

## FS LINE Fully Sintered Inserts

**COMPLETE  
PROGRAM  
62 ITEMS**



### Features and Benefits:

- Economical solution for all industries
- The program now offers 62 of the most popular profiles for external (IC3/8" & IC1/2") and internal (IC1/4" & IC3/8" & IC1/2") inserts
- Threading standards: Partial Profile 60°, Partial Profile 55°, ISO Metric, American UN, Whitworth, NPT, BSPT & API Round
- FS Line inserts are suitable with all standard Thread Turning Holders

### Grades:

- **FSK Grade** - TiN coated, recommended for steel and general use
- **FST Grade** - TiAlN coated, for stainless steel and general use

### Ordering Code:

- New FS Line insert designation is marked as "FS". For example: **3FSER3.0ISOFSK**

### Insert Marking:

- Insert designation on the bottom of the insert



### Packaging:

- **NEW** 10-piece snap-off packaging. All FS Line inserts are sold in sets of 10, with double-insert snap off boxes for your convenience



The **NEW FS LINE** is now included in the **VARGUS GENiUS™**, the most advanced Tool Selector and CNC Program Generator in the metal cutting tools industry.



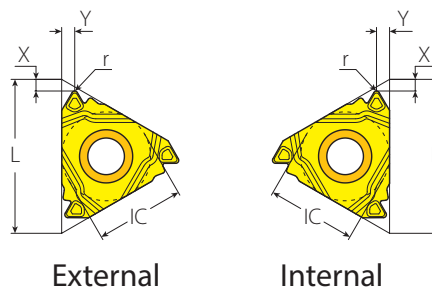
Please contact me directly with specific questions and requests.  
For additional updates and news visit the VARGUS website: [www.vargus.com](http://www.vargus.com)

Ami Yacar  
Vardex Product Manager

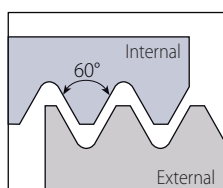
Scroll down for complete details

# FS LINE

## Fully Sintered Inserts

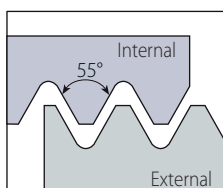


### Partial Profile 60°



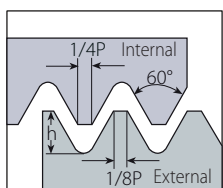
	Insert Size		Pitch		Ordering Code	Market Description	Dimensions mm			Anvil	
	IC	L mm	mm	TPI	RH		r	X	Y	RH	Toolholder
External	3/8"	16	0.5-1.5	48-16	3FSERA60...	16FSERA60...	0.06	0.8	0.9	YE3	AL...-3
			1.75-3.0	14-8	3FSERG60...	16FSERG60...	0.27	1.3	1.7		
			0.5-3.0	48-8	3FSERAG60...	16FSERAG60...	0.08	1.2	1.7		
			3.5-5.0	7-5	4FSERN60...	22FSERN60...	0.54	1.7	2.5		
Internal	1/4"	11	0.5-1.5	48-16	2FSIRA60...	11FSIRA60...	0.05	0.8	0.9	-	NVR...-2
			0.5-1.5	48-16	3FSIRA60...	16FSIRA60...	0.05	0.8	1.0		
	3/8"	16	1.75-3.0	14-8	3FSIRG60...	16FSIRG60...	0.16	1.1	1.5	YI3	A/NVR...-3
			0.5-3.0	48-8	3FSIRAG60...	16FSIRAG60...	0.05	1.1	1.6		
			1.75-3.0	14-8	3FSIRN60...	22FSIRN60...	0.32	1.7	2.5		
			3.5-5.0	7-5	4FSIRN60...	22FSIRN60...	0.32	1.7	2.5		

### Partial Profile 55°



	Insert Size		Pitch		Ordering Code	Market Description	Dimensions mm			Anvil	
	IC	L mm	mm	TPI	RH		r	X	Y	RH	Toolholder
External	3/8"	16	1.75-3.0	14-8	3FSERG55...	16FSERG55...	0.22	1.2	1.7	YE3	AL...-3
			0.5-3.0	48-8	3FSERAG55...	16FSERAG55...	0.07	1.1	1.7		
Internal	3/8"	16	1.75-3.0	14-8	3FSIRG55...	16FSIRG55...	0.22	1.1	1.7	YI3	A/NVR...-3
			0.5-3.0	48-8	3FSIRAG55...	16FSIRAG55...	0.07	1.1	1.7		

