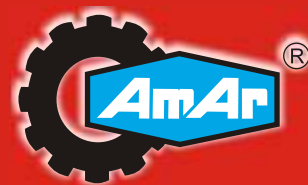


# Autoclaves

## High Pressure Systems



Pressure Reactor Specialist™

Your Research Partner



## Our Profile

### Experience

The company was founded in 1974 by Mr. Naresh Shah (Managing Director & Chairman) after completing B.Tech. Mechanical from IIT Mumbai & Masters of Science from University of Michigan, United States. He was later joined in 1998 by his son Mr. Vishal Shah who graduated with a bachelors' degree in Mechanical Engineering from V.J.T.I Mumbai. Ever since 1974, Amar has built its foundation on a strong technical team with a blend of vast experience & technological / commercial understanding.

### The Journey

The beginning journey was with general fabrication of large pressure reactors, vessels, heat exchangers etc. Today, we specialize in high pressure autoclaves / reactors / systems, magnetic drive coupling & flow reactors. Our vision is to provide import substitutes in India & new technologies globally, while maintaining quality & costs. Through high pressure systems Amar can offer customized turnkey solution for virtually all applications from high pressure chemical reactors, corrosion testing, supercritical fluid extraction system etc for chemical, pharmaceutical, oil & gas, defence, educational & chemical research purposes.

### Certifications

We are a ISO 9001 – 2008, CE – PED, ASME U, U2 certified company offering products with Explosion proof (Ex), ATEX, UL, CSA, CRN certified systems on request.

### Facilities

We have complete in-house setup well-equipped to design, manufacture & test all the products & components with latest gauges, measuring instruments & machines including:

- CNC turning centre
- Vertical machining centre (VMC)
- Conventional lathes
- Plasma cutting machine
- Overhead EOT cranes
- Buffing / polishing / cleaning equipment
- Laser marking
- Cutting machines
- Calibration instruments
- Drilling machines
- Welding machines
- Grinding machines
- PMI machine
- Packaging machines etc.

### Team

We are a team of around 125 people with qualified staff, skilled workers including a core team of 30 highly skilled & experienced professional engineers, required to produce the desired quality with accuracy & precision as per international quality standards & design codes.

### Vision

- To provide import substitutes in India & new technologies globally, while maintaining quality & costs
- To become a leading global player in manufacturing & supply of all our products
- To continuously upgrade the quality of our products and always offer the latest & the best
- To build products that are technically complete, physically reliable, economically competent & ergonomically superior

### Mission

- To develop technically complex, challenging, customised turnkey solutions
- At Amar, we strongly follow Hon. Indian Prime Minister Narendra Modi's campaign of MAKE IN INDIA

### Global Footprints

Pioneers & largest manufacturer of high pressure reactor, magnetic drive couplings & continuous flow reactor in India year after year for over 40 yrs with around 75% market share in India and substantial share globally. Over 5000 successful installations world over with more than 1000 delighted customers. Exports to more than 50 countries worldwide with presence of local distributors & 5 distributors in different parts of India for local support.

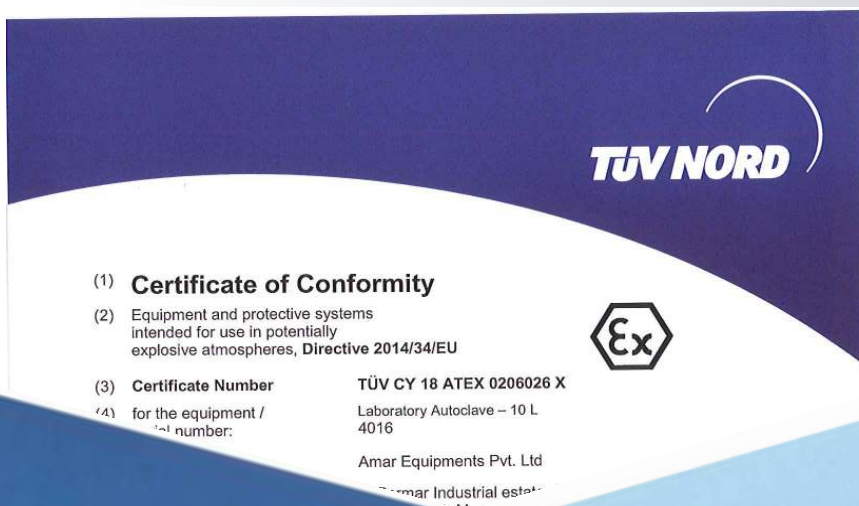
### Product Range

- High Pressure Autoclaves
- High Throughput Catalyst Screening
- Automated Parallel Autoclaves
- Gas Induction Reactors
- Glass Autoclaves
- Non Stirred Pressure Vessels
- HPHT Corrosion Testing
- Supercritical Fluid Extraction
- Reaction Calorimeters
- Gas Hydrate System
- Acid Digestion Bombs
- Shaker Hydrogenator
- Pilot Plants
- CSTR
- Fixed Bed Tubular Reactors
- Continuous Flow Micro Reactors
- Photo Chemical Flow Reactors
- Magnetic Couplings / Stirrers
- Heating & Cooling Circulators
- Lab Agitated Nutsche Filters



## Certifications & Approvals

- An ISO-9001-2008 certified company.
- All our pressure vessel designs are as per **ASME** codes-section VIII Div 1 / Div 2.
- Our welders are qualified as per **ASME** section IX codes for welded pressure vessels.
- **PED, U/U2 Stamp, CRN for Canada, ASA 1210 for Australia & DOSH for Malaysia** certified systems.
- CE, UL / CSA certified systems offered on request.
- Explosion proof / flame proof systems with Class 1 Div. 2, ATEX Zone I Ex electrical & mechanical certified system for hazardous area.
- DQ, IQ, PQ, OQ documentation can be given on special request.



