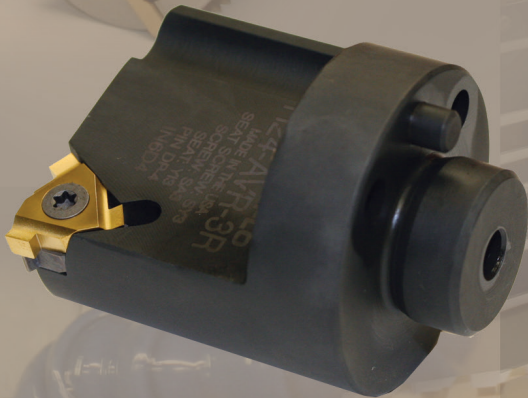




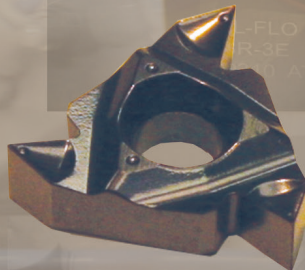
TOOL-FLO



TOOL-FLO
CR-5B75-4E
TF22675 G50

TOOL-FLO
CR-8R-3E
TF19310 GP50

TOOL-FLO
CR-8R-3E
TF19310 GP50



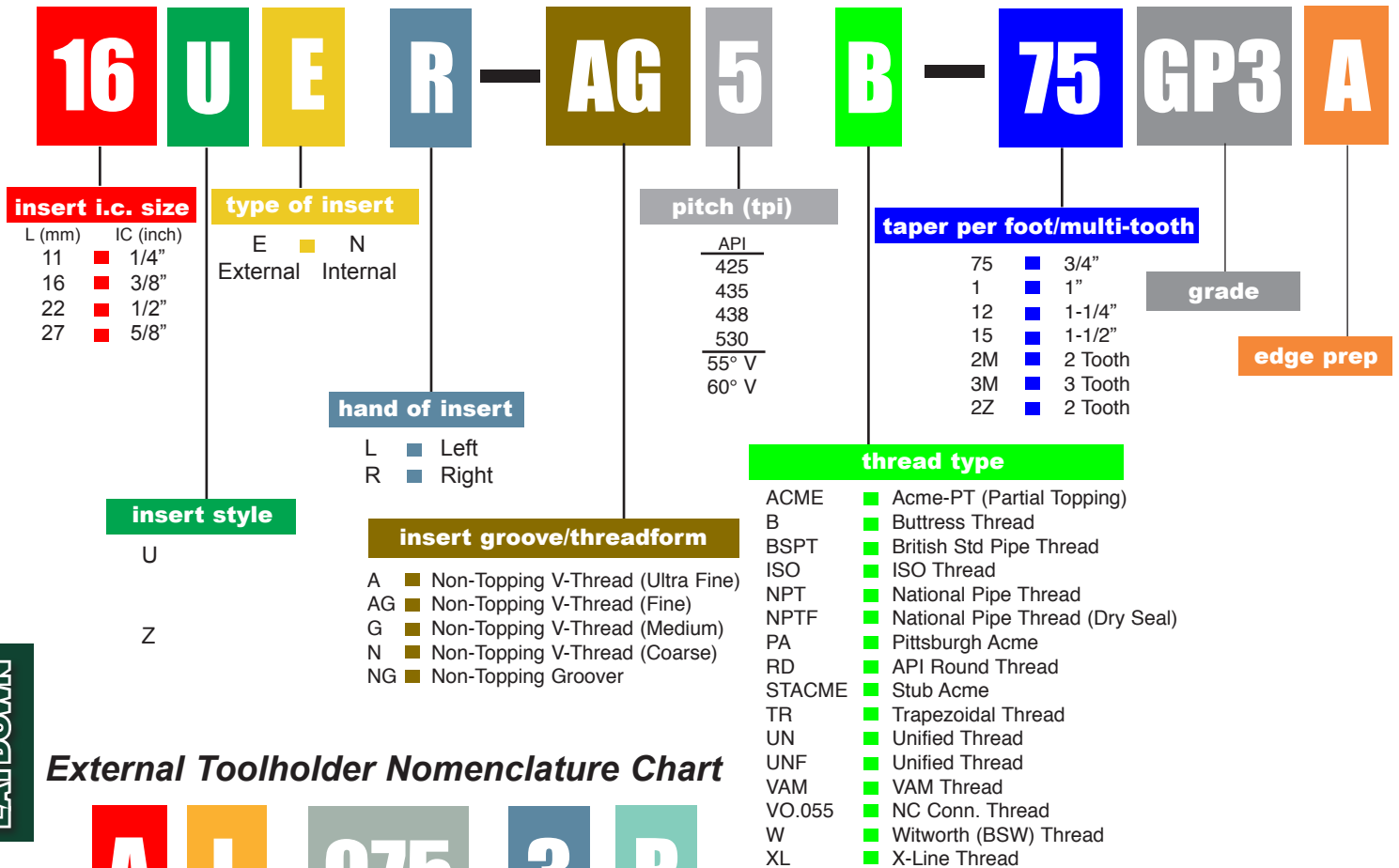
LAYDOWN

Threading & Grooving

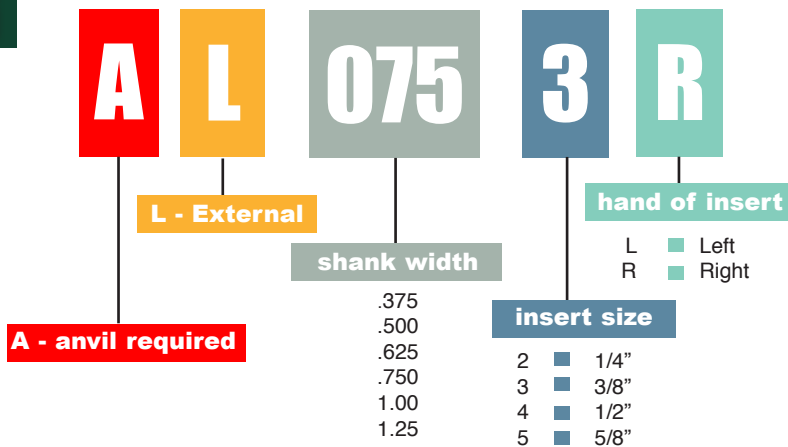
LAYDOWN



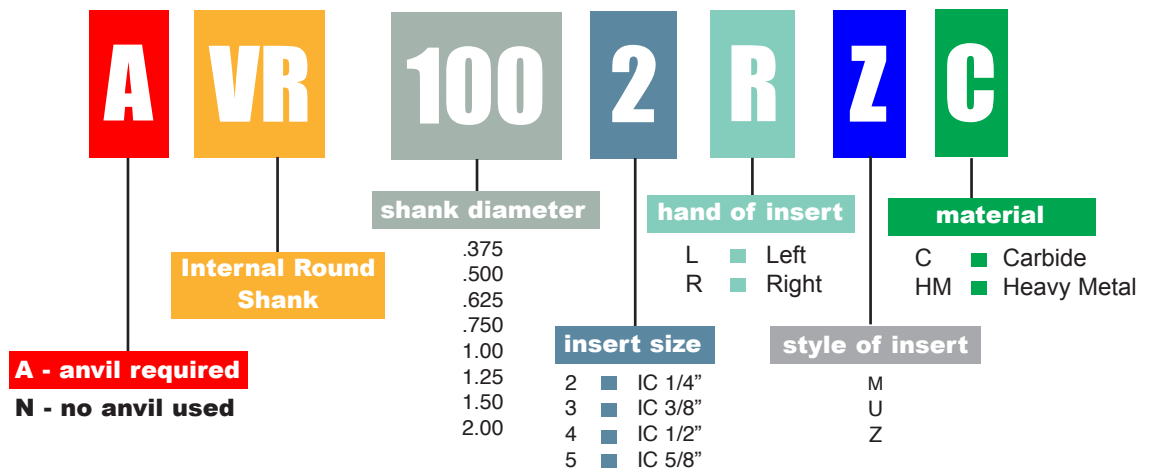
LT Style Laydown Insert Nomenclature Chart



External Toolholder Nomenclature Chart



Internal Bar Nomenclature Chart

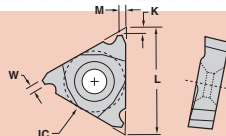




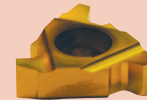
LAYDOWN

ACME

16, 22 & 27NR/ER - 3/8", 1/2", 5/8" I.C.



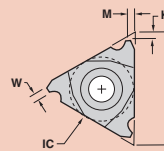
INT RH SHOWN
EXT OPPOSITE



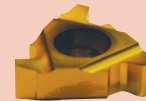
Description	EDP Code	TPI	W	IC	L	M	K	Coating				
								GP22	GP50	AC22	AC3	AC50
16ER 16ACME-PT	5006216PT	16	.0206	3/8	.63	.04	.04	●	●	●	●	●
16EL 16ACME-PT	5046216PT	16	.0206	3/8	.63	.04	.04	●	●	●	●	●
16ER 14ACME-PT	5006214PT	14	.0239	3/8	.63	.05	.04	●	●	●	●	●
16EL 14ACME-PT	5046214PT	14	.0239	3/8	.63	.05	.04	●	●	●	●	●
16ER 12ACME-PT	5006212PT	12	.0283	3/8	.63	.05	.04	●	●	●	●	●
16EL 12ACME-PT	5046212PT	12	.0283	3/8	.63	.05	.04	●	●	●	●	●
16ER 10ACME-PT	5006210PT	10	.0319	3/8	.63	.06	.05	●	●	●	●	●
16EL 10ACME-PT	5046210PT	10	.0319	3/8	.63	.06	.05	●	●	●	●	●
16ER 8ACME-PT	5006208PT	8	.0411	3/8	.63	.06	.06	●	●	●	●	●
16EL 8ACME-PT	5046208PT	8	.0411	3/8	.63	.06	.06	●	●	●	●	●
22ER 6ACME-PT	5106206PT	6	.0566	1/2	.87	.08	.07	●	●	●	●	●
22EL 6ACME-PT	5146206PT	6	.0566	1/2	.87	.08	.07	●	●	●	●	●
22ER 5ACME-PT	5106205PT	5	.0689	1/2	.87	.09	.08	●	●	●	●	●
22EL 5ACME-PT	5146205PT	5	.0689	1/2	.87	.09	.08	●	●	●	●	●
27ER 4ACME-PT	5206204PT	4	.0875	5/8	1.06	.11	.09	●	●	●	●	●
27EL 4ACME-PT	5246204PT	4	.0875	5/8	1.06	.11	.09	●	●	●	●	●
16NR 16ACME-PT	5026216PT	16	.0206	3/8	.63	.04	.04	●	●	●	●	●
16NL 16ACME-PT	5066216PT	16	.0206	3/8	.63	.04	.04	●	●	●	●	●
16NR 14ACME-PT	5026214PT	14	.0239	3/8	.63	.05	.04	●	●	●	●	●
16NL 14ACME-PT	5066214PT	14	.0239	3/8	.63	.05	.04	●	●	●	●	●
16NR 12ACME-PT	5026212PT	12	.0283	3/8	.63	.05	.05	●	●	●	●	●
16NL 12ACME-PT	5066212PT	12	.0283	3/8	.63	.05	.05	●	●	●	●	●
16NR 10ACME-PT	5026210PT	10	.0319	3/8	.63	.05	.05	●	●	●	●	●
16NL 10ACME-PT	5066210PT	10	.0319	3/8	.63	.05	.05	●	●	●	●	●
16NR 8ACME-PT	5026208PT	8	.0411	3/8	.63	.06	.06	●	●	●	●	●
16NL 8ACME-PT	5066208PT	8	.0411	3/8	.63	.06	.06	●	●	●	●	●
22NR 6ACME-PT	5126206PT	6	.0566	1/2	.87	.08	.07	●	●	●	●	●
22NL 6ACME-PT	5166206PT	6	.0566	1/2	.87	.08	.07	●	●	●	●	●
22NR 5ACME-PT	5126205PT	5	.0689	1/2	.87	.09	.08	●	●	●	●	●
22NL 5ACME-PT	5166205PT	5	.0689	1/2	.87	.09	.08	●	●	●	●	●
27NR 4ACME-PT	5226204PT	4	.0875	5/8	1.06	.10	.09	●	●	●	●	●
27NL 4ACME-PT	5266204PT	4	.0875	5/8	1.06	.10	.09	●	●	●	●	●

ACME STUB

16, 22 & 27NR/ER - 3/8", 1/2", 5/8" I.C.



INT RH SHOWN
EXT OPPOSITE



Description	EDP Code	TPI	W	IC	L	M	K	Coating				
								GP22	GP50	AC22	AC3	AC50
16ER 16STACME-PT	5006416PT	16	.0238	3/8	.63	.04	.04	●	●	●	●	●
16EL 16STACME-PT	5046416PT	16	.0238	3/8	.63	.04	.04	●	●	●	●	●
16ER 14STACME-PT	5006414PT	14	.0276	3/8	.63	.04	.04	●	●	●	●	●
16EL 14STACME-PT	5046414PT	14	.0276	3/8	.63	.04	.04	●	●	●	●	●
16ER 12STACME-PT	5006412PT	12	.0326	3/8	.63	.05	.05	●	●	●	●	●
16EL 12STACME-PT	5046412PT	12	.0326	3/8	.63	.05	.05	●	●	●	●	●
16ER 10STACME-PT	5006410PT	10	.0370	3/8	.63	.05	.05	●	●	●	●	●
16EL 10STACME-PT	5046410PT	10	.0370	3/8	.63	.05	.05	●	●	●	●	●
16ER 8STACME-PT	5006408PT	8	.0476	3/8	.63	.06	.06	●	●	●	●	●
16EL 8STACME-PT	5046408PT	8	.0476	3/8	.63	.06	.06	●	●	●	●	●
22ER 6STACME-PT	5106406PT	6	.0652	1/2	.87	.07	.07	●	●	●	●	●
22EL 6STACME-PT	5146406PT	6	.0652	1/2	.87	.07	.07	●	●	●	●	●
22ER 5STACME-PT	5106405PT	5	.0793	1/2	.87	.08	.08	●	●	●	●	●
22EL 5STACME-PT	5146405PT	5	.0793	1/2	.87	.08	.08	●	●	●	●	●
27ER 4STACME-PT	5206404PT	4	.1004	5/8	1.06	.09	.11	●	●	●	●	●
27EL 4STACME-PT	5246404PT	4	.1004	5/8	1.06	.09	.11	●	●	●	●	●
16NR 16STACME-PT	5026416PT	16	.0238	3/8	.63	.04	.04	●	●	●	●	●
16NL 16STACME-PT	5066416PT	16	.0238	3/8	.63	.04	.04	●	●	●	●	●
16NR 14STACME-PT	5026414PT	14	.0276	3/8	.63	.04	.04	●	●	●	●	●
16NL 14STACME-PT	5066414PT	14	.0276	3/8	.63	.04	.04	●	●	●	●	●
16NR 12STACME-PT	5026412PT	12	.0326	3/8	.63	.05	.04	●	●	●	●	●
16NL 12STACME-PT	5066412PT	12	.0326	3/8	.63	.05	.04	●	●	●	●	●
16NR 10STACME-PT	5026410PT	10	.0370	3/8	.63	.05	.05	●	●	●	●	●
16NL 10STACME-PT	5066410PT	10	.0370	3/8	.63	.05	.05	●	●	●	●	●
16NR 8STACME-PT	5026408PT	8	.0476	3/8	.63	.06	.06	●	●	●	●	●
16NL 8STACME-PT	5066408PT	8	.0476	3/8	.63	.06	.06	●	●	●	●	●
22NR 6STACME-PT	5126406PT	6	.0652	1/2	.87	.07	.07	●	●	●	●	●
22NL 6STACME-PT	5166406PT	6	.0652	1/2	.87	.07	.07	●	●	●	●	●
22NR 5STACME-PT	5126405PT	5	.0793	1/2	.87	.09	.08	●	●	●	●	●
22NL 5STACME-PT	5166405PT	5	.0793	1/2	.87	.09	.08	●	●	●	●	●
27NR 4STACME-PT	5226404PT	4	.1004	5/8	1.06	.09	.09	●	●	●	●	●
27NL 4STACME-PT	5266404PT	4	.1004	5/8	1.06	.09	.09	●	●	●	●	●

In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

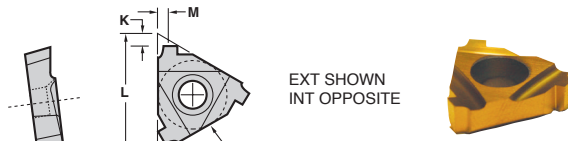
Cast Iron	▲	●	●	●
Non-Ferrous	▲	●	●	●
Stainless/High Temp	▲	●	●	●
Steel	▲	●	●	●

LAYDOWN



API BUTTRESS

22NR/ER - 1/2" I.C.



Description	EDP Code	TPI	TPF	IC	L	M	K	Conn. No.	GP22	GP50	AC22	AC3	AC50
22ER 8B75	5102100	8	3/4	1/2	.87	.102	.073	U.S. Improved Buttress	●	●	●	●	●
22ER 5B75	5101600	5	3/4	1/2	.87	.087	.087	4-1/2 - 13-3/8	●	●	●	●	●
22ER 5B1	5101700	5	1	1/2	.87	.095	.087	16 and larger	●	●	●	●	●
22NR 8B75	5122100	8	3/4	1/2	.87	.102	.073	U.S. Improved Buttress	●	●	●	●	●
22NR 5B75	5121600	5	3/4	1/2	.87	.081	.087	4-1/2 - 13-3/8	●	●	●	●	●
22NR 5B1	5121700	5	1	1/2	.87	.081	.090	16 and larger	●	●	●	●	●

API ROTARY SHOULDER CONNECTION

22 & 27NR/ER - 1/2" & 5/8" I.C.



Description	EDP Code	TPI	TPF	IC	L	M	K	Conn. No.	GP22	GP50	AC22	AC3	AC50
22ER 530	5101300	5	3	1/2	.87	.10	.08	3-1/2FH, 2-3/8, 4-1/2 Reg.	●	●	●	●	●
22ER 4PAC	5101500	4	1-1/2	1/2	.87	.11	.08	American Open Hole	●	●	●	●	●
22ER 438	5101200	4	3	1/2	.87	.11	.11	NC56 - NC71	●	●	●	●	●
22ER 435	5101100	4	3	1/2	.87	.11	.08	5-1/2, 7-5/8, 8-5/8 Reg.	●	●	●	●	●
22ER 42F*	5101400	4	2	1/2	.87	.11	.08	VO.065*	●	●	●	●	●
22ER 428	5101000	4	2	1/2	.87	.10	.08	NC23-NC50, 2-3/8 - 5-1/2IF	●	●	●	●	●
22ER 425	5100900	4	2	1/2	.87	.10	.08	5-1/2, 6-5/8FH, 6-5/8 Reg.	●	●	●	●	●
22NR 530	5121300	5	3	1/2	.87	.10	.08	3-1/2FH, 2-3/8, 4-1/2 Reg.	●	●	●	●	●
22NR 4PAC	5121500	4	1-1/2	1/2	.87	.11	.08	American Open Hole	●	●	●	●	●
22NR 438	5121200	4	3	1/2	.87	.11	.11	NC56 - NC71	●	●	●	●	●
22NR 435	5121100	4	3	1/2	.87	.11	.08	5-1/2, 7-5/8, 8-5/8 Reg.	●	●	●	●	●
22NR 42F*	5121400	4	2	1/2	.87	.11	.08	VO.065*	●	●	●	●	●
22NR 428	5121000	4	2	1/2	.87	.10	.08	NC23-NC50, 2-3/8 - 5-1/2IF	●	●	●	●	●
22NR 425	5120900	4	2	1/2	.87	.10	.08	5-1/2, 6-5/8FH, 6-5/8 Reg.	●	●	●	●	●
27ER 530	5201300	5	3	5/8	.126	.11	.07	3-1/2FH, 2-3/8, 4-1/2 Reg.	●	●	●	●	●
27ER 438	5201200	4	3	5/8	.126	.11	.08	NC56 - NC71	●	●	●	●	●
27ER 435	5201100	4	3	5/8	.126	.12	.08	5-1/2, 7-5/8, 8-5/8 Reg.	●	●	●	●	●
27ER 428	5201000	4	2	5/8	.126	.11	.08	NC23-NC50, 2-3/8 - 5-1/2IF	●	●	●	●	●
27ER 425	5200900	4	2	5/8	.126	.12	.08	5-1/2, 6-5/8FH, 6-5/8 Reg.	●	●	●	●	●
27NR 530	5221300	5	3	5/8	.126	.11	.08	3-1/2FH, 2-3/8, 4-1/2 Reg.	●	●	●	●	●
27NR 438	5221200	4	3	5/8	.126	.11	.08	NC56 - NC71	●	●	●	●	●
27NR 435	5221100	4	3	5/8	.126	.12	.08	5-1/2, 7-5/8, 8-5/8 Reg.	●	●	●	●	●
27NR 428	5221000	4	2	5/8	.126	.11	.08	NC23-NC50, 2-3/8 - 5-1/2IF	●	●	●	●	●
27NR 425	5220900	4	2	5/8	.126	.12	.08	5-1/2, 6-5/8FH, 6-5/8 Reg.	●	●	●	●	●

* Obsolete thread form, See A.P.I. Spec 7, 35th Edition, May 1, 1995, Section 9.4

API ROUND

16NR/ER - 3/8" I.C.

w/patented chipbreaker

Exclusive patented chipbreaker!



