JETTYGUARD



PROTECTION AROUND THE HULL

Vessel Fenders & Boat Collars

Rubber fenders and custom foam collars for vessel-side protection.

TUG CYLINDRICAL

M / W / KEYHOLE

CUSTOM EXTRUDED

FOAM COLLARS

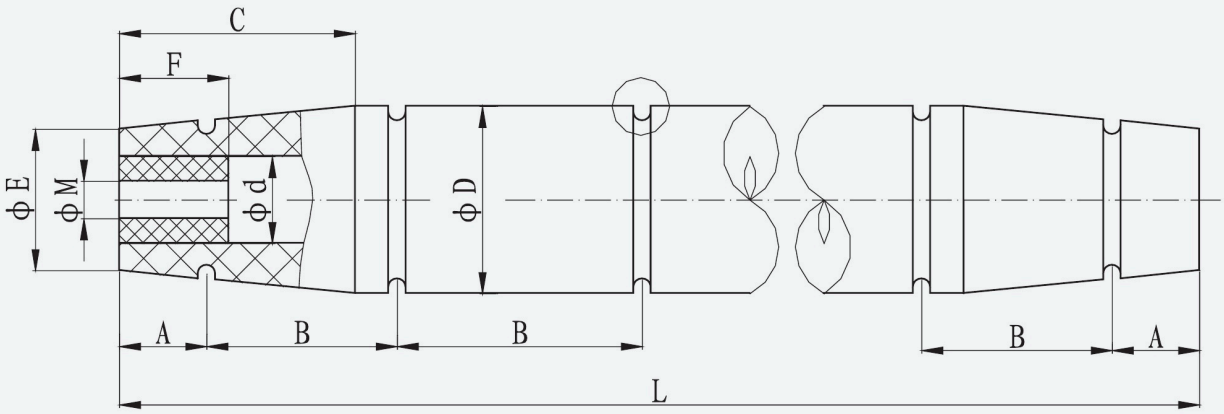
Pilot-boat collar arrangement - artistic rendering.



Curved tug cylindrical fenders before installation.

01 / TUG CYLINDRICAL

Tug cylindrical fenders



Longitudinal profile dimensions, drawing 1.

REFERENCE SERIES

Dimensions and weight

mm · kg/m

D × d (mm)	E (mm)	Amax (mm)	Bmax (mm)	C (mm)	M (mm)	F (mm)	Weight (kg/m)
250x125	190	200	570	500	75	300	47
300x150	225	225	600	700	75	350	68
380x190	280	225	650	800	100	400	110
400x200	300	250	670	800	100	400	122
450x225	350	250	700	850	100	400	155
480x240	350	250	700	850	100	400	176
500x250	375	280	730	900	100	400	190
540x270	375	280	730	900	100	400	223
600x300	450	300	800	900	125	500	275
700x350	500	350	870	950	125	500	375
800x400	600	350	930	1000	125	500	490
900x450	675	350	1000	1100	150	500	620

OD ≤ 500 mm A longitudinal chain passes through the bore; turnbuckles tension it to the hull.

Larger sizes External chain or straps may be added.

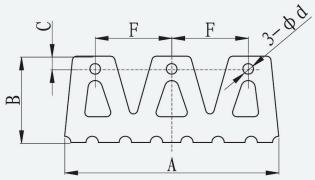
R ≥ 4D Catalogue bending reference only; confirm hull curvature and fixing for each project.

M and W vessel fenders

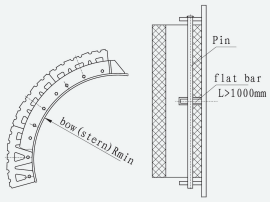
Confirm section geometry, fixing interface, length and hull radius against the vessel drawing.



M-profile rubber fenders prepared for shipment.



M-section geometry reference.

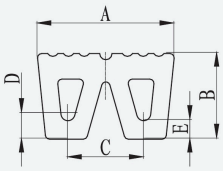


M-profile fixing arrangement reference.

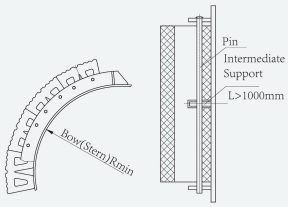
M PROFILE

M fender - dimensions and fixing

Type	A (mm)	B (mm)	C (mm)	d (mm)	F (mm)	Maximum length (mm)	Weight (kg/m)	Pin diameter (mm)	Flat bar (mm)	Rmin (mm)
M400	400	200	40	23	150	2000	60	20	100 x 16	450
M500	500	250	50	27	190	2000	95	24	125 x 20	550
M600	600	300	60	33	230	2000	142	30	150 x 20	650



W-section geometry reference.



W-profile fixing arrangement reference.

W PROFILE

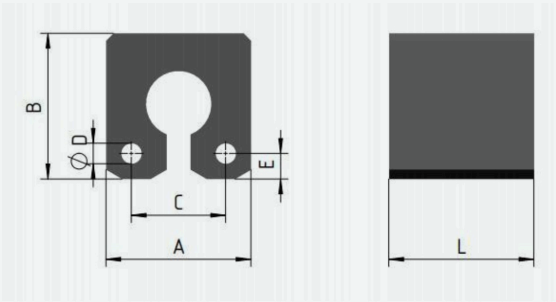
W fender - dimensions and fixing

Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Maximum length (mm)	Weight (kg/m)	Pin diameter (mm)	Flat bar (mm)	Rmin (mm)
W320-200	320	200	180	67	50	2000	59	25	100 x 20	600
W400-250	400	250	220	75	55	2000	87	30	120 x 20	800
W480-300	480	300	265	90	65	2000	129	40	140 x 20	900
W500-450	500	450	270	100	75	2000	193	40	150 x 20	1000

M and W are separate section families. Pin diameter, flat-bar size and minimum radius are profile-specific reference fields.

Keyhole and DD profiles

Read each drawing with its matching dimension table. Confirm section orientation, fixing space and required length against the vessel interface.

