

## MI 8-25

## ISO 6432



Round cylinder corresponds to standard design in accordance with ISO 6432.

316 stainless steel piston rod and tube

The cylinder piston is equipped with a permanent magnet that can trigger the magnetic switch of the cylinder to detect the moving position of cylinder

The covers of the cylinder is anodized which are more durable

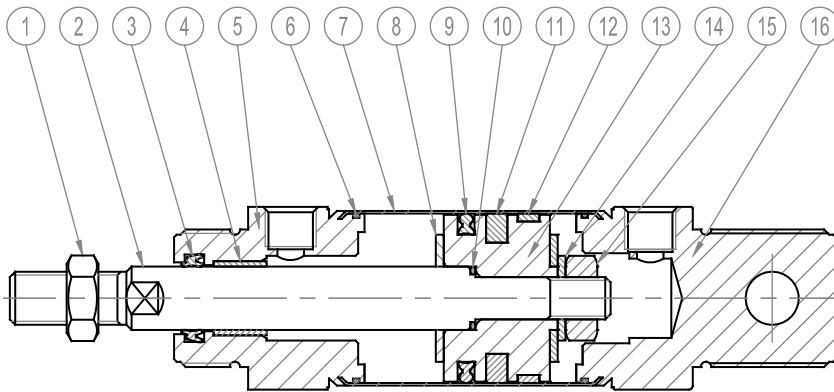
Oil bearing is adopted so the piston rod do not need to be lubricated

The seal material with high temperature resistance is adopted to guarantee the normal operation of cylinder at 150°C

## TECHNICAL DATA

| BORE[Φ]                      | 8   | 10     | 12     | 16     | 20                      | 25       |
|------------------------------|---|--------|--------|--------|-------------------------|----------|
| <b>Pneumatic connection</b>  | M5×0.8  | M5×0.8 | M5×0.8 | M5×0.8 | G1/8"                   | G1/8"    |
| <b>Piston rod thread</b>     | M4×0.7  | M4×0.7 | M6×1.0 | M6×1.0 | M8×1.25                 | M10×1.25 |
| <b>Cushioning</b>            | Fixed cushioning                                    |        |        |        | Adjustable at both ends |          |
| <b>Operating temperature</b> | -20-80°C  |        |        |        |                         |          |
| <b>Operating pressure</b>    | 1-10 bar  |        |        |        |                         |          |
| <b>Operating medium</b>      | Filtered compressed air,with or without lubrication |        |        |        |                         |          |
| <b>Version</b>               | Single acting or Double acting                      |        |        |        |                         |          |
| <b>Type of mounting</b>      | Via accessories                                     |        |        |        |                         |          |
| <b>Mounting position</b>     | Any   |        |        |        |                         |          |

 1 bar=0.1MPa=14.5PSI



|    |                     |                     |
|----|---------------------|---------------------|
| 1  | Nut, Piston rod     | Carbon steel        |
| 2  | Piston rod          | 316 Stainless steel |
| 3  | Wiper seal          | PU                  |
| 4  | Oil bearing         | Steel               |
| 5  | Front cover         | Aluminum alloy      |
| 6  | O-ring, Front cover | NBR                 |
| 7  | Tube                | 316 Stainless steel |
| 8  | Pad                 | TPU                 |
| 9  | Piston seal         | TPU                 |
| 10 | O-ring, Piston rod  | NBR                 |
| 11 | Magnet              | Ferrite             |
| 12 | Wear Ring           | POM                 |
| 13 | Piston              | Aluminum alloy      |
| 14 | Spring washer       | Carbon steel        |
| 15 | Piston rod lock nut | Carbon steel        |
| 16 | End Cover           | Aluminum alloy      |

