



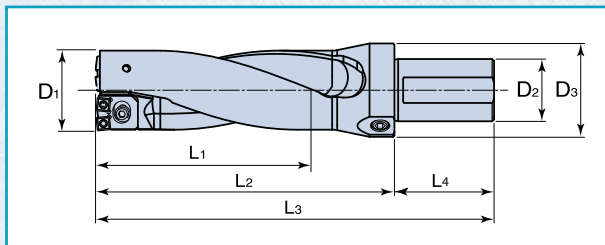
QUADODRILLTM

ADJUSTABLE CARTRIDGE DRILLS - SERIES QA

Ingersoll introduces Adjustable Cartridge Drills in sizes over 2.000" in diameter. The cartridge design provides drill body pocket protection, especially important in these larger size drills.

Adjustability within the specific drill body range allows for an economical solution to multiple standard sizes.

The unique design enables easy modification of the cartridge setting plates to accommodate special non-standard sizes that are required in this demanding present day drilling environment.



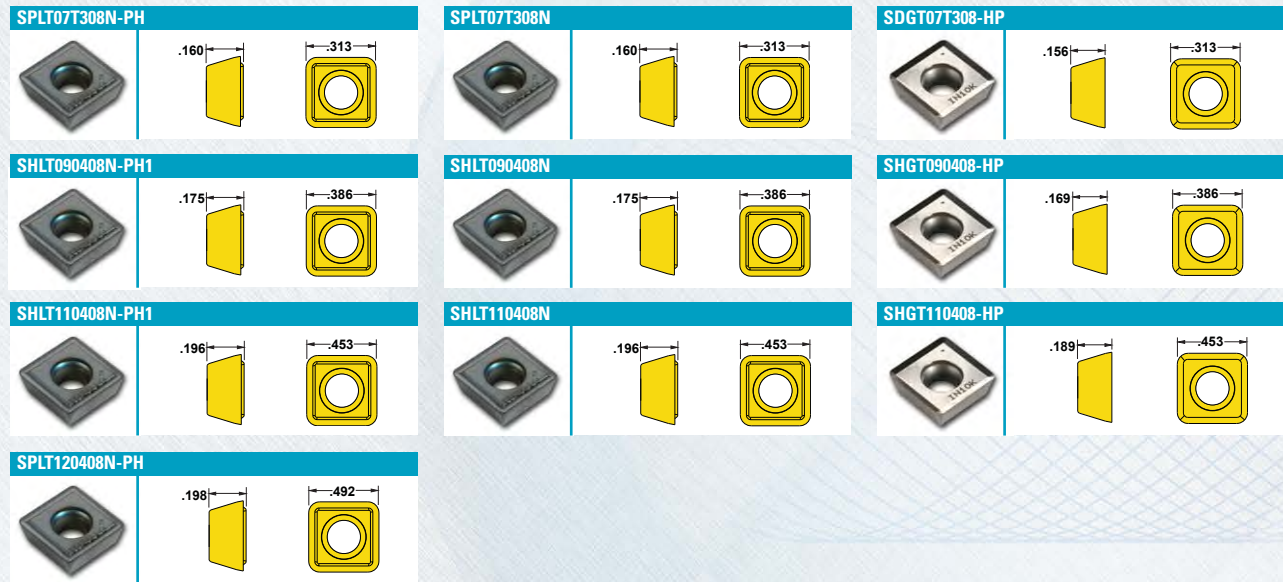
● QUADoDRILL+ 2XD ADJUSTABLE CARTRIDGE DRILL SERIES QA

Drill Number	D ₁ Drill Dia. Range	L ₁ Drilling Ext. from Holder	L ₂ Overall Length	L ₃ Shank Length	L ₄ Shank Dia. & Style	D ₂ Shank Dia. & Style	D ₃ Flange Dia.	# of Inserts	Setting Plates		Cartridge	
									Part Number	Plate Thickness	Outboard	Inboard
QA0540111N8R01	2.125	4.41	5.98	9.23	3.25	2.000 Universal	2.95	4	-	-	55E223R01	55E213R01
	2.188								DS07-080-01	.031		
	2.250								-	-		
QA0572121N8R01	2.313	4.82	6.69	9.94	3.25	2.000 Universal	2.95	4	DS09-080-01	.031	55F243R02	55F233R01
	2.375								DS09-159-01	.063		
	2.438								-	-		
QA0619130N8R01	2.500	5.13	7.17	10.42	3.25	2.000 Universal	2.95	4	DS09-080-01	.031	55F263R01	55F243R03
	2.563								DS09-159-01	.063		
	2.625								-	-		
QA0667143N8R01	2.688	5.67	7.99	11.24	3.25	2.000 Universal	2.95	4	DS11-080-01	.031	55G294R01	55G264R01
	2.750								DS11-159-01	.063		
	2.813								DS11-238-01	.094		
QA0730159N8R01	2.875	6.25	8.27	11.52	3.25	2.000 Universal	2.95	4	-	-	55H314R00	55H294R00
	2.938								DS11-080-01	.031		
	3.000								DS11-159-01	.063		
	3.063								DS11-238-01	.094		
	3.125								DS11-320-01	.125		

