

INDEX



Tool Holder Catalog

INDEX G200

VDI 25

HSK 50

LL3302.30031 - 04.04.2014

0414/Rö

Disclaimer

The illustrations in this documents may deviate from the delivered product. We reserve the right to make changes due to errors or based on technical advances.

Abbreviations used in the catalog:

EC = external cooling lubricant supply

approx.= approximately

D = diameter

max = maximum

min = minimum

IC = internal cooling lubricant supply

MT = Morse taper

R = radius

s = wrench size

ST = steep taper

SQ = square

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For accessories for tool holders visit <http://infoshop.index-werke.de/>

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CL9301.30150 Work area INDEX G200

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CL9301.33310 Work area INDEX G200

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CL9301.33410 Work area INDEX G200

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CL9301.33410 Work area INDEX G200
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KL9352.10271 Performance diagram
Live tools, tool carrier 1 -XZ / tool carrier 2 -XZ
Speed range 0-6000 rpm

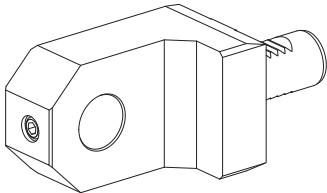
2-20

KL9352.30021 Performance diagram
Live tools
Additional milling spindle, tooling system HSK 50
Speed range 0-2000 rpm

2-21

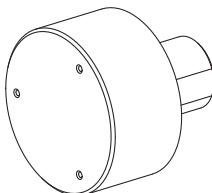
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W1200039 Bar stop, live

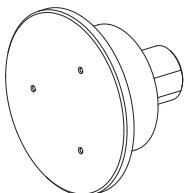
Fixation	none
Mounting	D25
Cooling	–
X / Y / Z	70 (2.76) / – / 30 (1.18) mm (")



W9990159 Bar stop, live

3-3

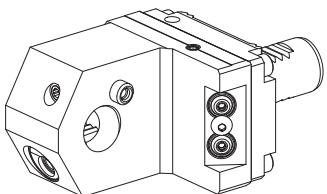
Fixation	–
Mounting	D58
Cooling	–
X / Y / Z	– / – / 30 (1.18) mm (")



W9990160 Bar stop, live

3-4

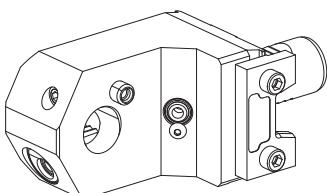
Fixation	–
Mounting	D85
Cooling	–
X / Y / Z	– / – / 30 (1.18) mm (")



W1250000 Compensation holder

3-5

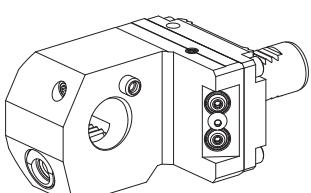
Fixation	W serration
Mounting	VDI 20
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / – / 2 (0.8) mm (")



W1230000 Compensation holder

3-6

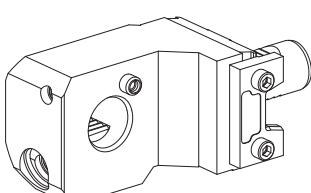
Fixation	Vee bar
Mounting	VDI 20
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / – / 2 (0.8) mm (")



W1250001 Compensation holder

3-7

Fixation	W serration
Mounting	VDI 25
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / – / 2 (0.8) mm (")



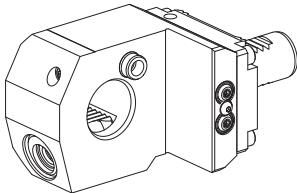
W1230027 Compensation holder

3-8

Fixation	Vee bar
Mounting	VDI 25
Cooling	internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / – / 2 (0.8) mm (")

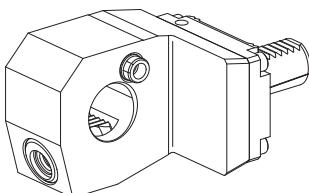
Catalog page

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W1250002 Compensation holder

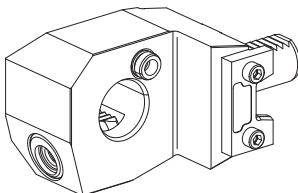
Fixation	W serration
Mounting	VDI 30
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / - / 2 (0.8) mm (")



W1250025 Compensation holder, vertically adjustable

3-10

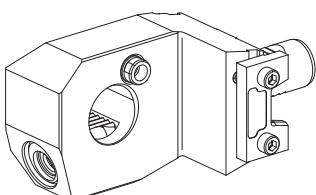
Fixation	W serration
Mounting	VDI 30
Cooling	internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / -5 (-0.2) mm (")



W1230003 Compensation holder

3-11

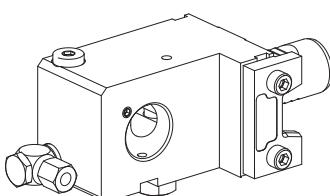
Fixation	Vee bar
Mounting	VDI 30
Cooling	internal, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / 3 (0.12) mm (")



W1230026 Compensation holder

3-12

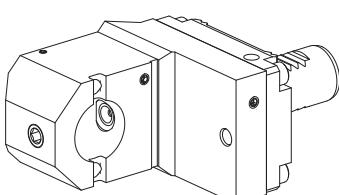
Fixation	Vee bar
Mounting	VDI 30
Cooling	internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / -5 (-0.2) mm (")



W1230025 Compensation holder

3-13

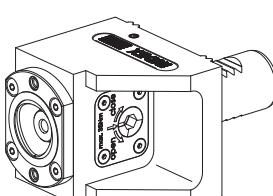
Fixation	Vee bar
Mounting	D1"
Cooling	external, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / 15 (0.59) mm (")



W1250008 Compensation holder

3-14

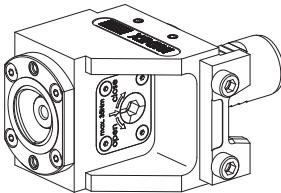
Fixation	W serration
Mounting	ABS 50
Cooling	internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / -8 (-0.31) mm (")



W1250084 Drilling tool holder

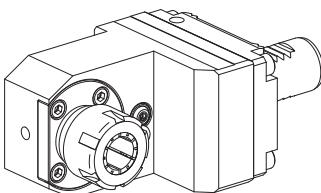
3-15

Fixation	W serration
Mounting	INDEX TRAUB CAPTO C3
Cooling	internal, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / 16 (0.63) mm (")



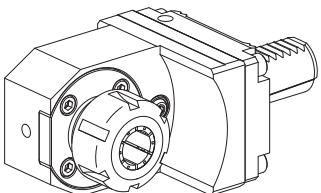
W1230063 Drilling tool holder

Fixation	Vee bar
Mounting	INDEX TRAUB CAPTO C3
Cooling	internal, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / 16 (0.63) mm (")



W1250007 Drilling tool holder

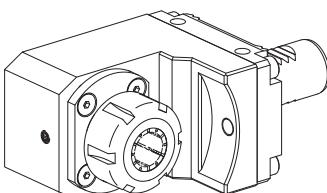
Fixation	W serration
Mounting	ER 25
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	87 (3.43) / - / 31 (1.22) mm (")



W1250026 Drilling tool holder, vertically adjustable

3-18

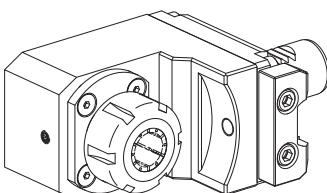
Fixation	W serration
Mounting	ER 25
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / - / 31 (1.22) mm (")



W1250072 Drilling tool holder

3-19

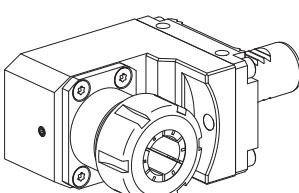
Fixation	W serration
Mounting	ER 25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 31 (1.22) mm (")



W1230056 Drilling tool holder

3-20

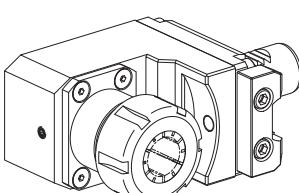
Fixation	Vee bar
Mounting	ER 25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 31 (1.22) mm (")



W1250095 Drilling tool holder

3-21

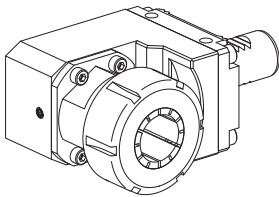
Fixation	W serration
Mounting	ER 32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 52 (25) mm (")



W1230058 Drilling tool holder

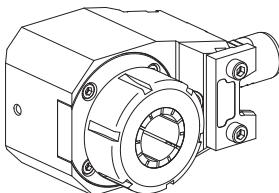
3-22

Fixation	Vee bar
Mounting	ER 32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 52 (25) mm (")



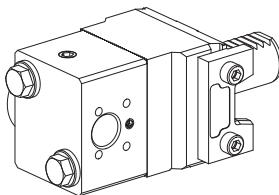
W1250069 Drilling tool holder

Fixation W serration
Mounting ER 40
Cooling external and internal, p_{max} 80 bar
X / Y / Z 70 (2.76) / - / 57.5 (2.26) mm (")



W1230006 Drilling tool holder

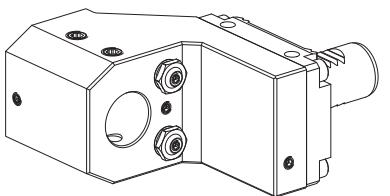
Fixation Vee bar
Mounting ER 40
Cooling external and internal, p_{max} 40 bar
X / Y / Z 70 (2.76) / - / 55 (2.17) mm (")



W1230007 Drilling tool holder, vertically adjustable

3-25

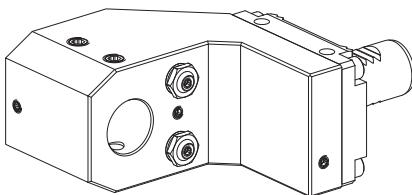
Fixation Vee bar
Mounting DIN 1835 B/E D16
Cooling internal, p_{max} 80 bar
X / Y / Z 70 (2.76) / - / 25 (0.98) mm (")



W1250056 Drilling tool holder

3-26

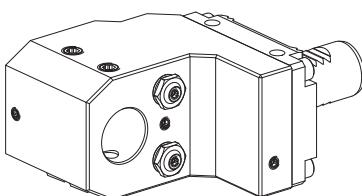
Fixation W serration
Mounting DIN 1835 B/E D25
Cooling external and internal, p_{max} 80 bar
X / Y / Z 70 (2.76) / - / -19 (-0.75) mm (")



W1250057 Drilling tool holder

3-27

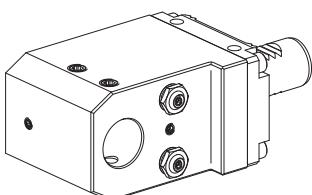
Fixation W serration
Mounting DIN 1835 B/E D25
Cooling external and internal, p_{max} 80 bar
X / Y / Z 87 (3.43) / - / -19 (-0.75) mm (")



W1250061 Drilling tool holder

3-28

Fixation W serration
Mounting DIN 1835 B/E D25
Cooling external and internal, p_{max} 80 bar
X / Y / Z 78 (37) / - / 0 mm (")



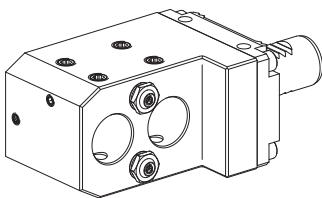
W1250062 Drilling tool holder

3-29

Fixation W serration
Mounting DIN 1835 B/E D25
Cooling external and internal, p_{max} 80 bar
X / Y / Z 87 (3.43) / - / 30 (1.18) mm (")

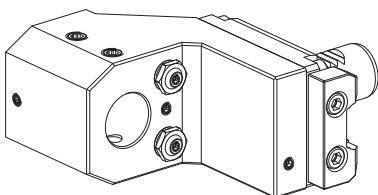
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W1250063 Drilling tool holder, double

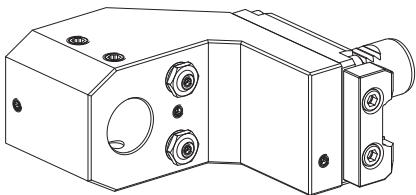
Fixation	W serration
Mounting	DIN 1835 B/E D25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	55 + 90 (2.17 + 3.54) / - / 20 (0.79) mm (")



W1230042 Drilling tool holder

3-31

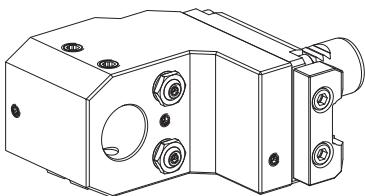
Fixation	Vee bar
Mounting	DIN 1835 B/E D25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / -19 (-0.75) mm (")



W1230043 Drilling tool holder

3-32

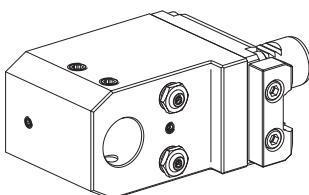
Fixation	Vee bar
Mounting	DIN 1835 B/E D25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	87 (3.43) / - / -19 (-0.75) mm (")



W1230047 Drilling tool holder

3-33

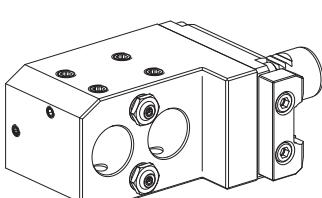
Fixation	Vee bar
Mounting	DIN 1835 B/E D25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	78 (37) / - / 0 mm (")



W1230048 Drilling tool holder

3-34

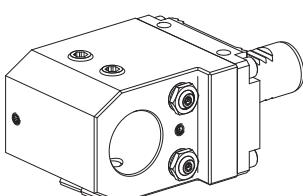
Fixation	Vee bar
Mounting	DIN 1835 B/E D25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	87 (3.43) / - / 30 (1.18) mm (")



W1230049 Drilling tool holder, double

3-35

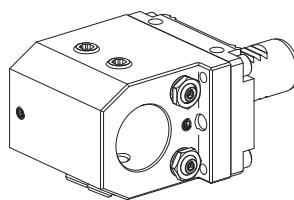
Fixation	Vee bar
Mounting	DIN 1835 B/E D25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	55 + 90 (2.17 + 3.54) / - / 20 (0.79) mm (")



W1250058 Drilling tool holder

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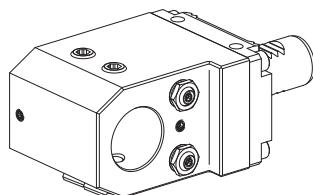
Fixation	W serration
Mounting	DIN 1835 B/E D32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 30 (1.18) mm (")



W1250060 Drilling tool holder

Catalog page
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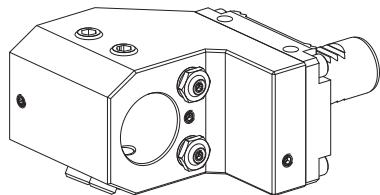
Fixation	W serration
Mounting	DIN 1835 B/E D32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / 30 (1.18) mm (")



W1250071 Drilling tool holder

3-38

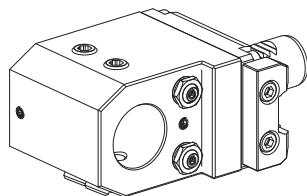
Fixation	W serration
Mounting	DIN 1835 B/E D32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	78 (37) / - / 30 (1.18) mm (")



W1250078 Drilling tool holder

3-39

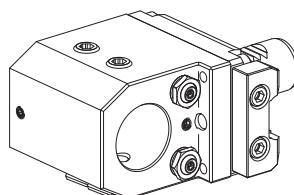
Fixation	W serration
Mounting	DIN 1835 B/E D32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / - mm (")



W1230044 Drilling tool holder

3-40

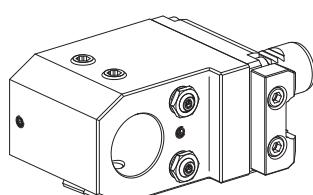
Fixation	Vee bar
Mounting	DIN 1835 B/E D32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 30 (1.18) mm (")



W1230046 Drilling tool holder

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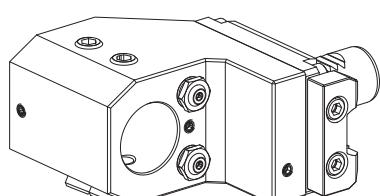
Fixation	Vee bar
Mounting	DIN 1835 B/E D32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / 30 (1.18) mm (")



W1230053 Drilling tool holder

3-42

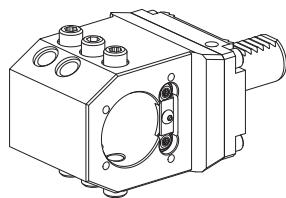
Fixation	Vee bar
Mounting	DIN 1835 B/E D32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	78 (37) / - / 30 (1.18) mm (")



W1230066 Drilling tool holder

3-43

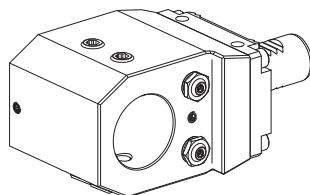
Fixation	Vee bar
Mounting	DIN 1835 B/E D32
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 0 mm (")



W1250010 Drilling tool holder

Catalog page
3-44

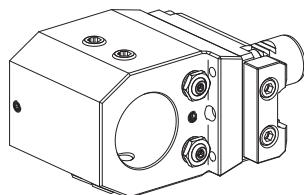
Fixation	W serration
Mounting	DIN 1835 B/E D40
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / - / 32 (1.26) mm (")



W1250080 Drilling tool holder

3-45

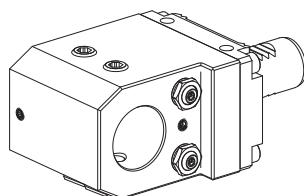
Fixation	W serration
Mounting	DIN 1835 B/E D40
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	78 (37) / - / 30 (1.18) mm (")



W1230045 Drilling tool holder

3-46

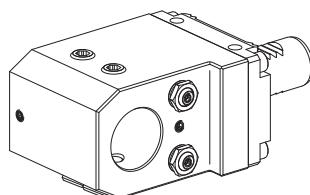
Fixation	Vee bar
Mounting	DIN 1835 B/E D40
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 30 (1.18) mm (")



W1250064 Drilling tool holder

3-47

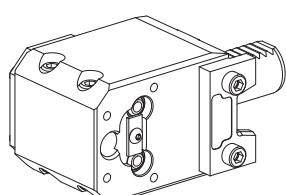
Fixation	W serration
Mounting	DIN 1835 B/E D 1 1/4"
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	70 (2.76) / - / 30 (1.18) mm (")



W1250065 Drilling tool holder

3-48

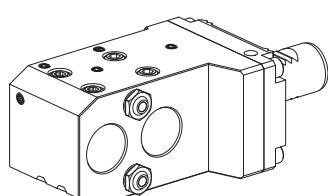
Fixation	W serration
Mounting	DIN 1835 B/E D 1 1/4"
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	78 (37) / - / 30 (1.18) mm (")



W1230032 Drilling tool holder

3-49

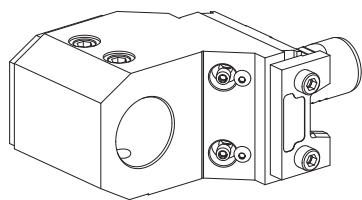
Fixation	Vee bar
Mounting	D12
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / - / 30 (1.18) mm (")



W1250052 Drilling tool holder, double

3-50

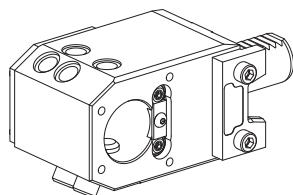
Fixation	W serration
Mounting	D25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	65 + 100 (2.56 + 3.94) / - / 20 (0.79) mm (")



W1230012 Drilling tool holder

Catalog page
3-51

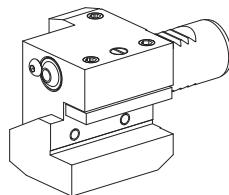
Fixation	Vee bar
Mounting	D32
Cooling	external and internal, p_{max} 40 bar
X / Y / Z	70 (2.76) / - / 7 (0.28) mm (")



W1230008 Drilling tool holder

3-52

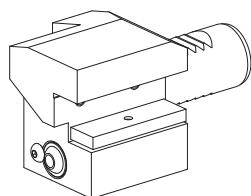
Fixation	Vee bar
Mounting	D1 1/4"
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / - / 30 (1.18) mm (")



W1200000 Turning tool holder, Form C1/C4

3-53

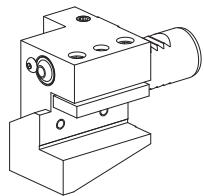
Fixation	none
Mounting	square 16x16
Cooling	external, p_{max} 20 bar
X / Y / Z	55 (2.17) / - / 19 (0.75) mm (")



W1200003 Turning tool holder, Form C2/C3

3-54

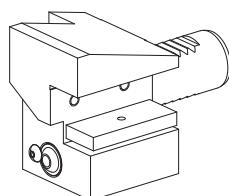
Fixation	none
Mounting	square 16x16
Cooling	external, p_{max} 20 bar
X / Y / Z	55 (2.17) / - / 19 (0.75) mm (")



W1200001 Turning tool holder, Form C1/C4

3-55

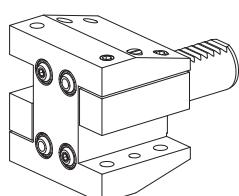
Fixation	none
Mounting	square 20x20
Cooling	external, p_{max} 20 bar
X / Y / Z	55 (2.17) / - / 15 (0.59) mm (")



W1200004 Turning tool holder, Form C2/C3

3-56

Fixation	none
Mounting	square 20x20
Cooling	external, p_{max} 20 bar
X / Y / Z	55 (2.17) / - / 19 (0.75) mm (")



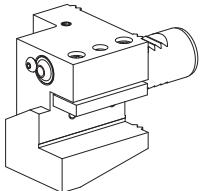
W1200025 Turning tool holder, double

3-57

Fixation	none
Mounting	square 20x20
Cooling	external, p_{max} 20 bar
X / Y / Z	55 (2.17) / - / 17 (0.67) mm (")

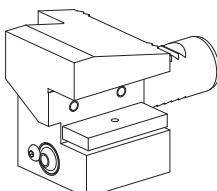
Catalog page

3-58



W1250017 Turning tool holder, Form C1/C4

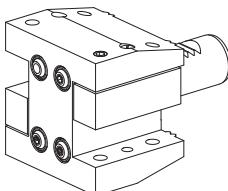
Fixation	W serration
Mounting	square 20x20
Cooling	external, p_{\max} 20 bar
X / Y / Z	55 (2.17) / - / 15 (0.59) mm (")



W1250018 Turning tool holder, Form C2/C3

3-59

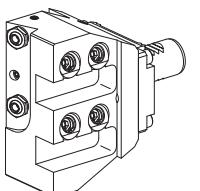
Fixation	W serration
Mounting	square 20x20
Cooling	external, p_{\max} 20 bar
X / Y / Z	55 (2.17) / - / 19 (0.75) mm (")



W1250019 Turning tool holder, double

3-60

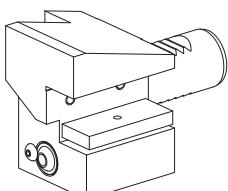
Fixation	W serration
Mounting	square 20x20
Cooling	external, p_{\max} 20 bar
X / Y / Z	57 (2.24) / - / 17 (0.67) mm (")



W1250068 Turning tool holder, double

3-61

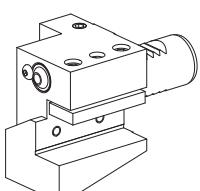
Fixation	W serration
Mounting	square 20x20
Cooling	external, p_{\max} 80 bar
X / Y / Z	85.5 (3.37) / 5 + -40 (0.2 + -1.57) / 34.8 (1.37) mm (")



W1200021 Turning tool holder, Form C2/C3

3-62

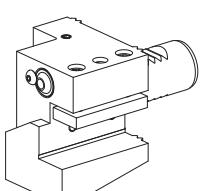
Fixation	none
Mounting	square 3/4x3/4"
Cooling	internal, p_{\max} 20 bar
X / Y / Z	55 (2.17) / - / 19 (0.75) mm (")



W1200022 Turning tool holder, Form C1/C4

3-63

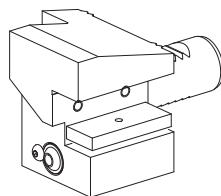
Fixation	none
Mounting	square 3/4x3/4"
Cooling	internal, p_{\max} 20 bar
X / Y / Z	55 (2.17) / - / 15 (0.59) mm (")



W1250036 Turning tool holder, Form C1/C4

3-64

Fixation	W serration
Mounting	square 3/4x3/4"
Cooling	external, p_{\max} 20 bar
X / Y / Z	55 (2.17) / - / 15 (0.59) mm (")

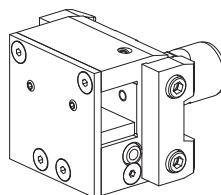


W1250037 Turning tool holder, Form C2/C3

Catalog page

3-65

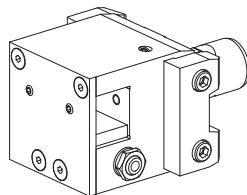
Fixation	W serration
Mounting	square 3/4x3/4"
Cooling	external, p_{max} 20 bar
X / Y / Z	55 (2.17) / - / 19 (0.75) mm (")



W1220006 Turning tool holder

3-66

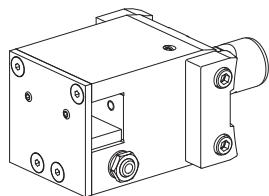
Fixation	Clamping and stop bar
Mounting	square 20x20
Cooling	external, p_{max} 20 bar
X / Y / Z	18.5 (0.73) / - / 30 (1.18) mm (")



W1220007 Turning tool holder

3-67

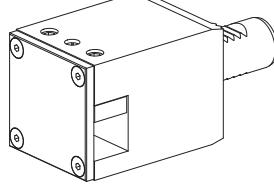
Fixation	Clamping and stop bar
Mounting	square 20x20
Cooling	external, p_{max} 80 bar
X / Y / Z	40 (1.57) / - / 30 (1.18) mm (")



W1220008 Turning tool holder

3-68

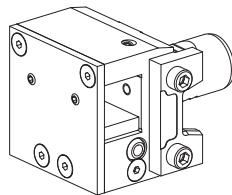
Fixation	Clamping and stop bar
Mounting	square 20x20
Cooling	external, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / 30 (1.18) mm (")



W1250020 Turning tool holder

3-69

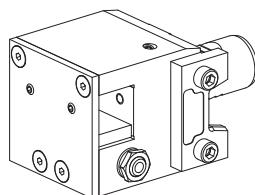
Fixation	W serration
Mounting	square 20x20
Cooling	external, p_{max} 20 bar
X / Y / Z	60 (2.36) / - / 30 (1.18) mm (")



W1230029 Turning tool holder

3-70

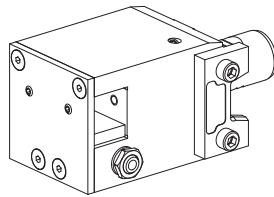
Fixation	Vee bar
Mounting	square 20x20
Cooling	external, p_{max} 80 bar
X / Y / Z	18.5 (0.73) / - / 30 (1.18) mm (")



W1230030 Turning tool holder

3-71

Fixation	Vee bar
Mounting	square 20x20
Cooling	external, p_{max} 80 bar
X / Y / Z	40 (1.57) / - / 30 (1.18) mm (")

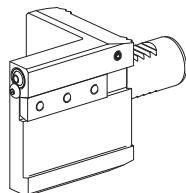


W1230031 Turning tool holder

Catalog page

3-72

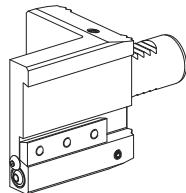
Fixation	Vee bar
Mounting	square 20x20
Cooling	external, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / 30 (1.18) mm (")



W1250076 Grooving tool holder

3-73

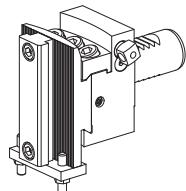
Fixation	W serration
Mounting	Trapezoid 32x4
Cooling	external, p_{max} 20 bar
X / Y / Z	68.2 (2.69) / - / 30 (1.18) mm (")



W1250077 Grooving tool holder

3-74

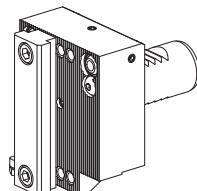
Fixation	W serration
Mounting	Trapezoid 32x4
Cooling	external, p_{max} 20 bar
X / Y / Z	68.2 (2.69) / - / 30 (1.18) mm (")



W1200023 Basic holder, Contour plunging tool holder

3-75

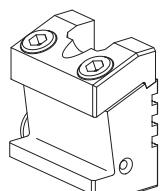
Fixation	none
Mounting	-
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	88 (3.46) / - / - mm (")



W1250003 Basic holder, Contour plunging tool holder

3-76

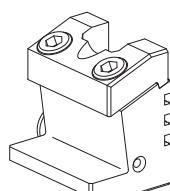
Fixation	W serration
Mounting	-
Cooling	external, p_{max} 20 bar
X / Y / Z	28.3 (1.11) / - / - mm (")



