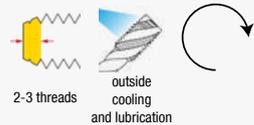
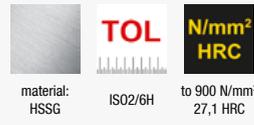
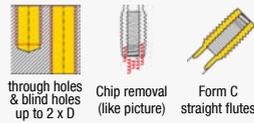
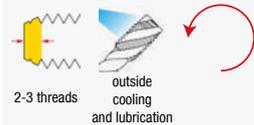
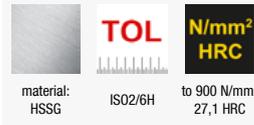
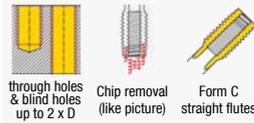


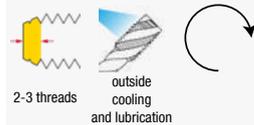
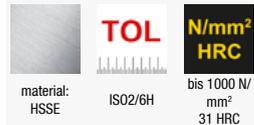
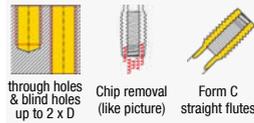
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets HSSE for higher demands


**MF**

	D1	D2	L1	L2	□		No.	€	No.	€	No.	€
MF 2,5 x 0,35	2,5	2,8	40	9	2,1	2,15	120301001	15,59				
MF 2,6 x 0,35	2,6	2,8	40	9	2,1	2,25	120301002	15,59				
MF 3 x 0,35	3,0	3,5	40	9	2,7	2,65	120301003	15,59				
MF 3,5 x 0,35	3,5	4,0	45	10	3,0	3,15	120301004	15,59				
MF 4 x 0,35	4,0	4,5	45	10	3,4	3,65	120301005	15,59				
MF 4 x 0,5	4,0	4,5	45	10	3,4	3,50	120301006	15,59				
MF 4,5 x 0,5	4,5	6,0	50	12	4,9	4,00	120301007	15,59				
MF 5 x 0,5	5,0	6,0	50	12	4,9	4,50	120301008	15,59				
MF 5 x 0,75	5,0	6,0	50	12	4,9	4,25	120301009	15,59				
MF 5,5 x 0,5	5,5	6,0	50	12	4,9	5,00	120301010	15,59				
MF 6 x 0,5	6,0	6,0	50	14	4,9	5,50	120301011	15,59				
MF 6 x 0,75	6,0	6,0	50	14	4,9	5,20	120301012	13,97	120302001	20,82	120304001	18,71
MF 7 x 0,5	7,0	6,0	50	14	4,9	6,50	120301013	13,97				
MF 7 x 0,75	7,0	6,0	50	14	4,9	6,20	120301014	13,97				
MF 8 x 0,5	8,0	6,0	50	19	4,9	7,50	120301015	13,97				
MF 8 x 0,75	8,0	6,0	50	19	4,9	7,20	120301016	13,97	120302002	20,82	120304002	18,71
MF 8 x 1	8,0	6,0	56	22	4,9	7,00	120301017	13,97	120302003	20,82	120304003	18,71
MF 9 x 0,5	9,0	7,0	56	19	5,5	8,50	120301018	15,59				
MF 9 x 0,75	9,0	7,0	56	19	5,5	8,25	120301019	15,59				
MF 9 x 1	9,0	7,0	63	20	5,5	8,00	120301020	15,59				
MF 10 x 0,5	10,0	7,0	63	20	5,5	9,50	120301021	15,59				
MF 10 x 0,75	10,0	7,0	63	20	5,5	9,20	120301022	15,59				
MF 10 x 1,0	10,0	7,0	63	20	5,5	9,00	120301023	13,97	120302004	20,82	120304004	20,35
MF 10 x 1,25	10,0	7,0	70	24	5,5	8,80	120301024	15,59	120302005	23,38	120304005	23,38
MF 11 x 0,75	11,0	8,0	63	20	6,2	10,20	120301025	20,24				
MF 11 x 1,0	11,0	8,0	63	20	6,2	10,00	120301026	20,24				
MF 11 x 1,25	11,0	8,0	63	22	6,2	10,80	120301027	20,24				
MF 12 x 0,5	12,0	9,0	70	22	7,0	11,50	120301028	20,24				
MF 12 x 0,75	12,0	9,0	70	22	7,0	10,20	120301029	20,24				
MF 12 x 1,0	12,0	9,0	70	22	7,0	11,00	120301030	20,24	120302006	30,88	120304006	28,30
MF 12 x 1,25	12,0	9,0	70	22	7,0	10,80	120301031	20,24	120302007	30,88	120304007	28,30
MF 12 x 1,5	12,0	9,0	70	22	7,0	10,50	120301032	18,39	120302008	28,30	120304008	28,30
MF 13 x 0,5	13,0	11,0	70	22	9,0	12,50	120301033	30,95				

