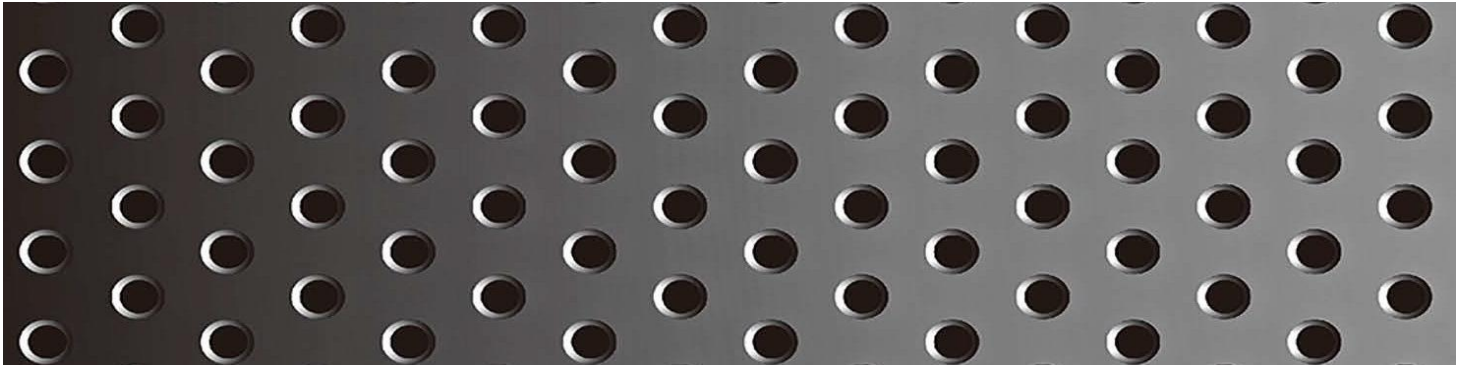


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# Modular Drills



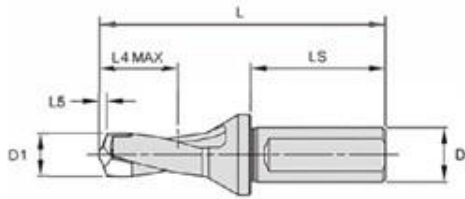
# NSEM Modular Drill\_D12.5 ~ D40



Start to pull the NSEM insert into the pocket seat by turning the wrench clockwise until there is full contact with the bottom of the pocket seat.



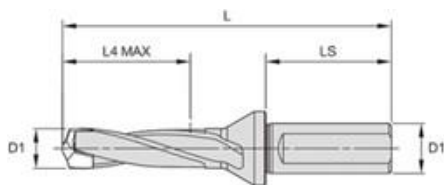
# NSEM Modular Drill Body 1 X D



- Drill length 1 x D
- D12.50 ~ D40.00.
- Weldon Shank (DIN 1835-B).
- Drill shipped with central lock screw, wrench, and side pipe plug.
- Order insert blade separately.

Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	Shank length (mm)		Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM125R1W16M	C	12.500	13.500	14	16	2.0	48	78
NSEM136R1W16M	B	13.510	14.500	15	16	2.2	48	81
NSEM146R1W20M	A	14.510	15.874	16	20	2.3	50	85
NSEM160R1W20M	1	16.000	18.000	18	20	2.5	50	88
NSEM181R1W25M	2	18.010	19.999	20	25	2.9	56	99
NSEM200R1W25M	3	20.000	22.000	22	25	3.2	56	102
NSEM221R1W25M	4	22.010	24.000	24	25	3.5	56	107
NSEM241R1W32M	5	24.010	26.000	26	32	3.8	60	115
NSEM261R1W32M	6	26.010	28.000	28	32	4.0	60	119
NSEM281R1W32M	7	28.016	30.000	30	32	4.3	60	123
NSEM301R1W32M	8	30.010	32.000	32	32	4.6	60	127
NSEM321R1W40M	9	32.010	36.000	36	40	4.9	68	147
NSEM361R1W40M	10	36.010	40.000	40	40	5.5	68	155

# NSEM Modular Drill Body 3 X D



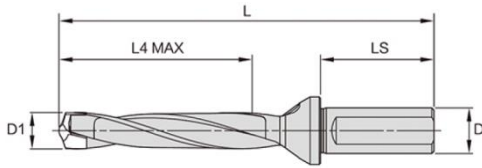
- Drill length 3 x D
- D12.50 ~ D40.00.
- Weldon Shank (DIN 1835-B).
- Drill shipped with central lock screw, wrench, and side pipe plug.
- Order insert blade separately.

Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM125R3W16M	C	12.500	13.000	42	16	2.0	48	111
NSEM130R3W16M	C	13.000	13.500	42	16	2.1	48	111
NSEM135R3W16M	C	13.500	13.500	42	16	2.1	48	111
NSEM136R3W16M	B	13.510	14.000	42	16	2.2	48	111
NSEM140R3W16M	B	14.000	14.500	42	16	2.2	48	111
NSEM145R3W20M	B	14.500	14.500	48	20	2.3	50	122
NSEM146R3W20M	A	14.510	15.000	48	20	2.3	50	122
NSEM150R3W20M	A	15.000	15.500	48	20	2.4	50	122
NSEM155R3W20M	A	15.500	15.874	48	20	2.5	50	122
NSEM160R3W20M	1	16.000	16.500	48	20	2.5	50	122
NSEM165R3W20M	1	16.500	17.000	54	20	2.6	50	130
NSEM170R3W20M	1	17.000	17.500	54	20	2.7	50	130
NSEM175R3W20M	1	17.500	18.000	54	20	2.8	50	130
NSEM180R3W20M	1	18.000	18.000	54	20	2.9	50	130
NSEM185R3W25M	2	18.500	19.000	60	25	2.9	56	144
NSEM190R3W25M	2	19.000	19.500	60	25	3.0	56	144
NSEM195R3W25M	2	19.500	19.999	60	25	3.1	56	144
NSEM200R3W25M	3	20.000	20.500	60	25	3.2	56	153
NSEM205R3W25M	3	20.500	21.000	66	25	3.3	56	153

# NSEM Modular Drill Body 3 X D

Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM210R3W25M	3	21.000	21.500	66	25	3.3	56	153
NSEM215R3W25M	3	21.500	22.000	66	25	3.4	56	153
NSEM220R3W25M	3	22.000	22.000	66	25	3.5	56	153
NSEM225R3W25M	4	22.500	23.000	72	25	3.6	56	161
NSEM230R3W25M	4	23.000	23.500	72	25	3.7	56	161
NSEM235R3W25M	4	23.500	24.000	72	25	3.7	56	161
NSEM240R3W25M	4	24.000	24.000	72	25	3.8	56	161
NSEM245R3W32M	5	24.500	25.000	78	32	3.9	60	174
NSEM250R3W32M	5	25.000	25.500	78	32	3.8	60	174
NSEM255R3W32M	5	25.500	26.000	78	32	3.9	60	174
NSEM260R3W32M	5	26.000	26.000	78	32	4.0	60	174
NSEM265R3W32M	6	26.500	27.000	84	32	4.1	60	182
NSEM270R3W32M	6	27.000	27.500	84	32	4.2	60	182
NSEM275R3W32M	6	27.500	28.000	84	32	4.2	60	182
NSEM280R3W32M	6	28.000	28.000	84	32	4.3	60	182
NSEM285R3W32M	7	28.500	29.000	90	32	4.4	60	190
NSEM290R3W32M	7	29.000	29.500	90	32	4.5	60	190
NSEM295R3W32M	7	29.500	30.000	90	32	4.5	60	190
NSEM300R3W32M	7	30.000	30.000	90	32	4.6	60	190
NSEM305R3W32M	8	30.500	31.000	96	32	4.7	60	200
NSEM310R3W32M	8	31.000	31.500	96	32	4.8	60	200
NSEM315R3W32M	8	31.500	32.000	96	32	4.8	60	200
NSEM320R3W32M	8	32.000	32.000	96	32	4.9	60	200
NSEM321R3W50M	9	32.010	33.000	99	50	4.9	68	220
NSEM330R3W50M	9	33.000	34.000	99	50	5.1	68	227
NSEM340R3W50M	9	34.000	35.000	102	50	5.2	68	225
NSEM350R3W50M	9	35.000	36.000	105	50	5.4	68	235
NSEM360R3W50M	9	36.000	36.000	108	50	5.5	68	233
NSEM361R3W50M	10	36.010	37.000	111	50	5.5	68	237
NSEM370R3W50M	10	37.000	38.000	111	50	5.7	68	244
NSEM380R3W50M	10	38.000	39.000	114	50	5.8	68	242
NSEM390R3W50M	10	39.000	40.000	117	50	6.0	68	252
NSEM400R3W50M	10	40.000	40.000	120	50	6.2	68	250

# NSEM Modular Drill Body 5 X D



- Drill length 5 x D
- D12.50 ~ D40.00.
- Weldon Shank (DIN 1835-B).
- Drill shipped with central lock screw, wrench, and side pipe plug.
- Order insert blade separately.

Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM125R5W16M	C	12.500	13.000	70	16	2	48	139
NSEM130R5W16M	C	13.000	13.500	70	16	2.1	48	139
NSEM135R5W16M	C	13.500	13.500	70	16	2.1	48	139
NSEM136R5W16M	B	13.510	14.000	70	16	2.2	48	139
NSEM140R5W16M	B	14.000	14.500	70	16	2.2	48	139
NSEM145R5W20M	B	14.500	14.500	80	20	2.3	50	154
NSEM146R5W20M	A	14.510	15.000	80	20	2.3	50	154
NSEM150R5W20M	A	15.000	15.500	80	20	2.4	50	154
NSEM155R5W20M	A	15.500	15.874	80	20	2.5	50	154
NSEM160R5W20M	1	16.000	16.500	80	20	2.5	50	154
NSEM165R5W20M	1	16.500	17.000	90	20	2.6	50	166
NSEM170R5W20M	1	17.000	17.500	90	20	2.7	50	166
NSEM175R5W20M	1	17.500	18.000	90	20	2.8	50	166
NSEM180R5W20M	1	18.000	18.000	90	20	2.9	50	166
NSEM181R5W25M	2	18.010	18.500	100	25	2.9	56	184
NSEM185R5W25M	2	18.500	19.000	100	25	2.9	56	184
NSEM190R5W25M	2	19.000	19.500	100	25	3	56	184

