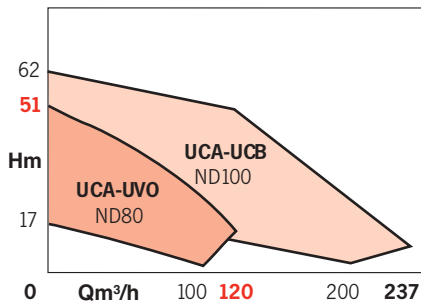


## OPERATING LIMITS

Flow rates up to:	<b>240 m<sup>3</sup>/h</b>
Head up to:	<b>62 m</b>
Maximum immersion depth:	<b>12.5 m</b>
Max. particle size:	<b>Ø 50 to 80*</b>
ND discharge port:	<b>80/100 mm</b>
IP :	<b>68</b>

\*depending on model



## CHARACTERISTICS

- Several impeller types: VORTEX, single-channel, two-channel.
- The submerged motor cable inlet is protected 3 times against the infiltration of fluid.
- Mechanical seal on the fluid side.
- The UCB pumps are fitted with a block seal.

## ADVANTAGES

- Several particle sizes: 50/70/80, several types of use depending on the type of impeller.
- No risk of infiltration into the submerged motor chamber.
- Completely leaktight motor part.
- The cassette seal ensures reliable sealing: no bellows and no ageing through natural or chemical agents.

# UCA-UVO-UCB

## SUBMERSIBLE PUMPS

Lifting of polluted water  
Commercial use  
2 pole - 50 Hz

## APPLICATIONS

Pumps intended for sewerage lift and discharge stations, intermittent operation.

Lifting of:

- waste water,
- excess water,
- muddy water,
- industrial water.

Drainage of:

- septic tanks,
- drains.



• UCA-UVO 208

# UCA-UVO-UCB

## DESIGN

### Hydraulic part

- Submersible, vertical shaft.
- Shaft common to pump and motor Oil-filled.
- Interstage chamber between pump and motor, insulated by a lip seal and mechanical seals:
- Double mechanical block seal for UCB pumps.
- Three impeller types: single-channel, two-channel or vortex impeller.

### Motor

- Leaktight with dry rotor.
- Built-in thermal probe protecting the motor against overheating.
- Direct starting up to 4 kW; Star-delta starting over 4 kW.
- Speed: 1450 and 2900 rpm
- Winding: ~ 3 ; 400 V
- Frequency: 50 HZ
- Insulation class: F
- Protection index: IP 68
- CE

### Options :

- ATEX (on certain models)

