SFEEDUP HIGH SPEED & FEED

INDUSTRY 4.0 UPDATE PRODUCT ANNOUNCEMENT 2021

TWISTSFEED™

DRILLING PRODUCTS

Bodies
3xD
5xD
Universal Flat & Cylindrical

Tips
.5906" - .8228"
(D15.0mm - D20.9mm)

Geometry
3-Flute
FPC-Steel/Cast Iron

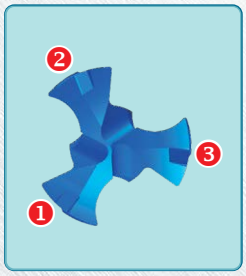
Grade
IN2205

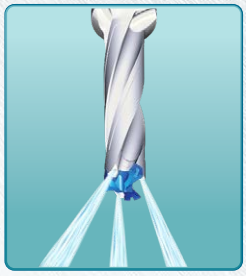
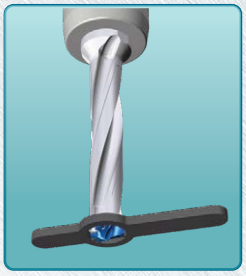
Applications
Die & Mold
General Purpose
Aerospace
Ship Building
Heat Exchangers
Agriculture

3-Flute Quick Change Drill For Increased Productivity!

Features & Benefits:

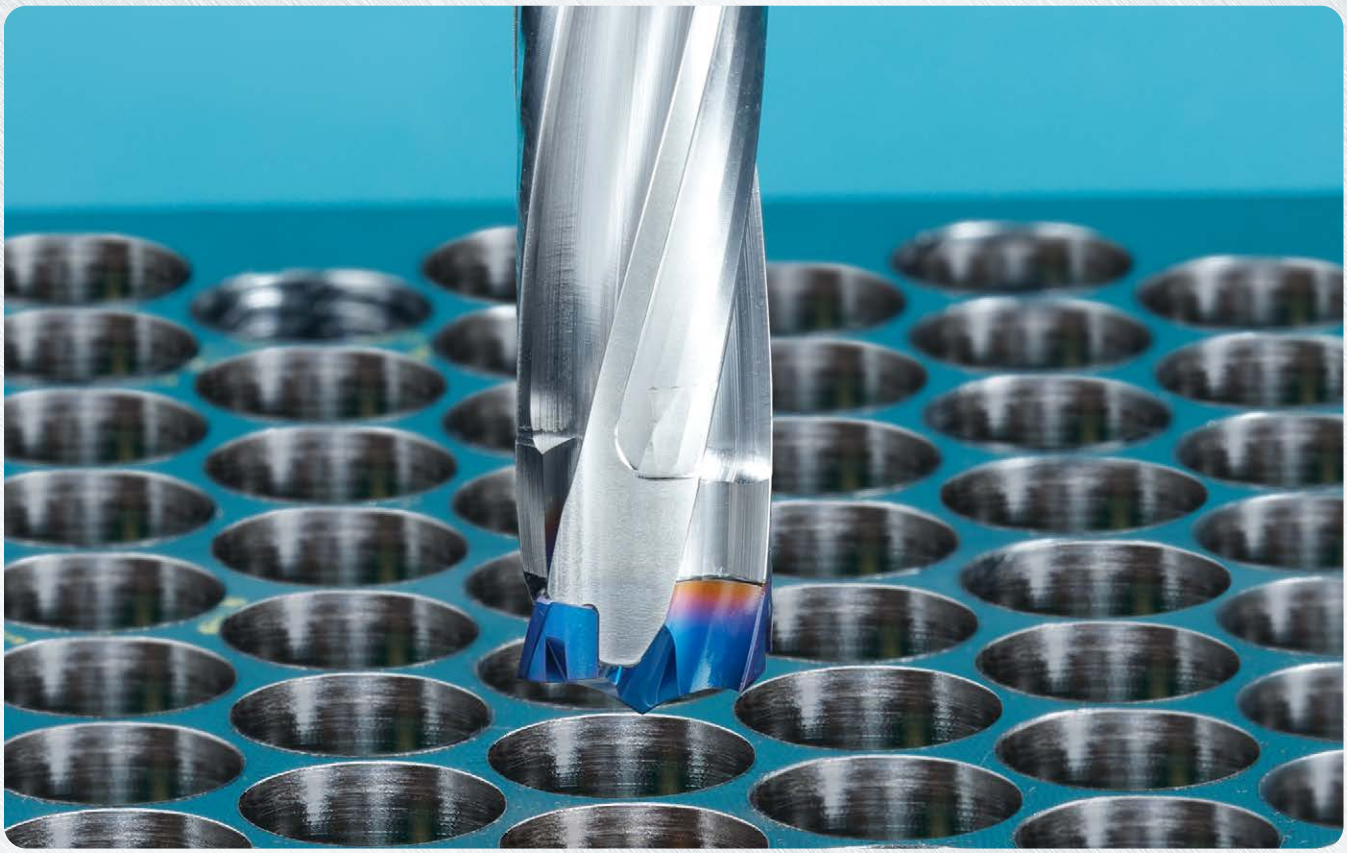
- 3-Flute geometry allows for increased productivity by more than 50%
- Diameter range: .5906"-.8228" (D15.0-D20.9mm)
- Can accommodate 3xD and 5xD applications
- Self-Centering geometry
  - Eliminates the need for piloting pre hole
  - Excellent hole precision and finish
  - Reduced spindle loads
- Multiple diameters accommodated with one, single body
- Coolant through for excellent chip evacuation
- New IN2205 grade for excellent tool life for steel and cast-iron applications
- Simplified tip replacement provides reduced downtime



