KG 2000 Complete System Solutions from a Single Source

Non-Pressure pipe system



KG 2000 system advantages

Economical, standardized high-load pipe system

The KG 2000 is a solid-wall pipe system standardized according to DIN EN 14758, which meets all the requirements of a modern sewage pipe system. The optimized polypropylene (PP-MD) has a high rigidity and optimal impact strength even at low temperatures while the measured ring stiffness is \geq 10 kN/m². The patented three-stage lip seal enables the pipe connection to be made easily and safely. Tested at 2.4 bar and with an extensive range of fittings, KG 2000 can also be used in drinking water protection zones. Its green colour, prevents any mix up with pipes and fittings of other systems. This guarantees a visible consistency of the quality and system homogeneity in sewage canals even after the pipes are installed. KG 2000 can be install according to DIN EN 1610 without any additional special requirements and can be installed in both deep and shallow installation depths under heavy traffic The robust material in combination with the wall thickness forms the basis for a high-load pipe system, which can withstand all loads in the sewage system over the long term.

Concept





High-load sewage pipe

KG 2000 is an extremely robust solid wall pipe with a homogeneous wall structure made from optimized PP-MD. Thanks to a special production process, KG 2000 pipes and fittings have a significantly higher modulus of elasticity and thus the perfect balance between rigidity and toughness. The high ring stiffness enables very good resilience, while the toughness makes KG 2000 particularly break-proof. The combination of these properties makes KG 2000 insensitive to impact at low temperatures, and can therefore be optimally installed even at minus degree temperatures.

Extremely resilient

The material polypropylene has also established itself in a wide variety of areas and is particularly characterized by its excellent mechanical, chemical and physical properties. Thanks to the optimized material and the high wall thickness, KG 2000 can offer an even more robust behaviour during installation and operation. The ring stiffness measured according to DIN EN ISO 9699 is \geq 10 kN/m². Hence, KG 2000 can be used even under extreme conditions in the heavy load area (SLW 60) with a coverage of 0.5 m.

Compliant and durable

In order to ensure the high quality and service life of pipes and fittings, high-tech production is carried out in accordance with the European standard DIN EN 14758-1. The long-term behaviour of pipes and fittings is also continuously examined by the MPA Darmstadt in a creep internal pressure test in accordance with EN ISO 1167. 30 years of experience in the direct extrusion of PP-MD, as well as permanently monitored quality make KG 2000 a recognized and proven sewage system for the next 100 years.

Environmentally friendly

Its well thought-out construction and production make KG 2000 a particularly environmentally friendly system, with resource-saving and CO2-saving production with 100% recyclability on the one hand, and excellent groundwater protection with the help of the modern sealing system on the other. The green colour for pipes and fittings also prevents them from being mistaken and mixed up with conventional fittings. In this way, KG 2000 becomes a particularly leak-proof complete system, which, thanks to good camera inspection, is also ideally suited for later construction and warranty acceptance.





Smooth surfaces

Very smooth inner pipe surfaces mean optimal hydraulics. The almost pore-free walls ensures that incrustations cannot develop. An ideal selfcleaning effect with every flow.

KG 2000 product portfolio

Connection technology

Triple protection

KG 2000 offers excellent sealing reliability so that waste water cannot escape from sewage networks, groundwater cannot enter the pipes, and the environment is thus not additionally polluted. KG 2000's patented sealing system consists of a sleeve with a specially designed sealing bead and a fitted triple lip sealing element.

- With the first lip, the clamping and retaining lip, the sealing element is fixed in the bead so that it cannot move.
- The subsequent wiper lip prevents dirt and sand from entering.
- The sealing lip ultimately seals the pipe connection permanently.

The result: A shift-proof, permanent protection against infiltration and exfiltration.



- 1. Clamping and retaining lip
- 2. Wiper lip
- 3. Sealing lip



Low insertion forces

In addition to a high level of sealing security, the special construction of the sealing element also has an economic effect. The gradation of the sealing lips leads to a minimization of the insertion forces, which reduces the use of technical aids and ensures that special tools are not required. In this way, a lot of time is saved when laying KG 2000.

