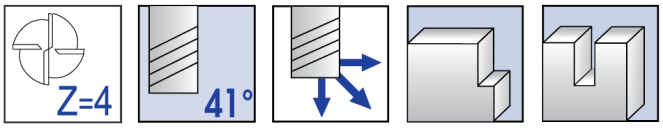
SERIES HIGHLIGHT

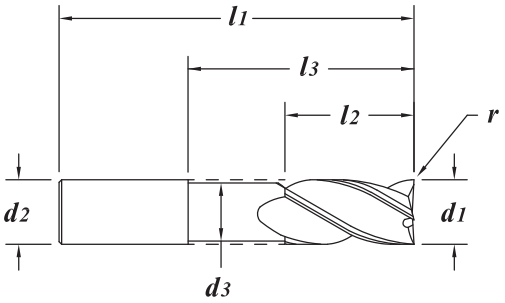
S M P K

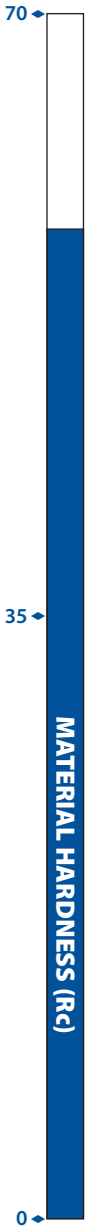
High Performance End Mills
AlTiN Coated

Target Materials:
Inconel
pH Materials
Titanium
Tool steels over 40Rc



CALCULATE IDEAL PARAMETERS FOR THE VRX IN YOUR APPLICATION WITH THE GARR TECHNICAL ADVISOR





View the VRX →

Series VRX

NEW ITEMS

.0591" - .1181"
(1.500mm - 3.000mm)

Z=4 | 41° | TECH PAGES 308-309

TOLERANCES	
d_1	+.000" –.002" (+.000mm –.050mm)
d_2	h6
r	+.001" –.001" (+.025 –.025mm)
ball radius	+.000" –.001" (+.000 –.025mm)

Recommended for inconel, pH materials, titanium and tool steels >40Rc

Square End, Corner Radius, Ball End

AlTiN Coating

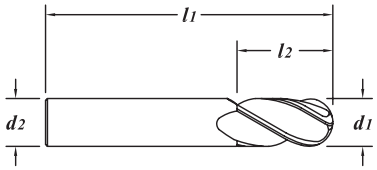
Solid submicron grain carbide end mill - center cutting

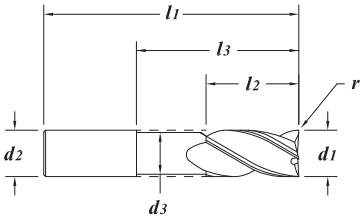
Excellent for High Efficiency Milling

Reduces vibration for more aggressive machining resulting in less cycle times and greater productivity

Staggered flute geometry

The combination of an extended flute length with a weldon flat may cause the flute washout to reach inside some end mill holders





MATERIAL HARDNESS (Rc) 70 – 35 – 0

EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
61084	-	.0591		1.500	3.0	38	3.0	-	-	-
61086	-	.0591		1.500	3.0	38	3.0	0.20	-	-
61088	-	.0591		1.500	3.0	38	3.0	BALL	-	-
61090	-	.0591		1.500	3.0	38	6.0	-	-	-
61092	-	.0591		1.500	3.0	38	6.0	0.20	-	-
61094	-	.0591		1.500	3.0	38	6.0	BALL	-	-
61096	-	.0625	1/16"	1.588	1/8"	1-1/2"	1/8"	-	-	-
61098	-	.0625	1/16"	1.588	1/8"	1-1/2"	1/8"	.010"	-	-
61100	-	.0625	1/16"	1.588	1/8"	1-1/2"	1/8"	BALL	-	-
61102	-	.0625	1/16"	1.588	1/8"	1-1/2"	1/4"	-	-	-
61104	-	.0625	1/16"	1.588	1/8"	1-1/2"	1/4"	.010"	-	-
61106	-	.0625	1/16"	1.588	1/8"	1-1/2"	1/4"	BALL	-	-
61108	-	.0787		2.000	3.0	38	4.0	-	-	-
61110	-	.0787		2.000	3.0	38	4.0	0.20	-	-
61112	-	.0787		2.000	3.0	38	4.0	BALL	-	-
61114	-	.0787		2.000	3.0	38	8.0	-	-	-
61116	-	.0787		2.000	3.0	38	8.0	0.20	-	-
61118	-	.0787		2.000	3.0	38	8.0	BALL	-	-
61120	-	.0938	3/32"	2.383	1/8"	1-1/2"	3/16"	-	-	-
61122	-	.0938	3/32"	2.383	1/8"	1-1/2"	3/16"	.010"	-	-
61124	-	.0938	3/32"	2.383	1/8"	1-1/2"	3/16"	BALL	-	-
61126	-	.0938	3/32"	2.383	1/8"	1-1/2"	3/8"	-	-	-
61128	-	.0938	3/32"	2.383	1/8"	1-1/2"	3/8"	.010"	-	-
61130	-	.0938	3/32"	2.383	1/8"	1-1/2"	3/8"	BALL	-	-
61877	-	.1181		3.000	3.0	38	8	-	-	-
27420	-	.1181		3.000	3.0	50	8	0.20	-	-
61132	-	.1181		3.000	3.0	50	8	0.30	-	-
27425	-	.1181		3.000	3.0	50	8	0.50	-	-
61134	-	.1181		3.000	3.0	50	8	BALL	-	-
61887	-	.1181		3.000	3.0	38	12	-	-	-
27430	-	.1181		3.000	3.0	50	12	0.20	-	-
61136	-	.1181		3.000	3.0	50	12	0.30	-	-
27435	-	.1181		3.000	3.0	50	12	0.50	-	-
61138	-	.1181		3.000	3.0	50	12	BALL	-	-

