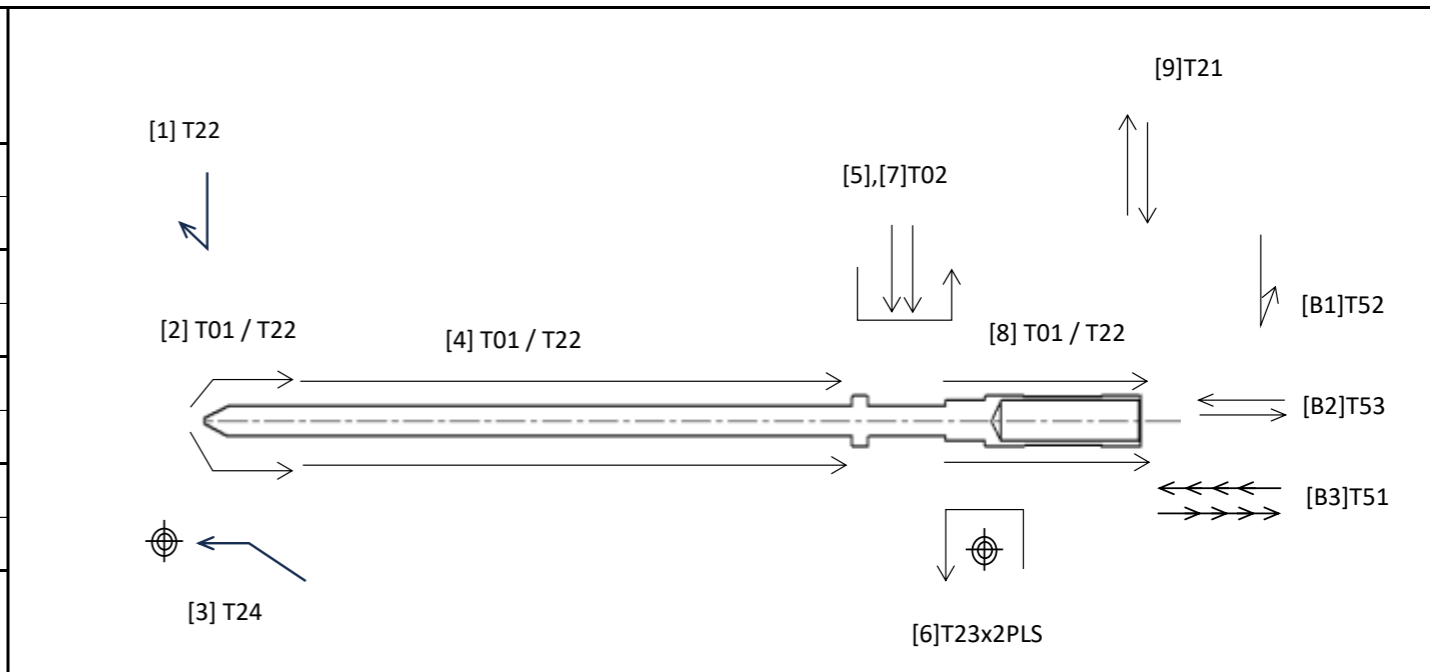


CITIZEN	TOOLING SHEET		
	Citizen machinery asia Private show 2024.Aug.		
Machine model.	Serial Number	Parts Name	Program No.
R04VI	-	Connector pin.	-
Material.	Material Dia.	GB/GBL Type	Collection Method
Brass	Ø 3.0	GB	-
Collet Chuck/Guide Bush Specification			Cutting Oil
Main Ø 3.0	GB - Ø 3.0	Back Ø0.5	NA-132T
Cycle Time.	Date.	Preson in change	Processing Direction
-	27.Aug.2024	-	

A:machining process B:insert model number C:tool holder/gang rotary tool
D:turret holder/gang tool holder E:sleeve/rego F:remarks G:remaks

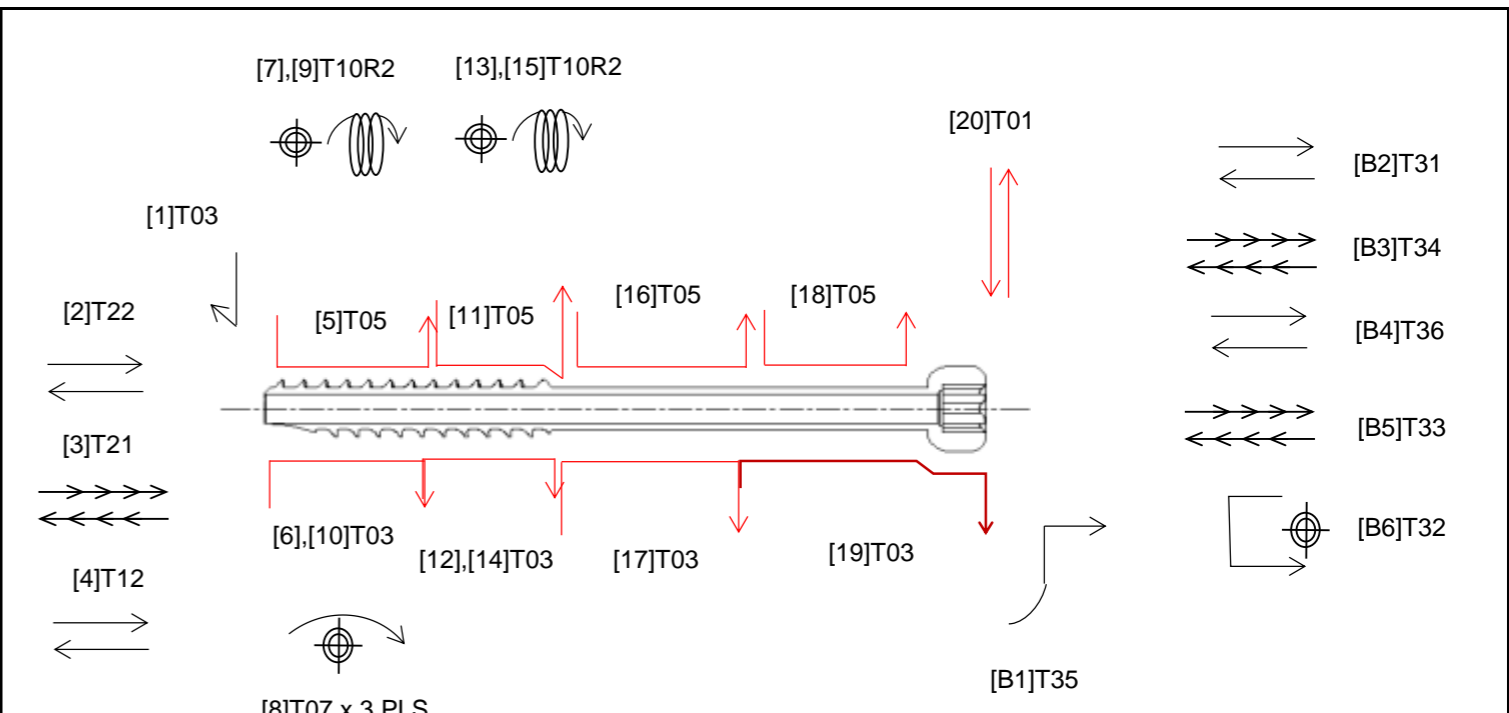


T21	A	CUT-OFF	A	T22	A	OD TURNING R	T52	A	FACING
	B	CTP05FLK-SH / ZM3 / NTK	B		B	VPGT110300FNAM3 / DT4 / NTK		B	DCGT070200FNAZ7 / QM3 / NTK
	C	CTPL08-SUB / NTK	C		C	SVJCR0808H11N / NTK		C	DS-SDUL15H-07 / NTK
	D	TF5108+U30B	D		D	TF5108+U30B		D	QTF5008+QDF3101
	E		E		E			E	
	F		F		F			F	
	G		G		G			G	
	T01	A	OD TURNING F		A	T23		A	MILLING
	B	CSVF11FRVB-A / VM1 / NTK	B		B	WXL-1.5D-DE Ø0.6 / OSG		B	V-ADPF309-0008 / ATOM
	C	CSVR08 / NTK	C		C			C	QTF5008+QDF3101
	D	QTF5008+QDF3101	D		D	TF5108+U30B		D	ER Ø3.0
	E		E		E	ER Ø3.0		E	
	F		F		F			F	
	G		G		G			G	
	T02	A	OD GROOVE		A	T24		A	POLAYGON
	B	CSVG11FRV030 / VM1 / NTK	B		B	D3.5x0.8Tx3D-11NTx4F-TIALN/ ISCAR		B	ADRS-SV-0200 / ATOM
	C	CSVR08 / NTK	C		C			C	QTF5008+QDF3101
	D	QTF5008+QDF3101	D		D	TF5108+U30B		D	ER Ø3.0
	E		E		E	ER Ø4.0		E	
	F		F		F			F	
	G		G		G			G	
		A			A			A	
	B		B		B			B	
	C		C		C			C	
	D		D		D			D	
	E		E		E			E	
	F		F		F			F	
	G		G		G			G	
	A		A		A			A	

CITIZEN TOOLING SHEET			
Citizen machinery asia Private show 2024.Aug.			
Machine model.	Serial Number	Parts Name	Program No.
L12X(LFV)	-	Screws.	-
Material.	Material Dia.	GB/GBL Type	Collection Method
SUS304	Ø 10.0	GB	-
Collet Chuck/Guide Bush Specification			Cutting Oil
Main Ø 10.0	GB - Ø 10.0	Back Ø 4.0	NA-132T
Cycle Time.	Date.	Preson in change	Processing Direction
-	27.Aug.2024	-	

