

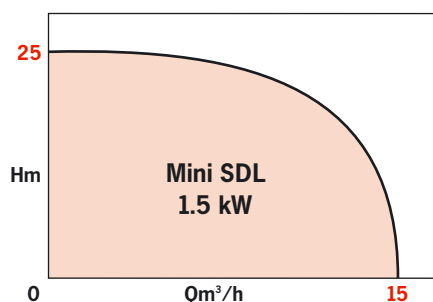
OPERATING LIMITS

| | |
|-----------------------|----------------------|
| Flow up to: | 16 m ³ /h |
| Head up to: | 36 m |
| Max. particle size: | 6 mm |
| DN of discharge port: | 40 |
| Protection index: | 68 |

SDL i

MACERATING SUBMERSIBLE PUMPS

Lifting of waste water Commercial 2 pole - 50 Hz



ADVANTAGES

- Combination of cast iron + 316L stainless steel for increased corrosion-proofing and reliability.
- High-resistance, high-strength blade.
- Spherical blade preventing friction and premature wearing.
- Fixed blade equipped with shoulder to guide flow and ensure improved suction.
- Two types of standard installation: permanent installation in wet sump or mobile installation.
- Connections: Round counter-flange - DN 40, PN10
- Small pipe diameter and large discharge head for evacuation over long distances.

CHARACTERISTICS

- Cast-iron pump + 316L stainless-steel motor + stainless-steel/cast-iron.
- 10-m removable cable.
- Single-channel impeller.
- Installation on base elbow with 2 guide bars (3/4") or installation on stainless-steel support stand for mobile installation.
- ATEX as standard on the 3-phase version.

APPLICATIONS

- Lifting of waste water, foul water, water containing fibrous matter, fabrics, etc.
- Emptying of septic tanks, sewers.
- Lifting of water from institutional kitchens.
- Discharge of non-corrosive food-processing wastes.

For homes, restaurants, garages, car parks, etc. or for any high-TDH (Total Dynamic Head) applications.



• SDL i

SDL i

DESIGN

• Pump:

- Submersible, vertical axis.
- Single shaft for pump and motor.
- Intermediate oil-filled chamber between pump and motor insulated with 2 mechanical seals.
- Single-channel impeller hosting mobile blade.
- Permanent blade with shoulder mounted on pump casing.
- Particle size: 6 mm

• Motor:

- Watertight with dry rotor.
- Integrated thermal overload protection. (WSK thermal sensor).
- Direct start-up.

- Speed: 2900 rpm
- Winding: 3-phase; 400V
- Frequency: 50 HZ
- Insulation class: F
- Protection index: IP 68
- EC conformity

- ATEX for the 3-phase versions.

