



SML PIPE
Epoxy Cast Iron Drainage Pipe System EN877



DINSEN IMPEX CORP 3.0
SML Pipes and Fittings

DINSEN IMPEX CORP
www.dinsenmetal.com

DS紅壠排水管系統標準 DS cast iron drainage pipe system standard

DS红壠管是由離心鑄造工藝製造，管件是砂型鑄造工藝製造的。我們的產品符合歐洲EN877:2021最新標準：

DS cast iron pipes are manufactured by centrifugal casting process and pipe fittings by sandcasting process. Our products comply with the latest European EN877:2021 standard:

EN877	Cast iron pipes and fittings, their joints and accessories for the evacuation of water from building -Requirements, test methods and quality assurance.
DIN 19522	Cast iron drainage pipes and fittings without socket(SML)
EN 10088-1	Part 1: Stainless Steel -List of stainless steel
EN 681-1	Elastomeric seals. Material requirement for pipe joint seals used in water and drainage application.—Part1: Vulcanized rubber
EN 13501-1	Part 1: Fire classification of construction products and building elements- Classification using test data for reaction of fire tests.
ISO 1716	Reaction to fire tests for products-Determination of the gross heat of combustion (calorific value)



為什麼選擇DS紅壠排水管系列 Why choose DS cast iron drainage pipe system

DS紅壠鑄鐵管系統符合歐洲標準EN877, 擁有廣泛的優勢：

DS cast iron drainage pipe system which fully meets the European standard EN877, owns a wide range of advantages:

1. 防火 Fire Protection

不像塑膠管和管件, DS SML 對應於 EN13501-1 規定的歐洲火災反應等級 A1 (不可燃)。這是 40 個分類中最好、最安全的等級！因此，鑄鐵管甚至適合安裝在逃生路線中，無需任何包層或絕緣，只要安裝金屬塞即可。同樣的原因，鑄鐵管也是地下停車場的首選！

另外的作用：鑄鐵管即使在火災中也能完全發揮作用。想想雨水排水。在火災中燒毀或關閉的落水管，即使只有小火災，也會使雨水排水系統無法使用。如果同時下大雨，或與消防水結合，可能會造成毀滅性的後果，例如對於平屋頂！

Unlike plastic pipes and fittings, DS SML corresponds to the European fire reaction class A1 non-combustible as per EN 13501-1. This is the best and safest class of 40 possible classifications ! Therefore cast iron pipes are suitable even for installation in escape routes, without any cladding or insulation, as long as they are installed with metal plugs. For the same reason, cast iron pipes are also first choice in underground car parks!

A side effect: cast iron pipes remain completely functional even during a fire. Just think of rainwater drainage. A downpipe which burns away or which closes down in case of a fire would make the rainwater drainage unusable even in case of only a small fire. In case of a simultaneous downpour, or in combination with firefighting water, there might be devastating consequences e.g. for a flat roof!

2. 環保且壽命長 Environmental Friendly and Long Life Time

由100%完全可回收的材料製成，因此節省了自然資源。DS管道系統可以完全重複使用而不會丟失任何屬性。由於鑄鐵具有優異的機械性能和安全度，其使用壽命已超過50年。

Made from 100% completely recyclable materials so saves natural resources. DS pipe system can be reused for exactly the same purpose without losing any of its properties. Cast iron has a proven life span far exceeding 50 years due to its outstanding mechanical properties and safety margin in operation.



為什麼選擇DS紅壩排水管系列 Why choose DS cast iron drainage pipe system

3. 更強的耐腐蝕性 Strong Corrosion Resistance

DS紅壩管及其管件的環氧樹脂在EN877標準下要求需要達到350小時的鹽霧試驗，但DS紅壩管可以達到1500小時的鹽霧試驗（2025年獲得香港CASTCO認證）。在潮濕多雨的環境中，尤其是海邊，DS紅壩管外層的環氧樹脂塗層為管道提供了良好的保護。隨著有機酸和燒鹼等家用化學品的使用越來越多，環氧樹脂塗層是抵禦侵入物質的最佳屏障，同時也創造了光滑的管道，防止污垢堵塞。紅壩的防腐性能使其在世界各地的實驗室、醫院、工廠和住宅中廣泛使用。

The epoxy resin of DS cast iron pipe and its accessories needs to reach 350 hours of salt spray test under EN877 standard, but DS pipe can reach 1500 hours Salt spray test (obtained Hong Kong CASTCO certification in 2025). In humid and rainy environments, especially at the seaside, the epoxy resin coating on the outer layer of the DS pipe provides good protection for the pipe. With the increasing use of household chemicals such as caustic soda, epoxy coatings are the best barrier against invading substances while also creating a smooth Pipes to prevent dirt from clogging. The anti-corrosion properties of red tubes make them widely used in laboratories, hospitals, factories and residences around the world.



4. 低噪音 Low Noise

DS紅壩管具有鑄鐵堅固緻密的特性，可防止空氣傳播，從而形成無聲的排水系統。通常由於其天然的靜音特性，不需要特殊且昂貴的隔音措施。到目前為止 DS 紅壩是所有其他排水管道中最安靜的，特別適用於醫院、飯店、辦公室和公寓大樓。

With cast iron sturdy and dense properties, DS pipe walls prevent air transmission creating a silent drainage system. Typically due to its naturally silent characteristics, no special and costly sound insulation measures required. So far DS cast iron pipe system is the quietest out of all the other drainage pipes, particularly suitable for hospitals, hotels, offices and apartment blocks.

