

# COOLING SYSTEM TESTING TOOLS

Cooling System Testing Tools

76-82

**KEY**



DO NOT USE AIR TOOLS



FOR USE WITH PETROL ENGINES



FOR USE WITH DIESEL ENGINES

**BELT**

FOR USE WITH BELT DRIVEN ENGINES

**CHAIN**

FOR USE WITH CHAIN DRIVEN ENGINES

## '319' Series - Universal Expansion Plug System

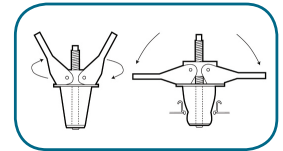
### For use with hand pump or airline adaptor (for HGV)

- Also compatible with '318' Series threaded caps and adaptors to extend applications coverage
- Features a self-testing metal hand pump and precision gauge, with specially designed pressure release valve for safe depressurising of cooling systems
- Designed to cover three types of system test:
  - Leak Detection
  - Temperature Testing
  - Thermostat and Thermo-Switch Operation

The special patented design of the Expansion Plugs, features a tapered rubber cone to fit a variety of radiator and header tank neck diameters. With a range of just 5 plug sizes, it is possible to cover a very wide range of applications, from small cars to commercial vehicles & heavy plant.

The Safety Retaining Clamp has been specially designed to provide added safety in certain applications, e.g. plastic expansion bottles, situations of extreme cold, or very high water temperatures, and when it is not practical to fully clean the surfaces of the aperture neck. The Safety Retaining Clamp greatly reduces the risk of the expansion clamp slipping from its fixed position, particularly under high pressure, and it is recommended to be used for all applications.

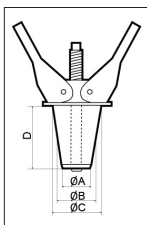
Blanking caps are also provided with the '319' Series System Testers, in order to perform radiator sealing tests, off the vehicle. Temperature testing can be carried out by using the thermometer in conjunction with the appropriate expansion plug and by observing the change (or lack of change) in the fluid temperature and by measuring the rate of change of temperature.



Expansion Plug

## Cooling System Pressure Testing '319' Series - Expansion Plug System Test Kit - Car Kit 33190000

- **Contents**
  - Pump, gauge and hose assembly
  - Universal expansion plugs x 3 (applications range from 21 to 50mm apertures)
  - Safety Retaining clamp
  - Thermometer
  - Small bayonet adaptor for Japanese / Korean models with bayonet cap fitting
- **Optional Extra:**
  - 03191500 - Stepped Expansion Plug for Mercedes (apps range from 27 to 44mm)

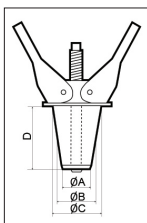


Technical: 33190000 Expansion Plugs							
	D	ØA	ØA Expanded	ØB	ØB Expanded	ØC	ØC Expanded
03191100	70	21	24	30	32	38	38
03191200	70	27	29	35	37	42	42
03191300	70	33	36	41	44	50	50

Note: All dimensions in millimetres

## Cooling System Pressure Testing '319' Series - Expansion Plug System Test Kit - Commercial Kit 33190500

- **Contents**
  - Airline adaptor and gauge assembly, for fast pressurising of large capacity systems on commercial vehicles and plant equipment
  - Universal expansion plugs x 2 (apps range from 33 to 65mm apertures)
  - Safety Retaining clamp
  - Thermometer
- **Optional Extra:**
  - 03191500 - Stepped Expansion Plug for Mercedes (apps range from 27 to 44mm)



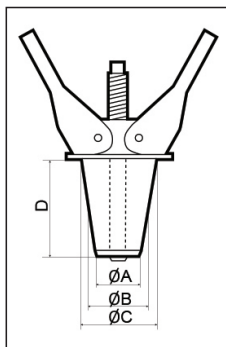
Technical: 33190500 Expansion Plugs							
	D	ØA	ØA Expanded	ØB	ØB Expanded	ØC	ØC Expanded
03191300	70	33	36	41	44	50	50
03191400	70	40	44	53	56	65	65

Note: All dimensions in millimetres

## '319' Series - Expansion Plug System Adaptors and Connectors

Reference	03191100	03191200	03191300 03193300 - (Less Handle)	03191400	03191500	031916V2	03192500	03193000
Application	No 1 Expanding Connector	No 2 Expanding Connector	No 3 Expanding Connector	No 4 Expanding Connector	No 5 Expanding Connector	System Connector	Cooling System Thermometer	Airline Adaptor & Gauge Connector
Type	Expansion Plug (21-38mm)	Expansion Plug (27-42mm)	Expansion Plug (33-50mm)	Expansion Plug (40-65mm)	Expansion Plug (27-44mm)	Small Japanese / Korean Bayonet		
33190000	✓	✓	✓		Optional Extra	✓	✓	
33190500			✓	✓			✓	✓