## KEY CODE

MI - 20 X 50 - 25 - S - U - P - LB - I

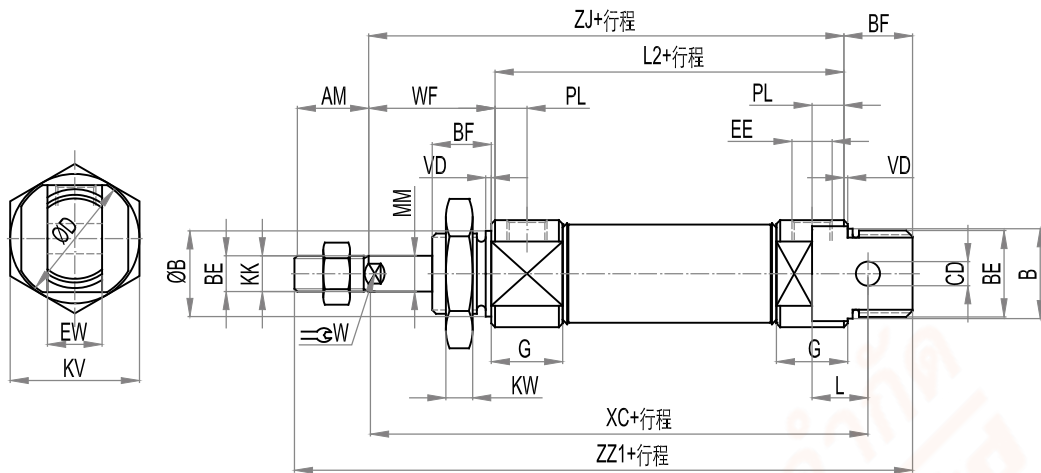
| MI   | 20               | 50          | 25                | S                    | U                        | P            |
|--|------------------|-------------|-------------------|----------------------|--------------------------|--------------|
| SERIES                                     | BORE             | STROKE [mm] | ADJUSTABLE STROKE | MAGNETIC             | BACK COVER               | THREAD TYPE  |
| MI=Double rod type                         | 8-10-12-16-20-25 | As request  | As request        | Blank=Without magnet | CA:Pivot type            | P=PT Thread  |
| MSI=Single acting-Rear spring              |                  |             |                   | S=With magnet        | CM:Round-end type        | N=NPT Thread |
| MTI=Single acting-Front spring             |                  |             |                   |                      | R:Axial air connection   | G=G Thread   |
| MIC=Double rod type with adjustable stroke |                  |             |                   |                      | U:Lateral air connection |              |

| LB                      | I                       |
|-------------------------|-------------------------|
| MOUNTING TYPE           | CONNECTOR TYPE          |
| Blank=Without accessory | Blank=Without accessory |
| LB=Angle bracket        | I=I joint               |
| FA=Flange               | Y=Y joint               |
| SDB=Female hinge        | U=Rod eye joint         |
|                         | F=Floating joint        |

