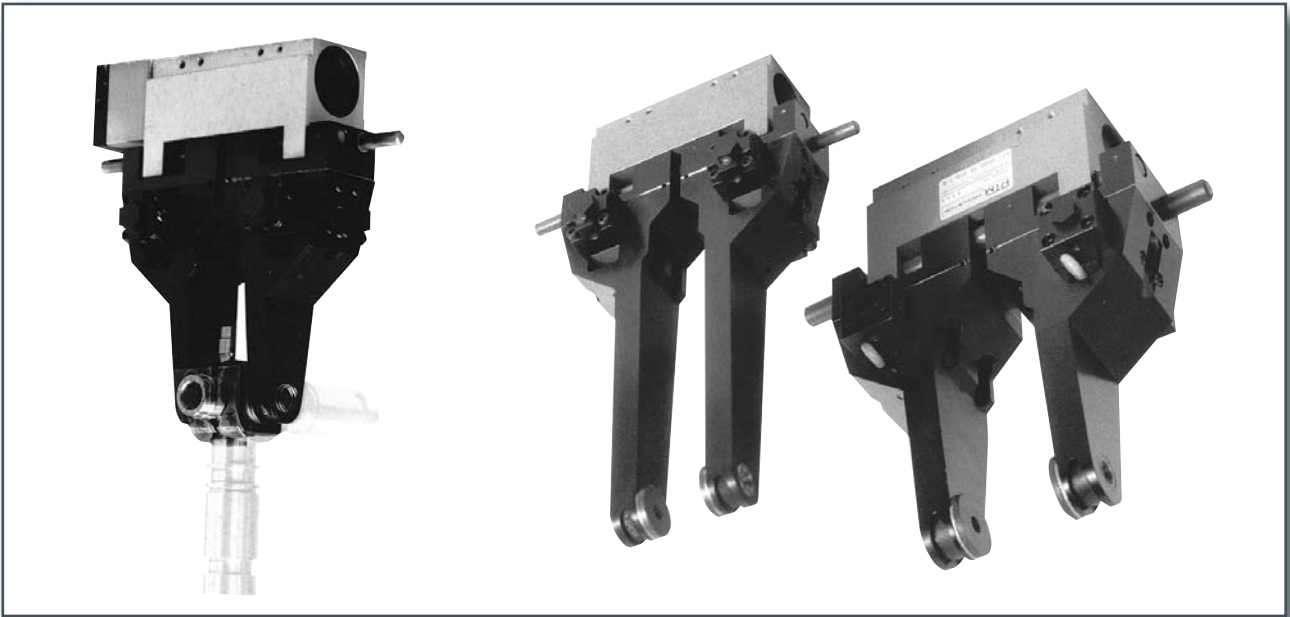


Parallel-Tilting Grippers

PSZ 0200, PSZ 0600, PSZ 0201, PSZ 0601, PSZ 1201, PSZ 3001



Based on our proven PTM Parallel Grippers – PSM - we designed the PTM Parallel Tilting Gripper – PSZ -. Now you have the possibility to tilt a work piece by a rotation angle of 90° or 180°.

This saves one step in your assembly operation. This design uses the advantages of our PTM Parallel Grippers – PSM – as basic modules to its full advantage. Under normal conditions and in spite of the great length of the tilting jaws, a part will be held in firm and correct position because of the excellent guiding abilities of the Parallel Gripper.

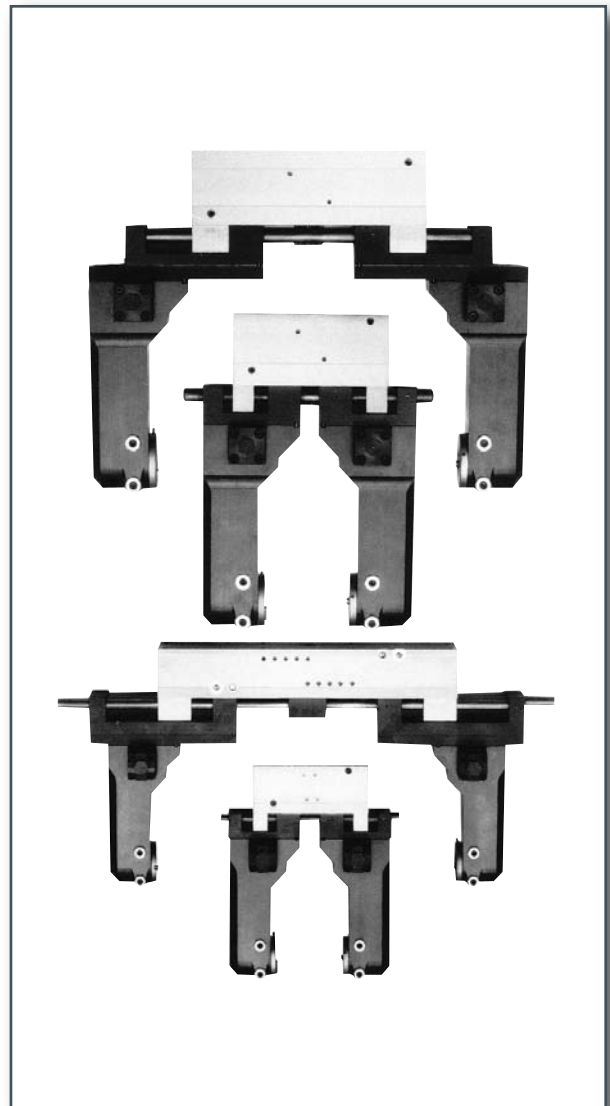
Through the use of our Pneumatic Mini Actuators with end position damping it is possible to have a damped end positioning of the tilting operation.

