



Cold Root Rolling

► Product Offering Guide



www.CJWinter.com | www.ColdRootRolling.com

COLD ROOT ROLLING is the process of burnishing the root radius of a previously cut thread, in a Rotary Shouldered Connection.

CJWinter's Cold Roll Tools are available using our (SA) Standard Attachment Series which uses our Patented EPL® Design, "Error Proof Loading", the cold roll wheels cannot be installed incorrectly in the roll holder or the (GP) General Purpose Series that accommodates CR Style Cold Roll Wheels. Part number example: 11070-250-SA or 11070-250-GP. This is the same tool but has a different style roll holder to accommodate the end user's needs.

Why CJWinter is the BEST CHOICE:

- Does not require an external pump to adjust pressures, only a socket and ratchet
- Meets API/ANSI 7.2:2008, ISO 10424-2:2007 DS-1 and NS-1 sub-spec 143 requirements
- Pressure ratio is 1:1 — the tool requires no conversion between the values of hydraulic pressure and roller force
- Gauges come with Max Indicating Pointer to read pressures after the cold rolling process
- CJWinter's cold roll tools are written into many of the major oil & gas company's specifications for recommended use
- Easy to use — self-contained hydraulic tool
- Spindle does not need to stop for use
- EPL® style wheels CANNOT be loaded incorrectly
- No safety issues with hoses
- Superior customer service: **1-800-288-ROLL** (7655)
- Website specifically on cold rolling: **www.ColdRootRolling.com**

Why Use CJWinter's Cold Root Rolling Tools?

For over 60 years CJWinter has been an industry leader in supplying thread rolls and thread rolling tools globally. CJWinter has used that experience to design cold rolling tools specifically for Rotary Shouldered Connections in the Petroleum Industry. Our tools are used by many of the major Oil and Gas companies worldwide. See who some of our customers are at **www.ColdRootRolling.com**.



CJWinter offers:
Superior Customer Support
Quality
Great Deliveries
Competitive Pricing

BOX CONNECTIONS

► **Internal Threads (Box Connection) Style Tools:** 11068, 11069, and 11070 Series

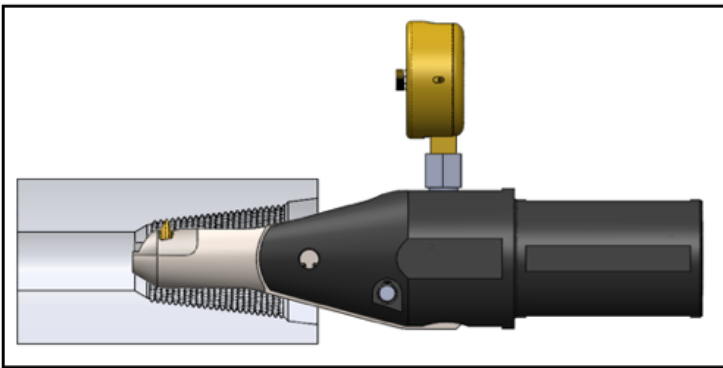
Shank Sizes Available for Box Style cold rolling tools

Standard Size: 2.50" Diameter Round Shank x 4" Long

Optional Sizes: 2.00" Diameter Round Shank x 5.25" Long (50 mm, 60 mm, 63 mm, 65 mm)

2.50" Diameter Round Shank x 4" Long (50 mm, 60 mm, 63 mm, 65 mm)

11068 – Smallest Cold Rolling Tool



Capacity:

API 2 3/8" Reg, IF, FH, SH

API 2 7/8" Reg, IF, FH, SH

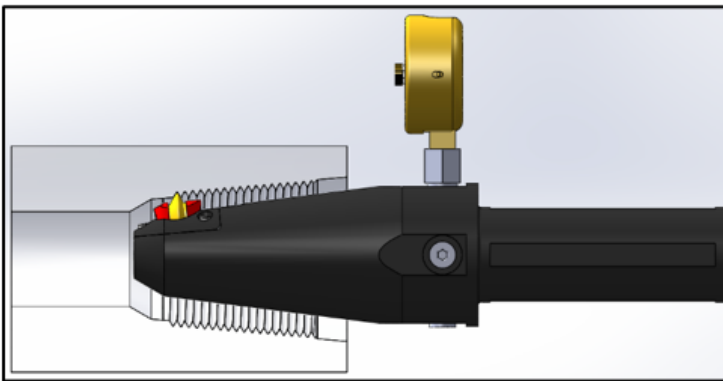
API NC23 thru NC26

Uses: "EPL[®]2 Style Cold Roll Wheels"

