

## Solid end mill range for aluminum machining



### Your challenge

Achieve superior surface finishes on parts.

### Our solution

Aluminum-specific solid end mills with advanced tool geometry, special coating and tool polishing provide mirror-like surface finishes.

### Your challenge

Perform a diverse range of operations with a single tool.

### Our solution

Seco solid end mills for aluminum offer the flexibility to perform both roughing and finishing in applications that include slotting, side milling, ramping, helical interpolation and more.

### Your challenge

Eliminate scrap in aggressive milling applications.

### Our solution

The combination of flute grind, micro geometry and AXT coating ensure effective chip evacuation when using high cutting parameters.



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information

# Solid end mill range for aluminum machining

The range of Seco solid end mills for aluminium applications incorporate geometries and features that ensure exceptional quality and productivity. These tools easily handle the highest feed rates and cutting speeds available on modern machine tools.









The unique AXT coating has an extremely smooth top layer with reduced droplets, which results in less friction and reduced cutting forces to boost tool life and achieve mirror surface finishes. Each tool provides flexibility and performs both roughing and finishing across a broad range of operations. These tools offer the industry's best performance and reliability for manufacturers working with aluminum.

## Your benefits





- Minimize cycle times and simplify processes for both roughing and finishing operations.
- Lower cutting forces for increased stability in unstable applications with thin-walled parts.
- Ensure reliable chip evacuation to eliminate the risk of production interruptions from tool breakage.
- Increase cutting data and metal removal rates for faster part turnaround times.

## Product range overview



Geometry	S4321	S4521	S4531	S4651
Type	Ballnose	Square shoulder	Square shoulder	Multiflute
Diameter Range	2 - 20mm	2 - 20mm	2 - 20mm	6 - 20mm
Number of Flutes	2	2	3	5
Cutting Length Availability	2xDC	2xDC 3xDC	2xDC 3xDC	2xDC 4xDC
Coating	AXT	AXT	AXT	AXT
Chip splitters	No	No	With and without	Yes
Coolant	No	No	No	Yes
Operation	 	 	 	 

## Operation

-  Slot milling
-  Side milling
-  Advanced roughing
-  Copy milling

## Find tooling information fast and avoid manual errors

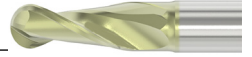
Scan Seco Data Matrix codes into the Seco Assistant app for easy access to data metrics, cutting data, compatible products, spare parts and more.

Scan the Data Matrix code to the right to access the data belonging to the S4561 solid end mill shown.



Download the Seco Assistant app here

## Range overview - S4321



Designation	Grade	Tool shape	Length Index	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical	Weldon
S4321-020G2B.0Z2	AXT	G	2	2	6	4	57,00	8	1,9	1,0	2	10228152	
S4321-030G2B.0Z2	AXT	G	2	3	6	6	57,00	10	2,85	1,5	2	10228153	
S4321-040G2B.0Z2	AXT	G	2	4	6	8	57,00	14	3,8	2,0	2	10228154	
S4321-050G2B.0Z2	AXT	G	2	5	6	10	57,00	17	4,75	2,5	2	10228155	
S4321-060E2B.0Z2	AXT	E	2	6	6	12	57,00	19	5,7	3,0	2	10228156	10287043
S4321-080E2B.0Z2	AXT	E	2	8	8	16	63,00	24	7,6	4,0	2	10228157	10287044
S4321-100E2B.0Z2	AXT	E	2	10	10	20	72,00	31	9,5	5,0	2	10228158	10287045
S4321-120E2B.0Z2	AXT	E	2	12	12	24	88,00	37	11,4	6,0	2	10228159	10287046
S4321-160E2B.0Z2	AXT	E	2	16	16	32	100,00	48	15,2	8,0	2	10228160	10287047
S4321-200E2B.0Z2	AXT	E	2	20	20	40	114,00	60	19,0	10,0	2	10228161	10287048

