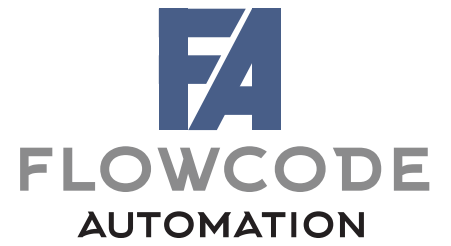
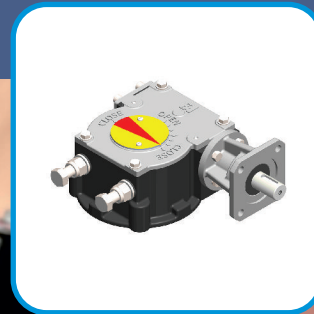
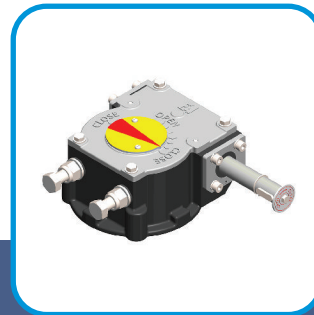


Geared for Excellence

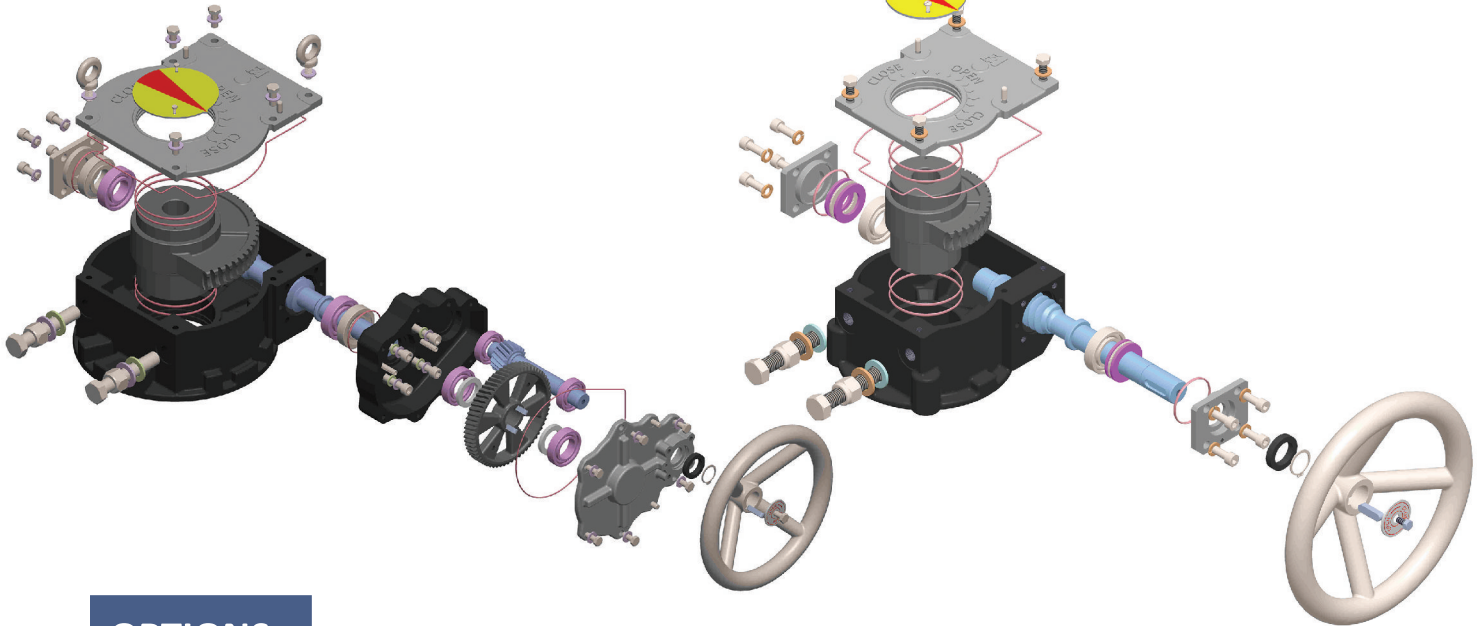
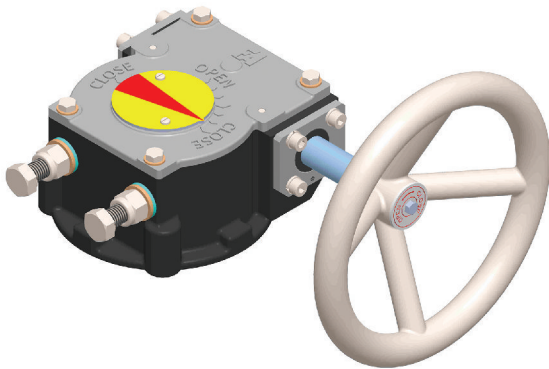


**Manufacturer & Exporter of
Valve Operators & Manual Overrides**



FEATURES:

- Robust design with aesthetically pleasing look
- 29 models up to a Torque of 4,50,000 Nm and F-80 mounting base and max. stem acceptance dia. of 340 mm
- Fully sealed gearbox having an Ingress Protection (IP) rating of IP-68
- Rugged Ductile iron (DI) body and Alloy steel hardened integral worm-shaft for longer life and extreme temperature applications
- High Performance thrust and radial bearings for best-in-class efficiency
- Higher Mechanical Advantage for easy operation
- Stroke 0-90° (+/- 5° adjustment)
- Epoxy Primer Coating is standard, Finish painting is available on request
- Powder coated Hand wheels for smooth and easy operation
- Worm + Spur, Worm + Bevel, Worm + spur + bevel configurations available to reduce rim pull / input effort and also for 'top operating' requirement



OPTIONS:

- Housing material extra options - Carbon Steel / Stainless Steel
- Worm shaft, Fasteners and Hand wheel option available in SS316
- Worm wheel material – Al. Bronze
- High Temperature Variant up to +200° C
- Low Temperature Variant up to -60° C
- Variant for Marine Application available
- 'Top Operation' available for space constraints
- Twin shaft option available for reduced operating time for manual operation

SPECIFICATIONS:

- Standard enclosure – IP-68
- Lubrication – High Performance Grease Filled (NLGI – 2)

PERFORMANCE SPECIFICATIONS OF QUARTER TURN WORM GEAR OPERATORS (MANUAL OPERATION - FA SERIES)

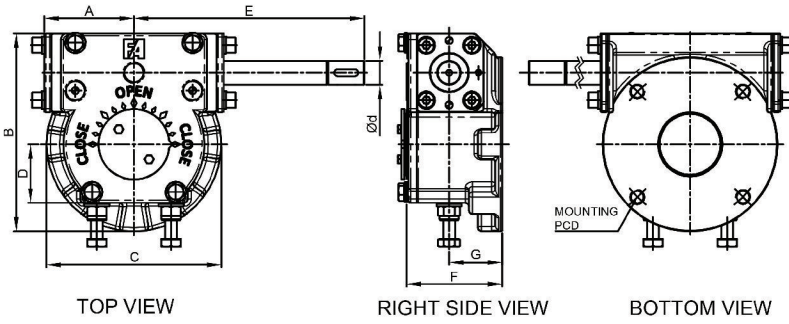
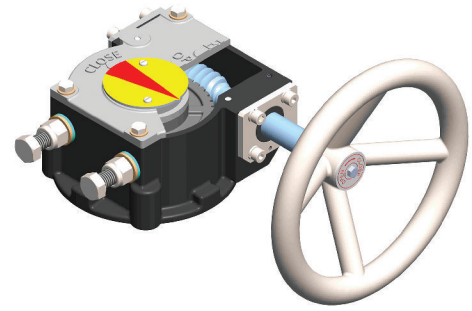


