

UNIVERSAL TOOLING & GAGING

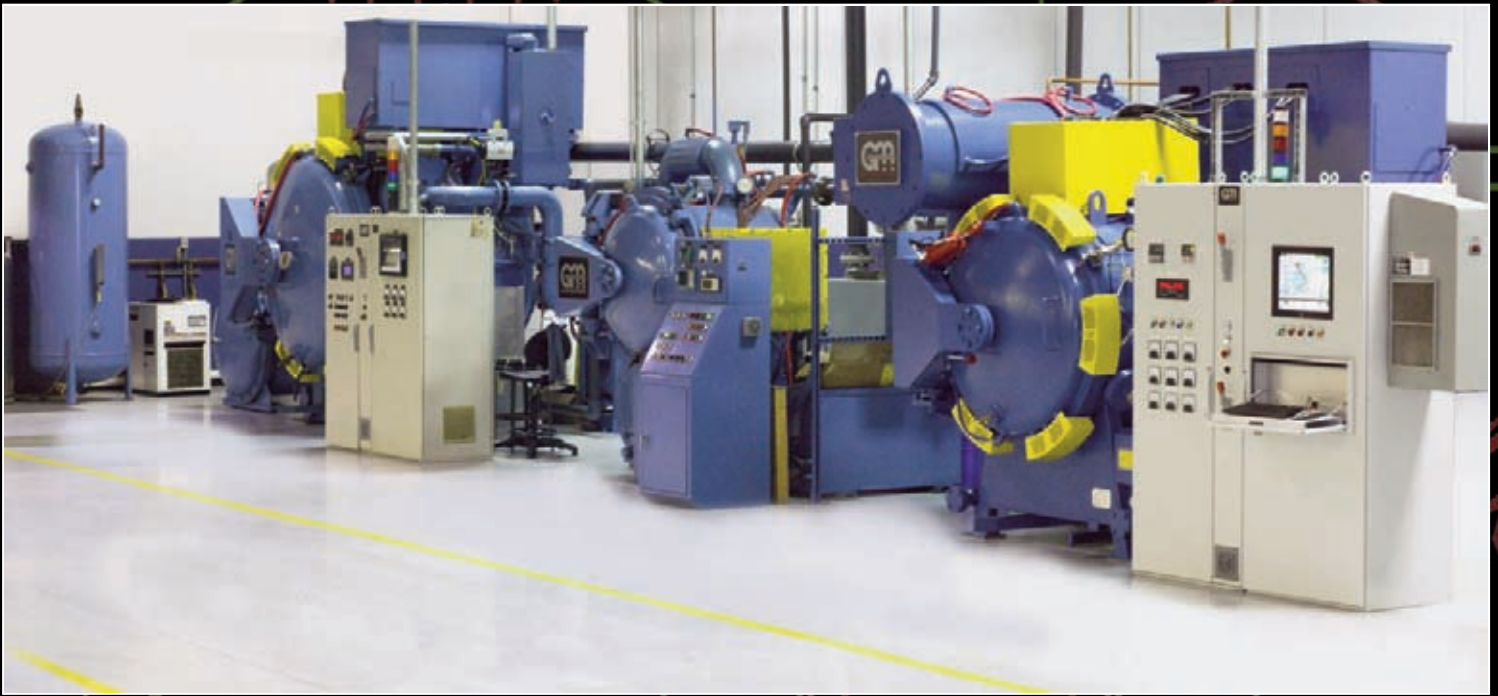
★ 6-LOBE (TX) ISO HEXALOBULAR

★ 6-LOBE TAMPER RESISTANT

★ 6-LOBE EXTRA (TXP)

★ 5-LOBE TAMPER RESISTANT

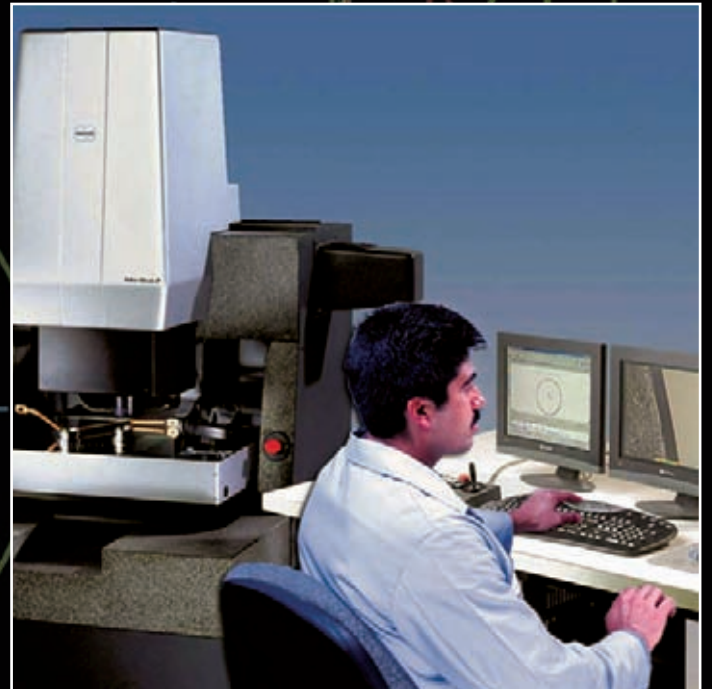




• **Production Support** Our modern facility, including In-House Vacuum Heat Treating, CNC Form Grinding, CNC Turning, production CNC milling, automated wire EDM, conventional EDM, custom press-type work and SPC quality systems allow us to perform for you with speed, reliability and precision. Our engineering and technical staff, as well as worldwide agents are available to assist you with your manufacturing requirements. Our distribution program includes Hexalobular, Six-Lobe (TX), Extra, Plus (TXP) tooling in high performance steels, and carbide for punches (T1-T100), (1IP-100IP) and external carbide tooling (E4-E44), (1EP-44EP). Our application engineers have the experience to provide the solution for your product application.



GAGE CALIBRATIONS



INSPECTION LABORATORY

• **Gage Certification**

To help maintain compliance with standards for both internal and external sizes (T1-T100), (1IP-100IP) and (E4-E44), (1EP-44EP) we offer gage calibration laboratory services to re-certify and repair Hexalobular, Six-Lobe, Extra, Plus and medical type configurations. All measurements performed are in accordance with ISO-Guide 17025 and all reference masters are directly traceable to N.I.S.T. We recommend your gages be routinely re-certified based on their use, to ensure that the gaging members and dial indicators are accurate and reliable.

INTRODUCTION

MISSION STATEMENT: To be a world class contract supplier of tools and gauges to the Aerospace, Automotive, Appliance, Defense, Electronic, Machine Tool, Medical Devices, Munition and other industries with innovative designs and always attentive to the needs of our customers.

COMPANY: Universal Punch Corp. is an ISO 9001:2008 registered company, has been a leader in the tooling and gauging industry for nearly four decades. As part of our continuing commitment to providing precision and excellence in all of our products we maintain the largest state of the art 65,000 sq.ft. facility. Our spacious new plant is equipped with increased machining capacity, expanded heat treating department, calibration and inspection laboratory. Our laboratory ensures that all products sold conform to ISO 17025 standards. All measuring equipment and gauging masters are directly traceable to N.I.S.T.

SERVICES: Universal Punch Corp. is a high precision tool and gauge manufacturer using high tech applications to make a wide range of products to meet today's increased demands for superior performing tools and high precision gaging. Our modern vacuum heat treating facility provides the control necessary to make tools with highest structural integrity, which will withstand the severest heading application of warm or cold forming. In addition, complete inventories of standard tooling are available for immediate delivery in a variety of materials, finishes and coatings.

TOOLING: We offer many popular drive systems with worldwide stocking Agency, such as Phillips, Pozi 1A, 6-Lobe, 6-Lobe Extra, SupaDrive, Six & Eight-Point Drives, 12-Point, ISO Hexalobular, Hexagon, Double Hex, Penta Drive, Square rive, Indented Hexagon, Combinations, Spline Drive, Tamper Proof, NAS Cruciform, Star type forms and custom forms.

GAGING: Go/No-Go, Penetration, Final Inspection, Plug Gages, Concentricity Gages, Thickness, Driver Bit, Recess, Wobble, Screw Recess, Screw Testing Fixtures, Runout, Protrusion Height, Variable Reading Thread Gages, Special Modular Gaging Fixtures, SPC Data Collection Systems and Gage Calibration Service.

SPECIALTIES: We have full time engineering staff using AutoCAD and SolidWorks CAD/CAM software for drawing and CNC machine programming. Our manufacturing processes consist of a large number of special five and six axis CNC Form Grinders, CNC Mill/Turning Lathes, Mills, Swiss Screw Machines, Wire EDM and conventional EDM to ensure quality and reliability of products. We have a full in-house lab, temperature and humidity controlled for customer calibration of gauges, SIP 305, Video Microscope and Fiber Optics CMM.

INTERNATIONAL SERVICES: Universal Punch Corp. is dedicated to the global marketplace. Agents or distributors located in United States, Mexico, North America, Canada, South America, England, France, Spain, Germany, Italy, Switzerland, Turkey, India, South Korea, Singapore, China, Taiwan, Japan and Australia are ready to assist you.

ACHIEVEMENTS: ISO9001/2008 by Underwriters Laboratories UL DQS Inc. with quality emphasis on compliance to ISO Guide 25, the development of the two-piece hex punch system and later the 6-Lobe/Hexalobular system, special Medical Driver Systems, along with the patented Concentricity Gauge and various fastener gauges are just some of our achievements.

WEBSITES: www.universalpunch.com ; www.concentricitygage.com ; www.six-lobe.com ; www.wobble-broaches.com

EMAIL: sales@universalpunch.com

PHONE: 714-556-4488

FAX: 714-556-6314

Servicing your tooling and gaging requirements into the twenty first century.

TERMS AND CONDITIONS

TERMS: NET 30 DAYS ON APPROVED CREDIT, F.O.B. SANTA ANA, CALIFORNIA. ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

DELIVERY: IS ALWAYS QUOTED AFTER RECEIPT OF ORDER. STOCK ORDERS WILL PROCESS IN 2 BUSINESS DAYS UNLESS SPECIFIED NEXT DAY RUSH SERVICE.

ORDERING & BILLING:

MINIMUM BILLING - \$100.00

MINIMUM ORDER FROM STOCK - \$100.00

MINIMUM MANUFACTURED ORDER - \$200.00

SHIPPING: UNLESS OTHERWISE INSTRUCTED SHIPPING WILL BE DONE BY THE LEAST EXPENSIVE WAY. WE CANNOT ASSUME CHARGES OR RESPONSIBILITY DUE TO TRANSPORTATION DIFFICULTIES. DUE TO THE NATURE OF OUR BUSINESS, WE RESERVE THE RIGHT TO SHIP AND CHARGE THE CUSTOMER FOR 10% OVER OR UNDER SPECIFIED QUANTITIES.

QUOTATIONS: ARE VALID FOR 30 DAYS ONLY, UNLESS SPECIAL ARRANGEMENTS ARE MADE. WE RESERVE THE RIGHT TO ADVISE THE CUSTOMER OF ANY CHANGE IN PRICE UPON RECEIPT OF ORDER, IF YOU HAVE BEEN QUOTED INCORRECTLY.

CANCELLATIONS: WILL BE SUBJECT TO A MINIMUM CHARGE OF \$75.00 PLUS ANY APPLICABLE MATERIAL AND LABOR CHARGES FOR WORK IN PROGRESS.

RETURNS: POSITIVELY NO TOOLS OR GAGES MAY BE RETURNED WITHOUT FACTORY AUTHORIZATION (RMA) AND REQUESTS FOR SUCH MUST BE MADE WITHIN 10 BUSINESS DAYS OF RECEIPT OF MERCHANDISE. TOOLING ACCEPTED UNDER THESE CONDITIONS SHALL BE SUBJECT TO THE RIGHT OF REPAIR OR REPLACEMENT.

MERCHANDISE RETURNS: ALL RETURNED STOCK ITEMS WILL BE SUBJECT TO A 20% RESTOCKING CHARGE.

EXCLUSIONS AND LIMITATIONS: DUE TO THE SEVERITY OF ALL MANUFACTURING PROCESSES AND THE COMPLEXITY OF CONDITIONS SURROUNDING TOOL USAGE, IT IS A FIRM POLICY OF THIS COMPANY NOT TO GUARANTEE TOOL PERFORMANCE, BUT ONLY CONFORMANCE TO PHYSICAL SPECIFICATIONS AND WORKMANSHIP.

GAGE LIMITED WARRANTY: THIS LIMITED WARRANTY APPLIES ONLY TO GAGES AND GAGE PARTS MANUFACTURED BY OR FOR UNIVERSAL PUNCH CORP.: THAT WITHIN (12) MONTHS FROM DATE OF SHIPMENT, WE WILL REPAIR OR REPLACE, AT OUR OPTION, FREE OF CHARGE, ANY PART OR PARTS WHICH UPON EXAMINATION WE FIND DEFECTIVE IN WORKMANSHIP OR MATERIAL. THE LIMITED WARRANTY DOES NOT APPLY TO ANY GAGES OR GAGE PARTS THAT HAVE BEEN DISASSEMBLED OR MODIFIED IN ANY WAY BY THE USER. UNIVERSAL PUNCH CORP. IS NOT RESPONSIBLE FOR DAMAGE ARISING FROM FAILURE TO FOLLOW INSTRUCTIONS RELATING TO THE PRODUCT'S USE. THIS WARRANTY DOES NOT APPLY: (A) TO DAMAGE CAUSED BY NON-UNIVERSAL PUNCH CORP. PRODUCTS; (B) TO DAMAGE CAUSED BY ACCIDENT, ABUSE, MISUSE, FLOOD, FIRE, OR OTHER EXTERNAL CAUSES; (C) TO DAMAGE CAUSED BY OPERATING THE PRODUCT OUTSIDE THE PERMITTED USES DESCRIBED BY UNIVERSAL PUNCH CORP.; (D) TO DAMAGE CAUSED BY SERVICE PERFORMED BY ANYONE OTHER THAN UNIVERSAL PUNCH CORP. TECHNICIANS; (E) TO A GAGE OR GAGE PART THAT HAS BEEN MODIFIED TO SIGNIFICANTLY ALTER FUNCTIONALITY OR CAPABILITY WITHOUT THE WRITTEN PERMISSION OF UNIVERSAL PUNCH CORP.; OR (F) IF ANY SERIAL NUMBER HAS BEEN REMOVED OR DEFACED.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED. AS PERMITTED BY APPLICABLE LAW, UNIVERSAL PUNCH CORP. SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS, AND IN NO EVENT WILL UNIVERSAL PUNCH CORP. BE LIABLE FOR ANY SPECIAL, INDIRECT OR COSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, LOST PROFITS OR OTHER DAMAGES FROM LOSS OF PRODUCTION CAUSED BY DEFECTIVE PRODUCT, OR BY UNSATISFACTORY PERFORMANCE OF THE PRODUCT. NO UNIVERSAL PUNCH AGENT OR DISTRIBUTOR IS AUTHORIZED TO MAKE ANY MODIFICATION, EXTENSION, OR ADDITION TO THIS WARRANTY. THIS LIMITED WARRANTY IS GOVERNED BY AND CONSTRUED UNDER THE LAWS OF THE COUNTRY AND STATE IN WHICH THE PRODUCT WAS MANUFACTURED.

OBTAINING WARRANTY SERVICE: WARRANTY SERVICE CAN ONLY BE OBTAINED DIRECTLY FROM THE MANUFACTURER, UNIVERSAL PUNCH CORP. AND PRIOR MANUFACTURER APPROVAL MUST BE OBTAINED. WARRANTY SERVICE APPLIES TO PARTS THAT ARE TENDERED OR PRESENTED FOR SERVICE DURING THE WARRANTY PERIOD. SERVICE OPTIONS, PARTS AVAILABILITY AND RESPONSE TIMES MAY VARY ACCORDING TO THE PRODUCT BEING RETURNED.

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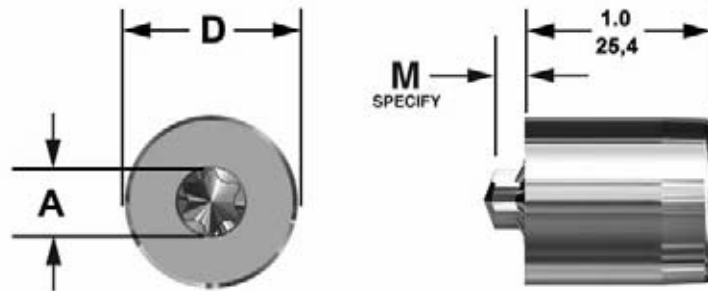
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#1000 6-LOBE (TX) FLAT HEAD PUNCHES

TMP/TXP-15.1, 15, 21.1

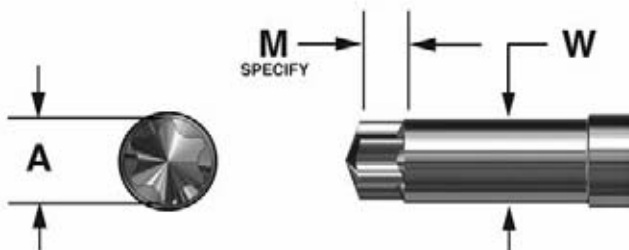


PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	D inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	D inch / mm
1000-01-275	T1	.014 / 0,36	.035 / 0,90	7/16 / 11,11	1000-15-150	T15	.065 / 1,65	.133 / 3,37	9/16 / 14,29
1000-02-275	T2	.016 / 0,41	.039 / 1,01	-	1000-15-151	T15	.050 / 1,27	-	-
1000-03-275	T3	.018 / 0,45	.047 / 1,21	-	1000-15-152	T15	.075 / 1,90	-	-
1000-04-275	T4	.022 / 0,56	.054 / 1,37	-	1000-15-153	T15	.040 / 1,01	-	-
1000-05-009	T5	.014 / 0,35	.059 / 1,49	7/16 / 11,11	1000-15-154	T15	.047 / 1,19	-	-
1000-05-017	T5	.022 / 0,55	-	-	1000-15-155	T15	.037 / 0,93	-	-
1000-05-025	T5	.028 / 0,71	-	-	1000-15-156	T15	.063 / 1,60	-	-
1000-06-015	T6	.019 / 0,48	.070 / 1,77	7/16 / 11,11	1000-20-150	T20	.094 / 2,38	.156 / 3,96	9/16 / 14,29
1000-06-022	T6	.027 / 0,68	-	-	1000-20-152	T20	.085 / 2,15	-	-
1000-06-030	T6	.030 / 0,76	-	-	1000-20-153	T20	.062 / 1,57	-	-
1000-06-035	T6	.038 / 0,96	-	-	1000-20-154	T20	.052 / 1,32	-	-
1000-07-015	T7	.022 / 0,55	.082 / 2,09	7/16 / 11,11	1000-20-155	T20	.065 / 1,65	-	-
1000-07-020	T7	.027 / 0,68	-	-	1000-20-156	T20	.042 / 1,06	-	-
1000-07-025	T7	.030 / 0,76	-	-	1000-25-150	T25	.120 / 3,04	.179 / 4,55	7/8 / 22,2
1000-07-027	T7	.032 / 0,81	-	-	1000-25-151	T25	.070 / 1,77	-	-
1000-07-030	T7	.035 / 0,88	-	-	1000-25-152	T25	.095 / 2,41	-	-
1000-07-035	T7	.040 / 1,01	-	-	1000-25-153	T25	.062 / 1,57	-	-
1000-08-018	T8	.025 / 0,63	.095 / 2,41	9/16 / 14,29	1000-25-154	T25	.088 / 2,23	-	-
1000-08-020	T8	.027 / 0,68	-	-	1000-27-150	T27	.125 / 3,17	.201 / 5,11	7/8 / 22,22
1000-08-025	T8	.030 / 0,76	-	-	1000-27-151	T27	.077 / 1,95	-	-
1000-08-028	T8	.035 / 0,88	-	-	1000-27-152	T27	.110 / 2,79	-	-
1000-08-030	T8	.032 / 0,81	-	-	1000-27-153	T27	.090 / 2,28	-	-
1000-08-033	T8	.038 / 0,96	-	-	1000-27-154	T27	.080 / 2,03	-	-
1000-08-040	T8	.043 / 0,96	-	-	1000-30-150	T30	.130 / 3,30	.222 / 5,65	7/8 / 22,22
1000-08-043	T8	.048 / 1,22	-	-	1000-30-151	T30	.098 / 2,48	-	-
1000-09-029	T9	.034 / 0,86	.102 / 2,60	9/16 / 14,29	1000-30-152	T30	.110 / 2,79	-	-
1000-09-032	T9	.037 / 0,93	-	-	1000-30-153	T30	.075 / 1,90	-	-
1000-09-035	T9	.043 / 1,09	-	-	1000-30-154	T30	.062 / 1,57	-	-
1000-09-047	T9	.052 / 1,32	-	-	1000-30-155	T30	.048 / 1,21	-	-
1000-10-150	T10	.055 / 1,39	.112 / 2,84	9/16 / 14,29	1000-30-156	T30	.092 / 2,33	-	-
1000-10-151	T10	.047 / 1,19	-	-	1000-30-157	T30	.072 / 1,82	-	-
1000-10-152	T10	.065 / 1,65	-	-	1000-40-150	T40	.140 / 3,55	.268 / 6,80	7/8 / 22,22
1000-10-153	T10	.040 / 1,01	-	-	1000-40-151	T40	.115 / 2,92	-	-
1000-10-154	T10	.053 / 1,34	-	-	1000-40-152	T40	.130 / 3,30	-	-
1000-10-155	T10	.037 / 0,93	-	-	1000-40-153	T40	.125 / 3,17	-	-
1000-10-156	T10	.030 / 0,76	-	-	1000-40-154	T40	.108 / 2,74	-	-
					1000-40-155	T40	.090 / 2,28	-	-
					1000-40-156	T40	.077 / 1,95	-	-
					1000-40-157	T40	.112 / 2,84	-	-
					1000-45-150	T45	.160 / 4,06	.314 / 7,97	1.0 / 25,40
					1000-45-151	T45	.120 / 3,05	-	-
					1000-45-152	T45	.145 / 3,91	-	-
					1000-45-153	T45	.115 / 2,92	-	-
					1000-45-154	T45	.097 / 2,46	-	-
					1000-45-155	T45	.087 / 2,21	-	-
					1000-45-156	T45	.142 / 3,61	-	-