**MF** Metric fine thread / ISO DIN 13

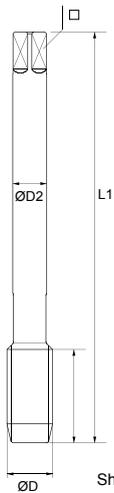
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

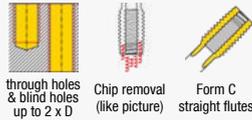
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

Finish Tap

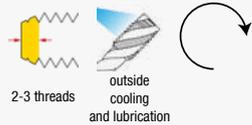


## Hand Tap Sets for general use

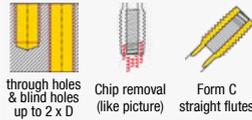


through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes

material: HSSG  
**TOL** ISO2/6H  
**N/mm<sup>2</sup> HRC** to 900 N/mm<sup>2</sup> 27,1 HRC

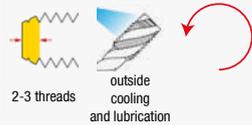


## Hand Tap Sets for general use Left Hand

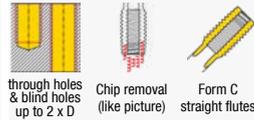


through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes

material: HSSG  
**TOL** ISO2/6H  
**N/mm<sup>2</sup> HRC** to 900 N/mm<sup>2</sup> 27,1 HRC

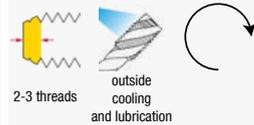


## Hand Tap Sets HSSE for higher demands



through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes

material: HSSE  
**TOL** ISO2/6H  
**N/mm<sup>2</sup> HRC** bis 1000 N/mm<sup>2</sup> 31 HRC



MF	D1	D2	L1	L2	□		No.	€	No.	€	No.	€
MF 13 x 0,75	13,0	11,0	70	22	9,0	12,20	120301034	31,10				
MF 13 x 1,0	13,0	11,0	70	22	9,0	12,00	120301035	31,10				
MF 13 x 1,5	13,0	11,0	70	22	9,0	11,50	120301036	31,10				
MF 14 x 0,5	14,0	11,0	70	22	9,0	13,50	120301037	31,10				
MF 14 x 0,75	14,0	11,0	70	22	9,0	13,20	120301038	31,10				
MF 14 x 1,0	14,0	11,0	70	22	9,0	13,00	120301039	31,10				
MF 14 x 1,25	14,0	11,0	70	22	9,0	12,80	120301040	23,38	120302009	34,39	120304009	32,74
MF 14 x 1,5	14,0	11,0	70	22	9,0	12,50	120301041	20,12	120302010	30,88	120304010	29,70
MF 15 x 0,75	15,0	12,0	70	22	9,0	14,20	120301042	34,38				
MF 15 x 1,0	15,0	12,0	70	22	9,0	14,00	120301043	34,38				
MF 15 x 1,5	15,0	12,0	70	22	9,0	13,50	120301044	34,38				
MF 16 x 0,5	16,0	12,0	70	22	9,0	15,50	120301045	34,38				
MF 16 x 0,75	16,0	12,0	70	22	9,0	15,20	120301046	34,38				
MF 16 x 1,0	16,0	12,0	70	22	9,0	15,00	120301047	34,38	120302011	51,46	120304011	37,65
MF 16 x 1,25	16,0	12,0	70	22	9,0	14,80	120301048	34,38				
MF 16 x 1,5	16,0	12,0	70	22	9,0	14,50	120301049	24,56	120302012	36,95	120304012	43,27
MF 17 x 1	17,0	12,0	70	22	9,0	16,00	120301050	37,65				
MF 17 x 1,5	17,0	12,0	70	22	9,0	15,50	120301051	37,65				
MF 18 x 0,5	18,0	14,0	80	22	11,0	17,50	120301052	37,65				
MF 18 x 0,75	18,0	14,0	80	22	11,0	17,20	120301053	37,65				
MF 18 x 1,0	18,0	14,0	80	22	11,0	17,00	120301054	37,65				
MF 18 x 1,25	18,0	14,0	80	22	11,0	16,80	120301055	37,65				
MF 18 x 1,5	18,0	14,0	80	22	11,0	16,50	120301056	28,30	120302013	43,27	120304013	52,40
MF 18 x 2,0	18,0	14,0	80	22	11,0	16,00	120301057	37,65				
MF 19 x 1	19,0	16,0	80	22	12,0	18,00	120301058	47,24				
MF 19 x 1,5	19,0	14,0	80	22	11,0	17,50	120301059	47,24				
MF 20 x 0,5	20,0	16,0	80	22	12,0	19,50	120301060	47,24				
MF 20 x 0,75	20,0	16,0	80	22	12,0	19,20	120301061	47,24				
MF 20 x 1,0	20,0	16,0	80	22	12,0	19,00	120301062	47,24				
MF 20 x 1,25	20,0	16,0	80	22	12,0	18,80	120301063	47,24				
MF 20 x 1,5	20,0	16,0	80	22	12,0	18,50	120301064	34,38	120302014	51,46	120304014	49,12
MF 20 x 2,0	20,0	16,0	80	22	12,0	18,00	120301065	47,24			120304015	65,49
MF 21 x 1	21,0	16,0	80	22	12,0	20,00	120301066	48,88				

