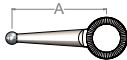




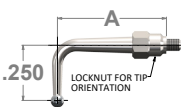
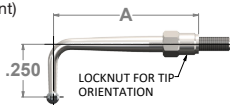
ALINA	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.472"	Ratchet	88	.015" .031" .062" .100"	101-015 101-031 101-062 101-100	101-015R 101-031R 101-062R 101-100R
	.547"	M1.7 x 0.35	M31, M31SM, M32, M33, M34, M34SM	.006" .008" .015" .031" 1mm 1.5mm .062" 2mm .100"	102-006 102-008 102-015 102-031 102-040 102-060 102-062 102-080 102-100	- - 102-015R 102-031R 102-040R - 102-062R 102-080R 102-100R
	.512"	M1.7 x 0.35	K22, K24, K26, K28	.008" .010" .015" .031" 1mm .062" 2mm .100"	103-008 103-010 103-015 103-031 103-040 103-062 103-080 103-100	- - 103-015R 103-031R 103-040R 103-062R 103-080R 103-100R
	1.500"	M1.7 x 0.35	K21, K23, K25, K27	.015" .031" 1mm .062" 2mm .100"	104-015 104-031 104-040 104-062 104-080 104-100	104-015R 104-031R 104-040R 104-062R 104-080R 104-100R

ALINA continued on page 3

ALINA continued from page 2	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	1.170"	M1.7 x 0.35	M35 SHORT RANGE	.015" .031" 1mm .062" 2mm .100"	105-015 105-031 105-040 105-062 105-080 105-100	105-015R 105-031R 105-040R 105-062R 105-080R 105-100R
	.321"	M1.6 x 0.35	524, 526, 531, 532, 622, 628, 633, 634, 724, 726	.015" .031" 1mm .062" 2mm .100"	130-015 130-031 130-040 130-062 130-080 130-100	130-015R 130-031R 130-040R 130-062R 130-080R 130-100R
	1.276"	M1.6 x 0.35	525, 527, 621, 623, 725, 727, 731, 732	.015" .031" 1mm .062" 2mm .100"	131-015 131-031 131-040 131-062 131-080 131-100	131-015R 131-031R 131-040R 131-062R 131-080R 131-100R

AMES	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.190"	1-72	Trutest #1 – 2	.015" .031" 1mm .062" 2mm .100"	106-015 106-031 106-040 106-062 106-080 106-100	106-015R 106-031R 106-040R 106-062R 106-080R 106-100R

ASH	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.365"	M1.7 x 0.35	N/A	.015" .031" 1mm .062" 2mm .100" 3mm	155-015 155-031 155-040 155-062 155-080 155-100 -	155-015R 155-031R 155-040R 155-062R 155-080R 155-100R 155-120R

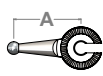
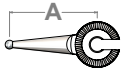
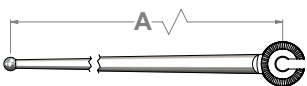
BROWN & SHARPE	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number	Delrin Ball Part Number
	.245"	M1.4 x 0.30	7025, 7027, 7028	.006" .008" .015" .031" 1mm .062" 2mm .100" 3mm	107-006 107-008 107-015 107-031 107-040 107-062 107-080 107-100 107-120	- - 107-015R 107-031R 107-040R 107-062R 107-080R 107-100R -	- - - - - - - - -
	.494"	M1.4 x 0.30	7021, 7022, 7023, 7024, 7029, 7030, 7031, 7032, 7033, 7036, 7037, 7038, 7049, 7050	.005" .006" .007" .008" .010" .012" .015" .016" .020" .025" .031" 1mm 1.5mm .062" 2mm .100" 3mm	108-005 108-006 108-007 108-008 108-010 108-012 108-015 108-016 108-020 108-025 108-031 108-040 108-060 108-062 108-080 108-100 108-120	- - - - - - 108-015R - - 108-025R 108-031R 108-040R 108-060R 108-062R 108-080R 108-100R -	- - - - - - - - - - - - - 108-062D - - -
(Hook Point) 	.494"	M1.4 x 0.30	7021, 7022, 7023, 7024, 7029, 7030, 7031, 7032, 7033, 7036, 7037, 7038, 7049, 7050	.015" .031" .062"	108-015HP 108-031HP 108-062HP	108-015RHP 108-031RHP 108-062RHP	- - -
	1.437"	M1.4 x 0.30	7034, 7035	.006" .008" .010" .012" .015" .020" .031" 1mm 1.5mm .062" 2mm .100" 3mm	109-006 109-008 109-010 109-012 109-015 109-020 109-031 109-040 109-060 109-062 109-080 109-100 109-120	- - - - 109-015R - 109-031R 109-040R 109-060R 109-062R 109-080R 109-100R -	- - - - - - - - - 109-062D - - -
	.688"	M1.7 x 0.35	7025-4, 7026-4, 7027-4, 7028-4	.005" .006" .007" .008" .010" .012" .015" .020" .025" .031" 1mm 1.5mm .062" 2mm .100" 3mm	120-005 120-006 120-007 120-008 120-010 120-012 120-015 120-020 120-025 120-031 120-040 120-060 120-062 120-080 120-100 120-120	- - - - - - 120-015R - 120-025R 120-031R 120-040R 120-060R 120-062R 120-080R 120-100R -	- - - - - - - - - - - - 120-062D - - -
(Hook Point) 	.688"	M1.7 x 0.35	7025-4, 7026-4, 7027-4, 7028-4	.015" .031" .062"	120-015HP 120-031HP 120-062HP	120-015RHP 120-031RHP 120-062RHP	- - -

