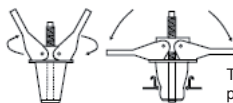


'319' Series - Universal expansion plug system

For use with hand pump, or with 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 de-pressurising of cooling systems.
- Designed to cover three types of system test:-
 - Leak detection
 - Thermostat and thermo-switch operation
 - Temperature testing



This is how the expansion plugs operate



The special patented design of the Expansion Plugs, features a tapering 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 through to commercial vehicles and heavy plant.

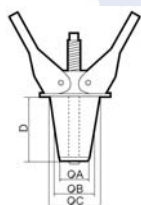
The Safety Retaining Clamp has been specially designed to provide added safety in certain applications, e.g. plastic expansion bottles, situations of extreme cold, or very high water temperatures, and when it is not practical to fully clean the surfaces of the aperture neck. The Safety Retaining Clamp 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.

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

33190000

- 03190100 Pump, gauge and hose assembly
Universal expansion plugs x 3
(applications range from 21mm to 50mm apertures)
Safety retaining clamp
Thermometer
Small bayonet adaptor for Japanese vehicles
- 03191500 Optional extra : Stepped expansion plug for Mercedes
(applications range from 27mm 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

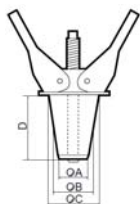
Note: All dimensions in millimetres



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

33190500

- 03193000 Airline adaptor and gauge assembly, for fast pressurising of large capacity systems on Commercial Vehicles and Plant equipment
Universal expansion plugs x 2
(applications range from 33mm to 65mm apertures)
Safety retaining clamp
Thermometer
Small bayonet adaptor for Japanese vehicles
- 03191500 Optional extra : Stepped expansion plug for Mercedes
(applications range from 27mm 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

APPLICATION	IMAGE	TYPE	REFERENCE	33190000	33190500
Radiator System Connectors : 319 series - threaded connectors					
No.1 Universal Expanding Connector		Expansion Plug (21 - 38mm)	03191100	•	
No.2 Universal Expanding Connector		Expansion Plug (27 - 42mm)	03191200	•	
No.3 Universal Expanding Connector		Expansion Plug (33 - 50mm)	03191300 03193300 (less handle)	•	•
No.4 Universal Expanding Connector		Expansion Plug (40 - 65mm)	03191400		•
No.5 Stepped Expanding Connector (Mercedes)		Expansion Plug (27 - 44mm)	03191500		
Daihatsu, Mazda, Mitsubishi, Nissan, Subaru, Toyota, Some Honda motorcycles		System Connector:- Small Japanese Bayonet	03191600	•	
Cooling System Thermometer			03192500	•	•
Airline Adaptor & Gauge Connector			03193000		•

Technical Specifications							
	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
03191100	70	21	24	30	32	38	38
03191200	70	27	29	40	42	44	44
03191500	70	27	29	40	42	44	44

Note: All dimensions in millimetres

Full Range of Expansion Plugs for Cars, LCV's & HGV's.

Contents - 33190500			
03192870	03192100	03192500	
03192900	03193000	03191300	03191400

Note: 319 Series is compatible with all 318 series system connectors and adaptors.

Contents - 33190000		
03190100	03191600	03192100
03192870	03192900	03192500
03191100	03191200	03193300