

PFAUDLER

GLASS-LINED
& ALLOY SYSTEMS



DIN **CE** REACTORS

ION SENSITIVE

PH	<1
VALUE	1
	2
	3
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	5
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	10
	11+

2.0

GLASTEEL

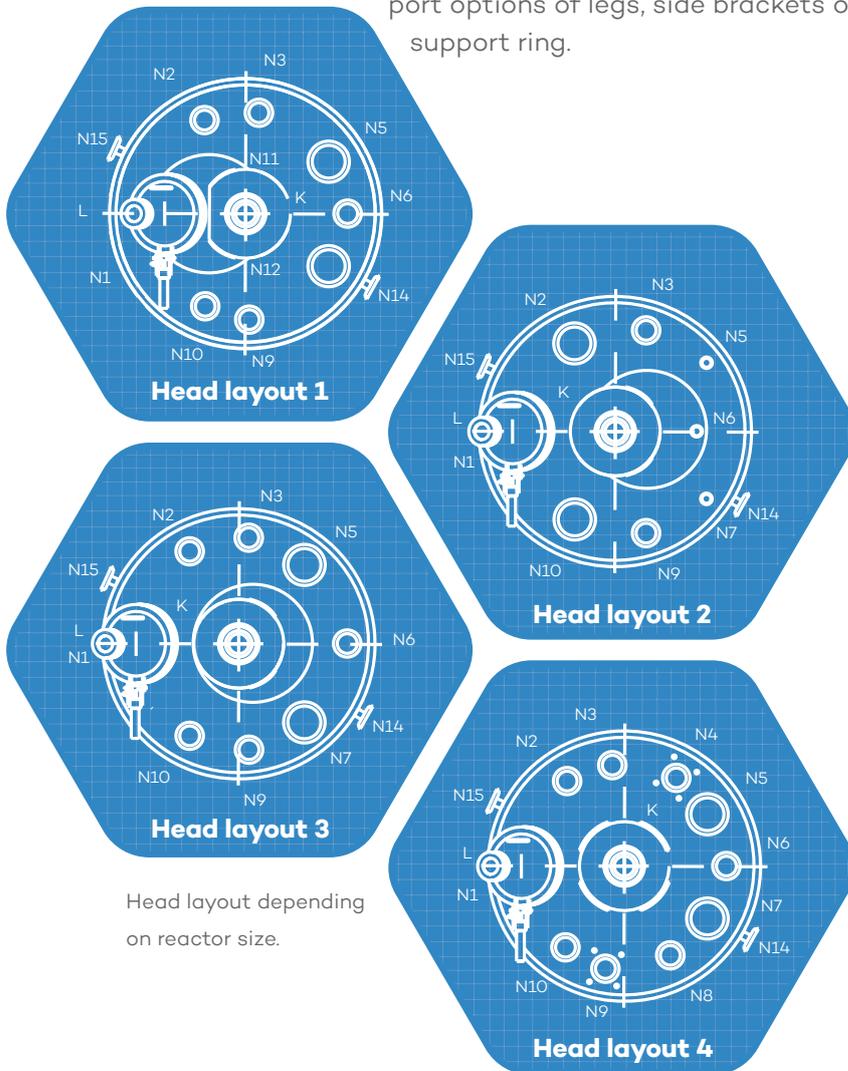
ANTI CORROSION
STICK
STATIC

DIN CE Reactors

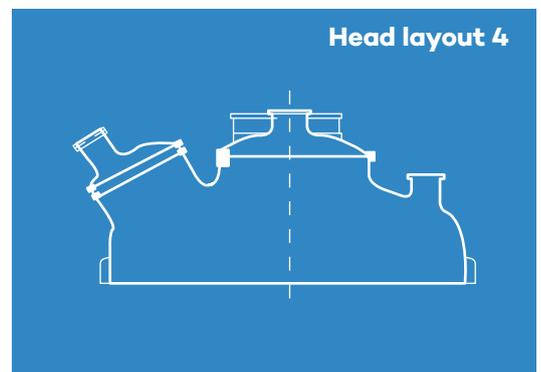
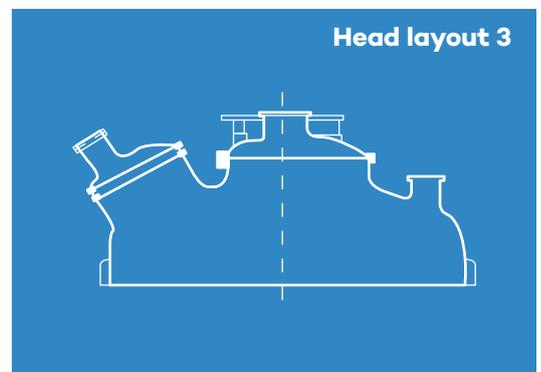
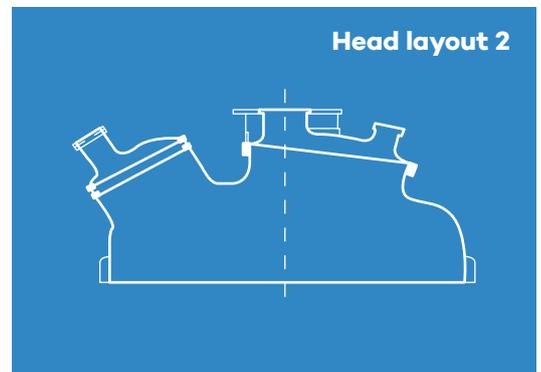
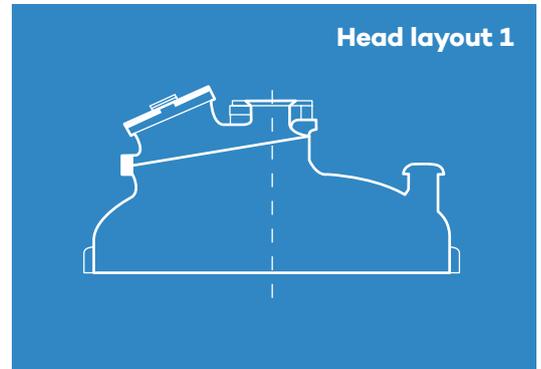
Design options

Design options

Half-pipe coil jacket construction. Support options of legs, side brackets or support ring.