# NSEM Modular Drill Body 5 X D

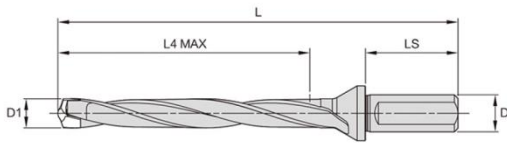
Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM195R5W25M	2	19.500	19.999	100	25	3.1	56	184
NSEM200R5W25M	3	20.000	20.500	100	25	3.2	56	197
NSEM205R5W25M	3	20.500	21.000	110	25	3.3	56	197
NSEM210R5W25M	3	21.000	21.500	110	25	3.3	56	197
NSEM215R5W25M	3	21.500	22.000	110	25	3.4	56	197
NSEM220R5W25M	3	22.000	22.000	110	25	3.5	56	197
NSEM221R5W25M	4	22.010	22.500	120	25	3.5	56	209
NSEM225R5W25M	4	22.500	23.000	120	25	3.6	56	209
NSEM230R5W25M	4	23.000	23.500	120	25	3.7	56	209
NSEM235R5W25M	4	23.500	24.000	120	25	3.7	56	209
NSEM240R5W25M	4	24.000	24.000	120	25	3.8	56	209
NSEM241R5W32M	5	24.010	24.500	130	32	3.8	60	226
NSEM245R5W32M	5	24.500	25.000	130	32	3.9	60	226
NSEM250R5W32M	5	25.000	25.500	130	32	3.8	60	226
NSEM255R5W32M	5	25.500	26.000	130	32	3.9	60	226
NSEM260R5W32M	5	26.000	26.000	130	32	4	60	226
NSEM261R5W32M	6	26.010	26.500	140	32	4,0	60	238
NSEM265R5W32M	6	26.500	27.000	140	32	4.1	60	238
NSEM270R5W32M	6	27.000	27.500	140	32	4.2	60	238
NSEM275R5W32M	6	27.500	28.000	140	32	4.2	60	238
NSEM280R5W32M	6	28.000	28.000	140	32	4.3	60	238
NSEM281R5W32M	7	28.016	28.500	150	32	4.3	60	250
NSEM285R5W32M	7	28.500	29.000	150	32	4.4	60	250
NSEM290R5W32M	7	29.000	29.500	150	32	4.5	60	250
NSEM295R5W32M	7	29.500	30.000	150	32	4.5	60	250
NSEM300R5W32M	7	30.000	30.000	150	32	4.6	60	250

# NSEM Modular Drill Body 5 X D

Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM301R5W32M	8	30.010	30.500	160	32	4.6	60	264
NSEM305R5W32M	8	30.500	31.000	160	32	4.7	60	264
NSEM310R5W32M	8	31.000	31.500	160	32	4.8	60	264
NSEM315R5W32M	8	31.500	32.000	160	32	4.8	60	264
NSEM320R5W32M	8	32.000	32.000	160	32	4.9	60	264
NSEM321R5W40M	9	32.010	33.000	165	40	4.9	68	293
NSEM330R5W40M	9	33.000	34.000	165	40	5.1	68	293
NSEM340R5W40M	9	34.000	35.000	170	40	5.2	68	293
NSEM350R5W40M	9	35.000	36.000	175	40	5.4	68	305
NSEM360R5W40M	9	36.000	36.000	180	40	5.5	68	305
NSEM361R5W40M	10	36.010	37.000	185	40	5.5	68	318
NSEM370R5W40M	10	37.000	38.000	185	40	5.7	68	318
NSEM380R5W40M	10	38.000	39.000	190	40	5.8	68	318
NSEM390R5W40M	10	39.000	40.000	195	40	6	68	330
NSEM400R5W40M	10	40.000	40.000	200	40	6.2	68	330



# NSEM Modular Drill Body 7 X D



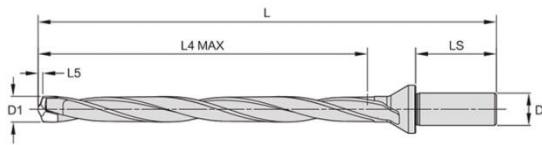
- Drill length 7 x D
- D12.50 ~ D32.00.
- Weldon Shank (DIN 1835-B).
- Drill shipped with central lock screw, wrench, and side pipe plug.
- Order insert blade separately.

Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM125R7W16M	C	12.500	13.000	98	16	2.0	48	167
NSEM130R7W16M	C	13.000	13.500	98	16	2.1	48	167
NSEM135R7W16M	C	13.500	13.500	98	16	2.1	48	167
NSEM136R7W16M	B	13.510	14.000	98	16	2.2	48	167
NSEM140R7W16M	B	14.000	14.500	98	16	2.2	48	167
NSEM145R7W20M	B	14.500	14.500	112	20	2.3	50	186
NSEM146R7W20M	A	14.510	15.000	112	20	2.3	50	186
NSEM150R7W20M	A	15.000	15.500	112	20	2.4	50	186
NSEM155R7W20M	A	15.500	15.874	112	20	2.5	50	186
NSEM160R7W20M	1	16.000	16.500	112	20	2.5	50	186
NSEM165R7W20M	1	16.500	17.000	126	20	2.6	50	202
NSEM170R7W20M	1	17.000	17.500	126	20	2.7	50	202
NSEM175R7W20M	1	17.500	18.000	126	20	2.8	50	202
NSEM180R7W20M	1	18.000	18.000	126	20	2.9	50	202
NSEM185R7W25M	2	18.500	19.000	140	25	2.9	56	224
NSEM190R7W25M	2	19.000	19.500	140	25	3	56	224

# NSEM Modular Drill Body 7 X D

Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)		Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L	
NSEM195R7W25M	2	19.500	19.999	140	25	3.1		56	224
NSEM200R7W25M	3	20.000	20.500	140	25	3.2		56	224
NSEM205R7W25M	3	20.500	21.000	154	25	3.3		56	241
NSEM210R7W25M	3	21.000	21.500	154	25	3.3		56	241
NSEM215R7W25M	3	21.500	22.000	154	25	3.4		56	241
NSEM220R7W25M	3	22.000	22.000	154	25	3.5		56	241
NSEM225R7W25M	4	22.500	23.000	168	25	3.6		56	257
NSEM230R7W25M	4	23.000	23.500	168	25	3.7		56	257
NSEM235R7W25M	4	23.500	24.000	168	25	3.7		56	257
NSEM240R7W25M	4	24.000	24.000	168	25	3.8		56	257
NSEM245R7W32M	5	24.500	25.000	182	32	3.9		60	278
NSEM250R7W32M	5	25.000	25.500	182	32	3.8		60	278
NSEM255R7W32M	5	25.500	26.000	182	32	3.9		60	278
NSEM260R7W32M	5	26.000	26.000	182	32	4		60	278
NSEM265R7W32M	6	26.500	27.000	196	32	4.1		60	294
NSEM270R7W32M	6	27.000	27.500	196	32	4.2		60	294
NSEM275R7W32M	6	27.500	28.000	196	32	4.2		60	294
NSEM280R7W32M	6	28.000	28.000	196	32	4.3		60	294
NSEM285R7W32M	7	28.500	29.000	210	32	4.4		60	310
NSEM290R7W32M	7	29.000	29.500	210	32	4.5		60	310
NSEM295R7W32M	7	29.500	30.000	210	32	4.5		60	310
NSEM300R7W32M	7	30.000	30.000	210	32	4.6		60	310
NSEM305R7W32M	8	30.500	31.000	224	32	4.7		60	328
NSEM310R7W32M	8	31.000	31.500	224	32	4.8		60	328
NSEM315R7W32M	8	31.500	32.000	224	32	4.8		60	328
NSEM320R7W32M	8	32.000	32.000	224	32	4.9		60	328

# NSEM Modular Drill Body 10 X D



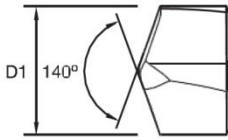
- Drill length 10 x D
- D12.50 ~ D32.00.
- Weldon Shank (DIN 1835-B).
- Drill shipped with central lock screw, wrench, and side pipe plug.
- Order insert blade separately.

Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM125R10W16M	C	12.500	13.000	125	16	2.0	48	195
NSEM130R10W16M	C	13.000	13.500	130	16	2.1	48	200
NSEM135R10W16M	C	13.500	13.500	135	16	2.1	48	205
NSEM136R10W16M	B	13.510	14.000	135	16	2.2	48	205
NSEM140R10W16M	B	14.000	14.500	140	16	2.2	48	210
NSEM145R10W20M	B	14.500	14.500	145	20	2.3	50	220
NSEM146R10W20M	A	14.510	15.000	145	20	2.3	50	220
NSEM150R10W20M	A	15.000	15.500	150	20	2.4	50	225
NSEM155R10W20M	A	15.500	15.874	155	20	2.5	50	230
NSEM160R10W20M	1	16.000	16.500	160	20	2.5	50	234
NSEM165R10W20M	1	16.500	17.000	165	20	2.6	50	241
NSEM170R10W20M	1	17.000	17.500	170	20	2.7	50	246
NSEM175R10W20M	1	17.500	18.000	175	20	2.8	50	251
NSEM180R10W20M	1	18.000	18.000	180	20	2.9	50	256
NSEM181R10W25M	2	18.010	18.500	185	25	2.9	56	269
NSEM185R10W25M	2	18.500	19.000	185	25	2.9	56	269
NSEM190R10W25M	2	19.000	19.500	190	25	3	56	274
NSEM195R10W25M	2	19.500	19.999	195	25	3.1	56	279
NSEM200R10W25M	3	20.000	20.500	200	25	3.2	56	297
NSEM205R10W25M	3	20.500	21.000	205	25	3.3	56	297
NSEM210R10W25M	3	21.000	21.500	210	25	3.3	56	297
NSEM215R10W25M	3	21.500	22.000	215	25	3.4	56	307
NSEM220R10W25M	3	22.000	22.000	220	25	3.5	56	307

# NSEM Modular Drill Body 10 X D

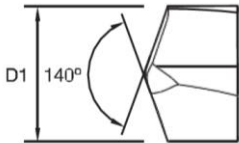
Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	L5	LS	L
NSEM221R10W25M	4	22.010	22.500	225	25	3.5	56	319
NSEM225R10W25M	4	22.500	23.000	225	25	3.6	56	319
NSEM230R10W25M	4	23.000	23.500	230	25	3.7	56	319
NSEM235R10W25M	4	23.500	24.000	235	25	3.7	56	329
NSEM240R10W25M	4	24.000	24.000	240	25	3.8	56	329
NSEM241R10W32M	5	24.010	24.500	245	32	3.8	60	346
NSEM245R10W32M	5	24.500	25.000	245	32	3.9	60	346
NSEM250R10W32M	5	25.000	25.500	250	32	3.8	60	346
NSEM255R10W32M	5	25.500	26.000	255	32	3.9	60	356
NSEM260R10W32M	5	26.000	26.000	260	32	4	60	356
NSEM261R10W32M	6	26.010	26.500	265	32	4	60	363
NSEM265R10W32M	6	26.500	27.000	265	32	4.1	60	363
NSEM270R10W32M	6	27.000	27.500	270	32	4.2	60	368
NSEM275R10W32M	6	27.500	28.000	275	32	4.2	60	378
NSEM280R10W32M	6	28.000	28.000	280	32	4.3	60	378
NSEM281R10W32M	7	28.016	28.500	285	32	4.3	60	390
NSEM285R10W32M	7	28.500	29.000	285	32	4.4	60	390
NSEM290R10W32M	7	29.000	29.500	290	32	4.5	60	390
NSEM295R10W32M	7	29.500	30.000	295	32	4.5	60	400
NSEM300R10W32M	7	30.000	30.000	300	32	4.6	60	400
NSEM301R10W32M	8	30.010	30.500	305	32	4.6	60	414
NSEM310R10W32M	8	31.000	31.500	310	32	4.8	60	414
NSEM320R10W32M	8	32.000	32.000	320	32	4.9	60	424

# NSEM Modular Drill Inserts \_\_ PG/GG/MG



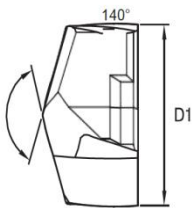
PG

- **PG P15** cutting edges enable high metal removal rates and superior tool life for steel applications.
- **PG** geometry offers a wide and strong PG-style chiseled edge that prevents material quenching in the center, enabling high feed rates. Sickle shaped, honed cutting edges provide excellent chip forming and tool life, even in long chipping materials.
- **P15** is a fine-grain carbide with a TiAlN-based PVD multilayer coating. Its high wear resistance enables very high cutting speeds in stable conditions.
- **PG P15** cutting edges are perfectly suited to drill alloyed and high-alloy steels.
- **PG P15** cutting edges can be used as an alternative to cast iron materials.