MATERIALS: M2 OR M42 HIGH SPEED STEEL
AVAILABLE: COATINGS AND SPECIAL "M" LENGTHS
PRICED UPON REQUEST

#1100 6-LOBE (TX) RECESS PUNCH PINS

TMP/XP-20,21

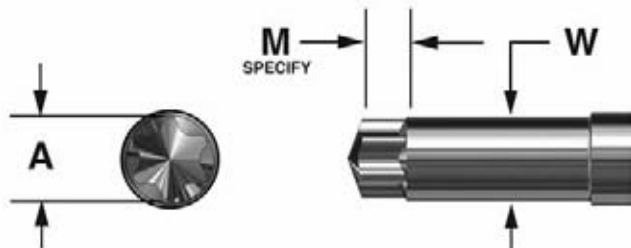


PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm
1100-05-250	T5	.031 / 0,78	.059 / 1,49	.062 / 1,57	1100-15-250	T15	.060 / 1,52	.133 / 3,37	.136 / 3,45
1100-05-251	T5	.017 / 0,43	-	-	1100-15-251	T15	.045 / 1,14	-	-
1100-05-252	T5	.025 / 0,63	-	-	1100-15-252	T15	.070 / 1,77	-	-
1100-06-250	T6	.041 / 1,04	.070 / 1,77	.074 / 1,87	1100-15-253	T15	.035 / 0,88	-	-
1100-06-251	T6	.022 / 0,55	-	-	1100-15-254	T15	.050 / 1,27	-	-
1100-06-252	T6	.030 / 0,76	-	-	1100-15-255	T15	.033 / 0,83	-	-
1100-06-253	T6	.033 / 0,83	-	-	1100-15-256	T15	.041 / 1,04	-	-
1100-07-250	T7	.033 / 0,83	.082 / 2,09	.086 / 2,20	1100-20-250	T20	.089 / 2,26	.156 / 3,96	.159 / 4,03
1100-07-251	T7	.038 / 0,96	-	-	1100-20-251	T20	.065 / 1,65	-	-
1100-07-252	T7	.043 / 1,09	-	-	1100-20-252	T20	.080 / 2,03	-	-
1100-07-253	T7	.030 / 0,76	-	-	1100-20-253	T20	.050 / 1,27	-	-
1100-07-254	T7	.025 / 0,63	-	-	1100-20-254	T20	.038 / 0,96	-	-
1100-07-255	T7	.035 / 0,88	-	-	1100-20-255	T20	.060 / 1,52	-	-
1100-08-250	T8	.033 / 0,83	.095 / 2,41	.099 / 2,51	1100-20-256	T20	.056 / 1,42	-	-
1100-08-251	T8	.041 / 1,04	-	-	1100-20-257	T20	.036 / 0,91	-	-
1100-08-252	T8	.051 / 1,29	-	-	1100-20-258	T20	.045 / 1,14	-	-
1100-08-253	T8	.038 / 0,96	-	-	1100-25-250	T25	.115 / 2,92	.179 / 4,55	.182 / 4,62
1100-08-254	T8	.030 / 0,76	-	-	1100-25-251	T25	.065 / 1,65	-	-
1100-08-255	T8	.028 / 0,71	-	-	1100-25-252	T25	.090 / 2,28	-	-
1100-08-256	T8	.043 / 1,09	-	-	1100-25-253	T25	.055 / 1,39	-	-
1100-08-257	T8	.035 / 0,88	-	-	1100-25-254	T25	.075 / 1,90	-	-
1100-08-258	T8	.041 / 1,04	-	-	1100-25-255	T25	.044 / 1,11	-	-
1100-09-250	T9	.040 / 1,01	.102 / 2,60	.106 / 2,69	1100-25-256	T25	.060 / 1,52	-	-
1100-09-251	T9	.055 / 1,39	-	-	1100-27-250	T27	.120 / 3,04	.201 / 5,11	.208 / 5,28
1100-09-252	T9	.046 / 1,16	-	-	1100-27-251	T27	.065 / 1,65	-	-
1100-09-253	T9	.037 / 0,93	-	-	1100-27-252	T27	.105 / 2,66	-	-
1100-10-250	T10	.050 / 1,27	.112 / 2,84	.115 / 2,92	1100-27-253	T27	.085 / 2,15	-	-
1100-10-251	T10	.040 / 1,01	-	-	1100-27-254	T27	.075 / 1,90	-	-
1100-10-252	T10	.060 / 1,52	-	-	1100-27-255	T27	.050 / 1,27	-	-
1100-10-253	T10	.035 / 0,88	-	-	1100-27-256	T27	.060 / 1,52	-	-
1100-10-254	T10	.045 / 1,14	-	-	1100-27-259	T27	.090 / 2,28	-	-
1100-10-255	T10	.030 / 0,76	-	-	1100-30-250	T30	.125 / 3,17	.222 / 5,65	.225 / 5,71
1100-10-256	T10	.033 / 0,83	-	-	1100-30-251	T30	.090 / 2,28	-	-
					1100-30-252	T30	.105 / 2,66	-	-
					1100-30-253	T30	.070 / 1,77	-	-
					1100-30-254	T30	.055 / 1,39	-	-
					1100-30-255	T30	.043 / 1,09	-	-
					1100-30-256	T30	.080 / 2,03	-	-
					1100-30-257	T30	.075 / 1,90	-	-
					1100-30-258	T30	.060 / 1,52	-	-
					1100-30-260	T30	.065 / 1,65	-	-

MATERIALS: M2 OR M42 HIGH SPEED STEEL
AVAILABLE: COATINGS AND SPECIAL "M" LENGTHS
PRICED UPON REQUEST

#1100 6-LOBE (TX) RECESS PUNCH PINS

TMP/TXP-20,21



PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm
1100-40-250	T40	.135 / 3,42	.268 / 6,80	.271 / 6,88	1100-60-250	T60	.280 / 7,11	.531 / 13,48	.562 / 14,27
1100-40-251	T40	.110 / 2,79	-	-	1100-60-251	T60	.145 / 3,68	-	-
1100-40-252	T40	.125 / 3,17	-	-	1100-60-252	T60	.245 / 6,22	-	-
1100-40-253	T40	.120 / 3,04	-	-	1100-60-253	T60	.215 / 5,46	-	-
1100-40-254	T40	.097 / 2,46	-	-	1100-60-254	T60	.185 / 4,69	-	-
1100-40-255	T40	.085 / 2,15	-	-	1100-60-256	T60	.150 / 3,81	-	-
1100-40-256	T40	.070 / 1,77	-	-	1100-60-257	T60	.221 / 5,61	-	-
1100-40-257	T40	.090 / 2,28	-	-					
1100-40-260	T40	.080 / 2,03	-	-	1100-70-250	T70	.320 / 8,12	.621 / 15,77	.652 / 16,56
					1100-70-251	T70	.240 / 6,09	-	-
1100-45-250	T45	.155 / 3,93	.314 / 7,97	.330 / 8,38	1100-70-252	T70	.280 / 7,11	-	-
1100-45-251	T45	.115 / 2,92	-	-	1100-70-255	T70	.174 / 4,41	-	-
1100-45-252	T45	.140 / 3,55	-	-	1100-70-256	T70	.261 / 6,62	-	-
1100-45-253	T45	.110 / 2,79	-	-					
1100-45-254	T45	.085 / 2,15	-	-	1100-80-250	T80	.370 / 9,39	.702 / 17,83	.733 / 18,61
1100-45-256	T45	.105 / 2,66	-	-	1100-80-251	T80	.315 / 8,00	-	-
					1100-80-254	T80	.202 / 5,13	-	-
1100-50-250	T50	.154 / 3,91	.354 / 8,99	.374 / 9,49	1100-80-255	T80	.300 / 7,62	-	-
1100-50-251	T50	.135 / 3,42	-	-					
1100-50-252	T50	.160 / 4,06	-	-	1100-90-250	T90	.380 / 9,65	.797 / 20,25	.829 / 21,05
1100-50-253	T50	.095 / 2,41	-	-	1100-90-251	T90	.300 / 7,62	-	-
1100-50-255	T50	.176 / 4,47	-	-	1100-90-252	T90	.360 / 9,14	-	-
1100-50-256	T50	.129 / 3,27	-	-	1100-90-253	T90	.240 / 6,09	-	-
1100-50-257	T50	.110 / 2,79	-	-	1100-90-255	T90	.221 / 5,61	-	-
1100-50-258	T50	.143 / 3,63	-	-	1100-90-256	T90	.347 / 8,81	-	-
1100-50-259	T50	.120 / 3,04	-	-					
					1100-100-250	T100	.400 / 10,16	.884 / 22,46	.916 / 23,26
1100-55-250	T55	.215 / 5,46	.449 / 11,40	.469 / 11,91	1100-100-251	T100	.450 / 11,43	-	-
1100-55-251	T55	.110 / 2,79	-	-	1100-100-252	T100	.510 / 12,95	-	-
1100-55-252	T55	.200 / 5,08	-	-					
1100-55-253	T55	.145 / 3,68	-	-					
1100-55-254	T55	.175 / 4,44	-	-					
1100-55-255	T55	.095 / 2,41	-	-					
1100-55-256	T55	.155 / 3,93	-	-					
1100-55-257	T55	.135 / 3,42	-	-					
1100-55-258	T55	.115 / 2,92	-	-					
1100-55-259	T55	.190 / 4,82	-	-					

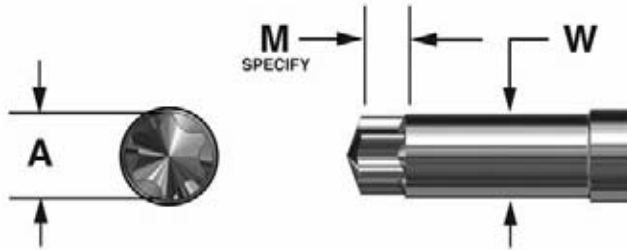
MATERIALS: M2, M42 & ASP30

AVAILABLE: COATINGS AND SPECIAL "M" LENGTHS

PRICED UPON REQUEST

#1102 6-LOBE (TX) CARBIDE RECESS PUNCH PINS

TMP/TXP-20,21

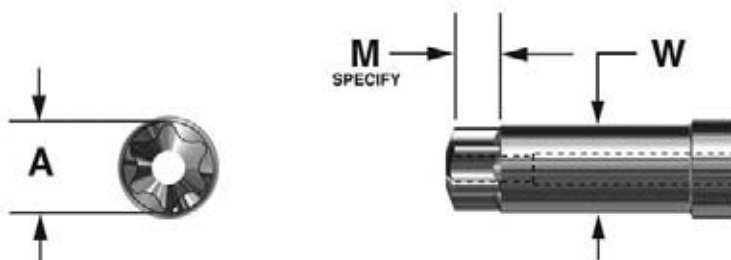


PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm
1102-10-250	T10	.050 / 1,27	.112 / 2,84	.115 / 2,92	1102-40-250	T40	.135 / 3,42	.268 / 6,80	.271 / 6,88
1102-10-251	T10	.040 / 1,01	-	-	1102-40-251	T40	.110 / 2,79	-	-
1102-10-252	T10	.060 / 1,77	-	-	1102-40-252	T40	.125 / 3,17	-	-
1102-10-253	T10	.035 / 0,88	-	-	1102-40-253	T40	.120 / 3,04	-	-
1102-10-254	T10	.045 / 1,14	-	-	1102-40-254	T40	.097 / 2,46	-	-
1102-10-255	T10	.030 / 0,76	-	-	1102-40-255	T40	.085 / 2,15	-	-
1102-10-256	T10	.033 / 1,83	-	-	1102-40-256	T40	.070 / 1,77	-	-
1102-15-250	T15	.060 / 1,52	.133 / 3,37	.136 / 3,45	1102-40-257	T40	.090 / 2,28	-	-
1102-15-251	T15	.045 / 1,14	-	-	1102-40-260	T40	.080 / 2,03	-	-
1102-15-252	T15	.070 / 1,77	-	-					
1102-15-253	T15	.035 / 0,88	-	-	1102-45-250	T45	.155 / 3,93	.314 / 7,97	.330 / 8,38
1102-15-254	T15	.050 / 1,27	-	-	1102-45-251	T45	.115 / 2,92	-	-
1102-15-255	T15	.033 / 0,83	-	-	1102-45-252	T45	.140 / 3,55	-	-
1102-15-256	T15	.041 / 1,04	-	-	1102-45-253	T45	.110 / 2,79	-	-
1102-20-250	T20	.089 / 2,26	.156 / 3,96	.159 / 4,03	1102-45-254	T45	.085 / 2,15	-	-
1102-20-251	T20	.065 / 1,65	-	-	1102-45-256	T45	.105 / 2,66	-	-
1102-20-252	T20	.080 / 2,03	-	-					
1102-20-253	T20	.050 / 1,27	-	-	1102-50-250	T50	.154 / 3,91	.354 / 8,99	.374 / 9,49
1102-20-254	T20	.038 / 0,96	-	-	1102-50-251	T50	.135 / 3,42	-	-
1102-20-255	T20	.060 / 1,52	-	-	1102-50-252	T50	.160 / 4,06	-	-
1102-20-256	T20	.056 / 1,42	-	-	1102-50-253	T50	.095 / 2,41	-	-
1102-20-257	T20	.036 / 0,91	-	-	1102-50-255	T50	.176 / 4,47	-	-
1102-20-258	T20	.045 / 1,14	-	-	1102-50-256	T50	.129 / 3,27	-	-
1102-25-250	T25	.115 / 2,92	.179 / 4,55	.182 / 4,62	1102-50-257	T50	.110 / 2,79	-	-
1102-25-251	T25	.065 / 1,65	-	-	1102-50-258	T50	.143 / 3,63	-	-
1102-25-252	T25	.090 / 2,28	-	-	1102-50-259	T50	.120 / 3,04	-	-
1102-25-253	T25	.055 / 1,39	-	-					
1102-25-254	T25	.075 / 1,90	-	-	1102-55-250	T55	.215 / 5,46	.449 / 11,40	.469 / 11,91
1102-25-255	T25	.044 / 1,11	-	-	1102-55-251	T55	.110 / 2,79	-	-
1102-25-256	T25	.060 / 1,52	-	-	1102-55-252	T55	.200 / 5,08	-	-
1102-27-250	T27	.120 / 3,04	.201 / 5,11	.208 / 5,28	1102-55-253	T55	.145 / 3,68	-	-
1102-27-251	T27	.065 / 1,65	-	-	1102-55-254	T55	.175 / 4,44	-	-
1102-27-252	T27	.105 / 2,66	-	-	1102-55-255	T55	.095 / 2,41	-	-
1102-27-253	T27	.085 / 2,15	-	-	1102-55-256	T55	.155 / 3,93	-	-
1102-27-254	T27	.075 / 1,90	-	-	1102-55-257	T55	.135 / 3,42	-	-
1102-27-255	T27	.050 / 1,27	-	-	1102-55-258	T55	.115 / 2,92	-	-
1102-27-256	T27	.060 / 1,52	-	-	1102-55-259	T55	.190 / 4,82	-	-
1102-27-257	T27	.090 / 2,28	-	-					
1102-30-250	T30	.125 / 3,17	.222 / 5,65	.225 / 5,71	1102-60-250	T60	.280 / 7,11	.531 / 13,48	.562 / 14,27
1102-30-251	T30	.090 / 2,28	-	-	1102-60-251	T60	.145 / 3,68	-	-
1102-30-252	T30	.105 / 2,66	-	-	1102-60-252	T60	.245 / 6,22	-	-
1102-30-253	T30	.070 / 1,77	-	-	1102-60-253	T60	.215 / 5,46	-	-
1102-30-254	T30	.055 / 1,39	-	-	1102-60-254	T60	.185 / 4,69	-	-
1102-30-255	T30	.043 / 1,09	-	-	1102-60-256	T60	.150 / 3,81	-	-
1102-30-256	T30	.080 / 2,03	-	-	1102-60-257	T60	.221 / 5,61	-	-
1102-30-257	T30	.075 / 1,90	-	-					
1102-30-258	T30	.060 / 1,52	-	-					
1102-30-260	T30	.065 / 1,65	-	-					

MATERIAL: 20% CARBIDE
COATINGS PRICED UPON REQUEST

#1103 6-LOBE (TX) TAMPER RESISTANT PUNCH PINS

TMP/TXP-19



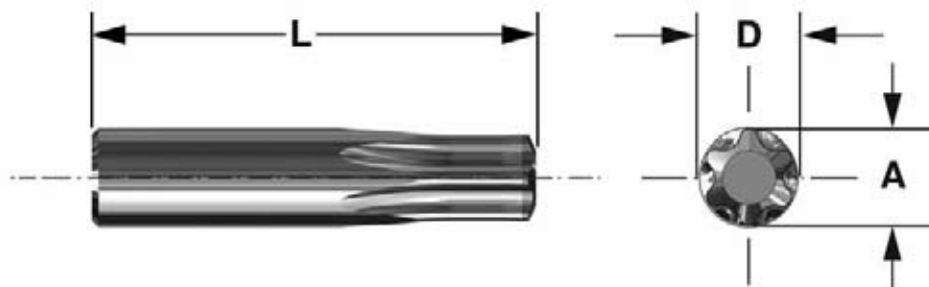
PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm
1103-08-251	T8	.035 / 0,88	.095 / 2,41	.099 / 2,51	1103-45-253	T45	.110 / 2,79	.314 / 7,97	.330 / 8,38
1103-10-251	T10	.040 / 1,02	.112 / 2,84	.115 / 2,92	1103-50-257	T50	.110 / 2,79	.354 / 8,99	.374 / 9,49
1103-15-251	T15	.045 / 1,14	.133 / 3,37	.136 / 3,45	1103-55-253	T55	.145 / 3,68	.449 / 11,40	.469 / 11,91
1103-20-253	T20	.050 / 1,27	.156 / 3,96	.159 / 4,03	1103-60-254	T60	.185 / 4,70	.531 / 13,43	.562 / 14,27
1103-25-253	T25	.055 / 1,40	.179 / 4,55	.182 / 4,62					
1103-27-251	T27	.065 / 1,65	.201 / 5,11	.208 / 5,28					
1103-30-253	T30	.070 / 1,78	.222 / 5,65	.225 / 5,71					
1103-40-254	T40	.097 / 2,46	.268 / 6,80	.271 / 6,88					

MATERIALS: M2 OR M42 HIGH SPEED STEEL

AVAILABLE: COATINGS AND SPECIAL "M" LENGTHS

#1104 6-LOBE (TX) EXTRUSION PUNCHES

TMP/TXP-43

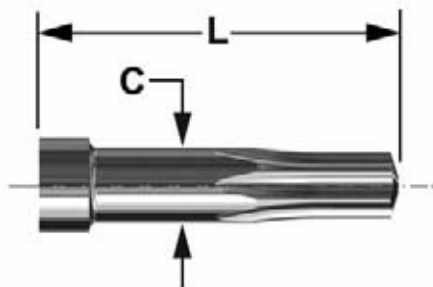


PART NUMBER	DRIVE SIZE	A inch / mm	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	A inch / mm	D inch / mm	L inch / mm
1104-05	T5	.059 / 1,49	.063 / 1,60	1.00 / 25,4	1104-30	T30	.222 / 5,65	.225 / 5,71	1.26 / 32,0
1104-06	T6	.070 / 1,77	.079 / 2,00	1.00 / 25,4	1104-40	T40	.268 / 6,80	.272 / 6,90	1.51 / 38,3
1104-07	T7	.082 / 2,09	.087 / 2,20	1.00 / 25,4	1104-45	T45	.314 / 7,97	.319 / 8,10	1.51 / 38,3
1104-08	T8	.095 / 2,41	.099 / 2,51	1.00 / 25,4	1104-50	T50	.354 / 8,99	.359 / 9,11	1.51 / 38,3
1104-09	T9	.102 / 2,60	.107 / 2,71	1.00 / 25,4	1104-55	T55	.449 / 11,40	.455 / 11,55	1.51 / 38,3
1104-10	T10	.112 / 2,84	.115 / 2,92	1.00 / 25,4	1104-60	T60	.531 / 13,48	.536 / 13,61	2.19 / 55,6
1104-15	T15	.133 / 3,37	.138 / 3,50	1.26 / 32,0	1104-70	T70	.621 / 15,77	.631 / 16,02	2.19 / 55,6
1104-20	T20	.156 / 3,96	.158 / 4,01	1.26 / 32,0	1104-80	T80	.702 / 17,83	.749 / 19,02	2.19 / 55,6
1104-25	T25	.179 / 4,55	.182 / 4,62	1.26 / 32,0	1104-90	T90	.797 / 20,25	.806 / 20,47	2.19 / 55,6
1104-27	T27	.201 / 5,11	.205 / 5,20	1.26 / 32,0	1104-100	T100	.884 / 22,46	.906 / 23,01	2.19 / 55,6

