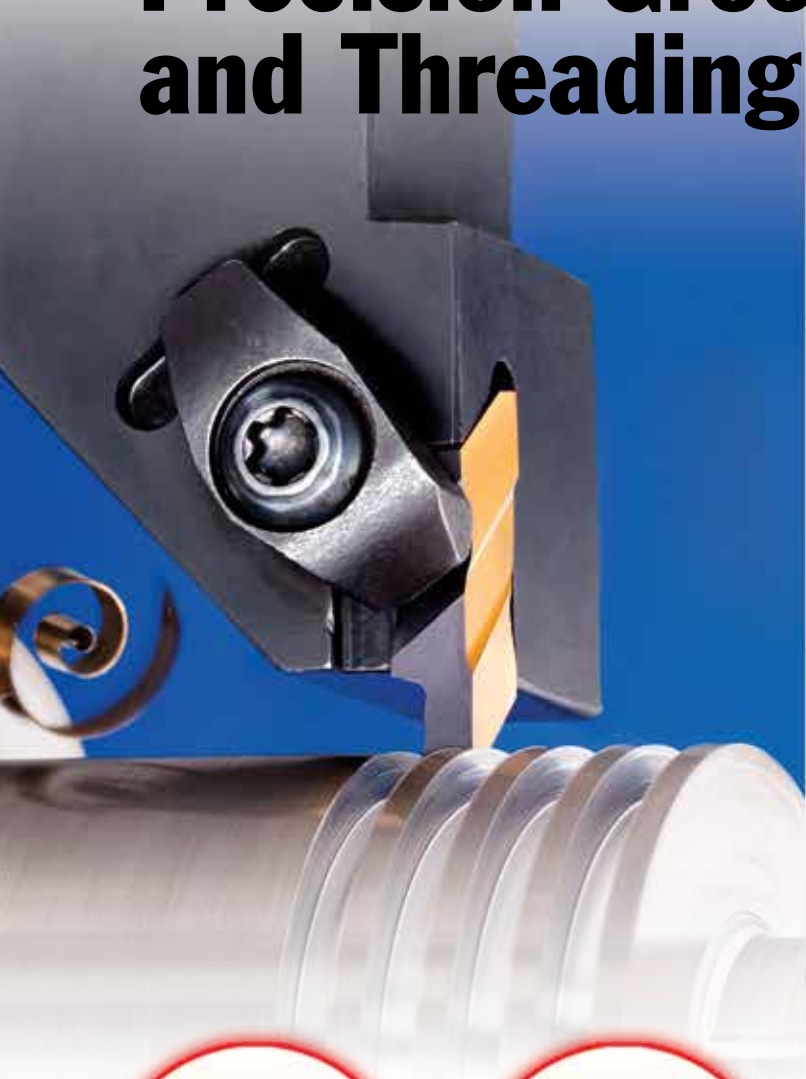


Imperial
and Metric
Measurements
for metric data see page 26

NOTCH-GRIP
GROOVE-TURN LINE

Engineered for
MAXIMUM
Precision Grooving
and Threading



Imperial Measurements

Page

Grooving Inserts	3-8
Threading Inserts.....	8-22
External Tools	22-23
Boring Bars.....	24-25

Metric Measurements

Page

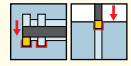
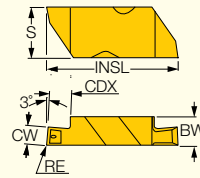
Grooving Inserts	27-31
Threading Inserts.....	32-44
External Tools	44-45

User Guide	46-47
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NOTCH GRIP
GROOVE-TURN LINE

ING-RCB/LCB

Precision Double-Ended Grooving
Inserts with a Chipformer



Right-hand shown

Designation	Dimensions								IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL		
ING3031R/LCB	.031	.00100	.0035	.0012	.344	.050	.195	.890	●	.0012-.0020
ING2M100R/LCB	.039	.00100	.0075	.0025	.219	.006	.150	.514	●	.0016-.0024
ING3M100R/LCB	.039	.00100	.0075	.0025	.344	.075	.195	.890	●	.0016-.0024
ING3M120R/LCB	.047	.00100	.0075	.0025	.344	.075	.195	.890	●	.0016-.0024
ING3047R/LCB	.047	.00100	.0075	.0025	.344	.075	.195	.890	●	.0016-.0024
ING2M150R/LCB	.059	.00100	.0075	.0025	.219	.110	.150	.514	●	.0020-.0031
ING3M150R/LCB	.059	.00100	.0075	.0025	.344	.120	.195	.890	●	.0020-.0031
ING2062R/LCB	.062	.00100	.0075	.0025	.219	.110	.150	.514	●	.0020-.0031
ING3062R/LCB	.062	.00100	.0075	.0025	.344	.120	.195	.890	●	.0020-.0031
ING3M175R/LCB	.069	.00100	.0075	.0025	.344	.120	.195	.890	●	.0020-.0035
ING3072R/LCB	.072	.00100	.0075	.0025	.344	.120	.195	.890	●	.0020-.0035
ING3078R/LCB	.078	.00100	.0075	.0025	.344	.120	.195	.890	●	.0020-.0039
ING2M200R/LCB	.079	.00100	.0075	.0025	.219	.110	.150	.514	●	.0020-.0039
ING3M200R/LCB	.079	.00100	.0075	.0025	.344	.120	.195	.890	●	.0020-.0039
ING2094R/LCB	.094	.00100	.0075	.0025	.219	.110	.150	.514	●	.0024-.0039
ING3094R/LCB	.094	.00100	.0075	.0025	.344	.180	.195	.890	●	.0024-.0039
ING3M250R/LCB	.098	.00100	.0075	.0025	.344	.180	.195	.890	●	.0024-.0039
ING3M300R/LCB	.118	.00100	.0075	.0025	.344	.180	.195	.890	●	.0035-.0055
ING2125R/LCB	.125	.00100	.0075	.0025	.219	.110	.150	.514	●	.0035-.0055
ING3125R/LCB	.125	.00100	.0075	.0025	.344	.180	.195	.890	●	.0035-.0055
ING4125R/LCB	.125	.00100	.0075	.0025	.453	.250	.255	1.122	●	.0035-.0055
ING3M400R/LCB	.157	.00100	.0126	.0025	.344	.180	.195	.889	●	.0047-.0079
ING3189R/LCB	.189	.00100	.0224	.0025	.344	.180	.195	.888	●	.0047-.0087
ING4189R/LCB	.189	.00100	.0224	.0025	.453	.250	.255	1.120	●	.0047-.0087
ING4250R/LCB	.250	.00100	.0224	.0025	.453	.250	.255	1.120	●	.0047-.0098

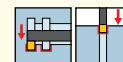
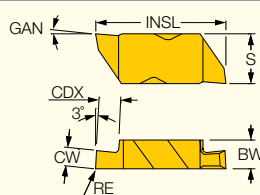
⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

NOTCH GRIP
GROOVE-TURN LINE

ING/INGP-R/L

Precision Double-Ended
Flat Top Grooving Inserts



Right-hand shown

Designation	Dimensions									Tough ↔ Hard		Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	GAN	S	CDX	BW	INSL	IC808	IC807	
INGP2031R/L	.031	.00100	.0035	.0012	5.0	.219	.050	.150	.514		●	.0008-.0016
ING2031R/L	.031	.00100	.0035	.0012	.0	.219	.050	.150	.514		●	.0008-.0016
ING2041R/L	.041	.00100	.0035	.0012	.0	.219	.050	.150	.514		●	.0012-.0020
ING2047R/L	.047	.00100	.0035	.0012	.0	.219	.050	.150	.514		●	.0012-.0020
INGP2062R/L	.062	.00100	.0074	.0025	5.0	.219	.110	.150	.514		●	.0016-.0024
ING2062R/L	.062	.00100	.0074	.0025	.0	.219	.110	.150	.514		●	.0016-.0024
ING2094R/L	.094	.00100	.0074	.0025	.0	.219	.110	.150	.514		●	.0020-.0031
ING2125R/L	.125	.00100	.0074	.0025	.0	.219	.110	.150	.514		●	.0031-.0047
ING3031R/L	.031	.00100	.0035	.0012	.0	.341	.050	.195	.900	●		.0008-.0016
INGP3047R/L	.047	.00100	.0074	.0025	5.0	.344	.075	.195	.890		●	.0012-.0020
ING3047R/L	.047	.00100	.0074	.0025	.0	.341	.075	.195	.900	●		.0012-.0020
ING3058R/L	.058	.00100	.0074	.0025	.0	.341	.094	.195	.900	●		.0012-.0020
INGP3062R/L	.062	.00100	.0074	.0025	5.0	.344	.120	.195	.890		●	.0016-.0024
ING3062R/L	.062	.00100	.0074	.0025	.0	.341	.094	.195	.900	●		.0016-.0024
ING3072R/L	.072	.00100	.0074	.0025	.0	.341	.094	.195	.900	●		.0016-.0031
ING3078R/L	.078	.00100	.0074	.0025	.0	.341	.094	.195	.900	●		.0016-.0035
ING3088R/L	.088	.00100	.0074	.0025	.0	.341	.094	.195	.900	●		.0020-.0035
INGP3094R/L	.094	.00100	.0074	.0025	5.0	.344	.180	.195	.890		●	.0020-.0031
ING3094R/L	.094	.00100	.0074	.0025	.0	.195	.150	.195	.900	●		.0020-.0035
ING3097R/L	.097	.00100	.0125	.0025	.0	.195	.150	.195	.900	●		.0024-.0039
ING3105R/L	.105	.00100	.0074	.0025	.0	.195	.150	.195	.900	●		.0027-.0043
ING3110R/L	.110	.00100	.0125	.0025	.0	.195	.150	.195	.900	●		.0027-.0043
ING3122R/L	.122	.00100	.0074	.0025	.0	.195	.150	.195	.900	●		.0027-.0047
INGP3125R/L	.125	.00100	.0074	.0025	5.0	.195	.180	.195	.890		●	.0031-.0047
ING3125R/L	.125	.00100	.0074	.0025	.0	.341	.150	.195	.900	●		.0031-.0051
ING3142R/L	.142	.00100	.0125	.0025	.0	.341	.150	.195	.900	●		.0035-.0059
ING3156R/L	.156	.00100	.0074	.0025	.0	.341	.150	.195	.900	●		.0039-.0079
ING3178R/L	.178	.00100	.0074	.0025	.0	.341	.150	.195	.900	●		.0043-.0083
ING3185R/L	.185	.00100	.0224	.0025	.0	.341	.150	.195	.900	●		.0043-.0087
ING3189R/L	.189	.00100	.0224	.0025	.0	.341	.150	.195	.900	●		.0043-.0087
ING4125R/L	.125	.00100	.0074	.0025	.0	.453	.250	.255	1.122		●	.0031-.0047
ING4189R/L	.189	.00100	.0224	.0025	.0	.453	.250	.255	1.120		●	.0039-.0079
ING4250R/L	.250	.00100	.0224	.0025	.0	.453	.250	.255	1.120		●	.0039-.0087

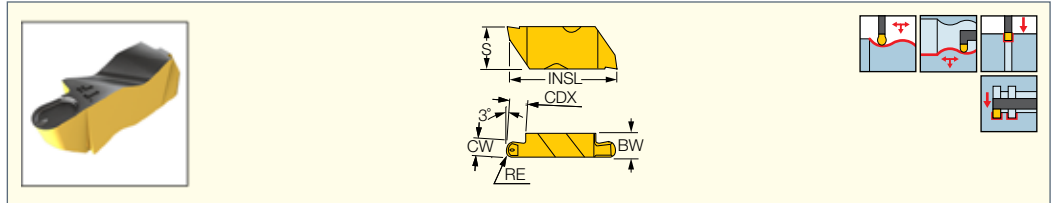
⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

NOTCH GRIP
GROOVE-TURN LINE

INR-RCB/LCB

Precision, Double-Ended
Full Radius Grooving Inserts
with a Chipformer



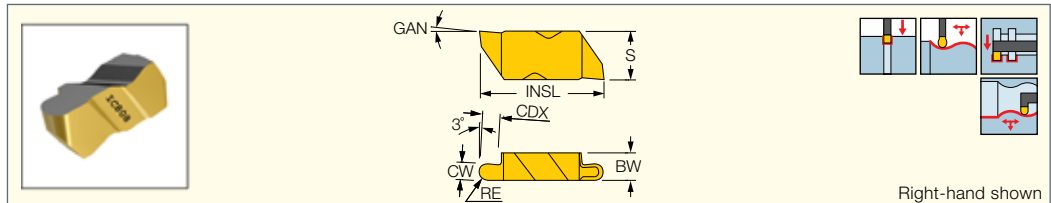
Designation	Dimensions							IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	S	CDX	BW	INSL		
INR3062R/LCB	.125	.00100	.0620	.344	.180	.195	.884	●	f groove (IPR) .0027-.0047

⁽¹⁾ Cutting width tolerance (+/-)

NOTCH GRIP
GROOVE-TURN LINE

INR/INRP-R/L

Precision Double-Ended Flat
Top Round Grooving Inserts



Designation	Dimensions							Tough ↔ Hard		Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	S	CDX	BW	INSL	IC808	IC807	
INR2031R/L	.062	.00100	.0307	.219	.110	.150	.511		●	.0012-.0020
INR2047R/L	.094	.00100	.0468	.219	.110	.150	.509		●	.0016-.0027
INRP3031R/L	.062	.00100	.0307	.344	.125	.195	.887		●	.0012-.0020
INR3031R/L	.062	.00100	.0311	.341	.125	.195	.900	●		.0016-.0031
INRP3047R/L	.094	.00100	.0468	.344	.180	.195	.885		●	.0016-.0027
INR3047R/L	.094	.00100	.0468	.341	.150	.195	.900	●		.0024-.0047
INRP3062R/L	.125	.00100	.0618	.344	.180	.195	.884		●	.0027-.0043
INR3062R/L	.125	.00100	.0625	.341	.150	.195	.900	●		.0031-.0063
INR3078R/L	.156	.00100	.0779	.341	.150	.195	.900	●		.0039-.0079
INR3094R/L	.188	.00100	.0940	.341	.150	.195	.900	●		.0047-.0087
INR4125R/L	.250	.00100	.1251	.453	.250	.255	1.109		●	.0039-.0087

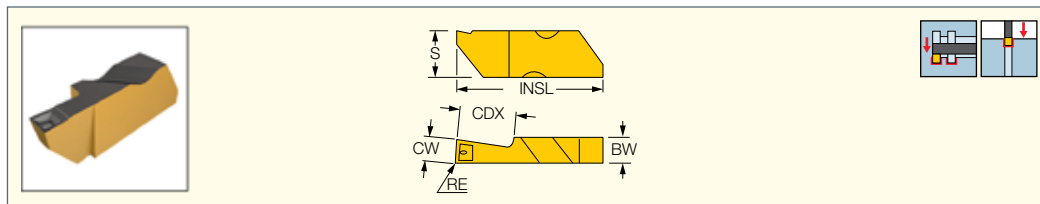
⁽¹⁾ Cutting width tolerance (+/-)

NOTCH-GRIP

GROOVE-TURN LINE

INGD-RCB/LCB

Precision, Single-Ended
Deep Grooving Inserts
with a Chipformer



Dimensions									IC807	Recommended Machining Data
Designation	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL		
INGD3094R/LCB	.094	.00100	.0074	.0025	.344	.250	.195	.990	●	.0024-.0039
INGD3125R/LCB	.125	.00100	.0074	.0025	.344	.250	.195	.990	●	.0035-.0055

⁽¹⁾ Cutting width tolerance (+/-)

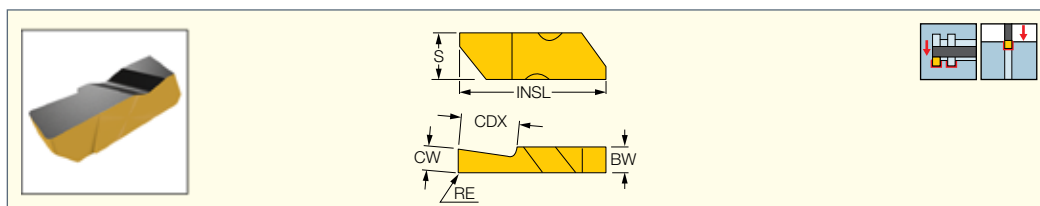
⁽²⁾ Corner radius tolerance (+/-)

NOTCH-GRIP

GROOVE-TURN LINE

INGD-R/L

Precision, Single-Ended Flat
Top Deep Grooving Inserts



Dimensions									IC807	Recommended Machining Data
Designation	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL		
INGD3062R/L	.062	.00100	.0074	.0025	.344	.120	.195	.890	●	.0015-.0024
INGD3094R/L	.094	.00100	.0074	.0025	.344	.250	.195	.990	●	.0019-.0031
INGD3125R/L	.125	.00100	.0074	.0025	.344	.250	.195	.990	●	.0031-.0047
INGD3189R/L	.189	.00100	.0224	.0025	.344	.250	.195	.988	●	.0039-.0079

⁽¹⁾ Cutting width tolerance (+/-)

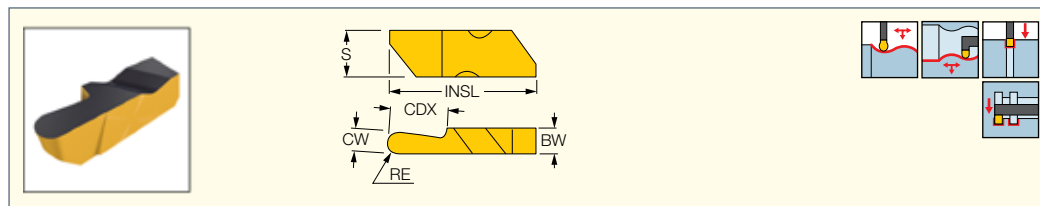
⁽²⁾ Corner radius tolerance (+/-)

NOTCH-GRIP

GROOVE-TURN LINE

INRD-R/L

Precision, Single-Ended
Full Radius Deep Grooving
Inserts with a Flat Rake



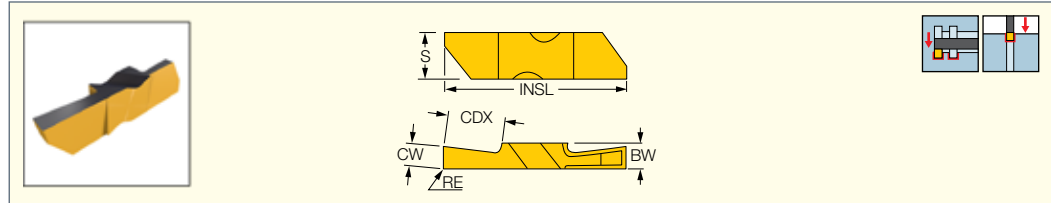
Dimensions									IC807	Recommended Machining Data
Designation	CW	CWTOL ⁽¹⁾	RE	S	CDX	INSL	BW			
INRD3062R/L	.125	.00100	.062	.344	.250	.984	.195		●	.0027-.0043

⁽¹⁾ Cutting width tolerance (+/-)

NOTCH GRIP
GROOVE-TURN LINE

INGT-R/L

Precision, Double-Ended Flat
Top Deep Grooving Inserts



Designation	Dimensions								IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL		
INGT3094R/L	.094	.00100	.0075	.0025	.344	.275	.195	1.340	●	f groove (IPR) .0020-.0031
INGT3125R/L	.125	.00100	.0075	.0025	.344	.437	.195	1.340	●	.0031-.0047

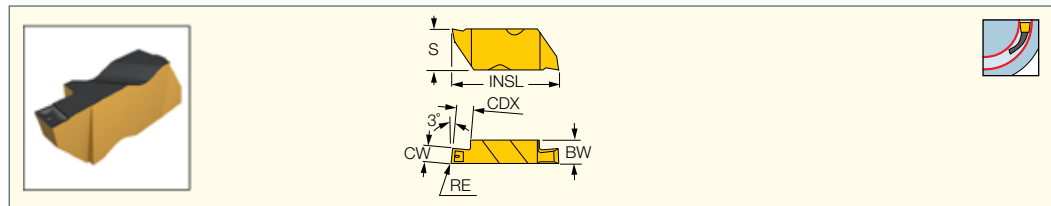
⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