Member IMC Group Ingersoll Cutting Tools

TWISTSFEED™



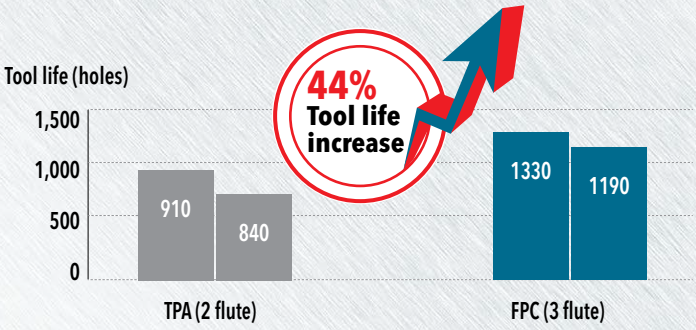
Ingersoll's GoldTwist product line, that has been meeting customer's needs with outstanding performance and productivity, is proud to introduce a 3-flute quick change drill with upgraded clamping mechanism designed to maximize productivity.

TwistSFeed utilizes a unique, self-centering feature that is unlike conventional 3-flute solid carbide drills to ensure phenomenal performance and stability for all applications. TwistSFeed provides optimal solutions for customers by reducing costs by improving tool life as well as achieving higher productivity due to multiple flutes and the latest coating technology.

The clamping mechanism allows for the simple replacement of drill tips, as well as accommodating multiple diameters onto one drill body facilitating economical stock management for end users.

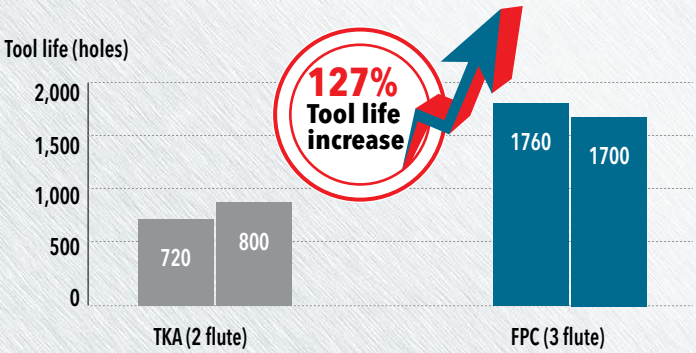
TWISTSFEED™ CASE STUDY 1

		Ingersoll	Ingersoll
Material		Alloy Steel 4140	
Drill		TD160008018R01	FD160008018R01
Head		TPA1600R01 IN2505	FPC1600R01 IN2205
Drilling depth (mm)		3.15"	3.15"
Cutting speed	V (sfm)	330	330
Feed	f (ipr)	.018"	.018"
Coolant		217 PSI	217 PSI
Tool life (holes)		910/840	1,330/1,190



