



X-Pro Countersink DIN335C 90°



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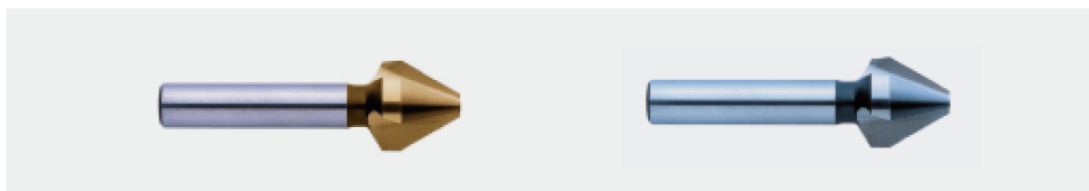
Code HSS	Code HSS-TiN	Code HSS-TiALN	Code HSS-E	Code HSS-E TiALN	D-1 mm	Total Length mm	Shank mm	D-2 mm
175001	177001	179001	176001	180001	6,3 mm	45	5	1,5
175002	177002	179002	176002	180002	8,3 mm	50	6	2,0
175003	177003	179003	176003	180003	10,4 mm	50	6	2,5
175004	177004	179004	176004	180004	12,4 mm	56	8	2,8
175006	177006	179006	176006	180006	16,5 mm	60	10	3,2
175008	177008	179008	176008	180008	20,5 mm	63	10	3,5
175010	177010	179010	176010	180010	25,0 mm	67	10	3,8
175011	177011	179011	176011	180011	31,0 mm	71	12	4,2



HSS
HSS-E

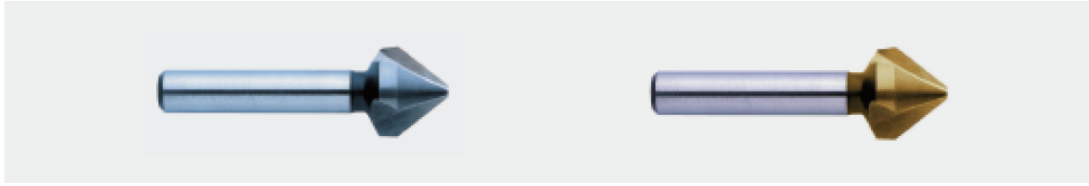
188029	HSS	Neutral	X-Pro	6,3 8,3 10,4 12,4 16,5 20,5 mm
188031		TiN		
188033		TiALN		
188030		Neutral		
188032		TiN		
188034	TiALN	6,3 10,4 16,5 20,5 25,0 mm		
188035	Neutral			
188037	TiN			
188039	TiALN			
188036	Neutral			
188038	TiN	6,3 8,3 10,4 12,4 16,5 20,5 mm		
188040	TiALN			
	HSS-E	Neutral		6,3 10,4 16,5 20,5 25,0 mm
		TiN		
		TiALN		

U-Flute Countersink DIN335C 90°



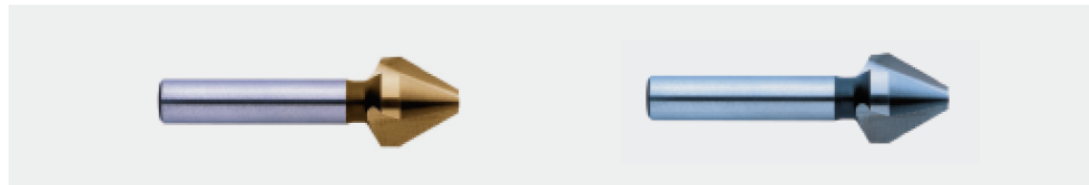
Code HSS	Code HSS-TiN	Code HSS-TiALN	Code HSS-E	Code HSS-E TiALN	D-1 mm	Total Length mm	Shank mm	D-2 mm
169001	171001	173001	170001	174001	6,3 mm	45	5	1,5
169002	171002	173002	170002	174002	8,3 mm	50	6	2,0
169003	171003	173003	170003	174003	10,4 mm	50	6	2,5
169004	171004	173004	170004	174004	12,4 mm	56	8	2,8
169006	171006	173006	170006	174006	16,5 mm	60	10	3,2
169008	171008	173008	170008	174008	20,5 mm	63	10	3,5
169010	171010	173010	170010	174010	25,0 mm	67	10	3,8
169011	171011	173011	170011	174011	31,0 mm	71	12	4,2

