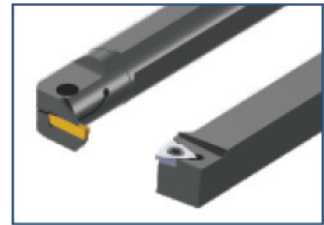


PARTING & GROOVING CUTTER

PARTING & GROOVING TOOLHOLDERS

167,170



SOLID CARBIDE PARTING & GROOVING INSERTS

169,172

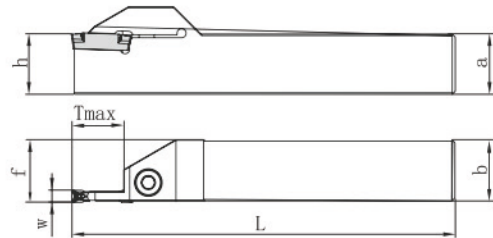
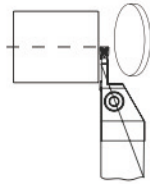
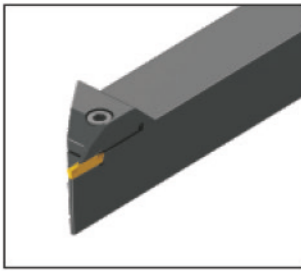


INDEXABLE GROOVING MILLS AND INSERTS

171



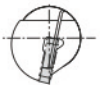
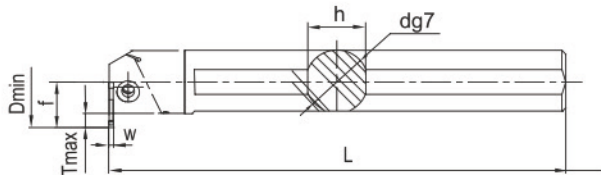
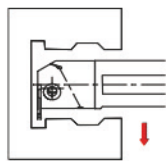
EXTERNAL PARTING AND GROOVING TOOLHOLDERS FOR INSERT QE



Order No.		Model		Size(mm)						Insert	Screw	Torx wrench
Right hand	Left hand	Right hand	Left hand	W	Tmax	a=h	b	f	L			
211-18-001	211-18-002	QE1616R02H08	QE1616L02H08	2	8	16	16	16.25	100	QE2.00	MS05016	S4
211-18-003	211-18-004	QE2020R02K08	QE2020L02K08	2	8	20	20	20.25	125	QE2.00	MS05016	S4
211-18-005	211-18-006	QE2525R02M08	QE2525L02M08	2	8	25	25	25.25	150	QE2.00	MS05016	S4
211-18-007	211-18-008	QE1616R03H16	QE1616L03H16	3	16	16	16	16.25	100	QE3.00	MS05016	S4
211-18-009	211-18-010	QE2020R03K16	QE2020L03K16	3	16	20	20	20.25	125	QE3.00	MS05016	S4
211-18-011	211-18-012	QE2525R03M16	QE2525L03M16	3	16	25	25	25.25	150	QE3.00	MS05016	S4
211-18-013	211-18-014	QE3225R03P16	QE3225L03P16	3	16	32	25	25.25	170	QE3.00	MS05016	S4
211-18-015	211-18-016	QE3232R03P16	QE3232L03P16	3	16	32	32	32.25	170	QE3.00	MS05016	S4
211-18-017	211-18-018	QE2020R04K16	QE2020L04K16	4	16	20	20	20.5	125	QE4.00	MS05016	S4
211-18-019	211-18-020	QE2525R04M16	QE2525L04M16	4	16	25	25	25.5	150	QE4.00	MS05016	S4
211-18-021	211-18-022	QE3225R04P16	QE3225L04P16	4	16	32	25	25.5	170	QE4.00	MS05016	S4
211-18-023	211-18-024	QE3232R04P16	QE3232L04P16	4	16	32	32	32.5	170	QE4.00	MS05016	S4
211-18-025	211-18-026	QE4040R04R16	QE4040L04R16	4	16	40	40	40.5	200	QE4.00	MS05016	S4
211-18-027	211-18-028	QE2525R05M20	QE2525L05M20	5	20	25	25	25.5	150	QE4.00	MS05016	S4
211-18-029	211-18-030	QE3225R05P20	QE3225L05P20	5	20	32	25	25.5	170	QE5.00	MS06020	S5
211-18-031	211-18-032	QE3232R05P20	QE3232L05P20	5	20	32	32	32.5	170	QE5.00	MS06020	S5
211-18-033	211-18-034	QE4040R05R20	QE4040L05R20	5	20	40	40	40.5	200	QE5.00	MS06020	S5

Insert not included

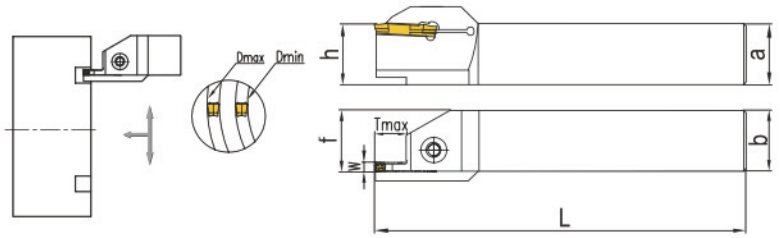
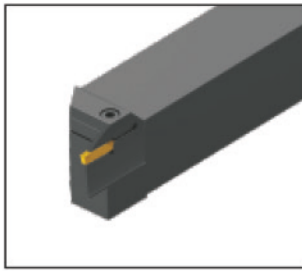
INTERNAL GROOVING TOOLHOLDERS FOR INSERT QE



Order No.		Model		Size(mm)							Insert	Screw	Torx wrench
Right hand	Left hand	Right hand	Left hand	W	Tmax	d	h	f	Dmin	L			
221-18-001	221-18-002	S20Q-QER02-05	S20Q-QEL02-05	2	5	20	18	15	26	180	QE2.00	MS04012	S3
221-18-003	221-18-004	S25R-QER02-07	S25R-QEL02-07	2	7	25	23	19.5	33	200	QE2.00	MS05016	S4
221-18-005	221-18-006	S20Q-QER03-06	S20Q-QEL03-06	3	6	20	18	16	27	180	QE3.00	MS05016	S4
221-18-007	221-18-008	S25R-QER03-07	S25R-QEL03-07	3	7	25	23	19.5	33	200	QE3.00	MS05016	S4
221-18-009	221-18-010	S32S-QER03-09	S32S-QEL03-09	3	9	32	30	25	42	250	QE3.00	MS05016	S4
221-18-011	221-18-012	S25R-QER04-10	S25R-QEL04-10	4	10	25	23	22.5	36	200	QE4.00	MS05016	S4
221-18-013	221-18-014	S32S-QER04-11	S32S-QEL04-11	4	11	32	30	27	44	250	QE4.00	MS05016	S4
221-18-015	221-18-016	S40T-QER04-13	S40T-QEL04-13	4	13	40	37	33	54	300	QE4.00	MS05016	S4
221-18-017	221-18-018	S32S-QER05-11	S32S-QEL05-11	5	11	32	30	27	44	250	QE5.00	MS06020	S5
221-18-019	221-18-020	S40T-QER05-13	S40T-QEL05-13	5	13	40	37	33	54	300	QE5.00	MS06020	S5