W9990055 Grooving tool holding block, vertically adjustable

3-77

Fixation	-
Mounting	-
Cooling	external, p_{max} 20 bar
X / Y / Z	30 (1.18) / - / - mm (")



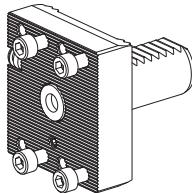
W9990065 Grooving tool holding block, vertically adjustable

3-78

Fixation	-
Mounting	-
Cooling	external, p_{max} 20 bar
X / Y / Z	38 (1.5) / - / - mm (")

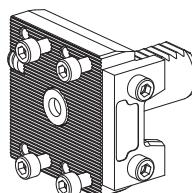
Catalog page

3-79



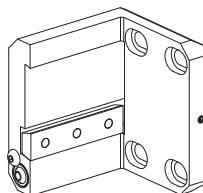
W1250021 Basic holder, horizontally adjustable

Fixation	W serration
Mounting	–
Cooling	external and internal, p_{\max} 20 bar
X / Y / Z	19.6 (0.77) / – / 30 (1.18) mm (")



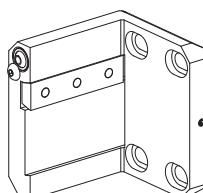
W1230017 Basic holder, horizontally adjustable

Fixation	Vee bar
Mounting	–
Cooling	external, p_{\max} 40 bar
X / Y / Z	19 (0.75) / – / 30 (1.18) mm (")



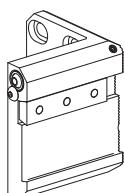
W9990031 Grooving tool holding block, horizontally adjustable

Fixation	–
Mounting	Trapezoid 32x3
Cooling	external, p_{\max} 20 bar
X / Y / Z	62 (2.44) / – / 19 (0.75) mm (")



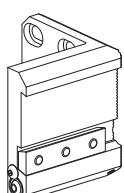
W9990032 Grooving tool holding block, horizontally adjustable

Fixation	–
Mounting	Trapezoid 32x3
Cooling	external, p_{\max} 20 bar
X / Y / Z	62 (2.44) / – / 19 (0.75) mm (")



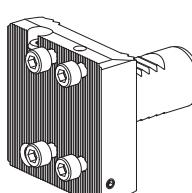
W9990165 Grooving tool holding block, horizontally adjustable

Fixation	–
Mounting	Trapezoid 32x3
Cooling	–, p_{\max} 20 bar
X / Y / Z	62 (2.44) / – / 30 (1.18) mm (")



W9990166 Grooving tool holding block, horizontally adjustable

Fixation	–
Mounting	Trapezoid 32x3
Cooling	–, p_{\max} 20 bar
X / Y / Z	62 (2.44) / – / 33 (1.3) mm (")

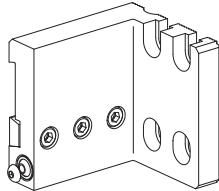


W1250031 Basic holder, vertically adjustable

Fixation	W serration
Mounting	–
Cooling	external, p_{\max} 20 bar
X / Y / Z	19 (0.75) / – / – mm (")

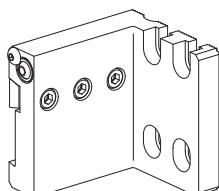
Catalog page

3-86



W9990150 Grooving tool holding block, vertically adjustable

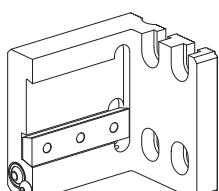
Fixation –
Mounting Trapezoid 26x4
Cooling external, p_{\max} 20 bar
X / Y / Z 63 (2.48) / ±1.5 (±06) / 58 (2.28) mm (")



W9990151 Grooving tool holding block, vertically adjustable

3-87

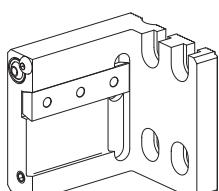
Fixation –
Mounting Trapezoid 26x4
Cooling external, p_{\max} 20 bar
X / Y / Z 63 (2.48) / ±1.5 (±06) / 58 (2.28) mm (")



W9990152 Grooving tool holding block, vertically adjustable

3-88

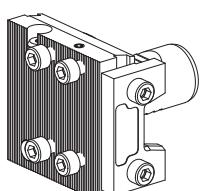
Fixation –
Mounting Trapezoid 26x4
Cooling external, p_{\max} 20 bar
X / Y / Z 63 (2.48) / ±1.5 (±06) / 58 (2.28) mm (")



W9990153 Grooving tool holding block, vertically adjustable

3-89

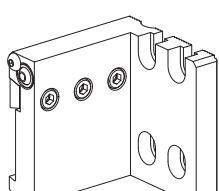
Fixation –
Mounting Trapezoid 26x4
Cooling external, p_{\max} 20 bar
X / Y / Z 63 (2.48) / ±1.5 (±06) / 58 (2.28) mm (")



W1230019 Basic holder, vertically adjustable

3-90

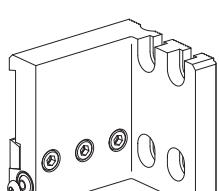
Fixation Vee bar
Mounting –
Cooling external
X / Y / Z 19 (0.75) / – / 30 (1.18) mm (")



W9990033 Grooving tool holding block, vertically adjustable

3-91

Fixation –
Mounting Trapezoid 32x3
Cooling external, p_{\max} 20 bar
X / Y / Z 61 (2.4) / – / 17 (0.67) mm (")

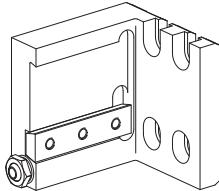


W9990034 Grooving tool holding block, vertically adjustable

3-92

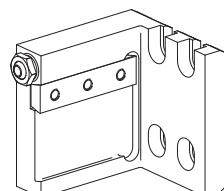
Fixation –
Mounting Trapezoid 32x3
Cooling external, p_{\max} 20 bar
X / Y / Z 61 (2.4) / – / 25 (0.98) mm (")

Catalog page
3-93



W9990275 Grooving tool holding block

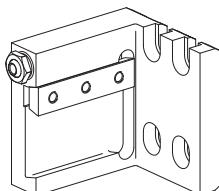
Fixation	–
Mounting	Trapezoid 32x3
Cooling	external, p_{\max} 80 bar
X / Y / Z	63 (2.48) / – / 42 (1.65) mm (")



W9990276 Grooving tool holding block

3-94

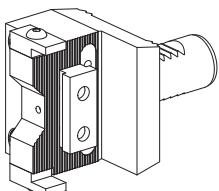
Fixation	–
Mounting	Trapezoid 32x3
Cooling	external, p_{\max} 80 bar
X / Y / Z	63 (2.48) / – / 42 (1.65) mm (")



W9990496 Grooving tool holding block

3-95

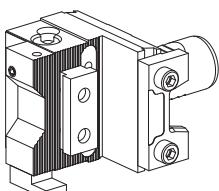
Fixation	–
Mounting	Trapezoid 32x8
Cooling	external, p_{\max} 80 bar
X / Y / Z	64 (2.52) / – / 49 (1.93) mm (")



W1250022 Basic holder, vertically adjustable

3-96

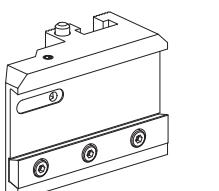
Fixation	W serration
Mounting	–
Cooling	external and internal, p_{\max} 20 bar
X / Y / Z	35 (1.38) / – / 5 (0.2) mm (")



W1230020 Basic holder, vertically adjustable

3-97

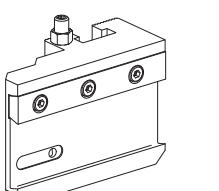
Fixation	Vee bar
Mounting	–
Cooling	external and internal, p_{\max} 20 bar
X / Y / Z	35 (1.38) / – / 5 (0.2) mm (")



W9990038 Grooving tool holding block, vertically adjustable

3-98

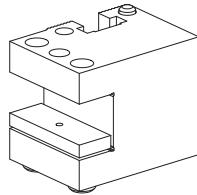
Fixation	–
Mounting	Trapezoid 32x5
Cooling	–, p_{\max} 20 bar
X / Y / Z	60 (2.36) / – / 32 (1.26) mm (")



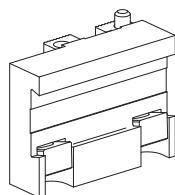
W9990039 Grooving tool holding block, vertically adjustable

3-99

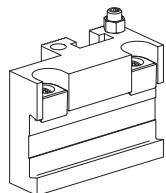
Fixation	–
Mounting	Trapezoid 32x5
Cooling	–, p_{\max} 20 bar
X / Y / Z	60 (2.36) / – / 32 (1.26) mm (")



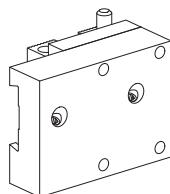
		Catalog page
W9990064	Grooving tool holding block, vertically adjustable	3-100
Fixation	–	
Mounting	square 16x16	
Cooling	–	
X / Y / Z	40 (1.57) / – / 40 (1.57) mm (")	



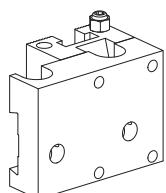
		Catalog page
W9990066	Grooving tool holding block, vertically adjustable	3-101
Fixation	–	
Mounting	Trapezoid 26x5	
Cooling	–	
X / Y / Z	47.5 (1.87) / – / 32 (1.26) mm (")	



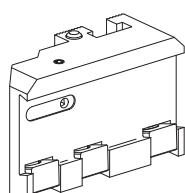
		Catalog page
W9990067	Grooving tool holding block, vertically adjustable	3-102
Fixation	–	
Mounting	Trapezoid 26x5	
Cooling	–	
X / Y / Z	47.5 (1.87) / – / 32 (1.26) mm (")	



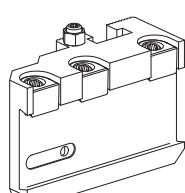
		Catalog page
W9990068	Grooving tool holding block, vertically adjustable	3-103
Fixation	–	
Mounting	Trapezoid 26x5	
Cooling	–	
X / Y / Z	47.5 (1.87) / – / 28.5 (1.12) mm (")	



		Catalog page
W9990069	Grooving tool holding block, vertically adjustable	3-104
Fixation	–	
Mounting	Trapezoid 26x5	
Cooling	–	
X / Y / Z	47.5 (1.87) / – / 28.5 (1.12) mm (")	



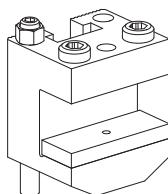
		Catalog page
W9990070	Grooving tool holding block, vertically adjustable	3-105
Fixation	–	
Mounting	Trapezoid 32x5	
Cooling	–, p_{\max} 20 bar	
X / Y / Z	60 (2.36) / – / 32 (1.26) mm (")	



		Catalog page
W9990071	Grooving tool holding block, vertically adjustable	3-106
Fixation	–	
Mounting	Trapezoid 32x5	
Cooling	–, p_{\max} 20 bar	
X / Y / Z	60 (2.36) / – / 32 (1.26) mm (")	

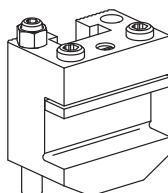
Catalog page

3-107



W9990072 Grooving tool holding block, vertically adjustable

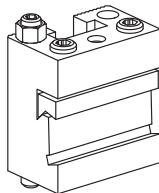
Fixation	–
Mounting	square 16x16
Cooling	–
X / Y / Z	20 (0.79) / – / 17 (0.67) mm (")



W9990073 Grooving tool holding block, vertically adjustable

3-108

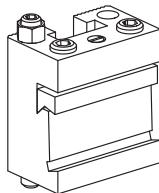
Fixation	–
Mounting	square 16x10
Cooling	–
X / Y / Z	20 (0.79) / – / 18 (0.71) mm (")



W9990074 Grooving tool holding block, vertically adjustable

3-109

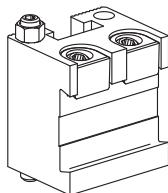
Fixation	–
Mounting	Trapezoid 16x3
Cooling	–
X / Y / Z	20 (0.79) / – / 25 (0.98) mm (")



W9990075 Grooving tool holding block, vertically adjustable

3-110

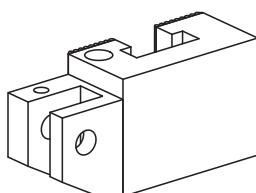
Fixation	–
Mounting	Trapezoid 20x4
Cooling	–
X / Y / Z	20 (0.79) / – / 25 (0.98) mm (")



W9990076 Grooving tool holding block, vertically adjustable

3-111

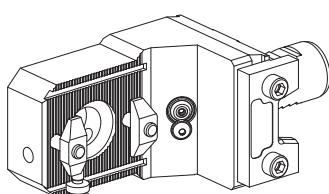
Fixation	–
Mounting	Trapezoid 26x5
Cooling	–
X / Y / Z	20 (0.79) / – / 32 (1.26) mm (")



W9990154 Knurling tool holder

3-112

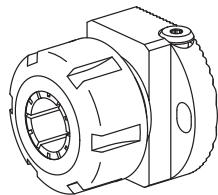
Fixation	none
Mounting	D6
Cooling	–
X / Y / Z	38 (1.5) / – / 20 (0.79) mm (")



W1230004 Basic holder

3-113

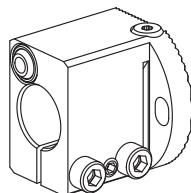
Fixation	Vee bar
Mounting	–
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	70 (2.76) / – / -5 (-0.2) mm (")



W9990085 Drill holding block

Catalog page
3-114

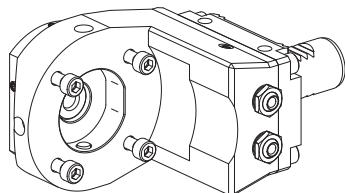
Fixation	–
Mounting	ER 25
Cooling	internal, p_{\max} 20 bar
X / Y / Z	42.5 (1.67) / – / – mm ("")



W9990086 Drill holding block

3-115

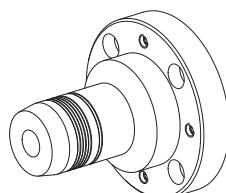
Fixation	–
Mounting	D20
Cooling	external, p_{\max} 20 bar
X / Y / Z	40 (1.57) / – / – mm ("")



W1250073 Basic holder

3-116

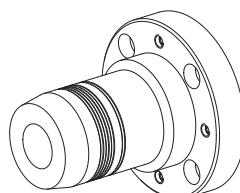
Fixation	W serration
Mounting	–
Cooling	external and internal, p_{\max} 80 bar
X / Y / Z	78 (37) / – / – mm ("")



W9990315 Drill holding block

3-117

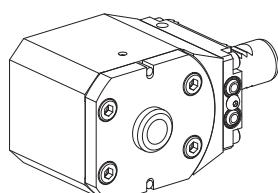
Fixation	none
Mounting	Hydraulic expansion chuck D12
Cooling	external and internal, p_{\max} 80 bar
X / Y / Z	77.5 (35) / – / – mm ("")



W9990314 Drill holding block

3-118

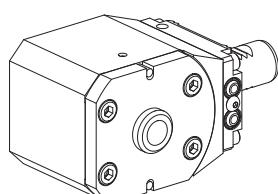
Fixation	none
Mounting	Hydraulic expansion chuck D20
Cooling	external and internal, p_{\max} 80 bar
X / Y / Z	83 (3.27) / – / – mm ("")



W1250023 Center holder, vertically adjustable, not spring-loaded

3-119

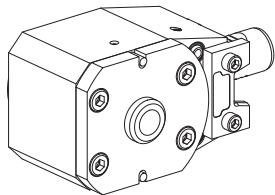
Fixation	W serration
Mounting	D15.4/Cone 1:7.5
Cooling	external, p_{\max} 20 bar
X / Y / Z	70 (2.76) / ±0.5 (±02) / 46.5 (1.83) mm ("")



W1250024 Center holder, vertically adjustable, spring-loaded

3-120

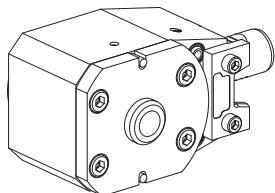
Fixation	W serration
Mounting	D15.4/Cone 1:7.5
Cooling	external, p_{\max} 20 bar
X / Y / Z	70 (2.76) / ±0.5 (±02) / 46.5 (1.83) mm ("")



Catalog page **3-121**

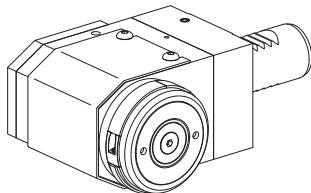
W1230023 Center holder, vertically adjustable, not spring-loaded

Fixation	Vee bar
Mounting	D15.4/Cone 1:7.5
Cooling	external, p_{\max} 20 bar
X / Y / Z	70 (2.76) / ± 0.5 (± 02) / 46.5 (1.83) mm (")



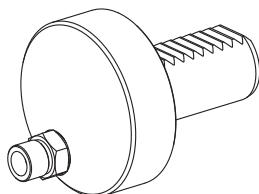
Catalog page **3-122**

Fixation	Vee bar
Mounting	D15.4/Cone 1:7.5
Cooling	external, p_{\max} 20 bar
X / Y / Z	70 (2.76) / ± 0.5 (± 02) / 46.5 (1.83) mm (")



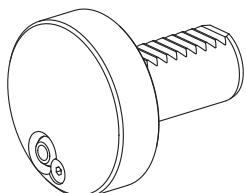
Catalog page **3-123**

Fixation	none
Mounting	–
Cooling	internal, p_{\max} 20 bar
X / Y / Z	65 (2.56) / – / 40.5 (1.59) mm (")



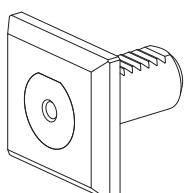
Catalog page **3-124**

Fixation	–
Mounting	–
Cooling	external, p_{\max} 80 bar
X / Y / Z	18 (0.71) / – / – mm (")



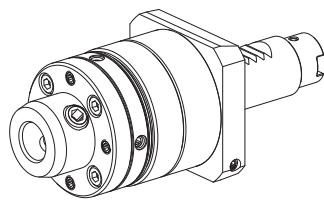
Catalog page **3-125**

Fixation	none
Mounting	–
Cooling	–
X / Y / Z	16 (0.63) / – / – mm (")



Catalog page **3-126**

Fixation	–
Mounting	–
Cooling	–
X / Y / Z	10 (0.39) / – / – mm (")

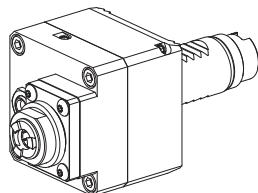


Catalog page

4-2

W1205031 Reaming unit

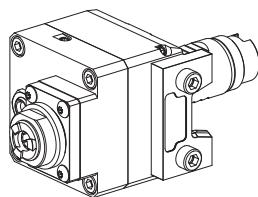
Fixation	none
Mounting	DIN 1835 E D16
Cooling	external, p_{\max} 40 bar
Speed ratio	1:1 (1)
X / Y / Z	88 (3.46) / - / - mm (")



4-3

W1255081 Drilling unit

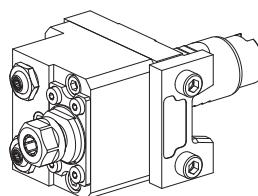
Fixation	W serration
Mounting	ER 11
Cooling	external, p_{\max} 20 bar
Speed ratio	1:3 (0.333)
X / Y / Z	75 (2.95) / - / 15 (0.59) mm (")



4-4

W1235083 Drilling unit

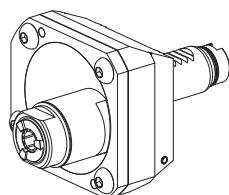
Fixation	Vee bar
Mounting	ER 11
Cooling	external, p_{\max} 20 bar
Speed ratio	1:3 (0.333)
X / Y / Z	75 (2.95) / - / 15 (0.59) mm (")



4-5

W1235040 Drilling unit

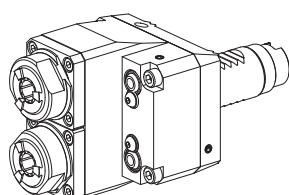
Fixation	Vee bar
Mounting	ER 11
Cooling	external, p_{\max} 20 bar
Speed ratio	1:1.33 (0.75)
X / Y / Z	71 (2.8) / - / 17.5 (0.69) mm (")



4-6

W1255130 Drilling unit, vertically adjustable

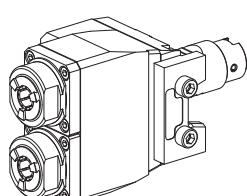
Fixation	W serration
Mounting	ER 16
Cooling	external, p_{\max} 20 bar
Speed ratio	1:2.07 (0.483)
X / Y / Z	85 (3.35) / - / 22.5 (0.89) mm (")



4-7

W1255135 Drilling unit, double

Fixation	W serration
Mounting	ER 16
Cooling	external, p_{\max} 20 bar
Speed ratio	1:2.07 (0.483)
X / Y / Z	85 (3.35) / ±19 (±0.75) / 12 (0.47) mm (")



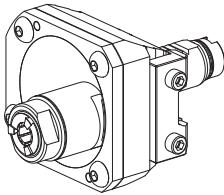
4-8

W1235012 Drilling unit, double

Fixation	Vee bar
Mounting	ER 16
Cooling	external, p_{\max} 20 bar
Speed ratio	1:2.07 (0.483)
X / Y / Z	85 (3.35) / ±19 (±0.75) / 12 (0.47) mm (")

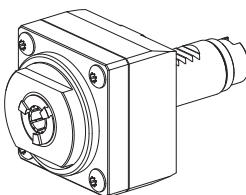
Catalog page

4-9



W1235022 Drilling unit, vertically adjustable

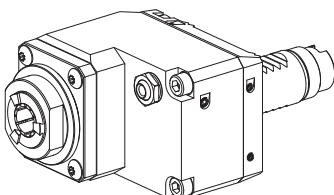
Fixation	Vee bar
Mounting	ER 16
Cooling	external, p_{\max} 20 bar
Speed ratio	1:2.07 (0.483)
X / Y / Z	85 (3.35) / ±22.5 (±0.98) / ±22.5 (±0.89) mm ("")



W1205034 Drilling unit

4-10

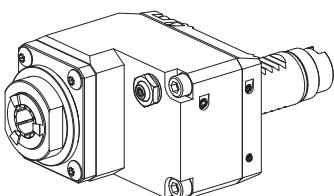
Fixation	none
Mounting	ER 16
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	54 (2.13) / - / - mm ("")



W1255085 Drilling unit

4-11

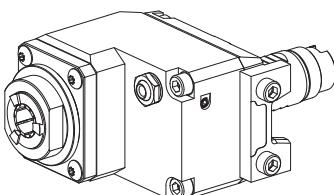
Fixation	W serration
Mounting	ER 20
Cooling	external, p_{\max} 80 bar
Speed ratio	1:3 (0.333)
X / Y / Z	86.1 (3.39) / - / 35 (1.38) mm ("")



W1255086 Drilling unit

4-12

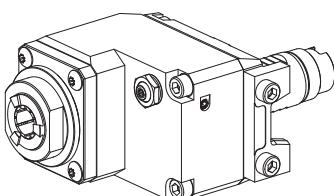
Fixation	W serration
Mounting	ER 20
Cooling	external and internal, p_{\max} 80 bar
Speed ratio	1:3 (0.333)
X / Y / Z	86.1 (3.39) / - / 35 (1.38) mm ("")



W1235085 Drilling unit

4-13

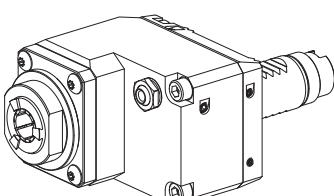
Fixation	Vee bar
Mounting	ER 20
Cooling	external, p_{\max} 80 bar
Speed ratio	1:3 (0.333)
X / Y / Z	86.1 (3.39) / - / 35 (1.38) mm ("")



W1235104 Drilling unit

4-14

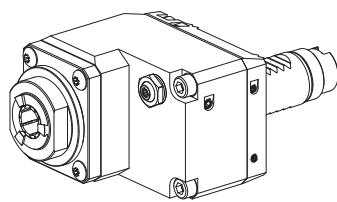
Fixation	Vee bar
Mounting	ER 20
Cooling	external and internal, p_{\max} 80 bar
Speed ratio	1:3 (0.333)
X / Y / Z	86.1 (3.39) / - / 35 (1.38) mm ("")



W1255087 Drilling unit

4-15

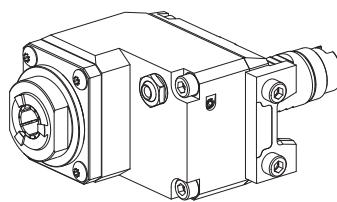
Fixation	W serration
Mounting	ER 20
Cooling	external, p_{\max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	86.1 (3.39) / - / 35 (1.38) mm ("")



W1255088 Drilling unit

Catalog page
4-16

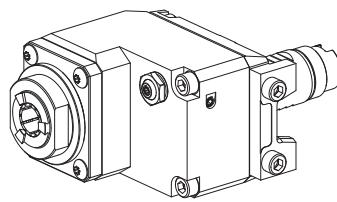
Fixation	W serration
Mounting	ER 20
Cooling	external and internal, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	86.1 (3.39) / - / 35 (1.38) mm (")



W1235097 Drilling unit

4-17

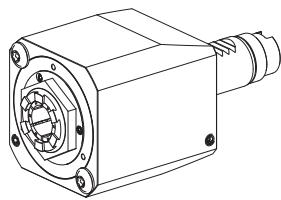
Fixation	Vee bar
Mounting	ER 20
Cooling	external, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	86 (3.39) / - / 35 (1.38) mm (")



W1235105 Drilling unit

4-18

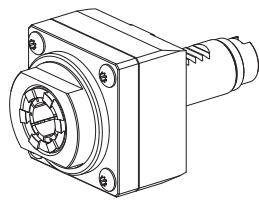
Fixation	Vee bar
Mounting	ER 20
Cooling	external and internal, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	86.1 (3.39) / - / 35 (1.38) mm (")



W1205026 Drilling unit

4-19

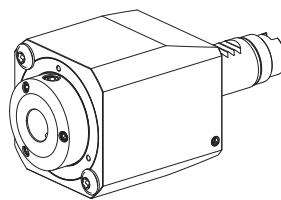
Fixation	none
Mounting	ER 25
Cooling	internal, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	81 (3.19) / - / - mm (")



W1205035 Drilling unit

4-20

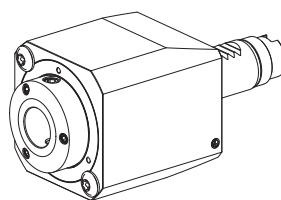
Fixation	none
Mounting	ER 25
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	57 (2.24) / - / - mm (")



W1205027 Drilling unit

4-21

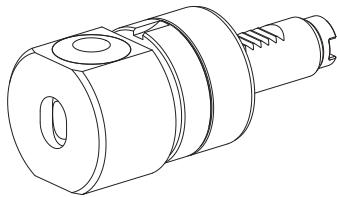
Fixation	none
Mounting	DIN 1835 B/E D16
Cooling	internal, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	89 (3.5) / - / - mm (")



W1205028 Drilling unit

4-22

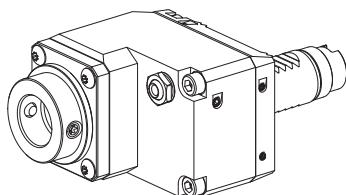
Fixation	none
Mounting	DIN 1835 B/E D20
Cooling	internal, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	89 (3.5) / - / - mm (")



W1205007 Drilling unit, adjustable

Catalog page
4-23

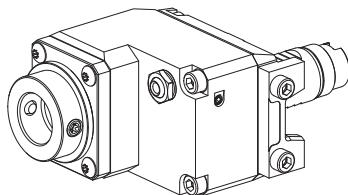
Fixation	none
Mounting	D16
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	83 (3.27) / - / - mm (")



W1255089 Drilling unit

4-24

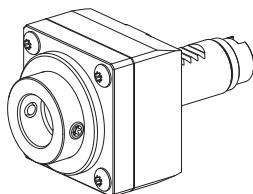
Fixation	W serration
Mounting	WFB 24-16
Cooling	external, p_{\max} 80 bar
Speed ratio	1:3 (0.333)
X / Y / Z	89.6 (3.53) / - / 35 (1.38) mm (")



W1235103 Drilling unit

4-25

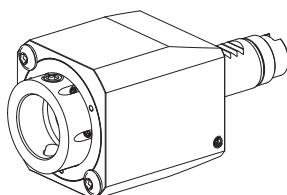
Fixation	Vee bar
Mounting	WFB 24-16
Cooling	external, p_{\max} 80 bar
Speed ratio	1:3 (0.333)
X / Y / Z	89.6 (3.53) / - / 35 (1.38) mm (")



W1205037 Drilling unit

4-26

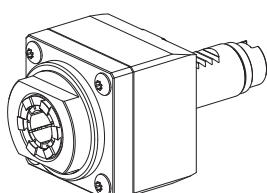
Fixation	none
Mounting	WFB 24-16
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	59 (2.32) / - / - mm (")



W1205029 Drilling unit

4-27

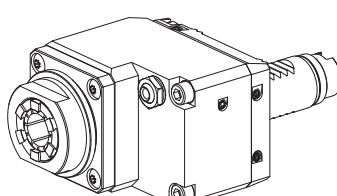
Fixation	none
Mounting	WFB 32-20
Cooling	internal, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	90 mm (3.54") / - / - mm (")



