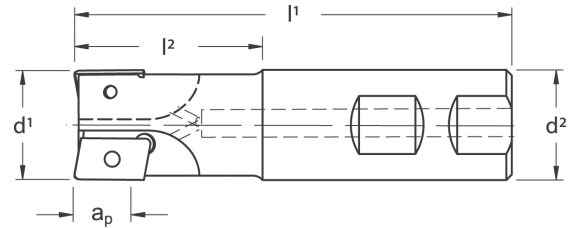


TX90

High Shear Square Shoulder Milling Cutters

With over 100 different standard configurations ...

... And still growing!



Standard Length End Mills

Designation	d ¹	d ²	l ¹	l ²	Max. ap	flutes	Insert	Insert Screw	Wrench
TXD90-0500	.500	.625	3.00	1.09	.33	1	222.79.600 222.79.610	214.80.687	214.80.866 (S/D) 214.80.011 (F/T)
TXD90-0625	.625	.625	3.00	1.09	.33	2			
TXD90-0750	.750	.750	3.50	1.47	.33	2			
TXD90-0750F	.750	.750	3.50	1.47	.33	3			
TXD90-0875	.875	.750	3.50	1.47	.33	3			
TXD90-1000	1.000	.750	3.50	1.47	.33	3			
TXD90-1000F	1.000	1.000	4.00	1.72	.33	4			
TXP90-0750	.750	.750	3.50	1.47	.55	1	222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90-1000	1.000	.750	3.70	1.67	.55	2			
TXP90-1000-4	1.000	1.000	4.00	1.72	.55	2			
TXP90-1250	1.250	1.250	4.00	1.72	.55	3			
TXP90-1500	1.500	1.250	4.40	2.12	.55	3			
TXP90-1500F	1.500	1.250	4.40	2.12	.55	4			
TXP90-2000EM	2.000	1.250	4.00	1.72	.55	4			

Remember to use COPASLIP® anti-seize compound on all insert screws

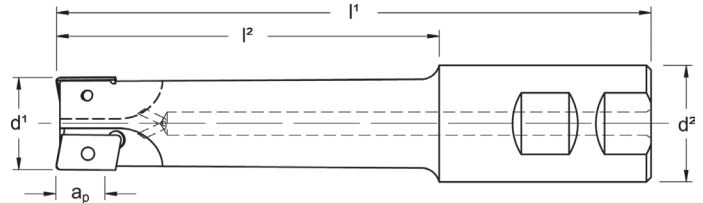
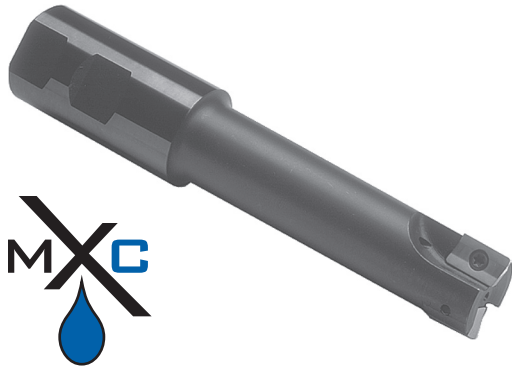
Standard Length End Mills with Coolant Through

Designation	d ¹	d ²	l ¹	l ²	Max. ap	flutes	Insert	Insert Screw	Wrench
TXD90-0500C	.500	.625	3.00	1.09	.33	1	222.79.600 222.79.610	214.80.687	214.80.866 (S/D) 214.80.011 (F/T)
TXD90-0625C	.625	.625	3.00	1.09	.33	2			
TXD90-0750C	.750	.750	3.50	1.47	.33	2			
TXD90-0750FC	.750	.750	3.50	1.47	.33	3			
TXD90-0875C	.875	.750	3.50	1.47	.33	3			
TXD90-1000C	1.000	.750	3.50	1.47	.33	3			
TXD90-1000-4C	1.000	1.000	4.00	1.72	.33	3			
TXD90-1000FC	1.000	1.000	4.00	1.72	.33	4			
TXD90-1250C	1.250	1.250	4.00	1.72	.33	5	222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXD90-1500C	1.500	1.250	4.40	2.12	.33	5			
TXP90-0750C	.750	.750	3.50	1.47	.55	1			
TXP90-1000C	1.000	.750	3.70	1.67	.55	2			
TXP90-1000-4C	1.000	1.000	4.00	1.72	.55	2			
TXP90-1250C	1.250	1.250	4.00	1.72	.55	3			
TXP90-1500C	1.500	1.250	4.40	2.12	.55	3			
TXP90-1500FC	1.500	1.250	4.40	2.12	.55	4			
TXP90-2000EMC	2.000	1.250	4.00	1.72	.55	4			

