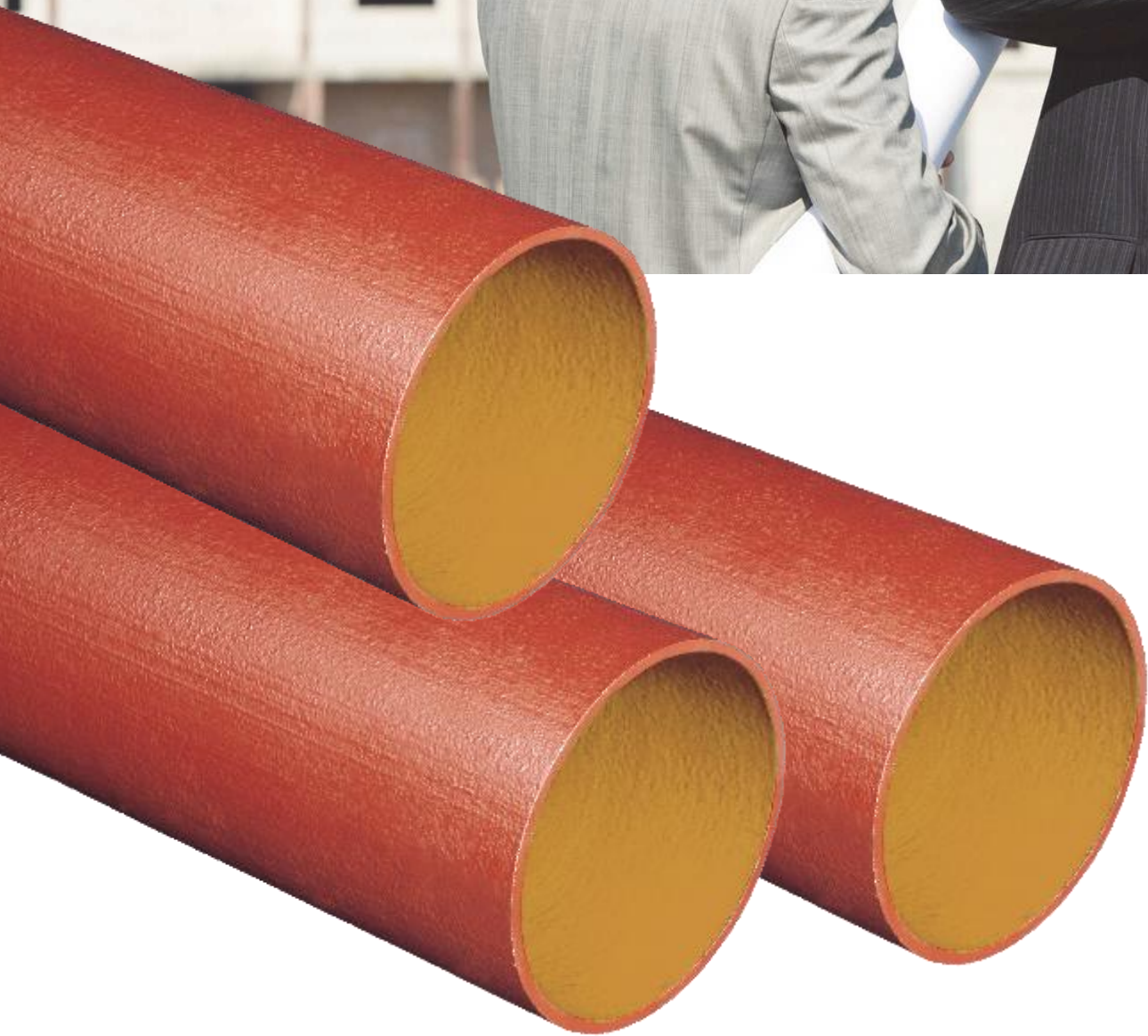




Düker NH Product Catalogue

Düker hubless cast iron drainage pipe system as per ASTM A888 - 18a



General Information

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WHY DÜKER – WHY CAST IRON

Düker GmbH

Düker GmbH in Karlstadt is a privately owned manufacturer with a century-old background. In two foundries in Northern Bavaria/Germany, Düker manufactures various types of cast iron piping material.

Based on an iron ore mine that was first documented as long ago as in 1469, Düker has developed into a modern company specialised in cast iron, enamel and the medium water. With products such as cast iron drainage pipe systems, ductile iron pressure pipe fittings and valves for gas and water supply, Düker today realizes an annual turnover of approx. 110 million Euro and employs 500 persons.



Karlstadt facility

In the Karlstadt facilities, Düker has been manufacturing cast iron drainage pipes and fittings since the founding of the subsidiary in 1913. Today Düker is one of the most renowned manufacturers of drainage pipe systems as per the European standard EN 877 (Düker SML). Düker has in-depth experience with the manufacturing processes and quality features of pipes and fittings for building drainage applications and offers a high-quality epoxy coating as the standard coating.

In 2017, Düker integrated pipes and fittings as per the American Standard ASTM A888 into the manufacturing programme: the Düker NH programme. Specifiers and plumbers around the world can now outfit building projects with high-quality Düker pipe systems, independent of the standard system they are based upon.

Düker Cast Iron Pipes are Easy to Handle and to Install

- with suitable tools, cast iron can be cut easily, fast and accurately (see page 30)
- no danger of cracks due to handling at low temperatures
- NH couplings ensure a fast and accurate connection
- due to the stability of the pipes, few brackets need to be installed
- thanks to the inferior thermal length expansion, no deflection legs, expansion sockets, anchored and sliding fixings etc. need to be considered
- laying in concrete is possible without any problems



Düker Cast Iron Pipes are Stable and Resistant

- cast iron pipes are resistant to positive and negative interior pressure, even in larger diameters
- the pressure resistance is not interdependent with medium or environment temperature, neither at high nor at low temperatures
- cast iron pipes are absolutely UV-resistant, no material embrittlement
- cast iron pipes do not show the typical plastic phenomenon of thermal shrinkage (shortening of plastic pipes after exposure to heat, therefore withdrawing from the socket)
- cast iron pipes are „vandalism-safe“



Düker Cast Iron Pipes are Environmentally Friendly

- cast iron pipes are manufactured from practically 100% recycling material (cast iron scrap)
- cast iron pipes do not emit any volatile organic compounds (VOC)
- due to the socketless construction, even smaller pipe cuttings can still be used, therefore reduction of waste
- waste remaining after installation or after the end of life of the drainage pipe system can be recycled without any problems



Assets of Cast Iron Compared to Plastic Pipe Systems

Düker Cast Iron Pipes are Fire Protection Pipes

- non-combustible construction product – no contribution to the development of fires (flashover), no thermal loads
- open installation in escape routes
- no formation of smoke – smoke is the fastest and most frequent cause of death in a fire
- penetration seals are easy and low-priced
- fire transmission into lower floors is prevented without fail
- the functionality is maintained throughout a fire



Düker Cast Iron Pipes are Acoustic Protection Pipes

- cast iron with flake graphite is extremely sound-absorbent due to its structure and mass



Düker Cast Iron Pipe Systems are Manufactured in Germany

- elevated safety and environment protection standards in the production facilities
- certified superior quality
- safe warranty ensured by a well-established manufacturer



When considering and evaluating all positive aspects of Düker cast iron pipes, one will inevitably arrive at the conclusion that Düker cast iron pipe systems offer an excellent price performance ratio, also compared with the alternatives. Bear in mind the inexpensive

solutions for acoustic and fire protection, bracketry etc. In particular in larger residential and administrative buildings, hotels, hospitals and special-care facilities, Düker cast iron pipe systems are your first choice!

