

E2 Type

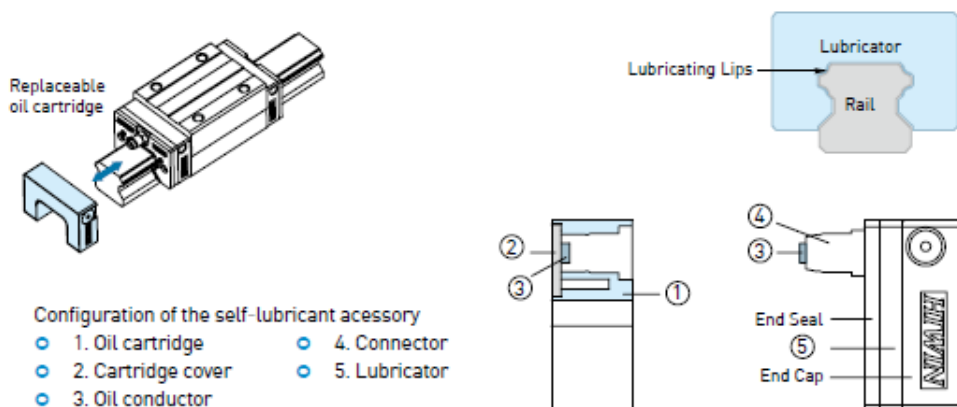
Self Lubrication Kit

2-13 E2 Type - Self lubrication Kit for Linear Guideway

2-13-1 Construction of E2 Type

E2 self-lubricating linear guideway contains a lubricator between the end cap and end seal. Outside of the block is equipped with a replaceable oil cartridge, the configuration of which is listed below.

Lubrication oil flows from the replaceable oil cartridge to the lubricator and then lubricates grooves of rails. The Oil cartridge comprises a oil conductor with 3D structure that enables the lubricator to contact oil despite that blocks are placed at a random position, and thus the lubrication oil inside the oil cartridge can be used up via capillary action.



2-13-2 Feature of E2 Type

(1) Cost reduction: Save costs by reducing oil usage and maintenance.

Table 2-13-1

Item	Standard Block	E2 (Self-lubricant) Block
Lubricant device	\$ XXX	-
Design and installation of lubricant device	\$ XXX	-
Cost of oil purchase	0.3cc / hr x 8hrs / day x 280 days / year x 5 year = 3360 cc x cost / cc = \$ XXX	10 cc(5 years 10000km) x cost/cc = \$ XX
Cost of refill	3-5hrs / time x 3-5times / year x 5year x cost / time = \$ XXX	-
Waste oil disposal	3-5 times / year x 5year x cost / time = \$ XXX	-

- (2) Clean and environmentally friendly: Optimized oil usage prevents leaking, making it the ideal solution for clean working environments.
- (3) Long lasting and low maintenance: Self-lubricating block is maintenance free in most applications.
- (4) No installation limitations: The linear guideway can be lubricated by E2 self-lubricating module irrespective of mounting directions.
- (5) Easy to be assembled and disassembled: The cartridge can be added or removed from the block even when the guideway is installed on a machine.
- (6) Different oils can be selected: The replaceable oil cartridge can be refilled with any approved lubrication oil depending on different requirements.
- (7) Applications for special environments: Sealing grease into the block leads to better lubrication effects, especially in dusty, dirty, or wet environments.

2-13-3 Applications

- (1) Automation machinery
- (2) Manufacturing Machines : Injection molding machines, printing, paper making, textile machines, food processing machines, wood working machines, and so on.
- (3) Electronic Machinery : Semiconductor equipment, robotics, X-Y table, measuring and inspecting equipment.
- (4) Others : Medical equipment, transporting equipment, construction equipment.