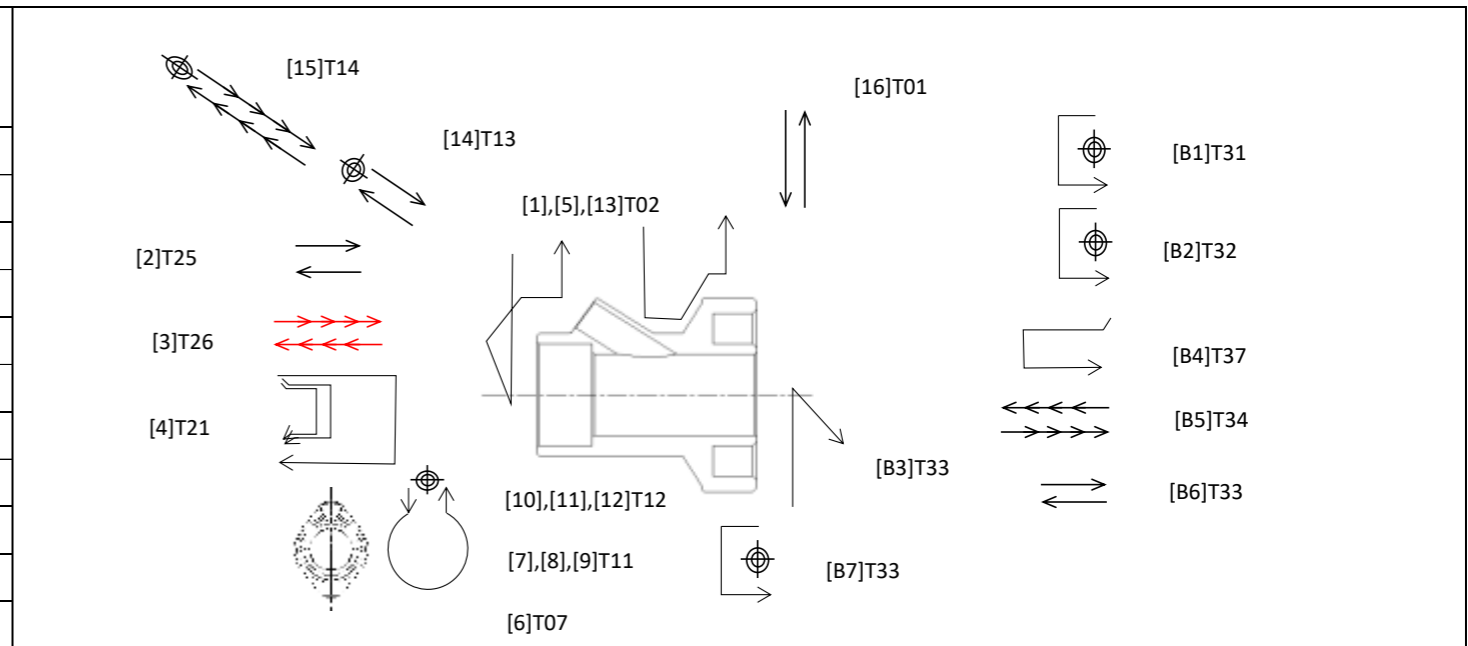
A:machining process B:insert model number C:tool holder/gang rotary tool
D:turret holder/gang tool holder E:sleeve/rego F:remarks G:remaks

Note : Red line color is LFV cutting.



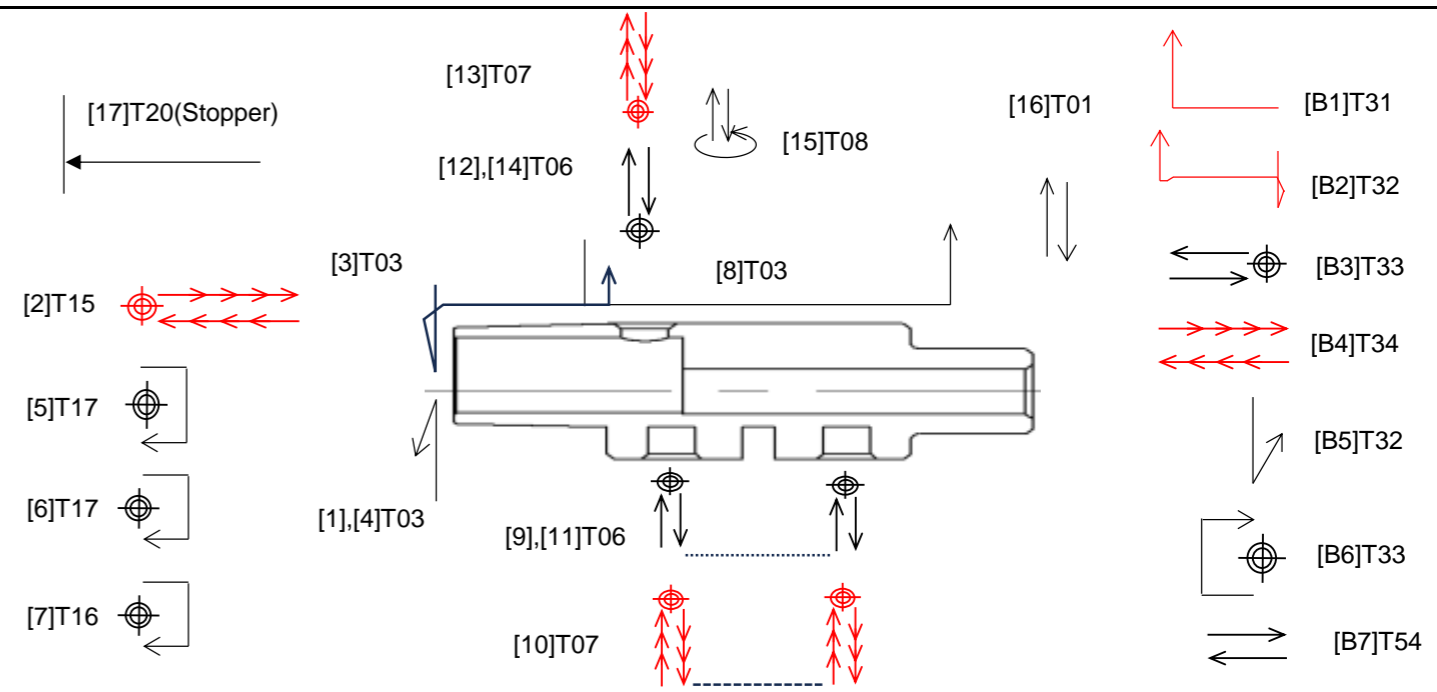
T01	A	CUT-OFF	T10R1	A	THREAD WHIRLING	T31	A	GUIDE DRILL	T35	A	FACING	
	B	CTDP20N / TM4 / NTK		B	GSW220-II [PCM]		B	EX-SUS-GDS-2.0 / ODG		B	DCGT11T302MRTMV / ST4 / NTK	
	C	CTDPR12--20D20 / NTK		C			C			C	DS-SCLCR19GX-09 / NTK	
	D	GTF7110		D	U30B		D	U152B		D	U152B	
	E			E			E	ER11 Ø3.0		E		
	F			F			F			F		
	G			G			G			G		
	T03	A		OD TURNING R	T22		A	END FACE GUIDE DRILL		T32	A	ENDMILL Ø1.0
	B	CCGT09T302M CL / ST4 / NTK		B	EX-SUS-GDS-2.0 / ODG		B	WXL-4D-DE/ OSG		B	TIN-NC-LDS / OSG	
	C	SCLCR1010X09N / NTK		C			C			C		
	D	GTF7110		D	U120B		D	U152B		D	U152B	
	E			E	ER11 Ø3.0		E	ER11 Ø4.0		E	ER11 Ø4.0	
	F			F			F			F		
	G			G			G			G		
	T05	A		OD TURNING F	T21		A	DRILL		T33	A	DRILL
	B	DCGT11T302MRTMV / ST4 / NTK		B	MDA0130S03H20/SUMITOMO		B	WXL-3D-DE/OSG		B		
	C	SDJCR1010X11N / NTK		C			C		C		C	
	D	GTF7110		D	U120B		D	U152B	D	U152B	D	U152B
	E			E	ER11 Ø3.0		E	ER11 Ø3.0	E		E	
	F			F			F		F		F	
	G			G			G		G		G	
	T08	A		CROSS MILLING			A		T34	A	DRILL	
	B	RWEM040H4R00S04 / AC3 / NTK		B			B	MDA0130S03H20/SUMITOMO		B		
	C			C			C		C		C	
	D	U30B		D			D	U152B	D	U152B	D	U152B
	E	ER8		E			E	ER11 Ø3.0	E		E	
	F			F			F		F		F	
	G			G			G		G		G	

CITIZEN			
TOOLING SHEET			
Citizen machinery asia Private show 2024.Aug.			
Machine model.	Serial Number	Parts Name	Program No.
L20XII (LFV)	-	Housing Body	-
Material.	Material Dia.	GB/GBL Type	Collection Method
SUS303	Ø 20.0	GB	-
Collet Chuck/Guide Bush Specification			Cutting Oil
Main Ø 20.0	GB -Ø 20.0	Back Ø 12.0	NA-132T
Cycle Time.	Date.	Preson in change	Processing Direction
-	27.Aug.2024	-	
A:machining process B:insert model number C:tool holder/gang rotary tool D:turret holder/gang tool holder E:sleeve/rego F:remarks G:remaks			Note : Red line color is LFV cutting.



