

Ductile iron pipe with resistant joint (R.J.Pipe)

Reliable investment

R.J.Pipe is an advanced design of Push-in flexible restrained Joint that its locking system prevents from pipe separation while earthquake or subsidence. It is noteworthy that increased safety in water supply networks and significant decrease in water-loss are among the most important advantages of using such pipes.

Using restrained joint leads to the integration of pipeline and distribution of stress and strain that is produced among different components of pipeline. One of the main specification of this kind of joint is ease of assembly and disassembly without bolt and nut.



- Standards**
- :: R.J.Pipe is designed according to ISO 16134 and the joint tested according to ISO10804.
 - :: Applying external coatings according to ISO 8179 and internal lining according to ISO 4179 and EN 598.
 - :: Sealing rubber gasket is similar to Tyton joint, following ISO 4633 and EN 681.



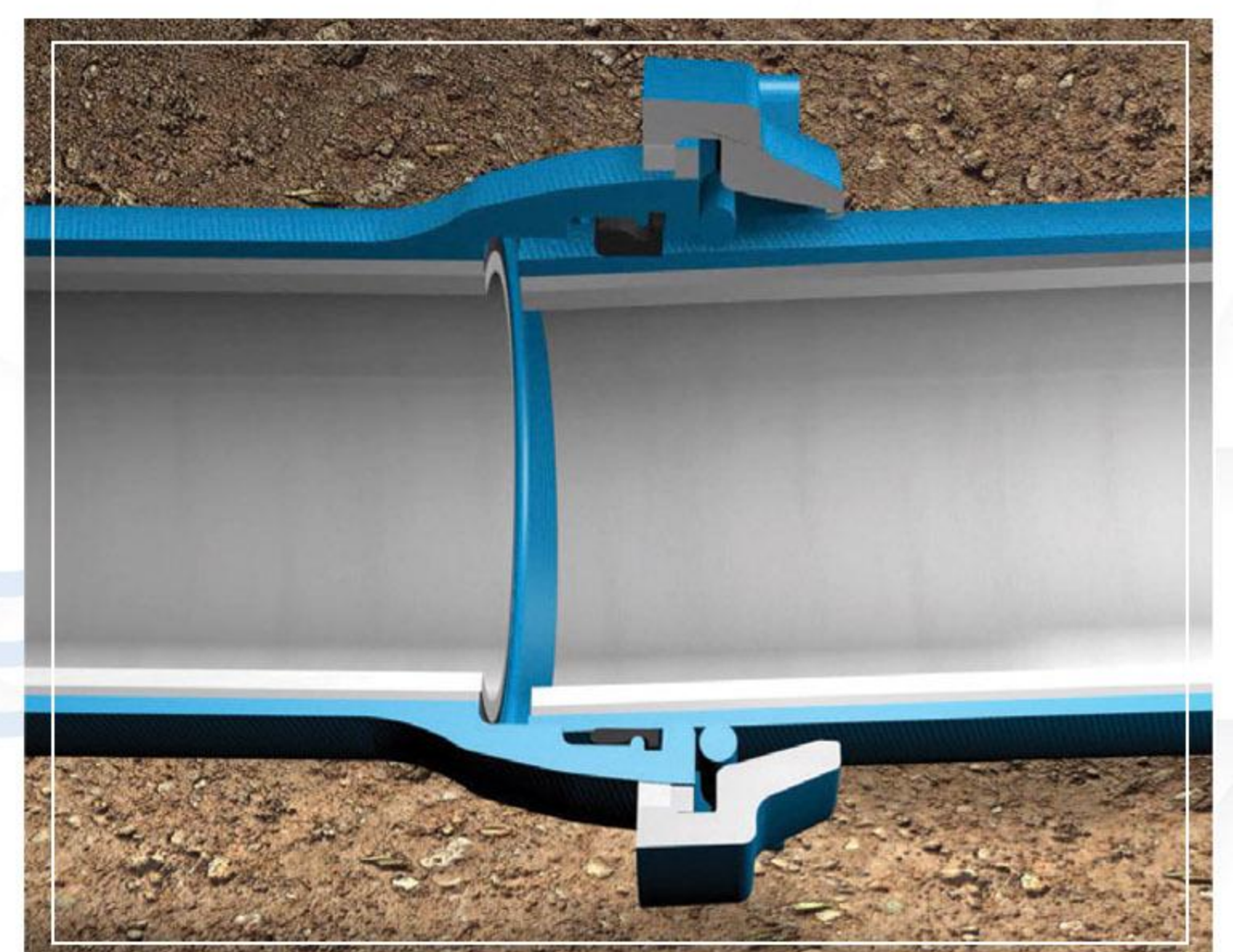
- Applications**
- :: Suitable for earthquake regions and unstable soils, without concrete thrust blocks in the joint place.



