



HYDAC INTERNATIONAL

KRAEFT GmbH Systemtechnik

TURN-KEY HYDRAULIC SOLUTIONS FOR THE MARITIME INDUSTRY



Ship Equipment

Kraeft GmbH Systemtechnik produces electro-hydraulic products for the maritime industry.

We meet the highest technical and quality standards. As a specialist for customer-specific applications, we offer „TURN-KEY“ solutions, ranging from the development and design to the production and assembly of complex systems.

Kraeft is your expert contact from the planning phase to start-up.

We work with you and for you to develop your hydraulic projects according to your specific requirements for a variety of uses, from small units to electronically controllable hydraulic systems.

We use high quality components, enabling us to create series and even special solutions for extremely large aggregates. Planning, design and construction are carried out using the latest CAD technology. Of course, the maintenance of your hydraulic devices and systems is also part of our performance profile, regardless of whether they were originally installed by us. Our team offers you the whole range of repair and overhauling services, including assembly on site and commissioning.

Flushing of fuel-, lubeoil-, and hydraulicpipes as well as filtration and dewatering of all kind of oil are also available with our own equipment.

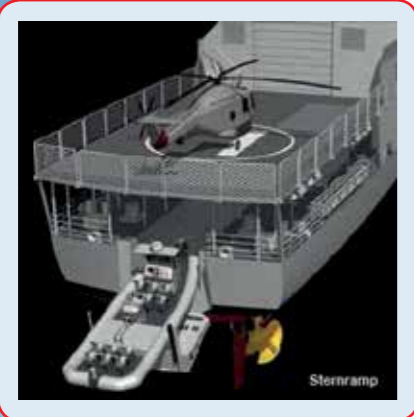
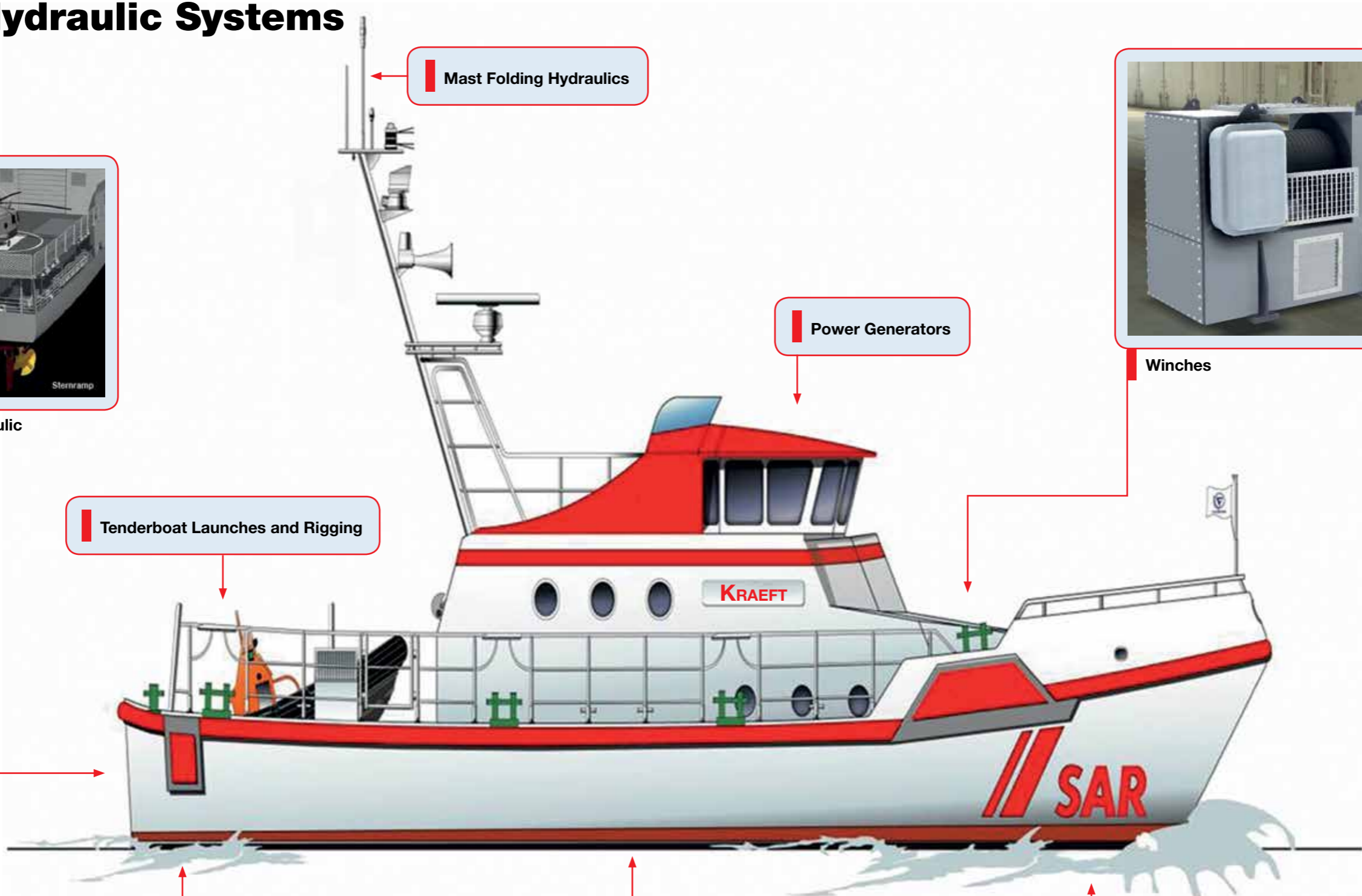
Workshop size	approx. 2500m ²
External area	200 m pier installation up to max. 7.30m depth
Workshop cranes	11
Lifting capacity	from 0.5 t to 10 t
Max. lifting height	8.20 m

