

# Auger Products

## Screw Conveyor Size Designation

The letter "H" indicates helicoid fighting screw conveyor, the letter "R" indicates ribbon fighting, the letter "S" indicates sectional fighting screw conveyor. The number to the left of the letters indicates the nominal outside diameter of the conveyor in inches. The first figure following the letters is diameter\* of the couplings in inches. The next two figures indicate the nominal thickness of fighting at the outer edge in 1/64". The hand or spiral of a conveyor is indicated by "R" or "L" following the designation. In some cases there are another group of figures following the letters R and L. If this is the case, they are specifying the length of the auger (in feet and inches). If something special or different from standard (\*\*).

### Size designation:

**Example: 9H412 R9-10-1/4 \*\***

- 9 = screw diameter in inches
- H = helicoid
- R = ribbon
- S = sectional
- 4 = 2 times 2" coupling shaft diameter \*
- 12 = the nominal thickness of fighting at the outer edge in 1/64"
- R = right hand (spiral)
- 9-10-1/4 = conveyor length (in feet and inches)
- \*\* = as desired (stated at right)

### \* Coupling Shaft Diameter:

- 2 = 1.0"
- 3 = 1-1/2"
- 4 = 2.0"
- 5 = 2-7/16"
- 6 = 3.0"
- 7 = 3-7/16"

- \*\* SP = Short Pitch (2/3)
- HP = Half Pitch (1/2)
- LP = Long Pitch (1-1/2 )
- VPI = Variable Pitch (1/2 to Std.)
- VP2 = Variable Pitch (2/3 to Std.)
- DF = Double Flight
- CW1 = Continuous welded one side
- CW2 = Continuous welded both sides

## Auger Fighting Capabilities

### Helicoid Fighting In. (mm)

1. Thinnest material thickness: .093" (2.4)
2. Thickest material thickness: .437" (11.1)
3. Narrowest strip width: .813" (20.7)
4. Widest strip width: 7.000" (177.8)
5. Smallest O.D.: 2.000" (50.8)
6. Shortest Pitch: 2.000" (50.8)
7. Smallest I.D.: .250" (6.4)
8. Largest O.D.: 32.000" (812.8)
9. Largest I.D.: 26.000" (660.4)
10. Material grades:
  - Carbon: .04 thru .10
  - Stainless Steel: 304 and 409

### Sectional Fighting In. (mm)

1. Thinnest material thickness: .111" (2.8)
2. Thickest material thickness: .625" (15.9)
3. Smallest O.D.: 4.000" (101.6)
4. Smallest Pitch: 4.000" (101.6)
5. Smallest I.D.: 1.000" (25.4)
6. Largest O.D.: 24.000" (609.6)
7. Largest Pitch: 24.000" (609.6)
8. Largest I.D.: 8.625" (219.0)
9. Material grades: Carbon: .15 thru .65
- Abrasion Resistant: AR200 and AR400
- High Strength/Low Alloy: A572, Gr50
- Stainless Steel: 304 and 316

*Custom Auger requirements are our specialty. We'll manufacture products to fit your product parameters, and demonstrate performance levels you expect from a quality supplier.*

*Special or unusual jobs or applications not covered in this data should be referred to DRIVES Product Manager.*

*If you have an auger that is different from these select sizes, please feel free to give us a call.*

**1-800-435-0782**



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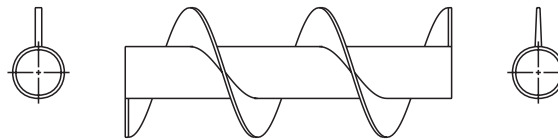
## Conveyor Screw Flighting

Screw conveyor flighting is made in either of two ways, as "helicoid" or "sectional" flights. Helicoid flights are formed from a flat bar or strip into a continuous helix. This flighting is thinner on the outer edge than on the inner edge. This process provides a continuous one-piece construction with a work-hardened, smooth finished flighting surface. Sectional flights are formed from a flat disc and the thickness of the flight is uniform. The lead of a sectional flight is slightly greater than one pitch. A continuous helix is made by joining a number of sectional flights together on a piece of pipe and butt welding them together.

## Screw Flight Mounting

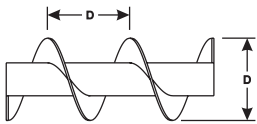
The metal helix of the screw, or the paddles used in lieu of a continuous helix, is mounted on either a hollow tube or a solid shaft. The hollow tube is normally Schedule 40 black steel pipe, but Schedule 80 pipe and mechanically drawn steel tubing sometimes are used. Occasionally a solid steel shaft is used for special conditions.