Insert not included

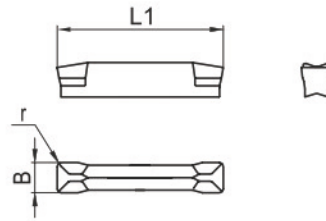
FACE GROOVING TOOLHOLDERS FOR INSERT QE



Order No.		Model		Size(mm)							Insert	Screw	Torx wrench
Right hand	Left hand	Right hand	Left hand	W	Tmax	D	a=h	b	f	L			
211-18-035	211-18-036	QE2020R02K08-M048060	QE2020L02K08-M048060	2	8	48-60	20	20	20.25	125	QE2.00	MS05016	S4
211-18-037	211-18-038	QE2020R02K08-H060075	QE2020L02K08-H060075	2	8	60-75	20	20	20.25	125	QE2.00	MS05016	S4
211-18-039	211-18-040	QE2020R02K08-H075100	QE2020L02K08-H075100	2	8	75-100	20	20	20.25	125	QE2.00	MS05016	S4
211-18-041	211-18-042	QE2525R02M08-M048060	QE2525L02M08-M048060	2	8	48-60	25	25	25.25	150	QE2.00	MS05016	S4
211-18-043	211-18-044	QE2525R02M08-H060075	QE2525L02M08-H060075	2	8	60-75	25	25	25.25	150	QE2.00	MS05016	S4
211-18-045	211-18-046	QE2525R02M08-H075100	QE2525L02M08-H075100	2	8	75-100	25	25	25.25	150	QE2.00	MS05016	S4
211-18-047	211-18-048	QE2020R03K16-H075100	QE2020L03K16-H075100	3	16	75-100	20	20	20.25	125	QE3.00	MS05016	S4
211-18-049	211-18-050	QE2525R03M16-H075100	QE2525L03M16-H075100	3	16	75-100	25	25	25.25	150	QE3.00	MS05016	S4
211-18-051	211-18-052	QE3232R03P16-H075100	QE3232L03P16-H075100	3	16	75-100	32	32	32.25	170	QE3.00	MS05016	S4
211-18-053	211-18-054	QE2020R04K16-M038048	QE2020L04K16-M038048	4	16	38-48	20	20	20.5	125	QE4.00	MS05016	S4
211-18-055	211-18-056	QE2020R04K16-M048060	QE2020L04K16-H048060	4	16	48-60	20	20	20.5	125	QE4.00	MS05016	S4
211-18-057	211-18-058	QE2020R04K16-H060075	QE2020L04K16-H060075	4	16	60-75	20	20	20.5	125	QE4.00	MS05016	S4
211-18-059	211-18-060	QE2020R04K16-H075100	QE2020L04K16-H075100	4	16	75-100	20	20	20.5	125	QE4.00	MS05016	S4
211-18-061	211-18-062	QE2020R04K16-H100140	QE2020L04K16-H100140	4	16	100-140	20	20	20.5	125	QE4.00	MS05016	S4
211-18-063	211-18-064	QE2020R04K16-H140240	QE2020L04K16-H140240	4	16	140-240	20	20	20.5	125	QE4.00	MS05016	S4
211-18-065	211-18-066	QE2020R04K16-M240480	QE2020L04K16-H240480	4	16	240-480	20	20	20.5	125	QE4.00	MS05016	S4
211-18-067	211-18-068	QE2525R04M16-H038048	QE2525L04M16-H038048	4	16	38-48	25	25	25.5	150	QE4.00	MS05016	S4
211-18-069	211-18-070	QE2525R04M16-H048060	QE2525L04M16-H048060	4	16	48-60	25	25	25.5	150	QE4.00	MS05016	S4
211-18-071	211-18-072	QE2525R04M16-H060075	QE2525L04M16-H060075	4	16	60-75	25	25	25.5	150	QE4.00	MS05016	S4
211-18-073	211-18-074	QE2525R04M16-H075100	QE2525L04M16-H075100	4	16	75-100	25	25	25.5	150	QE4.00	MS05016	S4
211-18-075	211-18-076	QE2525R04M16-H100140	QE2525L04M16-H100140	4	16	100-140	25	25	25.5	150	QE4.00	MS05016	S4
211-18-077	211-18-078	QE2525R04M16-H140240	QE2525L04M16-H140240	4	16	140-240	25	25	25.5	150	QE4.00	MS05016	S4
211-18-079	211-18-080	QE2525R04M16-H240480	QE2525L04M16-H240480	4	16	240-480	25	25	25.5	150	QE4.00	MS05016	S4
211-18-081	211-18-082	QE3232R04P16-H038048	QE3232L04P16-H038048	4	16	38-48	32	32	32.5	170	QE4.00	MS05016	S4
211-18-083	211-18-084	QE3232R04P16-H048060	QE3232L04P16-H048060	4	16	48-60	32	32	32.5	170	QE4.00	MS05016	S4
211-18-085	211-18-086	QE3232R04P16-H060075	QE3232L04P16-H060075	4	16	60-75	32	32	32.5	170	QE4.00	MS05016	S4
211-18-087	211-18-088	QE3232R04P16-H075100	QE3232L04P16-H075100	4	16	75-100	32	32	32.5	170	QE4.00	MS05016	S4
211-18-089	211-18-090	QE3232R04P16-H100140	QE3232L04P16-H100140	4	16	100-140	32	32	32.5	170	QE4.00	MS05016	S4
211-18-091	211-18-092	QE3232R04P16-H140240	QE3232L04P16-H140240	4	16	140-240	32	32	32.5	170	QE4.00	MS05016	S4
211-18-093	211-18-094	QE3232R04P16-H240480	QE3232L04P16-H240480	4	16	240-480	32	32	32.5	170	QE4.00	MS05016	S4
211-18-095	211-18-096	QE2525R05M20-H054070	QE2525L05M20-H054070	5	20	54-70	25	25	25.5	150	QE5.00	MS06020	S5
211-18-097	211-18-098	QE2525R05M20-H070095	QE2525L05M20-H070095	5	20	70-95	25	25	25.5	150	QE5.00	MS06020	S5
211-18-099	211-18-100	QE2525R05M20-H095130	QE2525L05M20-H095130	5	20	95-130	25	25	25.5	150	QE5.00	MS06020	S5
211-18-101	211-18-102	QE2525R05M20-H130180	QE2525L05M20-H130180	5	20	130-180	25	25	25.5	150	QE5.00	MS06020	S5
211-18-103	211-18-104	QE2525R05M20-H180000	QE2525L05M20-H180000	5	20	180-	25	25	25.5	150	QE5.00	MS06020	S5
211-18-105	211-18-106	QE3232R05P20-H054070	QE3232L05P20-H054070	5	20	54-70	32	32	32.5	170	QE5.00	MS06020	S5
211-18-107	211-18-108	QE3232R05P20-H070095	QE3232L05P20-H070095	5	20	70-95	32	32	32.5	170	QE5.00	MS06020	S5
211-18-109	211-18-110	QE3232R05P20-H095130	QE3232L05P20-H095130	5	20	95-130	32	32	32.5	170	QE5.00	MS06020	S5
211-18-111	211-18-112	QE3232R05P20-H130180	QE3232L05P20-H130180	5	20	130-180	32	32	32.5	170	QE5.00	MS06020	S5
211-18-113	211-18-114	QE3232R05P20-H180000	QE3232L05P20-H180000	5	20	180-	32	32	32.5	170	QE5.00	MS06020	S5

