



# LINEAR GUIDES SPECIAL ENVIRONMENT SOLUTIONS

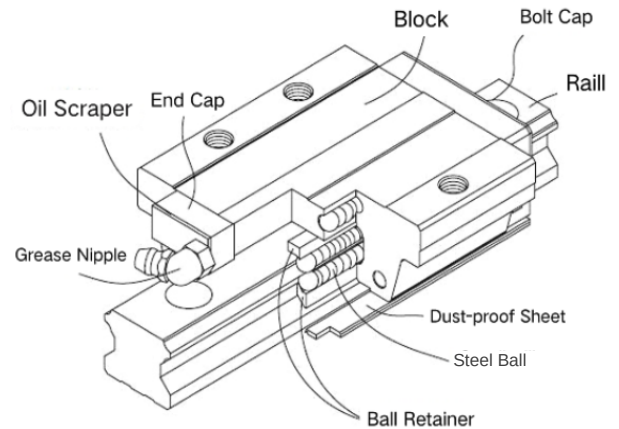
Stainless Steel · M Series  
Heat-Resistant · SE Series  
Coating for Linear Guides



# Stainless Steel Linear Guides

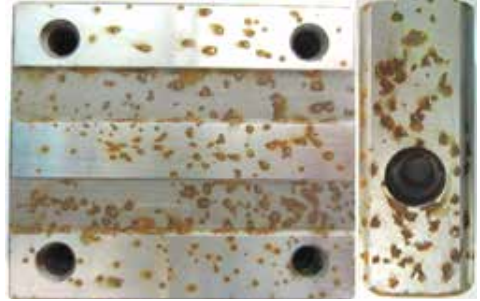
## Features:

- Suitable for specific extreme environments
  - With metallic components, it can be used in low and medium vacuum environments
- Great corrosion resistance
  - Block, Rail, Steel Balls, Grease Nipple, Screws are all made of stainless steel material
- Same performance as IMTEK's standard steel linear guides
  - Stiffness, Hardness, Service Life, Dimensions remain the same



## Main Applications:

- Food industry
- Machine tool
- Semiconductor industry
- Measuring instrument
- Medical industry
- Automation industry

| Salt Spray Test |                                                                                     |                                                                                      |
|-----------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                 | Stainless Steel Series                                                              | Regular Series                                                                       |
| Before          |  |  |
| After           |  |  |
| Result          | Slight Corrosion                                                                    | Severe Corrosion                                                                     |

Note:

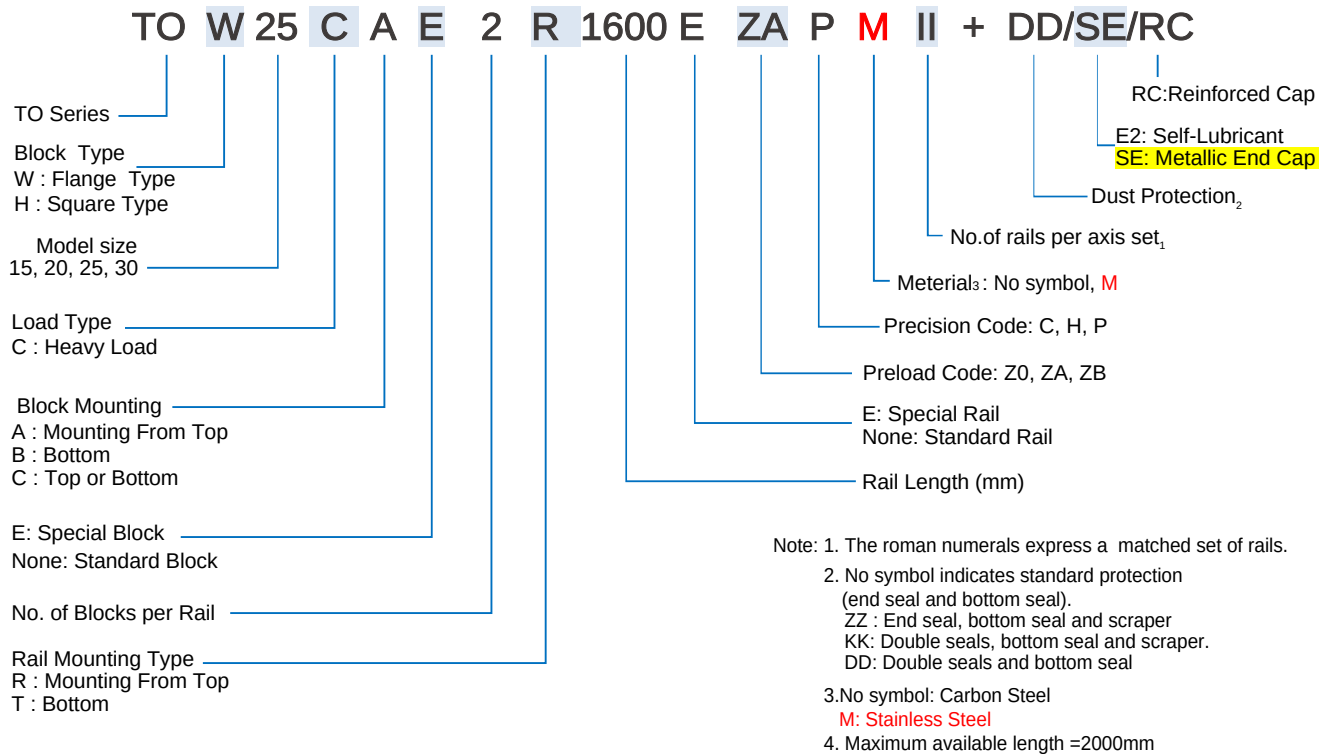
Test conditions: -Salt Solution: 5 % NaCl

-Salt spray chamber temperature: 35°C±2°C

-Pressure: 1 bar

## TO Series

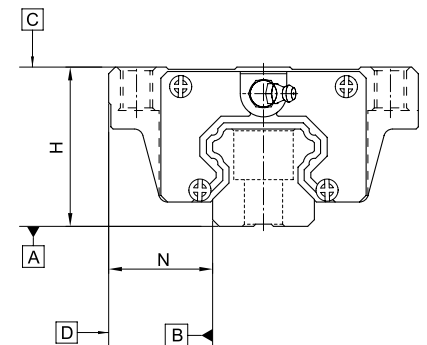
Model Number:



Accuracy Classes:

Unit: mm

| Item                              | TO - 15, 20 |          |               | TO - 25, 30 |          |               |
|-----------------------------------|-------------|----------|---------------|-------------|----------|---------------|
|                                   | Normal (C)  | High (H) | Precision (P) | Normal (C)  | High (H) | Precision (P) |
| Accuracy Classes                  |             |          |               |             |          |               |
| Dimensional tolerance of height H | ±0.1        | ±0.03    | 0<br>-0.03    | ±0.1        | ±0.04    | 0<br>-0.04    |
| Dimensional tolerance of width N  | ±0.1        | ±0.03    | 0<br>-0.03    | ±0.1        | ±0.04    | 0<br>-0.04    |
| Variation of height H             | 0.02        | 0.01     | 0.006         | 0.02        | 0.015    | 0.007         |
| Variation of width N              | 0.02        | 0.01     | 0.006         | 0.03        | 0.015    | 0.007         |



Accuracy of Running Parallelism:

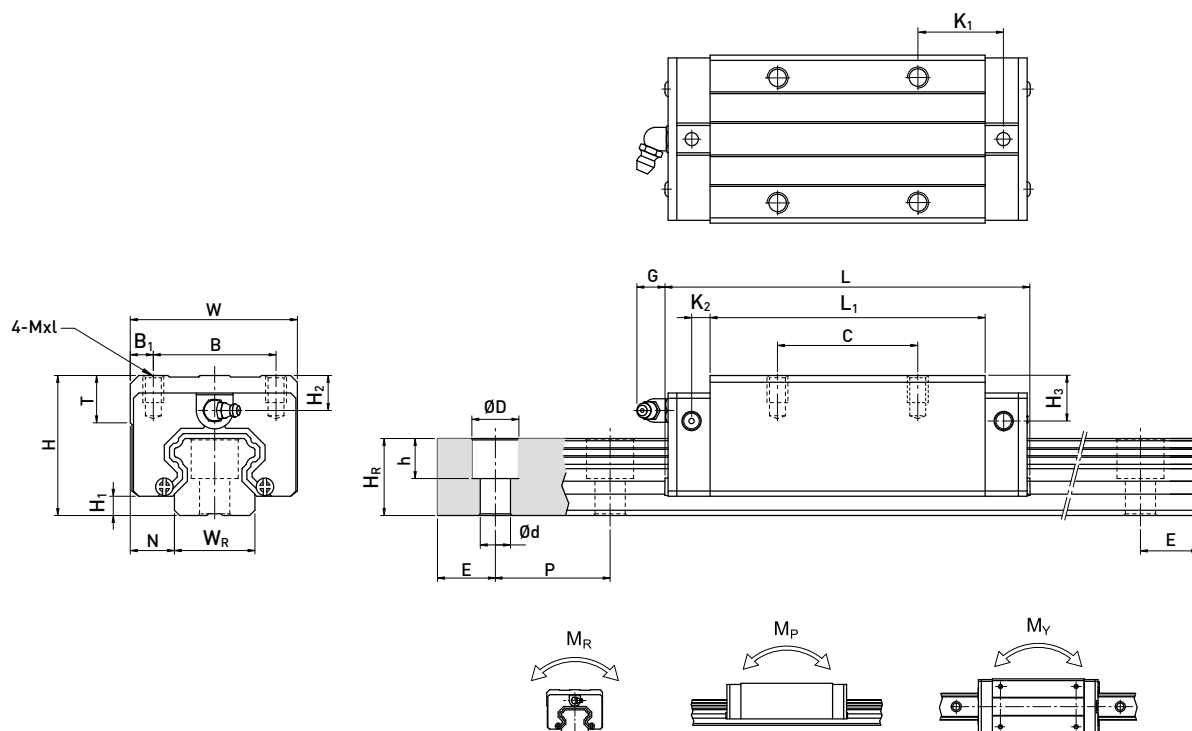
| Rail Length (mm) | Accuracy (μm) |    |    |
|------------------|---------------|----|----|
|                  | C             | H  | P  |
| ~ 100            | 12            | 7  | 3  |
| 100 ~ 200        | 14            | 9  | 4  |
| 200 ~ 300        | 15            | 10 | 5  |
| 300 ~ 500        | 17            | 12 | 6  |
| 500 ~ 700        | 20            | 13 | 7  |
| 700 ~ 900        | 22            | 15 | 8  |
| 900 ~ 1,100      | 24            | 16 | 9  |
| 1,100 ~ 1,500    | 26            | 18 | 11 |
| 1,500 ~ 1,900    | 28            | 20 | 13 |
| 1,900 ~ 2,000    | 31            | 22 | 15 |

