

TRANSMISSION SHOP

The table below indicates the cutting tool parameters against which the participating firm is required to demonstrate conformity and performance during the trial.

Sl. No.	TOOL NO	Component Drg.No.	SPECIFICATION	Feature	PARAMETERS / REMARKS	Indicative Tooling Req. per year
1	M107	172.43.006 SB	S/C DRILL DIA.11.2MM A3399XPL-11.2	•Double margin •Concave or wavy edge •Flute polished •Cutting edge Honing	Opn. No. CLAMP 1 Cutting speed, <i>Vc</i> = 150m/min., <i>Feed</i> = 0.2mm/rev. <i>Tool Life</i> : 40 Meters	20
2	M109	172.43.005	S/C DRILL DIA.12.2MM L/S A3399XPL-12.2	•Coated •Substrate hardness 91.3HRA •Toughness 3700N/mm ² •Point angle 140°	Opn. No. CLAMP2 <i>Cutting speed</i> , <i>Vc</i> = 150m/min., <i>Feed</i> = 0.2mm/rev. <i>Tool Life</i> : 40 Meters	20
3	M113	175.40.006 SB	S/C DRILL DIA.6.3MM L/S A3299XPL-6.3		Opn. No. CLAMP4 <i>Cutting speed</i> , <i>Vc</i> = 150m/min., <i>Feed</i> = 0.2mm/rev. <i>Tool Life</i> : 40 Meters	25
4	M166	175.40.006 SB	S/C DRILL DIA.11.2MM Ex.L/S A6589DPP-11.2		Opn. No. CLAMP 1 <i>Cutting speed</i> , <i>Vc</i> = 150m/min., <i>Feed</i> = 0.2mm/rev. <i>Tool Life</i> : 25 Meters	20
5	M128	175.40.006 SB	S/C DRILL DIA.9.2MM L/S A3399XPL-9.2		Opn. No. CLAMP 3 <i>Cutting speed</i> , <i>Vc</i> = 150m/min., <i>Feed</i> = 0.2mm/rev. <i>Tool Life</i> : 40 Meters	20
6	M141	172.43.005	S/C DRILL DIA.9MM L/S A3299XPL-9		Opn. No. CLAMP 2 <i>Cutting speed</i> , <i>Vc</i> = 150m/min., <i>Feed</i> = 0.2mm/rev. <i>Tool Life</i> : 40 Meters	20
7	M180	175.40.006 SB	S/C DRILL DIA.14MM L/S A3299XPL-14		Opn. No. CLAMP 1 <i>Cutting speed</i> , <i>Vc</i> = 150m/min., <i>Feed</i> = 0.2mm/rev. <i>Tool Life</i> : 40 Meters	20
8	M184	175.40.006 SB	S/C DRILL DIA.5MM L/S A3399XPL-5		Opn. No. CLAMP 4 <i>Cutting speed</i> , <i>Vc</i> = 150m/min., <i>Feed</i> = 0.2mm/rev. <i>Tool Life</i> : 40 Meters	25
9	M185	175.40.006 SB 172.40.365/366	S/C DRILL DIA.8.1 MM Ex.L/S A6589DPP-8.1		Opn. No. CLAMP 2 <i>Cutting speed</i> , <i>Vc</i> = 150m/min., <i>Feed</i> = 0.15 mm/rev. <i>Tool Life</i> : 25 Meters	20