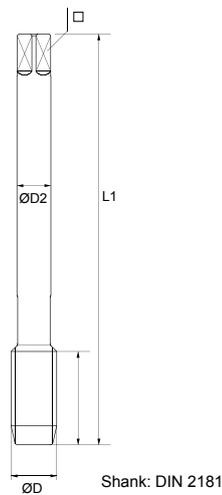
**MF** Metric fine thread / ISO DIN 13

Efficient internal thread cutting.

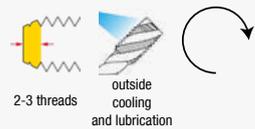
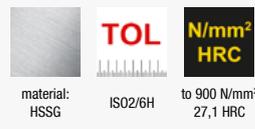
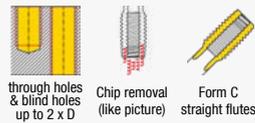
The short structural type makes that tap usable by machine and hand.

**A Hand-Tap-Set includes 2 taps:**

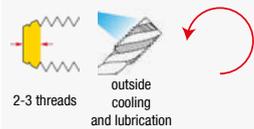
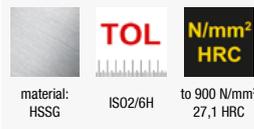
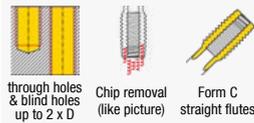
- Taper Tap
- Finish Tap



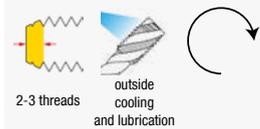
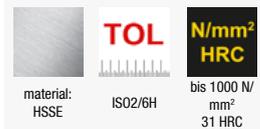
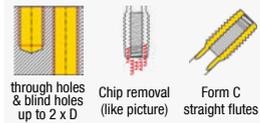
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets HSSE for higher demands



MF	D1	D2	L1	L2	□		No.	€	No.	€	No.	€
MF 21 x 1,5	21,0	16,0	80	22	12,0	19,50	120301067	48,88				
MF 22 x 0,5	22,0	18,0	80	22	14,5	21,50	120301068	48,88				
MF 22 x 0,75	22,0	18,0	80	22	14,5	21,20	120301069	48,88				
MF 22 x 1,0	22,0	18,0	80	22	14,5	21,00	120301070	48,88				
MF 22 x 1,25	22,0	18,0	80	22	14,5	20,80	120301071	48,88				
MF 22 x 1,5	22,0	18,0	80	22	14,5	20,50	120301072	48,88	120302015	67,83	120304016	61,28
MF 22 x 2,0	22,0	18,0	80	22	14,5	20,00	120301073	48,88			120304017	65,49
MF 23 x 1	23,0	18,0	80	22	14,5	22,00	120301074	65,49				
MF 23 x 1,5	23,0	18,0	80	22	14,5	21,50	120301075	65,49				
MF 24 x 0,5	24,0	18,0	90	22	14,5	23,50	120301076	65,49				
MF 24 x 0,75	24,0	18,0	90	22	14,5	23,20	120301077	65,49				
MF 24 x 1,0	24,0	18,0	90	22	14,5	23,00	120301078	65,49				
MF 24 x 1,25	24,0	18,0	90	22	14,5	23,80	120301079	65,49				
MF 24 x 1,5	24,0	18,0	90	22	14,5	22,50	120301080	51,45	120302016	74,84	120304018	81,86
MF 24 x 2,0	24,0	18,0	90	22	14,5	22,00	120301081	65,49	120302017	98,24		
MF 25 x 1,0	25,0	18,0	90	22	14,5	24,00	120301082	95,90				
MF 25 x 1,5	25,0	18,0	90	22	14,5	23,50	120301083	95,90				
MF 26 x 1,0	26,0	18,0	90	22	14,5	25,00	120301084	95,90				
MF 26 x 1,5	26,0	18,0	90	22	14,5	24,50	120301085	95,90				
MF 26 x 2,0	26,0	18,0	90	22	14,5	24,00	120301086	95,90				
MF 27 x 1	27,0	20,0	90	22	16,0	26,00	120301087	95,90				
MF 27 x 1,5	27,0	20,0	90	22	16,0	25,50	120301088	95,90				
MF 27 x 2,0	27,0	20,0	90	22	16,0	25,00	120301089	113,43				
MF 28 x 1,0	28,0	20,0	90	22	16,0	27,00	120301090	113,43				
MF 28 x 1,5	28,0	20,0	90	22	16,0	26,50	120301091	113,43				
MF 28 x 2,0	28,0	20,0	90	22	16,0	26,00	120301092	113,43				
MF 29 x 1,5	29,0	22,0	90	22	18,0	27,50	120301093	113,43				
MF 30 x 1,0	30,0	22,0	90	22	18,0	29,00	120301094	133,32				
MF 30 x 1,5	30,0	22,0	90	22	18,0	28,50	120301095	133,32	120302018	198,81		
MF 30 x 2,0	30,0	22,0	90	22	18,0	28,00	120301096	133,32	120302019	198,81		
MF 30 x 2,5	30,0	22,0	125	56	18,0	27,50	120301097	133,32				
MF 30 x 3,0	30,0	22,0	125	56	18,0	27,00	120301098	133,32				
MF 32 x 1	32,0	22,0	90	22	18,0	31,00	120301099	133,32				

