



# Our tradition:

# **Competence since 1871**

We have supplied generations of customers worldwide with pumps, valves, automation products and services. A company with that kind of experience knows that success is a process based on a stream of innovations. A process made possible by a close working alliance between developer and user, between production and practice.

Partners achieve more together.

We do everything possible to ensure that our customers always have access to the ideal product and system solution. KSB is a loyal partner. And a strong one:

- Over 140 years' experience
- Present in more than 100 countries
- More than 16,000 employees
- More than 160 service centres worldwide
- Approximately 2,600 service specialists



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Filtra N	39	Multitec	54		
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# Our spare parts and services: Dependability at your call

We tailor our services to enable new ways of individually optimising our products. They underscore our far-reaching sense of customer responsibility. That commitment starts before any orders – for example with sound advice on financing options. And it goes far beyond product arrival. A dependable partnership with KSB lasts for years.

In addition to spare parts, we offer our customers a plethora of services around pumps, valves, and other rotating equipment – also for non-KSB products:

- Technical consultancy
- Services provided on-site and in our service centres
- Maintenance inspection management
- Reverse engineering / retrofit
- TPM® Total Pump Management
- SES System Efficiency Services

Which is how we secure the long-term value of our customers' facilities.

Ready where you are. KSB runs more than 160 service centres around the world. Some 3,000 highly trained KSB specialists are on call to install, commission and maintain your equipment. So you can plan for a future free of unwanted surprises. And we also provide on-site training sessions. They ensure that operators can use KSB pumps and valves and systems efficiently and profitably, day in, day out.







# Our mission:

# **Certified quality assurance**

First-class products and excellent service take top priority at KSB. To maintain this level of excellence, we have developed a modern quality management system with globally applicable guidelines. It is based on the Business Excellence model of the European Foundation for Quality Management, which already ensures improved quality management Europewide.

Our guidelines define uniform quality for all KSB locations and have helped us to optimise our manufacturing processes. The results are shorter delivery times and global availability of our products. These guidelines govern the way we act so comprehensively that even the competence of our consulting and the good value for money we offer are clearly stipulated. Like the 'Made in Germany' quality seal, we introduced internal certification as a sign of the highest quality: 'Made by KSB'.

#### Our five key goals:

- Maximum customer satisfaction: We do everything to fulfil our customers' wishes on time and in full.
- Fostering quality awareness: We put our quality commitment into daily practice - from executives to employees, whose qualifications and competence we foster through continuing training.
- Prevention rather than cure: We systematically analyse errors and prevent the causes.
- Improvement in quality: We continually optimise our processes in order to work more efficiently.
- Involvement of suppliers: We attach great importance to working together fairly and openly to achieve our shared goals.

In addition to quality, energy efficiency also plays an important role at KSB. Our products already fulfil the statutory minimum efficiency values of the ErP regulations for 2015, making a valuable contribution at the component level. You can potentially save even more energy by optimising your entire plant with the FluidFuture® energy efficiency concept.



As a signatory to the United Nations Global Compact, KSB is committed to endorsing the ten principles of the international community in the areas of human rights, labour standards, environmental protection and anticorruption.

Pumps			FluidFuture®	<b>a</b>	Factory-automated	Automation possible	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport
Type / Application	Type series	Page	Ē	무	Б	¥	≥ ≒	<u>2</u>	ᇤ	В	S
Circulator / hot water service pumps, fixed speed	Riotherm	24									
Drinking water circulator pumps, fixed speed	Rio-Therm N	24								•	
Drinking water circulator pumps,	Rio-Eco Therm N	24									
variable speed	Calio Therm S	25									
	Calio S	25									
Circulator pumps, variable speed	Calio	25									
	Rio-Eco Z N	25									
	Etaline / Etaline Z	26									
	Etaline PumpDrive	26									
In-line pumps with fixed /	Etaline Z PumpDrive	26									
variable speed drive	Etaline-R	26									
	ILN / ILNE / ILNS	27									
	ILNC / ILNCE / ILNCS	27									
	Etanorm / Etanorm-R	28									
	Etanorm PumpDrive	28									
	Etabloc	28									
	Etabloc PumpDrive	28									
Standardised / close-coupled pumps, fixed / variable speed	Etachrom BC	28									
panipa, maay ranaasa apaaa	Etachrom BC PumpDrive	29									
	Etachrom NC	29									
	Etachrom NC PumpDrive	29									
	Etanorm GPV / CPV	29									
Hot water pumps	HPK-L / HPK / HPH	30									
Het water /thermal all number	Etanorm SYT / RSY	31									
Hot water / thermal oil pumps	Etabloc SYT / Etaline SYT	31									
Thermal oil pumps with magnetic	HX (Nikkiso-KSB)	31									
drive or canned motor	HY (Nikkiso-KSB)	31									
	MegaCPK	32									
Standardised chemical pumps	MegaCPK PumpDrive / PumpMeter	32									
	CPKN	32									
	Magnochem	32									
	Magnochem-Bloc	33									
Seal-less pumps	Etaseco / Etaseco-l	33									
	Etaseco RVP	33									
	Secochem Ex / Secochem Ex K	33									

Pumps			FluidFuture®		Factory-automated	Automation possible	Water Transport and Treatment	stry	Energy Conversion	Building Services	Solids Transport
Type / Application	Type series	Page	Fluid	ErP	Facto	Auto	Wate Treat	Industry	Ener	Build	Solid
	HN (Nikkiso-KSB)	34									
	HT (Nikkiso-KSB)	34									
Seal-less pumps	HK (Nikkiso-KSB)	34									
	VN (Nikkiso-KSB)	34									
	DN (Nikkiso-KSB)	34									
	RPH	35									
	RPHb	35									
	RPH-V	35									
	RPHmdp	35									
	CTN	35									
D	API series (Nikkiso-KSB)	36									
Process pumps	CHTR	36									
	YNKR	36									
	CINCP / CINCN	36									
	INVCP / INVCN	36									
	RWCP / RWCN	37									
	WKTR	37									
Painwater harvesting systems	Hya-Rain / Hya-Rain N	37									
Rainwater harvesting systems	Hya-Rain Eco	37									
	Multi Eco	38									
	Multi Eco-Pro	38									
Domestic water supply /	Multi Eco-Top	38									
swimming pools	Movitec VME	38									
	Ixo	38									
	Filtra N	39									
	Hya-Solo EV	39									
	Hya-Solo D	39									
	Hya-Solo DV	39									
	Hya-Compact K	40									
Pressure booster systems	Hya-Compact VP	40									
riessure booster systems	Hya-Eco VP	40									
	Hyamat K	40									
	Hyamat V	40									
	Hyamat VP	41									
	Hyamat IK, IV, IVP	41									

FluidFuture® ErP Factory-automated Automation possible

Pumps			FluidFuture®	0	Factory-automated	Automation possible	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport
Type / Application	Type series	Page	윤	FrP	Fa	Α̈́	V.	<u>u</u>	핍	Bu	So
	Ama-Drainer N 301, 302, 303, 358	41									
	Ama-Drainer 400/10 400/35 500/10/11	41									
Drainage pumps /	Ama-Drainer 80, 100	42									
waste water pumps	Ama-Porter F / S	42									
	Rotex	42									
	MK / MKY	42									
	AmaDS <sup>3</sup>	43									
	Ama-Drainer-Box	43									
	Ama-Drainer-Box Mini	43									
	mini-Compacta	43									
Lifting units / pump stations	Compacta	43									
	CK 800-Eu Pump Station	44									
	Ama-Porter CK Pump Station	44									
	Amarex N CK Pump Station	44									
	Evamatic-Box	44									
	Amarex N S32	45									
	Amarex N	45									
Submersible motor pumps	Amarex KRT	45									
	Amarex KRT dry-installed	45									
	Amarex KRT, wet / dry-installed	45									
	Amacan K	46									
Submersible pumps in discharge tubes	Amacan P	46									
die eine ge tallee	Amacan S	46									
	Amamix	47									
Mixers / agitators /	Amaprop	47									
tank cleaning units	Amajet	47									
	Amaline	47									
D ( P.I.I. (1:1	Sewatec / Sewabloc	48									
Pumps for solids-laden fluids	KWP / KWP-Bloc	48									
	WBC	48									
	LSA-S	48									
	LCC-M	49									
Slurry pumps	LCC-R	49									
	ТВС	49									
	LCV	49									
	FGD	49									
	Mega	50									

Pumps			FluidFuture®	ErP	Factory-automated	Automation possible	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport
Type / Application	Type series	Page	正	ш	Ē.	Ā	≥⊨	드	ш	ā	Š
	HHD	50									
	MHD	50									
Slurry pumps	LHD	50									
	MDX	50									
	ZW	51									
	HVF	51									
	Etaprime L	51									
Self-priming pumps	Etaprime B / BN	51									
	MZ	52									
	S 100D / UPA 100C	52									
	UPA 150C	52									
Submersible borehole pumps	UPA 200, 200B, 250C	52									
Submersible boreflole pumps	UPA 300, 350	53									
	UPZ, BSX-BSF	53									
	BEV	53									
	Movitec V / LHS / VS / VC	54									
	Movitec VCI	54									
High-pressure pumps, fixed / variable speed	Movitec PumpDrive	54									
	Multitec	54									
	Multitec PumpDrive	54									
	Omega	55									
Axially split pumps	RDLO	55									
	RDLP	55									
	Vitachrom	56									
	Vitacast	56									
Hygienic pumps	Vitaprime	56									
	Vitastage	56									
	Vitalobe	56									
	CHTA / CHTC / CHTD	57									
	HGB / HGC / HGD	57									
	HGM	57									
	YNK	57									
Pumps for power station	LUV / LUVA	57									
Pumps for power station conventional islands	WKTB	58									
	SEZ / SEZT / PHZ / PNZ	58									
	SNW / PNW	58									
	Beveron	58									
	SPY	58									

FluidFuture® ErP Factory-automated Automation possible

Pumps			Fluid Future®		Factory-automated	Automation possible	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport
Type / Application	Type series	Page	근	ErP	Fac	Αn	Tre	<u>u</u>	Ë	Bu	So
	RER	59									
	RSR	59									
	RUV	59									
	PSR	59									
Down of a good or a consultant	RHD	59									
Pumps for nuclear power plants	LUV Nuclear	60									
	RHM	60									
	RVM	60									
	RHR	60									
	RVR	60									
	RPH-RO	61									
Pumps for desalination	HGM-RO	61									
by reverse osmosis	Multitec-RO	61									
	SALINO Pressure Center	61									
D. 101 - 11 - 1	RC / RCV	62									
Positive displacement pumps	IPR	62									
E. C.L.C.	FFS	62									
Fire-fighting systems	FFU	62									

Automation and drives  Type / Application	Type series	Page	FluidFuture®	ErP	Water Transport and Treatment	Industry	Energy Conversion	<b>Building Services</b>	Solids Transport
Automation and drives	SuPremE	63							
	Controlmatic E	63							
	Controlmatic E.2	63							
Control units	Cervomatic EDP.2	63							
Control units	LevelControl Basic 2	64							
	UPA Control	64							
	hyatronic N	64							
	PumpDrive	65							
Considerated automa	hyatronic spc	65							
Speed control systems	Hyamaster ISB	65							
	Hyamaster SPS	65							
A A it it it	PumpMeter	66							
Monitoring and diagnostic systems	Amacontrol	66							
Control system	BOA-Systronic	66							

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		Riotherm	:	Rio-Inerm N	Foo Thorn M	Calio Therm S		Calio S	Callo Rio-Eco Z N		Etaline	Etaline Z	Etaline PumpDrive	Etaline Z PumpDrive	Etaline-R	ILN / ILNE / ILNS	ILNC / ILNCE / ILNCS	Ftanorm / Ftanorm-R	Etanorm PumpDrive	Etabloc	Etabloc PumpDrive	Etachrom BC	Etachrom BC PumpDrive	Etachrom NC	Etachrom NC PumpDrive	Etanorm GPV / CPV		HPH-L	= >		Etanorm SYT / RSY	etabloc SYT7 etaline SYT
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Oils																																ı
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Pharmaceutical fluids				4											_												L				ш	1
Polymerizing liquids		_		4							-				_									_			1	_		-[	_	4
Rainwater / stormwater			1	-							-				-		-	1		Н							1	-	_	-	Н	4
Raw sludge River, lake and ground water		-	-	-		-					-				-	-				÷		Н		-	+	-	1		_			+
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Wash water																											-					

	.se		RPH RPHb RPH-V RPH-V RPH-V RPH-V CTN API series (Nikkiso-KSB) CHTR CINCP / CINCN INVCP / INVCN WKTR	Hya-Rain Eco Hya-Rain Eco
SB)	MegaCPK MegaCPK Pumpdrive CPKN	Magnochem Magnochem-Bloc Etaseco / Etaseco / Etaseco RVP Secochem EX Secochem EX HT (Nikkiso-KSB) HT (Nikkiso-KSB) VN (Nikkiso-KSB) DN (Nikkiso-KSB)	kiso z z z	a-Rai
HX (Nikkiso-KSB) HY (Nikkiso-KSB)	Pun	Magnochem Magnochem-Bloc Etaseco / Etaseco Etaseco RVP Secochem Ex Secochem Ex K HN (Nikkiso-KSB) HT (Nikkiso-KSB) VN (Nikkiso-KSB) DN (Nikkiso-KSB)	RPH RPHB RPHB RPHAD RPHAD CTN API series (NIKA CHTR CHRCP / CINCN INVCP / INVCN RWCF / RWCN WKTR	Eco // Hys
ik ki	S CPK	Magnochem Magnochem Etaseco / Eta Etaseco RVP Secochem Ex Secochem Ex HN (Nikkiso-I HT (Nikkiso-I VN (Nikkiso-I DN	RPH RPHb RPH-V RPHmdp CTN CTN API series CHTR YNKR CINCP / C INVCP / II	Hya-Rain / Hy Hya-Rain Eco
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motor =	sdwnd			Aggressive liquids
canned	<u>a</u> = = =	ess		Activated sludge Aggressive liquids Brackish water Brine Cleaning agents Condensate Coolant Cooling lubricant Cooling water
_ <u> </u>	chemi:			Brine Cleaning agents
				Condensate
magnetic drive	Standardised			Coolant
Jueti	tand			Cooling lubricant
				Cooling water
with _				Corrosive liquids Digested sludge
bumps with				Dipping paints
_ m				Distillate
lio				Drinking water
Thermal				Explosive liquids
_≐				Feed water
_				Filtered water
				Fire-fighting water Flammable liquids
				Fuels
				Gas-containing liquids
				Harmful liquids
		**		Heating water
	-			High-temperature hot water Highly aggressive liquids
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				Inorganic liquids
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				Lubricants Oils
				Organic liquids
				Pharmaceutical fluids
				Polymerizing liquids
_				Rainwater / stormwater
				Raw sludge River, lake and ground water
				Seawater
				Service water
				Sewage with faeces
				Sewage without faeces
				Slurries
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CHTA / CHTC / CHTD HGB / HGC / HGD HGM YNK WKTB SEZ / SEZT / PHZ / PNZ SNW / PNW		RPH-RO HGM-RO Multitec-RO SALINO Pressure Center			
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CHTA / CHTG HGB / HGC / HGM HGM YNK LUV / LUVA WKTB SEZ / SEZT / SNW / PNW Beveron	RER RSR RUV PSR RHD LUV nudear RHM RYM	RPH-RO HGM-RO Multitec-RO SALINO Pres	RC / RCV IPR FFS FFU	SupPremE	PumpMeter
				es Su	⊋ ■ Air-conditioning systems
spands	r plants		displacement pumps	d drives	Air-conditioning systems Aquaculture Boiler circulation Boiler feed applications Chemical industry Cleaning of stormwater tanks / storage sewers Condensate transport
Conventional	bower	erse (	lacement	Automation and	Boiler circulation  Boiler feed applications
nvent	ear	y rew	■ Jace	matio	Chemical industry
	r unc	- ioi		Autor	Cleaning of stormwater tanks / storage sewers
station	S S S S S S S S S S S S S S S S S S S	:	Positive		Cooling circuits
_ ■ ■	Pum	desa	<u> </u>		Cooling circuits  Descaling units  Dewatering
for po		so for		믐	Disposal
Pumps fc		Pumps		Ħ	■ District heating
Pur					Dock facilities
				믬	■ Domestic water supply  Drainage
				百	Drainage of pits, shafts, etc.
					Dredging Fine fine fine fine fine fine fine fine f
					Fire-fighting systems Flood control / coast protection (stormwater)
				Ē	Flue gas desulphurization
				무	Food and beverages industry
				믬	Fountains Heat recovery systems
					Heavy oil and coal upgrading
				H	Homogenization
					Hot water heating systems Hydraulic solids transport
					■ Industrial recirculation systems
				H	■ Irrigation  Keeping in suspension
				Ħ	Lowering ground water levels
				▣	■ Maintaining ground water levels
					Mining Mixing
					Nuclear power plants
					Offshore platforms
				H	Paint shops Paper and cellulose industry
					Petrochemical industry
					Pharmaceutical industry Pipelines and tank farms
					Pressure boosting
				▣	Process engineering
				믬	Rainwater harvesting Recirculation
					Refineries
					Seawater desalination / reverse osmosis
					Sewage treatment plants Shipbuilding
					Sludge disposal
					Sludge processing
· · ·				-	Snow guns Solar thermal energy
				ਾ	■ Spray irrigation
				믐	Sugar industry  Swimming pools
				H	Thermal oil circulation
				■	Thickening
					<ul><li>Washing plants</li><li>Water extraction</li></ul>
					■ Water supply
					■ Water treatment systems

# Circulator / hot water service pumps, fixed speed

# **Riotherm**® Hot water service pump



Rp	1-11/4
Q [m³/h]	max. 10
H [m]	max. 6
p [bar]	max. 10
T [°C]	-2 to +110
Data for 50 Hz operation	

**Design:** Screw-ended glanded pump with mechanical seal and fixed speed. **Applications:** Swimming pools, cooling circuits and industrial plants.

