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MICROMOTORS

20 - 2

Table micromotors NAKANISHI Emax EVOLution



Speed 1'000...40'000 RPM.

MSA	Voltage	Size	Kg
20.362	230 V / 50-60 Hz	130 x 254 x 97 mm	2.300
20.362-110	120 V / 50-60 Hz	130 x 254 x 97 mm	2.300

Table micromotor set NAKANISHI Emax EVOLution improved with the last technologies.

- Digital display on the centre roller
- Variator with speed memory possibility
- Maximum torque 4.3 cN-m
- Start switch can be made on the control unit or directly on the micromotor
- Clockwise and anticlockwise rotation
- A second motor can be connected at the control unit with a A/B selector (cannot be used simultaneously).

Delivered with :

- 1 control unit MSA20.364
- 1 motor MSA20.362-M1
- 1 handpiece MSA20.360-P2
- 1 chuck Ø 2.35 mm MSA20.360-C235
- 1 chuck Ø 3.00 mm MSA20.360-C300
- 1 stand MSA20.360-S
- 1 set of flat and pun wrench keys for locking/unlocking chucks
- 1 power supply cord.



Speed 1'000...25'000 RPM.

MSA	Voltage	Size	Kg
20.365	230 V / 50-60 Hz	130 x 254 x 97 mm	2.300

Table torque micromotor set NAKANISHI Emax EVOLution improved with the last technologies.

- Digital display on the centre roller
- Variator with speed memory possibility
- Maximum torque 4.8 cN-m
- Start switch can be made on the control unit or directly on the micromotor
- Clockwise and anticlockwise rotation
- A second motor can be connected at the control unit with a A/B selector (cannot be used simultaneously).

Delivered with :

- 1 control unit
- 1 motor IR-310-ENK-250T
- 1 handpiece MSA20.360-P2
- 1 chuck Ø 2.35 mm MSA20.360-C235
- 1 chuck Ø 3.00 mm MSA20.360-C300
- 1 stand MSA20.360-S
- 1 set of flat and pun wrench keys for locking/unlocking chucks
- 1 power supply cord.



MSA	Kg
20.362-F	0.543

ON/OFF foot and speed control pedal for micromotor MSA20.362 and MSA20.365.



Speed 1'000~40'000 RPM.

MSA	Power	Size	Kg
20.362-M1	73 W	Ø 24.50 x 97 mm	0.090

Motor for MSA20.362. Maximum Torque 4.3 cN-m.
Excellent combination of high speed, lightweight, small diameter and high torque.
This lightweight and compact general-use type is perfect for precision work.
Delivered with a 1.5 m power supply cord.



Maximum speed 40'000 RPM.

MSA	Size	Kg
20.360-P1	Ø 14 x 60 mm	0.062

Handpiece with a side lever for fast chuck tightening for micromotor MSA20.362. Chucks Ø 2.35 and 3.00 mm included.
Delivered with tightening keys.



Maximum speed 40'000 RPM.

MSA	Size	Kg
20.360-P2	Ø 13 x 64 mm	0.092

Handpiece with a side lever for fast chuck tightening for micromotor MSA20.362. Chucks Ø 2.35 and 3.00 mm included.
Delivered with tightening keys.



Optional adaptable chucks for MSA20.360-P1 and MSA20.360-P2 (other diameters available upon request) :

MSA	Item	Kg
20.360-C100	Optional adaptable chuck, length 33.90 mm, Ø 1.00 mm	0.005
20.360-C150	Optional adaptable chuck, length 33.90 mm, Ø 1.50 mm	0.005
20.360-C160	Optional adaptable chuck, length 33.90 mm, Ø 1.60 mm	0.005
20.360-C200	Optional adaptable chuck, length 33.90 mm, Ø 2.00 mm	0.005
20.360-C235	Optional adaptable chuck, length 33.90 mm, Ø 2.00 mm	0.005
20.360-C300	Optional adaptable chuck, length 33.90 mm, Ø 3.00 mm	0.005



Maximum speed 16'000 RPM.

MSA	Size	Kg
20.367	Ø 14 x 93 mm	0.095

Riveting-setting hammer for micromotor MSA20.362.

NAKANISHI



Maximum speed 35'000 RPM.



MSA	Size	Kg
20.360-P4	Ø 20.20 x 57.30 mm	0.045

Contra-angle handpiece for micromotor MSA20.362. Chuck Ø 3.00 mm included.