**MF** Metric fine thread / ISO DIN 13

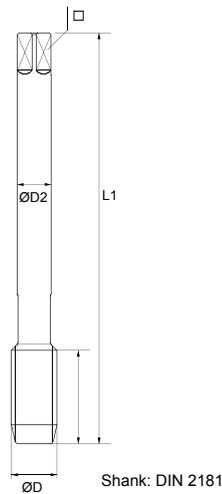
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

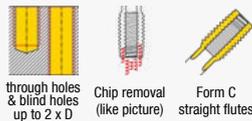
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

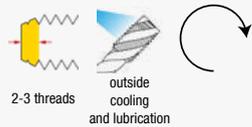
Finish Tap



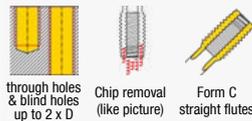
## Hand Tap Sets for general use



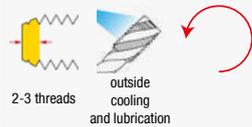
material: HSSG  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
to 900 N/mm<sup>2</sup>  
27,1 HRC



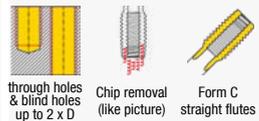
## Hand Tap Sets for general use Left Hand



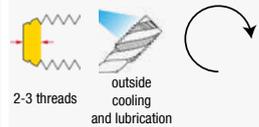
material: HSSG  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
to 900 N/mm<sup>2</sup>  
27,1 HRC



## Hand Tap Sets HSSE for higher demands



material: HSSE  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
bis 1000 N/mm<sup>2</sup>  
31 HRC



MF	D1	D2	L1	L2	□		No.	€	No.	€	No.	€
MF 32 x 1,5	32,0	22,0	90	22	18,0	30,50	120301100	133,32				
MF 32 x 2,0	32,0	22,0	90	22	18,0	30,00	120301101	133,32				
MF 32 x 3,0	32,0	22,0	125	56	18,0	29,00	120301102	133,32				
MF 33 x 1,5	33,0	25,0	100	25	20,0	31,50	120301103	133,32				
MF 33 x 2,0	33,0	25,0	100	25	20,0	31,00	120301104	163,72				
MF 33 x 3,0	33,0	25,0	125	56	20,0	30,00	120301105	163,72				
MF 34 x 1	34,0	28,0	100	25	22,0	33,00	120301106	163,72				
MF 34 x 1,5	34,0	28,0	100	25	22,0	32,50	120301107	163,72				
MF 34 x 2,0	34,0	28,0	125	40	22,0	32,00	120301108	163,72				
MF 35 x 1	35,0	28,0	100	25	22,0	34,00	120301109	163,72				
MF 35 x 1,5	35,0	28,0	100	25	22,0	33,50	120301110	163,72				
MF 35 x 2	35,0	28,0	125	40	22,0	33,00	120301111	163,72				
MF 36 x 1	36,0	28,0	100	25	22,0	35,00	120301112	170,74				
MF 36 x 1,5	36,0	28,0	100	25	22,0	34,50	120301113	170,74				
MF 36 x 2,0	36,0	28,0	125	40	22,0	34,00	120301114	170,74				
MF 36 x 3,0	36,0	28,0	125	40	22,0	33,00	120301115	170,74				
MF 37 x 1,5	37,0	28,0	100	25	22,0	35,50	120301116	212,84				
MF 38 x 1	38,0	28,0	100	25	22,0	37,00	120301117	212,84				
MF 38 x 1,5	38,0	28,0	100	25	22,0	36,50	120301118	212,84				
MF 38 x 2	38,0	28,0	125	40	22,0	36,00	120301119	212,84				
MF 38 x 3	38,0	28,0	125	40	22,0	35,00	120301120	212,84				
MF 39 x 1,5	39,0	32,0	110	25	24,0	37,50	120301121	212,84				
MF 39 x 2,0	39,0	32,0	125	40	24,0	37,00	120301122	212,84				
MF 39 x 3,0	39,0	32,0	125	40	24,0	36,00	120301123	212,84				
MF 40 x 1	40,0	32,0	110	25	24,0	39,00	120301124	212,84				
MF 40 x 1,5	40,0	32,0	110	25	24,0	38,50	120301125	212,84				
MF 40 x 2,0	40,0	32,0	125	40	24,0	38,00	120301126	212,84				
MF 40 x 3,0	40,0	32,0	125	40	24,0	37,00	120301127	212,84				
MF 42 x 1	42,0	32,0	110	25	24,0	41,00	120301128	212,84				
MF 42 x 1,5	42,0	32,0	110	25	24,0	40,50	120301129	212,84				
MF 42 x 2,0	42,0	32,0	125	40	24,0	40,00	120301130	222,21				
MF 42 x 3,0	42,0	32,0	125	40	24,0	39,00	120301131	222,21				
MF 44 x 1,5	44,0	36,0	110	25	29,0	42,50	120301132	250,27				