Example Item Number:

11068-250-SA

11069 – Standard Box Tool



Capacity:

NC31 thru NC38

API 3 1/2" thru 4 1/2" Reg

API 2 7/8" thru 3 1/2" IF

API 3 1/2" thru 4 1/2" FH

Uses: "EPL[®]" or "GP" Style Cold Roll Wheels"

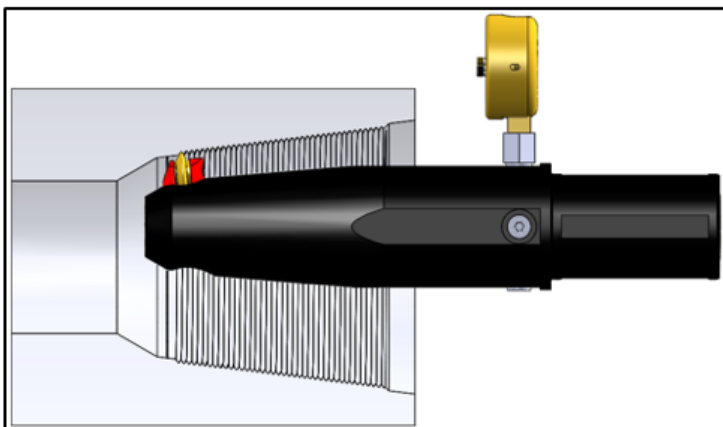
EPL[®] 1.0" OD x .375" wide

GP 1.0" OD x .375" wide

Example Item Number:

11069-250-SA | 11069-250-GP

11070 – Most Commonly Purchased



Capacity:

NC38 thru NC77

API 4 1/2" thru 8 5/8" Reg

API 3 1/2" thru 6 5/8" IF

API 5 1/2" thru 6 5/8" FH

Uses: "EPL[®]" or "GP" Style Cold Roll Wheels"

EPL[®] 1.0" OD x .375" wide

GP 1.0" OD x .375" wide

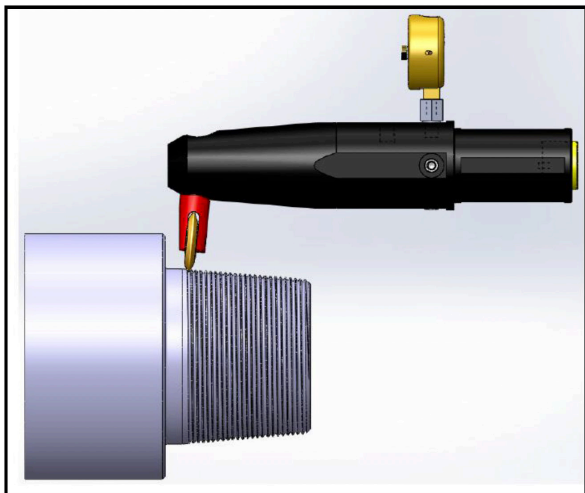
Example Item Number:

11070-250-SA | 11070-250-GP

PIN CONNECTIONS

► **External Threads (Pin Connection) Style Tools:** 11071 and 11072 Series

11071 – Round Shank



Capacity:

ALL Standard API Rotary
Shouldered Connections

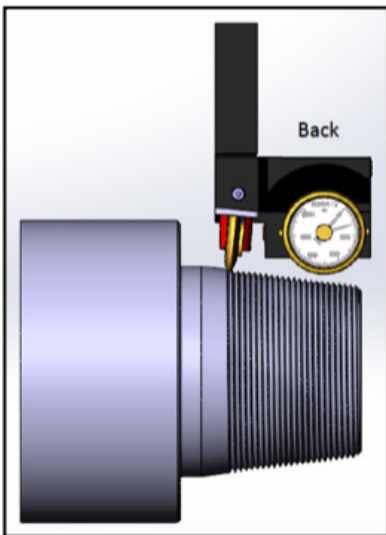
Uses:

"EPL®" or "GP" Style Cold Roll Wheels
EPL® 2.0" OD x .375" wide
GP 2.0" OD x .500" wide
Other sizes available

Example Item Number:

11071-250-SA | 11071-250-GP

11072 – CNC Turret Mount – Most Commonly Purchased



Capacity:

ALL Standard API Rotary
Shouldered Connections

Uses:

"EPL®" or "GP" Style
Cold Roll Wheels
EPL® 2.0" OD x .375" wide
GP 2.0" OD x .500" wide
Other sizes available

Example Item Number:

11072-A-125-SA | 11072-A-125-GP

**Square Shank Tools are
available for both CNC
Turret Mount and Front Tool
Post Mount applications**

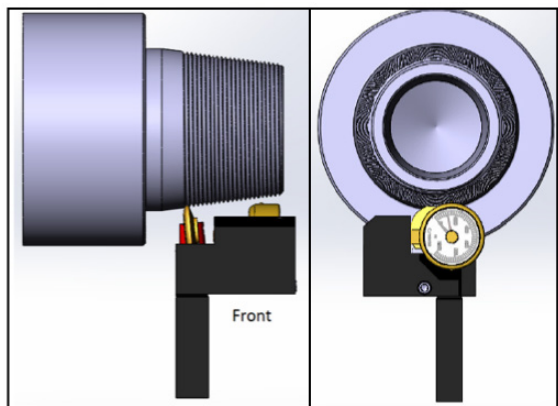
Standard Shank Size:

1.25" or 1.50" Square Shank x 4" Long

Optional Sizes:

1.00", or mm Square Shank x 4" Long

11072 – Front Tool Post Mount



Capacity:

ALL Standard API Rotary
Shouldered Connections

Uses:

"EPL®" or "GP" Style
Cold Roll Wheels
EPL® 2.0" OD x .375" wide
GP 2.0" OD x .500" wide
Other sizes available

Example Item Number:

11072-A-125-SA1 | 11072-A-125-GP1

Note: The pressure gage is setup for viewing from the back of the machine towards the chuck.

11073 SERIES

Cold Roll Burnishing Tools

The **11073 Series Burnishing Tools** were designed specifically to manufacture fatigue-prone components in the Oilfield and Heavy Transportation industries using a CNC lathe. With proper use, these tools will enhance the fatigue life of your highly-stressed, high cycle components without slowing down your process.

The three primary styles of the tool available are:
Straight | Right Hand 45° | Left Hand 45°

Each presents the roll at a different angle relative to the shank. Tool angle can be further rotated (via lathe turret) to meet specific profile requirement. The hydraulic tools are self-contained and do not require an external accumulator for use.



► **Zip Tool Applications for Oil Industry – Drill Collars**

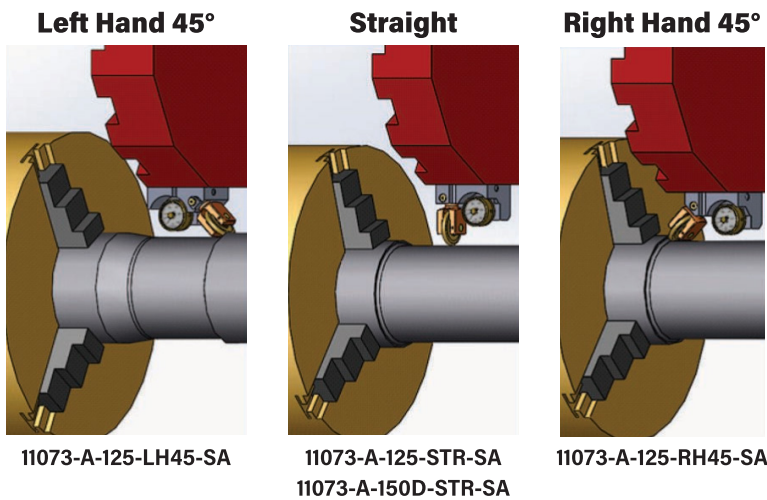
- SRG (Stress Relief Groove) on Rotary Shouldered Connections
- Elevator Groove
- Slip Groove
- Slip & Elevator Groove