† *Metric equivalents are for reference only*

	EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	d_1 † Diameter	d_1 † Diameter Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
	61917	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	-	-	-
	27440	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.010"	-	-
	61140	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.015"	-	-
	61073	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.030"	-	-
	61142	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	BALL	-	-
	61144	-	.1250	1/8"	3.175	1/8"	1-1/2"	3/8"	-	-	-
	61146	-	.1250	1/8"	3.175	1/8"	1-1/2"	3/8"	.010"	-	-
	61148	-	.1250	1/8"	3.175	1/8"	1-1/2"	3/8"	.015"	-	-
	61074	-	.1250	1/8"	3.175	1/8"	1-1/2"	3/8"	.030"	-	-
	61149	-	.1250	1/8"	3.175	1/8"	1-1/2"	3/8"	BALL	-	-
	61927	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	-	-	-
	27450	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	.010"	-	-
	61150	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	.015"	-	-
	27455	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	.020"	-	-
	61075	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	.030"	-	-
	61152	-	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	BALL	-	-
NEW	61929	-	.1250	1/8"	3.175	1/8"	2-1/2"	3/4"	-	-	-
	61154	-	.1562	5/32"	3.967	3/16"	2"	5/16"	-	-	-
	27460	-	.1562	5/32"	3.967	3/16"	2"	5/16"	.010"	-	-
	61156	-	.1562	5/32"	3.967	3/16"	2"	5/16"	.015"	-	-
	61076	-	.1562	5/32"	3.967	3/16"	2"	5/16"	.030"	-	-
	61077	-	.1562	5/32"	3.967	3/16"	2"	5/16"	BALL	-	-
	61158	-	.1562	5/32"	3.967	3/16"	2"	1/2"	-	-	-
	27470	-	.1562	5/32"	3.967	3/16"	2"	1/2"	.010"	-	-
	61160	-	.1562	5/32"	3.967	3/16"	2"	1/2"	.015"	-	-
	61078	-	.1562	5/32"	3.967	3/16"	2"	1/2"	.030"	-	-
	61079	-	.1562	5/32"	3.967	3/16"	2"	1/2"	BALL	-	-
NEW	61083	-	.1562	5/32"	3.967	3/16"	2-1/2"	3/4"	-	-	-
NEW	61085	-	.1562	5/32"	3.967	3/16"	2-1/2"	3/4"	.010"	-	-
NEW	61087	-	.1562	5/32"	3.967	3/16"	2-1/2"	3/4"	.015"	-	-
	61162	-	.1575		4.000	6.0	50	8	-	-	-
	27480	-	.1575		4.000	6.0	50	8	0.30	-	-
	61164	-	.1575		4.000	6.0	50	8	0.50	-	-
	28470	-	.1575		4.000	6.0	50	8	BALL	-	-
	61977	-	.1575		4.000	6.0	50	12	-	-	-
	27490	-	.1575		4.000	6.0	50	12	0.30	-	-
	27495	-	.1575		4.000	6.0	50	12	0.50	-	-
	28480	-	.1575		4.000	6.0	50	12	BALL	-	-
	61166	-	.1575		4.000	6.0	65	19	-	-	-
	61168	-	.1575		4.000	6.0	65	19	0.30	-	-
	62007	-	.1875	3/16"	4.763	3/16"	2"	5/16"	-	-	-
	27500	-	.1875	3/16"	4.763	3/16"	2"	5/16"	.010"	-	-
	61170	-	.1875	3/16"	4.763	3/16"	2"	5/16"	.015"	-	-
	61172	-	.1875	3/16"	4.763	3/16"	2"	5/16"	.020"	-	-
	28490	-	.1875	3/16"	4.763	3/16"	2"	5/16"	BALL	-	-
	61174	-	.1875	3/16"	4.763	3/16"	2"	7/16"	-	-	-
	61176	-	.1875	3/16"	4.763	3/16"	2"	7/16"	.010"	-	-
	61178	-	.1875	3/16"	4.763	3/16"	2"	7/16"	.015"	-	-
	62017	-	.1875	3/16"	4.763	3/16"	2"	9/16"	-	-	-
	27520	-	.1875	3/16"	4.763	3/16"	2"	9/16"	.010"	-	-
	61180	-	.1875	3/16"	4.763	3/16"	2"	9/16"	.015"	-	-
	27521	-	.1875	3/16"	4.763	3/16"	2"	9/16"	.020"	-	-
	61182	-	.1875	3/16"	4.763	3/16"	2"	9/16"	.030"	-	-
	28500	-	.1875	3/16"	4.763	3/16"	2"	9/16"	BALL	-	-
	61184	-	.1875	3/16"	4.763	3/16"	3"	1"	.010"	-	-
	61186	-	.1875	3/16"	4.763	3/16"	3"	1-1/4"	.010"	-	-
	63100	-	.1875	3/16"	4.763	3/16"	4"	5/16"	.010"	-	-

continued →

Series VRX *(continued)*

.1969" - .2500"
(5.000mm - 6.350mm)