approximate
req. /year

Sl. No.	TOOL NO	Component Drg.No.	SPECIFICATION	Feature	PARAMETERS / REMARKS	Indicative Tooling Req. per year
10	M186	175.40.006 SB	S/C DRILL DIA 10.1 A3289DPL-10.1	•Double margin •Concave or wavy edge •Flute polished •Cutting edge Honing	Opn. No. CLAMP 4 Cutting speed , $V_c = 150\text{m/min.}$ Feed = 0.3mm/rev. Tool Life : 40 Meters	20
11	M198	172.43.005 172.43.021	S/C DRILL DIA 6 Ex.L/S A6785TFP-6 POINT ANGLE 135°/140°	•Coated •Substrate hardness 91.3HRA •Toughness 3700N/mm² •Point angle 140°	Opn. No. CLAMP 2 Cutting speed , $V_c = 150\text{m/min.}$ Feed = 0.15mm/rev. Tool Life : 25 Meters	25
12	M188	172.43.005 172.43.021	S/C DRILL DIA 6 L/S A6589DPP-6		Opn. No. CLAMP 2 Cutting speed , $V_c = 150\text{m/min.}$ Feed = 0.3mm/rev. Tool Life : 40 Meters	25
13	M110	175.40.006 SB	ENDMILL DIA.12MM S/C H4033217-12	High cutting speed High feed rates Less vibration in higher depth of cut. Tool life. Reliability.	Opn. No. CLAMP 3 Cycle Time : 2 MIN $V_c = 100\text{m/Min.}$ $F_z = 0.1$ Per Tooth Tool Life : 25 Components	10
14	M116	175.40.006 SB	ENDMILL DIA.20MM S/C H4034217-20	Protects the machine from unprecedented accidents.	Opn. No. CLAMP 4 Cycle Time : 3 MIN $V_c = 100\text{m/Min.}$ $F_z = 0.1$ Per Tooth Tool Life : 25 Components	10
15	M164	175.40.006 SB	ENDMILL DIA.12MM S/C H3021117-1		Opn. No. CLAMP 1 Cycle Time : 8 MIN $V_c = 100\text{m/Min.}$ $F_z = 0.1$ Per Tooth Tool Life : 25 Components	10
16	M174	175.40.006 SB	ENDMILL DIA.20MM S/C H4021117-20		Opn. No. CLAMP 3 Cycle Time : 6 MIN $V_c = 100\text{m/Min.}$ $F_z = 0.1$ Per Tooth Tool Life : 25 Components	20
17	M190	175.40.006 SB	ENDMILL DIA.16MM S/C H3021117-16		Opn. No. CLAMP 4 $V_c = 60\text{m/Min.}$ $F_z = 0.1$ per tooth Cycle Time : 56 MIN Tool Life : 30 components	20

Sl. No.	TOOL NO	Component Drg.No.	SPECIFICATION	Feature	PARAMETERS / REMARKS	Indicative Tooling Req. per year
18	M114	175.40.006 SB	MODULAR ENDMILL DIA.16MM H4834217-E16-16	Dia.16mm modular head with solid carbide shank for longer reach L/D=7 milling application.	Opn. No.CLAMP 4 <i>Cycle Time</i> : 65 MIN <i>Vc</i> = 100m/Min. <i>Fz</i> =0.1 Per Tooth <i>Tool Life</i> : 25 Comp/Edge	20
19	M165	175.40.006 SB	MODULAR ENDMILL DIA.10MM H3821317-E10-10		Opn. No. CLAMP 1 <i>Cycle Time</i> : 2 MIN <i>Vc</i> = 100m/Min. <i>Fz</i> =0.1 Per Tooth <i>Tool Life</i> : 25 Comp/Edge	25
20	M252	172.40.063SB 172.40.062SB	DIA 125 FACE MILL CUTTER F2252.8.1.25.208.1.6.000		Opn. No. <i>Cycle Time</i> : <i>Tool Life</i> : <i>Vc</i> = 100m/Min. <i>Fz</i> =0.1 Per Tooth <i>Tool Life</i> : 25 Comp/Edge	SET set consists of Holder : 2 Nos Inserts : 200 Nos
21	M177	172.43.005	COPY MILLING DIA.80MM R8F2234.8.080.206.08 / RDHWL605MOT-A27 WKP35		Opn. No. CLAMP 2 <i>Cycle Time</i> : 8 MIN <i>Vc</i> = 100m/Min. <i>Fz</i> =0.1 Per Tooth <i>Tool Life</i> : 25 Comp/Edge	SET set consists of Holder : 2 Nos Inserts : 200 Nos
22	M226	175.40.002cb 172.40.012cb 172.40.300 172.40.301	DIA 95 T SLOT CUTTER F4153.B.22.92.25+5.08	T slot cutter Dia.95mm Shell mill Type Total radial Depth of cut=36mm Width of cut= 10mm	Opn. No. <i>Cycle Time</i> : <i>Vc</i> = 100m/Min. <i>Fz</i> =0.1 Per Tooth <i>Tool Life</i> : 25 Comp/Edge	SFT set consists of Holder : 2 Nos Inserts : 200 Nos
23	T104	175.40.006 SB	TOOL : C8-DDMNL-00160-15 INSERT : DNMG150608-NM4 WSM20		Opn. No. CLAMP 3 <i>Cycle Time</i> : 3 MIN <i>Tool Life</i> : <i>Vc</i> = 100m/Min. <i>Fz</i> =0.1 Per Tooth <i>Tool Life</i> : 25 Comp/insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos

