| Model   | Plunger stroke | Jaw stroke (Dia.) | Chuck Dia. Max. | Chuck Dia. Min. | Max. D.B. pull | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl.    | Max. pressure              |
|---------|----------------|-------------------|-----------------|-----------------|----------------|---------------------|----------------------------|---------------------|--------|------------------|----------------------------|
|         | mm             | mm                | mm              | mm              | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |                  | MPa (kgf/cm <sup>2</sup> ) |
| 3U-205K | 6              | 3                 | 84              | 15              | 13.9(1420)     | 39.7(4050)          | 8000                       | 0.018               | 6.8    | RL-100, RL-A100N | 2.0(20)                    |
| 3U-206K | 10             | 5                 | 105             | 24              | 17.9(1830)     | 57.8(5900)          | 7000                       | 0.055               | 14.9   | RL-100, RL-A100N | 2.5(25)                    |
| 3U-208K | 12             | 6                 | 132             | 25              | 25.0(2550)     | 80.0(8150)          | 6000                       | 0.14                | 25.8   | RL-125, RL-A125N | 2.2(22)                    |
| 3U-210K | 10             | 5                 | 163             | 34              | 31.0(3160)     | 100(10100)          | 4500                       | 0.36                | 44.0   | RL-125, RL-A125N | 3.1(31)                    |
| 3U-212K | 10             | 5                 | 210             | 81              | 35.0(3570)     | 100(10100)          | 3600                       | 0.68                | 63.8   | RL-125, RL-A125N | 3.1(31)                    |

## DIMENSIONS

| Model   | A   | B    | B1  | C(H6) | D     | E | F   | F1(H8) | G max. | G min. | H  | H1 | H2 | J   | K       | K1 | L   |
|---------|-----|------|-----|-------|-------|---|-----|--------|--------|--------|----|----|----|-----|---------|----|-----|
| 3U-205K | 135 | 84.5 | 63  | 110   | 82.6  | 4 | 35  | 14     | 16     | 10     | 42 | 12 | -  | 50  | M25x1.5 | 22 | M10 |
| 3U-206K | 168 | 118  | 80  | 140   | 104.8 | 5 | 45  | 14     | 20     | 10     | 48 | 12 | 30 | 60  | M28x1.5 | 24 | M10 |
| 3U-208K | 210 | 137  | 92  | 170   | 133.4 | 5 | 52  | 16     | 23     | 11     | 51 | 15 | 30 | 80  | M35x1.5 | 30 | M12 |
| 3U-210K | 254 | 152  | 102 | 220   | 171.4 | 5 | 75  | 16     | 25     | 15     | 51 | 15 | 30 | 105 | M38x1.5 | 34 | M16 |
| 3U-212K | 304 | 157  | 102 | 220   | 171.4 | 5 | 100 | 16     | 25     | 15     | 51 | 15 | 30 | 135 | M45x1.5 | 40 | M16 |

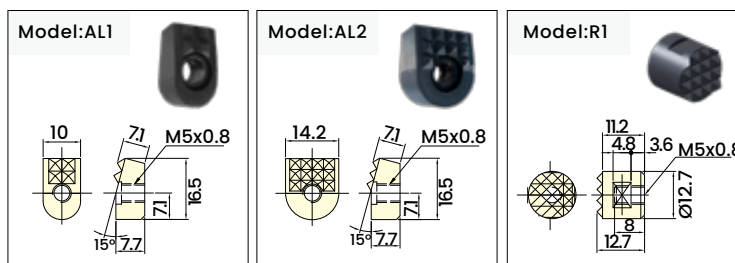
  

| Model   | L1   | M  | N    | P   | Q max. | Q min. | R   | S  | T  | T1   | U(H6) | V | W max. | W min. | X   |
|---------|------|----|------|-----|--------|--------|-----|----|----|------|-------|---|--------|--------|-----|
| 3U-205K | 15   | 20 | 41.5 | M8  | 13.25  | 11.75  | 55  | 24 | 25 | 15.5 | 45    | 5 | 3      | -3     | M5  |
| 3U-206K | 16.5 | 30 | 50   | M10 | 15.75  | 13.25  | 72  | 30 | 30 | 26.5 | 58    | 6 | 5      | -5     | M5  |
| 3U-208K | 18   | 34 | 63   | M12 | 16.25  | 13.25  | 82  | 35 | 30 | 32.5 | 68    | 6 | 5      | -7     | M6  |
| 3U-210K | 23   | 39 | 74   | M14 | 20.75  | 18.25  | 107 | 40 | 30 | 36.5 | 93    | 6 | 5      | -5     | M8  |
| 3U-212K | 26   | 44 | 74   | M14 | 44.25  | 41.75  | 130 | 40 | 30 | 36.5 | 114   | 6 | 5      | -5     | M10 |

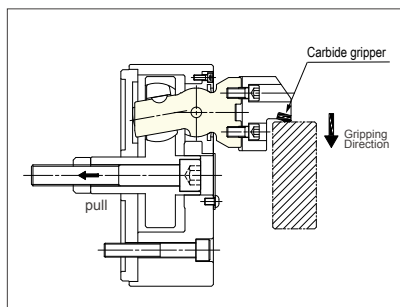


- Swing and grasp the workpiece to three jaw. (3W is automatically positioned to the center type.)
- Suitable for such materials as the casting and forging to process.
- Suitable for heavy machining.
- Seal proof for dust and cutting fluid, it is more convenient when maintenance.
- Swing parts are to heat treatment hardened and ground for steel, in order to improve products service life.
- Swing and grasp the workpiece to three jaw. (3W-C is center compensation type.)
- The workpieces compensation of eccentric is 2 mm, fixed position for the center thimble.
- Carbide gripper is optional. \* The type of the carbide gripper is selected according to the work-piece conditions.
- According to different processing requirements, O.D. Gripping and I.D. Gripping can be interchanged.

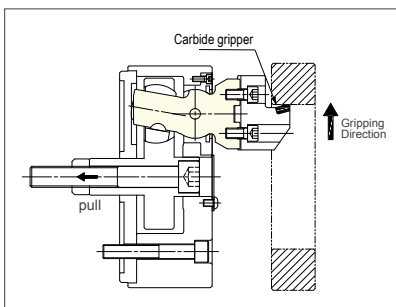
### Type of the Carbide gripper



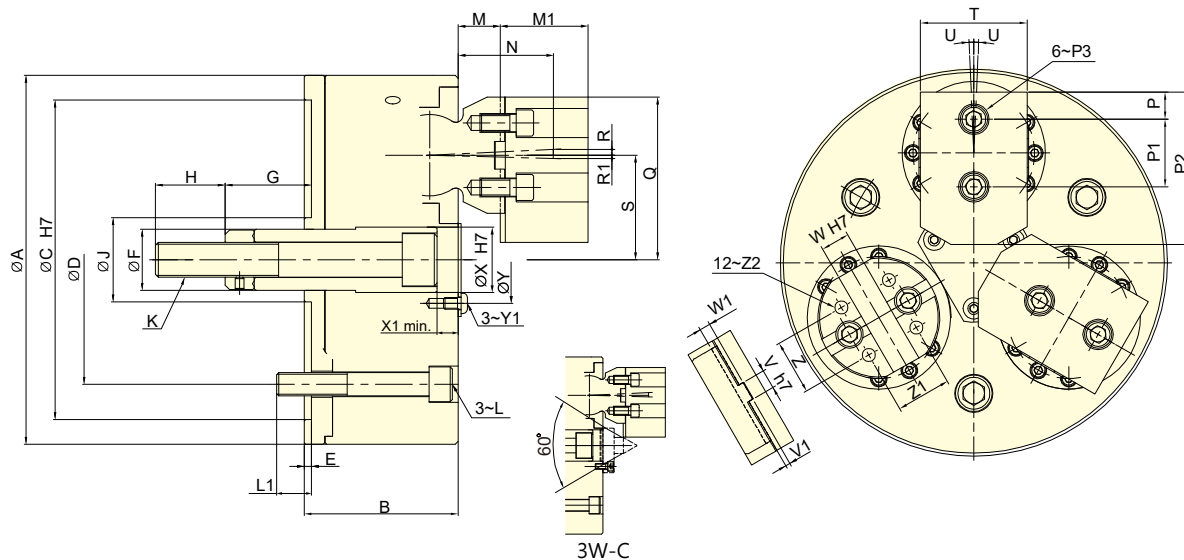
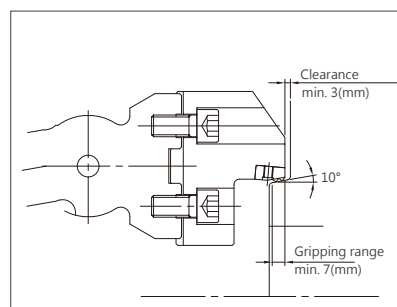
### O.D. Gripping



### I.D. Gripping



### Min. Gripping range



Subject to technical changes

**SPECIFICATIONS**

| Model         | Plunger stroke | Jaw stroke (Dia.) | Chucking O.D.<br>Min.~Max. | Chucking I.D.<br>Min.~Max. | Max. D.B. pull | Max. clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl. | Compensation |
|---------------|----------------|-------------------|----------------------------|----------------------------|----------------|---------------------|----------------------------|---------------------|--------|---------------|--------------|
|               | mm             | mm                | mm                         | mm                         | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |               | mm           |
| <b>3W-08</b>  | 14.4           | 9.8               | 16~150                     | 76~203                     | 25(2550)       | 85.0(8670)          | 3700                       | 0.12                | 23     | RK-100(N)     | -            |
| <b>3W-C08</b> | 14.4           | 9.8               | 16~150                     | 76~203                     | 25(2550)       | 85.0(8670)          | 3700                       | 0.12                | 23     | RK-100(N)     | 2            |
| <b>3W-10</b>  | 17.5           | 12.5              | 50~205                     | 85~235                     | 35.3(3600)     | 105.9(10800)        | 2500                       | 0.37                | 48.6   | RK-125(N)     | -            |
| <b>3W-C10</b> | 17.5           | 12.5              | 50~205                     | 85~235                     | 35.3(3600)     | 105.9(10800)        | 2500                       | 0.37                | 48.6   | RK-125(N)     | 2            |
| <b>3W-12</b>  | 17.5           | 12.5              | 63~240                     | 127~305                    | 35.3(3600)     | 105.9(10800)        | 2400                       | 0.73                | 65     | RK-125(N)     | -            |
| <b>3W-C12</b> | 17.5           | 12.5              | 63~240                     | 127~305                    | 35.3(3600)     | 105.9(10800)        | 2400                       | 0.73                | 65     | RK-125(N)     | 2            |
| <b>3W-15</b>  | 22.5           | 15.9              | 76~317                     | 165~381                    | 56(5600)       | 168.2(16800)        | 2000                       | 1.81                | 97     | RK-150(N)     | -            |
| <b>3W-C15</b> | 22.5           | 15.9              | 76~317                     | 165~381                    | 56(5600)       | 168.2(16800)        | 2000                       | 1.81                | 97     | RK-150(N)     | 3            |

