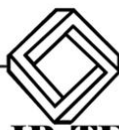


PRODUCT NEWS

PN-E-014

SERIES EXPANSION



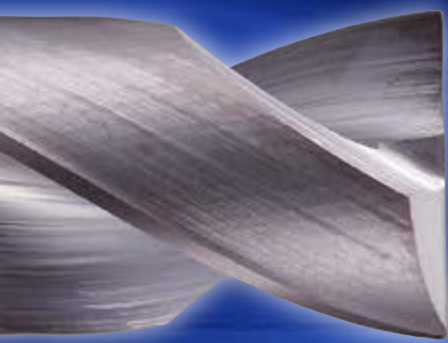
KALIP TEKNİK



DIJET®

FLAT DRILL Series

- TLDM type <Solid carbide drill>
- TLD3D/TLD5D type <Solid carbide drill>
- TLZD type <Indexable insert drill>



180°
Flat face



180°
Flat face



KALIP TEKNİK

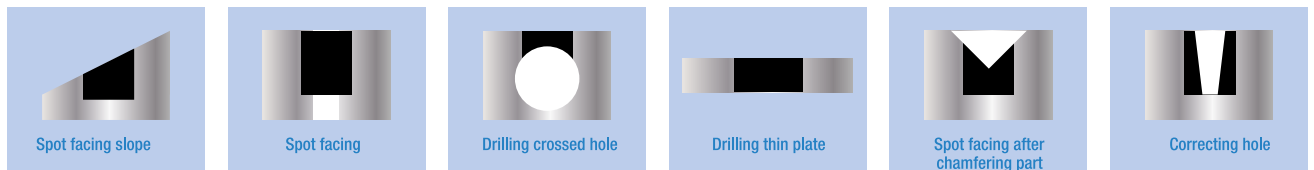
www.kalipteknik.com.tr

Spot facing drill

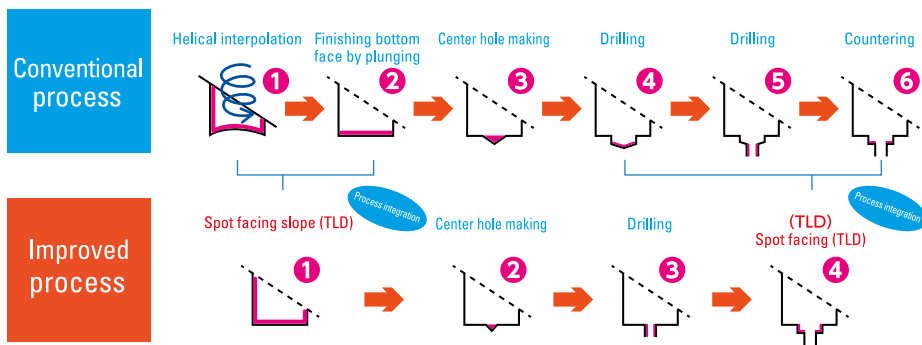
Feature of product

Because of multi application, achieved process integration

The main usage



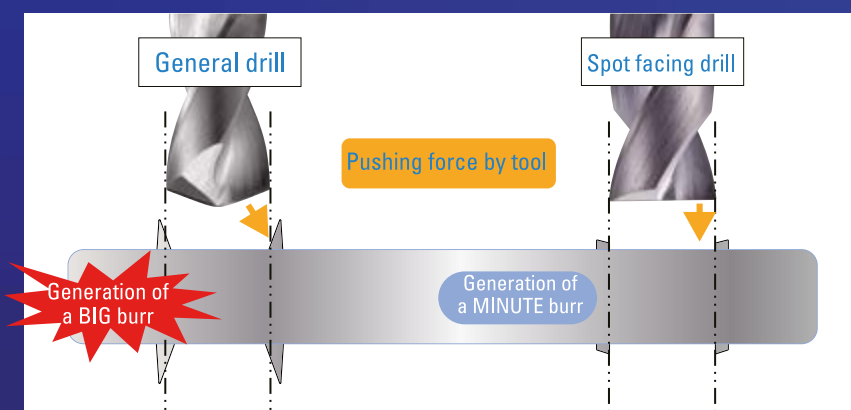
Example of process integration



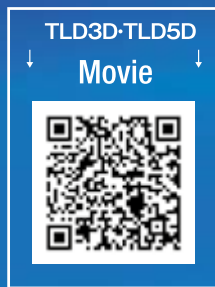
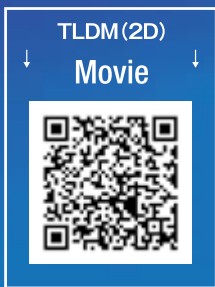
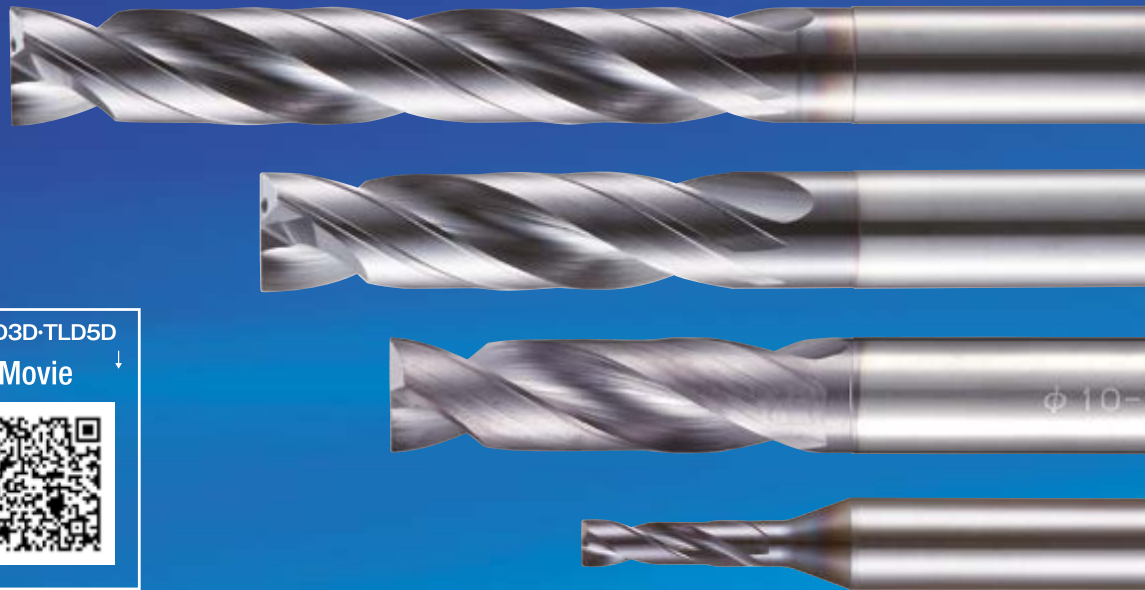
6 process → 4 Process