Sl. No.	TOOL NO	Component Drg.No.	SPECIFICATION	Feature	PARAMETERS / REMARKS	Indicative Tooling Req. per year
24	T110	175.40.006 SB	ADAPTOR : C8-391.02-63 080A TOOL : C6-PCLNL-45065-12 INSERT : CNMG120408-NM4 WSM30		Opn. No. CLAMP 1 <i>Cycle Time</i> : 1 MIN <i>Vc</i> = 100m/Min. <i>Fz</i> = 0.1 Per Tooth <i>Tool Life</i> : 25 Comp/insert	SET set consists of <i>Holder : 2 Nos</i> <i>Inserts : 200 Nos</i>
25	T110	175.40.006 SB	INSERT : DNMG150608-NF4 WSM20		Opn. No. CLAMP 1 <i>Cycle Time</i> : 1 MIN <i>Vc</i> = 100m/Min. <i>Fz</i> = 0.1 Per Tooth <i>Tool Life</i> : 25 Comp/insert	Inserts : 200 Nos
26	T117		ADAPTOR : C8-391.02-63 080A TOOL : C6-PDUNL-27140-15 INSERT : DNMG150604-FP5 WPP20S		Opn. No. CLAMP 1 <i>Cycle Time</i> : 1 MIN <i>Vc</i> = 100m/Min. <i>Fz</i> = 0.1 mm per rev. <i>Tool Life</i> : 25 Comp/insert	SET set consists of <i>Holder : 2 Nos</i> <i>Inserts : 200 Nos</i>
27	T121	172.43.005	ADAPTOR : C8-391.2040 110 GROOVING TOOL : NCA 404015L-GX24-3 GROOVING INSERT GX24-3E400 N200-R D4 WP P23		Opn. No. CLAMP 2 <i>Cycle Time</i> : 2 MIN <i>Tool Life</i> : 25 comp./Edge	SET set consists of <i>Holder : 2 Nos</i> <i>Inserts : 200 Nos</i>
28	T219	172.40.304	ADAPTOR : C8-391.2040110 GROOVING TOOL : NCA 404015L-GX24-3 GROOVING INSERT GX24-3E400N03-C E4 WSM33S		Opn. No. CLAMP 1 <i>Feed rate</i> : 0.12 mm/rev <i>Tool Life</i> : 25 comp./Edge	SET set consists of <i>Holder : 2 Nos</i> <i>Inserts : 200 Nos</i>
29	T222		ADAPTOR : C8-391.2040110 GROOVING TOOL : NCAI32-40251-CX16-1 GROOVING INSERT : GX1 6-1 F200N02-CE4 WSM33S		Opn. No. <i>Feed rate</i> : 0.12 mm/rev <i>Tool Life</i> : 25 comp./Edge	SET set consists of <i>Holder : 2 Nos</i> <i>Inserts : 200 Nos</i>

Sl. No.	TOOL NO	Component Drg.No.	SPECIFICATION	Feature	PARAMETERS / REMARKS	Indicative Tooling Req. per year
30	T223		ADAPTOR : C8-391.2040 110 GROOVING TOOL : G1551.A40R-T2GX16 GROOVING INSERT : GX16-1E2481050		Opn. No. Feed rate : 0.12 mm/rev Tool Life : 25 comp./Edge	SET set consists of Holder : 2 Nos Inserts : 200 Nos
31	T318	172.40.306	ADAPTOR : C8-391.02-50 045 GROOVING TOOL : NC FE25-C500R-GX24-4-4 GROOVING INSERT		Opn. No. CLAMP 4 Feed rate : 0.12 mm/rev Tool Life : 25 comp./Edge	SET set consists of Holder : 2 Nos Inserts : 200 Nos
32	T325	172.40.306	ADAPTOR : C8-391.02-50 M5 GROOVING TOOL : NC FE25-C500L-cX24-3-4 GROOVING INSERT : GX24-3F 400		Opn. No. CLAMP 3 Feed rate : 0.12 mm/rev Tool Life : 25 comp./Edge	SET set consists of Holder : 2 Nos Inserts : 200 Nos
33	M/C Tap	172.28.022cb 172.26.011-5	POWDER METALLURGY	M3X0.5-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	50
34		172.27.007cb		M4X0.5-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	50
35		172.27.126 172.28.002-1 172.26.011-5		M5X0.8-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	50
36		175.40.006 SB		M6X1-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	200
37		175.40.023 175.40.229		M8X1-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	200
38		172.40.015 172.40.304 172.40.306		M8X1.25-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	200
39	M/C Tap	172.43.005	POWDER METALLURGY MACHINE TAP	M10X1-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	150
40		172.40.316 172.40.238 172.43.021		M12X1.25-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	300
41		172.40.304 172.40.306		M14X1-6HX TAP PM SPIRAL FLUTE FORM C	Cutting speed: 5-10m/min Tool Life : 180tap holes	200