The pipe sections are bushed at the ends, and holes are drilled for the coupling bolts.

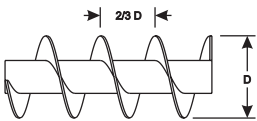


## Basic Conveyor Flight and Pitch Types

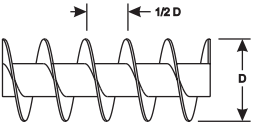
STANDARD PITCH, SINGLE FLIGHT



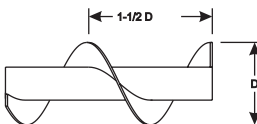
SHORT PITCH, SINGLE FLIGHT



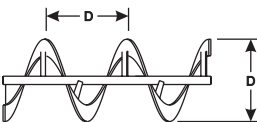
HALF PITCH, SINGLE FLIGHT



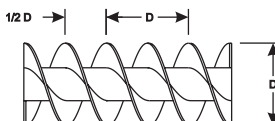
LONG PITCH, SINGLE FLIGHT



SINGLE FLIGHT, RIBBON



STANDARD PITCH, DOUBLE FLIGHT



### STANDARD PITCH, SINGLE FLIGHT

Conveyor screws with pitch equal to screw diameter are considered standard. They are suitable for a wide range of materials in most conventional applications.

### SHORT PITCH, SINGLE FLIGHT

Flight pitch is reduced to 2/3 diameter. Recommended for inclined or vertical applications. Used in screw feeders. Shorter pitch retards flushing of materials which fluidize.

### HALF PITCH, SINGLE FLIGHT

Similar to short pitch, except pitch is reduced to 1/2 standard pitch. Useful for vertical or inclined applications, for screw feeders and for handling extremely fluid materials.

### LONG PITCH, SINGLE FLIGHT

Pitch is equal to 1-1/2 diameters. Useful for agitating fluid materials or for rapid movement of very free-flowing materials.

### SINGLE FLIGHT RIBBON

Excellent for conveying sticky or viscous materials. Open space between flighting and pipe eliminates collection and build-up of the material.

### STANDARD PITCH, DOUBLE FLIGHT

Standard pitch, double flight screws provide smooth, regular material flow and uniform movement of certain types of materials.

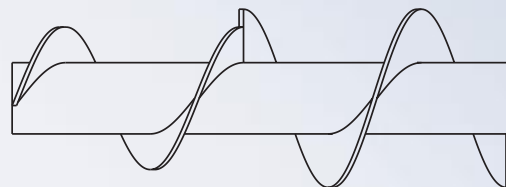
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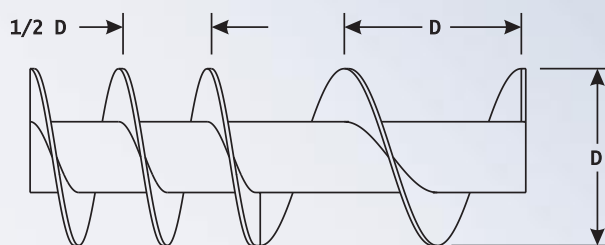
## Stepped Diameter Conveyor Screw

Consists of flights of different diameters. Each may have a regular or varied pitch mounted in tandem on one pipe or shaft. They are frequently used as feeder screws with the smaller diameter located under bins or hoppers to regulate the flow of material. Also is used to regulate the flow of material in packing of free flowing material.



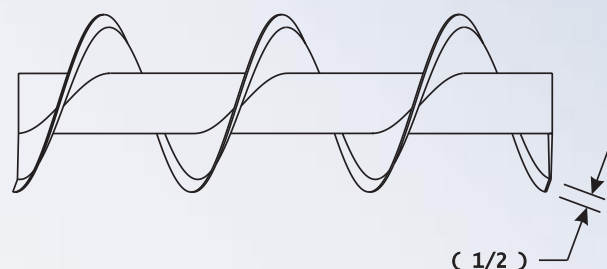
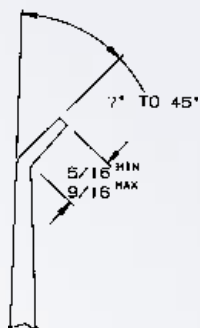
## Stepped Pitch Conveyor Screw

Screws with succeeding single or groups of sectional flights increasing in pitch. Used as feeder screws to draw fine free-flowing material uniformly from the entire length of the feed opening.