GG

- **GG P15** cutting edges enable high metal removal rates and superior tool life for steel applications.
- **GG** geometry works with low cutting and feed forces and provides very good centering. Reinforced cutting edges and good chip forming improve tool life due to high wear and edge chipping resistance.
- **GG P15** cutting edges are perfectly suited to drill alloyed and high-alloy steels.



MG

- **MG** geometry was made to offer extraordinary drilling performance in stainless steels, super alloys, and other demanding environments.
- **MG** provides process reliability, ensuring longer tool life and productivity in difficult-to-machine materials. Its advanced-point geometry and web design greatly reduces cutting forces.
- This insert style is ideally suited to drill heavy-duty and corrosion-resistant tube end sheets and other heat exchanger components.
- Use **MG P15** inserts as an effective alternative for plain and alloyed steels, as well as in the most important Al and Cu applications.

# NSEM Modular Drill Inserts \_ PG/GG/MG



Code			D1 mm	Seat Size
NSEM1250PG	NSEM1250GG	NSEM1250MG	12.500	C
NSEM1270PG	NSEM1270GG	NSEM1270MG	12.700	C
NSEM1280PG	NSEM1280GG	NSEM1280MG	12.800	C
NSEM1300PG	NSEM1300GG	NSEM1300MG	13.000	C
NSEM1310PG	NSEM1310GG	NSEM1310MG	13.100	C
NSEM1320PG	NSEM1320GG	NSEM1320MG	13.200	C
NSEM1350PG	NSEM1350GG	NSEM1350MG	13.500	C
NSEM1370PG	NSEM1370GG	NSEM1370MG	13.700	B
NSEM1380PG	NSEM1380GG	NSEM1380MG	13.800	B
NSEM1389PG	NSEM1389GG	NSEM1389MG	13.890	B
NSEM1400PG	NSEM1400GG	NSEM1400MG	14.000	B
NSEM1410PG	NSEM1410GG	NSEM1410MG	14.100	B
NSEM1420PG	NSEM1420GG	NSEM1420MG	14.200	B
NSEM1429PG	NSEM1429GG	NSEM1429MG	14.290	B
NSEM1440PG	NSEM1440GG	NSEM1440MG	14.400	B
NSEM1450PG	NSEM1450GG	NSEM1450MG	14.500	B
NSEM1468PG	NSEM1468GG	NSEM1468MG	14.680	A
NSEM1480PG	NSEM1480GG	NSEM1480MG	14.800	A
NSEM1500PG	NSEM1500GG	NSEM1500MG	15.000	A
NSEM1508PG	NSEM1508GG	NSEM1508MG	15.080	A
NSEM1530PG	NSEM1530GG	NSEM1530MG	15.300	A
NSEM1550PG	NSEM1550GG	NSEM1550MG	15.500	A
NSEM1560PG	NSEM1560GG	NSEM1560MG	15.600	A
NSEM1570PG	NSEM1570GG	NSEM1570MG	15.700	A
NSEM1580PG	NSEM1580GG	NSEM1580MG	15.800	A
NSEM1588PG	NSEM1588GG	NSEM1588MG	15.880	1
NSEM1600PG	NSEM1600GG	NSEM1600MG	16.000	1
NSEM1609PG	NSEM1609GG	NSEM1609MG	16.090	1
NSEM1620PG	NSEM1620GG	NSEM1620MG	16.200	1
NSEM1627PG	NSEM1627GG	NSEM1627MG	16.270	1

Code			D1 mm	Seat Size
NSEM1650PG	NSEM1650GG	NSEM1650MG	16.500	1
NSEM1667PG	NSEM1667GG	NSEM1667MG	16.670	1
NSEM1700PG	NSEM1700GG	NSEM1700MG	17.000	1
NSEM1707PG	NSEM1707GG	NSEM1707MG	17.070	1
NSEM1746PG	NSEM1746GG	NSEM1746MG	17.460	1
NSEM1750PG	NSEM1750GG	NSEM1750MG	17.500	1
NSEM1786PG	NSEM1786GG	NSEM1786MG	17.860	1
NSEM1800PG	NSEM1800GG	NSEM1800MG	18.000	1
NSEM1826PG	NSEM1826GG	NSEM1826MG	18.260	2
NSEM1850PG	NSEM1850GG	NSEM1850MG	18.500	2
NSEM1865PG	NSEM1865GG	NSEM1865MG	18.650	2
NSEM1900PG	NSEM1900GG	NSEM1900MG	19.000	2
NSEM1905PG	NSEM1905GG	NSEM1905MG	19.050	2
NSEM1923PG	NSEM1923GG	NSEM1923MG	19.228	2
NSEM1927PG	NSEM1927GG	NSEM1927MG	19.270	2
NSEM1945PG	NSEM1945GG	NSEM1945MG	19.450	2
NSEM1950PG	NSEM1950GG	NSEM1950MG	19.500	2
NSEM1984PG	NSEM1984GG	NSEM1984MG	19.840	2
NSEM2000PG	NSEM2000GG	NSEM2000MG	20.000	3
NSEM2024PG	NSEM2024GG	NSEM2024MG	20.240	3
NSEM2050PG	NSEM2050GG	NSEM2050MG	20.500	3
NSEM2064PG	NSEM2064GG	NSEM2064MG	20.640	3
NSEM2100PG	NSEM2100GG	NSEM2100MG	21.000	3
NSEM2143PG	NSEM2143GG	NSEM2143MG	21.430	3
NSEM2150PG	NSEM2150GG	NSEM2150MG	21.500	3
NSEM2183PG	NSEM2183GG	NSEM2183MG	21.830	3
NSEM2200PG	NSEM2200GG	NSEM2200MG	22.000	3
NSEM2223PG	NSEM2223GG	NSEM2223MG	22.230	4
NSEM2244PG	NSEM2244GG	NSEM2244MG	22.440	4
NSEM2250PG	NSEM2250GG	NSEM2250MG	22.500	4

# NSEM Modular Drill Inserts \_ PG/GG/MG

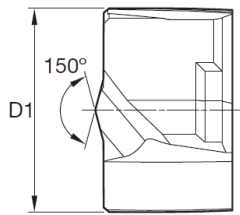


Code			D1 mm	Seat Size
NSEM2300PG	NSEM2300GG	NSEM2300MG	23.000	4
NSEM2342PG	NSEM2342GG	NSEM2342MG	23.420	4
NSEM2350PG	NSEM2350GG	NSEM2350MG	23.500	4
NSEM2381PG	NSEM2381GG	NSEM2381MG	23.810	4
NSEM2400PG	NSEM2400GG	NSEM2400MG	24.000	4
NSEM2450PG	NSEM2450GG	NSEM2450MG	24.500	5
NSEM2461PG	NSEM2461GG	NSEM2461MG	24.610	5
NSEM2500PG	NSEM2500GG	NSEM2500MG	25.000	5
NSEM2540PG	NSEM2540GG	NSEM2540MG	25.400	5
NSEM2550PG	NSEM2550GG	NSEM2550MG	25.500	5
NSEM2560PG	NSEM2560GG	NSEM2560MG	25.610	5
NSEM2567PG	NSEM2567GG	NSEM2567MG	25.670	5
NSEM2600PG	NSEM2600GG	NSEM2600MG	26.000	5
NSEM2619PG	NSEM2619GG	NSEM2619MG	26.190	6
NSEM2650PG	NSEM2650GG	NSEM2650MG	26.500	6
NSEM2659PG	NSEM2659GG	NSEM2659MG	26.590	6
NSEM2700PG	NSEM2700GG	NSEM2700MG	27.000	6
NSEM2750PG	NSEM2750GG	NSEM2750MG	27.500	6
NSEM2778PG	NSEM2778GG	NSEM2778MG	27.780	6
NSEM2800PG	NSEM2800GG	NSEM2800MG	28.000	6
NSEM2818PG	NSEM2818GG	NSEM2818MG	28.180	7
NSEM2850PG	NSEM2850GG	NSEM2850MG	28.500	7
NSEM2858PG	NSEM2858GG	NSEM2858MG	28.580	7
NSEM2900PG	NSEM2900GG	NSEM2900MG	29.000	7
NSEM2937PG	NSEM2937GG	NSEM2937MG	29.370	7
NSEM2950PG	NSEM2950GG	NSEM2950MG	29.500	7
NSEM2977PG	NSEM2977GG	NSEM2977MG	29.770	7
NSEM3000PG	NSEM3000GG	NSEM3000MG	30.000	7
NSEM3016PG	NSEM3016GG	NSEM3016MG	30.160	8
NSEM3050PG	NSEM3050GG	NSEM3050MG	30.500	8

Code			D1 mm	Seat Size
NSEM3096PG	NSEM3096GG	NSEM3096MG	30.960	8
NSEM3100PG	NSEM3100GG	NSEM3100MG	31.000	8
NSEM3150PG	NSEM3150GG	NSEM3150MG	31.500	8
NSEM3175PG	NSEM3175GG	NSEM3175MG	31.750	8
NSEM3200PG	NSEM3200GG	NSEM3200MG	32.000	8
NSEM3250PG	NSEM3250GG	NSEM3250MG	32.500	9
NSEM3300PG	NSEM3300GG	NSEM3300MG	33.000	9
NSEM3334PG	NSEM3334GG	NSEM3334MG	33.340	9
NSEM3400PG	NSEM3400GG	NSEM3400MG	34.000	9
NSEM3413PG	NSEM3413GG	NSEM3413MG	34.130	9
NSEM3493PG	NSEM3493GG	NSEM3493MG	34.930	9
NSEM3500PG	NSEM3500GG	NSEM3500MG	35.000	9
NSEM3550PG	NSEM3550GG	NSEM3550MG	35.500	9
NSEM3600PG	NSEM3600GG	NSEM3600MG	36.000	9
NSEM3750PG	NSEM3750GG	NSEM3750MG	37.500	10
NSEM3800PG	NSEM3800GG	NSEM3800MG	38.000	10
NSEM3810PG	NSEM3810GG	NSEM3810MG	38.100	10
NSEM3850PG	NSEM3850GG	NSEM3850MG	38.500	10
NSEM3900PG	NSEM3900GG	NSEM3900MG	39.000	10
NSEM3950PG	NSEM3950GG	NSEM3950MG	39.500	10
NSEM4000PG	NSEM4000GG	NSEM4000MG	40.000	10