2-13-4 Specification

- (1) Add "/ E2" after the specification of linear guideway
Ex. HGW25CC2R1600ZAPII + ZZ / E2

2-13-5 Lubrication Capability

- (1) Life testing with light load

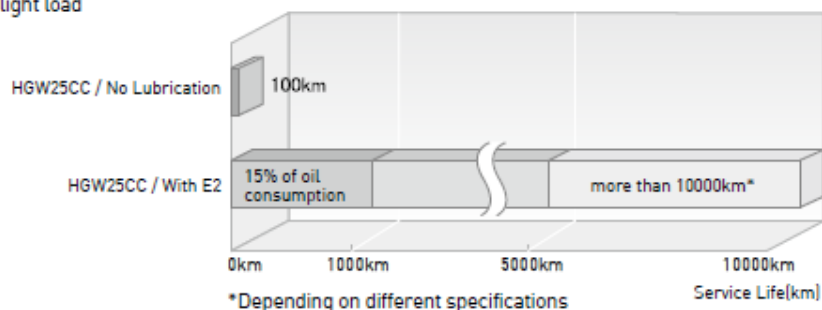


Table 2-13-2 Test condition

Model No.	HGW25CC
Speed	60m / min
Stroke	1500mm
Load	500kgf

- (2) Characteristic of lubricating oil

The standard oil is a fully synthetic lubricant with a main constituent, synthetic hydrocarbons (PAO). The viscosity class of the oil is 680 (ISO VG680). Its characteristics are as follows.

- Compatible with lubrication grease of which the base oil is synthetic hydrocarbon oil, mineral oil or ester oil.
 - Synthetic oil with superb high temperature thermal/oxidation resistance.
 - High viscosity index to provide outstanding performance in service applications at extremely high and low temperatures.
 - Low traction coefficient to reduce power consumption.
 - Anti-corrosion and rust-proof.
- * Lubricants with the same viscosity class can also be used; however, their compatibility should be taken into consideration.

2-13-6 Temperature Range for Application

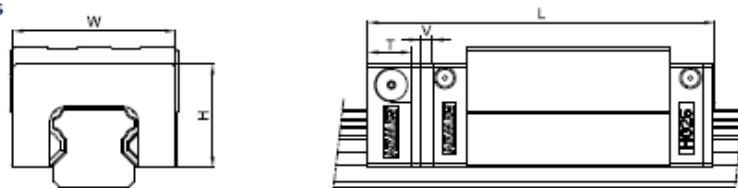
Not for high heat environments exceeding 50°C and lower than -10°C. Please contact with HIWIN for further discussion and information if the temperature is out of this range.

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2-13-7 Dimension Table for E2 Type