Switchgears

Reference no. 1118.

also available in 60 Hz

# Drinking water circulator pumps, fixed speed

**Rio**®-Therm N Glandless circulator pump with up to 4 speed levels



Rp / DN	1/2 - 11/4 / 40 - 80
Q [m3/h]	max, 50
H [m]	max. 9
p [bar]	max. 10
Theating water [°C]	-10 to +110
T <sub>drinking water</sub> [°C] u up to +1	p to +80 (20 °dh) 10 for short periods (2 h)
n [min <sup>-1</sup> ]	max. 2800
Data for 50 Hz operati	on

**Design:** Maintenance-free glandless circulator pump with up to four speed levels.

**Applications:** Hot service water / drinking water supply systems.

Reference no. 1142.52

available in 50 Hz and 60 Hz

# Drinking water circulator pumps, variable speed

Rio-Eco® Therm N High-efficiency glandless circulator pump with continuously variable differential pressure control



Rp / DN	1-11/4 / 32 - 80
Q [m³/h]	max. 38
H [m]	max. 12
p [bar]	max. 10
Theating water [°C]	-10 to +110
T <sub>drinking water</sub> [°C]	+80 (20 °dH)
n [min-1]	max. 3700
Data for 50 Hz operation	

**Design:** Maintenance-free glandless circulator pump with integrated frequency inverter for continuously variable differential pressure control.

Applications: Hot service water / drinking water production systems.





Reference no. 1142.5

suitable for 50 and 60 Hz operation

Pumps 25

# Drinking water circulator pumps, variable speed

Calio Therm S High-efficiency glandless circulator pump with continuously variable differential pressure control



Rp	1 - 11/4
Q [m³/h]	max. 3.5
H [m]	max. 6
p [bar]	max. 10
Theating water [°C]	+5 to +95
T <sub>drinking water</sub> [°C]	+80 (20 °dH)
n [min-1]	max. 3000
Data for 50 Hz operation	

**Design:** Maintenance-free glandless circulator pump with integrated frequency inverter for continuously variable differential pressure control.

**Applications:** Drinking water circulation / production systems.





Reference no. 1157.81

suitable for 50 and 60 Hz operation

# Circulator pumps, variable speed

Calio S High-efficiency glandless circulator pump with continuously variable differential pressure control



Rp	1/2 - 11/4
Q [m³/h]	max. 3.5
H [m]	max. 6
p [bar]	max. 10
T [°C]	+5 to +95
n [min-1]	max. 3000
Data for 50 Hz operation	

**Design:** Maintenance-free glandless circulator pump with integrated frequency inverter for continuously variable differential pressure control.

**Applications:** Systems for heating / ventilation / air-conditioning / heat recovery / cooling as well as industrial recirculation.





Reference no. 1157.81

suitable for 50 and 60 Hz operation

#### Calio High-efficiency glandless circulator pump with continuously variable differential pressure control



Rp / DN	1 - 11/4 / 32 - 100
Q [m³/h]	max, 70
H [m]	max, 18
p [bar]	max, 16
T [°C]	-10 to +110
n [min <sup>-1</sup> ]	max, 3660
Data for 50 Hz operation	on

**Design:** Maintenance-free glandless circulator pump with integrated frequency inverter for continuously variable differential pressure control.

**Applications:** Systems for heating / ventilation / air-conditioning / heat recovery / cooling as well as industrial recirculation.





Reference no. 1157.82

suitable for 50 and 60 Hz operation

# Rio-Eco® Z N High-efficiency glandless twin circulator pump with continuously variable differential pressure control



DN	32 - 80
Q [m³/h]	max. 46
H [m]	max. 14
p [bar]	max. 10
T [°C]	-10 to +110
n [min-1]	max. 3550
Data for 50 Hz operation	

**Design:** Maintenance-free glandless circulator pump with integrated frequency inverter for continuously variable differential pressure control.

**Applications:** Systems for heating/ventilation/air-conditioning/heat recovery/cooling as well as industrial recirculation.





Reference no. 1140.5

suitable for 50 and 60 Hz operation

# In-line pumps with fixed / variable speed drive

## Etaline® In-line pump



DN	32 - 200
Q [m³/h]	max. 700
H [m]	max. 95
p [bar]	max. 16
T [°C]	-30 to +140
Data for 50 Hz operation	

Design: Close-coupled, in-line circulator pump with volute casing and standardised

Applications: Hot water heating systems, cooling circuits, air-conditioning, water and service water supply systems, industrial recirculation systems.



PumpMeter, Hyamaster, LevelControl, Switchgears

# Etaline® Z In-line twin pump



DN	32 - 200
Q [m³/h]	max. 1120
H [m]	max. 38
p [bar]	max. 16
T [°C]	-30 to +140
Data for 50 Hz operation	

Design: Close-coupled, in-line twin circulator pump; pump shaft and motor shaft are rigidly coupled.

Applications: Hot water heating systems, cooling circuits, air-conditioning systems, water and service water supply systems, industrial recirculation systems.



PumpMeter, Hyamaster, LevelControl, Switchgears

also available in 60 Hz

#### Etaline® PumpDrive In-line pump with motor-mounted variable speed system



DN	32 - 200
Q [m³/h]	max. 788
H [m]	max. 100
p [bar]	max. 16
T [°C]	-10 to +140
n [min <sup>-1</sup> ]	max. 4200

Design: Close-coupled in-line circulator pump with motor-mounted variable speed system; pump shaft and motor shaft are rigidly coupled.

Applications: Hot water heating systems, cooling circuits, air-conditioning systems, water and service water supply systems, industrial recirculation systems.





PumpMeter, BOA-Systronic

also suitable for 60 Hz operation

## Etaline® Z PumpDrive In-line pump with motor-mounted variable speed system



DN	32 - 200
Q [m³/h]	max. 990
H [m]	max, 38
p [bar]	max, 16
T [°C]	-10 to +140
n [min <sup>-1</sup> ]	max, 2100

**Design:** Close-coupled in-line circulator pump, in twin pump design with motor-mounted variable speed system; pump shaft and motor shaft are rigidly coupled. Dual pump modules (accessories) enable redundant operation of Etaline Z without a higherlevel controller.

Applications: Hot water heating systems, cooling circuits, air-conditioning systems, water and service water supply systems, industrial recirculation systems.



PumpMeter, BOA-Systronic

also suitable for 60 Hz operation

# Etaline®-R In-line pump



DN	150 - 350
Q [m³/h]	max. 1900
H [m]	max. 93
p [bar]	max. 25
T [°C]	-30 to +140
Data for 50 Hz operation	

**Design:** Vertical close-coupled, in-line circulator pump with volute casing and standardised motor.

Applications: Hot water heating systems, cooling circuits, air-conditioning, water and service water supply systems, industrial recirculation systems.





PumpMeter, PumpDrive, Hyamaster, Switchgears

Pumps

# In-line pumps with fixed / variable speed drive

## ILN / ILNE / ILNS In-line pump



DN	65 - 400
Q [m³/h]	max. 3100
H [m]	max. 112
p [bar]	max. 16
T [°C]	-20 to +70
n [min <sup>-1</sup> ]	max. 3000
Data for 50 Hz operation	

**Design:** Vertical in-line centrifugal pump with closed impeller and mechanical seal. ILNS fitted with an auxiliary vacuum pump and ILNE with ejector. Process design allows removal of the impeller without removing the pipes and the motor.

**Applications:** Hot water heating systems, cooling circuits, air-conditioning, marine applications, water and service water supply systems, cleaning systems, industrial recirculation systems.

UIDAE EN

27

PumpMeter, PumpDrive, Hyamaster, Switchgear

also suitable for 60 Hz operation

## ILNC / ILNCE / ILNCS In-line pump



DN	32 - 125
Q [m³/h]	max. 370
H [m]	max. 112
p [bar]	max. 16
T [°C]	-20 to +70
n [min <sup>-1</sup> ]	max. 3000
Data for 50 Hz operation	

**Design:** Closed-coupled vertical in-line centrifugal pump with electric motor, closed impeller and mechanical seal. ILNCS fitted with an auxiliary vacuum pump and ILNCE with ejector. Standardised IEC motor.

**Applications:** Hot water heating systems, cooling circuits, air-conditioning, marine applications, water and service water supply systems, cleaning systems, industrial recirculation systems.

ErP

PumpMeter, PumpDrive, Hyamaster, Switchgear

also suitable for 60 Hz operation

# Standardised/close-coupled pumps, fixed/var. speed

## Etanorm® / Etanorm®-R Standardised pump



PumpMeter, Hyamaster

DN	32 - 300
Q [m³/h]	max. 1900
H [m]	max. 102
p [bar]	max. 16
T [°C]	max. +140
Data for 50 Hz operation	

**Design:** Horizontal, long-coupled, single-stage volute casing pump (pump size 125 - 500 with two stages) with ratings and main dimensions to EN 733, in back pull-out design, with replaceable shaft sleeves / shaft protecting sleeves and casing wear rings. ATEX-compliant version available.

**Applications:** Spray irrigation, irrigation, drainage, district heating, water supply systems, heating and air-conditioning systems, condensate transport, swimming pools, fire-fighting systems, handling of hot water, cooling water, fire-fighting water, oil, brine, drinking water, brackish water, service water, etc.

#### Etanorm® PumpDrive Standardised pump with motor-mounted variable speed system



DN	25 - 150
Q [m³/h]	max. 660
H [m]	max. 160
p [bar]	max. 16
T [°C]	max. +140
n [min <sup>-1</sup> ]	max. 4200

Design: Horizontal, long-coupled, single-stage volute casing pump in back pull-out design, with replaceable shaft sleeves / shaft protecting sleeves and casing wear rings and motor-mounted variable speed system.

Applications: Spray irrigation, irrigation, drainage, district heating, water supply systems, heating and air-conditioning systems, condensate transport, swimming pools, fire-fighting systems, handling of hot water, cooling water, fire-fighting water, oil, brine, drinking water, brackish water, service water, etc.

# Etabloc® Close-coupled pump

PumpMeter



DN	25 - 150
Q [m³/h]	max. 612
H [m]	max. 102
p [bar]	max. 16
T [°C]	max. +140
Data for 50 Hz operation	

Design: Close-coupled, single-stage volute casing pump, ratings to EN 733, with replaceable shaft sleeve and casing wear rings. ATEX-compliant version available.

Applications: Spray irrigation, irrigation, drainage and water supply systems, heating and air-conditioning systems, condensate transport, swimming pools, handling of hot water, cooling water, fire-fighting water, seawater, oil, brine, drinking water, cleaning agents, brackish water, service water, etc.

PumpMeter, Hyamaster

## Etabloc® PumpDrive Close-coupled pump with motor-mounted variable speed system



DN	25 - 150
Q [m³/h]	max, 660
H [m]	max, 101
p [bar]	max, 16
T [°C]	max, +110
n [min <sup>-1</sup> ]	max. 4200

Design: Close-coupled, single-stage volute casing pump, ratings to EN 733, with replaceable shaft sleeve and casing wear rings and motor-mounted variable

Applications: Spray irrigation, irrigation, drainage and water supply systems, heating and air-conditioning systems, condensate transport, swimming pools, handling of hot water, cooling water, fire-fighting water, seawater, oil, brine, drinking water, cleaning agents, brackish water, service water, etc.

PumpMeter

# Etachrom® BC Close-coupled chrome steel pump



DN	25 - 80
Q [m³/h]	max. 260
H [m]	max. 106
p [bar]	max. 12
T [°C]	max. +110
Data for 50 Hz operation	

**Design:** Close-coupled, horizontal, single-stage annular casing pump, with ratings and main dimensions to EN 733, with replaceable casing wear rings. ATEX-compliant version

**Applications:** Spray irrigation, irrigation, drainage and water supply systems, heating and air-conditioning systems, fire-fighting systems, condensate transport, swimming pools, handling of hot water, cooling water, fire-fighting water, oil, drinking water, cleaning agents, service water.

PumpMeter, Hyamaster

# Standardised/close-coupled pumps, fixed/var. speed

# Etachrom® BC PumpDrive Close-coupled chrome steel pump with motor-mounted variable speed system



DN	25 - 80
Q [m³/h]	max. 260
H [m]	max. 106
p [bar]	max. 12
T [°C]	max. +110
n [min-1]	max. 3600

**Design:** Close-coupled, horizontal, single-stage annular casing pump, with ratings and main dimensions to EN 733, with replaceable casing wear rings and motor-mounted variable speed system.

**Applications:** Spray irrigation, irrigation, drainage and water supply systems, heating and air-conditioning systems, fire-fighting systems, condensate transport, swimming pools, handling of hot water, cooling water, fire-fighting water, oil, drinking water, cleaning agents, service water.

FLUID FUTURE



PumpMeter

Reference no. 1213.5 + 4070.5

# Etachrom® NC Standardised chrome steel pump



DN	25 - 80
Q [m³/h]	max. 260
H [m]	max. 106
p [bar]	max. 12
T [°C]	max. +110
Data for 50 Hz operation	

**Design:** Horizontal, single-stage annular casing pump, with ratings and main dimensions to EN 733, with replaceable casing wear rings. ATEX-compliant version available.

**Applications:** Water supply, spray irrigation, irrigation and drainage systems, heating and air-conditioning systems, fire-fighting systems, handling of drinking water, service water, hot water, cooling water, swimming pool water, fire-fighting water, condensate, oil and cleaning agents.

LUID UTURE 20

PumpMeter, Hyamaster

Reference no. 1212.5

also available in 60 Hz

# Etachrom® NC PumpDrive Standardised chrome steel pump with motor-mounted variable speed system



25 - 80
max. 260
max. 106
max. 12
max. +110
max. 3600

**Design:** Horizontal, single-stage annular casing pump, with ratings and main dimensions to EN 733, with replaceable casing wear rings and motor-mounted variable speed system.

