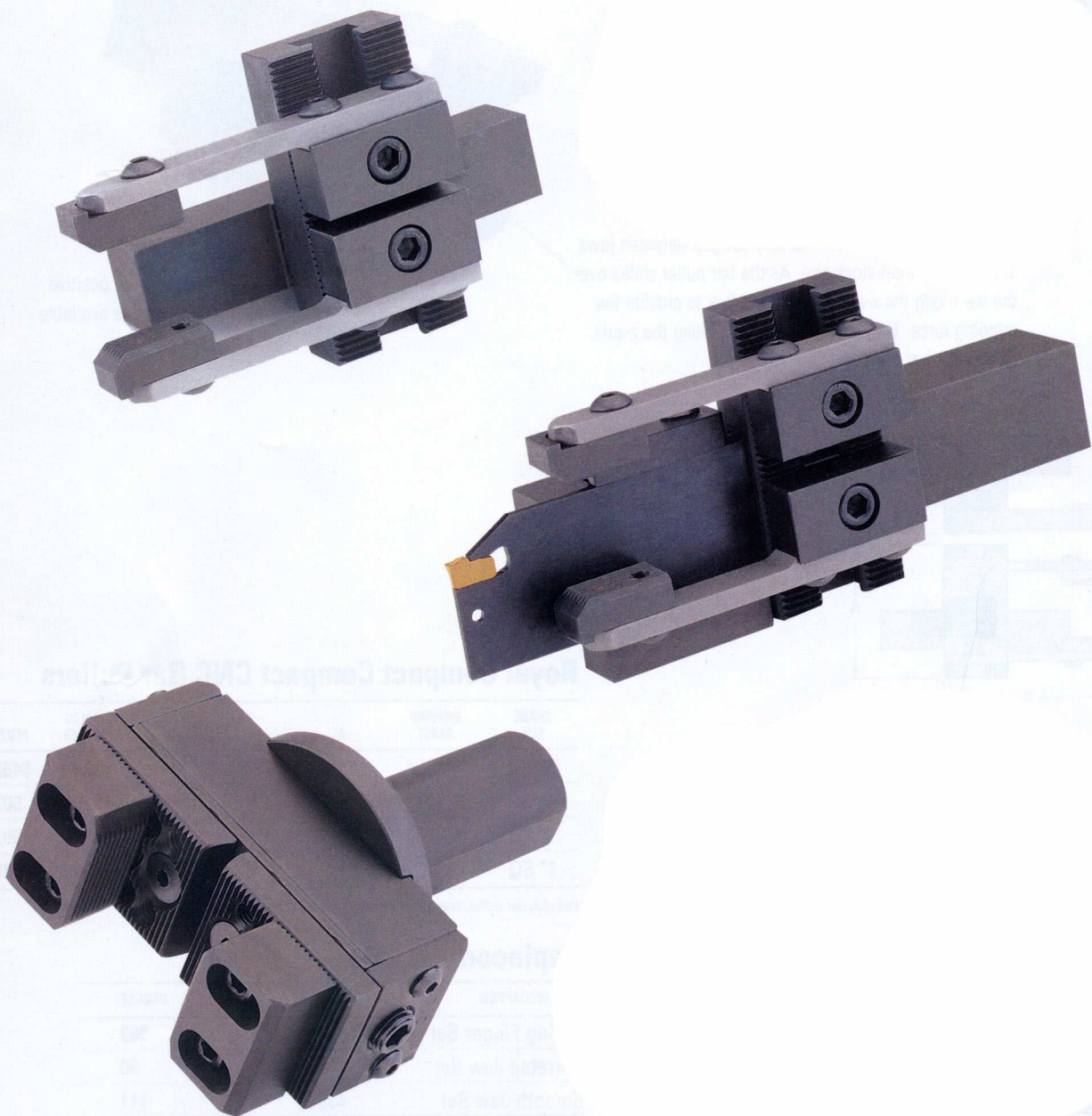


ROYAL PRODUCTS

CNC Bar Pullers



• Compact • Heavy-Duty • Combo • Coolant-Actuated

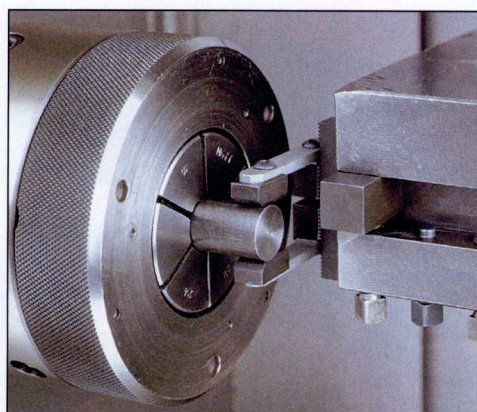
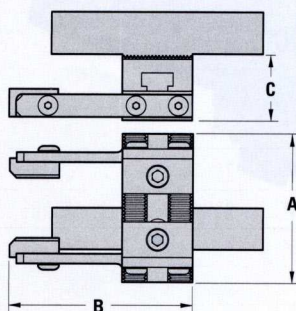


Compact CNC Bar Pullers

Automate Any CNC Lathe

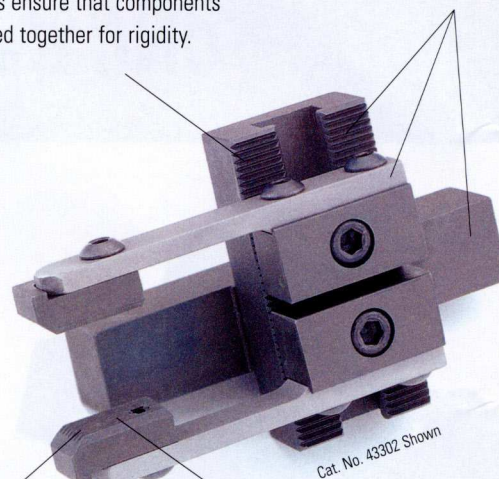
- Great for use with small CNC lathes — compact design **minimizes tool interference.**
- Very easy to setup and use.
- Unit can pull round, square, and hex stock.
- Flexible heat-treated steel fingers provide strong gripping force.
- Each compact bar puller includes one set of serrated jaws and one blank spindle bushing.
- Additional sizes and shank styles are available. Please contact Royal for information.

Unit is very easy to use — simply set gap between jaws 1/8" smaller than stock size. As the bar puller slides over the bar along the x-axis, the fingers flex to provide the gripping force. The turret then retracts along the z-axis, pulling the bar out the desired position.



Serrations ensure that components stay locked together for rigidity.

All parts subject to wear are hardened for strength and durability.



Cat. No. 43302 Shown

Serrated jaws provide positive grip. Smooth jaws are available for softer materials.

Royal Compact Compact CNC Bar Pullers

SHANK SIZE	GRIPPING RANGE	A	B	C	CATALOG NUMBER
1/2" SQ	1/8" - 1 5/8"	2 1/8"	3 1/4"	1 3/16"	43300
3/4" SQ	1/8" - 2 1/4"	2 5/8"	3 1/4"	1 3/16"	43302
1" SQ	1/8" - 2 1/4"	2 5/8"	3 1/4"	1 3/16"	43304
1" SQ	1/8" - 3"	3 5/8"	3 1/4"	1 3/16"	43306

*Includes bar puller, one set of standard jaws and one blank spindle bushing.

Replacement Parts

DESCRIPTION	CATALOG NO.
Spring Finger Set	43505
Serrated Jaw Set	43500
Smooth Jaw Set	43502

