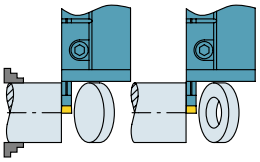
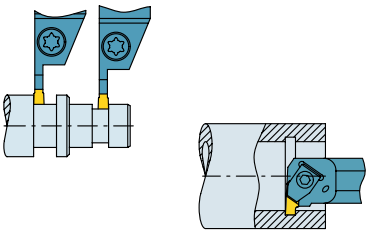
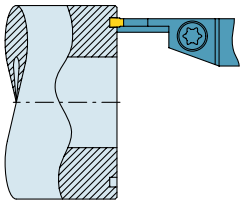
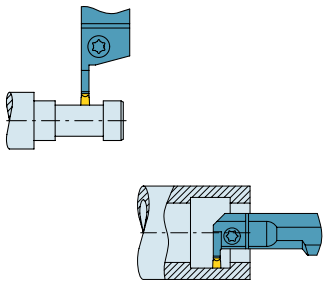
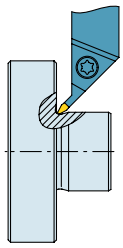
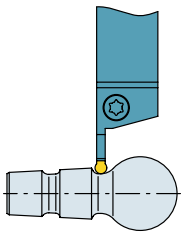
Grooving Application Guide

	Cut-Off	Grooving	Face Grooving
Application			
TOP NOTCH Grooving generally recommended for cutting depth/ width ratios of 1.5 or less		**Inserts** • cutting widths from .031 to .375 inch (0,8 to 9,5 mm) • cutting depths from .050 to .375 inch (1,27 to 9,5 mm) • chip control, positive rake, and neutral flat top inserts are available **OD Application** • integral shank toolholders and KM heads are available **ID Application** • boring bars with a .440 inch (11,2 mm) minimum bore diameter	**Minimum Face Groove Diameter Capability** • standard inserts: 2.125 to 13 inch (54 to 330 mm) depending on size • NF/NFD face grooving inserts: .940 to 2.25 inch (24 to 57 mm) • all have unlimited maximum diameter **Cutting Width Range** • standard inserts: .031 to .375 inch (0,8 to 9,5 mm) • NF/NFD face grooving inserts: .125 to .375 inch (3,2 to 9,5 mm) **Cutting Depth Range** • standard inserts: .050 to .375 inch (1,27 to 9,5 mm) • NF/NFD face grooving inserts: .150 to .250 inch (3,8 to 6,35 mm)
A4 Groove & Turn	**Cut-off Capabilities** • .118 inch to .157 inch (3 mm to 4 mm) cut-off width • satisfies extreme demands for rigidity and dimensional accuracy • integral screw-clamping toolholders with .670 inch (17 mm) maximum cutting depth available • economical double-edge inserts	**Inserts** • cutting widths from .118 to .396 inch (3,0 to 10,05 mm) • precision ground and molded inserts... all available with chip control **OD Application** • integral shank toolholders and modular KM heads are available • cutting depths from .55 to 1.02 inch (14 to 26 mm) **ID Application** • boring bars with .984 inch (25 mm) minimum bore diameter • cutting widths from .118 to .250 inch (3,0 to 6,35 mm)	**Minimum Face Groove Diameter Capability** • 1.417 inch (36 mm) minimum diameter • unlimited maximum diameter **Cutting Width Range** • cutting widths from .118 to .199 inch (3,0 to 5,05 mm) **Cutting Depth Range** • cutting depths of .276 to .748 inch (7 to 19 mm)
A3 Deep Grooving generally recommended for cutting depth/ width ratios of more than 1.5		**Inserts** • cutting widths from .093 to .396 inch (2,36 to 10,05 mm) • precision ground and molded inserts... all available with chip control **OD Application** • integral shank toolholders and modular KM heads are available • cutting depths from .394 to 1.26 inch (10 to 32 mm) **ID Application** • boring bars with 1.26 inch (32 mm) minimum bore diameter	**Minimum Face Groove Diameter Capabilities** • .984 inch (25 mm) minimum diameter unlimited maximum diameter **Cutting Width Range** • cutting widths from .118 to .250 inch (3,0 to 6,35 mm) **Cutting Depth Range** • cutting depths from .393 to 1.26 inch (10 to 32 mm)
A2 Cut-off	**Cut-off Capabilities** • cut-off widths from .063 to .315 inch (1,6 to 8 mm) • left- and right-hand styles with 6° to 16° lead angles • self-clamping blades and screw-clamping integral shank toolholders are available • single-edge inserts for maximum depth capability		

	Groove & Turn	Undercutting	Profiling
Application			
TOP NOTCH Grooving generally recommended for cutting depth/ width ratios of 1.5 or less		**Top Notch Undercutting Capability** • undercutting insert widths from .094 to .156 inch (2,4 - 4 mm) • economical double-ended inserts	**Recommended for Moderate to Heavy Stock Removal at Shallow Profile Depths** **Full Radius Inserts** • cutting widths from .062 to .250 inch (1,57 to 6,35 mm) • cutting depths of .094 to .250 inch (2,39 to 6,35 mm) **OD Application** • integral shank toolholders and KM heads are available
A4 Groove & Turn	**Recommended for Heavy Stock Removal, Particularly in Turning Applications** **Inserts** • cutting widths: .118 to .396 inch, (3,0 to 10,05 mm) • double-ended, precision ground, and molded inserts...all available with chip control **OD Application** • integral shank toolholders and modular KM heads are available • cutting depths from .55 to 1.02 inch (14 to 26 mm) **ID Application** • boring bars with .984 inch (25 mm) minimum bore diameter • cutting widths from .118 to .250 inch (3,0 to 6,35 mm)		**Recommended for Heavy Stock Removal** **Full Radius Inserts** • cutting widths from .118 to .396 inch (3,0 to 10,05 mm) **OD Application** • integral shank toolholders and modular KM heads are available • cutting depths from .55 to 1.02 inch (14 to 26 mm)
A3 Deep Grooving generally recommended for cutting depth/ width ratios of more than 1.5	**Recommended for Light Cutting** **Inserts** • cutting widths from .093 to .396 inch (2,36 to 10 mm) • precision ground and molded inserts, all available with chip control **OD Application** • integral shank toolholders and modular KM heads are available • cutting depths from .394 to 1.26 inch (10 to 32 mm) **ID Application** • boring bars with 1.26 inch (32 mm) minimum bore diameter	**Full Radius Undercutting** • full radius inserts with cutting widths from .093 to .315 inch (2,4 to 8 mm) at 45° lead angle **35° Insert Undercutting** • 35° V-form inserts for profiling undercuts • toolholder lead angles of 93° and 117.5°	**Recommended for Light Cutting** • full radius inserts with cutting widths from .118 to .315 inch (3 to 8 mm) • 1.26 inch (32 mm) maximum cutting depth • integral shank toolholders and modular KM heads are available • 35° V-form inserts are also available
A2 Cut-off			