



# TOOL-FLO



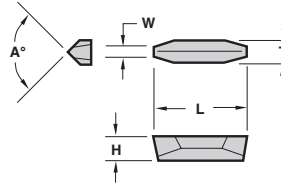
## VEE BOTTOM

# VEE BOTTOM



## ACME THREADING

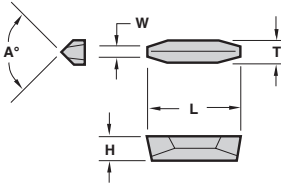
V84/V85/V120



Description	EDP Code	TPI	W	T	L	H	A°	Coating							
								C3	GP3	GP5	GP50	AC3	AC50		
V84 NT 3P	0261030	3	.1184	.250	1.000	.250	90°								
V84 NT 4P	0261040	4	.0875	.250	1.000	.250	90°		●			●	●		
V84 NT 5P	0261050	5	.0689	.250	1.000	.250	90°		●			●	●		
V84 NT 6P	0261060	6	.0566	.250	1.000	.250	90°		●			●	●		
V84 NT 8P	0261080	8	.0411	.250	1.000	.250	90°		●			●	●		
V84 NT 10P	0261100	10	.0319	.250	1.000	.250	90°		●			●	●		
V84 NT 12P	0261120	12	.0283	.250	1.000	.250	90°		●			●	●		
V85 NT 2P	0263020	2	.1802	.312	1.000	.250	90°		●			●	●		
V85 NT 3P	0263030	3	.1184	.312	1.000	.250	90°		●			●	●		
V120 NT 1P	0270010	1	.3655	.750	1.500	.375	120°			●					
V120 NT 1.5P	0270015	1.5	.2419	.750	1.500	.375	120°			●					

## ACME STUB THREADING

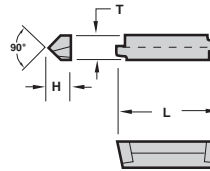
V84/V85/V120



Description	EDP Code	TPI	W	T	L	H	A°	Coating							
								C3	GP3	GP5	GP50	AC3	AC50		
V84 NT 3P STUB	0261031	3	.1356	.250	1.000	.250	90°		●			●			
V84 NT 4P STUB	0261041	4	.1004	.250	1.000	.250	90°		●			●			
V84 NT 5P STUB	0261051	5	.0793	.250	1.000	.250	90°		●			●			
V84 NT 6P STUB	0261061	6	.0652	.250	1.000	.250	90°		●			●			
V84 NT 8P STUB	0261081	8	.0476	.250	1.000	.250	90°		●			●			
V84 NT 10P STUB	0261101	10	.0370	.250	1.000	.250	90°		●			●			
V84 NT 12P STUB	0261121	12	.0326	.250	1.000	.250	90°		●			●			
V85 NT 2P STUB	0263021	2	.2060	.312	1.000	.250	90°		●			●			
V120 NT 1P STUB	0270011	1	.4172	.750	1.500	.375	120°			●					

## API BUTTRESS THREADING

V84

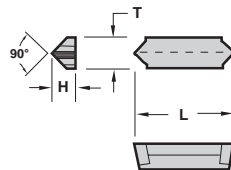


Description	EDP Code	TPI	TPF	T	L	H	Connection	Coating							
								C3	GP3	GP5	GP50	AC3	AC50		
V84 5B75 EXT-FC*	16614F	5	3/4	.250	1.000	.250	4-1/2 - 13-3/8					●			
V84 5B1 EXT-FC	17614F	5	1	.250	1.000	.250	16 and larger					●			
V84 8B75 EXT-FC	21614F	8	3/4	.250	1.000	.250	US Improved Buttress					●			
V84 5B75 INT-FC	16618F	5	3/4	.250	1.000	.250	4-1/2 - 13-3/8					●			
V84 5B1 INT-FC	17618F	5	1	.250	1.000	.250	16 and larger					●			
V84 8B75 INT-FC	21618F	8	3/4	.250	1.000	.250	US Improved Buttress					●			

\*FC indicates 5° flank clearance

## API HUGHES THREADING

V85/V96



Description	EDP Code	TPI	TPF	T	L	H	Connection	Coating							
								C3	GP3	GP5	GP50	AC3	AC50		
V85 H902 EXT	28634	3-1/2	2	.250	1.000	.250	3-1/2 - 6-5/8 H90					●			
V85 H902 INT	28638	3-1/2	2	.250	1.000	.250	3-1/2 - 6-5/8 H90					●			
V85 H903 EXT	29634	3-1/2	3	.250	1.000	.250	7 - 8-5/8					●			
V85 H903 INT	29638	3-1/2	3	.250	1.000	.250	7 - 8-5/8					●			
V96 H90S EXT	27664	3	1-1/4	.375	1.125	.375	2-3/8 - 3-1/2 Slimline				●	●			
V96 H90S INT	27668	3	1-1/4	.375	1.125	.375	2-3/8 - 3-1/2 Slimline				●	●			

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

Cast Iron  
Non-Ferrous  
Stainless/High Temp  
Steel

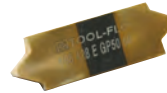
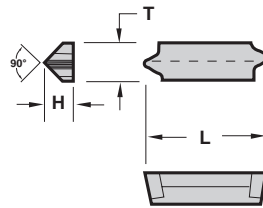
Coating	Material					
	C3	GP3	GP5	GP50	AC3	AC50
Uncoated						
TIN Coated						
AlTiN Coated						



# VEE BOTTOM

## API ROTARY SHOULDER THREADING

V85

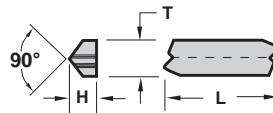


Description	EDP Code	TPI	TPF	T	L	H	Connection	Coating						
								C3	GP3	GP5	GP50	AC3	AC50	
V85 425 EXT	09634	4	2	.312	1.000	.250	5-1/2 - 6-5/8 FH, 6-5/8 REG							
V85 428 EXT	10634	4	2	.312	1.000	.250	NC23 - 50, 2-3/8 - 5-1/2 IF							
V85 42F EXT*	14634	4	2	.312	1.000	.250	VO.065*							
V85 435 EXT	11634	4	3	.312	1.000	.250	5-1/2 REG, 7-5/8 REG, 8-5/8 REG							
V85 438 EXT	12634	4	3	.312	1.000	.250	NC56 - NC71							
V85 530 EXT	13634	5	3	.312	1.000	.250	3-1/2FH, 2-3/8 - 4-1/2 REG							
V85 4PAC EXT	15634	4	1-1/2	.312	1.000	.250	2-3/8 - 4-1/2 AMERICAN/PAC							
V85 425 INT	09638	4	2	.312	1.000	.250	5-1/2 - 6-5/8 FH, 6-5/8 REG							
V85 428 INT	10638	4	2	.312	1.000	.250	NC23 - 50, 2-3/8 - 5-1/2 IF							
V85 42F INT*	14638	4	2	.312	1.000	.250	VO.065*							
V85 435 INT	11638	4	3	.312	1.000	.250	5-1/2 REG, 7-5/8 REG, 8-5/8 REG							
V85 438 INT	12638	4	3	.312	1.000	.250	NC56 - NC71							
V85 530 INT	13638	5	3	.312	1.000	.250	3-1/2FH, 2-3/8 - 4-1/2 REG							
V85 4PAC INT	15638	4	1-1/2	.312	1.000	.250	2-3/8 - 4-1/2 AMERICAN/PAC							

