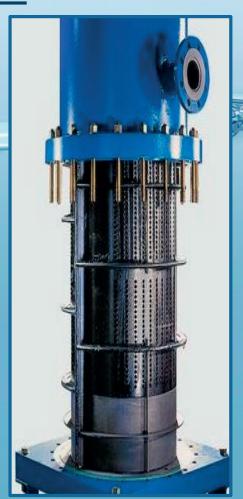


# CRP now offers complete Corrosion Resistant Solutions



Our range now includes – a range of Heat Exchangers, Vessels, Columns and Special column internals





## **DIABON Properties:**

✓ All DIABON Graphite grades are <u>fully</u> graphitized which gives better corrosion resistance and better heat transfer!

This sets us apart from our competitors.

✓ DIABON is <u>fully impregnated</u> before machining!

✓ High Performance DIABON available with higher graphite content, max. 220°C

✓ DIABON Graphite is FDA approved

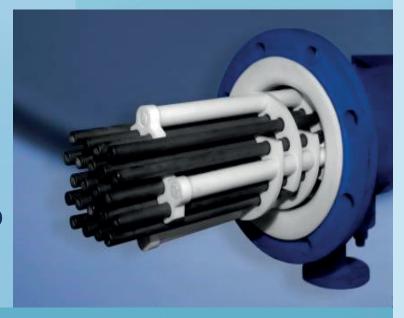


## **SICABON Properties:**

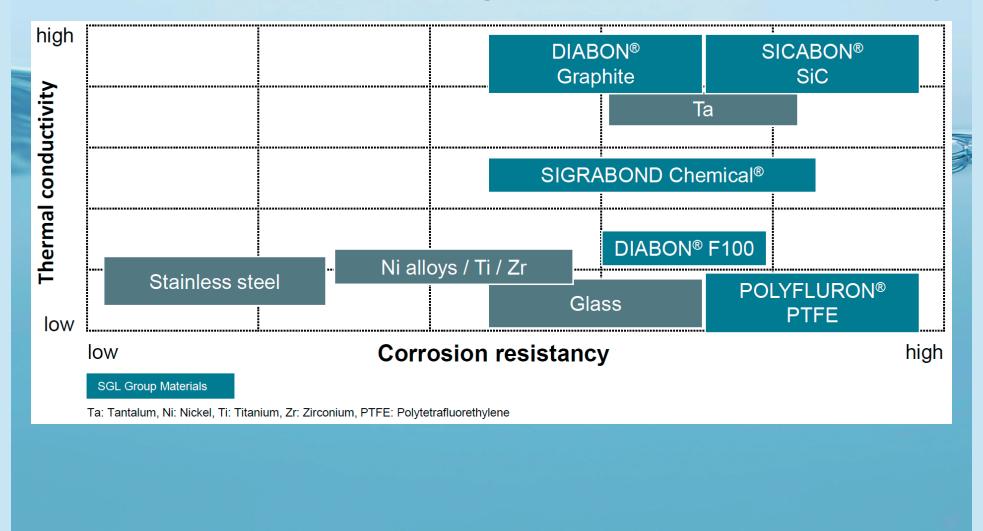
✓ SICABON tubes are directly sintered and do not have any free silicon.

## They offer universal corrosion resistance!

- ✓ Tubes exclusively made in the USA!
- ✓ Tubes pressure tested at 180barg
- ✓ Abrasion resistant material
- Highest thermal conductivity leads to smallest heat exchangers!

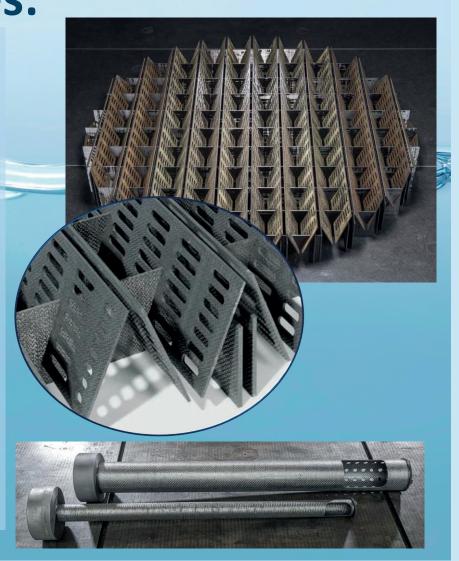


## **Corrosion Resistant and Highest Thermal Conductivity**



**SIGRABOND Properties:** 

- SIGRABOND Composite
   material provides
   outperforming strength
   together with excellent
   corrosion resistance!
- The perfect material for dip pipes, column internals, support grids & distributors!



## **Different Types and their specifications:**

		Diameter (mm)	Length	Surface area	max. Temp.	max. Pressure	Image
	Shell & Tube dia. 200 -  Block HX Round / C  Monolin		up to 6m	0.5 - 1500m <sup>2</sup>	200°C	6 barg std. max 12	1
				up to (m2): 850/150/46	220°C	6 - 11.7	2
	Plate HX	230 to 675 wide	0.9 - 2m	up to 60m <sup>2</sup> equals 150m <sup>2</sup> on block HX	200°C	7 to 8 barg	3
	Plate HX w. PVDF content	230 to 570 wide	0.35 - 1.7m	4 to 50m <sup>2</sup>	140°C	7 to 8 barg	4
			2			38	4