D1	Tolerances h8
12.5–18	+0.000/-0.027
>18–30	+0.000/-0.033
>30–40	+0.000/-0.039

# NSEM Modular Drill Inserts \_\_ E



- **E** shape flat-bottom inserts create 180° flat holes — only a small cavity remains in the center of the hole ground. It offers an extraordinarily strong pocket seat for your demanding flat-bottom applications.
- Whether it is a blind hole, a through hole, or if you need to countersink, these inserts are focused on versatility and will support you in many essential drilling applications.
- **E** inserts feature a small centering point as well as double margin lands for improved guidance and hole straightness. A corner chamfer serves to reduce bur formation and to improve tool life.
- Use **E** cutting edges as an effective alternative in cast iron, stainless steel, and high-temp alloys.
- D16.00 ~ D40.00



Code	D1 mm	Seat Size
NSEM1600-E	16.000	1
NSEM1650-E	16.500	1
NSEM1700-E	17.000	1
NSEM1750-E	17.500	1
NSEM1800-E	18.000	1
NSEM1850-E	18.500	2
NSEM1900-E	19.000	2
NSEM1905-E	19.050	2
NSEM1950-E	19.500	2
NSEM1984-E	19.840	2

Code	D1 mm	Seat Size
NSEM2000-E	20.000	3
NSEM2050-E	20.500	3
NSEM2100-E	21.000	3
NSEM2150-E	21.500	3
NSEM2200-E	22.000	3
NSEM2250-E	22.500	4
NSEM2300-E	23.000	4
NSEM2350-E	23.500	4
NSEM2400-E	24.000	4
NSEM2450-E	24.500	5



# NSEM Modular Drill Inserts \_ E

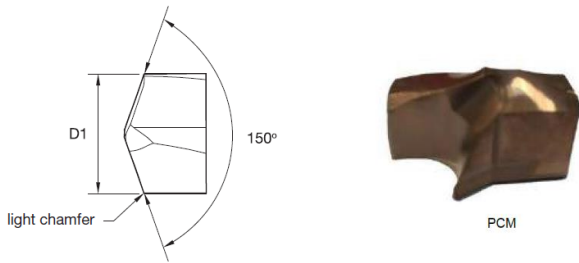


Code	D1 mm	Seat Size
NSEM2500-E	25.000	5
NSEM2540-E	25.400	5
NSEM2550-E	25.500	5
NSEM2580-E	25.800	5
NSEM2581-E	25.810	5
NSEM2600-E	26.000	5
NSEM2619-E	26.190	6
NSEM2650-E	26.500	6
NSEM2670-E	26.700	6
NSEM2700-E	27.000	6
NSEM2750-E	27.500	6
NSEM2800-E	28.000	6
NSEM2850-E	28.500	7
NSEM2900-E	29.000	7
NSEM2950-E	29.500	7
NSEM3000-E	30.000	7
NSEM3050-E	30.500	8
NSEM3100-E	31.000	8
NSEM3150-E	31.500	8
NSEM3175-E	31.750	8

Code	D1 mm	Seat Size
NSEM3200-E	32.000	8
NSEM3250-E	32.500	9
NSEM3300-E	33.000	9
NSEM3350-E	33.500	9
NSEM3400-E	34.000	9
NSEM3450-E	34.500	9
NSEM3500-E	35.000	9
NSEM3550-E	35.500	9
NSEM3600-E	36.000	9
NSEM3650-E	36.500	10
NSEM3700-E	37.000	10
NSEM3750-E	37.500	10
NSEM3800-E	38.000	10
NSEM3810-E	38.100	10
NSEM3850-E	38.500	10
NSEM3900-E	39.000	10
NSEM3950-E	39.500	10
NSEM4000-E	40.000	10

D1	Tolerances k7
16–18	+0,001/+ 0,019
>18–30	+0,002/+ 0,023
>30–40	+0,002/+ 0,027

# NSEM Modular Drill Inserts \_\_ PCM



- **PCM** cutting edges serve mainly as pre-centering inserts, but can also be used in demanding conditions.
- **Step 150° angle with a light corner chamfer.** Very good centering capability and edge chipping resistance.
- **K15** is a very resistant grade featuring a TiCN-TiN PVD coating.
- **D12.50 ~ D40.00**



Code	D1 mm	Seat Size
NSEM1250PCM	12.500	C
NSEM1280PCM	12.800	C
NSEM1300PCM	13.000	C
NSEM1350PCM	13.500	C
NSEM1380PCM	13.800	B
NSEM1400PCM	14.000	B
NSEM1410PCM	14.100	B
NSEM1450PCM	14.500	B
NSEM1460PCM	14.600	A
NSEM1480PCM	14.800	A
NSEM1500PCM	15.000	A
NSEM1550PCM	15.500	A
NSEM1560PCM	15.600	A
NSEM1580PCM	15.800	A
NSEM1600PCM	16.000	1
NSEM1620PCM	16.200	1
NSEM1650PCM	16.500	1
NSEM1700PCM	17.000	1

Code	D1 mm	Seat Size
NSEM1750PCM	17.500	1
NSEM1800PCM	18.000	1
NSEM1850PCM	18.500	2
NSEM1900PCM	19.000	2
NSEM1950PCM	19.500	2
NSEM2000PCM	20.000	3
NSEM2050PCM	20.500	3
NSEM2100PCM	21.000	3
NSEM2150PCM	21.500	3
NSEM2200PCM	22.000	3
NSEM2250PCM	22.500	4
NSEM2300PCM	23.000	4
NSEM2350PCM	23.500	4
NSEM2400PCM	24.000	4
NSEM2450PCM	24.500	5
NSEM2500PCM	25.000	5
NSEM2550PCM	25.500	5
NSEM2600PCM	26.000	5

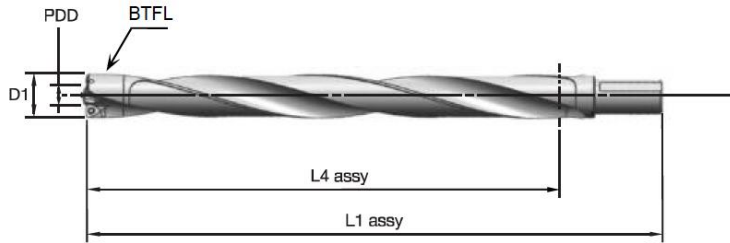
Code	D1 mm	Seat Size
NSEM2650PCM	26.500	6
NSEM2700PCM	27.000	6
NSEM2800PCM	28.000	6
NSEM2850PCM	28.500	7
NSEM2900PCM	29.000	7
NSEM2950PCM	29.500	7
NSEM3000PCM	30.000	7
NSEM3050PCM	30.500	8
NSEM3100PCM	31.000	8
NSEM3200PCM	32.000	8
NSEM3300PCM	33.000	9
NSEM3400PCM	34.000	9
NSEM3500PCM	35.000	9
NSEM3600PCM	36.000	9
NSEM3700PCM	37.000	10
NSEM3800PCM	38.000	10
NSEM3900PCM	39.000	10
NSEM4000PCM	40.000	10

# NSEM+ Modular Drill\_D28 ~ D101

- The NSEM+ Drill performs in steel, cast iron, stainless steel, and advanced materials.
- Quickly and easily replace inserts or drill heads without removing tool bodies from the machine.
- Save money and reduce tool stock by replacing just the worn drill head.
- Use one drill body for different sizes and styles of drill head
- The Drill has two full cutting edges in action when operating.
- The Drill range comprises 28–101mm.
- High L/D ratios possible from 1.5 x D up to 10 x D as standards. Longer drills up to 20 x D are possible as custom solutions.
- Very high feed rates and long tool life of center inserts and modular heads due to better chip flow.
- No precentering necessary for drill depths up to 5 x D.
- Indexable outboard inserts provide good surface finish and hole diameter accuracy.
- Tail-made available. Heads are available in intermediate diameters, and up to  $\varnothing$  127mm as semi-standards.  
Tool bodies available in all popular shank styles up to shank length of 1200mm.
- Toolholders can be designed with helical chip flutes for better chip evacuation (e.g. drilling in cast iron).

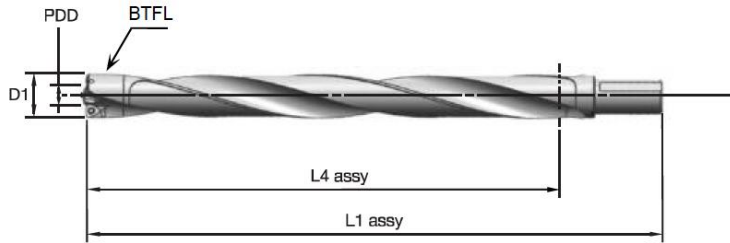


# NSEM+ Drill Selection



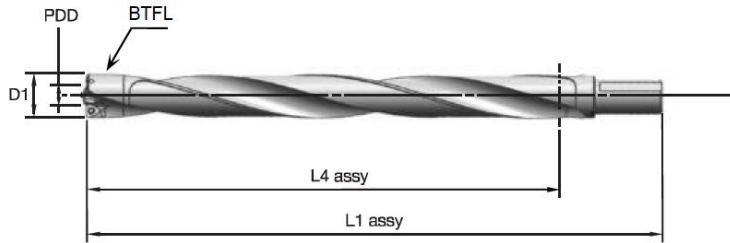
D1	Drill Head Code	insert size reference per head		BTFL Size	L/D Ratio	Drill Body Code	L4 assembly (mm)	L1 assembly (mm)
		PDD (mm) center insert size reference	Outboard insert					
28.000	NSEMP2800SV20M	14.000	WCMX040304	20				
28.575	NSEMP2858SV20M	15.000			1.5 x D	NSEMP2800R1T32M	57	101
29.000	NSEMP2900SV20M	15.000			3 x D	NSEMP2800R3T32M	96	153
29.362	NSEMP2937SV20M	16.000			5 x D	NSEMP2800R5T32M	158	215
30.000	NSEMP3000SV20M	16.000			8 x D	NSEMP2800R8T32M	251	308
30.175	NSEMP3017SV20M	17.000			10 x D	NSEMP2800R10T32M	313	370
30.963	NSEMP3096SV20M	17.000						
31.000	NSEMP3100SV20M	17.000						
31.750	NSEMP3175SV25M	15.000	WCMX05T308	25				
32.000	NSEMP3200SV25M	15.000			1.5 x D	NSEMP3200R1T32M	59	107
33.000	NSEMP3300SV25M	16.000			3 x D	NSEMP3200R3T32M	110	171
33.200	NSEMP3320SV25M	16.000			5 x D	NSEMP3200R5T32M	180	241
33.350	NSEMP3334SV25M	17.000			8 x D	NSEMP3200R8T32M	285	346
34.000	NSEMP3400SV25M	17.000			10 x D	NSEMP3200R10T32M	355	416
34.925	NSEMP3493SV25M	18.000						
35.000	NSEMP3500SV25M	18.000						
36.000	NSEMP3600SV32M	13.000	WCMX06T308D36	32				
36.525	NSEMP3651SV32M	14.000			1.5 x D	NSEMP3600R1T32M	65	117
37.000	NSEMP3700SV32M	14.000			3 x D	NSEMP3600R3T32M	122	191
37.500	NSEMP3750SV32M	15.000			5 x D	NSEMP3600R55T32M	200	269
38.000	NSEMP3800SV32M	15.000			8 x D	NSEMP3600R8T32M	317	386
38.100	NSEMP3810SV32M	15.000			10 x D	NSEMP3600R10T32M	395	464
39.000	NSEMP3900SV32M	16.000						
39.200	NSEMP3920SV32M	16.000						
39.700	NSEMP3970SV32M	17.000						

