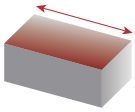
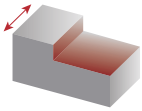
High-Performance
Face Milling



Facing



Shouldering

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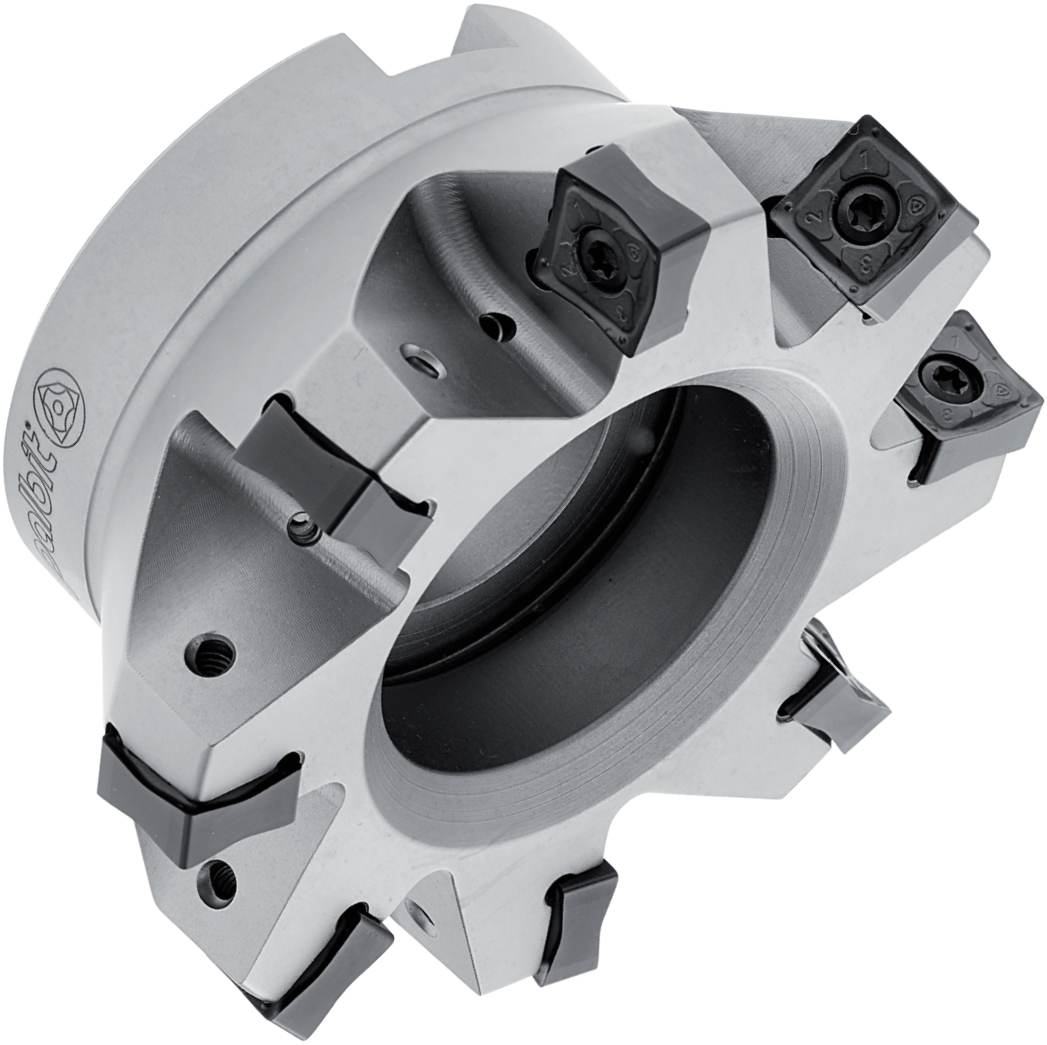
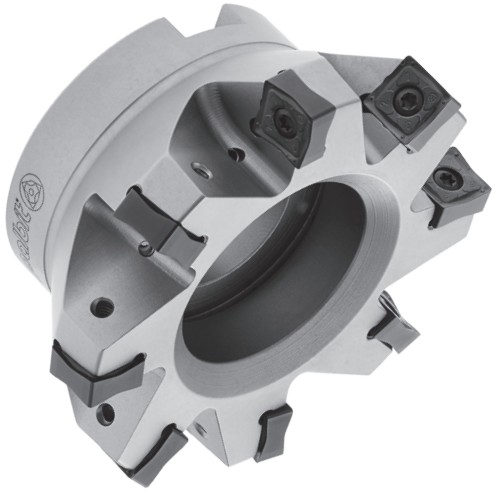
PLUS
SN88-12

