

# PW Pantograph Wiper

scanwipers®




**Panto** Wipers have been designed to wipe large areas of bridge windows. They are ideally suited to windows that are higher than the width where a deep wipe may be required.

Designed to meet ISO/DIS 17899, **Panto** Wipers have been designed using the best of materials for this application e.g. excellent quality rubber blades and 316 Stainless Steel ensures reliable long life. The speed is up to 50 wipe cycles per minute or 100 wipes per minute across the centre of the glass. (NB running large blade/arm configurations on PP8 and PP50 pantographs at maximum speed should be limited in time to reduce higher inertia loads on the mechanism.

Suitable for above or below and inclined window location including many irregular shape windows.

Self Parking can be user set at either end of stroke from the control keypads within sectors e.g. all wipers within a given sector can park either one side or the other when set.

  
**DET NORSKE VERITAS**  
TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. A-12887


This is to certify that the  
**Window Wipers**  
with type designation(s)  
**scanwipers®**  
Manufactured by  
**Scanwipers A/S**  
Aabenraa, Denmark

is found to comply with  
Det Norske Veritas' Rules for Classification of Ships and Det Norske Veritas' Offshore Standards

Application  
See page 2

Havik, 2012-09-29  
for Det Norske Veritas AS

This Certificate is valid until  
2018-06-30

  
Jan Tore Gundersen  
Head of Section


  
Steinar Kristensen  
Surveyor

DNV local office:  
Fredricka

This Certificate is subject to terms and conditions available on our website. Any significant change in design or construction may render this Certificate invalid.  
The certificate holder shall ensure that the equipment is maintained and used in accordance with the approved design and construction.  
If any person suffers loss or damage which is caused in whole or in part by the use of the equipment, the certificate holder shall be liable for the loss or damage, provided that the maximum compensation shall not exceed 100 000 000 NOK. In this provision, 'the certificate holder' shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, divisions, offices, employees, agents and any other entity or entities of Det Norske Veritas.

Det Norske Veritas AS, Veritaskanten 1, NO-1322 Høvik, Norway. Tel: +47 87 57 89 00, Fax: +47 87 57 89 11, Cfg No. NO 945 748 801 MVA www.dnv.com  
Form No.: TA 1411a Issue: October 2009 Page 1 of 2

Certificate No.: A-12887  
File No.: 847 10  
Job No.: 262 1-012912-2

  
**DNV**

**Product description**  
XSLW Straight Line Wiper, single arm, externally mounted motor  
TXSLW Straight Line Wiper, twin arm, externally mounted motor  
ISLW Straight Line Wiper, single arm, internally mounted motor  
TISLW Straight Line Wiper, twin arm, internally mounted motor  
Panto Pantograph Wiper, internally mounted motor  
SW CANBUS Scanwipers CANBUS Control System

**Application/Limitation**  
For marine and offshore applications.  
Installation to be performed according to the manufacturer's installation and operation manual. SW CANBUS and motor parts for ISLW, TISLW and Panto shall be mounted in protected area.  
When installed on ships with class notations NAUT-AW, NAUT-OC or NAUT-OSHA, the window wiper system shall comply with the minimum blade coverage and speed/frequency requirements described in the relevant class notation rules.


**Type Approval documentation**

Dwg. No.	Title
10WSP00a	Manual: Scanwipers, scanwipers® CANBUS Marine Window Wiping Control System: Installation, Maintenance and Operation Manual
PANTOMO10WSMW31b	Manual: Scanwipers, scanwipers® Pantograph Wiper: Installation, Maintenance and Operation Manual
XSLWMO10WSMW31a	Manual: Scanwipers, scanwipers® Single and Twin Externally Mounted Motor Straight Line Wiper: Installation, Maintenance and Operation Manual
ISLWMO10WSMW31a	Manual: Scanwipers, scanwipers® Single and Twin Internally Mounted Motor Straight Line Wiper: Installation, Maintenance and Operation Manual
2010-11-10	Report: Durability Performance Test report for Scanwipers and SW CANBUS equipment
Appendix 1	Report: Durability-Appendix 1, Log for External straight line wiper
Appendix 2	Report: Durability-Appendix 2, Log for Internal straight line wiper
Appendix 3	Report: Durability-Appendix 3, Log for Pantograph wiper
Appendix 4	Report: Durability-Appendix 4, Log for Twin external straight line wiper
Appendix 5	Report: Durability-Appendix 5, Log for Twin internal straight line wiper
Appendix 6	Report: Durability-Appendix 6, Log for Wet dry time test
TL 1432 Issue 02	Report: Manner Systems, Shock, Tests, Wipers & Control System
TL 1432 Issue 01	Report: Manner Systems, Wipers & Control System
1388	Report: FASC, Environmental tests

