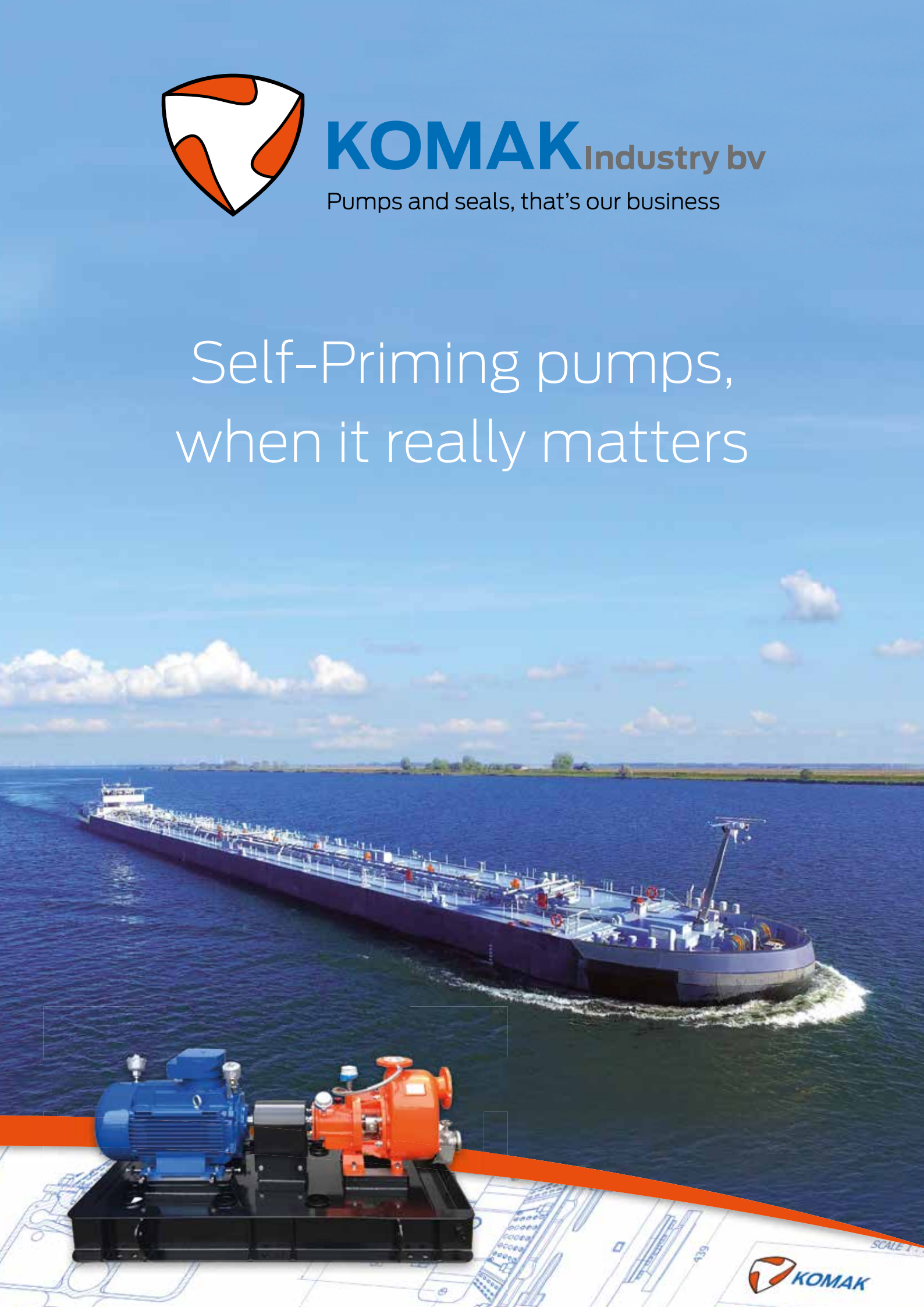
KOMAK Industry bv

Pumps and seals, that's our business

Self-Priming pumps, when it really matters



Horizontal Self-Priming pump

www.komak.nl

Engineered pump solutions

Specially designed and manufactured, by **KOMAK**, to operate under the most difficult conditons. The design is intended for users in the Maritime-, Off-shore- and General- Industry, when high pressure, truly self-priming pumps, with high efficiency and reliability are required.

Design features ensure extended life

- One-piece casing with integral priming and air separation (no external priming chamber or air separator required)
- No suction check valve required
- Rapid priming time
- Positive retention of pump capacity under siphon conditions
- Self-purge of vapors
- Same power frames for multiple sizes
- Cartridge seals available on KFT 80-50 and KFT 100-80
- Conical seal chamber for more efficient seal flush

Easy maintenance

- Large front opening for removal of possible solids
- Anode accessible for replacement in steel execution
- Axial adjustment of shaft to compensate for wearing on KFT 80-50 and KFT 100-80
- Back pull-out assembly for seal replacement
- Large oil sight glace, magnetic plug in oil chamber

Specifications

- Capacities up to 170 m^3/hr
- Heads up to 180 m
- Temperatures up to 90 °C
- Pressures up to 25 Bar
- Effective static lift 6 m

Services:

Fire-fighting

Bilge & deck wash

Industrial Sump

Filter systems

Mine dewatering

Tank car unloading

Hydro-carbon transfer

Horizontal Self-Priming pump

INTEGRAL PRIMING

ONE PIECE CASING

BACK PULL-OUT

CARTRIDGE SEAL

Available in:

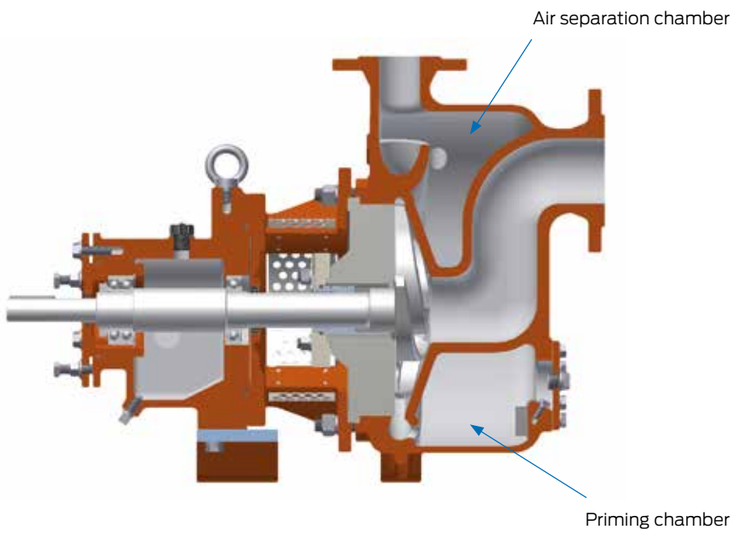
- Steel (WCB)
- Marine Bronze (NiAlBr)

Reliable operation ensured with heavy duty bearings

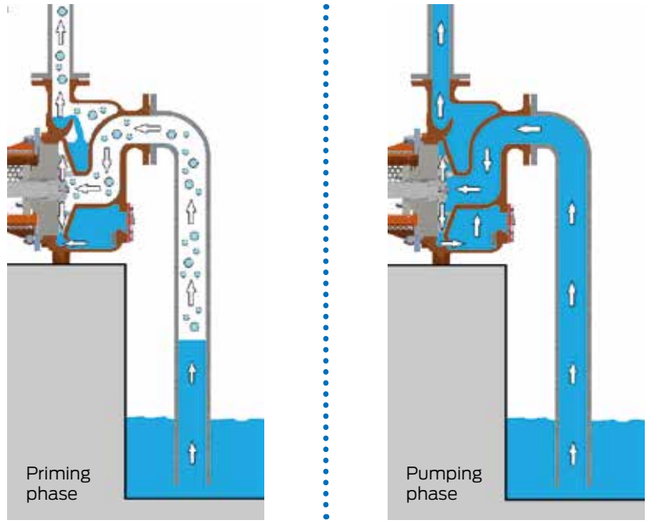
The KFT range is based on the principle that the pumps will always be subjected to intense and demanding use. The rugged shaft and bearing combination maintains shaft deflection to minimum values ensuring longer life time.
Severe duty thrust bearings and a oversized stainless steel 904 shaft ensure extended life time and premium corrosion resistance.

