



TONISCO® Jr.
Hot tapping machine

Description

TONISCO® Hot tapping machines are designed for making connections to pipelines, tanks and plant piping without shutdown or interruptions to the system.

The lightweight and robust TONISCO® Jr. Hot Tapping Machine is equipment designed for making connections to pipelines, tanks and plant piping. By using TONISCO® Jr. Hot Tapping Machine it is possible to take new connections from DN20 to DN100.

TONISCO® Jr. Hot Tapping Machine is versatile and easy to operate. It has a full range capability of setting valves DN20 – DN100 by completing it with proper adapters. With suitable adapter TONISCO® Jr. can be used with flanged, threaded or weldable connections. All the connections can be made without stopping the flow inside the mains up to the pressure of 60 bar.

All TONISCO® Hot Tapping Machines provide an efficient and economical way of making connections to mains for repairs, relocations or additions.

Features

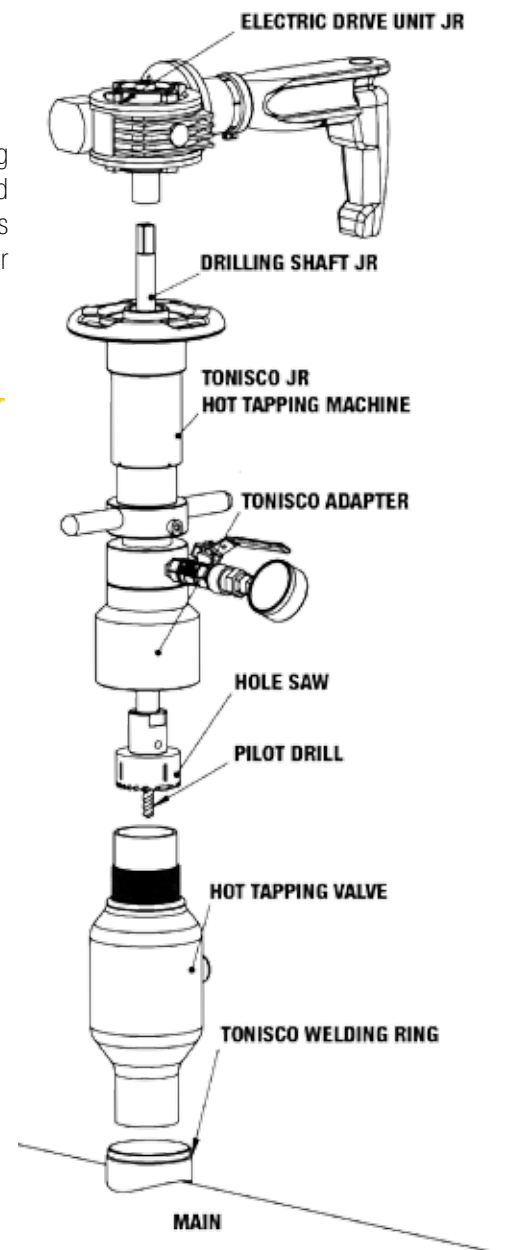
TONISCO® Jr. Hot Tapping Machine can be used in temperature maximum of 200°C and pressure up to 60 bar. TONISCO® Jr. is equipped normally with electric drive unit. Other possible drive types are hand drive, pneumatic drive or hydraulic drive.

TONISCO® Jr. Hot Tapping Machine weighs only 5,5 kg. and it can be operated by one man. TONISCO® Jr. Hot Tapping Machine can be completed by wide range of hole saws, pilot drills and adapters to fit it with all mainline materials and substances.

By using TONISCO® Hot Tapping Machines it is possible to make pipeline alteration works in pressurized pipelines without shutdowns.