## Range overview - S4521



Designation	Grade	Tool shape	Length index	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Cylindrical	Weldon
S4521-020G2C.0Z2	AXT	G	2	2	6	4	57,00	8	1,90	0,1	-	2	10228022	
S4521-030G2C.0Z2	AXT	G	2	3	6	6	57,00	10	2,85	0,1	-	2	10228023	
S4521-040G2C.0Z2	AXT	G	2	4	6	8	57,00	14	3,80	0,1	-	2	10228024	
S4521-050G2C.0Z2	AXT	G	2	5	6	10	57,00	17	4,75	0,1	-	2	10228025	
S4521-060E2C.0Z2	AXT	E	2	6	6	12	57,00	19	5,70	0,1	-	2	10228026	10286908
S4521-080E2C.0Z2	AXT	E	2	8	8	16	63,00	24	7,60	0,1	-	2	10228029	10286911
S4521-100E2C.0Z2	AXT	E	2	10	10	20	72,00	31	9,50	0,1	-	2	10228033	10286915
S4521-120E2C.0Z2	AXT	E	2	12	12	24	88,00	37	11,40	0,1	-	2	10228037	10286919
S4521-140E2C.0Z2	AXT	E	2	14	14	28	89,00	41	13,30	0,1	-	2	10228043	10286925
S4521-160E2C.0Z2	AXT	E	2	16	16	32	100,00	48	15,20	0,1	-	2	10228044	10286926
S4521-200E2C.0Z2	AXT	E	2	20	20	40	114,00	60	19,00	0,1	-	2	10228051	10286933
S4521-060E2R050.0Z2	AXT	E	2	6	6	12	57,00	19	5,70	-	0,5	2	10228027	10286909
S4521-060E2R100.0Z2	AXT	E	2	6	6	12	57,00	19	5,70	-	1,0	2	10228028	10286910
S4521-080E2R050.0Z2	AXT	E	2	8	8	16	63,00	24	7,60	-	0,5	2	10228030	10286912
S4521-080E2R100.0Z2	AXT	E	2	8	8	16	63,00	24	7,60	-	1,0	2	10228031	10286913
S4521-100E2R050.0Z2	AXT	E	2	10	10	20	72,00	31	9,50	-	0,5	2	10228034	10286916
S4521-100E2R100.0Z2	AXT	E	2	10	10	20	72,00	31	9,50	-	1,0	2	10228035	10286917
S4521-120E2R050.0Z2	AXT	E	2	12	12	24	88,00	37	11,40	-	0,5	2	10228038	10286920
S4521-120E2R100.0Z2	AXT	E	2	12	12	24	88,00	37	11,40	-	1,0	2	10228039	10286921
S4521-120E2R200.0Z2	AXT	E	2	12	12	24	88,00	37	11,40	-	2,0	2	10228040	10286922
S4521-120E2R300.0Z2	AXT	E	2	12	12	24	88,00	37	11,4	-	3,0	2	10228041	10286923
S4521-160E2R050.0Z2	AXT	E	2	16	16	32	100,00	48	15,20	-	0,5	2	10228045	10286927
S4521-160E2R100.0Z2	AXT	E	2	16	16	32	100,00	48	15,20	-	1,0	2	10228046	10286928
S4521-160E2R200.0Z2	AXT	E	2	16	16	32	100,00	48	15,20	-	2,0	2	10228047	10286929
S4521-160E2R300.0Z2	AXT	E	2	16	16	32	100,00	48	15,2	-	3,0	2	10228048	10286930
S4521-160E2R400.0Z2	AXT	E	2	16	16	32	100,00	48	15,20	-	4,0	2	10228049	10286931
S4521-200E2R050.0Z2	AXT	E	2	20	20	40	114,00	60	19,00	-	0,5	2	10228052	10286934
S4521-200E2R100.0Z2	AXT	E	2	20	20	40	114,00	60	19,00	-	1,0	2	10228053	10286935
S4521-200E2R200.0Z2	AXT	E	2	20	20	40	114,00	60	19,0	-	2,0	2	10228054	10286936
S4521-200E2R300.0Z2	AXT	E	2	20	20	40	114,00	60	19,0	-	3,0	2	10228055	10286937
S4521-200E2R400.0Z2	AXT	E	2	20	20	40	114,00	60	19,0	-	4,0	2	10228056	10286938
S4521-080E3R020.0Z2	AXT	E	3	8	8	12	79,00	41	7,60	-	0,2	2	10228032	10286914
S4521-100E3R050.0Z2	AXT	E	3	10	10	15	99,00	57	9,50	-	0,5	2	10228036	10286918
S4521-120E3R050.0Z2	AXT	E	3	12	12	18	119,00	72	11,40	-	0,5	2	10228042	10286924
S4521-160E3R050.0Z2	AXT	E	3	16	16	24	129,00	79	15,20	-	0,5	2	10228050	10286932
S4521-200E3R050.0Z2	AXT	E	3	20	20	30	164,00	111	19,00	-	0,5	2	10228057	10286939