U-Flute Countersink DIN335C 75°



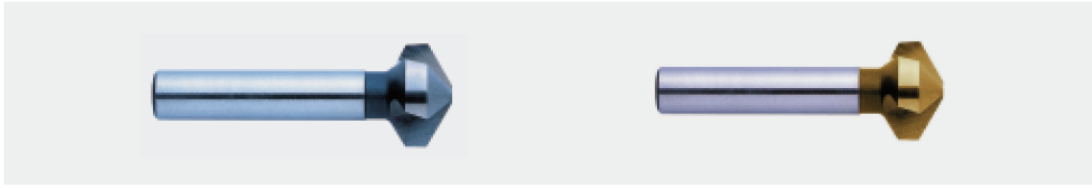
Code HSS	Code HSS-TiN	Code HSS-TiALN	Code HSS-E	Code HSS-E TiALN	D-1 mm	Total Length mm	Shank mm	D-2 mm
188001	188008	188015	188022	188029	6,3 mm	45	5	1.6
188002	188009	188016	188023	188030	8,3 mm	50	6	2.2
188003	188010	188017	188024	188031	10,4 mm	51	6	2.7
188004	188011	188018	188025	188032	12,4 mm	55	8	3.2
188005	188012	188019	188026	188033	16,5 mm	61	10	3.7
188006	188013	188020	188027	188034	20,5 mm	65	10	4.2
188007	188014	188021	188028	188035	25,0 mm	69	10	5.2

U-Flute Countersink DIN335C 60°



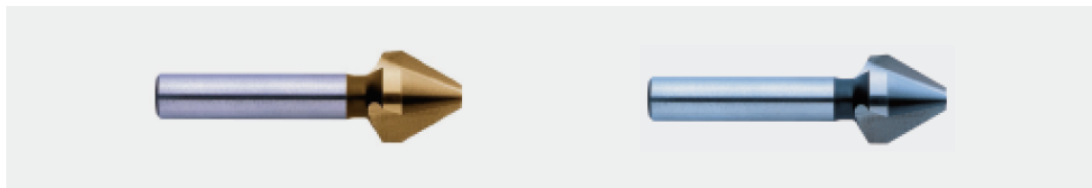
Code HSS	Code HSS-TiN	Code HSS-TiALN	Code HSS-E	Code HSS-E TiALN	D-1 mm	Total Length mm	Shank mm	D-2 mm
187001	187009	187017	187025	187033	6,3 mm	45	5	1.7
187002	187010	187018	187026	187034	8.0mm	50	6	2.1
187003	187011	187019	187027	187035	10.0mm	53	6	2.6
187004	187012	187020	187028	187036	12.5mm	56	8	3.3
187005	187013	187021	187029	187037	16.0mm	63	10	4.1
187006	187014	187022	187030	187038	20.5mm	67	10	5.1
187007	187015	187023	187031	187039	25,0 mm	71	10	6.4
187008	187016	187024	187032	187040	31.5mm	76	12	10.1

U-Flute Countersink DIN335C 120°



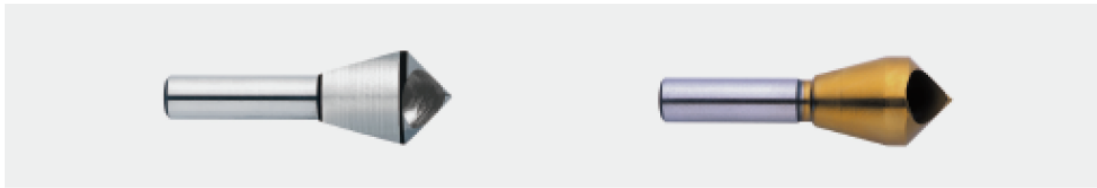
Code HSS	Code HSS-TiN	Code HSS-TiAlN	Code HSS-E	Code HSS-E TiAlN	D-1 mm	Total Length mm	Shank mm	D-2 mm
189001	189008	189015	189022	189029	6,3 mm	44	5	1.7
189002	189009	189016	189023	189030	8,3 mm	48.5	6	2.2
189003	189010	189017	189024	189031	10,4 mm	50	6	2.7
189004	189011	189018	189025	189032	12,4 mm	53	8	3.2
189005	189012	189019	189026	189033	16,5 mm	56	10	3.7
189006	189013	189020	189027	189034	20,5 mm	59	10	4.2
189007	189014	189021	189028	189035	25,0 mm	61	10	5.2