NOTCH GRIP
GROOVE-TURN LINE

INF-RCB/LCB

Precision, Double-Ended
Face Grooving Inserts
with a Chipformer



Designation	Dimensions									IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL	DAXN ⁽³⁾		
INF3125R/LCB	.125	.00100	.0074	.0025	.344	.180	.195	.890	.94	●	f face-groove (IPR) .0035-.0055

⁽¹⁾ Cutting width tolerance (+/-)

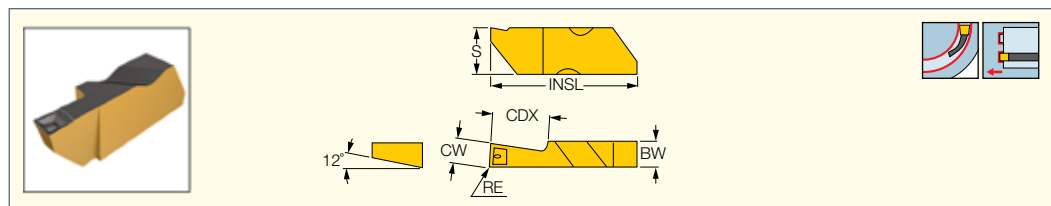
⁽²⁾ Corner radius tolerance (+/-)

⁽³⁾ Minimum axial grooving diameter

NOTCH GRIP
GROOVE-TURN LINE

INFD-RCB/LCB

Precision, Single-Ended
Deep Face Grooving Inserts
with a Chipformer



Designation	Dimensions									IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL	DAXN ⁽³⁾		
INFD3125R/LCB	.125	.00100	.0074	.0025	.344	.250	.195	.990	1.87	●	f face-groove (IPR) .0035-.0055

⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

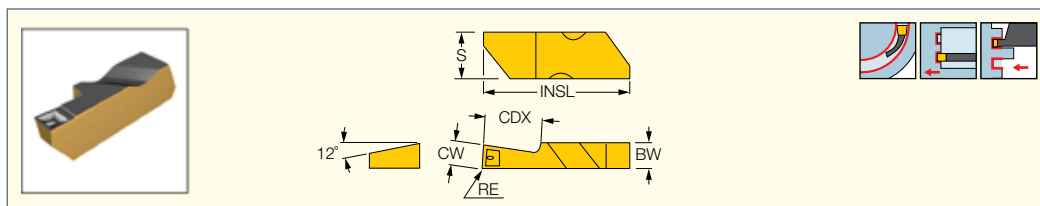
⁽³⁾ Minimum axial grooving diameter

NOTCH GRIP

GROOVE-TURN LINE

INFD-RCB/LCB-I

Precision, Single-Ended
Internal Deep Face Grooving
Inserts with a Chipformer



Designation	Dimensions									IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL	DAXN ⁽³⁾		f face-groove (IPR)
	INFD3125R/LCB-I	.125	.00100	.0074	.0025	.344	.250	.195	.990		1.87

⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

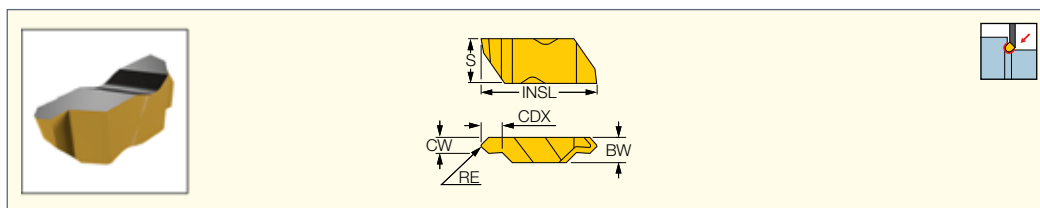
⁽³⁾ Minimum axial grooving diameter

NOTCH GRIP

GROOVE-TURN LINE

INU-R/L

Precision Double-Ended Inserts
for External Undercutting



Designation	Dimensions							IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	S	CDX	BW	INSL		f groove (IPR)
	INU3094R/L	.094	.00100	.0201	.344	.125	.195		.891

• Not recommended for turning

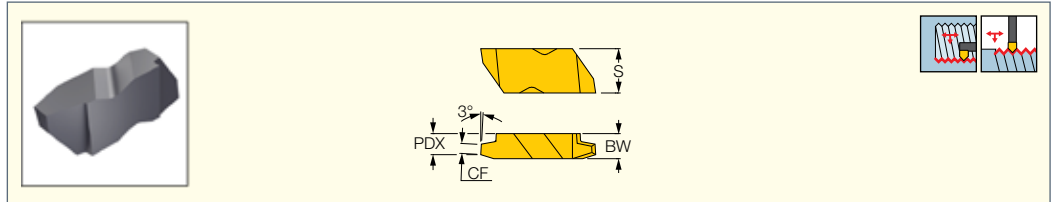
⁽¹⁾ Cutting width tolerance (+/-)

ISCAR[®]THREAD

ISCAR[®]THREAD

FLA

Double-Ended Precision
Threading Inserts for ACME
Threading Applications



Designation	Dimensions						IC908
	TPI ⁽¹⁾	CF	BW	PDX	S		
FLA-6R/L2	2.0	.180	.383	.2835	.453		•
FLA-6R/L2.5	2.5	.143	.383	.2835	.453		•
FLA-6R/L3	3.0	.118	.383	.2835	.453		•
FLA-3R/L4	4.0	.087	.195	.1339	.344		•
FLA-4L4	4.0	.087	.255	.2008	.453		•
FLA-3R/L5	5.0	.069	.195	.1496	.344		•
FLA-4L5	5.0	.069	.255	.2008	.453		•
FLA-3R/L6	6.0	.057	.195	.1496	.344		•
FLA-4L6	6.0	.057	.255	.2008	.453		•
FLA-3R/L8	8.0	.041	.195	.1496	.344		•
FLA-4L8	8.0	.041	.255	.2008	.453		•
FLA-3R/L10	10.0	.032	.195	.1496	.344		•
FLA-3R/L12	12.0	.028	.195	.1496	.344		•
FLA-3R/L14	14.0	.024	.195	.1496	.344		•
FLA-3R/L16	16.0	.020	.195	.1496	.344		•

⁽¹⁾ Threads per inch

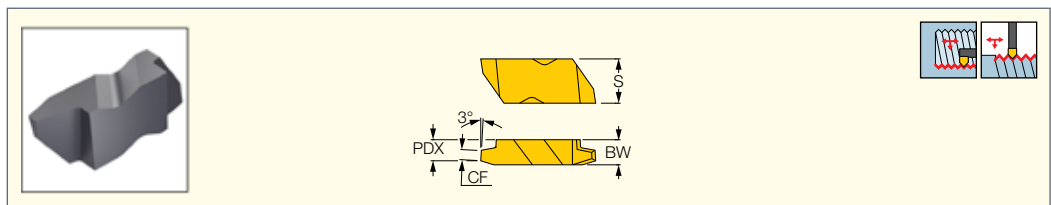
NOTCH-GRIP

GROOVE-TURN LINE

ISCAR[®]THREAD

FLAS

Double-Ended Precision
Threading Inserts for STUB
ACME Threading Applications



Designation	Dimensions						IC908
	TPI ⁽¹⁾	CF	BW	PDX	S		
FLAS-6R/L2	2.0	.206	.383	.2835	.453		•
FLAS-4R/L3	3.0	.135	.255	.2008	.453		•
FLAS-3L4	4.0	.100	.195	.1496	.344		•
FLAS-3R/L5	5.0	.079	.195	.1496	.344		•
FLAS-3R/L6	6.0	.065	.195	.1496	.344		•
FLAS-3R/L8	8.0	.048	.195	.1496	.344		•
FLAS-3R/L10	10.0	.037	.195	.1496	.344		•
FLAS-3R/L12	12.0	.033	.195	.1496	.344		•
FLAS-3R/L14	14.0	.028	.195	.1496	.344		•
FLAS-3R/L16	16.0	.024	.195	.1496	.344		•

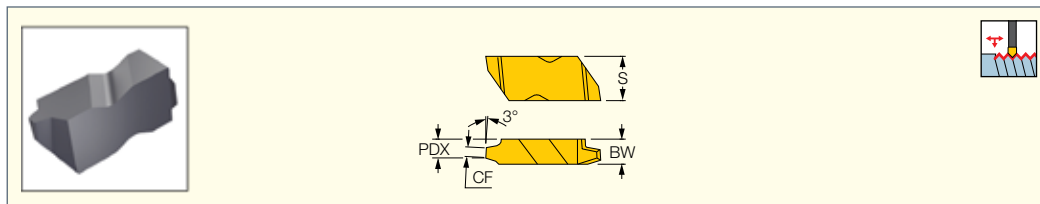
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLA-PT-E

Double-Ended Precision
External Threading Inserts
for Partial Topping with Radii
ACME Threading Applications



Designation	Dimensions						IC908
	TPI ⁽¹⁾	CF	BW	PDX	S		
FLA-6R2-T-E	2.0	.180	.383	.2835	.453		●
FLA-6R2.5-PT-E	2.5	.143	.383	.2835	.453		●
FLA-6R3-PT-E	3.0	.118	.383	.2835	.453		●
FLA-3R4-PT-E	4.0	.087	.195	.1339	.344		●
FLA-4R4-PT-E	4.0	.087	.255	.2008	.453		●
FLA-3R5-PT-E	5.0	.069	.195	.1496	.344		●
FLA-4R5-PT-E	5.0	.069	.255	.2008	.453		●
FLA-3R6-PT-E	6.0	.057	.195	.1496	.344		●
FLA-4R6-PT-E	6.0	.057	.255	.2008	.453		●
FLA-3R8-PT-E	8.0	.041	.195	.1496	.344		●
FLA-4R8-PT-E	8.0	.041	.255	.2008	.453		●
FLA-3R10-PT-E	10.0	.032	.195	.1496	.344		●
FLA-3R12-PT-E	12.0	.028	.195	.1496	.344		●
FLA-3R14-PT-E	14.0	.024	.195	.1496	.344		●
FLA-3R16-PT-E	16.0	.020	.195	.1496	.344		●

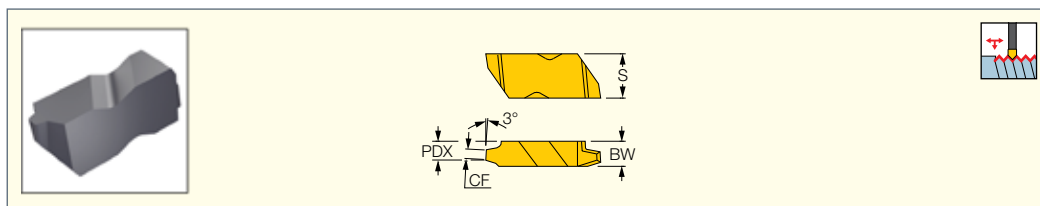
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLAS-PT-E

Double-Ended Precision
External Threading Inserts for
Partial Topping STUB ACME
Threading Applications



Designation	Dimensions						IC908
	TPI ⁽¹⁾	CF	BW	PDX	S		
FLAS-6R2-PT-E	2.0	.206	.383	.2835	.453		●
FLAS-4R3-PT-E	3.0	.136	.255	.2008	.453		●
FLAS-3R4-PT-E	4.0	.100	.195	.1496	.344		●
FLAS-3R5-PT-E	5.0	.079	.195	.1496	.344		●
FLAS-3R6-PT-E	6.0	.065	.195	.1496	.344		●
FLAS-3R8-PT-E	8.0	.048	.195	.1496	.344		●
FLAS-3R10-PT-E	10.0	.037	.195	.1496	.344		●
FLAS-3R12-PT-E	12.0	.033	.195	.1496	.344		●
FLAS-3R14-PT-E	14.0	.028	.195	.1496	.344		●
FLAS-3R16-PT-E	16.0	.024	.195	.1496	.344		●

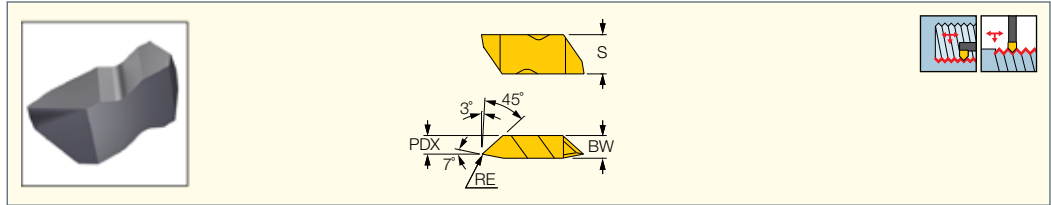
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTB-A

Double-Ended Precision
Threading Inserts for 7° Lead
AMERICAN STANDARD
BUTTRESS Applications



Dimensions							IC908
Designation	TPIN ⁽¹⁾	TPIX ⁽²⁾	BW	PDX	S	RE	
FLTB-4LA	4.00	6.00	.255	.2047	.453	.0080	
FLTB-3LA	8.00	16.00	.195	.1654	.344	.0050	
FLTB-2R/LA	16.00	20.00	.150	.1260	.219	.0020	

⁽¹⁾ TPI min.

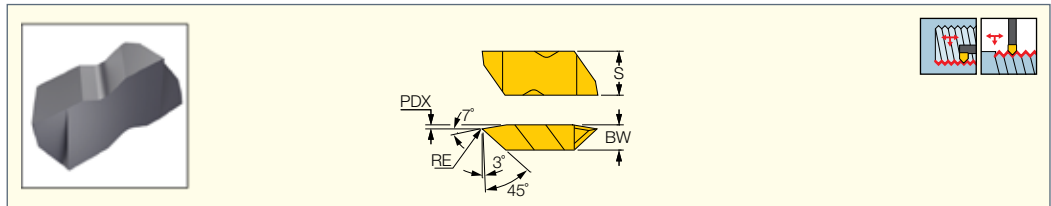
⁽²⁾ TPI max.

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTB-B

Double-Ended Precision
Threading Inserts for 45°
Lead AMERICAN STANDARD
BUTTRESS Applications



Dimensions							IC908
Designation	TPIN ⁽¹⁾	TPIX ⁽²⁾	BW	PDX	S	RE	
FLTB-4LB	4.00	6.00	.255	.0157	.453	.0080	
FLTB-3LB	8.00	16.00	.195	.0118	.344	.0050	
FLTB-2R/LB	16.00	20.00	.150	.0118	.219	.0020	

⁽¹⁾ TPI min.

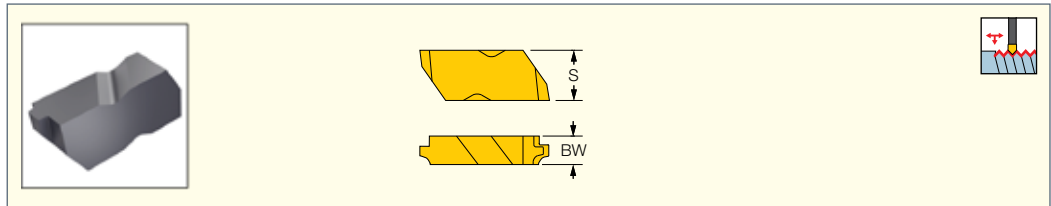
⁽²⁾ TPI max.

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-B-E

Double-Ended Precision
Threading Inserts for External
API BUTTRESS Applications



Dimensions					IC908
Designation	TPI ⁽¹⁾	IPF	BW	S	
FLDC-3-5B1E	5.0	1	.250	.344	
FLDC-3-5B75E	5.0	3/4	.250	.344	
FLDC-4-5B1E	5.0	1	.255	.453	
FLDC-4-5B75E	5.0	3/4	.255	.453	

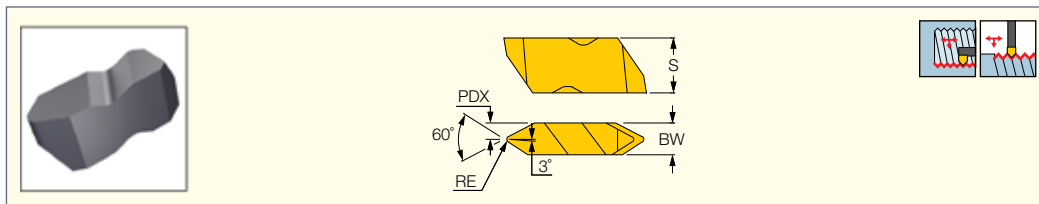
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLD

Double-Ended, Precision,
Partial Profile Threading
Inserts, for API Applications



Designation	Dimensions						IC908
	TPI ⁽¹⁾	BW	PDX	S	RE		
FLD-3038R/L	4.0	.195	.0820	.344	.0331		●
FLD-4038R/L	4.0	.255	.1280	.453	.0331		●
FLD-4050L	4.0	.255	.1280	.453	.0201		●
FLD-3040R/L	5.0	.195	.0820	.344	.0150		●
FLD-4040R/L	5.0	.255	.1280	.453	.0150		●

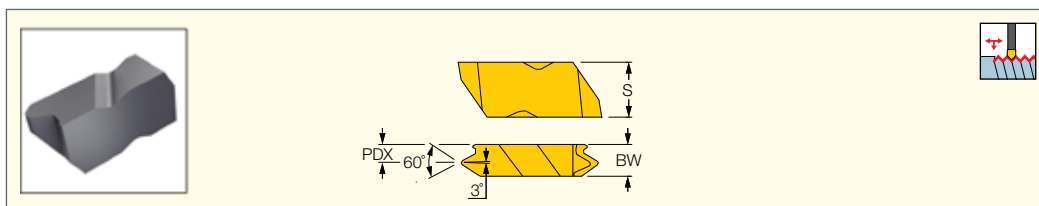
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLDC-E

Double-Ended Precision
Threading Inserts for
External API Rotary Shoulder
Connection Applications



Designation	Dimensions						IC908
	TPI ⁽¹⁾	BW	PDX	S	IPF		
FLDC-4-425E	4.0	.312	.1830	.453	2		●
FLDC-4-428E	4.0	.312	.1830	.453	2		●
FLDC-4-435E	4.0	.312	.1830	.453	3		●
FLDC-4-438E	4.0	.312	.1830	.453	3		●
FLDC-3-530E	5.0	.250	.1470	.344	3		●

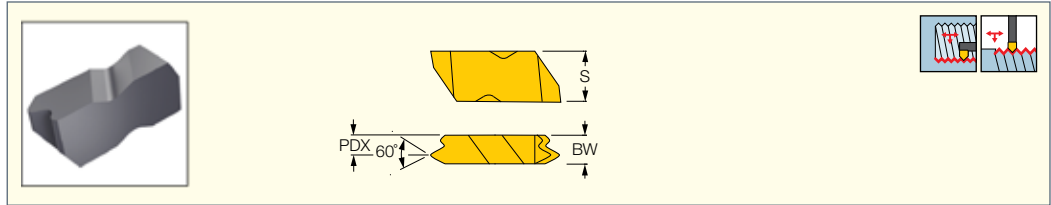
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-RD-75

Double-Ended Precision
Threading Inserts for API Round
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8RDR/L75	8.0	.125	.1969	.344	3/4	
FLDC-3-10RDR/L75	10.0	.125	.1969	.344	3/4	•

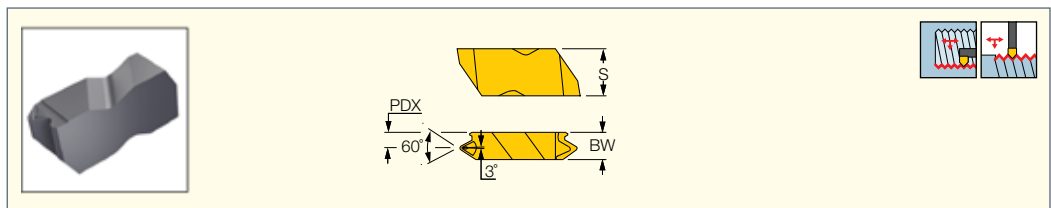
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-RD-75-CB

Double-Ended, Precision
Threading Inserts with a
Chipbreaker, for API
Round Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8RDR/L75-CB	8.0	.125	.1950	.344	3/4	

