



SUB-SPINDLE SERIES: TL-15, TL-25

TURNING CENTER SERIES: SL-20, SL-30, SL-40

TURNING CENTER SERIES: ST-20, ST-30







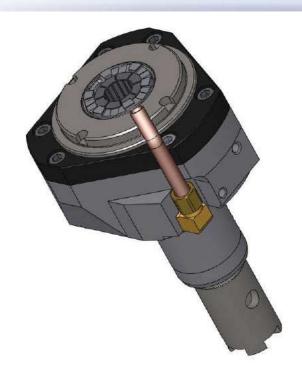


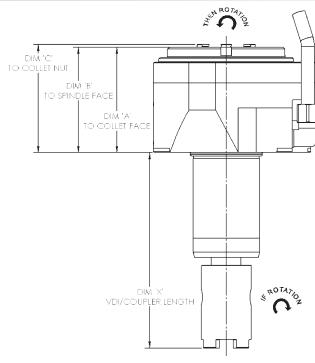


SUB-SPINDLE SERIES: TL-15, TL-25

TURNING CENTER SERIES: SL-20, SL-30, SL-40

TURNING CENTER SERIES: ST-20, ST-30





STRAIGHT (AXIAL / FACE)

Item Number	Ratio	Spindle	Internal Coolant	A (in)	B (in)	C (in)	D (in)	E (in)	X (in)
DT10611405111	1:1	ER-32		2.49	2.49	2.56			4.128
DT10611405121	1:1	ER-32	1500 PSI	3.54	3.54	3.81			4.128
DT10610605111	1:1	KM-40		2.21	2.69				4.128
DT10610605121	1:1	KM-40	1500 PSI	3.27	3.75				4.128
DT10611405211	1:1	ER-32		2.49	2.49	2.56			4.628
DT10611405221	1:1	ER-32	1500 PSI	3.54	3.54	3.81			4.628
DT10610605211	1:1	KM-40		2.21	2.69		-		4.628
DT10610605221	1:1	KM-40	1500 PSI	3.27	3.75		I		4.628
DT10611405311	1:1	ER-32		2.49	2.49	2.56			5.128
DT10611405321	1:1	ER-32	1500 PSI	3.54	3.54	3.81			5.128
DT10610605311	1:1	KM-40		2.21	2.69				5.128
DT10610605321	1:1	KM-40	1500 PSI	3.27	3.75				5.128

List Price
\$2,000.00
\$3,500.00
\$4,000.00
\$5,500.00
\$2,000.00
\$3,500.00
\$4,000.00
\$5,500.00
\$2,000.00
\$3,500.00
\$4,000.00
\$5,500.00

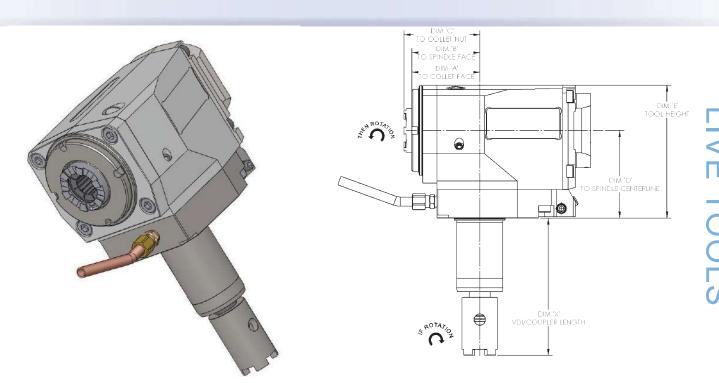


SUB-SPINDLE SERIES: TL-15, TL-25

TURNING CENTER SERIES: SL-20, SL-30, SL-40

TURNING CENTER SERIES: ST-20, ST-30





RIGHT-ANGLE (RADIAL / OD / SIDE)