MATERIAL: ASP-30PM HARDNESS: RC 64-67

COATING PRICED UPON REQUEST

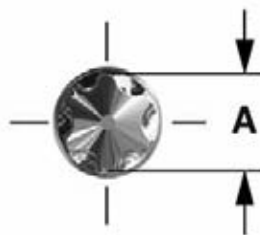
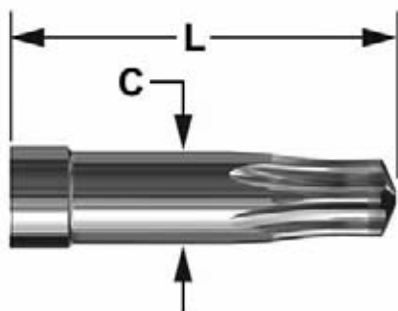
#1105 6-LOBE (TX) MULTI-STATION PUNCHES



PART NUMBER	DRIVE SIZE	A inch / mm	C inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	A inch / mm	C inch / mm	L inch / mm
1105-05	T5	.059 / 1,49	.078 / 2,0	.86 / 22,0	1105-30	T30	.222 / 5,65	.236 / 6,0	1.41 / 36,0
1105-06	T6	.070 / 1,77	.098 / 2,5	.86 / 22,0	1105-40	T40	.268 / 6,80	.295 / 7,5	1.41 / 36,0
1105-07	T7	.082 / 2,09	.098 / 2,5	.98 / 25,0	1105-45	T45	.314 / 7,97	.334 / 8,5	1.57 / 40,0
1105-08	T8	.095 / 2,41	.118 / 3,0	.98 / 25,0	1105-50	T50	.354 / 8,99	.374 / 9,5	1.57 / 40,0
1105-09	T9	.102 / 2,60	.118 / 3,0	1.18 / 30,0	1105-55	T55	.449 / 11,40	.472 / 12,0	1.81 / 50,0
1105-10	T10	.112 / 2,84	.118 / 3,0	1.18 / 30,0	1105-60	T60	.531 / 13,48	.590 / 15,0	2.16 / 60,0
1105-15	T15	.133 / 3,37	.157 / 4,0	1.18 / 30,0	1105-70	T70	.621 / 15,77	.669 / 17,0	2.76 / 70,0
1105-20	T20	.156 / 3,96	.157 / 4,0	1.18 / 30,0	1105-80	T80	.702 / 17,83	.748 / 19,0	2.76 / 70,0
1105-25	T25	.179 / 4,55	.196 / 5,0	1.30 / 33,0	1105-90	T90	.797 / 20,25	.826 / 21,0	3.15 / 80,0
1105-27	T27	.201 / 5,11	.216 / 5,5	1.30 / 33,0	1105-100	T100	.884 / 22,46	.905 / 23,0	3.15 / 80,0

MATERIAL: ASP-30PM HARDNESS: RC 64-67
COATING PRICED UPON REQUEST

#1105-XL 6-LOBE (TX) EXTRUSION PUNCHES

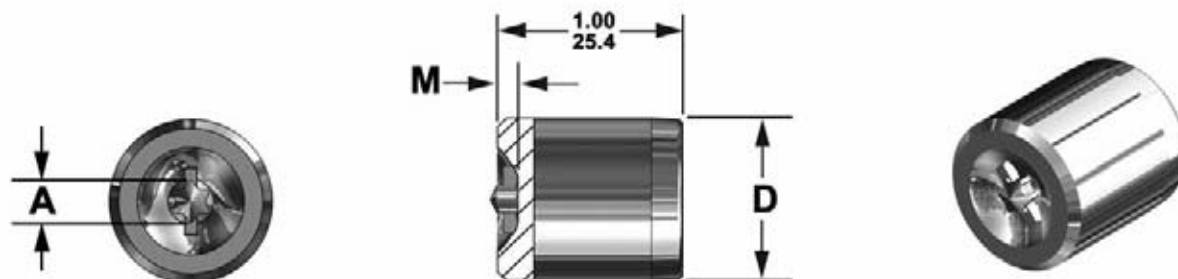


PART NUMBER	DRIVE SIZE	A inch / mm	C inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	A inch / mm	C inch / mm	L inch / mm
1105-05XL	T5	.059 / 1,49	.078 / 2,0	.86 / 22,0	1105-30XL	T30	.222 / 5,65	.236 / 6,0	1.41 / 36,0
1105-06XL	T6	.070 / 1,77	.098 / 2,5	.86 / 22,0	1105-40XL	T40	.268 / 6,80	.295 / 7,5	1.41 / 36,0
1105-07XL	T7	.082 / 2,09	.098 / 2,5	.98 / 25,0	1105-45XL	T45	.314 / 7,97	.334 / 8,5	1.57 / 40,0
1105-08XL	T8	.095 / 2,41	.118 / 3,0	.98 / 25,0	1105-50XL	T50	.354 / 8,99	.374 / 9,5	1.57 / 40,0
1105-09XL	T9	.102 / 2,60	.118 / 3,0	1.18 / 30,0	1105-55XL	T55	.449 / 11,40	.472 / 12,0	1.81 / 50,0
1105-10XL	T10	.112 / 2,84	.118 / 3,0	1.18 / 30,0	1105-60XL	T60	.531 / 13,48	.590 / 15,0	2.16 / 60,0
1105-15XL	T15	.133 / 3,37	.157 / 4,0	1.18 / 30,0	1105-70XL	T70	.621 / 15,77	.669 / 17,0	2.76 / 70,0
1105-20XL	T20	.156 / 3,96	.157 / 4,0	1.18 / 30,0	1105-80XL	T80	.702 / 17,83	.748 / 19,0	2.76 / 70,0
1105-25XL	T25	.179 / 4,55	.196 / 5,0	1.30 / 33,0	1105-90XL	T90	.797 / 20,25	.826 / 21,0	3.15 / 80,0
1105-27XL	T27	.201 / 5,11	.216 / 5,5	1.30 / 33,0	1105-100XL	T100	.884 / 22,46	.905 / 23,0	3.15 / 80,0

MATERIAL: ASP-30PM HARDNESS: RC 64-67
COATING PRICED UPON REQUEST

#1108 6-LOBE (TX) STRUCK SLOT PAN HEAD PUNCH

TXP-33.4

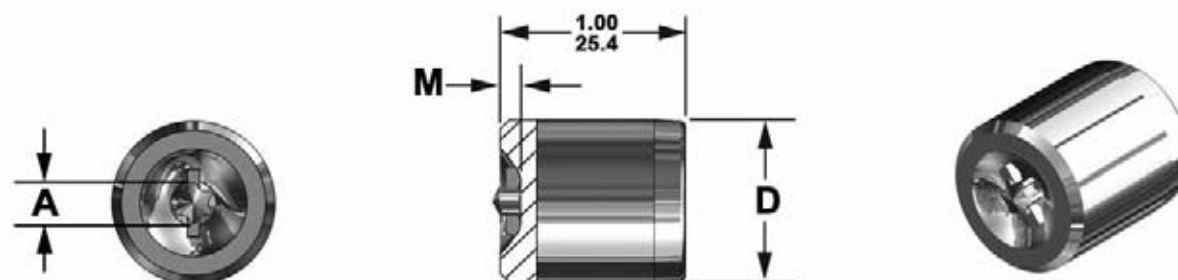


PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	D inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	D inch / mm
1108-07	T7	.031 / 0,78	.082 / 2,09	.437 / 11,1	1108-25	T25	.075 / 1,90	.179 / 4,55	.875 / 22,2
1108-08-2	T8	.041 / 1,04	.095 / 2,41	.437 / 11,1	1108-27	T27	.075 / 1,90	.201 / 5,11	.875 / 22,2
1108-08-3	T8	.041 / 1,04	.095 / 2,41	.437 / 11,1	1108-30	T30	.090 / 2,28	.222 / 5,65	.875 / 22,2
1108-09	T9	.040 / 1,01	.102 / 2,60	.437 / 11,1	1108-40	T40	.110 / 2,79	.268 / 6,80	.875 / 22,2
1108-10-4	T10	.051 / 1,29	.112 / 2,84	.562 / 14,2	1108-45	T45	.140 / 3,55	.314 / 7,97	1.00 / 25,4
1108-10-5	T10	.051 / 1,29	.112 / 2,84	.562 / 14,2	1108-50	T50	.154 / 3,91	.354 / 8,99	1.25 / 31,7
1108-15	T15	.051 / 1,29	.133 / 3,37	.562 / 14,2	1108-55	T55	.175 / 4,44	.449 / 11,40	1.25 / 31,7
1108-20	T20	.060 / 1,52	.156 / 3,96	.562 / 14,2					

MATERIALS: M2 OR M42 HIGH SPEED STEEL
COATINGS PRICED UPON REQUEST

#1110 6-LOBE (TX) METRIC STRUCK SLOT PUNCH

TMP-51.1

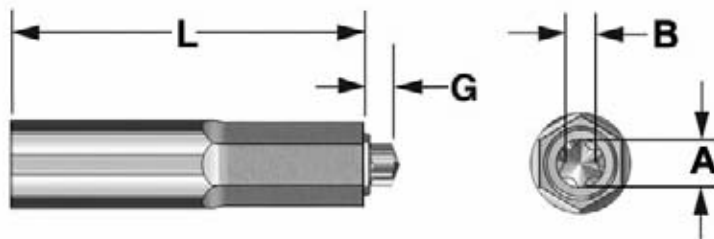


PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	D inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	D inch / mm
1110-06-175	T6	.033 / 0,84	.070 / 1,77	.437 / 11,1	1110-25-176	T25	.075 / 1,91	.179 / 4,55	.875 / 22,2
1110-08-175	T8	.038 / 0,97	.095 / 2,41	.437 / 11,1	1110-30-175	T30	.090 / 2,29	.222 / 5,65	.875 / 22,2
1110-10-175	T10	.043 / 1,10	.112 / 2,84	.437 / 11,1	1110-40-175	T40	.105 / 2,67	.268 / 6,80	1.25 / 31,7
1110-15-175	T15	.055 / 1,40	.133 / 3,37	.437 / 11,1	1110-50-175	T50	.135 / 3,43	.354 / 8,99	1.25 / 31,7
1110-20-175	T20	.065 / 1,66	.156 / 3,96	.562 / 14,2	1110-55-175	T55	.175 / 4,44	.449 / 11,40	1.25 / 31,7
1110-25-175	T25	.075 / 1,91	.179 / 4,55	.562 / 14,2					

MATERIALS: M2 OR M42 HIGH SPEED STEEL
COATINGS PRICED UPON REQUEST

#1145 6-LOBE (TX) HEX WASHER PUNCH PINS

TXP-34

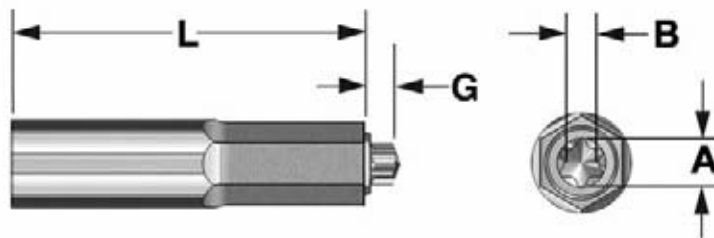


PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	G REF. inch / mm	A inch / mm	B inch / mm	L inch / mm
1145-08	08-TXI-200	T8	.036 / 0,91	.095 / 2,41	.069 / 1,75	1.227 / 31,1
1145-10	10-TXI-200	T10	.045 / 1,14	.111 / 2,81	.081 / 2,05	1.227 / 31,1
1145-15	15-TXI-200	T15	.050 / 1,27	.132 / 3,35	.096 / 2,43	1.227 / 31,1
1145-20	20-TXI-200	T20	.065 / 1,65	.155 / 3,93	.112 / 2,84	1.227 / 31,1
1145-25	25-TXI-200	T25	.070 / 1,78	.178 / 4,52	.129 / 3,27	1.227 / 31,1
1145-27	27-TXI-200	T27	.080 / 2,03	.200 / 5,08	.144 / 3,65	1.227 / 31,1
1145-30	30-TXI-200	T30	.095 / 2,41	.221 / 5,61	.160 / 4,06	1.559 / 39,6
1145-40	40-TXI-200	T40	.115 / 2,92	.267 / 6,78	.192 / 4,87	1.559 / 39,6
1145-45	45-TXI-200	T45	.140 / 3,56	.313 / 7,95	.224 / 5,68	1.559 / 39,6

MATERIALS: M2 OR M42 HIGH SPEED STEEL
COATINGS PRICED UPON REQUEST

#1146 6-LOBE (TX) METRIC HEX FLANGE PUNCH PINS

TMP-56

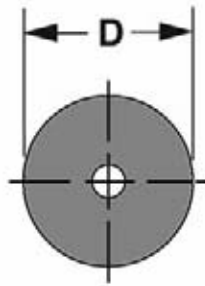
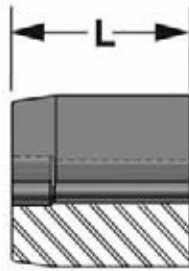


PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	G REF. inch / mm	A inch / mm	B inch / mm	L inch / mm
1146-08	08-TMI-200	T8	.036 / 0,91	.095 / 2,41	.069 / 1,75	1.227 / 31,1
1146-10	10-TMI-200	T10	.045 / 1,15	.111 / 2,81	.081 / 2,05	1.227 / 31,1
1146-15	15-TMI-200	T15	.050 / 1,53	.132 / 3,35	.096 / 2,43	1.227 / 31,1
1146-20	20-TMI-200	T20	.065 / 1,66	.155 / 3,93	.112 / 2,84	1.227 / 31,1
1146-25	25-TMI-200	T25	.070 / 1,91	.178 / 4,52	.129 / 3,27	1.227 / 31,1
1146-30	30-TMI-200	T30	.095 / 2,29	.221 / 5,61	.160 / 4,06	1.227 / 31,1
1146-40	40-TMI-200	T40	.115 / 2,67	.267 / 6,78	.192 / 4,87	1.559 / 39,6
1146-50	50-TMI-200	T50	.135 / 3,43	.352 / 8,94	.256 / 6,50	1.559 / 39,6
1146-55	55-TMI-200	T55	.170 / 4,32	.447 / 11,35	.318 / 8,07	1.559 / 39,6

MATERIALS: M2 OR M42 HIGH SPEED STEEL
COATINGS PRICED UPON REQUEST

#1150 FLAT HEAD INSERTS

TXP/CIP-22 & 22.1

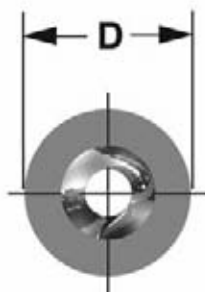
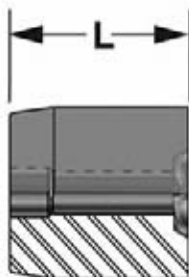


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1150-05	5	.562 / 14,27	.375 / 9,52	1150-30	30	.875 / 22,2	.625 / 15,87
1150-06	6	.562 / 14,27	.375 / 9,52	1150-40	40	.875 / 22,2	.625 / 15,87
1150-07	7	.562 / 14,27	.625 / 15,87	1150-45	45	1.00 / 25,4	.625 / 15,87
1150-08	8	.562 / 14,27	.625 / 15,87	1150-50	50	1.00 / 25,4	.750 / 19,05
1150-09	9	.562 / 14,27	.625 / 15,87	1150-55	55	1.25 / 38,1	1.000 / 25,40
1150-10	10	.562 / 14,27	.625 / 15,87	1150-60	60	1.50 / 38,1	1.000 / 25,40
1150-15	15	.562 / 14,27	.625 / 15,87	1150-70	70	1.50 / 38,1	1.000 / 25,40
1150-20	20	.562 / 14,27	.625 / 15,87				
1150-25	25	.875 / 22,22	.750 / 19,05				
1150-27	27	.875 / 22,22	1.000 / 25,40				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1152 SOCKET HEAD INSERTS

TXP/CIP-23

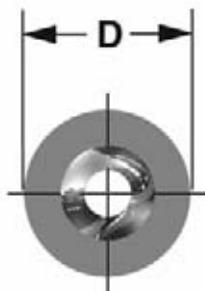
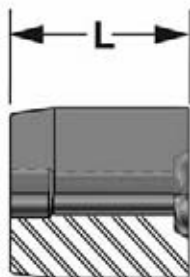


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1152-06	6	.562 / 14,2	.380 / 9,65	1152-30	30	.875 / 22,2	.647 / 16,43
1152-07	7	.562 / 14,2	.631 / 9,63	1152-45	45	.875 / 22,2	1.020 / 26,03
1152-08-2	8	.562 / 14,2	.633 / 16,03	1152-50	50	1.00 / 25,4	1.025 / 26,03
1152-08-3	8	.562 / 14,2	.633 / 16,03	1152-55-43	55	1.25 / 31,7	1.030 / 26,16
1152-10-4	10	.562 / 14,2	.634 / 16,10	1152-55-50	55	1.25 / 31,7	1.035 / 26,29
1152-10-5	10	.562 / 14,2	.634 / 16,10				
1152-15	15	.562 / 14,2	.635 / 16,13				
1152-25	25	.875 / 22,2	.635 / 16,13				
1152-27	27	.875 / 22,2	.642 / 16,31				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1153 METRIC SOCKET HEAD INSERTS

DIN 912 / ISO4762



PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1153-08	8	.437 / 11,10	.632 / 16,05	1153-40	40	.875 / 22,22	1.018 / 25,86
1153-10	10	.562 / 14,27	.632 / 16,05	1153-45	45	1.000 / 25,40	1.022 / 25,96
1153-15	15	.562 / 14,27	.632 / 16,05	1153-50	50	1.250 / 31,75	1.027 / 26,09
1153-25	25	.562 / 14,27	.634 / 16,10	1153-55	55	1.375 / 34,92	1.031 / 26,19
1153-27-4.5	27	.875 / 22,22	.636 / 16,15	1153-60	60	1.500 / 38,10	1.500 / 38,10
1153-27-5	27	.875 / 22,22	.639 / 16,23				
1153-30	30	.875 / 22,22	1.020 / 25,91				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1155 BUTTON HEAD INSERTS

TXP/CIP-26

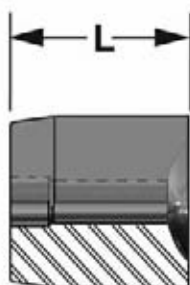


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1155-05	5	.562 / 14,27	.403 / 10,23	1155-27	27	.875 / 22,22	.733 / 18,62
1155-06	6	.562 / 14,27	.410 / 10,36	1155-40	40	1.000 / 25,40	.872 / 22,48
1155-07	7	.562 / 14,27	.412 / 10,46	1155-45	45	1.000 / 25,40	1.141 / 29,59
1155-08	8	.562 / 14,27	.415 / 10,54	1155-55	55	1.250 / 31,75	1.207 / 30,94
1155-10-5	10	.562 / 14,27	.673 / 17,27	1155-60	60	1.375 / 34,20	1.276 / 32,51
1155-10-6	10	.562 / 14,27	.671 / 17,04				
1155-15	15	.562 / 14,27	.688 / 17,58				
1155-25	25	.875 / 22,22	.705 / 17,91				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1156 METRIC BUTTON HEAD INSERTS

TMP-46

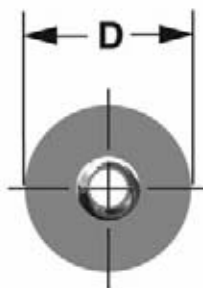
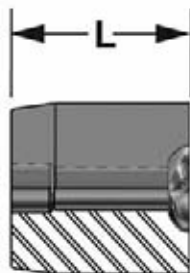


