



Helping hands for your Forklift truck

Rotating Fork Clamps T451/D
Rotating Clamps T450A
T451W/W180/WA
T453



T450 · T451 · T453 · T456Z

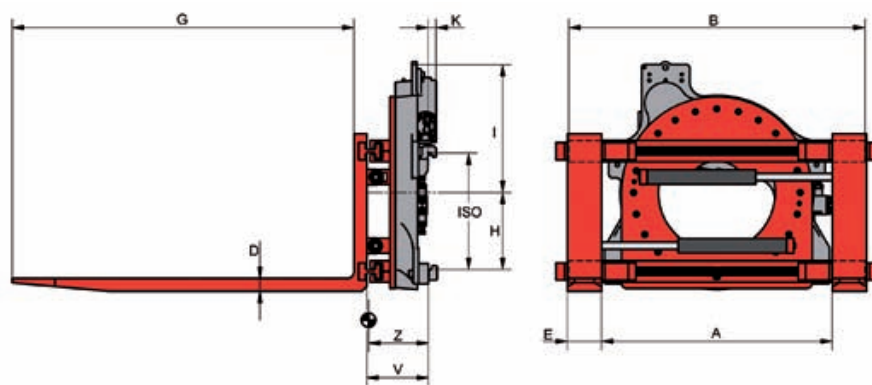
Applications for rotary fork clamps and other rotary attachments

Loads frequently need rotating during production operations and while being conveyed or on- and offloaded. Rotary clamps are produced by KAUP in a large number of designs for these purposes. The different types and their overall variety are dictated by the job requirements. Generally speaking, almost any type of forklift truck clamp can be upgraded to a rotary attachment.

Another typical rotating function required on forklifts is when they are used to transport and empty crates, box pallets and similar containers.

The modular principle systematically adopted by KAUP means that a very limited number of basic components is necessary to create the complete, highly versatile range of rotary attachments and clamps offered by the company. In turn, stocks of replacement parts can be kept small but are still adequate when need arises.





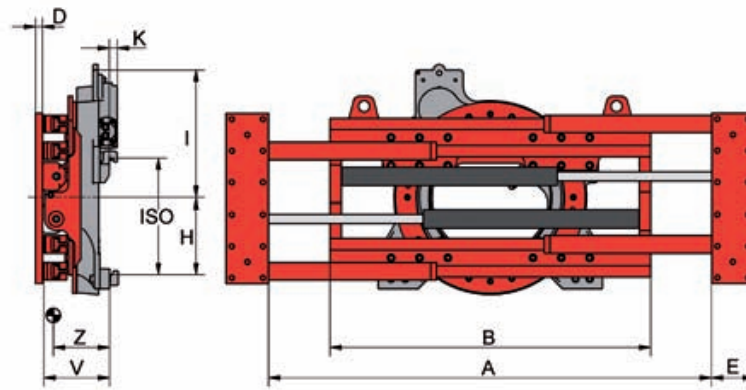
Rotating Fork Positioner T456Z

Rotation 360° continuous – 2 hydraulic functions

Model	Capacity of forks kg/mm	A mm	B mm	D mm	E mm	G mm	H mm	I mm	K mm	Torque $\Delta p=125$ bar Nm	Oil volume required per rev. ltr.	ISO cl.	V mm	CofG Z mm	Weight kg
2T456 Z	2.300/500	250-810	1.040	45	120	1.200	269	457	33	7.700	9,7	2/3	216	273	435
3T456 Z	3.000/500	190-880	1.150	50	150	1.200	338	395	40	8.950	11,3	3	249	287	590
4T456 Z	4.000/500	190-1.090	1.350	50	150	1.200	338	395	40	8.950	11,3	3	249	280	690
5T456 ZG*	5.000/600	260-1.260	1.700	60	150	1.200	345	445	40	13.434	15,7	4	345	300	1.090
8T456 ZG*	5.500/810	240-1.240	1.700	70	160	1.200	396	480	40	21.679	18,8	4	402	318	1.705

Also available with sideshift, model T496Z, see page 65. Also available with bolt-on forks. Larger models and different widths available upon request. *ZG = foundry version.