STANDARD CONSTRUCTION

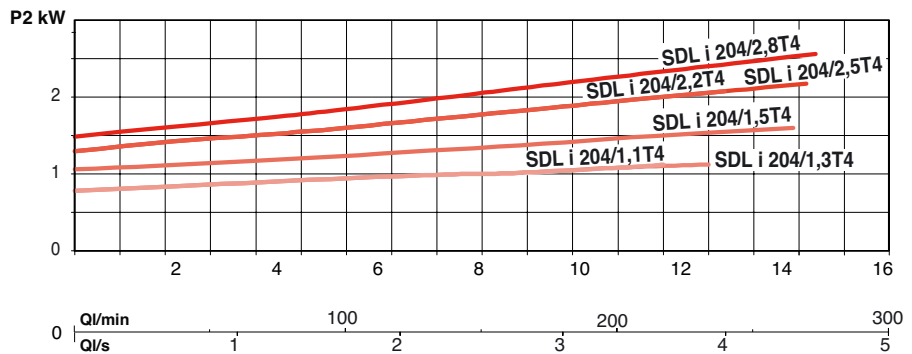
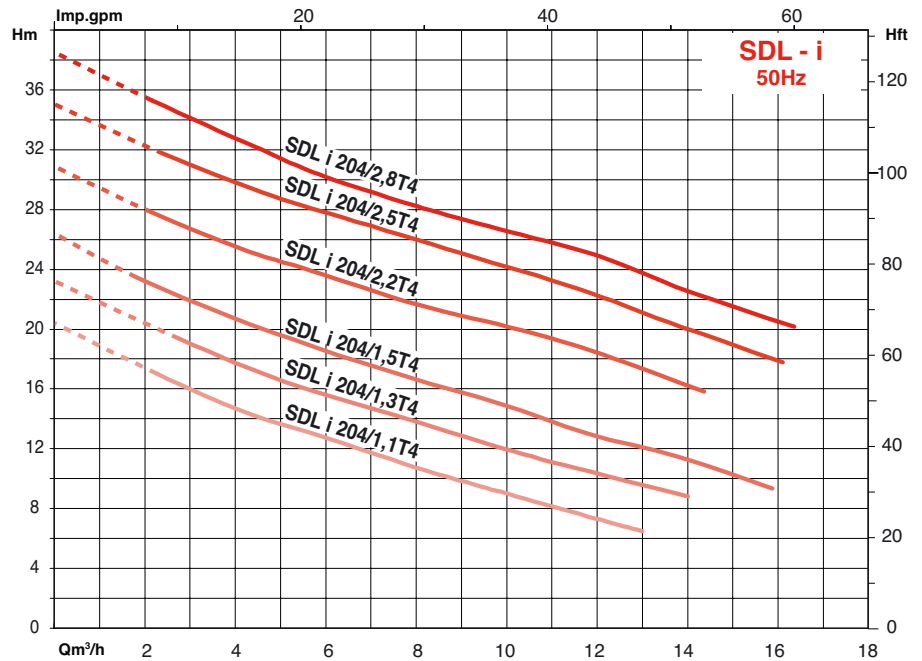
| Main components | Material |
|-----------------|------------|
| Pump | EN-GJL 250 |
| Motor structure | 1.4404 |
| Impeller | EN-GJL 250 |
| Shaft | 1.0570 |
| Fluid-end seal | Carb./Cer. |
| Motor-end seal | Sic./Sic. |
| Blades | 1.4528 |

PUMP IDENTIFICATION

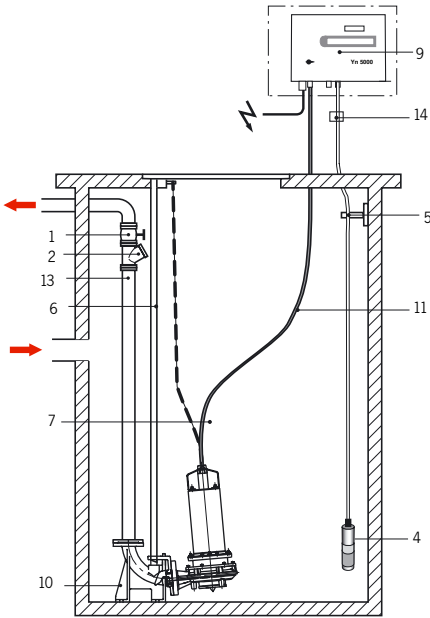
S DL i 2 04 2,0 T 4

- S: range
- DL: macerator systeme
- inox
- 2 pole
- Discharge-port DN in cm
- P2 in kW
- 3-phase
- 400 V

HYDRAULIC PERFORMANCES AT 2900 RPM



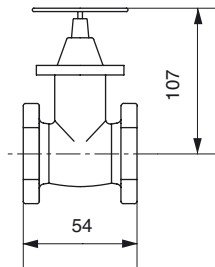
RECOMMENDED ACCESSORIES FOR ATEX INSTALLATION



- 1 : Gate valve
- 2 : Ball check valve
- 4 : Electronic air-pressure switch (IPAE)
- 5 : IPAE cable bracket
- 6 : 3/4" DN guide bars
- 7 : Lifting chain
- 9 : Control box for ATEX installation (YN5000E). Install box outside explosive area.
- 10 : Base elbow set
- 11 : cable (10 m)
- 13 : Bleed hole to be drilled
- 14 : Zener barrier compulsory for ATEX installation