Multiple tests

In addition to the tightness test required by the standard, KG 2000 is also tested for tightness under a particularly high pressure of 2.4 bar by the MPA Darmstadt. Successful completion of this leak test exceeds the requirements of the Water Management Act and makes KG 2000 optimally suited for use in drinking water protection zones.

High flexibility

In contrast to permanently integrated seals, the KG 2000 sealing system allows the sealing element to be flexibly removed and reinserted. In this way, any contamination can be cleaned on site at any time. A visual inspection is possible without any problems. Depending on the application, the use of NBR seals may also be required. If oil and petrol resistance is required, the KG 2000 sealing element can be changed quickly and practically on the construction site. It is not necessary to replace the entire system; Pipes and fittings can simply be reused.

KG 2000 product range

D D	KG 2000	• Pipe witl	h one-sided p	ush-in s	socket	
	DN/OD	L	Article	D	е	t
+	D ₁	mm	No.	mm	mm	mm
	110	500	4021866	128	3.4	72
	110	2000	4021868	120	3.4 3.4	72
	110	5000	4021869	128	3.4	72
	125	500	4021870	146	3.9	80
	125	1000	4021871	146	3.9	80
	125	2000	4021872	146 146	3.9	80
	160	500	4021873	140	3.9 4.9	95
	160	1000	4021875	187	4.9	95
	160	2000	4021876	187	4.9	95
	160	5000	4021877	187	4.9	95
	200	500 1000	4021878 4021879	236	6.2 6.2	123
	200	2000	4021880	236	6.2	123
	200	5000	4021881	236	6.2	123
	250	1000	3017839	287	7.7	133
	250	3000	3017840	287	1.1	133
	315	1000	3017842	359	9.7	155
	315	3000	3017843	359	9.7	155
	315	6000	3017844	359	9.7	155
	400	1000	3023188	450	12.3	180
	400	6000	3023229	450 450	12.3	180
	500*	1000	3045629	-	-	-
NE	W 500*	3000	3045630	-	-	-
	500*	6000	30/5631	_	-	-
	* Dimension	s and deliver	v times available	on reque	et.	
	* Dimension	is and deliver	y times available	on reques	st.	
	* Dimension KG 2000	• Bends	y times available	on reques	st. 72	+
0 <u>72</u> t	* Dimension KG 2000 DN/OD D1	• Bends α °	y times available	on reques z1 mm	st. z2 mm	t mm
s t	* Dimension KG 2000 • DN/OD D1 110	• Bends α 15	y times available Article No. 4021882	on reques z1 mm 9	st. z2 mm 15	t mm 72
	* Dimension KG 2000 * DN/OD D1 110 110	• Bends α 15 30	Article No. 4021882 4021883	on reques z1 mm 9 17	z2 mm 15 21	t mm 72 72
	* Dimension KG 2000 * DN/OD P1 110 110 110 110	s and deliver • Bends α 15 30 45 67	Article No. 4021882 4021883 4021884 4021885	on reques z1 mm 9 17 26 41	st. z2 mm 15 21 29 47	t mm 72 72 72 72 72
	* Dimension KG 2000 • DN/OD P1 110 110 110 110 110 110	• Bends α 15 30 45 67 87	Article No. 4021882 4021883 4021884 4021885 4021885	on reques z1 mm 9 17 26 41 59	z2 mm 15 21 29 47 65	t mm 72 72 72 72 72 72
	* Dimension KG 2000 DN/OD D1 110 110 110 110 110 110 125	• Bends α 15 30 45 67 87 15	Article No. 4021882 4021883 4021884 4021885 4021885 4021886 4021886 4021887	on reques z1 mm 9 17 26 41 59 10	z2 mm 15 21 29 47 65 16	t mm 72 72 72 72 72 72 80
	* Dimension KG 2000 DN/OD D1 110 110 110 110 110 125 125	• Bends α 15 30 45 67 87 15 30 45 67 87 15 30	Article No. 4021882 4021883 4021884 4021885 4021885 4021886 4021887 4021888	on reques z1 mm 9 17 26 41 59 10 19 20	z2 mm 15 21 29 47 65 16 23	t mm 72 72 72 72 72 72 80 80
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	* Dimension KG 2000 DN/OD D1 110 110 110 110 110 125 125 125 125 125 125 125 125	 Bends α 15 30 45 67 87 87 15 30 45 67 87 	Article No. 4021882 4021883 4021883 4021885 4021885 4021886 4021887 4021888 4021889 4021899 4021891 4021892 4021893 4021894 4021895 4021895	on request z1 mm 9 17 26 41 59 10 19 29 46 66 13 24 37 59 84	st. z2 mm 15 21 29 47 65 16 23 33 52 72 19 30 42 66 91	t mm 72 72 72 72 72 72 72 80 80 80 80 80 80 80 95 95 95 95
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	DN/OD	DN/OD	Article	z1	z2	z3	t	t1
	D ₁	D_2	No.	mm	mm	mm	mm	mm
	110	110	4021899	26	134	134	72	72
	125	110	3030903	15	141	140	80	72
	125	125	4021901	29	152	152	80	80
	160	110	4021900	2	168	159	95	72
	160	125	4021902	13	176	170	95	80
	160	160	4021903	37	194	194	95	95
	200	160	4021904	19	221	218	123	95
	200	200	4021905	46	244	244	123	123
	250	160	3017861	57	258	311	133	95
	250	250	3017862	57	311	311	133	133
	315	160	3017863	40	301	250	155	95
	315	200	3017864	72	325	393	155	123
	315	315	3017865	72	393	393	155	155
	400	160	3023227	82	394	526	180	95
	400	200	3023228	55	417	555	180	123
	400	400	3023239	78	663	683	180	180
NEW	500*	160	3045633	-	-	-	-	-