Item Number	Ratio	Spindle	Internal Coolant	A (in)	B (in)	C (in)	D (in)	E (in)	X (in)
DT10211405111	1:1	ER-32		2.29	2.29	2.36	2.95	4.48	4.128
DT10211405121	1:1	ER-32	1500 PSI	2.29	2.29	2.56	2.95	4.48	4.128
DT10210605111	1:1	KM-40		1.45	1.94		2.95	4.48	4.128
DT10210605121	1:1	KM-40	1500 PSI	1.45	1.94		2.95	4.48	4.128
DT10211405211	1:1	ER-32		2.29	2.29	2.36	2.95	4.48	4.628
DT10211405221	1:1	ER-32	1500 PSI	2.29	2.29	2.56	2.95	4.48	4.628
DT10210605211	1:1	KM-40		1.45	1.94		2.95	4.48	4.628
DT10210605221	1:1	KM-40	1500 PSI	1.45	1.94		2.95	4.48	4.628
DT10211405311	1:1	ER-32		2.29	2.29	2.36	2.95	4.48	5.128
DT10211405321	1:1	ER-32	1500 PSI	2.29	2.29	2.56	2.95	4.48	5.128
DT10210605311	1:1	KM-40		1.45	1.94		2.95	4.48	5.128
DT10210605321	1:1	KM-40	1500 PSI	1.45	1.94		2.95	4.48	5.128
DT1022xx05xx1	1:2	*Ad	lder for Ratio	*Dimensions same as above					
DT1024xx05xx1	2:1	*Ad	Adder for Ratio *Dimensions same as above						

	List	Pri	се
0,	\$3,5	00.	00
(\$4,5	00.	00
(\$5,5	00.	00
Ç	\$6,5	00.	00
3	\$3,5	00.	00
3	\$4,5	00.	00
(\$5,5	00.	00
(6,5	00.	00
(\$3,5	00.	00
(\$4,5	00.	00
(\$5,5	00.	00
3	\$6,5	00.	00
+	\$1,5	500	.00
+	\$1,5	500	.00

Von Ruden Manufacturing, Inc. 1008 First Street NE, Buffalo, MN 55313 USA Phone: (763) 682-3122 Internet: www.vonruden.com

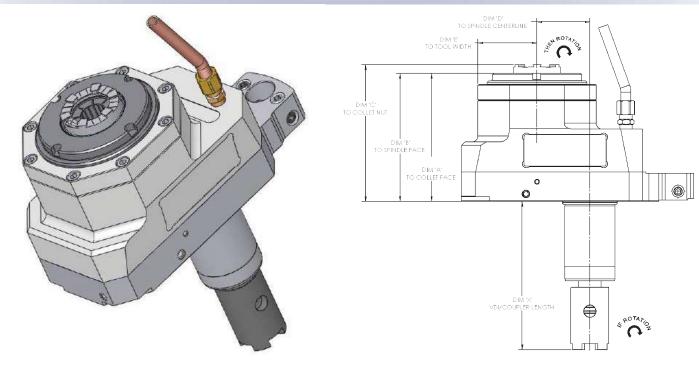




SUB-SPINDLE SERIES: TL-15, TL-25

TURNING CENTER SERIES: SL-20, SL-30, SL-40

TURNING CENTER SERIES: ST-20, ST-30



STRAIGHT-OFFSET (AXIAL / FACE)

