

OS, DS, OD

S E R I E S

DRY/WET TYPE MULTIPLE DISC MECHANICAL CLUTCH

Torque Range: 18.4 ~ 3467 ft-lbs

Torque Range: 25 ~ 4,700 N-m



FEATURES

SMALL BODY & HIGH TORQUE

Multiple discs transfer high torque in small body.
Suitable for small space

LOW DRAG TORQUE

Special release spring enables quick disengagement.
Wet type has insignificant drag torque while dry type has almost no drag torque.

SMALL ACTIVATION FORCE

Thanks to large lever ratio (and roller design for larger than size 100), activation force is relatively smaller than the torque it can transmit

NO THRUST LOAD

No thrust load except for engagement and release.

LARGE ALLOWABLE WORK

By choosing the right lubrication method and oil amount, wet type has large max allowable work.

EASY ADJUSTMENT

Torque is easily adjustable by adjustment nut.

LONG LIFE

Friction discs on wet type wear very little. By adjusting the torque periodically, it can run semi-permanently. Friction discs on dry type has large allowable wear limit and by periodically replacing friction discs, it can run semi-permanently.



OS 255 ~ 808



OS 1008 ~ 1609



DS

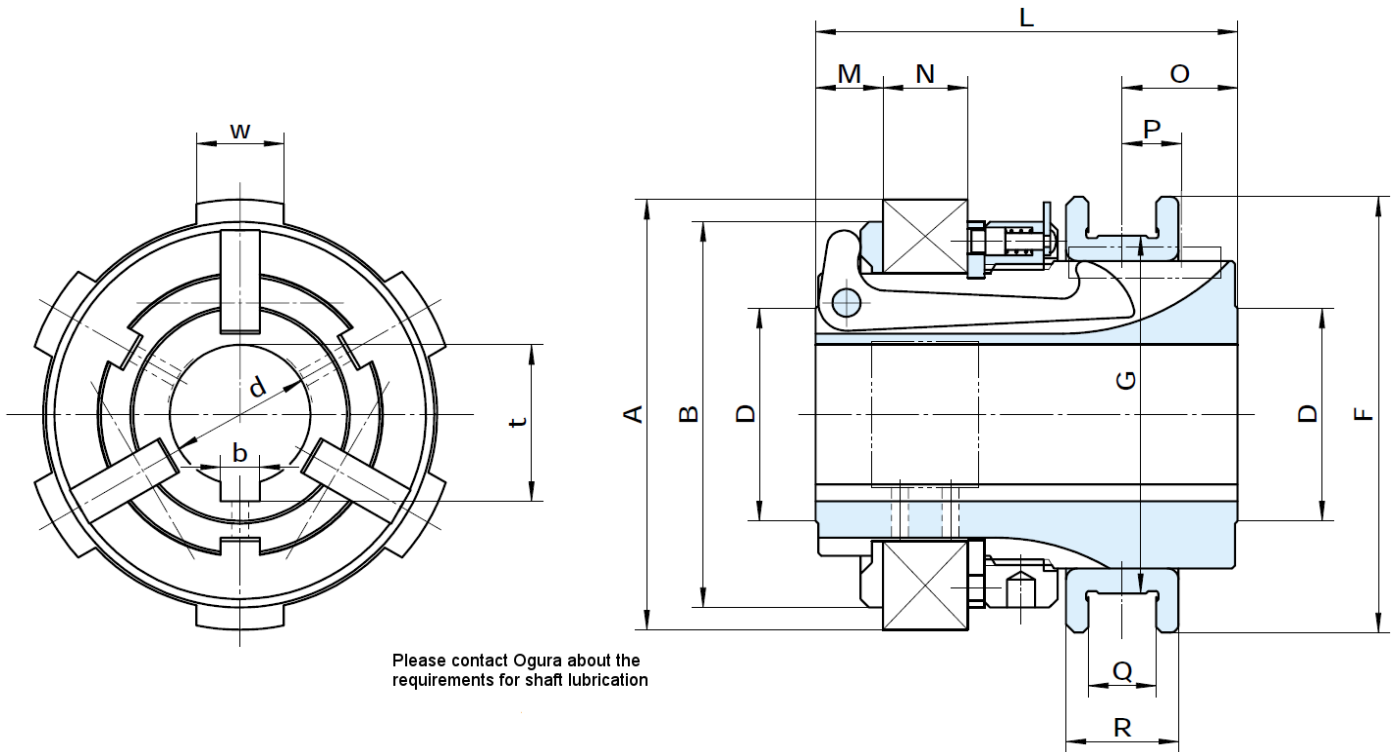


OD

OS

Wet Type Multiple Disc Mechanical Clutch [Single Type]