為什麼選擇DS紅壩排水管系列 Why choose DS cast iron drainage pipe system

5. 易於安裝和維護 Easy to Install and Maintain

DS 卡箍專門用于連接紅壩管和管件。使用簡單的工具即可組裝，可節省時間和人工成本。DS 排水管系統更耐用、更耐用，在建築物使用壽命期間几乎不需要維護，是排水系統的首選，尤其是在維修或維護不方便的地方。必要時，只需拆下接頭和橡膠墊圈。

DS couplings are specially connected cast iron pipes and fittings. assembled with simple tools. It is easy and quick, which can save time and labour cost. DS drainage pipe system is more resistant and durable, needs minimal maintenance during the building life time and makes it the first choice for drainage system especially where repair or maintain inconvenience. When necessary, just remove the couplings and rubber gasket.



6. 優越的機械性質 Excellent Mechanical Characteristics

DS 管道系統由含有片狀石墨的灰鑄鐵製成，這種典型的結晶結構賦予材料高強度、耐磨、耐高溫、優異的腐蝕性DS 產品的形狀和衝擊強度在陽光和風化的侵蝕下不會發生變化，而 uPVC 和 PVC 管道則會在劇烈的溫度變化下會軟化、變形、變脆。

DS pipe system is manufactured of grey cast iron with flake graphite, this typical crystalline structure gives the material high strength, wear and temperature resistance, excellent corrosion resistance, and a very high damping capacity. The shape and impact strength of DS products are unchanged under exposure of sunlight and weathering, while uPVC and PVC pipes would soften, deform and become brittle under intense temperature change.

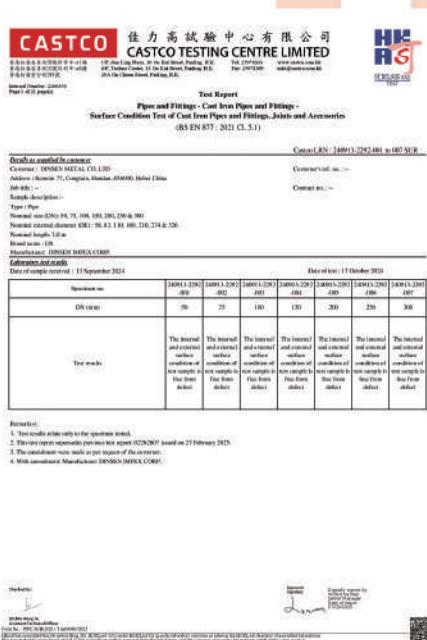
機械性能/Mechanical Properties

最小抗拉強度 /Minimum tensile strength:	Pipes: 200MPa; Fittings: 150MPa
最小壓環強度 /Minimum ring crushing strength:	Pipes and fittings: 350 MPa(for DN<250) or 332 MPa (for DN≥250)
最大布氏硬度 /Maximum brinell hardness:	Pipes and fittings: 260HB

DINSEN has obtained Hong Kong CASTCO test report, and DINSEN products comply with the EN877:2021 standard. This standard focuses on cast iron pipe systems and their components for engineering drainage, specifying in detail the product characteristics, test methods, and how to accurately present the test results.

In addition to meeting the EN877:2021 standard, DINSEN products have successfully passed the rigorous 1,500-hour salt spray test. Salt spray testing is a method that simulates marine or harsh industrial environments. By spraying a salt-containing mist in a controlled environment, it evaluates the product's corrosion resistance under highly corrosive conditions.

DINSEN's achievement of CASTCO test report, along with its excellent performance in both the EN877:2021 standard and the 1,500-hour salt spray test, fully demonstrates its strong capabilities in product R&D, production technology, and quality control. This not only provides consumers with more reliable product options but also sets a new quality benchmark for the industry.



ISO 9001 certification, one of the most influential quality management system (QMS) standards in the world, is established and promoted by the International Organization for Standardization (ISO).

Since its inception, DINSEN has considered quality the cornerstone of corporate development. In its pursuit of excellence, the company strictly controls every stage—from production and processing to quality inspection and product delivery—striving for perfection. The achievement of ISO 9001 certification is a strong testament to DINSEN's long-term commitment to quality management.

For DINSEN, obtaining ISO 9001 certification is not only an honor but also a responsibility. Moving forward, the company will continue to uphold a customer-centric philosophy, further optimize its QMS, and continuously enhance product and service quality to deliver greater value to customers.

Moreover, this certification will strengthen DINSEN's competitiveness in both domestic and international markets, laying a solid foundation for sustainable growth.



DS紅銹排水管系統標準 DS cast iron drainage pipe system standard

應用 Application:

EN877:2021是紅銹排水管系統的歐盟標準，產品標準尺寸由DN40到DN600。本標準規定了產品要求和試驗方法，以確保鑄鐵管系統的品質、尺寸和壁厚、機械性能(如水壓、抗拉強度和布氏硬度)、表面品質。產品應用於飯店，高層建築，醫療中心，文化娛樂場所，機場及基礎設施。

EN877:2021 is the EU standard for Cast iron drainage pipe systems, with standard product sizes ranging from DN40 to DN600. This standard specifies product requirements and test methods to ensure the quality, size and wall thickness, mechanical properties (such as water pressure, tensile strength and brinell hardness), and surface quality of cast iron pipe systems. The products are used in hotels, high-rise buildings, medical centers, cultural and entertainment venues, airports and infrastructure.