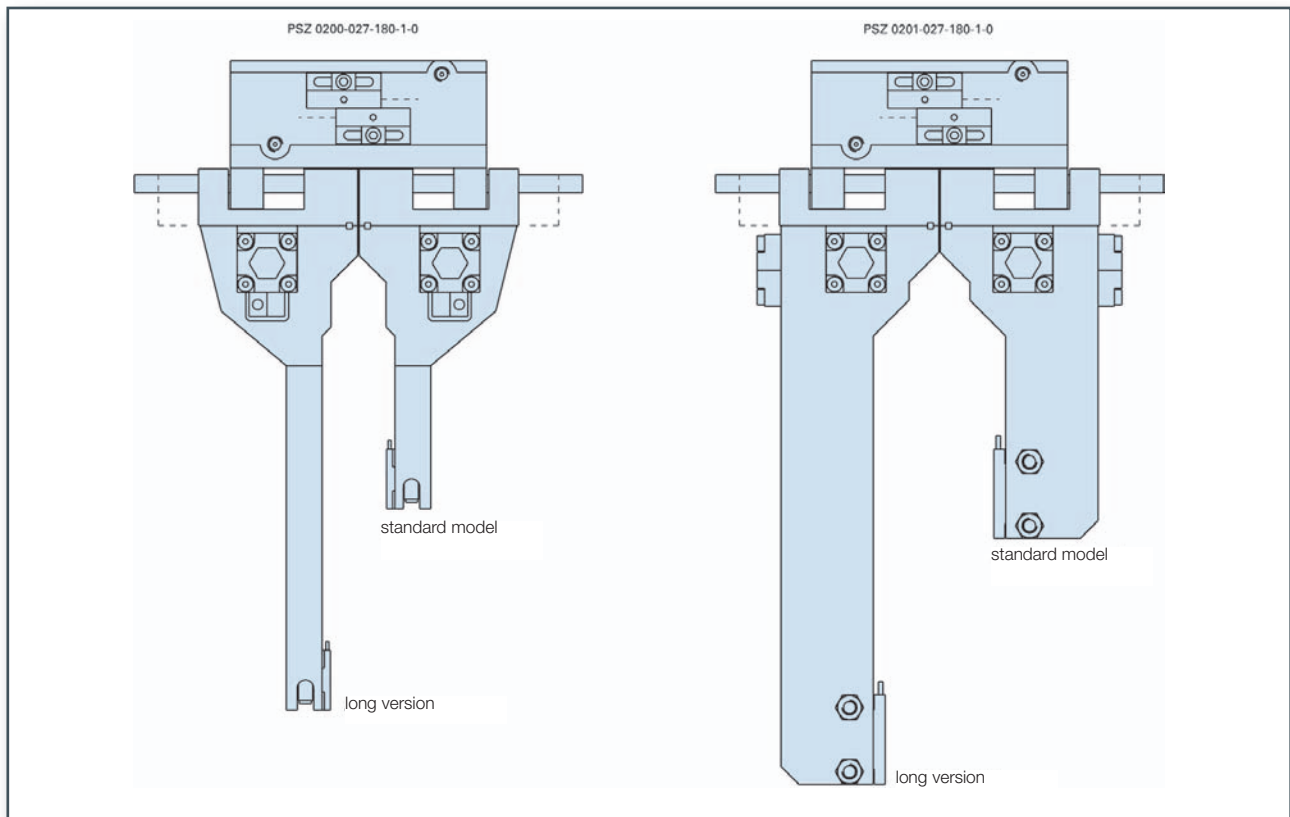
The Parallel Tilting Grippers – PSZ – are available in two series:

The slim models PSZ 0200 and PSZ 0600, with extremely slim tilting jaws. They are used in case of small space situations.

The robust models PSZ 0201 and PSZ 0601 and also the models PSZ 1201 and PSZ 3001 with strong tilting jaws. They are fitted out with a reinforced plain bearing. To withstand the gripping forces during the tilting operation we also use deep groove ball thrust bearings instead of plain bearings. To control end positioning we use adjustable end stops.

