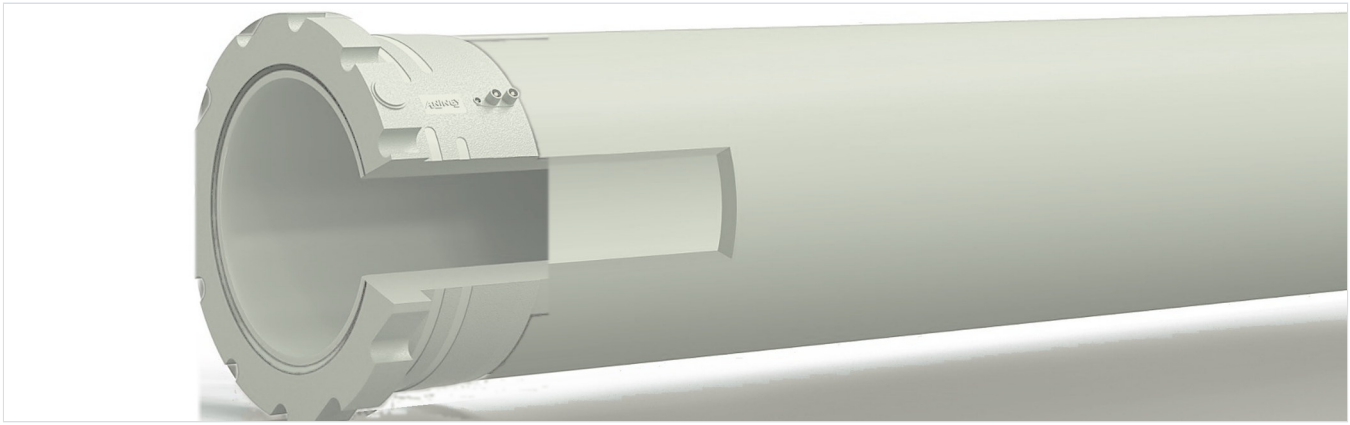
PP-H

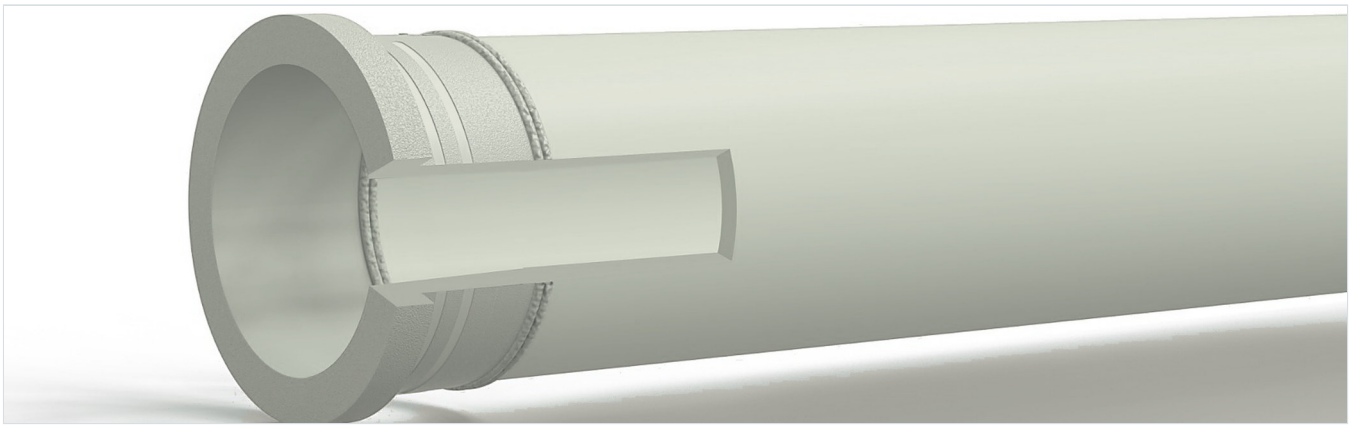
Single Layer. Total Resistance.

ONE MATERIAL
ALL THE WAY THROUGH

PP-H polypropylene homopolymer piping for acid, alkali and chemical service. A **single-layer** pipe — one homogeneous wall, no liner and no bond line.



Anjney PP-H — electrofusion. The coil melts pipe and fitting together inside the socket wall. The bore runs straight through; nothing is displaced into the flow.



Butt fusion — the conventional alternative. The weld displaces molten material into a raised ring inside the bore, at every joint. Anjney does not supply PP-H on butt fusion.

