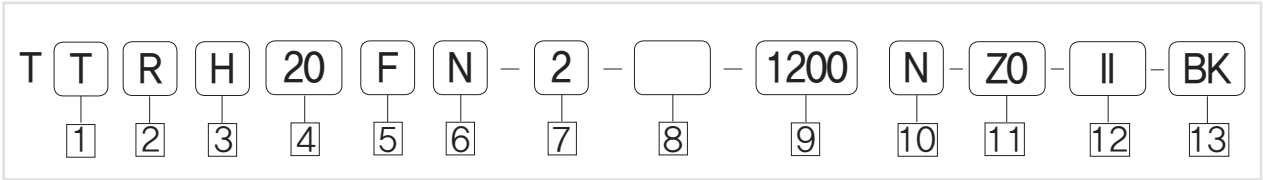


Linear(LM) Guide



TPC-TBI Linear Guide Model Table

주문형식



1 공칭모델

T

2 레일유형

R	표준형	M	미니형
---	-----	---	-----

3 조립높이

S	저조립	C	중조립
H	고조립		

4 사이즈 규격

15, 20, 25, 30, 35, 45, 55, 65

5 블록형상

F	플랜지타입	V	컴팩트타입
---	-------	---	-------

6 블록길이

S	숏타입	N	표준타입
L	롱타입	E	슈퍼롱타입

7 블록수량

EX: 2

8 부품번호

무기호	표준(엔드seal + 사이드seal)
U	내부seal(방진추가)
Z	더블엔드seal(방진추가)

9 레일길이

단위: mm

10 정도등급

N	보통급	H	상급	P	정밀급
SP	초정밀급	UP	초초정밀급		

11 예압등급

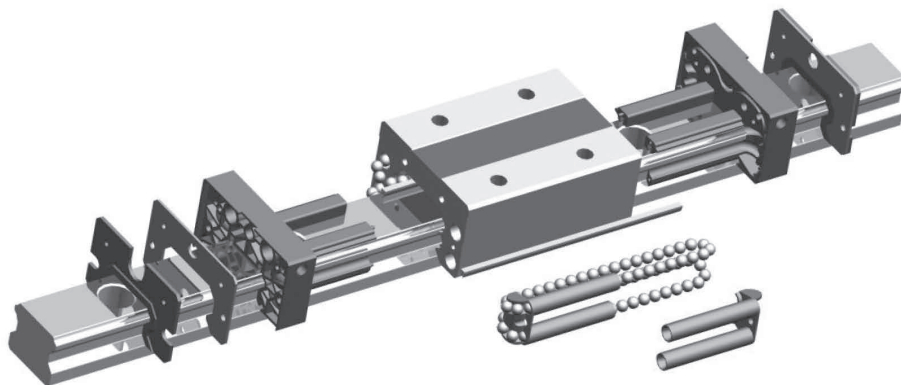
ZF	미틈새	ZO	무예압	Z1	경예압
Z2	보통예압	Z3	중예압		

12 2개의 레일 평행사용

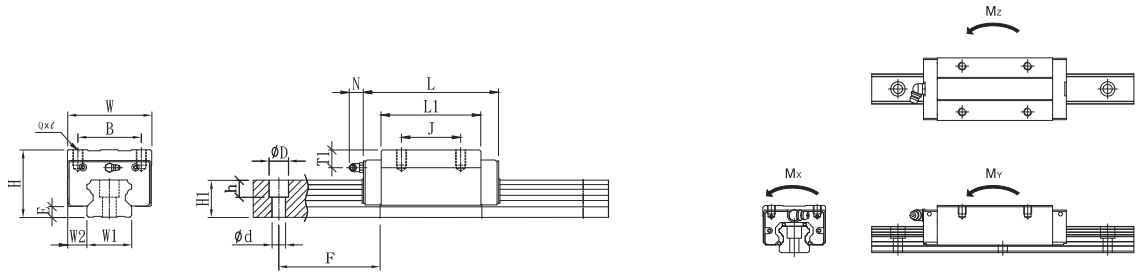
II

13 옵션사항

B	검은색	O	크롬도금	P	인산
N	니켈도금	D	Raydent		
K	반구멍	X	레일추가공(특주)		