Remember to use COPASLIP® anti-seize compound on all insert screws

TX90

High Shear Square Shoulder Milling Cutters



Extended Length End Mills

Designation	d ¹	d ²	l ¹	l ²	Max. ap	flutes	Insert	Insert Screw	Wrench
TXD90-0500-XL	.500	.625	3.91	2.00	.33	1	222.79.600 222.79.610	214.80.687	214.80.866 (S/D) 214.80.011 (F/T)
TXP90-1000-5L	1.000	1.250	5.00	2.72	.55	2	222.79.400 222.79.500	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90-1000-5XL	1.000	1.250	6.40	4.12	.55	2	222.79.510 222.79.550		
TXP90-1250-L	1.250	1.250	5.00	2.72	.55	3	222.79.564 222.79.572		
TXP90-1500-L	1.500	1.250	6.00	3.72	.55	3	222.79.574		

Remember to use COPASLIP® anti-seize compound on all insert screws

Extended Length End Mills with Coolant Through

Designation	d ¹	d ²	l ¹	l ²	Max. ap	flutes	Insert	Insert Screw	Wrench
TXD90-0500-XLC	.500	.625	3.91	2.00	.33	1	222.79.600 222.79.610	214.80.687	214.80.866 (S/D) 214.80.011 (F/T)
TXD90-0625-XLC	.625	.750	4.53	2.50	.33	2			
TXD90-0750-LC	.750	.750	3.78	1.75	.33	2			
TXD90-0750-XLC	.750	1.000	4.81	2.53	.33	2			
TXD90-0750-XXLC	.750	1.000	6.31	4.03	.33	2			
TXD90-1000-4XXLC	1.000	1.000	8.00	2.25	.33	3			
TXP90-1000-4LC	1.000	1.000	5.28	3.00	.55	2	222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90-1000-4XXLC	1.000	1.000	8.00	2.25	.55	2			
TXP90-1000-5LC	1.000	1.250	5.00	2.72	.55	2			
TXP90-1000-5XLC	1.000	1.250	6.40	4.12	.55	2			
TXP90-1000-5XXLC	1.000	1.250	8.40	6.12	.55	2			
TXP90-1250-LC	1.250	1.250	5.00	2.72	.55	3			
TXP90-1250-XLC	1.250	1.250	6.40	4.12	.55	3			
TXP90-1250-XXLC	1.250	2.000	9.25	6.00	.55	3			
TXP90-1250-5XXLC	1.250	1.250	10.00	3.00	.55	3			
TXP90-1500-LC	1.500	1.250	6.00	3.72	.55	3			
TXP90-1500-XLC	1.500	2.000	7.25	4.00	.55	3			
TXP90-1500-5XXLC	1.500	1.250	10.00	7.72	.55	3			
TXP90-1500-XXLC	1.500	2.000	9.25	6.00	.55	3			