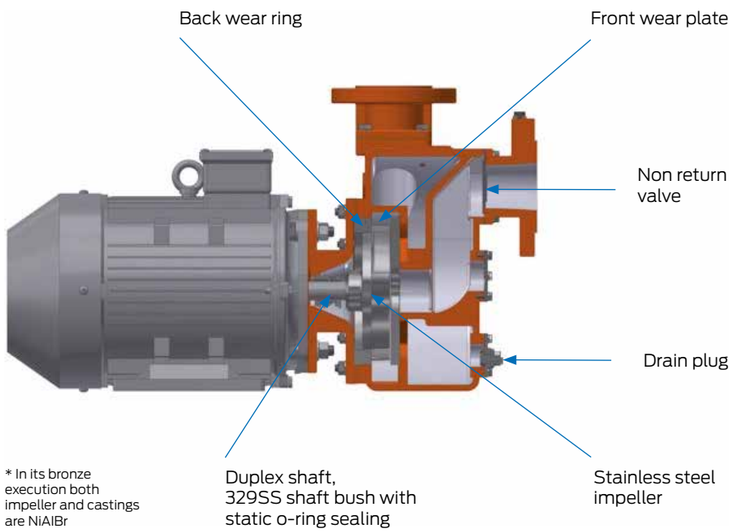
Reliable Self-Priming operation

Conventional centrifugal pumps will require priming at installation; air and gases should be expelled from the suction and the impeller area. This is usually no problem when suction pressure is provided. However, when suction is negative, air must be removed to accomplish pump priming. The KFT range is designed to retain a sufficient quantity of fluid in the priming chamber to ensure the pump stays fully and autonomously self-priming.



Self-Priming principle





* In its bronze execution both impeller and castings are NiAlBr

The dual volute design primes suction with the fluid available in the casing.
During the start-up phase the lower volute acts as an intake while the upper volute discharges the fluid and mixed air & gases into the separation chamber.
Air or gases are discarded through the discharge line while the liquid recirculates into the lower volute.
The pump is fully primed once the liquid fills the impeller eye and air is removed.
The pump functions onwards as a regular centrifugal pump with both volutes operating as discharge.

The casing design was optimized to ensure a suitable volume of liquid remains entrapped for renewed priming at a later stage, even if the liquid is allowed to drain back to its source.

Technical features of the KFT 80-50 and 100-80 models

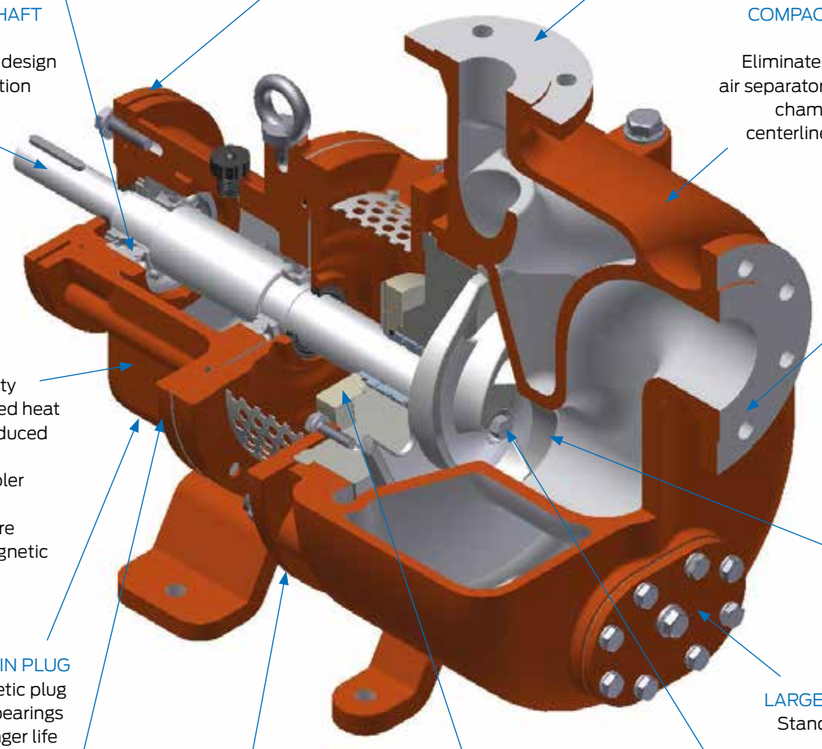
PREMIUM SEVERE-DUTY THRUST BEARINGS
Increase life span substantially up to 2 -5x.

CONTINUOUS PERFORMANCE
Original pressure, flow and efficiency are maintained by external adjustment resulting in long-term energy and repair savings.

SERRATED DIN FLANGES
For positive sealing against leakage.

HEAVY DUTY SHAFT AND BEARINGS
Rigid solid shaft design to reduce deflection at seal level. Bearings sized to 10 years of intense operation.

COMPACT SINGLE-PIECE CASING DESIGN
Eliminates requirement for air separator, valve or priming chamber. Self-venting, centerline discharge. Back pull-out design.



RAISED FACE FLANGES
RF as standard execution. Meets ISO 7005.

OPTIMUM OIL SUMP DESIGN
Larger oil capacity provides improved heat transfer for a reduced oil temperature. Bearings run cooler and last longer. Contaminants are collected by magnetic drain plug.

FULLY OPEN IMPELLER
For best solids handling, stingy material, corrosives and abrasives.

MAGNETIC DRAIN PLUG
Standard magnetic plug to help protect bearings and ensure a longer life time.

LARGE ACCESS COVER
Standard casing drain.

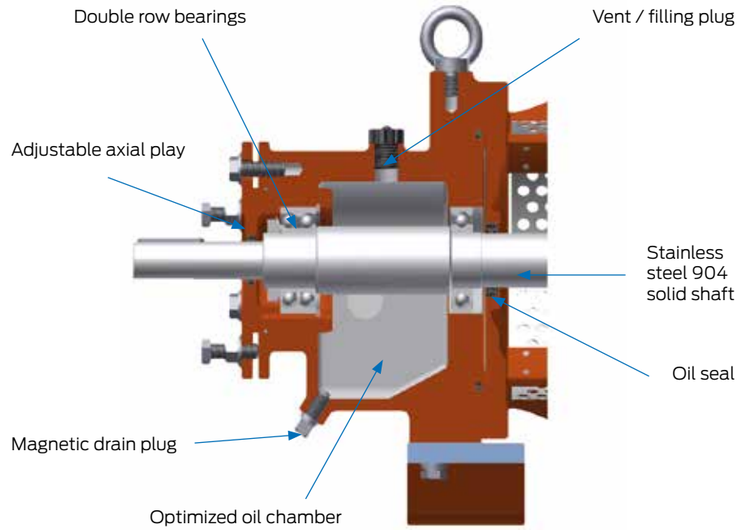
KFT POWER FRAME
Designed for reliability and extended life.

OVER SIZED BULL'S EYE SIGHT GLASS
To check easily on oil level required for bearing life time longevity.

CARTRIDGE SEAL AS OPTION
Designed for reliability and ease of maintenance. Seal plan space is provided, suitable for single and double cartridge seal.

SECURED IMPELLER
Impeller is assembled to the shaft with thread and secured against back rotation with a lock bolt.

Air separation and priming is done within the pump body

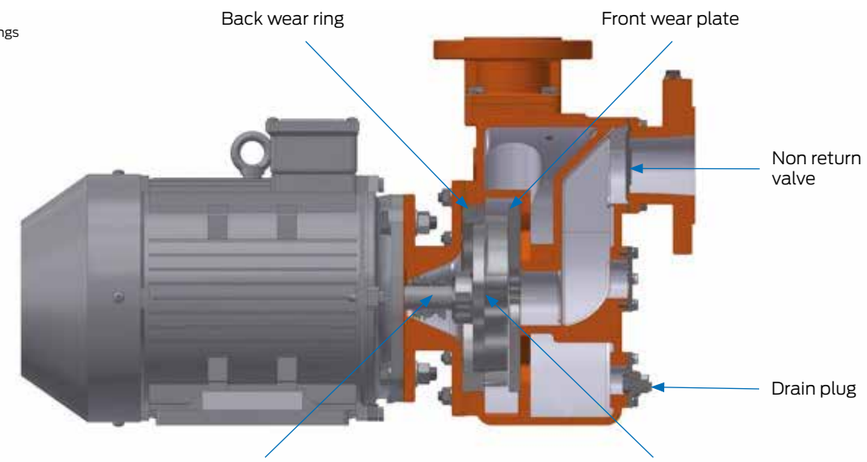


Technical features of the KFT 65-50 and 50-40 models

The short-coupled version of the KFT range follows the same tradition of quality and professionalism in design and construction as the KFT base plate versions. However, in order to meet the requirements of these applications fields a number of features have been altered.