- :: Suitable for trenchless application systems especially horizontal directional drilling.

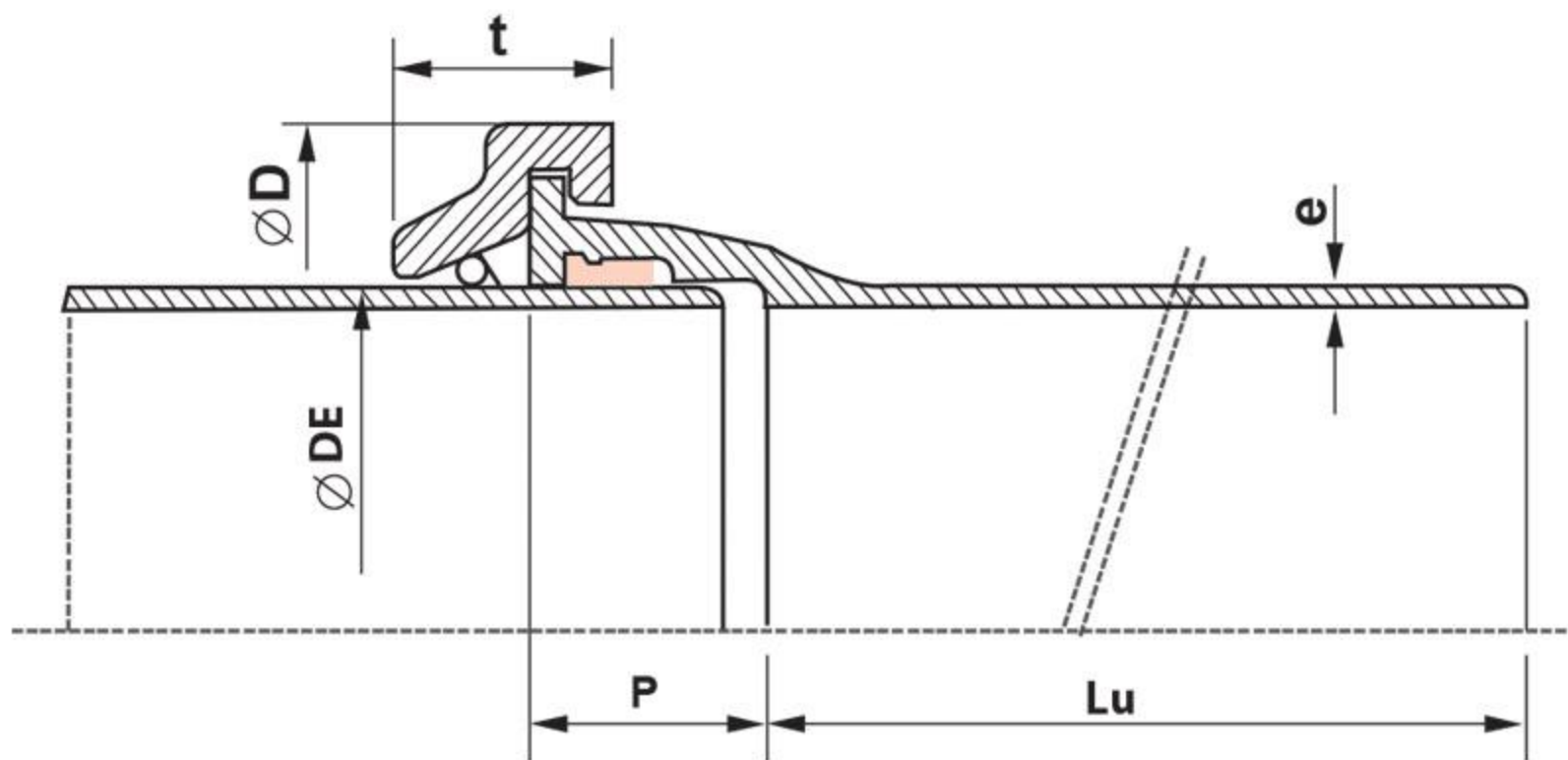


- Advantages**
- :: Suitable axial displacement and angular deflection with perfect sealing
 - :: Easy and fast installation without nut and bolt
 - :: High resistance against hydraulic forces



Dimensions and weights specifications of R.J.Pipes according to ISO 2531 Standard

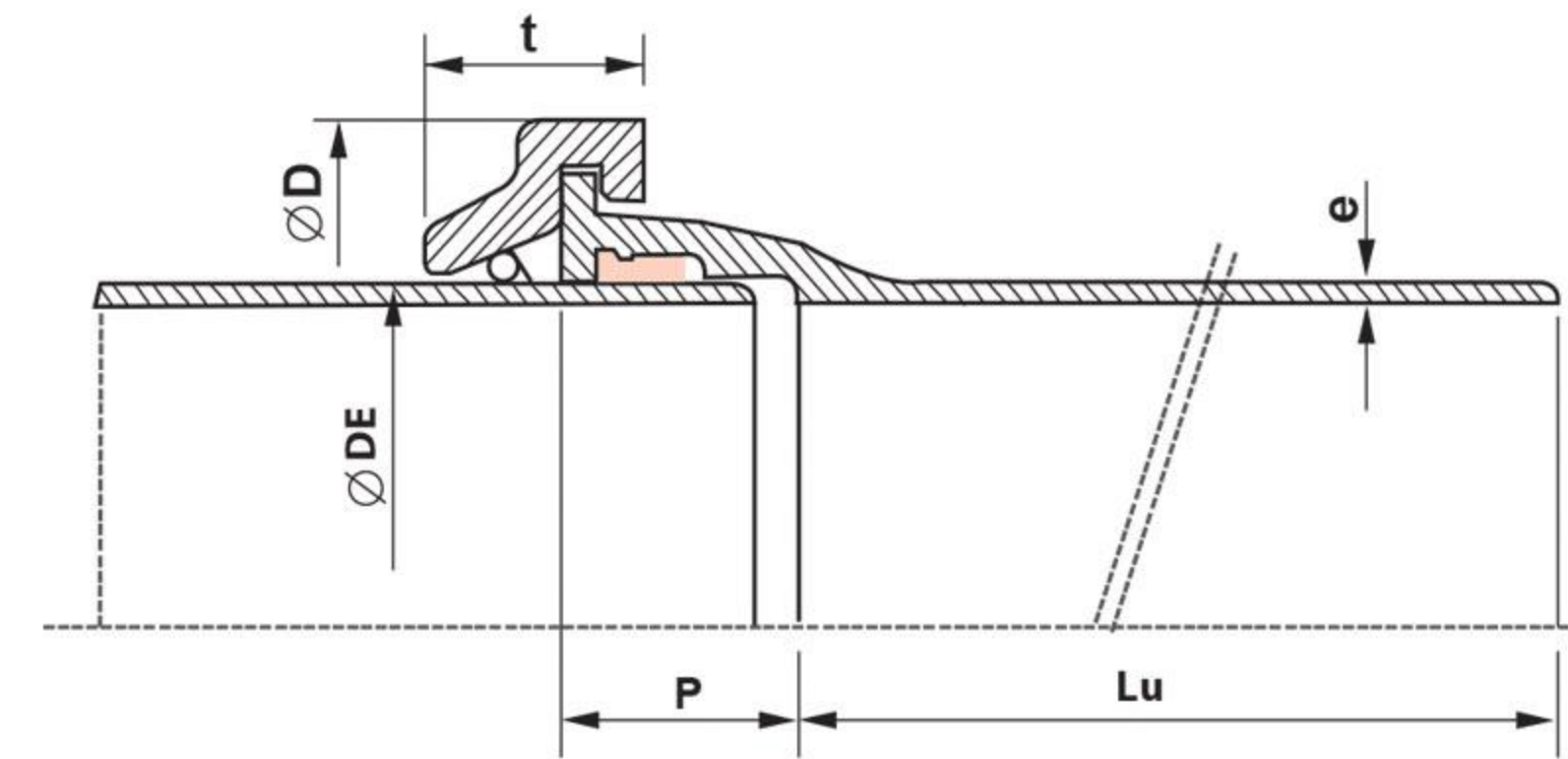
DN	External diameter DE	Pipe length L	Socket length P	Nominal thickness e	Pipe weight with internal cement lining and external coatings	Gland external diameter D	Gland weight	Gland width t	Pipe weight with internal cement lining and external coatings and Gland
	(mm)	(m)	(mm)	(mm)	(Kg)	(mm)	(Kg)	(mm)	(Kg)
80	98	6	84	6	87	207	7	83	94
100	118	6	88	6	107	229	8	86	115
125	144	6	91	6	132	256	9	87	142
150	170	6	94	6	158	287	11	94	169
200	222	6	100	6.3	217	347	15	94	233
250	274	6	105	6.8	287	405	20	97	307
300	326	6	110	7.2	363	463	27	101	390
350	378	6	110	7.7	476	518	35	101	511
400	429	6	110	8.1	568	574	36	104	605
450	480	6	120	8.6	670	632	45	104	716
500	532	6	120	9	775	690	55	108	831
600	635	6	120	9.9	1010	810	73	109	1083
700	738	6	150	10.8	1302	932	111	128	1413
800	842	6	160	11.7	1600	1050	147	140	1747
900	945	6	175	12.6	1942	1172	185	164	2127



