DESCRIPTION AND DELIVERY OF THE "IDROCON" SET

1) Walls

Self supporting basin structure constructed of the cement compound IDROCON. IDROCON consists of a water-repelling elastic layer (a color blended mass) with an additional layer which consists of fiber reinforced cement mortar. This combination strengthens the mechanical resistance and flexibility.

The resulting product looks like a stone or cement structure that can be installed in the same manner as a steel panel fence without having to treat it for water proofing or add other finishing touches. Because of this IDROCON products are tough – self supporting – water repelling – modular – and can be custom made according to style and color.
IDROCON is a cement-based product and is therefore compatible with all concrete products. This enables one to integrate and/or connect components without the risk of damages due to expansion.

IDROCON has the incredible ability to repair itself in the event of micro damages that can occur during transport or installation. One can observe how water enters into the micro cracks and deposits salt and calcium (which it obtains from the material itself). These deposits in turn seal the cracks in a short period of time.

Modular swimming pools in any shape or size can be custom manufactured with IDROCON.
Due to the prefabricated panels, the installation time is shortened to just a few days. This results in savings in relation to total project costs.

The straight or round components are normally fastened directly to the floor with standard galvanized bolts. A steel reinforced concrete floor is therefore not needed.

The strengthening steel side supports (Z750 hot-dipped galvanized and E360D steel) are mounted to the walls of the construction and are secured to the base with steel anchors. The anchors are sealed into a concrete ring in order to guarantee a perfectly vertical and secure wall.
The resulting structure is thus COMPLETELY SELF SUPPORTING and requires neither a steel reinforced concrete floor nor a supporting wall.

The water horse walker can either be installed at grade or below grade depending on construction site requirements. It can be installed on all types of ground (sand, clay, etc.) and can withstand seasonal fluctuations (ice) as well as minor ground settling without it itself settling.

2) Filtration System

The filtration system has a capacity of 32 cubic meters (42 cubic yards) per hour and has 01 each sand filter, **"SOLARIS"** series, model FV-900, 32 cubic meters per hour.

The **"SOLARIS"** filters are constructed based on the most modern production techniques and applications. A multi-valve control system with six levels makes the system easy to operate. Desired functions can easily and quickly be set by turning a lever.
The filter's structure is made of polyester resin which is reinforced with tough and non-rusting fiberglass. This combination, as well as the non-fading color, protect all components of the filter and also increase its life span.

The filter is equipped with a large lid. This allows easy access and servicing. In addition to this, the filter is equipped with a distributor which distributes the water in an umbrella-like fashion over the bed of sand. This optimizes the filtration of every cubic meter of water.

The **"SOLARIS"** filter series ensure a balanced and fast return of clean water into the pool. The advanced technology of these filters reduces energy costs significantly since the filters are engaged for shorter periods of time. Desired functions can easily and quickly be set because of the patented multi-valve control system with 6 levels.

Operating pressure: 6 bar (87 psi) – maximum pressure: 3 bar (43.5 psi)

The effective quarry sand is included.

Pipes and connectors are glued PVC: Ø 50mm (2") diameter or 63mm (2.5") for high-pressure pipes according to the hydraulic system's required amount and size as well as our approved specs.

To be installed with a maximum distance of 5 meters (16.4') to the pool

01 each electric control panel constructed according to CEI specifications and in a waterproof box (IP55) to ensure safety. Contains a differential switch, a timer to control the filtration cycles, a protective switch for the motor, a main switch for the pump (manual – 0 – automatic), and a switch for possible underwater flood lights.

3) Pump System

01 self priming, low noise, one phase pump (3 phase upon request), **"SOLARIS"** series, **Model SE300** - the perfect combination of performance, safety and economy.

The **"SOLARIS"** series pump has the following features:

1. 3 HP motor perfectly sealed and vented (IP 55 degree of protection), self-greasing bearings, completely separate from the pool for absolute safety.
2. Durable molded housing made of fiberglass reinforced polypropylene. This material is resistant to heat, chemicals, other products used in pools as well as salt. The pump housing along with the mono-phase pre filter remove air quickly from circulation.
3. The construction of the filter allows easy access to all internal components. The motor and the inner pump components can be removed without having to unscrew bolts or screws.
4. The mechanical couplings are ceramic and therefore also heat resistant and durable.
5. Lid of the pump housing and the rust-free distributor in **NORYL**, fiberglass reinforced, with wide opening that limits clogging and guarantees optimal operation.
6. Large fasteners ensure a balanced and stable pump-motor unit.
7. Rigid pre-filter cage in CYCOLAC with a 12/1 ratio (free surface – suction surface) The cage opening allows the water to flow freely and protects the internal components against large contaminants.
8. Practical turning knobs simplify the removal of the pre-filter lid. There are neither bolts nor clamps.
9. The lid is made out of transparent polycarbonate which allows one to inspect of the cage. The specially designed connector guaranties a perfect seal.

10 each wall jets, **"SOLARIS"** series, made of thick ABS material

02 each wall sockets, **"SOLARIS"** series, for suction broom or automatic cleaner

01 each floor socket with safety grid, **"SOLARIS"** series, made of thick ABS material

4) Maintenance

Materials for maintenance include:

- a triangle broom for cleaning the floor
- a floating suction pipe
- an aluminum telescoping handle “DE LUXE”
- a net for gathering leaves, debris
- a large brush for the walls
- an unbreakable thermometer
- a chlorine and PH analysis kit

5) Water Quality

01 each **“PH/RH SYSTEM CONTROL COMPACT”:**
This compact system displays a read-out of PH and RH values. It also allows one to regulate and automatically adjust the PH and RH parameters for pools up to 500 cubic meters (654 cubic yards). A pre-mounted panel with connectors and quick connection components enables a quick and simple installation of both electrical and hydraulic components.

The system has two main parts:

1) Control panel with protective housing (IP65) equipped with lights and LCD display as well as 2 operating functions: Mode 1, dosage independent of acid and chlorine; Mode 2, dosage of acid and chlorine with priority on regulating the PH value. Range of adjustment: 0-14 for PH value / 0-1000m V for the redox.
2) The hydraulics is made of two peristaltic pumps [2.5 l/h (0.66 gallon/hour) performance] for partial dosage with acid (PH) and disinfection agent (redox). Includes connectors and pipes.

Further features of the system:

- combined redox electrode (mV) with epoxy-housing and with gel-sealed reference electrode for pressure values up to 7 bar or 101.5 psi at 70° C (158F), 3.5 bar or 50.75 psi at 80° C (176F). 4.5m (14.76') cable. Minimum 100µS
- combined PH electrode with epoxy-housing (0-14 PH) and with gel-sealed reference electrode for pressure values up to 7 bar or 101.5 psi at 70° C (158F), 3.5 bar or 50.75 psi at 80° C (176F). 4.5m (14.76') cable. Minimum 100µS
- electrode holder for drain electrode (PED4) for 2 electrodes, with epoxy-housing, diameter = 12, and current sensor NO/NC –contact
- 5" filter with washable insert made of PET materials and epoxy-housing, diameter = 12
- buffer solution for the regulation of the equipment