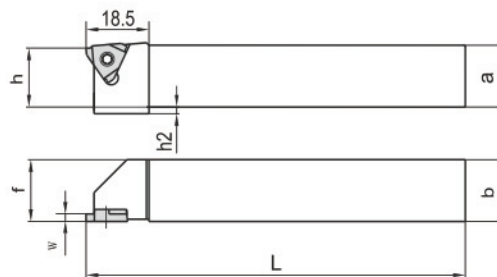
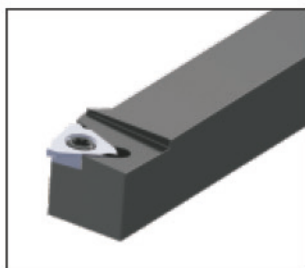
Insert not included

SOLID CARBIDE PARTING & GROOVING INSERTS QE



Order No.	Model	Grade	Application	Insert size (mm)		
				L1	B	r
311-20-001	QE2.00-EMF	EC2120	steel and cast iron	16	2	0.2
311-20-002	QE3.00-EMF	EC2120	steel and cast iron	20	3	0.3
311-20-003	QE4.00-EMF	EC2120	steel and cast iron	20	4	0.4
311-20-004	QE5.00-EMF	EC2120	steel and cast iron	26	5	0.4
321-20-001	QE2.00-EMF	EC4130	stainless steel	16	2	0.2
321-20-002	QE3.00-EMF	EC2120	stainless steel	20	3	0.3
321-20-003	QE4.00-EMF	EC2120	stainless steel	20	4	0.4
321-20-004	QE5.00-EMF	EC2120	stainless steel	26	5	0.4

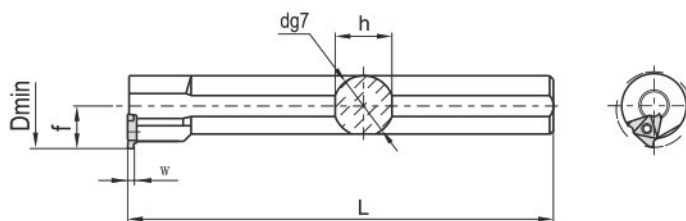
GRE EXTERNAL GROOVING TOOLHOLDS FOR INSERT TN1635



Order No.		Model		Size(mm)					Insert	Screw	Torx wrench
Right hand	Left hand	Right hand	Left hand	a=h	b	h2	f	L			
211-19-001	211-19-002	GRE.R 1616K TN16	GRE.L 1616K TN16	16	16	-	16	125	TN1635...	L60 M3.5x8.8	T15
211-19-003	211-19-004	GRE.R 2020K TN16	GRE.L 2020K TN16	20	20	-	20	125	TN1635...	L60 M3.5x8.8	T15

Insert not included.

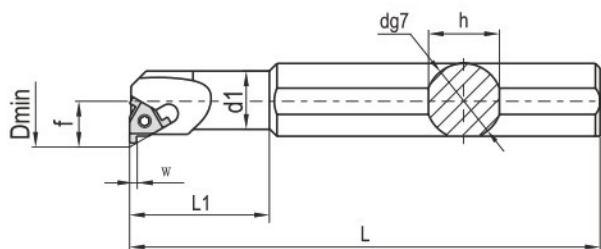
GRI INTERNAL GROOVING TOOLHOLDS FOR INSERT TN1635



Order No.		Model		Size(mm)					Insert	Screw	Torx wrench
Right hand	Left hand	Right hand	Left hand	d	h	f	Dmin	L			
211-19-005	211-19-006	GRI.R S20M TN16	GRI.L S20M TN16	20	18	13	25	150	TN1635...	L60 M3.5x8.8	T15
211-19-007	211-19-008	GRI.R S25Q TN16	GRI.L S25Q TN16	25	23	17	32	180	TN1635...	L60 M3.5x8.8	T15

Insert not included.

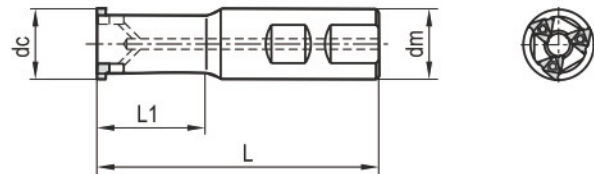
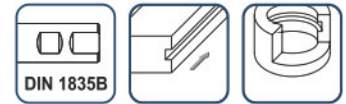
GRV INTERNAL GROOVING TOOLHOLDS FOR INSERT TN1635



Order No.		Model		Size(mm)							Insert	Screw	Torx wrench
Right hand	Left hand	Right hand	Left hand	d	d1	h	f	Dmin	L1	L			
211-19-009	211-19-010	GRV.R S20Q.20 TN16	GRV.L S20Q.20 TN16	20	16	18	11.5	20	40	180	TN1635...V	L60 M3.5x8.8	T15

SHANK STYLE INDEXABLE GROOVING MILLS FOR INSERT TN1635

- Suitable for cutting both internal and external groove.
- Shank according to DIN1835B.
- Right hand cutting.