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

## API ROUND THREADING

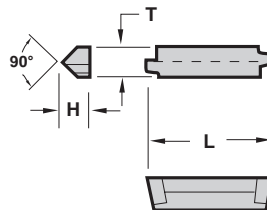
V84



Description	EDP Code	TPI	TPF	T	L	H	Coating							
							C3	GP3	GP5	GP50	AC3	AC50		
V84 10RD EXT	34614	10	3/4	.250	1.000	.250								
V84 10RD INT	34618	10	3/4	.250	1.000	.250								
V84 8RD EXT	32614	8	3/4	.250	1.000	.250								
V84 8RD INT	32618	8	3/4	.250	1.000	.250								

## API VAM THREADING

V84



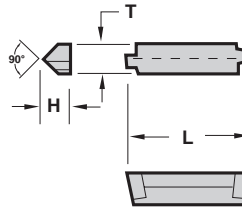
Description	EDP Code	TPI	TPF	T	L	H	Coating							
							C3	GP3	GP5	GP50	AC3	AC50		
V84 5 VAM EXT	23614	5	3/4	.250	1.000	.250								
V84 5 VAM INT	23618	5	3/4	.250	1.000	.250								
V84 6 VAM EXT	24614	6	3/4	.250	1.000	.250								
V84 6 VAM INT	24618	6	3/4	.250	1.000	.250								
V84 8 VAM EXT	25614	8	3/4	.250	1.000	.250								
V84 8 VAM INT	25618	8	3/4	.250	1.000	.250								

VEE  
BOTTOM

# VEE BOTTOM

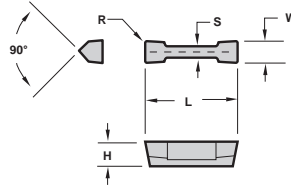


## API X-LINE THREADING V84



Description	EDP Code	TPI	TPF	T	L	H	Connection	Coatings						
								C3	GP3	GP5	GP50	AC3	AC50	
V84 5XL12 EXT	18614	5	1-1/4	.250	1.000	.250	8-5/8 - 10-3/4					●		
V84 5XL12 INT	18618	5	1-1/4	.250	1.000	.250	8-5/8 - 10-3/4					●		
V84 6XL15 EXT	19614	6	1-1/2	.250	1.000	.250	5 - 7-5/8					●		
V84 6XL15 INT	19618	6	1-1/2	.250	1.000	.250	5 - 7-5/8					●		
V84 6XL75 EXT	20614	6	3/4	.250	1.000	.250	-					●		
V84 6XL75 INT	20618	6	3/4	.250	1.000	.250	-					●		

## DEEP GROOVING DBP (SAME AS VDB)



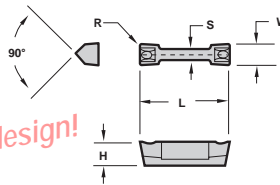
Description	EDP Code	W	R	L	H	S	Coatings						
							C3	GP3	GP5	GP50	AC3	AC50	
DBP 24 R15	802415	.125	.015	1.125	.250	.106		●			●	●	●
DBP 24 R30	802430	.125	.030	1.125	.250	.106		●			●	●	●
DBP 34 R15	803415	.188	.015	1.125	.250	.144		●			●	●	●
DBP 34 R30	803430	.188	.030	1.125	.250	.144		●			●	●	●
DBP 45 R15	804515	.250	.015	1.125	.337	.144		●			●	●	●
DBP 45 R30	804530	.250	.030	1.125	.337	.144		●			●	●	●
DBP 55 R15	805515	.312	.015	1.125	.337	.202		●			●	●	●
DBP 55 R30	805530	.312	.030	1.125	.337	.202		●			●	●	●
DBP 65 R15	806515	.375	.015	1.125	.337	.276		●			●	●	●
DBP 65 R30	806530	.375	.030	1.125	.337	.276		●			●	●	●

## DEEP GROOVING DBP-CB (SAME AS VDB)

Features:

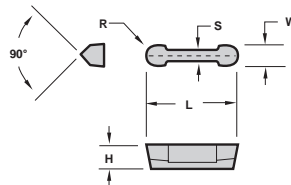
- Patented chipbreaker - Patent No. 6,146,064
- Maximum chip control
- Industry standard widths

*Exclusive patented design!*



Description	EDP Code	W	R	L	H	S	Coatings						
							C3	GP3	GP5	GP50	AC3	AC50	
DBP 24 R15-CB	802415C	.125	.015	1.125	.250	.106		●			●	●	●
DBP 34 R15-CB	803415C	.188	.015	1.125	.250	.144		●			●	●	●
DBP 45 R15-CB	804515C	.250	.015	1.125	.337	.144		●			●	●	●
DBP 45 R30-CB	804530C	.250	.030	1.125	.337	.144		●			●	●	●
DBP 55 R15-CB	805515C	.312	.015	1.125	.337	.202		●			●	●	●
DBP 55 R30-CB	805530C	.312	.030	1.125	.337	.202		●			●	●	●

## DEEP GROOVING DBP-Full Nose Radius (SAME AS VDB)



Description	EDP Code	W	R	L	H	S	Coatings						
							C3	GP3	GP5	GP50	AC3	AC50	
DBP 24 FNR	8024FR	.125	.0625	1.125	.250	.106		●			●	●	●
DBP 34 FNR	8034FR	.188	.094	1.125	.250	.144		●			●	●	●
DBP 45 FNR	8045FR	.250	.125	1.125	.337	.144		●			●	●	●
DBP 55 FNR	8055FR	.312	.156	1.125	.337	.202		●			●	●	●
DBP 65 FNR	8065FR	.375	.1875	1.125	.337	.276		●			●	●	●

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

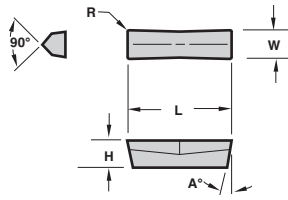
Material	C3	GP3	GP5	GP50	AC3	AC50
Cast Iron		▲				●
Non-Ferrous		▲				●
Stainless/High Temp		▲				●
Steel			▲			●





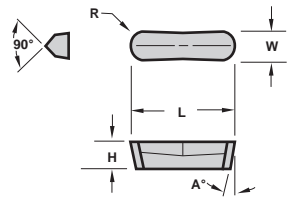
# VEE BOTTOM

## DEEP GROOVING GC



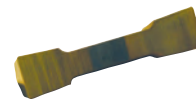
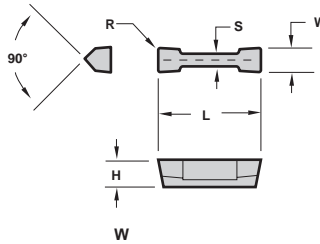
Description	EDP Code	Inch	Metric	R	L	H	A°	Coating								
								C3	GP3	GP5	AC3	AC50	Uncoated	TIN Coated	AITIN Coated	
GC-4125	GC4125	.125	3,18	.010/.015	1.000	.188	4°	●	●	●	●	●	●	●	●	●
GC-4187	GC4187	.187	4,75	.010/.015	1.000	.328	5°	●	●	●	●	●	●	●	●	●
GC-4250	GC4250	.250	6,35	.010/.015	1.000	.328	5°	●	●	●	●	●	●	●	●	●
GC-4312	GC4312	.312	7,92	.010/.015	1.000	.328	5°	●	●	●	●	●	●	●	●	●
GC-4375	GC4375	.375	9,52	.010/.015	1.000	.328	5°	●	●	●	●	●	●	●	●	●
GC-6187	GC6187	.187	4,75	.010/.015	1.500	.328	5°	●	●	●	●	●	●	●	●	●
GC-6250	GC6250	.250	6,35	.010/.015	1.500	.328	5°	●	●	●	●	●	●	●	●	●
GC-6312	GC6312	.312	7,92	.010/.015	1.500	.328	5°	●	●	●	●	●	●	●	●	●