TWISTSFEED™ CASE STUDY 2

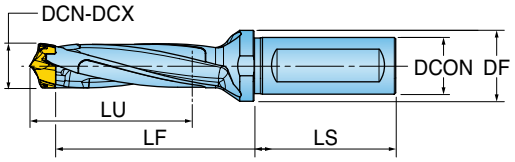
		Ingersoll	Ingersoll
Material		Cast Iron	
Drill		TD160008018R01	FD160008018R01
Head		TKA1600R01 IN2505	FPC1600R01 IN2205
Drilling depth (mm)		1.97"	1.97"
Cutting speed	V (sfm)	530	530
Feed	f (ipr)	.024"	.024"
Coolant		217 PSI	217 PSI
Tool life (holes)		720/800	1,760/1,700



TWISTSFEED™ SERIES FD (UNIVERSAL FLAT SHANK)

3XD UNIVERSAL FLAT SHANKS

Drilling | Coolant

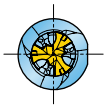


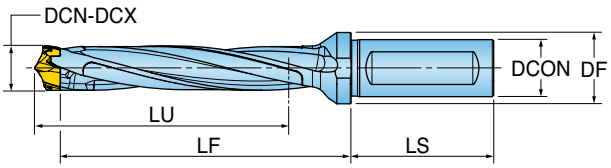
Part Number	DCN Cutting Dia. Min.	DCX Cutting Dia. Max.	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Diameter	DF Flange Diameter	Key
FD150004518R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	1.93	2.58	1.97	0.750	0.98	KFD14-15
FD160004818R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	2.05	2.76	1.97	0.750	0.98	KFD16-17
FD170005118R01	0.6693 (17.00 mm)	0.7047 (17.90 mm)	17	2.17	2.94	1.97	0.750	0.98	KFD16-17
FD1800054C8R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	2.28	3.15	2.20	1.000	1.26	KFD18-19
FD1900057C8R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	2.40	3.31	2.20	1.000	1.26	KFD18-19
FD2000060C8R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	2.52	3.47	2.20	1.000	1.26	KFD20-21

TWISTSFEED™ SERIES FD (UNIVERSAL FLAT SHANK)

5XD UNIVERSAL FLAT SHANKS

Drilling | Coolant



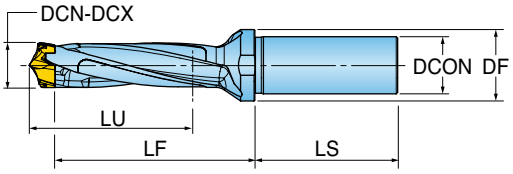


Part Number	DCN Cutting Dia. Min.	DCX Cutting Dia. Max.	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Diameter	DF Flange Diameter	Key
FD150007518R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	3.11	3.76	1.97	0.750	0.98	KFD14-15
FD160008018R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	3.31	4.02	1.97	0.750	0.98	KFD16-17
FD170008518R01	0.6693 (17.00 mm)	0.6693 (17.90 mm)	17	3.50	4.28	1.97	0.750	0.98	KFD16-17
FD1800090C8R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	3.70	4.56	2.20	1.000	1.26	KFD18-19
FD1900095C8R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	3.90	4.80	2.20	1.000	1.26	KFD18-19
FD2000100C8R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	4.09	5.04	2.20	1.000	1.26	KFD20-21

TWISTSFEED™ SERIES FD (CYLINDRICAL SHANK)