Preload Classes:

| Class          | Code | Preload      | Condition                                                  |
|----------------|------|--------------|------------------------------------------------------------|
| Light Preload  | Z0   | 0~ 0.02C     | Certain load direction, low impact, low precision required |
| Medium Preload | ZA   | 0.05C~0.07C  | High precision required                                    |
| Heavy Preload  | ZB   | 0.10C~ 0.12C | High rigidity required with vibration and impact           |

## Dimensions for TO Series Stainless Steel Linear Guides

### TOH-CA / TOH-HA

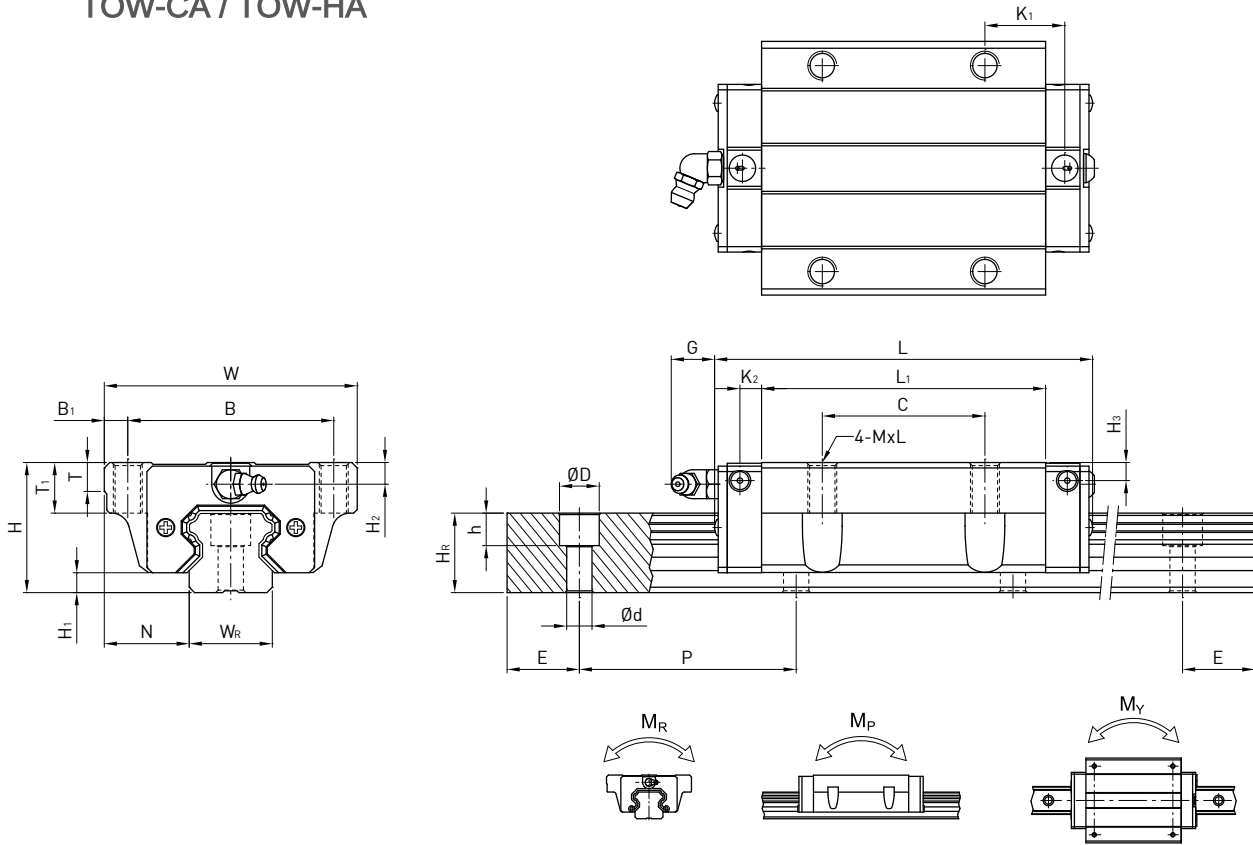


| Spec.    | Dimensions of Assembly (mm) |                |      | Dimensions of Block (mm) |    |                |    |                |       |                |                |     |       |     |                |                |
|----------|-----------------------------|----------------|------|--------------------------|----|----------------|----|----------------|-------|----------------|----------------|-----|-------|-----|----------------|----------------|
|          | H                           | H <sub>1</sub> | N    | W                        | B  | B <sub>1</sub> | C  | L <sub>1</sub> | L     | K <sub>1</sub> | K <sub>2</sub> | G   | M×I   | T   | H <sub>2</sub> | H <sub>3</sub> |
| TOH 15CA | 28                          | 4.3            | 9.5  | 34                       | 26 | 4              | 26 | 39.4           | 61.4  | 10             | 4.85           | 5.3 | M4×5  | 6   | 7.95           | 7.7            |
| TOH 20CA | 30                          | 4.6            | 12   | 44                       | 32 | 6              | 36 | 50.5           | 77.5  | 12.25          | 6              | 12  | M5×6  | 8   | 6              | 6              |
| TOH 20HA |                             |                |      |                          |    |                | 50 | 65.2           | 92.2  | 12.6           |                |     |       |     |                |                |
| TOH 25CA | 40                          | 5.5            | 12.5 | 48                       | 35 | 6.5            | 35 | 58             | 84    | 15.7           | 6              | 12  | M6×8  | 8   | 10             | 9              |
| TOH 25HA |                             |                |      |                          |    |                | 50 | 78.6           | 104.6 | 18.5           |                |     |       |     |                |                |
| TOH 30CA | 45                          | 6              | 16   | 60                       | 40 | 10             | 40 | 70             | 97.4  | 20.25          | 6              | 12  | M8×10 | 8.5 | 9.5            | 13.8           |
| TOH 30HA |                             |                |      |                          |    |                | 60 | 93             | 120.4 | 21.75          |                |     |       |     |                |                |

| Spec.    | Dimensions of Rail (mm) |                |     |     |     |    |    | Mounting Bolt for Rail (mm) | Basic Dynamic Load Rating C(kN) | Basic Static Load Rating C <sub>0</sub> (kN) | Static Rated Moment |                     |                     |
|----------|-------------------------|----------------|-----|-----|-----|----|----|-----------------------------|---------------------------------|----------------------------------------------|---------------------|---------------------|---------------------|
|          | W <sub>R</sub>          | H <sub>R</sub> | D   | h   | d   | p  | E  |                             |                                 |                                              | M <sub>R</sub> kN·m | M <sub>P</sub> kN·m | M <sub>V</sub> kN·m |
| TOH 15CA | 15                      | 15             | 7.5 | 5.3 | 4.5 | 60 | 20 | M4x16                       | 11.38                           | 25.38                                        | 0.17                | 0.15                | 0.15                |
| TOH 20CA | 20                      | 17.5           | 9.5 | 8.5 | 6   | 60 | 20 | M5x16                       | 17.75                           | 37.84                                        | 0.38                | 0.27                | 0.27                |
| TOH 20HA |                         |                |     |     |     |    |    |                             | 21.18                           | 48.84                                        | 0.48                | 0.47                | 0.47                |
| TOH 25CA | 22                      | 22             | 11  | 9   | 7   | 60 | 20 | M6x20                       | 26.48                           | 56.19                                        | 0.64                | 0.51                | 0.51                |
| TOH 25HA |                         |                |     |     |     |    |    |                             | 32.75                           | 76                                           | 0.87                | 0.88                | 0.88                |
| TOH 30CA | 28                      | 26             | 14  | 12  | 9   | 80 | 20 | M8x25                       | 38.74                           | 83.06                                        | 1.06                | 0.85                | 0.85                |
| TOH 30HA |                         |                |     |     |     |    |    |                             | 47.27                           | 110.13                                       | 1.4                 | 1.47                | 1.47                |