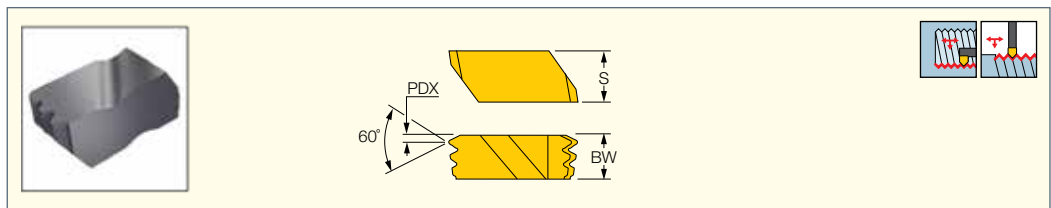
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-RD-75M

Double-Ended, Precision,
Multi-Tooth Threading Inserts,
for API Round Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-6-10RDR75	10.0	.383	.1339	.453	3/4	

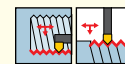
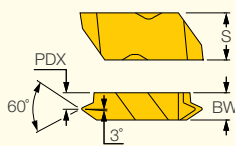
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-V-75

Double-Ended Precision
Threading Inserts for NPT
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8VR/L75	8.0	.195	.0984	.344	3/4	•
FLDC-3-115VR/L75	11.5	.195	.1457	.344	3/4	•
FLDC-3-14VR/L-75	14.0	.195	.1496	.344	3/4	•
FLDC-3-18VL-75	18.0	.195	.1535	.344	3/4	•
FLDC-3-27VR/L-75	27.0	.195	.1614	.344	3/4	•

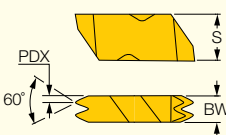
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-NPT-E

Double-Ended, Precision,
Multi-Tooth Threading
Inserts, for External NPT
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8NPT 2E	8.0	.250	.0590	.344	3/4	•
FLDC-3-11.5NPT-2E	11.5	.250	.0472	.344	3/4	•

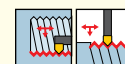
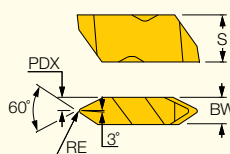
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLJ

Double-Ended Precision
Threading Inserts for UNJ
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	RE	
FLJ-3020R/L8	8.0	.195	.0980	.344	.0189	•
FLJ-3014R/L12	12.0	.195	.0980	.344	.0126	•
FLJ-3010R/L16	16.0	.195	.0980	.344	.0094	•

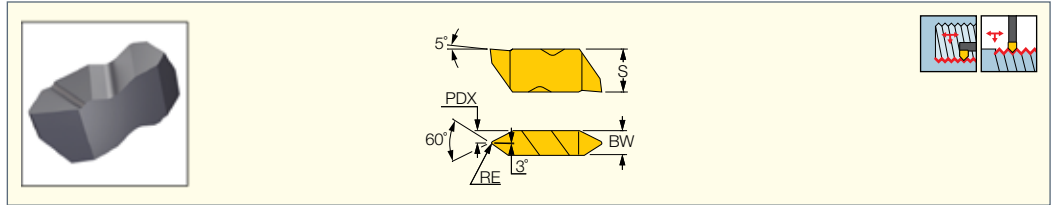
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLJP

Double-Ended, Precision
Threading Inserts with a
Positive Rake, for UNJ
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	RE	
FLJP-3020R/L8	8.0	.195	.0984	.344	.0189	●
FLJP-3014R/L12	12.0	.195	.0984	.344	.0126	●
FLJP-3010R/L16	16.0	.195	.0984	.344	.0094	●

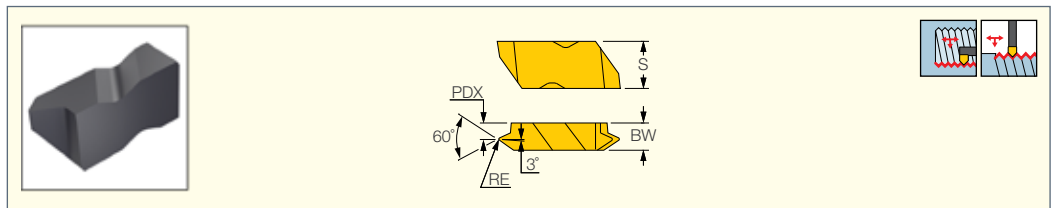
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLJF

Double-Ended, Precision
Threading Inserts, for Cutting
UNJ Fine Pitch Thread
Close to Shoulders



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	RE	
FLJF-3012R/L14	14.0	.195	.1410	.344	.0106	●
FLJF-3010R/L16	16.0	.195	.1417	.344	.0094	●
FLJF-3009R/L18	18.0	.195	.1417	.344	.0083	●
FLJF-3008R/L20	20.0	.195	.1417	.344	.0075	●
FLJF-3007R/L24	24.0	.195	.1417	.344	.0063	●
FLJF-3006R/L28	28.0	.195	.1417	.344	.0055	●
FLJF-3005R/L32	32.0	.195	.1417	.344	.0047	●

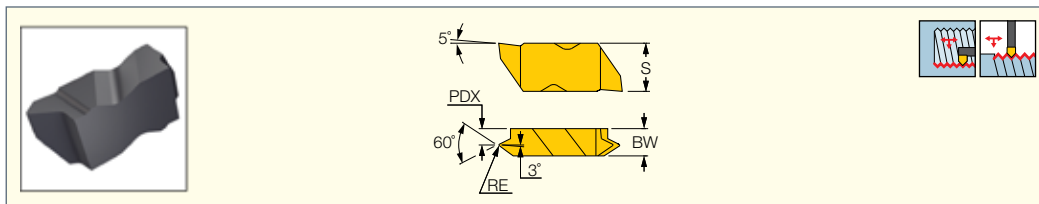
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLJK

Double-Ended, Precision Threading Inserts, with a Positive Rake, for Cutting UNJ Fine Pitch Thread



Designation	Dimensions						IC908
	TPI ⁽¹⁾	BW	PDX	S	RE		
FLJK-3012R/L14	14.0	.195	.1410	.344	.0106		●
FLJK-3010R/L16	16.0	.195	.1417	.344	.0094		●
FLJK-3009R/L18	18.0	.195	.1417	.344	.0083		●
FLJK-3008R/L20	20.0	.195	.1417	.344	.0075		●
FLJK-3007R/L24	24.0	.195	.1417	.344	.0063		●
FLJK-3006R/L28	28.0	.195	.1417	.344	.0055		●
FLJK-3005R/L32	32.0	.195	.1417	.344	.0047		●

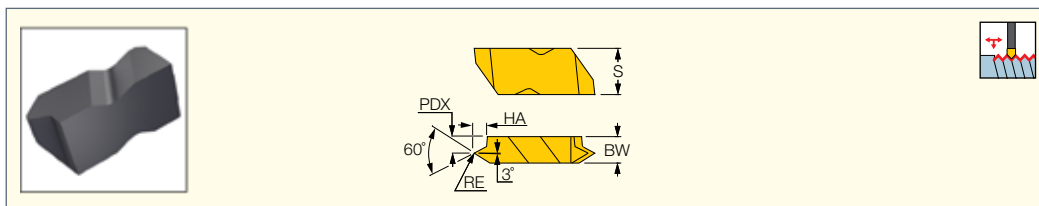
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTC-E

Double-Ended, Precision, Full Profile Threading Inserts, for UN External Thread Applications



Designation	Dimensions						IC908
	TPI ⁽¹⁾	BW	PDX	S	HA	RE	
FLTC-3R/L7E	7.0	.195	.1063	.344	.108	.0169	●
FLTC-3R/L8E	8.0	.195	.1063	.344	.094	.0150	●
FLTC-3R/L9E	9.0	.195	.1063	.344	.084	.0130	●
FLTC-3R/L10E	10.0	.195	.1063	.344	.076	.0118	●
FLTC-3R/L11E	11.0	.195	.1063	.344	.069	.0110	●
FLTC-3R/L12E	12.0	.195	.1496	.344	.051	.0098	●
FLTC-3R/L14E	14.0	.195	.1496	.344	.054	.0091	●
FLTC-3R/L16E	16.0	.195	.1496	.344	.046	.0079	●
FLTC-3R/L18E	18.0	.195	.1496	.344	.041	.0071	●
FLTC-3R/L20E	20.0	.195	.1496	.344	.037	.0059	●
FLTC-3R/L24E	24.0	.195	.1496	.344	.031	.0051	●
FLTC-3R/L28E	28.0	.195	.1496	.344	.023	.0031	●
FLTC-3R/L32E	32.0	.195	.1496	.344	.021	.0031	●

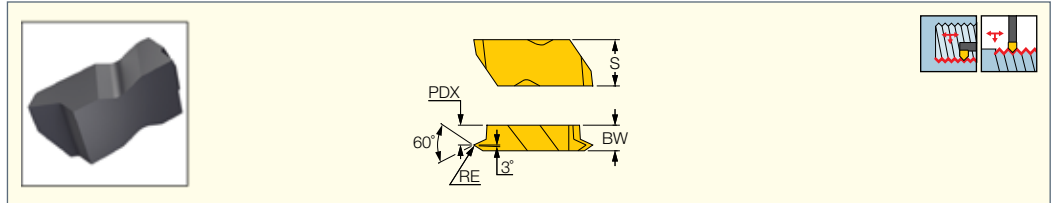
⁽¹⁾ Threads per inch

NOTCHGRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTF

Double-Ended, Precision
Threading Inserts, for 60° Fine
Pitch Threading Applications



Designation	Dimensions									IC908
	TTP	TPIN ⁽¹⁾	TPIX ⁽²⁾	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLTF-2R/L	BOTH	12.00	24.00	14.00	44.00	.0030	.1102	.150	.219	●
FLTF-3R/L	BOTH	9.00	24.00	10.00	44.00	.0030	.1417	.195	.344	●
FLTF-4R/L	BOTH	9.00	24.00	10.00	44.00	.0030	.2008	.255	.453	●

• For 60° V-thread limits, see page

(1) TPI int. min.

(2) TPI int. max.

(3) TPI ext. min.

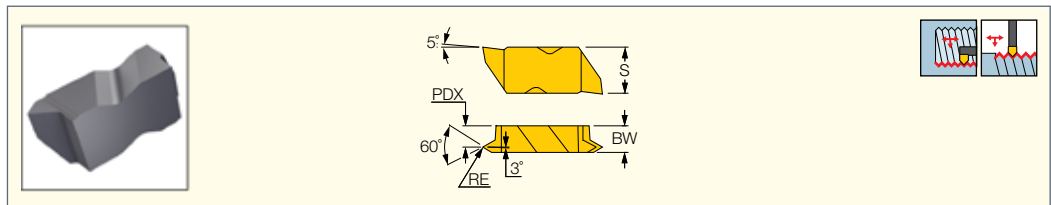
(4) TPI ext. max.

NOTCHGRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTK

Double-Ended, Precision Positive
Rake Threading Inserts, for 60°
Fine Pitch Threading Applications



Designation	Dimensions									IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	TTP	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLTK-3R/L	9.00	24.00	BOTH	10.00	44.00	.0030	.1417	.195	.344	●
FLTK-4R/L	9.00	24.00	BOTH	10.00	44.00	.0030	.2008	.255	.453	●
FLTK-2R/L	12.00	24.00	BOTH	14.00	44.00	.0030	.1102	.150	.219	●

• For 60° V-thread limits, see page

(1) TPI int. min.

(2) TPI int. max.

(3) TPI ext. min.

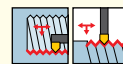
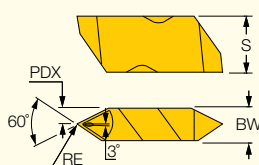
(4) TPI ext. max.

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLT-CB

Double-Ended Precision
Threading Inserts with
Chipbreakers, for 60° Coarse and
Fine Pitch Threading Applications



Designation	Dimensions									IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	TTP	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLT-4R/L-HCB	4.00	12.00	BOTH	4.00	20.00	.0065	.1299	.255	.453	●
FLT-3R/LC-HCB	5.00	6.00	BOTH	6.00	11.00	.0135	.0984	.195	.344	●
FLT-3R/L-HCB	5.00	12.00	BOTH	6.00	20.00	.0065	.0984	.195	.344	●
FLT-3R/L-FCB	7.00	20.00	BOTH	8.00	36.00	.0040	.0984	.195	.344	●
FLT-3R/L-CB	8.00	12.00	BOTH	8.00	20.00	.0065	.0984	.195	.344	●

⁽¹⁾ TPI int. min.

⁽²⁾ TPI int. max.

⁽³⁾ TPI ext. min.

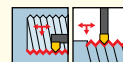
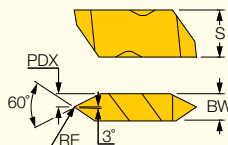
⁽⁴⁾ TPI ext. max.

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLT

Double-Ended, Precision
Threading Inserts, for 60°
Threading Applications



Designation	Dimensions									IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	TTP	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLT-4R/L	4.00	12.00	BOTH	4.00	20.00	.0065	.1299	.255	.453	●
FLT-3R/L	5.00	12.00	BOTH	6.00	20.00	.0040	.0984	.195	.344	●
FLT-3010R/L	5.00	12.00	BOTH	6.00	18.00	.0100	.0984	.195	.344	●
FLT-2R/L	7.00	20.00	BOTH	8.00	36.00	.0040	.0748	.150	.219	●

⁽¹⁾ TPI int. min.

⁽²⁾ TPI int. max.

⁽³⁾ TPI ext. min.

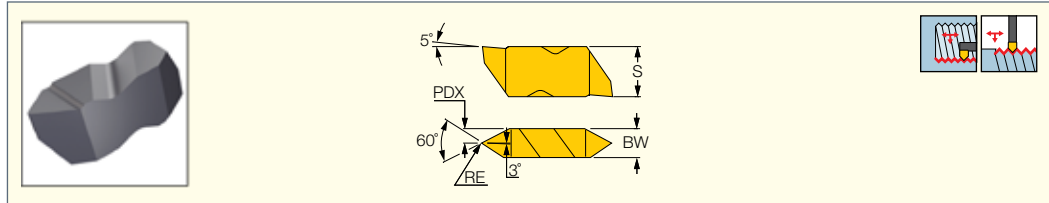
⁽⁴⁾ TPI ext. max.

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTP

Double-Ended, Precision Positive
Rake Threading Inserts, for
60° Threading Applications



Designation	Dimensions									IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	TTP	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLTP-4R/L	4.00	12.00	BOTH	4.00	20.00	.0065	.1299	.256	.453	●
FLTP-3R/L	5.00	12.00	BOTH	6.00	20.00	.0065	.0984	.197	.344	●
FLTP-2R/L	7.00	20.00	BOTH	8.00	36.00	.0040	.0748	.150	.219	●

⁽¹⁾ TPI int. min.

⁽²⁾ TPI int. max.

⁽³⁾ TPI ext. min.

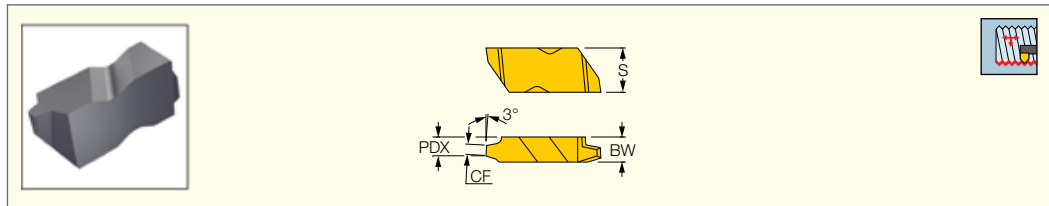
⁽⁴⁾ TPI ext. max.

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLA-PT-I

Double-Ended Precision
Internal Threading Inserts
for Partial Topping ACME
Threading Applications



Designation	Dimensions					IC908
	TPI ⁽¹⁾	CF	BW	PDX	S	
FLA-6L2-PT-I	2.0	.180	.383	.2835	.453	●
FLA-6L2.5-PT-I	2.5	.143	.383	.2835	.453	●
FLA-6L3-PT-I	3.0	.118	.383	.2835	.453	●
FLA-3L4-PT-I	4.0	.087	.195	.1339	.344	●
FLA-4L4-PT-I	4.0	.087	.255	.2008	.453	●
FLA-3L5-PT-I	5.0	.069	.195	.1496	.344	●
FLA-4L5-PT-I	5.0	.069	.255	.2008	.453	●
FLA-3L6-PT-I	6.0	.057	.195	.1496	.344	●
FLA-4L6-PT-I	6.0	.057	.255	.2008	.453	●
FLA-3L8-PT-I	8.0	.041	.195	.1496	.344	●
FLA-4L8-PT-I	8.0	.041	.255	.2008	.453	●
FLA-3L10-PT-I	10.0	.032	.195	.1496	.344	●
FLA-3L12-PT-I	12.0	.028	.195	.1496	.344	●
FLA-3L14-PT-I	14.0	.024	.195	.1496	.344	●
FLA-3L16-PT-I	16.0	.020	.195	.1496	.344	●

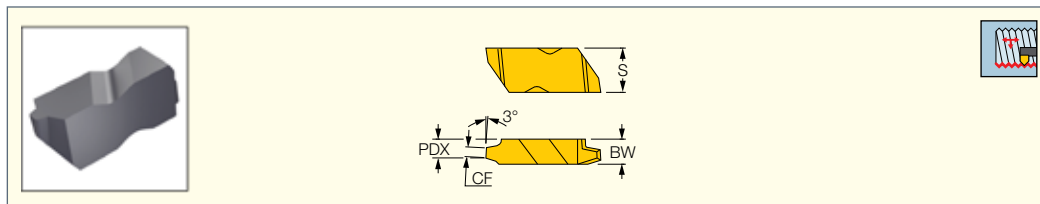
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLAS-PT-I

Double-Ended Precision
Internal Threading Inserts for
Partial Topping STUB ACME
Threading Applications



Designation	Dimensions					IC908
	TPI ⁽¹⁾	CF	BW	PDX	S	
FLAS-6L2-PT-I	2.0	.206	.383	.2835	.453	●
FLAS-4L3-PT-I	3.0	.135	.255	.2008	.453	●
FLAS-3L4-PT-I	4.0	.100	.195	.1496	.344	●
FLAS-3L5-PT-I	5.0	.079	.195	.1496	.344	●
FLAS-3L6-PT-I	6.0	.065	.195	.1496	.344	●
FLAS-3L8-PT-I	8.0	.048	.195	.1496	.344	●
FLAS-3L10-PT-I	10.0	.037	.195	.1496	.344	●
FLAS-3L12-PT-I	12.0	.033	.195	.1496	.344	●
FLAS-3L14-PT-I	14.0	.028	.195	.1496	.344	●
FLAS-3L16-PT-I	16.0	.024	.195	.1496	.344	●

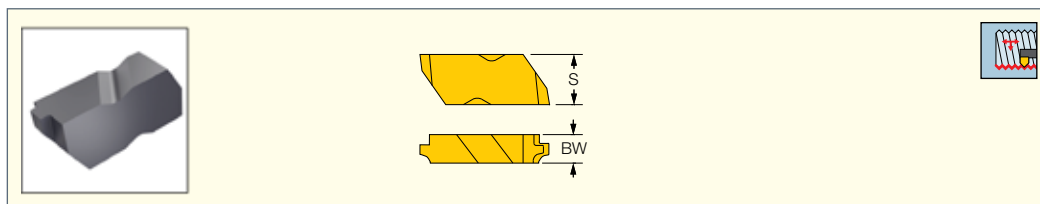
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-B-I

Double-Ended Precision
Threading Inserts for Internal
API BUTTRESS Applications



Designation	Dimensions				IC908
	TPI ⁽¹⁾	IPF	BW	S	
FLDC-3-5B1I	5.0	1	.250	.344	●
FLDC-3-5B75I	5.0	3/4	.250	.344	●
FLDC-4-5B1I	5.0	1	.255	.453	●
FLDC-4-5B75I	5.0	3/4	.255	.453	●

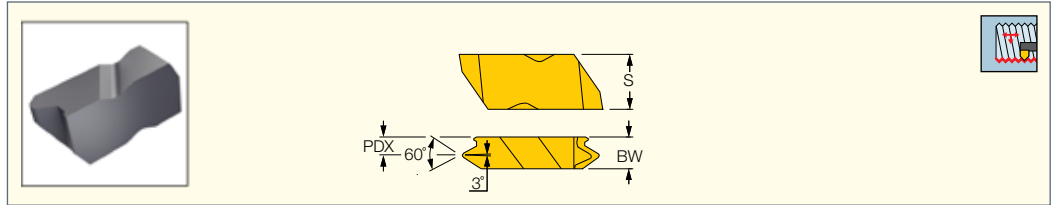
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-I