Types: 255, 357, 357, 558, 708, 808



Please contact Ogura about the requirements for shaft lubrication

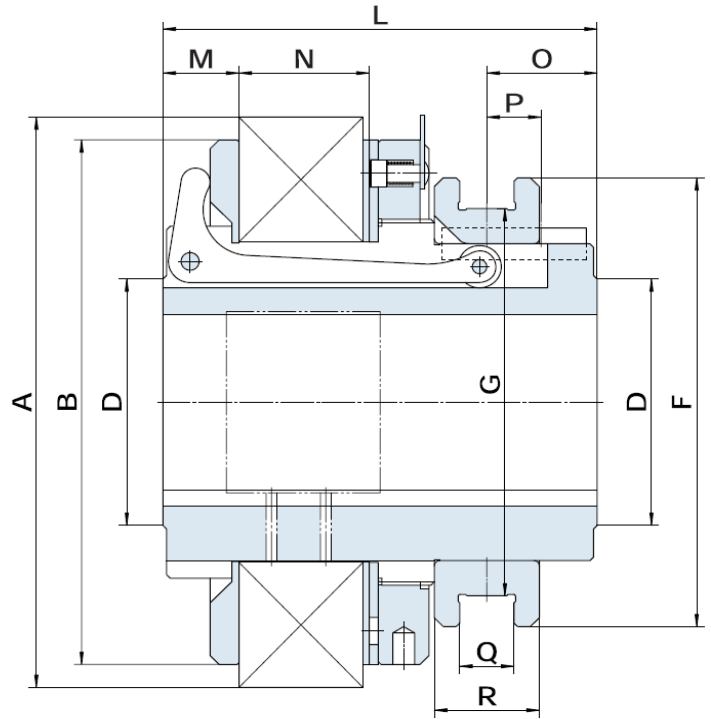
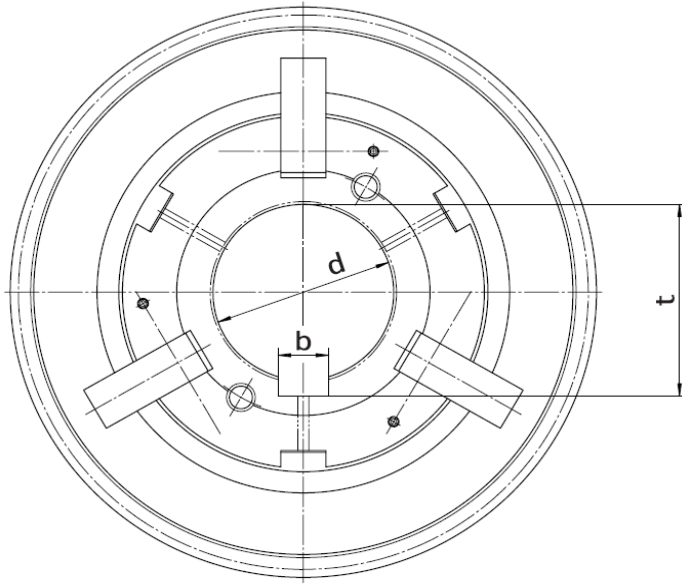
| OS | | 255 | 357 | 457 | 558 | 708 | 808 |
|---|------------|-----------|------------|------------|------------|-----------|-------------|
| Dynamic Torque [lb-ft / N-m] | | 18.4 / 25 | 36.9 / 50 | 73.8 / 100 | 170 / 230 | 332 / 450 | 516 / 700 |
| Static Torque [lb-ft / N-m] | | 36.9 / 50 | 73.8 / 100 | 148 / 200 | 339 / 460 | 664 / 900 | 1033 / 1400 |
| Activation Force [N] | | 150 | 200 | 300 | 500 | 500 | 700 |
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | Body | 9.5 | 24 | 103 | 195 | 718 | 1210 |
| | Outer Disc | 1.3 | 5 | 13 | 32 | 120 | 165 |
| Bore d_{H7} | | 25 | 32 | 45 | 55 | 70 | 70 |
| Keyway $b_{E9} \times t^{+0.1}_0$ | | 7×28 | 10×35.5 | 12×48.5 | 15×60 | 18×76 | 18×76 |
| Radial Dimensions [mm] | A | 77 | 97 | 125 | 152 | 194 | 220 |
| | B | 70 | 89 | 114 | 140 | 178 | 203 |
| | D | 38 | 45 | 60 | 70 | 90 | 90 |
| | F | 78 | 92 | 122 | 140 | 182 | 195 |
| | G_{E9} | 64 | 77 | 101 | 115 | 149 | 163 |
| Axial Dimensions [mm] | L | 75 | 98 | 111 | 130 | 160 | 160 |
| | M | 12 | 15.5 | 17.5 | 23 | 28 | 28 |
| | N | 15 | 21 | 21 | 26.4 | 34.5 | 34.5 |
| | O | 20.5 | 27 | 33 | 37 | 46 | 46 |
| | P | 10.5 | 11 | 16 | 18 | 24 | 24 |
| | Q_{HB} | 12 | 18 | 20 | 22 | 25 | 25 |
| | R | 20 | 30 | 32 | 36 | 42 | 42 |
| Lug | W | 15.5 | 18.5 | 18.5 | 15 | 18 | 18 |
| | # | 6 | 6 | 6 | 10 | 12 | 12 |
| Application Coupling | | UW6-25 | UW6-35 | UW6-45 | UW12-55 | UW12-70 | UW12-80 |
| Weight [lbs / kg] | | 3.1 / 1.4 | 7.3 / 3.3 | 12.6 / 5.7 | 18.7 / 8.5 | 41.9 / 19 | 50.7 / 23 |

[1" = 25.4mm]

OS

Wet Type Multiple Disc Mechanical Clutch [Single Type]

Types: 1008, 1208, 1409, 1609



| OS | | 1008TG | 1208TG | 1409TG | 1609TG |
|---|------------|-------------|-------------|-------------|-------------|
| Dynamic Torque [ft-lbs / N-m] | | 811 / 1100 | 1475 / 2000 | 2581 / 3500 | 3467 / 4700 |
| Static Torque [ft-lbs / N-m] | | 1291 / 1750 | 2360 / 3200 | 4130 / 5600 | 5532 / 7500 |
| Activation Force [N] | | 600 | 900 | 1100 | 1300 |
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | Body | 2390 | 7080 | 16000 | 27500 |
| | Outer Disc | 445 | 1580 | 3800 | 6250 |
| Bore d_{H7} | | 80 | 100 | 120 | 150 |
| Keyway $b_{e9} \times t_0^{+0.1}$ | | 20×86 | 28×109 | 32×130 | 38×162 |
| Radial Dimensions [mm] | A | 259.2 | 324 | 374 | 424 |
| | B | 238 | 298 | 348 | 398 |
| | D | 105 | 140 | 160 | 190 |
| | F | 205 | 255 | 295 | 335 |
| | G_{e9} | 170 | 220 | 250 | 290 |
| Axial Dimensions [mm] | L | 200 | 240 | 300 | 300 |
| | M | 34 | 42 | 50 | 50 |
| | N | 56 | 72 | 94.5 | 94.5 |
| | O | 55 | 61 | 75 | 75 |
| | P | 27 | 30 | 35 | 35 |
| | Q_{H8} | 25 | 30 | 35 | 35 |
| | R | 48 | 58 | 70 | 70 |
| Outer Disc Gear Full Depth Teeth Pressure Angle 20° | AM Coeff.* | -0.1 | -0.1 | -0.1 | -0.1 |
| | Module | 4 | 5 | 5 | 5 |
| | # of Teeth | 63 | 63 | 73 | 83 |
| Application Coupling | | UWG-100 | UWG-120 | UWG-140 | UWG-160 |
| Weight [lbs / kg] | | 88.2 / 40 | 168 / 76 | 309 / 140 | 375 / 170 |