## IDENTIFICATION

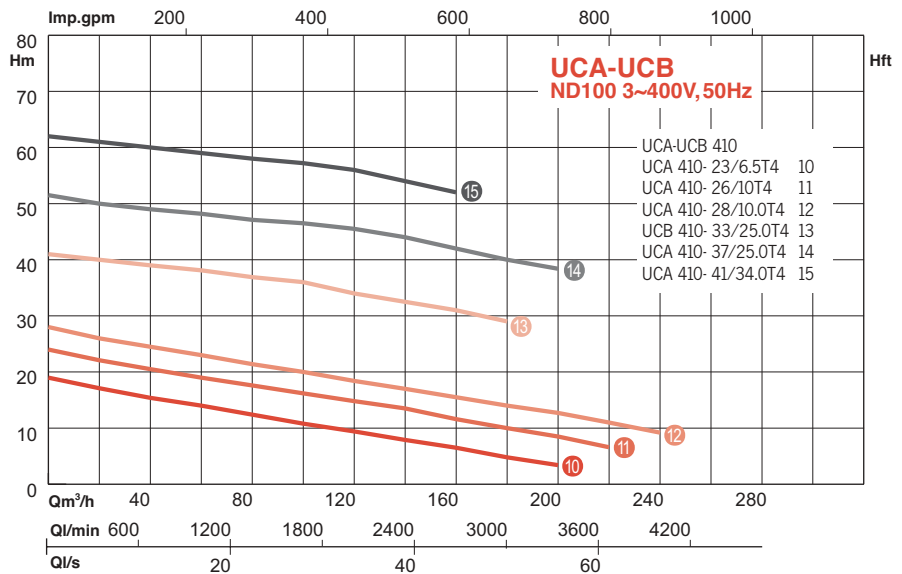
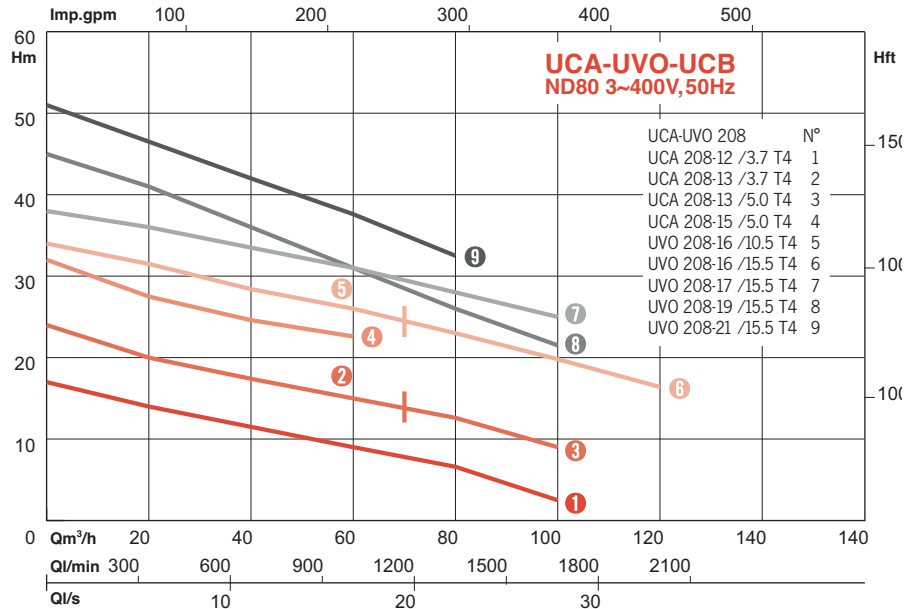
U CA 2 08 12/3.7 T4

CB 4

VO

- T4: 400 V three-phase
- P2 in kW
- Impeller diameter in cm
- Discharge diameter in cm
- number of poles
- CA: single-channel impeller
- CB: two-channel impeller
- VO: Vortex impeller
- Range code