PS: High temperature seals available upon request

**MI Standard**

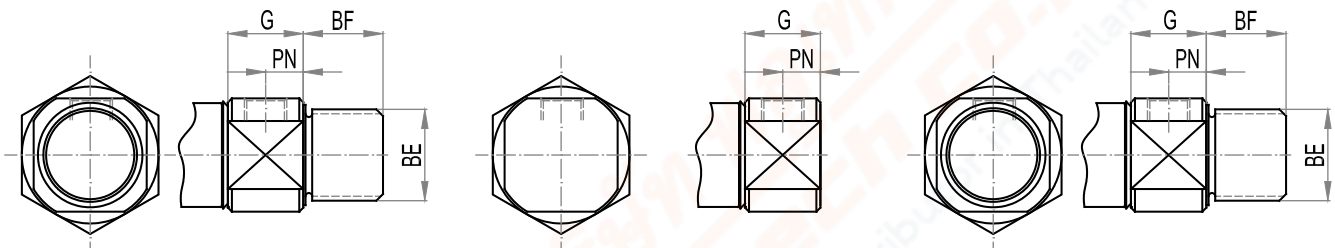
CA-Pivot type



R-Axial air connection

U-Lateral air connection

CM-Round-end type



Total length=ZZ4+stroke

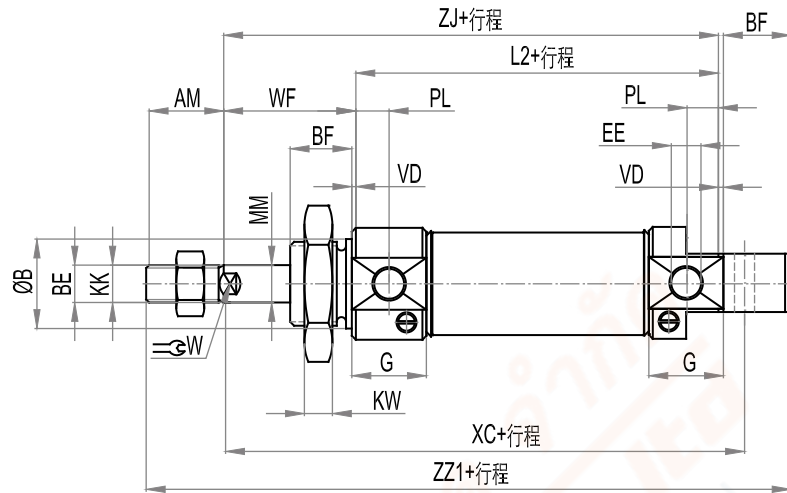
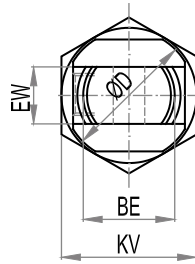
Total length=ZZ3+stroke

Total length=ZZ2+stroke

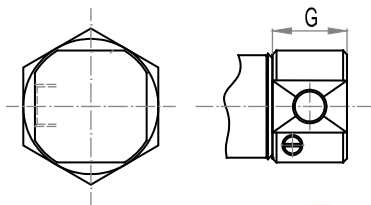
| Ø [MM]       | 8        | 10       | 12      | 16      | 20      | 25       |
|--------------|----------|----------|---------|---------|---------|----------|
| <b>AM</b>    | 12       | 12       | 16      | 16      | 20      | 20       |
| <b>B[Ø]</b>  | 12       | 12       | 16      | 16      | 22      | 22       |
| <b>BE</b>    | M12×1.25 | M12×1.25 | M16×1.5 | M16×1.5 | M22×1.5 | M22×1.5  |
| <b>BF</b>    | 12       | 12       | 17      | 17      | 20      | 22       |
| <b>CD[Ø]</b> | 4        | 4        | 6       | 6       | 8       | 8        |
| <b>D[Ø]</b>  | 17       | 17       | 20      | 22      | 28      | 33.5     |
| <b>EE</b>    | M5×0.8   | M5×0.8   | M5×0.8  | M5×0.8  | G1/8"   | G1/8"    |
| <b>EW</b>    | 8        | 8        | 12      | 12      | 16      | 16       |
| <b>G</b>     | 9.5      | 9.5      | 10.5    | 10.5    | 15      | 15       |
| <b>KK</b>    | M4×0.7   | M4×0.7   | M6×1.0  | M6×1.0  | M8×1.25 | M10×1.25 |
| <b>KV</b>    | 19       | 19       | 22      | 22      | 29      | 29       |
| <b>KW</b>    | 6        | 6        | 6       | 6       | 7       | 7        |
| <b>L</b>     | 6        | 6        | 9       | 9       | 12      | 12       |
| <b>L2</b>    | 46       | 46       | 50      | 56      | 62      | 65       |
| <b>MM[Ø]</b> | 4        | 4        | 6       | 6       | 8       | 10       |
| <b>PL</b>    | 5.5      | 5.5      | 8       | 8       | 8       | 8        |
| <b>PN</b>    | 5        | 5        | 6       | 6       | 8       | 8        |
| <b>VD</b>    | 2        | 2        | 2       | 2       | 2       | 2        |
| <b>W</b>     | -        | -        | 5       | 5       | 6       | 8        |
| <b>WF</b>    | 16       | 16       | 22      | 22      | 24      | 28       |
| <b>XC</b>    | 64       | 64       | 75      | 82      | 95      | 104      |
| <b>ZJ</b>    | 62       | 62       | 72      | 78      | 86      | 93       |
| <b>ZZ1</b>   | 86       | 86       | 105     | 111     | 126     | 137      |
| <b>ZZ2</b>   | -        | -        | -       | 111     | 126     | 137      |
| <b>ZZ3</b>   | 74       | 73.5     | 88      | 94      | 106     | 115      |
| <b>ZZ4</b>   | -        | -        | -       | 94      | 106     | 115      |