**Applications:** Water supply, spray irrigation, irrigation and drainage systems, heating and air-conditioning systems, fire-fighting systems, handling of drinking water, service water, hot water, cooling water, swimming pool water, fire-fighting water, condensate, oil and cleaning agents.

UID TURE!

PumpMeter

Reference no. 1212.5 + 4070.5

#### Etanorm® GPV / CPV Vertical low-pressure pump



DN	32 - 150
Q [m³/h]	max. 660
H [m]	max, 102
p [bar]	max, 16
T [°C]	max. +95
Data for 50 Hz operation	

**Design:** Single-stage volute casing pump, ratings to EN 733, for vertical installation in closed tanks under atmospheric pressure. Up to an immersion depth of 2000 mm.

**Applications:** Handling of neutral degreasing and phosphatizing solutions, wash water with degreasing agents, dipping paints, etc.

Reference no. 1214.

# Hot water pumps

## **HPK-L®** Heat transfer liquid / hot water recirculation pump without external cooling

Data for 50 Hz operation



DN	25 - 250
Q [m³/h]	max, 1130
H [m]	max. 155
p [bar]	max. 40
T [°C]	max. +240 / +400

**Design:** Horizontal, radially split volute casing pump in back pull-out design to ISO 2858 / ISO 5199, single-stage, single-entry, with radial impeller. Equipped with heat barrier, seal chamber air-cooled by integrated fan impeller, no external cooling. ATEX-compliant version available.

**Applications:** Handling of hot water and thermal oil in piping or tank systems, particularly in medium-sized and large hot water heating systems, forced circulation boilers, district heating systems, etc.

PumpDrive, Hyamaster

Reference no. 1136.

also available in 60 Hz

# **HPK**<sup>®</sup> Heat transfer liquid / hot water recirculation pump



DN	150 - 400
Q [m³/h]	max. 4150
H [m]	max. 185
p [bar]	max. 40
T [°C]	max. +400
Data for 50 Hz operation	

**Design:** Horizontal, radially split volute casing pump in back pull-out design to ISO 2858 / ISO 5199, single-stage, single-entry, with radial impeller. TÜV certification to TRD on option. ATEX-compliant version available.

**Applications:** Handling of hot water and thermal oil in piping or tank systems, particularly in medium-sized and large hot water heating systems, forced circulation boilers, district heating systems, etc.

PumpDrive, Hyamaster

Reference no. 1121.5

also available in 60 Hz

## **HPH**® Hot water recirculation pump



ON	40 - 350
Q [m³/h]	max. 2350
H [m]	max. 225
o [bar]	max. 110
Γ [°C]	max. +320
Data for 50 Hz operation	

**Design:** Horizontal, radially split volute casing pump in back pull-out design, single-stage, single-entry, with centreline pump feet and radial impeller. TÜV certification to TRD on option. ATEX-compliant version available.

**Applications:** Handling of hot water in high-pressure hot water generation plants and for use as boiler feed or recirculation pump.

Hyamaster

Reference no. 1122.5

# Hot water / thermal oil pumps

## Etanorm® SYT / RSY Hot water / thermal oil pump



DN	32 - 300
Q [m³/h]	max. 1900
H [m]	max. 102
p [bar]	max. 16
T [°C]	max. +350
Data for 50 Hz operation	

**Design:** Horizontal, long-coupled volute casing pump in back pull-out design with ratings and main dimensions to EN 733, single-stage, with replaceable casing wear rings. ATEX-compliant version available.

**Applications:** Heat transfer systems (DIN 4754, VDI 3033) or hot water recirculation (DIN 4752).

Hyamaster

Reference no. 1220.5

lso available in 60 Hz

# Etabloc® SYT / Etaline® SYT Hot water / thermal oil pump



DN	32 - 100
Q [m³/h]	max. 280
H [m]	max. 67
p [bar]	max. 16
T [°C]	max. +350
Data for 50 Hz operation	

**Design:** Horizontal, single-stage volute casing pump in back pull-out design with ratings and main dimensions to EN 733, or in in-line design, with replaceable casing wear rings.

Applications: Heat transfer systems (DIN 4754) or hot water recirculation.

Hyamaster

Reference no. 1172.5

also available in 60 Hz

# Thermal oil pumps with mag-drive or canned motor

## HX (Nikkiso-KSB)\* Thermal oil pump with explosion protection



DN	32 - 100
Q [m³/h]	max, 200
H [m]	max, 100
p [bar]	max, 40
T [°C]	max. +350
Data for 50 Hz operation	

**Design:** Horizontal, seal-less, single-stage pump with fully enclosed canned motor, uncooled. ATEX-compliant version available.

**Applications:** Handling of thermal oils and other hot fluids in heat transfer systems to DIN 4754.

also available in 60 Hz

## **HY (Nikkiso-KSB)\*** Thermal oil pump with explosion protection



DN	32 - 80
Q [m³/h]	max. 150
H [m]	max. 100
p [bar]	max. 40
T [°C]	max. +250
Data for 50 Hz operation	

**Design:** Horizontal, seal-less, single-stage pump with fully enclosed canned motor, uncooled, coolable or heatable. ATEX-compliant version available.

**Applications:** Handling of thermal oils and other hot fluids in heat transfer systems to DIN 4754.

# Standardised chemical pumps

#### **MegaCPK** Standardised chemical pump with two bearing bracket variants



DN	25 - 250
Q [m³/h]	max. 1160
H [m]	max. 162
p [bar]	max. 25
T [°C]	max. +400
Data for 50 Hz operation	

Design: Horizontal, radially split volute casing pump in back pull-out design, with radial impeller, single-entry, single-stage, to ISO 2858 / ISO 5199. Also available as variant with "wet" shaft and conical seal chamber. ATEX-compliant version available.

Applications: Handling of aggressive liquids in the chemical and petrochemical industries as well as in refineries.



PumpMeter, PumpDrive

also available in 60 Hz

# MegaCPK PumpDrive / PumpMeter Standardised chemical pump with two bearing bracket variants



DN	25 - 250
Q [m³/h]	max. 1150
H [m]	max. 162
p [bar]	max. 25
T [°C]	max. +140
n [min-1]	max. 3600
Data for 50 Hz operation	

Design: Horizontal, radially split volute casing pump in back pull-out design, with radial impeller, single-entry, single-stage, to ISO 2858 / ISO 5199. Also available as variant with "wet" shaft and conical seal chamber. ATEX-compliant version available.

Applications: Handling of aggressive liquids in the chemical and petrochemical industries as well as in refineries.



## **CPKN** Standardised chemical pump with reinforced bearing bracket



DN	150 - 400
Q [m³/h]	1160 - max. 4150
H [m]	162 - max. 185
p [bar]	max. 25
T [°C]	max. +400
Data for 50 Hz operati	ion

Design: Horizontal, radially split volute casing pump in back pull-out design, with radial impeller, single-entry, single-stage, to ISO 2858 / ISO 5199. Also available as variant with "wet" shaft, conical seal chamber and/or semi-open impeller (CPKNO). ATEX-compliant

Applications: Handling of aggressive liquids in the chemical and petrochemical industries as well as in refineries and fire-fighting systems, handling of brine.

PumpMeter, PumpDrive

also available in 60 Hz

# **Seal-less pumps**

# Magnochem® Standardised chemical pump with mag-drive



DN	25 - 160
Q [m³/h]	max. 1160
H [m]	max. 162
p [bar]	max. 40
T [°C]	-90 to +300
Data for 50 Hz operation	

**Design:** Horizontal, seal-less, mag-drive volute casing pump in back pull-out design to ISO 2858 / ISO 5199, single-stage, single-entry, with radial impeller. ATEX-compliant

Applications: Handling of aggressive, toxic, explosive, valuable, flammable, malodorous or harmful liquids in the chemical, petrochemical and general industry.

Hyamaster

# Seal-less pumps

## Magnochem®-Bloc Close-coupled chemical pump with mag-drive



DN	25 - 160
Q [m³/h]	max. 754
H [m]	max. 162
p [bar]	max. 25
T [°C]	max. +250
Data for 50 Hz operation	

**Design:** Horizontal, seal-less, close-coupled, mag-drive volute casing pump to ISO 2858 / ISO 5199, single-stage, single-entry, with radial impeller. ATEX-compliant version available.

**Applications:** Handling of aggressive, toxic, explosive, valuable, flammable, malodorous or harmful liquids in the chemical, petrochemical and general industry.

Hyamaster

Reference no 27/19 5

lso available in 60 Hz

# Etaseco® / Etaseco®-I Standardised water pumps with canned motor



DN	32 - 100
Q [m³/h]	max. 250
H [m]	max. 162
p [bar]	max. 16
T [°C]	max. +140
Data for 50 Hz operation	

**Design:** Horizontal / vertical, seal-less volute casing pump in back pull-out design with fully enclosed canned motor, low noise emission, with radial impeller, single-stage, single-entry, pump casing connecting dimensions to EN 733.

**Applications:** Handling of aggressive, flammable, toxic, volatile, or valuable liquids in the chemical and petrochemical industry, in environmental engineering and the general industry.

PumpMeter, Hyamaster, PumpDrive

Reference no. 2935.5

also available in 60 Hz

## Etaseco® RVP Cooling circuit pump with canned motor



DN	32
Q [m³/h]	max. 20
H [m]	max. 25
p [bar]	max. 10
T [°C]	max. +85

**Design:** Horizontal / vertical seal-less volute casing pump in back pull-out design with fully enclosed canned motor, low noise emission, with radial impeller, single-stage, single-entry.

**Applications:** Pump for handling toxic, volatile or valuable fluids in environmental and industrial engineering and for use as a coolant pump in cooling systems. Transport vehicles, environmental and industrial engineering; applications where low noise emission, smooth running or long service intervals are required.

PumpMeter, PumpDrive

Reference no. 2935.17

also available in 60 Hz

## **Secochem®** Ex Standardised chemical pump with canned motor and explosion protection



DN	25 - 100
Q [m³/h]	max. 300
H [m]	max. 150
p [bar]	max. 25
T [°C]	max, +130
Data for 50 Hz operation	

**Design:** Horizontal, seal-less volute casing pump in back pull-out design with fully enclosed canned motor, low noise emission, with radial impeller, single-stage, single-entry, casing connecting dimensions to ISO 2858. Design to ATEX.

**Applications:** Handling of aggressive, flammable, explosive, toxic, volatile or valuable liquids in the chemical and petrochemical industry, in environmental engineering and the general industry.

Hyamaster

Reference no 2939 5

also available in 60 Hz

# **Secochem®** Ex K Standardised chemical pump with canned motor and explosion protection



DN	25 - 100
Q [m³/h]	max. 300
H [m]	max. 150
p [bar]	max. 25
T [°C]	max. +400
Data for 50 Hz operation	

**Design:** Horizontal, seal-less volute casing pump in back pull-out design with fully enclosed canned motor, low noise emission, with radial impeller, single-stage, single-entry, pump casing connecting dimensions to ISO 2858, with external cooler. Design to ATEX.

**Applications:** Handling of aggressive, flammable, explosive, toxic, volatile or valuable liquids in the chemical and petrochemical industry, in environmental engineering and the general industry.

**H**yamaster

Reference no. 2939.5

# Seal-less pumps

## HN (Nikkiso-KSB)\* Chemical canned motor pump with explosion protection



DN	32 - 300
Q [m³/h]	max. 800
H [m]	max. 200
p [bar]	max. 40
T [°C]	max. +180
Data for 50 Hz operation	

**Design:** Horizontal (HN) or vertical (BN / TN), seal-less, single-stage pump with fully enclosed canned motor, uncooled, coolable or heatable. ATEX-compliant version available.

**Applications:** Handling of aggressive, flammable, explosive, toxic, volatile or valuable liquids in the chemical and petrochemical industry.

also available in 60 Hz

# HT (Nikkiso-KSB)\* Chemical canned motor pump with explosion protection for special applications



DN	32 - 300
Q [m³/h]	max. 800
H [m]	max. 200
p [bar]	max. 40
T [°C]	max. +400
Data for 50 Hz operation	

**Design:** Horizontal (HT) or vertical (BT / TT), seal-less, single-stage pump with fully enclosed canned motor, coolable. ATEX-compliant version available.

**Applications:** Handling of aggressive, solids-containing, polymerizing, flammable, explosive, toxic, volatile or valuable liquids as well as thermal oils in the chemical and petrochemical industry.

also available in 60 H:

## **HK (Nikkiso-KSB)\*** Two-stage canned motor pump with explosion protection



DN	25 - 40
Q [m³/h]	max. 10
H [m]	max. 300
p [bar]	max. 40
T [°C]	max. +150
n [min-1]	max. 8400
Data for n = 8400 min <sup>-1</sup>	

**Design:** Horizontal, seal-less pump with fully enclosed canned motor, two-stage design in tandem arrangement. ATEX-compliant version available.

**Applications:** Handling of aggressive, flammable, explosive, toxic, volatile or valuable liquids in the chemical and petrochemical industry. For small flow rates, high discharge heads and low NPSH<sub>a</sub>.

high speed, up to 130 Hz

# VN (Nikkiso-KSB)\* Multistage canned motor pump with explosion protection



DN	40 - 100
Q [m³/h]	max. 140
H [m]	max. 450
p [bar]	max. 40
T [°C]	max. +180
Data for 50 Hz operation	

**Design:** Horizontal, seal-less pump with fully enclosed canned motor, multistage. ATEX-compliant version available.

**Applications:** Handling of aggressive, flammable, explosive, toxic, volatile or valuable liquids in the chemical and petrochemical industry. For high discharge heads.

also available in 60 Hz

# **DN (Nikkiso-KSB)\*** Self-priming canned motor pump with explosion protection



DN	32 - 50
Q [m³/h]	max. 40
H [m]	max. 60
p [bar]	max. 40
T [°C]	max. +180
Data for 50 Hz operation	

**Design:** Horizontal, seal-less pump with fully enclosed canned motor, single-stage, self-priming. ATEX-compliant version available.

**Applications:** Handling of aggressive, flammable, explosive, toxic, volatile or valuable liquids in the chemical and petrochemical industry. Self-priming pump for draining of tanks and unloading of tanks and tank trucks.

# **Process pumps**

# RPH® OH2 process pump to API 610



DN	25 - 400
Q [m³/h]	max. 4150
H [m]	max. 270
p [bar]	max. 51
T [°C]	max. +450
Data for 50 Hz operation	

**Design:** Horizontal, radially split volute casing pump in back pull-out design to API 610, ISO 13709 (heavy-duty), with radial impeller, single-stage, single-entry, centreline pump feet; with inducer, if required. ATEX-compliant version available.

**Applications:** Refineries, petrochemical and chemical industry, power stations.

Hyamaster

Reference no. 1312.5 / 1316.5

lso available in 60 Hz

## RPHb BB2 process pump to API 610



DN	50 - 150
Q [m³/h]	max. 450
H [m]	max. 400
p [bar]	max. 100
T [°C]	max. +450
Data for 50 Hz operation	

**Design:** Horizontal, radially split volute casing pump in back pull-out design to API 610 and / or VDMA 24 297, Class A (heavy-duty), with radial impeller, single-entry, two-stage design, back-to-back impeller arrangement, centreline pump feet.

Applications: Refineries, petrochemical and chemical industry.

also available in 60 Hz

# **RPH-V** VS4 process pump to API 610



DN	40 - 150
Q [m³/h]	max. 80
H [m]	max. 240
p [bar]	max. 35
T [°C]	max. +230
Data for 50 Hz operation	

**Design:** Vertical, radially split volute casing pump to API 610 and ISO 13709 (heavy-duty), with radial impeller, single-entry, single-stage.