## Range overview - S4531



ISO Designation	Grade	Tool shape	Length index	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Cylindrical	Weldon
S4531-020G2C.OZ3	AXT	G	2		2	6	4	57,00	7	1,90	0,1	-	3	10228067	
S4531-030G2C.OZ3	AXT	G	2		3	6	6	57,00	10	2,85	0,1	-	3	10228068	
S4531-040G2C.OZ3	AXT	G	2		4	6	8	57,00	13	3,80	0,1	-	3	10228069	
S4531-050G2C.OZ3	AXT	G	2		5	6	10	57,00	15	4,75	0,1	-	3	10228070	
S4531-060D2C.OZ3	AXT	D	2		6	6	12	57,00	-	-	0,1	-	3	10228071	10286946
S4531-060E2C.OZ3	AXT	E	2		6	6	12	57,00	19	5,7	0,1	-	3	10228074	10286949
S4531-080E2C.OZ3	AXT	E	2		8	8	16	63,00	25	7,6	0,1	-	3	10228080	10286955
S4531-080D2C.OZ3	AXT	D	2		8	8	16	63,00	-	-	0,1	-	3	10228077	10286952
S4531-100E2C.OZ3	AXT	E	2		10	10	20	72,00	31	9,5	0,1	-	3	10228087	10286962
S4531-100D2C.OZ3	AXT	D	2		10	10	20	72,00	-	-	0,1	-	3	10228083	10286958
S4531-120E2C.OZ3	AXT	E	2		12	12	24	88,00	37	11,4	0,1	-	3	10228096	10286971
S4531-120D2C.OZ3	AXT	D	2		12	12	24	88,00	-	-	0,1	-	3	10228091	10286966
S4531-140D2C.OZ3	AXT	D	2		14	14	28	89,00	-	-	0,1	-	3	10228102	10286977
S4531-160D2C.OZ3	AXT	D	2		16	16	32	100,00	-	-	0,1	-	3	10228103	10286978
S4531-200E2C.OZ3	AXT	E	2		20	20	40	114,00	60	19,00	0,1	-	3	10228114	10286989
S4531-030G3C.OZ3	AXT	G	3		3	6	10	63,00	14	2,85	0,1	-	3	10228058	
S4531-040G3C.OZ3	AXT	G	3		4	6	13	63,00	18	3,80	0,1	-	3	10228059	
S4531-050G3C.OZ3	AXT	G	3		5	6	16	63,00	20	4,75	0,1	-	3	10228060	
S4531-060D3C.OZ3	AXT	D	3		6	6	19	63,00	-	-	0,1	-	3	10228061	10286940
S4531-080D3C.OZ3	AXT	D	3		8	8	26	74,00	-	-	0,1	-	3	10228062	10286941
S4531-100D3C.OZ3	AXT	D	3		10	10	32	84,00	-	-	0,1	-	3	10228063	10286942
S4531-120D3C.OZ3	AXT	D	3		12	12	38	99,00	-	-	0,1	-	3	10228064	10286943
S4531-160D3C.OZ3	AXT	D	3		16	16	50	114,00	-	-	0,1	-	3	10228065	10286944
S4531-200D3C.OZ3	AXT	D	3		20	20	62	150,00	-	-	0,1	-	3	10228066	10286945
S4531-200E3C.OZ3	AXT	E	3		20	20	40	150,00	90	19,00	0,1	-	3	10228120	10286995
S4531-060D2R050.OZ3	AXT	D	2		6	6	12	57,00	-	-	-	0,5	3	10228072	10286947
S4531-060E2R050.OZ3	AXT	E	2		6	6	12	57,00	19	5,7	-	0,5	3	10228075	10286950
S4531-060D2R100.OZ3	AXT	D	2		6	6	12	57,00	-	-	-	1,0	3	10228073	10286948
S4531-060E2R100.OZ3	AXT	E	2		6	6	12	57,00	19	5,7	-	1,0	3	10228076	10286951
S4531-080E2R050.OZ3	AXT	E	2		8	8	16	63,00	25	7,6	-	0,5	3	10228081	10286956
S4531-080D2R050.OZ3	AXT	D	2		8	8	16	63,00	-	-	-	0,5	3	10228078	10286953
S4531-080E2R100.OZ3	AXT	E	2		8	8	16	63,00	25	7,6	-	1,0	3	10228082	10286957
S4531-080D2R100.OZ3	AXT	D	2		8	8	16	63,00	-	-	-	1,0	3	10228079	10286954
S4531-100E2R050.OZ3	AXT	E	2		10	10	20	72,00	31	9,5	-	0,5	3	10228088	10286963
S4531-100D2R050.OZ3	AXT	D	2		10	10	20	72,00	-	-	-	0,5	3	10228084	10286959
S4531-100E2R100.OZ3	AXT	E	2		10	10	20	72,00	31	9,5	-	1,0	3	10228089	10286964
S4531-100D2R100.OZ3	AXT	D	2		10	10	20	72,00	-	-	-	1,0	3	10228085	10286960
S4531-100E2R200.OZ3	AXT	E	2		10	10	20	72,00	31	9,5	-	2,0	3	10228090	10286965
S4531-100D2R200.OZ3	AXT	D	2		10	10	20	72,00	-	-	-	2,0	3	10228086	10286961
S4531-120E2R050.OZ3	AXT	E	2		12	12	24	88,00	37	11,4	-	0,5	3	10228097	10286972
S4531-120D2R050.OZ3	AXT	D	2		12	12	24	88,00	-	-	-	0,5	3	10228092	10286967