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Typical set up




TONISCO Jr. Hot Tapping Machine specifications

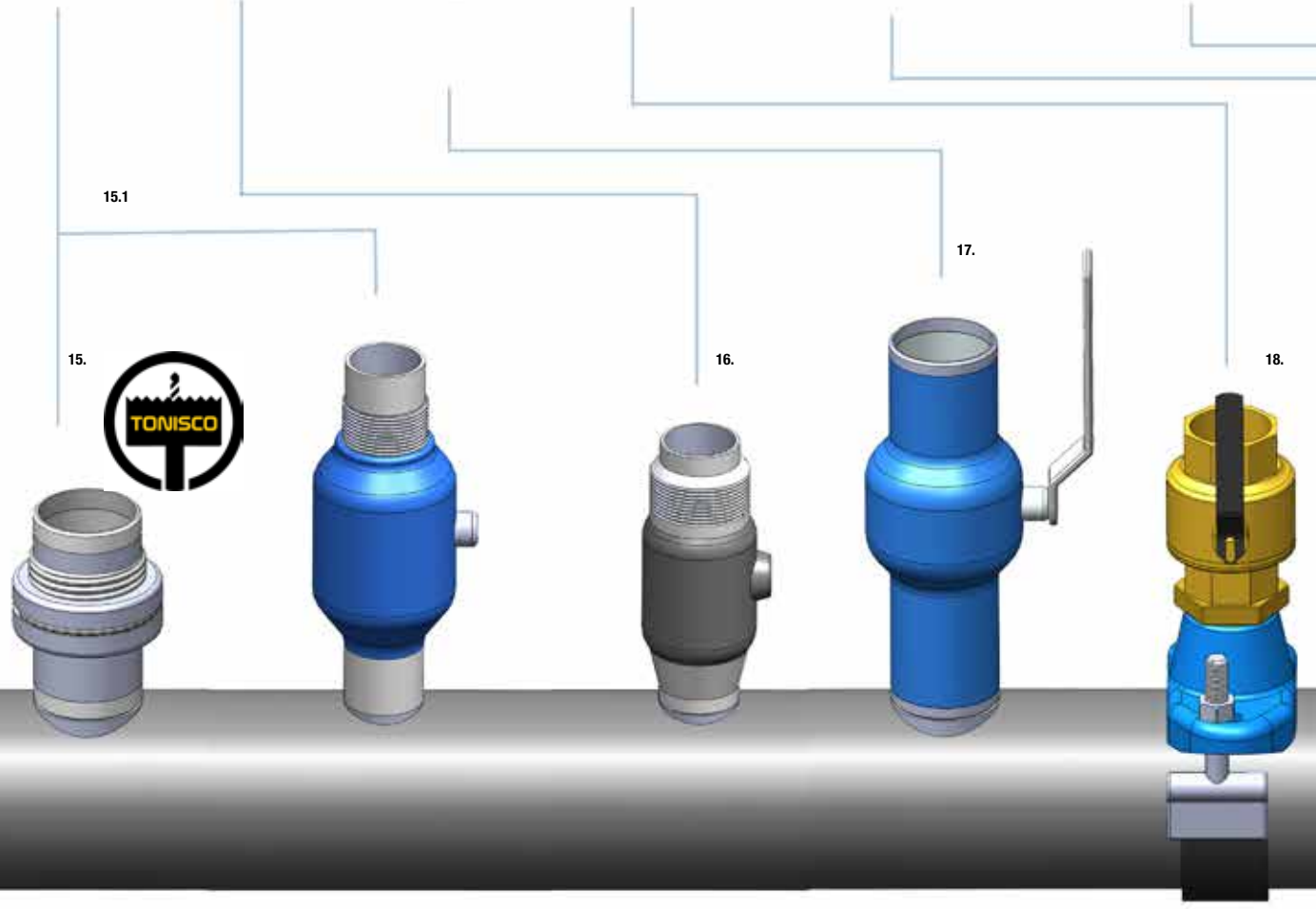
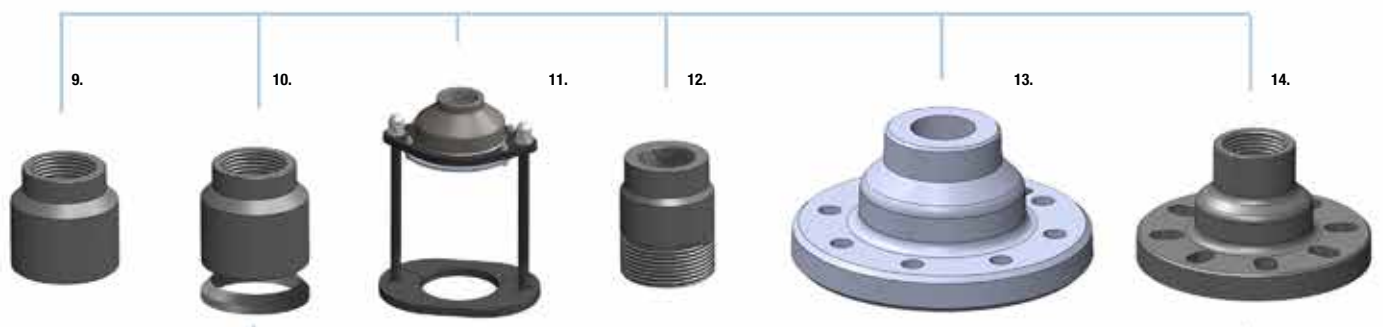
Branch Size:	DN20-DN100 (With special adapters up to DN150)
Drive unit:	Electric 220-240v / 50-60 Hz 1000 VA Pneumatic 6-7 bar / 1500 l / min Hydraulic
Body material:	42CrMo4
Feed Unit material:	S355J264
Sealings:	EPDM (Viton)
Inspection:	Pressure test and construction inspection
Pressure test:	60 bar
Max. operating pressure:	40 bar (60 bar with High Pressure version)
Max. operating temperature:	160°C (200°C with Viton sealings)
Working mediums:	Water, Steam, Gas and other substances*
<small>* See the specifications of the sealing manufacturer</small>	
Weight of the machine:	5,50 kg