**DIMENSIONS**

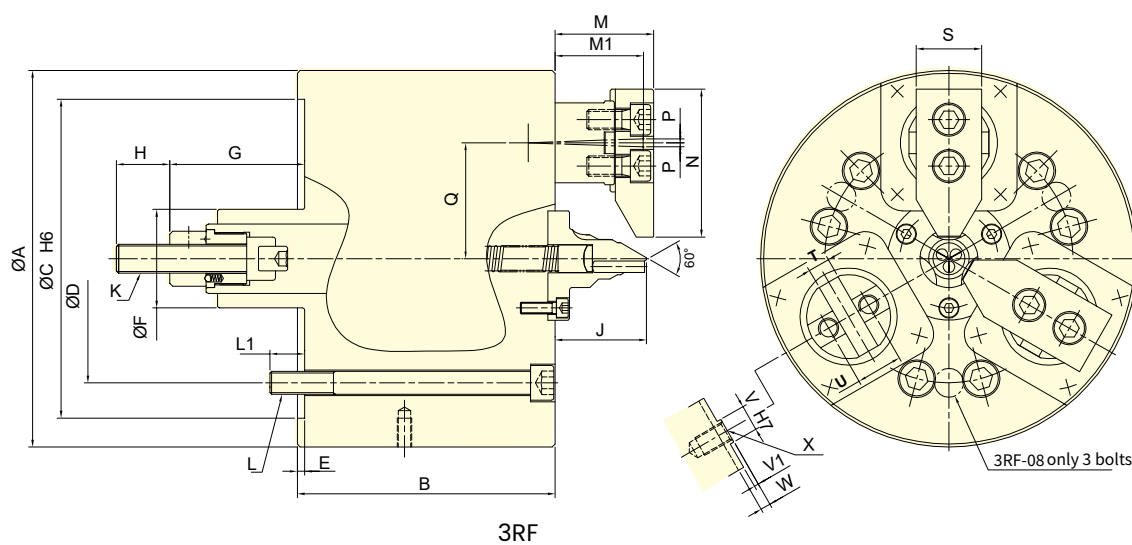
| Model         | A   | B   | C (H7) | D     | E | F  | G max. | G min. | H  | J  | K       | L   | L1 | M    | M1   | N    | P    | P1   | P2  |
|---------------|-----|-----|--------|-------|---|----|--------|--------|----|----|---------|-----|----|------|------|------|------|------|-----|
| <b>3W-08</b>  | 210 | 89  | 170    | 133.4 | 5 | 34 | 51.9   | 37.5   | 40 | 50 | M18x2.5 | M12 | 19 | 19.3 | 56.5 | 52.7 | 16   | 38   | 80  |
| <b>3W-C08</b> | 210 | 89  | 170    | 133.4 | 5 | 34 | 51.9   | 37.5   | 40 | 50 | M18x2.5 | M12 | 19 | 19.3 | 56.5 | 52.7 | 16   | 38   | 80  |
| <b>3W-10</b>  | 254 | 106 | 220    | 171.4 | 5 | 42 | 67.5   | 50     | 48 | 58 | M24x3   | M16 | 24 | 29   | 60.5 | 65.6 | 17.8 | 44.4 | 100 |
| <b>3W-C10</b> | 254 | 106 | 220    | 171.4 | 5 | 42 | 67.5   | 50     | 48 | 58 | M24x3   | M16 | 24 | 29   | 60.5 | 65.6 | 17.8 | 44.4 | 100 |
| <b>3W-12</b>  | 304 | 106 | 220    | 171.4 | 5 | 42 | 67.5   | 50     | 48 | 58 | M24x3   | M16 | 24 | 29   | 60.5 | 65.6 | 17.8 | 44.4 | 100 |
| <b>3W-C12</b> | 304 | 106 | 220    | 171.4 | 5 | 42 | 67.5   | 50     | 48 | 58 | M24x3   | M16 | 24 | 29   | 60.5 | 65.6 | 17.8 | 44.4 | 100 |
| <b>3W-15</b>  | 381 | 120 | 300    | 235   | 5 | 55 | 62.5   | 40     | 46 | 80 | M27x3   | M20 | 30 | 32.4 | 72   | 74.3 | 19   | 63.5 | 140 |
| <b>3W-C15</b> | 381 | 120 | 300    | 235   | 5 | 55 | 62.5   | 40     | 46 | 80 | M27x3   | M20 | 30 | 32.4 | 72   | 74.3 | 19   | 63.5 | 140 |

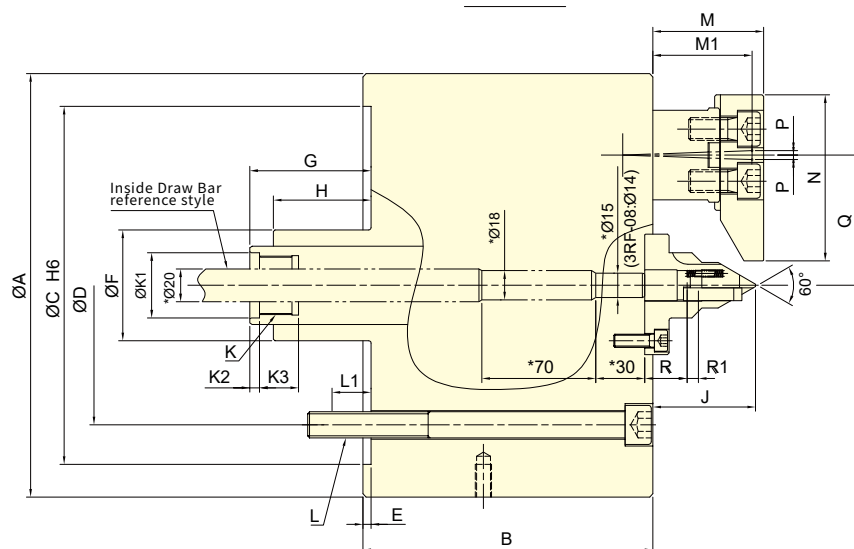
| Model         | P3  | Q     | R    | R1   | S    | T  | U   | V (h7) | V1 | W (H7) | W1 | X(H7) | X1  | Y  | Y1 | Z  | Z1 | Z2  |
|---------------|-----|-------|------|------|------|----|-----|--------|----|--------|----|-------|-----|----|----|----|----|-----|
| <b>3W-08</b>  | M12 | 95    | 2.69 | 2.24 | 60   | 57 | 2   | 7.94   | 3  | 12.68  | 7  | 34    | 3.5 | 46 | M6 | 32 | 32 | M10 |
| <b>3W-C08</b> | M12 | 95    | 2.69 | 2.24 | 60   | 57 | 2   | 7.94   | 3  | 12.68  | 7  | 34    | 3.5 | 46 | M6 | 32 | 32 | M10 |
| <b>3W-10</b>  | M12 | 112   | 4.03 | 2.26 | 72   | 70 | 2.5 | 12.7   | 3  | 19.03  | 7  | 45    | 5   | 60 | M8 | 36 | 36 | M10 |
| <b>3W-C10</b> | M12 | 112   | 4.03 | 2.26 | 72   | 70 | 2.5 | 12.7   | 3  | 19.03  | 7  | 45    | 5   | 60 | M8 | 36 | 36 | M10 |
| <b>3W-12</b>  | M12 | 132.5 | 4.03 | 2.26 | 92.5 | 70 | 2.5 | 12.7   | 3  | 19.03  | 7  | 45    | 5   | 60 | M8 | 36 | 36 | M10 |
| <b>3W-C12</b> | M12 | 132.5 | 4.03 | 2.26 | 92.5 | 70 | 2.5 | 12.7   | 3  | 19.03  | 7  | 45    | 5   | 60 | M8 | 36 | 36 | M10 |
| <b>3W-15</b>  | M12 | 172   | 5.14 | 2.83 | 121  | 80 | 2   | 12.7   | 3  | 19.03  | 7  | 56    | 3   | 90 | M8 | 36 | 36 | M10 |
| <b>3W-C15</b> | M12 | 172   | 5.14 | 2.83 | 121  | 80 | 2   | 12.7   | 3  | 19.03  | 7  | 56    | 3   | 90 | M8 | 36 | 36 | M10 |



- The workpiece compensation of eccentric is 1mm, fixed position for the center, swing and grasp the workpiece to three jaw.
- Second machining can be performed without reversing the workpiece, thus significantly reducing setup time.
- With compensating jaws clamping, the Rough and precision machining can be carried out.
- With sealed design, the maintenance costs can be reduced.
- Can be paired with double-rod rotary cylinder (3RF-D type).
- The driver pin thrust can be controlled by the pressure of the rotary cylinder (3RF-D type).



3RF



3RF-D

Note: The dimensions marked [\*] are the dimensions of the inside Draw Bar , Please don't change it.

Subject to technical changes

## SPECIFICATIONS

| Model   | Chucking Dia. | Jaw stroke (Dia.) | Chucking Dia. Max. | Chucking Dia. Min. | Max. D.B. pull | Max. clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl. | Compensation |
|---------|---------------|-------------------|--------------------|--------------------|----------------|---------------------|----------------------------|---------------------|--------|---------------|--------------|
|         | mm            | mm                | mm                 | mm                 | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |               |              |
| 3RF-08  | 43.5          | 9.4               | 70                 | 18                 | 39.2 (4000)    | 39.2 (4000)         | 4000                       | 0.15                | 39.4   | RS-1250       | 1            |
| 3RF-08D | 43.5          | 9.4               | 70                 | 18                 | 39.2 (4000)    | 39.2 (4000)         | 4000                       | 0.15                | 38.6   | RDL-160S      | 1            |

| Model   | Chuck Dia. | Jaw stroke (Dia.) | Chuck Dia. Max. | Chuck Dia. Min. | Max. D.B. pull | Max. clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl. | Compensation |
|---------|------------|-------------------|-----------------|-----------------|----------------|---------------------|----------------------------|---------------------|--------|---------------|--------------|
|         | mm         | mm                | mm              | mm              | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |               | mm           |
| 3RF-10  | 50         | 11                | 85              | 25              | 58.8(6000)     | 63.7(6500)          | 3500                       | 0.56                | 68.3   | RS-1550       | 1            |
| 3RF-10D | 50         | 11                | 85              | 25              | 58.8(6000)     | 63.7(6500)          | 3500                       | 0.56                | 67.5   | RDL-160S      | 1            |
| 3RF-12  | 52         | 11.2              | 110             | 25              | 78.4(8000)     | 99(10000)           | 2500                       | 0.56                | 109    | RS-2060       | 1            |
| 3RF-12D | 52         | 11.2              | 110             | 25              | 78.4(8000)     | 99(10000)           | 2500                       | 0.56                | 107.7  | RDL-160S      | 1            |