## HYDRAULIC PERFORMANCES

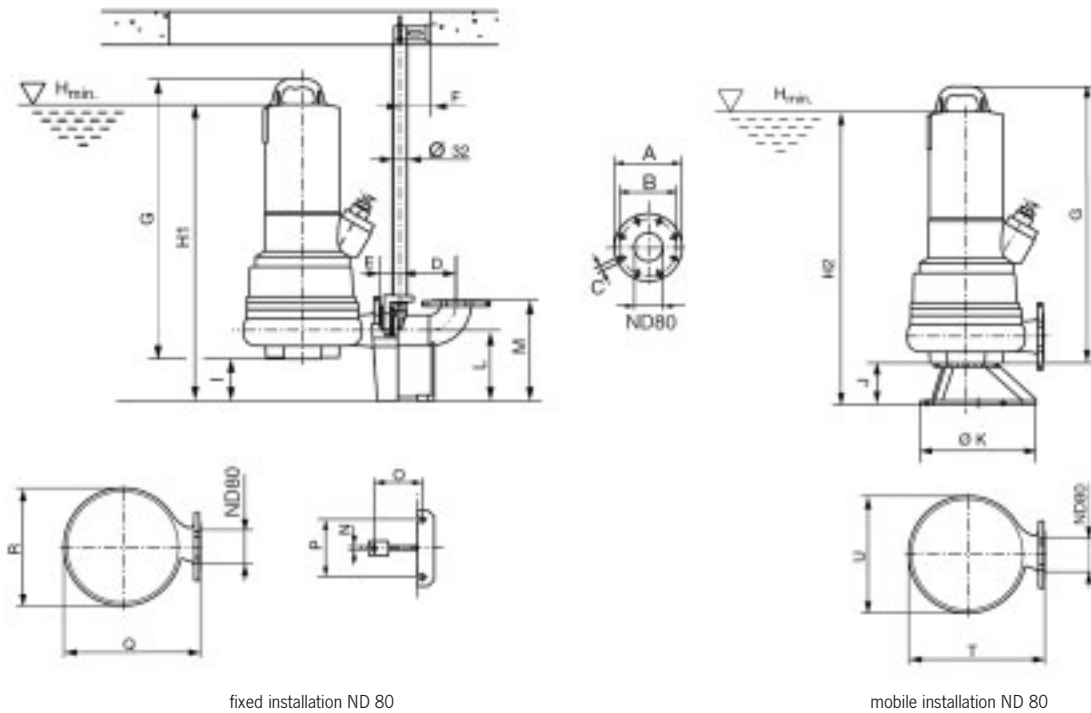


## STANDARD CONSTRUCTION

Model	UCA 208	UVO 208	UCA 410	UCB 410
Pump body	EN-GJL 200		EN-GJL 250	EN-GJS 500-7
Impeller	GGG 50 (0.7050)	EN-GJL 200 (GG20 - 0.6020)	EN-GJL 250	EN-GJS 500-7
Shaft	AISI-420		AISI-420	
Mechanical seal	SiC / SiC		SiC / SiC	
Sealing on motor side	NBR		NBR	SiC / SiC
Motor frame	EN-GJL 200		EN-GJL 200	EN-GJL 250

## DIMENSIONS

### UCA-UVO 208



UCA-UVO 208	A	B	C	D	E	F	G	H1	H2	I	J	K	L	M	N	O	P	Q	R
UCA208-12/3.7 T4	200	160	18	166	59	90	539	580	585	119	124	344	210	300	15	120	170	264	229
UCA208-13/3.7 T4	200	160	18	166	59	90	539	580	585	119	124	344	210	300	15	120	170	264	229
UCA208-13/5.0 T4	200	160	18	166	59	90	594	635	640	119	124	344	210	300	15	120	170	264	229
UCA208-15/5.0 T4	200	160	18	166	59	90	593	635	640	119	124	344	210	300	15	120	170	264	229
UVO208-16/10.5 T4	200	160	18	166	59	90	753	790	805	110	124	344	210	300	15	120	170	374	340
UVO208-16/15.5 T4	200	160	18	166	59	90	875	910	925	110	124	344	210	300	15	120	170	374	340
UVO208-17/15.5 T4	200	160	18	166	59	90	875	910	925	110	124	344	210	300	15	120	170	374	340
UVO208-19/15.5 T4	200	160	18	166	59	90	832	880	880	125	124	344	210	300	15	120	170	405	350
UVO208-21/15.5 T4	200	160	18	166	59	90	832	880	880	125	124	344	210	300	15	120	170	405	350

