



THE MULTIPLEX HOLDER RANGE

The Multiplex-System offers a choice from different holders:

- Four straight shank holders for the drilling depths 3xD, 5xD and 7xD (D-range 9.70 - 65.00 mm) as well as an extra long version (D-range 11.71 - 102.00 mm).



Product No. 86612 Page 8



Product No. 86622 Page 9



Product No. 86624 Page 9



Special programme Page 10

- Two straight shank holders for stepped holes with a 90° or 180° step angle.



Product No. 86740 Page 12



Product No. 86730 Page 12

- Two Morse taper shank holders with axial coolant delivery, short or long design for the diameter range 9.70 to 25.40 mm. Design with radial coolant supply on request.



Product No. 86630 Page 14



Product No. 86650 Page 15

- Three Morse taper shank holders with radial coolant delivery via collar in short, long or extra long design for the diameter range 25.00 to 102.00 mm (axial coolant delivery by modification possible).



Product No. 86670 Page 14



Product No. 86680 Page 15



Special programme Page 16

- Modular system: adaptors, extensions, tangs and drill heads can be combined individually. Hole Ø up to 210 mm.



Special programme Page 17



For dimensional drawing see "Shank dimensions Weldon", page 6 Lengths l₁ and l₂ incl. Inseparable insert.

*Attention: only for insert thickness 4 mm

86622 long, for drilling depths < 5 x D

Hole Ø-range D mm	Total length l ₁ mm	Flute length l ₂ mm	Holder-Ø D ₁ mm	Width of slot B mm	Torx screws 86807		Screwdriver size	Code no.
					Size	Code no.		
9.70 - 11.70	140	83.0	9.5	2.5	M 2x4	2.000	T 6	09.500
11.71 - 13.40	150	94.0	11.5	2.5	M 2x4	2.000	T 6	11.500
13.41 - 16.40	160	104.0	13.0	3.5	M 2.5x5	2.500	T 7	13.000
16.41 - 18.90	170	117.0	16.0	3.5	M 2.5x7	2.501	T 7	16.000
18.91 - 22.40	180	129.0	18.5	4.0	M 3x8	3.000	T 9	18.500
22.41 - 25.40*	180	131.0	22.0	4.0	M 3x8	3.001	T 9	22.000
25.41 - 29.00	240	166.0	24.0	5.0	M 3.5x10	3.500	T 15	24.000
29.01 - 35.00	240	170.0	28.0	5.0	M 3.5x10	3.500	T 15	28.000
35.01 - 45.00	280	210.0	34.0	7.0	M 4x15	4.001	T 20	34.000
45.01 - 55.00	290	210.0	44.0	7.0	M 4x15	4.001	T 20	44.000
55.01 - 65.00	290	210.0	54.0	7.0	M 4x15	4.001	T 20	54.000



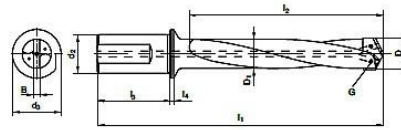
For dimensional drawing see "Shank dimensions Weldon", page 6 Lengths l₁ and l₂ incl. Inseparable insert.

*Attention: only for insert thickness 4 mm

86624 extra long, for drilling depths < 7 x D

Hole Ø-range D mm	Total length l ₁ mm	Flute length l ₂ mm	Holder-Ø D ₁ mm	Width of slot B mm	Torx screws 86807		Screwdriver size	Code no.
					Size	Code no.		
9.70 - 11.70	180	123.0	9.5	2.5	M 2x4	2.000	T 6	09.500
11.71 - 13.40	190	134.0	11.5	2.5	M 2x4	2.000	T 6	11.500
13.41 - 16.40	210	155.0	13.0	3.5	M 2.5x5	2.500	T 7	13.000
16.41 - 18.90	220	168.0	16.0	3.5	M 2.5x7	2.501	T 7	16.000
18.91 - 22.40	250	199.0	18.5	4.0	M 3x8	3.000	T 9	18.500
22.41 - 25.40*	250	201.0	22.0	4.0	M 3x8	3.001	T 9	22.000
25.41 - 29.00	320	246.0	24.0	5.0	M 3.5x10	3.500	T 15	24.000
29.01 - 35.00	320	250.0	28.0	5.0	M 3.5x10	3.500	T 15	28.000
35.01 - 45.00	380	310.0	34.0	7.0	M 4x15	4.001	T 20	34.000
45.01 - 55.00	390	310.0	44.0	7.0	M 4x15	4.001	T 20	44.000
55.01 - 65.00	390	310.0	54.0	7.0	M 4x15	4.001	T 20	54.000