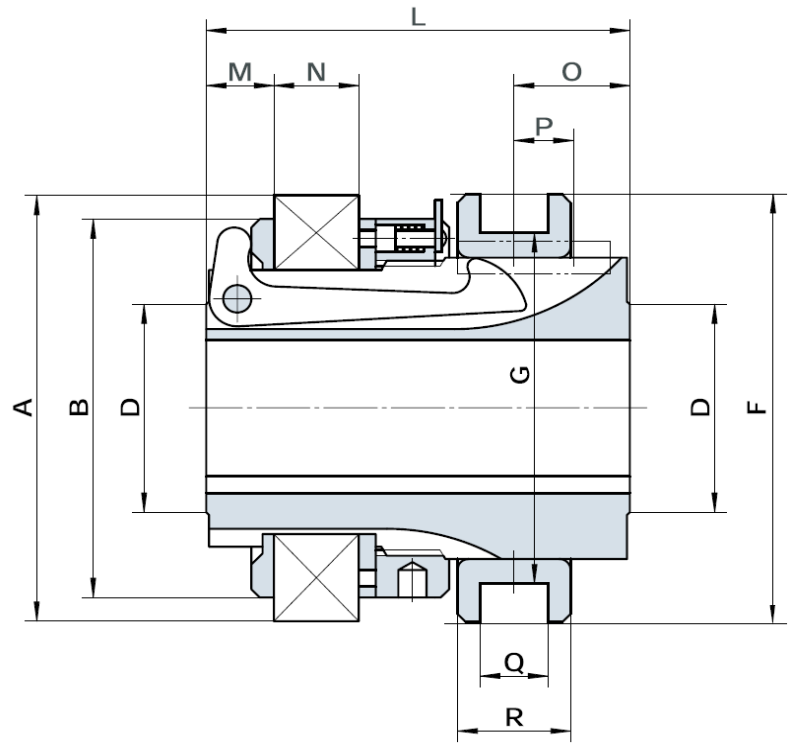
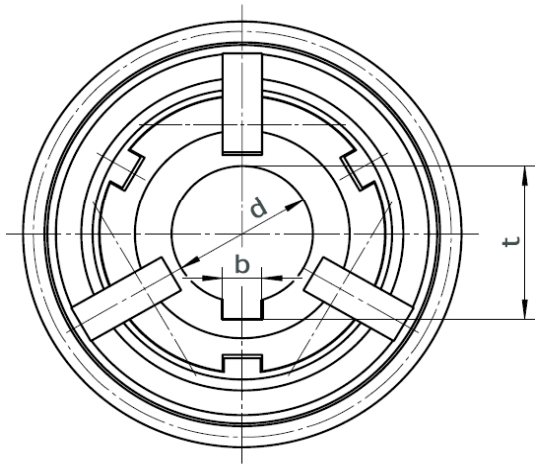
*Addendum Modification Coefficient

[1" = 25.4mm]

DS

Dry Type Multiple Disc Mechanical Clutch [Single Type]

Types: 253, 354, 454, 554, 555, 704, 705, 804, 805



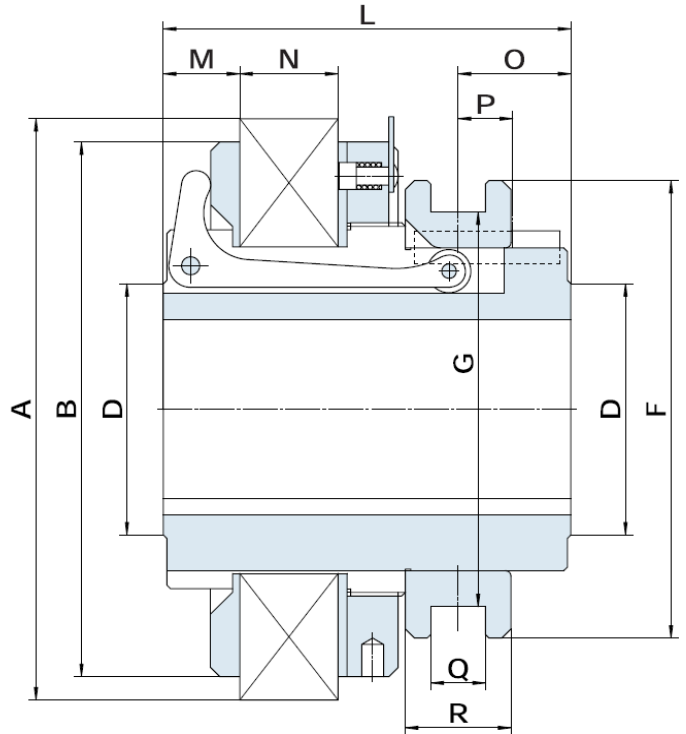
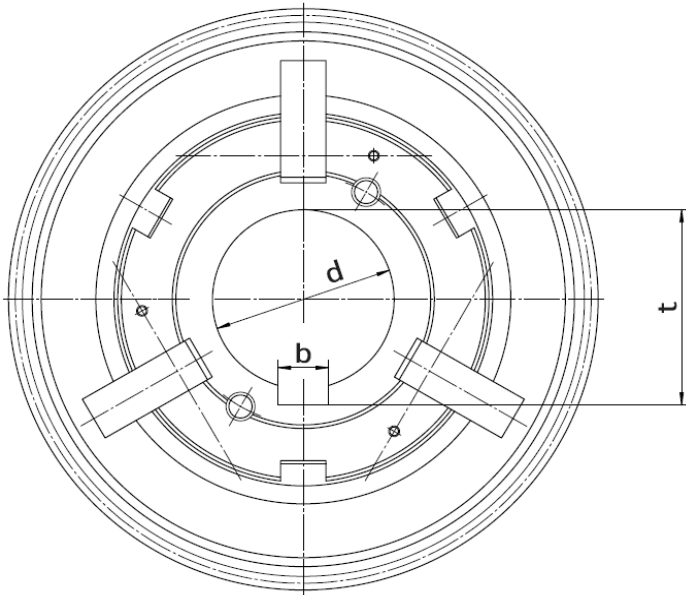
| DS | | 253TG | 354TG | 454TG | 555TG | 705TG | 805TG |
|---|-------------|-----------|-----------|------------|------------|-----------|------------|
| Dynamic Torque [lb-ft / N-m] | | 18.4 / 25 | 36.9 / 50 | 73.8 / 100 | 170 / 230 | 332 / 450 | 516 / 700 |
| Static Torque [lb-ft / N-m] | | 25.8 / 35 | 59 / 80 | 103 / 140 | 236 / 320 | 465 / 630 | 738 / 1000 |
| Activation Force [N] | | 150 | 250 | 300 | 450 | 600 | 700 |
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | Body | 9 | 23.8 | 97.5 | 233 | 675 | 1130 |
| | Outer Disc | 1.3 | 3.25 | 10.8 | 31 | 87.5 | 200 |
| Bore d_{H7} | | 25 | 32 | 45 | 55 | 70 | 70 |
| Keyway $b_{E9} \times t^{+0.1}_0$ | | 7×28 | 10×35.5 | 12×48.5 | 15×60 | 18×76 | 18×76 |
| Radial Dimensions [mm] | A | 77.6 | 97.6 | 124.5 | 152.4 | 191.8 | 219.2 |
| | B | | | | | 178 | 203 |
| | D | 38 | 45 | 60 | 70 | 90 | 90 |
| | F | 78 | 92 | 122 | 140 | 182 | 195 |
| | G_{E9} | 64 | 77 | 101 | 115 | 149 | 163 |
| Axial Dimensions [mm] | L | 75 | 98 | 111 | 130 | 160 | 160 |
| | M | 12 | 15.5 | 17.5 | 23 | 28 | 28 |
| | N | 15 | 20 | 20 | 26.5 | 33.5 | 33.5 |
| | O | 20.6 | 27 | 33 | 37 | 46 | 46 |
| | P | 10.5 | 11 | 16 | 18 | 24 | 24 |
| | Q_{H8} | 12 | 18 | 20 | 22 | 25 | 25 |
| | R | 20 | 30 | 32 | 36 | 42 | 42 |
| | | | | | | | |
| Outer Disc Gear Full Depth Teeth Pressure Angle 20° | AM Coeff. * | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| | Module | 2 | 2 | 2.5 | 3 | 3.5 | 4 |
| | # of Teeth | 37 | 47 | 48 | 49 | 53 | 53 |
| Application Coupling | | UG-25 | UG-35 | UG-45 | UG-55 | UG-70 | UG-80 |
| Weight [lbs / kg] | | 3.1 / 1.4 | 7.3 / 3.3 | 12.6 / 5.7 | 18.7 / 8.5 | 41.9 / 19 | 50.7 / 23 |

