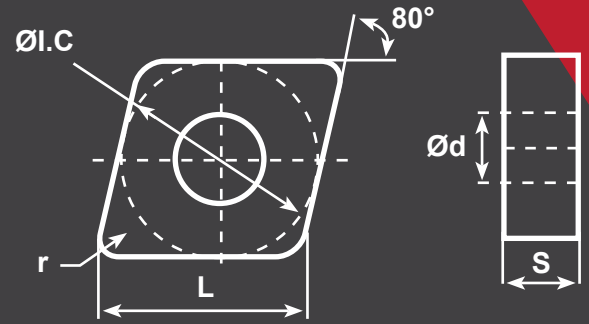


CNMG

Compatible
Workpiece Materials



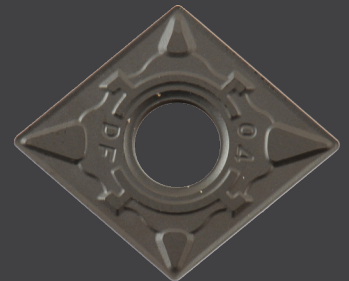
SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
424-1075	CNMG-431-DF	CNMG120404DF	0.508	0.5	0.187	0.203	0.016	P Vc: 1180sfm (920-1580) fz: 0.006in/z (0.002-0.012)	
424-1076	CNMG-432-DF	CNMG120408DF	0.508	0.5	0.187	0.203	0.031	P Vc: 1120sfm (850-1510) fz: 0.008in/z (0.004-0.016)	
424-1087	CNMG-431-DF	CNMG120404DF	0.508	0.5	0.187	0.203	0.016	P Vc: 1310sfm (980-1640) fz: 0.006in/z (0.002-0.012)	
424-1088	CNMG-432-DF	CNMG120408DF	0.508	0.5	0.187	0.203	0.031	P Vc: 1310sfm (980-1640) fz: 0.008in/z (0.004-0.016)	

Material	Coated cemented carbide																		Cermet	Coated Cermet	Cemented Carbide							
	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102				YBD151	YBD152	YBD252				
P Steel	+	+	○	○	-	-	+		○	○														+	+			
M Stainless Steel							+		○	○		+	○	○	○										+	+		
K Cast Iron																	+	○	○	-	-							-
N Ferrite Materials																										○	-	
S Heat-resistant steel							+	+				+										+			+			

+ Good Working Conditions
 ○ General Working Conditions
 - Adverse Working Conditions

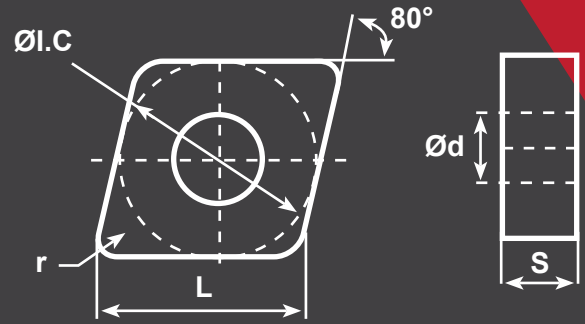
DF CHIP BREAKER

DF is the preferred choice chip breaker on P category material semi-finish M Class tolerance double sided chip breaker, light cutting force with wide chipping range, can achieve better result on high adhesive alloy steels.



CNMG

Compatible
Workpiece Materials



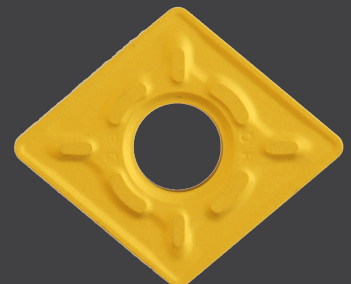
SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
424-1166	CNMG-432-DR	CNMG120408DR	0.508	0.5	0.187	0.203	0.031	P Vc: 720sfm (590-980) fz: 0.012in/z (0.004-0.020)	
424-1167	CNMG-433-DR	CNMG120412DR	0.508	0.5	0.187	0.203	0.047	P Vc: 660sfm (530-920) fz: 0.014in/z (0.006-0.024)	
424-1168	CNMG-434-DR	CNMG120416DR	0.508	0.5	0.187	0.203	0.063	P Vc: 590sfm (530-850) fz: 0.014in/z (0.010-0.028)	

Material	Coated cemented carbide																				Cermets	Coated Cermets	Cemented Carbide				
	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152				YBD252	YNG151	YNG151C	YD101
P Steel	+	+	○	○	-	-	+		○	○														+	+		
M Stainless Steel							+		○	○		+	○	○	○									+	+		
K Cast Iron																		+	○	○	-	-					-
N Ferrite Materials																									○	-	
S Heat-resistant steel							+	+			+						+								+		

+ Good Working Conditions
 ○ General Working Conditions
 - Adverse Working Conditions

DR CHIP BREAKER

DR is the preferred choice chip breaker for General Purpose. M Class tolerance double sided chip breaker, suitable for inside boring and outside turning semi-finish/medium on alloy steel and cast iron.