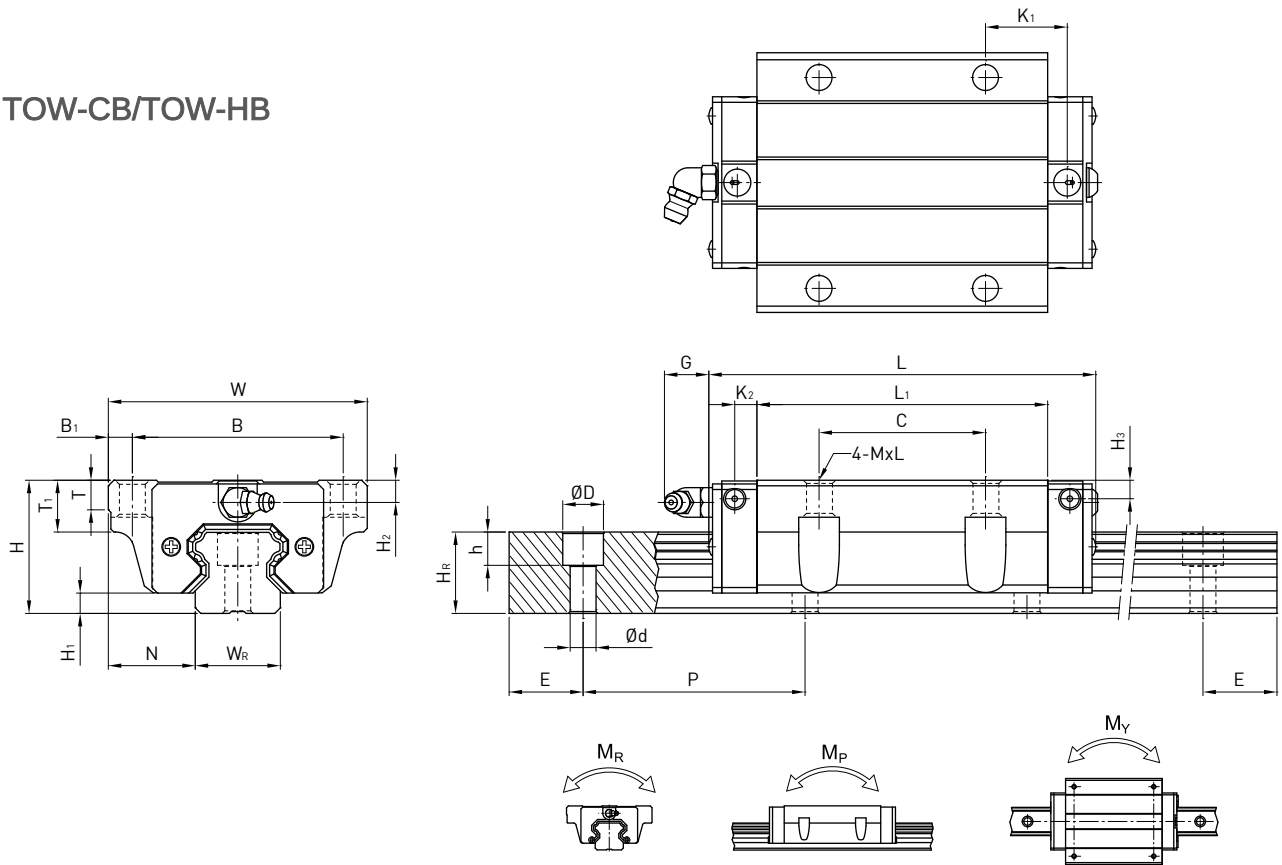
## TOW-CA / TOW-HA



| Spec.    | Dimensions of Assembly (mm) |                |      | Dimensions of Block (mm) |    |                |    |                |       |                |                |     |       |     |                |                |                |
|----------|-----------------------------|----------------|------|--------------------------|----|----------------|----|----------------|-------|----------------|----------------|-----|-------|-----|----------------|----------------|----------------|
|          | H                           | H <sub>1</sub> | N    | W                        | B  | B <sub>1</sub> | C  | L <sub>1</sub> | L     | K <sub>1</sub> | K <sub>2</sub> | G   | MxL   | T   | T <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> |
| TOW 15CA | 24                          | 4.3            | 16   | 34                       | 26 | 4              | 26 | 39.4           | 61.4  | 8              | 4.85           | 5.3 | M4x5  | 6   | 8.9            | 3.95           | 3.7            |
| TOW 20CA | 30                          | 4.6            | 21.5 | 44                       | 32 | 6              | 36 | 50.5           | 77.5  | 10.25          | 6              | 12  | M5x6  | 8   | 10             | 6              | 6              |
| TOW 20HA |                             |                |      |                          |    |                | 50 | 65.2           | 92.2  | 17.6           |                |     |       |     |                |                |                |
| TOW 25CA | 36                          | 5.5            | 23.5 | 48                       | 35 | 6.5            | 35 | 58             | 84    | 10.7           | 6              | 12  | M6x8  | 8   | 14             | 6              | 5              |
| TOW 25HA |                             |                |      |                          |    |                | 50 | 78.6           | 104.6 | 21             |                |     |       |     |                |                |                |
| TOW 30CA | 42                          | 6              | 31   | 60                       | 40 | 10             | 40 | 70             | 97.4  | 14.25          | 6              | 12  | M8x10 | 8.5 | 16             | 6.5            | 10.8           |
| TOW 30HA |                             |                |      |                          |    |                | 60 | 93             | 120.4 | 25.75          |                |     |       |     |                |                |                |

| Spec.    | Dimensions of Rail (mm) |                |     |     |     |    |    | Mounting Bolt for Rail<br>(mm) | Basic Dynamic Load Rating<br>C(kN) | Basic Static Load Rating<br>C <sub>0</sub> (kN) | Static Rated Moment    |                        |                        |
|----------|-------------------------|----------------|-----|-----|-----|----|----|--------------------------------|------------------------------------|-------------------------------------------------|------------------------|------------------------|------------------------|
|          | W <sub>R</sub>          | H <sub>R</sub> | D   | h   | d   | p  | E  |                                |                                    |                                                 | M <sub>R</sub><br>kN·m | M <sub>P</sub><br>kN·m | M <sub>V</sub><br>kN·m |
| TOW 15CA | 15                      | 15             | 7.5 | 5.3 | 4.5 | 60 | 20 | M4x16                          | 11.38                              | 25.38                                           | 0.17                   | 0.15                   | 0.15                   |
| TOW 20CA | 20                      | 17.5           | 9.5 | 8.5 | 6   | 60 | 20 | M5x16                          | 17.75                              | 37.84                                           | 0.38                   | 0.27                   | 0.27                   |
| TOW 20HA |                         |                |     |     |     |    |    |                                | 21.18                              | 48.84                                           | 0.48                   | 0.47                   | 0.47                   |
| TOW 25CA | 22                      | 22             | 11  | 9   | 7   | 60 | 20 | M6x20                          | 26.48                              | 56.19                                           | 0.64                   | 0.51                   | 0.51                   |
| TOW 25HA |                         |                |     |     |     |    |    |                                | 32.75                              | 76                                              | 0.87                   | 0.88                   | 0.88                   |
| TOW 30CA | 28                      | 26             | 14  | 12  | 9   | 80 | 20 | M8x25                          | 38.74                              | 83.06                                           | 1.06                   | 0.85                   | 0.85                   |
| TOW 30HA |                         |                |     |     |     |    |    |                                | 47.27                              | 110.13                                          | 1.4                    | 1.47                   | 1.47                   |

