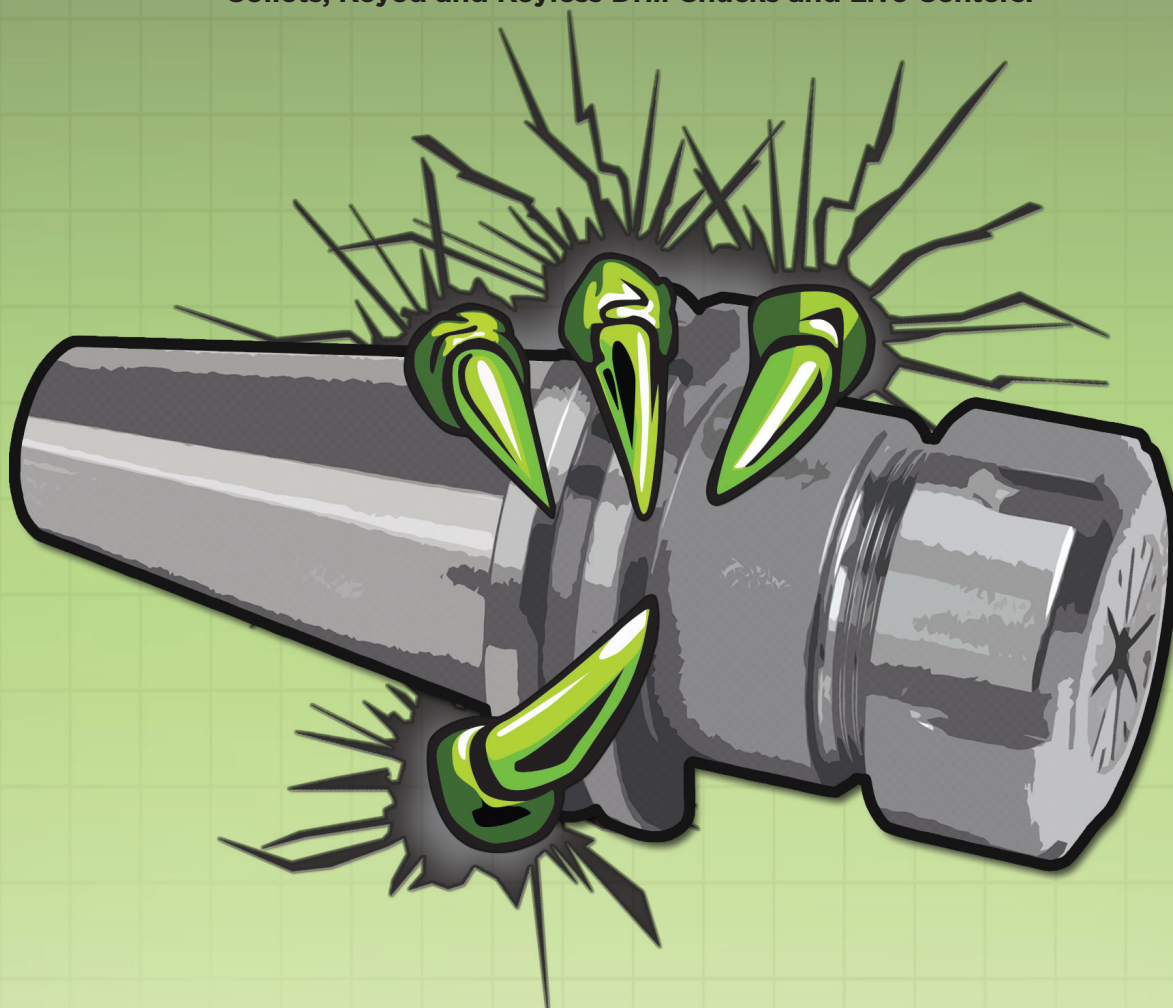


TALON™

PRECISION TOOLING

Excellence in Machine Tool Accessories. Precision Rotary Tool Holders, Collets, Keyed and Keyless Drill Chucks and Live Centers.



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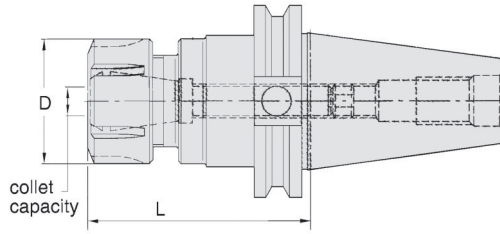
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CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

ER Collet Chucks



- Taper to Taper Runout <0.0002"
 - Coolant thru the Spindle
 - Balanced G6.3@15,000 RPM
 - Taper Shank ground to AT3 accuracy or better
- Note: DIN AD+B Flange Coolant available from STOCK
G2.5@20,000 RPM is available from STOCK



CAT40

Part Number	Collet Series	Collet Cap Min.- Max.	Nut	D	L	Wt. Lbs.	Locknut	Wrench	Stop Screw
CV40ER16250	16ER	0.02 - 0.406	Hex	1.10	2.50	2.4	LNHER16M	OEW25M	BSS044038G
CV40ER16400	16ER	0.02 - 0.406	Hex	1.10	4.00	3.2	LNHER16M	OEW25M	BSS044038G
CV40ER16500	16ER	0.02 - 0.406	Hex	1.10	5.00	3.2	LNHER16M	OEW25M	BSS044038G
CV40ER20250	20ER	0.02 - 0.512	Hex	1.34	2.50	2.4	LNHER20M	OEW30M	BSS056041G
CV40ER20400	20ER	0.02 - 0.512	Hex	1.34	4.00	3.5	LNHER20M	OEW30M	BSS056041G
CV40ER20600	20ER	0.02 - 0.512	Hex	1.34	6.00	3.7	LNHER20M	OEW30M	BSS056041G
CV40ER25250	25ER	0.04 - 0.630	Round	1.65	2.50	2.6	LNER25M	ER25WM	BSS075041G
CV40ER25400	25ER	0.04 - 0.630	Round	1.65	4.00	4.5	LNER25M	ER25WM	BSS075041G
CV40ER25600	25ER	0.04 - 0.630	Round	1.65	6.00	4.4	LNER25M	ER25WM	BSS075041G
CV40ER32275	32ER	0.04 - 0.810	Round	1.97	2.75	2.6	LNER32M	ER32WM	BSS094041G
CV40ER32400	32ER	0.04 - 0.810	Round	1.97	4.00	6.8	LNER32M	ER32WM	BSS094041G
CV40ER32600	32ER	0.04 - 0.810	Round	1.97	6.00	4.4	LNER32M	ER32WM	BSS094041G
CV40ER40300	40ER	0.12 - 1.00	Round	2.48	3.00	3.0	LNER40M	ER40WM	BSS112041G
CV40ER40600	40ER	0.12 - 1.00	Round	2.48	6.00	3.0	LNER40M	ER40WM	BSS112041G

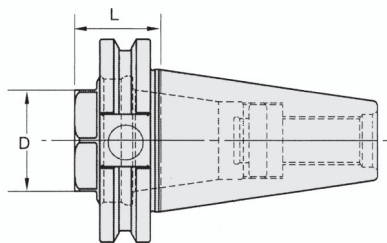
CAT50

Part Number	Collet Series	Collet Cap Min.- Max.	Nut	D	L	Wt. Lbs.	Locknut	Wrench	Stop Screw
CV50ER16400	16ER	0.02 - 0.41	Hex	1.10	4.00	7.3	LNHER16M	OEW25M	BSS044038G
CV50ER16600	16ER	0.02 - 0.41	Hex	1.10	6.00	7.9	LNHER16M	OEW25M	BSS044038G
CV50ER20400	20ER	0.02 - 0.50	Hex	1.34	4.00	7.4	LNHER20M	OEW30M	BSS056041G
CV50ER20600	20ER	0.02 - 0.50	Hex	1.34	6.00	8.1	LNHER20M	OEW30M	BSS056041G
CV50ER25400	25ER	0.04 - 0.63	Round	1.65	4.00	7.8	LNER25M	ER25WM	BSS075041G
CV50ER25600	25ER	0.04 - 0.63	Round	1.65	6.00	8.8	LNER25M	ER25WM	BSS075041G
CV50ER32400	32ER	0.04 - 0.81	Round	1.97	4.00	8.1	LNER32M	ER32WM	BSS094041G
CV50ER32600	32ER	0.04 - 0.81	Round	1.97	6.00	9.5	LNER32M	ER32WM	BSS094041G
CV50ER40400	40ER	0.12 - 1.00	Round	2.48	4.00	8.9	LNER40M	ER40WM	BSS112041G
CV50ER40600	40ER	0.12 - 1.00	Round	2.48	6.00	11.8	LNER40M	ER40WM	BSS112041G

CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

ER Collet Chucks, Stubby



- Taper to Taper Runout <0.0002"
 - Coolant thru the Spindle
 - Balanced G6.3@15,000 RPM
 - Taper Shank ground to AT3 accuracy or better
- Note: DIN AD+B Flange Coolant available from STOCK

CAT40

Part Number	Collet Series	Collet Cap Min.- Max.	Nut	D	L	Wt. Lbs.	Locknut	Wrench	Stop Screw
CV40ZSER32106	32ER	0.08 - 0.81	Hex	1.41	1.06	1.4	LNECSER32M	OEW32M	BSS094041G
CV40SER32169	32ER	0.08 - 0.81	Hex	1.41	1.69	1.7	LNECSER32M	OEW32M	BSS094041G

CAT50

Part Number	Collet Series	Collet Cap Min.- Max.	Nut	D	L	Wt. Lbs.	Locknut	Wrench	Stop Screw
CV50SER32169	32ER	0.08 - 0.81	Hex	1.41	1.69	6.27	LNECSER32M	OEW32M	BSS094041G

ER Collet Chuck Spare Wrenches

Nut Size and Type	Wrench Part Number	Wrench Part Number	Wrench Part Number
ER16 - HEX	OEW25M		
ER20 - HEX	OEW30M		
ER25 - ROUND		ER25WM	ER25U
ER32 - ROUND	OEW32M	ER32WM	ER32U
ER40 - ROUND		ER40WM	ER40U



CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

TG Collet Chucks

Fig. 1

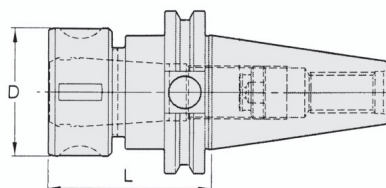
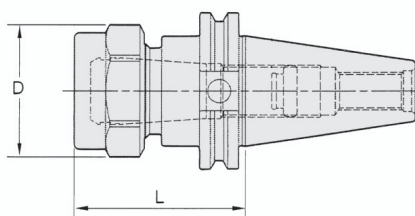


Fig. 2



- Taper to Taper Runout <0.0002"
- Coolant thru the Spindle
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better

Fig. 1



Fig. 2



CAT40

Part Number	Collet Series	Collet Cap Min.- Max.	Fig.	D	L	Wt. Lbs.	Locknut	Wrench	Stop Screw
CV40TG075254G	75TG	3/64 - 3/4	1	1.97	2.54	2.50	LNA075M	HSW45M	BSS081041G
CV40TG075275	75TG	3/64 - 3/4	2	2.09	2.75	2.41	NPA075M	OEW188	BSS081041G
CV40TG075579G	75TG	3/64 - 3/4	1	1.97	5.79	4.40	LNA075M	HSW45M	BSS081041G
CV40TG075600	75TG	3/64 - 3/4	2	2.09	6.00	4.40	NPA075M	OEW188	BSS081041G
CV40TG075800G	75TG	3/64 - 3/4	1	1.97	8.00	5.54	LNA075M	HSW45M	BSS081041G
CV40TG100300	100TG	5/64 - 1	2	2.44	3.00	2.77	NPA100M	OEW225	BSS112041G
CV40TG100400	100TG	5/64 - 1	2	2.44	4.00	3.28	NPA100M	OEW225	BSS112041G
CV40TG100276G	100TG	5/64 - 1	1	2.36	2.76	2.69	LNA100M	HSW58M	BSS112041G
CV40TG100376G	100TG	5/64 - 1	1	2.36	3.76	3.23	LNA100M	HSW58M	BSS112041G
CV40TG100576G	100TG	5/64 - 1	1	2.36	5.76	5.52	LNA100M	HSW58M	BSS112041G
CV40TG100600	100TG	5/64 - 1	2	2.44	6.00	5.4	NPA100M	OEW225	BSS112041G
CV40TG150488	150TG	23/64 - 1 1/2	1	3.50	4.88	5.72	NPA150M	HSW80M	BSS125050G