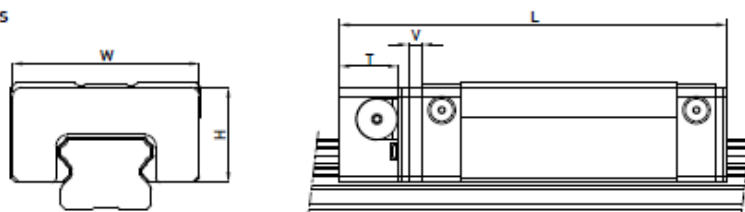
(1) HG Series



Model No.	E2 self-lubricating module dimensions							
	W	H	T	V	L SS	ZZ	DD	KK
HG15C	32.4	19.5	12.5	3.0	75.4 (75.6)	82.5 (82.7)	82.0 (82.2)	89.1 (89.3)
HG20C	43.0	24.4	13.5	3.5	93.5 (94.4)	97.5 (98.5)	98.5 (99.4)	102.5 (103.5)
HG20H					108.2 (109.1)	112.2 (113.2)	113.2 (114.1)	117.2 (118.2)
HG25C	46.4	29.5	13.5	3.5	100.0 (100.5)	104.0 (105.0)	105.0 (105.5)	109.0 (110.0)
HG25H					120.6 (121.1)	124.6 (125.6)	125.6 (126.1)	129.6 (130.6)
HG30C	58.0	35.0	13.5	3.5	112.9 (113.9)	120.4 (121.4)	120.3 (121.3)	127.8 (128.8)
HG30H					135.9 (136.9)	143.4 (144.4)	143.3 (144.3)	150.8 (151.8)
HG35C	68.0	38.5	13.5	3.5	127.9 (128.9)	135.4 (136.4)	135.3 (136.3)	142.8 (143.8)
HG35H					153.7 (154.7)	161.2 (162.2)	161.1 (162.1)	168.6 (169.6)
HG45C	82.0	49.0	16.0	4.5	157.2 (157.2)	166.5 (166.5)	167.2 (167.2)	176.5 (176.5)
HG45H					189.0 (189.0)	198.3 (198.3)	199.0 (199.0)	208.3 (208.3)
HG55C	97.0	55.5	16.0	4.5	183.9 (183.9)	193.6 (193.6)	194.3 (194.3)	204.0 (204.0)
HG55H					222.0 (222.0)	231.7 (231.7)	232.4 (232.4)	242.1 (242.1)
HG65C	121.0	69.0	16.0	4.5	219.2 (219.2)	224.7 (224.7)	228.2 (228.2)	233.7 (233.7)
HG65H					278.6 (278.6)	284.1 (284.1)	287.6 (287.6)	293.1 (293.1)

Note : The marking of " [] " denotes the maximum block length with screws, lips of end seals, etc.

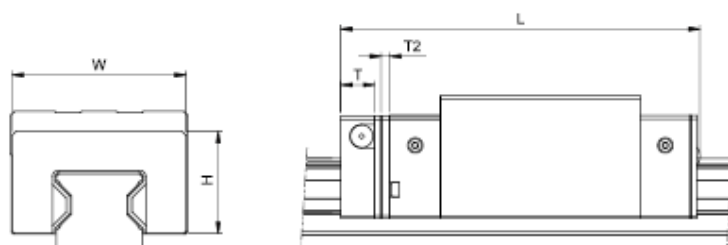
(2) EG Series



Model No.	E2 self-lubricating module dimensions							
	W	H	T	V	L SS	ZZ	DD	KK
EG15S	33.3	18.7	11.5	3.0	54.6 (55.8)	56.2 (58.4)	58.6 (59.8)	60.2 (62.4)
EG15C					71.3 (72.5)	72.9 (75.1)	75.3 (76.5)	76.9 (79.1)
EG20S	41.3	20.9	13.0	3.0	66.0 (68.0)	67.6 (70.6)	70.0 (72.0)	71.6 (74.6)
EG20C					85.1 (87.1)	86.7 (89.7)	89.1 (91.1)	90.7 (93.7)
EG25S	47.3	24.9	13.0	3.0	75.1 (77.1)	77.1 (80.1)	79.1 (81.1)	81.1 (84.1)
EG25C					98.6 (100.6)	100.6 (103.6)	102.6 (104.6)	104.6 (107.6)
EG30S	59.3	31.0	13.0	3.0	85.5 (87.5)	87.5 (90.5)	89.5 (91.5)	91.5 (94.5)
EG30C					114.1 (116.1)	116.1 (119.1)	118.1 (120.1)	120.1 (123.1)
EG35S	68.0	33.5	13.0	3.0	91.0 (93.0)	94.0 (97.0)	95.0 (97.0)	98.0 (101.0)
EG35C					124.0 (126.0)	127.0 (130.0)	128.0 (130.0)	131.0 (134.0)

Note : The marking of " [] " denotes the maximum block length with screws, lips of end seals, etc.