The KFT 65-50 and 50-40 pumps are equipped with a back and front wear ring to optimize performance and longevity of the product. The impeller is however directly assembled on the extended driver shaft.
With its standard stainless steel impeller and duplex shaft & shaft bush the pump is particularly well suited for medium loaded duty and aggressive fluids. The bronze execution was especially designed for seawater duty. As the material grade used is NiAlBr it is suited for hot and aggressive seawater but also most chemicals. With it's Sic/Carb/Viton mechanical seal the number of applications is practically limitless.

* In its bronze execution both impeller and castings are NiAlBr



Executions available

Electric short coupled

KFT 65-50-194

KFT 50-40-115

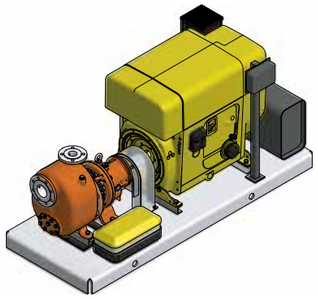
Long couples with power frame

KFT 65-50-194

KFT 80-50-255

KFT 80-50-320

KFT 100-80-250



Diesel Driven

KFT 50-40-115

KFT 65-50-194

KFT 80-50-255

KFT 80-50-320

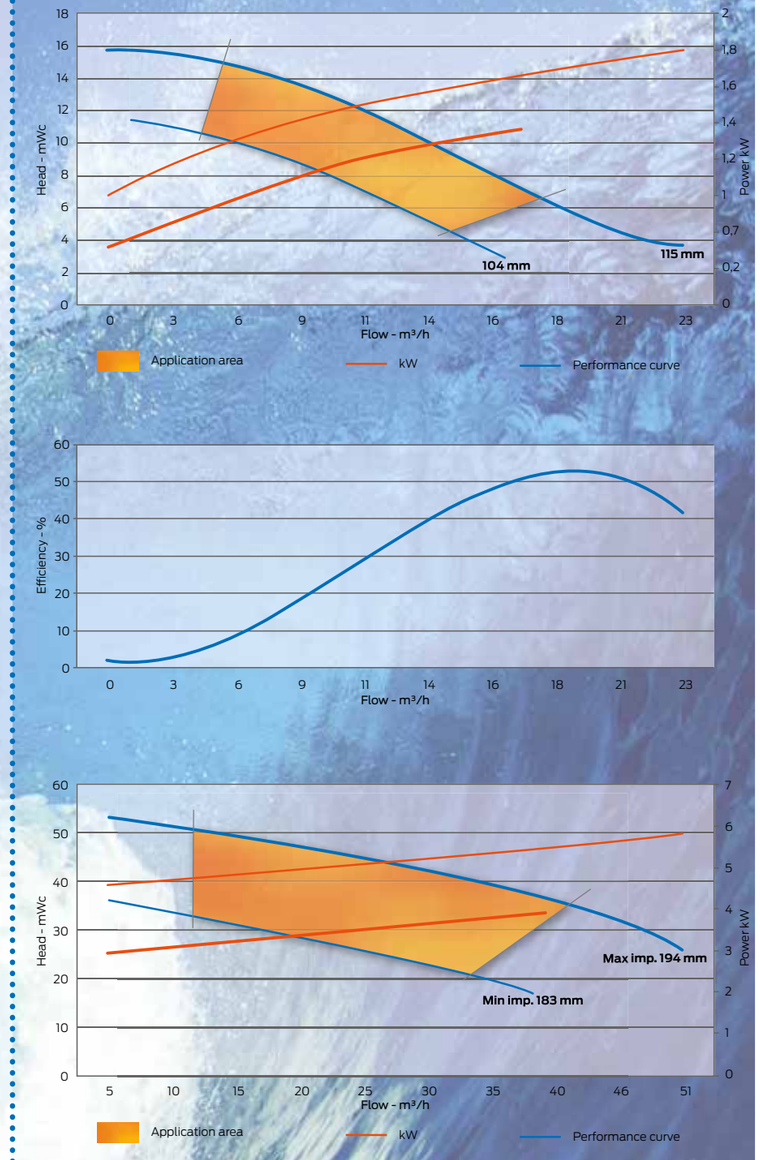
KFT 100-80-250

The KFT range is also available in a diesel driven configuration. Available also in silence pack and on-board tank. The units can be used for various applications on- and off-shore. Fire-fighting is one of the most common one's. Class approval is available on request.

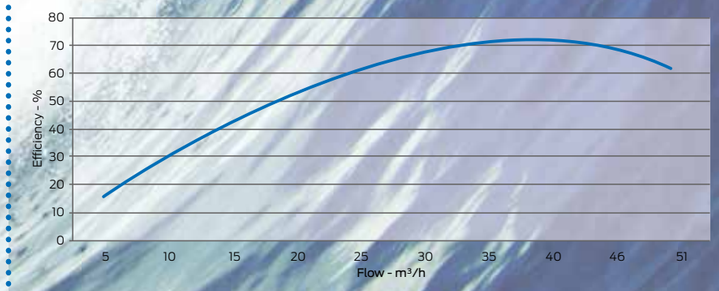
Side mounted VFD drives available on request.