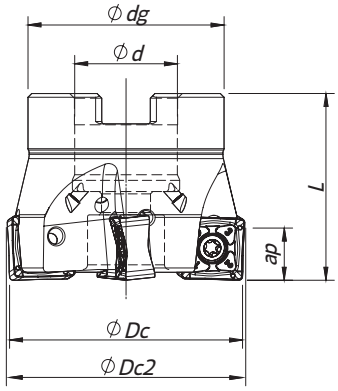


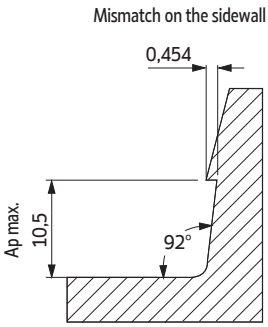
INSERT SIZE 12 | SN... 1206

SINCE 1916

PLUS SN88-12







Arbor Mounting

K_r=88° | γ_p=-6°

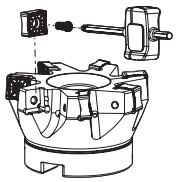
Order code	Reference		Dimensions (in)					lbs	Specifications		Insert	Stock
			ØDc	ØDc2	Ød	Ødg	L		Arbor Type	Ap max (in)		
181103400	SN88 D2.00-A.750/1.75-04-12	4	2.000	2.035	0.750	1.772	1.750	0.92	A	0.413	SN... 1206...	⚙
181103500	SN88 D2.00-A.750/1.75-05-12	5	2.000	2.035	0.750	1.772	1.750	0.88	A	0.413	SN... 1206...	⚙
181103600	SN88 D2.50-A1.00/1.75-05-12	5	2.500	2.535	1.000	2.205	1.750	1.14	A	0.413	SN... 1206...	⚙
181103700	SN88 D2.50-A1.00/1.75-06-12	6	2.500	2.535	1.000	2.205	1.750	1.10	A	0.413	SN... 1206...	⚙
181103800	SN88 D3.00-A1.00/2.00-07-12	7	3.000	3.035	1.000	2.205	2.000	2.20	A	0.413	SN... 1206...	⚙
181103900	SN88 D3.00-A1.00/2.00-09-12	9	3.000	3.035	1.000	2.205	2.000	2.12	A	0.413	SN... 1206...	○
181139100	SN88 D4.00-A1.50/2.50-08-12	8	4.000	4.035	1.500	2.874	2.500	3.52	A	0.413	SN... 1206...	○
181139200	SN88 D4.00-A1.50/2.50-11-12	11	4.000	4.035	1.500	2.874	2.500	3.30	A	0.413	SN... 1206...	○
181104000	SN88 D4.00-A1.25/2.00-08-12	8	4.000	4.035	1.250	2.874	2.000	3.52	A	0.413	SN... 1206...	◇
NEW 181104100	SN88 D4.00-A1.25/2.00-11-12	11	4.000	4.035	1.250	2.874	2.000	3.30	A	0.413	SN... 1206...	○
181104200	SN88 D5.00-A1.50/2.50-12-12	12	5.000	5.035	1.500	3.386	2.500	6.83	A	0.413	SN... 1206...	○
181104300	SN88 D6.00-A2.00/2.50U-18-12	18	6.000	6.035	2.000	4.882	2.500	7.71	B	0.413	SN... 1206...	⚙
181104400	SN88 D8.00-A2.50/2.50U-14-12	14	8.000	8.035	2.500	5.512	2.500	13.90	C	0.413	SN... 1206...	⚙
181104500	SN88 D10.0-A2.50/2.50U-22-12	22	10.000	10.035	2.500	7.087	2.500	15.87	C	0.413	SN... 1206...	⚙

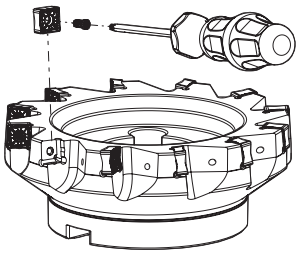
⚙ Stock item ○ Available Upon Request (see page A-10) ◇ Inventory maintained. To be replaced by new item.

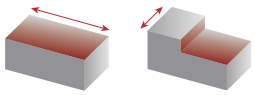
SPARE PARTS

Order separately

Cutter ØDc	Insert Screw	Key (Torx)	Key (Torx - lbf/in)	Torque Value
				lbf/in
SN88-A-12 - 2.00-3.00	P0401200	XT15	DT1530	26.6
SN88-A-12 - 4.00-10.00	P0401200	PT15	DT1530	26.6

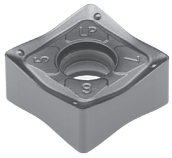




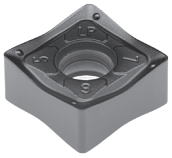


SNH(K)U 1206

SNHU-LP
(PHP grade)

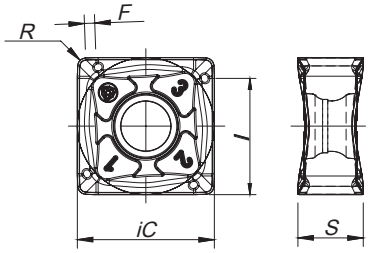


SNKU-LP
(PHP grade)