T01	A	CUT-OFF	T07	A	CROSS MILLING R	T31	A	MILLING R	T37	A	BORING CHAMFER
	B	GCMN2002-GG / AC8035P / SUMITOMO		B	GSRE4080SF / SUMITOMO		B	GSRE4060SF / SUMITOMO		B	KBMX R0511-20T / ACZ150 / SUMITOMO
	C	APM12-GNDLR16-212.5J / SUMITOMO		C			C			C	S19K-CKB R-16 / SUMITOMO
	D	GTF3612		D	U34B		D	U155B / MSC507		D	U155B /SAU819
	E	APM-R1212X84J / SUMITOMO		E	ER16 Ø8.0		E	ER11 Ø6.0		E	
	F			F			F			F	
	G			G	Shank -Ø8.0		G			G	
	T02	A		OD TURNING	T11		A	B AXIS R MILLING R		T32	A
	B	DCGT11T302MN-FF / AC1030U / SUMITOMO		B	GSXB20125 / SUMITOMO		B	GSXVL4030-2.5D / SUMITOMO			
	C	APM12-SDJC R11T3J / SUMITOMO		C			C				
	D	GTF3612		D	MEU307		D	U155B / MSC507			
	E	APM-R1212X84J / SUMITOMO		E	ER11 Ø6.0		E	ER11 Ø6.0			
	F			F			F				
	G			G			G				
	T25	A		CENTER DRILL	T12		A	B AXIS R MILLING F	T33	A	CHAMFER
	B	TIN-NC-LDS Ø10.0 / OSG		B	GSXB20050/ SUMITOMO		B	TIN-NC-LDSΦ 4.0 / OSG			
	C			C			C				
	D	U126B		D	MEU307		D	MEU307			
	E	ER16 Ø10.0		E	ER11 Ø4.0		E	ER11-Φ4.0			
	F			F			F				
	G	Shank Ø10.0		G			G				
	T26	A		Drill	T13		A	B AXIS CENTER DRILL	T34	A	FLAT DRILL
	B	MDW0780GS2 / SUMITOMO		B	TIN-NC-LDSΦ 6.0 / OSG		B	ADF-2D-2.70 / OSG			
	C			C			C				
	D	U126B		D	MEU307		D	U155B / MSC507			
	E	ER16 Ø8.0		E	ER11 Ø6.0		E	ER11 Ø4.0			
	F			F			F				
	G	Shank Ø8.0		G			G				
	T21	A		BORING	T14		A	B AXIS DRILL	T35	A	FACING
	B	CCGT04X102L-FY / AC1020U / SUMITOMO		B	MDW0300GS2 / SUMITOMO		B	DCGT11T302MN-FF / AC5015S / SUMITOMO			
	C	S08H-SCLCR04X1-07 / SUMITOMO		C			C	RS19X-SDUL11 / SUMITOMO			
	D	U126B		D	MEU307		D	U155B / SAU819			
	E			E	ER11 Ø3.0		E				
	F			F			F				
	G			G			G				

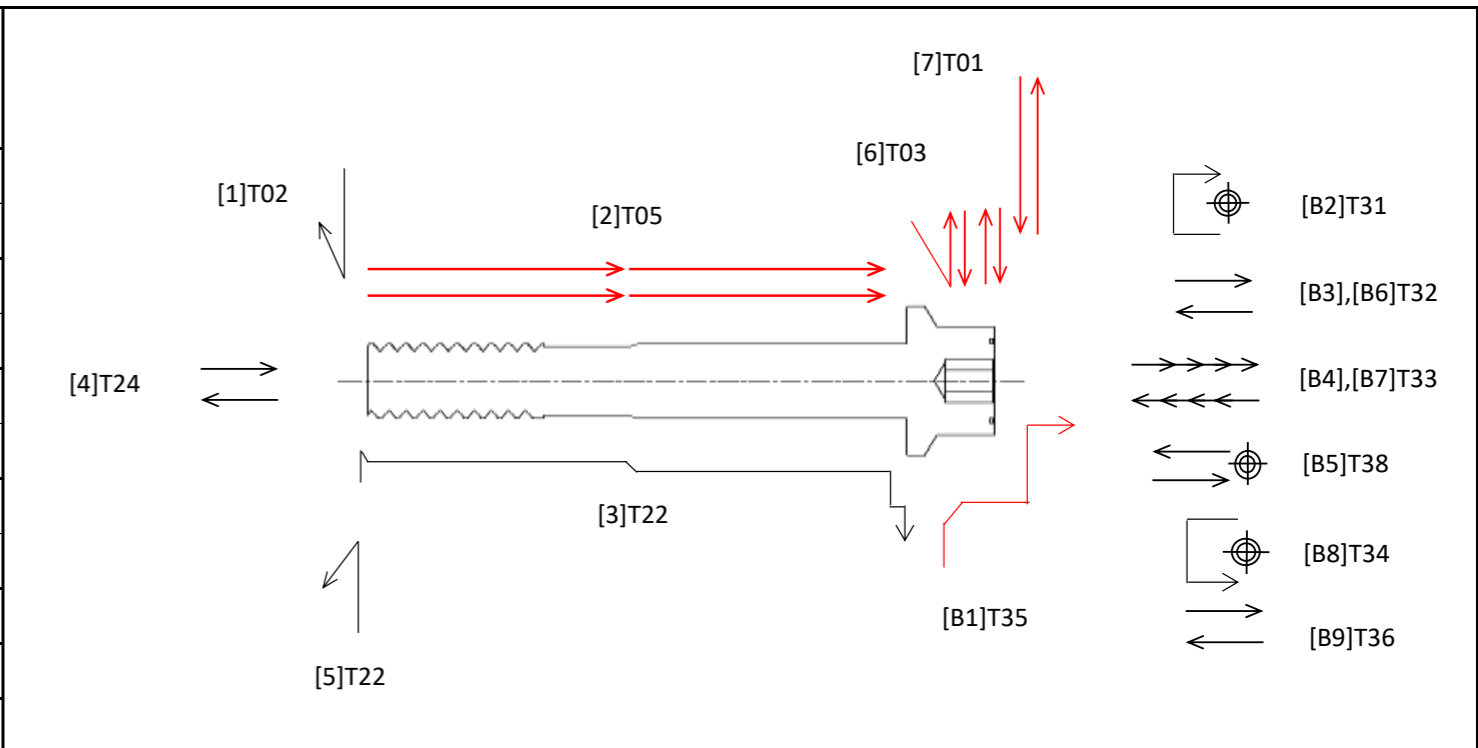
CITIZEN	TOOLING SHEET		
	Citizen machinery asia Private show 2024.Aug.		
Machine model.	Serial Number	Parts Name	Program No.
A20VII (LFV)	-	JOINT CONNETER.	-
Material.	Material Dia.	GB/GBL Type	Collection Method
SUM24L	Sq. 12.7X12.7 (A6063)	GBL	-
Collet Chuck/Guide Bush Specification			Cutting Oil
Main Sq12.7 x12.7	GBL	Back Ø 15.5	NA-132T
Cycle Time.	Date.	Preson in change	Processing Direction
-	27.Aug.2024	-	
A:machining process B:insert model number C:tool holder/gang rotary tool D:turret holder/gang tool holder E:sleeve/rego F:remarks G:remaks			Note : Red line color is LFV cutting.



T01	A	CUT-OFF	T06	A	CROSS-CENTER DRILL	T16	A	END-FACE-SLOTT CUTTER	T31	A	OD TURNING R
	B	GY2G0200D005N-GL/VP15TF[MITSUBISHI]		B	DLE0600S060P090/MITSUBISHI		B	ZBC 35 x 3 /MRT		B	DCGT11T302M-FS-P / MS9025 / MITSUBISHI
	C	GYSR1212JX00-D12//MITSUBISHI		C			C			C	SH19K-FSDUCL11 / MITSUBISHI
	D	GTF3612		D	GSC1310		D	U34B / BSE607		D	U155B / SAU819
	E			E	ER16 Ø4.0		E	ER11 Ø5.0		E	
	F			F			F			F	
	G			G			G			G	
T03	A	OD TURNING	T07	A	CROSS-DRILL Ø 3.0	T15	A	END-FACE FLAT DRILL Ø 5.0	T32	A	OD TURNING F
	B	DCGT11T302-AZ/VP15TF[MITSUBISHI]		B	MSE0300SA / MITSUBISHI		B	MFE0700X02S070/MITSUBISHI		B	DCGT11T302-AZ/VP15TF[MITSUBISHI]
	C	SDJCR1212M11-SM/MITSUBISHI		C			C			C	SH19K-FSDUCL11/MITSUBISHI
	D	GTF3612		D	U34B		D	U34B / BSE607		D	U155B / SAU819
	E			E	ER16 Ø3.0		E	ER11 Ø7.0		E	
	F			F			F			F	
	G			G			G			G	
	A		T08	A	CROSS-3D Chamfer	T17	A	END-FACE-V ENDMILLØ4.0	T33	A	V ENDMILL- Ø6.0
	B			B	MC03015 C3 A90 MT8/CARMEX		B	VC2CD0400/MITSUBISHI		B	VC2CD0600/MITSUBISHI
	C			C			C			C	
	D			D	U34B		D	U34B / BSE607		D	U155B / SAU819
	E			E	ER16 Ø3.0		E	ER11 Ø6.0		E	VDS506 / ER11 Ø6.0
	F			F			F			F	
	G			G			G			G	
	A					T54	A	SUPER ROLL Ø8.0	T34	A	DRILL Ø4.0
	B						B	CSA800/SUGINO		B	MNS0400LB//MITSUBISHI
	C						C			C	
	D						D			D	U155B/MSC507
	E						E			E	ER11 Ø4.0
	F						F			F	
	G						G			G	

CITIZEN	TOOLING SHEET		
	Citizen machinery asia Private show 2024.Aug.		
Machine model.	Serial Number	Parts Name	Program No.
L32X (LFV)	-	Bolt	-
Material.	Material Dia.	GB/GBL Type	Collection Method
SUS304	Ø 25.0	GB	-
Collet Chuck/Guide Bush Specification			Cutting Oil
Main Ø 21.8	GB Ø 21.8	Back Ø 11.98	NA-132T
Cycle Time.	Date.	Preson in change	Processing Direction
-	27.Aug.2024	-	

A:machining process B:insert model number C:tool holder/gang rotary tool
D:turret holder/gang tool holder E:sleeve/rego F:remarks G:remaks
Note : Red line color is LFV cutting.

