

Parts Manual  
45-8176EN  
03/31/2016

**DOTCO<sup>®</sup>**

**12-27 Series**  
Right Angle Grinders



*For additional product information visit our website at <http://www.apextoolgroup.com>*

**“A”**

<b>12</b>	<b>X</b>	<b>2</b>	<b>7</b>	<b>XX</b>	<b>-</b>	<b>XX</b>	<b>XX</b>	<b>OH</b>
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Product Type

**12** = Ergo Handle Grinder/Sander

Throttle Type

**L** = Locking Lever

**S** = Locking Lever

Motor Size

**2** = 0.9 hp

Handle Style

**7** = Right Angle

Speed Options (RPM)

**Side Exhaust**

**36** = 13,500

**37** = 12,000

**38** = 14,500

**Rear Exhaust**

**16** = 18,000

**76** = 13,500

**77** = 12,000

**78** = 14,500

Termination Code

**27** = 3" Type 1 Cut-Off Wheel

**28** = 4" Type 1 Cut-Off Wheel

**30** = 1/4"-20 Internal Thread Spindle

**32** = 1/4"-28 Internal Thread Spindle

**35** = 3/8"-24 Internal Thread Spindle

**36** = 300 Series Collet (3 piece)

**45** = Universal Collet (short)

**64** = 4" Depressed Center Wheel

**83** = 3" Depressed Center Wheel

**84** = 4" Depressed Center Wheel

Optional Collet (no extra cost)

**08** = 1/8"

**10** = 5/32"

**12** = 3/16"

**14** = 7/32"

**18** = 9/32"

**20** = 5/16"

**22** = 11/32"

**24** = 3/8"

**M6** = 6mm

**M8** = 8mm

Optional Collet (no extra cost)

**OH** = Overhose (rear exhaust models)

**Description and Instructions**

The original language of this manual is English.

**Product Safety Information:**

Intended Use:

This pneumatic grinder is to be used only for removing material by utilizing appropriate abrasive wheels, rotary files or other material removal cutting devices.

For additional product safety information refer to Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG document GS-2007, General Safety Pneumatic Grinders.



The grinder must not be modified in any manner unless approved in writing by Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG. All safety devices must be properly installed and maintained in good working order.

**EC Declaration of Conformity:**

We affirm that this machine is in accordance with the following EC regulations (2006/42/EC). Applied harmonized standards are ISO 12100:2010.

The name, job function and address of the person authorized to compile the technical file.

Mr. Vishnu Irigireddy  
 Director of Global R&D- Mechanical Engineering  
 Apex Tool Group  
 670 Industrial Drive  
 Lexington, SC 29072

Signature: Vishnu Irigireddy  
 Date: 03/31/2016

**Noise and Vibration:**

Sound Level: ≤ 83 dB(A)

Vibration: < 2.5 m/s<sup>2</sup>

**Air Line Lubrication:**

Use Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG's lightweight air tool oil 500021 (available in quantities shown in the following chart) or an SAE-5 lightweight spindle oil.

Part No.	Packaged	Designation
540397	1 Quart (0.94 liter)	Airlube 10W/NR-420LB DR
533485	1 US Gallon (3.78 liter)	Airlube 10W/NR-420LB DR

**Air Supply Line:**

Parameter	Description
Air Hose	Minimum inside diameter: 5/16" (7.9mm) Maximum length: 8.0' (2.4 m)
Working pressure range	Performance rated at: 90 psi (620 kPa)
Compressed air	Air quality according to ISO 8573-1, quality class 2.4.3 The compressed air must be clean and dry.

**Service and Repair:**

Tool service and repair should be performed by an authorized Apex Tool Group, LLC or Apex Tool Group GmbH & Co. OHG Center. Refer to the last page of this manual for locations.

