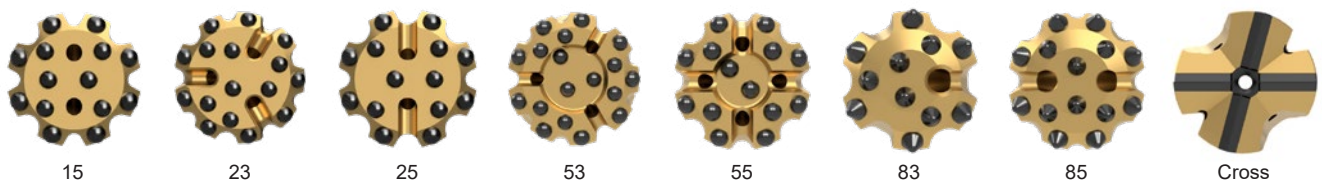
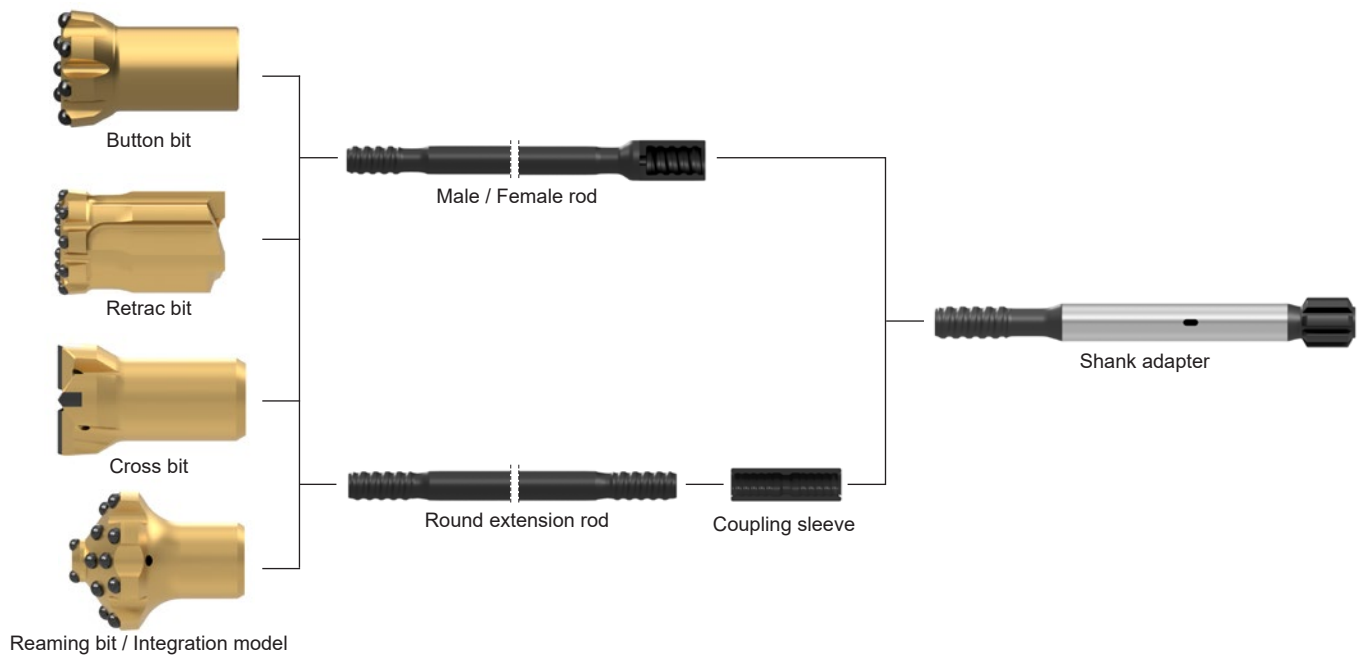