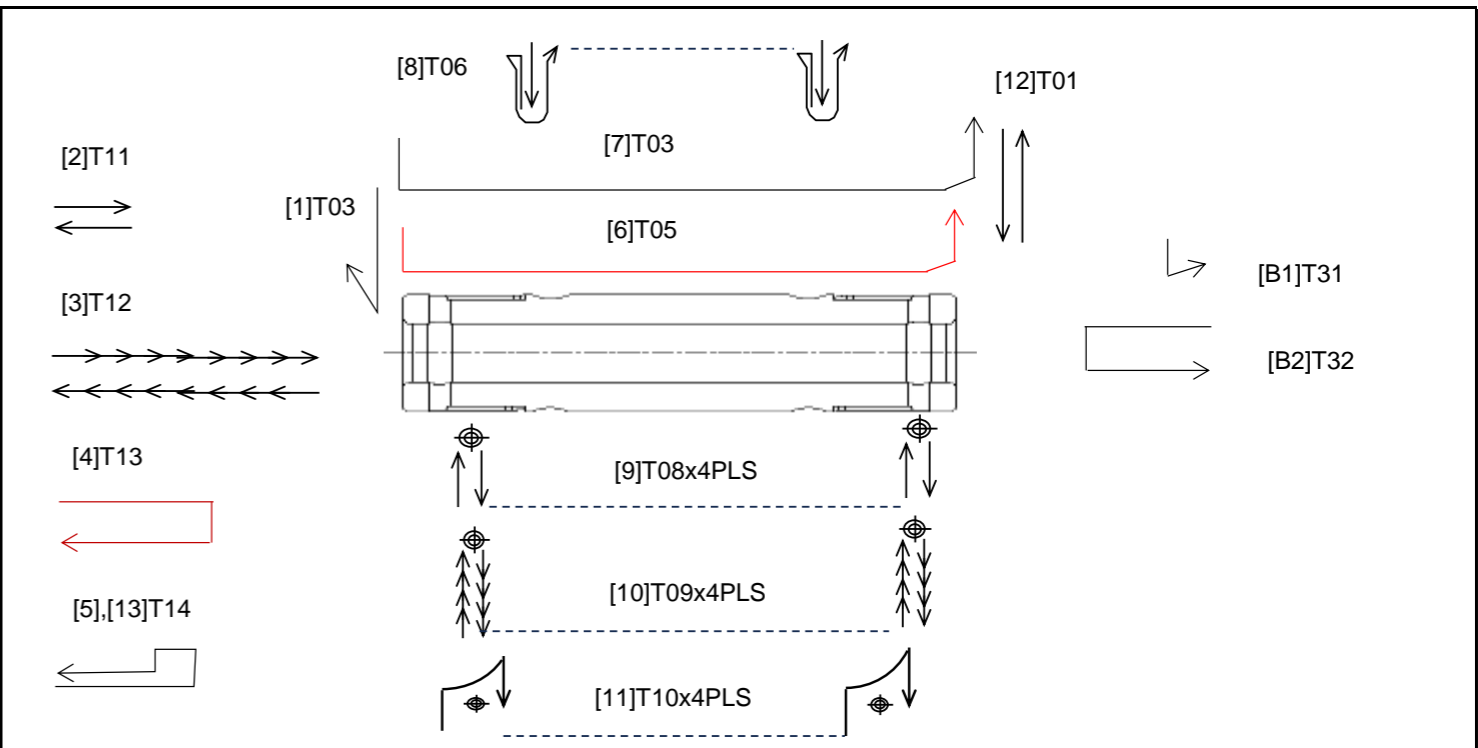


T01	A	CUT-OFF	T24	A	THREAD ROLL M12	T31	A	MILLING HEX Ø10.0	T38	A	ROTARY BROACH HEX6.0
	B	GMM2020-TK / PR915 / KYOCERA		B	AXIAL HEAD F TYPE /A2F [YAMADA]		B	4FESW100-080-10 / KYOCERA		B	BROACHING TOOL 2100 [YAMADA]
	C	KGML1616JX-2 / KYOCERA		C			C			C	
	D	GTF5916		D	U120B		D	GSE1310/U13B		D	U13B / SAU825
	E			E			E	ER16ø10.0		E	
	F			F			F			F	
	G			G			G			G	
	T02	A		FACING	T22		A	TURNNING-FINISH		T32	A
	B	DCGT11T302MFP-SK / PR1205 / KYOCERA		B	DCGT11T302MFP-SK / PR1205 / KYOCERA		B	TIN-NC-LDS/OSG		B	TWFGLO80 / PR1535 / KYOCERA
	C	SDJCR1616JX-11FF / KYOCERA		C	S25K-SDUCL11 / KYOCERA		C			C	S25K-STWL15 / KYOCERA
	D	GTF5916		D	U120B		D	U13B / SAU825		D	U13B / SAU825
	E			E			E	ADS710 / ER16 ø10.0		E	
	F			F			F			F	
	G			G			G			G	
	T03	A		GROOVE-ROUGH			A			T33	A
	B	GWPG400N02E-GE/DM4/TNK		B			B	KDA0600X03S060N / KYOCERA		B	
	C	GTWPR1616-4E09 / NTK		C			C			C	
	D	GTF5916		D			D	U13B / GSC1310		D	
	E			E			E	ER16 ø6.0		E	
	F			F			F			F	
	G			G			G			G	
	T05	A	OD TURNING R		A			T34	A	V-ENDMILL	
	B	TNMG160404MU / PR1025 / KYOCERA		B			B	VC2CD0400/MITSUBISHI		B	
	C	PTLNR1620JX-16FF/KYOCERA		C			C			C	
	D	GTF5916		D			D	U13B / GSC1310		D	
	E			E			E	ER16 ø4.0		E	
	F			F			F			F	
	G			G			G			G	


CITIZEN	TOOLING SHEET		
	Citizen machinery asia Private show 2024.Aug.		
Machine model.	Serial Number	Parts Name	Program No.
A20VII (LFV-U35B)	-	Shaft Bush .. □	-
Material.	Material Dia.	GB/GBL Type	Collection Method
A6061	Ø20.0	GB	-
Collet Chuck/Guide Bush Specification			Cutting Oil
Main Ø 20.0	GB	Back Ø 10.0	NA-132T
Cycle Time.	Date.	Preson in change	Processing Direction
-	27.Aug.2024	-	

A:machining process B:insert model number C:tool holder/gang rotary tool
D:turret holder/gang tool holder E:sleeve/rego F:remarks G:remaks

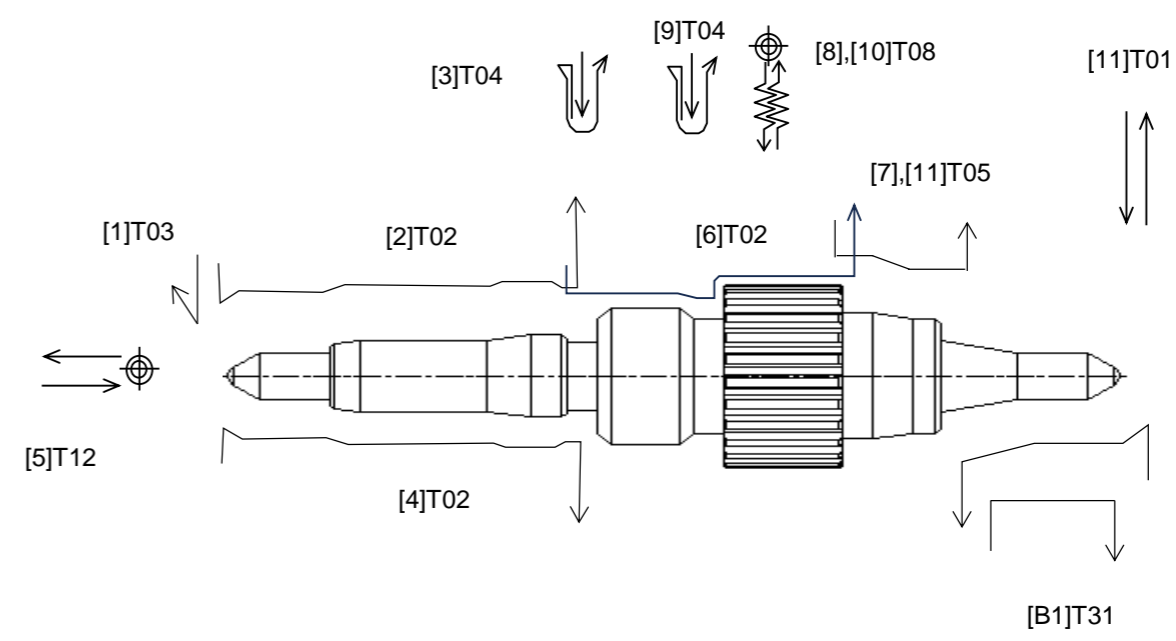
Note : Red line color is LFV cutting.