**Disposal:**

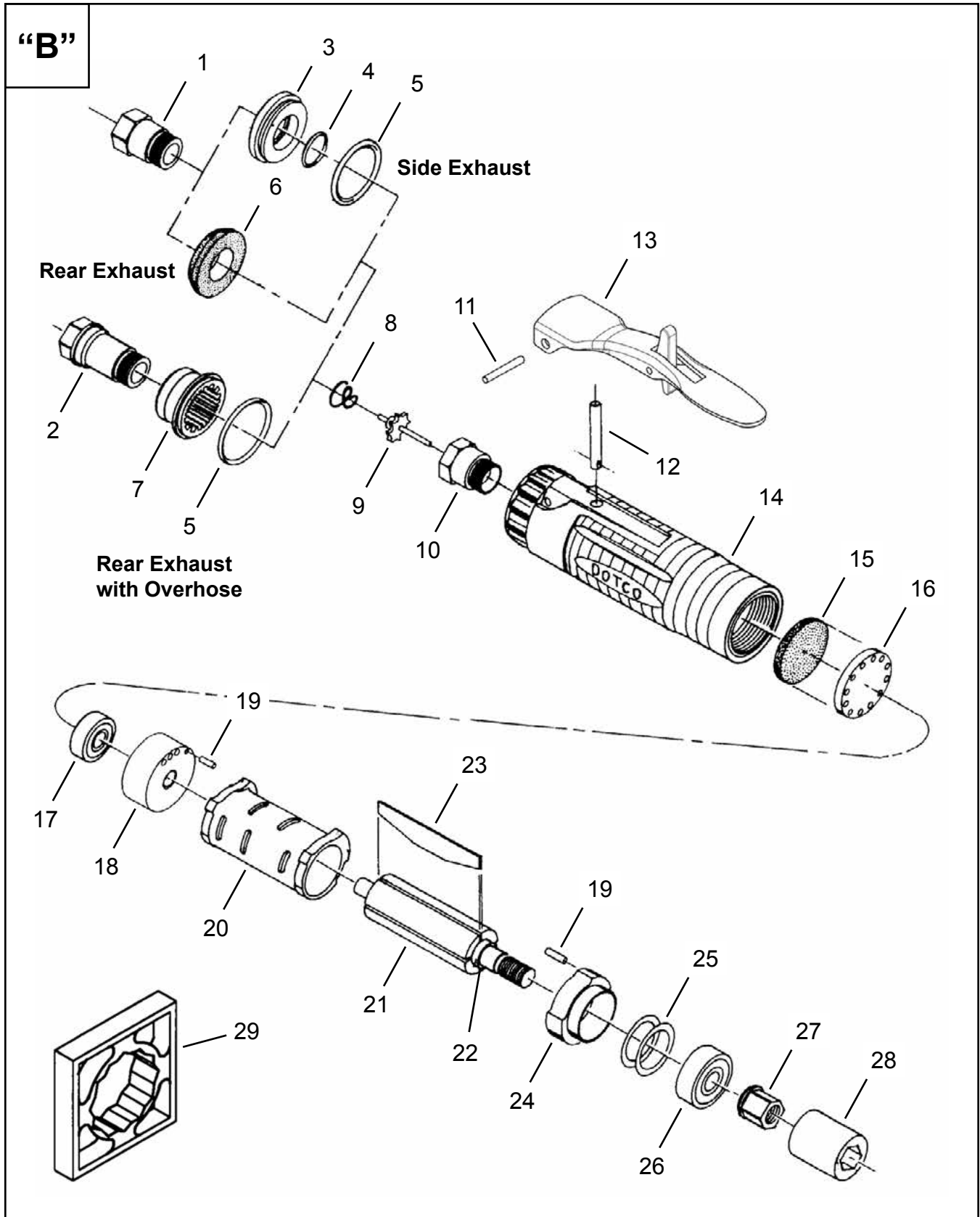


Observe local disposal guidelines for all components of this tool and its packaging.

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**Dotco®**  
Handle and Motor Assembly