Description	EDP Code	TPI	IC	L	M	K	C22	GP22	GP50	AC22	AC3	AC50
16ER 8RD-CB	5003200HC	8	3/8	.63	.051	.059	●	●	●	●	●	●
16ER 10RD-CB	5003400HC	10	3/8	.63	.047	.059	●	●	●	●	●	●
16NR 8RD-CB	5023200HC	8	3/8	.63	.051	.059	●	●	●	●	●	●
16NR 10RD-CB	5023400HC	10	3/8	.63	.047	.059	●	●	●	●	●	●

API ROUND

16 & 22NR/ER - 3/8" & 1/2" I.C.



Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
16ER 8RD	5003200	8	3/8	.65	.059	.056	●	●	●	●	●
16ER 10RD	5003400	10	3/8	.65	.059	.056	●	●	●	●	●
22ER 8RD	5103200	8	1/2	.87	.060	.056	●	●	●	●	●
22ER 10RD	5103400	10	1/2	.87	.046	.048	●	●	●	●	●
16NR 8RD	5023200	8	3/8	.65	.059	.056	●	●	●	●	●
16NR 10RD	5023400	10	3/8	.65	.059	.056	●	●	●	●	●
22NR 8RD	5123200	8	1/2	.87	.060	.056	●	●	●	●	●
22NR 10RD	5123400	10	1/2	.87	.046	.048	●	●	●	●	●

In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

Cast Iron	●	●	●	●	●
Non-Ferrous	●	●	●	●	●
Stainless/High Temp	●	●	●	●	●
Steel	●	●	●	●	●

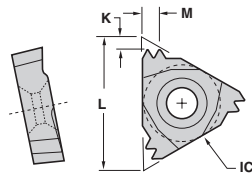


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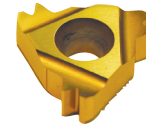
API ROUND

22 & 27NR/ER - 1/2" & 5/8" I.C.

Multi-tooth



EXT RH SHOWN
INT OPPOSITE

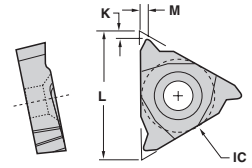


Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
27ER 8RD2M	5203300	8	5/8	1.08	.177	.114		●	●	●	●
22ER 10RD2M	5103500	10	1/2	0.87	.146	.094		●	●	●	●
27NR 8RD2M	5223300	8	5/8	1.08	.177	.114		●	●	●	●
22NR 10RD2M	5123500	10	1/2	0.87	.146	.094		●	●	●	●

API VO.055

American MT, AMT, AMMT*

16 & 22NR/ER - 3/8" & 1/2" I.C.



EXT RH SHOWN
INT OPPOSITE

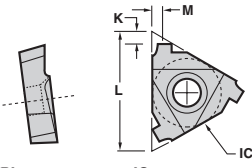


Description	EDP Code	TPI	TPF	IC	L	M	K	Connection	GP22	GP50	AC22	AC3	AC50
16ER 6P VO.055 MT	5004300	6	1-1/2	3/8	.65	.059	.051	NC10-NC16, VO.055, 1, 1-1/2 REG	●	●	●	●	●
22ER 6P VO.055 MT	5104300	6	1-1/2	1/2	.87	.072	.060	NC10-NC16, VO.055, 1, 1-1/2 REG	●	●	●	●	●
16NR 6P VO.055 MT	5024300	6	1-1/2	3/8	.65	.059	.051	NC10-NC16, VO.055, 1, 1-1/2 REG	●	●	●	●	●
22NR 6P VO.055 MT	5124300	6	1-1/2	1/2	.87	.072	.060	NC10-NC16, VO.055, 1, 1-1/2 REG	●	●	●	●	●

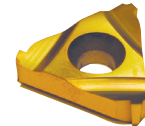
* MT is Macaroni Tubing, AMT is American Macaroni Tubing and AMMT is American Mining Macaroni Tubing.

API VAM

22NR/ER - 1/2" I.C.



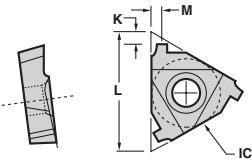
EXT RH SHOWN
INT OPPOSITE



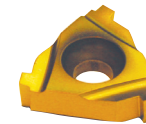
Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
22ER 8VAM	5102500	8	1/2	.87	.059	.059		●	●	●	●
22ER 6VAM	5102400	6	1/2	.87	.079	.079		●	●	●	●
22ER 5VAM	5102300	5	1/2	.87	.079	.079		●	●	●	●
22NR 8VAM	5122500	8	1/2	.87	.059	.059		●	●	●	●
22NR 6VAM	5122400	6	1/2	.87	.079	.079		●	●	●	●
22NR 5VAM	5122300	5	1/2	.87	.079	.079		●	●	●	●

API X-LINE

22NR/ER - 1/2" I.C.



EXT RH SHOWN



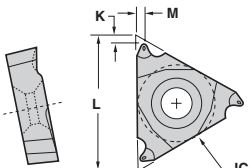
Description	EDP Code	TPI	TPF	IC	L	M	K	Conn. No.	GP22	GP50	AC22	AC3	AC50
22ER 6XL75	5102000	6	3/4	1/2	.87	.075	.078			●	●	●	●
22ER 6XL15	5101900	6	1-1/2	1/2	.87	.075	.086	5 - 7-5/8		●	●	●	●
22ER 5XL12	5101800	5	1-1/4	1/2	.87	.087	.083	8-5/8 - 10-3/4		●	●	●	●
22NR 6XL75	5122000	6	3/4	1/2	.87	.075	.078			●	●	●	●
22NR 6XL15	5121900	6	1-1/2	1/2	.87	.075	.086	5 - 7-5/8		●	●	●	●
22NR 5XL12	5121800	5	1-1/4	1/2	.87	.087	.083	8-5/8 - 10-3/4		●	●	●	●

BSPT

16NR/ER - 3/8" I.C.

55° w/patented chipbreaker

Exclusive patented chipbreaker!



EXT RH SHOWN



Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
16ER 28BSPT-CB	5004428HC	28	3/8	.63	.031	.028	●	●	●	●	●
16ER 19BSPT-CB	5004419HC	19	3/8	.63	.031	.028	●	●	●	●	●
16ER 14BSPT-CB	5004414HC	14	3/8	.63	.059	.059	●	●	●	●	●
16ER 11BSPT-CB	5004411HC	11	3/8	.63	.059	.059	●	●	●	●	●
16NR 28BSPT-CB	5024428HC	28	3/8	.63	.031	.031	●	●	●	●	●
16NR 19BSPT-CB	5024419HC	19	3/8	.63	.031	.031	●	●	●	●	●
16NR 14BSPT-CB	5024428HC	14	3/8	.63	.031	.031	●	●	●	●	●
16NR 11BSPT-CB	5024419HC	11	3/8	.63	.031	.031	●	●	●	●	●

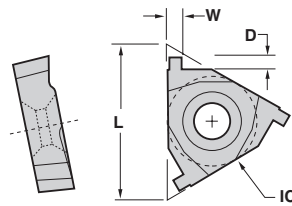
In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

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- ▲ Recommended grade under general conditions.

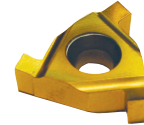
Cast Iron				●
Non-Ferrous				●
Stainless/High Temp			▲	●
Steel				●



GROOVING 16NR/ER - 3/8" I.C.



EXT RH SHOWN

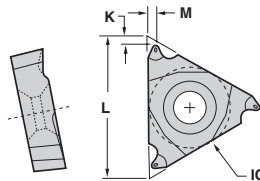


Description	EDP Code	IC	W	D	L	TIN Coated					AlTiN Coated				
						GP22	GP50	AC22	AC3	AC50	GP22	GP50	AC22	AC3	AC50
16ER NG W.031	5007431	3/8	.031	.050	.63	●	●			●					
16EL NG W.031	5047431	3/8	.031	.050	.63	●									
16ER NG W.047	5007447	3/8	.047	.070	.63	●	●			●					
16EL NG W.047	5047447	3/8	.047	.070	.63	●									
16ER NG W.062	5007462	3/8	.062	.080	.63	●	●			●					
16EL NG W.062	5047462	3/8	.062	.080	.63	●									
16ER NG W.093	5007493	3/8	.093	.070	.63	●	●			●					
16EL NG W.093	5047493	3/8	.093	.070	.63	●									
16ER NG W.125	5007625	3/8	.125	.045	.63	●	●			●					
16EL NG W.125	5047625	3/8	.125	.045	.63	●									
16NR NG W.031	5027431	3/8	.031	.050	.63	●	●			●					
16NL NG W.031	5067431	3/8	.031	.050	.63	●									
16NR NG W.047	5027447	3/8	.047	.070	.63	●	●			●					
16NL NG W.047	5067447	3/8	.047	.070	.63	●									
16NR NG W.062	5027462	3/8	.062	.080	.63	●	●			●					
16NL NG W.062	5067462	3/8	.062	.080	.63	●									
16NR NG W.093	5027493	3/8	.093	.070	.63	●	●			●					
16NL NG W.093	5067493	3/8	.093	.070	.63	●									
16NR NG W.125	5027625	3/8	.125	.045	.63	●	●			●					
16NL NG W.125	5067625	3/8	.125	.045	.63	●									

LAYDOWN

ISO 16NR/ER - 3/8" I.C. w/patented chipbreaker

Exclusive patented chipbreaker!



EXT RH SHOWN



Description	EDP Code	Pitch	IC	L	M	K	TIN Coated					AlTiN Coated				
							GP22	GP50	AC22	AC3	AC50	GP22	GP50	AC22	AC3	AC50
16NR 0.75ISO-CB	50242075HC	0,75	3/8	.63	.02	.04	●	●	●	●	●	●	●	●	●	●
16NR 1.0ISO-CB	5024201HC	1,00	3/8	.63	.03	.03	●	●	●	●	●	●	●	●	●	●
16NR 1.25ISO-CB	502420125HC	1,25	3/8	.63	.03	.03	●	●	●	●	●	●	●	●	●	●
16NR 1.5ISO-CB	50242015HC	1,50	3/8	.63	.03	.03	●	●	●	●	●	●	●	●	●	●
16NR 1.75ISO-CB	502420175HC	1,75	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16NR 2.0ISO-CB	5024202HC	2,00	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16NR 2.5ISO-CB	50242025HC	2,50	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16NR 3.0ISO-CB	5024203HC	3,00	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16ER 0.75ISO-CB	50042075HC	0,75	3/8	.63	.02	.04	●	●	●	●	●	●	●	●	●	●
16ER 1.0ISO-CB	5004201HC	1,00	3/8	.63	.03	.03	●	●	●	●	●	●	●	●	●	●
16ER 1.25ISO-CB	500420125HC	1,25	3/8	.63	.03	.03	●	●	●	●	●	●	●	●	●	●
16ER 1.5ISO-CB	50042015HC	1,50	3/8	.63	.03	.03	●	●	●	●	●	●	●	●	●	●
16ER 1.75ISO-CB	500420175HC	1,75	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16ER 2.0ISO-CB	5004202HC	2,00	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16ER 2.5ISO-CB	50042025HC	2,50	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16ER 3.0ISO-CB	5004203HC	3,00	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●

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- ▲ Recommended grade under general conditions.

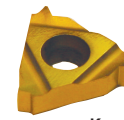
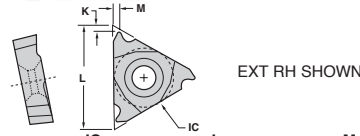
Cast Iron					●
Non-Ferrous					
Stainless/High Temp					●
Steel	▲				●



LAYDOWN

ISO

11, 16, 22 & 27NR/ER - 1/4", 3/8", 1/2" & 5/8" I.C.



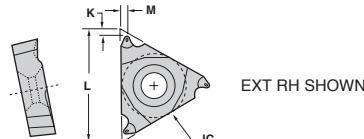
Description	EDP Code	Pitch	IC	L	M	K	Coatings				
							GP22	GP50	AC22	AC3	AC50
11NR 0.5ISO	4924205	0,50	1/4	.43	.02	.015	●	●	●	●	●
11NR 0.75ISO	49242075	0,75	1/4	.43	.02	.02	●	●	●	●	●
11NR 1.0ISO	4924210	1,0	1/4	.43	.03	.03	●	●	●	●	●
16NR 1.0ISO	5024201	1,0	3/8	.63	.03	.02	●	●	●	●	●
16NR 1.5ISO	50242015	1,5	3/8	.63	.04	.03	●	●	●	●	●
16NR 2.0ISO	5024202	2,0	3/8	.63	.05	.04	●	●	●	●	●
22NR 3.5ISO	51242035	3,5	1/2	.87	.09	.06	●	●	●	●	●
22NR 4.0ISO	5124204	4,0	1/2	.87	.09	.06	●	●	●	●	●
22NR 5.0ISO	5124205	5,0	1/2	.87	.09	.06	●	●	●	●	●
27NR 5.5ISO	52242055	5,5	5/8	1.06	.09	.06	●	●	●	●	●
27NR 6.0ISO	5224206	6,0	5/8	1.06	.10	.07	●	●	●	●	●
11ER 0.5ISO	4904205	0,50	1/4	.43	.02	.02	●	●	●	●	●
11ER 0.75ISO	49042075	0,75	1/4	.43	.02	.02	●	●	●	●	●
11ER 1.0ISO	4904210	1,0	1/4	.43	.03	.02	●	●	●	●	●
16ER 1.0ISO	5004201	1,0	3/8	.63	.03	.03	●	●	●	●	●
16ER 1.5ISO	50042015	1,5	3/8	.63	.04	.03	●	●	●	●	●
16ER 2.0ISO	5004202	2,0	3/8	.63	.05	.04	●	●	●	●	●
22ER 3.5ISO	50042035	3,5	1/2	.87	.09	.06	●	●	●	●	●
22ER 4.0ISO	5104204	4,0	1/2	.87	.09	.07	●	●	●	●	●
22ER 5.0ISO	5104205	5,0	1/2	.87	.10	.07	●	●	●	●	●
27ER 5.5ISO	52042055	5,5	5/8	1.06	.11	.07	●	●	●	●	●
27ER 6.0ISO	5204206	6,0	5/8	1.06	.11	.08	●	●	●	●	●

NPT

16NR/ER - 3/8" I.C.

w/patented chipbreaker

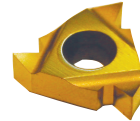
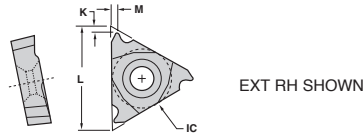
Exclusive patented chipbreaker!



Description	EDP Code	TPI	IC	L	M	K	Coatings				
							GP22	GP50	AC22	AC3	AC50
16ER 27NPT-CB	5003627HC	27	3/8	.63	.03	.02	●	●	●	●	●
16ER 18NPT-CB	5003618HC	18	3/8	.63	.03	.02	●	●	●	●	●
16ER 14NPT-CB	5003614HC	14	3/8	.63	.06	.04	●	●	●	●	●
16ER 11.5NPT-CB	5003611HC	11.5	3/8	.63	.06	.04	●	●	●	●	●
16ER 8NPT-CB	5003608HC	8	3/8	.63	.06	.04	●	●	●	●	●
16NR 27NPT-CB	5023627HC	27	3/8	.63	.03	.02	●	●	●	●	●
16NR 18NPT-CB	5023618HC	18	3/8	.63	.03	.02	●	●	●	●	●
16NR 14NPT-CB	5023614HC	14	3/8	.63	.06	.04	●	●	●	●	●
16NR 11.5NPT-CB	5023611HC	11.5	3/8	.63	.06	.04	●	●	●	●	●
16NR 8NPT-CB	5023608HC	8	3/8	.63	.06	.04	●	●	●	●	●

NPT

11 & 16NR/ER - 1/4" & 3/8" I.C.



Description	EDP Code	TPI	IC	L	M	K	Coatings				
							GP22	GP50	AC22	AC3	AC50
16ER 27NPT	5003627	27	3/8	.63	.03	.03	●	●	●	●	●
16EL 27NPT	5043627	27	3/8	.63	.03	.03	●	●	●	●	●
16ER 18NPT	5003618	18	3/8	.63	.04	.03	●	●	●	●	●
16EL 18NPT	5043618	18	3/8	.63	.04	.03	●	●	●	●	●
16ER 14NPT	5003614	14	3/8	.63	.05	.04	●	●	●	●	●
16EL 14NPT	5043614	14	3/8	.63	.05	.04	●	●	●	●	●
16ER 11.5NPT	5003611	11.5	3/8	.63	.06	.04	●	●	●	●	●
16EL 11.5NPT	5043611	11.5	3/8	.63	.06	.04	●	●	●	●	●
16ER 8NPT	5003608	8	3/8	.63	.07	.05	●	●	●	●	●
16EL 8NPT	5043608	8	3/8	.63	.07	.05	●	●	●	●	●
11NR 18NPT	4923618	18	1/4	.43	.04	.03	●	●	●	●	●
11NR 27NPT	4923627	27	1/4	.43	.03	.03	●	●	●	●	●
16NR 27NPT	5023627	27	3/8	.63	.03	.03	●	●	●	●	●
16NL 27NPT	5063627	27	3/8	.63	.03	.03	●	●	●	●	●
16NR 18NPT	5023618	18	3/8	.63	.04	.03	●	●	●	●	●
16NL 18NPT	5063618	18	3/8	.63	.04	.03	●	●	●	●	●
16NR 14NPT	5023614	14	3/8	.63	.05	.04	●	●	●	●	●
16NL 14NPT	5063614	14	3/8	.63	.05	.04	●	●	●	●	●
16NR 11.5NPT	5023611	11.5	3/8	.63	.06	.04	●	●	●	●	●
16NL 11.5NPT	5063611	11.5	3/8	.63	.06	.04	●	●	●	●	●
16NR 8NPT	5023608	8	3/8	.63	.06	.05	●	●	●	●	●
16NL 8NPT	5063608	8	3/8	.63	.06	.05	●	●	●	●	●

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- ▲ Recommended grade under general conditions.

Cast Iron	▲	●	●	●	●
Non-Ferrous	▲	●	●	●	●
Stainless/High Temp	▲	●	●	●	●
Steel	▲	●	●	●	●

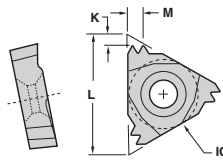
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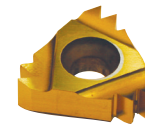
NPT

22 & 27NR/ER - 1/2" & 5/8" I.C.

