GREENPUMPS
MAG - DRIVE SEAL- LESS PUMPS

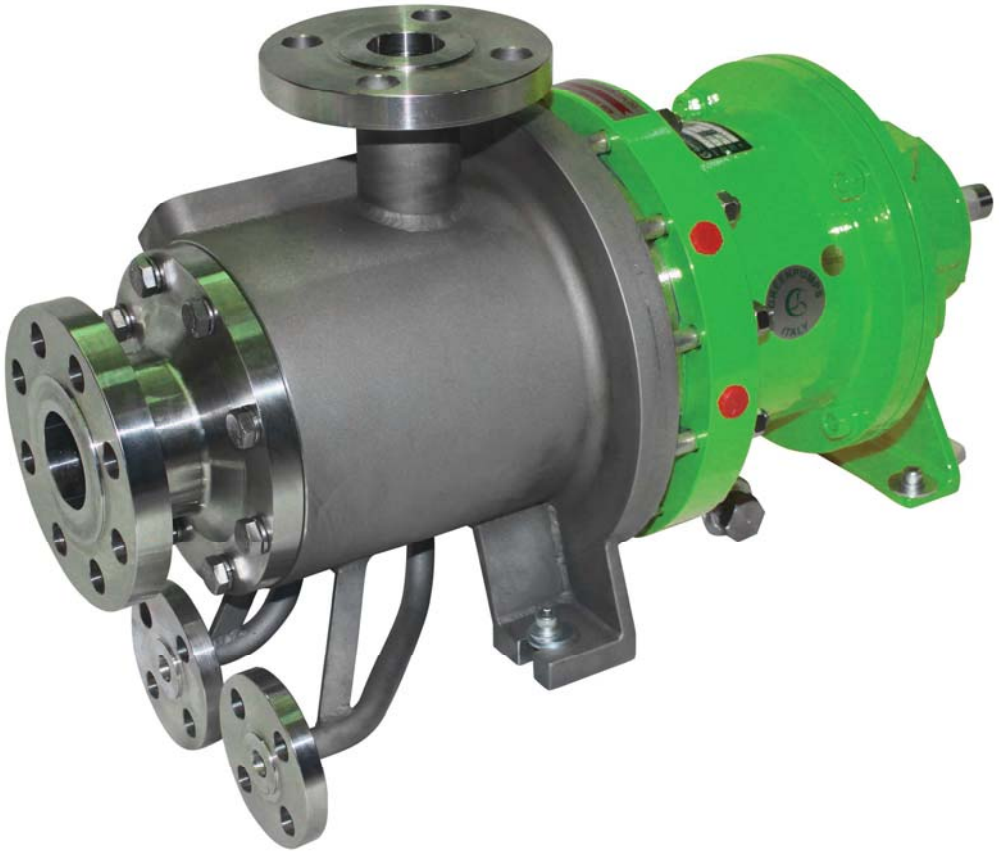
SERIES GPCTA

SEALLESS MAG-DRIVE DOUBLE STAGE REGENERATIVE TURBINE PUMP

HIGH HEAD – LOW NPSH

Suitable for liquefied gas, condensate hydrocarbons, ammonia and cryogenic liquids.

- **Flow up to 14 mc/h (50 us gpm)**
- **Head up to 400 mt (1200 ft)**
- **NPSH required less than 1 mt (3ft)**
- **API 685, barrel type, end suction, top discharge, centerline mounted.**