**Dotco®**  
Handle and Motor Assembly

**45-8176EN**  
03/31/2016

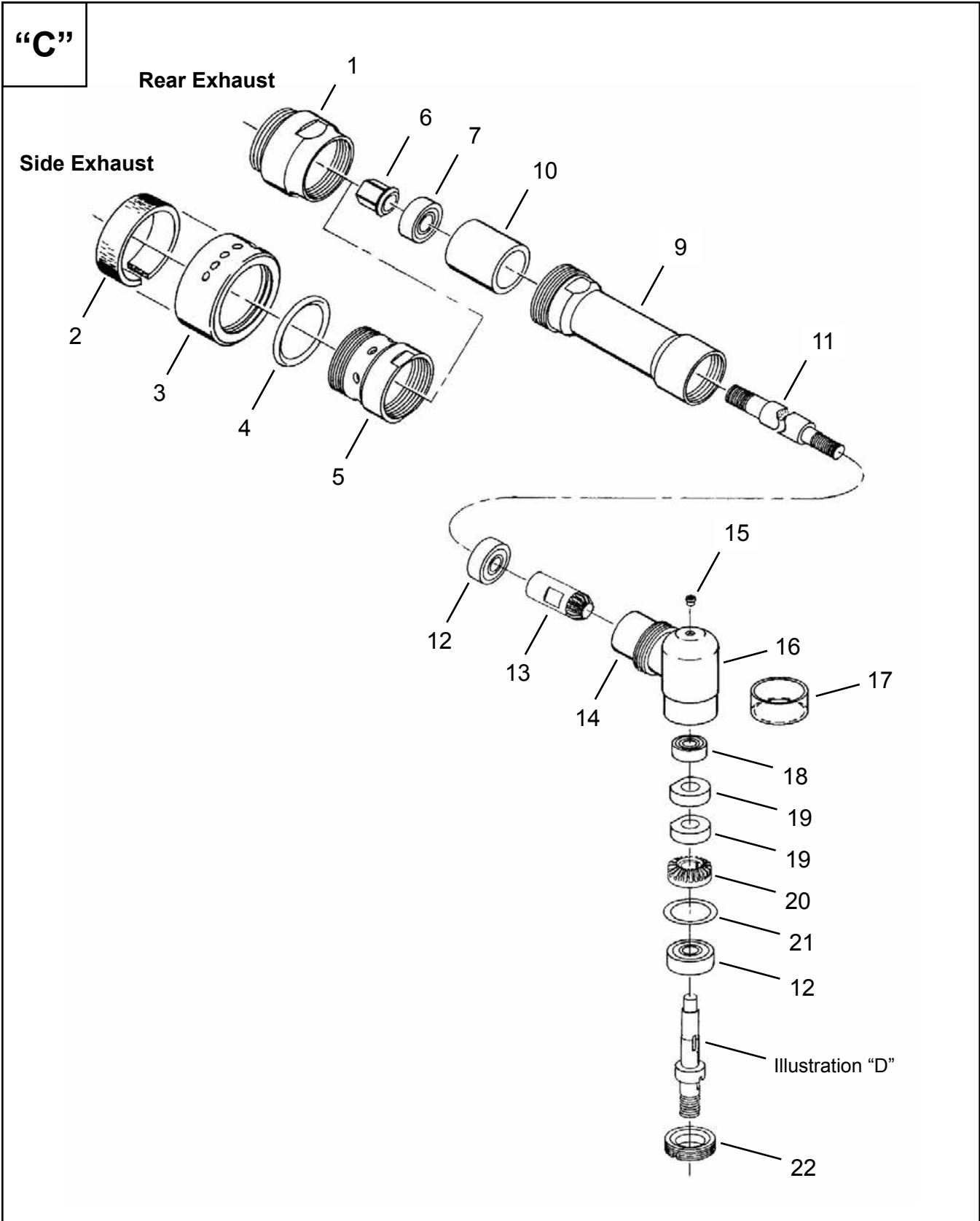
**Illustration "B"**

Ref	Number	#	X	EN
				Description
1	01-2505	1	1	Air Inlet Adapter (without Overhose)
2	01-1031	1	1	Air Inlet Adapter (rear exhaust with Overhose)
3	01-2506	1		Exhaust Plug
4	2965	1	3	O-Ring
5	3036PT	1	3	O-Ring
6	01-2520	1	1	Diffuser
7	01-1032	1	1	Muffler
8	01-2519	1	3	Valve Spring
9	01-2518	1	1	Valve
10	01-2504	1		Valve Seat
11	1042	1	1	Lever Pin
12	01-2517	1		Push Rod
13	01-1267	1	1	Lock-Off Throttle Lever
14	01-2560	1		Motor Housing
15	4293	1	3	Filter Disc
16	01-2016PT	1		Filter Retainer
17	538PT	1	2	Ball Bearing
18	7003PT	1		Rear Plate (includes 1 Ref. 19)
19	1041	2	4	Locator Pin
20	2255PT	1		Cylinder
21	7654S	1		Rotor
22	2017PT	1	1	Rotor Spacer
23	2253PT	4	12	Rotor Blade
24	2292	1		Front Plate (includes 1 Ref. 19)
25	2488	1	1	Shim Packet
26	500PT	1	2	Ball Bearing
27	2284	1	1	Coupling Nut
28	2287	1		Coupling
29	14-0851	1		Housing Wrench (not included with tool)