DS SML系統用于普通建築室內排水，其內塗層的抗腐蝕性遠超過標準要求。對於地下安裝，DS TML系統是符合標準，這需要一個管道外塗層的噴鋅至少 130g/m^2 加額外終飾塗層。DS KML系統是在內外塗上高品質的環氧油漆，適用於廚房、醫院或工業廠房中含油脂的廢水。DS BML系統的外塗層符合ZTV-ING4鋼結構施工，具有典型的抗酸性廢氣、道路鹽霧等特性，適合於橋樑施工、道路、隧道等領域的特殊要求。

DS SML System is used for civil building drainage system, whose corrosion resistance of inside coating surpasses the standard requirements by far. For underground installation, DS TML system is fulfilled by the standard, which requires an pipe outside coating with zinc layer min. 130g/m^2 and an additional cover coat. DS KML system is coated inside and outside with a highquality epoxy paint, which suited for grease-containing waste waters from kitchens or hospitals or industrial plants. DS BML system outside coating correspond to ZTV-ING part 4 steel construction It has typical properties of resisting acidic waste gas, road salt mist, etc, suitable for special requirements in the field of bridge construction, roads, tunnels.

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塗層厚度 Coating Thickness:



1.SML for above ground drainage system

Pipes	Inside: Fully cross-linked epoxy, thickness min.120μm Outside: Reddish brown base coat, thickness min.60μm
Fittings	Inside and outside: Fully cross-linked epoxy, thickness min.60μm
Note	We also offer pipes and fittings inside and outside coated epoxy powder min.120μm

2.TML for below ground drainage system

Pipes	Inside: Fully cross-linked epoxy, thickness min.120μm Outside: Thermal spray zinc coating min. 130 g/m^2 + top coat brown epoxyresin min.60μm
Fittings	Inside and outside: Brown epoxy powder coating

3.KML for grease-containing waste waters from kitchens or laboratories

Pipes	Inside: Fully cross-linked epoxy, double layer thickness min.240μm Outside: Thermal spray zinc coating min. 130 g/m^2 + top coat grey. Epoxy resin min.60μm
Fittings	Inside and outside: Grey epoxy powder coating

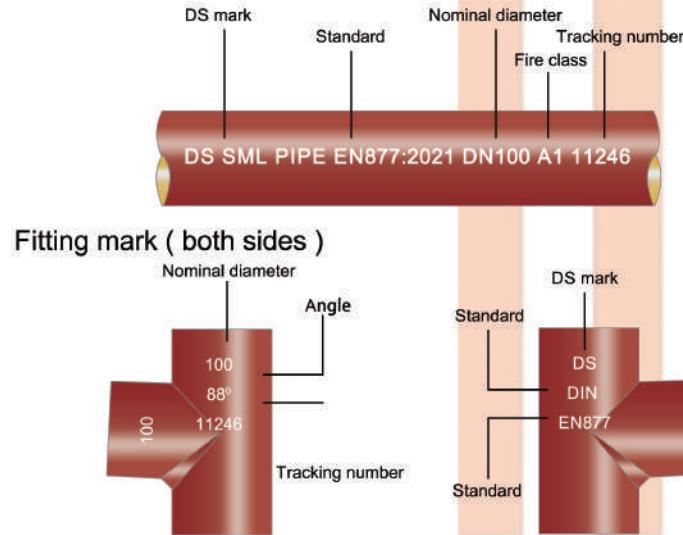
4.BML for bridge drainage system

Pipes	Inside: Fully cross-linked epoxy, thickness min.120μm Outside: Two-layer thermal spraying zinc coating min.40μm, cover two-components epoxy coating 80μm silvery grey (Color RAL 7001)
Fittings	Inside and outside: Zinc-rich primer min.70μm + top coat epoxy resin min.80μm silvery grey

DS紅壺管及管件標記 DS brand cast iron pipes and fittings marking

DS红壺管和管件均按照EN877標準作標識，包含製造商標記、標準、DN、角度、代碼和跟蹤編號如下所示：

DS cast iron pipes and fittings are marked in accordance with the standard EN877, contains manufacturer mark, standard, DN, angle, code and tracking number as follows:



The complete range of DS SML pipes, fittings, couplings and grip collar will be found in the following list of product tables. Please note that: All data is just for engineering reference, not as proof! More details, please contact us.

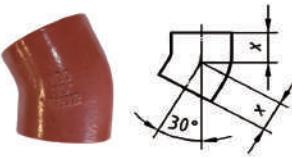
DS pipe & fittings technical data

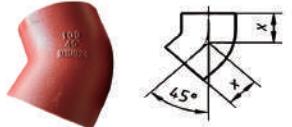
Red Iron Pipe/Cast Iron Pipe	Code	DN	DE Outside Diameter		Wall Thickness	
			Nominal /mm	Tolerance /mm	Nominal /mm	Min /mm
L=3000mm						
	DP-050	50	58	+2/-1	3.5	3.0
	DP-070	70	78	+2/-1	3.5	3.0
	DP-080	80	83	+2/-1	3.5	3.0
	DP-100	100	110	+2/-1	3.5	3.0
	DP-125	125	135	+2/-2	4.0	3.5
	DP-150	150	160	+2/-2	4.0	3.5
	DP-200	200	210	+2.5/-2.5	5.0	4.0
	DP-250	250	274	+2.5/-2.5	5.5	4.5
	DP-300	300	326	+2.5/-2.5	6.0	5.0
	DP-400	**400	429	+2/-3	6.3	5.0
	DP-500	**500	532	+2/-3.8	7.0	5.2
	DP-600	**600	635	+2/-4	7.7	5.8

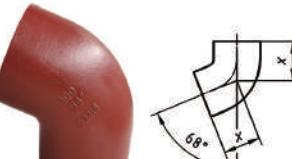
Bend 15°	Code	DN	X	Weight
		/mm	/mm	KG
	DF1015-050	50	40	0.4
	DF1015-080	80	50	0.6
	DF1015-100	100	50	1.0
	DF1015-125	125	60	1.7
	DF1015-150	150	65	2.5

Bend 22°	Code	DN	X	Weight
		/mm	/mm	KG
	DF1022-050	50	45	0.5
	DF1022-080	80	50	1.0
	DF1022-100	100	54	1.3
	DF1022-150	150	70	3.2

