

Spindlespeeders and their use

Type: ZP-10/X, ZP-20/X

1.	Which type of spindelspeeders does firm NAREX MTE produce and deliver?	Firm NAREX MTE produces and delivers following: P 10/X - basic construction - (catalogue) ZP 10/XW - construction with inner coolant - (figure) ZP 20/X - basic construction ZP 20/XW - construction with inner coolant
2.	What are delivery terms?	Construction ZP 10/X is delivered within 2 - 4 weeks other constructions during 8-12 weeks after receiving order.
3.	What is basic construction?	It is construction for manual or automatic exchange with cooling fluid bypass (Type A).
4.	What are maximum revolutions of separate types?	ZP 10/X - overdrive 6:1, max. 20.000 RPM ZP 10/XW - overdrive 6:1, max. 11.000 RPM, with max. press of cooling fluid 20 barr ZP 20/X - overdrive 5:1, max. 15.000 RPM ZP 20/XW - overdrive 5:1, max. 7.000 RPM, with max. press of cooling fluid 20 barr
5.	Why are by construction XW max. revolutions lower?	It is because of the maintenance sealing component acceptable durability.
6.	What tools can be clamped on this machine?	Drills and shank mills from HSS or from hardmetall with straight shank. They are clamped to the steel collet. Range: by ZP 10/X and ZP 10/XW 1,0 - 13,0 mm collet ER 20 by ZP 20/X and ZP 20/XW 2,0 - 20,0 mm collet ER 32
7.	What to consider before purchase of this machine?	Usability and possibility of function test by form of loan.
8.	What are demands on machine tool?	A - clamping spindle cavity must be in such condition that the clamping is accurate and rigid. B - spindle and machine table seating must have necessary rigidity to prevent undesirable vibration during machining.
9.	What are requirements on machine clamping?	A - clamping of clamping cone must be accurate and rigid. Especially it relates to old machines where use to be spindle cavity magged. Accurate control procedure you find in instructions for use of this machine. B - machine needs case arrest with arresting pin during its clamping to the machine
10.	How to solve machine case stop?	By design for manual exchange it can be solved with catchment which is produced from 3 mm thick metal plate. This plate is screwed on rigid spindle part. By design for automatic exchange must be according to the instruction install stop dog on headstock into which is inserted arresting pin during machine clamping.
11.	With what accuracy is possible to clamp tools to the spindlespeeder?	Measured untrue running clamped in diameter "d" in distance 2,5 d from the collet edge: In diameters range d 1,0 - 10,0 mm is maximum 0,02 mm In diameters range d 10,0 - 20,0 mm is maximum 0,025 mm.
12.	What when clamped tool shows higher value of untrue running?	It is necessary to measure spindle run-out on the cavity edge for collet. Value of run-out can not be higher than 0,02 mm. If this is fulfilled than can be by collet slewing and clamping tool again found optimal run-out value.

13.	How are cutting conditions limited?	In instruction for use are given basic conditions that are necessary to adhere. This machine is not designed for stocking or big load but for speed machining by small diameters of cutting tools. Maximum revolutions you find in the item 4 of this document, maximum feed on mill teeth can not be higher than 0,025mm and maximum sliver depth is 0,5 d (tools diameter).
14.	How to reduce tools vibrations?	A - choose mill with more teeth B - minimize run-out of clamping tool C - adjust cutting conditions
15.	How to reduce machining surface roughness?	A - take out machine vibration B - exchange blunt toll for new C - adjust cutting conditions D - change cutting liquid
16.	How is service life limited?	Machine has lasting grease packing with service life 2.500 running hours. During run in groove should not be the temperature higher than 60°C and noisiness 80 dBA/1m. Spindle run-out should not be higher than 0,025 mm for collet on the cavity edge and axial clearance must be zero everytime.
17.	What with machine after service life finishing?	Devolve it on producers to diagnose its sort and relevant repair.
18.	What machine faults are the most frequent?	Common wear bearings on the spindle.
19.	Can user repair machine himself?	NOT because it is really very exacting action. We recommend commit machine to producer.