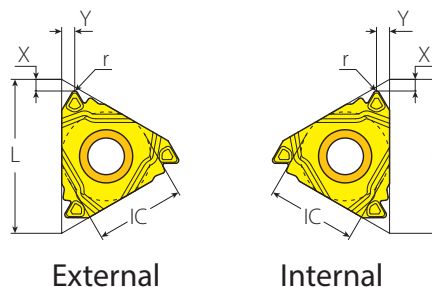
### ISO Metric | Defined by: R262 (DIN 13) | Tolerance class: 6g/6H



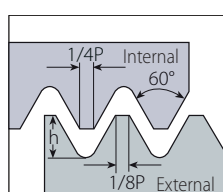
	Insert Size		Pitch		Ordering Code	Market Description	Dimensions mm			Anvil	
	IC	L mm	mm	TPI	RH		h min	X	Y	RH	Toolholder
External	3/8"	16	1.0		3FSER1.0ISO...	16FSER1.0ISO...	0.61	1.5	0.7	YE3	AL...-3
			1.25		3FSER1.25ISO...	16FSER1.25ISO...	0.77	1.4	0.8		
			1.5		3FSER1.5ISO...	16FSER1.5ISO...	0.92	1.3	0.9		
			1.75		3FSER1.75ISO...	16FSER1.75ISO...	1.07	1.0	1.1		
			2.0		3FSER2.0ISO...	16FSER2.0ISO...	1.23	1.4	1.3		
			2.5		3FSER2.5ISO...	16FSER2.5ISO...	1.53	1.6	1.5		
			3.0		3FSER3.0ISO...	16FSER3.0ISO...	1.84	1.6	1.6		
Internal	1/4"	11	1.0		2FSIR1.0ISO...	11FSIR1.0ISO...	0.58	1.0	0.6	-	NVR...-2
			1.5		2FSIR1.5ISO...	11FSIR1.5ISO...	0.87	0.9	0.8		
			2.0		2FSIR2.0ISO...	11FSIR2.0ISO...	1.15	0.9	1.0		
	3/8"	16	1.0		3FSIR1.0ISO...	16FSIR1.0ISO...	0.58	1.4	0.7	YI3	A/NVR...-3
			1.25		3FSIR1.25ISO...	16FSIR1.25ISO...	0.72	1.3	0.8		
			1.5		3FSIR1.5ISO...	16FSIR1.5ISO...	0.87	1.2	0.9		
3/8"	16	1.75		3FSIR1.75ISO...	16FSIR1.75ISO...	1.01	1.0	1.1	YI3	A/NVR...-3	
		2.0		3FSIR2.0ISO...	16FSIR2.0ISO...	1.15	1.3	1.3			
		2.5		3FSIR2.5ISO...	16FSIR2.5ISO...	1.44	1.3	1.4			
			3.0		3FSIR3.0ISO...	16FSIR3.0ISO...	1.73	1.2	1.5		

# FS LINE

## Fully Sintered Inserts

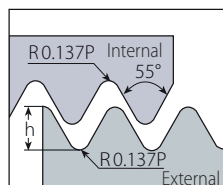


### American UN | Defined by: ANSI B1.1:74 | Tolerance class: 2A/2B



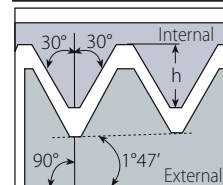
	Insert Size		Pitch	Ordering Code	Market Description	Dimensions mm			Anvil	
	IC	L mm	TPI	RH		h min	X	Y	RH	Toolholder
External	3/8"	16	24	3FSER24UN...	16FSER24UN...	0.65	1.4	0.8	YE3	AL...-3
			20	3FSER20UN...	16FSER20UN...	0.78	1.4	0.8		
			18	3FSER18UN...	16FSER18UN...	0.87	1.2	0.9		
			16	3FSER16UN...	16FSER16UN...	0.97	1.2	1.1		
			14	3FSER14UN...	16FSER14UN...	1.11	0.9	1.2		
			12	3FSER12UN...	16FSER12UN...	1.30	1.3	1.4		
Internal	3/8"	16	20	3FSIR20UN...	16FSIR20UN...	0.73	1.3	0.8	YI3	A/NVR...-3
			18	3FSIR18UN...	16FSIR18UN...	0.81	1.2	0.9		
			16	3FSIR16UN...	16FSIR16UN...	0.92	1.1	0.9		
			14	3FSIR14UN...	16FSIR14UN...	1.05	1.1	1.1		
			12	3FSIR12UN...	16FSIR12UN...	1.22	1.4	1.4		
			8	3FSIR8UN...	16FSIR8UN...	1.83	1.2	2.5		