50 Hz

KFT 50-40-115
2950rpm
50 Hz

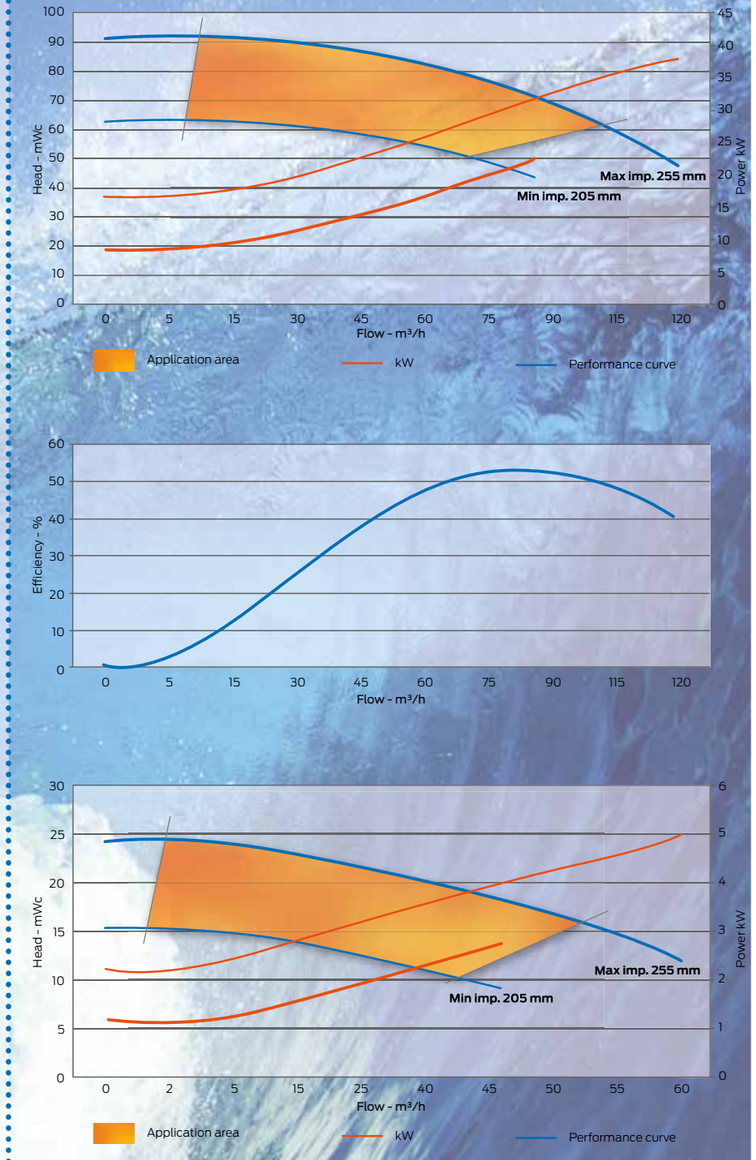


KFT 65-50-194
2950rpm
50 Hz

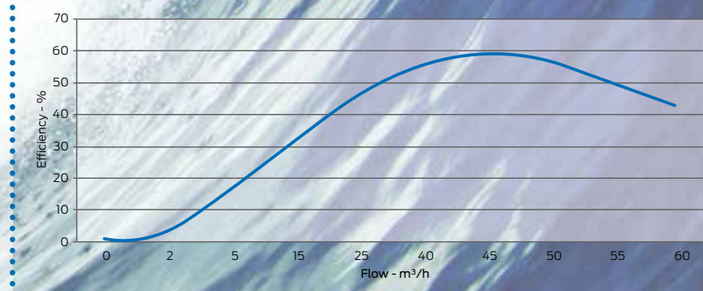


50 Hz

KFT 80-50-255
2950rpm
50 Hz



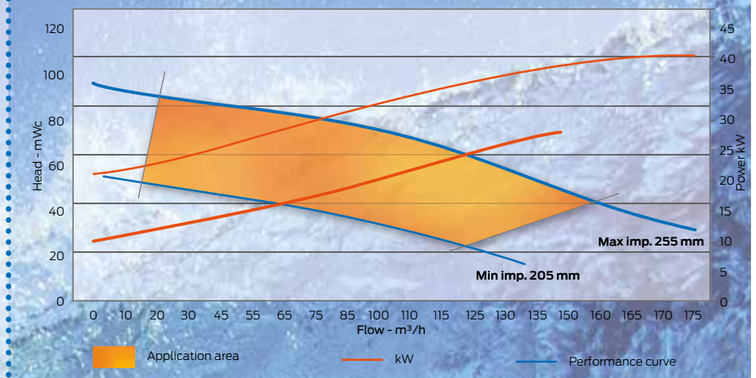
KFT 80-50-255
1450rpm
50 Hz

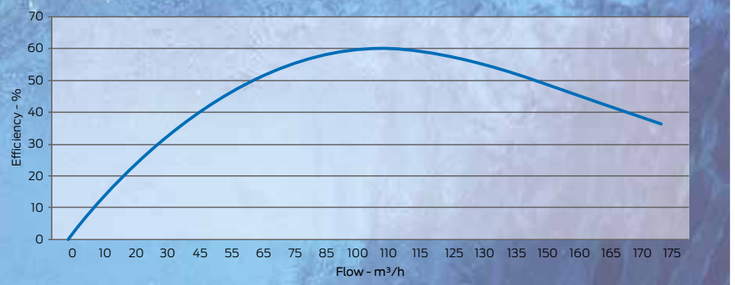


Curves according to ISO9906:2012 grade 2B – subject to revisions without prior notice. Please consult KOMAK for datasheets.

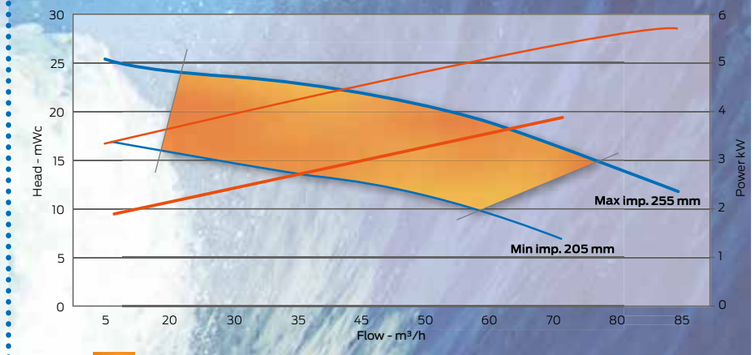
50 Hz

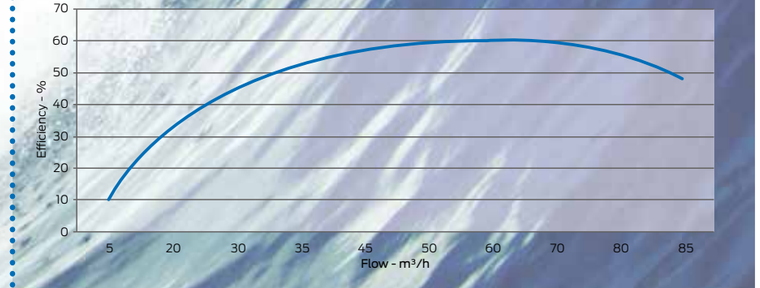
KFT 100-80-250
2950rpm
50 Hz





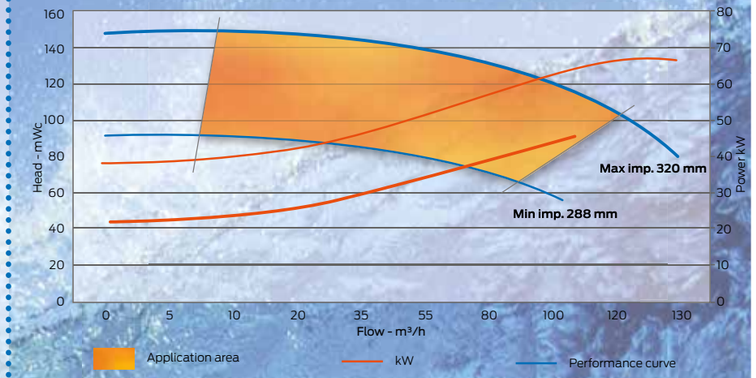
KFT 100-80-250
1450rpm
50 Hz

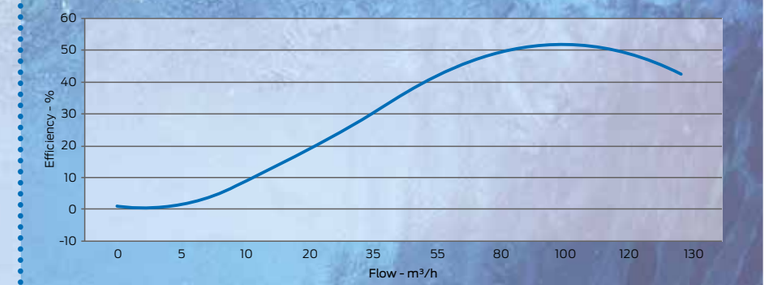




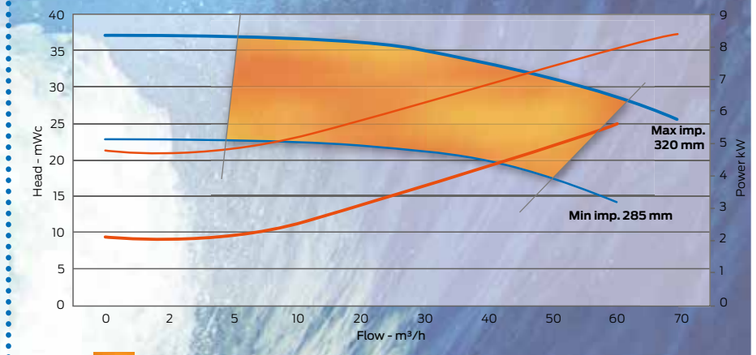
50 Hz

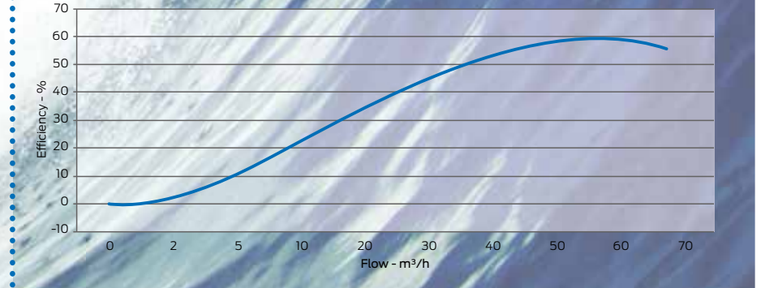
KFT 80-50-330
2950rpm
50 Hz





KFT 80-50-330
1450rpm
50 Hz





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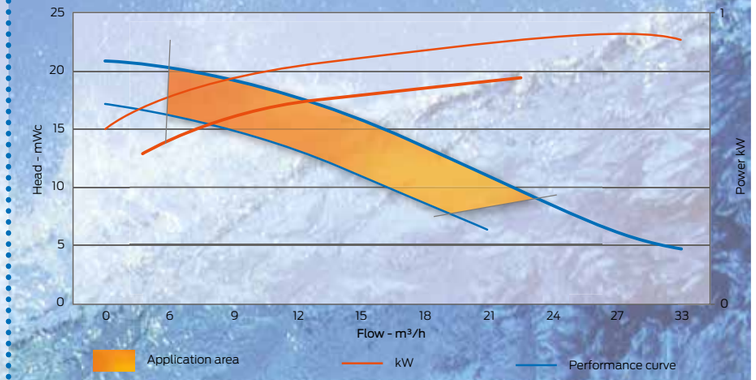
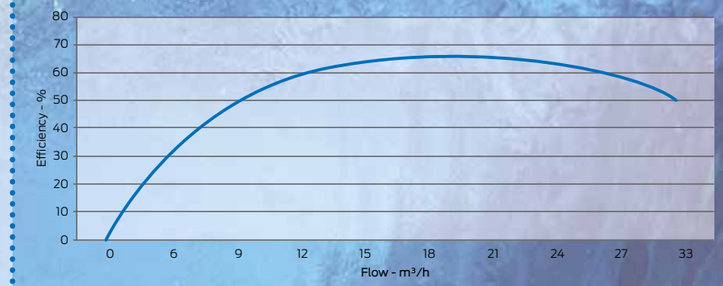
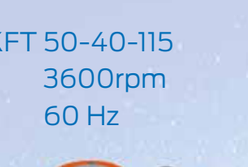
60 Hz