[1" = 25.4mm]

DS

Dry Type Multiple Disc Mechanical Clutch [Single Type]

Types: 1006, 1206, 1406 1606



| OS | | 1006TG | 1206TG | 1406TG | 1606TG |
|---|------------|-------------|-------------|-------------|-------------|
| Dynamic Torque [ft-lbs / N-m] | | 811 / 1100 | 1475 / 2000 | 2581 / 3500 | 3467 / 4700 |
| Static Torque [ft-lbs / N-m] | | 1106 / 1500 | 2065 / 2800 | 3688 / 5000 | 4794 - 6500 |
| Activation Force [N] | | 500 | 700 | 900 | 1100 |
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | Body | 2220 | 6530 | 14100 | 24300 |
| | Outer Disc | 333 | 1180 | 2500 | 4180 |
| Bore d_{H7} | | 80 | 100 | 120 | 150 |
| Keyway $b_{e9} \times t_0^{+0.1}$ | | 20×86 | 28×109 | 32×130 | 38×162 |
| Radial Dimensions [mm] | A | 259.2 | 324 | 374 | 424 |
| | B | 238 | 298 | 348 | 398 |
| | D | 105 | 140 | 160 | 190 |
| | F | 205 | 255 | 295 | 335 |
| | G_{e9} | 170 | 220 | 250 | 290 |
| Axial Dimensions [mm] | L | 185 | 224 | 265 | 265 |
| | M | 34 | 42 | 50 | 50 |
| | N | 42 | 54 | 63 | 63 |
| | O | 55 | 62 | 75 | 75 |
| | P | 27 | 30 | 35 | 35 |
| | Q_{H8} | 25 | 30 | 35 | 35 |
| | R | 48 | 58 | 70 | 70 |
| Outer Disc Gear Full Depth Teeth Pressure Angle 20° | AM Coeff.* | -0.1 | -0.1 | -0.1 | -0.1 |
| | Module | 4 | 5 | 5 | 5 |
| | # of Teeth | 63 | 63 | 73 | 83 |
| Application Coupling | | UWG-100 | UWG-120 | UWG-140 | UWG-160 |
| Weight [lbs / kg] | | 75 / 34 | 154 / 70 | 254 / 115 | 320 / 145 |

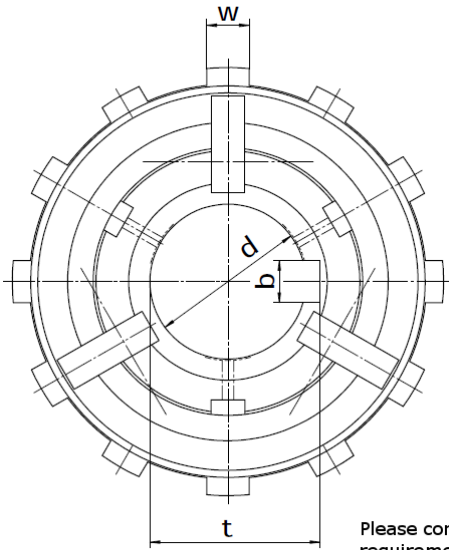
*Addendum Modification Coefficient

[1" = 25.4mm]