References Vessel Equipment

Type of Vessel and/or Description	Shipbuilder/Subcontracted by	Scope of project					
		C	B	M	CR	R	T
GS Mellum (complete hydraulic overhaul)	Peterswerft, Wewelsfleth (WSA Wilhelmshaven)	✓			✓		✓
Swath pilot boats (hydraulic rescue lift systems)	Empting Cuxhaven (Abeking & Rasmussen)	✓					
Police Patrol vessel W3	SET Tangermünde		✓				
BP 26 Eschwege (complete hydraulic overhaul)	Peterswerft, Wewelsfleth, German Coast Guard	✓				✓	✓
GS Neuwerk (repair of sweeping arms; flushing and filtration)	Bredo shipyard Bremerhaven, (WSA Cuxhaven)	✓					✓
MZS Scharhörn (complete hydraulic overhaul)	Peterswerft, Wewelsfleth, (WSA Lübeck)	✓		✓	✓	✓	
40-m-CPV (control and patrol vessel), re-construction	Cotecmar Columbia	✓					✓
34-m-Coastguard patrol boat	Fr. Fassmer GmbH & Co. KG	✓	✓			✓	
46-m-CPV (control and patrol vessel), re-construction	STX South-Korea	✓					✓
46-m-CPV (control and patrol vessel), re-construction	STX South-Korea	✓					✓
0-m-Search-and-Rescue cruiser, re-construction	Parker Hannifin, L&S			✓			
80-m-OPV (operation and patrol vessel), re-construction	Fr. Fassmer GmbH & Co.	✓				✓	
40-m-CPV (control and patrol vessel)	Fr. Fassmer GmbH & Co.	✓					✓
20-m-Search-and-Rescue cruiser	Parker Hannifin, L&S		✓				
27-m-Coastguard boat „Fehmarn“	Fr. Fassmer GmbH & Co.	✓	✓			✓	✓
80-m-OPV (operation and patrol vessel)	Fr. Fassmer GmbH & Co.	✓					✓
24-m-Multipurpose working vessel „Ruschsand“	Fr. Fassmer GmbH & Co.	✓	✓	✓	✓	✓	
38-m-Multipurpose working vessel „Grimmershörn“	Fr. Fassmer GmbH & Co.						✓
27-m-Coastguard boat „Staberhuk“	Fr. Fassmer GmbH & Co.	✓	✓			✓	✓
34-m-Coastal patrol boat „Sylt“	Fr. Fassmer GmbH & Co.	✓	✓			✓	✓
20-m- Search-and-Rescue cruiser „Eugen“	Lingk & Sturzebecher GmbH & Co.			✓			
20-m- Search-and-Rescue cruiser „Eiswette“	Lingk & Sturzebecher GmbH & Co.			✓			
27-m-Coastguard patrol boat „Falshöft“	Fr. Fassmer GmbH & Co.	✓	✓			✓	✓
Maritime signal vessel „Oste“	Coastal Protection Board, Cuxhaven		✓				
Passenger vessel „Baltrum I“	Baltrum Linie						✓
Sounding ship „Zenit“	Fr. Fassmer GmbH & Co.	✓	✓				✓
Police boat „Damerow“	Fr. Fassmer GmbH & Co.		✓	✓	✓	✓	✓