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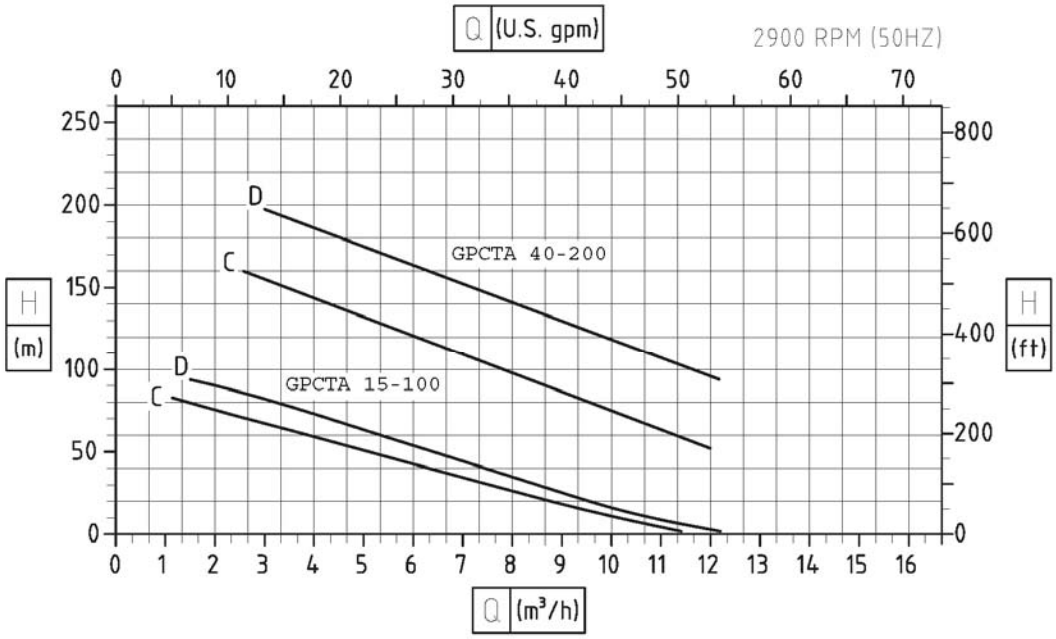
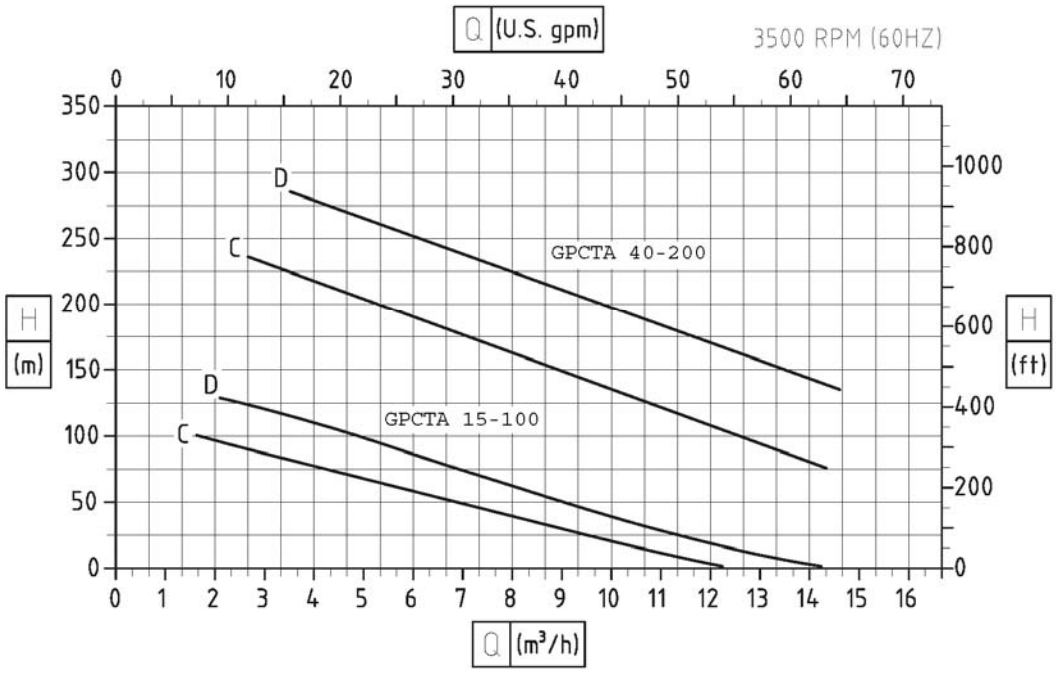
PERFORMANCE CURVES