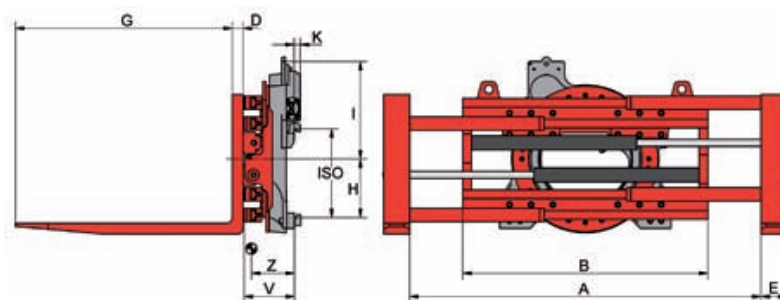
Rotating Clamp with bolt-on plates T450A

without arms¹⁾ – rotation 360° continuous – 2 hydraulic functions

Model	Capacity of forks kg/mm	Capacity as clamp kg/mm	A mm	B mm	D mm	E mm	H mm	I mm	K mm	Torque $\Delta p=125$ bar Nm	Oil volume required per rev. ltr.	ISO cl.	V mm	CofG Z mm	Weight kg
1,5T450A	1.900/500	1.250/500	300-1.480 20-920	970 970	25	120	213	478	33	6.013	7,6	2	216	125 123	299 288
2T450A	2.300/500	2.000/500	280-1.480 290-1.590 40-1.090 290-1.790	1.040 1.130 1.130 1.330	25	150	269	457	32	7.700	9,7	2/3	232	136 137 136 138	402 410 404 425
3T450A	3.000/500	2.500/500	260-1.560 260-1.760	1.130 1.330	25	150	338	395	40	8.950	11,3	3	279	164 165	576 595
4T450A	3.600/500	2.900/500	260-1.760 130-1.630 260-1.890	1.330 1.460 1.460	25	150	338	395	40	8.950	11,3	3	289	161 162 162	650 660 662
4,8T450A	4.500/500	3.500/500	250-1.650 120-1.520 220-1.720	1.330 1.460 1.460	25	150	338	395	40	8.950	11,3	3	314	180 180 181	783 799 802
5T450A	4.500/600	3.500/600	220-1.620 230-1.860 230-2.130	1.330 1.550 1.820	40	200	345	445	48	13.434	15,7	4	360	220 222 223	1.087 1.134 1.176

¹⁾ Suitable forks or arms available upon request. Also available with sideshift, model T490A, see page 65. Forks see page 94.





Rotating Fork Clamp T451

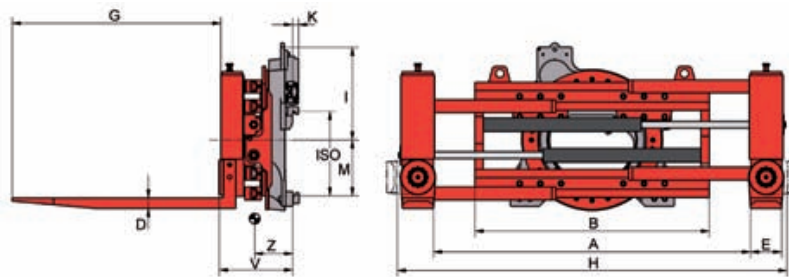
Rotation 360° continuous – 2 hydraulic functions

Model	Capacity of forks kg/mm	Capacity as clamp kg/mm	A mm	B mm	D mm	E mm	H mm	I mm	K mm	Md ²⁾ Nm	Vol ³⁾ ltr.	ISO cl.	V mm	CofG Z mm	Weight kg
1,5 T 451	1.900/500	1.250/500	300-1.480	970	45	120	213	478	33	6.013	7,6	2	216	284	425
			20- 920	970										286	413
			310-1.660	1.130										280	436
			70-1.250	1.200										280	438
			290-1.690	1.200										279	441
2 T 451	2.600/500	2.000/500	310-1.510	1.040	50	120	269	457	33	7.700	9,7	2/3	232	273	529
			320-1.620	1.130										271	536
			70-1.120	1.130										272	531
			120-1.420	1.330										269	547
			320-1.820	1.330										268	551
3 T 451	3.000/500	2.500/500	260-1.560	1.130	50	150	338	395	40	8.950	11,3	3	279	290	750
			260-1.760	1.330										288	770
4 T 451	3.600/500	2.900/500	260-1.760	1.330	50	150	338	395	40	8.950	11,3	3	289	279	820
			130-1.630	1.460										278	830
			260-1.890	1.460										278	835
4,8 T 451	4.500/500	3.500/500	250-1.650	1.330	60	150	338	395	40	8.950	11,3	3	314	294	990
			120-1.520	1.460										293	995
			220-1.720	1.460										293	1.000
5 T 451	4.500/600	3.500/600	270-1.670	1.330	70	150	345	445	48	13.434	15,7	4	360	325	1.246
			280-1.910	1.550										322	1.293
			550-2.450 ¹⁾	1.550										322	1.302
			280-2.180	1.820										320	1.335
6 T 451 B	6.000/600	4.200/600	490-2.390 ¹⁾	1.550	60	180	345	510	46	17.157	20,7	4	433	332	1.856