Multi-tooth



EXT RH SHOWN

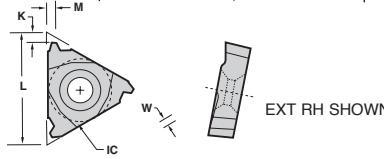


Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
22ER 11.5NPT2M	5103811	11.5	1/2	0.87	.13	.09	●	●	●	●	●
27ER 11.5NPT3M	5203811	11.5	5/8	1.06	.22	.14	●	●	●	●	●
27ER 8NPT2M	5203808	8	5/8	1.06	.19	.11	●	●	●	●	●
22NR 11.5NPT2M	5123811	11.5	1/2	0.87	.13	.09	●	●	●	●	●
27NR 11.5NPT3M	5223811	11.5	5/8	1.06	.22	.14	●	●	●	●	●
27NR 8NPT2M	5223808	8	5/8	1.06	.19	.11	●	●	●	●	●

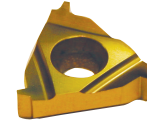
TIN Coated	AITIN Coated
GP22	GP50
AC22	AC3
AC50	

TRAPEZOIDAL

16NR/ER - 3/8" I.C.



EXT RH SHOWN



Description	EDP Code	Pitch	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
16ER 1.5TR	5007015	1,5	3/8	.63	.04	.04	●	●	●	●	●
16ER 2.0TR	5007020	2,0	3/8	.63	.05	.04	●	●	●	●	●
16ER 3.0TR	5007030	3,0	3/8	.63	.06	.05	●	●	●	●	●
16NR 1.5TR	5027015	1,5	3/8	.63	.04	.04	●	●	●	●	●
16NR 2.0TR	5027020	2,0	3/8	.63	.05	.04	●	●	●	●	●
16NR 3.0TR	5027030	3,0	3/8	.63	.06	.05	●	●	●	●	●

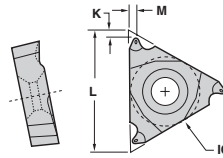
TIN Coated	AITIN Coated
GP22	GP50
AC22	AC3
AC50	

NPTF DRY SEAL

16NR/ER - 3/8" I.C.

w/ patented chipbreaker

Exclusive patented chipbreaker!



EXT RH SHOWN

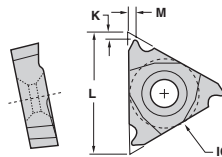


Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
16ER 27NPTF-CB	5004027HC	27	3/8	.63	.03	.03	●	●	●	●	●
16ER 18NPTF-CB	5004018HC	18	3/8	.63	.04	.03	●	●	●	●	●
16ER 14NPTF-CB	5004014HC	14	3/8	.63	.05	.04	●	●	●	●	●
16ER 11.5NPTF-CB	5004011HC	11.5	3/8	.63	.06	.04	●	●	●	●	●
16ER 8NPTF-CB	5004008HC	8	3/8	.63	.07	.05	●	●	●	●	●
16NR 27NPTF-CB	5024027HC	27	3/8	.63	.03	.03	●	●	●	●	●
16NR 18NPTF-CB	5024018HC	18	3/8	.63	.03	.02	●	●	●	●	●
16NR 14NPTF-CB	5024014HC	14	3/8	.63	.06	.04	●	●	●	●	●
16NR 11.5NPTF-CB	5024011HC	11.5	3/8	.63	.06	.04	●	●	●	●	●
16NR 8NPTF-CB	5024008HC	8	3/8	.63	.06	.04	●	●	●	●	●

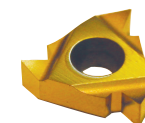
TIN Coated	AITIN Coated
GP22	GP50
AC22	AC3
AC50	

NPTF DRY SEAL

11 & 16NR/NL/ER/EL - 1/4" & 3/8" I.C.



EXT RH SHOWN



Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
16ER 27NPTF	5004027	27	3/8	.63	.03	.03	●	●	●	●	●
16EL 27NPTF	5043827	27	3/8	.63	.03	.03	●	●	●	●	●
16ER 18NPTF	5004018	18	3/8	.63	.04	.03	●	●	●	●	●
16EL 18NPTF	5043818	18	3/8	.63	.04	.03	●	●	●	●	●
16ER 14NPTF	5004014	14	3/8	.63	.05	.04	●	●	●	●	●
16EL 14NPTF	5043814	14	3/8	.63	.05	.04	●	●	●	●	●
16ER 11.5NPTF	5004011	11.5	3/8	.63	.06	.04	●	●	●	●	●
16EL 11.5NPTF	5043811	11.5	3/8	.63	.06	.04	●	●	●	●	●
16ER 8NPTF	5004008	8	3/8	.63	.07	.05	●	●	●	●	●
16EL 8NPTF	5043808	8	3/8	.63	.07	.05	●	●	●	●	●
11NR 27NPTF	4923827	27	1/4	.43	.03	.03	●	●	●	●	●
11NR 18NPTF	4924018	18	1/4	.43	.04	.03	●	●	●	●	●
16NR 27NPTF	5024027	27	3/8	.63	.03	.03	●	●	●	●	●
16NL 27NPTF	5063827	27	3/8	.63	.03	.03	●	●	●	●	●
16NR 18NPTF	5024018	18	3/8	.63	.04	.03	●	●	●	●	●
16NL 18NPTF	5063818	18	3/8	.63	.04	.03	●	●	●	●	●
16NR 14NPTF	5024014	14	3/8	.63	.05	.04	●	●	●	●	●
16NL 14NPTF	5063814	14	3/8	.63	.05	.04	●	●	●	●	●
16NR 11.5NPTF	5024011	11.5	3/8	.63	.06	.04	●	●	●	●	●
16NL 11.5NPTF	5063811	11.5	3/8	.63	.06	.04	●	●	●	●	●
16NR 8NPTF	5024008	8	3/8	.63	.07	.05	●	●	●	●	●
16NL 8NPTF	5063808	8	3/8	.63	.07	.05	●	●	●	●	●

TIN Coated	AITIN Coated
GP22	GP50
AC22	AC3
AC50	

In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

Cast Iron	▲	●	●	●	●
Non-Ferrous	▲	●	●	●	●
Stainless/High Temp	▲	●	●	●	●
Steel	▲	●	●	●	●



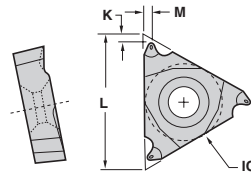
LAYDOWN

UN

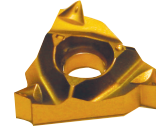
16ER - 3/8" I.C.

w/ patented chipbreaker

Exclusive patented chipbreaker!



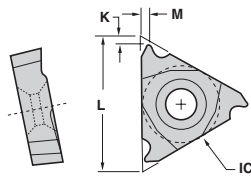
EXT RH SHOWN



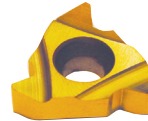
Description	EDP Code	TPI	IC	L	M	K	G	G	A	A	A
16ER 32UN-CB	5006632HC	32	3/8	.63	.01	.05	●	●	●	●	●
16ER 28UN-CB	5006628HC	28	3/8	.63	.03	.03	●	●	●	●	●
16ER 24UN-CB	5006624HC	24	3/8	.63	.03	.03	●	●	●	●	●
16ER 20UN-CB	5006620HC	20	3/8	.63	.03	.03	●	●	●	●	●
16ER 18UN-CB	5006618HC	18	3/8	.63	.03	.03	●	●	●	●	●
16ER 16UN-CB	5006616HC	16	3/8	.63	.03	.03	●	●	●	●	●
16ER 14UN-CB	5006614HC	14	3/8	.63	.06	.05	●	●	●	●	●
16ER 13UN-CB	5006613HC	13	3/8	.63	.06	.05	●	●	●	●	●
16ER 12UN-CB	5006612HC	12	3/8	.63	.06	.05	●	●	●	●	●
16ER 10UN-CB	5006610HC	10	3/8	.63	.06	.05	●	●	●	●	●
16ER 8UN-CB	5006608HC	8	3/8	.63	.06	.05	●	●	●	●	●

UN

16 & 22ER/EL - 3/8" & 1/2" I.C.



EXT RH SHOWN



Description	EDP Code	TPI	IC	L	M	K	GP	GP	AC	AC
16ER 32UN	5006632	32	3/8	.63	.02	.02	●	●	●	●
16EL 32UN	5046632	32	3/8	.63	.02	.02	●			
16ER 28UN	5006628	28	3/8	.63	.03	.02	●	●	●	●
16EL 28UN	5046628	28	3/8	.63	.03	.02	●			
16ER 24UN	5006624	24	3/8	.63	.03	.03	●	●	●	●
16EL 24UN	5046624	24	3/8	.63	.03	.03	●			
16ER 20UN	5006620	20	3/8	.63	.04	.03	●	●	●	●
16EL 20UN	5046620	20	3/8	.63	.04	.03	●			
16ER 18UN	5006618	18	3/8	.63	.04	.03	●	●	●	●
16EL 18UN	5046618	18	3/8	.63	.04	.03	●			
16ER 16UN	5006616	16	3/8	.63	.04	.04	●	●	●	●
16EL 16UN	5046616	16	3/8	.63	.04	.04	●	●		
16ER 14UN	5006614	14	3/8	.63	.05	.04	●	●	●	●
16EL 14UN	5046614	14	3/8	.63	.05	.04	●			
16ER 13UN	5006613	13	3/8	.63	.05	.04	●	●	●	●
16EL 13UN	5046613	13	3/8	.63	.05	.04	●	●		
16ER 12UN	5006612	12	3/8	.63	.06	.04	●	●	●	●
16EL 12UN	5046612	12	3/8	.63	.06	.04	●	●		
16ER 11UN	5006611	11	3/8	.63	.06	.04	●	●	●	●
16EL 11UN	5046611	11	3/8	.63	.06	.04	●		●	
16ER 10UN	5006610	10	3/8	.63	.06	.04	●	●	●	●
16EL 10UN	5046610	10	3/8	.63	.06	.04	●		●	
16ER 9UN	5006609	9	3/8	.63	.07	.05	●	●	●	●
16EL 9UN	5046609	9	3/8	.63	.07	.05	●			
16ER 8UN	5006608	8	3/8	.63	.06	.05	●	●	●	●
16EL 8UN	5046608	8	3/8	.63	.06	.05	●			
22ER 7UN	5106607	7	1/2	.87	.09	.06	●	●	●	●
22EL 7UN	5146607	7	1/2	.87	.09	.06	●	●		
22ER 6UN	5106606	6	1/2	.87	.09	.06	●	●	●	●
22EL 6UN	5146606	6	1/2	.87	.09	.06	●	●		
22ER 5UN	5106605	5	1/2	.87	.10	.07	●	●	●	●
22EL 5UN	5146605	5	1/2	.87	.10	.07	●	●		
27ER 4.5UN	52066045	4.5	5/8	1.06	.11	.07	●	●	●	●
27EL 4.5UN	52466045	4.5	5/8	1.06	.11	.07	●			
27ER 4UN	5206604	4	5/8	1.06	.12	.08	●	●	●	●
27EL 4UN	5246604	4	5/8	1.06	.12	.08	●			

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● High performance choice in optimal conditions.
▲ Recommended grade under general conditions.

Cast Iron	▲			●
Non-Ferrous	▲			●
Stainless/High Temp	▲			●
Steel		▲		●

LAYDOWN

LAYDOWN

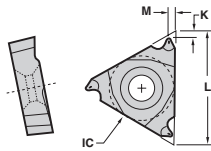


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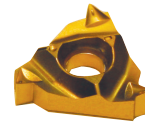
16NR - 3/8" I.C.

w/ patented chipbreaker

Exclusive patented chipbreaker!



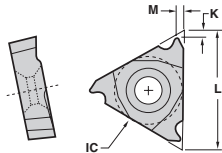
INT RH SHOWN



Description	EDP Code	TPI	IC	L	M	K	TIN Coated		AlTiN Coated		
							GP22	GP50	AC22	AC3	AC50
16NR 32UN-CB	5026632HC	32	3/8	.63	.02	.04	●	●	●	●	●
16NR 28UN-CB	5026628HC	28	3/8	.63	.03	.02	●	●	●	●	●
16NR 24UN-CB	5026624HC	24	3/8	.63	.03	.03	●	●	●	●	●
16NR 20UN-CB	5026620HC	20	3/8	.63	.03	.02	●	●	●	●	●
16NR 18UN-CB	5026618HC	18	3/8	.63	.03	.02	●	●	●	●	●
16NR 16UN-CB	5026616HC	16	3/8	.63	.03	.03	●	●	●	●	●
16NR 14UN-CB	5026614HC	14	3/8	.63	.05	.04	●	●	●	●	●
16NR 13UN-CB	5026613HC	13	3/8	.63	.05	.04	●	●	●	●	●
16NR 12UN-CB	5026612HC	12	3/8	.63	.05	.04	●	●	●	●	●
16NR 10UN-CB	5026610HC	10	3/8	.63	.05	.04	●	●	●	●	●
16NR 8UN-CB	5026608HC	8	3/8	.63	.05	.04	●	●	●	●	●

UN

11, 16, 22 & 27NR - 1/4", 3/8", 1/2" & 5/8" I.C.



INT RH SHOWN



Description	EDP Code	TPI	IC	L	M	K	TIN Coated		AlTiN Coated		
							GP22	GP50	AC22	AC3	AC50
11NR 32UN	4926632	32	1/4	.43	.02	.02	●	●	●		
11NR 28UN	4926628	28	1/4	.43	.03	.02	●	●	●		
11NR 24UN	4926624	24	1/4	.43	.03	.03	●	●	●		
11NR 20UN	4926620	20	1/4	.43	.04	.03	●	●	●		
11NR 18UN	4926618	18	1/4	.43	.04	.03	●	●	●		
16NR 32UN	5026632	32	3/8	.63	.02	.02	●	●	●	●	●
16NL 32UN	5066632	32	3/8	.63	.02	.02	●	●	●	●	●
16NR 28UN	5026628	28	3/8	.63	.03	.02	●	●	●	●	●
16NL 28UN	5066628	28	3/8	.63	.03	.02	●	●	●	●	●
16NR 24UN	5026624	24	3/8	.63	.03	.03	●	●	●	●	●
16NL 24UN	5066624	24	3/8	.63	.03	.03	●	●	●	●	●
16NR 20UN	5026620	20	3/8	.63	.04	.03	●	●	●	●	●
16NL 20UN	5066620	20	3/8	.63	.04	.03	●	●	●	●	●
16NR 18UN	5026618	18	3/8	.63	.04	.03	●	●	●	●	●
16NL 18UN	5066618	18	3/8	.63	.04	.03	●	●	●	●	●
16NR 16UN	5026616	16	3/8	.63	.04	.04	●	●	●	●	●
16NL 16UN	5066616	16	3/8	.63	.04	.04	●	●	●	●	●
16NR 14UN	5026614	14	3/8	.63	.05	.04	●	●	●	●	●
16NL 14UN	5066614	14	3/8	.63	.05	.04	●	●	●	●	●
16NR 13UN	5026613	13	3/8	.63	.05	.04	●	●	●	●	●
16NL 13UN	5066613	13	3/8	.63	.05	.04	●	●	●	●	●
16NR 12UN	5026612	12	3/8	.63	.06	.04	●	●	●	●	●
16NL 12UN	5066612	12	3/8	.63	.06	.04	●	●	●	●	●
16NR 11UN	5026611	11	3/8	.63	.06	.04	●	●	●	●	●
16NL 11UN	5066611	11	3/8	.63	.06	.04	●	●	●	●	●
16NR 10UN	5026610	10	3/8	.63	.06	.04	●	●	●	●	●
16NL 10UN	5066610	10	3/8	.63	.06	.04	●	●	●	●	●
16NR 9UN	5026609	9	3/8	.63	.07	.05	●	●	●	●	●
16NL 9UN	5066609	9	3/8	.63	.07	.05	●	●	●	●	●
16NR 8UN	5026608	8	3/8	.63	.06	.04	●	●	●	●	●
16NL 8UN	5066608	8	3/8	.63	.06	.04	●	●	●	●	●
22NR 7UN	5126607	7	1/2	.87	.09	.06	●	●	●	●	●
22NL 7UN	5166607	7	1/2	.87	.09	.06	●	●	●	●	●
22NR 6UN	5126606	6	1/2	.87	.09	.06	●	●	●	●	●
22NL 6UN	5166606	6	1/2	.87	.09	.06	●	●	●	●	●
22NR 5UN	5126605	5	1/2	.87	.09	.06	●	●	●	●	●
22NL 5UN	5166605	5	1/2	.87	.09	.06	●	●	●	●	●
27NR 4.5UN	52266045	4.5	5/8	1.06	.09	.07	●	●	●	●	●
27NL 4.5UN	52666045	4.5	5/8	1.06	.09	.07	●	●	●	●	●
27NR 4UN	5226604	4	5/8	1.06	.11	.07	●	●	●	●	●
27NL 4UN	5266604	4	5/8	1.06	.11	.07	●	●	●	●	●

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- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

Cast Iron	▲		●
Non-Ferrous	▲		●
Stainless/High Temp	▲		●
Steel	▲		●

LAYDOWN



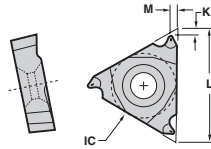
LAYDOWN

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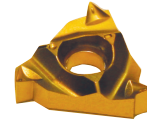
16NR - 3/8" I.C.

w/ patented chipbreaker

Exclusive patented chipbreaker!



INT RH SHOWN



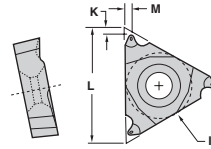
Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
16NR 32UNJ-CB	5026832HC	32	3/8	.63	.02	.04	●	●	●	●	●
16NR 28UNJ-CB	5026828HC	28	3/8	.63	.03	.02	●	●	●	●	●
16NR 24UNJ-CB	5026824HC	24	3/8	.63	.03	.02	●	●	●	●	●
16NR 20UNJ-CB	5026820HC	20	3/8	.63	.03	.02	●	●	●	●	●
16NR 18UNJ-CB	5026818HC	18	3/8	.63	.03	.02	●	●	●	●	●
16NR 16UNJ-CB	5026816HC	16	3/8	.63	.03	.02	●	●	●	●	●
16NR 14UNJ-CB	5026814HC	14	3/8	.63	.06	.04	●	●	●	●	●
16NR 12UNJ-CB	5026812HC	12	3/8	.63	.06	.04	●	●	●	●	●
16NR 10UNJ-CB	5026810HC	10	3/8	.63	.06	.04	●	●	●	●	●

UNJ

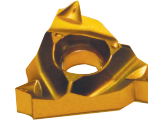
16ER - 3/8" I.C.

w/ patented chipbreaker

Exclusive patented chipbreaker!



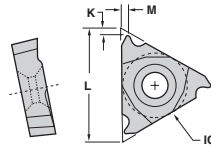
EXT RH SHOWN



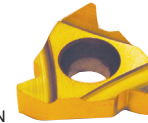
Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
16ER 32UNJ-CB	5006832HC	32	3/8	.63	.02	.05	●	●	●	●	●
16ER 28UNJ-CB	5006828HC	28	3/8	.63	.03	.03	●	●	●	●	●
16ER 24UNJ-CB	5006824HC	24	3/8	.63	.03	.03	●	●	●	●	●
16ER 20UNJ-CB	5006820HC	20	3/8	.63	.03	.03	●	●	●	●	●
16ER 18UNJ-CB	5006818HC	18	3/8	.63	.03	.03	●	●	●	●	●
16ER 16UNJ-CB	5006816HC	16	3/8	.63	.03	.03	●	●	●	●	●
16ER 14UNJ-CB	5006814HC	14	3/8	.63	.06	.05	●	●	●	●	●
16ER 12UNJ-CB	5006812HC	12	3/8	.63	.06	.05	●	●	●	●	●
16ER 10UNJ-CB	5006810HC	10	3/8	.63	.06	.05	●	●	●	●	●

UNJ

16ER - 3/8" I.C.