COMPAC	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.573"	M1.6 x 0.35	212A, 214A, 214GA, 215A, 215GA, 224A, 224GA, 225A, 225GA, 234A, 234GA, 235A, 235GA, 245A, 245GA	.006" .008" .010" .015" .031" 1mm 1.5mm .062" 2mm .100" 3mm	135-006 135-008 135-010 135-015 135-031 135-040 135-060 135-062 135-080 135-100 135-120	- - - 135-015R 135-031R 135-040R 135-060R 135-062R 135-080R 135-100R -
	1.293"	M1.6 x 0.35	213LA, 213GLA, 223LA, 223GLA, 233LA, 233GLA	.015" .031" 1mm 1.5mm .062" 2mm .100" 3mm	136-015 136-031 136-040 - 136-062 136-080 136-100 136-120	136-015R 136-031R 136-040R 136-060R 136-062R 136-080R 136-100R -
	.528"	M1.6 x 0.35	244A, 244GA	.006" .008" .015" .031" 1mm .062" 2mm .100"	137-006 137-008 137-015 137-031 137-040 137-062 137-080 137-100	- - 137-015R 137-031R 137-040R 137-062R 137-080R 137-100R
	1.652"	M1.6 x 0.35	244LA, 244GLA	.006" .015" .031" 1mm .062" 2mm .100"	145-006 145-015 145-031 145-040 145-062 145-080 145-100	- 145-015R 145-031R 145-040R 145-062R 145-080R 145-100R
	.561"	M1.6 x 0.35	213, 213G, 215, 215G, 216G, 223, 223G, 225, 225G, 233, 233G, 235, 235G, 242, 242G, 245, 245G	.008" .015" .031" 1mm .062" 2mm .100"	162-008 162-015 162-031 162-040 162-062 162-080 162-100	- 162-015R 162-031R 162-040R 162-062R 162-080R 162-100R
	1.269"	M1.6 x 0.35	212L, 212GL, 215GL, 222L, 222GL, 232L, 232GL	.015" .031" 1mm .062" 2mm .100"	163-015 163-031 163-040 163-062 163-080 163-100	163-015R 163-031R 163-040R 163-062R 163-080R 163-100R
	1.624"	M1.6 x 0.35	243L, 243GL	.015" .031" 1mm .062" 2mm .100"	164-015 164-031 164-040 164-062 164-080 164-100	164-015R 164-031R 164-040R 164-062R 164-080R 164-100R

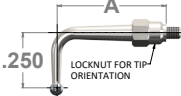
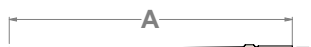
DATCON-HAMILTON	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.812"	4-48	T14, T15, T101	.015" .031" 1mm .062" 2mm .100"	132-015 132-031 132-040 132-062 132-080 132-100	132-015R 132-031R 132-040R 132-062R 132-080R 132-100R

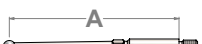
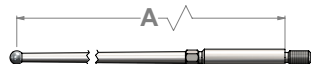
EMS	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.375"	M1.7 x 0.35	N/A	.015" .031" 1mm .062" 2mm .100"	156-015 156-031 156-040 156-062 156-080 156-100	156-015R 156-031R 156-040R 156-062R 156-080R 156-100R

ENCO	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.245"	M1.4 x 0.30	609-00, 609-01, 609-05, 609-06, 609-07	.006" .008" .015" .031" 1mm .062" 2mm .100" 3mm	107-006 107-008 107-015 107-031 107-040 107-062 107-080 107-100 107-120	- - 107-015R 107-031R 107-040R 107-062R 107-080R 107-100R -
	.660"	M1.6 x 0.35	699-10	.015" .031" 1mm .062" 2mm .100"	146-015 146-031 146-040 146-062 146-080 146-100	146-015R 146-031R 146-040R 146-062R 146-080R 146-100R

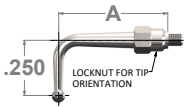
FEDERAL	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.547"	M1.7 x 0.35	L2, L6, L10, L12	.006" .008" .015" .031" 1mm 1.5mm .062" 2mm .100"	102-006 102-008 102-015 102-031 102-040 102-060 102-062 102-080 102-100	- - 102-015R 102-031R 102-040R - 102-062R 102-080R 102-100R
	.512"	M1.7 x 0.35	L1, L5, L9, L11	.008" .010" .015" .031" 1mm .062" 2mm .100"	103-008 103-010 103-015 103-031 103-040 103-062 103-080 103-100	- - 103-015R 103-031R 103-040R 103-062R 103-080R 103-100R
	.331"	Ratchet	T2, T3, T6, T7, LT1/2, LT2, LT6, LT13	.015" .031" .062" .100"	110-015 110-031 110-062 110-100	110-015R 110-031R 110-062R 110-100R
	.398"	Ratchet	T1, T5, T9, LT1, LT5, LT9, LT10	.015" .020" .031" 1mm 1.5mm .062" 2mm .100"	111-015 111-020 111-031 111-040 111-060 111-062 111-080 111-100	111-015R - 111-031R - - 111-062R - 111-100R
	1.660"	Ratchet	T11, LT11, LT12	.015" .031" .062" .100"	112-015 112-031 112-062 112-100	112-015R 112-031R 112-062R 112-100R