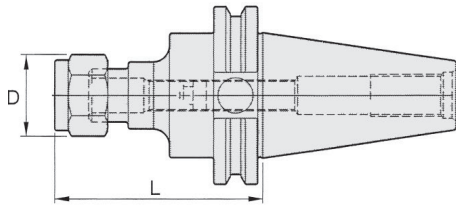
CAT50

Part Number	Collet Series	Collet Cap Min.- Max.	Nut	D	L	Wt. Lbs.	Locknut	Wrench	Stop Screw
CV50TG075254G	75TG	3/64 - 3/4	Round	1.97	2.54	7.3	LNA075M	HSW45M	BSS081041G
CV50TG075275	75TG	3/64 - 3/4	Hex	2.09	2.75	7.3	NPA075M	OEW188M	BSS081041G
CV50TG075579G	75TG	3/64 - 3/4	Round	1.97	5.79	9.7	LNA075M	HSW45M	BSS081041G
CV50TG075600	75TG	3/64 - 3/4	Hex	2.09	6.00	9.7	NPA075M	OEW188M	BSS081041G
CV50TG75800G	75TG	3/64 - 3/4	Round	1.97	8.00	11.5	LNA075M	HSW45M	BSS081041G
CV50TG0751000G	75TG	3/64 - 3/4	Round	1.97	10.0	13.6	LNA075M	HSW45M	BSS081041G
CV50TG100300	100TG	5/64 - 1	Hex	2.44	3.00	7.16	NPA100M	OEW225	BSS112041G
CV50TG100400	100TG	5/64 - 1	Hex	2.44	4.00	8.0	NPA100M	OEW225	BSS112041G
CV50TG100600	100TG	5/64 - 1	Hex	2.44	6.00	9.76	NPA100M	OEW225	BSS112041G
CV50TG100326G	100TG	5/64 - 1	Round	2.36	3.26	7.61	LNA100M	HSW58M	BSS112041G
CV50TG150488	150TG	23/64 - 1 1/2	Round	3.48	4.88	10.1	NPA150M	HSW80M	BSS125050G

CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

DA Collet Chucks



- Taper to Taper Runout <0.0002"
- Coolant thru the Spindle
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better

CAT40

Part Number	Collet Series	Collet Cap Min.- Max.	D	L	Wt. Lbs.	Locknut	Wrench	Stop Screw
CV40DA208300	200DA	1/64 - 25/64	1.15	3.00	2.41	NPA208	OEW100	BSS044038G
CV40DA208500	200DA	1/64 - 25/64	1.15	5.00	3.05	NPA208	OEW100	BSS044038G
CV40DA188300	180DA	1/64 - 3/4	1.73	3.00	2.42	NPA188	OEW150	BSS081041G
CV40DA188600	180DA	1/64 - 3/4	1.73	6.00	3.60	NPA188	OEW150	BSS081041G

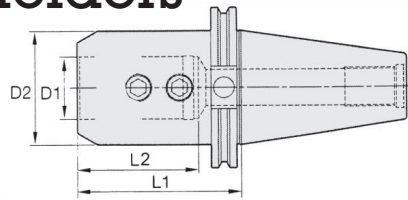
CAT50

Part Number	Collet Series	Collet Cap Min.- Max.	D	L	Wt. Lbs.	Locknut	Wrench	Stop Screw
CV50DA188300	180DA	1/64 - 3/4	1.73	3.00	7.03	NPA188	OEW150	BSS081041G
CV50DA188600	180DA	1/64 - 3/4	1.73	6.00	8.21	NPA188	OEW150	BSS081041G

CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

End Mill Holders



- Taper to Bore Runout <0.0002"
 - H5 Bore Tolerance
 - Coolant thru the Spindle
 - Balanced G6.3@15,000 RPM
 - Taper Shank ground to AT3 accuracy or better
- Note: DIN AD+B Flange Coolant available from STOCK
G2.5@20,000 RPM is available from STOCK

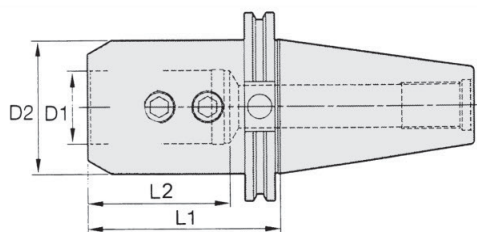
CAT40

Part Number	D1	D2	L1 Gage Length	L2	Wt. Lbs.	Clamping Screw	# of Clamp Screws	Wrench Allen Key
CV40ZEM012138	1/8	0.69	1.38	2.89	1.79	BS1045PKG	1	3/32
CV40EM012450	1/8	0.69	4.50	6.01	2.41	BS1045PKG	1	3/32
CV40ZEM018138	3/16	0.69	1.38	2.89	1.79	BS1045PKG	1	3/32
CV40EM018250	3/16	0.69	2.50	4.01	2.22	BS1045PKG	1	3/32
CV40EM018450	3/16	0.69	4.50	6.01	2.41	BS1045PKG	1	3/32
CV40ZEM025138	1/4	0.78	1.38	2.89	1.82	BELS025025PKG	1	1/8
CV40EM025250	1/4	1.00	2.50	4.01	2.35	BELS025025PKG	1	1/8
CV40EM025450	1/4	0.78	4.50	6.01	2.51	BELS025025PKG	1	1/8
CV40ZEM031138	5/16	1.00	1.38	2.89	1.85	BELS031031PKG	1	5/32
CV40EM031450	5/16	1.00	4.50	6.01	2.76	BELS031031PKG	1	5/32
CV40ZEM038138	3/8	1.00	1.38	2.89	1.85	BELS038031PKG	1	3/6
CV40EM038250	3/8	1.00	2.50	4.01	2.32	BELS038031PKG	1	3/16
CV40EM038450	3/8	1.00	4.50	6.01	2.69	BELS038031PKG	1	3/16
CV40EM038650	3/8	1.00	6.50	8.01	3.17	BELS038031PKG	1	3/16
CV40ZEM044175	7/16	1.25	1.75	3.26	2.00	BELS044038PKG	1	7/32
CV40EM044450	7/16	1.25	4.50	6.01	3.04	BELS044038PKG	1	7/32
CV40ZEM050175	1/2	1.75	1.75	3.26	2.27	BELS044038PKG	1	7/32
CV40EM050262	1/2	1.38	2.62	4.13	2.52	BELS044038PKG	1	7/32
CV40EM050462	1/2	1.25	4.62	6.13	3.05	BELS044038PKG	1	7/32
CV40EM050662	1/2	1.25	6.62	8.13	3.83	BELS044038PKG	1	7/32
CV40ZEM062175	5/8	1.75	1.75	3.56	2.19	BELS056050PKG	1	1/4
CV40EM062375	5/8	1.50	3.75	3.56	2.96	BELS056038PKG	1	1/4
CV40EM062575	5/8	1.63	5.75	3.56	4.21	BELS056050PKG	1	1/4
CV40ZEM075175	3/4	1.75	1.75	2.40	2.09	BELS062050PKG	1	5/16
CV40EM075375	3/4	1.75	3.75	3.94	3.21	BELS062050PKG	1	5/16
CV40EM075575	3/4	1.75	5.75	3.94	4.44	BELS062050PKG	1	5/16
CV40ZEM088175	7/8	1.88	1.75	2.27	2.31	BELS062050PKG	1	5/16
CV40EM088400	7/8	2.00	4.00	4.19	3.65	BELS062050PKG	1	5/16
CV40EM088600	7/8	1.88	6.00	4.19	4.86	BELS062050PKG	1	5/16
CV40ZEM100175	1	1.75	1.75	2.64	1.78	DWG ELS075044	2	3/8
CV40EM100400	1	2.00	4.00	4.43	3.39	BELS075056PKG	2	3/8
CV40EM100600	1	2.00	6.00	4.43	5.04	BELS075056PKG	2	3/8
CV40ZEM125200	1-1/4	2.25	2.00	2.35	2.25	BDWG ELS075044	2	3/8
CV40EM125425	1-1/4	2.50	4.25	2.39	4.96	BELS075062PKG	2	3/8
CV40EM125625	1-1/4	2.50	6.25	2.39	7.47	BELS075062PKG	2	3/8
CV40EM150462	1-1/2	2.75	4.63	2.82	5.80	BELS075069PKG	2	3/8
CV40EM150662	1-1/2	2.75	6.63	2.82	8.76	BELS075069PKG	2	3/8

CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

End Mill Holders



- Taper to Bore Runout <0.0002"
- H5 Bore Tolerance
- Coolant thru the Spindle
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better

Note: DIN AD+B Flange Coolant available from STOCK

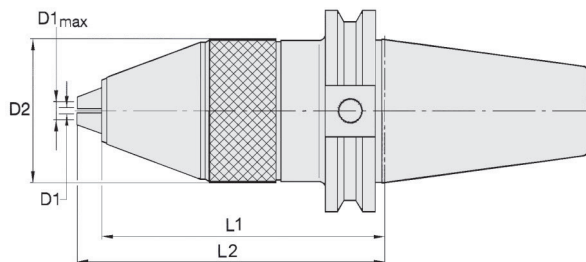
CAT50

Part Number	D1	D2	L1 Gage Length	L2	Wt. Lbs.	Clamping Screw	# of Clamp Screws	Wrench Allen Key
CV50EM018250	3/16	0.69	2.50	4.69	6.55	BS1045PKG	1	3/32
CV50EM018450	3/16	0.69	4.50	6.69	6.84	BS1045PKG	1	3/32
CV50EM025250	1/4	0.78	2.50	4.69	6.55	BELSO25025PKG	1	1/8
CV50EM025450	1/4	0.78	4.50	6.69	7.17	BELSO25025PKG	1	1/8
CV50EM031450	5/16	1.00	4.50	6.69	7.15	BELSO31031PKG	1	5/32
CV50EM038250	3/8	1.00	2.50	4.69	6.63	BELSO38031PKG	1	3/16
CV50EM038450	3/8	1.00	4.50	6.69	7.07	BELSO38031PKG	1	3/16
CV50EM038650	3/8	1.00	6.50	8.69	7.45	BELSO38031PKG	1	3/16
CV50ZEM044175	7/16	1.25	1.75	3.19	4.99	BELSO44038PKG	1	7/32
CV50EM044450	7/16	1.25	4.50	4.69	6.78	BELSO44038PKG	1	7/32
CV50EM050262	1/2	1.38	2.62	4.81	6.82	BELSO44038PKG	1	7/32
CV50EM050462	1/2	1.38	4.62	6.81	7.52	BELSO44038PKG	1	7/32
CV50EM050662	1/2	1.38	6.62	8.81	8.21	BELSO44038PKG	1	7/32
CV50EM062375	5/8	1.63	3.75	5.94	7.53	BELSO56038PKG	1	1/4
CV50EM062575	5/8	1.63	5.75	7.94	8.63	BELSO56050PKG	1	1/4
CV50EM075375	3/4	1.75	3.75	5.94	7.65	BELSO62050PKG	1	5/16
CV50EM075575	3/4	1.75	5.75	7.94	8.67	BELSO62050PKG	1	5/16
CV50EM088400	7/8	2.00	4.00	4.19	8.00	BELSO62050PKG	1	5/16
CV50EM088600	7/8	2.00	6.00	4.31	9.44	BELSO62050PKG	1	5/16
CV50EM100400	1	2.00	4.00	4.43	7.95	BELSO75056PKG	2	3/8
CV50EM100600	1	2.00	6.00	4.43	9.39	BELSO75056PKG	2	3/8
CV50EM125425	1-1/4	2.50	4.25	2.39	8.98	BELSO75062PKG	2	3/8
CV50EM125625	1-1/4	2.50	6.25	2.39	11.42	BELSO75062PKG	2	3/8
CV50EM150462	1-1/2	2.75	4.62	2.82	9.19	BELSO75069PKG	2	3/8
CV50EM150662	1-1/2	2.75	6.62	2.82	12.21	BELSO75069PKG	2	3/8
CV50EM200562	2	3.94	5.62	—	17.7	BELSO75069PKG	2	3/8

CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

Integral Shank Drill Chucks



- Very rigid & heavy duty design
- High accuracy and high RPM
- Wide gripping capacity
- Self tightening keyless operations
- Non-coolant thru
- Taper Shank ground to AT3 accuracy or better
- Draw Bar Threads: CAT40 5/8" - 11
CAT50 1" - 8

CAT40



Part Number	D1 Min.- Max.	D2	L1	L2	Wt. Lbs.	Wrench
CV40DC13M421	0.039 - 0.512	1.89	4.04	4.50	3.84	DKS-13S

CAT50



Part Number	D1 Min.- Max.	D2	L1	L2	Wt. Lbs.	Wrench
CV50DC13M421	0.039 - 0.512	1.98	4.04	4.50	7.85	DKS-13S

Replacement chucks available.