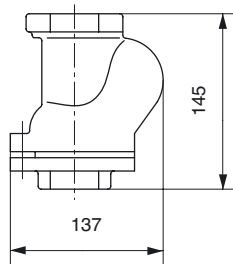
1 - Gate valves

| | |
|------------|---------|
| Gate valve | 4015489 |
|------------|---------|



2 - Check valve

| | |
|-------------|---------|
| Check valve | 4015465 |
|-------------|---------|



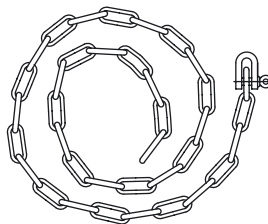
4, 5 & 14 - IPAE

| | |
|----------------------|---------|
| IPAE with 10-m cable | 2519921 |
| IPAE with 30-m cable | 2519922 |
| IPAE with 50-m cable | 2519923 |
| IPAE cable bracket | 2519927 |
| Zener barrier | 2521216 |



7 - Lifting chain

| | |
|---------------|---------|
| Lifting chain | 4031693 |
|---------------|---------|



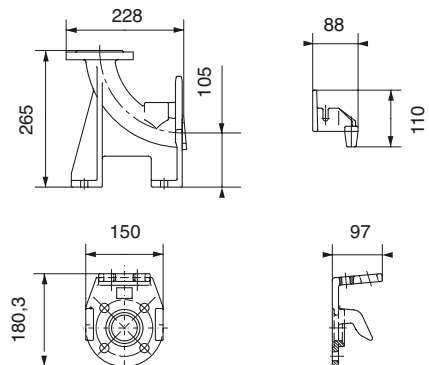
9 - Control box

| | | |
|-----------------|--------|---------|
| SDL i 204/1,1T4 | YN5110 | 2521217 |
| | YN5210 | 2521218 |
| SDL i 204/1,3T4 | YN5110 | 2521217 |
| | YN5210 | 2521218 |
| SDL i 204/1,5T4 | YN5110 | 2521217 |
| | YN5210 | 2521218 |
| SDL i 204/2,2T4 | YN5110 | 2521217 |
| | YN5210 | 2521218 |
| SDL i 204/2,5T4 | YN5110 | 2521217 |
| | YN5210 | 2521218 |
| SDL i 204/2,8T4 | YN5110 | 2521217 |
| | YN5210 | 2521218 |

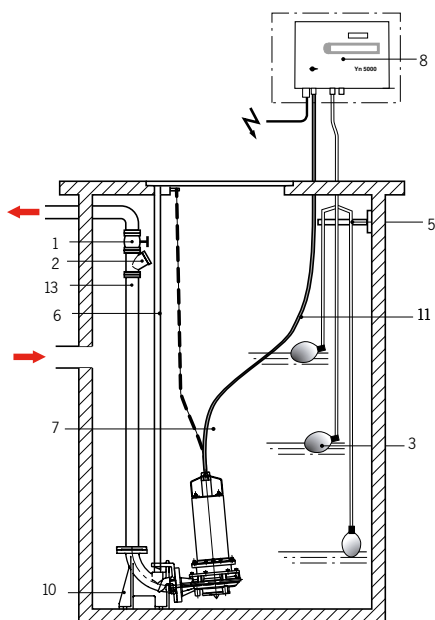


10 - Base elbow set

| | |
|--------------------|---------|
| SDL base elbow set | 2057179 |
|--------------------|---------|



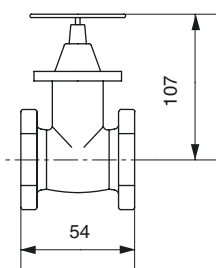
RECOMMENDED ACCESSORIES FOR PERMANENT INSTALLATION



- 1 : Gate valve
- 2 : Ball check valve
- 3 : Float switch
- 5 : Wall-mounted cable bracket
- 6 : 3/4" guide bars
- 7 : Lifting chain
- 8 : YN4000 or YN5000E control box
- 10 : Base elbow set
- 11 : cable (10 m)
- 13 : Bleed hole to be drilled

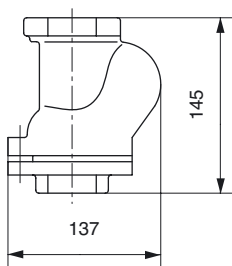
1 - Gate valves

| | |
|------------|---------|
| Gate valve | 4015489 |
|------------|---------|



2 - Check valve

| | |
|-------------|---------|
| Check valve | 4015465 |
|-------------|---------|