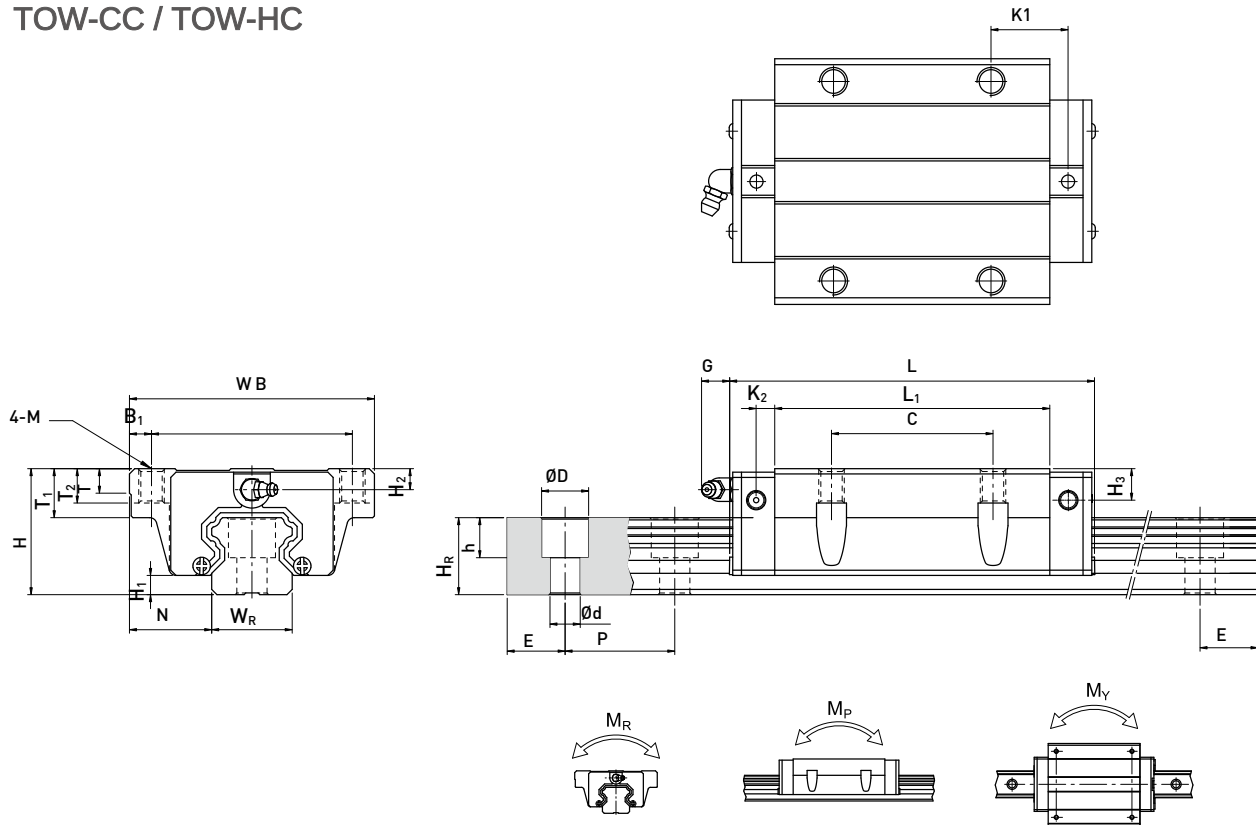
## TOW-CB/TOW-HB



| Spec.    | Dimensions of Assembly (mm) |                |      | Dimensions of Block (mm) |    |                |    |                |       |                |                |     |       |     |                |                |                |                |
|----------|-----------------------------|----------------|------|--------------------------|----|----------------|----|----------------|-------|----------------|----------------|-----|-------|-----|----------------|----------------|----------------|----------------|
|          | H                           | H <sub>1</sub> | N    | W                        | B  | B <sub>1</sub> | C  | L <sub>1</sub> | L     | K <sub>1</sub> | K <sub>2</sub> | G   | M×L   | T   | T <sub>1</sub> | T <sub>2</sub> | H <sub>2</sub> | H <sub>3</sub> |
| TOW 15CB | 24                          | 4.3            | 16   | 34                       | 26 | 4              | 26 | 39.4           | 61.4  | 8              | 4.85           | 5.3 | M4×5  | 6   | 8.9            | 6.95           | 3.95           | 3.7            |
| TOW 20CB | 30                          | 4.6            | 21.5 | 44                       | 32 | 6              | 36 | 50.5           | 77.5  | 10.25          | 6              | 12  | M5×6  | 8   | 10             | 9.5            | 6              | 6              |
| TOW 20HB |                             |                |      |                          |    |                | 50 | 65.2           | 92.2  | 17.6           |                |     |       |     |                |                |                |                |
| TOW 25CB | 40                          | 5.5            | 23.5 | 48                       | 35 | 6.5            | 35 | 58             | 84    | 10.7           | 6              | 12  | M6×8  | 8   | 14             | 10             | 6              | 5              |
| TOW 25HB |                             |                |      |                          |    |                | 50 | 78.6           | 104.6 | 21             |                |     |       |     |                |                |                |                |
| TOW 30CB | 45                          | 6              | 31   | 60                       | 40 | 10             | 40 | 70             | 97.4  | 14.25          | 6              | 12  | M8×10 | 8.5 | 16             | 10             | 6.5            | 10.8           |
| TOW 30HB |                             |                |      |                          |    |                | 60 | 93             | 120.4 | 25.75          |                |     |       |     |                |                |                |                |

| Spec.    | Dimensions of Rail (mm) |                |     |     |     |    |    | Mounting Bolt for Rail | Basic Dynamic Load Rating | Basic Static Load Rating | Static Rated Moment |                     |                     |
|----------|-------------------------|----------------|-----|-----|-----|----|----|------------------------|---------------------------|--------------------------|---------------------|---------------------|---------------------|
|          | W <sub>R</sub>          | H <sub>R</sub> | D   | h   | d   | p  | E  | (mm)                   | C(kN)                     | C <sub>0</sub> (kN)      | M <sub>R</sub> kN·m | M <sub>P</sub> kN·m | M <sub>Y</sub> kN·m |
| TOW 15CB | 15                      | 15             | 7.  | 5.  | 4.5 | 60 | 20 | M4×16                  | 11.38                     | 25.38                    | 0.17                | 0.15                | 0.15                |
| TOW 20CB | 20                      | 17.5           | 59. | 38. | 6   | 60 | 20 | M5×16                  | 17.75                     | 37.84                    | 0.38                | 0.27                | 0.27                |
| TOW 20HB |                         |                |     |     |     |    |    |                        | 21.18                     | 48.84                    | 0.48                | 0.47                | 0.47                |
| TOW 25CB | 22                      | 22             | 51  | 59  | 7   | 60 | 20 | M6×20                  | 26.48                     | 56.19                    | 0.64                | 0.51                | 0.51                |
| TOW 25HB |                         |                |     |     |     |    |    |                        | 32.75                     | 76                       | 0.87                | 0.88                | 0.88                |
| TOW 30CB | 28                      | 26             | 14  | 12  | 9   | 80 | 20 | M8×25                  | 38.74                     | 83.06                    | 1.06                | 0.85                | 0.85                |
| TOW 30HB |                         |                |     |     |     |    |    |                        | 47.27                     | 110.13                   | 1.4                 | 1.47                | 1.47                |

## TOW-CC / TOW-HC



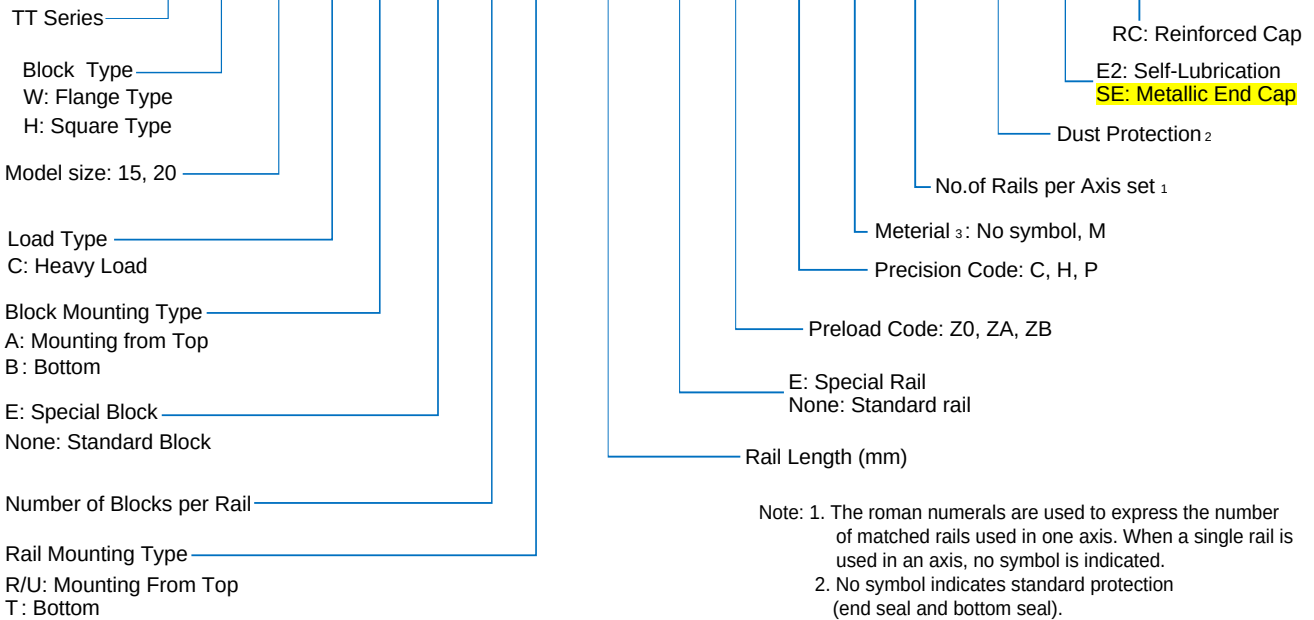
| Spec.    | Dimensions of Rail (mm) |                |     |     |     |    |    | Mounting Bolt for Rail<br>(mm) | Basic Dynamic Load Rating<br>C(kN) | Basic Static Load Rating<br>C <sub>0</sub> (kN) | Static Rated Moment    |                        |                        | Weight      |              |
|----------|-------------------------|----------------|-----|-----|-----|----|----|--------------------------------|------------------------------------|-------------------------------------------------|------------------------|------------------------|------------------------|-------------|--------------|
|          | W <sub>R</sub>          | H <sub>R</sub> | D   | h   | d   | p  | E  |                                |                                    |                                                 | M <sub>R</sub><br>kN·m | M <sub>P</sub><br>kN·m | M <sub>V</sub><br>kN·m | Block<br>kg | Rail<br>kg/m |
| TOW 15CC | 15                      | 15             | 7.5 | 5.3 | 4.5 | 60 | 20 | M4x16                          | 11.38                              | 25.38                                           | 0.17                   | 0.15                   | 0.15                   | 0.18        | 1.45         |
| TOW 20CC | 20                      | 17.5           | 9.5 | 8.5 | 6   | 60 | 20 | M5x16                          | 17.75                              | 37.84                                           | 0.38                   | 0.27                   | 0.27                   | 0.3         | 2.21         |
| TOW 20HC |                         |                |     |     |     |    |    |                                | 21.18                              | 48.84                                           | 0.48                   | 0.47                   | 0.47                   | 0.39        |              |
| TOW 25CC | 22                      | 22             | 11  | 9   | 7   | 60 | 20 | M6x20                          | 26.48                              | 56.19                                           | 0.64                   | 0.51                   | 0.51                   | 0.51        | 3.21         |
| TOW 25HC |                         |                |     |     |     |    |    |                                | 32.75                              | 76                                              | 0.87                   | 0.88                   | 0.88                   | 0.69        |              |
| TOW 30CC | 28                      | 26             | 14  | 12  | 9   | 80 | 20 | M8x25                          | 38.74                              | 83.06                                           | 1.06                   | 0.85                   | 0.85                   | 0.88        | 4.47         |
| TOW 30HC |                         |                |     |     |     |    |    |                                | 47.27                              | 110.13                                          | 1.4                    | 1.47                   | 1.47                   | 1.16        |              |

| Spec.    | Dimensions of Rail (mm) |                |     |     |     |    |    | Mounting Bolt for Rail<br>(mm) | Basic Dynamic Load Rating<br>C(kN) | Basic Static Load Rating<br>C <sub>0</sub> (kN) | Static Rated Moment    |                       |                        |
|----------|-------------------------|----------------|-----|-----|-----|----|----|--------------------------------|------------------------------------|-------------------------------------------------|------------------------|-----------------------|------------------------|
|          | W <sub>R</sub>          | H <sub>R</sub> | D   | h   | d   | p  | E  |                                |                                    |                                                 | M <sub>R</sub><br>kN·m | M <sub>P</sub><br>N·m | M <sub>V</sub><br>kN·m |
| TOW 15CC | 15                      | 15             | 7.5 | 5.3 | 4.5 | 60 | 20 | M4×16                          | 11.38                              | 25.38                                           | 0.1                    | 0.15                  | 0.15                   |
| TOW 20CC | 20                      | 17.5           | 9.5 | 8.5 | 6   | 60 | 20 | M5×16                          | 17.75                              | 37.84                                           | 0.38                   | 0.27                  | 0.27                   |
| TOW 20HC |                         |                |     |     |     |    |    |                                | 21.18                              | 48.84                                           | 0.48                   | 0.47                  | 0.47                   |
| TOW 25CC | 22                      | 22             | 11  | 9   | 7   | 60 | 20 | M6×20                          | 26.48                              | 56.19                                           | 0.64                   | 0.51                  | 0.51                   |
| TOW 25HC |                         |                |     |     |     |    |    |                                | 32.75                              | 76                                              | 0.87                   | 0.88                  | 0.88                   |
| TOW 30CC | 28                      | 26             | 14  | 12  | 9   | 80 | 20 | M8×25                          | 38.74                              | 83.06                                           | 1.06                   | 0.85                  | 0.85                   |
| TOW 30HC |                         |                |     |     |     |    |    |                                | 47.27                              | 110.13                                          | 1.4                    | 1.47                  | 1.47                   |