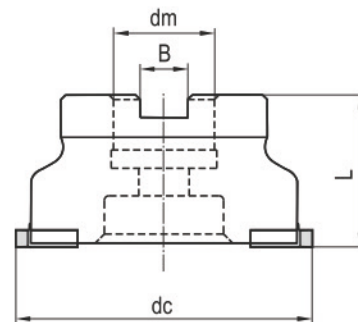
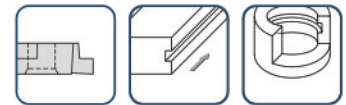


Order No.	Model	Size(mm)				No.of teeth	Insert	Screw	Torx wrench	Weight
		dc	dm	L1	L					
241-19-001	CMT-20TN16	20	20	30	90	1	TN1635R	L60-M3.5x8.8A	T15	0.2
241-19-002	CMT-25TN16	25	25	40	105	1	TN1635R	L60-M3.5x8.8A	T15	0.3
241-19-003	CMT-32TN16	32	32	55	125	3	TN1635R	L60-M3.5x8.8A	T15	0.5
241-19-004	CMT-40TN16	40	32	70	135	3	TN1635R	L60-M3.5x8.8A	T15	0.8

Insert not included

INDEXABLE GROOVING MILLS FOR INSERT TN1635

- Suitable for cutting both internal and external groove.
- Right hand cutting.



Order No.	Model	Size(mm)				No.of teeth	Insert	Screw	Torx wrench	Weight
		dc	dm	B	L					
231-19-001	FMT-51TN16	51	22	10.4	40	4	TN1635R..	L60-M3.5x8.8A	WT15	0.4
231-19-002	FMT-63TN16	63	22	10.4	40	6	TN1635R..	L60-M3.5x8.8A	WT15	0.6
231-19-003	FMT-80TN16	80	27	12.4	50	6	TN1635R..	L60-M3.5x8.8A	WT15	0.9

Insert not included

PARTING & GROOVING CUTTER

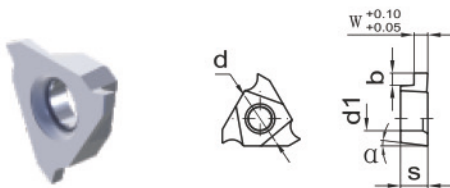
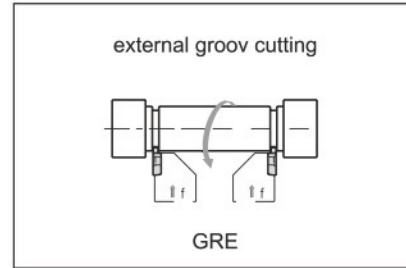
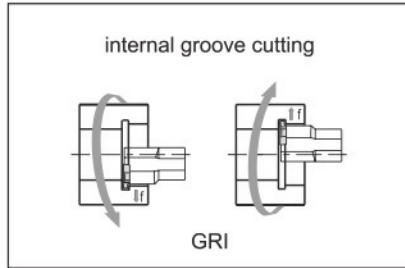
SOLID CARBIDE GROOVING INSERT TN1635

Note:

- For GRI internal groove cutting, left hand toolholder must choose left hand insert and right hand toolholder must choose right hand insert.

Note:

- For GRE External groove cutting, left hand toolholder must choose right hand insert and right hand toolholder must choose left hand insert.



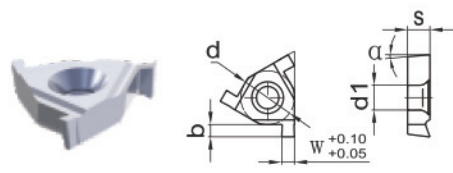
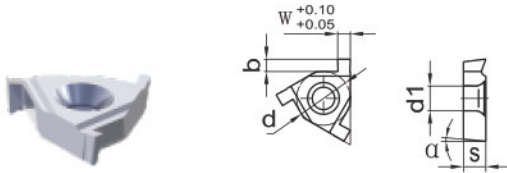
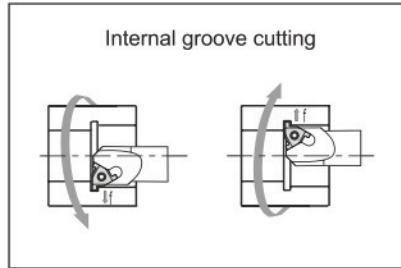
Right hand

Order No.	Model	Size(mm)						Grade	Application
		w	b	d	d1	s	α		
311-21-001	TN1635R110	1.1	0.9	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-003	TN1635R130	1.3	1.3	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-005	TN1635R160	1.6	1.4	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-007	TN1635R185	1.85	1.7	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-009	TN1635R215	2.15	2	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-011	TN1635R265	2.65	2.2	9.525	3.8	3.5	0°	EP2125	steel and INOX
331-21-001	TN1635R110	1.1	0.9	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-003	TN1635R130	1.3	1.3	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-005	TN1635R160	1.6	1.4	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-007	TN1635R185	1.85	1.7	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-009	TN1635R215	2.15	2	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-011	TN1635R265	2.65	2.2	9.525	3.8	3.5	0°	EP3125	cast iron
341-21-001	TN1635R110	1.1	0.9	9.525	3.8	3.5	0°	EW3125	Al-alloy
341-21-003	TN1635R130	1.3	1.3	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-005	TN1635R160	1.6	1.4	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-007	TN1635R185	1.85	1.7	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-009	TN1635R215	2.15	2	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-011	TN1635R265	2.65	2.2	9.525	3.8	3.5	0°	EP3125	Al-alloy

Left hand

Order No.	Model	Size(mm)						Grade	Application
		w	b	d	d1	s	α		
311-21-002	TN1635L110	1.1	0.9	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-004	TN1635L130	1.3	1.3	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-006	TN1635L160	1.6	1.4	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-008	TN1635L185	1.85	1.7	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-010	TN1635L215	2.15	2	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-012	TN1635L265	2.65	2.2	9.525	3.8	3.5	0°	EP2125	steel and INOX
331-21-002	TN1635L110	1.1	0.9	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-004	TN1635L130	1.3	1.3	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-006	TN1635L160	1.6	1.4	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-008	TN1635L185	1.85	1.7	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-010	TN1635L215	2.15	2	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-012	TN1635L265	2.65	2.2	9.525	3.8	3.5	0°	EP3125	cast iron
341-21-002	TN1635L110	1.1	0.9	9.525	3.8	3.5	0°	EW3125	Al-alloy
341-21-004	TN1635L130	1.3	1.3	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-006	TN1635L160	1.6	1.4	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-008	TN1635L185	1.85	1.7	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-010	TN1635L215	2.15	2	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-012	TN1635L265	2.65	2.2	9.525	3.8	3.5	0°	EP3125	Al-alloy