PRODUCT STANDARDS AND CERTIFICATES

Applicable Product Standards

The Düker NH pipes and fittings are in accordance with

"ASTM Standard A 888 – 18a
Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications"

They are also in accordance with
CISPI 301-12
Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications
issued by the Cast Iron Soil Pipe Institute,
Atlanta/Georgia, USA

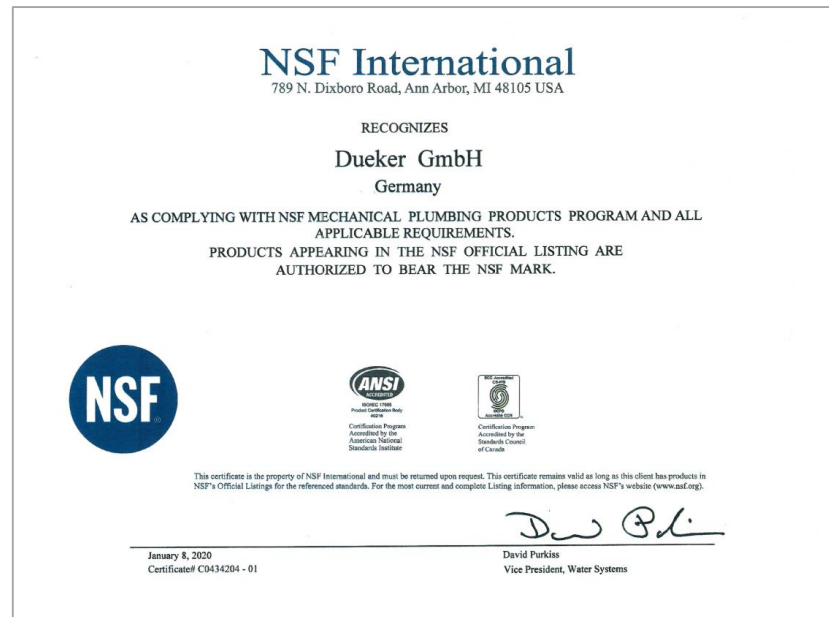
The corresponding couplings are in accordance with

ASTM Standard C 1277-18
Standard Specification for Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

Product Certificates

The Düker NH program of pipes and fittings is presently under certification by:

- NSF Plumbing Division for NSF - U.P. Code
- TUV SUD PSB PTE. Ltd. - SLS certificate for Singapore



Düker Management Systems

As early as in 1993, Düker introduced a certified quality management system as per EN ISO 9001. By now, the Düker system has developed into an integrated certified management system as per

- EN ISO 9001 Quality Management
- EN ISO 14001 Environmental Management
- EN ISO 50001 Energy Management
- BS OHSAS 18001 Occupational Health and Safety Management



Sustainability Mission

Düker feels obliged to the environment as well as the economic and social needs of their staff and of society. Sustainability, an integral part of business culture and of everyday activities, is based on three pillars:

- Economy of all activities for securing and developing the company

- Social responsibility to the staff (e.g. occupational health and safety), business partners and society
- Environmental responsibility and energy efficiency as a contribution to a moderate use of all natural resources.

For the detailed Mission Statement please refer to the Düker web page.

Environmental Protection and Energy Efficiency

In 2011 Düker introduced an environmental and an energy management system as per ISO standards. For Düker, environmental protection and energy efficiency are fundamental for achieving the company goals and

an important aspect of each staff member's activities. The use of energy-efficient technologies ranks high in the company. The observance of legal requirements at the place of manufacture in Karlstadt/Germany is only considered a minimum standard.

Reduction of CO₂ Emissions

At the turn of the year 2013/2014, Düker invested in a new cupola furnace in the Karlstadt works, which now melts down the cast iron for the centrifugal casting plant and the moulding plant. The new furnace is a modern hot-blast cupola furnace

with long-term refractory lining. Compared to the old furnace, the CO₂ emissions are reduced by 25% with equal melting performances, with simultaneous saving of energy as well as maintenance and refractory repair expenditures.

Safety Data Sheets

For all paints and coatings that Düker delivers for use on site, Düker makes the safety data sheets available on the web page www.dueker.de/SDB.

Recycling

Grey cast iron, the material that Düker drainage pipes and fittings are made of, is 100% recyclable. Scrapped cast iron pipe systems can be processed to new cast iron pipe systems without any trouble. Furthermore, all cast iron pipes and fittings manufactured by Düker today already consist of 100% recycled cast iron. Cast iron scrap does not pose any problems in its disposal.

On the contrary, it is a sought-after and expensive raw material. For plastic materials, normally only "down cycling" is possible, as the material quality decreases significantly through recycling and does not allow to manufacture the same type of products out of the same material twice. However, the majority of plastic waste is not recycled, but is utilized thermally, which means that it is burnt.

Green Building Systems

More and more new building projects are certified to one of the existing green building systems. Although energy saving during the operation of the building is the main aspect of most systems, other aspects are also a part of the evaluation and should be

considered when selecting products for the installation systems. Green Building systems mostly also aim at health protection, protection of water resources and ecosystems, promotion of sustainable material resources and similar aspects.

LEED

Düker NH pipes and fittings can contribute to many aspects of a LEED certification:

LEED v3 2009, EQ Credit 4.2 and 4.1: volatile organic compounds

At present, LEED v3 2009 is still widely used. It states only one concrete requirement for construction products for sanitary installations: the observance of limit values for volatile organic compounds (VOC). The inside and outside coatings of Düker drainage pipes and fittings are completely hardened when arriving at the building site and therefore do not emit any volatile organic compounds (VOC) during installation and during the building's operation.

LEED v4 2013: Construction waste management Any recyclable waste during the construction period should be recycled to as high a degree as possible. Waste from cast iron pipelines is apt to increase the recycling rate as it is accepted without problems by all waste collection centres and normally is even paid for.

LEED v4 2013: Percentage of recycled materials This aspect aims at high percentages of construction products that are manufactured from recycled material. As Düker NH is manufactured from practically 100% recycling material, it can easily contribute to this requirement.

LEED v4 2013: Acoustic protection The aim is to observe acoustic protection targets. In order to avoid noise coming from drainage pipelines, Düker NH is the best choice.



EPOXY COATINGS

Coatings

A high-quality epoxy coating is the signature feature of Düker NH pipes and fittings. While the pipe outside coating is a reddish brown base coat, the inside coating is a permanent cross-linked two-components epoxy coating. It distinguishes itself by high resistance against chemical and mechanical influences. The features of this high-quality coating go way beyond the standard requirements. This particularly protects Düker NH drainage pipe systems against domestic effluents which are becoming increasingly aggressive.

The Düker hot permanent mould centrifugal casting process used in the production of our pipes guarantees extremely smooth inside surfaces – the ideal basis for a uniform, blister-free interior coating with fully cross-linked, elastic epoxy material.



All Düker pipes and fittings are coated with high-quality cross-linked epoxy material. Based on their experience with epoxy materials over many years, also with the production of EN 877 pipes and fittings, Düker is using a specially designed two-components epoxy material for the Düker NH products.

Epoxy material characteristics

- excellent chemical resistance
- superior adherence on cast iron material
- uniform layer thickness by application with rotary atomizer inside the pipes
- excellent mechanical resistance due to high flexibility and elasticity.
- suitable for normal waste water and for aggressive waste water
- no softening effect in hot media or environments
- resistance to hot water: approx. 90-95°C peak and approx. 60-70°C permanent temperature



Interior Coating Resistance of Düker NH Pipes for Domestic Applications with Discontinuous Use

	up to 23 °C	up to 50 °C	up to 80 °C
pH 0			
pH 1 (except organic acids)	resistant		
pH 2 (except organic acids)	resistant	resistant	
lime-dissolving substances ¹	resistant		
cleaning products	resistant		
detergents	resistant	resistant	
disinfectants	resistant	resistant	
stain removers	resistant	resistant	
oxidants	resistant	resistant	
water, salts	resistant	resistant	
drain clearing products	resistant	resistant	
solvents	resistant		
pH 12			
pH 13			
pH 14			