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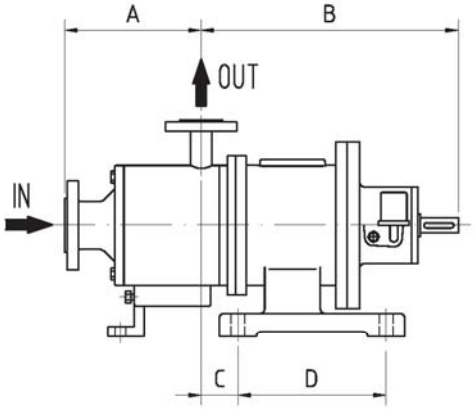
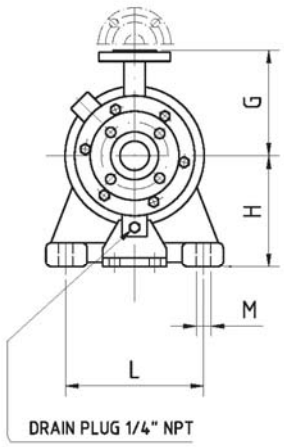
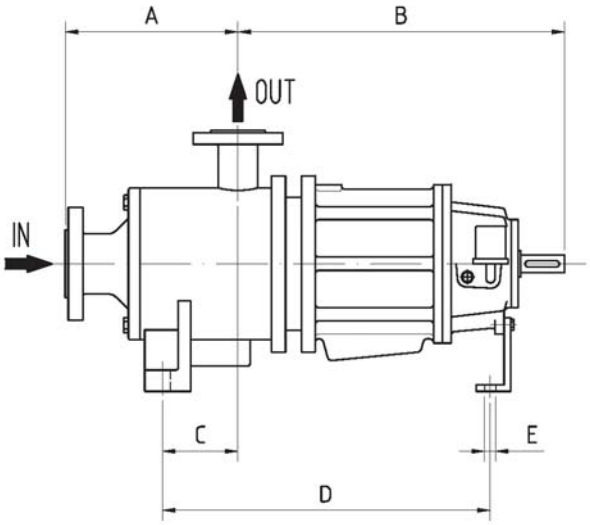
OVERALL DIMENSIONS

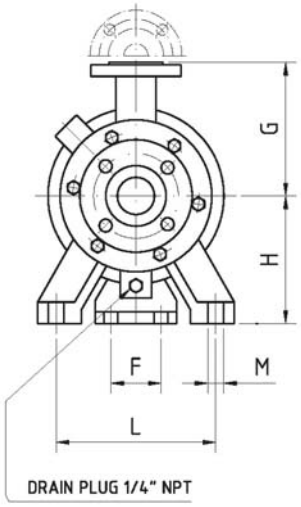


GPCTA 15-100





GPCTA 40-200



PUMP TYPE	OVERALL DIMENSIONS										PORTS FLG		mm / inches
	A	B	C	D	E	F	G	H	L	M	SUCT.	DISCH.	WEIGHT
GPCTA 15-100	162 / 6"3/8	395 / 15"1/2	56 / 2"1/4	250 / 9"7/8			135 / 5"3/8	175 / 6"7/8	220 / 8"5/8	14 / 1/2"	DN 40 / DN 1"1/2	DN 25 / DN 1"	40 kg / 88 lbs
GPCTA 40-200	203 / 8"	536 / 21"1/8	75 / 3"	481 / 19"	14 / 1/2"	110 / 4"3/8	185 / 7"1/4	160 / 6"1/4	190 / 7"1/2	14 / 1/2"	DN 50 / DN 2"	DN 40 / DN 1"1/2	135 kg / 298 lbs

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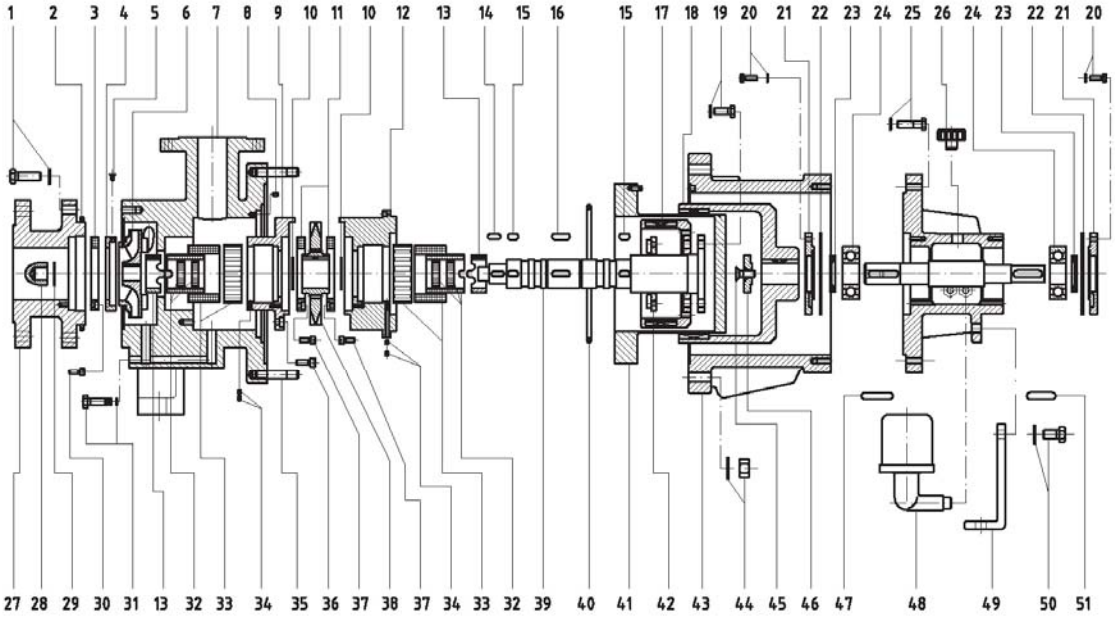
EXPLODE VIEW