* Dimensions and delivery times available on request.

KG 2000 • Branch 45°



KG 2000 • Branch 87°							
DN/OD	DN/OD	Article	z1	z2	z3	t	t1
D ₁	D ₂	No.	mm	mm	mm	mm	mm
110	110	4021906	59	62	62	72	72
160	110	3030904	55	85	68	95	72
160	160	3030905	81	91	91	95	95





	KG 2000 • Reducer							
	DN/OD	DN/OD	Article	z1	t	L		
	D ₁	D ₂	No.	mm	mm	mm		
	125	110	4021907	16	80	99		
	160	110	4021908	34	95	135		
	160	125	4021909	28	95	129		
	200	160	4021910	32	123	176		
	250	200	3017891	49	133	181		
	315	250	3017894	63	155	215		
	400	315	3023226	91	180	271		
NEW	500*	400	3045636	-	-	-		
	* Dimensions and delivery times available on request							

Dimensions and delivery times available on reques





Ita 2000 - Double Socket	KG 20)00 • C	Double	sock	et
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DN/OD	Article	t	L
D ₁	No.	mm	mm
110	4021911	80	139
125	4021915	95	155
160	4021919	95	185
200	4021923	123	239
250	3017904	133	275
315	3017906	155	315
400	3023225	180	345
NEW 500*	3045635	-	-
* Dimensions	and delivery times availal	ble on request.	

