



412 Fusion Machines For 4” IPS to 12” DIPS (110 mm – 340 mm)

1. Product Description

McElroy’s line of No.412 fusion machines will butt fuse pipe sizes from 4” IPS to 12” DIPS (110 mm to 340 mm). The original rolling 412 changed the industry as the first fully self contained fusion machine in the world. McElroy offers three configurations in this size range to meet the demands of your customers.



Rolling No.412
(Gas & Electric options available)



TracStar® 412
(Automated option available)



PitBull® 412
(HPU sold separately)

The PitBull 412 is easy to transport and typically used for special applications where the wheeled or tracked vehicle is not needed.

The TracStar 412 offers a self-contained, self-propelled track mounted vehicle that can handle grades up to 30%. It is the prime choice on job sites for its ease of maneuverability and productivity gains.

The TracStar also has an option that allows automated control and monitoring over the heat, soak, fuse, and cool cycles. The Automated TracStar No.412 system guides the operator through a step-by-step procedure for fusing pipe. It has a built-in data logging feature that keeps a record of each fusion joint, which allows you to verify that proper fusion procedures have been followed prior to installation.

Recently, McElroy introduced a retrofit kit that would enable users to add hydraulic clamping to their Rolling and TracStar 412 machines. These kits are compatible with any TracStar 412/PitBull 412. Also compatible is the 412 Rolling machines introduced in 2003 under the model number 1248100. The Hydraulic Clamping Retrofit Kit increases productivity due to the user not having to manually clamp the knobs. Less time is spent with jaw operation and more time can be spent fusing pipe. Quick disconnect hydraulic fittings are provided for versatility in fusing tees, ells, and other tie-ins. The retrofit kit can be installed at your local McElroy distributor.

2. Target Market and Positioning Strategy

The 412 fusion machine is targeted to contractors, municipalities, etc. that use fusible pipe in a range that is often referred to as “medium diameter” or “mid-range diameter” pipe (typically up to 20” OD).

With a capability of fusing pipe sizes 4” IPS to 12” DIPS (or 110 mm – 340 mm), the 412 is well suited to handle a variety of pipeline jobs.

All units utilize an identical 412 four-jaw carriage, which can be easily removed for in-ditch fusion. For tight installations, the outer fixed jaw and skid can be removed from the carriage converting it to a three-jaw carriage for an even more compact fusion unit. These machines can fabricate segmented ells with optional mitered inserts and are DataLogger® compatible.

The McElroy 412 is closely related to the McElroy 618 fusion machine, another popular machine in the mid-range size. One important aspect of this relationship is the fusion carriage of both machines (on current models) is interchangeable. For example, the fusion carriage on a Rolling 412 can be installed on the tracked undercarriage of a TracStar 618 and visa versa.

3. Product Details

a. Configurations

The McElroy 412 is shipped from the factory in one of 5 basic configurations:

- Rolling – Gas Powered
- Rolling – Electric Powered
- TracStar
- TracStar – Automated
- PitBull

Each of the basic configurations can be shipped with high, medium, or low cylinder force and once on the jobsite, the fusion carriage can be configured for three-jaw or four-jaw use.

For complete configuration options, visit the McElroy website at:

<http://www.mcelroy.com/fusion/no412/options.htm>

b. Featured Accessory

Hydraulic Clamping

One of the more popular features of McElroy’s MegaMc® fusion machines is the hydraulic clamping that tightens the jaw clamps. Now, 412 owners can add Hydraulic Clamping to their machines. The retrofit kit is available to be installed by your local McElroy distributor. By adding the retrofit kit, your machine is upgraded with the following features:

- Increased productivity due to not requiring manual cranking of clamp knobs
- Less time spent working with jaw operation and more time spent fusing pipe
- Quick disconnect hydraulic fittings are provided for fusing tees, ells, and tie-ins
- Retrofit kit can be installed at your local McElroy distributor
- New Rolling and TracStar machines can be ordered with hydraulic clamping preinstalled.

- Part No. A1262301 – Retrofit Kit for Rolling and TracStar 412
 - *This kit is compatible with any TracStar 412/PitBull 412. Also compatible are 412 Rolling machines introduced in 2003 under the model number series 1248100.*

c. Features and Benefits

Rolling 412

- Wheeled vehicle for easy maneuvering on the job site
- Carriage can be easily removed for in-ditch use
- On-board generator for powering heater and other devices
- Gas-powered self-contained or electric models available
- Hydraulic pipe lift aids in loading and unloading pipe
- DataLogger® compatible

TracStar® 412

- Self-contained, self-propelled, all-terrain
- Powered by a 20 HP liquid cooled diesel engine
- Carriage can be easily removed for in-ditch use
- On-board generator for powering heater and other devices
- Dual hydraulic pipe lifts aid in handling pipe
- Fits in a standard long box truck bed for easy transport
- DataLogger® compatible
- Also available as an automated fusion machine

Pitbull® 412

- Compact fusion for special applications
- Hydraulic Power Unit (HPU) sold separately
- DataLogger® compatible

d. Specifications

The latest and most complete specifications for each configuration of the 412 can be found on the McElroy web site at the following URLs:

Rolling 412: <http://www.mcelroy.com/fusion/no412/specifications.htm>

TracStar 412: http://www.mcelroy.com/fusion/no412/spec_tracked.htm

Automated TracStar 412: http://static.mcelroy.com/parts_finder/documents/3901.pdf?607995131

PitBull 412: http://www.mcelroy.com/fusion/no412/spec_pitbull.htm

e. Pricing

The most current list prices for the McElroy 412 are available on the McElroy Distributor website: <http://sales.mcelroy.com/apps/index.htm/default>. Normal distributor discounts apply.