V-Flute Countersink DIN335C 90°



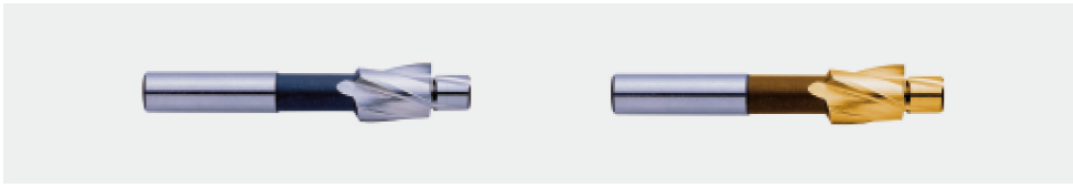
Code HSS	Code HSS-TiN	Code HSS-E	D-1 mm	Total Length mm	Shank mm	D-2 mm
101001	105001	102001	4,3 mm	40	4	1,3
101002	105002	102002	5,0 mm	40	4	1,5
101003	105003	102003	5,3 mm	40	4	1,5
101004	105004	102004	5,8 mm	45	5	1,5
101005	105005	102005	6,0 mm	45	5	1,5
101006	105006	102006	6,3 mm	45	5	1,5
101007	105007	102007	7,0 mm	50	6	1,8
101008	105008	102008	7,3 mm	50	6	1,8
101009	105009	102009	8,0 mm	50	6	2,0
101010	105010	102010	8,3 mm	50	6	2,0
101011	105011	102011	9,4 mm	50	6	2,2
101012	105012	102012	10,4 mm	50	6	2,5
101013	105013	102013	11,5 mm	56	8	2,8
101014	105014	102014	12,4 mm	56	8	2,8
101015	105015	102015	13,4 mm	56	8	2,9
101017	105017	102017	15,0 mm	60	10	3,2
101018	105018	102018	16,5 mm	60	10	3,2
101019	105019	102019	19,0 mm	63	10	3,5
101020	105020	102020	20,5 mm	63	10	3,5
101022	105022	102022	25,0 mm	67	10	3,8
101023	105023	102023	28,0 mm	71	12	4,0
101024	105024	102024	30,0 mm	71	12	4,2
101025	105025	102025	31,0 mm	71	12	4,2
101026	105026	102026	40,0 mm	80	15	5,0

Deburring Countersink 90°



Code HSS	Code HSS-TIN	Code HSS-E	D-1 mm	Total Length mm	Shank mm	D-2 mm
120001	123001	122001	2-5 mm	45	6	10
120002	123002	122002	5-10 mm	48	8	14
120003	123003	122003	10-15 mm	65	10	21
120004	123004	122004	15-20 mm	84	12	28
120005	123005	122005	20-25 mm	102	12	35
120006	123006	122006	25-30 mm	115	15	44
120007	123007	122007	30-35 mm	127	15	48
120008	123008	122008	35-40 mm	136	15	53
120009	123009	122009	40-50 mm	166	20	60

Counterbore DIN373



Code HSS	Code HSS-TIN	Code HSS-E	M	D-1 mm	D-2 mm	Total Length mm	Shank mm
For Core Holes							
144001	147001	146001	M3	6	2.5	71	5.0
144002	147002	146002	M4	8	3.3	71	5.0
144003	147003	146003	M5	10	4.2	80	8.0
144004	147004	146004	M6	11	5	80	8.0
144005	147005	146005	M8	15	6.8	100	12.5
144006	147006	146006	M10	18	8.5	100	12.5
144007	147007	146007	M12	20	10.2	100	12.5