R.J.Pipe according to ISO 2531 standard:1998 K Class

All dimensions except pipe length are in mm and weight are in kg. Dimensions and weights are mentioned without tolerance consideration. All weights are calculated based on the K9 thickness class. In case of other thickness classes, **Please contact Hanyco technical experts.** Cement thickness in various sizes is similar to Push-on joint (Tyton) pipe.

DN	External diameter DE	Preferred pressure class	Pipe length L	Socket length P	Nominal thickness e	Pipe weight with internal cement lining and external coatings	Gland external diameter D	Gland weight	Gland width t	Pipe weight with internal cement lining and external coatings and Gland
	(mm)	(bar)	(m)	(mm)	(mm)	(Kg)	(mm)	(Kg)	(mm)	(Kg)
80	98	40	6	84	4.4	72	207	7	83	79
100	118	40	6	88	4.4	88	229	8	86	96
125	144	40	6	91	4.5	110	256	9	87	119
150	170	40	6	94	4.5	131	287	11	94	142
200	222	40	6	100	4.7	180	347	15	94	195
250	274	40	6	105	5.5	251	405	20	97	271
300	326	40	6	110	6.2	328	463	27	101	355
350	378	30	6	110	6.3	421	518	35	101	456
400	429	30	6	110	6.5	495	574	36	104	531
450	480	30	6	120	6.9	586	632	45	104	631
500	532	30	6	120	7.5	690	690	55	108	745
600	635	30	6	120	8.7	928	810	73	109	1001
700	738	25	6	150	8.8	1145	932	111	128	1256
800	842	25	6	160	9.6	1404	1050	147	140	1551
900	945	25	6	175	10.1	1642	1172	185	164	1827



R.J.Pipe according to ISO 2531 standard:2009 C Class

All dimensions except pipe length are in mm and weights are in kg. Dimensions and weights are mentioned without tolerance consideration. All weights are calculated based on the preferred pressure class. In case of non-preferred pressure classes, **Please contact Hanyco technical experts.** Cement thickness in various sizes is similar to Push-on joint (Tyton) pipe.