TTRH-V Series Dimension Table

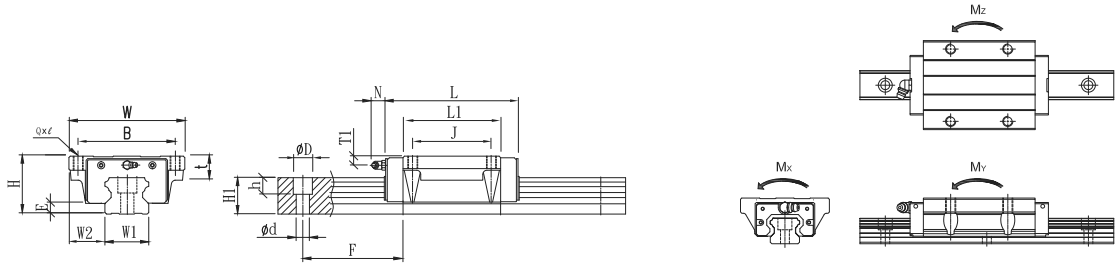


Model No.	Assembly(mm)			Block(mm)										Rail(mm)																																																																																																																																																											
	H	W2	E	W	B	J	L	L1	Q x l	T1	Oil Hole	N	W1	H1	øD	h	ød	F																																																																																																																																																							
TTRH15VN	28	9.5	3.2	34	26	26	55.9	39.5	M4x5	9.5	M4x0.7	5.5	15	13	7.5	6	4.5	60																																																																																																																																																							
TTRH15VL							64.4	48											TTRH20VN	30	12	4.6	44	32	36	74	54	M5x5	6.5	M6x1	12	20	16.5	9.5	8.5	6	60	TTRH20VL	79	59	TTRH20VE	50	98	78	TTRH25VN	40	12.5	5.8	48	35	35	80	59	M6x6.5	11.5	M6x1	12	23	20	11	9	7	60	TTRH25VL	92	71	TTRH25VE	50	109	88	TTRH30VL	45	16	7	60	40	40	106	80	M8x10	11	M6x1	12	28	23	14	12	9	80	TTRH30VE	60	131	105	TTRH35VL	55	18	7.5	70	50	50	122	93	M8x10	15	M6x1	12	34	26	14	12	9	80	TTRH35VE	72	152	123	TTRH45VL	70	20.5	8.9	86	60	60	140	106	M10x15	20.5	M8x1.25	16	45	32	20	17	14	105	TTRH45VE	80	174	140	TTRH55VL	80	23.5	13	100	75	75	162	118	M12x18	21	PT1/8	12.5	53	44	23	20	16	120	TTRH55VE	95	200.1	156.1	TTRH65VL	90	31.5	14	126	76	70
TTRH20VN	30	12	4.6	44	32	36	74	54	M5x5	6.5	M6x1	12	20	16.5	9.5	8.5	6	60																																																																																																																																																							
TTRH20VL							79	59											TTRH20VE							50	98											78	TTRH25VN	40	12.5	5.8	48	35	35							80	59											M6x6.5	11.5	M6x1	12	23	20	11	9	7	60	TTRH25VL	92	71	TTRH25VE	50	109	88	TTRH30VL	45	16	7	60	40	40	106	80	M8x10	11	M6x1	12	28	23	14	12	9	80	TTRH30VE	60	131	105	TTRH35VL	55	18	7.5	70	50	50	122	93	M8x10	15	M6x1	12	34	26	14	12	9	80	TTRH35VE	72	152	123	TTRH45VL	70	20.5	8.9	86	60	60	140	106	M10x15	20.5	M8x1.25	16	45	32	20	17	14	105	TTRH45VE	80	174	140	TTRH55VL	80	23.5	13	100	75	75	162	118	M12x18	21	PT1/8	12.5	53	44	23	20	16	120	TTRH55VE
TTRH20VE							50	98											78	TTRH25VN	40	12.5	5.8	48	35	35	80	59	M6x6.5	11.5	M6x1	12	23	20	11	9	7	60	TTRH25VL							92	71	TTRH25VE	50	109	88	TTRH30VL	45	16	7	60	40	40	106	80	M8x10	11	M6x1											12	28	23	14	12	9	80	TTRH30VE						60	131	105											TTRH35VL	55	18	7.5	70						50	50	122											93	M8x10	15	M6x1	12						34	26	14											12	9	80	TTRH35VE	72						152	123	TTRH45VL											70
TTRH25VN	40	12.5	5.8	48	35	35	80	59	M6x6.5	11.5	M6x1	12	23	20	11	9	7	60																																																																																																																																																							
TTRH25VL							92	71											TTRH25VE	50							109	88											TTRH30VL	45	16	7	60	40	40	106	80	M8x10	11	M6x1	12	28	23	14	12	9	80	TTRH30VE	60	131	105	TTRH35VL	55	18	7.5	70	50	50	122	93	M8x10	15	M6x1	12	34	26	14	12	9	80	TTRH35VE	72	152	123	TTRH45VL	70	20.5	8.9	86	60	60	140	106	M10x15	20.5	M8x1.25	16	45	32	20	17	14	105	TTRH45VE	80	174	140	TTRH55VL	80	23.5	13	100	75	75	162	118	M12x18	21	PT1/8	12.5	53	44	23	20	16	120	TTRH55VE	95	200.1	156.1	TTRH65VL	90	31.5	14	126	76	70	197	147	M16x20	19.3	PT1/8	12.5	63	53	26	22	18	150	TTRH65VE	120	256.5	206.5																