## MIC

CA-Pivot type

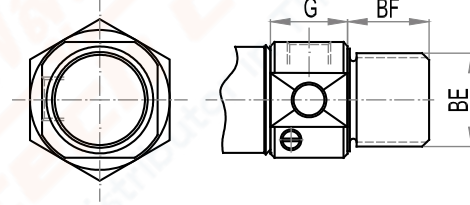


U-Lateral air connection



Total length=ZZ3+stroke

CM-Round-end type

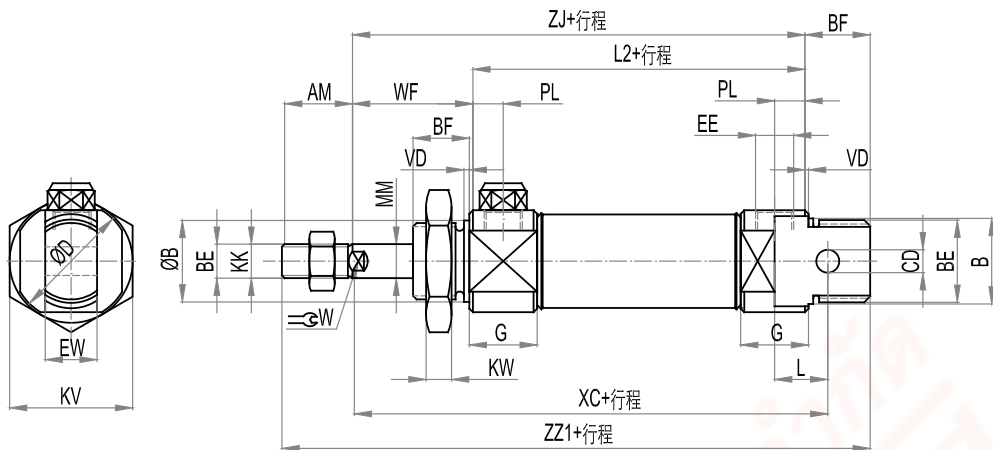


Total length=ZZ2+stroke

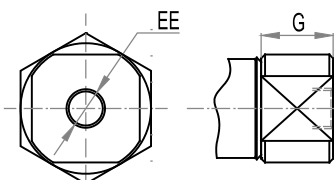
| Φ [MM] | 20      | 25       |
|--------|---------|----------|
| AM     | 20      | 22       |
| B[Φ]   | 22      | 22       |
| BE     | M22×1.5 | M22×1.5  |
| BF     | 20      | 22       |
| CD[Φ]  | 8       | 8        |
| D[Φ]   | 28      | 33.5     |
| EE     | G1/8"   | G1/8"    |
| EW     | 16      | 16       |
| G      | 15      | 15       |
| KK     | M8×1.25 | M10×1.25 |
| KV     | 29      | 29       |
| KW     | 7       | 7        |
| L      | 12      | 12       |
| L2     | 62      | 65       |
| MM[Φ]  | 8       | 10       |
| PL     | 8       | 8        |
| PN     | 8       | 8        |
| VD     | 2       | 2        |
| W      | 6       | 8        |
| WF     | 24      | 28       |
| XC     | 95      | 104      |
| ZJ     | 86      | 93       |
| ZZ1    | 126     | 137      |
| ZZ2    | 126     | 137      |
| ZZ3    | 106     | 115      |