FEDERAL continued on page 7

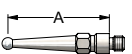
FEDERAL continued from page 6	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number	Delrin Ball Part Number
	.494"	M1.4 x 0.30	LT102, LT104, LT109, LT113, LT123, LT150, T101, T102, T104, T105, T106, T108, T109, T123	.005" .006" .007" .008" .010" .012" .015" .016" .020" .025" .031" 1mm 1.5mm .062" 2mm .100" 3mm	108-005 108-006 108-007 108-008 108-010 108-012 108-015 108-016 108-020 108-025 108-031 108-040 108-060 108-062 108-080 108-100 108-120	- - - - - - - - 108-025R 108-015R 108-031R 108-040R 108-060R 108-062R 108-080R 108-100R -	- - - - - - - - - - - - 108-062D - - - -
(Hook Point) 	.494"	M1.4 x 0.30	LT102, LT104, LT109, LT113, LT123, LT150, T101, T102, T104, T105, T106, T108, T109, T123	.015" .031" .062"	108-015HP 108-031HP 108-062HP	108-015RHP 108-031RHP 108-062RHP	- - -
	.366"	M1.6 x 0.35	T-82, LT-82	.015" .031" 1mm .062" 2mm .100"	150-015 150-031 150-040 150-062 150-080 150-100	150-015R 150-031R 150-040R 150-062R 150-080R 150-100R	- - - - - -
	.636"	M1.6 x 0.35	T-83, LT-83, T-85, LT-85	.015" .031" 1mm .062" 2mm .100"	151-015 151-031 151-040 151-062 151-080 151-100	151-015R 151-031R 151-040R 151-062R 151-080R 151-100R	- - - - - -
	1.447"	M1.6 x 0.35	T-84, LT-84, T-86, LT-86	.015" .031" 1mm .062" 2mm .100"	152-015 152-031 152-040 152-062 152-080 152-100	152-015R 152-031R 152-040R 152-062R 152-080R 152-100R	- - - - - -
	1.437"	M1.4 x 0.30	T-103, LT-103, T-111, LT-111	.006" .008" .010" .012" .015" .020" .031" 1mm 1.5mm .062" 2mm .100" 3mm	109-006 109-008 109-010 109-012 109-015 109-020 109-031 109-040 109-060 109-062 109-080 109-100 109-120	- - - - 109-015R - 109-031R 109-040R 109-060R 109-062R 109-080R 109-100R -	- - - - - - - - - 109-062D - - -

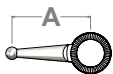
FOWLER	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
(VERDICT) 	.306"	Ratchet	52-555-000, 52-555-005, 52-555-666 TYPE C	.015" .031" .062" .100"	113-015 113-031 113-062 113-100	113-015R 113-031R 113-062R 113-100R
(VERDICT) 	.375"	Ratchet	SP Super Test	.015" .031" .062" .100"	114-015 114-031 114-062 114-100	114-015R 114-031R 114-062R 114-100R
(VERDICT) 	.250"	M1.7 x 0.35	52-560-010, 52-560-015, TA4, T5, T7, T500	.015" .031" 1mm .062" 2mm .100"	115-015 115-031 115-040 115-062 115-080 115-100	115-015R 115-031R 115-040R 115-062R 115-080R 115-100R
(VERDICT) 	.344"	M1.7 x 0.35	T1, T2, T4	.015" .031" 1mm .062" 2mm .100"	116-015 116-031 116-040 116-062 116-080 116-100	116-015R 116-031R 116-040R 116-062R 116-080R 116-100R
(VERDICT) 	.605"	M1.7 x 0.35	T8, 52-560-005	.015" .031" 1mm .062" 2mm .100"	117-015 117-031 117-040 117-062 117-080 117-100	117-015R 117-031R 117-040R 117-062R 117-080R 117-100R
(VERDICT) 	.674"	M1.7 x 0.35	T15	.015" .031" 1mm .062" 2mm .100"	118-015 118-031 118-040 118-062 118-080 118-100	118-015R 118-031R 118-040R 118-062R 118-080R 118-100R
(VERDICT) 	.860"	M1.7 x 0.35	T6	.015" .031" 1mm .062" 2mm .100"	139-015 139-031 139-040 139-062 139-080 139-100	139-015R 139-031R 139-040R 139-062R 139-080R 139-100R
	2.890"	M1.7 x 0.35	52-555-022, 52-555-023	.015" .031" 1mm 1.5mm .062" 2mm .100"	158-015 158-031 158-040 158-060 158-062 158-080 158-100	158-015R 158-031R 158-040R - 158-062R 158-080R 158-100R
(ULTRA-TAST) 	.516"	M1.6 x 0.35	52-568-005, 52-568-006, 52-568-010, 52-568-011, 52-568-015, 52-568-016, 52-568-020	.015" .031" 1mm .062" 2mm .100"	143-015 143-031 143-040 143-062 143-080 143-100	143-015R 143-031R 143-040R 143-062R 143-080R 143-100R
(ULTRA-TAST) 	.545"	M1.6 x 0.35	52-568-021	.012" .015" .031" 1mm .062" 2mm .100"	159-012 159-015 159-031 159-040 159-062 159-080 159-100	- 159-015R 159-031R 159-040R 159-062R 159-080R 159-100R
(ULTRA-TAST) 	1.378"	M1.6 x 0.35	52-568-022	.015" .031" 1mm .062" 2mm .100"	160-015 160-031 160-040 160-062 160-080 160-100	160-015R 160-031R 160-040R 160-062R 160-080R 160-100R
(ULTRA-TAST) 	1.457"	M1.6 x 0.35	52-568-023	.015" .031" 1mm .062" 2mm .100"	161-015 161-031 161-040 161-062 161-080 161-100	161-015R 161-031R 161-040R 161-062R 161-080R 161-100R