PHP
NEW
GRADE

SNH(K)U-LP



		P						M			K										Dimensions (in)				
		CVD	PVD					PVD			CVD				PVD										
	(2) Grade code	T9	G4	T1	P3	P4	G6	P3	X9	G6	L5	L6	L9	T9	G4	T1	P3	P4	G6					
(1) Geometry code	ISO Reference	PHS740	PH7920	PHP920	PH7930	PHP930	PH7740	PH7930	PHH930	PH7740	PH5705	PH5320	PH5740	PHS740	PH7920	PHP920	PH7930	PHP930	PH7740	iC	S	I	R	F
1112020	SNHU 120608 ZNER-LP			●		◆	◆			◆	●		◆			◆		◆	◆	0.524	1/4	0.457	0.031	0.039
1112278	SNKU 120608 ZNER-LP	◆	△	●	△		◆	△		◆	●	◆	◆	◆	△	◆	△		◆	0.524	1/4	0.457	0.031	0.039

● First choice
◆ Stock Items
△ Stock available until sold out
◯ Available Upon Request (see page A-11)

Insert Order Code: (1) Geometry code + (2) Grade code

GRADES SELECTION GUIDE

ISO	PSM	Material	HB (Brinell)	Grades ← Wear Resistance … Toughness → PH5705 ●	PH5320 ●	PHP920 ●	PH7920 ✱	PHP930 ✱	PH7930 ✱	PHH930 ✱	PH5740 ✱	PHS740 ✱	PH7740 ✱
P	1	Unalloyed Steel	125-220			✓	✓	✓	✓			✓	✓
	2	Low-Alloyed Steel	220-280			✓	✓	✓	✓			✓	✓
	3	High-Alloyed Steel	280-380			✓	✓	✓	✓			✓	✓
M	4	SS - Ferritic / Martensitic	200-330					✓	✓	✓			✓
	5	SS - Austenitic	200-330					✓	✓	✓			✓
	6	SS - Austenitic-ferritic (Duplex)	230-260					✓	✓	✓			✓
K	7	Malleable Cast Iron	130-230	✓	✓	✓	✓	✓	✓		✓		✓
	8	Grey Cast Iron	180-245	✓	✓	✓	✓	✓	✓		✓		✓
	9	Nodular Cast iron	160-250	✓	✓	✓	✓	✓	✓		✓		✓

● Good Conditions ● Average Conditions ✱ Difficult Conditions

RECOMMENDED CUTTING CONDITIONS

ISO	PSM	Material	HB (Brinell)	Vc (sfm) ← Wear Resistance		Toughness →
				PH5705	PH7920	PH7930
P	1	Unalloyed Steel	125-220	-	590-787	525-722
	2	Low-Alloyed Steel	220-280	-	525-722	459-656
	3	High-Alloyed Steel	280-380	-	459-689	394-623
M	4	SS - Ferritic / Martensitic	200-330	-	459-722	459-656
	5	SS - Austenitic / Duplex	200-330	-	426-590	394-525
	6	SS - Duplex	230-260	-	394-525	328-459
K	7	Malleable Cast Iron	130-230	525-951	525-853	492-787
	8	Grey Cast Iron	180-245	558-1050	459-787	459-754
	9	Nodular Cast iron	160-250	459-656	394-656	328-623

Vc (sfm) ← Wear Resistance	Toughness →	Feed fz (in/t)
PH5740	PH7740	SNH(K)U 1206...
-	459-656	0.004-0.014
-	426-590	0.004-0.014
-	328-558	0.004-0.014
-	426-590	0.004-0.014
-	361-525	0.004-0.014
-	-	0.004-0.014
525-853	459-722	0.004-0.014
459-787	394-689	0.004-0.014
394-656	328-623	0.004-0.014

(Note 1) The above table indicates the cutting conditions of 70% of the tool engagement.
(Note 2) With low workspace clamping rigidity or long overhang of the tool, adjust cutting speed and feed to 70 or 80% of the recommended conditions above
(Note 3) Surface finishing is determinated by speed/feed used.
(Note 4) PH5... can be used wet or dry. PH7... use only air.

Selection Example:

ISO	PSM	Material	HB (brinell)	Vc (sfm) ← Wear Resistance	Toughness →	Feed f_z (in/t)
				PH5705	PH5740	SNHU 1206... SNKU 1206...
K	7	Malleable cast iron	130-230	525 **(591)** 968	460 **(525)** 820	0.004 **(0.010)** 0.014
	8	Grey cast iron	180-245	558 **(886)** 1 116	476 **(591)** 919	0.004 **(0.010)** 0.014
	9	Nodular cast iron	160-250	394 **(492)** 656	345 **(492)** 558	0.004 **(0.010)** 0.014

This example shows the recommended starting cutting conditions, indicated in **Bold type**.

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