● QUADoDRILL+ 3XD ADJUSTABLE CARTRIDGE DRILL SERIES QA

Drill Number	D ₁ Drill Dia. Range	L ₁ Drilling Ext. from Holder	L ₂ Overall Length	L ₃ Shank Length	L ₄ Shank Dia. & Style	D ₂ Shank Dia. & Style	D ₃ Flange Dia.	# of Inserts	Setting Plates		Cartridge	
									Part Number	Plate Thickness	Outboard	Inboard
QA0540167N8R01	2.125	6.61	8.19	11.44	3.25	2.000 Universal	2.95	4	-	-	55E223R01	55E213R01
	2.188								DS07-080-01	.031		
	2.250								-	-		
QA0572181N8R01	2.313	7.23	9.13	12.38	3.25	2.000 Universal	2.95	4	DS09-080-01	.031	55F243R02	55F233R01
	2.375								DS09-159-01	.063		
	2.438								-	-		
QA0619195N8R01	2.500	7.69	9.76	13.01	3.25	2.000 Universal	2.95	4	DS09-080-01	.031	55F263R01	55F243R03
	2.563								DS09-159-01	.063		
	2.625								-	-		
QA0667214N8R01	2.688	8.50	10.87	14.12	3.25	2.000 Universal	2.95	4	DS11-080-01	.031	55G294R01	55G264R01
	2.750								DS11-159-01	.063		
	2.813								DS11-238-01	.094		
QA0730238N8R01	2.875	9.38	11.42	14.67	3.25	2.000 Universal	2.95	4	-	-	55H314R00	55H294R00
	2.938								DS11-080-01	.031		
	3.000								DS11-159-01	.063		
	3.063								DS11-238-01	.094		
	3.125								DS11-320-01	.125		

● QUAD⁺DRILL⁺ INSERTS



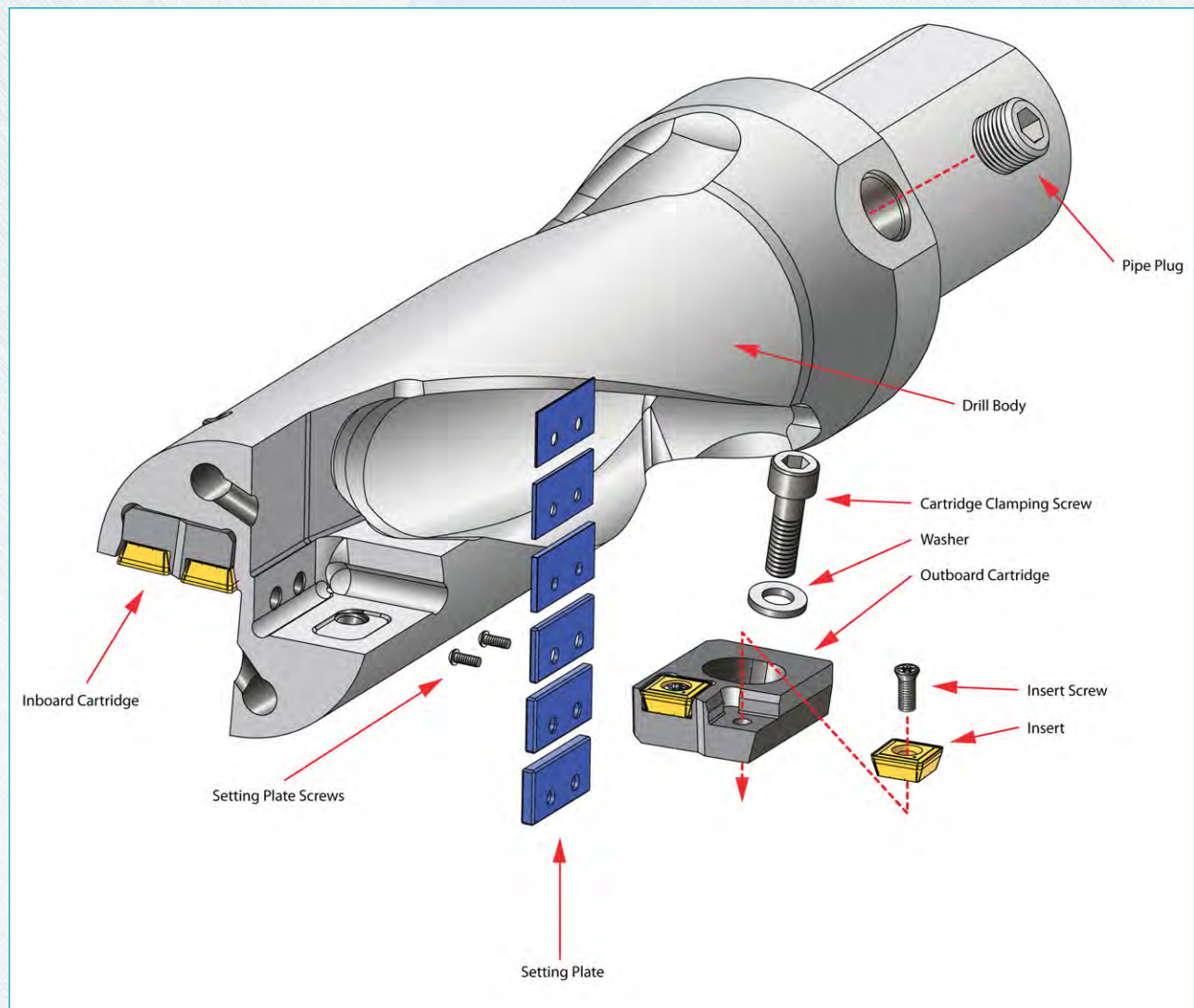
Drill Diameter Range	Insert Number (■)	Cast Iron Inserts Grade IN2010 only (▲)	Aluminum Inserts Grade IN10K only (●)	Corner	Grades				
					IN	1030	2005	2010	6520
2.125-2.188	SPLT07T308N-PH	SPLT07T308N	SDGT07T308-HP	.030R	■	■	▲	■	●
2.250-2.563	SHLT090408N-PH1	SHLT090408N	SHGT090408-HP	.030R	■	■	▲	■	●
2.625-2.813	SHLT110408N-PH1	SHLT110408N	SHGT110408-HP	.030R	■	■	▲	■	●
2.875-3.125	SPLT120408N-PH	-	-	.030R		■			

