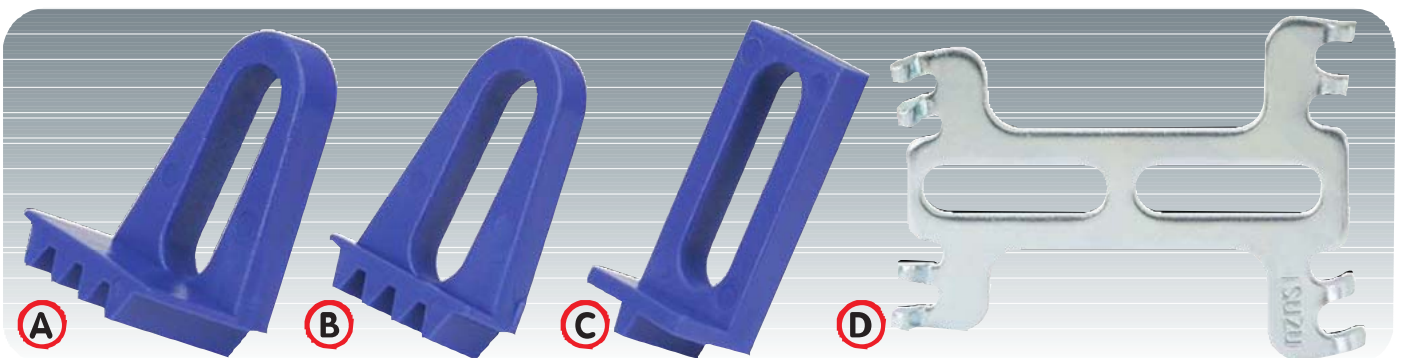


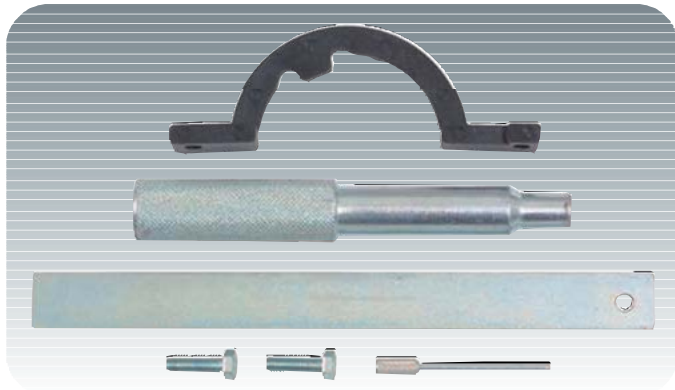
Universal cam shaft blocking tool

- KS TOOLS** **150.3030**
- Innovative and universal tool for blocking double overhead cam shafts
This guarantees that the camshaft timing is not altered during work on the engine
 - For engines with twin overhead cam shafts
 - Universal tooth profile which fits all normal gear wheels
 - For gear wheels with a diameter of 100 to 150 mm diameter
 - Adjusting range 80 mm
 - The very compact construction allows the timing belt to be changed whilst the tool remains attached



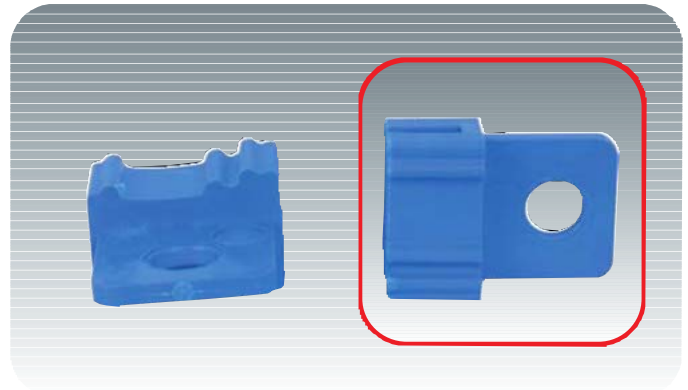
Universal fly wheel blocking tool set, 4-pcs.

