



# Wynn Straight Line Wiper Type D MK V



The motor of the **Wynn Type D MK V Straight Line Wiper** is externally mounted on the outside and installed in a specially designed IP 67 motor pod that does not require additional cooling. Various mounting options are available to suit any application.

## Motor specification:

- Wormed geared induction motor, silent running.
- Various speed options.
- Winding insulation “F”
- Motor protection IP 20 or higher on request.
- Compass safety distance 0.5 m.
- Available in 24, 115 and 230 volts.



Figure 1: Wynn Straight Line Wiper Type D MK V

- **The park sensor** is a normally open contact with no moving parts, specifically designed for marine environments.
- **Case heater** included for frost protection.
- Integrated **wash nozzles**. For more details see ‘Wash Nozzles and Connection’ section of this document.
- Maximum blade length: **2000mm**.
- All materials are designed for the **marine environment**.
- The systems are Type certified by **DNV** and **ABS** and therefore comply with **ISO 17899**.
- Temperature tested to **-40 degrees C**.



Figure 2: Type D MK V side view

## Type Approval documentation:

- Test report from Hursley EMC Services Ltd, No 08J049 CR
- Test report from Hursley EMC Services Ltd, No 08A489 CR
- Test report from Hursley EMC Services Ltd, No 09A029 CR
- Test report from AQL EMC Limited. No. 4816
- Test report from Wynn Marine, DNV Report Issue 5
- Test report from PARC, No. 1424
- Manual, Installation and operation Type D, D5\_0\_1 Issue 6
- Manual, Installation and operation Type C, CC\_0\_1 Issue 7

## Tests carried out:

- Environmental Tests: IEC 60945 (2002)
- Performance Tests: ISO 17899 (2004)

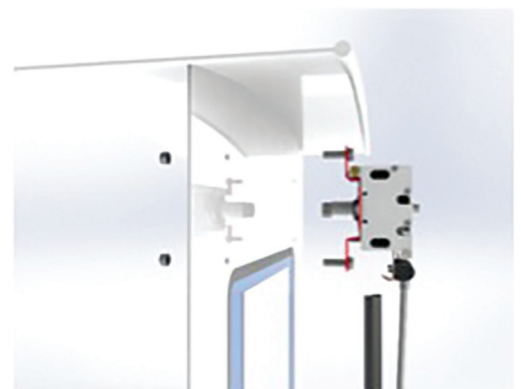


Figure 3: Installation brackets for an easy and quick installation

To achieve maximum coverage where possible and reduce the overall cost and equipment required, the following systems are available:

## Single blade:

- Strokes from 310mm up to 2260mm
- Maximum blade length 2000mm
- Maximum arm length 1500mm

***On windows critical for a safe navigation requiring a stroke longer than 1200mm, it is necessary to select a twin on one window to meet the ISO 17899 requirement with a minimum wiping frequency of 68 wipes per minute.***

## Twin blade on one window:

- Strokes from 585mm up to 3220mm. Longer strokes available upon request.
- Maximum blade length 1000mm
- Maximum arm length 1000mm

## Twin blade on two windows:

Reduces the quantity of wipers required and saves on the overall cost.

- Strokes from 585 mm up to 3220 mm. Longer strokes available upon request.
- Maximum blade length 1000 mm
- Maximum arm length 1000 mm