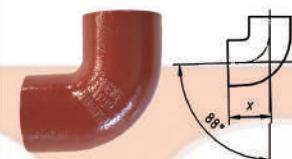
DS pipe & fittings technical data

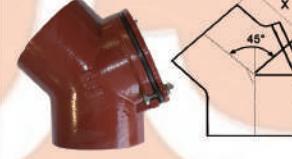
Bend 30°	Code	DN	X	Weight
		/mm	/mm	KG
	DF1030-050	50	45	0.5
	DF1030-080	80	60	0.8
	DF1030-100	100	60	1.3
	DF1030-125	125	70	2.0
	DF1030-150	150	80	3.0
	DF1030-200	200	95	5.6

Bend 45°	Code	DN	X	Weight
		/mm	/mm	KG
	DF1045-050	50	50	0.5
	DF1045-080	80	60	1.0
	DF1045-100	100	70	1.6
	DF1045-125	125	80	2.3
	DF1045-150	150	90	3.5
	DF1045-200	200	110	6.2
	DF1045-250	250	130	10.3
	DF1045-300	300	155	17.3
	DF1045-400	**400	257	36.0

Bend 68°	Code	DN	X	Weight
		/mm	/mm	KG
	DF1045-050	50	65	0.7
	DF1045-080	80	80	1.2
	DF1045-100	100	90	1.9
	DF1045-125	125	105	2.9
	DF1045-150	150	120	4.3
	DF1045-200	200	145	7.7

DS pipe & fittings technical data

Bend 88°	Code	DN	X	Weight
		/mm	/mm	KG
	DF1090-050	50	75	0.7
	DF1090-080	80	95	1.4
	DF1090-100	100	110	2.1
	DF1090-125	125	125	3.2
	DF1090-150	150	145	4.9
	DF1090-200	200	180	8.8
	DF1090-250	250	225	17.9
	DF1090-300	300	260	28.0

Bend with Access Door 45°	Code	DN	X	Weight
		/mm	/mm	KG
	DFC1045-050	50	60	1.0
	DFC1045-080	80	76	1.7
	DFC1045-100	100	83	2.6
	DFC1045-150	150	113	7.0
	DFC1045-200	200	124	9.0
	DFC1045-250	250	162	25.5
	DFC1045-300	300	207	39.8

Bend with Access Door 88°	Code	DN	X	Weight
		/mm	/mm	KG
	DFC1090-050	50	76	1.1
	DFC1090-080	80	95	2.2
	DFC1090-100	100	110	3.4
	DFC1090-150	150	150	7.0
	DFC1090-200	200	182	10.2
	DFC1090-250	250	222	26.3
	DFC1090-300	300	263	33.5

DS pipe & fittings technical data

Large Radius Bend with Access Door 88°	Code	DN	X	R	Weight
		/mm	/mm	/mm	KG
DFC1900-100	100	270	233	7.0	
DFC1900-100	100	426	400	7.7	
DFC1900-150	150	630	600	19.7	
DFC1900-200	200	446	400	23.0	
DFC1900-200	200	645	600	35.0	
DFC1900-250	250	558	500	49.0	
DFC1900-250	250	655	600	51.0	
DFC1900-300	300	666	600	75.0	

Large Radius Bend 88°	Code	DN	X	R	Weight
		/mm	/mm	/mm	KG
DF1900-080	80	288	250	3.6	
DF1900-100	100	270	233	5.4	
DF1900-100	100	434	400	7.5	
DF1900-150	150	275	228	9.8	
DF1900-150	150	635	600	19.5	
DF1900-200	200	343	280	19.5	
DF1900-200	200	460	400	23.0	

Double Short Bend 88°	Code	DN	a	b	c	Weight
		/mm	/mm	/mm	/mm	KG
DF1600-050	50	20	100	121	1.2	
DF1600-080	80	60	120	145	1.8	
DF1600-100	100	70	140	170	3.2	
DF1600-150	150	90	180	219	7.0	

DS pipe & fittings technical data

Vent Bend 88°	Code	DN	a	b	Weight
		/mm	/mm	/mm	KG
DF2000B-100*050	100*50	110	110	2.9	

Heel Bend 88°	Code	DN	a	b	Weight
		/mm	/mm	/mm	KG
DF2000A-100*050	100*50	202	110	2.5	

Long Bend with 250mm Spigot 88°	Code	DN	a	b	c	Weight
		/mm	/mm	/mm	/mm	KG
DF2088-100	100	250	110	140	4.0	

P-Trap	Code	DN	a	b	c	Weight
		/mm	/mm	/mm	/mm	KG
DF2100-050	50	80	102	191	2.2	
DF2100-080	80	125	128	229	5.0	
DF2100-100	100	157	152	267	7.6	

DS pipe & fittings technical data

Off-set Bend	Code	DN	L	a	b	Weight
		/mm	/mm	/mm	/mm	KG
	DF2500-065*100	65*100	205	65	70	2.5
	DF2500-130*100	130*100	270	130	70	3.4

Long Bend with 250mm Spigot 45°	Code	DN	a	b	c	Weight
		/mm	/mm	/mm	/mm	KG
	DF2045-100	100	250	70	180	3.8

Double Branch 45°	Code	DN	L	b	Weight
		/mm	/mm	/mm	KG
	DF2400-100*050	100*50	204	167	2.7
	DF2400-100*100	100*100	260	190	5.3
	DF2400-150*100	150*100	280	225	9.0
	DF2400-150*150	150*150	358	269	10.8

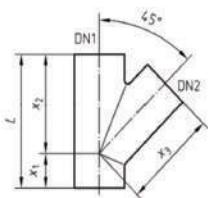
Single Branch 68°	Code	DN	L	a	b	Weight
		/mm	/mm	/mm	/mm	KG
	DF1168-050*050	50*50	135	80	80	0.9
	DF1168-100*050	100*50	155	100	100	2.1
	DF1168-100*100	100*100	215	130	130	2.8