- KS TOOLS 150.3025** consists of:
- A Fly wheel blocking unit for:**
Citroen: Synergie 2.0/Turbo.ZX 1.9D/TD, Xantia 1.9D/TD., Berlingo 1.9D, Dispatch 1.9D/TD, Synergie1.9D, Relay 1.9D/TD,
Fiat: Ulysse, 2.0/Turbo, Ducato 2.0, **FSO:** 1.9, **D LDV:** 200 1.9D, Pilot 1.9D, **Peugeot:** 205 1.6/1.9, 305 1.6/1.9, 309 1.6/1.9, 405 1.6/1.9, 405 1.8/2.0 (92-), 605 2.0, Boxer 2.0, c205 1.8/1.9D, 305 1.8/1.9D, 306 1.8/1.9D/TD, 309 1.8/1.9D 1.8TD, 405 1.8TD, 405 1.9D, 406 1.9D, Partner 1.9D, Talbot / Horizon /Solara 1.9D, J5/Talbot Express 1.9D, 605D/TD, 806 1.9TD, Expert 1.9D, Boxer 1.9D/TD, **Renault:** R5 1.6D, R9 1.6D, 411 1.6D Express/Extra 1.6D-F8M diesel engines, Clio, Express/Extra, R19 1.9D for F8Q diesel engines, Espace 2.1D, R21 2.1D, R25 2.1D, Trafic/Master 2.1D-J8S diesel engines, Clio 1.2/1.4, Express/Extra, R19 1.4, Megane/Scenic 1.4/1.6-E7F/E7J petrol engines, R5 1.7, Clio 1.7/1.8, R19 1.7, R21 1.7 Megane/Senic 2.0, Laguna 1.8/2.0, Trafic 1.7-F3N/F3P/F2R petrol engines, Clio Williams, R19, Megane 2.0 16V Twin cam F7P/F7R engines, Laguna/Safrane 2.0 16V Twin cam N7Q/N7U engine
- B Fly wheel blocking unit for: Renault:** Clio, Twingo, Kangoo, Megane/Scenic, 1.2/1.6 D7F + K7M petrol engines, Megane/ Scenic, Kangoo 1.9D FBQ + F9Q diesel engines (Direct injection)
 - C Fly wheel blocking unit for:**
Citroen: Xsara, Xantia 1.8/2.0XU7 JP/JP petrol engines, Xsara 1.8 16V XU7 JP4 twin cam engines, ZX.Xantia, XM2.0 16V XU10J4 twin cam engines, Xantia 1.9D/TD XUD9BTF diesel engines, Xantia, XM2.1TD XUD 11BTE diesel engines, **Peugeot:** 406, 1.8/2.0 XU7 JP/JP petrol engines, 406 1.8 16V XU7 JP4 twin cam engines, 306, 405, 605 2.0 16V XU10J4 twin cam engines, 406, 1.9D/TD XUD9BTF diesel engines, 406, 605 2.1 TD XUD 11BTE diesel engines
 - D Fly wheel blocking unit for:**
Vauxhall/Opel: 1.2, 1.4, 1.6, 1.8, 2.0 OHC petrol engines, 1.6D & 1.7 OHC diesel engines, 1.5 & 1.7 OHE diesel(Isuzu)-engines



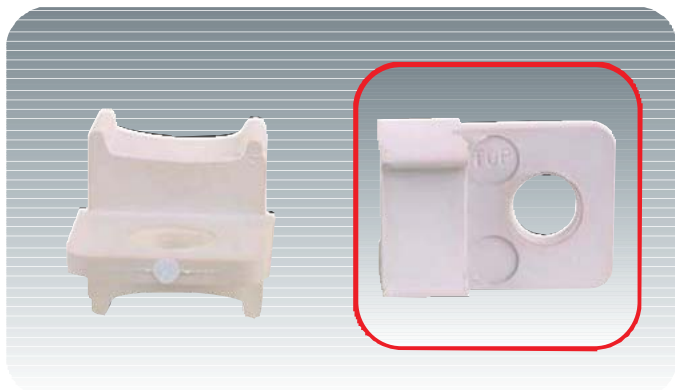
Blocking tool set

150.3065 For Opel Corsa 1,0 - 1,2 - 16V
Twin Cam ECOTEC engines from 1997



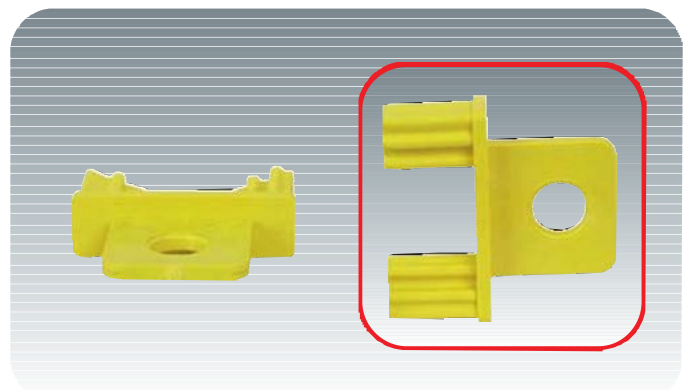
Blocking tool

150.3059 1 Piece for Opel Ecotec. 1,4 - 1,6 - 16V from, 1993
Corsa B - Tigra - Astra F - Vectra