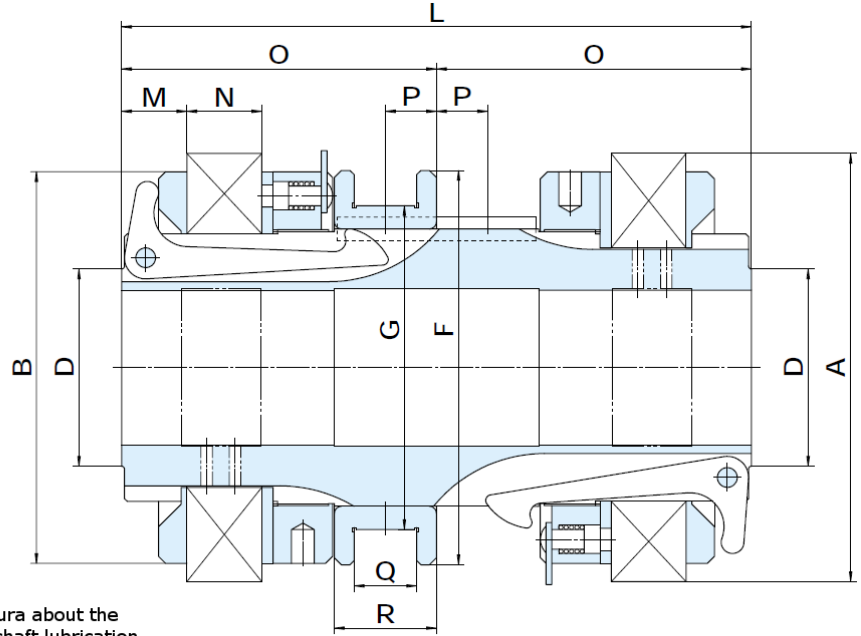
OD

Wet Type Multiple Disc Mechanical Clutch [Double Type]

Types: 255, 357, 457, 558, 708, 808



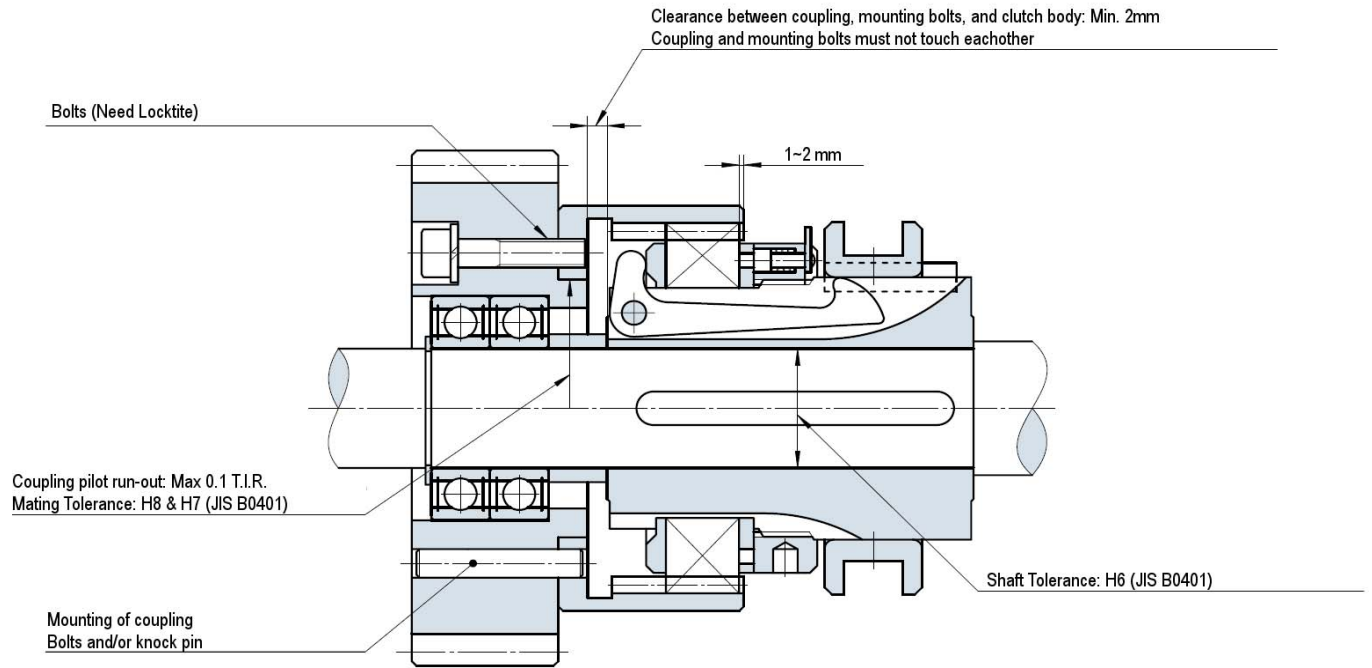
Please contact Ogura about the requirements for shaft lubrication



| OD | | 255 | 357 | 457 | 558 | 708 | 808 |
|---|------------|-----------|------------|------------|-------------|-----------|-------------|
| Dynamic Torque [lb-ft / N-m] | | 18.4 / 25 | 36.9 / 50 | 73.8 / 100 | 170 / 230 | 332 / 450 | 516 / 700 |
| Static Torque [lb-ft / N-m] | | 37 / 50 | 74 / 100 | 148 / 200 | 339 / 460 | 664 / 900 | 1033 / 1400 |
| Activation Force [N] | | 150 | 200 | 300 | 500 | 500 | 700 |
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | Body | 16 | 46 | 194 | 358 | 1260 | 2140 |
| | Outer Disc | 2.3 | 10 | 26 | 64.3 | 241 | 330 |
| Bore d_{H7} | | 25 | 32 | 45 | 55 | 70 | 70 |
| Keyway $b_{E9} \times t^{+0.1}_0$ | | 7×28 | 10×35.5 | 12×48.5 | 15×60 | 18×76 | 18×76 |
| Radial Dimensions [mm] | A | 77 | 97 | 125 | 152 | 194 | 220 |
| | B | 70 | 89 | 114 | 140 | 178 | 203 |
| | D | 38 | 45 | 60 | 70 | 90 | 90 |
| | F | 78 | 92 | 122 | 140 | 182 | 195 |
| | G_{E9} | 64 | 77 | 101 | 115 | 149 | 163 |
| Axial Dimensions [mm] | L | 130 | 164 | 188 | 222 | 276 | 276 |
| | M | 12 | 15.5 | 17.5 | 23 | 28 | 28 |
| | N | 15 | 21 | 21 | 26.5 | 34.5 | 34.5 |
| | O | 65 | 82 | 94 | 111 | 138 | 138 |
| | P | 10.5 | 11 | 16 | 18 | 24 | 24 |
| | Q_{HB} | 12 | 18 | 20 | 22 | 25 | 25 |
| | R | 20 | 30 | 32 | 36 | 42 | 42 |
| | W | 15.5 | 18.5 | 18.8 | 15 | 18 | 18 |
| Lug | # | 6 | 6 | 6 | 12 | 12 | 12 |
| | | | | | | | |
| Application Coupling | | UW6-25 | UW6-35 | UW6-45 | UW12-55 | UW12-70 | UW12-80 |
| Weight [lbs / kg] | | 5.7 / 2.6 | 11.9 / 5.4 | 20.7 / 9.4 | 34.2 / 15.5 | 66 / 30 | 84 / 38 |

