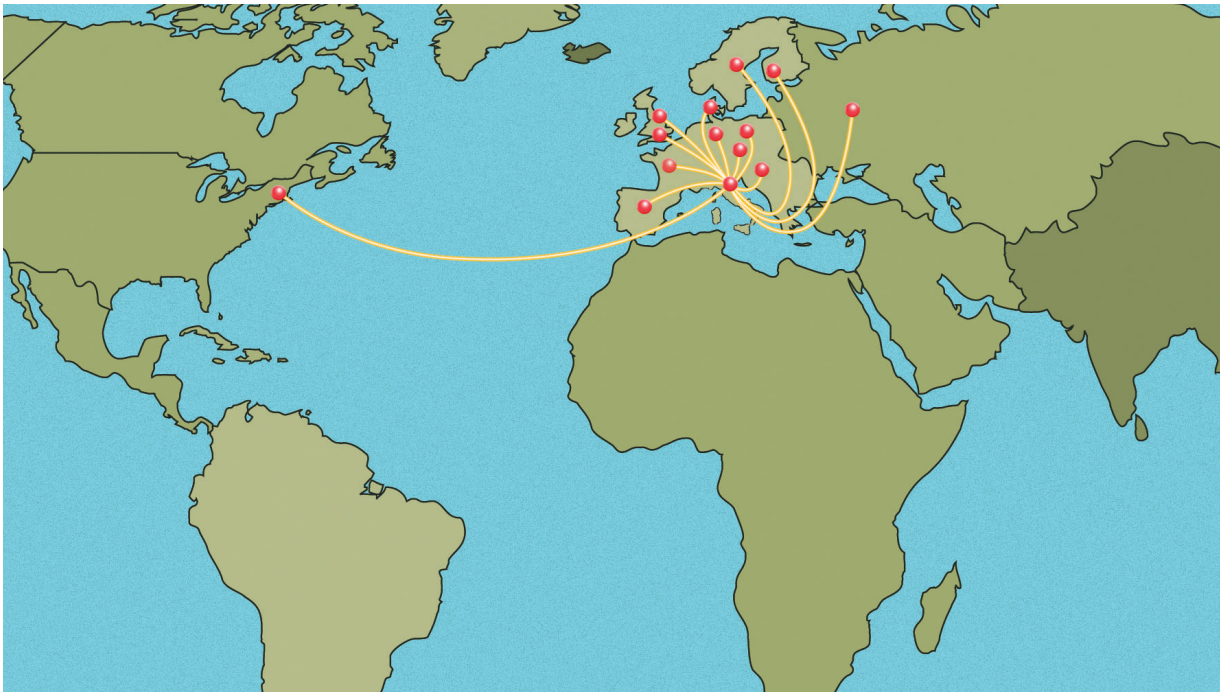
Kolver USA **2004 Product Catalog** September 2004

KOLVER®
USA

Electric Screwdrivers for Today's Technology and Beyond

Kolver S.r.l. of Italy

In 1989, Dr. Giovanni Colasante, the president and founder of Kolver S.r.l. of Thiene, Italy, started to manufacture high quality electric AC and DC torque screwdrivers. He created his company by initiating the industry's shift from pneumatic to electric torque screwdrivers. Kolver continues to be an industry leader by introducing unique, more efficient and safer products every year.



Kolver has offices all around the world; US Headquarters in Westford, MA, World Headquarters in Thiene, Italy.

KolverUSA, LLC.

KolverUSA, LLC (KUSA), located in Westford, MA, is a joint venture with Kolver S.r.l. of Thiene, Italy. Our mission is to offer unique, high quality electric screwdrivers to a wide range of industries, as well as to provide outstanding service and support to our customers.

KUSA sells exclusively through distribution channels, supported by trained and experienced Manufacturer's Representatives. In addition, KUSA has a complete customer service, engineering support, and inventory management team supporting our network.

Table of Contents

Pluto Series: 40V Electric Screwdrivers

Pluto (PLUs TOrque) screwdrivers are able to reach 88 in/lbs. of torque with a repeatability of +-5% with the use of a unique electronic torque control system. The Pluto Series does not have a clutch, but torque is instead manually set by a dial on the controller. The Pluto Series is ideal for high volume applications where millions of cycles at high torque is required.

The Pluto Series is available in a molded pistol grip with the cord set exiting from the top or bottom, or a standard inline housing. Pluto screwdrivers are only available with trigger or lever start options.