# TT Series

Model Number:

**TT W 15 C A E 2 R 1600 E ZA P M II + DD/ SE/RC**

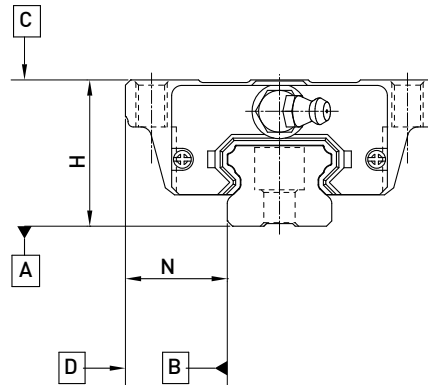


- Note: 1. The roman numerals are used to express the number of matched rails used in one axis. When a single rail is used in an axis, no symbol is indicated.
2. No symbol indicates standard protection (end seal and bottom seal).  
ZZ : End seal, bottom seal and scraper  
KK: Double seals, bottom seal and scraper.  
DD: Double seals and bottom seal
- 3.No symbol: Carbon Steel  
**M: Stainless Steel**
4. Maximum available length = 2000mm

## Accuracy Classes:

Unit: mm

| Item                              | TT - 15, 20 |          |               |
|-----------------------------------|-------------|----------|---------------|
| Accuracy Classes                  | Normal (C)  | High (H) | Precision (P) |
| Dimensional tolerance of height H | ± 0.1       | ± 0.03   | 0<br>- 0.03   |
| Dimensional tolerance of width N  | ± 0.1       | ± 0.03   | 0<br>- 0.03   |
| Variation of height H             | 0.02        | 0.01     | 0.006         |
| Variation of width N              | 0.02        | 0.01     | 0.006         |



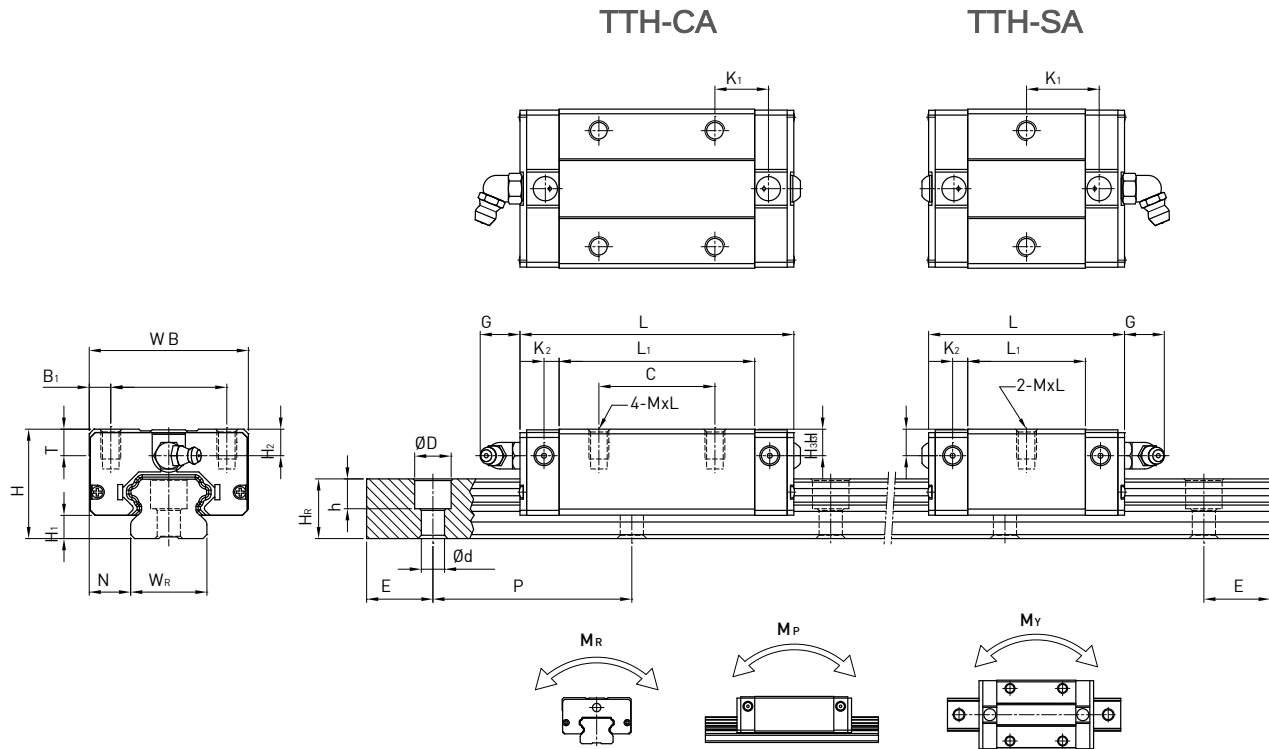
## Accuracy of Running Parallelism:

| Rail Length (mm) | Accuracy (μm) |    |    |
|------------------|---------------|----|----|
|                  | C             | H  | P  |
| ~ 100            | 12            | 7  | 3  |
| 100 ~ 200        | 14            | 9  | 4  |
| 200 ~ 300        | 15            | 10 | 5  |
| 300 ~ 500        | 17            | 12 | 6  |
| 500 ~ 700        | 20            | 13 | 7  |
| 700 ~ 900        | 22            | 15 | 8  |
| 900 ~ 1,100      | 24            | 16 | 9  |
| 1,100 ~ 1,500    | 26            | 18 | 11 |
| 1,500 ~ 1,900    | 28            | 20 | 13 |
| 1,900 ~ 2,000    | 31            | 22 | 15 |

## Preload Classes:

| Class          | Code | Preload      | Condition                                                  |
|----------------|------|--------------|------------------------------------------------------------|
| Light Preload  | Z0   | 0~ 0.02C     | Certain load direction, low impact, low precision required |
| Medium Preload | ZA   | 0.05C~0.07C  | High precision required                                    |
| Heavy Preload  | ZB   | 0.10C~ 0.12C | High rigidity required, with vibration and impact          |

## Dimensions for TT Series Stainless Steel Linear Guides

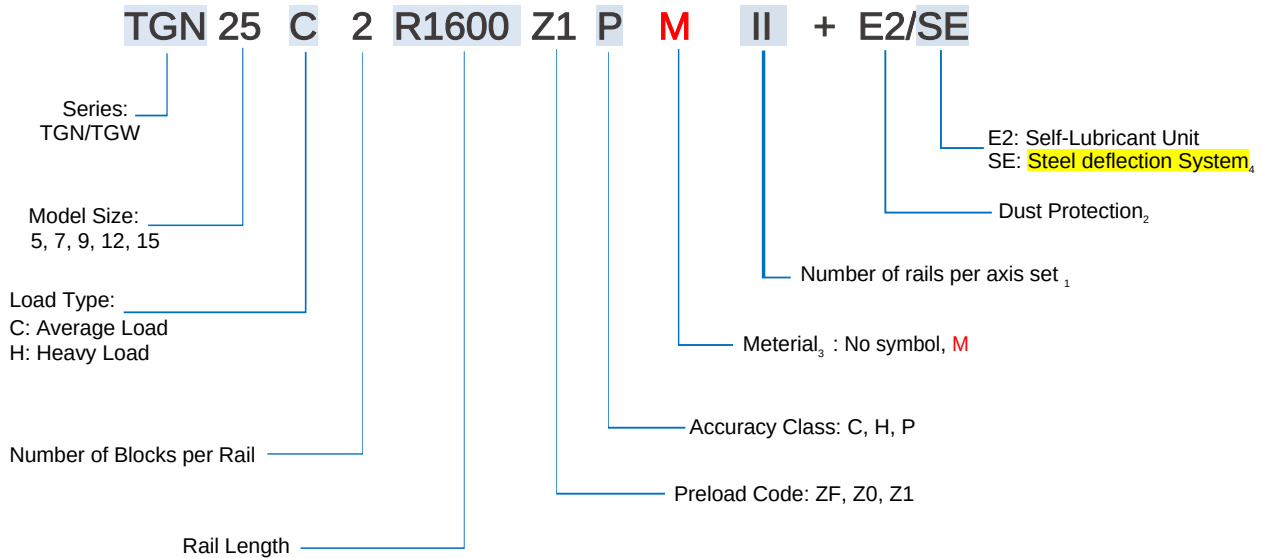


| Spec.    | Dimensions of Assembly (mm) |                |     | Dimensions of Block (mm) |    |                |    |                |      |                |                |     |      |     |                |                | Static Rated Moment    |                        |                        |
|----------|-----------------------------|----------------|-----|--------------------------|----|----------------|----|----------------|------|----------------|----------------|-----|------|-----|----------------|----------------|------------------------|------------------------|------------------------|
|          | H                           | H <sub>1</sub> | N   | W                        | B  | B <sub>1</sub> | C  | L <sub>1</sub> | L    | K <sub>1</sub> | K <sub>2</sub> | G   | M×L  | T   | H <sub>2</sub> | H <sub>3</sub> | M <sub>R</sub><br>kN·m | M <sub>p</sub><br>kN·m | M <sub>y</sub><br>kN·m |
| TTH 15SA | 24                          | 4.5            | 9.5 | 34                       | 26 | 4              | -  | 23.1           | 40.1 | 14.8           | 3.5            | 5.7 | M4×6 | 6   | 5.5            | 6              | 0.08                   | 0.04                   | 0.04                   |
| TTH 15CA |                             |                |     |                          |    |                | 26 | 39.4           | 61.4 | 10.15          |                |     |      |     |                |                | 0.13                   | 0.1                    | 0.1                    |
| TTH 20SA | 28                          | 6              | 11  | 42                       | 32 | 5              | -  | 29             | 50   | 18.75          | 4.15           | 12  | M5×6 | 7.5 | 6              | 6              | 0.13                   | 0.06                   | 0.06                   |
| TTH 20CA |                             |                |     |                          |    |                | 32 | 48.1           | 69.1 | 12.3           |                |     |      |     |                |                | 0.22                   | 0.16                   | 0.16                   |

| Spec.   | Dimensions of Rail (mm) |                |     |     |     |    |    | Mounting Bolt for Rail | Basic Dynamic Load Rating | Basic Static Load Rating |
|---------|-------------------------|----------------|-----|-----|-----|----|----|------------------------|---------------------------|--------------------------|
|         | W <sub>R</sub>          | H <sub>R</sub> | D   | h   | d   | p  | E  | (mm)                   | C(kN)                     | C <sub>0</sub> (kN)      |
| TTR15R  | 15                      | 12.5           | 6   | 4.5 | 3.5 | 60 | 20 | M4×16                  | 5.35                      | 9.4                      |
|         |                         |                |     |     |     |    |    |                        | 7.83                      | 16.19                    |
| TTR 20R | 20                      | 15.5           | 9.5 | 8.5 | 6   | 60 | 20 | M5×20                  | 7.23                      | 12.74                    |
|         |                         |                |     |     |     |    |    |                        | 10.31                     | 21.13                    |