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1156-08	8	.562 / 14,27	.681 / 17,31	1156-40	40	1.000 / 25,40	.907 / 23,04
1156-10-3	10	.562 / 14,27	.681 / 17,31	1156-45	45	1.000 / 25,40	1.201 / 30,51
1156-10-3.5	10	.562 / 14,27	.692 / 17,58	1156-50	50	1.000 / 25,40	1.201 / 30,51
1156-15	15	.562 / 14,27	.702 / 17,84	1156-55	55	1.375 / 34,92	1.242 / 31,57
1156-25	25	.875 / 22,22	.722 / 18,34	1156-55	55	1.500 / 38,10	1.286 / 32,68
1156-27	27	.875 / 22,22	.740 / 18,80	1156-60	60	1.500 / 38,10	1.322 / 33,58
1156-30	30	.875 / 22,22	.740 / 18,83				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1157 PAN HEAD INSERTS

TXP-33

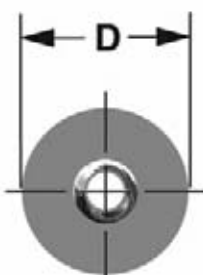
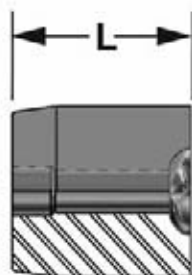


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1157-06	6	.562 / 14,27	.400 / 10,16	1157-25	25	.875 / 22,22	.663 / 16,84
1157-08-2	8	.562 / 14,27	.645 / 16,38	1157-27	27	.875 / 22,22	.668 / 16,97
1157-08-3	8	.562 / 14,27	.646 / 16,38	1157-30	30	.875 / 22,22	.675 / 17,14
1157-10-4	10	.562 / 14,27	.648 / 16,35	1157-40	40	.875 / 22,22	.812 / 20,62
1157-10-5	10	.562 / 14,27	.650 / 16,46	1157-45	45	1.000 / 25,40	1.074 / 27,28
1157-15	15	.562 / 14,27	.652 / 16,51	1157-50	50	1.000 / 25,40	1.084 / 27,53
1157-20	20	.562 / 14,27	.657 / 16,69	1157-55	55	1.250 / 31,75	1.099 / 27,91

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1158 FULL CROWN PAN HEAD INSERTS (PARTIALLY IN DIE) TMP/CIP-33.5A

(SCREW HEAD PARTIALLY IN DIE)

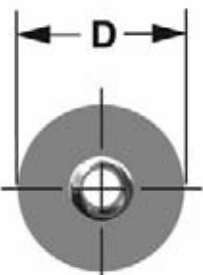
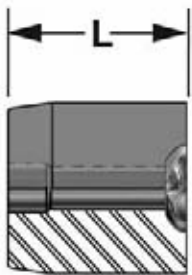


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1158-06	6	.562 / 14,27	.638 / 16,20	1158-27	27	.875 / 22,22	.677 / 17,19
1158-07	7	.562 / 14,27	.642 / 16,30	1158-30	30	.875 / 22,22	.686 / 17,42
1158-08	8	.562 / 14,27	.647 / 16,43	1158-40	40	.875 / 22,22	.827 / 21,00
1158-10-4	10	.562 / 14,27	.650 / 16,51	1158-45	45	1.000 / 25,40	1.092 / 27,74
1158-10-5	10	.562 / 14,27	.654 / 16,61	1158-50	50	1.250 / 31,75	1.107 / 28,12
1158-15	15	.562 / 14,27	.657 / 16,69	1158-55	55	1.500 / 38,10	1.123 / 28,52
1158-20	20	.562 / 14,27	.664 / 16,86				
1158-25	25	.875 / 22,22	.670 / 17,02				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1159 FULL CROWN PAN HEAD INSERTS (FORMING TOP OF DIE) TMP/CIP-33.5

(SCREW HEAD TOP OF DIE)

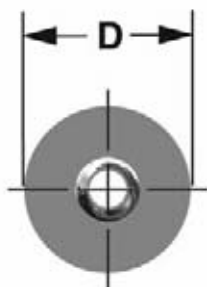


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1159-06	6	.562 / 14,27	.403 / 10,23	1159-27	27	.875 / 22,22	.696 / 17,67
1159-07	7	.562 / 14,27	.657 / 16,68	1159-30	30	.875 / 22,22	.704 / 17,88
1159-08-3	8	.562 / 14,27	.662 / 16,81	1159-40	40	.875 / 22,22	.841 / 21,36
1159-10-4	10	.562 / 14,27	.660 / 16,76	1159-45	45	1.000 / 25,40	1.103 / 28,01
1159-10-5	10	.562 / 14,27	.665 / 16,89	1159-50	50	1.250 / 31,75	1.116 / 28,34
1159-15	15	.562 / 14,27	.663 / 16,84	1159-55	55	1.500 / 38,10	1.119 / 28,42
1159-20	20	.562 / 14,27	.677 / 17,19				
1159-25	25	.875 / 22,22	.690 / 17,51				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1160 METRIC PAN HEAD INSERTS

DIN 7981

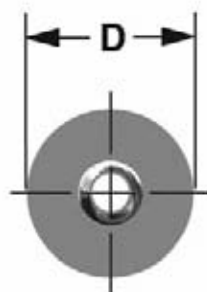
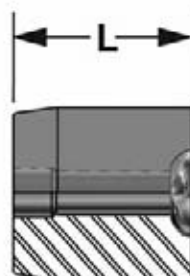


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1160-06	6	.438 / 11,11	.663 / 16,84	1160-25-48	25	.875 / 22,22	.689 / 17,50
1160-08	8	.438 / 11,11	.671 / 17,04	1160-25-55	25	.875 / 22,22	.697 / 17,70
1160-10	10	.562 / 14,27	.675 / 17,15	1160-30	30	1.000 / 25,40	.709 / 18,01
1160-15	15	.562 / 14,27	.679 / 17,25				
1160-20	20	.562 / 14,27	.689 / 17,50				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1161 METRIC PAN HEAD INSERTS

DIN 14583

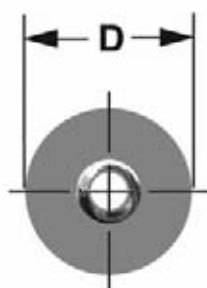
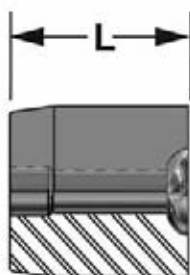


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1161-06	6	.438 / 11,11	.394 / 10,01	1161-25	25	.875 / 22,22	.672 / 17,08
1161-08	8	.438 / 11,11	.649 / 16,50	1161-30	30	.875 / 22,22	.683 / 17,34
1161-10	10	.562 / 14,27	.655 / 16,63	1161-45	45	1.000 / 25,40	1.076 / 27,33
1161-15	15	.562 / 14,27	.659 / 16,73	1161-50	50	1.000 / 25,40	1.095 / 27,82
1161-20	20	.562 / 14,27	.663 / 16,85				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1164 OVAL HEAD INSERTS

TXP/CIP-36

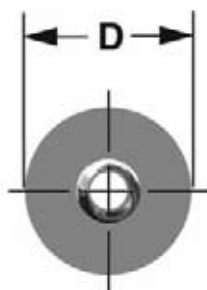
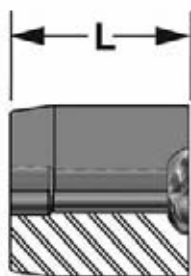


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1164-06	6	.562 / 14,27	.399 / 10,13	1164-30	30	.875 / 22,22	.687 / 17,44
1164-07	7	.562 / 14,27	.651 / 16,53	1164-40	40	.875 / 22,22	.829 / 21,05
1164-08	8	.562 / 14,27	.655 / 16,63	1164-45	45	1.000 / 25,40	1.094 / 27,78
1164-10	10	.562 / 14,27	.656 / 16,66	1164-50-43	50	1.000 / 25,40	1.097 / 27,86
1164-15	15	.562 / 14,27	.659 / 16,73	1164-50-50	50	1.000 / 25,40	1.104 / 28,04
1164-20	20	.562 / 14,27	.664 / 16,86	1164-55-56	55	1.250 / 31,75	1.120 / 28,44
1164-25	25	.875 / 22,22	.671 / 17,04	1164-55-62	55	1.250 / 31,75	1.135 / 28,82
1164-27	27	.875 / 22,22	.678 / 17,22	1164-60	60	1.500 / 38,10	1.162 / 29,51

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1165 METRIC OVAL HEAD INSERTS

TMP-47



PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1165-10-2.0	10	.562 / 14,27	.660 / 16,78	1165-25-6.0	25	.875 / 22,22	.675 / 17,16
1165-10-2.5	10	.562 / 14,27	.644 / 16,38	1165-30-6.0	30	.875 / 22,22	.669 / 17,01
1165-15-3.0	15	.562 / 14,27	.651 / 16,56	1165-30-8.0	30	.875 / 22,22	.684 / 17,38
1165-15-3.5	15	.562 / 14,27	.663 / 16,86	1165-30-9.0	30	.875 / 22,22	.694 / 17,63
1165-20-4.0	20	.875 / 22,22	.654 / 16,63	1165-40-8.0	40	.875 / 22,22	.828 / 21,05
1165-20-4.5	20	.875 / 22,22	.657 / 16,69	1165-45-10	45	1.000 / 25,40	.809 / 20,56
1165-20-5.0	20	.875 / 22,22	.664 / 16,88	1165-50-12	50	1.000 / 25,40	1.098 / 27,90
1165-25-5.5	25	.875 / 22,22	.662 / 16,82	1165-50-14	50	1.000 / 25,40	1.118 / 28,40

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1168 TRUSS HEAD SCREW INSERTS

TXP/CIP-35



PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1168-06	6	.562 / 14,27	.661 / 16,79	1168-27	27	.875 / 22,22	.743 / 18,87
1168-07	7	.562 / 14,27	.668 / 16,97	1168-40	40	.875 / 22,22	.897 / 22,78
1168-08	8	.562 / 14,27	.676 / 17,17	1168-45-37	45	1.000 / 25,40	1.171 / 29,74
1168-10-5	10	.562 / 14,27	.681 / 17,29	1168-45-43	45	1.250 / 31,75	1.201 / 30,50
1168-10-6	10	.562 / 14,27	.689 / 17,50	1168-50	50	1.500 / 38,10	1.230 / 30,24
1168-15	15	.875 / 22,22	.703 / 17,86	1168-55-56	55	1.500 / 38,10	1.259 / 31,98
1168-20	20	.875 / 22,22	.713 / 18,11	1168-55-62	55	1.500 / 38,10	1.289 / 32,74
1168-25	25	.875 / 22,22	.728 / 18,49	1168-60	60	1.750 / 44,45	1.348 / 34,23

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1169 METRIC TRUSS HEAD INSERTS

TMP-54

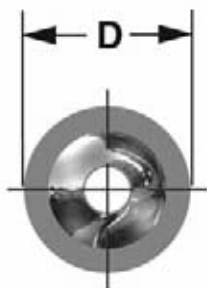


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1169-10	10	.562 / 14,27	.687 / 17,45	1169-50	50	.875 / 22,23	1.213 / 30,82
1169-15	15	.562 / 14,27	.701 / 17,80	1169-55	55	1.250 / 31,75	1.586 / 40,28
1169-20	20	.562 / 14,27	.711 / 18,05				
1169-30	30	.875 / 22,23	.736 / 18,75				
1169-40	40	.875 / 22,23	.895 / 22,73				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1170 ROUND WASHER HEAD INSERTS

TXP/CIP-32

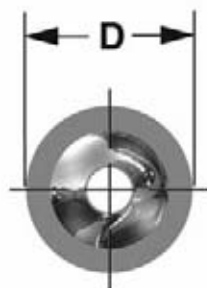


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1170-08-2	8	.562 / 14,27	.677 / 17,20	1170-20	20	.562 / 14,27	.718 / 18,24
1170-08-3	8	.562 / 14,27	.680 / 17,27	1170-25	25	.875 / 22,23	.732 / 18,59
1170-10-4	10	.562 / 14,27	.685 / 17,40	1170-27	27	.875 / 22,23	.781 / 19,84
1170-10-5	10	.562 / 14,27	.694 / 17,63	1170-30	30	1.000 / 25,40	.774 / 19,66
1170-15	15	.562 / 14,27	.716 / 18,19				

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1171 METRIC ROUND WASHER HEAD INSERTS

TMP-50

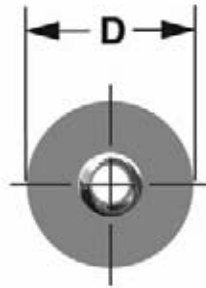
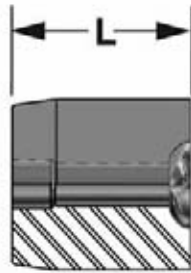


PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1171-10-3	10	.562 / 14,27	.667 / 16,95	1171-20-6	20	.562 / 14,27	.691 / 17,55
1171-10-3.5	10	.562 / 14,27	.679 / 17,25	1171-30	30	.875 / 22,23	.738 / 18,75
1171-20-4	20	.562 / 14,27	.683 / 17,35	1171-40	40	.875 / 22,23	.863 / 21,92
1171-20-5	20	.562 / 14,27	.687 / 17,45	1171-50	50	1.00 / 25,40	1.117 / 28,37

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1175 FILLISTER HEAD INSERTS

TXP/CIP-37



PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm	PART NUMBER	DRIVE SIZE	D inch / mm	L inch / mm
1175-06	6	.562 / 14,27	.642 / 16,30	1175-27	27	.875 / 22,23	.680 / 17,27
1175-07	7	.562 / 14,27	.646 / 16,40	1175-30	30	.875 / 22,23	.690 / 17,52
1175-08	8	.562 / 14,27	.650 / 16,51	1175-40	40	.875 / 22,23	.832 / 21,13
1175-10-04	10	.562 / 14,27	.650 / 16,51	1175-45	45	1.000 / 25,40	1.099 / 27,91
1175-10-05	10	.562 / 14,27	.655 / 16,63	1175-50	50	1.000 / 25,40	1.100 / 27,94
1175-15	15	.562 / 14,27	.659 / 16,73	1175-55-50	55	1.250 / 31,75	1.112 / 28,24
1175-20	20	.562 / 14,27	.666 / 16,91	1175-55-56	55	1.250 / 31,75	1.127 / 28,63
1175-25	25	.875 / 22,23	.673 / 17,09	1175-60	60	1.500 / 38,10	1.143 / 29,03

MATERIAL: D-2 HIGH CARBON/HIGH CHROME STEEL
COATINGS PRICED UPON REQUEST.

#1180 6-LOBE (TX) PENETRATION GAGE

TXQ-809

MANUFACTURING PENETRATION GAGE
STANDARD REFERENCES TXF-809, TMF-809

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1180-04	T4	4-TXI-809
1180-05	T5	5-TXI-809
1180-06	T6	6-TXI-809
1180-07	T7	7-TXI-809
1180-08	T8	8-TXI-809
1180-09	T9	9-TXI-809
1180-10	T10	10-TXI-809
1180-15	T15	15-TXI-809
1180-20	T20	20-TXI-809
1180-25	T25	25-TXI-809
1180-27	T27	27-TXI-809
1180-30	T30	30-TXI-809
1180-40	T40	40-TXI-809
1180-45	T45	45-TXI-809
1180-50	T50	50-TXI-809
1180-55	T55	55-TXI-809
1180-60	T60	60-TXI-809
1180-70	T70	70-TXI-809
1180-80	T80	80-TXI-809
1180-90	T90	90-TXI-809
1180-100	T100	100-TXI-809



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. Note: Tamper-Proof Style Available (Sizes #6 Thru #45) All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1181 6-LOBE (TX) GO PRODUCTION GAGE

TXQ-809

MANUFACTURING GO PRODUCTION PENETRATION GAGE
STANDARD REFERENCES TMF-804, TXQ-804

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1181-04	T4	4-TXI-804
1181-05	T5	5-TXI-804
1181-06	T6	6-TXI-804
1181-07	T7	7-TXI-804
1181-08	T8	8-TXI-804
1181-09	T9	9-TXI-804
1181-10	T10	10-TXI-804
1181-15	T15	15-TXI-804
1181-20	T20	20-TXI-804
1181-25	T25	25-TXI-804
1181-27	T27	27-TXI-804
1181-30	T30	30-TXI-804
1181-40	T40	40-TXI-804
1181-45	T45	45-TXI-804
1181-50	T50	50-TXI-804
1181-55	T55	55-TXI-804
1181-60	T60	60-TXI-804
1181-70	T70	70-TXI-804
1181-80	T80	80-TXI-804
1181-90	T90	90-TXI-804
1181-100	T100	100-TXI-804



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. Note: Tamper-Proof Style Available (Sizes #6 Thru #45) All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1182 6-LOBE (TX) NO-GO FALLAWAY GAGE

TXQ-812

MANUFACTURING NOGO ELEMENT FALLAWAY DRIVES
STANDARD REFERENCES TXF-812, TMF-810, TMQ-812, TXQ-812

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1182-04	T4	P6TX4/905
1182-05	T5	P6TX5/905
1182-06	T6	P6TX6/905
1182-07	T7	P6TX7/905
1182-08	T8	P6TX8/905
1182-09	T9	P6TX9/905
1182-10	T10	P6TX10/905
1182-15	T15	P6TX15/905
1182-20	T20	P6TX20/905
1182-25	T25	P6TX25/905
1182-27	T27	P6TX27/905
1182-30	T30	P6TX30/905
1182-40	T40	P6TX40/905
1182-45	T45	P6TX45/905
1182-50	T50	P6TX50/905
1182-55	T55	P6TX55/905
1182-60	T60	P6TX60/905
1182-70	T70	P6TX70/905
1182-80	T80	P6TX80/905
1182-90	T90	P6TX90/905
1182-100	T100	P6TX100/905



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. Note: Tamper-Proof Style Available (Sizes #6 Thru #45) All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1184 6-LOBE (TX) PRODUCTION GO NO-GO GAGE

TXQ-804

MANUFACTURING GO NO-GO HEAD GAGE
STANDARD REFERENCES TMF-804, TXQ-804

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1184-04	T4	4-TXI-900
1184-05	T5	5-TXI-900
1184-06	T6	6-TXI-900
1184-07	T7	7-TXI-900
1184-08	T8	8-TXI-900
1184-09	T9	9-TXI-900
1184-10	T10	10-TXI-900
1184-15	T15	15-TXI-900
1184-20	T20	20-TXI-900
1184-25	T25	25-TXI-900
1184-27	T27	27-TXI-900
1184-30	T30	30-TXI-900
1184-40	T40	40-TXI-900
1184-45	T45	45-TXI-900
1184-50	T50	50-TXI-900
1184-55	T55	55-TXI-900
1184-60	T60	60-TXI-900
1184-70	T70	70-TXI-900
1184-80	T80	80-TXI-900
1184-90	T90	90-TXI-900
1184-100	T100	100-TXI-900



Universal's Gage Probes are heat treated, thermally stabilized, and surface treated. This provides additional hardness for maximum wear. Gage probes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1185 6-LOBE (TX) FINAL INSPECTION GAGE

TXQ-811

FINAL INSPECTION & RECEIVING INSPECTION GO GAGE
STANDARD REFERENCES TMQ-811, TMF-811, TXF-811, TXQ-811

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1185-04	T4	4-TXI-901
1185-05	T5	5-TXI-901
1185-06	T6	6-TXI-901
1185-07	T7	7-TXI-901
1185-08	T8	8-TXI-901
1185-09	T9	9-TXI-901
1185-10	T10	10-TXI-901
1185-15	T15	15-TXI-901
1185-20	T20	20-TXI-901
1185-25	T25	25-TXI-901
1185-27	T27	27-TXI-901
1185-30	T30	30-TXI-901
1185-40	T40	40-TXI-901
1185-45	T45	45-TXI-901
1185-50	T50	50-TXI-901
1185-55	T55	55-TXI-901
1185-60	T60	60-TXI-901
1185-70	T70	70-TXI-901
1185-80	T80	80-TXI-901
1185-90	T90	90-TXI-901
1185-100	T100	100-TXI-901



Universal's Gage Probes are heat treated, thermally stabilized, and surface treated. This provides additional hardness for maximum wear. Gage probes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1191 HEXALOBULAR GO PRODUCTION GAGE

IFI-562, ISO10664 & JIS

FOR INTERNAL RECESSES GO PENETRATION GAGE

STANDARD REFERENCES IFI 562, ISO10664 3.3.1 & JIS B1015:2008

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1191-06	6	ISO10664 3.3.1
1191-08	8	-
1191-10	10	-
1191-15	15	-
1191-20	20	-
1191-25	25	-
1191-30	30	-
1191-40	40	-
1191-45	45	-
1191-50	50	-
1191-55	55	-
1191-60	60	-
1191-70	70	-
1191-80	80	-
1191-90	90	-
1191-100	100	-



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1192 HEXALOBULAR NO-GO FALLAWAY GAGE

IFI-562, ISO10664 & JIS

FOR INTERNAL RECESSES GO PENETRATION GAGE

STANDARD REFERENCES IFI 562, ISO10664 3.3.1 & JIS B1015:2008

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1192-06	6	ISO10664 3.3.1
1192-08	8	-
1192-10	10	-
1192-15	15	-
1192-20	20	-
1192-25	25	-
1192-30	30	-
1192-40	40	-
1192-45	45	-
1192-50	50	-
1192-55	55	-
1192-60	60	-
1192-70	70	-
1192-80	80	-
1192-90	90	-
1192-100	100	-



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1194 HEXALOBULAR PRODUCTION GO NO-GO GAGE IFI-562 & ISO10664

FOR INTERNAL RECESSES GO NO-GO PRODUCTION GAGE
STANDARD REFERENCES IFI 562, ISO10664 3.3.1 & JIS B1015:2008

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1194-06	6	ISO10664 3.2 / 3.3
1194-08	8	-
1194-10	10	-
1194-15	15	-
1194-20	20	-
1194-25	25	-
1194-30	30	-
1194-40	40	-
1194-45	45	-
1194-50	50	-
1194-55	55	-
1194-60	60	-
1194-70	70	-
1194-80	80	-
1194-90	90	-
1194-100	100	-



Universal's Gage Probes are heat treated, thermally stabilized, and surface treated. This provides additional hardness for maximum wear. Gage probes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1195 HEXALOBULAR CYLINDRICAL NO-GO GAGE IFI-562 & ISO10664

FOR INTERNAL RECESSES NO-GO FALLAWAY GAGE
STANDARD REFERENCES IFI 562, ISO10664 3.3.1 & JIS B1015:2008

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1195-06	6	ISO10664 3.3.2
1195-08	8	-
1195-10	10	-
1195-15	15	-
1195-20	20	-
1195-25	25	-
1195-30	30	-
1195-40	40	-
1195-45	45	-
1195-50	50	-
1195-55	55	-
1195-60	60	-
1195-70	70	-
1195-80	80	-
1195-90	90	-
1195-100	100	-



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

NEW 6-LOBE EXTRA PLUS (TXP) SYSTEM

• Worldwide Sales & Support

Global Industries currently using the ISO Hexalobular and IFI 6-LOBE now have access to a *NEW* improved drive called 6-LOBE EXTRA Plus (TXP). This elliptical drive has many new improvements for multiple applications including; NAS Aerospace, Appliance, Automotive, Construction Electronics, Military, Nuclear, Medical and others. Universal Punch Corp. has become a preferred supplier to worldwide manufacturing markets through superior quality, technical support and cost effective distribution of stocked inventories of standard tools and gages.