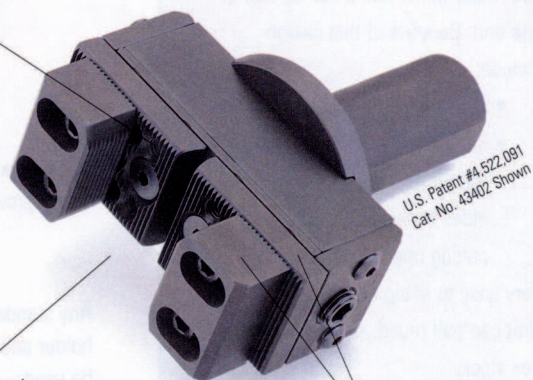


Heavy-Duty CNC Bar Pullers

Automate Any CNC Lathe

- Rugged, heavy-duty design withstands the toughest manufacturing environments.
- Very easy to setup and use.
- Unit can pull round, square, and hex stock.
- Large internal die springs provide **very strong gripping force**.
- Each bar puller includes one set of standard jaws and one blank spindle bushing. Extra capacity jaws sold separately.
- Additional sizes and shank styles available. Please contact Royal for information.

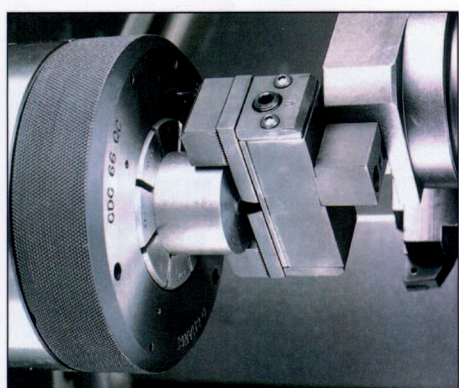
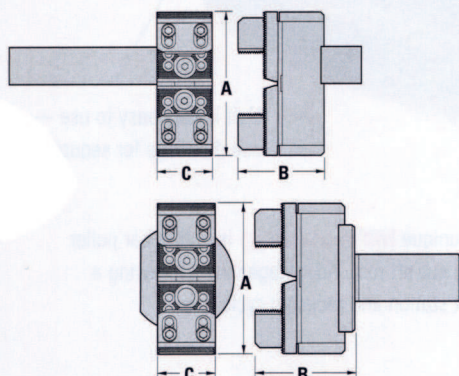
Serrations ensure that components stay locked together for rigidity.



U.S. Patent #4,522,091
Cat. No. 43402 Shown

Unit is very easy to use — simply set gap between jaws $1/8"$ smaller than stock size. As the bar puller slides over the bar along the x-axis, the jaws compress heavy-duty internal die springs to provide high gripping force. The turret then retracts along the z-axis, pulling the bar out the desired position.

All parts subject to wear are hardened for strength and durability.



Replacement Parts

DESCRIPTION	CATALOG NO.
Standard Jaw Set	43510
Extra-Capacity Jaw Set	43512

Royal Heavy Duty CNC Bar Pullers — Square Shank

SHANK SIZE	GRIPPING RANGE		A	B	C	CAT NO. RIGHT HAND MODEL*
	STANDARD JAWS	EXTRA-CAPACITY JAWS				
$3/4"$ SQ	$1/8" - 2 1/4"$	$1 7/8" - 3 3/4"$	$3 7/8"$	$2 9/16"$	$1 1/2"$	43360
1" SQ	$1/8" - 2 1/4"$	$1 7/8" - 3 3/4"$	$3 7/8"$	$2 9/16"$	$1 1/2"$	43366
1" SQ	$1/8" - 3 1/2"$	$1 7/8" - 5 3/8"$	$4 3/4"$	$2 9/16"$	$1 1/2"$	43370
1" SQ	$1/8" - 3 5/8"$	$1 7/8" - 5 1/2"$	5"	$2 3/4"$	$1 3/4"$	43372
1" SQ	$1/8" - 4 7/8"$	$1 7/8" - 6 1/2"$	$6 3/4"$	$2 3/4"$	$1 3/4"$	43376

* Most machines require a right-hand unit. If you need a left-hand unit please contact one of our sales representatives at 1-800-645-4174.