Pluto 10D

Pluto 10P/U

Pluto 10P

Model	Max Screw Size	Speed (RPM)	Dimensions (in)	Weight (lbs)	Housing	Torque (in/lbs)
Pluto 10P	M6	600	6.4x5.2x1.8	1.2	pistol	Joint Hard 53.1-88.5 Joint Soft 35.4-70.80
Pluto 10P/U	M6	600	6.4x5.2x1.8	1.2	pistol	Joint Hard 53.1-88.5 Joint Soft 35.40-70.80
Pluto 10D	M6	600	7.2x1.6	1.3	inline	Joint Hard 53.1-88.5 Joint Soft 35.4-70.80
Pluto 15P	M6	380	6.4x5.2x1.8	1.2	pistol	Joint Hard 70.0-132.0 Joint Soft 62.0-115.0
Pluto 15D	M6	380	7.2x1.6	1.3	inline	Joint Hard 70.0-132.0 Joint Soft 62.0-115.0
Pluto 10CA (to be used with EDU3AE/PX only)	M6	500	7.2x1.6	1.3	aluminum	Joint Hard 53.1-88.5 Joint Soft 35.4-70.80
Pluto 15CA (to be used with EDU3AE/PX only)	M6	300	7.2x1.6	1.3	aluminum	Joint Hard 70.0-132.0 Joint Soft 62.0-115.0

Pluto Controllers

The EDU3AE power supply and control units act as an 110V AC to 40V DC transformer and torque controller. Torque is adjusted by a dial on the controller. The EDU3AE has a microprocessor which cuts off the current to the driver, based on the manual setting. Torque is calibrated in much the same way as it is with a clutch-controlled tool. Using a torque tester, you calibrate torque to the manual setting at the controller.

EDU3AE

Standard single output for the Pluto Series.
Torque range.....35.40-88.5 in/lbs.
Dimensions .....7.4"W x 7.4"D x 3.80"H
Weight .....9.35 lbs.

EDU3AE/7

Standard single output for the Pluto Series.
Torque range.....17.70-44.0 in/lbs.
Dimensions .....7.4"W x 7.4"D x 3.80"H
Weight .....9.35 lbs.

EDU3AE/XY & EDU3AE/XY/7

Standard single output for the Pluto Series which features a torque and lever signal output (Qualifier/Inspector approved).
Torque range
EDU3AE/XY .....35.40-88.5 in/lbs.
EDU3AE/XY/7 .....17.70-44.0 in/lbs.
Dimensions .....17.70"W x 7.4"D x 3.80"H
Weight .....9.35 lbs.

EDU3AE/PX

Standard single output for the Pluto CA Series. It features output signals for remote start, and torque signal.
Torque range.....35.40-88.5 in/lbs.
Dimensions .....7.4"W x 7.4"D x 3.80"H
Weight .....9.35 lbs.

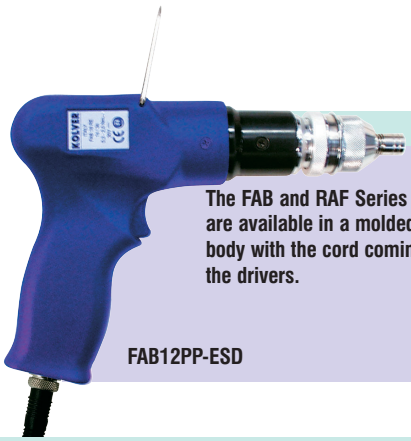
FAB Series: 30V DC Electric Screwdrivers

FAB18RE

FAB Series screwdrivers are our “best sellers” for the electronics and medical industries. They are lightweight, compact, powerful, and come standard with ESD-safe housing certified to SP method 2472. The advanced ergonomic design, tight torque tolerances (+-5%), adjustable RPM option, and slow-start feature make the FAB Series state-of-the-art.

The FAB electric screwdrivers are available in an in-line body style with either a lever-start or push-to-start, or in a pistol grip with a trigger start.

All FAB Series electric screwdrivers come standard with an ESD-safe body, 8 ft. cable, suspension bail, and a torque locking screw.



Pistol Grips

The FAB and RAF Series electric screwdrivers are available in a molded, high-impact plastic body with the cord coming out of the bottom of the drivers.