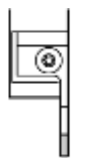


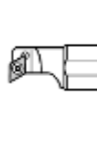
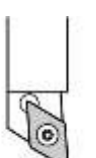
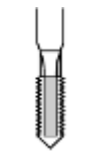


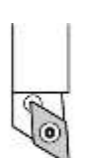






T01	A	CUT-OFF	T08	A	CROSS-CENTER DRILL Ø 3.0	T11	A	END-FACE-CENTER DRILL Ø 6.0	T31	A	FACING
	B	DGR 1201J-8D-D22 / IC1030 / ISCAR		B	TIN-NC-LDS-3.0 / OSG		B	TIN-NC-LDS-6.0 / OSG		B	DCGT 11T302-AS / IC1520 / ISCAR
	C	DGTR/L 16B-1.2-D22SH / ISCAR		C			C			C	SBTB1960-JHP-R / ISCAR
	D	GTF7812		D	U35B		D	GDF1801		D	U152B
	E			E	ER11 Ø3.0		E			E	SBTT-SDJCR11-JHP / ISCAR
	F			F			F			F	
	G			G	Shank Φ3.0		G	Shank Φ6.0		G	
T03	A	OD TURNING R	T09	A	CROSS-DRILL Ø 1.0	T12	A	END-FACE- DRILL Ø4.8	T32	A	BORING DMIN5
	B	DCGT 11T304-AS / IC1520 / ISCAR		B	EX-GDN-1.0 / OSG		B	SCD 048-035-060 ACP5FL / ISCAR		B	CCGT 03X101-F1P / ISCAR
	C	NQCH12-SDACL-11S-JHP / ISCAR		C			C			C	PICIN E05-T20-SCLCR-03 / ISCAR
	D	GTF7812		D	U35B		D	GDF1801		D	U155B / SAU819
	E			E	ER11Ø3.0		E	ER16 Ø6.0 (OH)		E	PICCO ACE 19-5 / ISCAR
	F			F			F			F	
	G			G	Shank Ø3.0		G			G	
T05	A	FRONT TURNING	T10	A	CROSS-END MILL	T13	A	ID BORING DMIN5		A	
	B	DCGT 11T302-AS / IC1520 / ISCAR		B	WXL-2D-DE-1.0 / OSG		B	CCGT 03X101-F1P / ISCAR		B	
	C	NQCH12-SDACL-11S-JHP / ISCAR		C			C	PICIN E05-T30-SCLCR-03 / ISCAR		C	
	D	GTF7812		D	U35B / GSC1310		D	GDF1801		D	
	E			E	ER16-Ø4.0		E	PICCO ACE 19-5 / ISCAR		E	
	F			F			F			F	
	G			G			G			G	
T06	A	GROOVE		A		T14	A	ID R GROOVE DMIN5		A	
	B	PENTA 24N200C100 / IC908 / ISCAR		B			B	PICCO R 004.0.50-16 / ISCAR		B	
	C	PCHR 12/24 / ISCAR		C			C	PICCO25.4-4-5 / ISCAR		C	
	D	GTF7812		D			D	GDF1801		D	
	E			E			E			E	
	F			F			F			F	
	G			G			G			G	

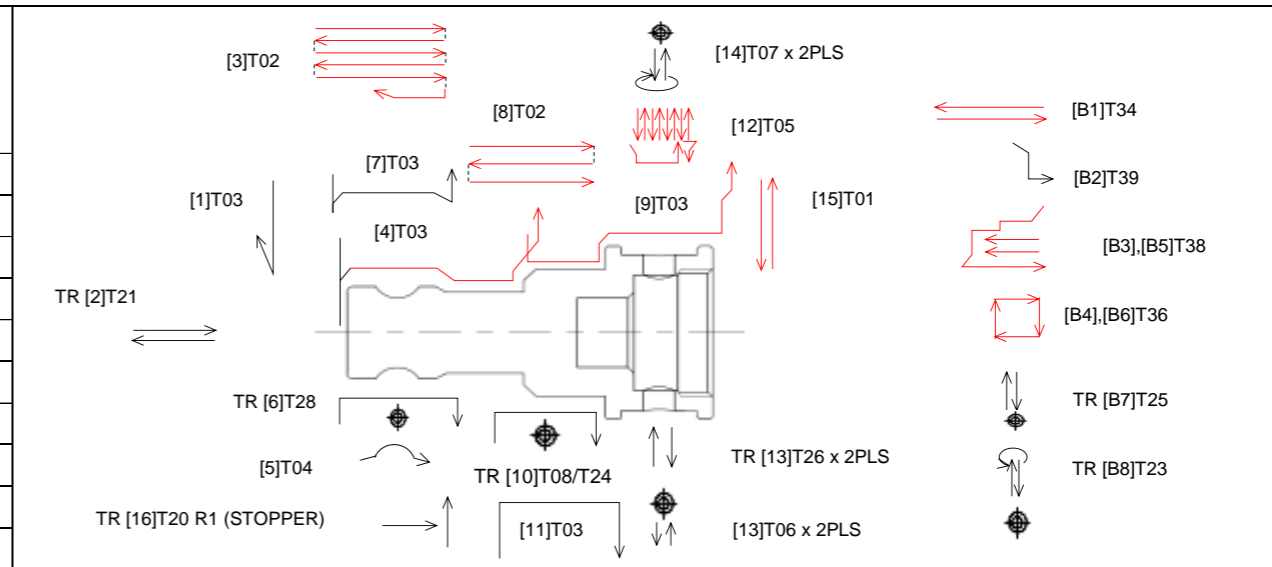
CITIZEN	TOOLING SHEET		
	Citizen machinery asia Private show 2024.Aug.		
Machine model.	Serial Number	Parts Name	Program No.
L12XII (LFV)	-	Shaft A.	-
Material.	Material Dia.	GB/GBL Type	Collection Method
Brass	Ø10.0	GB	-
Collet Chuck/Guide Bush Specification			Cutting Oil
Main Ø 12.0	GB Ø10.0	Back Ø 6.0	NA-132T
Cycle Time.	Date.	Preson in change	Processing Direction
-	27.Aug.2024	-	

A:machining process B:insert model number C:tool holder/gang rotary tool
D:turret holder/gang tool holder E:sleeve/rego F:remarks G:remaks



T01	A	CUT-OFF	T05	A	BACK TURNING	T11	A	T31	A	OD TURNING	
	B	K15ER Z1,5-12-R1 / 8M / Whizcut		B	K15ER VLR12-05 / 8M / Whizcut		B		B	K15ER VLR12-05 / 8M / Whizcut	
	C	WSK15ER 1010K-2B / Whizcut		C	WSK15ER 1010K-2P / Whizcut		C		DSK15ER 0750M-2C / Whizcut		
	D	GTF7010		D	GTF7010		D		GDF7001	D	U152B
	E			E			E			E	
	F			F			F			F	
	G			G			G			G	
T02	A	OD TURNING R	T08	A	CROSS-RACK CUTTER	T12	A	T32	A		
	B	J15ER D12-1-3 / 8M / Whizcut		B	CUTTER M0.3/ α 20°/Z/AA/PVD [OGASAWARA]		B		B		
	C	WSJ15ER 1010K-8T / Whizcut		C			C				
	D	GTF7010		D	U30B		D		GDF7001	D	
	E			E	ER8 ø5.0		E			E	
	F			F			F			F	
	G			G			G			G	
T03	A	FRONT TURNING F		A		T13	A	T33	A		
	B	J15ER D12-0 / 8M / Whizcut		B			B		B		
	C	WSJ15ER 1010K-8T / Whizcut		C			C				
	D	GTF7010		D			D		GDF7001	D	
	E			E			E			E	
	F			F			F			F	
	G			G			G			G	
T04	A	OD GROOVE		A			A	T34	A		
	B	J15ER A12-12-05 8M / Whizcut		B			B		B		
	C	WSJ15ER 1010K-8T / Whizcut		C			C				
	D	GTF7010		D			D		GDF7001	D	
	E			E			E			E	
	F			F			F			F	
	G			G			G			G	

CITIZEN TOOLING SHEET			
Citizen machinery asia Private show 2024.Aug.			
Machine model.	Serial Number	Parts Name	Program No.
M532VII (LFV)	-	INOUT SHAFT	P.2
Material.	Material Dia.	GB/GBL Type	Collection Method
SS400	Ø32.0	GBL Type	Knock-out jig for through-hole workpiece
Collet Chuck/Guide Bush Specification			Cutting Oil
Main Ø32.0	GB -	Back 22.0	-
Cycle Time.	Date.	Preson in change	Processing Direction
-	27.Aug.2024	-	
A:machining process B:insert model number C:tool holder/gang rotary tool			Note : Red line color is LFV cutting.
D:turret holder/gang tool holder E:sleeve/regro F:remarks G:remaks			



T01	A	CUT OFF W3.0	T07	A	CROSS 3D CHAMFER	T21	A	END-FACE CENTERING	T34	A	FLAT DRILL Ø12.0
	B	DX18-3E300N02-CF5 WSM23S [Walter]		B	MC501-06.0A4L-WJ30TF [Walter]		B	K1161-2 [Walter]		B	DC118-02-12.000A1-WJ30ET [Walter]
	C	G4014-1616L-3T17DX18-P [Walter]		C			C			C	
	D	GTF6216		D	U34B		D	CDF1401		D	GDF1701
	E			E	GSC1310 / ER16 Ø6.0		E	ER16 Ø5.0		E	ER20 Ø12.0
	F			F			F			F	
	G			G			G			G	
T02	A	OD TURNING ROUGH R0.4	T08	A	CROSS SLITTING CUTTER W2.0	T23	A	CROSS-BALL ENDMILL R1.5	T36	A	ID THREAD M22x1.5
	B	WL17-VC0504N-MP4 WPP20G [Walter]		B	P10.0200.02 G X800 [Simtek]		B	VQ4WBR0150N08E280 [Mitsubishi]		B	NTS-IR-16 1.5ISO WXP20 [Walter]
	C	W1011-1616R-WL17-S-P [Walter]		C	P10.1006.15 A ST [Simtek]		C			C	A20Q-NTS-IR16-16 [Walter]
	D	GTF6216		D	U34B		D	KSC113 (REVERSE)		D	GDF1701
	E			E	GSC1310 / ER16 Ø10.0		E	ER20 Ø6.0		E	
	F			F			F			F	
	G			G			G			G	
T03	A	OD TURNING FININSH R0.2		A		T24	A	CROSS-SLITTING CUTTER W2.0	T38	A	ID BORING
	B	WL17-VC0502N-FM4 WSM20S [Walter]		B			B	P10.0200.02 G X800 [Simtek]		B	CCGT060204-FN2 WNN10 [Walter]
	C	W1011-1616R-WL17-S-P [Walter]		C			C	P10.1006.15 A ST [Simtek]		C	A10K-SCLCL06 [Walter]
	D	GTF6216		D			D			D	GDF1701
	E			E			E	ER20 Ø10.0		E	
	F			F			F			F	
	G			G			G			G	
T04	A	OD GROOVE R2.5		A		T25	A	CROSS DRILL Ø4.65	T39	A	FRONT TURNING
	x	MX22-4E500N25-RF5 WSM23G [Walter]		B			B	EX-GDR Ø4.65 [OSG]		B	DCGT11T302MFP-SK / PR1205 / KYOCERA
	C	G3011-1616R-MX22-4-P [Walter]		C			C			C	S25K-SDUCL11 / KYICERA
	D	GTF6216		D			D	KSC213 (REVERSE)		D	GDF1701
	E			E			E	ER20 Ø6.0		E	
	F			F			F			F	
	G			G			G			G	
T05	A	OD GROOVE W3.0		A		T26	A	CROSS DRILL Ø5.0		A	
	B	MX22-2E300N02-GD8 WSM23S [Walter]		B			B	DC180-03-05.000A1-WJ30EZ [Walter]		B	
	C	G3011-1616R-MX22-2 [Walter]		C			C		C		
	D	GTF6216		D			D	KSC213 (REVERSE)	D		
	E			E			E	ER20 Ø6.0	E		
	F			F			F		F		
	G	DX18-3E300N02-CF5 WSM23S		G			G		G		
T06	A	CROSS CENTERING		A		T28	A	HOB CUTTING M1.0		A	
	B	K1161-2 [Walter]		B			B	YAMADA TOOL		B	
	C			C			C		C		
	D	U34B		D			D	KSH432	D		
	E	GSC1310 / ER16 Ø5.0		E			E		E		
	F			F			F		F		
	G			G			G		G		