DS pipe & fittings technical data

Single Branch 88°	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
	DF1190-050*050	50*50	146	80	66	81	0.9
	DF1190-080*050	80*50	155	90	85	91	1.6
	DF1190-080*080	80*80	183	96	87	95	1.9
	DF1190-100*050	100*50	174	96	78	107	2.1
	DF1190-100*080	100*80	193	106	87	112	2.6
	DF1190-100*100	100*100	223	116	107	122	2.9
	DF1190-150*050	150*50	203	95	108	142	4.4
	DF1190-150*080	150*80	223	117	106	142	5.0
	DF1190-150*100	150*100	247	116	131	146	5.5
	DF1190-150*150	150*150	302	143	159	156	6.9
	DF1190-200*100	200*100	271	129	142	175	7.8
	DF1190-200*150	200*150	329	159	175	154	10.8
	DF1190-200*200	200*200	379	197	182	190	12.8
	DF1190-250*100	250*100	311	149	162	148	14.0
	DF1190-250*150	250*150	359	188	171	189	15.0
	DF1190-250*200	250*200	408	211	197	235	17.5
	DF1190-250*250	250*250	473	243	230	246	27.0
	DF1190-300*100	300*100	348	164	184	185	22.0
	DF1190-300*150	300*150	404	212	192	258	22.8
	DF1190-300*200	300*200	455	235	220	265	27.0
	DF1190-300*250	300*250	525	252	273	279	31.6
	DF1190-300*300	300*300	554	272	282	278	35.0

DS pipe & fittings technical data

Single Branch 45°	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
DF1145-050*050	50*50	185	50	135	135	1.4	
DF1145-080*050	80*50	190	50	140	140	1.8	
DF1145-080*080	80*80	225	65	160	160	2.4	
DF1145-100*050	100*50	200	35	165	165	2.5	
DF1145-100*080	100*80	230	55	175	175	3.1	
DF1145-100*100	100*100	275	70	205	205	4.2	
DF1145-125*050	125*50	205	20	185	185	3.4	
DF1145-125*080	125*80	240	40	200	200	4.6	
DF1145-125*100	125*100	280	60	220	220	5.2	
DF1145-125*125	125*125	320	80	240	240	6.4	
DF1145-150*050	150*50	283	41	242	242	5.5	
DF1145-150*080	150*80	260	40	220	220	5.9	
DF1145-150*100	150*100	295	55	240	240	6.8	
DF1145-150*125	150*125	325	70	255	255	8.0	
DF1145-150*150	150*150	355	90	265	265	9.2	
DF1145-200*080	200*080	260	20	240	240	8.5	
DF1145-200*100	200*100	305	40	265	265	10.0	
DF1145-200*125	200*125	335	55	280	280	11.9	
DF1145-200*150	200*150	375	75	300	300	13.3	
DF1145-200*200	200*200	455	115	340	340	17.2	
DF1145-250*100	250*100	325	15	310	310	15.4	
DF1145-250*125	250*125	375	35	335	335	17.7	
DF1145-250*150	250*150	405	55	350	350	20.2	
DF1145-250*200	250*200	475	90	385	385	25.1	
DF1145-250*250	250*250	560	130	430	430	31.5	
DF1145-300*150	300*150	415	35	380	380	26.9	
DF1145-300*200	300*200	485	70	415	415	34.0	
DF1145-300*250	300*250	580	115	465	465	42.1	
DF1145-300*300	300*300	660	155	505	505	50.1	



DS pipe & fittings technical data

Double Branch 88°	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
DF1500-050*050	50*50	145	80	65	80	1.1	
DF1500-100*050*050	100*50*50	180	100	80	105	2.2	
DF1500-100*100*100	100*100*100	220	115	105	105	3.4	
DF1500-150*100*100	150*100*100	245	130	115	145	7.1	

Corner Branch 88°	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
DF1400-100*100*100	100*100*100	220	105	115	120	3.4	
DF1400-125*100*100	125*100*100	235	110	125	140	5.0	
DF1400-150*100*100	150*100*100	245	115	130	145	7.1	

Branch with Access 88°	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
DFC1190-050*050	50*50	146	80	81	66	1.3	
DFC1190-080*050	80*50	183	96	91	87	5.0	
DFC1190-080*080	80*80	222	131	131	91	2.9	
DFC1190-100*050	100*50	205	105	96	100	3.8	
DFC1190-100*080	100*80	204	112	112	92	3.8	
DFC1190-100*100	100*100	276	171	153	105	4.5	
DFC1190-150*100	150*100	278	163	165	115	7.5	
DFC1190-150*150	150*150	353	205	192	148	11.0	
DFC1190-200*100	200*100	313	167	177	146	10.5	
DFC1190-200*150	200*150	343	177	187	166	11.6	
DFC1190-200*200	200*200	379	197	204	182	14.3	
DFC1190-250*150	250*150	440	227	226	213	34.6	
DFC1190-250*200	250*200	448	231	235	217	26.5	
DFC1190-250*250	250*250	473	243	246	230	31.0	
DFC1190-300*200	300*200	465	240	265	225	33.6	
DFC1190-300*300	300*300	549	280	283	266	43.5	