[1" = 25.4mm]

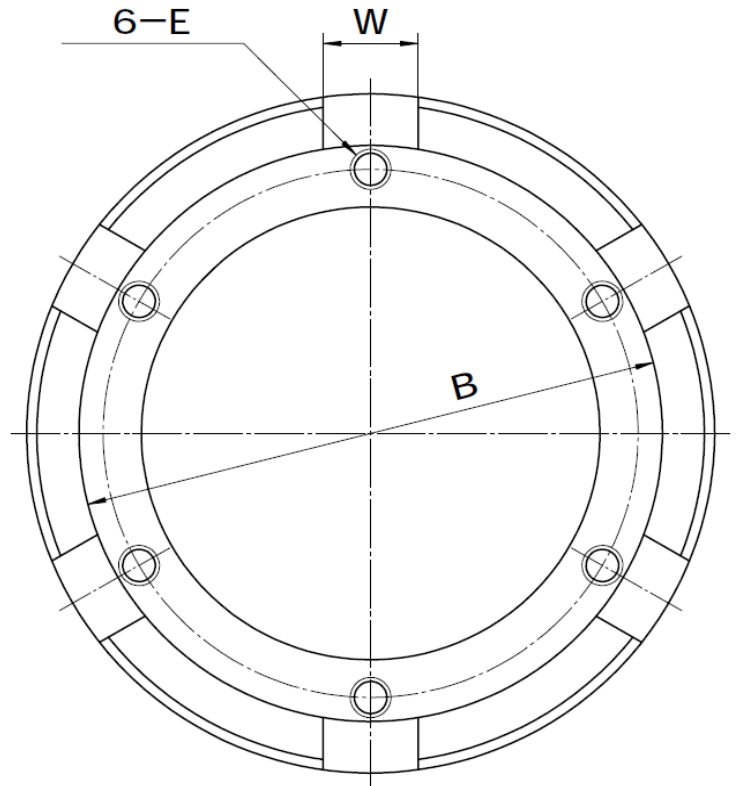
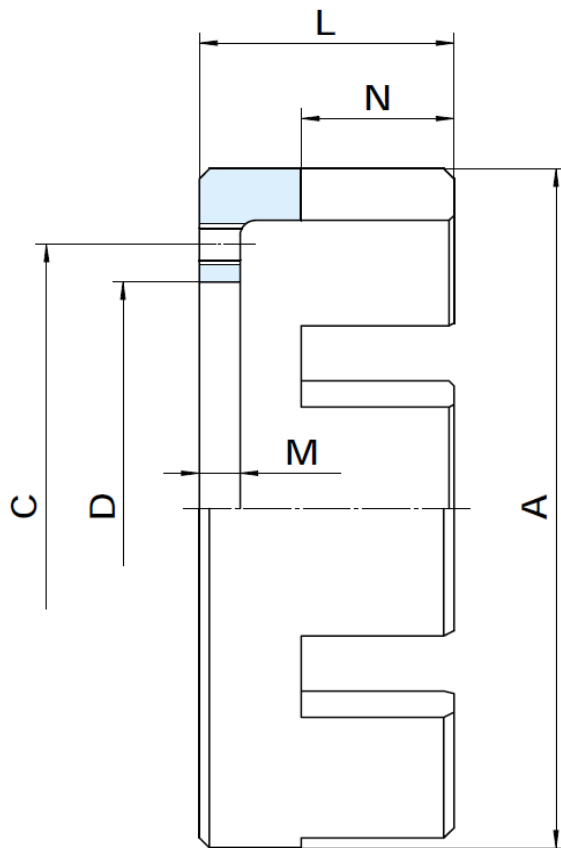
OS, DS, OD: TYPICAL INSTALLATION