FIG - 1

REFER FIG (1) FOR MODELS UPTO FA-35

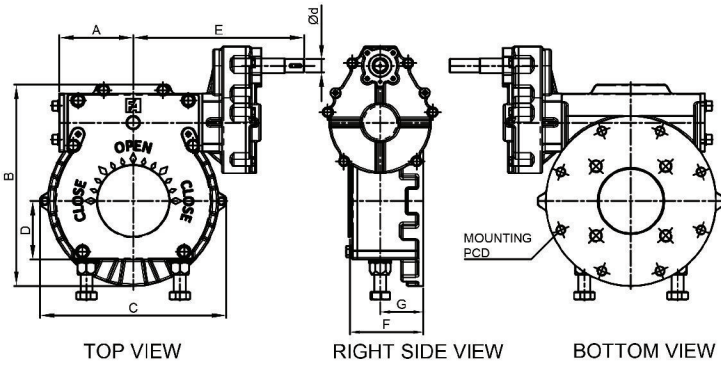
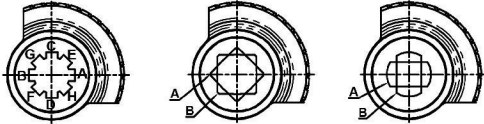


FIG - 2

REFER FIG (2) FOR MODELS ABOVE FA-35

| MATERIAL OF CONSTRUCTION | | |
|--------------------------|---------------------|-------------------------------------|
| SR NO | PART NAME | MATERIAL |
| 1 | HOUSING | ASTM A536 65-45-12 OR SGI 450/12 |
| 2 | COVER | ASTM A536 65-45-12 OR SGI 450/12 |
| 3 | GEAR | ASTM A536 80-60-03 OR SGI 600/3 |
| 4 | WORM SHAFT | C45 OR En19 |
| 5 | END CAP | CARBON STEEL AISI 1020 |
| 6 | BEARINGS | STD |
| 7 | FASTNERS | HT-8.8 GR |
| 8 | 'O' RING & OIL SEAL | NBR |
| 9 | INDICATOR | MS PAINTED (CARBON STEEL AISI 1020) |
| 10 | SPUR HOUSING | ASTM A536 65-45-12 OR SGI 450/12 |
| 11 | SPUR COVER | ASTM A536 65-45-12 OR SGI 450/12 |
| 12 | SPUR GEAR | ASTM A536 80-60-03 OR SGI 600/3 |
| 13 | SPUR PINION | C45 |

VIEW FROM TOP AT CLOSE POSITION



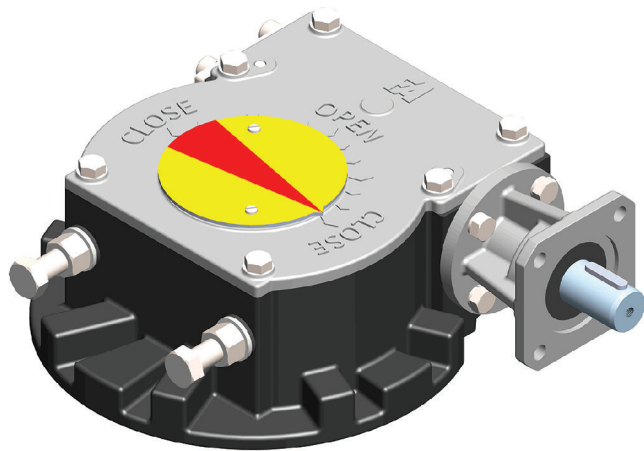
SPECIFICATION

ENCLOSURE - DUSTPROOF & WATERPROOF
 IP RATING - IP 68
 LUBRICATION - GREASE FILLED (NLGI Gr. 2)
 PAINT - RED OXIDE EPOXY PRIMER
 TRAVEL - 90°±5° TRAVEL
 MOVEMENT - CLOCKWISE TO CLOSE
 TEMP. RANGE - -20°C TO +120°C

Notes :-

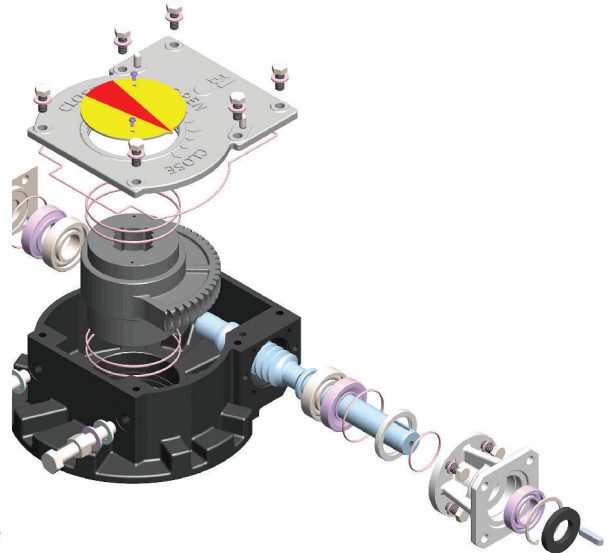
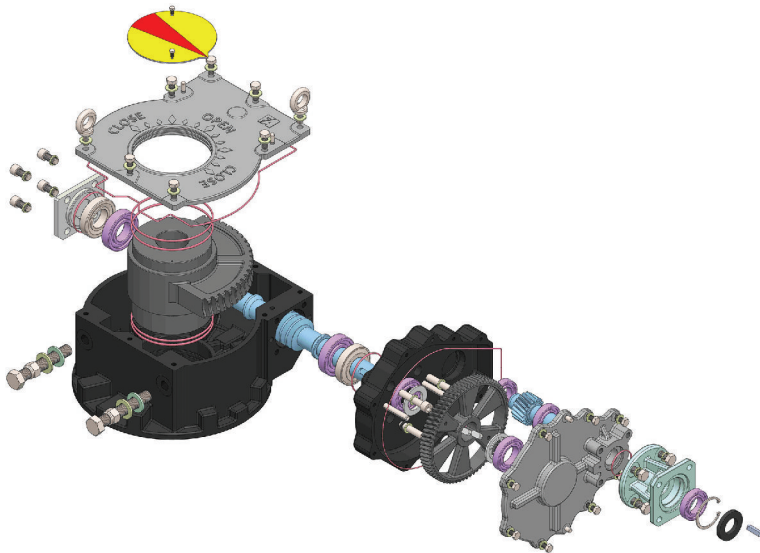
- All specifications are subject to change without notice
- Factory reserves the right to amend & change specifications without prior notice
- All dimensions are in mm.
- In case any other ratio (not mentioned in this catalogue) is required for a model, kindly contact factory