FAB12PP-ESD

Model	Max Screw Size	Speed (RPM)	Start Option	Controller Model*	Diameter (in)	Weight (lbs)	Length (in)	Housing Style	Torque (in/lbs)
FAB03SS-ESD (Soft Stop Clutch)	M2.5	650	Lever	EDU1NS	1.32	0.8	8.6	Inline	0.4 to 4.4
FAB10RE-ESD	M3	1000	Lever	EDU1NS	1.32	0.8	8.6	Inline	0.4 to 7.0
FAB12RE-ESD	M3	1000	Lever	EDU1NS	1.32	0.8	8.6	Inline	1.8 to 12.40
FAB12PS-ESD	M3	1000	Push	EDUCLS	1.32	0.8	8.6	Inline	1.8 to 12.40
FAB12PP-ESD	M3	1000	Trigger	EDU1NS	1.32	0.8	8.6	Pistol	1.8 to 12.40
FAB12PP/U-ESD	M3	1000	Trigger	EDU1NS	1.32	0.8	8.6	Pistol	1.8 to 12.40
FAB12CA (to be used with EDU1NS/PX only)	M3	1000	Remote	EDU1NS/PX	1.40	0.8	8.0	Aluminum	0.44 to 8.90
FAB18RE-ESD	M4	650	Lever	EDU1NS	1.32	0.8	8.6	Inline	2.6 to 16.0
FAB18PS-ESD	M4	650	Push	EDUCLS	1.32	0.8	8.6	Inline	2.6 to 16.0
FAB18PP-ESD	M4	650	Lever	EDU1NS	1.32	0.8	8.6	Pistol	2.6 to 16.0
FAB18PP/U-ESD	M4	650	Lever	EDU1NS	1.32	0.8	8.6	Pistol	2.6 to 16.0
FAB18CA (to be used with EDU1NS/PX only)	M4	650	Remote	EDU1NS/PX	1.40	0.8	8.0	Aluminum	2.65 to 14.15

*See pages 9 and 10 to select controllers

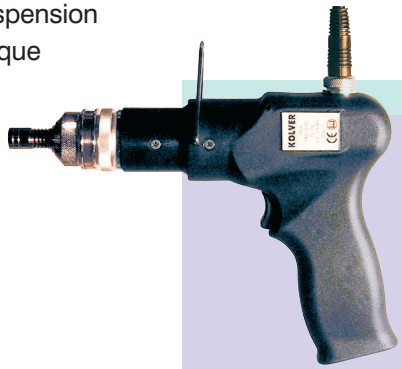
RAF Series: 30V DC Electric Screwdrivers

RAF38NS

RAF Series screwdrivers are designed to meet higher torque applications. The ergonomic body design reduces Carpal Tunnel Syndrome and is ESD-safe certified to SP method 2472. The RAF Series' wide torque range, tight torque tolerance of+-5%, and adjustable RPMs and slow-start, make it a versatile tool ideal for multiple applications.

The RAF screwdrivers are available in an in-line body style with either a lever-start or push-to-start. Also available in a pistol grip body with trigger start.

All RAF Series electric screwdrivers come standard with an ESD-safe body, 8 ft. cable, suspension bail, and a torque locking screw.



RAF32PP/U-ESD

Pistol Grips with Option U

The FAB and RAF Series electric screwdrivers are available in a molded, high-impact plastic body with the cord coming out of the top (U Option) or bottom of the drivers. This option is best for tools hanging from a mount (see TECBA1 tool balancer on page 14).

Model	Max Screw Size	Speed (RPM)	Start Option	Controller Model*	Diameter (in)	Weight (lbs)	Length (in)	Housing Style	Torque (in/lbs)
RAF32NS-ESD	M5	1000	Lever	EDU1NS	1.56	1.43	9.0	Inline	6.20 to 28.30
RAF32PS-ESD	M5	1000	Push	EDUCLS	1.56	1.43	9.0	Inline	6.20 to 28.30
RAF32PP-ESD	M5	1000	Trigger	EDU1NS	1.56	1.43	9.0	Pistol	6.20 to 28.30
RAF32PP/U-ESD	M5	1000	Trigger	EDU1NS	1.56	1.43	9.0	Pistol	6.20 to 28.30
RAF38NS-ESD	M5	650	Lever	EDU1NS	1.56	1.43	9.0	Inline	7.95 to 36.30
RAF32CA (to be used with EDU1NS/PX only)	M5	1000	Remote	EDU1NS/PX	1.40	1.43	8.0	Aluminum	6.19 to 26.55
RAF38PS-ESD	M5	650	Push	EDUCLS	1.56	1.43	9.0	Inline	7.95 to 36.30
RAF38PP-ESD	M5	650	Trigger	EDU1NS	1.56	1.43	9.0	Pistol	7.95 to 36.30
RAF38PP/U-ESD	M5	650	Trigger	EDU1NS	1.56	1.43	9.0	Pistol	7.95 to 36.30
RAF38CA (to be used with EDU1NS/PX only)	M5	650	Remote	EDU1NS/PX	1.40	1.43	8.0	Aluminum	7.95 to 35.40