## DIMENSIONS

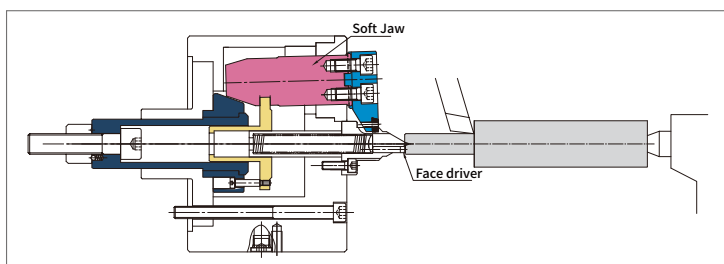
| Model   | A   | B   | C (H6) | D     | E | F  | G max. | G min. | H  | J  | K       | K1 (H7) | K2 | K3 | L     | L1 |
|---------|-----|-----|--------|-------|---|----|--------|--------|----|----|---------|---------|----|----|-------|----|
| 3RF-08  | 210 | 155 | 170    | 133.4 | 5 | 68 | 123    | 79.5   | 37 | 58 | M20x2.5 | -       | -  | -  | 3~M12 | 18 |
| 3RF-08D | 210 | 155 | 170    | 133.4 | 5 | 68 | 98     | 54.5   | 50 | 58 | M36x1.5 | 40.5    | 6  | 24 | 3~M12 | 18 |
| 3RF-10  | 260 | 178 | 220    | 171.4 | 5 | 68 | 143    | 93     | 37 | 63 | M20x2.5 | -       | -  | -  | 6~M16 | 24 |
| 3RF-10D | 260 | 178 | 220    | 171.4 | 5 | 68 | 116.5  | 66.5   | 60 | 63 | M36x1.5 | 40.5    | 6  | 24 | 6~M16 | 26 |
| 3RF-12  | 315 | 190 | 220    | 171.4 | 5 | 76 | 135    | 83     | 46 | 70 | M24x3   | -       | -  | -  | 6~M16 | 24 |
| 3RF-12D | 315 | 190 | 220    | 171.4 | 5 | 76 | 167    | 115    | 75 | 70 | M40x1.5 | 44.5    | 6  | 28 | 6~M16 | 24 |

| Model   | M max. | M min. | M1 | N   | P    | Q   | R    | R1 max. | R1 min. | S  | T(H7) | U  | V  | V1 | W | X   |
|---------|--------|--------|----|-----|------|-----|------|---------|---------|----|-------|----|----|----|---|-----|
| 3RF-08  | 62     | 31     | 58 | 78  | 2.35 | 62  | -    | -       | -       | 40 | 12    | 26 | 16 | 3  | 7 | M12 |
| 3RF-08D | 62     | 31     | 58 | 78  | 2.35 | 62  | 25.5 | 7       | 0       | 40 | 12    | 26 | 16 | 3  | 7 | M12 |
| 3RF-10  | 68     | 35.5   | 61 | 102 | 2.75 | 80  | -    | -       | -       | 45 | 15    | 32 | 18 | 3  | 7 | M14 |
| 3RF-10D | 68     | 35.5   | 61 | 102 | 2.75 | 80  | 28   | 7       | 0       | 45 | 15    | 32 | 18 | 3  | 7 | M14 |
| 3RF-12  | 76     | 43     | 63 | 125 | 2.8  | 100 | -    | -       | -       | 50 | 17    | 36 | 20 | 3  | 7 | M16 |
| 3RF-12D | 76     | 43     | 63 | 125 | 2.8  | 100 | 28   | 7       | 0       | 50 | 17    | 36 | 20 | 3  | 7 | M16 |

## APPLICATION NOTES

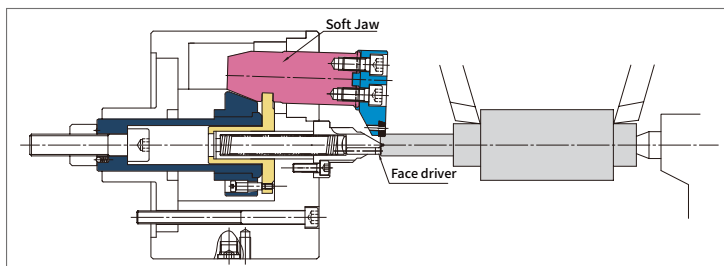
### 1.Clamping diameter machining

The compensating jaws are retracted. The workpiece is clamped between chuck center and tailstock center. Additionally, it is driven by the face driver.



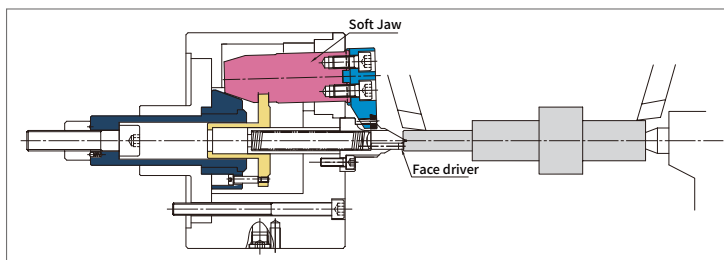
### 2.Rough machining

With compensating jaws clamping, the rough machining can be carried out.



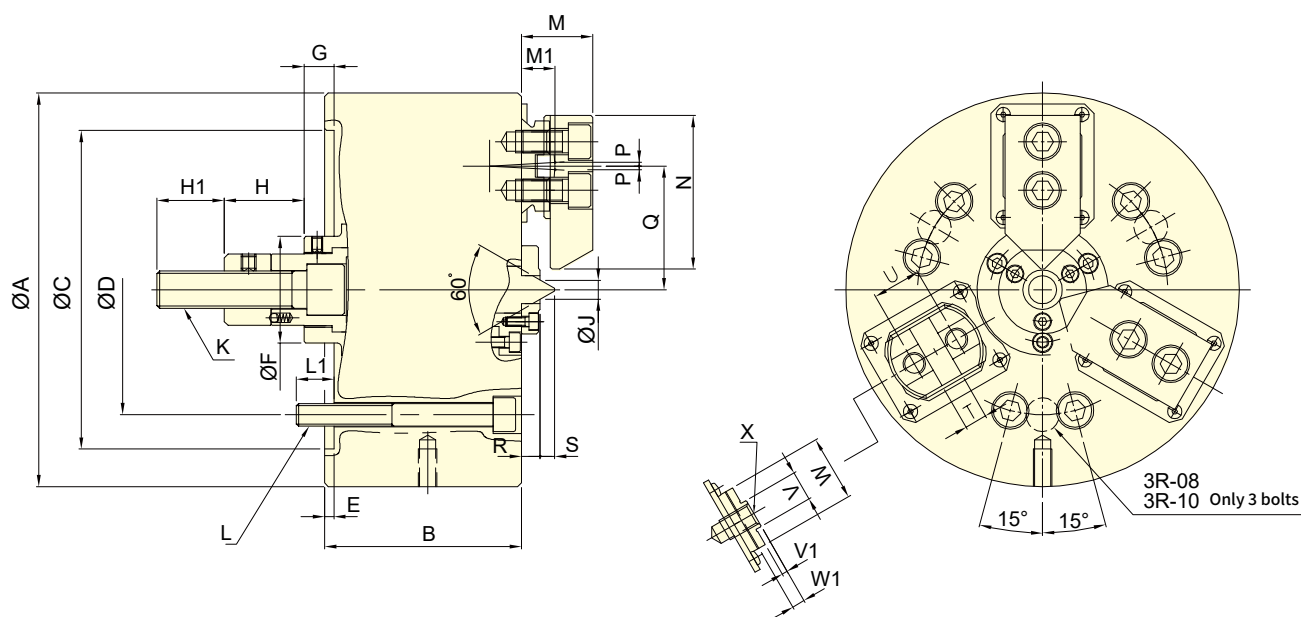
### 3.Finish machining

Additionally, it is driven by the face driver. The entire workpiece can be machined with precise concentricity.





- The workpieces compensation of eccentric is 2 mm, fixed position for the center thimble, swing and grasp the workpiece to three jaw.
- Special seal proof for dust and cutting fluid, it is more convenient when maintenance.
- Swing parts are to heat treatment hardened and ground for steel, in order to improve products service life.



Subject to technical changes

## SPECIFICATIONS

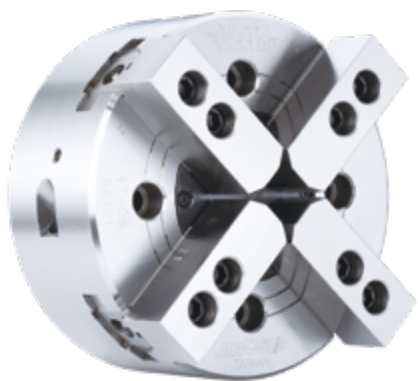
| Model | Chuck Dia.<br>mm | Jaw stroke<br>(Dia.)<br>mm | Chuck Dia. Max.<br>mm | Chuck Dia. Min.<br>mm | Max. D.B. pull<br>kN (kgf) | Max. clamping force<br>kN (kgf) | Max. speed<br>min <sup>-1</sup> (r.p.m.) | Moment of inertia<br>kg · m <sup>2</sup> | Weight<br>kg | Matching cyl. | Compensation<br>mm |
|-------|------------------|----------------------------|-----------------------|-----------------------|----------------------------|---------------------------------|------------------------------------------|------------------------------------------|--------------|---------------|--------------------|
| 3R-08 | 20               | 8                          | 65                    | 18                    | 19.6(2000)                 | 53.0(5404)                      | 2800                                     | 0.15                                     | 27           | RK-100N       | 2                  |
| 3R-10 | 25               | 10                         | 90                    | 22                    | 29.4(3000)                 | 67.7(6901)                      | 2500                                     | 0.38                                     | 45           | RK-125N       | 2                  |
| 3R-12 | 25               | 10.2                       | 110                   | 22                    | 39.4(4000)                 | 88.4(9010)                      | 2000                                     | 0.75                                     | 72           | RK-150N       | 2                  |

## DIMENSIONS

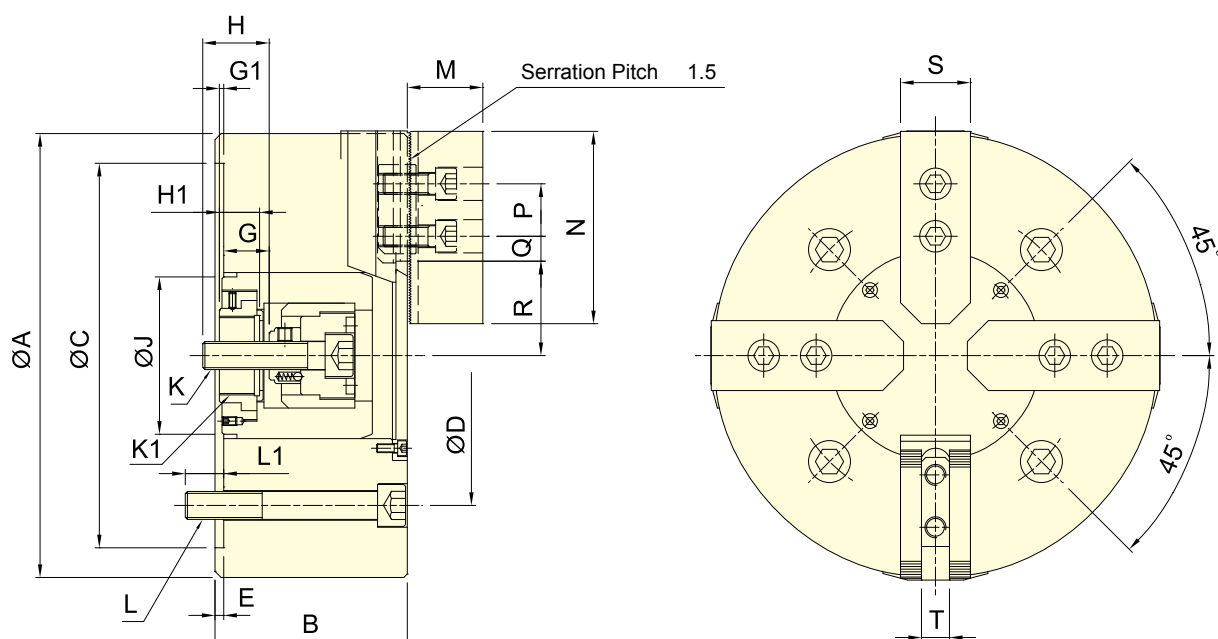
| Model | A   | B   | C (H6) | D     | E   | F  | G max. | G min. | H    | H1   | J    | K       | L     | L1   |
|-------|-----|-----|--------|-------|-----|----|--------|--------|------|------|------|---------|-------|------|
| 3R-08 | 210 | 105 | 170    | 133.4 | 5   | 57 | 26     | 6      | 42.5 | 36   | 10.4 | M20x2.5 | 3~M12 | 20   |
| 3R-10 | 254 | 115 | 220    | 171.4 | 5.5 | 64 | 36.5   | 11.5   | 25   | 39   | 15   | M20x2.5 | 3~M16 | 22.5 |
| 3R-12 | 304 | 130 | 220    | 171.4 | 5   | 70 | 25     | 0      | 33   | 45.5 | 15   | M24x3   | 3~M16 | 22   |

| Model | M  | M1 | N   | P   | Q max. | Q min. | R  | S    | T (H7) | U  | V  | V1 | W  | W1 | X   |
|-------|----|----|-----|-----|--------|--------|----|------|--------|----|----|----|----|----|-----|
| 3R-08 | 38 | 18 | 82  | 2   | 68     | 64     | 10 | 7.7  | 12     | 26 | 16 | 3  | 35 | 7  | M12 |
| 3R-10 | 40 | 19 | 102 | 2.6 | 82     | 78     | 10 | 11.3 | 15     | 32 | 18 | 3  | 40 | 7  | M14 |
| 3R-12 | 51 | 24 | 125 | 2.5 | 102.5  | 97.5   | 10 | 11.3 | 17     | 36 | 20 | 3  | 50 | 7  | M16 |