MATERIAL HARDNESS (Rc)
70
35
0

EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
61188	-	.1969		5.000	6.0	50	10	-	-	-
27522	-	.1969		5.000	6.0	50	10	0.30	-	-
61190	-	.1969		5.000	6.0	50	10	0.50	-	-
28510	-	.1969		5.000	6.0	50	10	BALL	-	-
62057	-	.1969		5.000	6.0	65	15	-	-	-
27524	-	.1969		5.000	6.0	65	15	0.30	-	-
27526	-	.1969		5.000	6.0	65	15	0.50	-	-
27528	-	.1969		5.000	6.0	65	15	1.00	-	-
28520	-	.1969		5.000	6.0	65	15	BALL	-	-
63110	-	.1969		5.000	6.0	100	10	0.30	-	-
61192	-	.1969		5.000	6.0	100	10	0.30	55	4.70
61194	-	.2188	7/32"	5.558	1/4"	2"	3/8"	-	-	-
61196	-	.2188	7/32"	5.558	1/4"	2"	3/8"	.010"	-	-
27525	-	.2188	7/32"	5.558	1/4"	2"	3/8"	.015"	-	-
61198	-	.2188	7/32"	5.558	1/4"	2"	3/8"	BALL	-	-
61200	-	.2188	7/32"	5.558	1/4"	2-1/2"	3/4"	-	-	-
61202	-	.2188	7/32"	5.558	1/4"	2-1/2"	3/4"	.010"	-	-
27530	-	.2188	7/32"	5.558	1/4"	2-1/2"	3/4"	.015"	-	-
61204	-	.2188	7/32"	5.558	1/4"	2-1/2"	3/4"	.020"	-	-
61206	-	.2188	7/32"	5.558	1/4"	2-1/2"	3/4"	BALL	-	-
61208	-	.2188	7/32"	5.558	1/4"	3"	1-1/4"	.015"	-	-
63120	-	.2188	7/32"	5.558	1/4"	4"	3/8"	.015"	-	-
61210	-	.2188	7/32"	5.558	1/4"	4"	3/8"	.015"	2-1/4"	.205"
62077	-	.2362		6.000	6.0	50	12	-	-	-
27535	-	.2362		6.000	6.0	50	12	0.30	-	-
61212	-	.2362		6.000	6.0	50	12	0.50	-	-
61214	-	.2362		6.000	6.0	50	12	0.75	-	-
28530	-	.2362		6.000	6.0	50	12	BALL	-	-
62087	-	.2362		6.000	6.0	65	19	-	-	-
61216	-	.2362		6.000	6.0	65	19	0.20	-	-
27540	-	.2362		6.000	6.0	65	19	0.30	-	-
27545	-	.2362		6.000	6.0	65	19	0.50	-	-
61218	-	.2362		6.000	6.0	65	19	0.75	-	-
27547	-	.2362		6.000	6.0	65	19	1.00	-	-
27548	-	.2362		6.000	6.0	65	19	1.50	-	-
28540	-	.2362		6.000	6.0	65	19	BALL	-	-
61220	-	.2362		6.000	6.0	75	26	0.30	-	-
61222	-	.2362		6.000	6.0	75	26	0.50	-	-
61224	-	.2362		6.000	6.0	75	38	0.30	-	-
61226	-	.2362		6.000	6.0	75	38	0.50	-	-
63130	-	.2362		6.000	6.0	100	12	0.30	32	5.70
62137	-	.2500	1/4"	6.350	1/4"	2"	3/8"	-	-	-
61228	-	.2500	1/4"	6.350	1/4"	2"	3/8"	.010"	-	-
27560	-	.2500	1/4"	6.350	1/4"	2"	3/8"	.015"	-	-
61230	-	.2500	1/4"	6.350	1/4"	2"	3/8"	.020"	-	-
28570	-	.2500	1/4"	6.350	1/4"	2"	3/8"	BALL	-	-
61232	-	.2500	1/4"	6.350	1/4"	2"	1/2"	-	-	-
61234	-	.2500	1/4"	6.350	1/4"	2"	1/2"	.015"	-	-
62147	-	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	-	-	-
27570	-	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.010"	-	-
27580	-	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.015"	-	-
61236	-	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.020"	-	-
27581	-	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.030"	-	-
61238	-	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.040"	-	-

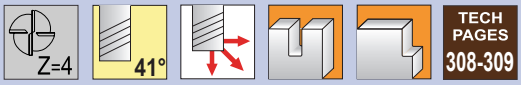
† *Metric equivalents are for reference only*

EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	d_1 † Diameter	d_1 † Diameter Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
27583	-	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.060"	-	-
28580	-	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	BALL	-	-
61240	-	.2500	1/4"	6.350	1/4"	3"	1"	.015"	-	-
61241	-	.2500	1/4"	6.350	1/4"	3"	1-1/8"	.030"	-	-
61242	-	.2500	1/4"	6.350	1/4"	3"	1-1/2"	.015"	-	-
61244	-	.2500	1/4"	6.350	1/4"	4"	3/8"	.015"	3/4"	.240"
63140	-	.2500	1/4"	6.350	1/4"	4"	3/8"	.015"	1-1/4"	.240"
61246	-	.2500	1/4"	6.350	1/4"	4"	3/8"	.015"	2-1/8"	.240"
27585	-	.2756		7.000	8.0	50	12	0.30	-	-
27590	-	.2756		7.000	8.0	65	22	0.30	-	-
61248	-	.2812	9/32"	7.142	5/16"	2"	7/16"	-	-	-
27595	-	.2812	9/32"	7.142	5/16"	2"	7/16"	.015"	-	-
61250	-	.2812	9/32"	7.142	5/16"	2-1/2"	13/16"	-	-	-
61252	-	.2812	9/32"	7.142	5/16"	2-1/2"	13/16"	.010"	-	-
27597	-	.2812	9/32"	7.142	5/16"	2-1/2"	13/16"	.015"	-	-
61254	-	.2812	9/32"	7.142	5/16"	2-1/2"	13/16"	.020"	-	-
63150	-	.2812	9/32"	7.142	5/16"	4"	7/16"	.015"	-	-
62207	-	.3125	5/16"	7.938	5/16"	2"	7/16"	-	-	-
61256	-	.3125	5/16"	7.938	5/16"	2"	7/16"	.010"	-	-
61258	-	.3125	5/16"	7.938	5/16"	2"	7/16"	.015"	-	-
27600	-	.3125	5/16"	7.938	5/16"	2"	7/16"	.020"	-	-
61260	-	.3125	5/16"	7.938	5/16"	2"	7/16"	.030"	-	-
28610	-	.3125	5/16"	7.938	5/16"	2"	7/16"	BALL	-	-
62217	-	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	-	-	-
27610	-	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.010"	-	-
61262	-	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.015"	-	-
27620	-	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.020"	-	-
27622	-	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.030"	-	-
61264	-	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.040"	-	-
27624	-	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.060"	-	-
28620	-	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	BALL	-	-
61266	-	.3125	5/16"	7.938	5/16"	3"	1-1/4"	.015"	-	-
63160	-	.3125	5/16"	7.938	5/16"	4"	7/16"	.020"	1-7/8"	.300"
62257	-	.3150		8.000	8.0	50	12	-	-	-
61268	-	.3150		8.000	8.0	50	12	0.30	-	-
27630	-	.3150		8.000	8.0	50	12	0.50	-	-
61270	-	.3150		8.000	8.0	50	12	0.75	-	-
28630	-	.3150		8.000	8.0	50	12	BALL	-	-
62267	-	.3150		8.000	8.0	65	22	-	-	-
27635	-	.3150		8.000	8.0	65	22	0.30	-	-
27640	-	.3150		8.000	8.0	65	22	0.50	-	-
61272	-	.3150		8.000	8.0	65	22	0.75	-	-
27642	-	.3150		8.000	8.0	65	22	1.00	-	-
27643	-	.3150		8.000	8.0	65	22	1.50	-	-
61274	-	.3150		8.000	8.0	65	22	2.00	-	-
28640	-	.3150		8.000	8.0	65	22	BALL	-	-
61276	-	.3150		8.000	8.0	75	38	0.50	-	-
61278	-	.3150		8.000	8.0	100	50	0.50	-	-
63170	-	.3150		8.000	8.0	100	12	0.50	47	7.60
61280	-	.3438	11/32"	8.733	3/8"	2"	1/2"	-	-	-
27645	-	.3438	11/32"	8.733	3/8"	2"	1/2"	.020"	-	-
61282	-	.3438	11/32"	8.733	3/8"	2-1/2"	7/8"	-	-	-
27650	-	.3438	11/32"	8.733	3/8"	2-1/2"	7/8"	.020"	-	-
61284	-	.3438	11/32"	8.733	3/8"	3"	1-1/4"	.015"	-	-

continued →

Series VRX *(continued)*

.3438" - .3937"
(8.733mm - 10.000mm)



TOLERANCES	
d_1	+.000" –.002" (+.000mm –.050mm)
d_2	h6
r	+.001" –.001" (+.025 –.025mm)
ball radius	+.000" –.001" (+.000 –.025mm)

Recommended for inconel, pH materials, titanium and tool steels >40Rc

AlTiN Coating

Solid submicron grain carbide end mill - center cutting

Excellent for High Efficiency Milling

Reduces vibration for more aggressive machining resulting in less cycle times and greater productivity

Staggered flute geometry

	EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
	63180	-	.3438	11/32"	8.733	3/8"	4"	1/2"	.020"	-	-
	27655	-	.3543		9.000	10.0	50	14	0.50	-	-
	62287	-	.3543		9.000	10.0	65	22	-	-	-
	27657	-	.3543		9.000	10.0	65	22	0.50	-	-
	62317	-	.3750	3/8"	9.525	3/8"	2"	1/2"	-	-	-
	27658	-	.3750	3/8"	9.525	3/8"	2"	1/2"	.010"	-	-
	61286	-	.3750	3/8"	9.525	3/8"	2"	1/2"	.015"	-	-
	27660	-	.3750	3/8"	9.525	3/8"	2"	1/2"	.020"	-	-
	27662	-	.3750	3/8"	9.525	3/8"	2"	1/2"	.030"	-	-
	61288	-	.3750	3/8"	9.525	3/8"	2"	1/2"	.060"	-	-
	28670	-	.3750	3/8"	9.525	3/8"	2"	1/2"	BALL	-	-
NEW	28676	-	.3750	3/8"	9.525	3/8"	2"	5/8"	.045"	-	-
	62327	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	-	-	-
	27670	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.010"	-	-
	61290	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.015"	-	-
	27680	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.020"	-	-
	27682	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.030"	-	-
	61292	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.040"	-	-
	61294	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.050"	-	-
	27684	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.060"	-	-
	61296	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.094"	-	-
	28680	-	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	BALL	-	-
	61298	-	.3750	3/8"	9.525	3/8"	3"	1-1/4"	.015"	-	-
	61299	-	.3750	3/8"	9.525	3/8"	3"	1-1/4"	.030"	-	-
	61300	-	.3750	3/8"	9.525	3/8"	4"	1-1/2"	.015"	-	-
	61302	-	.3750	3/8"	9.525	3/8"	4"	1-1/2"	BALL	-	-
	61304	-	.3750	3/8"	9.525	3/8"	4"	2"	.015"	-	-
	61306	-	.3750	3/8"	9.525	3/8"	4"	1/2"	.015"	1-1/8"	.360"
	63190	-	.3750	3/8"	9.525	3/8"	4"	1/2"	.020"	1-7/8"	.360"
	61308	-	.3750	3/8"	9.525	3/8"	4"	1/2"	.015"	2-1/8"	.360"
	61310	-	.3750	3/8"	9.525	3/8"	6"	1/2"	.015"	3-1/8"	.360"
	61312	-	.3937		10.000	10.0	50	16	-	-	-
	27690	-	.3937		10.000	10.0	50	16	0.50	-	-
	61314	-	.3937		10.000	10.0	50	16	1.00	-	-
	28690	-	.3937		10.000	10.0	50	16	BALL	-	-
	62397	-	.3937		10.000	10.0	70	22	-	-	-
	27698	-	.3937		10.000	10.0	70	22	0.30	-	-
	27700	-	.3937		10.000	10.0	70	22	0.50	-	-
	61316	-	.3937		10.000	10.0	70	22	0.75	-	-
	27702	-	.3937		10.000	10.0	70	22	1.00	-	-
	28700	-	.3937		10.000	10.0	70	22	BALL	-	-
	61318	-	.3937		10.000	10.0	70	32	0.50	-	-
	61320	-	.3937		10.000	10.0	100	38	0.50	-	-
	61322	-	.3937		10.000	10.0	100	50	0.50	-	-
	63200	-	.3937		10.000	10.0	100	14	0.50	47	9.50