Widely applied from carbon & mold steel to stainless steel, cast iron & aluminum alloy

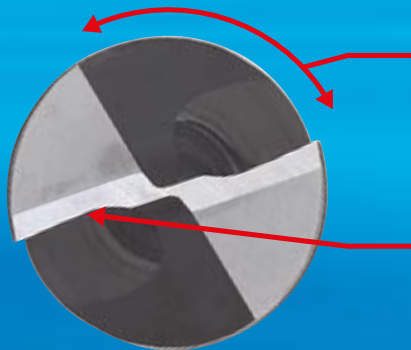
Restraining entrance burr and exit burr



Useful in situations where burr processing is difficult, such as crossed hole processing



■ TLDM TLDM type (Drilling depth $2 \times D_c$)



Wide flute design

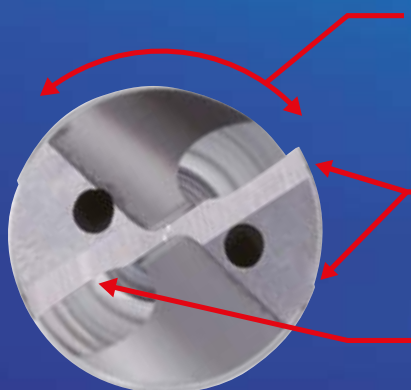
Good chip discharge performance

Low cutting force

Excellent biting property

Because of shortness overhung length, improved accuracy
Specializing in thin plate and bottom face processing

■ TLD3D/TLD5D TLD3D/5D type (Drilling depth $3 \times D_c / 5 \times D_c$)



Wide flute design and
Smooth surface treatment

Good chip discharge performance

Double margin shape

Improved straightness of the drilling

Low cutting force

Excellent biting property

Through coolant hole type
Specializing in deep hole drilling

Line up

● TLDM type

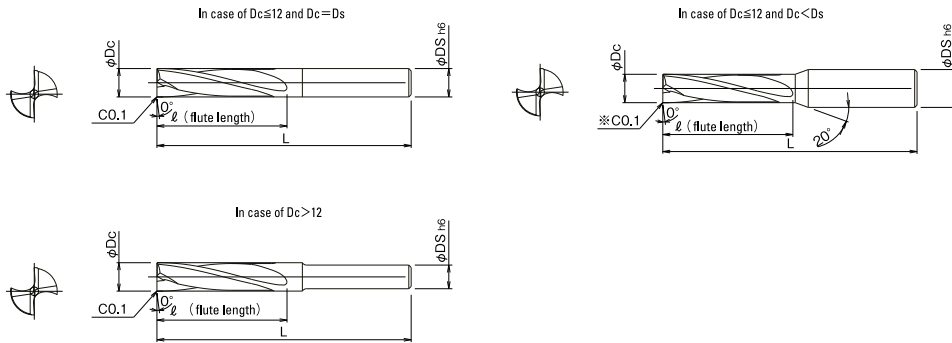
- Spot facing drill with point angle of 180 °(flat face)
- Drilling depth 2×Dc
- Helix angle: 30°



Cat. No.	Stock	Dimensions (mm)			
		φDc	ℓ	L	φDs
TLDM010	○	1	3	60	3
TLDM011	○	1.1	3.3	60	3
TLDM012	○	1.2	3.6	60	3
TLDM013	○	1.3	3.9	60	3
TLDM014	○	1.4	4.2	60	3
TLDM015	○	1.5	4.5	60	3
TLDM016	○	1.6	4.8	60	3
TLDM017	○	1.7	5.1	60	3
TLDM018	○	1.8	5.4	60	3
TLDM019	○	1.9	5.7	60	3
TLDM020	○	2	7	60	4
TLDM021	○	2.1	7.5	60	4
TLDM022	○	2.2	8	60	4
TLDM023	○	2.3	8.5	60	4
TLDM024	○	2.4	9	60	4
TLDM025	○	2.5	9.5	60	4
TLDM026	○	2.6	10	60	4
TLDM027	○	2.7	10.5	60	4
TLDM028	○	2.8	11	60	4
TLDM029	○	2.9	11.5	60	4
TLDM030	○	3	12	60	4
TLDM030-S6	○	3	12	60	6
TLDM031	○	3.1	12	60	4
TLDM031-S6	○	3.1	12	60	6
TLDM032	○	3.2	12	60	4
TLDM032-S6	○	3.2	12	60	6
TLDM033	○	3.3	13	60	4
TLDM033-S6	○	3.3	13	60	6
TLDM034	○	3.4	13	60	4
TLDM034-S6	○	3.4	13	60	6
TLDM035	○	3.5	13	60	4
TLDM035-S6	○	3.5	13	60	6

Cat. No.	Stock	Dimensions (mm)			
		φDc	ℓ	L	φDs
TLDM036	○	3.6	14	60	4
TLDM036-S6	○	3.6	14	60	6
TLDM037	○	3.7	14	60	4
TLDM037-S6	○	3.7	14	60	6
TLDM038	○	3.8	15	60	4
TLDM038-S6	○	3.8	15	60	6
TLDM039	○	3.9	15	60	4
TLDM039-S6	○	3.9	15	60	6
TLDM040	○	4	15	60	4
TLDM040-S6	○	4	15	60	6
TLDM041	○	4.1	16	60	6
TLDM042	○	4.2	16	60	6
TLDM043	○	4.3	17	60	6
TLDM044	○	4.4	17	60	6
TLDM045	○	4.5	17	60	6
TLDM046	○	4.6	18	65	6
TLDM047	○	4.7	18	65	6
TLDM048	○	4.8	18	65	6
TLDM049	○	4.9	19	65	6
TLDM050	○	5	19	65	6
TLDM051	○	5.1	20	65	6
TLDM052	○	5.2	20	65	6
TLDM053	○	5.3	20	65	6
TLDM054	○	5.4	21	65	6
TLDM055	○	5.5	21	65	6
TLDM056	○	5.6	22	70	6
TLDM057	○	5.7	22	70	6
TLDM058	○	5.8	22	70	6
TLDM059	○	5.9	23	70	6
TLDM060	○	6	23	70	6
TLDM061	○	6.1	23	70	8
TLDM062	○	6.2	24	70	8