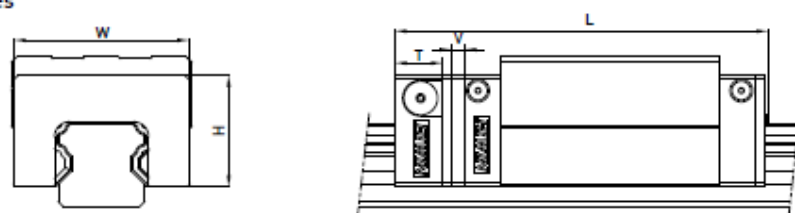
(3) RG Series



Model No.	E2 self-lubricating module dimensions							
	W	H	T	V	L			
					SS	ZZ	DD	KK
RG15C	33.0	19.2	12.5	3.5	84.0 (85.2)	86.0 (88.2)	88.4 (89.6)	90.4 (92.6)
RG20C	43.4	24.2	12.5	3.5	102 (103.2)	104.0 (106.2)	106.4 (107.6)	108.4 (110.6)
RG20H					122 (123.2)	124.0 (126.2)	126.4 (127.6)	128.4 (130.6)
RG25C	46.8	29.2	13.5	3.5	114.9 (116.7)	116.9 (119.9)	119.3 (121.1)	121.3 (124.3)
RG25H					131.4 (133.2)	133.4 (136.4)	135.8 (137.6)	137.8 (140.8)
RG30C	58.8	34.9	13.5	3.5	126.8 (128.6)	129.8 (132.8)	131.6 (133.4)	134.6 (137.6)
RG30H					148.8 (150.6)	151.8 (154.8)	153.6 (155.4)	156.6 (159.6)
RG35C	68.8	40.3	13.5	3.5	141 (143.7)	144.0 (148.0)	146.0 (148.7)	149.0 (153.0)
RG35H					168.5 (171.2)	171.5 (175.5)	173.5 (176.2)	176.5 (180.5)
RG45C	83.8	50.2	16.0	4.5	173.7 (175.3)	176.7 (180.7)	180.9 (182.5)	183.9 (187.9)
RG45H					207.5 (209.1)	210.5 (214.5)	214.7 (216.3)	217.7 (221.7)
RG55C	97.6	58.4	16.0	4.5	204.2 (205.8)	207.2 (211.2)	211.4 (213)	214.4 (218.4)
RG55H					252.5 (254.1)	255.5 (259.5)	259.7 (261.3)	262.7 (266.7)
RG65C	121.7	76.1	16.0	4.5	252.5 (254.5)	255.5 (260.5)	261.3 (263.3)	264.3 (269.3)
RG65H					315.5 (317.5)	318.5 (323.5)	324.3 (326.3)	327.3 (332.3)

Note : The marking of "[]" denotes the maximum block length with screws, lips of end seals, etc.

(4) QH Series



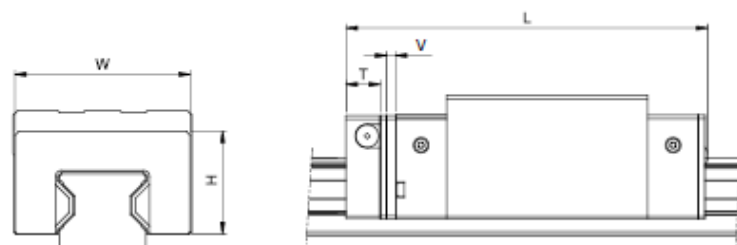
Model No.	E2 self-lubricating module dimensions								
	W	H	T	V	L	SS	ZZ	DD	KK
QH15C	32.4	19.5	12.5	3.0	75.4 (75.6)	82.2 (82.7)	82.0 (82.2)	88.8 (89.3)	
QH20C	43.0	24.4	13.5	3.5	93.1 (94.2)	97.2 (98.5)	98.1 (99.2)	102.2 (103.5)	
QH20H					107.8 (108.9)	111.9 (113.2)	112.8 (113.9)	116.9 (118.2)	
QH25C	46.4	29.5	13.5	3.5	100.2 (101.5)	104.7 (106.0)	105.2 (106.5)	109.7 (111.0)	
QH25H					120.8 (122.1)	125.3 (126.6)	125.8 (127.1)	130.3 (131.6)	
QH30C	58.0	35.0	13.5	3.5	112.9 (113.9)	120.1 (121.4)	120.3 (121.3)	127.5 (128.8)	
QH30H					135.9 (136.9)	143.1 (144.4)	143.3 (144.3)	150.5 (151.8)	
QH35C	68.0	38.5	16.0	3.5	129.3 (129.7)	133.5 (134.0)	134.3 (134.7)	138.5 (139.0)	
QH35H					155.1 (155.5)	159.3 (159.8)	160.1 (160.5)	164.3 (164.8)	
QH45C	82.0	49.0	16.0	4.5	158.3 (158.3)	163.7 (163.7)	165.5 (165.5)	170.9 (170.9)	
QH45H					190.1 (190.1)	195.5 (195.5)	197.3 (197.3)	202.7 (202.7)	

