

MARINE APPLICATIONS

ANPRO[®]

Press-Fit Piping Solutions for Marine Applications

Reliable connections. Controlled installation. Built for demanding project environments.

SYSTEM FAMILIES

**ANPRESS 316L / 304 /
CBS / HP**

PLANNING DIRECTION

15 mm to 168.3 mm

PROJECT LOGIC

**Material, seal, and
approval-aware
selection**

WEBSITE

anpro-fitting.com

APPLICATION-
LED

**Shipbuilding
and retrofit
support**

JOIN
METHOD

**Mechanical
cold
connection**



Erich Chew

Marine project challenges shape the joining method

Shipboard and shipyard work often combines confined installation routes, coordination across trades, shutdown pressure, and visible documentation requirements. That environment changes how connection methods are evaluated.

- Confined technical spaces can limit access for conventional hot-work operations.
- Retrofit shutdown windows often reward cleaner sequencing and lower disruption around finished equipment.
- Material traceability, medium review, and project handover documentation remain critical.
- Corrosion exposure, insulation detail, and future maintenance access all affect material selection.

Typical site pressures

Fire-watch management, phased contractor access, and tool logistics can all influence the installation route.

Why the brochure stays conditional

Marine suitability depends on the medium, pressure, temperature, selected seal, and class or owner requirements.



PROJECT CONTEXT

ANPRO's website language already frames ANPRESS around reduced hot-work dependency, installation control, and project support rather than consumer-style feature claims.

Why press-fit can work well in marine projects

The value proposition is not just speed. It is also about controlled workflow, more repeatable installation steps, and cleaner coordination around existing technical assets.

COLD JOINING

No on-site welding at the joint

Useful where hot-work dependency needs to be reduced and installation control matters.

TOOL ACCESS

Compact pressing workflow

Can support more controlled work in service corridors, plant rooms, and retrofit routes.

HANDOVER

Cleaner documentation path

Material, seal, and pressure review can be structured earlier in the project sequence.

Selection discipline matters

Press-fit should be matched to the actual service medium and the project approval route. This leaflet therefore focuses on application-led guidance rather than universal suitability claims.



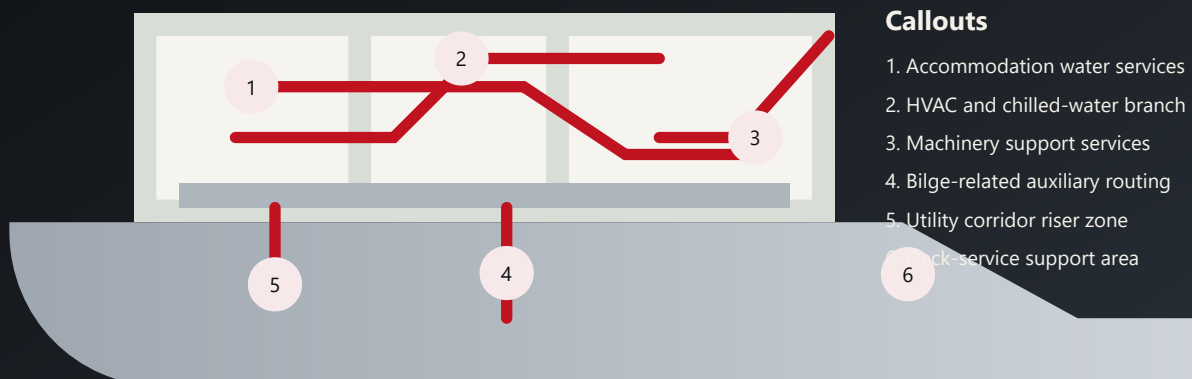
Representative shipboard application map

Original diagram showing where review-based ANPRO press-fit routing may be considered across vessel technical zones.

SHIPBOARD APPLICATION MAP

Representative piping zones

Original schematic for marine leaflet use only



Application matrix

The matrix below uses conditional labels to distinguish between likely fit, review needs, and approval-dependent applications.