> In chemical service that ring is more than a pressure loss. It is a ledge for solids, scale and crystallising salts to build on, at every joint, for the life of the line. Electrofusion leaves nothing for them to hold on to.

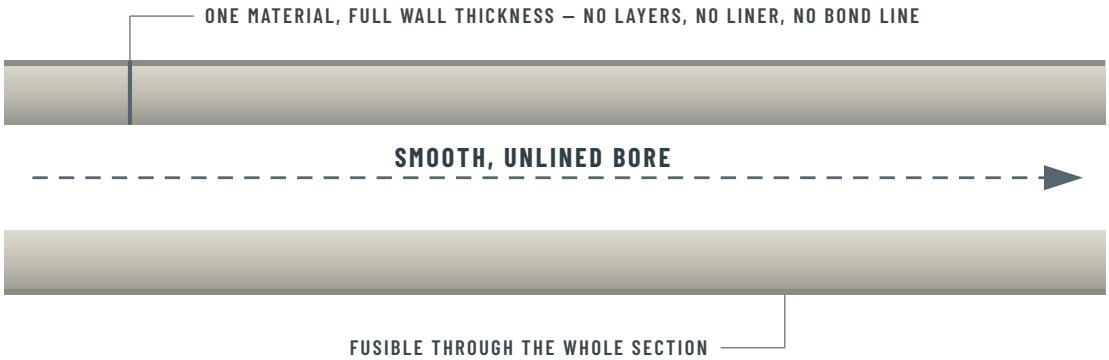
DIAMETER RANGE	PRESSURE CLASS	CONSTRUCTION	JOINTING
20 – 630 mm	PN 10 – 20	Single layer homopolymer PP-H	2 systems socket fusion · electrofusion

WHY PP-H

BUILT FOR CHEMICAL DUTY

Polypropylene homopolymer is the stiffest and most chemically resistant member of the polypropylene family. Anjney PP-H is produced as a **single homogeneous wall** — not a multilayer construction.

That matters in aggressive service. There is no liner to lift, no reinforcement layer to separate, and no bond line for an acid to find. What the fluid touches on day one is the same material through the full wall thickness, and the same material the welder fuses.



1 Resistant where metal is not

Inert to acids, alkalis, salts and brine across the concentrations that pit, pickle and scale stainless and mild steel. No corrosion allowance to design around.

2 Stiffer than PP-R

Homopolymer has the highest flexural modulus and tensile strength in the PP family, so the line holds its line between supports.

3 Non-shedding bore

A smooth, low-friction surface that does not corrode, scale or contribute metal ions to the stream — which is what dosing and transfer duties need.

4 Light and fast to install

Roughly a tenth the weight of steel pipe of the same size. Lighter supports, smaller crews, shorter shutdowns.

5 Welded, not jointed

Every connection is a fusion weld — no gasket, no thread, no flange face to weep. The joint is the same material as the pipe.

6 Low maintenance through life

No painting, no re-lining, no acid-attack rescaling shutdown, no galvanic pair to manage at dissimilar-metal transitions.

PP-H AGAINST THE USUAL ALTERNATIVES

PARAMETER	ANJNEY PP-H	SS / MS / GI	PVC / CPVC	HDPE
Corrosion	**None**	Pits and scales in acid, chloride and brine	None	None
Alkali resistance	**Excellent**	Poor to moderate	Moderate	Excellent
Stiffness	**High — highest in the PP family**	Very high	High but brittle	Low — more supports
Impact behaviour	**Tough, does not shatter**	Ductile	Brittle, cracks on impact	Tough
Jointing	**Fusion welded — socket fusion and electrofusion**	Welded or threaded	Solvent cemented	Fusion welded
Weight	**Light**	Heavy	Light	Light
Maintenance burden	**Near nil**	Recurring	Low	Low

Chemical suitability depends on the specific medium, its concentration, temperature and pressure acting together. Anjney PP-H resists all major acidic and basic media within specified concentrations; pure solvents are excluded. Please confirm your service conditions with us before specifying.

APPLICATION AREAS

BUILT FOR THE CORROSIVE LINES

Anjney PP-H is specified where the medium is acidic, alkaline or otherwise aggressive, the duty is continuous, and replacing the line means stopping production. It is a chemical-service pipe, not a general water-utility pipe.

CHEMICAL PROCESSING & INTERMEDIATES

Acid and alkali transfer, dosing and metering lines, reactor feed and discharge, scrubber circuits, tank-farm manifolds and bund drains.

TYPICAL MEDIA HCl · H_2SO_4 · NaOH · KOH · NaOCl · brine · salt solutions

CHLOR-ALKALI & INORGANICS

Caustic and hypochlorite handling, brine circuits, cell-room headers and acid dilution lines in chlor-alkali and inorganic chemical plants.