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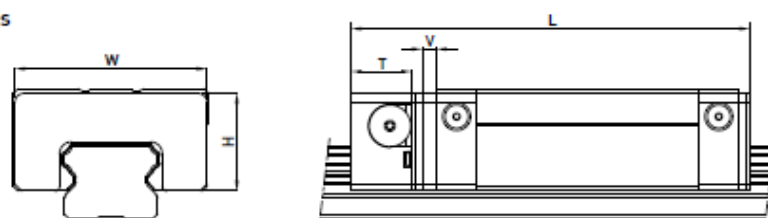
(5) QR Series



Model No.	E2 self-lubricating module dimensions							
	W	H	T	V	L			
					SS	ZZ	DD	KK
QR 20C	43.4	24.2	12.5	3.5	102.0 (103.2)	104.0 (106.2)	106.4 (107.4)	108.4 (110.6)
QR 25C	46.8	29.2	13.5	3.5	114.9 (116.7)	116.9 (119.9)	119.3 (121.1)	121.3 (124.3)
QR 25H					129.9 (131.7)	131.9 (134.9)	134.3 (136.1)	136.3 (139.3)
QR 30C	58.8	34.9	13.5	3.5	126.8 (128.6)	129.8 (132.8)	131.6 (133.4)	134.6 (137.6)
QR 30H					148.8 (150.6)	151.5 (154.8)	153.6 (155.4)	156.6 (159.6)
QR 35C	68.8	40.3	13.5	3.5	141.0 (143.7)	144.0 (148.0)	146.0 (148.7)	149.0 (153.0)
QR 35H					168.5 (171.2)	171.5 (175.5)	173.5 (176.2)	176.5 (180.5)
QR 45C	83.8	50.2	16.0	4.5	173.7 (175.3)	176.7 (180.7)	180.9 (182.5)	183.9 (187.9)
QR 45H					207.5 (209.1)	210.5 (214.5)	214.7 (216.3)	217.7 (221.7)

Note : The marking of "[]" denotes the maximum block length with screws, lips of end seals, etc.

(6) QE Series



Model No.	E2 self-lubricating module dimensions							
	W	H	T	V	L			
					SS	ZZ	DD	KK
QE15S	33.3	19.2	11.5	3.0	54.6 (56.0)	56.6 (58.8)	58.6 (60.0)	60.6 (62.8)
QE15C					71.3 (72.7)	73.3 (75.5)	75.3 (76.7)	77.3 (79.5)
QE20S	41.3	20.9	13.0	3.0	66.0 (68.0)	68.0 (71.0)	70.0 (72.0)	72.0 (75.0)
QE20C					85.1 (87.1)	87.1 (90.1)	89.1 (91.1)	91.1 (94.1)
QE25S	47.3	24.9	13.0	3.0	76.1 (77.8)	78.1 (81.1)	81.1 (82.8)	83.1 (86.1)
QE25C					99.6 (101.3)	101.6 (104.6)	104.6 (106.3)	106.6 (109.6)
QE30S	59.3	31.0	13.0	3.0	83.5 (85.4)	85.5 (88.5)	88.5 (90.4)	90.5 (93.5)
QE30C					112.1 (114.0)	114.1 (117.1)	117.1 (119.0)	119.1 (122.1)
QE35S	68.0	35.5	13.0	3.0	92.0 (94.0)	95.0 (98.0)	96.0 (98.0)	99.0 (102.0)
QE35C					124.0 (126.0)	127.0 (130.0)	128.0 (130.0)	131.0 (134.0)

Note : The marking of "[]" denotes the maximum block length with screws, lips of end seals, etc.