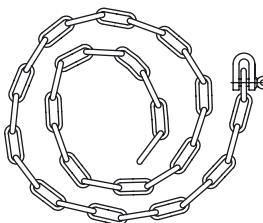
3 - Float switch

| | |
|----------------------------|---------|
| Nivo 430X1-10M ECOLO | 4027319 |
| Nivo 430X1-20M ECOLO | 4027320 |
| Wall-mounted cable bracket | 4013188 |



7 - Lifting chain

| | |
|---------------|---------|
| Lifting chain | 4031693 |
|---------------|---------|



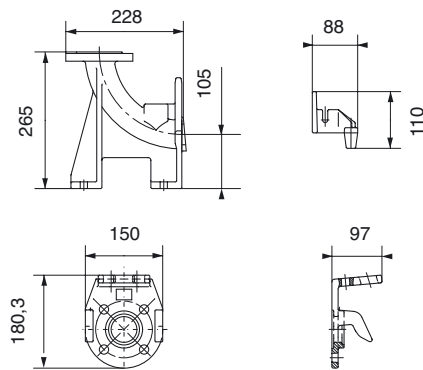
8 - Control box

| | | |
|-----------------|--------|---------|
| SDL i 204/1,1T4 | YN4105 | 4091431 |
| | YN4205 | 4091433 |
| SDL i 204/1,3T4 | YN4105 | 4091431 |
| | YN4205 | 4091433 |
| SDL i 204/1,5T4 | YN4105 | 4091431 |
| | YN4205 | 4091433 |
| SDL i 204/2,2T4 | YN4112 | 4091432 |
| | YN4212 | 4091434 |
| SDL i 204/2,5T4 | YN4112 | 4091432 |
| | YN4212 | 4091434 |
| SDL i 204/2,8T4 | YN4112 | 4091432 |
| | YN4212 | 4091434 |

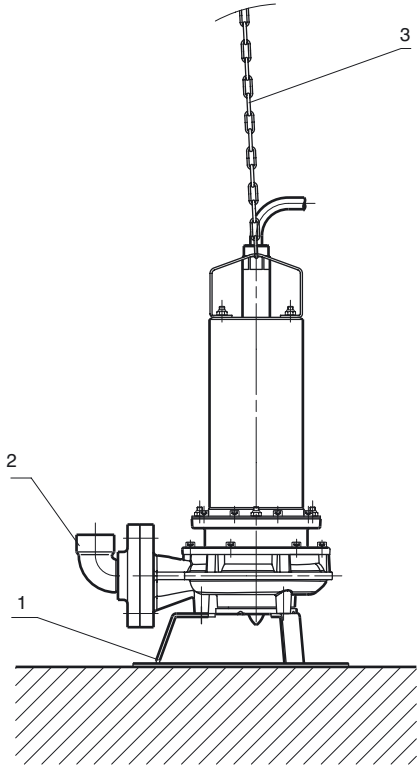


10 - Base elbow set

| | |
|--------------------|---------|
| SDL Base elbow set | 2057179 |
|--------------------|---------|



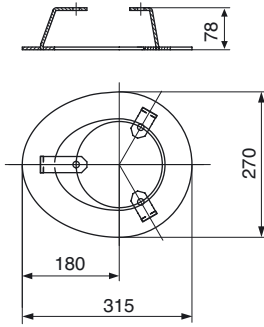
RECOMMENDED ACCESSORIES FOR MOBILE INSTALLATION



- 1 : Mobile-installation support stand
- 2 : Elbow coupling
- 3 : Lifting chain

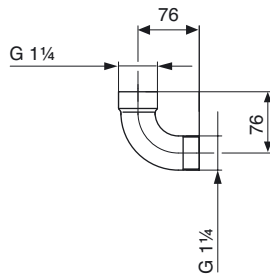
1 - Support

| | |
|-----------------------------------|---------|
| Mobile-installation support stand | 2058721 |
|-----------------------------------|---------|