FOWLER continued on page 9

FOWLER continued from page 8	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number	Delrin Ball Part Number
 (GIROD-TAST)	.480	M1.6 x 0.35	52-562-252*, 52-562-253, 52-562-272, 52-562-273, 52-562-452*, 52-562-453, 52-562-473, 52-563-252, 52-563-253, 52-563-272, 52-563-273, 52-563-452, 52-563-453, 52-563-473 FOR OLD STYLE INDICATORS WITH M1.6 THREADS *WITHOUT REVOLUTION COUNTER	.006" .008" .010" .015" .031" 1mm 1.5mm .062" 2mm .100"	138-006 138-008 138-010 138-015 138-031 138-040 - 138-062 138-080 138-100	- - - 138-015R 138-031R 138-040R 138-060R 138-062R 138-080R 138-100R	- - - - - - - - - -
 (GIROD-TAST)	.750"	M1.6 x 0.35	52-562-252, 52-562-452, FOR INDICATORS WITH REVOLUTION COUNTER	.015" .031" 1mm .062" 2mm .100"	147-015 147-031 147-040 147-062 147-080 147-100	147-015R 147-031R 147-040R 147-062R 147-080R 147-100R	- - - - - -
 (GIROD-TAST)	1.415"	M1.6 x 0.35	52-562-474, 52-563-474, FOR OLD STYLE INDICATORS WITH M1.6 THREADS	.015" .031" 1mm .062" 2mm .100"	148-015 148-031 148-040 148-062 148-080 148-100	148-015R 148-031R 148-040R 148-062R 148-080R 148-100R	- - - - - -
 (GIROD-TAST)	.494"	M1.4 x 0.30	52-562-253, 52-562-272, 52-562-273, 52-562-453, 52-562-473, 52-563-252, 52-563-253, 52-563-272, 52-563-273, 52-563-452, 52-563-453, 52-563-473, 54-562-777 FOR NEW STYLE INDICATORS WITH M1.4 THREADS	.005" .006" .007" .008" .010" .012" .015" .016" .020" .025" .031" 1mm 1.5mm .062" 2mm .100" 3mm	108-005 108-006 108-007 108-008 108-010 108-012 108-015 108-016 108-020 108-025 108-031 108-040 108-060 108-062 108-080 108-100 108-120	- - - - - - 108-015R - - 108-025R 108-031R 108-040R 108-060R 108-062R 108-080R 108-100R -	- - - - - - - - - - - 108-062D - - -
(Hook Point)  (GIROD-TAST)	.494"	M1.4 x 0.30	52-562-253, 52-562-272, 52-562-273, 52-562-453, 52-562-473, 52-563-252, 52-563-253, 52-563-272, 52-563-273, 52-563-452, 52-563-453, 52-563-473, 54-562-777 FOR NEW STYLE INDICATORS WITH M1.4 THREADS	.015" .031" .062"	108-015HP 108-031HP 108-062HP	108-015RHP 108-031RHP 108-062RHP	- - -
 (GIROD-TAST)	1.437"	M1.4 x 0.30	52-562-474, 52-563-474, 54-562-888 FOR NEW STYLE INDICATORS WITH M1.4 THREADS	.006" .008" .010" .012" .015" .020" .031" 1mm 1.5mm .062" 2mm .100" 3mm	109-006 109-008 109-010 109-012 109-015 109-020 109-031 109-040 109-060 109-062 109-080 109-100 109-120	- - - - 109-015R - 109-031R 109-040R 109-060R 109-062R 109-080R 109-100R -	- - - - - - - - - 109-062D - - -

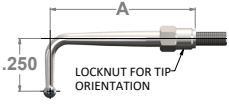
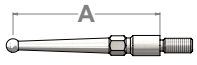
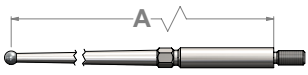
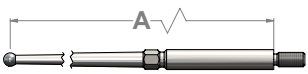
FOWLER continued on page 10

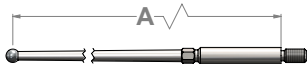
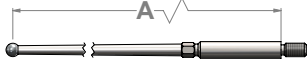
FOWLER continued from page 9	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number	Delrin Ball Part Number
 (X-TEST)	.688"	M1.7 x 0.35	52-562-001, 52-562-002, 52-562-003, 52-562-004, 52-562-005, 52-562-006, 52-562-007, 52-562-008, 52-562-100, 52-562-105, 52-562-110, 52-562-120	.005"	120-005	-	-
				.006"	120-006	-	-
				.007"	120-007	-	-
				.008"	120-008	-	-
				.010"	120-010	-	-
				.012"	120-012	-	-
				.015"	120-015	120-015R	-
				.020"	120-020	-	-
				.025"	120-025	120-025R	-
				.031"	120-031	120-031R	-
				1mm	120-040	120-040R	-
				1.5mm	120-060	120-060R	-
				.062"	120-062	120-062R	120-062D
				2mm	120-080	120-080R	-
				.100"	120-100	120-100R	-
				3mm	120-120	-	-
 (X-TEST)	.688"	M1.7 x 0.35	52-562-001, 52-562-002, 52-562-003, 52-562-004, 52-562-005, 52-562-006, 52-562-007, 52-562-008, 52-562-100, 52-562-105, 52-562-110, 52-562-120	.015"	120-015HP	120-015RHP	-
				.031"	120-031HP	120-031RHP	-
				.062"	120-062HP	120-062RHP	-
	.537"	M2 x 0.4	52-562-774, 52-562-775, 52-562-776, 52-562-778, 52-562-780	.015"	185-015	185-015R	-
				.031"	185-031	185-031R	-
				1mm	185-040	185-040R	-
				.060"	185-060	185-060R	-
				.062"	185-062	185-062R	-
				2mm	185-080	185-080R	-
				.100"	185-100	185-100R	-

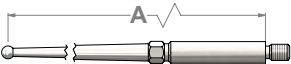
GEM	A (Length)	Ratchet	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.375"	Ratchet	222, 225, 250, 300, 325, 333, 334, 335	.015"	119-015	119-015R
				.031"	119-031	119-031R
				1mm	119-040	-
				.062"	119-062	119-062R
				2mm	119-080	-
				.100"	119-100	119-100R