# Acid Digestion Bombs / Hydrothermal Pressure Vessels



## Salient features

- 25 ml to 750 ml net filling volume
- Design pressures upto 200 bar and temperatures upto 250°C
- Acid digestion vessels made from SS-316 with PTFE liner & PTFE cap
- Non-metallic microwaveable Acid digestion bombs

## Applications

- Used for dissolving or digesting inorganic or organic samples in strong acids or alkalis



## Standard models for acid digestion bombs

Volume	25 ml	50 ml	100 ml	250 ml	500 ml	750 ml
Model No.	D 1112	D 1212	D 1312	D 1412	D 2112	D 2212
Design Pressure	100 bar					
Design Temperature	200°C (optional 250 °C with carbon filled PTFE)*					
Vessel I/D (mm)	22	35	44	45	60	60
Vessel Internal Height (mm)	70	55	70	160	180	270

## Standard models for microwaveable acid digestion bombs

Volume	25 ml	50 ml
Model No.	D 1102	D 1202
Design Pressure	50 bar	
Design Temperature	200°C (optional 250 °C with carbon filled PTFE)*	
Vessel I/D (mm)	22	30
Vessel Internal Height (mm)	70	75

## Technical specifications for acid digestion bombs

Sr.	Description	Specification
A	Material of Construction	PTFE liner & cap inside SS 304 / high temperature resistant polymer for microwaveable models
B	Standard Fittings	Safety rupture disc.
C	Closure	Split clamp with clamp bolts for metal models & threaded for polymer models
D	Mounting	Vessel fixture & Suitable spanner

**Note:** Customization of volume, material, pressure, temperature etc. may be possible on request.

\*Suffix the standard models with C for 250°C option.

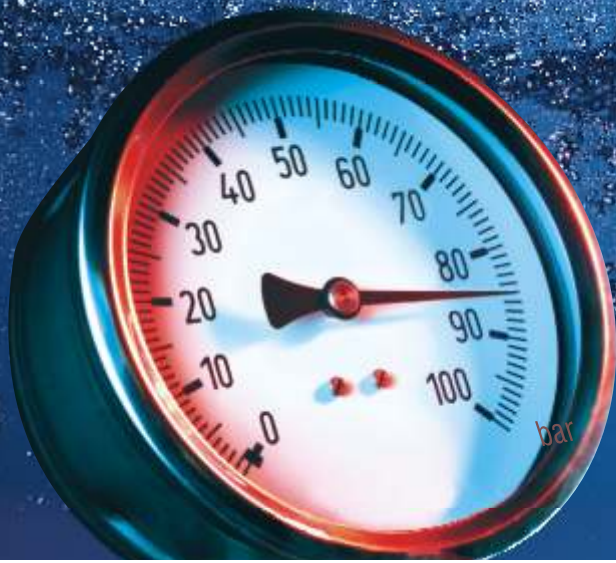
# Some of our valued customers



# Some of our valued customers



# At Amar **PRESSURE** and **FLOW** is our religion



## WORLDWIDE PRESENCE

Exports to over 50 countries worldwide with distributors for sales & service in following countries

- Australia
- Colombia
- Germany
- Mexico
- Portugal
- Slovakia
- Thailand
- Azerbaijan
- Czech Republic
- Iran
- Netherlands
- Russia
- South Africa
- Turkey
- Brazil
- Egypt
- Israel
- Peru
- Romania
- South Korea
- UK
- Cambodia
- Estonia
- Italy
- Phillippines
- Saudi Arabia
- Spain
- USA
- China
- France
- Malaysia
- Poland
- Singapore
- Taiwan
- Vietnam

Sales & service support available from following places in India

- Ahmedabad
- Bangalore
- Hyderabad
- Kolkatta
- Mumbai
- New Delhi



**AMAR EQUIPMENTS PVT. LTD.**

*Since 1974.*

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- High Pressure Autoclaves • Multiple Reactor Systems • Gas Induction Reactors • Ex-Proof & Automated Pilot Plants • Glass Autoclaves
- Super Critical Fluid Extraction • HPHT Corrosion Testing • Magnetic Drive Couplings & Agitators • Lab ANF

- Metal Micro Rectors • Glass Flow Reactors • Photochemical Reactors • Packed Bed Tubular Reactors
- Continuous Stirred Tank Reactors • Heating Cooling Circulators