APPLICATION	SYSTEM FAMILY	MATERIAL REVIEW	SEAL REVIEW	APPROVAL	NOTES
Potable water Drinking water / domestic cold water	ANPRESS 316L preferred; ANPRESS 304 subject to project review	POTENTIAL FIT	VERIFY	APPROVAL REQUIRED	Final selection depends on project specification, local approval scope, and sealing-element confirmation.
Domestic hot water Heated sanitary water	ANPRESS 316L or ANPRESS 304	REVIEW	VERIFY	APPROVAL REQUIRED	Check operating temperature, disinfection regime, and seal family before release.
HVAC / chilled water Closed-loop cooling water	ANPRESS 304, ANPRESS 316L, or ANPRESS CBS depending on environment	POTENTIAL FIT	REVIEW	PROJECT DEPENDENT	Closed-loop service can favour CBS or 304, but marine environment and insulation detail must be reviewed.
Heating water Closed-loop heating water	ANPRESS CBS or ANPRESS 304 subject to project confirmation	REVIEW	VERIFY	PROJECT DEPENDENT	Check temperature band, oxygen ingress, corrosion management, and maintenance access.
Compressed air Dry compressed air	ANPRESS CBS or ANPRESS HP subject to data confirmation	REVIEW	VERIFY	PROJECT DEPENDENT	Pressure band and seal compatibility must be confirmed from ANPRO documentation.
Technical water / utility piping General service water	ANPRESS 316L or ANPRESS 304	POTENTIAL FIT	REVIEW	APPROVAL REQUIRED	Best suited where reduced hot-work dependency and clean handover are important.
Bilge-related auxiliary lines Project-specific auxiliary service	Project dependent	VERIFY	VERIFY	APPROVAL REQUIRED	Use only after medium, contamination profile, and class requirements are reviewed.
Fuel / lubricating oil Oil-based service media	Not stated	VERIFY	VERIFY	APPROVAL REQUIRED	No ANPRO-specific marine oil-service approval evidence found in the provided materials; exclude as a recommended application.

Applications shown as review-only or approval-required should not be published as blanket suitability statements.

System and material selection

ANPRO's own site positions the ANPRESS family as a structured system-selection path covering 316L, 304, CBS, and HP.

SYSTEM	MATERIAL	POSITIONING	APPLICATIONS	SEALS
ANPRESS 316L	316L stainless steel	Premium corrosion-aware branch	Potable water, domestic water, HVAC, technical utility piping, retrofit support	EPDM, HNBR, FKM, [ANPRO TO CONFIRM]
ANPRESS 304	304 stainless steel	General stainless branch	General building services, cooling, heating, utility piping	EPDM, HNBR, FKM, [ANPRO TO CONFIRM]
ANPRESS CBS	Carbon steel press system	Mechanical services branch	Closed-loop HVAC, plant room, compressed air	[ANPRO TO CONFIRM]
ANPRESS HP	Higher-pressure system	Higher-pressure branch	Demanding service lines subject to verification	[ANPRO TO CONFIRM]

ANPRESS 316L

316L stainless steel

Premium stainless branch positioned for corrosion-aware and specification-sensitive marine utility selection.

Pressure: [ANPRO TO CONFIRM: PRESSURE RATING]

Temperature: [ANPRO TO CONFIRM: TEMPERATURE RANGE]

Seal options: EPDM, HNBR, FKM, [ANPRO TO CONFIRM: OTHER SEALS]

ANPRESS 304

304 stainless steel

General stainless branch for mainstream building services and technical pipework where conditions are less aggressive than 316L-targeted duties.

Pressure: [ANPRO TO CONFIRM: PRESSURE RATING]

Temperature: [ANPRO TO CONFIRM: TEMPERATURE RANGE]

Seal options: EPDM, HNBR, FKM, [ANPRO TO CONFIRM: OTHER SEALS]

ANPRESS CBS

Carbon steel press system

Mechanical-services branch for plant-room, HVAC, and compressed-air contexts subject to service review.