For Through Hole - Fine							
150001	153001	152001	M3	6	3.2	71	5.0
150002	153002	152002	M4	8	4.3	71	5.0
150003	153003	152003	M5	10	5.3	80	8.0
150004	153004	152004	M6	11	6.4	80	8.0
150005	153005	152005	M8	15	8.4	100	12.5
150006	153006	152006	M10	18	10.5	100	12.5
150007	153007	152007	M12	20	13.0	100	12.5
For Through Hole - Medium							
156001	159001	160001	M3	6	3.4	71	5.0
156002	159002	160002	M4	8	4.5	71	5.0
156003	159003	160003	M5	10	5.5	80	8.0
156004	159004	160004	M6	11	6.6	80	8.0
156005	159005	160005	M8	15	9.0	100	12.5
156006	159006	160006	M10	18	11.0	100	12.5
156007	159007	160007	M12	20	13.5	100	12.5



HSS Step Drill Spiral Flute



HSS Step Drill Spiral Flute



Ø1- Ø2 mm	Step	Ø 3 mm	HSS Code
4.0-12.0	4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0	6	213001
4.0-12.0	4.0 / 6.0 / 8.0 / 10.0 / 12.0	6	213011
4.0-20.0	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0	8	213002
4.0-30.0	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0	10	213004
4.0-32.0	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0 / 32.0	10	213012
6.0-30.0	6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0	10	213003
6.0-36.0	6.0 / 9.0 / 12.0 / 15.0 / 18.0 / 21.0 / 24.0 / 27.0 / 30.0 / 33.0 / 36.0	12	213005
6.0-38.0	6.0 / 9.0 / 13.0 / 16.0 / 19.0 / 21.0 / 23.0 / 26.0 / 29.0 / 32.0 / 35.0 / 38.0	12	214009
7.0-32.5	7.0 / 10.5 / 12.5 / 16.5 / 18.5 / 20.5 / 23.5 / 25.5 / 30.5 / 32.5	12	213007

HSS Step Drill Straight Flute



HSS Step Drill Straight Flute



Ø1-Ø2 mm	Step	Ø3 mm	HSS Code
4.0-12.0	4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0	6	201001
4.0-12.0	4.0 / 6.0 / 8.0 / 10.0 / 12.0	6	201020
4.0-20.0	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0	8	201002
4.0-30.0	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0	10	201004
4.0-32.0	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0 / 32.0	10	201021
6.0-30.0	6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0	10	201003
9.0-36.0	9.0 / 12.0 / 15.0 / 18.0 / 21.0 / 24.0 / 27.0 / 30.0 / 33.0 / 36.0	12	201006
12.0-20.0	12.0 / 13.0 / 14.0 / 15.0 / 16.0 / 17.0 / 18.0 / 19.0 / 20.0	9	201010
20.0-30.0	20.0 / 21.0 / 22.0 / 23.0 / 24.0 / 25.0 / 26.0 / 27.0 / 28.0 / 29.0 / 30.0	12	201011
30.0-40.0	30.0 / 31.0 / 32.0 / 33.0 / 34.0 / 35.0 / 36.0 / 37.0 / 38.0 / 39.0 / 40.0	13	201012
40.0-50.0	40.0 / 41.0 / 42.0 / 43.0 / 44.0 / 45.0 / 46.0 / 47.0 / 48.0 / 49.0 / 50.0	13	201013
50.0-60.0	50.0 / 51.0 / 52.0 / 53.0 / 54.0 / 55.0 / 56.0 / 57.0 / 58.0 / 59.0 / 60.0	13	201014
E1 10.5-29.9	10.5 / 11.4(PG7) / 14.0(PG9) / 17.25(PG11) / 19.0(PG13.5) / 21.25(PG16) / 26.75(PG21) / 29.0	12	201016
E2 12.0-32.6	7.0 / 12.7(PG7) / 15.2(PG9) / 18.6(PG11) / 20.4(PG13.5) / 22.5(PG16) / 28.3(PG21) / 30.5 / 32.6	12	201017
E3 10.5-39.6	7.0 / 12.7(PG7) / 15.2(PG9) / 18.6(PG11) / 20.4(PG13.5) / 22.5(PG16) / 28.3(PG21) / 33.0 / 37.0(PG29) / 39.6	12	201018



