BAE SYSTEMS

Expression of Interest: Structural Steel Supply

Hunter Class Frigate Program

Including:

HCFP - Structural Steel Supply

Capability SOW & Questionnaire



Acronyms and Definitions

BAE	BAE Systems Australia Limited
EOI	Expressions Of Interest
HCFP	Hunter Class Frigate Program
RAN	Royal Australian Navy
GCS-A	Global Combat Ship-Australia
T26	British Type 26 Global Combat Ship
RAP	Reconcilliation Action Plan
AUD	Australian Dollars

BAE SYSTEMS - IN - CONFIDENCE

Including Capability SOW / Questionnaire



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1. SCOPE

BAE Systems are seeking Expressions of Interest (EOI) to supply ships with structural steel for the Hunter Class Frigate Program (HCFP).

BAE has recently been down selected to design and build the Royal Australian Navy's (RAN) future frigates.

The BAE Systems Future Frigate offering, also known as the Hunter Class GCS-A (Global Combat Ship – Australia) is a variant of the British Type 26 GCS (T26).

The Hunter Class Frigates will be built at the ASC Shipbuilding Facility at Osborne, Adelaide, SA.

The purpose of the Capability Questionnaire is to establish the feasibility of prospective industrial partners to provide Structural Steel to BAE Systems for the Hunter Class Frigate Program.

The Hunter Class Program will require maximisation of local content in Australia.

Main type of structural steel will be:

i. Structural steel variations are to be manufactured to Naval Standards.

Examples of structural steel material grades are:

- DH36
- DH36 Z35
- EH36
- EH36 Z25
- E Grade Z25
- S355JR
- S355JR+AR
- S355J2
- S355J2+AR
- S355J2H



Potential scope of supply:

The indicative scope of supply of the steel plate is given below. The required quantities will be specified by each Order as they are issued by the Purchaser, and the Supplier shall deliver such quantities accordingly. Indicative quantities below are gross weights (including scrap allowance) and are for one ship.

Material Grade	Thickness Range (mm)	Dimension Range of Plate Strakes			Circa Quantity tonnes	
	()	Min Length (m)	Max Length (m)	Min Width (m)	Max Width (m)	
DH36*	4-4.5	4	13	1.8	2.4	310

** Class Material Flatness Tolerance

**Grade of material to be EH36 for thicknesses 20mm and above.

Indicative Plate Quantities

The indicative scope of supply of the steel rolled sections is given below. The required quantities will be specified by each Order as they are issued by the Purchaser and the Supplier shall deliver such quantities accordingly. Indicative quantities below are gross weights (including scrap allowance) and are for one ship.

Material Grade	Range of Bulb Flat Profiles (mm)	Maximum Length (m)	Circa Total Quantity tonnes
	24 Bulb Flat profiles as listed below:		
	60x4, 80x5		
	100x5, 100x7		
	120x6, 120x8		
	140x7, 140x9		
	160x7, 160x9		
DH36	180x8, 180x10	13	600
	200x8.5, 200x11		
	220x9, 220x11		
	240x9.5, 240x11		
	260x10, 260x12		
	280x10.5, 280x12		
	300x11, 300x13		

Indicative Bulb Flat Profile Quantities

Material	Range of F Profile		Maximum Length	Circa
Grade	Width (mm)	Thickness (mm)	(m)	Quantity tonnes
S355JR	12-25	3-5	13	0.5
DH36	30-300	3-10	13	116
DH36	100-200	12-15	13	32
DH36	200-300	16-30	13	25

Indicative Flat Bar Profile Quantities



Material Grade	Range of Equal Angle Profiles (mm)	Maximum Length (m)	Circa Quantity tonnes
DH36	50x50x5 - 80x80x8	13	37
S355J2	100x100x8 - 150x150x15	13	34

Indicative Equal Angle Profile Quantities

Material Grade	Range of Unequal Angle Profiles (mm)	Maximum Length (m)	Circa Quantity tonnes
DH36	75x50x6 – 100x65x10	13	9
S355J2	100x75x8 - 200x100x10	13	18

Indicative Unequal Angle Profile Quantities

Material Grade	Range of Angle Bar Profiles (mm)	Maximum Length (m)	Circa Quantity tonnes
S355JR	30x30x3 – 50x50x3	13	2.5