INTERAPID	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number	Delrin Ball Part Number
	.688"	M1.7 x 0.35	74.111366, 74.111367, 74.111370, 74.111371, 74.111372, 74.111373, 74.111374, 74.111375, 74.111376, 74.111377, 74.111378, 74.111379, 74.111957, 310B-1, 310B-1V, 310B-2, 310B-2V, 310B-20, 310B-20V, 311, 311B-2, 312-1, 312-2, 312-IV, 312-2V, 312B-1, 312B-1V, 312B-2, 312B-2V, 312B-3, 312B-3V, 312B-4, 312B-20, 312B-20V	.005"	120-005	-	-
				.006"	120-006	-	-
				.007"	120-007	-	-
				.008"	120-008	-	-
				.010"	120-010	-	-
				.012"	120-012	-	-
				.015"	120-015	120-015R	-
				.020"	120-020	-	-
				.025"	120-025	120-025R	-
				.031"	120-031	120-031R	-
				1mm	120-040	120-040R	-
				1.5mm	120-060	120-060R	-
				.062"	120-062	120-062R	120-062D
				2mm	120-080	120-080R	-
				.100"	120-100	120-100R	-
				3mm	120-120	-	-

INTERAPID continued on page 11

INTERAPID continued from page 10	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
(Hook Point) 	.688"	M1.7 x 0.35	74.111366, 74.111367, 74.111370, 74.111371, 74.111372, 74.111373, 74.111374, 74.111375, 74.111376, 74.111377, 74.111378, 74.111379, 74.111957, 310B-1, 310B-1V, 310B-2, 310B-2V, 310B-20, 310B-20V, 311, 311B-2, 312-1, 312-2, 312-IV, 312-2V, 312B-1, 312B-1V, 312B-2, 312B-2V, 312B-3, 312B-3V, 312B-4, 312B-20, 312B-20V	.015" .031" .062"	120-015HP 120-031HP 120-062HP	120-015RHP 120-031RHP 120-062RHP
	.676"	M1.7 x 0.35	74.111368, 74.111369, 312-3, 312-4	.015" .031" 1mm .062" 2mm .100"	186-015 186-031 186-040 186-062 186-080 186-100	186-015R 186-031R 186-040R 186-062R 186-080R 186-100R
	1.450"	M1.7 x 0.35	310B-L1, 310B-L2 MAY BE USED AS A DOUBLE LENGTH TIP FOR MODELS LISTED ABOVE WHICH USE THE .688" LENGTH TIPS (120 SERIES TIPS)	.008" .010" .015" .031" 1mm 1.5mm .062" 2mm .100"	121-008 121-010 121-015 121-031 121-040 121-060 121-062 121-080 121-100	- - 121-015R 121-031R 121-040R 121-060R 121-062R 121-080R 121-100R
	.827"	M1.7 x 0.35	310B-3, 311B-3 STANDARD LENGTH	.006" .008" .010" .015" .031" 1mm 1.5mm .062" 2mm .100"	129-006 129-008 129-010 129-015 129-031 129-040 129-060 129-062 129-080 129-100	- - - 129-015R 129-031R 129-040R 129-060R 129-062R 129-080R 129-100R
	1.750"	M1.7 x 0.35	310B-3, 311B-3 DOUBLE LENGTH	.015" .031" 1mm .062" 2mm .100"	149-015 149-031 149-040 149-062 149-080 149-100	149-015R 149-031R 149-040R 149-062R 149-080R 149-100R
	2.750"	M1.7 x 0.35	74.111958, 74.111965, 312B-15, 312B-15V	.008" .015" .031" 1mm 1.5mm .062" 2mm .100"	142-008 142-015 142-031 142-040 142-060 142-062 142-080 142-100	- 142-015R 142-031R 142-040R 142-060R 142-062R 142-080R 142-100R

MAHR	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
MAHR PUPPITAST INDICATORS DISCONTINUED BY MAHR – M1.6 THDS						
	1.378"	M1.6 x 0.35	800SLZ	.015" .031" 1mm .062" 2mm .100"	160-015 160-031 160-040 160-062 160-080 160-100	160-015R 160-031R 160-040R 160-062R 160-080R 160-100R
	.516"	M1.6 x 0.35	800S, 800SG, 800SGI, 800SGZ, 800SM, 800SZ, 800SMZ, 800WZ, 801TH	.015" .031" 1mm .062" 2mm .100"	143-015 143-031 143-040 143-062 143-080 143-100	143-015R 143-031R 143-040R 143-062R 143-080R 143-100R
	1.457"	M1.6 x 0.35	800SL	.015" .031" 1mm .062" 2mm .100"	161-015 161-031 161-040 161-062 161-080 161-100	161-015R 161-031R 161-040R 161-062R 161-080R 161-100R
	.545"	M1.6 x 0.35	800W	.012" .015" .031" 1mm .062" 2mm .100"	159-012 159-015 159-031 159-040 159-062 159-080 159-100	- 159-015R 159-031R 159-040R 159-062R 159-080R 159-100R

MAHR MARTEST INDICATORS – M2 THDS						
	.571"	M2 x 0.4	800S, 801S1, 801S, 800SG, 801SG, 800SA, 800SGA, 800SM, 801SM, 800SGM, 801SGM, 801SGE, 800SR, 801SR, 800SRM, 801SRM, 800H, 801H, 800V, 801V, 800VGM, 801VGM, 800EW	.010" .015" .020" .031" 1mm .062" 2mm .100"	183-010 183-015 183-020 183-031 183-040 183-062 183-080 183-100	- 183-015R - 183-031R 183-040R 183-062R 183-080R 183-100R
	1.622"	M2 x 0.4	800SL, 801SL, 800SGL, 801SGL, 800EWL	.015" .031" 1mm .062" 2mm .100"	184-015 184-031 184-040 184-062 184-080 184-100	184-015R 184-031R 184-040R 184-062R 184-080R 184-100R

