



# Expression of Interest

Manufacture or Supply and/or Support of Mil Spec and Specialty Auxiliary Systems Components

Hunter Class Frigate Program

## Acronyms and Definitions

Abbreviation	Definition
<b>AIC</b>	Australian Industry Capability
<b>AUD</b>	Australian Dollars
<b>BAEMA</b>	BAE Systems Maritime Australia
<b>DISP</b>	Defence Industry Security Program
<b>EOI</b>	Expressions Of Interest
<b>GCS-A</b>	Global Combat Ship-Australia
<b>HCFP</b>	Hunter Class Frigate Program
<b>NATA</b>	National Association of Testing Authorities
<b>OQE</b>	Objective Quality Evidence
<b>RAN</b>	Royal Australian Navy
<b>RAP</b>	Reconciliation Action Plan
<b>T26</b>	British Type 26 Global Combat Ship

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## 1. INTRODUCTION

BAE Systems Maritime Australia has been selected as the preferred tenderer to design and build nine frigates for the Royal Australian Navy (RAN). The Hunter Class Frigate is a variant of the UK Type 26 GCS (T26).

The Hunter Class Frigates will be built at the BAE Systems Maritime Australia facility in Osborne, South Australia. The program requires maximisation of Australian capability.

BAE Systems Maritime Australia is committed to supporting Australian Industry and increasing its capability to support the HCFP.

At the conclusion of this EOI process, BAESMA reserves the right to proceed, or not, with further procurement activity such as a RFQ/T.

## 2. SCOPE

BAE Systems Maritime Australia are seeking Expressions of Interest (EOI) in order to identify capability of organisations in Australia to manufacture or supply and/or support Mil Spec and Specialty Auxiliary Systems Components for the Hunter Class Frigate Program (HCFP).

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

## 3. EQUIPMENT SCOPE OF SUPPLY

The purpose of the EOI is to identify organisations in Australia that potentially could manufacture or supply and/or support the entire list of Mil Spec and Specialty Auxiliary Systems Components for the Hunter Class Frigate Program (HCFP) to the required specifications (including Lloyd's rules if applicable).

In addition to the above this EOI will also identify where industry may need to enhance capability to be able to manufacture the required components for the HCFP.

The HCFP will need several hundred Mil Spec and Specialty Auxiliary Systems Components per ship over the term of the 9 ship contract, Therefore this EOI is looking for opportunities for a long term collaboration to support Australian shipbuilding and increasing industry capability

The Mil Spec and Specialty Auxiliary Systems Components shall comply with Mil-Spec and/or Lloyds requirements as specified. Note that the Mil-Spec valves are often associated with Shock and vibration requirements.

While the complete list of valves and associated components will be provided in RFQ/T stage, if appropriate, the following paragraphs and tables provide an initial description of valves and components to facilitate a response to this EOI..

Note:

- All quantities as shown in the below tables are per ship, values are for one ship supply;
- The lists are not inclusive and subject to change.

## Valves and components specifications to MIL-STD-777E Cat C-1:

Valve type	Size range	Approx. qty	Specification Brief Extracted
Gate Valve	7/32" to 2"	112	<b>Services:</b> Fresh water, chilled water, condensate and electronic fresh water-cooling <b>Material:</b> Built in accordance with NAVSEA DWG 803-1385714
Constant Flow Valve	7/32" to 2"	103	<b>Services:</b> Fresh water, chilled water, condensate and electronic fresh water-cooling <b>Material:</b> Built in accordance with MIL-V-18030
Press Relief Valve	3/4"	3.0	(110 Psig)
Ball Valve	3/4" to 1"	114	<b>Services:</b> Fresh water, chilled water, condensate and electronic fresh water-cooling <b>Material:</b> Built in accordance with NAVSEA DWG 803-5001003, Some (approx. 5) must have capability to be locked closed with cap (Drain line with open end)
Non-Return Valve	5/8" to 3/4"	15	Fluid: Fresh/Sea Water or Chilled Water
Drain Valve	TBA	20	Fluid: Fresh/Sea Water
Fill valve	5/8"	5	Fluid: Fresh/Sea Water
Gauge Isolator	3/8"	5	Fluid: Fresh/Sea Water
Press Relief Valve	3/4"	5	Set to 110 PSIG Fluid: Chilled Water
Sight gauge	3/8"	5	Fluid: Fresh/Sea Water
Stop valve	5/8"	5	Fluid: Fresh/Sea Water
Strainer	TBA	10	Fluid: Chilled Water