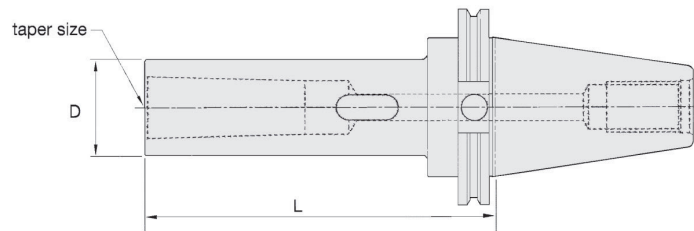


Please see page 28 for
H/V CNC Fixtures.

CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

Morse Taper Adapters



- Coolant thru the Spindle
- Taper Shank ground to AT3 accuracy or better

MT - CAT Form A

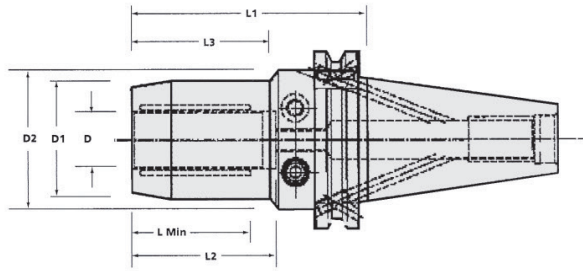
CAT40

Part Number	Taper Size	D	L	Wt. Lbs.
CV40MT1175	1	0.980	1.750	2.21
CV40MT2244	2	1.260	2.440	2.30
CV40MT3300	3	1.570	3.000	2.49
CV40MT4388	4	1.890	3.880	2.86

CAT50

Part Number	Taper Size	D	L	Wt. Lbs.
CV50MT1175	1	2.750	1.75	6.90
CV50MT2200	2	2.750	2.00	7.43
CV50MT3250	3	1.570	2.50	6.73
CV50MT4388	4	1.890	3.38	6.90
CV50MT5375	5	2.750	3.75	7.55

Hydraulic Milling Chucks



- Taper to Bore Runout <0.0001"
- Repeatability 0.003mm (3 micron)
- H5 Bore Tolerance
- DIN AD+B Coolant
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better

CAT40

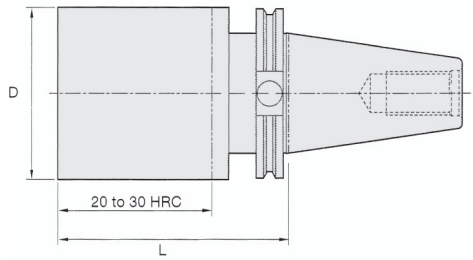
Part Number	D	D1	D2	L1	L2	L3	L Min.	Pressure Screw	Stop Screw	Wt. Lbs.
CV40SHYD075400	0.75	1.65	1.97	4.00	2.05	1.97	1.69	SHYDC-0717	CSS-0815M	3.53
CV40SHYD100462	1.00	2.09	1.97	4.62	2.32	1.97	1.81	SHYDC-0720	CSS-1015M	4.76

***WHILE STOCK LASTS**

CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

Boring Bar Blanks



- Taper Shank ground to AT3 accuracy or better



CAT40

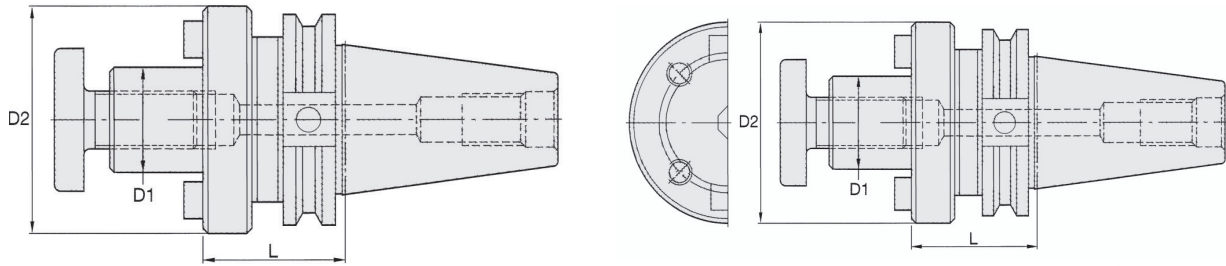
Part Number	D2	L1	Wt. Lbs.
CV40BB4001200	4.00	12.00	39.89
CV70BB400600	4.00	6.00	18.55

CAT50

Part Number	D	L	Wt. Lbs.
CV50BB400120	4.00	12.00	44.56
CV50BB400600	4.00	6.00	23.23
CV50BB600600	6.00	6.00	43.50

Special sizes available on request.

Shell Mill Adapters



- Taper to Pilot Runout <0.0002"
- Taper Shank ground to AT3 accuracy or better
- H6 Pilot Tolerance
- Coolant thru the Spindle
- Balanced by design

Note: DIN AD+B Flange Coolant is also available from stock.



CAT40

Part Number	D1	D2	L	Wt. Lbs.	Lock Screw	Allen Key	Drive Key Size
CV40SM050138	1/2	1.75	1.38	2.27	BKLS05	3/16	0.250
CV40SM075138	3/4	1.75	1.38	2.21	BKLS07	1/4	0.312
CV40SM075350	3/4	1.75	3.50	3.80	BKLS07	1/4	0.312
CV40SM100206	1	2.19	2.06	3.10	BKLS10	5/16	0.375
CV40SM100400	1	2.19	4.00	4.30	BKLS10	5/16	0.375
CV40SM125212	1-1/4	2.75	2.12	4.00	BKLS12	5/16	0.500
CV40SM125400	1-1/4	2.75	4.00	5.00	BKLS12	5/16	0.500
CV40SM150241	1-1/2	3.38	2.41	5.01	BKLS15	3/8	0.625
CV40SM150400	1-1/2	3.38	4.00	6.15	BKLS15	3/8	0.625

CAT50

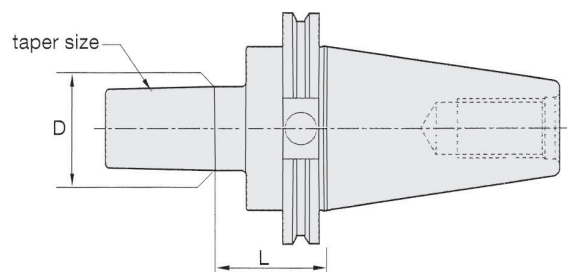
Part Number	D1	D2	L	Wt. Lbs.	Lock Screw	Allen Key	Drive Key Size
CV50SM050138	1/2	2.75	1.38	6.82	BKLS05	3/16	0.250
CV50SM050350	1/2	1.44	3.50	7.54	BKLS05	3/16	0.250
CV50SM075138	3/4	2.75	1.38	6.88	BKLS07	1/4	0.312
CV50SM075350	3/4	1.75	3.50	8.34	BKLS07	1/4	0.312
CV50SM075600	3/4	1.75	6.00	9.70	BKLS07	1/4	0.312
CV50SM100206	1	2.19	2.06	7.37	BKLS10	5/16	0.375
CV50SM100400	1	2.40	4.00	9.97	BKLS10	5/16	0.375
CV50SM100600	1	2.40	6.00	12.46	BKLS10	5/16	0.375
CV50SM125212	1-1/4	2.75	2.12	7.18	BKLS12	5/16	0.500
CV50SM125400	1-1/4	2.75	4.00	10.31	BKLS12	5/16	0.500
CV50SM150241	1-1/2	3.38	2.41	9.71	BKLS15	3/8	0.625
CV50SM150400	1-1/2	3.38	4.00	12.27	BKLS15	3/8	0.625
CV50SM200240	2	4.37	2.40	12.50	BLKS16	3/8	0.750



CAT Shank Tools

Caterpillar (inch) CV ANSI B5.50 / ISO 7388

Jacobs Taper Adapters



- Designed to use with with keyless Jacobs chucks
- Non-coolant thru
- Taper Shank ground to AT3 accuracy or better
- Draw Bar Threads: CAT40 5/8" - 11
CAT50 1" - 8

CAT40

Part Number	Taper Size	D	L	Wt. Lbs.
CV40JT2157	JT2	0.560	1.57	2.10
CV40JT2244	JT2	0.560	2.44	2.33
CV40JT3157	JT3	0.812	1.57	2.30
CV40JT3278	JT3	0.812	2.78	2.45
CV40JT33157	JT33	0.625	1.57	2.20
CV40JT33256	JT33	0.625	2.56	2.32
CV40JT4157	JT4	1.124	1.57	2.18
CV40JT4244	JT4	1.124	2.44	2.45
CV40JT6157	JT6	0.676	1.57	2.50
CV40JT6244	JT6	0.676	2.44	2.78

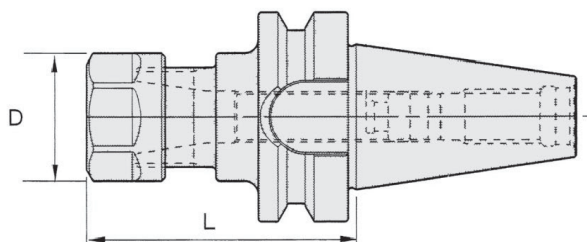


CAT50

Part Number	Taper Size	D	L	Wt. Lbs.
CV50JT2157	JT2	0.560	1.57	2.65
CV50JT2244	JT2	0.560	2.44	2.93
CV50JT3157	JT3	0.812	1.57	2.90
CV50JT3278	JT3	0.812	2.78	3.06
CV50JT33157	JT33	0.625	1.57	2.81
CV50JT33256	JT33	0.625	2.56	2.96
CV50JT4157	JT4	1.124	1.57	6.45
CV50JT4325	JT4	1.124	3.25	6.97
CV50JT5157	JT5	1.413	1.57	6.92
CV50JT5325	JT5	1.413	3.25	7.25
CV50JT6157	JT6	0.676	1.57	6.95
CV50JT6259	JT6	0.676	2.59	7.30

Please see pages 24 - 26 for full selection of Drill Chucks.

ER Collet Chucks



- Taper to Taper Runout <0.0002"
- Coolant thru the Spindle
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better



BT30

Part Number	Collet Series	Collet Cap Min.-Max.	Nut	D	L	Wt. Kg.	Locknut	Wrench	Stop Screw
BT30ER16060M	16ER	0.5-10	Hex	28	60	0.6	LNHER16M	OE25M	BSS044038G
BT30ER20060M	20ER	0.5-13	Hex	34	60	0.6	LNHER20M	OE25M	BSS056041G
BT30ER25060M	25ER	1 - 16	Round	42	60	0.6	LNER25M	ER25WM	BSS07041G
BT30ER62070M	32ER	2 - 20	Round	50	70	0.6	LNER32M	ER32WM	BSS09404G

BT40

Part Number	Collet Series	Collet Cap Min.- Max.	Nut	D	L	Wt. Kg.	Locknut	Wrench	Stop Screw
BT40ER16120M	16ER	0.5 - 10	Hex	28	120	1.6	LNHER16M	OE25M	BSS044038G
BT40ER25070M	25ER	1 - 16	Round	42	70	1.3	LNER25M	ER25WM	BSS075041G
BT40ER25120M	25ER	1 - 16	Round	42	120	1.6	LNER25M	ER25WM	BSS075041G
BT40ER32070M	32ER	2 - 20	Round	50	70	1.4	LNER32M	ER32WM	BSS094041G
BT40ER32120M	32ER	2 - 20	Round	50	120	1.7	LNER32M	ER32WM	BSS094041G
BT40ER40080M	40ER	3 - 26	Round	63	80	1.5	LNER40M	ER40WM	BSS112041G
BT40ER40120M	40ER	3 - 26	Round	63	120	1.8	LNER40M	ER40WM	BSS112041G