REF	DESCRIPTION	REF	DESCRIPTION	REF	DESCRIPTION
1	Screw/Washer	18	External Magnet	35	Stud Nuts
2	O-Ring	19	Screw/Washer	36	Screw
3	Thrust Bearing	20	Screw/Washer	37	Screw
4	Impeller Wear Ring	21	Bearing Cover	38	Rear Impeller
5	Screw	22	Gasket	39	Shaft
6	Front Impeller	23	Seal Ring	40	O-Ring
7	Body	24	Ball Bearing	41	Rear Casing
8	Screw	25	Screw/Washer	42	Internal Ring
9	Front Ring	26	Oil Dipstick	43	Bracket
10	Snap Ring	27	End Cover	44	Nut & Washer
11	Thrust Bearings	28	Front Impeller Nut	45	Screw
12	Rear Ring	29	Impeller Nut Lockwasher	46	Washer
13	Ring	30	Screw	47	Key
14	Key	31	Drain Plug	48	Constant Level Oil
15	Key	32	Sleeve Shaft Bearings SiC/Tolerance Rings	49	Foot
16	Key	33	Bearings SiC/Tolerance Rings	50	Screw/Washer
17	Internal Magnet	34	Screws	51	Key

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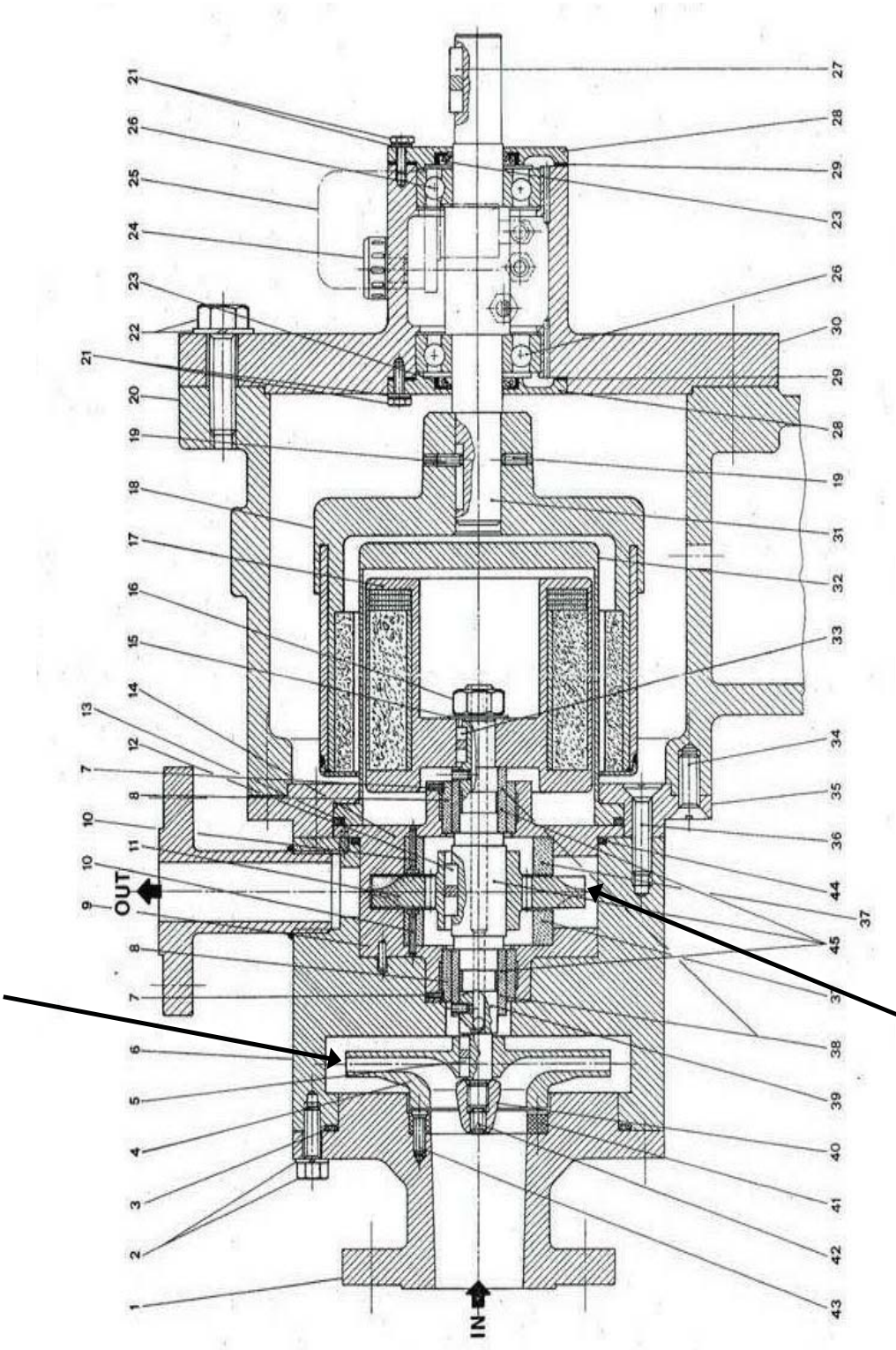
SECTIONAL DRAWING