RG SHOP

The table below indicates the cutting tool parameters against which the participating firm is required to demonstrate conformity and performance during the trial.

Sl. No	Tool No.	Operation	Cutting parameters	Cycle time and tool life	Indicative Tooling Req. per year
1	T410	Rough Turning Insert: CNMG120412	Cutting Speed (Vc)=110m/Min Feed (F)= 0.3mm/rev Depth of cut = 3mm	Cycle Time: 30 minutes Tool Life: 3 components per insert	200
2	M413	Face Milling Cutter Ø 63mm With Insert And Spares. Cutter To Walter Code F2334.B27.063.Z05.08, Insert : To Walter Code ROHX1605 M0-D57 WKP35S-NON ISO	Ø63mm Cutter R8, 6 Corner Insert Cutting Speed(Vc)=100m/Min Feed (F)=0.2mm/rev Depth of Cut = 3mm	Cycle Time:32 minutes Too Life: 5 components per insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
3	M406	Ø 62mm ID Roughing with Drill head to V47 50620. HSS Centre drill Ø 10 to V95 10042.0089 Tool Life for HSS centre drill: 5 components per insert Insert: WOMX080408-B57 WKP63 (komet)	Cutting Speed(Vc)=145m/Min Feed (F)=0.25mm/rev Drill Depth = 210mm	Cycle Time: 10 minutes Tool Life: 4 components per insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
4	M409	Fine Boring Bar Ø 63.2 To Walter: GX16-2E300N030-UF4 WSM33	<u>Fine Boring Bar:</u> Through Coolant Single Lip Modular Boring Bar Ø55mm- 70mm Length Cutting Speed(Vc)=130m/Min Feed (F)=0.15mm/rev	Cycle Time: 5 minutes Tool life :10 components per insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
5	M501	Face Milling Cutter Ø 100mm With Insert And Spares. Cutter To Walter Code F4030.B32.100.Z07.02 Insert : To Walter Code FFQ SZMU 120520T-NON ISO	Cutting Speed(Vc)=109 m/Min Feed (F)=0.1mm/rev Depth of Cut = 1mm	Face milling operation Cycle Time: 9 min Tool life : 3 components per insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
6	M405	Ø 55mm ID Roughing with Drill head to V47 50470. HSS Centre drill Ø 10 to V95 10042.0089 Tool Life for HSS centre drill: 5 components per insert Insert: WOMX06T304-B57 WKP35-ISO	Cutting Speed(Vc)=124.5 m/min Feed (F)=0.08 mm/rev Drill Depth = 250mm	Cycle Time: 8.5 min Tool life : 3 components per insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos

Sl. No	Tool No.	Operation	Cutting parameters	Cycle time and tool life	Indicative Tooling Req. per year
7	T402	Pre final measure cut DNMG150608	Cutting Speed(Vc)=110 m/min Feed (F)=0.28mm/rev Depth of Cut =0.5mm	Cycle Time: 6.5 min Tool life : 25 components per insert	250
8	M410	Milling Ø72.75mm ID Groove Disk mill F2036.5.32.140.040 Insert: P20200-2.1.WKP35S - walter	Cutting Speed(Vc)=78 m/min Feed (F)=0.28mm/rev	Cycle Time: 5 min Tool life : 50 components per insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
9	M407	Fine Boring tool Insert: CCMT060204-E47 WPP20	Cutting Speed(Vc)=78 m/min Feed (F)= 0.15 mm/rev	Cycle Time: 5 min Tool life : 10 components per insert	SET set consists of Holder : 2 Nos Insert : 200
10	T405	External Threading tool Cutting head: C6-NTS-SER45065-16 Insert: NTS-ER-16 3.00 ISO	Cutting Speed(Vc)=124 m/min Feed (F)= 0.08 mm/rev Depth of Cut = 0.05mm	Cycle Time: 3 min Tool life : 25 components per insert	SET set consists of Holder : 2 Nos Insert : 200
11	M509	Insert For Modular Drill Head Ø 70 mm To Code : WOMX05T304-B57 WKP35 (komet)	Trigon Shaped 3 Corner Insert Cutting Speed(Vc)=51m/Min Feed (F)=0.1mm/rev Drill depth=305mm	Deep hole drilling operation In OPN:35 Cycle Time: 22 minutes Tool Life: 3 components per insert	SET set consists of Holder : 2 Nos Insert : 200
12	T418	Boring tool Ø48 Tool holder: B3230.N5.055-070.Z1.CC06 Insert: CCMT060204-E47 WPP20	Cutting Speed(Vc)=225.7 m/Min Feed (F)=0.63mm/rev Depth of Cut =0.3mm	Cycle Time: 6 min Tool life : 10 components per insert	SET set consists of Holder : 2 Nos Insert : 200
13	T405	External Threading tool Cutting head: C6-NTS-SER45065-16 Insert: NTS-ER-16 3.00 ISO	Cutting Speed(Vc)=124 m/min Feed (F)= 0.08 mm/rev Depth of Cut = 0.05mm	Cycle Time: 3 min Tool life : 25 components per insert	SET set consists of Holder : 2 Nos Insert : 200
14	M402	Face milling cutter Ø 40 mm with insert and spares. Cutter: to Walter code f4048.t36.040.z03.10, Insert : to Walter code SNGX1205 ANN-D27 WKP3	Face milling cutter Ø 40mm 4 corner insert Cutting Speed(Vc)=185m/Min Feed (F)=1.25mm/rev	Pocket milling operation Cycle Time: 7minutes Tool life:10 components per insert	SET set consists of Holder : 2 Nos Insert : 200
15	M422	Square Shoulder Milling Cutter With Insert And Spares To Walter Code:F4042.T28.032.Z04.11 and Insert To Walter Code:ADMT120408R-D56 WKP25S	Shoulder Milling Cutter Ø 32mm 2 Corner Insert Cutting Speed(Vc)=105m/Min Feed (F)=0.2mm/rev	Cycle Time: 4 minutes Tool Life:10 components per insert	SET set consists of Holder : 2 Nos Insert : 200

Sl. No	Tool No.	Operation	Cutting parameters	Cycle time and tool life	Indicative Tooling Req. per year
16	T408	Radius Groove Cutting Head: NCBE25-C500L-GX24-2-21 Insert: GX24-2E300N150-RD4 WSM- NON ISO	Cutting Speed(Vc)=116.5 m/Min Feed (F)=0.2 mm/rev	Cycle Time: 7minutes Tool life:10 components per insert	SET set consists of Holder : 2 Nos Insert : 200
17	M416	45 Degree Face Mill Cutter Ø63mm To Walter Code: F4033.B22.063.Z04.06 And Inert To Walter Code: Chamfering tool Insert: SNGX120512-F57 WPK35S	Face Milling Cutter Ø63mm (45°) 8 Corner Insert Cutting Speed(Vc)=175m/Min Feed (F)=0.45mm/rev Depth of Cut =1 mm	Cycle Time: 4 minutes Tool Life: 8 components per insert	SET set consists of Holder : 2 Nos Insert : 200
18	T409	OD Grooving Insert To Walter Code: GX16-2E300N030-UF4 WSM33	3mm Grooving Insert - 0.4R Cutting Speed(Vc)=82m/Min Feed (F)=0.08mm/rev	OD Grooving operation Cycle Time: 2 minutes Tool life:20 components per insert	100

CA SHOP

The table below indicates the cutting tool parameters against which the participating firm is required to demonstrate conformity and performance during the trial.