# NSEM+ Drill Selection



D1	Drill Head Code	insert size reference per head		BTFL Size	L/D Ratio	Drill Body Code	L4 assembly (mm)	L1 assembly (mm)
		PDD (mm) center insert size reference	Outboard insert					
40.000	NSEMP4000SV32M	17.000	WCMX06T308D39	32				
41.000	NSEMP4100SV32M	18.000			1.5 x D	NSEMP4000R1T50M	73	125
41.275	NSEMP4128SV32M	18.000			3 x D	NSEMP4000R3T50M	137	213
42.000	NSEMP4200SV32M	19.000			5 x D	NSEMP4000R5T50M	225	301
43.000	NSEMP4300SV32M	20.000			8 x D	NSEMP4000R8T50M	357	433
44.000	NSEMP4400SV32M	21.000			10 x D	NSEMP4000R10T50M	445	521
44.450	NSEMP4445SV32M	22.000						
45.000	NSEMP4500SV36M	18.000	WCMX070408D45	36	1.5 x D	NSEMP4500R1T50M	85	147
46.000	NSEMP4600SV36M	19.000			3 x D	NSEMP4500R3T50M	152	236
47.000	NSEMP4700SV36M	20.000			5 x D	NSEMP4500R5T50M	250	334
47.625	NSEMP4763SV36M	21.000			8 x D	NSEMP4500R8T50M	297	481
48.000	NSEMP4800SV36M	21.000			10 x D	NSEMP4500R10T50M	495	579
49.000	NSEMP4900SV36M	22.000						
50.000	NSEMP5000SV40M	23.000	WCMX070408D50	40				
50.800	NSEMP5080SV40M	24.000			1.5 x D	NSEMP5000R1T50M	89	157
51.000	NSEMP5100SV40M	24.000			3 x D	NSEMP5000R3T50M	170	263
52.000	NSEMP5200SV40M	25.000			5 x D	NSEMP5000R5T50M	280	373
53.000	NSEMP5300SV40M	26.000			8 x D	NSEMP5000R8T50M	445	538
53.975	NSEMP5398SV40M	27.000			10 x D	NSEMP5000R10T50M	555	648
54.000	NSEMP5400SV40M	27.000						
55.000	NSEMP5500SV40M	28.000						

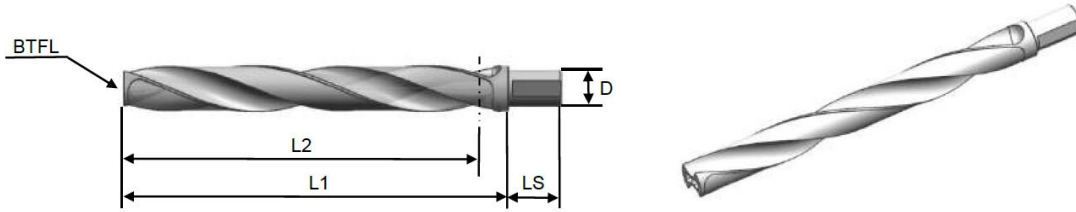
# NSEM+ Drill Selection



D1	Drill Head Code	insert size reference per head		BTFL Size	L/D Ratio	Drill Body Code	L4 assembly (mm)	L1 assembly (mm)
		PDD (mm) center insert size reference	Outboard insert					
56.000	NSEMP5600SV45M	20.000	WCMX090508D56	45				
57.000	NSEMP5700SV45M	21.000						
57.150	NSEMP5715SV45M	21.000			1.5 x D	NSEMP5600R1T50M	130	175
58.000	NSEMP5800SV45M	22.000			3 x D	NSEMP5600R3T50M	191	294
59.000	NSEMP5900SV45M	23.000			5 x D	NSEMP5600R5T50M	315	418
60.000	NSEMP6000SV45M	24.000			8 x D	NSEMP5600R8T50M	501	604
60.330	NSEMP6033SV45M	24.000			10 x D	NSEMP5600R10T50M	625	728
61.000	NSEMP6100SV45M	25.000						
62.000	NSEMP6200SV45M	26.000						
63.000	NSEMP6300SV50M	27.000			WCMX090508D63	50		
63.500	NSEMP6350SV50M	28.000						
64.000	NSEMP6400SV50M	28.000						
65.000	NSEMP6500SV50M	29.000						
66.000	NSEMP6600SV50M	30.000	1.5 x D	NSEMP6300R1T50M			111	194
66.680	NSEMP6668SV50M	31.000	3 x D	NSEMP6300R3T50M			214	329
67.000	NSEMP6700SV50M	31.000	5 x D	NSEMP6300R5T50M			354	469
68.000	NSEMP6800SV50M	32.000	8 x D	NSEMP6300R8T50M			564	679
69.000	NSEMP6900SV50M	33.000	10 x D	NSEMP6300R10T50M			704	819
69.850	NSEMP6985SV50M	34.000						
70.000	NSEMP7000SV50M	34.000						

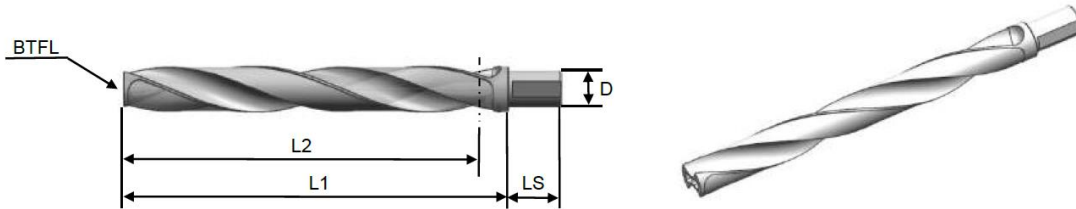
# NSEM+ Drill Shank

- Order Drill heads separately according to the connection coupling size (BTFL).
- Wrench will be shipped with head.



L/D Ratio	Drill Head Code	BTFL Size	D (mm)	L1 (mm)	L2 (mm)	LS (mm)
<b>1.5 x D</b>	NSEMP2800R1T32M	20	32	76	32	58
	NSEMP3200R1T32M	25	32	82	34	58
	NSEMP3600R1T32M	32	32	92	40	58
	NSEMP4000R1T50M	32	50	100	43	68
	NSEMP4500R1T50M	36	50	112	50	68
	NSEMP5000R1T50M	40	50	122	54	68
	NSEMP5600R1T50M	45	50	140	65	68
	NSEMP6300R1T50M	50	50	154	71	68
<b>3 x D</b>	NSEMP2800R3T32M	20	32	128	71	58
	NSEMP3200R3T32M	25	32	146	85	58
	NSEMP3600R3T32M	32	32	166	97	58
	NSEMP4000R3T50M	32	50	183	107	68
	NSEMP4500R3T50M	36	50	206	122	68
	NSEMP5000R3T50M	40	50	228	135	68
	NSEMP5600R3T50M	45	50	259	156	68
	NSEMP6300R3T50M	50	50	289	174	68
<b>5 x D</b>	NSEMP2800R5T32M	20	32	190	133	58
	NSEMP3200R5T32M	25	32	216	155	58
	NSEMP3600R5T32M	32	32	244	175	58
	NSEMP4000R5T50M	32	50	271	195	68
	NSEMP4500R5T50M	36	50	304	220	68
	NSEMP5000R5T50M	40	50	338	245	68
	NSEMP5600R5T50M	45	50	383	280	68
	NSEMP6300R5T50M	50	50	429	314	68

# NSEM+ Drill Shank

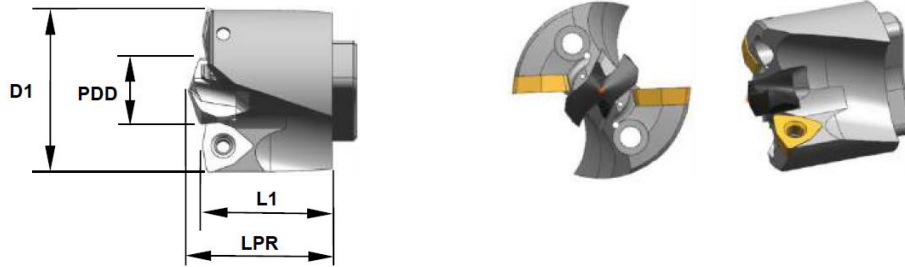


L/D Ratio	Drill Head Code	BTFL Size	D (mm)	L1 (mm)	L2 (mm)	LS (mm)
<b>8 x D</b>	NSEMP2800R8T32M	20	32	283	226	58
	NSEMP3200R8T32M	25	32	321	260	58
	NSEMP3600R8T32M	32	32	361	292	58
	NSEMP4000R8T50M	32	50	403	327	68
	NSEMP4500R8T50M	36	50	451	367	68
	NSEMP5000R8T50M	40	50	503	410	68
	NSEMP5600R8T50M	45	50	569	466	68
	NSEMP6300R8T50M	50	50	639	524	68
<b>10 x D</b>	NSEMP2800R10T32M	20	32	345	288	58
	NSEMP3200R10T32M	25	32	391	330	58
	NSEMP3600R10T32M	32	32	439	370	58
	NSEMP4000R10T50M	32	50	491	415	68
	NSEMP4500R10T50M	36	50	549	465	68
	NSEMP5000R10T50M	40	50	613	520	68
	NSEMP5600R10T50M	45	50	693	590	68
	NSEMP6300R10T50M	50	50	779	664	68



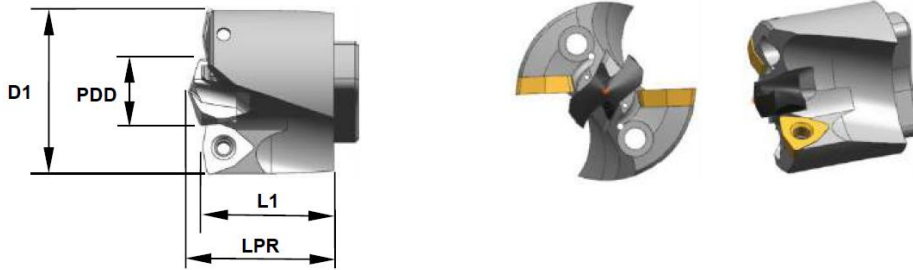
# NSEM+ Drill Head

- Drill heads are shipped with all insert screws.
- Drill heads are shipped with two wrenches, one for the center insert and one to be used for the outboard insert inserts as well as for the assembly of the body to the head.
- Order NSEM+ Drill shanks using connection coupling size (BTFL) to determine which heads go with each shank.



