



# TOOLING KITS CATALOG 2026



IronTite Products Inc.  
2525 18<sup>th</sup> Street SW., Suite D  
Cedar Rapids, Iowa 52404

+1-319-377-9421  
[IronTite.com](http://IronTite.com)  
[sales@ironTite.com](mailto:sales@ironTite.com)

## For the Professional Diesel Engine Rebuilder:

Irontite Diesel Injector Sleeve Kits are your go-to solution for precise and efficient injector sleeve repairs. Designed with the professional in mind, these kits ensure you meet the demanding standards of modern diesel engines. Here's a breakdown:

### Key Features:

- **OEM Quality:** Irontite kits adhere to original equipment manufacturer (OEM) specifications, guaranteeing compatibility and optimal performance.
- **Precision Machining:** The tooling is built for accuracy and durability, allowing you to perform clean and consistent repairs.
- **Heavy-Duty Construction:** Expect long-lasting performance from these robust tools, minimizing downtime and maximizing shop efficiency.

### Typical Repair Process:

- **Engine Out (Generally):** Most kits require the engine to be out of the chassis for optimal access and precision during the repair process. This allows for proper use of specialized tooling and minimizes the risk of contamination.
- **Seat & Guide Machine:** The foundation of the repair is a quality seat and guide machine. This specialized equipment ensures the bore is properly machined for a perfect fit of the new injector sleeve.
- **Irontite Tooling Compatibility:** Irontite tooling utilizes a #2 Morse taper, a common industry standard. You may need to acquire adapters to ensure compatibility with your specific seat and guide machine. Consult your machine supplier for the correct adapters.
- **In-Chassis Exceptions:** Some kits, typically those that don't require a seat cutter, can be used for in-chassis repairs. However, extreme caution is necessary to prevent debris from entering the combustion chamber.

### Important Considerations:

- **Thorough Cleaning:** Maintaining a clean work environment is crucial to prevent contamination of the engine and ensure a successful repair.
- **Accurate Measurements:** Precise measurements are essential throughout the process to ensure proper fit and function of the new injector sleeves.
- **Follow Instructions:** Adhere strictly to the detailed instructions provided in each kit. Refer to the included instruction book and utilize any available video resources.

### Irontite Support:

- **Website:** Visit [irontite.com](http://irontite.com) for comprehensive information on their products, including detailed specifications and application guides.
- **Customer Service:** Contact Irontite directly at 319-377-9421 for expert technical support and assistance with any questions or concerns.

By utilizing Irontite Diesel Injector Sleeve Kits and following best practices, you can ensure accurate and efficient repairs, resulting in satisfied customers and a strong reputation for your shop.

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# GM/DD 50/60 Copper Injector Sleeve Installation Kit

MPN: 451-6471-00

The Complete 50, 60 Series Kit with Toolbox for copper sleeves only.



Part Number	Description
427-6462-10	Sleeve Removal Tool
433-6472-50	Sleeve Installation Tool (w/Pilot*)
427-6462-60	*Pilot
427-6463-10	Flaring Stud
433-6474-40	Driver for Tip Reamer
429-6463-55	Tip Reamer
427-6464-10	Sleeve End Facer
433-6474-30	Guide Bushing Assembly
414-6114-10	Driving Arbor
433-6474-50	Sleeve Seat Cutter (Carbide)
433-6476-55	Sleeve Seat Cutter Gauge
414-6111-30	Gauge Handle
433-6991-00	Gauge Finger
433-6474-60	Tip Protrusion Gauge
450-6951-01	Casting Cleaning Brush
467-1950-50	Medium Toolbox w/ Tray

# Removal & Installation Tool for GM/DD 60 Series SS Injector Sleeved

MPN: 433-6477-00

The Complete DD 60 Series engines with Stainless Steel Injector Sleeves



Part Number	Description
433-6477-00	Sleeve Installation and Removal Tool

The Removal & Installation Tool for Detroit Diesel 60 Series engines equipped with Stainless Steel Injector Sleeves streamlines the process of replacing injector sleeves. Designed for ease of use, this tool allows a machinist to remove and install these sleeves efficiently using standard shop hand tools, without the requirement of a machining center (seat & guide machine) when the cylinder head is on the bench.

