

# INDEXA™

## Model JSN SELF REVERSING TAPPERS

## OPERATING INSTRUCTIONS

Adjustable torque control protects against tap breakage/overload. Auto-reverse withdraws the tap without reversing the machine spindle.

Each set is supplied complete with two rubberflex collets, two Morse arbors, kick bar and wrenches.

Suitable for use with **ISO, DIN** and **ANSI** taps.



Models available:

**IND-144-8010K JSN 7**  
M2 to M7

with morse taper shank 1 & 3.

**IND-144-8020K JSN 12**  
M5 to M12

with morse taper shank 3 & 4.

**IND-144-8030K JSN 20**  
M8 to M20

with morse taper shank 3 & 4.

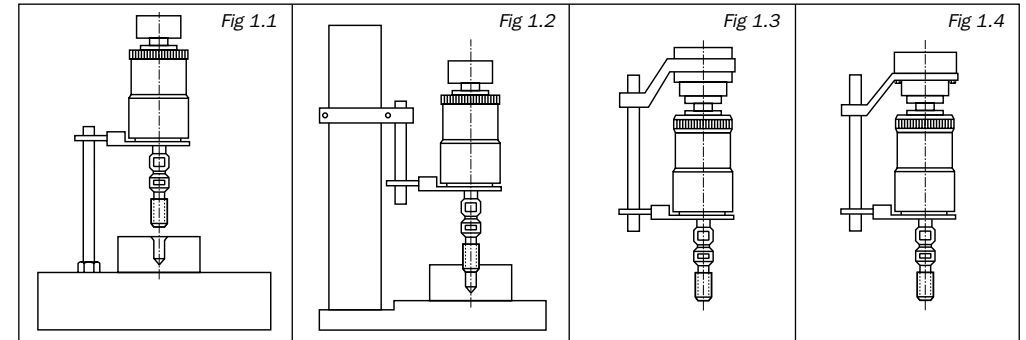
### Additional Information:

Product Code IND-144	Model Number	Recommended Max. Speed	Reverse Ratio	Body Diameter	Overall Length	Clockwise Compression	Self Feed	Clockwise Expansion
-8010K	JSN-7	1500 RPM	1:1.6	52mm	130mm	5.0mm	3.5mm	10.0mm
-8020K	JSN12	1000 RPM	1:1.75	75mm	156mm	5.0mm	4.5mm	14.0mm
-8030K	JSN-20	600 RPM	1:1.7	90mm	205mm	6.0mm	6.0mm	14.0mm

### Spares Available

Product Code IND-144	Replacement Collet Set	Reverse Replacement Clutch	Arbors	
-8010K	IND-140-9600K	IND-140-9660K	KEN-442-9160K	1MT x 6JT
			KEN-442-9260K	2MT x 6JT
			KEN-442-9360K	3MT x 6JT
			KEN-442-9460K	4MT x 6JT
-8020K	IND-140-9610K	IND-140-9662K	KEN-442-9160K	1MT x 6JT
			KEN-442-9260K	2MT x 6JT
			KEN-442-9360K	3MT x 6JT
			KEN-442-9460K	4MT x 6JT
-8030K	IND-140-9620K	IND-140-9664K	KEN-442-3120K	3MT x 1/2" x 20
			KEN-442-4120K	4MT x 1/2" x 20

A stop bar stop should be mounted to the machine to prevent the kick bar from rotating with the spindle, using one of the methods illustrated in Fig 1.1 to Fig 1.4.



**1.** Assembly and mounting of tapper: Ensure mating tapers are clean and free from dirt and grease. Engage selected morse taper shank into back of tapper then engage the morse taper shank into the machine spindle.

**2.** Select the correct Rubber-Flex collet to suit the tap to be used. Remove collet lock nut and ensuring all mating parts are clean, locate collet into tapered bore of tapper. Replace collet lock nut and screw on loosely. Insert tap shank through collet and engage the tap shank square into the adjustable tap driver block behind the collet. Using a hexagon wrench lock the screw on the adjustable tap driver block onto the tap square. Using the wrenches provided tighten the collet onto tap shank, ensuring tap is sitting true in the tapper. The use of any wrench extension is NOT recommended.