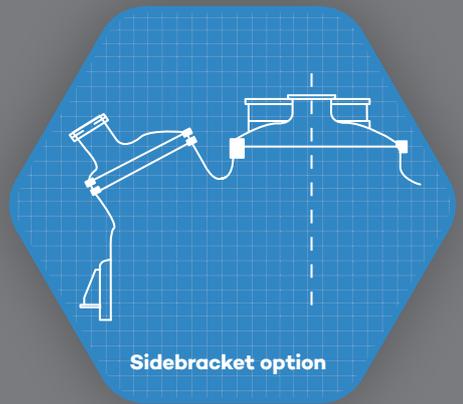
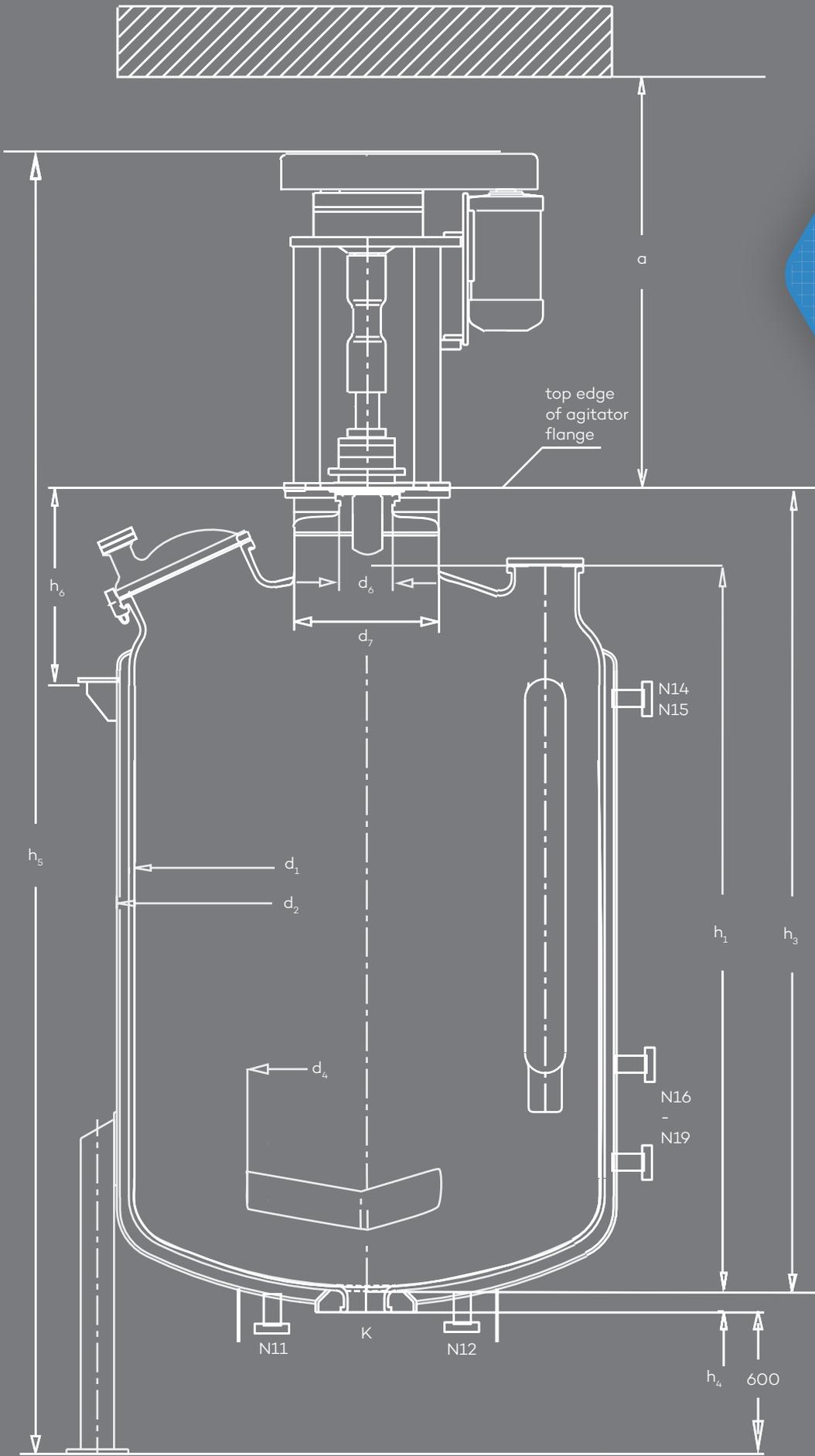


Head layout depending on reactor size.



Pfautler DIN reactors CE

Meet the following standards:
DIN 28 130, part 2 assembly of components
DIN 28 136 reactors type CE
DIN 28 137, part 2 agitator flange
DIN 28 157 impeller agitators
DIN 28 146 paddle-type baffles
DIN 29 145, part 8 legs
DIN 28 145, part 4 supporting rings
DIN 28 151 jacket connections
Type A1/A2 without circulating nozzles
Type B1/B2 with circulating nozzles



Side view: CE 8000
with DIN drive VSO
16/100, head layout 3

DIN CE Reactors

Technical information

Head layout	Rated volume [l]	d ₁ [mm]	Connections [DN]										
			Jacket		Reactor								
			N11 N14	N12 N15	N16- N19 ⁴	K	N1	N2 N10	N3	N4	N5 N7	N6	N8
1	1600	1400	50	50	100	350/450	—	100	—	200	100	—	100
1	2500	1600	50	50	100	350/450	10	100	—	200	100	—	100
2	4000	1800	50	50	100	500	250	150	—	100	100	—	150
3	6300	2000	80	50	150	500	150	150	—	250	150	—	150
3	8000	2000	80	50	150	500	150	150	—	250	150	—	150
4	8000	2200	80	50	150	500	150	150	150	300	150	150	150
4	10000	2400	80	50	150	500	200	200	200	300	200	200	200
4	12500	2400	80	50	150	500	200	200	200	300	200	200	200
4	16000	2600	80	50	150	500	200	200	200	300	200	200	200
4	16000	2800	80	50	150	500	200	200	200	400	200	200	200
4	20000	2800	80	50	150	500	200	200	200	400	200	200	200
4	25000	2800	80	50	150	500	200	200	200	400	200	200	200
4	25000	3000	80	50	150	600	200	200	200	400	200	200	200
4	32000	3200	100	80	150	600	200	200	250	400	200	200	250
4	32000	3400	100	80	150	600	200	200	250	400	200	200	250
4	40000	3400	100	80	150	600	200	200	250	400	200	200	250
4	40000	3600	100	80	150	600	200	200	250	400	200	200	250