EXT RH SHOWN



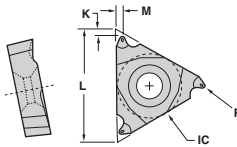
Description	EDP Code	TPI	IC	L	M	K	GP22	GP50	AC22	AC3	AC50
16ER 32UNJ	5006832	32	3/8	.63	.03	.02	●	●	●	●	●
16ER 28UNJ	5006828	28	3/8	.63	.03	.03	●	●	●	●	●
16ER 24UNJ	5006824	24	3/8	.63	.03	.03	●	●	●	●	●
16ER 20UNJ	5006820	20	3/8	.63	.04	.03	●	●	●	●	●
16ER 18UNJ	5006818	18	3/8	.63	.04	.03	●	●	●	●	●
16ER 16UNJ	5006816	16	3/8	.63	.04	.04	●	●	●	●	●
16ER 14UNJ	5006814	14	3/8	.63	.05	.04	●	●	●	●	●
16ER 12UNJ	5006812	12	3/8	.63	.05	.04	●	●	●	●	●
16ER 10UNJ	5006810	10	3/8	.63	.06	.05	●	●	●	●	●
16ER 8UNJ	5006808	8	3/8	.63	.06	.05	●	●	●	●	●

V THREADING - 60°

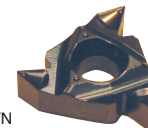
16ER/NR - 3/8" I.C.

w/ patented chipbreaker

Exclusive patented chipbreaker!



EXT RH SHOWN



Description	EDP Code	TPI	IC	L	M	K	R	GP22	GP50	AC22	AC3	AC50
16ER A60-CB	5004600HC	16-48	3/8	.63	.03	.02	.003	●	●	●	●	●
16ER AG60-CB	5004800HC	8-48	3/8	.63	.06	.04	.003	●	●	●	●	●
16ER G60-CB	5005000HC	8-14	3/8	.63	.06	.04	.007	●	●	●	●	●
16NR A60-CB	5024600HC	16-48	3/8	.63	.03	.03	.002	●	●	●	●	●
16NR AG60-CB	5024800HC	8-48	3/8	.63	.06	.04	.002	●	●	●	●	●
16NR G60-CB	5025000HC	8-14	3/8	.63	.06	.04	.007	●	●	●	●	●

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● High performance choice in optimal conditions.
▲ Recommended grade under general conditions.

Cast Iron	▲	●	●	●
Non-Ferrous	▲	●	●	●
Stainless/High Temp	▲	●	●	●
Steel	▲	●	●	●

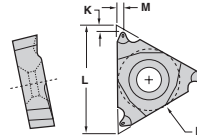


V THREADING - 55°

16ER/NR - 3/8" I.C.

w/ patented chipbreaker

Exclusive patented chipbreaker!



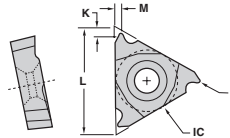
EXT RH SHOWN



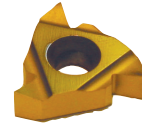
Description	EDP Code	TPI	IC	L	M	K	R	Coatings				
								GP22	GP50	AC22	AC3	AC50
16ER A55-CB	5005400HC	16-48	3/8	.63	.03	.02	.002	●	●	●	●	●
16ER AG55-CB	5005600HC	8-48	3/8	.63	.06	.04	.003	●	●	●	●	●
16ER G55-CB	5005800HC	8-14	3/8	.63	.06	.04	.008	●	●	●	●	●
16NR A55-CB	5025400HC	16-48	3/8	.63	.03	.02	.002	●	●	●	●	●
16NR AG55-CB	5025600HC	8-48	3/8	.63	.06	.04	.003	●	●	●	●	●
16NR G55-CB	5025800HC	8-14	3/8	.63	.06	.04	.008	●	●	●	●	●

V THREADING - 55° & 60°

11, 16 & 22ER/NR - 1/4", 3/8" & 1/2" I.C.



EXT RH SHOWN



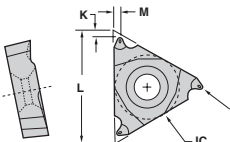
Description	EDP Code	TPI	IC	L	M	K	R	Coatings				
								GP22	GP50	AC22	AC3	AC50
16ER A60	5004600	16-48	3/8	.63	.04	.03	.003	●	●	●	●	●
16EL A60	5044600	16-48	3/8	.63	.04	.03	.003	●	●	●	●	●
16ER AG60	5004800	8-48	3/8	.63	.07	.05	.003	●	●	●	●	●
16EL AG60	5044800	8-48	3/8	.63	.07	.05	.003	●	●	●	●	●
16ER G60	5005000	8-14	3/8	.63	.07	.05	.007	●	●	●	●	●
16EL G60	5045000	8-14	3/8	.63	.07	.05	.007	●	●	●	●	●
22ER N60	5105200	5-7	1/2	.87	.10	.07	.016	●	●	●	●	●
22EL N60	5145200	5-7	1/2	.87	.10	.07	.016	●	●	●	●	●
11NR A55	4925400	16-48	1/4	.43	.04	.03	.003	●	●	●	●	●
11NR A60	4924600	16-48	1/4	.43	.04	.03	.003	●	●	●	●	●
16NR A60	5024600	16-48	3/8	.63	.04	.03	.003	●	●	●	●	●
16NL A60	5064600	16-48	3/8	.63	.04	.03	.003	●	●	●	●	●
16NR AG60	5024800	8-48	3/8	.63	.07	.05	.003	●	●	●	●	●
16NL AG60	5064800	8-48	3/8	.63	.07	.05	.003	●	●	●	●	●
16NR G60	5025000	8-14	3/8	.63	.07	.05	.007	●	●	●	●	●
16NL G60	5065000	8-14	3/8	.63	.07	.05	.007	●	●	●	●	●
22NR N60	5125200	5-7	1/2	.87	.10	.07	.010	●	●	●	●	●
22NL N60	5165200	5-7	1/2	.87	.10	.07	.010	●	●	●	●	●

WHITWORTH

16ER/NR - 3/8" I.C.

w/ patented chipbreaker

Exclusive patented chipbreaker!



EXT RH SHOWN



Description	EDP Code	TPI	IC	L	M	K	Coatings				
							GP22	GP50	AC22	AC3	AC50
16ER 36W-CB	5006036HC	36	3/8	.63	.02	.05	●	●	●	●	●
16ER 32W-CB	5006032HC	32	3/8	.63	.02	.05	●	●	●	●	●
16ER 28W-CB	5006028HC	28	3/8	.63	.03	.03	●	●	●	●	●
16ER 24W-CB	5006024HC	24	3/8	.63	.03	.03	●	●	●	●	●
16ER 20W-CB	5006020HC	20	3/8	.63	.03	.03	●	●	●	●	●
16ER 19W-CB	5006019HC	19	3/8	.63	.03	.03	●	●	●	●	●
16ER 18W-CB	5006018HC	18	3/8	.63	.03	.03	●	●	●	●	●
16ER 16W-CB	5006016HC	16	3/8	.63	.03	.03	●	●	●	●	●
16ER 14W-CB	5006014HC	14	3/8	.63	.06	.05	●	●	●	●	●
16ER 12W-CB	5006012HC	12	3/8	.63	.06	.05	●	●	●	●	●
16ER 11W-CB	5006011HC	11	3/8	.63	.06	.05	●	●	●	●	●
16ER 10W-CB	5006010HC	10	3/8	.63	.06	.05	●	●	●	●	●
16ER 8W-CB	5006008HC	8	3/8	.63	.06	.05	●	●	●	●	●
16NR 28W-CB	5026028HC	28	3/8	.63	.03	.03	●	●	●	●	●
16NR 24W-CB	5026024HC	24	3/8	.63	.03	.03	●	●	●	●	●
16NR 20W-CB	5026020HC	20	3/8	.63	.03	.03	●	●	●	●	●
16NR 19W-CB	5026019HC	19	3/8	.63	.03	.03	●	●	●	●	●

In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

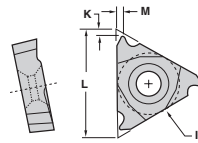
Cast Iron	▲	●
Non-Ferrous	▲	●
Stainless/High Temp	▲	●
Steel	▲	●



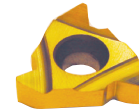
LAYDOWN

WHITWORTH

16, 22 & 27ER/NR - 3/8", 1/2" & 5/8" I.C.



EXT RH SHOWN



Description	EDP Code	TPI	IC	L	M	K	TIN Coated					ALTiN Coated				
							GP22	GP50	AC22	AC3	AC50	GP22	GP50	AC22	AC3	AC50
16ER 28W	5006028	28	3/8	.63	.03	.02	●	●	●	●	●	●	●	●	●	●
16ER 20W	5006020	20	3/8	.63	.04	.03	●	●	●	●	●	●	●	●	●	●
16ER 19W	5006019	19	3/8	.63	.04	.03	●	●	●	●	●	●	●	●	●	●
16ER 18W	5006018	18	3/8	.63	.04	.03	●	●	●	●	●	●	●	●	●	●
16ER 16W	5006016	16	3/8	.63	.04	.04	●	●	●	●	●	●	●	●	●	●
16ER 14W	5006014	14	3/8	.63	.05	.04	●	●	●	●	●	●	●	●	●	●
16ER 12W	5006012	12	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16ER 11W	5006011	11	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16ER 10W	5006010	10	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16ER 9W	5006009	9	3/8	.63	.07	.05	●	●	●	●	●	●	●	●	●	●
16ER 8W	5006008	8	3/8	.63	.06	.05	●	●	●	●	●	●	●	●	●	●
22ER 7W	5106007	7	1/2	.87	.09	.06	●	●	●	●	●	●	●	●	●	●
22ER 6W	5106006	6	1/2	.87	.09	.06	●	●	●	●	●	●	●	●	●	●
22ER 5W	5106005	5	1/2	.87	.09	.07	●	●	●	●	●	●	●	●	●	●
27ER 4W	5206004	4	5/8	1.06	.11	.08	●	●	●	●	●	●	●	●	●	●
16NR 28W	5026028	28	3/8	.63	.03	.02	●	●	●	●	●	●	●	●	●	●
16NR 20W	5026020	20	3/8	.63	.04	.03	●	●	●	●	●	●	●	●	●	●
16NR 19W	5026019	19	3/8	.63	.04	.03	●	●	●	●	●	●	●	●	●	●
16NR 18W	5026018	18	3/8	.63	.04	.03	●	●	●	●	●	●	●	●	●	●
16NR 16W	5026016	16	3/8	.63	.04	.04	●	●	●	●	●	●	●	●	●	●
16NR 14W	5026014	14	3/8	.63	.05	.04	●	●	●	●	●	●	●	●	●	●
16NR 12W	5026012	12	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16NR 11W	5026011	11	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16NR 10W	5026010	10	3/8	.63	.06	.04	●	●	●	●	●	●	●	●	●	●
16NR 9W	5026009	9	3/8	.63	.07	.05	●	●	●	●	●	●	●	●	●	●
16NR 8W	5026008	8	3/8	.63	.08	.05	●	●	●	●	●	●	●	●	●	●
22NR 7W	5126007	7	1/2	.87	.06	.05	●	●	●	●	●	●	●	●	●	●
22NR 6W	5126006	6	1/2	.87	.09	.06	●	●	●	●	●	●	●	●	●	●
22NR 5W	5126005	5	1/2	.87	.09	.07	●	●	●	●	●	●	●	●	●	●
27NR 4W	5226004	4	5/8	1.06	.11	.08	●	●	●	●	●	●	●	●	●	●

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- ▲ Recommended grade under general conditions.

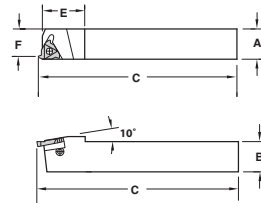
Cast Iron
Non-Ferrous
Stainless/High Temp
Steel

EXTERNAL HOLDER

For Threading and Grooving

Inch Most holders available with coolant port
(ie: Add CP to end of description)

RH Holder uses RH Inserts



RH SHOWN

Description	EDP Code	Insert	A	B	C	E	F*	Insert				Seat			
								Screw	Screw	Wrench	Seat	Screw	Screw	Wrench	Seat
AL0500-3R	916050361	16ER	1/2	1/2	3.27	1.15	.63	SA3	SY3	K3	YE3	SA3	SY3	K3	YE3
AL0500-3L	916050352	16EL	1/2	1/2	3.27	1.15	.63	SA3	SY3	K3	YI3	SA3	SY3	K3	YI3
AL0625-3R	916052361	16ER	5/8	5/8	5	1.15	.63	SA3	SY3	K3	YE3	SA3	SY3	K3	YE3
AL075-3R	916056361	16ER	3/4	3/4	5	1.2	.75	SA3	SY3	K3	YE3	SA3	SY3	K3	YE3
AL075-3L	916056362	16EL	3/4	3/4	5	1.2	.75	SA3	SY3	K3	YI3	SA3	SY3	K3	YI3
AL100-3R	916064361	16ER	1	1	6	1.2	1.0	SA3	SY3	K3	YE3	SA3	SY3	K3	YE3
AL100-3L	916064362	16EL	1	1	6	1.2	1.0	SA3	SY3	K3	YI3	SA3	SY3	K3	YI3
AL100-4R	916064401	22ER	1	1	6	1.42	1.0	SA4	SY4	K4	YE4	SA4	SY4	K4	YE4
AL100-4L	916064402	22EL	1	1	6	1.42	1.0	SA4	SY4	K4	YI4	SA4	SY4	K4	YI4
AL125-4R	916068401	22ER	1-1/4	1-1/4	7	1.42	1.125	SA4	SY4	K4	YE4	SA4	SY4	K4	YE4
AL125-5R	916068441	27ER	1-1/4	1-1/4	7	1.57	1.125	SA5	SY5	K5	YE5	SA5	SY5	K5	YE5
AL125-5L	916068442	27EL	1-1/4	1-1/4	7	1.57	1.125	SA5	SY5	K5	YI5	SA5	SY5	K5	YI5
AL150-5R	916070441	27ER	1-1/2	1-1/2	8	1.57	1.500	SA5	SY5	K5	YE5	SA5	SY5	K5	YE5

METRIC

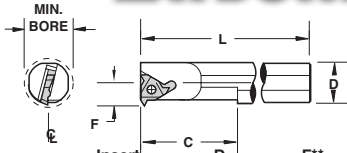
Description	EDP Code	Insert	A	B	C	E	F*	Insert				Seat			
								Screw	Screw	Wrench	Seat	Screw	Screw	Wrench	Seat
AL2020M-3R	916120361	16ER	20,0	20,0	128,6	30,0	20,0	SA3	SY3	K3	YE3	SA3	SY3	K3	YE3
AL2020M-3L	916120362	16EL	20,0	20,0	128,6	30,0	20,0	SA3	SY3	K3	YI3	SA3	SY3	K3	YI3
AL2525M-3R	916125361	16ER	25,0	25,0	150,0	30,0	25,0	SA3	SY3	K3	YE3	SA3	SY3	K3	YE3
AL2525M-3L	916125362	16EL	25,0	25,0	150,0	30,0	25,0	SA3	SY3	K3	YI3	SA3	SY3	K3	YI3
AL3232M-3R	916132361	16ER	32,0	32,0	173,6	30,0	32,0	SA3	SY3	K3	YE3	SA3	SY3	K3	YE3
AL3232M-3L	916132362	16EL	32,0	32,0	173,6	30,0	32,0	SA3	SY3	K3	YI3	SA3	SY3	K3	YI3
AL2525M-4R	916125401	22ER	25,0	25,0	150,0	30,0	25,0	SA3	SY3	K3	YE4	SA3	SY3	K3	YE4
AL2525M-4L	916125402	22EL	25,0	25,0	150,0	30,0	25,0	SA4	SY4	K4	YI4	SA4	SY4	K4	YI4
AL3232M-4R	916132401	22ER	32,0	32,0	173,6	30,0	32,0	SA4	SY4	K4	YE4	SA4	SY4	K4	YE4
AL3232M-4L	916132402	22EL	32,0	32,0	173,6	30,0	32,0	SA4	SY4	K4	YI4	SA4	SY4	K4	YI4
AL3232M-5R	916032441	27ER	32,0	32,0	173,6	30,0	32,0	SA5	SY5	K5	YE5	SA5	SY5	K5	YE5
AL3232M-5L	916032442	27EL	32,0	32,0	173,6	30,0	32,0	SA5	SY5	K5	YI5	SA5	SY5	K5	YI5
AL4040M-5R	916040441	27ER	40,0	40,0	206,6	36,0	38,1	SA5	SY5	K5	YE5	SA5	SY5	K5	YE5

INTERNAL BAR

AVR/NVR

Inch

Most bars available with coolant port
(ie: Add CP to end of description)



RH SHOWN

Description	EDP Code	Insert	D	F**	L	C	Min. Bore	Insert Screw	Seat Screw & Washer	Wrench	Seat
NVR 375-2R*	962048351	11NR	.375	.280	7	N/A	.500	SA3	-	K3	-
NVR 500-2R*	962008511	11NR	.500	.370	7	N/A	.625	SA3	-	K3	-
NVR 500-3R*	962008361	16NR	.500	.370	7	1.25	.670	SA3	-	K3	-
NVR 625-3R*	962052361	16NR	.625	.312	7	2.50	.700	SA3	-	K3	-
NVR 625-3L*	962052362	16NL	.625	.312	7	2.50	.700	SA3	-	K3	-
AVR 750-3R	918056361	16NR	.750	.510	7	2.75	.950	SA3	SY3	K3	YI3
AVR 750-3L	918056362	16NL	.750	.510	7	2.75	.950	SA3	SY3	K3	YE3
AVR 100-3R	918064361	16NR	1.000	.640	10	3.00	1.150	SA3	SY3	K3	YI3
AVR 100-3L	918064362	16NL	1.000	.640	10	3.00	1.150	SA3	SY3	K3	YE3
AVR 125-3R	918068361	16NR	1.250	.770	10	3.00	1.400	SA3	SY3	K3	YI3
AVR 125-3L	918068362	16NL	1.250	.770	10	3.00	1.400	SA3	SY3	K3	YE3
AVR 150-3R	918072361	16NR	1.500	.900	12	3.00	1.700	SA3	SY3	K3	YI3
AVR 150-3L	918072362	16NL	1.500	.900	12	3.00	1.700	SA3	SY3	K3	YE3
NVR 750-4R	962056401	22NR	.750	.610	7	2.75	1.100	SA4	-	K4	-
NVR 750-4L	962056402	22NL	.750	.610	7	2.75	1.100	SA4	-	K4	-
AVR 100-4R	918064401	22NR	1.000	.710	10	3.00	1.200	SA4	SY4	K4	YI4
AVR 100-4L	918064402	22NL	1.000	.710	10	3.00	1.200	SA4	SY4	K4	YE4
AVR 125-4R	918068401	22NR	1.250	.840	10	3.00	1.500	SA4	SY4	K4	YI4
AVR 125-4L	918068402	22NL	1.250	.840	10	3.00	1.500	SA4	SY4	K4	YE4
AVR 150-4R	918072401	22NR	1.500	.980	12	3.00	1.800	SA4	SY4	K4	YI4
AVR 150-4L	918072402	22NL	1.500	.980	12	3.00	1.800	SA4	SY4	K4	YE4
AVR 125-5R	918068441	27NR	1.250	.880	10	3.00	1.800	SA5	SY5	K4	YI5
AVR 125-5L	918068442	27NL	1.250	.880	10	3.00	1.800	SA5	SY5	K4	YE5
AVR 150-5R	918072441	27NR	1.500	1.000	12	3.00	1.900	SA5	SY5	K4	YI5
AVR 150-5L	918072442	27NL	1.500	1.000	12	3.00	1.900	SA5	SY5	K4	YE5
AVR 200-5R	918080441	27NR	2.000	1.125	12	3.00	2.400	SA5	SY5	K4	YI5
AVR 200-5L	918080442	27NL	2.000	1.125	12	3.00	2.400	SA5	SY5	K4	YE5