- CRANK type with two pairs of 2 jaws self center independent of each other.
  - The 4T series is suitable for square bar and other nonuniform shaped workpieces.
- Patent numbers :  
PAT.NO.M359385 (Taiwan)  
PAT.NO.ZL200920009309.1(China)



Subject to technical changes

## SPECIFICATIONS

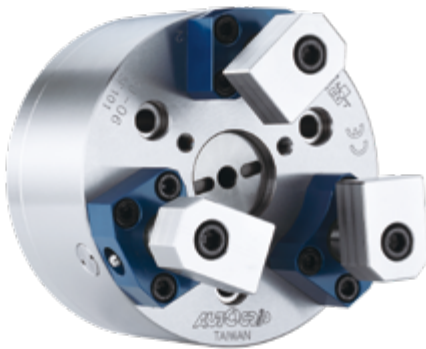
| Model | Plunger stroke<br>mm | Jaw stroke (Dia.)<br>mm | Chucking Dia. Max.<br>mm | Chucking Dia. Min.<br>mm | Max. D.B. pull<br>kN (kgf) | Max. Clamping force<br>kN (kgf) | Max. speed<br>min <sup>-1</sup> (r.p.m.) | Moment of inertia<br>kg · m <sup>2</sup> | Weight<br>kg | Matching cyl. | Max. pressure<br>MPa (kgf/cm <sup>2</sup> ) |
|-------|----------------------|-------------------------|--------------------------|--------------------------|----------------------------|---------------------------------|------------------------------------------|------------------------------------------|--------------|---------------|---------------------------------------------|
| 4T-08 | 17                   | 13.6                    | 210                      | 24                       | 16.0 (1630)                | 54.3 (5540)                     | 3000                                     | 0.15                                     | 23.2         | RD-120(N)     | 1.7(17)                                     |
| 4T-10 | 20                   | 16                      | 254                      | 50                       | 21.6 (2200)                | 79.4 (8100)                     | 2100                                     | 0.35                                     | 44.3         | RD-125(N)     | 2.2(22)                                     |
| 4T-12 | 20                   | 16                      | 304                      | 50                       | 21.6 (2200)                | 79.4 (8100)                     | 1500                                     | 0.66                                     | 57.6         | RD-125(N)     | 2.2(22)                                     |
| 4T-15 | 25                   | 19.6                    | 381                      | 60                       | 27.2 (2780)                | 105.3 (10750)                   | 1200                                     | 2.25                                     | 118.3        | RD-125(N)     | 2.7(27)                                     |

## DIMENSIONS

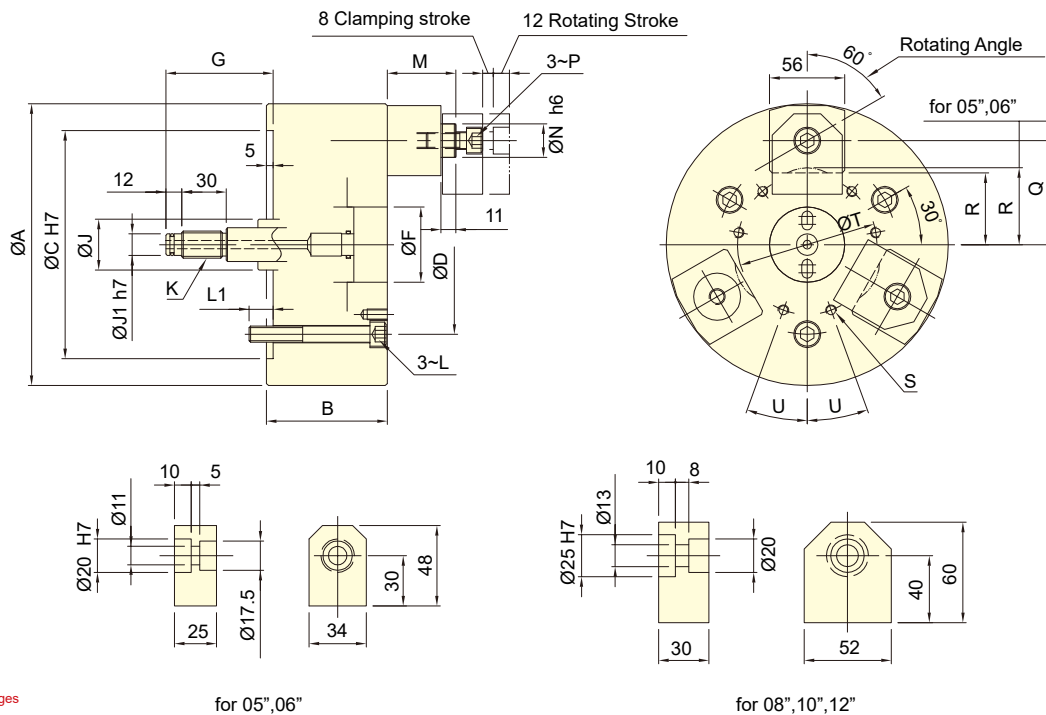
| Model | A   | B   | C(H6) | D     | E | G max. | G min. | G1 max. | G1 min. | H  | H1 | J   | K       |
|-------|-----|-----|-------|-------|---|--------|--------|---------|---------|----|----|-----|---------|
| 4T-08 | 210 | 91  | 170   | 133.4 | 5 | 32     | 15     | 2.5     | -14.5   | 29 | 20 | 61  | M14x2   |
| 4T-10 | 254 | 110 | 220   | 171.4 | 5 | 36.5   | 16.5   | 10      | -10     | 36 | 23 | 90  | M16x2   |
| 4T-12 | 304 | 110 | 220   | 171.4 | 5 | 36.5   | 16.5   | 10      | -10     | 36 | 23 | 90  | M16x2   |
| 4T-15 | 381 | 135 | 300   | 235   | 6 | 44.5   | 19.5   | 5       | -20     | 45 | 28 | 110 | M20x2.5 |

| Model | K1      | L     | L1 | M  | N   | P  | Q max. | Q min. | R max. | R min. | S  | T  |
|-------|---------|-------|----|----|-----|----|--------|--------|--------|--------|----|----|
| 4T-08 | M34x1.5 | 4~M2  | 20 | 38 | 95  | 25 | 25.25  | 13.25  | 46.1   | 39.3   | 35 | 14 |
| 4T-10 | M45x1.5 | 4~M16 | 25 | 43 | 110 | 30 | 32.25  | 12.75  | 59     | 51     | 40 | 16 |
| 4T-12 | M45x1.5 | 4~M16 | 25 | 43 | 110 | 30 | 54.75  | 15.75  | 59     | 51     | 40 | 16 |
| 4T-15 | M55x2   | 4~M20 | 30 | 51 | 130 | 30 | 66.5   | 12.5   | 78.9   | 69.1   | 50 | 21 |



- Gripping at the end face and preventing deformation of workpiece.
- Suitable for thin wall workpiece processing.
- The gripping compensating mechanism can grasp the irregular surface workpieces well.
- Airtight pressure detect function is optional.



Subject to technical changes

### SPECIFICATIONS

| Model | Rotating stroke | Clamping stroke | Jaw's compensation | Chuck Dia. Max. | Chuck Dia. Min. | Max. D.B. pull | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl.       | Max. pressure              |
|-------|-----------------|-----------------|--------------------|-----------------|-----------------|----------------|---------------------|----------------------------|---------------------|--------|---------------------|----------------------------|
|       | mm              | mm              | mm                 | mm              | mm              | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |                     | MPa (kgf/cm <sup>2</sup> ) |
| 3J-05 | 12              | 8               | 2                  | 53              | 25              | 7.5(765)       | 6.0(612)            | 4000                       | 0.02                | 11.0   | RK-100 OR RK-100(N) | 1.0(10)                    |
| 3J-06 | 12              | 8               | 2                  | 79              | 55              | 9.0(918)       | 7.5(765)            | 4000                       | 0.04                | 12.0   | RK-100 OR RK-100(N) | 1.2(12)                    |
| 3J-08 | 12              | 8               | 2                  | 106             | 75              | 18.0(1835)     | 16.5(1680)          | 3500                       | 0.13                | 23.0   | RK-100 OR RK-100(N) | 2.5(25)                    |
| 3J-10 | 12              | 8               | 2.5                | 150             | 119             | 18.0(1835)     | 16.5(1680)          | 3500                       | 0.30                | 33.0   | RK-100 OR RK-100(N) | 2.5(25)                    |
| 3J-12 | 12              | 8               | 2.5                | 200             | 169             | 18.0(1835)     | 16.5(1680)          | 3000                       | 0.56                | 44.0   | RK-100 OR RK-100(N) | 2.5(25)                    |

### DIMENSIONS

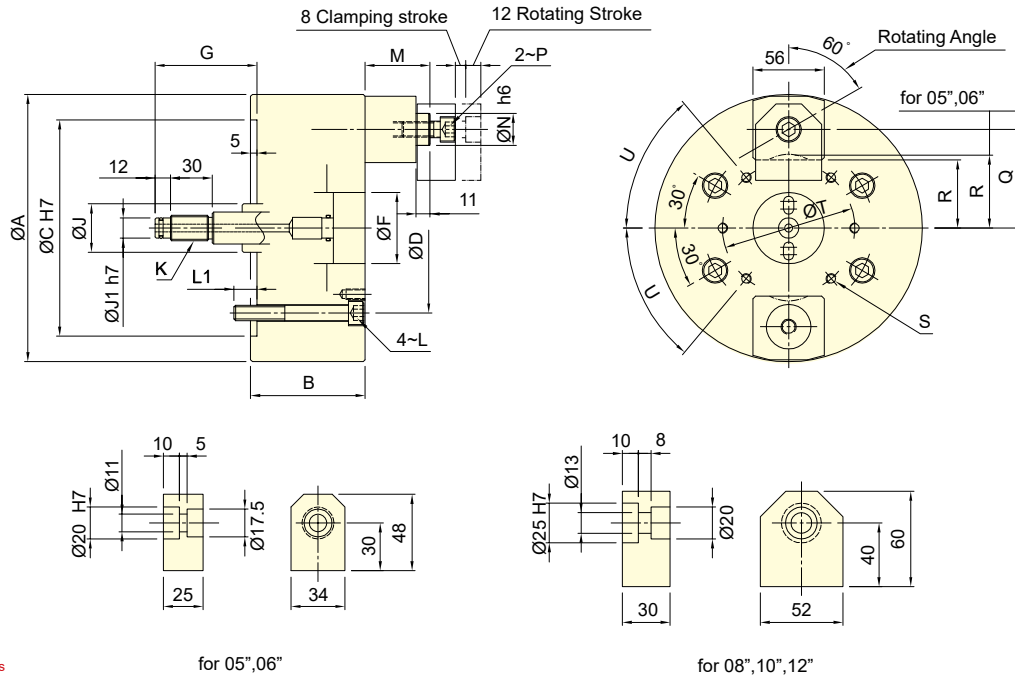
| Model | A   | B  | C   | D     | F  | G max. | G min. | J  | J1 | K        |
|-------|-----|----|-----|-------|----|--------|--------|----|----|----------|
| 3J-05 | 135 | 86 | 110 | 82.6  | 40 | 75     | 55     | 25 | 9  | M12x1.75 |
| 3J-06 | 165 | 86 | 140 | 104.8 | 45 | 75     | 55     | 28 | 12 | M16x2    |
| 3J-08 | 210 | 90 | 170 | 133.4 | 56 | 80     | 60     | 38 | 16 | M20x2.5  |
| 3J-10 | 254 | 95 | 220 | 171.4 | 56 | 75     | 55     | 38 | 16 | M20x2.5  |
| 3J-12 | 304 | 95 | 220 | 171.4 | 56 | 75     | 55     | 38 | 16 | M20x2.5  |