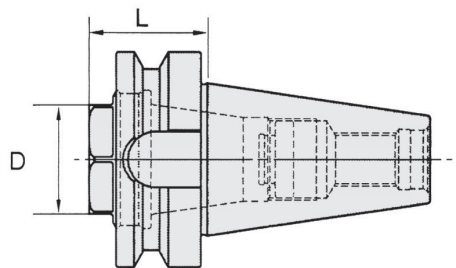
BT50

Part Number	Collet Series	Collet Cap Min.- Max.	Nut	D	L	Wt. Kg.	Locknut	Wrench	Stop Screw
BT50ER16100M	16ER	0.5 - 10	Hex	28	100	3.2	LNHER16M	OE25M	BSS044038G
BT50ER16150M	16ER	0.5 - 10	Hex	28	150	3.6	LNHER16M	OE25M	BSS044038G
BT50ER32070M	32ER	2 - 20	Round	50	70	3.4	LNER32M	ER32WM	BSS094041G
BT50ER40080M	40ER	3 - 26	Round	63	80	3.6	LNER40M	ER40WM	NDD112041G

BT Shank Tools

MAS 403, JIS B 6339

ER Collet Chucks, Stubby



- Taper to Taper Runout <0.0002"
- Coolant thru the Spindle
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better

BT40

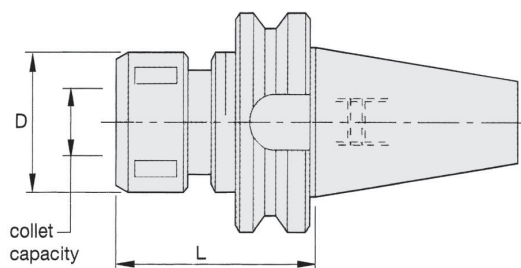
Part Number	Collet Series	Collet Cap Min.- Max.	Nut	D	L	Wt. Kg.	Locknut	Wrench	Stop Screw
BT40SER32035M	32ER	0 - 20	Hex	36	35	0.75	LNECSER32M	OEW32M	BSS044038G

ER Collet Chuck Spare Wrenches

Nut Size and Type	Wrench Part Number	Wrench Part Number	Wrench Part Number
ER16 - HEX	OEW25M		
ER20 - HEX	OEW30M		
ER25 - ROUND		ER25WM	ER25U
ER32 - ROUND	OEW32M	ER32WM	ER32U
ER40 - ROUND		ER40WM	ER40U



TG Collet Chucks



- Taper to Taper Runout <0.0002"
- Coolant thru the Spindle
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better

BT30

Part Number	Collet Series	Collet Cap Min.- Max.	D	L	Wt. Kg.	Locknut	Wrench	Stop Screw
BT30TG075075M	75TG	2.6 - 20	50	75	0.6	LNA075M	HSW45M	BSS081041G

BT40

Part Number	Collet Series	Collet Cap Min.- Max.	D	L	Wt. Kg.	Locknut	Wrench	Stop Screw
BT40TG075070M	75TG	2.6 - 20	50	70	1.4	LNA075M	HSW45M	BSS081041G
BT40TG100080M	100TG	2.6 - 25.5	60	80	1.4	LNA100M	HSW58M	BSS112041G
BT40TG100100M	100TG	2.6 - 25.5	60	100	1.8	LNA100M	HSW58M	BSS112041G
BT40TG100150M	100TG	2.6 - 25.5	60	150	2.5	LNA100M	HSW58M	BSS112041G

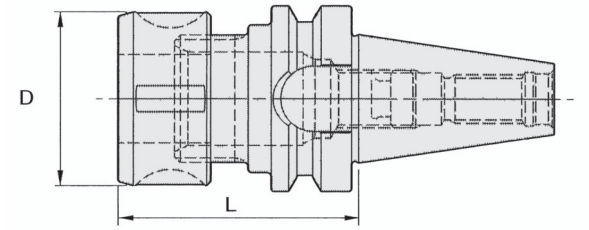
BT50

Part Number	Collet Series	Collet Cap Min.- Max.	D	L	Wt. Kg.	Locknut	Wrench	Stop Screw
BT50TG100090M	100TG	2.6 - 25.5	60	90	3.90	LNA100M	HSW58M	BSS112041G
BT50TG100150M	100TG	2.6 - 25.5	60	150	5.20	LNA100M	HSW58M	BSS112041G
BT50TG150100M	150TG	11.6 - 40	85	100	4.30	LNA150M	HSW80M	BSS162062G

BT Shank Tools

MAS 403, JIS B 6339

DA Collet Chucks



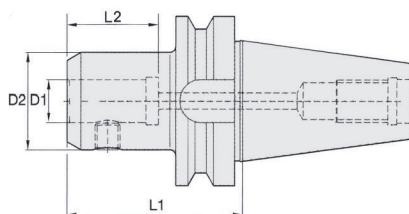
- Taper to Taper Runout <0.0002"
- Coolant thru the Spindle
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better

BT40

Part Number	Collet Series	Collet Cap Min.- Max.	D	L	Wt. Kg.	Locknut	Wrench	Stop Screw
BT40DA188070M	180DA	2.2 - 20	43	70	1.2	LNA188M	HSW45M	BSS081041G
BT40DA188100M	180DA	2.2 - 20	43	100	1.4	LNA188M	HSW45M	BSS081041G

End Mill Holders

- Taper to Bore Runout <0.0002"
- H5 Bore Tolerance
- Coolant thru the Spindle
- Balanced G6.3@15,000 RPM
- Taper Shank ground to AT3 accuracy or better



BT30

Part Number	D1	D2	L1 Gage Length	L2	Wt. Lbs.	Clamping Screw	Clamp Screw #	Allen Key
BT30EM012236	1/8	0.69	2.36	3.30	0.94	BS1045PKG	1	3/32
BT30EM018236	3/16	0.69	2.36	3.30	0.94	BS1045PKG	1	3/32
BT30EM025236	1/4	1.00	2.36	3.30	1.10	BELS025025PKG	1	1/8
BT30EM031236	5/16	1.00	2.36	3.30	1.08	BELS031031PKG	1	5/32
BT30EM038236	3/8	1.00	2.36	3.30	1.08	BELS038031PKG	1	3/16
BT30EM050236	1/2	1.38	2.36	1.97	1.26	BELS044038PKG	1	7/32
BT30EM062236	5/8	1.63	2.36	2.09	1.42	BELS056050PKG	1	1/4
BT30EM075236	3/4	1.75	2.36	2.22	1.45	BELS062050PKG	1	5/16

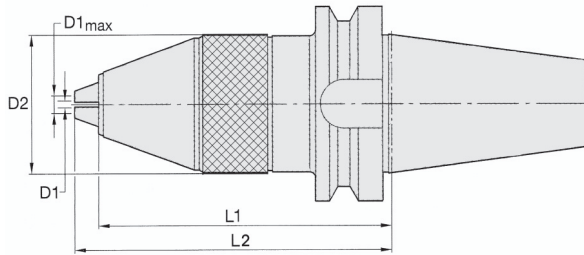
BT40

Part Number	D1	D2	L1 Gage Length	L2	Wt. Lbs.	Clamping Screw	Clamp Screw #	Allen Key
BT40EM025255	1/4	1.00	2.55	3.93	2.36	BELS025025PKG	1	1/8
BT40EM031255	5/16	1.00	2.55	3.93	2.36	BELS031031PKG	1	5/32
BT40EM038255	3/8	1.00	2.55	3.93	2.51	BELS038031PKG	1	3/16
BT40EM050255	1/2	1.38	2.55	3.93	2.51	BELS044038PKG	1	7/32
BT40EM050400	1/2	1.38	4.00	5.38	3.02	BELS044038PKG	1	7/32
BT40EM062255	5/8	1.63	2.55	2.09	2.69	BELS056050PKG	1	1/4
BT40EM075150	3/4	1.68	1.50	2.22	2.09	BELS065050PKG	1	5/16
BT40EM075255	3/4	1.75	2.55	2.22	2.73	BELS062050PKG	1	5/16
BT40EM088335	7/8	2.00	3.35	2.22	3.57	BELS062050PKG	1	5/16
BT40EM100162	1	2.04	1.63	2.46	2.01	BELS075044PKG	2	3/8
BT40EM100374	1	2.00	3.74	2.56	3.75	BELS075056PKG	2	3/8
BT40EM100500	1	2.00	5.00	4.49	4.54	BELS075056PKG	2	3/8
BT40EM125335	1- 1/4	2.40	3.35	2.51	3.95	BELS075056PKG	2	3/8

BT50

Part Number	D1	D2	L1 Gage Length	L2	Wt. Lbs.	Clamping Screw	Clamp Screw #	Allen Key
BT50EM050295	1/2	1.38	2.95	5.16	8.14	BELS044038PKG	1	7/32
BT50EM075295	3/4	1.75	2.95	5.16	8.36	BELS062050PKG	1	5/16
BT50EM100413	1	2.00	4.13	2.56	9.30	BELS075056PKG	2	3/8
BT50EM100600	1	2.00	6.00	4.30	10.54	BELS075056PKG	2	3/8
BT50EM125413	1-1/4	2.50	4.13	2.51	10.23	BELS075062PKG	2	3/8
BT50EM125600	1-1/4	2.50	6.00	2.51	12.54	BELS075062PKG	2	3/8
BT50EM150413	1-1/2	2.75	4.13	2.93	10.41	BELS075062PKG	2	3/8
BT50EM200531	2	3.75	5.31	3.53	16.00	BELS100088PKG	2	1/2

Integral Shank Drill Chucks



- Very rigid & heavy duty design
- High accuracy and high RPM
- Wide gripping capacity
- Self tightening keyless operation
- Non-coolant thru
- Taper Shank ground to AT3 accuracy or better
- Draw Bar Threads: BT40 M16 x 2
BT50 M24 x 3

BT40

Part Number	D1 Min.- Max.	D2	L1 Gage Length	L2	Wt. Kg.	Wrench
BT40DC13096M	1 - 13	50.50	96.40	108.50	1.80	13S

BT50

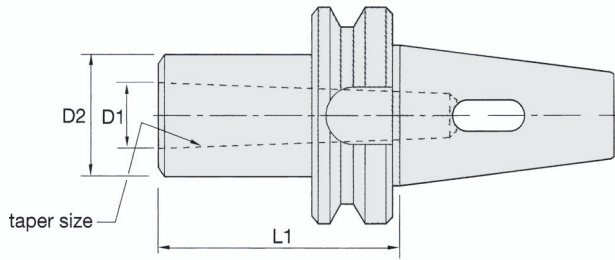
Part Number	D1 Min.- Max.	D2	L1 Gage Length	L2	Wt. Kg.	Wrench
BT50DC13096M	1 - 13	50.5	110.40	122.5	4.40	13S

Replacement chucks available.



Please see page 28 for H/V CNC Fixtures.

Morse Taper Adapters



- Coolant thru the Spindle
- Taper Shank ground to AT3 accuracy or better

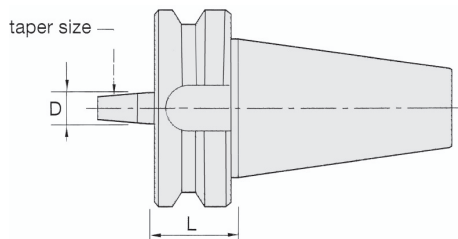
BT40

Part Number	Taper Size	D1	D2	L1	Wt. Kg.
BT40MT1050M	1	12.1	25	50	1.01
BT40MT2050M	2	17.8	32	50	1.06
BT40MT3070M	3	23.8	40	70	1.13
BT40MT4095M	4	31.3	48	95	1.33

BT50

Part Number	Taper Size	D1	D2	L1	Wt. Kg.
BT50MT1045M	1	12.10	25	45	1.8
BT50MT3065M	3	23.80	40	65	3.2
BT50MT4095M	4	31.30	48	95	3.5
BT50MT5105M	5	44.40	70	105	4.5

Jacobs Taper Adapters



- Designed to use with keyless Jacobs chucks
- Non-coolant thru
- Taper Shank ground to AT3 accuracy or better
- Draw Bar Threads: BT40 M16 x 2

BT40

Part Number	Taper Size	D	L	Wt. Kg.
BT40JT33045M	33	15.88	45	1.12
BT40JT2244	2	0.56	2.44	2.33
BT40JT3318	3	0.812	3.18	2.5
BT40JT4118	4	1.124	1.18	2.55
BT40JT6118	6	0.676	1.18	2.78



Please see pages 24 - 26 for full selection of Drill Chucks.