## DEEP GROOVING GR - Full Nose Radius



Description	EDP Code	Inch	Metric	R	L	H	A°	Coating								
								C3	GP3	GP5	AC3	AC50	Uncoated	TIN Coated	AITIN Coated	
GR-4125	GR4125	.125	3,18	.062	1.000	.188	4°	●	●	●	●	●	●	●	●	●
GR-4187	GR4187	.187	4,75	.094	1.000	.328	5°	●	●	●	●	●	●	●	●	●
GR-4250	GR4250	.250	6,35	.125	1.000	.328	5°	●	●	●	●	●	●	●	●	●

## DEEP GROOVING VDB (SAME AS DBP)



Description	EDP Code	Inch	Metric	R	L	H	S	Coating								
								C25	GP25	GP3	GP50	AC3	AC50	Uncoated	TIN Coated	AITIN Coated
VDB 125 A008	79125A08	.125	3,18	.008	1.125	.250	.106	●	●	●	●	●	●	●	●	●
VDB 125 A015	79125A	.125	3,18	.015	1.125	.250	.106	●	●	●	●	●	●	●	●	●
VDB 156 A008	79156A08	.156	3,96	.008	1.125	.250	.106	●	●	●	●	●	●	●	●	●
VDB 156 A015	79156A	.156	3,96	.015	1.125	.250	.106	●	●	●	●	●	●	●	●	●
VDB 188 A008	79188A08	.188	4,78	.008	1.125	.250	.144	●	●	●	●	●	●	●	●	●
VDB 188 A015	79188A	.188	4,78	.015	1.125	.250	.144	●	●	●	●	●	●	●	●	●
VDB 188 A030	79188A030	.188	4,78	.030	1.125	.250	.144	●	●	●	●	●	●	●	●	●
VDB 218-A015	79218A	.218	5,54	.015	1.125	.250	.144	●	●	●	●	●	●	●	●	●
VDB 250 A015	79250A	.250	6,35	.015	1.125	.250	.144	●	●	●	●	●	●	●	●	●
VDB 250 B015	79250B	.250	6,35	.015	1.125	.337	.144	●	●	●	●	●	●	●	●	●
VDB 250 B030	79250B030	.250	6,35	.030	1.125	.337	.144	●	●	●	●	●	●	●	●	●
VDB 281 B015	79281B	.281	7,14	.015	1.125	.337	.202	●	●	●	●	●	●	●	●	●
VDB 312 B015	79312B	.312	7,92	.015	1.125	.337	.202	●	●	●	●	●	●	●	●	●
VDB 312 B030	79312B030	.312	7,92	.030	1.125	.337	.202	●	●	●	●	●	●	●	●	●
VDB 344 B015	79344B	.344	8,74	.015	1.125	.337	.276	●	●	●	●	●	●	●	●	●
VDB 344 B030	79344B030	.344	8,74	.030	1.125	.337	.276	●	●	●	●	●	●	●	●	●
VDB 375 B015	79375B	.375	9,53	.015	1.125	.337	.276	●	●	●	●	●	●	●	●	●
VDB 375 B030	79375B030	.375	9,53	.030	1.125	.337	.276	●	●	●	●	●	●	●	●	●

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

Material	C25	GP25	GP3	GP50	AC3	AC50
Cast Iron	▲	▲	▲	▲	▲	▲
Non-Ferrous	▲	▲	▲	▲	▲	▲
Stainless/High Temp	▲	▲	▲	▲	▲	▲
Steel	▲	▲	▲	▲	▲	▲

VEE  
BOTTOM

# VEE BOTTOM



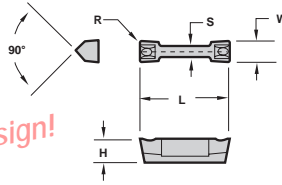
## DEEP GROOVING

### VDB-CB (SAME AS DBP)

**Features:**

- Patented chipbreaker - Patent No. 6,146,064
- Maximum chip control
- Industry standard widths

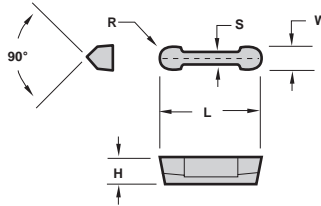
*Exclusive patented design!*



Description	EDP Code	Inch	Metric	R	L	H	S	Coatings					
								Uncoated	GP3	GP5	GP50	AC3	AC50
VDB 125 A008-CB	79125A08P	.125	3,18	.008	1.125	.250	.106	●	●	●	●	●	●
VDB 125 A015-CB	79125AP	.125	3,18	.015	1.125	.250	.106	●	●	●	●	●	●
VDB 156 A008-CB	79156A08P	.156	3,96	.008	1.125	.250	.106	●	●	●	●	●	●
VDB 156 A015-CB	79156AP	.156	3,96	.015	1.125	.250	.106	●	●	●	●	●	●
VDB 188 A008-CB	79188A08P	.188	4,78	.008	1.125	.250	.144	●	●	●	●	●	●
VDB 188 A015-CB	79188AP	.188	4,78	.015	1.125	.250	.144	●	●	●	●	●	●
VDB 188 A030-CB	79188A030P	.188	4,78	.030	1.125	.250	.144	●	●	●	●	●	●
VDB 218 A015-CB	79218AP	.218	5,54	.015	1.125	.250	.144	●	●	●	●	●	●
VDB 250 B015-CB	79250BP	.250	6,35	.015	1.125	.337	.144	●	●	●	●	●	●
VDB 250 B030-CB	79250B030P	.250	6,35	.030	1.125	.337	.144	●	●	●	●	●	●
VDB 312 B015-CB	79312BP	.312	7,92	.015	1.125	.337	.202	●	●	●	●	●	●
VDB 312 B030-CB	79312B030P	.312	7,92	.030	1.125	.337	.202	●	●	●	●	●	●
VDB 375 B015-CB	79375BP	.375	9,53	.015	1.125	.337	.276	●	●	●	●	●	●
VDB 375 B030-CB	79375B030P	.375	9,53	.030	1.125	.337	.276	●	●	●	●	●	●

## DEEP GROOVING

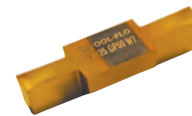
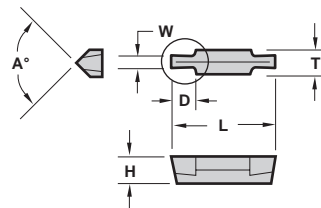
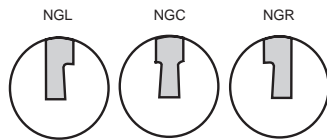
### VDB - Full Nose Radius (SAME AS DBP)