BENCH & LONG HOLE DRILLING EQUIPMENT

T45 SERIES (1 3/4") (Recommended Gauge diameter $\phi 70$ – $\phi 115$)



Button Bit Flat face Type 15



Part Number		Skirt	Gauge Diameter		Gauge Angle [°]	Gauge Button	Face Button	Blow Hole		Weight(kg)
Round	Semi Ballistic		(mm)	(in)		No × Dia(mm)	No × Dia(mm)	Side	Face	
45MPVS70R15M	45MPVS70BB15M		70	2 3/4"	35	8× $\phi 11$	4× $\phi 11$	—	2	1.9
45MPVS76R15M	45MPVS76BB15M		76	3"	35	8× $\phi 12$	4× $\phi 11$	—	2	2.3
45MPVS83R15M	45MPVS83BB15M		83	3 2/7"	35	8× $\phi 12$	6× $\phi 11$	—	2	2.6
45MPVS89R15M	45MPVS89BB15M		89	3 1/2"	35	8× $\phi 13$	6× $\phi 12$	—	2	3.8
45MPVS102R15M	—		102	4"	35	8× $\phi 14$	6× $\phi 13$	—	2	4.4
45MPVS115R15M	—		115	4 1/2"	35	8× $\phi 14$	7× $\phi 13$	—	2	6.4
45MPVR70R15M	45MPVR70BB15M		70	2 3/4"	35	8× $\phi 11$	4× $\phi 11$	—	2	2.7
45MPVR76R15M	45MPVR76BB15M		76	3"	35	8× $\phi 12$	4× $\phi 11$	—	2	3.0
45MPVR83R15M	45MPVR83BB15M		83	3 2/7"	35	8× $\phi 12$	6× $\phi 11$	—	2	3.9
45MPVR89R15M	45MPVR89BB15M		89	3 1/2"	35	8× $\phi 13$	6× $\phi 12$	—	2	4.5
45MPVR102R15M	—		102	4"	35	8× $\phi 14$	6× $\phi 13$	—	2	6.6
45MPVR115R15M	—		115	4 1/2"	35	8× $\phi 14$	7× $\phi 13$	—	2	8.7



Button Bit with Groove Type 23 and 25



Part Number		Skirt	Gauge Diameter		Gauge Angle [°]	Gauge Button	Face Button	Blow Hole		Weight(kg)
Round	Semi Ballistic		(mm)	(in)		No × Dia(mm)	No × Dia(mm)	Side	Face	
45MPVS70R23M	45MPVS70BB23M		70	2 3/4"	35	6×φ12	4×φ11	—	3	2.0
45MPVS76R23M	45MPVS76BB23M		76	3"	35	6×φ12	4×φ12	—	3	2.4
45MPVS83R23M	45MPVS83BB23M		83	3 2/7"	35	6×φ13	4×φ13	—	3	2.8
45MPVS89R23M	45MPVS89BB23M		89	3 1/2"	35	9×φ12	6×φ12	—	3	3.8
45MPVS102R23M	45MPVS102BB23M		102	4"	35	9×φ13	7×φ13	—	3	4.3
45MPVS115R23M	45MPVS115BB23M		115	4 1/2"	35	9×φ14	7×φ14	—	3	5.8
45MPVR70R23M	45MPVR70BB23M		70	2 3/4"	35	6×φ12	4×φ11	—	3	2.5
45MPVR76R23M	45MPVR76BB23M		76	3"	35	6×φ12	4×φ12	—	3	2.7
45MPVR83R23M	45MPVR83BB23M		83	3 2/7"	35	6×φ13	4×φ13	—	3	4.1
45MPVR89R23M	45MPVR89BB23M		89	3 1/2"	35	9×φ12	6×φ12	—	3	4.4
45MPVR102R23M	45MPVR102BB23M		102	4"	35	9×φ13	7×φ13	—	3	6.5
45MPVR115R23M	45MPVR115BB23M		115	4 1/2"	35	9×φ14	7×φ14	—	3	8.5