SOLID CARBIDE GROOVING INSERT TN1635...V



Right hand

Order No.	Model	Size(mm)						Grade	Application
		w	b	d	d1	s	α		
311-21-013	TN1635R110-V	1.1	1.3	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-015	TN1635R130-V	1.3	1.6	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-017	TN1635R160-V	1.6	1.85	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-019	TN1635R185-V	1.85	1.85	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-021	TN1635R215-V	2.15	1.85	9.525	3.8	3.5	0°	EP2125	steel and INOX
331-21-013	TN1635R110-V	1.1	0.9	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-015	TN1635R130-V	1.3	1.3	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-017	TN1635R160-V	1.6	1.4	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-019	TN1635R185-V	1.85	1.7	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-021	TN1635R215-V	2.15	2	9.525	3.8	3.5	0°	EP3125	cast iron
341-21-013	TN1635R110-V	1.1	0.9	9.525	3.8	3.5	0°	EW3125	Al-alloy
341-21-015	TN1635R130-V	1.3	1.3	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-017	TN1635R160-V	1.6	1.4	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-019	TN1635R185-V	1.85	1.7	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-021	TN1635R215-V	2.15	2	9.525	3.8	3.5	0°	EP3125	Al-alloy

Left hand

Order No.	Model	Size(mm)						Grade	Application
		w	b	d	d1	s	α		
311-21-014	TN1635L110-V	1.1	0.9	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-016	TN1635L130-V	1.3	1.3	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-018	TN1635L160-V	1.6	1.4	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-020	TN1635L185-V	1.85	1.7	9.525	3.8	3.5	0°	EP2125	steel and INOX
311-21-022	TN1635L215-V	2.15	2	9.525	3.8	3.5	0°	EP2125	steel and INOX
331-21-014	TN1635L110-V	1.1	0.9	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-016	TN1635L130-V	1.3	1.3	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-018	TN1635L160-V	1.6	1.4	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-020	TN1635L185-V	1.85	1.7	9.525	3.8	3.5	0°	EP3125	cast iron
331-21-022	TN1635L215-V	2.15	2	9.525	3.8	3.5	0°	EP3125	cast iron
341-21-014	TN1635L110-V	1.1	0.9	9.525	3.8	3.5	0°	EW3125	Al-alloy
341-21-016	TN1635L130-V	1.3	1.3	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-018	TN1635L160-V	1.6	1.4	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-020	TN1635L185-V	1.85	1.7	9.525	3.8	3.5	0°	EP3125	Al-alloy
341-21-022	TN1635L215-V	2.15	2	9.525	3.8	3.5	0°	EP3125	Al-alloy

BORING CUTTER & ABS TOOLING SYSTEM

ADJUSTABLE DOUBLE-EDGE BORING CUTTERS WITH ABS SHANK

175



SMALL DIAM. BORING CUTTERS WITH FINE ADJ. & BORING BAR

176



MICRO-ADJUSTABLE BORING CUTTERS & CARTRIDGES

178



PRECISION MICRO-ADJUSTABLE CARTRIDGES

179

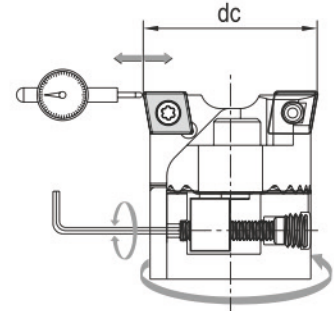
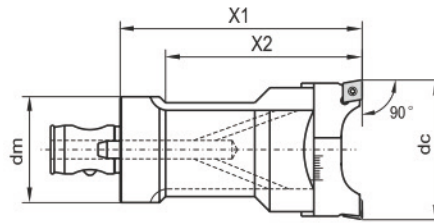


ABS TOOLING SYSTEM

180



ADJUSTABLE DOUBLE-EDGE BORING CUTTERS WITH ABS SHANK

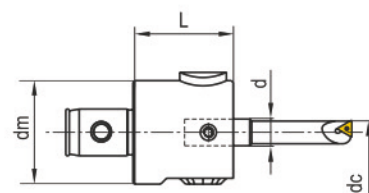


Order No.	Model	Shank	Capacity dc(mm)	Size (mm)			Insert	Screw	Torx wrench
				dm	X1	X2			
275-64-001	ABS25-TS9025-45	ABS25	25-32	25	45	35	CCMT060204	C025A07S	T7
275-64-002	ABS32-TS9025-70	ABS32	25-32	32	70	58	CCMT060204	C025A07S	T7
275-64-003	ABS25-TS9030-50	ABS25	30-38	25	50	-	CCMT060204	C025A07S	T7
275-64-004	ABS32-TS9030-85	ABS32	30-38	32	85	73	CCMT060204	C025A07S	T7
275-64-005	ABS32-TS9037-60	ABS32	37-47	32	60	-	CCMT060204	C025A07S	T7
275-64-006	ABS40-TS9046-60	ABS40	46-56	40	60	-	CCMT09T308	C035A08S	T15
275-64-007	ABS50-TS9046-120	ABS50	46-56	50	120	104	CCMT09T308	C035A08S	T15
275-64-008	ABS40-TS9055-60	ABS40	55-70	40	60	-	CCMT09T308	C035A08S	T15
275-64-009	ABS50-TS9055-135	ABS50	55-70	50	135	-	CCMT09T308	C035A08S	T15
275-64-010	ABS50-TS9069-70	ABS50	69-84	50	70	-	CCMT120408	C050A12S	T20
275-64-011	ABS63-TS9083-80	ABS63	83-101	63	80	-	CCMT120408	C050A12S	T20
275-64-012	ABS63-TS9099-80	ABS63	99-125	63	80	-	CCMT120408	C050A12S	T20
275-64-013	ABS80-TS90123-90	ABS80	123-150	80	90	-	CCMT120408	C050A12S	T20

