

# FRENCH ENGINEERING WORKS



1918 - 2018



**STOCK RANGE**

Next Page





1920's



1940's



Present Day



Factory in Johannesburg



Head Office in Johannesburg

### Historical Background

The French Engineering Works is a family business which was established in 1918 to manufacture Rock Drill spares for the mining industry in Johannesburg. The founder, Herman Moser, soon expanded into precision tools, including HSS cutting tools for the metal industry. His Swiss origins instilled a pride in quality and precision which persists to the present day.

Recognising the positive impact of specialisation on quality, Herman's sons restructured the diverse business in mid-century. The sharp focus on threading and decades of technical and market development, led to the recognition of FEW Taps and Dies in over forty countries. Distribution depots were strategically located to service major industrial regions.

Customer demand for a wider range of FEW quality cutting tools led to an ongoing search for focused manufacturers of complementary products. Today, over twenty specialists on five continents manufacture complementary products specified by FEW.

The appointment of exclusive agents, together with the technical and commercial support of FEW have led to FEW Cutting Tools being specified worldwide by end-users who insist on quality and value for money.



# STOCK RANGE

# SPECIAL APPLICATION MACHINE TAPS

YELLOW RING SF ST 4221SO



ORANGE RING SF 4221OR



ORANGE RING SF15° 3221OR



RED RING SF 5224HR



BLUE RING SF 5221IN



YELLOW RING SF BF 5220AL



GREEN RING SF 5220AS



WHITE RING STR FL NI 0222GG



WHITE RING STR FL TIN 0223GG



6220 / 6220G



0924R / 0924H



## SPIRAL FLUTE FOR BLIND HOLES

For soft steels, < 450 N/mm<sup>2</sup>.

DIN 371/376

For alloyed and unalloyed steels, 450 - 750 N/mm<sup>2</sup>.

DIN 371/6/4  
DIN 5156

For alloyed and unalloyed steels, 450 - 1000 N/mm<sup>2</sup>.

DIN 371/376

For very tough materials over 1000 N/mm<sup>2</sup>.

DIN 371/376

For stainless steels.

DIN 371/376

For soft aluminium, magnesium, copper etc.

DIN 371/376

For tough non - ferrous metals.

DIN 371/376

## FOR THROUGH AND BLIND HOLES

For use in abrasive short chipping applications, such as cast iron.

DIN 371/6/4  
DIN 5156

For higher speed tapping in abrasive short chipping applications.

DIN 371/376

### Polygon Taps (Roll Taps)

Roll threading of ductile materials.  
With oil grooves for deep or blind holes.

ISO/DIN

### Nut Taps

R - Nib. For soldering onto bentshank.  
H - Nib. For buttwelding onto bentshank.

FEW NORM  
FEW NORM

### Special Taps

Taps made to customer Specifications.

ISO  
DIN  
JIS  
SPEC

### Flat Thread Rolling Dies

A wide range of ground thread Flat and Huck Rolling Dies made to order.

TO CUSTOMER  
DRAWING

### Circular Thread Rolling Dies

Ground thread plunge (helical) or through feed (annular and helical) dies made to order.

TO CUSTOMER  
SPECIFICATIONS

### HSS Standard Circular Dies

Solid dies for general purpose threading of most threadforms. Ground chamfer with lapped threads. Also available in LH, Split and Spiral Entry.

DIN EN22568  
DIN EN24231  
DIN EN24230  
BS 1127

### HSS Standard Hex Die Nuts

For general purpose repairing or cleaning of threads. Also available in LH.

DIN 382 /  
IMPERIAL



**HAND TAPS**

**Standard Sets**

General purpose hand tapping. Available in most threadforms, also in LH and long reach.

ISO 529  
JIS B4430  
DIN 371/6/4  
ISO 2284

**Serial Sets**

The progressive truncated threadform is especially suited for tough materials such as stainless or high tensile steels.

ISO 529

**Pilot Serial Sets**

Precision tapping in tough materials. The Pilot Serial Set has a pilot to help start the thread concentrically, thus allowing accurate hand tapping.

ISO 529



**GENERAL PURPOSE MACHINE TAPS**

**Straight Flute Taps**

For machine tapping in long or short chipping materials. Available in most threadforms, also in LH and long reach.