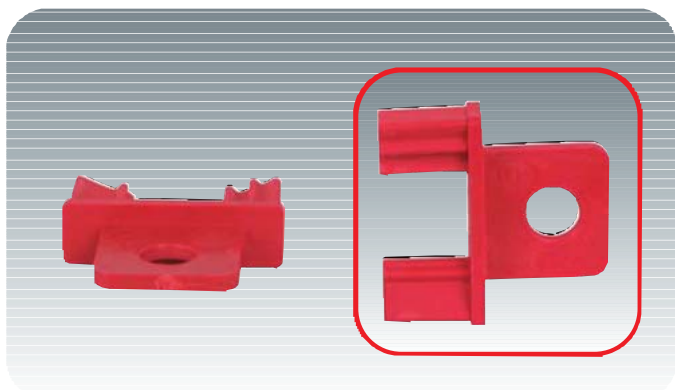
Blocking tool

150.3062 1 Piece for Opel with small cam shaft gear wheels
1,8 - 2,0 - 16V from 1993 Astra - Calibra - Omega 1,4 - 1,6



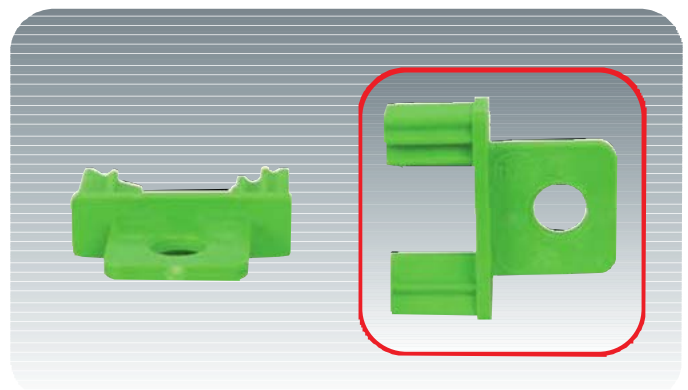
Blocking tool

150.3061 1 Piece for Opel Ecotec. 1,8 - 2,0 - 2,2 - 16V from 1995
Astra - Frontera - Sintra - Omega - Vectra



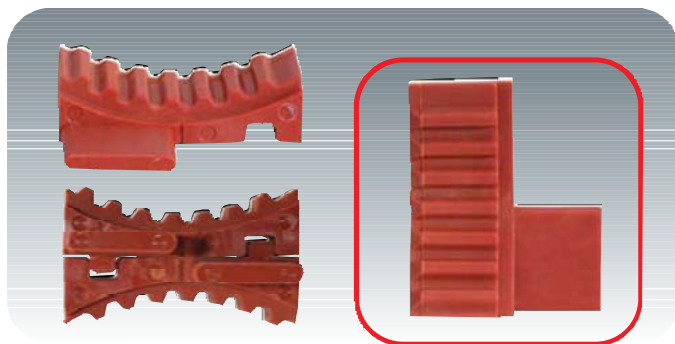
Blocking tool

150.3064 1 Piece for Opel Left
2,5i - 3,0i - 16V from 1994 / Vectra - Omega, SAAB 900 - 9000



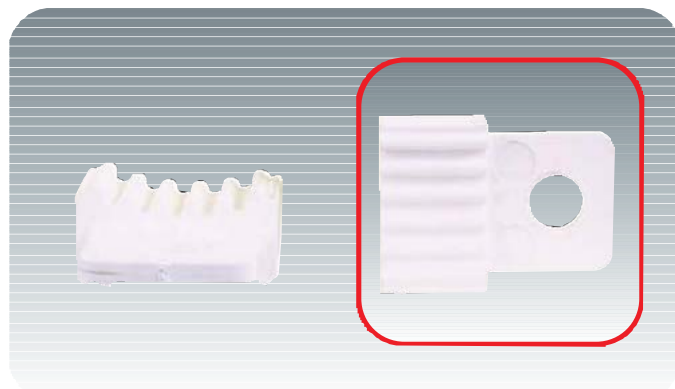
Blocking tool

150.3063 1 Piece for Opel Right
2,5i-2,0i-16V from 1994 / Vectra - Omega, SAAB 900 - 9000