## Valves and components specifications to MIL-STD-777E Cat J-3

Valve type	Size range	Approx. qty	Specification Brief Extracted
Relief valve	1/4"	5	Set to 245psi Fluid: Compressed Air
Stop Valve	1/4"	5	Fluid: Compressed Air
Vent valve	1/4"	5	Fluid: Compressed Air
Test Port	1/4"	5	Fluid: Compressed Air
Pressure gauge	1/4"	5	Fluid: Compressed Air
Relief valve	1/4"	5	Fluid: Compressed Air

## Valves and components specifications to various Specifications

Valve type	Size range	Approx. qty	Specification Brief Extracted
Single Block and Bleed	TBA	5	<b>MIL-V-24578 or 803-3697304</b> Fluid: Compressed Air
Needle Valve	1/4"	1	<b>803-4384536, 803-6397247</b> Fluid: Compressed Air <b>Special note:</b> Soft seat design, except needle valve Union ends only. Flow rate of 0.05 to 0.08 SCFM
Needle Valve	1/4"	1	<b>803-4384536, 803-6397247</b> Fluid: Compressed Air <b>Special note:</b> Soft seat design, except needle valve Union ends only. Normal flow rate of 1.0 SCFM, 5 SCFM Purge
Ball valve	1/4"	30	<b>MIL-V-22687 or 803-5001003</b> Fluid: Compressed Air
Temperature Gauge	1/4"	5	<b>MIL-I-17244 or 810-1385917</b> Fluid: Chilled Water
Pressure Relief valve	3/4"	5	<b>AUSCO INC. Part No. A897 or equivalent</b> Fluid: : Chilled Water
Dew Point Sensor Assy Gauge	TBA	2	<b>HOWELL LAB. Model 7148.</b> <b>Special note:</b> Include test point, Female Quick-Disconnect coupling, SNAP-TITE PART NO BPEAC4-4-14 OR EQUAL WITH A PLUG, SNAP-TITE No SMPE-4 or similar
Pressure Gauge	TBA	15	<b>MIL-G-18997</b> Fluid: Chilled Water
Thermometer	TBA	4	<b>MIL-T-24270</b> Fluid: Chilled Water
Deluge isolation test valve	4.0"	5	<b>Mil Spec- TBA</b> Fluid: Fresh/Sea Water
Purge valve	TBA	5	<b>Mil Spec- TBA</b> Fluid: Fresh/Sea Water
Deluge root valve	4.0"	2	<b>Mil Spec- TBA</b> Fluid: Fresh/Sea Water
Control root valve	TBA	2	<b>Mil Spec- TBA</b> Fluid: Fresh/Sea Water
Firemain root valve	4.0"	2	<b>Mil Spec- TBA</b> Fluid: Fresh/Sea Water
Pressure Reducing valve	1/4"	5	<b>MIL-V-2961</b> Fluid: Compressed Air <b>Material:</b> Bronze, Aluminium bronze, nickel-aluminium bronze, Union ends only
Pressure Relief valve	1/4"	5	<b>MIL-V-22549, set to 10PSI Services:</b> Fluid: Compressed Air Union End Only