The additional advantages of our Parallel Grippers – PSM – like spring force, several position cylinder and attachment for centering are available for the Parallel Tilting Grippers – PSZ – too.





PSZ 0200 and PSZ 0600

- the slim models of Parallel Tilting Grippers, mounted on the proven Parallel Grippers PSMU 0200 and PSMU 0600.
- slim, fingerlike construction of the tilting jaws
- rotation hub for taking up clamping elements
- safety against twist by set screw
- bearing of rotation hub by deep groove ball bearing
- plain bearing for taking up the gripping forces
- toothed belt for drive connection
- all PSZ 0200 and PSZ 0600 are available with elongated tilting jaws !

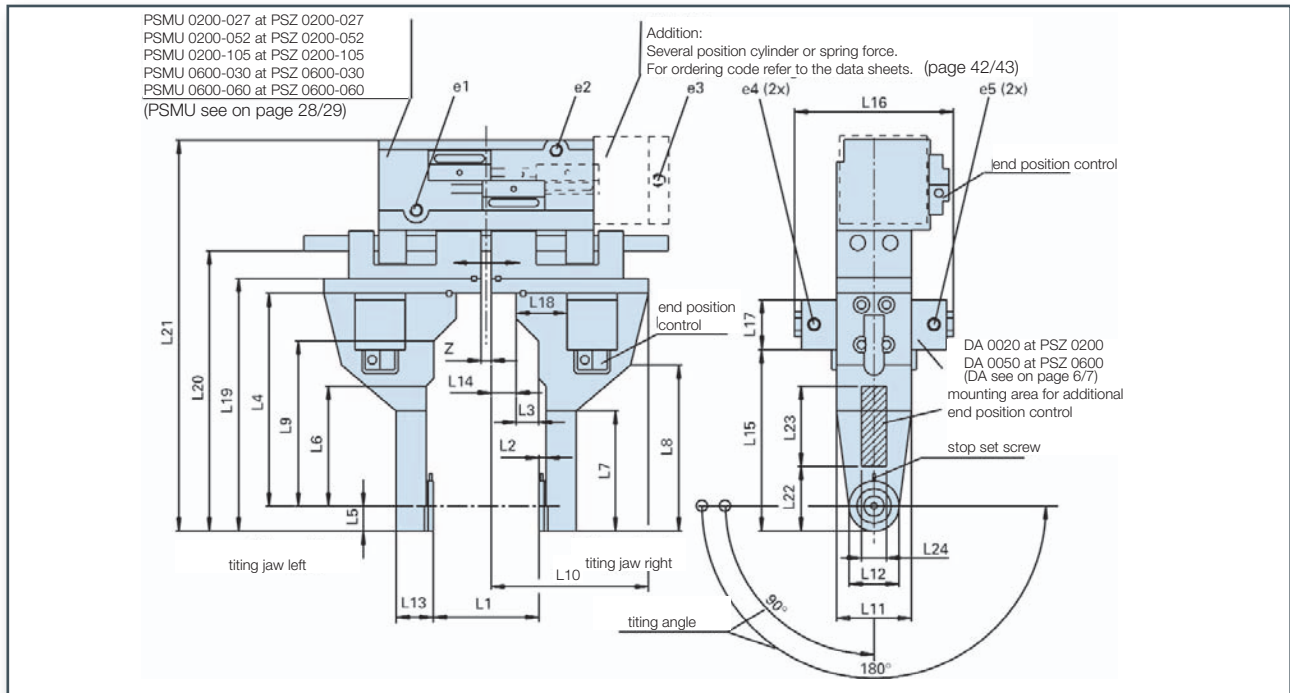
PSZ 0201, PSZ 0601, PSZ 1201, PSZ 3001

- the more robust models of the well known Parallel Tilting Grippers
- strong, reinforced model of the tilting jaws
- enlarged rotation hub for mounting of clamping elements
- additional safety against twist through keyway
- reinforced bearing of the rotation hub
- deep groove ball thrust bearings instead of plain bearing for taking up the gripping forces
- reinforced toothed belt for drive connection
- adjustable end stops (rotation angle $-10^{\circ}/+5^{\circ}$)
- closed system in tilting area
- all PSZ 0201, PSZ 0601, PSZ 1201 and PSZ 3001 are available with elongated tilting jaws !

Please refer for dimensions and other details to technical specification sheets of Parallel Grippers and Tilting Grippers.

