



中国船级社
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.
SW21PTB00011

型式认可证书
CERTIFICATE OF TYPE APPROVAL

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

Dunlop Hiflex Oy

地址/Address

Orikedonkatu 11, Turku Finland

产品名称/Product

管系附件
Piping and fitting
挠性软管组件
Flexible Pipe Set

认可标准/Approval Standard

1. 中国船级社《钢质海船入级规范》（2018）及其修改通报第3篇第2章
Chapter 2, Part Three of China Classification Society Rules for Classification of Sea-Going Steel Ships 2018 and its Amendments

用于/Intended for

船舶与海上设施/Ships and Offshore Installations

产品明细/Product Description

挠性软管组件/Flexible Pipe Set (M0001)

名称/Name	属性(值)/Value	单位/Unit
型号/Type	见附页/See additional pages	
规格/Specification	见附页/See additional pages	
公称直径/Nominal Diameter	见附页/See additional pages	
设计压力/Design Pressure	见附页/See additional pages	
设计温度/Design Temperature	见附页/See additional pages	
本体材料/Body Material	见附页/See additional pages	

证书有效期至/This Certificate is valid until 2025年02月16日/ Feb. 16, 2025

发证机构/Issued by 中国船级社斯德哥尔摩办事处
CCS Stockholm Office

签发日期/Date 2021年04月28日
Apr. 28, 2021

本证书根据中国船级社规范和相关规定签发。所有证书页为一个整体，必须同时使用。纸质证书每页均须由本社盖章方为有效，电子证书含数字签名方为有效，本证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。有关方对所持证书的真实性有疑问时，可以向本社检验机构咨询。This Certificate is issued pursuant to the Rules of the Society and related regulation. All pages of the certificate are taken as a whole and are used simultaneously. No paper certificate page is valid without bearing the stamp of the Society, no electronic certificates is valid without the digital signature, and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



Form No: T01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)

UTN:P021-93829273

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. : NP21PPP00084 for SP.T.9750 ; NP21PPP00092 for TX.T.8850

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : TF 004
 试验报告日期/ Test Report Date : 2018-12-17
 试验单位/ Laboratory: TUBIFLEX
 试验单位地址/ Test Address:

试验报告编号/ Test Report No. : TF 003
 试验报告日期/ Test Report Date : 2019-04-05
 试验单位/ Laboratory: TUBIFLEX
 试验单位地址/ Test Address:

认可后的产品检验方式/ Method of Product Inspection after Approval

按照规范逐件检验的产品/The product inspected one by one in term of the rules:
 认可后的产品检验应由本社验船师根据本社规范规定逐件按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。

After approval, product inspection should be carried out one by one by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.

认可保持条件/ Maintenance Requirements of Approval

1. 型式认可后, 如果产品及其重要零部件的设计、所用材料或制造方法有所改变, 且影响到产品的主要特性、特征; 或产品的性能指标有所更改, 且超过认可的范围, 则有关图纸和文件应经检验机构审批。并在检验机构认为必要时, 经本社检验人员见证有关试验和进行检查, 其结果应能证实仍符合认可条件。

After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results should be able to demonstrate compliance with the approval conditions.

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 认可证书有效期内, 如果出现可能导致本社取消认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to withdraw the approval, the manufacturer should take corrective actions in a prompt and effective manner.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 如果属于获得型式认可B 模式证书, 且无需颁发船用产品证书/等效证明文件的情况, 证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作可在周年日的前后三个月内进行。

If belong to the situation of the product has type approval mode B certificate, and marine product certificate/equivalent document is not necessary, those who have obtained the certificate should be subject to periodical audit every year. The periodical audit should be carried out within 3 months before and after the anniversary date which corresponds to the date of expiry of the relevant.

备注/Remarks

1. 本证书基于原型式认可证书 (No. SW21PTB00002) 变更, 原证书保持有效。
 This Certificate is modified from the previous Type Approval Certificate No. SW21PTB00002, the

previous certificate remains valid.

2. 本社已审核了产品厂无石棉声明，但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。

The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society.

However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

2. Manufacturer place :

Jasperintie 320, FI-33960 Pirkkala, Finland

Orikedonkatu 11, FI-20380 Turku, Finland

中国船级社斯德哥尔摩办事处

CCS Stockholm Office

注：本证书含有附页，共4页

Note: The certificate is attached with additional 4 page(s)