TONISCO® Jr.
BASIC SET


	Item	Item no.	Quantity
Electric drive Jr.	Electric drive Jr. compl.	1211.0000	1
Base unit	Feed device Jr, compl.	1226.0000	1
	Jr. Body Complete	1228.0000	1
	Shaft and accessories	Drill Shaft 350/475 mm	1213.0010
	Gear Fastening Screw	1213.0100	1
	Shaft extension Socket	1213.0090	1
	Chuck for Hole-Saws 24-	1213.0070	1
	Chuck for hole saws >30	1213.0060	1
	Magnet for JR./B30	1213.0240	1
Pressure monitoring	Pressure Monitoring Set 40 bar	1273.0013	1
	Pressure relief hose w.	1264.0210	1
Pilot drills	Pilot Drill Jr-HM norma	1213.0080	2
Consumables	TONISCO Cut-paste	1289.0010	1
	TONISCO Sealant lubricant	1269.0020	1
Operating tools	TONISCO wrench	1250.0170	2
	Allen key 4 mm	1213.0110	1
	Allen key 5 mm	1250.0020	1
	Shaft opening pin Jr/B30	1213.0040	5

TONISCO® Jr.

Hot Tapping Machine



Applications - Build your Own TONISCO® Jr.

TONISCO® Hot tapping machines are designed completely according to the needs of the customer. The Hot tapping machines are used in various different fields and in changing environments.

TONISCO®'s Team of engineers is constantly designing new features to the machines in order to find solutions that helps the customer to use the same basic TONISCO® Hot tapping machine with the valves that best fit the customers needs. The three core-foundations in TONISCO®'s designs are SAFETY, EASE OF USE and FLEXIBILITY.

The Option-Chart in the left shows the basic principle of how to build your own TONISCO® Hot tapping machine. Everything starts from the Power unit. Choose the most suitable Power unit according to the circumstances where the machine is mostly used.

The Pneumatic and Hydraulic drive units are designed for ATEX-Environments. The Electric Drive unit is the most common choice because it's extremely easy to operate and it can be attached to the normal 230 V electric network.

Basic TONISCO® Jr. Hot tapping machine can be used with various different

hot tapping valves simply by choosing the right Adapter. TONISCO® Jr. Adapters comes in three basic options for threaded, flanged and welded connections. The maximum operating pressure for the threaded Adapters is 60 bar and the Flanged adapters reach up to PN64. Also AISI standard flange Adapters are available.

TONISCO® Offers a wide range of different hole saws for every pipe material used in pressurized pipelines. Complete your own TONISCO® Jr. Hot tapping machine with the suitable Hole Saw Set and the hot tapping system is ready for use.

TONISCO® System - The Open-Source of Hot tapping

DRIVE UNIT OPTIONS FOR TONISCO® Jr.

1. Ratched Drive, Manual, for plastic pipes
2. Electric Drive Unit, For all materials
3. Pneumatic Drive Unit, ATEX-approved
4. Hydraulic Drive Unit*

ADAPTER OPTIONS FOR TONISCO® Jr.

9. Adapters with Inner-threads, for TONISCO & VEXVE valves
10. Adapters with multi-threads, for DANFOSS Drilling valves
11. Adapters for ball valves with welded ends
12. Adapters with outer R (BSP) threads, for Ball valves with inner threads
- 12.1 Adapters with inner R (BSP) threads, for Ball valves with outer threads
13. Aluminium Adapters for flanged valves, PN10,16 (also AISI)
14. Steel Adapters for flanged valves, PN10,16,25,40,64 (also AISI)

HOLE SAW OPTIONS FOR TONISCO® Jr.

