

ATEX

Offshore And Subsea Products

Or Blok

Australia

Lifting & Hoisting Equipment



OFFSHORE AND SUBSEA PRODUCTS

Technical basis

In Directive 94/9/EC, equipment for areas with an explosion hazard is assigned to groups, categories and temperature classes. This is necessary as the requirements for equipment need not be the same for every application and for every hazard classification.

group I Equipment group I (mines, firedamp and combustible dusts)

Category M1	Category M2
Very high level of protection: Equipment must feature integrated explosion protection measures	High level of protection: Protection measures must ensure the required level of safety during normal operation also under arduous conditions and in particular heavy handling and under changing ambient conditions
The equipment must continue to operate in an explosive atmosphere even in the event of rare faults	It must be possible to switch off the equipment if an explosive atmosphere occurs

group II Equipment group II (explosive atmospheres caused by mixtures of gas/air or dust/air, vapours or mists)

Category	Zone		Equipment safety	Explosive atmosphere
	G[Gas]	D[Dust]		
1	0	20	Equipment which ensures a very high level of safety. In the event of rare equipment faults.	Intended for use in areas in which explosive atmospheres caused by mixtures of air and gases, vapours or mists or by air/dust mixtures are present continuously, for long periods or frequently.
2	1	21	Equipment which ensures a high level of safety. If equipment faults are to be expected.	Intended for use in areas in which explosive atmospheres caused by mixtures of air and gases, vapours or mists or by air/dust mixtures are likely to occur occasionally.
3	2	22	Equipment which ensures a normal level of safety. For normal operation	Intended for use in areas in which explosive atmospheres caused by gases, vapours or mists or whirled up dust are unlikely to occur or, if they do occur, are likely to do so only infrequently and for a short period.

Temperature classes

The ignition temperature is the lowest temperature of a heated surface at which the gas/air or vapour/air mixture ignites. In other words, it represents the lowest temperature value at which a hot surface is capable of igniting the corresponding explosive atmosphere. Thus the highest surface temperature of any equipment must always be less than the ignition temperature of the gas/air or vapour/air mixture.

Temperature classes

Temperature classes	Permissible max. surface temperature of the equipment	Ignition temperature range of the mixtures
T1	450° C	>450° C
T2	300° C	>300 ... ≤ 450° C
T3	200° C	>300 ... ≤ 300° C
T4	135° C	>135 ... ≤ 200° C
T5	100° C	>100 ... ≤ 135° C
T6	85° C	> 85 ... ≤ 100° C

Explosion groups

Equipment of group II, for appropriate use in explosive gas atmospheres may also be classified by the type of explosive area.

Explosion groups

Explosion group of the explosive atmosphere	Equipment with marking of the explosion group which may be used in these atmospheres	Maximum experimental safe gap
IIA	IIA, IIB, IIC	>0.9 mm
IIB	IIA, IIB	≤0.9 - ≥ 0.5 mm
IIC	IIC	<0.5 mm