| MODEL | RATED OUTPUT TORQUE (Nm) | MECH. ADVANTAGE ±10% | RATIO | TURNS TO CLOSE | ISO 5211 MOUNTING | MAX. DRIVE BORE | APPROX UNIT WEIGHT (Kg) | HANDWHEEL (mm) | A | B | C | D | E | F | G | Ød |
|-------------|--------------------------|----------------------|---------|----------------|--------------------|-----------------|-------------------------|----------------|-----|------|------|-----|------|-----|-----|----|
| FA-02 | 250 | 13 | 32:1 | 8 | F05, F07, F10 | 25 | 4 | Ø150 | 59 | 117 | 90 | 37 | 159 | 69 | 38 | 15 |
| FA-05 | 500 | 14 | 34:1 | 9 | F07, F10, F12 | 30 | 5 | Ø200 | 62 | 142 | 125 | 41 | 162 | 72 | 41 | 15 |
| FA-07 | 750 | 15 | 37:1 | 9 | F07, F10, F12 | 35 | 8 | Ø250 | 75 | 166 | 146 | 49 | 175 | 82 | 44 | 20 |
| FA-10 | 1000 | 18 | 44:1 | 11 | F10, F12, F14 | 45 | 10 | Ø300 | 78 | 185 | 165 | 53 | 178 | 89 | 52 | 20 |
| FA-15 | 1500 | 18 | 44:1 | 11 | F10, F12, F14, F16 | 50 | 13 | Ø400 | 89 | 200 | 175 | 66 | 194 | 98 | 60 | 25 |
| FA-20 | 2000 | 20 | 50:1 | 13 | F10, F12, F14, F16 | 55 | 14 | Ø500 | 87 | 208 | 175 | 68 | 192 | 98 | 60 | 25 |
| FA-28 | 2800 | 22 | 54:1 | 14 | F12, F14, F16 | 75 | 19 | Ø600 | 100 | 236 | 205 | 73 | 205 | 103 | 65 | 25 |
| | | | | | F25 | | 23 | | | 285 | 285 | | | | | |
| FA-35 | 3500 | 23 | 58:1 | 15 | F14, F16, F25 | 80 | 31 | Ø600 | 116 | 304 | 285 | 84 | 226 | 115 | 65 | 30 |
| FA-45/S1 | 4500 | 74 | 206:1 | 52 | F14, F16, F25 | 80 | 41 | Ø400 | 116 | 304 | 285 | 84 | 311 | 115 | 65 | 25 |
| FA-60/S1 | 6000 | 76 | 210:1 | 52 | F14, F16, F25 | 85 | 46 | Ø500 | 124 | 322 | 285 | 98 | 319 | 122 | 72 | 25 |
| FA-80/S2 | 8000 | 88 | 243:1 | 61 | F16, F25, F30 | 90 | 70 | Ø600 | 136 | 366 | 338 | 103 | 361 | 137 | 82 | 30 |
| FA-100/S2 | 10000 | 85 | 235:1 | 59 | F25, F30 | 105 | 78 | Ø600 | 137 | 379 | 338 | 114 | 361 | 151 | 96 | 30 |
| FA-150/S3 | 15000 | 170 | 525:1 | 131 | F25, F30 | 115 | 105 | Ø600 | 149 | 428 | 390 | 125 | 484 | 154 | 96 | 35 |
| FA-200/S3 | 20000 | 176 | 542:1 | 135 | F25, F30 | 125 | 123 | Ø600 | 169 | 460 | 440 | 156 | 498 | 159 | 97 | 35 |
| FA-250/S4 | 25000 | 211 | 652:1 | 163 | F25, F30 | 125 | 136 | Ø750 | 169 | 460 | 440 | 156 | 529 | 159 | 97 | 35 |
| FA-300/S4 | 30000 | 221 | 683:1 | 171 | F25, F30, F35 | 150 | 183 | Ø750 | 198 | 536 | 475 | 168 | 557 | 181 | 104 | 35 |
| FA-350/S5 | 35000 | 299 | 923:1 | 231 | F25, F30, F35 | 150 | 202 | Ø750 | 198 | 536 | 475 | 168 | 591 | 181 | 104 | 45 |
| FA-450/S5 | 45000 | 313 | 965:1 | 241 | F30, F35, F40 | 160 | 290 | Ø750 | 229 | 620 | 600 | 204 | 621 | 212 | 126 | 45 |
| FA-500/S6 | 50000 | 515 | 1766:1 | 442 | F30, F35, F40 | 160 | 320 | Ø750 | 229 | 620 | 600 | 204 | 707 | 212 | 126 | 45 |
| FA-600/S6 | 60000 | 515 | 1766:1 | 442 | F35, F40, F48 | 200 | 420 | Ø750 | 270 | 720 | 680 | 223 | 746 | 231 | 130 | 45 |
| FA-750/S7 | 75000 | 722 | 2475:1 | 619 | F35, F40, F48 | 200 | 475 | Ø750 | 270 | 720 | 680 | 223 | 764 | 231 | 130 | 50 |
| FA-1000/S7 | 100000 | 690 | 2368:1 | 592 | F35, F40, F48 | 200 | 610 | Ø750 | 316 | 792 | 800 | 268 | 808 | 256 | 141 | 50 |
| FA-1250/S8 | 125000 | 1010 | 3465:1 | 866 | F40, F48, F60 | 240 | 670 | Ø750 | 316 | 855 | 800 | 268 | 920 | 256 | 141 | 60 |
| FA-1500/S8 | 150000 | 1010 | 3465:1 | 866 | F48, F60 | 260 | 960 | Ø750 | 340 | 943 | 933 | 306 | 943 | 305 | 160 | 60 |
| FA-2000/S9 | 200000 | 1634 | 6227:1 | 1557 | F48, F60 | 260 | 1100 | Ø900 | 340 | 943 | 933 | 306 | 1069 | 305 | 160 | 60 |
| FA-2500/S9 | 250000 | 1609 | 6133:1 | 1533 | F48, F60 | 300 | 1425 | Ø900 | 381 | 1054 | 1079 | 367 | 1127 | 331 | 173 | 60 |
| FA-3000/S10 | 300000 | 2150 | 8192:1 | 2048 | F48, F60 | 300 | 1600 | Ø900 | 381 | 1054 | 1079 | 367 | 1204 | 331 | 173 | 60 |
| FA-3500/S10 | 350000 | 2249 | 8570:1 | 2142 | F60, F80 | 340 | 2100 | Ø900 | 457 | 1255 | 1300 | 441 | 1258 | 381 | 197 | 60 |
| FA-4500/S11 | 450000 | 2700 | 10288:1 | 2572 | F60, F80 | 340 | 2200 | Ø900 | 457 | 1255 | 1300 | 441 | 1313 | 381 | 197 | 70 |



FEATURES:

- Robust design with aesthetically pleasing look
- 29 models up to a Torque of 4,50,000 Nm and F-80 mounting base, max. stem acceptance dia. of 340 mm and actuator side mounting up to F-16
- Fully sealed gearbox having an Ingress Protection (IP) rating of IP-68
- Rugged Ductile iron (DI) body and Alloy steel hardened integral worm-shaft for longer life and extreme temperature applications
- High Performance thrust and radial bearings for best-in-class efficiency
- Smaller size of Electric Actuator can be used because of higher mechanical advantage developed by gear operator
- Stroke 0-90° (+/- 5° adjustment)
- Epoxy Primer Coating is standard, Finish painting is available on request
- Worm + Spur, Worm + Bevel, Worm + spur + bevel configurations available to reduce input torque and also for 'top operating' requirement