UW

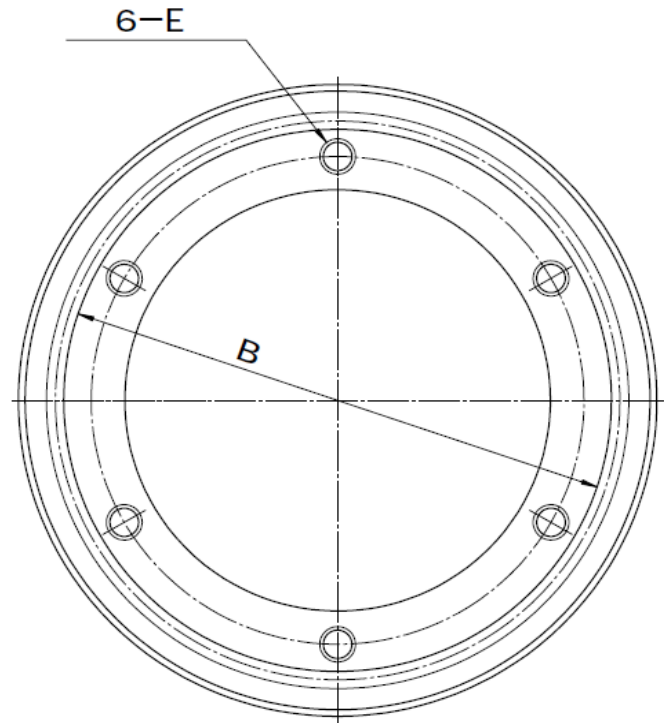
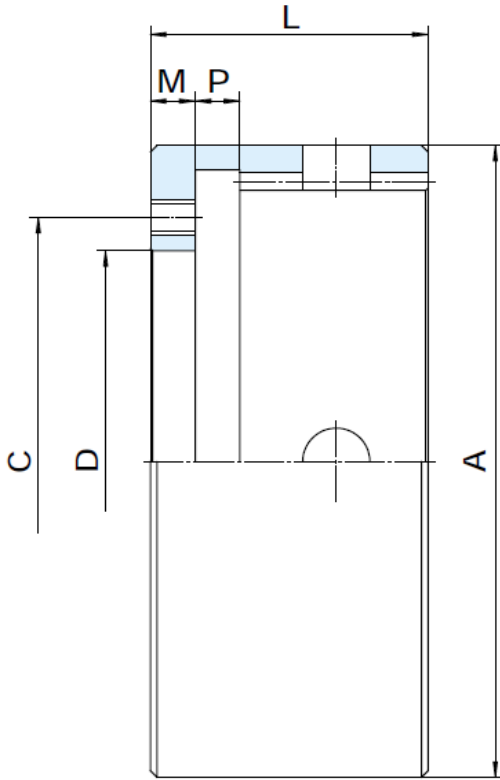
Mechanical Clutch Coupling

Types: 6-25, 6-35, 6-45, 12-58, 12-70, 12-80



| OS | | 6-25 | 6-35 | 6-45 | 12-55 | 12-70 | 12-80 |
|---|----------|-------------|------------|------------|-----------|-----------|------------|
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | | 7.5 | 20 | 55 | 125 | 410 | 598 |
| Radial Dimensions [mm] | A | 85 | 106 | 135 | 162 | 205 | 230 |
| | B | 70.5 | 89.5 | 114.5 | 141 | 179 | 204 |
| | C | 65 | 80 | 105 | 130 | 160 | 185 |
| | D_{H8} | 50 | 65 | 90 | 110 | 135 | 160 |
| | E | M6 | M8 | M8 | M10 | M12 | M12 |
| Axial Dimensions [mm] | L | 38 | 48 | 50 | 65 | 80 | 80 |
| | M | 6 | 8 | 8 | 10 | 12 | 12 |
| | N | 20 | 30 | 30 | 35 | 42 | 42 |
| Lug | W | 15.7 | 18.7 | 18.7 | 15.5 | 18.5 | 18.5 |
| | # | 6 | 6 | 6 | 12 | 12 | 12 |
| Weight [lbs / kg] | | 0.95 / 0.43 | 1.8 / 0.83 | 2.9 / 1.32 | 4.9 / 2.2 | 9.9 / 4.5 | 11.7 / 5.3 |

[1" = 25.4mm]



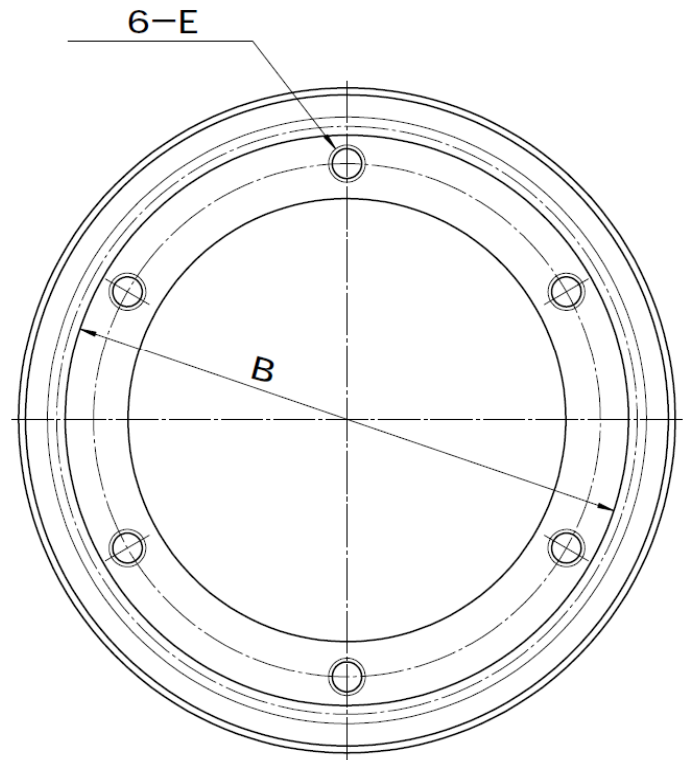
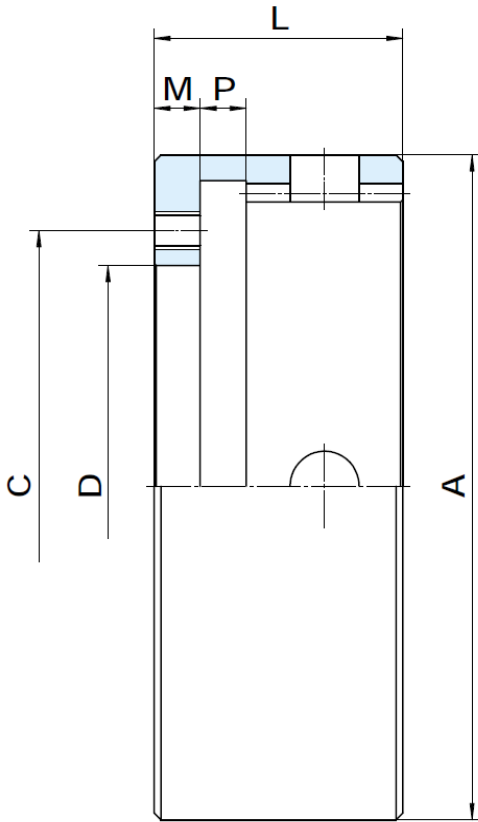
| UWG | | 100 | 120 | 140 | 160 |
|---|----------------|-----------|-------------|-------------|----------|
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | | 2160 | 7000 | 13900 | 20300 |
| Radial Dimensions [mm] | A | 285 | 355 | 410 | 460 |
| | B | 244.5 | 306 | 356 | 406 |
| | C | 220 | 280 | 320 | 370 |
| | D_{H8} | 190 | 240 | 280 | 330 |
| | E | M16 | M18 | M18 | M18 |
| Axial Dimensions [mm] | L | 124 | 154 | 175 | 180 |
| | M | 20 | 25 | 25 | 25 |
| | P | 20 | 26 | 30 | 32 |
| Teeth | Pressure Angle | 20° | 20° | 20° | 20° |
| | Module | 4 | 5 | 5 | 5 |
| | # of Teeth | 63 | 63 | 73 | 83 |
| Weight [lbs / kg] | | 33.1 / 15 | 62.6 / 28.4 | 91.3 / 41.4 | 119 / 54 |