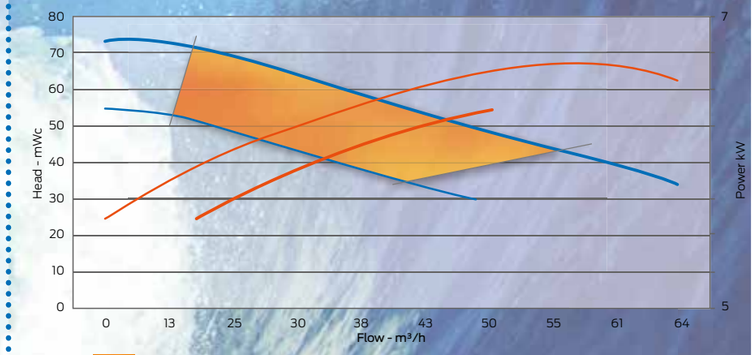
KFT 50-40-115
3600rpm
60 Hz

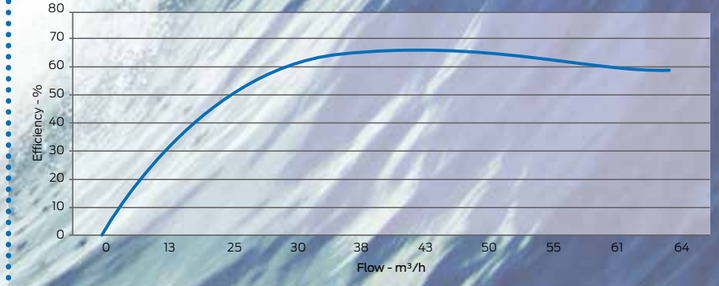




KFT 65-50-194
3600rpm
60 Hz

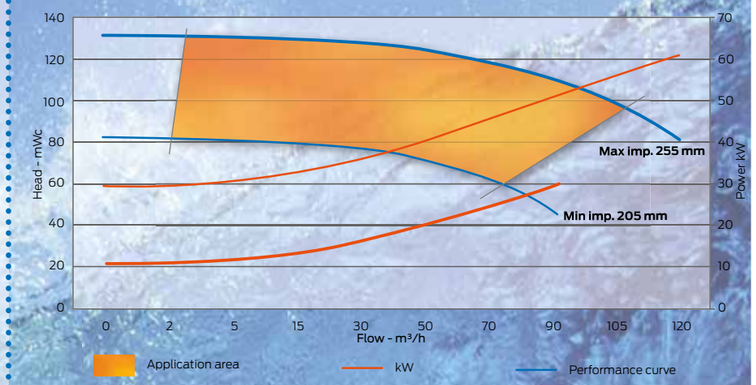


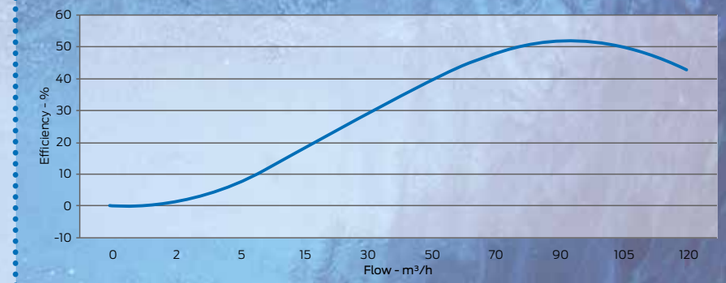




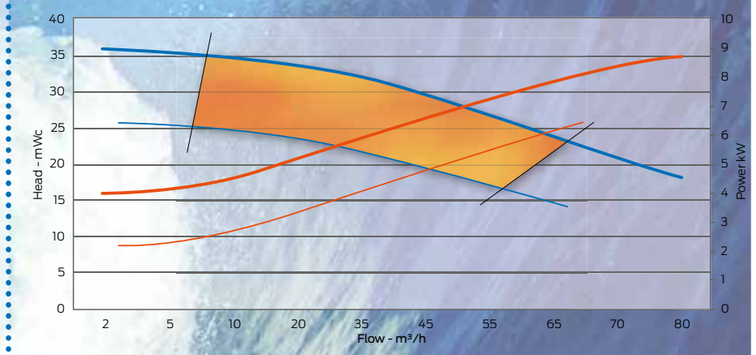
60 Hz

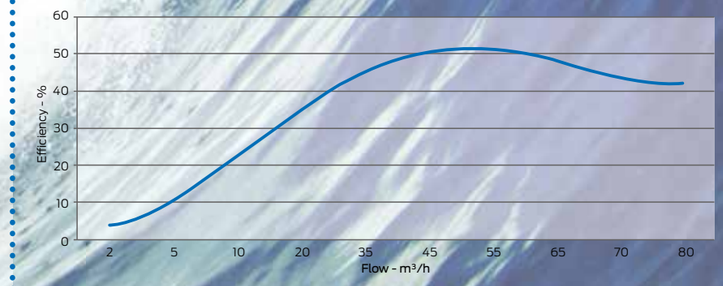
KFT 80-50-255
3600rpm
60 Hz





KFT 80-50-255
1750rpm
60 Hz

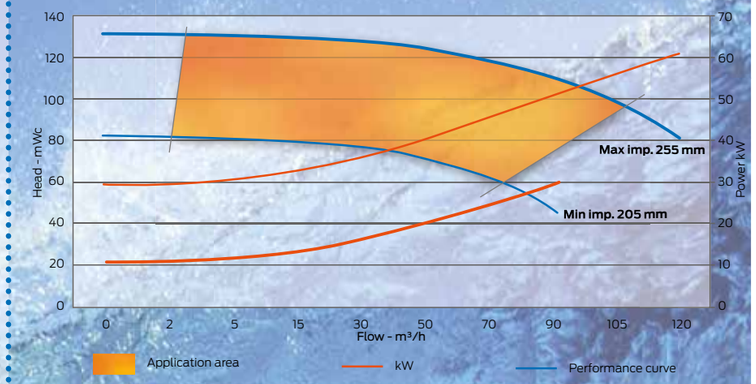


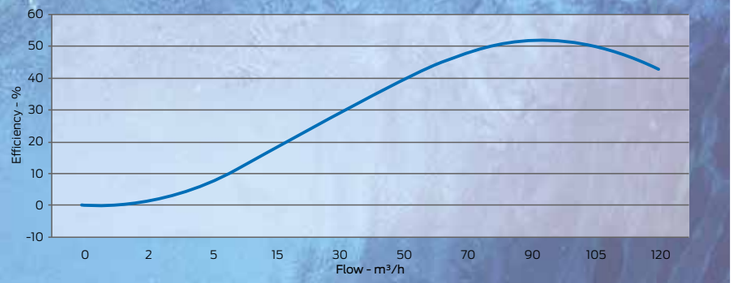


Curves according to ISO9906:2012 grade 2B – subject to revisions without prior notice. Please consult KOMAK for datasheets.