Tube and Sheet Drill



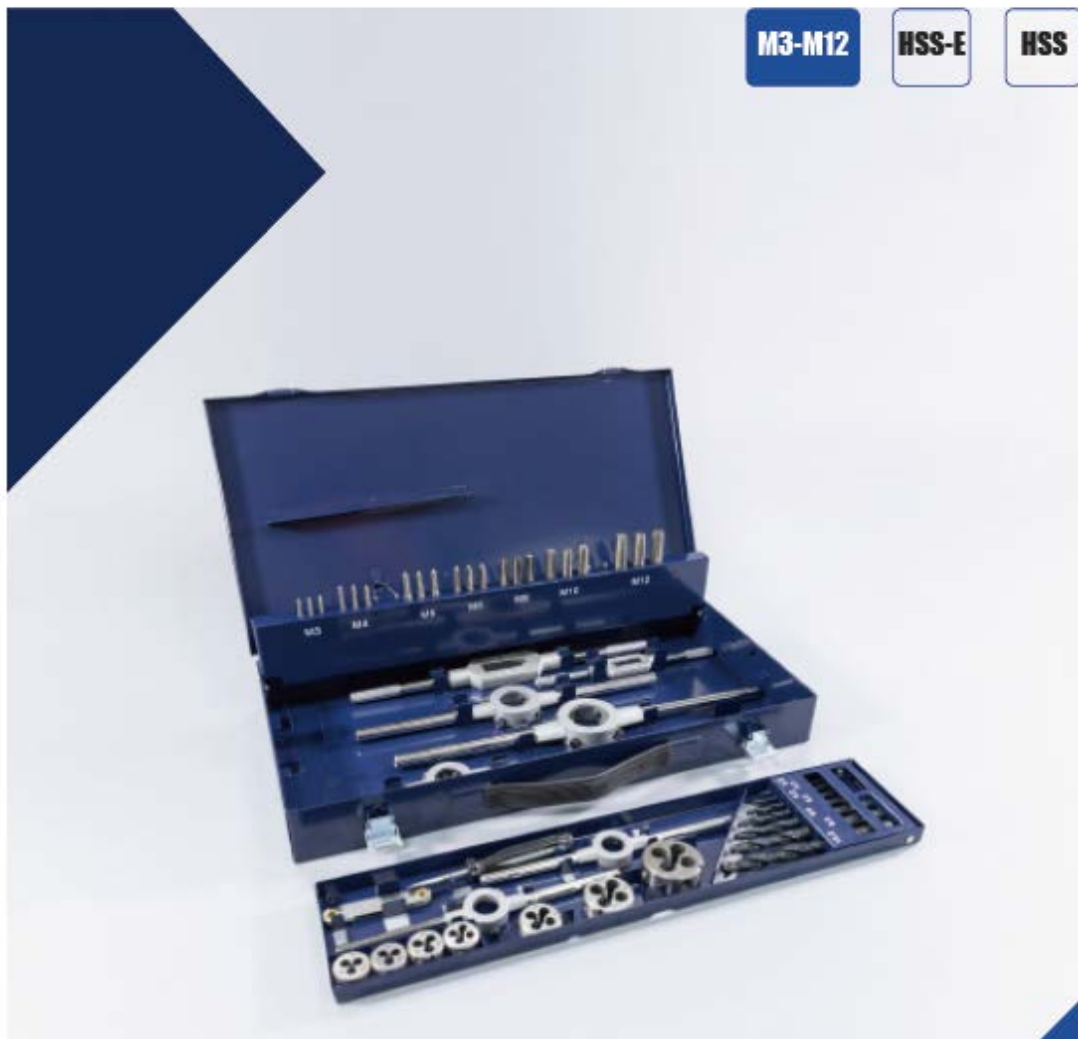
Ø Size mm	L 1 mm	Shank mm	HSS Code	HSS VAP Code	HSS-TIN Code	HSS-TiALN Code
3.0-14.0	58	6	251001	252001	253001	254001
4.0-20.0	71	8	251002	252002	253002	254002
16.0-30.5	76	9	251003	252003	253003	254003
24.0-40.0	89	10	251004	252004	253004	254004
36.0-50.0	97	12	251005	252005	253005	254005
40.0-60.0	103	12	251006	252006	253006	254006
4.0-31.0	103	9	251007	252007	253007	254007
4.0-22.5	79	8	251008	252008	253008	254008
5.0-25.4	87	10	251009	252009	253009	254009