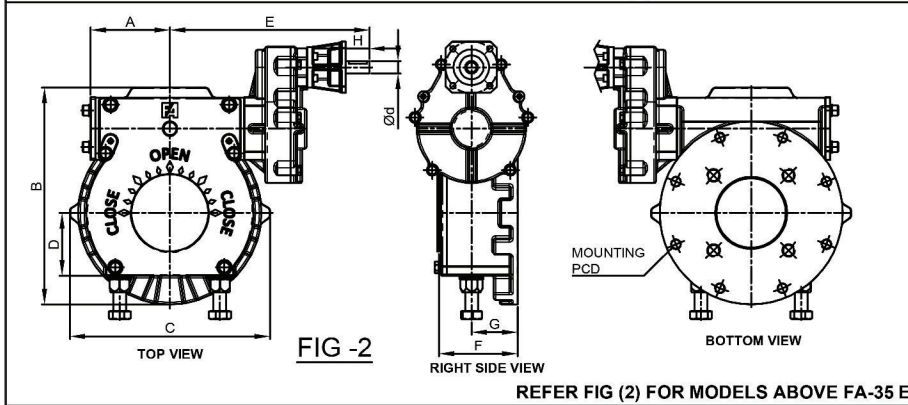
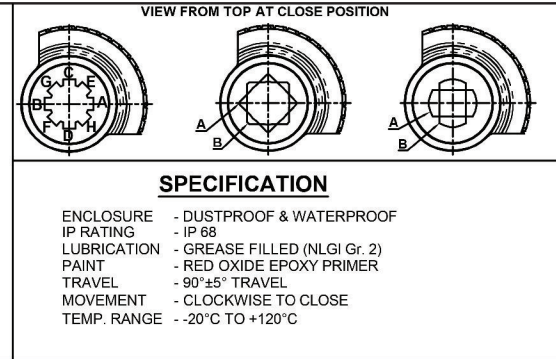
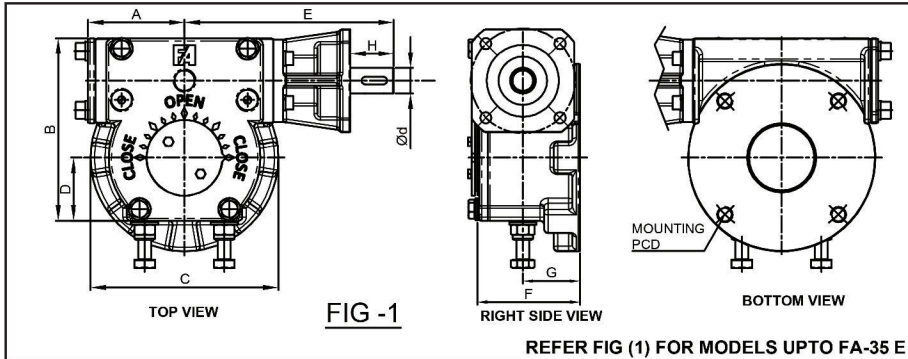
OPTIONS:

- Housing material extra options - Carbon Steel / Stainless Steel
- Worm shaft and Fasteners option available in SS316
- Worm wheel material – Al. Bronze
- High Temperature Variant up to +200° C
- Low Temperature Variant up to -60° C
- Variant for Marine Application available
- 'Top Operation' available for space constraints
- Various Gear Ratios available per model for Operating Time constraints

SPECIFICATIONS:

- Standard enclosure – IP-68
- Lubrication – High Performance Grease Filled (NLGI – 2)

PERFORMANCE SPECIFICATIONS OF QUARTER TURN WORM GEAR OPERATORS (ELECTRICAL ACTUATION - EA SERIES)



| MATERIAL OF CONSTRUCTION | | |
|--------------------------|---------------------|-------------------------------------|
| SR NO | PART NAME | MATERIAL |
| 1 | HOUSING | ASTM A536 65-45-12 OR SGI 450/12 |
| 2 | COVER | ASTM A536 65-45-12 OR SGI 450/12 |
| 3 | GEAR | ASTM A536 80-60-03 OR SGI 600/3 |
| 4 | WORM SHAFT | En19 |
| 5 | END CAP | CARBON STEEL AISI 1020 |
| 6 | BEARINGS | STD |
| 7 | FASTNERS | HT-8.8 GR |
| 8 | 'O' RING & OIL SEAL | NBR |
| 9 | INDICATOR | MS PAINTED (CARBON STEEL AISI 1020) |
| 10 | ACTUATOR FLANGE | ASTM A536 65-45-12 OR SGI 450/12 |

| MODEL | ACTUATOR MOUNTING FLANGE DETAIL | A | B | C | D | E | F | G | H |
|-------------|---------------------------------|-----|-----|-----|-----|-----|-----|-----|----|
| FA-02 E | F10 / Ø15 | 59 | 117 | 90 | 37 | 132 | 69 | 38 | 23 |
| FA-05 E | F10 / Ø15 | 62 | 142 | 125 | 41 | 135 | 72 | 41 | 23 |
| FA-07 E | F10 / Ø20 | 75 | 166 | 146 | 49 | 174 | 82 | 44 | 30 |
| FA-10 E | F10 / Ø20 | 78 | 185 | 165 | 53 | 177 | 89 | 52 | 30 |
| FA-15 E | F10 / Ø25 | 89 | 200 | 175 | 66 | 197 | 98 | 60 | 40 |
| FA-20 E | F10 / Ø25 | 87 | 208 | 175 | 68 | 195 | 98 | 60 | 40 |
| FA-28 E | F10 / Ø25 | 100 | 236 | 205 | 73 | 208 | 103 | 65 | 40 |
| | F10 / Ø25 | | 285 | 285 | | | | | |
| FA-35 E | F10 / Ø30 | 116 | 304 | 285 | 84 | 228 | 115 | 65 | 45 |
| FA-45/S1 E | F10 / Ø25 | 116 | 304 | 285 | 84 | 321 | 115 | 65 | 40 |
| | F14 / Ø25 | 116 | 304 | 285 | 84 | 321 | 115 | 65 | 40 |
| FA-60 E | F10 / Ø30 | 124 | 322 | 285 | 98 | 235 | 122 | 72 | 45 |
| FA-60/S1 E | F10 / Ø25 | 124 | 322 | 285 | 98 | 329 | 122 | 72 | 40 |
| | F14 / Ø25 | 124 | 322 | 285 | 98 | 329 | 122 | 72 | 40 |
| FA-80 E | F10 / Ø30 | 136 | 366 | 338 | 103 | 247 | 137 | 82 | 45 |
| FA-80/S2 E | F10 / Ø25 | 136 | 366 | 338 | 103 | 366 | 137 | 82 | 40 |
| | F14 / Ø30 | 136 | 366 | 338 | 103 | 371 | 137 | 82 | 45 |
| FA-100 E | F10 / Ø30 | 136 | 379 | 338 | 114 | 247 | 151 | 96 | 45 |
| FA-100/S2 E | F10 / Ø25 | 136 | 379 | 338 | 114 | 366 | 151 | 96 | 40 |
| | F14 / Ø30 | 136 | 379 | 338 | 114 | 371 | 151 | 96 | 45 |
| FA-150 E | F10 / Ø30 | 149 | 428 | 390 | 125 | 260 | 154 | 96 | 45 |
| FA-150/S3 E | F10 / Ø30 | 149 | 428 | 390 | 125 | 478 | 154 | 96 | 45 |
| | F14 / Ø35 | 149 | 428 | 390 | 125 | 488 | 154 | 96 | 55 |
| FA-200/S3 E | F10 / Ø30 | 169 | 460 | 440 | 156 | 492 | 159 | 96 | 45 |
| | F14 / Ø35 | 169 | 460 | 440 | 156 | 502 | 159 | 96 | 55 |
| FA-250/S4 E | F10 / Ø30 | 169 | 460 | 440 | 156 | 523 | 159 | 96 | 45 |
| | F14 / Ø35 | 169 | 460 | 440 | 156 | 533 | 159 | 96 | 55 |
| FA-300/S4 E | F10 / Ø30 | 198 | 536 | 475 | 168 | 551 | 181 | 104 | 45 |
| | F14 / Ø35 | 198 | 536 | 475 | 168 | 561 | 181 | 104 | 55 |
| FA-350/S5 E | F10 / Ø30 | 198 | 536 | 475 | 168 | 585 | 181 | 104 | 45 |
| | F14 / Ø35 | 198 | 536 | 475 | 168 | 595 | 181 | 104 | 55 |
| FA-450/S5 E | F10 / Ø30 | 229 | 620 | 600 | 204 | 615 | 212 | 126 | 45 |
| | F14 / Ø35 | 229 | 620 | 600 | 204 | 625 | 212 | 126 | 55 |
| FA-500/S6 E | F10 / Ø35 | 229 | 620 | 600 | 204 | 700 | 212 | 126 | 55 |
| | F14 / Ø40 | 229 | 620 | 600 | 204 | 738 | 212 | 126 | 60 |
| | F16 / Ø45 | 229 | 620 | 600 | 204 | 748 | 212 | 126 | 70 |