Pressure: [ANPRO TO CONFIRM: PRESSURE RATING]

Temperature: [ANPRO TO CONFIRM: TEMPERATURE RANGE]

Seal options: [ANPRO TO CONFIRM: SEAL MATERIAL]

ANPRESS HP

Higher-pressure press system

Higher-pressure branch that requires project-specific confirmation of media, size band, and approval scope before marine use.

Pressure: [ANPRO TO CONFIRM: PRESSURE RATING]

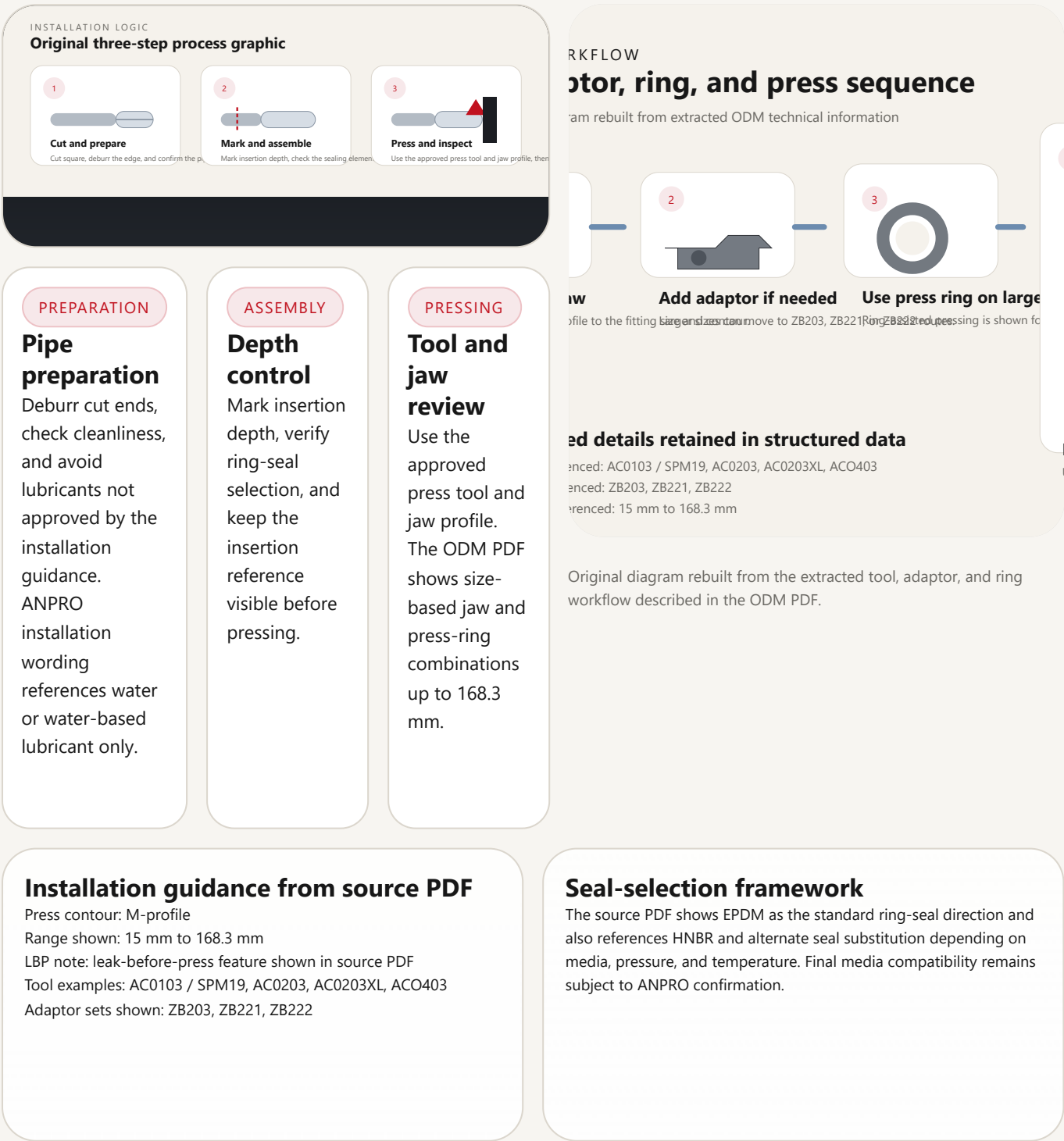
Temperature: [ANPRO TO CONFIRM: TEMPERATURE RANGE]

