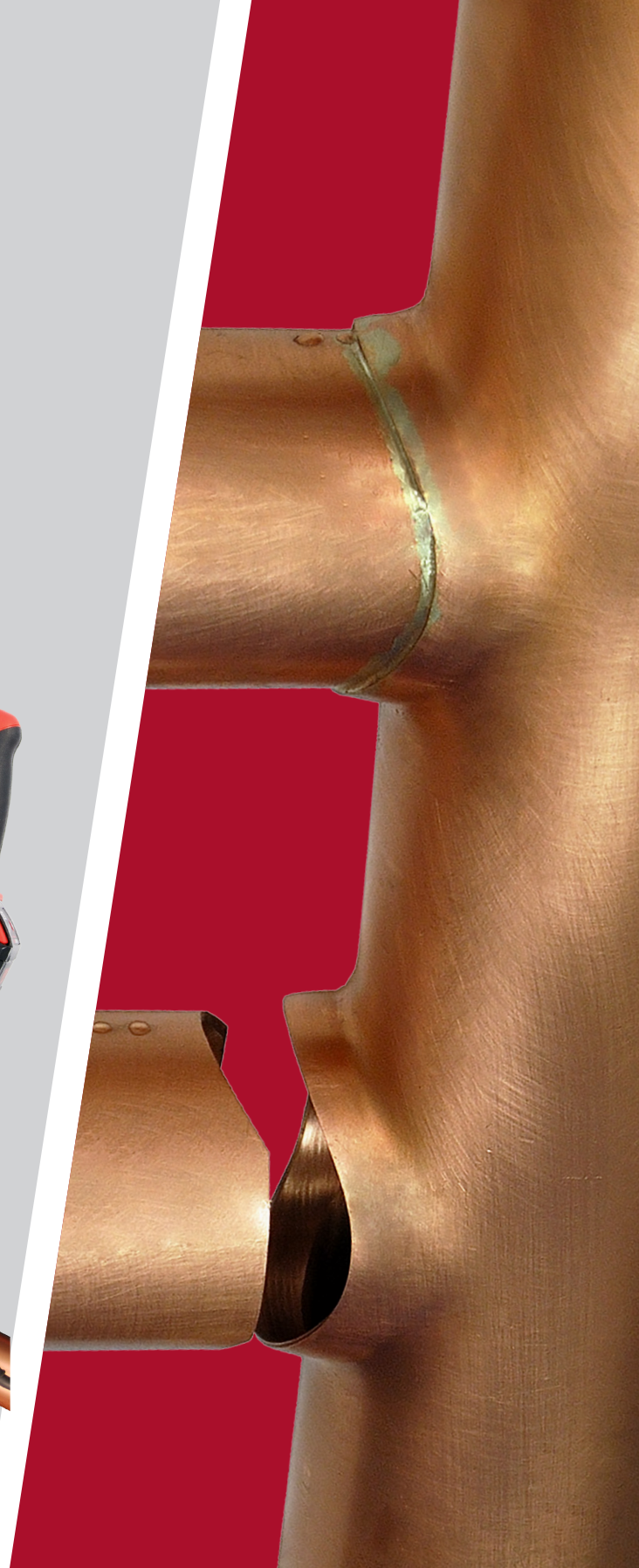


T-DRILL

PRODUCTIVITY AS A PRODUCT.



SUBMITTAL DATA & SPECIFICATION

Mechanically
Formed
Extruded
Outlets

SUBMITTAL DATA K,L & M COPPER

1/2" - 4'

1/2" - 8"

SUGGESTED SPECIFICATION

PRESSURE PIPING CODE ASME B31.9 2011* - BUILDING SERVICES PIPING

OTHER CODES AND COMPLIANCES



ASME B31.9 - Building Services Piping - Section 930.2 Mechanically Formed Extruded Outlets

ASME B31.5 - Refrigeration Piping and Heat Transfer Components Section 504.3.1 (h) Mechanically Formed Tee Connections

ASPE - Plumbing Engineer Design Handbook - Vol. 4, Chapter 2 - 2008 - Mechanically Formed Tee Fittings for Copper Tube

ASTM F 2014-00 - Standard Specification for Non-reinforced Extruded Tee Connections for Piping Applications