MITUTOYO	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.256"	M1.4 x 0.30	513-302, 513-302G, 513-304, 513-304GE, 513-942, 513-944	.015"	182-015	182-015R
			FOR OLD STYLE INDICATORS WITH EXTENSION/ADAPTOR 513-202, 513-202N, 513-212, 513-212N, 513-213, 513-252, 513-253, 513-282, 513-902, 513-902N, 513-922, 513-922N	.031" 1mm .062" 2mm .100"	182-031 182-040 182-062 182-080 182-100	182-031R 182-040R 182-062R 182-080R 182-100R
	.352"	M1.4 x 0.30	513-102	.006" .015" .020" .031" 1mm 1.5mm .062" 2mm .100"	124-006 124-015 124-020 124-031 124-040 - 124-062 124-080 124-100	- 124-015R - 124-031R 124-040R 124-060R 124-062R 124-080R 124-100R
	.598"	M1.4 x 0.30	FOR OLD STYLE INDICATORS 513-104, 513-104-1	.008" .015" .031" 1mm 1.5mm .062" 2mm .100"	125-008 125-015 125-031 125-040 125-060 125-062 125-080 125-100	- 125-015R 125-031R 125-040R - 125-062R 125-080R 125-100R
	.598"	M1.7 x 0.35	513-128, 513-128-1, 513-405-10, 513-409-10, 513-425-10, 513-445-10, 513-455-10, 513-465-10, 513-475-10, 516-485-10, 513-504, 513-504-10, 513-528	.006" .015" .031" 1mm .062" 2mm .100"	157-006 157-015 157-031 157-040 157-062 157-080 157-100	- 157-015R 157-031R 157-040R 157-062R 157-080R 157-100R
			FOR NEW STYLE INDICATORS 513-104, 513-104-1	3mm	157-120	-
	.649"	M1.7 x 0.35	513-206, 513-242, 513-252, 513-262, 513-282G, 513-282GT, 513-402, 513-402-10, 513-406, 513-406-10, 513-442, 513-442-01 513-442-06, 513-442-10, 513-442-16, 513-452, 513-552-10, 513-462, 513-462-10, 513-472, 513-472-10, 513-482-10, 513-906, 513-907, 513-952, 513-982	.006" .008" .015" .020" .031" 1mm 1.5mm .062" 2mm .100"	126-006 126-008 126-015 126-020 126-031 126-040 - 126-062 126-080 126-100	- - 126-015R - 126-031R 126-040R 126-060R 126-062R 126-080R 126-100R
			FOR NEW STYLE INDICATORS 513-202, 513-202N, 513-282, 513-902, 513-902N			
	.906"	M1.7 x 0.35	513-518, 513-518-10	.015" .031" 1mm .062" 2mm .100"	128-015 128-031 128-040 128-062 128-080 128-100	128-015R 128-031R 128-040R 128-062R 128-080R 128-100R
			FOR NEW STYLE INDICATORS 513-118, 513-118-1			
	.455"	M1.7 x 0.35	513-203, 513-203N, 513-223, 513-243, 513-403, 513-443, 513-443-06, 513-453, 513-463, 513-473, 513-903, 513-953	.006" .008" .010" .015" .020" .031" 1mm 1.5mm .062" 2mm .100"	140-006 140-008 140-010 140-015 140-020 140-031 140-040 - 140-062 140-080 140-100	- - - 140-015R - 140-031R 140-040R 140-060R 140-062R 140-080R 140-100R
			FOR NEW STYLE INDICATORS 513-253			
	1.198"	M1.7 x 0.35	513-412, 513-412-10, 513-446, 513-446-06, 513-446-10, 513-446-16, 513-479, 513-479-10	.015" .031" 1mm 1.5mm .062" 2mm .100" 3mm	141-015 141-031 141-040 - 141-062 141-080 141-100 141-120	141-015R 141-031R 141-040R 141-060R 141-062R 141-080R 141-100R -
			FOR NEW STYLE INDICATORS 513-212, 513-212N, 513-922, 513-922N			

MITUTOYO continued from page 13	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.738"	M1.7 x 0.35	513-424, 513-424-10, 513-426, 513-426-10, 513-456-10, 513-466, 513-466-10, 513-478, 513-478-10, 513-486-10	.015" .031" 1mm .062" 2mm .100"	187-015 187-031 187-040 187-062 187-080 187-100	187-015R 187-031R 187-040R 187-062R 187-080R 187-100R
	.369"	M1.7 x 0.35	513-401, 513-471	.015" .031" 1mm .062" 2mm .100"	188-015 188-031 188-040 188-062 188-080 188-100	188-015R 188-031R 188-040R 188-062R 188-080R 188-100R
	.685	M1.7 x 0.35	513-117, 513-117H, 513-204F, 513-204N, 513-284G, 513-404, 513-404-10, 513-444, 513-444-10, 513-454, 513-454-10, 513-464, 513-464-10, 513-474, 513-474-10, 513-484-10, 513-517, 513-517-10, 513-904, 513-904F, 513-908, 513-954F, 513-984F	.015" .031" 1mm .062" 2mm .100"	166-015 166-031 166-040 166-062 166-080 166-100	166-015R 166-031R 166-040R 166-062R 166-080R 166-100R
	.441"	M1.7 x 0.35	513-103, 513-103H, 513-115, 513-127, 513-127H, 513-205F, 513-205N, 513-255FA, 513-401-10, 513-405, 513-409, 513-425, 513-445, 513-455, 513-465, 513-471-10, 513-475, 513-503, 513-503-10, 513-527, 513-905F, 513-955F	.015" .031" 1mm .062" 2mm .100"	167-015 167-031 167-040 167-062 167-080 167-100	167-015R 167-031R 167-040R 167-062R 167-080R 167-100R
	1.335"	M1.7 x 0.35	513-112, 513-112-1, 513-414-10, 513-512, 513-512-10	.015" .031" 1mm .062" 2mm .100"	168-015 168-031 168-040 168-062 168-080 168-100	168-015R 168-031R 168-040R 168-062R 168-080R 168-100R
	1.614"	M1.7 x 0.35	513-115, 513-115H, 513-415, 513-415-10, 513-477, 513-477-10, 513-515, 513-515-10	.015" .031" 1mm .062" 2mm .100" .120"	169-015 169-031 169-040 169-062 169-080 169-100 169-120	169-015R 169-031R 169-040R 169-062R 169-080R 169-100R -
	.335"	M1.7 x 0.35	513-101, 513-101H, 513-501, 513-501-10	.015" .031" 1mm .062" 2mm .100"	180-015 180-031 180-040 180-062 180-080 180-100	180-015R 180-031R 180-040R 180-062R 180-080R 180-100R
	1.311"	M1.7 x 0.35	513-414, 513-514, 513-514-10, 513-924F	.015" .031" 1mm .062" 2mm .100"	181-015 181-031 181-040 181-062 181-080 181-100	181-015R 181-031R 181-040R 181-062R 181-080R 181-100R
	.609"	M1.7 x 0.35	513-403-10, 513-407-10, 513-443-10, 513-443-16, 513-453-10, 513-463-10, 513-473-10	.015" .031" 1mm .062" 2mm .100"	190-015 190-031 190-040 190-062 190-080 190-100	190-015R 190-031R 190-040R 190-062R 190-080R 190-100R