Spare Parts

Model	Cartridge	Screw	Hex wrench	Washer	Screw	Hex wrench	Weight (Kg)
ABS25-TS9025-45	TS9025.CC06	MS04016	S3	DT04	RS03010	S1.5	0.15
ABS32-TS9025-70	TS9025.CC06	MS04016	S3	DT04	RS03010	S1.5	0.25
ABS25-TS9030-50	TS9030.CC06	MS04016	S3	DT04	RS03010	S1.5	0.20
ABS32-TS9030-85	TS9030.CC06	MS04016	S3	DT04	RS03010	S1.5	0.35
ABS32-TS9037-60	TS9037.CC06	MS04016	S3	DT04	RS03010	S1.5	0.75
ABS40-TS9046-60	TS9046.CC09	MS05016	S4	DT05	RS04012	S2.0	0.55
ABS50-TS9046-120	TS9046.CC09	MS05016	S4	DT05	RS04012	S2.0	1.35
ABS40-TS9055-60	TS9055.CC09	MS06025	S5	DT06	RS04012	S2.0	1.00
ABS50-TS9055-135	TS9055.CC09	MS06025	S5	DT06	RS04012	S2.0	2.50
ABS50-TS9069-70	TS9069.CC12	MS08030	S6	DT08	RS05016	S2.5	1.20
ABS63-TS9083-80	TS9083.CC12	MS01030	S8	DT10	RS05020	S2.5	1.90
ABS63-TS9099-80	TS9099.CC12	MS01030	S8	DT10	RS05020	S3.0	2.20
ABS80-TS90123-90	TS90123.CC12	MS01030	S8	DT10	RS05020	S3.0	3.60

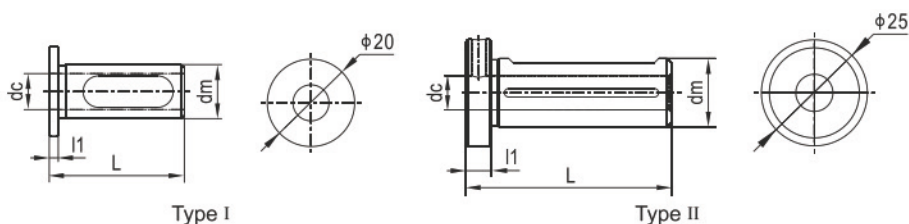
MICRO-ADJUSTABLE BORING HEADS FOR SMALL DIAMETER



Order No.	Model	Shank	Capacity dc(mm)	Slide travel	Size(mm)			Weight (Kg)
					dm	L	d	
276-63-001	ABS40-SBZ-8	ABS40	3-11	2	40	35	8	0.35
276-63-002	ABS50-SBZ-12	ABS50	3-28	3	50	40	12	0.66
276-63-003	ABS63-SBZ-16	ABS63	3-50	5	63	60	16	1.53

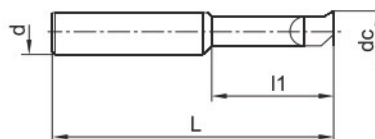
Boring bar not included.

REDUCING SLEEVES



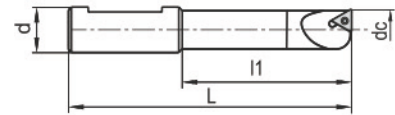
Order No.	Model	Size(mm)				Weight (Kg)	Type
		dc	dm	l1	L		
280-63-001	SBJ-12C8	8	12	2	30	0.05	A
280-63-002	SBJ-16C8	8	16	6	48	0.06	B

SOLID CARBIDE BORING BAR



Order No.	Model	Capacity dc(mm)	Size(mm)		
			d	l1	L
471-63-001	YBJ-0803-9	3-5	8	9	38
471-63-002	YBJ-0805-15	5-7	8	15	43
471-63-003	YBJ-0807-21	7-9	8	21	49
471-63-004	YBJ-0809-27	9-11	8	27	54

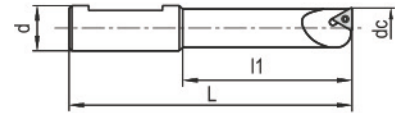
INDEXABLE CARBIDE BORING BAR



Order No.	Model	Capacity dc(mm)	Size(mm)			Insert	Screw	Torx wrench	Weight(Kg)
			d	l1	L				
224-63-001	YSBJ-160840	8-11	16	40	82	TBGT060102L	C020S05J	T6	0.06
224-63-002	YSBJ-1610-50	10-13	16	50	92	TBGT060102L	C020S05J	T6	0.07
224-63-003	YSBJ-1612-60	12-17	16	60	102	TPGH090204L	C025A07S	FT7	0.08
224-63-004	YSBJ-1616-80	16-21	16	80	122	TPGH090204L	C025A07S	FT7	0.12
224-63-005	YSBJ-1620-100	20-26	16	100	142	TPGH110304L	C030A07S	T9	0.16

Insert not included

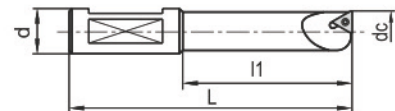
INDEXABLE STEEL BORING BAR



Order No.	Model	Capacity dc(mm)	Size(mm)			Insert	Screw	Torx wrench	Weight(Kg)
			d	l1	L				
221-63-001	SBJ-1208-30	8-10	12	32	60	TBGT060102L	C020S05J	T6	-
221-63-002	SBJ-1210-40	10-12	12	40	68	TBGT060102L	C020S05J	T6	-
221-63-003	SBJ-1212-48	12-14	12	48	76	TPGH090204L	C025A07S	FT7	-
221-63-004	SBJ-1214-56	14-16	12	56	84	TPGH090204L	C025A07S	FT7	-
221-63-005	SBJ-1216-60	16-18	12	60	88	TPGH090204L	C025A07S	FT7	-
221-63-006	SBJ-1218-60	18-20	12	60	88	TPGH110304L	C030A07S	T9	-
221-63-007	SBJ-1220-60	20-24	12	60	88	TPGH110304L	C030A07S	T9	-
221-63-008	SBJ-1224-60	24-28	12	60	88	TPGH110304L	C030A07S	T9	-
221-63-009	SBJ-1608-32	8-11	16	32	74	TBGT060102L	C020S05J	T6	0.06
221-63-010	SBJ-1610-40	10-13	16	40	82	TBGT060102L	C020S05J	T6	0.07
221-63-011	SBJ-1612-53	12-17	16	53	95	TPGH090204L	C025A07S	FT7	0.08
221-63-012	SBJ-1616-68	16-21	16	68	110	TPGH090204L	C025A07S	FT7	0.12
221-63-013	SBJ-1620-83	20-26	16	83	125	TPGH110304L	C030A07S	T9	0.16
221-63-014	SBJ-1625-90	25-32	16	90	132	TPGH110304L	C030A07S	T9	0.25
221-63-015	SBJ-1630-90	30-42	16	90	132	TPGH110304L	C030A07S	T9	0.3
221-63-016	SBJ-1640-90	40-50	16	90	132	TPGH110304L	C030A07S	T9	0.4