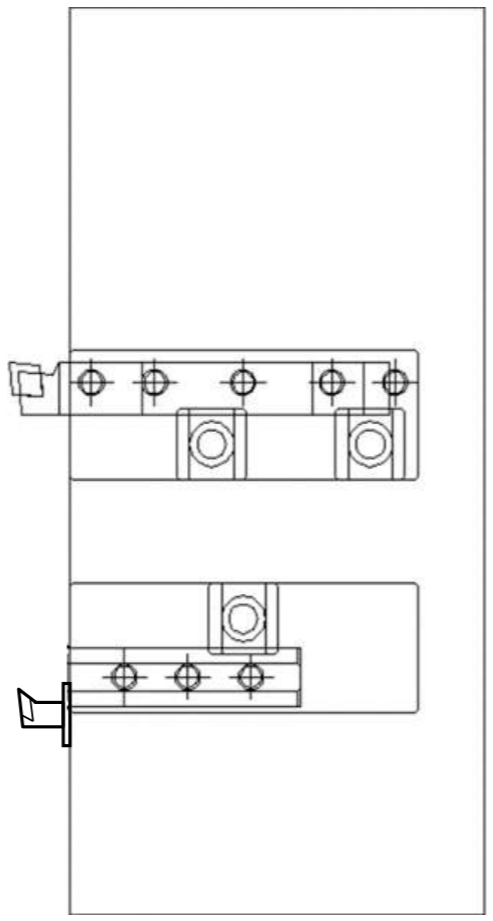
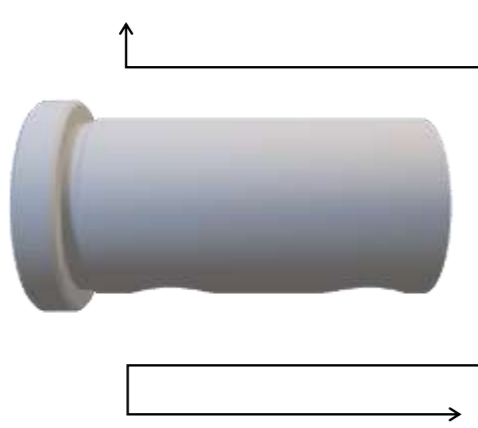
TYPE

GN3200

TOOLING SHEET



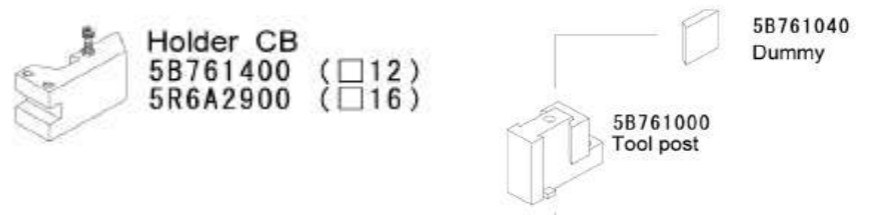
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										27.Aug.2024		-		1/2		-		-														
CYCLE TIME			Power chuck dia. 30.00 mm. 															OP. <input type="checkbox"/> Collet chuck (pull type) <input type="checkbox"/> Collet chuck (fixed type) <input type="checkbox"/> Fine precision chuck <input checked="" type="checkbox"/> Power chuck <input type="checkbox"/> Diaphragm chuck														
- (sec)																																
PART No.																																
PART NAME																																
ROUND HOLE BUSH																																
MATERIAL																																
Hrdness Steel (45-60HRC)																																
MATERIAL SIZE																																
DIA.																																
30.0 x L=50.0 (mm)																																
NOTE																																
As processing cycle time can be longer than planned it																																
Max.rpm L-sp 6000, HD2 None																																
Rev tool HD1. 5000, HD2. None																																
CUTTING FLUID																																
OP.1											OP.2											NECESSARY										
SP.	POS.	OPERATION	Cutting Dia. (mm)	Spindle Speed (rpm)	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Length (mm)	Cutting Time (sec)	Idle Time (sec)	Over Lap (X)	SP.	POS.	OPEATION	Cutting Dia. (mm)	Spindle Speed (rpm)	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Length (mm)	Cutting Time (sec)	Idle Time (sec)	Over Lap (X)											
1	1	FACING & OD TURNING																														
1	2	REAR TURNING																														
		UNLOAD & LOAD PART																														
			Cycle time	0.0	Total	0.0	Over lap	0.0	Sub total	0.0				Total	0.0	Over lap	0.0	Sub total	0.0													



Station 1 : OD TURNING (CBN)

Holder : PCLCR1212-K09X / SUMITOMO

Insert : CCGW09T304-BNC2125



Station 2 : ID BORING (CBN)

Holder : B12M-STUPR1103-16 / SUMITOMO

Insert : 3NC-TPGW110304-BNC2125 / SUMITOMO



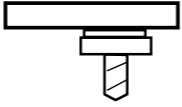





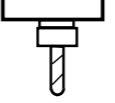
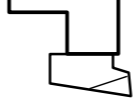
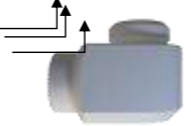

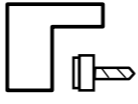
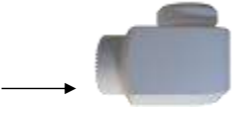



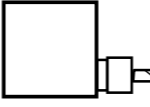


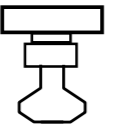




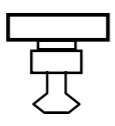
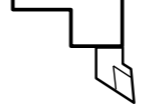



Station 3 :

Holder :

Insert :

CUSTOMER Citizen machinery asia Private show 2024.Aug.											DISTRIBUTOR				DATE 27.Aug.2024		TS No. -		PAGE 1/2		CHECK		DRAWN -						
CYCLE TIME - (sec)		Main Spindle Collet size DIA.50.8 mm R SP. OPERATION →											Special Jaw. L. SP. OPERATION ←				OPTION <input checked="" type="checkbox"/> COLLET CHUCK L (Din 177E) <input type="checkbox"/> COLLET CHUCK R (Din 173E) <input type="checkbox"/> POWER CHUCK L "6 (B206) <input checked="" type="checkbox"/> POWER CHUCK R "5 (B205) <input type="checkbox"/> X-SPINDLE UNIT(ER20) <input type="checkbox"/> Z-SPINDLE UNIT(ER20) <input checked="" type="checkbox"/> X-SPINDLE UNIT(ER25) <input type="checkbox"/> Z-SPINDLE UNIT(ER25) <input type="checkbox"/> ZW-SPINDLE UNIT(ER20-11) <input type="checkbox"/> ZW-SPINDLE UNIT(ER16-16) <input type="checkbox"/> HD-2 X-SPINDLE UNIT(ER16) <input type="checkbox"/> HD-2 Z-SPINDLE UNIT(ER16)												
PART No. -																													
PART NAME -																													
MATERIAL A6063																													
MATERIAL SIZE DIA. 50.8 (mm)																													
NOTE As processing cycle time can be longer than planned it Max.rpm L-sp 5000, R-sp 5000 Rev tool HD1. 6000, HD2. 3000																													
CUTTING FLUID OIL																													
HD.1											HD.2											NECESSARY BAR FEEDER INTERFACE WORK EJECTOR PARTS CONVEYOR PARTS CATCHER							
SP.	POS.	OPERATION	Cutting Dia. (mm)	Spindle Speed (rpm)	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Length (mm)	Cutting Time (sec)	Idle Time (sec)	Over Lap (X)	SP.	POS.	OPEATION	Cutting Dia. (mm)	Spindle Speed (rpm)	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Length (mm)	Cutting Time (sec)	Idle Time (sec)	Over Lap (X)								
L	1(1)	Stopper									R	2	OD TURNING R														X		
L	2	X-sp Milling R									R	3	DRILL															X	
L	3	X-sp Milling F									R	5	BORING R															X	
L	4	X-sp Milling Groove									R	6	OD TURNING F															X	
L	5	X-sp Milling V chamfer Cutter									R	7	BORING F															X	
L	6	X-sp Thread mill									R	1	X-SP center drill															X	
L	7	X-sp Ball milling 1									R	4	Z-sp Ball deburr															X	
L	8	X-sp Ball milling label																											
L	10	X-sp Polygon cut											PARTS CATCHER															X	
L	12	R-SP ADVANCE CUT OFF W4 CUT OFF CONFIRMATION R-SP RETURN																											
			Cycle time 0.0 Total 0.0 Over lap 0.0 Sub total 0.0											Total 0.0 Over lap 0.0 Sub total 0.0															