California Plumbing Code - 606.1.3 Mechanically Formed Tee Fitting

California Mechanical Code - 1201.2.1.4.2.1 Mechanically Formed Tee Fitting

National Plumbing Code of Canada - Section 2.3.3.2 (1) Extracted Tees

EPCOT Plumbing Code - Section 605.15.5 Mechanically Formed Tee Connections

IAPMO PS 85-95 - Tools for Mechanically Formed Tee Connections

IAPMO - File # 1935 Since 1979

International Plumbing Code - Section 605.5.1 Mechanically Formed Tee Fittings

International Mechanical Code - Section 1203.3.8 Mechanically Formed Tee Fittings

NFPA 13 - Fire Sprinkler Systems

NFPA 99 - Health Care Facilities Section 5.1.10.3.2 Mechanically formed, drilled and extruded tee-branch

MasterSpec (AIA) Basic 15060

National Standard Plumbing Code - Section 4.2.8.3 Mechanically Formed Tee Branches

Unified Facilities Guide Specification

Division 22 - Plumbing, Section 22 00 00, part 3.1.3.6.c Copper Tube Extracted Joint

Section 22 00 07, Plumbing Healthcare Facilities, part 3.5.6.c Mechanically Extracted Joint

Division 23 - HVAC, Section 23 52 00 Heating Boilers, part 3.3.6.6 Copper Tube Extracted Joint

Section 23 57 10.00 10 Forced Hot Water Heating, part 2.2.10 Extracted Brazed Tee

Section 23 57 10.00 10 Forced Hot Water Heating, part 3.5.9 Mechanical Tee Joint

Section 23 70.0300 10 Heating and Utility Systems, part 3.2.1.5 Copper Tube Extracted Joint

Uniform Plumbing Code - Section 605.3.3.1 Mechanically Formed Tee Fittings

Uniform Mechanical Code - Section 1201.3.2.5 Mechanically Formed Tee Fittings

Veterans Administration

Facility Water Distribution - Section 22 11 00, part 2.2.B.4 Mechanically Formed Tee Connection

HVAC Hydronic Piping - Section 23 21 13, part 2.4.A.3 Mechanically Formed Tee Connection

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

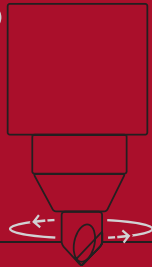
ENGINEER

Spec Sect _____ Para _____

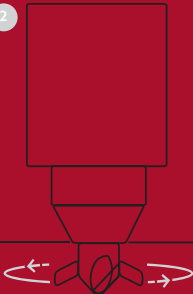
Approved _____ Date _____

T-DRILL PROCESS

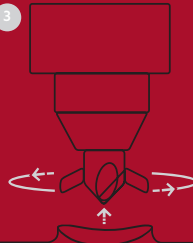
1



2



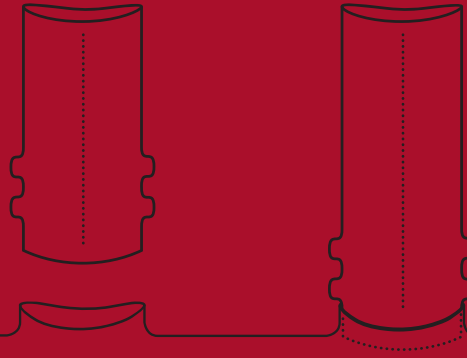
3



No more leaks!



T-DRILL PROCESS



T-DRILL TEE FORMING TECHNOLOGY

Whenever two pipes need to be joined together, T-DRILL is the answer.

The T-DRILL method of producing outlets to branch connections directly from run pipe material was developed in the 1960' and has since proven its efficiency all over the world. As the tee is fabricated from the basic tube, no costly T-pieces are needed. Instead of three joints there is only one joint!