**MSI**

CA-Pivot type

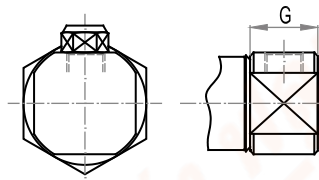


R-Axial air connection



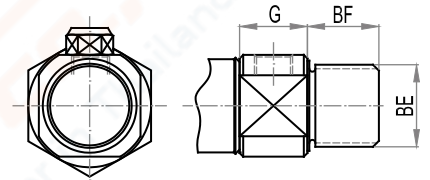
Total length=ZZ3+stroke

U-Lateral air connection



Total length=ZZ3+stroke

CM-Round-end type



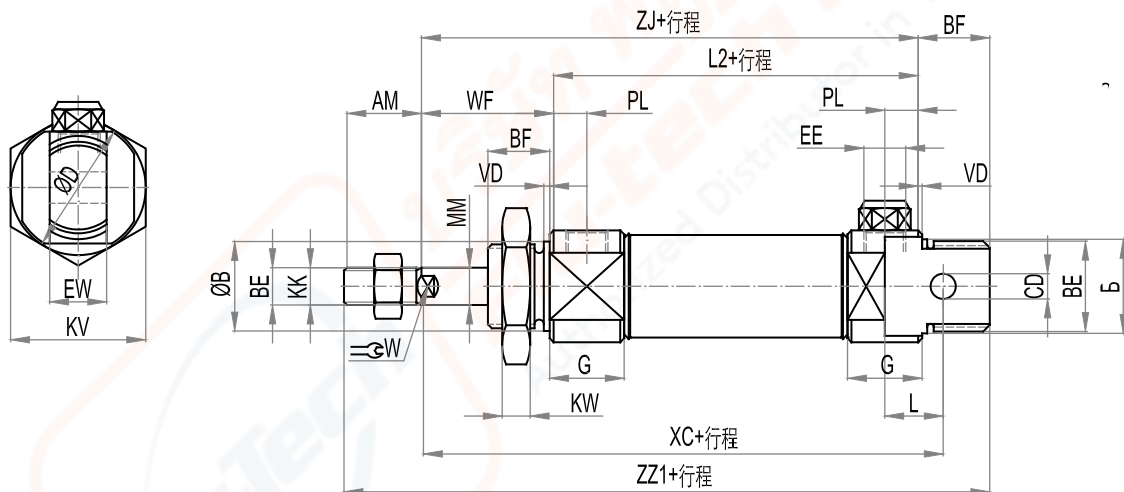
Total length=ZZ2+stroke

| Φ [MM]       | STROKE  | 8        | 10       | 12      | 16      | 20      | 25       |
|--------------|---------|----------|----------|---------|---------|---------|----------|
| <b>AM</b>    |         | 12       | 12       | 16      | 16      | 20      | 22       |
| <b>B(Φ)</b>  |         | 12       | 12       | 16      | 16      | 22      | 22       |
| <b>BE</b>    |         | M12×1.25 | M12×1.25 | M16×1.5 | M16×1.5 | M22×1.5 | M22×1.5  |
| <b>BF</b>    |         | 12       | 12       | 17      | 17      | 20      | 22       |
| <b>CD(Φ)</b> |         | 4        | 4        | 6       | 6       | 8       | 8        |
| <b>D(Φ)</b>  |         | 17       | 17       | 20      | 22      | 28      | 34       |
| <b>EE</b>    |         | M5×0.8   | M5×0.8   | M5×0.8  | M5×0.8  | G1/8"   | G1/8"    |
| <b>EW</b>    |         | 8        | 8        | 12      | 12      | 16      | 16       |
| <b>G</b>     |         | 9.5      | 9.5      | 11      | 11      | 15      | 15       |
| <b>KK</b>    |         | M4×0.7   | M4×0.7   | M6×1.0  | M6×1.0  | M8×1.25 | M10×1.25 |
| <b>KV</b>    |         | 19       | 19       | 22      | 22      | 29      | 29       |
| <b>KW</b>    |         | 6        | 6        | 6       | 6       | 7       | 7        |
| <b>L</b>     |         | 6        | 6        | 9       | 9       | 12      | 12       |
| <b>L2</b>    | 0-50    | 71       | 71       | 75      | 81      | 87      | 90       |
|              | 51-100  | -        | -        | -       | 106     | 112     | 115      |