3XD CYLINDRICAL SHANKS

Drilling Coolant

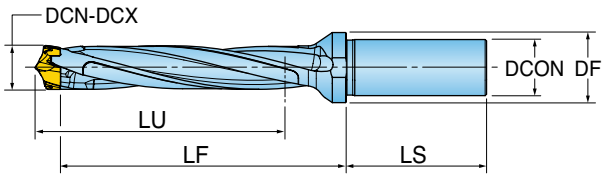


Part Number	DCN Cutting Dia. Min.	DCX Cutting Dia. Max.	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Diameter	DF Flange Diameter	Key
FD1500045S7R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	1.93	2.58	1.97	0.750	0.98	KFD14-15
FD1600048S7R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	2.05	2.76	1.97	0.750	0.98	KFD16-17
FD1700051S7R01	0.6693 (17.00 mm)	0.6693 (17.90 mm)	17	2.17	2.94	1.97	0.750	0.98	KFD16-17
FD1800054S1R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	2.28	3.15	2.20	1.000	1.26	KFD18-19
FD1900057S1R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	2.40	3.31	2.20	1.000	1.26	KFD18-19
FD2000060S1R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	2.52	3.47	2.20	1.000	1.26	KFD20-21

TWISTSFEED™ SERIES FD (CYLINDRICAL SHANK)

5XD CYLINDRICAL SHANKS

Drilling Coolant

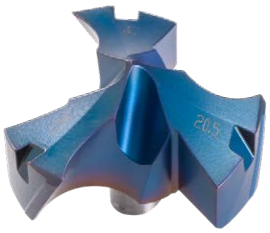


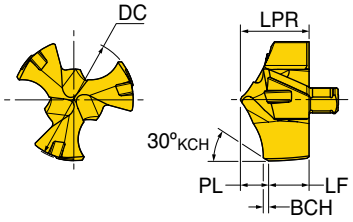
Part Number	DCN Cutting Dia. Min.	DCX Cutting Dia. Max.	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Diameter	DF Flange Diameter	Key
FD1500075S7R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	3.11	3.76	1.97	0.750	0.98	KFD14-15
FD1600080S7R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	3.31	4.02	1.97	0.750	0.98	KFD16-17
FD1700085S7R01	0.6693 (17.00 mm)	0.6693 (17.90 mm)	17	3.50	4.28	1.97	0.750	0.98	KFD16-17
FD1800090S1R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	3.70	4.56	2.20	1.000	1.26	KFD18-19
FD1900095S1R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	3.90	4.80	2.20	1.000	1.26	KFD18-19
FD2000100S1R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	4.09	5.04	2.20	1.000	1.26	KFD20-21