• Manufacturing Standards & Documents

Around the world, several international and governmental committees (ISO, EN, DIN, JIS, IFI, NAS, ANSI) have published fastener manufacturing standards including the gaging documents that provide technical data support ("Know-How") for most common designs. These controlled documents are consistently updated and the necessary manufacturing technology can be obtained from numerous on-line agencies or document stores with current revisions, which provides worldwide document standardization.



• Technical Advantages & Economic Benefits

Hexalobular, IFI 6-Lobe (TX) & 6-Lobe Extra/Plus (TXP) all provide benefits that overcome the inherent limitations of Phillips, Hexagon, Square, 12-Point, Slotted and other drive systems. The result is improved drive tool life and reduced overall costs.

- Improved Driver Bit Life
- Improved Driver Bit Torsional Strength
- Superior Fit Between Drive Tool & Fastener
- High Torque Transfer Capability
- Reduced Camout
- Reduced Tool Slippage
- Reduced Worker Fatigue
- Improved Quality With Economic Benefits

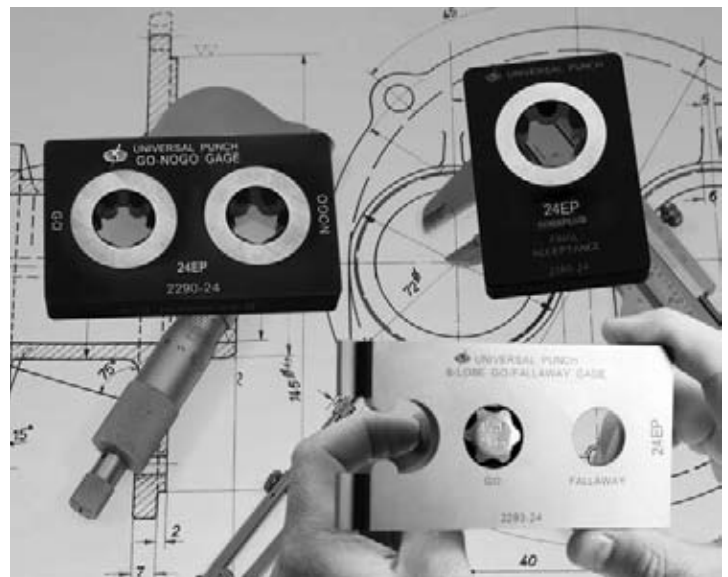


• Gage Re-Certification

To help maintain compliance with all standards for both internal sizes (T5-T100, 5IP-100IP) and external sizes (E4-E44, 4EP-44EP) we offer gage calibration services to re-certify and repair Hexalobular, IFI 6-LOBE (TX) & 6-LOBE EXTRA Plus / (TXP) Gages. Our state-of-the-art inspection laboratory services conform to ISO 17025 and all reference masters are directly traceable to N.I.S.T., which ensures the gaging standards used by manufacturers remains consistent and within established specifications. We recommend your gages be routinely re-certified based on their usage to ensure the gage members and indicators remain accurate and reliable.

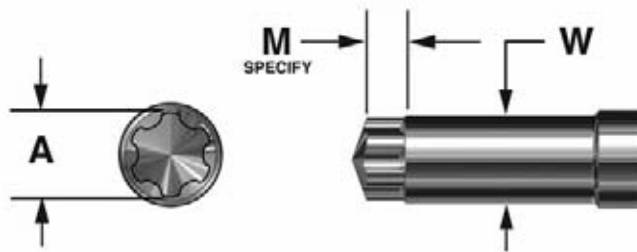
• Gage Types & Classification

Manufacturing & Receiving Inspection • Penetration • Fallaway Penetration • Go / No-Go Internal • Go Final • Tamper Resistant • No-Go Fallaway • Final Inspection External • Go / No-Go External • Driver Bit & Key / Screwdriver • Tapered Bit Go • Socket Driver Go • Plating Thickness Go / No-Go



#1200 EXTRA (TXP) RECESS PUNCH PINS

CIP-21

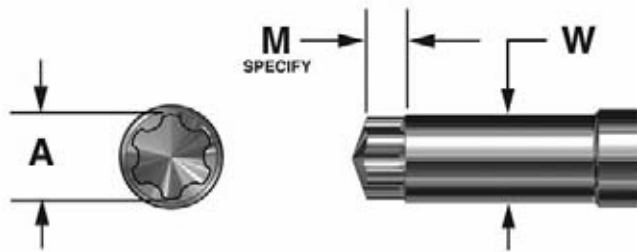


PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm
1200-05-531	5IP	.028 / 0,71	.058 / 1,47	.062 / 1,57	1200-30-531	30IP	.104 / 2,64	.221 / 5,61	.225 / 5,71
1200-05-532	5IP	.025 / 0,64	-	-	1200-30-532	30IP	.093 / 2,36	-	-
1200-05-533	5IP	.022 / 0,56	-	-	1200-30-533	30IP	.082 / 2,08	-	-
1200-05-534	5IP	.019 / 0,48	-	-	1200-30-534	30IP	.070 / 1,77	-	-
1200-06-531	6IP	.033 / 0,83	.069 / 1,75	.074 / 1,87	1200-40-531	40IP	.125 / 3,17	.266 / 6,76	.271 / 6,88
1200-06-532	6IP	.029 / 0,73	-	-	1200-40-532	40IP	.112 / 2,84	-	-
1200-06-533	6IP	.026 / 0,66	-	-	1200-40-533	40IP	.089 / 2,26	-	-
1200-06-534	6IP	.022 / 0,55	-	-	1200-40-534	40IP	.085 / 2,16	-	-
1200-07-531	7IP	.038 / 0,96	.081 / 2,06	.086 / 2,18	1200-45-531	45IP	.146 / 3,70	.312 / 7,92	.330 / 8,38
1200-07-532	7IP	.034 / 0,86	-	-	1200-45-532	45IP	.131 / 3,32	-	-
1200-07-533	7IP	.030 / 0,76	-	-	1200-45-533	45IP	.115 / 2,92	-	-
1200-07-534	7IP	.026 / 0,66	-	-	1200-45-534	45IP	.100 / 2,54	-	-
1200-08-531	8IP	.045 / 1,14	.094 / 2,39	.099 / 2,51	1200-50-531	50IP	.165 / 4,19	.352 / 8,94	.374 / 9,50
1200-08-532	8IP	.040 / 1,02	-	-	1200-50-532	50IP	.148 / 3,76	-	-
1200-08-533	8IP	.035 / 0,89	-	-	1200-50-533	50IP	.130 / 3,30	-	-
1200-08-534	8IP	.030 / 0,76	-	-	1200-50-534	50IP	.112 / 2,84	-	-
1200-09-531	9IP	.048 / 1,22	.101 / 2,57	.106 / 2,69	1200-55-531	55IP	.209 / 5,30	.446 / 11,33	.469 / 11,91
1200-09-532	9IP	.043 / 1,09	-	-	1200-55-532	55IP	.187 / 4,75	-	-
1200-09-533	9IP	.038 / 0,96	-	-	1200-55-533	55IP	.164 / 4,16	-	-
1200-09-534	9IP	.035 / 0,89	-	-	1200-55-534	55IP	.142 / 3,60	-	-
1200-10-531	10IP	.052 / 1,32	.111 / 2,82	.115 / 2,93	1200-60-531	60IP	.255 / 6,47	.529 / 13,44	.562 / 14,27
1200-10-532	10IP	.046 / 1,17	-	-	1200-60-532	60IP	.228 / 5,79	-	-
1200-10-533	10IP	.041 / 1,04	-	-	1200-60-533	60IP	.202 / 5,13	-	-
1200-10-534	10IP	.035 / 0,89	-	-	1200-60-534	60IP	.175 / 4,44	-	-
1200-15-531	15IP	.062 / 1,57	.132 / 3,35	.136 / 3,45	1200-70-531	70IP	.301 / 7,64	.619 / 15,72	.652 / 16,56
1200-15-532	15IP	.055 / 1,40	-	-	1200-70-532	70IP	.270 / 6,85	-	-
1200-15-533	15IP	.049 / 1,24	-	-	1200-70-533	70IP	.239 / 6,07	-	-
1200-15-534	15IP	.042 / 1,07	-	-	1200-70-534	70IP	.208 / 5,28	-	-
1200-20-531	20IP	.073 / 1,85	.155 / 3,94	.159 / 4,05	1200-80-531	80IP	.342 / 8,68	.701 / 17,81	.733 / 18,61
1200-20-532	20IP	.065 / 1,65	-	-	1200-80-532	80IP	.307 / 7,79	-	-
1200-20-533	20IP	.057 / 1,45	-	-	1200-80-533	80IP	.272 / 6,90	-	-
1200-20-534	20IP	.049 / 1,24	-	-	1200-80-534	80IP	.237 / 6,02	-	-
1200-25-531	25IP	.084 / 2,13	.178 / 4,52	.182 / 4,62	1200-90-531	90IP	.390 / 9,90	.795 / 20,19	.829 / 21,05
1200-25-532	25IP	.075 / 1,90	-	-	1200-90-532	90IP	.351 / 8,91	-	-
1200-25-533	25IP	.066 / 1,68	-	-	1200-90-533	90IP	.311 / 7,90	-	-
1200-25-534	25IP	.057 / 1,45	-	-	1200-90-534	90IP	.271 / 6,88	-	-
1200-27-531	27IP	.094 / 2,39	.200 / 5,08	.208 / 5,29	1200-100-531	100IP	.435 / 11,05	.882 / 22,40	.916 / 22,26
1200-27-532	27IP	.084 / 2,13	-	-	1200-100-532	100IP	.391 / 9,93	-	-
1200-27-533	27IP	.074 / 1,88	-	-	1200-100-533	100IP	.347 / 8,81	-	-
1200-27-534	27IP	.064 / 1,63	-	-	1200-100-534	100IP	.303 / 7,69	-	-

MATERIALS: M42 HIGH SPEED STEEL
 AVAILABLE: OTHER MATERIALS, COATINGS AND SPECIAL
 "M" LENGTHS PRICED UPON REQUEST

#1202 EXTRA (TXP) CARBIDE RECESS PUNCH PINS

CIP-21



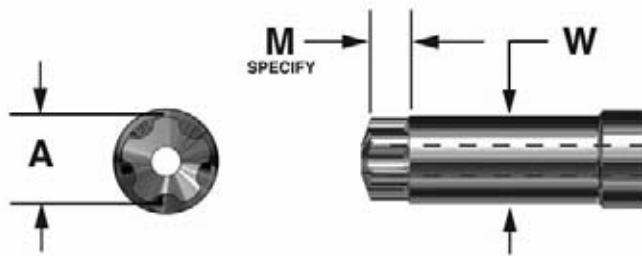
PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	W inch / mm
1202-10-531	10IP	.052 / 1,32	.111 / 2,82	.115 / 2,93	1202-60-531	60IP	.255 / 6,47	.529 / 13,44	.562 / 14,27
1202-10-532	10IP	.046 / 1,17	-	-	1202-60-532	60IP	.228 / 5,79	-	-
1202-10-533	10IP	.041 / 1,04	-	-	1202-60-533	60IP	.202 / 5,13	-	-
1202-10-534	10IP	.035 / 0,89	-	-	1202-60-534	60IP	.175 / 4,44	-	-
1202-15-531	15IP	.062 / 1,57	.132 / 3,35	.136 / 3,45					
1202-15-532	15IP	.055 / 1,40	-	-					
1202-15-533	15IP	.049 / 1,24	-	-					
1202-15-534	15IP	.042 / 1,07	-	-					
1202-20-531	20IP	.073 / 1,85	.155 / 3,94	.159 / 4,05					
1202-20-532	20IP	.065 / 1,65	-	-					
1202-20-533	20IP	.057 / 1,45	-	-					
1202-20-534	20IP	.049 / 1,24	-	-					
1202-25-531	25IP	.084 / 2,13	.178 / 4,52	.182 / 4,62					
1202-25-532	25IP	.075 / 1,90	-	-					
1202-25-533	25IP	.066 / 1,68	-	-					
1202-25-534	25IP	.057 / 1,45	-	-					
1202-27-531	27IP	.094 / 2,39	.200 / 5,08	.208 / 5,29					
1202-27-532	27IP	.084 / 2,13	-	-					
1202-27-533	27IP	.074 / 1,88	-	-					
1202-27-534	27IP	.064 / 1,63	-	-					
1202-30-531	30IP	.104 / 2,64	.221 / 5,61	.225 / 5,71					
1202-30-532	30IP	.093 / 2,36	-	-					
1202-30-533	30IP	.082 / 2,08	-	-					
1202-30-534	30IP	.070 / 1,77	-	-					
1202-40-531	40IP	.125 / 3,17	.266 / 6,76	.271 / 6,88					
1202-40-532	40IP	.112 / 2,84	-	-					
1202-40-533	40IP	.089 / 2,26	-	-					
1202-40-534	40IP	.085 / 2,16	-	-					
1202-45-531	45IP	.146 / 3,70	.312 / 7,92	.330 / 8,38					
1202-45-532	45IP	.131 / 3,32	-	-					
1202-45-533	45IP	.115 / 2,92	-	-					
1202-45-534	45IP	.100 / 2,54	-	-					
1202-50-531	50IP	.165 / 4,19	.352 / 8,94	.374 / 9,50					
1202-50-532	50IP	.148 / 3,76	-	-					
1202-50-533	50IP	.130 / 3,30	-	-					
1202-50-534	50IP	.112 / 2,84	-	-					
1202-55-531	55IP	.209 / 5,30	.446 / 11,33	.469 / 11,91					
1202-55-532	55IP	.187 / 4,75	-	-					
1202-55-533	55IP	.164 / 4,16	-	-					
1202-55-534	55IP	.142 / 3,60	-	-					

MATERIALS: M42 HIGH SPEED STEEL

AVAILABLE: OTHER MATERIALS, COATINGS AND SPECIAL
"M" LENGTHS PRICED UPON REQUEST

#1203 EXTRA (TXP) TAMPER-RESISTANT PUNCH PINS

CIP-21.5

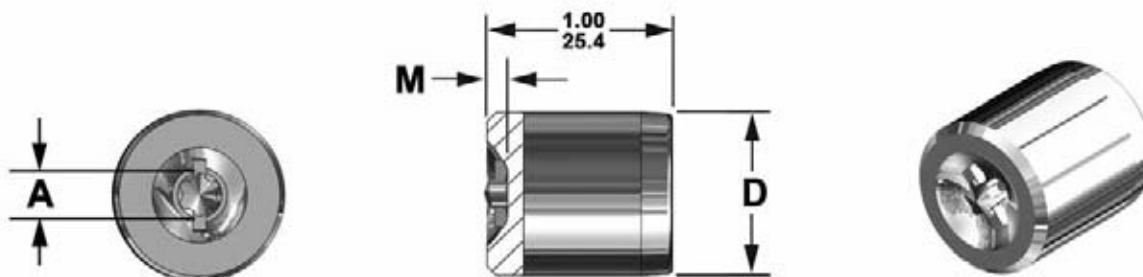


PART NUMBER	DRIVE SIZE	M REF. inch / mm	A REF. inch / mm	W inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A REF. inch / mm	W inch / mm
1203-08-632	8IPR	.040 / 1,02	.094 / 2,39	.099 / 2,51	1203-45-632	45IPR	.131 / 3,32	.312 / 7,92	.562 / 14,27
1203-08-633	8IPR	.035 / 0,89	-	-	1203-45-633	45IPR	.115 / 2,92	-	-
1203-08-634	8IPR	.030 / 0,76	-	-	1203-45-634	45IPR	.100 / 2,54	-	-
1203-09-631	9IPR	.043 / 1,09	.101 / 2,59	.106 / 2,69	1203-50-632	50IPR	.148 / 3,76	.352 / 8,94	.330 / 8,38
1203-09-632	9IPR	.038 / 0,96	-	-	1203-50-633	50IPR	.130 / 3,30	-	-
1203-09-633	9IPR	.035 / 0,89	-	-	1203-50-634	50IPR	.112 / 2,84	-	-
1203-10-632	10IPR	.046 / 1,17	.111 / 2,81	.115 / 2,93	1203-55-632	55IPR	.228 / 5,79	.446 / 11,32	.374 / 9,49
1203-10-633	10IPR	.041 / 1,04	-	-	1203-55-633	55IPR	.202 / 5,13	-	-
1203-10-634	10IPR	.035 / 0,89	-	-	1203-55-634	55IPR	.175 / 4,44	-	-
1203-15-632	15IPR	.055 / 1,40	.132 / 3,35	.136 / 3,45	1203-60-632	60IPR	.228 / 5,79	.529 / 13,43	.469 / 11,91
1203-15-633	15IPR	.049 / 1,24	-	-	1203-60-633	60IPR	.202 / 5,13	-	-
1203-15-634	15IPR	.042 / 1,07	-	-	1203-60-634	60IPR	.175 / 4,44	-	-
1203-20-632	20IPR	.065 / 1,65	.155 / 3,93	.159 / 4,05					
1203-20-633	20IPR	.057 / 1,45	-	-					
1203-20-634	20IPR	.049 / 1,24	-	-					
1203-25-632	25IPR	.075 / 1,90	.178 / 4,52	.182 / 4,62					
1203-25-633	25IPR	.066 / 1,68	-	-					
1203-25-634	25IPR	.057 / 1,45	-	-					
1203-27-632	27IPR	.084 / 2,13	.200 / 5,09	.208 / 5,28					
1203-27-633	27IPR	.074 / 1,88	-	-					
1203-27-634	27IPR	.064 / 1,63	-	-					
1203-30-632	30IPR	.093 / 2,36	.221 / 5,61	.225 / 5,71					
1203-30-633	30IPR	.082 / 2,08	-	-					
1203-30-634	30IPR	.070 / 1,77	-	-					
1203-40-632	40IPR	.112 / 2,84	.266 / 6,75	.271 / 6,88					
1203-40-633	40IPR	.089 / 2,26	-	-					
1203-40-634	40IPR	.085 / 2,16	-	-					