TTRH25VE							50	109											88	TTRH30VL	45	16	7	60	40	40	106	80	M8x10	11	M6x1	12	28	23	14	12	9	80	TTRH30VE						60	131	105											TTRH35VL	55	18	7.5	70						50	50	122											93	M8x10	15	M6x1	12						34	26	14											12	9	80	TTRH35VE	72						152	123	TTRH45VL											70	20.5	8.9	86	60						60	140	106											M10x15	20.5	M8x1.25	16	45	32	20	17	14	105	TTRH45VE	80	174	140	TTRH55VL	80	23.5	13	100	75
TTRH30VL	45	16	7	60	40	40	106	80	M8x10	11	M6x1	12	28	23	14	12	9	80																																																																																																																																																							
TTRH30VE						60	131	105											TTRH35VL	55	18	7.5	70	50	50	122	93	M8x10	15	M6x1	12	34	26	14	12	9	80	TTRH35VE	72	152	123	TTRH45VL	70	20.5	8.9	86	60	60	140	106	M10x15	20.5	M8x1.25	16	45	32	20	17	14	105	TTRH45VE	80	174	140	TTRH55VL	80	23.5	13	100	75	75	162	118	M12x18	21	PT1/8	12.5	53	44	23	20	16	120	TTRH55VE	95	200.1	156.1	TTRH65VL	90	31.5	14	126	76	70	197	147	M16x20	19.3	PT1/8	12.5	63	53	26	22	18	150	TTRH65VE	120	256.5	206.5																																																											
TTRH35VL	55	18	7.5	70	50	50	122	93	M8x10	15	M6x1	12	34	26	14	12	9	80																																																																																																																																																							
TTRH35VE						72	152	123											TTRH45VL	70	20.5	8.9	86	60	60	140	106	M10x15	20.5	M8x1.25	16	45	32	20	17	14	105	TTRH45VE	80	174	140	TTRH55VL	80	23.5	13	100	75	75	162	118	M12x18	21	PT1/8	12.5	53	44	23	20	16	120	TTRH55VE	95	200.1	156.1	TTRH65VL	90	31.5	14	126	76	70	197	147	M16x20	19.3	PT1/8	12.5	63	53	26	22	18	150	TTRH65VE	120	256.5	206.5																																																																																		
TTRH45VL	70	20.5	8.9	86	60	60	140	106	M10x15	20.5	M8x1.25	16	45	32	20	17	14	105																																																																																																																																																							
TTRH45VE						80	174	140											TTRH55VL	80	23.5	13	100	75	75	162	118	M12x18	21	PT1/8	12.5	53	44	23	20	16	120	TTRH55VE	95	200.1	156.1	TTRH65VL	90	31.5	14	126	76	70	197	147	M16x20	19.3	PT1/8	12.5	63	53	26	22	18	150	TTRH65VE	120	256.5	206.5																																																																																																									
TTRH55VL	80	23.5	13	100	75	75	162	118	M12x18	21	PT1/8	12.5	53	44	23	20	16	120																																																																																																																																																							
TTRH55VE						95	200.1	156.1											TTRH65VL	90	31.5	14	126	76	70	197	147	M16x20	19.3	PT1/8	12.5	63	53	26	22	18	150	TTRH65VE	120	256.5	206.5																																																																																																																																
TTRH65VL	90	31.5	14	126	76	70	197	147	M16x20	19.3	PT1/8	12.5	63	53	26	22	18	150																																																																																																																																																							
TTRH65VE						120	256.5	206.5																																																																																																																																																																	