Nozzles N4 and N9 are designed for baffles

Sight glass L= DN 100



PFAUDLER

GLASS-LINED
& ALLOY SYSTEMS

US
VERSION

Pf Technologies



ASME
RA-Series
REACTORS



GLASTEEL®
ANTI CORROSION
STICK

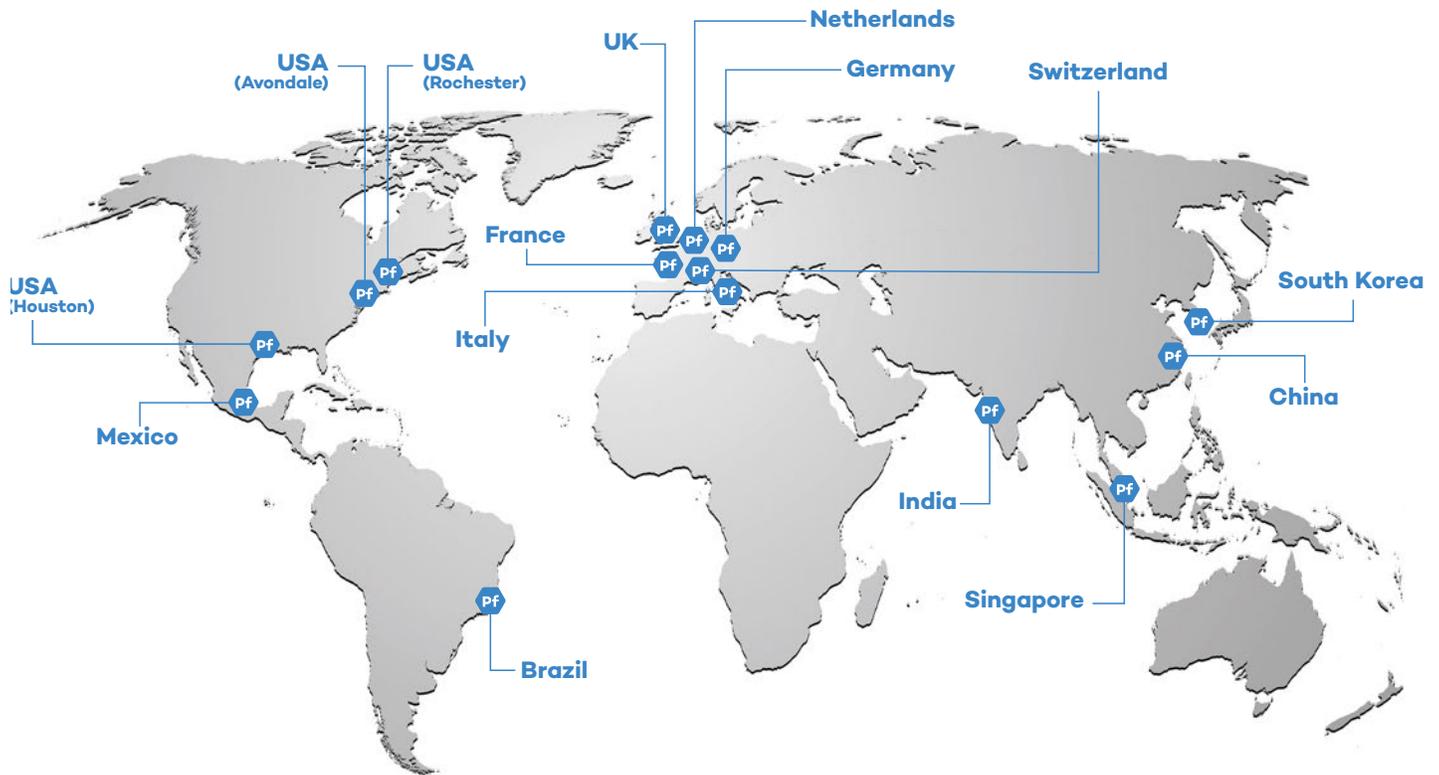


MIXING

Pf
Pfaudler
Defining the standard

Pfautler International

One single source responsibility with access to all Pfautler Technologies, Systems, Services worldwide



Pfautler is a global Group offering a wide range of **corrosion-resistant technologies, systems and related services** for the **chemical, pharmaceutical and food industries**.

Edlon, Interseal, Montz, Mavag, Normag and Pfautler are our Branded Product Lines. These product lines are specialized and perfectly integrated to **meet the most complex Client needs**. We are in the position to offer a **complete turn-key package** for each of the critical aspects of chemical and pharmaceutical processing.

Technologies and process systems of our Group are installed in more than 100 countries and across six continents.