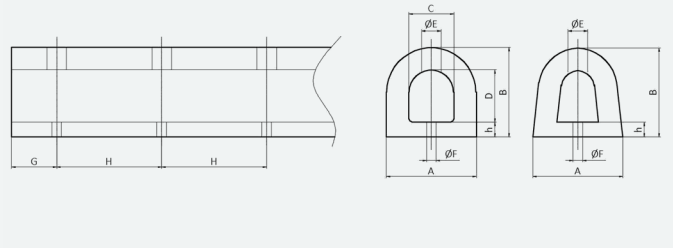


Keyhole profile section with dimension letters.

KEYHOLE

Keyhole profile dimensions

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Maximum length (mm)
100	100	70	16	16	2000
200	200	130	28	35	2000
250	250	150	33	50	2000
300	300	180	33	60	2000



DD profile section with dimension letters.

DD PROFILE

DD profile dimensions

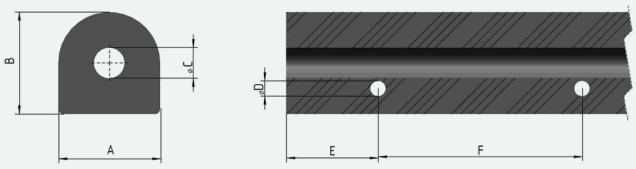
Dimension letters follow the corresponding profile drawing.

Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
JDD 200x200	200	200	100	100	62	30	100~150	325~460
JDD 300x300	300	300	150	150	65	32	100~150	325~600
JDD 400x400	400	400	200	200	87	39	150	425~460
JDD 500x500	500	500	250	200	97	45	150	325~600

The listed values are dimensional references. Application duty and attachment details require project confirmation.

DC and Delta profiles

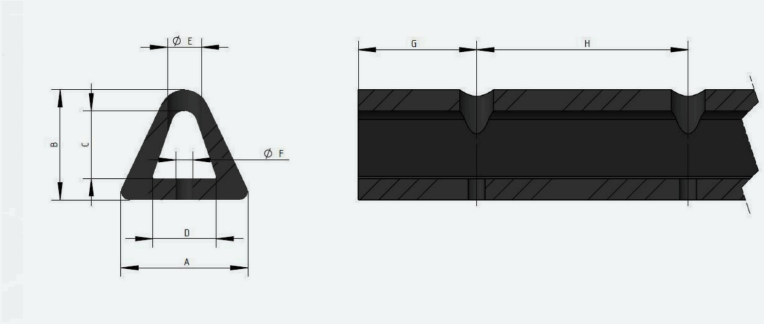
Check each section, fixing zone and bolt or flat-bar interface against the application drawing.



DC profile section and fixing dimensions.

DC profile dimensions and bolt size

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Bolt size
100	100	30	15	90-130	200-300	M12
150	150	65	20	110-150	250-350	M16
200	200	75	25	130-180	300-400	M20
250	250	100	30	140-200	350-450	M24
300	300	125	30	140-200	350-450	M24
350	350	150	35	140-200	350-450	M30
400	400	200	35	140-200	350-450	M30
500	500	250	35	140-200	350-450	M36



Delta profile section and fixing dimensions.

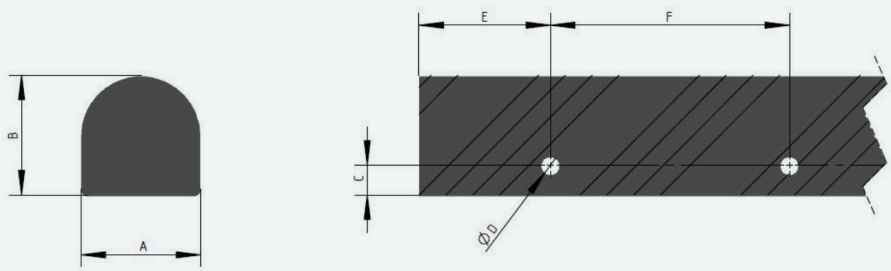
Delta profile dimensions and fixing

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Flat bar	Bolt size
60	50	40	30	20	10	70-110	150-250	15 x 3	M8
80	75	45	40	30	15	90-130	200-300	35 x 5	M12
110	100	65	68	30	15	90-130	200-300	40 x 5	M12
150	130	80	75	40	20	110-150	250-300	60 x 8	M16

Bolt sizes and flat-bar values are the listed profile references; confirm the complete fixing arrangement for the project.

Solid DS and square profiles

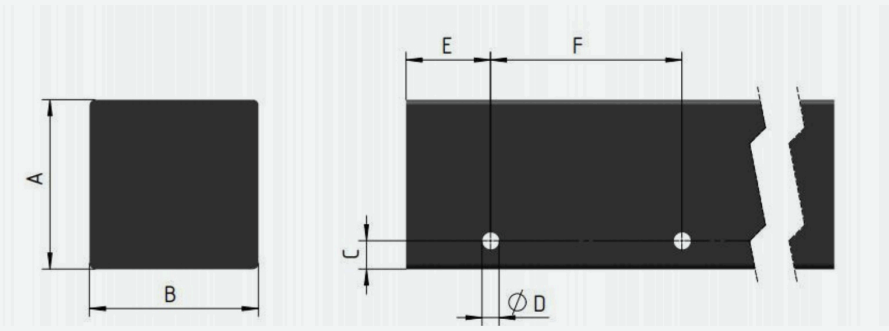
Use each section with its table. Confirm fixing interface, length and service duty.



Solid DS profile section with dimension letters.

Solid DS profile dimensions and bolt size

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Bolt size
100	100	25	15	90-130	200-300	M12
150	150	30	20	110-150	250-350	M16
200	200	45	25	130-180	300-400	M20
250	250	50	30	140-200	350-450	M24
300	300	60	30	140-200	350-450	M24
350	350	70	35	140-200	350-450	M30
400	400	80	35	140-200	350-450	M30



Solid square profile section with dimension letters.

Solid square profile dimensions and flat bar

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Flat bar (mm)
100	100	25	15	90-130	200-300	50 x 6
150	150	30	20	110-150	250-350	60 x 8
200	200	40	25	130-180	300-400	80 x 10
250	250	50	30	140-200	350-450	100 x 10
300	300	60	30	140-200	350-450	110 x 12
350	350	65	35	140-200	350-450	120 x 12
400	400	70	35	140-200	350-450	130 x 15

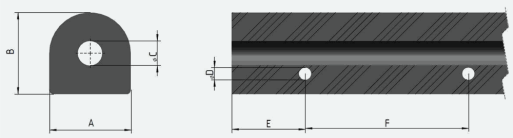
Dimensions and fixing references only; confirm performance separately for the project.