## Range overview - S4531 (continued)



ISO Designation	Grade	Tool shape	Length index	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Cylindrical	Weldon
S4531-120E2R100.OZ3	AXT	E	2		12	12	24	88,00	37	11,4	-	1,0	3	10228098	10286973
S4531-120D2R100.OZ3	AXT	D	2		12	12	24	88,00	-	-	-	1,0	3	10228093	10286968
S4531-120E2R200.OZ3	AXT	E	2		12	12	24	88,00	37	11,4	-	2,0	3	10228099	10286974
S4531-120D2R200.OZ3	AXT	D	2		12	12	24	88,00	-	-	-	2,0	3	10228094	10286969
S4531-120E2R300.OZ3	AXT	E	2		12	12	24	88,00	37	11,40	-	3,0	3	10228100	10286975
S4531-120D2R300.OZ3	AXT	D	2		12	12	24	88,00	-	-	-	3,0	3	10228095	10286970
S4531-160D2R050.OZ3	AXT	D	2		16	16	32	100,00	-	-	-	0,5	3	10228104	10286979
S4531-160E2R100.OZ3	AXT	E	2		16	16	32	100,00	48	15,20	-	1,0	3	10228105	10286980
S4531-160E2R200.OZ3	AXT	E	2		16	16	32	100,00	48	15,20	-	2,0	3	10228106	10286981
S4531-160E2R250.OZ3	AXT	E	2		16	16	32	100,00	48	15,20	-	2,5	3	10228107	10286982
S4531-160E2R300.OZ3	AXT	E	2		16	16	32	100,00	48	15,20	-	3,0	3	10228108	10286983
S4531-160E2R400.OZ3	AXT	E	2		16	16	32	100,00	48	15,20	-	4,0	3	10228109	10286984
S4531-200E2R050.OZ3	AXT	E	2		20	20	40	114,00	60	19,00	-	0,5	3	10228115	10286990
S4531-200E2R100.OZ3	AXT	E	2		20	20	40	114,00	60	19,00	-	1,0	3	10228116	10286991
S4531-200E2R200.OZ3	AXT	E	2		20	20	40	114,00	60	19,00	-	2,0	3	10228117	10286992
S4531-200E2R300.OZ3	AXT	E	2		20	20	40	114,00	60	19,00	-	3,0	3	10228118	10286993
S4531-200E2R400.OZ3	AXT	E	2		20	20	40	114,00	60	19,00	-	4,0	3	10228119	10286994
S4531-120E3R300.OZ3	AXT	E	3		12	12	24	110,00	54	11,40	-	3,0	3	10228101	10286976
S4531-160E3R100.OZ3	AXT	E	3		16	16	32	129,00	77	15,20	-	1,0	3	10228110	10286985
S4531-160E3R200.OZ3	AXT	E	3		16	16	32	129,00	77	15,20	-	2,0	3	10228111	10286986
S4531-160E3R300.OZ3	AXT	E	3		16	16	32	129,00	77	15,20	-	3,0	3	10228112	10286987
S4531-160E3R400.OZ3	AXT	E	3		16	16	32	129,00	77	15,20	-	4,0	3	10228113	10286988
S4531-200E3R050.OZ3	AXT	E	3		20	20	40	150,00	90	19,00	-	0,5	3	10228121	10286996
S4531-200E3R100.OZ3	AXT	E	3		20	20	40	150,00	90	19,00	-	1,0	3	10228122	10286997
S4531-200E3R200.OZ3	AXT	E	3		20	20	40	150,00	90	19,00	-	2,0	3	10228123	10286998
S4531-200E3R300.OZ3	AXT	E	3		20	20	40	150,00	90	19,00	-	3,0	3	10228124	10286999
S4531-200E3R400.OZ3	AXT	E	3		20	20	40	150,00	90	19,00	-	4,0	3	10228125	10287000
S4531-060E3R050.OZ3C	AXT	E	3	●	6	6	19	63,00	25	5,7	-	0,5	3	10228126	10287001
S4531-060E3R100.OZ3C	AXT	E	3	●	6	6	19	63,00	25	5,7	-	1,0	3	10228127	10287002
S4531-080E3R050.OZ3C	AXT	E	3	●	8	8	26	74,00	34	7,6	-	0,5	3	10228128	10287004
S4531-080E3R100.OZ3C	AXT	E	3	●	8	8	26	74,00	34	7,6	-	1,0	3	10228129	10287005
S4531-080E3R200.OZ3C	AXT	E	3	●	8	8	26	74,00	34	7,6	-	2,0	3	10228130	10287006
S4531-100E3R050.OZ3C	AXT	E	3	●	10	10	32	84,00	42	9,5	-	0,5	3	10228131	10287007
S4531-100E3R100.OZ3C	AXT	E	3	●	10	10	32	84,00	42	9,5	-	1,0	3	10228132	10287008
S4531-100E3R200.OZ3C	AXT	E	3	●	10	10	32	84,00	42	9,5	-	2,0	3	10228133	10287009
S4531-120E3R050.OZ3C	AXT	E	3	●	12	12	39	99,00	51	11,4	-	0,5	3	10228134	10287010
S4531-120E3R100.OZ3C	AXT	E	3	●	12	12	39	99,00	51	11,4	-	1,0	3	10228135	10287011
S4531-120E3R200.OZ3C	AXT	E	3	●	12	12	39	99,00	51	11,4	-	2,0	3	10228136	10287012
S4531-120E3R300.OZ3C	AXT	E	3	●	12	12	39	99,00	51	11,4	-	3,0	3	10228137	10287013
S4531-160E3R050.OZ3C	AXT	E	3	●	16	16	52	125,00	68	15,2	-	0,5	3	10228138	10287014
S4531-160E3R100.OZ3C	AXT	E	3	●	16	16	52	125,00	68	15,2	-	1,0	3	10228139	10287015

