



Pipe Clamp Material Selection Overview

Practical screening reference for clamp bodies, cushions and hardware

Selection overview — not a certified material datasheet. Confirm the exact material grade, supplier data and complete assembly before ordering.

Material screening overview

Option	Typical selection role	Website screening range	Confirm before use
PP	General hydraulic lines, water-based fluids and many outdoor applications	-20 to +100 °C	Actual grade, UV exposure, additives and peak temperature
PA	Oil, fuel and higher mechanical-demand applications	-40 to +120 °C	Moisture, acids, heat ageing and actual reinforced grade
NBR	Cushioning and oil-resistant contact layer	-40 to +100 °C	Not suitable for HFD phosphate ester; verify ozone and heat
PVDF	Chemical-service option where stronger corrosion resistance is required	-40 to +150 °C	Exact chemical, concentration, temperature and availability
Metal	Steam, cryogenic or high-temperature project-approved assemblies	-196 to +425 °C	Alloy, coating, galvanic corrosion and complete hardware

Screening ranges above are website guidance only, not guaranteed operating limits.



Common selection paths

Mineral hydraulic oil	Start with PA, NBR, PVDF or metal; PP may also be suitable.	Confirm oil additives, peak temperature and vibration.
HFA / HFC water-based fluid	Start with PP, NBR or PVDF.	Confirm fluid formulation and corrosion protection of metal parts.
HFD phosphate ester	Prioritise PVDF or a project-approved metal assembly.	Do not use NBR without explicit approval.
Steam service	Use a project-approved metal clamp assembly.	Confirm alloy, temperature, condensate and support load.
Sea water / brine	Evaluate PP, PVDF or NBR; specify suitable stainless hardware.	Confirm salt exposure, UV, coating and galvanic pairs.
Cryogenic service	Use only a project-approved metal assembly.	Confirm low-temperature alloy and support design.

Verify the complete assembly

- Clamp body or insert material and exact grade
- Bolts, rail, weld plate, cover plate and surface treatment
- Pipe material, outside diameter, support load and vibration
- Continuous, peak, cleaning and ambient temperatures
- Fluid concentration, additives and exposure mode
- Outdoor, salt spray, UV, hygiene and certificate requirements

Information to include with an enquiry

Send the fluid name and concentration, temperature envelope, exposure mode, pipe size and material, support load, environment, required certificates and preferred clamp series.

Final suitability depends on the supplied material grade, process conditions, mechanical load, installation and project rules. Request written confirmation for critical service.