|              | 101-150 | -        | -        | -       | -       | 137     | 140      |
| <b>MM(Φ)</b> |         | 4        | 4        | 6       | 6       | 8       | 10       |
| <b>PL</b>    |         | 5.5      | 5.5      | 8       | 8       | 8       | 8        |
| <b>PN</b>    |         | 5        | 5        | 6       | 6       | 8       | 8        |
| <b>VD</b>    |         | 2        | 2        | 2       | 2       | 2       | 2        |
| <b>W</b>     |         | -        | -        | 5       | 5       | 6       | 8        |
| <b>WF</b>    |         | 16       | 16       | 22      | 22      | 24      | 28       |
| <b>XC</b>    | 0-50    | 89       | 89       | 100     | 107     | 120     | 120      |
|              | 51-100  | -        | -        | -       | 132     | 145     | 154      |
|              | 101-150 | -        | -        | -       | -       | 170     | 179      |
| <b>ZJ</b>    | 0-50    | 87       | 87       | 97      | 103     | 111     | 118      |
|              | 51-100  | -        | -        | -       | 128     | 136     | 143      |
|              | 101-150 | -        | -        | -       | -       | 161     | 168      |

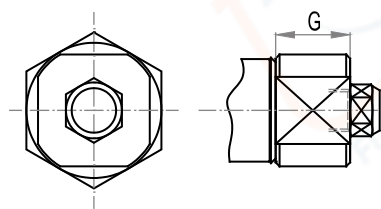
| Ø [MM]     | STROKE  | 8  | 10 | 12  | 16  | 20  | 25  |
|------------|---------|----|----|-----|-----|-----|-----|
| <b>ZZ1</b> | 0-50    | 87 | 87 | 87  | 87  | 87  | 87  |
|            | 51-100  | -  | -  | -   | 128 | 136 | 143 |
|            | 101-150 | -  | -  | -   | -   | 161 | 168 |
| <b>ZZ2</b> | 0-50    | -  | -  | -   | 136 | 151 | 162 |
|            | 51-100  | -  | -  | -   | 161 | 176 | 187 |
|            | 101-150 | -  | -  | -   | -   | 201 | 212 |
| <b>ZZ3</b> | 0-50    | 99 | 99 | 113 | 119 | 131 | 140 |
|            | 51-100  | -  | -  | -   | 144 | 156 | 165 |
|            | 101-150 | -  | -  | -   | -   | 181 | 190 |