*Over NV Insert

**Support must be slightly modified if used for grooving.

METRIC

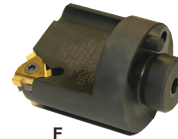
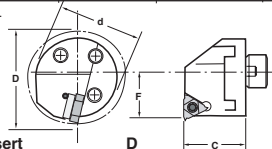
Description	EDP Code	Insert	D	F**	L	C	Min. Bore	Insert Screw	Seat Screw & Washer	Wrench	Seat
AVR 20M-3R	918020M361	16NR	20,0	13,4	180,0	20,0	26,8	SA3	SY3	K3	YI3
AVR 20M-3L	918020M362	16NL	20,0	13,4	180,0	20,0	26,8	SA3	SY3	K3	YE3
AVR 25M-3R	918025M361	16NR	25,0	16,3	250,0	20,0	32,6	SA3	SY3	K3	YI3
AVR 25M-3L	918025M362	16NL	25,0	16,3	250,0	20,0	32,6	SA3	SY3	K3	YE3
AVR 32M-3R	918032M361	16NR	32,0	19,5	254,0	76,2	39,1	SA3	SY3	K3	YI3
AVR 32M-3L	918032M362	16NL	32,0	19,5	254,0	76,2	39,1	SA3	SY3	K3	YE3
AVR 40M-3R	918040M361	16NR	40,0	22,8	304,8	76,2	45,7	SA3	SY3	K3	YI3
AVR 40M-3L	918040M362	16NL	40,0	22,8	304,8	76,2	45,7	SA3	SY3	K3	YE3
AVR 25M-4R	918025M401	22NR	25,0	17,4	250,0	20,0	34,8	SA4	SY4	K4	YI4
AVR 25M-4L	918025M402	22NL	25,0	17,4	250,0	20,0	34,8	SA4	SY4	K4	YE4
AVR 32M-4R	918032M401	22NR	32,0	21,3	254,0	20,0	42,6	SA4	SY4	K4	YI4
AVR 32M-4L	918032M402	22NL	32,0	21,3	254,0	20,0	42,6	SA4	SY4	K4	YE4
AVR 40M-4R	918040M401	22NR	40,0	25,7	300,0	22,2	51,5	SA4	SY4	K4	YI4
AVR 40M-4L	918040M402	22NL	40,0	25,7	300,0	22,2	51,5	SA4	SY4	K4	YE4
AVR 50M-4R	918050M401	22NR	50,0	30,8	350,0	25,4	61,6	SA5	SY4	K4	YI4
AVR 50M-4L	918050M402	22NL	50,0	30,8	350,0	25,4	61,6	SA5	SY4	K4	YE4
AVR 50M-5R	918050M41	27NR	50,0	31,7	350,0	25,4	63,5	SA5	SY5	K4	YI5
AVR 50M-5L	918050M42	27NL	50,0	31,7	350,0	25,4	63,5	SA5	SY5	K4	YE5

*Over NV Insert

**Support must be slightly modified if used for grooving.

H-AVR/L*

Most bars available with coolant port
(ie: Add CP to end of description)



RH SHOWN

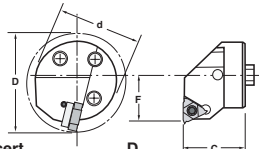
PARTS

Most bars available with coolant port (ie: Add CP to end of description)									
Description	EDP Code	Insert	D	C	F	Min. Bore	Insert Screw	Seat Screw	Seat
H16-AVR-3R	9IH18064361	16NR	1.000	1.625	0.650	1.200	SA-3	SY-3	YI3
H20-AVR-3R	9IH18068361	16NR	1.250	1.625	0.765	1.450	SA-3	SY-3	YI3
H24-AVR-3R	9IH18072361	16NR	1.500	1.625	0.890	1.760	SA-3	SY-3	YI3
H32-AVR-3R	9IH18080361	16NR	2.000	1.625	1.281	2.400	SA-3	SY-3	YI3
H24-AVR-4R	9IH18072401	22NR	1.500	1.625	0.978	1.760	SA-4	SY-4	YI4
H32-AVR-4R	9IH18080401	22NR	2.000	1.625	1.281	2.400	SA-4	SY-4	YI4

*Left Hand quoted on request.

HS-AVR/L*

Most bars available with coolant port
(ie: Add CP to end of description)



RH SHOWN

PARTS

(ie: Add CP to end of description)

Description	EDP Code	Insert	D	C	F	Min. Bore	Insert Screw	Seat Screw	Seat
HS25-AVR-3R	9IHS18025M361	16NR	0.98	0.98	0.669	1.260	SA-3	SY-3	YI3
HS32-AVR-3R	9IHS18032M361	16NR	1.26	1.26	0.866	1.570	SA-3	SY-3	YI3
HS40-AVR-3R	9IHS18040M361	16NR	1.57	1.26	1.063	1.970	SA-3	SY-3	YI3
HS50-AVR-3R	9IHS18050M361	16NR	1.97	1.57	1.378	2.480	SA-3	SY-3	YI3
HS40-AVR-4R	9IHS18040M401	22NR	1.57	1.26	1.063	1.970	SA-4	SY-4	YI4
HS50-AVR-4R	9IHS18050M401	22NR	1.97	1.57	1.378	2.480	SA-4	SY-4	YI4

*Left Hand quoted on request.





ANVILS

Resultant Helix Angle		4.5°		3.5°		2.5°		1.5°		0.5°		0°		-0.5°		-1.5°	
IC		L		Holder		Anvil Description											
3/8"	.63	ER/NL	YE3-3P	YE3-2P	YE3-1P	YE3	YE3-1N	YE3-1.5N	YE3-2N	YE3-3N							
	.63	EL/NR	YI3-3P	YI3-2P	YI3-1P	YI3	YI3-1N	YI3-1.5N	YI3-2N	YI3-3N							
1/2"	.87	ER/NL	YE4-3P	YE4-2P	YE4-1P	YE4	YE4-1N	YE4-1.5N	YE4-2N	YE4-3N							
	.87	EL/NR	YI4-3P	YI4-2P	YI4-1P	YI4	YI4-1N	YI4-1.5N	YI4-2N	YI4-3N							
5/8"	1.06	ER/NL	YE5-3P	YE5-2P	YE5-1P	YE5	YE5-1N	YE5-1.5N	YE5-2N	YE5-3N							
	1.06	EL/NR	YI5-3P	YI5-2P	YI5-1P	YI5	YI5-1N	YI5-1.5N	YI5-2N	YI5-3N							
3/8"M	.63	ER/NL				YE3M	YE3M-1N	YE3M-1.5N	YE3M-2N								
	.63	EL/NR				YI3M	YI3M-1N	YI3M-1.5N									
1/2"M	.87	ER/NL				YE4M	YE4M-1N	YE4M-1.5N	YE4M-2N								
	.87	EL/NR				YI4M	YI4M-1N	YI4M-1.5N									
5/8"M	1.06	ER/NL				YE5M	YE5M-1N	YE5M-1.5N									
	1.06	EL/NR				YI5M	YI5M-1N	YI5M-1.5N									
1/2"Z																	
	.87	EL/NR			YI4Z-1P												
1/2"U	.87	ER/NL	YE4U-3P	YE4U-2P	YE4U-1P	YE4U	YE4U-1N	YE4U-1.5N	YE4U-2N	YE4U-1N							
	.87	EL/NR	YI4U-3P	YI4U-2P	YI4U-1P	YI4U	YI4U-1N	YI4U-1.5N	YI4U-2N	YI4U-1N							

ANVIL KITS	IC	L	TF #	Included Anvils
	3/8"	.63 .63	KTY3	YE3-2P, 1P, 1N, 2N, 3N YI3-2P, 1P, 1N, 2N, 3N
	1/2"	.87 .87	KTY4	YE4-2P, 1P, 1N, 2N, 3N YI4-2P, 1P, 1N, 2N, 3N
	1/2"U	.87 .87	KTY4U	YE4U-2P, 1P, 1N, 2N, 3N YI4U-2P, 1P, 1N, 2N, 3N
	5/8"	1.06 1.06	KTYE5 KTYI5	YE5-2P, 1P, 1N, 2N, 3N YI5-2P, 1P, 1N, 2N, 3N
	5/8"U	1.06 1.06	KTYE5U KTYI5U	YE5U-2P, 1P, 1N, 2N, 3N YI5U-2P, 1P, 1N, 2N, 3N

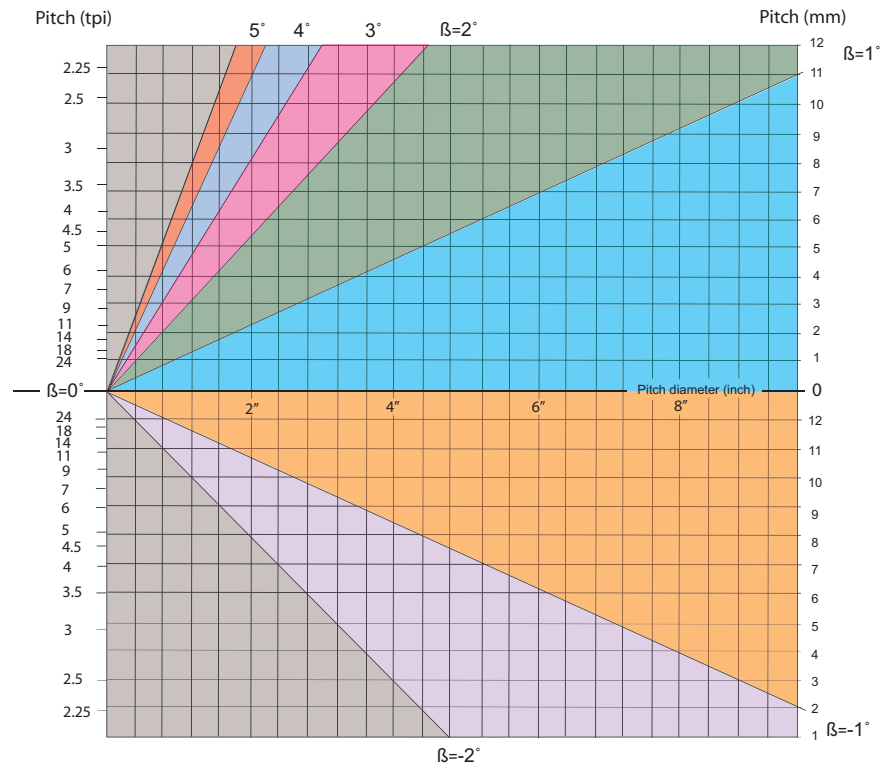
Standard Anvil		M Style Anvil		Z Style Anvil	
ER/NL	EL/NR	ER/NL	EL/NR	ER/NL	EL/NR

ANVIL FORMS	
1/2"	YE4-11.5NPT-2M YI4-11.5NPT-2M
5/8"	YE5-8NPT-2M, YE5-8RD-2M YI5-8NPT-2M, YI5-8RD-2M

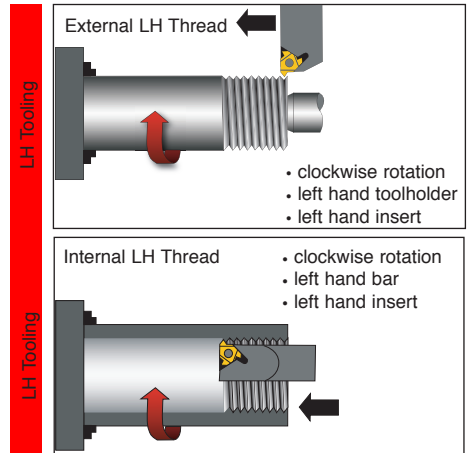
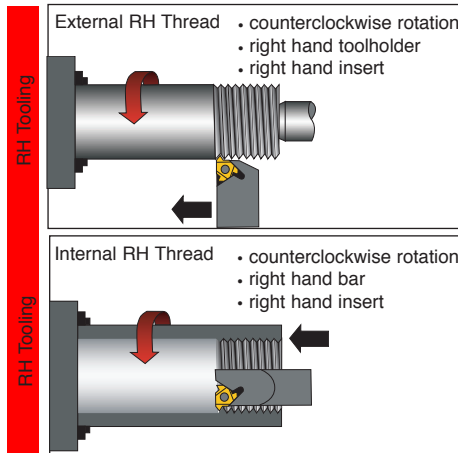
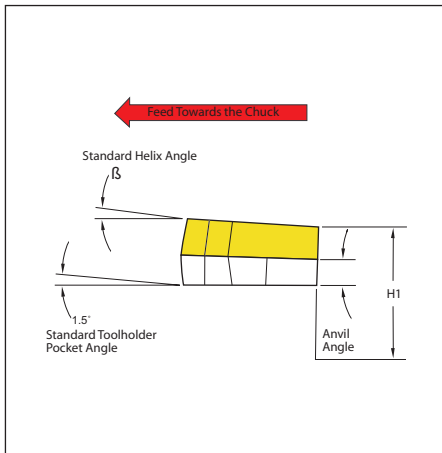
Helix Angle Table (For Given Pitch and Diameter)								
resultant helical angle	4.5°	3.5°	2.5°	1.5°	0.5°	0°	-0.5°	-1.5°
threads per inch	D I A M E T E R							
48			0.12 - 0.18	0.18 - 0.48	0.48 - 1.28	> 1.28	1.28 - 0.48	0.48 - 0.18
44		0.13 - 0.20	0.20 - 0.52	0.52 - 1.40	> 1.40	1.40 - 0.52	0.52 - 0.20	
40		0.11 - 0.14	0.14 - 0.22	0.22 - 0.57	0.57 - 1.52	> 1.52	1.52 - 0.57	0.57 - 0.22
36		0.12 - 0.16	0.16 - 0.24	0.24 - 0.64	0.64 - 1.70	> 1.70	1.70 - 0.64	0.64 - 0.24
32	0.12 - 0.13	0.13 - 0.18	0.18 - 0.27	0.27 - 0.71	0.71 - 1.90	> 1.90	1.90 - 0.71	0.71 - 0.27
28	0.12 - 0.15	0.15 - 0.20	0.20 - 0.31	0.31 - 0.82	0.82 - 2.19	> 2.19	2.19 - 0.82	0.82 - 0.31
27	0.14 - 0.16	0.16 - 0.21	0.21 - 0.32	0.32 - 0.84	0.84 - 2.25	> 2.25	2.25 - 0.84	0.84 - 0.32
24	0.16 - 0.18	0.18 - 0.24	0.24 - 0.36	0.36 - 0.96	0.96 - 2.55	> 2.55	2.55 - 0.96	0.96 - 0.36
20	0.19 - 0.22	0.22 - 0.28	0.28 - 0.43	0.43 - 1.14	1.14 - 3.04	> 3.04	3.04 - 1.14	1.14 - 0.43
18	0.21 - 0.24	0.24 - 0.32	0.32 - 0.49	0.49 - 1.28	1.28 - 3.40	> 3.40	3.40 - 1.28	1.28 - 0.49
16	0.23 - 0.27	0.27 - 0.35	0.35 - 0.54	0.54 - 1.41	1.41 - 3.77	> 3.77	3.77 - 1.41	1.41 - 0.54
14	0.27 - 0.31	0.31 - 0.40	0.40 - 0.62	0.62 - 1.62	1.62 - 4.32	> 4.32	4.32 - 1.62	1.62 - 0.62
13	0.29 - 0.33	0.33 - 0.44	0.44 - 0.67	0.67 - 1.76	1.76 - 4.68	> 4.68	4.68 - 1.76	1.76 - 0.67
12	0.32 - 0.36	0.36 - 0.48	0.48 - 0.73	0.73 - 1.92	1.92 - 5.11	> 5.11	5.11 - 1.92	1.92 - 0.73
11.5	0.33 - 0.38	0.38 - 0.49	0.49 - 0.76	0.76 - 1.98	1.98 - 5.29	> 5.29	5.29 - 1.98	1.98 - 0.76
11	0.35 - 0.39	0.39 - 0.52	0.52 - 0.79	0.79 - 2.07	2.07 - 5.53	> 5.53	5.53 - 2.07	2.07 - 0.79
10	0.38 - 0.43	0.43 - 0.57	0.57 - 0.87	0.87 - 2.28	2.28 - 6.08	> 6.08	6.08 - 2.28	2.28 - 0.87
9	0.42 - 0.48	0.48 - 0.63	0.63 - 0.96	0.96 - 2.53	2.53 - 6.75	> 6.75	6.75 - 2.53	2.53 - 0.96
8	0.47 - 0.54	0.54 - 0.71	0.71 - 1.09	1.09 - 2.85	2.85 - 7.60	> 7.60	7.60 - 2.85	2.85 - 1.09
7	0.54 - 0.62	0.62 - 0.81	0.81 - 1.24	1.24 - 3.26	3.26 - 8.69	> 8.69	8.69 - 3.26	3.26 - 1.24
6	0.63 - 0.72	0.72 - 0.95	0.95 - 1.45	1.45 - 3.81	3.81 - 10.15	> 10.15	10.15 - 3.81	3.81 - 1.45
5	0.76 - 0.87	0.87 - 1.14	1.14 - 1.74	1.74 - 4.56	4.56 - 12.16	> 12.16	12.16 - 4.56	4.56 - 1.74
4.5	0.84 - 0.96	0.96 - 1.26	1.26 - 1.93	1.93 - 5.06	5.06 - 13.49	> 13.49	13.49 - 5.06	5.06 - 1.93
4	0.95 - 1.08	1.08 - 1.42	1.42 - 2.17	2.17 - 5.70	5.70 - 15.20	> 15.20	15.20 - 5.70	5.70 - 2.17



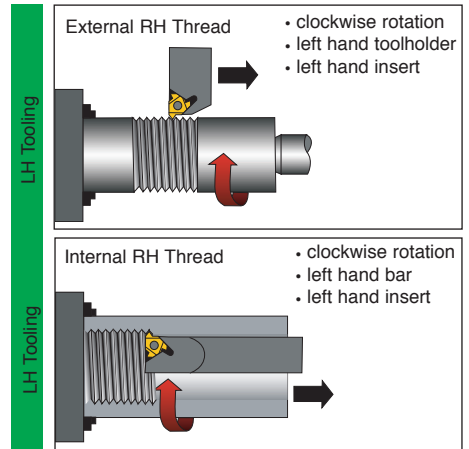
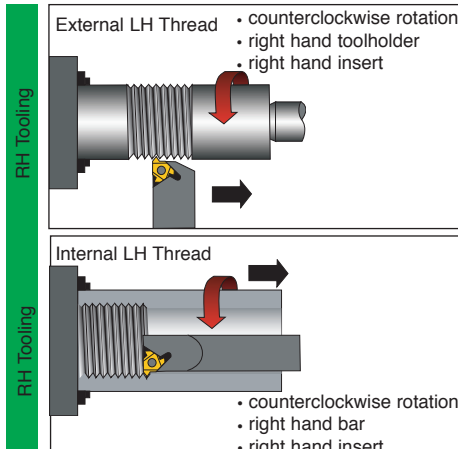
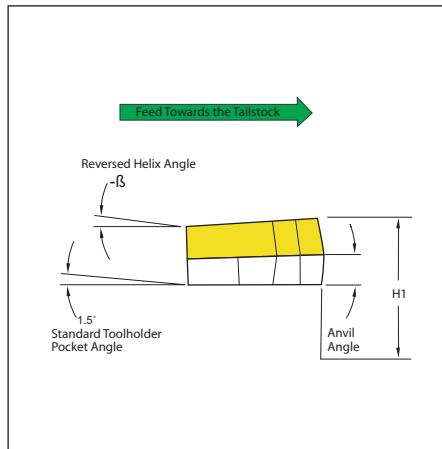
Helix Angle Diagram



