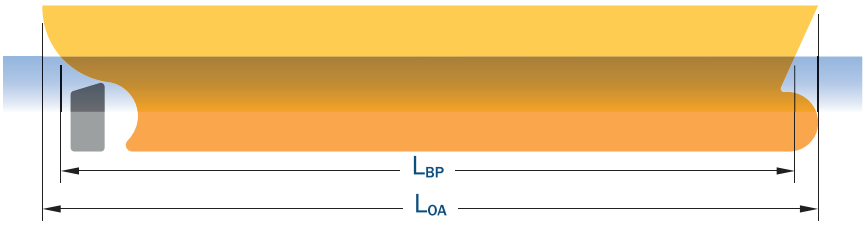
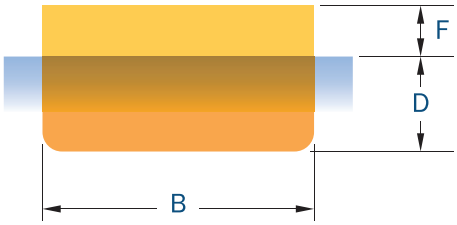
# Marine Fender System Project Requirements

| PROJECT DETAILS | PROJECT STATUS |
|---|---|
| **Port** | **TMS Ref:** |
| **Project** | ☐ **Preliminary** |
| **Designer** | ☐ **Detail design** |
| **Contractor** | ☐ **Tender** |




| LARGEST VESSEL | |
|---|---|
| Vessel type | |
| Deadweight | (t) |
| Displacement | (t) |
| Length overall ($L_{OA}$) | (m) |
| Length between perps ($L_{BP}$) | (m) |
| Beam (B) | (m) |
| Draft (D) | (m) |
| Freeboard (F) | (m) |
| Hull pressure (P) | ($t/m^2$) |
| Berthing energy | (tm) |

| SMALLEST VESSEL | |
|---|---|
| Vessel type | |
| Deadweight | (t) |
| Displacement | (t) |
| Length overall ($L_{OA}$) | (m) |
| Length between perps ($L_{BP}$) | (m) |
| Beam (B) | (m) |
| Draft (D) | (m) |
| Freeboard (F) | (m) |
| Hull pressure (P) | ($t/m^2$) |
| Berthing energy | (tm) |

## BERTH DETAILS

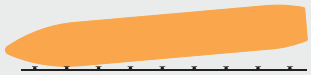
| ☐ Closed structure | ☐ Semi-open structure | ☐ Open structure | ☐ Other (please describe) |
|---|---|---|---|
| | | | |

| Structure | |
|---|---|
| Length of berth | (m) |
| Fender / dolphin spacing | (m) |
| Permitted fender reaction | (kN or kN/m) |
| Quay level | (m) |
| Cope thickness | (m) |
| Seabed level | (m) |

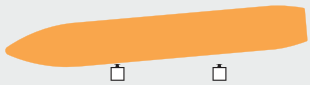
| Tide levels | |
|---|---|
| Tidal range | (m) |
| Highest astronomic tide (HAT) | (m) |
| Mean high water spring (MHWS) | (m) |
| Mean sea level (MSL) | (m) |
| Mean low water spring (MLWS) | (m) |
| Lowest astronomic tide (LAT) | (m) |

## BERTHING MODE

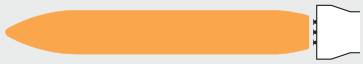
☐ Side berthing



☐ Dolphin berthing



☐ End berthing



☐ Lock or dock entrance

☐ Ship-to-ship berthing

## BERTHING APPROACH: *1

| Approach conditions |
|---|
| ☐ good berthing, sheltered (i.e. not exposed to waves and/or current) |
| ☐ difficult berthing, sheltered |
| ☐ good berthing, exposed |
| ☐ difficult berthing, exposed |
| ☐ adverse berthing, exposed |

## BERTHING APPROACH: *2

| Approach conditions |
|---|
| ☐ good berthing, sheltered |
| ☐ difficult berthing, sheltered |
| ☐ easy berthing, exposed |
| ☐ good berthing, exposed |
| ☐ navigation difficult, exposed |

*1: BS6349-4:2014
*2: PIANC:MARCOM REPORT OF WG33 2002

## LARGEST SHIP

| | |
|---|---|
| ☐ Berthing speed | (m/s) |
| ☐ Berthing angle | (deg) |
| ☐ Abnormal impact factor | |

## SMALLEST SHIP

| | |
|---|---|
| ☐ Berthing speed | (m/s) |
| ☐ Berthing angle | (deg) |
| ☐ Abnormal impact factor | |

## ENVIRONMENT

| Operating temperature | |
|---|---|
| Minimum | (°C) |
| Maximum | (°C) |
| Corrosivity | |

☐ low ☐ medium ☐ high ☐ extreme

## BERTHING ECCENTRICITY

☐ 1/4 point ☐ 1/3 point ☐ Other, please specify:

## BELTING DETAILS

## OTHER INFORMATION

## FURTHER DETAILS AVAILABLE FROM

| | |
|---|---|
| Name | Tel |
| Company | Fax |
| Position | Mobile |
| Address | Email |
| | Web |

You may send in your project requirements to: marine_infra@trelleborg.com