CONFIRMATION

This is to certify that Applicant:
Hamoun Nyzeh Co. (HANYCO)
Head Office: No. 28, 3rd St., Shaghayeh Blvd.,
Kashan Ave. Tehran - Iran
Factory: 14th Km of Ardestan Road, Kashan - Iran

Product description: Restrained Joint PIPES & FITTINGS (R.J. Pipes & fittings)

Type/ Model(s): NOMINAL OUTER DIAMETER (DN): DN80 TO DN900 MM
PRESSURE CLASS (C or K): C20 to C64 or K9 to K14

Standard(s): ISO10804:2018, ISO16134:2006, ISO 2531:1998 & 2009, EN 545:2010.

Conclusion:
This Certificate of Conformity is issued on a voluntary basis according to
ISO 10804:2018, ISO 16134:2006, ISO2531:1998&2009, EN 545: 2010
It conforms that the listed equipment complies with the essential safety requirements of
ISO10804:2018, ISO16134:2006, ISO2531:1998&2009, BS EN 545: 2010.
According to ISO 16134:2006, R.J Pipe joint has been classified as following Table:

Parameter	Class	Component Performance
Expansion/Contraction Performance	S-	Less than $\pm 0.5\%$ L
Slip-out Resistance	A	3d KN or more
Joint Deflection Angle	M-	Less than $\pm 7.5^\circ$

It refers only to the sample and its technical file submitted for conformity assessment in conjunction with the internal factory production control system assessment.

Certificate registration no: 395475
Date of certification: 2020-10-20
Valid until: 2021-10-19

DQS CFS GmbH
German Association for Sustainability

Dr. Saeed Sadeg
Managing Director

Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main, Germany
Administrative Office: DQS Iran, Unit 3, 2nd Floor, No. 78, Grand St., North Salarzadeh Ave., Tehran - Iran

Other important specifications are as following table:

Parameter	Slip-out resistance	Expansion/ contraction performance	Joint deflection angle
R.J Pipe joint place	A	S_2	M_2
Performance	3d KN or more	$\pm 0.5\%$ to less than $\pm 1\%$ of L	$\frac{\theta}{2}$ to Less than θ