**Applications:** Refineries, petrochemical and chemical industry.

also available in 60 Hz

## RPHmdp Standardised chemical pump with mag-drive to API 685



DN	25 - 100
Q [m³/h]	max, 300
H [m]	max, 270
p [bar]	max, 51
T [°C]	max. +300
Data for 50 Hz operation, suitable for 50 and 60 Hz operation	

**Design:** Horizontal, radially split volute casing pump in back pull-out design to API 685, ISO 13709 (heavy-duty), single-stage, single-entry, with radial impeller and centreline pump feet; with inducer, if required. ATEX-compliant.

Applications: Refineries, petrochemical and chemical industry, power stations.

Reference no. 1316.27/01/1316.8017/01/1316.57/01 available in 50 Hz and 60 Hz

#### CTN Chemical vertical shaft submersible pump



DN	25 - 250 / 250 - 400	
Q [m³/h]	max. 950	
H [m]	max. 115	
p [bar]	max. 16	
T [°C]	max. +300	
Data for 50 Hz operation, suitable for 50 and 60 Hz operation		

**Design:** Radially split, vertical shaft submersible pump with double volute for wet and dry installation, single- or double-stage, single-entry, with radial impeller; heatable model available. ATEX-compliant version available.

**Applications:** Handling of chemically aggressive liquids, also slightly contaminated or with a low solids content, in the chemical and petrochemical industry.

Reference no. 2711.

available in 50 Hz and 60 Hz

# **Process pumps**

## API series (Nikkiso-KSB)\* Refinery pump



DN	1½ - 6
Q [m³/h]	max. 360
H [m]	max. 220
p [bar]	max. 40
T [°C]	max. +450
Data for 50 Hz operation	

**Design:** Horizontal or vertical canned motor pump to API 685, single-stage, with centreline pump feet; also available with inducer.

**Applications:** HNP: for clean liquids; HTP: for hot fluids; HSP / HMP: for contaminated or polymerising fluids; HRP: for fluids with a steep vapour pressure curve such as liquefied gases.

also available in 60 Hz

## CHTR BB5 high-pressure pump to API 610



DN	50 - 150
Q [m³/h]	max. 900
H [m]	max. 2500
p [bar]	max. 250
T [°C]	max. +400
n [min <sup>-1</sup> ]	max. 7000
Data for 50 Hz operation, higher values available upon request	

**Design:** Horizontal, high-pressure barrel-type pump with radial impellers, single- and double-entry, multistage, with flanges / weld end nozzles to DIN, API 610 and ANSI.

**Applications:** In refineries, in the petrochemical industry and in steam generation plants.

Reference no. 2701 also available in 60 Hz

#### YNKR BB2 process pump to API 610



DN	125 - 500
Q [m³/h]	max. 3800
H [m]	max. 390
p [bar]	max. 60
T [°C]	max. +400
n [min-1]	max. 3600
Data for 50 Hz operation, higher values available upon request	

**Design:** Horizontal, radially split, single-stage, double-entry pump with single or double volute casing made of cast steel, in accordance with API 610.

**Applications:** In refineries, in the petrochemical industry, solarthermal power plants and in steam generation plants.

Reference no. 1139.2

also available in 60 Hz

## **CINCP / CINCN** Vertical immersion pump for sumps and tanks



DN	32 - 200
Q [m³/h]	max, 780
H [m]	max, 105
p [bar]	max, 10
T [°C]	-10 to +100
n [min <sup>-1</sup> ]	max, 3000
Data for 50 Hz operation	

**Design:** Centrifugal vertical sump pump in cantilever design, for wet or dry well installation. Semi-open impeller, pump shaft without guide bearing, supported by ball bearings in the upper section. Supplied with discharge pipe extending above the baseplate (CINCP) or without discharge pipe (CINCN). ATEX-compliant version available.

**Applications:** Chemical and petrochemical industry, raw materials extraction processes and waste water management.

Hyamaster

also suitable for 60 Hz operation

# INVCP / INVCN Vertical immersion pump for sumps and tanks



DN	32 - 300
Q [m³/h]	max. 1600
H [m]	max. 116
p [bar]	max. 10
T [°C]	-10 to +100
n [min <sup>-1</sup> ]	max. 3000
Data for EO Ha appration	

**Design:** Centrifugal vertical sump pump, for wet or dry well installation, available with closed or semi-open impeller. Supplied with discharge pipe extending above the baseplate (INVCP) or without discharge pipe (INVCN). ATEX-compliant version available.

**Applications:** Handling of chemically aggressive, slightly contaminated or solids-laden fluids in the chemical and petrochemical industries.





Hyamaster

also suitable for 60 Hz operation

## **Process pumps**

### **RWCP / RWCN** Vertical immersion pump for sumps and tanks



DN	50 - 200
Q [m³/h]	max. 700
H [m]	max. 100
p [bar]	max. 16
T [°C]	-10 to +100
n [min <sup>-1</sup> ]	max. 3000
Data for 50 Hz operation	

**Design:** Process pump with free-flow, semi-open or two- / three-channel impeller. Shaft sealed by mechanical seal or gland packing with various API pipework plans. Oil-lubricated bearings. ATEX-compliant version available.

**Applications:** Refineries, chemical and petrochemical industry, steel factories, descaling systems, raw materials extraction processes and waste water management.

Hyamaster

also suitable for 60 Hz operation

### WKTR VS6 condensate pump to API 610



DN	40 - 150
Q [m³/h]	max. 400
H [m]	max. 500
p [bar]	max. 51
Install. depth [m]	1.6
T [°C]	max. 200
n [min <sup>-1</sup> ]	max. 3000
Data for 50 Hz operation	

**Design:** Vertical can-type ring-section pump. Type VS6 to API 610 and DIN ISO 13709, multistage, first-stage impeller designed as suction impeller, radial impellers. ATEX-compliant version available.

**Applications:** Pumping of condensate and other NPSH critical products in industrial systems, particularly in refineries and petrochemical plants.

Reference no. 1765.11

also available in 60 Hz

# Rainwater harvesting systems

## Hya-Rain® / Hya-Rain® N Rainwater harvesting system with one pump



Rp	1
Q [m³/h]	max. 4
H [m]	max. 43
p [bar]	max. 6
T [°C]	max. +35
Data for 50 Hz operation	

**Design:** Ready-to-connect package rainwater harvesting system. Automatic mains water back-up if the rain water storage tank is empty, with integrated dry-running protection. Automated with automatic control unit.

**Applications:** Rainwater and service water utilization, irrigation and spray irrigation systems.

Reference no. 5602.5

### Hya-Rain® Eco Rainwater harvesting system with one pump



Rp	1
Q [m³/h]	max. 4
H [m]	max. 43
p [bar]	max.6
T [°C]	max. +35
Data for 50 Hz operation	

**Design:** Ready-to-connect package rainwater harvesting system. Automatic mains water back-up function if the rain water storage tank is empty, with integrated dry-running protection.

**Applications:** Rainwater and service water utilization, irrigation and spray irrigation systems.

Reference no. 5605.

# Domestic water supply / swimming pools

### Multi Eco® Multistage, self-priming centrifugal pump



Rp	1 - 11/4
Q [m³/h]	max. 8
H [m]	max. 54
p [bar]	max. 10
T [°C]	max. +50
n [min-1]	max. 2800

Design: Multistage, self-priming centrifugal pump in close-coupled design.

Applications: Single- or two-family houses, agricultural facilities, spray irrigation and irrigation systems, washing plants, water supply and rainwater harvesting systems.

Controlmatic, Cervomatic

## Multi Eco®-Pro Multistage, self-priming centrifugal pump with automatic control unit



1 - 11/4
max. 8
max. 54
max. 10
max. +50
ax. 2800

Design: Multistage, self-priming centrifugal pump in close-coupled design, with power cable, plug and Controlmatic E automatic control unit switching the pump on and off as consumers are opened / closed and protecting the pump against dry running. Automated with automatic control unit.

Applications: Single- or two-family houses, agricultural facilities, spray irrigation and irrigation systems, washing plants, water supply and rainwater harvesting systems.

### Multi Eco®-Top Domestic water supply system



Rp	1 - 11/4
Q [m³/h]	max. 8
H [m]	max. 54
p [bar]	max. 7
T [°C]	max. +50
n [min <sup>-1</sup> ]	max. 2800

Design: Multistage, self-priming centrifugal pump in close-coupled design incl. accumulator with replaceable membrane in drinking water quality, total volume 20 or 50 l, pressure switch for automatic pump operation and 1.5 m power cable. Automated with automatic control unit.

Applications: Single- or two-family houses, agricultural facilities, spray irrigation and irrigation systems, washing plants, water supply and rainwater harvesting systems.

### **Movitec**® **VME** High-pressure in-line pump in close-coupled design



Rp	11/2
Q [m³/h]	max. 9
H [m]	max, 48
p [bar]	max, 16
T [°C]	max. +60
n [min <sup>-1</sup> ]	max. 2900
Data for 50 Hz operation	

Design: Multistage, vertical (horizontal installation upon request) high-pressure centrifugal pump, with suction and discharge nozzles of identical nominal diameters arranged opposite to each other (in-line design).

Applications: Single- or two-family houses, agricultural facilities, spray irrigation and irrigation systems, washing plants, water supply and rainwater harvesting systems, pressure boosting, hot water and cooling water recirculation, fire-fighting systems.

PumpMeter, Hyamaster

also available in 60 Hz

#### **IXO** Submersible motor pump



Rp	11/
Q [m³/h]	max. 8
H [m]	max. 65
T [°C]	max. +35
n [min <sup>-1</sup> ]	max. 2900

Design: Fully or partly submerged, multistage, close-coupled centrifugal pump (min. immersion depth 0.1 m), low-level inlet, suction strainer with a max. mesh size of

Applications: Water supply, spray irrigation and irrigation systems, washing plants, rainwater harvesting systems, water extraction from wells, tanks and cisterns.

Switchgears, Cervomatic

# Domestic water supply / swimming pools

#### Filtra N Recirculating pump for swimming pool filtering systems



2
max. 36
max. 21
max. 2.5
max. +35
nax. 2800

Design: Self-priming, single-stage, close-coupled centrifugal pump.

**Applications:** Handling of clean or slightly contaminated water, swimming pool water with a chlorine content of up to 0.3 %, ozonized swimming pool water with a salt content of up to 7 %.

Reference no. 2127.5

# **Pressure booster systems**

Hya®-Solo EV Pressure booster system, 1 pump, with continuously variable speed control



Rp	11/4 / 11/2
Q [m³/h]	max. 6
H [m]	max. 50
p [bar]	max. 10
T [°C]	max. +60
Data for 50 Hz operation, data for 2900 min <sup>-1</sup>	

**Design:** Fully automatic package pressure booster system, with 1 vertical high-pressure pump and continuously variable speed adjustment. Configuration and function to DIN 1988-500.

**Applications:** Residential buildings, hospitals, office buildings, hotels, department stores, industry, and other applications.

Reference no. 1951.53

#### Hya®-Solo D Pressure booster system, 1 pump



Rp / DN Q [m³/h] H [m] p [bar]	11/4 / 100 max. 110 max. 150 max. 16
T [°C]	max. +70
Data for 50 Hz operation	

**Design:** Fully automatic package single-pump system with 8 I membrane-type accumulator, pressure-controlled starting and stopping.

**Applications:** For industrial plants, water supply systems for residential and office buildings, irrigation / spray irrigation and rainwater harvesting systems, service water supply systems in trade and industry.

Reference no. 1951

### Hya®-Solo DV Pressure booster system, 1 pump



Rp / DN	11/4 / 100
Q [m³/h]	max. 110
H [m]	max. 150
p [bar]	max. 16
T [°C]	max. +70
Data for 2900 min <sup>-1</sup>	

**Design:** Fully automatic variable-speed package single-pump system with PumpDrive, pressure-controlled starting and flow-controlled stopping. Automated with PumpDrive.

**Applications:** For industrial plants, water supply systems for residential and office buildings, irrigation / spray irrigation and rainwater harvesting systems, service water supply systems in trade and industry.

Reference no. 1951.

## Pressure booster systems

## Hya®-Compact K Pressure booster system, 2 pumps



Rp / DN	11/4 / 40
Q [m³/h]	max. 10
H [m]	max. 100
p [bar]	max. 10
T [°C]	max. +40

Data for 50 Hz operation, data for 2900 min-

**Design:** Fully automatic package pressure booster system with integrated standby pump. Two vertical high-pressure pumps in cascade operation, automated with BoosterControl Advanced. Integrated pressure transmitter for the suction and discharge side, respectively. Two standard volt-free changeover contacts for fault indication as standard. Configuration and function to DIN 1988-500. Stationary floor-mounted or wall-mounted installation.

**Applications:** For industrial plants, water supply systems for residential and office buildings, irrigation/spray irrigation and rainwater harvesting systems, service water supply systems in trade and industry.

Reference no. 1972.

### Hya®-Compact VP Pressure booster system, 2 pumps



Rp / DN	11/4 / 40
Q [m³/h]	max. 10
H [m]	max. 100
p [bar]	max. 10
T [°C]	max. +40
Data for 50 Hz operation, data for 2900 min-1	

**Design:** Fully automatic package pressure booster system with integrated standby pump. Two vertical high-pressure pumps with continuously variable speed adjustment by BoosterControl Advanced. Two standard volt-free changeover contacts integrated for fault indication. Configuration and function to DIN 1988-500. Stationary floor-mounted or wall-mounted installation.

**Applications:** For industrial plants, water supply systems for residential and office buildings, irrigation / spray irrigation and rainwater harvesting systems, service water supply systems in trade and industry.

Reference no. 1972.

### Hya®-Eco VP Pressure booster system with continuously variable speed control of each pump



Rp / DN	2 / 80
Q [m³/h]	max. 70
H [m]	max. 120
p [bar]	max. 16
T [°C]	max. +70
Data for 3500 min <sup>-1</sup>	

**Design:** Fully automatic package pressure booster system, with 2 or 3 vertical high-pressure pumps and continuously variable speed adjustment of each pump for fully electronic control of the required supply pressure, with two standard volt-free changeover contacts for fault indication. Configuration and function to DIN 1988-500. Automated with BoosterControl Advanced.

**Applications:** Residential buildings, hospitals, office buildings, hotels, department stores, industry, and other applications.

Reference no. 1967.5

## **Hyamat**® **K** Pressure booster system, 2 to 6 pumps



Rp / DN	1½ / 250
Q [m³/h]	max, 660
H [m]	max, 160
p [bar]	max. 16
T [°C]	max. +70
Data for 50 Hz operation	

**Design:** Fully automatic package pressure booster system, with 2 to 6 vertical high-pressure pumps, fully electronic control to ensure the required supply pressure, with volt-free changeover contact for general fault indication and live-zero monitoring of the connected sensors, configuration and functions to DIN 1988-500. Automated with BoosterControl Advanced.

**Applications:** Residential buildings, hospitals, office buildings, hotels, department stores, industry, etc.

Reference no. 1952.

## **Hyamat**® **V** Pressure booster system with continuously variable speed adjustment of one pump



Rp / DN	1½ / 250
Q [m³/h]	max. 660
H [m]	max. 150
p [bar]	max. 16
T [°C]	max. +70
Data for 2000 mind	

**Design:** Fully automatic package pressure booster system, with 2 to 6 vertical high-pressure pumps and continuously variable speed adjustment of one pump for fully electronic control of the required supply pressure. Configuration and functions to DIN 1988-500. Automated with BoosterControl Advanced.

**Applications:** Pressure boosting in residential buildings, hospitals, office buildings, hotels, department stores, industry, etc.

Reference no. 1953.5

# Pressure booster systems

Hyamat® VP Pressure booster system with continuously variable speed control of each pump



Rp / DN	1½ / 250
Q [m³/h]	max. 660
H [m]	max. 150
p [bar]	max. 16
T [°C]	max. +70
Data for 2900 min <sup>-1</sup>	

**Design:** Fully automatic package pressure booster system, with 2 to 6 vertical high-pressure pumps and continuously variable speed control of each pump by PumpDrive speed control system. For fully electronic control of the required supply pressure. Configuration and functions to DIN 1988-500.

