

THREAD ROLLING ATTACHMENTS

cat 130319-ING

Attachments for tangential rolling

For use with piece in rotation

This type of attachment is mainly used on single and multi-spindle lathes and CNC machines.

Particularly suitable for:

- Short threads cylindrical and conical
- Threads behind collar
- Threads behind and in front of collar
- Threads with short run-out



Reed attachments represent the fastest and most economic way to produce accurate thread rolling. It's possible to keep very tight tolerances even when producing very large quantities, the threads are much more resistant and downtime for the replacement of tools is reduced to the minimum while allowing a perfect repeatability.

The constancy of quality in the production substantially reduces the need of checks with subsequent cost savings. The possibility to thread roll against and behind the collar eliminates the operation of suspending otherwise required.

The tangential **Reed** attachments are designed to be applied to cross slides of tool machines, lathes and CNC. A wide range of adapters made specifically for many models of tool machines are available.

Reed proposes tangential attachments in 6 sizes and have been designed so that each model can realize a wide range of diameters and many types of threads.

The adapters can be rigid or adjustable and can be applied to cross slides of more than 100 models of CNC machines or single or multi-spindle lathes .

A large assortment of **Reed** rollers are available on stock for cylindrical and conical thread rolling. Rollers can also be supplied for tapered conical sealing threads, threads with trapezoidal profile, for ends without end or special threads. Rolls can also be supplied to achieve oil grooves, knurling, serrations or smoothing.

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Advance Compensator.

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Roll "wind-up." caused by one roll rotating counter to the direction of attachment advance as the rolls move into the work. is automatically compensated for, by an advance compensating device within the head without placing any undue strain on the gear train. The Advance Compensator insures perfect synchronization of the thread rolls during rolling operation.

Alignment Compesator.

Accurate positioning of the rolls in the head, accomplished by four independently adjustable arms, and a vertical floating arrangement in the adapter, provides automatic parallel alignment of the rolls with the center line of the work throughout the rolling cycle. The Alignment Compesator also assures smooth contacting and withdrawal of the rolls to and from the work.



Anti-friction Bearings.



Anti-friction thrust bearings on both sides of the thread rolls minimizes unnecessary wear on the rolls from any side movement. Not only is this important when rolling straight threads, but it also accounts for exceptional performance when taper Pipe threading.

Simple Precision Matching.

Precise matching of the rolls is important in the operation of a two-roll geared type thread rolling attachment. To obtain accurate threads, it is necessary that the rolls track properly on the work blank. The simple micrometer adjusting device provides a positive means of positioning both rolls for proper tracking.



Dovetail Clamping Arrangement.