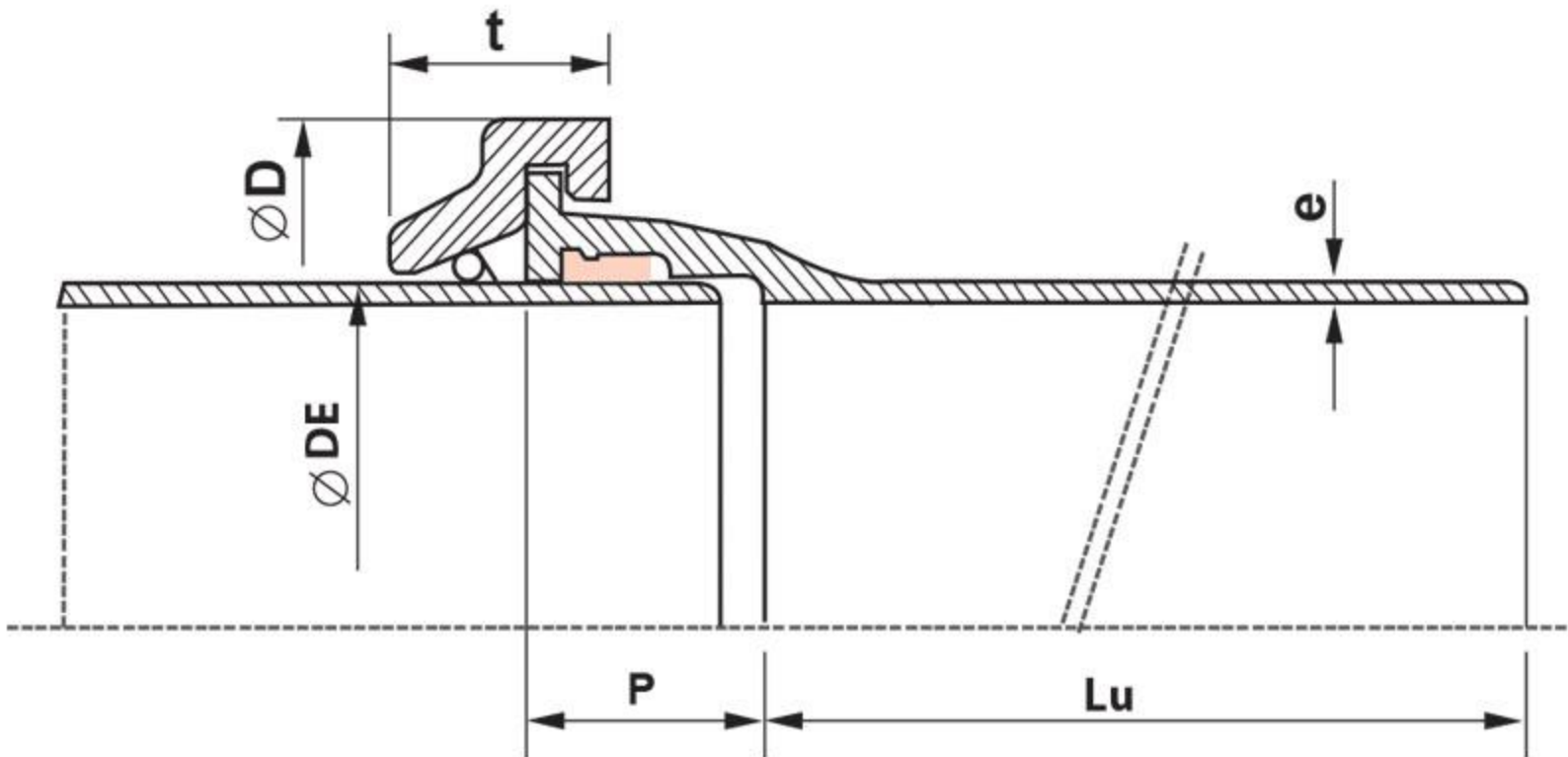
Joint deflection angle:

DN (mm)	80-400	450-900
Joint deflection angle θ (degree)	8	7



Dimensions and weights specifications of R.J.Pipes according to EN 545 Standard

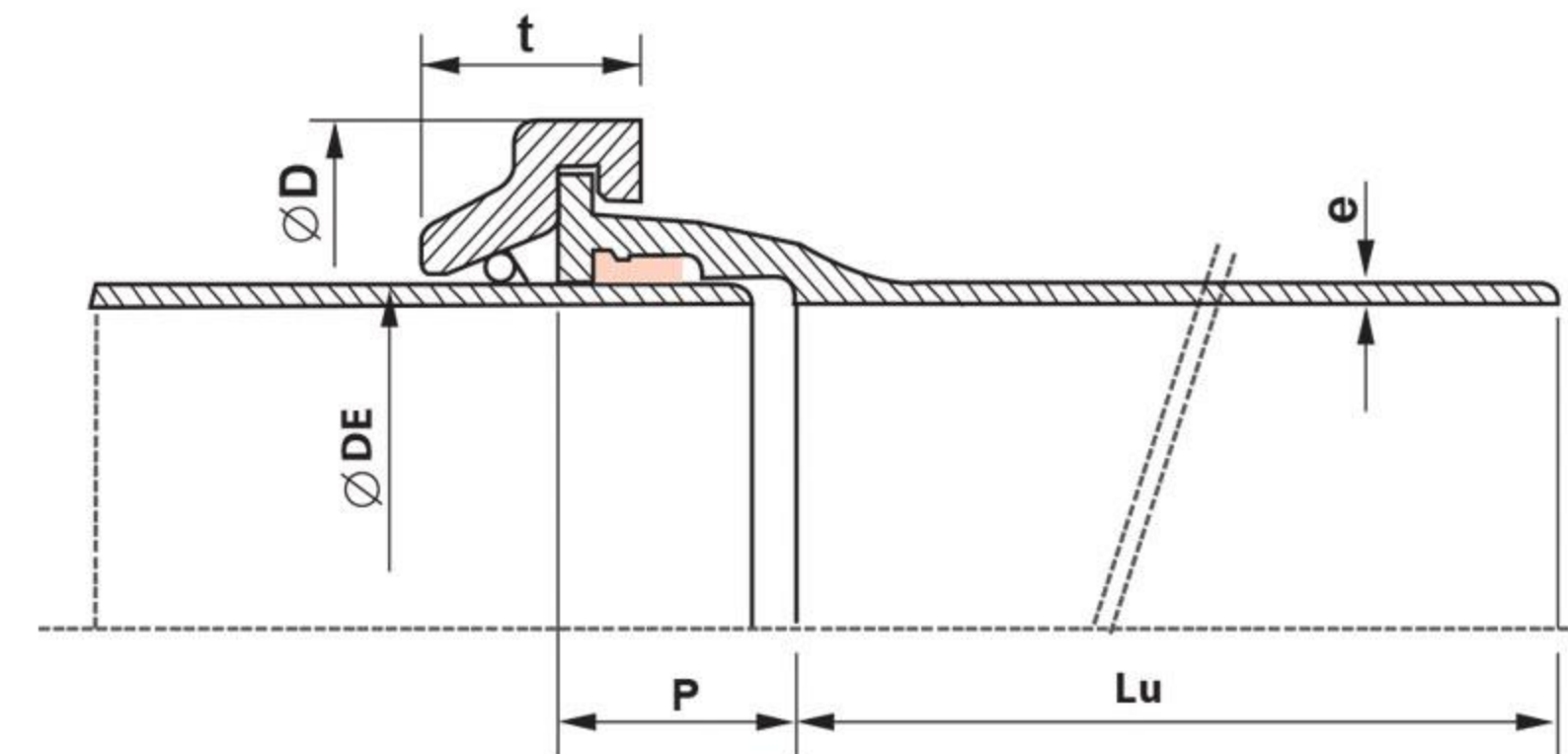
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	(mm)	(m)	(mm)	(mm)	(Kg)	(mm)	(Kg)	(mm)	(Kg)
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100	118	6	88	6	107	229	8	86	120
125	144	6	91	6	132	256	9	87	147
150	170	6	94	6	158	287	11	94	175
200	222	6	100	6.3	217	347	15	94	241
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800	842	6	160	11.7	1600	1050	147	140	1747
900	945	6	175	12.6	1942	1172	185	164	2127



R.J.Pipe according to EN 545:2007 K Class

All dimensions except pipe length are in mm and weight are in kg. Dimensions and weights are mentioned without tolerance consideration. All weights are calculated based on the K9 thickness class. In case of other thickness classes, **Please contact Hanyco technical experts.** Cement thickness in various sizes is similar to Push-on joint (Tyton) pipe.

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R.J.Pipe according to EN 545:2010 C Class

All dimensions except pipe length are in mm and weights are in kg. Dimensions and weights are mentioned without tolerance consideration. All weights are calculated based on the preferred pressure class. In case of non-preferred pressure classes, **Please contact Hanyco technical experts.** Cement thickness in various sizes is similar to Push-on joint (Tyton) pipe.



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