Shell Mill Adapters

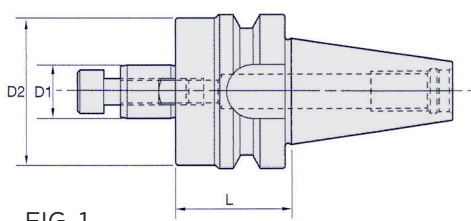


FIG. 1

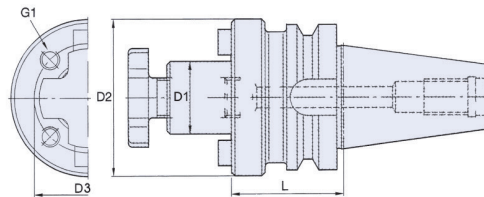


FIG. 2

- Taper to Pilot Runout <0.0002"
- H6 Pilot Tolerance
- Coolant thru the Spindle

- Balanced by design
- Taper Shank ground to AT3 accuracy or better



BT30

Part Number	D1	D2	L1	Wt. Lbs.	Lock Screw	Wrench Size	Drive Key Size
BT30SM050118	1/2	1.44	1.18	2.10	BKLS05	3/16	0.250
BT30SM075118	3/4	1.69	1.18	2.30	BKLS07	1/4	0.312
BT30SM100177	1.00	2.19	1.77	2.48	BKLS10	5/16	0.375

BT40

Part Number	D1	D2	L	Wt. Lbs.	Lock Screw	Wrench Size	Drive Key Size
BT40SM050177	0.50	1.44	1.77	2.47	BKLS05	3/16	0.250
BT40SM075177	0.75	1.75	1.77	2.90	BKLS07	1/4	0.312
BT40SM100177	1.00	2.19	1.77	3.04	BKLS10	5/16	0.375
BT40SM125236	1.25	2.88	2.36	4.82	BKLS12	5/16	0.500
BT40SM150236	1.50	3.82	2.36	4.69	BKLS15	3/8	0.625

BT50

Part Number	FIG.	D1	D2	D3	L	G1	Wt. Lbs.	Lock Screw	Wrench Size	Drive Key Size
BT50SM075177	1	0.75	1.75	—	1.77	—	8.08	BKLS07	1/4	0.312
BT50SM075400	1	0.75	1.75	—	4.00	—	9.56	BKLS07	1/4	0.312
BT50SM100177	1	1.00	2.19	—	1.77	—	8.30	BKLS10	5/16	0.375
BT50SM100400	1	1.00	2.40	—	4.00	—	11.06	BKLS10	5/16	0.375
BT50SM125400	1	1.25	2.88	—	4.00	—	12.80	BKSL12	5/16	0.500
BT50SM150177	1	1.50	3.81	—	1.77	—	9.40	BKLS15	3/8	0.625
BT50SM150400	1	1.50	3.81	—	4.00	—	16.60	BKLS15	3/8	0.625
BT50SM200236	1	2.00	4.13	—	2.36	—	14.07	BLKS20	9/16	0.750
BT50SM200400	2	2.00	4.88	4.0	4.00	5/8 - 11 UNC	19.32	BKLS20	9/16	0.750
BT50SM250400	2	2.50	4.88	4.0	4.00	5/8 - 11 UNC	20.20	S388	1/2	0.750

Keyed and Keyless Drill Chucks

Super Ball Bearing Heavy Duty Industrial Drill Chucks

- Heavy duty ball bearing industrial design
- All parts are heat treated and ground within very tight limits
- Chucks are widely used on drilling equipment like milling machines, lathes, jig borers and radial drilling machines
- High accuracy
- * All chucks are provided with chuck key

Part Number	Capacity metric	Capacity inch	Taper Size	T.I.R. inch	Wt. Lbs.
DC-100-0250J2	0.6 - 6.35	0 - 1/4	JT2	0.003	0.35
DC-100-0375J2	1 - 10	1/32 - 3/8	JT2	0.003	0.47
DC-100-0500J6	1 - 13	1/32 - 1/2	JT6	0.003	1.35
DC-100-0500J33	1 - 13	1/32 - 1/2	JT33	0.003	1.36
DC-100-0500J3	1 - 13	1/32 - 1/2	JT3	0.003	1.42
DC-100-0625J3	3 - 16	1/8 - 5/8	JT3	0.003	1.65
DC-100-0625SJ3	1 - 16	1/32 - 5/8	JT3	0.003	1.94
DC-100-0750J4	3 - 20	1/8 - 3/4	JT4	0.003	4.07
DC-100-0750J3	5 - 20	13/16 - 3/4	JT3	0.003	2.41
DC-100-1000J5	10 - 25	25/64 - 1	JT5	0.003	7.7



Super Plain Bearing Heavy Duty Industrial Drill Chucks

- Heavy duty plain bearing industrial design
- All parts are heat treated and ground within very tight limits
- Chucks are widely used on drilling equipment like milling machines, lathes, jig borers, radial drilling machines, and woodworking machines
- High accuracy
- * All chucks are provided with chuck key

Part Number	Capacity metric	Capacity inch	Taper Size	T.I.R. inch	Wt. Lbs.
DC-200-0375J2	1 - 10	1/32 - 3/8	JT2	0.003	0.42
DC-200-0375TH	1 - 10	1/32 - 3/8	3/8 - 24	0.003	0.4
DC-200-0500J2	1 - 13	1/32 - 1/2	JT2	0.003	1.45
DC-200-0500J6	1 - 13	1/32 - 1/2	JT6	0.003	1.22
DC-200-0500J33	1 - 13	1/32 - 1/2	JT33	0.003	1.21
DC-200-0625J3	1 - 16	1/32 - 5/8	JT3	0.003	1.75
DC-200-0750J4	5 - 20	3/16 - 3/4	JT4	0.003	2.05
DC-200-0750J3	5 - 20	3/16 - 3/4	JT3	0.003	2.17



Keyed and Keyless Drill Chucks

High Precision Heavy Duty Industrial Keyless Drill Chucks | 10,000 RPM

- Self-tightening
- Extremely high accuracy with high RPM
- For use on all CNC machines
- Very rigid heavy duty design
- Wide gripping capacity



Part Number	Capacity metric	Capacity inch	Taper Size	T.I.R. inch	Wt. Lbs.
DC-700-0125J0	0.2 - 3	1/64 - 1/8	JT0	0.002	0.22
DC-700-0156J1	0.2 - 4	1/64 - 5/32	JT1	0.002	0.42
DC-700-0250J1	0.2 - 6	1/64 - 1/4	JT1	0.002	0.69
DC-700-0312J2	0.2 - 8	1/64 - 5/16	JT2	0.002	1.05
DC-700-0375J2	0.2 - 10	1/64 - 3/8	JT2	0.002	1.51
DC-700-0375J33	0.2 - 10	1/64 - 3/8	JT33	0.002	1.45
DC-700-0500J2	0.2 - 13	1/64 - 1/2	JT2	0.002	2.29
DC-700-0500J33	0.2 - 13	1/64 - 1/2	JT33	0.002	2.08
DC-700-0500J6	0.2 - 13	1/64 - 1/2	JT6	0.002	2.1
DC-700-0625J6	0.2 - 16	1/64 - 5/8	JT6	0.002	2.79
DC-700-0750J3	0.2 - 20	1/64 - 3/4	JT3	0.002	3.78

Precision Heavy Duty Industrial Keyless Drill Chucks | 4,000 RPM

- Self-tightening
- Chucks are widely used on drilling equipment like milling machines, lathes, jig borers, radial drilling machines
- Extremely high accuracy
- All parts are heat treated and ground within very tight limits



Part Number	Capacity metric	Capacity inch	Taper Size	T.I.R. inch	Wt. Lbs.
DC-500-0250J1	0.2 - 6	1/64 - 1/4	JT1	0.002	0.69
DC-500-0375J33	0.2 - 10	1/64 - 3/8	JT33	0.002	1.36
DC-500-0375J2	0.2 - 10	1/64 - 3/8	JT2	0.002	1.51
DC-500-0500J2	0.2 - 13	1/64 - 1/2	JT2	0.002	2.21
DC-500-0500J33	0.2 - 13	1/64 - 1/2	JT33	0.002	2.08
DC-500-0500J6	0.2 - 13	1/64 - 1/2	JT6	0.002	2.16
DC-500-0625J6	0.2 - 16	1/64 - 5/8	JT6	0.002	2.79
DC-500-0750J3	0.2 - 20	1/64 - 3/4	JT3	0.002	3.78

Keyed and Keyless Drill Chucks

Standard Accuracy Heavy Duty Industrial Keyless Drill Chucks | 4,000 RPM

- Self-tightening
- Chucks are widely used on drilling equipment like milling machines, lathes, jig borers, radial drilling machines
- Standard accuracy
- All parts are heat treated and ground within very tight limits

Part Number	Capacity metric	Capacity inch	Taper Size	T.I.R. inch	Wt. Lbs.
DC-400-0250J1	0.2 - 6	1/64 - 1/4	JT1	0.003	0.69
DC-400-0375J2	0.2 - 10	1/64 - 3/8	JT2	0.004	1.51
DC-400-0500J2	0.2 - 13	1/64 - 1/2	JT2	0.004	2.21
DC-400-0500J33	0.2 - 13	1/64 - 1/2	JT33	0.004	2.08
DC-400-0500J6	0.2 - 13	1/64 - 1/2	JT6	0.004	2.16
DC-400-0625J6	0.2 - 16	1/64 - 5/8	JT6	0.004	2.79
DC-400-0750J3	0.2 - 20	1/64 - 3/4	JT3	0.004	3.78



Keyless Drill Chuck Wrenches



Part Number	Capacity metric	Capacity inch
DKS-03S	3	1/8
DKS-04S	4	5/32
DKS-06S	6	1/4
DKS-08S	8	5/16
DKS-10S	10	3/8
DKS-13S	13	1/2
DKS-16S	16	5/8
DKS-20S	20	3/4

Sold separately.

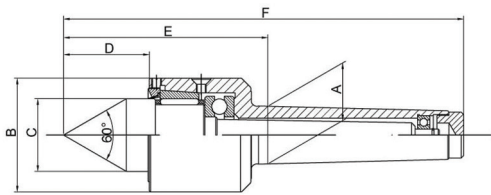
Keyed Drill Chuck Keys



Part Number	Capacity metric	Capacity inch
DKP-06T	6.4	1/4
DKP-10T	10	2/8
DKP-13T	13	1/2
DKP-16T	16	5/8
DKP-20T	20	3/4
DKP-25T	25	1

Live Centers

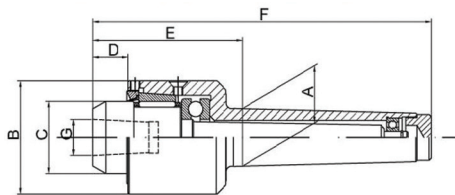
Super Precision Live Centers Heavy Duty



- Triple bearing heavy duty design
- All centers are provided with precision bearings
- One piece body made of high quality forged alloy steel, hardened to 60 HRC and precisely ground
- Bearings are protected by a special steel ring

Part Number	Morse Taper Size	A	B	C	D	E	F	T.I.R.	Max. RPM	Max. Load (lbs.)	Weight (lbs.)
LC-100-001	1	0.475	1.338	0.709	0.866	2.402	4.488	0.0002	6000	88	0.64
LC-100-002	2	0.700	1.417	0.866	1.024	2.697	4.941	0.0002	5500	660	0.88
LC-100-003	3	0.938	1.850	1.181	1.378	3.661	6.516	0.0002	4500	880	1.94
LC-100-004	4	1.231	2.283	1.378	1.575	4.094	7.736	0.0002	4000	2640	3.23
LC-100-005	5	1.748	2.68	1.772	2.008	5.295	9.685	0.0002	3000	4400	6.86
LC-100-006	6	2.494	3.543	2.362	2.559	4.472	12.64	0.0004	2000	8800	15.52

Super Precision Live Center Kits Heavy Duty



- Triple bearing heavy duty design
- All centers are provided with high precision bearings
- One piece body is made of high quality forged alloy steel, hardened to 60 HRC and precisely ground
- Bearings are protected by a special steel ring
- Every set comes with the main body, 7 inserts, and an ejecting wedge
- Complete with a strong metal or plastic case

Part Number	Morse Taper Size	A	B	C	D	E	F	G	T.I.R.	Max. RPM	Max. Load (lbs.)	Weight (lbs.)
LC-100-002K	2	.7000	1.417	0.866	0.413	2.700	4.331	0.394	0.0002	5500	660	2.78
LC-100-003K	3	.9780	1.850	1.181	0.591	3.661	5.709	0.591	0.0002	4500	880	4.94
LC-100-004K	4	1.2310	2.165	1.417	0.630	4.094	6.772	0.787	0.0002	4000	2640	8.32
LC-100-005K	5	1.7441	2.756	1.772	0.787	5.295	8.504	0.984	0.0002	3000	4400	17.67