| Model | L   | L1 | M max. | M min. | N  | P   | Q     | R     | S    | T   | U   |
|-------|-----|----|--------|--------|----|-----|-------|-------|------|-----|-----|
| 3J-05 | M10 | 15 | 56     | 36     | 20 | M10 | 42.5  | 27    | 3~M6 | 50  | -   |
| 3J-06 | M10 | 15 | 56     | 36     | 20 | M10 | 57.5  | 40    | 3~M8 | 64  | -   |
| 3J-08 | M12 | 18 | 71     | 51     | 25 | M12 | 77.5  | 53.5  | 6~M8 | 104 | 20° |
| 3J-10 | M16 | 24 | 71     | 51     | 25 | M12 | 99.5  | 75.5  | 6~M8 | 140 | 20° |
| 3J-12 | M16 | 24 | 71     | 51     | 25 | M12 | 124.5 | 100.5 | 6~M8 | 190 | 20° |



- Gripping at the end face and preventing deformation of workpiece.
- Suitable for thin wall workpiece processing.
- The gripping compensating mechanism can grasp the irregular surface workpieces well.
- Airtight pressure detect function is optional.



Subject to technical changes

## SPECIFICATIONS

| Model        | Rotating stroke | Clamping stroke | Jaw's compensation | Chuck Dia. Max. | Chuck Dia. Min. | Max. D.B. pull | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Matching cyl.       | Max. pressure              |
|--------------|-----------------|-----------------|--------------------|-----------------|-----------------|----------------|---------------------|----------------------------|---------------------|--------|---------------------|----------------------------|
|              | mm              | mm              | mm                 | mm              | mm              | kN (kgf)       | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |                     | MPa (kgf/cm <sup>2</sup> ) |
| <b>2J-05</b> | 12              | 8               | 2                  | 53              | 25              | 5.0(510)       | 4.0(408)            | 4000                       | 0.015               | 9.0    | RK-100 OR RK-100(N) | 0.7(7)                     |
| <b>2J-06</b> | 12              | 8               | 2                  | 79              | 55              | 6.0(612)       | 5.0(510)            | 4000                       | 0.035               | 9.8    | RK-100 OR RK-100(N) | 0.8(8)                     |
| <b>2J-08</b> | 12              | 8               | 2                  | 106             | 75              | 12.0(1224)     | 11.0(1122)          | 3500                       | 0.12                | 20.3   | RK-100 OR RK-100(N) | 1.7(17)                    |
| <b>2J-10</b> | 12              | 8               | 2.5                | 150             | 119             | 12.0(1224)     | 11.0(1122)          | 3500                       | 0.28                | 30.7   | RK-100 OR RK-100(N) | 1.7(17)                    |
| <b>2J-12</b> | 12              | 8               | 2.5                | 200             | 169             | 12.0(1224)     | 11.0(1122)          | 3000                       | 0.52                | 41.2   | RK-100 OR RK-100(N) | 1.7(17)                    |

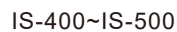
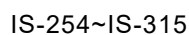
## DIMENSIONS

| Model        | A   | B  | C   | D     | F  | G max. | G min. | J  | J1 | K        |
|--------------|-----|----|-----|-------|----|--------|--------|----|----|----------|
| <b>2J-05</b> | 135 | 86 | 110 | 82.6  | 40 | 75     | 55     | 25 | 9  | M12x1.75 |
| <b>2J-06</b> | 165 | 86 | 140 | 104.8 | 45 | 75     | 55     | 28 | 12 | M16x2    |
| <b>2J-08</b> | 210 | 90 | 170 | 133.4 | 56 | 80     | 60     | 38 | 16 | M20x2.5  |
| <b>2J-10</b> | 254 | 95 | 220 | 171.4 | 56 | 75     | 55     | 38 | 16 | M20x2.5  |
| <b>2J-12</b> | 304 | 95 | 220 | 171.4 | 56 | 75     | 55     | 38 | 16 | M20x2.5  |

| Model        | L   | L1 | M max. | M min. | N  | P   | Q     | R     | S    | T   | U   |
|--------------|-----|----|--------|--------|----|-----|-------|-------|------|-----|-----|
| <b>2J-05</b> | M10 | 15 | 56     | 36     | 20 | M10 | 42.5  | 27    | 4~M6 | 50  | 30° |
| <b>2J-06</b> | M10 | 15 | 56     | 36     | 20 | M10 | 57.5  | 40    | 4~M8 | 64  | 30° |
| <b>2J-08</b> | M12 | 18 | 71     | 51     | 25 | M12 | 77.5  | 53.5  | 6~M8 | 104 | 50° |
| <b>2J-10</b> | M16 | 24 | 71     | 51     | 25 | M12 | 99.5  | 75.5  | 6~M8 | 140 | 50° |
| <b>2J-12</b> | M16 | 24 | 71     | 51     | 25 | M12 | 124.5 | 100.5 | 6~M8 | 190 | 50° |

- Indexing operates during the spindle rotation, can perform a quick change between multiple working axes.
- All parts of chuck hardened, ground and lubricated directly.
- Sealed against swarf, chips and coolant.
- High rigidity and high repeatability precision.
- Unique indexing system and hydraulic system, with pressure detection device in chuck, high reliability.



## SPECIFICATIONS

| Model          | Index Angle | Jaw stroke | Chuck Area Dia Max. | Chuck Area Len Max. | Max. pressure       | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | ROTATING JOINT | Main Spindle Bore | Clamp Jaw Weight |
|----------------|-------------|------------|---------------------|---------------------|---------------------|---------------------|----------------------------|---------------------|--------|----------------|-------------------|------------------|
|                | Deg         | mm         | mm                  | mm                  | kgf/cm <sup>2</sup> | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     |                | mm                | kg               |
| <b>IS-254</b>  | 4x90°       | 20         | 65                  | 160                 | 45                  | 19.5(1990)          | 3100                       | 0.41                | 41     | IRJ-5E1        | 61 and above      | 0.6              |
| <b>IS-275</b>  | 4x90°       | 20         | 80                  | 220                 | 45                  | 25.4(2590)          | 2500                       | 0.61                | 52     | IRJ-5E1        | 61 and above      | 1.2              |
| <b>IS-315</b>  | 4x90°       | 20         | 100                 | 230                 | 45                  | 25.0(2550)          | 1200                       | 1.13                | 76     | IRJ-5E1        | 61 and above      | 1.8              |
| <b>*IS-400</b> | 4x90°       | 30         | 170                 | 260                 | 45                  | 34.5(3510)          | 1000                       | 3.4                 | 125    | IRJ-5E1        | 61 and above      | 4.0              |
| <b>*IS-500</b> | 4x90°       | 35         | 220                 | 310                 | 45                  | 45.7(4660)          | 1000                       | 9.4                 | 220    | IRJ-5E1        | 61 and above      | 6.0              |

## DIMENSIONS

| Model          | A   | B   | B1 | B2 | C(H6) | D     | E  | F  | G    | H    | J   | K  |
|----------------|-----|-----|----|----|-------|-------|----|----|------|------|-----|----|
| <b>IS-254</b>  | 254 | 190 | 5  | 23 | 220   | 171.4 | 60 | 13 | 47.5 | 18   | 155 | 48 |
| <b>IS-275</b>  | 275 | 213 | 5  | 26 | 220   | 171.4 | 60 | 13 | 58   | 20   | 171 | 48 |
| <b>IS-315</b>  | 315 | 232 | 5  | 22 | 220   | 171.4 | 60 | 13 | 71   | 18.5 | 187 | 50 |
| <b>*IS-400</b> | 400 | 260 | 6  | 30 | 300   | 235   | 60 | 13 | 99   | 21   | 220 | 60 |
| <b>*IS-500</b> | 500 | 308 | 6  | 38 | 380   | 330.2 | 60 | 13 | 131  | 21   | 266 | 68 |

| Model          | L  | M   | N  | N1 | P   | Q(H7) | R   | S(H7) | S1 | T   | T1  | U   | V    | W   |
|----------------|----|-----|----|----|-----|-------|-----|-------|----|-----|-----|-----|------|-----|
| <b>IS-254</b>  | 13 | M8  | 20 | 5  | 40  | 18    | M10 | 20    | -  | 106 | -   | 57  | 46.5 | 5.5 |
| <b>IS-275</b>  | 18 | M10 | 20 | 6  | 80  | 18    | M10 | 20    | -  | 125 | -   | 67  | 57   | 7   |
| <b>IS-315</b>  | 18 | M10 | 20 | 6  | 75  | 24    | M12 | 25    | -  | 136 | -   | 85  | 70   | 7.5 |
| <b>*IS-400</b> | 23 | M10 | 30 | 8  | 100 | 22    | M12 | 24    | 70 | -   | 330 | 112 | 100  | 10  |
| <b>*IS-500</b> | 25 | M10 | 35 | 8  | 100 | 22    | M12 | 24    | 75 | -   | 410 | 156 | 132  | 10  |

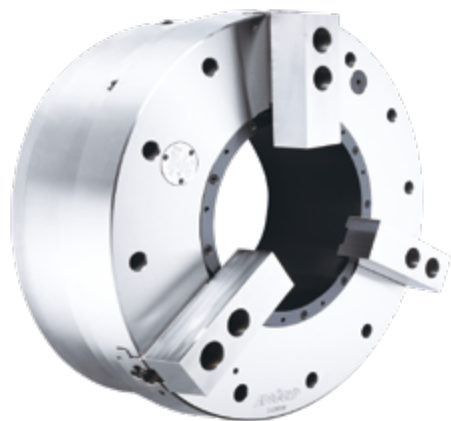


\*Index Angle 8x45° or Specific Angle, Please contact AUTOGRIP for more detailed information. Thanks.