CNMG

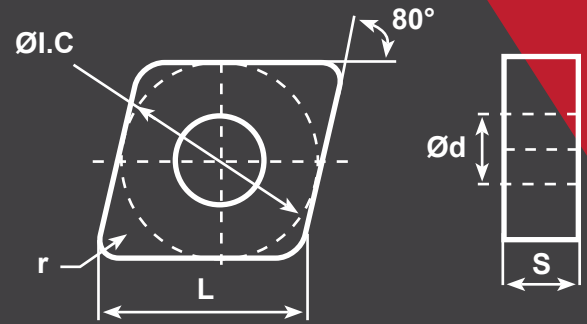
Compatible
Workpiece Materials



Steel



Stainless Steel



SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
424-1154	CNMG-431-EM	CNMG120404EM	0.508	0.5	0.187	0.203	0.016	P Vc: 850sfm (720-1120) fz: 0.006in/z (0.002-0.012)	M Vc: 590sfm (390-1120) fz: 0.006in/z (0.002-0.012)
424-1155	CNMG-432-EM	CNMG120408EM	0.508	0.5	0.187	0.203	0.031	P Vc: 790sfm (660-1050) fz: 0.006in/z (0.002-0.012)	M Vc: 530sfm (260-720) fz: 0.008in/z (0.004-0.012)
424-1156	CNMG-433-EM	CNMG120412EM	0.508	0.5	0.187	0.203	0.047	P Vc: 720sfm (590-980) fz: 0.008in/z (0.004-0.014)	M Vc: 460sfm (200-660) fz: 0.010in/z (0.006-0.016)
424-1159	CNMG-433-EM	CNMG120412EM	0.508	0.5	0.187	0.203	0.047	M Vc: 530sfm (330-720) fz: 0.010in/z (0.006-0.016)	

Material	Coated cemented carbide																Cermets	Coated Cermets	Cemented Carbide							
	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C
P Steel	+	+	○	○	-	-	+		○	○														+	+	
M Stainless Steel							+		○	○		+	○	○	○									+	+	
K Cast Iron																		+	○	○	-	-				-
N Ferrite Materials																								○	-	
S Heat-resistant steel							+	+			+					+								+		
SKU#	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201	
424-1154									●																	
424-1155									●																	
424-1156									●																	
424-1159	YBG203																									

+ Good Working Conditions

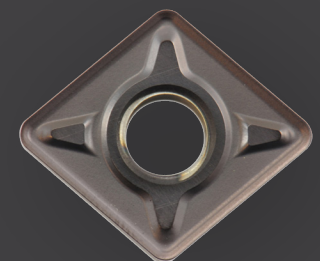
○ General Working Conditions

- Adverse Working Conditions



EM CHIP BREAKER

EM is the preferred choice chip breaker on M category material. Medium EM chip breaker is designed with sharp cutting edge which is required for machining highly adhesive material such as stainless steel while reinforced the impact resistance on the edge, which makes it suitable for semi-finishing and intermittent machining of adhesive materials, such as austenitic stainless steel.