Custom Extruded *Rubber Fenders / Profiles*



Custom extruded profile samples in a workshop.

DC SECTION / EXAMPLE ONLY



DC section drawing used as one dimensional example only.

DESIGN INPUTS

Start with the interface.

Custom extruded rubber fenders can be developed to your section drawing, fixing layout and required length.

01 Section geometry and dimension letters

02 Fixing holes, spacing and attachment face

03 Required length and quantity

04 Hull profile, clearances and contact zone

05 Operating duty and expected movement

The shown DC profile is one example; it does not set universal custom dimensions or performance.

Foam Boat *Collars*



Foam collar finishing and fitting in a workshop.

A vessel-specific collar is developed around the protected hull zones, access, attachment points, operating duty and handling constraints.

Geometry and interface inputs

Collar geometry, construction and performance are specified for each vessel.

01 Hull profile and protected contact zones

02 Required collar length and segment layout

03 Attachment points, clearances and access

04 Handling and removal constraints

05 Operating duty and contact arrangement

Configuration review

Review item	Project confirmation
Section and dimensions	Confirm against the vessel drawing and protected areas.
Construction description	Specify collar construction and materials for the project.
Joints and end details	Show the selected arrangement on the approval drawing.
Attachment and handling	Identify lifting, securing and access interfaces for review.

Round and D-shape profiles

Reference dimensions for the standard profile range.

EVA FOAM CORE

Closed-cell EVA (ethylene vinyl acetate) forms the lightweight, flexible core. The resilient foam cushions contact and contributes buoyancy. Core density and profile are selected to suit the vessel interface.

POLYUREA COATING

A tough, flexible polyurea elastomer skin covers the EVA core. This seamless outer coating protects the foam against abrasion and surface wear while accommodating the collar's flexing in service.

Black | Grey | Red | Orange | Blue | Green

Other colours available on request. Colour samples are indicative.

Round profile



Round profile · schematic / not to scale

Model	Outer diameter (mm)
JG-FC-001	254
JG-FC-002	304
JG-FC-003	355
JG-FC-004	457
JG-FC-005	609
JG-FC-006	660

D-shape profile



D-shape profile · schematic / not to scale

Model	Base width (mm)	Height (mm)
JG-FC-007	152	76
JG-FC-008	203	101.5
JG-FC-009	254	127
JG-FC-010	304	152
JG-FC-011	355	175
JG-FC-012	405	204
JG-FC-013	448	224



Round collar sections



Straight collar profiles

EVA material properties

Reference values for the listed EVA grades; these describe material properties, not complete fender-system performance.

Model	Tensile strength (kgf/cm²)	Elongation (%)	Density (kg/m³)
JG-EVA-001	2.6	108	23
JG-EVA-002	3.5	120	31
JG-EVA-003	3.5	154	34
JG-EVA-004	5.3	141	42
JG-EVA-005	5.4	157	48
JG-EVA-006	8.1	136	58
JG-EVA-007	8.2	148	71
JG-EVA-008	3	260	30
JG-EVA-009	7.3	241	50
JG-EVA-010	7.2	126	53
JG-EVA-011	3.6	241	28
JG-EVA-012	3.7	320	35
JG-EVA-013	5.7	255	39
JG-EVA-014	9.99	160	63.4



Two foam collar section views.



Surface finishing by hand.

Polyurea coating properties

Material reference values

Test item	Test method	Reference criterion	Reference value
Tensile strength	GB/T 16777-2008, 9.2.1	≥16.0 MPa	18.64 MPa
Elongation at break	GB/T 16777-2008, 9.2.1	≥450%	606%
Tear strength	GB/T 529-2008	≥50 N/mm	66 N/mm
Hardness (Shore A)	GB/T 531.1-2008	≥80	90
Abrasion loss	GB/T 1768-2006	≤30 mg	12 mg
Low-temperature flexibility	GB/T 16777-2008, 14.2.1	−40 °C	Pass at −40 °C
Water impermeability	GB/T 16777-2008, Clause 15	No leakage	No leakage at 0.4 MPa for 2 h
Water absorption	GB/T 23446-2009, 7.14	≤5.0%	0.3%

Abrasion test: CS-10 wheels, 750 g load, 500 cycles.

Material reference values. Final coating specifications are agreed for each project.



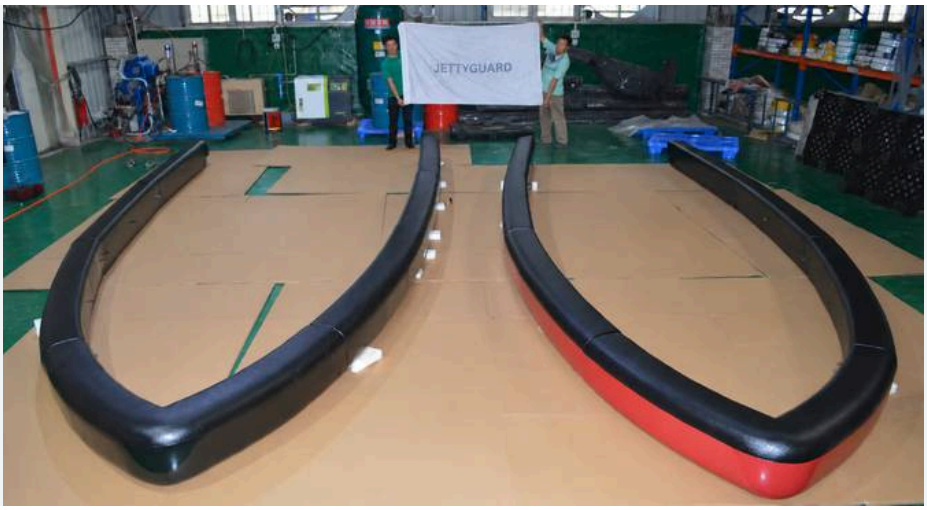
Surface finishing by hand.



