

SECTION 11
Hot tapping tool

BROEN
BALLOMAX®

Designed to last

Hot tap tool - DN 15 - 50 - DN 65 - 100, PN 25

Type 68 501 015 001- Full bore

Hot tap tool

BROEN BALLOMAX® hot tap valves from DN 15 to DN 100 make it very simple and economical to connect new district heating consumers to the existing network without causing any inconvenience and/or disconnection of supply.

The procedure is very simple:

- 1) The main pipe is stripped where the branch is requested.
- 2) The hot tap valve is welded on to the pipe with the ball in open position.
- 3) The hot tap tool is mounted on the valve and connected to a drilling machine.
- 4) You drill directly through the valve and into the heating pipe.
- 5) Having drilled the hole, you pull back the bore, close the valve, remove the tool and the consumer can be connected to the network.

Content

See next pages.



DN 15 - 50

The basis case 68 501 015 000 and the extension case 68 503 065 000 can be used with the previous delivered and also the new optimized BALLOMAX® hot tapping valves with reduced bore.

The basis case 68 501 015 000 can also be used with the optimized hot tapping valve DN 50 full bore.

When used together with the new BALLOMAX® hot tapping valve DN 50 full bore – BROEN number 68602050S748500 – you need the below mentioned parts from the extension case.

No.	Description	BROEN No.
23	Reduction gear 7:1	601449
24	Driver unit	300100
26	Attachment unit	100944

For the new optimized BALLOMAX® hot tapping valves DN 65 to DN 100 full bore there will be an updated toolset / expansion set. With this toolset / expansion set the BALLOMAX® hot tapping valves in the range DN 65 to DN 100 reduced and full bore can be used.