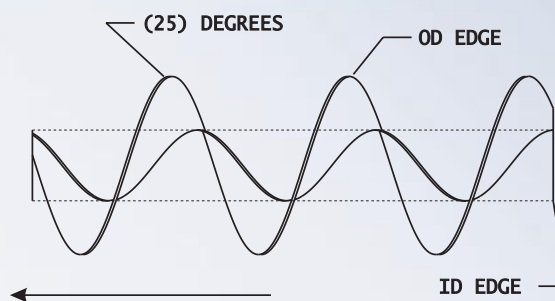
## Cupped Pitch, Conveyor Screw

This screw is effective in slowing the flushing action of material that has fluidized in hoppers for inclined and vertical applications. This can be added to any auger with the strip width greater than 1.375", having a pitch longer than 3.750", and material thickness up to .250". Angles range from 7 to 45 degrees. O.D. will shrink .080 to .160 when flanged.



## Full Tilt, Conveyor Screw

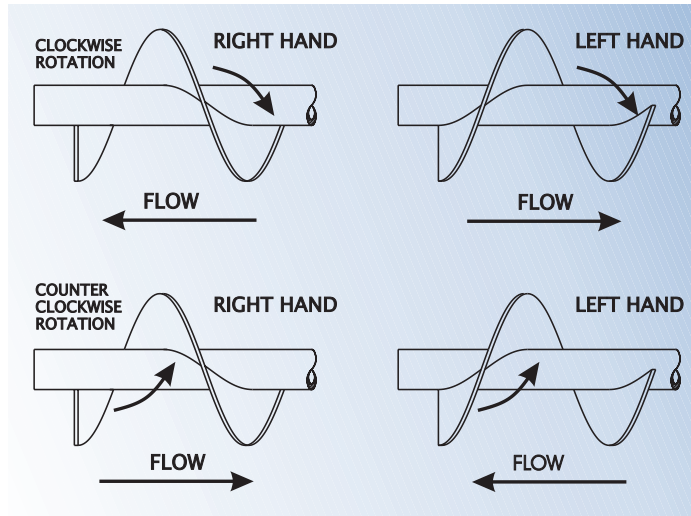
Consists of a screw where the O.D. surface leads the I.D. surface by up to (25) degrees. This style of auger reduces O.D. wear and grain damage. It also increases the flow rate of free flowing materials.



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## Rolling Limitations

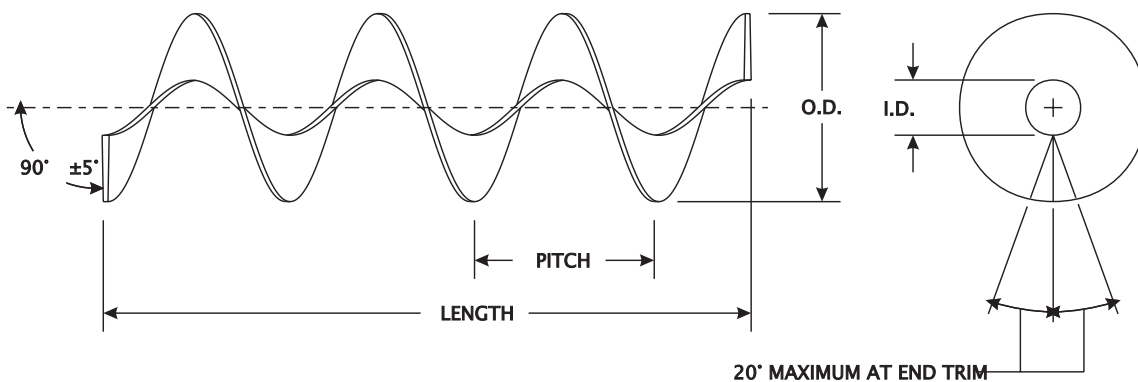
- Maximum strip width – 7"
- Maximum strip thickness - .437"
- Maximum outside diameter – 32"
- Maximum O.D. to I.D. ratio – 5:1



**QUALITY**  
Performance  
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Sales service and  
Auger Engineering  
assistance await  
your call.