Tightening Fixtures

Universal H/V CNC Tool Tightening Fixtures



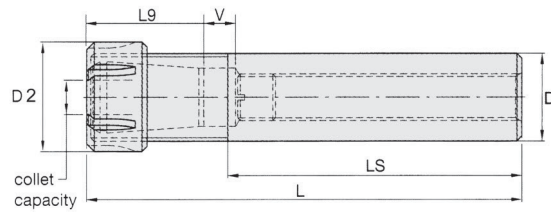
- Multiple usage on toolholder shank CAT, BT, NMTB & ISO
- Enables strong gripping power of tool holder
- Access both ends of toolholders simultaneously
- Secures maximum protection of toolholder
- Tools can be mounted in vertical and horizontal positions
- High quality compact and rigid design for mounting on work table or tool cart
- Body is made of strong, high quality aluminum alloy

Part Number	Taper Size	Overall Height (H)	Overall Length (L)	Width (W)	Weight (lbs.)
4-CNF-030	BT/NMTB ISO 30	4.84	7.09	3.23	3.8
4-CNF-040	CAT/BT 40	5.12	7.09	3.23	4.2
4-CNF-050	CAT/BT 50	7.24	9.84	4.72	8.4



Straight Shank Tools

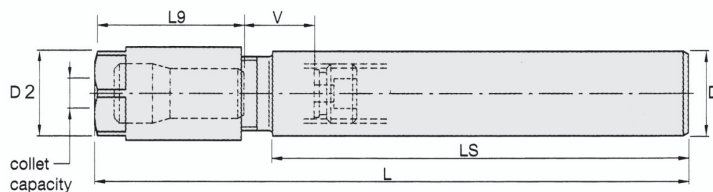
ER Collet Chucks on Straight Shank - Inch



Coolant thru the spindle.

Part Number	Collet Series	Collet Cap Min.- Max.	D Shank Dia.	D2	L	LS	L9	Wt. Lbs.	Type of Locknut	Locknut	Wrench
SS050ER11700	11ER	0.020-0.276	0.50	0.63	7.00	5.51	1.27	0.40	Round Slim	LNER11M	ER11WEM
SS075ER16700	16ER	0.020-0.406	0.75	0.87	7.00	5.51	1.24	0.90	Round Slim	LNER16M	ER16WEM
SS100ER20700	20ER	0.020-0.512	1.00	1.38	7.00	5.51	1.42	1.60	Hex	LNHER20M	OEWS30M
SS100ER25750	25ER	0.040-0.630	1.00	1.65	7.50	5.69	1.57	1.70	Round	LNER25M	ER25WM
SS075ER32600	32ER	0.040-0.810	0.75	1.97	6.00	4.65	1.34	1.10	Round	LNER32M	ER32WM
SS100ER32750	32ER	0.040-0.810	1.00	1.97	7.50	5.69	1.93	1.83	Round	LNER32M	ER32WM
SS125ER32275	32ER	0.040-0.810	1.25	1.97	4.50	2.75	1.72	1.60	Round	LNER32M	ER32WM
SS125ER32590	32ER	0.040-0.810	1.25	1.97	6.00	3.10	1.72	2.10	Round	LNER32M	ER32WM
SS100ER40238	40ER	0.12-1.00	1.00	2.47	4.50	2.38	2.17	2.30	Round	LNER40M	ER40WM
SS100ER40700	40ER	0.12-1.00	1.00	2.47	7.00	4.87	1.77	2.70	Round	LNER40M	ER40WM
SS125ER40238	40ER	0.12-1.00	1.25	2.47	4.50	2.38	2.17	1.90	Round	LNER40M	ER40WM
SS125ER40700	40ER	0.12-1.00	1.25	2.47	6.50	4.87	2.17	3.10	Round	LNER40M	ER40WM

DA Collet Chucks on Straight Shank - Inch

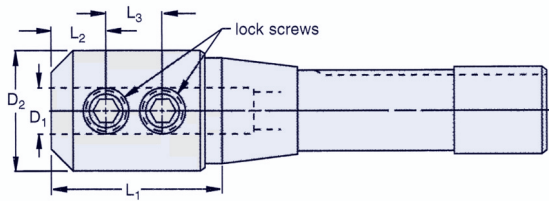


Coolant thru the spindle.

Part Number	Collet Series	Collet Cap Min.- Max.	D	D2	L	LS	L9	V	Wt. Lbs.	Locknut	Wrench	Stop Screw
SS050DA304681	300DA	1/64 - 1/4	0.50	0.56	6.81	5.42	1.50	2.75	0.37	LNA304M	OEWS050	BSS031031G
SS075DA204712	200DA	1/64 - 25/64	0.75	0.84	7.12	5.50	1.56	3.19	0.89	LNA204M	OEWS075	BSS044038G
SS100DA104731	100DA	1/64 - 9/16	1.00	1.06	7.31	5.40	1.94	4.68	1.62	LNA104M	OEWS094	BSS062041G
SS125DA184738	180DA	1/64 - 3/4	1.44	1.44	7.38	5.41	1.88	4.74	2.56	LNA184M	OEWS119	BSS081041G

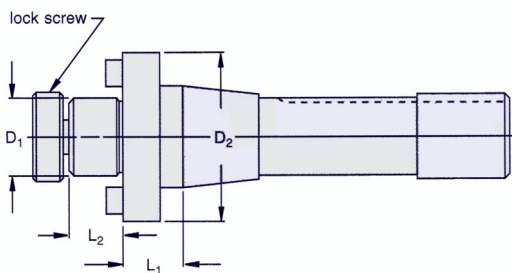
R8 Shank Tools

R8 Shank End Mill Adapters



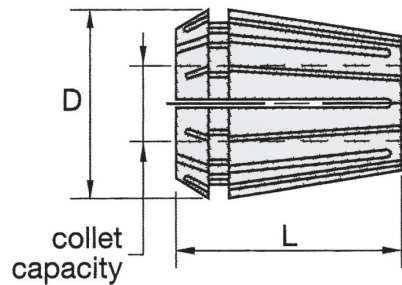
Part Number	Tool Capacity D1	Body Diameter D2	Projection Length L1	L2	L3	Lock Screw	Wt. Lbs.
R8EM018112	3/16	0.94	1.12	0.406		1/4 - 28 UNF	0.9
R8EM038100	3/8	1.25	1.00	0.719		3/8 - 24 UNF	1.1
R8EM050122	1/2	1.25	1.12	0.875		7/16 - 20 UNF	1.2
R8EM062150	5/8	1.58	1.50	0.875		1/2 - 20 UNF	2.1
R8EM075262	3/4	1.72	2.62	1.109		5/8 - 18 UNF	4.0
R8EM088306	7/8	1.94	3.06	1.063	0.828	3/4 - 16 UNF	5.2
R8EM100306	1	1.94	3.06	1.109	0.953	3/4 - 16 UNF	5.2
R8EM125306	1-1/4	2.38	3.06	1.109	0.953	3/4 - 16 UNF	6.4

R8 Shank Shell Mill Adapters



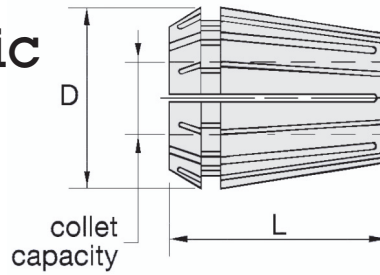
Part Number	Pilot Capacity D1	Projection Diameter D2	Projection Length L1	Pilot Length L2	Lock Screw	Wt. Lbs.
R8SM050102	1/2	1.28	1.02	0.562	KLS05	1.4
R8SM075102	3/4	1.62	1.02	1.671	KLS07	1.8
R8SM100102	1	1.97	1.02	0.671	KLS10	2.3
R8SM125102	1-1/4	2.50	1.02	0.671	KLS12	3.0
R8SM150175	1-1/2	2.95	1.75	0.938	KLS15	5.8

ER Series Collets - Inch (0.0004" T.I.R.)



Fraction	Collet Capacity	ER16 D = 0.669" L = 1.083	ER20 D = 0.827" L = 1.240	ER25 D = 1.024" L = 1.339	ER32 D = 1.299" L = 1.575	ER40 D = 1.614" L = 1.811
1/16	0.0625 - 0.0225	16ER0062				
3/32	0.0938 - 0.0538	16ER0094	20ER0094	25ER0094		
1/8	0.1250 - 0.0850	16ER0125	20ER0125	25ER0125	32ER0125	40ER0125
5/32	0.1563 - 0.1163	16ER0156	20ER0156	25ER0156	32ER0156	40ER0156
3/16	0.1875 - 0.1475	16ER0188	20ER0188	25ER0188	32ER0188	40ER0188
7/32	0.2188 - 0.1788	16ER0219	20ER0219	25ER0219	32ER0219	40ER0219
1/4	0.2500 - 0.2100	16ER0250	20ER0250	25ER0250	32ER0250	40ER0250
9/32	0.2813 - 0.2413	16ER0281	20ER0281	25ER0281	32ER0281	40ER0281
5/16	0.3125 - 0.2725	16ER0312	20ER0312	25ER0312	32ER0312	40ER0312
11/32	0.3438 - 0.3038	16ER0344	20ER0344	25ER0344	32ER0344	40ER0344
3/8	0.3750 - 0.3350	16ER0375	20ER0375	25ER0375	32ER0375	40ER0375
13/32	0.4063 - 0.3663	16ER0406	20ER0406	25ER0406	32ER0406	40ER0406
7/16	0.4375 - 0.3975		20ER0438	25ER0438	32ER0438	40ER0438
15/32	0.4688 - 0.4288		20ER0469	25ER0469	32ER0469	40ER0469
1/2	0.5000 - 0.4600		20ER0500	25ER0500	32ER0500	40ER0500
17/32	0.5313 - 0.4913			25ER0531	32ER0531	40ER0531
9/16	0.5625 - 0.5225			25ER0562	32ER0562	40ER0562
19/32	0.5938 - 0.5538			25ER0594	32ER0594	40ER0594
5/8	0.6250 - 0.5850			25ER0625	32ER0625	40ER0625
21/32	0.6563 - 0.6163				32ER0656	40ER0656
11/16	0.6875 - 0.6475				32ER0688	40ER0688
23/32	0.7188 - 0.6788				32ER0719	40ER0719
3/4	0.7500 - 0.7100				32ER0750	40ER0750
25/32	0.7813 - 0.7413				32ER0781	40ER0781
13/16	0.8125 - 0.7725				32ER0812	40ER0812
27/32	0.8438 - 0.8038					40ER0844
7/8	0.8750 - 0.8350					40ER0875
29/32	0.9063 - 0.8663					40ER0906
15/16	0.9375 - 0.8975					40ER0938
31/32	0.9688 - 0.9288					40ER0969
1	1.0000 - 0.9600					40ER1000

ER Series Collets - Metric (0.0004" T.I.R.)