Tube and Sheet Drill



Ø Size mm	L 1 mm	Shank mm	HSS Code	HSS-TIN Code	HSS-TiALN Code
5.0-20.0	71	8	256001	256003	256005
5.0-31.0	103	9	256002	256004	256006
Ø Size mm	L 1 mm	Shank mm	HSS Code	HSS-TIN Code	HSS-TiALN Code
5.0-20.0	71	8	256007	256009	256011
5.0-31.0	103	9	256008	256010	256012

Thread Cutting Assortment



M3-M12

HSS-E

HSS

Thread Cutting Assortment

Code	M		M3-M12
355001	M	HSS	Thread Cutting Assortment, 42 pcs Set DIN352 Hand Taps: M3 - M4 - M5 - M6 - M8 - M10 - M12 Circular Dies: M3 - M4 - M5 - M6 - M8 - M10 - M12 Holder for Circular Dies: 20x5 / 20x7 / 25x9 / 30x11 / 38x14 Tap wrenches 1 + 2
355005	M	HSS-E	Twist Drills Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2
355002	M	HSS	Thread Cutting Assortment, 49 pcs Set DIN352 Hand Taps: M3 - M4 - M5 - M6 - M8 - M10 - M12 Circular Dies: M3 - M4 - M5 - M6 - M8 - M10 - M12 Holder for Circular Dies: 20x5 / 20x7 / 25x9 / 30x11 / 38x14 Tap wrenches 1 + 2 Twist Drills Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2 Guides Nr. 1 - 2 - 3 - 4 - 5 - 6 - 7

355003	M	HSS	<p>Thread Cutting Assortment, 43 pcs Set</p> <p>DIN352 Hand Taps: M3 - M4 - M5 - M6 - M8 - M10 - M12</p> <p>Circular Dies: M3 - M4 - M5 - M6 - M8 - M10 - M12</p> <p>Holder for Circular Dies: 20x5 / 20x7 / 25x9 / 30x11 / 38x14</p> <p>Tap wrenches 1 + 2</p> <p>Twist Drills Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2</p> <p>Ratchet Tools Holder: Gr.2</p>
355004	M	HSS	<p>Thread Cutting Assortment, 50 pcs Set</p> <p>DIN352 Hand Taps: M3 - M4 - M5 - M6 - M8 - M10 - M12</p> <p>Circular Dies: M3 - M4 - M5 - M6 - M8 - M10 - M12</p> <p>Holder for Circular Dies: 20x5 / 20x7 / 25x9 / 30x11 / 38x14</p> <p>Tap wrenches 1 + 2</p> <p>Twist Drills Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2</p> <p>Guides Nr. 1 - 2 - 3 - 4 - 5 - 6 - 7 Ratchet Tools Holder: Gr.02</p>
355006	Mf	HSS	<p>Thread Cutting Assortment, 35 pieces</p> <p>DIN352 Hand Taps: Mf3x0,35 - Mf4x0,5 - Mf5x0,5 - Mf6x0,75 - Mf8x1,0 - Mf10x1,0 - Mf12x1,5</p> <p>Circular Dies: Mf3 - Mf4 - Mf5 - Mf6 - Mf8 - Mf10 - Mf12</p> <p>Holder for Circular Dies 20x5 / 20x7 / 25x9 / 30x11 / 38x14</p> <p>Windeisen I Tap wrenches 1 + 2</p> <p>Twist Drills Ø 2,6 / 3,5 / 4,5 / 5,2 / 7,0 / 9,0 / 10,5</p>