Shaped bow collar assembly.

Shaped bow collar assembly

Custom collar geometry and fixing details are developed for the vessel interface.

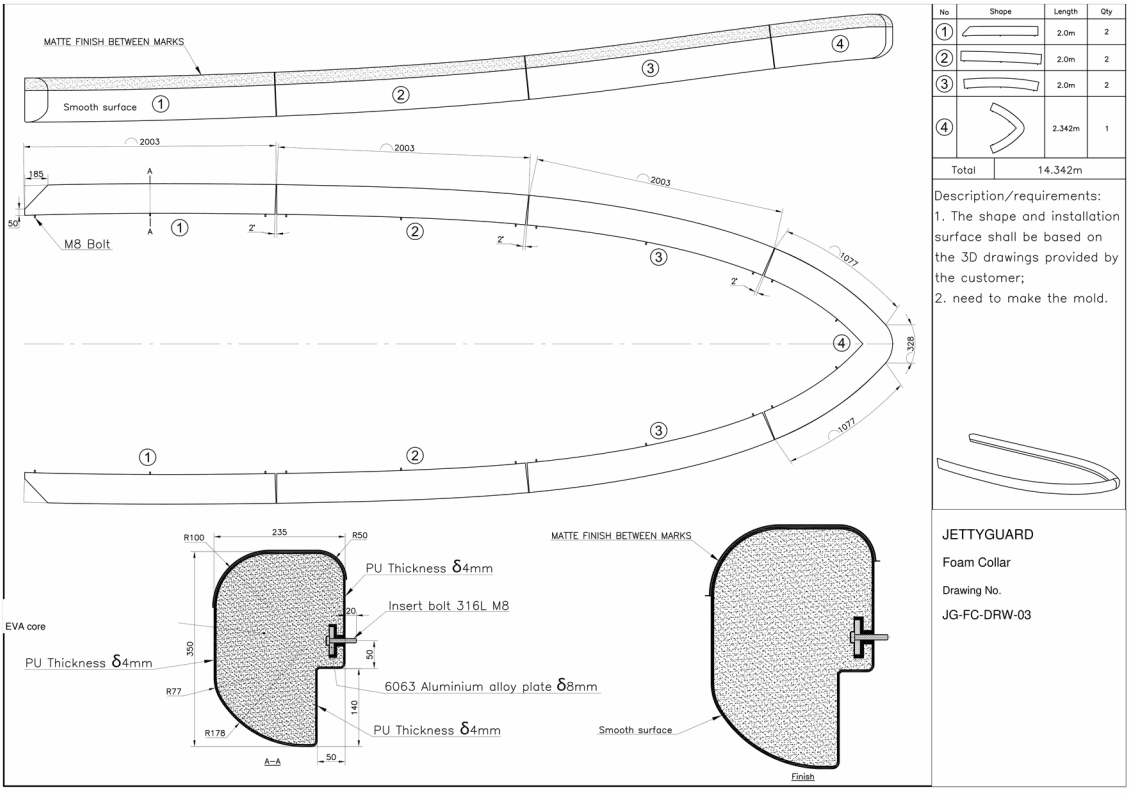


A pair of shaped collars before installation.

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Foam Collar Technical Drawing

JG-FC-DRW-03



Reference drawing / Not to scale

JG-FC-DRW-03 / Reference arrangement. Not to scale.

Workboat collar arrangement

Custom collar geometry and fixing details are developed for the vessel interface.

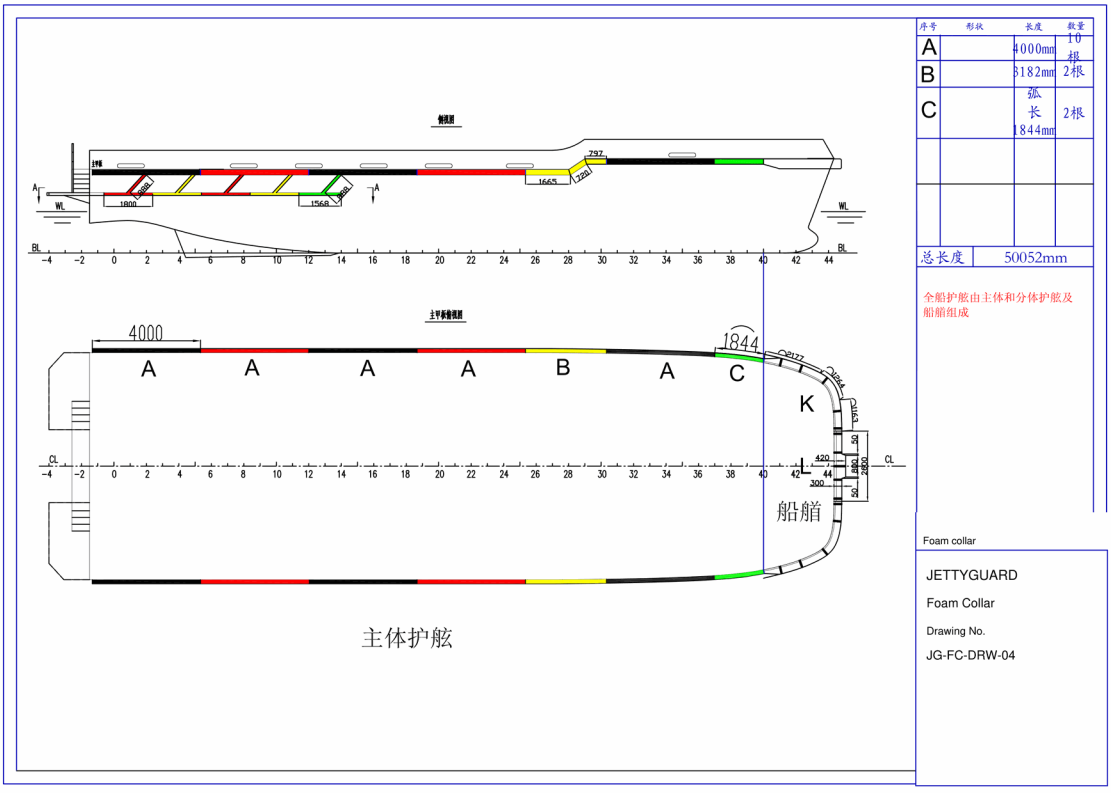


Foam collar fitted along a workboat hull.