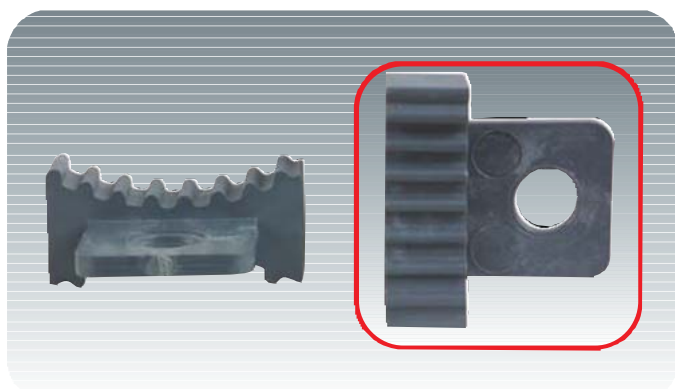
Blocking tool set, 2-pcs.

KS TOOLS
150.3068 for: Opel Motoren Z16XEP and Z18XER
 Astra, Zafira, Vectra
 - The set contains right and left tools, which are very easy to mount



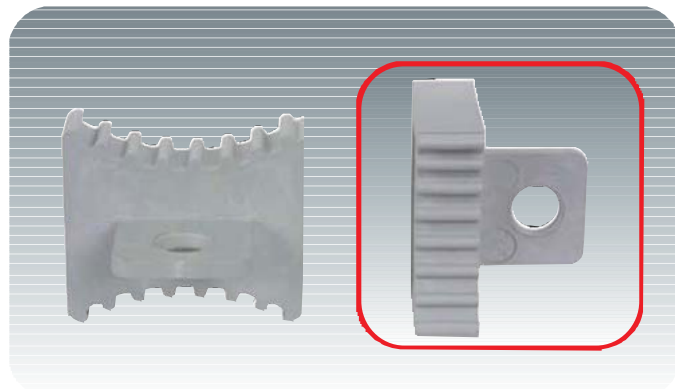
Blocking tool

KS TOOLS
150.3050 1 Piece for Mazda: 626 from 1992 / 323 from 1998
 Premacy since 1999