► **Zip Tool Applications**

- Railroad
- Automotive
- Aerospace
- Wind Energy

► **11073 Series Burnishing Tools**

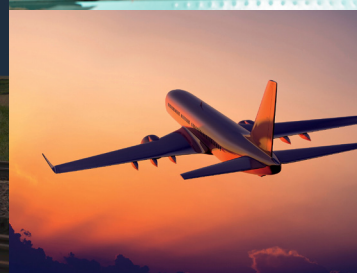
- 11073-A-125-LH45-SA
- 11073-A-125-RH45-SA
- 11073-A-125-STR-SA
- 11073-A-150D-STR-SA



11073-A-125 series has a 1.25" square shank
 11073-A-150D series has a 1.50" Ø shank
 All burnishing wheels used on tools are 3.00" OD x .615" wide x .626" ID
 Optional shank sizes are available upon request

Special features include:

- Self-contained: All you need is a socket wrench to pressurize the roller piston
- Tool comes with NIST traceable certified gage
- Pressure ratio is 1:1 — the tool requires no conversion between the values of hydraulic pressure and roller force
- Liquid-filled pressure gauge: Values can be observed after the cycle is complete
- Easy compatibility: CJWinter tooling for burnishing is compatible with any CNC or manual lathe



CJWinter offers a variety of Cold Roll Wheels for not just our own tooling but all other brands of tooling available worldwide.

Internal (Box) and External (Pin) Style Cold Roll Wheels Available

- EPL® (Error Proof Loading) cannot be installed incorrectly
- CR, GP, F50, F38
- Proprietary
- Premium (2 micro surface finish)

CJWinter's Cold Roll Wheels are available for the following Thread Connection Sizes

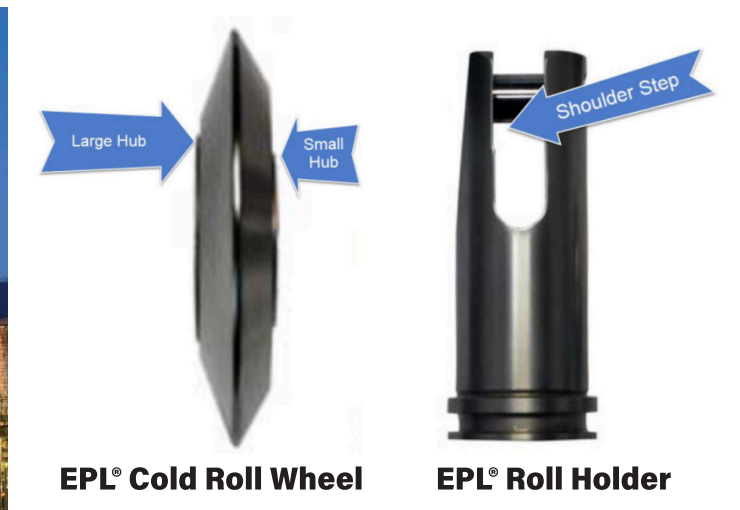
- API Regular (REG), Internal Flush (IF), Full Hole (FH)
- API NC 23 through NC 77
- Hughes (X, SH, DBL STR), (H-90)
- Proprietary

CJWinter's Cold Roll Wheels are Compliant with ANSI/API Spec 7.2:2008 and ISO 10424-2:2007, and in accordance with NS-1 sub-spec 143 and DS-1.

Why Use CJWinter's Cold Roll Wheels?

For over 60 years CJWinter has been an industry leader in supplying thread rolls and thread rolling tools globally. CJWinter has used that experience to design cold rolling tools and wheels specifically for Rotary Shouldered Connections in the Petroleum Industry. Our tools and wheels are used by many of the major Oil and Gas companies worldwide. See who some of our customers are at www.coldrootrolling.com.