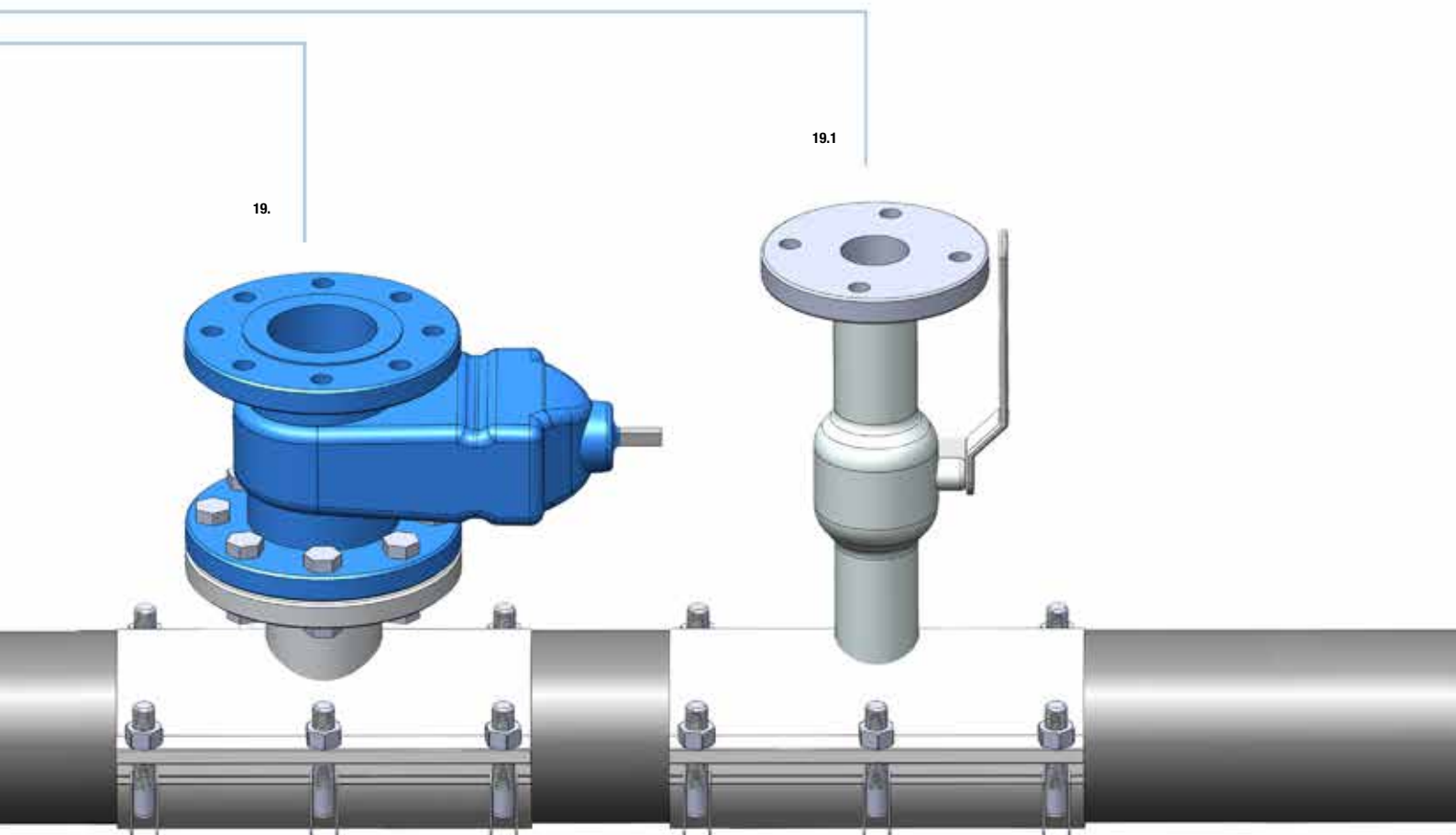
5. Bi-Metal (HSS) Hole Saws, Steel, Ductile and Cast Iron
6. Carbide Grit tooth (GE) Hole Saws, Concreted Pipes
7. Carbide tipped (HM) Hole Saws, PE, PVC and Clay Pipes
8. TONISCO® Hole Saws for other materials*

EXAMPLES OF HOT TAPPING VALVES SUITABLE FOR TONISCO® Jr.