Model No.	Rating Load(kgf)		Static Moment						Weight		
	동정격하중	정정격하중	Mx(kgf-mm)			My(kgf-mm)		Mz(kgf-mm)		Block (kg)	Rail (kg/m)
			Single Block	Single Block	Double Block	Single Block	Double Block				
TTRH15VN	1206	2206	16,436	14,884	70,960	14,884	70,960	0.13	1.32		
TTRH15VL	1343	2574	19,175	20,429	95,224	20,429	95,224	0.2			
TTRH20VN	2050	3696	37,334	33,268	157,298	33,268	157,298	0.26	2.28		
TTRH20VL	2125	3891	39,299	36,965	176,924	36,965	176,924	0.29			
TTRH20VE	2553	5058	51,089	63,229	284,163	63,229	284,163	0.38			
TTRH25VN	2581	4503	52,239	43,407	207,324	43,407	207,324	0.54	3.17		
TTRH25VL	2875	5254	60,945	59,579	277,678	59,579	277,678	0.55			
TTRH25VE	3248	6255	72,554	85,112	391,311	85,112	391,311	0.68			
TTRH30VL	4098	7203	100,803	93,100	438,966	93,100	438,966	0.85	4.54		
TTRH30VE	4791	9004	126,003	147,000	677,068	147,000	677,068	1.12			
TTRH35VL	5502	9328	159,512	133,367	656,509	133,367	656,509	1.52	6.27		
TTRH35VE	6667	12274	209,885	233,977	1,070,533	233,977	1,070,533	2			
TTRH45VL	7572	12808	292,657	220,751	1,030,183	220,751	1,030,183	2.7	10.4		
TTRH45VE	8852	16010	365,821	348,554	1,598,703	348,554	1,598,703	3.58			
TTRH55VL	14703	21613	571,342	411,729	2,019,184	411,729	2,019,184	3.6	16.1		
TTRH55VE	71349	27377	723,699	670,530	3,148,637	670,530	3,148,637	4.7			
TTRH65VL	22526	31486	973,074	695,840	3,954,277	695,840	3,954,277	7.76	22.54		
TTRH65VE	27895	42731	1,320,601	1,307,568	6,312,759	1,307,568	6,312,759	11.15			