Description	EDP Code	Inch	Metric	R	L	H	S	Coatings					
								Uncoated	GP3	GP5	GP50	AC3	AC50
VDB 125 RA	79125RA	.125	3,18	.062	1.125	.250	.106	●	●	●	●	●	●
VDB 156 RA	79156RA	.156	3,96	.078	1.125	.250	.106	●	●	●	●	●	●
VDB 188 RA	79188RA	.188	4,78	.094	1.125	.250	.144	●	●	●	●	●	●
VDB 218 RA	79218RA	.218	5,54	.109	1.125	.250	.144	●	●	●	●	●	●
VDB 250 RA	79250RA	.250	6,35	.125	1.125	.250	.144	●	●	●	●	●	●
VDB 250 RB	79250RB	.250	6,35	.125	1.125	.337	.144	●	●	●	●	●	●
VDB 281 RB	79281RB	.281	7,14	.140	1.125	.337	.202	●	●	●	●	●	●
VDB 312 RB	79312RB	.312	7,92	.156	1.125	.337	.202	●	●	●	●	●	●
VDB 344 RB	79344RB	.344	8,74	.172	1.125	.337	.276	●	●	●	●	●	●
VDB 375 RB	79375RB	.375	9,53	.187	1.125	.337	.276	●	●	●	●	●	●

## GROOVING

### V84/V85/V96/V98/V120



Description	EDP Code	Inch	Metric	D	T	L	H	A°	Coatings					
									Uncoated	GP3	GP5	GP50	AC3	AC50
V84 NGC W.062	C6106200	.062	1,57	.156	.250	1.000	.250	90°	●	●	●	●	●	●
V84 NGC W.094	C6109400	.094	2,39	.250	.250	1.000	.250	90°	●	●	●	●	●	●
V84 NGC W.125	C6112500	.125	3,18	.250	.250	1.000	.250	90°	●	●	●	●	●	●
V84 NGC W.187	C6118700	.187	4,75	.250	.250	1.000	.250	90°	●	●	●	●	●	●
V84 NGC W.250	C6125000	.250	6,35	.250	.250	1.000	.250	90°	●	●	●	●	●	●
V84 NGL W.125	L6112500	.125	3,18	.250	.250	1.000	.250	90°	●	●	●	●	●	●
V84 NGL W.187	L6118700	.187	4,75	.250	.250	1.000	.250	90°	●	●	●	●	●	●
V84 NGR W.125	R6112500	.125	3,18	.250	.250	1.000	.250	90°	●	●	●	●	●	●
V84 NGR W.187	R6118700	.187	4,75	.250	.250	1.000	.250	90°	●	●	●	●	●	●
V85 NGC W.312	C6331200	.312	7,92	.325	.312	1.000	.250	90°	●	●	●	●	●	●
V96 NGC W.375	C6637500	.375	9,53	.450	.375	1.125	.375	90°	●	●	●	●	●	●
V98 NGC W.500	C6850000	.500	12,70	.450	.500	1.125	.375	90°	●	●	●	●	●	●
V120 NGC W.625	C7625000	.625	15,88	.625	.750	1.500	.375	120°	●	●	●	●	●	●
V120 NGC W.750	C7075000	.750	19,05	.625	.750	1.500	.375	120°	●	●	●	●	●	●

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.

Material	GP3	GP5	GP50	AC3	AC50
Cast Iron	▲	●	●	●	●
Non-Ferrous	▲	●	●	●	●
Stainless/High Temp	▲	●	●	●	●
Steel	▲	●	●	●	●

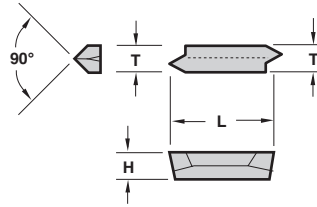
VEE  
BOTTOM



# VEE BOTTOM

## NPT THREADING

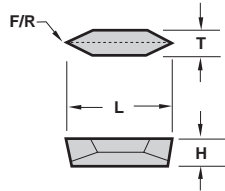
V84



Description	EDP Code	Pipe Size	TPI	TPF	T	L	H	Coatings						
								C3	GP3	GP5	GP50	AC3	AC50	
V84 8NPT EXT	3661084	2-1/2" - up	8	3/4	.250	1.000	.250					●		
V84 8NPT INT	3661088	2-1/2" - up	8	3/4	.250	1.000	.250					●		
V84 11.5NPT EXT	3661114	1" - 2"	11.5	3/4	.250	1.000	.250					●		
V84 11.5NPT INT	3661118	1" - 2"	11.5	3/4	.250	1.000	.250					●		
V84 14NPT EXT	3661144	1/2" - 3/4"	14	3/4	.250	1.000	.250					●		
V84 14NPT INT	3661148	1/2" - 3/4"	14	3/4	.250	1.000	.250					●		

## 60° V-THREADING

V84/V85



Description	EDP Code	TPI	F	T	L	H	Coatings					
							C25	GP3	GP5	GP50	AC3	AC50
V84 NV	0161000	5-20	.006/.008	.250	1.000	.250	●	●	●	●	●	●
V84 NV .010R	0161R10	4-20	.010R	.250	1.000	.250		●	●	●	●	●
V84 NV .020R	0161R20	4-12	.020R	.250	1.000	.250			●	●	●	●
V84 NV .025R	0161R25	4-8	.025R	.250	1.000	.250			●	●	●	●
V84 NV .038R	0161R38	4-6	.038R	.250	1.000	.250			●	●	●	●
V85 NV	0163000	5-20	.006/.008	.312	1.000	.250				●	●	●

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.

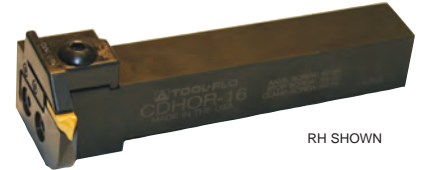
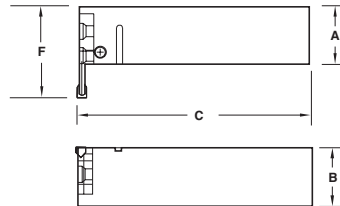
● High performance choice in optimal conditions.  
▲ Recommended grade under general conditions.

Cast Iron  
Non-Ferrous  
Stainless/High Temp  
Steel

## EXTERNAL 90° HOLDER

CDHOR/L

■ RH Holders use LH components - See pages 216.



### PARTS

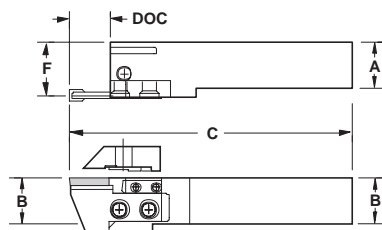
Description	EDP Code	A	B	C	F*		Clamp Screw	Stop Screw	Anvil Screw
					.312(1)	.812(1)			
CDHOR-16	92101600	1	1	6	1.312	1.812	SB90	SS20	SF95
CDHOL-16	92001600	1	1	6	1.312	1.812	SB90	SS20	SF95
CDHOR-20	92102000	1-1/4	1-1/4	6	1.562	2.062	SB90	SS20	SF95
CDHOL-20	92002000	1-1/4	1-1/4	6	1.562	2.062	SB90	SS20	SF95
CDHOR-24	92102400	1-1/2	1-1/2	6	1.812	2.312	SB90	SS20	SF95
CDHOL-24	92002400	1-1/2	1-1/2	6	1.812	2.312	SB90	SS20	SF95

\*The "F" dimension is determined by the D.O.C. of the anvil. (1) Anvil D.O.C.

## EXTERNAL STRAIGHT HOLDER

CDVOR/L

■ RH Holders use RH components - See pages 216.