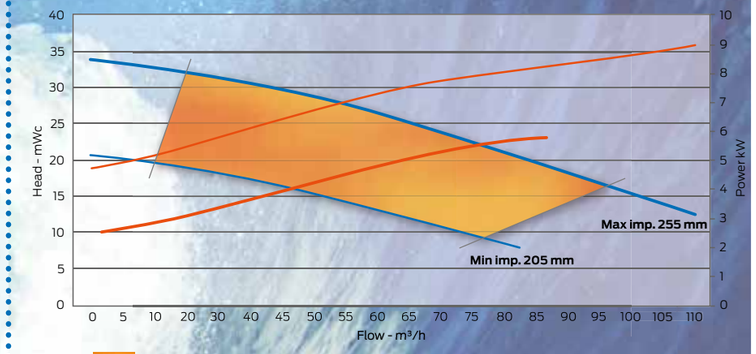
60 Hz

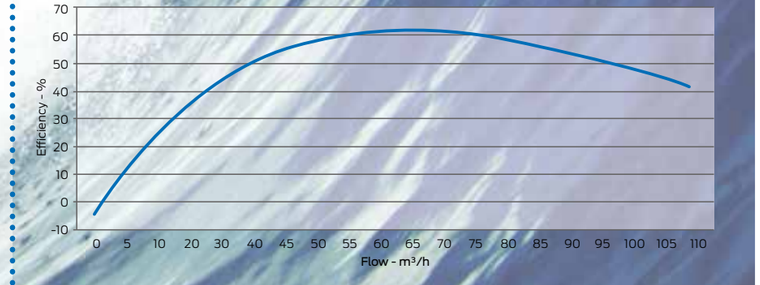
KFT 100-80-250
3600rpm
60 Hz





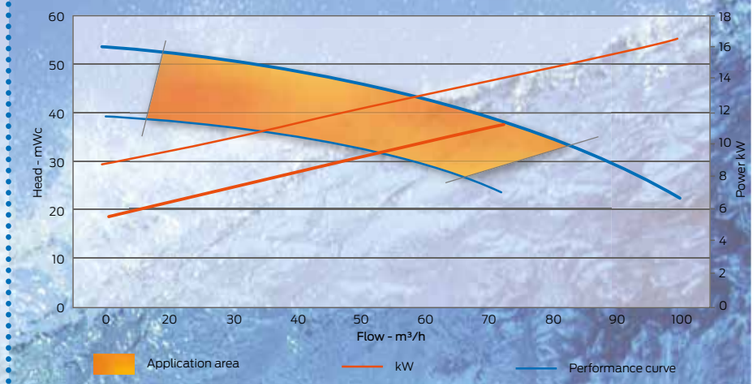
KFT 100-80-250
1750rpm
60 Hz

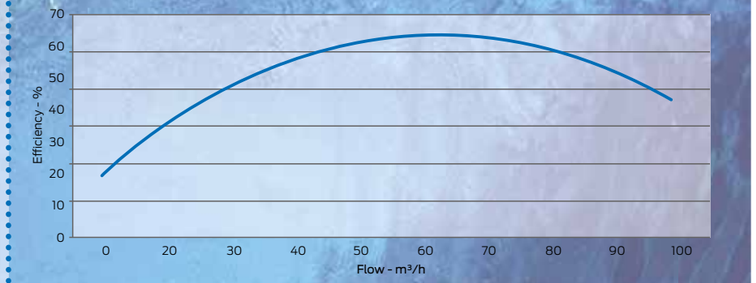




60 Hz

KFT 80-50-330
1750rpm
60 Hz





Curves according to ISO9906:2012 grade 2B – subject to revisions without prior notice. Please consult KOMAK for datasheets.

KFT range
self priming pumps

KFT 50-40-115

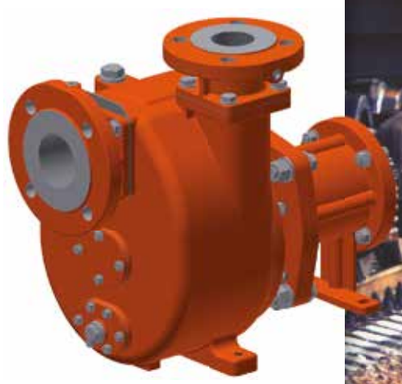
Diesel coupled

KFT 50-40-115

Close coupled

KFT 65-50-194

Diesel coupled



KFT 65-50-194

Long coupled

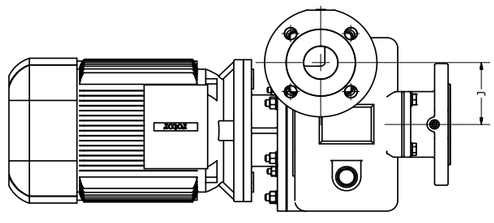
KFT 65-50-194

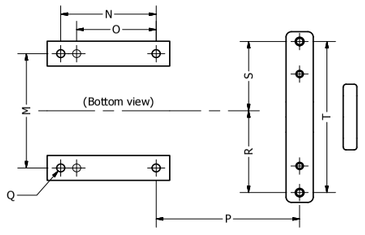
Close coupled

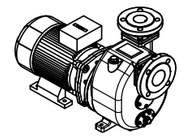
KFT 80-50-255

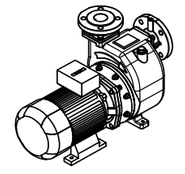
KFT 100-80-250

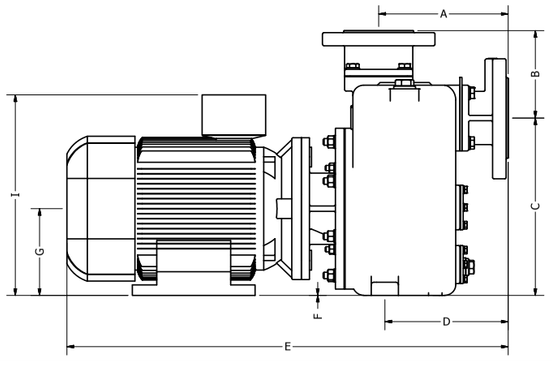
KFT 80-50-330

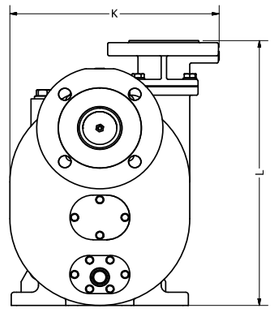


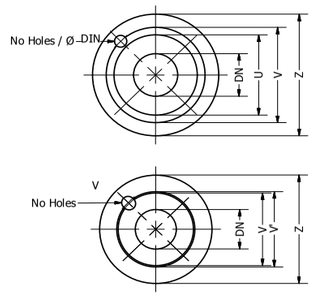










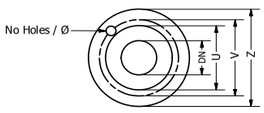


Pump set																				Suction					Discharge				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	NO	DN	U	V	Z	NO	DN	U	V	Z
KFT 50-40-115	124	105	194	126	557	0	90	180	222	29	201	299	145	125	100	209	10	88	72	160	4	50	100	125	165	4	40	85	110	150
KFT 65-50-194	190	133	270	181	648	0	132	220	305	94	307	403	174	140	0	211	12	124,5	105,5	230	4	65	122	145	185	4	50	102	125	165

Projection		KOMAK Group
Format	: A2	Hoogeveenenweg 77 2913LV Nieuwerkerk a/d IJssel The Netherlands Phone: +31 (0)180 396555 info@komakbv.nl
Scale	: 1 / 4	
Units	: mm	

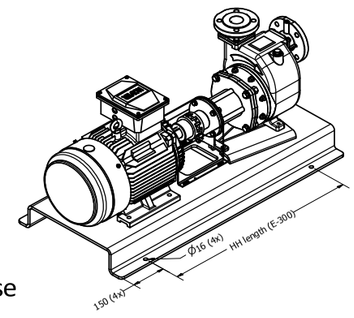
KFT 65-50-194 KFT 50-40-115

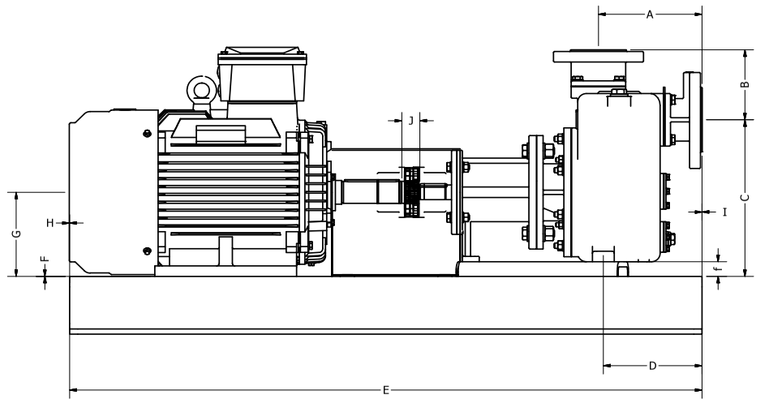
Material :			Derived from:		
Project :	Mass : N/A	Drawn: M. Hollebrandse	Checked by: A. Vermeiden	Date: 6-11-2017	
			Document number	Sheet: 1 /1	Revision:

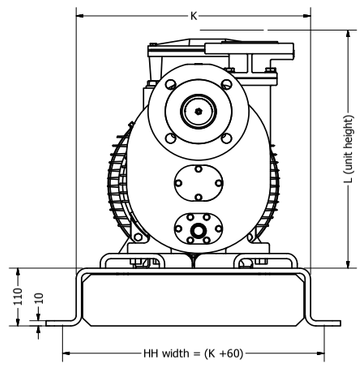


Industry base

Tailer made base







Pump with Motor on Frame KFT 65 LC															Suction						Discharge					
kW	Motor	A	B	C	D	E	F	f	G	H	I	J	K	L	NO	DN	U	V	Z		NO	DN	U	V	Z	
4kW	112M-4P	190	133	270	181	977	0	0	132	0	0	25	380	403	4	65	122	145	185		4	50	102	125	165	
5,5kW	132S-4P					1010						30														
7,5kW	132M-4P					1050						33														
11kW	160M-4P			298		1165		28	160				430	436												