Linear (LM) Guide

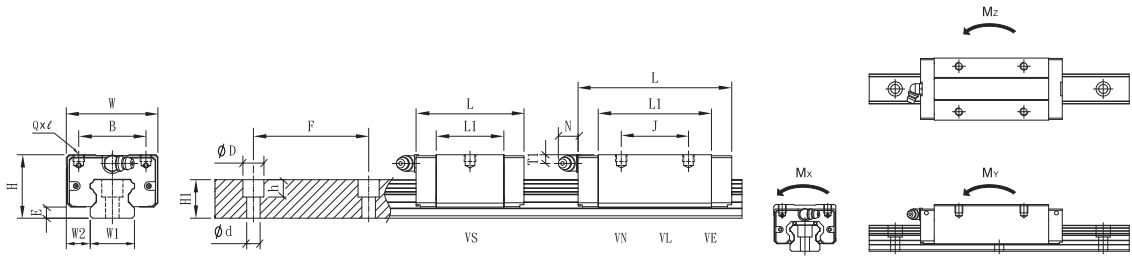
TTRH-F Series Dimension Table



Model No.	Assembly(mm)			Block(mm)										Rail(mm)					
	H	W2	E	W	B	J	t	L	L1	Q x l	T1	Oil Hole	N	W1	H1	øD	h	ød	F
TTRH15FN	24	16	3.2	47	38	30	8.3	55.9	39.5	M5x8	5.5	M4x0.7	5.5	15	13	7.5	6	4.5	60
TTRH15FL								64.4	48										
TTRH15FE								79.4	63										
TTRH20FN	30	21.5	4.6	63	53	40	10	74	54	M6x10	6.5	M6x1	12	20	16.5	9.5	8.5	6	60
TTRH20FL								79	59										
TTRH20FE								98	78										
TTRH25FN	36	23.5	5.8	70	57	45	12	80	59	M8x12	7.5	M6x1	12	23	20	11	9	7	60
TTRH25FL								92	71										
TTRH25FE								109	88										
TTRH30FL	42	31	7	90	72	52	15	106	80	M10x15	8	M6x1	12	28	23	14	12	9	80
TTRH30FE								131	105										
TTRH35FL	48	33	7.5	100	82	62	15	122	93	M10x15	8	M6x1	12	34	26	14	12	9	80
TTRH35FE								152	123										
TTRH45FL	60	37.5	8.9	120	100	80	18	140	106	M12x18	10.5	M8x1.25	16	45	32	20	17	14	105
TTRH45FE								174	140										
TTRH55FL	70	43.5	13	140	116	95	29	162	118	M14x17	11	PT1/8	12.5	53	44	23	20	16	120
TTRH55FE								200.1	156.1										
TTRH65FL	90	53.5	14	170	142	110	37	197	147	M16x23	19.3	PT1/8	12.5	63	53	26	22	18	150
TTRH65FE								256.5	206.5										

Model No.	Rating Load(kgf)		Static Moment					Weight	
			Mx(kgf-mm)		My(kgf-mm)		Mz(kgf-mm)		Block (kg)
	동정격하중	정정격하중	Single Block	Single Block	Double Block	Single Block	Double Block		
TTRH15FN	1206	2206	16,436	14,884	70,960	14,884	70,960	0.17	1.32
TTRH15FL	1343	2574	19,175	20,429	95,224	20,429	95,224	0.2	
TTRH15FE	1560	3187	23,740	31,616	145,220	31,616	145,220	0.26	
TTRH20FN	2050	3696	37,334	33,268	157,298	33,268	157,298	0.36	2.28
TTRH20FL	2125	3891	39,299	36,965	176,924	36,965	176,924	0.4	
TTRH20FE	2553	5058	51,089	63,229	284,163	63,229	284,163	0.53	
TTRH25FN	2581	4503	52,239	43,407	207,324	43,407	207,324	0.54	3.17
TTRH25FL	2875	5254	60,945	59,579	277,678	59,579	277,678	0.62	
TTRH25FE	3248	6255	72,554	86,112	391,311	85,112	391,311	0.78	
TTRH30FL	4098	7203	100,803	93,100	438,966	93,100	438,966	1.42	4.54
TTRH30FE	4791	9004	126,003	147,000	677,068	147,000	677,068	1.77	
TTRH35FL	5502	9328	159,512	133,367	656,509	133,367	656,509	1.58	6.27
TTRH35FE	6667	12274	209,885	233,977	1,070,533	233,977	1,070,533	2.11	
TTRH45FL	7572	12808	292,657	220,751	1,030,183	220,751	1,030,183	2.66	10.4
TTRH45FE	8852	16010	365,821	348,554	1,598,703	348,554	1,598,703	3.55	
TTRH55FL	14703	21613	571,342	411,729	2,019,184	411,759	2,019,184	3.62	16.1
TTRH55FE	71349	27377	723,699	670,530	3,148,637	670,530	3,148,637	4.71	
TTRH65FL	22526	31486	973,074	695,840	3,594,277	695,840	3,594,277	7.96	22.54
TTRH65FE	27895	42731	1,320,601	1,307,568	6,312,759	1,307,568	6,312,759	11.35	