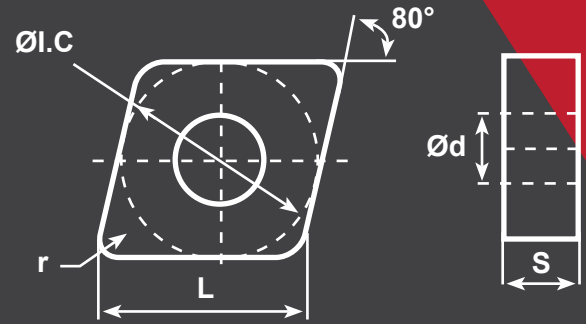


CNMG

Compatible Workpiece Materials



Heat-resistant Steel



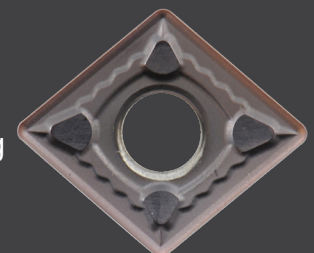
SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
424-1140	CNMG-432-NM	CNMG120408NM	0.508	0.5	0.187	0.203	0.031	S Vc: 980sfm (820-1150)	fz: 0.008in/z (0.004-0.012)
427-2329	CNMG-431-NM	CNMG120404NM	0.508	0.5	0.187	0.203	0.016	S Vc: 720sfm (430-980)	fz: 0.006in/z (0.004-0.012)
427-2330	CNMG-432-NM	CNMG120408NM	0.508	0.5	0.187	0.203	0.031	S Vc: 720sfm (430-980)	fz: 0.008in/z (0.006-0.012)
427-2331	CNMG-433-NM	CNMG120412NM	0.508	0.5	0.187	0.203	0.047	S Vc: 720sfm (430-980)	fz: 0.010in/z (0.008-0.016)

Material	Coated cemented carbide																Cermets	Coated Cermets	Cemented Carbide							
	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBC102	YBC105	YBC202	YBC205	YBC212	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C
P Steel	+	+	○	○	-	-	+		○	○													+	+		
M Stainless Steel							+		○	○		+	○	○	○								+	+		
K Cast Iron																	+	○	○	-	-					-
N Ferrite Materials																									○	-
S Heat-resistant steel							+	+			+					+									+	
SKU#	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBC102	YBC105	YBC202	YBC205	YBC212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201	
424-1140							●																			
427-2329								●																		
427-2330								●																		
427-2331								●																		

+ Good Working Conditions
 ○ General Working Conditions
 - Adverse Working Conditions

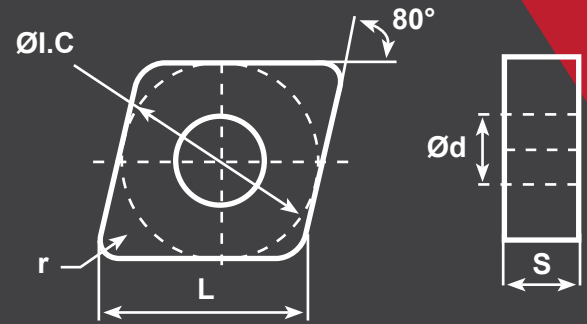
NM CHIP BREAKER

Double-side chipbreaker with M-class tolerance with good capability to prevent wear and workhardening when machining low-machinability rated metals. Possesses higher feed and depth of cut capability than NF chipbreaker



CNMG

Compatible
Workpiece Materials



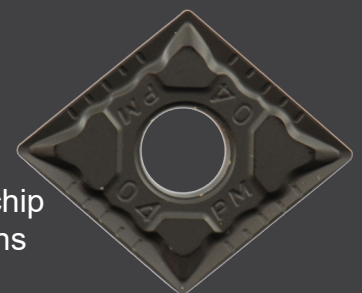
SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
424-1099	CNMG-431-PM	CNMG120404PM	0.508	0.5	0.187	0.203	0.031	K Vc: 790sfm (590-980) fz: 0.012in/z (0.008-0.024)	
424-1100	CNMG-432-PM	CNMG120408PM	0.508	0.5	0.187	0.203	0.031	K Vc: 980sfm (720-1180) fz: 0.010in/z (0.006-0.016)	
424-1101	CNMG-433-PM	CNMG120412PM	0.508	0.5	0.187	0.203	0.047	K Vc: 790sfm (590-980) fz: 0.012in/z (0.008-0.024)	
424-1102	CNMG-542-PM	CNMG160608PM	0.634	0.625	0.25	0.25	0.031	K Vc: 790sfm (590-980) fz: 0.012in/z (0.008-0.024)	
424-1105	CNMG-643-PM	CNMG1906012PM	0.76	0.75	0.25	0.313	0.047	K Vc: 850sfm (590-1050) fz: 0.012in/z (0.006-0.020)	

Material	Coated cemented carbide																Cermets	Coated Cermets	Cemented Carbide							
	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBC102	YBC105	YBC202	YBC205	YBC212	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C
P Steel	+	+	○	○	-	-	+		○	○													+	+		
M Stainless Steel							+		○	○		+	○	○	○								+	+		
K Cast Iron																	+	○	○	-	-					-
N Ferrite Materials																								○	-	
S Heat-resistant steel							+	+			+					+								+		

