Cryogenic and feeding units

echo AB

CCS series

Low temperature chamber

> CCS low temperature chambers uses compressor refrigeration technology or liquid nitrogen for impact test sample cooling. Auto-cool and constant temperature features allow the right specimen preparation according to the international standards.

| аттының Д Денее аттының Д | |
|---------------------------------|--|
| | |
| | |
| | |
| . 3 | |
| | |
| | |
| | |

| Model | | CCS 65 | | CCS 85 | CCS 85 | |
|------------------------------------|--------|---|---------------|--|----------------------|--|
| Cooling temperature | ٥° | -60 | | -80 | | |
| Cooling speed | °C/min | From ambient to 0°C From 0 to -20°C From -20 to -60°C | 2 1.5 1 | From ambient to 0°C From 0 to -20°C From -20 to -60°C From -60 to -80°C | 2 1.5 1 0.5 | |
| Accuracy | 0° | ±0.3 | | | | |
| Timer | - | From 1 s to 99 min | | | | |
| Timer resolution | S | 1 | | | | |
| Digital thermometer resolution | 0° | 0.1 | | | | |
| Cooling media | - | Absolute Ethyl Alcohol (Purity ≥99,7%) 5,4 I approx | | | | |
| Tank dimensions | mm | 280x160x120 | | | | |
| Max. sample quanitity (10x10x55mm) | pc | 60 | | | | |
| Motor power | kW | 2.2 | | | | |
| Power supply | V-Hz-p | 230-50/60-1 | | | | |
| Dimensions | mm | 770x550x850 | | | | |
| Weight | kg | 150 | | | | |

Cryogenic and feeding units



Automatic specimen feeding system

 ITM-S, ITM-HF and ITM-MP series can be upgraded with two types of automatic specimen feeding systems, AFS100 with capacity to test 40 specimens and ASF180 with capacity to test 12 specimens.
Systems can be connected also with three types of automatic cooling chambers



- > Specimens rack can accommodate 40 or 12 specimens
- > When used in combination with low temperature chamber, the charging system automatically place the specimen from the rack to cooling chamber and, after set temperature will be reached, take out the sample and placing to the anvil
- > Specimen positioning system automatically center the specimen automatically. After striking, the pendulum automatically rises to starting position for the next impact test, meanwhile the broken specimen is tacked out by the collection and filtering device.

The time of automatic test cycle, including the cooling process, is around to 10 seconds.

Specimen charging system

Cooling chamber (optional)

Specimen feeding system

Automatic specimen feeding system and cooling chamber

| Model | | ACS60 + AFS100 | ACS100 + AFS100 | ACS180 + AFS180 | | |
|------------------------------|-------|---------------------------|----------------------------|----------------------------|--|--|
| Temperature range | °C | From environmental to -60 | From environmental to -100 | From environmental to -180 | | |
| Cooling method | - | Double-stage compressor | Liquid Nitrogen | Liquid Nitrogen | | |
| Temperature control accuracy | 0° | ±1 | | | | |
| Temperature fluctuation | 0° | ±2 | | | | |
| Specimen accomodation | pc | 40 | 40 | 12 | | |
| Specimen feeding time | S | 3 | | | | |
| Specimen dimensions | | 55x10x10 | | | | |
| | mm | 55x10x7.5 | | | | |
| | | 55x10x5 | | | | |
| Air supply | MPa | 0.4-0.7 | | | | |
| Flow rate | l/min | ≥30 | | | | |