Type	Material	Product Code	DN inches	ID mm	OD mm	N. braids	PN bar
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.010	3/8"	10.6	17.0	1	75
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.012	1/2"	12.2	19.5	1	70
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.016	5/8"	15.8	25.0	1	65
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.020	3/4"	19.6	30.0	1	50
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.025	1"	25.5	36.0	1	40
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.032	1"1/4	32.7	45.5	1	35
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.040	1"1/2	39.7	54.0	1	30
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.050	2"	51.4	67.5	1	25
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.065	2"1/2	66.3	87.9	1	20
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.075	3"	76.5	100.0	1	18
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.100	4"	102.2	128.0	1	14
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.125	5"	127.5	154.5	1	12.5
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.150	6"	152.0	180.0	1	10
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.200	8"	203.0	232.6	1	6
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.250	10"	254.0	291.0	1	3.5
SP.T.97XX.27.XXX	1.4541 (AISI 321)	SP.T.9750.27.300	12"	305.0	344.6	1	2
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.010	3/8"	10.6	17.0	1	75
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.012	1/2"	12.2	19.5	1	70
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.016	5/8"	15.8	25.0	1	65
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.020	3/4"	19.6	30.0	1	50
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.025	1"	25.5	36.0	1	40
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.032	1"1/4	32.7	45.5	1	35
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.040	1"1/2	39.7	54.0	1	30
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.050	2"	51.4	67.5	1	25
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.065	2"1/2	66.3	87.9	1	20
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.075	3"	76.5	100.0	1	18
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.100	4"	102.2	128.0	1	14
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.125	5"	127.5	154.5	1	12.5
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.150	6"	152.0	180.0	1	10
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.200	8"	203.0	232.6	1	6
SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.250	10"	254.0	291.0	1	3.5

SP.T.97XX.24.XXX	1.4404(AISI316L)	SP.T.9750.24.300	12"	305.0	344.6	1	2
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.010	3/8"	10.6	17.0	1	75
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.012	1/2"	12.2	19.5	1	70
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.016	5/8"	15.8	25.0	1	65
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.020	3/4"	19.6	30.0	1	50
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.025	1"	25.5	36.0	1	40
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.032	1"1/4	32.7	45.5	1	35
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.040	1"1/2	39.7	54.0	1	30
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.050	2"	51.4	67.5	1	25
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.065	2"1/2	66.3	87.9	1	20
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.075	3"	76.5	100.0	1	18
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.100	4"	102.2	128.0	1	14
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.125	5"	127.5	154.5	1	12.5
SP.T.97XX.2E.XXX	1.4435(AISI316L)	SP.T.9750.2E.150	6"	152.0	180.0	1	10
SP.T.97XX.A7.XXX	2.4819(HASTELLOYS276)	SP.T.9750.A7.012	1/2"	12.2	19.5	1	70
SP.T.97XX.A7.XXX	2.4819(HASTELLOYS276)	SP.T.9750.A7.020	3/4"	19.6	30.0	1	50
SP.T.97XX.A7.XXX	2.4819(HASTELLOYS276)	SP.T.9750.A7.025	1"	25.5	36.0	1	40
SP.T.97XX.A7.XXX	2.4819(HASTELLOYS276)	SP.T.9750.A7.040	1"1/2	39.7	54.0	1	30
SP.T.97XX.A7.XXX	2.4819(HASTELLOYS276)	SP.T.9750.A7.050	2"	51.4	67.5	1	25

Temperature: -200°C -550°C. For a temperature range 50°C- 550°C working pressure must be reduced by applying the relevant coefficients.

Fittings: End connector type should be flange.

Coverings: SP.T.9750S with one braid in St. St. 1.4301 EN10088-3 (AISI 304) and additional sleeve in silicone coated fiberglass. Available for hose assembly only, not for bulk hoses.

Type	Material	Product Code	DN inches	ID mm	OD mm	N. braids	PN bar
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.010	3/8"	10	15.5	1	125
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.012	1/2"	13.2	18.7	1	105
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.016	5/8"	16	23.0	1	100
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.020	3/4"	19.5	26.9	1	90
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.025	1"	25.5	32.9	1	80
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.032	1-1/4"	32	39.4	1	64
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.040	1-1/2"	38.5	45.9	1	53
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.050	2"	51	58.4	1	35
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.065	2-1/2"	64.5	75	1	25
TX.T.88XX.50.XXX	white PTFE	TX.T.8850.50.075	3"	76.5	88	1	20
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.010	3/8"	10	15.5	1	125
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.012	1/2"	13.2	18.7	1	105
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.016	5/8"	16	23.0	1	100
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.020	3/4"	19.5	26.9	1	90
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.025	1"	25.5	32.9	1	80
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.032	1-1/4"	32	39.4	1	64
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.040	1-1/2"	38.5	45.9	1	53
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.050	2"	51	58.4	1	35
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.065	2-1/2"	64.5	75	1	25
TX.T.88XX.51.XXX	conductive PTFE	TX.T.8850.51.075	3"	76.5	88	1	20

Temperature: -55°C -250°C. For a temperature range 50°C- 250°C working pressure must be reduced by applying the following coefficients (Derating factors)

50°C - 0.97 PN
100°C - 0.93 PN
150°C - 0.89 PN
200°C - 0.85 PN
250°C - 0.80 PN

Values for intermediate temperatures shall be interpolated.
Fittings: End connector type should be flange.

CoveringsTX.T.885S with one high-tensile braid in stainless steel 1.4301 EN 10088-3 (AISI304) and additional flameproof sleeve in silicone coated fibreglass.TX.T.885V with one braid in stainless steel 1.4301 EN 10088-3 (AISI 304) and additional braid (or wrapping) in fiberglass. Coverings are available for hose assembly only, not for bulk hoses.