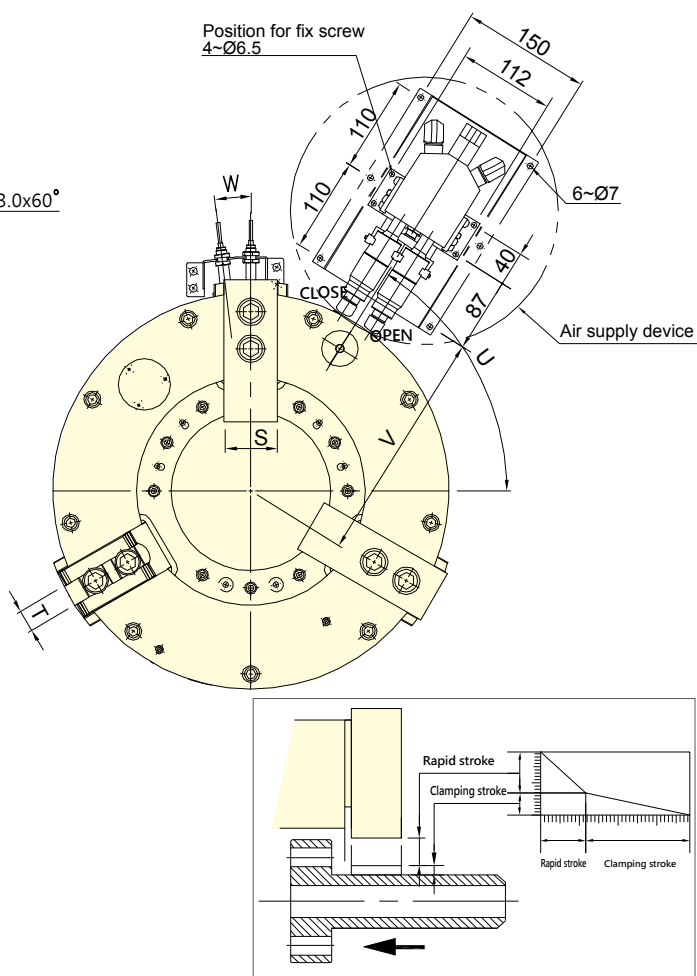
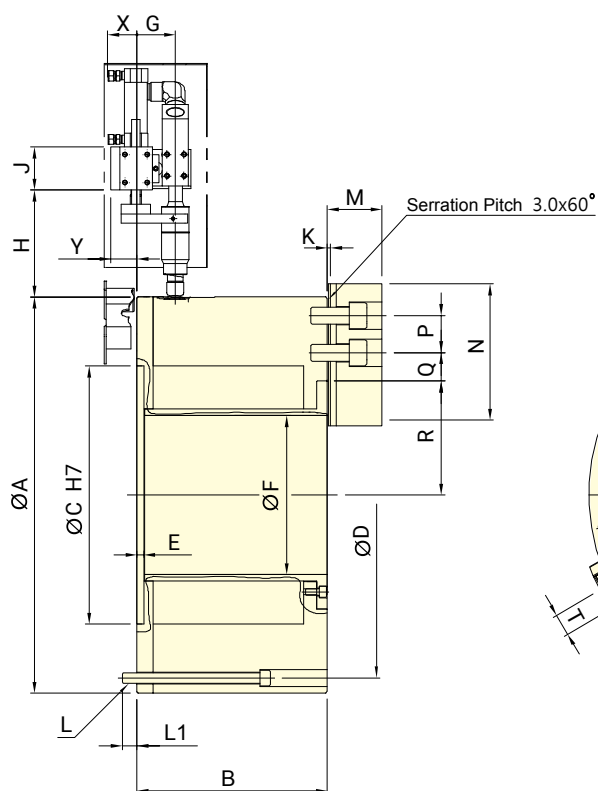
The maximum rotational speed can only be achieved when the hydraulic pressure is at its maximum. Additionally, the operating pressure and the weight of the clamping fixture must not exceed the values shown in the table above.

Indexing can be performed while the spindle is rotating. However, when indexing at high rotational speeds, it is recommended to reduce the speed by 50% to avoid vibration caused by imbalance when the workpiece is in an intermediate position. Furthermore, depending on the shape of the workpiece, indexing during spindle rotation may not be possible.

The "\*" model is produced upon order, with no stock available.



- Large through-hole 3-jaw power chuck with build in air cylinder.
- With build-in "pressure detection" device which can check the rapidly decreasing pressure within the chuck, guarantee to the security when operating.
- Patented air supply system, it is easy to install and maintain. No abrasion issue of traditional sealed ring. Maintenance cost and time can be saved.
- The build-in "clamping detection" device can avoid jaws clamping the workpiece during the rapid stroke stage. This mechanism can also prevent causing the damage of the internal parts or flying out of workpiece.(only for O.D. gripping)
- Extended jaw stroke design can shorten the processing time when gripping.
- Notice: No clamping in rapid stroke period.



Subject to technical changes

## SPECIFICATIONS

| Model   | Thru-hole Dia. | Jaw stroke (Dia.) |    | Chucking Dia. Max. | Chucking Dia. Min. | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Air Consumption               |
|---------|----------------|-------------------|----|--------------------|--------------------|---------------------|----------------------------|---------------------|--------|-------------------------------|
|         | mm             | mm                | mm | mm                 | mm                 | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     | lit(at 6kgf/cm <sup>2</sup> ) |
| APS-185 | 185            | 26                | 14 | 460                | 127                | 110(11216)          | 1300                       | 6.45                | 198    | 22                            |

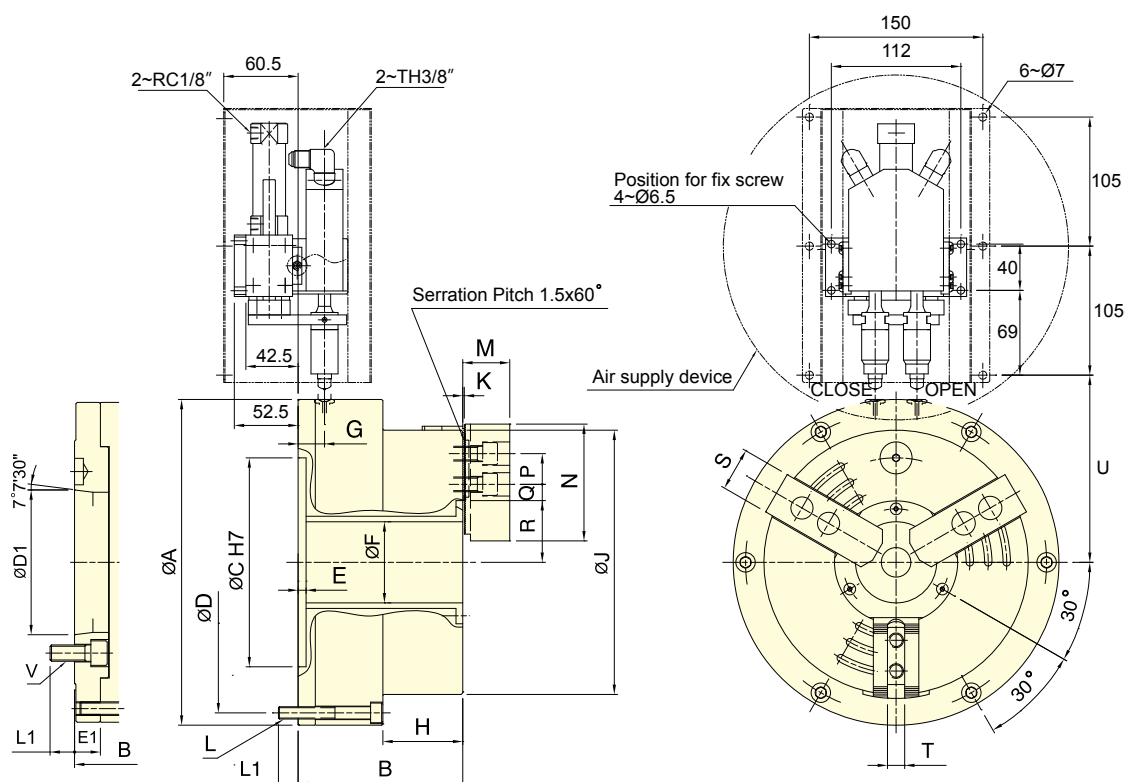
## DIMENSIONS

| Model   | A   | B   | C      | D      | E      | F      | G  | H    | J  | K   | L     | L1 | M    |
|---------|-----|-----|--------|--------|--------|--------|----|------|----|-----|-------|----|------|
| APS-185 | 460 | 221 | 300    | 425    | 8      | 185    | 45 | 124  | 50 | 3.5 | 9~M12 | 17 | 63.7 |
| Model   | N   | P   | Q max. | Q min. | R max. | R min. | S  | T    | U  | V   | W     | X  | Y    |
| APS-185 | 165 | 43  | 37     | 17     | 145    | 125    | 62 | 25.5 | 58 | 272 | 7°    | 38 | 30   |



- Large through-hole 3-jaw power chuck with build in air cylinder.
- Patented air supply system, it is easy to install and maintain. No abrasion issue of traditional sealed ring. Maintenance cost and time can be saved.

■ Patent numbers :  
 20.2011.101.818.4 / 20.2012.102.498.5 (Germany)  
 3169457 / 3178706 (Japan) / EP 2517822 B1 (EU)  
 ZL 2011 2 0141324.9 / ZL 2012 2 0274549.6 (China)  
 M440159 / M415011 (Taiwan) / US8770222 B2 (U.S.A.)  
 0000278076 (Italy)



AP-A

Subject to technical changes

## SPECIFICATIONS

| Model  |    | Thru-hole Dia. | Jaw stroke (Dia.) | Chucking Dia. Max. | Chucking Dia. Min. | Max. pressure              | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight | Air Consumption                |
|--------|----|----------------|-------------------|--------------------|--------------------|----------------------------|---------------------|----------------------------|---------------------|--------|--------------------------------|
|        |    | mm             | mm                | mm                 | mm                 | MPa (kgf/cm <sup>2</sup> ) | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     | lit (at 6kgf/cm <sup>2</sup> ) |
| AP-52  | A6 | 52             | 5.9               | 170                | 15                 | 0.6(6.1)                   | 40.5(4128)          | 3900                       | 0.2                 | 26     | 30 3.1                         |
| AP-66  | A6 | 66             | 7.6               | 215                | 24                 | 0.6(6.1)                   | 50(5097)            | 3000                       | 0.4                 | 38     | 45 5.1                         |
| AP-86  | A8 | 86             | 8.9               | 268                | 43                 | 0.6(6.1)                   | 80(8156)            | 2800                       | 0.7                 | 58     | 72 8.7                         |
| AP-115 | A8 | 115            | 10.6              | 330                | 55                 | 0.6(6.1)                   | 90(9174)            | 2000                       | 1.7                 | 92     | 112 12                         |

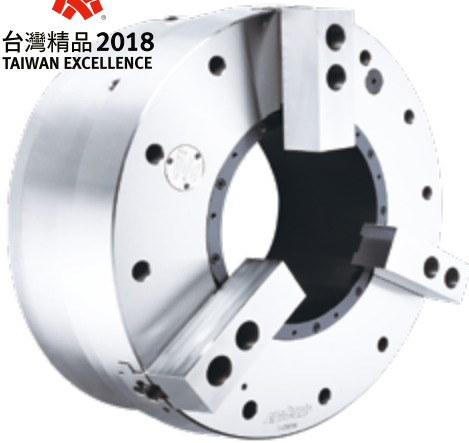
## DIMENSIONS

| Model  |    | A   | B   | C   | D   | D1  | E      | E1  | F  | G   | H    | J    | K   | L       |
|--------|----|-----|-----|-----|-----|-----|--------|-----|----|-----|------|------|-----|---------|
| AP-52  | A6 | 235 | 121 | 140 | 170 | 215 | 106.38 | 6.5 | 19 | 52  | 21.5 | 58.5 | 170 | 2 6~M10 |
| AP-66  | A6 | 265 | 134 | 153 | 170 | 245 | 106.38 | 6.5 | 19 | 66  | 21.5 | 65   | 215 | 2 6~M10 |
| AP-86  | A8 | 315 | 142 | 169 | 220 | 295 | 139.72 | 6.5 | 27 | 86  | 21.5 | 67   | 268 | 2 6~M10 |
| AP-115 | A8 | 370 | 154 | 181 | 220 | 350 | 139.72 | 6.5 | 27 | 115 | 21.5 | 69   | 330 | 2 6~M10 |

