

References High-Pressure Equipment

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
2017	Shaanxi Yanchang, Yulin/ P.R. China	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 75	3.600 bar
	ZhongKe PC, Zhanjiang/ P.R. China	LDPE Autoclave Line	High Pressure Product Separator Let down valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples	DN 68	3.600 bar
	SINOPEC Yangzi PC, Nanjing/ P.R. China	LDPE Autoclave Line	High Pressure Product Separator Let down valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples	DN 68	3.600 bar
2016	PETRONAS, Pengerang/ Malaysia	INA	3 Reactors 1 Heat exchanger 2 Expansion valves	20 m long, 250 tons	325 bar
2015	BASF PETRONAS, Kuantan/ Malaysia	Citral	Reactor Injector System Heat Exchanger Oil separator Piping components Angle valves Safety valves	DN 6 – DN 160	325 bar
	Daqing Petrochem, Daqing/ P.R. China	LDPE	Kick valve	DN 40	3.200 bar
2014	BASF MPCC, Maoming/ P.R. China	INA	2 Reactors 3 Heat exchanger 2 Expansion valves	20 m long, 250 tons	325 bar
	TVK, Tiszaújváros/ Hungary	LDPE	Kick valves	DN 40	3.600 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
2013	Jiangsu Sailboat, Lianyungang/ P.R. China	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactor Preheater Aftercooler	DN 68	3.600 bar
	Jiangsu Sailboat, Lianyungang/ P.R. China	LDPE Autoclave Line	High Pressure Product Separator Let down valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Pre-Cooler Pre-Chiller Start-up Heater Product Cooler	DN 68	3.600 bar
	Reliance Industries, Jamnagar/ India	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 89	3.000 bar
	Shenhua, Xinjiang/ P.R. China	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 75	3.600 bar
	TPI, Salzgitter/ Germany	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 65	3.600 bar
2012	Shenhua, Yulin/ P.R. China	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 75	3.600 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	BraskemIlesa, Coatzacoalcos/ Mexico	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 75	3.600 bar
	SamsungTotal, Daesan/ Korea	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 68	3.600 bar
2011	TVK, Hungary	LDPE	Piping components Thermocouples	DN 40	3.600 bar
2010	TSJ, Abu Dhabi U.A.E	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Piping components PN500	DN 82	3.600 bar
	LG Chem, Daesan/ Korea	LDPE	Kick valves (let down valves)	DN 55	3.600 bar
	BYC, Nanjing/ P.R. China	LDPE-TM	Kick valves T-emergency valves Control valves On/off valves Piping components	DN 62	3.600 bar
2009	ADRIA OIL, Milan/ Italy	LDPE	Piping components Thermocouples Peroxide Injection Nozzles	DN 75	3.600 bar
	QAPCO Qatar, Petrochemical Company Doha/ Qatar	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 75	3.600 bar
	Shell Germany Oil GmbH, Wesseling/ Germany	Cracker	Reactor tubes (hairpin type)	DN 120	325 bar
	BASF Antwerp, Antwerp/ Belgium	Deacon	Piping components and Valves	DN 90	325 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
2008	PTTPE, Map Ta Phut/ Thailand	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 75	3.600 bar
	Basell Polyolefine GmbH, Wesseling/ Germany	LDPE	Piping components Valves	DN 90	700 bar