# Removal & Installation Tool for DD13, DD15, DD16 Series

MPN: 433-6477-15

Detroit Diesel 2008 - 2017, Injector Sleeve Removal and Installation Tools.



Part Number	Description
433-6477-15	Sleeve Installation and Removal Tool for DD13, DD15, DD16 Series

The Removal & Installation Tool for DD13, DD15, DD16 engines equipped with Stainless Steel Injector Sleeves streamlines the process of replacing injector sleeves. Designed for ease of use, this tool allows a machinist to remove and install these sleeves efficiently using standard shop hand tools, without the requirement of a machining center (seat & guide machine) when the cylinder head is on the bench.

# Cummins X15, ISX15/QSX15 SOHC Injector Sleeve Removal & Installation Kit

MPN: 450-6157-00



Part Number	Description
415-6136-00	Removal Tool Cummins ISX15/QSX15 DOHC, X15 SOHC
416-6154-40	Tube Clamp Cummins ISM, M-11, ISX15/QSX15 DOHC & SOHC Series
416-6156-32	Guide Bushing for Cummins ISX15/QSX15 DOHC & SOHC, X12 series
416-6156-60	Extended Tap both Cummins ISX15/QSX15 DOHC & SOHC Series
416-6157-51	Sleeve Drive in Tool Cummins X15, ISX15/QSX15 SOHC Series
416-6157-53	Roll-In Tool Cummins X15, ISX/QSX15 SOHC Series
450-6951-01	Casting Cleaning Brush for Cummins ISX & GMC/Detroit 50/60
451-3550-02	ISX15/QSX15 SOHC MANUAL
467-1612-01	5/16" Hex T-Handle Wrench for Cummins ISX15/QSX15/X12
467-1950-25	Small Steel Tool Box
468-9910-08	"EA" Lube for Stainless Steel - 8 OZ (237ML)

# Cummins ISX15/QSX15 SOHC Casting Repair Kit

MPN: 450-6117-60



Part Number	Description
434-6513-20	Enlarging Counterbore Cutter
449-6933-30	7/8 Split Sleeve Tap Driver
407-5213-10	J-Tapered Reamer
407-5313-10	J-Tapered Tap
416-6156-19	Drill Bushing
416-6156-26	M14.5 Taper Length Drill
416-6156-61	End Facing Counter Bore Cutter
416-6156-32	Guide Bushing
414-6114-10	Driving Arbor
416-6156-28	ISX / QSX Casting Seat Cutter
416-6156-29	Casting Seat Cutter Gage
414-6111-30	Gauge Handle
433-6991-00	Gauge Finger
452-2613-13	J-Solid Diesel Iron Plug (6)
467-1950-50	Tool Box with Tray
416-6156-62	Counterbore Pilot (2)