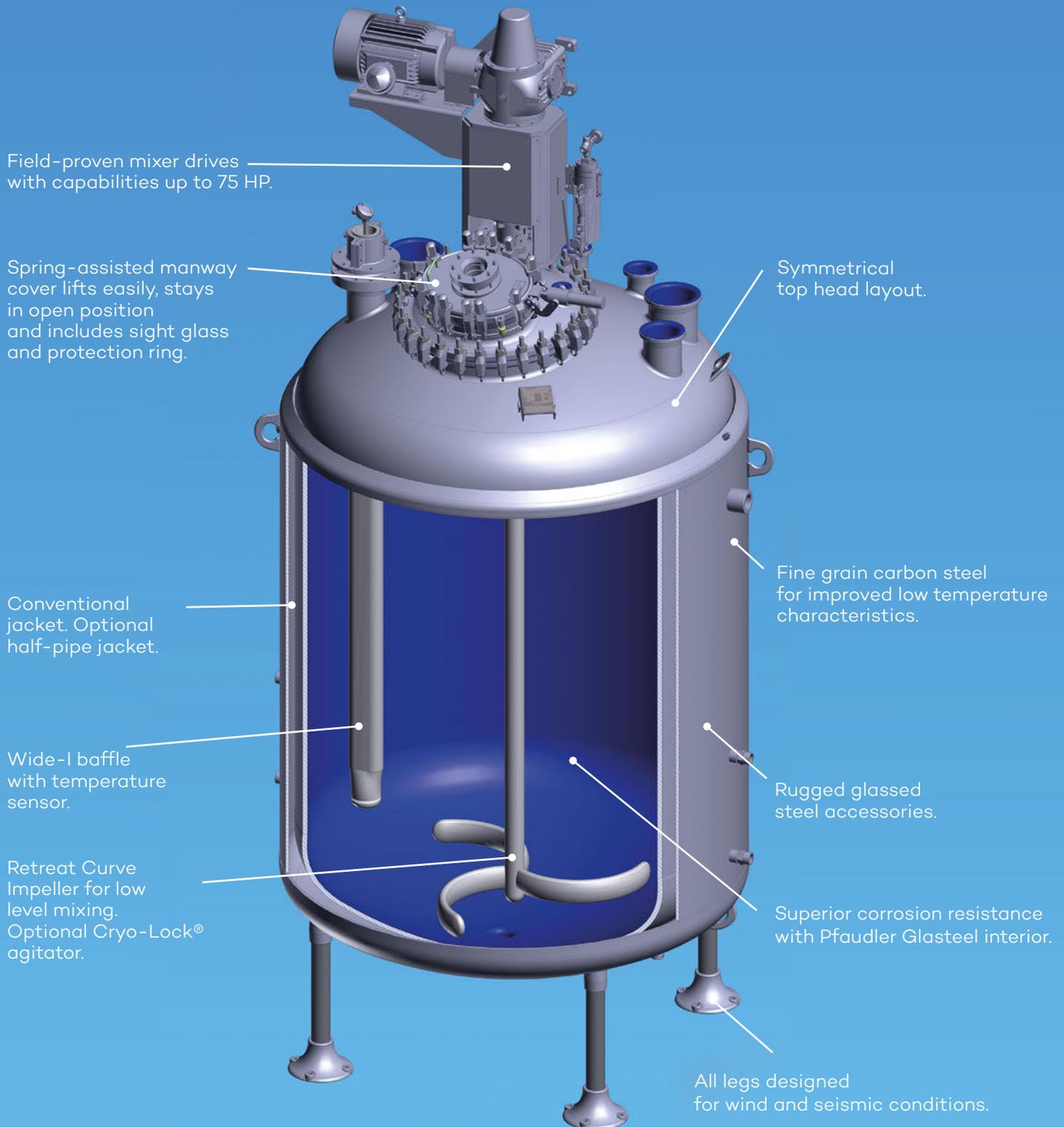
Unique expertise and skills, **manufacturing capability**, targeted investments in strategic markets, innovation and competitiveness allow the Pfautler group to be a landmark in the industry.

Around the world our Customers rely on the quality and performance of our supply to obtain efficient, reliable, profitable and safe chemical process systems.

Our network organization is designed to:

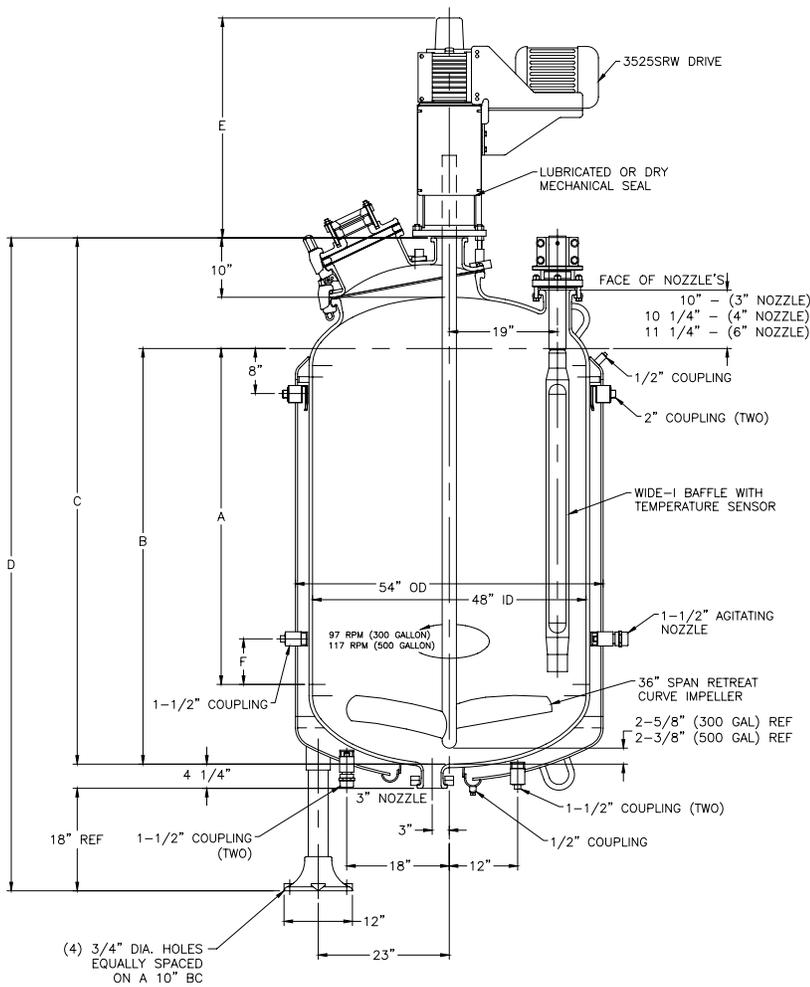
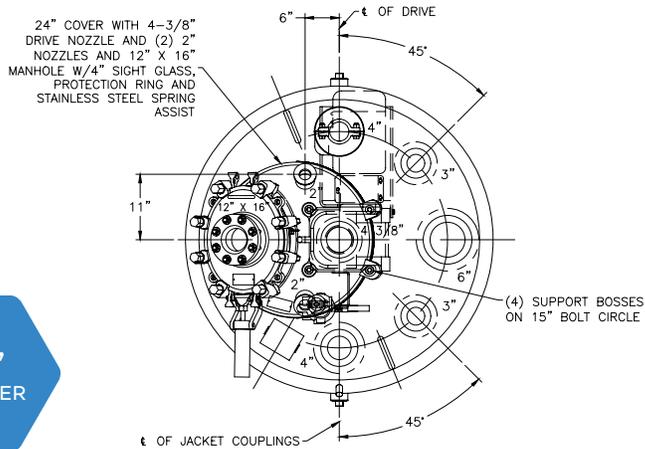
- strengthen our local presence alongside Customers and markets;
- accelerate decision-making processes through a less-centralized management;
- improve Pfautler's ability to attract new talent at the local level.