### Expansion Plugs for Cars, LCV's & HGV's



Technical Specification - Available Expansion Plugs							
Part No	D	ØA	ØA Expanded	ØB	ØB Expanded	ØC	ØC Expanded
03191100	70	21	24	30	32	38	38
03191200	70	27	29	35	37	42	42
03191300	70	33	36	41	44	50	50
03191400	70	40	44	53	56	65	65
03191500	70	27	29	40	42	44	44

Note: All dimensions in millimetres

#### Spare Parts:

- 03190100 - 319 Series Pump & Gauge Assembly c/w threaded hose connector
- 03192170 - Blanking Nut
- 03192500 - Cooling System Thermometer
- 03192870 - Locking Nut
- 03192900 - Safety Retaining Clamp
- 03193000 - Airline Adaptor and Pressure Gauge Assembly

### 319 Series Pump & Gauge Assembly

#### 03190100

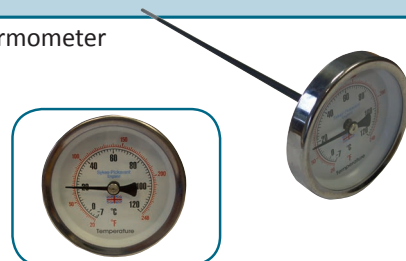
- British made metal hand pump c/w flexible hose to pressurise cooling system via 319 and older 318 couplings
- Includes dual marked psi / bar pressure gauge



### Cooling System Thermometer

#### 03192500

- Dual calibrated thermometer (°C and °F)
- Ranges from: -7°C to 120°C and 20°F to 248°F



### Airline Adaptor & Pressure Gauge Assembly

#### 03193000

- To be used on larger cooling systems i.e. HGV to speed up the pressurisation process using a tyre inflator
- 30psi / 2bar gauge
- Includes blow off valve to prevent over-pressurisation



## '315' Series Cooling System Test Kit 331595V2

- The '315' series Cooling System Pressure Test programme from Sykes-Pickavant provides extensive coverage for both popular and less popular models and is constantly updated as new models are released. More than 20 specialist cooling system cap adaptors are available
- All components of the '315' range are fully compatible with older SP Cooling System Kits and can be used to upgrade previous generations of Cooling System Pressure Test Kits which are fitted with quick-release connectors
- For older systems with a threaded connection, an adaptor is available (03186870)

### • Contents:

- Hand Pump with Pressure Gauge and Quick-Release fitting
- Hose Assembly c/w quick-release fitting
- 16 x Threaded Cooling System Cap Adaptors
- 3 x Bayonet Fitting Cooling System Cap Adaptors
- 1 x Cap Adaptor wrench
- Comprehensive applications listing provided with each kit



Full application listing available at: [www.sykes-pickavant.com](http://www.sykes-pickavant.com)

*Note: All '315' Series Cap Adaptors are compatible with older Sykes-Pickavant Cooling System Kits*

- to use with 316 & 317 series hand pump - no adaptors are required
- to use with 318 series hand pump - adaptor 03186870 is required

*Caps are available to purchase individually. See table on page 79 for further details*



SCAN THE QR CODE TO WATCH A VIDEO OF THE '315' SERIES COOLING SYSTEM TEST KIT

## '315' Series Cooling System Test Kit - Optional Cap Adaptors

### Cap Adaptor - Mini Cooper S - 2002 on 33156100

- Suitable for Mini Cooper S 2002 onwards



### Cap Adaptor - Dennis Dart / Optare Solo 33157800

- Suitable for Dennis Dart PSV's and Optare Solo PSV's



*Sykes-Pickavant is constantly updating the range of cap adaptors available as new models are released. Please contact Customer Services on 01543 679900 or visit [www.sykes-pickavant.com](http://www.sykes-pickavant.com) for further details*

### Hand Pressure Pump c/w Gauge 33150100

- 0 - 2.5bar / 35psi pressure pump
- Gauge Diameter: 60mm
- Suitable for '317' Series caps
- '318' Series caps can be used with convertor 03176870













### Hose Assembly 33150300

- Includes quick-release connector and bleed valve
- Length: 600mm



**Individual Cap Adaptors**

Part No.	Cap No.	General Applications	Image
33151500	3	Chrysler, Citroën, Mercedes, Peugeot	
33156700	4	Mazda, Suzuki, Toyota	
33157100	5	Daihatsu, Honda, Hyundai, Kia, Mazda, Nissan, Suzuki	
33151700	6	Chevrolet, Daewoo, Ford, GM	
33151600	7	Alfa, Citroën, Fiat, Peugeot, Renault, Rover, Volvo	
33152200	8	Seat, VW	
33153500	9	Audi, Seat, Skoda, VW	
33154800	10	BMW, Land Rover, Rover	
33151200	11	Audi, Bentley, Porsche	
33155500	12	Ford	

Part No.	Cap No.	General Applications	Image
33154100	13	Mercedes	
33157200	14	Ford	
33156800	15	Ford, Jaguar, Volvo	
33156300	16	Mercedes	
33156500	17	BMW	
33156600	18	Ford, Seat, VW	
33155800	19	Toyota	
33157500	20	Saab	
33157300	21	Alfa, Ford, GM, Saab	