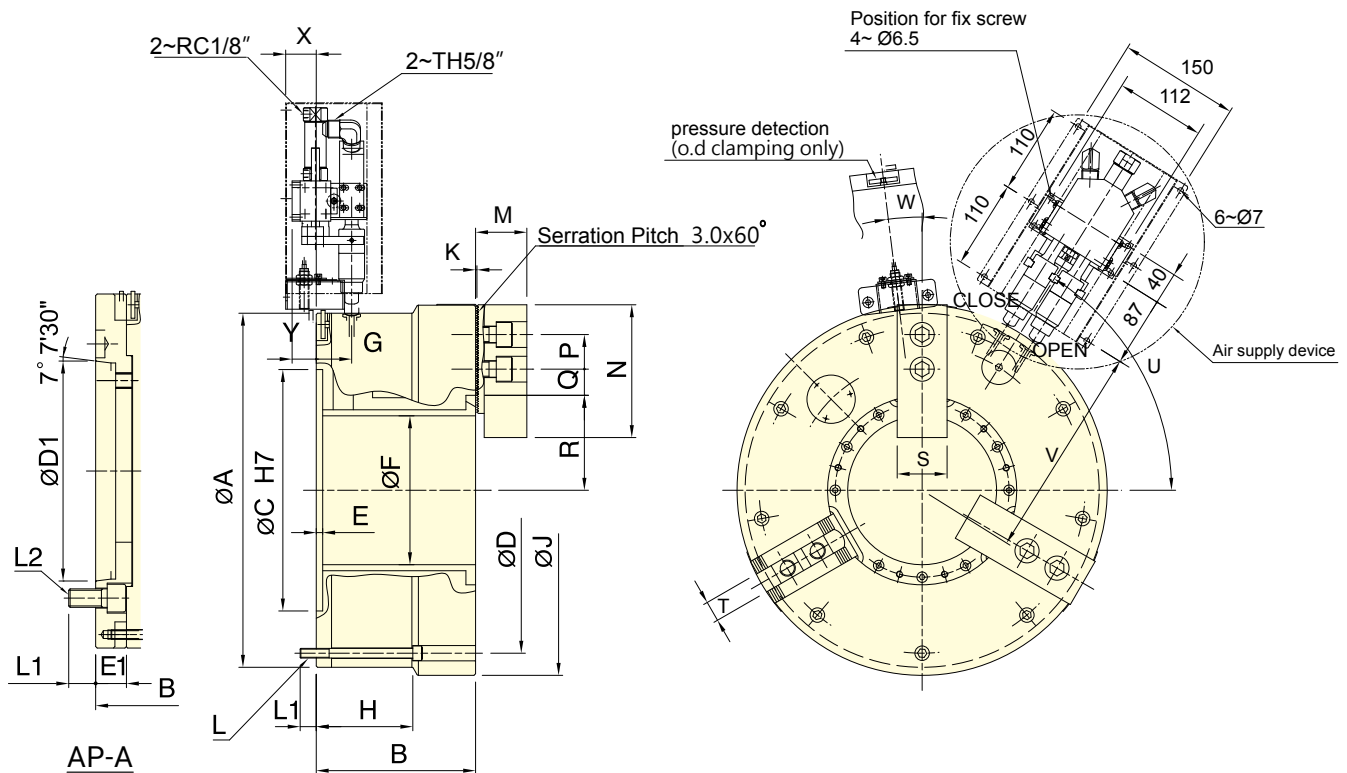
  

| Model  |    | L1 | M  | N  | P   | Q max. | Q min. | R max. | R min. | S    | T  | U  | V           |
|--------|----|----|----|----|-----|--------|--------|--------|--------|------|----|----|-------------|
| AP-52  | A6 | 15 | 18 | 37 | 73  | 20     | 21.2   | 9.2    | 38     | 35.1 | 31 | 12 | 145.5 6~M12 |
| AP-66  | A6 | 16 | 18 | 38 | 95  | 25     | 23.7   | 8.7    | 50.2   | 46.4 | 35 | 14 | 159.5 6~M12 |
| AP-86  | A8 | 16 | 24 | 43 | 110 | 30     | 32.2   | 12.7   | 62.2   | 57.8 | 40 | 16 | 184.5 6~M16 |
| AP-115 | A8 | 16 | 24 | 51 | 130 | 30     | 44.7   | 14.7   | 77     | 71.7 | 50 | 21 | 212 6~M16   |

The dimensions and the specifications of AP-A type are in red data.



- Large through-hole 3-jaw power chuck with build in air cylinder.
  - With build-in "pressure detection" device in chuck which can check the pressure is lowered rapidly within the chuck, guarantee to the security of operating.(only for O.D. gripping)
  - Patented air supply system, it is easy to install and maintain. No abrasion issue of traditional sealed ring. Maintenance cost and time can be saved.
- Patent numbers :
- 20.2011.101.818.4 / 20.2012.102.498.5(Germany)  
3169457 / 3178706 (Japan) / EP 2517822 B1 (EU)  
ZL 2011 2 0141324.9 / ZL 2012 2 0274549.6 (China)  
M440159 / M415011 (Taiwan) / US8770222 B2 (U.S.A.)  
0000278076(Italy)



Subject to technical changes

## SPECIFICATIONS

| Model  |     | Thru-hole Dia. | Jaw stroke<br>(Dia.) | Chucking Dia.Max. | Chucking Dia.Min. | Max. pressure              | Max. Clamping force | Max. speed                 | Moment of inertia   | Weight |                               | Air Consumption |
|--------|-----|----------------|----------------------|-------------------|-------------------|----------------------------|---------------------|----------------------------|---------------------|--------|-------------------------------|-----------------|
|        |     | mm             | mm                   | mm                | mm                | MPa (kgf/cm <sup>2</sup> ) | kN (kgf)            | min <sup>-1</sup> (r.p.m.) | kg · m <sup>2</sup> | kg     | lit(at 6kgf/cm <sup>2</sup> ) |                 |
| AP-145 | A11 | 145            | 14                   | 420               | 62                | 0.6(6.1)                   | 110(11213)          | 1500                       | 3.8                 | 156    | 182                           | 17.8            |
| AP-185 | A15 | 185            | 14                   | 460               | 100               | 0.6(6.1)                   | 160(16310)          | 1700                       | 6.0                 | 188    | 223                           | 22              |
| AP-230 | A15 | 230            | 17                   | 535               | 170               | 0.6(6.1)                   | 150(15290)          | 1300                       | 11.1                | 265    | 310                           | 34              |
| AP-275 | A20 | 275            | 17                   | 580               | 200               | 0.6(6.1)                   | 160(16310)          | 1100                       | 15.5                | 301    | 346                           | 39              |
| AP-320 | A20 | 320            | 17                   | 658               | 200               | 0.6(6.1)                   | 180(18348)          | 1000                       | 27.2                | 415    | 505                           | 45              |
| AP-375 | A20 | 375            | 24                   | 738               | 260               | 0.6(6.1)                   | 210(21406)          | 900                        | 44.2                | 530    | 545                           | 55              |

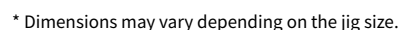
The dimensions and the specifications of AP-A type are in red data

## DIMENSIONS

| Model  |     | A   | B   |     | C   | D   | D1     | E | E1 | F   | G  | H     | J   | K   | L     | L1 |    |
|--------|-----|-----|-----|-----|-----|-----|--------|---|----|-----|----|-------|-----|-----|-------|----|----|
| AP-145 | A11 | 400 | 198 | 231 | 300 | 365 | 196.87 | 8 | 33 | 145 | 34 | 120   | 420 | 3.5 | 9~M12 | 20 | 31 |
| AP-185 | A15 | 460 | 198 | 238 | 300 | 405 | 285.78 | 8 | 40 | 185 | 44 | 120   | 460 | 3.5 | 9~M12 | 20 | 35 |
| AP-230 | A15 | 515 | 226 | 266 | 380 | 483 | 285.78 | 8 | 40 | 230 | 49 | 145   | 535 | 3.5 | 6~M16 | 24 | 35 |
| AP-275 | A20 | 560 | 232 | 272 | 380 | 528 | 412.78 | 8 | 40 | 275 | 52 | 152   | 580 | 3.5 | 6~M16 | 24 | 35 |
| AP-320 | A20 | 615 | 256 | 306 | 520 | 580 | 412.78 | 8 | 50 | 320 | 55 | 116.5 | 658 | 3.5 | 9~M16 | 25 | 33 |
| AP-375 | A20 | 690 | 272 | 322 | 520 | 650 | 412.78 | 8 | 50 | 375 | 55 | 127   | 738 | 3.5 | 9~M16 | 28 | 33 |

| Model  |     | L2    | M    | N   | P  | Q max. | Q min. | R max. | R min. | S  | T    | U   | V   | W  | X  | Y  |
|--------|-----|-------|------|-----|----|--------|--------|--------|--------|----|------|-----|-----|----|----|----|
| AP-145 | A11 | 6~M20 | 63.7 | 165 | 43 | 53.5   | 23.5   | 98     | 91     | 62 | 25.5 | 57° | 242 | 0° | 38 | 20 |
| AP-185 | A15 | 6~M24 | 63.7 | 165 | 43 | 53.5   | 23.5   | 118    | 111    | 62 | 25.5 | 58° | 272 | 7° | 38 | 20 |
| AP-230 | A15 | 6~M24 | 71.7 | 180 | 60 | 48.5   | 18.5   | 145    | 136.5  | 64 | 25.5 | 30° | 300 | 7° | 33 | 15 |
| AP-275 | A20 | 6~M24 | 71.7 | 180 | 60 | 48.5   | 18.5   | 167.5  | 159    | 64 | 25.5 | 30° | 322 | 7° | 30 | 12 |
| AP-320 | A20 | 6~M24 | 81.5 | 210 | 60 | 60.5   | 24.5   | 190    | 181.5  | 75 | 30   | 52° | 350 | 7° | 27 | 9  |
| AP-375 | A20 | 6~M24 | 81.5 | 210 | 60 | 66.5   | 24.5   | 223.5  | 211.5  | 75 | 30   | 52° | 387 | 7° | 27 | 9  |

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## SPECIFICATIONS

| Model         |            | Total axial stroke | Open jaw stroke | Clamping stroke | Max. clamping size of the Wheel | Min. clamping size of the Wheel | Max. D.B. pull | Max. clamping force |
|---------------|------------|--------------------|-----------------|-----------------|---------------------------------|---------------------------------|----------------|---------------------|
|               |            | mm                 | mm              | mm              | inch                            | inch                            | kN (kgf)       | kN (kgf)            |
| <b>3FW-26</b> | <b>A11</b> | 40                 | 9               | 31              | 24"                             | 13"                             | 34.3(3500)     | 30.9(3150)          |