STANDARD RANGE STRAIGHT SHANK MULTIPLEX HOLDER



**only for special range p. 10-11

Shank dimensions to DIN 1835-B (Weldon)

Ø D mm	d ₂ mm	d ₃ mm	b mm	l ₂ mm
9.70-25.40	20	25	40	5.0
25.41-29.00	32	40	60	3.0
29.01-35.00	32	40	60	4.5
35.01-45.00	32	40	60	6.3
45.01-55.00	40	50	70	5.0
55.01-65.00	40	-	70	-
65.01-78.00**	40	-	70	-
78.01-90.00**	50	-	80	-
90.01-102.00**	50	-	80	-

Two Torx screws are supplied with each holder



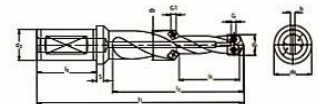
For dimensional drawing see "Shank dimensions Weldon", above Lengths l₁ and l₂ incl. Inseparable insert.

*Attention: only for insert thickness 4 mm

86612 short, for drilling depths < 3 x D

Hole Ø-range D mm	Total length l ₁ mm	Flute length l ₂ mm	Holder-Ø D ₁ mm	Width of slot B mm	Torx screws 86807		Screw driver size	Code no.
					Size	Code no.		
9.70 - 11.70	107	50.0	9.5	2.5	M 2x4	2.000	T 6	09.500
11.71 - 13.40	109	53.0	11.5	2.5	M 2x4	2.000	T 6	11.500
13.41 - 16.40	116	60.0	13.0	3.5	M 2.5x5	2.500	T 7	13.000
16.41 - 18.90	118	65.0	16.0	3.5	M 2.5x7	2.501	T 7	16.000
18.91 - 22.40	124	73.0	18.5	4.0	M 3x8	3.000	T 9	18.500
22.41 - 25.40*	127	78.0	22.0	4.0	M 3x8	3.001	T 9	22.000
25.41 - 29.00	178	105.0	24.0	5.0	M 3.5x10	3.500	T 15	24.000
29.01 - 35.00	178	108.0	28.0	5.0	M 3.5x10	3.500	T 15	28.000
35.01 - 45.00	223	152.0	34.0	7.0	M 4x15	4.001	T 20	34.000
45.01 - 55.00	233	152.0	44.0	7.0	M 4x15	4.001	T 20	44.000
55.01 - 65.00	233	152.0	54.0	7.0	M 4x15	4.001	T 20	54.000

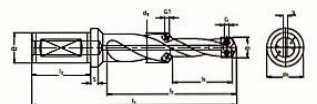
STANDARD RANGE STRAIGHT SHANK MULTIPLEX HOLDER



86740 for stepped holes, 90° step angle

For	Body-Ø d ₂ mm	Step-Ø d ₁ mm	Total length l ₁ mm	Flute length l ₂ mm	Step length l ₃ mm	Width of slot B mm	Code no.
M 12	16	10.2	118	57	30.0	2.5	16.000
M 14	20	12.0	128	69	34.5	2.5	20.000
M 16	21	14.0	133	74	38.5	3.5	21.000
M 18	21	15.5	133	74	38.5	3.5	21.001
M 20	24	17.5	145	88	47.5	3.5	24.000

Step drill for the efficient production of hole and countersink in one operation. For the production of tapping size holes to DIN 336, sheet 1, and countersinks to DIN-ISO 273, medial tolerance. Step angle 90°. Each holder is supplied with 4 Torx screws.