### PARTS

Description	EDP Code	A	B	C	F	Clamp Screw	Stop Screw	Anvil Screw
CDVOL-16	92301600	1	1	*	1.150	SB90	SS20	SF95
CDVOR-20	92402000	1-1/4	1-1/4	*	1.400	SB90	SS20	SF95
CDVOL-20	92302000	1-1/4	1-1/4	*	1.400	SB90	SS20	SF95
CDVOR-24	92402400	1-1/2	1-1/2	*	1.650	SB90	SS20	SF95
CDVOL-24	92302400	1-1/2	1-1/2	*	1.650	SB90	SS20	SF95

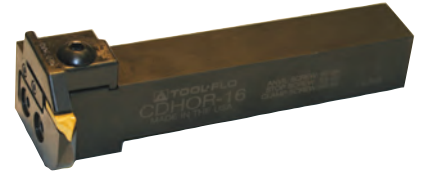
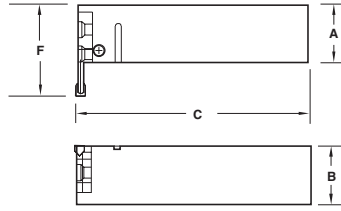
\*The "C" dimension is determined by the D.O.C. of the anvil. If the D.O.C. is .312, C=5.500. If the D.O.C. is .812, C=6.000.



## EXTERNAL 90° HOLDER

CDHOR

Metric



### PARTS

■ RH Holders use LH components - See below.

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

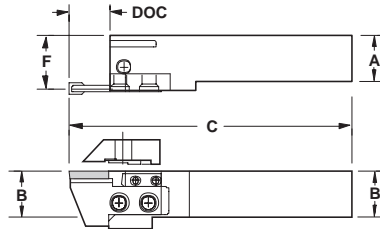
Description	EDP Code	A	B	C	7,0(1)	F*	20,0(1)	Clamp Screw	Stop Screw	Anvil Screw
CDHOR-25MM	92112500	25,0	25,0	150,0	33,3	46,0		SB90	SS20	SF95
CDHOR-32MM	92113200	32,0	32,0	150,0	39,7	52,4		SB90	SS20	SF95
CDHOR-40MM	92114000	40,0	40,0	150,0	46,0	58,7		SB90	SS20	SF95

\*The "F" dimension is determined by the D.O.C. of the anvil. (1) Anvil D.O.C.

## EXTERNAL STRAIGHT HOLDER

CDVOR/L

Metric



### PARTS

■ RH Holders use RH components - See below.

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

Description	EDP Code	A	B	C	F	Clamp Screw	Stop Screw	Anvil Screw
CDVOR-25MM	92412500	25,0	25,0	*	28,8	SB90	SS20	SF95
CDVOL-25MM	92312500	25,0	25,0	*	28,8	SB90	SS20	SF95
CDVOR-32MM	92413200	32,0	32,0	*	35,8	SB90	SS20	SF95
CDVOR-40MM	92414000	40,0	40,0	*	43,8	SB90	SS20	SF95
CDVOL-40MM	92314000	40,0	40,0	*	43,8	SB90	SS20	SF95

\*The "C" dimension is determined by the D.O.C. of the anvil. If the D.O.C. is .312 (7.9mm), C=5.500 (139,7mm). If the D.O.C. is .812 (20.6mm), C=6.000 (152.5mm).

## COMPONENTS

For CDHOR/L and CDVOR/L

■ For face grooving anvils - See page

**ANVIL**

**CLAMP**

**STOP BLOCK**

Anvil	EDP Code	Insert	DOC	WOC	Clamp	Stop Block
AHR-118	9140118	VDB125	.812	.105-.125	CHR-182	SBH-2
AHL-118	9130118	VDB125	.812	.105-.125	CHL-182	SBH-2
AHR-148	9140148	V84/V85	.812	.220-.250	CHR-482	SBH-2
AHL-148	9130148	V84/V85	.812	.220-.250	CHL-482	SBH-2
AHR-173	9140173	V84/V85	.312	V-THREAD	CHR-431	SBH-1
AHL-173	9130173	V84/V85	.312	V-THREAD	CHL-431	SBH-1
AHR-113	9140113	DBP24/VDB125	.312	.105-.125	CHR-132	SBH-1
AHL-113	9130113	DBP24/VDB125	.312	.105-.125	CHL-132	SBH-1
AHR-138	9140138	DBP34/VDB188	.812	.170-.188	CHR-382	SBH-2
AHL-138	9130138	DBP34/VDB188	.812	.170-.188	CHL-382	SBH-2
AHR-148	9140148	VDB250A	.812	.220-.250	CHR-482	SBH-2
AHL-148	9130148	VDB250A	.812	.220-.250	CHL-482	SBH-2
AHR-248	9140248	DBP45/VDB250B	.812	.250-.312	CHR-482	SBH-2
AHL-248	9130248	DBP45/VDB250B	.812	.250-.312	CHL-482	SBH-2
AHR-268	9140268	DBP65/VDB375	.812	.350-.375	CHR-582	SBH-2
AHL-268	9130268	DBP65/VDB375	.812	.350-.375	CHL-582	SBH-2

VEE BOTTOM





# VEE BOTTOM

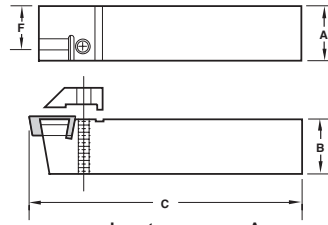
## EXTERNAL STRAIGHT HOLDER

CDVOR/L/C

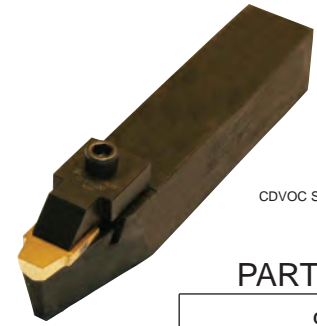
One piece design

■ RH Holders use RH clamps

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



CDVOR Shown



CDVOC Shown

### PARTS

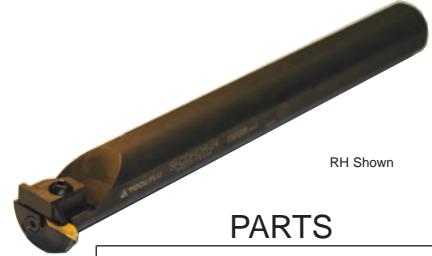
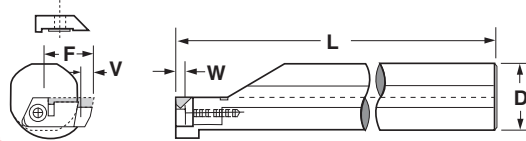
Description	EDP Code	Insert	A	B	C	F	Clamp	Clamp Screw
CDVOR-168	92401682	V84/V85	1	1	6	0.875	CHR-431	SB90
CDVOL-168	92301682	V84/V85	1	1	6	0.875	CHL-431	SB90
CDVOR-208	92402082	V84/V85	1-1/4	1-1/4	6	1.125	CHR-431	SB90
CDVOL-208	92302082	V84/V85	1-1/4	1-1/4	6	1.125	CHL-431	SB90
CDVOR-209	92402086	V96/V98	1-1/4	1-1/4	7	1.000	CHR-98	SS100
CDVOC-2012	92202090	V120	1-1/4	1-1/4	7	0.625	CHR-120	SS90