| MODEL | ACTUATOR MOUNTING FLANGE DETAIL | A | B | C | D | E | F | G | H |
|---------------|---------------------------------|-----|------|------|-----|------|-----|-----|----|
| FA-600/S6 E | F10 / Ø35 | 270 | 720 | 680 | 223 | 739 | 231 | 130 | 55 |
| | F14 / Ø40 | 270 | 720 | 680 | 223 | 777 | 231 | 130 | 60 |
| | F16 / Ø45 | 270 | 720 | 680 | 223 | 787 | 231 | 130 | 70 |
| FA-750/S7 E | F10 / Ø35 | 270 | 720 | 680 | 223 | 756 | 231 | 130 | 55 |
| | F14 / Ø40 | 270 | 720 | 680 | 223 | 795 | 231 | 130 | 60 |
| | F16 / Ø50 | 270 | 720 | 680 | 223 | 810 | 231 | 130 | 75 |
| FA-1000/S7 E | F10 / Ø35 | 316 | 792 | 800 | 268 | 799 | 255 | 141 | 55 |
| | F14 / Ø40 | 316 | 792 | 800 | 268 | 839 | 255 | 141 | 60 |
| | F16 / Ø50 | 316 | 792 | 800 | 268 | 854 | 255 | 141 | 75 |
| FA-1250/S8 E | F10 / Ø35 | 316 | 855 | 800 | 268 | 886 | 255 | 141 | 55 |
| | F14 / Ø40 | 316 | 855 | 800 | 268 | 926 | 255 | 141 | 60 |
| | F16 / Ø50 | 316 | 855 | 800 | 268 | 941 | 255 | 141 | 75 |
| FA-1500/S8 E | F10 / Ø35 | 340 | 943 | 933 | 306 | 909 | 305 | 160 | 55 |
| | F14 / Ø40 | 340 | 943 | 933 | 306 | 949 | 305 | 160 | 60 |
| | F16 / Ø50 | 340 | 943 | 933 | 306 | 964 | 305 | 160 | 75 |
| FA-2000/S9 E | F10 / Ø35 | 340 | 943 | 933 | 306 | 1084 | 305 | 160 | 55 |
| | F14 / Ø50 | 340 | 943 | 933 | 306 | 1104 | 305 | 160 | 75 |
| | F16 / Ø60 | 340 | 943 | 933 | 306 | 1119 | 305 | 160 | 90 |
| FA-2500/S9 E | F10 / Ø35 | 381 | 1054 | 1079 | 367 | 1142 | 331 | 173 | 55 |
| | F14 / Ø50 | 381 | 1054 | 1079 | 367 | 1162 | 331 | 173 | 75 |
| | F16 / Ø60 | 381 | 1054 | 1079 | 367 | 1177 | 331 | 173 | 90 |
| FA-3000/S10 E | F10 / Ø35 | 381 | 1054 | 1079 | 367 | 1219 | 331 | 173 | 55 |
| | F14 / Ø50 | 381 | 1054 | 1079 | 367 | 1239 | 331 | 173 | 75 |
| | F16 / Ø60 | 381 | 1054 | 1079 | 367 | 1254 | 331 | 173 | 90 |
| FA-3500/S10 E | F10 / Ø35 | 457 | 1255 | 1300 | 441 | 1273 | 381 | 197 | 55 |
| | F14 / Ø50 | 457 | 1255 | 1300 | 441 | 1293 | 381 | 197 | 75 |
| | F16 / Ø60 | 457 | 1255 | 1300 | 441 | 1308 | 381 | 197 | 90 |
| FA-4500/S11 E | F10 / Ø35 | 457 | 1255 | 1300 | 441 | 1328 | 381 | 197 | 55 |
| | F14 / Ø50 | 457 | 1255 | 1300 | 441 | 1348 | 381 | 197 | 75 |
| | F16 / Ø60 | 457 | 1255 | 1300 | 441 | 1363 | 381 | 197 | 90 |

- Notes:-
- All specifications are subject to change without notice
 - Factory reserves the right to amend & change specifications without prior notice
 - All dimensions are in mm.
 - In case any other ratio (not mentioned in this catalogue) is required for a model, kindly contact factory

PERFORMANCE SPECIFICATIONS OF QUARTER TURN WORM GEAR OPERATORS (ELECTRICAL ACTUATION - EA SERIES)