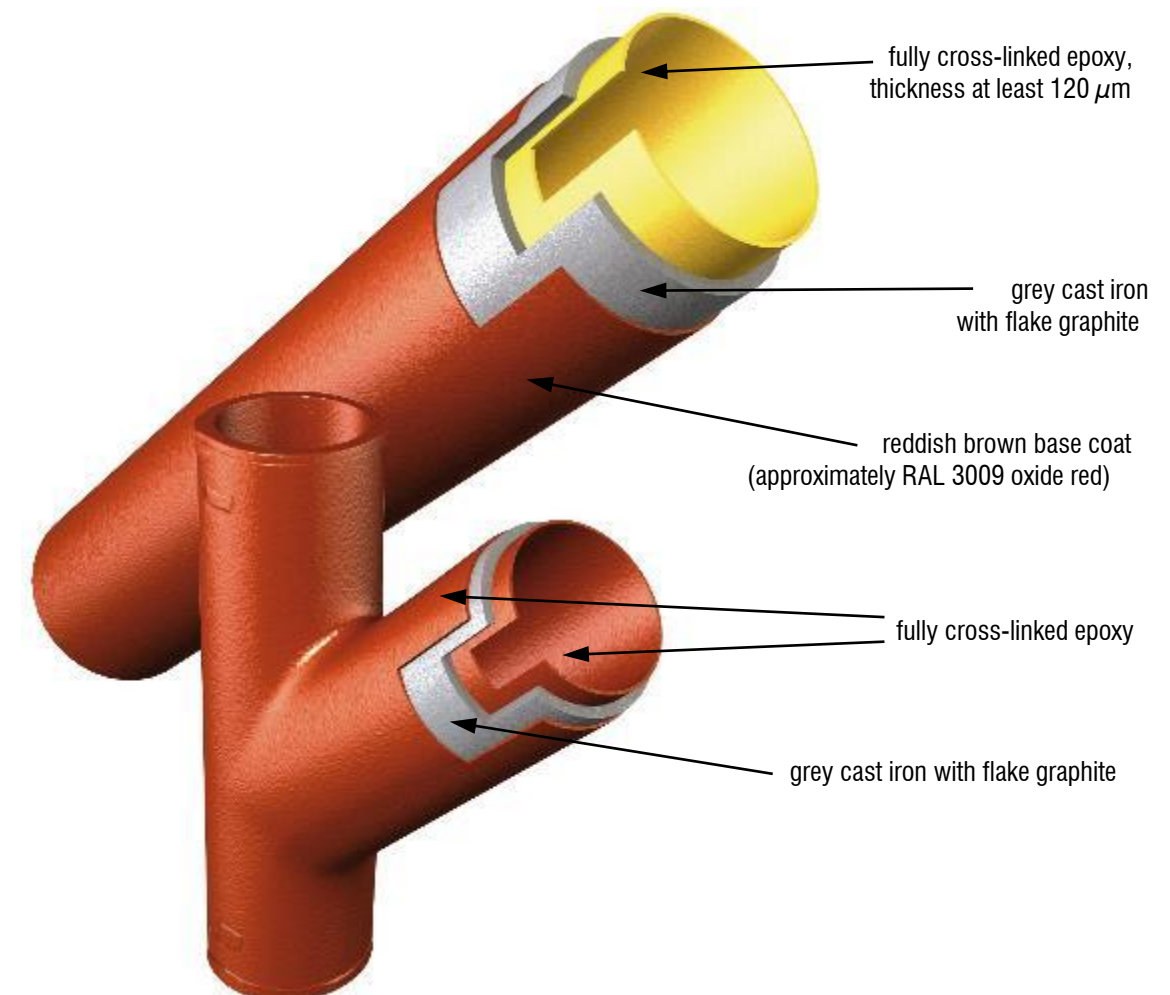
 resistant

Application: domestic sewage and rain water drainage inside buildings and on outside walls of buildings.

Installation Outside of Buildings

When Düker NH pipelines are installed outside, e.g. rain water drain pipes, their outside surfaces are to be overcoated for a durable resistance to weather influences. Use corrosion protection coatings suitable for metal surfaces.

A corresponding overcoating is also to be recommended for installation in other areas with elevated humidity, or in aggressive environments.



EPOXY COATINGS

Material Features

Düker drainage pipe systems are manufactured of grey cast iron GG according to EN 1561 - type at least EN-GJL-150 (formerly GG 15 according to DIN 1691) which means an iron and carbon alloy with high graphite content which is integrated in lamella form and finely distributed within the metallic base compound. This Düker-typical crystalline structure gives the material high strength, wear and temperature resistance, excellent corrosion resistance, and a very high damping capacity. Düker NH drainage pipe systems distinguish themselves by robustness, durability, fire resistance and silent operation – even without special insulation or soundproofing.

Material Characteristics

DENSITY:
Approx. 7.2 kg/dm³ (71.5 KN/m³)

MINIMUM TENSILE STRENGTH: 150 MPa for fittings,
200 MPa for pipes

COMPRESSIVE STRENGTH: Approx. 3 to 4 times the value of the minimum tensile strength

SHEARING STRENGTH:
1.1 to 1.6 times the value of the minimum tensile strength

CRUSHING STRENGTH: 350 MPa (for size < 10") or 332 MPa (for size 10")

POISSON'S NUMBER: 0.3

COEFFICIENT OF LENGTH EXPANSION:
0.0105 mm/mK (between 0° and 100 °C)

THERMAL CONDUCTION COEFFICIENT: 50 - 1 W/mK (at 20°C)

MODULUS OF ELASTICITY: 8 x 10⁴ to 12 x 10⁴ N/mm²



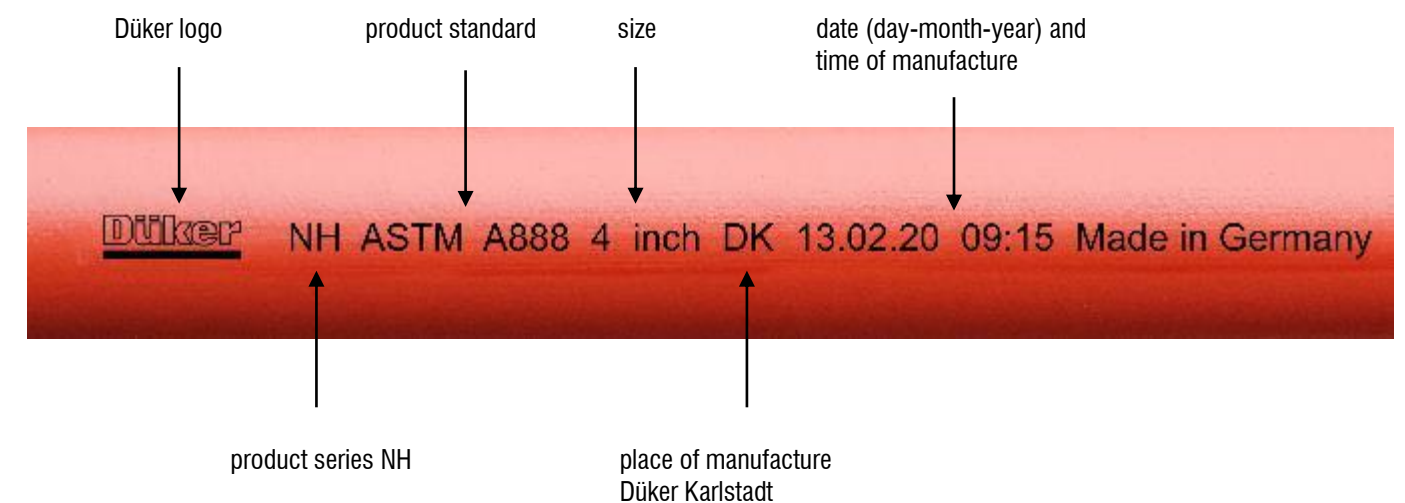
The structure of Düker cast iron with flake graphite under the microscope