## Silicon Carbide Heat Exchangers:

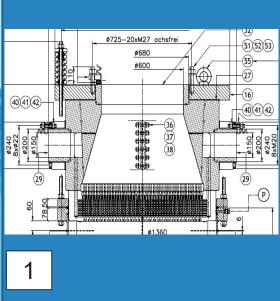


### **Key Facts:**

- ✓ Universally corrosion resistant!
- ✓ Double FFKM (Kalrez) sealing
- ✓ Abrasion resistant!
- ✓ Tubes pressure tested at 180 barg
- ✓ Highest thermal conductivity leads to smallest HX
- ✓ Tube sizes 14 x 1,5 mm / 19 x 2,2 mm
- ✓ Heat transfer area:  $0,22 33,6 \text{ m}^2$
- ✓ Max. tube count: 176 / 107 (19mm tube)
- ✓ Max. shell diameter: DN400
- ✓ Max. tube length: 4500 mm
- ✓ Max. operation temperature 200 °C
- ✓ Max. operation pressure -1/10 barg

# Graphite Heat Exchangers:

## Specials:

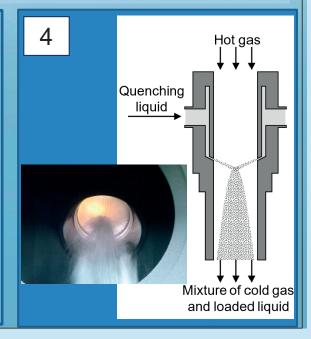


- ✓ DIABON Fall Film heat exchangers (1)
- ✓ KU-Type Block HX especially for GMP, Food & Pharma applications (2)
- ✓ Gasket free DIABON Groove –HX (3)
- ✓ DIABON Quenches (4)









## Corrosion Resistant Columns & Vessels: the corrosion expert

PTFE & PFA lined Column (1) available up to 0.5m & 2m dia.



DIABON Column (2) available up to 2.8m dia.



### **Graphite Pumps:**



## **CARBON** axial flow pumps:

## Use the corrosion resistance of the DIABON-Graphite material also for your pumps!

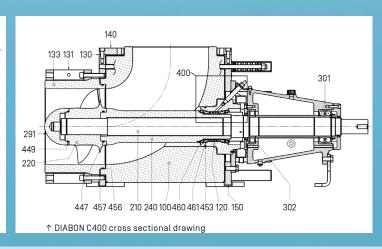
#### Data of graphite axial flow pump

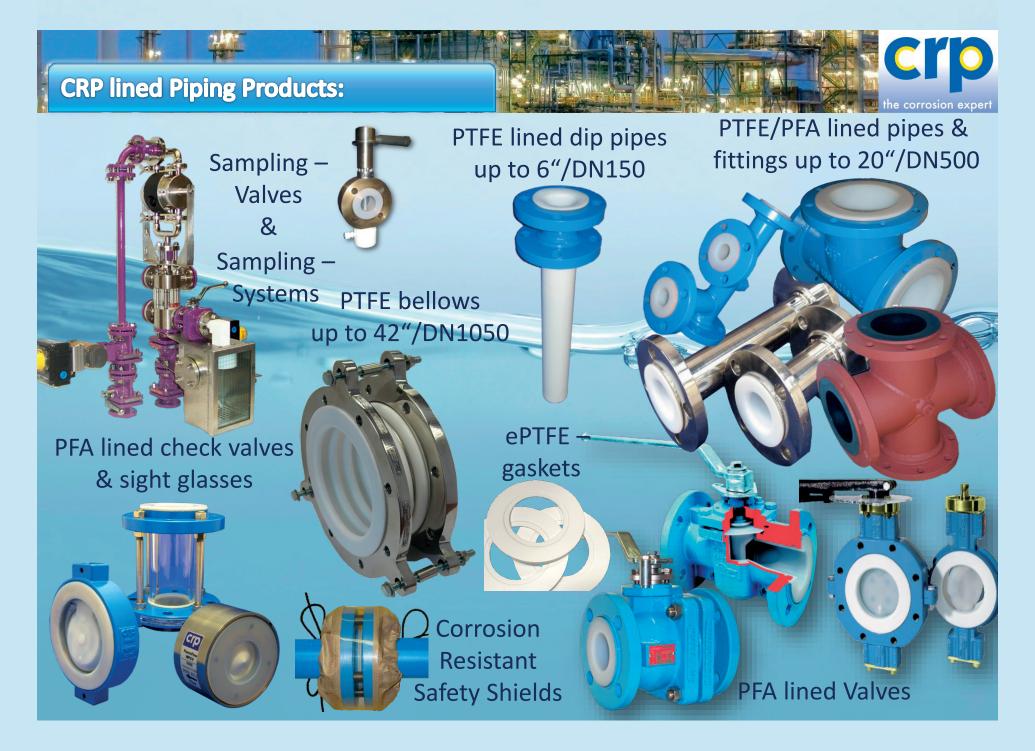
Technical specification	Units	Type C200 to C600
Propeller diameters	mm	from 200 to 600
Flow directions		top suction or end suction
Flow rates	m³/h	from 120 to 5500
Total Dynamic Heads	mlc	up to 10
Rotation speeds	min <sup>-1</sup>	from 500 to 2100
Operating temperatures	°C	from -40 to +200
Design pressures	barg	up to 10
Flanges standards		ISO PN metric, ANSI 150 lbs metric, ANSI 150 lbs UNC
Materials		DIABON® graphite, DURABON®, SIGRASIC®
Sealing technologies		component or cartridge mechanical seals (balanced single or double, tandem)



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#### Typical graphite axial flow pump - bill of material 100 DIABON, DURABON elbow housing 120 seal casing DIABON, DURABON 130/131 140/150 steel, stainless steel 133 DIABON, DURABON, SIGRASIC wearing sleeve 210 shaft carbon steel 220 DIABON, DURABON, SIGRASIC propeller 0° 240 shaft sleeve DIABON, DURABON 291 propeller nose DIABON 301/301 bearings SiC-SiC, SiC-Carbon mechanical seal 447/449/456 453/460/461 0-rings FKM, FFKM 457 gasket SIGRAFLEX®







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