W1205038 Milling unit

4-28

Fixation	none
Mounting	ER 25
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	67 (2.64) / - / - mm (")

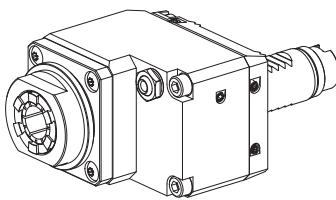


W1255090 Milling unit

4-29

Fixation	W serration
Mounting	ER 25
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	89.9 (3.54) / - / 31 (1.22) mm (")

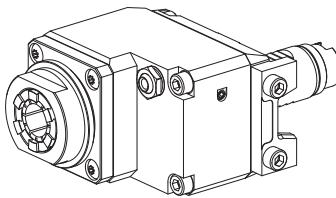
Catalog page
4-30



W1255091 Milling unit

Fixation	W serration
Mounting	ER 25
Cooling	external and internal, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	89.9 (3.54) / - / 31 (1.22) mm (")

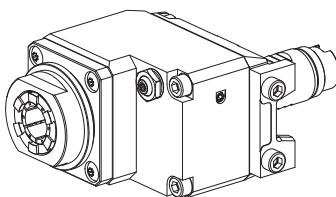
4-31



W1235099 Milling unit

Fixation	Vee bar
Mounting	ER 25
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	90 mm (3.54") / - / 31 (1.22) mm (")

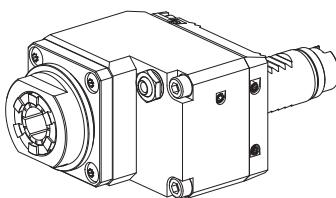
4-32



W1235108 Milling unit

Fixation	Vee bar
Mounting	ER 25
Cooling	external and internal, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	89.9 (3.54) / - / 31 (1.22) mm (")

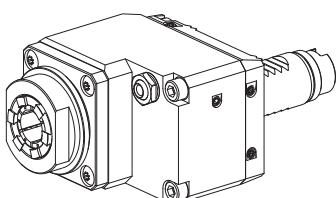
4-33



W1255102 Milling unit

Fixation	W serration
Mounting	ER 25
Cooling	external, p_{\max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	89.9 (3.54) / - / 31 (1.22) mm (")

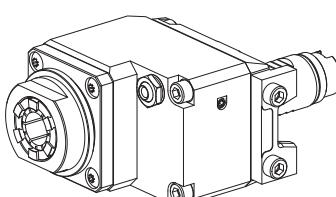
4-34



W1255103 Milling unit

Fixation	W serration
Mounting	ER 25
Cooling	external and internal, p_{\max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	89.9 (3.54) / - / 31 (1.22) mm (")

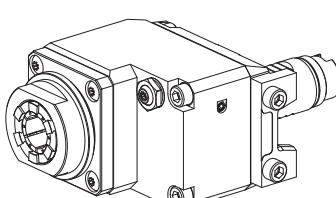
4-35



W1235100 Milling unit

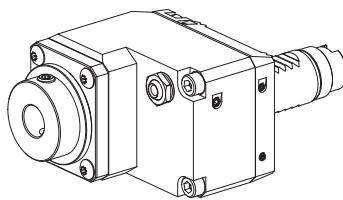
Fixation	Vee bar
Mounting	ER 25
Cooling	external, p_{\max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	90 mm (3.54") / - / 31 (1.22) mm (")

4-36



W1235109 Milling unit

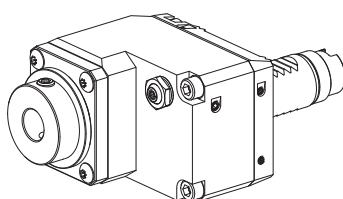
Fixation	Vee bar
Mounting	ER 25
Cooling	external and internal, p_{\max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	89.9 (3.54) / - / 31 (1.22) mm (")



W1255098 Milling unit

Catalog page
4-37

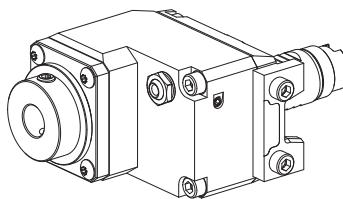
Fixation	W serration
Mounting	DIN 1835 B/E D15
Cooling	external, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	89.6 (3.53) / - / 35 (1.38) mm (")



W1255099 Milling unit

4-38

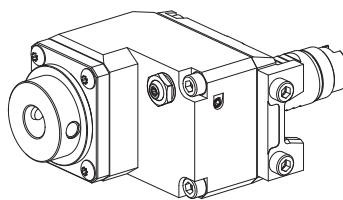
Fixation	W serration
Mounting	DIN 1835 B/E D15
Cooling	external and internal, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	89.6 (3.53) / - / 35 (1.38) mm (")



W1235098 Milling unit

4-39

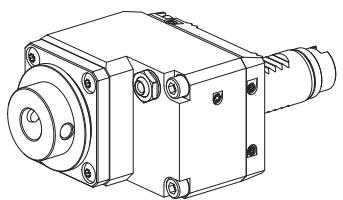
Fixation	Vee bar
Mounting	DIN 1835 B/E D15
Cooling	external, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	90 mm (3.54") / - / 35 (1.38) mm (")



W1235106 Milling unit

4-40

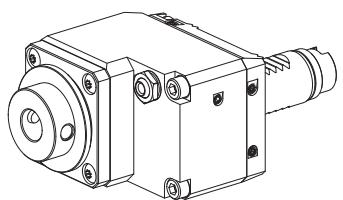
Fixation	Vee bar
Mounting	DIN 1835 B/E D15
Cooling	external and internal, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	89.6 (3.53) / - / 35 (1.38) mm (")



W1255100 Milling unit

4-41

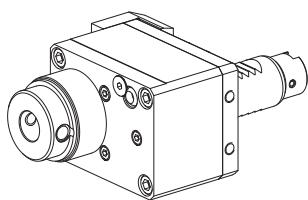
Fixation	W serration
Mounting	DIN 1835 B/E D15
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	90.9 (3.58) / - / 31 (1.22) mm (")



W1255101 Milling unit

4-42

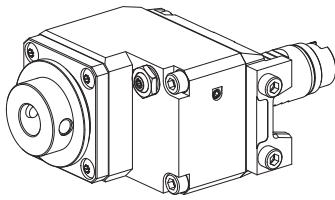
Fixation	W serration
Mounting	DIN 1835 B/E D15
Cooling	external and internal, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	90.9 (3.58) / - / 31 (1.22) mm (")



W1235009 Milling unit

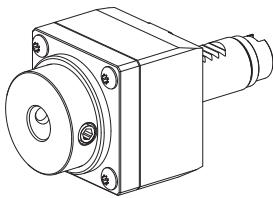
4-43

Fixation	Vee bar
Mounting	DIN 1835 B/E D15
Cooling	external, p_{max} 20 bar
Speed ratio	1:1 (1)
X / Y / Z	83 (3.27) / - / -27 (-16) mm (")



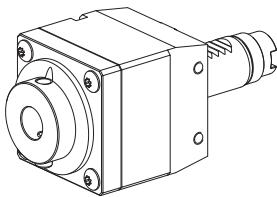
W1235107 Milling unit

Fixation	Vee bar
Mounting	DIN 1835 B/E D15
Cooling	external and internal, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	90.9 (3.58) / - / 31 (1.22) mm (")



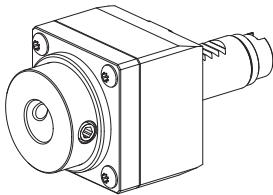
W1205040 Milling unit

Fixation	none
Mounting	DIN 1835 B/E D16
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	72 (2.83) / - / - mm (")



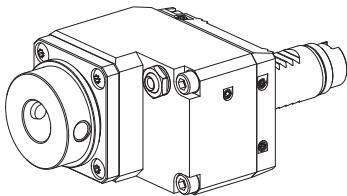
W1205047 Milling unit

Fixation	none
Mounting	DIN 1835 B/E D16
Cooling	external, p_{max} 20 bar
Speed ratio	4.5:1 (4.5)
X / Y / Z	83.5 (3.29) / - / - mm (")



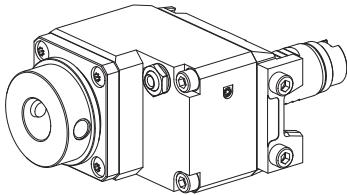
W1205050 Milling unit

Fixation	none
Mounting	DIN 1835 B/E D20
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	72 (2.83) / - / - mm (")



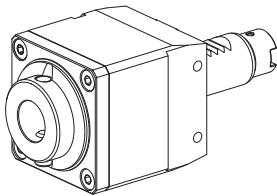
W1255092 Milling unit

Fixation	W serration
Mounting	DIN 1835 B/E D20
Cooling	external, p_{max} 20 bar
Speed ratio	2:1 (2)
X / Y / Z	93 (3.66) / - / 31 (1.22) mm (")



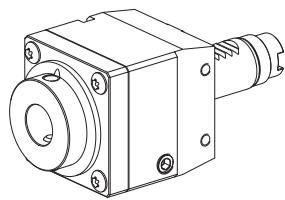
W1235101 Milling unit

Fixation	Vee bar
Mounting	DIN 1835 B/E D20
Cooling	external, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	93 (3.66) / - / 31 (1.22) mm (")



W1205015 Milling unit

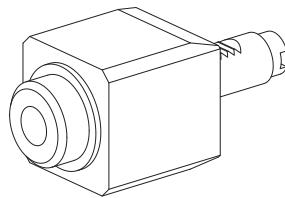
Fixation	none
Mounting	DIN 1835 B/E D20
Cooling	external, p_{max} 80 bar
Speed ratio	4.5:1 (4.5)
X / Y / Z	82 (3.23) / - / - mm (")



W1205053 Milling unit

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4-51

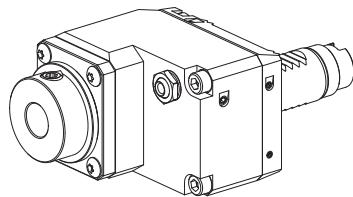
Fixation	none
Mounting	DIN 1835 B/E D20
Cooling	external, p_{\max} 20 bar
Speed ratio	4.5:1 (4.5)
X / Y / Z	83.5 (3.29) / - / 0 mm (")



W1205012 Milling unit

4-52

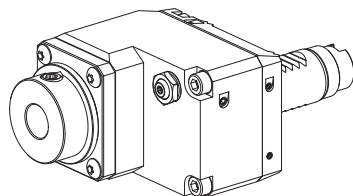
Fixation	none
Mounting	DIN 1835 B/E D3/4"
Cooling	external, p_{\max} 20 bar
Speed ratio	1:1 (1)
X / Y / Z	87 (3.43) / - / - mm (")



W1255146 Milling unit

4-53

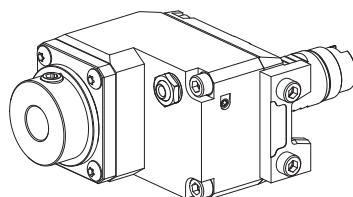
Fixation	W serration
Mounting	D16
Cooling	external, p_{\max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	92 (3.62) / - / 35 (1.38) mm (")



W1255147 Milling unit

4-54

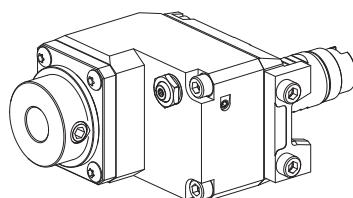
Fixation	W serration
Mounting	D16
Cooling	external and internal, p_{\max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	92 (3.62) / - / 35 (1.38) mm (")



W1235121 Milling unit

4-55

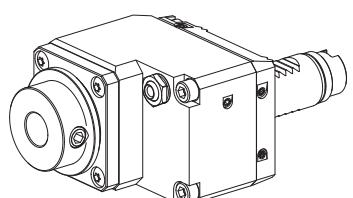
Fixation	Vee bar
Mounting	D16
Cooling	external, p_{\max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	92 (3.62) / - / 35 (1.38) mm (")



W1235122 Milling unit

4-56

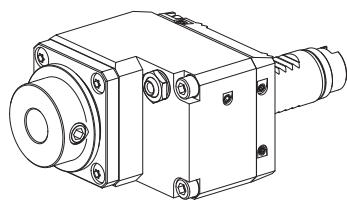
Fixation	Vee bar
Mounting	D16
Cooling	external and internal, p_{\max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	92 (3.62) / - / 35 (1.38) mm (")



W1255144 Milling unit

4-57

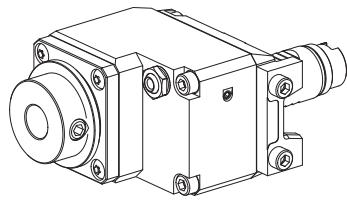
Fixation	W serration
Mounting	D16
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	93 (3.66) / - / 31 (1.22) mm (")



W1255145 Milling unit

Catalog page
4-58

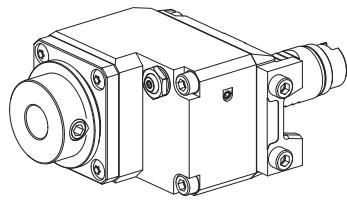
Fixation	W serration
Mounting	D16
Cooling	external and internal, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	93 (3.66) / - / 31 (1.22) mm (")



W1235119 Milling unit

4-59

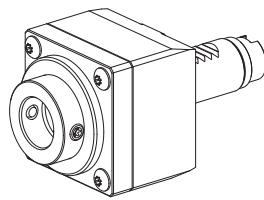
Fixation	Vee bar
Mounting	D16
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	93 (3.66) / - / 31 (1.22) mm (")



W1235120 Milling unit

4-60

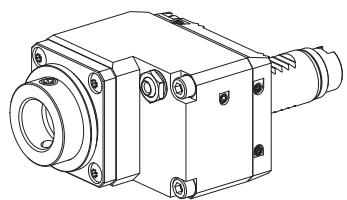
Fixation	Vee bar
Mounting	D16
Cooling	external and internal, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	93 (3.66) / - / 31 (1.22) mm (")



W1205039 Milling unit

4-61

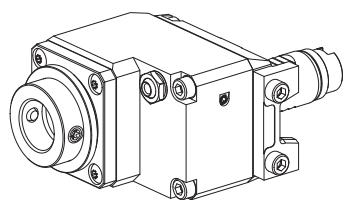
Fixation	none
Mounting	WFB 24-16
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	69 (2.72) / - / - mm (")



W1255093 Milling unit

4-62

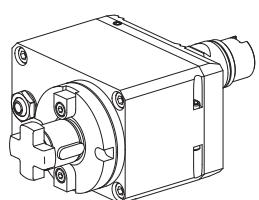
Fixation	W serration
Mounting	WFB 24-16
Cooling	external, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	91.4 (3.6) / - / 31 (1.22) mm (")



W1235110 Milling unit

4-63

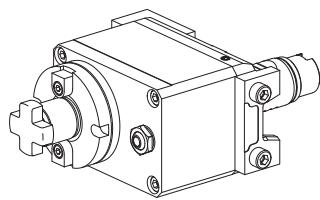
Fixation	Vee bar
Mounting	WFB 24-16
Cooling	external, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	91.4 (3.6) / - / 31 (1.22) mm (")



W1255056 Milling unit

4-64

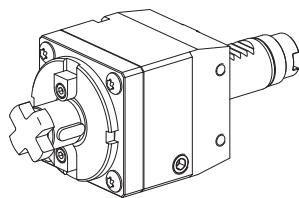
Fixation	W serration
Mounting	Milling tool mounting D22
Cooling	external, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	76 (2.99) / - / 31 (1.22) mm (")



W1235064 Milling unit

Catalog page
4-65

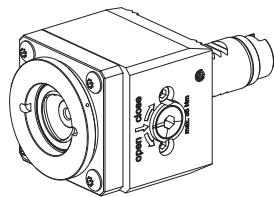
Fixation	Vee bar
Mounting	Milling tool mounting D22
Cooling	external, p_{max} 40 bar
Speed ratio	2:1 (2)
X / Y / Z	76 (2.99) / - / 31 (1.22) mm (")



W1205051 Milling unit

4-66

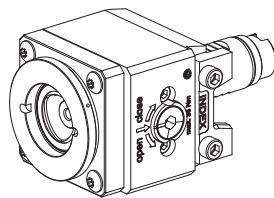
Fixation	none
Mounting	Milling tool mounting D22
Cooling	external, p_{max} 20 bar
Speed ratio	4.5:1 (4.5)
X / Y / Z	73.5 (2.89) / - / 0 mm (")



W1255114 Milling unit

4-67

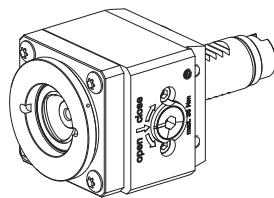
Fixation	W serration
Mounting	INDEX TRAUB CAPTO C3
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	65 (2.56) / - / - mm (")



W1235112 Milling unit

4-68

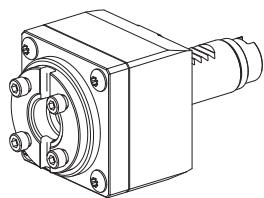
Fixation	Vee bar
Mounting	INDEX TRAUB CAPTO C3
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	65 (2.56) / - / 0 mm (")



W1205054 Milling unit

4-69

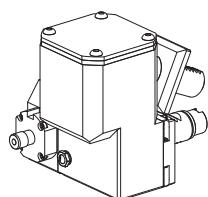
Fixation	-
Mounting	INDEX TRAUB CAPTO C3
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	65 (2.56) / - / - mm (")



W1205042 Milling unit

4-70

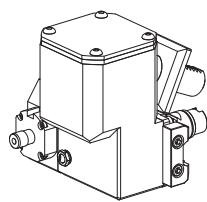
Fixation	none
Mounting	-
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	62 (2.44) / - / - mm (")



W1255000 High-frequency spindle unit

4-71

Fixation	W serration
Mounting	ER 8
Cooling	external, p_{max} 5 bar
Speed ratio	1:10 (0.1)
X / Y / Z	91.5 (3.6) / - / 61 (2.4) mm (")

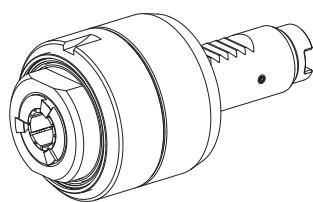


W1235031 High-frequency spindle unit

Catalog page

4-72

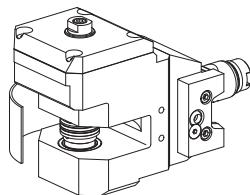
Fixation	Vee bar
Mounting	ER 8
Cooling	external, p_{\max} 5 bar
Speed ratio	1:10 (0.1)
X / Y / Z	91.5 (3.6) / - / 61 (2.4) mm (")



W1205006 Tapping unit, extendable

4-73

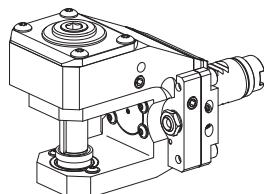
Fixation	none
Mounting	ER 20
Cooling	external, p_{\max} 20 bar
Speed ratio	1:1 (1)
X / Y / Z	60 (2.36) / - / - mm (")



W1235026 Circular saw unit, vertically adjustable

4-74

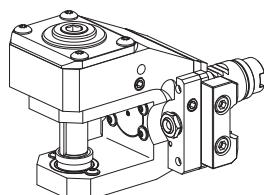
Fixation	Vee bar
Mounting	Milling tool mounting D16
Cooling	external, p_{\max} 20 bar
Speed ratio	2.05:1 (2.05)
X / Y / Z	79.5 (3.13) / - / - mm (")



W1255066 Circular saw unit

4-75

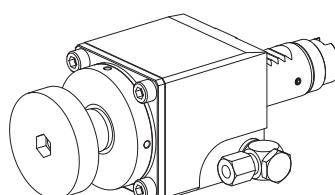
Fixation	W serration
Mounting	Milling tool mounting D16
Cooling	external, p_{\max} 80 bar
Speed ratio	3.5:1 (3.5)
X / Y / Z	79 (3.11) / - / - mm (")



W1235081 Circular saw unit

4-76

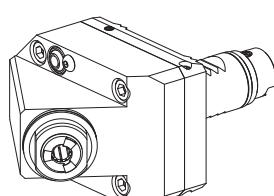
Fixation	Vee bar
Mounting	Milling tool mounting D16
Cooling	external, p_{\max} 80 bar
Speed ratio	3.5:1 (3.5)
X / Y / Z	79 (3.11) / - / - mm (")



W1205048 Grinding unit

4-77

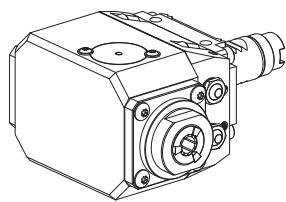
Fixation	none
Mounting	D20
Cooling	external, p_{\max} 20 bar
Speed ratio	1:1 (1)
X / Y / Z	75 (2.95) / - / - mm (")



W1255058 Drilling unit, fixed angle

4-78

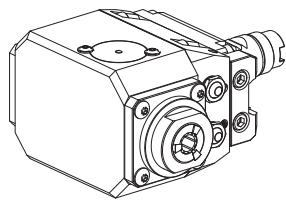
Fixation	W serration
Mounting	ER 11
Cooling	external, p_{\max} 40 bar
Speed ratio	1:2 (0.5)
X / Y / Z	- / - / - mm (")



W1255074 Drilling unit

Catalog page
4-79

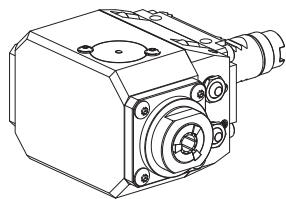
Fixation	W serration
Mounting	ER 16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2.88 (0.347)
X / Y / Z	70 (2.76) / - / 80 (3.15) mm (")



W1235078 Drilling unit

4-80

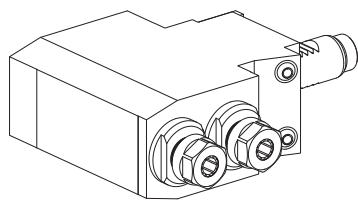
Fixation	Vee bar
Mounting	ER 16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2.88 (0.347)
X / Y / Z	70 (2.76) / - / 80 (3.15) mm (")



W1255068 Drilling unit

4-81

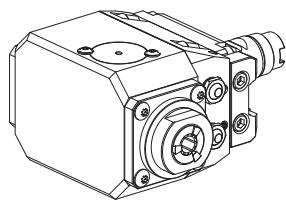
Fixation	W serration
Mounting	ER 16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 80 (3.15) mm (")



W1235063 Drilling unit, double

4-82

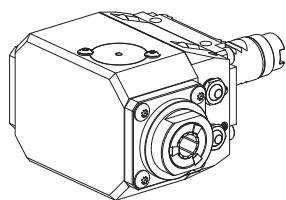
Fixation	Vee bar
Mounting	ER 16
Cooling	external, p_{max} 40 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 + 110 (2.76 + 4.33) / - / 85.5 (3.37) mm (")



W1235072 Drilling unit

4-83

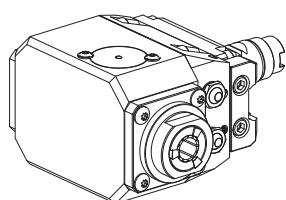
Fixation	Vee bar
Mounting	ER 16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 80 (3.15) mm (")



W1255071 Drilling unit

4-84

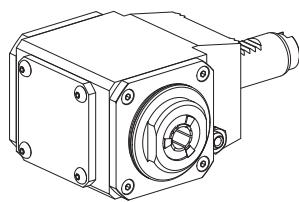
Fixation	W serration
Mounting	ER 20
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 80 (3.15) mm (")



W1235075 Drilling unit

4-85

Fixation	Vee bar
Mounting	ER 20
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 80 (3.15) mm (")

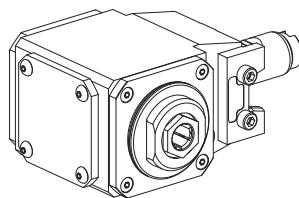


W1255129 Drilling unit, double

Catalog page

4-86

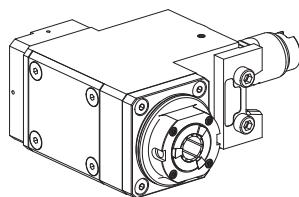
Fixation	W serration
Mounting	ER 20
Cooling	external, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 63 + 59 (2.48 + 2.32) mm (")



W1235037 Drilling unit, double

4-87

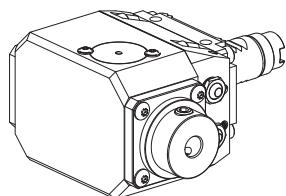
Fixation	Vee bar
Mounting	ER 20
Cooling	external, p_{max} 20 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 61 (2.4) mm (")



W1235002 Drilling unit

4-88

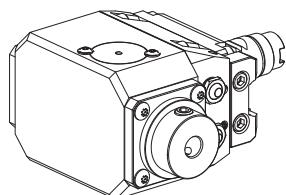
Fixation	Vee bar
Mounting	ER 20 PRECI-FLEX
Cooling	external and internal, p_{max} 20 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 75 (2.95) mm (")



W1255076 Drilling unit

4-89

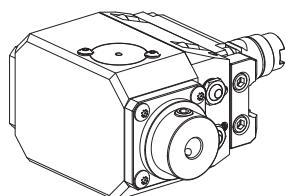
Fixation	W serration
Mounting	DIN 1835 B/E D12
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2.88 (0.347)
X / Y / Z	70 (2.76) / - / 85.5 (3.37) mm (")



W1235080 Drilling unit

4-90

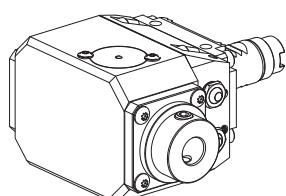
Fixation	Vee bar
Mounting	DIN 1835 B/E D12
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2.88 (0.347)
X / Y / Z	70 (2.76) / - / 85.5 (3.37) mm (")



W1235077 Drilling unit

4-91

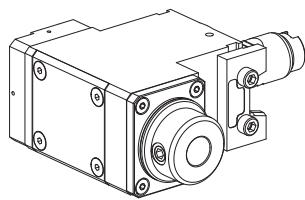
Fixation	Vee bar
Mounting	DIN 1835 B/E D12
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 85.5 (3.37) mm (")



W1255069 Drilling unit

4-92

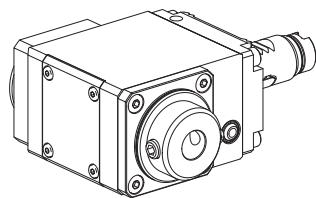
Fixation	W serration
Mounting	DIN 1835 B/E D16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 85.5 (3.37) mm (")



W1235030 Drilling unit

Catalog page
4-93

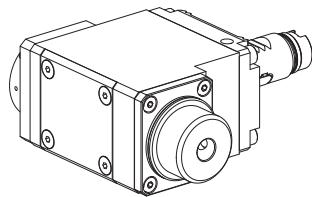
Fixation	Vee bar
Mounting	DIN 1835 B/E D16
Cooling	internal, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 79 (3.11) mm (")



W1255036 Drilling unit, vertically adjustable

4-94

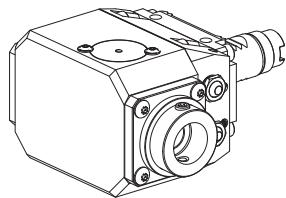
Fixation	W serration
Mounting	DIN 1835 B/E D16
Cooling	external, internal optional, p_{max} 20 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 66 (2.6) mm (")



W1255055 Drilling unit, vertically adjustable

4-95

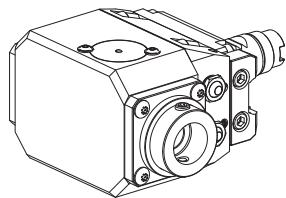
Fixation	W serration
Mounting	DIN 1835 E D12
Cooling	internal, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 79 (3.11) mm (")



W1255075 Drilling unit

4-96

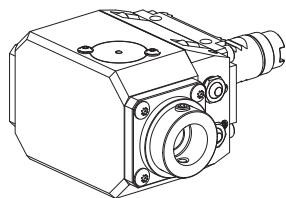
Fixation	W serration
Mounting	WFB 24-16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2.88 (0.347)
X / Y / Z	70 (2.76) / - / 82.5 (3.25) mm (")



W1235079 Drilling unit

4-97

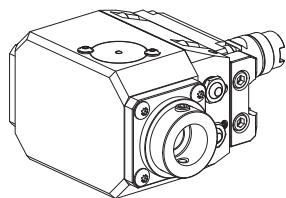
Fixation	Vee bar
Mounting	WFB 24-16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2.88 (0.347)
X / Y / Z	70 (2.76) / - / 82.5 (3.25) mm (")



W1255070 Drilling unit

4-98

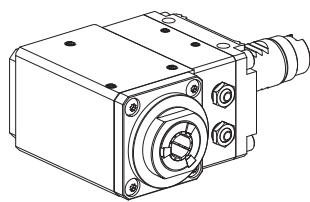
Fixation	W serration
Mounting	WFB 24-16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 82.5 (3.25) mm (")