**MF** Metric fine thread / ISO DIN 13

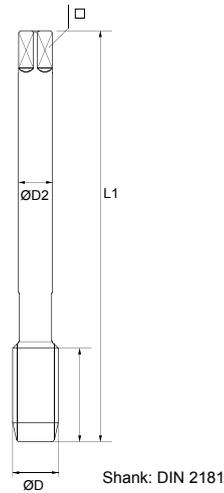
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

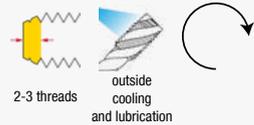
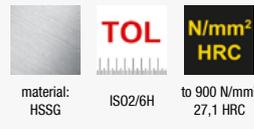
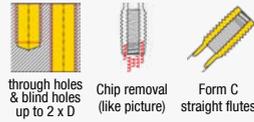
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

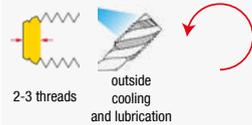
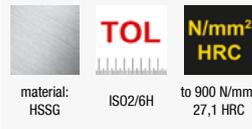
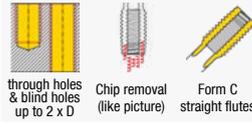
Finish Tap



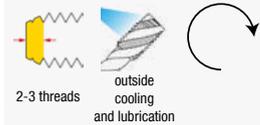
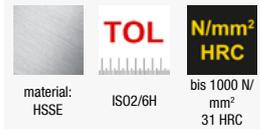
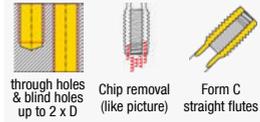
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets HSSE for higher demands



MF	D1	D2	L1	L2	□		No.	€	No.	€	No.	€
MF 44 x 2	44,0	36,0	125	40	29,0	42,00	120301133	250,27				
MF 45 x 1	45,0	36,0	110	25	29,0	44,00	120301134	250,27				
MF 45 x 1,5	45,0	36,0	110	25	29,0	43,50	120301135	250,27				
MF 45 x 2,0	45,0	36,0	125	40	29,0	43,00	120301136	250,27				
MF 45 x 3,0	45,0	36,0	125	40	29,0	42,00	120301137	250,27				
MF 46 x 1,5	46,0	36,0	140	40	29,0	45,50	120301138	250,27				
MF 48 x 1	48,0	36,0	140	40	29,0	47,00	120301139	299,39				
MF 48 x 1,5	48,0	36,0	140	40	29,0	46,50	120301140	299,39				
MF 48 x 2,0	48,0	36,0	140	40	29,0	46,00	120301141	299,39				
MF 48 x 3,0	48,0	36,0	140	40	29,0	45,00	120301142	299,39				
MF 50 x 1,5	50,0	36,0	140	40	29,0	48,50	120301143	327,43				
MF 50 x 2,0	50,0	36,0	140	40	29,0	48,00	120301144	327,43				
MF 50 x 3,0	50,0	36,0	140	40	29,0	47,00	120301145	327,43				
MF 52 x 1,5	52,0	40,0	140	40	32,0	50,50	120301146	392,93				
MF 52 x 2,0	52,0	40,0	140	40	32,0	50,00	120301147	392,93				
MF 52 x 3,0	52,0	40,0	140	40	32,0	49,00	120301148	392,93				
MF 54 x 1	54,0	40,0	140	32	32,0	53,00	120301149	425,67				
MF 54 x 1,5	54,0	40,0	140	32	32,0	52,50	120301150	425,67				
MF 54 x 2,0	54,0	40,0	140	36	32,0	52,00	120301151	425,67				
MF 54 x 3,0	54,0	40,0	140	40	32,0	51,00	120301152	425,67				
MF 54 x 4,0	54,0	40,0	180	50	32,0	50,00	120301153	425,67				
MF 55 x 1,5	55,0	40,0	140	32	32,0	53,50	120301154	486,47				
MF 55 x 2,0	55,0	40,0	140	36	32,0	53,00	120301155	486,47				
MF 55 x 3,0	55,0	40,0	140	40	32,0	52,00	120301156	486,47				
MF 55 x 4,0	55,0	40,0	180	50	32,0	51,00	120301157	486,47				
MF 56 x 1	56,0	40,0	140	32	32,0	55,00	120301158	540,29				
MF 56 x 1,5	56,0	40,0	140	32	32,0	54,50	120301159	547,28				
MF 56 x 2,0	56,0	40,0	140	36	32,0	54,00	120301160	547,28				
MF 56 x 3,0	56,0	40,0	140	40	32,0	53,00	120301161	547,28				
MF 56 x 4,0	56,0	40,0	180	50	32,0	52,00	120301162	547,28				
MF 58 x 1	58,0	45,0	160	32	35,0	57,00	120301163	584,71				
MF 58 x 1,5	58,0	45,0	160	32	35,0	56,50	120301164	556,66				
MF 58 x 2,0	58,0	45,0	160	36	35,0	56,00	120301165	556,66				
MF 58 x 3,0	58	45	160	40	35	55	120301166	556,66				

