

# 3

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## **ML GUIDEWAYS WITH ADJUSTING GIB AND V GUIDEWAYS WITH NEEDLE ROLLER FLAT CAGE ASSEMBLY**



**A MATERIAL**

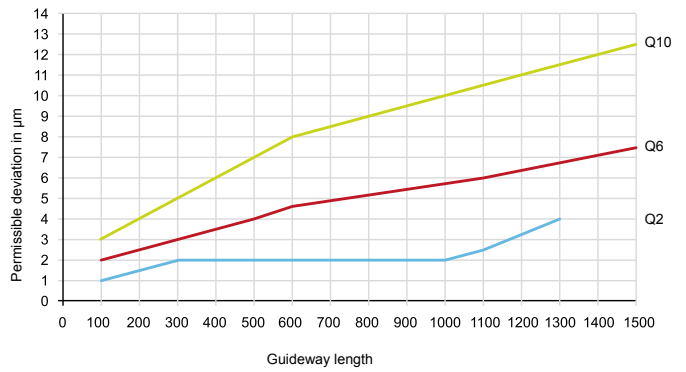
Hardened tool steel 1.2842 HRc 58 – 62  
(non-hardened adjusting gib).

**B QUALITY**

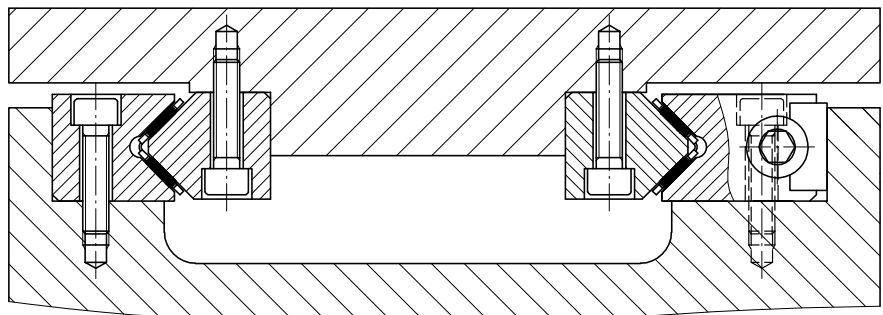
Raceways and locating faces are precision ground.

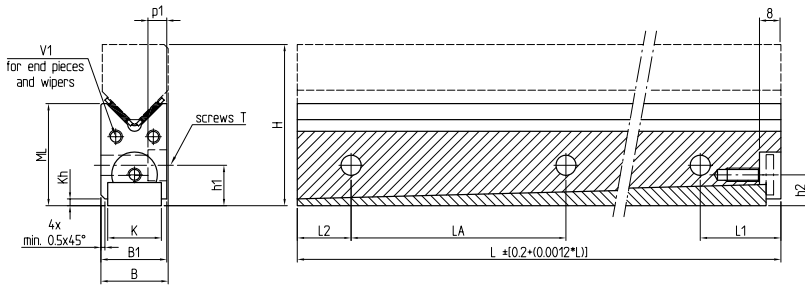
The guideways are available in 2 qualities for the ML guideways and 3 qualities for the V guideways (parallelism tolerance of the raceways on the reference sides of the guideways in relation to a defined length).

- Q10: normal quality for general machine construction (ML and V)
- Q6: precise quality for machine tool construction (ML and V)
- Q2: particularly precise quality for exceptionally demanding structures (V)



SPECIAL EXECUTIONS  
SEE CHAPTER 10 ALTERNATIVE VERSIONS





Type	Dimensions						Fixing holes							Gib screws	Threads
	H*	B 0/-0.1	B1 0/-0.2	ML*	K	Kh*	Screws T ****	h1*	p1 min.	t	LA	L1*** min.	L2*** min.	h2	V1
ML5020	50	20	20	32.5	15	5.5	M6	17.5	6.8	20	80**	30	15	15	M4
ML5520	55	20	20	37.5	15	6	M6	22.5	6.8	20	80	30	15	20	M4
ML5525	55	25	25	32.5	20	2.5	M6	15	6.8	15	80**	30	20	11.5	M5
ML6025	60	25	25	37.5	20	3.5	M6	20	6.8	15	80	30	20	16.5	M5
ML6525	65	25	25	42.5	20	5	M6	25	6.8	15	80	30	20	21.5	M5
ML7025	70	25	25	47.5	20	6.5	M6	30	6.8	15	80	30	20	26.5	M5
ML7035	70	35	35	45	25	3	M8	21	9	20	100**	32	20	15.5	M6
ML8035	80	35	35	55	25	5	M8	31	9	20	100	32	20	25.5	M6
ML8040	80	40	40	50	30	3	M10	23	11	25	100**	32	20	16	M6
ML9040	90	40	40	60	30	5	M10	33	11	25	100	32	20	26	M6
ML9050	90	50	50	55	40	3	M12	24	13	30	100**	32	20	15.5	M6
ML10050	100	50	50	65	40	5	M12	34	13	30	100	32	20	25.5	M6