Seal options: [ANPRO TO CONFIRM: SEAL MATERIAL]

Additional product notes from ANPRO ODM PDF

The local ANPRO ODM technical PDF explicitly references 316L stainless press fittings, M-profile joining, LBP leak-before-press indication on applicable joints, and a tooling range extending to 168.3 mm. It also includes seal-application charts that reference EPDM, HNBR, and alternate seal selection by service condition.

Installation and technical workflow



Documentation, support, and project coordination

The final submittal package should combine technical datasheets, installation guidance, approval scope documents, and material-selection support before issue to shipyard or consultant teams.

Technical datasheets

System family, size band, seal options, pressure, and temperature limits.

Installation guidance

Tooling, jaw profile, preparation, pressure testing, and inspection sequence.

Approval documents

Verified certificate copies and exact scope wording for each intended application.

Project support

Material review, application matching, and regional supply coordination.

Seal and service review excerpt

The ODM PDF includes application guidance tables for fluids/water, chilled water, hydronic heating, low-pressure steam, selected oil-related media, natural gas and LPG, compressed air, oxygen, nitrogen, carbon dioxide, argon, and vacuum. Those entries are useful for internal review but should only be published externally after ANPRO confirms intended scope for marine work.

Company line: ANPRO is a brand owned by Amco Engineering (HK) Co., Ltd., established in Singapore in 2014 and supported by a Singapore-based stainless supply background linked to TECH Global and Tech Singapore.

Regional coverage referenced in ANPRO website exports: Southeast Asia, Australia, and New Zealand.

TOOL SELECTION Size bands and press-tool routes

Original matrix reconstructed from ODM technical page data

Size	Jaw / Ring Route	AC0103 / SPM19	AC0203	AC0203XL	AC0403
15 - 22 mm	Standard jaw No ring required	25 bar	25 bar	25 bar	-
28 - 35 mm	Standard jaw No ring required	25 bar	25 bar	25 bar	-
42 - 54 mm	ZB203 adaptor path Press ring option	-	25 bar	25 bar	-
66.7 mm	ZB221 adaptor path Press ring required	-	-	25 bar	-
76.1 - 88.9 mm	ZB221 adaptor path Press ring required	-	-	16 bar	-
108 mm	ZB221 / ZB222 Press ring required	-	-	-	-
168.3 mm	Large ring set Press ring required	-	-	-	16 bar

Source-context note: 16 / 25 bar values are shown here only as extracted tool-selection guidance from the local ODM PDF.

Original tool-selection matrix rebuilt from extracted size-band and tool-route data. The structured version is retained in `content/tooling-data.json`.

SEAL GUIDANCE EPDM baseline, alternate seal review, and LBP note

Original explanatory graphic built from the extracted ODM seal page

Seal selection framework

EPDM is shown in the source PDF as the standard seal direction

Alternate seal families appear where service conditions require

EPDM

baseline water / utility direction

HNBR

oil / gas-related review context

FKM

higher-temperature / chemical review context

LBP concept note



The extracted ODM page describes LBP as a visible leak

That statement is kept here as a source-linked installa

Always confirm medium, temperature, pressure, and approval scope before release.

The source PDF also references water, chilled water, heating, steam, gases, and selected oil-related services as review contexts rather than blanket suitability claims.

Original seal-guidance graphic rebuilt from extracted EPDM, alternate seal, and LBP notes.

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