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Foam Collar Arrangement

JG-FC-DRW-04

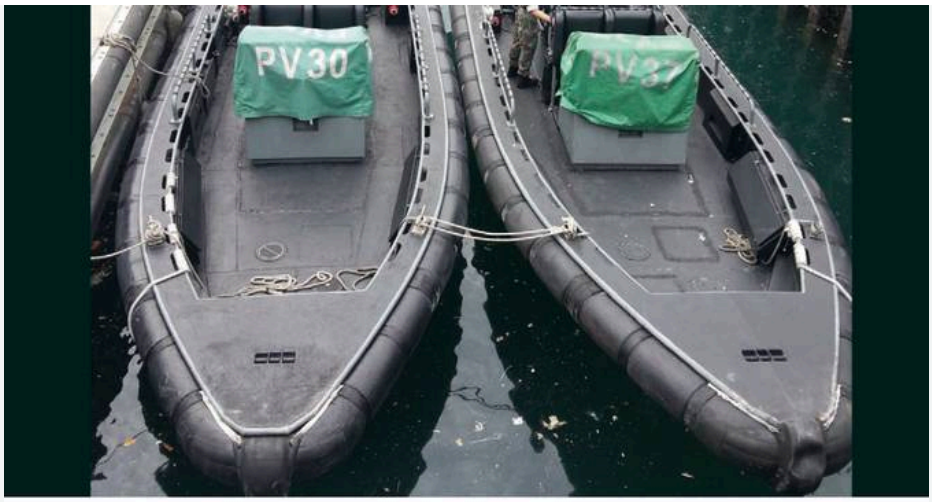


Reference drawing / Not to scale

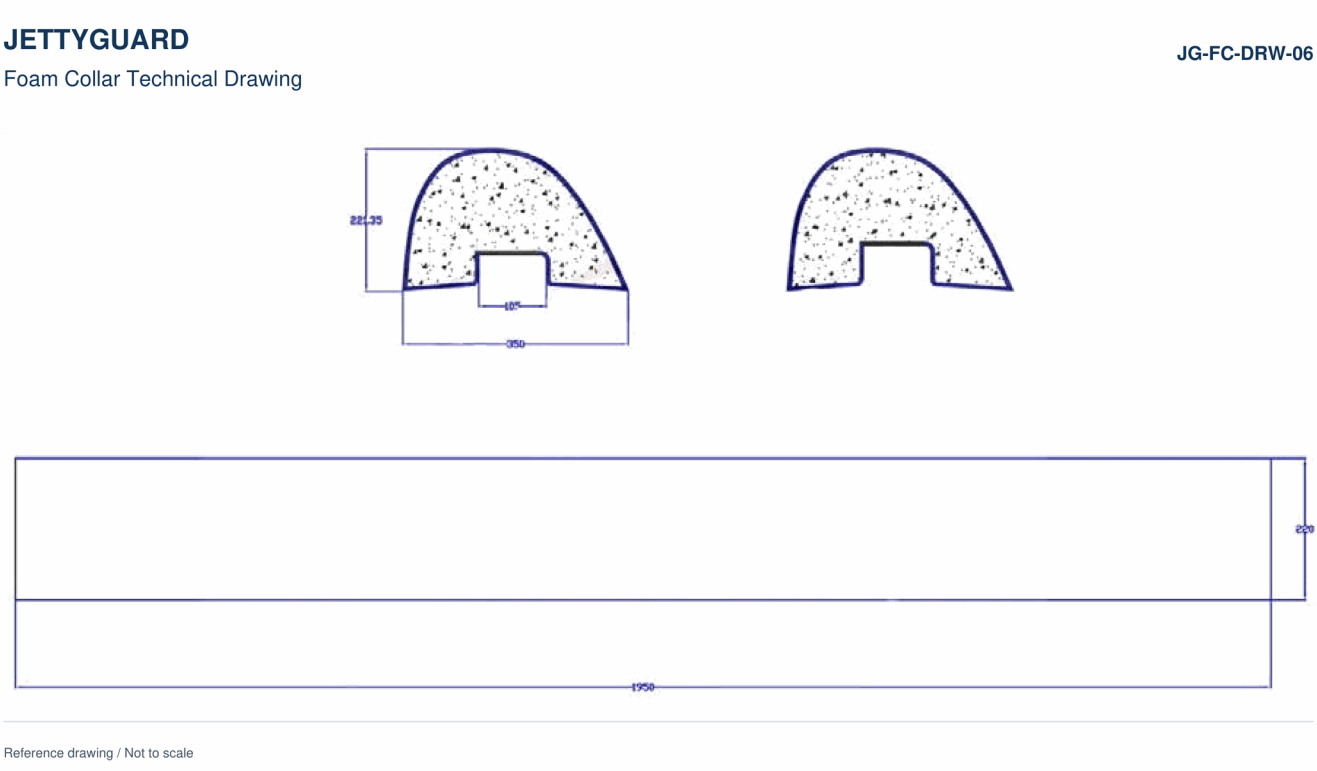
JG-FC-DRW-04 / Reference arrangement. Not to scale.

Open-boat collar sections

Custom collar geometry and fixing details are developed for the vessel interface.



Foam collars fitted around two open boats.



JG-FC-DRW-06 / Reference arrangement. Not to scale.

Pilot-boat collar sections

Custom collar geometry and fixing details are developed for the vessel interface.



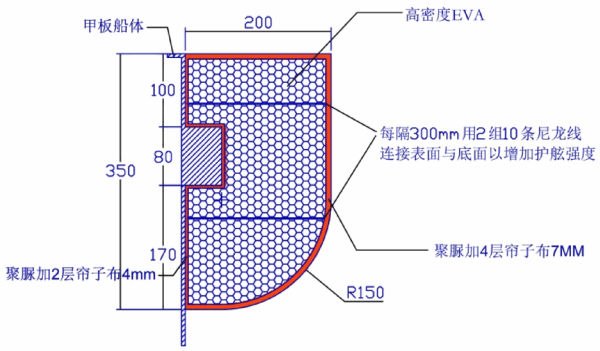
Foam collar following the side of a pilot boat.