W1235074 Drilling unit

4-99

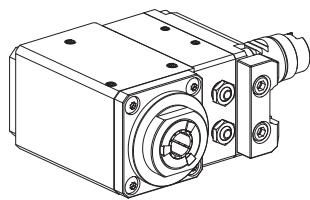
Fixation	Vee bar
Mounting	WFB 24-16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:2 (0.5)
X / Y / Z	70 (2.76) / - / 82.5 (3.25) mm (")



W1255060 Milling unit

Catalog page
4-100

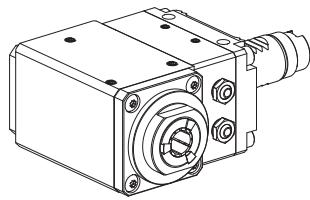
Fixation	W serration
Mounting	ER 20
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 60.5 (2.38) mm (")



W1235067 Milling unit

4-101

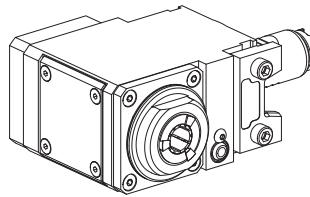
Fixation	Vee bar
Mounting	ER 20
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 61 (2.4) mm (")



W1255061 Milling unit

4-102

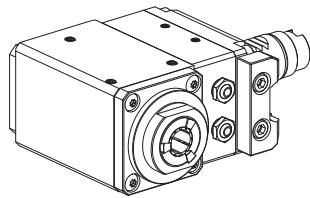
Fixation	W serration
Mounting	ER 20
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 61 (2.4) mm (")



W1235007 Milling unit

4-103

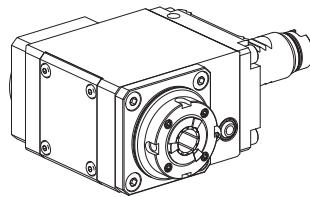
Fixation	Vee bar
Mounting	ER 20
Cooling	external, internal optional, p_{max} 20 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 53 (29) mm (")



W1235068 Milling unit

4-104

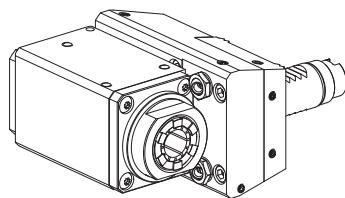
Fixation	Vee bar
Mounting	ER 20
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 60.5 (2.38) mm (")



W1255009 Milling unit

4-105

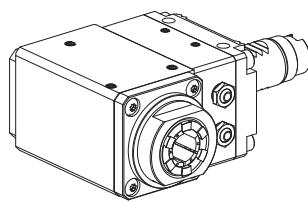
Fixation	W serration
Mounting	ER 20 PRECI-FLEX
Cooling	external, internal optional, p_{max} 20 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 62 (2.44) mm (")



W1255038 Milling unit, shifted

4-106

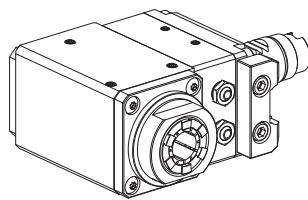
Fixation	W serration
Mounting	ER 25
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 22 (0.87) mm (")



W1255047 Milling unit

Catalog page
4-107

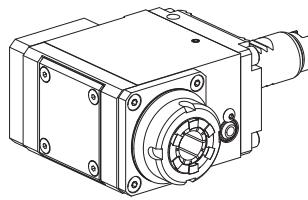
Fixation	W serration
Mounting	ER 25
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 64 (2.52) mm (")



W1235057 Milling unit

4-108

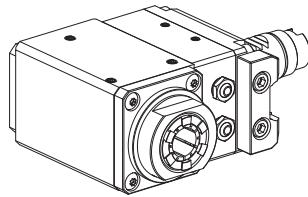
Fixation	Vee bar
Mounting	ER 25
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 64 (2.52) mm (")



W1255010 Milling unit

4-109

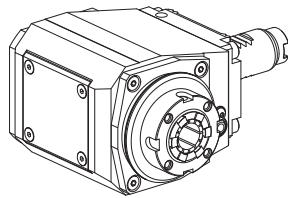
Fixation	W serration
Mounting	ER 25
Cooling	external, internal optional, p_{max} 20 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 65.5 (2.58) mm (")



W1235056 Milling unit

4-110

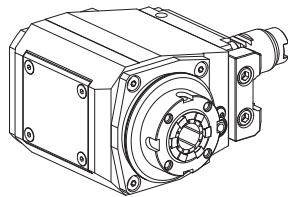
Fixation	Vee bar
Mounting	ER 25
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 64 (2.52) mm (")



W1255020 Milling unit

4-111

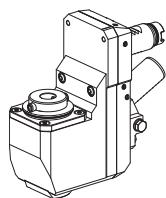
Fixation	W serration
Mounting	ER 25 PRECI-FLEX
Cooling	external, p_{max} 20 bar
Speed ratio	2.5:1 (2.5)
X / Y / Z	70 (2.76) / - / 75.6 (2.98) mm (")



W1235036 Milling unit

4-112

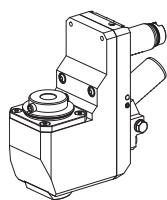
Fixation	Vee bar
Mounting	ER 25 PRECI-FLEX
Cooling	external, p_{max} 20 bar
Speed ratio	2.5:1 (2.5)
X / Y / Z	70 (2.76) / - / 76 (2.99) mm (")



W1205030 Milling unit

4-113

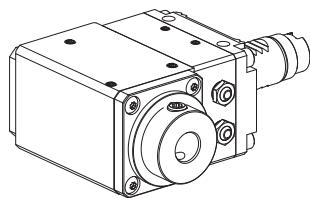
Fixation	none
Mounting	DIN 1835 B/E D15
Cooling	external, p_{max} 20 bar
Speed ratio	1:1 (1)
X / Y / Z	75 (2.95) / -30 (-1.18) / - mm (")



W1205019 Milling unit

Catalog page
4-114

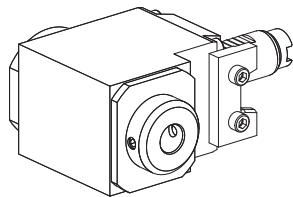
Fixation	none
Mounting	DIN 1835 B/E D15
Cooling	external, p_{max} 20 bar
Speed ratio	2:1 (2)
X / Y / Z	75 (2.95) / - / - mm (")



W1255049 Milling unit

4-115

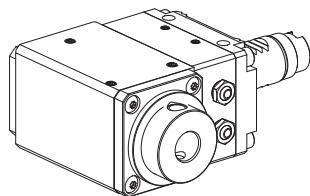
Fixation	W serration
Mounting	DIN 1835 B/E D16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 67 (2.64) mm (")



W1235004 Milling unit

4-116

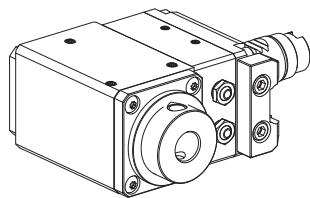
Fixation	Vee bar
Mounting	DIN 1835 B/E D16
Cooling	external and internal, p_{max} 20 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 65 (2.56) mm (")



W1255050 Milling unit

4-117

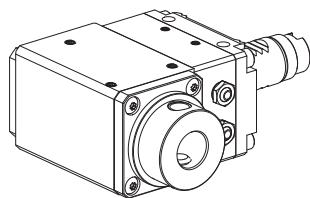
Fixation	W serration
Mounting	DIN 1835 B/E D16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 67 (2.64) mm (")



W1235060 Milling unit

4-118

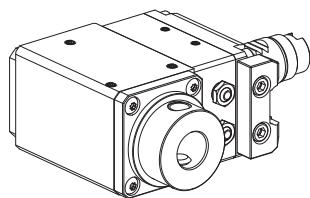
Fixation	Vee bar
Mounting	DIN 1835 B/E D16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 67 (2.64) mm (")



W1255064 Milling unit

4-119

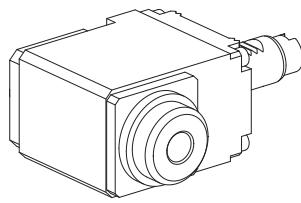
Fixation	W serration
Mounting	DIN 1835 B/E D20
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 71 (2.8) mm (")



W1235069 Milling unit

4-120

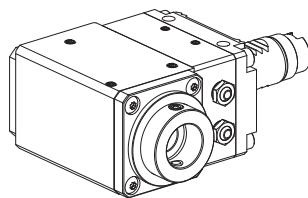
Fixation	Vee bar
Mounting	DIN 1835 B/E D20
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 71 (2.8) mm (")



W1255027 Milling unit

Catalog page
4-121

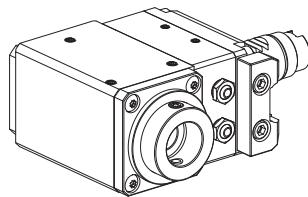
Fixation	W serration
Mounting	DIN 1835 B/E D3/4"
Cooling	external and internal, p_{max} 40 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 65 (2.56) mm (")



W1255051 Milling unit

4-122

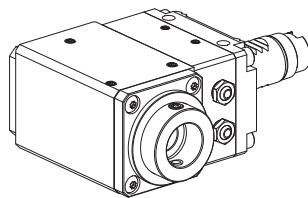
Fixation	W serration
Mounting	WFB 24-16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 64.5 (2.54) mm (")



W1235061 Milling unit

4-123

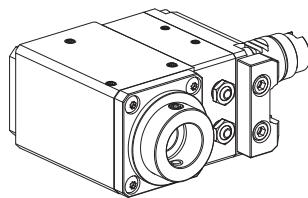
Fixation	Vee bar
Mounting	WFB 24-16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 64.5 (2.54) mm (")



W1255052 Milling unit

4-124

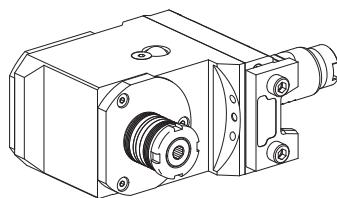
Fixation	W serration
Mounting	WFB 24-16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 64.5 (2.54) mm (")



W1235062 Milling unit

4-125

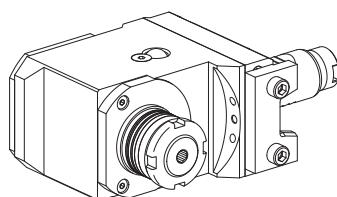
Fixation	Vee bar
Mounting	WFB 24-16
Cooling	external, internal optional, p_{max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 64.5 (2.54) mm (")



W1235027 Milling unit

4-126

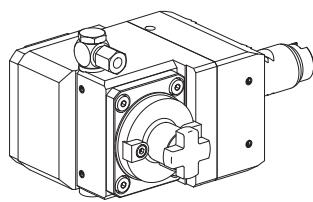
Fixation	Vee bar
Mounting	Milling tool mounting D16
Cooling	external, p_{max} 20 bar
Speed ratio	2.36:1 (2.36)
X / Y / Z	73 (2.87) / - / 17 (0.67) mm (")



W1235034 Milling unit

4-127

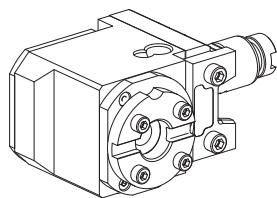
Fixation	Vee bar
Mounting	Milling tool mounting D22
Cooling	external, p_{max} 20 bar
Speed ratio	2.36:1 (2.36)
X / Y / Z	73 (2.87) / - / - mm (")



W1255016 Milling unit

Catalog page
4-128

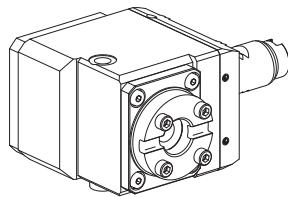
Fixation	W serration
Mounting	Milling tool mounting D22
Cooling	external, p_{\max} 80 bar
Speed ratio	2.5:1 (2.5)
X / Y / Z	75 (2.95) / - / 41 (1.61) mm (")



W1235039 Milling unit

4-129

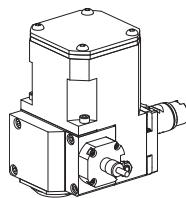
Fixation	Vee bar
Mounting	-
Cooling	external, p_{\max} 20 bar
Speed ratio	2.09:1 (2.09)
X / Y / Z	55 (2.17) / - / - mm (")



W1255015 Milling unit

4-130

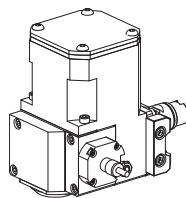
Fixation	W serration
Mounting	-
Cooling	external, p_{\max} 80 bar
Speed ratio	2.5:1 (2.5)
X / Y / Z	55 (2.17) / - / 55 (2.17) mm (")



W1255001 High-frequency spindle unit

4-131

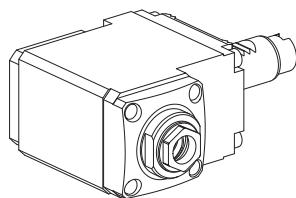
Fixation	W serration
Mounting	ER 8
Cooling	external, p_{\max} 5 bar
Speed ratio	1:10 (0.1)
X / Y / Z	70 (2.76) / - / 70.5 (2.78) mm (")



W1235029 High-frequency spindle unit

4-132

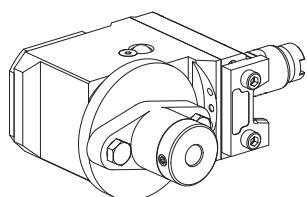
Fixation	Vee bar
Mounting	ER 8
Cooling	external, p_{\max} 5 bar
Speed ratio	1:10 (0.1)
X / Y / Z	70 (2.76) / - / 70.5 (2.78) mm (")



W1255012 Tapping unit

4-133

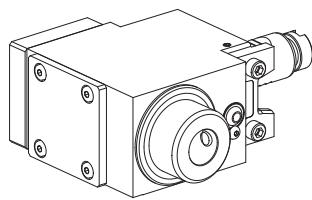
Fixation	W serration
Mounting	ER 20
Cooling	external, p_{\max} 80 bar
Speed ratio	2:1 (2)
X / Y / Z	70 (2.76) / - / 69 (2.72) mm (")



W1235028 Broaching/ Slotting unit

4-134

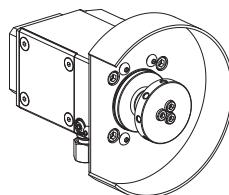
Fixation	Vee bar
Mounting	D12
Cooling	external, p_{\max} 80 bar
Speed ratio	2.36:1 (2.36)
X / Y / Z	73 (2.87) / - / 73.6 (2.9) mm (")



W1235025 Broaching/ Slotting unit

Catalog page
4-135

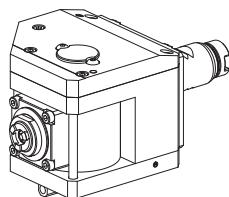
Fixation	Vee bar
Mounting	D20
Cooling	external, p_{\max} 20 bar
Speed ratio	1:1 (1)
X / Y / Z	70 (2.76) / - / 76 (2.99) mm (")



W1235038 Grinding unit

4-136

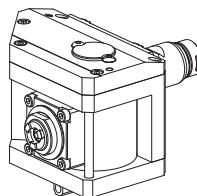
Fixation	Vee bar
Mounting	D20
Cooling	external, p_{\max} 20 bar
Speed ratio	1:1.55 (0.647)
X / Y / Z	47 (1.85) / - / 75.6 (2.98) mm (")



W1255022 Drilling unit, angle-adjustable

4-137

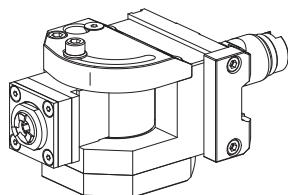
Fixation	W serration
Mounting	ER 11
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1.7 (0.588)
X / Y / Z	67 (2.64) / - / 24 (0.94) mm (")



W1255028 Drilling unit, angle-adjustable

4-138

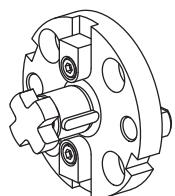
Fixation	W serration
Mounting	ER 11
Cooling	external, p_{\max} 80 bar
Speed ratio	1:1.7 (0.588)
X / Y / Z	44 (1.73) / - / 37 (1.46) mm (")



W1235016 Drilling unit, angle-adjustable

4-139

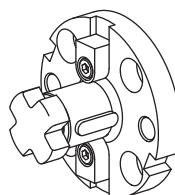
Fixation	Vee bar
Mounting	ER 11
Cooling	external, p_{\max} 20 bar
Speed ratio	1:1.5 (0.666)
X / Y / Z	48 (1.89) / - / - mm (")



W9990040 Milling cutter holding block

4-140

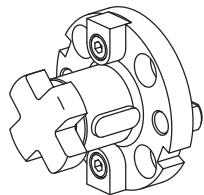
Fixation	-
Mounting	Milling tool mounting D13
Cooling	-
X / Y / Z	- / - / - mm (")



W9990041 Milling cutter holding block

4-141

Fixation	-
Mounting	Milling tool mounting D16
Cooling	-
X / Y / Z	- / - / - mm (")

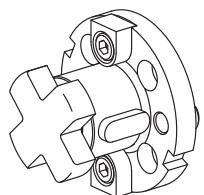


W9990042 Milling cutter holding block

Catalog page

4-142

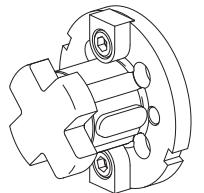
Fixation	–
Mounting	Milling tool mounting D22
Cooling	–
X / Y / Z	– / – / – mm ("")



W9990043 Milling cutter holding block

4-143

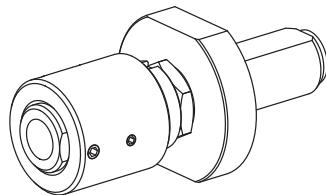
Fixation	–
Mounting	Milling tool mounting D27
Cooling	–
X / Y / Z	– / – / – mm ("")



W9990044 Milling cutter holding block

4-144

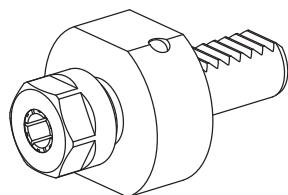
Fixation	–
Mounting	Milling tool mounting D32
Cooling	–
X / Y / Z	– / – / – mm ("")



W1100017 Bar stop, adjustable, live

5-2

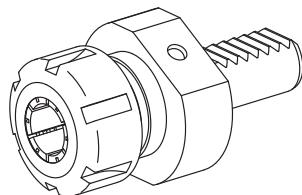
Fixation	none
Mounting	–
Cooling	–
X / Y / Z	49.5 - 71.5 (1.95 - 2.81) / – / – mm ("")



W1100006 Drilling tool holder

5-3

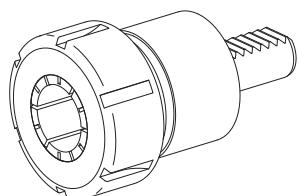
Fixation	none
Mounting	ER 16
Cooling	internal, p_{max} 20 bar
X / Y / Z	42.5 (1.67) / – / – mm ("")



W1100007 Drilling tool holder, Form E4

5-4

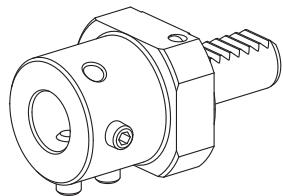
Fixation	none
Mounting	ER 25
Cooling	internal, p_{max} 80 bar
X / Y / Z	51 (21) / – / – mm ("")



W1100010 Drilling tool holder, Form E4

5-5

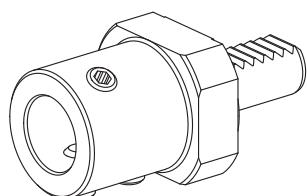
Fixation	none
Mounting	ER 40
Cooling	internal, p_{max} 20 bar
X / Y / Z	66.5 (2.62) / – / – mm ("")



W1100004 Drilling tool holder, Form E1

5-6

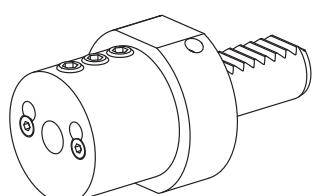
Fixation	none
Mounting	DIN 1835 B/E D20
Cooling	internal, p_{max} 20 bar
X / Y / Z	48 (1.89) / – / – mm ("")



W1100005 Drilling tool holder, Form E1

5-7

Fixation	none
Mounting	DIN 1835 B/E D25
Cooling	internal, p_{max} 80 bar
X / Y / Z	56.5 (2.22) / – / – mm ("")



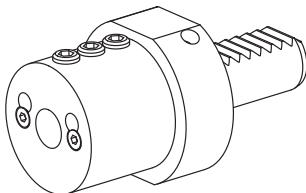
W1100018 Drilling tool holder, Form E2

5-8

Fixation	none
Mounting	D10
Cooling	external, p_{max} 20 bar
X / Y / Z	50 (1.97) / – / – mm ("")

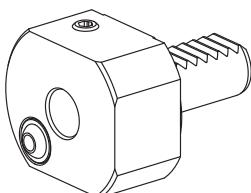
Catalog page

5-9



W1100019 Drilling tool holder, Form E2

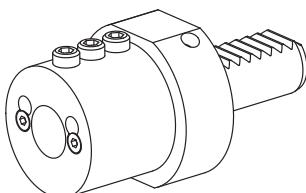
Fixation	none
Mounting	D12
Cooling	external, p_{\max} 20 bar
X / Y / Z	50 (1.97) / - / - mm (")



W1100001 Drilling tool holder

5-10

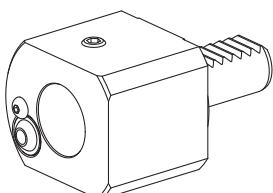
Fixation	none
Mounting	D15
Cooling	external, p_{\max} 20 bar
X / Y / Z	26 (12) / - / - mm (")



W1100020 Drilling tool holder, Form E2

5-11

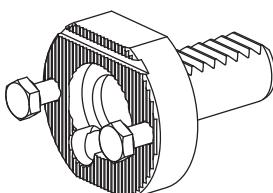
Fixation	none
Mounting	D16
Cooling	external, p_{\max} 20 bar
X / Y / Z	50 (1.97) / - / - mm (")



W1100009 Drilling tool holder

5-12

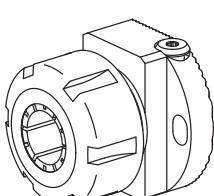
Fixation	none
Mounting	D25
Cooling	external, p_{\max} 20 bar
X / Y / Z	43 (1.69) / - / - mm (")



W1100002 Basic holder, vertically adjustable

5-13

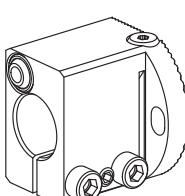
Fixation	none
Mounting	-
Cooling	internal, p_{\max} 20 bar
X / Y / Z	14 (0.55) / - / - mm (")



W9990085 Drill holding block

5-14

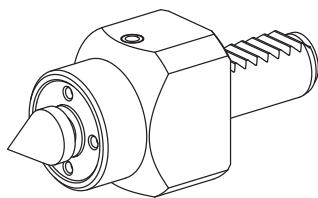
Fixation	-
Mounting	ER 25
Cooling	internal, p_{\max} 20 bar
X / Y / Z	42.5 (1.67) / - / - mm (")



W9990086 Drill holding block

5-15

Fixation	-
Mounting	D20
Cooling	external, p_{\max} 20 bar
X / Y / Z	40 (1.57) / - / - mm (")

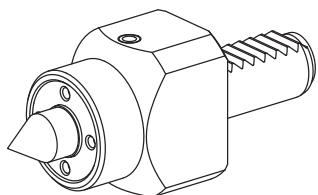


W1100014 Center holder, elastic, live, Center replaceable

Catalog page

5-16

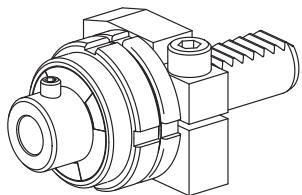
Fixation	none
Mounting	MK0
Cooling	–
X / Y / Z	66 (2.6) / – / – mm ("")



W1100013 Center holder, elastic, live

5-17

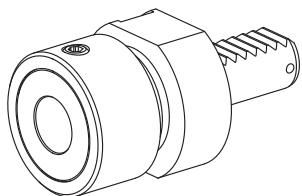
Fixation	none
Mounting	–
Cooling	–
X / Y / Z	65 (2.56) / – / – mm ("")



W1100011 Tapping tool holder, over-running

5-18

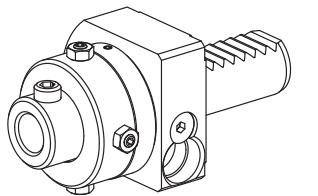
Fixation	none
Mounting	D12
Cooling	external, p_{max} 20 bar
X / Y / Z	56 (2.2) / – / – mm ("")



W1100003 Tapping tool holder

5-19

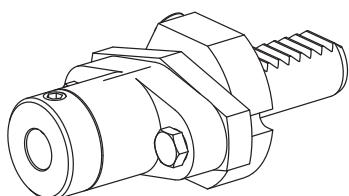
Fixation	none
Mounting	D18
Cooling	external, p_{max} 20 bar
X / Y / Z	50.5 (1.99) / – / – mm ("")



W1100012 Reaming tool holder, adjustable

5-20

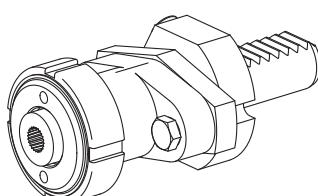
Fixation	none
Mounting	D12
Cooling	external, p_{max} 20 bar
X / Y / Z	52 (25) / – / – mm ("")



W1100016 Broaching/ Slotting tool holder, rotating, live

5-21

Fixation	none
Mounting	D12
Cooling	external, p_{max} 20 bar
X / Y / Z	66 (2.6) / – / – mm ("")



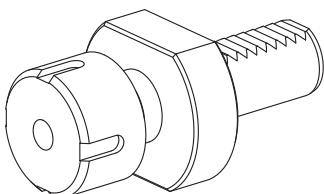
W1100015 Broaching/ Slotting tool holder, rotating, live

5-22

Fixation	none
Mounting	D14
Cooling	external, p_{max} 20 bar
X / Y / Z	69 (2.72) / – / – mm ("")

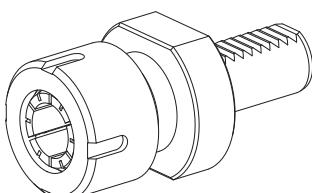
Catalog page

6-2



W1200006 Drilling tool holder, Form E4

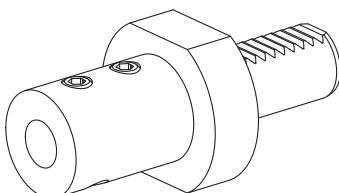
Fixation	none
Mounting	ER 25
Cooling	internal, p_{\max} 40 bar
X / Y / Z	57 (2.24) / - / - mm (")



W1200017 Drilling tool holder, Form E4

6-3

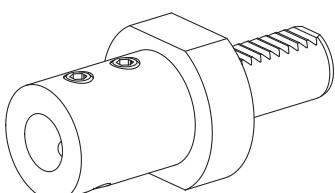
Fixation	none
Mounting	ER 32
Cooling	internal, p_{\max} 80 bar
X / Y / Z	62 (2.44) / - / - mm (")



W1200011 Drilling tool holder, Form E1

6-4

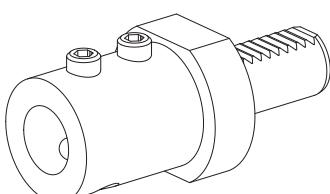
Fixation	none
Mounting	DIN 1835 B/E D16
Cooling	internal, p_{\max} 80 bar
X / Y / Z	67 (2.64) / - / - mm (")



W1200012 Drilling tool holder, Form E1

6-5

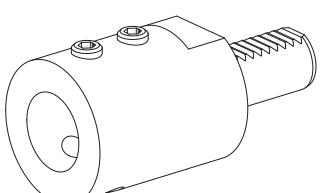
Fixation	none
Mounting	DIN 1835 B/E D20
Cooling	internal, p_{\max} 80 bar
X / Y / Z	67 (2.64) / - / - mm (")



W1200013 Drilling tool holder, Form E1

6-6

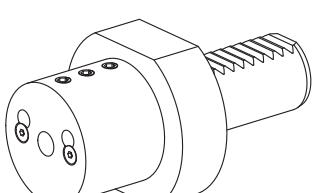
Fixation	none
Mounting	DIN 1835 B/E D25
Cooling	internal, p_{\max} 80 bar
X / Y / Z	71 (2.8) / - / - mm (")



W1200014 Drilling tool holder, Form E1

6-7

Fixation	none
Mounting	DIN 1835 B/E D32
Cooling	internal, p_{\max} 80 bar
X / Y / Z	74 (2.91) / - / - mm (")



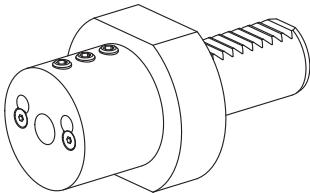
W1200020 Drilling tool holder, Form E2

6-8

Fixation	none
Mounting	D8
Cooling	external and internal, p_{\max} 80 bar
X / Y / Z	50 (1.97) / - / - mm (")

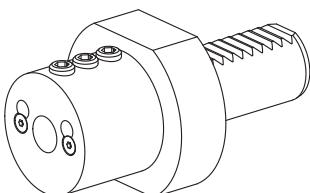
Catalog page

6-9



W1200015 Drilling tool holder, Form E2

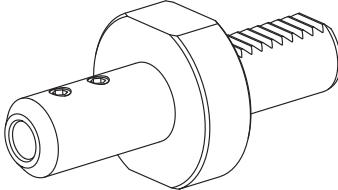
Fixation	none
Mounting	D10
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	50 (1.97) / - / - mm (")