● : Standard stock item ○ : Stock in Japan



● Tolerance of drill diameter (mm)

Drill dia.	Tolerance
$D_c \leq 3$	$\begin{matrix} 0 \\ -0.010 \end{matrix}$
$3 < D_c \leq 6$	$\begin{matrix} 0 \\ -0.012 \end{matrix}$
$6 < D_c \leq 10$	$\begin{matrix} 0 \\ -0.015 \end{matrix}$
$10 < D_c \leq 18$	$\begin{matrix} 0 \\ -0.018 \end{matrix}$

Cat. No.	Stock	Dimensions (mm)			
		ϕD_c	ℓ	L	ϕD_s
TLDM063	○	6.3	24	70	8
TLDM064	○	6.4	25	70	8
TLDM065	○	6.5	25	70	8
TLDM066	○	6.6	25	75	8
TLDM067	○	6.7	26	75	8
TLDM068	○	6.8	26	75	8
TLDM069	○	6.9	27	75	8
TLDM070	○	7	27	75	8
TLDM071	○	7.1	27	75	8
TLDM072	○	7.2	28	75	8
TLDM073	○	7.3	28	75	8
TLDM074	○	7.4	28	75	8
TLDM075	○	7.5	29	75	8
TLDM076	○	7.6	29	75	8
TLDM077	○	7.7	30	75	8
TLDM078	○	7.8	30	75	8
TLDM079	○	7.9	30	75	8
TLDM080	○	8	31	75	8
TLDM081	○	8.1	31	75	10
TLDM082	○	8.2	32	75	10
TLDM083	○	8.3	32	75	10
TLDM084	○	8.4	32	75	10
TLDM085	○	8.5	32	75	10
TLDM086	○	8.6	33	80	10
TLDM087	○	8.7	33	80	10
TLDM088	○	8.8	34	80	10
TLDM089	○	8.9	34	80	10
TLDM090	○	9	35	80	10
TLDM091	○	9.1	35	80	10
TLDM092	○	9.2	35	80	10
TLDM093	○	9.3	36	80	10
TLDM094	○	9.4	36	80	10

Cat. No.	Stock	Dimensions (mm)			
		ϕD_c	ℓ	L	ϕD_s
TLDM095	○	9.5	37	80	10
TLDM096	○	9.6	37	80	10
TLDM097	○	9.7	37	80	10
TLDM098	○	9.8	38	80	10
TLDM099	○	9.9	38	80	10
TLDM100	○	10	39	80	10
TLDM101	○	10.1	39	85	12
TLDM102	○	10.2	39	85	12
TLDM103	○	10.3	40	85	12
TLDM104	○	10.4	40	85	12
TLDM105	○	10.5	40	85	12
TLDM106	○	10.6	41	85	12
TLDM107	○	10.7	41	85	12
TLDM108	○	10.8	42	85	12
TLDM109	○	10.9	42	85	12
TLDM110	○	11	42	85	12
TLDM111	○	11.1	43	85	12
TLDM112	○	11.2	43	85	12
TLDM113	○	11.3	44	85	12
TLDM114	○	11.4	44	85	12
TLDM115	○	11.5	44	85	12
TLDM116	○	11.6	45	90	12
TLDM117	○	11.7	45	90	12
TLDM118	○	11.8	45	90	12
TLDM119	○	11.9	46	90	12
TLDM120	○	12	46	90	12
TLDM125	○	12.5	48	95	12
TLDM130	○	13	50	100	12
TLDM135	○	13.5	52	100	12
TLDM140	○	14	54	100	12

● Standard stock item ○ Stock in Japan

Recommended cutting conditions ↓



Line up

TLD3D type

- Spot facing drill with point angle of 180 °(flat face)
- Through coolant hole
- Drilling depth 3×Dc
- Helix angle : 30°
- Double margin

Through
coolant
hole

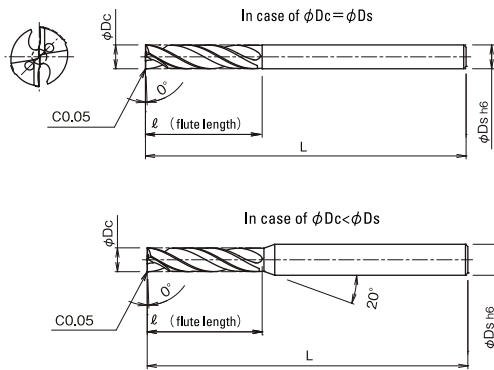
DV
coating



Cat. No.	Stock	Dimensions (mm)			
		φDc	ℓ	L	φDs
TLD3DCH0300S03	●	3	14	60	3
TLD3DCH0310S04	●	3.1	14	60	4
TLD3DCH0320S04	●	3.2	15	60	4
TLD3DCH0330S04	●	3.3	15	60	4
TLD3DCH0340S04	●	3.4	16	60	4
TLD3DCH0350S04	●	3.5	16	60	4
TLD3DCH0360S04	●	3.6	17	60	4
TLD3DCH0370S04	●	3.7	17	60	4
TLD3DCH0380S04	●	3.8	18	60	4
TLD3DCH0390S04	●	3.9	18	60	4
TLD3DCH0400S04	●	4	18	60	4
TLD3DCH0410S05	●	4.1	19	65	5
TLD3DCH0420S05	●	4.2	19	65	5
TLD3DCH0430S05	●	4.3	20	65	5
TLD3DCH0440S05	●	4.4	20	65	5
TLD3DCH0450S05	●	4.5	21	65	5
TLD3DCH0460S05	●	4.6	21	65	5
TLD3DCH0470S05	●	4.7	22	65	5
TLD3DCH0480S05	●	4.8	22	65	5
TLD3DCH0490S05	●	4.9	23	65	5
TLD3DCH0500S05	●	5	23	65	5
TLD3DCH0510S06	●	5.1	23	70	6
TLD3DCH0520S06	●	5.2	24	70	6
TLD3DCH0530S06	●	5.3	24	70	6