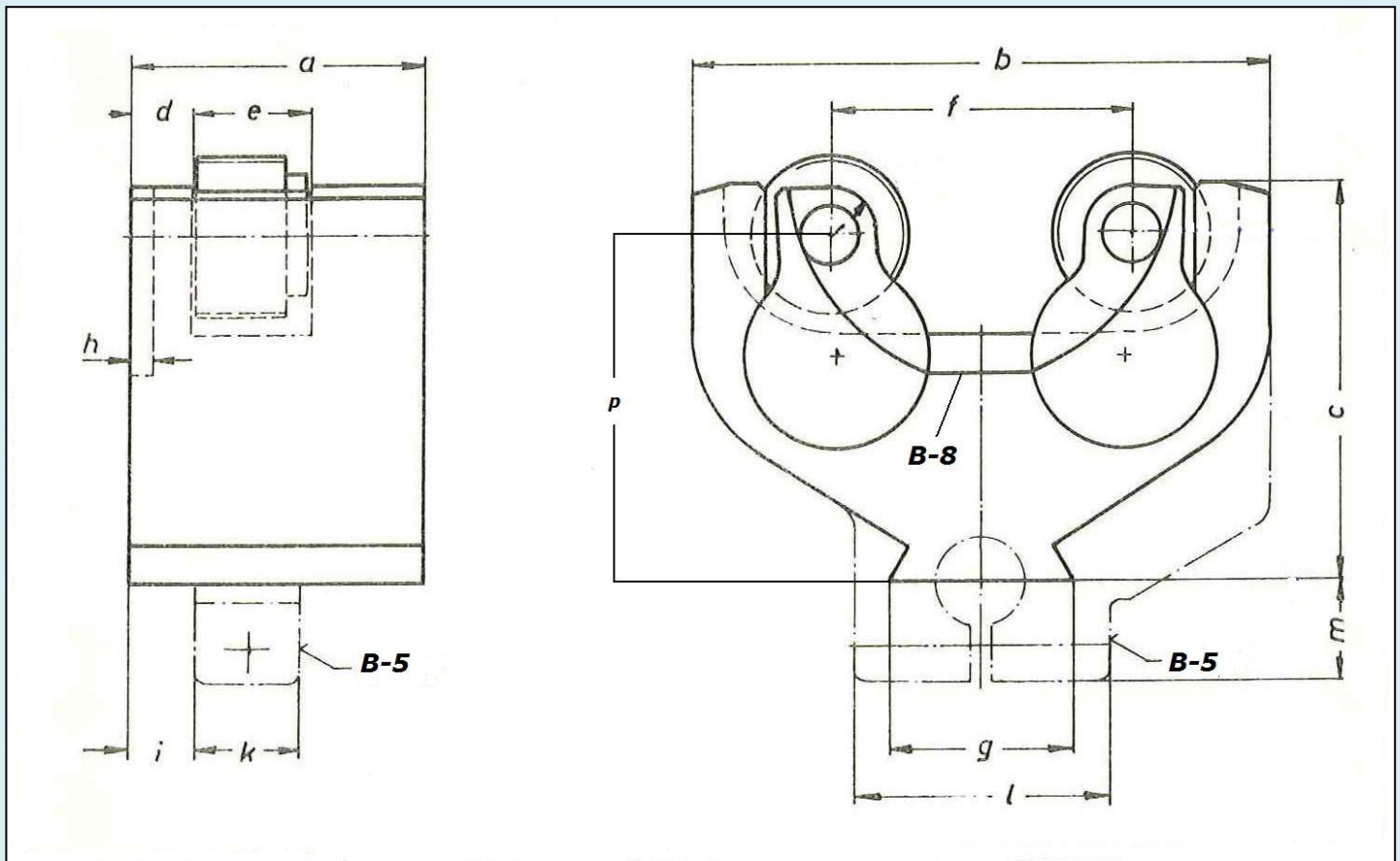
The dovetail design of the connection between the head and the adapter makes it possible to easily remove the head from the machine for changing or adjusting rolls, or for convenience in making adjustments, without removing the adapter from the cross slide. This feature combined with an adjustable and positive locating stop, assures that the head will always be reassembled in the adapter in the same relative position to the work.

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Drawing



Dimensions mm

Type	a	b	c	d	e	f	g	h	i	k	l	m	p
B-5	41,5	66,5	52	6,5	14,8	23,1÷28,6	-	-	9	14	35	21,5	-
B-8	36,6	76,2	54	6,5	14,8	25,9÷36,8	25,4	1,5	-	-	-	-	47,5
B-10	50	92	73	10	19,9	32,6÷47	38,1	-	-	-	-	-	67
B-13	66	114	90	13	26,4	39,6÷60,3	38,1	-	-	-	-	-	79,5
B-18	79	156	108	16	32,7	48,5÷82,5	50,8	-	-	-	-	-	95,5
B-36	90	200	130	21	32,7	67,3÷112	63,5	-	-	-	-	-	115

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TABLE FOR THREAD ROLLING ATTACHMENTS

Type	Metric Norm Thread DIN 13		Whitworth		Whitworth DIN 11		Tread length Max-mm
	Std	Fine	DIN ISO 228 G	DIN 2999 R K1:16	BS	BSF	
B 5	1,6 ÷ 8	2 ÷ 10			1/8 ÷ 1/4	3/16 ÷ 5/16	14,0
B 8	1,6 ÷ 12	2 ÷ 13	1/8 ÷ 1/4	1/16 ÷ 1/8	1/8 ÷ 3/8	3/16 ÷ 1/2	14,0
B 10	2 ÷ 16	3 ÷ 16	1/8 ÷ 3/8	1/16 ÷ 3/8	3/16 ÷ 11/16	3/16 ÷ 11/16	19,0
B 13	3 ÷ 22	3 ÷ 30	1/8 ÷ 1/2	1/16 ÷ 1/2	1/8 ÷ 7/8	7/32 ÷ 7/8	25,5
B 18	6 ÷ 27	6 ÷ 42	1/8 ÷ 1 1/4	1/16 ÷ 1 1/4	1/8 ÷ 1	3/16 ÷ 1 1/8	31,8
B 36	8 ÷ 33	8 ÷ 56	1/8 ÷ 1 3/4	1/16 ÷ 1 1/2	3/8 ÷ 1	1/4 ÷ 1 3/8	31,8