Thread Cutting Assortment



M3-M20

HSS-E

HSS



Code	M3-M20		
355007	M	HSS	<p>Thread Cutting Assortment, 52 pieces</p> <p>Hand Taps : M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18 - M20</p> <p>Circular Dies : M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18 - M20</p>
355010	M	HSS-E	<p>Holder for Circular Dies : 20x5 / 20x7 / 25x9 / 30x11 / 38x14 / 45x18</p> <p>Tap wrenches 1 + 3</p>

355008	M	HSS	<p>Thread Cutting Assortment, 59 pieces</p> <p>Hand Taps : M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18 - M20</p> <p>Circular Dies : M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18 - M20</p> <p>Holder for Circular Dies : 20x5 / 20x7 / 25x9 / 30x11 / 38x14 / 45x18</p> <p>Tap wrenches 1 + 3</p> <p>Guides Nr. 1 - 2 - 3 - 4 - 5 - 6 - 7</p>
355009	M	HSS	<p>Thread Cutting Assortment, 53 pcs Set</p> <p>Hand Taps : M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18 - M20</p> <p>Circular Dies : M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18 - M20</p> <p>Holder for Circular Dies : 20x5 / 20x7 / 25x9 / 30x11 / 38x14 / 45x18</p> <p>Tap wrenches 1 + 3</p> <p>Ratchet Tools Holder: Gr.2</p>
355011	MF	HSS	<p>Thread Cutting Assortment, 41 pcs Set</p> <p>Hand Taps : Mf3x0,35 - Mf4x0,5 - Mf5x0,5 - Mf6x0,75 - Mf8x1,0 - Mf10x1,0 - Mf12x1,5 - Mf14x1,5 - Mf16x1,5 - Mf18x1,5 - Mf20x1,5</p> <p>Circular Dies : Mf3 - Mf4 - Mf5 - Mf6 - Mf8 - Mf10 - Mf12 - Mf14 - Mf16 - Mf18 - Mf20</p> <p>Holder for Circular Dies 20x5 / 20x7 / 25x9 / 30x11 / 38x14 / 45x18</p> <p>Tap wrenches 1 + 3</p>



Code		M3-M24	
355007	M	HSS	<p>Thread Cutting Assortment, 62 pieces</p> <p>Hand Taps : M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18 - M20 - M22 - M24</p> <p>Circular Dies : M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18 - M20 - M22 - M24</p> <p>Holder for Circular Dies : 20x5 / 20x7 / 25x9 / 30x11 / 38x14 / 45x18 / 55x22</p> <p>Tap wrenches : 0 + 2 + 4</p>



M3-M12

HSS

Code			M3-M12
355019	M	HSS	Thread Cutting Assortment, 32 pcs Set DIN352 Hand Taps: M3 - M4 - M5 - M6 - M8 - M10 - M12 Circular Dies: 25x9mm M3 - M4 - M5 - M6 - M8 - M10 - M12 Holder for Circular Dies: 25x9 Tap wrenches 1 -1/2 Screw Driver + Gauge



M3-M12

HSS-E

HSS

Code			M3-M12
355020	M	HSS	Thread Cutting Assortment 15 pcs Metal Case Set Short Machine Taps : M3 - M4 - M5 - M6 - M8 - M10 - M12 Tap wrench 1 1/2 Twist Drills : Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2

355021	M	HSS-E	<p>Thread Cutting Assortment 15 pcs Metal Case Set</p> <p>Short Machine Taps : M3 - M4 - M5 - M6 - M8 - M10 - M12</p> <p>Tap wrench 1 1/2</p> <p>Twist Drills : Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2</p>
355022	M	HSS	<p>Thread Cutting Assortment 15 pcs Plastic Case Set</p> <p>Short Machine Taps : M3 - M4 - M5 - M6 - M8 - M10 - M12</p> <p>Tap wrench 1 1/2</p> <p>Twist Drills : Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2</p>
355023	MF	HSS	<p>Thread Cutting Assortment 15 pcs Plastic Case Set</p> <p>Short Machine Taps : M3 - M4 - M5 - M6 - M8 - M10 - M12</p> <p>Tap wrench 1 1/2</p> <p>Twist Drills : Ø 2,5 / 3,3 / 4,2 / 5,0 / 6,8 / 8,5 / 10,2</p>