DS pipe & fittings technical data

Branch with Access 45°	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
DFC1145-050*050	DFC1145-050*050	50*50	185	50	135	135	1.7
DFC1145-080*080	DFC1145-080*080	80*80	230	65	165	165	3.0
DFC1145-100*050	DFC1145-100*050	100*50	215	40	175	175	3.6
DFC1145-100*080	DFC1145-100*080	100*80	265	65	200	200	4.5
DFC1145-100*100	DFC1145-100*100	100*100	275	70	205	205	5.3
DFC1145-150*100	DFC1145-150*100	150*100	285	50	230	230	8.0
DFC1145-150*150	DFC1145-150*150	150*150	355	90	265	265	10.4
DFC1145-200*100	DFC1145-200*100	200*100	345	40	305	305	11.0
DFC1145-200*150	DFC1145-200*150	200*150	395	55	340	340	14.0
DFC1145-200*200	DFC1145-200*200	200*200	485	115	370	370	16.4
DFC1145-250*250	DFC1145-250*250	250*250	585	135	450	450	40.0
DFC1145-300*300	DFC1145-300*300	300*300	695	155	540	540	57.2

Round Access Pipe	Code	DN	L	a	Weight
		/mm	/mm	/mm	KG
DFC-050	DFC-050	50	190	53	2.3
DFC-080	DFC-080	80	220	78	3.1
DFC-100	DFC-100	100	260	104	5.0
DFC-125	DFC-125	125	280	128	6.4
DFC-150	DFC-150	150	320	152	9.6

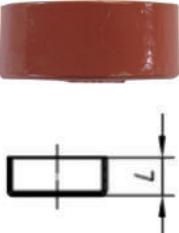
DS pipe & fittings technical data

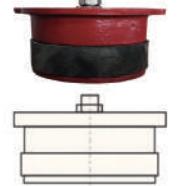
Rectangle Access Pipe	Code	DN	L	a	b	Weight
		/mm	/mm	/mm	/mm	KG
DFCS-100	DFCS-100	100	340	230	160	7.6
DFCS-125	DFCS-125	125	370	255	190	10.3
DFCS-150	DFCS-150	150	395	280	215	14.5
DFCS-200	DFCS-200	200	465	330	265	22.0
DFCS-250	DFCS-250	250	570	380	330	35.0
DFCS-300	DFCS-300	300	610	430	380	51.0

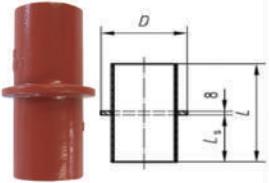
Anti-syphon Trap	Code	DN	L	a	Weight
		/mm	/mm	/mm	KG
DF1700-050	DF1700-050	50	255	146	3.3
DF1700-080	DF1700-080	80	312	201	9.1
DF1700-100	DF1700-100	100	374	261	11.5
DF1700-150	DF1700-150	150	625	376	35.0
DF1700-200	DF1700-200	200	--	--	54.1

Deep Trap with 4 Doors	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	KG	
DF1800-050	DF1800-050	50	250	122	190	182	3.3
DF1800-080	DF1800-080	80	250	172	265	200	7.5
DF1800-100	DF1800-100	100	392	215	325	280	9.8
DF1800-150	DF1800-150	150	493	325	470	356	22.8

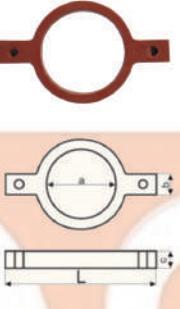
DS pipe & fittings technical data

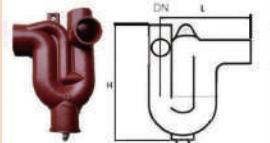
Cap	Code	DN	L	Weight
		/mm	/mm	KG
	DF1200-050	50	30	0.2
	DF1200-080	80	35	0.5
	DF1200-100	100	40	0.7
	DF1200-125	125	45	1.1
	DF1200-150	150	50	1.7
	DF1200-200	200	60	3.1
	DF1200-250	250	70	6.0
	DF1200-300	300	80	9.5

Cap with Rubber Seal	Code	DN	Weight
		/mm	KG
	DFC2300-050	50	0.3
	DFC2300-080	80	0.9
	DFC2300-100	100	1.8
	DFC2300-150	150	3.3

Support Downpipe	Code	DN	L	D	Weight
		/mm	/mm	/mm	KG
	DF2600-050	50	200	87	1.3
	DF2600-080	80	200	114	1.8
	DF2600-100	100	200	145	2.3
	DF2600-125	125	200	170	3.0
	DF2600-150	150	200	195	4.0
	DF2600-200	200	200	245	6.0
	DF2600-250	250	300	340	12.5
	DF2600-300	300	300	390	24.0

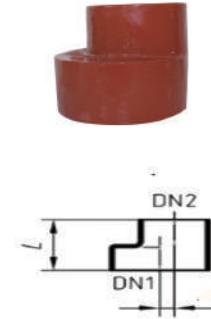
DS pipe & fittings technical data

Support Bracket / Ring	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
	DF2200-050	50	193	641	32	17	0.8
	DF2200-080	80	214	93.5	32	18	1.0
	DF2200-100	100	250	114	33	20	1.3
	DF2200-125	125	275	139	33	20	1.5
	DF2200-150	150	301	164	33	22	2.0
	DF2200-200	200	360	215	36	22	3.0
	DF2200-250	250	442	279	40	25	6.0
	DF2200-300	300	495	331	40	30	7.4

Anti-Syphonage Trap with Branch (Plug or Access Door)	Code	DN	X	R	Weight
		/mm	/mm	/mm	KG
	DF150-50	50	150	219	3.4

