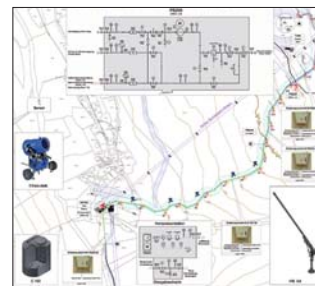




✓ Pump Station & Cooling Tower

**Project Plan**

The construction of a complete snowmaking system begins with the planning and design. In this important phase, DEMACLENKO offers the customer all the support and consultancy required. In cooperation with Sales and Project Management, a high-quality technical concept emerges. This is customized for each client. This information is reflected in detail in the project plan. Even during the construction phase, our project managers are available for seamless execution and primarily as the contact persons.



**Water Reservoirs**

Adequate water is required for snow generation. Basins or reservoirs are built in order to ensure this availability. The design, planning and construction of a water reservoir or a pond are no problem considering the experience of DEMACLENKO. The pump station designed for this purpose rounds off the concept. Assured supply to the system is ensured in this manner.



**Pump Station**

The pump station is the central drive of any snowmaking system. Every pump station is adapted and customized to each skiing region. The power depends on the size of the systems, the water supply and the influences of the environment. Every pump station at DEMACLENKO is adapted to the situation and conditions of each customer.



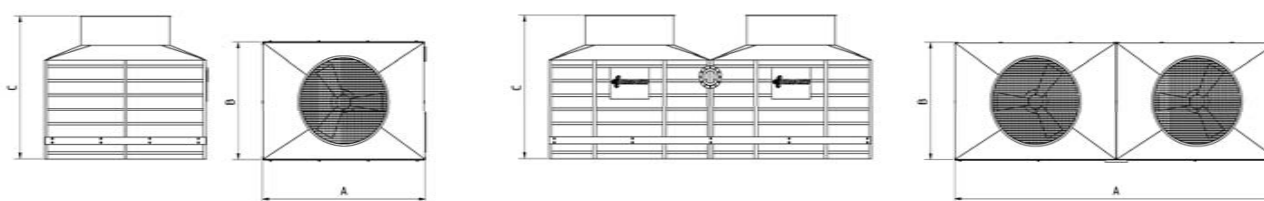
**Compressor**

DEMACLENKO had used compressors for the centralized air supply in the 1990s. Thus, they were one of the first companies in this industry that relied on a centralized pneumatic supply. One or more centrally installed compressors supply compressed air to the snow generator. This solution provides different operative and economic benefits. The compressors have been designed in such a manner that oil discharge is eliminated and they are thus environment-friendly.



**Cooling Tower**

The temperature of the water is an important factor for snow generation. By using cooled water, with a temperature of about 0°, this has a favorable impact on the snowmaking performance. In this manner, the energy consumption of snow generation is reduced considerably. This means greater performance with the same energy requirement. In addition, the snowmaking operation, especially at boundary temperatures, can be initiated earlier. This is an enormous economic benefit for the ski region in present times. DEMACLENKO has developed its own cooling towers for snowmaking. These are characterized primarily by their high performance with low energy consumption.



PUMP STATION

Infrastructure



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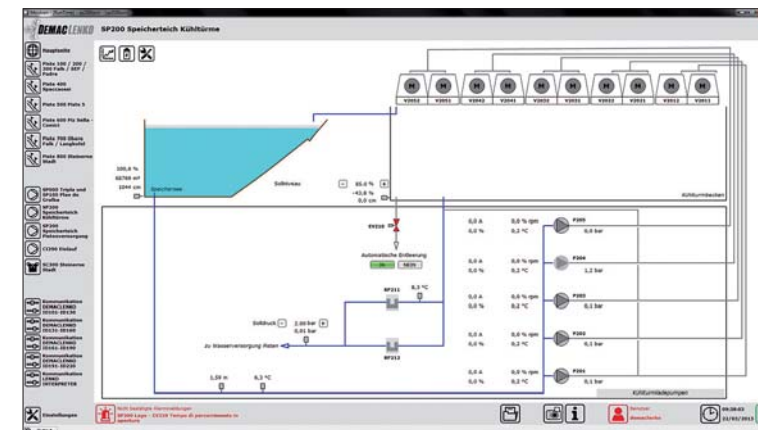
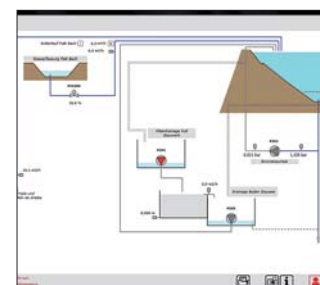
## Intelligent Software & Visualization

