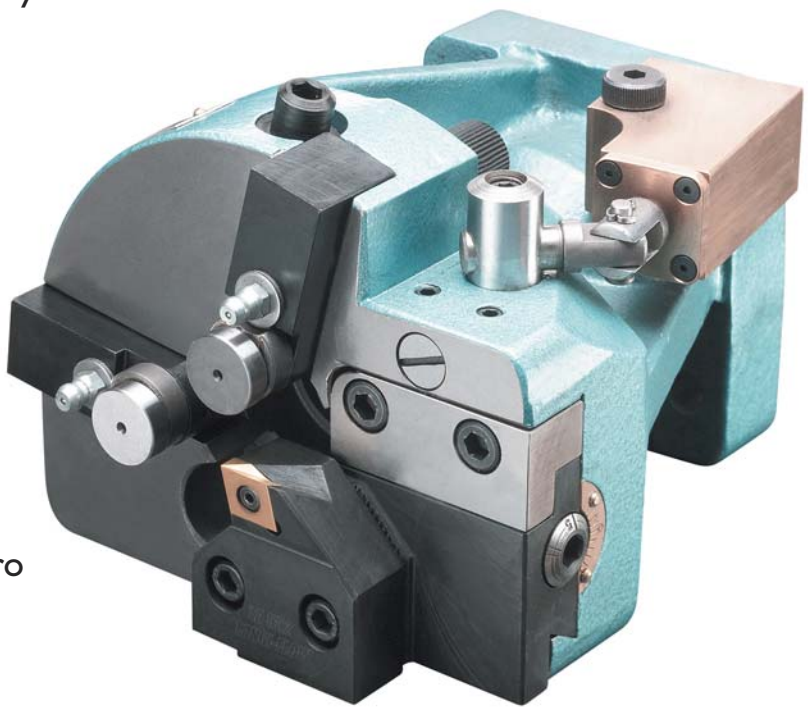
Rollerbox

- Our Rollerbox tooling has a capacity from .0625 to 2.0 over 5 different style heads.
- All our Rollerbox tools feature an auto-retraction which leaves the machined part burnished by the supporting rollers.
- Integral tipholders can hold a variety of cutting geometry's for virtually any material making the tools extremely versatile. The micro adjustment of the cutting insert makes it easy to setup and 100% repeatable.
- We carry in stock a wide range of metric and inch shanks.
- An ideal tool for pre-turning your blank diameter prior to thread rolling to a 2 micron finish.
- Turns long parts down quickly and accurately in one pass.



227 Airport Dr. • Joliet, IL 60431, USA • Toll Free: 888-289-7787 • Direct: 815-725-3310 • Fax: 815-725-3391 • sales@rsvptooling.com • www.rsvptooling.com

Most Popular Rollerbox Head Specifications

Our Rollerbox turning system is the most effective means of producing accurate, true and parallel diameters with maximum repeatability.

AR/00M Rollerbox:

The smallest Rollerbox in the range, but with all the functions as the bigger heads; auto-retraction, integral tipholder capable of holding indexable inserts with a variety cutting geometrics, micro adjustment of size and a range of metric and imperial shank sizes.

Suitable for a variety of single and multi-spindle autos and small C.N.C lathes.

Capacity: Metric: 1.5mm-10mm
Imperial: 1/16" - 3/8"

Shank Diameters: 16 mm, 20mm, 25mm and 5/8", 3/4" and 1"

AR/T0 Rollerbox:

Slightly larger Rollerbox with more capacity, but offering the same facilities of auto-retraction integral tipholder taking triangular or rhomboidal inserts with a variety of cutting geometrics, micro-adjustment of size and a range of metric and imperial shank sizes.

Suitable of small diameter turning CNC lathes. Mainly used a single and multi-spindle autos and CNC.

Capacity: Metric: 3mm-14.5mm
Imperial: 1/8" – 9/16"

Shank Diameters: 16mm, 20mm, 25mm and 5/8", 3/4", 1"

AR/T9 Rollerbox:

The most popular and versatile mid-range Rollerbox offering integral tipholders to suit both the triangular or rhomboidal shaped indexable inserts, along with auto-retraction, micro adjustment of size and a range of metric and imperial shank sizes.

Extensively used on a variety of small automated and conventional capstan lathes and small CNC machines also single and multi-spindle autos including:

Capacity: Metric: 4mm – 19mm
Imperial: 13/64" – 15/16"

Shank Diameters: 20.25.32.40.50 mm and 3/4", 1", 1-1/4", 1-1/2", 1-3/4", 2", and 2-1/8"

Other Rollerbox styles and sizes available

Various styles of inserts are available to suit different cutting conditions including a range of grades. Check our web page for set-up and trouble shooting guides.

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Rollerbox Trouble Shooting Guide

Problem	Possible Cures
Insert "Rubs Away" Low quantity of components	Check grade for material spindle speed to high — feed rate to low.
Insert Breaks	Check grade for material spindle speed to low — feed rate to high.
Insert Craters	Check grade for material combination of either spindle speed to high or feed rate to low.
Chipstream style will not produce coil turning	Spindle speed to high — feed rate to low
Tool withdraw marks with auto retract set correctly	Insert set below centerline
Rollerbox will not repeat turned diameters	Side roller incorrectly set (side roller controls side more than top roller) Insufficient pressure on roller. Check heel of retraction arm is seated in cutting position. Support screw "J" has not been adjusted (heel of retraction arm and support screw should be adjusted correctly) particles of swarf trapped under retraction arm heel (regularly strip and clean by removing hinge pin when turning nonferrous material).
Lump or false cut on start of turned diameter	Bar stock was not pre-chamfered (30-45 degrees) down to minimum finished turned diameter prior to roller boxing to provide a lead on for the turn — this operation is usually preformed at the part-off stage of the previous component or before the roller box operation THIS PRE-OP IS MOST CRITICAL.
Chatter marks at end of cut or under head of turn	Too long a "Dwell" at end of cut.

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Rollerbox Auto-Retract Setup Guide

1. Auto Retract Rollerbox Only

Before setting - tighten by hand knurled retraction adjusting screw so that there is no movement of the retraction arm. After setting to size required release knurled retraction adjusting screw to give no more than .010" movement of tool block and lock.

Do not adjust retraction arm support set screw located at rear of retraction arm.

Do not allow auto-retract boxes to dwell at the end of the cut when used on hand operated capstans. Automatic traverse must be used for full length of turn until cutting tool has retracted.

2. The integral tip holder allows the indexable throwaway tip to be accurately set on the headstock spindle center line.

3. When the setting datum edges of both tip holder and toolblock are flush, the cutting edge of the tip is on box tool center line.

4. Certify the true relationship of the turret bore center line to head-stock spindle center line on machine or machines to be used by measuring from machine bed over a pair of test bars.

5. To establish tip cutting edge on headstock spindle center line, simply separate datum edges in the appropriate direction by the amount calculated above using a depth micrometer (usually tip holder moves in an upwards direction).

6. The tip can be indexed without having to disturb the carrier assembly when cutting minimum diameters.

7. The cutting edge of the tip is always set at a pre-determined distance in front of the rollers and it is necessary only to adjust the roller carriers and toolblock to cut the required diameter.

8. These tools are intended to remove the maximum amount of metal quickly. Use speeds below with .004" to .012" feed.

Tangiloy Grade	Alloy Steel	Austinetic Steel	Cast STL Free Cut St.	Mal Iron Cast	Bronze Cast Brass
BT30	180-400	130-220	240-480		
BT60	120-150	90-130	130-270		
BT2		90-180		165-220	350-500

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