# Cummins X15, ISX15/QSX15 DOHC Injector Sleeve Removal & Installation Kit

MPN: 450-6156-00



Part Number	Description
414-6111-30	Gauge Handle
414-6114-10	Driving Arbor (All Series)
415-6136-00	Removal Tool Cummins ISX15/QSX15 DOHC, X15 SOHC
416-6154-40	Tube Clamp Asm Cummins ISM, M-11, ISX15/QSX15 DOHC & SOHC
416-6156-32	Guide Bushing for Cummins ISX15/QSX15 DOHC & SOHC, X12 series
416-6156-43	Nose Roll-In Tool Cummins ISX15/QSX15 DOHC Series
416-6156-50	Tip Protrusion Gauge Cummins ISX15/QSX15 DOHC Series
416-6156-51	Injector Sleeve Drive in Tool Cummins ISX15/QSX15 DOHC Series
416-6156-53	Roll-In Tool Cummins ISX15/QSX15 DOHC
416-6156-60	Extended Tap both Cummins ISX15/QSX15 DOHC & SOHC Series
416-6156-94	GAUGE-ISX15/QSX15 for Sleeve Cut Depth Measuring
433-6991-00	Gauge Finger (w/Bolts & Washers)
450-6951-01	Casting Cleaning Brush for Cummins ISX & GMC/Detroit 50/60
451-3540-02	ISX DOHC REM/INST INSTRUCTIONS
467-1612-00	5/16" L-WRENCH ISX15/QSX1
467-1612-01	5/16" Hex T-Handle Wrench for Cummins ISX15/QSX15/X12
467-1950-50	Medium Steel Tool Box with Tray
468-9910-08	"EA" Lube for Stainless Steel - 8 OZ (237ML)
416-6156-25	Inj Sleeve Seat Cutter 1-Flute Carbide w/O-Ring Cummins ISX15/QSX15 DOHC

# Cummins ISX15/QSX15 DOHC Casting Repair Kit

MPN: 450-6110-60



Part Number	Description
434-6513-20	Enlarging Counter Bore Cutter
449-6933-30	7/8 Split Sleeve Tap Driver #3MT
407-5213-10	J-Tapered Reamer
407-5313-10	J-Tapered Tap
416-6156-19	Drill Bushing
416-6156-26	M14.5 Taper Length Drill
416-6156-61	End Facing Counter Bore Cutter
416-6156-32	Guide Bushing
414-6114-10	Driving Arbor
416-6156-28	ISX / QSX Casting Seat Cutter
416-6156-29	Casting Seat Cutter Gauge
414-6111-30	Gauge Handle
433-6991-00	Gauge Finger
452-2613-13	J-Solid Diesel Iron Plug (6)
467-1950-50	Tool Box with Tray
416-6156-62	Counter Bore Pilot (2)

# Cummins L-10, M-11 (Early) Copper Injector Sleeve Installation Kit

MPN: 450-6152-40



Part Number	Description
414-6111-19	Flat Tip Protrusion Gauge (.090/.100) Cummins L-10, M-11 & ISM
451-3540-10	L-10, M-11 Copper Series Kit Instructions
414-6111-30	Gauge Handle
414-6114-10	Driving Arbor (All Series)
414-6114-36	Seat Cutter "Guide Bushing" Cummins L-10, M-11 & ISM both Copper or SS Sleeve
416-6152-27	Inj. Sleeve Seat Cutter (Carbide) Cummins 220,250, L-10, M-11,ISM, Copper or SS
416-6152-53	Sleeve Roll-In Tool Cummins 250, 400, 855, 903 VT1710 Copper Sleeve
416-6152-61	Drive In Tool Cummins L-10, M-11 (Copper) & ISX & M-11 (SS) Sleeved
416-6152-98	Inj Sleeve Seat Cutter "Gauge" (.090/.100 Tip Protrusion) Cummins ISM, M-11, L-10
433-6991-00	Gauge Finger (w/Bolts & Washers)
450-6951-02	Casting Cleaning Brush for Cummins 250, L10 & M11, Paccar MX-13
467-1950-50	Medium Steel Tool Box with Tray