ALL NORMS

**Spiral Point Taps for Through Holes**

General purpose tapping mainly for non - ferrous materials.

ALL NORMS

General purpose tapping for most common steels.

ALL NORMS

Abrasive materials and high speed tapping.

ISO/DIN/JIS

**Spiral Flute Taps for Blind Holes**

General purpose tapping mainly for non - ferrous materials.

ALL NORMS

General purpose tapping for most common steels.

ALL NORMS

For abrasive materials or higher speeds.

ISO/DIN/JIS

For steels up to 1000 N/mm<sup>2</sup> with medium to long shavings and tough non - ferrous materials.

DIN 371/376

For steels up to 1000 N/mm<sup>2</sup> with medium to long shavings that require a higher cutting speed.

DIN 371/376



**SPECIAL APPLICATION TAPS FOR THROUGH HOLES**

For soft steels, < 450 N/mm<sup>2</sup>.

DIN 371/376

For alloyed and unalloyed steels, 450 - 1000 N/mm<sup>2</sup>.

DIN 371/6/4  
DIN 5156

For very tough materials over 1000 N/mm<sup>2</sup>.

DIN 371/376

For stainless steels.

DIN 371/376

For soft aluminium, magnesium, copper etc.

DIN 371/376

For tough non - ferrous metals.

DIN 371/376



# STOCK RANGE

# HSS / HSS Co DRILL RANGE

	<b>HSS BF Jobber Drills</b> Bright finish ground flute drill with split point for general purpose applications. (118° Pt)	DIN 338
	<b>HSS ST Jobber Drills</b> Steam tempered ground flute drill with split point for drilling in steel where cold welding is a problem. (118° Pt)	DIN 338
	<b>HSS TIN Jobber Drills</b> Titanium coated ground flute with split point for general purpose applications. (135° Pt)	DIN 338 LLT
	<b>HSS RF Jobber Drills</b> Steam tempered roll forged for general purpose drilling. (118° Pt)	DIN 338 LLT
	<b>Cobalt Heavy Duty Drills</b> HSS-Co drill with Gold Oxide finish and split point for heavy duty applications in tough materials. (135° Pt)	DIN 338
	<b>Long Series Drills</b> A general purpose bright finish HSS ground flute drill for long reach or deep hole applications. (118° Pt)	DIN 340
	<b>Extra Long Series Drills</b> A Bright Finish HSS ground flute drill for general purpose long reach applications. (118° Pt)	DIN 1869
	<b>Parabolic Jobber Drills</b> Bright Finish HSS-Co drill with parabolic ground flutes with split point for high production and precision applications. (130° Pt)	DIN 338
	<b>Parabolic Long Series Drills</b> Bright Finish HSS-Co LS drill with parabolic ground flutes with split point for high production and precision long reach applications. (130° Pt)	DIN 340
	<b>Parabolic Flute HSS Co Stub Drills</b> A shorter rigid HSS-Co drill with Bright Finish parabolic ground flutes with split point for high production and precision applications. (130° Pt)	DIN 1897
	<b>Single Ended Stub Drills</b> A shorter rigid HSS drill with Bright Finish ground flutes for general purpose applications. (118° Pt)	DIN 1897
	<b>Double Ended Stub Drills</b> Split Point for thin material applications. (135° Pt)	FEW NORM
	<b>HSS Centre Drills 60°</b> Available in Type A, B and R.	DIN 333 BS 328
	<b>HSS - Co NC Spotting Drills</b> An alternative to centre drills. (90° / 120° Pts)	DIN 1897
	<b>Reduced Shank Drills</b> For general purpose drilling.	FEW NORM
	<b>Morse Taper Shank Drills</b> For general purpose applications.	DIN 345
	<b>Extra Length Morse Taper Shank Drills</b> For general purpose deep hole drilling.	FEW NORM
	<b>HSS &amp; HSSE Core Drills (Annular Cutters)</b> For drilling steel, cast iron, stainless steel and non ferrous metals. Available in two cutting lengths. (25mm & 50mm)	FEW NORM
	<b>Metal Drill Box Sets</b> Available in a variety of combinations.	METAL CASES



# STOCK RANGE

# ALLIED LINES



## Die Stocks

To suit circular dies for hand threading.