Collet Capacity Max. - Min.	ER16 D = 17 L = 27.5	ER20 D = 21 L = 31.5	ER25 D = 26 L = 34	ER32 D = 33 L = 40	ER40 D = 41 L = 46
1.0 - 0.5	16ER010M				
1.5 - 1.0	16ER015M				
2.0 - 1.0	16ER020M	20ER020M	25ER020M		
2.5 - 1.5	16ER025M				
3.0 - 2.0	16ER030M	20ER030M	25ER030M	32ER030M	
3.5 - 2.5	16ER035M				
4.0 - 3.0	16ER040M	20ER040M	25ER040M	32ER040M	40ER040M
4.5 - 3.5	16ER045M				
5.0 - 4.0	16ER050M	20ER050M	25ER050M	32ER050M	40ER050M
5.5 - 4.5	16ER055M				
6.0 - 5.0	16ER060M	20ER060M	25ER060M	32ER060M	40ER060M
6.5 - 5.5	16ER065M				
7.0 - 6.0	16ER070M	20ER070M	25ER070M	32ER070M	40ER070M
7.5 - 6.5	16ER075M				
8.0 - 7.0	16ER080M	20ER080M	25ER080M	32ER080M	40ER080M
8.5 - 7.5	16ER085M				
9.0 - 8.0	16ER090M	20ER090M	25ER090M	32ER090M	40ER090M
9.5 - 8.5	16ER095M				
10.0 - 9.0	16ER100M	20ER100M	25ER100M	32ER100M	40ER100M
11.0 - 10.0		20ER110M	25ER110M	32ER110M	40ER110M
12.0 - 11.0		20ER120M	25ER120M	32ER120M	40ER120M
13.0 - 12.0		20ER130M	25ER130M	32ER130M	40ER130M
14.0 - 13.0			25ER140M	32ER140M	40ER140M
15.0 - 14.0			25ER150M	32ER150M	40ER150M
16.0 - 15.0			25ER160M	32ER160M	40ER160M
17.0 - 16.0				32ER170M	40ER170M
18.0 - 17.0				32ER180M	40ER180M
19.0 - 18.0				32ER190M	40ER190M
20.0 - 19.0				32ER200M	40ER200M
21.0 - 20.0					40ER210M
22.0 - 21.0					40ER220M
23.0 - 22.0					40ER230M
24.0 - 23.0					40ER240M
25.0 - 24.0					40ER250M
26.0 - 24.0					40ER260M

ER Series Collet Sets



Metric Set

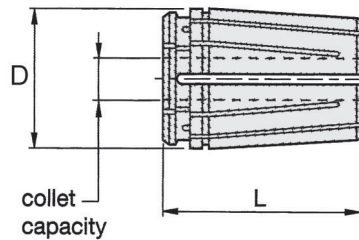
Part Number	Number of Pieces From - To Diameter Increments
16ERS000M	10 Pieces 1.00mm to 10.00mm 1.00mm increments
20ERS000M	12 Pieces 2.00mm to 10.00mm 1.00mm increments
25ERS000M	15 Pieces 2.00mm to 16.00 1.00mm increments
32ERS000M	18 Pieces 3.00mm to 20.00mm 1.00mm increments
40ERS000M	23 Pieces 4.00mm to 26.00mm 1.00mm increments

Inch Set

Part Number	Number of Pieces From - To Diameter Increments
16ERS000SET2	12 Pieces 1/16" - 13/32" 1/32" increments
20ERS000SET1	8 Pieces 3/32", 1/8" - 1/2" 1/16" increments
25ERS000SET1	10 Pieces 3/32", 1/8" - 5/8" 1/16" increments
32ERS000SET1	12 Pieces 1/8" - 13/16" 1/16" increments
40ERS000SET1	15 Pieces 1/8" - 1" 1/16" increments

TG Collets

TG100 and TG150 Series Collets - Inch (0.0004" T.I.R.)



TG 100

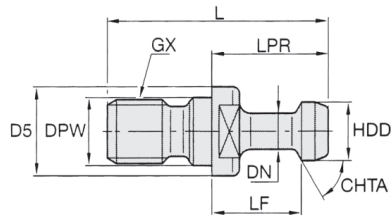
Collet Capacity Max. - Min.	100TG Standard D = 1.379 L = 2.375 Part Number	Collet Capacity Max. - Min.	100TG Standard D = 1.379 L = 2.375 Part Number
3/32	100TG0094	7/16	100TG0438
7/64	100TG0109	29/64	100TG0453
1/8	100TG0125	15/32	100TG0469
9/64	100TG0141	31/64	100TG0484
5/32	100TG0156	1/2	100TG0500
11/64	100TG0172	33/64	100TG0516
3/16	100TG0188	17/32	100TG0531
13/64	100TG0203	35/64	100TG0547
7/32	100TG0219	9/16	100TG0562
15/64	100TG0234	5/8	100TG0625
1/4	100TG0250	21/32	100TG0656
17/64	100TG0266	43/64	100TG0672
9/32	100TG0281	11/16	100TG0688
19/64	100TG0297	3/4	100TG0750
5/16	100TG0312	51/64	100TG0797
21/64	100TG0328	13/16	100TG0812
11/32	100TG0344	7/8	100TG0875
23/64	100TG0359	57/64	100TG0891
3/8	100TG0375	29/32	100TG0906
25/64	100TG0391	61/64	100TG0953
13/32	100TG0406	1	100TG1000
27/64	100TG0422		

TG 150

Collet Capacity Max. - Min.	150TG Standard D = 2.00 L = 3.00 Part Number	Collet Capacity Max. - Min.	100TG Standard D = 2.00 L = 3.00 Part Number
15/32	150TG0469	31/32	150TG0969
1/2	150TG0500	1	150TG1000
17/32	150TG0531	1-1/64	150TG1016
9/16	150TG0562	1-1/32	150TG1031
37/64	150TG0578	1-3/64	150TG1047
19/32	150TG0594	1-1/16	150TG1062
39/64	150TG0609	1-5/64	150TG1078
5/8	150TG0625	1-11/64	150TG1172
21/32	150TG0656	1-3/16	150TG1187
11/16	150TG0688	1-7/32	150TG1219
45/64	150TG0703	1-15/64	150TG1234
23/32	150TG0719	1-1/4	150TG1250
47/64	150TG0734	1-17/64	150TG1266
3/4	150TG0750	1-9/32	150TG1281
49/64	150TG0766	1-19/64	150TG1297
25/32	150TG0781	1-5/16	150TG1312
51/64	150TG0797	1-21/64	150TG1328
13/16	150TG0812	1-11/32	150TG1344
53/64	150TG0828	1-23/64	150TG1359
27/32	150TG0844	1-3/8	150TG1375
7/8	150TG0875	1-13/32	150TG1406
57/64	150TG0891	1-27/64	150TG1422
29/32	150TG0906	1-7/16	150TG1438
59/64	150TG0922	1-15/32	150TG1469
15/16	150TG0938	1-31/64	150TG1484
61/64	150TG0953	1-1/2	150TG1500

Pull Studs - Retention Knobs

Pull Studs RK BT - MAS - 403



Pull Studs RK BT - MAS - 403 - Metric

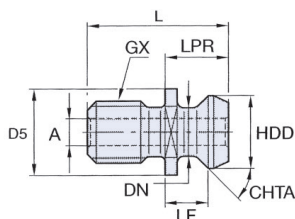
Part Number	Taper Size	GX	CHTA in Degree	D5	DN	DPW	HDD	LF	LPR	L	WF
RK30BT1M	30	M12-1.75	45	16.40	6.95	12.49	10.95	17.95	22.95	43	13
RK30BT2M	30	M12-1.75	60	16.40	6.95	12.49	10.95	17.95	22.95	43	13
RK40BT1M	40	M16-2.00	45	22.90	9.95	16.99	14.95	27.95	34.95	60	19
RK40BT2M	40	M16-2.00	60	22.90	9.95	16.99	14.95	27.95	34.95	60	19
RK40BT3M	40	M16-2.00	90	22.90	9.95	16.99	14.95	27.95	34.95	60	19
RK50BT1M	50	M24-3.00	45	37.90	16.95	24.99	22.95	34.95	44.95	85	30
RK50BT2M	50	M24-3.00	60	37.90	16.95	24.99	22.95	34.95	44.95	85	30
RK50BT3M	50	M24-3.00	90	37.90	16.95	24.99	22.95	34.95	44.95	85	30

Pull Studs ANSI - Style without Pilot - Inch

Part Number	Taper Size	GX	CHTA in Degree	D5	DN	DPW	HDD	LF	LPR	L	WF
RK31114*	40	5/8"-11	45	0.938	0.392	0.636	0.589	0.988	1.264	2.250	0.750
RK31114B	40	5/8"-11	90	0.938	0.392	0.636	0.589	0.988	1.264	2.250	0.750
RK31118	50	1.00"-8	45	1.438	0.668	1.026	0.903	1.384	1.778	3.355	1.250
RK31118B	50	1.00"-8	90	1.438	0.668	1.026	0.903	1.384	1.778	3.355	1.250

*RK31114H available with thru hole.

Pull Studs ANSI - Style without Pilot - Inch



Part Number	Taper Size	GX	CHTA in Degree	D5	DN	HDD	LF	LPR	L	WF	A
RK40CV	40	5/8"-11	45	0.938	0.490	0.740	0.440	0.640	1.500	0.750	0.281
RK50CV	50	1.00"-11	45	1.400	0.820	1.140	0.700	1.000	2.300	1.250	0.500

Technical Data

ER, TG, & DA Collet Chucks with CAT and BT Shanks

- CAT and BT Shanks are produced according to AT3 specifications
- Tools are made of high quality alloy steel
- Collet seat taper T.I.R. < 0.0002" (0.005mm)
- Through the spindle coolant capability
- Dynamically balanced to G6.5@15,000 available from stock
- Dynamically balanced to G2.5@20,000 / 25,000 available on request
- All balanced tools are supplied with QA certificate
- All collet chucks are supplied with depth set screws
- B + AD form available on request



End Mill Holders with CAT and BT

- CAT and BT Shanks are produced according to AT3 specifications
- Tools are made of high quality alloy steel
- End Mill Socket T.I.R. < 0.0002" (0.005mm)
- End Mill Hole diameters are made in H5 class
- Through the spindle coolant capability
- Dynamically balanced to G6.5@15,000 available from stock
- Dynamically balanced to G2.5@20,000 / 25,000 available on request
- All balanced tools are supplied with QA certificate
- B + AD form available on request



Shell End Mill and Face Mill Holders with CAT, BT, and R8 Shanks

- CAT and BT Shanks are produced according to AT3 specifications
- Tools are made of high quality alloy steel
- Shell End Mill Pilot T.I.R. < 0.0002" (0.005mm)
- End Mill Hole diameters are made in H5 class
- Through the spindle coolant capability
- All tools are balanced by design
- B + AD form available on request



ER, TG, & DA Collet Chucks | Extension with straight shanks

- Tools are made of high quality alloy steel
- SAE 8620/20MnCr5 and with wall thickness below 3mm EN19/SAE4140
- Collet seat taper T.I.R. <0.008mm (0.0003")
- Through the tool coolant capability
- All tools are balanced by design
- All collet chucks are available with the depth set screw



High Torque Hydraulic Milling Chucks with CT Shank

- CT Shank is produced according to AT3 specifications
- Tools are made of high quality SAE8620 steel
- 0.003mm (0.0001") Runout at nose of the chuck
- 0.005mm (0.0005") Runout at four times cutting tool shank diameter
- 0.003mm (0.0001") Runout of the sleeve ID against sleeve OD
- Through the spindle coolant capability
- Required end mill shank tolerance is h6 min.
- Hydraulic chucks are rated for 30 - 40k cycles
- All Chucks are balanced to G6.3 at 15,000
- All tools are supplied with QA certificate
- All Milling Chucks are supplied with wrench
- All tools are provided with AD+B cooling forms



CAT Blanks

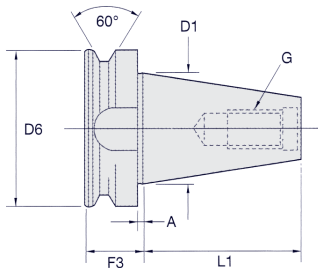
- 58 +/-2 HRC Shank
- 20 - 30 HRC Blank Part
- Steel - SAE8620/20MnCR5



Technical Data BT

BT Shank MAS 403

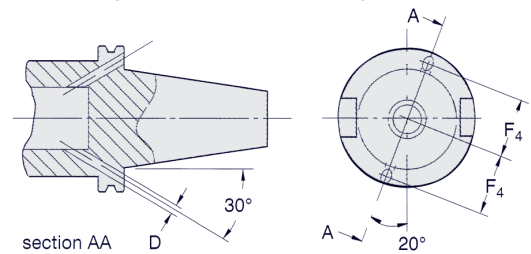
Tooling Standard Dimensions | JIS B6339



Shank	D1	D6	L1	F3	A	G
BT30	1.250 (31.75)	1.811 (46.00)	1.906 (48.40)	.866 (22.00)	.079 (2.00)	M12 thread
BT40	1.750 (44.45)	2.480 (63.00)	2.575 (65.40)	1.063 (27.00)	.079 (2.00)	M16 thread
BT50	2.750 (69.85)	3.937 (100.00)	4.008 (101.80)	1.496 (38.00)	.118 (3.00)	M24 thread

* Manufactured to MAS-403-1972 standards

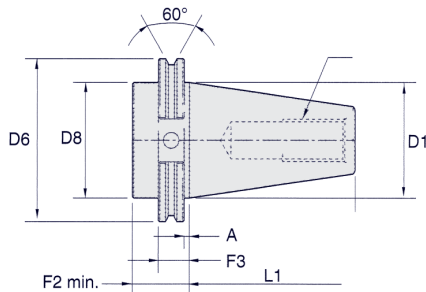
Form B Flange Coolant Entry Ports



Shank	D	F4 ±.400
BT30	.157 (4.00)	.827 (21.00)
BT40	.157 (4.00)	1.063 (27.00)
BT50	.236 (6.00)	1.654 (42.00)