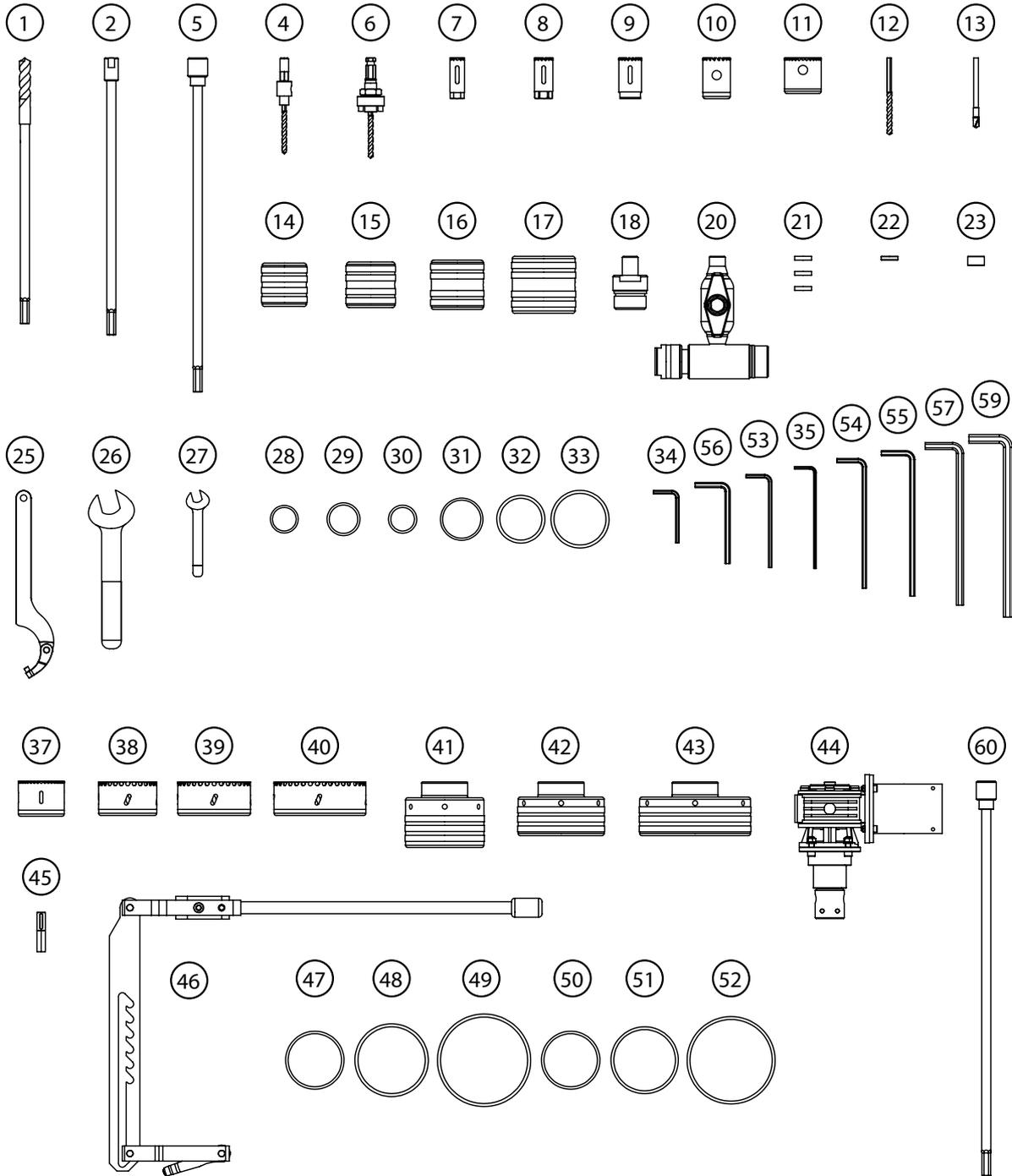
DN 65 - 100

DN	BROEN No.	Description
15 - 50	68 501 015 000	Hot tap tool with case
65 - 100	68 503 065 000	Hot tap tool with case

Hot tap tool - DN 15 - 50 - DN 65 - 100, PN 25



Technical drawing



Hot tap tool - DN 15 - 50, PN 25

Type 68 501 015 001/2023 - **Full bore & reduced bore**



No.	Description	Material	BROEN No.
1	Spiral drill extended Ø14	Drill extended Ø14 for DN 15FB, DN 20RB	491385
2	Hex hole saw complete DN 15 - 50	Drill extension for hole saw holder 491388 + 491389	491399
4	Holder with thread for hole saws	Ø 19, Ø 24 + Ø 30 mm	491388
5	Drill extension assembled L440	For DN 32FB, DN 40FB/RB, DN 50FB/RB, DN 65FB/RB, DN 80FB/RB, DN 100RB length 440mm	601263
6	Saw holder DN 40 - DN 100	Saw holder for Ø37, Ø48, Ø60, Ø76 + Ø95mm	601264
7	Hole saw dia 19mm max L 59mm	Hole saw for DN 20FB/25RB	100845
8	Hole saw DIA 24mm max L 54mm	Hole saw for DN 20FB/32RB	100846
9	Hole saw DIA 30mm max L 54mm	Hole saw for DN 32FB/40RB	100847
10	Hole saw DIA 37mm max L 54mm	Hole saw for DN 40FB/50RB	100848
11	Hole saw DIA 48mm max L 46mm	Hole saw for DN 50FB/65RB	100940
12	Centre drill Ø6,4mm		100842
13	Centre drill Ø7mm with lock washer	Centre drill Ø7mm with lock washer dedicated to assembly with 601264	601246
14	Adaptor for DN 25	Coupling for DN 20FB/25RB	491380
15	Adaptor for DN 32	Coupling for DN 25FB/32RB	491381
16	Adaptor for DN 40	Coupling for DN 32FB/40RB	491382
17	Adaptor for DN 50	Coupling for DN 40FB/50RB/50FB	491383
18	Test cap		491384
19	Test piece with pressure gauge + air pump	only delivered in Germany	491386
20	Hot tapping tool	Hot tapping tool for all sizes	491375
21	Packing for hottapping unit	Sealing packing for 491375	491379
22	Short bearing for http tool	Sealing packing for 491375	492378
23	Bearing for hot tapping tool	Sealing packing for 491375	491378
	Union nut for hot tapping tool	Nut for 491375	491377
25	Hook spanner 6mm	Wrench for couplings tightennig	100841
26	Flat key M24		300091
27	Flat key M11		300090
28	OR NBR70 031x3,0	Oring for 491375/491384	100824
29	OR NBR70 037,2x3,0	Oring for 491375/491384	100825
30	OR NBR70 039x3,0	Oring for 491380	100820
31	OR NBR70 -40° 050,39x3,53	Oring for 491381	600124
32	OR NBR70 055x4,0	Oring for 491382	100821
33	OR NBR70 068x4,0	Oring for 491383	100822
34	Hexagon key 1/8"	For saw holder 601264	500147
35	Hexagon key 3mm	Hexagon key for 601263 and 601266	601336
	BROEN BALLOMAX® instruction	Hot tapping manual instruction	
	Suitcase including hard foam insert	DN 15 - DN 50 FB + RB	601353H