# Cummins M-11 (Late) SS Injector Sleeve Installation Kit

MPN: 450-6152-30



Part Number	Description
414-6111-19	Flat Tip Protrusion Gauge (.090/.100) Cummins L-10, M-11 & ISM
414-6111-30	Gauge Handle
414-6114-10	Driving Arbor (All Series)
414-6114-36	Seat Cutter "Guide Bushing" Cummins L-10, M-11 & ISM both Copper or SS Sleeve
415-6132-40	Removal Tool (Body & Mandrel) Cummins ISM & M-11 SS Sleeve
416-6152-27	Inj. Sleeve Seat Cutter (Carbide) Cummins 220,250, L-10, M-11,ISM, Copper or SS
416-6152-43	Roll-in Tool Cummins ISM, M-11 Stainless Sleeve
416-6152-45	Nose Roll-in Tool Cummins ISM, M-11 Stainless Sleeved
416-6152-61	Drive In Tool Cummins L-10, M-11 (Copper) & ISX & M-11 (SS) Sleeved
416-6152-98	Injector Sleeve Seat Cutter "Gauge" (.090/.100 Tip Protrusion) Cummins ISM, M-11, L-10
416-6154-40	Tube Clamp Assembly Cummins ISM, M-11, ISX15QSX15 DOHC & SOHC Series
433-6991-00	Gauge Finger (w/Bolts & Washers)
437-5331-36	Tap 1-3/16"-12 for Cummins M-11 w/SS Inj. Slv. & CAT 3114, 3116, 3126 w/Cop. Inj. Slv.
450-6951-02	Casting Cleaning Brush for Cummins 250, L10 & M11, Paccar MX-13
451-3540-07	M-11 REMOVAL/INSTALLATION INSTRUCTIONS
467-1950-50	Medium Steel Tool Box with Tray
468-9910-08	"EA" Lube for Stainless Steel - 8 OZ (237ML)

# Cummins X12 Injector Sleeve Removal & Installation Kit

MPN: 450-6158-00



Part Number	Description
416-6156-32	Guide Bushing for Cummins ISX15/QSX15 DOHC & SOHC, X12 series
467-1612-01	5/16" Hex T-Handle Wrench for Cummins ISX15/QSX15/X12
467-1950-25	Small Steel Tool Box
468-9910-08	"EA" Lube for Stainless Steel - 8 OZ (237ML)
415-6138-00	Removal Tool Cummins X12
416-6158-12	Tube Clamp Assembly Cummins X12
416-6158-60	Tap - 1-1/8-18 GH3 Cummins X12
416-6158-51	Drive-In Tool Cummins X12
416-6158-53	Roll-In Tool Cummins X12
450-6951-05	Casting Cleaning Brush for Navistar 7.3 & CAT 3126B & CUMMINS X12
451-3540-12	Cummins X12 Instruction Manual
468-9640-00	Permatex (#64000) High Heat Sleeve Retainer/Sealant

# Cummins 250, 400, 855, 903, VT1710, N14 Copper Injector Sleeve Installation Kit

MPN: 450-6152-50



Part Number	Description
414-6111-12	Flat Tip Protrusion Gauge (.060/.070) Cummins 220, 250, 400, 855 & VT1710
414-6111-30	Gauge Handle
414-6114-10	Driving Arbor (All Series)
414-6114-32	Seat Cutter Guide Bushing Cummins 250, 400, 855, 903 VT1710 Copper Sleeve
416-6152-27	Inj. Sleeve Seat Cutter (Carbide) Cummins 220,250, L-10, M-11,ISM, Copper or SS
416-6152-51	Sleeve Drive in Tool Cummins 250, 400, 855, 903 VT1710 Copper Sleeved
416-6152-53	Sleeve Roll-In Tool Cummins 250, 400, 855, 903 VT1710 Copper Sleeve
416-6152-94	Inj Sleeve Seat Cutter Gauge (.060/070 Tip Protrusion) Cummins 220,250, 400, 855
433-6991-00	Gauge Finger (w/Bolts & Washers)
450-6951-02	Casting Cleaning Brush for Cummins 250, L10 & M11, Paccar MX-13
467-1950-50	Medium Steel Tool Box with Tray
451-3540-06	Cummins 250 Kit Instructions