		KG 200	0 • Sleeve socket				
		DN/OD		Arti	cle		L
	T	D ₁		No) .		mm
I have a second se		110		4021	925		139
		125		4021	928		155
		160		4021	931		185
		200		4021	934		239
		250		3017	920 1921		275
		400		3023	224		345
	NEW	500*		3045	634		-
		* Dimensi	ions and delivery times a	vailable o	n request.		
		KG 200	0 • Socket plug				
		DN/OD		Art	icle		L
	a — —	D ₁		N	0.		mm
		110		402	1912		55
		125		402	1910		70
		200		402	1924		85
		250		3017	7905		88
		315		3017	7907		98
		400		3023	3223		116
		KG 200	0 • Cleaning pipe				
And the second second		DN/OD	Article Cleani	ng cover	lxb	t	L
		D ₁	No. n	nm	mm	mm	mm
		110	4021926 2	29	129	72	288
The second se	-	125	4021929 2	29	129	80	307
· · ·		160	4021932 2	82	182	95	330
		200	3021000 2	82	182	123	533
Car							
		KG 200	0 • Connection to d	lay pipe	e - spigot L		
		DN/OD	Article		d	t	
			No.		mm	mm	
		110	4021913		138	73	151
		125	4021917		164	73	172
		160	4021921		194	73	207
		KG 200	0 • Connection to c	lay pipe	e -socket L		
		DN/OD	Article	D	t	t1	L
		D ₁	No.	mm	mm	mm	mm
y y		110	4021914	132	/2	75 75	109
		120	4021910	100	00 05	75	112
		100	4021922	107	90	75	110
		KG 200	0 • Connection to o	ast iror	n pipe -spig	ot*	
		DN/OD	Article		D	t	L
1 and	히 -	D ₁	No.		mm	mm	mm
		110	4021927		125	85	133
		125	4021930		152	120	151
		160	4021933		177	122	165
		* A GA se	ealing set is also required	l.			









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DN/OD	Article	Drilling machine	t	L	
D ₁ *	No.	mm	mm	mm	
160	3029874	186	95	165	
200	3029873	226	123	197	
* D1 = 160 for concrete pipes from DN 300;					
		(DNI 400			

D1 = 200 for concrete pipes from DN 400.

Backflow protection made of PP • Single lock

Article	L	В	н
No.	mm	mm	mm
4041736	287	188	210
4041737	318	202	228
4041738	367	243	274
4041076	480	311	328
	Article No. 4041736 4041737 4041738 4041076	Article L No. mm 4041736 287 4041737 318 4041738 367 4041076 480	Article L B No. mm mm 4041736 287 188 4041737 318 202 4041738 367 243 4041076 480 311

Backflow protection made of PP • Double lock

DN/OD	Article	L	В	н	
D ₁	No.	mm	mm	mm	
110	3045404	486	188	227	
160	4041077	626	243	293	
* available on request					

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Wavin KG 2000 • Manhole lining • PP • including seal					
DN/OD	Article	L	D	d	
D1	No.	mm	mm	mm	
110 (short)	3041325	110	131	122	
125 (short)*	4048938	110	-	-	
160 (short)	3041328	110	184	176	
200 (short)	3041349	110	226	217	
250 (short)	3041350	110	286	275	
315 (short)	3041351	110	354	340	
400 (short)	3041352	110	440	429	
110 (long)	3041353	240	137	122	
125 (long)*	4048937	240	-	-	
160 (long)	3041354	240	190	176	
200 (long)	3041355	240	232	217	
250 (long)	3041356	240	290	275	
315 (long)	3041357	240	359	340	
400 (long)*	4043046	240	-	-	
500 (long)*	4043066	240	-	-	
* Design in PVC	(All dimensions av	ailable on request)			

KG 2000 • Replacement seals made of SBR

DN/OD	Article
D ₁	No.
110	4021935
125	4021936
160	4021937
200	4021938
250	4025857
315	4025860
400	4031759
500	4046670

	KG 2000 • Oil and petrol resistant sealing ring made of	NBR*
	DN/OD	Article
	D ₁	No.
	110	4021862
	125	4021863
	160	4021864
	200	4021865
	250	4025856
	315	4025859
	400	4031760
	* According to DIN EN 681-1; vulcanized rubber grade WCO.	
	KG 2000 • Replacement seal for connection to	
	clay pipe spigot end	
	DN/OD	Article
	D ₁	No.
	110	4021859
	125	4021860
	160	4021861
	KG 2000 • GA sealing set for connection to cast iron	
	pipe spigot end	
	DN/OD	Article
	D1	No.
	110	4001105
	125	4001107
	160	4001109
	200	4001111
	KG 2000 • Lubricant	
Beltmitten	Tube contents	Article
	g	No.
C A	150	4025536
	250	4025503
	500	4025504
	1000	4025505
V	3000*	4025680
	* Delivery in a bucket	

KG 2000 standard statics

In addition to the pipe characteristics, the soil values, installation conditions and loads are included in the static calculation according to DVWK-ATV A127. Before starting construction, the installation conditions must be checked against those of the static calculation. According to DVWK-ATV Worksheet A127, a vertical diameter change as a long-term value of $\leq 6\%$ is permissible for flexible pipe systems.