	BASF, Ludwigshafen/ Germany	Ammonia	Piping components Valves	DN 45	325 bar
	Saudi Kayan Petrochemical Company, AlJubail/ Saudi Arabien	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 76	3.600 bar
	BASF, Ludwigshafen/ Germany	Propionic acid	Piping components Valves	DN 45	325 bar
2007	Borealis, Stenungsund/ Sweden	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles	DN 82	3.200 bar
	BASF, Ludwigshafen/ Germany	Hexamol Dinch	Piping components Valves	DN 160	325 bar
	BASF, Ludwigshafen/ Germany	Laromine	Piping components Valves	DN 90	325 bar
2006	Tecnimont/ Saudi Ethylene and Polyethylene Company, Tasnee – Al Jubail/ Saudi Arabia	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactors Preheater Aftercooler Piping components On/off valves	DN 89	3.600 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	BASF, Ludwigshafen/ Germany		HD-Bundle reactor	Ø 1.535 x 12.000	260 bar
	BASF, Ludwigshafen/ Germany		HD-Separator	Ø 1.000 x 3.475	260 bar
	BASF, Ludwigshafen/ Germany		HD-Separator	Ø 800 x 6.900	325 bar
	Simon Carves/ Amir Kabir Petrochemical Company, Bandar Imam/ Iran	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactor Preheater Aftercooler Piping components On/off valves	DN 82	3.600 bar
2005	SINOPEC Maoming Petrochemicals, Maoming/ P.R. China	LDPE	High Pressure Product Separator Soft Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactor Preheater Aftercooler On/off valves	DN 72	3.600 bar
2004	PetroChina Lanzhou Petrochemicals, Lanzhou/ P.R. China	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Piping components Valves	DN 62	3.600 bar
	CNOOC Shell, Nanhai/ P.R. China	LDPE	Valves	DN 76	3.600 bar
2003	Simon Carves, Manchester/UK	LDPE	Valves	DN 160	500 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	Tecnimont/ CNOOC Shell, Nanhai/ P.R. China	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactor Preheater Aftercooler Piping components On/off valves	DN 76	3.600 bar
2002	PetroChina Daqing Petrochemicals, Daqing/ P.R. China	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Piping components Valves	DN 62	3.600 bar
2001	Basell/BYC, Nanjing/ P.R. China	LDPE-TM	High Pressure Product Separator Kick valves and Product valves Coldgas control valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactor Preheater Aftercooler Piping components On/off valves	DN 62	3.600 bar
	Basell/BYC, Nanjing/ P.R. China	LDPE-TS	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactor Preheater Aftercooler Piping components On/off valves	DN 62	3.600 bar
2000	BASF, Ludwigshafen/ Germany	Propionic acid	Reactor	Ø 800 x 12.000	325 bar
	BASF, Ludwigshafen/ Germany	Crop Protection	Agitator vessel	Ø 400 x 1.500	325 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	BASF, Ludwigshafen/ Germany	Amine	Reactor	Ø 1.200 x 12.000	325 bar
	BASF, Ludwigshafen/ Germany	LDPE Wax	Piping components	DN 40	2.500 bar
	BASF Corporation, Freeport/USA	Hexanediol	Reactor Separator Separator Preheater Heat exchanger	Ø 1.400 x 18.000 Ø 600 x 15.000 Ø 1.200 x 6.000	300 bar
	BASF, Ludwigshafen/ Germany	EPC	Apparatus for test plant		325 bar
1999	BASF, Ludwigshafen/ Germany	Urea	Reactor	Ø 2.000 x 20.000	290 bar
	Elenac, Wesseling/ Germany	HDPE	Separator N2 buffer vessel		325 bar