W1200016 Drilling tool holder, Form E2

6-10

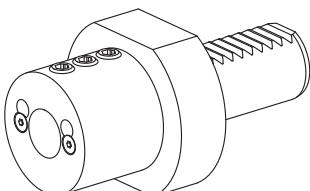
Fixation	none
Mounting	D12
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	50 (1.97) / - / - mm (")



W1200042 Drilling tool holder, Specially for the marking tool WriteStar

6-11

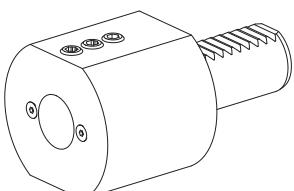
Fixation	none
Mounting	D12
Cooling	-
X / Y / Z	68 (2.68) / - / - mm (")



W1200019 Drilling tool holder, Form E2

6-12

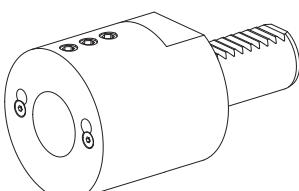
Fixation	none
Mounting	D16
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	50 (1.97) / - / - mm (")



W1200033 Drilling tool holder, Form E2

6-13

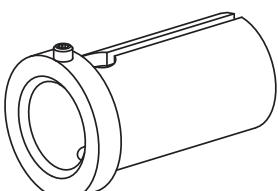
Fixation	none
Mounting	D20
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	50 (1.97) / - / - mm (")



W1200018 Drilling tool holder, Form E2

6-14

Fixation	none
Mounting	D25
Cooling	external and internal, p_{max} 80 bar
X / Y / Z	60 (2.36) / - / - mm (")



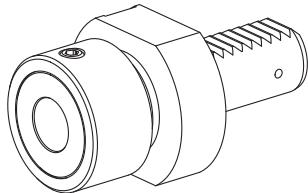
W9990095 Compensation bushing

6-15

Fixation	none
Mounting	D3/4"
Cooling	-
X / Y / Z	6 (0.24) / - / - mm (")

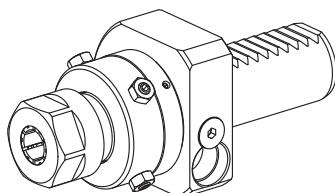
Catalog page

6-16



W1200007 Tapping tool holder, extendable

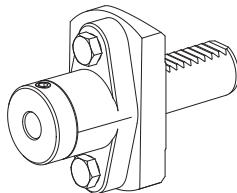
Fixation	none
Mounting	DIN 1835 B/E D18
Cooling	external, p_{\max} 20 bar
X / Y / Z	50 (1.97) / - / - mm (")



W1200028 Reaming tool holder

6-17

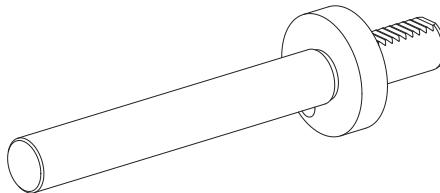
Fixation	none
Mounting	ER 16
Cooling	external, p_{\max} 20 bar
X / Y / Z	63 (2.48) / - / - mm (")



W1200030 Broaching/ Slotting tool holder, rotating, live

6-18

Fixation	none
Mounting	D12
Cooling	external, p_{\max} 20 bar
X / Y / Z	60 (2.36) / - / - mm (")



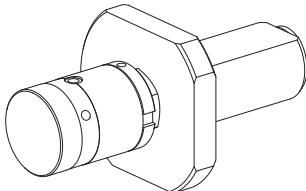
W1200027 Calibrating tool

6-19

Fixation	none
Mounting	-
Cooling	-
X / Y / Z	190 (7.48) / - / - mm (")

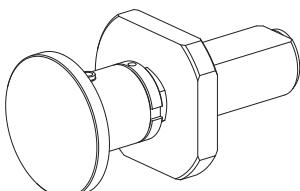
Catalog page

7-2



W1300037 Bar stop, adjustable, live

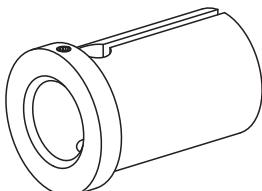
Fixation	none
Mounting	–
Cooling	–
X / Y / Z	60 - 97 (2.36 - 3.82) / – / – mm (")



W1300038 Bar stop, adjustable, live

7-3

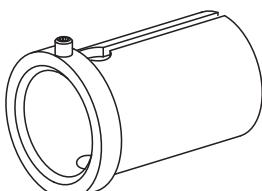
Fixation	none
Mounting	–
Cooling	–
X / Y / Z	60 - 97 (2.36 - 3.82) / – / – mm (")



W9990096 Compensation bushing

7-4

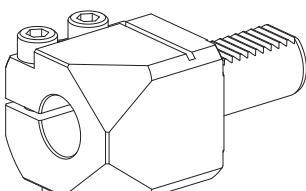
Fixation	none
Mounting	D3/4"
Cooling	–
X / Y / Z	6 (0.24) / – / – mm (")



W9990094 Compensation bushing

7-5

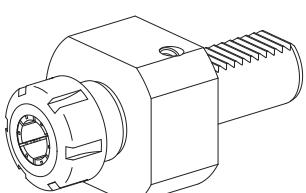
Fixation	none
Mounting	D1"
Cooling	–
X / Y / Z	6 (0.24) / – / – mm (")



W1300023 Compensation holder

7-6

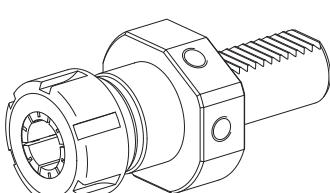
Fixation	none
Mounting	D1"
Cooling	internal, p_{max} 20 bar
X / Y / Z	60 (2.36) / – / – mm (")



W1300025 Drilling tool holder, Form E4

7-7

Fixation	none
Mounting	ER 25
Cooling	internal, p_{max} 80 bar
X / Y / Z	68 (2.68) / – / – mm (")



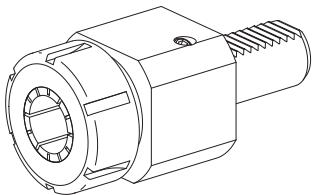
W1300066 Drilling tool holder, Form E4

7-8

Fixation	none
Mounting	ER 32
Cooling	internal, p_{max} 20 bar
X / Y / Z	76 (2.99) / – / – mm (")

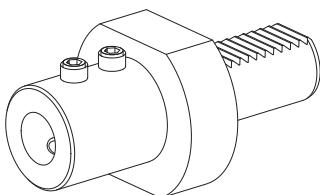
Catalog page

7-9



W1300026 Drilling tool holder, Form E4

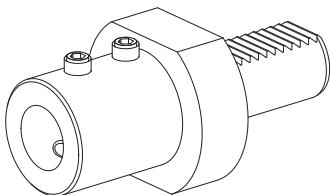
Fixation	none
Mounting	ER 40
Cooling	internal, p_{\max} 80 bar
X / Y / Z	80 (3.15) / - / - mm ("")



W1300057 Drilling tool holder, Form E1

7-10

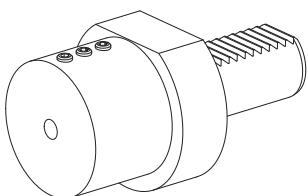
Fixation	none
Mounting	DIN 1835 E D20
Cooling	internal, p_{\max} 80 bar
X / Y / Z	67 (2.64) / - / - mm ("")



W1300058 Drilling tool holder, Form E1

7-11

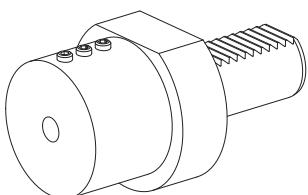
Fixation	none
Mounting	DIN 1835 E D25
Cooling	internal, p_{\max} 80 bar
X / Y / Z	71 (2.8) / - / - mm ("")



W1300014 Drilling tool holder, Form E2

7-12

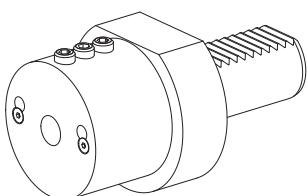
Fixation	none
Mounting	D8
Cooling	external and internal, p_{\max} 20 bar
X / Y / Z	60 (2.36) / - / - mm ("")



W1300015 Drilling tool holder, Form E2

7-13

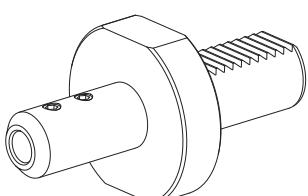
Fixation	none
Mounting	D10
Cooling	external and internal, p_{\max} 20 bar
X / Y / Z	60 (2.36) / - / - mm ("")



W1300016 Drilling tool holder, Form E2

7-14

Fixation	none
Mounting	D12
Cooling	external and internal, p_{\max} 20 bar
X / Y / Z	60 (2.36) / - / - mm ("")



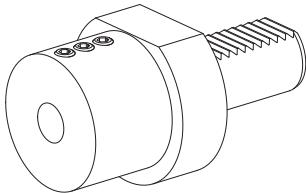
W1300067 Drilling tool holder, Specially for the marking tool WriteStar

7-15

Fixation	none
Mounting	D12
Cooling	-
X / Y / Z	68 (2.68) / - / - mm ("")

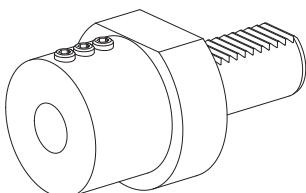
Catalog page

7-16



W1300017 Drilling tool holder, Form E2

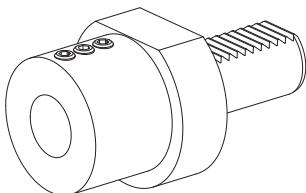
Fixation	none
Mounting	D16
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	60 (2.36) / - / - mm (")



W1300018 Drilling tool holder, Form E2

7-17

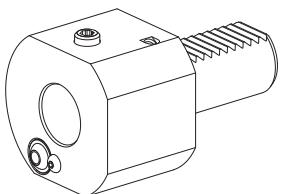
Fixation	none
Mounting	D20
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	60 (2.36) / - / - mm (")



W1300019 Drilling tool holder, Form E2

7-18

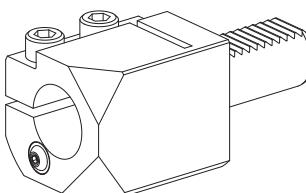
Fixation	none
Mounting	D25
Cooling	external and internal, p_{max} 20 bar
X / Y / Z	60 (2.36) / - / - mm (")



W1300053 Drilling tool holder

7-19

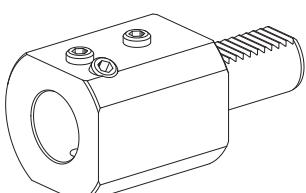
Fixation	none
Mounting	D25
Cooling	external and internal, p_{max} 40 bar
X / Y / Z	45 (1.77) / - / - mm (")



W1300013 Drilling tool holder, Form E2

7-20

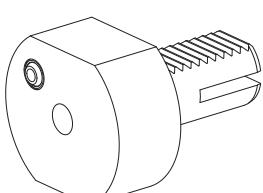
Fixation	none
Mounting	D32
Cooling	external, p_{max} 20 bar
X / Y / Z	70 (2.76) / - / - mm (")



W1300022 Drilling tool holder

7-21

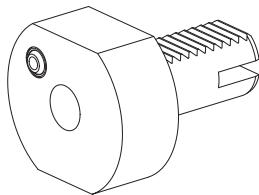
Fixation	none
Mounting	D32
Cooling	internal, p_{max} 80 bar
X / Y / Z	73 (2.87) / - / - mm (")



W1300027 Drilling tool holder

7-22

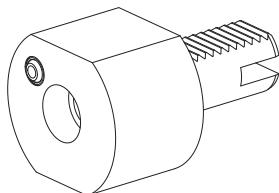
Fixation	none
Mounting	MK1
Cooling	external, p_{max} 20 bar
X / Y / Z	30 (1.18) / - / - mm (")



W1300028 Drilling tool holder

Catalog page
7-23

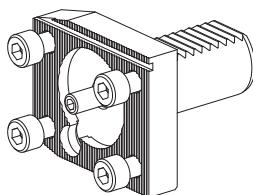
Fixation	none
Mounting	MK2
Cooling	external, p_{\max} 20 bar
X / Y / Z	27 (16) / - / - mm (")



W1300029 Drilling tool holder

7-24

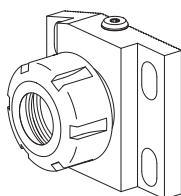
Fixation	none
Mounting	MK3
Cooling	external, p_{\max} 20 bar
X / Y / Z	45 (1.77) / - / - mm (")



W1300012 Basic holder, vertically adjustable

7-25

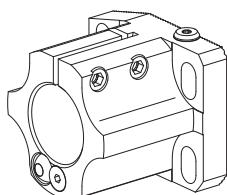
Fixation	none
Mounting	-
Cooling	external, p_{\max} 20 bar
X / Y / Z	14 (0.55) / - / - mm (")



W9990092 Drill holding block

7-26

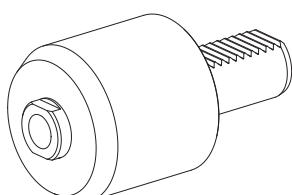
Fixation	-
Mounting	ER 25
Cooling	-, p_{\max} 40 bar
X / Y / Z	30 (1.18) / - / - mm (")



W9990093 Drill holding block

7-27

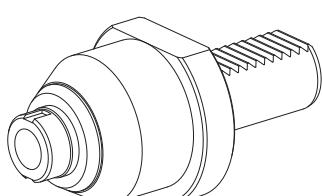
Fixation	-
Mounting	D32
Cooling	-, p_{\max} 40 bar
X / Y / Z	57 (2.24) / - / - mm (")



W1300004 Center holder, live

7-28

Fixation	none
Mounting	D15.4/Cone 1:7.5
Cooling	-
X / Y / Z	69.5 (2.74) / - / - mm (")



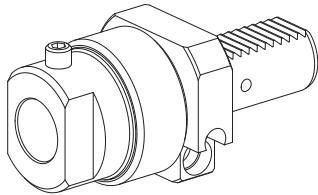
W1300005 Center holder, elastic, live

7-29

Fixation	none
Mounting	D15.4/Cone 1:7.5
Cooling	-
X / Y / Z	68.5 (2.7) / - / - mm (")

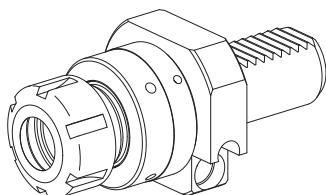
Catalog page

7-30



W1300030 Tapping tool holder, extendable

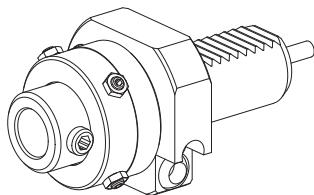
Fixation	none
Mounting	D25
Cooling	external, p_{\max} 20 bar
X / Y / Z	73 (2.87) / - / - mm (")



W1300031 Reaming tool holder, adjustable

7-31

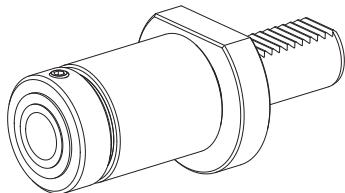
Fixation	none
Mounting	ER 25
Cooling	external, p_{\max} 20 bar
X / Y / Z	73.5 (2.89) / - / - mm (")



W1300032 Reaming tool holder, adjustable

7-32

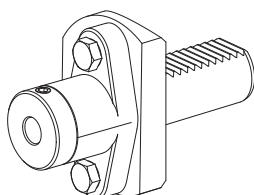
Fixation	none
Mounting	D18
Cooling	external, p_{\max} 20 bar
X / Y / Z	59 (2.32) / - / - mm (")



W1300065 Reaming tool holder, self-centering

7-33

Fixation	none
Mounting	D20
Cooling	internal, p_{\max} 40 bar
X / Y / Z	93 (3.66) / - / - mm (")



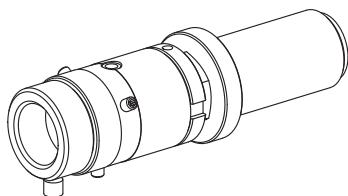
W1300034 Broaching/ Slotting tool holder, rotating, live

7-34

Fixation	none
Mounting	D12
Cooling	external, p_{\max} 20 bar
X / Y / Z	60 (2.36) / - / - mm (")

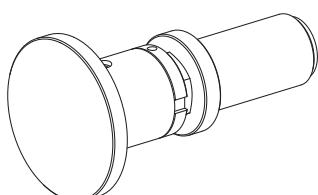
Catalog page

8-2



W6290013 Bar stop, adjustable, live

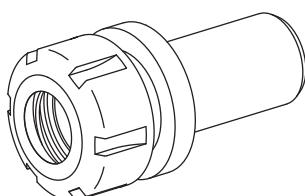
Fixation	none
Mounting	–
Cooling	–
X / Y / Z	58 - 94 (2.28 - 3.7) / – / – mm (")



W6290014 Bar stop, adjustable, live

8-3

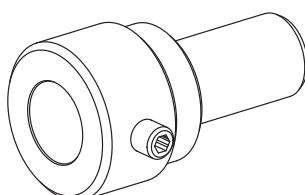
Fixation	none
Mounting	–
Cooling	–
X / Y / Z	58 - 94 (2.28 - 3.7) / – / – mm (")



W6290001 Drilling tool holder

8-4

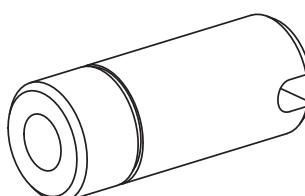
Fixation	none
Mounting	ER 25
Cooling	–
X / Y / Z	22 (0.87) / – / – mm (")



W6290000 Drilling tool holder

8-5

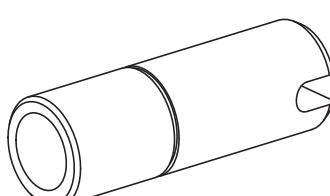
Fixation	none
Mounting	D25
Cooling	–
X / Y / Z	40 (1.57) / – / – mm (")



W6290015 Drilling tool holder

8-6

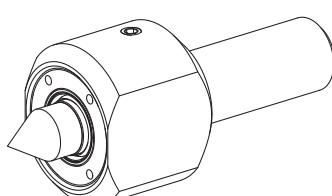
Fixation	none
Mounting	MK1
Cooling	–
X / Y / Z	16 (0.63) / – / – mm (")



W6290016 Drilling tool holder

8-7

Fixation	none
Mounting	MK2
Cooling	–
X / Y / Z	29 (1.14) / – / – mm (")



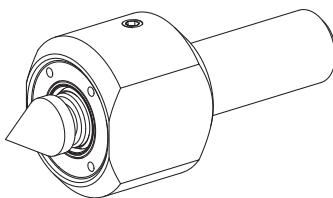
W6290008 Center holder, elastic, live

8-8

Fixation	none
Mounting	D18
Cooling	–
X / Y / Z	72.5 (2.85) / – / – mm (")

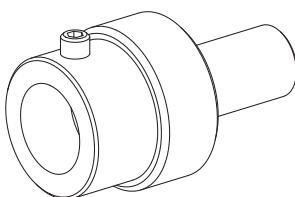
Catalog page

8-9



W6290007 Center holder, elastic, live

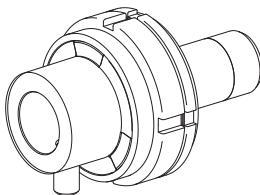
Fixation	none
Mounting	MK1
Cooling	–
X / Y / Z	72.5 (2.85) / – / – mm ("")



W6290002 Tapping tool holder, extendable

8-10

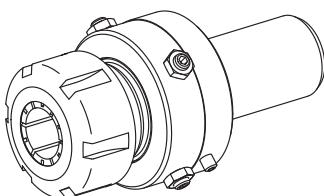
Fixation	none
Mounting	D25
Cooling	–
X / Y / Z	52 (25) / – / – mm ("")



W6290003 Tapping tool holder, over-running

8-11

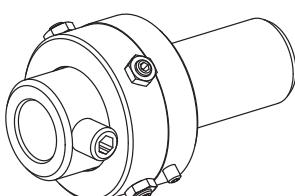
Fixation	none
Mounting	D25
Cooling	–
X / Y / Z	56 (2.2) / – / – mm ("")



W6290005 Reaming tool holder, adjustable

8-12

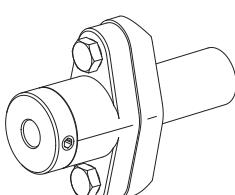
Fixation	none
Mounting	ER 25
Cooling	–
X / Y / Z	55 (2.17) / – / – mm ("")



W6290006 Reaming tool holder, adjustable

8-13

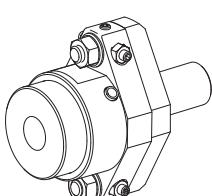
Fixation	none
Mounting	D18
Cooling	–
X / Y / Z	41 (1.61) / – / – mm ("")



W6290011 Broaching/ Slotting tool holder, rotating, live

8-14

Fixation	none
Mounting	D12
Cooling	–
X / Y / Z	58 (2.28) / – / – mm ("")



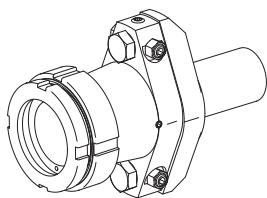
W6290012 Broaching/ Slotting tool holder, rotating, live

8-15

Fixation	none
Mounting	D20
Cooling	–
X / Y / Z	76 (2.99) / – / – mm ("")

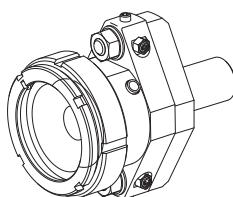
Catalog page

8-16



W6290010 Broaching/ Slotting tool holder, rotating, live

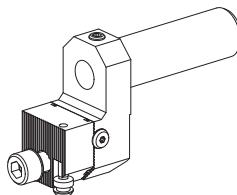
Fixation	none
Mounting	D30
Cooling	–
X / Y / Z	78 - 88 (37 - 3.46) / – / – mm (")



W6290009 Broaching/ Slotting tool holder

8-17

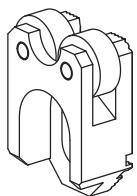
Fixation	none
Mounting	D50
Cooling	–
X / Y / Z	80 - 90 (3.2 - 3.54) / – / – mm (")



W6290017 Guide holder

8-18

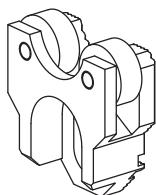
Fixation	none
Mounting	–
Cooling	–
X / Y / Z	57 (2.24) / – / – mm (")



W9990176 Roller holding block, adjustable

8-19

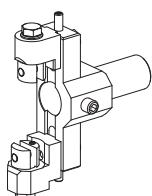
Fixation	–
Mounting	–
Cooling	–
X / Y / Z	– / – / – mm (")



W9990177 Roller holding block, adjustable

8-20

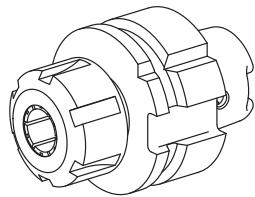
Fixation	–
Mounting	–
Cooling	–
X / Y / Z	– / – / – mm (")



W6290004 Knurling tool holder, adjustable

8-21

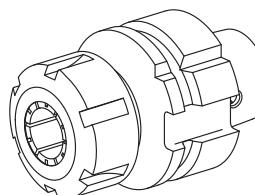
Fixation	none
Mounting	D6-36
Cooling	–
X / Y / Z	– / – / – mm (")



W2410009 Drilling tool holder

Catalog page
9-2

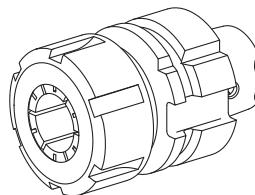
Form	B50/D50/C40
Mounting	ER 20
Cooling	internal, p_{max} 40 bar
X / Z	50 (1.97) / – mm ("")



W2410010 Drilling tool holder

9-3

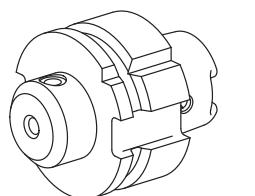
Form	B50/D50/C40
Mounting	ER 25
Cooling	internal, p_{max} 40 bar
X / Z	56.5 (2.22) / – mm ("")



W2410013 Drilling tool holder

9-4

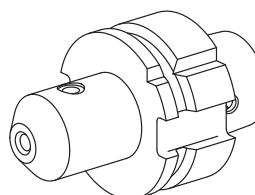
Form	B50/D50/C40
Mounting	ER 32
Cooling	internal, p_{max} 40 bar
X / Z	58 (2.28) / – mm ("")



W2410001 Drilling tool holder

9-5

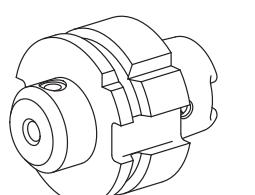
Form	B50/D50/C40
Mounting	DIN 1835 B/E D5
Cooling	internal, p_{max} 40 bar
X / Z	40 (1.57) / – mm ("")



W2410002 Drilling tool holder

9-6

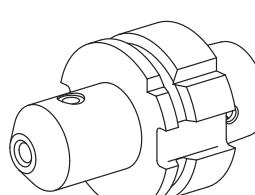
Form	B50/D50/C40
Mounting	DIN 1835 B/E D5
Cooling	internal, p_{max} 40 bar
X / Z	60 (2.36) / – mm ("")



W2410003 Drilling tool holder

9-7

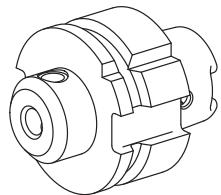
Form	B50/D50/C40
Mounting	DIN 1835 B/E D6
Cooling	internal, p_{max} 40 bar
X / Z	40 (1.57) / – mm ("")



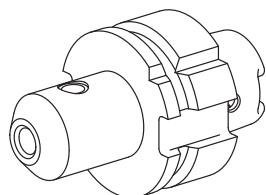
W2410004 Drilling tool holder

9-8

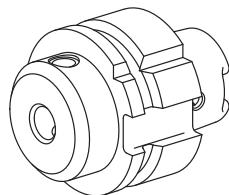
Form	B50/D50/C40
Mounting	DIN 1835 B/E D6
Cooling	internal, p_{max} 40 bar
X / Z	60 (2.36) / – mm ("")



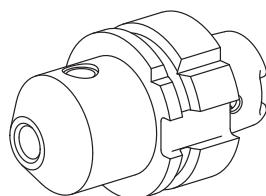
W2410005 Drilling tool holder	Catalog page
Form B50/D50/C40 Mounting DIN 1835 B/E D8 Cooling internal, p_{max} 40 bar X / Z 40 (1.57) / – mm ("")	9-9



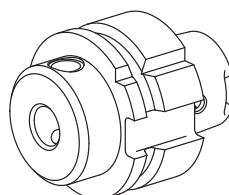
W2410006 Drilling tool holder	9-10
Form B50/D50/C40 Mounting DIN 1835 B/E D8 Cooling internal, p_{max} 40 bar X / Z 60 (2.36) / – mm ("")	



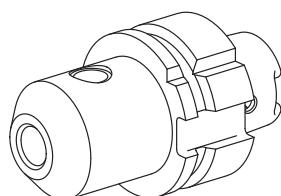
W2410007 Drilling tool holder	9-11
Form B50/D50/C40 Mounting DIN 1835 B/E D10 Cooling internal, p_{max} 40 bar X / Z 40 (1.57) / – mm ("")	



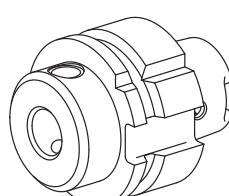
W2410008 Drilling tool holder	9-12
Form B50/D50/C40 Mounting DIN 1835 B/E D10 Cooling internal, p_{max} 40 bar X / Z 60 (2.36) / – mm ("")	



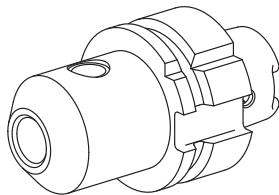
W2410011 Drilling tool holder	9-13
Form B50/D50/C40 Mounting DIN 1835 B/E D12 Cooling internal, p_{max} 40 bar X / Z 40 (1.57) / – mm ("")	



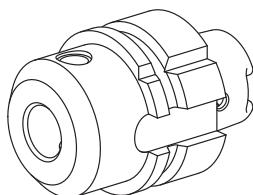
W2410012 Drilling tool holder	9-14
Form B50/D50/C40 Mounting DIN 1835 B/E D12 Cooling internal, p_{max} 40 bar X / Z 65 (2.56) / – mm ("")	



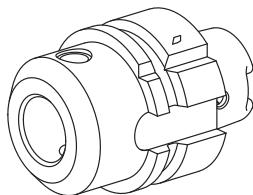
W2410014 Drilling tool holder	9-15
Form B50/D50/C40 Mounting DIN 1835 B/E D14 Cooling internal, p_{max} 40 bar X / Z 40 (1.57) / – mm ("")	