**MF** Metric fine thread / ISO DIN 13

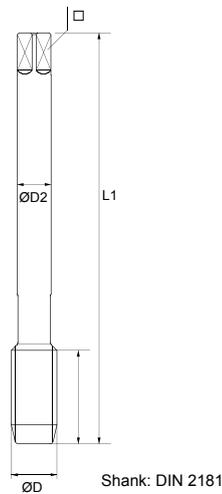
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

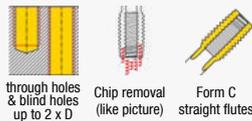
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

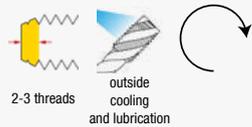
Finish Tap



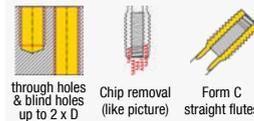
## Hand Tap Sets for general use



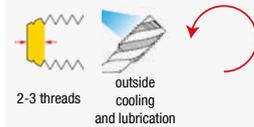
material: HSSG  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
to 900 N/mm<sup>2</sup> 27,1 HRC



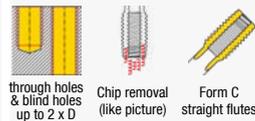
## Hand Tap Sets for general use Left Hand



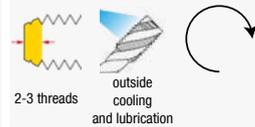
material: HSSG  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
to 900 N/mm<sup>2</sup> 27,1 HRC



## Hand Tap Sets HSSE for higher demands



material: HSSE  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
bis 1000 N/mm<sup>2</sup> 31 HRC



MF	D1	D2	L1	L2	□		No.	€	No.	€	No.	€
MF 58 x 4,0	58	45	200	55	35	54	120301167	556,66				
MF 60 x 1,5	60	45	160	34	35	58,5	120301168	582,39				
MF 60 x 2,0	60	45	160	36	35	58	120301169	582,39				
MF 60 x 3,0	60	45	160	40	35	57	120301170	582,39				
MF 60 x 4,0	60	45	200	55	35	56	120301171	582,39				
MF 62 x 1,5	62	50	160	34	39	60,5	120301172	666,61				
MF 62 x 2,0	62	50	160	36	39	60	120301173	666,61				
MF 62 x 3,0	62	50	180	45	39	59	120301174	666,61				
MF 62 x 4,0	62	50	220	55	39	58	120301175	666,61				
MF 63 x 1,5	63	50	160	32	39	61,5	120301176	685,31				
MF 64 x 1,5	64	50	160	34	39	62,5	120301177	685,31				
MF 64 x 2,0	64	50	160	36	39	62	120301178	685,31				
MF 64 x 3,0	64	50	180	45	39	61	120301179	685,31				
MF 64 x 4,0	64	50	220	60	39	60	120301180	696,99				
MF 65 x 1,5	65	50	160	34	39	63,5	120301181	725,03				
MF 65 x 2,0	65	50	160	36	39	63	120301182	725,03				
MF 65 x 3,0	65	50	180	45	39	62	120301183	725,03				
MF 65 x 4,0	65	50	220	60	39	61	120301184	725,03				
MF 68 x 1,5	68	50	160	36	39	66,5	120301185	748,44				
MF 68 x 2,0	68	50	160	40	39	66	120301186	748,44				
MF 68 x 3,0	68	50	180	50	39	65	120301187	748,44				
MF 68 x 4,0	68	50	220	60	39	64	120301188	748,44				
MF 70 x 1,5	70	50	160	36	39	68,5	120301189	1.414,74				
MF 70 x 2,0	70	50	160	40	39	68	120301190	1.414,74				
MF 70 x 3,0	70	50	200	50	39	67	120301191	1.604,21				
MF 70 x 4,0	70	50	240	60	39	66	120301192	1.604,21				
MF 72 x 1,5	72	50	160	36	39	70,5	120301193	1.414,74				
MF 72 x 2,0	72	50	160	40	39	70	120301194	1.414,74				
MF 72 x 3,0	72	50	200	50	39	69	120301195	1.604,21				
MF 72 x 4,0	72	50	240	60	39	68	120301196	1.604,21				
MF 74 x 1,5	74	50	160	36	39	72,5	120301197	1.566,32				
MF 74 x 2,0	74	50	160	40	39	72	120301198	1.566,32				
MF 74 x 3,0	74	50	200	50	39	71	120301199	1.844,21				
MF 74 x 4,0	74	50	240	60	39	70	120301200	1.844,21				

