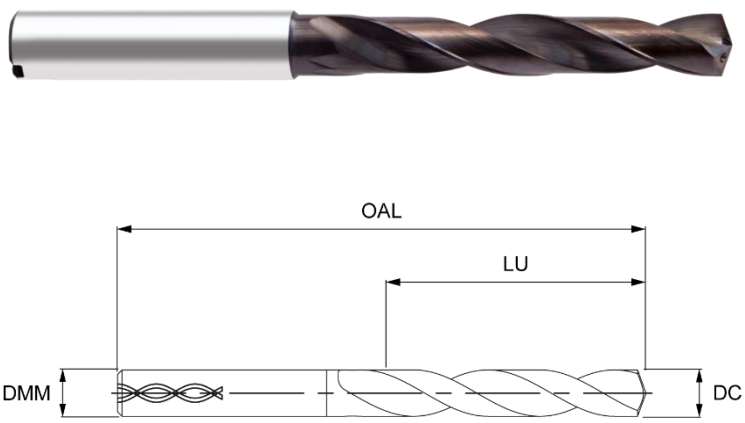
Features

- Point R-thinning gives superior centering and chip curling.
- Special flute geometry highly suited to machining stainless steels.
- Special RS Pro coating gives better surface finish and longer tool life.
- Excellent chip evacuation due to improved surface treatment.
- Through coolant capability improves heat dissipation and chip removal.

RS PRO 5xD Carbide Drill



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

The RS PRO 5xD Carbide Drill is engineered for high performance in stainless steel and other tough materials, featuring a nano-layered TiAIN coating for exceptional tool life and a specialised flute and point geometry for smooth, stable cutting. It's 140° 4-facet point ensures excellent self-centering with reduced burrs, while radius thinning lowers axial forces for softer cutting action. Wide flutes with a tailored core improve chip formation and evacuation, and the straight cutting lip reduces torque for reliable drilling in even in the most demanding applications. The inclusion of the through coolant capability enhances heat dissipation and aids efficient chip evacuation, further improving tool life and performance.

General Specifications

Brand	RS PRO
Material	Carbide
Drill Bit Size	3mm – 11mm
Product Type	Drill Bit
Overall Length	66mm – 118mm
Shank Diameter	6mm – 12mm
Cut Length	28mm – 71mm
Number of Pieces	1
Drill Bit Type	5xD
Drill Application	Steel Stainless steel Cast iron Aluminium Plastics, acrylics

Mechanical Specifications

Cutter Diameter	DC– See table below and detailed image below
Cut Length	LU – See table below and detailed image below
Number of Flutes	2
Overall Length	OAL – See table below and detailed image below
Shank Type	Straight / Cylindrical Shank
Shank Diameter	DDM – See table below and detailed image below
Centre Cutting	Yes

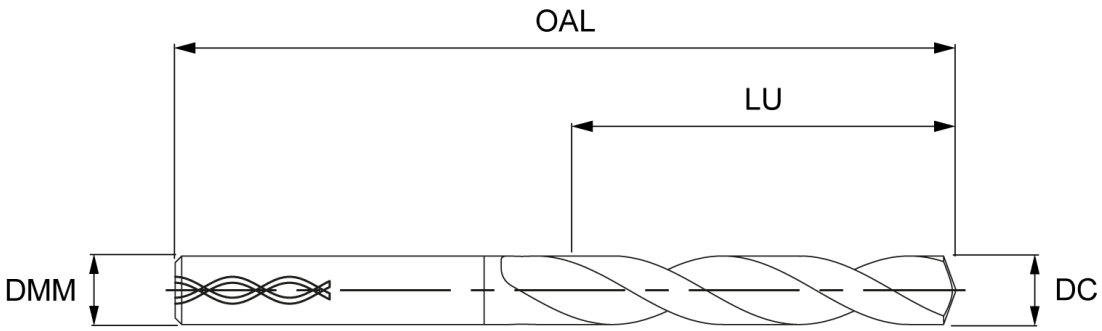
Approvals

Declarations	N/A
Hazardous Area Certification	N/A
Standards Met	DIN 6537

Stock No.	Brand	Diameter **DC**	Shank Diameter **DMM**	FL.LTH **LU**	O/ALL **OAL**
XXX-XXXX 905643	RS PRO	4.0	6.0	36	74
XXX-XXXX 905644	RS PRO	5.0	6.0	44	82
XXX-XXXX 905645	RS PRO	6.0	6.0	44	82
XXX-XXXX 905647	RS PRO	8.5	10.0	61	103