SL.NO	TOOL No.	Component Drg. No.	SPECIFICATION	Feature	PARAMETER	Indicative Tooling Req. per year
1	M608	RACE UPPER 175.18.044	SOLID CARBIDE DRILL 10.8 MM A3279XPL-10.8	High cutting speed High feed rates less vibration in higher depth of cut. Tool life. Reliability. Protects the machine from unprecedented accidents	Cutting Speed (Vc): 60-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	20
2	M632	SLEEVE 172.18.035CB-1	SOLID CARBIDE DRILL 3.3 MM A3389DPL-3.3		Cutting Speed (Vc): 50-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	30
3	M630	INNER SLEEVE 434.03.130-1	SOLID CARBIDE DRILL 4.1 MM A3289DPL-4.1		Cutting Speed (Vc): 50-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	30
4	M611	SLEEVE 172.18.035CB-1	SOLID CARBIDE DRILL 5 MM A3289DPL-5		Cutting Speed (Vc): 50-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	30
5	M613	SLEEVE 172.18.035CB-1	SOLID CARBIDE DRILL 7 MM A3289DPL-7		Cutting Speed (Vc): 80-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	30
6	M621	SLEEVE 172.18.035CB-1	SOLID CARBIDE DRILL 9 MM A3279XPL-9		Cutting Speed (Vc): 80-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	35
7	M624	INNER SLEEVE 434.03.130-1	SOLID CARBIDE DRILL 12.8 MM A3279XPL-12.8		Cutting Speed (Vc): 80-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	20
8	M626	INNER SLEEVE 434.03.130-1	SOLID CARBIDE DRILL 13.2 MM A3279XPL-13.2		Cutting Speed (Vc): 80-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	20
9	M619	SLEEVE 172.18.035CB-1	SOLID CARBIDE DRILL 14.5 MM A3289DPL-14.5		Cutting Speed (Vc): 80-120 m/min. Feed : 0.12mm/rev Tool Life: 10 Meters	20
10	T634	SLEEVE 172.18.035CB-1	INSERT CNMG120412- RP5 WPP20S		Cutting Speed (Vc) -- 150 m/min. Feed 0.25 mm/rev. Tool Life: 20 Components /Insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
	T634		NEGATIVE LEFT C5-PCLNI-27140-12			
	T634		MASTER/ADAPTOR C5-390.410-63 090C			

SL.NO	TOOL No.	Component Drg. No.	SPECIFICATION	Feature	PARAMETER	Indicative Tooling Req. per year
11	T601	INNER SLEEVE 434.03.130-1	INSERT DCMT11T308-FP4 WPP20S		Cutting Speed (Vc) --- 150 m/min. Feed - 0.25 mm/rev. Tool Life: 20 Components /Insert	200
12	T604	RACE UPPER 175.18.044	INSERT DNMG150612- MP5 WPP30S		Cutting Speed (Vc) --- 150 m/min. Feed - 0.25 mm/rev. Tool Life: 20 Components /Insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
	T604		TURNING (INT.) C5-PDUNL-15-F43			
	T604		MASTER/ADAPTOR C5-390.410-63 090C			
13	T605	SLEEVE 172.18.035CB-1	INSERT CNMG120408-RP5 WPP20S		Cutting Speed (Vc) -- 150 m/min. Feed 0.25 mm/rev. Tool Life: 20 Components /Insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
	T605		NEUTRAL C5-DCMNN-00105-12			
	T605		MASTER/ADAPTOR C5-390.410-63 090C			
14	T606	SLEEVE	INSERT VBMT160404-PS5 WPP20		Cutting Speed (Vc) --- 150 m/min.	SET set consists of
		172.18.035CB-1			Feed 0.25 mm/rev.	Holder : 2 Nos
					Tool Life: 20 Components /Insert	Inserts : 200 Nos
	T606		POSITIVE LEFT C5-SVMBL-00115-16			
	T606		MASTER/ADAPTOR C5-390.410-63 090C			
15	T608	RACE UPPER 175.18.044	INSERT DNMG150608-FP5 WPP20S		Cutting Speed (Vc) --- 150 m/min. Feed - 0.25 mm/rev. Tool Life: 20 Components /Insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
	T608		NEGATIVE LEFT C5-DDMNL-00115-15			
	T608		MASTER/ADAPTOR C5-390.410-63 090C			
16	T609	RACE UPPER 175.18.044	INSERT DNMG110408-FP5 WPP20S		Cutting Speed (Vc) -- 150 m/min. Feed - 0.25 mm/rev. Tool Life: 20 Components /Insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
	T609		NEGATIVE LEFT C3 PDUNL-17090-11			
	T609		MASTER/ADAPTOR C3-390.410-63 075C			