## TG Series

Model Number:



Note: 1. The roman numerals express a matched set of rails.

2. No symbol indicates standard protection;  
Optional bottom seals for TGN/TGW size 12/15.

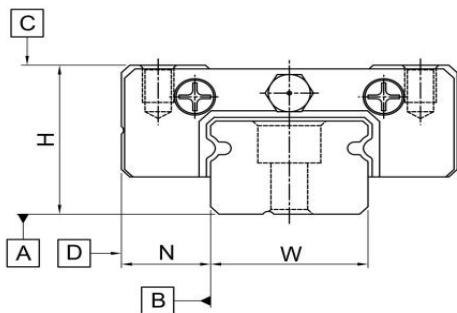
3. No symbol: Carbon Steel;  
**M**: **Stainless Steel**

4. **SE: steel deflection system** is available for TGN7/9/12/15 and TGW12/15;  
5. Maximum available length =2000mm

### Accuracy Classes:

Unit: mm

| Item                              | TG 5, 7, 9, 12, 15 |          |               |
|-----------------------------------|--------------------|----------|---------------|
|                                   | Normal (C)         | High (H) | Precision (P) |
| Dimensional tolerance of height H | ± 0.04             | ± 0.02   | ± 0.01        |
| Dimensional tolerance of width N  | ± 0.1              | ± 0.03   | 0<br>- 0.03   |
| Variation of height H             | 0.02               | 0.01     | 0.006         |
| Variation of width N              | 0.02               | 0.01     | 0.006         |

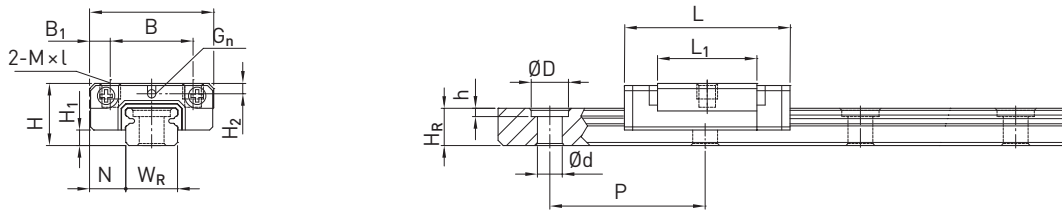


### Accuracy of Running Parallelism:

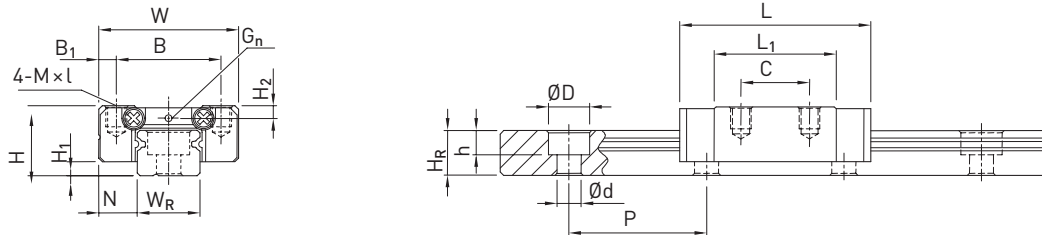
| Rail Length(mm) | Accuracy(μm) |     |     |
|-----------------|--------------|-----|-----|
|                 | (C)          | (H) | (P) |
| 0               | 12           | 6   | 2   |
| 50-80           | 13           | 7   | 3   |
| 80-125          | 14           | 8   | 3.5 |
| 125-200         | 15           | 9   | 4   |
| 200-250         | 16           | 10  | 5   |
| 250-315         | 17           | 11  | 5   |
| 315-400         | 18           | 11  | 6   |
| 400-500         | 19           | 12  | 6   |
| 500-630         | 20           | 13  | 7   |
| 630-800         | 22           | 14  | 8   |
| 800-1000        | 23           | 16  | 9   |
| 1000-1200       | 25           | 18  | 11  |
| 1200-1300       | 25           | 18  | 11  |
| 1300-1400       | 26           | 19  | 12  |
| 1400-1500       | 27           | 19  | 12  |
| 1500-1600       | 28           | 20  | 13  |
| 1600-1700       | 29           | 20  | 14  |
| 1700-1800       | 30           | 21  | 14  |
| 1800-1900       | 30           | 21  | 15  |
| 1900-2000       | 31           | 22  | 15  |

## Dimensions for TG Series Stainless Steel Linear Guides

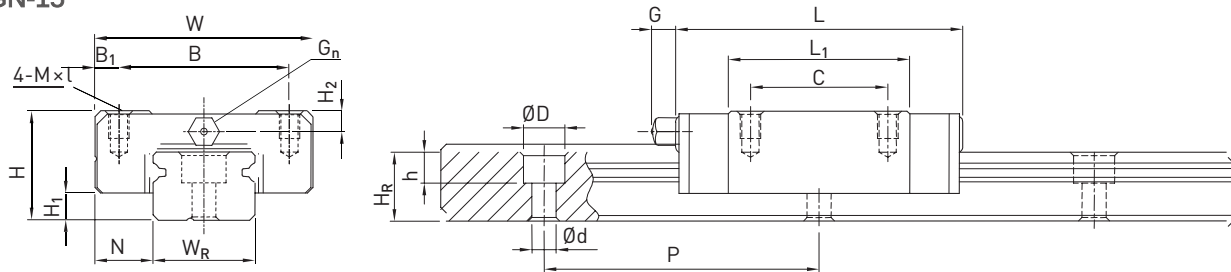
### TGN-05



### TGN-05, TGN-07, TGN-09, TGN-12



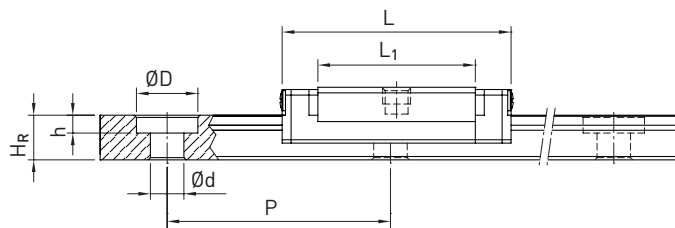
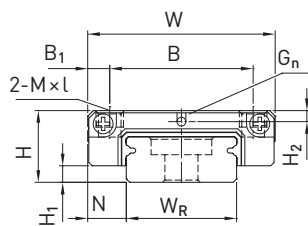
### TGN-15



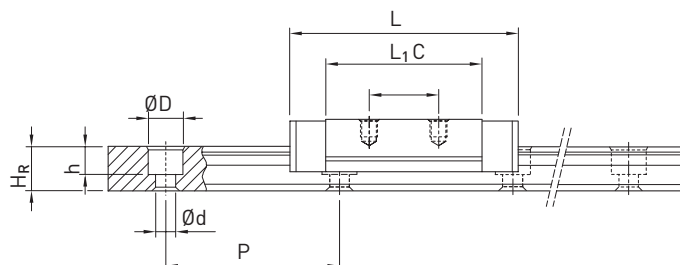
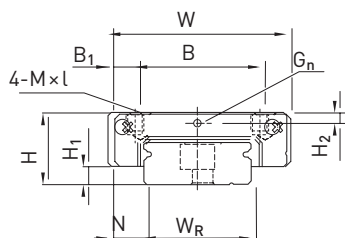
| Spec.  | Dimensions of Assembly(mm) |                |     | Dimensions of Block (mm) |    |                |    |                |      |     |                |        |                |
|--------|----------------------------|----------------|-----|--------------------------|----|----------------|----|----------------|------|-----|----------------|--------|----------------|
|        | H                          | H <sub>1</sub> | N   | W                        | B  | B <sub>1</sub> | C  | L <sub>1</sub> | L    | G   | G <sub>n</sub> | M×l    | H <sub>2</sub> |
| TGN5C  | 6                          | 1.5            | 3.5 | 12                       | 8  | 2              | -  | 9.6            | 16   | -   | 0.8            | M2×1.5 | 1              |
| TGN5H  |                            |                |     |                          |    |                |    | 12.6           | 19   |     |                |        |                |
| TGN7C  | 8                          | 1.5            | 5   | 17                       | 12 | 2.5            | 8  | 13.5           | 22.5 | -   | 1.2            | M2×2.5 | 1.5            |
| TGN7H  |                            |                |     |                          |    |                | 13 | 21.8           | 30.8 |     |                |        |                |
| TGN9C  | 10                         | 2              | 5.5 | 20                       | 15 | 2.5            | 10 | 18.9           | 28.9 | -   | 1.4            | M3×3   | 1.8            |
| TGN9H  |                            |                |     |                          |    |                | 16 | 29.9           | 39.9 |     |                |        |                |
| TGN12C | 13                         | 3              | 7.5 | 27                       | 20 | 3.5            | 15 | 21.7           | 34.7 | -   | 2              | M3×3.5 | 2.5            |
| TGN12H |                            |                |     |                          |    |                | 20 | 32.4           | 45.4 |     |                |        |                |
| TGN15C | 16                         | 4              | 8.5 | 32                       | 25 | 3.5            | 20 | 26.7           | 42.1 | 4.5 | M3             | M3×4   | 3              |
| TGN15H |                            |                |     |                          |    |                | 25 | 43.4           | 58.8 |     |                |        |                |