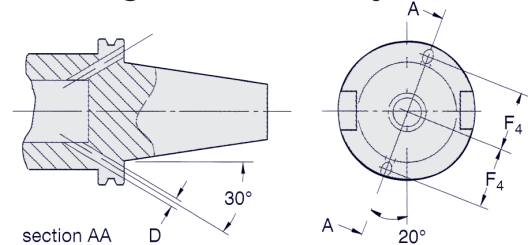
CAT Shank ANSI B5.50 | Form AD and Form B

Caterpillar (inch) CV | ANSI B5.50



Shank	D1	D6	D8	L1	F2	F3	A	G
CT30	1.250 (31.75)	1.812 (46.02)	1.250 (31.75)	1.875 (47.63)	1.375 (35.00)	.750 (19.05)	.125 (3.18)	1/2 - 13 thread
CT40	1.750 (44.45)	2.500 (63.05)	1.750 (44.45)	2.687 (68.25)	1.375 (35.00)	.750 (19.05)	.125 (3.18)	5/8 - 11 thread
CT50	2.750 (69.85)	3.875 (98.41)	2.750 (69.85)	4.000 (101.60)	1.375 (35.00)	.750 (19.05)	.125 (3.18)	1 - 8 thread

Form B Flange Coolant Entry Ports

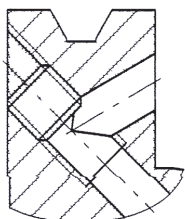


Shank	D	F4 ±.400
CT30	.157 (4.00)	.827 (21.00)
CT40	.157 (4.00)	1.063 (27.00)
CT50	.236 (6.00)	1.654 (42.00)

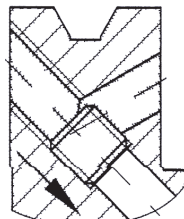
Form B Coolant

Some toolholders are equipped with the form B coolant-style feature.

CAUTION!



Toolholders are factory set to the form B coolant supply position. When relocating coolant position screws, use of a removable liquid (small screw thread locker) is recommended.



Possible variation of coolant supply to DIN 69871 form AD; tightening screws will stop coolant from escaping through flange.

Terms and Conditions



TERMS: Net 30 subject to credit approval

MINIMUM ORDER: \$50.00 net

PRICING: Subject to change without notice

DELIVERY: All deliveries are F.O.B. Global Tooling Solutions warehouse

RETURNS:

A Return Authorization Number (RMA#) is required prior to returning any product to GTS.

New product returns must be made within 30 days of original shipment.

C.O.D. returns cannot be accepted at our facility, so please do not ship returns C.O.D. as they will be refused.

Please follow these FIVE simple steps:

1. Enclose a copy of the RMA you received from us, with your return.
2. Enclose a copy of the original invoice, or packing slip, with your return.
3. Enclose any manuals and/or certifications that came with the product you are returning.
4. Pack returns in original packaging.
5. Pack well to avoid damage.

Failure to adhere to these requirements can result in the rejection of the return or credit reduction. All other returns are subject to a 15% restocking fee with a minimum fee of \$8.00.

SHIPMENT ERRORS:

Any shortages or discrepancies in shipment must be reported within 48 hours of receipt.

DAMAGED SHIPMENTS:

Inspect all merchandise while the driver is present and make notes of visible damages and discrepancies. Contact your local office for UPS, FedEx, and truck shipments and file a report immediately. Keep all damaged goods in the original packaging for inspection. Do not discard any packing materials. Failure to take these actions may waive your claim. Notify us as we will be glad to assist you with your claim.

LIMITED WARRANTY:

Talon - All tools are warranted against manufacturer defects and workmanship for one year from date of purchase. During the warranty period, we will repair or replace defective items. Modifications to items, normal wear and tear, and consumable items are not covered by this warranty. We make no representation or warranty, expressed or implied, and disclaim any expressed or implied warranty, including warranties of performance, merchantability, fitness, durability and suitability, arising out of or in connection to the sales, manufacturing, delivery or use of any products described in this catalog.

Product Lookup by Part Number

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4-CNF-030	28	20ER0312	31	25ER100M	32	32ER160M	32
4-CNF-040	28	20ER0344	31	25ER110M	32	32ER170M	32
4-CNF-050	28	20ER0375	31	25ER120M	32	32ER180M	32
16ER0062	31	20ER0406	31	25ER130M	32	32ER190M	32
16ER0094	31	20ER040M	32	25ER140M	32	32ER200M	32
16ER010M	32	20ER0438	31	25ER150M	32	32ERS000M	33
16ER0125	31	20ER0469	31	25ER160M	32	32ERS000SET1	33
16ER0156	31	20ER0500	31	25ERS000M	33	40ER0125	31
16ER015M	32	20ER050M	32	25ERS000SET1	33	40ER0156	31
16ER0188	31	20ER060M	32	32ER0125	31	40ER0188	31
16ER020M	32	20ER070M	32	32ER0156	31	40ER0219	31
16ER0219	31	20ER080M	32	32ER0188	31	40ER0250	31
16ER0250	31	20ER090M	32	32ER0219	31	40ER0281	31
16ER025M	32	20ER100M	32	32ER0250	31	40ER0312	31
16ER0281	31	20ER110M	32	32ER0281	31	40ER0344	31
16ER030M	32	20ER120M	32	32ER030M	32	40ER0375	31
16ER0312	31	20ER130M	32	32ER0312	31	40ER0406	31
16ER0344	31	20ERS000M	33	32ER0344	31	40ER040M	32
16ER035M	32	20ERS000SET1	33	32ER0375	31	40ER0438	31
16ER0375	31	25ER0094	31	32ER0406	31	40ER0469	31
16ER0406	31	25ER0125	31	32ER040M	32	40ER0500	31
16ER040M	32	25ER0156	31	32ER0438	31	40ER050M	32
16ER045M	32	25ER0188	31	32ER0469	31	40ER0531	31
16ER050M	32	25ER020M	32	32ER0500	31	40ER0562	31
16ER055M	32	25ER0219	31	32ER050M	32	40ER0594	31
16ER060M	32	25ER0250	31	32ER0531	31	40ER060M	32
16ER065M	32	25ER0281	31	32ER0562	31	40ER0625	31
16ER070M	32	25ER030M	32	32ER0594	31	40ER0656	31
16ER075M	32	25ER0312	31	32ER060M	32	40ER0688	31
16ER080M	32	25ER0344	31	32ER0625	31	40ER070M	32
16ER085M	32	25ER0375	31	32ER0656	31	40ER0719	31
16ER090M	32	25ER0406	31	32ER0688	31	40ER0750	31
16ER095M	32	25ER040M	32	32ER070M	32	40ER0781	31
16ER100M	32	25ER0438	31	32ER0719	31	40ER080M	32
16ERS000M	33	25ER0469	31	32ER0750	31	40ER0812	31
16ERS000SET2	33	25ER0500	31	32ER0781	31	40ER0844	31
20ER0094	31	25ER050M	32	32ER080M	32	40ER0875	31
20ER0125	31	25ER0531	31	32ER0812	31	40ER0906	31
20ER0156	31	25ER0562	31	32ER090M	32	40ER090M	32
20ER0188	31	25ER0594	31	32ER100M	32	40ER0938	31
20ER020M	32	25ER060M	32	32ER110M	32	40ER0969	31
20ER0219	31	25ER0625	31	32ER120M	32	40ER1000	31
20ER0250	31	25ER070M	32	32ER130M	32	40ER100M	32
20ER0281	31	25ER080M	32	32ER140M	32	40ER110M	32
20ER030M	32	25ER090M	32	32ER150M	32	40ER120M	32

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40ER140M	32	100TG0562	34	150TG1078	34	BT30ER32070M	16
40ER150M	32	100TG0625	34	150TG1172	34	BT30SM050118	23
40ER160M	32	100TG0656	34	150TG1187	34	BT30SM075118	23
40ER170M	32	100TG0672	34	150TG1219	34	BT30SM100177	23
40ER180M	32	100TG0688	34	150TG1234	34	BT30TG075075M	18
40ER190M	32	100TG0750	34	150TG1250	34	BT40DA188070M	19
40ER200M	32	100TG0797	34	150TG1266	34	BT40DA188100M	19
40ER210M	32	100TG0812	34	150TG1281	34	BT40DC13096M	21
40ER220M	32	100TG0875	34	150TG1297	34	BT40EM025255	20
40ER230M	32	100TG0891	34	150TG1312	34	BT40EM031255	20
40ER240M	32	100TG0906	34	150TG1328	34	BT40EM038255	20
40ER250M	32	100TG0953	34	150TG1344	34	BT40EM050255	20
40ER260M	32	100TG1000	34	150TG1359	34	BT40EM050400	20
40ERS000M	33	150TG0469	34	150TG1375	34	BT40EM062255	20
40ERS000SET1	33	150TG0500	34	150TG1406	34	BT40EM075150	20
100TG0094	34	150TG0531	34	150TG1422	34	BT40EM075255	20
100TG0109	34	150TG0562	34	150TG1438	34	BT40EM088335	20
100TG0125	34	150TG0578	34	150TG1469	34	BT40EM100162	20
100TG0141	34	150TG0594	34	150TG1484	34	BT40EM100374	20
100TG0156	34	150TG0609	34	150TG1500	34	BT40EM100500	20
100TG0172	34	150TG0625	34	BDWGLSO750448	8	BT40EM125335	20
100TG0188	34	150TG0656	34	BELS025025PKG	8, 9, & 20	BT40ER16120M	16
100TG0203	34	150TG0688	34	BELS031031PKG	8, 9, & 20	BT40ER25070M	16
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100TG0250	34	150TG0734	34	BELS056038PKG	8, 9, & 20	BT40ER32120M	16
100TG0266	34	150TG0750	34	BELS056050PKG	8, 9, & 20	BT40ER40080M	16
100TG0281	34	150TG0766	34	BELS062050PKG	8, 9, & 20	BT40ER40120M	16
100TG0297	34	150TG0781	34	BELS075044PKG	8, 9, & 20	BT40JT2244	22
100TG0312	34	150TG0797	34	BELS075056PKG	8, 9, & 20	BT40JT33045M	22
100TG0328	34	150TG0812	34	BELS075062PKG	8, 9, & 20	BT40JT3318	22
100TG0344	34	150TG0828	34	BELS075069PKG	8, 9, & 20	BT40JT4118	22
100TG0359	34	150TG0844	34	BELS10088PKG	20	BT40JT6118	22
100TG0375	34	150TG0875	34	BS1045PKG	20	BT40MT1050M	22
100TG0391	34	150TG0891	34	BT30EM012236	20	BT40MT2050M	22
100TG0406	34	150TG0906	34	BT30EM018236	20	BT40MT3070M	22
100TG0422	34	150TG0922	34	BT30EM025236	20	BT40MT4095M	22
100TG0438	34	150TG0938	34	BT30EM031236	20	BT40SER32035M	17
100TG0453	34	150TG0953	34	BT30EM038236	20	BT40SM050177	23
100TG0469	34	150TG0969	34	BT30EM050236	20	BT40SM075177	23
100TG0484	34	150TG1000	34	BT30EM062236	20	BT40SM100177	23
100TG0500	34	150TG1016	34	BT30EM075236	20	BT40SM125236	23
100TG0516	34	150TG1031	34	BT30ER16060M	16	BT40SM150236	23
100TG0531	34	150TG1047	34	BT30ER20060M	16	BT40TG075070M	18

Product Lookup by Part Number

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BT40TG100100M	18	CV40EM038250	8	CV40MT2244	11	CV50DC13M421	10
BT40TG100150M	18	CV40EM038450	8	CV40MT3300	11	CV50EM018250	9
BT50DC13096M	21	CV40EM038650	8	CV40MT4388	11	CV50EM018450	9
BT50EM050295	20	CV40EM044450	8	CV40SER32169	5	CV50EM025250	9
BT50EM075295	20	CV40EM050262	8	CV40SHYD075400	12	CV50EM025450	9
BT50EM100413	20	CV40EM050462	8	CV40SHYD100462	12	CV50EM031450	9
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BT50EM125413	20	CV40EM062375	8	CV40SM075138	14	CV50EM038450	9
BT50EM125600	20	CV40EM062575	8	CV40SM075350	14	CV50EM038650	9
BT50EM150413	20	CV40EM075375	8	CV40SM100206	14	CV50EM044450	9
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