MATERIAL HARDNESS (Rc)
70
35
0

† *Metric equivalents are for reference only*

EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	d_1 † Diameter	d_1 † Diameter Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
27705	-	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.020"	-	-
28705	-	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	BALL	-	-
62437	-	.4375	7/16"	11.113	7/16"	2-3/4"	7/8"	-	-	-
27708	-	.4375	7/16"	11.113	7/16"	2-3/4"	7/8"	.010"	-	-
27710	-	.4375	7/16"	11.113	7/16"	2-3/4"	7/8"	.020"	-	-
28710	-	.4375	7/16"	11.113	7/16"	2-3/4"	7/8"	BALL	-	-
63210	-	.4375	7/16"	11.113	7/16"	6"	1"	.020"	-	-
62475	-	.4724		12.000	12.0	65	19	-	-	-
27712	-	.4724		12.000	12.0	65	19	0.30	-	-
27715	-	.4724		12.000	12.0	65	19	0.50	-	-
28715	-	.4724		12.000	12.0	65	19	BALL	-	-
61324	-	.4724		12.000	12.0	75	26	-	-	-
61326	-	.4724		12.000	12.0	75	26	0.50	-	-
62485	-	.4724		12.000	12.0	75	32	-	-	-
27718	-	.4724		12.000	12.0	75	32	0.30	-	-
27720	-	.4724		12.000	12.0	75	32	0.50	-	-
61328	-	.4724		12.000	12.0	75	32	0.75	-	-
27722	-	.4724		12.000	12.0	75	32	1.00	-	-
27730	-	.4724		12.000	12.0	75	32	1.50	-	-
27735	-	.4724		12.000	12.0	75	32	2.00	-	-
61330	-	.4724		12.000	12.0	75	32	3.00	-	-
28720	-	.4724		12.000	12.0	75	32	BALL	-	-
61332	-	.4724		12.000	12.0	100	38	-	-	-
61334	-	.4724		12.000	12.0	100	38	0.50	-	-
61336	-	.4724		12.000	12.0	100	42	-	-	-
61338	-	.4724		12.000	12.0	100	42	0.50	-	-
61340	-	.4724		12.000	12.0	100	52	-	-	-
61342	-	.4724		12.000	12.0	100	52	0.50	-	-
63220	-	.4724		12.000	12.0	150	19	0.50	57	11.50
62525	62527	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	-	-	-
27739	27738	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.010"	-	-
61344	-	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.015"	-	-
27741	27740	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.020"	-	-
27743	27742	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.030"	-	-
61346	-	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.060"	-	-
28751	28750	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	BALL	-	-
61348	-	.5000	1/2"	12.700	1/2"	3"	1"	-	-	-
61350	-	.5000	1/2"	12.700	1/2"	3"	1"	.015"	-	-
61352	-	.5000	1/2"	12.700	1/2"	3"	1"	.030"	-	-
61354	-	.5000	1/2"	12.700	1/2"	3"	1"	.060"	-	-
61356	-	.5000	1/2"	12.700	1/2"	3"	1"	.125"	-	-
61358	-	.5000	1/2"	12.700	1/2"	3"	1"	BALL	-	-
62535	62537	.5000	1/2"	12.700	1/2"	3"	1-1/4"	-	-	-
27751	27750	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.010"	-	-
61360	-	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.015"	-	-
27761	27760	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.020"	-	-
27763	27762	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.030"	-	-
61362	-	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.040"	-	-
61364	-	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.050"	-	-
27767	27764	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.060"	-	-
61366	-	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.078"	-	-
63398	63399	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.090"	-	-

continued →

Series VRX *(continued)*

.5000" - .6250"
(12.700mm - 15.875mm)

EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
61368	-	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.094"	-	-
61370	-	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.100"	-	-
27769	27768	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.120"	-	-
61372	-	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.125"	-	-
28761	28760	.5000	1/2"	12.700	1/2"	3"	1-1/4"	BALL	-	-
28771	28770	.5000	1/2"	12.700	1/2"	4"	5/8"	BALL	-	-
61374	-	.5000	1/2"	12.700	1/2"	4"	1-1/2"	-	-	-
63401	63400	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.010"	-	-
61376	-	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.015"	-	-
63411	63410	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.030"	-	-
63421	63420	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.060"	-	-
63424	-	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.125"	-	-
61378	-	.5000	1/2"	12.700	1/2"	4"	1-1/2"	BALL	-	-
61380	-	.5000	1/2"	12.700	1/2"	4"	1-5/8"	.015"	-	-
61382	-	.5000	1/2"	12.700	1/2"	4"	1-3/4"	.015"	-	-
62565	62567	.5000	1/2"	12.700	1/2"	4"	2"	-	-	-
63431	63430	.5000	1/2"	12.700	1/2"	4"	2"	.010"	-	-
61384	-	.5000	1/2"	12.700	1/2"	4"	2"	.015"	-	-
63441	63440	.5000	1/2"	12.700	1/2"	4"	2"	.030"	-	-
63451	63450	.5000	1/2"	12.700	1/2"	4"	2"	.060"	-	-
61386	-	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.015"	-	-
63241	63240	.5000	1/2"	12.700	1/2"	6"	2"	.020"	-	-
61388	-	.5000	1/2"	12.700	1/2"	6"	2-1/2"	.015"	-	-
61390	-	.5000	1/2"	12.700	1/2"	6"	2-1/2"	.030"	-	-
61392	-	.5000	1/2"	12.700	1/2"	6"	3-1/4"	.030"	-	-
61394	-	.5000	1/2"	12.700	1/2"	4"	5/8"	.015"	1-1/2"	.480"
61396	-	.5000	1/2"	12.700	1/2"	4"	5/8"	.015"	2-1/4"	.480"
63231	63230	.5000	1/2"	12.700	1/2"	4"	5/8"	.020"	2-1/4"	.480"
61398	-	.5000	1/2"	12.700	1/2"	6"	5/8"	.015"	3-3/8"	.480"
61400	-	.5000	1/2"	12.700	1/2"	6"	5/8"	.015"	4-1/8"	.480"
27766	27765	.5512		14.000	14.0	75	19	0.50	-	-
28781	28780	.5512		14.000	14.0	75	19	BALL	-	-
27771	27770	.5512		14.000	14.0	88	32	0.50	-	-
28786	28785	.5512		14.000	14.0	88	32	BALL	-	-
63261	63260	.5512		14.000	14.0	150	50	0.50	-	-
63251	-	.5512		14.000	14.0	150	19	0.50	57	13.50
62625	62627	.5625	9/16"	14.288	9/16"	3-1/2"	1-1/4"	-	-	-
61402	-	.6250	5/8"	15.875	5/8"	3"	3/4"	-	-	-
63461	63460	.6250	5/8"	15.875	5/8"	3"	3/4"	.010"	-	-
61404	-	.6250	5/8"	15.875	5/8"	3"	3/4"	.015"	-	-
27781	27780	.6250	5/8"	15.875	5/8"	3"	3/4"	.025"	-	-
61406	-	.6250	5/8"	15.875	5/8"	3"	3/4"	.060"	-	-
28796	28795	.6250	5/8"	15.875	5/8"	3"	3/4"	BALL	-	-
62655	62657	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	-	-	-
27791	27790	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.010"	-	-
61408	-	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.015"	-	-
61410	-	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.020"	-	-
27801	27800	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.025"	-	-
61412	-	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.030"	-	-
61414	-	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.040"	-	-
27803	27802	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.060"	-	-
61416	-	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.078"	-	-
61418	-	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.094"	-	-
27805	27804	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.120"	-	-
61420	-	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.125"	-	-
28801	28800	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	BALL	-	-

MATERIAL HARDNESS (Rc)
70
35
0

† *Metric equivalents are for reference only*

EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	d_1 † Diameter	d_1 † Diameter Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
61422	-	.6250	5/8"	15.875	5/8"	4"	1-1/2"	-	-	-
63501	63500	.6250	5/8"	15.875	5/8"	4"	1-1/2"	.010"	-	-
61424	-	.6250	5/8"	15.875	5/8"	4"	1-1/2"	.015"	-	-
63511	63510	.6250	5/8"	15.875	5/8"	4"	1-1/2"	.030"	-	-
63521	63520	.6250	5/8"	15.875	5/8"	4"	1-1/2"	.060"	-	-
61426	-	.6250	5/8"	15.875	5/8"	4"	1-5/8"	-	-	-
61428	-	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.015"	-	-
61430	-	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.030"	-	-
61432	-	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.060"	-	-
62675	62677	.6250	5/8"	15.875	5/8"	4"	1-3/4"	-	-	-
63531	63530	.6250	5/8"	15.875	5/8"	4"	1-3/4"	.010"	-	-
63541	63540	.6250	5/8"	15.875	5/8"	4"	1-3/4"	.030"	-	-
63551	63550	.6250	5/8"	15.875	5/8"	4"	1-3/4"	.060"	-	-
63281	63280	.6250	5/8"	15.875	5/8"	6"	2"	.025"	-	-
63283	-	.6250	5/8"	15.875	5/8"	6"	2"	.090"	-	-
63285	-	.6250	5/8"	15.875	5/8"	6"	2"	.125"	-	-
28806	28805	.6250	5/8"	15.875	5/8"	6"	2"	BALL	-	-
61434	-	.6250	5/8"	15.875	5/8"	6"	2-1/2"	.030"	-	-
61436	-	.6250	5/8"	15.875	5/8"	6"	3-1/4"	.030"	-	-
61438	-	.6250	5/8"	15.875	5/8"	4"	3/4"	.030"	1-5/8"	.600"
61440	-	.6250	5/8"	15.875	5/8"	6"	3/4"	.030"	2-3/8"	.600"
63271	63270	.6250	5/8"	15.875	5/8"	6"	3/4"	.025"	3-1/4"	.600"
61442	-	.6250	5/8"	15.875	5/8"	6"	3/4"	.030"	4-1/8"	.600"
61444	-	.6299		16.000	16.0	75	19	-	-	-
27809	-	.6299		16.000	16.0	75	19	0.30	-	-
27811	27810	.6299		16.000	16.0	75	19	0.50	-	-
61446	-	.6299		16.000	16.0	75	19	1.00	-	-
28811	28810	.6299		16.000	16.0	75	19	BALL	-	-
62715	62717	.6299		16.000	16.0	88	32	-	-	-
27819	27818	.6299		16.000	16.0	88	32	0.30	-	-
27821	27820	.6299		16.000	16.0	88	32	0.50	-	-
61448	-	.6299		16.000	16.0	88	32	0.75	-	-
27823	27822	.6299		16.000	16.0	88	32	1.00	-	-
61450	-	.6299		16.000	16.0	88	32	1.50	-	-
27825	27824	.6299		16.000	16.0	88	32	2.00	-	-
61452	-	.6299		16.000	16.0	88	32	3.00	-	-
28821	28820	.6299		16.000	16.0	88	32	BALL	-	-
63581	63580	.6299		16.000	16.0	100	38	0.30	-	-
61454	-	.6299		16.000	16.0	100	38	0.50	-	-
61456	-	.6299		16.000	16.0	100	42	0.50	-	-
63291	63290	.6299		16.000	16.0	150	19	0.50	82	15.25
27831	-	.7087		18.000	18.0	75	22	0.80	-	-
28831	-	.7087		18.000	18.0	75	22	BALL	-	-
27836	27835	.7087		18.000	18.0	100	38	0.80	-	-
28836	28835	.7087		18.000	18.0	100	38	BALL	-	-
63301	-	.7087		18.000	18.0	150	25	0.80	82	17.25
61458	-	.7500	3/4"	19.050	3/4"	3"	7/8"	-	-	-
27841	27840	.7500	3/4"	19.050	3/4"	3"	7/8"	.030"	-	-
61460	-	.7500	3/4"	19.050	3/4"	3"	7/8"	.060"	-	-
28841	28840	.7500	3/4"	19.050	3/4"	3"	7/8"	BALL	-	-
61462	-	.7500	3/4"	19.050	3/4"	4"	1-1/4"	-	-	-
61464	-	.7500	3/4"	19.050	3/4"	4"	1-1/4"	.030"	-	-
62775	62777	.7500	3/4"	19.050	3/4"	4"	1-1/2"	-	-	-
27851	27850	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.015"	-	-
27861	27860	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.030"	-	-
27865	27864	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.060"	-	-
27867	27866	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.120"	-	-
28861	28860	.7500	3/4"	19.050	3/4"	4"	1-1/2"	BALL	-	-