Preferential range Fork length 'G' = 1.200 mm. Also available with sideshift, model T491, see page 65. Also available with bolt-on forks

¹⁾ Handling of europallets lengthwise not possible. ²⁾ Md: Torque $\Delta P = 125$ bar. ³⁾ Oil volume required per rev.





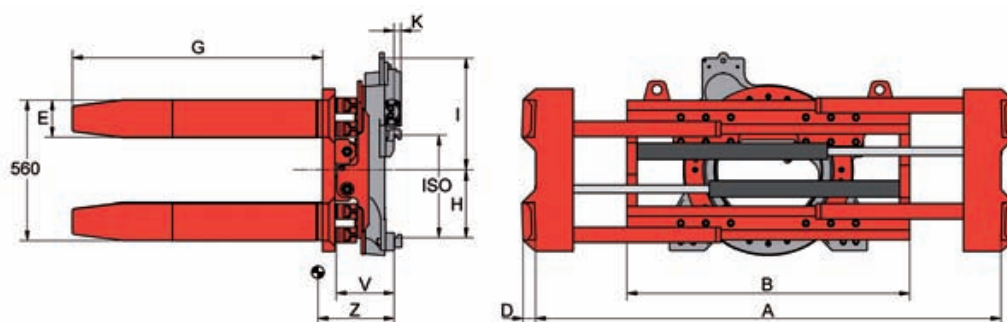
Rotating Fork Clamp with Turnable Forks T451D

Rotation 360° continuous – fork length max. 1300 mm – 2 hydraulic functions

Model	Capacity of forks kg/mm	Capacity as clamp kg/mm	A mm	B mm	D mm	E mm	H mm	I mm	K mm	M mm	Md ¹⁾ Nm	Vol ²⁾ ltr.	ISO cl.	V mm	CofG Z mm	Weight kg
1,5T451D	1.900/500	1.250/500	90-1.090	970	40	120	380-1.380	478	33	213	6.013	7,6	2	331	286	433
			270-1.450	970			560-1.740								285	436
			260-1.660	1.200			550-1.950								281	452
2T451D	2.300/500	2.000/500	130-1.330	1.130	50	150	510-1.710	457	32	269	7.700	9,7	2/3	356	312	602
			230-1.530	1.130			610-1.910								312	605
			230-1.730	1.330			610-2.110								308	620

Preferential range 1) Md: Torque $\Delta P = 125$ bar. 2) Oil volume required per rev. Fork length 'G' = 1.200 mm. Also available with sideshift, model T491D, see page 65.