MATERIALS: M42 HIGH SPEED STEEL
AVAILABLE: COATINGS AND SPECIAL "M" LENGTHS PRICED
UPON REQUEST

#1208 EXTRA (TXP) STRUCK SLOT PAN HEAD PUNCHES

CIP-33.4

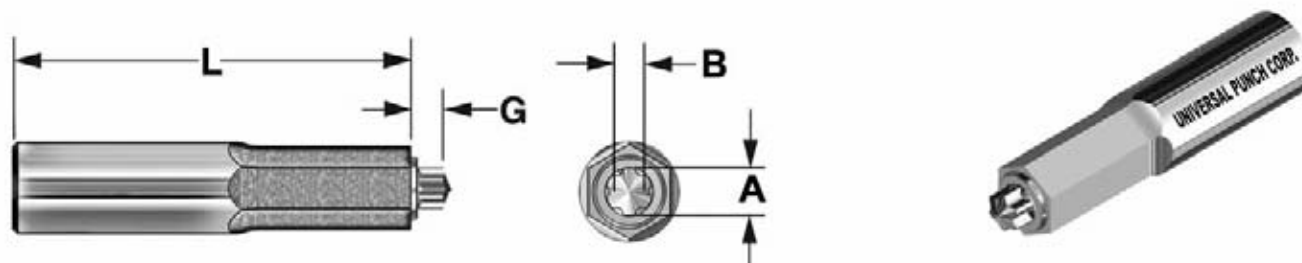


PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	D inch / mm	PART NUMBER	DRIVE SIZE	M REF. inch / mm	A inch / mm	D inch / mm
1208-06	6IP	.030 / 0,76	.069 / 1,75	.437 / 11,1	1208-27	27IP	.088 / 2,23	.200 / 5,08	.875 / 22,2
1208-07	7IP	.035 / 0,88	.081 / 2,06	.437 / 11,1	1208-30	30IP	.097 / 2,46	.221 / 5,61	.875 / 22,2
1208-08	8IP	.041 / 1,04	.094 / 2,39	.437 / 11,1	1208-40	40IP	.116 / 2,94	.266 / 6,76	.875 / 22,2
1208-10	10IP	.049 / 1,24	.111 / 2,82	.562 / 14,2	1208-45	45IP	.137 / 3,47	.312 / 7,92	1.25 / 31,7
1208-10	10IP	.049 / 1,24	.111 / 2,82	.562 / 14,2	1208-50	50IP	.155 / 3,93	.352 / 8,94	1.25 / 31,7
1208-15	15IP	.059 / 1,49	.132 / 3,35	.562 / 14,2	1208-55	55IP	.198 / 5,02	.446 / 11,33	1.25 / 31,7
1208-20	20IP	.068 / 1,72	.155 / 3,94	.562 / 14,2					
1208-25	25IP	.078 / 1,98	.178 / 4,52	.875 / 22,2					

MATERIALS: M2 OR M42 HIGH SPEED STEEL
COATINGS PRICED UPON REQUEST

#1245 EXTRA (TXP) HEX FLANGE PUNCH PINS

CIP-34



PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	G REF. inch / mm	A inch / mm	B inch / mm	L inch / mm
1245-08	08-PLI-200	8IP	.038 / 0,96	.094 / 2,38	.069 / 1,75	1.22 / 31
1245-10	10-PLI-200	10IP	.045 / 1,14	.111 / 2,81	.085 / 2,15	1.22 / 31
1245-15	15-PLI-200	15IP	.053 / 1,34	.132 / 3,35	.102 / 2,59	1.22 / 31
1245-20	20-PLI-200	20IP	.063 / 1,60	.155 / 3,93	.121 / 3,07	1.22 / 31
1245-25	25-PLI-200	25IP	.072 / 1,82	.178 / 4,52	.137 / 3,47	1.22 / 31
1245-27	27-PLI-200	27IP	.081 / 2,05	.200 / 5,08	.156 / 3,96	1.22 / 31
1245-30	30-PLI-200	30IP	.090 / 2,28	.221 / 5,61	.172 / 4,36	1.55 / 39
1245-40	40-PLI-200	40IP	.108 / 2,74	.266 / 6,75	.207 / 5,25	1.55 / 39
1245-45	45-PLI-200	45IP	.127 / 3,22	.312 / 7,92	.247 / 6,27	1.55 / 39

MATERIALS: M2 OR M42 HIGH SPEED STEEL
COATINGS PRICED UPON REQUEST

#1280 EXTRA (TXP) PENETRATION GAGE

CIQ-811

RECEIVING INSPECTION FINAL GO PENETRATION GAGE
STANDARD REFERENCE NIQ-811 & CIQ-811

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1280-05	5IP	5-PLI-801
1280-06	6IP	6-PLI-801
1280-07	7IP	7-PLI-801
1280-08	8IP	8-PLI-801
1280-09	9IP	9-PLI-801
1280-10	10IP	10-PLI-801
1280-15	15IP	15-PLI-801
1280-20	20IP	20-PLI-801
1280-25	25IP	25-PLI-801
1280-27	27IP	27-PLI-801
1280-30	30IP	30-PLI-801
1280-40	40IP	40-PLI-801
1280-45	45IP	45-PLI-801
1280-50	50IP	50-PLI-801
1280-55	55IP	55-PLI-801
1280-60	60IP	60-PLI-801
1280-70	70IP	70-PLI-801
1280-80	80IP	80-PLI-801
1280-90	90IP	90-PLI-801
1280-100	100IP	100-PLI-801



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1281 EXTRA (TXP) GO PENETRATION GAGE

CIQ-804.1.2

MANUFACTURING GAGE FOR INTERNAL DRIVE
STANDARD REFERENCES CIQ-804.1, & CIQ-804.2

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1281-05	5IP	5-PLI-800
1281-06	6IP	6-PLI-800
1281-07	7IP	7-PLI-800
1281-08	8IP	8-PLI-800
1281-09	9IP	9-PLI-800
1281-10	10IP	10-PLI-800
1281-15	15IP	15-PLI-800
1281-20	20IP	20-PLI-800
1281-25	25IP	25-PLI-800
1281-27	27IP	27-PLI-800
1281-30	30IP	30-PLI-800
1281-40	40IP	40-PLI-800
1281-45	45IP	45-PLI-800
1281-50	50IP	50-PLI-800
1281-55	55IP	55-PLI-800
1281-60	60IP	60-PLI-800
1281-70	70IP	70-PLI-800
1281-80	80IP	80-PLI-800
1281-90	90IP	90-PLI-800
1281-100	100IP	100-PLI-800



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1282 EXTRA (TXP) NO-GO FALLAWAY GAGE

CIQ-812

MANUFACTURING & RECEIVING INSPECTION NO-GO FALLAWAY STANDARD REFERENCES NIQ-812 & CIQ-812

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1282-05	5IP	5-PLI-805
1282-06	6IP	6-PLI-805
1282-07	7IP	7-PLI-805
1282-08	8IP	8-PLI-805
1282-09	9IP	9-PLI-805
1282-10	10IP	10-PLI-805
1282-15	15IP	15-PLI-805
1282-20	20IP	20-PLI-805
1282-25	25IP	25-PLI-805
1282-27	27IP	27-PLI-805
1282-30	30IP	30-PLI-805
1282-40	40IP	40-PLI-805
1282-45	45IP	45-PLI-805
1282-50	50IP	50-PLI-805
1282-55	55IP	55-PLI-805
1282-60	60IP	60-PLI-805
1282-70	70IP	70-PLI-805
1282-80	80IP	80-PLI-805
1282-90	90IP	90-PLI-805
1282-100	100IP	100-PLI-805



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1284 EXTRA (TXP) PRODUCTION GO NO-GO GAGE

CIQ-804.1.2

MANUFACTURING GO/NO-GO GAGE FOR INTERNAL DRIVE STANDARD REFERENCES CIQ-804.1, & CIQ-804.2

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1284-05	5IP	5-PLI-800
1284-06	6IP	6-PLI-800
1284-07	7IP	7-PLI-800
1284-08	8IP	8-PLI-800
1284-09	9IP	9-PLI-800
1284-10	10IP	10-PLI-800
1284-15	15IP	15-PLI-800
1284-20	20IP	20-PLI-800
1284-25	25IP	25-PLI-800
1284-27	27IP	27-PLI-800
1284-30	30IP	30-PLI-800
1284-40	40IP	40-PLI-800
1284-45	45IP	45-PLI-800
1284-50	50IP	50-PLI-800
1284-55	55IP	55-PLI-800
1284-60	60IP	60-PLI-800
1284-70	70IP	70-PLI-800
1284-80	80IP	80-PLI-800
1284-90	90IP	90-PLI-800
1284-100	100IP	100-PLI-800



Universal's Gages are heat treated, thermally stabilized, and surface treated. This provides additional hardness for maximum wear. Gage probes are calibrated to dimensions and tolerances as specified and are traceable to N.I.S.T. National Institute of Standards and Technology.

#1285 EXTRA (TXP) FINAL INSPECTION GO GAGE

CIQ-811

RECEIVING INSPECTION FINAL GO GAGE STANDARD REFERENCE NIQ-811 & CIQ-811

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1285-05	5IP	5-PLI-801
1285-06	6IP	6-PLI-801
1285-07	7IP	7-PLI-801
1285-08	8IP	8-PLI-801
1285-09	9IP	9-PLI-801
1285-10	10IP	10-PLI-801
1285-15	15IP	15-PLI-801
1285-20	20IP	20-PLI-801
1285-25	25IP	25-PLI-801
1285-27	27IP	27-PLI-801
1285-30	30IP	30-PLI-801
1285-40	40IP	40-PLI-801
1285-45	45IP	45-PLI-801
1285-50	50IP	50-PLI-801
1285-55	55IP	55-PLI-801
1285-60	60IP	60-PLI-801
1285-70	70IP	70-PLI-801
1285-80	80IP	80-PLI-801
1285-90	90IP	90-PLI-801
1285-100	100IP	100-PLI-801



Universal's Gages are heat treated, thermally stabilized, and surface treated. This provides additional hardness for maximum wear. Gage probes are calibrated to dimensions and tolerances as specified and are traceable to N.I.S.T. National Institute of Standards and Technology.

#1290 EXTRA (TXP) TAMPER RESISTANT PENETRATION GAGE

MANUFACTURING FOR INTERNAL DRIVE STANDARD REFERENCES NIQ-611 & CIQ-611

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1290-05	5IP	5-PLI-601
1290-06	6IP	6-PLI-601
1290-07	7IP	7-PLI-601
1290-08	8IP	8-PLI-601
1290-09	9IP	9-PLI-601
1290-10	10IP	10-PLI-601
1290-15	15IP	15-PLI-601
1290-20	20IP	20-PLI-601
1290-25	25IP	25-PLI-601
1290-27	27IP	27-PLI-601
1290-30	30IP	30-PLI-601
1290-40	40IP	40-PLI-601
1290-45	45IP	45-PLI-601
1290-50	50IP	50-PLI-601
1290-55	55IP	55-PLI-601
1290-60	60IP	60-PLI-601
1290-70	70IP	70-PLI-601
1290-80	80IP	80-PLI-601
1290-90	90IP	90-PLI-601
1290-100	100IP	100-PLI-601



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1291 EXTRA (TXP) TAMPER RESISTANT GO PENETRATION GAGE

MANUFACTURING FOR INTERNAL DRIVE
STANDARD REFERENCES NIQ-804.1,.2 & CIQ-804.1,.2

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1291-05	5IP	5-PLI-600
1291-06	6IP	6-PLI-600
1291-07	7IP	7-PLI-600
1291-08	8IP	8-PLI-600
1291-09	9IP	9-PLI-600
1291-10	10IP	10-PLI-600
1291-15	15IP	15-PLI-600
1291-20	20IP	20-PLI-600
1291-25	25IP	25-PLI-600
1291-27	27IP	27-PLI-600
1291-30	30IP	30-PLI-600
1291-40	40IP	40-PLI-600
1291-45	45IP	45-PLI-600
1291-50	50IP	50-PLI-600
1291-55	55IP	55-PLI-600
1291-60	60IP	60-PLI-600
1291-70	70IP	70-PLI-600
1291-80	80IP	80-PLI-600
1291-90	90IP	90-PLI-600
1291-100	100IP	100-PLI-600



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1292 EXTRA (TXP) TAMPER RESISTANT NO-GO FALLAWAY GAGE

MANUFACTURING & RECEIVING INSPECTION NO-GO GAGE
STANDARD REFERENCES NIQ-612 & CIQ-612

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1292-05	5IP	5-PLI-605
1292-06	6IP	6-PLI-605
1292-07	7IP	7-PLI-605
1292-08	8IP	8-PLI-605
1292-09	9IP	9-PLI-605
1292-10	10IP	10-PLI-605
1292-15	15IP	15-PLI-605
1292-20	20IP	20-PLI-605
1292-25	25IP	25-PLI-605
1292-27	27IP	27-PLI-605
1292-30	30IP	30-PLI-605
1292-40	40IP	40-PLI-605
1292-45	45IP	45-PLI-605
1292-50	50IP	50-PLI-605
1292-55	55IP	55-PLI-605
1292-60	60IP	60-PLI-605
1292-70	70IP	70-PLI-605
1292-80	80IP	80-PLI-605
1292-90	90IP	90-PLI-605
1292-100	100IP	100-PLI-605



When Ordering Specify: Inch or Metric Dial Indicators. SPC-Compatible Digital Indicators priced on request. All gage probe sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#1294 EXTRA (TXP) TAMPER RESISTANT GO NO-GO GAGE

CIQ-804.1

MANUFACTURING GO/NO-GO GAGE FOR INTERNAL DRIVE
STANDARD REFERENCES NIQ-804.1,.2 & CIQ-804.1,.2

PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1294-05	5IP	5-PLI-600
1294-06	6IP	6-PLI-600
1294-07	7IP	7-PLI-600
1294-08	8IP	8-PLI-600
1294-09	9IP	9-PLI-600
1294-10	10IP	10-PLI-600
1294-15	15IP	15-PLI-600
1294-20	20IP	20-PLI-600
1294-25	25IP	25-PLI-600
1294-27	27IP	27-PLI-600
1294-30	30IP	30-PLI-600
1294-40	40IP	40-PLI-600
1294-45	45IP	45-PLI-600
1294-50	50IP	50-PLI-600
1294-55	55IP	55-PLI-600
1294-60	60IP	60-PLI-600
1294-70	70IP	70-PLI-600
1294-80	80IP	80-PLI-600
1294-90	90IP	90-PLI-600
1294-100	100IP	100-PLI-600



Universal's Gages are heat treated, thermally stabilized, and surface treated. This provides additional hardness for maximum wear. Gage probes are calibrated to dimensions and tolerances as specified and are traceable to N.I.S.T. National Institute of Standards and Technology.

#1295 EXTRA (TXP) TAMPER RESISTANT FINAL GAGE

NIQ-611

RECEIVING INSPECTION FINAL GO GAGE
STANDARD REFERENCES NIQ-611, CIQ-611

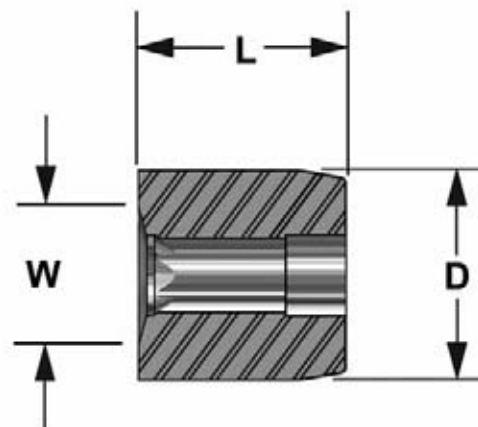
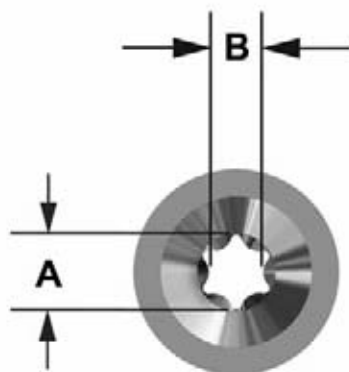
PART NUMBER	DRIVE SIZE	REFERENCE NUMBER
1285-05	5IP	5-PLI-601
1285-06	6IP	6-PLI-601
1285-07	7IP	7-PLI-601
1285-08	8IP	8-PLI-601
1285-09	9IP	9-PLI-601
1285-10	10IP	10-PLI-601
1285-15	15IP	15-PLI-601
1285-20	20IP	20-PLI-601
1285-25	25IP	25-PLI-601
1285-27	27IP	27-PLI-601
1285-30	30IP	30-PLI-601
1285-40	40IP	40-PLI-601
1285-45	45IP	45-PLI-601
1285-50	50IP	50-PLI-601
1285-55	55IP	55-PLI-601
1285-60	60IP	60-PLI-601
1285-70	70IP	70-PLI-601
1285-80	80IP	80-PLI-601
1285-90	90IP	90-PLI-601
1285-100	100IP	100-PLI-601



Universal's Gages are heat treated, thermally stabilized, and surface treated. This provides additional hardness for maximum wear. Gage probes are calibrated to dimensions and tolerances as specified and are traceable to N.I.S.T. National Institute of Standards and Technology.

#2000 6-LOBE (TX) FLANGE PUNCH INSERTS

TMP/TXP-11



SIZE E4 TO E6



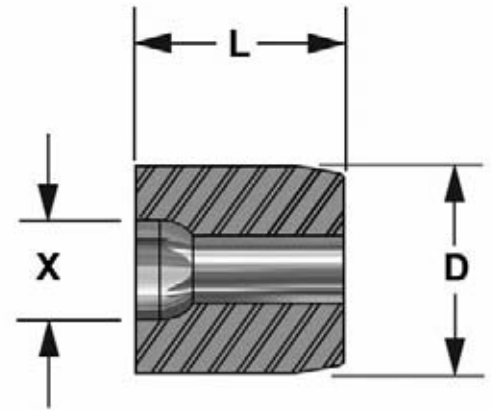
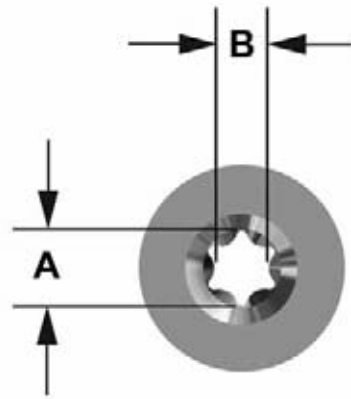
SIZE E7 AND LARGER

PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	A inch / mm	B inch / mm	D inch / mm	L inch / mm	W inch / mm
2000-04	4-TXE-200A	E4	.146 / 3,68	.103 / 3,62	.500 / 12,70	.500 / 12,70	.218 / 5,54
2000-05	5-TXE-200A	E5	.181 / 4,61	.127 / 3,23	.625 / 15,87	.500 / 12,70	.260 / 6,60
2000-06	6-TXE-200A	E6	.219 / 5,56	.151 / 3,83	.625 / 15,87	.500 / 12,70	.297 / 7,54
2000-07	7-TXE-200	E7	.237 / 6,03	.166 / 4,22	.750 / 19,05	.750 / 19,05	.437 / 11,10
2000-08	8-TXE-200	E8	.288 / 7,32	.201 / 5,11	.750 / 19,05	.750 / 19,05	.562 / 14,27
2000-10	10-TXE-200	E10	.363 / 9,23	.260 / 6,60	1.000 / 25,40	1.000 / 25,40	.732 / 18,59
2000-11	11-TXE-200	E11	.389 / 9,89	.273 / 6,93	1.000 / 25,40	1.000 / 25,40	.631 / 16,03
2000-12	12-TXE-200	E12	.432 / 10,99	.304 / 7,72	1.250 / 31,75	1.000 / 25,40	.957 / 24,31
2000-14	14-TXE-200	E14	.500 / 12,71	.355 / 9,02	1.250 / 31,75	1.000 / 25,40	1.070 / 27,18
2000-16	16-TXE-200	E16	.572 / 14,54	.405 / 10,29	1.250 / 31,75	1.000 / 25,40	.852 / 21,64
2000-18	18-TXE-200	E18	.645 / 16,38	.460 / 11,68	1.250 / 31,75	1.000 / 25,40	1.152 / 29,26
2000-20	20-TXE-200	E20	.716 / 18,19	.512 / 13,00	1.500 / 38,10	1.500 / 38,10	1.301 / 33,05
2000-24	24-TXE-200	E24	.806 / 21,86	.612 / 15,54	2.000 / 50,80	1.500 / 38,10	1.516 / 38,51
2000-28	28-TXE-200	E28	.998 / 25,34	.713 / 18,11	2.000 / 50,80	1.750 / 44,45	1.702 / 43,23
2000-32	32-TXE-200	E32	1.136 / 28,85	.833 / 21,16	2.000 / 50,80	1.750 / 44,45	1.862 / 47,29
2000-36	36-TXE-200	E36	1.278 / 32,46	.937 / 23,80	2.000 / 50,80	1.750 / 44,45	1.787 / 45,38
2000-40	40-TXE-200	E40	1.418 / 36,01	1.040 / 26,42	2.500 / 57,15	1.750 / 44,45	1.975 / 50,16
2000-44	44-TXE-200	E44	1.560 / 39,62	1.144 / 39,06	2.500 / 57,15	1.750 / 44,45	2.162 / 54,91

MATERIAL: 20% CARBIDE

TOLERANCE: I.D.'S CONCENTRIC WITHIN .0005"/0,002mm

OTHER SIZES AVAILABLE TO YOUR SPECIFICATIONS

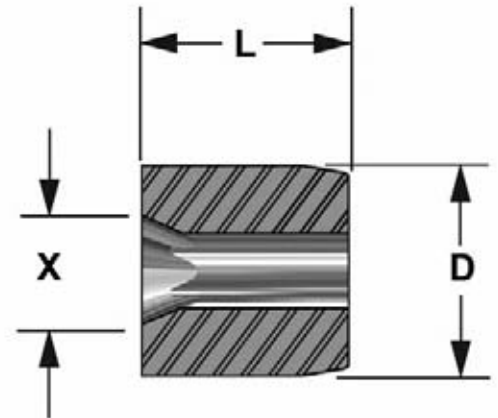
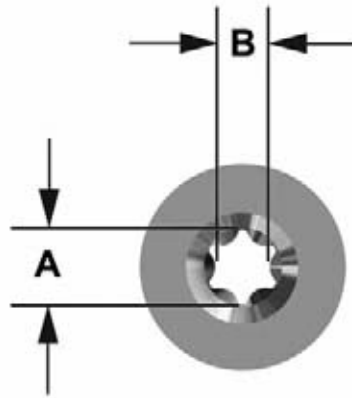


PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	A inch / mm	B inch / mm	D inch / mm	L inch / mm	X inch / mm
2001-01-230	1-TME-230	E1	.090 / 2,29	.063 / 1,61	.500 / 12,70	.50 / 12,7	.119 / 3,04
2001-01-231	1-TME-231	E1	.090 / 2,29	.063 / 1,61	.500 / 12,70	.50 / 12,7	.138 / 3,52
2001-02-230	2-TME-230	E2	.118 / 3,01	.083 / 2,12	.500 / 12,70	.50 / 12,7	.157 / 3,99
2001-04-230	4-TME-230	E4	.146 / 3,72	.103 / 3,62	.500 / 12,70	.50 / 12,7	.172 / 4,39
2001-05-230	5-TME-230	E5	.181 / 4,61	.127 / 3,23	.625 / 15,87	.50 / 12,7	.208 / 5,30
2001-05-231	5-TME-231	E5	.181 / 4,61	.127 / 3,23	.750 / 19,05	.75 / 19,0	.218 / 5,56
2001-06-230	6-TME-230	E6	.226 / 5,57	.151 / 3,84	.750 / 19,05	.75 / 19,0	.248 / 6,31
2001-07-230	7-TME-230	E7	.237 / 6,03	.166 / 4,22	.750 / 19,05	.75 / 19,0	.426 / 7,10
2001-08-230	8-TME-230	E8	.288 / 7,32	.201 / 5,11	.750 / 19,05	.75 / 19,0	.426 / 10,84
2001-11-230	11-TME-230	E11	.389 / 9,89	.265 / 6,74	1.000 / 25,40	1.00 / 25,4	.426 / 10,84
2001-12-230	12-TME-230	E12	.432 / 10,98	.304 / 7,73	1.250 / 31,75	1.25 / 31,7	.494 / 12,57
2001-14-230	14-TME-230	E14	.500 / 12,71	.355 / 9,02	1.250 / 31,75	1.00 / 25,4	.574 / 14,58
2001-16-230	16-TME-230	E16	.572 / 14,54	.405 / 10,29	1.250 / 31,75	1.50 / 38,1	.718 / 18,26
2001-20-230	20-TME-230	E20	.715 / 18,18	.518 / 13,01	1.500 / 38,10	1.50 / 38,1	.862 / 21,92

MATERIAL: 20% CARBIDE

TOLERANCE: I.D.'S CONCENTRIC WITHIN .0005"/0,002mm

OTHER SIZES AVAILABLE TO YOUR SPECIFICATIONS

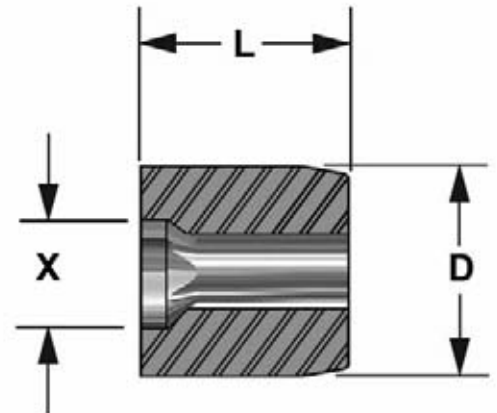
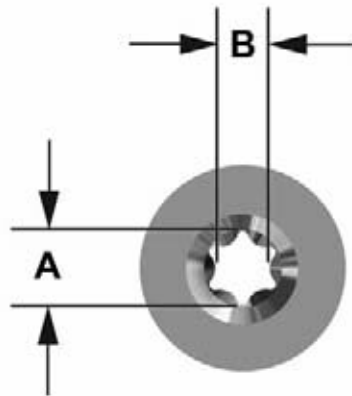


PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	A inch / mm	B inch / mm	D inch / mm	L inch / mm	X inch / mm
2002-01-230	1-TME-230	E1	.090 / 2,29	.063 / 1,61	.500 / 12,70	.50 / 12,7	.125 / 3,19
2002-01-231	1-TME-231	E1	.090 / 2,29	.063 / 1,61	.500 / 12,70	.50 / 12,7	.140 / 3,58
2002-02-230	2-TME-230	E2	.118 / 3,01	.083 / 2,12	.500 / 12,70	.50 / 12,7	.160 / 4,08
2002-04-230	4-TME-230	E4	.146 / 3,72	.103 / 3,62	.500 / 12,70	.50 / 12,7	.180 / 4,58
2002-05-230	5-TME-230	E5	.181 / 4,61	.127 / 3,23	.625 / 15,87	.50 / 12,7	.212 / 5,39
2002-05-231	5-TME-231	E5	.181 / 4,61	.127 / 3,23	.750 / 19,05	.75 / 19,0	.251 / 6,39
2002-06-230	6-TME-230	E6	.226 / 5,57	.151 / 3,84	.750 / 19,05	.75 / 19,0	.283 / 7,21
2002-07-230	7-TME-230	E7	.237 / 6,03	.166 / 4,22	.750 / 19,05	.75 / 19,0	.355 / 9,04
2002-08-230	8-TME-230	E8	.288 / 7,32	.201 / 5,11	.750 / 19,05	.75 / 19,0	.434 / 11,03
2002-11-230	11-TME-230	E11	.389 / 9,89	.265 / 6,74	1.000 / 25,40	1.00 / 25,4	.434 / 11,03
2002-12-230	12-TME-230	E12	.432 / 10,98	.304 / 7,73	1.250 / 31,75	1.25 / 31,7	.505 / 12,85
2002-14-230	14-TME-230	E14	.500 / 12,71	.355 / 9,02	1.250 / 31,75	1.00 / 25,4	.584 / 14,85
2002-16-230	16-TME-230	E16	.572 / 14,54	.405 / 10,29	1.250 / 31,75	1.50 / 38,1	.742 / 18,85
2002-20-230	20-TME-230	E20	.715 / 18,18	.518 / 13,01	1.500 / 38,10	1.50 / 38,1	.885 / 22,49

MATERIAL: 20% CARBIDE

TOLERANCE: I.D.'S CONCENTRIC WITHIN .0005"/0,002mm

OTHER SIZES AVAILABLE TO YOUR SPECIFICATIONS

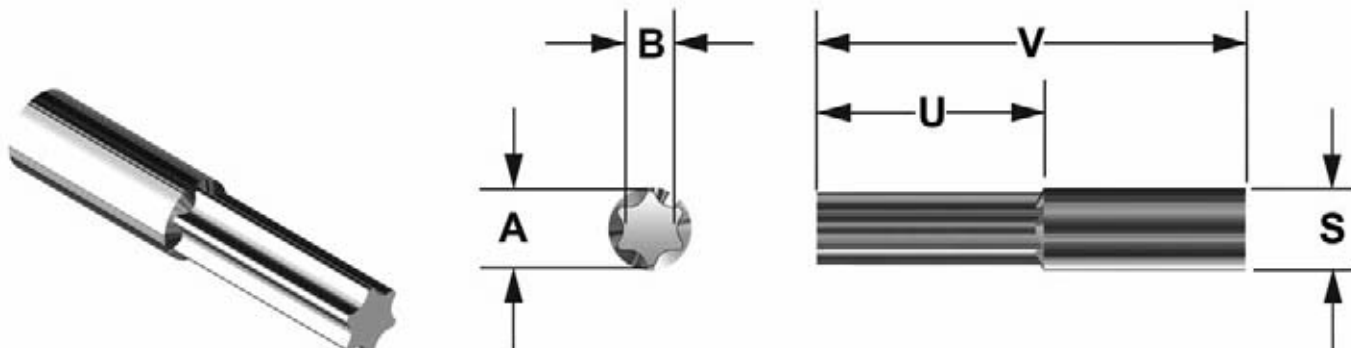


PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	A inch / mm	B inch / mm	D inch / mm	L inch / mm	X inch / mm
2003-01-330	1-TME-330	E1	.090 / 2,29	.063 / 1,61	.500 / 12,70	.50 / 12,7	.122 / 3,11
2003-01-331	1-TME-331	E1	.090 / 2,29	.063 / 1,61	.500 / 12,70	.50 / 12,7	.140 / 3,58
2003-02-330	2-TME-330	E2	.118 / 3,01	.083 / 2,12	.500 / 12,70	.50 / 12,7	.159 / 4,05
2003-04-330	4-TME-330	E4	.146 / 3,72	.103 / 3,62	.500 / 12,70	.50 / 12,7	.175 / 4,46
2003-05-330	5-TME-330	E5	.181 / 4,61	.127 / 3,23	.625 / 15,87	.50 / 12,7	.211 / 5,37
2003-05-331	5-TME-331	E5	.181 / 4,61	.127 / 3,23	.750 / 19,05	.75 / 19,0	.221 / 5,62
2003-06-330	6-TME-330	E6	.226 / 5,57	.151 / 3,84	.750 / 19,05	.75 / 19,0	.251 / 6,38
2003-07-330	7-TME-330	E7	.237 / 6,03	.166 / 4,22	.750 / 19,05	.75 / 19,0	.281 / 7,15
2003-08-330	8-TME-330	E8	.288 / 7,32	.201 / 5,11	.750 / 19,05	.75 / 19,0	.354 / 9,00
2003-11-330	11-TME-330	E11	.389 / 9,89	.265 / 6,74	1.000 / 25,40	1.00 / 25,4	.429 / 10,91
2003-12-330	12-TME-330	E12	.432 / 10,98	.304 / 7,73	1.250 / 31,75	1.25 / 31,7	.496 / 12,62
2003-14-330	14-TME-330	E14	.500 / 12,71	.355 / 9,02	1.250 / 31,75	1.00 / 25,4	.575 / 14,62
2003-16-330	16-TME-330	E16	.572 / 14,54	.405 / 10,29	1.250 / 31,75	1.50 / 38,1	.720 / 18,29
2003-20-330	20-TME-330	E20	.715 / 18,18	.518 / 13,01	1.500 / 38,10	1.50 / 38,1	.863 / 21,94

MATERIAL: 20% CARBIDE

TOLERANCE: I.D.'S CONCENTRIC WITHIN .0005"/0,002mm

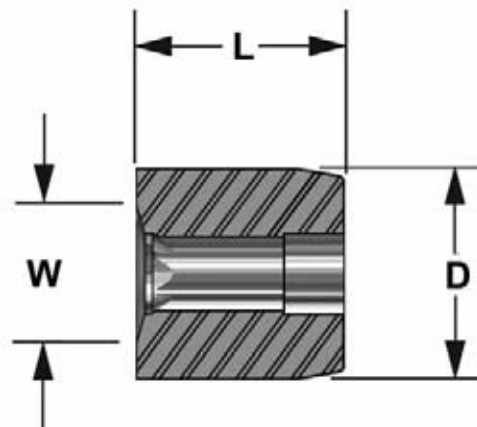
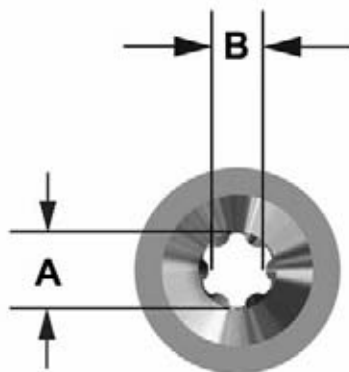
OTHER SIZES AVAILABLE TO YOUR SPECIFICATIONS



PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	A inch / mm	B inch / mm	S inch / mm	U inch / mm	V inch / mm
2006-01	1-TXE-100	E-1	.088 / 2,24	.063 / 1,60	.100 / 2,54	.625 / 15,88	1.625 / 41,27
2006-02	2-TXE-100	E-2	.116 / 2.95	.083 / 2,11	.119 / 3,02	.625 / 15,88	1.625 / 41,27
2006-04	4-TXE-100	E-4	.143 / 3,63	.100 / 2,54	.159 / 4,04	.625 / 15,88	1.625 / 41,27
2006-05	5-TXE-100	E-5	.178 / 4,52	.124 / 3,15	.191 / 4,85	.625 / 15,88	1.625 / 41,27
2006-06	6-TXE-100	E-6	.214 / 5,44	.148 / 3,76	.253 / 6,43	.625 / 15,88	1.625 / 41,27
2006-07	7-TXE-100	E-7	.233 / 5,92	.163 / 4,14	.293 / 7,44	.875 / 22,23	1.875 / 47,62
2006-08	8-TXE-100	E-8	.282 / 7,16	.198 / 5,03	.325 / 8,25	.875 / 22,23	1.875 / 47,62
2006-10	10-TXE-100	E-10	.357 / 9,07	.257 / 6,53	.400 / 10,16	1.125 / 28,57	2.125 / 53,97
2006-11	11-TXE-100	E-11	.383 / 9,73	.270 / 6,86	.429 / 10,90	1.125 / 28,57	2.125 / 53,97
2006-12	12-TXE-100	E-12	.425 / 10,80	.310 / 7,87	.478 / 12,14	1.125 / 28,57	2.125 / 53,97
2006-14	14-TXE-100	E-14	.493 / 12,52	.352 / 8,94	.564 / 14,33	1.125 / 28,57	2.125 / 53,97
2006-16	16-TXE-100	E-16	.565 / 14,35	.402 / 10,21	.625 / 15,88	1.125 / 28,57	2.125 / 53,97
2006-18	18-TXE-100	E-18	.637 / 16,18	.457 / 11,60	.690 / 17,53	1.125 / 28,57	2.125 / 53,97
2006-20	20-TXE-100	E-20	.707 / 17,96	.508 / 12,90	.753 / 19,13	1.625 / 41,27	2.875 / 73,02
2006-24	24-TXE-100	E-24	.837 / 21,26	.607 / 15,42	.894 / 22,71	1.625 / 41,27	2.875 / 73,02
2006-28	28-TXE-100	E-28	.980 / 24,89	.708 / 17,98	1.063 / 27,00	1.625 / 41,27	2.875 / 73,02
2006-32	32-TXE-100	E-32	1.117 / 28,37	.827 / 21,02	1.198 / 30,42	1.875 / 47,62	3.125 / 79,37
2006-36	36-TXE-100	E-36	1.258 / 31,95	.903 / 23,63	1.338 / 33,98	1.875 / 47,62	3.125 / 79,37
2006-40	40-TXE-100	E-40	1.398 / 35,50	1.033 / 26,24	1.478 / 37,54	1.875 / 47,62	3.125 / 79,37
2006-44	44-TXE-100	E-44	1.539 / 39,09	1.136 / 28,85	1.620 / 41,14	1.875 / 47,62	3.125 / 79,37

MATERIAL: S-7 TOOL STEEL

OPTIONAL: IDENTIFICATION AVAILABLE



SIZE E4 TO E6



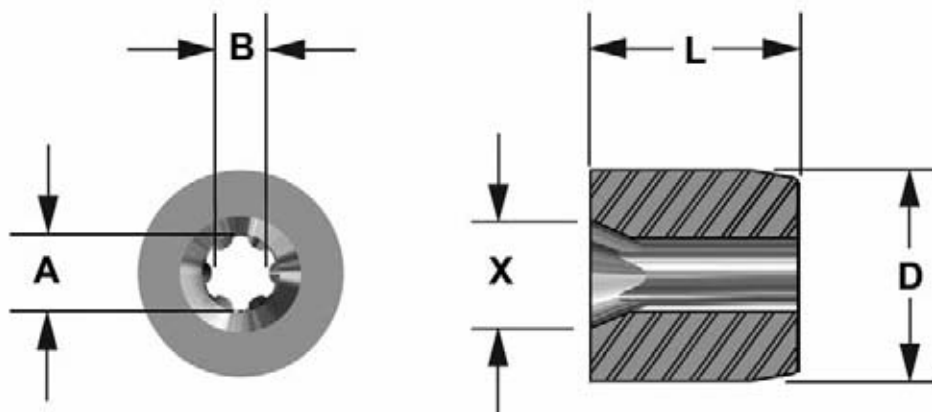
SIZE E7 AND LARGER

PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	A inch / mm	B inch / mm	D inch / mm	L inch / mm	W inch / mm
2100-04	4-PL-400	4EP	.145 / 3,68	.111 / 2,82	.500 / 12,70	.500 / 12,70	.218 / 5,54
2100-05	5-PL-400	5EP	.180 / 4,57	.137 / 3,48	.625 / 15,87	.500 / 12,70	.260 / 6,60
2100-06	6-PL-400	6EP	.217 / 5,51	.166 / 4,22	.625 / 15,87	.500 / 12,70	.297 / 7,54
2100-07	7-PL-400	7EP	.236 / 5,99	.180 / 4,57	.750 / 19,05	.750 / 19,05	.437 / 11,10
2100-08	8-PL-400	8EP	.286 / 7,26	.219 / 5,56	.750 / 19,05	.750 / 19,05	.562 / 14,27
2100-10	10-PL-400	10EP	.361 / 9,17	.276 / 7,01	1.000 / 25,40	1.000 / 25,40	.732 / 18,59
2100-11	11-PL-400	11EP	.387 / 9,83	.296 / 7,52	1.000 / 25,40	1.000 / 25,40	.631 / 16,03
2100-12	12-PL-400	12EP	.430 / 10,92	.329 / 8,36	1.250 / 31,75	1.000 / 25,40	.957 / 24,31
2100-14	14-PL-400	14EP	.498 / 12,65	.381 / 9,68	1.250 / 31,75	1.000 / 25,40	1.070 / 27,18
2100-16	16-PL-400	16EP	.570 / 14,48	.436 / 11,07	1.250 / 31,75	1.000 / 25,40	.852 / 21,64
2100-18	18-PL-400	18EP	.644 / 16,36	.493 / 12,52	1.250 / 31,75	1.000 / 25,40	1.152 / 29,26
2100-20	20-PL-400	20EP	.714 / 18,14	.546 / 13,87	1.500 / 38,10	1.500 / 38,10	1.301 / 33,05
2100-24	24-PL-400	24EP	.859 / 21,82	.657 / 16,69	2.000 / 50,80	1.500 / 38,10	1.516 / 38,51
2100-28	28-PL-400	28EP	.999 / 25,37	.765 / 19,43	2.000 / 50,80	1.500 / 38,10	1.702 / 43,23
2100-32	32-PL-400	32EP	1.137 / 28,88	.870 / 22,10	2.250 / 57,15	1.750 / 44,45	1.862 / 47,29
2100-36	36-PL-400	36EP	1.279 / 32,49	.979 / 24,87	2.000 / 50,80	1.750 / 44,45	1.787 / 45,38
2100-40	40-PL-400	40EP	1.419 / 36,04	1.086 / 27,58	2.250 / 57,15	1.750 / 44,45	1.975 / 50,16
2100-44	44-PL-400	44EP	1.561 / 39,65	1.195 / 30,35	2.500 / 57,15	1.750 / 44,45	2.162 / 54,91