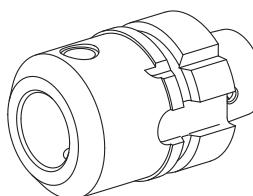
W2410015 Drilling tool holder	Catalog page
Form B50/D50/C40 Mounting DIN 1835 B/E D14 Cooling internal, p_{max} 40 bar X / Z 65 (2.56) / – mm (")	9-16



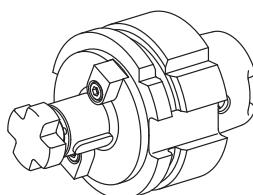
W2410016 Drilling tool holder	9-17
Form B50/D50/C40 Mounting DIN 1835 B/E D16 Cooling internal, p_{max} 40 bar X / Z 50 (1.97) / – mm (")	



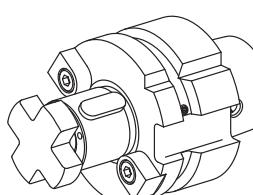
W2410017 Drilling tool holder	9-18
Form B50/D50/C40 Mounting DIN 1835 B/E D20 Cooling internal, p_{max} 40 bar X / Z 50 (1.97) / – mm (")	



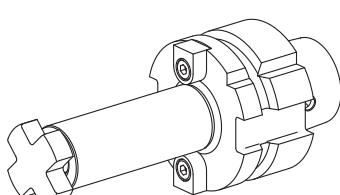
W2410018 Drilling tool holder	9-19
Form B50/D50/C40 Mounting DIN 1835 B/E D25 Cooling internal, p_{max} 40 bar X / Z 60 (2.36) / – mm (")	



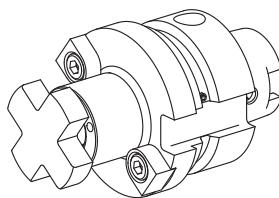
W2410019 Milling cutter holder	9-20
Form B50/D50/C40 Mounting Milling tool mounting D16 Cooling internal, p_{max} 40 bar X / Z 29 (1.14) / – mm (")	



W2410020 Milling cutter holder	9-21
Form B50/D50/C40 Mounting Milling tool mounting D22 Cooling internal, p_{max} 40 bar X / Z 29 (1.14) / – mm (")	



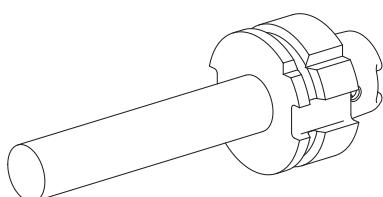
W2410027 Milling cutter holder	9-22
Form B50/D50/C40 Mounting Milling tool mounting D22 Cooling internal, p_{max} 40 bar X / Z 29 (1.14) / – mm (")	



W2410021 Milling cutter holder

Catalog page
9-23

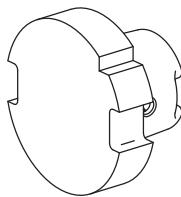
Form	B50/D50/C40
Mounting	Milling tool mounting D27
Cooling	internal, p_{\max} 40 bar
X / Z	35 (1.38) / – mm (")



W2410000 Calibrating tool

9-24

Form	B50/D50/C40
Mounting	–
Cooling	–
X / Z	126 (4.96) / – mm (")



W2410023 Blanking plug

9-25

Form	B50/D50/C40
Mounting	–
Cooling	–, p_{\max} 40 bar
X / Z	12 (0.47) / – mm (")

**W67501.2050 IC Attachment**

for internal cooling lubricant supply, 20 bar

Catalog page

10-2

**W67500.5044 IC Attachment**

for internal cooling lubricant supply, 20 bar

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**W31400.46 Steel Block**

for form cutting tool

10-4

**W67101.0050 Setting gauge**

10-5

**W67221.4196 Seal**

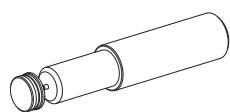
10-6

**W67221.4198 End Plug**

10-7

AZ4005.03**Replacement Seals for Tool Shank**

10-8



AZ4019.00

Sealing Washer and Mounting Pin

Catalog page

10-9

W9800001EN Product note

External/internal cooling lubricant supply
Drill holder with cylindrical shank tool mounting
Offset set screws

W9800002EN Product note

External/internal cooling lubricant supply
Rotate cover 180°

W9800004EN Product note

Writestar

W9800005EN Product note

External/internal cooling lubricant supply
Drill holder with collet chuck
Offset set screw

W9800008EN Product note

External/internal cooling lubricant supply
Milling unit, lid convertible to IC 80 bar / 160 bar
Offset set screws

W9800009EN Product note

WFB interface
Mounting, cleaning and care, tightening torques

W9800010EN Product note

INDEX TRAUB CAPTO
Live tools

W9800011EN Product note

INDEX TRAUB CAPTO

Stationary tools

**Technical Information
INDEX G200**

Warranty



When using tool holders that have not been set, checked and labeled accordingly by INDEXTRAUB, warranty is not applicable to the tool drive.

Information on wear parts

Tool holders and guide bushings are wear parts requiring correct handling. In order to ensure a long service life, compressed air or coolant must not enter the gap seals of the holders or of the guide bushings.

Inspection of live tool holders and guide bushings



Tool holders and guide bushings must be inspected at regular intervals (at least twice a year) for smooth running and play.



The drive pinion and drive clutch of the live tool holders must be subjected to a visual inspection for damage or wear.

If one of the above-mentioned defects is detected during the inspection of the tool holders or guide bushings, they must be returned immediately for preventive maintenance or repair to the following address:

TRAUB Drehmaschinen GmbH & Co. KG
Hauffstrasse 4
D-73262 Reichenbach, Germany
Phone +49 (0) 7153 502-554
werkzeughalter@traub.de

Tool holders with cooling lubricant supply



Tool holders marked with this symbol must be operated with cooling lubricant (no dry run permitted).

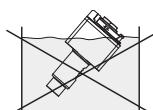


Tool holders marked with this symbol must be operated with cooling lubricant when converting from external cooling lubricant supply to internal cooling lubricant supply. Observe dry run capability of IC attachment!

Cooling lubricant filtering

When using live tool holders with internal cooling lubricant supply, it is necessary to use a cooling lubricant filter system with a retained particle size $\leq 50 \mu$.

Cleaning live tool holders



Live tool holders must never be immersed in cleaning fluid since mixing the cleaning fluid with the bearing grease will reduce the service life of the tool holders.

Speed ratio specifications on tool holders

The value to be programmed is specified in the documentation and on the live tool holders (= the input in the NC program).

$$n_{\text{prog}} = n_{\text{tool}} \times i$$

n_{tool} = speed at cutting tool edge

n_{PROG} = speed to be programmed

i = speed ratio in the tool holder

This means: the speed increase or speed reduction is not specified as a fraction but as **a number**.

This gives speed **increase** ratios as numbers **smaller than 1**.

Example:

$i = 0.333$ (corresponds to $i = 1:3$)

$i = 0.676$ (corresponds to $i = 1:1.48$)

Step-down ratios result in numbers **>1**

For example:

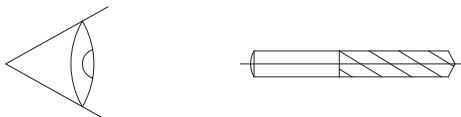
$i = 2$ (corresponds to $i = 2:1$)

$i = 1.333$ (corresponds to $i = 4:3$)

Direction of rotation specification

Definition of the viewing direction.

Viewing direction for determining the direction of rotation is always from behind (that is, from the drive direction) toward the shaft.



On the machine side, the direction of rotation has been set by parameters such that M03 always denotes clockwise rotation and M04 counter-clockwise run at the interface of the drive pinion of the tool holder.

The direction of rotation given on the holder thus always refers to a "change in direction within a holder".

M03 and M04 are machine functions to be programmed.

The ↗ and ↘ arrows indicate the direction of rotation of the cutting edges.

This means:

No reversal of direction of rotation

- When the holder drive shaft has the **same** direction of rotation as the tool cutting edge, the clockwise direction of run must be specified by M03 (clockwise rotation). Accordingly, counter-clockwise run must be specified by M04.



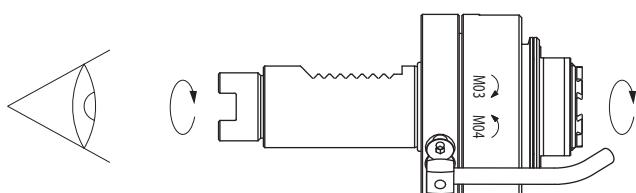
Reversal of direction of rotation

- When the holder drive shaft has the **opposite** direction of rotation as the tool cutting edge, the clockwise direction of rotation must be specified by M04. Accordingly, counter-clockwise run must be specified by M03.



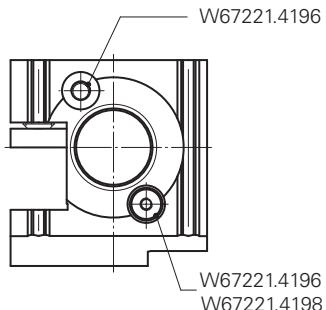
Example

No reversal of direction of rotation



Tool holders

Mounting:
VDI20, VDI25



For tools with W-serration and double clamping serration, the 2nd hole for coolant supply must be closed by the end plug part no. W67221.4198 or W68540.2014 and the seal part no. W67221.4196 (see Tool Holder Catalog, Chapter "Accessories").

The gaskets on the tool shank and the coolant bushing must be regularly checked for damages.

The tightening torques of the clamping pieces to the tool holder mounting depends on the shank diameter of the tool holder.

Shank size	Tightening torque
Ø 20mm	8 Nm
Ø 25mm	20 Nm
Ø 30mm	25 Nm
Ø 40mm	40 Nm

Replacement seals for tool shank

See the accessories.

The gaskets on the tool shank and the coolant bushing must be regularly checked for damages.

Sealing air port

It must be ensured on all machines with sealing air ports that the sealing air ports in the tool carrier and in the tool holders are sealed/closed with M5x6 mm set screws.

Tool holders with fixation



Except for very few cases, all tool holders have been pre-adjusted with high precision and sealed with the INDEX V bar /TRAUB adjusting bar / W-serration. This setting must not be changed.

The INDEX V bar /TRAUB adjusting bar / W-serration ensures positional accuracy of the tool when re-inserted.

The tool holders are fixed around the shank axis by pins (DIN 69880).

DIN holders can be used.

Double serration of the tool holders allows several uses.

High-pressure unit



The cooling lubricant up to 80 bar (e.g., for deep-hole drilling) is supplied through the standard cooling lubricant line.

Load limits of live tools

The drive power and torques are indicated in the performance charts. These values represent the upper limit of the calculated theoretical performance values (average values). In case of interrupted cuts, e.g., for milling, the load peaks occurring when the cutting edge enters the material may be much higher than the theoretical torque according to the performance chart.



The cutter should be selected so that a cutting edge is constantly being used for cutting during the machining process.

Live tool holders

Only the tool located in the working position is live.

The live tool holders are inserted into the mounting bores in the tool carriers just like non-live tool holders.

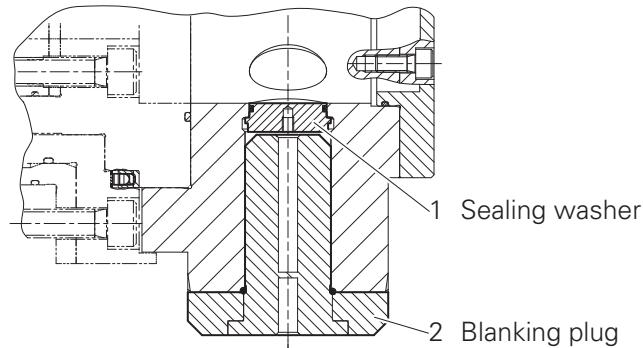
Each turret station can accept one live tool.

The motor drives the tool that is exclusively in working position. In addition, the index drive is actuated by switching using the same motor.



The sealing washer (1) must be removed first.

For a list of sealing washers, see drawing AZ4019.00 in Chapter "Accessories".



Before using the machine, make sure that all mounting bores without a tool have been closed with a sealing washer and that the gasket on all tool holders is not damaged.



Any mounting bores not used must be closed with blanking plugs during machining processes.

Weight distribution on turret head



Tool holders may have considerably different weights depending on their function and equipment. Therefore, be sure to balance the tool holders evenly around the turret head when tooling.

Collision

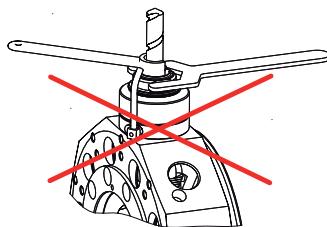


After a collision has occurred, check whether the tool carrier has been displaced. If this is the case, the tool carrier must be realigned to ensure that the drive and tool holder gears accurately engage with each other.

Tool change on live tool holders

To avoid damaging or changing the adjustment of the drive train in the turret, tools must **not** be changed on the live tool holders inserted in the turret.

Tools in live tool holders must be changed outside the machine.



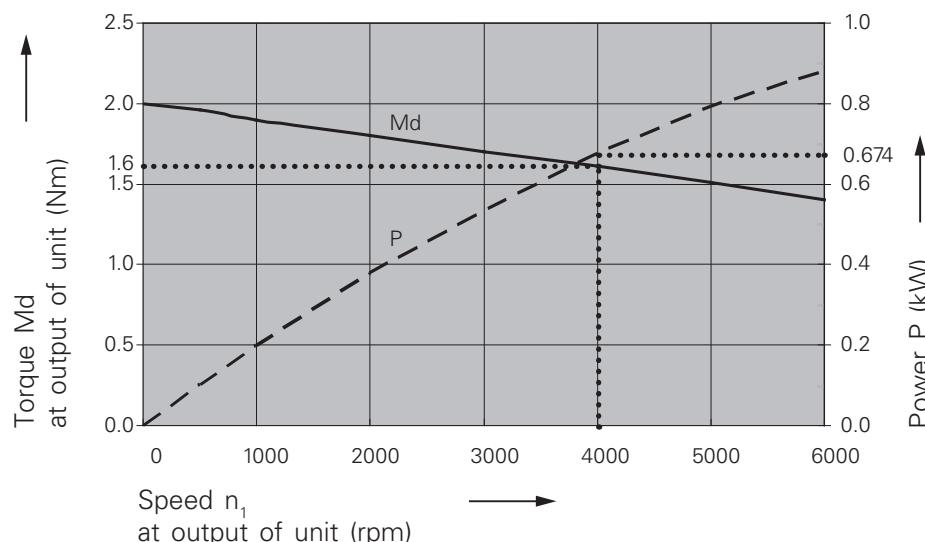
Information on how to use the chart when using tool holders

The chart relates to the output speed **n** of the tool unit. The tool speed can be read directly from the chart only if the internal speed ratio **i** in the tool holder is 1:1.

For tool holders (VDI holders) with an internal speed ratio $i \neq 1$, the output speed **n** of the tool unit to be programmed must be calculated from the required tool speed and the speed ratio **i**. Afterwards, the actual powers or torques can be read off or determined.

Example (at 100% duty cycle):

live tool unit, tool speed $n_{\text{Tool}} = 1000 \text{ rpm}$	
Internal speed ratio i of the tool holder	$i = 4$
Programmed speed n_{prog} for the drive of the unit	$n_{\text{prog}} = n_{\text{Tool}} \times i =$ $1000 \text{ rpm} \times 4 = 4000 \text{ rpm}$
Torque M_{Tool} at the output of the tool holder	Read-out M_d at speed $n_{\text{prog}} = 4000 \text{ rpm} = 1.6 \text{ Nm}$ $M_d = M_{\text{Tool}} : i$ Formula changed: $M_{\text{Tool}} = M_d \times i = 1.6 \text{ Nm} \times 4 = 6.4 \text{ Nm}$
Power P at the output of the tool holder ≈ Power P at the output of the setup	Read-out at 4000 rpm → $P = 0.67 \text{ kW}$ calculated: $P = 2 \times \pi \times n_{\text{prog}} \times M_d$ $P = \frac{2 \times \pi \times 4000 \times 1.6 \text{ Nm}}{60 \times 1000} = 0.67 \text{ kW}$

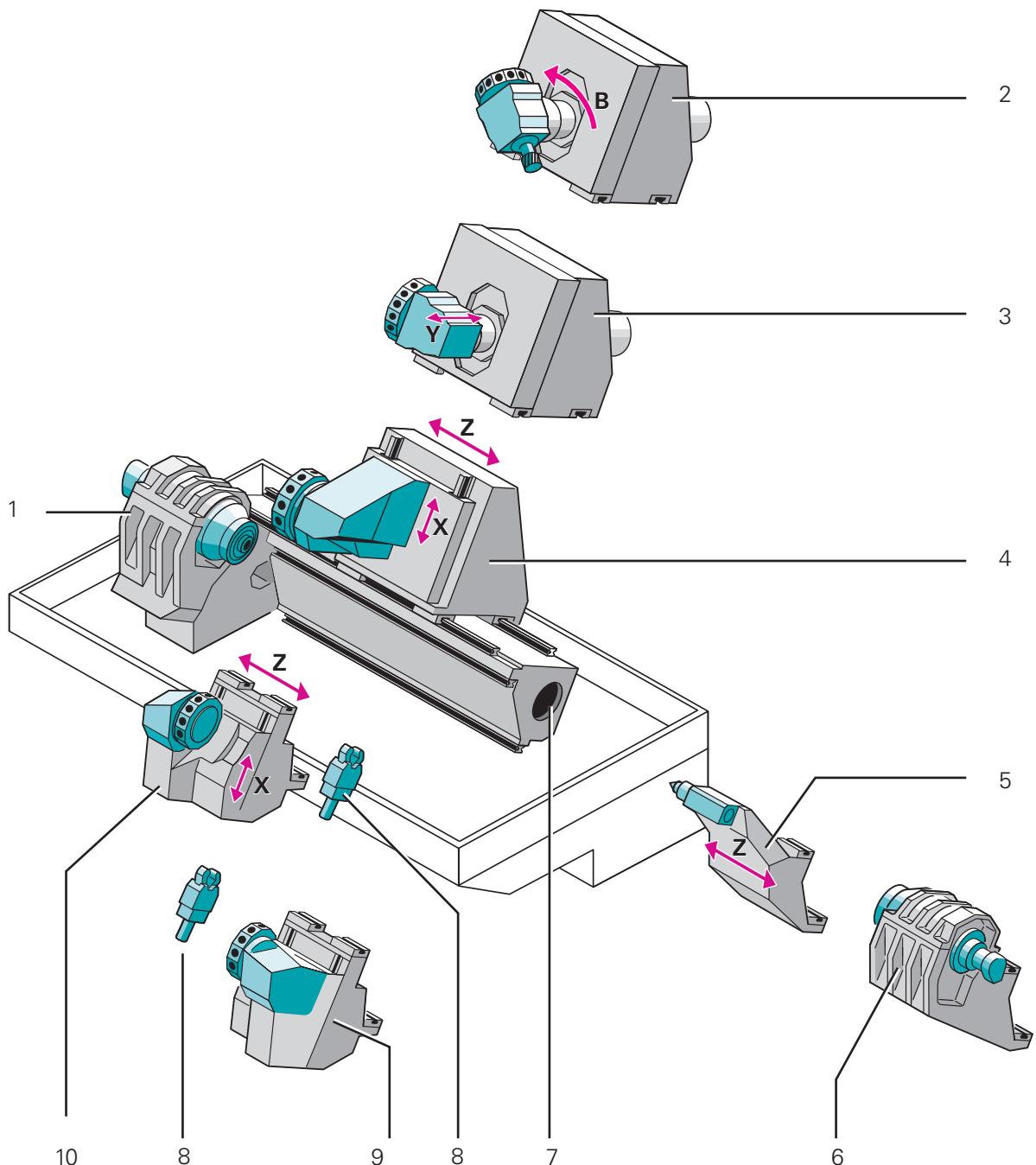


The speed ratio and the technical data of each tool holder are indicated on the next pages.

**Usage Information
INDEX G200**

Modular system of INDEX G200

Tool mounting VDI 25, disk turret, 14 stations



1 Main spindle

2 Tool carrier 1 - XZYB with additional milling spindle

3 Tool carrier 1 - XZY

4 Tool carrier 1 - XZ

5 tailstock

6 Counter spindle

7 Machine bed

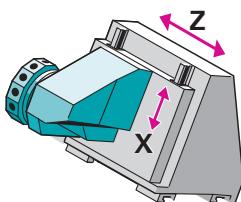
8 Steady rest mounted on turret head 2

9 Tool carrier 2 - XZ left

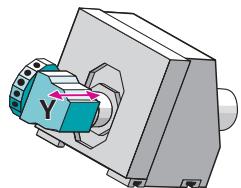
10 Tool carrier 2 - XZ right

Structure of the INDEX C200

Possible tool carrier versions



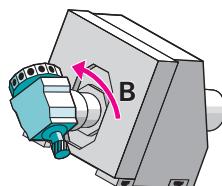
- **Tool carrier 1 with X- and Z-axes**



- **Tool carrier 1 with X-, Z- and Y-axes**

The Y-axis is a lift axis.

Possible applications: e.g., drilling off-center holes, milling surfaces, etc.

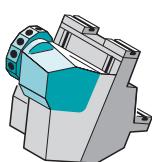


- **Tool carrier 1 with X-, Z-, Y- and B-axes**

The B axis is a swivel axis that allows the turret head to be clamped in any angular position or locked (in increments of 5°).

Possible applications: Swiveling the turret head for machining in different planes or on the counter spindle, milling of inclined surfaces, drilling of inclined bores. Gear cutting in conjunction with rolling coupling, etc.

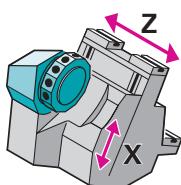
An **additional milling spindle** (with or without rolling coupling) is available for heavy milling operations.