RA-Reactor Series Features and Benefits



RA-48 Series

48" DIAMETER



RA 48

Capacity (gallons)	300	500
Working	300	500
Per Inch of S.S.	7.8	7.8
Bottom Head	63	63
Top Head	63	63
To Bottom of Impeller	10	10
To Top of Impeller	62	60
To Bottom of Baffle	94	94
Jacket	75	110

Heating Area (square feet)		
Jacket	53	80
Bottom Head	174	174
Per Inch of S.S.	1.1	1.1

Design Pressure (psig)		
Internal @ 450°F	100/FV	100/FV
Jacket @ 450°F	100	100

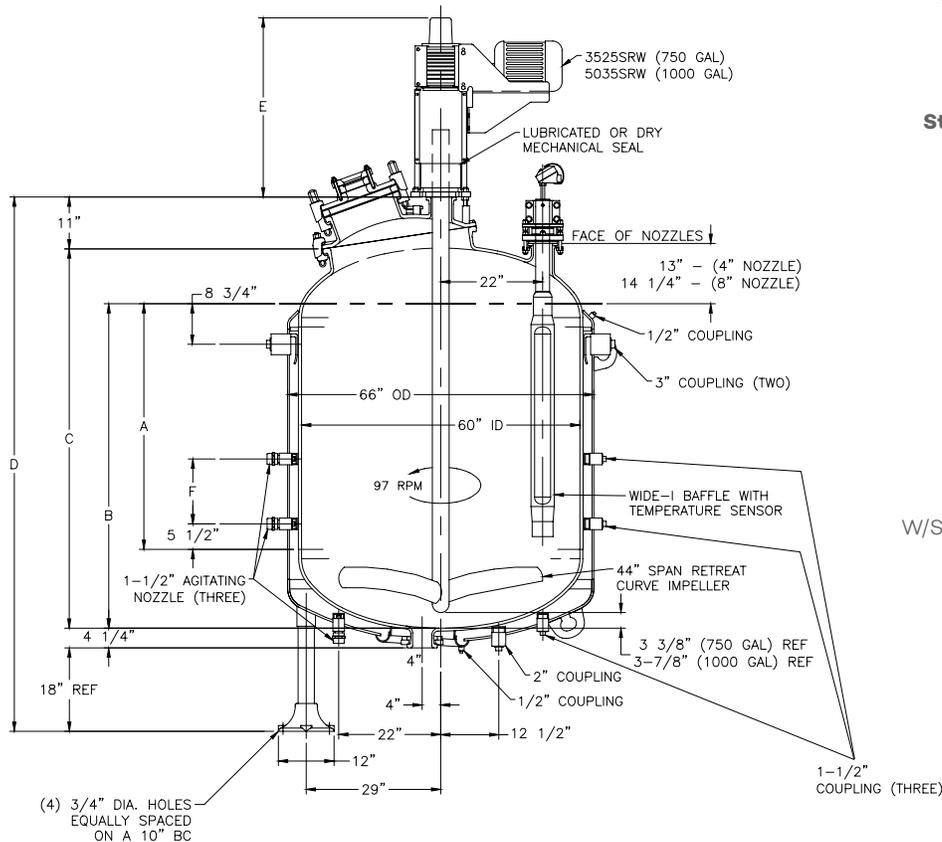
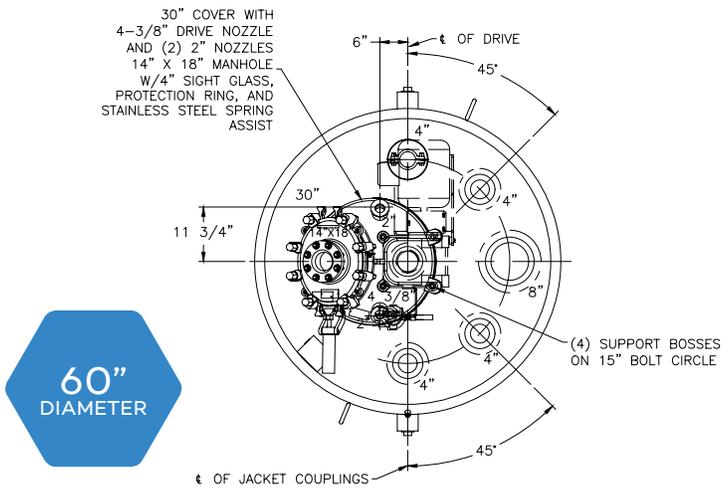
Steel Thickness (inches)		
<i>Inner Vessel</i>		
Top Head	5/8	5/8
Shell	5/8	5/8
Bottom Head	5/8	5/8
<i>Jacket</i>		
Shell	3/8	3/8
Bottom Head	3/8	3/8

Weight (pounds)		
Net-no accessories	3330	4500
W/SRW Drive, Agit, Baffle	4580	5950
Add for Shipment	150	150

Dimensions (Inches)		
A	33	58
B	45	70
C	57	82
D	89-5/8	114-5/8
E	38-5/8	38-5/8
F	4	10

These configurations can be customized to meet your specific needs.