JETTYGUARD

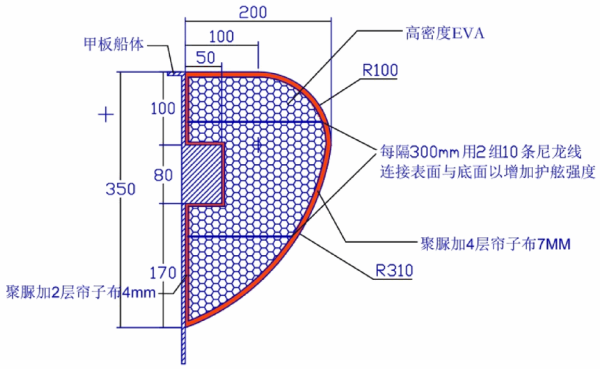
Foam Collar Section Details

EVA grade: JG-EVA-009

JG-FC-DRW-12



剖视图A



Reference drawing / Not to scale

JG-FC-DRW-12 / Reference arrangement. Not to scale.

Profiles, finishes and fit-up

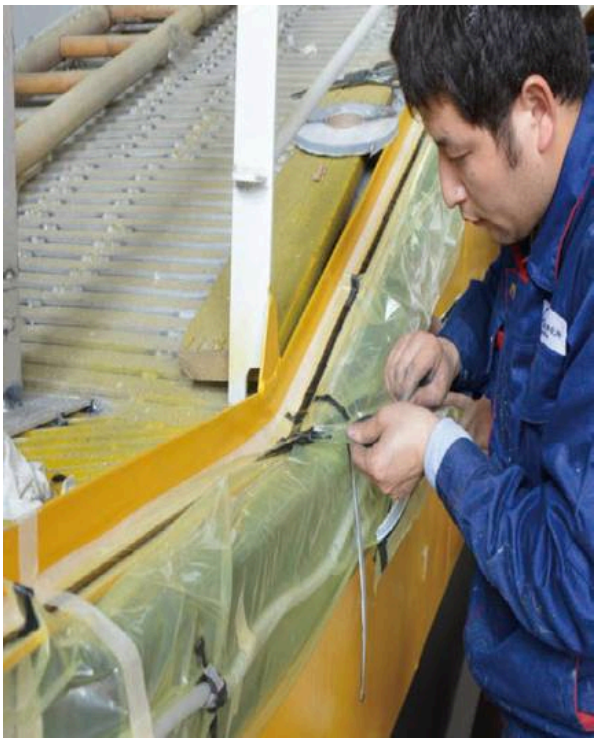
Product details and assembly views show the range of collar shapes and finishes.



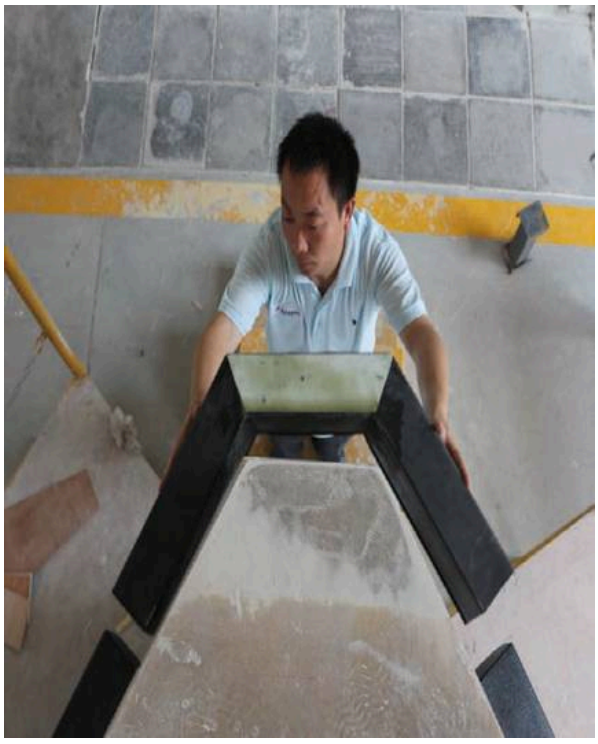
Finished collar segments.



Shaped bow collar assembly.



Collar assembly work.



Checking a collar against the hull interface.



Foam boat assembly with a red outer finish.



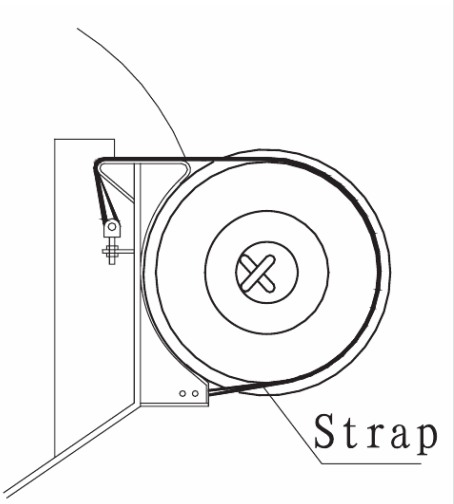
Foam boat assembly with a blue outer finish.

Hull interface and installation review

Review the fender line against vessel drawings before fixing details are released.

01 / FIXING ARRANGEMENTS

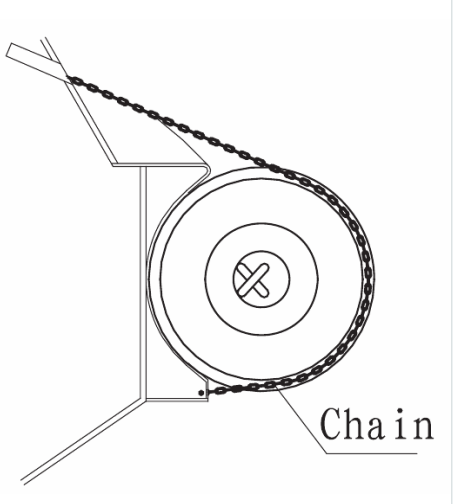
Select the fixing detail to suit the fender size and vessel interface.