SL.NO	TOOL No.	Component Drg. No.	SPECIFICATION	Feature	PARAMETER	Indicative Tooling Req. per year
17	T610	RACE UPPER 175.18.044	INSERT VBMT160408-P55 WPP20		Cutting Speed (Vc) -- 150 m/min. Feed - 0.25 mm/rev. Tool Life: 20 Components /Insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
	T610		TURNING ADAPTORS C4-570-3C 40 173			
	T610		TURNING (INT.) 570-SVLBL-40-16			
	T610		MASTER/ADAPTOR C4-390.410-63 080C			
18	T607	SLEEVE 172.18.035CB-1	FORM (IN/EXT) GX24- 3E500N250-RD4 WPP23		Cutting Speed (Vc) -- 150 m/min. Feed - 0.1 mm/rev. Tool Life: 20 Components /Insert	SET set consists of Holder : 2 Nos Inserts : 200 Nos
	T607		LEFT NCBE25-C500L-GX24-3-21			
	T607		MASTER/ADAPTOR C5-390.410-63 090C			
19	T613	INNER SLEEVE 434.03.130-1	THREAD (EXT) NTS-ER- 16 2.00ISO WXP20		Cutting Speed (Vc) -- 150 m/min. Tool Life: 30 Components /Insert	SET set consists of Holder : 2 Nos
	T613		NEGATIVE RIGHT C3-NTS-SER22040-16			Inserts : 200 Nos
	T613		MASTER/ADAPTOR C3-390.410-63 075C			
	T613		Supporting Plate 0.5" YE3-1N			
20	M14	RACE UPPER 175.18.044	SPMT060304-F55 WAP35		Cutting Speed (Vc) -- 150 m/min. Feed - 0.1 mm/rev. Tool Life: 20 Components /Index	SET set consists of Holder : 2 Nos Inserts : 200 Nos
21		RACE UPPER	M12X1.25-7H TAP PM SPIRAL FLUTE FORM C	POWDER METALLURGY MACHINE TAP	Cutting Speed (Vc): 5 - 15 m/min.	100
		175.18.044			Tool Life: 150 TAP HOLES	
	M609		COLLET C340.25.090			
	M609		COLLET CHUCK S9000631-25			
22		SLEEVE	M6X1-7H TAP PM SPIRAL FLUTE FORM C	POWDER METALLURGY MACHINE TAP	Cutting Speed (Vc): 5 - 15 m/min.	200
		172.18.035CB-1			Tool Life: 150 TAP HOLES	
	M612		COLLET C340.20.060			2
	M612		COLLET CHUCK S9000631-20			1

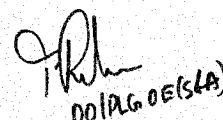
SL.NO	TOOL No.	Component Drg. No.	SPECIFICATION	Feature	PARAMETER	Indicative Tooling Req. per year
23		SLEEVE	M8X1-7H TAP PM SPIRAL FLUTE FORM C	POWDER METALLURGY MACHINE TAP	Cutting Speed (Vc): 5 - 15 m/min.	100
		172.18.035CB-1			Tool Life: 150 TAP HOLES	
	M614		COLLET C340.20.060			2
	M614		COLLET CHUCK S9000631-20			1
24		SLEEVE	M22X1.5-7H TAP PM SPIRAL FLUTE FORM C	POWDER METALLURGY MACHINE TAP	Cutting Speed (Vc): 5 - 15 m/min.	30
		172.18.035CB-1			Tool Life: 150 TAP HOLES	
	M616		COLLET C340.40.180			2
	M616		COLLET CHUCK S9000631-40			1
25		SLEEVE	M16X1.5-7H TAP PM SPIRAL FLUTE FORM C	POWDER METALLURGY MACHINE TAP		50
		172.18.035CB-1			Cutting Speed (Vc): 5 - 15 m/min.	
					Tool Life: 150 TAP HOLES	
	M620		COLLET C340.25.120			2
	M620		COLLET CHUCK S9000631-25			1
26		SLEEVE	M10X1-7H TAP PM SPIRAL FLUTE FORM C	POWDER METALLURGY MACHINE TAP	Cutting Speed (Vc): 5 - 15 m/min.	100
		172.18.035CB-1			Tool Life: 150 TAP HOLES	
	M622		COLLET C340.20.070			2
	M622		COLLET CHUCK S9000631-20			1
27		SLEEVE	M4X0.7-7H TAP PM SPIRAL FLUTE FORM C	POWDER METALLURGY MACHINE TAP	Cutting Speed (Vc): 5 - 15 m/min.	100
		172.18.035CB-1			Tool Life: 150 TAP HOLES	
	M631		COLLET C340.20.045			2
	M631		COLLET CHUCK S9000631-20			1