### The Control Center

**Everything under control** – with »snowVisual«, the control software from DEMACLENKO. This innovative control software developed by us in-house, enables the system operator to operate his system safely and efficiently. Provided that the conditions set permit the same, snowVisual starts up the entire system in fully automatic mode and controls the complete snowmaking system at optimal and efficient operating points. In this manner, not only savings in valuable energy and unnecessary costs are achieved, but also the best possible quality of snow. In the event of failure, our technicians can check the function of your snowmaking system at any time remotely.



**Everything at a glance** – a centralized PC caters to this facility and it provides a holistic overview of the system. The operating state and position of the snow generator as well as the stations and the most important measured values can be visualized. A detailed display of the pump station permits the operating states to be identified quickly as well as any faults and an insight of all measured values. There are separate graphical displays and statistics available for each snow generator, pump station and weather station. These display the operating state in detail and all control operations can be carried out clearly and in a comprehensible manner.



### Features

- \_ Visualizing of slopes, shafts, pump stations, snow generators and weather stations
- \_ Statistics, graphical displays and data analyses
- \_ Interfaces to external systems

### Control Functions

- \_ Start-up, operation and shutdown of the entire snowmaking systems
- \_ Air, water and power management

### Configuring the snowmaking systems:

- \_ Snow quality
- \_ Maximum water inlet
- \_ Angle of tilt
- \_ Weather-controlled start-up and shutdown
- \_ Water supply

### Alarm

- \_ Status indications and error report for all components



SNOWVISUAL  
The control center

## Cables, Pipes & Shafts

### Cables

- \_ Designed for any snowmaking system conforming to standards
- \_ Aluminum cables with PVC insulation and HDPE sheathing
- \_ Control cables of type 10 x 2 x 0.8

### Pipes

- \_ Made of ductile casting by Duktus
- \_ Plug-in sleeve connection that can withstand tensile and shear stress
- \_ Can withstand high static loads, can be formed and are durable



### Shafts

Shafts are the interface between the snowmaking systems and the snow generators. This is why DEMACLENKO has developed two types of snow shafts.

**Concrete Shaft:** The reinforced concrete shaft of DEMACLENKO developed especially for snow-making systems is suitable for any terrain. The shaft is ready for operation immediately after being connected. It can be deployed both with lances and propeller machines be it in fixed or mobile design.



**GRP Shaft:** The glass-fiber reinforced plastic shafts (GRP) of DEMACLENKO have proven themselves in the last 15 years. These are provided with all connections and accessories that are required. The spacious shaft can be reached comfortably through the entry hatch. In contrast, the snow generator is placed on a separate flange through which water, air, power and control lines are fed. Simple laying combined with the best possible level of quality and functionality make the GRP shafts a reliable must-have for snowmaking systems.



### Hydrants

#### 1) Hydrant Servo Motor EPH

The "Autarkic hydrant drive" of DEMACLENKO may be deployed with both completely automatic snow generators and standard machines. The servo motor can be used with all commercially available makes of hydrants by using a special adapter. Moreover, it can also be used for all commercially available snow generators.

#### 2) Automatic Hydrant HYDROS 50

The automatic hydrant "Hydros 50" of DEMACLENKO is deployed with fully automatic snow generators. With the help of standard Camlock connections, it can be used in all commercially available shafts. Moreover, it can also be used for all commercially available snow generators. It is controlled via the snow generator.



FIELD LINE  
Equipment