# Paccar MX-13 Injector Sleeve Kit

MPN: 450-6331-00



Part Number	Description
423-6334-40	Tube Clamp Assembly, Paccar MX-13 Series
423-6331-32	Tap Guide Bushing, Paccar MX-13 Series
467-1612-03	3/16" Hex T-Handle Wrench for Tube Assembly Paccar MX-13
423-6334-14	Tap 7/8"-14, Paccar MX-13 Series
423-6332-10	Drive in Tool for PACCAR MX-13
423-6334-30	Injector Sleeve Removal Tool, Paccar MX-13 Series
450-6951-02	Casting Cleaning Brush for Cummins 250, L10 & M11, Paccar MX-13
468-9910-08	"EA" Lube for Stainless Steel - 8 OZ (237ML)
467-1950-25	Small Steel Tool Box
451-3550-06	PACCAR MX-13 Instruction Manual
468-9640-00	Permatex (#64000) High Heat Sleeve Retainer/Sealant

# CATERPILLAR 3126B (3-Valve) SS Injector Sleeve Removal & Installation Kit

MPN: 451-6581-00



Part Number	Description
437-5331-80	Tap 1-1/16"-16 CAT 3126B (3-Valve) Stainless Steel Sleeved
437-6581-40	TAP GUIDE BUSHING-3126
437-6581-80	Sleeve Drive in Tool Cat 3126B (3-Valve) SS Sleeved
437-6582-30	Sleeve Removal Tool Cat 3126B (3-Valve) w/SS Sleeve
450-6951-05	Casting Cleaning Brush for Navistar 7.3 & CAT 3126B & CUMMINS X12
467-1950-25	Small Steel Tool Box
451-3540-08	CATERPILLAR 3126B KIT INSTRUCTIONS

# CATERPILLAR 3114, 3116, 3126 (2-Valve) Copper Injector Sleeve Removal & Installation Kit

MPN: 451-6551-00



Part Number	Description
437-5331-36	Tap 1-3/16"-12 for CAT 3114, 3116, 3126 w/Cop. Inj. Slv.
437-6551-15	Sleeve Clamp Assembly CAT 3114, 3116, 3126 (2-Valve) Copper Sleeved
437-6551-21	Tip Expander, CAT 3114, 3116, 3126 (2-Valve) Copper Sleeved
437-6551-25	Tip Expander Driver CAT 3114, 3116, 3126 (2-Valve) Copper Sleeved
437-6551-43	Roll in Tool, CAT 3114, 3116, 3126 (2-Valve) Copper Sleeved
437-6553-56	Sleeve Seat Cutter CAT 3114., 3116, 3126 (2-Valve) Copper Sleeved
437-6553-66	Seat Cutter Guide Bushing CAT 3114, 3116, 3126 (2-Valve) Copper Sleeved
437-6995-25	Sleeve Hammer Tool Assembly for CAT
450-6951-02	Casting Cleaning Brush for Cummins 250, L10 & M11, Paccar MX-13
451-3550-07	CAT 3114, 3116, 3126 KIT INSTRUCTIONS
467-1950-55	Medium Steel Tool Box without Tray
437-6552-30	Removal Tool CAT 3114, 3116, 3126 (2-Valve) Copper Sleeved

# Navistar/International 6.0L Injector Sleeve Removal & Installation Kit

MPN: 451-6776-00



Part Number	Description
411-5821-20	Double Square Socket with Extension - 5/16" x 6"
448-6776-10	Installation Tool for Navistar 6.0
448-6776-30	Removal Tool for Navistar 6.0
448-6776-40	Guide Bushing for Navistar 6.0
448-6776-60	NAV 6.0 INJECTOR SLEEVE TAP
451-3550-03	NAV.6.0 KIT INSTRUCTIONS
467-1950-25	Small Steel Tool Box