Feed direction towards the chuck



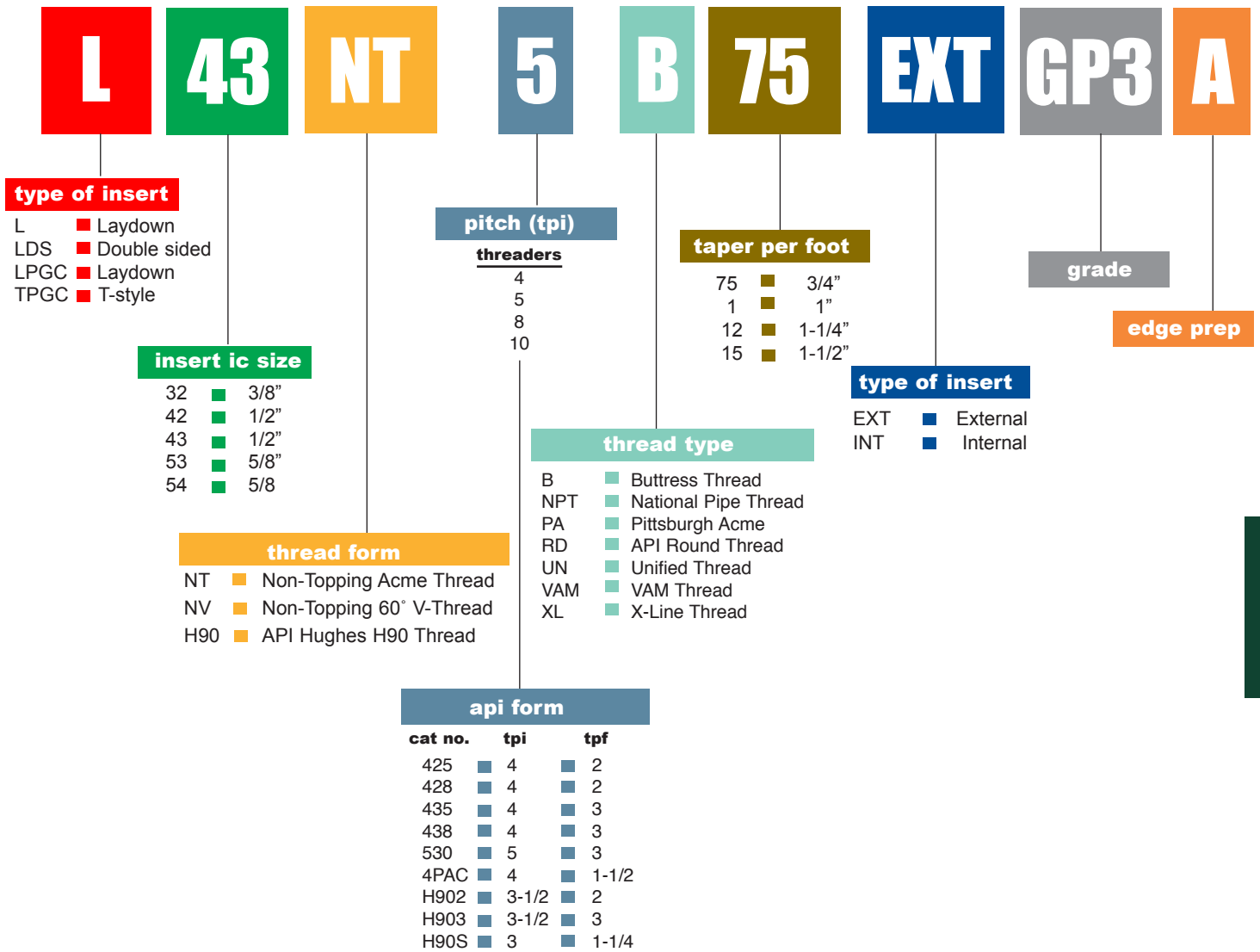
Feed direction towards the tailstock





LAYDOWN

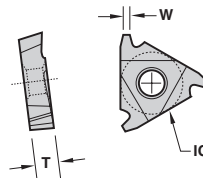
L-Style Laydown Insert Nomenclature Chart



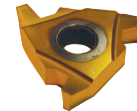
LAYDOWN

ACME

L43/L53 - 1/2" & 5/8" I.C.



EXT SHOWN
INT OPPOSITE



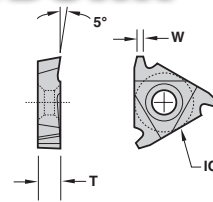
Description	EDP Code	TPI	W	IC	T	TIN Coated			ATTN Coated		
						GP22	GP50	GP5	AC22	AC3	AC50
L43 NT 8P EXT	0215C080	8	.0411	.500	.189		●				●
L43 NT 6P EXT	0215C060	6	.0566	.500	.189		●				●
L43 NT 5P EXT	0215C050	5	.0689	.500	.189		●				●
L53 NT 4P EXT	0247C040	4	.0875	.625	.189		●				●
L43 NT 8P INT	0215A080	8	.0411	.500	.189			●			●
L43 NT 6P INT	0215A060	6	.0566	.500	.189			●			●
L43 NT 5P INT	0215A050	5	.0689	.500	.189			●			●
L53 NT 4P INT	0247A040	4	.0875	.625	.189			●			●
In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.						Cast Iron					
						Non-Ferrous					
						Stainless/High Temp					
						Steel					
						● High performance choice in optimal conditions.					
						▲ Recommended grade under general conditions.					
						▲					
						▲					
						▲					
						▲					

LAYDOWN

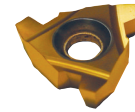


ACME

LPGC 32, 42 & 43 - 3/8" & 1/2 I.C.



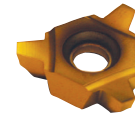
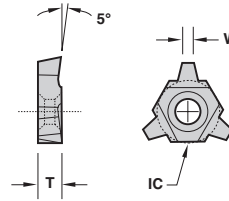
EXT SHOWN
INT OPPOSITE



Description	EDP Code	TPI	W	IC	T	TIN Coated			A1TIN Coated		
						GP22	GP50	GP5	AC22	AC3	AC50
LPGC 32 NT 12P INT RH	0204A120	12	.0283	.375	.127			●			
LPGC 32 NT 10P INT RH	0204A100	10	.0319	.375	.127			●			
LPGC 32 NT 8P INT RH	0204A080	8	.0411	.375	.127			●			
LPGC 42 NT 8P INT RH	0213A080	8	.0411	.500	.127			●			
LPGC 42 NT 6P INT RH	0213A060	6	.0566	.500	.127			●			
LPGC 42 NT 5P INT RH	0213A050	5	.0689	.500	.127			●			
LPGC 42 NT 4P INT RH*	0213A040	4	.0875	.500	.127			●			
LPGC 43 NT 8P INT RH	0227A080	8	.0411	.500	.189			●			
LPGC 43 NT 6P INT RH	0227A060	6	.0566	.500	.189			●			
LPGC 43 NT 5P INT RH	0227A050	5	.0689	.500	.189			●			
LPGC 43 NT 4P INT RH*	0227A040	4	.0875	.500	.189			●			

*Bar must be modified to clear depth.

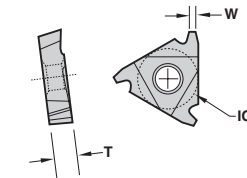
TPGC 32, 42 & 43 - 3/8" & 1/2 I.C.



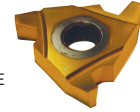
Description	EDP Code	TPI	W	IC	T	TIN Coated			A1TIN Coated		
						GP22	GP50	GP5	AC22	AC3	AC50
TPGC 32 NT 10P	0207100	10	.0319	.375	.127			●			
TPGC 32 NT 8P	0207080	8	.0411	.375	.127			●			
TPGC 32 NT 6P	0207060	6	.0566	.375	.127			●			
TPGC 32 NT 5P	0207050	5	.0689	.375	.127			●			
TPGC 42 NT 8P	0214080	8	.0411	.500	.127			●			
TPGC 42 NT 6P	0214060	6	.0566	.500	.127			●			
TPGC 42 NT 5P	0214050	5	.0689	.500	.127			●			
TPGC 42 NT 4P	0214040	4	.0875	.500	.127			●			
TPGC 43 NT 5P	0238050	5	.0689	.500	.189			●			
TPGC 43 NT 4P	0238040	4	.0875	.500	.189			●			

ACME STUB

L43/L53 - 1/2" & 5/8" I.C.

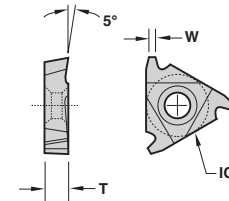


INT SHOWN
EXT OPPOSITE

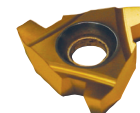


Description	EDP Code	TPI	W	IC	T	TIN Coated			A1TIN Coated		
						GP22	GP50	GP54	AC22	AC3	AC50
L43 NT 8P STUB EXT	0215C081	8	.0476	.500	.189		●				
L43 NT 6P STUB EXT	0215C061	6	.0652	.500	.189		●				
L43 NT 5P STUB EXT	0215C051	5	.0793	.500	.189		●				
L53 NT 4P STUB EXT	0247C041	4	.1004	.625	.189		●				
L43 NT 8P STUB INT	0215A081	8	.0476	.500	.189		●				
L43 NT 6P STUB INT	0215A061	6	.0652	.500	.189		●				
L43 NT 5P STUB INT	0215A051	5	.0793	.500	.189		●				
L53 NT 4P STUB INT	0247A041	4	.1004	.625	.189		●				

LPGC 32, 42 & 43 - 3/8" & 1/2 I.C.



EXT SHOWN
INT OPPOSITE



Description	EDP Code	TPI	W	IC	T	TIN Coated			A1TIN Coated		
						GP22	GP5	GP50	AC25	AC3	AC50
LPGC 32 NT 8P STUB INT RH	0204A081	8	.0476	.375	.127		●	●			
LPGC 42 NT 8P STUB INT RH	0213A081	8	.0476	.500	.127		●	●			
LPGC 42 NT 6P STUB INT RH	0213A061	6	.0652	.500	.127		●	●			
LPGC 42 NT 5P STUB INT RH	0213A051	5	.0793	.500	.127		●	●			
LPGC 42 NT 4P STUB INT RH	0213A041	4	.1004	.500	.127		●	●			
LPGC 43 NT 8P STUB INT RH	0227A081	8	.0476	.500	.189		●	●			
LPGC 43 NT 6P STUB INT RH	0227A061	6	.0652	.500	.189		●	●			
LPGC 43 NT 5P STUB INT RH	0227A051	5	.0793	.500	.189		●	●	●		
LPGC 43 NT 4P STUB INT RH	0227A041	4	.1004	.500	.189		●	●			

In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

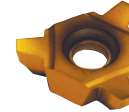
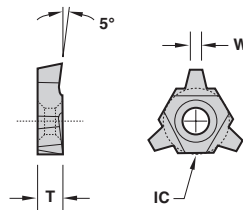
Cast Iron
Non-Ferrous
Stainless/High Temp
Steel



LAYDOWN

ACME STUB

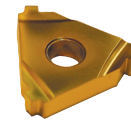
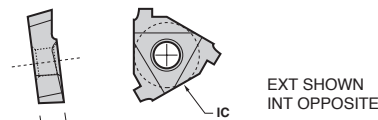
TPGC 32, 42 & 43 - 3/8" & 1/2 I.C.



Description	EDP Code	TPI	W	IC	T	TIN Coated			ALTiN Coated		
						GP22	GP5	GP50	AC22	AC3	AC50
TPGC 32 NT 8P STUB	0207081	8	.0476	.375	.127		●	●			
TPGC 32 NT 6P STUB	0207061	6	.0652	.375	.127		●	●			
TPGC 32 NT 5P STUB	0207051	5	.0793	.375	.127		●	●			
TPGC 42 NT 8P STUB	0214081	8	.0476	.500	.127		●	●			
TPGC 42 NT 6P STUB	0214061	6	.0652	.500	.127		●	●			
TPGC 42 NT 5P STUB	0214051	5	.0793	.500	.127		●	●			
TPGC 42 NT 4P STUB	0214041	4	.1004	.500	.127		●	●			
TPGC 43 NT 5P STUB	0238051	5	.0793	.500	.189		●	●			
TPGC 43 NT 4P STUB	0238041	4	.1004	.500	.189		●	●			

API BUTTRESS

L43/L53 - 1/2" & 5/8" I.C.

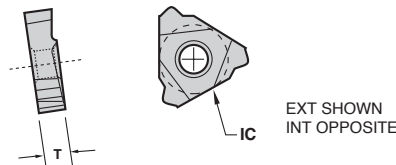


Description	EDP Code	TPI	TPF	IC	T	Conn. No.	TIN Coated			ALTiN Coated		
							GP22	GP50	GP54	AC22	AC3	AC50
L43 5B75 EXT-FC	16154F	5	3/4	.500	.189	4-1/2 - 13-3/8		●			●	●
L43 5B1 EXT -FC	17154F	5	1	.500	.189	16 and larger		●			●	●
L43 8B75 EXT-FC	21154F	8	3/4	.500	.189	US Improved Buttress		●			●	●
L53 5B75 EXT-FC	16474F	5	3/4	.625	.189	4-1/2 - 13-3/8		●			●	●
L53 5B1 EXT-FC	17474F	5	1	.625	.189	16 and larger		●			●	●
L53 8B75 EXT-FC	21474F	8	3/4	.625	.189	US Improved Buttress		●			●	●
L43 5B75 INT-FC	16158F	5	3/4	.500	.189	4-1/2 - 13-3/8		●			●	●
L43 5B1 INT-FC	17158F	5	1	.500	.189	16 and larger		●			●	●
L43 8B75 INT-FC	21158F	8	3/4	.500	.189	US Improved Buttress		●			●	●
L53 5B75 INT-FC	16478F	5	3/4	.625	.189	4-1/2 - 13-3/8		●			●	●
L53 5B1 INT-FC	17478F	5	1	.625	.189	16 and larger		●			●	●
L53 8B75 INT-FC	21478F	8	3/4	.625	.189	US Improved Buttress		●			●	●

FC designates 5° flank clearance

API HUGHES H90

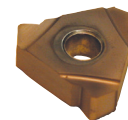
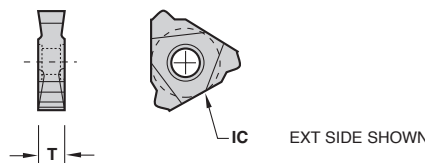
L53 - 5/8" I.C.



Description	EDP Code	TPI	TPF	IC	T	Conn. No.	TIN Coated			ALTiN Coated		
							GP22	GP50	GP54	AC22	AC3	AC50
L53 H902 EXT	28474	3-1/2	2	.625	.189	3-1/2 - 6-5/8 H90		●				
L53 H903 EXT	29474	3-1/2	3	.625	.189	7 - 8-5/8 H90		●				
L53 H90S EXT	27474	3	1-1/4	.625	.189	2-3/8 - 3-1/2 Slimline		●				
L53 H902 INT	28478	3-1/2	2	.625	.189	3-1/2 - 6-5/8 H90		●				
L53 H903 INT	29478	3-1/2	3	.625	.189	7 - 8-5/8 H90		●				
L53 H90S INT	27478	3	1-1/4	.625	.189	2-3/8 - 3-1/2 Slimline		●				

LDS 54 - 5/8 I.C.

Double Sided



Description	EDP Code	TPI	TPF	IC	T	Conn. No.	TIN Coated			ALTiN Coated		
							GP22	GP50	GP54	AC22	AC3	AC50
LDS 54 H902	28490	3-1/2	2	.625	.252	3-1/2 - 6-5/8 H90			●			
LDS 54 H903	29490	3-1/2	3	.625	.252	7 - 8-5/8 H90			●			
LDS 54 H90S	27490	3	1-1/4	.625	.252	2-3/8 - 3-1/2 Slimline			●			

In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

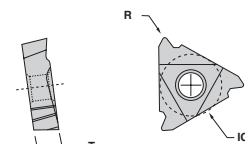
Cast Iron
Non-Ferrous
Stainless/High Temp
Steel



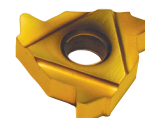
API ROTARY SHOULDER CONNECTION

L43/53 - 1/2" & 5/8" I.C.

■ Must be used with API bars.



EXT SHOWN
INT OPPOSITE



Description	EDP Code	TPI	TPF	R	IC	T	Connection	GP50	GP54	AC22	AC3	AC50
L43 425 EXT	09154	4	2	.025	.500	.189	5-1/2 FH 6-5/8 FH 6-5/8 Reg.	●			●	●
L43 428 EXT	10154	4	2	.038	.500	.189	NC 23-NC50 2-3/8 - 5-1/2 IF	●			●	●
L43 42F EXT*	14154	4	2	---	.500	.189	V0.065*					●
L43 435 EXT	11154	4	3	.025	.500	.189	5-1/2 Rg. 7-5/8 Reg. 8-5/8 Reg.	●				●
L43 438 EXT	12154	4	3	.038	.500	.189	NC56 - NC71	●				●
L43 530 EXT	13154	5	3	.020	.500	.189	3-1/2 FH 2-3/8 - 4-1/2 Reg.	●				●
L43 4PAC EXT	15154	4	1-1/2	---	.500	.189	American Open Hole	●				
L53 425 EXT	09474	4	2	.025	.625	.189	5-1/2 FH 6-5/8 FH 6-5/8 Reg.	●			●	●
L53 428 EXT	10474	4	2	.038	.625	.189	NC 23-NC50 2-3/8 - 5-1/2 IF	●			●	●
L53 42F EXT*	14474	4	2	---	.625	.189	V0.065*					●
L53 435 EXT	11474	4	3	.025	.625	.189	5-1/2 Rg. 7-5/8 Reg. 8-5/8 Reg.	●				●
L53 438 EXT	12474	4	3	.038	.625	.189	NC56 - NC71	●				●
L53 530 EXT	13474	5	3	.020	.625	.189	3-1/2 FH 2-3/8 - 4-1/2 Reg.	●				●
L53 4PAC EXT	15474	4	1-1/2	---	.625	.189	American Open Hole	●				
L43 425 INT	09158	4	2	.025	.500	.189	5-1/2 FH 6-5/8 FH 6-5/8 Reg.	●			●	●
L43 428 INT	10158	4	2	.038	.500	.189	NC 23-NC50 2-3/8 - 5-1/2 IF	●			●	●
L43 42F INT*	14158	4	2	---	.500	.189	V0.065*					●
L43 435 INT	11158	4	3	.025	.500	.189	5-1/2 Rg. 7-5/8 Reg. 8-5/8 Reg.	●				●
L43 438 INT	12158	4	3	.038	.500	.189	NC56 - NC71	●				●
L43 530 INT	13158	5	3	.020	.500	.189	3-1/2 FH 2-3/8 - 4-1/2 Reg.	●				●
L43 4PAC INT	15158	4	1-1/2	---	.500	.189	American Open Hole	●				
L53 425 INT	09478	4	2	.025	.625	.189	5-1/2 FH 6-5/8 FH 6-5/8 Reg.	●			●	●
L53 428 INT	10478	4	2	.038	.625	.189	NC 23-NC50 2-3/8 - 5-1/2 IF	●			●	●
L53 42F INT*	14478	4	2	---	.625	.189	V0.065*					●
L53 435 INT	11478	4	3	.025	.625	.189	5-1/2 Rg. 7-5/8 Reg. 8-5/8 Reg.	●				●
L53 438 INT	12478	4	3	.038	.625	.189	NC56 - NC71	●				●
L53 530 INT	13478	5	3	.020	.625	.189	3-1/2 FH 2-3/8 - 4-1/2 Reg.	●				●
L53 4PAC INT	15478	4	1-1/2	---	.625	.189	American Open Hole	●				

* Obsolete thread form, See A.P.I. Spec 7, 35th Edition, May 1, 1995, Section 9.4

LAYDOWN

LDS 54 Double Sided

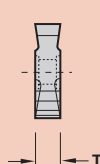
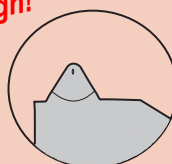
Lead Follow Topping

Internal/External

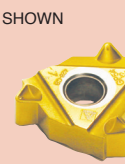
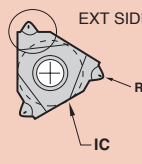
with patented chipbreaker

Exclusive patented design!