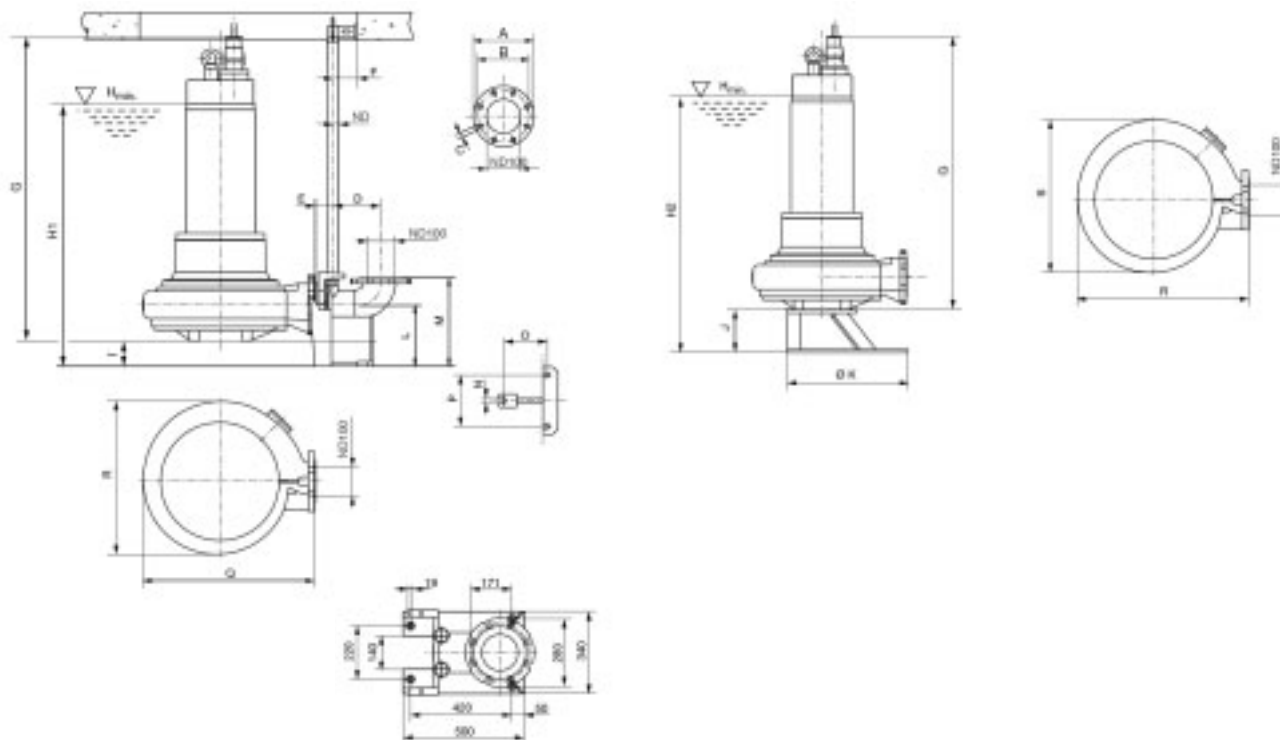
## TECHNICAL DATA

	curve nr	Submerged installation	Dry sump installation	Operation	P1 (kW)	P2 (kW)	I (A)	Speed (rpm)	Mains voltage	IP	Cable (m)	Weight (kg)	Particle size	Starting
UCA 208-12 /3.7 T4	1	+	S2 - 15	S1	4.75	3.75	7.6	2900	3~400V, 50Hz	68	15	55	70	direct
UCA 208-13 /3.7 T4	2	+	S2 - 15	S1	4.75	3.75	7.6	2900	3~400V, 50Hz	68	15	55	70	direct
UCA 208-13 /5.0 T4	3	+	S2 - 15	S1	6	5	9.7	2900	3~400V, 50Hz	68	15	59	70	Y - Δ
UCA 208-15 /5.0 T4	4	+	-	S1	6	5	9.7	2900	3~400V, 50Hz	68	15	59	70	Y - Δ
UVO 208-16 /10.5 T4	5	+	-	S1	12.3	10.5	20.5	2900	3~400V, 50Hz	68	15	119	80	Y - Δ
UVO 208-16 /15.5 T4	6	+	-	S1	18.6	15.5	30.5	2900	3~400V, 50Hz	68	15	163	80	Y - Δ
UVO 208-17 /15.5 T4	7	+	-	S1	18.6	15.5	30.5	2900	3~400V, 50Hz	68	15	163	80	Y - Δ
UVO 208-19 /15.5 T4	8	+	-	S1	18.6	15.5	30.5	2900	3~400V, 50Hz	68	15	162	50	Y - Δ
UVO 208-21 /15.5 T4	9	+	-	S1	18.6	15.5	30.5	2900	3~400V, 50Hz	68	15	162	50	Y - Δ