Remember to use COPASLIP® anti-seize compound on all insert screws

TX90

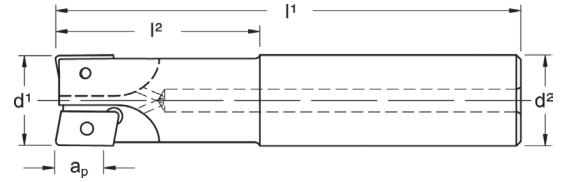
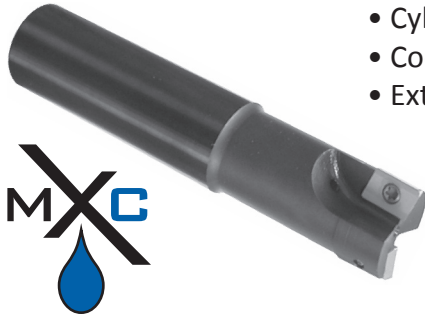
High Shear Square Shoulder Milling Cutters

Featuring:

- Cylindrical Shanks
- Coolant through
- Extra long shanks

Specifically designed for:

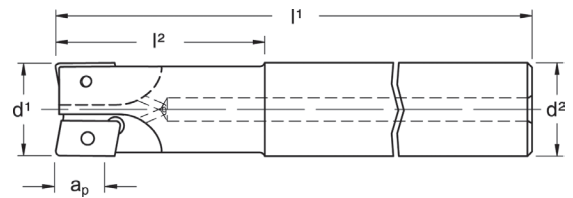
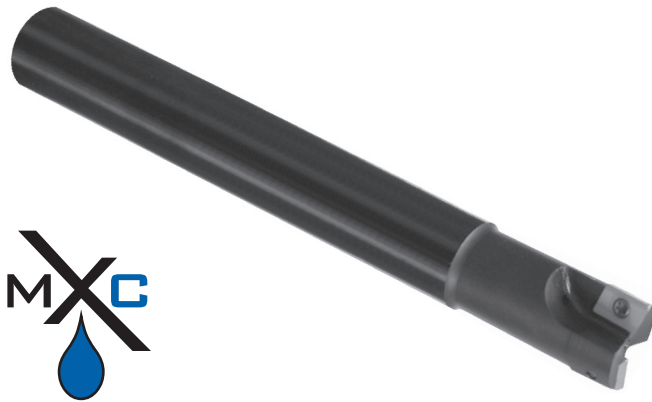
- Milling Chucks
- Hydraulic Chucks
- Shrink-fit Systems



Standard Length Cylindrical Shank End Mills with Coolant Through

Designation	d ¹	d ²	l ¹	l ²	Max. ap	flutes	Insert	Insert Screw	Wrench
TXD90CY-0625C	.625	.625	3.00	1.09	.33	2	222.79.600 222.79.610	214.80.687	214.80.866 (S/D) 214.80.011 (F/T)
TXD90CY-0750C	.750	.750	3.50	1.46	.33	2			
TXD90CY-1000-4C	1.000	1.000	4.00	1.71	.33	3			
TXP90CY-1000-4C	1.000	1.000	4.00	1.71	.55	2	222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90CY-1250-5C	1.250	1.250	4.00	1.71	.55	3			
TXP90CY-1500-5C	1.500	1.250	4.50	2.00	.55	4			

Remember to use COPASLIP® anti-seize compound on all insert screws



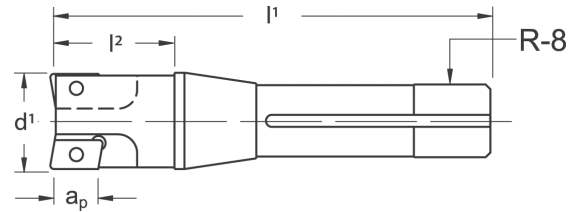
Extended Length Cylindrical Shank End Mills with Coolant Through

Designation	d ¹	d ²	l ¹	l ²	Max. ap	flutes	Insert	Insert Screw	Wrench
TXD90CY-0625-XXLC	.625	.625	6.00	2.00	.33	2	222.79.600 222.79.610	214.80.687	214.80.866 (S/D) 214.80.011 (F/T)
TXD90CY-0750-XXLC	.750	.750	8.00	2.00	.33	2			
TXD90CY-1000-4XXLC	1.000	1.000	8.00	2.25	.33	3			
TXP90CY-1000-4XXLC	1.000	1.000	8.00	2.25	.55	2	222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90CY-1250-5XXLC	1.250	1.250	10.00	3.00	.55	3			
TXP90CY-1500-5XXLC	1.500	1.250	10.00	7.50	.55	3			