External strap fixing reference.

External strap

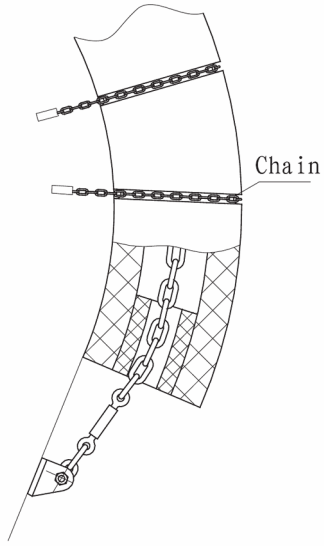
For larger fenders, a strap wraps the outboard side and returns to hull attachment points.



External chain fixing reference.

External chain

Supplementary chains may wrap the outboard side of larger fenders and connect back to the hull.



Longitudinal through-bore chain reference.

Longitudinal bore chain

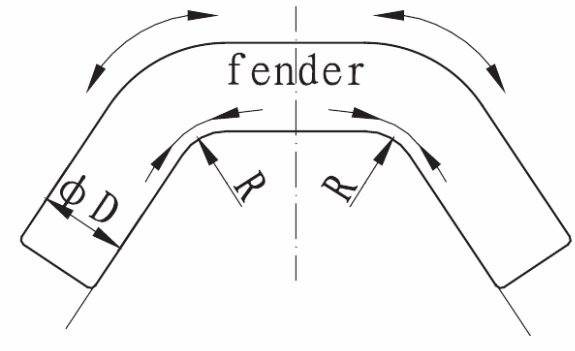
Smaller fenders, typically OD ≤ 500 mm, use a chain through the bore. Turnbuckles connect both ends to the hull and tension the chain.

02 / HULL CURVATURE

Straight fender lengths can follow bow or stern curvature.

R ≥ 4D Reference: R is the inside bend radius; D is fender outer diameter.

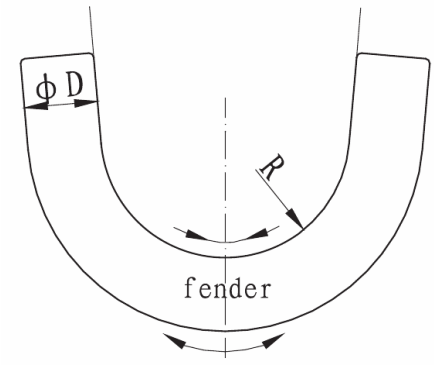
Outer side in tension · inner side in compression



Bow curvature reference.

Bow curve

Wrap straight lengths around the bow radius. The outside stretches in tension while the inside compresses.



Stern curvature reference.

Stern curve

Follow the stern radius without a sharp bend or contact with sharp edges, which can tear the outside.

Schematics not to scale. Confirm the vessel drawing, inside bend radius, fender diameter and fixing arrangement for each project.

Inspection scope and delivery records

Agree inspection points, identification, packing and delivery documentation with the purchase specification before order release.



Tug cylindrical fenders in a workshop.



M-profile fenders prepared for shipment.



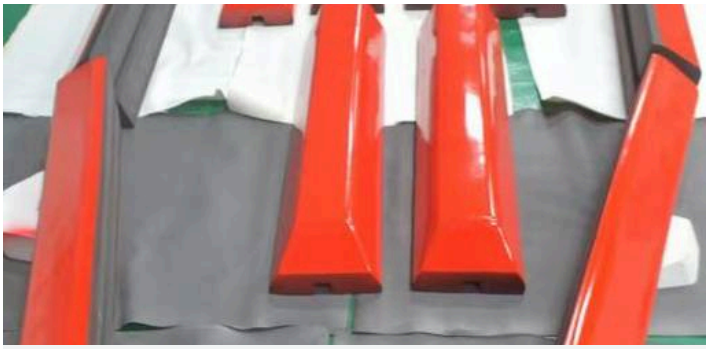
D-profile fender application detail.



D-profile fenders prepared for delivery.



Foam collar outer-surface process reference.



Finished foam collar product view.

Project release checklist

Review item	Project confirmation
Product identification	Confirm profile, size, length, quantity and marking requirements.
Dimensional review	Agree which drawing dimensions and acceptance limits apply.
Fixing interface	Confirm holes, pins, flat bars or other specified attachment details.
Inspection records	List the records required by the purchase specification.
Packing and handling	Agree protection, lifting, storage and loading requirements.
Delivery documents	Confirm packing list, shipping marks and required handover records.

Define inspection records and acceptance scope in the purchase specification before order release.

Rubber profiles and packing

Product, packing and vessel application photographs for visual reference.



Extruded profile sections arranged for packing.



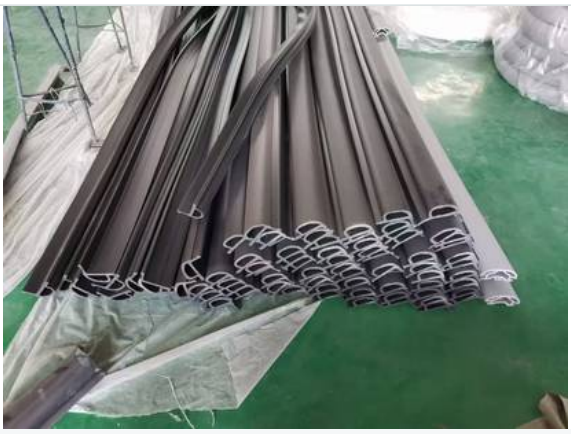
Wrapped profile lengths grouped for handling.



Coiled custom profile product view.



Profile fenders stacked on a pallet.



Custom extruded profile lengths.



Wrapped coiled profile lengths arranged for packing.



Stacked rubber fender sections.



W-profile product detail.

Collar production and assemblies

Product, packing and vessel application photographs for visual reference.



Segmented foam collar arrangement.



Coloured fender sections arranged for packing.



Curved collar section in a workshop.



Orange collar assembly during surface finishing.



Collar assembly with fitted attachment details.



Full-length collar assembly in a workshop.

Vessel applications

Product, packing and vessel application photographs for visual reference.



Collar fitted around an open-deck boat.