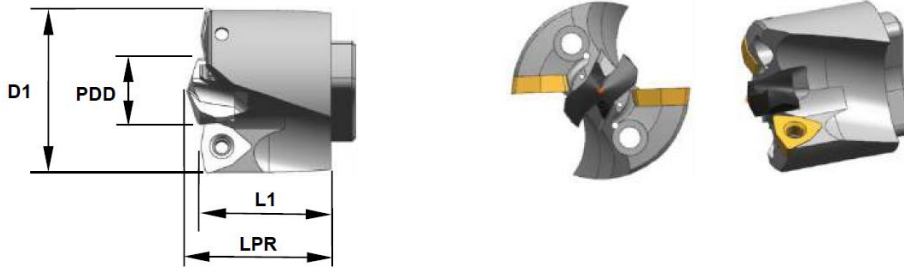
D1	Drill Head Code	PDD (mm) center insert size	LPR (mm)	L1 (mm)	BTFL Size
28.00	NSEMP2800SV20M	14.00	24.90	22.0	20
28.58	NSEMP2858SV20M	15.00	25.00	22.0	20
29.00	NSEMP2900SV20M	15.00	25.00	22.0	20
29.36	NSEMP2937SV20M	16.00	25.20	22.0	20
30.00	NSEMP3000SV20M	16.00	25.20	22.0	20
30.18	NSEMP3017SV20M	17.00	25.40	22.0	20
30.96	NSEMP3096SV20M	17.00	25.40	22.0	20
31.00	NSEMP3100SV20M	17.00	25.40	22.0	20
31.75	NSEMP3175SV25M	15.00	23.00	20.0	25
32.00	NSEMP3200SV25M	15.00	23.00	20.0	25
33.00	NSEMP3300SV25M	16.00	23.20	20.0	25
33.20	NSEMP3320SV25M	16.00	23.20	20.0	25
33.35	NSEMP3334SV25M	17.00	23.40	20.0	25
34.00	NSEMP3400SV25M	17.00	23.40	20.0	25
34.93	NSEMP3493SV25M	18.00	23.60	20.0	25
35.00	NSEMP3500SV25M	18.00	23.60	20.0	25
36.00	NSEMP3600SV32M	13.00	22.70	20.0	32
36.53	NSEMP3651SV32M	14.00	22.90	20.0	32

# NSEM+ Drill Head



D1	Drill Head Code	PDD (mm) center insert size	LPR (mm)	L1 (mm)	BTFL Size
37.00	NSEMP3700SV32M	14.00	22.90	20.0	32
37.50	NSEMP3750SV32M	15.00	23.00	20.0	32
38.00	NSEMP3800SV32M	15.00	23.00	20.0	32
38.10	NSEMP3810SV32M	15.00	23.00	20.0	32
39.00	NSEMP3900SV32M	16.00	23.20	20.0	32
39.20	NSEMP3920SV32M	16.00	23.20	20.0	32
39.70	NSEMP3970SV32M	17.00	23.40	20.0	32
40.00	NSEMP4000SV32M	17.00	28.60	25.0	32
41.00	NSEMP4100SV32M	18.00	28.80	25.0	32
41.28	NSEMP4128SV32M	18.00	28.80	25.0	32
42.00	NSEMP4200SV32M	19.00	28.90	25.0	32
43.00	NSEMP4300SV32M	20.00	29.10	25.0	32
44.00	NSEMP4400SV32M	21.00	29.30	25.0	32
44.45	NSEMP4445SV32M	22.00	29.50	25.0	32
45.00	NSEMP4500SV36M	18.00	28.80	25.0	36
46.00	NSEMP4600SV36M	19.00	28.90	25.0	36
47.00	NSEMP4700SV36M	20.00	29.10	25.0	36
47.63	NSEMP4763SV36M	21.00	29.30	25.0	36
48.00	NSEMP4800SV36M	21.00	29.30	25.0	36
49.00	NSEMP4900SV36M	22.00	29.50	25.0	36
50.00	NSEMP5000SV40M	23.00	34.80	30.0	40
50.80	NSEMP5080SV40M	24.00	35.00	30.0	40
51.00	NSEMP5100SV40M	24.00	35.00	30.0	40
52.00	NSEMP5200SV40M	25.00	35.20	30.0	40

# NSEM+ Drill Head



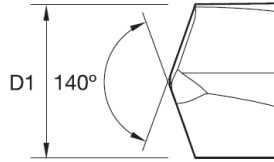
D1	Drill Head Code	PDD (mm) center insert size	LPR (mm)	L1 (mm)	BTFL Size
53.00	NSEMP5300SV40M	26.00	35.40	30.0	40
53.98	NSEMP5398SV40M	27.00	35.60	30.0	40
54.00	NSEMP5400SV40M	27.00	35.60	30.0	40
55.00	NSEMP5500SV40M	28.00	35.70	30.0	40
56.00	NSEMP5600SV45M	20.00	34.30	30.0	45
57.00	NSEMP5700SV45M	21.00	34.50	30.0	45
57.15	NSEMP5715SV45M	21.00	34.50	30.0	45
58.00	NSEMP5800SV45M	22.00	34.70	30.0	45
59.00	NSEMP5900SV45M	23.00	34.80	30.0	45
60.00	NSEMP6000SV45M	24.00	35.00	30.0	45
60.33	NSEMP6033SV45M	24.00	35.00	30.0	45
61.00	NSEMP6100SV45M	25.00	35.20	30.0	45
62.00	NSEMP6200SV45M	26.00	35.40	30.0	45
63.00	NSEMP6300SV50M	27.00	41.80	36.0	50
63.50	NSEMP6350SV50M	28.00	41.90	36.0	50
64.00	NSEMP6400SV50M	28.00	41.90	36.0	50
65.00	NSEMP6500SV50M	29.00	42.10	36.0	50
66.00	NSEMP6600SV50M	30.00	42.30	36.0	50
66.68	NSEMP6668SV50M	31.00	42.50	36.0	50
67.00	NSEMP6700SV50M	31.00	42.50	36.0	50
68.00	NSEMP6800SV50M	32.00	42.60	36.0	50
69.00	NSEMP6900SV50M	33.00	42.80	36.0	50
69.85	NSEMP6985SV50M	34.00	43.00	36.0	50
70.00	NSEMP7000SV50M	34.00	43.00	36.0	50

# NSEM+ Drill Center Inserts

- Center inserts could be reground 1~3 times.
- The callout D1 (mm) = PDD. PDD is used in reference to the Drill heads.



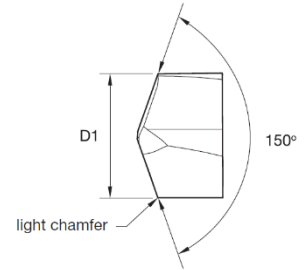
PG



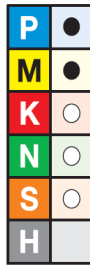
D1 (mm) = PDD



PCM



D1 (mm) = PDD

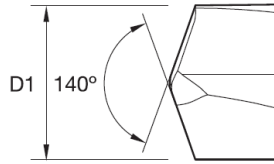


D1 (mm)	Center Insert Code			Seat Size
14.00	NSEMP1400PG	NSEMP1400MG	NSEMP1400PCM	B
15.00	NSEMP1500PG	NSEMP1500MG	NSEMP1500PCM	A
16.00	NSEMP1600PG	NSEMP1600MG	NSEMP1600PCM	1
17.00	NSEMP1700PG	NSEMP1700MG	NSEMP1700PCM	1
18.00	NSEMP1800PG	NSEMP1800MG	NSEMP1800PCM	1
19.00	NSEMP1900PG	NSEMP1900MG	NSEMP1900PCM	2
20.00	NSEMP2000PG	NSEMP2000MG	NSEMP2000PCM	3
21.00	NSEMP2100PG	NSEMP2100MG	NSEMP2100PCM	3
22.00	NSEMP2200PG	NSEMP2200MG	NSEMP2200PCM	3
23.00	NSEMP2300PG	NSEMP2300MG	NSEMP2300PCM	4
24.00	NSEMP2400PG	NSEMP2400MG	NSEMP2400PCM	4
25.00	NSEMP2500PG	NSEMP2500MG	NSEMP2500PCM	5
26.00	NSEMP2600PG	NSEMP2600MG	NSEMP2600PCM	5
27.00	NSEMP2700PG	NSEMP2700MG	NSEMP2700PCM	6
28.00	NSEMP2800PG	NSEMP2800MG	NSEMP2800PCM	6

# NSEM+ Drill Center Inserts



PG



PCM

P	●
M	●
K	○
N	○
S	○
H	

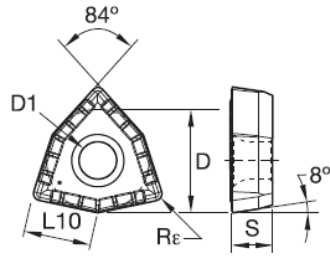
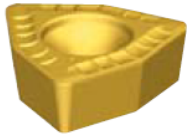
P	
M	
K	●
N	
S	
H	

P	○
M	●
K	○
N	○
S	●
H	●

D1 (mm)	Center Insert Code			Seat Size
29.00	NSEMP2900PG	NSEMP2900MG	NSEMP2900PCM	7
30.00	NSEMP3000PG	NSEMP3000MG	NSEMP3000PCM	7
31.00	NSEMP3100PG	NSEMP3100MG	NSEMP3100PCM	8
32.00	NSEMP3200PG	NSEMP3200MG	NSEMP3200PCM	8
33.00	NSEMP3300PG	NSEMP3300MG	NSEMP3300PCM	9
34.00	NSEMP3400PG	NSEMP3400MG	NSEMP3400PCM	9
35.00	NSEMP3500PG	NSEMP3500MG	NSEMP3500PCM	9
36.00	NSEMP3600PG	NSEMP3600MG	NSEMP3600PCM	9
37.00	NSEMP3700PG	NSEMP3700MG	NSEMP3700PCM	10
38.00	NSEMP3800PG	NSEMP3800MG	NSEMP3800PCM	10
39.00	NSEMP3900PG	NSEMP3900MG	NSEMP3900PCM	10
40.00	NSEMP4000PG	NSEMP4000MG	NSEMP4000PCM	10

D1	PG Tolerances k7	PCM Tolerances h8
14–18	+0,001/+ 0,019	+0,000/-0,027
>18–30	+0,002/+ 0,023	+0,000/-0,033
>30–40	+0,002/+ 0,027	+0,000/-0,039

# NSEM+ Drill Outboard Inserts



Insert Code	L10	D	D1	S	Rε
WCMX05T308-X	5.29	8.00	3.40	3.75	0.80
WCMX06T308-X	6.62	1.,00	4.40	3.75	0.80
WCMX070408-X	7.94	1.,00	4.40	4.75	0.80
WCMX090508-X	9.92	1.,00	5.50	5.25	0.80

-X: Represent the drill diameter, need to specify when ordering.