Royal Heavy Duty CNC Bar Pullers — Round Shank

SHANK SIZE	GRIPPING RANGE		A	B	C	CATALOG NUMBER
	STANDARD JAWS	EXTRA-CAPACITY JAWS				
1" Dia.	$1/8" - 2 1/4"$	$1 7/8" - 3 3/4"$	$3 7/8"$	$2 15/16"$	$1 1/2"$	43400
$1 1/4"$ Dia.	$1/8" - 2 1/4"$	$1 7/8" - 3 3/4"$	$3 7/8"$	$2 15/16"$	$1 1/2"$	43402
$1 1/4"$ Dia.	$1/8" - 3 1/2"$	$1 7/8" - 5 3/8"$	$5 3/8"$	$2 15/16"$	$1 1/2"$	43404
$1 1/4"$ Dia.	$1/8" - 4 7/8"$	$1 7/8" - 6 1/2"$	$6 3/4"$	$3 1/8"$	$1 3/4"$	43408



Combo CNC Bar Pullers

Automate Any CNC Lathe

• The Royal Combo CNC Bar Puller is both a bar puller and a cut-off tool in one unit. Benefits of this design include:

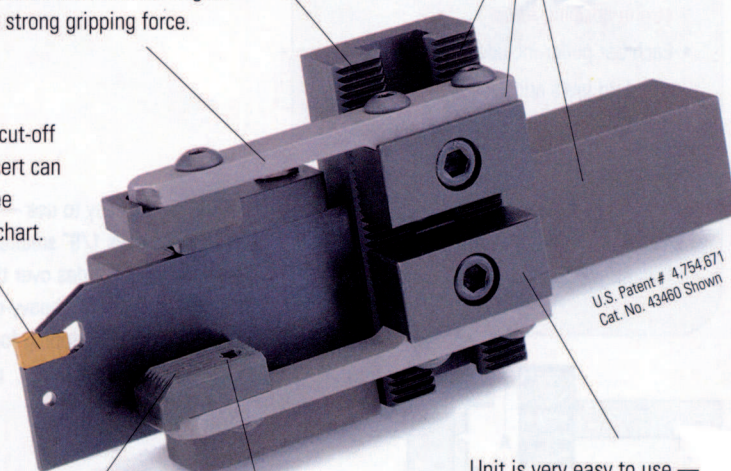
- Saving a turret station.
- **Reduced cycle time** because the turret does not need to index between the cut-off and pulling operations.
- Very easy to setup and use.
- Unit can pull round, square, and hex stock.
- Compact design enables it to be used on most CNC lathes.
- Each combo bar puller includes one set of standard jaws and one blank spindle bushing. Order cut-off insert and holder separately.

Serrations ensure that components stay locked together for rigidity.

All parts subject to wear are hardened for strength and durability.

Flexible heat-treated steel fingers provide strong gripping force.

Any standard cut-off holder and insert can be used — see compatibility chart.



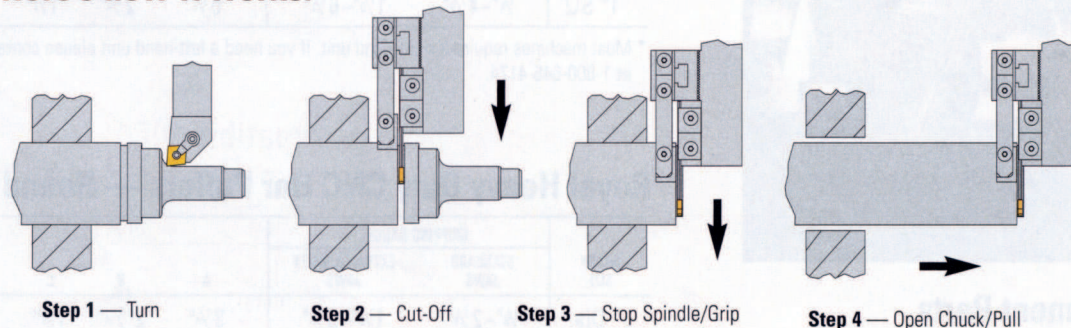
U.S. Patent # 4,754,671
Cat. No. 43460 Shown

Unit is very easy to use — see drawings for sequence

Serrated jaws provide positive grip. Smooth jaws are available for softer materials.

This unique **two-in-one design** is both a bar puller and a cut-off tool. Advantages include saving a turret station and reducing cycle time.