TYPICAL MEDIA Caustic soda · hypochlorite · brine · dilute acids

STEEL — PICKLING & ACID REGENERATION

Continuous and batch pickling line headers, rinse cascades, spent-acid transfer, HCl regeneration circuits and fume-scrubber duty in steel and tube plants.

TYPICAL MEDIA HCl pickling liquor · spent acid · pickle rinse · scrubber

SOLAR PV MANUFACTURING

Ingot and wafer sawing and cleaning chemistry, cell-line texturing and etching feed and drain, post-etch rinse, and the module-line chemical and wash circuits.

TYPICAL MEDIA HF · HNO_3 · KOH / NaOH texturing · H_3PO_4 · acid & alkali drains

METAL FINISHING, PLATING & ANODISING

Pickling and anodising tank lines, plating bath circulation, rinse cascades, chromating and phosphating circuits, and fume-scrubber headers.

TYPICAL MEDIA Pickling acid · plating baths · chromic & phosphoric acid

PHARMACEUTICAL & API

Acid and alkali reagent transfer, chemical dosing, neutralisation lines and the corrosive drain collection that leaves API blocks and QC laboratories.

TYPICAL MEDIA Reagent acids · caustic · neutralisation · corrosive drains

PAPER & PULP — BLEACHING

Bleach plant lines, chemical preparation and dosing, and the chlorine dioxide and peroxide duties that attack stainless steel.

TYPICAL MEDIA ClO_2 · H_2O_2 · caustic · bleach liquor

DYES, PIGMENTS & TEXTILE CHEMICALS

Dye liquor transfer, scouring and bleaching chemistry, caustic recovery and mercerising circuits, and the chemical effluent that follows them.

TYPICAL MEDIA Dye liquor · caustic · hypochlorite · peroxide · acids

FERTILISER & AGROCHEMICALS

Acid and ammonia handling, phosphoric and sulphuric acid circuits, slurry and dosing lines, and scrubber duty across fertiliser and agrochemical plants.

TYPICAL MEDIA H_3PO_4 · H_2SO_4 · ammoniacal liquor · slurries

ACID & ALKALI EFFLUENT, ETP AND ZLD

Segregated acidic and alkaline effluent headers, neutralisation and equalisation, chemical dosing, and concentrate transfer on ZLD and MEE trains.

TYPICAL MEDIA Mixed acid effluent · fluoride-bearing streams · dosing · reject

CHEMICAL & LABORATORY DRAINAGE

Corrosive process drains, laboratory waste, acid-resistant floor and trench drains, vent stacks and below-ground collection where metal and cement do not last.

TYPICAL MEDIA Lab waste · acid drains · trench & floor drains · vents

MINING & MINERAL PROCESSING

Leaching circuits, solvent extraction and electrowinning, acid dosing and dilution, and the raffinate lines that are extremely corrosive to metal.

TYPICAL MEDIA H_2SO_4 · raffinate · leach liquor · cyanide solution

ALSO SPECIFIED IN

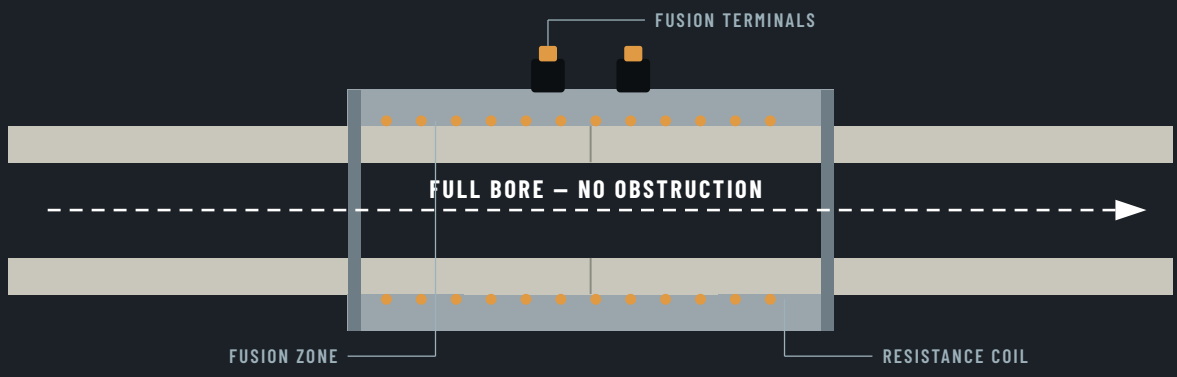
Battery and electronics manufacturing · semiconductor support chemistry · leather and tannery chemical effluent · galvanising plants · pilot plants and laboratory skids · acid filling and transfer stations · chemical storage and tank farms.