Cat. No.	Stock	Dimensions (mm)			
		φDc	ℓ	L	φDs
TLD3DCH0540S06	●	5.4	25	70	6
TLD3DCH0550S06	●	5.5	25	70	6
TLD3DCH0560S06	●	5.6	26	70	6
TLD3DCH0570S06	●	5.7	26	70	6
TLD3DCH0580S06	●	5.8	27	70	6
TLD3DCH0590S06	●	5.9	27	70	6
TLD3DCH0600S06	●	6	27	70	6
TLD3DCH0610S07	●	6.1	28	75	7
TLD3DCH0620S07	●	6.2	28	75	7
TLD3DCH0630S07	●	6.3	29	75	7
TLD3DCH0640S07	●	6.4	29	75	7
TLD3DCH0650S07	●	6.5	30	75	7
TLD3DCH0660S07	●	6.6	30	75	7
TLD3DCH0670S07	●	6.7	31	75	7
TLD3DCH0680S07	●	6.8	31	75	7
TLD3DCH0690S07	●	6.9	32	75	7
TLD3DCH0700S07	●	7	32	75	7
TLD3DCH0710S08	●	7.1	32	80	8
TLD3DCH0720S08	●	7.2	33	80	8
TLD3DCH0730S08	●	7.3	33	80	8
TLD3DCH0740S08	●	7.4	34	80	8
TLD3DCH0750S08	●	7.5	34	80	8
TLD3DCH0760S08	●	7.6	35	80	8
TLD3DCH0770S08	●	7.7	35	80	8

● : Standard stock item ○ : Stock in Japan



● Tolerance of drill diameter (mm)

Drill dia.	Tolerance
$D_c \leq 3$	$\begin{matrix} 0 \\ -0.010 \end{matrix}$
$3 < D_c \leq 6$	$\begin{matrix} 0 \\ -0.012 \end{matrix}$
$6 < D_c \leq 10$	$\begin{matrix} 0 \\ -0.015 \end{matrix}$
$10 < D_c \leq 18$	$\begin{matrix} 0 \\ -0.018 \end{matrix}$

Cat. No.	Stock	Dimensions (mm)			
		ϕD_c	ℓ	L	ϕD_s
TLD3DCH0780S08	●	7.8	36	80	8
TLD3DCH0790S08	●	7.9	36	80	8
TLD3DCH0800S08	●	8	36	80	8
TLD3DCH0810S09	●	8.1	37	90	9
TLD3DCH0820S09	●	8.2	37	90	9
TLD3DCH0830S09	●	8.3	38	90	9
TLD3DCH0840S09	●	8.4	38	90	9
TLD3DCH0850S09	●	8.5	39	90	9
TLD3DCH0860S09	●	8.6	39	90	9
TLD3DCH0870S09	●	8.7	40	90	9
TLD3DCH0880S09	●	8.8	40	90	9
TLD3DCH0890S09	●	8.9	41	90	9
TLD3DCH0900S09	●	9	41	90	9
TLD3DCH0910S10	●	9.1	41	95	10
TLD3DCH0920S10	●	9.2	42	95	10
TLD3DCH0930S10	●	9.3	42	95	10
TLD3DCH0940S10	●	9.4	43	95	10
TLD3DCH0950S10	●	9.5	43	95	10
TLD3DCH0960S10	●	9.6	44	95	10
TLD3DCH0970S10	●	9.7	44	95	10
TLD3DCH0980S10	●	9.8	45	95	10
TLD3DCH0990S10	●	9.9	45	95	10
TLD3DCH1000S10	●	10	45	95	10
TLD3DCH1010S11	●	10.1	46	105	11

Cat. No.	Stock	Dimensions (mm)			
		ϕD_c	ℓ	L	ϕD_s
TLD3DCH1020S11	●	10.2	46	105	11
TLD3DCH1030S11	●	10.3	47	105	11
TLD3DCH1040S11	●	10.4	47	105	11
TLD3DCH1050S11	●	10.5	48	105	11
TLD3DCH1060S11	●	10.6	48	105	11
TLD3DCH1070S11	●	10.7	49	105	11
TLD3DCH1080S11	●	10.8	49	105	11
TLD3DCH1090S11	●	10.9	50	105	11
TLD3DCH1100S11	●	11	50	105	11
TLD3DCH1110S12	●	11.1	50	115	12
TLD3DCH1120S12	●	11.2	51	115	12
TLD3DCH1130S12	●	11.3	51	115	12
TLD3DCH1140S12	●	11.4	52	115	12
TLD3DCH1150S12	●	11.5	52	115	12
TLD3DCH1160S12	●	11.6	53	115	12
TLD3DCH1170S12	●	11.7	53	115	12
TLD3DCH1180S12	●	11.8	54	115	12
TLD3DCH1190S12	●	11.9	54	115	12
TLD3DCH1200S12	●	12	54	115	12
TLD3DCH1250S13	●	12.5	57	125	13
TLD3DCH1300S13	●	13	59	125	13
TLD3DCH1350S14	●	13.5	61	130	14
TLD3DCH1400S14	●	14	63	130	14

● Standard stock item ○ Stock in Japan

Recommended cutting conditions ↓



Line up

TLD5D type

- Spot facing drill with point angle of 180 °(flat face)
- Through coolant hole
- Drilling depth 5×Dc
- Helix angle : 30°
- Double margin