Automated with BoosterControl Advanced and PumpDrive.

**Applications:** Pressure boosting in residential buildings, hospitals, office buildings, hotels, department stores, industry, etc.



Reference no. 1953.52

## Hyamat® IK, IV, IVP Pressure booster system for industrial applications



DN	100 - 200
Q [m³/h]	max. 640
H [m]	max. 160
p [bar]	max. 16
T [°C]	max. +70
Data for 50 Hz operation	

**Design:** Fully automatic package pressure booster system, with 2 to 4 vertical high-pressure pumps and fully electronic control to ensure the required supply pressure, configuration and functions to DIN 1988-500. Automated with PLC.

**Applications:** Handling of service water and cooling water not chemically or mechanically aggressive to the pump materials in industry, etc.

Reference no. 1950.

# Drainage pumps / waste water pumps

### Ama-Drainer® N 301, 302, 303, 358 Submersible motor pump



Rp	11/4 - 11/2	
Q [m³/h]	max, 16,5	
H [m]	max, 12	
T [°C] max. +50	(301, 302, 303)	
	max. +35 (358)	
Data for 50 Hz operation		

**Design:** Vertical, fully floodable submersible motor pump in close-coupled design, IP 68, single-stage, with or without level control, max. immersion depth 2 m.

**Applications:** Automatic drainage of pits, shafts, yards and cellars subject to a flooding risk, lowering of surface water levels, dewatering, drainage of underground passages, water extraction from rivers and reservoirs.

Switchgears, LevelControl

Reference no. 2331.51 / 2331.52

## Ama-Drainer® 400/10 400/35 500/10/11 Submersible motor pump



Rp	11/2 - 2
Q [m³/h]	max. 50
H [m]	max. 24
T [°C]	max. +40
Data for 50 Hz operation	

**Design:** Vertical, fully floodable submersible motor pump in close-coupled design, IP 68, single-stage, with or without level control, max. immersion depth 10 m.

**Applications:** Automatic drainage of pits, shafts, yards and cellars subject to a flooding risk, lowering of surface water levels, dewatering, drainage of underground passages, water extraction from rivers and reservoirs, disposal of highly contaminated, fibrecontaining water.

Switchgears, LevelControl

Reference no. 2331.53

# Drainage pumps / waste water pumps

### Ama-Drainer® 80, 100 Submersible motor pump



Rp / DN	2½ / 100
Q [m³/h]	max. 130
H [m]	max. 26
T [°C]	max. +50
Data for 50 Hz operation	

**Design:** Vertical, fully floodable submersible motor pump in close-coupled design, IP 68, single-stage, with or without level control, max. immersion depth 10 m.

**Applications:** Automatic drainage of pits, shafts, yards and cellars subject to a flooding risk, lowering of surface water levels, dewatering, drainage of underground passages, water extraction from rivers and reservoirs.

Switchgears, LevelControl

Reference no. 2331-54

### Ama-Porter® F / S Submersible motor pump



DN	50 - 65
Q [m <sup>3</sup> /h]	max. 40
H [m]	max. 21
T [°C]	max. +40
Data for EQ III amountion	

**Design:** Vertical, fully floodable submersible waste water pump in close-coupled design (cast iron variant), single-stage, without explosion protection.

Applications: Handling of all types of waste water.

Switchgears, LevelControl

Reference no. 2539.51

### Rotex® Waste water pump



Rp	11/4 - 2
Q [m³/h]	max. 24
H [m]	max. 14
Install. depth [m]	max.1.7
T [°C]	max. +90
n [min-1]	max. 2900
Data for 50 Hz operation	

**Design:** Vertical, single-stage centrifugal pump with discharge to the top and parallel with the pump shaft, pump foot designed as suction strainer. Pump and motor are rigidly connected by a support pipe, ready to be plugged in, with 1.5 m power cable and level switch.

**Applications:** Automatic disposal of waste water from buildings, pits and tanks, lowering of surface water levels and drainage.

Reference no. 2322.

### MK / MKY Waste water, condensate and heat transfer liquid pump



Rp / DN	2 / 50
Q [m³/h]	max. 36
H [m]	max, 19
Install, depth [m]	max, 2.8
T [°C]	max. +200
n [min <sup>-1</sup> ]	max, 3500
Data for 50 Hz operation	

**Design:** Vertical submersible pump with three-channel impeller, volute casing designed as suction strainer.

**Applications:** Handling of condensate and heat transfer liquids below the boiling point, condensate return systems, primary and secondary heating circuits, direct installation in heating tanks or heat exchangers in the secondary circuits of heat transfer systems (MKY).

Switchgears, LevelControl

Reference no. 2324.

# Lifting units / pump stations

### AmaDS<sup>3</sup> Waste water pump station with solids separation system



Inflow rate [m³/h] 6 - 200
H [m] max. 85
T [°C] depending on pump
n [min¹] depending on pump
Viscosity [cP] depending on pump
Higher values available upon request

**Design:** Waste water pump station with solids separation system. Indirect hydraulic transport of waste water, with solids separators upstream of the pumps, for maximum economic efficiency, operating reliability and ease of maintenance.

**Applications:** Municipal and industrial waste water transport. Applications with special drainage requirements, e.g. hotels, hospitals, campgrounds, etc.

LevelControl

Reference no. 2581 / 2567.021

## Ama-Drainer-Box Automatic waste water lifting unit



DN	40 - 50
Q [m³/h]	max. 46
H [m]	max. 24
T [°C]	max. +40
Data for EO Ha operation	

**Design:** Stable above-floor or impact-resistant underfloor plastic collecting tank with floor drain and odour trap, both variants with Ama-Drainer submersible motor pump starting and stopping automatically and swing check valve. Automated with switchgear and LevelControl. Volumetric tank content: 100 or 200 litres. To EN 12050.

**Applications:** Washbasins, showers, washing machines, garage gateways, basements, rooms at risk of flooding, etc.

Reference no. 2336.5

### Ama-Drainer-Box Mini Automatic waste water lifting unit



DN	40
Q [m³/h]	max. 10
H [m]	max. 6.5
T [°C]	max. +35
Data for 50 Hz operation	

**Design:** Reliable and compact waste water lifting unit in a modern design with activated carbon filter meeting hygiene requirements and with shower connection as a standard. To EN 12050-2.

**Applications:** Automatic drainage of washbasins, showers, washing machines, dishwashers, etc.

Reference no. 2336.52

#### mini-Compacta Floodable sewage lifting unit



DN	32 - 100
Q [m³/h]	max, 36
H [m]	max, 25
T [°C]	max. +40
	up to +65 for short periods
Data for 50 Hz o	neration

**Design:** Floodable single-pump or dual-pump sewage lifting unit for automatic disposal of domestic sewage and faeces below the flood level. Automated with LevelControl.

**Applications:** Basement flats, bars, basement party rooms and saunas, cinemas and theatres, department stores and hospitals, hotels, restaurants, schools, etc.

Reference no. 2317.5

### Compacta® Floodable sewage lifting unit



DN	80 - 100
Q [m³/h]	max. 140
H [m]	max. 24
T [°C]	max. +40
	up to +65 for short periods
Data for 50 Hz o	peration

**Design:** Floodable single-pump or dual-pump sewage lifting unit for automatic disposal of sewage and faeces below the flood level. Automated with LevelControl.

**Applications:** Basement flats, bars, basement party rooms and saunas, cinemas and theatres, department stores and hospitals, hotels, restaurants, schools, public buildings, industrial plants, joint sewage disposal for rows of houses, etc.

Reference no. 2317.5!

# Lifting units / pump stations

### CK 800-Eu Pump Station Pump station, plastic collecting tank with Amarex N S and Ama-Porter S



DN	32 - 50
Q [m³/h]	max, 22
H [m]	max. 49
T [°C]	max. +40
Data for 50 Hz operation	

**Design:** Ready-to-connect package single or dual pump station with PE-LLD (polyethylene) collecting tank for underground installation. Equipped with one or two Amarex N S and Ama-Porter S submersible waste water pumps without explosion protection. Collecting tank design to DIN 1986-100 and EN 752 / EN 476. Automated with LevelControl.

**Applications:** Renovation of premises, sewage disposal in various sectors, joint sewage disposal for several residential units, pumped drainage.

Reference no. 2334.543

## Ama-Porter CK Pump Station Pump station, plastic collecting tank with Ama-Porter F



DN	50 - 65
Q [m³/h]	max. 40
H [m]	max. 21
T [°C]	max. +40
Data for 50 Hz operation	

**Design:** Ready-to-connect package single or dual pump station with PE-LLD (polyethylene) collecting tank for underground installation. Equipped with one or two Ama-Porter F submersible waste water pumps without explosion protection. Collecting tank design to DIN 1986-100 and EN 752 / EN 476. Automated with switchgears and LevelControl.

**Applications:** Renovation of premises, sewage disposal in various sectors, joint sewage disposal for several residential units, pumped drainage.

Reference no. 2334.5

## Amarex N CK Pump Station Pump station, plastic collecting tank with Amarex N F



DN	50 - 65
Q [m³/h]	max. 50
H [m]	max. 39
T [°C]	max. +40
Data for 50 Hz operation	

**Design:** Ready-to-connect package single or dual pump station with PE-LLD (polyethylene) collecting tank for underground installation. Equipped with one or two Amarex N F submersible waste water pumps, also available with explosion protection. Collecting tank design to DIN 1986-100 and EN 752 / EN 476. Automated with LevelControl.

**Applications:** Renovation of premises, sewage disposal in various sectors, joint sewage disposal for several residential units, pumped drainage.

Reference no. 2334.52

#### Evamatic-Box Sewage lifting unit



DN	50 - 65
Q [m³/h]	max. 40
H [m]	max. 21
T [°C]	max. +40
Data for 50 Hz operation	

**Design:** Single-pump or dual-pump sewage lifting unit with one or two Ama-Porter submersible waste water pumps with free-flow impeller (F) or cutter (S), to EN 12050-1.

Applications: Disposal of domestic waste water and sewage.

Reference no. 2319.5

# Submersible motor pumps

### Amarex® N S32 Submersible motor pump DN 32



DN	32
Q [m³/h]	max. 16.5
H [m]	max. 29.5
T [°C]	max. +40
Data for EO Us approxima	

**Design:** Vertical, single-stage submersible motor pump, for wet installation, stationary and transportable design. Amarex N pumps are floodable, single-stage, single-entry close-coupled units which are not self-priming. ATEX-compliant version available.

**Applications:** Handling of all types of waste water, especially untreated sewage containing long fibres and solid substances, fluids containing gas / air, as well as raw, activated and digested sludge, dewatering / water extraction, drainage of rooms and surfaces subject to a flooding risk.

Switchgears, LevelControl

Reference no. 2563.51

#### Amarex® N Submersible motor pump DN 50 to 100



DN	50 - 100
Q [m³/h]	max. 190
H [m]	max. 49
T [°C]	max. +60
Data for 50 Hz operation	

**Design:** Vertical, single-stage submersible motor pump for wet installation, in stationary or transportable design. Amarex N pumps are floodable, single-stage, single-entry close-coupled units which are not self-priming. ATEX-compliant version available.

**Applications:** Handling of all types of waste water, especially untreated sewage containing long fibres and solid substances, fluids containing gas / air, as well as raw, activated and digested sludge, dewatering / water extraction, drainage of rooms and surfaces subject to a flooding risk.

Switchgears, LevelControl

Reference no. 2563.5

also available in 60 Hz

## Amarex® KRT® Submersible motor pump DN 40 to DN 700



DN	40 - 700
Q [m³/h]	max. 10080
H [m]	max. 120
T [°C]	max. +60
n [min <sup>-1</sup> ]	max. 2900
Data for 50 Hz operation	

**Design:** Vertical, single-stage submersible motor pump in close-coupled design, various impeller types, for wet or dry installation, stationary and transportable version. ATEX-compliant version available.

**Applications:** Handling of all types of abrasive or aggressive waste water in water and waste water engineering as well as industry, especially untreated sewage containing long fibres and solid substances, fluids containing gas / air, as well as raw, activated and digested sludge; seawater desalination.

PumpDrive, Hyamaster, Amacontrol, Switchgears, LevelControl

Reference no. 2553.5

also available in 60 Hz

### Amarex® KRT® dry-installed, with cooling jacket Submersible motor pump DN 100 to DN 700



DN	100 - 700
Q [m³/h]	max. 10080
H [m]	max. 120
p [bar]	max, 10
T [°C]	max. +40
n [min <sup>-1</sup> ]	max. 1450
Data for 50 Hz operation	

**Design:** Vertical, single-stage submersible motor pump in close-coupled design, various impeller types, dry installation.

**Applications:** Handling of all types of waste water in waste water engineering and industry, especially sewage containing long fibres and solid substances, fluids containing gas / air, as well as raw, activated and digested sludge.

PumpDrive, Hyamaster, Amacontrol, Switchgears, LevelControl

Reference no. 2553.5

also available in 60 Hz

### Amarex® KRT® wet / dry, with energy-saving motor Submersible motor pump DN 80 to DN 200



DN	80 - 200
Q [m³/h]	max. 550
H [m]	max. 25
T [°C]	max. +40
n [min-1]	max. 1450
Data for 50 Hz operation	

**Design:** Horizontal or vertical single-stage submersible motor pump in close-coupled design, with various impeller types, for wet or dry installation, stationary and transportable version, with energy-saving motor.

**Applications:** Handling of all types of waste water in waste water engineering and industry, especially sewage containing long fibres and solid substances, fluids containing gas / air, as well as raw, activated and digested sludge.

PumpDrive, Hyamaster, Amacontrol, Switchgears, LevelControl

Reference no. 2553.5

also available in 60 Hz

# Submersible pumps in discharge tubes

### Amacan® K Submersible motor pump with non-clogging impeller



DN	700 - 1400
Q [m³/h]	max. 7200
H [m]	max. 30
T [°C]	max. +40
n [min <sup>-1</sup> ]	max. 980
Data for 50 Hz operation	

**Design:** Wet-installed submersible motor pump with non-clogging impeller, single-stage, single-entry, for installation in discharge tubes. ATEX-compliant version available.

**Applications:** Handling of pre-cleaned, chemically neutral waste water, industrial effluents and sewage, fluids not containing any stringy substances pretreated by screens and sills, as waste water, mixed water and activated sludge pump in effluent treatment plants, irrigation and drainage pumping systems.

Hyamaster, Amacontrol

Reference no. 1579.

also available in 60 Hz

### Amacan® P Submersible motor pump with axial propeller



DN	500 - 1500
Q [m³/h]	max. 25200
H [m]	max. 12
T [°C]	max. +40
n [min <sup>-1</sup> ]	max. 1450
Data for 50 Hz operation	

**Design:** Wet-installed, submersible motor pump with axial propeller in ECB design for installation in discharge tubes, single-stage, single-entry. ATEX-compliant version available.

**Applications:** Irrigation and drainage pumping stations, stormwater pumping stations, handling of raw and clean water in water and effluent treatment plants, of cooling water in power stations and industrial plants, industrial water supply systems, water pollution and flood control systems, aquaculture.

Hyamaster, Amacontrol

Reference no. 1580.5

lso available in 60 Hz

### Amacan® S Submersible motor pump with mixed flow impeller



DN	650 - 1300
Q [m³/h]	max. 10800
H [m]	max. 40
T [°C]	max. +30
n [min <sup>-1</sup> ]	max. 1450
Data for 50 Hz operation	

**Design:** Wet-installed submersible motor pump with mixed flow impeller, single-stage, for installation in discharge tubes. ATEX-compliant version available.

**Applications:** Handling of water without stringy substances in irrigation and drainage pumping systems, general water supply systems, water pollution and flood control systems.