Parallel Tilting Grippers

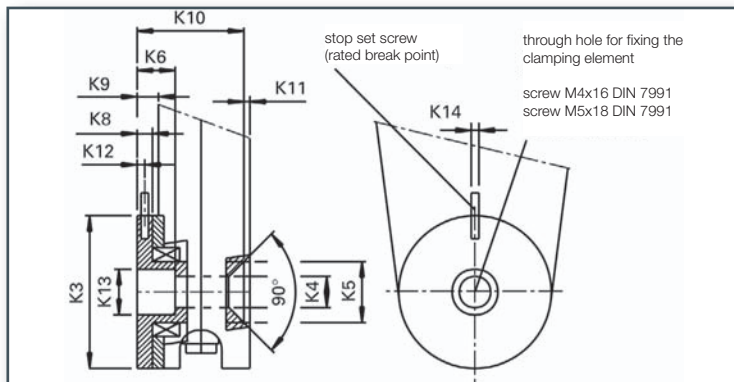
PSZ 0200, PSZ 0600



- e1 air connection „Opening“ M5x5
- e2 air connection „Closing“ M5x5
- e3 air connection „second stroke“ M5x6
- e4 air connection „tilting forward“ M5x4
- e5 air connection „tilting backward“ M5x4

PSZ	0200	0600
compressed air	6 bar	6 bar
torque	40 Ncm	100 Ncm
centric gripping force	125 N	250 N
bearing load Co/F _A	200 N/50 N	400 N/100 N

Dimensions of rotation hub for mounting of clamping elements



PSZ	0200	0600
ø K3	20 -0,2	26 -0,2
ø K4	4,1	5,1
ø K5	8	10
K6	5	5
K8	2	2,5
K9	2,8	3,3
K10	14	17,7
K11	0,8	0,3
K12	1	1
ø K13	6 H7	7 H7
ø K14	1	1,5

Ordering Code

PSZ XXXX - XXX - XXX - X - X

model code base jaw stroke in mm opening size, see table

090 = tilting angle 090°
180 = tilting angle 180°

0 = basic model
1 = with end position control (sheet end pos. control)

Ordering Example you order : PSZ 0200 - 027 - 180 - 1 - 2

we deliver : Parallel Tilting Gripper model PSZ 0200, with base jaw stroke 27 mm, tilting angle 180°, with end pos. control, opening size 59-86 mm

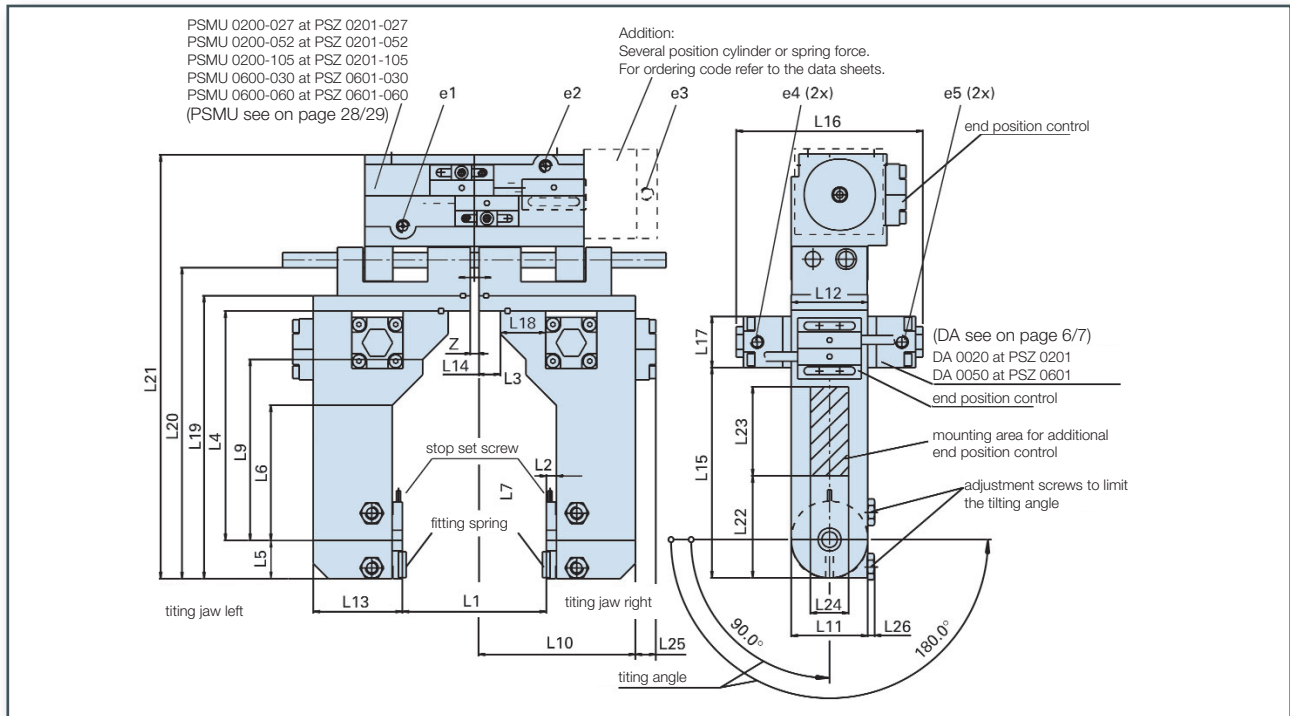
- 1) For special model please give the size L1 min. after the ordering code
- 2) additional ordering code at PSZ 0200 long version: 1324
additional ordering code at PSZ 0600 long version: 1325