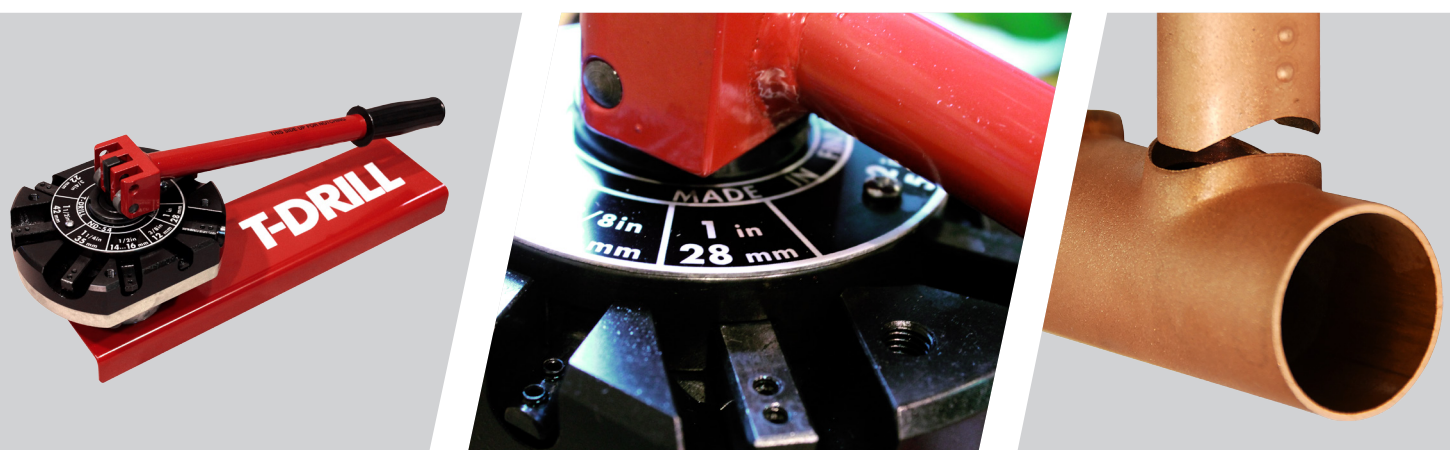
This saves a lot of time and means considerably lower total costs. The construction also makes the tube stronger and provides better flow and brazing characteristics. This patented T-DRILL method is well known all over the world and is still one of the major innovations in the field.

Since 70's T-DRILL has been used in commercial construction and by manufacturers such as:

Alberta Custom Tee, Ltd., Alfa Laval, Anheuser-Busch, ANVIL, Carrier Corp., Coors Brewing, Norfolk Naval Shipyard, Ford Motor Co., General Electric, Grundfos, Northrop Grumman, Hill-Phoenix, Hussman, Kysor-Warren, NASA, NIBCO, Pall Corp., Parker-Hannifin, Rheem Inc., Tigerflow, TRANE, TYCO, Wolfe Aircraft, Wolverine, Lochinvar, Dow Chemical.

ADVANTAGES OF T-DRILL METHOD:

- Production cost reductions up to 80%
- No costly inventories
- Less wasted material
- Remarkably faster through-put times
- Improved product strength, flow and brazing characteristics
- Only one brazed joint instead of three



T-DRILL METHOD

Tested and proven

2nd dimple for inspection
1st dimple is a depth stop
5.5% Thicker Root

●● T-DRILL
● 3X the outlet

T-DRILL JOINTS ARE STRONGER THAN THE TUBE

Burst Pressure, Pressure Drop, Vibration, Flexing, Hydrostatic Strength Tests performed by Detroit Testing Laboratory, ASME Code Committee, Universal Laboratories

BURST PRESSURE TEST

T-DRILL brazed joint withstands more pressure than the copper itself.

WALL THICKENING TEST

Minimal outlet that code requires is 3X the outlet wall thickness(●). T-DRILL exceeds this by **193%** (●●).