Insert not included

INDEXABLE STEEL STUB BORING BAR

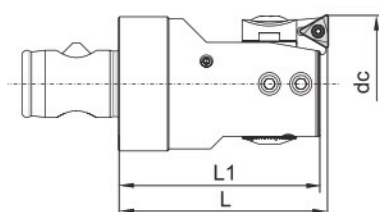


Order No.	Model	Capacity dc(mm)	Size(mm)			Insert	Screw	Torx wrench	Weight(Kg)
			d	l1	L				
221-63-017	SBJ-1608-16	8-11	16	16	58	TBGT060102L	C020S05J	T6	0.06
221-63-018	SBJ-1610-20	10-13	16	20	62	TBGT060102L	C020S05J	T6	0.07
221-63-019	SBJ-1612-24	12-17	16	24	66	TPGH090204L	C025A07S	FT7	0.08
221-63-020	SBJ-1616-32	16-21	16	32	74	TPGH090204L	C025A07S	FT7	0.12
221-63-021	SBJ-1620-32	20-26	16	32	74	TPGH110304L	C030A07S	T9	0.16
221-63-022	SBJ-1625-32	25-32	16	32	74	TPGH110304L	C030A07S	T9	0.25

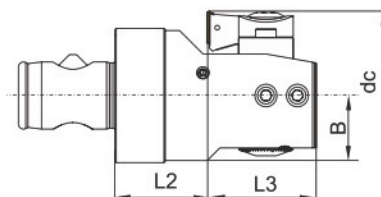
Insert not included

PRECISION MICRO-ADJUSTABLE BORING HEADS

Adjusting accuracy:0.01mm



Forward boring



back boring

Order No.	Model	Shank	Capacity dc(mm)		Size (mm)					Cartridge	Screw	Weight (Kg)
			Forward boring	Back boring	L	L1	L2	L3	B			
276-65-001	ABS25-FBZ026008-45	ABS25	26-47	36-47	45	43	19	24	12.5	BZ02...	SS03005A	0.2
276-65-002	ABS32-FBZ033010-50	ABS32	33-60	44-60	50	48	22	26	16	BZ03...	SS04010A	0.3
276-65-003	ABS40-FBZ042013-60	ABS40	42-74	57-74	60	58	24	34	20	BZ04...	SS05010A	0.6
276-65-004	ABS50-FBZ053017-60	ABS50	53-95	68-95	60	58	20	38	25	BZ05...	SS06012A	0.9
276-65-005	ABS63-FBZ068032-80	ABS63	68-152	84-152	80	78	30	48	32.5	BZ06...	SS08012A	2
276-65-006	ABS80-FBZ098053-90	ABS80	98-203	98-203	90	88	40	48	45	BZ06...	SS08015A	4

Cartridge and insert not included

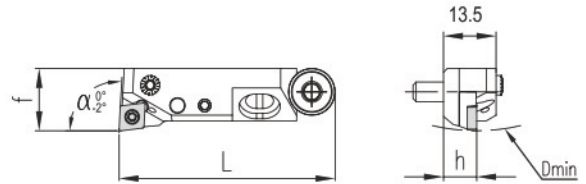
CARTRIDGE FOR MICRO-ADJUSTABLE BORING HEAD

Order No.	Model	Capacity dc(mm)		For boring cutter	Insert	Screw	Torx wrench
		Forward boring	Back boring				
280-65-001	BZ021.TP08	26-34	-	ABS25-FBZ026008-45	TP..0802..L	C020S05J	T6
280-65-002	BZ022.TP08	33-41	36-41	ABS25-FBZ026008-45	TP..0802..L	C020S05J	T6
280-65-003	BZ023.TP08	39-47	42-47	ABS25-FBZ026008-45	TP..0802..L	C020S05J	T6
					TP..0802..L	C020S05J	T6
280-65-004	BZ031.TP08	33-43	-	ABS32-FBZ033010-50	TP..0802..L	C020S05J	T6
280-65-005	BZ032.TP08	42-52	44-52	ABS32-FBZ033010-50	TP..0802..L	C020S05J	T6
280-65-006	BZ033.TP08	50-60	52-60	ABS32-FBZ033010-50	TP..0802..L	C020S05J	T6
280-65-007	BZ041.TP11	42-55	-	ABS40-FBZ042013-60	TP..1103..L	C030A07S	T9
280-65-008	BZ042.TP11	52-65	57-65	ABS40-FBZ042013-60	TP..1103..L	C030A07S	T9
280-65-009	BZ043.TP11	61-74	66-74	ABS40-FBZ042013-60	TP..1103..L	C030A07S	T9
					TP..1103..L	C030A07S	T9
280-65-010	BZ051.TP11	53-70	68-70	ABS50-FBZ053017-60	TP..1103..L	C030A07S	T9
280-65-011	BZ052.TP11	64-81	70-81	ABS50-FBZ053017-60	TP..1103..L	C030A07S	T9
280-65-012	BZ053.TP11	78-95	84-95	ABS50-FBZ053017-60	TP..1103..L	C030A07S	T9
					TP..1103..L	C030A07S	T9
280-65-013	BZ061.TP11	68-100	84-100	ABS63-FBZ068032-80	TP..1103..L	C030A07S	T9
280-65-014		98-151	98-151	ABS80-FBZ098053-90	TP..1103..L	C030A07S	T9
280-65-015	BZ062.TP11	95-127	107-127	ABS63-FBZ068032-80	TP..1103..L	C030A07S	T9
280-65-016		125-178	125-178	ABS80-FBZ098053-90	TP..1103..L	C030A07S	T9
280-65-017	BZ063.TP11	120-152	132-152	ABS63-FBZ068032-80	TP..1103..L	C030A07S	T9
280-65-018		150-203	150-203	ABS80-FBZ098053-90	TP..1103..L	C030A07S	T9
280-65-019	BZ021.CC06	26-34	-	ABS25-FBZ026008-45	CC..0602	C025A07S	FT7
280-65-020	BZ031.CC06	33-43	-	ABS32-FBZ033010-50	CC..0602	C025A07S	FT7
280-65-021	BZ041.TC11	42-55	-	ABS40-FBZ042013-60	TC..1102	C025A07S	FT7
280-65-022	BZ051.TC11	53-70	68-70	ABS50-FBZ053017-60	TC..1102	C025A07S	FT7
280-65-023		68-100	84-100	ABS63-FBZ068032-80	TC..1102	C025A07S	FT7
280-65-024	BZ061.TC11	98-151	98-151	ABS80-FBZ098053-90	TC..1102	C025A07S	FT7

Insert not included

PRECISION MICRO-ADJUSTABLE CARTRIDGES

- Adjusting accuracy:0.01mm
- Used on non-standard precision boring cutter for combination holes.