DIN 225  
IMPERIAL

## Tap Wrenches

Heavy duty forged steel for high torque applications.

DIN 1814

## Ratchet Wrenches

For general purpose tapping.

2 - 6mm  
6 - 12mm

## FEW Cutting Compound and Aerosol FEW Greenlube Cutting Fluid

Reduce tool wear, improve tool life.

300ml  
500ml  
2 litre  
20 litre

## Thread Restorers

Restores damaged threads, right or left hand.

METRIC, PIPE  
AND IMPERIAL

## Screw Pitch Gauges

For gauging of pitch, other thread gauges available.

METRIC AND  
IMPERIAL

## Screw Plug & Ring Gauges

Available in most popular threadforms,  
or against special request.

DOUBLE ENDED  
GO OR NO GO

## Hacksaw & Powersaw Blades

HSS blades available in standard sizes.

ALL HARD  
BI-METAL

## Collets

Available in ER16, ER20, ER25, ER32 and ER40

DIN6499B  
HRC 44-48

## HSSE - Countersinks 90°

Used in the execution of counter-sinking. Available  
in Hollow Type, Single Flute and Three Flute.

STRAIGHT  
SHANK

## HSSE - Counterbores

Used in the execution of counterboring.

STRAIGHT  
SHANK

## HSS / HSSE - Co8 Toolbits

Available in square, round and rectangular  
for standard and tougher applications.

ISO 5421

## Keyway Broaches

Keyway, Square and Hexagon broaches available in  
Metric and Imperial sizes. Standard bushings available.

AMERICAN  
STANDARDS

## Recoil Thread Repair Kits

Consists of HSS Tap, Drill, Tang breakoff / Inserting tool,  
Inserts and instructions. Available in most popular  
threadforms. (Inserts available in 1D, 1.5D and 2D lengths)

METRIC  
AND  
IMPERIAL

## Morse Taper Extension Sockets

To extend spindle length, for  
a variety of MTS size combinations.

TYPE 271 ES  
DIN 345

## Morse Taper Reduction Sleeves

To reduce machine morse taper size to suit drill.

TYPE 271 DS  
DIN 345

## Drill Drifts

Hardened and steam tempered.

TYPE 271 DD  
DIN 317

## Pin Chucks

For holding micro drills.

INCLUDES  
3 COLLETS

## Drill Re-Sharpening Machines

2mm - 13mm (90° - 140°)  
12mm - 34mm (90° - 140°)  
Complete with metal collets and CBN grinding wheels.

GP-213  
GP-1226



# STOCK RANGE

# HSS / HSSE Co8 CUTTER RANGE

	<p><b>HSS Parallel Shank Hand Reamer</b> For general purpose hand reaming to H7 tolerance.</p>	<p>DIN 206 BS 328</p>
	<p><b>HSS Parallel Shank Chucking Reamer</b> For general machine reaming to H7 tolerance.</p>	<p>DIN 212 BS 328</p>
	<p><b>HSS MTS Shank Chucking Reamer</b> For general machine reaming to H7 tolerance.</p>	<p>DIN 208 BS 328</p>
	<p><b>HSS Taper Bridge Reamer</b> For opening out existing holes on structural steel work and fabrications.</p>	<p>DIN 212</p>
	<p><b>HSS Taper Pin Straight Flute Reamer</b> To suit standard taper pins.</p>	<p>DIN 9A</p>
	<p><b>HSS Taper Pin Spiral Flute Reamer</b> To suit standard taper pins.</p>	<p>DIN 9B</p>
	<p><b>Adjustable Hand Reamers</b> For light cuts by hand operation.</p>	<p>ALLOY BLADES HSS BLADES</p>
	<p><b>HSS / HSSE Co8 2 Flute End Mills</b> HSS For plunging in slots or keyways, in general purpose applications. HSSE Co8 for tough materials or high production.</p>	<p>DIN 327 BS 122</p>
	<p><b>HSSE Co8 2 Flute Ball Nose</b> For plunging radiused slots and keyways in tough materials and general purpose applications.</p>	<p>DIN 327 BS 122</p>
	<p><b>HSSE Co8 3 Flute End Mills</b> These are flexible multi - purpose tools for plunging, slotting and profiling in tough materials and general purpose production applications.</p>	<p>DIN 844 BS 122</p>
	<p><b>HSS / HSSE Co8 Multi Flute End Mills</b> HSS for profiling in general purpose applications. HSSE Co8 for profiling in production applications in tough materials, yet are flexible in being able to plunge and slot due to their centre cutting characteristics.</p>	<p>BS 122 BS 122</p>
	<p><b>HSSE Co8 Roughing Cutters</b> Coarse knuckle profile for high speed metal removal.</p>	<p>BS 122</p>
	<p><b>T - Slot Cutters</b> For cutting a T - slot in a previously milled slot.</p>	<p>FEW NORM</p>
	<p><b>Woodruff Cutters</b> For cutting a seat for woodruff keys.</p>	<p>DIN 850</p>
	<p><b>Dovetail Cutters</b> For cutting dovetail slides.</p>	<p>FEW NORM</p>
	<p><b>Inverted Dovetail Cutters</b> For cutting the inverse section of a dovetail slide.</p>	<p>FEW NORM</p>
	<p><b>Corner Rounding Cutters</b> For cutting a radius on a corner.</p>	<p>DIN 6518D</p>