## Range overview - S4531 (continued)



ISO Designation	Grade	Tool shape	Length index	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Cylindrical	Weldon
S4531-160E3R200.0Z3C	AXT	E	3	●	16	16	52	125,00	68	15,2	-	2,0	3	10228140	10287016
S4531-160E3R300.0Z3C	AXT	E	3	●	16	16	52	125,00	68	15,2	-	3,0	3	10228141	10287017
S4531-200E3R050.0Z3C	AXT	E	3	●	20	20	65	150,00	85	19,0	-	0,5	3	10228142	10287018
S4531-200E3R100.0Z3C	AXT	E	3	●	20	20	65	150,00	85	19,0	-	1,0	3	10228143	10287019
S4531-200E3R200.0Z3C	AXT	E	3	●	20	20	65	150,00	85	19,0	-	2,0	3	10228144	10287020
S4531-200E3R300.0Z3C	AXT	E	3	●	20	20	65	150,00	85	19,0	-	3,0	3	10228145	10287021

## Range overview - S4651



ISO Designation	Grade	Tool shape	Length index	Chip splitters	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical	Weldon
S4651-060E2R050.0Z5AC	AXT	E	2	●	●	6	6	14	57.00	20	5.7	0.5	5	10228163	10287053
S4651-060E2R100.0Z5AC	AXT	E	2	●	●	6	6	14	57.00	20	5.7	1.0	5	10228164	10287054
S4651-080E2R050.0Z5AC	AXT	E	2	●	●	8	8	18	63.00	26	7.6	0.5	5	10228167	10287057
S4651-080E2R100.0Z5AC	AXT	E	2	●	●	8	8	18	63.00	26	7.6	1.0	5	10228168	10287058
S4651-100E2R050.0Z5AC	AXT	E	2	●	●	10	10	23	75.00	33	9.5	0.5	5	10228171	10287061
S4651-100E2R100.0Z5AC	AXT	E	2	●	●	10	10	23	75.00	33	9.5	1.0	5	10228172	10287062
S4651-120E2R050.0Z5AC	AXT	E	2	●	●	12	12	27	88.00	39	11.4	0.5	5	10228175	10287065
S4651-120E2R100.0Z5AC	AXT	E	2	●	●	12	12	27	88.00	39	11.4	1.0	5	10228176	10287066
S4651-120E2R200.0Z5AC	AXT	E	2	●	●	12	12	27	88.00	39	11.4	2.0	5	10228177	10287067
S4651-120E2R300.0Z5AC	AXT	E	2	●	●	12	12	27	88.00	39	11.4	3.0	5	10228178	10287068
S4651-160E2R050.0Z5AC	AXT	E	2	●	●	16	16	36	105.00	52	15.2	0.5	5	10228183	10287073
S4651-160E2R100.0Z5AC	AXT	E	2	●	●	16	16	36	105.00	52	15.2	1.0	5	10228184	10287074
S4651-160E2R200.0Z5AC	AXT	E	2	●	●	16	16	36	105.00	52	15.2	2.0	5	10228185	10287075