All dimensions in mm

model	PSZ 0200-027				PSZ 0200-052				PSZ 0200-105				long version 2)
opening size	0	1	2	3	0	1	2	3	0	1	2	3	—
L1 min.	19	39	59	special	19	64	109	special	47	131	215	special	—
L1 max.	46	66	86	model 1)	71	116	161	model 1)	152	236	320	model 1)	—
L2	2,8				2,8				2,8				—
L3	9				9				9				—
L4	85				85				85				+67,5
L5	10				10				10				—
L6	48				48				48				+67,5
L7	48				48				48				+67,5
L8	66				66				66				—
L9	66				66				66				+67,5
L10	53	63	73	53+L14	53	75,5	98	53+L14	108,5	108,5	137	53+L14+X	—
L11	30				30				30				—
L12	20				20				20				—
L13	14,8				14,8				14,8				—
L14	—	10	20	(L1-Z): 2-L3-0.25	—	22,5	45	(L1-Z): 2-L3-0.25	—	42	84	(L1-28.5): 2+0,75-10	—
L15	72,5				72,5				72,5				+67,5
L16 tilting angle 90°	63,7				63,7				63,7				—
L16 tilting angle 180°	73,2				73,2				73,2				—
L17	20x20				20x20				20x20				—
L18	20,4				20,4				20,4				—
L19	95	101	101	101	95	103	103	103	95	103	103	103	+67,5
L20	106	112	112	112	110	118	118	118	110	120,4	120,4	120,4	+67,5
L21	150,3	156,3	156,3	156,3	157	165	165	165	159,2	167,2	167,2	167,2	+67,5
L22	25				25				25				25
L23	33				33				33				100
L24	10				10				10				10
base jaw stroke	2x13,5	2x13,5	2x13,5	2x13,5	2x26	2x26	2x26	2x26	2x52,5	2x52,5	2x52,5	2x52,5	—
weight kg	0,9	1,0	1,0	1,0	1,1	1,2	1,2	1,2	1,6	1,7	1,7	1,7	—
Z	0,5 at base jaw closed								28,5 at base jaw closed				—

model	PSZ 0600-030				PSZ 0600-060				long version 2)
opening size	0	1	2	3	0	1	2	3	—
L1 min.	32	52	72	special	32	82	132	special	—
L1 max.	62	82	102	model 1)	92	142	192	model 1)	—
L2	3,3				3,3				—
L3	15				15				—
L4	116				116				+90
L5	13				13				—
L6	74				74				+90
L7	74				74				+90
L8	95,5				95,5				+90
L9	91				91				+90
L10	67,5	77,5	87,5	67,5+L14	67,5	92,5	117,5	67,5+L14	—
L11	44				44				—
L12	26				26				—
L13	18				18				—
L14	—	10	20	(L1-Z): 2-L3-0.75	—	25	50	(L1-Z): 2-L3-0.75	—
L15	101,5				101,5				+90
L16 tilting angle 90°	75,6				75,6				—
L16 tilting angle 180°	87,6				87,6				—
L17	25x25				25x25				—
L18	30				30				—
L19	129	139	139	139	129	139	139	139	+90
L20	143	153	153	153	143	153	153	153	+90
L21	203,5	213,5	213,5	213,5	203,5	213,5	213,5	213,5	+90
L22	31				31				31
L23	56				56				146
L24	14				14				14
base jaw stroke	2x15	2x15	2x15	2x15	2x30	2x30	2x30	2x30	—
weight kg	1,9	2,0	2,0	2,0	2,2	2,3	2,3	2,3	—
Z	0,5 at base jaw closed								—

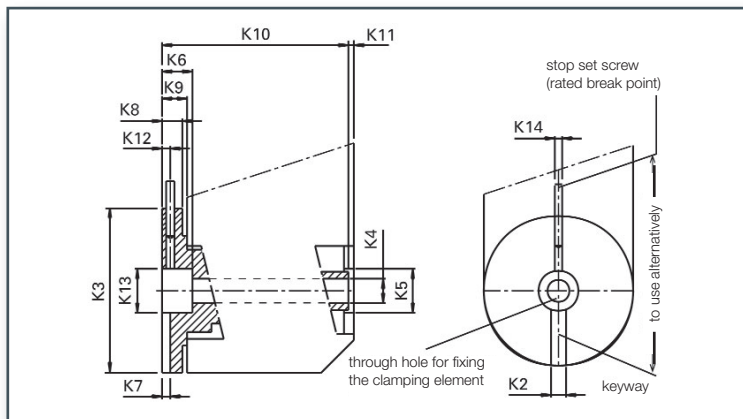
Parallel Tilting Grippers PSZ 0201, PSZ 0601