## INTERNAL BAR

SI-CDHOR

■ RH Holders use LH components

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



RH Shown

### PARTS

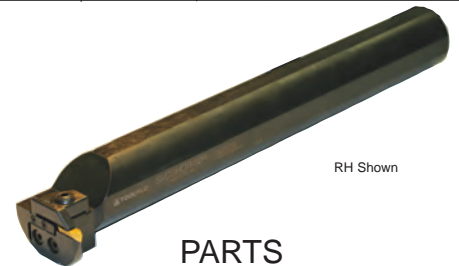
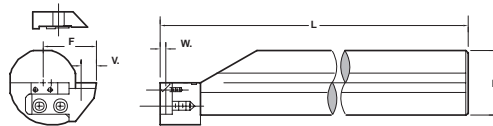
Description	EDP Code	Insert	D	L	W	V	F	Min. Bore	D.O.C. at Min. Bore	Anvil	Anvil Screw	Clamp	Clamp Screw
SI-CDHOR-24	96802400	V84/V85	1-1/2	14	.188-.250	.180	1.062	1.880	.080	ABL/R-131	SF69	CBL/R-411	SB90
SI-CDHOL-24	96702400	V84/V85			60°V	.180	1.062	1.880	.080	ABL/R-171	SF69	CBL/R-411	SB90
		V85			.295-.312	.312	1.062	1.880	.080	ABL/R-143	SF69	CBL/R-531	SB90
		DBP24/VDB125			.105-.125	.312	1.062	1.880	.240	ABL/R-113	SF69	CBL/R-132	SB90
		DBP34/VDB188			.170-.188	.530	1.280	2.098	.240	ABL/R-135	SF69	CBL/R-352	SB90
		VDB250A			.220-.250	.530	1.280	2.098	.240	ABL/R-145	SF69	CBL/R-452	SB90
		DBP45/VDB250B			.220-.250	.530	1.280	2.098	.240	ABL/R-245	SF69	CBL/R-452	SB90

## INTERNAL BAR

SI-CDHOR

■ RH Holders use LH components

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



RH Shown

### PARTS

Description	EDP Code	Insert	D	L	W	V	F	Min. Bore	D.O.C. at Min. Bore	Anvil	Anvil Screw	Clamp	Stop Block	SBH Screw
SI-CDHOR-32H	96803200H	V84/V85	2	16	.220-.250	.312	1.584	3.000	.150	AHL/R-148	SF95	CHL/R-482	SB90	SBH-1 SS-20
SI-CDHOL-32H	96703200H	V84/V85			60°V	.312	1.584	3.000	.150	AHL/R-173	SF95	CHL/R-431	SB90	SBH-1 SS-20
		DBP34/VDB188			.170-.188	.625	1.592	3.000	.270	AHL/R-138	SF95	CHL/R-382	SB90	SBH-2 SS-20
		VDB250A			.220-.250	.625	1.592	3.000	.270	AHL/R-148	SF95	CHL/R-482	SB90	SBH-2 SS-20
		DBP45/VDB250B			.220-.250	.625	1.592	3.000	.270	AHL/R-248	SF95	CHL/R-482	SB90	SBH-2 SS-20

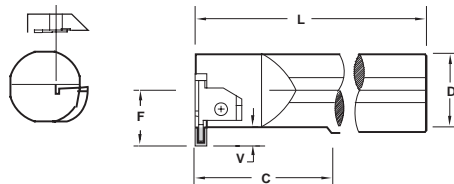
## INTERNAL BAR

SI-CDHOR/L

One piece design

■ RH Holders use LH components

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



RH Shown

### PARTS

Description	EDP Code	Insert	Min. Bore	D	L	C	F	V	D.O.C. at Min. Bore	Clamp Screw	Clamp
SI-CDHOR-168	96801682	V84/V85	2.500	1	10	3	.687	.270	.200	S526	CBL-84
SI-CDHOL-168	96701682	V84/V85	2.500	1	10	3	.687	.270	.200	S526	CBR-84
SI-CDHOR-208	96802082	V84/V85	2.500	1-1/4	12	-	.875	.285	.250	S526	CBL-84
SI-CDHOL-208	96702082	V84/V85	2.500	1-1/4	12	-	.875	.285	.250	S526	CBR-84
SI-CDHOR-329	96803286	V96/V98	3.100	2	16	-	1.530	.325	.312	SS110	CBL-98
SI-CDHOL-329	96703286	V96/V98	3.100	2	16	-	1.530	.325	.312	SS110	CBR-98
SI-CDHOR-409	96804086	V96/V98	4.000	2-1/2	16	-	1.575	.365	.312	SS110	CBL-98
SI-CDHOR-4012	96804092	V120	4.000	2-1/2	16	8.062	1.575	.570	.500	SB100	CBL-120

# VEE BOTTOM



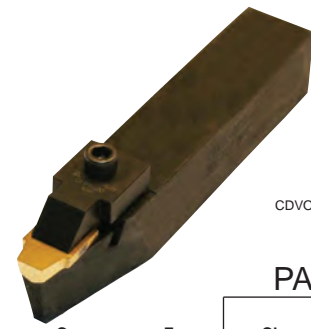
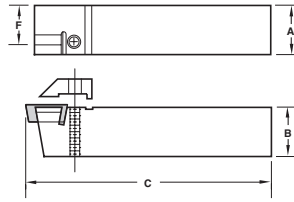
## EXTERNAL STRAIGHT HOLDER

CDVOR/L/C

One piece design

Metric

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



CDVOC Shown

### PARTS

Description	EDP Code	Insert	A	B	C	F	Clamp	Clamp Screw
CDVOR-25M8	92412582	V84/V85	25,0	25,0	150,0	21,8	CHR-431	SB90
CDVOL-25M8	92312582	V84/V85	25,0	25,0	150,0	21,8	CHL-431	SB90
CDVOR-32M8	92413282	V84/V85	32,0	32,0	150,0	28,8	CHR-431	SB90
CDVOL-32M8	92313282	V84/V85	32,0	32,0	150,0	28,8	CHL-431	SB90
CDVOR-32M9	92413286	V96/V98	32,0	32,0	180,0	25,5	CHR-98	SS100
CDVOC-32M12	92413290	V120	32,0	32,0	180,0	22,5	CHR-120	SS90

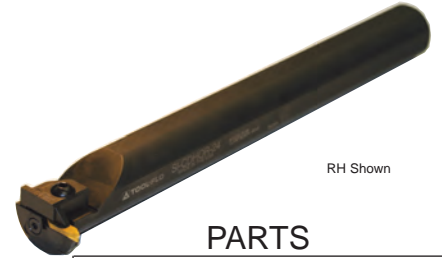
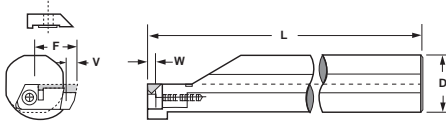
## INTERNAL BAR

SI-CDHOR

Metric

■ RH Bars use LH components

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



RH Shown

### PARTS

Description	EDP Code	Insert	D	L	W	V	F	Min. Bore	D.O.C. at Min. Bore	Anvil	Anvil Screw	Clamp	Clamp Screw
SI-CDHOR-40MM	96814000	V84	40,0	360,0	5,5-6,5	4,5	28,9	48,0	2,0	ABL/R-131	SF69	CBL/R-411	SB90
		V84			60°V	4,5	28,9	48,0	2,0	ABL/R-171	SF69	CBL/R-411	SB90
		V85			7,5-8,0	7,9	28,9	48,0	2,0	ABL/R-143	SF69	CBL/R-531	SB90
		DBP24/VDB125			2,6-3,2	7,9	28,9	53,5	6,0	ABL/R-113	SF69	CBL/R-132	SB90
		DBP34/VDB188			4,3-4,8	13,6	34,3	53,5	6,0	ABL/R-135	SF69	CBL/R-352	SB90
		VDB250A			5,5-6,5	13,6	34,3	53,5	6,0	ABL/R-145	SF69	CBL/R-452	SB90
		DBP45/VDB250B	5,5-6,5	13,6	34,3	53,5	6,0	ABL/R-245	SF69	CBL/R-452	SB90		