Similar Products

Stock No.	Brand	Diameter **DC**	Shank Diameter **DMM**	FL.LTH **LU**	O/ALL **OAL**
XXX-XXXX 905635	RS PRO	3.0	6.0	20	62
XXX-XXXX 905636	RS PRO	4.0	6.0	24	66
XXX-XXXX 905637	RS PRO	4.2	6.0	24	66
XXX-XXXX 905638	RS PRO	5.0	6.0	28	66
XXX-XXXX 905639	RS PRO	6.0	6.0	28	66
XXX-XXXX 905640	RS PRO	7.0	8.0	34	79
XXX-XXXX 905641	RS PRO	8.0	8.0	41	79



Cutting Data

VDI MATERIAL GROUP			HRc	v_c (m/min)	f_n (mm/rev)													
					ø1.0 -1.9	ø2.0 -2.9	ø3.0 -3.9	ø4.0 -4.9	ø5.0 -5.9	ø6.0 -6.9	ø7.0 -7.9	ø8.0 -9.9	ø10.0 -11.9	ø12.0 -13.5	ø14.0 -15.5	ø16.0 -17.5	ø18.0 -19.5	ø20.0
P	1-5	Non-alloy Steel	<25	115 (105-125)	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10	0.12	0.15	0.20	0.22	0.24
P	6-9	Low alloy Steel	25-35	105 (95-115)	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10	0.12	0.15	0.20	0.22	0.24
P	10-11	High alloy Steel, Tool Steel	35-45	95 (85-105)	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10	0.12	0.15	0.20	0.22	0.24
M	12-13	Ferritic/ Martensitic Stainless Steel		65 (60-70)	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10	0.12	0.16	0.20	0.22	0.24
M	14	Austenitic Stainless Steel		40 (35-45)	0.02	0.03	0.03	0.03	0.03	0.04	0.05	0.06	0.08	0.10	0.12	0.15	0.17	0.19
N	21-24	Aluminium Si<12%		210 (200-220)	0.04	0.08	0.12	0.18	0.20	0.25	0.28	0.30	0.40	0.50	0.60	0.80	1.00	1.20
N	25	Aluminium Si>12%		165 (155-175)	0.03	0.06	0.10	0.15	0.18	0.25	0.28	0.30	0.35	0.40	0.50	0.60	0.70	0.80
S	31-32	HRSA Fe Based		30 (25-35)	0.05	0.05	0.06	0.08	0.08	0.10	0.10	0.11	0.12	0.14	0.14	0.15	0.15	0.15
S	33-35	HRSA Ni/Co Based		25 (20-30)	0.03	0.03	0.04	0.06	0.06	0.08	0.08	0.09	0.10	0.12	0.12	0.13	0.13	0.13
S	36	Titanium unalloyed		45 (40-50)	0.01	0.02	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.10	0.12	0.14	0.16	0.18
S	37	Titanium Alloys		40 (35-45)	0.01	0.02	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.10	0.12	0.14	0.16	0.18

To calculate RPM from cutting speed: $n = \frac{v_c * 1000}{\pi * ø}$

To calculate cutting speed from RPM: $v_c = \frac{n * \pi * ø}{1000}$

v_c - cutting speed (m/min)
n - RPM (rev/min)
f_n - feed rate (mm/rev)
ø - drill diameter (mm)

All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up. The recommendations for speeds, feeds and other parameters presented in these charts are nominal recommendations and should be considered only as good starting points.