| Spec.  | Dimensions of Rail (mm) |                |     |     |     |    |     | Mounting Bolt for Rail<br>(mm) | Basic Dynamic Load Rating<br>C(kN) | Basic Static Load Rating<br>C <sub>0</sub> (kN) |
|--------|-------------------------|----------------|-----|-----|-----|----|-----|--------------------------------|------------------------------------|-------------------------------------------------|
|        | W <sub>R</sub>          | H <sub>R</sub> | D   | h   | d   | P  | E   |                                |                                    |                                                 |
| TGN5C  | 5                       | 3.6            | 3.6 | 0.8 | 2.4 | 15 | 4   | M2×6*                          | 0.54                               | 0.84                                            |
| TGN5H  |                         |                |     |     |     |    |     |                                | 0.67                               | 1.08                                            |
| TGN7C  | 7                       | 4.8            | 4.2 | 2.3 | 2.4 | 15 | 5   | M2×6                           | 0.98                               | 1.24                                            |
| TGN7H  |                         |                |     |     |     |    |     |                                | 1.37                               | 1.96                                            |
| TGN9C  | 9                       | 6.5            | 6   | 3.5 | 3.5 | 20 | 7.5 | M3×8                           | 1.86                               | 2.55                                            |
| TGN9H  |                         |                |     |     |     |    |     |                                | 2.55                               | 4.02                                            |
| TGN12C | 12                      | 8              | 6   | 4.5 | 3.5 | 25 | 10  | M3×8                           | 2.84                               | 3.92                                            |
| TGN12H |                         |                |     |     |     |    |     |                                | 3.72                               | 5.88                                            |
| TGN15C | 15                      | 10             | 6   | 4.5 | 3.5 | 40 | 15  | M3×10                          | 4.61                               | 5.59                                            |
| TGN15H |                         |                |     |     |     |    |     |                                | 6.37                               | 9.11                                            |

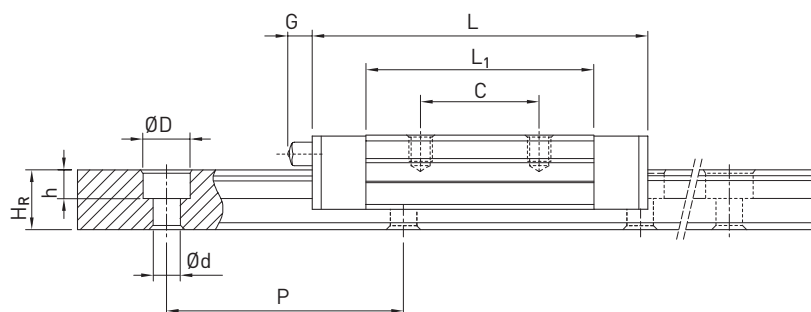
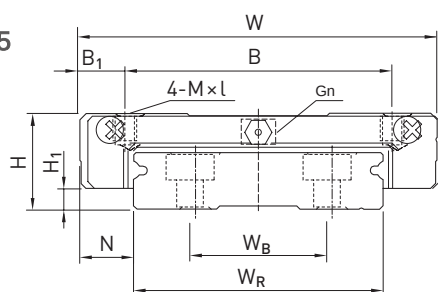
## TGW-05



## TGW-05, TGW-07, TGW-09, TGW-12



## TGN-15



| Spec.  | Dimensions of Assembly(mm) |                |     | Dimensions of Block (mm) |    |                |    |                |      |     |                |        |                |
|--------|----------------------------|----------------|-----|--------------------------|----|----------------|----|----------------|------|-----|----------------|--------|----------------|
|        | H                          | H <sub>1</sub> | N   | W                        | B  | B <sub>1</sub> | C  | L <sub>1</sub> | L    | G   | G <sub>n</sub> | M×l    | H <sub>2</sub> |
| TGW5C  | 6                          | 1.5            | 3.5 | 12                       | 8  | 2              | -  | 9.6            | 16   | -   | 0.8            | M2×1.5 | 1              |
| TGW5H  |                            |                |     |                          |    |                |    | 12.6           | 19   |     |                |        |                |
| TGW7C  | 8                          | 1.5            | 5   | 17                       | 12 | 2.5            | 8  | 13.5           | 22.5 | -   | 1.2            | M2×2.5 | 1.5            |
| TGW7H  |                            |                |     |                          |    |                | 13 | 21.8           | 30.8 |     |                |        |                |
| TGW9C  | 10                         | 2              | 5.5 | 20                       | 15 | 2.5            | 10 | 18.9           | 28.9 | -   | 1.4            | M3×3   | 1.8            |
| TGW9H  |                            |                |     |                          |    |                | 16 | 29.9           | 39.9 |     |                |        |                |
| TGW12C | 13                         | 3              | 7.5 | 27                       | 20 | 3.5            | 15 | 21.7           | 34.7 | -   | 2              | M3×3.5 | 2.5            |
| TGW12H |                            |                |     |                          |    |                | 20 | 32.4           | 45.4 |     |                |        |                |
| TGW15C | 16                         | 4              | 8.5 | 32                       | 25 | 3.5            | 20 | 26.7           | 42.1 | 4.5 | M3             | M3×4   | 3              |
| TGW15H |                            |                |     |                          |    |                | 25 | 43.4           | 58.8 |     |                |        |                |

| Spec.  | Dimensions of Rail (mm) |                |     |     |     |    |     | Mounting Bolt for Rail | Basic Dynamic Load Rating | Basic Static Load Rating |
|--------|-------------------------|----------------|-----|-----|-----|----|-----|------------------------|---------------------------|--------------------------|
|        | W <sub>R</sub>          | H <sub>R</sub> | D   | h   | d   | P  | E   | (mm)                   | C(kN)                     | C <sub>0</sub> (kN)      |
| TGW5C  | 5                       | 3.6            | 3.6 | 0.8 | 2.4 | 15 | 4   | M2×6*                  | 0.54                      | 0.84                     |
| TGW5H  |                         |                |     |     |     |    |     |                        | 0.67                      | 1.08                     |
| TGW7C  | 7                       | 4.8            | 4.2 | 2.3 | 2.4 | 15 | 5   | M2×6                   | 0.98                      | 1.24                     |
| TGW7H  |                         |                |     |     |     |    |     |                        | 1.37                      | 1.96                     |
| TGW9C  | 9                       | 6.5            | 6   | 3.5 | 3.5 | 20 | 7.5 | M3×8                   | 1.86                      | 2.55                     |
| TGW9H  |                         |                |     |     |     |    |     |                        | 2.55                      | 4.02                     |
| TGW12C | 12                      | 8              | 6   | 4.5 | 3.5 | 25 | 10  | M3×8                   | 2.84                      | 3.92                     |
| TGW12H |                         |                |     |     |     |    |     |                        | 3.72                      | 5.88                     |
| TGW15C | 15                      | 10             | 6   | 4.5 | 3.5 | 40 | 15  | M3×10                  | 4.61                      | 5.59                     |
| TGW15H |                         |                |     |     |     |    |     |                        | 6.37                      | 9.11                     |



# Heat-Resistant Linear Guides

For continuous operation at temperatures above 80 °C, "solid steel" blocks with steel deflection systems are used. The standard end seals are replaced by heat-resistant end seals and the plastic cover caps of the profile rail by brass cover caps.

## Special properties:

- Good temperature resistance.
- Operating temperature up to 150°C.
- Temperature peaks of up to 180°C.

## Application areas:

- Devices for heat treatment.
- Welding devices.
- Devices for glass production.
- Devices for use in a vacuum.



Series with available steel deflection system option

| Series | Size                           |
|--------|--------------------------------|
| TO     | 15, 20, 25, 30, 35, 45, 55, 65 |
| TT     | 20, 25                         |
| TGN    | 7, 9, 12, 15                   |
| TGW    | 12, 15                         |

Article number:

For the steel deflection system option, add identifier "/SE" to the order code.  
See the structure of the order code in the chapter on the individual series.

Order example: **TO** **W** **25** **C** **C** **ZA** **H** **ZZ** **SE**

Note:

Heat-resistant linear guideways with steel deflector generally have poorer running properties than comparable standard linear guideways with plastic deflector and are always supplied assembled as linear guideways.

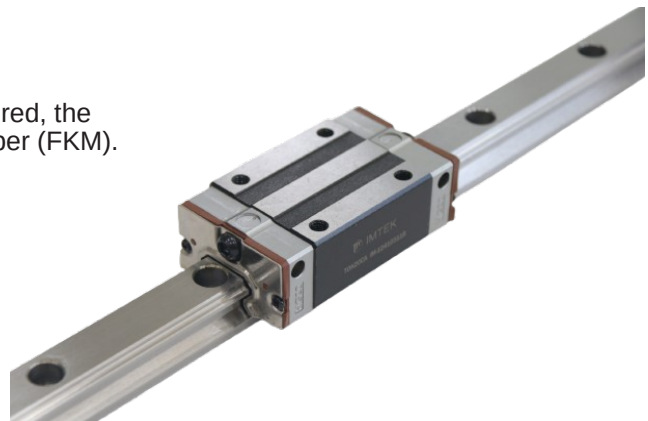
## Optional Accessory - Fluro Rubber Scraper

If the dust protection of special working condition is required, the linear slider's end sealings should be made of fluoro rubber (FKM).