EPL® (Error Proof Loading®) Cold Rolling Wheels



EPL® Cold Roll Wheel

EPL® Roll Holder

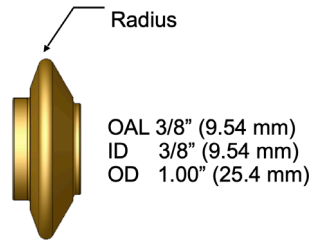
EPL® Cold Roll Wheels & Item Numbers

The rolls in this tool cannot be loaded incorrectly. Rotary Tapered Connections use threads that are tapered. The rolls and roll pins on a Cold Rolling tool are tipped slightly to minimize side forces on the rolls and tool components as they travel up that taper. Because the form on a standard API roll is not symmetric, assembly orientation is critical.

The EPL® system uses an asymmetric hub system where the hub on one side of the roll is larger than the other. The asymmetric hubs work in conjunction with a step in the roll holder to create Step/Hub interference if the user attempts to load the roll backwards. This eliminates this all too common mistake that can ruin a Rotary Shouldered Connection, and require a connection to be re-cut, or discarded. When using OEM supplied rolls with the EPL® system (Error Proof Loading® - Patents Pending), rolls CANNOT be loaded backwards. Unlike other tools, you do not rely on an imprecise and often over-looked, visual verification of the 5° skew on the thread form.

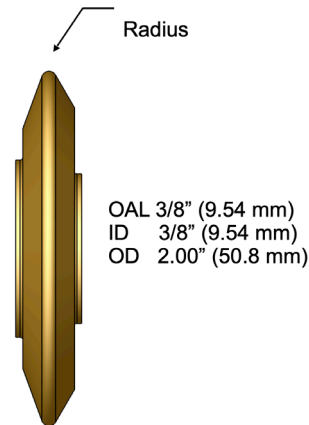
EPL® Wheels for Box and Pin Connections

Box Connections



Item #	Radius
EPL-038-B01	R.042
EPL-038-B02	R.038
EPL-040-B01	R.022
EPL-050-B02	R.027

Pin Connections



Item #	Radius
EPL-038-P01	R.042
EPL-038-P02	R.038
EPL-040-P01	R.022
EPL-050-P01	R.027

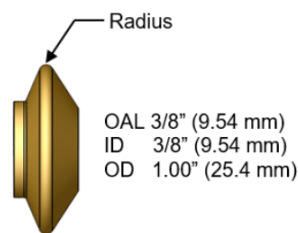
GP & CR Style Cold Roll Wheels & Item Numbers

Rotary Tapered Connections use threads that are tapered. The rolls and roll pins on a Cold Rolling tool are tipped slightly to minimize side forces on the rolls and tool components as they travel up that taper. Because the form on a standard API roll is not symmetric, assembly orientation is critical.

CJWinter manufactures a variety of Pin and Box cold roll wheels for both standard and proprietary connections. When placing an order, we need to know the connection you are cold rolling, and CJWinter will supply you with the correct wheel. If you happen to know the CR number, as an example CR100, that will be all we need to fill your order.

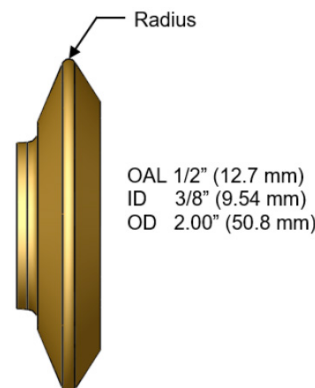
GP Wheels for Box and Pin Connections

Box Connections



Item #	Radius
F38.042X2	R.042
F38.038X2	R.038
F38.022X2	R.022
F38.020X2	R.020
F38.027X2	R.027
F38.025X2	R.025

Pin Connections



Item #	Radius
F50.042X2	R.042
F50.038X2	R.038
F50.022X2	R.022
F50.020X2	R.020
F50.027X2	R.027
F50.025X2	R.025