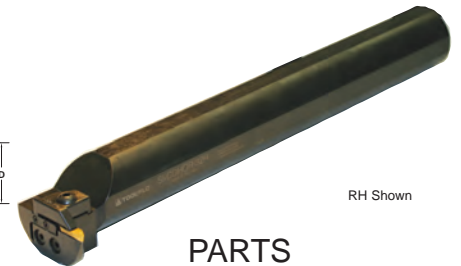
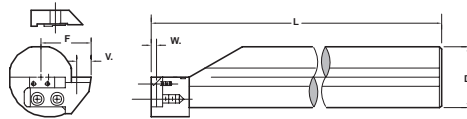
## INTERNAL BAR

SI-CDHOR

Metric

■ RH Bars use LH components

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



RH Shown

### PARTS

Description	EDP Code	Insert	D	L	W	V	F	Min. Bore	D.O.C. at Min. Bore	Anvil	Anvil Screw	Clamp	Clamp Screw	Stop Block	SBH Screw
SI-CDHOR-50MM	96815000	V84/V85	50,0	400,0	5,5-6,5	7,9	39,5	76,2	2,0	AHL/R-148	SF95	CHL/R-482	SB90	SBH-1	SS-20
		V84/V85			60°V	7,9	39,5	76,2	2,0	AHL/R-173	SF95	CHL/R-431	SB90	SBH-1	SS-20
		DBP34/VDB188			4,3-4,8	20,6	40,0	76,2	6,0	AHL/R-138	SF95	CHL/R-382	SB90	SBH-2	SS-20
		VDB250A			5,5-6,5	20,6	40,0	76,2	6,0	AHL/R-148	SF95	CHL/R-482	SB90	SBH-2	SS-20
		DBP45/VDB250B	5,5-6,5	20,6	40,0	76,2	6,0	AHL/R-248	SF95	CHL/R-482	SB90	SBH-2	SS-20		

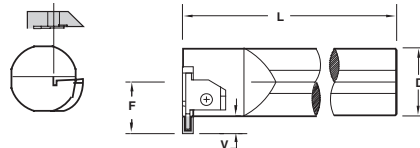
## INTERNAL BAR

SI-CDHOR/L

One piece design

Metric

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



RH Shown

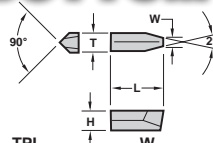
### PARTS

Description	EDP Code	Insert	Min. Bore	D	L	F	V	D.O.C. at Min. Bore	Clamp Screw	Clamp
SI-CDHOR-25M8	96812582	V84/V85	30,15	25,0	250,0	17,4	6,4	4,8	S526	CBL-84
SI-CDHOL-25M8	96712582	V84/V85	30,15	25,0	250,0	17,4	6,4	4,8	S526	CBR-84
SI-CDHOR-32M8	96813282	V84/V85	38,1	32,0	300,0	18,5	6,4	4,8	S526	CBL-84
SI-CDHOL-32M8	96713282	V84/V85	38,1	32,0	300,0	18,5	6,4	4,8	S526	CBR-84
SI-CDHOR-50M9	96815086	V96/V98	63,5	50,0	400,0	38,8	9,2	7,9	SS110	CBL-98
SI-CDHOL-50M9	96715086	V96/V98	63,5	50,0	400,0	38,8	9,2	7,9	SS110	CBR-98
SI-CDHOR-65M9	96816586	V96/V98	76,2	65,0	400,0	40,0	9,2	9,5	SS110	CBL-98
SI-CDHOL-65M12	96816590	V120	76,2	65,0	400,0	40,0	14,0	12,7	SB100	CBL-120



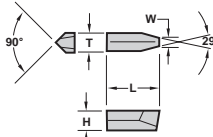
# VEE BOTTOM

## ACME THREADING MLPE



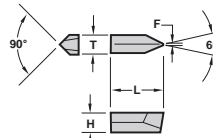
Description	EDP Code	TPI	W	T	L	H	GP22	TIN Coated	AC22	AITIN Coated
MLPE 2532 NT 4P	0271040	4	.0875	.188	.500	.150	●	●	●	●
MLPE 3425 NT 4P	0273040	4	.0875	.250	.625	.188	●	●	●	●
MLPE 2532 NT 5P	0271050	5	.0689	.188	.500	.150	●	●	●	●
MLPE 3425 NT 5P	0273050	5	.0689	.250	.625	.188	●	●	●	●
MLPE 2532 NT 6P	0271060	6	.0566	.188	.500	.150	●	●	●	●
MLPE 3425 NT 6P	0273060	6	.0566	.250	.625	.188	●	●	●	●
MLPE 2532 NT 8P	0271080	8	.0411	.188	.500	.150	●	●	●	●
MLPE 3425 NT 8P	0273080	8	.0411	.250	.625	.188	●	●	●	●
MLPE 2532 NT 10P	0271100	10	.0319	.188	.500	.150	●	●	●	●
MLPE 3425 NT 10P	0273100	10	.0319	.250	.625	.188	●	●	●	●
MLPE 2532 NT 12P	0271120	12	.0283	.188	.500	.150	●	●	●	●
MLPE 3425 NT 12P	0273120	12	.0283	.250	.625	.188	●	●	●	●

## ACME STUB THREADING MLPE



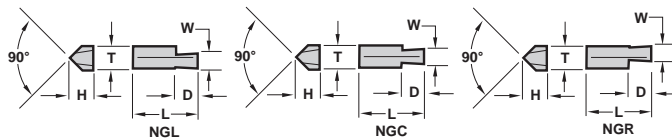
Description	EDP Code	TPI	W	T	L	H	GP22	AC22
MLPE 2532 NT 4P STUB	0271041	4	.1004	.188	.500	.150	●	●
MLPE 3425 NT 4P STUB	0273041	4	.1004	.250	.625	.188	●	●
MLPE 2532 NT 5P STUB	0271051	5	.0793	.188	.500	.150	●	●
MLPE 3425 NT 5P STUB	0273051	5	.0793	.250	.625	.188	●	●
MLPE 2532 NT 6P STUB	0271061	6	.0652	.188	.500	.150	●	●
MLPE 3425 NT 6P STUB	0273061	6	.0652	.250	.625	.188	●	●
MLPE 2532 NT 8P STUB	0271081	8	.0476	.188	.500	.150	●	●
MLPE 3425 NT 8P STUB	0273081	8	.0476	.250	.625	.188	●	●
MLPE 2532 NT 10P STUB	0271101	10	.0370	.188	.500	.150	●	●
MLPE 3425 NT 10P STUB	0273101	10	.0370	.250	.625	.188	●	●
MLPE 2532 NT 12P STUB	0271121	12	.0326	.188	.500	.150	●	●
MLPE 3425 NT 12P STUB	0273121	12	.0326	.250	.625	.188	●	●