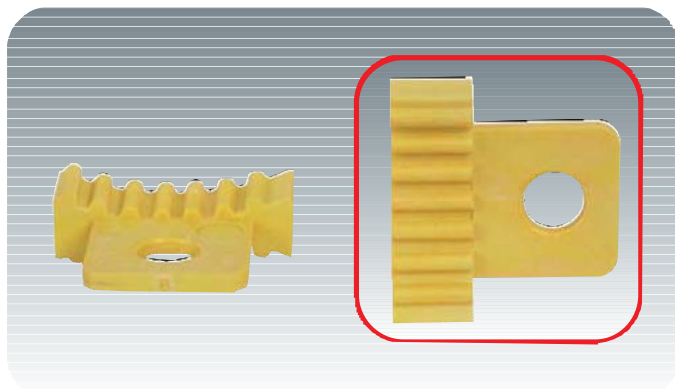
Blocking tool

KS TOOLS
150.3055 1 Piece for Kia Clarus: 1,6 - 1,8 from 1997



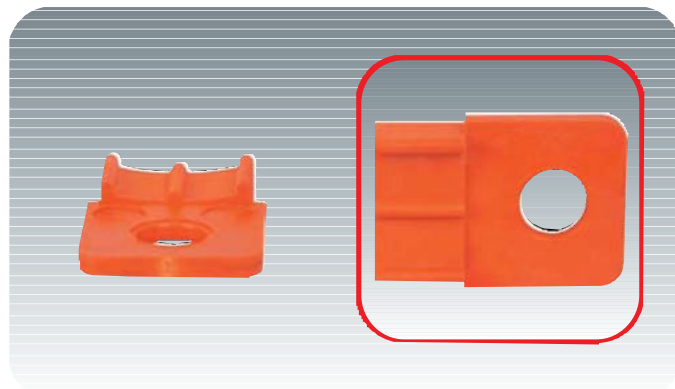
Blocking tool

KS TOOLS
150.3056 1 Piece for Kia Carnival Diesel from 1998



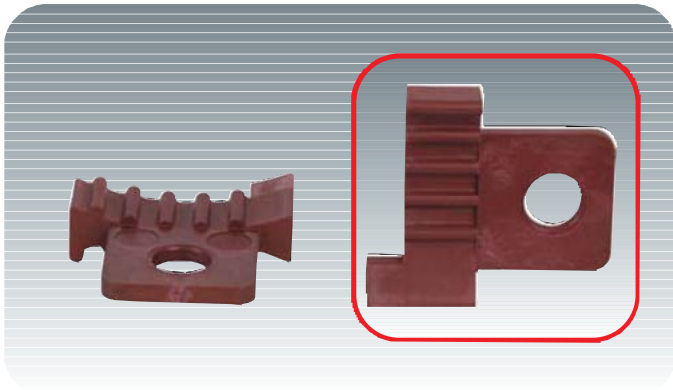
Blocking tool

KS TOOLS
150.3058 1 Piece for Hyundai Sonata from 1999



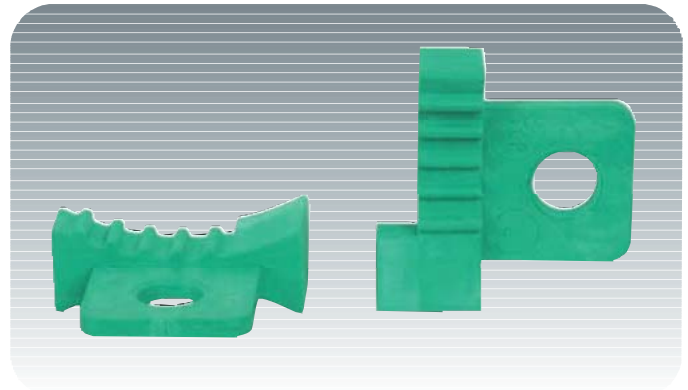
Blocking tool

KS TOOLS
150.3060 1 Piece for Rover: 214 fr. 1995 / 216 from 1995 / 414 from 1990 /
 416 fr. 1995 / MGF fr. 1995 / 75 1,8 fr. 1999 / 45 1,8-1,6 fr. 2000 / 25 fr. 2000



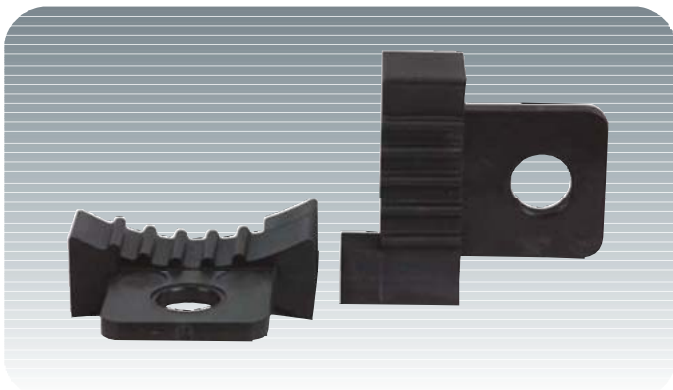
Blocking tool

KS TOOLS
150.3051 1 Piece for Mitsubishi: Space Wagon from 1997



Blocking tool set, 2-pcs.

KS TOOLS
150.3053 For: Mitsubishi: 21V Galant 2.5 from 1997 / 21V Sigma 3,0 from 1991 Galant 4x4 from 1991



Blocking tool set, 2-pcs.

KS TOOLS
150.3052 For: Mitsubishi: Carisma from 1996-1997 / Space Star from 1997 / Galant 2,0 GTI from 1991



Blocking tool set, 2-pcs.

KS TOOLS
150.3054 For: Mitsubishi: Pajero 3500 since 1998



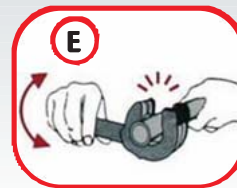
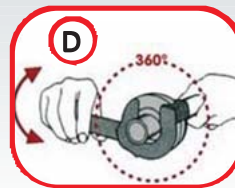
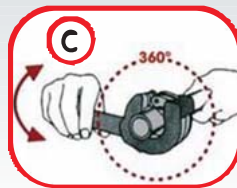
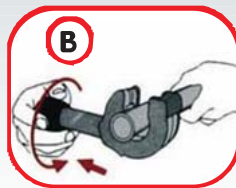
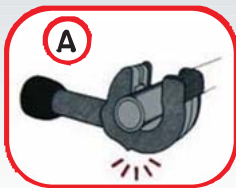
Crankshaft and camshaft blocking tool