Maritime signal vessel „Wulf Isebrand“	Fr. Fassmer GmbH & Co.		✓	✓	✓	✓	✓
Maritime signal vessel „Sturmmöwe“	Fr. Fassmer GmbH & Co.		✓	✓	✓	✓	✓
Police boat „Hoben“	Fr. Fassmer GmbH & Co.		✓	✓	✓	✓	✓
Search-and-Rescue cruiser „Hermann Marwede“	Fr. Fassmer GmbH & Co.	✓	✓				✓
Hydrographic survey vessel „Vogelsand“	Fr. Fassmer GmbH & Co.		✓	✓			✓
120m Motoryacht „Le Grand Bleu“	Fr. Schweers Schiffs- und Bootswerft						Anchor Hydraulics
Search-and-Rescue cruiser „Fritz Behrens“	Fr. Lürssen Werft						✓
Police boat „Warnow“	Fr. Fassmer GmbH & Co.		✓	✓	✓	✓	✓
Search-and-Rescue cruiser „Wilhelm Kaisen“	Fr. Lürssen Werft		✓				✓
Search-and-Rescue cruiser „J. T. Essberger“	Fr. Lürssen Werft		✓				✓
53m Yacht	Fr. Schweers Schiffs- und Bootswerft	✓					✓
Coastguard boat „Wasserschutzpolizei 3“	Fr. Fassmer GmbH & Co.		✓				✓
Search-and-Rescue cruiser „Nis Randers“	Fr. Fassmer GmbH & Co.						✓
Sounding ship „Paapsand“	Fr. Fassmer GmbH & Co.	✓	✓	✓			
Construction supervision vessels „Arguin“ and „Oste“	Fr. Fassmer GmbH & Co.		✓				✓
Sounding ship „Jade“	Fr. Fassmer GmbH & Co.					✓	✓
Customs cruiser „Kalkgrund“ Tenderboat launch system	Fr. Schweers Schiffs- und Bootswerft						✓
Customs cruiser „Kalkgrund“ Tenderboat workholding system	Schiffswerft Barth GmbH						✓
Maritime signal vessel „Seeadler“	Fr. Fassmer GmbH & Co.		✓	✓	✓	✓	
Police boat „Graubutt“	Fr. Fassmer GmbH & Co.	✓				✓	
Search-and-Rescue cruiser „Bernhard Gruben“	Fr. Schweers Schiffs- und Bootswerft	✓	✓	✓			✓
Customs cruiser „Rügen“ Tenderboat workholding system	Schiffswerft Barth GmbH						✓
Maritime signal vessel „Bussard“	Fr. Fassmer GmbH & Co.	✓	✓	✓	✓	✓	
Fishery control boat „Goldbutt“	Fr. Fassmer GmbH & Co.		✓				✓
Search-and-Rescue cruiser „Theo Fischer“	Fr. Schweers Schiffs- und Bootswerft	✓	✓	✓			✓
Maritime signal vessel „Rosenort“	Fr. Fassmer GmbH & Co.	✓	✓	✓	✓	✓	
Fishery control boat	Peterswerft Wewelsfleth						✓
Maritime signal vessel „Stralsund“	Fr. Fassmer GmbH & Co.	✓	✓	✓	✓	✓	

Please see checklist for project details.
 Explanation of acronyms used: C – Central Hydraulics | B – Bowthruster | M – Mast Folding Hydraulics | CR – Crane Hydraulics | R – Rudder System | T – Tenderboat Hydraulics