In addition to the long-term deformation, the stress and stability verification must also be carried out. These verifications are fulfilled for all calculations with the specified installation parameters.

The deformations determined in the standard statics the follo inctallati

are based on the following installation parameters:	Installation	Deformation (long-term)		Safety again	st bulging	Tension		
		depth	GOK/5.0 m	without	GOK/5.0 m	without	GOK/5.0 m	without
- Traffic load: Heavy traffic SLW 60 (road)		0.50 m	< 6.00	04	> 2.00		< 2.50	
- Coverage height: 0.5 m - 6.0 m	DN/OD 110	6.00 m	< 0.00	/ /0				
- Natural ground: G3 (92 %)		0.50 m	< 6.00.%		> 2 00		< 2.50	
	DIN/OD 123	6.00 m	< 0.00	//0	/ 2.00		~ 2.50	
- Pipeline zone: G1 (95 %)	DN/OD 160	0.50 m	< 6.00 %		> 2.00		< 2.50	
- Covered ground: G3 (92 %)		6.00 m						
- Coverage conditions: A1	DN/OD 200	0.50 m	< 6.00 %		> 2.00		< 2.50	
- Fuch a dalla a secoliticana D1		6.00 m						
- Embedding conditions: Bi		0.50 m	< 6.00 %		> 2.00		< 2.50	
- Groundwater: available (up to max. 5.0 m)	DN/OD 250	6.00 m						
- Slope angle: 60°	DN/OD 315	0.50 m	< 6.00	1%	> 2 (00	- 21	50
	210,02,010	6.00 m	< 0.00 /0		2.00		< 2.50	
- Supporting angle: $2\alpha = 90^{\circ}$		0.50 m	< 6.00 %		> 2.00		< 2.50	
- Trench width: according to DIN EN 1610	DN/OD 400	6.00 m						

Long-term deformation in % with different coverage heights in m



In case of grossly different installation conditions, the required evidence should be verified by means of a separate static calculation.

A verifiable static calculation for our pipe systems can be requested free of charge if an order is placed on the basis of a completed static object questionnaire.

KG 2000 hydraulics

Drainage capacity of KG 2000 according to DIN EN 14758 according to ATV A 110 "Hydraulic dimensioning of sewers and pipes with circular profiles"