Through
coolant
hole

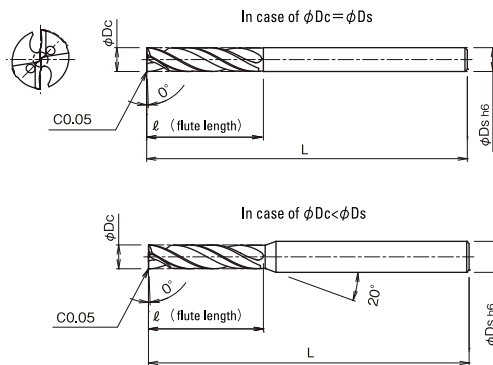
DV
coating



Cat. No.	Stock	Dimensions (mm)			
		φDc	ℓ	L	φDs
TLD5DCH0300S03	○	3	20	70	3
TLD5DCH0310S04	○	3.1	21	70	4
TLD5DCH0320S04	○	3.2	22	70	4
TLD5DCH0330S04	○	3.3	22	70	4
TLD5DCH0340S04	○	3.4	23	70	4
TLD5DCH0350S04	○	3.5	24	70	4
TLD5DCH0360S04	○	3.6	24	70	4
TLD5DCH0370S04	○	3.7	25	70	4
TLD5DCH0380S04	○	3.8	26	70	4
TLD5DCH0390S04	○	3.9	26	70	4
TLD5DCH0400S04	○	4	27	70	4
TLD5DCH0410S05	○	4.1	28	80	5
TLD5DCH0420S05	○	4.2	28	80	5
TLD5DCH0430S05	○	4.3	29	80	5
TLD5DCH0440S05	○	4.4	30	80	5
TLD5DCH0450S05	○	4.5	30	80	5
TLD5DCH0460S05	○	4.6	31	80	5
TLD5DCH0470S05	○	4.7	32	80	5
TLD5DCH0480S05	○	4.8	32	80	5
TLD5DCH0490S05	○	4.9	33	80	5
TLD5DCH0500S05	○	5	34	80	5
TLD5DCH0510S06	○	5.1	34	85	6
TLD5DCH0520S06	○	5.2	35	85	6
TLD5DCH0530S06	○	5.3	36	85	6

Cat. No.	Stock	Dimensions (mm)			
		φDc	ℓ	L	φDs
TLD5DCH0540S06	○	5.4	36	85	6
TLD5DCH0550S06	○	5.5	37	85	6
TLD5DCH0560S06	○	5.6	38	85	6
TLD5DCH0570S06	○	5.7	38	85	6
TLD5DCH0580S06	○	5.8	39	85	6
TLD5DCH0590S06	○	5.9	40	85	6
TLD5DCH0600S06	○	6	40	85	6
TLD5DCH0610S07	○	6.1	41	95	7
TLD5DCH0620S07	○	6.2	42	95	7
TLD5DCH0630S07	○	6.3	42	95	7
TLD5DCH0640S07	○	6.4	43	95	7
TLD5DCH0650S07	○	6.5	44	95	7
TLD5DCH0660S07	○	6.6	44	95	7
TLD5DCH0670S07	○	6.7	45	95	7
TLD5DCH0680S07	○	6.8	46	95	7
TLD5DCH0690S07	○	6.9	46	95	7
TLD5DCH0700S07	○	7	47	95	7
TLD5DCH0710S08	○	7.1	48	100	8
TLD5DCH0720S08	○	7.2	48	100	8
TLD5DCH0730S08	○	7.3	49	100	8
TLD5DCH0740S08	○	7.4	50	100	8
TLD5DCH0750S08	○	7.5	50	100	8
TLD5DCH0760S08	○	7.6	51	100	8
TLD5DCH0770S08	○	7.7	52	100	8

● Standard stock item ○ Stock in Japan



● Tolerance of drill diameter (mm)

Drill dia.	Tolerance
$D_c \leq 3$	$\begin{matrix} 0 \\ -0.010 \end{matrix}$
$3 < D_c \leq 6$	$\begin{matrix} 0 \\ -0.012 \end{matrix}$
$6 < D_c \leq 10$	$\begin{matrix} 0 \\ -0.015 \end{matrix}$
$10 < D_c \leq 18$	$\begin{matrix} 0 \\ -0.018 \end{matrix}$

Cat. No.	Stock	Dimensions (mm)			
		ϕD_c	ℓ	L	ϕD_s
TLD5DCH0780S08	○	7.8	52	100	8
TLD5DCH0790S08	○	7.9	53	100	8
TLD5DCH0800S08	○	8	54	100	8
TLD5DCH0810S09	○	8.1	54	110	9
TLD5DCH0820S09	○	8.2	55	110	9
TLD5DCH0830S09	○	8.3	56	110	9
TLD5DCH0840S09	○	8.4	56	110	9
TLD5DCH0850S09	○	8.5	57	110	9
TLD5DCH0860S09	○	8.6	58	110	9
TLD5DCH0870S09	○	8.7	58	110	9
TLD5DCH0880S09	○	8.8	59	110	9
TLD5DCH0890S09	○	8.9	60	110	9
TLD5DCH0900S09	○	9	60	110	9
TLD5DCH0910S10	○	9.1	61	120	10
TLD5DCH0920S10	○	9.2	62	120	10
TLD5DCH0930S10	○	9.3	62	120	10
TLD5DCH0940S10	○	9.4	63	120	10
TLD5DCH0950S10	○	9.5	64	120	10
TLD5DCH0960S10	○	9.6	64	120	10
TLD5DCH0970S10	○	9.7	65	120	10
TLD5DCH0980S10	○	9.8	66	120	10
TLD5DCH0990S10	○	9.9	66	120	10
TLD5DCH1000S10	○	10	67	120	10
TLD5DCH1010S11	○	10.1	68	130	11

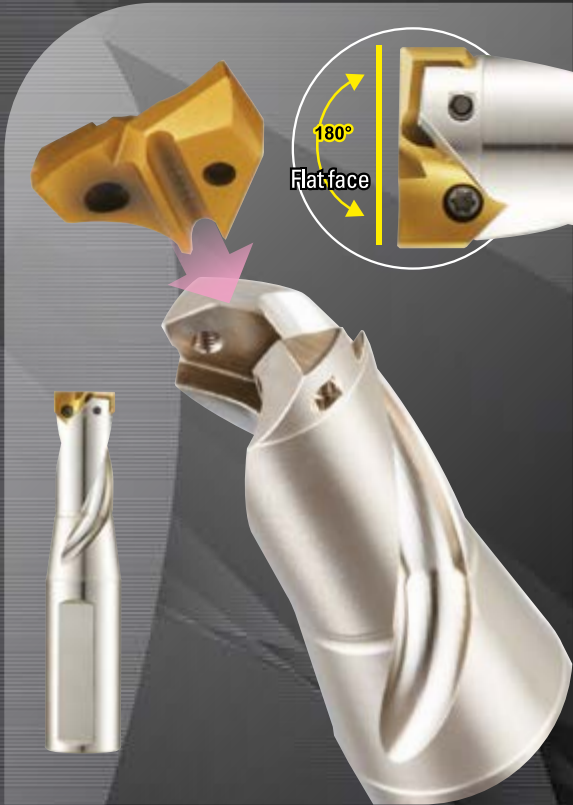
●: Standard stock item ○: Stock in Japan