HD.1		HD.2		PAGE	2/2			
1X780320 STOPPER	T1	 	T7	 	T1	 	T7	NOTE
1X784300		2X785600 (ER20) TEB120A2-22/35C12M110 TUNGLOY		DV70B000		DV73B000 A12M-SCLCXR06-D140 TUNGLOY CXMU060304L-TS AH725 TUNGLOY		
	T2	BNJ651SY6  	T8	 	T2		T8	
2W785150 (ER25) TECA120B2-25C12-83 TUNGLOY		2X785600 (ER20) TEB004A2-006/02C4M45 TUNGLOY		DV73A000 JSDJ2XR2020H07 TUNGLOY DXGU070302MFL-JS AH725 TUNGLOY				
	T3		T9	 	T3			
2W785150 (ER25) TECA140B3-30C14-83 TUNGLOY				DV73B000 TID120R14-3.5 TUNGLOY DMN120 KS15F TUNGLOY				
	T4	 	T10	 	T4			
2W785150 (ER25) VST217W1.00R005-4S08 GH370 TUNGLOY VSSD12L090S08-S TUNGLOY		2X785600 (ER20) VST217L01.70A45-4S08 GH370 TUNGLOY VSSD12L090S08-S TUNGLOY		DV70B000				
	T5		T11	 	T5			
2X785600 (ER20) VST217L01.70A45-4S08 GH370 TUNGLOY VSSD12L090S08-S TUNGLOY				DV73B000 A12M-SCLCXR06-D140 TUNGLOY CXMU060304L-TS AH725 TUNGLOY				
	T6	 	T12	 	T6			
2X785600 (ER20) VMT100L06IS10-4S05 AH725 TUNGLOY VSSD08L060S05-S TUNGLOY		High feed cutoff NO USE		DV73A000 AVJNR2020K16-A TUNGLOY				

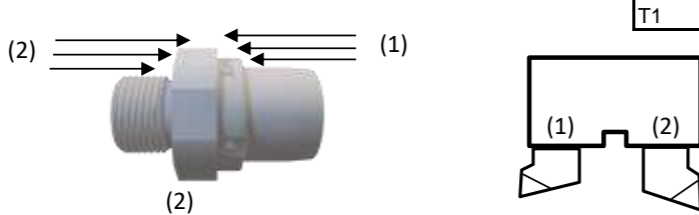
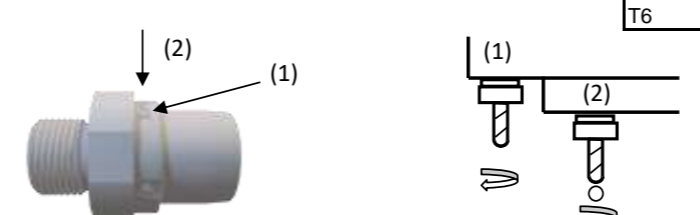
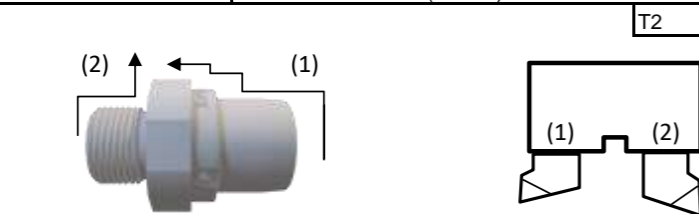
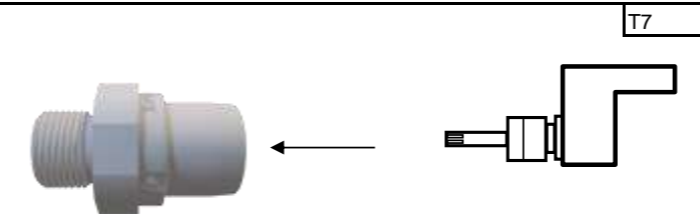
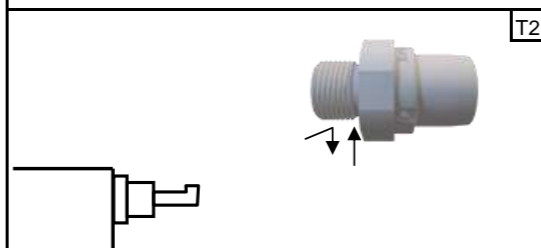
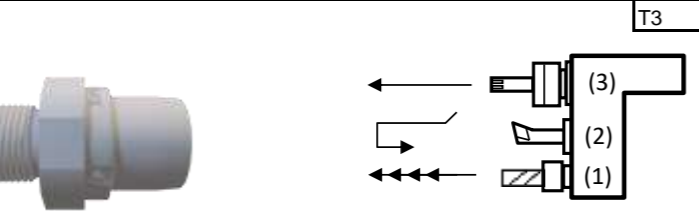

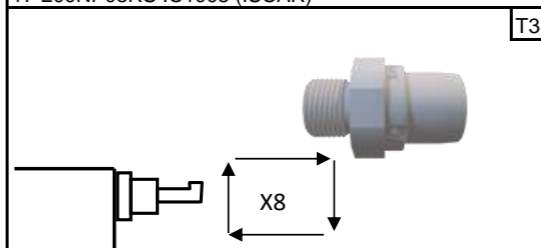

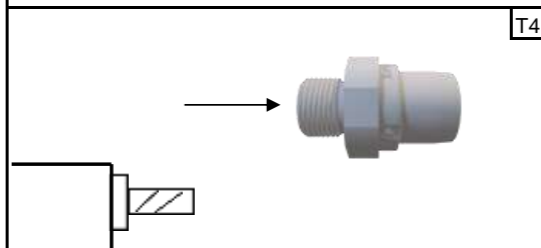
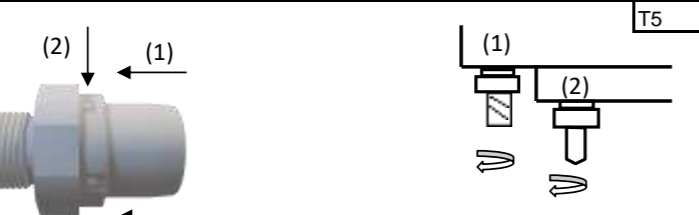

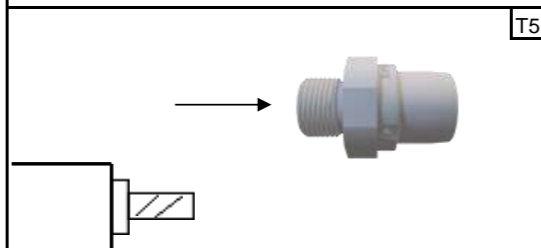
TYPE

BNA42

TOOLING SHEET



CUSTOMER Citizen machinery asia Private show 2024.Aug.										DISTRIBUTOR					DATE	TS No.	PAGE	CHECK	DRAWN							
															27.Aug.2024	-	1/2	-	-							
CYCLE TIME - (sec)		Main Collet size DIA.31.0mm R SP. OPERATION →					Sub Eccentric Collet chuck size DIA.28.23 mm ← L. SP. OPERATION					OPTION <input checked="" type="checkbox"/> COLLET CHUCK L (Din 173E) <input checked="" type="checkbox"/> COLLET CHUCK R (Din 173E) <input type="checkbox"/> POWER CHUCK L "5 (B205) <input type="checkbox"/> POWER CHUCK R "4 (B204) <input type="checkbox"/> X-SP UNIT(ER16) <input type="checkbox"/> Z-SP UNIT(ER16) <input type="checkbox"/> ZS-SP UNIT(ER16) <input type="checkbox"/> ZW-SP UNIT(ER11) <input checked="" type="checkbox"/> 2 XW-SP UNIT(ER11) <input type="checkbox"/> ZF-SP UNIT(ER11) <input type="checkbox"/> XF-SP UNIT(ER11) <input type="checkbox"/> ZF-SP UNIT(ER11)<2Face> <input type="checkbox"/> ZW-SP UNIT(ER11)<2Face>														
PART No. -																										
PART NAME -																										
METERIAL SUM24L																										
METERIAL SIZE DIA. 31.0 (mm)																										
NOTE As processing cycle time can be longer than planned it Max.rpm L-sp 6000, R-sp 5000 Rev tool HD1. 5000, HD2. None																										
CUTTING FLUID																										
HD.1											HD.2											NECESSARY BAR FEEDER INTERFACE WORK EJECTOR PARTS CONVEYOR PARTS CATCHER POLYGON CAP				
SP.	POS.	OPERATION	Cutting Dia. (mm)	Spindle Speed (rpm)	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Length (mm)	Cutting Time (sec)	Idle Time (sec)	Over Lap (X)	SP.	POS.	OPEATION	Cutting Dia. (mm)	Spindle Speed (rpm)	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Length (mm)	Cutting Time (sec)	Idle Time (sec)	Over Lap (X)					
L		Stopper																								
L	1(1)	OD turning R									R	1	OD Turning R													
L	1(2)	OD Turning F									R	2	OD Turning F													
L	2	Drill 10.8									R	3	OD groove													
L	3	BORING									R	4	OD Thread													
L	4	OD sugino super roll									R	2	OD Turning Deburr													
L	5(1)	X-Sp milling									R	3	OD groove Deburr													
L	5(2)	X-Sp center drill									R	4	OD Thread Deburr													
L	6(1)	X-Sp Tap																								
L	6(2)	X-Sp Ball milling																								
L	7	ID sugino super roll																								
											L		Polaygon Cuting													
		R-SP ADVANCE																								
L	8	CUT-OFF																								
		CUT-OFF CONFIRMATION																								
		R-SP RETURN																								
			Cycle time	0.0	Total	0.0	Over lap	0.0	Sub total	0.0				Total	0.0	Over lap	0.0	Sub total	0.0							