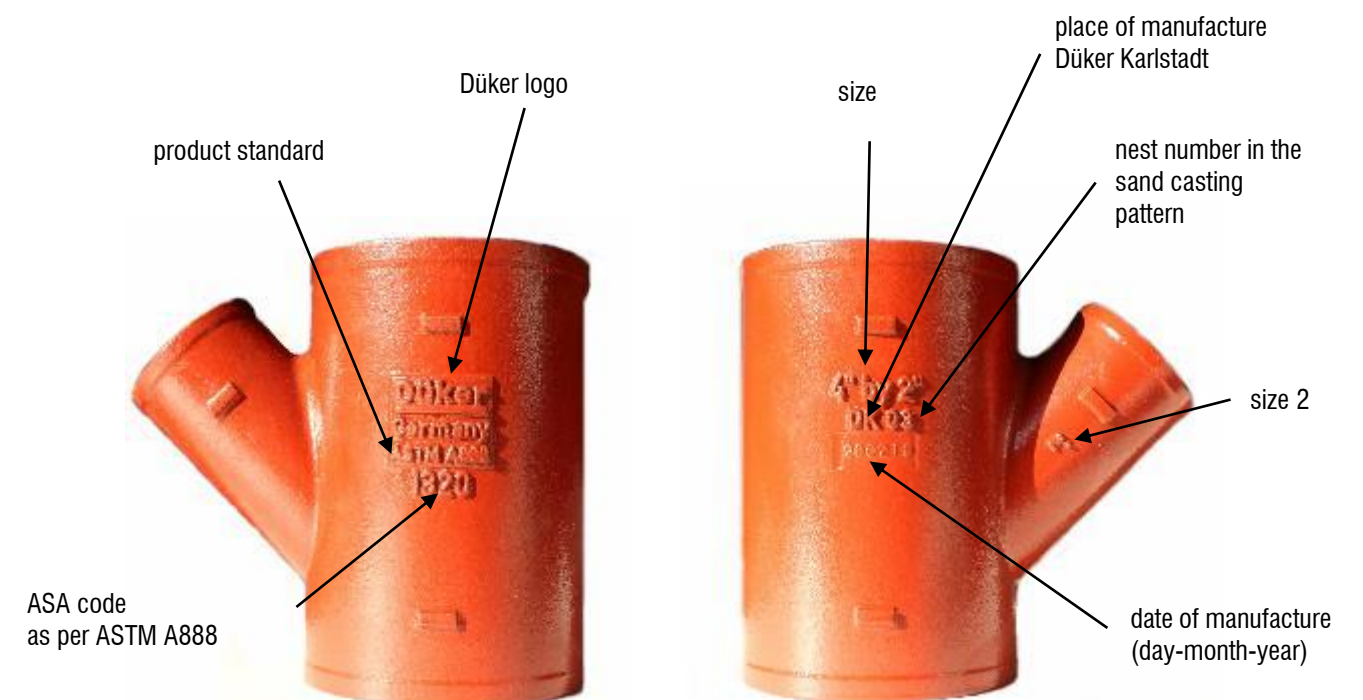
Marking of Pipes and Fittings

Düker NH pipes and fittings are supplied with an informative marking, which on the one hand fulfills all standard requirements, and on the other hand allows to backtrack the product and its manufacture in the QM documentation. Furthermore, various test and approval marks provide information on further, voluntary approvals, each of which involves regular factory audits.

Pipe Marking



Fitting Marking



Manufacture

Düker NH pipes and fittings are manufactured entirely in the Düker works in 97753 Karlstadt, Northern Bavaria / Germany following the superior RAL-GEG quality criteria.

F

Melting Shop

As the first step, cast iron (scrap material) is melted down in the hot-blast cupola furnace. Regular spectral analyses and, where necessary, dosing of alloy components ensure the permanent superior quality of the grey cast iron material.



Melting shop: Withdrawal of liquid iron from the collector

Pipe Manufacture

Düker NH pipes are manufactured on a centrifugal casting plant - developed by Düker - in the so-called hot-mold centrifugal casting process. This results in the typical, extremely smooth inside surfaces as well as lightly structured outside surfaces of Düker pipes. The machining and part of the coating plants are linked directly to the casting plant. Pipes that are intended for other coatings are withdrawn after leaving the machining plant and coated separately.



Centrifugal casting plant: pouring into the rotating pipe molds



Fittings Manufacture

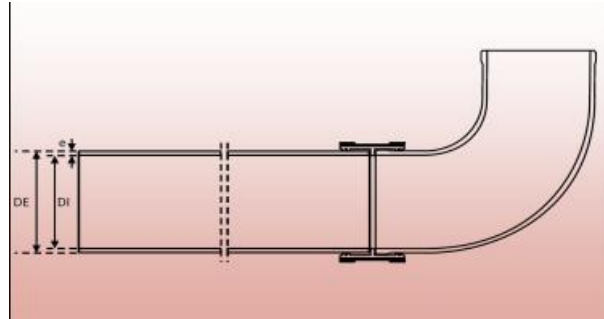
Düker fittings are manufactured in the sand casting procedure. For each single casting, the pattern is used to shape a sand mould (for the outside contour of the fitting) and a sand core (for the inside contour of the fitting). The pouring is done in the moulding plant. The fittings then undergo shot blasting and grinding, and finally coating.

Moulding plant: pouring into the sand molds



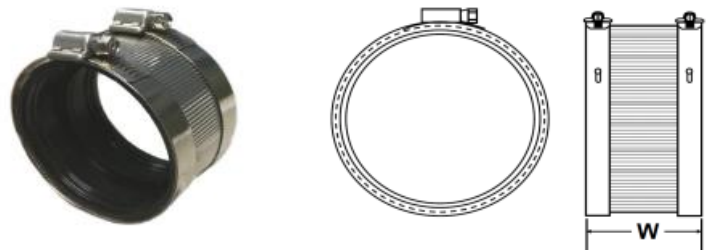
RANGE OF PRODUCTS

Standard dimensions for Düker NH pipes and fittings as per ASTM A 888 - 15



size "	inside diameter DI		outside diameter DE		wall thickness e			
	"	mm	"	mm	"	"	mm	mm
2	1.96 ± 0.09	49.8 ± 2.29	2.35 ± 0.09	59.69 ± 2.29	nominal	minimum	nominal	minimum
3	2.96 ± 0.09	75.2 ± 2.29	3.35 ± 0.09	85.09 ± 2.29	0.16	0.13	4.06	3.3
4	3.94 ± 0.09	100.06 ± 2.29	4.38 ± 0.09	111.25 ± 2.29 - 1.27	0.19	0.15	4.83	3.81
5	4.94 ± 0.09	125.48 ± 2.29	5.30 ± 0.09	134.62 ± 2.29 - 1.27	0.19	0.15	4.83	3.81
6	5.94 ± 0.09	150.88 ± 2.29	6.30 ± 0.09	160.02 ± 2.29 - 1.27	0.19	0.15	4.83	3.81
8	7.94 ± 0.13	201.68 ± 2.2	8.38 ± 0.13	212.85 ± 3.3 - 2.29	0.23	0.17	5.84	4.32
10	10.00 ± 0.13	254 ± 3.3	10.56 ± 0.13	268.22 ± 2.29	0.28	0.22	7.11	5.59
12	11.94 ± 0.13	303.28 ± 3.3	12.50 ± 0.13	317.5 ± 3.3	0.28	0.22	7.11	5.59
15	15.11 ± 0.13	383.79 ± 3.3	15.83 ± 0.13	402.08 ± 3.3	0.36	0.30	9.14	7.62

Standard No-Hub Couplings



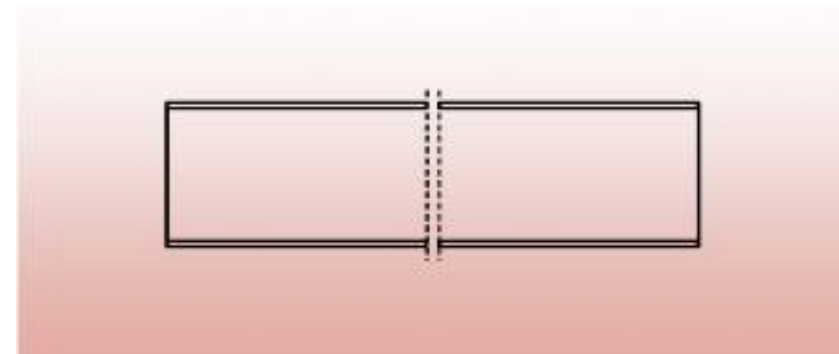
size "	W		No. of stainless steel bands	item no.
"	"	mm		
2	2 1/8	54	2	314284
3	2 1/8	54	2	314285
4	2 1/8	54	2	314287
5	3	76	4	314288
6	3	76	4	314289
8	4	102	4	314290
* 10	4	102	4	314291
* 12	5	127	6	314292
* 15	5	127	6	314293

Collar stainless steel
Sealing gasket EPDM

* available on request

RANGE OF PRODUCTS

No-Hub Pipes



ASA Code	size "	length		weight kg	item no.
		"	mm		
0158	2	10	3048	16.7	313949
0160	3	10	3048	23.9	313951
0162	4	10	3048	31.3	313953
0164	5	10	3048	38.6	313955
0168	6	10	3048	46.3	313958
0170	8	10	3048	77.7	313960
0171	10	10	3048	115.7	313962
* 0172	12	10	3048	144.6	313964
* 0173	15	10	3048	223.9	313966

* available on request

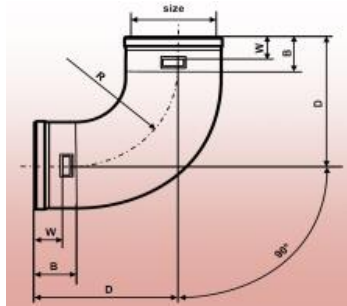
Düker NH pipes are manufactured without spigot bead and gasket positioning lug.
Inside coating: two-componentes epoxy material, fully cross-linked, color shade ocher.
Outside coating: acrylic corrosion protection, color shade reddish brown



RANGE OF PRODUCTS

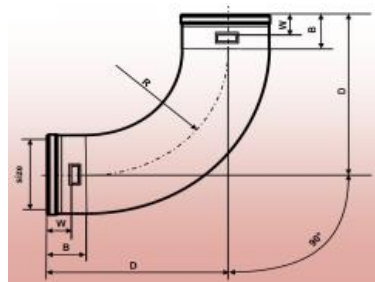
Düker NH fittings are manufactured with spigot bead and gasket positioning lug.
 Inside and outside coating: two-components epoxy material, fully cross-linked, color shade reddish brown.

