IDS Refrigeration Limited
Surety House,
Third Way,
Avonmouth, Bristol,
BS11 9HL
Tel: 0117 980 2520
Fax: 0117 980 2521

Retrofit Checklist for Converting CFC or HCFC Systems to DuPont™ ISCEON® MO29 (R422D)

Retrofit Check List: 1) Pre- and Post- Retrofit Checks

(To be used in conjunction with DuPont Retrofit Guidelines)

Retrofit Check List: 2) Retrofit Progress Checks

(To be used in conjunction with DuPont Retrofit Guidelines)

Retrofit Check List: 3) System Data Sheet

Website; www.idsrefrigeration.co.uk **E-mail;** sales@idsrefrigeration.co.uk

DuPont™ ISCEON® MO29 Refrigerant

Retrofit Check List: 1) Pre- and Post- Retrofit Checks

Pre-Retrofit Advance Preparation for Retrofit	**Check Complete**
1 Ensure the Retrofit Procedure has been read Clarify any doubts with DuPont Technical Services	
2 Check Service History log-book Recent refrigerant additions might signify system leaks Is current system design in agreement with log-book?	
3 Leak check system If leaks found schedule repair	
4 Check compressor oil management system design If no oil separator present oil level observation needed after retrofit	
5 System performance check: complete data sheet See Retrofit procedure p. 8 If obvious performance problem: Correct before retrofit (or plan to do it during retrofit)	
6 Identify system critical elastomeric seals See Retrofit Guidelines p.2	
7 Check Compressor oil condition If doubtful schedule change	
8 Ensure all needed materials will be available Seals, filter cores, etc. Recovery cylinder(s) Recovery machine, vacuum pump, Nitrogen Technical data: Retrofit Guidelines, PT data (Slide rules, etc.)	

Post-Retrofit Verification of system performance and integrity	**Check Complete**			
	24 hrs	48 hrs	72hrs	1 week
1 Observe compressor oil level Correct if needed (see Guidelines p 3)				
2 Measure Performance Data Use Data Sheet				
3 Carry out Leak check Correct any leaks found				

DuPont™ ISCEON® MO29 Refrigerant

Retrofit Check List: 2) Retrofit Progress Checks

Retrofit Steps	Check Complete
1 Recover old refrigerant using good refrigeration practice Use dedicated recovery cylinder(s) Weigh the recovered refrigerant De-gas the compressor oil using a vacuum pump	
2 Break the vacuum using dry nitrogen Minimise ingress of moist air into the system	
4 Change necessary mechanical components Filter/dryer Identified system critical elastomeric seals Replace oil if needed	
5 Evacuate system. Hold under vacuum. To remove moisture. Early indication of leaks (if vacuum does not hold)	
6 If indication of leak pressurise with Nitrogen. Locate leak(s). De-pressurise and correct Evacuate system. Hold under vacuum	
7 Charge with ISCEON®MO29 <u>from liquid phase</u> a) If system receiver - to normal level b) If no receiver - initial 90% of R22 charge	
8 Start system, measure performance data (See data sheet) Adjust refrigerant charge if needed Adjust superheat setting if needed	
10 Check Compressor oil levels Adjust if necessary	
11 Re-check system for refrigerant leaks	
12 Label System Refrigerant (and any added/changed oil) Update log-book	

System Data Sheet

Type of System/Location: _____

Equipment Mfg.:_____ Compressor Mfg.:_____

Model No.:_____ Model No.:_____

Serial No.:_____ Serial No.:_____

Date of Manufacture_____ Date of manufacture_____

Refrigerant Charge Size:_____ Lubricant Type: _____

Lubricant Type/Charge Size:_____ Drier Mfg./ Model _____ _

Drier Type (check one): Loose Fill:_____

Solid Core:_____

Condenser Cooling Medium (air/water): _____

Expansion Device (check one): Capillary Tube: _____ TXV: _____ Electronic _____

Expansion valve: Manufacturer: _____ Model No:_____

Control/Set Point: _____

Location of Sensor: _____

Other System Controls (ex.: head press control), Describe:_____

Performance Data (circle units used where applicable)

Date/Time					
Refrigerant					
Charge Size (kg)					
Ambient Temp. (°C)					
Compressor:					
Suction T (°C)					
Suction P (kPa)					
Discharge T (°C)					
Discharge P (kPa/)					
Evaporator:					
Coil Air/H_2O In T (°C)					
Coil Air/H_2O Out T (°C)					
Operating Service Temperature) (°C)					
Condenser:					
Coil Air/H_2O In T (°C)					
Coil Air/H_2O Out T (/°C)					
Superheat and Sub-Cool (derived values)					
Refrigerant T at Superheat Ctl. Pt (°C)					
Calculated Superheat (K)					
Exp. Device Inlet T (°C)					
Calculated sub-cool (K)					
Motor Amps (if pack: total)					
Additional Comments:					