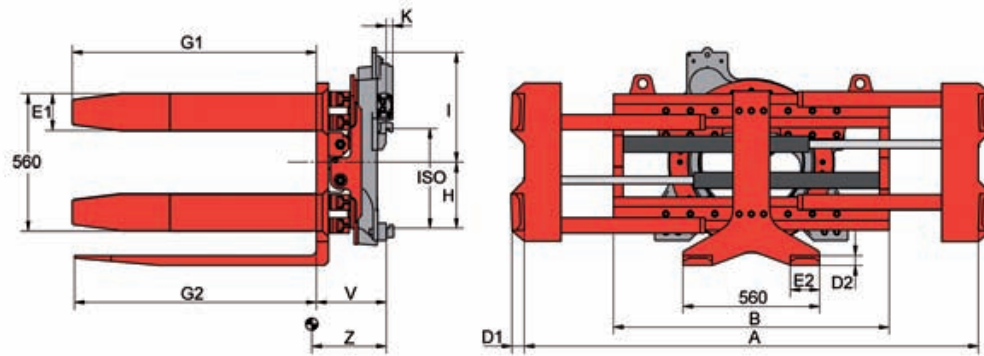
Pallet Turnover Clamp T451W

Rotation 360° continuous – with two movable fork pairs – 2 hydraulic functions

Model	Capacity as clamp kg/mm	A mm	B mm	D mm	E mm	G mm	H mm	I mm	K mm	Md ¹⁾ Nm	Vol ²⁾ litr.	ISO cl.	V mm	CofG Z mm	Weight kg
1,5T451W	1.250/500	540-1.720	970	45	125	1.200	213	432	33	6.013	7,6	2	216	383	531
		530-1.930	1.200											376	547
2T451W	2.000/500	560-1.860	1.130	50	150	1.200	269	515	33	7.700	9,7	2/3	232	385	725
		560-2.060	1.330											381	740
3T451W	2.500/500	560-1.860	1.130	50	150	1.200	338	395	40	8.950	11,3	3	279	373	869
		560-2.060	1.330											369	888
4T451W	2.900/500	560-2.060	1.330	60	160	1.200	338	395	40	8.950	11,3	3	289	380	1.029
		560-2.190	1.460											378	1.041
4,5T451W	2.900/500	560-2.060	1.330	60	160	1.200	328	675	36	14.823	17,4	4	291	364	1.155
		560-2.180	1.460											362	1.169
5T451W	3.500/600	580-2.210	1.550	60	200	1.200	345	455	40	13.434	15,7	4	360	403	1.523
		850-2.750	1.550											399	1.587

Also available with sideshift, model T491W, see page 65. ¹⁾ Md: Torque $\Delta P = 125$ bar. ²⁾ Oil volume required per rev.





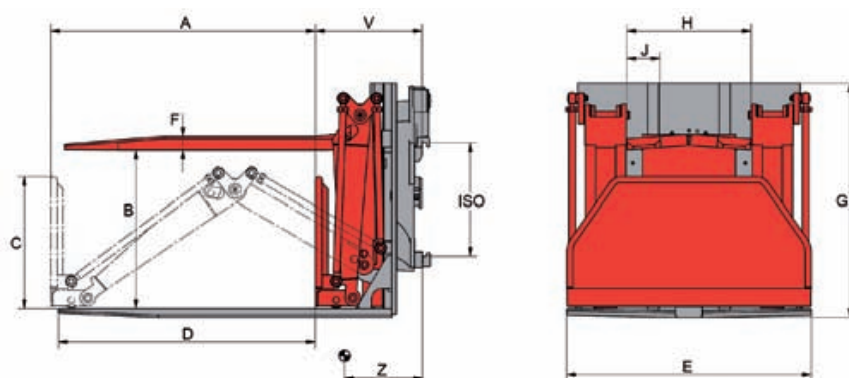
Pallet Turnover Clamp T451W/180

Rotation 360° continuous – with additional pair of forks to empty various boxes – 2 hydraulic functions

Model	Capacity as clamp kg/mm	A mm	B mm	Fork dimensions			Add forks			Md ¹⁾ Nm	Vol ²⁾ ltr.	ISO cl.	V mm	CofG Z mm	Weight kg
1,5T451W/180	1.250/500	540-1.720	970	125	45	1.200	125	45	1.200	6.013	7,6	2B	267	431	678
		530-1.930	1.200												694
2T451W/180	2.000/500	560-1.860	1.130	150	50	1.200	150	50	1.200	7.700	9,7	2/3B	285	437	905
		560-2.060	1.330												920
3T451W/180	2.500/500	560-1.860	1.130	150	50	1.200	150	50	1.200	8.950	11,3	3B	333	423	1.083
		560-2.060	1.330												1.102

Attention: Additional forks exclusively possible with underclearance according to ISO class »B« version. ¹⁾ Md: Torque $\Delta P = 125$ bar. ²⁾ Oil volume required per rev. Also available with sideshift, model T491W/180, see page 65. **Note:** Container must have insertion slots from all sides.