Double-Ended Precision
Threading Inserts for
Internal API Rotary Shoulder
Connection Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-4-425I	4.0	.312	.1830	.453	2	●
FLDC-4-428I	4.0	.312	.1830	.453	2	●
FLDC-4-435I	4.0	.312	.1830	.453	3	●
FLDC-4-438I	4.0	.312	.1830	.453	3	●
FLDC-3-530I	5.0	.250	.1470	.344	3	●

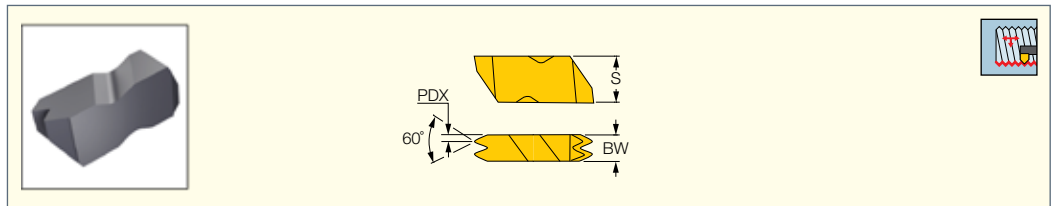
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-NPT-I

Double-Ended, Precision,
Multi-Tooth Threading
Inserts, for Internal NPT
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8NPT-2I	8.0	.250	.0590	.344	3/4	●
FLDC-3-11.5NPT-2I	11.5	.250	.0472	.344	3/4	●

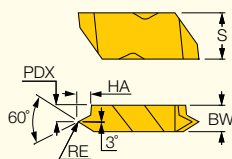
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLTC-I

Double-Ended, Precision, Full
Profile Threading Inserts, for UN
Internal Thread Applications



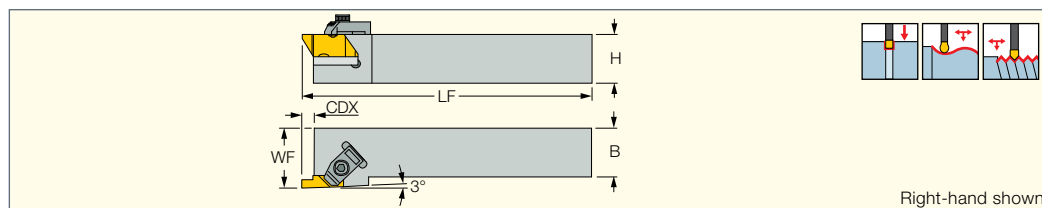
Designation	Dimensions						IC908
	TPI ⁽¹⁾	BW	PDX	S	RE	HA	
FLTC-3R/L7I	7.0	.195	.1063	.344	.0091	.092	●
FLTC-3R/L8I	8.0	.195	.1063	.344	.0071	.081	●
FLTC-3R/L9I	9.0	.195	.1063	.344	.0059	.072	●
FLTC-3R/L10I	10.0	.195	.1063	.344	.0051	.065	●
FLTC-3R/L11I	11.0	.195	.1063	.344	.0051	.059	●
FLTC-3R/L12I	12.0	.195	.1496	.344	.0039	.048	●
FLTC-3R/L14I	14.0	.195	.1480	.344	.0031	.044	●
FLTC-3R/L16I	16.0	.195	.1480	.344	.0031	.040	●
FLTC-3R/L18I	18.0	.195	.1480	.344	.0031	.036	●
FLTC-3R/L20I	20.0	.195	.1480	.344	.0031	.031	●
FLTC-3R/L24I	24.0	.195	.1480	.344	.0031	.026	●
FLTC-3R/L28I	28.0	.195	.1480	.344	.0031	.023	●

⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

FLSR/L

Tools for External Grooving
and Threading Inserts



Right-hand shown

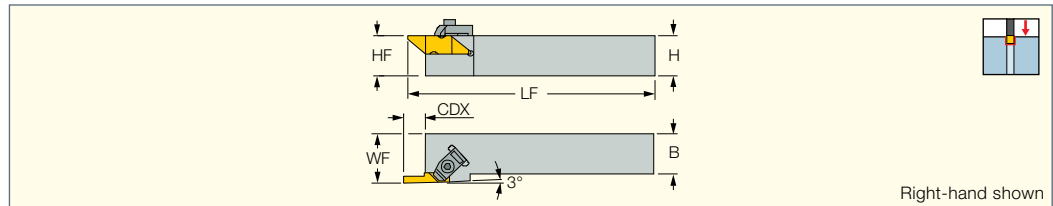
Designation	SSC ⁽¹⁾	H	B	CDX	WF	LF	Insert
FLSR/L-62	2.0	.375	.375	.140	.560	2.500	FL/IN_-2L
FLSR/L-82V	2.0	.500	.500	.140	.750	3.500	FL/IN_-2L
FLSR-102B	2.0	.625	.625	.140	1.000	4.500	FL/IN_-2R
FLSR/L-122B	2.0	.750	.750	.140	1.000	4.500	FL/IN_-2L
FLSR/L-162C	2.0	1.000	1.000	.140	1.250	5.000	FL/IN_-2L
FLSR/L-123B	3.0	.750	.750	.210	1.000	4.500	FL/IN_-3L
FLSR/L-163C	3.0	1.000	1.000	.210	1.250	5.000	FL/IN_-3L
FLSL-163D	3.0	1.000	1.000	.210	1.250	6.000	FL/IN_-3L
FLSR/L-203D	3.0	1.250	1.250	.210	1.500	6.000	FL/IN_-3L
FLSR/L-164D	4.0	1.000	1.000	.290	1.250	6.000	FL/IN_-4L
FLSR/L-204D	4.0	1.250	1.250	.290	1.500	6.000	FL/IN_-4L
FLSR/L-205D	5.0	1.250	1.250	.400	1.500	6.000	FL/IN_-5L
FLSR/L-206D	6.0	1.250	1.250	.290	1.500	6.000	FL/IN_-6L

⁽¹⁾ Seat size code

NOTCH-GRIP

FLSR/LT

External Tools for Deep
Grooving Inserts



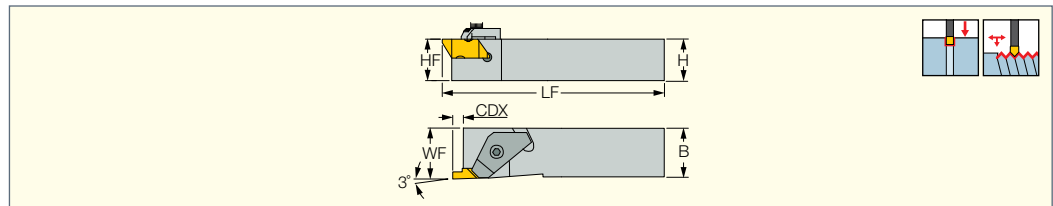
Designation	SSC ⁽¹⁾	H	HF	B	CDX	WF	LF	Insert
FLSR/LT-163D	3.0	1.000	1.000	1.000	.440	1.250	6.440	INGT-3L
FLSR/LT-203D	3.0	1.250	1.250	1.250	.440	1.500	6.440	INGT-3L
FLSR/LT-164D	4.0	1.000	1.000	1.000	.560	1.250	6.560	INGT-4L
FLSR/LT-204D	4.0	1.250	1.250	1.250	.560	1.500	6.560	INGT-4L

⁽¹⁾ Seat size code

NOTCH-GRIP

ISCARTHREAD

FLASR/L
External Tools for Grooving
and Threading for Swiss-
type Machines



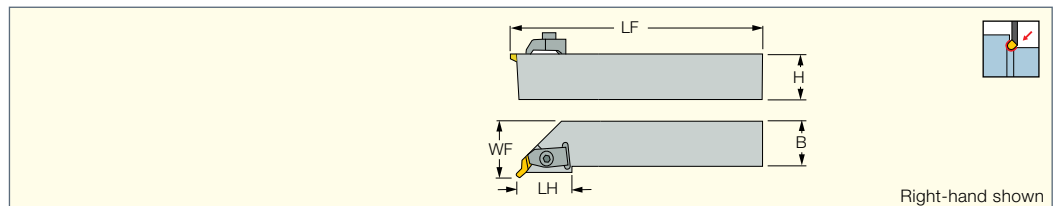
Designation	SSC ⁽¹⁾	H	HF	B	CDX	WF	LF	Insert
FLASR/L-062D	2.0	.375	.375	.375	.138	.380	6.000	FL/IN_-2
FLASR/L-082D	2.0	.500	.500	.500	.138	.500	6.000	FL/IN_-2
FLASR/L-102B	2.0	.625	.625	.625	.138	.630	4.500	FL/IN_-2
FLASR/L-103B	3.0	.625	.625	.625	.210	.630	4.500	FL/IN_-3

⁽¹⁾ Seat size code

NOTCH-GRIP

FLRR/L

External Tools for 45°
Undercutting



Designation	SSC ⁽¹⁾	H	B	WF	LH	LF	Insert
FLRR/L-163D	3.0	1.000	1.000	1.250	1.250	6.000	INU-3
FLRR-123B	3.0	.750	.750	1.000	1.250	4.500	INU-3
FLRR-203D	3.0	1.250	1.250	1.500	1.250	6.000	INU-3

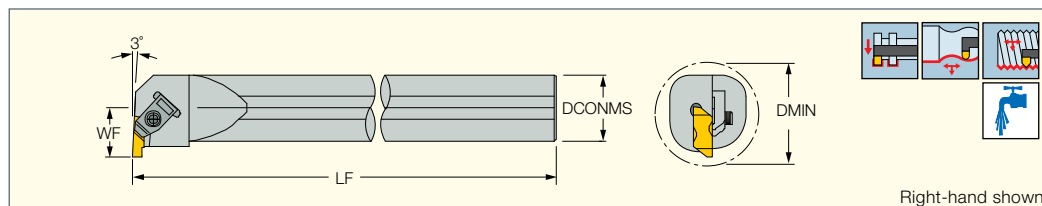
⁽¹⁾ Seat size code

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

A-FLER/L

Internal Grooving and Threading
Bars with Coolant Channels



Right-hand shown

Designation	SSC ⁽¹⁾	DCONMS	DMIN	WF	LF	Insert
A08-FLER/L2	2.0	.500	.730	.440	8.000	FL/IN-2
A16-FLER/L3	3.0	1.000	1.375	.690	12.000	FL/IN-3
A10-FLER2	2.0	.625	1.000	.500	10.000	FL/IN-2
A20-FLER/L3	3.0	1.250	1.750	.880	14.000	FL/IN-3
A12-FLER/L2	2.0	.750	1.125	.560	10.000	FL/IN-2
A24-FLER/L3	3.0	1.500	2.000	1.000	14.000	FL/IN-3
A16-FLER/L2	2.0	1.000	1.375	.690	12.000	FL/IN-2
A28-FLER3	3.0	1.750	2.250	1.130	14.000	FL/IN-3
A32-FLER/L3	3.0	2.000	2.500	1.250	16.000	FL/IN-3
A28-FLER/L4	4.0	1.750	2.250	1.250	16.000	FL/IN-4
A32-FLER/L4	4.0	2.000	2.750	1.300	16.000	FL/IN-4
A32-FLER5	5.0	2.000	2.812	1.410	16.000	FL/IN-5
A32-FLER6	6.0	2.000	2.750	1.380	16.000	FL/IN-6

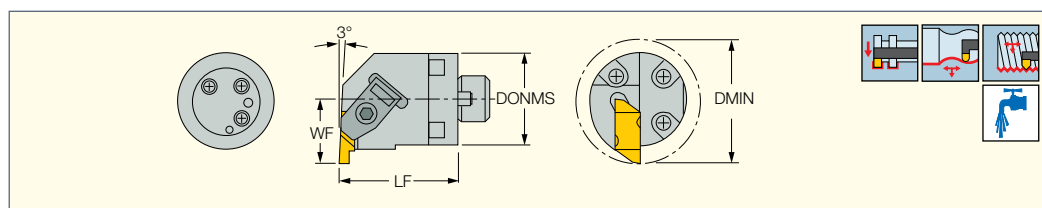
• Use left-hand inserts on right-hand tools and vice versa

⁽¹⁾ Seat size code

NOTCH-GRIP
GROOVE-TURN LINE

H-FLER

Grooving and Threading
Interchangeable Heads (H-Type)



Designation	SSC ⁽¹⁾	DCONMS	DMIN	WF	LF	Insert
H20-FLER3W	3.0	1.250	1.750	.880	1.625	FL/IN-3L
H24-FLER3W	3.0	1.500	2.000	1.000	1.625	FL/IN-3L
H28-FLER3W	3.0	1.750	2.250	1.130	1.625	FL/IN-3L
H32-FLER3W	3.0	2.000	2.500	1.250	1.625	FL/IN-3L
H40-FLER3W	3.0	2.500	3.000	1.500	1.625	FL/IN-3L
H28-FLER4W	4.0	1.750	2.500	1.250	1.625	FL/IN-4L
H32-FLER4W	4.0	2.000	2.750	1.380	1.625	FL/IN-4L
H36-FLER4W	4.0	2.250	3.000	1.500	1.625	FL/IN-4L
H40-FLER4W	4.0	2.500	3.250	1.630	1.625	FL/IN-4L
H28-FLER6W	6.0	1.750	2.500	1.250	1.625	FL/IN-6L
H32-FLER6W	6.0	2.000	2.750	1.380	1.625	FL/IN-6L
H40-FLER6W	6.0	2.500	3.250	1.630	1.625	FL/IN-6L

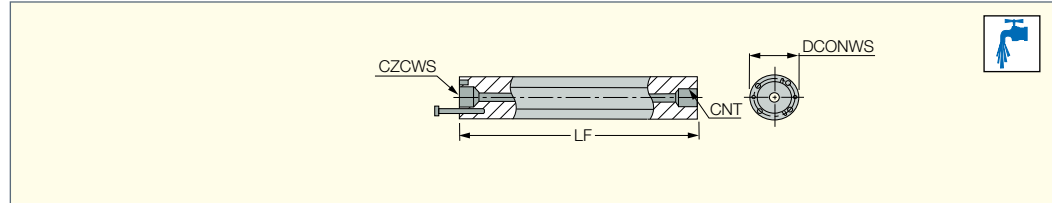
• Use left-hand inserts on right-hand tools and vice versa • Compatible with standard market adaptation

⁽¹⁾ Seat size code

Straight Shank

S-4400W

Steel Shanks with Through
Coolant for H-Type
Interchangeable Heads



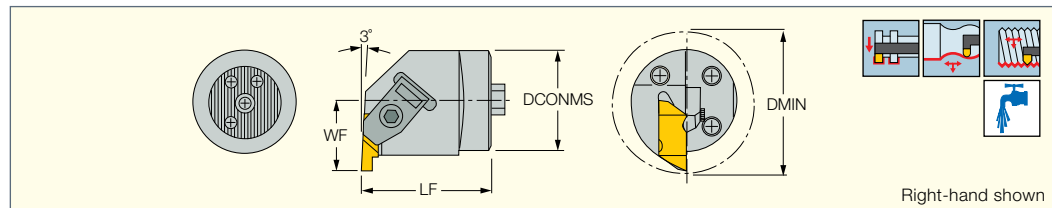
Designation	DCONWS	LF	CZCWS ⁽¹⁾	CNT
S-4416W	1.000	9.000	H16	1/4-18NPT
S-4424W	1.500	10.000	H24	3/8-18NPT
S-4428W	1.750	12.000	H28	3/8-18NPT
S-4432W	2.000	13.000	H32	3/8-18NPT
S-4440W	2.500	17.000	H40	3/8-18NPT

⁽¹⁾ Connection size code workpiece side

NOTCHGRIP GROOVE-TURN LINE

HS-FLER

Grooving and Threading
Interchangeable Heads (HS-Type)



Right-hand shown

Designation	SSC ⁽¹⁾	DCONMS	DMIN	WF	LF	Insert
HS32-FLER3W	3.0	1.250	1.730	.870	1.340	FL/IN-3L
HS40-FLER3W	3.0	1.570	2.210	1.100	1.580	FL/IN-3L
HS50-FLER3W	3.0	1.970	2.760	1.380	1.650	FL/IN-3L
HS50-FLER4W	4.0	1.970	2.760	1.380	1.650	FL/IN-4L
HS60-FLER4W	4.0	2.360	3.480	1.740	1.750	FL/IN-4L

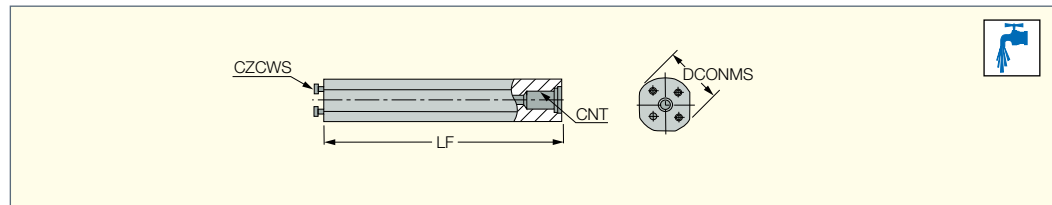
• Lefthand heads on request • Use left-hand inserts on right-hand tools and vice versa • Compatible with standard market adaptation

⁽¹⁾ Seat size code

Straight Shank

S-570

Steel Shanks with Through
Coolant for HS-Type
Interchangeable Heads



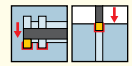
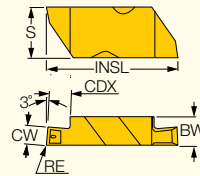
Designation	DCONMS	LF	CZCWS ⁽¹⁾	CNT
S-570-10-16	.625	4.210	HS16	1/8 - 27NPT
S-570-12-20	.750	5.200	HS20	1/4 - 18NPT
S-570-16-25	1.000	7.200	HS25	1/4 - 18NPT
S-570-20-32	1.250	8.740	HS32	3/8 - 18NPT
S-570-24-40	1.500	10.750	HS40	1/2 - 14NPT
S-570-32-50	2.000	14.410	HS50	1/2 - 14NPT

⁽¹⁾ Connection size code workpiece side

Metric Measurements

NOTCH-GRIP
GROOVE-TURN LINE



NOTCH GRIP
GROOVE-TURN LINE**ING-RCB/LCB**Precision Double-Ended Grooving
Inserts with a Chipformer