TWISTSFEED™ SERIES FPC

3-FLUTE DRILL TIPS

Drilling Coolant





Part Number	DC Cutting Diameter	SSC Seat Size Code	PL Point Length	LPR Projection Length	LF Functional Length	BCH Chamfer Length	Grade IN2205
FPC1500R01	0.5906 (15.00 mm)	15	0.130	0.331	0.200	0.020	•
FPC1510R01	0.5945 (15.10 mm)	15	0.130	0.331	0.200	0.020	•
FPC1520R01	0.5984 (15.20 mm)	15	0.130	0.331	0.200	0.020	•
FPC1530R01	0.6024 (15.30 mm)	15	0.130	0.331	0.200	0.020	•
FPC1540R01	0.6063 (15.40 mm)	15	0.130	0.331	0.200	0.020	•
FPC1550R01	0.6102 (15.50 mm)	15	0.131	0.331	0.200	0.020	•
FPC1560R01	0.6142 (15.60 mm)	15	0.131	0.331	0.200	0.020	•
FPC1570R01	0.6181 (15.70 mm)	15	0.131	0.331	0.200	0.020	•
FPC1580R01	0.6220 (15.80 mm)	15	0.131	0.331	0.200	0.020	•
FPC1588R01	0.6250 (15.88 mm)	15	0.131	0.331	0.200	0.020	•
FPC1590R01	0.6260 (15.90 mm)	15	0.131	0.331	0.200	0.020	•
FPC1600R01	0.6299 (16.00 mm)	16	0.146	0.354	0.208	0.028	•
FPC1610R01	0.6339 (16.10 mm)	16	0.146	0.354	0.208	0.028	•
FPC1620R01	0.6378 (16.20 mm)	16	0.146	0.354	0.208	0.028	•
FPC1630R01	0.6417 (16.30 mm)	16	0.146	0.354	0.208	0.028	•
FPC1640R01	0.6457 (16.40 mm)	16	0.146	0.354	0.208	0.028	•
FPC1650R01	0.6496 (16.50 mm)	16	0.146	0.354	0.208	0.028	•
FPC1660R01	0.6535 (16.60 mm)	16	0.146	0.354	0.208	0.028	•
FPC1670R01	0.6575 (16.70 mm)	16	0.146	0.354	0.208	0.028	•
FPC1680R01	0.6614 (16.80 mm)	16	0.146	0.354	0.208	0.028	•
FPC1690R01	0.6654 (16.90 mm)	16	0.146	0.354	0.208	0.028	•
FPC1700R01	0.6693 (17.00 mm)	17	0.154	0.374	0.221	0.028	•
FPC1710R01	0.6732 (17.10 mm)	17	0.154	0.374	0.221	0.028	•
FPC1720R01	0.6772 (17.20 mm)	17	0.154	0.374	0.221	0.028	•
FPC1730R01	0.6811 (17.30 mm)	17	0.154	0.374	0.221	0.028	•
FPC1740R01	0.6850 (17.40 mm)	17	0.154	0.374	0.221	0.028	•
FPC1750R01	0.6890 (17.50 mm)	17	0.153	0.374	0.221	0.028	•
FPC1760R01	0.6929 (17.60 mm)	17	0.153	0.374	0.221	0.028	•
FPC1770R01	0.6969 (17.70 mm)	17	0.153	0.374	0.221	0.028	•
FPC1780R01	0.7008 (17.80 mm)	17	0.153	0.374	0.221	0.028	•
FPC1790R01	0.7047 (17.90 mm)	17	0.153	0.374	0.221	0.028	•

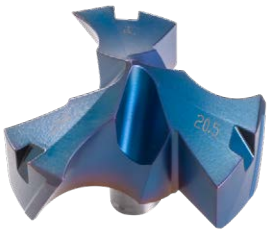
• : Standard items

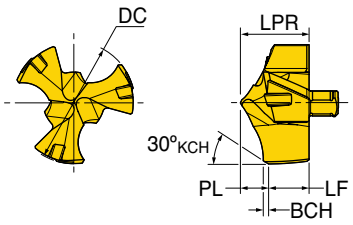
TWISTSFEED™ SERIES FPC (CONT.)