- e₁ air connection „Opening“ M5x5
- e₂ air connection „Closing“ M5x5
- e₃ air connection „second stroke“ M5x6
- e₄ air connection „tilting forward“ M5x4
- e₅ air connection „tilting backward“ M5x4

PSZ	0201	0601
compressed air	6 bar	6 bar
torque	40 Ncm	100 Ncm
centric gripping force	125 N	250 N
bearing load Co/FA	1000 N/400 N	2000 N/800 N

Dimensions of rotation hub for mounting of clamping elements



PSZ	0201	0601
K2	3 P9	4 P9
∅ K3	30 h7	38 h7
∅ K4	4,4	5,4
∅ K5	8	10
K6	5	8
K7	1,5	2
K8	3,7	4,7
K9	4	5
K10	34	41
K11	1	3
K12	1,5	2
∅ K13	8 H7	10 H7
K14	1,5	2

Ordering Code

PSZ XXXX-XXX-XXX-X-X

model code base jaw stroke in mm opening size, see table

090 = tilting angle 090°
180 = tilting angle 180°

0 = basic model
1 = with end position control (sheet end pos. control)

Ordering Example you order : PSZ 0201-027-180-1-2

we deliver : Parallel Tilting Gripper model PSZ 0201, with base jaw stroke 27 mm, tilting angle 180°, with end pos. control, opening size 76,5-103,5 mm

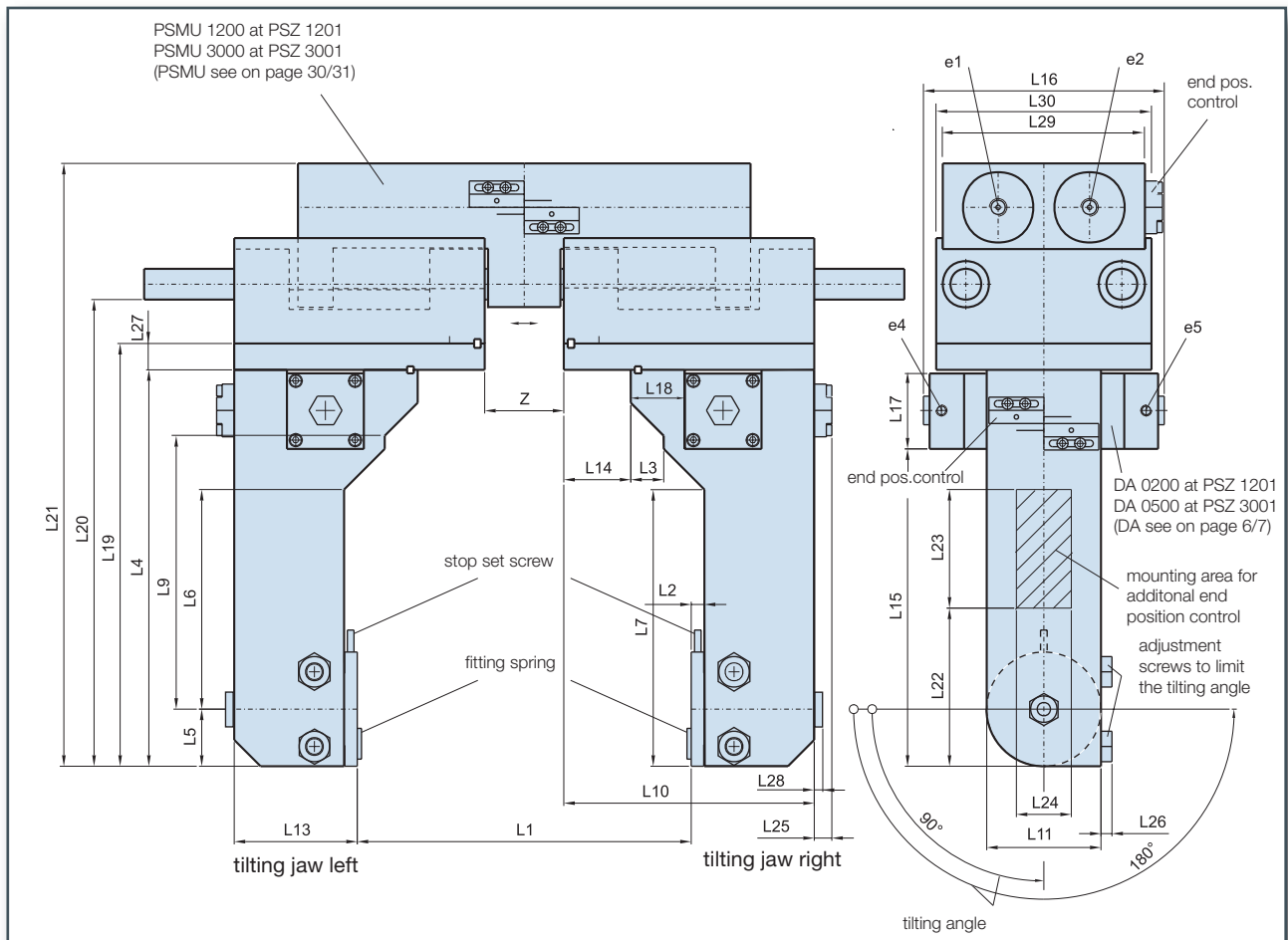
1) for special model please give the size L1 min. after the ordering code.