KS TOOLS
150.3066 For: VW: Golf - Passat - Lupo, Audi: A2 - A3 since 2000, TDI Injection pump engines - Belt change



Crankshaft blocking device

KS TOOLS
150.3067 for: VAG 2 litre pump-injection engine



Ratchet Exhaust pipe cutter

KS TOOLS	
104.5050 Ratchet exhaust pipe cutter	Working Dim: Ø 28 - 67 mm
- Universal application pipe cutter with specially robust 3 blade, with ratchet mechanism (min of 2 blades cutting)	Ø 1.1/8" ~ 2.5/8"
- Easy and quick adjustment by means of tightening screw.	Cut width: ≤ 3 mm
- Cutting wheel magazine in tightening knob.	Length: 245 mm
- Due to the width of the pipe cutter, a very straight, parallel cut is achieved	Teeth: 60 teeth
- Ratchet mechanism made entirely of steel, with housing formed in plastic	Increments: 6°
- Ensures fast and problem free cutting of exhaust pipes manufactured from nickel alloy or normal steel	Outer diameter: 125 mm
	Cutting range: Steel, stainless steel, copper, aluminium, plastic
	104.5051 Spare cutting wheel, 4,8 x 6,1 x 25 mm
	104.5052 Spare cutting wheel, 4,8 x 6,1 x 18 mm
A Position blade on cutting place	
B Screw blade tight to exhaust using tightening knob	
C Turn cutter on pipe using ratcheting function	
D Continually tighten knob whilst rotating cutter	
E Repeat until clean, parallel cut is achieved	

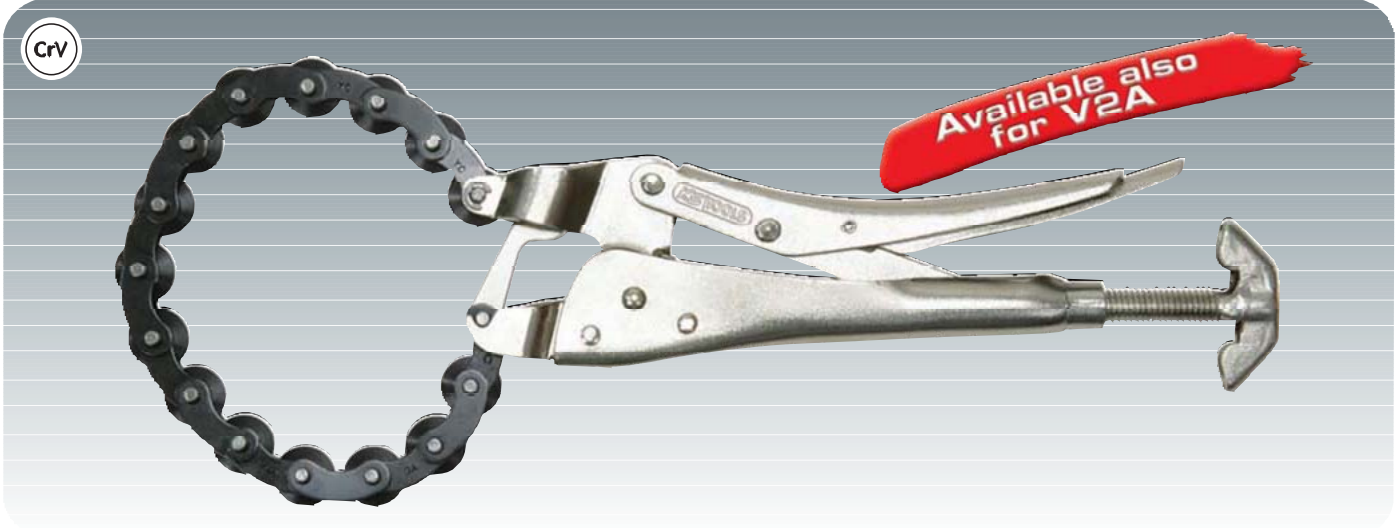


Exhaust pipe cutter, capacity: Ø 19 - 83 mm

- KSTOOLS**
- 150.1500 Exhaust pipe cutter, chain length 330 mm
- 150.1501 Spare chain
- Small operating angle by forwards and backwards movement

Exhaust pipe cutter for stainless steel exhaust systems, capacity Ø 19 - 83 mm

- KSTOOLS**
- 150.1505 Exhaust pipe cutter, chain length 330 mm
- 150.1502 HSS Spare chain for INOX (V2A) exhaust systems
- Small operating angle by forwards and backwards movement