Hyamaster, Amacontrol

Reference no. 1589.

also available in 60 Hz

# Mixers / agitators / tank cleaning units

#### Amamix Submersible mixer



Propeller ø [mm]	200 - 600
Install. depth [m]	max. 30
T [°C]	max. +40
n [min-1]	max, 1400
Data for 50 Hz operation	

**Design:** Horizontal submersible mixer with self-cleaning ECB propeller, close-coupled design, direct drive or with gear unit. ATEX-compliant version available.

**Applications:** Handling of municipal and industrial waste water and sludges, also in environmental engineering (biogas plants, etc.).

Reference no. 1592.551 / 1592.552

also available in 60 Hz

### Amaprop Submersible agitator



1000 - 2500
max. 30
max. +40
max. 109

**Design:** Horizontal submersible agitator with self-cleaning ECB propeller, close-coupled design, equipped with coaxial spur gear. ATEX-compliant version available.

**Applications:** In environmental engineering, particulary for circulating, keeping in suspension and inducing flow in municipal and industrial waste water and sludges; in nitrification and denitrification tanks, activated sludge tanks, mixing tanks, final storage tanks, biological phosphate elimination tanks, flocculation tanks and in biogas applications.

Reference no. 1592.50!

### Amajet Cleaning system



DN	100 - 150
Q [m³/h]	max. 195
T [°C]	max. +40
n [min <sup>-1</sup> ]	max. 1450

**Design:** Stationary or portable unit with horizontal or vertical submersible motor propulsive jet pump with non-clogging free-flow impeller. Motor rating 5.5 to 27 kW. Available variants: Amajet, SewerAmajet, SwingAmajet, MultiAmajet.

Applications: Cleaning of stormwater tanks and storage sewers.

Reference no. 1574.

### **Amaline** Submersible motor recirculation pump



DN	300 - 800
Q [m³/h]	max, 5400
H [m]	max. 2
T [°C]	max. +40
n [min-1]	max, 960

**Design:** Wet-installed, horizontal propeller pump with submersible motor, equipped with spur gear or direct drive, ECB propeller with 3 rigid, fibre-repellent blades, bolt-free connection to the discharge pipe. ATEX-compliant version available.

Applications: Recirculation of activated sludge in waste water treatment systems.

Reference no. 1594.

# Pumps for solids-laden fluids

## Sewatec® / Sewabloc Dry-installed volute casing pump



DN	50 - 700
Q [m³/h]	60 - 10000
H [m]	max. 95
p [bar]	max. 10
T [°C]	max. +70
n [min-1]	max. 2900
Data for 50 Hz operation	

Design: Horizontal or vertical volute casing pump with free-flow (F), single-channel (E), multi-channel (K) and diagonal single vane (D) impellers, discharge flange to DIN and ANSI standards. ATEX-compliant version available.

Applications: Handling of sewage and all types of waste water in waste water management and industry.

Hyamaster, PumpDrive, LevelControl

## KWP® / KWP®-Bloc Non-clogging impeller centrifugal pump / close-coupled unit



DN	40 - 900 (1000)
Q [m <sup>3</sup> /h]	max. 15000 (18000)
H [m]	max. 100
p [bar]	max. 10
T [°C]	-40 to +120 (max. +280)
n [min <sup>-1</sup> ]	max. 2900
Data for 50 Hz ope	

Design: Horizontal, radially split volute casing pump in back pull-out or close-coupled design, single-stage, single-entry, available with various impeller types: non-clogging impeller, open multi-channel impeller, free-flow impeller.

ATEX-compliant version available.

Applications: Handling of pre-treated sewage, waste water, all types of slurries without stringy substances and pulps up to 5 % bone dry.

Hyamaster

# Slurry pumps

#### **WBC** Slurry pump



Q [m³/h]	max, 13600
H [m]	max, 80
p [bar]	max. 40
T [°C]	max, +120

Design: Patented design incorporates state-of-the art hydraulic and wear technologies for heavy-duty, high-pressure applications. The pump shell is designed to reduce stresses that can cause a structural failure during a pressure surge.

Applications: Ideal for ore and tailings transport to minimize the effect of sudden pressure spikes.

#### LSA-S Slurry pump



Q [m³/h]	max. 14000
H [m]	max. 90
p [bar]	max. 16
T [°C]	max. +120

Design: Premium design hard iron pumps for long wear life pumping severe slurries. The basic, single-wall construction and heavy section, hard metal wet end combined with the cartridge bearing assembly provides maximum reliability and ease of maintenance.

Applications: Pumps are widely used in ore transport, mill discharge, cyclone feed, tailings and plant process.

## **Slurry pumps**

### LCC-M Slurry pump



Q [m³/h]	max. 3865
H [m]	max. 90
p [bar]	max. 16
T [°C]	max +120

**Design:** The hydraulic wet end consists of three components: a shell or casing, an impeller and a suction plate / liner to permit easy removal for maintenance and inspections.

**Applications:** Reliable pumps for high discharge head, mildly corrosive slurries and a wide range of particle sizes. Used in mineral processing, mine dewatering, ash and tailings.

### LCC-R Slurry pump



Q [m³/h]	max. 3865
H [m]	max. 90
p [bar]	max. 16
T [°C]	max. +120

**Design:** Interchangeable rubber and metal design allows best material choice for any application. Easy wet end change can adapt existing pumps to new applications.

**Applications:** Pumps are suitable for moderate discharge heads, fine particles and highly corrosive slurries.

### TBC Slurry pump



Q [m³/h]	max. 18200
H [m]	max. 90
p [bar]	max. 55
T [°C]	max. +120

**Design:** A high-pressure design, these pumps are constructed as horizontal, end suction centrifugal pumps to give maximum resistance to wear while simplifying maintenance. The conventional single-wall design transfers stress loads to non-wearing side plates in high-pressure applications.

**Applications:** Features high head and high flow rates for hydrotransport, tailings, dredging, pipeline booster stations and other severe duties.

#### **LCV** Slurry pump



Q [m³/h]	max, 1360
H [m]	max. 38
p [bar]	max, 14
T [0C]	may , 120

**Design:** Vertical cantilever, rugged hard metal sump pump with bottom suction and no submerged bearings. Replaceable wet end parts in metal alloys with a durable mechanical end.

**Applications:** Ideal for industrial process pumping, tailings disposal in mining and pit use.

### FGD Slurry pump



Q [m³/h]	max. 22700
H [m]	max. 45
p [bar]	max. 17
T [°C]	max. +120

**Design:** High-flow / low-head hard metal pumps with a single-wall shell design. High-efficiency impeller. Suction-side liner is equipped with integrated mounting plates.

Applications: Absorber recirculation and ancillary process pumps.

# **Slurry pumps**

#### Mega Slurry pump



Q [m³/h]	max. 45
H [m]	max. 30
p [bar]	max. 24
T [°C]	max. +120

**Design:** Horizontal, end suction, modified volute casing pump includes 3 vane open design impeller for large solids passage.

**Applications:** High-performance, low maintenance slurry pump recommended for coarse or fine particles from solids-laden waste water to aggressive slurries of an abrasive nature.

### **HHD** Slurry pump



Q [m³/h]	max. 14400
H [m]	max. 90
p [bar]	max. 29
T [°C]	max. +120

**Design:** Best suited for high-flow, high-head pumping where high production requires the reduction in the number of pumps.

**Applications:** Ideal for pipeline booster stations and severe mining duties. Also, as booster or main hull pump on cutter suction dredges.

### MHD Slurry pump



Q [m³/h]	max. 32000
H [m]	max. 80
p [bar]	max. 28
T [°C]	max. +120

 $\label{lem:Design:Designed} \textbf{Designed to provide high flow / medium head with high efficiency for high volume transportation in long pipelines.}$ 

**Applications:** Ideal for pipeline booster stations and severe mining duties. Also for hopper dredges or as main pump on cutter dredges.

#### **LHD** Slurry pump



Q [m³/h]	max, 21600
H [m]	max, 65
p [bar]	max, 17
T [°C]	max, +120

**Design:** High-flow / low-head design with balanced NPSHR and sphere passage for high volume transportation over short distance.

**Applications:** Ideal for sand and gravel, severe mining, dredge ladder and booster pumps.

### MDX Slurry pump



Q [m³/h]	max. 14000
H [m]	max. 90
p [bar]	max. 16
T [°C]	max +120

**Design:** The latest technology from GIW provides superior wear life and increased up-time handling your most aggressive slurry applications.

**Applications:** Designed for SAG and ball mill discharge duties as well as cyclone feed and screen feed applications in ore mining.

## **Slurry pumps**

### **ZW** Slurry pump



Q [m³/h]	max. 400
H [m]	max, 35
p [bar]	max, 10
T [°C]	max. +120

**Design:** Vertical cantilever, rugged hard metal sump pumps with top and bottom suction, not submerged bearings. Replaceable wet end parts in metal alloys with a durable mechanical end.

Applications: Abrasive slurries, dewatering, floor clean up, and process transfer.

### **HVF** Slurry pump



Q [m³/h]	max. 400
H [m]	max. 35
p [bar]	max. 10
T [°C]	max. +120

**Design:** Provides continuous operation without shutdown or operator intervention. The new hydraulic design removes air from the impeller eye while the pump is running, and the pump can be retrofitted into any existing operation.

**Applications:** For use in all froth pumping applications in both the mineral processing and industrial minerals industries.

# **Self-priming pumps**

## Etaprime® L Self-priming pump for pure or contaminated liquids



DN	25 - 125
Q [m³/h]	max, 180
H [m]	max. 85
p [bar]	max, 10
T [°C]	max. +90
Data for 50 Hz operation	

**Design:** Horizontal, long-coupled, self-priming volute casing pump in back pull-out design, single-stage, with open multi-vane impeller. ATEX-compliant version available.

**Applications:** Handling of pure, contaminated or aggressive liquids not containing abrasive substances and / or solids.

Reference no. 2745.

also available in 60 Hz

## **Etaprime® B / BN** Self-priming close-coupled pump for pure or contaminated liquids



DN	25 - 100
Q [m³/h]	max. 130
H [m]	max. 72
p [bar]	max. 10
T [°C]	max. +90
Data for 50 Hz operation	

**Design:** Horizontal, self-priming volute casing pump, single-stage, with open multi-vane impeller, in close-coupled design, with common pump and motor shaft (B) or rigidly connected (BN). ATEX-compliant version available.

**Applications:** Handling of pure, contaminated or aggressive liquids not containing abrasive substances and / or solids.

Reference no. 2746.

also available in 60 Hz

# **Self-priming pumps**

#### MZ Self-priming multistage liquid ring pump



DN	20 - 50
Q [m³/h]	max. 21
H [m]	max. 140
p [bar]	max. 16
T [°C]	-5 to +120
n [min <sup>-1</sup> ]	max. 1500
Data for 50 Hz operation	

**Design:** Self-priming multistage liquid ring pump in close-coupled design, with mechanical seal or gland packing.

**Applications:** Boiler feed, sanitary hot water, hydrophore systems for fresh and seawater, and fresh water pre-heating.

lso available in 60 Hz

# Submersible borehole pumps

#### **S 100D / UPA 100C** Submersible borehole pump



DN	100
Q [m³/h]	max. 16
H [m]	max. 400
T [°C]	max. +30
Data for 50 Hz operation	

**Design:** Multistage centrifugal pump in ring-section design, for vertical or horizontal installation, impellers made of plastic (S 100D) or stainless steel (UPA 100C) for well diameters of 100 mm (4 inches) and above, available with single-phase a.c. motor or three-phase motor with motor lead.

Applications: Domestic water supply, irrigation and spray irrigation systems, lowering of ground water levels, fire-fighting systems, cooling circuits, fountains, pressure boosting and air-conditioning systems.

Switchgears, Cervomatic

Reference no. 3400.5

also available in 60 Hz

#### **UPA 150C** Submersible borehole pump



DN	150
Q [m³/h]	max. 79
H [m]	max, 440
T [°C]	max. +50
Data for 50 Hz operation	

**Design:** Single-stage or multistage centrifugal pump in ring-section design, for vertical or horizontal installation, completely made of stainless steel, for well diameters of 150 mm (6 inches) and above.

Applications: Handling of clean or slightly contaminated water, irrigation and drainage, spray irrigation, industrial and municipal water supply, maintaining / lowering of groundwater levels, fire-fighting systems, drinking, raw and service water supply, pressure boosting.

Hyamaster, PumpDrive

Reference no. 3400.5

also available in 60 Hz

### UPA 200, 200B, 250C Submersible borehole pump



DN	200 - 250
Q [m³/h]	max. 330
H [m]	max. 460
T [°C]	max. +50
Data for 50 Hz operation	

**Design:** Single-stage or multistage single-entry centrifugal pump in ring-section design for vertical or horizontal installation. Available with non-return valve or connection branch

**Applications:** Handling of clean or slightly contaminated water in general water supply, irrigation and spray irrigation systems, maintaining / lowering of ground water levels, fountains, pressure boosting systems, in mines, fire-fighting systems, emergency water supply systems, etc.

Hyamaster

Reference no. 3400

lso available in 60 Hz

Pumps

Hyamaster

# Submersible borehole pumps

### **UPA 300, 350** Submersible borehole pump



**Design:** Single- or multistage, single-entry centrifugal pump in ring-section design for vertical or horizontal installation. Non-return valve or connection branch on option. Mixed flow hydraulic systems available with reduced impeller diameters.

**Applications:** Handling of clean or slightly contaminated water in general water supply, irrigation and spray irrigation systems, maintaining / lowering of ground water levels, in mines, fire-fighting systems, fountains, etc.

Reference no. 3400.5 also available in 60 Hz

### UPZ, BSX-BSF Submersible borehole pump



**Design:** Single- or multistage, single-entry (BSX-BSF) or double-entry (UPZ) centrifugal pump in ring-section design for vertical or horizontal installation.

**Applications:** Handling of clean or slightly contaminated water, maintaining / lowering of ground water levels, in mines.

Reference no. 3470.021 also available in 60 Hz

### **BEV** Deep-well vertical turbine pump



DN 80 - 400
Q [m³/h] max. 2200
H [m] max. 350
p [bar] max. 40
T [°C] +5 to +75
n [min¹] max. 3000
Data for 50 Hz operation

> 350

max. 2200

max. 1500

max. +50

**Design:** Vertical multistage deep-well turbine pump with closed impellers. Column section with bearing, shaft sleeve; shaft sealed by gland packing. Driven by electric motor or diesel engine. ATEX-compliant version available.

**Applications:** Handling of clean water, agriculture, irrigation and collection, public water supply, industry, fire-fighting, etc.

also available in 60 H

# High-pressure pumps, fixed / variable speed

### Movitec® V / LHS / VS / VC High-pressure in-line pump



Rp / DN	1 - 2 / 25 - 100
Q [m³/h]	max. 113
H [m]	max. 401
p [bar]	max. 40
T [°C]	max. +140
n [min-1]	max. 2900
Data for 50 Hz operation	

Design: Multistage, vertical high-pressure centrifugal pump in ring-section design with suction and discharge nozzles of identical nominal diameters arranged opposite to each other (in-line design), close-coupled. ATEX-compliant version available.

**Applications:** Spray irrigation, irrigation, washing, water treatment, fire-fighting and pressure boosting systems, hot water and cooling water recirculation, boiler feed systems,

PumpMeter, Hyamaster

also available in 60 Hz

## Movitec® VCI High-pressure in-line pump



Rp / DN	11/4 - 2 / 32 - 45
Q [m³/h]	max. 27
H [m]	max. 250
p [bar]	max. 40
T [°C]	max. +120
n [min <sup>-1</sup> ]	max. 2900
Data for 50 Hz operation	1

Design: Multistage, vertical high-pressure immersion centrifugal pump for installation on a tank or platform.

Applications: Machine tools, industrial machine plants, condensate transport, painting systems.