BURST



FLATTEN



TWIST



INSTALLERS ARE TRAINED AND CERTIFIED

Plumbing · HVAC · Sprinkler · Refrigeration Maintenance · Process Piping

T-DRILL METHOD

Widely accepted, used and awarded

THE MECHANICALLY FORMED TEE FITTING - a Standard method of installation with over **30,000,000** field installed tee's worldwide

CORRECTIONAL FACILITIES

Atlanta Fed. Pen. - GA
Fed. Corr. Fac. - TX
Minersville Fed. Pen. - PA
DeKalb Co. Jail - GA
Fulton Co. Jail - GA
Wayne Co. Jail - MI
York Co. Prison - PA
Folsom Prison - CA
Cobb Co. Jail - GA
Fed. Corr. Ctr. - CO
Avanal Prison - CA
Broward Co. Jail - FL
Pinellas Co. Jail - FL

SCHOOLS/UNIVERSITIES

University of Alaska
Brigham Young University
University of Nebraska
University of Pittsburgh
University of Tampa
University of Georgia
University of California
Notre Dame Stadium
Ball State University
Purdue University
Indiana University
University of Oklahoma
Georgia Tech

SPORTS ARENAS

MCI Stadium - Wash D.C.
Georgia Dome - Atlanta
Raptor Stadium - Toronto
Florida Suncoast Dome
Paul Brown Stadium
Joe Robbie Stadium
Coors Field Denver
Olympic Stadium Atlanta
Carolina Panther Stadium
Gator Bowl - Jacksonville
Safeco Field - Seattle
Ted Turner Field - Atlanta
NASCAR Track - Joliet

HOSPITALS

Veterans Administration (41)
Grady - Atlanta
Kaiser Med. Ctr. - CA & GA
Valley Med. Ctr. - CA
Baptist Med. Ctr. - FL
Queens Hospital - Honolulu
Marion General - IN
Charter Beacon - IN
North Memorial - MN
Mayo Clinic - MN
Univ. of MN Hosp. - MN
Hutchinson Hosp. - MN
Mpls. Children's - MN

GOVERNMENT

Getty Museum
Library of Congress
Smithsonian Inst.
U.S. Postal Service
Detroit Fed. Bldg.
Fed. Reserve Bldg.
Denver Int. Airport
Dept. of Defense
Fermi Natl. Labs
Lawrence Livermore NL
Laboratory
Dept. of Transportation
Census Bureau

HOTELS

Atlantis - Bahamas
Bellagio - Las Vegas
NY NY- Las Vegas
MGM Grand
Holiday Inns
Hyatts
Hiltons
Sheratons
Stouffers
Hampton Inn
Marriotts
Luxor
Disney World

MILITARY

Pentagon
Ft. Devens
Ft. Drum
Ft. Bragg
Ft. Benning
Ft. Gillem
Ft. Jackson
Ft. Riley
Ft. Rucker
Ft. Polk
Grissom AFB
Patrick AFB
Pearl Harbor

AMERICAN SOCIETY OF PLUMBING ENGINEERS



INDUSTRY AWARD

To

T-DRILL INDUSTRIES INCORPORATED

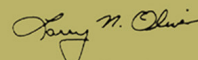
For Outstanding Service To
The Advancement Of Plumbing Engineering Technology

October 26, 2004

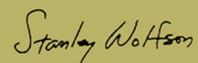
2004 ASPE Convention

And

Engineered Plumbing Exposition
Cleveland, Ohio


Larry Oliver, CPD

President


Stanley Wolfson

Executive Director



T-DRILL MACHINERY

Quality comes first!

The powerful T-DRILL tee forming machines have all the labor saving capabilities!