Here's how it works:

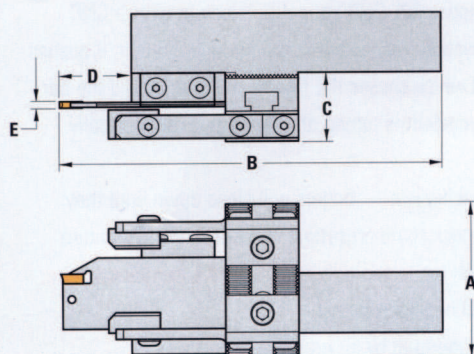


Check out the video at www.royalprod.com



Combo CNC Bar Pullers

Automate Any CNC Lathe



Please note dimension D (maximum depth of cut). If a greater depth of cut is required, we suggest using a separate cut-off tool and only using the bar puller for the pulling operation.

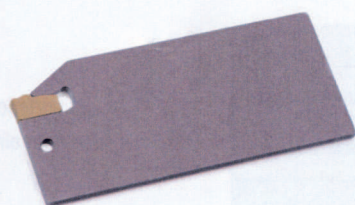
Royal Combo CNC Bar Pullers

SHANK SIZE	GRIPPING RANGE	A	B	C	MAX DEPTH OF CUT D ¹	E	CAT. NO. RIGHT HAND ² MODEL
1/2" SQ	1/8" - 1 5/8"	2 1/8"	4 11/16"	1 3/16"	7/8"	0.125"	43452
3/4" SQ	1/8" - 2 1/4"	2 5/8"	4 3/4"	1 3/16"	7/8"	0.125"	43456
1" SQ	1/8" - 2 1/4"	2 5/8"	6 3/8"	1 3/16"	1 1/4"	0.125"	43460
1" SQ	1/8" - 3"	3 5/8"	6 3/8"	1 3/16"	1 1/4"	0.125"	43464
1" SQ	1/8" - 4"	3 5/8"	6 3/8"	1 3/16"	1 1/4"	0.125"	43468

¹Maximum depth of cut.

²Most machines require a right-hand unit. If you need a left hand unit please contact one of our engineers at 1-800-645-4174.

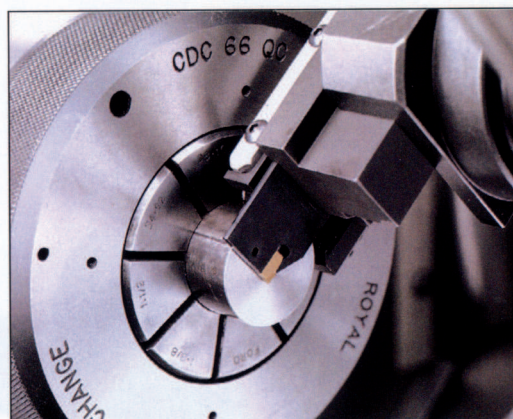
³Includes bar puller, one set of standard jaws and one blank spindle bushing. Order insert holder and insert separately.



Holder w/Insert

BAR PULLER SHANK SIZE	CATALOG NO.
1/2" or 3/4"	43520
1"	43522

*Includes one modified holder, one neutral cut-off insert, and one installation/removal tool. Royal supplies Kennametal insert GSP125N.



Cycle times are reduced because the turret does not need to index between cut-off and pulling operations.

Cat. No. 43460 shown.

Replacement Parts — Combo Model

DESCRIPTION	CATALOG NO.
Spring Finger Set	43505
Serrated Jaw Set	43500
Smooth Jaw Set	43502

- Cut-off holder and insert can be purchased separately from Royal Products or through your tooling supplier.
- Bar puller accepts many popular brands of holders and inserts (see chart).
- Cut-off holders not purchased from Royal must be slightly modified before being used with bar puller.

Compatibility Chart

BRAND	1/2" OR 3/4" SHANK	1" SHANK
Carbology	150.10-20-3	150.10-25-3
Iscar	SGFH26-3	SGFH32-3
Kennametal	DSB4-340-105	DSB5-340-110
Manchester	340-105	340-110
Sandvik	151.2-21-30	151.2-25-30
Valenite	VH101 26 3	VH101 32 3