[1" = 25.4mm]

UWG-S

Mechanical-Hydraulic Clutch Coupling

Types: 100, 120, 140, 160



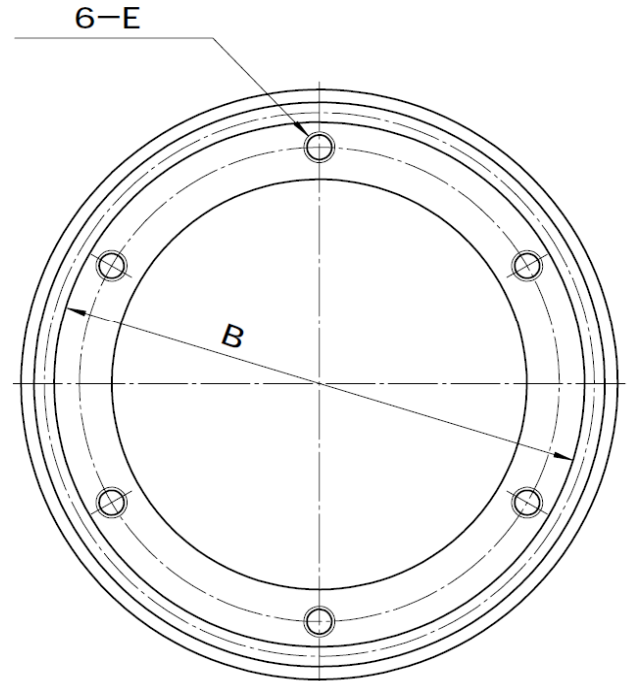
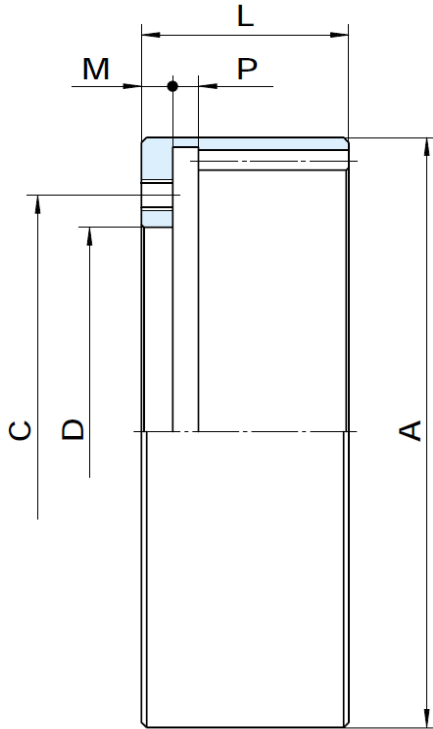
| UWG | | 100S | 120S | 140S | 160S |
|---|----------------|-------------|-------------|-------------|-------------|
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | | 1850 | 6100 | 11900 | 17400 |
| Radial Dimensions [mm] | A | 285 | 355 | 410 | 460 |
| | B | 244.5 | 306 | 356 | 406 |
| | C | 220 | 280 | 320 | 370 |
| | D_{H8} | 190 | 240 | 280 | 330 |
| | E | M16 | M18 | M18 | M18 |
| Axial Dimensions [mm] | L | 108 | 134 | 150 | 155 |
| | M | 20 | 25 | 25 | 25 |
| | P | 20 | 26 | 30 | 32 |
| Teeth | Pressure Angle | 20° | 20° | 20° | 20° |
| | Module | 4 | 5 | 5 | 5 |
| | # of Teeth | 63 | 63 | 73 | 83 |
| Weight [lbs / kg] | | 29.7 / 13.5 | 55.8 / 25.3 | 80.5 / 36.5 | 94.1 / 42.7 |

[1" = 25.4mm]

UG

Mechanical Clutch Coupling

Types: 25, 35, 45, 55, 70, 80



| UG | | 25 | 35 | 45 | 55 | 70 | 80 |
|---|----------------|-------------|------------|------------|-----------|-----------|------------|
| Inertia $J \times 10^{-4} (\text{kg} \cdot \text{m}^2)$ | | 7.5 | 20 | 55 | 125 | 410 | 598 |
| Radial Dimensions [mm] | A | 85 | 106 | 135 | 162 | 205 | 230 |
| | B | 70.5 | 90.5 | 115.5 | 141.5 | 179 | 204.5 |
| | C | 65 | 80 | 105 | 130 | 160 | 185 |
| | D_{H8} | 50 | 65 | 90 | 110 | 135 | 160 |
| | E | M6 | M8 | M8 | M10 | M12 | M12 |
| Axial Dimensions [mm] | L | 38 | 48 | 50 | 65 | 80 | 80 |
| | M | 6 | 8 | 8 | 10 | 12 | 12 |
| | P | 5 | 5 | 7 | 7 | 10 | 10 |
| Teeth | Pressure Angle | 20° | 20° | 20° | 20° | 20° | 20° |
| | Module | 2 | 2 | 2.5 | 3 | 3.5 | 4 |
| | # of Teeth | 37 | 47 | 48 | 49 | 53 | 53 |
| Weight [lbs / kg] | | 0.95 / 0.43 | 1.8 / 0.83 | 2.9 / 1.32 | 4.9 / 2.2 | 9.9 / 4.5 | 11.7 / 5.3 |

[1" = 25.4mm]