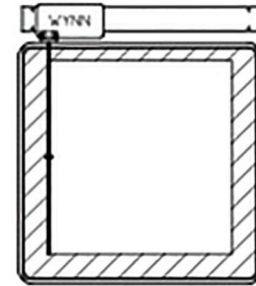


Figure 4: Single wiper

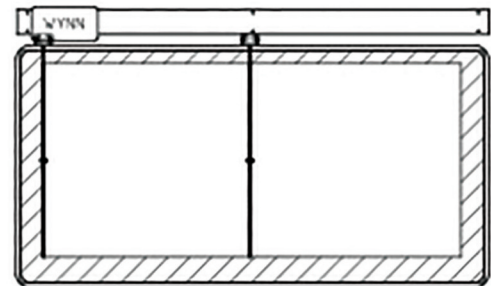


Figure 5: Twin wiper on one window

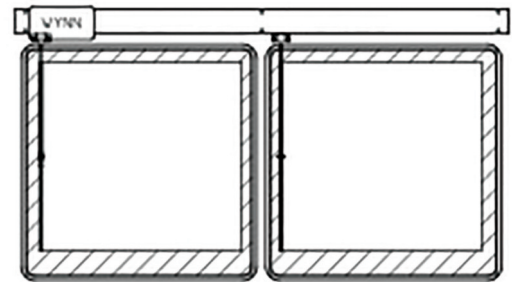
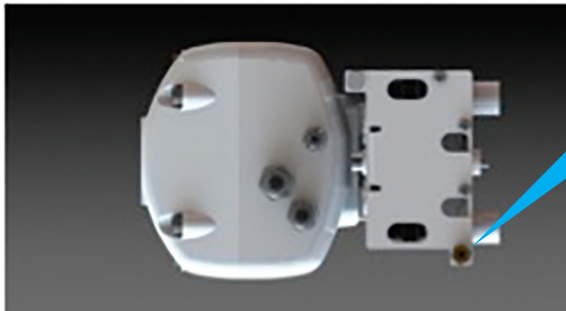


Figure 6: Twin wiper on two windows

## Technical Specification:

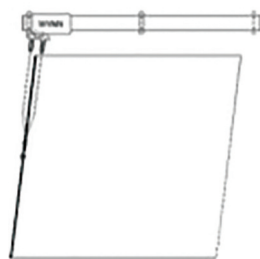
Sl no	Test	Specification	Test Condition/Severity
1	Dry Heat Storage Test	BS EN 60945:2002 para 7.2 & 5.2.3 and BS EN 60068-2-2	+70°C for 16 hours
2	Dry Heat Functional Test	BS EN 60945:2002 para 8.2.2 and BS EN 60068-2-2	+55°C for 16 hours
3	Damp Heat Test	BS EN 60945:2002 para 8.3.1 and BS EN 60068-2-30	+40°C at 93% RH for 16.5 hours
4	Low Temperature Test	BS EN 60945:2002 para 8.4.2 and BS EN 60068-2-1	-25°C for 16.5 hours
5	Vibration Test	BS EN 60945:2002 para 8.7 and BS EN 60068-2-6	3-100 Hz for 2 hours at resonant frequencies
6	Shock Test	BS ISO 17899:2004 para 16 and BS EN 60068-2-27:1993	10g for 11mS for 60 shocks
7	EMI/EMC Emission Test	BS EN 60945:2002 and CISPR 16-1:1999	As per Standards
8	EMI/EMC Immunity Test	BS EN 60945:2002 and IEC 61000-4, 5:1995, IEC 61000-11:1994	As per Standards
9	Corrosion (Salt)	ASTM 01141	+35°C 1.3ml/80cm <sup>2</sup> for 168 hours
10	Dust and Enclosure Protection		IP67 Type D Motor pod and IP 20 Type C Motor
11	Durability test	ISO 17899	3000 hours on a dry screen

## Wash Nozzles and Connection

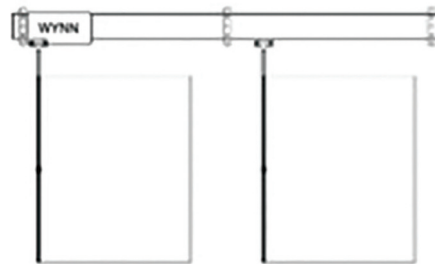


Wash connection 6mm compression fitting.  
May be fitted either end. Fittings included.

Window wipers with a stroke of 610mm up to 1015mm have 1 wash nozzle fitted in the centre of the wiper.