	Salzgitter Anlagenbau/ Elenac, Aubette/ France	LDPE	High Pressure Product Separator Kick valves and Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactor Preheater Aftercooler Piping components On/off valves	DN 76	3.600 bar
1998	BASF, Ludwigshafen/ Germany	Butanediol	Separator		325 bar
	Elenac, Aubette/ France	LDPE	Kick valves	DN 40	3.600 bar
	BASF Corporation, Geismar/ USA	Butanediol	Reactors Separator	Ø 1.000 x 18.000 Ø 1.000 x 18.000	325 bar
	BASF, Ludwigshafen/ Germany	Butanediol	Separator	Ø 1.000 x 6.000	325 bar
1997	Salzgitter Anlagenbau/ Gazprom, Novo Sibirsk/ Russia	LDPE	Kick valves (let down valves) and Product valves Bursting disc units	DN 40	3.600 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	BASF, Ludwigshafen/ Germany	Butylamine	Double tube heat exchanger	DN 58	325 bar
	BASF, Ludwigshafen/ Germany	LDPE Wax	Piping components	DN 40	2.500 bar
	BASF, Ludwigshafen/ Germany		Hydrogenation reactor		500 bar
	BASF, Ludwigshafen/ Germany	Ammonia	Ammonia Reactor		350 bar
	Elenac, Wesseling/ Germany	LDPE	Recycle gas cooler	Ø 273 x 9.760	375 bar
1996	BASF, Ludwigshafen/ Germany	Propionic acid	Regenerator Separator	Ø 250 x 8.000 Ø 400 x 2.500	325 bar
	BASF, Ludwigshafen/ Germany	LDPE Wax	Piping components	DN 40 / DN 58	2.500 bar
1995	BASF, Ludwigshafen/ Germany	Isophorone plant	Reacor Reactor Separator Double tube heat exchanger Heat exchanger Electrical preheater Regenerator	Ø 800 x 12.000 Ø 500 x 8.000 Ø 600 x 4.000 NW45 x 10.000 Ø 250 x 8.000 DN 58 Ø 200 x 8.000	325 bar
	BASF, Ludwigshafen/ Germany	LDPE Wax	Vessel	Ø 1.200 x 6.500	2.500 bar
	BASF, Ludwigshafen/ Germany	DEMAPA	Hydrogenation reactor Separator Heat exchanger	Ø 500 x 12.000 Ø 800 x 4.000 Ø 260 x 7.200	325 bar
1994	Hyundai Petrochemical, Seoul/ Korea	LDPE	Kick valve	DN 40	3.600 bar
	BASF, Ludwigshafen/ Germany	Propionic acid	Reactor	Ø 796 x 12.000	325 bar
	BASF, Ludwigshafen/ Germany	Nonyl	Hydrogenation reactor Hydrogenation reactor Steam generator	Ø 783 x 12.000 Ø 800 x 15.000 Ø 508 x 9.000	325 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure			
1993	BASF, Ludwigshafen/ Germany	Nonyl	Heat exchanger	Ø 245 x 11.700	325 bar			
			Steam generator	Ø 508 x 12.000				
			Reactor	Ø 1.800 x 18.500				
			Preheater					
			Heat exchanger Vessel	Ø 300 x 8.100 Ø 580 x 4.000				
1992	BASF Antwerp, Antwerp/ Belgium		Heat exchanger		325 bar			
			BASF, Ludwigshafen/ Germany	Citral	N2 Vessel	Ø 500 x 4.000	325 bar	
			BASF, Ludwigshafen/ Germany	Carbonyl	CO Cooler		325 bar	
			ROW, Wesseling/ Germany	LDPE	Intercooler	DN 34 x 7.000	1.600 bar	
			BASF, Ludwigshafen/ Germany	Butanediol	Preheater		325 bar	
			Bopp + Reuter, Mannheim/ Germany	Test plant	Vessel		325 bar	
			BASF, Ludwigshafen/ Germany	Nonyl	Separator Resonators		325 bar	
			BASF, Ludwigshafen/ Germany	Acetic acid	Carbonyl generator		325 bar	
			Bariven Venezuela	Hydro- cracking test plant	Reactors		325 bar	
			BASF, Ludwigshafen/ Germany	Butanediol	Recycle gas cooler		325 bar	
			1991	ROW, Wesseling/ Germany	LDPE	Jacketed tubes	DN 32/40	3.600 bar
						BASF, Ludwigshafen/ Germany		Separator

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	Shell, Carrington/ UK	LDPE	Reactor Preheater Aftercooler Kick valves (let down valves) and Product valves T-emergency valves Piping components Intercooler Separator	DN 55	3.600 bar