Cat. No.	Stock	Dimensions (mm)			
		ϕD_c	ℓ	L	ϕD_s
TLD5DCH1020S11	○	10.2	68	130	11
TLD5DCH1030S11	○	10.3	69	130	11
TLD5DCH1040S11	○	10.4	70	130	11
TLD5DCH1050S11	○	10.5	70	130	11
TLD5DCH1060S11	○	10.6	71	130	11
TLD5DCH1070S11	○	10.7	72	130	11
TLD5DCH1080S11	○	10.8	72	130	11
TLD5DCH1090S11	○	10.9	73	130	11
TLD5DCH1100S11	○	11	74	130	11
TLD5DCH1110S12	○	11.1	74	145	12
TLD5DCH1120S12	○	11.2	75	145	12
TLD5DCH1130S12	○	11.3	76	145	12
TLD5DCH1140S12	○	11.4	76	145	12
TLD5DCH1150S12	○	11.5	77	145	12
TLD5DCH1160S12	○	11.6	78	145	12
TLD5DCH1170S12	○	11.7	78	145	12
TLD5DCH1180S12	○	11.8	79	145	12
TLD5DCH1190S12	○	11.9	80	145	12
TLD5DCH1200S12	○	12	80	145	12
TLD5DCH1250S13	○	12.5	84	155	13
TLD5DCH1300S13	○	13	87	155	13
TLD5DCH1350S14	○	13.5	90	160	14
TLD5DCH1400S14	○	14	94	160	14

Recommended cutting conditions ↓

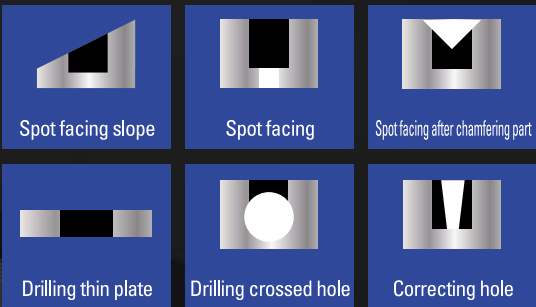


"Indexable Spot facing drill" TLZD type



- Flat face
- Achieved non-step drilling
- Size range: $\phi 14$ - $\phi 32$ mm dia.(Drilling depth: 1.5D)

Application



Feature of product

Features 1

TLZD can be used repeatedly only by exchanging insert. Easy assembly of insert & body.

Features 2

Achieved non-step drilling without pilot hole even if drilling slope surface and crossed hole.

Features 3

By adopting new PVD coated grade "JC7550" and unique coolant system, achieved longer tool life even if drilling mold steel or stainless steel.

Features 4

Controlled burr in case of drilling thin plate.





TLZD



Series expansion, new modular head
TLZD type (flat face).

Suitable for spot facing in case of
long overhung length such as stamping die or
large-sized mold part.

Feature of product

Features 1

Size range: $\phi 14$ - $\phi 32$ mm dia. And even in case of long overhung length, stable machining can be possible by combination with MSN carbide shank arbor.



Features 2

Achieved non-step drilling without pilot hole even if drilling slope surface and crossed hole.

Features 3

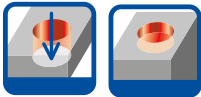
By adopting new PVD coated grade "JC7550" and unique coolant system, achieved longer tool life even if drilling mold steel or stainless steel.

Features 4

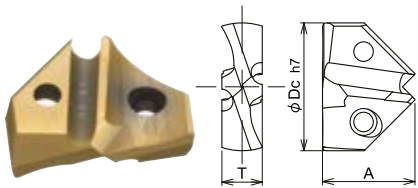
Drilling depth: 0.7-1D.

“Indexable Spot facing drill” TLZD type

Line up





TLZD-SS type



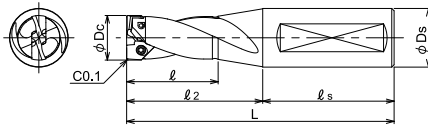
- Through coolant hole
- Drilling depth : $1.5 \times D_c$
- SS type (1.5D)



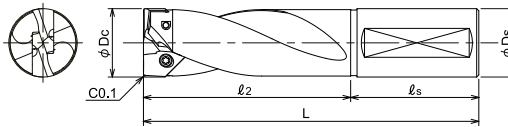
Insert			Body										Parts		1/2	
Drill dia. (mm)	Insert				Body										Parts	
	Insert No.	PVD coated	Dimensions (mm)		Applicable dia.		SS type (1.5D)								Clamp screw 	Wrench (Not be included) 
		JC7550	A	T	Over	Or under	Tool No.	Stock	Dimensions (mm)							
ϕD_c										ℓ	ℓ_2	ℓ_s	L	ϕD_s		
14	TLZ1400	●	10.6	4.5	13.5	14.5	TLZD1400S16-SS	●	29	43	48	91	16	DSW-2045H	A-07	
14.1	TLZ1410	●														
14.2	TLZ1420	●														
14.3	TLZ1430	●														
14.4	TLZ1440	●														
14.5	TLZ1450	●														
14.6	TLZ1460	●	11.3	4.8	14.5	15.5	TLZD1500S20-SS	●	31	46	50	96	20	DSW-2045H	A-07	
14.7	TLZ1470	●														
14.8	TLZ1480	●														
14.9	TLZ1490	●														
15	TLZ1500	●														
15.1	TLZ1510	●														
15.2	TLZ1520	●														
15.3	TLZ1530	●														
15.4	TLZ1540	●														
15.5	TLZ1550	●														
15.6	TLZ1560	●	12.1	5.0	15.5	16.5	TLZD1600S20-SS	●	33	49	50	99	20	TSW-2556H	A-08	
15.7	TLZ1570	●														
15.8	TLZ1580	●														
15.9	TLZ1590	●														
16	TLZ1600	●														
16.1	TLZ1610	●														
16.2	TLZ1620	●														
16.3	TLZ1630	●														
16.4	TLZ1640	●														
16.5	TLZ1650	●														
16.6	TLZ1660	●	12.6	5.5	16.5	17.5	TLZD1700S20-SS	●	35	52	50	102	20	TSW-2556H	A-08	
16.7	TLZ1670	●														
16.8	TLZ1680	●														
16.9	TLZ1690	●														
17	TLZ1700	●														
17.1	TLZ1710	●														
17.2	TLZ1720	●														
17.3	TLZ1730	●														
17.4	TLZ1740	●														
17.5	TLZ1750	●														
17.6	TLZ1760	●	13.2	5.8	17.5	18.5	TLZD1800S20-SS	●	37	55	50	105	20	TSW-2556H	A-08	
17.7	TLZ1770	●														
17.8	TLZ1780	●														
17.9	TLZ1790	●														
18	TLZ1800	●														
18.1	TLZ1810	●														
18.2	TLZ1820	●														
18.3	TLZ1830	●														
18.4	TLZ1840	●														
18.5	TLZ1850	●														