TTRS-V Series Dimension Table

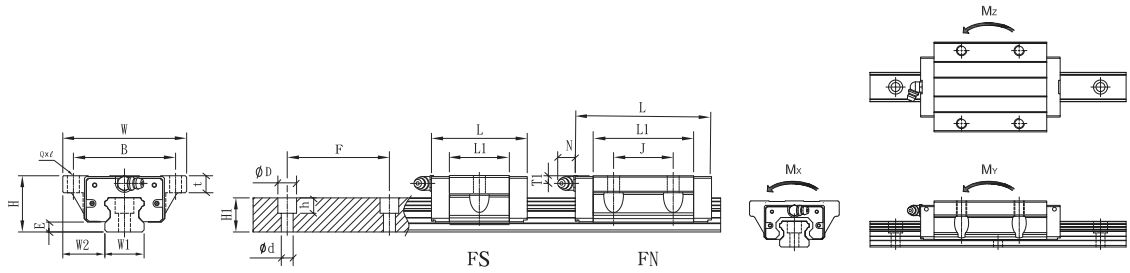


Model No.	Assembly(mm)			Block(mm)									Rail(mm)					
	H	W2	E	W	B	J	L	L1	Q x l	T1	Oil Hole	N	W1	H1	øD	h	ød	F
TTRS15VS	24	9.5	3.2	34	26	39.3	22.9	M4x5	5.5	M4x0.7	5.5	15	13	7.5	6	4.5	60	
TTRS15VN						26	55.9											39.5
TTRS15VL						26	64.4											48
TTRS15VE						34	79.4											63
TTRS20VS	28	11	4.6	42	32	47.8	27.8	M5x5	4.5	M6x1	12	20	16.5	9.5	8.5	6	60	
TTRS20VN						32	66.7											46.7
TTRS25VS	33	12.5	5.8	48	35	56.2	35.2	M6x6	4.5	M6x1	12	23	20	11	9	7	60	
TTRS25VN						35	80											59
TTRS30VS	42	16	7	60	40	66.4	40.4	M8x8	8	M6x1	12	28	23	14	12	9	80	
TTRS30VN						40	95.3											69.3
TTRS30VL						40	106											80
TTRS30VE						60	131											105
TTRS35VS	48	18	7.5	70	50	74.7	45.7	M8x8	8	M6x1	12	34	26	14	12	9	80	
TTRS35VN						50	108											79
TTRS35VL						50	122											93
TTRS35VE						72	152											123
TTRS45VN	60	20.5	8.9	86	60	60	124.5	90.5	M10x15	10.5	M8x1.25	16	45	32	20	17	14	105
TTRS45VL						60	140	106										
TTRS45VE						80	174	140										

