GN 200 | Steel Indexing Mechanisms

Metric Size • With Serrations









Indexing mechanisms GN 200 replace and simplify complicated indexing and safety mechanisms. Mating serrations in the mechanism allow the

Operator to index in multiples of 6 degrees for exact positioning.

For Operational Instructions and Assembly Examples, see page 491.

Control Knobs

Metric Table

Knurled mechanism

Handle arm

Hand piece

Steel, black oxide finish

Steel, black oxide finish

Black phenolic plastic

All graduated indexing mechanisms come standard with matte chrome plated finish.

Numbers and markings are in black. See How to order Graduations, page 502.

Part N Knurled Mechanism without Graduations	lumber Knurled Mechanism Tension Lever without Graduations	d₁ -0.5 mm	d ₂ (H ₇) Bore with Keyway	d ₃	d ₄	d ₅	d ₆ (see next page)	I ₁	l ₂	l ₃ (see next page)	I ₄	w stroke
10KF69/A	10KF69/B	44	K10	33	23	23	33	37	6	31	75	4
12KF69/A	12KF69/B	(1.73)	K12	(1.30)	(.91)	(.91)	(1.30)	(1.46)	(.24)	(1.22)	(2.95)	(.16)
12KF70/A	12KF70/B	52 (2.05)	K12	42 (1.65)	26 (1.02)	31.5 <i>(1.24)</i>	41.8 (1.65)	37.5 (1.48)	6 (.24)	31.5 <i>(1.24)</i>	90 <i>(</i> 3.54)	4 (.16)
14KF70/A	14KF70/B		K14									
16KF70/A	16KF70/B		K16									

Dimensions in: millimeters (inches)

Specification Information



With these indexing mechanisms, shaft and lead screws can be turned and positioned in steps of 6° or multiples of it. Examples of applications:

Indexing operations

- Lead screws which require turning and locking.
- Positioning and locking of shutoff-mechanisms, valves, etc.
- Control shafts (crank and cam shafts) to accurately turn and locate limited movements.
- Securing shafts from accidental adjustments (accident prevention).

Assembly Examples

 d_{6} d_{7} d_{7

- securing components are housed in the smallest possible space. The unit consists of three main parts: • Bushing – can be connected to
- the shaft with a key or crossdowel.Location ring – is screwed and
- doweled to the machine or equipment. The bushing is also a bearing for the location ring.
- Knurled housing providing engagement between the locating

ring and the shaft which can be turned or positioned. In the locked position, the knurled housing via the internal teeth (60) connects the locating ring and the bushing (both via external teeth), the latter being connected to the shaft. To turn the shaft, the knurled housing is pulled out against the spring pressure, disengaging from the location ring, but still engaged with the bushing.

Other information: With 60 teeth, the following divisions can be achieved: 2, 3, 4,

5, 6, 10, 20, 30. A simple method provides indexing

of the shaft to limited number of positions only, i.e. every 120°. For this purpose, the location ring is manufactured with a dowel which allows engagement only when the bushing is provided with a corresponding hole (see Assembly examples).

This hole can be manufactured oversize as the dowel is for

rough positioning only. Accurate positioning is maintained via the teeth.

Knurled housing and tension levers can be supplied with scales and symbols.

With teeth, a more accurate and wear-resistant indexing mechanism is obtained than with single dowel locations.

When a very high torque is to be transmitted, engaging and disengaging of the teeth is made difficult due to the small clearance, i.e. the friction between them. In such cases, indexing levers GN 215, page 492 are recommended.







Example1

The shaft is connected to the bushing via a cross-dowel. The location ring with the countersunk screws and circlip also provide location of the whole indexing mechanism in an axial (lateral) direction. The location ring also acts as a bearing to the shaft.

Example 2

The shaft is connected to the bushing with a key. The dowel, engaged in one of the three holes in the bushing, provides one of the three indexing positions (in this case 60° movement).