	DEA Mineralöle, Wesseling/ Germany	Hydro- generation	Reactor tubes (hairpin type) Piping components	DN 120 x 10.000	325 bar
	BASF, Ludwigshafen/ Germany	VP plant	Reactor		300 bar
1990	Salzgitter Anlagenbau/ TVK, Hungaria	LDPE	Kick valves Safety valves	DN 40	3.600 bar
	BASF, Ludwigshafen/ Germany	Citral	Electrical preheater	DN 58	325 bar
	PCD Polymere GmbH, Schwechat/ Austria	LDPE	Reactor Piping components	DN 40	3.600 bar
	Shell, Carrington/ UK	LDPE	Reactor Piping components	DN 40	3.600 bar
	Hyundai Petrochemical, Seoul/Korea	LDPE	Product separator Kick valves	DN 40	3.600 bar
	BASF, Ludwigshafen/ Germany	Butanediol	Preheater		325 bar
	BASF Antwerp, Antwerp/ Belgium	Amine	Heat exchanger	Ø 350 x 13.000	250 bar
1989	BASF, Ludwigshafen/ Germany	Synthetic gas	Reduction reactor	Ø 1.000 x 16.000	325 bar
	BASF, Ludwigshafen/ Germany	Citral	N2 Vessel	Ø 500 x 4.000	325 bar
	BASF, Ludwigshafen/ Germany	Nonyl	Hydrogenation reactor	Ø 1.000 x 16.000	325 bar
	BASF, Ludwigshafen/ Germany	LDPE Wax	Droplet separator		2.500 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	BASF Corp., Geismar/USA	Butanediol	Reactor Separator	Ø 1.400 x 20.000 Ø 1.200 x 6.000	350 bar
	BASF, Ludwigshafen/ Germany	Butanediol	Double tube cooler	DN 58	325 bar
1988	BASF, Ludwigshafen/ Germany	Nonyl	Reactor Preheater Steam generator Separator	Ø 800 x 20.000 Ø 280 x 5.500	325 bar
	BASF, Ludwigshafen/ Germany	Butanediol	Separator	Ø 800 x 6.000	325 bar
	BASF, Ludwigshafen/ Germany	Citral	Reactor Heat exchanger Separator Preheater Electrical preheater Heat exchanger	Ø 800 x 12.000 DN 58 DN 24	325 bar
	ROW, Wesseling/ Germany	LDPE	Autoclave	Ø 290 x 3.500	2.500 bar
	BASF, Ludwigshafen/ Germany	Hexanediol	Hydrogenation reactor Separator Separator Vessel Preheater	Ø 800 x 12.000 Ø 1.000 x 6.000 Ø 330 x 2.000 Ø 600 x 4.800 DN 70 x 12.500	325 bar
	BASF, Ludwigshafen/ Germany	Diol	Hydrogenation reactor	Ø 800 x 12.000	325 bar
	BASF, Ludwigshafen/ Germany	LDPE Wax	Agitated autoclave Separator	Ø 250 x 2.500 Ø 400 x 4.000	2.500 bar 325 bar
1987	BASF, Ludwigshafen/ Germany	Chromium- dioxide	Reactor	Ø 600 x 8.000	400 bar
	ROW, Wesseling/ Germany	LDPE	Recycle gas cooler Recycle gas cooler Piping components	DN 40 DN 25	2.500 bar
	BASF, Ludwigshafen/ Germany	Nonyl	Reactor Reactor	Ø 1.000 x 18.000 Ø 1.500 x 18.000	325 bar
1986	BASF, Ludwigshafen/ Germany	Chromium- dioxide	Reactor	Ø 600 x 8.000	400 bar
	DEA Mineralöle, Wesseling/ Germany	Hydro- generation	Piping components	Ø 120 x 10.000	325 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	BASF, Ludwigshafen/ Germany	Butylamine	Preheater	Ø 200	325 bar
	BASF, Ludwigshafen/ Germany	Hexanediol	Preheater	DN 70	325
1985	BASF Corp., Geismar/ USA	Butanediol	Reactor Separator	Ø 1.200 x 18.000 Ø 1.000 x 6.000	350 bar
	BASF, Ludwigshafen/ Germany	Butylamin	Reactor	Ø 350 x 12.000	325 bar
	DEA Mineralöle, Wesseling/ Germany	Hydro- generation	Reactor	DN 120 x 10.000	325 bar
	BASF, Ludwigshafen/ Germany	Chromium- dioxide	Reactor	Ø 600 x 8.000	400 bar
1984	BASF, Ludwigshafen/ Germany	Butanediol	Reactor	Ø 12.000 x 18.000	325 bar
	BASF Corp., Geismar/ USA	Butanediol	Reactor Separator	Ø 1.200 x 18.000 Ø 1.000 x 6.000	350 bar