Type	UNC	UN	UNF	UNEF	NPT	Tread length Max-mm
B 5						14,0
B 8	3-48 ÷ 5/16-18	5/16-20 ÷ 1 1/2-32	2-64 ÷ 1/2-20	12-32 ÷ 3/4-24	1/16 ÷ 1/8	14,0
B 10	5-40 ÷ 9/16-12	5/16-20 ÷ 11/16-12	5-44 ÷ 5/8-18	12-32 ÷ 15/16-20	1/16 ÷ 3/8	19,0
B 13	10-24 ÷ 3/4-10	5/16-20 ÷ 1 1/4-16	8-36 ÷ 3/4-16	12-32 ÷ 1 3/16-18	1/16 ÷ 1/2	25,5
B 18	5/16-18 ÷ 1-8	5/16-20 ÷ 1 3/4-8	1/4-28 ÷ 1 1/2-12	1/4-32 ÷ 1 5/8-18	1/16 ÷ 1 1/4	31,8
B 36	3/8-16 ÷ 1-8	5/16-28 ÷ 2 1/4-8	3/8-24 ÷ 1 1/2-12	5/16-32 ÷ 1 11/16-18	1/16 ÷ 1 1/2	31,8

If your application does not fall within the standard diameter and thread length capacity consult the factory for additional information.

Max. Feed force end Weight

Type	Max. feed Force N	Weight kg	
		Head with rolls	Adaptori
B 5	890		
B 8	1.600	1,0	Ca. 1,5
B 10	2.490	2,1	Ca. 1,7
B 13	4.890	3,8	Ca. 2,0
B 18	6.230	7,0	Ca. 3,0
B 36	9.790	11,5	Ca. 4,5

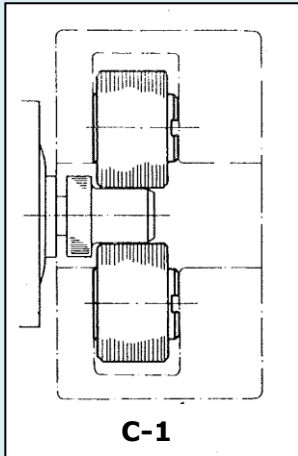
Max. feed force listed in the chart refers to the maximum pitch possible for each attachment size.

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TYPICAL APPLICATIONS OF THREAD ROLLS



Type C-1 Roll

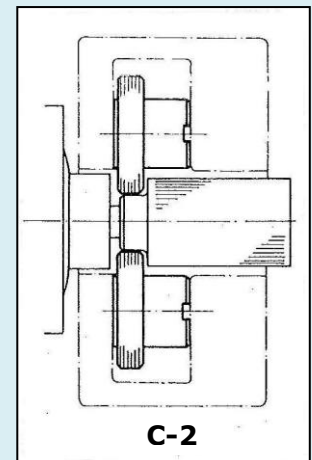
These rolls with standard hubs, are generally used for rolling on the outboard end of the work as shown, or where the standard working face of the roll is satisfactory for the length of thread to be rolled, and the position of the attachment relative to the collet face is unimportant.

All other types of rolls are modifications of this design.

Type C-2 Roll

These rolls, with a narrow working face, are generally used for rolling the thread at the cut-off end behind a shoulder.

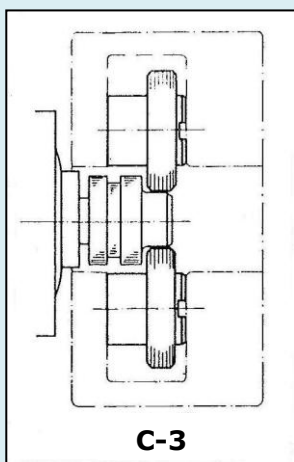
With the working face at the plain hub end, it permits positioning the cut-off end of work close to the collet face.



Type C-3 Roll

These rolls are used when the threaded section on the work is away from the cut-off end and where it is desirable to position the attachment on the cross slide close to the spindle carriage.

The roll design includes a narrow working face, retaining the standard drive hub for ease of assembly in the head.