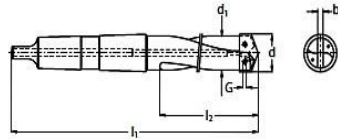


86730 for stepped holes, 180° step angle

For	Body-Ø d ₂ mm	Step-Ø d ₁ mm	Total length l ₁ mm	Flute length l ₂ mm	Step length l ₃ mm	Width of slot B mm	Code no.
M 10	18.0	11.0	120	59	23	2.5	18.000
M 12	20.0	13.5	128	69	27	3.5	20.000
M 14	24.0	15.5	140	81	31	3.5	24.000
M 16	26.0	17.5	148	91	35	3.5	26.000
M 18	30.0	20.0	157	102	39	4.0	30.000
M 20	33.0	22.0	167	112	43	4.0	33.000

Step drill for the efficient production of hole and countersink in one operation. For the production of clearance holes to DIN-ISO 273 and screw head angles form H, J and K. Medial tolerance to DIN 74, part 2. Step angle 180°. Each holder is supplied with 4 Torx screws.

STANDARD RANGE MORSE TAPER SHANK MULTIPLEX HOLDERS

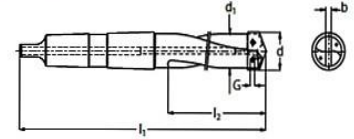


*Attention: only for insert thickness 4 mm

86630 short, axial coolant delivery, radial coolant delivery on request

Hole O-range D mm	Total length l ₁ mm	Flute length l ₂ mm	Morse taper	Holder-O d ₁ mm	Width of slot B mm	Torx screws 86807		Screwdriver size	Code no.
						Size	Code no.		
9.70 - 11.70	139	56	2	9.5	2.5	M 2x4	2.000	T 6	09.500
11.71 - 13.40	141	58	2	11.5	2.5	M 2x4	2.000	T 6	11.500
13.41 - 16.40	148	63	2	13.0	3.5	M 2.5x5	2.500	T 7	13.000
16.41 - 18.90	150	67	2	16.0	3.5	M 2.5x7	2.501	T 7	16.000
18.91 - 22.40	178	76	3	18.5	4.0	M 3x8	3.000	T 9	18.500
22.41 - 25.40*	181	80	3	22.0	4.0	M 3x8	3.001	T 9	22.000

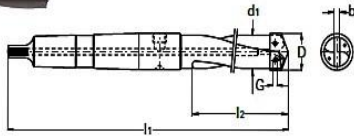
STANDARD RANGE MORSE TAPER SHANK MULTIPLEX HOLDERS



*Attention: only for insert thickness 4 mm

86650 long, axial coolant delivery, radial coolant delivery on request

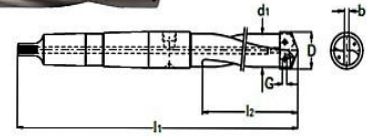
Hole O-range D mm	Total length l ₁ mm	Flute length l ₂ mm	Morse taper	Holder-O d ₁ mm	Width of slot B mm	Torx screws 86807		Screwdriver size	Code no.
						Size	Code no.		
9.70 - 11.70	186	103	2	9.5	2.5	M 2x4	2.000	T 6	09.500
11.71 - 13.40	191	108	2	11.5	2.5	M 2x4	2.000	T 6	11.500
13.41 - 16.40	210	125	2	13.0	3.5	M 2.5x5	2.500	T 7	13.000
16.41 - 18.90	218	135	2	16.0	3.5	M 2.5x7	2.501	T 7	16.000
18.91 - 22.40	258	156	3	18.5	4.0	M 3x8	3.000	T 9	18.500
22.41 - 25.40*	266	165	3	22.0	4.0	M 3x8	3.001	T 9	22.000



- holder Ø 63 mm straight fluted
- morse taper 5 for collar retention
- insert thickness 5 mm