3-FLUTE DRILL TIPS

Drilling

Coolant





Part Number	DC Cutting Diameter	SSC Seat Size Code	PL Point Length	LPR Projection Length	LF Functional Length	BCH Chamfer Length	Grade IN2205
FPC1800R01	0.7087 (18.00 mm)	18	0.160	0.398	0.237	0.028	•
FPC1810R01	0.7126 (18.10 mm)	18	0.160	0.398	0.237	0.028	•
FPC1820R01	0.7165 (18.20 mm)	18	0.160	0.398	0.237	0.028	•
FPC1830R01	0.7205 (18.30 mm)	18	0.160	0.398	0.237	0.028	•
FPC1840R01	0.7244 (18.40 mm)	18	0.160	0.398	0.237	0.028	•
FPC1850R01	0.7283 (18.50 mm)	18	0.161	0.398	0.237	0.028	•
FPC1860R01	0.7323 (18.60 mm)	18	0.161	0.398	0.237	0.028	•
FPC1870R01	0.7362 (18.70 mm)	18	0.161	0.398	0.237	0.028	•
FPC1880R01	0.7402 (18.80 mm)	18	0.161	0.398	0.237	0.028	•
FPC1890R01	0.7441 (18.90 mm)	18	0.161	0.398	0.237	0.028	•
FPC1900R01	0.7480 (19.00 mm)	19	0.168	0.421	0.254	0.028	•
FPC1905R01	0.7500 (19.05 mm)	19	0.168	0.421	0.254	0.028	•
FPC1910R01	0.7520 (19.10 mm)	19	0.168	0.421	0.254	0.028	•
FPC1920R01	0.7559 (19.20 mm)	19	0.168	0.421	0.254	0.028	•
FPC1930R01	0.7598 (19.30 mm)	19	0.168	0.421	0.254	0.028	•
FPC1940R01	0.7638 (19.40 mm)	19	0.168	0.421	0.254	0.028	•
FPC1950R01	0.7677 (19.50 mm)	19	0.168	0.421	0.253	0.028	•
FPC1960R01	0.7717 (19.60 mm)	19	0.168	0.421	0.253	0.028	•
FPC1970R01	0.7756 (19.70 mm)	19	0.168	0.421	0.253	0.028	•
FPC1980R01	0.7795 (19.80 mm)	19	0.168	0.421	0.253	0.028	•
FPC1990R01	0.7835 (19.90 mm)	19	0.168	0.421	0.253	0.028	•
FPC2000R01	0.7874 (20.00 mm)	20	0.175	0.445	0.270	0.028	•
FPC2010R01	0.7913 (20.10 mm)	20	0.175	0.445	0.270	0.028	•
FPC2020R01	0.7952 (20.20 mm)	20	0.175	0.445	0.270	0.028	•
FPC2030R01	0.7992 (20.30 mm)	20	0.175	0.445	0.270	0.028	•
FPC2040R01	0.8031 (20.40 mm)	20	0.175	0.445	0.270	0.028	•
FPC2050R01	0.8071 (20.50 mm)	20	0.175	0.445	0.270	0.028	•
FPC2060R01	0.8110 (20.60 mm)	20	0.175	0.445	0.270	0.028	•
FPC2070R01	0.8150 (20.70 mm)	20	0.175	0.445	0.270	0.028	•
FPC2080R01	0.8189 (20.80 mm)	20	0.175	0.445	0.270	0.028	•
FPC2090R01	0.8228 (20.90 mm)	20	0.175	0.445	0.270	0.028	•

• : Standard items

TWISTSFEED™ OPERATING GUIDELINES

ISO	Material		Condition	Tensile Strength (N/mm²)	Hardness HB	Material Group No	Cutting Speed Vc (sfm)	Feed vs. Drill Diameter D=Ø.5906- Ø.8228 IPR (inches/rev)
P	Non-alloy steel and cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	260-460	.014-.022
		>=0.25%C	Annealed	650	190	2	260-430	.014-.022
		<0.55%C	Quenched and tempered	850	250	3	260-400	.014-.022
		>=0.55%C	Annealed	750	220	4	230-369	.014-.022
			Quenched and tempered	1000	300	5	165-300	.014-.022
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6	260-400	.012-.020
			Quenched and tempered	930	275	7	230-365	.012-.020
				1000	300	8	165-300	.012-.020
				1200	350	9	130-230	.012-.020
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	165-300	.012-.018
			Quenched and tempered	1100	325	11	130-260	.012-.018
K	Grey cast iron (GG)		Ferritic / pearlitic	-	180	15	300-530	.018-.026
			Pearlitic	-	260	16	260-460	.018-.026
	Cast iron nodular (GGG)		Ferritic	-	160	17	300-595	.016-.024
			Pearlitic	-	250	18	260-460	.016-.024
	Malleable cast iron		Ferritic	-	130	19	300-530	.016-.024
			Pearlitic	-	230	20	260-460	.016-.024

Steel Cast iron

Note: Feed rates are based on Three Effective - DO NOT TRIPLE*