## Non MIL-SPEC Components

Valve type	Size range	Approx. qty	Specification Brief Extracted
Ball valve, incl. some electrically actuated.	15-65NB	69	Stainless Steel pref 316, Non MIL-SPEC, LR Certified, Shock Rated
Ball valve, 3-way T-PORT	25NB	4	Stainless Steel pref 316, Non MIL-SPEC, LR Certified, Shock Rated
Butterfly Valve	80 & 150NB	25	Stainless Steel pref 316, Non MIL-SPEC, LR Certified, Shock Rated
Butterfly Valve	150NB	4	Stainless Steel (Electrically Actuated), Non MIL-SPEC, LR Certified, Shock Rated
Mechanical 3-way mixing valve	150NB	2	Stainless Steel pref 316, Non MIL-SPEC, LR Certified, Shock Rated
Non-Return Valve	80NB	3	Stainless Steel pref 316, Non MIL-SPEC, LR Certified, Shock Rated
Relief Valve	80NB	6	Stainless Steel pref 316, Non MIL-SPEC, LR Certified, Shock Rated
Stop / Isolation Valve	15-40NB	6	Stainless Steel pref 316, Non MIL-SPEC, LR Certified, Shock Rated
Stop Valve	80NB	6	Stainless Steel pref 316, Non MIL-SPEC, LR Certified, Shock Rated
Stop Valve	25NB	2	Stainless Steel (double Block and Bleed), Non MIL-SPEC, LR Certified, Shock Rated
Ball Valve Lever SS Flg RF	40NB	2	Stainless Steel Lever SS Flg RF pref 316 Non MIL-SPEC, LR Certified, Shock Rated

## Miscellaneous components

## Pipes to MIL-T-16420, CL200

Type	Size range	Approx. qty (FT)	Specification Brief Extracted
CUNI 90/10 Pipe	1/8"	150	Fluid: Chilled Water, Dry Air
CUNI 90/10 Pipe	1/4"	150	Fluid: Chilled Water, Dry Air
CUNI 90/10 Pipe	3/8"	1,500	Fluid: Fresh/Sea Water, Dry Air
CUNI 90/10 Pipe	1/2"	1,000	Fluid: Chilled Water, Dry Air
CUNI 90/10 Pipe	3/4"	250	Fluid: Chilled Water, Dry Air
CUNI 90/10 Pipe	1"	200,000	Fluid: Chilled Water
CUNI 90/10 Pipe	2"	1,200	Fluid: Chilled Water
CUNI 90/10 Pipe	4"	600	Fluid: Fresh/Sea Water

## Hose to various Mil-specs

Type	Size range	Approx. qty	Specification Brief Extracted
Flexible Hose Assy	1/2"	80	MIL-H-24136 Fluid: Chilled Water
Flexible Hose Assy	2"	20	MIL-H-24136 Fluid: Chilled Water
Flexible Hose Assy	1/2"	30	MIL-H-25579 Fluid: Chilled Water
Flexible Hose Assy	2"	10	MIL-H-25579 Fluid: Chilled Water
Various sizes Hose	TBA	40	MIL-H-24135/5 and MIL-F-24787 Aeroquip 1539 Fluid: Compressed Air

## Gasket

Type	Size range	Approx. qty	Specification Brief Extracted
Gaskets to suit MIL-PRF-20042		400	MIL-DTL-24696, MIL-DTL-22050

## Accumulator Specifications - TBA

Type	Size range	Approx. qty	Specification Brief Extracted
Fresh Water Pressure Accumulator	TBA	1	Fluid: Fresh/Sea Water Shock Rated

#### 4. REQUIRED SUPPLIER CAPABILITIES

The capability sought is to ensure the Mil Spec and Specialty Auxiliary Systems Components meet all of the requirements of the HCFP.

Expected supplier capabilities include but are not limited to:

- ISO 9001:2015 Approved;
- Experience and capability in the design, manufacture, testing and assembly of valves and components;
- Experience in the supply and on-going support Naval ships;
- Experience of sourcing certified Mil Spec valves and components if they are not economically manufactured in Australia either fully or partially;
- Previous experience and application of Lloyds Register Rules and Regulations for the Classification of Naval Ships; and
- Documented material control and traceability procedures for in-house and sub-supplier manufacture.
- Be able to deliver complete scope;
- Be able to demonstrate supply chain integrity;
- Demonstrate capability to support HCFP. The demonstration may include some Engineering Non Recurring Effort (NRE); and
- Demonstrate capability to provide Mil-Spec and/or Lloyds certified products.



