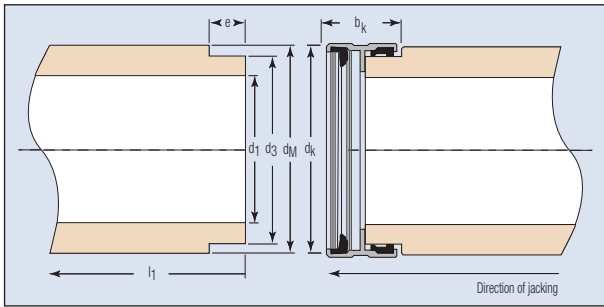


# Vitrified clay pipes for pipe jacking from Steinzeug | Keramo in accordance with EN 295-7

## Jacking pipe DN 150

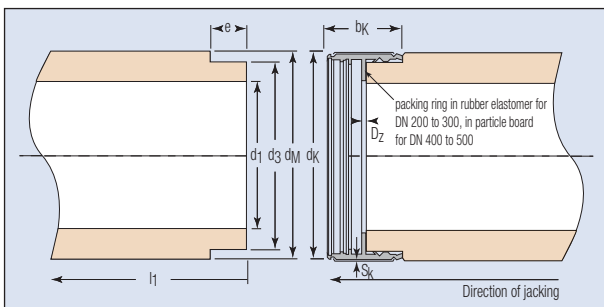


The coupling consists of glass fibre reinforced polypropylene. Vitrified clay DN 150 jacking pipes can be connected to Steinzeug | Keramo standard pipes directly with the jacking coupling or via the metal banded M couplings (spigot-spigot).

DN	Diameter of the pipes			Coupling		Effective length $l_1$	Recess $e$	Maximum permissible jacking force		Average weight kg/m
	Internal $d_1$	Pipe end $d_3$	Pipe body $d_M^{(2)}$	Diameter $d_k$	Width $b_k$			$F_1^{(3)}$	$F_2^{(4)}$	
	mm	mm	mm	mm	mm	kN	kN			
150	+/-2	186 +/-2	213 +0/-4	207 +/-1	103 +/-1	997 +/-2	50 +3/-1	170	210	36

Dimensions in mm, subject to technical changes • (2) dimensions measured with sliding calliper • (3)  $F_1$ : working jacking force with manual recording, safety factors 2 and 2 • (4)  $F_2$ : working jacking force with automatic recording and control, safety factor 2 and 1,6

## Jacking pipes DN 200 to DN 500 with stainless steel coupling type 1



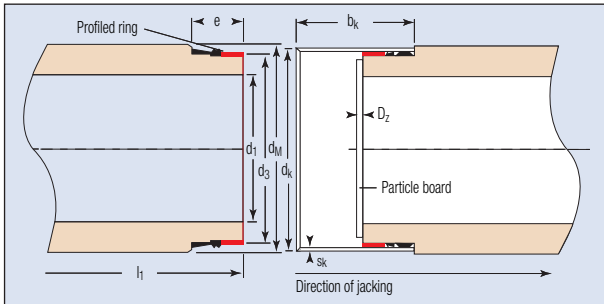
The coupling for pipes in these diameters consists of a contoured stainless steel ring, V4A type EN 1.4571, with an integrated moulded rubber seal. The ring has a high chrome and nickel content and a relatively significant molybdenum content. The packing ring, which transmits the jacking force, is integrated and forms a unit with the moulded sealing ring. For diameters up to DN 300 the packing ring is made from rubber elastomer and for DN 400 - DN 500 from fibreboard. The sealing rubber contours not only guarantee tightness, but ensure full protection from the ingress of soil and groundwater during the jacking.

DN	Diameter of the pipes			Coupling					Effective length $l_1$	Maximum permissible jacking force $F_2^{(3)}$	Average weight kg/m
	Internal $d_1$	Pipe end $d_3$	Pipe body $d_M^{(2)}$	$e$	$d_k$	$b_k$	$S_k$	$D_z$			
	mm	mm	mm	mm	mm	mm	mm	mm	kN		
200	+/-3	244 +/-2	276 +0/-6	50 +3/-1	267,8	103	1,5	4	996 ±2	350	60
250	+/-3	322 +0/-1	360 +0/-6	50 +3/-0	342,8	106	1,5	5	995 1995	810	105
300	+/-5	374 +0/-1	406 +0/-10	50 +3/-0	395,8	106	2,0	5	995 1995	1000	125
400	+/-6	517 +0/-1	556 +0/-12	50 +3/-0	538,0	111 +/-2	2,0	10 <sup>(4)</sup>	990 1990	2200	240
500	+/-7,5	620 +0/-1	661 +0/-15	55 +3/-0	639,5	127 +/-2	2,5	16 <sup>(4)</sup>	984 1984	2700	295

Dimensions in mm • (2) dimensions measured with sliding calliper • (3)  $F_2$ : jacking force for automatic recording and control, safety factors 2 and 1,6 • (4) particle board • technical changes reserved • special dimensions on demand

# Vitrified clay pipes for pipe jacking from Steinzeug | Keramo in accordance with EN 295-7

## Jacking pipes DN 600 to DN 1200 with stainless steel coupling type 2 and prestressing ring



Steinzeug | Keramo jacking pipes DN 600 - DN 1200 are delivered with a stainless steel (V4A type EN 1.4571) coupling with a high chrome and nickel content and a relatively significant molybdenum content. The packing ring for transferring the jacking force is made from particle board and is prefitted to the coupling. A prestressing ring is fitted at each spigot end. These rings provide additional protection during transport and in case of relatively poorly controlled steering motions during jacking. At the same time, this has increased the permissible jacking forces.

DN	Diameter of the pipes			End	Coupling			Pressure transferring ring			Effective length $l_1$	Maximum permissible jacking force $F_2^{(3)}$ kN	Average weight
	Internal	Pipe end	Pipe body		$e$	$d_K$	$S_K$	$b_K$	$d_z$	$d_{za}$			$d_{zi}$
	Tolerances on $d_1$	$d_3$ +0/-1	$d_M^{(2)}$	$\pm 2$	$\pm 1$	$\pm 0,2$	$\pm 1$	$\pm 1$	$\pm 1$	$\pm 1$	$\pm 1$	kN	
600	$\pm 9$	723	766 +0/-18	70	731	3	143	19	713	615	1981	3100	350
700	$\pm 12$	827	870 +0/-24	70	837	4	143	19	816	715	1981	3300	434
800	$\pm 12$	921	970 +0/-24	70	931	4	143	19	911	823	1981	3700	507
1000	$1056 \pm 15$	1218	1275 +0/-30	70	1230	5	143	19	1208	1077	1981	5700	855
1200	$1253 \pm 18$	1408	1475 +0/-36	70	1422	6	143	19	1397	1277	1981	6400	990

Dimensions in mm • (2) dimensions measured with sliding calliper • (3)  $F_2$ : jacking force for automatic recording, safety factors 2 and 1,6 • subject to technical changes • dimensions without prestressing ring available on demand



Additionally deliverable :

- Short milled pipe elements for connection to inspection chambers;
- Metal banded M-seals and bushes for connection to standard open trench pipes;
- Concrete jacking pipes with inliner pipes (up to DN 1400 mm) or with keraline lining plates (for longer pipelengths, larger diameters and other pipe cross-sections).