# UCA-UVO-UCB

## DIMENSIONS

### UCA-UVO 410



fixed installation ND 100

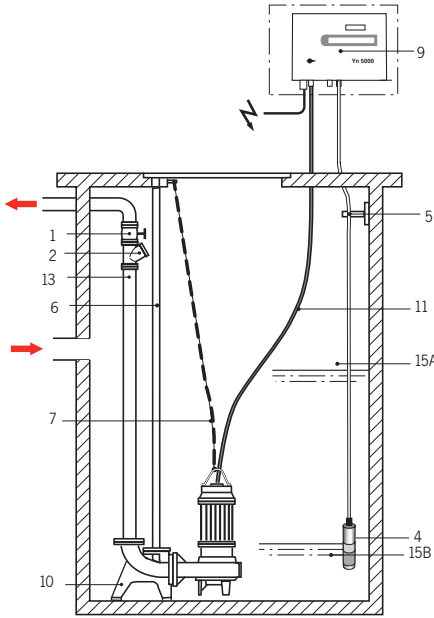
mobile installation ND 100

UCA-UVO 410	A	B	C	D	E	F	G	H1	H2	I	J	K	L	M	N	O	P	Q	R	DN	
UCA410-23/6.5 T4	220	180	18	176	65	90	664	710	715	120	124	320	225	325	15	160	190	448	394	32	
UCA410-26/10.0 T4	220	180	18	176	65	90	744	670	795	120	124	320	225	325	15	160	190	448	394	32	
UCA410-28/10.0 T4	220	180	18	176	65	90	744	670	795	120	124	320	225	325	15	160	190	448	394	32	
UCB410-33/25.0 T4	285	240	22	241	109	120	1160	1160	1155	183	180	500	320	540	"Special base elbow set for UCB 410 6022587"						
UCB410-37/25.0 T4	285	240	22	241	109	120	1160	1160	1155	183	180	500	320	540							
UCB410-41/34.0 T4	285	240	22	241	109	120	1230	1230	1225	183	180	500	320	540							

## TECHNICAL DATA

	curve nr	Submerged installation	Dry sump installation	Operation	P1 (kW)	P2 (kW)	I (A)	Speed (rpm)	Mains voltage	IP	Cable (m)	Weight (kg)	Particle size	Starting
UCA 410- 23/6.5T4	10	+	-	S1	8.1	6.5	13.5	1450	3~400V, 50Hz	68	15	106	80	Y - Δ
UCA 410- 26/10T4	11	+	-	S1	12.3	10	21	1450	3~400V, 50Hz	68	15	137	80	Y - Δ
UCA 410- 28/10.0T4	12	+	-	S1	12.3	10	21	1450	3~400V, 50Hz	68	15	139	80	Y - Δ
UCB 410- 33/25.0T4	13	+	-	S1	28.5	25	49.5	1450	3~400V, 50Hz	68	15	361	80	Y - Δ
UCA 410- 37/25.0T4	14	+	-	S1	28.5	25	49.5	1450	3~400V, 50Hz	68	15	376	80	Y - Δ
UCA 410- 41/34.0T4	15	+	-	S1	38.7	34	68	1450	3~400V, 50Hz	68	15	415	80	Y - Δ

## ACCESSORIES RECOMMENDED FOR ATEX INSTALLATIONS

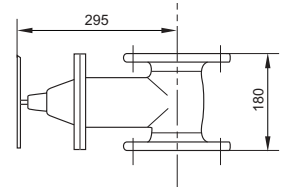


- 1 : Gate valve
- 2 : Ball check valve
- 4 : IPAE air pressure switch
- 5 : Cable hook for an IPAE
- 6 : ND 32 guide bars  
(ND 50 for UCB 410s)
- 7 : Lifting chain
- 9 : Control box for ATEX installations  
**unit to be placed out of hazardous area**
- 10 : Base elbow set
- 11 : Cable (15m)
- 13 : Bleed hole to be created
- 14 : Zener barrier for an ATEX installation

Reminder: ATEX pumps are optional.

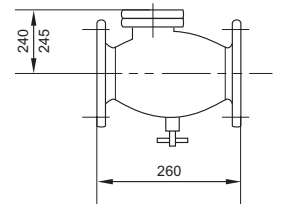
### 1 - Gate valves

Gate valve ND 80	2017162
Gate valve ND 100	2017163



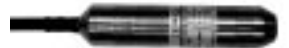
### 2 - Check valve

Ball check valve ND 80	4015761
Ball check valve ND 100	4015762



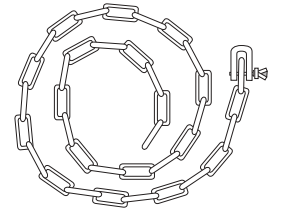
### 4, 5 and 14 - Electronic air pressure switch

IPAE with 10 m cable	2519921
IPAE with 30 m cable	2519922
IPAE with 50 m cable	2519923
Cable hook for an IPAE (5)	2519927
Zener barrier (14)	2521216



### 7 - Chain

5 m, 6 mm thick	6022588
10 m, 6 mm thick	6022589
5 m, 8 mm thick (for UCB)	6022590
10m, 8 mm thick (for UCB)	6022582