continued →

Series VRX *(continued)*

.7500" - .8661"
(19.050mm - 22.000mm)

EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
61466	-	.7500	3/4"	19.050	3/4"	4"	1-5/8"	-	-	-
61468	-	.7500	3/4"	19.050	3/4"	4"	1-5/8"	.015"	-	-
61470	-	.7500	3/4"	19.050	3/4"	4"	1-5/8"	.030"	-	-
61472	-	.7500	3/4"	19.050	3/4"	4"	1-5/8"	.060"	-	-
61474	-	.7500	3/4"	19.050	3/4"	4"	1-5/8"	BALL	-	-
62785	62787	.7500	3/4"	19.050	3/4"	4"	1-3/4"	-	-	-
63601	63600	.7500	3/4"	19.050	3/4"	4"	1-3/4"	.015"	-	-
27869	27868	.7500	3/4"	19.050	3/4"	4"	1-3/4"	.030"	-	-
63611	63610	.7500	3/4"	19.050	3/4"	4"	1-3/4"	.060"	-	-
61476	-	.7500	3/4"	19.050	3/4"	4"	1-3/4"	.094"	-	-
63621	63620	.7500	3/4"	19.050	3/4"	4"	1-3/4"	.120"	-	-
61478	-	.7500	3/4"	19.050	3/4"	4"	1-3/4"	.190"	-	-
61480	-	.7500	3/4"	19.050	3/4"	4"	1-3/4"	BALL	-	-
62795	62797	.7500	3/4"	19.050	3/4"	5"	2"	-	-	-
63631	63630	.7500	3/4"	19.050	3/4"	5"	2"	.015"	-	-
63311	63310	.7500	3/4"	19.050	3/4"	5"	2"	.030"	-	-
63641	63640	.7500	3/4"	19.050	3/4"	5"	2"	.060"	-	-
61482	-	.7500	3/4"	19.050	3/4"	5"	2"	.094"	-	-
61484	-	.7500	3/4"	19.050	3/4"	5"	2"	.125"	-	-
28866	28865	.7500	3/4"	19.050	3/4"	5"	2"	BALL	-	-
61486	-	.7500	3/4"	19.050	3/4"	5"	2-1/2"	-	-	-
61488	-	.7500	3/4"	19.050	3/4"	5"	2-1/2"	.030"	-	-
62805	62807	.7500	3/4"	19.050	3/4"	6"	3"	-	-	-
63651	63650	.7500	3/4"	19.050	3/4"	6"	3"	.015"	-	-
63661	63660	.7500	3/4"	19.050	3/4"	6"	3"	.030"	-	-
63671	63670	.7500	3/4"	19.050	3/4"	6"	3"	.060"	-	-
61490	-	.7500	3/4"	19.050	3/4"	6"	3-1/4"	-	-	-
61492	-	.7500	3/4"	19.050	3/4"	6"	3-1/4"	.030"	-	-
61494	-	.7500	3/4"	19.050	3/4"	7"	4-1/4"	-	-	-
61496	-	.7500	3/4"	19.050	3/4"	7"	4-1/4"	.030"	-	-
63321	63320	.7500	3/4"	19.050	3/4"	6"	1"	.030"	3-1/4"	.730"
63323	-	.7500	3/4"	19.050	3/4"	6"	1"	.060"	3-1/4"	.730"
63325	-	.7500	3/4"	19.050	3/4"	6"	1"	.090"	3-1/4"	.730"
63327	-	.7500	3/4"	19.050	3/4"	6"	1"	.125"	3-1/4"	.730"
63329	-	.7500	3/4"	19.050	3/4"	6"	1"	.190"	3-1/4"	.730"
61498	-	.7874		20.000	20.0	75	22	-	-	-
61500	-	.7874		20.000	20.0	75	22	0.50	-	-
27871	27870	.7874		20.000	20.0	75	22	1.00	-	-
28871	28870	.7874		20.000	20.0	75	22	BALL	-	-
62825	62827	.7874		20.000	20.0	100	38	-	-	-
27879	27878	.7874		20.000	20.0	100	38	0.50	-	-
61502	-	.7874		20.000	20.0	100	38	0.75	-	-
27881	27880	.7874		20.000	20.0	100	38	1.00	-	-
27891	27890	.7874		20.000	20.0	100	38	1.50	-	-
61504	-	.7874		20.000	20.0	100	38	3.00	-	-
28881	28880	.7874		20.000	20.0	100	38	BALL	-	-
61506	-	.7874		20.000	20.0	100	42	0.50	-	-
61508	-	.7874		20.000	20.0	125	52	0.50	-	-
63331	63330	.7874		20.000	20.0	150	25	1.00	82	19.30
27911	-	.8661		22.000	22.0	100	38	1.00	-	-