PRE-QUALIFICATION CRITERIA

1. The bidder should be an OEM of the product or the authorized distributor as on date.
 - 1.1 In case of participation from OEM, firm needs to submit OEM declaration with Certificate of Incorporation/Registration/MSME, GST Certificate, Product profile etc.
 - 1.2 Authorized distributor should produce valid authorization certificate from the OEM
2. **ISO 9001:** The bidder or the OEM of the offered products must have ISO 9001 certification.
 - 2.1 Copy of ISO 9001 certificate of the bidder or OEM to be attached.
3. **Experience/Past performance criteria:**

The bidder or its OEM themselves should have regularly manufactured and supplied same or similar products to Central/State Govt. organizations/PSU/Public listed company within last three financial years as indicated in the bid documents before the bid opening date.

 - 3.1 To qualify experience criteria any of the following documents shall be accepted:
Purchase Order copy along with invoice of same or similar items.
(OR)
Execution Certificate by buyer with order value.
 - 3.2 The Published Catalogue products are only acceptable for carrying out trial as specified in the EOI
4. In the event of not submitting of any of the document mentioned above or any other documents sought in the bid document, ATC and Corrigendum, Bidder's offer is liable to be rejected.
5. **Special terms and conditions:**
 - 5.1 The item supplied by the firm must perform satisfactorily as per the parameter specified in the EOI.
 - 5.2 Offers with both cutter and inserts of same Brand will only be acceptable.
6. Detailed trial criteria, evaluation methodology and other relevant parameters have been outlined in the Annexure-A to be complied.
7. The firm may assess the condition of the machine on which trial to be conducted before participating in the EOI. Cutting Parameter should not affect the condition of machine.
8. A duly signed/sealed copy of this PQC should be submitted along with Bid documents as a proof of acceptance of tender condition. Compromised parameter on the downside will be not acceptable.
9. Duly signed/sealed copy of the EOI specification sheets of all items as a proof of acceptance shall be submitted.

COMPLIANCE CHECKLIST STATEMENT FOR PQC


DO/ALG OE(SLA)

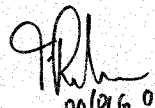
Bidder should ensure submission of below documents along with the offer:

S/No.	Documents as per PQC	Attached with bid. YES/NO
1	OEM declaration with Certificate of Incorporation, GST Certificate, Product profile (For OEM participants only)	
2	Authorized distributor should produce valid authorization certificate from the OEM (For Authorised dealers only)	
3	Copy of ISO 9001 certificate of the bidder (OEM or Dealer as applicable)	
4	Documents for qualifying experience/past performance criteria as mentioned in PQC	
5	Signed PQC attached	
6	Signed specification (EOI) sheet attached	
7	Detailed trial criteria, evaluation methodology and other relevant parameters have been outlined in the Annexure-A	

AUTHORISED SIGNATURE OF BIDDER WITH SEAL

SCOPE OF WORK

1. Supplier who meets the prequalification criteria and technical requirement as mentioned in the Annexure-A & B can visit HVF machine shops for study and conducting trials with their cutting tools.
2. Prior intimation to the respective shops shall be made before the commencement of trial.
3. The firms who meets the technical requirement, cycle time and tool life are eligible to participate in the subsequent procurement process.
4. The mode of procurement shall be decided by the HVF.
5. Conducting trials with their cutting tools with NCNC (No Cost No Commitment) basis.
6. Trial shall be completed within 2 months from the date of submission of Tools by firms


DO/PLG OE(SM)