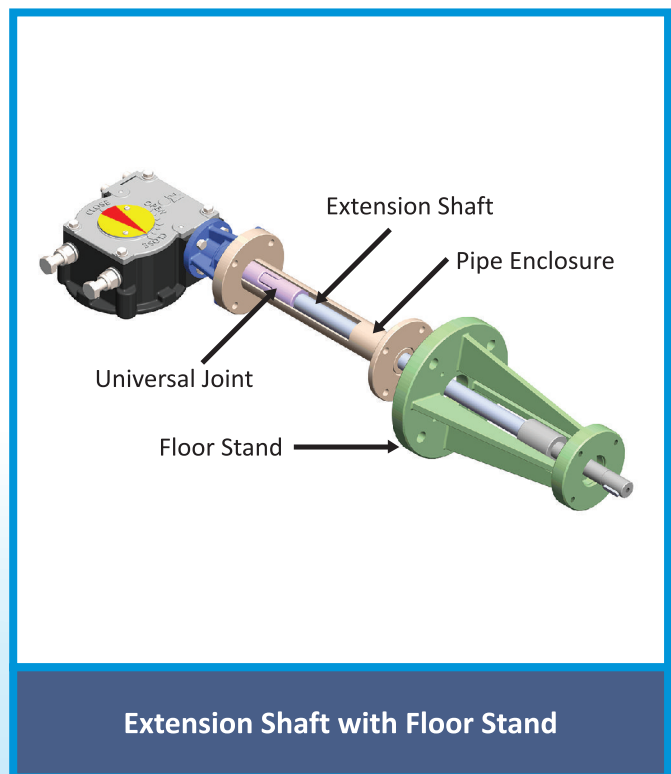
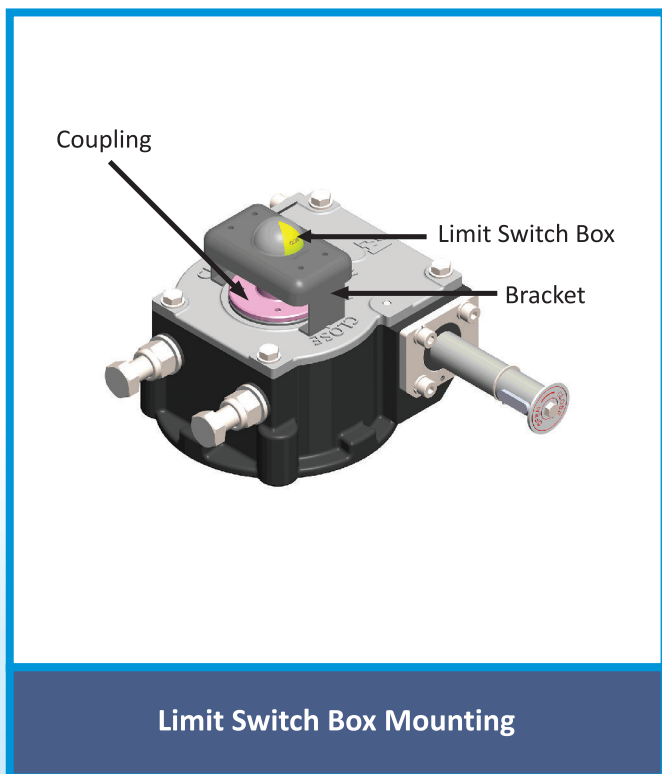
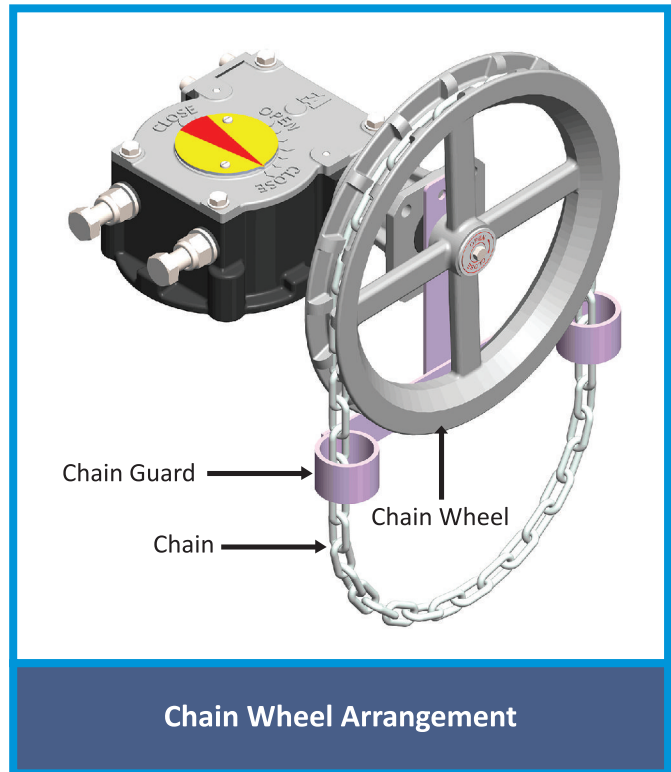
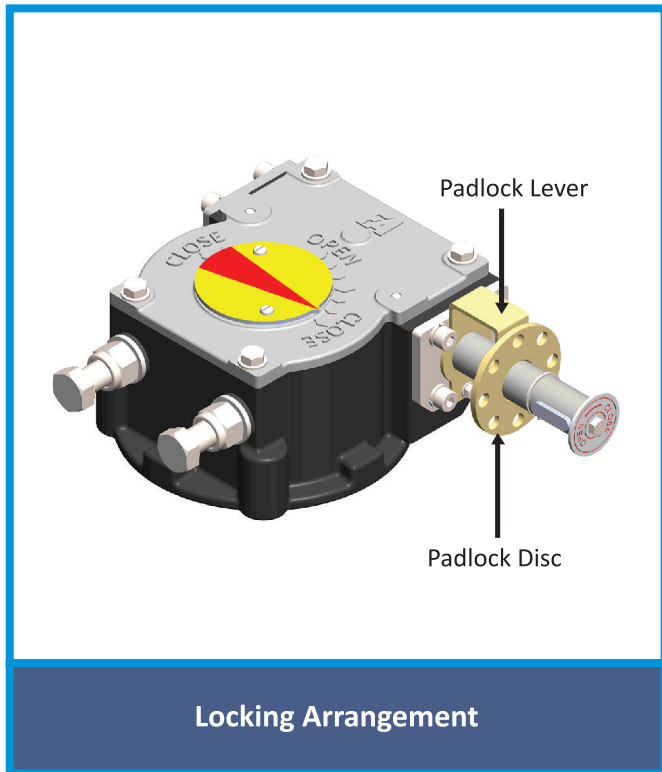
| MODEL | RATED OUTPUT TORQUE (Nm) | STANDARD | | OPTIONAL | | VALVE MOUNTING FLANGE (ISO 5211) | MAX. DRIVE BORE | APPROX. UNIT WEIGHT (Kg) |
|--------------------|--------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------------|-----------------|--------------------------|
| | | RATIO / MA / TURNS TO CLOSE | RATIO / MA / TURNS TO CLOSE | RATIO / MA / TURNS TO CLOSE | RATIO / MA / TURNS TO CLOSE | | | |
| FA-02 E | 250 | 32:1 / 13 / 8 | - | F05, F07, F10 | 25 | 5 | | |
| FA-05 E | 500 | 34:1 / 14 / 9 | - | F07, F10, F12 | 30 | 6 | | |
| FA-07 E | 750 | 37:1 / 15 / 9 | - | F07, F10, F12 | 35 | 10 | | |
| FA-10 E | 1000 | 44:1 / 18 / 11 | - | F10, F12, F14 | 45 | 12 | | |
| FA-15 E | 1500 | 44:1 / 18 / 11 | - | F10, F12, F14, F16 | 50 | 16 | | |
| FA-20 E | 2000 | 50:1 / 20 / 13 | - | F10, F12, F14, F16 | 55 | 17 | | |
| FA-28 E | 2800 | 54:1 / 22 / 14 | - | F12, F14, F16 | 75 | 22 | | |
| | | 54:1 / 22 / 14 | | F25 | | | | |
| FA-35 E | 3500 | 58:1 / 23 / 15 | - | F14, F16, F25 | 80 | 34 | | |
| FA-45/S1 E | 4500 | 206:1 / 74 / 52 | 137:1 / 49 / 34 | F14, F16, F25 | 80 | 45 | | |
| | | | 180:1 / 65 / 45 | F14, F16, F25 | | | | |
| FA-60 E | 6000 | 59:1 / 24 / 15 | - | F14, F16, F25 | 85 | 60 | | |
| FA-60/S1 E | 6000 | 210:1 / 76 / 52 | 139:1 / 50 / 35 | F14, F16, F25 | 85 | 51 | | |
| | | | 184:1 / 66 / 46 | | | | | |
| FA-80 E | 8000 | 60:1 / 24 / 15 | - | F16, F25, F30 | 90 | 53 | | |
| FA-80/S2 E | 8000 | 243:1 / 88 / 61 | 168:1 / 61 / 42 | F16, F25, F30 | 90 | 73 | | |
| | | | 202:1 / 73 / 51 | | | | | |
| FA-100 E | 10000 | 58:1 / 23 / 15 | - | F25, F30 | 105 | 61 | | |
| FA-100/S2 E | 10000 | 235:1 / 85 / 59 | 162:1 / 59 / 41 | F25, F30 | 105 | 81 | | |
| | | | 195:1 / 70 / 49 | | | | | |
| FA-150 E | 15000 | 61:1 / 24 / 15 | - | F25, F30 | 115 | 79 | | |
| FA-150/S3 E | 15000 | 525:1 / 170 / 131 | 270:1 / 88 / 68 | F25, F30 | 115 | 105 | | |
| | | | 317:1 / 103 / 79 | | | | | |
| | | | 386:1 / 125 / 97 | | | | | |
| FA-200/S3 E | 20000 | 542:1 / 176 / 135 | 279:1 / 90 / 70 | F25, F30 | 125 | 125 | | |
| | | | 328:1 / 106 / 82 | | | | | |
| | | | 399:1 / 129 / 100 | | | | | |
| FA-250/S4 E | 25000 | 652:1 / 211 / 163 | 305:1 / 99 / 76 | F25, F30 | 125 | 140 | | |
| | | | 352:1 / 114 / 88 | | | | | |
| | | | 449:1 / 146 / 113 | | | | | |
| FA-300/S4 E | 30000 | 683:1 / 221 / 171 | 319:1 / 104 / 80 | F25, F30, F35 | 150 | 185 | | |
| | | | 369:1 / 120 / 92 | | | | | |
| | | | 470:1 / 153 / 118 | | | | | |
| FA-350/S5 E | 35000 | 923:1 / 299 / 231 | 352:1 / 114 / 88 | F25, F30, F35 | 150 | 205 | | |
| | | | 442:1 / 143 / 110 | | | | | |
| | | | 587:1 / 190 / 147 | | | | | |
| FA-450/S5 E | 45000 | 965:1 / 313 / 241 | 368:1 / 119 / 92 | F30, F35, F40 | 160 | 295 | | |
| | | | 462:1 / 150 / 116 | | | | | |
| | | | 614:1 / 199 / 153 | | | | | |
| FA-500/S6 E | 50000 | 1766:1 / 515 / 442 | 322:1 / 104 / 80 | F30, F35, F40 | 160 | 320 | | |
| | | | 370:1 / 120 / 93 | | | | | |
| | | | 429:1 / 139 / 107 | | | | | |
| | | | 545:1 / 177 / 136 | | | | | |
| | | | 764:1 / 223 / 191 | | | | | |
| FA-600/S6 E | 60000 | 1766:1 / 515 / 442 | 322:1 / 104 / 80 | F35, F40, F48 | 200 | 420 | | |
| | | | 370:1 / 120 / 93 | | | | | |
| | | | 429:1 / 139 / 107 | | | | | |
| | | | 545:1 / 177 / 136 | | | | | |
| | | | 764:1 / 223 / 191 | | | | | |
| FA-750/S7 E | 75000 | 2475:1 / 722 / 619 | 322:1 / 104 / 80 | F35, F40, F48 | 200 | 480 | | |
| | | | 370:1 / 120 / 93 | | | | | |
| | | | 429:1 / 139 / 107 | | | | | |
| | | | 545:1 / 177 / 136 | | | | | |
| | | | 764:1 / 223 / 191 | | | | | |
| | | | 1078:1 / 314 / 270 | | | | | |
| | | | 1341:1 / 391 / 335 | | | | | |
| | | | 344:1 / 111 / 86 | | | | | |
| | | | 419:1 / 136 / 105 | | | | | |
| | | | 705:1 / 206 / 176 | | | | | |
| 884:1 / 258 / 221 | | | | | | | | |
| 1078:1 / 314 / 270 | | | | | | | | |
| 1380:1 / 402 / 345 | | | | | | | | |
| 1766:1 / 515 / 442 | | | | | | | | |
| 2026:1 / 591 / 507 | | | | | | | | |