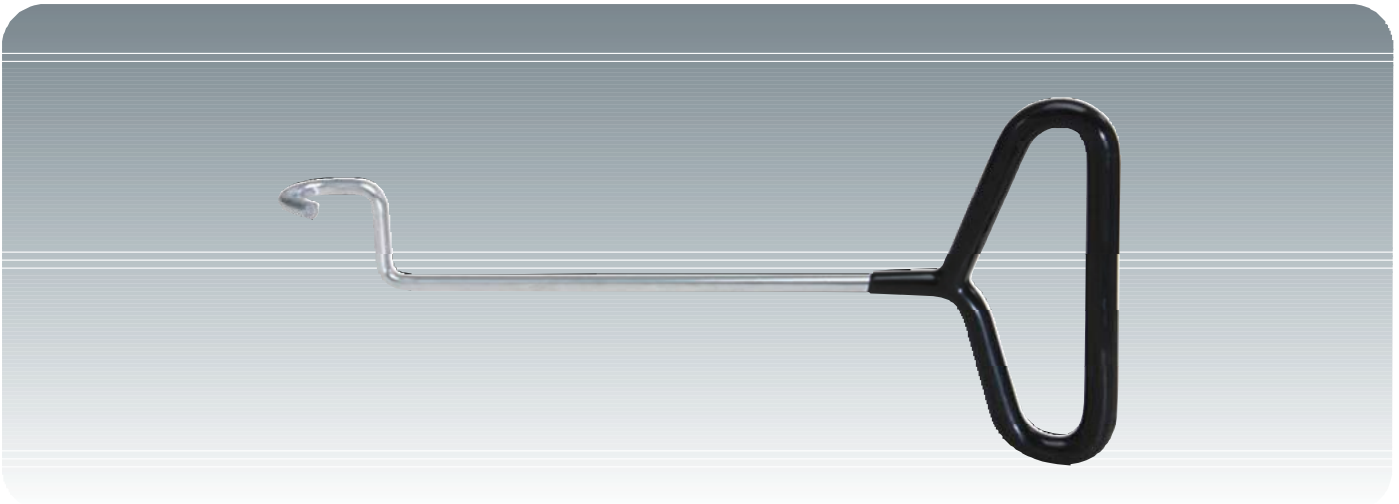


Exhaust pipe cutter, vice grip type, Capacity: Ø 19 - 83 mm

- KSTOOLS**
- 150.1510 Exhaust pipe cutter, chain length 330 mm
- 150.1501 Spare chain for exhaust pipe cutter
- The tension of the chain can be altered with the wing nut
- Due to multiple cutting wheels minimum rotation for cutting is required

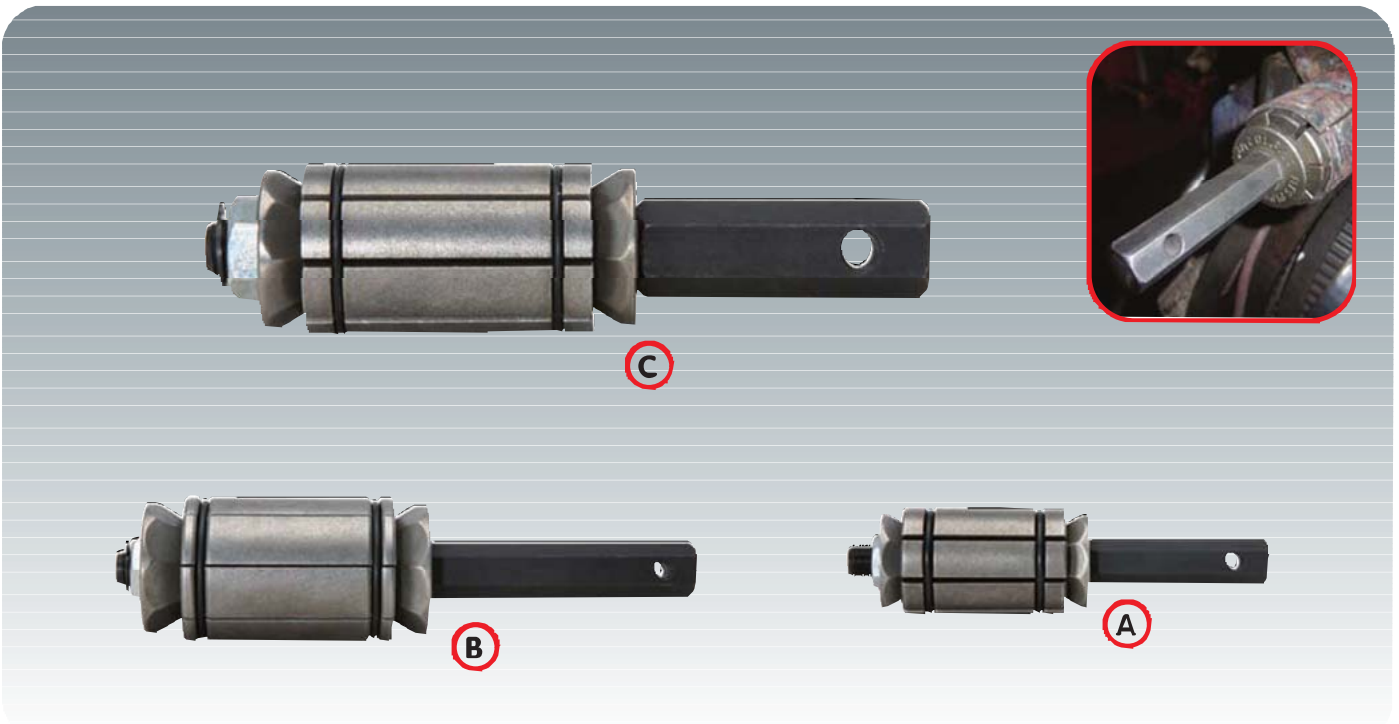
Exhaust pipe cutter, vice grip type, for stainless steel exhaust systems, diameter. Ø 19 - 83 mm