2) additional ordering code at PSZ 0201 long version: 2291
additional ordering code at PSZ 0601 long version: 2292

All dimensions in mm

model	PSZ 0201-027				PSZ 0201-052				PSZ 0201-105				long version 2)
opening size	0	1	2	3	0	1	2	3	0	1	2	3	—
L1 min.	36,5	56,5	76,5	special	36,5	81,5	126,5	special	64,5	148,5	232,5	special	—
L1 max.	63,5	83,5	103,5	model 1)	88,5	133,5	178,5	model 1)	169,5	253,5	337,5	model 1)	—
L2	4				4				4				—
L3	10				10				10				—
L4	90				90				90				+75
L5	15				15				15				—
L6	53				53				53				+75
L7	68				68				68				+75
L9	71				71				71				+75
L10	53	63	73	53+L14	53	75,5	98	53+L14	108,5	108,5	137	53+L14+X	—
L11	30				30				30				—
L13	35				35				35				—
L14	—	10	20	(L1-Z): 2-L3-8	—	22,5	45	(L1-Z): 2-L3-8	—	42	84	(L1-28,5): 2-L3-8	—
L15	82,5				82,5				82,5				+75
L16 tilting angle 90°	63,7				63,7				63,7				—
L16 tilting angle 180°	73,2				73,2				73,2				—
L17	20x20				20x20				20x20				—
L18	17,7				17,7				17,7				—
L19	105	111	111	111	105	113	113	113	105	113	113	113	+75
L20	116	122	122	122	120,2	128,2	128,2	128,2	122,7	130,7	130,7	130,7	+75
L21	160,3	166,3	166,3	166,3	167	175	175	175	169	177	177	177	+75
L25	8				8				8				—
L26	2,8				2,8				2,8				—
base jaw stroke	2x13,5	2x13,5	2x13,5	2x13,5	2x26	2x26	2x26	2x26	2x52,5	2x52,5	2x52,5	2x52,5	—
L22	40				40				40				40
L23	35				35				35				110
L24	15				15				15				15
weight kg	1,3	1,4	1,4	1,4	1,5	1,6	1,6	1,6	1,9	2,0	2,0	2,0	—
Z	0,5 at base jaws closed								28,5 at base jaws closed				—
Typ	PSZ 0601-030				PSZ 0601-060				long version 2)				
opening size	0	1	2	3	0	1	2	3	—				
L1 min.	47,5	67,5	87,5	special	47,5	97,5	147,5	special	—				
L1 max.	77,5	97,5	117,5	model 1)	107,5	157,5	207,5	model 1)	—				
L2	5				5				—				
L3	15				15				—				
L4	121				121				+108				
L5	19				19				—				
L6	78,5				78,5				+108				
L7	97,5				97,5				+108				
L9	98				98				+108				
L10	67,5	77,5	87,5	67,5+L14	67,5	92,5	117,5	67,5+L14	—				
L11	38				38				—				
L13	44				44				—				
L12	44				44				—				
L14	—	10	20	(L1-Z): 2 -L3-8,5	—	25	50	(L1-Z): 2 -L3-8,5	—				
L15	95				95				+108				
L16 tilting angle 90°	75,6				75,6				—				
L16 tilting angle 180°	87,6				87,6				—				
L17	25x25				25x25				—				
L18	24,5				24,5				—				
L19	140	150	150	150	140	150	150	150	+108				
L20	154	164	164	164	154	164	164	164	+108				
L21	214,5	224,5	224,5	224,5	214,5	224,5	224,5	224,5	+108				
L25	8				8				—				
L26	3				3				—				
base jaw stroke	2x15	2x15	2x15	2x15	2x30	2x30	2x30	2x30	—				
L22	48				48				48				
L23	50				50				158				
L24	18				18				18				
weight kg	2,9	3,0	3,0	3,0	3,5	3,6	3,6	3,6	—				
Z	0,5 at base jaws closed								—				