Series with available fluoro rubber scraper option

| Series | Size                           |
|--------|--------------------------------|
| TO     | 15, 20, 25, 30, 35, 45, 55, 65 |
| TT     | 20, 25                         |
| TGN    | 7, 9, 12, 15                   |
| TGW    | 12, 15                         |

Article number: For the steel deflection system option, add identifier "/FKM" to the order code.



# IMTEK Coating Type: Blacking Chrome Plating

General surface treatments applied to IMTEK linear guides to enhance corrosion resistance, wear protection, and durability. Includes plating, resin films, and chemical layers, selected according to the operating environment.

## Features and properties:

A dark, low-glare electroplated coating that protects linear guides from corrosion and wear. Ideal for humid, chemical, or precision environments, it extends service life and ensures stable performance.

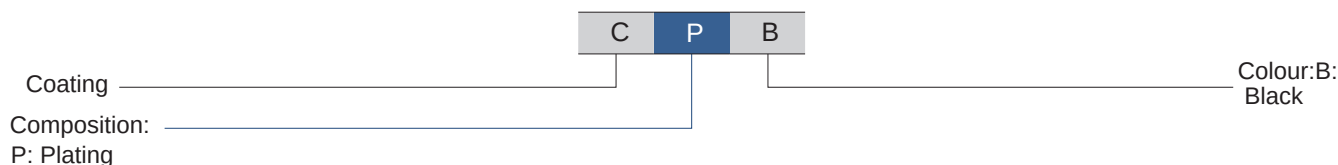
## Specific features:

- Dark, low-glare surface for optical or vision-system environments
- Excellent corrosion resistance compared with bare steel
- Enhanced surface hardness and wear resistance
- Stable performance against coolant, cutting fluids, and humidity
- Suitable for precision linear motion applications

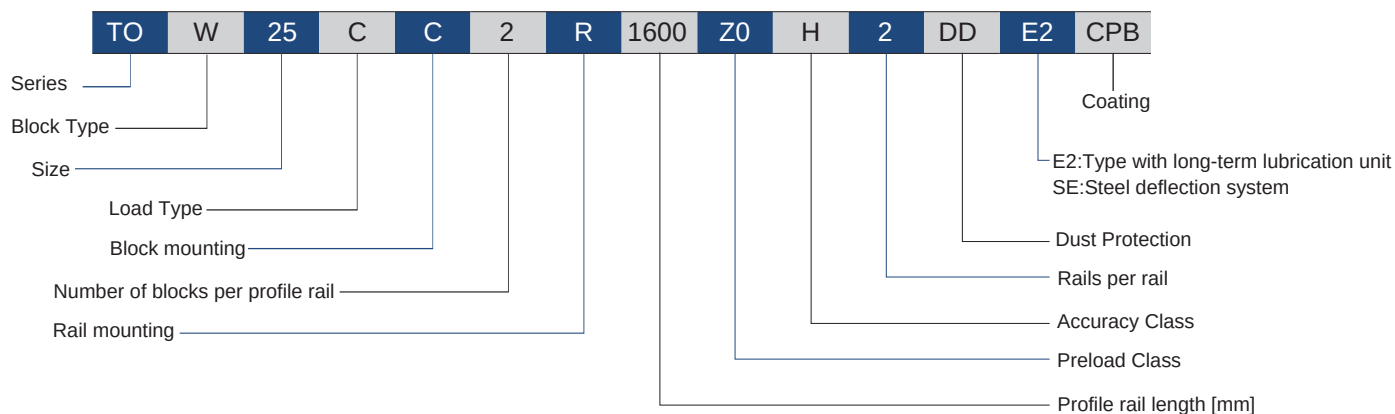
## Technical data:

- Salt spray test according to DIN EN ISO 9227 (with unloaded rail): 24 hours
- Maximum rail length (one-piece): 4.0 meters

## Order code for CPB coatings



## Order code for linear guideway (assembled)



# IMTEK Coating Type: Blacking Chrome Synthetic Resin Coating

CCB is a very thin chromium oxide layer with a cured synthetic resin coating. It is characterised by good corrosion protection combined with very good running properties. The very thin layer thickness enables use with all IMTEK linear guideways, especially with the TG and TZ series.

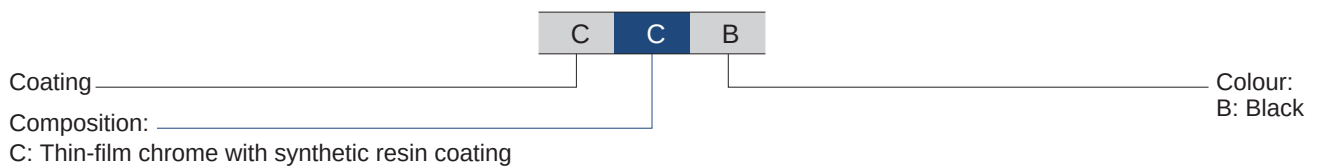
## Features and properties:

- Very thin layer thickness
- Very good running properties
- Good corrosion protection
- Cr(VI)-free
- Including coated rail end
- Available from Taiwan stock..

## Technical data:

- Salt spray test according to DIN EN ISO 9227 (with unloaded rail): 24 hours
- Maximum rail length (one-piece): 4.0 meters

## Order code for CCB coatings



## Corrosion test

CCB-coated profile rails were tested in comparison with an uncoated profile rail.



New rail in CCB coating

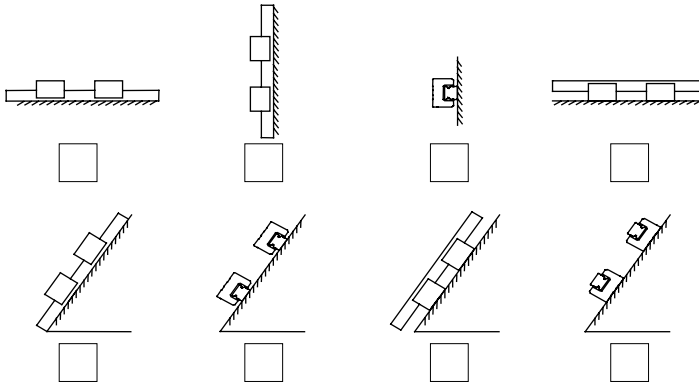
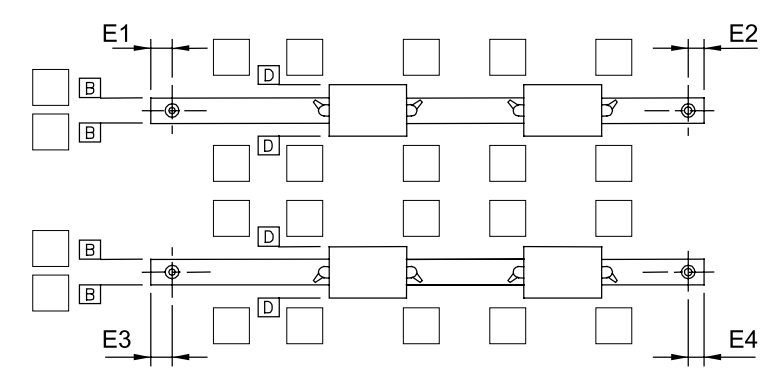


Rail with CCB coating -  
after 24 hours of salt  
spray test (according to  
DIN EN ISO 9227)



Uncoated rail – after 4  
hours of salt spray test

# IMTEK Linear Guides Inquiry Form

|                                                                                                                                          |                                                                                                                                                                                                                                                            |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|
| Customer:                                                                                                                                |                                                                                                                                                                                                                                                            | Date:       |  |
| Tel.                                                                                                                                     |                                                                                                                                                                                                                                                            | Fax.        |  |
| Machine Type                                                                                                                             |                                                                                                                                                                                                                                                            | Confirm by  |  |
| Axis                                                                                                                                     |                                                                                                                                                                                                                                                            | Drawing No. |  |
| <input type="checkbox"/> X <input type="checkbox"/> Y <input type="checkbox"/> Z <input type="checkbox"/> Other (                      ) |                                                                                                                                                                                                                                                            |             |  |
| Install Position                                                                                                                         |                                                                                                                                                                          |             |  |
| No. of Rail Per Axis                                                                                                                     | <input type="checkbox"/> I (1) <input type="checkbox"/> II (2) <input type="checkbox"/> III (3) <input type="checkbox"/> Other                                                                                                                             |             |  |
| Model Series                                                                                                                             | <input type="checkbox"/> TO <input type="checkbox"/> TT <input type="checkbox"/> TZ <input type="checkbox"/> TG                                                                                                                                            |             |  |
| Material                                                                                                                                 | <input type="checkbox"/> Carbon steel <input type="checkbox"/> Stainless steel                                                                                                                                                                             |             |  |
| Environment                                                                                                                              |                                                                                                                                                                                                                                                            |             |  |
| Special Option                                                                                                                           | <input type="checkbox"/> Steel end cap (SE) <input type="checkbox"/> Self Lubrication (E2)                                                                                                                                                                 |             |  |
| Dust Protection                                                                                                                          | <input type="checkbox"/> Double end seal + Bottom seal (DD) <input type="checkbox"/> Double end seal + Scraper + Bottom seal (KK)<br><input type="checkbox"/> End seal + Scraper + Bottom seal (ZZ) <input type="checkbox"/> End seal + Fluro Rubber (FKM) |             |  |
| Lubrication                                                                                                                              | <input type="checkbox"/> Grease nipple (Grease) <input type="checkbox"/> Piping joint (Oil) <input type="checkbox"/> Other                                                                                                                                 |             |  |
| Rail Mounting                                                                                                                            | <input type="checkbox"/> R (from top) <input type="checkbox"/> T (from bottom) <input type="checkbox"/> U (from top with bolt hole enlarged)                                                                                                               |             |  |
| Butt-joint                                                                                                                               | <input type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                   |             |  |
| Reference Surface and Injection Direction                                                                                                | <p>Please mark " X " in the <input type="checkbox"/> to indicate the filling directions.</p>                                                                           |             |  |