- KSTOOLS**
- 150.1515 Exhaust pipe cutter, chain length 330 mm
- 150.1502 HSS-Spare chain for INOX (V2A) exhaust systems
- The tension of the chain can be altered with the wing nut
- Due to multiple cutting wheels minimum rotation for cutting is required



Special Exhaust doughnut puller tool

KS TOOLS
 150.1240
 - Enables fast removal and installation of rubber anti-vibration mountings found on modern exhaust systems



Exhaust Pipe former

		Ø	l - mm -
- When using the exhaust pipe former, the original shape can be re-formed	150.1520 Exhaust former size 1	(A) 28,5 - 44,5	130
- When the exhaust pipe former is inserted into the exhaust, the shaft drives	150.1525 Exhaust former size 2	(B) 38,0 - 62,0	160
- Into the flaring unit, expanding it to re-forming the exhaust pipe to its original shape	150.1530 Exhaust former size 3	(C) 54,0 - 87,0	215



Oxygen sensor for emission analysers



150.3090 Oxygen sensor A-01: for the following analysers:

Allen, Bear (all mods), Beissbarth, Cartec (all mods), Crypton (all mods), Elektra-Control-MAG4000T, GATS, Grundig (VAG Longus), Hermann (all mods), KWT Autosense, Mannesmann-Kienzle, Motorscan, MRU-Delta 1600L, Pittracher-Infrared-CO/HC-Gas Engine tester, Protec, Protech, Prüfrex (all mods), Sagem Souriau, Saxon-Junkalor (all mods), Szenczorteknika, Tecnomotor, Tecnotest (all mods), Lukas,VLT (all mods)

150.3091 Oxygen sensor A-01/ AVL: Suitable for all AVL-tester

150.3092 Oxygen sensor A-02:suitable for Bosch, Gutmann, Sun

- Oxygen sensor for emission monitoring in garages

Interface: A-01 and A-01/AVL Molex 3-Stift connector
A-02 3,5 mm mono jack

Range: 0 – 100 Vol %

Accuracy: < 2 Vol% +/- 0,1%

< 25 Vol% +/- 0,5%

<100 vol% +/- 1,0%

Sensor life in air: 750.000 Vol% hours or max 4 years

Output signal: 7 – 13 mV (in dry air)

Response time: < 5 Sec

Response time in N2 (N): < 40 Sec at U-/200 at 100% N₂

Drift: 10% / year

Operating Temp: 0 – 50°C

Pressure: 600 – 1750 hPa

Load resistance: size = 10 kOhm

Temperature compensation: NTC

Cross interference to: < 0,1% O₂-drift:

15,0% CO₂ balance N₂

10,0% CO balance N₂

3000 ppm NO balance N₂

3000 ppm C₃H₈ balance N₂

500 ppm H₂S balance N₂

500 ppm SO₂ balance N₂

1000 ppm balance Benzol N₂