Model No.	Rating Load(kgf)		Static Moment						Weight	
			Mx(kgf-mm)		My(kgf-mm)		Mz(kgf-mm)		Block (kg)	Rail (kg/m)
	동정격하중	정정격하중	Single Block	Single Block	Double Block	Single Block	Double Block			
TTRS15VS	908	1471	10,957	6,420	33,531	6,420	33,531	0.07	1.32	
TTRS15VN	1206	2206	16,436	14,884	70,960	14,884	70,960	0.13		
TTRS15VL	1343	2574	19,175	20,429	95,224	20,429	95,224	0.15		
TTRS15VE	1560	3187	23,740	31,616	146,220	31,616	145,220	0.2		
TTRS20VS	1398	2140	21,615	10,700	59,798	10,700	59,798	0.11	2.28	
TTRS20VN	1896	3307	33,404	26,459	126,998	26,459	126,998	0.18		
TTRS25VS	1943	3002	34,826	18,725	97,890	18,725	97,890	0.18	3.17	
TTRS25VN	2581	4503	52,239	43,407	207,324	43,407	207,324	0.3		
TTRS30VS	2697	3962	55,442	26,950	154,224	26,950	154,224	0.37	4.54	
TTRS30VN	3807	6483	90,722	74,970	355,321	74,970	355,321	0.65		
TTRS30VL	4098	7203	100,803	93,100	438,966	93,100	438,966	0.74		
TTRS30VE	4791	9004	126,003	147,000	677,068	147,000	677,068	0.97		
TTRS35VS	3753	5401	92,349	42,896	235,304	42,896	235,304	0.57	6.27	
TTRS35VN	5090	8346	142,722	106,070	519,799	106,070	519,799	0.98		
TTRS35VL	5502	9328	159,512	133,367	656,509	133,367	656,509	1.16		
TTRS35VE	6667	12274	209,885	233,977	1,070,533	233,977	1,070,533	1.54		
TTRS45VN	6758	10887	248,758	158,011	782,271	158,011	782,271	1.71	10.4	
TTRS45VL	7572	12808	292,657	220,751	1,030,183	220,751	1,030,183	1.99		
TTRS45VE	8852	16010	365,821	348,554	1,598,703	348,554	1,598,703	2.64		

Linear (LM) Guide

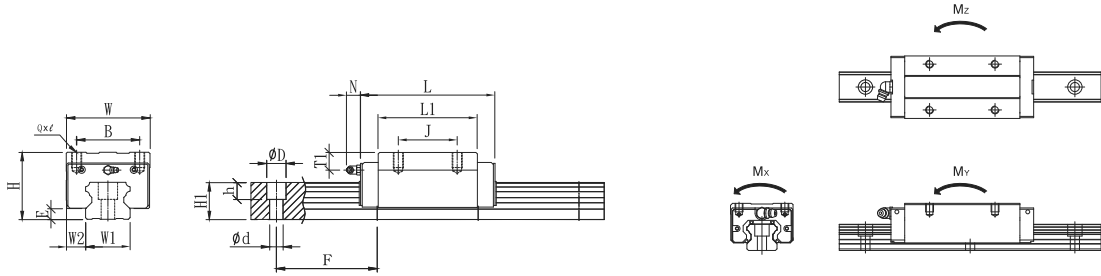
TTRS-F Series Dimension Table



Model No.	Assembly(mm)			Block(mm)										Rail(mm)					
	H	W2	E	W	B	J	t	L	L1	Q x l	T1	Oil Hole	N	W1	H1	øD	h	ød	F
TTRS15FS	24	18.5	3.2	52	41	26	7.3	39.3	22.9	ø 4,5x7	5.5	M4x0.7	5.5	15	13	7.5	6	4.5	60
TTRS15FN								55.9	39.5										
TTRS20FS	28	19.5	4.6	59	49	32	9	47.8	27.8	ø 5,5x9	4.5	M6x1	12	20	16.5	9.5	8.5	6	60
TTRS20FN								66.7	46.7										
TTRS25FS	33	25	5.8	73	60	35	10	56.2	35.2	ø 7x10	4.5	M6x1	12	23	20	11	9	7	60
TTRS25FN								80	59										
TTRS30FS	42	31	7	90	72	40	10	66.4	40.4	ø 9x10	8	M6x1	12	28	23	14	12	9	80
TTRS30FN								95.3	69.3										
TTRS35FS	48	33	7.5	100	82	50	13	74.7	45.7	ø 9x13	8	M6x1	12	34	26	14	12	9	80
TTRS35FN								108	79										
TTRS45FE	60	37.5	8.9	120	100	60	15	124.5	90.5	ø 11x15	10.5	M8x1.25	16	45	32	20	17	14	105