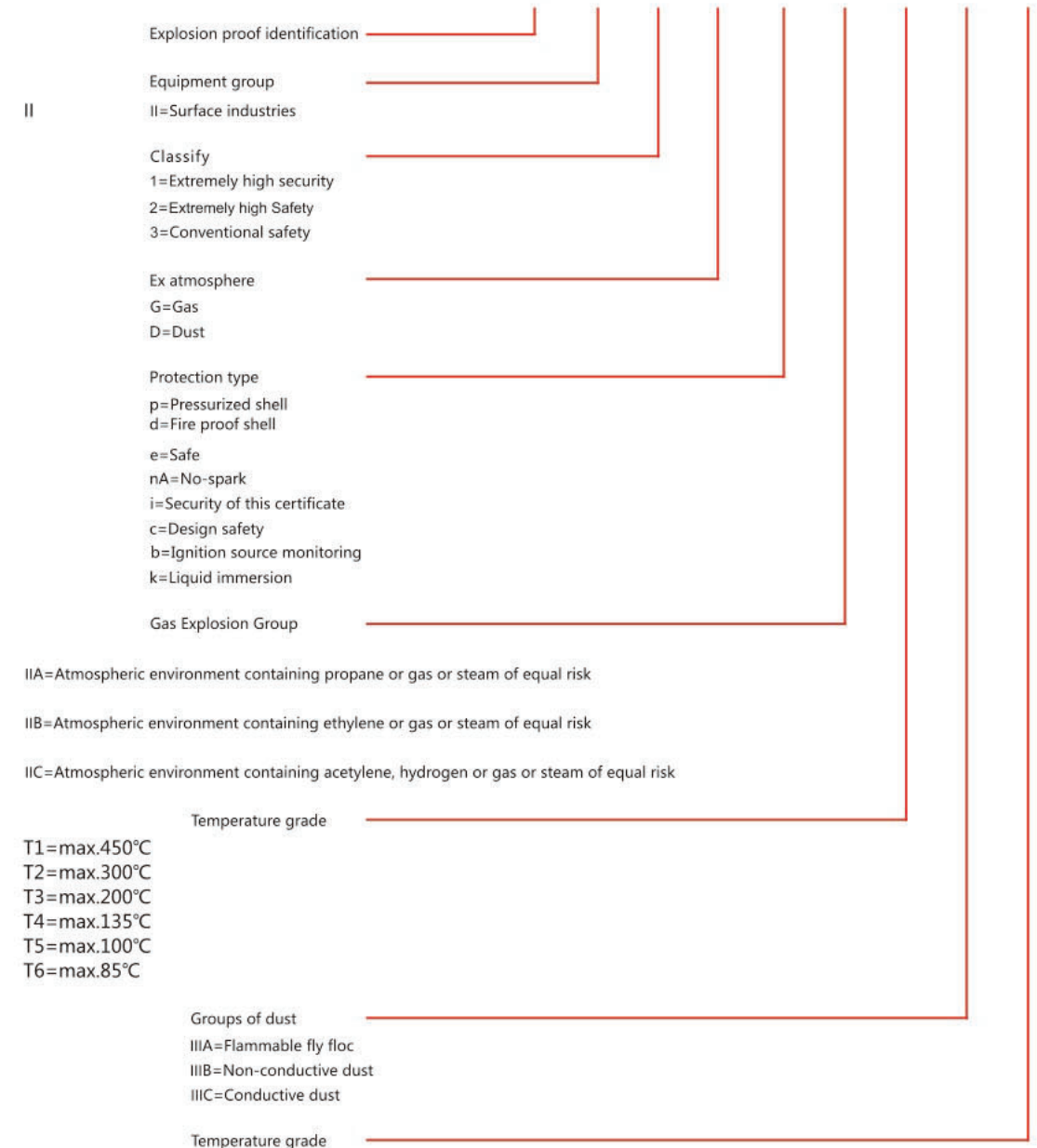
(IEC60079-12)

(MIC)

This classification is based on the Maximum Experimental Safe Gap (MESG) and the Minimum Ignition Current (MIC) of the gas mixture (see IEC 60079-12) or the explosion groups can also be used for classification of the equipment based on their inflammability.

Marking key

Example	Ex	II	2	GD	c	IIC	T4	IIIC	T135°C
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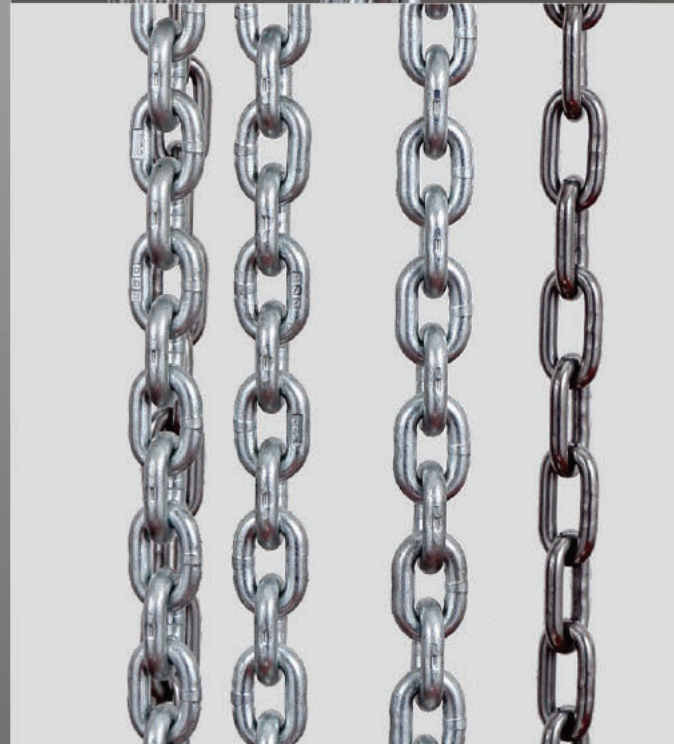
DNV-GL