*See pages 9 and 10 to select controllers

FAB and RAF Lever/Trigger Start Controllers

The EDU power supply and control units act as a 110V AC to 30V DC transformer and torque controller. The electronic control circuit cuts the power supply to the motor in response to the clutch action, as soon as the pre-set torque has been reached. All lever/trigger start controllers come standard with a 5-pin connector.

EDU1NS

Standard single output for lever or trigger start screwdrivers
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....3.5 lbs.

EDU1NS/RA (Ramp/Adjustable Speed)

Standard single output for lever or trigger start screwdrivers with a slow start (ramp) feature, which allows up to a 2 second range to reach full RPM, and adjustable speed, which allows up to a 40% reduction in maximum speed.
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....3.65 lbs.

EDU1NS/XY

Standard single output for lever or trigger start screwdrivers with torque and lever signal output. Approved for KQS-4000 or Inspector.
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....3.5 lbs.

EDU2CL/R (Ramp)

Dual output for a lever or trigger start screwdriver with a slow start (ramp) feature, which allows up to a 2 second range to reach full RPM.
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....5.6 lbs.

EDU(3,4,5)CL (Multiple Outputs)

3,4 or 5 outputs for a lever or trigger start screwdriver. There is no ramp or adjustable speed available on these models.
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....5.6 lbs.

EDU1NS/PX

Standard single output for CA Series which features remote start, reverse and torque signal.
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....4.0 lbs.

FAB and RAF Push-to-Start Controllers

The EDU power supply and control units act as a 110V AC to 30V DC transformer and torque controller. The electronic control circuit cuts the power supply to the motor in response to the clutch action, as soon as the pre-set torque has been reached. All push-to-start controllers come standard with a 6-pin connector.

EDUCLS

Standard single output for push-to-start screwdrivers.
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....3.5 lbs.

EDUCLS/XY

Standard single output for push-to-start screwdrivers with torque and start signal. Approved for KQS-4000 or Inspector.
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....3.5 lbs.

EDU2CS (Multiple Output)

Dual output for push-to-start screwdriver.
Dimensions .....5.50"W x 4.75"D x 2.70"H
Weight .....5.6 lbs.

KQS-4000

The **Assembly Qualifier** is a microprocessor-based process monitoring system that verifies your assembly process. It compares each fastening signature to a learned signature. The system tracks, in real time, the completion of each fastening cycle in an assembly, then notifies the operator upon its successful completion.

Identifies:
- Completed assemblies
- Skipped/missing screws
- Missing washers & gaskets
- Snapped screw heads
- Incorrect screws
- Shallow tapped holes
- Stripped screws

Inspector

The **Inspector** is a PLC-based process control system that monitors your fastening assembly process. It compares the actual triggered torque time to a pre-set tolerance, failing joints that fall out of the process window. It tracks, in real time, the completion of each screw joint in an assembly, then notifies the operator upon its successful completion. The **Inspector** keeps a summary of good and incomplete assemblies throughout the production day.

Identifies:
- Completed assemblies
- Skipped/missing screws
- Stripped screws
- Snapped screw heads
- Incorrect screws

Provides feedback for:
- Completed assemblies
- Total acceptable and rejected assemblies
- Screw rundown time
- Torque trigger time

ACC Series 120V Direct Plug-In Electric Screwdrivers

ACC2210

Lever or push-to-start designs constructed of high-impact plastic place our ACC Series in a class of their own.

The ACC Series is ideal for applications where portability is needed to minimize costly set-up time.

Unlike other direct plug-in screwdrivers, the ACC Series disengages the motor from the drive when the preset torque is reached, which greatly reduces stress on the motor.