15. TONISCO® Hot Tapping valves DN20-DN100
- 15.1 VEXVE Hot tapping ball valves DN20-N100
16. DANFOSS Hot Tapping valves DN20-DN100
17. Weldable Ball valves with weld ends*
18. R-Threaded Ball valves
19. Sluice, Gate and Ball valves with flanged connections (PN10,16,25,40,64)
- 19.1 Sluice, Gate and Ball valves with flanged connections (PN10,16,25,40)

Also available in other standards etc.

*Contact sales for more information





TONISCO® Jr. is also available for weldable ball valves, flanged valves and valves with R(G) thread just by completing it with the suitable dapters

Adapters for TONISCO valves


Nominal size	Item no.
Adapter TONISCO DN20	1218.0200
Adapter TONISCO DN25	1218.0250
Adapter TONISCO DN32	1218.0320
Adapter TONISCO DN40	1218.0400
Adapter TONISCO DN50	1218.0500
Adapter TONISCO DN65	1218.0650
Adapter TONISCO DN80	1218.0800
Adapter TONISCO DN100	1218.1000

Adapters for Danfoss Drilling valves


Nominal size	Item no.
Danfoss Adapter DN20	1240.0200
Danfoss Adapter ring DN25	1240.0250
Danfoss Adapter DN32	1240.0320
Danfoss Adapter ring DN40	1240.0400
Danfoss Adapter DN50	1240.0500
Danfoss Adapter DN65	1240.0650
Danfoss Adapter DN80	1240.0800
Danfoss Adapter DN100	1240.1000

Adapters with outer R (BSP) threads


Nominal size	Item no.
Fastening Adapter 3/4 "	1222.0200
Fastening Adapter 1 "	1222.0250
Fastening Adapter 1 1/2"	1222.0320
Fastening Adapters 1 1/4"	1222.0400
Fastening Adapter 2 "	1222.0500
Fastening Adapter 2 1/2"	1222.0650
Fastening Adapter 3 "	1222.0800
Fastening Adapter 4 "	1222.1000

Adapters with inner R (BSP) threads


Nominal size	Item no.
Fastening Adapter 1 1/2"	1244.0320
Fastening Adapter 1 1/4"	1244.0400
Fastening Adapter 2 "	1244.0500
Fastening Adapter 2 1/2 "	1244.0650
Fastening Adapter 3 "	1244.0800




Adapters for weld. ball valves (long end)

Nominal size
Item no.

DN 25 (PN 25)	1236.0250
DN 32 (PN 25)	1236.0320
DN 40 (PN 25)	1236.0400
DN 50 (PN 25)	1236.0500
DN 65 (PN 25)	1236.0650
DN 80 (PN 25)	1236.0800
DN 100 (PN 25)	1236.1000
Adapter screw 220 (DN32-DN50)	1236.9001
Adapter screw 260 (DN50-DN80)	1236.9002
Adapter screw 280 (DN80-DN100)	1236.9003
Adapter screw 350 (DN100)	1236.9004

Steel Adapters for flanged valves

Nominal size
Item no.

DN 25 (PN 16 - 40)	1239.0250
DN 40/32 (PN 16 - 40)	1239.0320
DN 50/40 (PN 16 - 40)	1239.0500
DN 65 (PN 16 - 40)	1239.0650
DN 80 (PN 16 - 40)	1239.0800
DN 100 (PN 16 - 40)	1239.1000

Aluminium Adapters for flanged valves

Nominal size
Item no.

DN 80 PN16	1233.0800
DN 100 PN16	1233.1000

Hole Saw Chucks

Item
Item no.

20 mm - 30 mm "A" 1/2 " UNF-thread	1213.0070
32 mm - 95 mm "B" 1/2 " UNF-thread	1213.0060

Pilot Drills

Item
Item no.