DS pipe & fittings technical data

Reducer	Code	DN	L	a	Weight
		/mm	/mm	/mm	KG
DF1300-080*050	80*50	80	12.5	0.7	
DF1300-100*050	100*50	80	25.0	0.9	
DF1300-100*080	100*80	90	13.5	1.1	
DF1300-125*100	125*100	95	12.5	1.5	
DF1300-150*050	150*50	95	51.0	2.0	
DF1300-150*080	150*80	100	37.5	2.2	
DF1300-150*100	150*100	105	25.0	2.2	
DF1300-150*125	150*125	110	12.5	2.2	
DF1300-200*100	200*100	115	50.0	4.1	
DF1300-200*125	200*125	120	37.5	4.1	
DF1300-200*150	200*150	125	25.0	4.3	
DF1300-250*150	250*150	140	57.0	6.8	
DF1300-250*200	250*200	145	32.0	7.0	
DF1300-300*150	300*150	150	83.0	10.7	
DF1300-300*200	300*200	160	58.0	11.4	
DF1300-300*250	300*250	170	28.0	12.4	



Connector with Flange	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
DF2700-100	100	150	180	220	18	7.3	
DF2700-125	125	150	210	250	18	10.5	
DF2700-150	150	150	240	285	22	12	
DF2700-200	200	150	295	340	22	18	



Floor Drain	Code	DN	L	a	b	c	Weight
		/mm	/mm	/mm	/mm	/mm	KG
DF2700-200*100	200*100	280	300	260	390	35.0	



DS Couplings technical data

Rapid Coupling	Code	DN	D	H	L
		/mm	/mm	/mm	/mm
DCB-050	50	70	80	40	
DCB-080	80	95	105	40	
DCB-100	100	125	135	46	
DCB-125	125	147	162	55	
DCB-150	150	172	187	55	
DCB-200	200	227	244	70	

CV Coupling	Code	DN	L	D
		/mm	/mm	/mm
DSCH-050	50	48	65	
DSCH-080	80	48	88	
DSCH-100	100	54	115	
DSCH-125	125	65	140	
DSCH-150	150	65	170	
DSCH-200	200	78	220	
DSCH-250	250	78	286	
DSCH-300	300	78	338	

American Type Couplings	Code	DN
		/mm
DSAH-050	50	
DSAH-080	80	
DSAH-100	100	
DSAH-125	125	
DSAH-150	150	
DSAH-200	200	
DSAH-250	250	
DSAH-300	300	

DS Couplings technical data

Ductile Iron Couplings	Code	DN	L	D	a	b	Weight
		/mm	/mm	/mm	/mm	/mm	KG
DCD-050	50	50	79	68	111	0.6	
DCD-070	70	50	89	68	132	0.7	
DCD-100	100	60	134	78	168	1.1	
DCD-150	150	71	184	89	230	1.9	
DCD-200	200	82	231	100	278	4.2	

Kombi Kralle	Code	DN	D	L
		/mm	/mm	/mm
DSBP-050	50		125	75
DSBP-080	80		148	75
DSBP-100	100		180	85
DSBP-150	150		234	96
DSBP-200	200		256	110
DSBP-250	250		325	110
DSBP-300	300		375	110

Grip E	OD	Clamping Range	Working Pressure	Gap Distance		Dimensions			Thread	Torque Rate
						B	C	D		
	/mm	/mm	PN	/mm	/mm	/mm	/mm	/mm	M	/Nm
50	57-60	50	10	15	75	76	100	8	20	
80	82-85	45	10	25	105	112	125	8	35	
100	109-112	40	10	25	120	135	150	10	35	
125	132-137	35	10	30	120	157	190	10	60	
150	158-162	30	10	30	120	186	215	10	60	
200	208-212	30	10	35	152	250	280	12	80	
250	271-277	20	10	35	152	303	335	12	80	
300	323-329	20	10	35	152	354	385	12	80	

DS Couplings and Joints technical data

Rubber Elbow Fix Coupling	Code	DN	D1	D2	D3	D4	D5	L	L1	L2	ΦConnection
		/mm	/mm								
DCFC-50	50	72	56	30	57	68	63	19	42	40-56	
DCFC-80	80	92	75	41	81	91	77	19	55	56-75	
DCFC-100	100	123	110	78	108	118	95	21	65	104-110	
DCFC-125	125	145	125	90	132	145	103	21	75	125	

Rubber Elbow Multi Coupling	Code	DN	ΦD1	ΦD4	Φd1	Φd2	Φd3	Φd4	Insertion
		/mm	/mm	/mm	/mm	/mm	/mm	/mm	/mm
DCMC-100	100	134	108	116	90.5	35.5	40	40	

Rubber ElbowMulti Quick Coupling	Code	DN	ΦD1	ΦD2	ΦD3	ΦD4	Φd1	Φd2	Φd3	Φd4	H
		/mm									
DCQC-100	100*70	117	111	101	81	108	104	93	74	107	

Note:

Material metal collar and locking parts: W2, stabilised stainless steel, 1.4510/11 as per EN10088

W5, austenitic stainless steel, 1.4571 as per EN10088

Material sealing: EPDM. NBR on request for waste water containing oil

Axial restraint: up to 0.5bar

Screw size: DN40: M5; DN50-150: M8; DN200: M10

Torque: DN40 and 200: until both locks come together

切割管子 Cutting Pipes

• 切割管子 Cutting Pipes

DS紅銹排水管的標準長度為3米，同時可依需求切割。關鍵操作要求是必須將管道牢固固定，確保切割端面平整垂直、無毛邊且光滑。以下工具可用於紅銹管的切割：

DS cast iron drainage pipes are supplied with a standard length of 3m, while they can be cut at the required size. An important condition is to fix the pipe securely, to guarantee cut edge a clean and right-angled and would be free from burr and smooth. The following tools can be used in cutting iron pipes.



1、精確管道切割管鋸：管道鋸確保精確、快速和安全的切割，不會產生飛濺的火花和熱碎片。
Exact Pipe Cut: The pipe saw ensures a precise, fast and safe cut without flying sparks and hot chips.