- Lockable external torque adjustment
- Patented clutch mechanism
- Switch selectable—push-to-start/push lever start at the flick of a switch
- Externally replaceable brushes
- Rare-earth magnet motors

Model	Max Screw Size	Torque (in/lbs)	Speed (RPM)	Diameter (in)	Length (in)	Weight (lbs)
ACC2210	M3	1.75-8.85	950	1.4	10.20	1.65
ACC2220	M4	6.20-17.70	950	1.4	10.20	1.76
ACC2222	M4	7.95-17.70	2400	1.52	10.60	1.87
ACC2230	M5	8.85-26.55	950	1.52	10.60	1.87

NJK Series Screw Presenters

NJK514

The **NJK Series Automatic Screw Supplier** is a simple but most effective device where screws are brought to pick-up position, one after another, lining up until use. A magnetized bit is required to chuck the screw, otherwise an Autocatcher (page 14) can be used.
New model NJK 705 is a universal feeder, which eliminates time-consuming rail changes. Instead, it simply adjusts to accommodate screw sizes as shown.

NJK705

- Handles various size fasteners and complex head shapes.
- Bi-directional brush rotation provides fast removal of improperly positioned screws.
- Fully adjustable vibration control for all sizes and types of fasteners.

Model	Screw Shank (max)	Screw length (min/max)
NJK514 (optional RS version)	0.056"	0.072" - 0.400"
NJK517 (optional RS version)	0.068"	0.068" - 0.400"
NJK520 (optional RS version)	0.080"	0.100" - 0.720"
NJK523 (optional RS version)	0.092"	0.112" - 0.720"
NJK526 (optional RS version)	0.104"	0.140" - 0.720"
NJK530 (optional RS version)	0.120"	0.160" - 0.720"
NJK540 (optional RS version)	0.160"	0.200" - 0.720"
NJK550 (optional RS version)	0.200"	0.240" - 0.720"
NJK705	0.056"-0.200"	0.072" - 0.720"

(RS option allows one-by-one distribution of screws)

KSF-5000 Automatic Screwfeeder

Autofeed hand screwdrivers are simple and reliable systems where the screw or nut is automatically fed into the driver collet head. The automatic downstroke reduces operator fatigue, dramatically increasing assembly rate and productivity.

You can feed and tighten machine and self-tapping screws, nuts, studs and any other threaded fasteners, with or without washers.

Patented barrel design

Fast

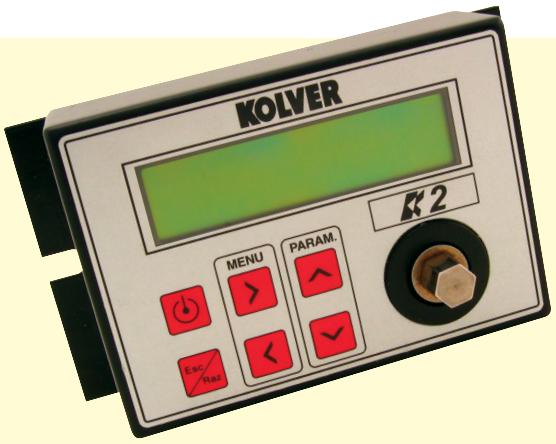
With our patented Barrel Design a screw is waiting in the entrance tube of the barrel while driving a screw. Therefore, the instant the operator comes off of the screw being driven, the screw in the entrance tube of the barrel is allowed to immediately get into the jaws to be driven. An operator cannot drive screws faster than the machine will deliver to the gun.

Easily serviced feed mechanism

Efficient

The simplicity of the patented Feed Mechanism makes the machine less likely to experience mechanical failure.The twist-lock feed cover permits fast access to the feed mechanism allowing it to be disassembled and reassembled in seconds, without the use of tools. The simple design, in conjunction with the twist-lock feed cover, exposes the screws moving through the feed mechanism allowing quick visible detection and accessibility should a jam occur because of a foreign object or a defective screw. The automatic timed shutoff feature on the KSF-5000 base unit reduces wear on the feeder bowl and makes the unit more efficient. The machine automatically shuts off if unit is not cycled for 7-8 seconds and restarts when the operator drives another screw.

Torque Testers



K2 Torque Tester

The K2 Torque Tester is the proper instrument to verify, monitor and collect data on the torque delivered by power tools. It can measure in in/lbs, ft/lbs, Nm, Ncm and Kg/cm in four different languages: English, Italian, Spanish and German.

The K2 tester is a lightweight, compact and powerful instrument with a built-in transducer. It can measure in 1st peak, clockwise, or counterclockwise motion. It features a measuring range of up to 180 in/lbs, memory for up to 500 values, and an RS232 serial port for printer and computer download.