Short Pilot Drill (HM)	1213.0082
Normal Pilot Drill (HM)	1213.0080
Long Pilot Drill (HM)	1213.0081




Bi-Metal (HSS) Hole Saws

for Steel, Ductile and Cast Iron



Nominal size	diam./mm thread	Item no.
DN 20 (3/4")	19 1/4 " UNF	1219.0190
DN 20 (3/4")	20 1/4 " UNF	1219.0200
DN 25 (1 ")	24 1/4 " UNF	1219.0240
DN 32 (1 1/4")	27 1/4 " UNF	1219.0270
DN 32 (1 1/4")	30 1/4 " UNF	1219.0300
DN 32 (1 1/4")	32 5/8 " UNF	1219.0320
DN 40 (1 1/2")	35 5/8 " UNF	1219.0350
DN 40 (1 1/2")	38 5/8 " UNF	1219.0380
DN 50 (2 ")	44 5/8 " UNF	1219.0440
DN 65 (2 1/2")	48 5/8 " UNF	1219.0480
DN 65 (2 1/2")	57 5/8 " UNF	1219.0570
DN 80 (3 ")	64 5/8 " UNF	1219.0640
DN 80 (3 ")	70 5/8 " UNF	1219.0700
DN 100 (4 ")	89 5/8 " UNF	1219.0890
DN 100 (4 ")	95 5/8 " UNF	1219.0950

Carbide Grit tooth (GE) Hole Saws

for Concreted Pipes



Nominal size	diam./mm thread	Item no.
DN 25 (1 ")	22 1/4 " UNF	1245.0220
DN 25 (1 ")	24 1/4 " UNF	1245.0240
DN 32 (1 1/4")	27 5/8 " UNF	1245.0270
DN 32 (1 1/4")	29 5/8 " UNF	1245.0290
DN 40 (1 1/2")	35 5/8 " UNF	1245.0350
DN 50 (2 ")	38 5/8 " UNF	1245.0380
DN 50 (2 ")	44 5/8 " UNF	1245.0440
DN 65 (2 1/2")	57 5/8 " UNF	1245.0570
DN 65 (2 1/2")	64 5/8 " UNF	1245.0640
DN 80 (3 ")	68 5/8 " UNF	1245.0680
DN 80 (3")	70 5/8 " UNF	1245.0700
DN 100 (4 ")	83 5/8 " UNF	1245.0830

Carbide tipped (HM) Hole Saws

for PE, PVC and Clay Pipes



Nominal size	diam./mm thread	Item no.
DN 20 (3/4")	19 1/4 " UNF	1258.0190
DN 25 (1 ")	24 1/4 " UNF	1258.0240
DN 32 (1 1/4")	30 1/4 " UNF	1258.0300
DN 40 (1 1/2")	35 5/8 " UNF	1258.0350
DN 50 (2 ")	38 5/8 " UNF	1258.0380
DN 65 (2 1/2")	44 5/8 " UNF	1258.0570
DN 80 (3 ")	64 5/8 " UNF	1258.0640
DN 80 (3 ")	68 5/8 " UNF	1258.0680
DN 100 (4 ")	83 5/8 " UNF	1258.0830




Special Drill 17 mm (HSS)

Item

Drill bit for 3/4 " branching Special drill 17 mm (HSS)

Item no.

1213.0172

Electric Drive Unit

1211.0000



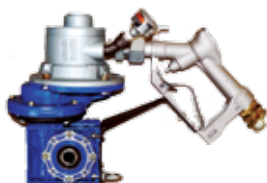
Operability: DN20 (3/4 ") - DN100 (4 ")

 Power: *220-240 V, 50...60 Hz
1100 W
(*available also 110 V)

Weight: 4,8 kg

Pneumatic Drive Unit

1267.0000



Operability: DN20 (3/4 ") - DN100 (4 ")

Power: 1,3KW

 Air consumption: 1,8 m³ / min
6 - 8 bar

Weight: 4,8 kg

Ratchet Drive

Item

TONISCO Jr. ratchet drive

Item no.

1214.0000

Shafts & Shaft extensions

Diameter 20 mm / 1/2" square


Type
Specs.
Item no.

350/475 mm Norm. shaft 1213.0010

475/600 mm RV/VX-shaft 1229.0050

650/775 mm Long shaft 1229.0040

90 mm shaft extension 90 mm 1213.0030

180 mm shaft extension 180 mm 1213.0020

Shaft extension socket 70 mm 1213.0090

Gear fastening screw M8X90 1213.0100

Shaft Opener & Opening Pins

Item

TONISCO Jr. Special wrench

Item no.

1250.0170

TONISCO Jr. Opening Pin 1213.0040

TONISCO Sealant & Cutting Paste

Item

TONISCO Cutting Paste

Item no.

1289.0010

TONISCO sealant 1269.0010