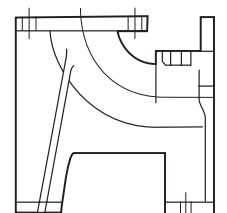
### 9 - Control boxes

	1 pump installation		2 pump installation	
	Control box	Reference	Control box	Reference
UCA 208-12 /3.7 T4	YN5110E	2521217	YN5210E	2521218
UCA 208-13 /3.7 T4	YN5110E	2521217	YN5210E	2521218
UCA 208-13 /5.0 T4	YN5110E	2521217	YN5210E	2521218
UCA 208-15 /5.0 T4	YN5110E	2521217	YN5210E	2521218
UVO 208-16 /10.5 T4	YN5120E	2521225	YN5220E	2521226
UVO 208-16 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-17 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-19 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-21 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UCA 410- 23/6.5T4	YN5116E	2521223	YN5216E	2521224
UCA 410- 26/10T4	YN5120E	2521225	YN5220E	2521226
UCA 410- 28/10.0T4	YN5120E	2521225	YN5220E	2521226
UCB 410- 33/25.0T4	YN5155E	2521231	YN5255E	2521232
UCA 410- 37/25.0T4	YN5155E	2521231	YN5255E	2521232
UCA 410- 41/34.0T4	YN5171E	2521233	YN5271E	2521234



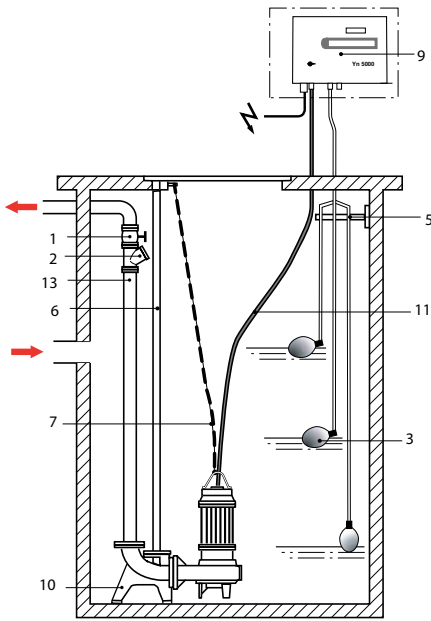
### 10 - Base elbow set

Base elbow set ND 80, 2 bar ND 32	6022585
Base elbow set ND 100, 2 bar ND 32 (for UCA 410)	6022587
Base elbow set ND 100, 2 bar ND 50 (for UCB 410)	6022591



# UCA-UVO-UCB

## ACCESSORIES RECOMMENDED FOR FIXED INSTALLATIONS



- 1 : Gate valve
- 2 : Ball check valve
- 3 : Float switches
- 5 : Cable look
- 6 : Guide bars ND 32  
(ND 50 for UCB 410s)
- 7 : Lifting chain
- 8 : Control box YN 4000 or YN 5000E
- 10 : Base elbow set
- 11 : Cable (15m)
- 13 : Bleed hole to be created

### 1 - Gate valves

Gate valve ND 80	2017162
Gate valve ND 100	2017163

### 2 - Check valve

Ball check valve ND 80	4015761
Ball check valve ND 100	4015762

### 3 - Float switches

Nivo 430X1-10M ECOLO	4027319
Nivo 430X1-20M ECOLO	4027320
Raceway wall bracket	4013188

### 7 - Chain

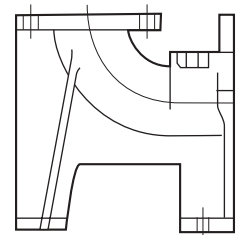
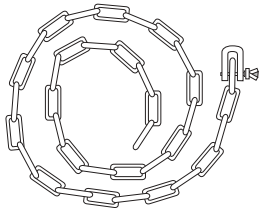
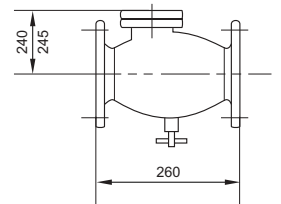
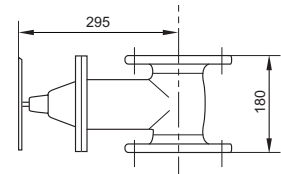
5 m, 6 mm thick	6022588
10 m, 6mm thick	6022589
5 m, 8 mm thick (for UCB)	6022590
10 m, 8 mm thick (for UCB)	6022582