The K2 comes complete with a rundown fixture and a certificate of calibration.

Coming in January 2005

Kolver USA will be offering the new K1 and K3 Torque Testers. The new testers will be available in January 2005. These two new models will have many new features such as:

- increase accuracy
- more specific torque ranges
- remote transducer compatible

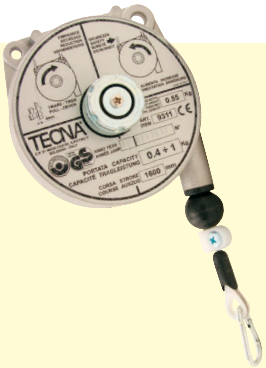
Accessories

ANGHD1 and ANGHD2

When space is limited a right angle head can be easily attached to lever start FAB or RAF screwdrivers. Model ANGHD1 is suitable for the FAB Series and the ANGHD2 is made for the RAF Series. The connection and torque adjusting nut is equipped with two M3 threaded holes to lock the head in the desired position, and to reach desired torque level.

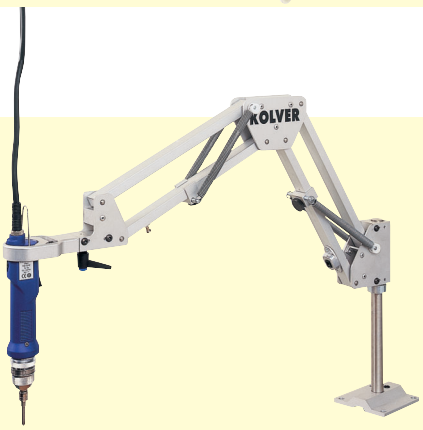
ANGHD3

Suitable for the Pluto, RAF and FAB Series, this tool features a 1/4" hex bit to adapt to any standard driver. It also has a built-in handle for locating angles at any desired position.



TECBA1

The TECBA1 tool balancers allow screwdrivers to be positioned over the workstation for comfortable operation. Models with capacity of up to 150 lbs. available upon request.



PA2KOL Torque Reaction Arm

The PA2KOL Torque Reaction Arm has been designed to eliminate the reaction generated by screwdrivers when they stop at the pre-set torque. Options include table or wall mount, and tool holders for inline, pistol or angle style tools. Rated: Up to 200 in/lbs. of torque
Length of reach: 24"

Accessories (cont.)

ARMPV1 Support Arm

The ARMPV1 Support Arm is composed of a vertical support (45" height) on which a 180˚ pivoting arm (24" length) featuring a tool glide trolley, is attached. It is equipped with an adjustable clamp for quick installation without having to drill through a table.

AC3.5 and AC2.3 Autocatchers

Autocatchers are for picking up stainless steel, brass, copper and plastic screws. They work in conjunction with the NJK705 screw presenter with a special bit guide (ACFG-100). The AC3.5 can pick up screws from size M3 to M5 and the AC2.3 can pick up screws from size M2 to M3. The Autocatchers can be used with 1/4" hex drivers and/or other bits.

ASPDHD3 Vacuum Pick-Up System

A separate self-contained unit, the vacuum pick-up system works directly with shop air. A generator provides the suction for picking up screws that are non-magnetic from our model NJK705 screw presenter, dramatically improving productivity. Comes complete with 1/4" hex bit that adapts to any KolverUSA screwdriver.

One Year Limited Warranty

KolverUSA, LLC. (“Kolver”) warrants that each product sold by it shall be free from defects in material and workmanship under normal application, use and service for a period of one (1) year from the date of shipment by Kolver or its distributors to the initial purchaser. Kolver’s sole obligation under this warranty is, in Kolver’s sole discretion, to repair or replace free of charge during the warranty period, any part or parts found to be defective, provided that the product (i) is delivered, postage prepaid, to KolverUSA, LLC, Woodland Park, One Park Drive, Unit 9, Westford, MA 01886; (ii) has not been misused, subjected to unusual stress, modified or serviced in any manner. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, WRITTEN OR ORAL, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL KOLVER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL OR OTHER DAMAGES IN EXCESS OF THE REPLACEMENT COST OF THE DEFECTIVE PART(S). KOLVER’S OBLIGATIONS HEREUNDER SHALL TERMINATE THREE (3) YEARS FROM THE DATE OF THE ORIGINAL SHIPMENT.

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