■ For holders see pg. 136, 138



EXT SIDE SHOWN



Description	EDP Code	TPI	TPF	R	IC	T	Connection	GP5	AC2	AC3	AC5
LDS 54 428-CB #1	10490HC	4	2	.038	.625	.252	NC23-NC50, 2-3/8-5-1/2 IF	●	●	●	●
LDS 54 438-CB #2	12490HC	4	3	.038	.625	.252	NC56-NC71	●	●	●	●
LDS 54 425-CB #3	09490HC	4	2	.025	.625	.252	5-1/2 FH, 6-5/8 FH, 6-5/8 Reg.	●	●	●	●
LDS 54 435-CB #4	11490HC	4	3	.025	.625	.252	5-1/2 Reg. 7-5/8 Reg 8-5/8 Reg.	●	●	●	●
LDS 54 530-CB #5	13490HC	5	3	.020	.625	.252	3-1/2 FH 2-3/8 - 4-1/2 Reg.	●	●	●	●

LDS 54 Double Sided

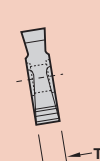
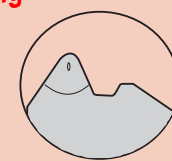
Follow Topping

Internal/External

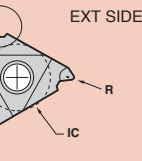
with patented chipbreaker

Exclusive patented design!

■ For holders see pg. 136, 138



EXT SIDE SHOWN



Description	EDP Code	TPI	TPF	R	IC	T	Connection	GP5	AC2	AC3	AC5	AC5
LDS 54 428 FT-CB #1	10495HC	4	2	.038	.625	.252	NC23-NC50, 2-3/8-5-1/2 IF	●	●	●	●	●
LDS 54 438 FT-CB #2	12495HC	4	3	.038	.625	.252	NC56-NC71	●	●	●	●	●
LDS 54 425 FT-CB #3	09495HC	4	2	.025	.625	.252	5-1/2 FH, 6-5/8 FH, 6-5/8 Reg.	●	●	●	●	●
LDS 54 435 FT-CB #4	11495HC	4	3	.025	.625	.252	5-1/2 Reg. 7-5/8 Reg 8-5/8 Reg.	●	●	●	●	●
LDS 54 530 FT-CB #5	13495HC	5	3	.020	.625	.252	3-1/2 FH 2-3/8 - 4-1/2 Reg.	●	●	●	●	●

In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

Cast Iron					
Non-Ferrous					
Stainless/High Temp					
Steel	▲				

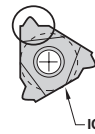
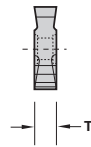
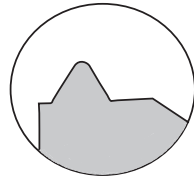


LAYDOWN

API ROTARY SHOULDER CONNECTION

LDS 54 - 5/8" I.C.

Double Sided
Full Topping



EXT SIDE SHOWN

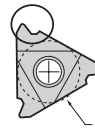
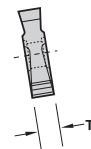
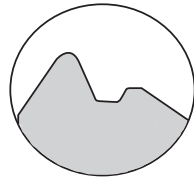


Description	EDP Code	TPI	TPF	IC	T	Conn. No.	GP22	GP54	AC22	AC3	AC50	AC54
LDS 54 428 #1	10490	4	2	.625	.252	NC23-NC50, 2-3/8-5-1/2 IF		●	●	●	●	●
LDS 54 438 #2	12490	4	3	.625	.252	NC56-NC71		●	●	●	●	●
LDS 54 425 #3	09490	4	2	.625	.252	5-1/2 FH, 6-5/8 FH, 6-5/8 Reg.		●	●	●	●	●
LDS 54 435 #4	11490	4	3	.625	.252	5-1/2 Reg. 7-5/8 Reg 8-5/8 Reg.		●	●	●	●	●
LDS 54 530 #5	13490	5	3	.625	.252	3-1/2 FH 2-3/8 - 4-1/2 Reg.		●	●	●	●	●
LDS 54 42F*	14490	4	2	.625	.252	V0.065*		●	●	●	●	●
LDS 54 4PAC	15490	4	1-1/2	.625	.252	American Open Hole		●	●	●	●	●

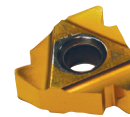
* Obsolete thread form, See A.P.I. Spec 7, 35th Edition, May 1, 1995, Section 9.4

LDS 54 - 5/8" I.C.

Double Sided
Follow Topping



EXT SIDE SHOWN

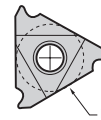
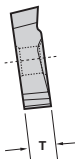


Description	EDP Code	TPI	TPF	IC	T	Conn. No.	GP22	GP54	AC22	AC3	AC50	AC54
LDS 54 428 #1 FT	10495	4	2	.625	.252	NC23-NC50, 2-3/8-5-1/2 IF		●	●	●	●	●
LDS 54 438 #2 FT	12495	4	3	.625	.252	NC56-NC71		●	●	●	●	●
LDS 54 425 #3 FT	09495	4	2	.625	.252	5-1/2 FH, 6-5/8 FH, 6-5/8 Reg.		●	●	●	●	●
LDS 54 435 #4 FT	11495	4	3	.625	.252	5-1/2 Reg. 7-5/8 Reg 8-5/8 Reg.		●	●	●	●	●
LDS 54 530 #5 FT	13495	5	3	.625	.252	3-1/2 FH 2-3/8 - 4-1/2 Reg.		●	●	●	●	●
LDS 54 42F* FT	14495	4	2	.625	.252	V0.065*		●	●	●	●	●
LDS 54 4PAC FT	15495	4	1-1/2	.625	.252	American Open Hole		●	●	●	●	●

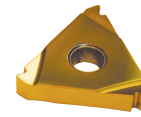
* Obsolete thread form, See A.P.I. Spec 7, 35th Edition, May 1, 1995, Section 9.4

API ROUND

L43/L53 - 1/2" & 5/8" I.C.



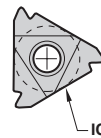
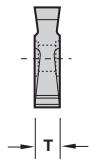
EXT SIDE SHOWN



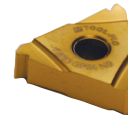
Description	EDP Code	TPI	TPF	IC	T	GP22	GP50	GP54	AC22	AC3	AC50
L43 10RD EXT	34154	10	3/4	.500	.189		●		●	●	●
L43 8RD EXT	32154	8	3/4	.500	.189		●		●	●	●
L53 8RD EXT	32474	8	3/4	.625	.189		●		●	●	●
L43 8RD INT	34158	8	3/4	.500	.189		●		●	●	●
L43 10RD INT	32158	10	3/4	.500	.189		●		●	●	●
L53 8RD INT	32478	8	3/4	.625	.189		●		●	●	●

LDS 43 & 54 - 1/2" & 5/8" I.C.

Double Sided



EXT SIDE SHOWN



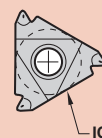
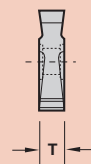
Description	EDP Code	TPI	TPF	IC	T	GP22	GP50	GP54	AC22	AC3	AC50
LDS 43 10RD	34180	10	3/4	.500	.189			●	●	●	●
LDS 43 8RD	32180	8	3/4	.500	.189			●	●	●	●
LDS 54 10RD	34490	10	3/4	.625	.252			●	●	●	●
LDS 54 8RD	32490	8	3/4	.625	.252			●	●	●	●

LDS 54 - 5/8" I.C.

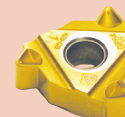
Double Sided

Internal/External
with patented chipbreaker

Exclusive patented design!



EXT SIDE SHOWN



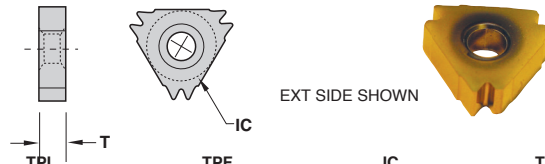
Description	EDP Code	TPI	TPF	IC	T	GP22	GP50	GP54	AC22	AC3	AC50
LDS 54 10RD-CB	34490	10	3/4	.625	.252			●	●	●	●
LDS 54 8RD-CB	32490	8	3/4	.625	.252			●	●	●	●

LAYDOWN



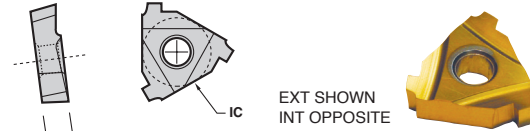
API ROUND TNFA 43 - 1/2" I.C.

Description	EDP Code	TPI	TPF	IC	T	GP22	GP50	GP54	AC22	AC3	AC50
TNFA 43 8RD	32N70	8	3/4	.500	.187		●			●	●



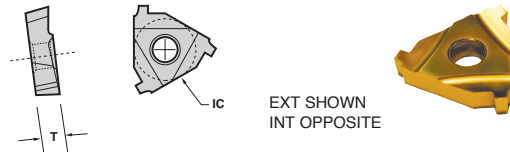
API VAM L43 - 1/2" I.C.

Description	EDP Code	TPI	TPF	IC	T	GP22	GP50	GP54	AC22	AC3	AC50
L43 5VAM EXT	23154	5	3/4	.500	.189		●				
L43 6VAM EXT	24154	6	3/4	.500	.189		●				
L43 8VAM EXT	25154	8	3/4	.500	.189		●				
L43 5VAM INT	23158	5	3/4	.500	.189		●				
L43 6VAM INT	24158	6	3/4	.500	.189		●				
L43 8VAM INT	25158	8	3/4	.500	.189		●				



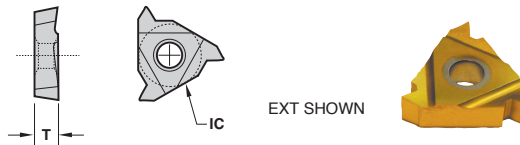
API X-LINE L43/L53 - 1/2" & 5/8" I.C.

Description	EDP Code	TPI	TPF	IC	T	Conn. No.	GP22	GP50	GP54	AC22	AC3	AC50
L43 6XL15 EXT	19154	6	1-1/2	.500	.189	5 - 7-5/8		●				
L43 6XL75 EXT	20154	6	3/4	.500	.189	-		●				
L43 5XL12 EXT	18154	5	1-1/4	.500	.189	8-5/8 - 10-3/4		●				
L53 6XL15 EXT	19474	6	1-1/2	.625	.189	5 - 7-5/8		●				
L53 6XL75 EXT	20474	6	3/4	.625	.189	-		●				
L53 5XL12 EXT	18474	5	1-1/4	.625	.189	8-5/8 - 10-3/4		●				
L43 6XL15 INT	19158	6	1-1/2	.500	.189	5 - 7-5/8		●				
L43 6XL75 INT	20158	6	3/4	.500	.189	-		●				
L43 5XL12 INT	18158	5	1-1/4	.500	.189	8-5/8 - 10-3/4		●				
L53 6XL15 INT	19478	6	1-1/2	.625	.189	5 - 7-5/8		●				
L53 6XL75 INT	20478	6	3/4	.625	.189	-		●				
L53 5XL12 INT	18478	5	1-1/4	.625	.189	8-5/8 - 10-3/4		●				



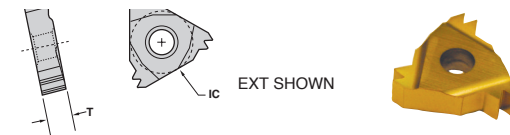
NPT L43 - 1/2" I.C.

Description	EDP Code	TPI	TPF	IC	T	GP22	GP50	GP54	AC22	AC3	AC50
L43 11.5NPT EXT	3615114	11.5	3/4	.500	.189		●				
L43 8NPT EXT	3615084	8	3/4	.500	.189		●				
L43 11.5NPT INT	3615118	11.5	3/4	.500	.189		●				●
L43 8NPT INT	3615088	8	3/4	.500	.189		●				



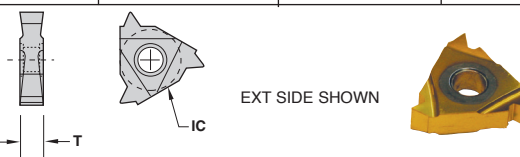
L43 - 1/2" I.C. Multi-Tooth

Description	EDP Code	TPI	TPF	IC	T	GP22	GP50	GP54	AC22	AC3	AC50
L43 11.5NPT2M EXT	3615114T	11.5	3/4	.500	.189		●		●		
L43 11.5NPT2M INT	3615118T	11.5	3/4	.500	.189		●		●		●



LDS 43 - 1/2" I.C. Double Sided

Description	EDP Code	TPI	TPF	IC	T	GP22	GP50	GP54	AC22	AC3	AC50
LDS 43 14NPT	3618140	14	3/4	.500	.189			●			
LDS 43 11.5NPT	3618110	11.5	3/4	.500	.189			●			
LDS 43 8NPT	3618080	8	3/4	.500	.189			●			



In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

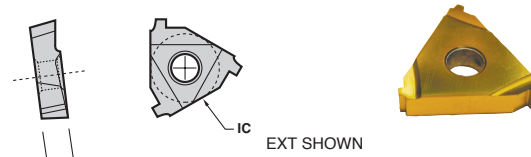
- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

Cast Iron					
Non-Ferrous					
Stainless/High Temp					
Steel					



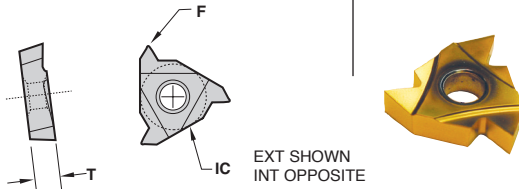
LAYDOWN

PITTSBURGH ACME L43/L53 - 1/2" & 5/8" I.C.



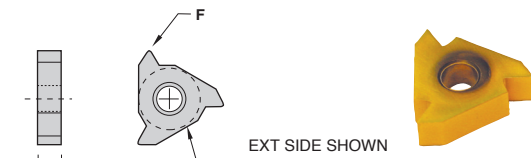
Description	EDP Code	TPI	TPF	IC	T					
L43 8PA75 EXT	22154	8	3/4	.500	.189	GP22	GP50	GP54	AC22	AC3
L53 8PA75 EXT	22474	8	3/4	.625	.189	●	●			
L43 8PA75 INT	22158	8	3/4	.500	.189	●	●			
L53 8PA75 INT	22478	8	3/4	.625	.189	●	●			

V THREADING - 60° L43 & 53- 1/2" & 5/8" I.C.



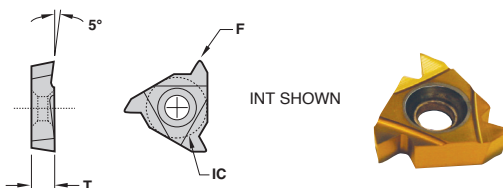
Description	EDP Code	TPI	F	IC	T					
L43 NV EXT	0115040	8-48	.006/.008	.500	.189	GP22	GP50	GP54	AC22	AC3
L53 NV EXT	0147040	5-32	.006/.008	.625	.189	●	●			
L43 NV INT	0115080	8-48	.006/.008	.500	.189	●	●			
L53 NV INT	0147080	5-32	.006/.008	.625	.189	●	●			

LN 43 - 1/2" I.C. Double Sided



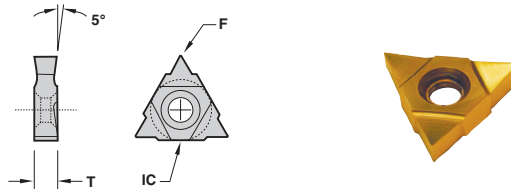
Description	EDP Code	TPI	F	IC	T					
LN 43 NV	0120000	8-48	.006/.008	.500	.189	GP22	GP50	GP54	AC22	AC3
						●	●			

V THREADING - 60° LPGC 32, 42 & 43 - 3/8" & 1/2" I.C.



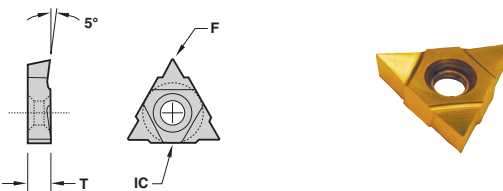
Description	EDP Code	TPI	F	IC	T					
LPGC 32 NV INT RH	0104R80	8-48	.004/.006	.375	.127	GP22	GP5	GP54	AC25	AC3
LPGC 32 NV INT LH	0104L80	8-48	.004/.006	.375	.127	●	●			
LPGC 42 NV INT RH	0113R80	8-20	.006/.008	.500	.127	●	●			
LPGC 42 NV INT LH	0113L80	8-20	.006/.008	.500	.127	●	●			
LPGC 43 NV INT RH	0127R80	5-16	.006/.008	.500	.189	●	●			
LPGC 43 NV INT LH	0127L80	5-16	.006/.008	.500	.189	●	●			

TNPGC 43 - 1/2" I.C. Double Sided



Description	EDP Code	TPI	F	IC	T					
TNPGC 43 NV	0137000	8-48	.005/.007	.500	.189	GP22	GP50	GP54	AC22	AC3
						●	●			

TPGC 32, 42 & 43 - 3/8" & 1/2" I.C.



Description	EDP Code	TPI	F	IC	T					
TPGC 32 NV	0107000	8-48	.005/.007	.375	.127	GP22	GP5	GP54	AC22	AC3
TPGC 42 NV	0114000	5-32	.005/.007	.500	.127	●	●			
TPGC 43 NV	0138000	4-16	.005/.007	.500	.189	●	●			

In an effort to improve our stock standard grade offering, there are periodic changes. Please see current price list for up to date grade offering.

- High performance choice in optimal conditions.
- ▲ Recommended grade under general conditions.

Cast Iron
Non-Ferrous
Stainless/High Temp
Steel

LAYDOWN

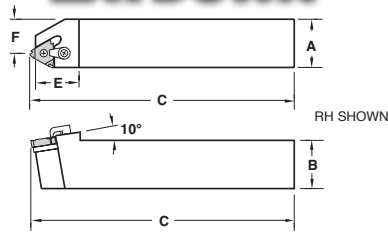


EXTERNAL HOLDER

MTENR/L

Threading

Most holders available with coolant port
(ie: Add CP to end of description)



PARTS

Description	EDP Code	Insert	A	B	C	E	F*	Seat	Lock Pin	Clamp	Clamp Screw
MTENR-164	95201656	TNPGC 43	1	1	6	1.47	.63	TS 43*	NL46	TC-190	STC5
MTENR-204	95202056	TNPGC 43	1-1/4	1-1/4	7	1.47	.88	TS 43*	NL46	TC-190	STC5

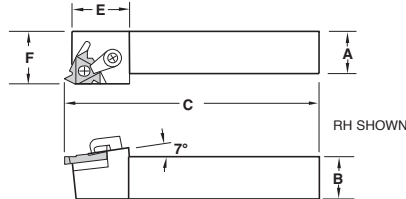
*Seats can be ordered as NO FORM or a FORM can be specified. Ex: TS 43 API EXT Seat.