RA-60 Series

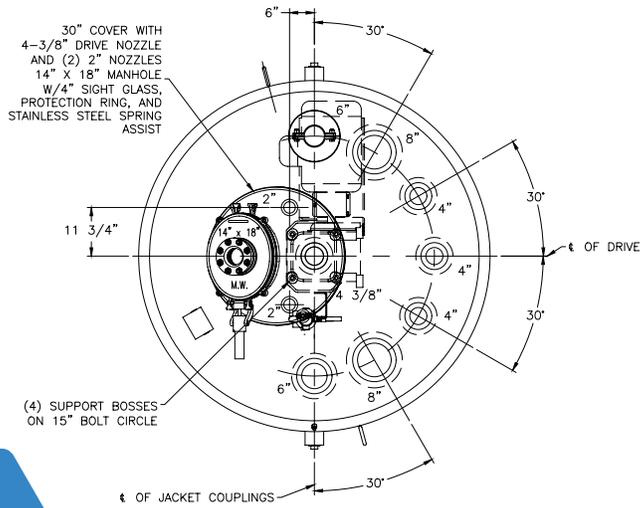


RA 60

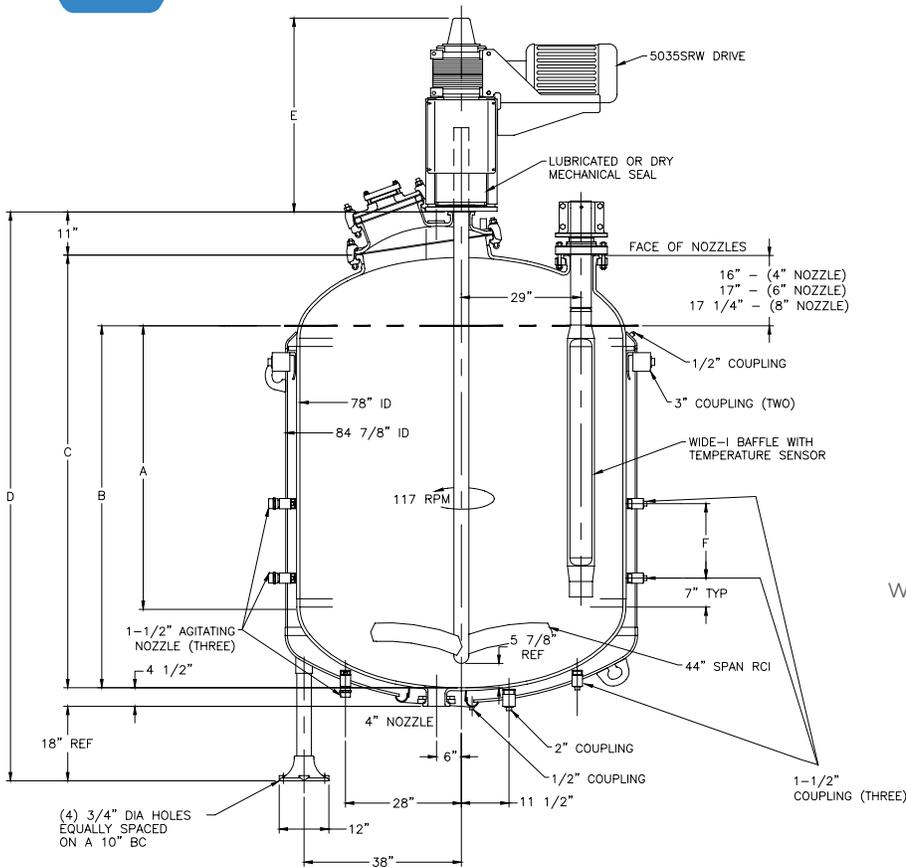
	750	1,000
Capacity (gallons)		
Working	750	1,000
Per Inch of S.S.	12.2	12.2
Bottom Head	122	122
Top Head	122	122
To Bottom of Impeller	20	24
To Top of Impeller	100	106
To Bottom of Baffle	181	181
Jacket	141	171
Heating Area (square feet)		
Jacket	96	122
Bottom Head	27.1	27.1
Per Inch of S.S.	1.3	1.3
Design Pressure (psig)		
Internal @ 450°F	100/FV	100/FV
Jacket @ 450°F	90	90
Steel Thickness (inches)		
<i>Inner Vessel</i>		
Top Head	5/8	5/8
Shell	5/8	5/8
Bottom Head	5/8	5/8
<i>Jacket</i>		
Shell	3/8	3/8
Bottom Head	7/16	7/16
Weight (pounds)		
Net-no accessories	5,900	7,150
W/SRW Drive, Agit, Baffle	7,700	9,300
Add for Shipment	200	200
Dimensions (Inches)		
A	52	72
B	67	87
C	82	102
D	115-1/4	135-1/4
E	38-5/8	46-7/8
F	14	20

These configurations can be customized to meet your specific needs.