(#) Quantity

(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

**Dotco®**  
Angle Head Assembly



**Dotco®**  
Angle Head Assembly

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**Illustration "C"**

Ref	Number	#	X	EN	
				Description	
1	01-2043PT	1			Lock Ring
2	01-2065PT	1	3		Muffler
3	01-2590	1			Muffler Housing
4	01-1169	1	3		O-Ring
5	01-2067PT	1			Lock Ring
6	2284	1	1		Coupling Nut
7	506PT	1	2		Ball Bearing
8	01-2064B	1			Spindle Housing Assembly (includes Ref. 9-10)
9	01-2069PT	1			Spindle Housing
10	01-2070PT	1			Spacer
11	01-2509	1			Pinion Shaft
12	538PT	2	4		Ball Bearing
13	Table "C"	1	1		Pinion
14	1024PT	1			Angle Housing (includes 15-17)
15	1463PT	1			Grease Fitting
16	1338	1	1		Lubrication Decal
17	1356PT	1	1		Wear Ring
18	504PT	1	2		Ball Bearing
19	1755PT	2	4		Lube Disc
20	Table "C"	1	1		Bevel Gear
21	1355	1	1		Shim Packet
22	1025PT	1			Lock Ring
23	45-1982	1			Grease Gun (not shown)
24	45-0980	1			Gear Lube (not shown)
25	14-0186	1			Hex Key (3/16") (not shown)

(#) Quantity

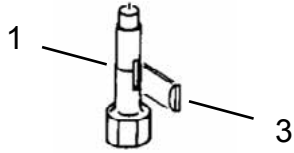
(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

**Table "C"**

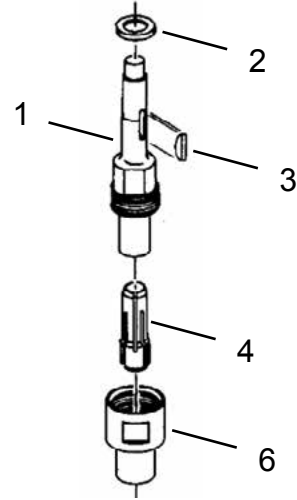
Ref.	Description	#	12(-)2716	#	12(-)2737 12(-)2777	#	12(-)2736 12(-)2776	#	12(-)2738 12(-)2778
13	Pinion	1	1187	1	1984	1	1965PT	1	1974
20	Bevel Gear	1	1188PT	1	1985	1	1964	1	1975PT

**“D”**

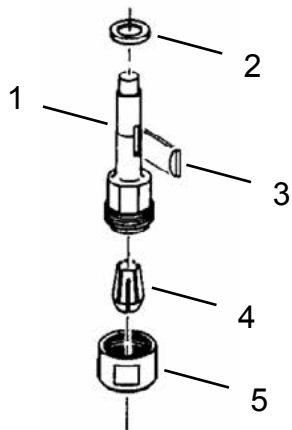
Termination 30: 1/4”-20 Internal  
Termination 32: 1/4”-28 Internal  
Termination 35: 3/8”-24 Internal



Termination 36  
300 Series Collet (3 piece)



Termination 45  
Universal Collet (short)





**Illustration "D"**

Ref	Number	#	X	EN
				Description
<b>Terminations: -30, -32, -35, -36, -45</b>				
1	6145	1		Spindle (Termination -30)
	1069	1		Spindle (Termination -32)
	1250PT	1		Spindle (Termination -35)
	7660	1		Spindle (Termination -36) (includes Ref. 2)
	7814PT	1		Spindle (Termination -45) (includes Ref. 2)
2	7792	1	2	Spacer
3	1062PT	1	3	Woodruff Key
4	Table "D"	1		Collet (Termination -36)
	7808PT	1		Collet (Termination -45)
5	7815PT	1		Collet Cap (Termination -45)
6	208196PT	1		Nosepiece Cap (Termination -36)
--	14-0807	1		Wrench (7/16") (not shown)
<b>Terminations: -36 and -45</b>				
--	14-0811	1		Wrench (11/16") (not shown)

(#) Quantity

(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

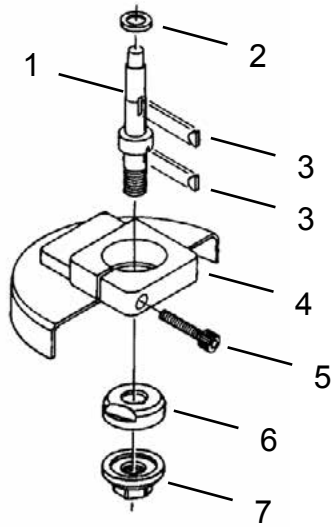
**Table "D"**

300 Series Optional Collets					
Part No.	Arbor Size	Part No.	Arbor Size	Part No.	Arbor Size
301PT	3/64"	305PT	5/32"	310PT	6mm
302PT	5/64"	306PT	3/16"	311	3mm
303	3/32"	307PT	7/32"		
304PT	1/8"	<b>308PT *</b>	1/4"		