MTVNR/L

Threading & Grooving

Inch

Most holders available with coolant port
(ie: Add CP to end of description)



PARTS

Description	EDP Code	Insert	A	B	C	E	F*	Seat	Lock Pin	Clamp	Clamp Screw
MTVNR-164	95801656	L43	1	1	6	1.27	1.250	LS43*	NL46	TC-190	STC5
MTVNL-164	95701656	L43	1	1	6	1.27	1.250	LS43*	NL46	TC-190	STC5
MTVNR-204	95802056	L43	1-1/4	1-1/4	7	1.27	1.500	LS43*	NL46	TC-190	STC5
MTVNR-165	95801662	L53	1	1	6	1.53	1.250	LS53*	NL58	TC-250	STC11
MTVNL-165	95701662	L53	1	1	6	1.53	1.250	LS53*	NL58	TC-250	STC11
MTVNR-205	95802062	L53	1-1/4	1-1/4	7	1.53	1.500	LS53*	NL58	TC-250	STC11
MTVNR-2054	95802064	LDS 54	1-1/4	1-1/4	7	1.53	1.500	LS53*	NL58	TC-250	STC11

*Seats can be ordered as NO FORM or a FORM can be specified. Ex: LS 43 API EXT. Seat.

METRIC

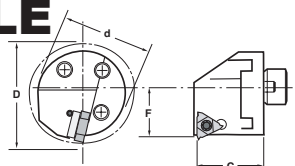
PARTS

Description	EDP Code	Insert	A	B	C	E	F*	Seat	Lock Pin	Clamp	Clamp Screw
MTVNR-2525M4	9580M2556	L43	1	1	6	1.27	1.250	LS43*	NL46	TC-190	STC5
MTVNL-2525M4	9570M2556	L43	1	1	6	1.27	1.250	LS43*	NL46	TC-190	STC5
MTVNR-3232M4	9580M3256	L43	1-1/4	1-1/4	7	1.27	1.500	LS43*	NL46	TC-190	STC5
MTVNR-2525M5	9580M2562	L53	1	1	6	1.53	1.250	LS53*	NL58	TC-250	STC11
MTVNL-2525M5	9570M2562	L53	1	1	6	1.53	1.250	LS53*	NL58	TC-250	STC11
MTVNR-3232M5	9580M3262	L53	1-1/4	1-1/4	7	1.53	1.500	LS53*	NL58	TC-250	STC11
MTVNR-3232M54	9580M3264	LDS 54	1-1/4	1-1/4	7	1.53	1.500	LS53*	NL58	TC-250	STC11

*Seats can be ordered as NO FORM or a FORM can be specified. Ex: LS 43 API EXT. Seat.

INTERCHANGEABLE HEADS

H-LNFR/L*



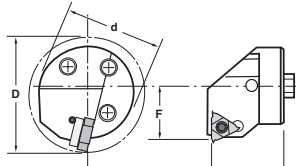
RH SHOWN

PARTS

Description	EDP Code	Insert	d	C	F	Min. Bore (D)	Seat	Clamp	Clamp Screw	Lock Pin
H20-LNFR-43	9IH4206856	L43	1.250	1.625	0.765	1.450	-	TC-190	STC-9	NL-44
H24-LNFR-43	9IH4207256	L43	1.500	1.625	0.890	1.760	-	TC-190	STC-9	NL-44
H32-LNFR-43	9IH4208056	L43	2.000	1.625	1.281	2.400	LS43	TC-190	STC-5	NL-46
H24-LNFR-53API	9IH4407262	L53	1.500	1.625	0.890	1.760	-	TC-250	STC-11	NL-56
H32-LNFR-53API	9IH4408062	L53	2.000	1.625	1.281	2.400	-	TC-250	STC-11	NL-56
H24-LNFR-54API	9IH4407264	LDS 54	1.500	1.625	0.890	1.760	-	TC-250	STC-11	H410-1
H32-LNFR-54API	9IH4408064	LDS 54	2.000	1.625	1.281	2.400	-	TC-250	STC-11	NL-56

*Non API heads only for 8RD, 10RD, 5B75, 5B1 threads. API heads required for rotary shoulder connections threads.

HS-LNFR/L*



RH SHOWN

PARTS

Description	EDP Code	Insert	d	C	F	Min. Bore (D)	Clamp	Clamp Screw	Lock Pin
HS32-LNFR-43	9IHS42032M56	L43	1.25	1.26	0.866	1.570	TC-190	STC-9	NL-44
HS40-LNFR-43	9IHS42040M56	L43	1.57	1.26	1.063	1.970	TC-190	STC-9	NL-44
HS50-LNFR-43	9IHS42050M56	L43	1.97	1.57	1.378	2.480	TC-190	STC-9	NL-44
HS40-LNFR-53API	9IHS4440M62	L53	1.57	1.26	1.063	1.970	TC-250	STC-11	NL-56
HS50-LNFR-53API	9IHS4450M62	L53	1.97	1.57	1.378	2.480	TC-250	STC-11	NL-56
HS40-LNFR-54API	9IHS4440M64	LDS 54	1.57	1.26	1.063	1.970	TC-250	STC-11	H410-1
HS50-LNFR-54API	9IHS4450M64	LDS 54	1.97	1.57	1.378	2.480	TC-250	STC-11	NL-56

*Non API heads only for 8RD, 10RD, 5B75, 5B1 threads. API heads required for rotary shoulder connections threads.



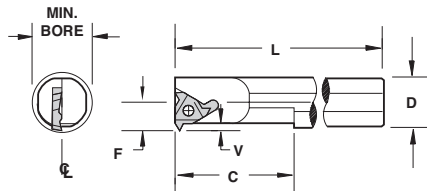
LAYDOWN

INTERNAL BAR

LFR/L

Threading & Grooving

Most bars available with coolant port
(ie: Add CP to end of description)



RH SHOWN

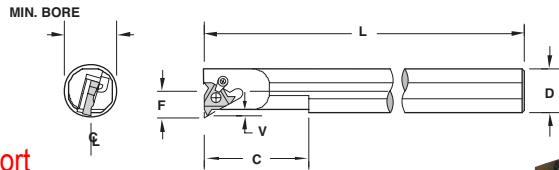
Description	EDP Code	Insert	Min. Bore	L	D	C	F	V	Torx Screw
LFR 625-32	93905248	LPGC 32	.625	8	.625	2-1/2	.312	.100	SF30
LFL 625-32	93805248	LPGC 32	.625	8	.625	2-1/2	.312	.100	SF30
LFR 750-32	93905648	LPGC 32	.750	8	.750	2-3/4	.375	.100	SF30
LFL 750-32	93805648	LPGC 32	.750	8	.750	2-3/4	.375	.100	SF30
LFR 100-32	93906448	LPGC 32	1.000	10	1.000	2-3/4	.500	.100	SF30
LFL 100-32	93806448	LPGC 32	1.000	10	1.000	2-3/4	.500	.100	SF40
LFR 750-42	93905654	LPGC 42	.750	8	.750	2-3/4	.375	.100	SF50
LFL 750-42	93805654	LPGC 42	.750	8	.750	2-3/4	.375	.100	SF60
LFR 100-43	93906456	LPGC 43	1.000	10	1.000	2-3/4	.500	.125	SF60
LFL 100-43	93806456	LPGC 43	1.000	10	1.000	2-3/4	.500	.125	SF60
LFR 125-43	93906856	LPGC 43	1.250	12	1.250	2-3/4	.625	.125	SF60
LFL 125-43	93806856	LPGC 43	1.250	12	1.250	2-3/4	.625	.125	SF60
LFR 150-43	93907256	LPGC 43	1.500	14	1.500	3-3/4	.750	.125	SF60
LFL 150-43	93807256	LPGC 43	1.500	14	1.500	3-3/4	.750	.125	SF60
LFR 200-43	93908056	LPGC 43	2.000	14	2.000	3-3/4	1.000	.125	SF60
LFL 200-43	93808056	LPGC 43	2.000	14	2.000	3-3/4	1.000	.125	SF60
LFR 150-53	93907262	LPGC 53	1.500	14	1.500	3-3/4	.750	.150	SF67
LFL 150-53	93807262	LPGC 53	1.500	14	1.500	3-3/4	.750	.150	SF67
LFR 200-53	93908062	LPGC 53	2.000	14	2.000	3-3/4	1.000	.150	SF85

*Over NV Insert

LNFR/L

Threading & Grooving
Inch

Most bars available with coolant port
(ie: Add CP to end of description)



RH SHOWN

Description	EDP Code	Insert	Min. Bore	L	D	C	F	V*	Seat	Screw/ Lock Pin	Clamp	Clamp Screw
LNFR 100-43	94206456	L43	1.031	10	1	2-3/4	.564	.125	-	TS65	-	-
LNFL 100-43	94106456	L43	1.031	10	1	2-3/4	.564	.125	-	TS65	-	-
LNFR 125-43	94206856	L43	1.250	12	1-1/4	2-3/4	.625	.125	-	NL44	TC190	STC-5
LNFL 125-43	94106856	L43	1.250	12	1-1/4	2-3/4	.625	.125	-	NL44	TC190	STC-5
LNFR 150-43	94207256	L43	1.500	14	1-1/2	3-3/4	.750	.125	-	NL44	TC190	STC-9
LNFL 150-43	94107256	L43	1.500	14	1-1/2	3-3/4	.750	.125	-	NL44	TC190	STC-9
LNFR 200-43	94208056	L43	2.000	14	2	3-3/4	1.000	.125	LS43*	NL46	TC190	STC-9
LNFL 200-43	94108056	L43	2.000	14	2	3-3/4	1.000	.125	LS43*	NL46	TC190	STC-9
LNFR 150-53	94207262	L53	1.500	14	1-1/2	3-3/4	.750	.150	-	NL56	TC250	STC-11
LNFL 150-53	94107262	L53	1.500	14	1-1/2	3-3/4	.750	.150	-	NL56	TC250	STC-11
LNFR 200-53	94208062	L53	2.000	14	2	3-3/4	1.000	.150	LS53*	NL58	TC250	STC-11
LNFL 200-53	94108062	L53	2.000	14	2	3-3/4	1.000	.150	LS53*	NL58	TC250	STC-11
LNFR 150-54	94207264	LDS54	1.500	14	1-1/2	3-3/4	.750	.150	-	NL56	TC250	STC-11
LNFL 150-54	94107264	LDS54	1.500	14	1-1/2	3-3/4	.750	.150	-	NL56	TC250	STC-11
LNFR 200-54	94208064	LDS54	2.000	14	2	3-3/4	1.000	.150	-	NL56	TC250	STC-11
LNFL 200-54	94108064	LDS54	2.000	14	2	3-3/4	1.000	.150	-	NL56	TC250	STC-11

*Seat can be ordered as NO FORM or a FORM can be specified. EX: LS 43 API INT SEAT

** Over Sharp

**Non API bars will work for 8/10RD and 5B75/5B1 threadforms. API bars required for rotary shoulder connection threadforms.

METRIC

Description	EDP Code	Insert	Min. Bore	L	D	C	F	V*	Seat	Screw/ Lock Pin	Clamp	Clamp Screw
LNFR 32M-43	942M3256	L43	35,0	304,8	32,0	69,5	17,5	3,2	-	NL44	TC190	STC-5
LNFL 32M-43	941M3256	L43	35,0	304,8	32,0	69,5	17,5	3,2	-	NL44	TC190	STC-5
LNFR 40M-43	942M4056	L43	43,2	355,6	40,0	95,2	21,6	3,2	-	NL44	TC190	STC-9
LNFL 40M-43	941M4056	L43	43,2	355,6	40,0	95,2	21,6	3,2	-	NL44	TC190	STC-9
LNFR 50M-43	942M5056	L43	54,1	355,6	50,0	101,6	27,0	3,2	LS43*	NL46	TC190	STC-5
LNFL 50M-43	941M5056	L43	54,1	355,6	50,0	101,6	27,0	3,2	LS43*	NL46	TC190	STC-5
LNFR 40M-53	942M4062	L53	44,1	355,6	40,0	101,6	22,0	3,8	-	NL56	TC250	STC-11
LNFL 40M-53	941M4062	L53	44,1	355,6	40,0	101,6	22,0	3,8	-	NL56	TC250	STC-11
LNFR 50M-53	942M5062	L53	54,1	355,6	50,0	101,6	27,4	3,8	LS53*	NL58	TC250	STC-11
LNFL 50M-53	941M5062	L53	54,1	355,6	50,0	101,6	27,4	3,8	LS53*	NL58	TC250	STC-11
LNFR 40M-54	942M4064	LDS54	44,1	355,6	40,0	101,6	22,0	3,8	-	NL56	TC250	STC-11
LNFL 40M-54	941M4064	LDS54	44,1	355,6	40,0	101,6	22,0	3,8	-	NL56	TC250	STC-11
LNFR 50M-54	942M5064	LDS54	54,1	355,6	50,0	101,6	27,4	3,8	-	NL56	TC250	STC-11
LNFL 50M-54	941M5064	LDS54	54,1	355,6	50,0	101,6	27,4	3,8	-	NL56	TC250	STC-11

*Seat can be ordered as NO FORM or a FORM can be specified. EX: LS 43 API INT SEAT

** Over Sharp

**Non API bars will work for 8/10RD and 5B75/5B1 threadforms. API bars required for rotary shoulder connection threadforms.

PARTS

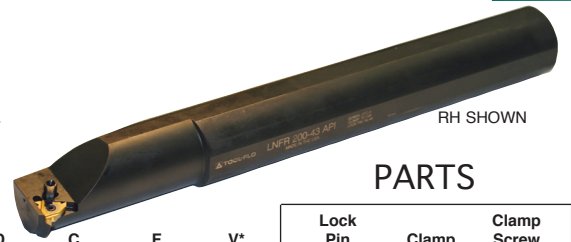
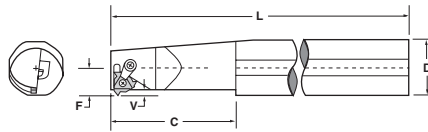


INTERNAL BAR

LNFR/L-API

Threading
Inch

Tapered Head for
API Forms



PARTS

Most bars available with coolant port
(ie: Add CP to end of description)

Description	EDP Code	Insert	Min. Bore	L	D	C	F	V*	Lock Pin	Clamp	Clamp Screw
LNFR 150-43API	94407256	L43	1.500	14	1-1/2	4-1/2	.750	.167	NL44	TC190	XNS-36
LNFR 200-43API	94408056	L43	2.000	14	2	4-1/2	1.000	.167	NL44	TC190	XNS-36
LNFR 150-53API	94407262	L53	1.500	16	1-1/2	4-1/2	.750	.200	NL56	TC250	STC-11
LNFR 200-53API	94408062	L53	2.000	16	2	4-1/2	1.000	.200	NL56	TC250	STC-11
LNFR 200-54API	94408064	LDS 54	2.000	16	2	4-1/2	1.000	.200	NL56	TC250	STC-11

*Seat can be ordered as NO FORM or a FORM can be specified. EX: LS 43 API INT SEAT if required.

**Required for rotary shoulder connection threading inserts.

METRIC

Description	EDP Code	Insert	Min. Bore	L	D	C	F	V*	Lock Pin	Clamp	Clamp Screw
LNFR 40M-43API	944M4056	L43	41,9	355,6	40,0	114,3	20,9	4,2	NL44	TC190	XNS-36
LNFR 50M-43API	944M5056	L43	55,0	355,6	50,0	114,3	27,4	4,2	NL44	TC190	XNS-36
LNFR 40M-53API	944M4062	L53	42,1	355,6	40,0	114,3	20,9	5,8	NL56	TC250	STC-11
LNFR 50M-53API	944M5062	L53	55,2	406,4	50,0	114,3	27,6	5,8	NL56	TC250	STC-11
LNFR 50M-54API	944M5064	LDS 54	55,2	406,4	50,0	114,3	27,6	5,8	NL56	TC250	STC-11

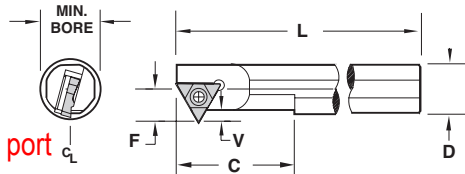
*Seat can be ordered as NO FORM or a FORM can be specified. EX: LS 43 API INT SEAT if required.

**Required for rotary shoulder connection threading inserts.

LNTR/L

Threading

Most bars available with coolant port
(ie: Add CP to end of description)



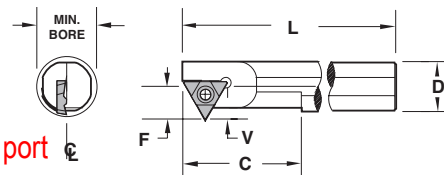
Description	EDP Code	Insert	Min. Bore	L	D	C	F*	V	Torx Screw
LNTR 880-43	94706056	TNPGC 43	.880	8	1.000	2.750	.440	.199	SF60
LNTL 880-43	94606056	TNPGC 43	.880	8	1.000	2.750	.440	.199	SF60
LNTR 100-43	94706456	TNPGC 43	1.000	10	1.000	2.750	.490	.213	SF60
LNTL 100-43	94606456	TNPGC 43	1.000	10	1.000	2.750	.490	.213	SF60
LNTR 125-43	94706856	TNPGC 43	1.250	12	1.250	2.750	.640	.213	SF60
LNTL 125-43	94606856	TNPGC 43	1.250	12	1.250	2.750	.640	.213	SF60
LNTR 150-43	94707256	TNPGC 43	1.500	14	1.500	3.750	.740	.213	SF60
LNTL 150-43	94607256	TNPGC 43	1.500	14	1.500	3.750	.740	.213	SF60
LNTR 200-43	94708056	TNPGC 43	2.000	14	2.000	3.750	.990	.213	SF60
LNTL 200-43	94608056	TNPGC 43	2.000	14	2.000	3.750	.990	.213	SF60

*Over NV Insert

LTR/L

Threading & Grooving

Most bars available with coolant port
(ie: Add CP to end of description)



Description	EDP Code	Insert	Min. Bore	L	D	C	F	V*	Torx Screw
LTR 625-32	95005248	TPGC 32	.625	8	.625	2.500	.375	.150	SF40
LTL 625-32	94905248	TPGC 32	.625	8	.625	2.500	.375	.150	SF40
LTR 750-32	95005648	TPGC 32	.750	8	.750	2.750	.375	.150	SF40
LTL 750-32	94905648	TPGC 32	.750	8	.750	2.750	.375	.150	SF40
LTR 100-32	95006448	TPGC 32	1.000	10	1.000	2.750	.500	.150	SF40
LTL 100-32	94906448	TPGC 32	1.000	10	1.000	2.750	.500	.150	SF40
LTR 750-42	95005654	TPGC 42	.800**	8	.750	2.750	.390	.125	SF60
LTL 750-42	94905654	TPGC 42	.800**	8	.750	2.750	.390	.125	SF60
LTR 100-43	95006456	TPGC 43	1.000	10	1.000	2.750	.500	.213	SF60
LTL 100-43	94906456	TPGC 43	1.000	10	1.000	2.750	.500	.213	SF60
LTR 125-43	95006856	TPGC 43	1.250	12	1.250	2.750	.625	.213	SF60
LTL 125-43	94906856	TPGC 43	1.250	12	1.250	2.750	.625	.213	SF60
LTR 150-43	95007256	TPGC 43	1.500	14	1.500	3.750	.750	.213	SF60
LTL 150-43	94907256	TPGC 43	1.500	14	1.500	3.750	.750	.213	SF60
LTR 200-43	95008056	TPGC 43	2.000	14	2.000	3.750	1.000	.213	SF60
LTL 200-43	94908056	TPGC 43	2.000	14	2.000	3.750	1.000	.213	SF60
LTR 150-53	95007262	TPGC 53	1.500	14	1.500	3.750	.750	.300	SF85
LTL 150-53	94907262	TPGC 53	1.500	14	1.500	3.750	.750	.300	SF85
LTR 200-53	95008062	TPGC 53	2.000	14	2.000	3.750	1.000	.300	SF85
LTL 200-53	94908062	TPGC 53	2.000	14	2.000	3.750	1.000	.300	SF85

*Over NV Insert

**Over 4P Acme Insert