### 8 - Control boxes

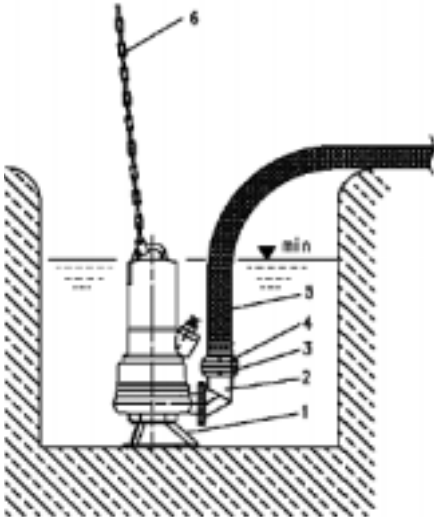
	1 pump installation		2 pump installation	
	Control box	Reference	Control box	Reference
UCA 208-12 /3.7 T4	YN4112	4035802	YN4212	40358804
UCA 208-13 /3.7 T4	YN4112	4035802	YN4212	40358804
UCA 208-13 /5.0 T4	YN4112	4035802	YN4212	40358804
UCA 208-15 /5.0 T4	YN4112	4035802	YN4212	40358804
UVO 208-16 /10.5 T4	YN5120E	2521225	YN5220E	2521226
UVO 208-16 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-17 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-19 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-21 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UCA 410- 23/6.5T4	YN5116E	2512223	YN5216E	2521224
UCA 410- 26/10T4	YN5120E	2521225	YN5220E	2521226
UCA 410- 28/10.0T4	YN5120E	2521225	YN5220E	2521226
UCB 410- 33/25.0T4	YN5155E	2521231	YN5255E	2521232
UCA 410- 37/25.0T4	YN5155E	2521231	YN5255E	2521232
UCA 410- 41/34.0T4	YN5171E	2521233	YN5271E	2521234

### 10 - Base elbow set

Base elbow set ND 80, 2 bar ND 32	6022585
Base elbow set ND 100, 2 bar ND 32 (for UCA 410)	6022587
Base elbow set for UCB 410, 2 bar ND 50	6022591



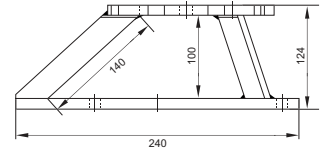
## ACCESSORIES RECOMMENDED FOR MOBILE INSTALLATIONS



- 1 : Mobile installation mounting
- 2 : Right elbow
- 3 & 4 : Quick coupling
- 5 : Flexible pipe
- 6 : Lifting chain

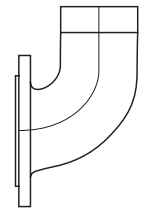
### 1 - Pedestal

Mobile installation pedestal ND 80	6022586
Mobile installation pedestal ND 80/100 (for UCA-UVO 208 Hmax>44m and UCA 410)	6022592
Mobile installation pedestal ND 100 (for UCB)	6022593



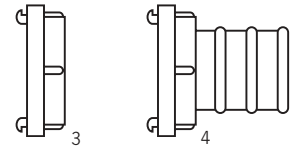
### 2 - Elbow

Right elbow ND 80	2017698
Right elbow ND 100	2015597



### 3 and 4 - Quick coupling

3) ND 80	18275
4) ND 80	18269
3) ND 100	19792
4) ND 100	18276



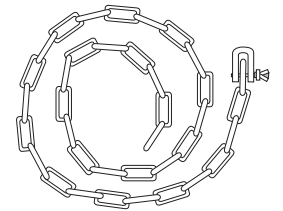
### 5 - Flexible pipe

Flexible pipe 10m ND80	2017691
Flexible pipe 20m ND80	2017692
Flexible pipe 30m ND80	2017693
Flexible pipe 10m ND100	2015585
Flexible pipe 20m ND100	2015586
Flexible pipe 30m ND100	2015587



### 6 - Chain

5m, 6 mm thick	6022588
10m, 6 mm thick	6022589
5m, 8 mm thick (for UCB)	6022590
10m, 8 mm thick (for UCB)	6022582