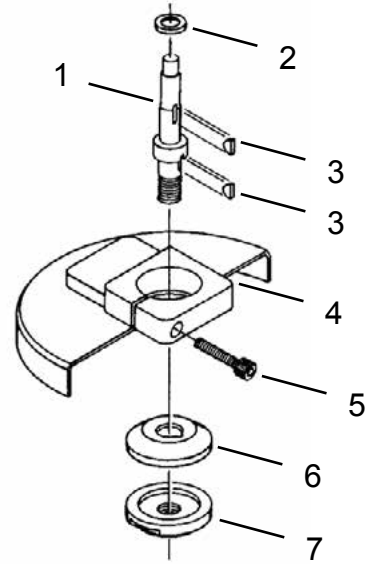
\* Standard Collet

**“E”**

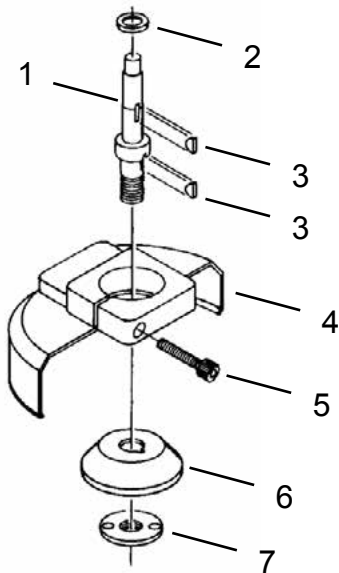
**Termination 27**  
**3” Type 1 Cut-Off Wheel**



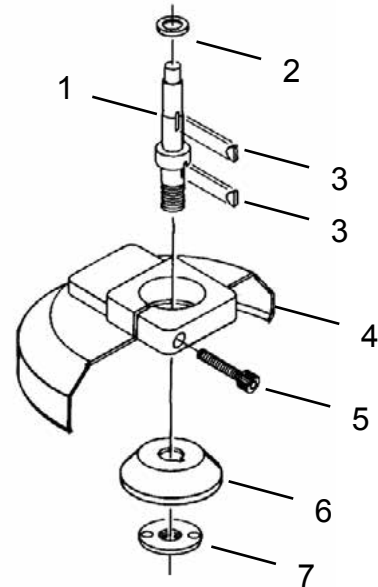
**Termination 28**  
**4” Type 1 Cut-Off Wheel**



**Termination 83**  
**3” Depressed Center Wheel**



**Termination 64**  
**Termination 84**  
**4” Depressed Center Wheel**



**Dotco®**  
Terminations

**45-8176EN**  
03/31/2016

**Illustration "E"**

Ref	Number	#	X	EN	
				Description	
<b>Terminations: -27, -28, -64, -83, -84</b>					
1	1402PT	1		Spindle (Terminations -27, -28, -83 and -84) (includes Ref. 2)	
	7910	1		Spindle (Termination -64) (includes Ref. 2)	
2	7792	1	2	Spacer	
3	1062PT	2	6	Woodruff Key (Terminations -27, -28, -83 and -84)	
	1062PT	1	3	Woodruff Key (Termination -64)	
4	14-1258	1		3" Guard (Termination -27) (includes Ref. 5)	
	14-1259	1		4" Guard (Termination -28) (includes Ref. 5)	
	14-2638	1		4" Guard (Termination -64) (includes Ref. 5)	
	14-2593	1		4" Guard (Termination -83) (includes Ref. 5)	
5	14-2594	1		4" Guard (Termination -84) (includes Ref. 5)	
	14-1518	1	2	Cap Screw	
6	14-1174	1		Inner Flange (Termination -27)	
	14-1172	1		Inner Flange (Termination -28)	
	4504	1		Inner Flange (Termination -64)	
	7667PT	1		Inner Flange (Terminations -83 and -84)	
7	14-1175	1		Outer Flange (Termination -27)	
	14-1173	1		Outer Flange (Termination -28)	
	4505	1		Outer Flange (Termination -64)	
	7668PT	1		Outer Flange (Terminations -83 and -84)	
--	14-0186PT	1		Hex Key (3/16") (not shown)	
<b>Termination: -27</b>					
--	14-0809	1		Wrench (9/16") (not shown)	
--	14-0812	1		Wrench (3/4") (not shown)	
<b>Termination: -28</b>					
--	14-0820	1		Wrench (1-1/4") (not shown)	
<b>Terminations: -64, -83 and -84</b>					
--	7666PT	1		Spanner Wrench (not shown)	

(#) Quantity

(X) Recommended Spare Parts (quantity shown based on 1-5 tools in operation)

# POWER TOOLS SALES & SERVICE CENTERS

Please note that all locations may not service all products.  
Contact the nearest Apex Tool Group Sales & Service Center for the appropriate facility to handle your service requirements.

## NORTH AMERICA | SOUTH AMERICA

### Detroit, Michigan

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### Mexico

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