4. Collateral Material Availability

a. Product Manual

The 412's user's manual in Adobe Acrobat PDF format can be downloaded from the McElroy website from these URL's:

Rolling 412: http://static.mcelroy.com/parts_finder/documents/2531.pdf?364492782

TracStar 412: http://static.mcelroy.com/parts_finder/documents/3798.pdf?-1775859048

PitBull 412: http://static.mcelroy.com/parts_finder/documents/2472.pdf?-872913948

b. Catalog Placement

The current McElroy catalog features a six-page section for the 412 machines with complete product information including various configuration examples. Reprints of these pages are available in Adobe Acrobat PDF format from the McElroy website at this URL:

<http://www.mcelroy.com/catalog/no412.pdf>

c. Photography and Video

Images suitable for websites, PowerPoint presentations, email newsletters, print publications etc, are available at <http://www.mcelroy.com/fusion/no412/images.htm>

While not specific to the 412, the following videos/animations can be helpful in promoting the TracStar configurations of the 412:

http://www.mcelroy.com/images/video/tracstar_03.wmv

<http://www.mcelroy.com/fusion/animations/boftstar.htm>

d. Drawings, part numbers, and additional information

McElroy's Parts Finder has also been updated to include complete drawings and parts ordering for the 412 at the following URLs:

Rolling - http://www.mcelroy.com/fusion/no412/parts_roll.htm

TracStar - http://www.mcelroy.com/fusion/no412/parts_tracked.htm

TracStar Automated - http://www.mcelroy.com/fusion/no412/parts_automated.htm

PitBull - http://www.mcelroy.com/fusion/no412/parts_pitbull.htm

5. Advertising and Promotions

a. Articles / Newsletters

The 412 has been featured in numerous articles that have been published in various trade magazines and online. A selection of these articles can be found at the following web links:

- <http://www.mcelroy.com/fusion/articles/jenks.htm>
- <http://www.mcelroy.com/fusion/articles/highaltitude.htm>
- <http://www.mcelroy.com/fusion/articles/wichita.htm>
- <http://www.mcelroy.com/fusion/articles/gardens.htm>
- <http://www.mcelroy.com/fusion/articles/droughtanswer.htm>
- <http://www.mcelroy.com/fusion/articles/norman.htm>
- http://www.mcelroy.com/fusion/newsletter/march_05.htm

b. Press Releases

The 412 has also been featured or specifically mentioned in press releases over the years. These can be found on the McElroy website at:

- <http://www.mcelroy.com/fusion/pressreleases/tracstar.htm>
- <http://www.mcelroy.com/fusion/pressreleases/Trac618.htm>

6. Accessories

A multitude of accessories are available for the McElroy 412 and a complete listing can be found at <http://www.mcelroy.com/fusion/no412/accessories.htm>. However, of particular note are:

- PolyHorse – This pipe handling system consists of a series of adjustable racks to store and help install the pipe on the job site. The PolyHorse has been shown to provide dramatic productivity gains (up to 150%) in the field. For more information visit: <http://www.mcelroy.com/fusion/accessories/polyhorse/>
- Pipe Stands – These adjustable pipe stands will help properly support, position, and align the pipe to be fused.
http://www.mcelroy.com/fusion/accessories/pipestand_no412/
- DataLogger® - The DataLogger is a valuable tool on most any jobsite and is used to record and document fusion process parameters.
<http://www.mcelroy.com/fusion/accessories/datalog/>

7. Training and Continuing Education

Through McElroy University, McElroy distributors and their customers can receive hands-on training on different aspects of the 412. Relevant classes include:

- **201 - Mid-Range Fusion Operations** – The focus of this class is to develop and refine fusion skills on McElroy fusion machines. This class will teach the proper fusion techniques as set by ASTM standard F2620 and PPI technical report TR-33 and TR-41. In addition to the training, students will also participate in a qualification testing session
- **203 – Mid-Range Troubleshooting & Rebuild** – The focus of this session is on maintenance and overhaul of McElroy mid-range fusion machines. Students will build and troubleshoot a fusion machine.
- **403 – TracStar Electronics Repair** – The focus of this session is the troubleshooting and repair of electronic components on McElroy TracStar fusion machines. Training also includes the generator, heater, control systems, and wiring schematics.
- **405 – TracStar Hydraulics Repair** – The focus of this session is the troubleshooting and repair of hydraulic and mechanical components on McElroy TracStar fusion machines. Students will learn how to read the hydraulic schematics and rebuild hydraulic cylinders on a range of McElroy TracStar machines.

For more information, a complete schedule, or to enroll in any McElroy University class, visit www.mcelroy.com/fusion/training.