Note: 601263, 601266 + 601264 can only be used with TÜV A.334.21 tapping unit.

FB = Full bore | RB = Reduced bore

Hot tap tool - DN 65 - 100, PN 25

Type 68 503 065 000 /2023 - Full bore & reduced bore



No.	Description	Material	BROEN No.
5	Drill extension assembled L440	For DN 32FB, DN 40FB/RB, DN 50FB/RB, DN 80FB/RB, DN 100RB length 440 mm	601263
60	Drill extension assembled L520	For DN 100FB length 520mm	601266
6	Saw holder DN 40 - DN 100	Saw holder for Ø37, Ø48, Ø60, Ø76 + Ø95mm	601264
37	Hole saw DIA 48mm max L 46mm	Hole saw for DN 50FB/DN 65RB	100940
38	Hole saw DIA 60mm max L 46mm	Hole saw for DN 65FB/DN 80RB	100941
39	Hole saw DIA 76mm max L 46mm	Hole saw for DN 80FB/DN 100RB	100942
40	Hole saw DIA 95mm max L 46mm	Hole saw for DN 100FB	601275
41	DN 65 coupling	Coupling for DN 65FB/RB with thread M80x2 inside	601066
42	DN 80 coupling	Coupling for DN 80FB/RB with thread M95x2 inside	601067
43	DN 100 coupling	Coupling for DN 100FB/RB with thread M120x3 inside	601068
44	Reduction gear DN 65 - 100	Reduction gear for drilling DN 65FB/RB, DN 08DB/RB, DN 100FB/RB VF44	601449
45	Gear reduction stem	Reduction stem for gear	300100
20	Hot tapping tool	Hot tapping tool for all sizes	491375
46	Drilling Holder	Drilling holder for gear	100944
47	OR NBR70 -40° 80,0x4,0	Oring for coupling 601066	500690
48	OR NBR70 088x4,0	Oring for coupling 601067	601087
49	OR NBR70 114x4,0	Oring for coupling 601068	601088
34	Hexagon key 1/8"	For saw holder 601264	500147
56	Hexagon key 3mm	Hexagon key for 601263 and 601266	601336
53	Hexagon key 4mm	For gear assembly	100959
54	Hexagon key 5mm	For gear assembly	100960
55	Hexagon key 6mm	For gear assembly	100961
25	Hook Spaner 6mm	Wrench for cuouplings tightennig	100841
	BROEN BALLOMAX® instruction	Hot tapping manual instruction	
	Suitcase including hard foam insert - VF 44	DN 65 - DN 100 FB + RB	601450H

Note: 601263, 601266 + 601264 can only be used with TÜV A.334.21 tapping unit
 FB = Full bore | RB = Reduced bore

