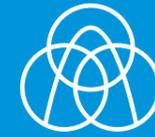


Industrial Solutions  
Process Technologies

Uhde High Pressure Technologies GmbH  
Buschmuehlenstr. 20  
58093 Hagen, Germany  
P: +49 2331 967-0  
F: +49 2331 967-370  
www.uhde-hpt.com

Industrial Solutions

Tailor-made  
equipment for  
LDPE and EVA  
plants



thyssenkrupp

engineering.tomorrow.together.

# Equipment for LDPE and EVA plants from 300 up to 3,600 bar – manufactured by Uhde



Tubular reactor



Autoclave reactor



Valve



Pump

## Reactors up to 3,600 bar

- Tubular reactor
- Autoclave reactor including motor, electrode, stirrer, bearing, rupture disc, thermal element, etc.

## Double pipe heat exchangers up to 3,600 bar

- Preheater
- Feed cooler
- Intercooler
- After cooler
- Recycle gas cooler

## Piping PN325 up to PN3600

- DN120 up to PN3200
- Jacketed / unjacketed
- 3-D bends
- Long radius, cold bended
- Short radius, hot bended (inductive/forged)

## Vessels up to 690 bar

- Product separator
- Knock out drum
- Wax cyclone separator
- Recycle gas separator
- Soft product separator

- Nitrogen buffer vessel
- Suction filter
- Initiator mixer
- Low pressure separator

## S&T heat exchangers up to 375 bar

- Recycle gas cooler
- Waste heat boiler
- Soft product cooler
- Primary compressor aftercooler

## Valves up to 3,600 bar

- Reactor control valve (e.g. let down valve, side stream valve, fisher replacement)
- 3 way safety valve (e.g. dump valve, blow off valve)
- On/Off valve (guard valve, blow down valve, recycle emergency valve)

- Check valve and double check valve
- Manual valve

## Pumps up to 14,000 bar

- Modifier pump
- Comonomer pump
- Catalyst pump
- Initiator pump
- Pressure testing pump
- Autofrettage pump

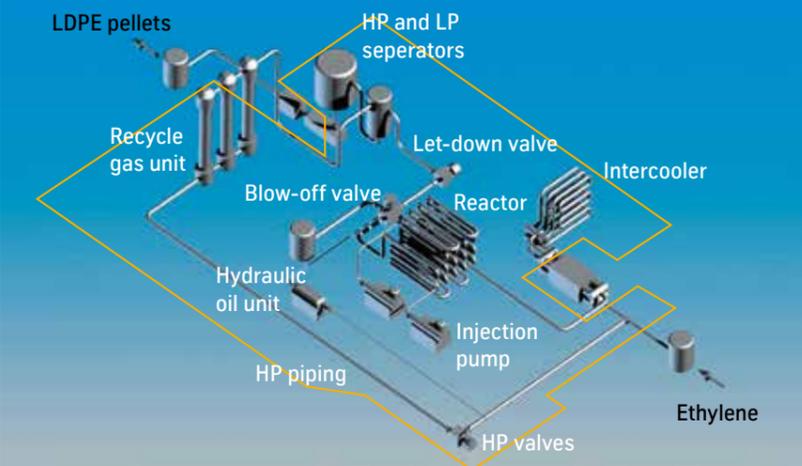
## Valve test station / hydraulic oil system

- Design and fabrication of central hydraulic oil system
- Valve test station for liquid and / or nitrogen test up to 5,500 bar

## Recent references

Customer / Location	Licensor / Contractor
Sasol / USA	ExxonMobil / MES
FPC / China	ENI / CTCI
LG / Korea	ExxonMobil / MES
Shenhua / China	LyondellBasell / TKIS

## Everything but the compressor



## Engineering services

- Engineering of piping classes
- Finite-element-analysis
- Steel structure design and analysis
- Piping flexibility analysis
- Vibration analysis

## Supervision and training services

- Installation supervision, commissioning and start-up assistance
- Training of local workforce
- Inspection
- Equipment overhaul

## Special tools

- Sealing refurbishment
- Flange assembly tool
- Hydraulic bolt tensioner device

## Annual Improvement Conference

- 3 days technical conference
- Plant operators, licensors, contractors, key suppliers
- Safety, process, mechanical, control, inspection, efficiency



Dubai, 2014