PumpMeter, Hyamaster

also available in 60 Hz

## Movitec® PumpDrive High-pressure in-line pump with motor-mounted variable speed system



DN	25 - 100
Q [m³/h]	max. 113
H [m]	max. 401
p [bar]	max. 40
T [°C]	max. +140
n [min <sup>-1</sup> ]	max. 2900

Design: Multistage, vertical high-pressure centrifugal pump in ring-section design with suction and discharge nozzles of identical nominal diameters arranged opposite to each other (in-line design), close-coupled and motor-mounted variable speed system.

Applications: Spray irrigation, irrigation, washing, water treatment, fire-fighting and pressure boosting systems, hot water and cooling water recirculation, boiler feed systems,



PumpMeter

### Multitec® High-pressure pump in ring-section design



DN	32 - 150
Q [m³/h]	max. 850
H [m]	max. 630 (1000)
p [bar]	max, 63 (100)
T [°C]	-10 to +200
n [min <sup>-1</sup> ]	max, 4000
Data for 50 Hz and 60 Hz operation	

Design: Multistage horizontal or vertical centrifugal pump in ring-section design, long-coupled or close-coupled, with axial or radial suction nozzle, discharge nozzle can be turned in steps of 90°, cast radial impellers. ATEX-compliant version available.

Applications: Water and drinking water supply systems, general industry, pressure boosting systems, irrigation systems, in power stations, heating, filter, fire-fighting, reverse osmosis and washing plants, snow guns, etc.

PumpMeter, Hyamaster, PumpDrive

available in 50 Hz and 60 Hz

## Multitec® PumpDrive High-pressure pump in ring-section design with motor-mounted variable speed system



DN	32 - 125
Q [m³/h]	max. 180
H [m]	max. 630
p [bar]	max. 63
T [°C]	max. +140
n [min <sup>-1</sup> ]	max. 4000

Design: Multistage horizontal or vertical centrifugal pump in ring-section design, long-coupled and close-coupled variant, with axial or radial suction nozzle, cast radial impellers and motor-mounted variable speed system.

**Applications:** Water and drinking water supply systems, general industry, pressure boosting systems, irrigation systems, in power stations, heating, filter, fire-fighting, reverse osmosis and washing plants, snow guns, etc.

PumpMeter

also suitable for 60 Hz operation

Pumps 55

# **Axially split pumps**

## Omega® Axially split volute casing pump DN 80-350



DN	80 - 350
Q [m³/h]	max. 2880
H [m]	max. 210
p [bar]	max, 25
T <sub>standard model</sub> [°C]	max. +80
Thot water model [°C]	max. +140
n [min-1]	max. 2900
Data for 50 Hz operation, higher values available upon request	

**Design:** Single-stage, axially split volute casing pump for horizontal or vertical installation, with double-entry radial impeller, mating flanges to DIN, EN or ASME.

**Applications:** For handling water with a low solids content, e.g. in waterworks, irrigation and drainage pumping stations, desalination systems for water extraction, power plants, fire-fighting systems, shipbuilding, district heating/cooling.



Hyamaster, PumpMeter

Reference no. 1384.5 / 1384.3940

also available in 60 Hz

### RDLO Axially split volute casing pump DN 350-700



DN	350 - 700
Q [m³/h]	max. 10000
H [m]	max. 240
p [bar]	max. 25
T <sub>standard model</sub> [°C]	max. +80
Thot water model [°C]	max. +140
n [min <sup>-1</sup> ]	max. 1500
Data for 50 Hz operation, higher values available upon request	

**Design:** Single-stage, axially split volute casing pump for horizontal or vertical installation with double-entry radial impeller, mating flanges to DIN, EN or ASME.

**Applications:** For handling water with a low solids content, e.g. in waterworks, irrigation and drainage pumping stations, desalination systems for water extraction, power plants, fire-fighting systems, shipbuilding, district heating/cooling.

Reference no. 1387.5 / 1387.39

also available in 60 Hz

### RDLP Axially split volute casing pump DN 350-1200



DN	350 - 1200
Q [m³/h]	max. 18000
H [m]	max. 550
p [bar]	max. 64
T <sub>standard model</sub> [°C]	max. +80
n [min-1]	max. 1500
Data for 50 Hz operation,	

**Design:** Single-, two- or three-stage, axially split volute casing pump for horizontal installation with double-entry radial impeller, mating flanges to DIN, ISO or ANSI.

**Applications:** For handling water with a low solids content in water works and long-distance water supply systems.

also available in 60 Hz

# Hygienic pumps

### Vitachrom® Rolled steel centrifugal pump



DN	50 - 125
Q [m³/h]	max. 340
H [m]	max. 100
p [bar]	max. 12
T [°C]	max. +140

Data for 50 Hz operation

**Design:** Maintenance-free, non-priming, close-coupled single-stage hygienic pump in back pull-out design. The pump features a semi-open impeller and electropolished surfaces. It is very easy to clean by CIP and SIP thanks to its almost complete lack of dead volume or narrow clearances. Its wetted components are made of 1.4404/1.4409 (AISI 316IJCF3M) stainless steel. Vitachrom is EHEDG-certified and its materials comply with FDA standards.

**Applications:** Hygienic handling of fluids in the food, beverage and pharmaceutical industries as well as in the chemical industry.

Hyamaster, PumpDrive

Reference no. 1966.

also available in 60 Hz

### Vitacast® Investment cast centrifugal pump



DN	25 - 150
Q [m³/h]	max. 560
H [m]	max. 100
p [bar]	max. 10
T [°C]	max. +140
Data for 50 Hz operation, other values available upon request	

**Design:** Maintenance-friendly volute casing pump with standardised motor, all wetted components made of 1.4404/1.4409 (AISI 316L/CF3M) stainless steel. Designed with very little dead volume; open impeller, electropolished surface, excellent efficiency. Hygienic design for the highest requirements on cleanability (CIP/SIP-compatible), certified by the TNO Nutrition and Food Research Institute to EHEDG standards. Also available with a trolley (accessory).

**Applications:** Hygienic handling of fluids in the food, beverage and pharmaceutical industries as well as in the chemical industry.

PumpDrive

Reference no. 1969.5

also available in 60 Hz

### Vitaprime® Self-priming centrifugal pump



DN	40 - 80
Q [m³/h]	max. 55
H [m]	max. 45
p [bar]	max. 10
T [°C]	max. +140
Data for 50 Hz operation, other values available upon request	

**Design:** Maintenance-friendly self-priming side channel pump with standardised motor, all wetted components made of 1.4404/1.4409 (AISI 316L/CF3M) stainless steel. Hygienic design for the highest requirements on cleanability (CIP/SIP-compatible). Also available with a trolley (accessory).

**Applications:** Hygienic handling of fluids in the food, beverage and pharmaceutical industries as well as in the chemical industry.

PumpDrive

Reference no. 1969.54

also available in 60 Hz

### Vitastage<sup>®</sup> Multistage centrifugal pump



Q [m³/h]	max, 40
H [m]	max. 150
p [bar]	max, 16
T [°C]	max. +140
Data for 50 Hz operation, other values available upon request	

**Design:** Multistage centrifugal pump in close-coupled design for vertical or horizontal installation. All wetted components made of 1.4401/1.4408 (AISI 316/CF8M) stainless steel, Versatile, robust and especially energy-efficient.

**Applications:** Processes in the food and beverage industry as well as in the chemical industry with moderate hygienic requirements.

PumpDrive

Reference no. 1969.5

also available in 60 Hz

## Vitalobe® Rotary lobe pump



DN	25 - 200 (1" - 8")	
Q [m³/h]	max. 300	
H [m]	max. 200	
p [bar]	max. 30	
T [°C]	-40 to +200	
Viscosity [cP]	≤ 200000	
Volume displaced		
[litres per revo	lution] max. 10.5	
Data for 50 Hz operation, other values available upon request		

**Design:** Sturdy rotary lobe pump in hygienic design, bi-directional operation possible, horizontal and vertical orientation of connections. Hygienic design, CIP/SIP-compatible, all wetted components made of 1.4404/1.4409 (AISI 316L/CF3M) stainless steel; various rotor types and process connections available. Pump set with geared motor. Also available with a trolley (accessory).

**Applications**: Hygienic and gentle handling of sensitive or high-viscosity fluids in the food, beverage and pharmaceutical industries as well as in the chemical industry and general process engineering.

Frequency inverter

Reference no. 1969.5

also available in 60 Hz

# Pumps for power station conventional islands

### CHTA / CHTC / CHTD Boiler feed pump



DN	100 - 500
Q [m³/h]	max. 3700
H [m]	max. 5300
p [bar]	max. 560
T [°C]	max. +210
n [min-1]	max. 6750
Data for 50 Hz operation,	

**Design:** Horizontal, high-pressure barrel-type pump with radial impellers, single- and double-entry, multistage, with flanges / weld end nozzles to DIN and ANSI.

**Applications:** Handling of feed water and condensate in power stations and industrial facilities, generation of pressurized water for bark peeling machines and descaling equipment.

Reference no. 1860.

also available in 60 Hz

### HGB / HGC® / HGD Boiler feed pump



DN	40 - 400
Q [m³/h]	max. 2300
H [m]	max. 5300
p [bar]	max. 560
T [°C]	max. +210
n [min <sup>-1</sup> ]	max. 7000
Data for 50 Hz operation, higher values available upon request	

**Design:** Horizontal, radially split, multistage ring-section pump with radial impellers, single- or double-entry.

**Applications:** Handling of feed water and condensate in power stations and industrial facilities, generation of pressurized water for bark peeling machines, descaling equipment, snow guns, etc.

Reference no. 1850.02

also available in 60 Hz

#### **HGM®** Boiler feed pump



DN	25 - 100
Q [m³/h]	max. 274
H [m]	max. 1400
p [bar]	max. 140
T [°C]	max. +160
n [min-1]	max. 3600
Data for 50 Hz operation,	

**Design:** Horizontal, radially split, product-lubricated, multistage ring-section pump with radial impellers, axial and radial single-entry inlet.

**Applications:** Handling of feed water in power stations, boiler feed water and condensate in industrial facilities.

Reference no. 1856.02

also available in 60 Hz

#### YNK Boiler feed booster pump



DN	125 - 600
Q [m³/h]	max, 3700
H [m]	max. 280
p [bar]	max. 40
T [°C]	max. +210
n [min <sup>-1</sup> ]	max. 1800
Data for 50 Hz operation, higher values available upon request	

**Design:** Horizontal, radially split, single-stage, double-entry boiler feed booster pump (booster system) with single or double cast steel volute casing.

**Applications:** Handling of feed water in power stations and industrial facilities.

Reference no. 1135.02

also available in 60 Hz

## LUV® / LUVA Boiler recirculation pump



DN	100 - 550
Q [m³/h]	max. 7000
H [m]	max. 300
p [bar]	max. 350
T [°C]	max. +380
n [min-1]	max. 3600
Higher values available upon request	

**Design:** Vertical spherical casing pump, radial impellers, single-entry, single- to three-stage. Suitable for very high inlet pressures and temperatures. Integrated wet winding motor to VDE. Product-lubricated bearings, no need for oil supply systems. Design to TRD, ASME or IBR.

**Applications:** Hot water recirculation in forced-circulation, forced-flow and combined-circulation boilers for very high pressures and in solar power towers.

Reference no. 1128.02

# Pumps for power station conventional islands

#### WKTB Condensate pump



DN	150 - 300
Q [m³/h]	max. 1500
H [m]	max. 370
p [bar]	max. 40
T [°C]	max. +100
n [min-1]	max. 1500
Data for 50 Hz operation, higher values available upon request	

**Design:** Vertical can-type ring-section pump, underfloor assembly on baseframe, multistage, first stage designed as double-entry suction impeller, radial impellers. Flanges to DIN or ANSI.

Applications: Pumping of condensate in power stations and industrial systems.

Reference no. 0361-033

## SEZ / SEZT / PHZ / PNZ Tubular casing pump



Q [m³/h]	max. 80000
H [m]	max. 120
T [°C]	max. +40
n [min <sup>-1</sup> ]	max. 980
Data for 50 Hz operation, higher values available upon request	

**Design:** Vertical tubular casing pump with open mixed flow impeller (SEZ), mixed flow propeller (PHZ) or axial propeller (PNZ). Pump inlet with bellmouth or suction elbow, pull-out design available, discharge nozzle arranged above or below floor, flanges to DIN or ANSI standards available.

**Applications:** Handling of raw, pure, service and cooling water in industry, water supply systems, in power stations and seawater desalination plants.

Reference no. 1471.0

available in 50 Hz and 60 Hz

#### **SNW / PNW** Tubular casing pump



DN	350 - 800
Q [m³/h]	max. 9000
H [m]	max. 50
p [bar]	max. 10
T [°C]	max. +60
n [min-1]	max. 1500
Data for 50 Hz operation, higher values available upon request	

**Design:** Vertical tubular casing pump with mixed flow impeller (SNW) or axial propeller (PNW), single-stage, with maintenance-free Residur shaft bearings, discharge nozzle arranged above or below floor.

**Applications:** Irrigation and drainage systems, stormwater pumping stations, handling of raw and pure water, water supply systems, handling of cooling water.

Reference no. 1481.5 / 1591.5

available in 50 Hz and 60 Hz

#### **Beveron** Concrete volute casing pump



Q [m³/s]	max. 30
H [m]	max, 27
Data for 50 Hz operation, higher values available upon re	equest

**Design:** Concrete volute casing pump with mixed flow impeller, single-stage, with maintenance and lubricant-free Residur bearings.

**Applications:** Coast protection and flood control, irrigation and drainage, low-lift pumping stations, reservoir filling, stormwater applications, cooling water, raw and pure water.

Reference no. 1.471.02

available in 50 Hz and 60 Hz

### **SPY** Cooling water pump



DN	350 - 1200
Q [m³/h]	max. 21600
H [m]	max. 50
p [bar]	max. 10
T [°C]	max. +105
n [min <sup>-1</sup> ]	max. 1480

Data for 50 Hz operation, higher values available upon request **Design:** Long-coupled, single-stage volute casing pump in back pull-out design.

**Applications:** Drainage, irrigation and water supply systems, handling of condensate, cooling water, service water, etc.

# **Pumps for nuclear power plants**

#### **RER** Reactor coolant pump



DN	max. 800
Q [m³/h]	max. 40000
H [m]	max. 140
p [bar]	max. 175
T [°C]	max. +350
n [min-1]	max. 1800
Higher values available upon request	

**Design:** Vertical, single-stage reactor coolant pump RCP with forged annular casing plated on the inside, with diffuser; either with integrated pump thrust bearing or shaft supported by motor bearing.

Applications: Reactor coolant recirculation in nuclear power plants (PWR).

Reference no. 1682-021

available in 50 Hz and 60 Hz

#### **RSR** Reactor coolant pump



DN	max. 750
Q [m³/h]	max. 24000
H [m]	max. 215
p [bar]	max. 175
T [°C]	max. +350
n [min <sup>-1</sup> ]	max. 1800
Higher values available upon request	

**Design:** Vertical, single-stage reactor coolant pump RCP, with cast casing, shaft supported by motor bearing.

**Applications:** Reactor coolant recirculation in nuclear power plants (PWR, PHWR, RWR)

Reference no. 1665.021

available in 50 Hz and 60 Hz

### **RUV** Reactor coolant pump



DN	max. 650
Q [m³/h]	max. 22000
H [m]	max. 111
p [bar]	max. 155
T [°C]	max. +350
n [min-1]	max. 1800
Higher volues ausilable upon request	

**Design:** Vertical, single-stage reactor coolant pump RCP. Seal-less design with integrated wet winding motor and integrated flywheel. Product-lubricated bearings, no oil supply systems required.

**Applications:** Reactor coolant recirculation in generation III+ nuclear power plants (PWR)

Reference no. 1669.021

available in 50 Hz and 60 Hz

### **PSR** Reactor internal pump



DN	max, 600
Q [m³/h]	max, 9000
H [m]	max, 45
p [bar]	max, 75
T [°C]	max. +300
n [min <sup>-1</sup> ]	max. 2000
Higher values available upon request	

**Design:** Vertical pump set integrated in the reactor pressure vessel RIP, seal-less pump with leak-free, low-maintenance wet winding motor.