MUELLER	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.515"	M1.7 x 0.35	G301, G301K, G302, G303, G304, G306, G306K, G307, G308, G309	.015" .031" 1mm .062" 2mm .100"	123-015 123-031 123-040 123-062 123-080 123-100	123-015R 123-031R 123-040R 123-062R 123-080R 123-100R

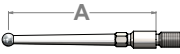
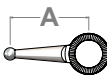
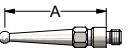
PARVUS-COMPAC	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.547"	M1.7 x 0.35	V3, P3G, V3G, P3GA	.006" .008" .015" .031" 1mm 1.5mm .062" 2mm .100"	102-006 102-008 102-015 102-031 102-040 102-060 102-062 102-080 102-100	- - 102-015R 102-031R 102-040R - 102-062R 102-080R 102-100R
	.512"	M1.7 x 0.35	V2, P2G, V2G, P2GA	.008" .010" .015" .031" 1mm .062" 2mm .100"	103-008 103-010 103-015 103-031 103-040 103-062 103-080 103-100	- - 103-015R 103-031R 103-040R 103-062R 103-080R 103-100R
	1.500"	M1.7 x 0.35	V2GL, P2GLA	.015" .031" 1mm .062" 2mm .100"	104-015 104-031 104-040 104-062 104-080 104-100	104-015R 104-031R 104-040R 104-062R 104-080R 104-100R

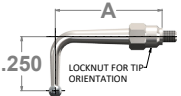
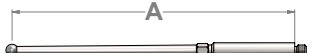
PEACOCK	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.649"	M1.7 x 0.35	20-400, 2000, 2050, 2200	.006" .008" .015" .020" .031" 1mm 1.5mm .062" 2mm .100"	126-006 126-008 126-015 126-020 126-031 126-040 - 126-062 126-080 126-100	- - 126-015R - 126-031R 126-040R 126-060R 126-062R 126-080R 126-100R
	.375"	M1.7 x 0.35	20-406-6, 2010, 2060, 2210	.015" .031" 1mm .062" 2mm .100"	153-015 153-031 153-040 153-062 153-080 153-100	153-015R 153-031R 153-040R 153-062R 153-080R 153-100R

SCHERR-TUMICO	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.306"	Ratchet	F1 F2 F5	.015" .031" .062" .100"	113-015 113-031 113-062 113-100	113-015R 113-031R 113-062R 113-100R
	.250"	M1.7 x 0.35	FX1 FX13 FX15	.015" .031" 1mm .062" 2mm .100"	115-015 115-031 115-040 115-062 115-080 115-100	115-015R 115-031R 115-040R 115-062R 115-080R 115-100R
	.605"	M1.7 x 0.35	FX11	.015" .031" 1mm .062" 2mm .100"	117-015 117-031 117-040 117-062 117-080 117-100	117-015R 117-031R 117-040R 117-062R 117-080R 117-100R

SPI	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.528"	M1.6 x 0.35	20-051-9, 20-053-5	.006" .008" .015" .031" 1mm .062" 2mm .100"	137-006 137-008 137-015 137-031 137-040 137-062 137-080 137-100	- - 137-015R 137-031R 137-040R 137-062R 137-080R 137-100R
	.573"	M1.6 x 0.35	20-160-8, 20-164-0, 20-052-7, 20-054-3, 20-055-0, 20-140-0, 20-141-8, 20-144-2, 20-145-9, 20-150-9, 20-151-7, 20-154-1, 20-155-8	.006" .008" .010" .015" .031" 1mm 1.5mm .062" 2mm .100" 3mm	135-006 135-008 135-010 135-015 135-031 135-040 135-060 135-062 135-080 135-100 135-120	- - - 135-015R 135-031R 135-040R 135-060R 135-062R 135-080R 135-100R -
	1.293"	M1.6 x 0.35	20-142-6, 20-143-4, 20-152-5, 20-153-3, 20-162-4	.015" .031" 1mm 1.5mm .062" 2mm .100" 3mm	136-015 136-031 136-040 - 136-062 136-080 136-100 136-120	136-015R 136-031R 136-040R 136-060R 136-062R 136-080R 136-100R -
	.561"	M1.6 x 0.35	21-140-9, 21-145-8	.008" .015" .031" 1mm .062" 2mm .100"	162-008 162-015 162-031 162-040 162-062 162-080 162-100	- 162-015R 162-031R 162-040R 162-062R 162-080R 162-100R
	1.269"	M1.6 x 0.35	21-153-2	.015" .031" 1mm .062" 2mm .100"	163-015 163-031 163-040 163-062 163-080 163-100	163-015R 163-031R 163-040R 163-062R 163-080R 163-100R
	.674"	M1.7 x 0.35	24-400-4, 24-402-0	.015" .031" 1mm .062" 2mm .100"	118-015 118-031 118-040 118-062 118-080 118-100	118-015R 118-031R 118-040R 118-062R 118-080R 118-100R
	.512"	M1.7 x 0.35	24-401-2	.008" .010" .015" .031" 1mm .062" 2mm .100"	103-008 103-010 103-015 103-031 103-040 103-062 103-080 103-100	- - 103-015R 103-031R 103-040R 103-062R 103-080R 103-100R