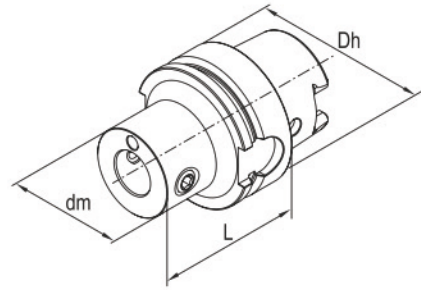


Order No.		Model		Size(mm)					Insert	Diagram
Right hand	Left hand	Right hand	Left hand	h	f	L	α	Dmin		
280-66-001	280-66-002	SWFCR08CM-03	SWFCL08CM-03	8.5	16	55.5	90°	36	WC..030204	
280-66-003	280-66-004	SCFCR08CM-06	SCFCL08CM-06	8.5	16	55.5	90°	36	CC..060204	
280-66-005	280-66-006	SCFPR08CM-06	SCFPL08CM-06	8.5	16	55.5	90°	36	CP..060204	
280-66-007	280-66-008	STFCR08CM-09	STFCL08CM-09	8.5	16	55.5	90°	36	TC..090204	
280-66-009	280-66-010	STFPR08CM-09	STFPL08CM-09	8.5	16	55.5	90°	36	TP..090204	
280-66-011	280-66-012	STFCR08CM-11	STFCL08CM-11	8.5	20	55.5	90°	44	TC..110204	
280-66-013	280-66-014	STFPR08CM-11	STFPL08CM-11	8.5	20	55.5	90°	44	TP..110204	
280-66-015	280-66-016	SCLCR08CM-06	SCLCL08CM-06	8.5	16	55.5	95°	36	CC..060204	
280-66-017	280-66-018	SCLPR08CM-06	SCLPL08CM-06	8.5	16	55.5	95°	36	CP..060204	
280-66-019	280-66-020	STLCR08CM-09	STLCL08CM-09	8.5	16	55.5	95°	36	TC..090204	
280-66-021	280-66-022	STLPR08CM-09	STLPL08CM-09	8.5	16	55.5	95°	36	TP..090204	
280-66-023	280-66-024	STLCR08CM-11	STLCL08CM-11	8.5	20	55.5	95°	44	TC..110204	
280-66-025	280-66-026	STLPR08CM-11	STLPL08CM-11	8.5	20	55.5	95°	44	TP..110204	
280-66-027	280-66-028	SDQCR08CM-07	SDQCL08CM-07	8.5	16	58.5	120°	36	DC..070204	

- Can be customized according to requirement.

DIN69893 HSK TAPER SHANK ABS TOOLHOLDER

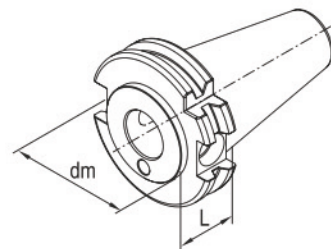
- Used for holding boring cutter with ABS quick shank.



Order No.	Model	SHANK	Size (mm)			Thrust screw	Receiving screw
			Dh	dm	L		
111-11-401	HSK63A-ABS25-50	HSK-A63	63	25	50	21A.25-E1	21A.25-E2
111-11-402	HSK63A-ABS32-55	HSK-A63	63	32	55	21A.32-E1	21A.32-E2
111-11-403	HSK63A-ABS40-60	HSK-A63	63	40	60	21A.40-E1	21A.40-E2
111-11-404	HSK63A-ABS50-70	HSK-A53	63	50	70	21A.50-E1	21A.50-E2
111-11-405	HSK63A-ABS63-80	HSK-A63	63	63	80	21A.63-E1	21A.63-E2
111-11-406	HSK63A-ABS80-100	HSK-A63	63	100	100	21A.100-E1	21A.100-E2
111-11-601	HSK100A-ABS25-60	HSK-A100	100	25	60	21A.25-E1	21A.25-E2
111-11-602	HSK100A-ABS32-60	HSK-A100	100	32	60	21A.32-E1	21A.32-E2
111-11-603	HSK100A-ABS40-80	HSK-A100	100	40	80	21A.40-E1	21A.40-E2
111-11-604	HSK100A-ABS50-80	HSK-A100	100	50	80	21A.50-E1	21A.50-E2
111-11-605	HSK100A-ABS63-80	HSK-A100	100	63	80	21A.63-E1	21A.63-E2
111-11-606	HSK100A-ABS80-90	HSK-A100	100	80	90	21A.80-E1	21A.80-E2
111-11-607	HSK100A-ABS100-100	HSK-A100	100	100	100	21A.100-E1	21A.100-E2

DIN69871 SK TAPER SHANK ABS TOOLHOLDER

- Used for holding boring cutter with ABS quick shank.



Order No.	Model	SHANK	Size(mm)		Thrust screw	Receiving screw
			dm	L		
132-11-401	JT40-ABS25-20	SK40-AD	25	20	21 A.25-E1	21A.25-E2
132-11-402	JT40-ABS32-22.5	SK40-AD	32	22.5	21A.32-E1	21A.32-E2
132-11-403	JT40-ABS40-22.5	SK40-AD	40	22.5	21A.40-E1	21A.40-E2
132-11-404	JT40-ABS50-45	SK40-AD	50	45	21A.50-E1	21A.50-E2
132-11-405	JT40-ABS63-65	SK40-AD	63	65	21A.63-E1	21A.63-E2
132-11-501	JT50-ABS25-20	SK50-AD	25	20	21 A.25-E1	21A.25-E2
132-11-502	JT50-ABS32-22.5	SK50-AD	32	22.5	21 A.32-E1	21A.32-E2
132-11-503	JT50-ABS40-22.5	SK50-AD	40	22.5	21A.40-E1	21A.40-E2
132-11-504	JT50-ABS50-45	SK50-AD	50	45	21A.50-E1	21A.50-E2
132-11-505	JT50-ABS63-50	SK50-AD	63	50	21A.63-E1	21A.63-E2
132-11-506	JT50-ABS80-60	SK50-AD	80	60	21A.80-E1	21A.80-E2
132-11-507	JT50-ABS100-80	SK50-AD	100	80	21A.100-E1	21A.100-E2