

Engineering AI Assistant — Capabilities Overview

Four Service Lines | February 2026 | ACE Engineer | Confidential

Discipline-specific AI — not a generic chatbot. Deep engineering context, real standards, real data.

Four Specialised Assistants

	RIGID JUMPER & PIPELINE	STRUCTURAL & MARITIME LEGAL	GENERAL OIL & GAS	OFFSHORE WIND & DIGITAL TWIN
Domain	Jumper design · pipeline FFS · OrcaFlex	Diffraction · plate FFS · GoA · casualty	Drilling · reservoir · pipeline · regulatory	FOWT mooring · SHM · metocean · analytics
Standards	ASME B31.8 · DNV-OS-F101 · API 579-1 · DNV-RP-F105	API 579-1 Pt 4/5/8/9 · RP 2EQ · COLREGS · ISM	API 5CT · DNV-OS-F101 · API 579-1 · Arps	DNV-ST-0119/0126 · IEC 61400-3-2 · ERA5
Signature win	OrcaFlex ASCII → envelope table: 5 min	MAIB report → ISM non-conformities: 20 min	Arps decline fit + 5-yr EUR: 10 min	ERA5 100-yr Hs/Tp any site: 5 min

Deployment Roadmap (All Service Lines)

PHASE	WHAT	WHEN	COST
1 — Desktop Demo	Live Q&A with real project questions	Week 1	\$0 additional
2 — Teams Chatbot	Always-on bot in existing Microsoft Teams channels	Weeks 2–4	~\$20–200/month
3 — Document Intelligence	Index project files → answers from your own history	Months 2–3	~\$500–2,000/month
4 — Automated QC	Cross-check analyses · flag inconsistencies · trend alerts	Months 4–6	Scales with usage

Gets Smarter Over Time

Phase 1: standards knowledge from day one · Phase 3: indexed on your project history · Phase 4: encodes your team's methods and lessons learned — institutional knowledge that compounds and persists.

Representative Time Savings Across All Disciplines

TASK	MANUAL	WITH AI	SAVING
Code / standards look-up	15–30 min	1–2 min	90%
Preliminary sizing or screening	2–4 hr	15–30 min	85–88%
Regulatory / incident data query	1–2 hr	5 min	92%
Calculation memo or report draft	4–8 hr	1–2 hr	75%

Pilot Proposal — Week 1: 30-min demo per team (no cost) · Weeks 2–3: pilot on active work · Week 4: ROI review and chatbot deployment decision

All outputs are preliminary and informational. They augment, not replace, the qualified engineer.

Contact ACE Engineer to schedule a demo for your discipline.