### Whitworth for BSW, BSP | Defined by: B.S.84:1956, DIN 259, ISO228/1:1982 | Tolerance class: Medium class A



	Insert Size		Pitch	Ordering Code	Market Description	Dimensions mm			Anvil	
	IC	L mm	TPI	RH		h min	X	Y	RH	Toolholder
External	3/8"	16	19	3FSER19W...	16FSER19W...	0.86	1.2	0.9	YE3	AL...-3
			14	3FSER14W...	16FSER14W...	1.16	1.0	1.2		
			11	3FSER11W...	16FSER11W...	1.48	1.4	1.5		
Internal	3/8"	16	19	2FSIR19W...	11FSIR19W...	0.86	1.2	1.9	-	NVR...-2
			14	2FSIR14W...	11FSIR14W...	1.16	1.0	1.0		
			14	3FSIR14W...	16FSIR14W...	1.16	1.2	1.2		
	3/8"	16	11	3FSIR11W...	16FSIR11W...	1.48	1.3	1.4	YI3	A/NVR...-3

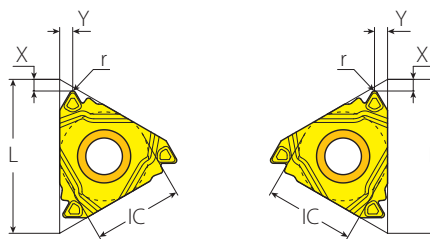
### NPT | Defined by: USAS B2.1:1968 | Tolerance class: Standard NPT



	Insert Size		Pitch	Ordering Code	Market Description	Dimensions mm			Anvil	
	IC	L mm	TPI	RH		h min	X	Y	RH	Toolholder
External	3/8"	16	18	3FSER18NPT...	16FSER18NPT...	1.01	1.0	0.9	YE3	AL...-3
			14	3FSER14NPT...	16FSER14NPT...	1.33	0.9	1.2		
			11.5	3FSER11.5NPT...	16FSER11.5NPT...	1.64	1.1	1.5		
			8	3FSER8NPT...	16FSER8NPT...	2.42	1.1	1.7		
Internal	3/8"	16	14	3FSIR14NPT...	16FSIR14NPT...	1.33	1.1	1.2	YI3	A/NVR...-3
			11.5	3FSIR11.5NPT...	16FSIR11.5NPT...	1.64	1.2	1.4		
			8	3FSIR8NPT...	16FSIR8NPT...	2.42	1.2	1.8		

# FS LINE

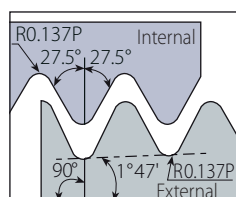
## Fully Sintered Inserts



External

Internal

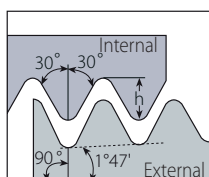
### BSPT



	Insert Size		Ordering Code		Market Description	Dimensions mm			Anvil	
	IC	L mm	TPI	RH		h min	X	Y	RH	Toolholder
External	3/8"	16	14	3FSER14BSPT	16FSER14BSPT...	1.16	0.9	1.0	YE3	AL...-3
			11	3FSER11BSPT	16FSER11BSPT...	1.48	1.1	1.3		
Internal	3/8"	16	14	3FSIR14BSPT	16FSIR14BSPT...	1.16	1.1	1.2	Y13	A/NVR...-3
			11	3FSIR11BSPT	16FSIR11BSPT...	1.48	1.2	1.4		

Defined by: B.S. 21:1985  
Tolerance class: Standard BSPT

### API Round Casing & Tubing | Defined by: API STD. 5B:1979 | Tolerance class: Standard API RD



	Insert Size		Pitch	Ordering Code		Market Description	Dimensions mm			Anvil	
	IC	L mm	TPI	RH		h min	X	Y	RH	Toolholder	
Internal	3/8"	16	10	3FSIR10APIRD...	16FSIR10APIRD...	1.41	1.2	1.5	YE13- APIRD or Y13	AVRC... 3APIRD or AVRC...-3	