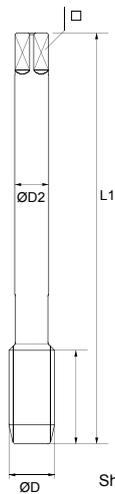
**MF** Metric fine thread / ISO DIN 13

Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

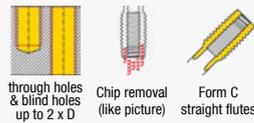
**A Hand-Tap-Set includes 2 taps:**

- Taper Tap
- Finish Tap

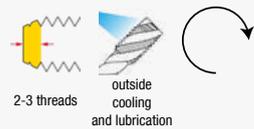


Shank: DIN 2181

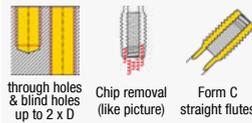
## Hand Tap Sets for general use



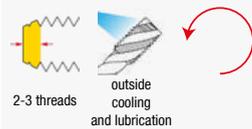
material: HSSG  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 900 N/mm<sup>2</sup> 27,1 HRC



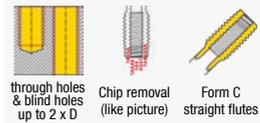
## Hand Tap Sets for general use Left Hand



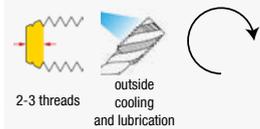
material: HSSG  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 900 N/mm<sup>2</sup> 27,1 HRC



## Hand Tap Sets HSSE for higher demands



material: HSSE  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC bis 1000 N/mm<sup>2</sup> 31 HRC



MF	D1	D2	L1	L2	□		No.	€	No.	€	No.	€
MF 75 x 1,5	75	50	160	36	39	73,5	120301201	1.578,95				
MF 75 x 2,0	75	50	160	40	39	73	120301202	1.578,95				
MF 75 x 3,0	75	50	200	50	39	72	120301203	1.856,84				
MF 75 x 4,0	75	50	240	60	39	71	120301204	1.856,84				
MF 76 x 1,5	76	50	160	36	39	74,5	120301205	1.604,21				
MF 76 x 2,0	76	50	160	40	39	74	120301206	1.604,21				
MF 76 x 3,0	76	50	220	50	39	73	120301207	1.983,16				
MF 76 x 4,0	76	50	260	60	39	72	120301208	1.983,16				
MF 78 x 1,5	78	50	160	36	39	76,5	120301209	1.604,21				
MF 78 x 2,0	78	50	160	40	39	76	120301210	1.604,21				
MF 78 x 3,0	78	50	220	55	39	75	120301211	1.983,16				
MF 78 x 4,0	78	50	260	65	39	74	120301212	1.983,16				
MF 80 x 1,5	80	50	160	36	39	78,5	120301213	1.743,16				
MF 80 x 2,0	80	50	160	40	39	78	120301214	1.743,16				
MF 80 x 3,0	80	50	220	55	39	77	120301215	2.172,63				
MF 80 x 4,0	80	50	260	65	39	76	120301216	2.172,63				
MF 82 x 1,5	82	50	160	36	39	80,5	120301217	1.743,16				
MF 82 x 2,0	82	50	160	40	39	80	120301218	1.743,16				
MF 82 x 3,0	82	50	220	55	39	79	120301219	2.172,63				
MF 82 x 4,0	82	50	260	65	39	78	120301220	2.172,63				
MF 84 x 1,5	84	50	160	36	39	82,5	120301221	2.033,68				
MF 84 x 2,0	84	50	160	40	39	82	120301222	2.033,68				
MF 84 x 3,0	84	50	220	55	39	81	120301223	2.456,84				
MF 84 x 4,0	84	50	260	65	39	80	120301224	2.456,84				
MF 85 x 1,5	85	50	160	36	39	83,5	120301225	2.652,63				
MF 85 x 2,0	85	50	160	40	39	83	120301226	2.652,63				
MF 85 x 3,0	85	50	220	55	39	82	120301227	3.284,21				
MF 85 x 4,0	85	50	260	65	39	81	120301228	3.284,21				
MF 86 x 1,5	86	50	160	36	39	84,5	120301229	2.652,63				
MF 86 x 2,0	86	50	160	40	39	84	120301230	2.652,63				
MF 86 x 3,0	86	50	220	55	39	83	120301231	3.233,68				
MF 86 x 4,0	86	50	260	65	39	82	120301232	3.233,68				
MF 88 x 1,5	88	50	160	38	39	86,5	120301233	2.905,26				
MF 88 x 2,0	88	50	160	40	39	86	120301234	2.905,26				