## 5. INFORMATION FOR INCLUSION IN THE EOI

The information you provide in your EOI response will be used to establish the feasibility of prospective industrial collaborators to potentially manufacture equipment and components for the HCFP. Following a review of the information provided in the EOI, shortlisted organisations may be invited to provide a response to a Request for Proposal.

The other purpose is for BAE Systems Maritime Australia to identify and develop AIC investment proposals that are in conjunction with the Commonwealth's strategic priorities.

For the EOI to be considered complete, the following information must be provided:

## 6. PRE-QUALIFICATION QUESTIONNAIRE (GENERIC)

1. Are you an Australian registered company? Provide ABN details.
2. Does your website provide a detailed description of your Company's capability? If yes then provide the appropriate link. If no, provide capability statement. If there is a shortfall, please clearly articulate what the shortfall is and what action your organisation intends to take and the timeframe for that action
3. Are you an Indigenous company and registered with Supply Nation? If yes, provide a link to your profile on the Supply Nation Website or other supporting evidence.
4. Do you have a Reconciliation Action Plan (RAP) in place? If yes, please provide evidence.
5. How many Indigenous/Aboriginal/Torres Strait Islanders are employed within your organisation? Stipulate whether the employees are Full Time or Part Time.
6. Do you hold Defence Industry Security Program (DISP) Membership? If so, please state what membership level you hold.  
Refer to the [DISP Webpage](#) on information regarding DISP Membership and how to apply.
7. Provide details of the company's management organisation structure and full time headcount.
8. State your Professional Indemnity, Product and Public Liability and Work Cover Insurance coverage.
9. Please state and provide evidence of the relevant certifications and accreditations held.
10. On Time Delivery – Are you able to consistently provide on time guarantee service to agreed time frames?
11. How do you self-evaluate and analyse your performance? Provide examples.

**7. PRE-QUALIFICATION QUESTIONNAIRE (SPECIFIC TO THE REQUIREMENTS)**

1. Full details of previous major defence, maritime or commercial projects in which your company has delivered Mil Spec and Specialty Auxiliary Systems Components;
2. Previous experience and track record in supplying Mil Spec and Specialty Auxiliary Systems Components;
3. Examples of Mil Spec and Specialty Auxiliary Systems Components produced in your facility; including size, weight and composition;
4. Examples of the testing performed on the Mil Spec and Specialty Auxiliary Systems Components produced and the testing experience and capability in your facility
5. Indication how your company would plan to add Australian contents in the supply and support of Mil Spec valves and components under HCFP
6. Evidence on how you maintain material traceability in you facility from raw product to finished product.
7. Evidence on how you obtain raw material and how you ensure the integrity of the raw material.
8. Experience and application of Lloyds Register Rules and Regulations for the Classification of Naval Ships;
9. Current locations of factories and capabilities;
10. Any further competitive discriminators that have not been identified in the answers to previous questions; and
11. Respondents must complete Attachment A indicating their capability against each of the items for manufacture, supply and/or support.

Please ensure you updated your ICN company profile with the your trading name, contact details, website, ABN, number of employees, annual turnover, export details (if applicable) and ANZSIC codes. This information may be used in assessing this EOI.

**8. CLOSING DATE FOR EOI RESPONSES**

The closing time of this EOI is 5th April 2021

**9. ADDITIONAL INFORMATION AND CONTACT DETAILS**

For any additional information please contact:

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**Attachment A**

**Capability Statement-MILSPEC Valves and Associated Components**

Please complete this matrix for all of the identified items in this EOI

**Valves and components specifications to MIL-STD-777E Cat C-1:**

Item	Size range	Manufacture (can Manufacture this item in Australia in current factory) Yes/No	Supply (can supply this item; please state country of manufacture)		Support (can support this item in Australia with Australian resources) Yes/No
			Yes /No	Country of Manufacture	
Gate Valve	7/32" to 2"				
Constant Flow Valve	7/32" to 2"				
Press Relief Valve	3/4"				
Ball Valve	3/4" to 1"				
Non-Return Valve	5/8" to 3/4"				
Drain Valve	TBA				
Fill valve	5/8"				
Gauge Isolator	3/8"				
Press Relief Valve	3/4"				
Sight gauge	3/8"				
Stop valve	5/8"				
Strainer	TBA				