 $\label{eq:Applications: Reactor coolant recirculation in boiling water reactors (BWR).}$ 

Reference no. 1576.02

available in 50 Hz and 60 Hz

#### RHD Feed water pump



DN	125 - 500
Q [m³/h]	max. 6500
H [m]	max. 1000
p [bar]	max. 150
T [°C]	max. +210
n [min <sup>-1</sup> ]	max. 6500
Higher values available upon request	

**Design:** Horizontal, single-stage, double-entry main feed water pump MFWP, cast or forged variant.

**Applications:** Main feed water supply (MFWS) in steam generation systems of nuclear power plants.

Reference no. 1668.02

# **Pumps for nuclear power plants**

### LUV® Nuclear Reactor coolant / reactor water clean-up pump



DN	40 - 600
Q [m³/h]	max. 7000
H [m]	max. 300
p [bar]	max. 320
T [°C]	max. +430
Higher values available upon request	

**Design:** Vertical pump with integrated motor, single-entry, one to three stages. Suitable for very high inlet pressures and temperatures. Integrated wet winding motor to VDE. Product-lubricated bearings, no need for oil supply systems. Design to ASME Section 3, KTA, etc.

**Applications:** As reactor water clean-up pump RWCP in boiling water reactors, reactor coolant pump RCP in boiling water and pressurized water reactors, and as recirculation pump in test facilities.

Reference no. 1128.02

available in 50 Hz and 60 H;

### **RHM** Pump for safety-related and auxiliary systems



DN	max. 150
Q [m³/h]	max. 300
H [m]	max. 2100
p [bar]	max. 220
T [°C]	max. +180
n [min <sup>-1</sup> ]	max. 8000
Higher values available upon request	

Design: Horizontal, multistage barrel pull-out pump.

**Applications:** Core flooding, emergency cooling and residual heat removal systems RHRS, chemical and volume control systems CVCS, control rod drive systems CRDS, high-and medium-pressure safety injection systems HPSI / LPSI / MHSI / LHSI, emergency feed water systems EFWS, start-up and shutdown feed water systems SSS, high-pressure charging.

Reference no. 1666.02

available in 50 Hz and 60 H

### **RVM** Pump for safety-related and auxiliary systems



DN	max. 85
Q [m³/h]	max. 50
H [m]	max. 2000
p [bar]	max. 200
T [°C]	max. +100
n [min <sup>-1</sup> ]	max. 6000
Higher values available upon request	

Design: Vertical, multistage barrel pull-out pump.

**Applications:** Core flooding, emergency cooling and residual heat removal systems RHRS, chemical and volume control systems CVCS, high- and medium-pressure safety injection systems HPSI / LPSI.

Reference no. 0166.021

available in 50 Hz and 60 Hz

#### RHR Pump for safety-related and auxiliary systems



DN	max, 500
Q [m³/h]	max, 6000
H [m]	max, 190
p [bar]	max, 63
T [°C]	max. +200
n [min <sup>-1</sup> ]	max, 3600

**Design:** Horizontal annular casing pump with forged or cast pressure boundary and diffuser.

**Applications:** Core flooding, emergency cooling and residual heat removal systems RHRS, ancillary systems, acid feed system and low-pressure injection system LPSI, component cooling water system CCWS, essential service water system ESWS.

Reference no. 1662.02

available in 50 Hz and 60 Hz

#### **RVR** Pump for safety-related and auxiliary systems



DN	max. 500
Q [m³/h]	max. 6000
H [m]	max. 190
p [bar]	max. 63
T [°C]	max. +200
n [min <sup>-1</sup> ]	max. 3600

**Design:** Vertical annular casing pump with forged or cast pressure boundary and diffuser.

**Applications:** Core flooding, emergency cooling and residual heat removal systems RHRS / RNS, ancillary systems, acid feed system and low-pressure injection system LPSI, component cooling water system CCWS, essential service water system ESWS.

Reference no. 1662.02

# Pumps for desalination by reverse osmosis

### RPH®-RO Booster pump



DN	100 - 350
Q [m³/h]	max. 2500
H [m]	max. 150
p [bar]	max. 80
T [°C]	max. +40
Data for 50 Hz operation	

**Design:** Horizontal, radially split volute casing pump, dry-installed, made of super-duplex stainless steel

**Applications:** Booster pump for RO seawater desalination systems.

also available in 60 Hz

## **HGM®-RO** High-pressure pump



DN	65 - 250
Q [m³/h]	max. 1500
H [m]	max. 950
p [bar]	max. 120
T [°C]	max. +40
n [min <sup>-1</sup> ]	max. 3600
Data for 50 Hz operation, higher values available upon request	

**Design:** Horizontal, radially-split, product-lubricated, multistage ring-section pump with radial impellers and plain bearings. Axial and radial single-entry inlet. Duplex and super-duplex stainless steel variant also suitable for chilled water applications.

Applications: High-pressure pump for RO seawater desalination systems.

Reference no. 1582.12 also available in 60 Hz

### Multitec®-RO High-pressure pump in ring-section design



DN	50 - 150
Q [m³/h]	max. 850
H [m]	max. 1000
p [bar]	max. 100
T [°C]	max. +45
n [min <sup>-1</sup> ]	max. 4000
Data for 50 Hz and 60 Hz operation	

**Design:** Horizontal, multistage pump in ring-section design. Axial suction nozzle, discharge nozzle can be turned in steps of 90°. Closed radial impellers. In duplex or super-duplex stainless steel.

Applications: High-pressure pump for RO seawater desalination systems.

Hyamaster, PumpDrive

Reference no. 1777.5

available in 50 Hz and 60 Hz

#### Salino® Pressure Center High-pressure pump with integrated energy recovery device



Q [m³/h]	max. 23
p [bar]	max. 100
T [°C]	max. +50
n [min-1]	max. 1750
Data for 50 Hz and 60 Hz operation	

**Design:** Axial piston pump with integrated energy recovery device in forged duplex or super-duplex stainless steel. Product-lubricated (oil-free).

**Applications:** RO seawater desalination for small and medium sized applications.

Hyamaster, PumpDrive

Reference no. 1859.8

# Positive displacement pumps

### RC / RCV Helical gear pump



DN	20 - 100
Q [m³/h]	max. 78
H [m]	max. 100
p [bar]	max. 10
T [°C]	+5 to +80
n [min-1]	max. 1500
Data for 50 Hz operation	

**Design:** Helical gear pump, self priming, with by-pass valve, available in close-coupled design, horizontal design with baseplate, or vertical design. With mechanical seal.

**Applications:** Fuel feed, fuel, lube oil and viscous fluids transfer, lubrication systems.

also suitable for 60 Hz operation

### **IPR** Reciprocating piston pump



DN	80 - 150
Q [m³/h]	max. 150
H [m]	max. 70
p [bar]	max. 10
T [°C]	+5 to +50
n [min <sup>-1</sup> ]	max. 1500
Data for 50 Hz operation	

 $\textbf{Design:} \ \ \textbf{Reciprocating piston pump.} \ \ \textbf{Vertical installation, with gearbox to reduce crankshaft speed to below 270 rpm.}$ 

Applications: Bilge, deck washing and fire-fighting.

lso suitable for 60 Hz operation

# Fire-fighting systems

#### **FFS** Fire-fighting system



DN	32 - 300
Q [m³/h]	max. 840
H [m]	max. 140
p [bar]	max. 16
T [°C]	+5 to +50
n [min <sup>-1</sup> ]	max, 3000
Data for 50 Hz operation	

**Design:** Automatic fire-fighting system, consisting of jockey pump and one or several duty pumps, with electric motor or diesel engine. Includes manifold, valves, accessories and control unit. To EN 12845, CEA 4001, UNE-23500, NFPA-20, FM, etc.

Applications: Office buildings, hotels, industry, shopping malls, etc.

also suitable for 60 Hz operation

### **FFU** Fire-fighting system



DN	32 - 350
Q [m³/h]	max. 2500
H [m]	max. 150
p [bar]	max. 25
T [°C]	+5 to +50
n [min <sup>-1</sup> ]	max. 3000
Data for 50 Hz operation	

**Design:** Automatic fire-fighting system, consisting of pumps with electric motor or diesel engine and control unit. To EN 12845, CEA 4001, UNE-23500, NFPA-20, FM, etc.

Applications: Office buildings, hotels, industry, shopping malls, etc.

also suitable for 60 Hz operation

## **Automation and drives**

**SuPremE**® Magnetless synchronous reluctance motor of efficiency class IE4 to IEC/CD 60034-30 Ed. 2.0



No. of pumps max. 1 Voltage [V] Power supply via PumpDrive variable speed system only **Design:** IEC-compatible, sensorless, magnetless synchronous reluctance motor of efficiency class IE4 (super premium efficiency) to IEC/CD 60034-30 Ed. 2.0 (05-2011) for operation with the KSB PumpDrive S or R variable speed system. Suitable for connection to three-phase 380-480 V power supply (via PumpDrive). The motor mounting points are in compliance with EN 50347 specifications to ensure compatibility with standardised IEC frame motor applications and full interchangeability with IE2 standardised asynchronous motors. Envelope dimensions lie within the limits recommended in DIN V 42673 (07-2011) for IE2 motors. The motor is controlled without rotor position indicators. Efficiency of the motor also exceeds 95 percent of rated efficiency when the motor runs at 25 percent of its rated power on a quadratic torque-speed curve. The motor is magnetless which means that, in particular, so-called rare earths are not used in production. Drive production is thus sustainable and environmentally friendly.

**Applications:** All dry-installed variable speed pumps which can be driven by standardised motors of B3 or V1/V15 type of construction.

Reference no. 4075.5

## **Control units**

#### Controlmatic E Automatic control unit



No. of pumps	max. 1
Voltage [V]	1~230

**Design:** Single-pump control system for starting, stopping and monitoring pumps. **Applications:** Water supply systems, in combination with pump types Multi Eco, Multichrom S, Ixo, S 100D, etc.

Reference no. 5125.5

### Controlmatic E.2 Automatic control unit



No. of pumps	max, 1
Voltage [V]	1~230

**Design:** Single-pump control system for starting, stopping and monitoring pumps. **Applications:** Water supply systems, in combination with pump types Multi Eco, Multichrom S, Ixo, S 100D, etc.

Reference no. 5125.178

### Cervomatic EDP.2 Automatic control unit



No. of pumps max. 1 Voltage [V] 1~230 / 3~400 **Design:** Single-pump control unit for pressure-controlled starting and either pressure-controlled or flow-controlled stopping as well as monitoring pumps.

**Applications:** In water supply systems using, for example, Multi Eco, Ixo, S 100D and UPA 150C.

Reference no. 5125.178

## **Control units**

### LevelControl Basic 2 Level control unit



No. of pumps	max. 2		
[kW]	max. 22		
Voltage [V]	1~230 / 3~400		
Higher values available upon request			

 $\textbf{Design:} \ \, \text{Level control unit for controlling up to two pumps.} \ \, \text{Direct starting up to 4 kW, star-delta starting up to 22 kW.}$ 

**Applications:** Tank drainage via float switches, pneumatic or bubbler control in building services and waste water applications.

Reference no. 4041.

### **UPA Control** Control system for submersible borehole pumps



No. of pumps	max. 1
[kW]	3
Voltage [V]	1~230 / 3~400

**Design:** Single-pump control unit for submersible borehole pumps, submersible motor pumps and dry-installed pumps.

 $\begin{tabular}{ll} \textbf{Applications:} Water supply systems, in combination with pump types S 100D, UPA 150S, etc. \end{tabular}$ 

Reference no. 3465.1

### **hyatronic** N Pump control system for cascade starting and stopping



No. of pumps	max. 6
[kW]	22
Voltage [V]	3~400
Higher values available upon request	

**Design:** Pump control system in control cabinet for cascade starting and stopping of up to 6 pumps on the mains.

**Applications:** Water supply systems.

Reference no. 0543.502

# **Speed control systems**

## PumpDrive Self-cooling, motor-independent variable-speed system



No. of pumps	max. 6
FI	1 per pump / motor
[kW]	45
Voltage [V]	3~380 to 480

**Design:** Self-cooling frequency inverter which allows the motor speed to be varied continuously by means of standard signals and a field bus. Because PumpDrive is self-cooling, it can be mounted on the motor, on the wall or in a cabinet. Control of up to 6 pumps without an additional controller (with PumpDrive Advanced).

**Applications:** Cooling circuits, filters, water supply systems, heating, ventilation and air-conditioning systems, spray irrigation systems, boiler feed systems, steam generation plants, process engineering circuits, cooling lubricant supply systems, service water supply systems and other process engineering applications.

Reference no. 4070.5

## hyatronic spc Pump control system for continuously variable speed adjustment



No. of pumps	max. 1
FI	max. 1
[kW]	7.5
Voltage [V]	3~400

**Design:** Single-pump control system for continuously variable speed adjustment with integrated frequency inverter.

**Applications:** Heating, ventilation, air-conditioning, water supply and drainage systems.

Reference no. 0973.

### Hyamaster ISB Pump control system for continuously variable speed adjustment



No. of pumps	max. 8
FI	max. 2
[kW]	200
Voltage [V]	3~400

**Design:** Control system for pumps with three-phase motors of all types and makes, consisting of a KSB controller with display and control panel and all required power components.

**Applications:** Industrial and process engineering circuits, service water supply, cooling and lubrication, energy supply in cogeneration plants, heat transfer and district heating stations, water extraction and treatment, water supply and waste water disposal.

Reference no. 1961.

#### **Hyamaster SPS** Pump control system for continuously variable speed adjustment



No. of pumps	max. 4
FI	1 per pump
[kW]	650
Voltage [V]	3400

**Design:** Control system for pumps with three-phase motors of all types and makes, consisting of a programmable logic controller (PLC) with display and control panel and all required power components housed in a control cabinet.

**Applications:** Process engineering circuits, service water supply, cooling and lubrication systems, cogeneration plants, heat transfer and district heating stations, water extraction and treatment, water supply and waste water disposal.

Reference no. 1964.5

# Monitoring and diagnostic systems

### PumpMeter Intelligent pressure transmitter



**Design:** The PumpMeter device is an intelligent pressure transmitter for pumps, with on-site display of measured values and operating data. The device consists of two pressure sensors and a display unit. It records the load profile of the pump in order to indicate any potential for optimising energy efficiency and availability.

**Applications:** For monitoring the operation of a centrifugal pump.



Reference no. 4072.

## **Amacontrol** Monitoring system for submersible waste water pumps



No. of pumps max. 1
Type Amacan
Installation mounting plate IP20
Voltage 230 V AC

**Design:** Monitoring system for submersible waste water pumps with shutdown.

Reference no. 2316.

# **Control system**

#### **BOA-Systronic®**



No. of pumps	max. 1
PN	6 / 10 / 16
DN	20 - 200
Voltage [V]	24 VAC
T [°C]	+20 to +120

Higher values available upon request

**Design:** Energy-saving system for the coordinated operation of pump and control valve. The system provides an all-in solution designed to access untapped hydraulic savings potential. Irrespective of the pump technology used, it allows savings of 50 % in pump electricity while also reducing primary energy costs thanks to lower return flow temperatures. The system can be combined with all control systems and pumps with a 0-10 V control input, Straightforward integration in automation systems with optional BACnet gateway.

**Applications:** Supply temperature control in HVAC installations with volume flow rates of 0.5 to 185 m³/h and temperature differentials of 3 to 30 °K. Threaded (DN20) or flanged (DN25-DN200) line connections; suitable for upgrading installed systems and for new systems, for connection to all types of heat generators (boiler or district heating), all main feed manifolds, all control systems, all supply temperatures.



Reference no. 7540.

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