86670 short, radial coolant delivery, axial coolant delivery on request

Hole O-range D mm	Total length l ₁ mm	Flute length l ₂ mm	Morse taper	Holder-O d ₁ mm	Width of slot B mm	R	Torx screws 86807		Screwdriver size	Code no.
							Size	Code no.		
25.01 - 29.00*	279	108	4	24	5	G 1/4"	M 3.5x10	3.500	T 15	24.000
29.01 - 35.00	279	108	4	28	5	G 1/4"	M 3.5x10	3.500	T 15	28.000
35.01 - 45.00	324	152	4	34	7	G 1/4"	M 4x15	4.001	T 20	34.000
45.01 - 55.00	324	152	4	44	7	G 1/4"	M 4x15	4.001	T 20	44.000
55.01 - 65.00	324	152	4	54	7	G 1/4"	M 4x15	4.001	T 20	54.000
65.01 - 78.00	436	216	5	63	9	G 1/2"	M 5x20	5.000	T 20	63.000
78.01 - 90.00	436	216	5	77	9	G 1/2"	M 5x20	5.000	T 20	77.000
90.01 - 102.00	436	216	5	89	9	G 1/2"	M 5x20	5.000	T 20	89.000



- holder Ø 63 mm straight fluted
- morse taper 5 for collar retention
- insert thickness 5 mm

86680 long, radial coolant delivery, axial coolant delivery on request

Hole O-range D mm	Total length l ₁ mm	Flute length l ₂ mm	Morse taper	Holder-O d ₁ mm	Width of slot B mm	R	Torx screws 86807		Screwdriver size	Code no.
							Size	Code no.		
25.01 - 29.00*	379	208	4	24	5	G 1/4"	M 3.5x10	3.500	T 15	24.000
29.01 - 35.00	379	208	4	28	5	G 1/4"	M 3.5x10	3.500	T 15	28.000
35.01 - 45.00	420	257	4	34	7	G 1/4"	M 4x15	4.001	T 20	34.000
45.01 - 55.00	420	257	4	44	7	G 1/4"	M 4x15	4.001	T 20	44.000
55.01 - 65.00	420	257	4	54	7	G 1/4"	M 4x15	4.001	T 20	54.000
65.01 - 78.00	536	316	5	63	9	G 1/2"	M 5x20	5.000	T 20	63.000
78.01 - 90.00	536	316	5	77	9	G 1/2"	M 5x20	5.000	T 20	77.000
90.01 - 102.00	536	316	5	89	9	G 1/2"	M 5x20	5.000	T 20	89.000

STANDARD RANGE SOLID CARBIDE INTERCHANGEABLE INSERTS WITH FACET POINT GRIND

Tool material				Tool material			
Solid carbide		Solid carbide		Solid carbide		Solid carbide	
w/o margin		with margin		with margin		w/o margin	
Surface finish	Product no.	Surface finish	Product no.	Surface finish	Product no.	Surface finish	Product no.
TTN	86701	TTN	86702	TTN	86706	TTN	86709
Ø	mm	mm	mm	mm	mm	mm	mm
10.00	2.5	26.50	5.0	26.50	5.0	26.50	5.0
10.20	2.5	27.00	5.0	28.00	5.0	28.00	5.0
10.50	2.5			29.00	5.0	29.00	5.0
11.00	2.5			30.00	5.0	30.00	5.0
11.11	2.5			31.00	5.0	31.00	5.0
11.20	2.5			32.00	5.0	32.00	5.0
11.50	2.5			33.00	5.0	33.00	5.0
12.00	2.5			34.00	5.0	34.00	5.0
12.70	2.5			35.00	5.0		
12.75	2.5						
13.00	2.5						
13.50	2.5						
13.75	2.5						
14.00	2.5						
14.10	3.5						
14.25	3.5						
14.50	3.5						
14.75	3.5						
15.00	3.5						
15.50	3.5						
16.25	3.5						
16.50	3.5						
16.97	3.5						
16.75	3.5						
17.00	3.5						
17.50	3.5						
17.75	3.5						
18.00	3.5						
18.25	3.5						
18.50	3.5						
18.75	3.5						
19.00	4.0						
19.50	4.0						
19.75	4.0						
20.00	4.0						
20.50	4.0						
20.84	4.0						
21.00	4.0						
21.50	4.0						
22.00	4.0						
22.90	4.0						
23.50	4.0						
22.75	4.0						
23.00	4.0						
23.25	4.0						
23.50	4.0						
24.00	4.0						
24.30	4.0						
24.25	4.0						
24.50	4.0						
24.75	4.0						
25.00	4.0						
26.00	5.0						