Part Number		Skirt	Gauge Diameter		Gauge Angle [°]	Gauge Button	Face Button	Blow Hole		Weight(kg)
Round	Semi Ballistic		(mm)	(in)		No × Dia(mm)	No × Dia(mm)	Side	Face	
45MPVS89R25M	45MPVS89BB25M		89	3 1/2"	35	8×φ13	6×φ12	—	2	3.8
45MPVS102R25M	45MPVS102BB25M		102	4"	35	8×φ14	6×φ13	—	2	4.4
45MPVR89R25M	45MPVR89BB25M		89	3 1/2"	35	8×φ13	6×φ12	—	2	4.5
45MPVR102R25M	45MPVR102BB25M		102	4"	35	8×φ14	6×φ13	—	2	6.8



Button Bit with Drop Center Type 53 and 55



Part Number		Skirt	Gauge Diameter		Gauge Angle [°]	Gauge Button	Face Button	Blow Hole		Weight(kg)
Round	Semi Ballistic		(mm)	(in)		No × Dia(mm)	No × Dia(mm)	Side	Face	
45MPVS70R53M	45MPVS70BB53M		70	2 3/4"	35	6×φ11	4×φ11	—	3	1.8
45MPVS76R53M	45MPVS76BB53M		76	3"	35	6×φ12	4×φ11	—	3	2.2
45MPVS83R53M	—		83	3 2/7"	35	6×φ13	4×φ12	—	3	2.6
45MPVS89R53M	—		89	3 1/2"	35	6×φ13	5×φ12	—	3	3.6
45MPVR70R53M	45MPVR70BB53M		70	2 3/4"	35	6×φ11	4×φ11	—	3	2.6
45MPVR76R53M	45MPVR76BB53M		76	3"	35	6×φ12	4×φ11	—	3	2.7
45MPVR83R53M	—		83	3 2/7"	35	6×φ13	4×φ12	—	3	3.7
45MPVR89R53M	—		89	3 1/2"	35	6×φ13	5×φ12	—	3	4.2

Part Number		Skirt	Gauge Diameter		Gauge Angle [°]	Gauge Button	Face Button	Blow Hole		Weight(kg)
Round	Semi Ballistic		(mm)	(in)		No × Dia(mm)	No × Dia(mm)	Side	Face	
45MPVS70R55M	45MPVS70BB55M		70	2 3/4"	35	8×φ11	5×φ10	—	4	1.8
45MPVS76R55M	45MPVS76BB55M		76	3"	35	8×φ11	5×φ11	—	4	2.2
45MPVS83R55M	45MPVS83BB55M		83	3 2/7"	35	8×φ12	4×φ12, 1×φ11	—	4	3.9
45MPVS89R55M	45MPVS89BB55M		89	3 1/2"	35	8×φ12	6×φ12	—	4	3.7
45MPVS102R55M	—		102	4"	35	8×φ14	6×φ14	—	4	4.4
45MPVS115R55M	—		115	4 1/2"	35	8×φ14	8×φ14	—	4	6.7
45MPVR70R55M	45MPVR70BB55M		70	2 3/4"	35	8×φ11	5×φ10	—	4	2.5
45MPVR76R55M	45MPVR76BB55M		76	3"	35	8×φ11	5×φ11	—	4	3.0
45MPVR83R55M	45MPVR83BB55M		83	3 2/7"	35	8×φ12	4×φ12, 1×φ11	—	4	3.8
45MPVR89R55M	45MPVR89BB55M		89	3 1/2"	35	8×φ12	6×φ12	—	4	4.5
45MPVR102R55M	—		102	4"	35	8×φ14	6×φ14	—	4	6.5
45MPVR115R55M	—		115	4 1/2"	35	8×φ14	8×φ14	—	4	8.4