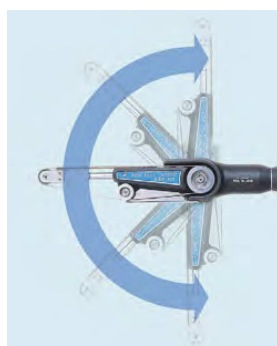
Delivered with tightening keys and a set of standard accessories (3 rubber micro-disks and 3 abrasive disks in different diameters).

Optional adaptable chucks (other diameters available upon request) :

MSA	Item	Kg
20.360-160	Optional adaptable chuck, length 17.20 mm, Ø 1.60 mm	0.080
20.360-235	Optional adaptable chuck, length 17.20 mm, Ø 2.35 mm	0.080



Belt runs approx. 0~825 metres/minute



MSA	Size	Kg
20.368	??? x ??? x ??? mm	0.350

Belt sander for micromotors.

- Very high belt speed, ideal for applications from deburring to finishing
- Belt runs approx. 0~825 m/minute
- Lightweight, compact, minimal vibration and a small diameter grip design keep the hand free from fatigue for long, continuous operation
- The angle of the belt section is fully adjustable
- Exchanging the belt is simply done by lever release.

Spare parts :

MSA	Item
20.368-D	Belt 4 mm, grain 240
20.368-A	Belt 8 mm, grain 400
20.368-B	Belt 8 mm, grain 600
20.368-C	Belt 8 mm, grain 800

Table micromotors NAKANISHI Espert 500.



Speed 1'000...50'000 RPM.

MSA	Voltage	Power	Size	Kg
20.361	230 V / 50-60 Hz	200 W	172 x 230 x 94 mm	2.600

The table torque micromotor set NAKANISHI Espert 500 is perfectly adapted for jobs requiring an extra effort.

- Speed regulation on potentiometer or with pedal MSA20.360-F
- Start button on box or directly on the micromotor
- Right/left rotation, tempomat
- A second micromotor can be plugged in with A/B selector (A and B cannot be used simultaneously).

Delivered with :

- 1 control unit MSA20.363
- 1 motor MSA20.361-M1
- 1 handpiece MSA20.361-P1
- 1 chuck Ø 2.35 mm MSA20.360-C235
- 1 chuck Ø 3.00 mm MSA20.360-C300
- 1 stand MSA20.360-S.



MSA	Kg
20.360-F	0.600

Vario pedal for MSA20.361.



MSA	Power	Size	Kg
20.361-M1	200 W	Ø 28.30 x 121.40 mm	0.160

Torque motor for MSA20.361. Maximum torque 8.7 cN-m.

Delivered with 1.5 m spiral cord.

Maximum speed : 50'000 RPM.



MSA	Power	Size	Kg
20.361-M2	140 W	Ø 24.50 x 107.80 mm	0.115

Compact motor for MSA20.361. Maximum torque 6.0 cN-m.

Delivered with 1.5 m spiral cord.

Maximum speed : 50'000 RPM.



MSA	Size	Kg
20.361-P1	Ø 22.40 x 59.40 mm	0.094

Handpiece with rotating quick-clamping system to be fitted on micromotor MSA20.361. Chucks Ø 2.35 and 3.00 mm included.

Delivered with tightening key.



MSA	Size	Kg
20.361-P2	Ø 22.40 x 58.90 mm	0.070

Handpiece with rapid tightening ring to be fitted on micromotor MSA20.361.
Chucks Ø 2.35 and 3.00 mm included.
Delivered with tightening key.



Optional adaptable chucks for MSA20.361-P1 and MSA20.361-P2 (other diameters available upon request) :

MSA	Item	Kg
20.360-C100	Optional adaptable chuck, length 33.90 mm, Ø 1.00 mm	0.005
20.360-C150	Optional adaptable chuck, length 33.90 mm, Ø 1.50 mm	0.005
20.360-C160	Optional adaptable chuck, length 33.90 mm, Ø 1.60 mm	0.005
20.360-C200	Optional adaptable chuck, length 33.90 mm, Ø 2.00 mm	0.005
20.360-C235	Optional adaptable chuck, length 33.90 mm, Ø 2.00 mm	0.005
20.360-C300	Optional adaptable chuck, length 33.90 mm, Ø 3.00 mm	0.005



Maximum speed 25'000 RPM.

MSA	Size	Kg
20.361-P3	Ø 15 x 84.50 mm	0.130

Thin pen shape handpiece with rapid tightening ring for small polishing operations, for micromotor MSA20.361.
Delivered with an adapter for economical fibre files.



Maximum speed 30'000 RPM.