				· · · · · · · · · · · · · · · · · · ·					
Item Number	Ratio	Spindle	Internal Coolant	A (in)	B (in)	C (in)	D (in)	E (in)	X (in)
DT10111405111	1:1	ER-32		4.00	4.00	4.07	1.65	1.85	4.128
DT10111405121	1:1	ER-32	1500 PSI	4.00	4.00	4.27	1.65	1.85	4.128
DT10110605111	1:1	KM-40		3.54	4.02		1.65	1.85	4.128
DT10110605121	1:1	KM-40	1500 PSI	3.54	4.02		1.65	1.85	4.128
DT10111405211	1:1	ER-32		4.00	4.00	4.07	1.65	1.85	4.628
DT10111405221	1:1	ER-32	1500 PSI	4.00	4.00	4.27	1.65	1.85	4.628
DT10110605211	1:1	KM-40		3.54	4.02		1.65	1.85	4.628
DT10110605221	1:1	KM-40	1500 PSI	3.54	4.02		1.65	1.85	4.628
DT10111405311	1:1	ER-32		4.00	4.00	4.07	1.65	1.85	5.128
DT10111405321	1:1	ER-32	1500 PSI	4.00	4.00	4.27	1.65	1.85	5.128
DT10110605311	1:1	KM-40		3.54	4.02		1.65	1.85	5.128
DT10110605321	1:1	KM-40	1500 PSI	3.54	4.02		1.65	1.85	5.128
DT1012xx05xx1	1:2	*Ad	lder for Ratio	*Dimensions same as above					
DT1014xx05xx1	2:1	*Ad	lder for Ratio	*Dimensions same as above					

\$3,500.00 \$4,500.00 \$5,500.00 \$6,500.00 \$3,500.00 \$4,500.00 \$5,500.00 \$4,500.00 \$4,500.00 \$4,500.00 \$4,500.00 \$1,500.00 \$1,500.00 \$1,500.00



SUB-SPINDLE SERIES: TL-15, TL-25

TURNING CENTER SERIES: SL-20, SL-30, SL-40

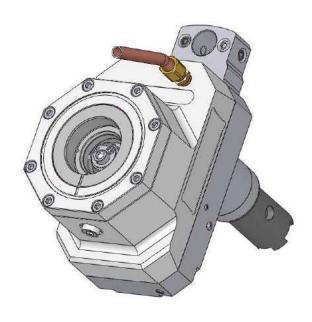
TURNING CENTER SERIES: ST-20, ST-30

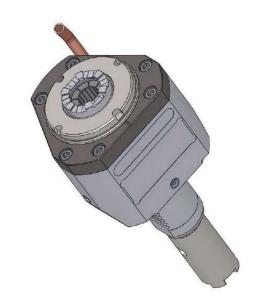






SPECIALS





Von Ruden Manufacturing, Inc. 1008 First Street NE, Buffalo, MN 55313 USA Phone: (763) 682-3122 Internet: www.vonruden.com

Page 4

Rev. 07-11-A



HAAS

DUAL SPINDLE SERIES: DS-30

SUB-SPINDLE SERIES: TL-15, TL-25

TURNING CENTER SERIES: SL-20, SL-30, SL-40

TURNING CENTER SERIES: ST-20. ST-30

Why do over 94% of our test programs result in customer purchases...?

MADE IN USA. Designed, manufactured and supported in the USA.

Your only supplier with over 60 years of gear and bearing expertise combined with over 30 years of hydraulic expertise.

All tools are designed to each specific machine as to not limit your equipment's capabilities.

Quality high precision spindle bearings (ABEC 7 / P4 minimum) are used for performance, rigidity and durability for smooth operation and long life giving the assurance of solid performance.

Maximum use of each machine's turret cone for larger diameter duplex bearings set around the clamping system without interference to neighboring tools.

Highest quality seals and o-rings for protection against external contamination. Long-life premium grease for optimum lubrication environment.

Recessed spindle configurations reduces the length of moment arm for longer bearing life while maximizing tool lengths.

Bodies are made of high quality steels with a one piece base hardened for maximum rigidity and wear resistance. Black oxide coated for a professional finish.

Internal and External combination coolant options. High pressure internal coolant options up to 1.500 PSI.

Hardened and honed right-angle spiral bevel and spur cut gears provide for long life, high strength and quiet operation.

Industry proven ER Tooling System for reliable and controlled machining. Wrenches Included!

All tools are packaged with specification sheets, operating instructions and audit-test reports. ISO 9001:2008 Certified.

Kennametal® Modular Quick-Change Tooling System for reliable and efficient tool changes.

48 Hour Service on repairs! We have even done them in less than one hour. We understand your urgency as we are a customer too!