| MODEL | RATED OUTPUT TORQUE (Nm) | STANDARD | | OPTIONAL | | VALVE MOUNTING FLANGE (ISO 5211) | MAX. DRIVE BORE | APPROX. UNIT WEIGHT (Kg) | |
|----------------------|--------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------------|-----------------|--------------------------|----------------------|
| | | RATIO / MA / TURNS TO CLOSE | RATIO / MA / TURNS TO CLOSE | RATIO / MA / TURNS TO CLOSE | RATIO / MA / TURNS TO CLOSE | | | | |
| FA-1000/S7 E | 100000 | 2368:1 / 690 / 592 | | | | F35, F40, F48 | 200 | 610 | |
| | | | | | | | | | 329:1 / 107 / 82 |
| | | | | | | | | | 401:1 / 130 / 100 |
| | | | | | | | | | 674:1 / 197 / 168 |
| | | | | | | | | | 846:1 / 247 / 211 |
| | | | | | | | | | 1031:1 / 301 / 258 |
| | | | | | | | | | 1320:1 / 385 / 330 |
| FA-1250/S8 E | 125000 | 3465:1 / 1010 / 866 | | | | F40, F48, F60 | 240 | 670 | |
| | | | | | | | | | 1690:1 / 493 / 422 |
| | | | | | | | | | 1938:1 / 565 / 484 |
| | | | | | | | | | 361:1 / 117 / 90 |
| | | | | | | | | | 503:1 / 163 / 126 |
| | | | | | | | | | 739:1 / 215 / 185 |
| | | | | | | | | | 1031:1 / 301 / 258 |
| FA-1500/S8 E | 150000 | 3465:1 / 1010 / 866 | | | | F48, F60 | 260 | 970 | |
| | | | | | | | | | 1258:1 / 367 / 315 |
| | | | | | | | | | 1953:1 / 569 / 488 |
| | | | | | | | | | 2685:1 / 783 / 671 |
| | | | | | | | | | 361:1 / 117 / 90 |
| | | | | | | | | | 503:1 / 163 / 126 |
| | | | | | | | | | 739:1 / 216 / 185 |
| FA-2000/S9 E | 200000 | 6227:1 / 1634 / 1557 | | | | F48, F60 | 260 | 1110 | |
| | | | | | | | | | 1031:1 / 301 / 258 |
| | | | | | | | | | 1258:1 / 367 / 315 |
| | | | | | | | | | 1953:1 / 569 / 488 |
| | | | | | | | | | 2684:1 / 783 / 671 |
| | | | | | | | | | 961:1 / 280 / 240 |
| | | | | | | | | | 978:1 / 285 / 245 |
| FA-2500/S9 E | 250000 | 6133:1 / 1609 / 1533 | | | | F48, F60 | 300 | 1435 | |
| | | | | | | | | | 1716:1 / 500 / 429 |
| | | | | | | | | | 2787:1 / 731 / 697 |
| | | | | | | | | | 3484:1 / 914 / 871 |
| | | | | | | | | | 4889:1 / 1283 / 1222 |
| | | | | | | | | | 946:1 / 276 / 237 |
| | | | | | | | | | 963:1 / 281 / 241 |
| FA-3000/S10 E | 300000 | 8192:1 / 2150 / 2048 | | | | F48, F60 | 300 | 1615 | |
| | | | | | | | | | 1689:1 / 493 / 422 |
| | | | | | | | | | 2745:1 / 720 / 686 |
| | | | | | | | | | 3431:1 / 900 / 858 |
| | | | | | | | | | 4815:1 / 1264 / 1204 |
| | | | | | | | | | 770:1 / 225 / 193 |
| | | | | | | | | | 1047:1 / 305 / 262 |
| FA-3500/S10 E | 350000 | 8570:1 / 2249 / 2142 | | | | F60, F80 | 340 | 2110 | |
| | | | | | | | | | 1599:1 / 466 / 400 |
| | | | | | | | | | 2370:1 / 691 / 592 |
| | | | | | | | | | 3460:1 / 908 / 865 |
| | | | | | | | | | 4187:1 / 1099 / 1047 |
| | | | | | | | | | 5282:1 / 1386 / 1321 |
| | | | | | | | | | 6538:1 / 1716 / 1634 |
| FA-4500/S11 E | 450000 | 10288:1 / 2700 / 2572 | | | | F60, F80 | 340 | 2210 | |
| | | | | | | | | | 806:1 / 235 / 201 |
| | | | | | | | | | 1096:1 / 320 / 274 |
| | | | | | | | | | 1673:1 / 488 / 418 |
| | | | | | | | | | 2479:1 / 723 / 620 |
| | | | | | | | | | 3620:1 / 950 / 905 |
| | | | | | | | | | 4380:1 / 1150 / 1095 |
| 5426:1 / 1450 / 1381 | | | | | | | | | |
| 6839:1 / 1795 / 1710 | | | | | | | | | |
| FA-4500/S11 E | 450000 | 10288:1 / 2700 / 2572 | | | | F60, F80 | 340 | 2210 | |
| | | | | | | | | | 785:1 / 229 / 196 |
| | | | | | | | | | 1144:1 / 333 / 286 |
| | | | | | | | | | 1688:1 / 492 / 422 |
| | | | | | | | | | 2387:1 / 696 / 597 |
| | | | | | | | | | 3534:1 / 927 / 883 |
| | | | | | | | | | 4417:1 / 1159 / 1104 |
| 5395:1 / 1416 / 1349 | | | | | | | | | |
| 6813:1 / 1788 / 1703 | | | | | | | | | |
| 8512:1 / 2234 / 2128 | | | | | | | | | |