Indicative Angle Bar Profile Quantities

Material Grade	Range of Square Hollow Section Profiles (mm)	Maximum Length (m)	Circa Quantity tonnes
S355JR	25x25x3 – 60x60x3	13	5
S355J2H	70x70x5 – 180x180x10	13	7.5

Indicative Square Hollow Section Profile Quantities

Material Grade	Range of Circular Hollow Section Profiles (mm)	Maximum Length (m)	Circa Quantity tonnes
S355JR	25.4x1.5 – 42.2x4	13	0.5
S355J2H	60.3x5 – 219x10	13	5
S355J2H	355x16 – 500x26	0.7	0.5

Indicative Circular Hollow Section Profile Quantities

Material Grade	Range of Channel Section Profiles (mm)	Maximum Length (m)	Circa Quantity tonnes
S355JR	50x25x5	6	0.25
S355J2	76x38 – 200x75	13	10

Indicative Channel Section Profile Quantities



Material Grade	Range of IPE Sections (mm)	Maximum Length (m)	Circa Total Quantity tonnes
	240 IPE		
	270 IPE		
	300 IPE		
DH36	330 IPE	13	415
	360 IPE		
	400 IPE		
	500 IPE		

Indicative IPE Section Quantities

Material Grade	Range of Universal Beams (mm)	Maximum Length (m)	Circa Total Quantity tonnes
DH36	356x171x57 UB	13	10.5
	533x210x82 UB	15	2.0

Indicative Universal Beam Quantities

Material Grade	List of European Broad Flange Beams (mm)	Maximum Length (m)	Circa Quantity tonnes
S355JR+AR	HE A 120	13	2

Indicative European Broad Flange Beam Quantities

Material Grade	List of Solid Round Bar (mm)	Maximum Length (m)	Circa Quantity tonnes
S355JR	24mm Diameter	6	0.1
S355JR	35mm Diameter	6	0.1
S355JR	50mm Diameter	6	0.1
S355JR	16mm Diameter BS EN 10277	6	0.1
S355J2+AR	100mm Diameter	6	2.5

Indicative Solid Round Bar Quantities

Non-Tradable Engineering Standards that will need to be met:

Standard Number	Title	Date	Applicable Sections
	Lloyd's Register Rules for the Manufacture, Testing & Certification of Materials	Jan 2014	All relevant sections



2. PRE-QUALIFICATION QUESTIONNAIRE

- 1. Provide full details of previous major defence, maritime or commercial projects in which your company has delivered.
- 2. Stipulate all current projects and future projects, your company has any involvement in.
- 3. Provide details of the company's management organisation structure.
- 4. Are you an Australian Owned company?
- 5. Are you an Indigenous company?
 - a. If so, how many Indigenous employees do you have?
 - b. Do you have a Reconciliation Action Plan (RAP) in place?
- 6. How many <u>full time</u> (permanent) employees are currently employed by your company?
- 7. How many <u>full time</u> (permanent) employees are indigenous?
- 8. Provide your annual turnover in Australian Dollars (AUD).
- 9. State acquired company certification and accreditation.
- 10 Can you manufacture / test structural steel in Australia?
 - a. Fully
 - b. Partial
 - c. Total Import
- 11 Please advise what type of structural steel you can manufacture or supply (import):
 - a. Plate
 - b. Bulb Flat Profile
 - c. Flat Bar Profile
 - d. Equal Angle Profile
 - e. Unequal Angle Profile
 - f. Angle Bar Profile
 - g. Square Hollow Section Profile
 - h. Circular Hollow Section Profile
 - i. Channel Section Profile
 - j. IPE Section
 - k. Universal Beam
 - I. European Broad Flange Beam
 - m. Solid Round Bar
- 12 Can you provide alternatives to the structural steel types listed in the Scope tables? If so, what dimensions / grades can you provide and what certifications can you offer?
- 13 Do you have warehousing / barcoding capabilities?
- 14 What capacity of warehousing would be available?
- 15 What State/s do you have these capabilities in?



- 16 Do you have a full time Project Coordinator currently working in your Organisation?
- 17 Stipulate any further competitive discriminators that have not been identified in the answers to previous questions.

Closing date for Expression of interest:

4.00 p.m. Tuesday 30 April 2019