Single arm wipers with strokes of 1040mm and longer have two nozzles. The fitting position of the nozzles depends on the length of the stroke and is calculated as follows:  
 $\text{stroke}/4 + 137 = \text{the position of the nozzle from each end in.}$



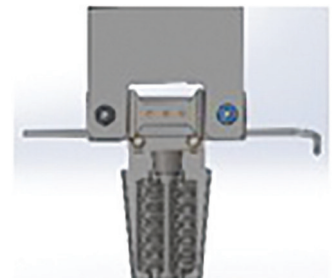
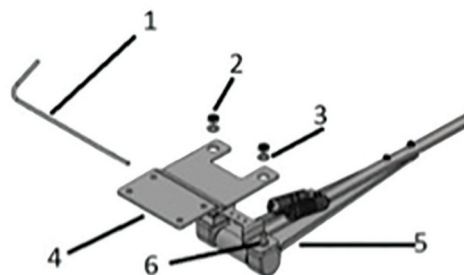
Twin wipers on two windows have, per window, one nozzle in the centre of each stroke.

## Quick Fit SLW Wiper Arm Installation

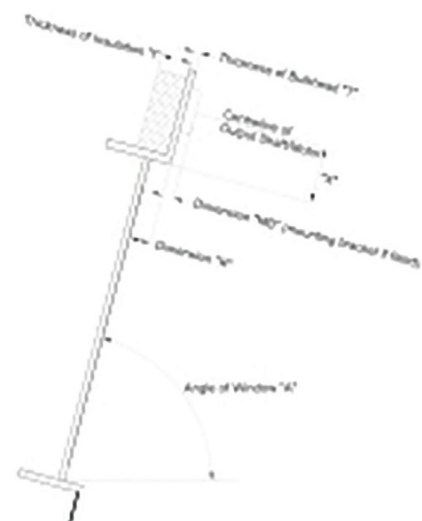
To reduce the installation time, Wynn has designed a new way to fit the arm. For more information and **project specific details**, see drawings and schematics included with the quote.

The system requires minimum of **maintenance**, spare parts, with no special tools required.

**Spares parts** are available within 48 hours and guaranteed available for 30 Years or more.



Dimension	Customer Information	Description
A		Position of Window, i.e. Vertical at 90° or Forward / Backwards 5°, 10°, 15° ?
R		From the face of the glass to the inline position of the bulkhead. <b>R = when window is in front of bulkhead.</b>
MB		Mounting Bracket "if fitted" during installation of the wipers
X		Centre line of the drive shaft / motor from the edge of the clear light area
T		Thickness of the bulkhead. Drive shaft length may vary according to thickness
I		Thickness of Insulation, vented motors require cooling and should be clear of the I



**Dimensions A, R & MB are required** for us to select the correct spring pressure in the wiper arm.

We manufacture our product with the correct blade pressure on the glass to give an efficient window wipe. Reduces the quantity of wipers required and saves on the overall cost.

## Control Systems for Straight Line Wipers

### Wynn Marine Series 1000 Wiper Controller

- Fast and continuous speed mode
- Automatic self-parking
- Intermittent mode with 4 pre-set delay times (4-20 sec)
- Group push button screen wash
- Auto shut-off safety feature
- Compact size for easy installation
- Intelligent control technology



### Wynn Marine Series 2000 Wiper Controller

- Individual and group control
- One speed operation (1ph & DC)
- Fast and Slow Speed Operation (3 Phase AC only)
- Automatic self-parking
- Intermittent mode with 15 delay positions (4-32 sec)
- Group heater switch
- Screen wash switch giving wash-wipe facility
- Wash wipe / air purge option
- Synchronised group wiping in intermittent mode



### Wynn Marine Series 8000 Wiper Controller

**Window wiper control system is an integrated solution for window wipers, heated window control and wash/purge functions.**

- Small size control panel – even for complex systems
- Individual and group control features
- Multi-speed operation
- Automatic self-parking
- Variable intermittent modes
- Separate control of wiper de-icing heaters, heated windows etc
- Plug and play connectivity, meaning easier installations
- Wash Wipe/Air Purge option
- Illuminated control panel with dimming facility