1/4 Bend



ASA Code	size	B	D	R	W	weight	item no.
"	"	mm	mm	mm	mm	kg	
0190	2	1 1/2	38	4 1/2	114	3	76 1 1/8 29
0192	3	1 1/2	38	5	127	3 1/2	89 1 1/8 29
0194	4	1 1/2	38	5 1/2	140	4	102 1 1/8 29
0196	5	2	51	6 1/2	165	4 1/2	114 1 1/2 38
0198	6	2	51	7	178	5	127 1 1/2 38
0200	8	2 1/2	64	8 1/2	216	6	152 2 51
*	10						
*	12						
*	15						

Short Sweep 1/4 Bend

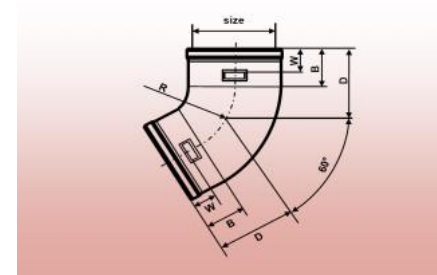


ASA Code	size	B	D	R	W	weight	item no.
"	"	mm	mm	mm	mm	kg	
0462	2	1 1/8	29	6 1/2	165	5	127 1 1/8 29
0464	3	1 1/2	38	7	178	5 1/2	140 1 1/8 29
0468	4	1 1/2	38	7 1/2	191	6	152 1 1/8 29
0470	5	2	51	8 1/2	216	6 1/2	165 1 1/2 38
0472	6	2	51	9	229	7	178 1 1/2 38
0474	8	2 1/2	64	10 1/2	267	8	203 2 51
0475	10	3	76	12	305	9	229 2 51
0476	12	3 1/4	83	13 1/4	337	10	254 2 3/4 70
0477	15	3 1/4	83	14 3/4	375	11 1/2	292 2 3/4 70

* available on request

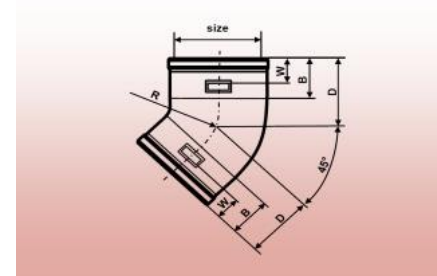
RANGE OF PRODUCTS

1/6 Bend



ASA Code	size	B	D	R	W	weight	item no.
"	"	mm	mm	mm	mm	kg	
* 0570	2	1 1/2	38	3 1/4	83	3	76 1 1/8 29
* 0572	3	1 1/2	38	3 1/2	89	3 1/2	89 1 1/8 29
* 0574	4	1 1/2	38	3 13/16	97	4	102 1 1/8 29

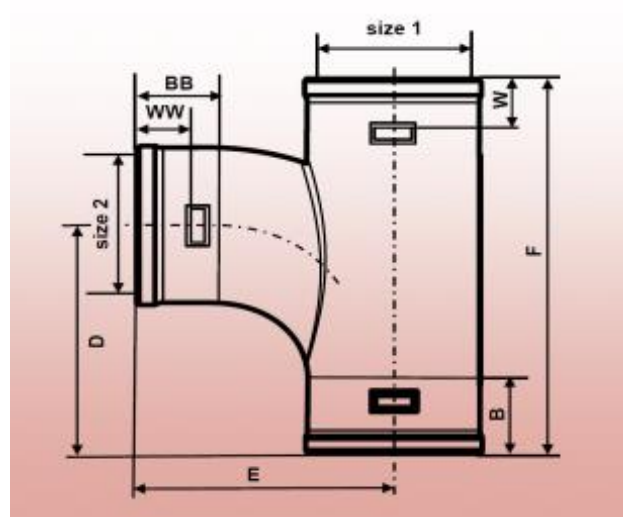
1/8 Bend



ASA Code	size	B	D	R	W	weight	item no.
"	"	mm	mm	mm	mm	kg	
0606	2	1 1/2	38	2 3/4	70	3	76 1 1/8 29
0608	3	1 1/2	38	3	76	3 1/2	89 1 1/8 29
0610	4	1 1/2	38	3 1/8	79	4	102 1 1/8 29
0612	5	2	51	3 7/8	98	4 1/2	114 1 1/2 38
0614	6	2	51	4 1/16	103	5	127 1 1/2 38
0616	8	2 1/2	64	5	127	6	152 2 51
0617	10	3	76	5 15/16	151	7	178 2 51
0618	12	3 1/4	83	6 9/16	167	8	203 2 3/4 70
0619	15	3 1/4	83	7 13/16	198	9 1/2	241 2 3/4 70