Orange collar fitted to a boat in a workshop.



Bow protection fitted to a cabin boat.



Vessel-side fender application reference.



Collar fitted to a rescue boat.



Vessel-side protection shown in a yard.

Packing, installation and fitting

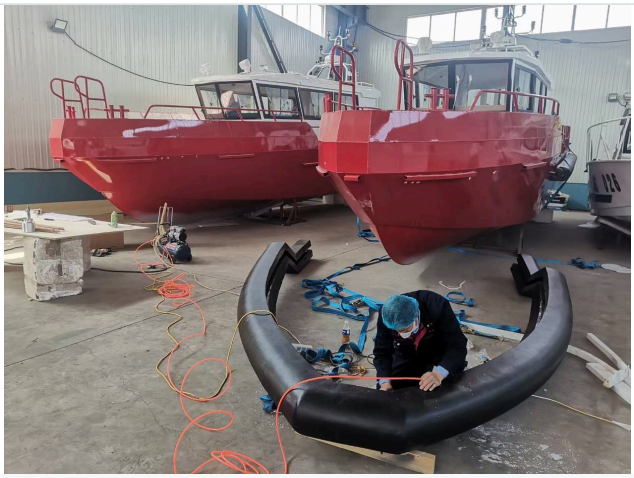
Product, packing and vessel application photographs for visual reference.



Wrapped fender sections and plywood packing.



Vessel-side fender arrangement.



Collar finishing and fitting work in progress.



Foam collar fitting with temporary straps.



Foam collar fitting on a boat in a workshop.



Foam collar fitting on small boat hulls.

A11 / PROJECT SELECTION

Information for an engineering review

A clear project brief links the fender profile to the vessel interface, operating duty and delivery scope.

Vessel and duty inputs

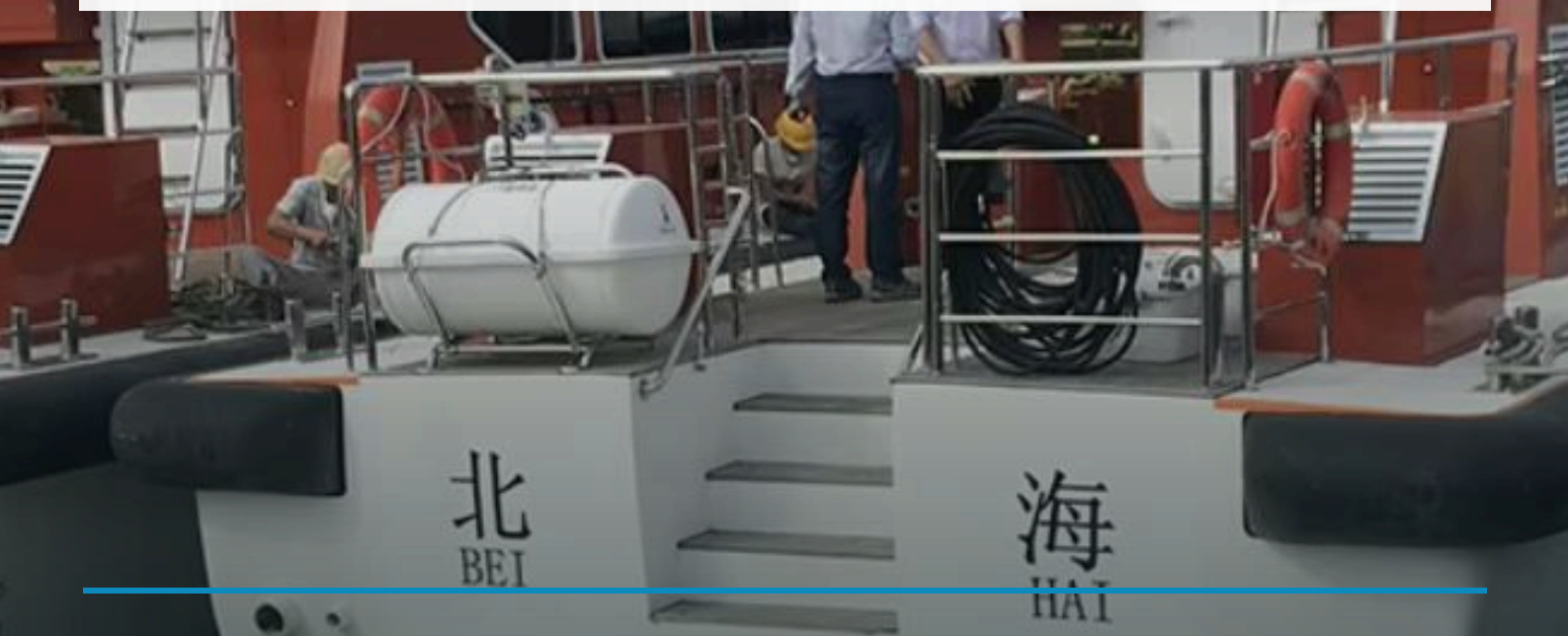
Review item	Project confirmation
Vessel	Vessel type, principal dimensions and hull drawing or interface sketch.
Contact arrangement	Contact zones, approach direction and fender arrangement under review.
Operating duty	Describe the operating condition and expected contact events.
Selected profile	Identify the candidate section, size, length and quantity, if known.
Fixing interface	Share pin, flat-bar, bolt, chain or strap details shown on the vessel drawing.
Clearance and access	Note movement, adjacent structure, installation access and handling limits.
Delivery scope	State destination, required records and target delivery window.
Commercial review	Identify budget range, timing and technical decision path when available.

Hull fit-up review

Review item	Project confirmation
Hull profile	Confirm curvature and contact line against the vessel structure.
Fender line	Confirm continuity, length, joint locations and protected zones.
Fixing interface	Confirm attachment positions, access and the specified connection detail.
Chain or strap routing	Check the route and clearance through the full operating movement.
Movement and clearances	Review expected relative movement, surrounding structure and access.
Approval basis	Record the selected arrangement on the project installation drawing.

Next engineering step

Provide vessel and interface drawings, operating conditions and required fender performance for selection.



PROJECT ENQUIRIES

Send Your Enquiry Now.

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Vessel-side fender application reference.