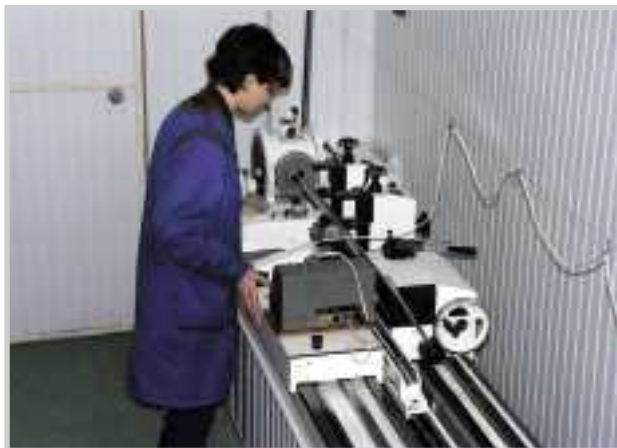
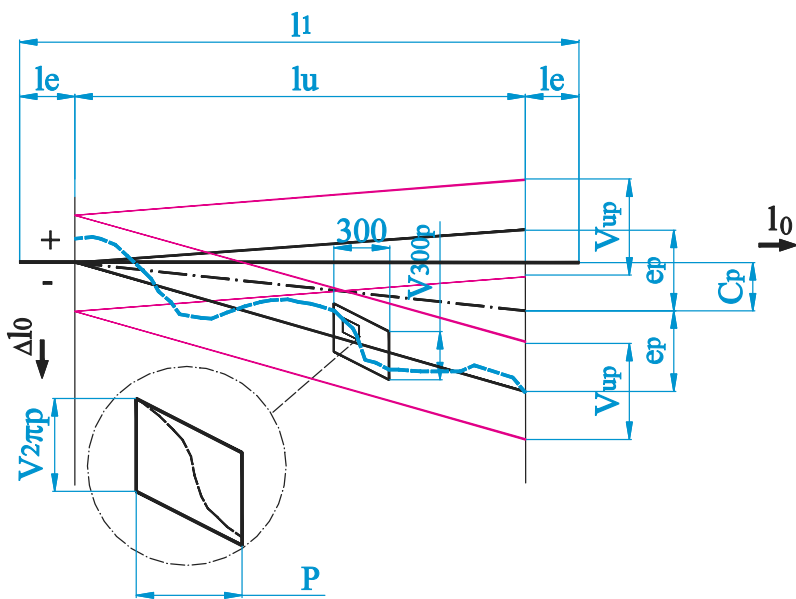


# Kinematics Precision



- $C_p$  given deviation;
- $e_p$  tolerance on useful travel;
- $V_{up}$  permissible travel variation within useful travel;
- $V_{300p}$  permissible travel variation within 300 mm travel;
- $V_{2p}$  permissible travel variation within 2 travel;
- $l_u$  usable travel;
- $l_e$  excess travel;
- $l_1$  axial thread length;

For transport ball screws:

$$e_p = 2 \frac{l_u}{300} V_{300p}$$

Класс точности Tolerance Class	П1 P1	Т3 T3	П3 P3	Т5 T5	П5 P5	Т7 T7	П7 P7	Т9 T9	Т10 T10
$V_{300p}, \mu\text{m}$	6	12	12	23	23	52	52	100	210
$V_{2p}, \mu\text{m}$	4		6		8		12		

Класс точности Tolerance Class	$l_u >$														
		$l_u \leq$	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
П1 P1	$e_p, \mu\text{m}$	6	7	8	9	10	11	13	15	18	22	26	32		
	$V_{up}, \mu\text{m}$	6	6	7	7	8	9	10	11	13	15	17	21		
П3 P3	$e_p, \mu\text{m}$	12	13	15	16	18	21	24	29	35	41	50	62	76	
	$V_{up}, \mu\text{m}$	12	12	13	14	16	17	19	22	25	29	34	41	49	
П5 P5	$e_p, \mu\text{m}$	23	25	27	30	35	40	46	54	65	77	93	115	140	170
	$V_{up}, \mu\text{m}$	23	25	26	29	31	35	39	44	51	59	69	82	99	119
П7 P7	$e_p, \mu\text{m}$	52	56	62	70	79	91	105	124	148	176	213	260	320	390
	$V_{up}, \mu\text{m}$	52	55	58	62	68	74	82	93	106	123	143	170	203	244