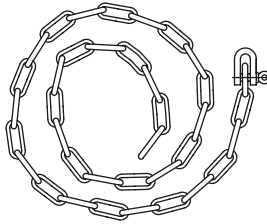


2 - 40-DN elbow coupling with flange

| | | |
|--------------------------|--------------------|---------|
| Elbow discharge coupling | G1 ^{1/4"} | 2057400 |
| | G1 ^{1/2"} | 2057401 |



3 - Lifting chain



| | |
|---------------|---------|
| Lifting chain | 4031693 |
|---------------|---------|

FEATURES

a) Electrical

- 3 phase 400 V – 50-Hz direct start-up.
- Compulsory overload protection (disconnecting switch, circuit breaker or control box with level regulator).

b) Installation

- Pump in vertical position with permanent and mobile installation.
- Mobile installation: discharge port connected by elbow coupling to flexible pipe with diameter greater than pump-discharge diameter.
- Dual installation: pumps can be coupled using a manifold.
- Gate and check valves: installation recommended in upper section of discharge pipe.
- Flexible or rigid connector pipes.

c) Packaging

- Pump delivered in recyclable cardboard packaging.
- Pump delivered with 10-m H07RN – F power cables.
- Accessories packaged separately.

RECOMMENDED ACCESSORIES

- **Yn4000** : control and protection boxes for 1 or 2 lifting pumps. Permanent-installation pump management: wet sump or dry pit. Level monitoring and protection against overcurrent, overload and dry running.

| Current range in A | Box Order Reference | Reference |
|--------------------|---------------------|-------------------|
| 1.6 to 05 | Yn4100 1 PUMP | Yn4200 2 PUMPS |
| 3.7 to 12 | (Yn4105)4035801 | (Yn4205)4035803 |
| | (Yn4112)4035802 | (Yn4212)4035804 |

Sensor management card: 44033562 for S400 (current ≤12A).

- **YN5000E**
Microprocessor management of 1 or 2 permanent-installation pumps: wet sump or dry pit. Level monitoring and protection against overcurrent, overload and dry running.



| ORDER REFERENCE | Start-up current range A | | |
|-----------------|--------------------------|-----------|--------|
| YN 5110E | 2521217 | 0.5 - 10 | direct |
| YN 5210E | 2521218 | 0.5 - 10 | direct |
| YN 5109E | 2521219 | 6.3 - 9 | ΔY |
| YN 5209E | 2521220 | 6.3 - 9 | ΔY |
| YN 5111E | 2521221 | 10 - 11 | ΔY |
| YN 5211E | 2521222 | 10 - 11 | ΔY |
| YN 5116E | 2521223 | 12.5 - 16 | ΔY |
| YN 5216E | 2521224 | 12.5 - 16 | ΔY |
| YN 5120E | 2521225 | 16 - 20 | ΔY |
| YN 5220E | 2521226 | 16 - 20 | ΔY |
| YN 5132E | 2521227 | 24 - 32 | ΔY |
| YN 5232E | 2521228 | 24 - 32 | ΔY |
| YN 5142E | 2521229 | 33.1 - 42 | ΔY |
| YN 5242E | 2521230 | 33.1 - 42 | ΔY |
| YN 5155E | 2521231 | 42.1 - 55 | ΔY |
| YN 5255E | 2521232 | 42.1 - 55 | ΔY |
| YN 5171E | 2521233 | 71 | ΔY |
| YN 5271E | 2521234 | 71 | ΔY |

• IPAE



ELECTRONIC AIR-PRESSURE SWITCH

- for clean and waste water.
- Adapted for use in explosive environments.
- Operates during both emptying and filling.
- Complies with ATEX Directive 94/9/CE: explosive-environment protection.
- Remote control.
- Flame-proof.
- Unaffected by water temperature and presence of foam.
- Acid-resistant.
- Total reliability, high precision (2 cm), economical.
- Input voltage: 220 V - 50 Hz.
- Used with YN5000E.

For ATEX installation, use the Zener barrier (for more information, see IPAE Instructions for Use).

• NIVO430

- Ecological, mercury-free float switch for waste water.
- Operates during both emptying and filling with disconnection switch.