Right-hand shown

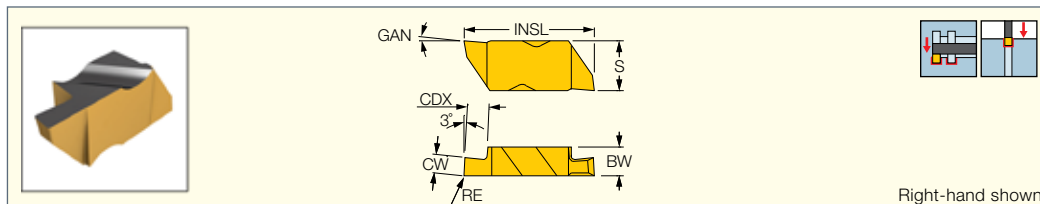
Designation	Dimensions								IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL		
ING3031R/LCB (0.79)	0.79	0.025	0.09	0.031	8.74	1.27	4.95	22.61	●	0.03-0.05
ING2M100R/LCB (1.00)	1.00	0.025	0.19	0.063	5.56	0.15	3.81	13.06	●	0.04-0.06
ING3M100R/LCB (1.00)	1.00	0.025	0.19	0.063	8.74	1.90	4.95	22.60	●	0.04-0.06
ING3M120R/LCB (1.20)	1.20	0.025	0.19	0.063	8.74	1.90	4.95	22.60	●	0.04-0.06
ING3047R/LCB (1.19)	1.19	0.025	0.19	0.063	8.74	1.90	4.95	22.60	●	0.04-0.06
ING2M150R/LCB (1.50)	1.50	0.025	0.19	0.063	5.56	2.79	3.81	13.05	●	0.05-0.08
ING3M150R/LCB (1.50)	1.50	0.025	0.19	0.063	8.74	3.05	4.95	22.60	●	0.05-0.08
ING2062R/LCB (1.57)	1.57	0.025	0.19	0.063	5.56	2.79	3.81	13.05	●	0.05-0.08
ING3062R/LCB (1.57)	1.57	0.025	0.19	0.063	8.74	3.05	4.95	22.60	●	0.05-0.08
ING3M175R/LCB (1.75)	1.75	0.025	0.19	0.063	8.74	3.05	4.95	22.60	●	0.05-0.09
ING3072R/LCB (1.83)	1.83	0.025	0.19	0.063	8.74	3.05	4.95	22.60	●	0.05-0.09
ING3078R/LCB (1.98)	1.98	0.025	0.19	0.063	8.74	3.05	4.95	22.60	●	0.05-0.10
ING2M200R/LCB (2.00)	2.00	0.025	0.19	0.063	5.56	2.79	3.81	13.05	●	0.05-0.10
ING3M200R/LCB (2.00)	2.00	0.025	0.19	0.063	8.74	3.05	4.95	22.60	●	0.05-0.10
ING2094R/LCB (2.39)	2.39	0.025	0.19	0.063	5.56	2.79	3.81	13.05	●	0.06-0.10
ING3094R/LCB (2.39)	2.39	0.025	0.19	0.063	8.74	4.57	4.95	22.60	●	0.06-0.10
ING3M250R/LCB (2.50)	2.50	0.025	0.19	0.063	8.74	4.57	4.95	22.60	●	0.06-0.10
ING3M300R/LCB (3.00)	3.00	0.025	0.19	0.063	8.74	4.57	4.95	22.60	●	0.09-0.14
ING2125R/LCB (3.18)	3.18	0.025	0.19	0.063	5.56	2.79	3.81	13.05	●	0.09-0.14
ING3125R/LCB (3.18)	3.18	0.025	0.19	0.063	8.74	4.57	4.95	22.60	●	0.09-0.14
ING4125R/LCB (3.18)	3.18	0.025	0.19	0.063	11.51	6.35	6.48	28.49	●	0.09-0.14
ING3M400R/LCB (4.00)	4.00	0.025	0.32	0.063	8.74	4.57	4.95	22.58	●	0.12-0.20
ING3189R/LCB (4.80)	4.80	0.025	0.57	0.063	8.74	4.57	4.95	22.56	●	0.12-0.22
ING4189R/LCB (4.80)	4.80	0.025	0.57	0.063	11.51	6.35	6.48	28.45	●	0.12-0.22
ING4250R/LCB (6.35)	6.35	0.025	0.57	0.063	11.51	6.35	6.48	28.45	●	0.12-0.25

⁽¹⁾ Cutting width tolerance (+/-)⁽²⁾ Corner radius tolerance (+/-)

NOTCH GRIP
GROOVE-TURN LINE

ING/INGP-R/L

Precision Double-Ended
Flat Top Grooving Inserts



Right-hand shown

Designation	Dimensions									Tough ↔ Hard		Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	GAN	S	CDX	BW	INSL	IC808	IC807	
INGP2031R/L (0.79)	0.79	0.025	0.09	0.031	5.0	5.56	1.27	3.81	13.06		●	0.02-0.04
ING2031R/L (0.79)	0.79	0.025	0.09	0.031	0.0	5.56	1.27	3.81	13.06		●	0.02-0.04
ING2041R/L (1.04)	1.04	0.025	0.09	0.031	0.0	5.56	1.27	3.81	13.06		●	0.03-0.05
ING2047R/L (1.19)	1.19	0.025	0.09	0.031	0.0	5.56	1.27	3.81	13.06		●	0.03-0.05
INGP2062R/L (1.57)	1.57	0.025	0.19	0.063	5.0	5.56	2.79	3.81	13.05		●	0.04-0.06
ING2062R/L (1.57)	1.57	0.025	0.19	0.063	0.0	5.56	2.79	3.81	13.05		●	0.04-0.06
ING2094R/L (2.39)	2.39	0.025	0.19	0.063	0.0	5.56	2.79	3.81	13.05		●	0.05-0.08
ING2125R/L (3.18)	3.18	0.025	0.19	0.063	0.0	5.56	2.79	3.81	13.05		●	0.08-0.12
ING3031R/L (0.79)	0.79	0.025	0.09	0.031	0.0	8.65	1.27	4.95	22.86	●		0.02-0.04
INGP3047R/L (1.19)	1.19	0.025	0.19	0.063	5.0	8.74	1.90	4.95	22.60		●	0.03-0.05
ING3047R/L (1.19)	1.19	0.025	0.19	0.063	0.0	8.65	1.91	4.95	22.86	●		0.03-0.05
ING3058R/L (1.47)	1.47	0.025	0.19	0.063	0.0	8.65	2.39	4.95	22.86	●		0.03-0.05
INGP3062R/L (1.57)	1.57	0.025	0.19	0.063	5.0	8.74	3.05	4.95	22.60		●	0.04-0.06
ING3062R/L (1.58)	1.58	0.025	0.19	0.063	0.0	8.65	2.39	4.95	22.86	●		0.04-0.06
ING3072R/L (1.83)	1.83	0.025	0.19	0.063	0.0	8.65	2.39	4.95	22.86	●		0.04-0.08
ING3078R/L (1.98)	1.98	0.025	0.19	0.063	0.0	8.65	2.39	4.95	22.86	●		0.04-0.09
ING3088R/L (2.24)	2.24	0.025	0.19	0.063	0.0	8.65	2.39	4.95	22.86	●		0.05-0.09
INGP3094R/L (2.39)	2.39	0.025	0.19	0.063	5.0	8.74	4.57	4.95	22.60		●	0.05-0.08
ING3094R/L (2.39)	2.39	0.025	0.19	0.063	0.0	4.95	3.81	4.95	22.86	●		0.05-0.09
ING3097R/L (2.46)	2.46	0.025	0.32	0.063	0.0	4.95	3.81	4.95	22.86	●		0.06-0.10
ING3105R/L (2.67)	2.67	0.025	0.19	0.063	0.0	4.95	3.81	4.95	22.86	●		0.07-0.11
ING3110R/L (2.79)	2.79	0.025	0.32	0.063	0.0	4.95	3.81	4.95	22.86	●		0.07-0.11
ING3122R/L (3.10)	3.10	0.025	0.19	0.063	0.0	4.95	3.81	4.95	22.86	●		0.07-0.12
INGP3125R/L (3.18)	3.18	0.025	0.19	0.063	5.0	4.95	4.57	4.95	22.60		●	0.08-0.12
ING3125R/L (3.18)	3.18	0.025	0.19	0.063	0.0	8.65	3.81	4.95	22.86	●		0.08-0.13
ING3142R/L (3.61)	3.61	0.025	0.32	0.063	0.0	8.65	3.81	4.95	22.86	●		0.09-0.15
ING3156R/L (3.96)	3.96	0.025	0.19	0.063	0.0	8.65	3.81	4.95	22.86	●		0.10-0.20
ING3178R/L (4.52)	4.52	0.025	0.19	0.063	0.0	8.65	3.81	4.95	22.86	●		0.11-0.21
ING3185R/L (4.70)	4.70	0.025	0.57	0.063	0.0	8.65	3.81	4.95	22.86	●		0.11-0.22
ING3189R/L (4.80)	4.80	0.025	0.57	0.063	0.0	8.65	3.81	4.95	22.86	●		0.11-0.22
ING4125R/L (3.18)	3.18	0.025	0.19	0.063	0.0	11.51	6.35	6.48	28.49		●	0.08-0.12
ING4189R/L (4.80)	4.80	0.025	0.57	0.063	0.0	11.51	6.35	6.48	28.45		●	0.10-0.20
ING4250R/L (6.35)	6.35	0.025	0.57	0.063	0.0	11.51	6.35	6.48	28.45		●	0.10-0.22

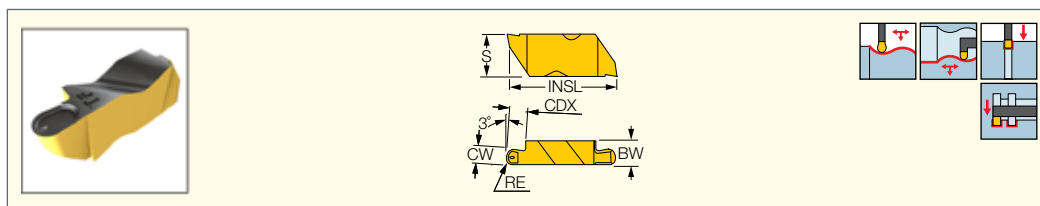
⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

NOTCH GRIP
GROOVE-TURN LINE

INR-RCB/LCB

Precision, Double-Ended
Full Radius Grooving Inserts
with a Chipformer



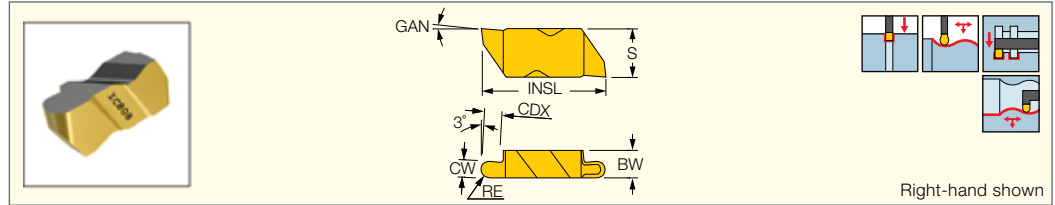
Designation	Dimensions							IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	S	CDX	BW	INSL		
INR3062R/LCB (3.18)	3.18	0.025	1.57	8.74	4.57	4.95	22.46	●	f groove (mm/rev) 0.07-0.12

⁽¹⁾ Cutting width tolerance (+/-)

NOTCH-GRIP
GROOVE-TURN LINE

INR/INRP-R/L

Precision Double-Ended Flat
Top Round Grooving Inserts



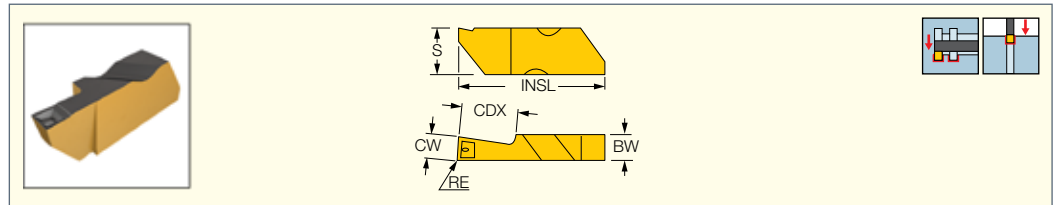
Designation	Dimensions							Tough ↔ Hard		Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	S	CDX	BW	INSL	IC808	IC807	
INR2031R/L (1.57)	1.57	0.025	0.78	5.56	2.79	3.81	12.98		●	0.03-0.05
INR2047R/L (2.39)	2.39	0.025	1.19	5.56	2.79	3.81	12.94		●	0.04-0.07
INRP3031R/L (1.57)	1.57	0.025	0.78	8.74	3.18	4.95	22.54		●	0.03-0.05
INR3031R/L (1.58)	1.58	0.025	0.79	8.65	3.17	4.95	22.86	●		0.04-0.08
INRP3047R/L (2.39)	2.39	0.025	1.19	8.74	4.57	4.95	22.49		●	0.04-0.07
INR3047R/L (2.39)	2.39	0.025	1.19	8.65	3.81	4.95	22.86	●		0.06-0.12
INRP3062R/L (3.18)	3.18	0.025	1.57	8.74	4.57	4.95	22.46		●	0.07-0.11
INR3062R/L (3.18)	3.18	0.025	1.59	8.65	3.81	4.95	22.86	●		0.08-0.16
INR3078R/L (3.98)	3.96	0.025	1.98	8.65	3.81	4.95	22.86	●		0.10-0.20
INR3094R/L (4.78)	4.78	0.025	2.39	8.65	3.81	4.95	22.86	●		0.12-0.22
INR4125R/L (6.35)	6.35	0.025	3.18	11.51	6.35	6.48	28.18		●	0.10-0.22

⁽¹⁾ Cutting width tolerance (+/-)

NOTCH-GRIP
GROOVE-TURN LINE

INGD-RCB/LCB

Precision, Single-Ended
Deep Grooving Inserts
with a Chipformer



Designation	Dimensions								Tough ↔ Hard		Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL	IC807		
INGD3094R/LCB (2.39)	2.39	0.025	0.19	0.063	8.74	6.35	4.95	25.14	●		0.06-0.10
INGD3125R/LCB (3.18)	3.18	0.025	0.19	0.063	8.74	6.35	4.95	25.14	●		0.09-0.14

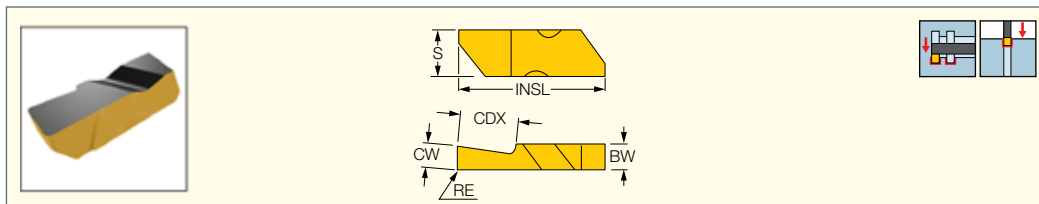
⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

NOTCH-GRIP
GROOVE-TURN LINE

INGD-R/L

Precision, Single-Ended Flat
Top Deep Grooving Inserts



Dimensions									IC807	Recommended Machining Data
Designation	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL		
INGD3062R/L (1.57)	1.57	0.025	0.19	0.063	8.74	3.05	4.95	22.60	●	0.04-0.06
INGD3094R/L (2.39)	2.39	0.025	0.19	0.063	8.74	6.35	4.95	25.14	●	0.05-0.08
INGD3125R/L (3.18)	3.18	0.025	0.19	0.063	8.74	6.35	4.95	25.14	●	0.08-0.12
INGD3189R/L (4.80)	4.80	0.025	0.57	0.063	8.74	6.35	4.95	25.10	●	0.10-0.20

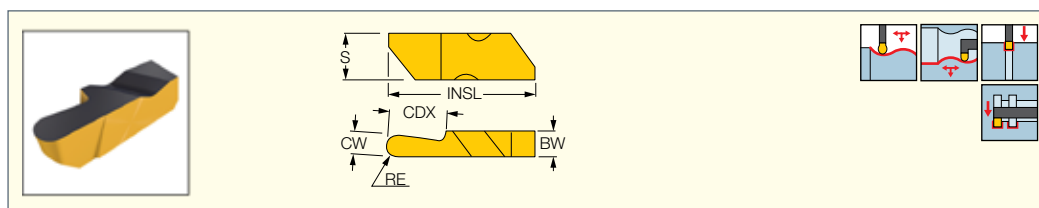
⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

NOTCH-GRIP
GROOVE-TURN LINE

INRD-R/L

Precision, Single-Ended
Full Radius Deep Grooving
Inserts with a Flat Rake



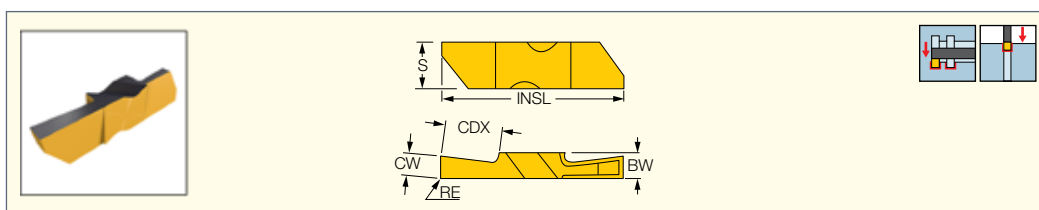
Dimensions									IC807	Recommended Machining Data
Designation	CW	CWTOL ⁽¹⁾	RE	S	CDX	BW	INSL			
INRD3062R/L (3.18)	3.18	0.025	1.57	8.74	6.35	4.95	24.99		●	0.07-0.11

⁽¹⁾ Cutting width tolerance (+/-)

NOTCH-GRIP
GROOVE-TURN LINE

INGT-R/L

Precision, Double-Ended Flat
Top Deep Grooving Inserts



Dimensions									IC807	Recommended Machining Data
Designation	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL		
INGT3094R/L (2.39)	2.39	0.025	0.19	0.063	8.74	6.99	4.95	34.03	●	0.05-0.08
INGT3125R/L (3.18)	3.18	0.025	0.19	0.063	8.74	11.10	4.95	34.03	●	0.08-0.12

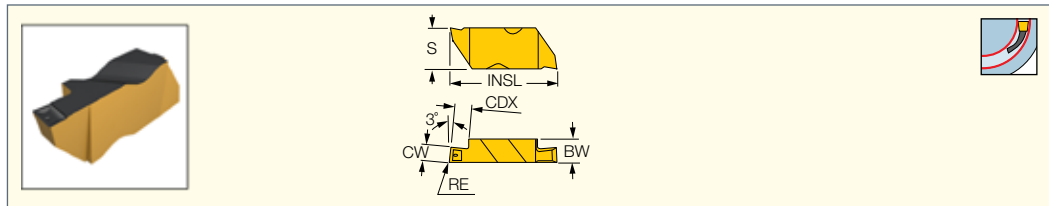
⁽¹⁾ Cutting width tolerance (+/-)

⁽²⁾ Corner radius tolerance (+/-)

NOTCH-GRIP
GROOVE-TURN LINE

INF-RCB/LCB

Precision, Double-Ended
Face Grooving Inserts
with a Chipformer



Designation	Dimensions									IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL	DAXN ⁽³⁾		f face-groove (mm/rev)
	INF3125R/LCB (3.18)	3.18	0.025	0.19	0.063	8.74	4.57	4.95	22.60		23.9

⁽¹⁾ Cutting width tolerance (+/-)

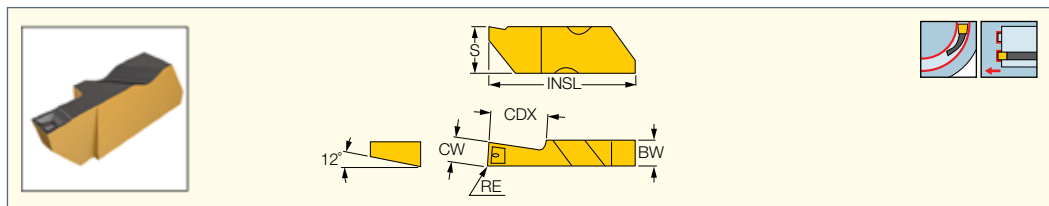
⁽²⁾ Corner radius tolerance (+/-)

⁽³⁾ Minimum axial grooving diameter

NOTCH-GRIP
GROOVE-TURN LINE

INFD-RCB/LCB

Precision, Single-Ended
Deep Face Grooving Inserts
with a Chipformer



Designation	Dimensions									IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL	DAXN ⁽³⁾		f face-groove (mm/rev)
	INFD3125R/LCB (3.18)	3.18	0.025	0.19	0.063	8.74	6.35	4.95	25.14		47.6

⁽¹⁾ Cutting width tolerance (+/-)

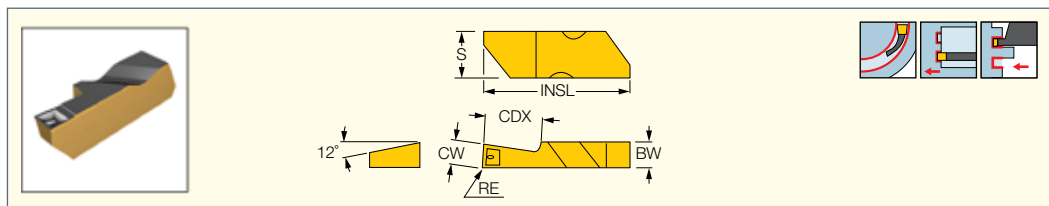
⁽²⁾ Corner radius tolerance (+/-)