+ Good Working Conditions
 ○ General Working Conditions
 - Adverse Working Conditions

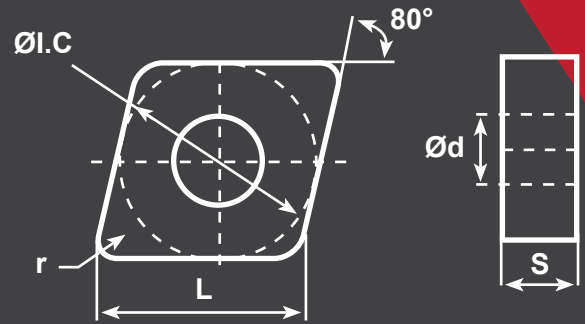
PM CHIP BREAKER

The PM chip breaker is the preferred choice chip breaker on P category material semi-finish. M Class tolerance double sided chip breaker, with higher toughness on cutting edge than DM chip breaker. Suitable for semi-finishing under unfavorable conditions and machining cast iron with low cutting force.



CNMG

Compatible
Workpiece Materials



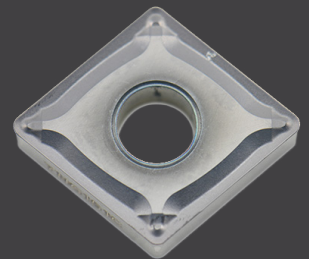
SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
427-3047	CNMG432-SF	CNMG120408SF	0.508	0.5	0.187	0.203	0.031	P Vc: 1310sfm (1050-1580) fz: 0.002in/z (0.004-0.012)	
								M Vc: 720sfm (530-920) fz: 0.008in/z (0.002-0.014)	

Material	Coated cemented carbide																Cermets	Coated Cermets	Cemented Carbide									
	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252				
P Steel	+	+	○	○	-	-	+		○	○															+	+		
M Stainless Steel							+		○	○		+	○	○	○										+	+		
K Cast Iron																	+	○	○	-	-							-
N Ferrite Materials																											○	-
S Heat-resistant steel							+	+			+					+										+		
SKU#	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201			
427-3047																							●					

+ Good Working Conditions
 ○ General Working Conditions
 - Adverse Working Conditions

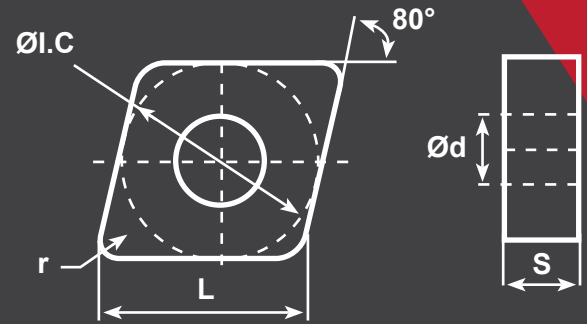
SF CHIP BREAKER

Extra Fine Finishing on P soft steel. Unique nose design and sharp cutting edge lead to small cutting resistance and reduce vibration. Outstanding performance of chip breaking and chip flowing on machining P soft steel and medium carbon steel to ensure high quality surface finish.



CNMG

Compatible Workpiece Materials **S** High-resistant Steel



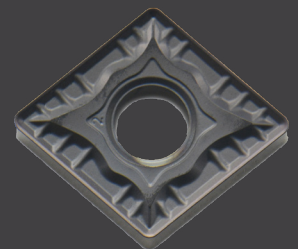
SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
427-2551	CNMG432-SNR	CNMG120408SNR	0.508	0.5	0.187	0.203	0.031	S Vc: 490sfm (200-660)	fz: 0.002in/z (0.004-0.012)

Material	Coated cemented carbide																Cermet	Coated Cermet	Cemented Carbide										
	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252					
P Steel	+	+	○	○	-	-	+		○	○															+	+			
M Stainless Steel							+		○	○		+	○	○	○											+	+		
K Cast Iron																		+	○	○	-	-							-
N Ferrite Materials																											○	-	
S Heat-resistant steel							+	+			+					+											+		

+ Good Working Conditions
 ○ General Working Conditions
 - Adverse Working Conditions