With full filling h/di = 1.0 and drainage lines with shafts kb = 0.5 mm														
	DN/OD	110	DN/OD	125	DN/OD *	160	DN/OD 200 DN/OD 250		50	DN/OD 315		DN/OD 400		
Gradient	di = 103	.2 mm	di = 117.2 mm		di = 150.2 mm		di = 187.8 mm		di = 234.6 mm		di = 295.6 mm		di = 375.4 mm	
[cm/m]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]
0.2	2.93	0.35	4.12	0.38	7.98	0.45	14.42	0.52	26.11	0.60	48.15	0.70	90.53	0.82
0.3	3.61	0.43	5.08	0.47	9.84	0.56	17.76	0.64	32.13	0.74	59.22	0.86	111.30	1.01
0.4	4.19	0.50	5.89	0.55	11.40	0.64	20.58	0.74	37.22	0.86	68.57	1.00	128.81	1.16
0.5	4.70	0.56	6.60	0.61	12.78	0.72	23.07	0.83	41.70	0.96	76.80	1.12	144.25	1.30
0.6	5.17	0.62	7.25	0.67	14.03	0.79	25.31	0.92	45.75	1.06	84.25	1.23	158.21	1.43
0.7	5.59	0.67	7.85	0.73	15.18	0.86	27.38	0.99	49.48	1.14	91.10	1.33	171.05	1.55
0.8	5.99	0.72	8.40	0.78	16.25	0.92	29.30	1.06	52.95	1.22	97.48	1.42	182.99	1.65
0.9	6.36	0.76	8.92	0.83	17.25	0.97	31.11	1.13	56.20	1.30	103.46	1.51	194.22	1.75
1.0	6.70	0.80	9.42	0.87	18.20	1.03	32.82	1.19	59.29	1.37	109.13	1.59	204.83	1.85
1.1	7.05	0.84	9.88	0.92	19.11	1.08	34.45	1.25	62.22	1.44	114.52	1.67	214.93	1.94
1.2	7.36	0.88	10.33	0.96	19.97	1.13	36.00	1.30	65.02	1.50	119.66	1.74	224.58	2.03
1.3	7.67	0.92	10.76	1.00	20.80	1.17	37.49	1.36	67.71	1.57	124.60	1.82	233.83	2.11
1.4	7.97	0.95	11.18	1.04	21.60	1.22	38.92	1.41	70.29	1.63	129.35	1.88	242.74	2.19
1.5	8.25	0.99	11.57	1.07	22.37	1.26	40.31	1.46	72.79	1.68	133.94	1.95	251.33	2.27
2.0	9.55	1.14	13.40	1.24	25.88	1.46	46.62	1.69	84.17	1.95	154.86	2.26	290.53	2.62
2.5	10.70	1.28	15.00	1.39	28.97	1.63	52.18	1.89	94.20	2.18	173.29	2.53	325.07	2.94
3.0	11.73	1.40	16.45	1.52	31.76	1.79	57.21	2.07	103.27	2.39	189.95	2.77	356.30	3.22
4.0	13.57	1.62	19.03	1.76	36.73	2.07	66.15	2.39	119.37	2.76	219.54	3.20	411.75	3.72
5.0	15.19	1.82	21.30	1.97	41.10	2.32	74.02	2.68	133.56	3.09	245.60	3.58	460.60	4.16
8.0	19.26	2.30	26.99	2.50	52.08	2.94	93.76	3.39	169.16	3.91	311.02	4.53	583.18	5.27
10.0	21.55	2.58	30.20	2.80	58.27	3.29	104.89	3.79	189.23	4.38	347.89	5.07	652.27	5.89