1983	BASF, Ludwigshafen/ Germany	Nonyl	Reactor	Ø 800 x 12.000	325 bar
	BASF Corp., Freeport/ USA	Hexanediol	Reactor Separator Separator Separator Double tube heat exchanger	Ø 1.000 x 16.000 Ø 1.000 x 6.100 Ø 460 x 3.000 Ø 250 x 2.000 DN 30	330 bar
	BASF, Ludwigshafen/ Germany	Dispersions	Reactor	Ø 800	250 bar
	BASF Antwerp, Antwerp/ Belgium	Amine	Heat exchanger	Ø 350 x 13.000	250 bar
	Romchim, Craiova/ Romania	Acetic acid	Reactors	Ø 1.650 x 18.000	700 bar
1982	BASF, Ludwigshafen/ Germany	Reduction plant	Reactors	Ø 1.400	325 bar
	Borden Chemicals, Geismar/ USA	Acetic acid	Reactors		700 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
1981	Shell, Carrington/ UK	LDPE	Reactor Preheater Aftercooler Buffer vessel Piping components Valves	DN 40	3.600 bar
	BASF, Ludwigshafen/ Germany	Chromium- dioxide	Reactor	Ø 600 x 8.000	400 bar
	Saarberg, Germany	Coal liquification	Reactors Separator		325 bar
	BASF, Ludwigshafen/ Germany	Citral	Reactor Heat exchanger Heater Double tube heat exchanger	Ø 800 x 10.000	325 bar
	BASF, Ludwigshafen/ Germany	Dispersions	Agitator vessel	Ø 800	250 bar
	Mobil Oil, Texas/ USA	LDPE	Reactor Preheater Aftercooler Buffer vessel Piping components Valves	DN 45	3.600 bar
1980	BASF, Ludwigshafen/ Germany	Chromium- dioxide	Reactor	Ø 600 x 8.000	400 bar
	PCD Polymere GmbH, Schwechat/ Austria	LDPE	Reactor Preheater Aftercooler Product Separator Intercooler Buffer vessel	DN 40	3.200 bar
1979	BASF Antwerp, Antwerp/ Belgium	Ethylene diamine	Reactor		325 bar
	Romchim, Romania	Acetic acid	Reactor Buffer vessel	Ø 1.650 x 20.000	700 bar
1978	BASF, Ludwigshafen/ Germany	Dimethyl- adipate	Reactors		325 bar
	Semadco, Thalka/ Egypt	Ammonia	Reactor Heat exchanger Piping components		350 bar
1977	Mobil Oil, USA	Fertilizer	Reactor Heat exchanger Piping components		350 bar

Year	Customer	Project	Scope of Supply	Max. Dimensions	Pressure
	BASF Antwerp, Antwerp/ Belgium	Ethylene diamine	Reactor	Ø 1.500 x 15.500	300 bar
	BASF, Ludwigshafen/ Germany	Urea	Reactor	Ø 2.000 x 18.000	290 bar
	CNTIC, P.R. China	Oxo alcohols	Reactor Buffer vessel	Ø 1.300 x 18.000 Ø 500 x 4.800	325 bar
1976	Romchim, Craiova/ Romania	Oxo alcohols	Reactors Piping components	Ø 1.300 x 18.000	325 bar
	Solventul, Temesvar/ Romania	Oxo alcohols	Reactors Piping components	Ø 1.300 x 18.000	325 bar
	Northern Petrochemical Company, Illinois/ USA	LDPE	High Pressure Product Separator Kick valves (let down valves) Product valves T-emergency valves Safety valves Bursting disc units Thermocouples Peroxide Injection Nozzles Reactor Preheater Aftercooler Piping components On/off valves	DN 45	3.200 bar
1975	Techmash-import Severodonezk/ Russia	AH-Salt	Reactor Reactor Separator Heat exchanger Electrical preheater	Ø 400 x 8.000 Ø 900 x 18.000 Ø 350 Ø 500 x 12.000	325 bar
	BASF, Ludwigshafen/ Germany	Iron- Carbonyls	Reactors	Ø 1.100 x 8.000	325 bar
	BASF Corp., Geismar/ USA	Butanediol	Reactors Separator	Ø 1.200 x 18.000 Ø 1.000 x 5.000	350 bar
	PCD Polymere GmbH, Schwechat/ Austria	LDPE	Piping components vessels	DN 45	3.200 bar
	Mobil Oil, Texas/ USA	LDPE	Separator Buffer vessel Buffer vessel	Ø 790 x 4.700 Ø 300 x 3.500 Ø 500 x 3.000	3.400 bar
	BASF, Ludwigshafen/ Germany	Urea	Reactor	Ø 2.000 x 18.000	290 bar