RA-78 Series



78" DIAMETER

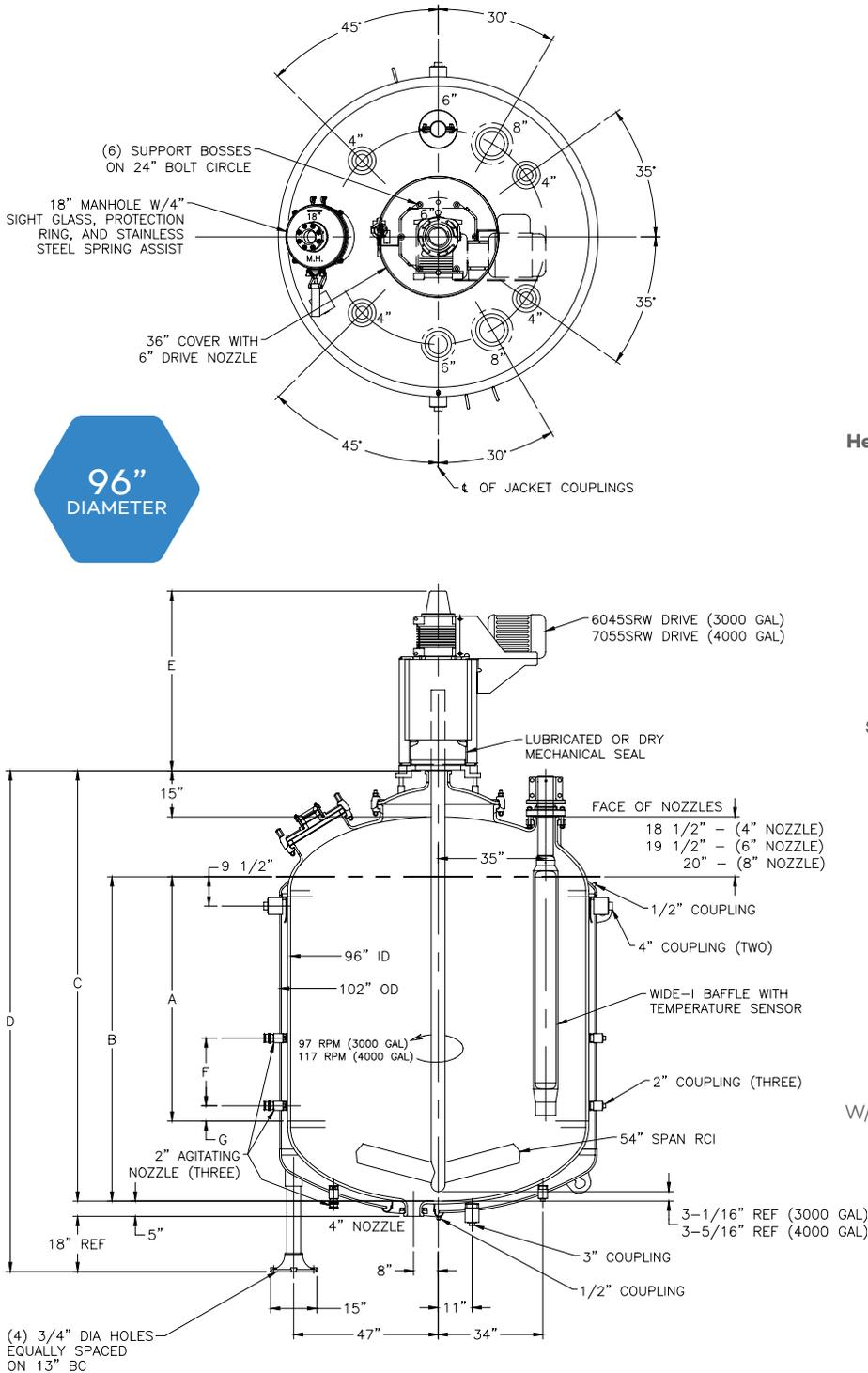


RA 78

	1,500	2,000
Capacity (gallons)	1,500	2,000
Working	1,500	2,000
Per Inch of S.S.	20.7	20.7
Bottom Head	269	269
Top Head	269	269
To Bottom of Impeller	56	32
To Top of Impeller	193	152
To Bottom of Baffle	316	316
Jacket	255	301
Heating Area (square feet)		
Jacket	158	191
Bottom Head	45.8	45.8
Per Inch of S.S.	1.7	1.7
Design Pressure (psig)		
Internal @ 450°F	100/FV	100/FV
Jacket @ 450°F	90	90
Steel Thickness (inches)		
<i>Inner Vessel</i>		
Top Head	3/4	3/4
Shell	3/4	3/4
Bottom Head	3/4	3/4
<i>Jacket</i>		
Shell	7/16	7/16
Bottom Head	9/16	9/16
Weight (pounds)		
Net-no accessories	11,275	13,000
W/SRW Drive, Agit, Baffle	13,650	15,500
Add for Shipment	400	450
Dimensions (Inches)		
A	65	84
B	84-1/4	103-1/2
C	104	123
D	137-1/2	156-1/2
E	46-7/8	46-7/8
F	18	20

These configurations can be customized to meet your specific needs.

RA-96 Series



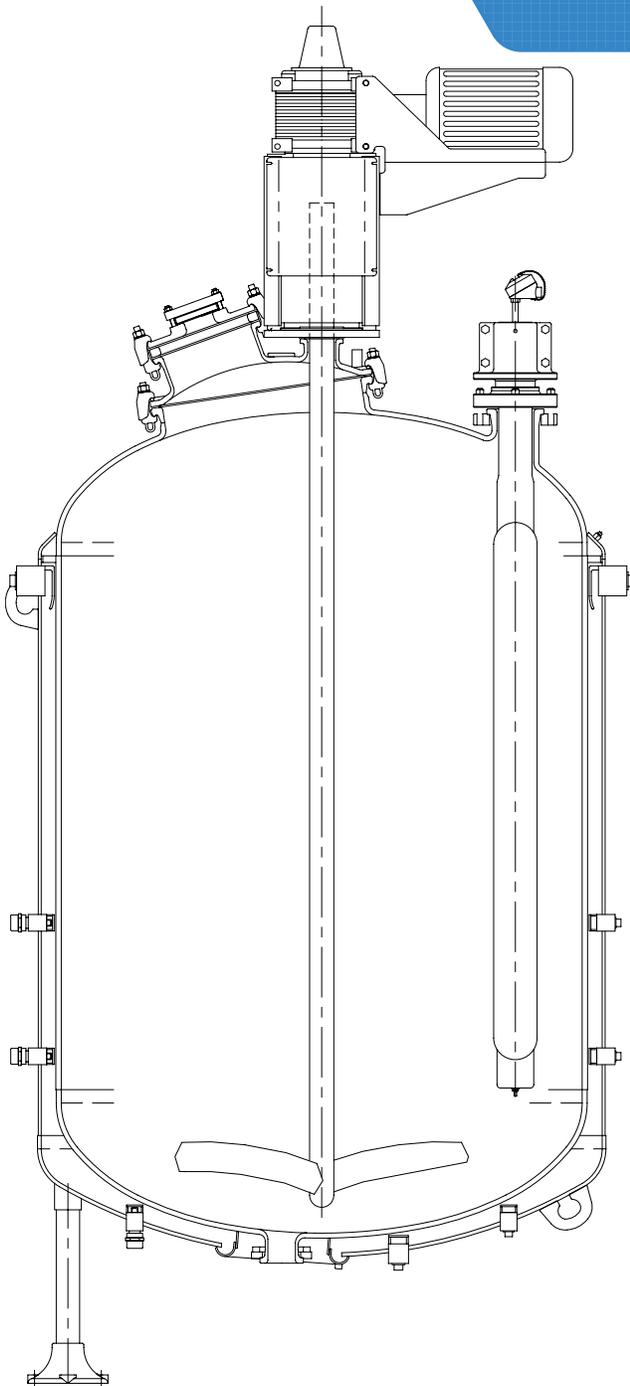
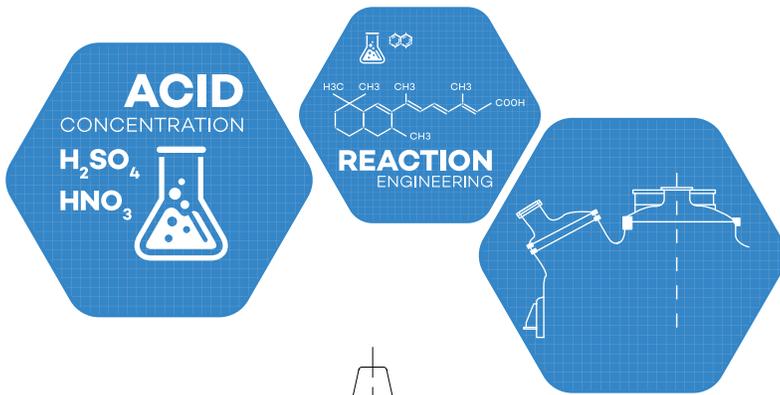
96" DIAMETER