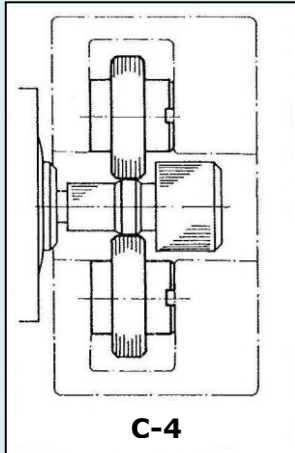


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TYPICAL APPLICATIONS OF THREAD ROLLS



Type C-4 Roll

These rolls, with a narrow working face, are normally centered, but can be positioned off center. They are used when attachment positioning on the cross slide is important as well as the position of the cut-off end of the working relation to the collet face.

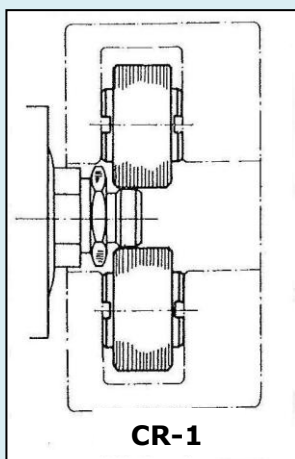
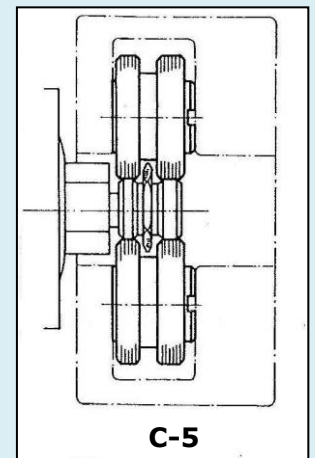
On the application shown, the narrow working face on the roll is required to prevent contact of the roll with the finished diameter between the threaded section on the roll and the cut-off end.

Type C-5 Roll

Two sections with threads of the same diameter and pitch can be rolled with rolls of this design.

The rolls are relieved to provide clearance for the shoulders on the work.

The combined length of the threaded and center sections is within the standard total working face of a roll with a standard drive hub.



Type CR-1 Roll

When thread length permits, reversible rolls of this design can be used and provide for two settings of the roll.

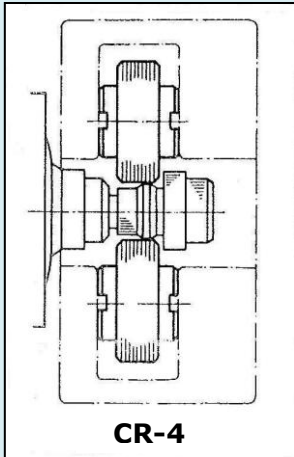
The design includes two standard drive hubs for ease of assembly in the head. The rolls can be reversed without repositioning the attachment or other cross-slide tooling.

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TYPICAL APPLICATIONS OF THREAD ROLLS



Type CR-4 Roll

These reversible rolls are designed with a centralized narrow working face providing two settings of the roll on work having a short length of thread.

Limitations of space between a shoulder and the cut-off tool and exact positioning of the work from the collet face, require rolls of this design.

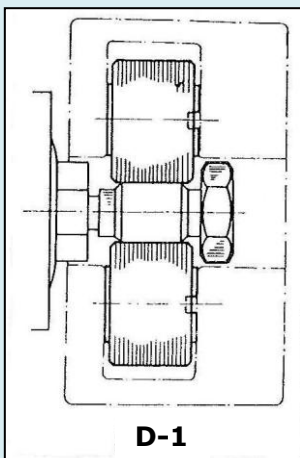
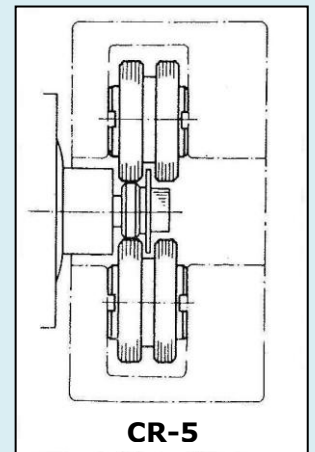
The rolls can be reversed without repositioning the attachment or other cross-slide tooling.

Type CR-5 Roll

Reversible rolls of this design are used to provide two settings of the roll on work having a short thread length adjacent to a shoulder.

The combined lengths of the threaded and center sections must be within the total working face of a roll with two standard drive hubs.

The rolls can be reversed without repositioning the attachment or other cross-slide tooling.



Type D-1 Roll

When the working face of rolls with standard hubs is not sufficient for the required thread length on the work, additional thread length capacity can be provided with rolls of this design.