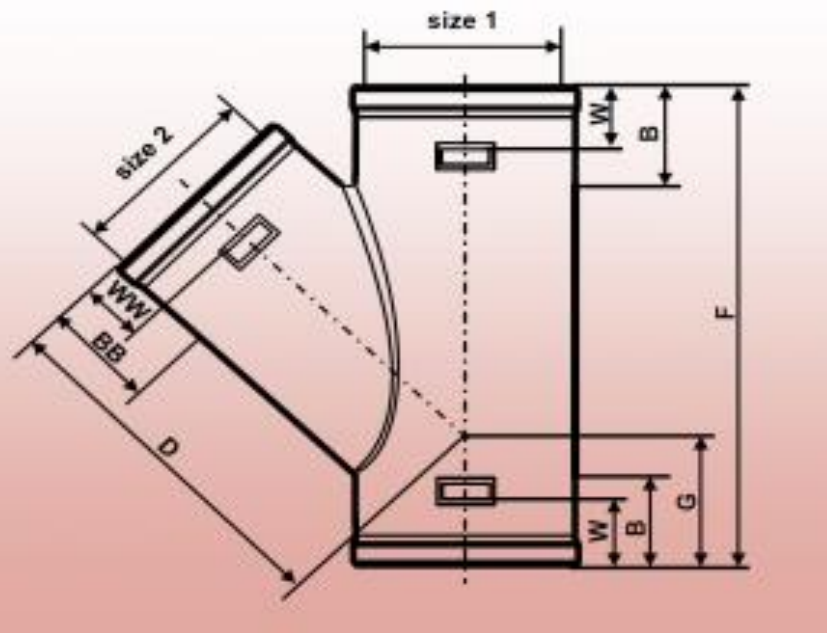
* available on request

Sanitary Tee Branch



ASA Code	size 1 "	size 2 "	B "	mm	BB "	mm	D "	mm	E "	mm	F "	mm	R "	mm	W "	mm	WW "	mm	weight kg	item no.
0810	2	2	1 1/2	38	1 1/2	38	4 1/2	114	4 1/2	114	6 7/8	175	3	76	1 1/8	29	1 1/8	29	1.5	313821
0814	3	2	1 1/2	38	1 1/2	38	4 1/2	114	5	127	6 7/8	175	3	76	1 1/8	29	1 1/8	29	1.8	313826
* 0816	3	3	1 1/2	38	1 1/2	38	5	127	5	127	8	203	3 1/2	89	1 1/8	29	1 1/8	29		
0818	4	2	1 1/2	38	1 1/2	38	4 1/2	114	5 1/2	140	6 7/8	175	3	76	1 1/8	29	1 1/8	29	2.7	314196
0820	4	3	1 1/2	38	1 1/2	38	5	127	5 1/2	140	8	203	3 1/2	89	1 1/8	29	1 1/8	29	3.1	314199
0822	4	4	1 1/2	38	1 1/2	38	5 1/2	140	5 1/2	140	9 1/8	232	4	102	1 1/8	29	1 1/8	29	3.9	314184
* 0824	5	2	2	51	1 1/2	38	5	127	6	152	8 1/2	216	3	76	1 1/2	38	1 1/8	29		
* 0826	5	3	2	51	1 1/2	38	5 1/2	140	6	152	9 5/16	237	3 1/2	89	1 1/2	38	1 1/8	29		
* 0828	5	4	2	51	1 1/2	38	6	152	6	152	10 13/32	264	4	102	1 1/2	38	1 1/8	29		
* 0830	5	5	2	51	2	51	6 1/2	165	6 1/2	165	11 7/16	291	4 1/2	114	1 1/2	38	1 1/2	38		
* 0832	6	2	2	51	1 1/2	38	5	127	6 1/2	165	8 3/16	208	3	76	1 1/2	38	1 1/8	29		
* 0838	6	3	2	51	1 1/2	38	5 1/2	140	6 1/2	165	8 3/16	208	3 1/2	89	1 1/2	38	1 1/8	29		
0834	6	4	2	51	1 1/2	38	6	152	6 1/2	165	10 1/16	256	4	102	1 1/2	38	1 1/8	29	5.8	314297
* 0835	6	5	2	51	2	51	6 1/2	165	7	178	11 1/2	292	4 1/2	114	1 1/2	38	1 1/2	38		
0836	6	6	2	51	2	51	7	178	7	178	12 1/2	318	5	127	1 1/2	38	1 1/2	38	7.7	314187
* 0848	8	3	2 1/2	64	1 1/2	38	6	152	7 1/2	191	10 3/8	264	3 1/2	89	2	51	1 1/8	29		
* 0846	8	4	2 1/2	64	1 1/2	38	6 1/2	165	7 1/2	191	11 1/2	292	4	102	2	51	1 1/8	29		
* 0844	8	5	2 1/2	64	2	51	7	178	8	203	12 1/2	318	4 1/2	114	2	51	1 1/2	38		
* 0842	8	6	2 1/2	64	2	51	7 1/2	191	8	203	13 1/2	343	5	127	2	51	1 1/2	38		
* 0840	8	8	2 1/2	64	2 1/2	64	8 1/2	216	8 1/2	216	15 1/2	394	6	152	2	51	2	51		

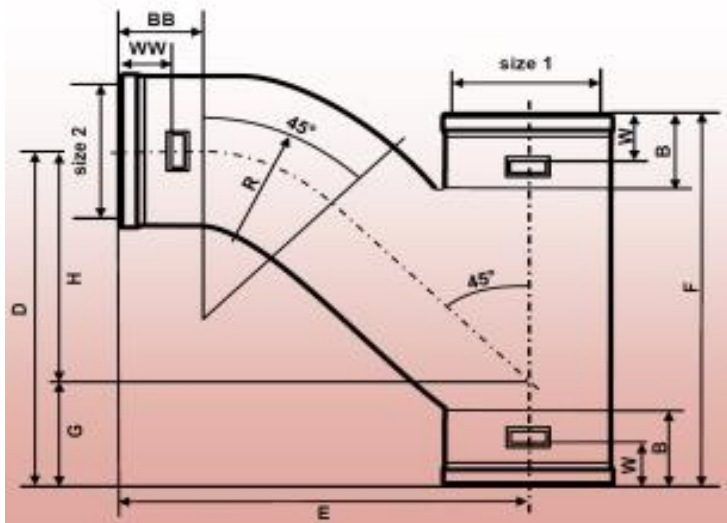
Wye



ASA Code	size 1	size 2	B	BB	D	F	G	W	WW	weight	item no.							
	"	"	"	mm	"	mm	"	mm	"	mm	kg							
1314	2	2	1 1/2	38	1 1/2	38	4 5/8	117	6 5/8	168	2	51	1 1/8	29	1 1/8	29	1.3	314242
1316	3	2	1 1/2	38	1 1/2	38	5 6/16	135	6 5/8	168	1 1/2	38	1 1/8	29	1 1/8	29	1.8	314252
1318	3	3	1 1/2	38	1 1/2	38	5 3/4	146	8	203	2 1/4	57	1 1/8	29	1 1/8	29	2.3	314250
1320	4	2	1 1/2	38	1 1/2	38	6	152	6 5/8	168	1	25	1 1/8	29	1 1/8	29	2.5	314244
1322	4	3	1 1/2	38	1 1/2	38	6 1/2	165	8	203	1 11/16	43	1 1/8	29	1 1/8	29	3.1	314248
1324	4	4	1 1/2	38	1 1/2	38	7 1/16	179	9 1/2	241	2 7/16	62	1 1/8	29	1 1/8	29	4.1	314246
* 1326	5	2	2	51	1 1/2	38	7 1/2	191	8 1/16	205	15/16	62	1 1/2	38	1 1/8	29		
* 1328	5	3	2	51	1 1/2	38	8	203	9 11/16	246	1 11/16	43	1 1/2	38	1 1/8	29		
* 1330	5	4	2	51	1 1/2	38	8 1/2	216	11 3/16	284	2 7/16	62	1 1/2	38	1 1/8	29		
* 1332	5	5	2	51	2	51	9 1/2	241	12 5/8	321	3 1/8	79	1 1/2	38	1 1/2	38		
1334	6	2	2	51	1 1/2	38	8 1/4	210	8 5/16	211	1/2	13	1 1/2	38	1 1/8	29	4.5	314258
1336	6	3	2	51	1 1/2	38	8 3/4	222	9 3/4	248	1 1/4	23	1 1/2	38	1 1/8	29	5.5	314260
1338	6	4	2	51	1 1/2	38	9 1/4	235	11 3/16	284	1 15/16	49	1 1/2	38	1 1/8	29	6.7	314254
* 1340	6	5	2	51	2	51	10 1/4	260	12 1/2	318	2 9/16	65	1 1/2	38	1 1/2	38		
1342	6	6	2	51	2	51	10 3/4	273	14 1/16	357	3 5/16	84	1 1/2	38	1 1/2	38	9.5	314256
1344	8	2	2 1/2	64	2 1/4	57	9 3/8	238	8 1/2	216	9/16	14	2	25	1 1/8	29	6.7	314266
1346	8	3	2 1/2	64	2 1/4	57	9 13/16	249	9 15/16	252	1/8	3	2	25	1 1/8	29	7.9	314268
1348	8	4	2 1/2	64	2 1/4	57	10 3/8	264	11 7/16	291	15/16	24	2	25	1 1/8	29	9.5	314262
* 1350	8	5	2 1/2	64	2 3/4	70	11 3/8	289	12 13/16	325	1 5/8	41	2	51	1 1/2	38		
1352	8	6	2 1/2	64	2 3/4	70	11 13/16	300	14 3/16	360	2 5/16	59	2	25	1 1/2	38	12.6	314264
1354	8	8	2 1/2	64	3 1/4	83	13 3/8	340	17 1/8	435	3 3/4	95	2	25	2	51	17.1	314270
* 1357	10	4	3	76	1 1/2	38	11 11/16	297	12 5/8	321	3/4	19	2	51	1 1/8	29		
* 1359	10	6	3	76	2	51	13 1/8	333	15 7/16	392	2 3/16	56	2	51	1 1/2	38		
* 1360	10	8	3	76	2 1/2	64	14 11/16	373	18 3/8	467	3 5/8	92	2	51	2	51		
* 1361	10	10	3	76	3 3/4	95	16 1/2	419	21 1/2	546	5 1/16	129	2	51	2	51		
* 1362	12	12	3 1/4	83	3 1/4	83	19 3/4	502	25 1/2	648	5 3/4	146	2 3/4	70	2 3/4	70		
* 1363	15	15	3 1/4	83	3 1/4	83	23 1/4	591	30	762	6 3/4	171	2 3/4	70	2 3/4	70		