● QUAD⁺DRILL⁺ QA SERIES HARDWARE

Drill Diameter Size Range	Insert Screw	Insert Screw Wrench	Drill Diameter Size Range	Setting Plate Screws	Setting Plate Screw Wrench
2.125-2.188	SM25-064-00	DS-T08W (Tx-08)	2.125-2.188	SM20-043-00	DS-TP06S (TxP-06)
2.250-2.375	SM35-088-60	DS-T10T (Tx-10)	2.250-2.375	SM30-055-10	DS-T09W (Tx-09)
2.437-2.563	SM35-088-60	DS-T10T (Tx-10)	2.437-2.563	SM30-055-10	DS-T09W (Tx-09)
2.625-2.813	SM40-093-20	DS-T15T (Tx-15)	2.625-2.813	SM30-055-10	DS-T09W (Tx-09)
2.875-3.125	SM40-093-20	DS-T15T (Tx-15)	2.875-3.125	SM30-055-10	DS-T09W (Tx-09)

Drill Diameter Size Range	Outboard Cartridge	Inboard Cartridge	Cartridge Mounting Screw	Cartridge Mounting Screw Washer	Allen Wrench
2.125-2.188	55E223R01	55E213R01	SD040-16 (M4 X 0.7 X 16MM SHCS)	WA004-01 (4.3MM X 8MM)	L-W3 (3MM)
2.250-2.375	55F243R02	55F233R01	SD050-16 (M5 X 0.8 X 16MM SHCS)	WA005-01 (5.5MM X 10MM)	L-W4 (4MM)
2.437-2.563	55F263R01	55F243R03	SD050-16 (M5 X 0.8 X 16MM SHCS)	WA005-01 (5.5MM X 10MM)	L-W4 (4MM)
2.625-2.813	55G294R01	55G264R01	SD060-20 (M6 X 1 X 20MM SHCS)	WA006-01 (6.4 MM X 12MM)	L-W5 (5MM)
2.875-3.125	55H314R00	55H294R00	SD060-20 (M6 X 1 X 20MM SHCS)	WA006-01 (6.4 MM X 12MM)	L-W5 (5MM)

• **QUAD^oDRILL⁺** SERIES QA DRILL ASSEMBLY



• **QUAD^oDRILL⁺** SERIES QA PACKAGE

Each drill will be packaged with the following:

- Drill Body - 1 piece
- Inboard Cartridge - 1 piece
- Outboard Cartridge - 1 piece
- Required Setting Plates
- Setting Plate Screws - 2 pieces
- Cartridge Screws - 2 pieces
- Insert Screws - 6 pieces (2 extra)
- Cartridge Washer - 2 pieces
- Wrenches/Drivers - 3 pieces (Cartridge, Insert, Setting Plate)
- Pipe Plug - 1 piece

*Order inserts separately.

• **QUAD•DRILL⁺** SERIES QA INFORMATION

Applications:

Drilled holes in a size range of 2.125" (2 1/8") Diameter to 3.125" (3 1/8") Diameter.

Advantages:

Adjustability enables multiple diameters with the same body.

Five drill bodies cover (17) standard sizes.

Minimum Drill inventory---Cost savings.

Two coolant access ports, side port specifically for non-rotational lathe drilling applications.

Cartridge design protects the drill body---Significant feature on larger size expensive drill bodies.

4 inserts per body---2 cartridges per body---2 inserts per cartridges.

Sales and Marketing:

Plus Values ---This series of drills uses the same family of inserts used in the standard Quad Drill+ product line presently offered, including the multiple grades and geometries.

Same inserts in all pockets, reduced inventory.

4 X D drills available later in 2010.

Operating Guidelines:

Use the same OPERATING GUIDELINES in the Hole Making catalog listed the standard Quad Drill+ drills.