without margins
for materials with a tensile strength up to approximately 600 N/mm²

with margins
for materials with a tensile strength over approximately 600 N/mm²

≤ Ø 25.4 = 135°
> Ø 25.4 = 132°
> Ø 66.0 = 140°

⚠ Please note:
Not mentioned intermediate diameters are available on request.

STANDARD RANGE HSS-E-/HSS-E-PM-INTERCHANGEABLE INSERTS WITH CHIP BREAKER GROOVES

Tool material		Tool material		Tool material		Tool material	
HSS-E		HSS-E-PM		HSS-E-PM		HSS-E-PM	
Surface finish		Surface finish		Surface finish		Surface finish	
Product no.	Product no.	Product no.	Product no.	Product no.	Product no.	Product no.	Product no.
TTN	86602	TTN	86608	TTN	86609	TTN	86609
Ø	mm	mm	mm	mm	mm	mm	mm
10.00	2.5	25.00	5.0	25.00	5.0	102.00	9.0
10.20	2.5	25.50	5.0	26.00	5.0	103.00	9.0
10.50	2.5	26.00	5.0	26.50	5.0	104.00	9.0
11.00	2.5	26.50	5.0	27.00	5.0	105.00	9.0
11.75	2.5	27.00	5.0	27.50	5.0	106.00	9.0
12.00	2.5	27.50	5.0	28.00	5.0	107.00	9.0
12.25	2.5	28.00	5.0	28.50	5.0	108.00	9.0
12.30	2.5	28.50	5.0	29.00	5.0	109.00	9.0
12.40	2.5	29.00	5.0	29.50	5.0	110.00	9.0
12.50	2.5	29.50	5.0	30.00	5.0	111.00	9.0
12.75	2.5	30.00	5.0	30.50	5.0	112.00	9.0
13.00	2.5	31.00	5.0	31.00	5.0	113.00	9.0
13.25	2.5	32.00	5.0	32.00	5.0	114.00	9.0
13.50	2.5	33.00	5.0	33.00	5.0	115.00	9.0
13.75	2.5	34.00	5.0	34.00	5.0	116.00	9.0
14.00	2.5	35.00	5.0	35.00	5.0	117.00	9.0
14.25	2.5	36.00	5.0	36.00	5.0	118.00	9.0
14.50	2.5	37.00	5.0	37.00	5.0	119.00	9.0
14.75	2.5	38.00	5.0	38.00	5.0	120.00	9.0
15.00	2.5	39.00	5.0	39.00	5.0	121.00	9.0
15.25	2.5	40.00	5.0	40.00	5.0	122.00	9.0
15.50	2.5	41.00	5.0	41.00	5.0	123.00	9.0
15.75	2.5	42.00	5.0	42.00	5.0	124.00	9.0
16.00	2.5	43.00	5.0	43.00	5.0	125.00	9.0
16.25	2.5	44.00	5.0	44.00	5.0	126.00	9.0
16.50	2.5	45.00	5.0	45.00	5.0	127.00	9.0
16.75	2.5	46.00	5.0	46.00	5.0	128.00	9.0
17.00	2.5	47.00	5.0	47.00	5.0	129.00	9.0
17.25	2.5	48.00	5.0	48.00	5.0	130.00	9.0
17.50	2.5	49.00	5.0	49.00	5.0	131.00	9.0