SNR CHIP BREAKER

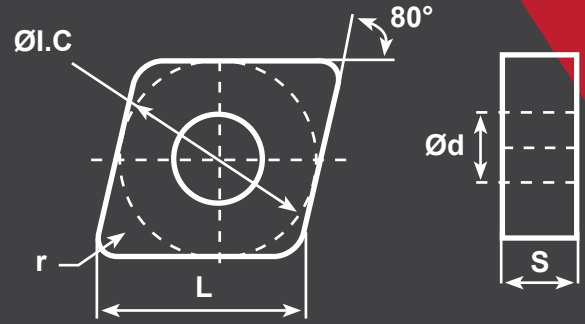
Recommended chip breaker for S-material high efficiency roughing M-level double-sided chip breaker perfectly combines sharpness and strength of the cutting edge, with small cutting resistance and high edge strength can effectively reduce groove wear. SNR is recommended chip breaker for high depth roughing of S-materials.



CNMG



Compatible
Workpiece Materials



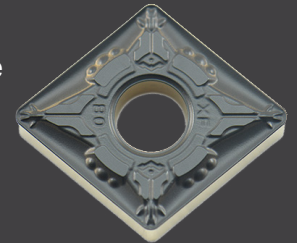
SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
428-1270	CNMG432-XF	CNMG120408XF	0.508	0.5	0.187	0.203	0.031	P Vc: 720sfm (820-1150) fz: 0.008in/z (0.004-0.012)	

Material	Coated cemented carbide																				Cermet	Coated Cermet	Cemented Carbide				
	YBC103	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151				YBD152	YBD252	YNG151	YNG151C
P Steel	+	+	+	○	○	-	-	+		○	○													+	+		
M Stainless Steel								+		○	○		+	○	○	○								+	+		
K Cast Iron																		+	○	○	-	-					-
N Ferrite Materials																										○	-
S Heat-resistant steel								+	+			+					+									+	

+ Good Working Conditions
 ○ General Working Conditions
 - Adverse Working Conditions

XF CHIP BREAKER

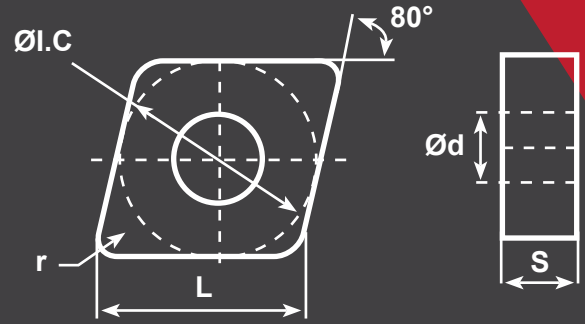
New generation chip breaker for finishing P type steel. Curved edge inclination ensures the strength of the cutting edge and reduces cutting resistance, special chip breaker design ensures improved chip control performance within the finishing range.



CNMG



Steel



Compatible Workpiece Materials

SKU#	ANSI#	ISO#	L	ØI.C	S	Ød	r	START SPEED	START FEED
428-1269	CNMG431-XM	CNMG120404XM	0.508	0.5	0.187	0.203	0.016	P Vc: 790sfm (660-1150) fz: 0.014in/z (0.008-0.022)	
428-1273	CNMG432-XM	CNMG120408XM	0.508	0.5	0.187	0.203	0.031	P Vc: 790sfm (660-1150) fz: 0.014in/z (0.008-0.022)	
428-1277	CNMG433-XM	CNMG120412XM	0.508	0.5	0.187	0.203	0.047	P Vc: 790sfm (660-1150) fz: 0.014in/z (0.008-0.022)	
428-1287	CNMG642-XM	CNMG190608XM	0.76	0.75	0.25	0.313	0.031	P Vc: 980sfm (820-1150) fz: 0.014in/z (0.008-0.022)	

Material	Coated cemented carbide																				Cermet	Coated Cermet	Cemented Carbide							
	YBC103	YBC151	YBC152	YBC203	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102				YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201
P Steel	+	+	+	○	○	○	-	-	+		○	○															+	+		
M Stainless Steel									+		○	○		+	○	○	○										+	+		
K Cast Iron																			+	○	○	-	-							-
N Ferrite Materials																											○		-	
S Heat-resistant steel									+	+				+													+			

+ Good Working Conditions
 ○ General Working Conditions
 - Adverse Working Conditions

XM CHIP BREAKER

New generation chip breaker for semi-finishing P type steel. With optimal cutting-edge structure to ensure its sharpness and strength, the newly designed chip breaker geometry, and innovative coating grades, the cutting edge is superior in its strength and wear resistance.