1 st Stage Centrifugal Impeller



2 nd Stage Turbine Booster Impeller

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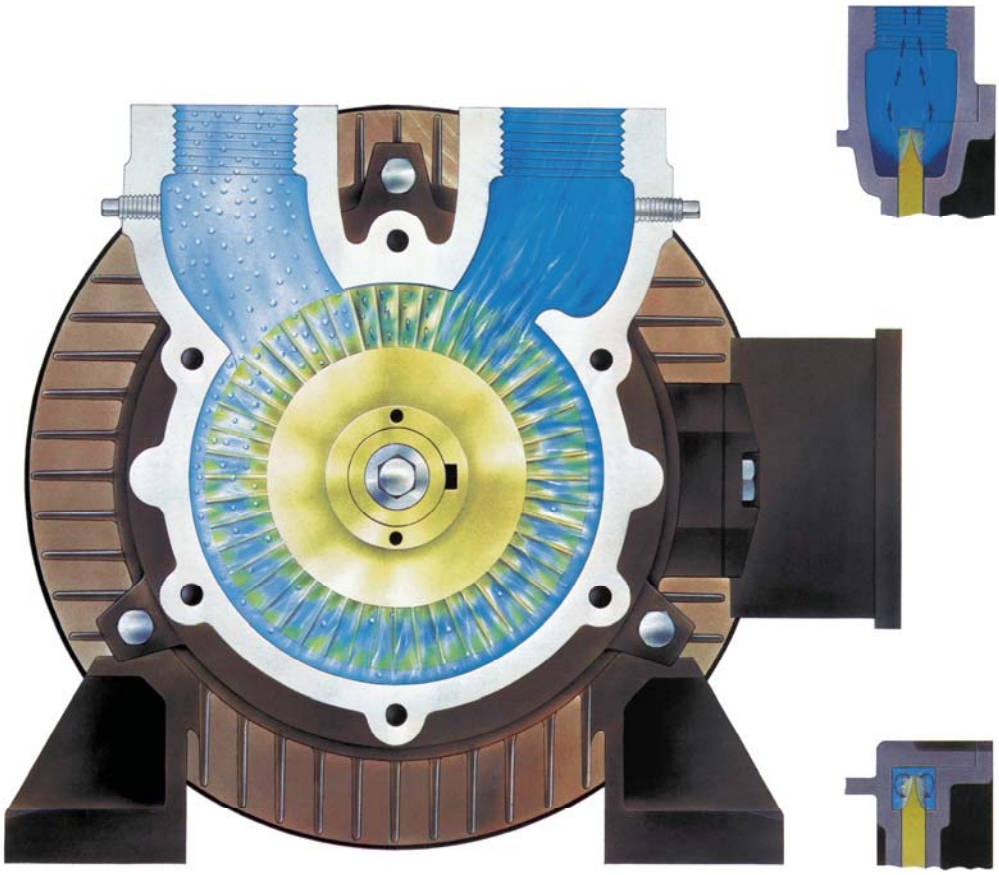
THE TURBINE REGENERATIVE PRINCIPLE