Clamp screw	Recommended torque (N·m)
DSW-2045H	0.9
TSW-2556H	1.2
TSW-2567H	1.2
DSW-307H	2.1
DSW-309H	2.1
TSW-3510H	3.0
TSW-3512H	3.0

$\phi D_c \leq \phi 30$



$\phi D_c > \phi 30$





Insert

Body

Parts

2/2

Drill dia. (mm)	Insert				Body										Parts	
	Insert No.	PVD coated	Dimensions (mm)		Applicable dia.		SS type (1.5D)							Clamp screw 	Wrench (Not be included) 	
		JC7550	A	T	Over	Or under	Tool No.	Stock	Dimensions (mm)							
ϕD_c									ℓ	ℓ_2	ℓ_s	L	ϕD_s			
18.6	TLZ1860	●	13.6	6.0	18.5	19.5	TLZD1900S25-SS	●	39	58	56	114	25	TSW-2567H	A-08	
18.7	TLZ1870	●														
18.8	TLZ1880	●														
18.9	TLZ1890	●														
19	TLZ1900	●														
19.1	TLZ1910	●														
19.2	TLZ1920	●														
19.3	TLZ1930	●														
19.4	TLZ1940	●														
19.5	TLZ1950	●	14.6	6.5	19.5	20.5	TLZD2000S25-SS	●	41	61	56	117	25	TSW-2567H	A-08	
19.6	TLZ1960	●														
19.7	TLZ1970	●														
19.8	TLZ1980	●														
19.9	TLZ1990	●														
20	TLZ2000	●														
20.5	TLZ2050	●	15.2	6.7	20.5	21.5	TLZD2100S25-SS	●	43	64	56	120	25	TSW-2567H	A-08	
21	TLZ2100	●														
21.5	TLZ2150	●	15.9	7.5	21.5	22.5	TLZD2200S25-SS	●	45	67	56	123	25	DSW-307H	A-10	
22	TLZ2200	●														
22.5	TLZ2250	●	16.7	7.5	22.5	23.5	TLZD2300S25-SS	●	47	70	56	126	25	DSW-307H	A-10	
23	TLZ2300	●														
23.5	TLZ2350	●	17.4	8.0	23.5	24.5	TLZD2400S32-SS	●	49	73	60	133	32	DSW-307H	A-10	
24	TLZ2400	●														
24.5	TLZ2450	●	18.3	8.0	24.5	25.5	TLZD2500S32-SS	●	51	76	60	136	32	DSW-309H	A-10	
25	TLZ2500	●														
25.5	TLZ2550	●	18.8	8.5	25.5	26.5	TLZD2600S32-SS	●	53	79	60	139	32	DSW-309H	A-10	
26	TLZ2600	●														
26.5	TLZ2650	●	19.5	8.5	26.5	27.5	TLZD2700S32-SS	●	55	82	60	142	32	DSW-309H	A-10	
27	TLZ2700	●														
27.5	TLZ2750	●	20.3	9.0	27.5	28.5	TLZD2800S32-SS	●	57	85	60	145	32	TSW-3510H	A-15	
28	TLZ2800	●														
28.5	TLZ2850	●	21.1	9.0	28.5	29.5	TLZD2900S32-SS	●	59	88	60	148	32	TSW-3510H	A-15	
29	TLZ2900	●														
29.5	TLZ2950	●	21.5	9.5	29.5	30.5	TLZD3000S32-SS	●	61	91	60	151	32	TSW-3510H	A-15	
30	TLZ3000	●														
30.5	TLZ3050	●	22.3	10.0	30.5	31.5	TLZD3100S32-SS	●	—	94	60	154	32	TSW-3512H	A-15	
31	TLZ3100	●														
31.5	TLZ3150	●	23.1	10.0	31.5	32.5	TLZD3200S32-SS	●	—	97	60	157	32	TSW-3512H	A-15	
32	TLZ3200	●														

1 insert per case ● : Standard stock items

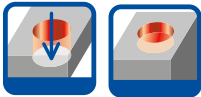
Note) All cutters are supplied without inserts, wrench and MOLY.

Recommended cutting conditions ↓

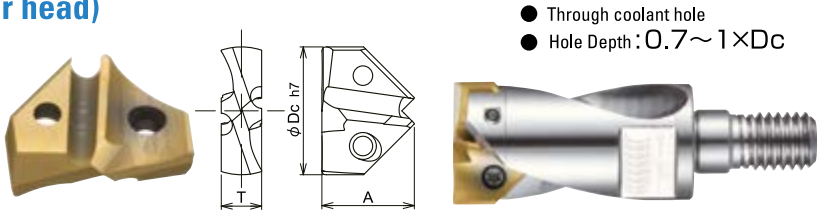


“Indexable Spot facing drill” TLZD type

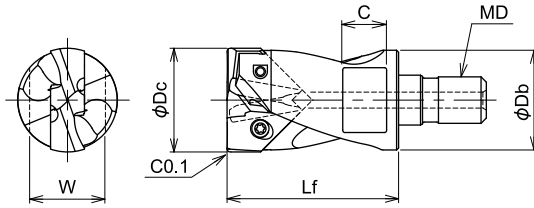
Line up






TLZD type (modular head)