MATERIAL: 20% CARBIDE

TOLERANCE: I.D.'S CONCENTRIC WITHIN .0005"/0,002mm

OTHER SIZES AVAILABLE TO YOUR SPECIFICATIONS

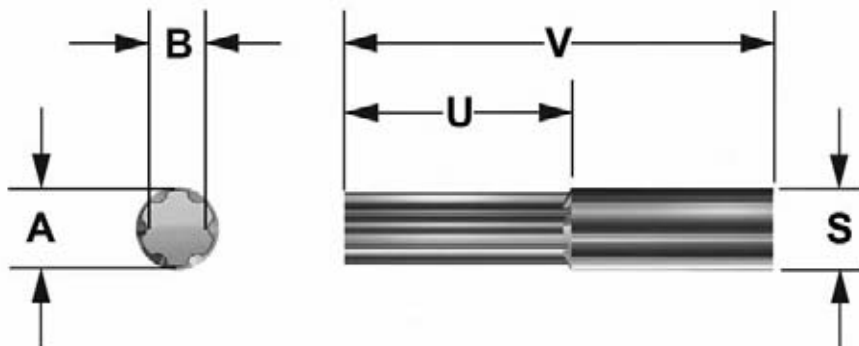


PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	A inch / mm	B inch / mm	D inch / mm	L inch / mm	X inch / mm
2101-1-230	1-PLE-530	1EP	.089 / 2,26	.068 / 1,72	.500 / 12,70	.50 / 12,7	.108 / 2,74
2101-1-231	1-PLE-531	1EP	.089 / 2,26	.068 / 1,72	.500 / 12,70	.50 / 12,7	.109 / 2,76
2101-1-232	1-PLE-532	1EP	.089 / 2,26	.068 / 1,72	.500 / 12,70	.50 / 12,7	.117 / 2,97
2101-1-233	1-PLE-533	1EP	.089 / 2,26	.068 / 1,72	.500 / 12,70	.50 / 12,7	.121 / 3,07
2101-2-230	2-PLE-530	2EP	.117 / 2,97	.089 / 2,26	.500 / 12,70	.50 / 12,7	.143 / 3,63
2101-2-231	2-PLE-531	2EP	.117 / 2,97	.089 / 2,26	.500 / 12,70	.50 / 12,7	.145 / 3,68
2101-2-232	2-PLE-532	2EP	.117 / 2,97	.089 / 2,26	.500 / 12,70	.50 / 12,7	.163 / 4,14
2101-4-230	4-PLE-530	4EP	.145 / 3,68	.111 / 2,81	.500 / 12,70	.50 / 12,7	.169 / 4,29
2101-4-231	4-PLE-531	4EP	.145 / 3,68	.111 / 2,81	.500 / 12,70	.50 / 12,7	.188 / 4,77
2101-4-232	4-PLE-532	4EP	.145 / 3,68	.111 / 2,81	.500 / 12,70	.50 / 12,7	.192 / 4,87
2101-5-230	5-PLE-530	5EP	.180 / 4,57	.138 / 3,50	.625 / 15,87	.50 / 12,7	.216 / 5,48
2101-5-230	5-PLE-531	5EP	.180 / 4,57	.138 / 3,50	.625 / 15,87	.50 / 12,7	.226 / 5,74
2101-7-230	7-PLE-530	7EP	.236 / 5,99	.180 / 4,57	.750 / 19,05	.75 / 19,0	.275 / 6,98
2101-7-230	7-PLE-531	7EP	.236 / 5,99	.180 / 4,57	.750 / 19,05	.75 / 19,0	.283 / 7,18
2101-8-230	8-PLE-530	8EP	.286 / 7,26	.219 / 5,56	.750 / 19,05	.75 / 19,0	.333 / 8,45
2101-8-231	8-PLE-531	8EP	.286 / 7,26	.219 / 5,56	.750 / 19,05	.75 / 19,0	.346 / 8,78
2101-8-232	8-PLE-532	8EP	.286 / 7,26	.219 / 5,56	.750 / 19,05	.75 / 19,0	.390 / 9,90
2101-10-230	10-PLE-530	10EP	.361 / 9,16	.277 / 7,03	1.000 / 25,40	1.00 / 25,4	.404 / 10,26
2101-11-230	11-PLE-530	11EP	.387 / 9,82	.297 / 7,54	1.000 / 25,40	1.00 / 25,4	.448 / 11,37
2101-12-230	12-PLE-530	12EP	.430 / 10,92	.329 / 8,35	1.250 / 31,75	1.25 / 25,4	.466 / 11,37
2101-12-231	12-PLE-531	12EP	.430 / 10,92	.329 / 8,35	1.250 / 31,75	1.25 / 25,4	.507 / 12,87
2101-12-232	12-PLE-532	12EP	.430 / 10,92	.329 / 8,35	1.250 / 31,75	1.25 / 25,4	.525 / 13,33
2101-14-230	14-PLE-530	14EP	.498 / 12,64	.382 / 9,70	1.250 / 31,75	1.25 / 25,4	.564 / 14,32
2101-14-231	14-PLE-531	14EP	.498 / 12,64	.382 / 9,70	1.250 / 31,75	1.25 / 38,1	.587 / 14,90
2101-16-230	16-PLE-530	16EP	.570 / 14,47	.437 / 11,09	1.250 / 31,75	1.25 / 38,1	.683 / 17,34
2101-18-230	18-PLE-530	18EP	.644 / 16,35	.493 / 12,52	1.250 / 31,75	1.25 / 38,1	.707 / 17,95
2101-20-230	20-PLE-530	20EP	.714 / 18,13	.547 / 13,89	1.500 / 38,10	1.50 / 38,1	.798 / 20,26
2101-20-231	20-PLE-531	20EP	.714 / 18,13	.547 / 13,89	1.500 / 38,10	1.50 / 38,1	.827 / 21,00
2101-22-230	22-PLE-530	22EP	.786 / 19,96	.602 / 15,29	1.500 / 38,10	1.50 / 38,1	.915 / 23,24
2101-24-230	24-PLE-530	24EP	.859 / 21,81	.658 / 16,71	2.000 / 50,80	2.00 / 38,1	.918 / 23,31

MATERIAL: 20% CARBIDE

TOLERANCE: I.D.'S CONCENTRIC WITHIN .0005"/0,002mm

OTHER SIZES AVAILABLE TO YOUR SPECIFICATIONS



PART NUMBER	REFERENCE NUMBER	DRIVE SIZE	A inch / mm	B inch / mm	S inch / mm	U inch / mm	V inch / mm
2106-01	1-PLE-300	1EP	.088 / 2,24	.066 / 1,60	.100 / 2,54	.625 / 15,88	1.625 / 41,27
2106-02	2-PLE-300	2EP	.116 / 2,95	.088 / 2,11	.119 / 3,02	.625 / 15,88	1.625 / 41,27
2106-04	4-PLE-300	4EP	.143 / 3,63	.109 / 2,54	.159 / 4,04	.625 / 15,88	1.625 / 41,27
2106-05	5-PLE-300	5EP	.178 / 4,52	.135 / 3,15	.191 / 4,85	.625 / 15,88	1.625 / 41,27
2106-06	6-PLE-300	6EP	.215 / 5,44	.163 / 3,76	.253 / 6,43	.625 / 15,88	1.625 / 41,27
2106-07	7-PLE-300	7EP	.234 / 5,92	.178 / 4,14	.293 / 7,44	.875 / 22,23	1.875 / 47,62
2106-08	8-PLE-300	8EP	.284 / 7,16	.216 / 5,03	.325 / 8,25	.875 / 22,23	1.875 / 47,62
2106-10	10-PLE-300	10EP	.359 / 9,07	.274 / 6,53	.400 / 10,16	1.125 / 28,57	2.125 / 53,97
2106-11	11-PLE-300	11EP	.385 / 9,73	.294 / 6,86	.429 / 10,90	1.125 / 28,57	2.125 / 53,97
2106-12	12-PLE-300	12EP	.429 / 10,80	.326 / 7,87	.478 / 12,14	1.125 / 28,57	2.125 / 53,97
2106-14	14-PLE-300	14EP	.496 / 12,52	.379 / 8,94	.564 / 14,33	1.125 / 28,57	2.125 / 53,97
2106-16	16-PLE-300	16EP	.567 / 14,35	.433 / 10,21	.625 / 15,88	1.125 / 28,57	2.125 / 53,97
2106-18	18-PLE-300	18EP	.640 / 16,18	.489 / 11,60	.690 / 17,53	1.125 / 28,57	2.125 / 53,97
2106-20	20-PLE-300	20EP	.710 / 17,96	.542 / 12,90	.753 / 19,13	1.625 / 41,27	2.875 / 73,02
2106-22	22-PLE-300	22EP	.782 / 19,86	.698 / 15,18	.820 / 20,82	1.625 / 41,27	2.875 / 73,02
2106-24	24-PLE-300	24EP	.855 / 21,26	.653 / 15,42	.894 / 22,71	1.625 / 41,27	2.875 / 73,02
2106-28	28-PLE-300	28EP	.995 / 24,89	.760 / 17,98	1.063 / 27,00	1.625 / 41,27	2.875 / 73,02
2106-32	32-PLE-300	32EP	1.132 / 28,37	.865 / 21,02	1.198 / 30,42	1.875 / 47,62	3.125 / 79,37
2106-36	36-PLE-300	36EP	1.273 / 31,95	.973 / 23,63	1.338 / 33,98	1.875 / 47,62	3.125 / 79,37
2106-40	40-PLE-300	40EP	1.413 / 35,50	1.080 / 26,24	1.478 / 37,54	1.875 / 47,62	3.125 / 79,37
2106-44	44-PLE-300	44EP	1.554 / 39,09	1.188 / 28,85	1.620 / 41,14	1.875 / 47,62	3.125 / 79,37

MATERIAL: S-7 TOOL STEEL
OPTIONAL: IDENTIFICATION AVAILABLE

#2185 6-LOBE (TX) RECEIVING INSPECTION GO GAGE

TXQ-801.1

EXTERNAL RECEIVING INSPECTION CONFIGURATION GAGE
STANDARD REFERENCES TMF-801.1, TXQ-801.1

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2185-01	E1	1-TXE-911
2185-02	E2	2-TXE-911
2185-04	E4	4-TXE-911
2185-05	E5	5-TXE-911
2185-06	E6	6-TXE-911
2185-07	E7	7-TXE-911
2185-08	E8	8-TXE-911
2185-10	E10	10-TXE-911
2185-11	E11	11-TXE-911
2185-12	E12	12-TXE-911
2185-14	E14	14-TXE-911
2185-16	E16	16-TXE-911
2185-18	E18	18-TXE-911
2185-20	E20	20-TXE-911
2185-24	E24	24-TXE-911
2185-28	E28	28-TXE-911
2185-32	E32	32-TXE-911
2185-36	E36	36-TXE-911
2185-40	E40	40-TXE-911
2185-44	E44	44-TXE-911



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2190 6-LOBE (TX) PRODUCTION GO NO-GO GAGE

TQM-801

EXTERNAL MANUFACTURING GO/NO-GO HEAD GAGE
STANDARD REFERENCES TMF-801, TQM-801

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2190-01	E1	1-TXE-900
2190-02	E2	2-TXE-900
2190-04	E4	4-TXE-900
2190-05	E5	5-TXE-900
2190-06	E6	6-TXE-900
2190-07	E7	7-TXE-900
2190-08	E8	8-TXE-900
2190-10	E10	9-TXE-900
2190-11	E11	10-TXE-900
2190-12	E12	12-TXE-900
2190-14	E14	14-TXE-900
2190-16	E16	16-TXE-900
2190-18	E18	18-TXE-900
2190-20	E20	20-TXE-900
2190-24	E24	24-TXE-900
2190-28	E28	28-TXE-900
2190-32	E32	32-TXE-900
2190-36	E36	36-TXE-900
2190-40	E40	40-TXE-900
2190-44	E44	44-TXE-900



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2193 6-LOBE (TX) / HEXALOBULAR GAGE

DIN 34801 / IFI-562 / TXQ-803

EXTERNAL FINAL INSPECTION, HEIGHT, FALLAWAY, & GO GAGE
STANDARD REFERENCES TMQ-803, TXQ-803, DIN34801 & IFI-562

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2193-01	E1	1-TXE-915
2193-02	E2	2-TXE-915
2193-04	E4	4-TXE-915
2193-05	E5	5-TXE-915
2193-06	E6	6-TXE-915
2193-07	E7	7-TXE-915
2193-08	E8	8-TXE-915
2193-10	E10	10-TXE-915
2193-11	E11	11-TXE-915
2193-12	E12	12-TXE-915
2193-14	E14	14-TXE-915
2193-16	E16	16-TXE-915
2193-18	E18	18-TXE-915
2193-20	E20	20-TXE-915
2193-24	E24	24-TXE-915
2193-28	E28	28-TXE-915
2193-32	E32	32-TXE-915
2193-36	E36	36-TXE-915
2193-40	E40	40-TXE-915
2193-44	E44	44-TXE-915



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2196 6-LOBE (TX) DRIVER BIT & KEY GAGE

TXQ-805.1

DRIVERS BIT, KEY & SCREWDRIVE MANUFACTURING GAGE
STANDARD REFERENCES TXF-805.1, TXQ-805.1

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2196-01	T1	1-TXI-921
2196-02	T2	2-TXI-921
2196-03	T3	3-TXI-921
2196-04	T4	4-TXI-921
2196-05	T5	5-TXI-921
2196-06	T6	6-TXI-921
2196-07	T7	7-TXI-921
2196-08	T8	8-TXI-921
2196-09	T9	9-TXI-921
2196-10	T10	10-TXI-921
2196-15	T15	15-TXI-921
2196-20	T20	20-TXI-921
2196-25	T25	25-TXI-921
2196-27	T27	27-TXI-921
2196-30	T30	30-TXI-921
2196-40	T40	40-TXI-921
2196-45	T45	45-TXI-921
2196-50	T50	50-TXI-921
2196-55	T55	55-TXI-921
2196-60	T60	60-TXI-921
2196-70	T70	70-TXI-921
2196-80	T80	80-TXI-921
2196-90	T90	90-TXI-921
2196-100	T100	100-TXI-921



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2197 6-LOBE (TX) USER DRIVER BIT & KEY GAGE

TXQ-805.4

USER DRIVER BIT, KEY & SCREWDRIVER RECEIVING INSPECTION GAGE
STANDARD REFERENCES TQM-805.4, TMQ-805.4, TXQ-805.4

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2197-05	T5	5-TXI-922
2197-06	T6	6-TXI-922
2197-07	T7	7-TXI-922
2197-08	T8	8-TXI-922
2197-09	T9	9-TXI-922
2197-10	T10	10-TXI-922
2197-15	T15	15-TXI-922
2197-20	T20	20-TXI-922
2197-25	T25	25-TXI-922
2197-27	T27	27-TXI-922
2197-30	T30	30-TXI-922
2197-40	T40	40-TXI-922
2197-45	T45	45-TXI-922
2197-50	T50	50-TXI-922
2197-55	T55	55-TXI-922
2197-60	T60	60-TXI-922
2197-70	T70	70-TXI-922
2197-80	T80	80-TXI-922
2197-90	T90	90-TXI-922
2197-100	T100	100-TXI-922



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2285 EXTRA (TXP) FINAL INSPECTION GO GAGE

NIQ-801.1

EXTERNAL RECEIVING INSPECTION CONFIGURATION GO GAGE,
STANDARD REFERENCES NIQ-801.1, 801.1A, 801.1B

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2285-05	5EP	5-PL-811
2285-06	6EP	6-PL-811
2285-07	7EP	7-PL-811
2285-08	8EP	8-PL-811
2285-10	10EP	10-PL-811
2285-11	11EP	11-PL-811
2285-12	12EP	12-PL-811
2285-14	14EP	14-PL-811
2285-16	16EP	16-PL-811
2285-18	18EP	18-PL-811
2285-20	20EP	20-PL-811
2285-22	22EP	22-PL-811
2285-24	24EP	24-PL-811
2285-26	26EP	26-PL-811
2285-28	28EP	28-PL-811
2285-30	30EP	30-PL-811
2285-32	32EP	32-PL-811
2285-34	34EP	34-PL-811
2285-36	36EP	36-PL-811
2285-38	38EP	38-PL-811
2285-40	40EP	40-PL-811
2285-42	42EP	42-PL-811
2285-44	44EP	44-PL-811



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2290 EXTRA (TXP) PRODUCTION GO NO-GO GAGE

CIQ-801,A,B

EXTERNAL MANUFACTURING GO/NO-GO GAGE
STANDARD REFERENCES CIQ-801, 801A, 801B

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2290-05	5EP	5-PL-800
2290-06	6EP	6-PL-800
2290-07	7EP	7-PL-800
2290-08	8EP	8-PL-800
2290-10	10EP	10-PL-800
2290-11	11EP	11-PL-800
2290-12	12EP	12-PL-800
2290-14	14EP	14-PL-800
2290-16	16EP	16-PL-800
2290-18	18EP	18-PL-800
2290-20	20EP	20-PL-800
2290-22	22EP	22-PL-800
2290-24	24EP	24-PL-800
2290-26	26EP	26-PL-800
2290-28	28EP	28-PL-800
2290-30	30EP	30-PL-800
2290-32	32EP	32-PL-800
2290-34	34EP	34-PL-800
2290-36	36EP	36-PL-800
2290-38	38EP	38-PL-800
2290-40	40EP	40-PL-800
2290-42	42EP	42-PL-800
2290-44	44EP	44-PL-800



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2293 EXTRA (TXP) FINAL INSPECTION GAGE

NIQ-803

EXTERNAL FINAL INSPECTION, HEIGHT, FALLAWAY & GO GAGE
STANDARD REFERENCES NIQ-803

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2293-05	5EP	5-PL-815
2293-06	6EP	6-PL-815
2293-07	7EP	7-PL-815
2293-08	8EP	8-PL-815
2293-10	10EP	10-PL-815
2293-11	11EP	11-PL-815
2293-12	12EP	12-PL-815
2293-14	14EP	14-PL-815
2293-16	16EP	16-PL-815
2293-18	18EP	18-PL-815
2293-20	20EP	20-PL-815
2293-22	22EP	22-PL-815
2293-24	24EP	24-PL-815
2293-26	26EP	26-PL-815
2293-28	28EP	28-PL-815
2293-30	30EP	30-PL-815
2293-32	32EP	32-PL-815
2293-34	34EP	34-PL-815
2293-36	36EP	36-PL-815
2293-38	38EP	38-PL-815
2293-40	40EP	40-PL-815
2293-42	42EP	42-PL-815
2293-44	44EP	44-PL-815



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2297 EXTRA (TXP) USER DRIVER BIT, KEY, GAGE

NIQ-813

DRIVER BIT, KEY & SCREWDRIVER RECEIVING INSPECTION GAGE STANDARD INSPECTION GAGE REFERENCES NIQ-813

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2297-05	5IPR	5-PLI-822
2297-06	6IPR	6-PLI-822
2297-07	7IPR	7-PLI-822
2297-08	8IPR	8-PLI-822
2297-09	9IPR	9-PLI-822
2297-10	10IPR	10-PLI-822
2297-15	15IPR	15-PLI-822
2297-20	20IPR	20-PLI-822
2297-25	25IPR	25-PLI-822
2297-27	27IPR	27-PLI-822
2297-30	30IPR	30-PLI-822
2297-40	40IPR	40-PLI-822
2297-45	45IPR	45-PLI-822
2297-50	50IPR	50-PLI-822
2297-55	55IPR	55-PLI-822
2297-60	60IPR	60-PLI-822
2297-70	70IPR	70-PLI-822
2297-80	80IPR	80-PLI-822
2297-90	90IPR	90-PLI-822
2297-100	100IPR	100-PLI-822



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.

#2298 EXTRA (TXP) TAMPER RESISTANT DRIVER BIT, KEY, GAGE

TAMPER RESISTANT DRIVER BIT, KEY & SCREWDRIVER RECEIVING INSPECTION GAGE STANDARD REFERENCES NIQ-613

PART NUMBER	DRIVE SIZE	GAGE REFERENCE
2298-05	5IPR	5-PLI-622
2298-06	6IPR	6-PLI-622
2298-07	7IPR	7-PLI-622
2298-08	8IPR	8-PLI-622
2298-09	9IPR	9-PLI-622
2298-10	10IPR	10-PLI-622
2298-15	15IPR	15-PLI-622
2298-20	20IPR	20-PLI-622
2298-25	25IPR	25-PLI-622
2298-27	27IPR	27-PLI-622
2298-30	30IPR	30-PLI-622
2298-40	40IPR	40-PLI-622
2298-45	45IPR	45-PLI-622
2298-50	50IPR	50-PLI-622
2298-55	55IPR	55-PLI-622
2298-60	60IPR	60-PLI-622
2298-70	70IPR	70-PLI-622
2298-80	80IPR	80-PLI-622
2298-90	90IPR	90-PLI-622
2298-100	100IPR	100-PLI-622



Universal's gages are heat treated, thermally stabilized, and surface treated, which provides additional hardness for maximum wear. All gage sizes are calibrated to dimensions and tolerances as specified and are traceable to the N.I.S.T. National Institute of Standards and Technology.



AUTOMATED PRODUCTION



PRECISION CRAFTSMANSHIP

• **Global Tooling Supplies** Universal Punch Corp. offers the manufacturing experience to produce superior quality tooling with the highest structural integrity to withstand the severest cold or warm forming applications. We offer one of the largest world wide stocking inventory programs of standard finished Hexalobular, Six-Lobe tooling and gauges, which are available for immediate delivery in a variety of materials with high performance coatings. Our capabilities include producing custom and modified tooling to your specifications.



PRODUCTION GRINDING



HIGH PRECISION PROCESSES

• **Continuous Improvement**

Universal Punch Corp. has been a global leader in the fastener industry for nearly 40 years with proven quality that is second to none. We are continually working on improvements to the existing Tooling and Gaging products through new processes and technologies, which will expand its capabilities into new markets and applications. We offer engineering and technical support services ("know-how") to companies worldwide.



Universal Punch Corp., an ISO 9001:2008 registered company, has been a leader in the tooling, gauging and medical industries for nearly four decades. As part of our continuing commitment to providing precision and excellence in all of our products we have expanded into a new state of the art manufacturing facility. Our spacious new plant is equipped with modern machining processes, expanded heat treating facilities, hi-tech coatings and finish platings, increased inventory capacity and calibration and inspection laboratory. Our certified quality management system ensures that all products and specifications sold conform to the required standards. All measuring equipment and gauging masters are directly traceable to N.I.S.T. All certification processes and procedures conform to ISO 10012 and ISO guide 17025.



MEDICAL INSTRUMENTS



AEROSPACE FASTENERS



UNIVERSAL PUNCH CORP.

4001 W. MACARTHUR BLVD. • SANTA ANA • CALIFORNIA 92704

phone: (714) 556-4488 telefax: (714) 556-6314

e-mail: sales@universalpunch.com <http://www.universalpunch.com>