Projection		KOMAK Group
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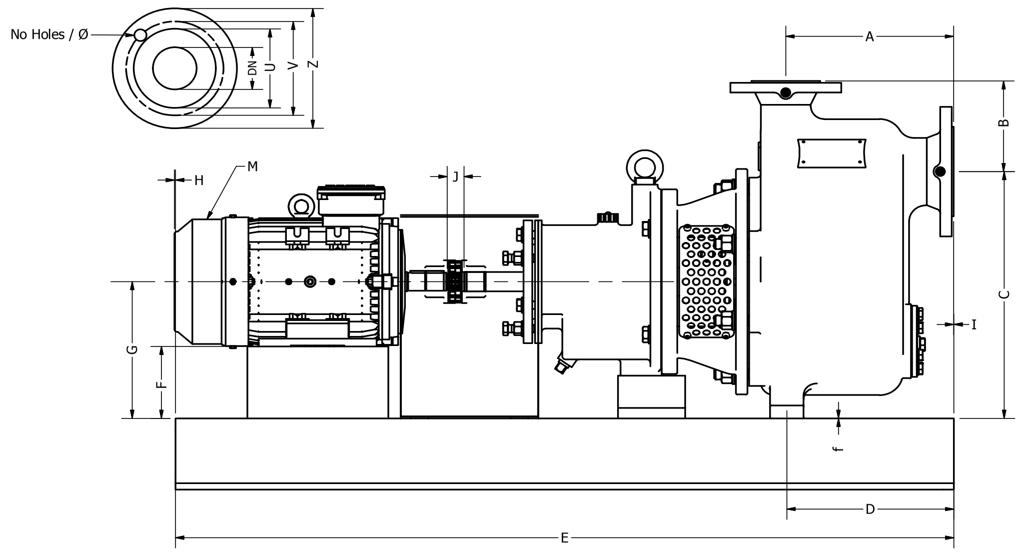
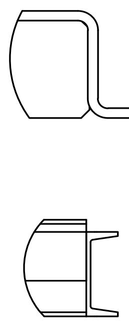
Pump with Motor on Frame KFT 65 LC

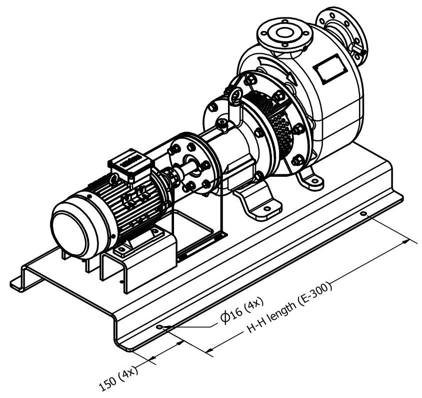
Material :			Derived from:		
Project :	Mass : N/A	Drawn: M. Hollebrandse	Checked by: A. Vermeiden	Date: 25-9-2017	
			Document number	Sheet: 1 /1	Revision:

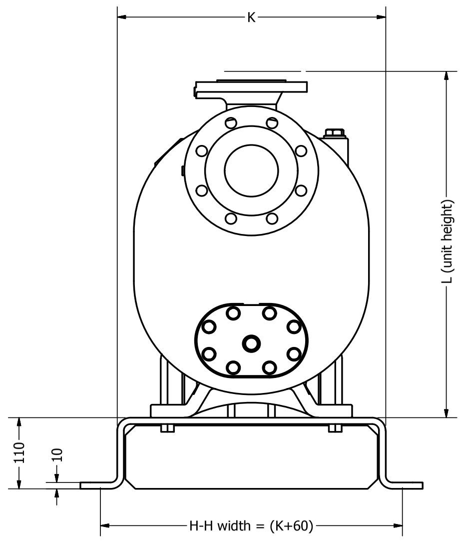




Industry base

Tailer made base





Pump with Motor on Frame KFT 80-50-255															Suction					Discharge				
kW	Motor	A	B	C	D	E	F	f	G	H	I	J	K	L	NO	DN	U	V	Z	NO	DN	U	V	Z
3kW	100L-4P					1159	111					25												
4kW	112M-4P					1184	99					25												
5,5kW	132S-4P					1221	79					30												
7,5kW	132M-4P					1258	79					30	450	521										
11kW	160M-4P			381		1372	51	0	211			33			8					4	50			
15kW	160M-2P	250	140			1374	51					35				80						102		
22kW	180M-2P				249	1454	31			0	0	40					138	160					125	165
30kW	200L1-2P					1533	11					35		524					200					
37kW	200L2-2P					1533	11					35	500	524										
45kW	225M-2P			395		1581		14	225			35	500	561										
55kW	250M-2P			420		1672	0	39	250			35	550	624										
75kW	280S-2P			450		1728		69	280			40	600	683										

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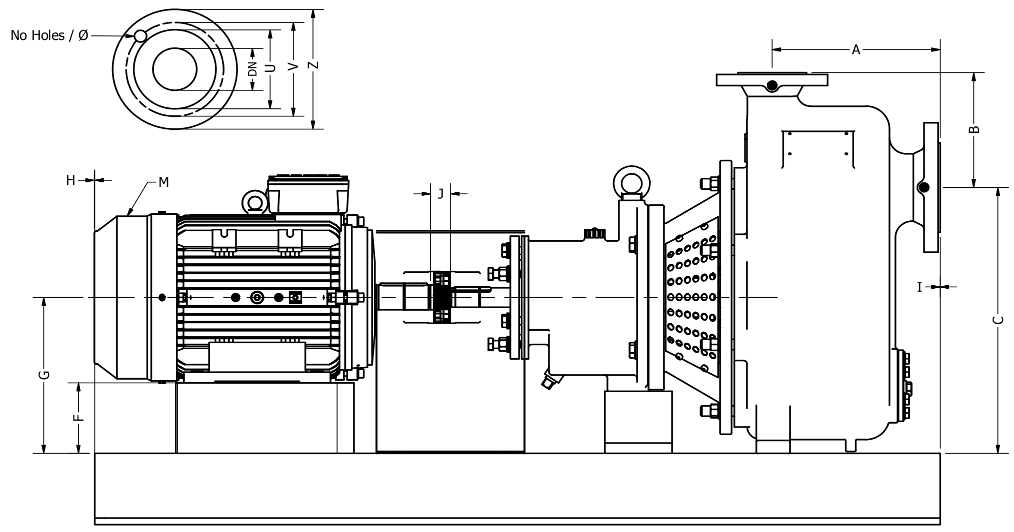
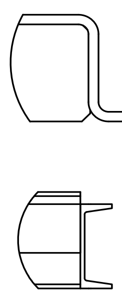
Pump with Motor on Frame KFT 80-50-255

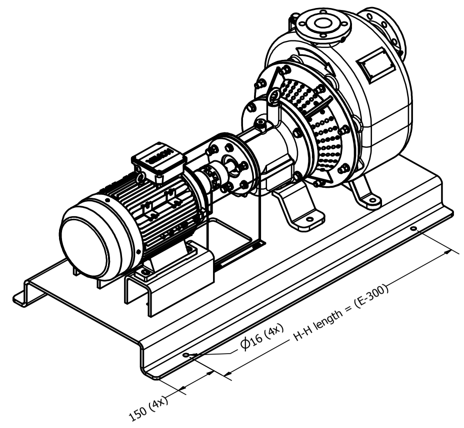
Material :			Derived from:	
Project :	Mass : N/A	Drawn: M. Hollebrandse	Checked by: A. Vermeiden	Date: 25-9-2017
			Document number	Sheet: 1 / 1 · Revision: -