Hydraulic Systems



Ramp Hydraulic



Winches



Steering Gear Systems

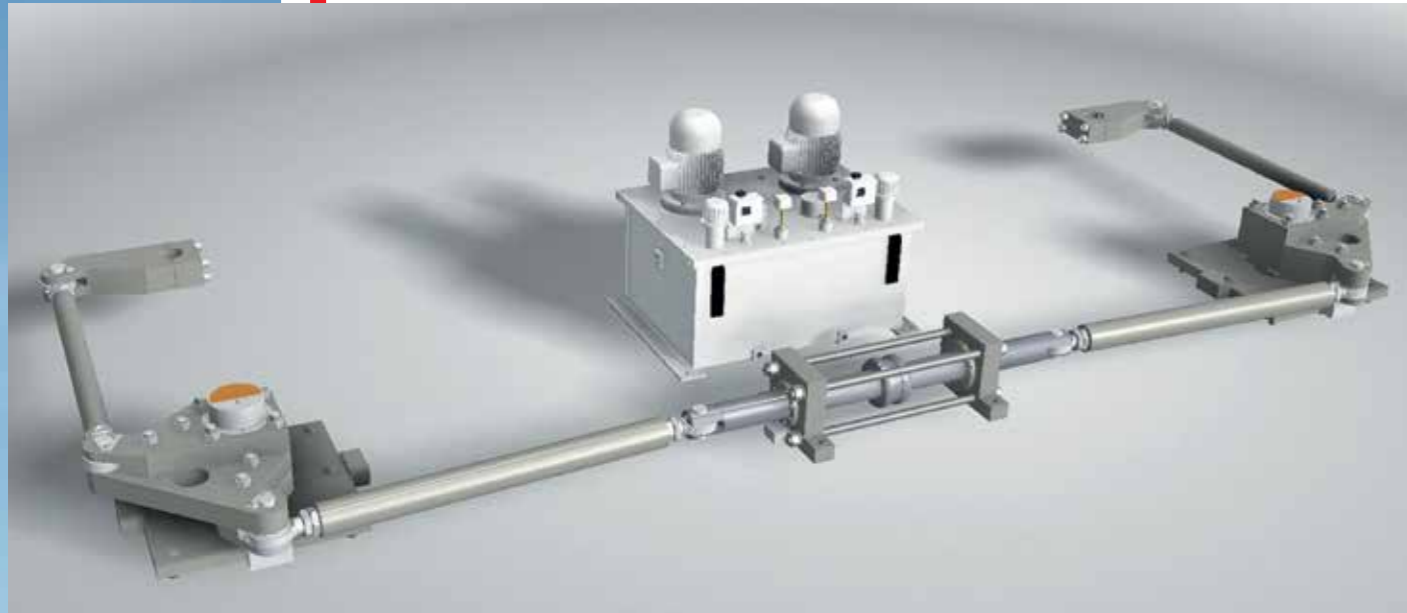


Central Hydraulics



Bowthruster

Steering Gear Systems



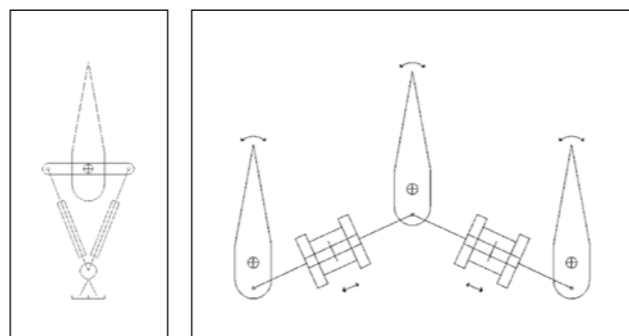
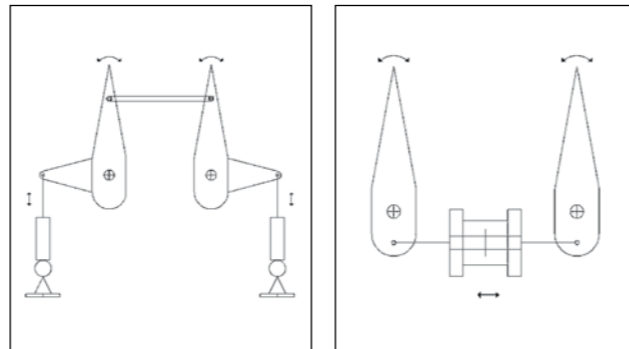
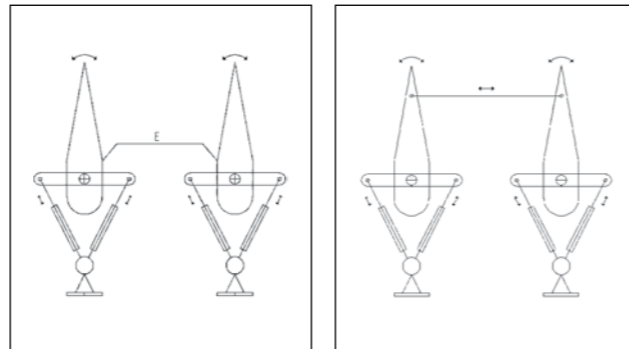
For steering gears, we can supply design solutions for any application.