**Tests carried out**  
• Environmental Tests, IEC 60949 (2002)  
• Performance Tests, ISO 17899 (2004)

**Marking of product**  
The Manufacturer and Type Designation to be applied to the equipment in a clearly visible location and in addition the equipment shall be marked with serial number, safe distance to magnetic compass and power consumption and Type Specification according to ISO 7869.

**Certificate Retention Survey**  
A retention survey is to be performed at least every second year, and upon renewal of this certificate.  
The scope of the retention/renewal survey is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without approval by the Society.

  
Steinar Kristensen  
Surveyor

Det Norske Veritas AS, Veritaskanten 1, NO-1322 Høvik, Norway. Tel: +47 87 57 89 00, Fax: +47 87 57 89 11, Cfg No. NO 945 748 801 MVA www.dnv.com  
Form No.: TA 1411a Issue: October 2009 Page 2 of 2

scanwipers®



# PW

## Pantograph wiper

scanwipers®

### Pantograph Wiper

Motor: 24v DC

Bulkhead thickness: 10,20,40,75mm  
(Standard 10mm)

Center distance: 60mm

Adjustable wiping angles: 35°-90°

Magnetic safe compass distance is 1m.

Parking end optional

Heavy duty arm and blades

Strong and reliable

Low maintenance

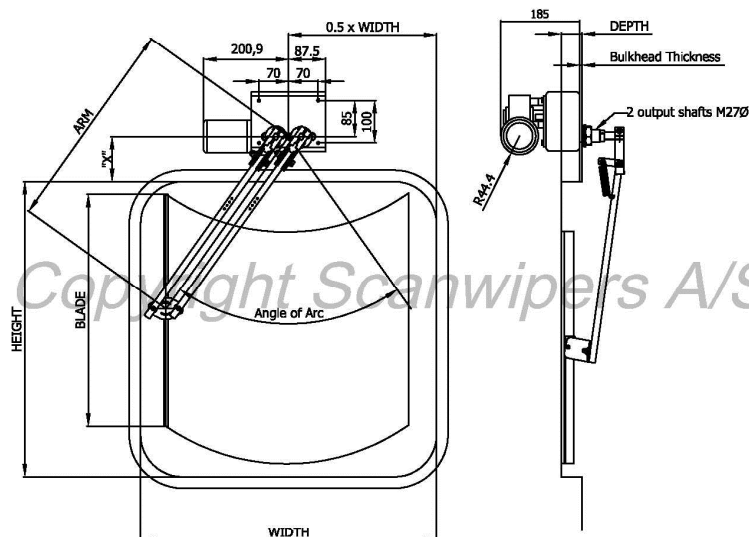
### Window Washing Systems

Pressure tanks 100 & 200 L Aisi 316

Spray nozzles

Valves - regulators - connections

Ex approved spray systems



PM3 Motor: 50 NM	Max. Arm length	Max. Blade length
	800	800
	600	1000
PM5 Motor: 80 NM	Max. Arm length	Max. Blade length
	1000	1000
	800	1200
PM50 Motor: 110NM	Max. Arm length	Max. Blade length
	1200	1200
	1000	1500

Motor	SPEED (Rpm)	MOTOR POWER (Watts)			TORQUE (NM)			CURRENT (A)			
		CONT	1 HOUR	15 MIN	CONT	1 HOUR	15 MIN	12V	24V	50V	
PM3	3000	68	90	120	0.2	0.3	0.4	1.3	0.8	0.4	No Load current (A)
								9.8	4.1	2.1	Full load current (A)
PM5	3000	120	150	200	0.4	0.5	0.6	1.7	1.2	0.67	No Load current (A)
								14.2	7.2	3.2	Full load current (A)
PM50	3000	155	200	280	0.5	0.6	0.9	2.6	1.3	0.4	No Load current (A)
								18	9.4	3.7	Full load current (A)

Dealer:

scanwipers®