S4651-160E2R300.0Z5AC	AXT	E	2	●	●	16	16	36	105.00	52	15.2	3.0	5	10228186	10287076
S4651-200E2R050.0Z5AC	AXT	E	2	●	●	20	20	45	120.00	65	19.0	0.5	5	10228191	10287081
S4651-200E2R100.0Z5AC	AXT	E	2	●	●	20	20	45	120.00	65	19.0	1.0	5	10228193	10287082
S4651-200E2R200.0Z5AC	AXT	E	2	●	●	20	20	45	120.00	65	19.0	2.0	5	10228194	10287083
S4651-200E2R300.0Z5AC	AXT	E	2	●	●	20	20	45	120.00	65	19.0	3.0	5	10228195	10287084
S4651-060E4R050.0Z5AC	AXT	E	4	●	●	6	6	26	70.00	32	5.7	0.5	5	10228165	10287055
S4651-060E4R100.0Z5AC	AXT	E	4	●	●	6	6	26	70.00	32	5.7	1.0	5	10228166	10287056
S4651-080E4R050.0Z5AC	AXT	E	4	●	●	8	8	34	80.00	42	7.6	0.5	5	10228169	10287059
S4651-080E4R100.0Z5AC	AXT	E	4	●	●	8	8	34	80.00	42	7.6	1.0	5	10228170	10287060
S4651-100E4R050.0Z5AC	AXT	E	4	●	●	10	10	43	95.00	53	9.5	0.5	5	10228173	10287063
S4651-100E4R100.0Z5AC	AXT	E	4	●	●	10	10	43	95.00	53	9.5	1.0	5	10228174	10287064
S4651-120E4R050.0Z5AC	AXT	E	4	●	●	12	12	51	110.00	63	11.4	0.5	5	10228179	10287069
S4651-120E4R100.0Z5AC	AXT	E	4	●	●	12	12	51	110.00	63	11.4	1.0	5	10228180	10287070
S4651-120E4R200.0Z5AC	AXT	E	4	●	●	12	12	51	110.00	63	11.4	2.0	5	10228181	10287071
S4651-120E4R300.0Z5AC	AXT	E	4	●	●	12	12	51	110.00	63	11.4	3.0	5	10228182	10287072
S4651-160E4R050.0Z5AC	AXT	E	4	●	●	16	16	68	135.00	84	15.2	0.5	5	10228187	10287077
S4651-160E4R100.0Z5AC	AXT	E	4	●	●	16	16	68	135.00	84	15.2	1.0	5	10228188	10287078
S4651-160E4R200.0Z5AC	AXT	E	4	●	●	16	16	68	135.00	84	15.2	2.0	5	10228189	10287079
S4651-160E4R300.0Z5AC	AXT	E	4	●	●	16	16	68	135.00	84	15.2	3.0	5	10228190	10287080
S4651-200E4R050.0Z5AC	AXT	E	4	●	●	20	20	85	160.00	105	19.0	0.5	5	10228196	10287085
S4651-200E4R100.0Z5AC	AXT	E	4	●	●	20	20	85	160.00	105	19.0	1.0	5	10228197	10287086
S4651-200E4R200.0Z5AC	AXT	E	4	●	●	20	20	85	160.00	105	19.0	2.0	5	10228198	10287087
S4651-200E4R300.0Z5AC	AXT	E	4	●	●	20	20	85	160.00	105	19.0	3.0	5	10228199	10287088