Remember to use COPASLIP® anti-seize compound on all insert screws

TX90

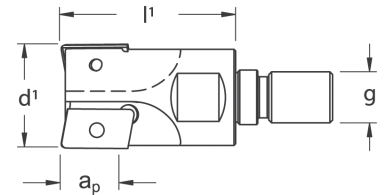
High Shear Square Shoulder Milling Cutters



R-8 Shank End Mills

Designation	d ¹	Shank	l ¹	l ²	Max. ap	flutes	Insert	Insert Screw	Wrench
TXP90-1250-R8	1.250	R-8	5.63	1.50	.55	3	222.79.400 222.79.500 222.79.510	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90-1500-R8	1.500	R-8	5.63	1.50	.55	222.79.550 222.79.564			
TXP90-2000-R8	2.000	R-8	5.63	1.50	.55	222.79.572 222.79.574			

Remember to use COPASLIP® anti-seize compound on all insert screws



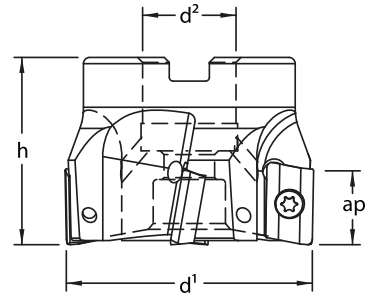
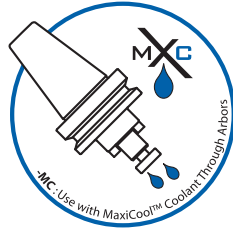
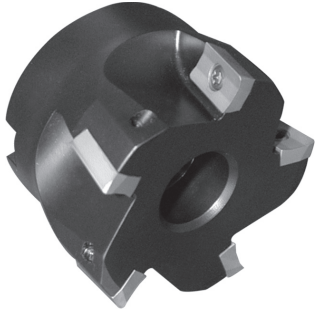
Screw-On Milling Cutters

Designation	d ¹	d ¹ mm	g	l ¹	Max. ap	flutes	Insert	Insert Screw	Wrench
TXD90-0500-TS	.500	12.70	M6	1.10	.33	1	222.79.600 222.79.610	214.80.687	214.80.866 (S/D) 214.80.011 (F/T)
TXD90-0625-TS	.625	15.87	M8	1.10	.33	2			
TXD90-0750-TS	.750	19.05	M10	1.18	.33	2			
TXD90-0984-TS	.984	25.00	M12	1.18	.33	3			
TXD90-1000-TS	1.000	25.40	M12	1.50	.33	3			
TXD90-1260-TS	1.260	32.00	M16	1.57	.33	5	222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90-0975-TS	.975	24.77	M12	1.50	.55	2			
TXP90-0984-TS	.984	25.00	M12	1.18	.55	2			
TXP90-1000-TS	1.000	25.40	M12	1.50	.55	2			
TXP90-1250-TS	1.250	31.75	M16	1.75	.55	3			
TXP90-1260-TS	1.260	32.00	M16	1.57	.55	3			
TXP90-1378-TS	1.378	35.00	M16	1.57	.55	3			
TXP90-1500-TS	1.500	38.10	M16	1.75	.55	3			
TXP90-1575-TS	1.575	40.00	M16	1.57	.55	4			