⁽³⁾ Minimum axial grooving diameter

NOTCH-GRIP
GROOVE-TURN LINE

INFD-RCB/LCB-I

Precision, Single-Ended
Internal Deep Face Grooving
Inserts with a Chipformer



Designation	Dimensions									IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	RETOL ⁽²⁾	S	CDX	BW	INSL	DAXN ⁽³⁾		f face-groove (mm/rev)
	INFD3125R/LCB-I(3.18)	3.18	0.025	0.19	0.063	8.74	6.35	4.95	25.14		47.6

⁽¹⁾ Cutting width tolerance (+/-)

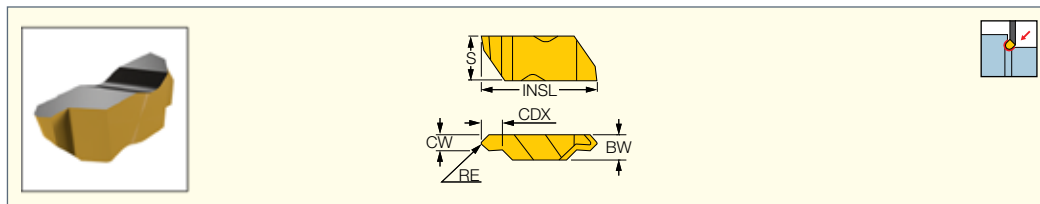
⁽²⁾ Corner radius tolerance (+/-)

⁽³⁾ Minimum axial grooving diameter

NOTCH GRIP

INU-R/L

Precision Double-Ended Inserts
for External Undercutting



Designation	Dimensions							IC807	Recommended Machining Data
	CW	CWTOL ⁽¹⁾	RE	S	CDX	BW	INSL		
INU3094R/L (2.39)	2.39	0.025	0.51	8.74	3.18	4.95	22.62	●	f groove (mm/rev) 0.05-0.08

• Not recommended for turning

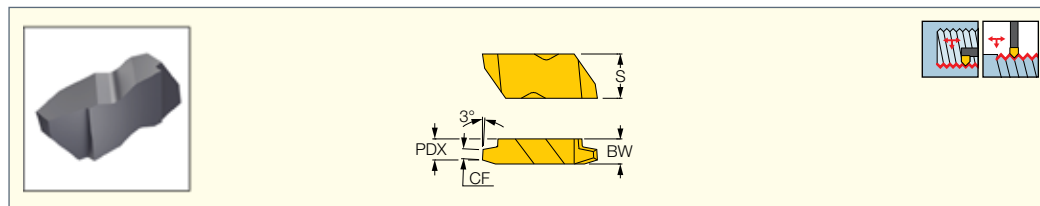
⁽¹⁾ Cutting width tolerance (+/-)

ISCAR THREAD

ISCAR THREAD

FLA

Double-Ended Precision
Threading Inserts for ACME
Threading Applications



Designation	Dimensions					IC908
	TPI ⁽¹⁾	CF	BW	PDX	S	
FLA-6R/L2	2.0	4.58	9.73	7.20	11.51	●
FLA-6R/L2.5	2.5	3.63	9.73	7.20	11.51	●
FLA-6R/L3	3.0	3.01	9.73	7.20	11.51	●
FLA-3R/L4	4.0	2.22	4.95	3.40	8.74	●
FLA-4R/L4	4.0	2.22	6.48	5.10	11.51	●
FLA-3R/L5	5.0	1.75	4.95	3.80	8.74	●
FLA-4R/L5	5.0	1.75	6.48	5.10	11.51	●
FLA-3R/L6	6.0	1.44	4.95	3.80	8.74	●
FLA-4R/L6	6.0	1.44	6.48	5.10	11.51	●
FLA-3R/L8	8.0	1.04	4.95	3.80	8.74	●
FLA-4R/L8	8.0	1.04	6.48	5.10	11.51	●
FLA-3R/L10	10.0	0.81	4.95	3.80	8.74	●
FLA-3R/L12	12.0	0.72	4.95	3.80	8.74	●
FLA-3R/L14	14.0	0.61	4.95	3.80	8.74	●
FLA-3R/L16	16.0	0.52	4.95	3.80	8.74	●

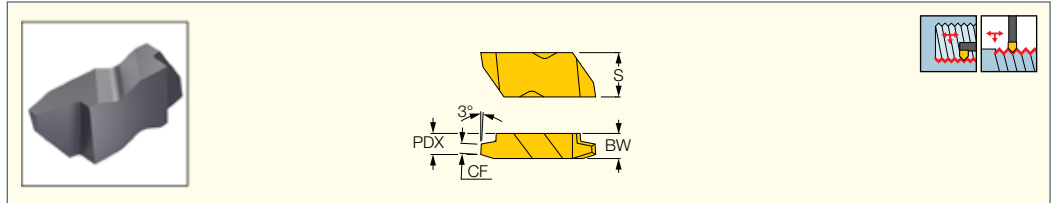
⁽¹⁾ Threads per inch

NOTCHGRIP
GROOVE-TURN LINE

ISCARTHREAD

FLAS

Double-Ended Precision
Threading Inserts for STUB
ACME Threading Applications



Designation	Dimensions					IC908
	TPI ⁽¹⁾	CF	BW	PDX	S	
FLAS-6R/L2	2.0	5.23	9.73	7.20	11.51	●
FLAS-4R/L3	3.0	3.44	6.48	5.10	11.51	●
FLAS-3L4	4.0	2.55	4.95	3.80	8.74	●
FLAS-3R/L5	5.0	2.01	4.95	3.80	8.74	●
FLAS-3R/L6	6.0	1.66	4.95	3.80	8.74	●
FLAS-3R/L8	8.0	1.21	4.95	3.80	8.74	●
FLAS-3R/L10	10.0	0.94	4.95	3.80	8.74	●
FLAS-3R/L12	12.0	0.83	4.95	3.80	8.74	●
FLAS-3R/L14	14.0	0.70	4.95	3.80	8.74	●
FLAS-3R/L16	16.0	0.60	4.95	3.80	8.74	●

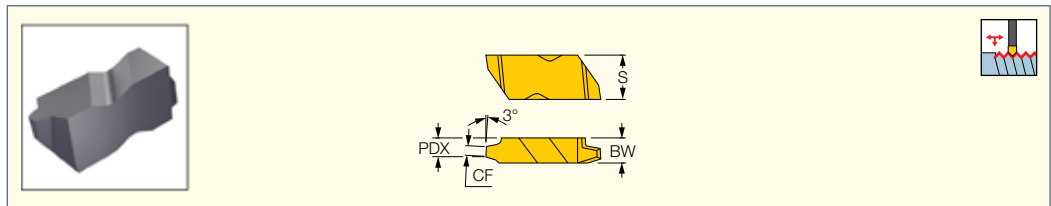
⁽¹⁾ Threads per inch

NOTCHGRIP
GROOVE-TURN LINE

ISCARTHREAD

FLA-PT-E

Double-Ended Precision
External Threading Inserts
for Partial Topping with Radii
ACME Threading Applications



Designation	Dimensions					IC908
	TPI ⁽¹⁾	CF	BW	PDX	S	
FLA-6R2-PT-E	2.0	4.58	9.73	7.20	11.51	●
FLA-6R2.5-PT-E	2.5	3.63	9.73	7.20	11.51	●
FLA-6R3-PT-E	3.0	3.01	9.73	7.20	11.51	●
FLA-3R4-PT-E	4.0	2.22	4.95	3.40	8.74	●
FLA-4R4-PT-E	4.0	2.22	6.48	5.10	11.51	●
FLA-3R5-PT-E	5.0	1.75	4.95	3.80	8.74	●
FLA-4R5-PT-E	5.0	1.75	6.48	5.10	11.51	●
FLA-3R6-PT-E	6.0	1.44	4.95	3.80	8.74	●
FLA-4R6-PT-E	6.0	1.44	6.48	5.10	11.51	●
FLA-3R8-PT-E	8.0	1.04	4.95	3.80	8.74	●
FLA-4R8-PT-E	8.0	1.04	6.48	5.10	11.51	●
FLA-3R10-PT-E	10.0	0.81	4.95	3.80	8.74	●
FLA-3R12-PT-E	12.0	0.72	4.95	3.80	8.74	●
FLA-3R14-PT-E	14.0	0.61	4.95	3.80	8.74	●
FLA-3R16-PT-E	16.0	0.52	4.95	3.80	8.74	●

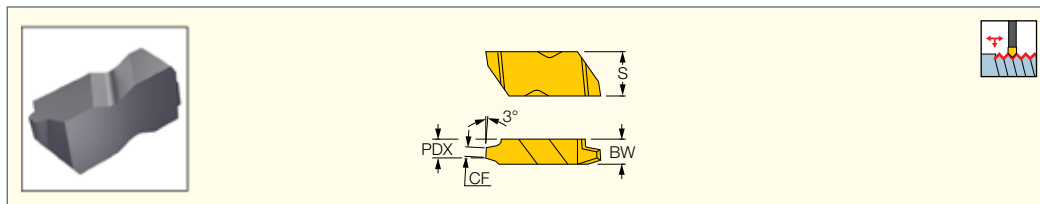
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLAS-PT-E

Double-Ended Precision
External Threading Inserts for
Partial Topping STUB ACME
Threading Applications



Designation	Dimensions						IC908
	TPI ⁽¹⁾	CF	BW	PDX	S		
FLAS-6R2-PT-E	2.0	5.23	9.73	7.20	11.51		●
FLAS-4R3-PT-E	3.0	3.44	6.48	5.10	11.51		●
FLAS-3R4-PT-E	4.0	2.55	4.95	3.80	8.74		●
FLAS-3R5-PT-E	5.0	2.01	4.95	3.80	8.74		●
FLAS-3R6-PT-E	6.0	1.66	4.95	3.80	8.74		●
FLAS-3R8-PT-E	8.0	1.21	4.95	3.80	8.74		●
FLAS-3R10-PT-E	10.0	0.94	4.95	3.80	8.74		●
FLAS-3R12-PT-E	12.0	0.83	4.95	3.80	8.74		●
FLAS-3R14-PT-E	14.0	0.70	4.95	3.80	8.74		●
FLAS-3R16-PT-E	16.0	0.60	4.95	3.80	8.74		●

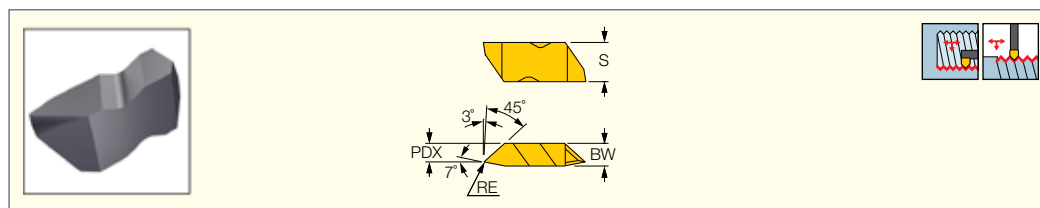
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLT-B-A

Double-Ended Precision
Threading Inserts for 7° Lead
AMERICAN STANDARD
BUTTRESS Applications



Designation	Dimensions						IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	BW	PDX	S	RE	
FLT-B-4R/LA	4.00	6.00	6.48	5.20	11.51	0.20	●
FLT-B-3R/LA	8.00	16.00	4.95	4.20	8.74	0.13	●
FLT-B-2R/LA	16.00	20.00	3.81	3.20	5.56	0.05	●

⁽¹⁾ TPI min.

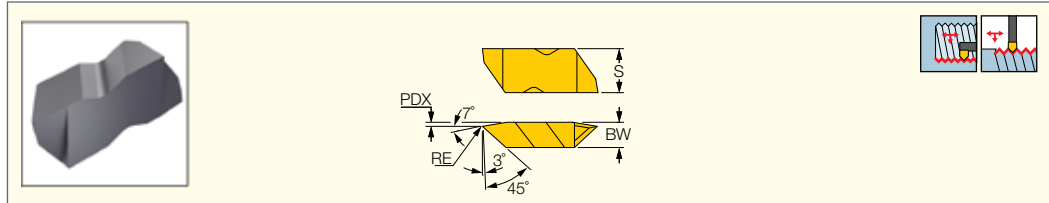
⁽²⁾ TPI max.

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTB-B

Double-Ended Precision
Threading Inserts for 45°
Lead AMERICAN STANDARD
BUTTRESS Applications



Designation	Dimensions						IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	BW	PDX	S	RE	
FLTB-4R/LB	4.00	6.00	6.48	0.40	11.51	0.20	•
FLTB-3R/LB	8.00	16.00	4.95	0.30	8.74	0.13	•
FLTB-2R/LB	16.00	20.00	3.81	0.30	5.56	0.05	•

⁽¹⁾ TPI min.

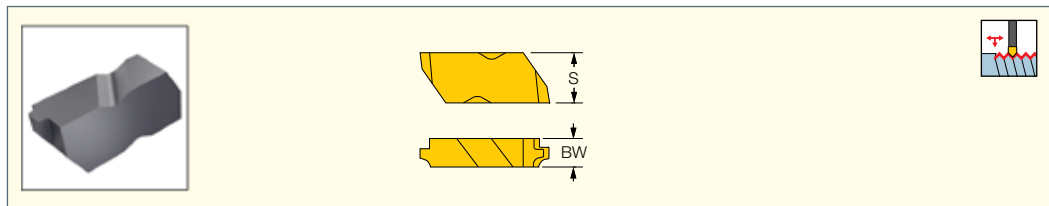
⁽²⁾ TPI max.

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-B-E

Double-Ended Precision
Threading Inserts for External
API BUTTRESS Applications



Designation	Dimensions				IC908
	TPI ⁽¹⁾	IPF	BW	S	
FLDC-3-5B1E	5.0	1	6.35	8.74	•
FLDC-3-5B75E	5.0	3/4	6.35	8.74	•
FLDC-4-5B1E	5.0	1	6.48	11.51	•
FLDC-4-5B75E	5.0	3/4	6.48	11.51	•

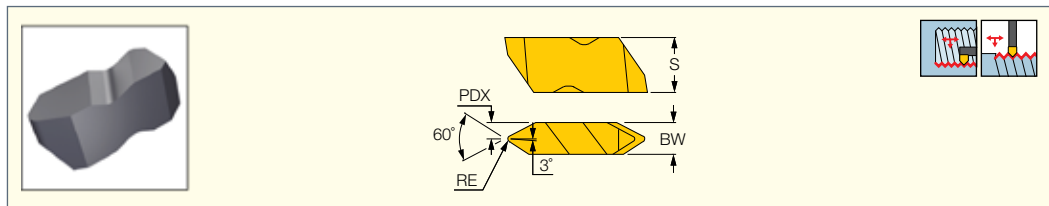
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLD

Double-Ended, Precision,
Partial Profile Threading
Inserts, for API Applications



Designation	Dimensions					IC908
	TPI ⁽¹⁾	BW	PDX	S	RE	
FLD-3038R/L	4.0	4.95	2.08	8.74	0.84	•
FLD-4038R/L	4.0	6.48	3.25	11.51	0.84	•
FLD-4050R/L	4.0	6.48	3.25	11.51	0.51	•
FLD-3040R/L	5.0	4.95	2.08	8.74	0.38	•
FLD-4040R/L	5.0	6.48	3.25	11.51	0.38	•

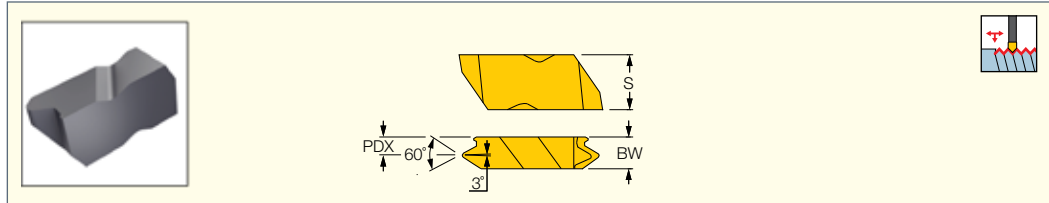
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-E

Double-Ended Precision
Threading Inserts for
External API Rotary Shoulder
Connection Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-4-425E	4.0	7.92	4.65	11.51	2	•
FLDC-4-428E	4.0	7.92	4.65	11.51	2	•
FLDC-4-435E	4.0	7.92	4.65	11.51	3	•
FLDC-4-438E	4.0	7.92	4.65	11.51	3	•
FLDC-3-530E	5.0	6.35	3.73	8.74	3	•

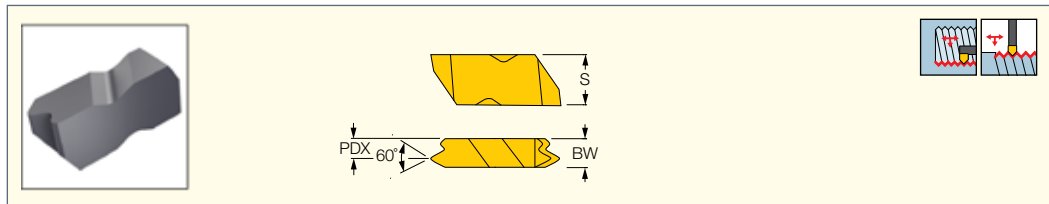
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-RD-75

Double-Ended Precision
Threading Inserts for API Round
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8RDR/L75	8.0	3.18	5.00	8.74	3/4	•
FLDC-3-10RDR/L75	10.0	3.18	5.00	8.74	3/4	•

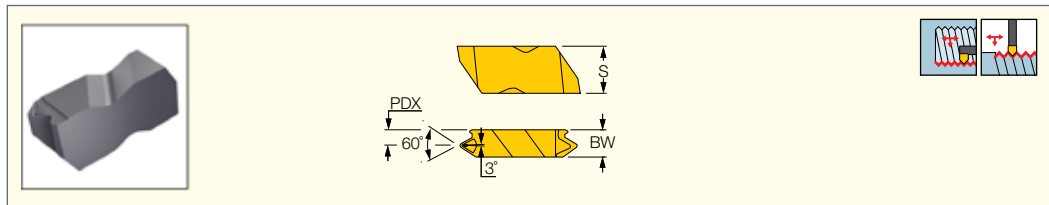
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-RD-75-CB

Double-Ended, Precision
Threading Inserts with
a Chipbreaker, for API
Round Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8RDR/L75-CB	8.0	3.18	4.95	8.74	3/4	•

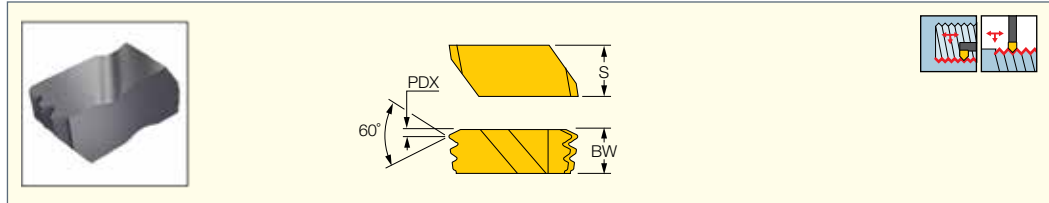
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-RD-75M

Double-Ended, Precision,
Multi-Tooth Threading Inserts,
for API Round Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S		
FLDC-6-8RDR75	8.0	9.73	1.80	11.51		
FLDC-6-10RDR75	10.0	9.73	3.40	11.51		

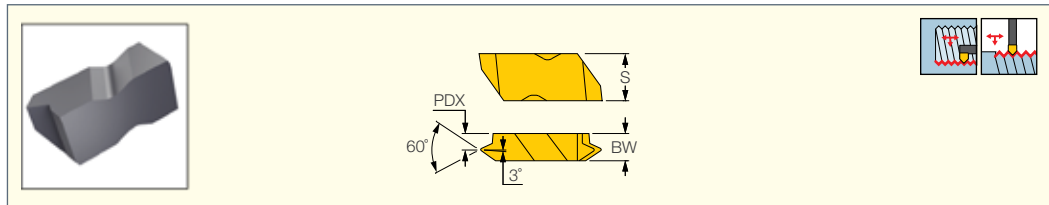
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-V-75

Double-Ended Precision
Threading Inserts for NPT
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S		
FLDC-3-8VR/L75	8.0	4.95	2.50	8.74		
FLDC-3-115VR/L75	11.5	4.95	3.70	8.74		
FLDC-3-14VR/L-75	14.0	4.95	3.80	8.74		
FLDC-3-18VR/L-75	18.0	4.95	3.90	8.74		
FLDC-3-27VR/L-75	27.0	4.95	4.10	8.74		