**Valves and components specifications to MIL-STD-777E Cat J-3**

Item	Size range	Manufacture (can Manufacture this item in Australia in current factory) Yes/No	Supply (can supply this item; please state country of manufacture)		Support (can support this item in Australia with Australian resources) Yes/No
			Yes /No	Country of Manufacture	
Relief valve	1/4"				
Stop Valve	1/4"				
Vent valve	1/4"				
Test Port	1/4"				
Pressure gauge	1/4"				
Relief valve	1/4"				

## Valves and components specifications to various Specifications

Item	Size range	Manufacture (can Manufacture this item in Australia in current factory) Yes/No	Supply (can supply this item; please state country of manufacture)		Support (can support this item in Australia with Australian resources) Yes/No
			Yes /No	Country of Manufacture	
Single Block and Bleed	TBA				
Needle Valve	1/4"				
Needle Valve	1/4"				
Ball valve	1/4"				
Temperature Gauge	1/4"				
Pressure Relief valve	3/4"				
Dew Point Sensor Assy Gauge	TBA				
Pressure Gauge	TBA				
Thermometer	TBA				
Deluge isolation test valve	4.0"				
Purge valve	TBA				
Deluge root valve	4.0"				
Control root valve	TBA				
Firemain root valve	4.0"				
Pressure Reducing valve	1/4"				
Pressure Relief valve	1/4"				

**Non MIL-SPEC components**

Item	Size range	Manufacture (can Manufacture this item in Australia in current factory) Yes/No	Supply (can supply this item; please state country of manufacture)		Support (can support this item in Australia with Australian resources) Yes/No
			Yes /No	Country of Manufacture	
Ball valve, incl. some electrically actuated.	15-65NB				
Ball valve, 3-way T-PORT	25NB				
Butterfly Valve	80 & 150NB				
Butterfly Valve	150NB				
Mechanical 3-way mixing valve	150NB				
Non-Return Valve	80NB				
Relief Valve	80NB				
Stop / Isolation Valve	15-40NB				
Stop Valve	80NB				
Stop Valve	25NB				
Ball Valve Lever SS Flg RF	40NB				

**Miscellaneous components****Pipes to MIL-T-16420, CL200**

Item	Size range	Manufacture (can Manufacture this item in Australia in current factory) Yes/No	Supply (can supply this item; please state country of manufacture)		Support (can support this item in Australia with Australian resources) Yes/No
			Yes /No	Country of Manufacture	
CUNI 90/10 Pipe	1/8"				
CUNI 90/10 Pipe	1/4"				
CUNI 90/10 Pipe	3/8"				
CUNI 90/10 Pipe	1/2"				
CUNI 90/10 Pipe	3/4"				
CUNI 90/10 Pipe	1"				
CUNI 90/10 Pipe	2"				
CUNI 90/10 Pipe	4"				

**Hose to various Mil-specs**

Item	Size range	Manufacture (can Manufacture this item in Australia in current factory) Yes/No	Supply (can supply this item; please state country of manufacture)		Support (can support this item in Australia with Australian resources) Yes/No
			Yes /No	Country of Manufacture	
Flexible Hose Assy	1/2"				
Flexible Hose Assy	2"				
Flexible Hose Assy	1/2"				
Flexible Hose Assy	2"				
Various sizes Hose	TBA				

**Gaskets**

Item	Size range	Manufacture (can Manufacture this item in Australia in current factory) Yes/No	Supply (can supply this item; please state country of manufacture)		Support (can support this item in Australia with Australian resources) Yes/No
			Yes /No	Country of Manufacture	
Gaskets to suit MIL-PRF-20042	Various				

**Accumulator Specifications - TBA**

Item	Size range	Manufacture (can Manufacture this item in Australia in current factory) Yes/No	Supply (can supply this item; please state country of manufacture)		Support (can support this item in Australia with Australian resources) Yes/No
			Yes /No	Country of Manufacture	
Fresh Water Pressure Accumulator	TBA				