Insert			Body										Parts		Recommended arbor		1/2
Drill dia. (mm)	Insert			Body										Parts		Arbor	
		PVD coated	Dimensions (mm)		Applicable dia.		TLZD type (0.7-1D)							Clamp screw	Wrench (Not be included)		
		Insert No.	JC7550	A	T	Over	Or under	Tool No.	Stock	Dimensions (mm)							
ϕDc										Lf	ϕDb	MD	C	W			
14	TLZ1400	●	10.6	4.5	13.5	14.5	TLZD1400-M6	●	27.5	13.1	M6	7	10	DSW-2045H	A-07	MSN-M6-**-S16C	
14.1	TLZ1410	●															
14.2	TLZ1420	●															
14.3	TLZ1430	●															
14.4	TLZ1440	●															
14.5	TLZ1450	●															
14.6	TLZ1460	●	11.3	4.8	14.5	15.5	TLZD1500-M8	●	29.5	14	M8	8	12	DSW-2045H	A-07	MSN-M8-**-S-S14C	
14.7	TLZ1470	●															
14.8	TLZ1480	●															
14.9	TLZ1490	●															
15	TLZ1500	●															
15.1	TLZ1510	●															
15.2	TLZ1520	●															
15.3	TLZ1530	●															
15.4	TLZ1540	●															
15.5	TLZ1550	●															
15.6	TLZ1560	●	12.1	5.0	15.5	16.5	TLZD1600-M8	●	29.5	15	M8	8	12	TSW-2556H	A-08	MSN-M8-**-S-S15C	
15.7	TLZ1570	●															
15.8	TLZ1580	●															
15.9	TLZ1590	●															
16	TLZ1600	●															
16.1	TLZ1610	●															
16.2	TLZ1620	●															
16.3	TLZ1630	●															
16.4	TLZ1640	●															
16.5	TLZ1650	●															
16.6	TLZ1660	●	12.6	5.5	16.5	17.5	TLZD1700-M8	●	30.5	16	M8	8	12	TSW-2556H	A-08	MSN-M8-**-S-S16C	
16.7	TLZ1670	●															
16.8	TLZ1680	●															
16.9	TLZ1690	●															
17	TLZ1700	●															
17.1	TLZ1710	●															
17.2	TLZ1720	●															
17.3	TLZ1730	●															
17.4	TLZ1740	●															
17.5	TLZ1750	●															
17.6	TLZ1760	●	13.2	5.8	17.5	18.5	TLZD1800-M8	●	30.5	17	M8	8	12	TSW-2556H	A-08	MSN-M8-**-S-S16C	
17.7	TLZ1770	●															
17.8	TLZ1780	●															
17.9	TLZ1790	●															
18	TLZ1800	●															
18.1	TLZ1810	●															
18.2	TLZ1820	●															
18.3	TLZ1830	●															
18.4	TLZ1840	●															
18.5	TLZ1850	●															



Clamp screw	Recommended torque (N·m)
DSW-2045H	0.9
TSW-2556H	1.2
TSW-2567H	1.2
DSW-307H	2.1
DSW-309H	2.1
TSW-3510H	3.0
TSW-3512H	3.0

Insert				Body										Parts		Recommended arbor	2/2
Drill dia. (mm)	Insert			Body										Parts		Arbor	
	Insert No.	PVD coated	Dimensions (mm)		Applicable dia.		TLZD type (0.7-1D)						Clamp screw 	Wrench (Not be included) 			
JC7550		A	T	Over	Or under	Tool No.	Stock	Dimensions (mm)									
φDc										Lf	φDb	MD	C	W			
18.6	TLZ1860	●	13.6	6.0	18.5	19.5	TLZD1900-M10	●	38.5	18	M10	9	14	TSW-2567H	A-08	MSN-M10-***S-S18C	
18.7	TLZ1870	●															
18.8	TLZ1880	●															
18.9	TLZ1890	●															
19	TLZ1900	●															
19.1	TLZ1910	●															
19.2	TLZ1920	●															
19.3	TLZ1930	●															
19.4	TLZ1940	●															
19.5	TLZ1950	●	14.6	6.5	19.5	20.5	TLZD2000-M10	●	38.5	19	M10	9	14	TSW-2567H	A-08	MSN-M10-***S-S20C	
19.6	TLZ1960	●															
19.7	TLZ1970	●															
19.8	TLZ1980	●															
19.9	TLZ1990	●															
20	TLZ2000	●															
20.5	TLZ2050	●	15.2	6.7	20.5	21.5	TLZD2100-M10	●	38.5	20	M10	9	14	TSW-2567H	A-08	MSN-M10-***S-S20C	
21	TLZ2100	●															
21.5	TLZ2150	●															
22	TLZ2200	●	15.9	7.5	21.5	22.5	TLZD2200-M10	●	38.5	21	M10	9	14	DSW-307H	A-10	MSN-M10-***S-S20C	
22.5	TLZ2250	●															
23	TLZ2300	●	16.7	7.5	22.5	23.5	TLZD2300-M10	●	38.5	22	M10	9	14	DSW-307H	A-10	MSN-M10-***S-S20C	
23.5	TLZ2350	●															
24	TLZ2400	●	17.4	8.0	23.5	24.5	TLZD2400-M12	●	43	23	M12	11	19	DSW-307H	A-10	MSN-M12-***S-S23C	
24.5	TLZ2450	●															
25	TLZ2500	●	18.3	8.0	24.5	25.5	TLZD2500-M12	●	43	24	M12	11	19	DSW-309H	A-10	MSN-M12-***S-S25C	
25.5	TLZ2550	●															
26	TLZ2600	●	18.8	8.5	25.5	26.5	TLZD2600-M12	●	43	25	M12	11	19	DSW-309H	A-10	MSN-M12-***S-S25C	
26.5	TLZ2650	●															
27	TLZ2700	●	19.5	8.5	26.5	27.5	TLZD2700-M12	●	43	26	M12	11	19	DSW-309H	A-10	MSN-M12-***S-S25C	
27.5	TLZ2750	●															
28	TLZ2800	●	20.3	9.0	27.5	28.5	TLZD2800-M12	●	43	27	M12	11	19	TSW-3510H	A-15	MSN-M12-***S-S25C	
28.5	TLZ2850	●															
29	TLZ2900	●	21.1	9.0	28.5	29.5	TLZD2900-M16	●	51	28	M16	12	22	TSW-3510H	A-15	MSN-M16-***S-S28C	
29.5	TLZ2950	●															
30	TLZ3000	●	21.5	9.5	29.5	30.5	TLZD3000-M16	●	51	29	M16	12	22	TSW-3510H	A-15	MSN-M16-***S-S32C	
30.5	TLZ3050	●															
31	TLZ3100	●	22.3	10.0	30.5	31.5	TLZD3100-M16	●	51	30	M16	12	22	TSW-3512H	A-15	MSN-M16-***S-S32C	
31.5	TLZ3150	●															
32	TLZ3200	●	23.1	10.0	31.5	32.5	TLZD3200-M16	●	51	31	M16	14	26	TSW-3512H	A-15	MSN-M16-***S-S32C	

1 insert per case ● : Standard stock items

Note) All cutters are supplied without inserts, wrench and MOLY.

Recommended cutting conditions ↓





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