## MTI

CA-Pivot type

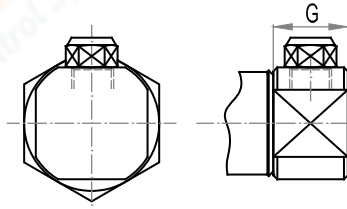


R-Axial air connection



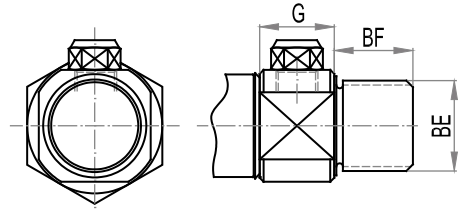
Total length=ZZ4+stroke

U-Lateral air connection



Total length=ZZ3+stroke

CM-Round-end type



Total length=ZZ2+stroke

| Ø [MM]       | STROKE  | 8        | 10       | 12      | 16      | 20      | 25       |
|--------------|---------|----------|----------|---------|---------|---------|----------|
| <b>AM</b>    |         | 12       | 12       | 16      | 16      | 20      | 22       |
| <b>B(Ø)</b>  |         | 12       | 12       | 16      | 16      | 22      | 22       |
| <b>BE</b>    |         | M12×1.25 | M12×1.25 | M16×1.5 | M16×1.5 | M22×1.5 | M22×1.5  |
| <b>BF</b>    |         | 12       | 12       | 17      | 17      | 20      | 22       |
| <b>CD(Ø)</b> |         | 4        | 4        | 6       | 6       | 8       | 8        |
| <b>D(Ø)</b>  |         | 17       | 17       | 20      | 22      | 28      | 34       |
| <b>EE</b>    |         | M5×0.8   | M5×0.8   | M5×0.8  | M5×0.8  | G1/8"   | G1/8"    |
| <b>EW</b>    |         | 8        | 8        | 12      | 12      | 16      | 16       |
| <b>G</b>     |         | 9.5      | 9.5      | 11      | 11      | 15      | 15       |
| <b>KK</b>    |         | M4×0.7   | M4×0.7   | M6×1.0  | M6×1.0  | M8×1.25 | M10×1.25 |
| <b>KV</b>    |         | 19       | 19       | 22      | 22      | 29      | 29       |
| <b>KW</b>    |         | 6        | 6        | 6       | 6       | 7       | 7        |
| <b>L</b>     |         | 6        | 6        | 9       | 9       | 12      | 12       |
| <b>L2</b>    | 25      | 63       | 63       | 67      | 73      | 79      | 81       |
|              | 50      | 73       | 73       | 77      | 83      | 89      | 91       |
|              | 75      | -        | -        | 92      | 98      | 104     | 107      |
| <b>MM(Ø)</b> |         | 4        | 4        | 6       | 6       | 8       | 10       |
| <b>PL</b>    |         | 5.5      | 5.5      | 8       | 8       | 8       | 8        |
| <b>PN</b>    |         | 5        | 5        | 6       | 6       | 8       | 8        |
| <b>VD</b>    |         | 2        | 2        | 2       | 2       | 2       | 2        |
| <b>W</b>     |         | -        | -        | 5       | 5       | 6       | 8        |
| <b>WF</b>    |         | 16       | 16       | 22      | 22      | 24      | 28       |
| <b>XC</b>    | 25      | 81       | 81       | 92      | 99      | 122     | 120      |
|              | 50      | 91       | 91       | 102     | 109     | 122     | 130      |
|              | 75      | -        | -        | 117     | 124     | 137     | 146      |
| <b>ZJ</b>    | 25      | 79       | 79       | 89      | 95      | 103     | 109      |
|              | 50      | 89       | 89       | 99      | 105     | 113     | 119      |
|              | 75      | -        | -        | 114     | 120     | 128     | 135      |
| <b>ZZ1</b>   | 25      | 103      | 103      | 122     | 128     | 143     | 153      |
|              | 50      | 113      | 113      | 132     | 138     | 153     | 163      |
|              | 75      | -        | -        | 147     | 153     | 168     | 179      |
| <b>ZZ2</b>   | 0-50    | -        | -        | -       | 136     | 151     | 162      |
|              | 51-100  | -        | -        | -       | 161     | 176     | 187      |
|              | 101-150 | -        | -        | -       | -       | 201     | 212      |
| <b>ZZ3</b>   | 25      | 91       | 90.5     | 105     | 111     | 123     | 132      |
|              | 50      | 101      | 101      | 115     | 121     | 133     | 142      |
|              | 75      | -        | -        | 130     | 136     | 148     | 157      |
| <b>ZZ4</b>   | 0-50    | -        | -        | -       | 119     | 131     | 140      |
|              | 51-100  | -        | -        | -       | 144     | 156     | 165      |
|              | 101-150 | -        | -        | -       | -       | 181     | 190      |