
Medical cooling by Beehe with Grundfos Direct Sensors™

THE COMPANY

Shanghai Beehe Electric Co. Ltd is a major cooling system supplier for global medical imaging companies. Production is based primarily in China. Since 2014, Beehe has supplied more than 1,000 units to OEM customers. Beehe delivers the critical cooling for customers' MRI, PET and PET-MR modules.

THE SITUATION

To measure the flow rate of different cooling loops in Magnetic Resonance Cooling System Beehe needed a flow sensor with high accuracy, low cost, small size, analogue output and without moving parts inside. Grundfos VFS series flow sensors combines all the requirements described above, so Grundfos was chosen at the beginning of selection.

THE GRUNDFOS SOLUTION

VFS 10-200 were delivered and were installed in the different cooling loops for Magnetic Resonance Cooling System. As this application needs higher accuracy in the low flow area, now the new improved VFS version with better low flow performance is delivered to Beehe.

THE OUTCOME

VFS sensors are 2 in 1 sensors, where flow and temperature measurement functions are integrated. With this temperature measurement, Beehe can use the T signal to evaluate the temperature level in the different loops. But the T accuracy of VFS is ± 1 and 2°C (0-100°C), which is not enough to use this T signal to control the cooling system. So, if this T accuracy can

TOPIC:

VFS 10-200 l/min used in Beehe's cooling system for medical imaging systems (MRI, CT, PET etc.).

LOCATION:

China

COMPANY:

Shanghai Beehe Electric Co. Ltd

be improved to $\pm 0.5^{\circ}\text{C}$ (0-100 $^{\circ}\text{C}$), then Beehe can use it to control the system. This is a point where Grundfos is working to deliver higher accuracy sensors in the near future.