RA 96

	3,000	4,000
Capacity (gallons)		
Working	3,000	4,000
Per Inch of S.S.	31.3	31.3
Bottom Head	501	501
Top Head	501	501
To Bottom of Impeller	41	45
To Top of Impeller	334	341
To Bottom of Baffle	619	619
Jacket	366	453
Heating Area (square feet)		
Jacket	236	300
Bottom Head	694	694
Per Inch of S.S.	2.09	2.09
Design Pressure (psig)		
Internal @ 450°F	100/FV	100/FV
Jacket @ 450°F	90	90
Steel Thickness (inches)		
<i>Inner Vessel</i>		
Top Head	15/16	15/16
Shell	1	1
Bottom Head	15/16	15/16
<i>Jacket</i>		
Shell	1/2	1/2
Bottom Head	5/8	5/8
Weight (pounds)		
Net-no accessories	20,600	25,150
W/SRW Drive, Agit, Baffle	24,200	30,200
Add for Shipment	900	900
Dimensions (Inches)		
A	77	109
B	101	133
C	125	157
D	163	195
E	58-3/8	64-1/4
F	22	30
F	7	11

These configurations can be customized to meet your specific needs.

Design Features



- Heavy-duty forged nozzles minimize distortion, reduce time-consuming gasket shimming.
- Split backing flanges, Class 150, supplied with all nozzles. Split flanges rated Class 300 also available.
- Class 3000 threaded jacket couplings, baffled to prevent jacket media from impinging directly on vessel wall. Flanged jacket connections are optional.
- Conventional jacket equipped with agitating nozzles provides optimum liquid circulation in jacket. Optional half-pipe jacket can be either parallel-path or zoned.
- Adjustable pipe leg supports are supplied on 300 through 4000 gallon. Side supports are optional.
- A complete set of Pfaudler CR-NS normal service envelope gaskets with stainless steel inserts is supplied with each vessel.
- One-piece retreat curve impellers are provided as standard and various Cryo-Lock configurations are available as options.

Improve Efficiency and Reduce Maintenance

- Special formula glass lining, fused to steel substrate is highly corrosion resistant and chemically inert to nearly all substances. Ideal environment for processing ultra-pure products.
- Smooth Glasteel surface also resists adherence by viscous or sticky materials. Cleans easily.
- SRW drive is standard with easy seal change without having to remove the agitator, main cover or drive assembly.
- Spring assist device aids with opening and closing of manway covers, helping to prevent injury to personnel and cover damage.

Features

For variable functionality



Instrumentation

- PH probes
- Temperature sensors
- GlasSentinel
- Quatro-pipe baffle available with temperature measurement and sampling capabilities

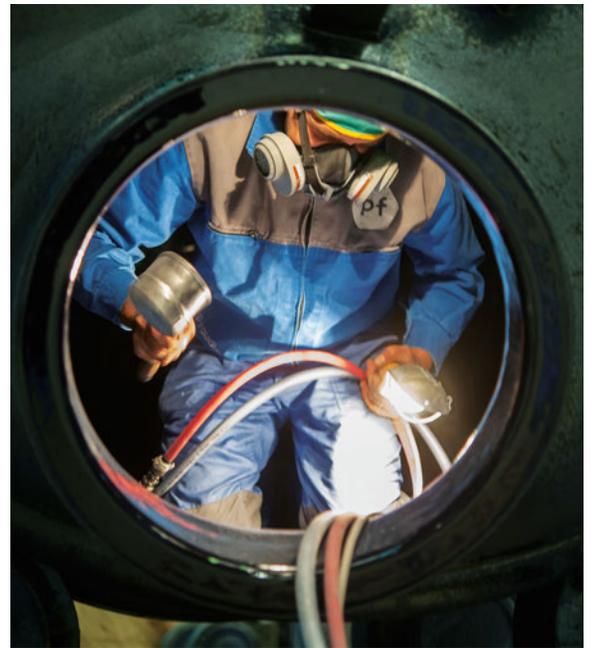


Valves

- Outlet valves with manual hand wheel or air-actuator
- Optional low profile air actuator available for limited space requirements
- Optional EZ-valve adapter available for quick installation and removal
- Valve bodies are available with side flush port providing access for sampling, cleaning, and purging without dismantling the entire valve.

Options

- A variety of baffles available
- Dip tubes with fluoropolymer-lined and glass-lined options
- EZ-port handhole
- Insulation and stainless steel sheathing
- Pfiber lights or Hi-lights
- Glass-lined pipe and fittings
- A variety of exterior coatings



Service

- Pfudler offers complete installation and start-up services to assure trouble free start-up and efficient equipment performance. Pfudler provides 24/7 assistance to ensure long-term reliable operation of your Pfudler equipment. Technicians are direct employees with OSHA training and certifications.
- Installation - preinstallation service
 - Start-up assistance
 - Training of personnel
 - Field erection service
 - Inspection
 - Field repairs
 - ASME welding



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1US - 2E
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Pfaudler 
Defining the standard