# N-Tip Modular Drill\_D8 ~ D20

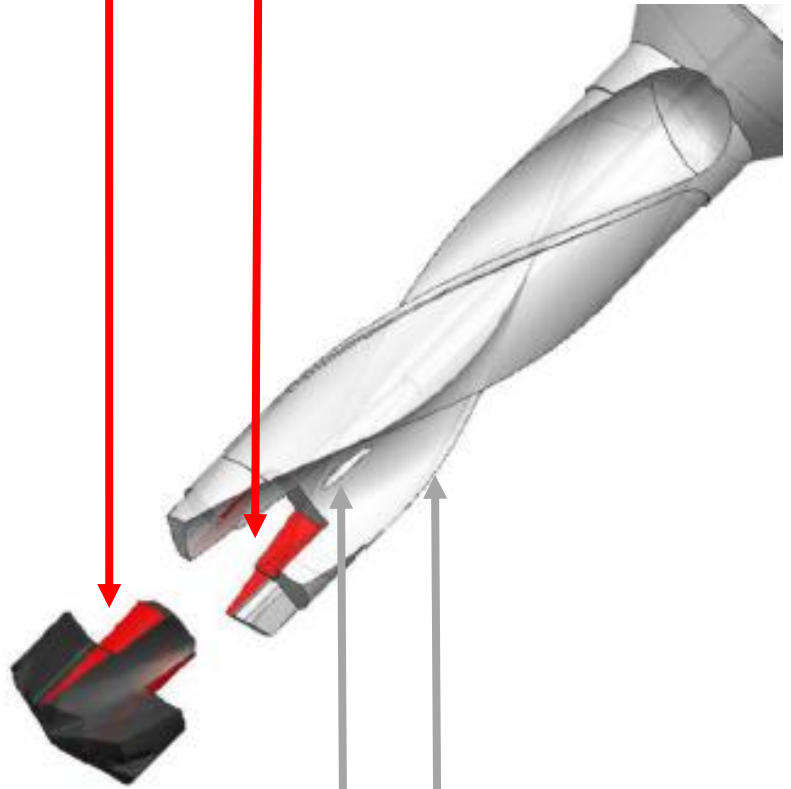
## Intelligent Interface

- Taper interface for highest rigidity clamping.
- Double positioning faces secure the stability and transmission of highest torque without deformation.
- Front lock design makes Insert exchange in the machine easier.

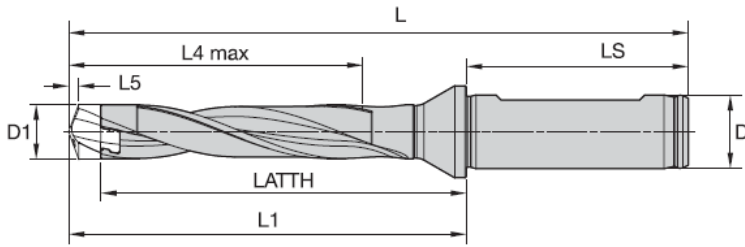
- Every drill body comes with a Special wrench.
- Inserts could be reground.

- Coolant delivery to where it is needed.

- Large chip flutes guarantee hassle-free chip evacuation, enhancing tool life and performance.



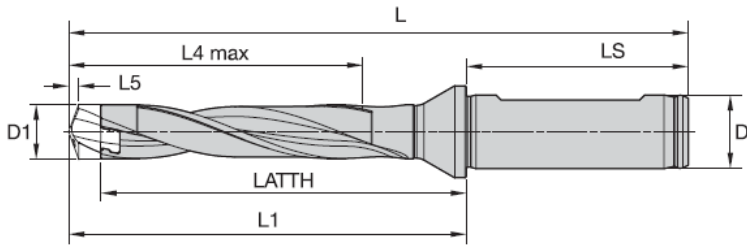
# N-Tip Drill Shank 1.5 X D



Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	LATTH	LS	L
NT080R01W12M	F	8.000	8.499	13	12	21.2	45	68
NT085R01W12M	G	8.500	8.999	14	12	21.6	45	69
NT090R01W12M	H	9.000	9.499	14	12	21.9	45	69
NT095R01W12M	I	9.500	9.999	15	12	22.8	45	70
NT100R01W16M	J	10.000	10.499	16	16	25.1	45	78
NT105R01W16M	K	10.500	10.999	16	16	25.5	48	78
NT110R01W16M	L	11.000	11.499	17	16	25.8	48	79
NT115R01W16M	M	11.500	11.999	18	16	26.7	48	80
NT120R01W16M	N	12.000	12.499	19	16	27.5	48	83
NT125R01W16M	O	12.500	12.999	20	16	27.9	48	84
NT130R01W16M	P	13.000	13.499	20	16	28.3	48	84
NT135R01W16M	Q	13.500	13.999	21	16	29.1	48	85
NT140R01W16M	R	14.000	14.499	22	16	30	48	90
NT145R01W16M	S	14.500	14.999	22	16	30.3	48	90
NT150R01W20M	T	15.000	15.999	24	20	34.9	50	92
NT160R01W20M	U	16.000	16.999	26	20	35.6	50	94
NT170R01W20M	V	17.000	17.999	27	20	38.3	50	100
NT180R01W25M	W	18.000	18.999	28	25	39.5	56	101
NT190R01W25M	X	19.000	19.999	30	25	50.4	56	103

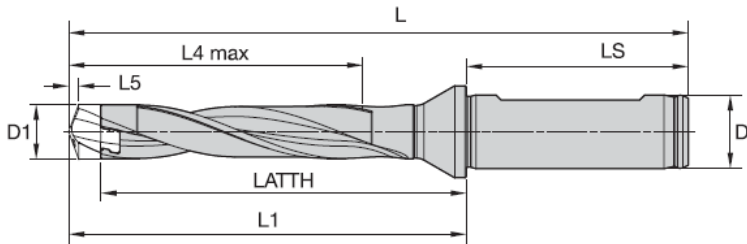


# N-Tip Drill Shank 3 X D



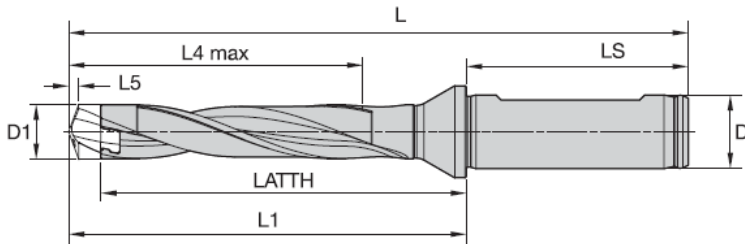
Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	LATTH	LS	L
NT080R03W12M	F	8.000	8.499	26	12	42.4	45	92
NT085R03W12M	G	8.500	8.999	27	12	43.1	45	93
NT090R03W12M	H	9.000	9.499	28	12	43.8	45	94
NT095R03W12M	I	9.500	9.999	30	12	45.5	45	96
NT100R03W16M	J	10.000	10.499	32	16	50.2	45	104
NT105R03W16M	K	10.500	10.999	33	16	50.9	48	105
NT110R03W16M	L	11.000	11.499	34	16	51.6	48	106
NT115R03W16M	M	11.500	11.999	36	16	53.3	48	108
NT120R03W16M	N	12.000	12.499	38	16	55.0	48	110
NT125R03W16M	O	12.500	12.999	39	16	55.8	48	111
NT130R03W16M	P	13.000	13.499	40	16	56.5	48	112
NT135R03W16M	Q	13.500	13.999	42	16	58.2	48	114
NT140R03W16M	R	14.000	14.499	44	16	59.9	48	116
NT145R03W16M	S	14.500	14.999	45	16	60.6	48	117
NT150R03W20M	T	15.000	15.999	48	20	66.3	50	125
NT160R03W20M	U	16.000	16.999	51	20	68.7	50	128
NT170R03W20M	V	17.000	17.999	54	20	71.1	50	131
NT180R03W25M	W	18.000	18.999	57	25	76.6	56	143
NT190R03W25M	X	19.000	19.999	60	25	79	56	146

# N-Tip Drill Shank 5 X D



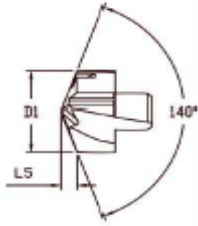
Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	LATTH	LS	L
NT080R05W12M	F	8.000	8.499	42	12	58.4	45	108
NT085R05W12M	G	8.500	8.999	45	12	61.1	45	111
NT090R05W12M	H	9.000	9.499	48	12	63.8	45	114
NT095R05W12M	I	9.500	9.999	50	12	65.5	45	116
NT100R05W16M	J	10.000	10.499	52	16	70.2	45	124
NT105R05W16M	K	10.500	10.999	55	16	72.9	48	127
NT110R05W16M	L	11.000	11.499	58	16	75.6	48	130
NT115R05W16M	M	11.500	11.999	60	16	77.3	48	132
NT120R05W16M	N	12.000	12.499	62	16	79.0	48	134
NT125R05W16M	O	12.500	12.999	65	16	81.8	48	137
NT130R05W16M	P	13.000	13.499	68	16	84.5	48	140
NT135R05W16M	Q	13.500	13.999	70	16	86.2	48	142
NT140R05W16M	R	14.000	14.499	72	16	87.9	48	144
NT145R05W16M	S	14.500	14.999	75	16	90.6	48	147
NT150R05W20M	T	15.000	15.999	80	20	98.3	50	157
NT160R05W20M	U	16.000	16.999	85	20	102.7	50	162
NT170R05W20M	V	17.000	17.999	90	20	107.1	50	167
NT180R05W25M	W	18.000	18.999	95	25	114.6	56	181
NT190R05W25M	X	19.000	19.999	100	25	119.0	56	186

# N-Tip Drill Shank 8 X D



Code	Seat Size	Drill Dia. (mm)		Hole Depth (mm)	Shank Dia. (mm)	(mm)	Shank length (mm)	Total length (mm)
		D1 Min.	D1 Max.	L4 Max.	D	LATTH	LS	L
NT080R08W12M	F	8.000	8.499	68	12	84.4	45	134
NT085R08W12M	G	8.500	8.999	72	12	88.1	45	138
NT090R08W12M	H	9.000	9.499	76	12	91.8	45	142
NT095R08W12M	I	9.500	9.999	80	12	95.5	45	146
NT100R08W16M	J	10.000	10.499	84	16	102.2	45	156
NT105R08W16M	K	10.500	10.999	88	16	105.9	48	160
NT110R08W16M	L	11.000	11.499	92	16	109.6	48	164
NT115R08W16M	M	11.500	11.999	96	16	113.3	48	168
NT120R08W16M	N	12.000	12.499	100	16	117.0	48	172
NT125R08W16M	O	12.500	12.999	104	16	120.8	48	176
NT130R08W16M	P	13.000	13.499	108	16	124.5	48	180
NT135R08W16M	Q	13.500	13.999	112	16	128.2	48	184
NT140R08W16M	R	14.000	14.499	116	16	131.9	48	188
NT145R08W16M	S	14.500	14.999	120	16	135.6	48	192
NT150R08W20M	T	15.000	15.999	128	20	146.3	50	205
NT160R08W20M	U	16.000	16.999	136	20	153.7	50	213
NT170R08W20M	V	17.000	17.999	144	20	161.1	50	221
NT180R08W25M	W	18.000	18.999	152	25	171.6	56	238
NT190R08W25M	X	19.000	19.999	160	25	179.0	56	246