- **Tool carrier 2 with X- and Z-axes**

Left turret head

or

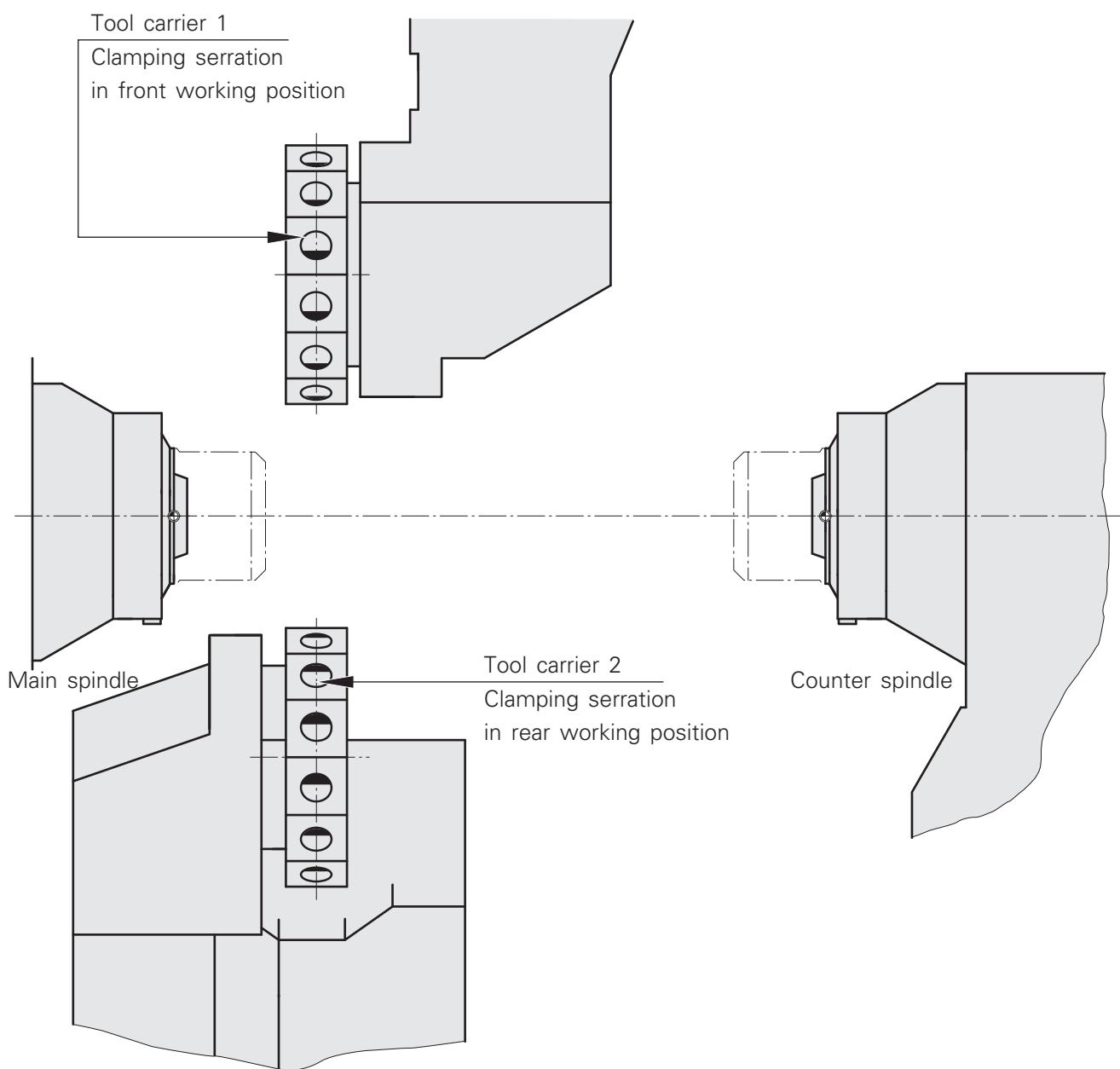


Right turret head for machines with counter spindle

Location of the clamping serration INDEX G200

Tool carrier 1 - XZ, tool carrier 2 - XZ right

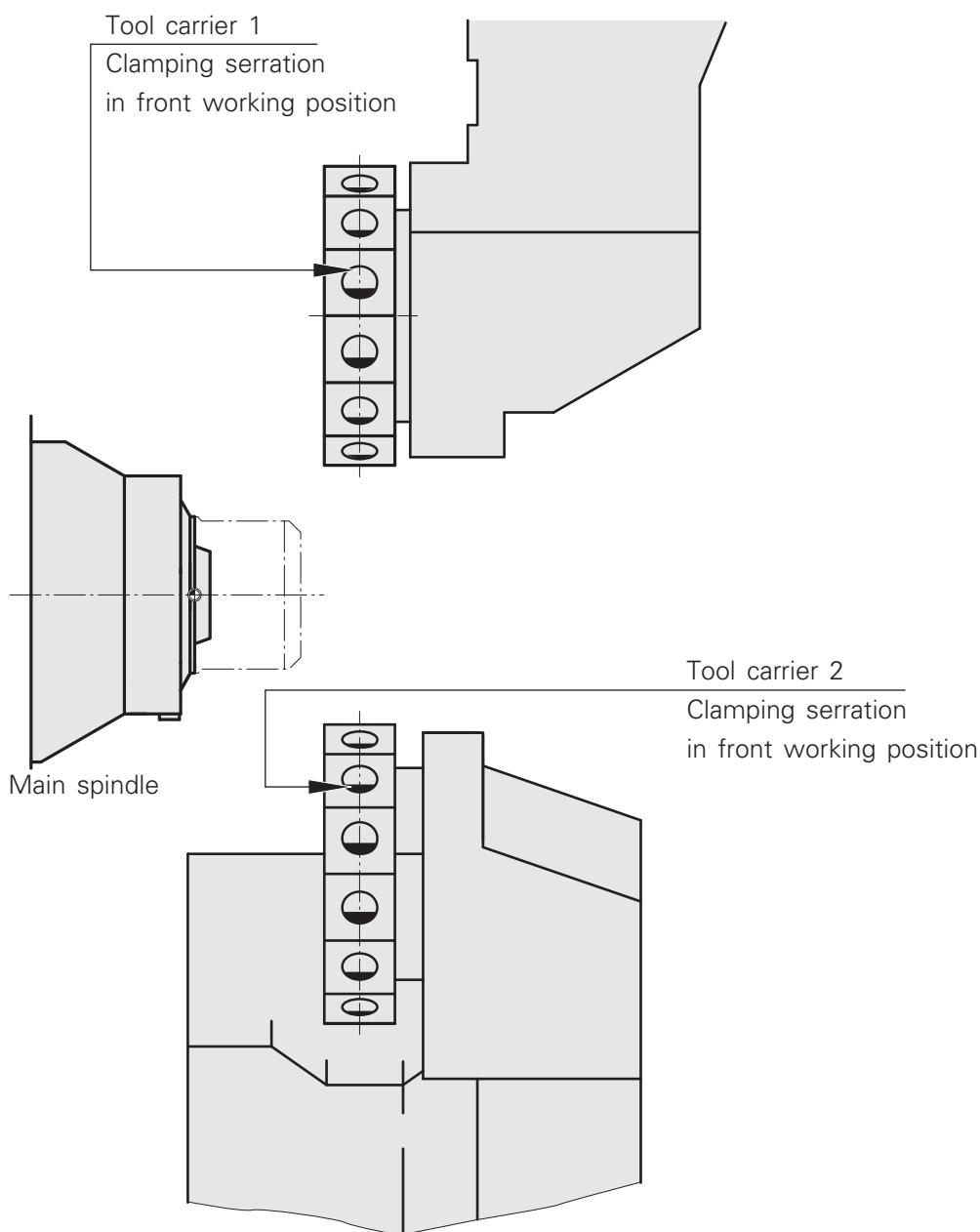
Tool mounting VDI 25



Location of the clamping serration INDEX G200

Tool carrier 1 - XZ, tool carrier 2 - XZ left

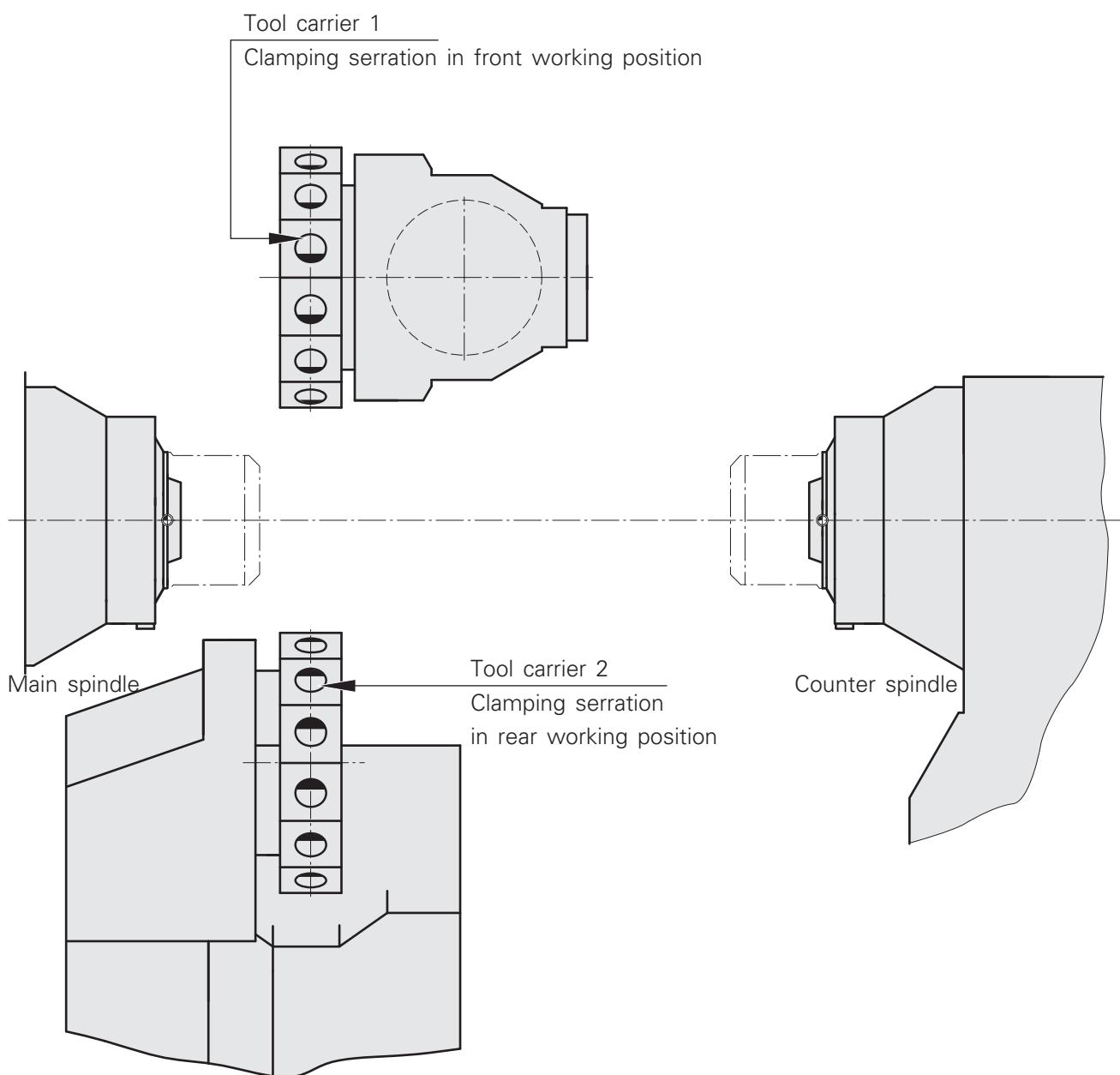
Tool mounting VDI 25



Location of the clamping serration INDEX G200

Tool carrier 1 - XZY, tool carrier 2 - XZ right

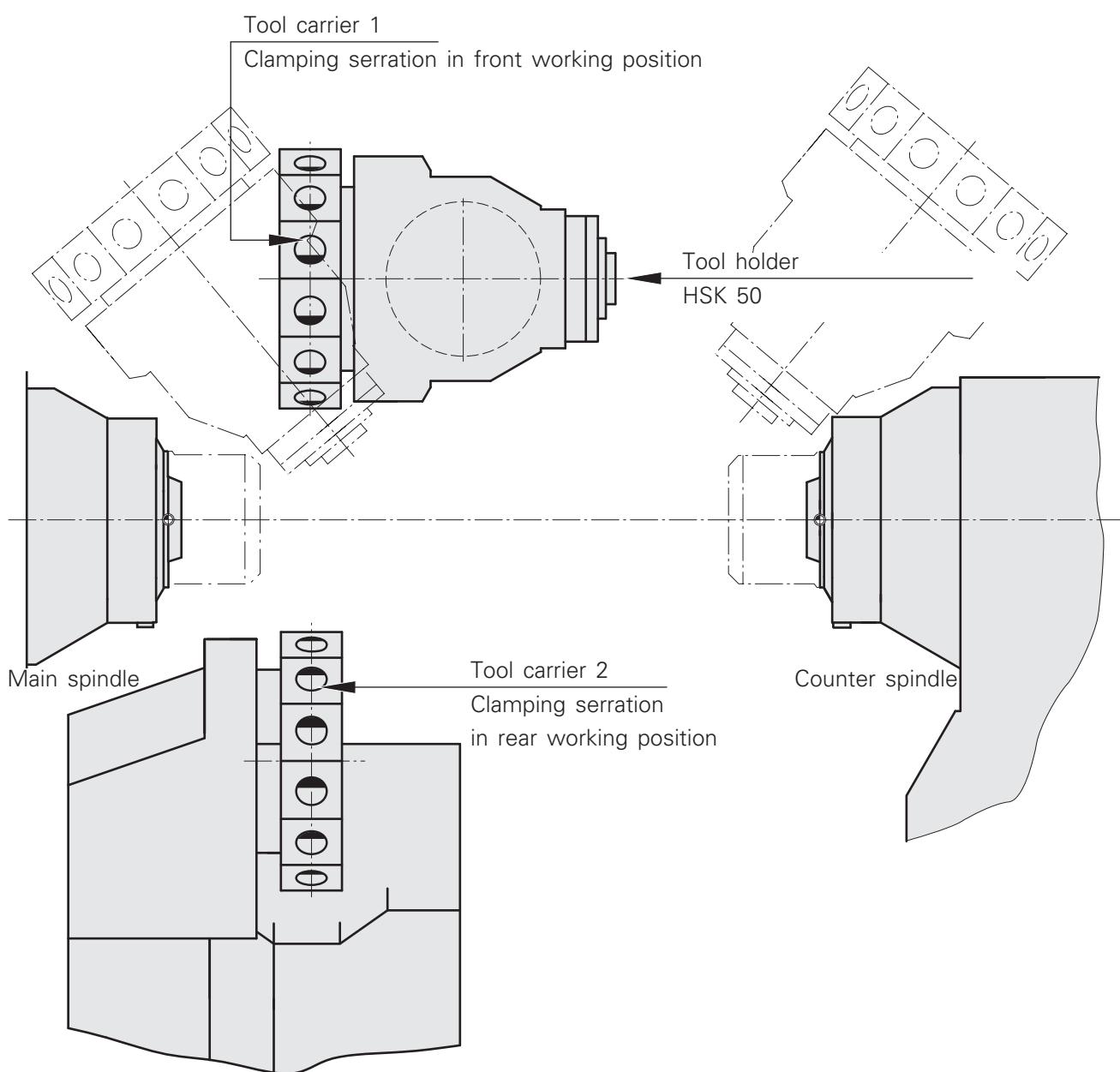
Tool mounting VDI 25



Location of the clamping serration INDEX G200

Tool carrier 1 - XZYB, tool carrier 2 - XZ right

Tool mounting VDI 25



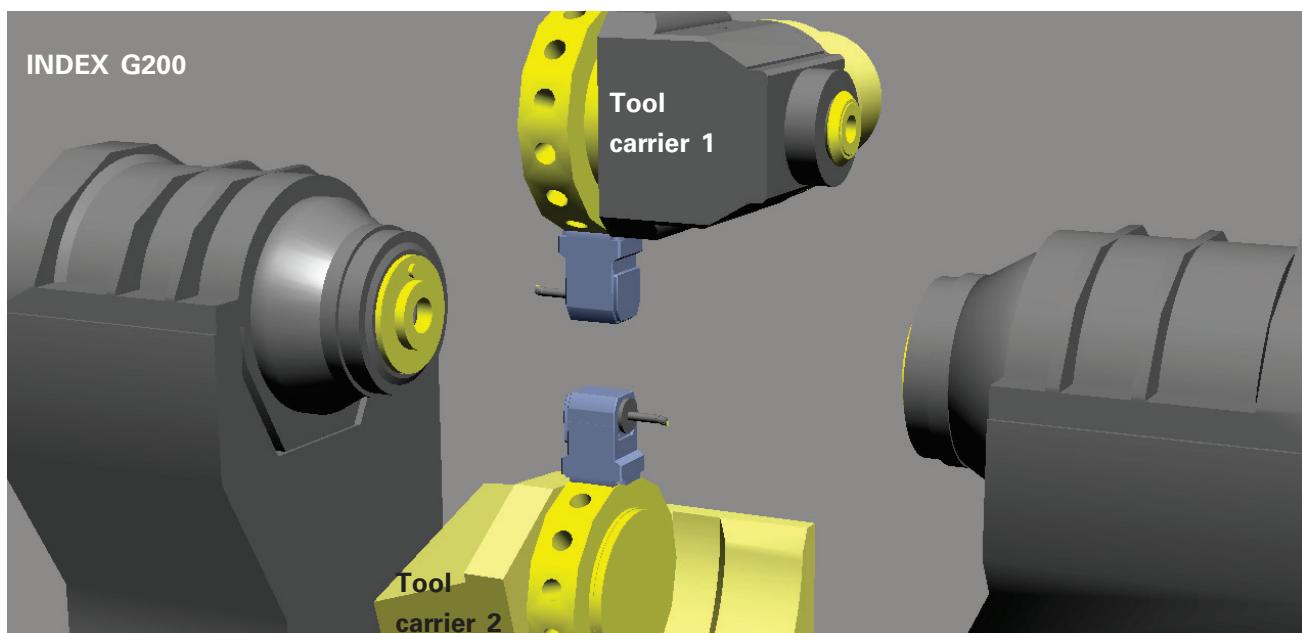
Interchangeability of tool holders

Simple clamping serration – double clamping serration

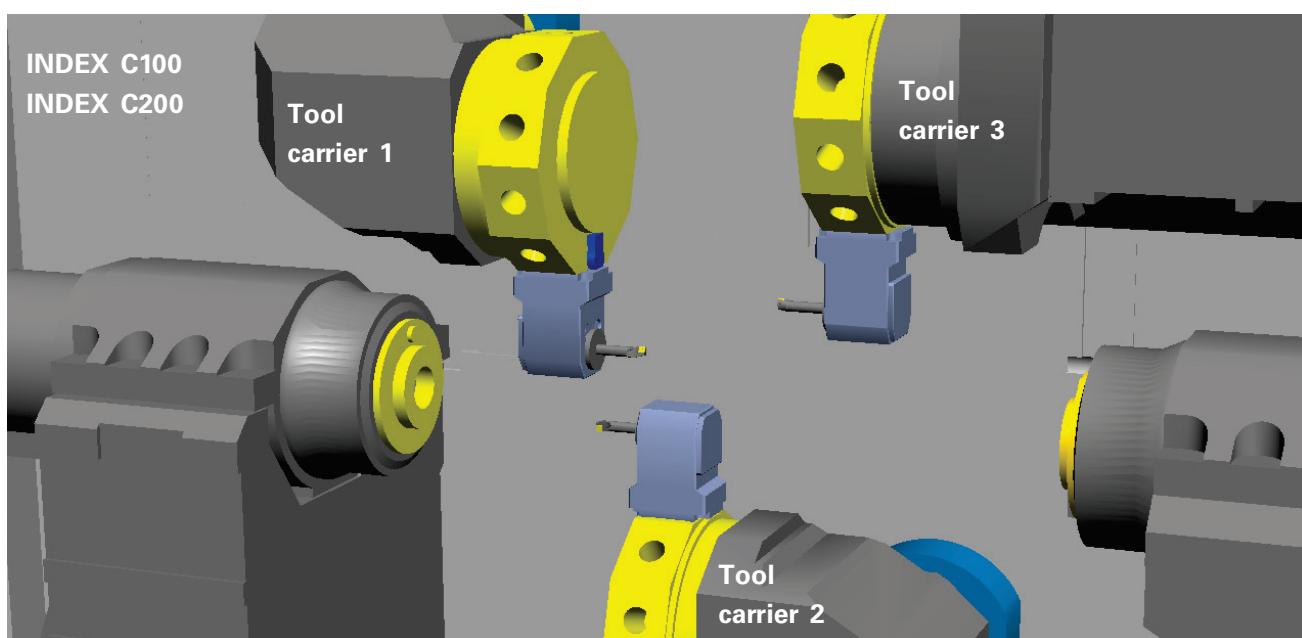
Tool holders with simple clamping serration that were used with the INDEX G200 on tool carrier 1 in the direction of the main spindle and tool carrier 2 in the direction of the counter spindle can be used with the INDEX C100 and INDEX C200 only on tool carrier 2 in the direction of the main spindle.

INDEX tool holders have been delivered for years with double clamping serration. They can be used by a tool carrier in the direction of the main spindle and the counter spindle.

With tool holders with simple clamping serration or those which do not allow rotating the tool by 180°, there are the following limitations to their interchangeability:



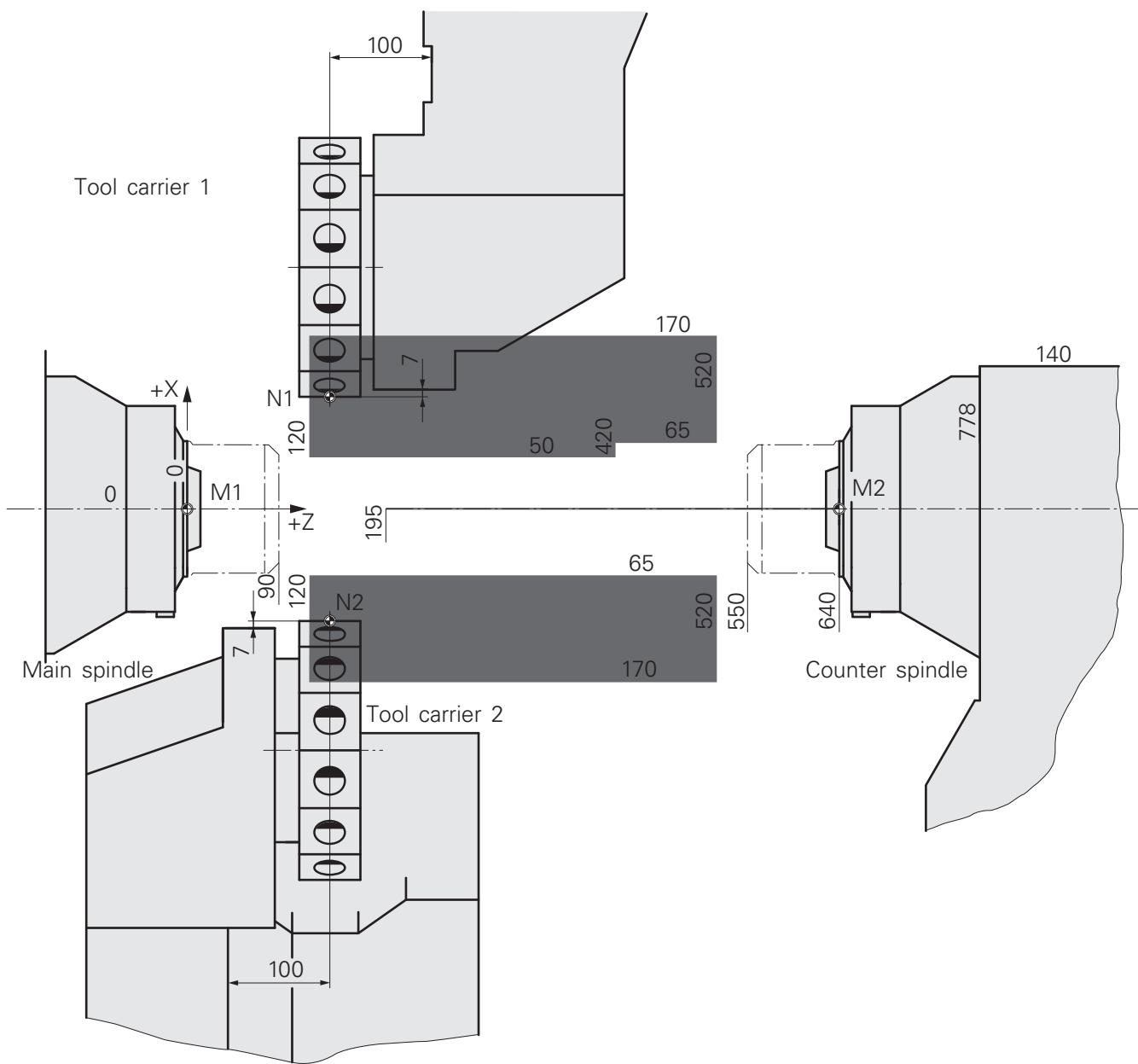
Please check the location of the clamping serrations against the drawings in the tool holder catalogs.