Remember to use COPASLIP® anti-seize compound on all insert screws

TX90

High Shear Square Shoulder Milling Cutters



Standard Series Face Mills

Designation	d ¹	d ²	h	Max. ap	flutes	lbs.	Insert	Insert Screw	Wrench
TXD90-1500SM	1.500	.750	1.75	.33	5	.55	222.79.600	214.80.687	214.80.866 (S/D)
TXD90-2000	2.000	.750	1.50	.33	7	.70	222.79.610		214.80.011 (F/T)
TXP90-1500SM	1.500	.750	1.75	.55	4	.45	222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90-2000	2.000	.750	1.50	.55	4	.60			
TXP90-2000F	2.000	.750	1.50	.55	5	.60			
TXP90-2500	2.500	1.000	1.75	.55	5	1.30			
TXP90-3000	3.000	1.000	2.00	.55	6	2.25			
TXP90-4000	4.000	1.250	2.00	.55	7	3.20			
TXP90-4000F	4.000	1.500	2.00	.55	8	3.35			
TXP90-5000	5.000	1.500	2.00	.55	8	5.15			
TXP90-6000	6.000	1.500	2.00	.55	9	7.65			
TXP90-6000F	6.000	2.000	2.50	.55	10	7.95			
TXP90-8000*	8.000	2.500	2.50	.55	12	14.00			

*Cutter supplied with 4 holes on a 4" bolt circle

Remember to use COPASLIP® anti-seize compound on all insert screws

Standard Series Face Mills with Coolant Through

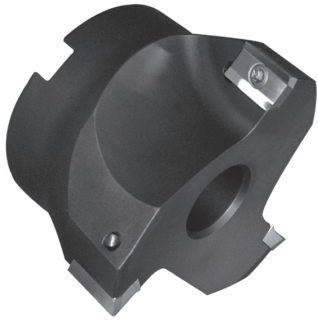
Designation	d ¹	d ²	h	Max. ap	flutes	lbs.	Insert	Insert Screw	Wrench
TXD90-1500SM-MC	1.500	.750	1.75	.33	5	.55	222.79.600	214.80.687	214.80.866 (S/D)
TXD90-2000-MC	2.000	.750	1.50	.33	7	.70	222.79.610		214.80.011 (F/T)
TXP90-1500SM-MC	1.500	.750	1.75	.55	4	.45	222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90-2000-MC	2.000	.750	1.50	.55	4	.60			
TXP90-2000F-MC	2.000	.750	1.50	.55	5	.60			
TXP90-2500-MC	2.500	1.000	1.75	.55	5	1.30			
TXP90-3000-MC	3.000	1.000	2.00	.55	6	2.25			
TXP90-4000-MC	4.000	1.250	2.00	.55	7	3.20			

*Cutter supplied with 4 holes on a 4" bolt circle

Remember to use COPASLIP® anti-seize compound on all insert screws

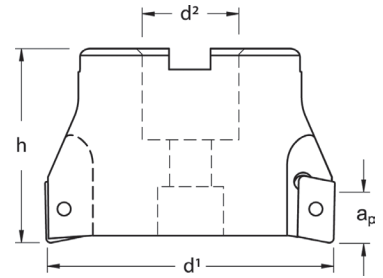
TX90

High Shear Square Shoulder Milling Cutters



Featuring:

- Specifically designed for aluminum machining
- Allows for full depths of cut and wider widths of cut
- Optimized speeds and feeds while lowering horsepower consumption



Coarse Pitch Face Mills

Designation	d ¹	d ²	h	Max. ap	flutes	lbs.	Insert	Insert Screw	Wrench
Through Coolant Enabled							222.79.400 222.79.500 222.79.510 222.79.550 222.79.564 222.79.572 222.79.574	214.80.388	214.80.824 (S/D) 214.80.012 (F/T)
TXP90-2000AL-3-MC	2.000	.750	1.50	.55	3	.60			
TXP90-2500AL-3-MC	2.500	1.000	2.00	.55	3	1.15			
TXP90-3000AL-3-MC	3.000	1.000	2.00	.55	3	1.90			
TXP90-4000AL-4XMC	4.000	1.250	2.00	.55	4	2.70			
Standard Non-Through coolant									
TXP90-4000AL-4	4.000	1.500	2.00	.55	4	2.85			
TXP90-5000AL-5	5.000	1.500	2.00	.55	5	4.80			
TXP90-6000AL-6	6.000	2.000	2.50	.55	6	8.45			

Remember to use COPASLIP® anti-seize compound on all insert screws