MATERIAL HARDNESS (Rc)
70
35
0

† *Metric equivalents are for reference only*

EDP# (plain)	EDP# (weldon)	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
61510	-	.9843		25.000	25.0	100	26	-	-	-
62855	62857	.9843		25.000	25.0	100	38	-	-	-
61514	-	.9843		25.000	25.0	100	38	0.50	-	-
27941	27940	.9843		25.000	25.0	100	38	1.00	-	-
27951	-	.9843		25.000	25.0	100	38	1.50	-	-
61516	-	.9843		25.000	25.0	100	38	3.00	-	-
28901	28900	.9843		25.000	25.0	100	38	BALL	-	-
61518	-	.9843		25.000	25.0	100	42	-	-	-
61520	-	.9843		25.000	25.0	100	42	0.50	-	-
61522	-	.9843		25.000	25.0	125	50	0.50	-	-
63351	63350	.9843		25.000	25.0	125	50	1.00	-	-
63361	63360	.9843		25.000	25.0	150	32	1.00	82	24.40
61524	-	1.000	1"	25.400	1"	4"	1"	-	-	-
27959	27958	1.000	1"	25.400	1"	4"	1"	.015"	-	-
27961	27960	1.000	1"	25.400	1"	4"	1"	.035"	-	-
-	27962	1.000	1"	25.400	1"	4"	1"	.060"	-	-
28911	28910	1.000	1"	25.400	1"	4"	1"	BALL	-	-
62885	62887	1.000	1"	25.400	1"	4"	1-1/2"	-	-	-
27967	27966	1.000	1"	25.400	1"	4"	1-1/2"	.015"	-	-
61526	-	1.000	1"	25.400	1"	4"	1-1/2"	.025"	-	-
27971	27970	1.000	1"	25.400	1"	4"	1-1/2"	.035"	-	-
27981	27980	1.000	1"	25.400	1"	4"	1-1/2"	.060"	-	-
27991	-	1.000	1"	25.400	1"	4"	1-1/2"	.090"	-	-
61528	-	1.000	1"	25.400	1"	4"	1-1/2"	.125"	-	-
61532	-	1.000	1"	25.400	1"	4"	1-1/2"	.250"	-	-
28916	28915	1.000	1"	25.400	1"	4"	1-1/2"	BALL	-	-
61534	-	1.000	1"	25.400	1"	4"	1-5/8"	.030"	-	-
62895	62897	1.000	1"	25.400	1"	4"	1-3/4"	-	-	-
28001	28000	1.000	1"	25.400	1"	4"	1-3/4"	.015"	-	-
61536	-	1.000	1"	25.400	1"	4"	1-3/4"	.030"	-	-
28011	28012	1.000	1"	25.400	1"	4"	1-3/4"	.060"	-	-
28021	-	1.000	1"	25.400	1"	4"	1-3/4"	.090"	-	-
61538	-	1.000	1"	25.400	1"	4"	1-3/4"	.125"	-	-
61540	-	1.000	1"	25.400	1"	4"	1-3/4"	.190"	-	-
61542	-	1.000	1"	25.400	1"	4"	1-3/4"	.250"	-	-
62905	62907	1.000	1"	25.400	1"	5"	2"	-	-	-
63369	63368	1.000	1"	25.400	1"	5"	2"	.015"	-	-
63371	63370	1.000	1"	25.400	1"	5"	2"	.035"	-	-
63373	63372	1.000	1"	25.400	1"	5"	2"	.060"	-	-
63375	63374	1.000	1"	25.400	1"	5"	2"	.090"	-	-
61544	-	1.000	1"	25.400	1"	5"	2"	.125"	-	-
61546	-	1.000	1"	25.400	1"	5"	2"	.250"	-	-
28931	28930	1.000	1"	25.400	1"	5"	2"	BALL	-	-
61548	-	1.000	1"	25.400	1"	5"	2-1/2"	-	-	-
61550	-	1.000	1"	25.400	1"	5"	2-1/2"	.030"	-	-
62915	62917	1.000	1"	25.400	1"	6"	3"	-	-	-
61552	-	1.000	1"	25.400	1"	6"	3-1/4"	.030"	-	-
61554	-	1.000	1"	25.400	1"	7"	4-1/4"	.030"	-	-
61556	-	1.000	1"	25.400	1"	7"	4-1/4"	.060"	-	-
61558	-	1.000	1"	25.400	1"	6"	1-1/4"	.030"	2-5/8"	.980"
63381	63380	1.000	1"	25.400	1"	6"	1-1/4"	.035"	3-1/4"	.980"
61562	-	1.000	1"	25.400	1"	7"	1-1/4"	.030"	4-1/4"	.980"