HD.1		HD.2		PAGE	2/2
CL73A001					NOTE
	CDS-020 DRILL	TUNGL TUNGLOY			
	DNMG150408-M3M (ISCAR)				
CG73P000					
		SUGINO SUPERROLL	17-200NP08RS IC1008 (ISCAR)		
DCMT11T302PP	DNMG150402GP (KYOCERA)				
CG73P000					
	BML25-04	CHGP52-3T	TUNGLOY		
	A04F SCLCR03-D050	CHTBR2020-52	TUNGLOY		
	CCGT03X104-JS AH730				
CG73L000					
	SUGINO SUPERROLL		ZPB-TH 5.0 (MOLDINO)		
					
	ENDMILL 6.0	SUB PLOYGON	2ZDK100HP-1.5D (KYOCERA)		
	CRNTER DRILL	GBA43R330-030GM (KYOCERA)			
TIN-NC-LDS			JBTR07290015-D050 (TUNGALOY)		

TYPE

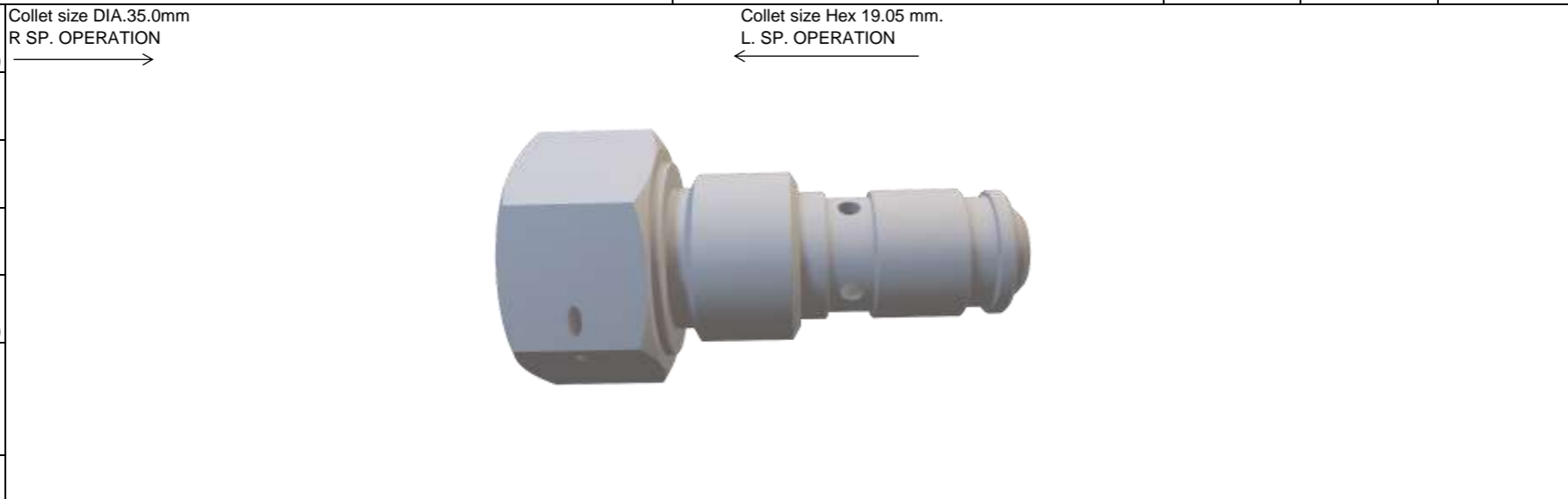
BNA42SY (LFV)

TOOLING SHEET



CUSTOMER Citizen machinery asia Private show 2024.Aug.	DISTRIBUTOR	DATE	TS No.	PAGE	CHECK	DRAWN
		27.Aug.2024	-	1/2		-

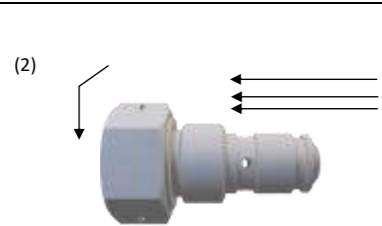
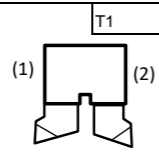

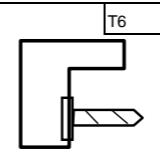
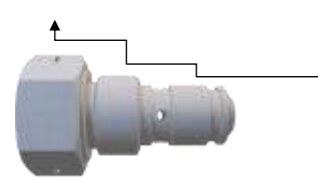
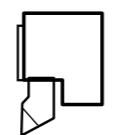

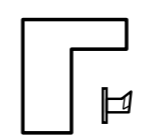


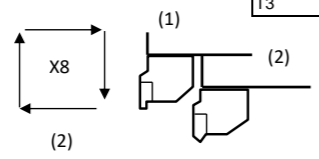

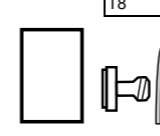

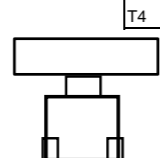
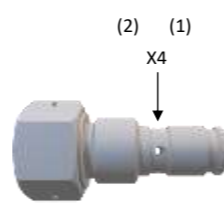
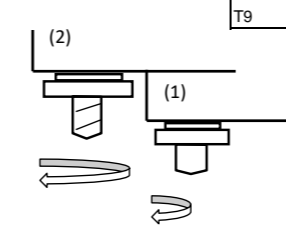
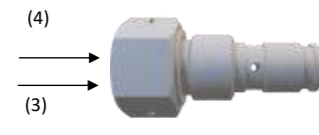
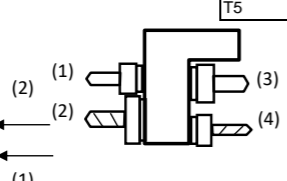
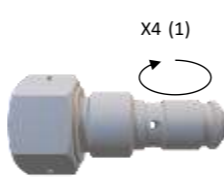
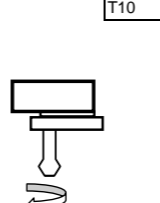
CYCLE TIME 0.0 (sec)	Collet size DIA.35.0mm R SP. OPERATION →
PART No.	
PART NAME	
METERIAL SUS304	
METERIAL SIZE DIA. 35.0 (mm)	
NOTE As processing cycle time can be longer than planned it Max.rpm L-sp 6000, R-sp 5000 Rev tool HD1. 5000, HD2. None	
CUTTING FLUID Oil	



- OPTION
- COLLET CHUCK L (DIN173E)
 - COLLET CHUCK R (DIN173E)
 - POWER CHUCK L "5 (B205)
 - POWER CHUCK R "4 (B204)
 - X-SP UNIT(ER16)
 - X-SP UNIT(ER20)
 - Z-SP UNIT(ER16)
 - Z-SP UNIT(ER20)
 - ZS-SP UNIT(ER16)
 - 2 XW-SP UNIT(ER11)
 - ZW-SP UNIT(ER11)
 - ZW-SP UNIT(ER11)<2Face>
 - XF-SP UNIT(ER11)
 - ZF-SP UNIT(ER11)
 - ZF-SP UNIT(ER11)<2Face>

HD.1											HD.1											
SP.	POS.	OPERATION	Cutting Dia. (mm)	Spindle Speed (rpm)	Cutting Speed (m/min)	Feed (mm/min)	Cutting Length (mm)	Cutting Time (sec)	Idle Time (sec)	Over Lap (X)	SP.	POS.	OPERATION	Cutting Dia. (mm)	Spindle Speed (rpm)	Cutting Speed (m/min)	Feed (mm/min)	Cutting Length (mm)	Cutting Time (sec)	Idle Time (sec)	Over Lap (X)	
L	2(1)	Stopper																				
L	1(1)	OD turning R LFV																				
R	1(2)	SUB Facing																				
L	2	OD turning F LFV																				
L	3(1)	OD Groove																				
L	3(2)	OD thread																				
L	4	X-SP FACMILL Ø40.0																				
L	5(1)	Center Drill										R	Center drill									
L	5(2)	Drill										R	Drill									
L	6(1)	Drill 10.0																				
R	7	Sub ID boring F																				
R	8	Sub ID Thread mill																				
L	9(1)	X-SP Center drill																				
L	9(2)	X-sp Drill																				
L	10	X-SP 3D Chamfer																				
L	2	OD turning Deburr																				
		R-SP ADVANCE																				
L	12(2)	CUT OFF																				
		CUT OFF CONFIRMATION																				
		R-SP RETURN																				
Cycle time			0.0	Total	0.0	Over lap	0.0	Sub total	0.0		Total			0.0	Over lap	0.0	Sub total	0.0				

- NECESSARY
- WORK EJECTOR
 - PARTS CONVEYOR
 - PARTS CATCHER

HD.1			PAGE	2/2	
					T11
EH73B000		CG73P000			
PDJNR2020K17 (MITSUBISHI)	SDJCR2020K11 (KYOCERA)	DH423100 3XD (DREAM)			
DNMG150408-SF AH6225 (TUNGALOY)	DCMT11T304 FM4 (WALTER)				
					
EH73A000		CG73P000			EH73H000
JSDJ2XR2020H07 (TUNGALOY)					G1011.2012L-3T21GX24 (WALTER)
DXGU070304MFL-JS SH725 (TUNGALOY)		TPGT080202MP-CF PR1535 (KYOCERA)			GX24-2E300N02-CF5 (WALTER)
					NOTE
EL73A001		CG70D000			
GYHR2020K00-M25R (MITSUBISHI)	KTNR2020K-16 (KYOCERA)	EDT-1.25-16-TH(MOLDINO)			
GY2M200D020N-GS VP10RT (MITSUBISHI)	16EL100ISO (KYOCERA)				
					
SPECIAL		CL70A000			
M5130-040-B16-06-12		TIN-NC-LDS 4.0 (OSG)			
BCMT120408R-G55 WKP35G (WALTER)		EX-SUS-GDS 3.0 (OSG)			
					
CG73H000		EH70A000			
DN2HC0800-ATH (MOLDINO)	DN2HC1000-ATH (MOLDINO)	MC 03025 C6 A90 MT8 (CARMEX)			