Any number of rudder blades can be fitted. Whether your steering gear has one, two or three blades, we can provide just the right solution for any system. Our portfolio also includes double-action steering gears.

If required, we can also fit and deliver the system with a suitable redirection system.

Designs with double-rod cylinders can be provided, as can designs with special materials to suit your particular application.

If desired, we can also provide approval in accordance with every classification society.



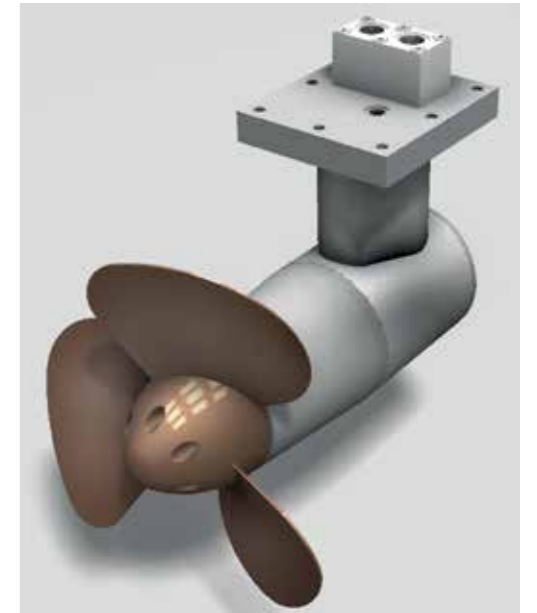
Transverse Thrusters

Shipowners will be well aware that you sometimes have to navigate in tight spaces or under difficult conditions. To do this successfully, the materials that your transverse thruster is made from need to be of a high quality standard. The best material pairings and certifications make navigation safe.

Kraeft Systemtechnik transverse thrusters have a light metal housing with flange and pipe connection (with the materials chosen by the customer). The propeller is made from bronze.

Inspection reports and certificates are naturally available for all transverse thrusters.

We supply thrusters in power classes from 25 kW to 145 kW.



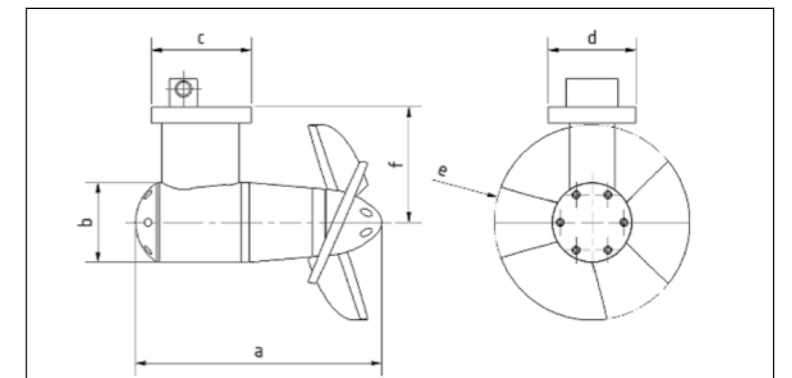
Technical Data

Performance		25 kW	50 kW	75 kW	120 kW
Propeller revolution		0-1650 1/min	0-1300 1/min	0-900 1/min	0-750 1/min
Inlet flow		0-70 l/min	0-122 l/min	0-155 l/min	0-250 l/min
Operating pressure		max. 220 bar	max. 290 bar	max. 300 bar	max. 320 bar
Static Thrust		ca. 3,6 kN	ca. 6 kN	ca. 10 kN	ca. 16 kN
Dimensions (mm)	a	445	620	750	780
	b	Ø 140	Ø 200	Ø 230	Ø 290
	c	200	250	300	475
	d	160	220	300	350
	e	Ø 370	Ø 490	Ø 700	Ø 850
	f	220	290	400	545

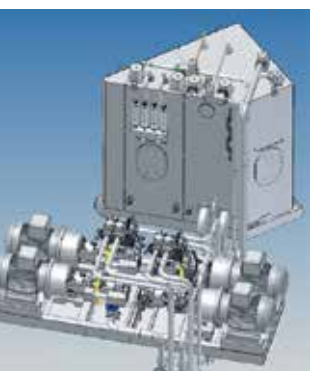
Technical Description

Motor	Hydraulic motor integrated into thrusters housing
Housing	Light alloy housing with mounting flange and pipe connection (Other materials upon request)
Propeller	bronze
Attestation	3.2 – GL-certification possible

Subject to technical modifications.



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-  HYDAC Companies
-  HYDAC Distributors- and Service Partners



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