* available on request

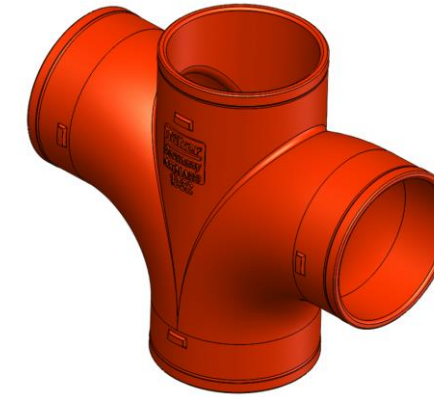
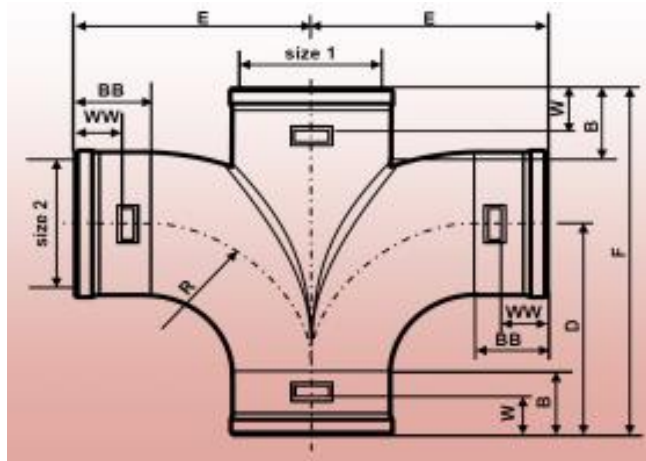
Combination Wye and 1/8 Bend



ASA Code	size 1	size 2	B	BB	D	E	F	F	G	H	R	W	WW	weight	item no.									
	"	"	"	mm	"	mm	"	mm	"	mm	"	mm	"	mm	kg									
* 1698	2	2	1 1/2	38	1 1/2	38	5 3/8	137	6 5/8	168	6 5/8	168	2	51	3 3/8	86	3	76	1 1/8	29	1 1/8	29		
* 1700	3	2	1 1/2	38	1 1/2	38	5 1/2	140	6 3/4	171	6 5/8	168	1 1/2	38	4	102	3	76	1 1/8	29	1 1/8	29		
* 1702	3	3	1 1/2	38	1 1/2	38	7 5/16	186	8	203	8	203	2 1/4	57	5 1/16	129	3 1/2	89	1 1/8	29	1 1/8	29		
* 1704	4	2	1 1/2	38	1 1/2	38	5 1/2	140	7 1/4	184	6 5/8	168	1 5/8	41	4 1/2	114	3	76	1 1/8	29	1 1/8	29		
* 1706	4	3	1 1/2	38	1 1/2	38	7 1/4	184	8 1/2	216	8	203	1 11/16	43	5 9/16	141	3 1/2	89	1 1/8	29	1 1/8	29		
* 1708	4	4	1 1/2	38	1 1/2	38	9 1/4	235	10	254	9 1/2	241	2 7/16	62	6 13/16	173	4	102	1 1/8	29	1 1/8	29	5.9	326104
* 1710	5	2	2	51	1 1/2	38	6	151	7 3/4	197	8 1/16	205	15/16	24	5	127	3	76	1 1/2	38	1 1/8	29		
* 1712	5	3	2	51	1 1/2	38	7 3/4	197	9	229	9 11/16	246	1 11/16	43	6 1/16	154	3 1/2	89	1 1/2	38	1 1/8	29		
* 1714	5	4	2	51	1 1/2	38	9 3/4	248	10 1/2	267	11 3/16	284	2 7/16	62	7 5/16	186	4	102	1 1/2	38	1 1/8	29		
* 1716	5	5	2	51	2	51	11 3/4	298	12 1/2	318	12 5/8	321	3 1/8	79	8 5/8	219	4 1/2	114	1 1/2	38	1 1/2	38		
* 1718	6	2	2	51	1/2	13	6	152	8 1/4	210	8 5/16	211	1/2	13	5 1/2	140	3	76	1 1/2	38	1 1/8	29		
* 1720	6	3	2	51	1 1/2	38	7 13/16	198	9 1/2	241	9 3/4	248	1 1/4	32	6 9/16	167	3 1/2	89	1 1/2	38	1 1/8	29		
* 1722	6	4	2	51	1 1/2	38	9 3/4	248	11	279	11 3/16	284	1 15/16	49	7 13/16	198	4	102	1 1/2	38	1 1/8	29		
* 1724	6	5	2	51	2	51	11 11/16	297	13	330	12 1/2	318	2 9/16	65	9 1/8	232	4 1/2	114	1 1/2	38	1 1/2	38		
* 1726	6	6	2	51	2	51	13 5/8	346	14 3/8	365	14 1/16	357	3 5/16	84	10 5/16	262	5	127	1 1/2	38	1 1/2	38		
* 1728	8	4	2 1/2	64	1 1/2	38	9 7/16	240	11 5/16	287	11 3/16	284	7/8	22	8 9/16	217	4	102	2	51	1 1/8	29		
* 1730	8	5	2 1/2	64	2	51	10 15/16	278	12 13/16	325	12 11/16	322	1 5/8	41	9 5/16	237	4 1/2	114	2	51	1 1/2	38		
* 1732	8	6	2 1/2	64	2	51	12	305	13 3/8	340	13 15/16	354	2 1/4	57	9 3/4	248	5	127	2	51	1 1/2	38		
* 1734	8	8	2 1/2	64	2 1/2	64	14 3/4	375	15 9/16	395	16 15/16	430	3 3/4	95	11	279	6	152	2	51	2	51		

* available on request

Sanitary Cross

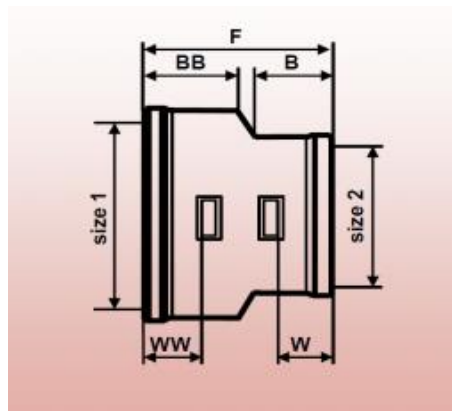


ASA Code	size 1	size 2	B	BB	D	E	F	R	W	WW	weight	item no.								
	"	"	"	mm	"	mm	"	mm	"	mm	kg									
1852	2	2	1 1/2	38	1 1/2	38	4 1/2	114	4 1/2	114	6 7/8	175	3	76	1 1/8	29	1 1/8	29	1.9	314182
* 1854	3	2	1 1/2	38	1 1/2	38	4 1/2	114	5	127	6 7/8	175	3	76	1 1/8	29	1 1/8	29		
* 1856	3	3	1 1/2	38	1 1/2	38	5	127	5	127	8	203	3 1/2	89	1 1/8	29	1 1/8	29	4.8	326100
* 1858	4	2	1 1/2	38	1 1/2	38	4 1/2	114	5 1/2	140	6 7/8	175	3	76	1 1/8	29	1 1/8	29		
* 1860	4	3	1 1/2	38	1 1/2	38	5	127	5 1/2	140	8	203	3 1/2	89	1 1/8	29	1 1/8	29		
* 1862	4	4	1 1/2	38	1 1/2	38	5 1/2	140	5 1/2	140	9 1/8	232	4	102	1 1/8	29	1 1/8	29		
* 1868	6	2	2	51	1 1/2	38	5	127	6 1/2	165	8 3/16	208	3	76	1 1/2	38	1 1/8	29		
* 1864	6	4	2	51	1 1/2	38	6	152	6 1/2	165	10 1/16	256	4	102	1 1/2	38	1 1/8	29		
* 1867	6	6	2	51	2	51	7	178	7	178	12 1/2	318	5	127	1 1/2	38	1 1/2	38		
* 1874	8	4	2 1/2	64	1 1/2	38	6 1/2	165	7 1/2	191	11 1/2	292	4	102	2	51	1 1/8	29		
* 1878	8	8	2 1/2	64	2 1/2	64	8 1/2	216	8 1/2	216	15 1/2	394	6	152	2	51	2	51		