With full filling h/di = 1.0 and drainage lines with shafts kb = 0.5 mm

with partial filling n/di = 0.7 and drainage pipes with sharts kb = 0.5 mm														
	DN/OD	110	DN/OD	125	DN/OD	160	DN/OD 200		DN/OD 250		DN/OD 315		DN/OD 400	
Gradient	di = 103	3.2 mm	di = 117.2 mm		di = 150.2 mm		di = 187.8 mm		di = 234.6 mm		di = 295.6 mm		di = 375.4 mm	
[cm/m]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]	[l/s]	[m/s]
0.2	2.43	0.39	3.40	0.42	6.60	0.50	12.00	0.58	21.70	0.67	40.00	0.78	75.20	0.91
0.3	3.00	0.48	4.20	0.52	8.10	0.62	14.70	0.71	26.70	0.83	49.20	0.96	95.50	1.12
0.4	3.40	0.56	4.90	0.61	9.40	0.72	17.10	0.83	30.90	0.96	57.00	1.11	107.00	1.29
0.5	3.90	0.63	5.40	0.68	10.60	0.80	19.10	0.93	34.60	1.07	63.80	1.24	119.90	1.45
0.6	4.20	0.69	6.00	0.75	11.60	0.88	21.00	1.02	38.00	1.18	70.00	1.37	131.50	1.59
0.7	4.60	0.74	5.50	0.81	12.60	0.95	22.70	1.10	41.10	1.27	75.70	1.48	142.10	1.72
0.8	4.90	0.80	6.90	0.87	13.50	1.02	24.30	1.18	44.00	1.36	81.00	1.58	152.10	1.84
0.9	5.20	0.85	7.40	0.92	14.30	1.08	25.80	1.25	46.70	1.45	86.10	1.68	161.40	1.95
1.0	5.50	0.89	7.80	0.97	15.10	1.14	27.20	1.32	49.20	1.53	90.70	1.77	170.20	2.06
1.1	5.80	0.94	8.20	1.02	15.88	1.20	28.60	1.39	51.70	1.60	95.20	1.86	178.60	2.16
1.2	6.10	0.98	8.50	1.07	16.60	1.25	29.90	1.45	54.00	1.67	99.50	1.94	186.60	2.26
1.3	6.30	1.02	8.90	1.11	17.29	1.31	31.10	1.51	56.20	1.74	103.60	2.02	194.30	2.35
1.4	6.60	1.06	9.20	1.15	17.90	1.36	32.30	1.57	58.40	1.81	107.50	2.10	201.70	2.44
1.5	6.80	1.10	9.60	1.19	18.60	1.40	33.50	1.62	60.50	1.87	111.30	2.17	208.90	2.53
2.0	7.90	1.27	11.10	1.38	21.50	1.62	38.70	1.88	69.90	2.17	128.70	2.51	241.50	2.92
2.5	8.80	1.42	12.40	1.55	24.00	1.82	43.30	2.10	78.30	2.42	144.00	2.81	270.20	3.27
3.0	9.70	1.56	13.60	1.70	26.40	1.99	47.50	2.30	85.80	2.66	157.90	3.08	296.10	3.58
4.0	11.20	1.80	15.80	1.96	30.50	2.31	55.00	2.60	99.20	3.07	182.50	3.56	342.20	4.14
5.0	12.60	2.02	17.70	2.20	34.10	2.58	61.50	2.98	111.00	3.44	204.17	3.98	382.90	4.63
8.0	16.00	2.56	22.44	2.78	43.30	3.27	77.90	3.77	140.60	4.35	258.50	5.04	484.80	5.86
10.0	17.90	2.86	25.10	3.11	48.40	3.66	87.20	4.22	157.30	4.87	289.20	5.64	542.20	6.55

With partial filling h/di = 0.7 and drainage pipes with shafts kb = 0.5 mm

We would like to point out that no warranty claims can be derived from these calculations.

KG 2000 installation instructions



KG 2000 must be installed in accordance with DIN EN 1610. KG 2000 pipes can be shortened to the required length on site if required. To do this, the pipe must be cut to length vertically with a fine-toothed saw. Fittings must not be shortened.



Burrs and bumps should be removed with a suitable tool, such as a scraper. Furthermore, the pipe is to be carefully chamfered again circumferential at the interface e.g. with a coarse file.



The insertion depth of the spigot end into the socket is to be measured with a foot rule and for control purposes to be marked on the spigot end of the pipe to be connected. In this way, it can be checked whether the spigot has been inserted completely.



The spigot end and the inner surface of the socket must be clean and free from damage, otherwise the pipe must be cleaned or replaced. Check that the seals are correctly seated in the socket. The marked spigot end is to be applied with lubricant evenly and all around, and then pushed into the socket as far as it will go.



Pipes with small nominal widths can easily be pushed together by hand; aids may have to be used for larger nominal widths. Pushing together e.g. with the help of a scoop is not permitted due to uncontrolled power delivery and pipe damage.



Slight changes in direction can be implemented by bending the socket by max. 0.5°. This corresponds to a deflection of 5 cm to 5 m. The position of the pipe must be checked and, if necessary, corrected accordingly after the connection has been made. Appropriate fittings from the product portfolio must be used for the transition to alternative pipelines.

KG 2000 in practice





KG 2000 (waste water) and X-Stream (rainwater) in the two-pipe drainage system



Easy to install



As an external drop



Easy connection to profiled pipes



Can also be used as a drainage line

More about our system solutions on wavin.com/asia

Drinking Water Sanitation Telecommunication Rainwater Heating & cooling Cable protection Building drainage Gas supply





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