Pallet Turnover Clamp with Pusher T451WA

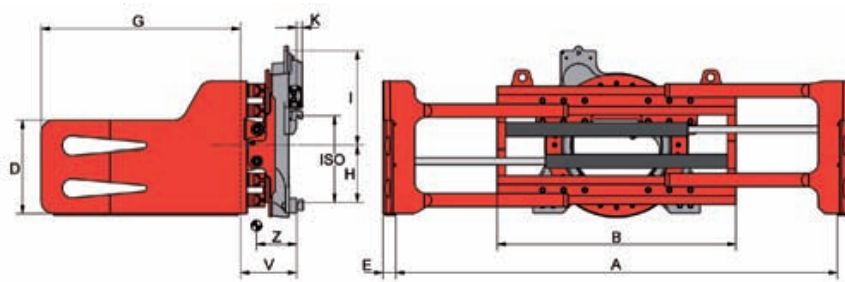
360° rotation continuous – 2 hydraulic functions plus solenoid valve

Pallet Turnover Clamps with Pusher are put into operation when loads have to be transferred from a production pallet to a cheaper transport pallet (one way pallet) or directly loaded into containers, onto lorries or railway wagons. The palletized goods are picked up with the forks, clamped and turned 180°. When the clamp is opened, the load rests on both carrying plates and then can be pushed off onto the transport pallet into the container or directly onto the lorry or railway wagon.

Model	Capacity on forks kg/mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	ISO cl.	V mm	CofG Z mm	Weight kg
2 T 451 WA	1.400/600	1.250	700-1.200	565	1.200	1.100	50	1.045	650	150	2/3	422	280	1.150
3 T 451 WA	2.000/600	1.250	1.050-1.675	735	1.200	1.300	60	1.135	650	160	3	509	320	1.550
3 T 451 WA	2.000/600	1.250	1.050-1.675	735	1.200	1.300	60	1.135	650	160	4	481	300	1.620
4 T 451 WA	2.500/600	1.250	1.050-1.675	735	1.200	1.300	60	1.135	650	160	4	490	320	1.755

Also available with sideshift, model T491WA, solenoid valve required, see page 65. Increased sideshift for container stuffing upon request. Lateral supporting plate upon request.





Rotating Bale Clamp T453

360° rotation continuous - 2 hydraulic functions

Model	Capacity kg/mm	A mm	B mm	D mm	E mm	G mm	H mm	I mm	K mm	Md ¹⁾ Nm	Vol ²⁾ ltr.	ISO cl.	V mm	CofG Z mm	Weight kg
1,5 T 453	1.250/500	475-1.655	970	440	37	1.000	213	478	33	6.013	7,6	2	246	312	462
		475-1.725	1.040											308	475
		465-1.865	1.200											305	485
2 T 453	2.000/500	575-1.875	1.040	440	42	1.000	269	457	32	7.700	9,7	2/3	266	304	606
		675-2.075	1.040											303	609
		485-1.785	1.130											303	611
		585-1.985	1.130											302	614
		485-1.985	1.330											300	627
		595-2.395	1.520											291	667
2,5 T 453	2.300/500	475-1.775	1.130	500	47	1.000	269	457	32	7.700	9,7	2/3	280	380	761
		475-1.975	1.330											377	780
3 T 453	2.500/500	475-1.775	1.130	500	47	1.000	338	395	40	8.950	11,3	3	319	326	854
		475-1.975	1.330											323	873
		475-2.105	1.460											322	886
4 T 453	2.900/500	375-1.775	1.330	500	47	1.000	338	395	40	8.950	11,3	3	329	314	928
		475-1.975	1.330											314	930
		605-2.235	1.330											314	933
		475-2.105	1.460											313	943
		385-2.105	1.550											312	991
4,8 T 453	3.500/500	465-1.865	1.330	500	52	1.000	338	395	40	8.950	11,3	3	359	313	1.089
		695-2.325	1.330											313	1.096
		565-2.195	1.460											311	1.112

Preferential range

Also available with sideshift, model T493, see page 65. Also available with additional pair of forks – model T453/180. Variations in width, opening ranges and arm dimensions available upon request. ¹⁾ Md: Torque $\Delta P=125$ bar. ²⁾ Oil volume required per rev.



Rotating Fork Clamp T451



Rotating Fork Clamp with Turnable Forks T451D



Pallet Turnover Clamp T451W



Pallet Turnover Clamp T451W/180



Rotating Bale Clamp T453



Rotating Bale Clamp T453/180



Rotating Bale Clamp T453G · T493 · T453S



KAUP attachments correspond to the requirements of the valid EC regulations regarding quality, safety and technical documentation.
All technical data are subject to alteration.

KAUP is certified acc. to DIN EN ISO 9001



Helping hands for your Forklift truck

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