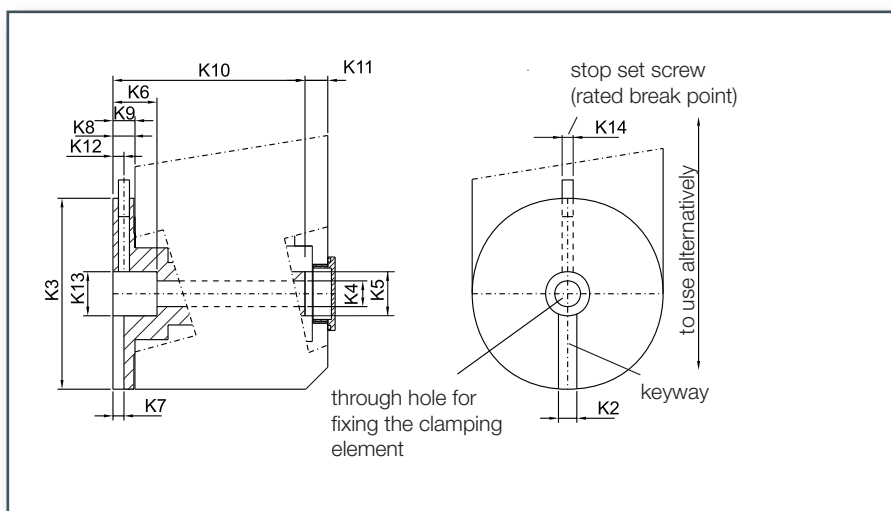
Parallel Tilting Grippers PSZ 1201, PSZ 3001



- e1 air connection "Opening" R1/8x8 / R1/4x10
- e2 air connection "Closing" R1/8x8 / R1/4x10
- e4 air connection "tilting forward" M5x5,5 / R1/8x8
- e5 air connection "tilting backward" M5x5,5 / R1/8x8

PSZ	1201	3001
compressed air	6 bar	6 bar
torque	400 Ncm	1000 Ncm
centric gripping force	600 N	1500 N
bearing load Co/FA	4000 N/1200 N	8000 N/3800 N

Dimensions of rotation hub for mounting of clamping elements



PSZ	1201	3001
K2	5,0 P9	6,0 P9
∅ K3	52,0 h7	65,0 h7
∅ K4	7,0	9,0
∅ K5	12,0	15,0
K6	10,0	15,0
K7	3,0	3,5
K8	5,7	7,7
K9	6,0	8,0
K10	52,3	67,5
K11	6,2	9,0
K12	3,0	3,5
∅ K13	12,0 H7	14,0 H7
K14	3,0	3,0

model	PSZ 1201-080		PSZ 3001-080	
	basic model	special model	basic model	special model
opening size	0	3	0	3
L1 min.	184.0	on request	227.0	on request
L1 max.	264.0	on request	307.0	on request
L2	6.0	6.0	8.0	8.0
L3	15.0	15.0	16.0	16.0
L4	180.5	180.5	226.5	226.5
L5	26.0	26.0	32.5	32.5
L6	100.0	100.0	114.5	114.5
L7	126.0	126.0	147.0	147.0
L9	124.5	124.5	156.7	156.7
L10	114.0	86.0+L14	122.0	113.0+L14
L11	52.0	52.0	65.0	65.0
L13	58.5	58.5	76.5	76.5
L14	28.0	(L1-Z) : 2-27.5	9.0	(L1-Z) : 2-36.5
L15	144.5	144.5	175.5	175.5
L16 tilting angle 90°	90.6	90.6	129.6	129.6
L16 tilting angle 180°	109.6	109.6	162.6	162.6
L17	35x35	35x35	50x50	50x50
L18	26.5	26.5	31.5	31.5
L19	180.5	180.5+L27	226.5	226.5+L27
L20	200.5	200.5+L27	252.5	252.5+L27
L21	262.5	262.5+L27	351.5	351.5+L27
L22	72.0	72.0	75.0	75.0
L23	54.0	54.0	65.0	65.0
L24	25.0	25.0	35.0	35.0
L25	8.0	8.0	8.0	8.0
L26	5.0	5.0	5.0	5.0
L27	—	min. 20.0	—	min. 20.0
L28	2.0	2.0	2.0	2.0
L29	92.0	92.0	134.0	134.0
L30	98.0	98.0	141.0	141.0
base jaw stroke in mm	2x40	2x40	2x40	2x40
weight kg	8.8	min. 8.8	13.3	min. 13.3
Z	73.0 at „base jaws closed”		136.0 at „base jaws closed”	

All dimensions in mm

Ordering Code

PSZ XXXX-XXX-XXX-X-X

| model code
 | base jaw stroke in mm
 | opening size

090 = tilting angle 090°
 180 = tilting angle 180°

0 = basic model
 1 = with end position control (sheet end pos. control)

Ordering Example you order : **PSZ 1201-080-180-1-0** **we deliver :**

Parallel Tilting Gripper model PSZ 1201, with base jaw stroke 80 mm, tilting angle 180°, with end pos. control, opening size 184-264 mm

For special model please give size L1 min. after the ordering code!