From the Suction Port area, liquid is directed to both sides of the impeller at its perimeter. Due to its multi-vane construction, the liquid is instantly thrown outwards by centrifugal force. As the liquid enters the side channels of the pump casing, a strong drawing force is produced at the pump's suction with the forward direction of the pump's rotation.
The liquid is then returned instantly to the root of the next impeller vane for further re-engagement. This develops more and more pressure with the spiral regenerative action to the liquid finally producing its fully generated pressure, where it is sealed off from the suction side by a breaker, and the liquid leaves the pump at the discharge port.
Each impeller is double-faced and the regenerative action occurs on both sides of the impeller. As both sides of the impeller and the side channels of the casings are EXACTLY EQUAL, the pumping action is inherently smooth and balanced. The impeller magnet floats freely within the liquid filled casings finding its own point of equilibrium ensuring long life and trouble-free service.



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GPCTA DOUBLE STAGE, LONG COUPLED CONFIGURATION

MATERIAL = SS316 CASING WITH HASTELLOY C276 WETTED PARTS FOR UNKNOWN LIQUID

SPECIAL CONFIGURATION AS API 685 AND DOUBLE CONTAINMENT SHELL WITH MECHANICAL SEAL ON COUPLING HOUSING

NPSHa 1,5 m (5 ft)

CLIENT SYNGENTA SHANGHAI CHINA – 8PCS SOLD

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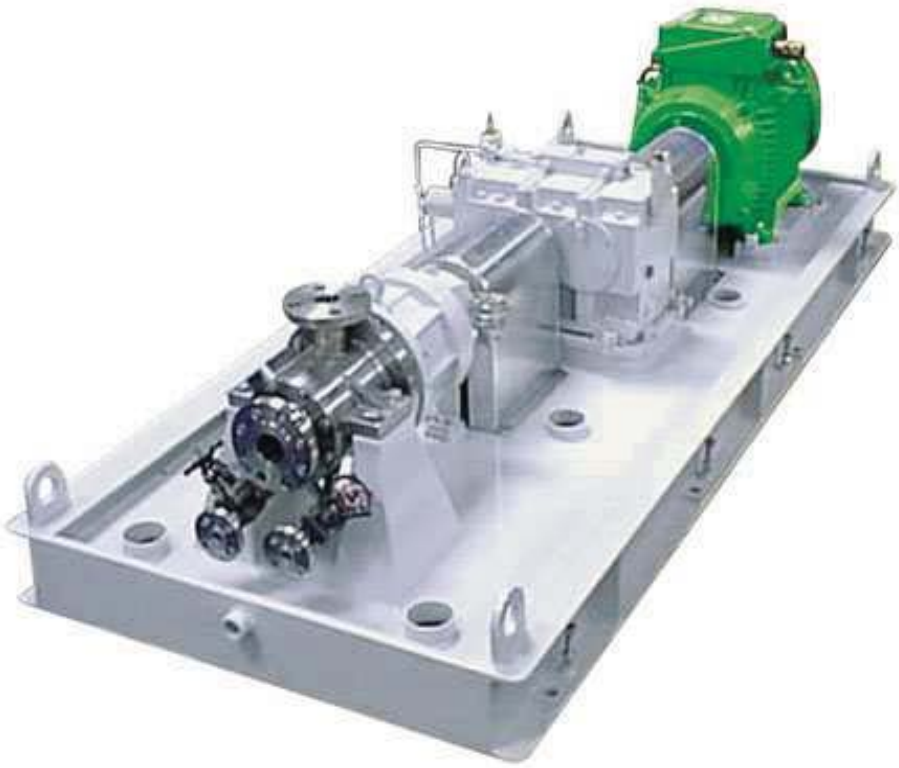
GPCTA CENTERLINE, DOUBLE STAGE



EQUIPPED WITH HIGH SPEED GEAR BOX FOR HIGH HEAD APPLICATIONS

SPECIAL EXECUTION FOR REFINERY

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