## V-THREADING - 60° MLPE



Description	EDP Code	TPI	F	T	L	H	GP22	GP4
MLPE 1251 NV	01720000	10-20	.002-.004	.160	.340	.115	●	●
MLPE 2532 NV	01710000	6-20	.002-.004	.188	.500	.150	●	●
MLPE 3425 NV	01730000	5-20	.003-.006	.250	.625	.188	●	●

## GROOVING MLPE



Description	EDP Code	W	D	T	L	H	Uncoated		TIN Coated		AITIN Coated	
							C3	C6H	GP22	GP6	AC22	AC6
MLPE 1251 NGC W.062	C7206200	.062	.085	.160	.340	.115			●		●	
MLPE 1251 NGC W.094	C7209400	.094	.085	.160	.340	.115			●		●	
MLPE 1251 NGC W.125	C7212500	.125	.085	.160	.340	.115			●		●	
MLPE 1251 NGC W.156	C7215600	.156	.085	.160	.340	.115			●		●	
MLPE 2532 NGC W.062	C7106200	.062	.120	.188	.500	.150			●		●	
MLPE 2532 NGC W.094	C7109400	.094	.150	.188	.500	.150			●		●	
MLPE 2532 NGC W.125	C7112500	.125	.150	.188	.500	.150			●		●	
MLPE 2532 NGC W.156	C7115600	.156	.150	.188	.500	.150			●		●	
MLPE 2532 NGC W.188	C7118800	.188	.150	.188	.500	.150			●		●	
MLPE 3425 NGC W.062	C7306200	.062	.120	.250	.625	.188			●		●	
MLPE 3425 NGC W.094	C7309400	.094	.150	.250	.625	.188			●		●	
MLPE 3425 NGC W.125	C7312500	.125	.150	.250	.625	.188			●		●	
MLPE 3425 NGC W.156	C7315600	.156	.150	.250	.625	.188			●		●	
MLPE 3425 NGC W.188	C7318800	.188	.150	.250	.625	.188			●		●	
MLPE 3425 NGC W.250	C7325000	.250	.150	.250	.625	.188			●		●	
MLPE 1251 NGL W.125	L7212500	.125	.085	.160	.340	.115			●		●	
MLPE 1251 NGL W.156	L7215600	.156	.085	.160	.340	.115			●		●	
MLPE 2532 NGL W.125	L7112500	.125	.150	.188	.500	.150			●		●	
MLPE 2532 NGL W.156	L7115600	.156	.150	.188	.500	.150			●		●	
MLPE 3425 NGL W.188	L7318800	.188	.150	.250	.625	.188			●		●	
MLPE 1251 NGR W.125	R7212500	.125	.085	.160	.340	.115			●		●	
MLPE 1251 NGR W.156	R7215600	.156	.085	.160	.340	.115			●		●	
MLPE 2532 NGR W.125	R7112500	.125	.150	.188	.500	.150			●		●	
MLPE 2532 NGR W.156	R7115600	.156	.150	.188	.500	.150			●		●	
MLPE 3425 NGR W.188	R7318800	.188	.150	.250	.625	.188			●		●	

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		▲	▲		●

**VEE BOTTOM**

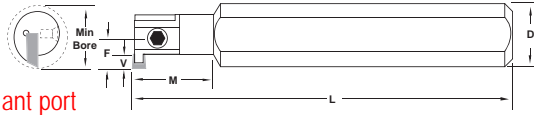


## INTERNAL BAR

### MS-CDHOR/L

One piece design

■ RH Bars use RH clamps



RH Shown

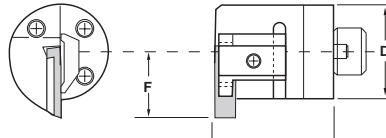
Most bars available with coolant port  
(ie: Add CP to end of description)

### PARTS

Description	EDP Code	Insert	Min. Bore	D	M	L	F	V	Clamp Screw	Clamp
MS-CLHOR-46254	951546254	MLPE 1251	.500	.500	.930	6.000	.265	.079	SF20	MCR-30
MS-CLHOL-46254	951346254	MLPE 1251	.500	.500	.930	6.000	.265	.079	SF20	MCL-30
MS-CLHOR-6845	95156845	MLPE 2532	.700	.750	1.250	8.000	.400	.150	SF47	MCR-40
MS-CLHOL-6845	95256845	MLPE 2532	.700	.750	1.250	8.000	.400	.150	SF47	MCL-40
MS-CLHOR-6856	95156856	MLPE 3425	.830	.750	1.500	8.000	.462	.150	SA4	MCR-50
MS-CLHOL-6856	95256856	MLPE 3425	.830	.750	1.500	8.000	.462	.150	SA4	MCL-50
MS-CLHOR-8856	95158856	MLPE 3425	.830	1.000	1.500	8.000	.462	.150	SA4	MCR-50
MS-CLHOL-8856	95258856	MLPE 3425	.830	1.000	1.500	8.000	.462	.150	SA4	MCL-50

## INTERCHANGEABLE HEADS

### H-CDHOR/L\*



RH SHOWN

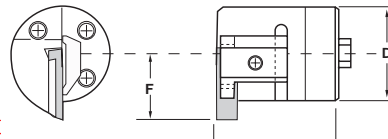
Most holders available with coolant port  
(ie: Add CP to end of description)

### PARTS

Description	EDP Code	Insert	d	C	F	Min. Bore	Clamp	Clamp Screw
H16-CDHOR-8	9IH6801682	V84/V85	1.000	1.625	0.925	1.525	CBL-84	S-526
H20-CDHOR-8	9IH6802082	V84/V85	1.250	1.625	0.875	1.600	CBL-84	S-526
H24-CDHOR-8	9IH6802482	V84/V85	1.500	1.625	1.000	1.850	CBL-84	S-526
H32-CDHOR-8	9IH6803282	V84/V85	2.000	1.625	1.285	2.385	CBL-84	S-526
H40-CDHOR-8	9IH6804082	V84/V85	2.500	1.625	1.500	2.850	CBL-84	S-526
H32-CDHOR-9	9IH6803286	V96/V98	2.000	1.625	1.410	2.510	CBL-98	SS110
H40-CDHOR-9	9IH6804086	V96/V98	2.500	1.625	1.584	2.935	CBL-98	SS110
H40-CDHOR-12	9IH6804092	V120	2.500	1.625	1.820	3.170	CBL-120	SB100

\*Left hand quoted on request.

### HS-CDHOR/L\*



RH SHOWN

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

### PARTS

Description	EDP Code	Insert	d	C	F	Min. Bore	Clamp	Clamp Screw
HS25-CDHOR-8	9IHS68025M82	V84/V85	0.984	1.355	0.925	1.517	CBL-84	S-526
HS32-CDHOR-8	9IHS68032M82	V84/V85	1.260	1.625	0.875	1.600	CBL-84	S-526
HS40-CDHOR-8	9IHS68040M82	V84/V85	1.575	1.625	1.084	1.971	CBL-84	S-526
HS50-CDHOR-8	9IHS68050M82	V84/V85	1.970	1.625	1.281	2.366	CBL-84	S-526
HS60-CDHOR-8	9IHS68060M82	V84/V85	2.360	1.625	1.476	2.756	CBL-84	S-526
HS50-CDHOR-9	9IHS68050M86	V96/V98	1.970	1.625	1.362	2.447	CBL-98	SS110
HS60-CDHOR-9	9IHS68060M86	V96/V98	2.360	1.625	1.558	2.838	CBL-98	SS110
HS60-CDHOR-12	9IHS68060M92	V120	2.360	1.625	1.750	3.030	CBL-120	SB100

\*Left hand quoted on request.