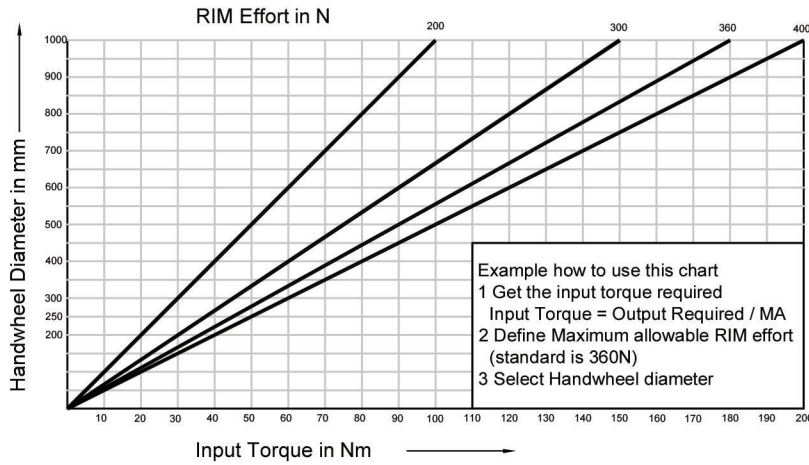
Notes:-

1. All specifications are subject to change without notice
2. Factory reserves the right to amend & change specifications without prior notice
3. All dimensions are in mm.
4. In case any other ratio (not mentioned in this catalogue) is required for a model, kindly contact factory

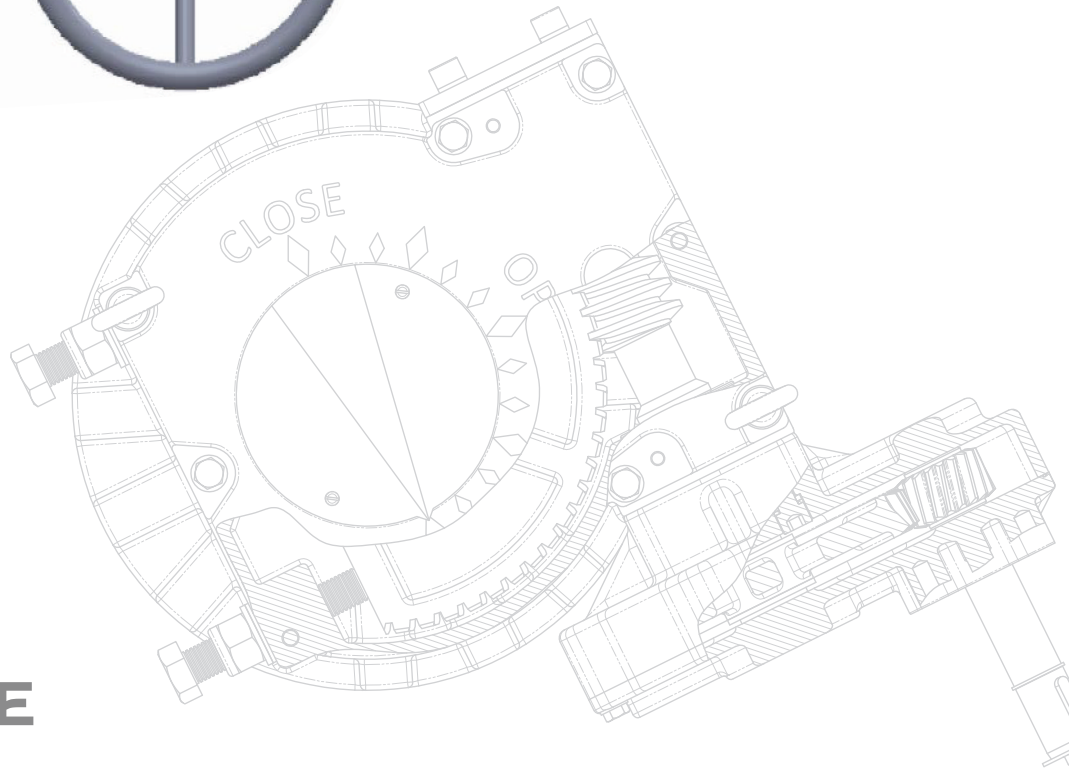
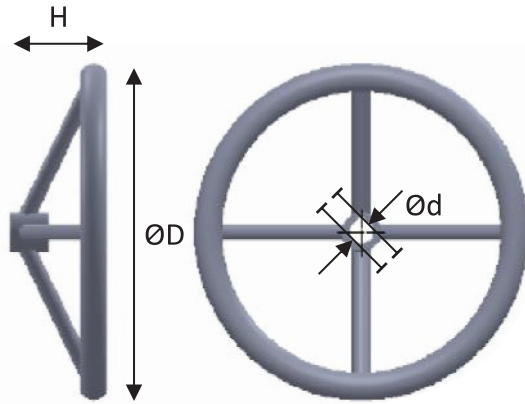
ACCESSORIES



HANDWHEEL SELECTION



| $\varnothing d \pm 0.05$ | $\varnothing D$ | H |
|--------------------------|-----------------|-----|
| 15.1 | 150 | 65 |
| 15.1 | 200 | 70 |
| 20.1 | 250 | 90 |
| 20.1 | 300 | 100 |
| 25.1 | 400 | 125 |
| 25.1 | 500 | 130 |
| 25.1 | 600 | 135 |
| 30.1 | 600 | 135 |
| 35.1 | 600 | 135 |
| 35.1 | 750 | 160 |
| 45.1 | 750 | 160 |
| 50.1 | 750 | 160 |
| 60.1 | 750 | 160 |
| 60.1 | 900 | 180 |
| 70.1 | 900 | 180 |
| 25.1 | 300 | 100 |
| 30.1 | 500 | 130 |
| 40.1 | 750 | 160 |



FA
FLOWCODE
AUTOMATION

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