### 7 - Control box

	1 pump installation		2 pump installation	
	Control box	Reference	Control box	Reference
UCA 208-12 /3.7 T4	YN4112	4035802	YN4212	40358804
UCA 208-13 /3.7 T4	YN4112	4035802	YN4212	40358804
UCA 208-13 /5.0 T4	YN4112	4035802	YN4212	40358804
UCA 208-15 /5.0 T4	YN4112	4035802	YN4212	40358804
UVO 208-16 /10.5 T4	YN5120E	2521225	YN5220E	2521226
UVO 208-16 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-17 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-19 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UVO 208-21 /15.5 T4	YN5132E	2521227	YN5232E	2521228
UCA 410- 23/6.5T4	YN5116E	2512223	YN5216E	2521224
UCA 410- 26/10T4	YN5120E	2521225	YN5220E	2521226
UCA 410- 28/10.0T4	YN5120E	2521225	YN5220E	2521226
UCB 410- 33/25.0T4	YN5155E	2521231	YN5255E	2521232
UCA 410- 37/25.0T4	YN5155E	2521231	YN5255E	2521232
UCA 410- 41/34.0T4	YN5171E	2521233	YN5271E	2521234



# UCA-UVO-UCB

## FEATURES

### a) Electrical

- Three-phase 400V, 50 Hz, direct-on-line starting on model 208-14/4.
- Three-phase 400V, 50 Hz, YΔ starting on models 208-17/9 and 208-19/19.

Mandatory thermal protection against overcurrents via discontactor, circuit breaker or control unit with level regulator.

### b) Installation

- Pump in vertical position, for fixed or mobile installation.
- Mobile installation: the discharge port will be connected with an elbow to flexible piping with larger diameter than the pump discharge.
- Dual installation: the pumps may be twinned by collector.
- Check valves and valves to be installed, preferably in the upper section of the discharge duct.
- Connection with flexible or rigid piping.

### c) Packaging

Pump supplied on a pallet  
Pump supplied with electric cables  
H07RN-F for UCAs or NSSHOJ-S for  
UVO/UCB.  
Accessories packaged separately.

## RECOMMENDED ACCESSORIES

- **Yn4000** : control and protection units for 1 or 2 lifting pumps. Pump management in fixed, flooded sump or dry well installations; level monitoring and protecting of motor against overcurrents, overloads and dry running.

Control unit order reference

Intensity range in A	Yn4100 1 PUMP	Yn4200 2 PUMPE
1.6 to 05	(Yn4105)4035801	(Yn4205)4035803
3.7 to 12	(Yn4112)4035802	(Yn4212)4035804

Probe management card: 44033562 for S400 (I≤12A).

### • YN5000E

Management via microprocessor of one or two pumps in a fixed installation: flooded sump or dry well.  
Level monitoring and protecting of motor against overcurrents, thermal overloads and dry running.



### ORDER Starting intensity range

REFERENCE	A		
YN 5110E	2521217	0,5 - 10	direct
YN 5210E	2521218	0,5 - 10	direct
YN 5109E	2521219	6,3 - 9	YΔ
YN 5209E	2521220	6,3 - 9	YΔ
YN 5111E	2521221	10 - 11	YΔ
YN 5211E	2521222	10 - 11	YΔ
YN 5116E	2521223	12,5 - 16	YΔ
YN 5216E	2521224	12,5 - 16	YΔ
YN 5120E	2521225	16 - 20	YΔ
YN 5220E	2521226	16 - 20	YΔ
YN 5132E	2521227	24 - 32	YΔ
YN 5232E	2521228	24 - 32	YΔ
YN 5142E	2521229	33,1 - 42	YΔ
YN 5242E	2521230	33,1 - 42	YΔ
YN 5155E	2521231	42,1 - 55	YΔ
YN 5255E	2521232	42,1 - 55	YΔ
YN 5171E	2521233	71	YΔ
YN 5271E	2521234	71	YΔ

### • IPAE



### Electronic Air Pressure Switch

for clear and polluted water.

- Suitable for operation in an explosive atmosphere.
- Suitable for draining and filling.
- Complies with directive 94/9/CE (ATEX): protection against explosive atmospheres
- Remote control.
- Anti-deflagrating.
- Insensitive to water temperature and foam.
- Acid-resistant.
- Undisruptable, highly accurate to within 2 cm and economical
- Power supply voltage: 220V - 50 Hz.
- Used with the YN 5000E.

For an ATEX installation use the Zener barrier (see IPAE manual for more information)

### • NIVO430

Ecological, mercury-free polluted water float switch.

Suitable for draining and filling, with discontactor.