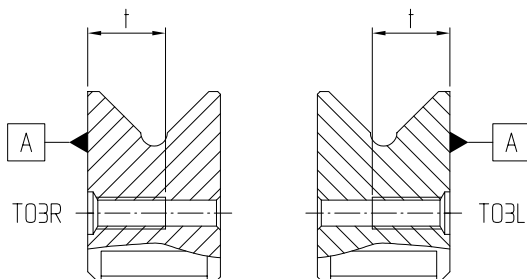
\* These dimensions are dependent on the gib position, adjustment range  $\pm 0.5$

\*\* ML5020 + ML5525 + ML7035 + ML8040 + ML9050: length (L) 100mm, hole distance (LA) = 50mm

The tolerance of the hole distances (LA) is in proportion to the length tolerance

\*\*\* L1 and L2 are the same size at both ends of the guideways and dependent on the guideway length without any specific requests being made

\*\*\*\* 3 hole types in the guideways for screw size T (according to the drawing below)



T15: Sinkhole for screws ISO 4762

Depending on left or right guideway

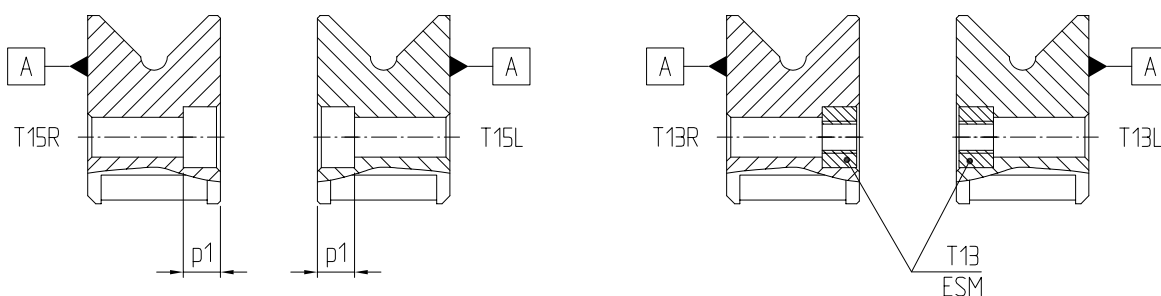
T03: Threaded hole, thread length "t"

Depending on left or right guideway

T13: Sinkhole as T15, but with insert nuts ESM

Depending on left or right guideway

A: Reference side



STANDARD LENGTHS (MM)

Dimensions	100	200	250	300	400	500	600	700	750	800	900	1000
ML5020	o	o		o								
ML5520					o	o	o					
ML5525	o	o	o									
ML6025				o	o	o						
ML6525							o	o	o			
ML7025										o	o	o
ML7035	o	o		o	o	o						
ML8035							o	o		o	o	o
ML8040	o	o		o	o	o						
ML9040							o	o		o	o	o
ML9050	o	o		o	o	o						
ML10050							o	o		o	o	o

o = ex stock, non-hardened, non-ground  
 Special lengths available on request

CAGE ALLOCATION

Guideways	Rolling elements	Plastic	Aluminium	Steel	Brass	Brass (with damping)
ML5020	Needle rollers	E-FFW2025	E-HW15	E-HW15 F	E-HW15 MS	E-HGW15
ML5520	Needle rollers	E-FFW2025	E-HW15	E-HW15 F	E-HW15 MS	E-HGW15
ML5525	Needle rollers	E-FFW2025	E-HW15 E-HW16	E-HW15 F	E-HW15 MS E-HW16 MS	E-HGW15
ML6025	Needle rollers	E-FFW2025	E-HW15 E-HW16	E-HW15 F	E-HW15 MS E-HW16 MS	E-HGW15
ML6525	Needle rollers	E-FFW2025	E-HW15 E-HW16	E-HW15 F	E-HW15 MS E-HW16 MS	E-HGW15
ML7025	Needle rollers	E-FFW2025	E-HW15 E-HW16	E-HW15 F	E-HW15 MS E-HW16 MS	E-HGW15
ML7035	Needle rollers	E-FFW2535	E-HW20	E-HW20 F	E-HW20 MS	E-HGW20
ML8035	Needle rollers	E-FFW2535	E-HW20	E-HW20 F	E-HW20 MS	E-HGW20
ML8040	Needle rollers	E-FFW3045	E-HW25	E-HW25 F	E-HW25 MS	E-HGW25
ML9040	Needle rollers	E-FFW3045	E-HW25	E-HW25 F	E-HW25 MS	E-HGW25
ML9050	Needle rollers	E-FFW3555	E-HW30	E-HW30 F	E-HW30 MS	E-HGW30
ML10050	Needle rollers	E-FFW3555	E-HW30	E-HW30 F	E-HW30 MS	E-HGW30