**3.** Insert the kick bar into the locating hole in the kick bar plate and lock in place with the screw in the side of the block. To stop the kick bar rotating use a suitable stop bar as shown in Fig 1.1 to Fig 1.4.

**4.** The torque setting may be adjusted by loosening the tightening screw in the torque adjustment ring (located at the top of the tapper) and setting the torque as required. The higher the number the higher the torque. Higher torques are required for bigger taps and/or higher tensile materials.

**5.** The work piece should be mounted on the machine table, with the hole to be tapped co-axial to the machine spindle centre line. This avoids tapping problems associated with mis-alignment.

**6.** Select a suitable spindle speed to run the tap at.

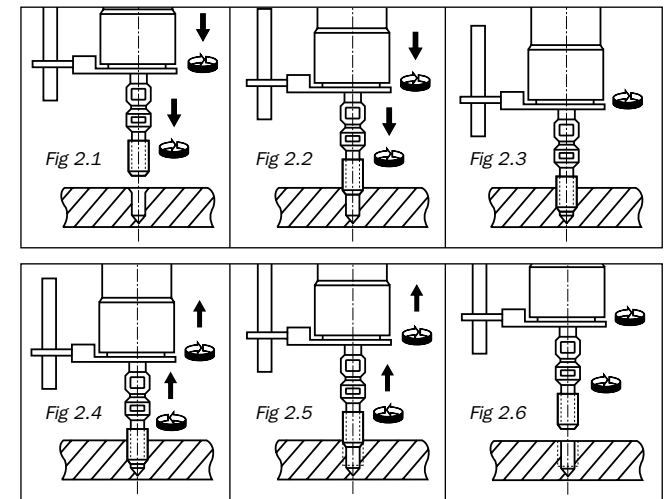
**7.** Turn the spindle on, bring down the spindle quill to just above the hole. Fig 2.1

**8.** Continue quill movement to engage tap in hole and commence cut. Tap will pull itself into the hole by means of the thread lead. Follow the tap down with the quill allowing the tap to pull the tapper nose out slightly. The machine stop should be set so that downward feed of the quill ceases at required thread depth, less the self feed distance. (See Table) Fig 2.2

**9.** When the desired depth of thread is achieved, (including the self feed distance) the tapper goes into neutral and rotation stops. Fig 2.3

**10.** Reversing the quill feed will cause the tap to go into reverse rotation. Maintain the quill movement at the same rate as the out feed of the tap, until the tap is out of the hole. Fig 2.4 & 2.5

**11.** The tapper will return to the original mode of rotation. Fig 2.6



# INDEXA™

## Model JSN SELF REVERSING TAPPERS

## OPERATING INSTRUCTIONS

Adjustable torque control protects against tap breakage/overload. Auto-reverse withdraws the tap without reversing the machine spindle.

Each set is supplied complete with two rubberflex collets, two Morse arbors, kick bar and wrenches.

Suitable for use with **ISO, DIN** and **ANSI** taps.



Models available:

**IND-144-8010K JSN 7**  
M2 to M7

with morse taper shank 1 & 3.

**IND-144-8020K JSN 12**  
M5 to M12

with morse taper shank 3 & 4.

**IND-144-8030K JSN 20**  
M8 to M20

with morse taper shank 3 & 4.

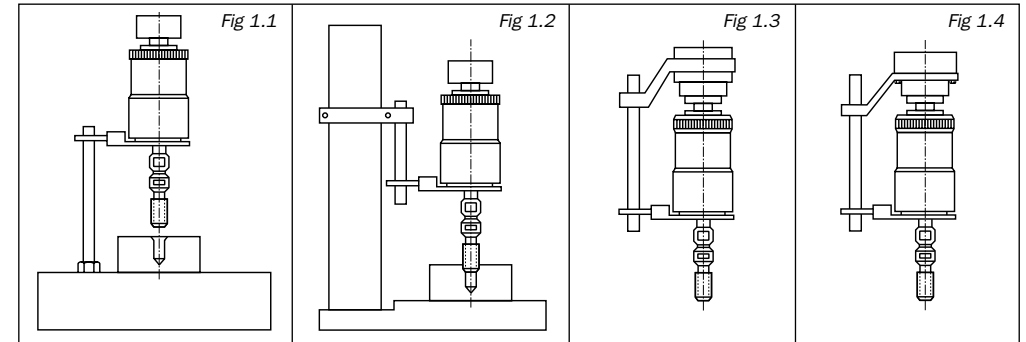
### Additional Information:

Product Code IND-144	Model Number	Recommended Max. Speed	Reverse Ratio	Body Diameter	Overall Length	Clockwise Compression	Self Feed	Clockwise Expansion
-8010K	JSN-7	1500 RPM	1:1.6	52mm	130mm	5.0mm	3.5mm	10.0mm
-8020K	JSN12	1000 RPM	1:1.75	75mm	156mm	5.0mm	4.5mm	14.0mm
-8030K	JSN-20	600 RPM	1:1.7	90mm	205mm	6.0mm	6.0mm	14.0mm

### Spares Available

Product Code IND-144	Replacement Collet Set	Reverse Replacement Clutch	Arbors	
-8010K	IND-140-9600K	IND-140-9660K	KEN-442-9160K	1MT x 6JT
			KEN-442-9260K	2MT x 6JT
			KEN-442-9360K	3MT x 6JT
			KEN-442-9460K	4MT x 6JT
-8020K	IND-140-9610K	IND-140-9662K	KEN-442-9160K	1MT x 6JT
			KEN-442-9260K	2MT x 6JT
			KEN-442-9360K	3MT x 6JT
			KEN-442-9460K	4MT x 6JT
-8030K	IND-140-9620K	IND-140-9664K	KEN-442-3120K	3MT x 1/2" x 20
			KEN-442-4120K	4MT x 1/2" x 20

A stop bar stop should be mounted to the machine to prevent the kick bar from rotating with the spindle, using one of the methods illustrated in Fig 1.1 to Fig 1.4.



1. Assembly and mounting of tapper: Ensure mating tapers are clean and free from dirt and grease. Engage selected morse taper shank into back of tapper then engage the morse taper shank into the machine spindle.

2. Select the correct Rubber-Flex collet to suit the tap to be used. Remove collet lock nut and ensuring all mating parts are clean, locate collet into tapered bore of tapper. Replace collet lock nut and screw on loosely. Insert tap shank through collet and engage the tap shank square into the adjustable tap driver block behind the collet. Using a hexagon wrench lock the screw on the adjustable tap driver block onto the tap square. Using the wrenches provided tighten the collet onto tap shank, ensuring tap is sitting true in the tapper. The use of any wrench extension is NOT recommended.

3. Insert the kick bar into the locating hole in the kick bar plate and lock in place with the screw in the side of the block. To stop the kick bar rotating use a suitable stop bar as shown in Fig 1.1 to Fig 1.4.

4. The torque setting may be adjusted by loosening the tightening screw in the torque adjustment ring (located at the top of the tapper) and setting the torque as required. The higher the number the higher the torque. Higher torques are required for bigger taps and/or higher tensile materials.

5. The work piece should be mounted on the machine table, with the hole to be tapped co-axial to the machine spindle centre line. This avoids tapping problems associated with mis-alignment.

6. Select a suitable spindle speed to run the tap at.

7. Turn the spindle on, bring down the spindle quill to just above the hole. Fig 2.1

8. Continue quill movement to engage tap in hole and commence cut. Tap will pull itself into the hole by means of the thread lead. Follow the tap down with the quill allowing the tap to pull the tapper nose out slightly. The machine stop should be set so that downward feed of the quill ceases at required thread depth, less the self feed distance. (See Table) Fig 2.2

9. When the desired depth of thread is achieved, (including the self feed distance) the tapper goes into neutral and rotation stops. Fig 2.3

10. Reversing the quill feed will cause the tap to go into reverse rotation. Maintain the quill movement at the same rate as the out feed of the tap, until the tap is out of the hole. Fig 2.4 & 2.5

11. The tapper will return to the original mode of rotation. Fig 2.6