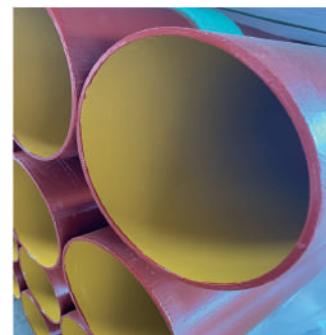
2、帶夾緊裝置的切割器也能在沒有飛濺火花的情況下取得很好的效果。
Electric pipe saws with clamping device also give very good results without flyingsparks.

3、帶圓盤的碟型切割器，應與制導裝置一起使用，管道被安全地固定和移動並保證切口成直角。

Powdered disc cutters with discs for castiron should only be used with guided devices, where the pipe is held and moved safely, and a right-angled cut is guaranteed.

切割管子 Cutting Pipes

• 切邊保護 Cut Edge Protection



切割管道後，你應在切口邊緣塗上環氧樹脂塗層加進行保護。它適用於清潔刷噴塗，乾燥時間在室溫20攝氏度下接近約15分鐘。

After cutting pipes, you should paint an epoxy resin coating on the cut edge for protection. It is applied with a clean brush and the drying-time would be approximated around 15 minutes at room temperature 20 degree Celsius

• 管道系統安裝和清洗 Pipe system installation and cleaning

在管和管件的貯存、運輸、切割和安裝過程中，注意保護塗層。

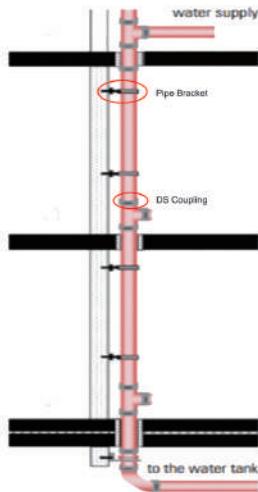
污垢和鋸必須在安裝時立即除去，它需要高壓清洗裝置，而不是機械管道清洗工具，這可能會損壞內部塗層。

During pipes and fittings' storage, transportation, cutting and installation process, you should take care to protect the coatings. Dirt and sawing dust must be removed immediately before installation, it requires a high-pressure cleaning device but not mechanical pipe cleaning tools which may damage the inside coating.



安装横支管和立管 Installation of horizontal and vertical pipes

• 立管安装 Vertical pipe installation



立管的固定點也是最大2米的距離，如果一層是2.5米高則每層需要固定兩次，其中可能安裝分支。立管應固定在離牆30mm上以便於維護，當它豎直穿牆時，你需要用一個喉箍和支架安裝在管子底部。

每五層樓(高度 2.5米)或15米安裝一個支撐管，我們建議把它按在第一層。

Vertical pipe is also fastened at max 2m distance, if a storey is 2.5m high, then need fixed twice per storey, among that may install all branches directly. The vertical pipe should be fixed not closer than 30mm to the wall to allow easily maintenance. When it through walls, you need to use a special fixing arm and a bracket at the bottom of pipe. Install a support downpipe at every fifth floor(height 2.5m) or 15m, we recommend to fix it in the first floor.

• 橫支管安装 Horizontal pipe installation

每個3米長度的管應由2個喉箍支撐，固定喉箍的距離應要均勻且不超過2米長。喉箍和卡箍之間的長度每個3米長度的管應由2個喉箍支撐，要不小于0.10米且不大于0.75米。安裝應輕微下降大約1或2%和最小0.5% (0.5釐米每米)，連接的2個管或管件的彎曲度必須不超過3°。橫支管必須安全地固定所有轉向和分支，在每一9個10-15米，必須固定一個特殊的固定支架連接一個喉箍以防止管道的擺動。

Each 3m length pipe should be supported by 2 brackets, the distances of the fixings brackets should be even and not exceed a length of 2m. The length of pipe between a bracket and a coupling should not less than 0.10 m and not exceed 0.75m. Installation shall respect a slight fall, around 1 or 2%, and 0.5% at a minimum, (0.5 cm per metre), and the bending of conjunction between 2 pipes/fittings must be not exceeded 3°. Horizontal pipes must be securely fastened at all changes of direction and branches. At every 10-15m, a special fixing arm should be attached to a bracket to prevent pendular movement of the pipe run.



安装卡箍和爪箍 Installation of couplings and kombi kralles

• 安装不銹鋼卡箍 Installation of stainless steel coupling



1、準備DS不銹鋼卡箍，我們供應的卡箍跟EPDM墊片是已組裝好的，
Prepare DS SS coupling, we supply coupling with EPDM gasket assembled already.



3、將第二根管道或管件推入接頭的另一端。
Push the second pipe or fitting into the other end of the coupling.



2、將卡箍完全移動到管的末端或密封墊片中間。
Move coupling completely to the end of pipe or the fashioned part to the middle of the gasket.



4、使用螺絲扳手、棘輪或常用電動螺絲起子鎖緊內六角螺絲。
Tighten the hexagon socket screw with ascwrench, a ratchet or a customary powered screw driver.

• 安装爪箍 Installation of kombi kralle



1、將 DS 爪箍的兩半部分均勻地固定在管子的末端，必須確保螺栓和齒直接位於管道上。
Fix the two half parts of the DS grip collar uniformly and closely to the end of the pipes, must ensure the collar bolts and teeth are directly located onto the pipe.



2、插入四螺絲將兩部分固定在一起。
Insert the four screws to fix the two parts together loosely.



3、將螺釘橫向擰緊，使兩個板的平行間距相同。
Tighten the screw crosswise alternatively so that the two plates are put in parallel with the same spacing.



4、當板的外部邊緣兩側接觸時則裝配完成。
The assembly is completed when the external edges of the plates are in contact on both sides.