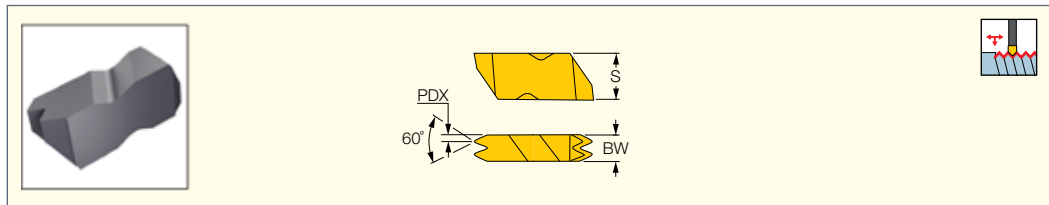
⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-NPT-E

Double-Ended, Precision,
Multi-Tooth Threading
Inserts, for External NPT
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8NPT 2E	8.0	6.35	1.50	8.74	3/4	
FLDC-3-11.5NPT-2E	11.5	6.35	1.20	8.74	3/4	

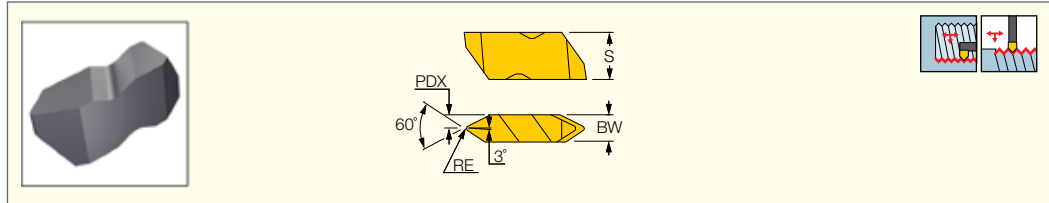
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLJ

Double-Ended Precision
Threading Inserts for UNJ
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	RE	
FLJ-3020R/L8	8.0	4.95	2.49	8.74	0.48	
FLJ-3014R/L12	12.0	4.95	2.49	8.74	0.32	
FLJ-3010R/L16	16.0	4.95	2.49	8.74	0.24	

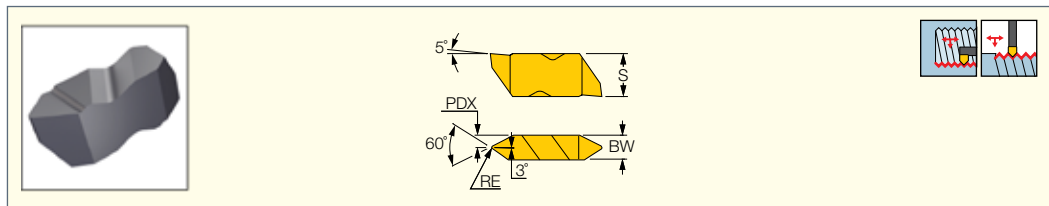
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLJP

Double-Ended, Precision
Threading Inserts with a
Positive Rake, for UNJ
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	RE	
FLJP-3020R/L8	8.0	4.95	2.50	8.74	0.48	
FLJP-3014R/L12	12.0	4.95	2.50	8.74	0.32	
FLJP-3010R/L16	16.0	4.95	2.50	8.74	0.24	

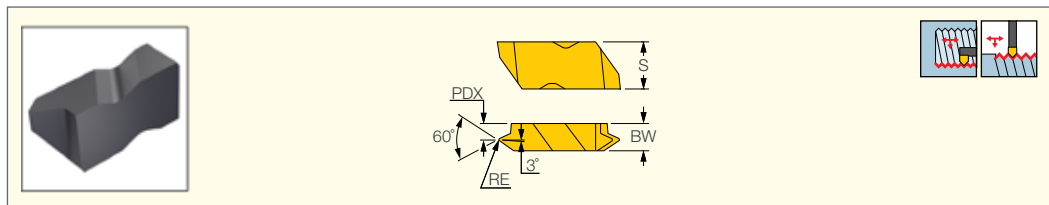
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLJF

Double-Ended, Precision
Threading Inserts, for Cutting
UNJ Fine Pitch Thread
Close to Shoulders



Dimensions						IC901
Designation	TPI ⁽¹⁾	BW	PDX	S	RE	
FLJF-3012R/L14	14.0	4.95	3.58	8.74	0.27	
FLJF-3010R/L16	16.0	4.95	3.60	8.74	0.24	
FLJF-3009R/L18	18.0	4.95	3.60	8.74	0.21	
FLJF-3008R/L20	20.0	4.95	3.60	8.74	0.19	
FLJF-3007R/L24	24.0	4.95	3.60	8.74	0.16	
FLJF-3006R/L28	28.0	4.95	3.60	8.74	0.14	
FLJF-3005R/L32	32.0	4.95	3.60	8.74	0.12	

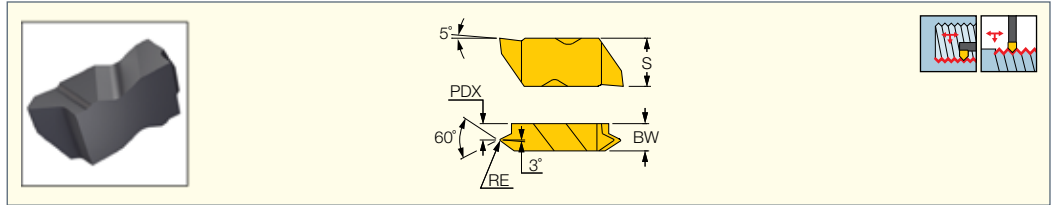
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLJK

Double-Ended, Precision Threading Inserts, with a Positive Rake, for Cutting UNJ Fine Pitch Thread



Designation	Dimensions						IC908
	TPI ⁽¹⁾	BW	PDX	S	RE		
FLJK-3012R/L14	14.0	4.95	3.58	8.74	0.27		●
FLJK-3010R/L16	16.0	4.95	3.60	8.74	0.24		●
FLJK-3009R/L18	18.0	4.95	3.60	8.74	0.21		●
FLJK-3008R/L20	20.0	4.95	3.60	8.74	0.19		●
FLJK-3007R/L24	24.0	4.95	3.60	8.74	0.16		●
FLJK-3006R/L28	28.0	4.95	3.60	8.74	0.14		●
FLJK-3005R/L32	32.0	4.95	3.60	8.74	0.12		●

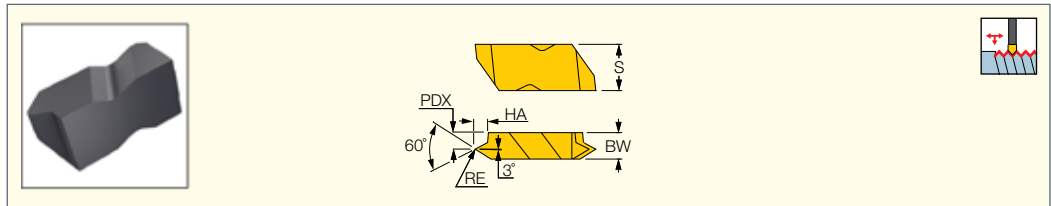
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTC-E

Double-Ended, Precision, Full Profile Threading Inserts, for UN External Thread Applications



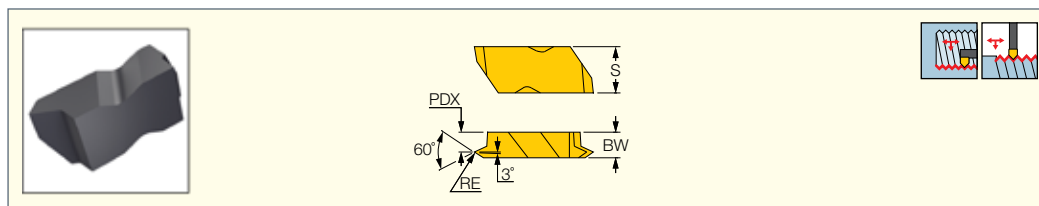
Designation	Dimensions						IC908
	TPI ⁽¹⁾	BW	PDX	S	HA	RE	
FLTC-3R/L7E	7.0	4.95	2.70	8.74	2.74	0.43	●
FLTC-3R/L8E	8.0	4.95	2.70	8.74	2.39	0.38	●
FLTC-3R/L9E	9.0	4.95	2.70	8.74	2.13	0.33	●
FLTC-3R/L10E	10.0	4.95	2.70	8.74	1.93	0.30	●
FLTC-3R/L11E	11.0	4.95	2.70	8.74	1.75	0.28	●
FLTC-3R/L12E	12.0	4.95	3.80	8.74	1.30	0.25	●
FLTC-3R/L14E	14.0	4.95	3.80	8.74	1.37	0.23	●
FLTC-3R/L16E	16.0	4.95	3.80	8.74	1.17	0.20	●
FLTC-3R/L18E	18.0	4.95	3.80	8.74	1.04	0.18	●
FLTC-3R/L20E	20.0	4.95	3.80	8.74	0.94	0.15	●
FLTC-3R/L24E	24.0	4.95	3.80	8.74	0.79	0.13	●
FLTC-3R/L28E	28.0	4.95	3.80	8.74	0.58	0.08	●
FLTC-3R/L32E	32.0	4.95	3.80	8.74	0.53	0.08	●

⁽¹⁾ Threads per inch

NOTCH GRIP
GROOVE-TURN LINE
ISCARTHREAD

FLTF

Double-Ended, Precision
Threading Inserts, for 60° Fine
Pitch Threading Applications



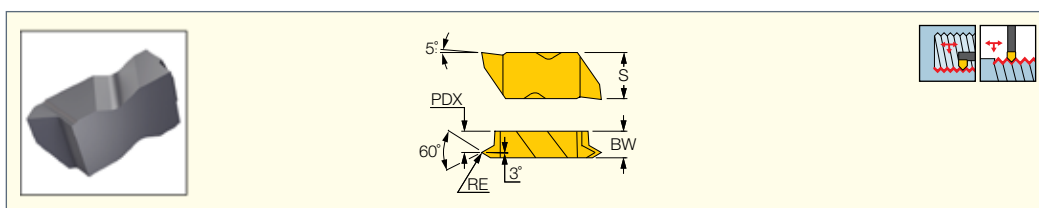
Designation	Dimensions								IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLTF-2R/L	12.00	24.00	14.00	44.00	0.00	2.80	3.81	5.56	●
FLTF-3R/L	9.00	24.00	10.00	44.00	0.00	3.60	4.95	8.74	●
FLTF-4R/L	9.00	24.00	10.00	44.00	0.00	5.10	6.48	11.51	●

- (1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.

NOTCH GRIP
GROOVE-TURN LINE
ISCARTHREAD

FLTK

Double-Ended, Precision Positive
Rake Threading Inserts, for 60°
Fine Pitch Threading Applications



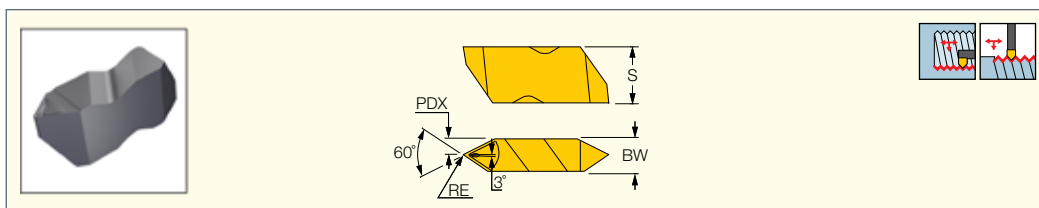
Designation	Dimensions								IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLTK-3R/L	9.00	24.00	10.00	44.00	0.00	3.60	4.95	8.74	●
FLTK-4R/L	9.00	24.00	10.00	44.00	0.00	5.10	6.48	11.51	●
FLTK-2R/L	12.00	24.00	14.00	44.00	0.00	2.80	3.81	5.56	●

- (1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.

NOTCH GRIP
GROOVE-TURN LINE
ISCARTHREAD

FLT-CB

Double-Ended Precision
Threading Inserts with
Chipbreakers, for 60° Coarse and
Fine Pitch Threading Applications



Designation	Dimensions								IC908
	TPIN ⁽¹⁾	TPIX ⁽²⁾	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLT-4R/L-HCB	4.00	12.00	4.00	20.00	0.00	3.30	6.48	11.51	●
FLT-3R/LC-HCB	5.00	6.00	6.00	11.00	0.00	2.50	4.95	8.74	●
FLT-3R/L-HCB	5.00	12.00	6.00	20.00	0.00	2.50	4.95	8.74	●
FLT-3R/L-FCB	7.00	20.00	8.00	36.00	0.00	2.50	4.95	8.74	●
FLT-3R/L-CB	8.00	12.00	8.00	20.00	0.00	2.50	4.95	8.74	●

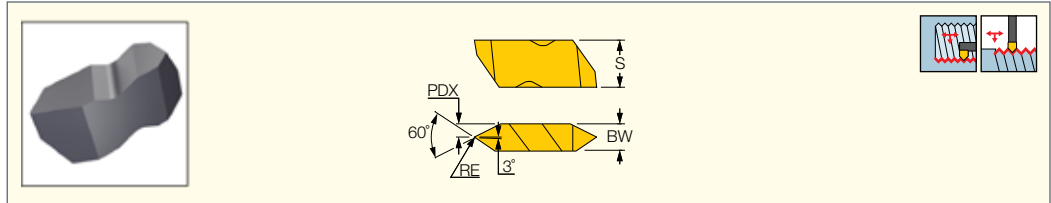
- (1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLT

Double-Ended, Precision
Threading Inserts, for 60°
Threading Applications



Dimensions											IC908
Designation	TPIN ⁽¹⁾	TPIX ⁽²⁾	TTP	TTP_DF ₂	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S	
FLT-4L	4.00	12.00	BOTH	EXT	4.00	20.00	0.00	3.30	6.48	11.51	●
FLT-3L	5.00	12.00	BOTH	EXT	6.00	20.00	0.00	2.50	4.95	8.74	●
FLT-3010R/L	5.00	12.00	BOTH	EXT	6.00	18.00	0.00	2.50	4.95	8.74	●
FLT-2R/L	7.00	20.00	BOTH	EXT	8.00	36.00	0.00	1.90	3.81	5.56	●

⁽¹⁾ TPI int. min.

⁽²⁾ TPI int. max.

⁽³⁾ TPI ext. min.

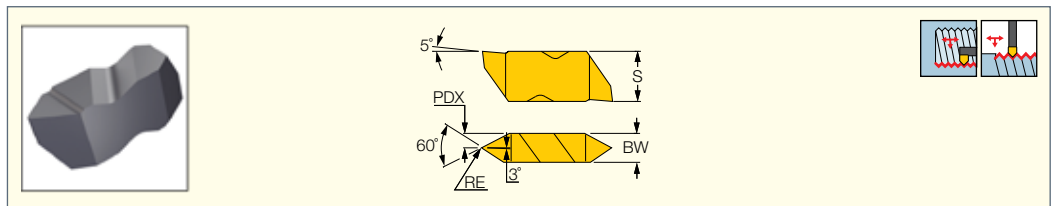
⁽⁴⁾ TPI ext. max.

NOTCH GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLTP

Double-Ended, Precision Positive
Rake Threading Inserts, for
60° Threading Applications



Dimensions										IC908
Designation	TPIN ⁽¹⁾	TPIX ⁽²⁾	TPIN_DF ₂ ⁽³⁾	TPIX_DF ₂ ⁽⁴⁾	RE	PDX	BW	S		
FLTP-4R/L	4.00	12.00	4.00	20.00	0.00	3.30	6.50	11.51	●	
FLTP-3R/L	5.00	12.00	6.00	20.00	0.00	2.50	5.00	8.74	●	
FLTP-2R/L	7.00	20.00	8.00	36.00	0.00	1.90	3.80	5.56	●	

⁽¹⁾ TPI int. min.

⁽²⁾ TPI int. max.

⁽³⁾ TPI ext. min.

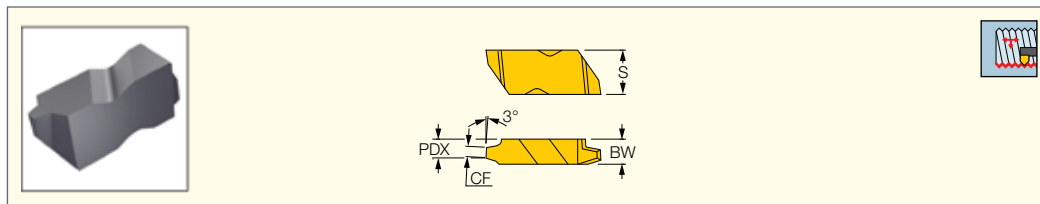
⁽⁴⁾ TPI ext. max.

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLA-PT-I

Double-Ended Precision
Internal Threading Inserts for
Partial Topping ACME
Threading Applications



Designation	Dimensions					IC908
	TPI ⁽¹⁾	CF	BW	PDX	S	
FLA-6L2-PT-I	2.0	4.58	9.73	7.20	11.51	●
FLA-6L2.5-PT-I	2.5	3.63	9.73	7.20	11.51	●
FLA-6L3-PT-I	3.0	3.01	9.73	7.20	11.51	●
FLA-3L4-PT-I	4.0	2.22	4.95	3.40	8.74	●
FLA-4L4-PT-I	4.0	2.22	6.48	5.10	11.51	●
FLA-3L5-PT-I	5.0	1.75	4.95	3.80	8.74	●
FLA-4L5-PT-I	5.0	1.75	6.48	5.10	11.51	●
FLA-3L6-PT-I	6.0	1.44	4.95	3.80	8.74	●
FLA-4L6-PT-I	6.0	1.44	6.48	5.10	11.51	●
FLA-3L8-PT-I	8.0	1.04	4.95	3.80	8.74	●
FLA-4L8-PT-I	8.0	1.04	6.48	5.10	11.51	●
FLA-3L10-PT-I	10.0	0.81	4.95	3.80	8.74	●
FLA-3L12-PT-I	12.0	0.72	4.95	3.80	8.74	●
FLA-3L14-PT-I	14.0	0.61	4.95	3.80	8.74	●
FLA-3L16-PT-I	16.0	0.52	4.95	3.80	8.74	●

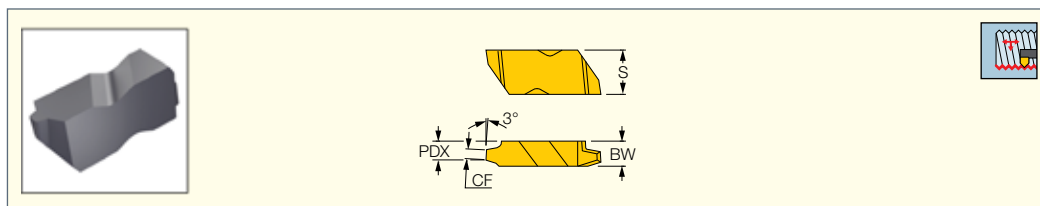
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLAS-PT-I

Double-Ended Precision
Internal Threading Inserts for
Partial Topping STUB ACME
Threading Applications



Designation	Dimensions					IC908
	TPI ⁽¹⁾	CF	BW	PDX	S	
FLAS-6L2-PT-I	2.0	5.23	9.73	7.20	11.51	●
FLAS-4L3-PT-I	3.0	3.44	6.48	5.10	11.51	●
FLAS-3L4-PT-I	4.0	2.55	4.95	3.80	8.74	●
FLAS-3L5-PT-I	5.0	2.01	4.95	3.80	8.74	●
FLAS-3L6-PT-I	6.0	1.66	4.95	3.80	8.74	●
FLAS-3L8-PT-I	8.0	1.21	4.95	3.80	8.74	●
FLAS-3L10-PT-I	10.0	0.94	4.95	3.80	8.74	●
FLAS-3L12-PT-I	12.0	0.83	4.95	3.80	8.74	●
FLAS-3L14-PT-I	14.0	0.70	4.95	3.80	8.74	●
FLAS-3L16-PT-I	16.0	0.60	4.95	3.80	8.74	●