Model No.	Rating Load(kg)		Static Moment					Weight	
			Mx(kgf-mm)		My(kgf-mm)		Mz(kgf-mm)		Block (kg)
	동정격하중	정정격하중	Single Block	Single Block	Double Block	Single Block	Double Block		
TTRS15FS	908	1471	10,957	6,420	33,531	6,420	33,531	0.098	1.32
TTRS15FN	1206	2206	16,436	14,884	70,960	14,884	70,960	0.17	
TTRS20FS	1398	2140	21,615	10,700	59,798	10,700	59,798	0.15	2.28
TTRS20FN	1896	3307	33,404	26,459	126,998	26,459	126,998	0.24	
TTRS25FS	1943	3002	34,826	18,725	97,890	18,725	97,890	0.26	3.17
TTRS25FN	2581	4503	52,239	43,407	207,324	43,407	207,324	0.44	
TTRS30FS	2697	3962	55,442	26,950	154,224	26,950	154,224	0.52	4.54
TTRS30FN	3807	6483	90,722	74,970	355,321	74,970	355,321	0.88	
TTRS35FS	3753	5401	92,349	42,896	235,304	42,896	235,304	0.76	6.27
TTRS35FN	5090	8346	142,722	106,070	519,799	106,070	519,799	1.31	
TTRS45FE	6758	10887	248,758	158,011	782,271	158,011	782,271	2.18	10.35

TTRC-V Series Dimension Table



Model No.	Assembly(mm)			Block(mm)									Rail(mm)					
	H	W2	E	W	B	J	L	L1	Q x l	T1	Oil Hole	N	W1	H1	øD	h	ød	F
TTRC25VL	36	12.5	5.8	48	35	35	92	71	M6x6.5	7.5	M6x1	12	23	20	11	9	7	60
TTRC25VE						50	109	88										

Model No.	Rating Load(kg)		Static Moment					Weight	
			Mx(kgf-mm)		My(kgf-mm)		Mz(kgf-mm)		Block (kg)
	동정격하중	정정격하중	Single Block	Single Block	Double Block	Single Block	Double Block		
TTRC25VL	2875	5254	60,945	59,579	277,678	59,579	277,678	0.44	3.17
TTRC25VE	3248	6255	72,554	85,112	391,311	85,112	391,311	0.55	

정도선정

표 1 단위 : mm

정도등급	TTR 15 20					TTR 25 30 35				
	보통급	상급	정밀급	초정밀급	초초정밀급	보통급	상급	정밀급	초정밀급	초초정밀급
구분	N	H	P	SP	UP	N	H	P	SP	UP
높이 M의 치수공차	±0.1	±0.03	0	-0.015	-0.008	±0.1	±0.04	-0.04	-0.02	-0.01
높이 M의 상호차	0.02	0.01	0.006	0.004	0.003	0.02	0.015	0.007	0.005	0.003
측면 W2의 치수공차	±0.1	±0.03	0	-0.015	-0.008	±0.1	±0.04	0	0	0
측면 W2의 상호차	0.02	0.01	0.006	0.004	0.003	0.03	0.015	0.007	0.005	0.003
A 기준면에 대한 C의 주행 평행도	△C 그림참고					△C 그림참고				
B 기준면에 대한 D의 주행 평행도	△D 그림참고					△D 그림참고				

정도등급	TTR 45 55					TTR 65				
	보통급	상급	정밀급	초정밀급	초초정밀급	보통급	상급	정밀급	초정밀급	초초정밀급
구분	N	H	P	SP	UP	N	H	P	SP	UP
높이 M의 치수공차	±0.1	±0.05	0	-0.03	-0.02	±0.1	±0.07	0	0	0
높이 M의 상호차	0.03	0.015	0.007	0.005	0.003	0.03	0.02	0.01	0.007	0.005
측면 W2의 치수공차	±0.1	±0.05	0	-0.03	-0.02	±0.1	±0.07	0	0	0
측면 W2의 상호차	0.03	0.02	0.01	0.007	0.005	0.03	0.025	0.015	0.01	0.007
A 기준면에 대한 C의 주행 평행도	△C 그림참고					△C 그림참고				
B 기준면에 대한 D의 주행 평행도	△D 그림참고					△D 그림참고				