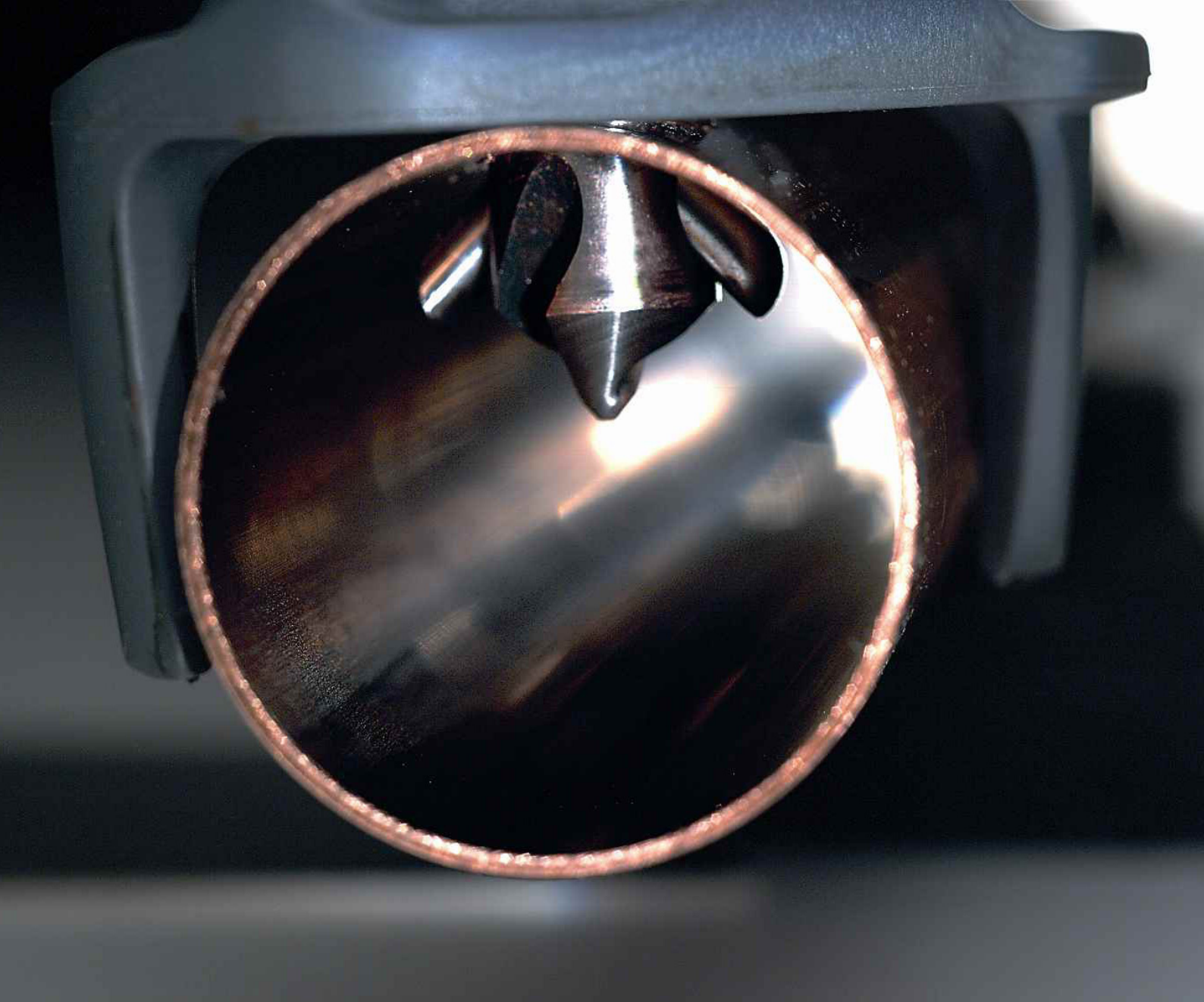
Whether it is K, L or M copper - 1/2" outlets to 4" outlets on tubing 1/2" to 8" - Unlike some other joining methods, T-DRILL complies with the Codes and Standards you need to meet - whether it is the UPC, UMC, IPC, IMC, ASTM or ASME B31.9.

This method is a standard of the industry. If a comparison is made between the labor of a wrought copper tee fitting and T-DRILL you will see a dramatic difference. This is documented in most any labor calculators.



	T-35	T-65 / T-65B	PLUS-100	HFT-2000
Outlet Ø	1/2" - 1 1/4"	1/2" - 2"	2" - 4"	1/2" - 2"
Run Tube Ø	1/2" - 2 1/2"	1/2" - 6" OPT	2" - 8"	1/2" - 4"
Tube Length	∞	∞	∞	10" - 720'
Material	K-L-M Copper	K-L-M Copper	K-L-M Copper	K-L-M Copper





DO IT WITH T-DRILL

Cut costs - Improve quality - Increase profit

- No Tee's
- No costly inventories
- No pipe cutting
- Minimized inspection cost
- Ability to make manifolds
- Only one brazed joint
- Less chance for leaks or call-backs
- Excellent flow characteristics
- Vibration, flexing, hydrostatic strength
- Soft and hard K,L&M copper