STANDARD GAUGE	A (Length)	Ratchet	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.331"	Ratchet	24N, 25N, 27N, 28N, 34N	.015" .031" .062" .100"	110-015 110-031 110-062 110-100	110-015R 110-031R 110-062R 110-100R
	.662"	Ratchet	21N, 22N, 25NL, 26N, 32N	.015" .031" .062" .100"	127-015 127-031 127-062 127-100	127-015R 127-031R 127-062R 127-100R

STARRET-LASTWORD	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.728"	1-64	708 & 709 SERIES	.006" .008" .015" .031" 1mm .062" 2mm .100"	165-006 165-008 165-015 165-031 165-040 165-062 165-080 165-100	- - 165-015R 165-031R 165-040R 165-062R 165-080R 165-100R
	.375"	Ratchet	711 SERIES LASTWORD	.015" .031" 1mm .062" 2mm .100"	122-015 122-031 122-040 122-062 122-080 122-100	122-015R 122-031R - 122-062R - 122-100R
	.495"	1-64	711-T	.015" .031" 1mm .062" 2mm .100" 3mm	134-015 134-031 134-040 134-062 134-080 134-100 134-120	134-015R 134-031R 134-040R 134-062R 134-080R 134-100R -
	.515"	1-64	811 Short	.015" .031" 1mm .062" 2mm .100"	144-015 144-031 144-040 144-062 144-080 144-100	144-015R 144-031R 144-040R 144-062R 144-080R 144-100R
	1.196"	1-64	811 Long	.015" .031" 1mm .062" 2mm .100"	154-015 154-031 154-040 154-062 154-080 154-100	154-015R 154-031R 154-040R 154-062R 154-080R 154-100R
	.537"	M2 x 0.4	3809A, 3809AC, 3909A, 3909AC,	.015" .031" 1mm 1.5mm .062" 2mm .100"	185-015 185-031 185-040 185-060 185-062 185-080 185-100	185-015R 185-031R 185-040R 185-060R 185-062R 185-080R 185-100R
	.494"	M2 x 0.4	3808A, 3808AC, 3908A, 3908AC, 3808MA, 3808MAC, 3908MA, 3908MAC	.015" .031" 1mm .062" 2mm .100"	189-015 189-031 189-040 189-062 189-080 189-100	189-015R 189-031R 189-040R 189-062R 189-080R 189-100R
	.571"	M2 x 0.4	3809MA, 3809MAC, 3909MA, 3909MAC	.010" .015" .020" .031" 1mm .062" 2mm .100"	183-010 183-015 183-020 183-031 183-040 183-062 183-080 183-100	- 183-015R - 183-031R 183-040R 183-062R 183-080R 183-100R
TECLOCK	A (Length)	Ratchet	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number
	.674"	M1.7 x 0.35	LTI-352	.015" .031" 1mm .062" 2mm .100"	118-015 118-031 118-040 118-062 118-080 118-100	118-015R 118-031R 118-040R 118-062R 118-080R 118-100R
	.512"	M1.7 x 0.35	LTI-355	.008" .010" .015" .031" 1mm .062" 2mm .100"	103-008 103-010 103-015 103-031 103-040 103-062 103-080 103-100	- - 103-015R 103-031R 103-040R 103-062R 103-080R 103-100R

TESA	A (Length)	Thread Size/Pitch	Model Number	Ball Diameter	T.C. Ball Part Number	Ruby Ball Part Number	Delrin Ball Part Number
	.245"	M1.4 x 0.3	20-202	.006" .008" .015" .031" 1mm .062" 2mm .100" 3mm	107-006 107-008 107-015 107-031 107-040 107-062 107-080 107-100 107-120	- - 107-015R 107-031R 107-040R 107-062R 107-080R 107-100R -	- - - - - - - - -
	.494"	M1.4 x 0.3	18.10005, 18.10006, 18.10009, 18.10010, 18.10011, 18.10013, 18.10204, 18.10304, 18.20006, 18.20007, 18.20010, 18.20011, 18.20012, 18.20013, 18.20014, 18.20015, 18.20204, 18.20304, 01830001	.005" .006" .007" .008" .010" .012" .015" .016" .020" .025" .031" 1mm 1.5mm .062" 2mm .100" 3mm	108-005 108-006 108-007 108-008 108-010 108-012 108-015 108-016 108-020 108-025 108-031 108-040 108-060 108-062 108-080 108-100 108-120	- - - - - - 108-015R - - 108-025R 108-031R 108-040R 108-060R 108-062R 108-080R 108-100R -	- - - - - - - - - - - - - 108-062D - - -
(Hook Point) 	.494"	M1.4 x 0.3	18.10005, 18.10006, 18.10009, 18.10010, 18.10011, 18.10013, 18.10204, 18.10304, 18.20006, 18.20007, 18.20010, 18.20011, 18.20012, 18.20013, 18.20014, 18.20015, 18.20204, 18.20304, 01830001	.015" .031" .062"	108-015HP 108-031HP 108-062HP	108-015RHP 108-031RHP 108-062RHP	- - -
	1.437"	M1.4 x 0.3	18.10007, 18.10008, 18.10012, 18.10205, 18.20008, 18.20009, 18.20016, 18.20205, 01830002	.006" .008" .010" .012" .015" .020" .031" 1mm 1.5mm .062" 2mm .100" 3mm	109-006 109-008 109-010 109-012 109-015 109-020 109-031 109-040 109-060 109-062 109-080 109-100 109-120	- - - - 109-015R - 109-031R 109-040R 109-060R 109-062R 109-080R 109-100R -	- - - - - - - - - 109-062D - - -