**MF** Metric fine thread / ISO DIN 13

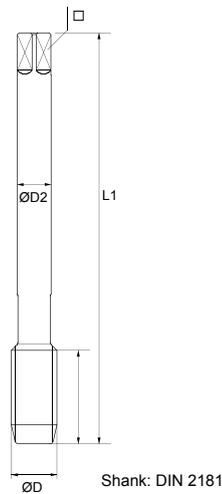
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

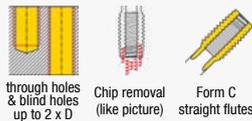
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

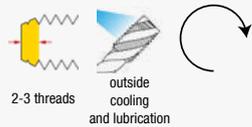
Finish Tap



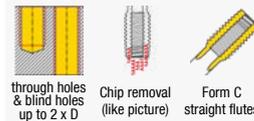
## Hand Tap Sets for general use



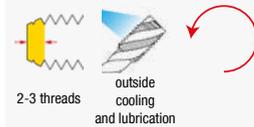
material: HSSG  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
to 900 N/mm<sup>2</sup>  
27,1 HRC



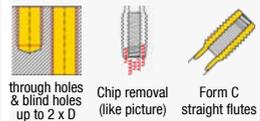
## Hand Tap Sets for general use Left Hand



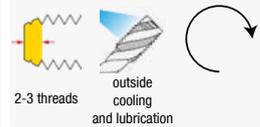
material: HSSG  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
to 900 N/mm<sup>2</sup>  
27,1 HRC



## Hand Tap Sets HSSE for higher demands



material: HSSE  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
bis 1000 N/mm<sup>2</sup>  
31 HRC



MF	D1	D2	L1	L2	□		No.	€	No.	€	No.	€
MF 88 x 3,0	88	50	220	55	39	85	120301235	3.334,74				
MF 88 x 4,0	88	50	260	65	39	84	120301236	3.334,74				
MF 90 x 1,5	90	50	160	38	39	88,5	120301237	3.031,58				
MF 90 x 2,0	90	50	160	40	39	88	120301238	2.981,05				
MF 90 x 3,0	90	50	220	55	39	87	120301239	3.562,11				
MF 90 x 4,0	90	50	260	65	39	86	120301240	3.562,11				
MF 92 x 1,5	92	56	180	40	44	90,5	120301241	3.031,58				
MF 92 x 2,0	92	56	180	45	44	90	120301242	3.031,58				
MF 92 x 3,0	92	56	240	60	44	89	120301243	3.840,00				
MF 92 x 4,0	92	56	280	70	44	88	120301244	3.840,00				
MF 95 x 1,5	95	56	180	40	44	93,5	120301245	3.258,95				
MF 95 x 2,0	95	56	180	45	44	93	120301246	3.258,95				
MF 95 x 3,0	95	56	240	60	44	92	120301247	4.294,74				
MF 95 x 4,0	95	56	280	70	44	91	120301248	4.193,68				
MF 96 x 1,5	96	56	180	40	44	94,5	120301249	3.284,21				
MF 96 x 2,0	96	56	180	45	44	94	120301250	3.284,21				
MF 96 x 3,0	96	56	240	60	44	93	120301251	4.294,74				
MF 96 x 4,0	96	56	280	70	44	92	120301252	4.294,74				
MF 98 x 1,5	98	56	180	40	44	96,5	120301253	3.536,84				
MF 98 x 2,0	98	56	180	45	44	96	120301254	3.536,84				
MF 98 x 3,0	98	56	240	60	44	95	120301255	4.673,68				
MF 98 x 4,0	98	56	280	70	44	94	120301256	4.673,68				
MF 100 x 1,5	100	56	180	45	44	98,5	120301257	4.042,11				
MF 100 x 2,0	100	56	180	50	44	98	120301258	4.042,11				
MF 100 x 3,0	100	56	240	65	44	97	120301259	4.926,32				
MF 100 x 4,0	100	56	280	75	44	96	120301260	4.926,32				
MF 105 x 1,5	105	56	180	45	44	103,5	120301261	4.370,53				
MF 105 x 2,0	105	56	180	50	44	103	120301262	4.370,53				
MF 105 x 3,0	105	56	240	65	44	102	120301263	5.305,26				
MF 105 x 4,0	105	56	280	75	44	101	120301264	5.305,26				
MF 110 x 1,5	110	56	180	45	44	108,5	120301265	4.800,00				
MF 110 x 2,0	110	56	180	50	44	108	120301266	4.800,00				
MF 110 x 3,0	110	56	240	65	44	107	120301267	5.936,84				
MF 110 x 4,0	110	56	280	75	44	106	120301268	5.936,84				