LARGE-DIAMETER JOINTING

ELECTROFUSION ON PP-H

Electrofusion is routine on HDPE. On PP-H it is not offered by anyone else in India — Anjney is the only manufacturer supplying it, in sizes to 630 mm.

A resistance coil is moulded into the socket wall of the fitting. Current through that coil melts the fitting from the inside and the pipe from the outside at the same time; the two melt fronts meet and the materials become one wall. Because it all happens **inside the socket**, nothing is displaced into the bore.



NO BEAD. NO STEP. NO RESTRICTION.

The joint is the same material and the same bore as the pipe either side of it. In acid, alkali and crystallising service that is what keeps a line running: there is no ledge for solids to settle on and no crevice for a chemical to concentrate in.

MAKING THE JOINT

1. **Cut square and clean.** The pipe end is cut at right angles and wiped free of dirt and moisture.
2. **Scrape the surface.** The oxidised skin is removed over the full insertion depth. Fusion bonds to fresh material, not to weathered surface.
3. **Mark and clean.** Insertion depth marked, scraped area cleaned with approved wipes and dried.
4. **Insert and clamp.** Pipe pushed fully home to the stop, aligned, and clamped so nothing moves during the cycle.
5. **Energise.** The control unit reads the fitting's own fusion parameters and runs the cycle. No operator judgement required.
6. **Cool under clamp.** Full cooling time before clamps are removed or load applied. Pressure test follows.

WHY IT HOLDS, AND WHERE IT WINS

- The joint is **homogeneous** — pipe and fitting become one wall, so there is no gasket, no thread and no leak path to age in chemical service.
- Fusion parameters live **on the fitting**, not in the fitter's memory.
- The cycle is **machine-controlled and logged**, so joints can be recorded and audited — which matters on pharma and solar projects.
- It works in **tight spaces** where a butt-fusion machine will not fit: trenches, congested racks, and tie-ins to live plant.
- A 500 mm joint in a congested rack is **as repeatable** as one on the bench.

SUPPORT

Anjney provides fitter training, jointing procedure sheets and commissioning support. Send us your line schedule and layout and we will size the network and mark up the joint positions with you.

ELECTROFUSION FITTINGS · 200 – 630 MM

PIPES AND FITTINGS

PRODUCT RANGE

20 – 200 mm

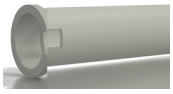
SOCKET FUSION

Pipe and fitting are heated on a mating tool and pushed home. Fast, tool-controlled, and the standard Anjney joint on every line up to 200 mm.

200 – 630 mm

ELECTROFUSION

A resistance coil moulded into the fitting fuses the joint from inside the socket. Machine-controlled, repeatable and obstruction-free — and offered on PP-H by no one else in India.



PP-H PIPE — SINGLE WALL
20–630 mm
PN 10 / 16 / 20

EQUAL TEE
20–200 mm socket
200–630 mm electrofusion

COUPLER
20–200 mm socket
200–630 mm electrofusion

ELBOW 90°
20–200 mm socket
200–630 mm electrofusion

REDUCING TEE
20–200 mm

REDUCER
20–200 mm

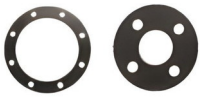
END CAP
20–200 mm

LONG RADIUS ELBOW
20, 32, 50, 63 mm

CORE FLANGE / COLLAR
20–200 mm

ELBOW 45°
20–200 mm

BRANCH ADAPTOR
All relevant sizes



STEP FLANGE (BACKING RING)
20–630 mm

ELECTROFUSION COUPLER
200 – 630 mm

ELECTROFUSION CORE FLANGE
200 – 630 mm

ELECTROFUSION ELBOW
200 – 630 mm

ELECTROFUSION EQUAL TEE
200 – 630 mm

WHERE PP-H SITS IN THE ANJNEY RANGE

PP-H
SINGLE LAYER
Homopolymer, chemical duty. Acid, alkali and aggressive media, chemical drains and process lines where inertness and weldability matter most.

PPRCT
FR COMPOSITE
Glass-reinforced multilayer with UV shell. Water, chiller, effluent and hot-condensation lines where bore, stiffness and outdoor life matter most.

PPCH
FR PNEUMATIC
Patented multilayer for compressed air, instrument air, nitrogen and vacuum, colour-coded to the pneumatic convention.

ANJNEY®
Piping For Air, Water & Temperature

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