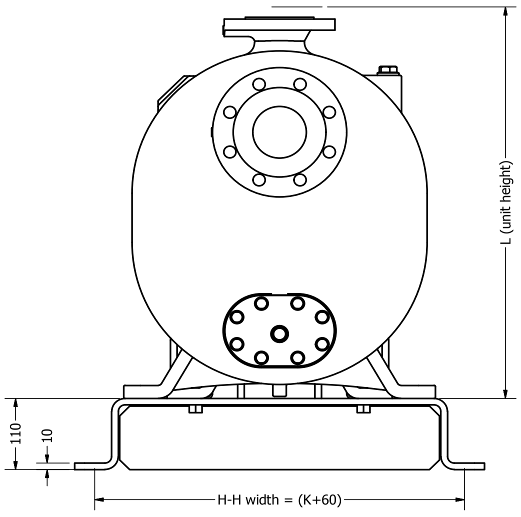




Industry base

Tailer made base





Pump with Motor on Frame KFT 80-50-330															Suction					Discharge				
kW	Motor	A	B	C	D	E	F	f	G	H	I	J	K	L	NO	DN	U	V	Z	NO	DN	U	V	Z
5,5kW	132S-4P					1220	109					30												
7,5kW	132M-4P					1258	109					30												
11kW	160M-4P					1372	81					33												
15kW	160L-4P			411		1415	81	0	241			33	500	589										
30kW	200L1-2P	250	178		249	1533	41					35			8	80	138			4	50	102		
37kW	200L2-2P					1533	41			0	0	35						160	200				125	165
45kW	225M-2P					1581	16					35												
55kW	250M-2P			420		1672		9	250			35	550	624										
75kW	280S-2P			450		1728	0	39	280			40	600	683										
90kW	280M-2P			450		1752		39	280			40	600	683										
110kW	315S-2P			485		1969		74	315			40	670	862										

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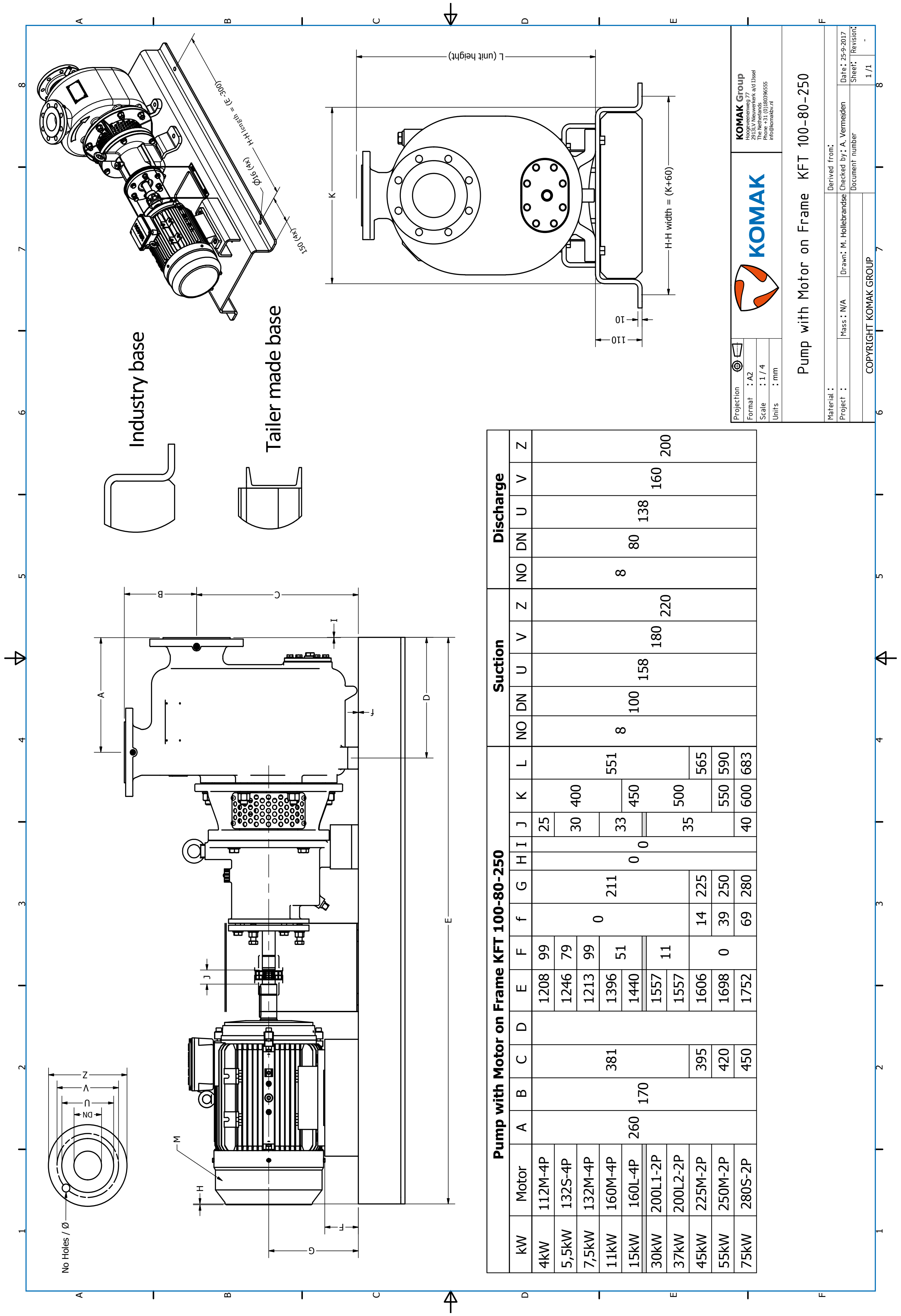
Pump with Motor on Frame KFT 80-50-330

Material :			Derived from:	
Project :	Mass : N/A	Drawn: M. Hollebrandse	Checked by: A. Vermeiden	Date: 25-9-2017
			Document number	Sheet: 1 / 1 · Revision: A



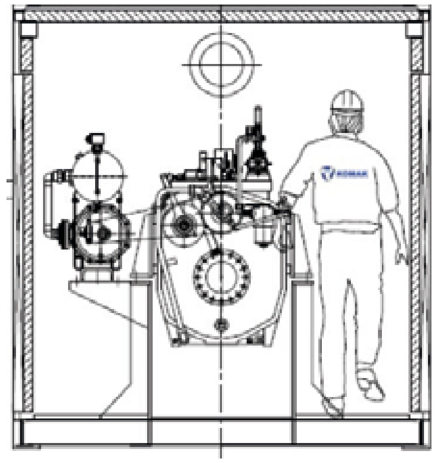
Pump with Motor on Frame KFT 100-80-250

kW	Motor	A	B	C	D	E	F	f	G	H	I	J	K	L	Suction NO	Suction DN	Suction U	Suction V	Suction Z	Discharge NO	Discharge DN	Discharge U	Discharge V	Discharge Z
4kW	112M-4P	260	170	381		1208	99	0	211	0	0	25	400	551	8	100	158	180	220	8	80	138	160	200
5,5kW	132S-4P	260	170	381		1246	79	0	211	0	0	30	400	551	8	100	158	180	220	8	80	138	160	200
7,5kW	132M-4P	260	170	381		1213	99	0	211	0	0	30	400	551	8	100	158	180	220	8	80	138	160	200
11kW	160M-4P	260	170	381		1396	51	0	211	0	0	33	400	551	8	100	158	180	220	8	80	138	160	200
15kW	160L-4P	260	170	381		1440	51	0	211	0	0	33	450	551	8	100	158	180	220	8	80	138	160	200
30kW	200L1-2P	260	170	381		1557	11	0	211	0	0	35	500	551	8	100	158	180	220	8	80	138	160	200
37kW	200L2-2P	260	170	381		1557	11	0	211	0	0	35	500	551	8	100	158	180	220	8	80	138	160	200
45kW	225M-2P	260	170	395		1606	0	14	225	0	0	35	500	565	8	100	158	180	220	8	80	138	160	200
55kW	250M-2P	260	170	420		1698	0	39	250	0	0	35	550	590	8	100	158	180	220	8	80	138	160	200
75kW	280S-2P	260	170	450		1752	0	69	280	0	0	40	600	683	8	100	158	180	220	8	80	138	160	200

Tailor made solutions

KOMAK industry bv is also avaible for tailor made solutions. From first sketch to final engineering. Irrespective of size and quantity some applications and requirements demand a different approach.

Please contact our sales department for more information and references.



Testing facilities

With a state-of-the-art, custom-built testing facility, we are able to test most of our products in-house. The testing facility has been approved by Bureau Veritas, Lloyds and SGS for Grade-1 and Grade-2 testing, in accordance with the ISO 9906 - Hydraulic performance acceptance test.
Our testing facility is equipped for manual and automated test protocols for pump capacities up to 500 m^3/h and pressures up to 25 bar. These features also allow for calibrated measurement of flow, pressure, noise and vibration levels. Testing materials above 500 m^3/h is also possible, but this will be on the premises of one of our partner.

Testing can be done in accordance to:

www.komak.nl

Engineered pump solutions

The KFT range is intended primarily for application on board in-shore and sea going vessels.

The design is however suited for most applications where NPSH values are challenging, also in general industry applications.

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