* available on request

RANGE OF PRODUCTS

Short In increaser-Reducer

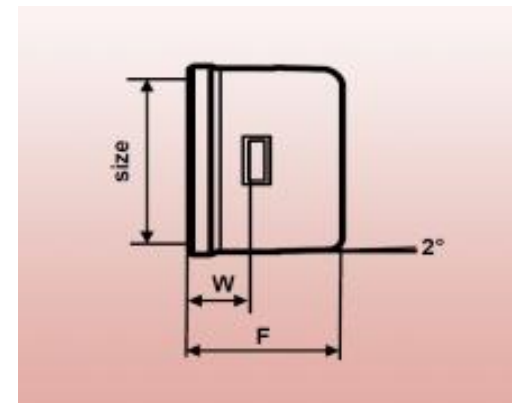


ASA Code	size 1	size 2	B (min.)	BB (min.)	F (± 1/8"; 3.2 mm)		W		WW		weight	item no.		
	"	"	mm	mm	"	mm	"	mm	"	mm	kg			
2140	3	2	1 1/2	38	1 1/2	38	3 5/8	92	1 1/8	29	1 1/8	29	0.7	314221
2142	4	2	1 1/2	38	1 1/2	38	3 5/8	92	1 1/8	29	1 1/8	29		314216
2144	4	3	1 1/2	38	1 1/2	38	3 5/8	92	1 1/8	29	1 1/8	29	1.1	314224
* 2146	5	2	1 1/2	38	2	51	4	102	1 1/8	29	1 1/2	38		
* 2148	5	3	1 1/2	38	2	51	4	102	1 1/8	29	1 1/2	38		
* 2150	5	4	1 1/2	38	2	51	4	102	1 1/8	29	1 1/2	38		
2152	6	2	1 1/2	38	2	51	4	102	1 1/8	29	1 1/2	38	1.9	314235
2154	6	3	1 1/2	38	2	51	4	102	1 1/8	29	1 1/2	38	1.9	314233
2156	6	4	1 1/2	38	2	51	4	102	1 1/8	29	1 1/2	38	2.0	314227
* 2158	6	5	2	51	2	51	4 1/2	114	1 1/2	38	2	51		
* 2160	8	2	1 1/2	38	2	51	4 1/2	114	1 1/8	29	2	51		
* 2162	8	3	1 1/2	38	2	51	4 1/2	114	1 1/8	29	2	51		
2164	8	4	1 1/2	38	2	51	4 1/2	114	1 1/8	29	2	51	3.5	314231
* 2166	8	5	2	51	2	51	5	127	1 1/2	38	2	51		
* 2168	8	6	2	51	2	51	5	127	1 1/2	38	2	51	3.7	314229
* 2172	10	4	1 1/2	38	3	76	5 1/2	140	1 1/8	29	2	51		
* 2174	10	6	2	51	3	76	6	152	1 1/2	38	2	51		
* 2175	10	8	2	51	3	76	6	152	2	51	2	51		
* 2176	12	4	1 1/2	38	3 1/4	83	6 1/2	165	1 1/8	29	2 3/4	70		
* 2177	12	6	2	51	3 1/4	83	6 1/2	165	1 1/2	38	2 3/4	70		
* 2178	12	8	2 1/2	64	3 1/4	83	7	178	2	51	2 3/4	70		
* 2179	12	10	3	76	3 1/4	83	7 1/2	191	2	51	2 3/4	70		
* 2180	15	4	2 1/2	64	3 1/4	83	7	178	1 1/8	29	2 3/4	70		
* 2181	15	6	2	51	3 1/4	83	7	178	1 1/2	38	2 3/4	70		
* 2182	15	8	2 1/2	64	3 1/4	83	7	178	2	51	2 3/4	70		
* 2183	15	10	3	76	3 1/4	83	7 1/2	191	2	51	2 3/4	70		
* 2184	15	12	3 1/4	83	3 1/4	83	7 3/4	197	2 3/4	70	2 3/4	70		

* available on request

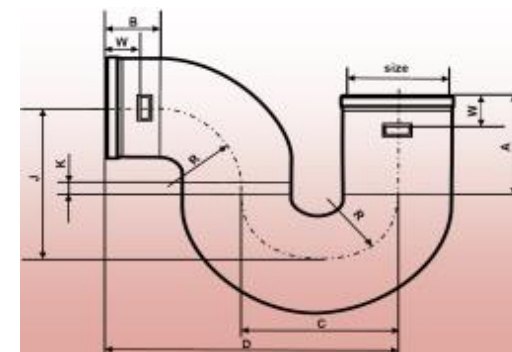
RANGE OF PRODUCTS

Blind Plug



ASA Code	size	F		W		weight	item no.
	"	"	mm	"	mm	kg	
2482	2	1 3/4	44	1 1/8	29	0.3	314165
2484	3	1 3/4	44	1 1/8	29	0.5	314168
2486	4	1 3/4	44	1 1/8	29	0.9	314170
* 2488	5	1 3/4	44	1 1/2	38		
2490	6	1 3/4	44	1 1/2	38	1.7	314173
* 2492	8	2 1/4	57	2	51		
* 2494	10	3	76	2	51		
* 2495	12	3 1/2	89	2 3/4	70		
* 2496	15	3 1/2	89	3 3/4	95		

P-Trap



ASA Code	size	A	B	C	D	J	K	R	W	weight	item no.							
	"	mm	mm	mm	mm	mm	mm	mm	mm	kg								
2508	2	51	1 1/2	38	4	102	7 1/2	191	4	102	-	-	2	51	1 1/8	29	1.9	314175
2510	3	83	1 1/2	38	5	127	9	229	5 1/2	140	1/2	13	2 1/2	64	1 1/8	29	3.6	314177
2512	4	102	1 1/2	38	6	152	10 1/2	267	6 1/2	165	1/2	13	3	76	1 1/8	29	6.5	314179
* 2514	6	152	2	51	8	203	14	356	7 1/2	191	1/2	13	4	102	1 1/2	38		

* available on request

Further fittings on request

CUTTING PIPES

Düker NH hubless cast iron drainage pipes are supplied in standard lengths of 10 foot. These pipes can be cut on site to the required length.

An excellent tool is the Exact PipeCut pipe saw, e.g. the Exact PipeCut 170E. For more information please consult the web page www.exacttools.com.

Electric belt saws with clamping device also give very good results without flying sparks.

Powered disc cutters with discs for cast iron should only be used with guidance devices, where the pipe is held and moved safely, and a right-angled cut is guaranteed.

Another possibility are wheel cutters e.g. by Ridgid or Virax, which also ensure right angled cutting.

It is important that the cut is always at a right angle to the pipe axis.

Attention:
Change the cutting discs and saw belts regularly!

Cutting Pipes

Düker hubless cast iron drainage pipes can be cut readily with the following tools:

1. Exact PipeCut pipe saw

This pipe saw ensures a precise, fast and safe cut without flying sparks and hot chips.



1. Belt saw

Portable belt saws cut pipes perfectly



2. Powered disc cutter

The best results with a powered disc cutter can be achieved with a disc appropriate for cast iron and a guidance as shown



3. Wheel cutter

For use without electricity



CUTTING PIPES

Cut Edge Protection pro-cut Tape

For sewage and waste water pipelines and the corresponding ventilation lines, pipe edges cut on site should be protected. Only the Düker pro-cut tape is to be used for this purpose.

The adhesive pro-cut tape consists of butyl rubber with a PP fleece cover.



1. after cutting the pipe/fitting, trim any sharp edges and clean the surfaces with an appropriate cloth and alcohol so they are absolutely dry and free of dust and grease. The alcohol must evaporate completely before the application of the tape.

2. cut pro-cut tape to the length of the pipe in-side circumference (the measurements given in the table on the spool are to be observed), warm the tape slightly (heating or other heat source) and lift off the protective film.

3. lay the sticky side of the pro-cut tape onto the outside of the cut pipe, 20 mm from the edge.



4. draw the pro-cut tape around the pipe with slight and uniform tension, to a slight overlapping. If there is a gap, loosen both ends separately and draw the tape with higher tension until it overlaps.

5. fold the tape from the outside to the inside and press it tightly to the inside surface and the pipe edge. On the inside, the tape must fit without tension.

6. finished cut edge protection. If necessary, apply lubricant to install the coupling. Possibly loosen the coupling screws slightly before pushing it on.

Maintenance and Pipe Cleaning

On principle, installation must already be carried out in a way that obstructions are prevented. If cleaning should nevertheless be required, we recommend cleaning with a high-pressure cleaning device.

Cleaning with mechanical pipe cleaning tools is not to be recommended due to the possibility of damages to the inside coatings.





DRAINAGE TECHNOLOGY



JOBGING FOUNDRY



FITTINGS AND VALVES

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