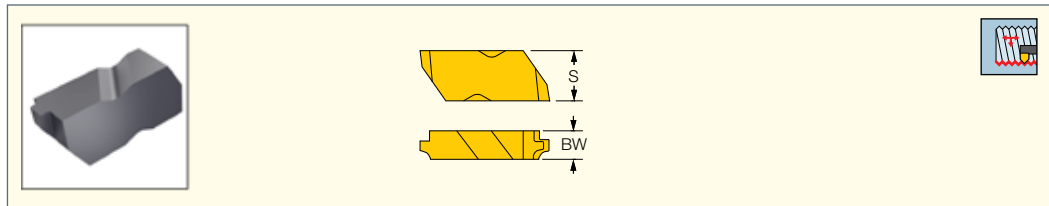
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-B-I

Double-Ended Precision
Threading Inserts for Internal
API BUTTRESS Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	IPF	BW	S		
FLDC-3-5B1I	5.0	1	6.35	8.74		•
FLDC-3-5B75I	5.0	3/4	6.35	8.74		•
FLDC-4-5B1I	5.0	1	6.48	11.51		•
FLDC-4-5B75I	5.0	3/4	6.48	11.51		•

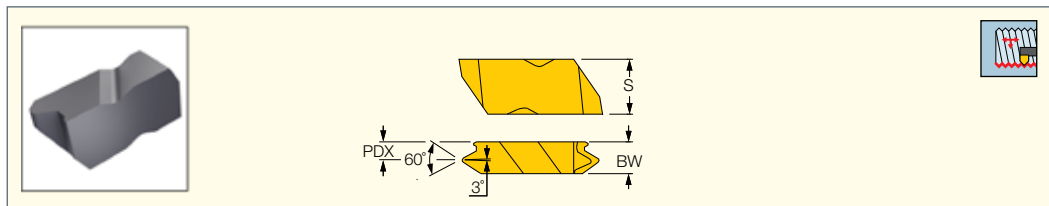
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-I

Double-Ended Precision
Threading Inserts for
Internal API Rotary Shoulder
Connection Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-4-425I	4.0	7.92	4.65	11.51	2	•
FLDC-4-428I	4.0	7.92	4.65	11.51	2	•
FLDC-4-435I	4.0	7.92	4.65	11.51	3	•
FLDC-4-438I	4.0	7.92	4.65	11.51	3	•
FLDC-3-530I	5.0	6.35	3.73	8.74	3	•

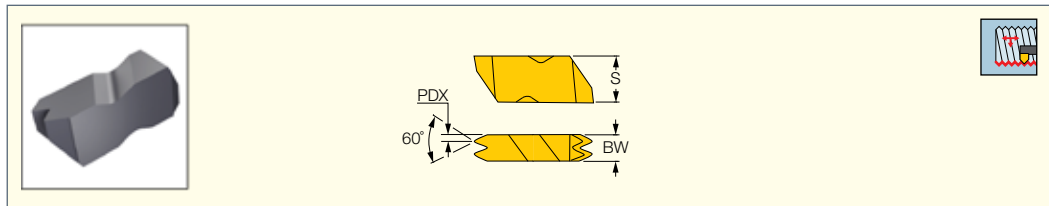
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCARTHREAD

FLDC-NPT-I

Double-Ended, Precision,
Multi-Tooth Threading
Inserts, for Internal NPT
Threading Applications



Dimensions						IC908
Designation	TPI ⁽¹⁾	BW	PDX	S	IPF	
FLDC-3-8NPT-2I	8.0	6.35	1.50	8.74	3/4	•
FLDC-3-11.5NPT-2I	11.5	6.35	1.20	8.74	3/4	•

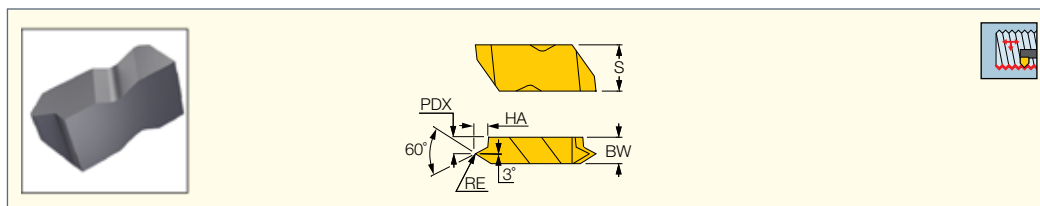
⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

ISCAR THREAD

FLTC-I

Double-Ended, Precision, Full
Profile Threading Inserts, for UN
Internal Thread Applications



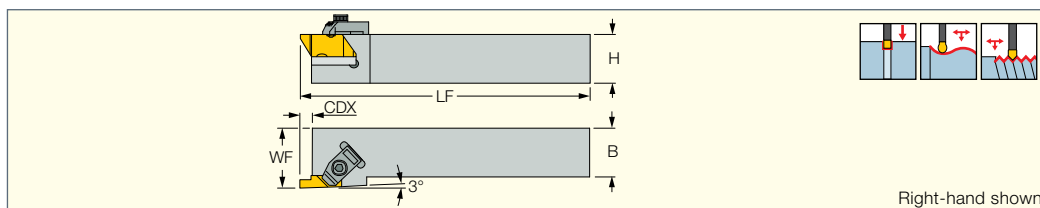
Designation	Dimensions						IC908
	TPI ⁽¹⁾	BW	PDX	S	RE	HA	
FLTC-3R/L7I	7.0	4.95	2.70	8.74	0.23	2.34	●
FLTC-3R/L8I	8.0	4.95	2.70	8.74	0.18	2.06	●
FLTC-3R/L9I	9.0	4.95	2.70	8.74	0.15	1.83	●
FLTC-3R/L10I	10.0	4.95	2.70	8.74	0.13	1.65	●
FLTC-3R/L11I	11.0	4.95	2.70	8.74	0.13	1.50	●
FLTC-3R/L12I	12.0	4.95	3.80	8.74	0.10	1.22	●
FLTC-3R/L14I	14.0	4.95	3.76	8.74	0.08	1.12	●
FLTC-3R/L16I	16.0	4.95	3.76	8.74	0.08	1.02	●
FLTC-3R/L18I	18.0	4.95	3.76	8.74	0.08	0.91	●
FLTC-3R/L20I	20.0	4.95	3.76	8.74	0.08	0.79	●
FLTC-3R/L24I	24.0	4.95	3.76	8.74	0.08	0.66	●
FLTC-3R/L28I	28.0	4.95	3.76	8.74	0.08	0.58	●

⁽¹⁾ Threads per inch

NOTCH-GRIP
GROOVE-TURN LINE

FLSR/L

Tools for External Grooving
and Threading Inserts



Right-hand shown

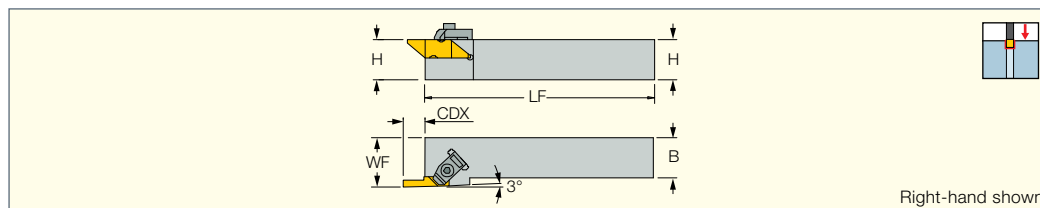
Designation	SSC ⁽¹⁾	H	B	CDX	WF	LF	Insert
FLSR/L-2020M2	2.0	20.0	20.0	3.00	25.00	125.00	FL/IN_-2
FLSR/L-2020M3	3.0	20.0	20.0	5.00	32.00	125.00	FL/IN_-3
FLSR/L-2525M2	2.0	25.0	25.0	3.00	32.00	150.00	FL/IN_-2
FLSR/L-2525M3	3.0	25.0	25.0	5.00	32.00	150.00	FL/IN_-3

⁽¹⁾ Seat size code

NOTCH-GRIP
GROOVE-TURN LINE

FLSR/LT

External Tools for Deep
Grooving Inserts



Right-hand shown

Designation	H	B	SSC ⁽¹⁾	CDX	WF	LF	MIID ⁽²⁾
FLSR/LT-2525M3	25.0	25.0	3.0	11.20	32.00	152.40	INGT-3L
FLSR/LT-2525M4	25.0	25.0	4.0	14.20	32.00	152.40	INGT-4L
FLSR/LT-3232M3	32.0	32.0	3.0	11.20	40.00	152.40	INGT-3L
FLSR/LT-3232M4	32.0	32.0	4.0	14.20	40.00	152.40	INGT-4L

⁽¹⁾ Seat size code

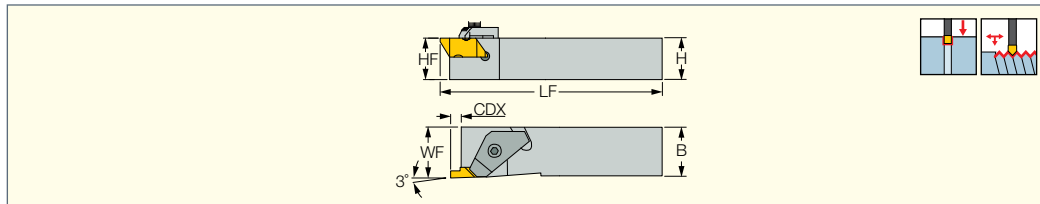
⁽²⁾ Master insert identification

NOTCHGRIP
GROOVE-TURN LINE

ISCARTHREAD

FLASR/L

External Tools for Grooving
and Threading for Swiss-
type Machines



Designation	SSC ⁽¹⁾	H	HF	B	CDX	WF	LF	Insert
FLASR/L-1010M2	2.0	10.0	10.0	10.0	3.51	10.00	150.00	FL/IN_-2
FLASR/L-1212M2	2.0	12.0	12.0	12.0	3.51	12.00	150.00	FL/IN_-2
FLASR-1616M2	2.0	16.0	16.0	16.0	3.51	16.00	150.00	FL/IN_-2
FLASR/L-1616M3	3.0	16.0	16.0	16.0	5.31	16.00	125.00	FL/IN_-3

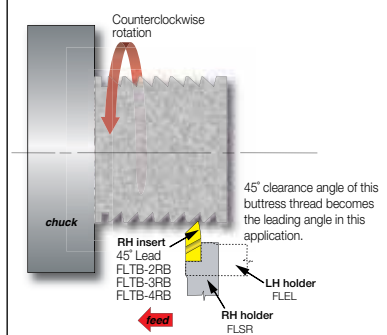
⁽¹⁾ Seat size code

USER GUIDE

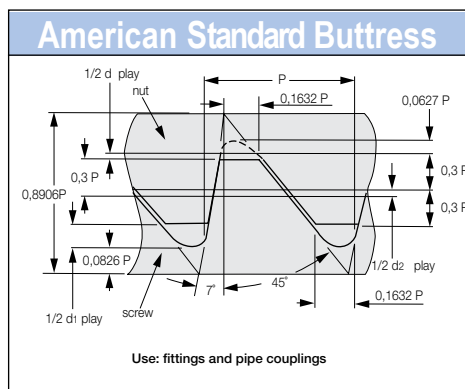
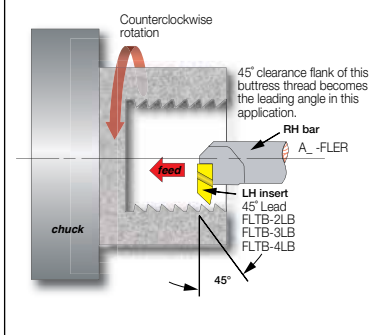
American Standard Buttress Thread Designations

- When only the designation BUTT is used, the thread is a "pull" type buttress (external thread pulls) with the clearance flank (45°) leading and the pressure flank (7°) following.
- When the designation PUSH-BUTT is used, the thread is a push type buttress (external thread pushes) with the load flank (7°) leading and the 45° clearance flank following.
- Whenever possible this description should be confirmed by a simplified view showing thread angles on the drawing of the product that has the buttress thread.
- Always remember that the position of your holder and direction of your feed will determine the lead angle on the insert.

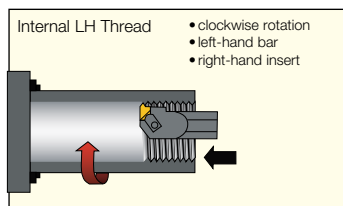
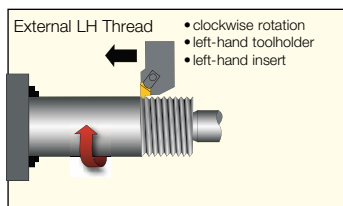
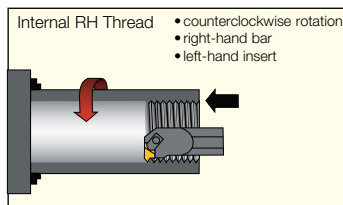
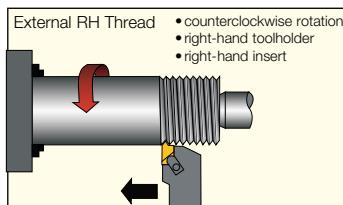
External Buttress (45° lead) Thread



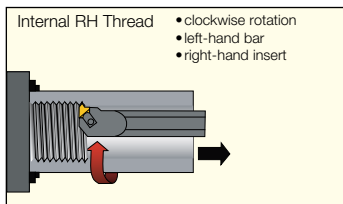
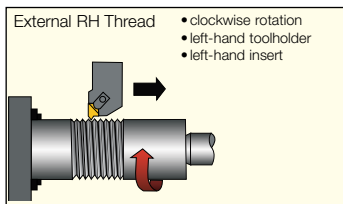
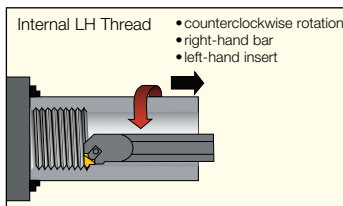
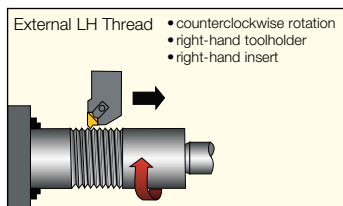
Internal Buttress (45° lead) Thread



Feed direction towards the chuck



Feed direction towards the tailstock



USER GUIDE

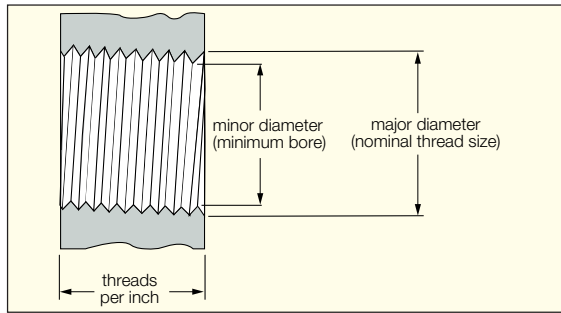
Threading Limits with Standard NOTCH-GRIP Inserts

The following charts list the largest pitch that can be applied on internal applications for Acme and V-Threading NOTCH-GRIP inserts in sizes 2,3, 4 and 6.

60° V-Threading Limits

Threads per Inch	Nominal Thread Size	Internal Threading Limitations	
		Minimum Minor Diameter	
		Inch	MM
6	1-7/8	1.695	43.05
7	1-3/4	1.595	40.51
8	1-5/8	1.490	37.85
9	1-9/16	1.442	36.63
10	1-1/2	1.392	35.36
11	1-7/16	1.339	34.01
12	1-3/8	1.285	32.64
13	1-5/16	1.229	31.22
14	1-1/4	1.173	29.79
16	1-1/4	1.182	30.02
18	1-1/8	1.065	27.05
20	1-1/8	1.071	27.20
24	1-1/16	1.017	25.83

* 24 TPI and finer can be cut with a #2 series insert provided that the minor diameter is 1.000 or larger.



Threads per Inch	Nominal Thread Size	Internal Threading Limitations	
		Minimum Minor Diameter	
		Inch	MM
4**	3	2.729	69.32
4-1/2**	2-7/8	2.634	66.90
5	2-3/4	2.534	64.36
6	2-1/2	2.320	58.93
7	2-1/4	2.095	53.21
8	2	1.865	47.37
9	1-15/16	1.817	46.15
10	1-7/8	1.767	44.88
11	1-13/16	1.714	43.54
12	1-3/4	1.660	42.16
13	1-5/8	1.542	39.17
14	1-9/16	1.485	37.72
16*	1-7/16	1.370	34.80

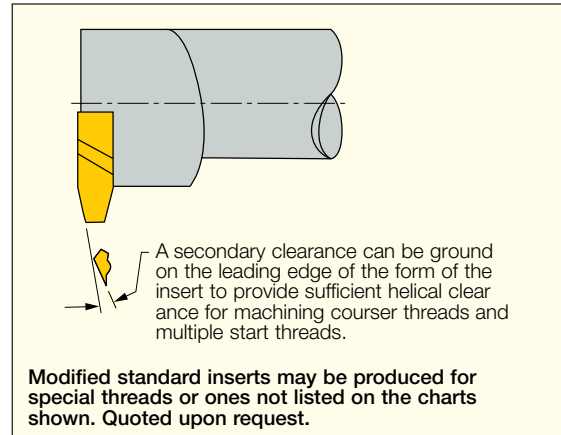
* 16 pitch acme threads and finer can be cut provided the minor diameter is 1.370 or larger.

** FLT-4 only.

Acme Threading Limits

Threads per Inch	Nominal Thread Size	Internal Threading Limitations	
		Minimum Minor Diameter	
		Inch	MM
6	2-1/2	2.333	59.26
8	2-1/4	2.125	53.98
10	2	1.900	48.26
12	1-3/4	1.667	42.34
14	1-5/8	1.554	39.47
16*	1-1/2	1.438	36.53

* 16 pitch acme threads and finer can be cut provided the minor diameter is 1.438 or larger.

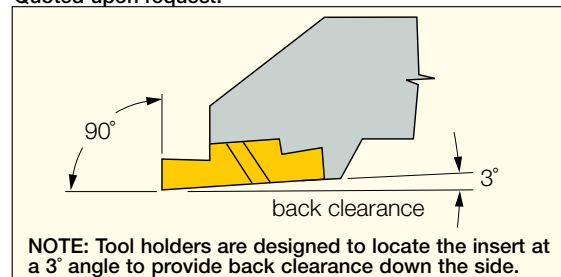


Threads per Inch	Nominal Thread Size	Internal Threading Limitations	
		Minimum Minor Diameter	
		Inch	MM
2*	5	4.500	114.30
2-1/2**	4-1/2	4.100	104.14
3**	4	3.665	93.09
4	3-1/2	3.250	82.55
5	3	2.800	71.12
6	2-1/2	2.333	59.26
8	2-1/4	2.125	53.98
10	2	1.900	48.26
12	1-3/4	1.667	42.34
14	1-5/8	1.554	39.47
16*	1-1/2	1.438	36.53

* 16 pitch acme threads and finer can be cut provided the minor diameter is 1.438 or larger.

** FLA-6 only.

NOTE: Positive rake ACME inserts are recommended for stainless steels and high-temp alloy applications. Quoted upon request.



Threads per Inch	Nominal Thread Size	Internal Threading Limitations	
		Minimum Minor Diameter	
		Inch	MM
8	1-3/4	1.600	40.64
10	1-5/8	1.505	38.23
12	1-1/2	1.400	35.56
16	1-1/4	1.175	29.85
20	1-1/16	1.002	25.45

Threads per Inch	Nominal Thread Size	Internal Threading Limitations	
		Minimum Minor Diameter	
		Inch	MM
4*	2-1/2	2.200	55.88
5	2-1/4	2.010	51.05
6	2	1.800	45.72
8	1-3/4	1.600	40.64
10	1-5/8	1.505	38.23
12**	1-1/2	1.400	35.56

* FLTB-4A insert only

** 16 or 20 threads per inch can be cut providing minor diameter is 1.375 or larger.

Threads per Inch	Nominal Thread Size	Internal Threading Limitations	
		Minimum Minor Diameter	
		Inch	MM
4	*2-7/8	2.575	65.41
5	2-3/4	2.510	63.75
6	2-3/8	1.175	29.85
8	2-1/8	1.975	50.17
10	1-7/8	1.755	44.58
12	1-5/8	1.525	38.74
16	1-1/2	1.407	35.74
20	1-7/16	1.378	35.00

* FLTB-4B insert only

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