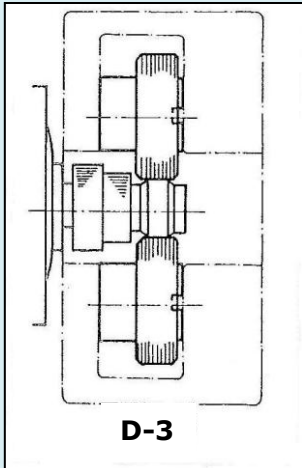
It includes an extended working face, two standard plain hubs and a recessed drive slot.

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Type D-3 Roll

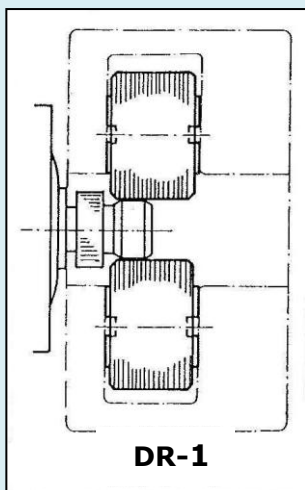
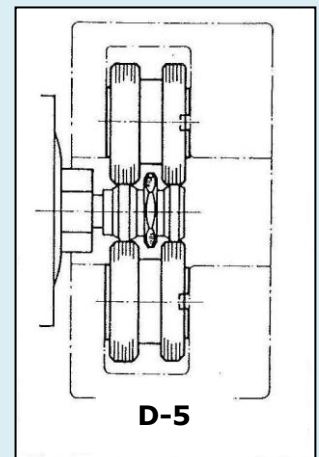
This design of roll is a further modification of a type C-3 roll and is used when cross-slide design makes it necessary for the attachment to be positioned as close to the spindle carriage as possible.

The positioning of the attachment, close to the spindle carriage, is also desirable in some cases to eliminate possible interference of the end working tools, tool holder or tool slide with the attachment.

Type D-5 Roll

These rolls are a further modification of a type C-5 roll, providing additional thread length capacity.

This is necessary when the combined lengths of the threaded and center sections on the work exceed the total working face available on rolls having a standard drive hub.



Type DR-1 Roll

These reversible rolls designed with an extended working face and recessed drive slots at both ends for two-roll settings.

They are a modification of a type CR-1 roll, providing additional thread length capacity.

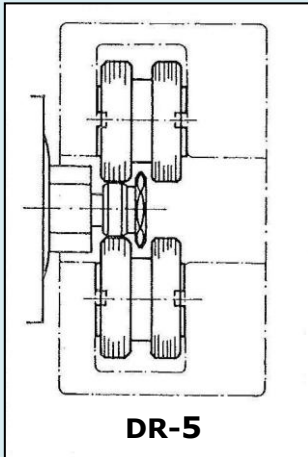
The rolls can be reversed without repositioning the attachment or other cross-slide tooling.

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TYPICAL APPLICATIONS OF THREAD ROLLS



Type DR-5 Roll

This design of roll includes an extended total working face with recessed drive slots, providing two settings of the roll on work having a short thread length adjacent to a shoulder.

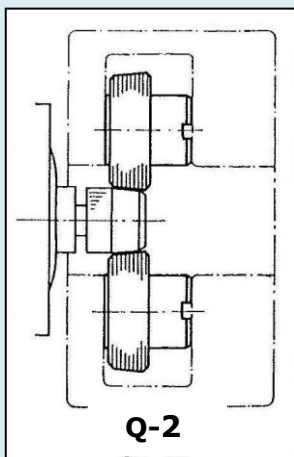
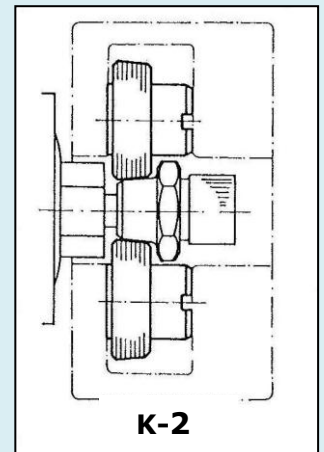
It is a modification of a type CR-5 roll, with additional thread length capacity.

The rolls can be reversed without repositioning the attachment or other cross-slide tooling.

Type K-2 Roll

These rolls are designed for rolling taper pipe threads when the small end of the taper on the work is towards the collet.

The length of working face is determined by the requirements of the work.



Type Q-2 Roll

These rolls are designed for rolling taper pipe threads when the large end of the taper on the work is towards the collet.

The length of working face is determined by the requirements of the work.

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