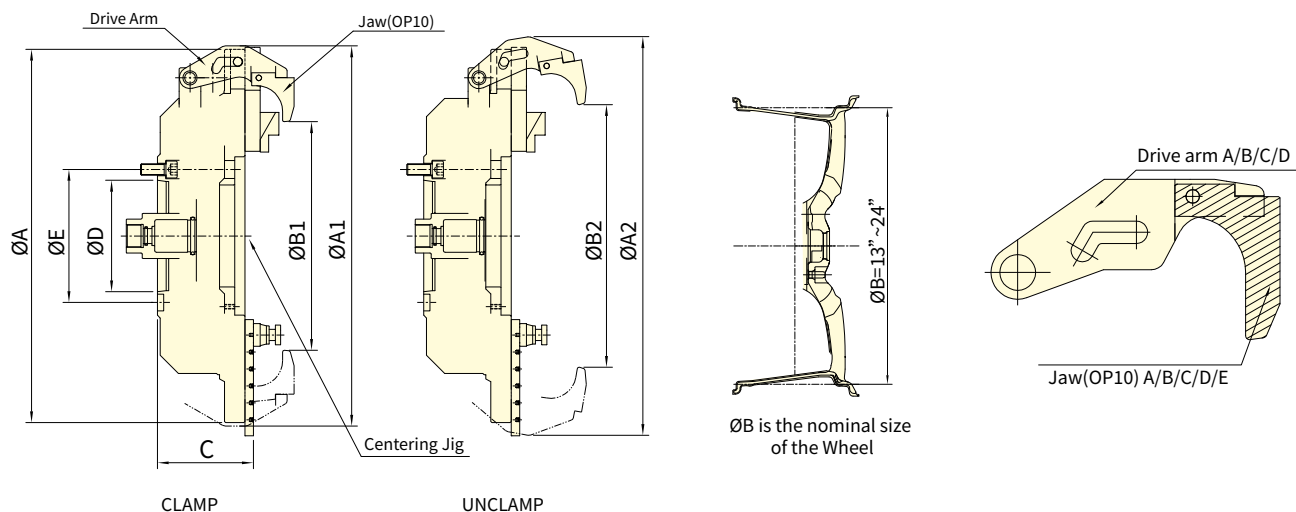
| Model         |            | Max. speed                 | Moment of inertia   | Weight (Jig not included) | Weight (OP10 jig included) | Weight (OP20 jig included) | Matching cyl. | Max. pressure           |
|---------------|------------|----------------------------|---------------------|---------------------------|----------------------------|----------------------------|---------------|-------------------------|
|               |            | min <sup>-1</sup> (r.p.m.) | kg • m <sup>2</sup> | kg                        | kg                         | kg                         |               | MPa kgf/cm <sup>2</sup> |
| <b>3FW-26</b> | <b>A11</b> | 2200                       | 7.3                 | 160                       | 180                        | 190~200                    | RE-A1340      | 3.2(33)                 |

## DIMENSIONS

| Model         |            | A   | A1  | B     | B1 | B2 | C   | D      | E  | F    | G max. | G min. | G1 | G2 | H  | H1   | J  |
|---------------|------------|-----|-----|-------|----|----|-----|--------|----|------|--------|--------|----|----|----|------|----|
| <b>3FW-26</b> | <b>A11</b> | 660 | 706 | 154.5 | 15 | 36 | 235 | 196.87 | 60 | 26.5 | 55     | 15     | 31 | 9  | 30 | 15.5 | 80 |

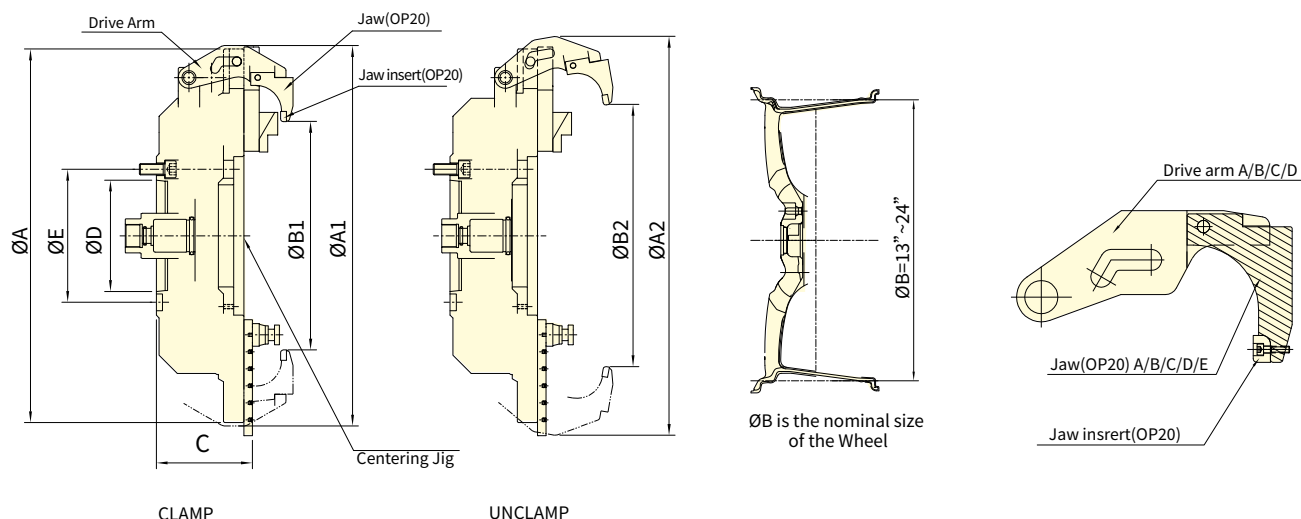
| Model         |            | K       | L     | L1 | M  | N  | N1  | N2 max. | N2 min. | P max. | P min. | Q max. | Q min. | R max. | R min. | S max. | S min. | T  |
|---------------|------------|---------|-------|----|----|----|-----|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|----|
| <b>3FW-26</b> | <b>A11</b> | M40x1.5 | 6~M20 | 30 | 60 | 15 | 134 | 220     | 38      | 48     | 42     | 15     | 0      | 106    | 32     | 71.5   | 66.5   | 35 |



Subject to technical changes

| Wheel size                  | Drive Arm | Drive Arm A    |                | Drive Arm B    |                | Drive Arm C    |                | Drive Arm D    |                |
|-----------------------------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                             |           | Min. ID<br>ØB1 | Max. ID<br>ØB2 | Min. ID<br>ØB1 | Max. ID<br>ØB2 | Min. ID<br>ØB1 | Max. ID<br>ØB2 | Min. ID<br>ØB1 | Max. ID<br>ØB2 |
| 13"                         |           | Jaw A          |                |                |                |                |                |                |                |
|                             |           | 339            | 400            |                |                |                |                |                |                |
| 14"                         |           | Jaw B          |                |                |                |                |                |                |                |
|                             |           | 364            | 425            |                |                |                |                |                |                |
| 15"                         |           | Jaw C          |                |                |                |                |                |                |                |
|                             |           | 392            | 453            |                |                |                |                |                |                |
| 16"                         |           | Jaw D          |                | Jaw A          |                |                |                |                |                |
|                             |           | 421            | 482            | 419            | 480            |                |                |                |                |
| 17"                         |           | Jaw E          |                | Jaw B          |                |                |                |                |                |
|                             |           | 445            | 506            | 444            | 505            |                |                |                |                |
| 18"                         |           |                |                | Jaw C          |                | Jaw A          |                |                |                |
|                             |           |                |                | 472            | 533            | 477            | 538            |                |                |
| 19"                         |           |                |                | Jaw D          |                | Jaw B          |                |                |                |
|                             |           |                |                | 501            | 502            | 502            | 563            |                |                |
| 20"                         |           |                |                | Jaw E          |                | Jaw C          |                | Jaw A          |                |
|                             |           |                |                | 525            | 586            | 530            | 591            | 530            | 591            |
| 21"                         |           |                |                |                |                | Jaw D          |                | Jaw B          |                |
|                             |           |                |                |                |                | 559            | 620            | 555            | 616            |
| 22"                         |           |                |                |                |                | Jaw E          |                | Jaw C          |                |
|                             |           |                |                |                |                | 583            | 644            | 583            | 644            |
| 23"                         |           |                |                |                |                |                |                | Jaw D          |                |
|                             |           |                |                |                |                |                |                | 607            | 668            |
| 24"                         |           |                |                |                |                |                |                | Jaw E          |                |
|                             |           |                |                |                |                |                |                | 633            | 694            |
| Max. chuck diameter<br>ØA   |           | Ø660           |                |                |                |                |                |                |                |
| Max. OD when CLAMP<br>ØA1   |           | Ø675           |                | Ø675           |                | Ø694           |                | Ø747           |                |
| Max. OD when UNCLAMP<br>ØA2 |           | Ø700           |                | Ø713           |                | Ø744           |                | Ø796           |                |
| Wheel size ØB               |           | 13"~17"        |                | 16"~20"        |                | 18"~22"        |                | 20"~24"        |                |
| C                           |           | 169.5          |                |                |                |                |                |                |                |
| ØD                          |           | 196.87         |                |                |                |                |                |                |                |
| ØE                          |           | 235            |                |                |                |                |                |                |                |

Blocks in the same color indicate that different combinations of drive arms and jaws can be used to clamp wheels of the same size. The selection depends on the available space of the machine.  
For example: Drive Arm A + Jaw D = clamping a 16" wheel, and Drive Arm B + Jaw A can also clamp a 16" wheel.



Subject to technical changes

| Wheel size<br>Drive Arm     | Drive Arm A    |                | Drive Arm B    |                | Drive Arm C    |                | Drive Arm D    |                |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                             | Min. ID<br>ØB1 | Max. ID<br>ØB2 | Min. ID<br>ØB1 | Max. ID<br>ØB2 | Min. ID<br>ØB1 | Max. ID<br>ØB2 | Min. ID<br>ØB1 | Max. ID<br>ØB2 |
| 13"                         | Jaw A          |                |                |                |                |                |                |                |
|                             | 335            | 396            |                |                |                |                |                |                |
| 14"                         | Jaw B          |                |                |                |                |                |                |                |
|                             | 362            | 423            |                |                |                |                |                |                |
| 15"                         | Jaw C          |                |                |                |                |                |                |                |
|                             | 392            | 453            |                |                |                |                |                |                |
| 16"                         | Jaw D          |                | Jaw A          |                |                |                |                |                |
|                             | 417            | 478            | 415            | 476            |                |                |                |                |
| 17"                         | Jaw E          |                | Jaw B          |                |                |                |                |                |
|                             | 445            | 506            | 442            | 503            |                |                |                |                |
| 18"                         |                |                | Jaw C          |                | Jaw A          |                |                |                |
|                             |                |                | 472            | 553            | 473            | 534            |                |                |
| 19"                         |                |                | Jaw D          |                | Jaw B          |                |                |                |
|                             |                |                | 497            | 558            | 500            | 561            |                |                |
| 20"                         |                |                | Jaw E          |                | Jaw C          |                | Jaw A          |                |
|                             |                |                | 525            | 586            | 530            | 591            | 526            | 587            |
| 21"                         |                |                |                |                | Jaw D          |                | Jaw B          |                |
|                             |                |                |                |                | 555            | 616            | 553            | 614            |
| 22"                         |                |                |                |                | Jaw E          |                | Jaw C          |                |
|                             |                |                |                |                | 583            | 644            | 583            | 644            |
| 23"                         |                |                |                |                |                |                | Jaw D          |                |
|                             |                |                |                |                |                |                | 603            | 664            |
| 24"                         |                |                |                |                |                |                | Jaw E          |                |
|                             |                |                |                |                |                |                | 633            | 694            |
| Max. chuck diameter<br>ØA   | Ø660           |                |                |                |                |                |                |                |
| Max. OD when CLAMP<br>ØA1   | Ø675           |                | Ø675           |                | Ø694           |                | Ø747           |                |
| Max. OD when UNCLAMP<br>ØA2 | Ø700           |                | Ø713           |                | Ø744           |                | Ø796           |                |
| Wheel size ØB               | 13"~17"        |                | 16"~20"        |                | 18"~22"        |                | 20"~24"        |                |
| C                           | 169.5          |                |                |                |                |                |                |                |
| ØD                          | 196.87         |                |                |                |                |                |                |                |
| ØE                          | 235            |                |                |                |                |                |                |                |

Blocks in the same color indicate that different combinations of drive arms and jaws can be used to clamp wheels of the same size. The selection depends on the available space of the machine.  
For example: Drive Arm A + Jaw D = clamping a 16" wheel, and Drive Arm B + Jaw A can also clamp a 16" wheel.