# Navistar / International 7.3L Injector Sleeve Removal & Installation Kit

MPN: 451-6773-00



Part Number	Description
437-5331-66	Tap 1-1/16"-12 for Navistar - IH 7.3L & 466E
448-6771-40	Tap Guide Bushing for Navistar 7.3
448-6772-10	Sleeve Drive In Tool for Navistar 7.3
448-6774-30	Sleeve Removal Tool for Navistar 7.3
450-6951-05	Casting Cleaning Brush for Navistar 7.3 & CAT 3126B & CUMMINS X12
451-3540-05	NAV 7.3L 466E 430E INSTRUCTIONS
467-1950-25	Small Steel Tool Box

# VOLVO D13 / MACK MP8 SERIES “Basic” Injector Sleeve Removal & Installation Kit

MPN: 451-6681-50



Part Number	Description
445-6682-10	Sleeve Removal Tool
445-6681-25	Tip Expander Driver
445-6681-21	Tip Expander
468-9640-00	Permatex 64000 High Heat Sleeve Retainer
450-6951-08	Small Tip Bore Brush
467-1950-25	Tool Box
450-6951-07	Combo Large Brush-Upper Bore/Face
468-9771-34	Permatex Anti-Seize Lubricant
451-3540-14	Kit Instructions

# VOLVO D13 / MACK MP8 SERIES “Professional” Injector Sleeve Removal & Installation Kit

MPN: 451-6681-00



Part Number	Description
445-6682-10	Sleeve Removal Tool
445-6681-25	Tip Expander Driver
445-6681-21	Tip Expander
468-9640-00	Permatex 64000 High Heat Sleeve Retainer
450-6951-08	Small Tip Bore Brush
467-1950-25	Tool Box
450-6951-07	Combo Large Brush-Upper Bore/Face
468-9771-34	Permatex Anti-Seize Lubricant
414-6114-10	Driving Arbor
445-6683-30	End Facing Counter Bore Cutter
416-6158-62	Counter Bore Pilot
416-6158-32	Guide Bushing
468-9910-08	“EA” Tap & Lube
451-3540-13	Kit instructions

# Irontite Diesel Injector Sleeves



## Copper & Stainless Steel Injector Sleeve Assortment

Part Number	Description
419-6192-53	Cummins 250 Heavy Duty <b>Copper</b> Injector Sleeve
419-6192-51	Cummins 250, L-10 & M-11 <b>Copper</b> Injector Sleeve
419-6192-41	Cummins ISM, M-11 <b>Stainless Steel</b> Injector Sleeve
419-6192-31	Cummins ISX15/QSX15 DOHC <b>Stainless Steel</b> Injector Sleeve with O-Ring
419-6198-05	Cummins X12 Injector Sleeve Assembly <b>Stainless Steel</b> (2 O-Rings)
419-6197-05	Cummins ISX15/QSX15 SOHC Injector Sleeve Assembly (Sleeve, Retainer & O-Ring) <b>Stainless Steel</b>
448-6797-32	IH 466E/530 <b>Stainless Steel</b> Injector Sleeve
437-6551-16	CAT 3114, 3116, 3126 (2-Valve) Injector Sleeve ( <b>Copper</b> )
432-6498-35	GM/DD 8.2 Series Injector Sleeve ( <b>Copper</b> )
433-6475-31	GM/DD 50 & 60 Series Injector Sleeve ( <b>Copper</b> ) with O-Ring
423-6392-05	Paccar MX13 <b>Stainless Steel</b> injector sleeve w O ring
419-6681-05	Volvo D13/Mack MP8 Injector Sleeve (w/O-Ring) <b>Stainless Steel</b>

# IronTite Crack Repair Kits



Crack Detection



Engine Crack Repair

Part Number	Description
400-1110-01	115 Volt Electro Magnet Kit
400-1112-30	230 Volt Electro Magnet Kit
400-1310-01	Kwik-Chek Kit
411-5902-10	K-210 Crack Repair (starter) Kit
412-5911-00	Air Hammer Peening Kit
468-9190-56	235 Crack Repair Kit



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