Full applications listing available at:  
[www.sykes-pickavant.com](http://www.sykes-pickavant.com)

## HGV Cooling System Pressure Test Kit

**33140000**

**• Contents:**

- High capacity metal bodied hand pump with 0 - 2.5 bar pressure gauge
- Quick-Connect Hose Assembly
- 7 x Aluminium Reservoir Pressure Caps
- Dual Gauge measures in p.s.i and bar
- Additional Pressure Caps available - refer to applications guide (available at: [www.sykes-pickavant.com](http://www.sykes-pickavant.com))
- Applications include:  
DAF / Iveco / MAN / Mercedes / Renault / Scania / Volvo



### Applications Range

Ref.	Cap No.	Applications	Cap Internal Diameter (mm)
33141100	1	<ul style="list-style-type: none"> <li>• DAF – XF95, XF105</li> <li>• ERF – EC</li> </ul>	69
33141200	2	<ul style="list-style-type: none"> <li>• SCANIA – 94, 113, 114, 124, 125, 144, 164 , 4 Series</li> </ul>	60
33141300	3	<ul style="list-style-type: none"> <li>• VOLVO – FH12</li> </ul>	42
33141400	4	<ul style="list-style-type: none"> <li>• IVECO – Daily, 2000, C series</li> <li>• RENAULT – Kerax, Magnum, Midlum, Premium</li> </ul>	46
33141500	5	<ul style="list-style-type: none"> <li>• MAN – E2000, F2000, L2000, TGA</li> </ul>	52
33141600	6	<ul style="list-style-type: none"> <li>• DAF – LF55</li> <li>• MERCEDES – Actros, Atego, Axor, Eco 8401</li> <li>• MAN – F90, F2000, TGA/L/M/S</li> <li>• IVECO – Euro Star, Euro Tech, Euro Trakker, Euro Strahlis</li> <li>• VOLVO – FL, FM</li> </ul>	44
33141700	7	<ul style="list-style-type: none"> <li>• MERCEDES – Sprinter &amp; Vito -2006</li> <li>• DEUTZ – 1015</li> </ul>	50

Full application details by model, available at: [www.sykes-pickavant.com](http://www.sykes-pickavant.com)

**Spare Parts:**

- 33140100 - Pump & Gauge Assembly
- 33140300 - Quick-Connect Hose Assembly
- 33141100 - HGV Cooling System Cap 1 - DAF / ERF
- 33141200 - HGV Cooling System Cap 2 - Scania
- 33141300 - HGV Cooling System Cap 3 - Volvo
- 33141400 - HGV Cooling System Cap 4 - Renault
- 33141500 - HGV Cooling System Cap 5 - MAN
- 33141600 - HGV Cooling System Cap 6 - DAF, Iveco, MAN, Mercedes, Volvo
- 33141700 - HGV Cooling System Cap 7 - Mercedes, Deutz

## HGV Cap Adaptor - Dennis / Optare

**33147800**

- Optional Cap Adaptor for use with 33140000 HGV Cooling System Pressure Test Kit
- Applications:  
Dennis Dart PSV's / Optare Solo PSV's and related models



## Combustion Leakage Tester

**33195000**

- Accurate and fast diagnosis of cylinder head gasket leaks
- Quick connector for use with 315 / 316 / 317 Series Cap Adaptors
- Suitable for use with both Petrol & Diesel Engines
- Supplied with both Standard & Sensitive Reaction Test Fluid (250ml)
- Replacement Bottles of Reaction Fluid available:
  - Standard - 33194200 - 250ml (White Cap)
  - Sensitive - 33194400 - 250ml (Black Cap)



## '317' Series Pump and Gauge Assembly c/w Quick-Connect Coupling

**03170100**

- Featuring a self-testing metal hand pump and precision gauge, with specially designed pressure release valve for safe depressurising of cooling systems
- Ideal for detecting leaks in radiators, heater matrix, hoses, cylinder heads, engine blocks, water pumps etc

*317 series pump assembly can also be used with more modern 315 Series Cooling System Cap Adaptors, as they use the same quick-connect coupling and fittings - Refer to page 79*



### Standard Connector - Small Bayonet Fitting

**03170200**

- For use with 317 Series quick-connect system - Connects to 03170100 - 317 Series Pump (see above) with quick-connect coupler



### Standard Connector - Large Bayonet Fitting

**03170300**

- For use with 317 Series quick-connect system - Connects to 03170100 - 317 Series Pump (see above) with quick-connect coupler



### Standard Bayonet Cap Connector Hose

**03180200**

- Bayonet Cap Connector Hose for 318 Series Pump



### Cap / Pump Connector Hose Assembly

**03182200**

- Threaded Cap Connector Hose for 318 Series Pump





FOR THE LATEST  
PRODUCT INFORMATION  
VISIT OUR NEW WEBSITE:  
[www.sykes-pickavant.com](http://www.sykes-pickavant.com)