TOLERANCE UNLESS OTHERWISE SPECIFIED				(MM)	
I.D.	+ .12 (3); - 0	TO 8" (200) O.D.	O.D.	± .12 (3)	TO 8" (200) O.D.
	+ .20 (5); - 0	8" (200) TO 14" (350) O.D.		± .20 (5)	8" (200) TO 14" (350) O.D.
	+ .28 (7); - 0	OVER 14" (350) O.D.		± .28 (7)	OVER 14" (350) O.D.
LENGTH	PRIMARY CUT	SECONDARY CUT			
	+ 3" (75); - 0	± .28 (7)	60" (1500) AND LESS		
	+ 4" (100); - 0	± .39 (10)	OVER 60" (1500)		
PITCH	± .59 (15)	UP TO 6" (150) PITCH	STRIP WIDTH TOLERANCE		
	± .79 (20)	6" (150) TO 10" (250) PITCH	STEEL MILL STANDARD TOLERANCE		
	± 1 (25)	10" (250) TO 14" (350) PITCH			
	± 1.57 (40)	14" (350) PITCH AND OVER			



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## Right and Left Hand Screws

A conveyor is either right hand or left hand as determined by how the helical flighting is formed. The hand of the screw may be clearly and easily ascertained by looking at the end of the screw. A screw which has the helical flighting wrapped around the pipe in a counter-clockwise direction. This is arbitrarily termed a LEFT hand screw.

A screw showing the helical wrapped around the pipe in a clockwise direction is termed a RIGHT hand screw.

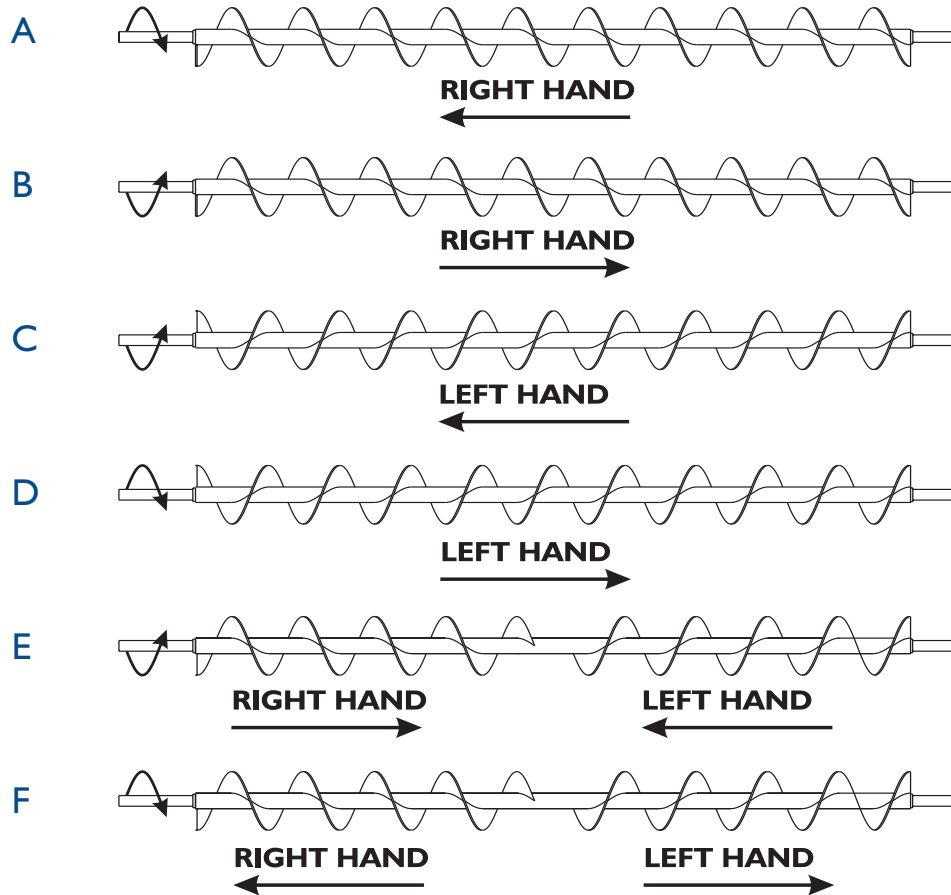
A conveyor screw viewed from either end will show the same configuration.

If the end of the conveyor screw is not readily visible, then by merely imagining that the flighting has been cut and the cut end exposed, the hand of the screw readily may be determined.

*Allow us an opportunity to quote and supply mounted sub-assemblies. Finished assemblies custom made to meet your product application.*

### How to Determine Hand of Conveyor

The print below indicates which way the material will move if right or left hand screws are rotated as indicated.



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