CE

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SS-F3

*Marine
Anti-corrosion
Chain Hoist*

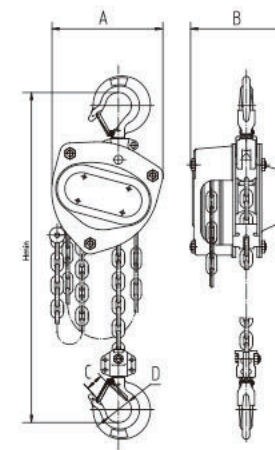


SS-F3 Marine Anti-corrosion Chain Hoist

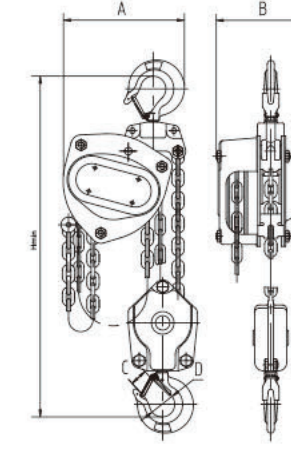
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It is ideal for safe use in marine environments and where the sea water salinity is high, with less care and maintenance cost.

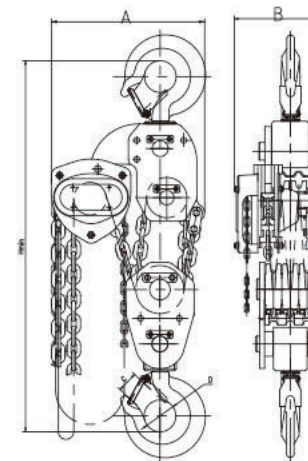
1. The product has passed ISO9001, ISO14001, CE/GS, LR, CCS and other related certifications.
2. Applicable to marine high salinity environment.
3. The product uses special anti-corrosion treatment, in line with ISO12944 standard; the highest anti-corrosion grade can reach C5-M.
4. Stainless steel lifting chain, special marine storage chain bag, overload limiter are optional



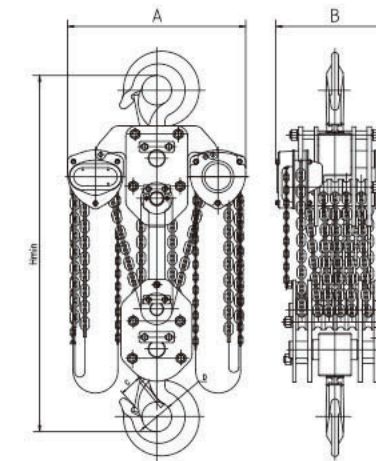
0.25t ~ 3t



3t ~ 5t



7.5t ~ 15t



20t ~ 30t

Model		F3-0.5	F3-1	F3-1.5	F3-2	F3-3	F3-5	F3-10	F3-15	F3-20	F3-30
Capacity	t	0.5	1	1.5	2	3	5	10	15	20	30
Lifting height	m	2.5	2.5	2.5	2.5	3	3	3	3	3	3
Test load	KN	6.3	12.5	18.8	25	37.5	62.5	125	187.5	250	375
Pull on lever to lift full load	N	240	250	265	335	372	380	385	385	390x2	240
No.of load chain falls		1	1	1	1	1	2	4	6	8	12
Diameter of load chain	mm	5x15	6x18	7x21	8x24	10x30	10x30	10x30	10x30	10x30	10x30
Dimensions mm	A	148	172	196	210	255	280	385	405	640	705
	B	132	151	173	175	205	189	189	242	226	454
	C	23	26	29.5	34	39	41	50	80	80	80
	D	35	40	45	50	55	65	85	110	110	110
	Hmin	345	376	442	470	580	690	780	920	980	1280
Net weight	kg	9.3	12.2	16.5	19.5	32	43	80.7	140	180	350
Extra wt.per m	mm	1.41	1.67	1.97	2.27	2.95	5.27	9.67	14.07	19.34	28.14