MSA	Size	Kg
20.361-P5	Ø 22.40 x 64.30 mm	0.054

Contra-angle handpiece for micromotor MSA20.361.
Delivered with tightening keys and a set of standard accessories (3 rubber micro-disks and 3 abrasive disks in different diameters).

Table micromotor ARGOFILÉ.



MSA	Voltage	Size
20.381	110/220 V	110 x 148 x 96 mm

Table micromotor set MAXIMA PHP 40.
The compact control unit MSA20.381-02 is a continuously variable speed controller (0...40'000 rpm).
Handpiece with "One-Touch" quick system.

Speed 0...40'000 RPM.

Delivered with :

- 1 control unit MSA20.381-02
- 1 handpiece MSA20.381-01
- 1 Vario pedal MSA20.381-03
- 1 handpiece stand MSA20.381-04
- 1 pair of carbon brushes MSA20.381-05
- 1 chuck Ø 2.35 mm MSA20.381-235.

Spare parts :

MSA	Item
20.381-01	(1) Handpiece Ø 26 x 145 mm, maximum speed 40'000 RPM
20.381-02	(2) Control unit 110 x 148 x 86 mm, 110/220 V
20.381-03	(3) Vario pedal
20.381-04	(4) Handpiece stand
20.381-05	(5) Pair of carbon brushes

Accessories :

MSA	Item
20.381-235	Chuck for handpiece, Ø 2.35 mm
20.381-300	Chuck for handpiece, Ø 3.00 mm



Table micromotors NM3000.



Speed 1'000...35'000 RPM.

MSA	Voltage	Power	Size	Kg
20.005 *	110/220 V	120 W	250 x 190 x 130 mm	3.200
20.005-A **	110/220 V	120 W	250 x 190 x 130 mm	3.200

Table micromotor NM3000.

- * 1 handpiece MSA20.005-02
- ** 1 handpiece MSA20.005-04

Delivered with :

- 1 control unit MSA20.005-07
- 1 motor with cord and socket MSA20.005-B
- 1 Vario pedal MSA20.005-03
- 1 grey handpiece stand MSA20.005-09.

Spare part :

MSA	Item	Kg
20.015-01	Pair of charcoals	0.001



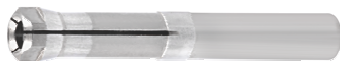
Speed 35'000 RPM.

MSA	Type	Size	Kg
20.005-04	N° 34	Ø 17.5 x 83 mm	0.170

Handpiece for micromotor MSA20.005-A with chuck Ø 2.35 mm.

Accessories :

MSA	Item	Kg
20.005-M160	Chuck Ø 1.60 mm	0.005
20.005-M235	Chuck Ø 2.35 mm	0.005
20.005-M300	Chuck Ø 3.00 mm	0.005
20.005-M317	Chuck Ø 3.175 mm	0.005



Speed 35'000 RPM.

MSA	Type	Size	Kg
20.005-02	N° 35	Ø 17.50 x 83 mm	0.170

Handpiece for micromotor MSA20.005 with chuck Ø 2.35 mm.

Accessories :

MSA	Item	Kg
20.005-P055	Chuck Ø 0.55 mm	0.005
20.005-P080	Chuck Ø 0.80 mm	0.005
20.005-P105	Chuck Ø 1.05 mm	0.005
20.005-P155	Chuck Ø 1.55 mm	0.005
20.005-P205	Chuck Ø 2.05 mm	0.005
20.005-P235	Chuck Ø 2.35 mm	0.005
20.005-P255	Chuck Ø 2.55 mm	0.005
20.005-P300	Chuck Ø 3.00 mm	0.005
20.005-P320	Chuck Ø 3.20 mm	0.005





ASSORTMENT

MSA	Size	Kg
20.005-01	88 x 47 x 10 mm	0.050

Assortment of 9 chucks for handpiece MSA20.005-02.

Working cabinets.



MSA	Size	Kg
23.812	320 x 300 x 250 mm	3.000

Working cabinet for micromotors.

A removable drawer makes it easy to collect the residues of the precious alloys used.

The fitting with hose allows the connection of the portable vacuum cleaners MSA23.810 and MSA23.811.

Excellent working visibility, sealed Plexiglas cabinet.



MSA	Size	Kg
23.813	600 x 400 x 400 mm	15.000

Safety cabinet for finishing work with micromotors.

This device is equipped with several side entrances on the left and right, a neon light, a fast-air connector and a power supply for the portable vacuum cleaners MSA23.810 and MSA23.811.

- Bright and wide working area
- Easy-to-clean heavy-duty grid collector
- Solid and reliable construction.



See Chapter 23 for other suction systems.

NOTES

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