Work area INDEX G200

Tool carrier 1 - XZ, tool carrier 2 - XZ right

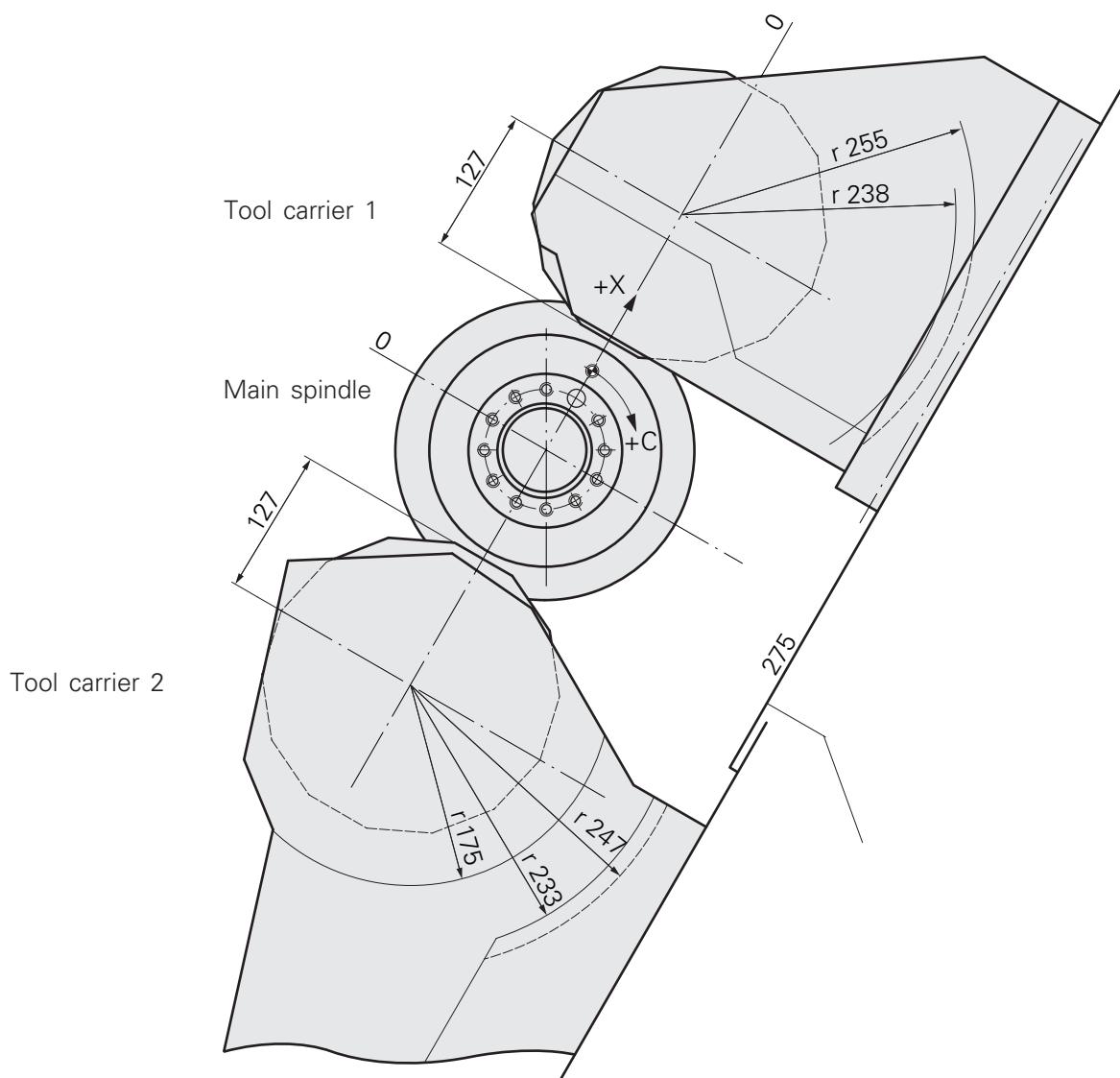
Tool mounting VDI 25



Work area INDEX G200

Tool carrier 1 - XZ, tool carrier 2 - XZ right

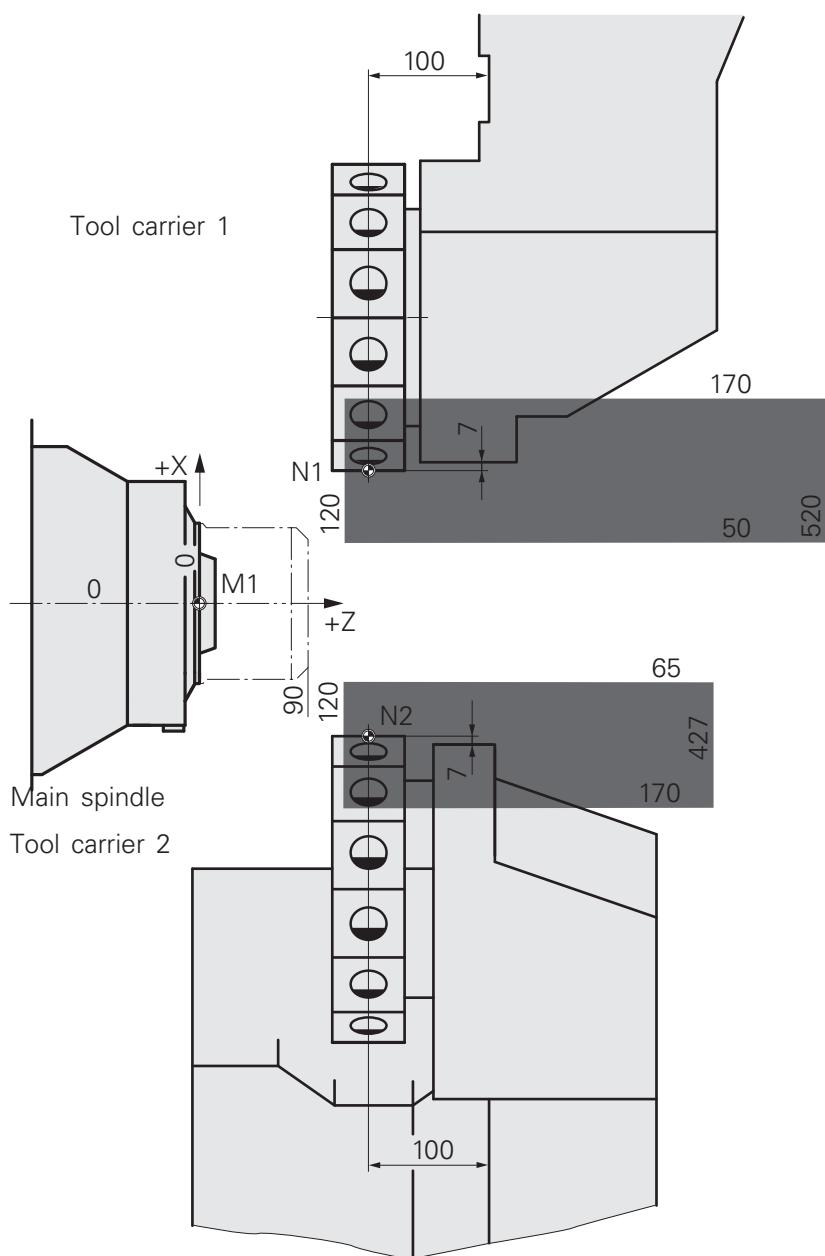
Tool mounting VDI 25



Work area INDEX G200

Tool carrier 1 - XZ, tool carrier 2 - XZ left

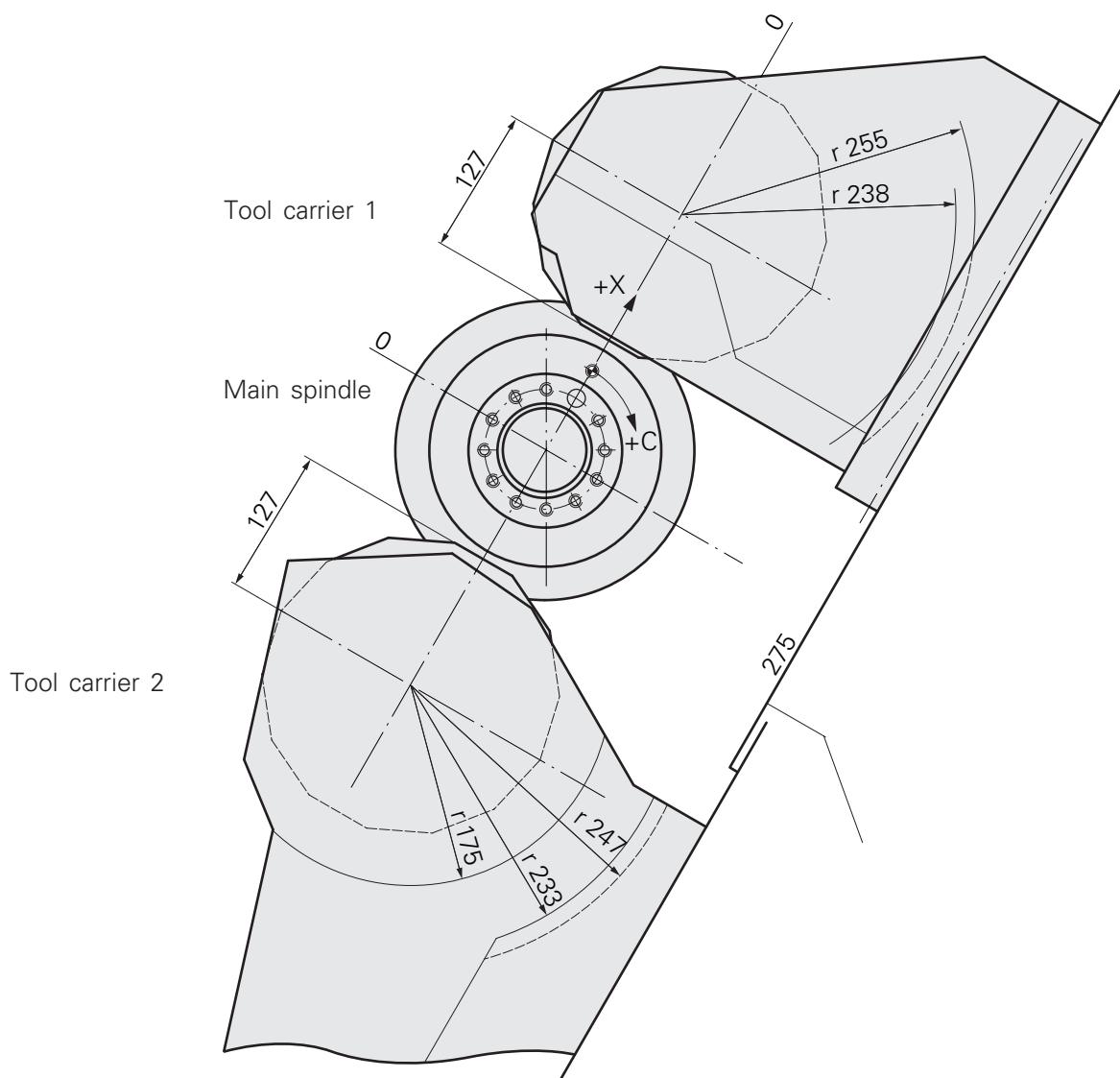
Tool mounting VDI 25



Work area INDEX G200

Tool carrier 1 - XZ, tool carrier 2 - XZ left

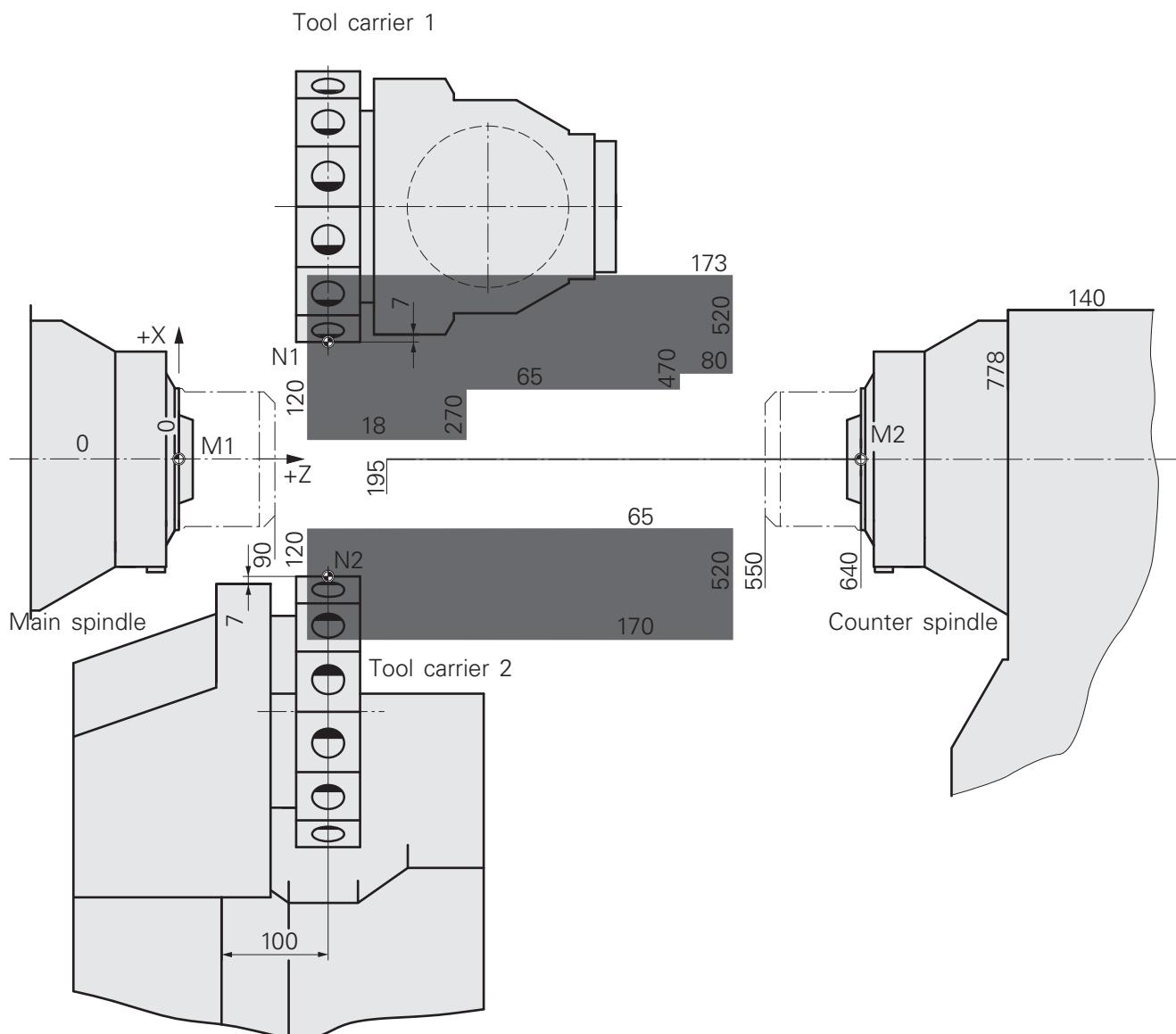
Tool mounting VDI 25



Work area INDEX G200

Tool carrier 1 - XZY, tool carrier 2 - XZ right

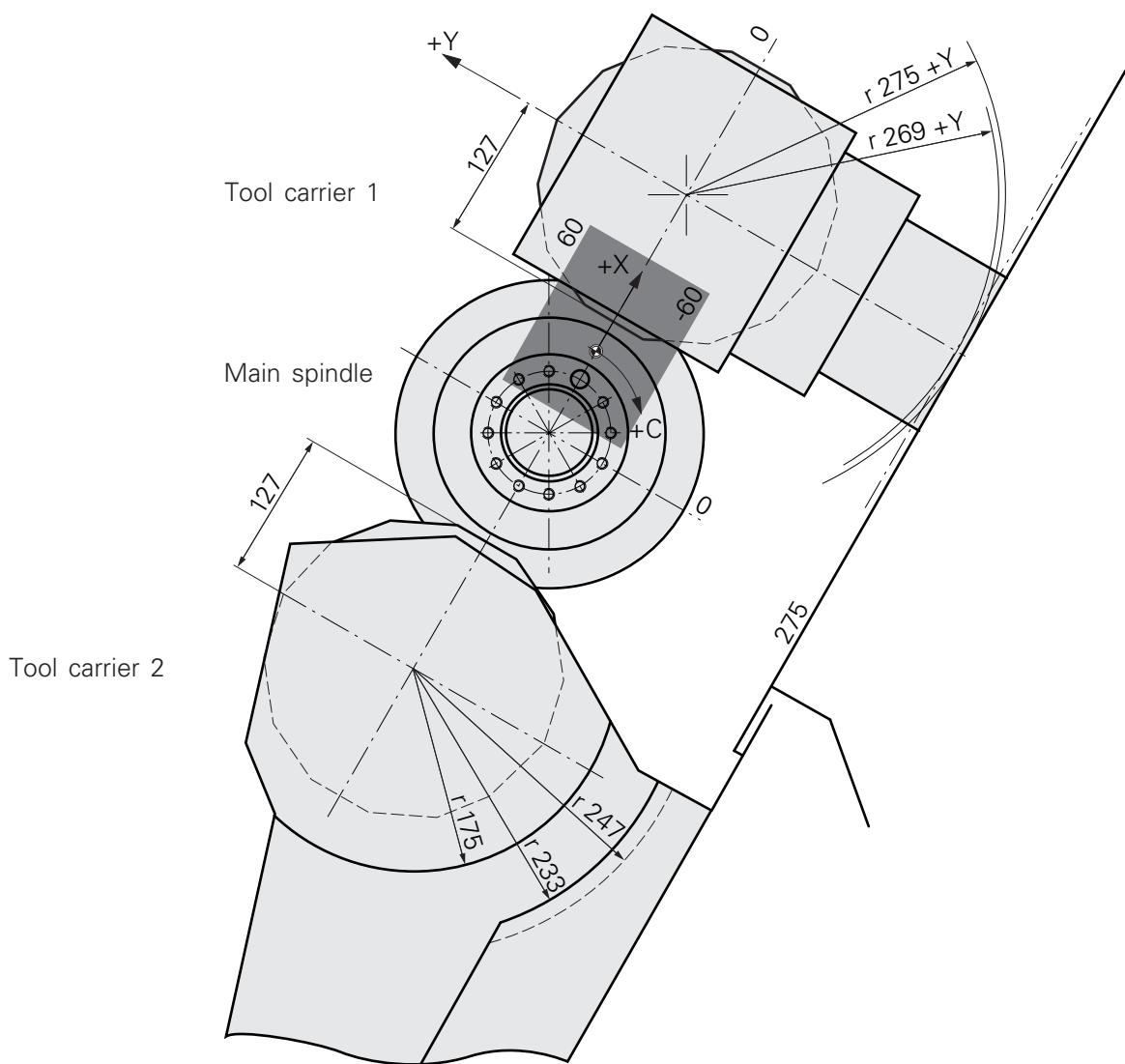
Tool mounting VDI 25



Work area INDEX G200

Tool carrier 1 - XZY, tool carrier 2 - XZ right

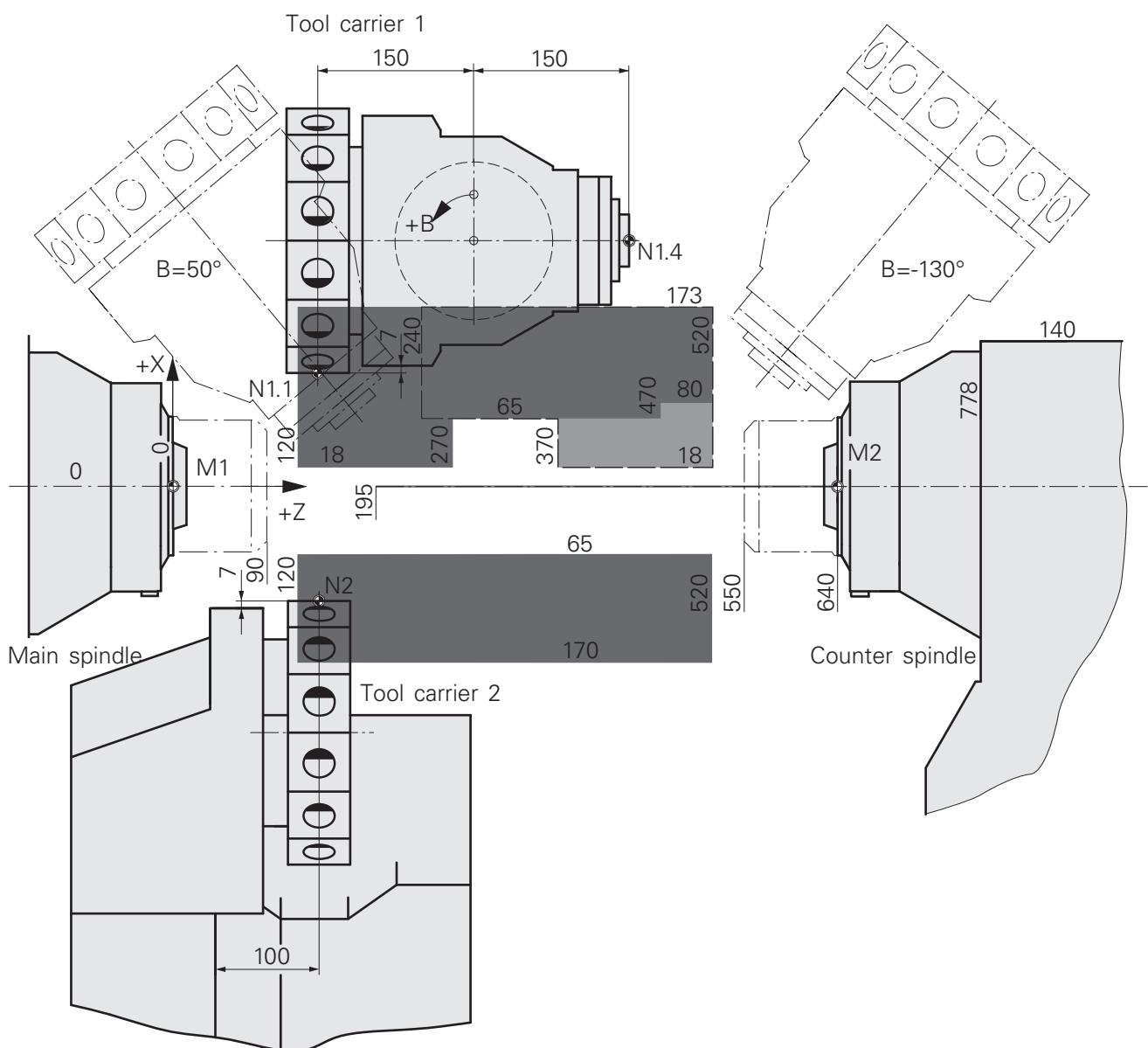
Tool mounting VDI 25



Work area INDEX G200

Tool carrier 1 - XZYB, tool carrier 2 - XZ right

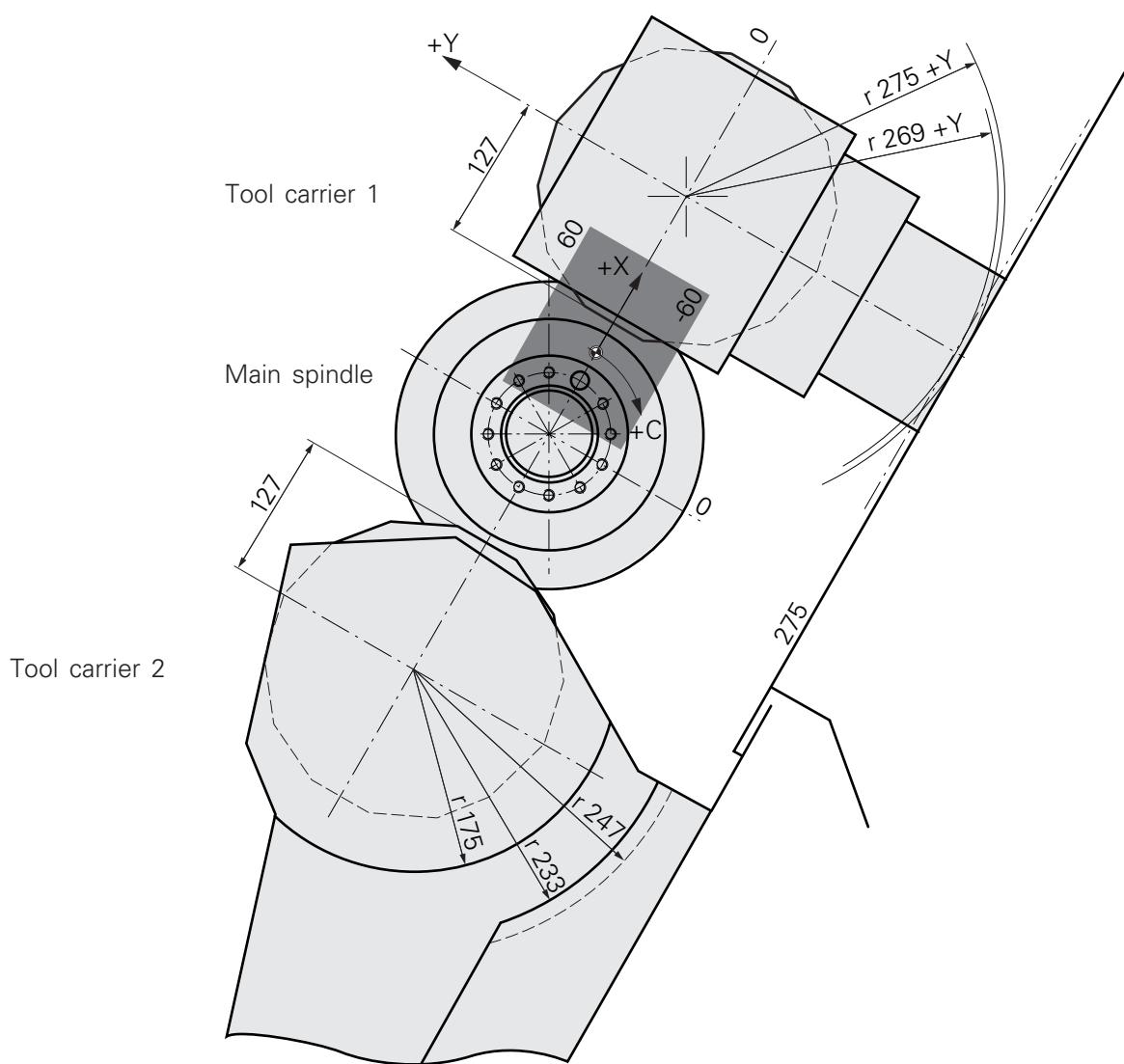
Tool mounting VDI 25



Work area INDEX G200

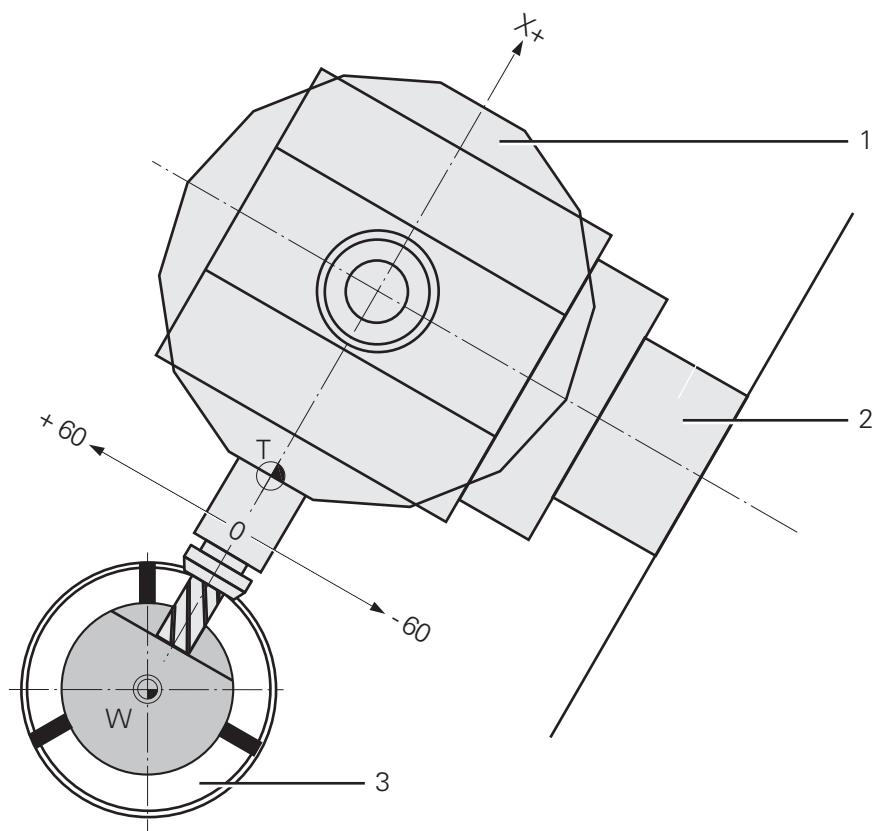
Tool carrier 1 - XZYB, tool carrier 2 - XZ right

Tool mounting VDI 25



Travel range of Y-Axis

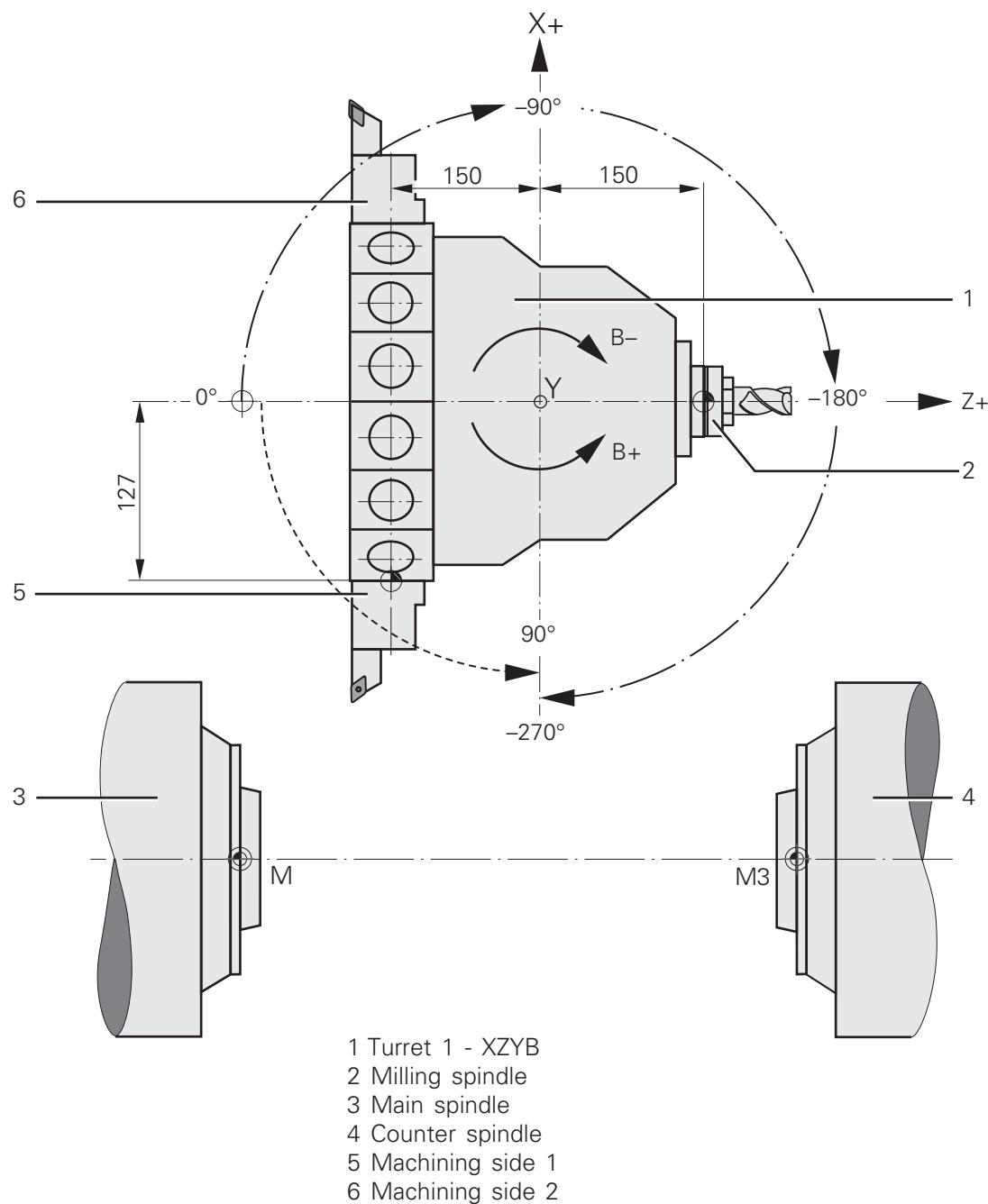
The travel range is: -60mm to +60mm



1 Turret 1 - XZY
2 Y-axis quill
3 Main spindle

Travel range of B-Axis

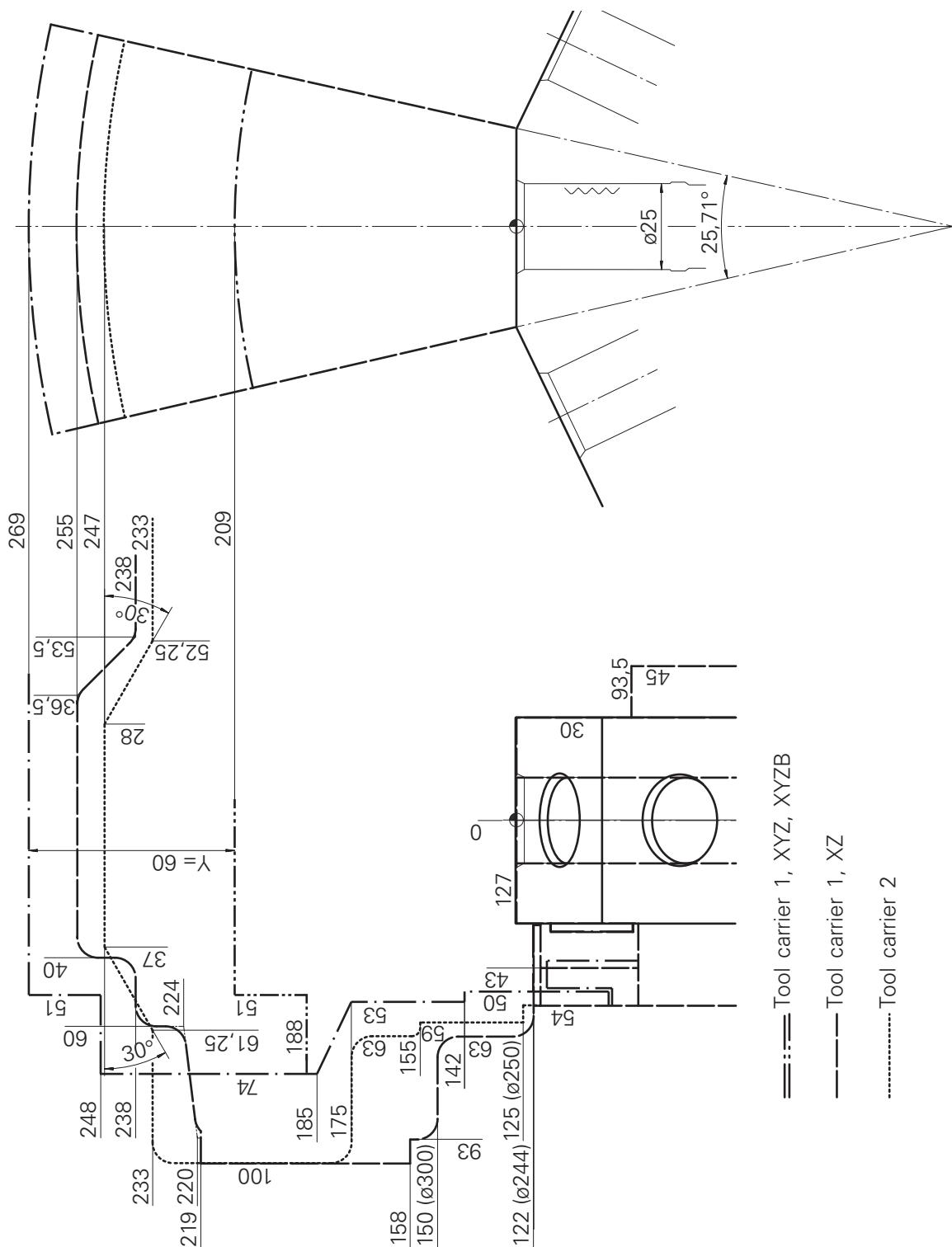
The travel range is: +90° to -270°



Swivel range

Tool carrier INDEX G200

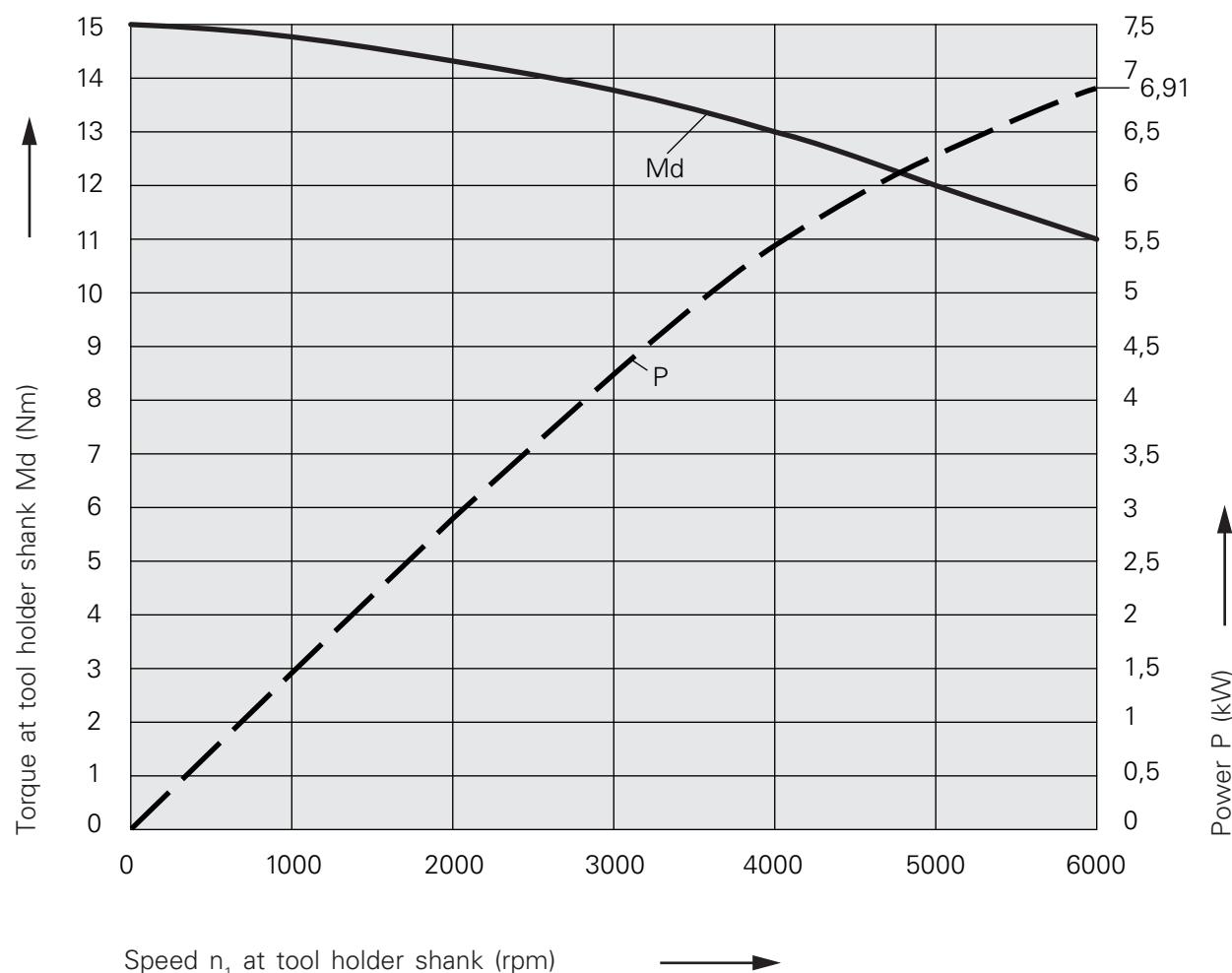
Tool mounting VDI 25



Performance diagram

Live tools, tool carrier 1 -XZ / tool carrier 2 -XZ

Speed range 0-6000 rpm



Performance diagram

Live tools

Additional milling spindle, tooling system HSK 50

Speed range 0-2000 rpm