BENCH & LONG HOLE DRILLING EQUIPMENT

T45 SERIES (1 3/4") (Recommended Gauge diameter $\phi 70$ – $\phi 115$)



Button Bit with Convex Type 83 and 85



Part Number	Skirt	Gauge Diameter		Gauge Angle [°]	Gauge Button	Face Button	Blow Hole		Weight(kg)
		(mm)	(in)		No × Dia(mm)	No × Dia(mm)	Side	Face	
45MPWS70SA83H		70	2 3/4"	20–40	6× $\phi 11$	5× $\phi 10$	1	1	1.7
45MPWS76SA83H		76	3"	20–40	6× $\phi 11$	3× $\phi 11$, 2× $\phi 10$	1	1	2.2
45MPWS76SA85H		76	3"	20–40	8× $\phi 11$	6× $\phi 10$	2	2	2.3
45MPWR76SA85H		76	3"	20–40	8× $\phi 11$	6× $\phi 10$	2	2	3.1
45MPWS89SA85H		89	3 1/2"	20–40	8× $\phi 12$	6× $\phi 12$	2	2	3.8
45MPWR89SA85H		89	3 1/2"	20–40	8× $\phi 12$	6× $\phi 12$	2	2	4.1
45MPVS102SA85H		102	4"	20–40	8× $\phi 12$	7× $\phi 12$	–	2	4.3
45MPVS115SA85H		115	4 1/2"	20–40	8× $\phi 14$	8× $\phi 12$	–	2	6.3



Cross Bit



Part Number	Gauge Diameter		Carbide size	Blow Hole		Weight(kg)
	(mm)	(in)	W×H(mm)	Side	Face	
45MX76S	76	3"	13×22	4	1	2.5
45MX90S	90	3 1/2"	13×22	4	1	4.0



Reaming Bit Integration model



Part Number	Gauge Diameter		Gauge Angle [°]	Gauge Button	Face Button	Blow Hole		Weight(kg)
	(mm)	(in)		No × Dia(mm)	No × Dia(mm)	Side	Face	
WI45MP127BB-70	127	5"	30°	9× $\phi 13$	6× $\phi 13$	–	3	8.0
WI45MP152BB-65Z	152	6"	30°	9× $\phi 14$	9× $\phi 14$	–	3	10.5

Round Rod



Part number	Thread		Outside Diameter		Length		Weight(kg)
			(mm)	(in)	(mm)	(ft/in)	
ER45M45-3050	T45	T45	45	1 3/4"	3050	10'	35.0
ER45M45-3660					3660	12'	41.7
ER45M45-4270					4270	14'	48.5
ER45M45-4880					4880	16'	54.9

Male / Female Rod



Part number	Thread		Outside Diameter		Length		Weight(kg)
			(mm)	(in)	(mm)	(ft/in)	
ER45M45MF-1220	T45	T45	45	1 3/4"	1220	4'	14.7
ER45M45MF-1525					1525	5'	18.1
ER45M45MF-1830					1830	6'	21.5
ER45M45MF-3050H					3050	10'	35.0
ER45M45MF-3660H					3660	12'	41.7
ER45M45MF-4270H					4270	14'	48.5
ER45M45MF-6100H					6100	20'	70.8

Coupling / Cross Over Coupling



Part number	Thread		Outside Diameter		Length		Weight(kg)
			(mm)	(in)	(mm)	(ft/in)	
CM45	T45	T45	63	2 1/2"	210	8 1/4"	3.0
CM45-2			66	2 5/8"	210	8 1/4"	3.5
CM45F			63	2 1/2"	230	9 1/16"	3.2

Part number	Thread		Outside Diameter		Length		Weight(kg)
			(mm)	(in)	(mm)	(ft/in)	
CM45R32	T45	T32	63	2 1/2"	198	7" 13/16"	2.1
CM45M38		T38	63	2 1/2"	215	8 1/2"	3.4