Please Note: All HSSE - Co8 and HSS Cutters are also available in Flatted Shank versions.



## STOCK RANGE

## SOLID CARBIDE CUTTER & DRILL RANGE



### 2 Flute End Mill Regular & Long Series

10% Co with 0.6 µm Grain Size  
35° Right Hand Spiral

MICROGRAIN  
SOLID CARBIDE

### 2 Flute Ball Nose End Mill Regular & Long Series

10% Co with 0.6 µm Grain Size  
30° Right Hand Spiral

MICROGRAIN  
SOLID CARBIDE

### 4 Flute End Mill Regular & Long Series

10% Co with 0.6 µm Grain Size  
35° Right Hand Spiral

MICROGRAIN  
SOLID CARBIDE

### 4 Flute Ball Nose End Mill Regular

10% Co with 0.6 µm Grain Size  
35° Right Hand Spiral

MICROGRAIN  
SOLID CARBIDE

### High Helix End Mill for Hard Steels

12% Co with 0.4 µm Grain Size  
45° Right Hand Spiral

MICROGRAIN  
SOLID CARBIDE

### 3 Flute End Mill for Aluminium

10% Co with 0.6 µm Grain Size  
55° Right Hand Spiral

MICROGRAIN  
SOLID CARBIDE

### 4 Flute Roughing Cutter - Fine Pitch

40° Right Hand Spiral

ULTRA  
MICROGRAIN  
SOLID CARBIDE

### 4 Flute Rip-Fin End Mill Regular & Long Series

45° Right Hand Spiral

ULTRA  
MICROGRAIN  
SOLID CARBIDE

### Double-Edge Cutters 2 Flute End Mill - 4 Cutting Edges

35° Right Hand Spiral

ULTRA  
MICROGRAIN  
SOLID CARBIDE

### Double-Edge Cutters 4 Flute End Mill - 8 Cutting Edges

35° Right Hand Spiral

ULTRA  
MICROGRAIN  
SOLID CARBIDE

### 4 Flute Corner Radius Cutter

10% Co with 0.6 µm Grain Size  
35° Right Hand Spiral

MICROGRAIN  
SOLID CARBIDE

### Single Flute End Mill

30° Right Hand Spiral

ULTRA MICROGRAIN  
SOLID CARBIDE

### Solid Carbide Drill (3xD & 5xD)

12% Co with 0.4 µm Grain Size  
35° Right Hand Spiral, Split Point

MICROGRAIN  
SOLID CARBIDE

FEW Contact Details:



service driven solutions

+2711 672 6229/2214

40 Beacon Rd, Florida Hills, Roodepoort, 1709

[www.randboltandtool.co.za](http://www.randboltandtool.co.za)

[info@randboltandtool.co.za](mailto:info@randboltandtool.co.za)