# N-Tip Drill Inserts \_\_ PG

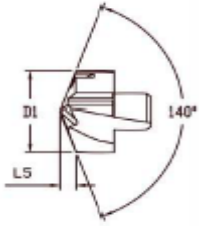


- **PG** HPG-point geometry for steels.
- Good positioning and centering capabilities for drilling without pre-centering, even in deeper holes.
- P15 is an **AlTiN PVD** monolayer coating.
- Enhanced thermal stability.
- Good balance between toughness and wear resistance.
- **Without internal coolant.**

Code	D1 mm	L5 mm	Seat Size
NT08000PG	8.000	1.800	F
NT08100PG	8.100	1.820	F
NT08164PG	8.164	1.830	F
NT08204PG	8.204	1.840	F
NT08300PG	8.300	1.850	F
NT08334PG	8.334	1.860	F
NT08400PG	8.400	1.870	F
NT08433PG	8.433	1.870	F
NT08500PG	8.500	1.890	G
NT08600PG	8.600	1.910	G
NT08611PG	8.611	1.910	G
NT08700PG	8.700	1.920	G
NT08732PG	8.732	1.930	G
NT08800PG	8.800	1.940	G
NT08839PG	8.839	1.950	G
NT08900PG	8.900	1.960	G
NT09000PG	9.000	2.010	H
NT09093PG	9.093	2.030	H
NT09100PG	9.100	2.030	H
NT09129PG	9.129	2.030	H
NT09200PG	9.200	2.040	H
NT09300PG	9.300	2.060	H
NT09347PG	9.347	2.070	H
NT09400PG	9.400	2.080	H

Code	D1 mm	L5 mm	Seat Size
NT09500PG	9.500	2.100	I
NT09525PG	9.525	2.110	I
NT09558PG	9.558	2.110	I
NT09600PG	9.600	2.120	I
NT09700PG	9.700	2.130	I
NT09800PG	9.800	2.150	I
NT09900PG	9.900	2.170	I
NT09921PG	9.921	2.170	I
NT10000PG	10.000	2.220	J
NT10023PG	10.023	2.220	J
NT10084PG	10.084	2.230	J
NT10100PG	10.100	2.240	J
NT10200PG	10.200	2.250	J
NT10262PG	10.262	2.260	J
NT10300PG	10.300	2.270	J
NT10320PG	10.320	2.270	J
NT10400PG	10.400	2.290	J
NT10490PG	10.490	2.300	J
NT10500PG	10.500	2.310	K
NT10600PG	10.600	2.330	K
NT10700PG	10.700	2.340	K
NT10716PG	10.716	2.350	K
NT10800PG	10.800	2.360	K
NT10900PG	10.900	2.380	K

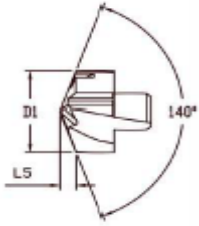
# N-Tip Drill Inserts \_\_ PG



Code	D1 mm	L5 mm	Seat Size
NT11000PG	11.000	2.430	L
NT11100PG	11.100	2.450	L
NT11112PG	11.112	2.450	L
NT11200PG	11.200	2.460	L
NT11300PG	11.300	2.480	L
NT11400PG	11.400	2.500	L
NT11500PG	11.500	2.520	M
NT11509PG	11.509	2.520	M
NT11600PG	11.600	2.540	M
NT11700PG	11.700	2.550	M
NT11800PG	11.800	2.570	M
NT11900PG	11.900	2.590	M
NT11908PG	11.908	2.590	M
NT12000PG	12.000	2.640	N
NT12100PG	12.100	2.650	N
NT12200PG	12.200	2.670	N
NT12304PG	12.304	2.690	N
NT12500PG	12.400	2.700	N
NT12474PG	12.474	2.720	N
NT12500PG	12.500	2.730	O
NT12600PG	12.600	2.740	O
NT12700PG	12.700	2.760	O
NT12800PG	12.800	2.780	O
NT12900PG	12.900	2.790	O
NT13000PG	13.000	2.850	P
NT13096PG	13.096	2.860	P
NT13200PG	13.200	2.880	P
NT13280PG	13.280	2.890	P
NT13300PG	13.300	2.900	P
NT13380PG	13.380	2.910	P
NT13400PG	13.400	2.910	P
NT13492PG	13.492	2.930	P

Code	D1 mm	L5 mm	Seat Size
NT13500PG	13.500	2.930	Q
NT13600PG	13.600	2.950	Q
NT13700PG	13.700	2.970	Q
NT13800PG	13.800	2.980	Q
NT13891PG	13.891	3.000	Q
NT13896PG	13.896	3.000	Q
NT13940PG	13.940	3.010	Q
NT14000PG	14.000	3.050	R
NT14100PG	14.100	3.070	R
NT14200PG	14.200	3.090	R
NT14288PG	14.288	3.100	R
NT14300PG	14.300	3.100	R
NT14400PG	14.400	3.120	R
NT14500PG	14.500	3.140	S
NT14600PG	14.600	3.160	S
NT14666PG	14.666	3.170	S
NT14684PG	14.684	3.170	S
NT14700PG	14.700	3.170	S
NT14800PG	14.800	3.190	S
NT14900PG	14.900	3.210	S
NT15000PG	15.000	3.260	T
NT15082PG	15.082	3.270	T
NT15100PG	15.100	3.280	T
NT15200PG	15.200	3.290	T
NT15300PG	15.300	3.310	T
NT15380PG	15.380	3.320	T
NT15400PG	15.400	3.330	T
NT15479PG	15.479	3.340	T
NT15500PG	15.500	3.340	T
NT15600PG	15.600	3.360	T
NT15700PG	15.700	3.380	T
NT15809PG	15.800	3.390	T

# N-Tip Drill Inserts \_ PG

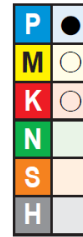
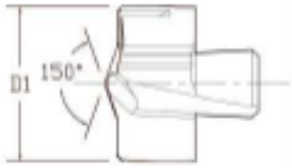


Code	D1 mm	L5 mm	Seat Size
NT15875PG	15.875	3.410	T
NT15900PG	15.900	3.410	T
NT16000PG	16.000	3.480	U
NT16027PG	16.027	3.490	U
NT16080PG	16.080	3.490	U
NT16100PG	16.100	3.500	U
NT16104PG	16.104	3.500	U
NT16200PG	16.200	3.510	U
NT16271PG	16.271	3.530	U
NT16300PG	16.300	3.530	U
NT16400PG	16.400	3.550	U
NT16500PG	16.500	3.570	U
NT16600PG	16.600	3.580	U
NT16670PG	16.670	3.590	U
NT16700PG	16.700	3.600	U
NT16800PG	16.800	3.620	U
NT16900PG	16.900	3.630	U
NT17000PG	17.000	3.660	V
NT17066PG	17.066	3.670	V
NT17100PG	17.100	3.670	V
NT17200PG	17.200	3.690	V
NT17300PG	17.300	3.710	V
NT17400PG	17.400	3.720	V
NT17462PG	17.462	3.740	V
NT17480PG	17.480	3.740	V
NT17500PG	17.500	3.740	V
NT17600PG	17.600	3.760	V
NT17700PG	17.700	3.770	V
NT17800PG	17.800	3.790	V
NT17859PG	17.859	3.800	V
NT17900PG	17.900	3.810	V
NT18000PG	18.000	3.890	W

Code	D1 mm	L5 mm	Seat Size
NT18100PG	18.100	3.910	W
NT18200PG	18.200	3.930	W
NT18258PG	18.258	3.940	W
NT18300PG	18.300	3.940	W
NT18400PG	18.400	3.960	W
NT18500PG	18.500	3.980	W
NT18600PG	18.600	3.990	W
NT18654PG	18.654	4.000	W
NT18700PG	18.700	4.010	W
NT18800PG	18.800	4.030	W
NT18900PG	18.900	4.040	W
NT19000PG	19.000	4.070	X
NT19050PG	19.050	4.080	X
NT19100PG	19.100	4.090	X
NT19200PG	19.200	4.100	X
NT19228PG	19.228	4.110	X
NT19253PG	19.253	4.110	X
NT19279PG	19.279	4.120	X
NT19300PG	19.300	4.120	X
NT19355PG	19.355	4.130	X
NT19400PG	19.400	4.140	X
NT19446PG	19.446	4.140	X
NT19460PG	19.460	4.150	X
NT19500PG	19.500	4.150	X
NT19600PG	19.600	1.170	X
NT19700PG	19.700	4.190	X
NT19800PG	19.800	4.200	X
NT19845PG	19.845	4.210	X
NT19900PG	19.900	4.220	X

D1	Tolerances k8
>8-10	0,000/+0,022
>10-18	0,000/+0,027
>18-26	0,000/+0,033

# N-Tip Drill Inserts E



- **E** flat-bottom inserts create 180° flat holes — only a small cavity remains in the center of the hole ground.
- Whether it is a blind hole, a through hole, or if you need to countersink, these inserts are focused on versatility and will support you in many essential drilling applications.
- **E** inserts feature a small centering point as well as double margin lands for improved guidance and hole straightness. A corner chamfer serves to reduce bur formation and to improve tool life.
- Could be Used as an effective alternative in cast iron and stainless steel.

Code	D1 mm	Seat Size
NT0794E	7.938	F
NT0800E	8.000	F
NT0850E	8.500	G
NT0852E	8.520	G
NT0900E	9.000	H
NT0913E	9.130	H
NT0950E	9.500	I
NT1000E	10.000	J
NT1010E	10.100	J
NT1050E	10.500	K
NT1080E	10.800	K
NT1100E	11.000	L
NT1150E	11.500	M
NT1170E	11.700	M
NT1200E	12.000	N
NT1250E	12.500	O
NT1270E	12.700	O
NT1300E	13.000	P
NT1350E	13.500	Q
NT1400E	14.000	R

Code	D1 mm	Seat Size
NT1450E	0.000	S
NT1490E	0.000	S
NT1500E	0.000	T
NT1550E	0.000	T
NT1595E	0.000	T
NT1600E	0.000	U
NT1650E	0.000	U
NT1700E	0.000	V
NT1750E	0.000	V
NT1770E	0.000	V
NT1800E	0.000	W
NT1850E	0.000	W
NT1900E	0.000	X
NT1905E	0.000	X
NT1950E	0.000	X

D1	Tolerances s7
8–10	+0,023/+0,038
>10–18	+0,028/+0,046
>18	+0,035/+0,056

# Tailor Made Drills Available

- Chamfer and spotting pockets could be added on the drill bodies as required.