Hot tap tool - DN 15 - 50, PN 25

Type 68 501 015 001/2022 - **Full bore & reduced bore**



No.	Description	Material	BROEN No.
1	Spiral drill extended Ø14	Drill extended Ø14 for DN 15FB, DN 20RB	491385
2	Hex hole saw complete DN 15 - 50	Drill extension for hole saw holder 491388+491389	491399
4	Drill holder	Drill holder for Ø19, Ø24 + Ø30mm	491388
6	Holder with thread hole saw for 491399	Tool for drilling Ø37, Ø48, Ø60 + Ø76mm	491389
7	Hole saw dia 19mm max L 59mm	Hole saw for DN 20FB/25RB	100845
8	Hole saw DIA 24mm max L 54mm	Hole saw for DN 20FB/32RB	100846
9	Hole saw DIA 30mm max L 54mm	Hole saw for DN 32FB/40RB	100847
10	Hole saw DIA 37mm max L 54mm	Hole saw for DN 40FB/50RB	100848
12	Centre drill Ø6,4mm		100842
13	Centre drill Ø7mm with lock washer	Centre drill Ø7mm with lock washer dedicated to assembly with 601264	601246
14	Coupling for DN 25	Coupling for DN 20FB/25RB	491380
15	Coupling for DN 32	Coupling for DN 25FB/32RB	491381
16	Coupling for DN 40	Coupling for DN 32FB/40RB	491382
17	Coupling for DN 50	Coupling for DN 40FB/50RB/50FB	491383
18	Test cap		491384
19	Test piece with pressure gauge + air pump	only delivered in Germany	491386
20	Hot tapping tool	Hot tapping tool for all sizes	491375
21	Packing for hottapping unit	Sealing packing for 491375	491379
23	Bearing for hot tapping tool	Sealing packing for 491375	491378
22	Short bearing for http tool	Sealing packing for 491375	492378
	Union nut for hot tapping tool	Nut for 491375	491377
25	Hook spanner 6mm	Wrench for couplings tightennig	100841
26	Flat key M24		300091
27	Flat key M11		300090
28	OR NBR70 031x3,0	Oring for 491375/491384	100824
29	OR NBR70 037,2x3,0	Oring for 491375/491384	100825
30	OR NBR70 039x3,0	Oring for 491380	100820
31	OR NBR70 -40° 050,39x3,53	Oring for 491381	600124
32	OR NBR70 055x4,0	Oring for 491382	100821
33	OR NBR70 068x4,0	Oring for 491383	100822
34	Hexagon key 1/8"	For saw holder 601264	500147

FB | VD = Full bore | RB | RD = Reduced bore

Hot tap tool - DN 65 - 100, PN 25

Type 68 503 065 000 /2022 - Reduced bore



No.	Description	Material	BROEN No.
2	Hex hole saw complete DN 15 - 50	Drill extension for hole saw holder 491388+491389	491399
6	Holder with thread hole saw for 491399	Tool for drilling Ø37, Ø48, Ø60 + Ø76mm	491389
5	Drill rod for hole saw holder 491389 with triangular	Length approx. 440 mm up to DN 080	491394
37	Hole saw DIA 48mm max L 46mm	Hole saw for DN 50FB/DN 65RB	100940
38	Hole saw DIA 60mm max L 46mm	Hole saw for DN 65FB/DN 80RB	100941
39	Hole saw DIA 76mm max L 46mm	Hole saw for DN 80FB/DN 100RB	100942
40	Hole saw DIA 95mm max L 46mm	Hole saw for DN 100FB	601275
	DN 65 coupling	Coupling for DN 65RB old version with thread M64x2 outside	497380
	DN 80 coupling	Coupling for DN 80RB old version with thread M76x2 outside	498380
	DN 100 coupling	Coupling for DN 0100RB old version with thread M95x2 outside	499380
44	BROEN reduction gear VF 30 - 7:1	Hexagonal holder for boring bars	100943*
44	Reduction gear DN 65 - 100	Reduction gear for drilling DN 65FB/RB, DN 08DB/RB, DN 100FB/RB VF44	601449
45	Gear reduction stem	Reduction stem for gear	300100
20	Hot tapping tool	Hot tapping tool for all sizes	491375
46	Drilling Holder	Drilling holder for gear	100944
50	OR NBR70 070,0x4,0	Oring for coupling 497380	100802
51	OR NBR70 080,0x4,0	Oring for coupling 498380	500689
52	OR FPN70 107,0x4,0	Oring for coupling 499380	500799
34	Hexagon key 1/8"	For saw holder 601264	500147
53	Hexagon key 4mm	For gear assembly	100959
54	Hexagon key 5mm	For gear assembly	100960
55	Hexagon key 6mm	For gear assembly	100961

FB | VD = Full bore | RB | RD = Reduced bore

